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BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

REPORT OF GROUNDWATER QUALITY RESULTS & STATISTICAL ANALYSIS

FIRST SEMI-ANNUAL SAMPLING EVENT OF 2016

WHITE OAK LANDFILL
PERMIT NUMBER: 44-07
HAYWOOD COUNTY, NORTH CAROLINA

Prepared For:

HAYWOOD COUNTY SOLID WASTE MANAGEMENT
278 Recycle Road
Clyde, North Carolina 28721

Prepared By:

BUNNELL-LAMMONS ENGINEERING, INC.
6004 Ponders Court
Greenville, South Carolina 29615

July 7, 2016

BLE Project Number J16-1957-55

BUNNELL-LAMMONS ENGINEERING, INC.
GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

July 7, 2016

Haywood County Solid Waste Management
278 Recycle Road
Clyde, North Carolina 28721

Attention: Mr. David B. Francis
Solid Waste and Tax Administrator

Subject: **Report of Groundwater Quality Results & Statistical Analysis**
First Semi-Annual Sampling Event of 2016
White Oak Landfill
Permit Number: 44-07
Haywood County, North Carolina
BLE Project Number J16-1957-55

Dear Mr. Francis:

As authorized, Bunnell-Lammons Engineering, Inc. (BLE) has performed the statistical analysis of groundwater quality data obtained during the first semi-annual sampling event of 2016 for the White Oak Municipal Solid Waste (MSW) and Construction and Demolition (C&D) Landfills. The enclosed report describes the work performed and presents the results obtained with our conclusions. The purpose of this work was to statistically compare the laboratory analytical results of groundwater samples from the background monitoring wells to the downgradient monitoring wells at the subject landfill in accordance with Title 15A NCAC 13B .1632 (g), (h), and (i). This report of the sampling and statistical analysis has been prepared for submittal to the North Carolina Division of Waste Management (NCDWM) in accordance with Rule 15A NCAC 13B .1632 (j).

We appreciate the opportunity to serve as your geological consultant on this project and look forward to working with you on future projects. If you have any questions, please contact us at (864) 288-1265.

Sincerely,
BUNNELL-LAMMONS ENGINEERING, INC.

Trevor J. Benton, P.G.
Project Geologist
Licensed, North Carolina No. 2025

Mark S. Preddy, P.G.
Senior Geologist
Licensed, North Carolina No. 1043

cc: Mr. Ervin Lane – NCDEQ Solid Waste Section, 401 Oberlin Road, Suite 150, Raleigh, North Carolina 27605

6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE (864) 288-1265
FAX (864) 288-4430

PROJECT INFORMATION

The White Oak Landfill site is located in Haywood County, North Carolina, approximately twelve miles north of the city of Waynesville on White Oak Road at Exit 15 off Interstate 40 (**Figure 1**). The Subtitle D lined MSW landfill has eleven groundwater monitoring wells consisting of two upgradient (MW-11S and MW-11D) and nine downgradient wells (MW-1A, MW-2, MW-2D, MW-3r, MW-3Dr, MW-4A, MW-8, MW-16, and MW-17). Monitoring wells MW-5A, MW-5D, MW-12, MW-13S, and MW-13D were abandoned in 2009 and monitoring wells MW-16 and MW-17 were installed in 2010 as related to the construction of Phase No. 3 at the facility. Additionally, there are four surface water sampling points (SW-1, SW-2, SW-3, and SW-5), and a leachate lagoon sampling point (LSP). The C&D landfill, which is located on the same property, is monitored by one upgradient (MW-14), one downgradient well (MW-15), and two locations for surface water monitoring (SW-6 and SW-7).

BLE was retained by Santek Waste Services, Inc. to prepare the semi-annual sampling reports for 2016. Historical data from multiple sources and in multiple formats were gathered and synthesized into this report. Water quality data available to BLE extends back to April 1993; however, many of the currently existing wells were not present during the earlier sampling events. As a result, the statistical database in this report uses data from sampling events ranging from April 2000 to the current sampling event (April 2016).

This report presents data from the first semi-annual sampling event in 2016 for the site. The water samples were collected and analyzed as required in North Carolina's regulations for operation of MSW and C&D landfills.

FIELD ACTIVITIES, SAMPLING, AND ANALYSIS

Groundwater and surface water samples were collected by personnel from Pace Analytical Services, Inc. (Pace) of Asheville, North Carolina on April 18 - 19, 2016. Sampling was performed in general accordance with the *Operations Plan* for the White Oak Landfill. Summary tables of historic and current analytical results are attached in **Appendix A** (groundwater) and **Appendix B** (surface water).

Water samples were collected from the monitoring wells, surface water points, and the LSP. The collected samples were analyzed in the laboratory for North Carolina's *Appendix I* list of constituents that include total metals and volatile organic compounds (VOCs) and in the field for pH, specific conductance, turbidity, and temperature. A copy of the Pace laboratory and field data is included in **Appendix C**.

GROUNDWATER FLOW

The water level data collected during the groundwater sampling is presented in **Table 1**. A water table surface elevation contour map is presented as **Figure 2** along with generalized groundwater

flow directions. Flow velocity calculations are provided on **Table 2**. Please note, hydraulic conductivity and effective porosity values for the existing wells were obtained from prior reports prepared by other consultants.

SUMMARY OF LABORATORY RESULTS

Groundwater

Concentrations of total barium (thirteen wells), total chromium (two wells), total cobalt (five wells), total copper (two wells), total nickel (seven wells), total thallium (one well), total vanadium (two wells), and total zinc (one well) were detected in the groundwater monitoring wells during the current sampling event. Total barium (MW-2 and MW-2D) and total chromium (MW-11S) were detected at concentrations above the North Carolina maximum contaminant level[1] (MCL). Additionally, no VOCs were detected during the sampling event.

Surface Water

Concentrations of total metals were detected in each of the six surface water samples and the LSP sample during the current sampling event. The detections included total antimony (LSP), total barium (six surface waters and the LSP), total chromium (LSP), total cobalt (LSP), total nickel (LSP), total vanadium (LSP) and total zinc (SW-2). No VOCs were detected in the samples from the surface water locations or the LSP sample. Additionally, phosphorus, nitrate, nitrite, sulfate, BOD, and COD were detected in the LSP sample. None of the detected concentrations exceeded an established North Carolina established surface water MCL[2].

STATISTICAL METHODS PERFORMED

The purpose of performing statistical analysis of groundwater quality data is to determine if a release of leachate has occurred from the landfill cells to the groundwater at the site. The US EPA has prepared a guidance document for evaluating groundwater quality data titled *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance* (March 2009). The procedures and methodology used for data analysis of this project are consistent with this US EPA guidance document, and meet or exceed the performance criteria specified in the North Carolina solid waste management rules Title 15A NCAC 13B .1632(g-i). Four methods of statistical analysis were performed depending on the number of detected concentrations and the distribution of the data for a specific compound, as follows:

1. If 15% to 90% of the data were not detected, the one-way non-parametric analysis of variance (ANOVA) Kruskal-Wallis rank-sum test was performed;

[1] North Carolina Department of Environment and Natural Resources (NCDENR), Classifications of Water Quality Standards, Section 15A NCAC 2L.202, April 1, 2013.

[2] North Carolina Department of Environment and Natural Resources, "Redbook", Surface Waters and Wetlands Standards, Section 15A NCAC 02B.0100, .0200, and .0300, May 1, 2007.

2. If less than 15% of the data were not detected, and if the data was normally distributed and homogeneous, then one-way parametric ANOVA was performed. If the data were not normally distributed and homogeneous, then a non-parametric type test was used (Kruskal-Wallis);

3. Alternatively, if greater than 50% of the data were not detected, Poisson Prediction Limits may be performed, or if less than 50% of the data were not detected, Normal Prediction Limits may be performed. Wilcoxon rank-sum tests were performed for those compounds that failed the initial Poisson Prediction Limits test; and

4. Intrawell comparisons were performed, if necessary, using Shewhart-CUSUM control charts or the Kendall-Mann Non-Parametric Trend Test.

It is important to note that the nature of the statistical procedures applied to the data frequently leads to false positives, which result in statistically significant increases (SSI). These false positives are inherent to the statistical procedures themselves and are a result of the insufficiency of the mathematical equations to represent the multiple factors affecting the groundwater quality variability at a given site. Furthermore, a clear distinction should be made between the terms "calculated SSI" and "validated SSI." A calculated SSI is the result of the application of mathematical equations to evaluate variability of water quality data over time by mathematical means. A validated SSI is determined when, based on a review of the data set as a whole, it can be concluded that the calculated statistical significance might be a function of a release of leachate to groundwater, and not a function of natural variability and/or other conditions.

SUMMARY OF STATISTICAL RESULTS

The statistical analysis was performed on constituents that have been historically detected and that were detected during the current sampling event. The statistical results summarized on **Table 3** and included in **Appendix D** indicate that:

1. The Poisson Prediction Limit and Wilcoxon tests performed for total antimony, total arsenic, total selenium, total silver, total thallium, acetone, carbon disulfide, chloroethane, iodomethane, dichloromethane, and 2-butanone did not calculate SSIs; and

2. The Kruskal-Wallis tests and Shewhart-CUSUM control charts did not calculate SSIs for total beryllium, total cadmium, total chromium, total cobalt, total copper, total lead, total vanadium, and total zinc; however, the tests calculated SSIs for total barium (MW-2 and MW-2D) and total nickel (MW-3Dr).

CONCLUSION

Concentrations of various total metals were detected in the groundwater monitoring wells and surface water sampling points during the current sampling event. Only the concentrations of total

barium (MW-2 and MW-2D) and total chromium (MW-11S) were detected at concentrations exceeding North Carolina MCLs. The remaining detected concentrations were either below North Carolina's promulgated MCLs, or MCLs have not been established for a particular constituent. Additionally, only total barium in wells MW-2 and MW-2D and total nickel in well MW-3Dr were calculated to be statistically significant; these metals are naturally occurring elements in the soil and bedrock throughout North Carolina and are not necessarily a derivative of landfill leachate.

In summary, the detected concentrations of total metals in the groundwater and surface water samples are most likely naturally occurring and related to sample turbidity. Metal cations typically adsorb to the surface of platy particles (clay and silt). Therefore, turbidity of the groundwater and surface water samples will relate to detected concentrations of the metal cations. Consequently, the metal concentrations detected should be considered natural background concentrations.

We recommend that sampling continue on a semi-annual basis for the *Appendix I* list of VOCs and total metals constituents.

TABLES

TABLE 1

GROUNDWATER MONITORING WELL CONSTRUCTION AND GROUNDWATER ELEVATION DATA
White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

April 19, 2016														
Well	**Northing (feet)**	**Easting (feet)**	**Meas. Pt. Elevation**	**Gnd. Surface Elevation**	***Depth to Water (bgs)**	**Depth to Water (bmp)**	**Water Elevation**	**Total Borehole Depth (bgs)**	**Screen Depth (bgs)**	**Screen Elevation**	**Well Type**	**Well Monitors**	**Top of Rock Depth (bgs)**	**Top of Rock Elev.**
MW-1A	721,096.30	812,481.47	2,520.02	2,517.97	16.25	18.30	2,501.72	UK	10.4 - 25.4	2,507.6 - 2,492.6	UK	Deep Residuum	UK	UK
MW-2	721,460.76	812,309.44	2,496.71	2,494.43	27.06	29.34	2,467.37	UK	19.9 - 34.9	2,474.5 - 2,459.5	UK	Deep Residuum/PWR	UK	UK
MW-2D	721,456.01	812,311.87	2,496.89	2,494.69	27.10	29.30	2,467.59	UK	44.6 - 54.6	2,450.1 - 2,440.1	UK	Bedrock	36.9	2,457.8
MW-3r	721,943.38	812,063.70	2,462.61	2,459.53	27.61	30.69	2,431.92	41.5	26.3 - 41.3	2,433.2 - 2,418.2	II	Deep Residuum	NE	NE
MW-3Dr	721,940.67	812,082.82	2,461.89	2,458.42	32.51	35.98	2,425.91	65.0	49.8 - 64.8	2,408.6 - 2,393.6	IIIs	Bedrock	44.0	2,414.4
MW-4A	721,693.04	811,976.64	2,493.85	2,491.60	42.01	44.26	2,449.59	UK	80.6 - 95.6	2,411.0 - 2,396.0	UK	Bedrock	23.3	2,468.3
MW-8	721,704.50	812,155.03	2,477.33	2,474.84	27.53	30.02	2,447.31	UK	31.0 - 41.0	2,443.8 - 2,433.8	UK	Deep Residuum	UK	UK
MW-11S	719,905.88	811,642.89	2,674.58	UK	UK	82.25	2,592.33	UK	UK - UK	UK - UK	UK	UK	UK	UK
MW-11D	719,909.34	811,651.55	2,674.89	2,672.01	80.28	83.16	2,591.73	UK	118.0 - 127.6	2,554.0 - 2,544.4	UK	Bedrock	97.0	2,575.0
MW-14	UK	UK	2,711.69	UK	UK	100.61	2,611.08	UK	UK - UK	UK - UK	UK	UK	UK	UK
MW-15	UK	UK	2,547.41	UK	UK	9.14	2,538.27	UK	UK - UK	UK - UK	UK	UK	UK	UK
MW-16	721,821.98	811,660.70	2,519.35	2,516.07	31.70	34.98	2,484.37	41.0	25.8 - 40.8	2,490.3 - 2,475.3	II	Fill / Residuum	40.0	2,476.1
MW-17	721,783.47	811,219.93	2,542.55	2,539.13	52.92	56.34	2,486.21	63.0	43.0 - 58.0	2,496.1 - 2,481.1	II	Bedrock	40.0	2,499.1

Notes:
All survey data provided by McGill Associates, all units in feet. Data for MW-14 & MW-15 sourced from historical Municipal Engineering reports.
*DTW from bgs values have been calculated from survey data provided by McGill Associates.
All values shown to the nearest 0.1-ft have been rounded.
Water levels were measured on 4-19-16 by Pace Analytical.
MW-4A was lowered 4.59 feet by Haywood County. All bgs referenced depths for MW-4A have been adjusted accordingly on this table.

Measuring Point Elevation is top of casing.
II = Type II well
IIIs = Type III screened well
NE = Not encountered
UK = Unknown, information is not available

Prepared by: IAI
Checked by: DPO

TABLE 2

GROUNDWATER FLOW DATA
White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Monitoring Well	Hydraulic Conductivity			Local Hydraulic Gradient (ft/ft)	Effective Porosity	Flow Velocity (ft/day)	Flow Velocity (ft/yr)
	cm/sec	ft/min	ft/day				
MW-1A	1.50E-04	2.95E-04	4.25E-01	0.0789	0.114	0.29	107.35
MW-2	1.50E-04	2.95E-04	4.31E+00	0.0789	0.114	2.98	1,086.93
MW-4A	1.49E-04	2.93E-04	4.28E+00	0.1000	0.05	8.55	3,121.78
MW-8	1.50E-04	2.95E-04	4.31E+00	0.0789	0.114	2.98	1,086.93
MW-11S	2.40E-06	4.72E-06	6.89E-02	0.0851	0.114	0.05	18.76
MW-14	1.38E-05	2.72E-05	3.96E-01	0.0664	0.17	0.15	56.49
MW-15	2.10E-05	4.13E-05	6.03E-01	0.0664	0.17	0.24	85.96

Notes:

1. Hydraulic conductivity and effective porosity values are from prior site hydrogeologic studies performed by others.
2. Hydraulic gradients and flow velocities calculated from measurements taken during the October 26, 2015 sampling event.
3. Groundwater flow velocities calculated using the equation $V = Ki/n_e$ where
4. V = velocity
5. K = hydraulic conductivity
6. i = hydraulic gradient
7. n_e = effective porosity
8. NA = information not available

Prepared by: IAI
Checked by: DPO

TABLE 3

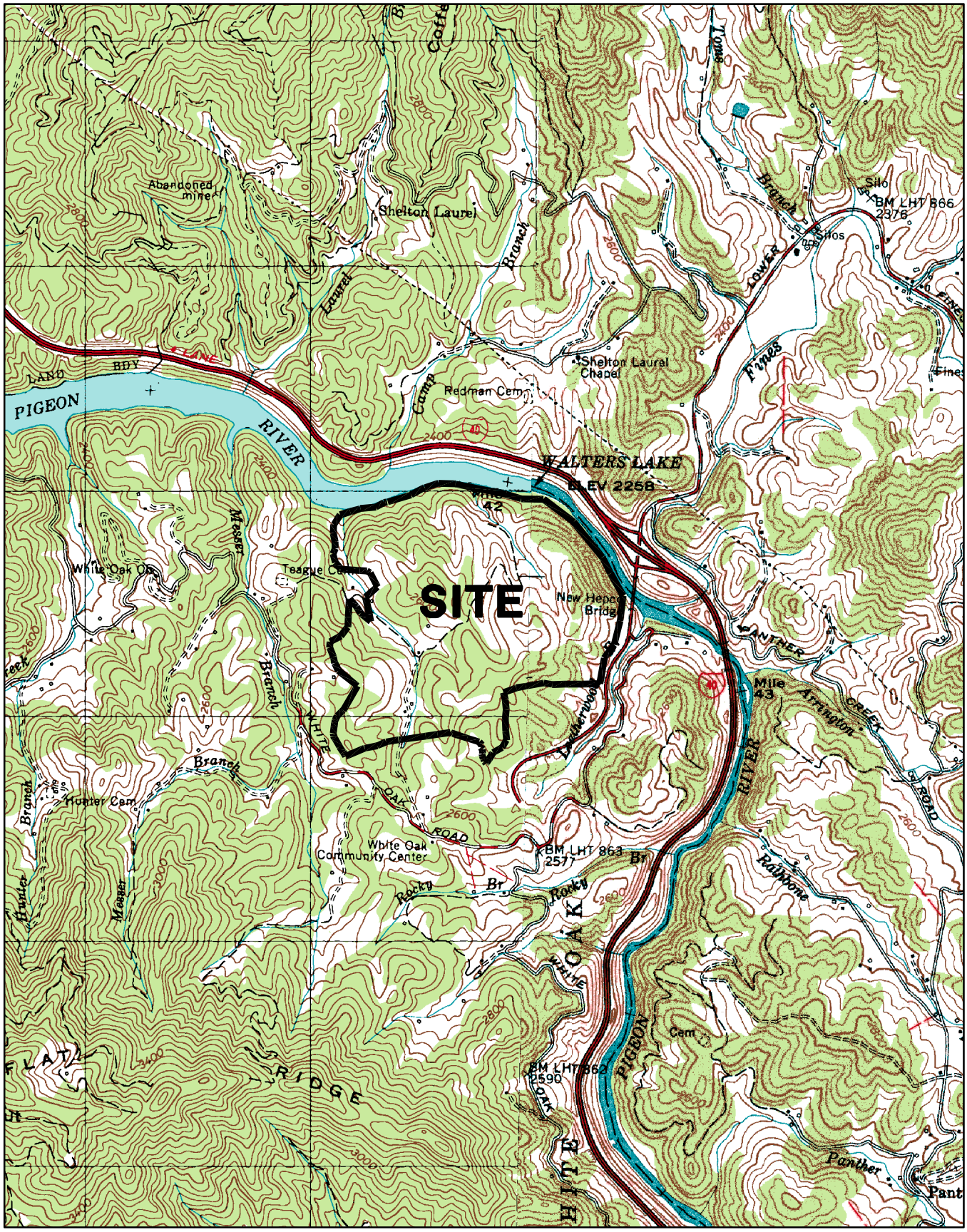
SUMMARY OF STATISTICAL ANALYSIS RESULTS
White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Chemical/ Compound	Percent ND	Primary Statistical Test	Primary Pass/Fail	Secondary Statistical Test	Secondary Pass/Fail	SSI Calculated	SSI Validated as Leachate	SSI Concentration Above MCL During Current Event
Total Antimony	98%	Poisson Prediction Limits	Pass	-	-	-	-	-
Total Arsenic	92%	Poisson Prediction Limits	Pass	-	-	-	-	-
Total Barium	4%	Prediction Limits	Fail	Shewhart-CUSUM	Fail	MW-2, MW-2D (3)	No (3)	Yes (MW-2, MW-2D)
Total Beryllium	88%	Kruskal-Wallis	Fail	Shewhart-CUSUM	Pass	-	-	-
Total Cadmium	88%	Kruskal-Wallis	Pass	-	-	-	-	-
Total Chromium	59%	Kruskal-Wallis	Pass	-	-	-	-	-
Total Cobalt	65%	Kruskal-Wallis	Fail	Shewhart-CUSUM	Pass	-	-	-
Total Copper	64%	Kruskal-Wallis	Pass	-	-	-	-	-
Total Lead	78%	Kruskal-Wallis	Fail	Shewhart-CUSUM	Pass	-	-	-
Total Nickel	46%	Kruskal-Wallis	Fail	Shewhart-CUSUM	Fail	MW-3Dr	No	No
Total Selenium	99%	Poisson Prediction Limits	Pass	-	-	-	-	-
Total Silver	99%	Poisson Prediction Limits	Pass	-	-	-	-	-
Total Thallium	94%	Poisson Prediction Limits	Fail	Wilcoxon	Pass	-	-	-
Total Vanadium	60%	Kruskal-Wallis	Pass	-	-	-	-	-
Total Zinc	39%	Kruskal-Wallis	Fail	Shewhart-CUSUM	Pass	-	-	-
Acetone	100%	Poisson Prediction Limits	Pass	-	-	-	-	-
Carbon Disulfide	99%	Poisson Prediction Limits	Pass	-	-	-	-	-
Chloroethane	100%	Poisson Prediction Limits	Pass	-	-	-	-	-
Iodomethane	100%	Poisson Prediction Limits	Pass	-	-	-	-	-
Dichloromethane	99%	Poisson Prediction Limits	Pass	-	-	-	-	-
2-Butanone	100%	Poisson Prediction Limits	Pass	-	-	-	-	-

Notes:
1. MCL = *Maximum Contaminant Level*
2. SSI = *Statistically Significant Increase*
3. Total barium and total nickel are naturally occuring metals throughout much of North Carolina and are likely related to sample turbidity.

Prepared by: IAI
Checked by: DPO/MSP

FIGURES

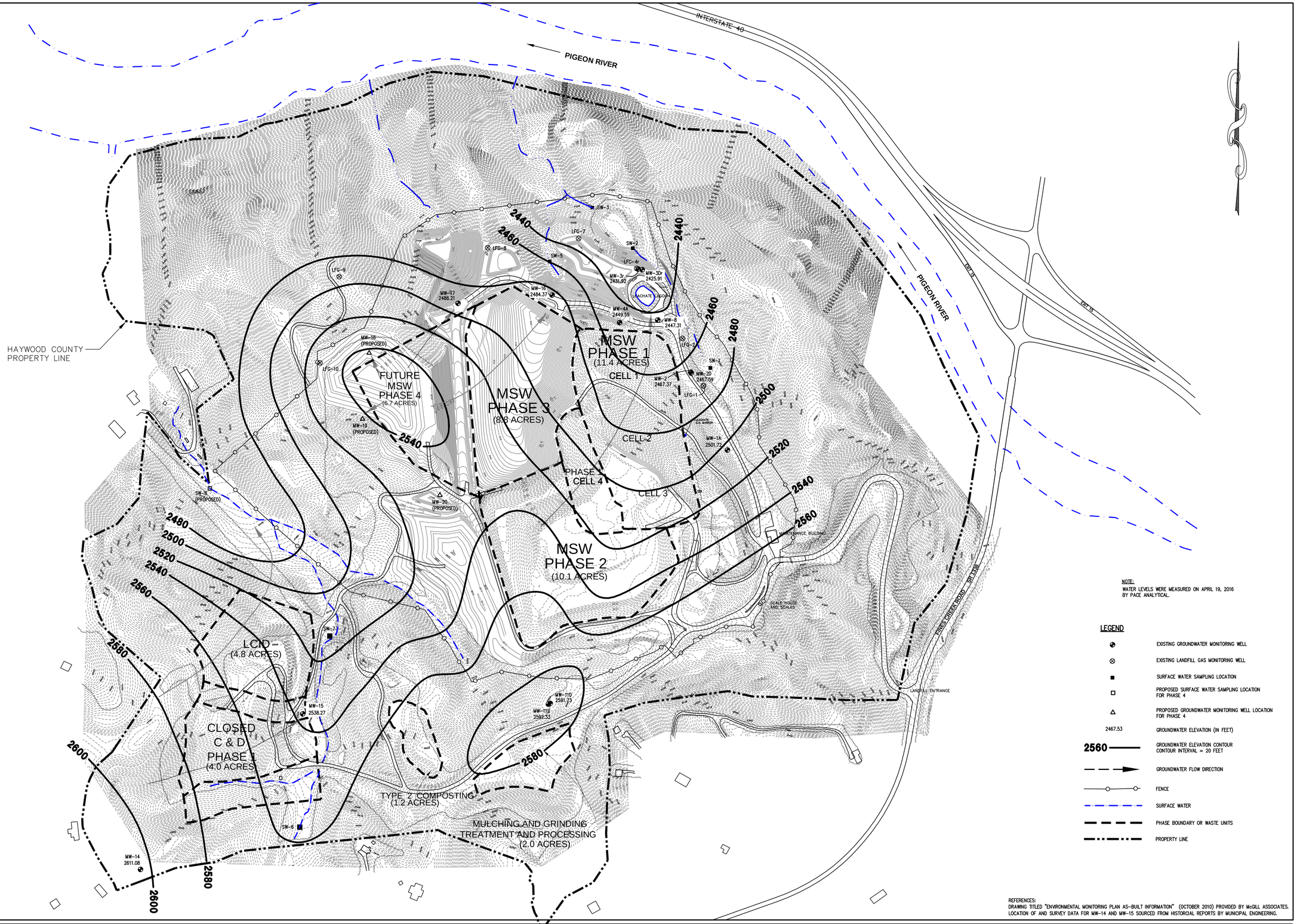


2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES,
COVE CREEK GAP AND FINES CREEK, N.C. QUADRANGLES, 1967.

DRAWN: ACE	DATE: 07-01-16	BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP WHITE OAK LANDFILL HAYWOOD COUNTY, NORTH CAROLINA	FIGURE 1
CHECKED: TJB	CAD: HCWOLF55-SLM			
APPROVED:	JOB NO: J16-1957-55			



NOTE:
WATER LEVELS WERE MEASURED ON APRIL 19, 2016 BY PACE ANALYTICAL.

LEGEND

- EXISTING GROUNDWATER MONITORING WELL
- EXISTING LANDFILL GAS MONITORING WELL
- SURFACE WATER SAMPLING LOCATION
- PROPOSED SURFACE WATER SAMPLING LOCATION FOR PHASE 4
- PROPOSED GROUNDWATER MONITORING WELL LOCATION FOR PHASE 4
- 2467.53 — GROUNDWATER ELEVATION (IN FEET)
- 2560 — GROUNDWATER ELEVATION CONTOUR CONTOUR INTERVAL = 20 FEET
- GROUNDWATER FLOW DIRECTION
- FENCE
- SURFACE WATER
- PHASE BOUNDARY OR WASTE UNITS
- PROPERTY LINE

REFERENCES:
DRAWING TITLED "ENVIRONMENTAL MONITORING PLAN AS-BUILT INFORMATION" (OCTOBER 2010) PROVIDED BY McGILL ASSOCIATES.
LOCATION OF AND SURVEY DATA FOR MW-14 AND MW-15 SOURCED FROM HISTORICAL REPORTS BY MUNICIPAL ENGINEERING.

REVISIONS		
No.	DESCRIPTION	BY

DRAWN:	ACE
CHECKED:	IAI
APPROVED:	TJB

DATE:	05-24-16
CAD FILE:	HCWOLF55-WTM041916
JOB NO:	J16-1957-55

BLE INC.
BUNNELL-LAMMONS ENGINEERING, INC.
6004 POINSETT COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288-1288 FAX: (864)288-6480

GROUNDWATER ELEVATION CONTOUR MAP – APRIL 19, 2016
WHITE OAK LANDFILL
HAYWOOD COUNTY, NORTH CAROLINA

FIGURE NO.
2

APPENDICES

APPENDIX A

SUMMARY TABLES OF GROUNDWATER ANALYTICAL RESULTS

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-24-2000)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2A	MW-2D	MW-3A	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.9**	NS	NS	**6.1**	**5.1**	**5.1**	**6.2**	**5.9**	**5.4**	**5.2**	NS	NP	NP	NS
Specific Conductance	µmhos/cm (on-site)	1	NE	**72**	NS	NS	**69**	**55**	**51**	**89**	**85**	**89**	**100**	NS	NP	NP	NS
Temperature	°C (on-site)	-	NE	**12**	NS	NS	**13**	**14**	**14**	**12**	**12**	**13**	**13**	NS	NP	NP	NS
Turbidity	NTU (on-site)	NT	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Total Antimony (Sb)	µg/l	10	NE	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	NS
Total Arsenic (As)	µg/l	10	50	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	NS
Total Barium (Ba)	µg/l	5	1000	**250**	NS	NS	**240**	**420**	**200**	**63**	**300**	**93**	**230**	NS	NP	NP	NS
Total Beryllium (Be)	µg/l	2	NE	**4.4**	NS	NS	ND	**2**	ND	**2.2**	ND	ND	ND	NS	NP	NP	NS
Total Cadmium (Cd)	µg/l	1	5	**2**	NS	NS	ND	**1.3**	**1.2**	**1.3**	**2.1**	ND	**5.4**	NS	NP	NP	NS
Total Chromium (Cr)	µg/l	5	50	**15**	NS	NS	**18**	**17**	**11**	ND	**26**	**5.4**	**50**	NS	NP	NP	NS
Total Cobalt (Co)	µg/l	5	NE	ND	NS	NS	ND	**8.2**	**5.4**	ND	**14**	ND	**16**	NS	NP	NP	NS
Total Copper (Cu)	µg/l	5	1000	**12**	NS	NS	ND	ND	**13**	ND	**27**	ND	**22**	NS	NP	NP	NS
Total Lead (Pb)	µg/l	10	15	**35**	NS	NS	ND	ND	ND	ND	**11**	ND	ND	NS	NP	NP	NS
Total Nickel (Ni)	µg/l	5	100	**15**	NS	NS	**17**	**12**	**8.3**	ND	**24**	**6.7**	**22**	NS	NP	NP	NS
Total Selenium (Se)	µg/l	20	50	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	NS
Total Silver (Ag)	µg/l	2	18	**3.7**	NS	NS	ND	ND	ND	**6.9**	ND	ND	ND	NS	NP	NP	NS
Total Thallium (Tl)	µg/l	2	NE	**2**	NS	NS	ND	**3**	**2**	**4**	ND	**2**	**5**	NS	NP	NP	NS
Total Vanadium (V)	µg/l	5	NE	**17**	NS	NS	**19**	**32**	**21**	ND	**29**	**8.9**	**78**	NS	NP	NP	NS
Total Zinc (Zn)	µg/l	10	2100	**150**	NS	NS	**35**	**48**	**36**	**12**	**43**	**28**	**68**	NS	NP	NP	NS
Acetone	µg/l	100	700	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Acrylonitrile	µg/l	200	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Benzene	µg/l	5	1	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Bromochloromethane	µg/l	5	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Bromodichloromethane	µg/l	5	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Bromoform	µg/l	5	0.19	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Carbon Disulfide	µg/l	100	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Carbon tetrachloride	µg/l	10	0.3	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Chlorobenzene (mono)	µg/l	5	50	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Chloroethane	µg/l	10	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Chloroform	µg/l	5	0.19	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Dibromochloromethane	µg/l	5	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Dibromomethane	µg/l	10	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,2-Dichlorobenzene	µg/l	5	620	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,4-Dichlorobenzene	µg/l	5	75	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,1-Dichloroethane	µg/l	5	700	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,2-Dichloroethane	µg/l	5	0.38	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,2-Dichloropropane	µg/l	5	0.56	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Ethylbenzene	µg/l	5	29	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
2-Hexanone	µg/l	50	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Iodomethane	µg/l	10	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Dichloromethane (Methylene chloride)	µg/l	10	5	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Styrene	µg/l	10	100	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Toluene	µg/l	5	1000	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,1,1-Trichloroethane	µg/l	5	200	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,1,2-Trichloroethane	µg/l	5	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Trichloroethene (-ethylene)	µg/l	5	2.8	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Trichlorofluoromethane	µg/l	5	2100	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
1,2,3-Trichloropropane	µg/l	15	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Vinyl acetate	µg/l	50	NE	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Vinyl chloride	µg/l	10	0.015	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS
Xylene	µg/l	5	530	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NS

Notes:

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MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (6-26-2000)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**5.9**	**6.8**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**29**	**60**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	**14**	**14**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	10	NE	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**300**	**67**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	**1.6**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**22**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**10**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**17**	**6**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	ND	**10**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**15**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	2	NE	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**40**	**6.3**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**37**	**12**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Acetone	µg/l	100	700	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Benzene	µg/l	5	1	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromoform	µg/l	5	0.19	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroethane	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroform	µg/l	5	0.19	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromomethane	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Ethylbenzene	µg/l	5	29	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Hexanone	µg/l	50	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Iodomethane	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Styrene	µg/l	10	100	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Toluene	µg/l	5	1000	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Xylene	µg/l	5	530	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT

Notes:

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White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (7-26-2000)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	10	NE	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**330**	**30**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	**1.1**	**3.2**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**29**	**20**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**9.9**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**12**	**6.1**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**16**	**9.7**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	2	NE	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**45**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**65**	**66**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Acetone	µg/l	100	700	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Benzene	µg/l	5	1	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromoform	µg/l	5	0.19	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroethane	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroform	µg/l	5	0.19	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromomethane	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Ethylbenzene	µg/l	5	29	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Hexanone	µg/l	50	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Iodomethane	µg/l	10	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Styrene	µg/l	10	100	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Toluene	µg/l	5	1000	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Xylene	µg/l	5	530	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (9-18-2000)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	30	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Barium (Ba)	µg/l	500	1000	NS	NS	NS	**330**	**92**	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	10	50	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	10	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Copper (Cu)	µg/l	200	1000	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	NS	NS	NS	NT	NT	NS	NS	NS	ND	NS	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	50	100	NS	NS	NS	**8.8**	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Silver (Ag)	µg/l	10	18	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	20	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Vanadium (V)	µg/l	40	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	50	2100	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	ND
Acetone	µg/l	100	700	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Benzene	µg/l	5	1	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Bromoform	µg/l	5	0.19	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Chloroethane	µg/l	10	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Chloroform	µg/l	5	0.19	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Dibromomethane	µg/l	10	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Ethylbenzene	µg/l	5	29	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
2-Hexanone	µg/l	50	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Iodomethane	µg/l	10	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Styrene	µg/l	10	100	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Toluene	µg/l	5	1000	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT
Xylene	µg/l	5	530	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	NT

Notes:
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NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-9-2001)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**5.9**	**7.3**	NS	**6.4**	**6**	**6.3**	**6**	**6.1**	**8.2**	**5.8**	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**20**	**60**	NS	**75**	**75**	**68**	**130**	**90**	**110**	**125**	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	**15**	**15**	NS	**13**	**15**	**15**	**14**	**15**	**15**	**15**	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**1300**	**380**	NS	**180**	**330**	**120**	**80**	**290**	**360**	**970**	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	**2.3**	**7**	NS	ND	ND	ND	ND	ND	**2.4**	**4.8**	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	**130**	**2**	NS	ND	ND	ND	**1.7**	**1.8**	**2.7**	**19**	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**130**	ND	NS	**11**	**8.4**	ND	ND	**20**	**27**	**160**	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**54**	ND	NS	ND	ND	ND	**13**	**12**	**13**	**59**	NS	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**77**	**8.4**	NS	ND	ND	**5.4**	ND	**26**	**38**	**110**	NS	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	ND	**59**	NS	ND	ND	ND	ND	ND	**18**	**2.5**	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**76**	**7.2**	NS	**9.6**	**5.3**	ND	ND	**18**	**28**	**6.1**	NS	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	2	NE	**40**	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**250**	**1.4**	NS	**13**	**19**	**9.3**	ND	**24**	**41**	**230**	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**230**	**130**	NS	**12**	**24**	**18**	**17**	**33**	**75**	**200**	NS	NP	NP	**24**
Acetone	µg/l	100	700	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Benzene	µg/l	5	1	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Bromoform	µg/l	5	0.19	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Chloroethane	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Chloroform	µg/l	5	0.19	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Dibromomethane	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Ethylbenzene	µg/l	5	29	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
2-Hexanone	µg/l	50	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Iodomethane	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Styrene	µg/l	10	100	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Toluene	µg/l	5	1000	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Xylene	µg/l	5	530	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT

Notes:

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Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (9-18-2001)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	2	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Acetone	µg/l	100	700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Benzene	µg/l	5	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromoform	µg/l	5	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroform	µg/l	5	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromomethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Ethylbenzene	µg/l	5	29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Hexanone	µg/l	50	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Iodomethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Styrene	µg/l	10	100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Toluene	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Xylene	µg/l	5	530	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-29-2001)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	2	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**3.1**
Total Vanadium (V)	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Acetone	µg/l	100	700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Benzene	µg/l	5	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromoform	µg/l	5	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroform	µg/l	5	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromomethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Ethylbenzene	µg/l	5	29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Hexanone	µg/l	50	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Iodomethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Styrene	µg/l	10	100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Toluene	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Xylene	µg/l	5	530	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT

Notes:
MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
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ND = Not Detected at the method detection limit
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NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (1-30-2002)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	2	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Acetone	µg/l	100	700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Benzene	µg/l	5	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromoform	µg/l	5	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroform	µg/l	5	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromomethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Ethylbenzene	µg/l	5	29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Hexanone	µg/l	50	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Iodomethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Styrene	µg/l	10	100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Toluene	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Xylene	µg/l	5	530	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (2-28-2002)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	30	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Barium (Ba)	µg/l	500	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	10	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Copper (Cu)	µg/l	200	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	50	100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Silver (Ag)	µg/l	10	18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	20	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Vanadium (V)	µg/l	40	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	50	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	ND
Acetone	µg/l	100	700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Benzene	µg/l	5	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromoform	µg/l	5	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloroform	µg/l	5	0.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dibromomethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Ethylbenzene	µg/l	5	29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Hexanone	µg/l	50	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Iodomethane	µg/l	10	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Styrene	µg/l	10	100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Toluene	µg/l	5	1000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT
Xylene	µg/l	5	530	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	NT

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
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NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-15-2002)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.01**	**6.42**	NS	**6.46**	**5.89**	**5.25**	**5.75**	**5.68**	**6.88**	**6.01**	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**21**	**42**	NS	**75**	**82**	**84**	**101**	**93**	**94**	**125**	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	**15.9**	**17.4**	NS	**15.3**	**15.7**	**16.8**	**16.2**	**13.2**	**16.3**	**17.3**	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	10	NE	**15.0**	ND	NS	ND	ND	ND	NT	ND	ND	**11**	NS	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	ND	ND	NS	ND	ND	ND	NT	ND	ND	ND	NS	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**1300**	**41**	NS	ND	ND	**160**	**23**	**190**	**460**	**1400**	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	**2.1**	ND	NS	ND	ND	ND	ND	ND	**2.5**	**4.5**	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	10	5	**13**	ND	NS	ND	ND	ND	**4**	ND	**5.5**	**19**	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**170**	ND	NS	ND	ND	**5.7**	**7**	**10**	**56**	**180**	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**58**	ND	NS	ND	ND	ND	**18**	**8.2**	**21**	**82**	NS	NP	NP	ND
Total Copper (Cu)	µg/l	2	1000	**69**	ND	NS	ND	ND	ND	ND	**13**	**68**	**120**	NS	NP	NP	**150**
Total Lead (Pb)	µg/l	10	15	**13**	ND	NS	ND	ND	ND	ND	ND	**13**	**29**	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**74**	ND	NS	ND	ND	ND	**6.2**	**9.2**	**44**	**68**	NS	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	2	NE	**40**	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**240**	ND	NS	ND	ND	**11**	**21**	**14**	**69**	**260**	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**230**	**16**	NS	ND	ND	**13**	**33**	**38**	**120**	**230**	NS	NP	NP	**15**
Acetone	µg/l	100	700	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Benzene	µg/l	5	1	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Bromoform	µg/l	5	0.19	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Chloroethane	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Chloroform	µg/l	5	0.19	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Dibromomethane	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Ethylbenzene	µg/l	5	29	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
2-Hexanone	µg/l	50	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Iodomethane	µg/l	10	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Styrene	µg/l	10	100	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Toluene	µg/l	5	1000	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Xylene	µg/l	5	530	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
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NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (9-26-2002)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.5**	**7.3**	**7.09**	**6.14**	**6.17**	**6.18**	**5.96**	**5.96**	**7.22**	**6.37**	**6.65**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**22**	**59**	**52**	**71**	**85**	**82**	**117**	**101**	**92**	**130**	**97**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**15.1**	**13.5**	**13.7**	**13.5**	**13.9**	**14**	**15.8**	**14.6**	**15.1**	**17.7**	**16.6**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	10	NE	ND	ND	ND	**12**	ND	ND	ND	ND	ND	ND	**98**	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	**5.7**	ND	ND	ND	ND	ND	ND	**27**	ND	**68**	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**330**	**500**	**750**	**4200**	**120**	**230**	**93**	**410**	**910**	**1400**	**11000**	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	ND	**7**	**2.1**	**5.1**	ND	ND	ND	ND	**8.5**	**4.7**	**95**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	ND	ND	**4.2**	**21**	ND	**10**	ND	**2.3**	**4.2**	**19**	**180**	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**33**	**5.4**	**33**	**510**	ND	**5.2**	ND	**37**	**36**	**230**	**770**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**13**	**5.4**	**16**	**100**	ND	**16**	**7.4**	**21**	**19**	**85**	**560**	NP	NP	ND
Total Copper (Cu)	µg/l	2	1000	**20**	**10**	**31**	**220**	ND	ND	**2.6**	**42**	**88**	**150**	**450**	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	ND	**76**	**29**	ND	ND	ND	ND	ND	**150**	**20**	**740**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**16**	**6.8**	**31**	**400**	ND	ND	ND	**27**	**40**	**78**	**430**	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**65**	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**58**	**16**	**44**	**640**	ND	ND	ND	**42**	**50**	**310**	**1000**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**57**	**120**	**110**	**580**	ND	**20**	ND	**56**	**250**	**280**	**4800**	NP	NP	**2000**
Acetone	µg/l	100	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Benzene	µg/l	5	1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Bromoform	µg/l	5	0.19	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Chloroethane	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Chloroform	µg/l	5	0.19	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Dibromomethane	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Ethylbenzene	µg/l	5	29	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
2-Hexanone	µg/l	50	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Iodomethane	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Styrene	µg/l	10	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Toluene	µg/l	5	1000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Xylene	µg/l	5	530	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-28-2003)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**8.3**	**7.15**	**6.89**	**6.37**	**6.21**	**6.17**	**6.4**	**6.16**	**8.15**	**5.85**	**6.75**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**29**	**43**	**55**	**91**	**110**	**99**	**150**	**114**	**100**	**138**	**125**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**16.7**	**15.9**	**15.6**	**15.6**	**16.3**	**15.3**	**13.5**	**14.2**	**17.7**	**14.9**	**18.4**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**24**	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**600**	**66**	**220**	**1800**	**160**	**140**	**110**	**92**	**360**	**800**	**2800**	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	**2**	**2.2**	**20**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	**3.6**	ND	ND	**6**	ND	ND	ND	ND	**2.9**	**16**	**20**	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	**89**	ND	ND	ND	ND	ND	**110**	**27**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**21**	ND	ND	**37**	ND	ND	**6.9**	ND	**17**	**50**	**81**	NP	NP	ND
Total Copper (Cu)	µg/l	2	1000	**24**	ND	**2.6**	**40**	ND	ND	ND	ND	**28**	**94**	**71**	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	ND	ND	ND	ND	ND	ND	ND	ND	**25**	ND	**300**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	ND	ND	ND	**90**	ND	ND	ND	ND	ND	**26**	**70**	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	1	NE	ND	ND	ND	**1.6**	ND	ND	ND	ND	**1.4**	ND	**15**	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**89**	ND	**9.6**	**170**	**6.8**	**6.8**	ND	ND	**37**	**230**	**130**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**86**	**14**	**31**	**160**	**16**	ND	ND	ND	**81**	**190**	**800**	NP	NP	ND
Acetone	µg/l	100	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Benzene	µg/l	5	1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Bromoform	µg/l	5	0.19	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Carbon tetrachloride	µg/l	10	0.3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Chloroethane	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Chloroform	µg/l	5	0.19	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	0.025	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Dibromomethane	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	100	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Ethylbenzene	µg/l	5	29	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
2-Hexanone	µg/l	50	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Iodomethane	µg/l	10	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	10	5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	170	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Styrene	µg/l	10	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Toluene	µg/l	5	1000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Vinyl chloride	µg/l	10	0.015	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Xylene	µg/l	5	530	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT

Notes:

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NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-30-2003)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.58**	**6.9**	**6.73**	**6.57**	**6.26**	**6.44**	**6.33**	**6.27**	**7.7**	**6.18**	**6.46**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**29**	**39**	**58**	**82**	**119**	**110**	**140**	**115**	**105**	**149**	**120**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**15**	**15.1**	**14.9**	**15.8**	**15.9**	**16.7**	**15**	**14**	**17.5**	**16.3**	**16**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	NT	ND	ND	ND	ND	ND	ND	**5.3**	**81**	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**320**	**100**	NT	**210**	**310**	**130**	**95**	**110**	**1200**	**270**	**4900**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	NT	ND	ND	ND	ND	ND	**2.4**	ND	**33**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	2	50	**30**	ND	NT	ND	**6.2**	ND	ND	ND	**31**	**4.6**	**140**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**9**	ND	NT	ND	ND	ND	**5.7**	ND	**52**	**8.8**	**110**	NP	NP	ND
Total Copper (Cu)	µg/l	2	1000	**18**	ND	NT	ND	**2.3**	**2.6**	ND	**3**	**85**	**4.4**	**150**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	**8.7**	**12**	NT	ND	ND	ND	ND	ND	**39**	**7.4**	**640**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**19**	ND	NT	**6.9**	**6.9**	ND	ND	ND	**48**	ND	**190**	NP	NP	ND
Total Selenium (Se)	µg/l	5	50	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**54**	ND	NT	**6.6**	**16**	ND	ND	ND	**92**	**14**	**200**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**55**	**22**	NT	**17**	**26**	**10**	ND	ND	**140**	**26**	**1800**	NP	NP	ND
Acetone	µg/l	10	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	5	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	5	620	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	5	75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	5	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	5	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	5	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	5	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	10	170	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	5	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	5	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	5	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	5	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	5	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	5	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylene	µg/l	5	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

Notes:

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MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-20-2004)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.71**	**6.81**	**6.78**	**5.57**	**5.4**	**5.47**	**5.47**	**5.41**	**7.36**	**5.17**	**6.83**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**25**	**31**	**40**	**67**	**135**	**120**	**115**	**100**	**100**	**115**	**70**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**15.8**	**15.6**	**15.5**	**13.5**	**14.6**	**14.4**	**13.5**	**14.1**	**15.3**	**14.9**	**13.8**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	**7.4**	**30**	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**320**	**56**	**120**	**410**	**460**	**170**	**140**	**210**	**62**	**940**	**2000**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**21**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	**8.8**	**8.9**	NP	NP	ND
Total Chromium (Cr)	µg/l	2	50	**33**	ND	**2.1**	**45**	**13**	ND	ND	**11**	**3.5**	**190**	**68**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**9.5**	ND	ND	**7.7**	**5.2**	ND	**13**	**6.4**	ND	**43**	**50**	NP	NP	ND
Total Copper (Cu)	µg/l	2	1000	**18**	ND	**2.8**	**12**	**5.3**	**2.3**	**4.3**	**13**	**7.4**	**100**	**89**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	**7.2**	**7**	**5.2**	**6.4**	**5.4**	ND	ND	ND	**12**	**39**	**250**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**20**	ND	ND	**30**	**7.3**	ND	ND	**12**	**5.3**	**49**	**110**	NP	NP	ND
Total Selenium (Se)	µg/l	5	50	ND	ND	ND	ND	ND	**5**	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**55**	ND	ND	**45**	**25**	ND	ND	**13**	**5.1**	**240**	**88**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**55**	**10**	ND	**44**	**30**	**11**	**14**	**19**	**23**	**220**	**770**	NP	NP	**11**
Acetone	µg/l	10	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Acrylonitrile	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Benzene	µg/l	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Bromoform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Carbon Disulfide	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Carbon tetrachloride	µg/l	5	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Chlorobenzene (mono)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Chloroform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Chloromethane (Methylchloride)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Dibromomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,2-Dichlorobenzene	µg/l	5	620	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,4-Dichlorobenzene	µg/l	5	75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
trans-1,4-Dichloro-2-butene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,1-Dichloroethane	µg/l	5	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,2-Dichloroethane	µg/l	5	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,2-Dichloropropane	µg/l	5	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Ethylbenzene	µg/l	5	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
2-Hexanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Dichloromethane (Methylene chloride)	µg/l	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
2-Butanone (Methyl ethyl ketone)	µg/l	10	170	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
4-Methyl-2-Pentanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Styrene	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,1,2,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Tetrachloroethene (-ethylene)	µg/l	5	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Toluene	µg/l	5	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,1,1-Trichloroethane	µg/l	5	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Trichloroethene (-ethylene)	µg/l	5	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Trichlorofluoromethane	µg/l	5	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
1,2,3-Trichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Vinyl acetate	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Vinyl chloride	µg/l	5	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT
Xylene	µg/l	5	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	NT

Notes:

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White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-21-2004)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.83**	**6.55**	**6.76**	**6.9**	**5.92**	**6.39**	**5.75**	**6.03**	**7.84**	**5.57**	**7.12**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**29**	**49**	**62**	**96**	**290**	**302**	**196**	**148**	**111**	**198**	**134**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**14.3**	**16.7**	**14**	**13**	**14.7**	**14.3**	**15**	**14.5**	**14.2**	**14.6**	**17**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**59**	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**320**	**40**	**200**	**300**	**310**	**140**	**140**	**130**	**12**	**900**	**4900**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.4**	**28**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	2	50	**21**	ND	**2.8**	**16**	**2**	ND	ND	ND	ND	**120**	**140**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**6.2**	ND	ND	ND	ND	ND	ND	ND	ND	**31**	**120**	NP	NP	ND
Total Copper (Cu)	µg/l	2	1000	**11**	ND	ND	**2**	ND	ND	ND	ND	ND	**63**	**140**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	**7.2**	**5.6**	**5.7**	ND	ND	ND	ND	ND	ND	**24**	**430**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**12**	ND	ND	**13**	ND	ND	ND	ND	ND	**35**	**160**	NP	NP	ND
Total Selenium (Se)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**41**	ND	ND	**18**	ND	ND	ND	ND	ND	**160**	**210**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**29**	ND	ND	**17**	ND	**14**	ND	**12**	**15**	**70**	**1200**	NP	NP	ND
Acetone	µg/l	10	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	10	NE	ND	**24**	ND	ND	ND	ND	ND	ND	**15**	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	5	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	5	620	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	5	75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	5	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	5	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	5	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	5	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	10	170	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	5	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	5	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	5	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	5	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	5	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	5	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylene	µg/l	5	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-18-2005)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.95**	**7.44**	**6.15**	**6.2**	**5.58**	**6.04**	**6.02**	**6.18**	**7.46**	**5.6**	**6.85**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**25**	**40**	**42**	**78**	**330**	**161**	**171**	**139**	**95**	**149**	**138**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**14.2**	**15.6**	**15**	**13.5**	**15**	**17.7**	**13**	**13.5**	**16.2**	**14.1**	**16.4**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**12**	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	**10**	ND	ND	ND	ND	ND	**5.2**	**65**	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**480**	**55**	**160**	**7200**	**610**	**180**	**160**	**140**	**12**	**1000**	**3700**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	**7.2**	ND	ND	ND	ND	ND	**3.8**	**26**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	2	50	**49**	**12**	**8.3**	**680**	**2.9**	ND	ND	**3.2**	ND	**210**	**100**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**12**	ND	ND	**110**	ND	ND	ND	ND	ND	**36**	**70**	NP	NP	ND
Total Copper (Cu)	µg/l	2	1000	**29**	ND	ND	**240**	ND	ND	ND	**3.8**	ND	**120**	**130**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	**13**	**8**	**5.2**	**73**	ND	ND	ND	ND	ND	**39**	**380**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**29**	**9.6**	**17**	**460**	ND	ND	**5.5**	**5.4**	ND	**59**	**170**	NP	NP	ND
Total Selenium (Se)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**85**	ND	ND	**680**	**5.4**	ND	ND	ND	ND	**240**	**110**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**83**	ND	ND	**780**	ND	**30**	**13**	**10**	ND	**240**	**1200**	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	5	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	5	620	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	5	75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	5	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	5	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	5	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	5	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	10	170	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	5	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	5	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	5	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	5	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	5	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	5	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylene	µg/l	5	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

Notes:

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MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
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NT = Not Tested
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NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-13-2005)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**7.21**	**7.38**	**7.79**	**6.36**	**6.07**	**6.25**	**6.08**	**6.6**	**7.73**	**6.08**	**6.72**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**21**	**35**	**40**	**85**	**580**	**201**	**185**	**160**	**102**	**180**	**52**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**13.2**	**14**	**13.3**	**13.3**	**14.9**	**14.3**	**16.5**	**15.5**	**15.3**	**16.5**	**16.8**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**44**	NP	NP	ND
Total Barium (Ba)	µg/l	5	1000	**770**	**37**	**160**	**1700**	**870**	**250**	**160**	**140**	**27**	**810**	**2700**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	**3**	ND	ND	ND	ND	ND	**3.4**	**21**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	2	50	**52**	ND	**3.7**	**230**	**4.7**	ND	ND	ND	ND	**150**	**88**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**21**	ND	ND	**32**	ND	ND	**5.1**	ND	ND	**29**	**56**	NP	NP	ND
Total Copper (Cu)	µg/l	2	1000	**31**	**2.6**	**3.5**	**70**	ND	ND	ND	ND	**3**	**82**	**96**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	**14**	**6.9**	ND	**20**	ND	ND	ND	ND	ND	**29**	**290**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**29**	ND	ND	**160**	**6.8**	ND	ND	**6.1**	ND	**46**	**100**	NP	NP	ND
Total Selenium (Se)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	2	18	**2.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	10	NE	**22**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**82**	ND	ND	**210**	**8.9**	ND	ND	ND	ND	**170**	**82**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	2100	**92**	**13**	**12**	**230**	**19**	**25**	ND	ND	**14**	**170**	**800**	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	5	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.0004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	5	620	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	5	75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	5	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	5	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	5	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	5	29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	10	170	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	5	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	5	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	5	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	5	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	5	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	5	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylene	µg/l	5	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

Notes:

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Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-25-2006)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.33**	**7.06**	**6.61**	**6.07**	**5.45**	**6.16**	**5.63**	**5.62**	**7.7**	**5.56**	**5.83**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**53**	**48**	**52**	**106**	**105**	**383**	**301**	**236**	**136**	**251**	**70**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**18.1**	**19.2**	**16.1**	**13.7**	**19.5**	**20.6**	**12.4**	**13.8**	**14.6**	**14.8**	**12.9**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	10	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**42**	NP	NP	ND
Total Barium (Ba)	µg/l	500	2000	**650**	ND	ND	ND	**1100**	ND	ND	ND	ND	**750**	**2700**	NP	NP	ND
Total Beryllium (Be)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	**2.1**	ND	**17**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	1.75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	10	50	**65**	ND	**16**	ND	ND	ND	ND	ND	**16**	**100**	**93**	NP	NP	ND
Total Cobalt (Co)	µg/l	10	NE	**16**	ND	ND	ND	ND	ND	ND	ND	ND	**25**	**57**	NP	NP	ND
Total Copper (Cu)	µg/l	200	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	**15**	ND	ND	ND	ND	ND	ND	ND	**53**	**19**	**300**	NP	NP	ND
Total Nickel (Ni)	µg/l	50	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**88**	NP	NP	ND
Total Selenium (Se)	µg/l	20	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	10	17.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	40	NE	**110**	ND	ND	ND	ND	ND	ND	ND	ND	**120**	**85**	NP	NP	ND
Total Zinc (Zn)	µg/l	50	1050	**130**	ND	**88**	ND	ND	ND	ND	ND	**110**	**120**	**780**	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	5	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	10	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	5	0.269	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	10	2800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	5	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.00047	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	5	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	5	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	5	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	5	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	5	550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	5	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	10	4200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	5	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	5	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	5	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	5	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	5	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	5	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	5	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylene	µg/l	5	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

Notes:
MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-20-2006)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.47**	**6.81**	**6.51**	**6.74**	**5.56**	**6.14**	**5.87**	**5.74**	**8.2**	**5.61**	**5.97**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**229**	**48**	**53**	**108**	**876**	**564**	**149**	**200**	**12.8**	**330**	**33**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**12.2**	**11.9**	**12.8**	**12.5**	**12.7**	**12.9**	**14.9**	**13.7**	**13.5**	**13.3**	**14.9**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**13**	NP	NP	ND
Total Barium (Ba)	µg/l	5	2000	**410**	**22**	**180**	**470**	**1100**	ND	ND	ND	**160**	ND	**650**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.7**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	1.75	**3.8**	ND	ND	ND	ND	ND	ND	ND	**1.5**	ND	**5.2**	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**50**	ND	**11**	**24**	ND	ND	ND	ND	**17**	ND	**27**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**26**	ND	ND	**9.6**	ND	ND	ND	ND	**20**	ND	**25**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	**20**	ND	ND	ND	ND	ND	ND	ND	**32**	ND	**89**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**22**	ND	**8.3**	**25**	ND	ND	ND	ND	**13**	ND	**24**	NP	NP	ND
Total Selenium (Se)	µg/l	10	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	5	17.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**79**	ND	ND	**28**	ND	ND	ND	ND	**23**	ND	**30**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	1050	**74**	ND	**20**	**37**	ND	ND	ND	ND	**55**	ND	**200**	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	5	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	10	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	5	0.269	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	10	2800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	5	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.00047	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	5	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	5	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	5	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	5	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	5	550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	5	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	10	4200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	5	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	5	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	5	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	5	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	10	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	5	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	5	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylene	µg/l	5	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

Notes:
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White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-25-2007)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.04**	**7.08**	**6.27**	**6.25**	**5.36**	**5.83**	**5.7**	**5.73**	**8.02**	**5.54**	**9.08**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**31**	**50**	**54**	**105**	**1540**	**757**	**391**	**312**	**134**	**336**	**46**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**13.4**	**14.2**	**14**	**13**	**14**	**14.6**	**14**	**13**	**15.7**	**15.4**	**12.5**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	6	NE	ND	ND	ND	ND	ND	**20**	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	ND	**280**	ND	ND	ND	ND	**12**	NP	NP	ND
Total Barium (Ba)	µg/l	100	2000	**290**	ND	**200**	**240**	**1300**	**1500**	**130**	**180**	ND	ND	**600**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	**14**	ND	ND	ND	ND	**4.9**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	1.75	ND	ND	ND	ND	ND	**2.2**	ND	ND	ND	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	10	50	**20**	ND	ND	**16**	ND	**410**	ND	ND	ND	ND	**17**	NP	NP	ND
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	ND	ND	**260**	ND	ND	ND	ND	ND	NP	NP	ND
Total Copper (Cu)	µg/l	10	1000	**15**	ND	ND	ND	ND	**330**	ND	ND	ND	ND	**26**	NP	NP	ND
Total Lead (Pb)	µg/l	10	15	ND	ND	ND	ND	ND	**96**	ND	ND	ND	ND	**69**	NP	NP	ND
Total Nickel (Ni)	µg/l	50	100	ND	ND	ND	ND	ND	**330**	ND	ND	ND	ND	ND	NP	NP	ND
Total Selenium (Se)	µg/l	10	50	**12**	ND	ND	ND	ND	**460**	ND	ND	ND	ND	**18**	NP	NP	ND
Total Silver (Ag)	µg/l	10	17.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	5.5	NE	ND	ND	ND	ND	ND	**35**	ND	ND	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	25	NE	**43**	ND	ND	ND	ND	**300**	ND	ND	ND	ND	**26**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	1050	**55**	**21**	**30**	**30**	**22**	**830**	**22**	**15**	**10**	**12**	**200**	NP	NP	**12**
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	5	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	5	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	10	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	5	0.269	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	10	2800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	5	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	0.00047	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	5	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	5	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	5	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	5	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	5	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	5	550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	5	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	10	4200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	5	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	5	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	5	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	5	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	5	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	10	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	5	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	5	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylene	µg/l	5	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

Notes:

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MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-31-2007)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.6**	**6.8**	**6.3**	**6.22**	**5.9**	**6**	**5.5**	**5.9**	**7.99**	**5.5**	**5.9**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**28**	**61**	**45**	**94**	**1475**	**911**	**346**	**300**	**132**	**543**	**36**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**13.8**	**16**	**16.1**	**14.8**	**17.5**	**17.6**	**17.5**	**17.2**	**14.8**	**15.6**	**17.2**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**21.4**	NP	NP	ND
Total Barium (Ba)	µg/l	5	2000	**501**	**31.5**	**223**	**198**	**1350**	**591**	**184**	**208**	**62.4**	**516**	**872**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	1.75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**40.9**	ND	**11.9**	**10.9**	**7.8**	ND	ND	ND	**5.1**	**75.5**	**33.7**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**16.8**	ND	ND	ND	**10.6**	ND	ND	ND	ND	ND	**17.6**	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**29.2**	ND	ND	ND	ND	ND	ND	ND	**6.3**	**40.3**	**47.4**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	**17.5**	**8.1**	ND	ND	ND	ND	ND	ND	ND	**12.3**	**123**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**24**	ND	**8**	**8.4**	**13.8**	ND	**5.8**	**9.8**	ND	**20.2**	**36.2**	NP	NP	ND
Total Selenium (Se)	µg/l	10	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	5	17.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	5.5	NE	**11.6**	ND	ND	ND	ND	ND	ND	ND	ND	**9.5**	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**89**	ND	**8.8**	**14.7**	**20**	ND	ND	ND	**8.6**	**103**	**48.2**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	1050	**86**	ND	**66.2**	**14**	**37.4**	**33.3**	**12**	ND	**11.6**	**91.1**	**336**	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	1	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	1	0.269	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	1	2800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	1	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.00047	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	1	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	1	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	1	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	1	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	1	550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	2	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	1	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	1	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	1	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	1	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylenes	µg/l	2	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

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Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (04-23-2008)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.59**	**7.22**	**6.58**	**6.33**	**5.71**	**6.05**	**5.66**	**5.65**	**8.13**	**5.56**	**6.69**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**25**	**49**	**49**	**102**	**1546**	**946**	**411**	**318**	**124**	**481**	**33**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**13.9**	**14.2**	**14.2**	**13.2**	**14.6**	**14.4**	**13.4**	**14.7**	**17.4**	**14.8**	**14.1**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10.2**	NP	NP	ND
Total Barium (Ba)	µg/l	5	2000	**194**	**30.8**	**253**	**168**	**1230**	**661**	**216**	**202**	**61.8**	**151**	**361**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	1.75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.6**	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**10.7**	ND	**16.8**	**7.8**	ND	ND	ND	ND	**7.6**	**7.3**	**14.9**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**22.3**	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**7.2**	ND	ND	ND	ND	ND	ND	ND	**7.2**	ND	**17**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	**8.4**	ND	ND	ND	ND	ND	**5.8**	ND	**50.2**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**7.3**	ND	**12.9**	**6.3**	**10.8**	**5.7**	ND	**11.3**	**5.3**	ND	**19**	NP	NP	ND
Total Selenium (Se)	µg/l	10	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	5	17.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	5.5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**26.1**	ND	**11.4**	**9.7**	**10.1**	ND	ND	**5.1**	**9.7**	**10**	**23.1**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	1050	**27.3**	ND	**50.3**	**12.2**	**24.4**	**36.9**	ND	**10.3**	**17.5**	**38.8**	**138**	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	1	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	1	0.269	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	1	2800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	1	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.00047	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	1	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	1	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	1	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	1	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	1	550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	2	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	1	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	1	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	1	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	1	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylenes	µg/l	2	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-20-2008)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**5.7**	**6.7**	**6.2**	**6.1**	**5.9**	**6.0**	**5.9**	**5.8**	**7.9**	**5.6**	**5.5**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**28.0**	**54.0**	**44.0**	**104**	**1420**	**1111**	**320**	**350.0**	**129.0**	**621.0**	**41.0**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**13.8**	**14.2**	**12.0**	**13.2**	**14.3**	**15.4**	**14.9**	**14.6**	**15.2**	**14.5**	**16.5**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6.6**	NP	NP	ND
Total Barium (Ba)	µg/l	5	2000	**474**	**66.0**	**313**	**224**	**1210**	**894**	**164**	**216**	**41.1**	**182**	**245**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	**1.2**	ND	ND	ND	ND	ND	ND	ND	ND	**1.9**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	1.75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**38.6**	ND	**29.4**	**12.7**	ND	ND	ND	ND	ND	ND	**6.8**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**27.0**	**10.4**	**19.5**	**9.4**	**7.7**	ND	**12.6**	**5.3**	**7.1**	ND	**18.4**	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**26.5**	ND	**8.3**	ND	ND	ND	ND	ND	ND	ND	**9.7**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	ND	**13.5**	**7.6**	ND	ND	ND	ND	ND	ND	ND	**25.9**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**23.0**	ND	**21.0**	**11.1**	**10.7**	**7.5**	ND	**14.0**	ND	ND	**8.5**	NP	NP	ND
Total Selenium (Se)	µg/l	10	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	5	17.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	5.4	NE	**7.2**	ND	ND	ND	ND	ND	ND	**6.1**	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**79.0**	ND	**15.1**	**15.8**	ND	ND	ND	ND	**5.4**	ND	**14.8**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	1050	**66.5**	**19.9**	**59.2**	**15.3**	**10.6**	**29.1**	ND	**12.4**	ND	**17.4**	**71.5**	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**140**	NP	NP	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	1	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	1	0.269	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	1	2800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	1	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.00047	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	1	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	1	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	1	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	1	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	1	550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	2	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**54.4**	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Styrene	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Toluene	µg/l	1	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	1	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	1	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	1	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND
Xylenes	µg/l	2	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	ND

Notes:

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MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
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NT = Not Tested
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NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-22-2009)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**5.64**	**6.89**	**6.32**	**5.83**	**5.74**	**5.92**	**5.75**	**5.72**	**7.56**	**5.47**	NS	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**28.0**	**53.0**	**12.0**	**131**	**1427**	**1109**	**398**	**358**	**131**	**536.0**	NS	NP	NP	NT
Temperature	°C (on-site)	-	NE	**13.3**	**13.1**	**47**	**13.4**	**12.8**	**13.1**	**11.7**	**12.1**	**14.4**	**15.1**	NS	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	**5.4**	ND	ND	**5.6**	ND	ND	ND	ND	NS	NP	NP	ND
Total Barium (Ba)	µg/l	5	2000	**126**	**47.2**	**591**	**309**	**1300**	**817**	**230**	**216**	**77.0**	**163**	NS	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	**1.5**	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	1.75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**12.3**	ND	**28.9**	**19.7**	**5.1**	ND	ND	ND	**7.3**	ND	NS	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**5.0**	**6.3**	**17.1**	**8.5**	**5.7**	ND	**7.0**	ND	**6.4**	ND	NS	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**5.1**	ND	**22.6**	**6.0**	ND	ND	ND	ND	**8.8**	ND	NS	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	ND	**8.7**	**24.4**	ND	ND	ND	ND	ND	**9.8**	ND	NS	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**5.6**	**7.2**	**19.7**	**16.7**	**10.9**	**6.0**	**5.1**	**14.0**	**6.0**	ND	NS	NP	NP	ND
Total Selenium (Se)	µg/l	10	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Silver (Ag)	µg/l	5	17.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**16.0**	ND	**32.7**	**19.8**	**7.7**	ND	ND	ND	**13.3**	ND	NS	NP	NP	ND
Total Zinc (Zn)	µg/l	10	1050	**23.1**	**43.5**	**99.9**	**25.3**	**17.9**	**17.6**	**10.5**	ND	**35.2**	ND	NS	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Bromodichloromethane	µg/l	1	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Bromoform	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	**4.5**	ND	NS	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Carbon tetrachloride	µg/l	1	0.269	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Chloroethane	µg/l	1	2800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	1	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.00047	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,2-Dichlorobenzene	µg/l	1	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,4-Dichlorobenzene	µg/l	1	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,1-Dichloroethane	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,2-Dichloroethane	µg/l	1	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,2-Dichloropropane	µg/l	1	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Ethylbenzene	µg/l	1	550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	2	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Styrene	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Toluene	µg/l	1	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	1	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Trichlorofluoromethane	µg/l	1	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Vinyl chloride	µg/l	1	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND
Xylenes	µg/l	2	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	ND

Notes:
MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-26-2009)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**5.88**	**6.35**	**6.0**	**5.76**	**5.78**	**5.95**	NS	NS	NS	**5.32**	**5.30**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**29**	**50**	**37.0**	**127**	**1532**	**1120**	NS	NS	NS	**637**	**39**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**13.4**	**13.2**	**14.4**	**14.6**	**14.7**	**15.9**	NS	NS	NS	**14.5**	**15.3**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NS	NS	NS	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	**6.0**	ND	NS	NS	NS	ND	ND	NP	NP	ND
Total Barium (Ba)	µg/l	5	2000	**131**	**16.8**	**144**	**188**	**1720**	**987**	NS	NS	NS	**209**	**178**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	**1.7**	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	1.75	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**10.0**	ND	**8.1**	ND	**18.7**	ND	NS	NS	NS	**10.9**	**8.1**	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	ND	**6.0**	ND	NS	NS	NS	ND	**6.0**	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**5.8**	ND	ND	ND	**6.4**	ND	NS	NS	NS	ND	**7.1**	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	**24.7**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**6.7**	ND	**5.2**	**6.0**	**18.0**	**7.5**	NS	NS	NS	**6.0**	**8.4**	NP	NP	ND
Total Selenium (Se)	µg/l	10	50	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	5	17.5	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**17.9**	ND	ND	**5.3**	**33.6**	ND	NS	NS	NS	**12.2**	**11.9**	NP	NP	ND
Total Zinc (Zn)	µg/l	10	1050	**19.6**	ND	**14.8**	ND	**37.8**	ND	NS	NS	NS	ND	**63.8**	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	1	0.56	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Bromoform	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	1	0.269	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Chloroethane	µg/l	1	2800	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	1	2.6	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	0.025	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.00047	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	1	24	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	1	1.4	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	1	70	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	1	0.38	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	1	0.51	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	1	550	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	2	4.6	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4200	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Styrene	µg/l	1	100	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Toluene	µg/l	1	1000	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	1	2.8	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	1	2100	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	1	0.015	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND
Xylenes	µg/l	2	530	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	ND

Notes:
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MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
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NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-22-2010)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.05**	**6.54**	**6.33**	**6.06**	**5.90**	**5.94**	NS	NS	**7.04**	**5.50**	**5.69**	NP	NP	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**65**	**96**	**8.2**	**161**	**1987**	**1812**	NS	NS	**1727**	**659**	**83**	NP	NP	NT
Temperature	°C (on-site)	-	NE	**13.5**	**13.8**	**13.9**	**13.5**	**13.3**	**13.4**	NS	NS	**14.9**	**14.6**	**12.7**	NP	NP	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NS	NS	NT	NT	NT	NP	NP	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	**7.4**	**9.8**	NS	NS	ND	ND	ND	NP	NP	ND
Total Barium (Ba)	µg/l	5	2000	**208**	**43.5**	**153**	**157**	**1920**	**1380**	NS	NS	**20.9**	**150**	**74.8**	NP	NP	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Cadmium (Cd)	µg/l	1	1.75	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Chromium (Cr)	µg/l	5	50	**14.3**	**10.9**	**13.1**	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Cobalt (Co)	µg/l	5	NE	**5.6**	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Copper (Cu)	µg/l	5	1000	**9.9**	ND	ND	ND	ND	**5.9**	NS	NS	ND	ND	ND	NP	NP	ND
Total Lead (Pb)	µg/l	5	15	ND	**10.5**	ND	ND	ND	ND	NS	NS	ND	ND	**9.2**	NP	NP	ND
Total Nickel (Ni)	µg/l	5	100	**8.6**	**9.6**	**7.6**	ND	**6.2**	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Selenium (Se)	µg/l	10	50	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Silver (Ag)	µg/l	5	17.5	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Vanadium (V)	µg/l	5	NE	**27.9**	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Total Zinc (Zn)	µg/l	10	1050	**22.2**	**14.2**	ND	ND	ND	ND	NS	NS	ND	ND	**24.6**	NP	NP	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Bromodichloromethane	µg/l	1	0.56	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Bromoform	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Carbon tetrachloride	µg/l	1	0.269	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Chloroethane	µg/l	1	2800	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Chloromethane (Methylchloride)	µg/l	1	2.6	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	0.025	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.00047	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,2-Dichlorobenzene	µg/l	1	24	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,4-Dichlorobenzene	µg/l	1	1.4	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,1-Dichloroethane	µg/l	1	70	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,2-Dichloroethane	µg/l	1	0.38	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,2-Dichloropropane	µg/l	1	0.51	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Ethylbenzene	µg/l	1	550	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Dichloromethane (Methylene chloride)	µg/l	2	4.6	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4200	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Styrene	µg/l	1	100	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Toluene	µg/l	1	1000	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Trichloroethene (-ethylene)	µg/l	1	2.8	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Trichlorofluoromethane	µg/l	1	2100	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Vinyl chloride	µg/l	1	0.015	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND
Xylenes	µg/l	2	530	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	ND

Notes:

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MRL = Laboratory Method Reporting Limit
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White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-27-2010)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**5.33**	**6.38**	**6.06**	**5.69**	**5.72**	**5.96**	**5.43**	**5.65**	**7.36**	**5.29**	**5.44**	**5.65**	**5.82**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**35**	**52**	**54**	**113**	**189**	**177**	**418**	**317**	**140**	**772**	**46**	**221**	**90**	NT
Temperature	°C (on-site)	-	NE	**13.7**	**14.1**	**14.1**	**13.9**	**13.9**	**14.7**	**15.2**	**15.0**	**15.7**	**14.7**	**16.5**	**15.9**	**15.0**	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	50	ND	ND	ND	ND	**5.4**	**5.9**	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	2000	**147**	**15.8**	**162**	**178**	**1760**	**1550**	**531**	**234**	**20.0**	**190**	**111**	**191**	**84.4**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	1.75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	**10.1**	ND	**6.6**	**7.1**	ND	ND	**12.0**	**9.2**	ND	ND	**5.2**	ND	ND	ND
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**17.3**	**5.6**	ND	ND	**7.8**	**29.6**	ND	ND
Total Copper (Cu)	µg/l	5	1000	**6.7**	ND	ND	ND	ND	ND	ND	**12.4**	ND	ND	**53.9**	ND	ND	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**16.0**	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	**7.0**	ND	ND	ND	**7.4**	ND	**21.5**	**19.0**	ND	ND	**7.5**	**10.8**	ND	ND
Total Selenium (Se)	µg/l	10	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	17.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**17.4**	ND	ND	**6.9**	ND	ND	**14.2**	**7.1**	ND	ND	**5.9**	ND	ND	ND
Total Zinc (Zn)	µg/l	10	1050	**19.1**	ND	**12.3**	**15.0**	ND	ND	**32.4**	**16.3**	ND	ND	**60.7**	ND	ND	ND
Acetone	µg/l	25	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.269	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	2800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	2.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.00047	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	550	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.015	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-29-2011)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.00**	**6.50**	**6.50**	**6.10**	**5.80**	**6.00**	**5.60**	**5.60**	**6.20**	**5.40**	**5.70**	**5.60**	**5.60**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**29**	**50**	**53**	**127**	**1770**	**1593**	**491**	**290**	**135**	**762**	**90**	**197**	**125**	NT
Temperature	°C (on-site)	-	NE	**14.3**	**14.6**	**13.7**	**13.2**	**14.5**	**14.7**	**15.3**	**14.5**	**14.8**	**14.4**	**13.2**	**15.2**	**14.8**	NT
Turbidity	NTU (on-site)	NT	NE	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	700	**191**	**16.3**	**188**	**182**	**1620**	**1390**	**428**	**173**	**13.6**	**196**	**125**	**201**	**133.0**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.1**	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	10	**8.0**	ND	**8.6**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	ND	**6.9**	ND	**8.9**	ND	ND	ND	ND	**26.3**	ND	ND
Total Copper (Cu)	µg/l	5	1000	**6.4**	ND	ND	ND	**6.7**	**6.1**	ND	ND	ND	ND	**5.2**	ND	ND	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**11.0**	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	ND	ND	ND	ND	**10.5**	**8.6**	**19.5**	**15.2**	ND	ND	ND	**10.3**	ND	ND
Total Selenium (Se)	µg/l	10	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**15.8**	ND	**5.1**	ND	ND	ND	ND	ND	ND	ND	**5.5**	**7.3**	ND	ND
Total Zinc (Zn)	µg/l	10	1000	**25.7**	ND	**21.9**	ND	**11.8**	**23.9**	**13.7**	ND	ND	ND	**42.9**	**20.5**	**21.5**	ND
Acetone	µg/l	25	6000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	3000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-25-2011)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.50**	**6.20**	**6.40**	**6.10**	**5.60**	**5.40**	**5.40**	**5.30**	**7.00**	**5.20**	**5.60**	**5.60**	**5.80**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**32**	**47**	**46**	**108**	**1275**	**1450**	**395**	**297**	**137**	**802**	**52**	**245**	**145**	NT
Temperature	°C (on-site)	-	NE	**14.2**	**13.5**	**15.3**	**12.4**	**13.2**	**13.7**	**15.8**	**15.1**	**15.7**	**16.2**	**16.9**	**16.3**	**15.6**	NT
Turbidity	NTU (on-site)	NT	NE	**96.5**	**8.09**	**17.7**	**9.06**	**9.22**	**1.78**	**8.72**	**5.24**	**1.91**	**80.5**	**154.0**	**4.62**	**1.77**	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	700	**185**	**19.7**	**120**	**332**	**1200**	**1300**	**945**	**205**	**8.2**	**238**	**123**	**161**	**154**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.6**	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	10	**15.0**	ND	ND	**21.1**	ND	ND	**8.1**	ND	ND	**9.2**	**5.1**	ND	ND	ND
Total Cobalt (Co)	µg/l	5	NE	**5.3**	ND	ND	**6.4**	**6.3**	ND	**21.0**	ND	ND	ND	ND	**42.4**	ND	ND
Total Copper (Cu)	µg/l	5	1000	**9.6**	ND	ND	**9.4**	**6.8**	**11.2**	**7.6**	ND	ND	**5.1**	**6.9**	ND	ND	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	**6.3**	ND	ND	ND	**14.6**	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	**6.9**	ND	ND	**14.7**	**8.8**	**7.5**	**20.8**	**19.9**	ND	ND	ND	**8.0**	ND	ND
Total Selenium (Se)	µg/l	10	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**25.6**	ND	ND	**23.0**	ND	ND	**15.1**	ND	ND	**9.7**	**6.3**	ND	ND	ND
Total Zinc (Zn)	µg/l	10	1000	**34.5**	ND	**11.6**	**23.7**	**12.8**	**10.1**	**32.5**	ND	ND	**17.7**	**49.9**	**15.1**	ND	ND
Acetone	µg/l	25	6000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	3000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-20-2012)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.4**	**6.9**	**6.6**	**6.3**	**6.2**	**6.1**	**5.7**	**5.8**	**8.3**	**5.5**	**5.8**	**6.0**	**6.0**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**29.1**	**48.1**	**45.5**	**112.2**	**1339**	**1397**	**508**	**341**	**140**	**845**	**61.4**	**284.3**	**165.9**	NT
Temperature	°C (on-site)	-	NE	**13.5**	**13.9**	**13.6**	**14.0**	**14.9**	**14.7**	**15.9**	**14.2**	**15.1**	**15.2**	**14.0**	**15.9**	**14.9**	NT
Turbidity	NTU (on-site)	NT	NE	**90**	**48.1**	**11.5**	**4.28**	**3.53**	**2.50**	**14.70**	**3.63**	**4.36**	**2.21**	**70.0**	**21.10**	**1.75**	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	700	**304**	**17.5**	**129**	**153**	**1020**	**1140**	**442**	**215**	**9.5**	**232**	**64.8**	**249**	**169**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**4.8**	ND	ND
Total Chromium (Cr)	µg/l	5	10	**24.5**	ND	ND	**5.1**	ND	ND	**7.9**	ND	ND	ND	ND	**12.3**	ND	ND
Total Cobalt (Co)	µg/l	5	NE	**6.9**	ND	ND	ND	ND	ND	**6.4**	ND	ND	ND	ND	**134.0**	ND	ND
Total Copper (Cu)	µg/l	5	1000	**15.6**	ND	ND	ND	**5.8**	**5.2**	ND	ND	ND	ND	ND	**6.5**	ND	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6.4**	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	**12.2**	ND	ND	ND	**9.4**	**9.4**	**23.8**	**24.6**	ND	ND	ND	**19.3**	ND	ND
Total Selenium (Se)	µg/l	10	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**44.3**	ND	ND	ND	ND	ND	**10.0**	ND	ND	ND	ND	**15.0**	ND	ND
Total Zinc (Zn)	µg/l	10	1000	**47.6**	ND	**12.5**	ND	**11.6**	**10.1**	**21.1**	ND	ND	**11.1**	**30.7**	**50.8**	ND	ND
Acetone	µg/l	25	6000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	3000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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NT = Not Tested
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NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-24-2012)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.3**	**6.8**	**6.3**	**6.3**	**6.1**	**6.0**	**5.6**	**5.7**	**8.1**	**5.3**	**5.6**	**5.9**	**5.8**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**28.0**	**49.0**	**49.0**	**122.0**	**1200**	**1332**	**540**	**395**	**140**	**867**	**50.0**	**260.0**	**171.0**	NT
Temperature	°C (on-site)	-	NE	**14.4**	**13.3**	**12.5**	**16.5**	**15.3**	**15.2**	**15.6**	**15.2**	**15.3**	**15.4**	**16.1**	**15.9**	**15.7**	NT
Turbidity	NTU (on-site)	NT	NE	**921**	**3.2**	**9.2**	**8.64**	**5.54**	**2.67**	**6.39**	**4.52**	**10.31**	**2.50**	**56.0**	**2.82**	**2.23**	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	700	**389**	**19.0**	**124**	**167**	**889**	**1030**	**393**	**229**	**26.1**	**235**	**43.2**	**177**	**181**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.0**	ND	ND
Total Chromium (Cr)	µg/l	5	10	**30.4**	**6.0**	ND	**6.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cobalt (Co)	µg/l	5	NE	**15.7**	ND	ND	ND	**5.6**	ND	**6.5**	ND	ND	ND	ND	**48.5**	ND	ND
Total Copper (Cu)	µg/l	5	1000	**22.7**	ND	ND	ND	**6.0**	ND	ND	ND	**5.1**	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	15	**5.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	**18.5**	ND	ND	ND	**10.1**	**8.9**	**20.0**	**25.3**	ND	ND	ND	**9.6**	ND	ND
Total Selenium (Se)	µg/l	10	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**59.0**	ND	ND	**5.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Zinc (Zn)	µg/l	10	1000	**93.4**	**10.4**	**11.3**	**22.4**	**23.8**	ND	**10.3**	**16.1**	**14.9**	**12.2**	**15.7**	**15.8**	ND	ND
Acetone	µg/l	25	6000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	3000	ND	ND	ND	ND	**4.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-24-2013)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.5**	**6.8**	**6.3**	**6.2**	**6.3**	**6.2**	**5.7**	**5.7**	**8.1**	**5.6**	**5.9**	**6.0**	**5.8**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**22.0**	**46.0**	**44.0**	**121.0**	**1205**	**1328**	**516**	**387**	**144**	**887**	**72.0**	**247**	**190**	NT
Temperature	°C (on-site)	-	NE	**15.2**	**13.9**	**13.7**	**13.2**	**14.3**	**14.4**	**14.3**	**14.1**	**15.6**	**16.0**	**13.6**	**15.7**	**14.3**	NT
Turbidity	NTU (on-site)	NT	NE	**100**	**1.21**	**6.28**	**282**	**4.84**	**0.30**	**1.76**	**1.61**	**0.55**	**1.57**	**60.0**	**1.01**	**0.11**	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	700	**241**	**16.8**	**100**	**164**	**842**	**964**	**344**	**226**	**9.3**	**218**	**96.5**	**116**	**190**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.2**	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	10	**19.0**	ND	ND	**8.8**	**6.8**	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cobalt (Co)	µg/l	5	NE	**16.5**	ND	ND	ND	**10.8**	ND	**5.6**	ND	ND	ND	**8.9**	**115**	ND	ND
Total Copper (Cu)	µg/l	5	1000	**13.4**	ND	ND	ND	**9.3**	**6.0**	ND	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10.4**	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	**10.0**	ND	ND	ND	**12.0**	**8.6**	**21.8**	**32.8**	ND	ND	ND	**9.2**	ND	ND
Total Selenium (Se)	µg/l	10	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**33.5**	ND	ND	**7.7**	**9.6**	ND	ND	ND	ND	ND	**5.4**	ND	ND	ND
Total Zinc (Zn)	µg/l	10	1000	**56.3**	ND	ND	ND	**18.6**	**14.9**	ND	ND	ND	ND	**33.2**	ND	ND	ND
Acetone	µg/l	25	6000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	3000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-24-2013)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.6**	**6.9**	**11.9**	**6.5**	**6.5**	**6.4**	**5.9**	**6.0**	**8.0**	**5.8**	**6.1**	**6.2**	**6.1**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**31.0**	**47.0**	**67.0**	**117.0**	**1191**	**1390**	**536**	**402**	**142**	**897**	**53.0**	**301**	**212**	NT
Temperature	°C (on-site)	-	NE	**12.5**	**12.5**	**11.9**	**12.5**	**13.7**	**13.6**	**13.1**	**13.9**	**13.4**	**13.7**	**13.9**	**13.6**	**13.0**	NT
Turbidity	NTU (on-site)	NT	NE	**55**	**2.23**	**9.29**	**3.02**	**3.17**	**0.61**	**3.01**	**2.27**	**0.36**	**0.55**	**100.0**	**0.53**	**0.66**	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	700	**255**	**18.1**	**156**	**166**	**839**	**1160**	**510**	**256**	**9.1**	**250**	**55.2**	**171**	**218**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	10	**14.5**	ND	**12.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cobalt (Co)	µg/l	5	NE	**11.8**	ND	ND	ND	**8.0**	ND	**7.5**	ND	ND	ND	ND	**84.5**	ND	ND
Total Copper (Cu)	µg/l	5	1000	**12.6**	ND	ND	ND	**7.5**	**5.8**	ND	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	**7.9**	ND	**8.3**	ND	**7.5**	**7.0**	**30.2**	**29.9**	ND	ND	ND	**12.1**	ND	ND
Total Selenium (Se)	µg/l	10	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**30.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Zinc (Zn)	µg/l	10	1000	**30.6**	ND	ND	ND	ND	ND	**28.1**	ND	ND	**28.8**	**39.6**	**14.9**	ND	**12**
Acetone	µg/l	25	6000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	3000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-24-2014)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.8**	**7.0**	**6.6**	**6.3**	**6.5**	**6.4**	**5.8**	**5.8**	**8.3**	**5.6**	**5.8**	**6.1**	**5.8**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**30.0**	**48.0**	**50.0**	**126.0**	**1364**	**1652**	**517**	**418**	**147**	**919**	**57.0**	**240**	**187**	NT
Temperature	°C (on-site)	-	NE	**12.9**	**13.8**	**14.9**	**14.5**	**15.5**	**15.3**	**15.8**	**14.2**	**16.0**	**15.6**	**12.8**	**16.5**	**16.5**	NT
Turbidity	NTU (on-site)	NT	NE	**39**	**1.43**	**4.85**	**1.82**	**1.49**	**2.86**	**2.25**	**1.24**	**1.51**	**2.38**	**9.39**	**1.95**	**2.24**	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6.1**	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	700	**174**	**17.7**	**127**	**148**	**941**	**1290**	**378**	**248**	**8.3**	**238**	**27.5**	**148**	**189**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.2**	ND	ND
Total Chromium (Cr)	µg/l	5	10	**12.8**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.1**	ND	ND
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	ND	**5.7**	ND	ND	ND	ND	ND	ND	**65.1**	ND	ND
Total Copper (Cu)	µg/l	5	1000	**7.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	**7.0**	ND	ND	ND	**9.3**	**10.1**	**23.6**	**33.9**	ND	ND	ND	**12.5**	ND	ND
Total Selenium (Se)	µg/l	10	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.6**	ND	ND
Total Vanadium (V)	µg/l	5	NE	**22.8**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Zinc (Zn)	µg/l	10	1000	**25.8**	ND	ND	ND	ND	ND	**18.9**	ND	ND	ND	ND	**14.9**	**10.1**	ND
Acetone	µg/l	25	6000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	3000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	5	ND	ND	ND	ND	ND	**2**	ND	ND	ND	**2.2**	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-27-2014)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.55**	**8.52**	**6.50**	**6.27**	**6.18**	**6.13**	**5.71**	**5.25**	**7.70**	**5.81**	**6.50**	**5.92**	**5.89**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**21.7**	**108.1**	**32.4**	**115.1**	**1468.0**	**1646.0**	**466.3**	**353.0**	**163.1**	**698.0**	**50.9**	**223.7**	**172.0**	NT
Temperature	°C (on-site)	-	NE	**14.8**	**13.7**	**17.1**	**16.7**	**16.6**	**14.9**	**18.3**	**20.7**	**16.1**	**16.7**	**15.6**	**17.2**	**15.4**	NT
Turbidity	NTU (on-site)	NT	NE	**>50**	**>50**	**30.00**	**2.68**	**3.09**	**2.99**	**30.00**	**3.92**	**30.00**	**6.01**	**4.35**	**3.17**	**1.44**	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	700	**117**	**16.1**	**102**	**136**	**1280**	**1410**	**363**	**224**	**8.6**	**228**	**23.2**	**156**	**180**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**24.2**	ND	ND
Total Copper (Cu)	µg/l	5	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	ND	ND	ND	ND	**10.7**	**10.1**	**29.5**	**31.4**	ND	ND	ND	**9.1**	ND	ND
Total Selenium (Se)	µg/l	10	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Zinc (Zn)	µg/l	10	1000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	µg/l	25	6000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	3000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	2	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-28-2015)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.60**	**6.50**	**7.50**	**6.40**	**6.00**	**6.10**	**6.50**	**6.20**	**6.30**	**6.10**	**6.30**	**6.10**	**6.10**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**26.0**	**44.0**	**53.0**	**112.7**	**1601.0**	**1621.0**	**464.0**	**387.0**	**236.0**	**843.0**	**66.0**	**253.0**	**169.0**	NT
Temperature	°C (on-site)	-	NE	**13.5**	**13.2**	**12.5**	**13.9**	**16.9**	**15.5**	**14.1**	**14.2**	**16.5**	**15.8**	**13.5**	**16.6**	**14.8**	NT
Turbidity	NTU (on-site)	NT	NE	**39.5**	**4.82**	**9.58**	**4.46**	**7.43**	**3.78**	**4.84**	**4.94**	**3.80**	**4.37**	**18.40**	**4.49**	**3.49**	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	700	**119**	**16.0**	**109**	**199**	**1330**	**1380**	**345**	**260**	**9.0**	**218**	**30.2**	**156**	**190**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2.3**	ND	ND
Total Chromium (Cr)	µg/l	5	10	**10.3**	ND	**8.2**	**7.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**29.3**	ND	ND
Total Copper (Cu)	µg/l	5	1000	**7.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	**6.3**	ND	**5.6**	**6.8**	**11.7**	**11.2**	**25.1**	**35.4**	ND	ND	ND	**8.3**	**5.1**	ND
Total Selenium (Se)	µg/l	10	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**15.5**	ND	ND	**8.0**	ND	ND	ND	ND	ND	ND	ND	**7.0**	ND	ND
Total Zinc (Zn)	µg/l	10	1000	**51.7**	ND	**14.2**	**19.0**	**13.6**	ND	**14.8**	**12.9**	ND	ND	**11.3**	**13.3**	ND	ND
Acetone	µg/l	25	6000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	3000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	2	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	**10.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2.2**	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	µg/l	2	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (10-27-15)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**6.70**	**6.60**	**6.60**	**6.30**	**5.90**	**6.20**	**6.00**	**5.80**	**6.80**	**6.40**	**6.70**	**6.30**	**5.90**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**27.0**	**44.0**	**104.0**	**118.0**	**1478.0**	**1566.0**	**429.0**	**357.0**	**162.0**	**816.0**	**48.0**	**248.0**	**169.0**	NT
Temperature	°C (on-site)	-	NE	**12.1**	**12.4**	**12.4**	**12.5**	**13.0**	**13.0**	**13.5**	**13.7**	**13.2**	**13.5**	**14.3**	**14.5**	**13.4**	NT
Turbidity	NTU (on-site)	NT	NE	**5.5**	**4.35**	**28.00**	**1.88**	**2.52**	**1.27**	**4.05**	**7.82**	**8.68**	**5.50**	**16.56**	**11.09**	**5.11**	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	700	**346**	**16.0**	**95.7**	**164**	**1190**	**1400**	**352**	**247**	**13.8**	**279**	**18.8**	**188**	**191**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	2	**1.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3.1**	ND	ND
Total Chromium (Cr)	µg/l	5	10	**31.4**	ND	ND	ND	ND	ND	ND	ND	ND	**7.7**	ND	ND	ND	ND
Total Cobalt (Co)	µg/l	5	NE	**6.2**	ND	ND	ND	**5.6**	ND	ND	ND	ND	ND	ND	**39.0**	ND	ND
Total Copper (Cu)	µg/l	5	1000	**19.1**	ND	ND	ND	**5.4**	**7.3**	ND	ND	ND	ND	ND	**6.0**	ND	ND
Total Lead (Pb)	µg/l	5	15	**7.7**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	**21.3**	ND	ND	ND	**12.6**	**12.6**	**24.4**	**33.4**	ND	**5.9**	ND	**8.7**	ND	ND
Total Selenium (Se)	µg/l	10	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**44.5**	ND	ND	ND	ND	ND	ND	ND	ND	**7.4**	ND	**9.8**	ND	ND
Total Zinc (Zn)	µg/l	10	1000	**69.8**	ND	ND	ND	**14.3**	ND	ND	**11.8**	ND	**22.1**	ND	**36.4**	ND	ND
Acetone	µg/l	25	6000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	3000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	2	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
total Xylenes	µg/l	2	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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MRL = Laboratory Method Reporting Limit
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NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

White Oak Landfill - Haywood Co., NC
Groundwater Sampling Event (4-19-16)

TEST	UNITS	MRL	MCL	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3R	MW-3DR	MW-4A	MW-8	MW-15	MW-16	MW-17	EQUIP. BLANK
pH	pH units (on-site)	-	NE	**7.00**	**6.80**	**5.40**	**7.30**	**7.80**	**7.10**	**5.90**	**5.80**	**7.60**	**5.60**	**6.00**	**6.00**	**6.50**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**25.0**	**47.0**	**29.0**	**145.0**	**1408.0**	**1626.0**	**484.0**	**369.0**	**149.0**	**818.0**	**53.0**	**368.0**	**182.0**	NT
Temperature	°C (on-site)	-	NE	**14.2**	**13.5**	**13.5**	**14.1**	**16.0**	**15.6**	**15.0**	**14.0**	**14.9**	**15.0**	**12.5**	**17.3**	**14.4**	NT
Turbidity	NTU (on-site)	NT	NE	NT	**2.68**	**8.42**	**14.57**	**10.74**	**5.18**	**10.86**	**2.50**	**20.87**	**2.70**	**12.03**	**4.15**	**3.01**	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	700	**222**	**16.1**	**55.2**	**211**	**889**	**1240**	**325**	**200**	**17.7**	**216**	**22.8**	**152**	**191**	ND
Total Beryllium (Be)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	10	**13.3**	ND	ND	**6.8**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Cobalt (Co)	µg/l	5	NE	**7.2**	ND	ND	ND	**12.1**	**6.4**	**5.1**	ND	ND	ND	ND	**101**	ND	ND
Total Copper (Cu)	µg/l	5	1000	**7.8**	ND	**5.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	100	**7.2**	ND	ND	**5.9**	**12.3**	**13.2**	**21.7**	**30.9**	ND	ND	ND	**10.6**	ND	ND
Total Selenium (Se)	µg/l	10	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**14.1**	ND	ND
Total Vanadium (V)	µg/l	5	NE	**21.6**	ND	ND	**6.5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Zinc (Zn)	µg/l	10	1000	**21.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	µg/l	25	6000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	3000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	2	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	4000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	70	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
total Xylenes	µg/l	2	500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

MCL = Maximum Contaminant Level, as established in the NCDENR, Classifications of Water Quality Standards Applicable to Groundwaters of North Carolina, Section 15A NCAC 2L.202.
MRL = Laboratory Method Reporting Limit
ND = Not Detected at the method detection limit
NS = Not Sampled

NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedance of MCLs.

APPENDIX B

SUMMARY TABLES OF SURFACE WATER ANALYTICAL RESULTS

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-24-2000)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-4	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.4**	**6.3**	**6.7**	**6.4**	NS	NS	NS	**7.8**
Specific Conductance	µmhos/cm (on-site)	1	NE	**65**	**65**	**59**	**65**	NS	NS	NS	**2600**
Temperature	°C (on-site)	-	29	**11**	**11**	**14**	**11**	NS	NS	NS	**11**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NS	NS	NS	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NS	NS	NS	NT
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NS	NS	NS	**300**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NS	NS	NS	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NT	NS	NS	NS	**95**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NS	NS	NS	**95**
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NS	NS	NS	NT
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NS	NS	NS	**190**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NS	NS	NS	**670**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NS	NS	NS	**2700**
Cyanide	µg/l	2	5	NT	NT	NT	NT	NS	NS	NS	**13**
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	**25**	NS	NS	NS	NT
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	NS	NS	NS	NT
Total Barium (Ba)	µg/l	500	NE	**91**	**70**	**29**	**62**	NS	NS	NS	NT
Total Beryllium (Be)	µg/l	2	6.5	ND	**2**	ND	ND	NS	NS	NS	NT
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	NS	NS	NS	NT
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	ND	NS	NS	NS	**13**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	**16**	NS	NS	NS	NT
Total Copper (Cu)	µg/l	200	7	ND	ND	ND	ND	NS	NS	NS	NT
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	ND	NS	NS	NS	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	ND	NS	NS	NS	NT
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	ND	NS	NS	NS	ND
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	**3.8**	NS	NS	NS	NT
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	NS	NS	NS	**2**
Total Vanadium (V)	µg/l	40	NE	ND	ND	ND	ND	NS	NS	NS	NT
Total Zinc (Zn)	µg/l	50	50	**13**	**26**	**14**	ND	NS	NS	NS	NT
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NS	NS	NS	**0.3**
Acetone	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NS	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NT	NT	NS	NS	NS	NT
Benzene	µg/l	5	51	NT	NT	NT	NT	NS	NS	NS	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
Bromoform	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NS	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NS	NT
Carbon tetrachloride	µg/l	10	1.6	NT	NT	NT	NT	NS	NS	NS	NT
Chlorobenzene (mono)	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
Chloroethane	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NS	NT
Chloroform	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NS	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
Dibromomethane	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,2-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,4-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
trans-1,4-Dichloro-2butene	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,1-Dichloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,2-Dichloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,2-Dichloropropane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NS	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NS	NT
Ethylbenzene	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
2-Hexanone	µg/l	50	NE	NT	NT	NT	NT	NS	NS	NS	NT
Iodomethane	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NS	NT
Dichloromethane (Methylene chloride)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NS	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NS	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NS	NT
Styrene	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,1,2,2-Tetrachloroethane	µg/l	5	4	NT	NT	NT	NT	NS	NS	NS	NT
Tetrachloroethene (-ethylene)	µg/l	5	3.3	NT	NT	NT	NT	NS	NS	NS	NT
Toluene	µg/l	5	0.36	NT	NT	NT	NT	NS	NS	NS	NT
1,1,1-Trichloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
Trichloroethene (-ethylene)	µg/l	5	30	NT	NT	NT	NT	NS	NS	NS	NT
Trichlorofluoromethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NT	NT	NS	NS	NS	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NT	NT	NS	NS	NS	NT
Vinyl chloride	µg/l	10	2.4	NT	NT	NT	NT	NS	NS	NS	NT
Xylene	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NS	NT

Notes:
MCL = Maximum Contaminant Level, as established in the NCDENR, "Redbook" Surface Waters and Wetlands Standards
Section 15A NCAC 02B.0100, .0200, and .0300.
ND = Not Detected at the Method Reporting Limit
NS = Not Sampled
NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-9-2001)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7**	**7.1**	**7.1**	NS	NS	NS	**8.1**
Specific Conductance	µmhos/cm (on-site)	1	NE	**73**	**80**	**75**	NS	NS	NS	**3600**
Temperature	°C (on-site)	-	29	**11**	**13**	**18**	NS	NS	NS	**15**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NS	NS	NS	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NS	NS	NS	NT
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NS	NS	NS	ND
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NS	NS	NS	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NS	NS	NS	**120**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NS	NS	NS	**120**
Sulfate	mg/l	500	NE	NT	NT	NT	NS	NS	NS	NT
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NS	NS	NS	**240**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NS	NS	NS	**430**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NS	NS	NS	**5000**
Cyanide	µg/l	2	5	NT	NT	NT	NS	NS	NS	ND
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	NS	NS	NS	NT
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	NS	NS	NS	NT
Total Barium (Ba)	µg/l	500	NE	**99**	**81**	**55**	NS	NS	NS	NT
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	NS	NS	NS	NT
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	NS	NS	NS	NT
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	NS	NS	NS	**10**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	NS	NS	NS	NT
Total Copper (Cu)	µg/l	200	7	ND	ND	ND	NS	NS	NS	NT
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	NS	NS	NS	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	NS	NS	NS	NT
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	NS	NS	NS	**210**
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	NS	NS	NS	NT
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	NS	NS	NS	ND
Total Vanadium (V)	µg/l	40	NE	ND	ND	ND	NS	NS	NS	NT
Total Zinc (Zn)	µg/l	50	50	**15**	**31**	**20**	NS	NS	NS	NT
Mercury	µg/l	0.2	0.012	NT	NT	NT	NS	NS	NS	ND
Acetone	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NT	NS	NS	NS	NT
Benzene	µg/l	5	51	NT	NT	NT	NS	NS	NS	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Bromoform	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Carbon tetrachloride	µg/l	10	1.6	NT	NT	NT	NS	NS	NS	NT
Chlorobenzene (mono)	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Chloroethane	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Chloroform	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Dibromomethane	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,4-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
trans-1,4-Dichloro-2butene	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
1,1-Dichloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dichloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dichloropropane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Ethylbenzene	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
2-Hexanone	µg/l	50	NE	NT	NT	NT	NS	NS	NS	NT
Iodomethane	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Dichloromethane (Methylene chloride)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
Styrene	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,1,2,2-Tetrachloroethane	µg/l	5	4	NT	NT	NT	NS	NS	NS	NT
Tetrachloroethene (-ethylene)	µg/l	5	3.3	NT	NT	NT	NS	NS	NS	NT
Toluene	µg/l	5	0.36	NT	NT	NT	NS	NS	NS	NT
1,1,1-Trichloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Trichloroethene (-ethylene)	µg/l	5	30	NT	NT	NT	NS	NS	NS	NT
Trichlorofluoromethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NT	NS	NS	NS	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NT	NS	NS	NS	NT
Vinyl chloride	µg/l	10	2.4	NT	NT	NT	NS	NS	NS	NT
Xylene	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT

Notes:
MCL = Maximum Contaminant Level, as established in the NCDENR, "Redbook" Surface Waters and Wetlands Standards
Section 15A NCAC 02B.0100, .0200, and .0300.
ND = Not Detected at the Method Reporting Limit
NS = Not Sampled
NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (9-18-2001)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	NS	NS	NS	**7.48**	NS	NS	NS
Specific Conductance	µmhos/cm (on-site)	1	NE	NS	NS	NS	**160**	NS	NS	NS
Temperature	°C (on-site)	-	29	NS	NS	NS	**20**	NS	NS	NS
Turbidity	NTU (on-site)	NT	50	NS	NS	NS	NT	NS	NS	NS
Nitrate as N	mg/l	0.1	NE	NS	NS	NS	NT	NS	NS	NS
Nitrate/Nitrite as N	mg/l	0.1	NE	NS	NS	NS	NT	NS	NS	NS
Nitrite as N	mg/l	0.1	NE	NS	NS	NS	NT	NS	NS	NS
Nitrogen	mg/l	0.2	NE	NS	NS	NS	NT	NS	NS	NS
Total Nitrogen, Kjeldahl	mg/l	100	NE	NS	NS	NS	NT	NS	NS	NS
Sulfate	mg/l	500	NE	NS	NS	NS	NT	NS	NS	NS
Biochemical Oxygen Demand	mg/l	2	NE	NS	NS	NS	NT	NS	NS	NS
Chemical Oxygen Demand	mg/l	25	NE	NS	NS	NS	NT	NS	NS	NS
Total Dissolved Solids	mg/l	20	NE	NS	NS	NS	NT	NS	NS	NS
Cyanide	µg/l	2	5	NS	NS	NS	NT	NS	NS	NS
Total Antimony (Sb)	µg/l	30	NE	NS	NS	NS	ND	NS	NS	NS
Total Arsenic (As)	µg/l	10	10	NS	NS	NS	ND	NS	NS	NS
Total Barium (Ba)	µg/l	500	NE	NS	NS	NS	**71**	NS	NS	NS
Total Beryllium (Be)	µg/l	2	6.5	NS	NS	NS	ND	NS	NS	NS
Total Cadmium (Cd)	µg/l	1	0.4	NS	NS	NS	ND	NS	NS	NS
Total Chromium (Cr)	µg/l	10	50	NS	NS	NS	ND	NS	NS	NS
Total Cobalt (Co)	µg/l	10	NE	NS	NS	NS	**7.2**	NS	NS	NS
Total Copper (Cu)	µg/l	200	7	NS	NS	NS	ND	NS	NS	NS
Total Lead (Pb)	µg/l	10	25	NS	NS	NS	ND	NS	NS	NS
Total Nickel (Ni)	µg/l	50	88	NS	NS	NS	**9.4**	NS	NS	NS
Total Selenium (Se)	µg/l	20	5	NS	NS	NS	ND	NS	NS	NS
Total Silver (Ag)	µg/l	10	0.06	NS	NS	NS	ND	NS	NS	NS
Total Thallium (Tl)	µg/l	10	NE	NS	NS	NS	ND	NS	NS	NS
Total Vanadium (V)	µg/l	40	NE	NS	NS	NS	ND	NS	NS	NS
Total Zinc (Zn)	µg/l	50	50	NS	NS	NS	**11**	NS	NS	NS
Mercury	µg/l	0.2	0.012	NS	NS	NS	NT	NS	NS	NS
Acetone	µg/l	100	NE	NS	NS	NS	NT	NS	NS	NS
Acrylonitrile	µg/l	200	NE	NS	NS	NS	NT	NS	NS	NS
Benzene	µg/l	5	51	NS	NS	NS	NT	NS	NS	NS
Bromochloromethane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
Bromodichloromethane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
Bromoform	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
Carbon Disulfide	µg/l	100	NE	NS	NS	NS	NT	NS	NS	NS
Bromomethane (Methylbromide)	µg/l	10	NE	NS	NS	NS	NT	NS	NS	NS
Carbon tetrachloride	µg/l	10	1.6	NS	NS	NS	NT	NS	NS	NS
Chlorobenzene (mono)	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
Chloroethane	µg/l	10	NE	NS	NS	NS	NT	NS	NS	NS
Chloroform	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
Chloromethane (Methylchloride)	µg/l	10	NE	NS	NS	NS	NT	NS	NS	NS
Dibromochloromethane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	NS	NS	NS	NT	NS	NS	NS
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
Dibromomethane	µg/l	10	NE	NS	NS	NS	NT	NS	NS	NS
1,2-Dichlorobenzene	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
1,4-Dichlorobenzene	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
trans-1,4-Dichloro-2butene	µg/l	100	NE	NS	NS	NS	NT	NS	NS	NS
1,1-Dichloroethane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
1,2-Dichloroethane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
1,2-Dichloropropane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NT	NS	NS	NS
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NS	NS	NS	NT	NS	NS	NS
Ethylbenzene	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
2-Hexanone	µg/l	50	NE	NS	NS	NS	NT	NS	NS	NS
Iodomethane	µg/l	10	NE	NS	NS	NS	NT	NS	NS	NS
Dichloromethane (Methylene chloride)	µg/l	10	NE	NS	NS	NS	NT	NS	NS	NS
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	NS	NS	NS	NT	NS	NS	NS
4-Methyl-2-Pentanone	µg/l	100	NE	NS	NS	NS	NT	NS	NS	NS
Styrene	µg/l	10	NE	NS	NS	NS	NT	NS	NS	NS
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
1,1,2,2-Tetrachloroethane	µg/l	5	4	NS	NS	NS	NT	NS	NS	NS
Tetrachloroethene (-ethylene)	µg/l	5	3.3	NS	NS	NS	NT	NS	NS	NS
Toluene	µg/l	5	0.36	NS	NS	NS	NT	NS	NS	NS
1,1,1-Trichloroethane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
1,1,2-Trichloroethane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
Trichloroethene (-ethylene)	µg/l	5	30	NS	NS	NS	NT	NS	NS	NS
Trichlorofluoromethane	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS
1,2,3-Trichloropropane	µg/l	15	NE	NS	NS	NS	NT	NS	NS	NS
Vinyl acetate	µg/l	50	NE	NS	NS	NS	NT	NS	NS	NS
Vinyl chloride	µg/l	10	2.4	NS	NS	NS	NT	NS	NS	NS
Xylene	µg/l	5	NE	NS	NS	NS	NT	NS	NS	NS

Notes:
MCL = Maximum Contaminant Level, as established in the NCDENR, "Redbook" Surface Waters and Wetlands Standards
Section 15A NCAC 02B.0100, .0200, and .0300.
ND = Not Detected at the Method Reporting Limit
NS = Not Sampled
NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-15-2002)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.67**	**6.08**	**6.46**	**7**	NS	NS	**6.71**
Specific Conductance	µmhos/cm (on-site)	1	NE	**78**	**78**	**80**	**170**	NS	NS	**265**
Temperature	°C (on-site)	-	29	**17.8**	**13.3**	**19.4**	**20**	NS	NS	**20.1**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NS	NS	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NS	NS	NT
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NS	NS	**0.3**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NS	NS	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NT	NS	NS	**96**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NS	NS	**96**
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NS	NS	NT
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NS	NS	**740**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NS	NS	**1400**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NS	NS	**2300**
Cyanide	µg/l	2	5	NT	NT	NT	NT	NS	NS	**0.006**
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	ND	NS	NS	NT
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	NS	NS	NT
Total Barium (Ba)	µg/l	500	NE	**92**	**91**	**40**	**140**	NS	NS	NT
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	ND	NS	NS	NT
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	NS	NS	NT
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	ND	NS	NS	**34**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	**7.7**	NS	NS	NT
Total Copper (Cu)	µg/l	200	7	ND	ND	ND	ND	NS	NS	NT
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	ND	NS	NS	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	**9**	NS	NS	NT
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	ND	NS	NS	ND
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	ND	NS	NS	NT
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	NS	NS	ND
Total Vanadium (V)	µg/l	40	NE	ND	ND	ND	**6.5**	NS	NS	NT
Total Zinc (Zn)	µg/l	50	50	ND	**37**	**32**	**60**	NS	NS	NT
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NS	NS	ND
Acetone	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NT	NT	NS	NS	NT
Benzene	µg/l	5	51	NT	NT	NT	NT	NS	NS	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
Bromoform	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NT
Carbon tetrachloride	µg/l	10	1.6	NT	NT	NT	NT	NS	NS	NT
Chlorobenzene (mono)	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
Chloroethane	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NT
Chloroform	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	NT	NT	NT	NT	NS	NS	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
Dibromomethane	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NT
1,2-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
1,4-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
trans-1,4-Dichloro-2butene	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NT
1,1-Dichloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
1,2-Dichloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
1,2-Dichloropropane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NT
Ethylbenzene	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
2-Hexanone	µg/l	50	NE	NT	NT	NT	NT	NS	NS	NT
Iodomethane	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NT
Dichloromethane (Methylene chloride)	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NT	NT	NS	NS	NT
Styrene	µg/l	10	NE	NT	NT	NT	NT	NS	NS	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
1,1,2,2-Tetrachloroethane	µg/l	5	4	NT	NT	NT	NT	NS	NS	NT
Tetrachloroethene (-ethylene)	µg/l	5	3.3	NT	NT	NT	NT	NS	NS	NT
Toluene	µg/l	5	0.36	NT	NT	NT	NT	NS	NS	NT
1,1,1-Trichloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
Trichloroethene (-ethylene)	µg/l	5	30	NT	NT	NT	NT	NS	NS	NT
Trichlorofluoromethane	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NT	NT	NS	NS	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NT	NT	NS	NS	NT
Vinyl chloride	µg/l	10	2.4	NT	NT	NT	NT	NS	NS	NT
Xylene	µg/l	5	NE	NT	NT	NT	NT	NS	NS	NT

Notes:
MCL = Maximum Contaminant Level, as established in the NCDENR, "Redbook" Surface Waters and Wetlands Standards
Section 15A NCAC 02B.0100, .0200, and .0300.
ND = Not Detected at the Method Reporting Limit
NS = Not Sampled
NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (9-26-2002)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.9**	**6.88**	**7.01**	NS	NS	NS	**7.48**
Specific Conductance	µmhos/cm (on-site)	1	NE	**102**	**151**	**115**	NS	NS	NS	**3700**
Temperature	°C (on-site)	-	29	**16.5**	**17.2**	**17.5**	NS	NS	NS	**18.4**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NS	NS	NS	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NS	NS	NS	NT
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NS	NS	NS	ND
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NS	NS	NS	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NS	NS	NS	ND
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NS	NS	NS	**130**
Sulfate	mg/l	500	NE	NT	NT	NT	NS	NS	NS	NT
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NS	NS	NS	**210**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NS	NS	NS	**1300**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NS	NS	NS	**3000**
Cyanide	µg/l	2	5	NT	NT	NT	NS	NS	NS	**2.5**
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	NS	NS	NS	NT
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	NS	NS	NS	NT
Total Barium (Ba)	µg/l	500	NE	**150**	**160**	**80**	NS	NS	NS	NT
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	NS	NS	NS	NT
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	NS	NS	NS	NT
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	NS	NS	NS	**34**
Total Cobalt (Co)	µg/l	10	NE	**7.2**	ND	ND	NS	NS	NS	NT
Total Copper (Cu)	µg/l	200	7	ND	**4.5**	**2.7**	NS	NS	NS	NT
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	NS	NS	NS	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	NS	NS	NS	NT
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	NS	NS	NS	ND
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	NS	NS	NS	NT
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	NS	NS	NS	ND
Total Vanadium (V)	µg/l	40	NE	ND	**6.4**	ND	NS	NS	NS	NT
Total Zinc (Zn)	µg/l	50	50	**19**	**100**	**41**	NS	NS	NS	NT
Mercury	µg/l	0.2	0.012	NT	NT	NT	NS	NS	NS	ND
Acetone	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NT	NS	NS	NS	NT
Benzene	µg/l	5	51	NT	NT	NT	NS	NS	NS	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Bromoform	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Carbon tetrachloride	µg/l	10	1.6	NT	NT	NT	NS	NS	NS	NT
Chlorobenzene (mono)	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Chloroethane	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Chloroform	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Dibromomethane	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,4-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
trans-1,4-Dichloro-2butene	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
1,1-Dichloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dichloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,2-Dichloropropane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Ethylbenzene	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
2-Hexanone	µg/l	50	NE	NT	NT	NT	NS	NS	NS	NT
Iodomethane	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
Dichloromethane (Methylene chloride)	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NT	NS	NS	NS	NT
Styrene	µg/l	10	NE	NT	NT	NT	NS	NS	NS	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,1,2,2-Tetrachloroethane	µg/l	5	4	NT	NT	NT	NS	NS	NS	NT
Tetrachloroethene (-ethylene)	µg/l	5	3.3	NT	NT	NT	NS	NS	NS	NT
Toluene	µg/l	5	0.36	NT	NT	NT	NS	NS	NS	NT
1,1,1-Trichloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
Trichloroethene (-ethylene)	µg/l	5	30	NT	NT	NT	NS	NS	NS	NT
Trichlorofluoromethane	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NT	NS	NS	NS	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NT	NS	NS	NS	NT
Vinyl chloride	µg/l	10	2.4	NT	NT	NT	NS	NS	NS	NT
Xylene	µg/l	5	NE	NT	NT	NT	NS	NS	NS	NT

Notes:
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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-29-2003)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.91**	**6.42**	**7.17**	NS	**6.41**	**6.71**	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	**77**	**75**	**101**	NS	**19**	**29**	NT
Temperature	°C (on-site)	-	29	**11.8**	**13**	**16**	NS	**15.6**	**14.9**	NT
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NS	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NS	NT	NT	NT
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NS	NT	NT	ND
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NS	NT	NT	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NS	NT	NT	**220**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NS	NT	NT	**220**
Sulfate	mg/l	500	NE	NT	NT	NT	NS	NT	NT	NT
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NS	NT	NT	**2500**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NS	NT	NT	**1100**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NS	NT	NT	**120**
Cyanide	µg/l	2	5	NT	NT	NT	NS	NT	NT	**110**
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	NS	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	NS	ND	ND	**15**
Total Barium (Ba)	µg/l	500	NE	**90**	**82**	**64**	NS	**27**	**27**	**270**
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	NS	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	NS	ND	ND	**2.5**
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	NS	ND	ND	ND
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	NS	ND	ND	**16**
Total Copper (Cu)	µg/l	200	7	ND	ND	ND	NS	ND	ND	ND
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	NS	ND	ND	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	NS	ND	ND	ND
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	NS	ND	ND	ND
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	NS	ND	ND	**2.4**
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	NS	ND	ND	ND
Total Vanadium (V)	µg/l	40	NE	ND	ND	ND	NS	ND	ND	**19**
Total Zinc (Zn)	µg/l	50	50	ND	**45**	**20**	NS	ND	ND	**1000**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NS	NT	NT	NT
Acetone	µg/l	100	NE	NT	NT	NT	NS	NT	NT	NT
Acrylonitrile	µg/l	200	NE	NT	NT	NT	NS	NT	NT	NT
Benzene	µg/l	5	51	NT	NT	NT	NS	NT	NT	NT
Bromochloromethane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
Bromodichloromethane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
Bromoform	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
Carbon Disulfide	µg/l	100	NE	NT	NT	NT	NS	NT	NT	NT
Bromomethane (Methylbromide)	µg/l	10	NE	NT	NT	NT	NS	NT	NT	NT
Carbon tetrachloride	µg/l	10	1.6	NT	NT	NT	NS	NT	NT	NT
Chlorobenzene (mono)	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
Chloroethane	µg/l	10	NE	NT	NT	NT	NS	NT	NT	NT
Chloroform	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
Chloromethane (Methylchloride)	µg/l	10	NE	NT	NT	NT	NS	NT	NT	NT
Dibromochloromethane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	NT	NT	NT	NS	NT	NT	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
Dibromomethane	µg/l	10	NE	NT	NT	NT	NS	NT	NT	NT
1,2-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
1,4-Dichlorobenzene	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
trans-1,4-Dichloro-2butene	µg/l	100	NE	NT	NT	NT	NS	NT	NT	NT
1,1-Dichloroethane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
1,2-Dichloroethane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
1,2-Dichloropropane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NS	NT	NT	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	NT	NT	NT	NS	NT	NT	NT
Ethylbenzene	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
2-Hexanone	µg/l	50	NE	NT	NT	NT	NS	NT	NT	NT
Iodomethane	µg/l	10	NE	NT	NT	NT	NS	NT	NT	NT
Dichloromethane (Methylene chloride)	µg/l	10	NE	NT	NT	NT	NS	NT	NT	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	NT	NT	NT	NS	NT	NT	NT
4-Methyl-2-Pentanone	µg/l	100	NE	NT	NT	NT	NS	NT	NT	NT
Styrene	µg/l	10	NE	NT	NT	NT	NS	NT	NT	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
1,1,2,2-Tetrachloroethane	µg/l	5	4	NT	NT	NT	NS	NT	NT	NT
Tetrachloroethene (-ethylene)	µg/l	5	3.3	NT	NT	NT	NS	NT	NT	NT
Toluene	µg/l	5	0.36	NT	NT	NT	NS	NT	NT	NT
1,1,1-Trichloroethane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
1,1,2-Trichloroethane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
Trichloroethene (-ethylene)	µg/l	5	30	NT	NT	NT	NS	NT	NT	NT
Trichlorofluoromethane	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT
1,2,3-Trichloropropane	µg/l	15	NE	NT	NT	NT	NS	NT	NT	NT
Vinyl acetate	µg/l	50	NE	NT	NT	NT	NS	NT	NT	NT
Vinyl chloride	µg/l	10	2.4	NT	NT	NT	NS	NT	NT	NT
Xylene	µg/l	5	NE	NT	NT	NT	NS	NT	NT	NT

Notes:
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Section 15A NCAC 02B.0100, .0200, and .0300.
ND = Not Detected at the Method Reporting Limit
NS = Not Sampled
NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-30-2003)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.41**	**7.38**	**7.42**	NS	**5.87**	**7.14**	**8.37**
Specific Conductance	µmhos/cm (on-site)	1	NE	**80**	**80**	**80**	NS	**19**	**29**	**3500**
Temperature	°C (on-site)	-	29	**12**	**12**	**12**	NS	**14.2**	**15.1**	**19.3**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NS	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NS	NT	NT	**3.4**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NS	NT	NT	**3.4**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NS	NT	NT	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NS	NT	NT	**72**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NS	NT	NT	**69**
Sulfate	mg/l	500	NE	NT	NT	NT	NS	NT	NT	NT
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NS	NT	NT	ND
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NS	NT	NT	**250**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NS	NT	NT	**2500**
Cyanide	µg/l	2	5	NT	NT	NT	NS	NT	NT	NT
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	NS	ND	ND	NT
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	NS	**5.5**	ND	NT
Total Barium (Ba)	µg/l	500	NE	**110**	**130**	**84**	NS	**24**	**27**	NT
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	NS	ND	ND	NT
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	NS	ND	ND	NT
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	NS	ND	ND	**10**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
Total Copper (Cu)	µg/l	200	7	ND	**2.7**	**2.2**	NS	**2.2**	ND	NT
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	NS	ND	ND	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	NS	ND	ND	NT
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	NS	ND	ND	ND
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	NS	ND	ND	NT
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	NS	ND	ND	ND
Total Vanadium (V)	µg/l	40	NE	ND	**5.3**	ND	NS	ND	ND	NT
Total Zinc (Zn)	µg/l	50	50	ND	**80**	**40**	NS	**14**	ND	NT
Mercury	µg/l	0.2	0.012	NT	NT	NT	NS	NT	NT	ND
Acetone	µg/l	100	NE	ND	ND	ND	NS	ND	ND	NT
Acrylonitrile	µg/l	200	NE	ND	ND	ND	NS	ND	ND	NT
Benzene	µg/l	5	51	ND	ND	ND	NS	ND	ND	NT
Bromochloromethane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
Bromoform	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
Carbon Disulfide	µg/l	100	NE	ND	ND	ND	NS	ND	**11**	NT
Bromomethane (Methylbromide)	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
Carbon tetrachloride	µg/l	10	1.6	ND	ND	ND	NS	ND	ND	NT
Chlorobenzene (mono)	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
Chloroethane	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
Chloroform	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
Chloromethane (Methylchloride)	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	ND	ND	ND	NS	ND	ND	NT
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
Dibromomethane	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
1,2-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
1,4-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
trans-1,4-Dichloro-2butene	µg/l	100	NE	ND	ND	ND	NS	ND	ND	NT
1,1-Dichloroethane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
1,2-Dichloroethane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
1,2-Dichloropropane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
Ethylbenzene	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
2-Hexanone	µg/l	50	NE	ND	ND	ND	NS	ND	ND	NT
Iodomethane	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
Dichloromethane (Methylene chloride)	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	ND	ND	ND	NS	ND	ND	NT
4-Methyl-2-Pentanone	µg/l	100	NE	ND	ND	ND	NS	ND	ND	NT
Styrene	µg/l	10	NE	ND	ND	ND	NS	ND	ND	NT
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
1,1,2,2-Tetrachloroethane	µg/l	5	4	ND	ND	ND	NS	ND	ND	NT
Tetrachloroethene (-ethylene)	µg/l	5	3.3	ND	ND	ND	NS	ND	ND	NT
Toluene	µg/l	5	0.36	ND	ND	ND	NS	ND	ND	NT
1,1,1-Trichloroethane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
Trichloroethene (-ethylene)	µg/l	5	30	ND	ND	ND	NS	ND	ND	NT
Trichlorofluoromethane	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT
1,2,3-Trichloropropane	µg/l	15	NE	ND	ND	ND	NS	ND	ND	NT
Vinyl acetate	µg/l	50	NE	ND	ND	ND	NS	ND	ND	NT
Vinyl chloride	µg/l	10	2.4	ND	ND	ND	NS	ND	ND	NT
Xylene	µg/l	5	NE	ND	ND	ND	NS	ND	ND	NT

Notes:
MCL = Maximum Contaminant Level, as established in the NCDENR, "Redbook" Surface Waters and Wetlands Standards
Section 15A NCAC 02B.0100, .0200, and .0300.
ND = Not Detected at the Method Reporting Limit
NS = Not Sampled
NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-20-2004)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.8**	**7.05**	**7.19**	**8.05**	**6.19**	**6.35**	**8.37**
Specific Conductance	µmhos/cm (on-site)	1	NE	**74**	**73**	**142**	**1790**	**19**	**29**	**4050**
Temperature	°C (on-site)	-	29	**13**	**13**	**15**	**17**	**17**	**16**	**28.4**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.11**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.11**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**640**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**470**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**1100**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	**16**
Total Barium (Ba)	µg/l	500	NE	**120**	**95**	**83**	**260**	**18**	**26**	**140**
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	ND	ND	ND	**28**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	**26**	ND	ND	**17**
Total Copper (Cu)	µg/l	200	7	ND	ND	**3.1**	ND	ND	ND	ND
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	**12**	ND	ND	**45**
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	**6**	ND	ND	**8**
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	40	NE	ND	ND	ND	ND	ND	ND	**12**
Total Zinc (Zn)	µg/l	50	50	ND	**48**	**31**	**310**	**15**	ND	**62**
Mercury	µg/l	0.2	0.012	NT	NT	NT	ND	NT	NT	ND
Acetone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	**490**
Acrylonitrile	µg/l	200	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	5	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	100	NE	ND	ND	ND	ND	ND	ND	**14**
Bromomethane (Methylbromide)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	10	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	ND	ND	ND	ND	ND	ND	**300**
4-Methyl-2-Pentanone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	5	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	5	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	5	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	5	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	15	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	10	2.4	ND	ND	ND	ND	ND	ND	ND
Xylene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND

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NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
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Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-21-2004)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.06**	**6.62**	NS	**7.16**	**7.42**	**6.41**	**7.89**
Specific Conductance	µmhos/cm (on-site)	1	NE	**103**	**103**	NS	**129**	**26**	**38**	**3270**
Temperature	°C (on-site)	-	29	**14**	**14.5**	NS	**15**	**15**	**16**	**23.4**
Turbidity	NTU (on-site)	NT	50	NT	NT	NS	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NS	NT	NT	NT	ND
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NS	NT	NT	NT	ND
Nitrite as N	mg/l	0.1	NE	NT	NT	NS	NT	NT	NT	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NS	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NS	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NS	NT	NT	NT	**34**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NS	NT	NT	NT	**640**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NS	NT	NT	NT	**1300**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NS	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NS	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	30	NE	ND	ND	NS	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	NS	ND	ND	ND	**10**
Total Barium (Ba)	µg/l	500	NE	**100**	**100**	NS	**87**	**24**	**31**	**160**
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	NS	ND	**2.6**	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	NS	ND	**2.1**	ND	ND
Total Chromium (Cr)	µg/l	10	50	ND	ND	NS	ND	**3.7**	**2.3**	**26**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	NS	**6.5**	ND	ND	ND
Total Copper (Cu)	µg/l	200	7	ND	ND	NS	ND	ND	ND	ND
Total Lead (Pb)	µg/l	10	25	ND	ND	NS	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	NS	ND	ND	ND	**24**
Total Selenium (Se)	µg/l	20	5	ND	ND	NS	ND	ND	ND	**6.2**
Total Silver (Ag)	µg/l	10	0.06	ND	ND	NS	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
Total Vanadium (V)	µg/l	40	NE	ND	ND	NS	ND	ND	ND	**8.2**
Total Zinc (Zn)	µg/l	50	50	ND	**44**	NS	**17**	**12**	**13**	**43**
Mercury	µg/l	0.2	0.012	NT	NT	NS	NT	NT	NT	NT
Acetone	µg/l	100	NE	ND	ND	NS	ND	ND	ND	**290**
Acrylonitrile	µg/l	200	NE	ND	ND	NS	ND	ND	ND	ND
Benzene	µg/l	5	51	ND	ND	NS	ND	ND	ND	ND
Bromochloromethane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
Bromoform	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
Carbon Disulfide	µg/l	100	NE	ND	ND	NS	ND	**39**	**32**	ND
Bromomethane (Methylbromide)	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
Carbon tetrachloride	µg/l	10	1.6	ND	ND	NS	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
Chloroethane	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
Chloroform	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	ND	ND	NS	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
Dibromomethane	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	100	NE	ND	ND	NS	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
Ethylbenzene	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
2-Hexanone	µg/l	50	NE	ND	ND	NS	ND	ND	ND	ND
Iodomethane	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	ND	ND	NS	ND	ND	ND	**260**
4-Methyl-2-Pentanone	µg/l	100	NE	ND	ND	NS	ND	ND	ND	ND
Styrene	µg/l	10	NE	ND	ND	NS	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	5	4	ND	ND	NS	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	5	3.3	ND	ND	NS	ND	ND	ND	ND
Toluene	µg/l	5	0.36	ND	ND	NS	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	5	30	ND	ND	NS	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	15	NE	ND	ND	NS	ND	ND	ND	ND
Vinyl acetate	µg/l	50	NE	ND	ND	NS	ND	ND	ND	ND
Vinyl chloride	µg/l	10	2.4	ND	ND	NS	ND	ND	ND	ND
Xylene	µg/l	5	NE	ND	ND	NS	ND	ND	ND	ND

Notes:
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Section 15A NCAC 02B.0100, .0200, and .0300.
ND = Not Detected at the Method Reporting Limit
NS = Not Sampled
NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-18-2005)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.49**	**5.99**	**6.21**	**7.05**	**7.08**	**7.27**	**7.28**
Specific Conductance	µmhos/cm (on-site)	1	NE	**79**	**88**	**151**	**120**	**21**	**28**	**6500**
Temperature	°C (on-site)	-	29	**13**	**123**	**13.5**	**16**	**14.1**	**13**	**19**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**1300**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**300**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**760**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	**22**
Total Barium (Ba)	µg/l	500	NE	**100**	**120**	**98**	**79**	**24**	**28**	**390**
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	ND	ND	ND	**31**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	**14**
Total Copper (Cu)	µg/l	200	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	ND	ND	ND	**50**
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	ND	ND	ND	**7.4**
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	40	NE	ND	ND	ND	ND	ND	ND	**17**
Total Zinc (Zn)	µg/l	50	50	ND	**50**	**22**	**34**	ND	ND	**150**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	**240**
Acrylonitrile	µg/l	200	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	5	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	10	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**11**
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**11**
2-Hexanone	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	ND	ND	ND	ND	ND	ND	**410**
4-Methyl-2-Pentanone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	**40**
Styrene	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	5	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	5	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	5	0.36	ND	ND	ND	ND	ND	ND	**63**
1,1,1-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	5	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	15	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	10	2.4	ND	ND	ND	ND	ND	ND	ND
Xylene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**43**

Notes:
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ND = Not Detected at the Method Reporting Limit
NS = Not Sampled
NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-13-2005)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.11**	**6.72**	**7.18**	**6.28**	**6.76**	**8.13**	**8.01**
Specific Conductance	µmhos/cm (on-site)	1	NE	**89**	**90**	**240**	**340**	**91**	**31**	**6500**
Temperature	°C (on-site)	-	29	**15.7**	**16.9**	**16.9**	**18.9**	**18.7**	**15.2**	**21.1**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**1300**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**720**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**920**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	30	NE	NT	NT	NT	ND	NT	NT	NT
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	**16**
Total Barium (Ba)	µg/l	500	NE	**120**	**96**	**140**	**90**	**86**	**36**	**430**
Total Beryllium (Be)	µg/l	2	6.5	NT	NT	NT	ND	NT	NT	NT
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	**4.2**	ND	ND	**50**
Total Cobalt (Co)	µg/l	10	NE	NT	NT	NT	**6.8**	NT	NT	NT
Total Copper (Cu)	µg/l	200	7	NT	NT	NT	**2.4**	NT	NT	NT
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	50	88	NT	NT	NT	ND	NT	NT	NT
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	ND	ND	ND	**9.2**
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	10	NE	NT	NT	NT	ND	NT	NT	NT
Total Vanadium (V)	µg/l	40	NE	NT	NT	NT	ND	NT	NT	NT
Total Zinc (Zn)	µg/l	50	50	NT	NT	NT	**33**	NT	NT	NT
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	ND
Acetone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	200	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	5	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	10	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	5	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	5	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	5	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	5	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	15	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	10	2.4	ND	ND	ND	ND	ND	ND	ND
Xylene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND

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NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
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Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-25-2006)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.07**	**7.11**	**7.18**	**6.73**	**6.45**	**6.28**	**7.55**
Specific Conductance	µmhos/cm (on-site)	1	NE	**107**	**138**	**340**	**201**	**45**	**53**	**8660**
Temperature	°C (on-site)	-	29	**14.1**	**13.8**	**15.6**	**18.6**	**14.8**	**14.3**	**17.1**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**2.4**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**2.4**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**2400**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**51**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**700**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	**18**
Total Barium (Ba)	µg/l	500	NE	ND	ND	ND	ND	ND	ND	**580**
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	ND	ND	ND	**40**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	**15**
Total Copper (Cu)	µg/l	200	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	**11**	ND	ND	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	ND	ND	ND	**56**
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	40	NE	ND	ND	ND	ND	ND	ND	ND
Total Zinc (Zn)	µg/l	50	50	ND	ND	ND	ND	ND	ND	**130**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	200	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	5	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	10	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**6.2**
2-Hexanone	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	ND	ND	ND	ND	ND	ND	**24**
4-Methyl-2-Pentanone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	**15**
Styrene	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	5	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	5	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	5	0.36	ND	ND	ND	ND	ND	ND	**12**
1,1,1-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	5	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	15	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	10	2.4	ND	ND	ND	ND	ND	ND	ND
Xylene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**16.1**

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NS = Not Sampled
NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-16-2006)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.53**	**7.1**	NT	**7.14**	**6.64**	**7.13**	**8.11**
Specific Conductance	µmhos/cm (on-site)	1	NE	**123**	**139**	NT	**200**	**46**	**40**	**9800**
Temperature	°C (on-site)	-	29	**11.9**	**10.9**	NT	**11.9**	**13.4**	**11.3**	**19.6**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.58**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**2100**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**61**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**780**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	**18**
Total Barium (Ba)	µg/l	500	NE	**120**	**140**	**120**	**240**	**54**	**33**	**430**
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	**5.8**	ND	ND	ND
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	**21**	ND	ND	**54**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	ND	**7.4**	ND	**14**
Total Copper (Cu)	µg/l	200	7	ND	ND	ND	**23**	ND	ND	ND
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	**18**	ND	ND	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	**8.4**	ND	ND	**68**
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	40	NE	ND	ND	ND	**62**	ND	ND	**18**
Total Zinc (Zn)	µg/l	50	50	ND	**39**	**22**	**130**	ND	ND	**63**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	200	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	5	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	10	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	5	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	5	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	5	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	5	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	15	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	10	2.4	ND	ND	ND	ND	ND	ND	ND
Xylene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND

Notes:
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Section 15A NCAC 02B.0100, .0200, and .0300.
ND = Not Detected at the Method Reporting Limit
NS = Not Sampled
NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-23-2007)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	NT	NT	NT	NT	NT	NT	NT
Specific Conductance	µmhos/cm (on-site)	1	NE	NT	NT	NT	NT	NT	NT	NT
Temperature	°C (on-site)	-	29	NT	NT	NT	NT	NT	NT	NT
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.38**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrogen	mg/l	0.2	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**2400**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**89**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**1000**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	30	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	**16**
Total Barium (Ba)	µg/l	500	NE	**100**	**120**	**250**	ND	ND	ND	**380**
Total Beryllium (Be)	µg/l	2	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	10	50	ND	ND	ND	ND	ND	ND	**46**
Total Cobalt (Co)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Total Copper (Cu)	µg/l	200	7	ND	ND	ND	**38**	ND	ND	ND
Total Lead (Pb)	µg/l	10	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	50	88	ND	ND	ND	ND	ND	ND	**50**
Total Selenium (Se)	µg/l	20	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	10	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	40	NE	ND	ND	ND	ND	ND	ND	ND
Total Zinc (Zn)	µg/l	50	50	**13**	**37**	**130**	**91**	**15**	**11**	**80**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	200	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	5	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	10	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**10**
2-Hexanone	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	100	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	5	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	5	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	5	0.36	ND	ND	ND	ND	ND	ND	**46**
1,1,1-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	5	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	15	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	50	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	10	2.4	ND	ND	ND	ND	ND	ND	ND
Xylene	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**31.3**

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NS = Not Sampled
NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-31-07)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.04**	**7.11**	**6.8**	**7.5**	**6.35**	**6.74**	**8.03**
Specific Conductance	µmhos/cm (on-site)	1	NE	**156**	**150**	**266**	**320**	**61**	**40**	**1282**
Temperature	°C (on-site)	-	29	**16.5**	**13.4**	**12.7**	**17.2**	**11.5**	**9**	**14.3**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.53**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**3010**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**221**
Chemical Oxygen Demand	mg/l	100	NE	NT	NT	NT	NT	NT	NT	**968**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	**24.6**
Total Barium (Ba)	µg/l	5	NE	**583**	**154**	**162**	**85**	**111**	**30.3**	**436**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	**25.7**	ND	ND	ND	ND	ND	**74.1**
Total Cobalt (Co)	µg/l	5	NE	**10.5**	ND	ND	ND	ND	ND	**12**
Total Copper (Cu)	µg/l	5	7	**18.4**	ND	ND	ND	**8.3**	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	**18.1**	ND	ND	ND	ND	ND	**81.2**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.5	NE	**6.3**	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**56.2**	ND	ND	**6.8**	**11.4**	ND	**23.9**
Total Zinc (Zn)	µg/l	10	50	**135**	**71.9**	**60**	**41.3**	**20.4**	ND	**76.7**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Xylene	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND

Notes:
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ND = Not Detected at the Method Reporting Limit
NS = Not Sampled
NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (04-23-08)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.8**	**7.32**	**7.06**	**7.2**	**7.56**	**7**	**8.56**
Specific Conductance	µmhos/cm (on-site)	1	NE	**124**	**162**	**234**	**426**	**48**	**42**	**8140**
Temperature	°C (on-site)	-	29	**13.1**	**14.5**	**14.3**	**16.9**	**15.2**	**15.6**	**21.4**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**1940**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**741**
Chemical Oxygen Demand	mg/l	100	NE	NT	NT	NT	NT	NT	NT	**1620**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	**9.5**
Total Barium (Ba)	µg/l	5	NE	**111**	**145**	**133**	**184**	**34.4**	**24.9**	**247**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	**1.5**	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	**6.5**	ND	ND	**28.9**
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	**11.2**	ND	ND	**9**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	**7.6**	ND	ND	**51.3**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.5	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	**14.4**	ND	ND	**9.1**
Total Zinc (Zn)	µg/l	10	50	ND	**52.3**	**50.1**	**124**	ND	ND	**52.3**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	**34.1**
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Xylene	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND

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NS = Not Sampled
NT = Not Tested
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NP = Not Present during sampling event
Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-21-08)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.51**	**6.75**	**6.84**	**6.54**	**6.08**	**6.45**	**8.63**
Specific Conductance	µmhos/cm (on-site)	1	NE	**202**	**171**	**296**	**205.6**	**56.1**	**41**	**10780**
Temperature	°C (on-site)	-	29	**11.3**	**10.2**	**7.9**	**12.5**	**10.8**	**9.6**	**22.2**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	ND
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.14**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.14**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**58.3**
Biochemical Oxygen Dema	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**198**
Chemical Oxygen Dema	mg/l	100	NE	NT	NT	NT	NT	NT	NT	**1190**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	**6**	**6.7**	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	**11.4**
Total Barium (Ba)	µg/l	5	NE	**285**	**126**	**137**	**289**	**145**	**25.2**	**317**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	**17.9**	ND	ND	**34.5**
Total Cobalt (Co)	µg/l	5	NE	**7.9**	**5**	**6.4**	**34.4**	**21.1**	ND	**14.4**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	**15.8**	**10.1**	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	**5.4**	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	**12.1**	**6**	ND	**57.6**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	**14**	**13.2**	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	**7.2**	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**9.9**	ND	ND	**43.5**	**17.5**	ND	**12**
Total Zinc (Zn)	µg/l	10	50	**19**	**75.4**	**39.4**	**116**	**29.5**	**16.7**	**27.6**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	**37.2**
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Xylene	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND

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NS = Not Sampled
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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-22-09)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.29**	**6.47**	**6.79**	**6.75**	**5.83**	**5.97**	**8.24**
Specific Conductance	µmhos/cm (on-site)	1	NE	**139**	**208**	**319**	**366**	**40**	**52**	**7620**
Temperature	°C (on-site)	-	29	**11.1**	**10.8**	**9.8**	**12.2**	**11.9**	**12.6**	**19.6**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.16**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.29**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.12**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	500	NE	NT	NT	NT	NT	NT	NT	**1570**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**55.8**
Chemical Oxygen Demand	mg/l	100	NE	NT	NT	NT	NT	NT	NT	**694**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	**11.3**
Total Barium (Ba)	µg/l	5	NE	**108**	**167**	**133**	**70.1**	**35.9**	**41.1**	**181**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	ND	ND	ND	**16.7**
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	**14.9**	**6.5**	**6.6**	**9.8**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	**5.6**	ND	ND	**48.2**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	**8.1**	ND	ND	**11.2**
Total Zinc (Zn)	µg/l	10	50	ND	**50**	**36.6**	**80**	ND	ND	**10.9**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	**38.4**
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	**5.2**
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**13.7**
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**11.3**
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	**7.3**
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**65.1**
Methyl-tert-butyl-ether (MTBE)	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**9.0**
Naphthalene	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**6.7**
Phosphorus	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.75**

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-26-09)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.41**	Dry	**6.49**	Dry	**6.07**	**6.26**	**7.8**
Specific Conductance	µmhos/cm (on-site)	1	NE	**192**	Dry	**291**	Dry	**60**	**58**	NT
Temperature	°C (on-site)	-	29	**11.5**	Dry	**11.0**	Dry	**13.6**	**12.4**	NT
Turbidity	NTU (on-site)	NT	50	NT	Dry	NT	Dry	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	Dry	NT	Dry	NT	NT	NT
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	Dry	NT	Dry	NT	NT	NT
Nitrite as N	mg/l	0.1	NE	NT	Dry	NT	Dry	NT	NT	NT
Nitrogen	mg/l	0.1	NE	NT	Dry	NT	Dry	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	Dry	NT	Dry	NT	NT	NT
Sulfate	mg/l	500	NE	NT	Dry	NT	Dry	NT	NT	NT
Biochemical Oxygen Demand	mg/l	2	NE	NT	Dry	NT	Dry	NT	NT	**4.8**
Chemical Oxygen Demand	mg/l	100	NE	NT	Dry	NT	Dry	NT	NT	**212**
Total Dissolved Solids	mg/l	20	NE	NT	Dry	NT	Dry	NT	NT	NT
Cyanide	µg/l	2	5	NT	Dry	NT	Dry	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	Dry	ND	Dry	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	Dry	ND	Dry	ND	ND	ND
Total Barium (Ba)	µg/l	5	NE	**228**	Dry	**285**	Dry	**48.4**	**30.9**	**305**
Total Beryllium (Be)	µg/l	1	6.5	ND	Dry	ND	Dry	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	Dry	ND	Dry	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	Dry	**8.9**	Dry	ND	ND	ND
Total Cobalt (Co)	µg/l	5	NE	ND	Dry	**5.7**	Dry	**6.5**	ND	**12.5**
Total Copper (Cu)	µg/l	5	7	ND	Dry	**5.5**	Dry	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	Dry	ND	Dry	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	Dry	**10.1**	Dry	ND	ND	**20.4**
Total Selenium (Se)	µg/l	10	5	ND	Dry	ND	Dry	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	Dry	ND	Dry	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	Dry	ND	Dry	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	Dry	**16.0**	Dry	ND	ND	**8.5**
Total Zinc (Zn)	µg/l	10	50	ND	Dry	**151**	Dry	ND	ND	**48.1**
Mercury	µg/l	0.2	0.012	NT	Dry	NT	Dry	NT	NT	NT
Acetone	µg/l	25	NE	ND	Dry	ND	Dry	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	Dry	ND	Dry	ND	ND	ND
Benzene	µg/l	1	51	ND	Dry	ND	Dry	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Bromoform	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	Dry	ND	Dry	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	5	NE	ND	Dry	ND	Dry	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	Dry	ND	Dry	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Chloroform	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	NE	ND	Dry	ND	Dry	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	Dry	ND	Dry	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	Dry	ND	Dry	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	Dry	ND	Dry	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	Dry	ND	Dry	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	Dry	ND	Dry	ND	ND	ND
Styrene	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	Dry	ND	Dry	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	Dry	ND	Dry	ND	ND	ND
Toluene	µg/l	1	0.36	ND	Dry	ND	Dry	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	Dry	ND	Dry	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	Dry	ND	Dry	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	Dry	ND	Dry	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	Dry	ND	Dry	ND	ND	ND
Total Xylenes	µg/l	2	NE	ND	Dry	ND	Dry	ND	ND	ND
Methyl-tert-butyl-ether (MTBE)	µg/l	5	NE	NT	Dry	NT	Dry	NT	NT	ND
Naphthalene	µg/l	5	NE	NT	Dry	NT	Dry	NT	NT	ND
Phosphorus	mg/l	0.1	NE	NT	Dry	NT	Dry	NT	NT	NT

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-21-10)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.72**	**7.29**	**7.14**	NP	**6.06**	**6.04**	**7.69**
Specific Conductance	µmhos/cm (on-site)	1	NE	**189**	**213**	**273**	NP	**94**	**106**	**310**
Temperature	°C (on-site)	-	29	**13.9**	**12.3**	**15.9**	NP	**15.7**	**14**	**13.3**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NP	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NP	NT	NT	ND
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NP	NT	NT	ND
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NP	NT	NT	ND
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NP	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NP	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NP	NT	NT	**477**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NP	NT	NT	**54**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NP	NT	NT	**203**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NP	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NP	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	NP	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	NP	ND	ND	**8.6**
Total Barium (Ba)	µg/l	5	NE	**123**	**178**	**172**	NP	**34.3**	**41.4**	**124**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	NP	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	NP	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	NP	ND	ND	**8**
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	NP	ND	ND	**11.7**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	NP	ND	ND	**6.8**
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	NP	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	NP	ND	ND	**35.3**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	NP	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	NP	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	NP	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	NP	ND	ND	**6.8**
Total Zinc (Zn)	µg/l	10	50	ND	**49.8**	**32.9**	NP	ND	ND	**12.1**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NP	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	NP	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	NP	ND	ND	NT
Benzene	µg/l	1	51	ND	ND	ND	NP	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	NP	ND	ND	NT
Bromomethane (Methylbromide)	µg/l	5	NE	ND	ND	ND	NP	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	NP	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	3	NE	ND	ND	ND	NP	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	NP	ND	ND	NT
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	NP	ND	ND	**2**
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	NP	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	NP	ND	ND	NT
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	NP	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	NP	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	NP	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	NP	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	NP	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	NP	ND	ND	**1.1**
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	NP	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	NP	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	NP	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	NP	ND	ND	ND
Total Xylenes	µg/l	2	NE	ND	ND	ND	NP	ND	ND	NT
Methyl-tert-butyl-ether (MTBE)	µg/l	1	NE	NT	NT	NT	NP	NT	NT	ND
Naphthalene	µg/l	1	NE	NT	NT	NT	NP	NT	NT	ND
Phosphorus	mg/l	0.1	NE	NT	NT	NT	NP	NT	NT	**0.26**

Notes:
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Section 15A NCAC 02B.0100, .0200, a .0300.
ND = Not Detected at the Method Reporting Limit
NS = Not Sampled
NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
NP = Not Present during sampling event
Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-26-10)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.31**	**6.14**	**7.15**	**6.11**	**5.7**	**6.39**	**7.31**
Specific Conductance	µmhos/cm (on-site)	1	NE	**203**	**250**	**287**	**158**	**50**	**53**	**20400**
Temperature	°C (on-site)	-	29	**15.8**	**15.2**	**16.6**	**17.5**	**14.7**	**13.4**	**18.2**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**5.5**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**6**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.51**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NT	NT	NT	**7670**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**40**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**96**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**13.9**
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	**29.4**
Total Barium (Ba)	µg/l	5	NE	**209**	**180**	**350**	**126**	**40.1**	**32.9**	**172**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	**1.3**
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	**13.2**	ND	ND	ND	**10.7**
Total Cobalt (Co)	µg/l	5	NE	ND	ND	**17.7**	**48.8**	ND	ND	ND
Total Copper (Cu)	µg/l	5	7	ND	ND	**9**	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	**9**	**5**	ND	ND	**44.4**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	**29.6**
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	**27.9**	ND	ND	ND	**21**
Total Zinc (Zn)	µg/l	10	50	ND	**31.2**	**60.6**	ND	ND	ND	ND
Mercury	µg/l	0.2	0.012	NT	NT	NT	ND	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	NT
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	**1**
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NT
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**3.4**
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NT
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**1.2**
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**6.8**
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NT
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	**8.4**
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NT
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**10.9**
o-Xylenes	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**5.7**
Methyl-tert-butyl-ether (MTBE)	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**2.9**
Naphthalene	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**6.5**
p-isopropyltoluene	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**2.9**
Phosphorus	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**1.40**

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NS = Not Sampled
NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-28-11)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.3**	**6.2**	**6.8**	**6**	**5.8**	**6.1**	**7.4**
Specific Conductance	µmhos/cm (on-site)	1	NE	**174**	**225**	**304**	**212**	**45**	**65**	**14,320**
Temperature	°C (on-site)	-	29	**15.9**	**14.9**	**18.5**	**13.5**	**15.1**	**13.3**	**18.3**
Turbidity	NTU (on-site)	NT	50	NT	NT	NT	NT	NT	NT	NT
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**8.5**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**9.6**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**1.1**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NT	NT	NT	**4360**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**55.2**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**762**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	**13.5**
Total Barium (Ba)	µg/l	5	NE	**238**	**204**	**130**	**156**	**38.7**	**43.6**	**243**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	**5.2**	ND	ND	ND	ND	ND	**27.1**
Total Cobalt (Co)	µg/l	5	NE	ND	**5.4**	ND	**22.6**	ND	ND	**32.6**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	ND	ND	ND	**159**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**11**	ND	ND	ND	ND	ND	**9.4**
Total Zinc (Zn)	µg/l	10	50	**15.8**	**46.1**	**61.7**	ND	ND	ND	**32.1**
Mercury	µg/l	0.2	0.012	NT	NT	NT	ND	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	**40.6**
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	NT
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NT
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**2.7**
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NT
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**6**
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NT
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**1.2**
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	**4.5**
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	*ND*
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NT
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**3.5**
o-Xylenes	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**3.8**
Methyl-tert-butyl-ether (MTBE)	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**1.6**
Naphthalene	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**5.3**
p-isopropyltoluene	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**1.8**
Phosphorus	mg/l	0.05	NE	NT	NT	NT	NT	NT	NT	**0.85**

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ND = Not Detected at the Method Reporting Limit
NS = Not Sampled
NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-25-11)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.2**	**6.7**	**7.2**	**6**	**5.7**	**6.2**	**6.9**
Specific Conductance	µmhos/cm (on-site)	1	NE	**207**	**208**	**275**	**241**	**42**	**17**	**272**
Temperature	°C (on-site)	-	29	**10.4**	**11.9**	**11.7**	**17.2**	**15.8**	**13**	**11.7**
Turbidity	NTU (on-site)	NT	50	**7.92**	**19.0**	**8.08**	**15.5**	**5.52**	**6.19**	**6.35**
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.85**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.17**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**1**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NT	NT	NT	**5170**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**63.9**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**908**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	**7.2**
Total Barium (Ba)	µg/l	5	NE	**170**	**168**	**126**	**140**	**32.7**	**30.7**	**261**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	ND	ND	ND	**35.4**
Total Cobalt (Co)	µg/l	5	NE	ND	**5**	**5**	**28.8**	ND	ND	**19.7**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	ND	ND	ND	**170**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**14.0**
Total Zinc (Zn)	µg/l	10	50	ND	**33.6**	**56.1**	ND	ND	ND	**18.0**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	**43.9**
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	NT
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NT
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NT
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**1.0**
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NT
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	**1.5**
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	*ND*
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NT
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**3.5**
o-Xylenes	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**2.3**
Methyl-tert-butyl-ether (MTBE)	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**1.5**
Naphthalene	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**1.6**
p-isopropyltoluene	µg/l	1	NE	NT	NT	NT	NT	NT	NT	ND
Phosphorus	mg/l	0.05	NE	NT	NT	NT	NT	NT	NT	**1.20**

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Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-20-12)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.0**	**6.8**	**7.8**	**6.3**	**6.4**	**7.0**	**7.6**
Specific Conductance	µmhos/cm (on-site)	1	NE	**146**	**218.4**	**261.2**	**111**	**41.3**	**65.8**	**260.4**
Temperature	°C (on-site)	-	29	**15.1**	**14.2**	**16.8**	**15.3**	**14.9**	**13.5**	**16.5**
Turbidity	NTU (on-site)	NT	50	**12.5**	**6.1**	**15.9**	**4.84**	**4.06**	**6.43**	**5.71**
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**8.6**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.52**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**8.6**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NT	NT	NT	**299**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**20.5**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**154**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	NE	**103**	**177**	**90.8**	**121**	**35.2**	**40.5**	**85.2**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	ND	ND	ND	**6**
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	**14.4**	ND	ND	**7.6**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	**7.7**
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	ND	ND	ND	**33.3**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Zinc (Zn)	µg/l	10	50	ND	**37.6**	**15**	ND	ND	ND	**21.5**
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	NT
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NT
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	NT
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	NT
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	NT
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
o-Xylenes	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Methyl-tert-butyl-ether (MTBE)	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Naphthalene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
p-isopropyltoluene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Phosphorus	mg/l	0.05	NE	NT	NT	NT	NT	NT	NT	**0.28**

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-24-12)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.1**	**6.9**	**7.9**	**6.2**	**6.1**	**7.2**	**7.5**
Specific Conductance	µmhos/cm (on-site)	1	NE	**217**	**272**	**329**	**227**	**39**	**54**	**16,940.0**
Temperature	°C (on-site)	-	29	**13.6**	**14.5**	**13.9**	**17.5**	**13.1**	**11.9**	**19.9**
Turbidity	NTU (on-site)	NT	50	**7.38**	**3.6**	**6.16**	**30.5**	**1.97**	**3.39**	**19.6**
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.18**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.075**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.26**
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NT	NT	NT	**5100**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**53.3**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**860**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	5	10	ND	ND	ND	ND	ND	ND	**14**
Total Barium (Ba)	µg/l	5	NE	**172**	**175**	**124**	**164**	**38.7**	**31.2**	**390**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	ND	ND	ND	**32.6**
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	**20.2**	ND	ND	**19**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	ND	ND	ND	**166**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**16.0**
Total Zinc (Zn)	µg/l	10	50	ND	**28.5**	**10.7**	ND	ND	ND	ND
Mercury	µg/l	0.2	0.012	ND	ND	ND	ND	ND	ND	ND
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**1.8**
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**3.1**
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
o-Xylenes	µg/l	1	NE	NT	NT	NT	NT	NT	NT	**1.4**
Methyl-tert-butyl-ether (MTBE)	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Naphthalene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
p-isopropyltoluene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Phosphorus	mg/l	0.05	NE	NT	NT	NT	NT	NT	NT	**0.87**

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-24-13)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.1**	**7.5**	**7.4**	**6.3**	**6.5**	**6.8**	**7.6**
Specific Conductance	µmhos/cm (on-site)	1	NE	**180**	**183**	**274**	**249**	**42**	**63**	**15,320**
Temperature	°C (on-site)	-	29	**13.6**	**13**	**14.1**	**15.4**	**15.2**	**13.2**	**15.1**
Turbidity	NTU (on-site)	NT	50	**7.06**	**6.9**	**4.23**	**5.06**	**0.37**	**2.11**	**15**
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.098**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.15**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.056**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NT	NT	NT	**3830**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**107**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**866**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	NE	**159**	**146**	**148**	**114**	**34.8**	**33**	**436**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	ND	ND	ND	**27.3**
Total Cobalt (Co)	µg/l	5	NE	ND	ND	**5.8**	**29.3**	ND	ND	**17.8**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	ND	ND	ND	**130**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**13.0**
Total Zinc (Zn)	µg/l	10	50	ND	**46.2**	**19**	ND	ND	ND	ND
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	**150**
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**2.5**
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**2.0**
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**157**
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**5**
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**3**
o-Xylenes	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**2**
Methyl-tert-butyl-ether (MTBE)	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Naphthalene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
p-isopropyltoluene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Phosphorus	mg/l	0.05	NE	NT	NT	NT	NT	NT	NT	**1.1**

Notes:
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Section 15A NCAC 02B.0100, .0200, a .0300.
ND = Not Detected at the Method Reporting Limit
NS = Not Sampled
NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-24-13)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.4**	**6.9**	**7.5**	**6.3**	**6.3**	**6.8**	**7.6**
Specific Conductance	µmhos/cm (on-site)	1	NE	**238**	**280.6**	**329.7**	**281.7**	**38**	**67**	**14,800**
Temperature	°C (on-site)	-	29	**11.2**	**11.7**	**10.8**	**16.7**	**11.1**	**9.6**	**15**
Turbidity	NTU (on-site)	NT	50	**25.2**	**2.05**	**2.96**	**3.28**	**1.19**	**2.24**	**200**
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.2**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.25**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.044**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NT	NT	NT	**4.1**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**52.8**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**920**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	NE	**205**	**209**	**161**	**138**	**36.7**	**31**	**438**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	ND	ND	ND	**32.4**
Total Cobalt (Co)	µg/l	5	NE	**5.1**	**7.9**	ND	**37.8**	ND	ND	**27.8**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	**5.7**	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	ND	ND	ND	**140**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	**7.3**	ND	ND	ND	ND	ND	**12.8**
Total Zinc (Zn)	µg/l	10	50	ND	**33.2**	**13.3**	ND	ND	ND	ND
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**1.9**
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**1.1**
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**2.6**
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**5.7**
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**3.5**
o-Xylenes	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**2.2**
Methyl-tert-butyl-ether (MTBE)	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Naphthalene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
p-isopropyltoluene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Phosphorus	mg/l	0.05	NE	NT	NT	NT	NT	NT	NT	**1.4**

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-24-14)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.3**	**6.4**	**7.7**	**6.2**	**6.6**	**6.8**	**7.3**
Specific Conductance	µmhos/cm (on-site)	1	NE	**183**	**285**	**294**	**262**	**42**	**6.6**	**9,040**
Temperature	°C (on-site)	-	29	**14.6**	**14.1**	**17.9**	**15.9**	**13.8**	**12.1**	**16.9**
Turbidity	NTU (on-site)	NT	50	**3.64**	**2.67**	**5.1**	**4.46**	**3.74**	**3.07**	**36.3**
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.84**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**1.3**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.43**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NT	NT	NT	**4450**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**53.3**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**964**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	NT
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	**14.3**
Total Barium (Ba)	µg/l	5	NE	**142**	**187**	**133**	**125**	**38.5**	**35.5**	**376**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	**1.8**
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	ND	ND	ND	**14.6**
Total Cobalt (Co)	µg/l	5	NE	ND	**6.4**	ND	**9.7**	ND	ND	**24.8**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	**5.5**	ND	ND	ND	ND	**157**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**15.9**
Total Zinc (Zn)	µg/l	10	50	ND	**23.8**	**10.8**	ND	ND	ND	ND
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	**2**
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**3.1**
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**5.9**
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**3.6**
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**15.6**
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**34.8**
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	**2.6**
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**41.4**
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**29.7**
o-Xylenes	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**11.7**
Methyl-tert-butyl-ether (MTBE)	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Naphthalene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
p-isopropyltoluene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Phosphorus	mg/l	0.05	NE	NT	NT	NT	NT	NT	NT	**1.7**

Notes:
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Section 15A NCAC 02B.0100, .0200, a .0300.
ND = Not Detected at the Method Reporting Limit
NS = Not Sampled
NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-28-14)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.3**	**7.7**	**7.8**	**6.0**	**6.8**	**6.9**	**7.5**
Specific Conductance	µmhos/cm (on-site)	1	NE	**236**	**232**	**356**	**206**	**43**	**57**	**15,110**
Temperature	°C (on-site)	-	29	**12.9**	**12.5**	**12.1**	**18.2**	**12.4**	**11.3**	**19.4**
Turbidity	NTU (on-site)	NT	50	**4.43**	**3.73**	**5.52**	**11.3**	**4.3**	**1.45**	**4.71**
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.12**
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.2**
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.08**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NT	NT	NT	**3070**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**48.9**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**1010**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	**0.0075**
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**56.7**
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	NE	**181**	**155**	**132**	**147**	**31.4**	**28**	**360**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	ND	ND	ND	**27.1**
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	**9.7**	ND	ND	**14.5**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	ND	ND	ND	**135**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**24.0**
Total Zinc (Zn)	µg/l	10	50	ND	**75.8**	ND	ND	ND	ND	ND
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**2.8**
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**1.1**
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
o-Xylenes	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**1.2**
Methyl-tert-butyl-ether (MTBE)	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	**1.7**
Naphthalene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	**2.1**
p-isopropyltoluene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Phosphorus	mg/l	0.05	NE	NT	NT	NT	NT	NT	NT	**1.7**

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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-28-15)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**7.3**	**7.6**	**8.3**	**6.1**	**7.3**	**7.1**	**8.1**
Specific Conductance	µmhos/cm (on-site)	1	NE	**201**	**217**	**330**	**181**	**41**	**81**	**6,309**
Temperature	°C (on-site)	-	29	**13.8**	**11.5**	**16.8**	**18.2**	**12.3**	**10.7**	**22.1**
Turbidity	NTU (on-site)	NT	50	**4.62**	**6.77**	**3.6**	**6.7**	**5.76**	**4.76**	**5.43**
Nitrate as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	
Nitrate/Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	
Nitrite as N	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	**0.031**
Nitrogen	mg/l	0.1	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	100	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	75	NE	NT	NT	NT	NT	NT	NT	**712**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**24.6**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**503**
Total Dissolved Solids	mg/l	20	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	2	5	NT	NT	NT	NT	NT	NT	
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**23.4**
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	NE	**175**	**152**	**145**	**133**	**34.5**	**33.3**	**119**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	ND	ND	ND	**9.5**
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	**7.4**	ND	ND	**7.3**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	ND	ND	ND	**64.5**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**19.3**
Total Zinc (Zn)	µg/l	10	50	ND	**43.4**	**20.4**	ND	ND	ND	ND
Mercury	µg/l	0.2	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	**32.3**
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
o-Xylenes	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Methyl-tert-butyl-ether (MTBE)	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	ND
Naphthalene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	ND
p-isopropyltoluene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Phosphorus	mg/l	0.05	NE	NT	NT	NT	NT	NT	NT	**0.34**

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NT = Not Tested
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White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (10-27-15)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.8**	**7.4**	**7.2**	**7.7**	**6.8**	**6.8**	**6.4**
Specific Conductance	µmhos/cm (on-site)	1	NE	**222**	**226**	**360**	**307**	**72**	**61**	**6,509**
Temperature	°C (on-site)	-	29	**13.5**	**13.3**	**13.4**	**17.8**	**14.3**	**13.0**	**15.5**
Turbidity	NTU (on-site)	NT	50	**10.18**	**18.30**	**9.92**	**24.52**	**8.05**	**3.92**	**66.79**
Nitrate as N	mg/l	0.02	NE	NT	NT	NT	NT	NT	NT	ND
Nitrate/Nitrite as N	mg/l	0.02	NE	NT	NT	NT	NT	NT	NT	**0.042**
Nitrite as N	mg/l	0.02	NE	NT	NT	NT	NT	NT	NT	**0.066**
Nitrogen	mg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	400	NE	NT	NT	NT	NT	NT	NT	**837**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**73.3**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**442**
Total Dissolved Solids	mg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	0.008	5	NT	NT	NT	NT	NT	NT	ND
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**23.4**
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	NE	**187**	ND	**164**	**139**	**35**	**31.4**	**285**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	ND	ND	ND	**9.8**
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	**5.9**	ND	ND	**5.7**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	ND	ND	ND	**61.7**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**18.2**
Total Zinc (Zn)	µg/l	10	50	ND	ND	ND	ND	ND	ND	**13.7**
Mercury	µg/l	NT	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	**162**
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	**2**
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**7.1**
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**2.2**
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**168**
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**7.1**
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	**14.6**
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**3.7**
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	**2.5**
o-Xylenes	µg/l	1	NE	ND	ND	ND	ND	ND	ND	**1.2**
Methyl-tert-butyl-ether (MTBE)	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	ND
Naphthalene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	ND
p-isopropyltoluene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Phosphorus	mg/l	0.05	NE	NT	NT	NT	NT	NT	NT	**0.26**

Notes:
MCL = Maximum Contaminant Level, as established in the NCDENR, "Redbook" Surface Waters and Wetlands Standards
Section 15A NCAC 02B.0100, .0200, a .0300.
ND = Not Detected at the Method Reporting Limit
NS = Not Sampled
NT = Not Tested
NE = Not Established; North Carolina has not established a MCL
Shaded cells indicate exceedances of MCLs.

White Oak Landfill - Haywood Co., NC
Surface Water Sampling Event (4-18-16)

TEST	UNITS	MRL	MCL	SW-1	SW-2	SW-3	SW-5	SW-6	SW-7	Leachate
pH	pH units (on-site)	-	<6.0; >9.0	**6.9**	**7**	**6.6**	**6.7**	**7.4**	**7.1**	**7.7**
Specific Conductance	µmhos/cm (on-site)	1	NE	**181**	**195**	**295**	**22.7**	**40**	**9.8**	**6,332**
Temperature	°C (on-site)	-	29	**16.7**	**12.8**	**17.0**	**273**	**11.1**	**73.0**	**21.8**
Turbidity	NTU (on-site)	NT	50	**3.07**	**14.81**	**30.89**	**30.94**	**2.51**	**2.29**	**55.77**
Nitrate as N	mg/l	0.02	NE	NT	NT	NT	NT	NT	NT	**0.075**
Nitrate/Nitrite as N	mg/l	0.02	NE	NT	NT	NT	NT	NT	NT	**0.12**
Nitrite as N	mg/l	0.02	NE	NT	NT	NT	NT	NT	NT	**0.049**
Nitrogen	mg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen, Kjeldahl	mg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Sulfate	mg/l	400	NE	NT	NT	NT	NT	NT	NT	**528**
Biochemical Oxygen Demand	mg/l	2	NE	NT	NT	NT	NT	NT	NT	**65.3**
Chemical Oxygen Demand	mg/l	25	NE	NT	NT	NT	NT	NT	NT	**396**
Total Dissolved Solids	mg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Cyanide	µg/l	0.008	5	NT	NT	NT	NT	NT	NT	ND
Total Antimony (Sb)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**17.4**
Total Arsenic (As)	µg/l	10	10	ND	ND	ND	ND	ND	ND	ND
Total Barium (Ba)	µg/l	5	NE	**125**	**138**	**122**	**130**	**30.6**	**28.1**	**228**
Total Beryllium (Be)	µg/l	1	6.5	ND	ND	ND	ND	ND	ND	ND
Total Cadmium (Cd)	µg/l	1	0.4	ND	ND	ND	ND	ND	ND	ND
Total Chromium (Cr)	µg/l	5	50	ND	ND	ND	ND	ND	ND	**11.4**
Total Cobalt (Co)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**7.6**
Total Copper (Cu)	µg/l	5	7	ND	ND	ND	ND	ND	ND	ND
Total Lead (Pb)	µg/l	5	25	ND	ND	ND	ND	ND	ND	ND
Total Nickel (Ni)	µg/l	5	88	ND	ND	ND	ND	ND	ND	**60.3**
Total Selenium (Se)	µg/l	10	5	ND	ND	ND	ND	ND	ND	ND
Total Silver (Ag)	µg/l	5	0.06	ND	ND	ND	ND	ND	ND	ND
Total Thallium (Tl)	µg/l	5.4	NE	ND	ND	ND	ND	ND	ND	ND
Total Vanadium (V)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	**14.5**
Total Zinc (Zn)	µg/l	10	50	ND	**49.2**	ND	ND	ND	ND	ND
Mercury	µg/l	NT	0.012	NT	NT	NT	NT	NT	NT	NT
Acetone	µg/l	25	NE	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	µg/l	10	NE	ND	ND	ND	ND	ND	ND	ND
Benzene	µg/l	1	51	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Bromoform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Bromomethane (Methylbromide)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	µg/l	1	1.6	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene (mono)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloroform	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Chloromethane (Methylchloride)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane; DBCP	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane; Ethylene dibromide	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (-ethylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene (-propylene)	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Iodomethane	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Dichloromethane (Methylene chloride)	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl ethyl ketone)	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-Pentanone	µg/l	5	NE	ND	ND	ND	ND	ND	ND	ND
Styrene	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	µg/l	1	4	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (-ethylene)	µg/l	1	3.3	ND	ND	ND	ND	ND	ND	ND
Toluene	µg/l	1	0.36	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (-ethylene)	µg/l	1	30	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	µg/l	1	2.4	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
m&p-Xylenes	µg/l	2	NE	ND	ND	ND	ND	ND	ND	ND
o-Xylenes	µg/l	1	NE	ND	ND	ND	ND	ND	ND	ND
Methyl-tert-butyl-ether (MTBE)	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	ND
Naphthalene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	ND
p-isopropyltoluene	µg/l	NT	NE	NT	NT	NT	NT	NT	NT	NT
Phosphorus	mg/l	0.05	NE	NT	NT	NT	NT	NT	NT	**0.68**

Notes:
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NS = Not Sampled
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Shaded cells indicate exceedances of MCLs.

APPENDIX C

LABORATORY ANALYTICAL RESULTS

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

June 24, 2016

Mr. Ron Vail
Santek Environmental Inc.
650 25th St, NW Suite 100
Cleveland, TN 37311

RE: Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Dear Mr. Vail:
Enclosed are the analytical results for sample(s) received by the laboratory between April 18, 2016 and April 19, 2016. 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.

Revised Report: Report revised to correct client info, correct metals list

Revised Report: Report revised to add missing COC

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

Sincerely,

Chris Derouen
christopher.derouen@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

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Asheville, NC 28804
(828)254-7176

cc: Robert Hudson, Santek Waste Services
Ron Vail, Santek Environmental

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Asheville, NC 28804
(828)254-7176

CERTIFICATIONS

Project:	Haywood Wolf 4/18
Pace Project No.:	92294250

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
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
Virginia/VELAP Certification #: 460222

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SAMPLE ANALYTE COUNT

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92294250001	**SW-1**	EPA 6010	CDF	15	PASI-A
		EPA 8260	GAW	51	PASI-C
92294250002	**SW-2**	EPA 6010	CDF	15	PASI-A
		EPA 8260	GAW	51	PASI-C
92294250003	**SW-3**	EPA 6010	CDF	15	PASI-A
		EPA 8260	GAW	51	PASI-C
92294250004	**SW-5**	EPA 6010	CDF	15	PASI-A
		EPA 8260	GAW	51	PASI-C
92294250005	**SW-6**	EPA 6010	CDF	15	PASI-A
		EPA 8260	GAW	51	PASI-C
92294250006	**SW-7**	EPA 6010	CDF	15	PASI-A
		EPA 8260	GAW	51	PASI-C
92294250007	**MW-1A**	EPA 6010	JMW	15	PASI-A
		EPA 8260	NB	51	PASI-C
92294250008	**MW-2**	EPA 6010	JMW	15	PASI-A
		EPA 8260	NB	51	PASI-C
92294250009	**MW-2D**	EPA 6010	JMW	15	PASI-A
		EPA 8260	NB	51	PASI-C
92294250010	**MW-3R**	EPA 6010	JMW	15	PASI-A
		EPA 8260	NB	51	PASI-C
92294250011	**MW-3DR**	EPA 6010	JMW	15	PASI-A
		EPA 8260	NB	51	PASI-C
92294250012	**MW-4A**	EPA 6010	JMW	15	PASI-A
		EPA 8260	NB	51	PASI-C
92294250013	**MW-8**	EPA 6010	JMW	15	PASI-A
		EPA 8260	NB	51	PASI-C
92294250014	**MW-11s**	EPA 6010	JMW	15	PASI-A
		EPA 8260	NB	51	PASI-C
92294250015	**MW-11D**	EPA 6010	JMW	15	PASI-A
		EPA 8260	NB	51	PASI-C
92294250016	**MW-14**	EPA 6010	JMW	15	PASI-A
		EPA 8260	GAW	51	PASI-C
92294250017	**MW-15**	EPA 6010	JMW	15	PASI-A
		EPA 8260	NB	51	PASI-C
92294250018	**MW-16**	EPA 6010	JMW	15	PASI-A
		EPA 8260	NB	51	PASI-C
92294250019	**MW-17**	EPA 6010	JMW	15	PASI-A

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SAMPLE ANALYTE COUNT

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260	NB	51	PASI-C
92294250020	**TVL BLK**	EPA 8260	GAW	51	PASI-C
92294250021	**EQUIP BLK**	EPA 6010	JMW	15	PASI-A
		EPA 8260	GAW	51	PASI-C
92294250022	**Lechate**	EPA 6010	CDF	15	PASI-A
		EPA 8260	NB	63	PASI-C
		SM 5210B	MLS	1	PASI-A
		EPA 300.0	MDW	1	PASI-A
		EPA 353.2	DMN	3	PASI-A
		EPA 365.1	BRJ	1	PASI-A
		SM 4500-CN-E	SER	1	PASI-A
		SM 5220D	WRC	1	PASI-A

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Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: SW-1 **Lab ID: 92294250001** Collected: 04/18/16 13:45 Received: 04/18/16 17:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/20/16 15:59		
Collected Date	**4/18/16**			1		04/20/16 15:59		
Collected Time	**13:45**			1		04/20/16 15:59		
Field pH	**6.9**	Std. Units	0.10	1		04/20/16 15:59		
Field Temperature	**16.7**	deg C	0.50	1		04/20/16 15:59		
Field Specific Conductance	**181**	umhos/cm	1.0	1		04/20/16 15:59		
Turbidity	**3.07**	NTU	1.0	1		04/20/16 15:59		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:03	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/19/16 17:30	04/23/16 12:03	7440-38-2	
Barium	**125**	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:03	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/19/16 17:30	04/23/16 12:03	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/19/16 17:30	04/23/16 12:03	7440-43-9	
Chromium	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:03	7440-47-3	
Cobalt	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:03	7440-48-4	
Copper	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:03	7440-50-8	
Lead	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:03	7439-92-1	
Nickel	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:03	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/19/16 17:30	04/23/16 12:03	7782-49-2	
Silver	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:03	7440-22-4	
Thallium	ND	ug/L	5.4	1	04/19/16 17:30	04/23/16 12:03	7440-28-0	
Vanadium	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:03	7440-62-2	
Zinc	ND	ug/L	10.0	1	04/19/16 17:30	04/23/16 12:03	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/21/16 05:11	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/21/16 05:11	107-13-1	
Benzene	ND	ug/L	1.0	1		04/21/16 05:11	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/21/16 05:11	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/21/16 05:11	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/21/16 05:11	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/21/16 05:11	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/21/16 05:11	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/21/16 05:11	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/21/16 05:11	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/21/16 05:11	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/21/16 05:11	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/21/16 05:11	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/21/16 05:11	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/21/16 05:11	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/21/16 05:11	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/21/16 05:11	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/21/16 05:11	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/21/16 05:11	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/21/16 05:11	110-57-6	

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Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: SW-1 **Lab ID: 92294250001** Collected: 04/18/16 13:45 Received: 04/18/16 17:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,1-Dichloroethane	ND	ug/L	1.0	1		04/21/16 05:11	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/21/16 05:11	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/21/16 05:11	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/21/16 05:11	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/21/16 05:11	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/21/16 05:11	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/21/16 05:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/21/16 05:11	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/21/16 05:11	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/21/16 05:11	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/21/16 05:11	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/21/16 05:11	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/21/16 05:11	108-10-1	
Styrene	ND	ug/L	1.0	1		04/21/16 05:11	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/21/16 05:11	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/21/16 05:11	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/21/16 05:11	127-18-4	
Toluene	ND	ug/L	1.0	1		04/21/16 05:11	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/21/16 05:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/21/16 05:11	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/21/16 05:11	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/21/16 05:11	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/21/16 05:11	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/21/16 05:11	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/21/16 05:11	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/21/16 05:11	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/21/16 05:11	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/21/16 05:11	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		04/21/16 05:11	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		04/21/16 05:11	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		04/21/16 05:11	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: SW-2 **Lab ID: 92294250002** Collected: 04/18/16 13:30 Received: 04/18/16 17:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/20/16 16:02		
Collected Date	**4/18/16**			1		04/20/16 16:02		
Collected Time	**13:30**			1		04/20/16 16:02		
Field pH	**7.0**	Std. Units	0.10	1		04/20/16 16:02		
Field Temperature	**12.8**	deg C	0.50	1		04/20/16 16:02		
Field Specific Conductance	**195**	umhos/cm	1.0	1		04/20/16 16:02		
Turbidity	**14.81**	NTU	1.0	1		04/20/16 16:02		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:16	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/19/16 17:30	04/23/16 12:16	7440-38-2	
Barium	**138**	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:16	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/19/16 17:30	04/23/16 12:16	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/19/16 17:30	04/23/16 12:16	7440-43-9	
Chromium	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:16	7440-47-3	
Cobalt	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:16	7440-48-4	
Copper	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:16	7440-50-8	
Lead	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:16	7439-92-1	
Nickel	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:16	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/19/16 17:30	04/23/16 12:16	7782-49-2	
Silver	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:16	7440-22-4	
Thallium	ND	ug/L	5.4	1	04/19/16 17:30	04/23/16 12:16	7440-28-0	
Vanadium	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:16	7440-62-2	
Zinc	**49.2**	ug/L	10.0	1	04/19/16 17:30	04/23/16 12:16	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/21/16 05:28	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/21/16 05:28	107-13-1	
Benzene	ND	ug/L	1.0	1		04/21/16 05:28	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/21/16 05:28	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/21/16 05:28	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/21/16 05:28	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/21/16 05:28	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/21/16 05:28	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/21/16 05:28	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/21/16 05:28	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/21/16 05:28	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/21/16 05:28	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/21/16 05:28	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/21/16 05:28	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/21/16 05:28	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/21/16 05:28	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/21/16 05:28	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/21/16 05:28	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/21/16 05:28	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/21/16 05:28	110-57-6	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: SW-2 **Lab ID: 92294250002** Collected: 04/18/16 13:30 Received: 04/18/16 17:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,1-Dichloroethane	ND	ug/L	1.0	1		04/21/16 05:28	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/21/16 05:28	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/21/16 05:28	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/21/16 05:28	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/21/16 05:28	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/21/16 05:28	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/21/16 05:28	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/21/16 05:28	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/21/16 05:28	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/21/16 05:28	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/21/16 05:28	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/21/16 05:28	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/21/16 05:28	108-10-1	
Styrene	ND	ug/L	1.0	1		04/21/16 05:28	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/21/16 05:28	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/21/16 05:28	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/21/16 05:28	127-18-4	
Toluene	ND	ug/L	1.0	1		04/21/16 05:28	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/21/16 05:28	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/21/16 05:28	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/21/16 05:28	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/21/16 05:28	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/21/16 05:28	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/21/16 05:28	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/21/16 05:28	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/21/16 05:28	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/21/16 05:28	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/21/16 05:28	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	1		04/21/16 05:28	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130	1		04/21/16 05:28	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		04/21/16 05:28	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: SW-3 **Lab ID: 92294250003** Collected: 04/18/16 13:20 Received: 04/18/16 17:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/20/16 16:05		
Collected Date	**4/18/16**			1		04/20/16 16:05		
Collected Time	**13:20**			1		04/20/16 16:05		
Field pH	**6.6**	Std. Units	0.10	1		04/20/16 16:05		
Field Temperature	**17.0**	deg C	0.50	1		04/20/16 16:05		
Field Specific Conductance	**295**	umhos/cm	1.0	1		04/20/16 16:05		
Turbidity	**30.89**	NTU	1.0	1		04/20/16 16:05		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:19	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/19/16 17:30	04/23/16 12:19	7440-38-2	
Barium	**122**	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:19	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/19/16 17:30	04/23/16 12:19	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/19/16 17:30	04/23/16 12:19	7440-43-9	
Chromium	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:19	7440-47-3	
Cobalt	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:19	7440-48-4	
Copper	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:19	7440-50-8	
Lead	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:19	7439-92-1	
Nickel	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:19	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/19/16 17:30	04/23/16 12:19	7782-49-2	
Silver	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:19	7440-22-4	
Thallium	ND	ug/L	5.4	1	04/19/16 17:30	04/23/16 12:19	7440-28-0	
Vanadium	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:19	7440-62-2	
Zinc	ND	ug/L	10.0	1	04/19/16 17:30	04/23/16 12:19	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/21/16 05:45	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/21/16 05:45	107-13-1	
Benzene	ND	ug/L	1.0	1		04/21/16 05:45	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/21/16 05:45	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/21/16 05:45	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/21/16 05:45	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/21/16 05:45	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/21/16 05:45	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/21/16 05:45	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/21/16 05:45	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/21/16 05:45	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/21/16 05:45	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/21/16 05:45	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/21/16 05:45	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/21/16 05:45	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/21/16 05:45	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/21/16 05:45	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/21/16 05:45	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/21/16 05:45	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/21/16 05:45	110-57-6	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: SW-3 **Lab ID: 92294250003** Collected: 04/18/16 13:20 Received: 04/18/16 17:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,1-Dichloroethane	ND	ug/L	1.0	1		04/21/16 05:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/21/16 05:45	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/21/16 05:45	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/21/16 05:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/21/16 05:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/21/16 05:45	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/21/16 05:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/21/16 05:45	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/21/16 05:45	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/21/16 05:45	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/21/16 05:45	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/21/16 05:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/21/16 05:45	108-10-1	
Styrene	ND	ug/L	1.0	1		04/21/16 05:45	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/21/16 05:45	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/21/16 05:45	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/21/16 05:45	127-18-4	
Toluene	ND	ug/L	1.0	1		04/21/16 05:45	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/21/16 05:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/21/16 05:45	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/21/16 05:45	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/21/16 05:45	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/21/16 05:45	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/21/16 05:45	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/21/16 05:45	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/21/16 05:45	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/21/16 05:45	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/21/16 05:45	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		04/21/16 05:45	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130	1		04/21/16 05:45	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		04/21/16 05:45	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: SW-5 **Lab ID: 92294250004** Collected: 04/18/16 12:40 Received: 04/18/16 17:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/20/16 16:06		
Collected Date	**4/18/16**			1		04/20/16 16:06		
Collected Time	**12:40**			1		04/20/16 16:06		
Field pH	**6.7**	Std. Units	0.10	1		04/20/16 16:06		
Field Temperature	**22.7**	deg C	0.50	1		04/20/16 16:06		
Field Specific Conductance	**273**	umhos/cm	1.0	1		04/20/16 16:06		
Alkalinity, Total as CaCO3	**30.94**	mg/L	1.0	1		04/20/16 16:06		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:22	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/19/16 17:30	04/23/16 12:22	7440-38-2	
Barium	**130**	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:22	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/19/16 17:30	04/23/16 12:22	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/19/16 17:30	04/23/16 12:22	7440-43-9	
Chromium	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:22	7440-47-3	
Cobalt	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:22	7440-48-4	
Copper	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:22	7440-50-8	
Lead	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:22	7439-92-1	
Nickel	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:22	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/19/16 17:30	04/23/16 12:22	7782-49-2	
Silver	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:22	7440-22-4	
Thallium	ND	ug/L	5.4	1	04/19/16 17:30	04/23/16 12:22	7440-28-0	
Vanadium	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:22	7440-62-2	
Zinc	ND	ug/L	10.0	1	04/19/16 17:30	04/23/16 12:22	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/21/16 06:02	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/21/16 06:02	107-13-1	
Benzene	ND	ug/L	1.0	1		04/21/16 06:02	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/21/16 06:02	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/21/16 06:02	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/21/16 06:02	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/21/16 06:02	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/21/16 06:02	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/21/16 06:02	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/21/16 06:02	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/21/16 06:02	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/21/16 06:02	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/21/16 06:02	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/21/16 06:02	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/21/16 06:02	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/21/16 06:02	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/21/16 06:02	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/21/16 06:02	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/21/16 06:02	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/21/16 06:02	110-57-6	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: SW-5 **Lab ID: 92294250004** Collected: 04/18/16 12:40 Received: 04/18/16 17:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,1-Dichloroethane	ND	ug/L	1.0	1		04/21/16 06:02	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/21/16 06:02	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/21/16 06:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/21/16 06:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/21/16 06:02	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/21/16 06:02	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/21/16 06:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/21/16 06:02	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/21/16 06:02	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/21/16 06:02	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/21/16 06:02	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/21/16 06:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/21/16 06:02	108-10-1	
Styrene	ND	ug/L	1.0	1		04/21/16 06:02	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/21/16 06:02	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/21/16 06:02	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/21/16 06:02	127-18-4	
Toluene	ND	ug/L	1.0	1		04/21/16 06:02	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/21/16 06:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/21/16 06:02	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/21/16 06:02	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/21/16 06:02	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/21/16 06:02	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/21/16 06:02	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/21/16 06:02	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/21/16 06:02	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/21/16 06:02	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/21/16 06:02	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	1		04/21/16 06:02	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		04/21/16 06:02	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		04/21/16 06:02	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: SW-6 **Lab ID: 92294250005** Collected: 04/18/16 09:30 Received: 04/18/16 17:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/20/16 16:08		
Collected Date	**4/18/16**			1		04/20/16 16:08		
Collected Time	**09:30**			1		04/20/16 16:08		
Field pH	**7.4**	Std. Units	0.10	1		04/20/16 16:08		
Field Temperature	**11.1**	deg C	0.50	1		04/20/16 16:08		
Field Specific Conductance	**40**	umhos/cm	1.0	1		04/20/16 16:08		
Turbidity	**2.51**	NTU	1.0	1		04/20/16 16:08		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:25	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/19/16 17:30	04/23/16 12:25	7440-38-2	
Barium	**30.6**	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:25	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/19/16 17:30	04/23/16 12:25	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/19/16 17:30	04/23/16 12:25	7440-43-9	
Chromium	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:25	7440-47-3	
Cobalt	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:25	7440-48-4	
Copper	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:25	7440-50-8	
Lead	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:25	7439-92-1	
Nickel	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:25	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/19/16 17:30	04/23/16 12:25	7782-49-2	
Silver	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:25	7440-22-4	
Thallium	ND	ug/L	5.4	1	04/19/16 17:30	04/23/16 12:25	7440-28-0	
Vanadium	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:25	7440-62-2	
Zinc	ND	ug/L	10.0	1	04/19/16 17:30	04/23/16 12:25	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/21/16 06:20	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/21/16 06:20	107-13-1	
Benzene	ND	ug/L	1.0	1		04/21/16 06:20	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/21/16 06:20	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/21/16 06:20	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/21/16 06:20	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/21/16 06:20	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/21/16 06:20	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/21/16 06:20	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/21/16 06:20	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/21/16 06:20	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/21/16 06:20	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/21/16 06:20	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/21/16 06:20	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/21/16 06:20	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/21/16 06:20	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/21/16 06:20	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/21/16 06:20	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/21/16 06:20	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/21/16 06:20	110-57-6	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: SW-6 **Lab ID: 92294250005** Collected: 04/18/16 09:30 Received: 04/18/16 17:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,1-Dichloroethane	ND	ug/L	1.0	1		04/21/16 06:20	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/21/16 06:20	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/21/16 06:20	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/21/16 06:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/21/16 06:20	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/21/16 06:20	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/21/16 06:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/21/16 06:20	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/21/16 06:20	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/21/16 06:20	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/21/16 06:20	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/21/16 06:20	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/21/16 06:20	108-10-1	
Styrene	ND	ug/L	1.0	1		04/21/16 06:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/21/16 06:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/21/16 06:20	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/21/16 06:20	127-18-4	
Toluene	ND	ug/L	1.0	1		04/21/16 06:20	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/21/16 06:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/21/16 06:20	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/21/16 06:20	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/21/16 06:20	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/21/16 06:20	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/21/16 06:20	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/21/16 06:20	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/21/16 06:20	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/21/16 06:20	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/21/16 06:20	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		04/21/16 06:20	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130	1		04/21/16 06:20	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		04/21/16 06:20	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: SW-7 **Lab ID: 92294250006** Collected: 04/18/16 09:40 Received: 04/18/16 17:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/20/16 16:11		
Collected Date	**4/18/16**			1		04/20/16 16:11		
Collected Time	**09:40**			1		04/20/16 16:11		
Field pH	**7.1**	Std. Units	0.10	1		04/20/16 16:11		
Field Temperature	**9.8**	deg C	0.50	1		04/20/16 16:11		
Field Specific Conductance	**73**	umhos/cm	1.0	1		04/20/16 16:11		
Turbidity	**2.29**	NTU	1.0	1		04/20/16 16:11		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:28	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/19/16 17:30	04/23/16 12:28	7440-38-2	
Barium	**28.1**	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:28	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/19/16 17:30	04/23/16 12:28	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/19/16 17:30	04/23/16 12:28	7440-43-9	
Chromium	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:28	7440-47-3	
Cobalt	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:28	7440-48-4	
Copper	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:28	7440-50-8	
Lead	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:28	7439-92-1	
Nickel	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:28	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/19/16 17:30	04/23/16 12:28	7782-49-2	
Silver	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:28	7440-22-4	
Thallium	ND	ug/L	5.4	1	04/19/16 17:30	04/23/16 12:28	7440-28-0	
Vanadium	ND	ug/L	5.0	1	04/19/16 17:30	04/23/16 12:28	7440-62-2	
Zinc	ND	ug/L	10.0	1	04/19/16 17:30	04/23/16 12:28	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/21/16 06:37	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/21/16 06:37	107-13-1	
Benzene	ND	ug/L	1.0	1		04/21/16 06:37	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/21/16 06:37	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/21/16 06:37	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/21/16 06:37	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/21/16 06:37	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/21/16 06:37	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/21/16 06:37	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/21/16 06:37	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/21/16 06:37	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/21/16 06:37	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/21/16 06:37	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/21/16 06:37	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/21/16 06:37	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/21/16 06:37	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/21/16 06:37	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/21/16 06:37	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/21/16 06:37	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/21/16 06:37	110-57-6	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: SW-7 **Lab ID: 92294250006** Collected: 04/18/16 09:40 Received: 04/18/16 17:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,1-Dichloroethane	ND	ug/L	1.0	1		04/21/16 06:37	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/21/16 06:37	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/21/16 06:37	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/21/16 06:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/21/16 06:37	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/21/16 06:37	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/21/16 06:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/21/16 06:37	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/21/16 06:37	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/21/16 06:37	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/21/16 06:37	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/21/16 06:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/21/16 06:37	108-10-1	
Styrene	ND	ug/L	1.0	1		04/21/16 06:37	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/21/16 06:37	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/21/16 06:37	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/21/16 06:37	127-18-4	
Toluene	ND	ug/L	1.0	1		04/21/16 06:37	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/21/16 06:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/21/16 06:37	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/21/16 06:37	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/21/16 06:37	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/21/16 06:37	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/21/16 06:37	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/21/16 06:37	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/21/16 06:37	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/21/16 06:37	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/21/16 06:37	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		04/21/16 06:37	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130	1		04/21/16 06:37	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		04/21/16 06:37	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-1A **Lab ID: 92294250007** Collected: 04/19/16 13:30 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/20/16 16:18		
Collected Date	**4/19/16**			1		04/20/16 16:18		
Collected Time	**13.30**			1		04/20/16 16:18		
Field pH	**7.3**	Std. Units	0.10	1		04/20/16 16:18		
Field Temperature	**14.1**	deg C	0.50	1		04/20/16 16:18		
Static Water Level	**18.30**	feet		1		04/20/16 16:18		
Field Specific Conductance	**145**	umhos/cm	1.0	1		04/20/16 16:18		
Turbidity	**14.57**	NTU	1.0	1		04/20/16 16:18		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:06	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:06	7440-38-2	
Barium	**211**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:06	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:06	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:06	7440-43-9	
Chromium	**6.8**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:06	7440-47-3	
Cobalt	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:06	7440-48-4	
Copper	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:06	7440-50-8	
Lead	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:06	7439-92-1	
Nickel	**5.9**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:06	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:06	7782-49-2	
Silver	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:06	7440-22-4	
Thallium	ND	ug/L	5.4	1	04/21/16 18:30	04/22/16 23:06	7440-28-0	
Vanadium	**6.5**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:06	7440-62-2	
Zinc	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:06	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/23/16 22:39	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/23/16 22:39	107-13-1	
Benzene	ND	ug/L	1.0	1		04/23/16 22:39	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/23/16 22:39	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/23/16 22:39	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/23/16 22:39	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/23/16 22:39	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/23/16 22:39	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/23/16 22:39	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/23/16 22:39	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/23/16 22:39	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/23/16 22:39	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/23/16 22:39	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/23/16 22:39	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/23/16 22:39	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/23/16 22:39	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/23/16 22:39	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/23/16 22:39	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/23/16 22:39	106-46-7	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-1A **Lab ID: 92294250007** Collected: 04/19/16 13:30 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/23/16 22:39	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/23/16 22:39	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/23/16 22:39	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/23/16 22:39	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/23/16 22:39	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/23/16 22:39	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/23/16 22:39	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/23/16 22:39	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/23/16 22:39	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/23/16 22:39	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/23/16 22:39	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/23/16 22:39	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/23/16 22:39	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/23/16 22:39	108-10-1	
Styrene	ND	ug/L	1.0	1		04/23/16 22:39	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/23/16 22:39	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/23/16 22:39	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/23/16 22:39	127-18-4	
Toluene	ND	ug/L	1.0	1		04/23/16 22:39	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/23/16 22:39	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/23/16 22:39	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/23/16 22:39	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/23/16 22:39	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/23/16 22:39	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/23/16 22:39	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/23/16 22:39	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/23/16 22:39	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/23/16 22:39	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/23/16 22:39	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		04/23/16 22:39	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130	1		04/23/16 22:39	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		04/23/16 22:39	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-2 **Lab ID: 92294250008** Collected: 04/19/16 13:10 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/20/16 16:19		
Collected Date	**4/19/16**			1		04/20/16 16:19		
Collected Time	**13:10**			1		04/20/16 16:19		
Field pH	**7.8**	Std. Units	0.10	1		04/20/16 16:19		
Field Temperature	**16.0**	deg C	0.50	1		04/20/16 16:19		
Static Water Level	**29.34**	feet		1		04/20/16 16:19		
Field Specific Conductance	**1408**	umhos/cm	1.0	1		04/20/16 16:19		
Turbidity	**10.74**	NTU	1.0	1		04/20/16 16:19		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:09	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:09	7440-38-2	
Barium	**889**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:09	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:09	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:09	7440-43-9	
Chromium	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:09	7440-47-3	
Cobalt	**12.1**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:09	7440-48-4	
Copper	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:09	7440-50-8	
Lead	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:09	7439-92-1	
Nickel	**12.3**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:09	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:09	7782-49-2	
Silver	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:09	7440-22-4	
Thallium	ND	ug/L	5.4	1	04/21/16 18:30	04/22/16 23:09	7440-28-0	
Vanadium	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:09	7440-62-2	
Zinc	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:09	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/23/16 22:57	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/23/16 22:57	107-13-1	
Benzene	ND	ug/L	1.0	1		04/23/16 22:57	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/23/16 22:57	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/23/16 22:57	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/23/16 22:57	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/23/16 22:57	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/23/16 22:57	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/23/16 22:57	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/23/16 22:57	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/23/16 22:57	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/23/16 22:57	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/23/16 22:57	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/23/16 22:57	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/23/16 22:57	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/23/16 22:57	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/23/16 22:57	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/23/16 22:57	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/23/16 22:57	106-46-7	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-2 **Lab ID: 92294250008** Collected: 04/19/16 13:10 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/23/16 22:57	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/23/16 22:57	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/23/16 22:57	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/23/16 22:57	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/23/16 22:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/23/16 22:57	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/23/16 22:57	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/23/16 22:57	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/23/16 22:57	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/23/16 22:57	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/23/16 22:57	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/23/16 22:57	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/23/16 22:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/23/16 22:57	108-10-1	
Styrene	ND	ug/L	1.0	1		04/23/16 22:57	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/23/16 22:57	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/23/16 22:57	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/23/16 22:57	127-18-4	
Toluene	ND	ug/L	1.0	1		04/23/16 22:57	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/23/16 22:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/23/16 22:57	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/23/16 22:57	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/23/16 22:57	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/23/16 22:57	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/23/16 22:57	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/23/16 22:57	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/23/16 22:57	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/23/16 22:57	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/23/16 22:57	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		04/23/16 22:57	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		04/23/16 22:57	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		04/23/16 22:57	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-2D **Lab ID: 92294250009** Collected: 04/19/16 13:20 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/20/16 16:21		
Collected Date	**4/19/16**			1		04/20/16 16:21		
Collected Time	**13:20**			1		04/20/16 16:21		
Field pH	**7.1**	Std. Units	0.10	1		04/20/16 16:21		
Field Temperature	**15.6**	deg C	0.50	1		04/20/16 16:21		
Static Water Level	**29.30**	feet		1		04/20/16 16:21		
Field Specific Conductance	**1626**	umhos/cm	1.0	1		04/20/16 16:21		
Turbidity	**5.18**	NTU	1.0	1		04/20/16 16:21		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:13	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:13	7440-38-2	
Barium	**1240**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:13	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:13	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:13	7440-43-9	
Chromium	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:13	7440-47-3	
Cobalt	**6.4**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:13	7440-48-4	
Copper	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:13	7440-50-8	
Lead	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:13	7439-92-1	
Nickel	**13.2**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:13	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:13	7782-49-2	
Silver	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:13	7440-22-4	
Thallium	ND	ug/L	5.4	1	04/21/16 18:30	04/22/16 23:13	7440-28-0	
Vanadium	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:13	7440-62-2	
Zinc	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:13	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/23/16 23:14	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/23/16 23:14	107-13-1	
Benzene	ND	ug/L	1.0	1		04/23/16 23:14	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/23/16 23:14	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/23/16 23:14	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/23/16 23:14	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/23/16 23:14	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/23/16 23:14	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/23/16 23:14	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/23/16 23:14	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/23/16 23:14	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/23/16 23:14	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/23/16 23:14	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/23/16 23:14	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/23/16 23:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/23/16 23:14	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/23/16 23:14	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/23/16 23:14	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/23/16 23:14	106-46-7	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-2D **Lab ID: 92294250009** Collected: 04/19/16 13:20 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/23/16 23:14	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/23/16 23:14	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/23/16 23:14	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/23/16 23:14	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/23/16 23:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/23/16 23:14	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/23/16 23:14	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/23/16 23:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/23/16 23:14	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/23/16 23:14	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/23/16 23:14	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/23/16 23:14	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/23/16 23:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/23/16 23:14	108-10-1	
Styrene	ND	ug/L	1.0	1		04/23/16 23:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/23/16 23:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/23/16 23:14	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/23/16 23:14	127-18-4	
Toluene	ND	ug/L	1.0	1		04/23/16 23:14	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/23/16 23:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/23/16 23:14	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/23/16 23:14	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/23/16 23:14	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/23/16 23:14	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/23/16 23:14	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/23/16 23:14	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/23/16 23:14	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/23/16 23:14	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/23/16 23:14	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		04/23/16 23:14	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		04/23/16 23:14	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		04/23/16 23:14	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-3R **Lab ID: 92294250010** Collected: 04/19/16 12:35 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/20/16 16:25		
Collected Date	**4/19/16**			1		04/20/16 16:25		
Collected Time	**12:35**			1		04/20/16 16:25		
Field pH	**5.9**	Std. Units	0.10	1		04/20/16 16:25		
Field Temperature	**15.0**	deg C	0.50	1		04/20/16 16:25		
Static Water Level	**30.69**	feet		1		04/20/16 16:25		
Field Specific Conductance	**484**	umhos/cm	1.0	1		04/20/16 16:25		
Turbidity	**10.86**	NTU	1.0	1		04/20/16 16:25		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:18	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:18	7440-38-2	
Barium	**325**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:18	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:18	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:18	7440-43-9	
Chromium	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:18	7440-47-3	
Cobalt	**5.1**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:18	7440-48-4	
Copper	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:18	7440-50-8	
Lead	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:18	7439-92-1	
Nickel	**21.7**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:18	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:18	7782-49-2	
Silver	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:18	7440-22-4	
Thallium	ND	ug/L	5.4	1	04/21/16 18:30	04/22/16 23:18	7440-28-0	
Vanadium	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:18	7440-62-2	
Zinc	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:18	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/23/16 23:31	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/23/16 23:31	107-13-1	
Benzene	ND	ug/L	1.0	1		04/23/16 23:31	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/23/16 23:31	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/23/16 23:31	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/23/16 23:31	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/23/16 23:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/23/16 23:31	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/23/16 23:31	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/23/16 23:31	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/23/16 23:31	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/23/16 23:31	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/23/16 23:31	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/23/16 23:31	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/23/16 23:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/23/16 23:31	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/23/16 23:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/23/16 23:31	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/23/16 23:31	106-46-7	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-3R **Lab ID: 92294250010** Collected: 04/19/16 12:35 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/23/16 23:31	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/23/16 23:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/23/16 23:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/23/16 23:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/23/16 23:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/23/16 23:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/23/16 23:31	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/23/16 23:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/23/16 23:31	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/23/16 23:31	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/23/16 23:31	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/23/16 23:31	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/23/16 23:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/23/16 23:31	108-10-1	
Styrene	ND	ug/L	1.0	1		04/23/16 23:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/23/16 23:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/23/16 23:31	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/23/16 23:31	127-18-4	
Toluene	ND	ug/L	1.0	1		04/23/16 23:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/23/16 23:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/23/16 23:31	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/23/16 23:31	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/23/16 23:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/23/16 23:31	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/23/16 23:31	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/23/16 23:31	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/23/16 23:31	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/23/16 23:31	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/23/16 23:31	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		04/23/16 23:31	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130	1		04/23/16 23:31	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		04/23/16 23:31	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-3DR **Lab ID: 92294250011** Collected: 04/19/16 12:45 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/22/16 10:41		
Collected Date	**4/19/16**			1		04/22/16 10:41		
Collected Time	**12:45**			1		04/22/16 10:41		
Field pH	**5.8**	Std. Units	0.10	1		04/22/16 10:41		
Field Temperature	**14.0**	deg C	0.50	1		04/22/16 10:41		
Static Water Level	**35.98**	feet		1		04/22/16 10:41		
Field Specific Conductance	**369**	umhos/cm	1.0	1		04/22/16 10:41		
Turbidity	**2.50**	NTU	1.0	1		04/22/16 10:41		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:21	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:21	7440-38-2	
Barium	**200**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:21	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:21	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:21	7440-43-9	
Chromium	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:21	7440-47-3	
Cobalt	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:21	7440-48-4	
Copper	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:21	7440-50-8	
Lead	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:21	7439-92-1	
Nickel	**30.9**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:21	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:21	7782-49-2	
Silver	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:21	7440-22-4	
Thallium	ND	ug/L	5.4	1	04/21/16 18:30	04/22/16 23:21	7440-28-0	
Vanadium	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:21	7440-62-2	
Zinc	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:21	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/23/16 23:48	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/23/16 23:48	107-13-1	
Benzene	ND	ug/L	1.0	1		04/23/16 23:48	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/23/16 23:48	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/23/16 23:48	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/23/16 23:48	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/23/16 23:48	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/23/16 23:48	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/23/16 23:48	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/23/16 23:48	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/23/16 23:48	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/23/16 23:48	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/23/16 23:48	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/23/16 23:48	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/23/16 23:48	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/23/16 23:48	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/23/16 23:48	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/23/16 23:48	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/23/16 23:48	106-46-7	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-3DR **Lab ID: 92294250011** Collected: 04/19/16 12:45 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/23/16 23:48	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/23/16 23:48	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/23/16 23:48	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/23/16 23:48	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/23/16 23:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/23/16 23:48	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/23/16 23:48	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/23/16 23:48	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/23/16 23:48	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/23/16 23:48	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/23/16 23:48	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/23/16 23:48	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/23/16 23:48	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/23/16 23:48	108-10-1	
Styrene	ND	ug/L	1.0	1		04/23/16 23:48	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/23/16 23:48	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/23/16 23:48	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/23/16 23:48	127-18-4	
Toluene	ND	ug/L	1.0	1		04/23/16 23:48	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/23/16 23:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/23/16 23:48	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/23/16 23:48	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/23/16 23:48	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/23/16 23:48	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/23/16 23:48	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/23/16 23:48	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/23/16 23:48	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/23/16 23:48	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/23/16 23:48	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	1		04/23/16 23:48	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130	1		04/23/16 23:48	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		04/23/16 23:48	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-4A **Lab ID: 92294250012** Collected: 04/19/16 13:45 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/22/16 10:43		
Collected Date	**4/19/16**			1		04/22/16 10:43		
Collected Time	**13:45**			1		04/22/16 10:43		
Field pH	**7.6**	Std. Units	0.10	1		04/22/16 10:43		
Field Temperature	**14.9**	deg C	0.50	1		04/22/16 10:43		
Static Water Level	**44.26**	feet		1		04/22/16 10:43		
Field Specific Conductance	**149**	umhos/cm	1.0	1		04/22/16 10:43		
Turbidity	**20.87**	NTU	1.0	1		04/22/16 10:43		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:25	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:25	7440-38-2	
Barium	**17.7**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:25	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:25	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:25	7440-43-9	
Chromium	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:25	7440-47-3	
Cobalt	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:25	7440-48-4	
Copper	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:25	7440-50-8	
Lead	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:25	7439-92-1	
Nickel	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:25	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:25	7782-49-2	
Silver	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:25	7440-22-4	
Thallium	ND	ug/L	5.4	1	04/21/16 18:30	04/22/16 23:25	7440-28-0	
Vanadium	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:25	7440-62-2	
Zinc	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:25	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/24/16 00:05	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/24/16 00:05	107-13-1	
Benzene	ND	ug/L	1.0	1		04/24/16 00:05	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/24/16 00:05	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/24/16 00:05	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/24/16 00:05	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/24/16 00:05	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/24/16 00:05	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/24/16 00:05	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/24/16 00:05	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/24/16 00:05	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/24/16 00:05	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/24/16 00:05	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/24/16 00:05	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/24/16 00:05	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/24/16 00:05	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/24/16 00:05	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/24/16 00:05	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/24/16 00:05	106-46-7	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-4A **Lab ID: 92294250012** Collected: 04/19/16 13:45 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/24/16 00:05	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/24/16 00:05	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/24/16 00:05	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/24/16 00:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/24/16 00:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/24/16 00:05	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/24/16 00:05	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/24/16 00:05	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/24/16 00:05	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/24/16 00:05	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/24/16 00:05	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/24/16 00:05	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/24/16 00:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/24/16 00:05	108-10-1	
Styrene	ND	ug/L	1.0	1		04/24/16 00:05	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/24/16 00:05	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/24/16 00:05	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/24/16 00:05	127-18-4	
Toluene	ND	ug/L	1.0	1		04/24/16 00:05	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/24/16 00:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/24/16 00:05	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/24/16 00:05	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/24/16 00:05	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/24/16 00:05	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/24/16 00:05	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/24/16 00:05	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/24/16 00:05	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/24/16 00:05	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/24/16 00:05	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		04/24/16 00:05	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		04/24/16 00:05	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		04/24/16 00:05	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-8 **Lab ID: 92294250013** Collected: 04/19/16 12:15 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/22/16 10:44		
Collected Date	**4/19/2016**			1		04/22/16 10:44		
Collected Time	**12:15**			1		04/22/16 10:44		
Field pH	**5.6**	Std. Units	0.10	1		04/22/16 10:44		
Field Temperature	**15.0**	deg C	0.50	1		04/22/16 10:44		
Static Water Level	**30.02**	feet		1		04/22/16 10:44		
Field Specific Conductance	**818**	umhos/cm	1.0	1		04/22/16 10:44		
Turbidity	**2.70**	NTU	1.0	1		04/22/16 10:44		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:28	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:28	7440-38-2	
Barium	**216**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:28	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:28	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:28	7440-43-9	
Chromium	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:28	7440-47-3	
Cobalt	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:28	7440-48-4	
Copper	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:28	7440-50-8	
Lead	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:28	7439-92-1	
Nickel	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:28	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:28	7782-49-2	
Silver	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:28	7440-22-4	
Thallium	ND	ug/L	5.4	1	04/21/16 18:30	04/22/16 23:28	7440-28-0	
Vanadium	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:28	7440-62-2	
Zinc	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:28	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/24/16 00:22	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/24/16 00:22	107-13-1	
Benzene	ND	ug/L	1.0	1		04/24/16 00:22	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/24/16 00:22	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/24/16 00:22	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/24/16 00:22	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/24/16 00:22	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/24/16 00:22	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/24/16 00:22	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/24/16 00:22	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/24/16 00:22	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/24/16 00:22	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/24/16 00:22	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/24/16 00:22	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/24/16 00:22	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/24/16 00:22	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/24/16 00:22	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/24/16 00:22	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/24/16 00:22	106-46-7	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-8 **Lab ID: 92294250013** Collected: 04/19/16 12:15 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/24/16 00:22	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/24/16 00:22	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/24/16 00:22	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/24/16 00:22	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/24/16 00:22	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/24/16 00:22	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/24/16 00:22	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/24/16 00:22	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/24/16 00:22	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/24/16 00:22	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/24/16 00:22	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/24/16 00:22	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/24/16 00:22	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/24/16 00:22	108-10-1	
Styrene	ND	ug/L	1.0	1		04/24/16 00:22	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/24/16 00:22	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/24/16 00:22	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/24/16 00:22	127-18-4	
Toluene	ND	ug/L	1.0	1		04/24/16 00:22	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/24/16 00:22	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/24/16 00:22	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/24/16 00:22	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/24/16 00:22	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/24/16 00:22	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/24/16 00:22	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/24/16 00:22	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/24/16 00:22	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/24/16 00:22	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/24/16 00:22	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		04/24/16 00:22	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130	1		04/24/16 00:22	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		04/24/16 00:22	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-11s **Lab ID: 92294250014** Collected: 04/19/16 14:05 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/22/16 10:45		
Collected Date	**4/19/2016**			1		04/22/16 10:45		
Collected Time	**14:05**			1		04/22/16 10:45		
Field pH	**7.0**	Std. Units	0.10	1		04/22/16 10:45		
Field Temperature	**14.2**	deg C	0.50	1		04/22/16 10:45		
Static Water Level	**82.25**	feet		1		04/22/16 10:45		
Field Specific Conductance	**25**	umhos/cm	1.0	1		04/22/16 10:45		
Alkalinity, Total as CaCO3	**387.5**	mg/L	1.0	1		04/22/16 10:45		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:32	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:32	7440-38-2	
Barium	**222**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:32	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:32	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:32	7440-43-9	
Chromium	**13.3**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:32	7440-47-3	
Cobalt	**7.2**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:32	7440-48-4	
Copper	**7.8**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:32	7440-50-8	
Lead	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:32	7439-92-1	
Nickel	**7.2**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:32	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:32	7782-49-2	
Silver	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:32	7440-22-4	
Thallium	ND	ug/L	5.4	1	04/21/16 18:30	04/22/16 23:32	7440-28-0	
Vanadium	**21.6**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:32	7440-62-2	
Zinc	**21.9**	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:32	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/24/16 00:39	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/24/16 00:39	107-13-1	
Benzene	ND	ug/L	1.0	1		04/24/16 00:39	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/24/16 00:39	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/24/16 00:39	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/24/16 00:39	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/24/16 00:39	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/24/16 00:39	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/24/16 00:39	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/24/16 00:39	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/24/16 00:39	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/24/16 00:39	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/24/16 00:39	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/24/16 00:39	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/24/16 00:39	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/24/16 00:39	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/24/16 00:39	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/24/16 00:39	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/24/16 00:39	106-46-7	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-11s **Lab ID: 92294250014** Collected: 04/19/16 14:05 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/24/16 00:39	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/24/16 00:39	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/24/16 00:39	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/24/16 00:39	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/24/16 00:39	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/24/16 00:39	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/24/16 00:39	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/24/16 00:39	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/24/16 00:39	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/24/16 00:39	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/24/16 00:39	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/24/16 00:39	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/24/16 00:39	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/24/16 00:39	108-10-1	
Styrene	ND	ug/L	1.0	1		04/24/16 00:39	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/24/16 00:39	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/24/16 00:39	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/24/16 00:39	127-18-4	
Toluene	ND	ug/L	1.0	1		04/24/16 00:39	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/24/16 00:39	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/24/16 00:39	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/24/16 00:39	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/24/16 00:39	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/24/16 00:39	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/24/16 00:39	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/24/16 00:39	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/24/16 00:39	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/24/16 00:39	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/24/16 00:39	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		04/24/16 00:39	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130	1		04/24/16 00:39	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		04/24/16 00:39	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-11D **Lab ID: 92294250015** Collected: 04/19/16 14:20 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/22/16 10:48		
Collected Date	**4/19/2016**			1		04/22/16 10:48		
Collected Time	**14:20**			1		04/22/16 10:48		
Field pH	**6.8**	Std. Units	0.10	1		04/22/16 10:48		
Field Temperature	**13.5**	deg C	0.50	1		04/22/16 10:48		
Static Water Level	**83.16**	feet		1		04/22/16 10:48		
Field Specific Conductance	**47**	umhos/cm	1.0	1		04/22/16 10:48		
Turbidity	**2.68**	NTU	1.0	1		04/22/16 10:48		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:36	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:36	7440-38-2	
Barium	**16.1**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:36	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:36	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:36	7440-43-9	
Chromium	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:36	7440-47-3	
Cobalt	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:36	7440-48-4	
Copper	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:36	7440-50-8	
Lead	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:36	7439-92-1	
Nickel	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:36	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:36	7782-49-2	
Silver	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:36	7440-22-4	
Thallium	ND	ug/L	5.4	1	04/21/16 18:30	04/22/16 23:36	7440-28-0	
Vanadium	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:36	7440-62-2	
Zinc	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:36	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/24/16 00:56	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/24/16 00:56	107-13-1	
Benzene	ND	ug/L	1.0	1		04/24/16 00:56	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/24/16 00:56	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/24/16 00:56	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/24/16 00:56	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/24/16 00:56	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/24/16 00:56	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/24/16 00:56	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/24/16 00:56	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/24/16 00:56	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/24/16 00:56	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/24/16 00:56	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/24/16 00:56	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/24/16 00:56	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/24/16 00:56	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/24/16 00:56	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/24/16 00:56	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/24/16 00:56	106-46-7	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-11D **Lab ID: 92294250015** Collected: 04/19/16 14:20 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/24/16 00:56	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/24/16 00:56	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/24/16 00:56	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/24/16 00:56	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/24/16 00:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/24/16 00:56	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/24/16 00:56	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/24/16 00:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/24/16 00:56	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/24/16 00:56	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/24/16 00:56	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/24/16 00:56	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/24/16 00:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/24/16 00:56	108-10-1	
Styrene	ND	ug/L	1.0	1		04/24/16 00:56	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/24/16 00:56	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/24/16 00:56	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/24/16 00:56	127-18-4	
Toluene	ND	ug/L	1.0	1		04/24/16 00:56	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/24/16 00:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/24/16 00:56	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/24/16 00:56	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/24/16 00:56	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/24/16 00:56	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/24/16 00:56	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/24/16 00:56	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/24/16 00:56	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/24/16 00:56	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/24/16 00:56	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		04/24/16 00:56	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		04/24/16 00:56	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		04/24/16 00:56	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-14 **Lab ID: 92294250016** Collected: 04/19/16 15:05 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/22/16 10:49		
Collected Date	**4/19/2016**			1		04/22/16 10:49		
Collected Time	**15.05**			1		04/22/16 10:49		
Field pH	**5.4**	Std. Units	0.10	1		04/22/16 10:49		
Field Temperature	**13.5**	deg C	0.50	1		04/22/16 10:49		
Static Water Level	**100.61**	feet		1		04/22/16 10:49		
Field Specific Conductance	**29**	umhos/cm	1.0	1		04/22/16 10:49		
Turbidity	**8.42**	NTU	1.0	1		04/22/16 10:49		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:39	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:39	7440-38-2	
Barium	**55.2**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:39	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:39	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/21/16 18:30	04/22/16 23:39	7440-43-9	
Chromium	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:39	7440-47-3	
Cobalt	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:39	7440-48-4	
Copper	**5.4**	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:39	7440-50-8	
Lead	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:39	7439-92-1	
Nickel	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:39	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:39	7782-49-2	
Silver	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:39	7440-22-4	
Thallium	ND	ug/L	5.4	1	04/21/16 18:30	04/22/16 23:39	7440-28-0	
Vanadium	ND	ug/L	5.0	1	04/21/16 18:30	04/22/16 23:39	7440-62-2	
Zinc	ND	ug/L	10.0	1	04/21/16 18:30	04/22/16 23:39	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/21/16 22:01	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/21/16 22:01	107-13-1	
Benzene	ND	ug/L	1.0	1		04/21/16 22:01	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/21/16 22:01	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/21/16 22:01	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/21/16 22:01	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/21/16 22:01	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/21/16 22:01	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/21/16 22:01	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/21/16 22:01	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/21/16 22:01	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/21/16 22:01	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/21/16 22:01	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/21/16 22:01	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/21/16 22:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/21/16 22:01	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/21/16 22:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/21/16 22:01	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/21/16 22:01	106-46-7	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-14 **Lab ID: 92294250016** Collected: 04/19/16 15:05 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/21/16 22:01	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/21/16 22:01	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/21/16 22:01	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/21/16 22:01	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/21/16 22:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/21/16 22:01	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/21/16 22:01	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/21/16 22:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/21/16 22:01	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/21/16 22:01	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/21/16 22:01	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/21/16 22:01	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/21/16 22:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/21/16 22:01	108-10-1	
Styrene	ND	ug/L	1.0	1		04/21/16 22:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/21/16 22:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/21/16 22:01	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/21/16 22:01	127-18-4	
Toluene	ND	ug/L	1.0	1		04/21/16 22:01	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/21/16 22:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/21/16 22:01	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/21/16 22:01	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/21/16 22:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/21/16 22:01	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/21/16 22:01	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/21/16 22:01	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/21/16 22:01	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/21/16 22:01	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/21/16 22:01	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		04/21/16 22:01	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130	1		04/21/16 22:01	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		04/21/16 22:01	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-15 **Lab ID: 92294250017** Collected: 04/19/16 14:50 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/22/16 10:53		
Collected Date	**4/19/2016**			1		04/22/16 10:53		
Collected Time	**14:50**			1		04/22/16 10:53		
Field pH	**6.0**	Std. Units	0.10	1		04/22/16 10:53		
Field Temperature	**12.5**	deg C	0.50	1		04/22/16 10:53		
Static Water Level	**9.14**	feet		1		04/22/16 10:53		
Field Specific Conductance	**53**	umhos/cm	1.0	1		04/22/16 10:53		
Turbidity	**12.03**	NTU	1.0	1		04/22/16 10:53		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:04	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/21/16 18:30	04/23/16 00:04	7440-38-2	
Barium	**22.8**	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:04	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/21/16 18:30	04/23/16 00:04	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/21/16 18:30	04/23/16 00:04	7440-43-9	
Chromium	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:04	7440-47-3	
Cobalt	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:04	7440-48-4	
Copper	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:04	7440-50-8	
Lead	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:04	7439-92-1	
Nickel	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:04	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/21/16 18:30	04/23/16 00:04	7782-49-2	
Silver	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:04	7440-22-4	
Thallium	ND	ug/L	5.4	1	04/21/16 18:30	04/23/16 00:04	7440-28-0	
Vanadium	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:04	7440-62-2	
Zinc	ND	ug/L	10.0	1	04/21/16 18:30	04/23/16 00:04	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/24/16 01:13	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/24/16 01:13	107-13-1	
Benzene	ND	ug/L	1.0	1		04/24/16 01:13	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/24/16 01:13	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/24/16 01:13	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/24/16 01:13	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/24/16 01:13	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/24/16 01:13	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/24/16 01:13	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/24/16 01:13	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/24/16 01:13	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/24/16 01:13	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/24/16 01:13	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/24/16 01:13	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/24/16 01:13	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/24/16 01:13	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/24/16 01:13	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/24/16 01:13	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/24/16 01:13	106-46-7	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-15 **Lab ID: 92294250017** Collected: 04/19/16 14:50 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/24/16 01:13	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/24/16 01:13	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/24/16 01:13	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/24/16 01:13	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/24/16 01:13	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/24/16 01:13	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/24/16 01:13	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/24/16 01:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/24/16 01:13	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/24/16 01:13	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/24/16 01:13	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/24/16 01:13	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/24/16 01:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/24/16 01:13	108-10-1	
Styrene	ND	ug/L	1.0	1		04/24/16 01:13	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/24/16 01:13	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/24/16 01:13	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/24/16 01:13	127-18-4	
Toluene	ND	ug/L	1.0	1		04/24/16 01:13	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/24/16 01:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/24/16 01:13	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/24/16 01:13	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/24/16 01:13	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/24/16 01:13	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/24/16 01:13	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/24/16 01:13	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/24/16 01:13	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/24/16 01:13	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/24/16 01:13	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		04/24/16 01:13	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130	1		04/24/16 01:13	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		04/24/16 01:13	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-16 **Lab ID: 92294250018** Collected: 04/19/16 12:00 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/22/16 10:54		
Collected Date	**4/19/2016**			1		04/22/16 10:54		
Collected Time	**12:00**			1		04/22/16 10:54		
Field pH	**6.0**	Std. Units	0.10	1		04/22/16 10:54		
Field Temperature	**17.3**	deg C	0.50	1		04/22/16 10:54		
Static Water Level	**34.98**	feet		1		04/22/16 10:54		
Field Specific Conductance	**368**	umhos/cm	1.0	1		04/22/16 10:54		
Turbidity	**4.15**	NTU	1.0	1		04/22/16 10:54		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:15	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/21/16 18:30	04/23/16 00:15	7440-38-2	
Barium	**152**	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:15	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/21/16 18:30	04/23/16 00:15	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/21/16 18:30	04/23/16 00:15	7440-43-9	
Chromium	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:15	7440-47-3	
Cobalt	**101**	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:15	7440-48-4	
Copper	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:15	7440-50-8	
Lead	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:15	7439-92-1	
Nickel	**10.6**	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:15	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/21/16 18:30	04/23/16 00:15	7782-49-2	
Silver	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:15	7440-22-4	
Thallium	**14.1**	ug/L	5.4	1	04/21/16 18:30	04/23/16 00:15	7440-28-0	
Vanadium	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:15	7440-62-2	
Zinc	ND	ug/L	10.0	1	04/21/16 18:30	04/23/16 00:15	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/24/16 19:01	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/24/16 19:01	107-13-1	
Benzene	ND	ug/L	1.0	1		04/24/16 19:01	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/24/16 19:01	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/24/16 19:01	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/24/16 19:01	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/24/16 19:01	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/24/16 19:01	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/24/16 19:01	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/24/16 19:01	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/24/16 19:01	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/24/16 19:01	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/24/16 19:01	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/24/16 19:01	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/24/16 19:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/24/16 19:01	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/24/16 19:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/24/16 19:01	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/24/16 19:01	106-46-7	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-16 **Lab ID: 92294250018** Collected: 04/19/16 12:00 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/24/16 19:01	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/24/16 19:01	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/24/16 19:01	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/24/16 19:01	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/24/16 19:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/24/16 19:01	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/24/16 19:01	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/24/16 19:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/24/16 19:01	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/24/16 19:01	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/24/16 19:01	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/24/16 19:01	74-88-4	M1
Methylene Chloride	ND	ug/L	2.0	1		04/24/16 19:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/24/16 19:01	108-10-1	
Styrene	ND	ug/L	1.0	1		04/24/16 19:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/24/16 19:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/24/16 19:01	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/24/16 19:01	127-18-4	
Toluene	ND	ug/L	1.0	1		04/24/16 19:01	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/24/16 19:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/24/16 19:01	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/24/16 19:01	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/24/16 19:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/24/16 19:01	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/24/16 19:01	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/24/16 19:01	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/24/16 19:01	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/24/16 19:01	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/24/16 19:01	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		04/24/16 19:01	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		04/24/16 19:01	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		04/24/16 19:01	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-17 **Lab ID: 92294250019** Collected: 04/19/16 11:45 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/22/16 10:55		
Collected Date	**4/19/2016**			1		04/22/16 10:55		
Collected Time	**11:45**			1		04/22/16 10:55		
Field pH	**6.5**	Std. Units	0.10	1		04/22/16 10:55		
Field Temperature	**14.4**	deg C	0.50	1		04/22/16 10:55		
Static Water Level	**56.34**	feet		1		04/22/16 10:55		
Field Specific Conductance	**182**	umhos/cm	1.0	1		04/22/16 10:55		
Turbidity	**3.01**	NTU	1.0	1		04/22/16 10:55		
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:19	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/21/16 18:30	04/23/16 00:19	7440-38-2	
Barium	**191**	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:19	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/21/16 18:30	04/23/16 00:19	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/21/16 18:30	04/23/16 00:19	7440-43-9	
Chromium	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:19	7440-47-3	
Cobalt	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:19	7440-48-4	
Copper	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:19	7440-50-8	
Lead	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:19	7439-92-1	
Nickel	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:19	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/21/16 18:30	04/23/16 00:19	7782-49-2	
Silver	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:19	7440-22-4	
Thallium	ND	ug/L	5.4	1	04/21/16 18:30	04/23/16 00:19	7440-28-0	
Vanadium	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:19	7440-62-2	
Zinc	ND	ug/L	10.0	1	04/21/16 18:30	04/23/16 00:19	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/24/16 19:18	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/24/16 19:18	107-13-1	
Benzene	ND	ug/L	1.0	1		04/24/16 19:18	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/24/16 19:18	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/24/16 19:18	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/24/16 19:18	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/24/16 19:18	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/24/16 19:18	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/24/16 19:18	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/24/16 19:18	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/24/16 19:18	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/24/16 19:18	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/24/16 19:18	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/24/16 19:18	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/24/16 19:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/24/16 19:18	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/24/16 19:18	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/24/16 19:18	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/24/16 19:18	106-46-7	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: MW-17 **Lab ID: 92294250019** Collected: 04/19/16 11:45 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/24/16 19:18	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/24/16 19:18	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/24/16 19:18	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/24/16 19:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/24/16 19:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/24/16 19:18	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/24/16 19:18	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/24/16 19:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/24/16 19:18	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/24/16 19:18	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/24/16 19:18	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/24/16 19:18	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/24/16 19:18	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/24/16 19:18	108-10-1	
Styrene	ND	ug/L	1.0	1		04/24/16 19:18	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/24/16 19:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/24/16 19:18	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/24/16 19:18	127-18-4	
Toluene	ND	ug/L	1.0	1		04/24/16 19:18	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/24/16 19:18	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/24/16 19:18	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/24/16 19:18	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/24/16 19:18	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/24/16 19:18	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/24/16 19:18	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/24/16 19:18	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/24/16 19:18	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/24/16 19:18	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/24/16 19:18	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		04/24/16 19:18	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		04/24/16 19:18	17060-07-0	
Toluene-d8 (S)	98	%	70-130	1		04/24/16 19:18	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: TVL BLK **Lab ID: 92294250020** Collected: 04/19/16 08:15 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/21/16 04:37	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/21/16 04:37	107-13-1	
Benzene	ND	ug/L	1.0	1		04/21/16 04:37	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/21/16 04:37	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/21/16 04:37	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/21/16 04:37	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/21/16 04:37	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/21/16 04:37	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/21/16 04:37	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/21/16 04:37	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/21/16 04:37	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/21/16 04:37	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/21/16 04:37	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/21/16 04:37	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/21/16 04:37	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/21/16 04:37	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/21/16 04:37	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/21/16 04:37	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/21/16 04:37	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/21/16 04:37	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/21/16 04:37	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/21/16 04:37	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/21/16 04:37	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/21/16 04:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/21/16 04:37	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/21/16 04:37	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/21/16 04:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/21/16 04:37	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/21/16 04:37	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/21/16 04:37	591-78-6	
Iodomethane	ND	ug/L	5.0	1		04/21/16 04:37	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/21/16 04:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/21/16 04:37	108-10-1	
Styrene	ND	ug/L	1.0	1		04/21/16 04:37	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/21/16 04:37	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/21/16 04:37	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/21/16 04:37	127-18-4	
Toluene	ND	ug/L	1.0	1		04/21/16 04:37	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/21/16 04:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/21/16 04:37	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/21/16 04:37	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/21/16 04:37	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/21/16 04:37	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/21/16 04:37	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/21/16 04:37	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/21/16 04:37	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/21/16 04:37	179601-23-1	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: TVL BLK **Lab ID: 92294250020** Collected: 04/19/16 08:15 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
o-Xylene	ND	ug/L	1.0	1		04/21/16 04:37	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		04/21/16 04:37	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130	1		04/21/16 04:37	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		04/21/16 04:37	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: EQUIP BLK **Lab ID: 92294250021** Collected: 04/19/16 08:16 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:22	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/21/16 18:30	04/23/16 00:22	7440-38-2	
Barium	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:22	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/21/16 18:30	04/23/16 00:22	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/21/16 18:30	04/23/16 00:22	7440-43-9	
Chromium	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:22	7440-47-3	
Cobalt	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:22	7440-48-4	
Copper	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:22	7440-50-8	
Lead	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:22	7439-92-1	
Nickel	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:22	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/21/16 18:30	04/23/16 00:22	7782-49-2	
Silver	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:22	7440-22-4	
Thallium	ND	ug/L	5.4	1	04/21/16 18:30	04/23/16 00:22	7440-28-0	
Vanadium	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 00:22	7440-62-2	
Zinc	ND	ug/L	10.0	1	04/21/16 18:30	04/23/16 00:22	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/21/16 04:54	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		04/21/16 04:54	107-13-1	
Benzene	ND	ug/L	1.0	1		04/21/16 04:54	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		04/21/16 04:54	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/21/16 04:54	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/21/16 04:54	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/21/16 04:54	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/21/16 04:54	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		04/21/16 04:54	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		04/21/16 04:54	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/21/16 04:54	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/21/16 04:54	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/21/16 04:54	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/21/16 04:54	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		04/21/16 04:54	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/21/16 04:54	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/21/16 04:54	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/21/16 04:54	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/21/16 04:54	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		04/21/16 04:54	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/21/16 04:54	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/21/16 04:54	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/21/16 04:54	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/21/16 04:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/21/16 04:54	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/21/16 04:54	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/21/16 04:54	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/21/16 04:54	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		04/21/16 04:54	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		04/21/16 04:54	591-78-6	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: EQUIP BLK **Lab ID: 92294250021** Collected: 04/19/16 08:16 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Iodomethane	ND	ug/L	5.0	1		04/21/16 04:54	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		04/21/16 04:54	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/21/16 04:54	108-10-1	
Styrene	ND	ug/L	1.0	1		04/21/16 04:54	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/21/16 04:54	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/21/16 04:54	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/21/16 04:54	127-18-4	
Toluene	ND	ug/L	1.0	1		04/21/16 04:54	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/21/16 04:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/21/16 04:54	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/21/16 04:54	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/21/16 04:54	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/21/16 04:54	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/21/16 04:54	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/21/16 04:54	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/21/16 04:54	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/21/16 04:54	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/21/16 04:54	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		04/21/16 04:54	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130	1		04/21/16 04:54	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		04/21/16 04:54	2037-26-5	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: Lechate **Lab ID: 92294250022** Collected: 04/19/16 12:55 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:							
Collected By	**Mark Swann**			1		04/20/16 16:14		
Collected Date	**4/19/16**			1		04/20/16 16:14		
Collected Time	**12:55**			1		04/20/16 16:14		
Field pH	**7.7**	Std. Units	0.10	1		04/20/16 16:14		
Field Temperature	**21.8**	deg C	0.50	1		04/20/16 16:14		
Field Specific Conductance	**6332**	umhos/cm	1.0	1		04/20/16 16:14		
Turbidity	**55.77**	NTU	1.0	1		04/20/16 16:14		
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010A							
Antimony	**17.4**	ug/L	5.0	1	04/21/16 18:30	04/23/16 10:36	7440-36-0	
Arsenic	ND	ug/L	10.0	1	04/21/16 18:30	04/23/16 10:36	7440-38-2	
Barium	**228**	ug/L	5.0	1	04/21/16 18:30	04/23/16 10:36	7440-39-3	
Beryllium	ND	ug/L	1.0	1	04/21/16 18:30	04/23/16 10:36	7440-41-7	
Cadmium	ND	ug/L	1.0	1	04/21/16 18:30	04/23/16 10:36	7440-43-9	
Chromium	**11.4**	ug/L	5.0	1	04/21/16 18:30	04/23/16 10:36	7440-47-3	
Cobalt	**7.6**	ug/L	5.0	1	04/21/16 18:30	04/23/16 10:36	7440-48-4	
Copper	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 10:36	7440-50-8	
Lead	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 10:36	7439-92-1	
Nickel	**60.3**	ug/L	5.0	1	04/21/16 18:30	04/23/16 10:36	7440-02-0	
Selenium	ND	ug/L	10.0	1	04/21/16 18:30	04/23/16 10:36	7782-49-2	
Silver	ND	ug/L	5.0	1	04/21/16 18:30	04/23/16 10:36	7440-22-4	
Thallium	ND	ug/L	10.0	1	04/21/16 18:30	04/23/16 10:36	7440-28-0	
Vanadium	**14.5**	ug/L	5.0	1	04/21/16 18:30	04/23/16 10:36	7440-62-2	
Zinc	ND	ug/L	10.0	1	04/21/16 18:30	04/23/16 10:36	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		04/22/16 18:21	67-64-1	
Benzene	ND	ug/L	1.0	1		04/22/16 18:21	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		04/22/16 18:21	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		04/22/16 18:21	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		04/22/16 18:21	75-27-4	
Bromoform	ND	ug/L	1.0	1		04/22/16 18:21	75-25-2	
Bromomethane	ND	ug/L	2.0	1		04/22/16 18:21	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		04/22/16 18:21	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		04/22/16 18:21	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		04/22/16 18:21	108-90-7	
Chloroethane	ND	ug/L	1.0	1		04/22/16 18:21	75-00-3	
Chloroform	ND	ug/L	1.0	1		04/22/16 18:21	67-66-3	
Chloromethane	ND	ug/L	1.0	1		04/22/16 18:21	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		04/22/16 18:21	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		04/22/16 18:21	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	1		04/22/16 18:21	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		04/22/16 18:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		04/22/16 18:21	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		04/22/16 18:21	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		04/22/16 18:21	95-50-1	

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: Lechate **Lab ID: 92294250022** Collected: 04/19/16 12:55 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
1,3-Dichlorobenzene	ND	ug/L	1.0	1		04/22/16 18:21	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		04/22/16 18:21	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		04/22/16 18:21	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		04/22/16 18:21	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		04/22/16 18:21	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		04/22/16 18:21	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		04/22/16 18:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		04/22/16 18:21	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		04/22/16 18:21	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		04/22/16 18:21	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		04/22/16 18:21	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		04/22/16 18:21	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		04/22/16 18:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		04/22/16 18:21	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		04/22/16 18:21	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		04/22/16 18:21	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		04/22/16 18:21	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		04/22/16 18:21	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		04/22/16 18:21	99-87-6	
Methylene Chloride	ND	ug/L	2.0	1		04/22/16 18:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		04/22/16 18:21	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		04/22/16 18:21	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		04/22/16 18:21	91-20-3	
Styrene	ND	ug/L	1.0	1		04/22/16 18:21	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		04/22/16 18:21	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		04/22/16 18:21	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		04/22/16 18:21	127-18-4	
Toluene	ND	ug/L	1.0	1		04/22/16 18:21	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		04/22/16 18:21	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		04/22/16 18:21	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		04/22/16 18:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		04/22/16 18:21	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		04/22/16 18:21	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		04/22/16 18:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		04/22/16 18:21	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		04/22/16 18:21	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		04/22/16 18:21	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		04/22/16 18:21	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		04/22/16 18:21	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		04/22/16 18:21	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		04/22/16 18:21	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		04/22/16 18:21	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		04/22/16 18:21	2037-26-5	
5210B BOD, 5 day	Analytical Method: SM 5210B							
BOD, 5 day	**65.3**	mg/L	2.0	1	04/21/16 12:05	04/26/16 09:58		D6

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Sample: Lechate **Lab ID: 92294250022** Collected: 04/19/16 12:55 Received: 04/19/16 16:15 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	**528**	mg/L	40.0	20		04/25/16 22:48	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	**0.075**	mg/L	0.020	1		04/20/16 07:43		
Nitrogen, Nitrite	**0.049**	mg/L	0.020	1		04/20/16 07:43		
Nitrogen, NO2 plus NO3	**0.12**	mg/L	0.020	1		04/20/16 07:43		
365.1 Phosphorus, Total	Analytical Method: EPA 365.1							
Phosphorus	**0.68**	mg/L	0.050	1		04/22/16 02:45	7723-14-0	
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0080	1		04/26/16 08:06	57-12-5	
5220D COD	Analytical Method: SM 5220D							
Chemical Oxygen Demand	**396**	mg/L	25.0	1		04/25/16 16:30		

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

QC Batch: MPRP/21439 | Analysis Method: EPA 6010
QC Batch Method: EPA 3010A | Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92294250001, 92294250002, 92294250003, 92294250004, 92294250005, 92294250006

METHOD BLANK: 1714108 | Matrix: Water
Associated Lab Samples: 92294250001, 92294250002, 92294250003, 92294250004, 92294250005, 92294250006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	04/23/16 11:45	
Arsenic	ug/L	ND	10.0	04/23/16 11:45	
Barium	ug/L	ND	5.0	04/23/16 11:45	
Beryllium	ug/L	ND	1.0	04/23/16 11:45	
Cadmium	ug/L	ND	1.0	04/23/16 11:45	
Chromium	ug/L	ND	5.0	04/23/16 11:45	
Cobalt	ug/L	ND	5.0	04/23/16 11:45	
Copper	ug/L	ND	5.0	04/23/16 11:45	
Lead	ug/L	ND	5.0	04/23/16 11:45	
Nickel	ug/L	ND	5.0	04/23/16 11:45	
Selenium	ug/L	ND	10.0	04/23/16 11:45	
Silver	ug/L	ND	5.0	04/23/16 11:45	
Thallium	ug/L	ND	5.4	04/23/16 11:45	
Vanadium	ug/L	ND	5.0	04/23/16 11:45	
Zinc	ug/L	ND	10.0	04/23/16 11:45	

LABORATORY CONTROL SAMPLE: 1714109

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	465	93	80-120	
Arsenic	ug/L	500	444	89	80-120	
Barium	ug/L	500	461	92	80-120	
Beryllium	ug/L	500	458	92	80-120	
Cadmium	ug/L	500	460	92	80-120	
Chromium	ug/L	500	461	92	80-120	
Cobalt	ug/L	500	460	92	80-120	
Copper	ug/L	500	465	93	80-120	
Lead	ug/L	500	459	92	80-120	
Nickel	ug/L	500	459	92	80-120	
Selenium	ug/L	500	458	92	80-120	
Silver	ug/L	250	230	92	80-120	
Thallium	ug/L	500	452	90	80-120	
Vanadium	ug/L	500	464	93	80-120	
Zinc	ug/L	500	459	92	80-120	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1714110 1714111

Parameter	Units	92293551010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Antimony	ug/L	ND	500	500	416	402	83	80	75-125	3	
Arsenic	ug/L	ND	500	500	405	391	81	78	75-125	3	
Barium	ug/L	17.9	500	500	424	414	81	79	75-125	2	
Beryllium	ug/L	ND	500	500	407	397	81	79	75-125	2	
Cadmium	ug/L	ND	500	500	418	405	83	81	75-125	3	
Chromium	ug/L	ND	500	500	409	397	82	79	75-125	3	
Cobalt	ug/L	ND	500	500	406	393	81	79	75-125	3	
Copper	ug/L	ND	500	500	416	403	83	80	75-125	3	
Lead	ug/L	ND	500	500	410	398	82	80	75-125	3	
Nickel	ug/L	ND	500	500	408	394	81	78	75-125	4	
Selenium	ug/L	ND	500	500	417	402	83	80	75-125	4	
Silver	ug/L	ND	250	250	216	212	86	85	75-125	2	
Thallium	ug/L	ND	500	500	410	400	81	79	75-125	3	
Vanadium	ug/L	ND	500	500	413	401	83	80	75-125	3	
Zinc	ug/L	ND	500	500	410	396	82	79	75-125	4	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

QC Batch: MPRP/21462 | Analysis Method: EPA 6010
QC Batch Method: EPA 3010A | Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92294250007, 92294250008, 92294250009, 92294250010, 92294250011, 92294250012, 92294250013, 92294250014, 92294250015, 92294250016

METHOD BLANK: 1716826 | Matrix: Water
Associated Lab Samples: 92294250007, 92294250008, 92294250009, 92294250010, 92294250011, 92294250012, 92294250013, 92294250014, 92294250015, 92294250016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	04/22/16 21:55	
Arsenic	ug/L	ND	10.0	04/22/16 21:55	
Barium	ug/L	ND	5.0	04/22/16 21:55	
Beryllium	ug/L	ND	1.0	04/22/16 21:55	
Cadmium	ug/L	ND	1.0	04/22/16 21:55	
Chromium	ug/L	ND	5.0	04/22/16 21:55	
Cobalt	ug/L	ND	5.0	04/22/16 21:55	
Copper	ug/L	ND	5.0	04/22/16 21:55	
Lead	ug/L	ND	5.0	04/22/16 21:55	
Nickel	ug/L	ND	5.0	04/22/16 21:55	
Selenium	ug/L	ND	10.0	04/22/16 21:55	
Silver	ug/L	ND	5.0	04/22/16 21:55	
Thallium	ug/L	ND	5.4	04/22/16 21:55	
Vanadium	ug/L	ND	5.0	04/22/16 21:55	
Zinc	ug/L	ND	10.0	04/22/16 21:55	

LABORATORY CONTROL SAMPLE: 1716827

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	466	93	80-120	
Arsenic	ug/L	500	451	90	80-120	
Barium	ug/L	500	467	93	80-120	
Beryllium	ug/L	500	460	92	80-120	
Cadmium	ug/L	500	464	93	80-120	
Chromium	ug/L	500	467	93	80-120	
Cobalt	ug/L	500	463	93	80-120	
Copper	ug/L	500	470	94	80-120	
Lead	ug/L	500	461	92	80-120	
Nickel	ug/L	500	466	93	80-120	
Selenium	ug/L	500	457	91	80-120	
Silver	ug/L	250	235	94	80-120	
Thallium	ug/L	500	451	90	80-120	
Vanadium	ug/L	500	470	94	80-120	
Zinc	ug/L	500	462	92	80-120	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1716828 1716829

Parameter	Units	92294568001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Antimony	ug/L	ND	500	500	430	447	86	89	75-125	4	
Arsenic	ug/L	ND	500	500	416	435	83	87	75-125	4	
Barium	ug/L	17.2J	500	500	448	467	86	90	75-125	4	
Beryllium	ug/L	ND	500	500	426	444	85	89	75-125	4	
Cadmium	ug/L	ND	500	500	430	444	86	89	75-125	3	
Chromium	ug/L	ND	500	500	435	453	87	90	75-125	4	
Cobalt	ug/L	ND	500	500	426	443	85	88	75-125	4	
Copper	ug/L	ND	500	500	439	458	88	91	75-125	4	
Lead	ug/L	ND	500	500	422	438	84	88	75-125	4	
Nickel	ug/L	ND	500	500	430	447	86	89	75-125	4	
Selenium	ug/L	ND	500	500	422	443	84	88	75-125	5	
Silver	ug/L	ND	250	250	220	227	88	91	75-125	3	
Thallium	ug/L	ND	500	500	415	432	83	86	75-125	4	
Vanadium	ug/L	3.7J	500	500	442	462	88	92	75-125	4	
Zinc	ug/L	ND	500	500	429	446	86	89	75-125	4	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

QC Batch: MPRP/21463 | Analysis Method: EPA 6010
QC Batch Method: EPA 3010A | Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92294250017, 92294250018, 92294250019, 92294250021

METHOD BLANK: 1716847 | Matrix: Water
Associated Lab Samples: 92294250017, 92294250018, 92294250019, 92294250021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	04/22/16 23:57	
Arsenic	ug/L	ND	10.0	04/22/16 23:57	
Barium	ug/L	ND	5.0	04/22/16 23:57	
Beryllium	ug/L	ND	1.0	04/22/16 23:57	
Cadmium	ug/L	ND	1.0	04/22/16 23:57	
Chromium	ug/L	ND	5.0	04/22/16 23:57	
Cobalt	ug/L	ND	5.0	04/22/16 23:57	
Copper	ug/L	ND	5.0	04/22/16 23:57	
Lead	ug/L	ND	5.0	04/22/16 23:57	
Nickel	ug/L	ND	5.0	04/22/16 23:57	
Selenium	ug/L	ND	10.0	04/22/16 23:57	
Silver	ug/L	ND	5.0	04/22/16 23:57	
Thallium	ug/L	ND	5.4	04/22/16 23:57	
Vanadium	ug/L	ND	5.0	04/22/16 23:57	
Zinc	ug/L	ND	10.0	04/22/16 23:57	

LABORATORY CONTROL SAMPLE: 1716848

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	475	95	80-120	
Arsenic	ug/L	500	460	92	80-120	
Barium	ug/L	500	477	95	80-120	
Beryllium	ug/L	500	474	95	80-120	
Cadmium	ug/L	500	476	95	80-120	
Chromium	ug/L	500	477	95	80-120	
Cobalt	ug/L	500	475	95	80-120	
Copper	ug/L	500	481	96	80-120	
Lead	ug/L	500	472	94	80-120	
Nickel	ug/L	500	475	95	80-120	
Selenium	ug/L	500	466	93	80-120	
Silver	ug/L	250	240	96	80-120	
Thallium	ug/L	500	459	92	80-120	
Vanadium	ug/L	500	482	96	80-120	
Zinc	ug/L	500	473	95	80-120	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1716849 1716850

Parameter	Units	92294250017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Antimony	ug/L	ND	500	500	438	452	88	90	75-125	3	
Arsenic	ug/L	ND	500	500	425	441	85	88	75-125	4	
Barium	ug/L	22.8	500	500	462	474	88	90	75-125	3	
Beryllium	ug/L	ND	500	500	438	450	88	90	75-125	3	
Cadmium	ug/L	ND	500	500	440	449	88	90	75-125	2	
Chromium	ug/L	ND	500	500	444	456	89	91	75-125	3	
Cobalt	ug/L	ND	500	500	439	450	88	90	75-125	2	
Copper	ug/L	ND	500	500	447	460	89	92	75-125	3	
Lead	ug/L	ND	500	500	435	445	87	89	75-125	2	
Nickel	ug/L	ND	500	500	440	451	88	90	75-125	2	
Selenium	ug/L	ND	500	500	433	439	87	88	75-125	1	
Silver	ug/L	ND	250	250	223	229	89	92	75-125	3	
Thallium	ug/L	ND	500	500	426	434	85	87	75-125	2	
Vanadium	ug/L	ND	500	500	448	460	90	92	75-125	3	
Zinc	ug/L	ND	500	500	441	451	88	90	75-125	2	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

QC Batch: MPRP/21465
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 92294250022

METHOD BLANK: 1716872
Matrix: Water
Associated Lab Samples: 92294250022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	04/23/16 09:07	
Arsenic	ug/L	ND	10.0	04/23/16 09:07	
Barium	ug/L	ND	5.0	04/23/16 09:07	
Beryllium	ug/L	ND	1.0	04/23/16 09:07	
Cadmium	ug/L	ND	1.0	04/23/16 09:07	
Chromium	ug/L	ND	5.0	04/23/16 09:07	
Cobalt	ug/L	ND	5.0	04/23/16 09:07	
Copper	ug/L	ND	5.0	04/23/16 09:07	
Lead	ug/L	ND	5.0	04/23/16 09:07	
Nickel	ug/L	ND	5.0	04/23/16 09:07	
Selenium	ug/L	ND	10.0	04/23/16 09:07	
Silver	ug/L	ND	5.0	04/23/16 09:07	
Thallium	ug/L	ND	10.0	04/23/16 09:07	
Vanadium	ug/L	ND	5.0	04/23/16 09:07	
Zinc	ug/L	ND	10.0	04/23/16 09:07	

LABORATORY CONTROL SAMPLE: 1716873

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	474	95	80-120	
Arsenic	ug/L	500	459	92	80-120	
Barium	ug/L	500	464	93	80-120	
Beryllium	ug/L	500	462	92	80-120	
Cadmium	ug/L	500	472	94	80-120	
Chromium	ug/L	500	475	95	80-120	
Cobalt	ug/L	500	472	94	80-120	
Copper	ug/L	500	476	95	80-120	
Lead	ug/L	500	468	94	80-120	
Nickel	ug/L	500	471	94	80-120	
Selenium	ug/L	500	467	93	80-120	
Silver	ug/L	250	236	94	80-120	
Thallium	ug/L	500	461	92	80-120	
Vanadium	ug/L	500	479	96	80-120	
Zinc	ug/L	500	470	94	80-120	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1716874 1716875

Parameter	Units	92294473002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Antimony	ug/L	ND	500	500	464	462	92	92	75-125	0	
Arsenic	ug/L	ND	500	500	456	452	90	90	75-125	1	
Barium	ug/L	114	500	500	575	561	92	89	75-125	2	
Beryllium	ug/L	ND	500	500	465	452	93	90	75-125	3	
Cadmium	ug/L	ND	500	500	461	458	92	92	75-125	1	
Chromium	ug/L	ND	500	500	464	449	92	89	75-125	3	
Cobalt	ug/L	7.3	500	500	453	451	89	89	75-125	1	
Copper	ug/L	ND	500	500	467	453	93	90	75-125	3	
Lead	ug/L	ND	500	500	447	445	89	89	75-125	1	
Nickel	ug/L	ND	500	500	448	445	89	88	75-125	1	
Selenium	ug/L	ND	500	500	449	448	90	90	75-125	0	
Silver	ug/L	ND	250	250	229	221	92	88	75-125	4	
Thallium	ug/L	ND	500	500	434	432	86	86	75-125	0	
Vanadium	ug/L	ND	500	500	472	458	94	92	75-125	3	
Zinc	ug/L	ND	500	500	449	449	89	89	75-125	0	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

QC Batch: MSV/36500 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92294250001, 92294250002, 92294250003, 92294250004, 92294250005, 92294250006, 92294250020, 92294250021

METHOD BLANK: 1715847 Matrix: Water
Associated Lab Samples: 92294250001, 92294250002, 92294250003, 92294250004, 92294250005, 92294250006, 92294250020, 92294250021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	04/21/16 04:20	
1,1,1-Trichloroethane	ug/L	ND	1.0	04/21/16 04:20	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	04/21/16 04:20	
1,1,2-Trichloroethane	ug/L	ND	1.0	04/21/16 04:20	
1,1-Dichloroethane	ug/L	ND	1.0	04/21/16 04:20	
1,1-Dichloroethene	ug/L	ND	1.0	04/21/16 04:20	
1,2,3-Trichloropropane	ug/L	ND	1.0	04/21/16 04:20	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	04/21/16 04:20	
1,2-Dichlorobenzene	ug/L	ND	1.0	04/21/16 04:20	
1,2-Dichloroethane	ug/L	ND	1.0	04/21/16 04:20	
1,2-Dichloropropane	ug/L	ND	1.0	04/21/16 04:20	
1,4-Dichlorobenzene	ug/L	ND	1.0	04/21/16 04:20	
2-Butanone (MEK)	ug/L	ND	5.0	04/21/16 04:20	
2-Hexanone	ug/L	ND	5.0	04/21/16 04:20	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	04/21/16 04:20	
Acetone	ug/L	ND	25.0	04/21/16 04:20	
Acrylonitrile	ug/L	ND	10.0	04/21/16 04:20	
Benzene	ug/L	ND	1.0	04/21/16 04:20	
Bromochloromethane	ug/L	ND	1.0	04/21/16 04:20	
Bromodichloromethane	ug/L	ND	1.0	04/21/16 04:20	
Bromoform	ug/L	ND	1.0	04/21/16 04:20	
Bromomethane	ug/L	ND	2.0	04/21/16 04:20	
Carbon disulfide	ug/L	ND	2.0	04/21/16 04:20	
Carbon tetrachloride	ug/L	ND	1.0	04/21/16 04:20	
Chlorobenzene	ug/L	ND	1.0	04/21/16 04:20	
Chloroethane	ug/L	ND	1.0	04/21/16 04:20	
Chloroform	ug/L	ND	1.0	04/21/16 04:20	
Chloromethane	ug/L	ND	1.0	04/21/16 04:20	
cis-1,2-Dichloroethene	ug/L	ND	1.0	04/21/16 04:20	
cis-1,3-Dichloropropene	ug/L	ND	1.0	04/21/16 04:20	
Dibromochloromethane	ug/L	ND	1.0	04/21/16 04:20	
Dibromomethane	ug/L	ND	1.0	04/21/16 04:20	
Ethylbenzene	ug/L	ND	1.0	04/21/16 04:20	
Iodomethane	ug/L	ND	5.0	04/21/16 04:20	
m&p-Xylene	ug/L	ND	2.0	04/21/16 04:20	
Methylene Chloride	ug/L	ND	2.0	04/21/16 04:20	
o-Xylene	ug/L	ND	1.0	04/21/16 04:20	
Styrene	ug/L	ND	1.0	04/21/16 04:20	
Tetrachloroethene	ug/L	ND	1.0	04/21/16 04:20	
Toluene	ug/L	ND	1.0	04/21/16 04:20	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

METHOD BLANK: 1715847 Matrix: Water

Associated Lab Samples: 92294250001, 92294250002, 92294250003, 92294250004, 92294250005, 92294250006, 92294250020, 92294250021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,2-Dichloroethene	ug/L	ND	1.0	04/21/16 04:20	
trans-1,3-Dichloropropene	ug/L	ND	1.0	04/21/16 04:20	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	04/21/16 04:20	
Trichloroethene	ug/L	ND	1.0	04/21/16 04:20	
Trichlorofluoromethane	ug/L	ND	1.0	04/21/16 04:20	
Vinyl acetate	ug/L	ND	2.0	04/21/16 04:20	
Vinyl chloride	ug/L	ND	1.0	04/21/16 04:20	
Xylene (Total)	ug/L	ND	2.0	04/21/16 04:20	
1,2-Dichloroethane-d4 (S)	%	100	70-130	04/21/16 04:20	
4-Bromofluorobenzene (S)	%	98	70-130	04/21/16 04:20	
Toluene-d8 (S)	%	100	70-130	04/21/16 04:20	

LABORATORY CONTROL SAMPLE: 1715848

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.4	101	70-130	
1,1,1-Trichloroethane	ug/L	50	49.3	99	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	49.1	98	70-130	
1,1,2-Trichloroethane	ug/L	50	48.9	98	70-130	
1,1-Dichloroethane	ug/L	50	47.4	95	70-130	
1,1-Dichloroethene	ug/L	50	50.1	100	70-132	
1,2,3-Trichloropropane	ug/L	50	51.7	103	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	52.1	104	70-130	
1,2-Dichlorobenzene	ug/L	50	49.0	98	70-130	
1,2-Dichloroethane	ug/L	50	43.9	88	70-130	
1,2-Dichloropropane	ug/L	50	47.8	96	70-130	
1,4-Dichlorobenzene	ug/L	50	49.3	99	70-130	
2-Butanone (MEK)	ug/L	100	93.4	93	70-145	
2-Hexanone	ug/L	100	100	100	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	104	104	70-140	
Acetone	ug/L	100	83.8	84	50-175	
Acrylonitrile	ug/L	250	239	96	70-143	
Benzene	ug/L	50	49.1	98	70-130	
Bromochloromethane	ug/L	50	45.7	91	70-130	
Bromodichloromethane	ug/L	50	48.1	96	70-130	
Bromoform	ug/L	50	49.1	98	70-130	
Bromomethane	ug/L	50	39.7	79	54-130	
Carbon disulfide	ug/L	50	48.8	98	70-131	
Carbon tetrachloride	ug/L	50	51.3	103	70-132	
Chlorobenzene	ug/L	50	49.8	100	70-130	
Chloroethane	ug/L	50	44.5	89	64-134	
Chloroform	ug/L	50	46.7	93	70-130	
Chloromethane	ug/L	50	50.4	101	64-130	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

LABORATORY CONTROL SAMPLE: 1715848

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	47.3	95	70-131	
cis-1,3-Dichloropropene	ug/L	50	48.6	97	70-130	
Dibromochloromethane	ug/L	50	51.5	103	70-130	
Dibromomethane	ug/L	50	47.5	95	70-131	
Ethylbenzene	ug/L	50	49.4	99	70-130	
Iodomethane	ug/L	100	93.8	94	49-180	
m&p-Xylene	ug/L	100	96.5	96	70-130	
Methylene Chloride	ug/L	50	51.2	102	63-130	
o-Xylene	ug/L	50	48.5	97	70-130	
Styrene	ug/L	50	50.2	100	70-130	
Tetrachloroethene	ug/L	50	49.5	99	70-130	
Toluene	ug/L	50	49.5	99	70-130	
trans-1,2-Dichloroethene	ug/L	50	47.2	94	70-130	
trans-1,3-Dichloropropene	ug/L	50	48.4	97	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	43.1	86	70-141	
Trichloroethene	ug/L	50	49.3	99	70-130	
Trichlorofluoromethane	ug/L	50	47.5	95	62-133	
Vinyl acetate	ug/L	100	99.8	100	66-157	
Vinyl chloride	ug/L	50	50.4	101	50-150	
Xylene (Total)	ug/L	150	145	97	70-130	
1,2-Dichloroethane-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 1715850

Parameter	Units	92294222023 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	21.6	108	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	22.3	111	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20.8	104	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	20.2	101	70-130	
1,1-Dichloroethane	ug/L	ND	20	21.0	105	70-130	
1,1-Dichloroethene	ug/L	17.7	20	40.4	113	70-166	
1,2,3-Trichloropropane	ug/L	ND	20	21.2	106	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	21.8	109	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	20.9	104	70-130	
1,2-Dichloroethane	ug/L	ND	20	18.8	93	70-130	
1,2-Dichloropropane	ug/L	ND	20	21.0	105	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	21.0	105	70-130	
2-Butanone (MEK)	ug/L	ND	40	40.8	102	70-130	
2-Hexanone	ug/L	ND	40	43.1	108	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	44.1	110	70-130	
Acetone	ug/L	ND	40	41.4	98	70-130	
Acrylonitrile	ug/L	ND	100	103	103	70-130	
Benzene	ug/L	ND	20	22.3	111	70-148	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

MATRIX SPIKE SAMPLE: 1715850

Parameter	Units	92294222023 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromochloromethane	ug/L	ND	20	20.6	103	70-130	
Bromodichloromethane	ug/L	ND	20	20.6	103	70-130	
Bromoform	ug/L	ND	20	20.0	100	70-130	
Bromomethane	ug/L	ND	20	19.2	96	70-130	
Carbon disulfide	ug/L	ND	20	22.0	110	70-130	
Carbon tetrachloride	ug/L	ND	20	23.3	117	70-130	
Chlorobenzene	ug/L	ND	20	21.5	108	70-146	
Chloroethane	ug/L	ND	20	20.1	100	70-130	
Chloroform	ug/L	ND	20	20.3	101	70-130	
Chloromethane	ug/L	ND	20	21.8	109	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	21.2	106	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	20.2	101	70-130	
Dibromochloromethane	ug/L	ND	20	20.8	104	70-130	
Dibromomethane	ug/L	ND	20	20.5	102	70-130	
Ethylbenzene	ug/L	ND	20	22.3	112	70-130	
Iodomethane	ug/L	ND	40	40.8	102	70-130	
m&p-Xylene	ug/L	ND	40	43.7	109	70-130	
Methylene Chloride	ug/L	ND	20	21.9	109	70-130	
o-Xylene	ug/L	ND	20	21.5	107	70-130	
Styrene	ug/L	ND	20	21.6	108	70-130	
Tetrachloroethene	ug/L	ND	20	22.2	111	70-130	
Toluene	ug/L	ND	20	22.3	111	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	21.4	107	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	20.4	102	70-130	
trans-1,4-Dichloro-2-butene	ug/L	ND	20	18.2	91	70-130	
Trichloroethene	ug/L	ND	20	21.8	109	69-151	
Trichlorofluoromethane	ug/L	ND	20	22.4	112	70-130	
Vinyl acetate	ug/L	ND	40	37.3	93	70-130	
Vinyl chloride	ug/L	ND	20	22.6	113	70-130	
1,2-Dichloroethane-d4 (S)	%				98	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 1715849

Parameter	Units	92294222022 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		
1,1,1-Trichloroethane	ug/L	ND	ND		
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		
1,1,2-Trichloroethane	ug/L	ND	ND		
1,1-Dichloroethane	ug/L	ND	ND		
1,1-Dichloroethene	ug/L	ND	.72J		
1,2,3-Trichloropropane	ug/L	ND	ND		
1,2-Dibromoethane (EDB)	ug/L	ND	ND		
1,2-Dichlorobenzene	ug/L	ND	ND		

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

SAMPLE DUPLICATE: 1715849

Parameter	Units	92294222022 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		
1,2-Dichloropropane	ug/L	ND	ND		
1,4-Dichlorobenzene	ug/L	ND	ND		
2-Butanone (MEK)	ug/L	ND	ND		
2-Hexanone	ug/L	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		
Acetone	ug/L	ND	ND		
Acrylonitrile	ug/L	ND	ND		
Benzene	ug/L	ND	ND		
Bromochloromethane	ug/L	ND	ND		
Bromodichloromethane	ug/L	ND	ND		
Bromoform	ug/L	ND	ND		
Bromomethane	ug/L	ND	ND		
Carbon disulfide	ug/L	ND	ND		
Carbon tetrachloride	ug/L	ND	ND		
Chlorobenzene	ug/L	ND	ND		
Chloroethane	ug/L	ND	ND		
Chloroform	ug/L	ND	ND		
Chloromethane	ug/L	ND	ND		
cis-1,2-Dichloroethene	ug/L	ND	ND		
cis-1,3-Dichloropropene	ug/L	ND	ND		
Dibromochloromethane	ug/L	ND	ND		
Dibromomethane	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
Iodomethane	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methylene Chloride	ug/L	ND	ND		
o-Xylene	ug/L	ND	ND		
Styrene	ug/L	ND	ND		
Tetrachloroethene	ug/L	ND	ND		
Toluene	ug/L	ND	ND		
trans-1,2-Dichloroethene	ug/L	ND	ND		
trans-1,3-Dichloropropene	ug/L	ND	ND		
trans-1,4-Dichloro-2-butene	ug/L	ND	ND		
Trichloroethene	ug/L	ND	ND		
Trichlorofluoromethane	ug/L	ND	ND		
Vinyl acetate	ug/L	ND	ND		
Vinyl chloride	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	103	101	2	
4-Bromofluorobenzene (S)	%	99	98	1	
Toluene-d8 (S)	%	100	100	0	

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(828)254-7176

QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

QC Batch: MSV/36518
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92294250016

METHOD BLANK: 1716716
Matrix: Water
Associated Lab Samples: 92294250016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	04/21/16 16:19	
1,1,1-Trichloroethane	ug/L	ND	1.0	04/21/16 16:19	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	04/21/16 16:19	
1,1,2-Trichloroethane	ug/L	ND	1.0	04/21/16 16:19	
1,1-Dichloroethane	ug/L	ND	1.0	04/21/16 16:19	
1,1-Dichloroethene	ug/L	ND	1.0	04/21/16 16:19	
1,2,3-Trichloropropane	ug/L	ND	1.0	04/21/16 16:19	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	04/21/16 16:19	
1,2-Dichlorobenzene	ug/L	ND	1.0	04/21/16 16:19	
1,2-Dichloroethane	ug/L	ND	1.0	04/21/16 16:19	
1,2-Dichloropropane	ug/L	ND	1.0	04/21/16 16:19	
1,4-Dichlorobenzene	ug/L	ND	1.0	04/21/16 16:19	
2-Butanone (MEK)	ug/L	ND	5.0	04/21/16 16:19	
2-Hexanone	ug/L	ND	5.0	04/21/16 16:19	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	04/21/16 16:19	
Acetone	ug/L	ND	25.0	04/21/16 16:19	
Acrylonitrile	ug/L	ND	10.0	04/21/16 16:19	
Benzene	ug/L	ND	1.0	04/21/16 16:19	
Bromochloromethane	ug/L	ND	1.0	04/21/16 16:19	
Bromodichloromethane	ug/L	ND	1.0	04/21/16 16:19	
Bromoform	ug/L	ND	1.0	04/21/16 16:19	
Bromomethane	ug/L	ND	2.0	04/21/16 16:19	
Carbon disulfide	ug/L	ND	2.0	04/21/16 16:19	
Carbon tetrachloride	ug/L	ND	1.0	04/21/16 16:19	
Chlorobenzene	ug/L	ND	1.0	04/21/16 16:19	
Chloroethane	ug/L	ND	1.0	04/21/16 16:19	
Chloroform	ug/L	ND	1.0	04/21/16 16:19	
Chloromethane	ug/L	ND	1.0	04/21/16 16:19	
cis-1,2-Dichloroethene	ug/L	ND	1.0	04/21/16 16:19	
cis-1,3-Dichloropropene	ug/L	ND	1.0	04/21/16 16:19	
Dibromochloromethane	ug/L	ND	1.0	04/21/16 16:19	
Dibromomethane	ug/L	ND	1.0	04/21/16 16:19	
Ethylbenzene	ug/L	ND	1.0	04/21/16 16:19	
Iodomethane	ug/L	ND	5.0	04/21/16 16:19	
m&p-Xylene	ug/L	ND	2.0	04/21/16 16:19	
Methylene Chloride	ug/L	ND	2.0	04/21/16 16:19	C9
o-Xylene	ug/L	ND	1.0	04/21/16 16:19	
Styrene	ug/L	ND	1.0	04/21/16 16:19	
Tetrachloroethene	ug/L	ND	1.0	04/21/16 16:19	
Toluene	ug/L	ND	1.0	04/21/16 16:19	
trans-1,2-Dichloroethene	ug/L	ND	1.0	04/21/16 16:19	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

METHOD BLANK: 1716716 Matrix: Water
Associated Lab Samples: 92294250016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,3-Dichloropropene	ug/L	ND	1.0	04/21/16 16:19	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	04/21/16 16:19	
Trichloroethene	ug/L	ND	1.0	04/21/16 16:19	
Trichlorofluoromethane	ug/L	ND	1.0	04/21/16 16:19	
Vinyl acetate	ug/L	ND	2.0	04/21/16 16:19	
Vinyl chloride	ug/L	ND	1.0	04/21/16 16:19	
Xylene (Total)	ug/L	ND	2.0	04/21/16 16:19	
1,2-Dichloroethane-d4 (S)	%	98	70-130	04/21/16 16:19	
4-Bromofluorobenzene (S)	%	99	70-130	04/21/16 16:19	
Toluene-d8 (S)	%	100	70-130	04/21/16 16:19	

LABORATORY CONTROL SAMPLE: 1716717

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	51.1	102	70-130	
1,1,1-Trichloroethane	ug/L	50	49.9	100	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	49.0	98	70-130	
1,1,2-Trichloroethane	ug/L	50	47.0	94	70-130	
1,1-Dichloroethane	ug/L	50	49.2	98	70-130	
1,1-Dichloroethene	ug/L	50	51.7	103	70-132	
1,2,3-Trichloropropane	ug/L	50	48.9	98	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	52.5	105	70-130	
1,2-Dichlorobenzene	ug/L	50	48.3	97	70-130	
1,2-Dichloroethane	ug/L	50	43.2	86	70-130	
1,2-Dichloropropane	ug/L	50	48.4	97	70-130	
1,4-Dichlorobenzene	ug/L	50	49.5	99	70-130	
2-Butanone (MEK)	ug/L	100	89.7	90	70-145	
2-Hexanone	ug/L	100	98.2	98	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	70-140	
Acetone	ug/L	100	85.9	86	50-175	
Acrylonitrile	ug/L	250	233	93	70-143	
Benzene	ug/L	50	50.4	101	70-130	
Bromochloromethane	ug/L	50	48.4	97	70-130	
Bromodichloromethane	ug/L	50	49.1	98	70-130	
Bromoform	ug/L	50	49.3	99	70-130	
Bromomethane	ug/L	50	43.1	86	54-130	
Carbon disulfide	ug/L	50	50.5	101	70-131	
Carbon tetrachloride	ug/L	50	52.3	105	70-132	
Chlorobenzene	ug/L	50	50.3	101	70-130	
Chloroethane	ug/L	50	46.3	93	64-134	
Chloroform	ug/L	50	47.7	95	70-130	
Chloromethane	ug/L	50	47.5	95	64-130	
cis-1,2-Dichloroethene	ug/L	50	48.6	97	70-131	
cis-1,3-Dichloropropene	ug/L	50	51.0	102	70-130	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

LABORATORY CONTROL SAMPLE: 1716717

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dibromochloromethane	ug/L	50	50.8	102	70-130	
Dibromomethane	ug/L	50	47.9	96	70-131	
Ethylbenzene	ug/L	50	50.2	100	70-130	
Iodomethane	ug/L	100	102	102	49-180	
m&p-Xylene	ug/L	100	99.0	99	70-130	
Methylene Chloride	ug/L	50	51.5	103	63-130	
o-Xylene	ug/L	50	48.9	98	70-130	
Styrene	ug/L	50	50.9	102	70-130	
Tetrachloroethene	ug/L	50	50.7	101	70-130	
Toluene	ug/L	50	50.6	101	70-130	
trans-1,2-Dichloroethene	ug/L	50	50.5	101	70-130	
trans-1,3-Dichloropropene	ug/L	50	49.5	99	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	44.2	88	70-141	
Trichloroethene	ug/L	50	50.3	101	70-130	
Trichlorofluoromethane	ug/L	50	48.7	97	62-133	
Vinyl acetate	ug/L	100	98.3	98	66-157	
Vinyl chloride	ug/L	50	51.1	102	50-150	
Xylene (Total)	ug/L	150	148	99	70-130	
1,2-Dichloroethane-d4 (S)	%			94	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 1716719

Parameter	Units	92294555002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	22.5	112	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	23.6	118	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20.6	103	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	21.0	105	70-130	
1,1-Dichloroethane	ug/L	ND	20	22.7	113	70-130	
1,1-Dichloroethene	ug/L	ND	20	25.1	126	70-166	
1,2,3-Trichloropropane	ug/L	ND	20	21.1	105	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	22.5	112	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	21.6	108	70-130	
1,2-Dichloroethane	ug/L	ND	20	19.4	97	70-130	
1,2-Dichloropropane	ug/L	ND	20	21.5	108	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	21.5	108	70-130	
2-Butanone (MEK)	ug/L	ND	40	37.3	93	70-130	
2-Hexanone	ug/L	ND	40	39.8	99	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	39.6	99	70-130	
Acetone	ug/L	ND	40	34.1	85	70-130	
Acrylonitrile	ug/L	ND	100	99.6	100	70-130	
Benzene	ug/L	ND	20	22.6	113	70-148	
Bromochloromethane	ug/L	ND	20	22.5	112	70-130	
Bromodichloromethane	ug/L	ND	20	21.1	106	70-130	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

MATRIX SPIKE SAMPLE: 1716719

Parameter	Units	92294555002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromoform	ug/L	ND	20	20.2	101	70-130	
Bromomethane	ug/L	ND	20	21.7	109	70-130	
Carbon disulfide	ug/L	ND	20	24.6	123	70-130	
Carbon tetrachloride	ug/L	ND	20	23.7	119	70-130	
Chlorobenzene	ug/L	ND	20	22.6	113	70-146	
Chloroethane	ug/L	ND	20	22.1	111	70-130	
Chloroform	ug/L	ND	20	21.8	109	70-130	
Chloromethane	ug/L	ND	20	20.6	103	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	22.0	110	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	20.2	101	70-130	
Dibromochloromethane	ug/L	ND	20	21.2	106	70-130	
Dibromomethane	ug/L	ND	20	21.3	106	70-130	
Ethylbenzene	ug/L	ND	20	22.9	114	70-130	
Iodomethane	ug/L	ND	40	47.7	119	70-130	
m&p-Xylene	ug/L	ND	40	44.7	112	70-130	
Methylene Chloride	ug/L	ND	20	22.8	109	70-130	
o-Xylene	ug/L	ND	20	22.3	112	70-130	
Styrene	ug/L	ND	20	22.7	113	70-130	
Tetrachloroethene	ug/L	ND	20	23.0	115	70-130	
Toluene	ug/L	ND	20	22.6	113	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	22.1	111	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	20.1	101	70-130	
trans-1,4-Dichloro-2-butene	ug/L	ND	20	17.1	85	70-130	
Trichloroethene	ug/L	ND	20	22.7	113	69-151	
Trichlorofluoromethane	ug/L	ND	20	23.4	117	70-130	
Vinyl acetate	ug/L	ND	40	39.0	98	70-130	
Vinyl chloride	ug/L	ND	20	24.0	120	70-130	
1,2-Dichloroethane-d4 (S)	%				98	70-130	
4-Bromofluorobenzene (S)	%				101	70-130	
Toluene-d8 (S)	%				97	70-130	

SAMPLE DUPLICATE: 1716718

Parameter	Units	92294555001 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		
1,1,1-Trichloroethane	ug/L	ND	ND		
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		
1,1,2-Trichloroethane	ug/L	ND	ND		
1,1-Dichloroethane	ug/L	ND	ND		
1,1-Dichloroethene	ug/L	ND	ND		
1,2,3-Trichloropropane	ug/L	ND	ND		
1,2-Dibromoethane (EDB)	ug/L	ND	ND		
1,2-Dichlorobenzene	ug/L	ND	ND		
1,2-Dichloroethane	ug/L	ND	ND		
1,2-Dichloropropane	ug/L	ND	ND		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

SAMPLE DUPLICATE: 1716718

Parameter	Units	92294555001 Result	Dup Result	RPD	Qualifiers
1,4-Dichlorobenzene	ug/L	ND	ND		
2-Butanone (MEK)	ug/L	ND	ND		
2-Hexanone	ug/L	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		
Acetone	ug/L	ND	ND		
Acrylonitrile	ug/L	ND	ND		
Benzene	ug/L	ND	ND		
Bromochloromethane	ug/L	ND	ND		
Bromodichloromethane	ug/L	ND	ND		
Bromoform	ug/L	ND	ND		
Bromomethane	ug/L	ND	ND		
Carbon disulfide	ug/L	ND	ND		
Carbon tetrachloride	ug/L	ND	ND		
Chlorobenzene	ug/L	ND	ND		
Chloroethane	ug/L	ND	ND		
Chloroform	ug/L	ND	ND		
Chloromethane	ug/L	ND	ND		
cis-1,2-Dichloroethene	ug/L	ND	ND		
cis-1,3-Dichloropropene	ug/L	ND	ND		
Dibromochloromethane	ug/L	ND	ND		
Dibromomethane	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
Iodomethane	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methylene Chloride	ug/L	ND	ND		
o-Xylene	ug/L	ND	ND		
Styrene	ug/L	ND	ND		
Tetrachloroethene	ug/L	ND	.6J		
Toluene	ug/L	ND	ND		
trans-1,2-Dichloroethene	ug/L	ND	ND		
trans-1,3-Dichloropropene	ug/L	ND	ND		
trans-1,4-Dichloro-2-butene	ug/L	ND	ND		
Trichloroethene	ug/L	ND	ND		
Trichlorofluoromethane	ug/L	ND	ND		
Vinyl acetate	ug/L	ND	ND		
Vinyl chloride	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	98	99	1	
4-Bromofluorobenzene (S)	%	101	98	3	
Toluene-d8 (S)	%	101	102	1	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

QC Batch: MSV/36529
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92294250022

METHOD BLANK: 1717620
Matrix: Water
Associated Lab Samples: 92294250022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	04/22/16 14:05	
1,1,1-Trichloroethane	ug/L	ND	1.0	04/22/16 14:05	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	04/22/16 14:05	
1,1,2-Trichloroethane	ug/L	ND	1.0	04/22/16 14:05	
1,1-Dichloroethane	ug/L	ND	1.0	04/22/16 14:05	
1,1-Dichloroethene	ug/L	ND	1.0	04/22/16 14:05	
1,1-Dichloropropene	ug/L	ND	1.0	04/22/16 14:05	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	04/22/16 14:05	
1,2,3-Trichloropropane	ug/L	ND	1.0	04/22/16 14:05	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	04/22/16 14:05	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	04/22/16 14:05	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	04/22/16 14:05	
1,2-Dichlorobenzene	ug/L	ND	1.0	04/22/16 14:05	
1,2-Dichloroethane	ug/L	ND	1.0	04/22/16 14:05	
1,2-Dichloropropane	ug/L	ND	1.0	04/22/16 14:05	
1,3-Dichlorobenzene	ug/L	ND	1.0	04/22/16 14:05	
1,3-Dichloropropane	ug/L	ND	1.0	04/22/16 14:05	
1,4-Dichlorobenzene	ug/L	ND	1.0	04/22/16 14:05	
2,2-Dichloropropane	ug/L	ND	1.0	04/22/16 14:05	
2-Butanone (MEK)	ug/L	ND	5.0	04/22/16 14:05	
2-Chlorotoluene	ug/L	ND	1.0	04/22/16 14:05	
2-Hexanone	ug/L	ND	5.0	04/22/16 14:05	
4-Chlorotoluene	ug/L	ND	1.0	04/22/16 14:05	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	04/22/16 14:05	
Acetone	ug/L	ND	25.0	04/22/16 14:05	
Benzene	ug/L	ND	1.0	04/22/16 14:05	
Bromobenzene	ug/L	ND	1.0	04/22/16 14:05	
Bromochloromethane	ug/L	ND	1.0	04/22/16 14:05	
Bromodichloromethane	ug/L	ND	1.0	04/22/16 14:05	
Bromoform	ug/L	ND	1.0	04/22/16 14:05	
Bromomethane	ug/L	ND	2.0	04/22/16 14:05	
Carbon tetrachloride	ug/L	ND	1.0	04/22/16 14:05	
Chlorobenzene	ug/L	ND	1.0	04/22/16 14:05	
Chloroethane	ug/L	ND	1.0	04/22/16 14:05	
Chloroform	ug/L	ND	1.0	04/22/16 14:05	
Chloromethane	ug/L	ND	1.0	04/22/16 14:05	
cis-1,2-Dichloroethene	ug/L	ND	1.0	04/22/16 14:05	
cis-1,3-Dichloropropene	ug/L	ND	1.0	04/22/16 14:05	
Dibromochloromethane	ug/L	ND	1.0	04/22/16 14:05	
Dibromomethane	ug/L	ND	1.0	04/22/16 14:05	
Dichlorodifluoromethane	ug/L	ND	1.0	04/22/16 14:05	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

METHOD BLANK: 1717620 Matrix: Water
Associated Lab Samples: 92294250022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	04/22/16 14:05	
Ethylbenzene	ug/L	ND	1.0	04/22/16 14:05	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	04/22/16 14:05	
m&p-Xylene	ug/L	ND	2.0	04/22/16 14:05	
Methyl-tert-butyl ether	ug/L	ND	1.0	04/22/16 14:05	
Methylene Chloride	ug/L	ND	2.0	04/22/16 14:05	
Naphthalene	ug/L	ND	1.0	04/22/16 14:05	
o-Xylene	ug/L	ND	1.0	04/22/16 14:05	
p-Isopropyltoluene	ug/L	ND	1.0	04/22/16 14:05	
Styrene	ug/L	ND	1.0	04/22/16 14:05	
Tetrachloroethene	ug/L	ND	1.0	04/22/16 14:05	
Toluene	ug/L	ND	1.0	04/22/16 14:05	
trans-1,2-Dichloroethene	ug/L	ND	1.0	04/22/16 14:05	
trans-1,3-Dichloropropene	ug/L	ND	1.0	04/22/16 14:05	
Trichloroethene	ug/L	ND	1.0	04/22/16 14:05	
Trichlorofluoromethane	ug/L	ND	1.0	04/22/16 14:05	
Vinyl acetate	ug/L	ND	2.0	04/22/16 14:05	
Vinyl chloride	ug/L	ND	1.0	04/22/16 14:05	
Xylene (Total)	ug/L	ND	2.0	04/22/16 14:05	
1,2-Dichloroethane-d4 (S)	%	104	70-130	04/22/16 14:05	
4-Bromofluorobenzene (S)	%	102	70-130	04/22/16 14:05	
Toluene-d8 (S)	%	99	70-130	04/22/16 14:05	

LABORATORY CONTROL SAMPLE: 1717621

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	51.2	102	70-130	
1,1,1-Trichloroethane	ug/L	50	53.3	107	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	49.3	99	70-130	
1,1,2-Trichloroethane	ug/L	50	50.3	101	70-130	
1,1-Dichloroethane	ug/L	50	51.4	103	70-130	
1,1-Dichloroethene	ug/L	50	54.1	108	70-132	
1,1-Dichloropropene	ug/L	50	52.9	106	70-130	
1,2,3-Trichlorobenzene	ug/L	50	51.8	104	70-135	
1,2,3-Trichloropropane	ug/L	50	51.1	102	70-130	
1,2,4-Trichlorobenzene	ug/L	50	53.2	106	70-134	
1,2-Dibromo-3-chloropropane	ug/L	50	46.3	93	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	54.4	109	70-130	
1,2-Dichlorobenzene	ug/L	50	50.3	101	70-130	
1,2-Dichloroethane	ug/L	50	50.3	101	70-130	
1,2-Dichloropropane	ug/L	50	50.3	101	70-130	
1,3-Dichlorobenzene	ug/L	50	51.7	103	70-130	
1,3-Dichloropropane	ug/L	50	52.4	105	70-130	
1,4-Dichlorobenzene	ug/L	50	51.4	103	70-130	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

LABORATORY CONTROL SAMPLE: 1717621

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	56.2	112	58-145	
2-Butanone (MEK)	ug/L	100	97.2	97	70-145	
2-Chlorotoluene	ug/L	50	54.1	108	70-130	
2-Hexanone	ug/L	100	103	103	70-144	
4-Chlorotoluene	ug/L	50	52.3	105	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	108	108	70-140	
Acetone	ug/L	100	102	102	50-175	
Benzene	ug/L	50	51.9	104	70-130	
Bromobenzene	ug/L	50	50.7	101	70-130	
Bromochloromethane	ug/L	50	55.2	110	70-130	
Bromodichloromethane	ug/L	50	52.1	104	70-130	
Bromoform	ug/L	50	51.0	102	70-130	
Bromomethane	ug/L	50	31.7	63	54-130	
Carbon tetrachloride	ug/L	50	55.3	111	70-132	
Chlorobenzene	ug/L	50	51.0	102	70-130	
Chloroethane	ug/L	50	59.8	120	64-134	
Chloroform	ug/L	50	51.2	102	70-130	
Chloromethane	ug/L	50	33.9	68	64-130	
cis-1,2-Dichloroethene	ug/L	50	51.8	104	70-131	
cis-1,3-Dichloropropene	ug/L	50	52.0	104	70-130	
Dibromochloromethane	ug/L	50	52.5	105	70-130	
Dibromomethane	ug/L	50	52.6	105	70-131	
Dichlorodifluoromethane	ug/L	50	50.0	100	56-130	
Diisopropyl ether	ug/L	50	52.3	105	70-130	
Ethylbenzene	ug/L	50	50.9	102	70-130	
Hexachloro-1,3-butadiene	ug/L	50	54.0	108	70-130	
m&p-Xylene	ug/L	100	102	102	70-130	
Methyl-tert-butyl ether	ug/L	50	54.7	109	70-130	
Methylene Chloride	ug/L	50	49.3	99	63-130	
Naphthalene	ug/L	50	50.9	102	70-138	
o-Xylene	ug/L	50	50.0	100	70-130	
p-Isopropyltoluene	ug/L	50	51.5	103	70-130	
Styrene	ug/L	50	51.3	103	70-130	
Tetrachloroethene	ug/L	50	50.4	101	70-130	
Toluene	ug/L	50	53.0	106	70-130	
trans-1,2-Dichloroethene	ug/L	50	52.8	106	70-130	
trans-1,3-Dichloropropene	ug/L	50	50.8	102	70-132	
Trichloroethene	ug/L	50	51.4	103	70-130	
Trichlorofluoromethane	ug/L	50	56.5	113	62-133	
Vinyl acetate	ug/L	100	114	114	66-157	
Vinyl chloride	ug/L	50	51.3	103	50-150	
Xylene (Total)	ug/L	150	152	102	70-130	
1,2-Dichloroethane-d4 (S)	%			102	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			100	70-130	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

MATRIX SPIKE SAMPLE: 1717622

Parameter	Units	92294465002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	21.9	110	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	24.3	122	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	19.7	98	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	21.5	108	70-130	
1,1-Dichloroethane	ug/L	ND	20	22.5	113	70-130	
1,1-Dichloroethene	ug/L	ND	20	24.5	122	70-166	
1,1-Dichloropropene	ug/L	ND	20	23.9	120	70-130	
1,2,3-Trichlorobenzene	ug/L	ND	20	20.7	103	70-130	
1,2,3-Trichloropropane	ug/L	ND	20	21.3	106	70-130	
1,2,4-Trichlorobenzene	ug/L	ND	20	20.6	103	70-130	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	19.3	96	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	22.2	111	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	20.6	103	70-130	
1,2-Dichloroethane	ug/L	ND	20	21.7	108	70-130	
1,2-Dichloropropane	ug/L	ND	20	21.0	105	70-130	
1,3-Dichlorobenzene	ug/L	ND	20	21.7	109	70-130	
1,3-Dichloropropane	ug/L	ND	20	21.3	107	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	21.2	106	70-130	
2,2-Dichloropropane	ug/L	ND	20	23.0	115	70-130	
2-Butanone (MEK)	ug/L	ND	40	42.7	107	70-130	
2-Chlorotoluene	ug/L	ND	20	23.5	117	70-130	
2-Hexanone	ug/L	ND	40	39.6	99	70-130	
4-Chlorotoluene	ug/L	ND	20	22.4	112	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	43.6	109	70-130	
Acetone	ug/L	ND	40	44.4	111	70-130	
Benzene	ug/L	ND	20	22.5	112	70-148	
Bromobenzene	ug/L	ND	20	21.6	108	70-130	
Bromochloromethane	ug/L	ND	20	24.3	121	70-130	
Bromodichloromethane	ug/L	ND	20	21.7	109	70-130	
Bromoform	ug/L	ND	20	19.8	99	70-130	
Bromomethane	ug/L	ND	20	11.6	58	70-130	M1
Carbon tetrachloride	ug/L	ND	20	24.6	123	70-130	
Chlorobenzene	ug/L	ND	20	22.2	111	70-146	
Chloroethane	ug/L	ND	20	29.7	149	70-130	M1
Chloroform	ug/L	ND	20	22.9	114	70-130	
Chloromethane	ug/L	ND	20	15.4	77	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	22.1	111	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	21.0	105	70-130	
Dibromochloromethane	ug/L	ND	20	20.5	103	70-130	
Dibromomethane	ug/L	ND	20	21.7	109	70-130	
Dichlorodifluoromethane	ug/L	ND	20	22.1	110	70-130	
Diisopropyl ether	ug/L	ND	20	22.7	113	70-130	
Ethylbenzene	ug/L	ND	20	22.2	111	70-130	
Hexachloro-1,3-butadiene	ug/L	ND	20	21.6	108	70-130	
m&p-Xylene	ug/L	ND	40	44.0	110	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	23.2	116	70-130	
Methylene Chloride	ug/L	ND	20	21.7	108	70-130	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

MATRIX SPIKE SAMPLE: 1717622

Parameter	Units	92294465002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	ND	20	19.0	95	70-130	
o-Xylene	ug/L	ND	20	21.5	107	70-130	
p-Isopropyltoluene	ug/L	ND	20	21.9	110	70-130	
Styrene	ug/L	ND	20	21.3	107	70-130	
Tetrachloroethene	ug/L	ND	20	22.3	111	70-130	
Toluene	ug/L	ND	20	22.8	114	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	23.5	118	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	19.9	100	70-130	
Trichloroethene	ug/L	ND	20	22.9	114	69-151	
Trichlorofluoromethane	ug/L	ND	20	27.2	136	70-130	M1
Vinyl acetate	ug/L	ND	40	40.9	102	70-130	
Vinyl chloride	ug/L	ND	20	25.9	129	70-130	
1,2-Dichloroethane-d4 (S)	%				99	70-130	
4-Bromofluorobenzene (S)	%				102	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 1717623

Parameter	Units	92294038001 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		
1,1,1-Trichloroethane	ug/L	ND	ND		
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		
1,1,2-Trichloroethane	ug/L	ND	ND		
1,1-Dichloroethane	ug/L	ND	ND		
1,1-Dichloroethene	ug/L	ND	ND		
1,1-Dichloropropene	ug/L	ND	ND		
1,2,3-Trichlorobenzene	ug/L	ND	ND		
1,2,3-Trichloropropane	ug/L	ND	ND		
1,2,4-Trichlorobenzene	ug/L	ND	ND		
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		
1,2-Dibromoethane (EDB)	ug/L	ND	ND		
1,2-Dichlorobenzene	ug/L	ND	ND		
1,2-Dichloroethane	ug/L	ND	ND		
1,2-Dichloropropane	ug/L	ND	ND		
1,3-Dichlorobenzene	ug/L	ND	ND		
1,3-Dichloropropane	ug/L	ND	ND		
1,4-Dichlorobenzene	ug/L	ND	ND		
2,2-Dichloropropane	ug/L	ND	ND		
2-Butanone (MEK)	ug/L	ND	ND		
2-Chlorotoluene	ug/L	ND	ND		
2-Hexanone	ug/L	ND	ND		
4-Chlorotoluene	ug/L	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		
Acetone	ug/L	ND	ND		
Benzene	ug/L	ND	ND		

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

SAMPLE DUPLICATE: 1717623

Parameter	Units	92294038001 Result	Dup Result	RPD	Qualifiers
Bromobenzene	ug/L	ND	ND		
Bromochloromethane	ug/L	ND	ND		
Bromodichloromethane	ug/L	ND	ND		
Bromoform	ug/L	ND	ND		
Bromomethane	ug/L	ND	ND		
Carbon tetrachloride	ug/L	ND	ND		
Chlorobenzene	ug/L	ND	ND		
Chloroethane	ug/L	ND	ND		
Chloroform	ug/L	ND	ND		
Chloromethane	ug/L	ND	ND		
cis-1,2-Dichloroethene	ug/L	ND	ND		
cis-1,3-Dichloropropene	ug/L	ND	ND		
Dibromochloromethane	ug/L	ND	ND		
Dibromomethane	ug/L	ND	ND		
Dichlorodifluoromethane	ug/L	ND	ND		
Diisopropyl ether	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
Hexachloro-1,3-butadiene	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methyl-tert-butyl ether	ug/L	ND	ND		
Methylene Chloride	ug/L	ND	ND		
Naphthalene	ug/L	ND	ND		
o-Xylene	ug/L	ND	ND		
p-Isopropyltoluene	ug/L	ND	ND		
Styrene	ug/L	ND	ND		
Tetrachloroethene	ug/L	ND	ND		
Toluene	ug/L	ND	ND		
trans-1,2-Dichloroethene	ug/L	ND	ND		
trans-1,3-Dichloropropene	ug/L	ND	ND		
Trichloroethene	ug/L	ND	ND		
Trichlorofluoromethane	ug/L	ND	ND		
Vinyl acetate	ug/L	ND	ND		
Vinyl chloride	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	101	102	1	
4-Bromofluorobenzene (S)	%	101	98	2	
Toluene-d8 (S)	%	100	98	2	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

QC Batch: MSV/36542 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92294250007, 92294250008, 92294250009, 92294250010, 92294250011, 92294250012, 92294250013, 92294250014, 92294250015, 92294250017

METHOD BLANK: 1718181 Matrix: Water
Associated Lab Samples: 92294250007, 92294250008, 92294250009, 92294250010, 92294250011, 92294250012, 92294250013, 92294250014, 92294250015, 92294250017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	04/23/16 20:23	
1,1,1-Trichloroethane	ug/L	ND	1.0	04/23/16 20:23	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	04/23/16 20:23	
1,1,2-Trichloroethane	ug/L	ND	1.0	04/23/16 20:23	
1,1-Dichloroethane	ug/L	ND	1.0	04/23/16 20:23	
1,1-Dichloroethene	ug/L	ND	1.0	04/23/16 20:23	
1,2,3-Trichloropropane	ug/L	ND	1.0	04/23/16 20:23	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	04/23/16 20:23	
1,2-Dichlorobenzene	ug/L	ND	1.0	04/23/16 20:23	
1,2-Dichloroethane	ug/L	ND	1.0	04/23/16 20:23	
1,2-Dichloropropane	ug/L	ND	1.0	04/23/16 20:23	
1,4-Dichlorobenzene	ug/L	ND	1.0	04/23/16 20:23	
2-Butanone (MEK)	ug/L	ND	5.0	04/23/16 20:23	
2-Hexanone	ug/L	ND	5.0	04/23/16 20:23	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	04/23/16 20:23	
Acetone	ug/L	ND	25.0	04/23/16 20:23	
Acrylonitrile	ug/L	ND	10.0	04/23/16 20:23	
Benzene	ug/L	ND	1.0	04/23/16 20:23	
Bromochloromethane	ug/L	ND	1.0	04/23/16 20:23	
Bromodichloromethane	ug/L	ND	1.0	04/23/16 20:23	
Bromoform	ug/L	ND	1.0	04/23/16 20:23	
Bromomethane	ug/L	ND	2.0	04/23/16 20:23	
Carbon disulfide	ug/L	ND	2.0	04/23/16 20:23	
Carbon tetrachloride	ug/L	ND	1.0	04/23/16 20:23	
Chlorobenzene	ug/L	ND	1.0	04/23/16 20:23	
Chloroethane	ug/L	ND	1.0	04/23/16 20:23	
Chloroform	ug/L	ND	1.0	04/23/16 20:23	
Chloromethane	ug/L	ND	1.0	04/23/16 20:23	
cis-1,2-Dichloroethene	ug/L	ND	1.0	04/23/16 20:23	
cis-1,3-Dichloropropene	ug/L	ND	1.0	04/23/16 20:23	
Dibromochloromethane	ug/L	ND	1.0	04/23/16 20:23	
Dibromomethane	ug/L	ND	1.0	04/23/16 20:23	
Ethylbenzene	ug/L	ND	1.0	04/23/16 20:23	
Iodomethane	ug/L	ND	5.0	04/23/16 20:23	
m&p-Xylene	ug/L	ND	2.0	04/23/16 20:23	
Methylene Chloride	ug/L	ND	2.0	04/23/16 20:23	
o-Xylene	ug/L	ND	1.0	04/23/16 20:23	
Styrene	ug/L	ND	1.0	04/23/16 20:23	
Tetrachloroethene	ug/L	ND	1.0	04/23/16 20:23	
Toluene	ug/L	ND	1.0	04/23/16 20:23	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

METHOD BLANK: 1718181 Matrix: Water

Associated Lab Samples: 92294250007, 92294250008, 92294250009, 92294250010, 92294250011, 92294250012, 92294250013, 92294250014, 92294250015, 92294250017

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,2-Dichloroethene	ug/L	ND	1.0	04/23/16 20:23	
trans-1,3-Dichloropropene	ug/L	ND	1.0	04/23/16 20:23	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	04/23/16 20:23	
Trichloroethene	ug/L	ND	1.0	04/23/16 20:23	
Trichlorofluoromethane	ug/L	ND	1.0	04/23/16 20:23	
Vinyl acetate	ug/L	ND	2.0	04/23/16 20:23	
Vinyl chloride	ug/L	ND	1.0	04/23/16 20:23	
Xylene (Total)	ug/L	ND	2.0	04/23/16 20:23	
1,2-Dichloroethane-d4 (S)	%	102	70-130	04/23/16 20:23	
4-Bromofluorobenzene (S)	%	99	70-130	04/23/16 20:23	
Toluene-d8 (S)	%	100	70-130	04/23/16 20:23	

LABORATORY CONTROL SAMPLE: 1718182

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	45.4	91	70-130	
1,1,1-Trichloroethane	ug/L	50	45.7	91	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	45.2	90	70-130	
1,1,2-Trichloroethane	ug/L	50	45.1	90	70-130	
1,1-Dichloroethane	ug/L	50	45.5	91	70-130	
1,1-Dichloroethene	ug/L	50	48.4	97	70-132	
1,2,3-Trichloropropane	ug/L	50	46.2	92	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	47.9	96	70-130	
1,2-Dichlorobenzene	ug/L	50	45.8	92	70-130	
1,2-Dichloroethane	ug/L	50	43.8	88	70-130	
1,2-Dichloropropane	ug/L	50	46.0	92	70-130	
1,4-Dichlorobenzene	ug/L	50	45.3	91	70-130	
2-Butanone (MEK)	ug/L	100	94.5	94	70-145	
2-Hexanone	ug/L	100	97.7	98	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	97.5	97	70-140	
Acetone	ug/L	100	94.5	95	50-175	
Acrylonitrile	ug/L	250	240	96	70-143	
Benzene	ug/L	50	45.1	90	70-130	
Bromochloromethane	ug/L	50	50.7	101	70-130	
Bromodichloromethane	ug/L	50	46.4	93	70-130	
Bromoform	ug/L	50	45.4	91	70-130	
Bromomethane	ug/L	50	54.8	110	54-130	
Carbon disulfide	ug/L	50	49.2	98	70-131	
Carbon tetrachloride	ug/L	50	47.0	94	70-132	
Chlorobenzene	ug/L	50	45.7	91	70-130	
Chloroethane	ug/L	50	47.3	95	64-134	
Chloroform	ug/L	50	44.4	89	70-130	
Chloromethane	ug/L	50	43.0	86	64-130	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

LABORATORY CONTROL SAMPLE: 1718182

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	46.0	92	70-131	
cis-1,3-Dichloropropene	ug/L	50	47.4	95	70-130	
Dibromochloromethane	ug/L	50	46.9	94	70-130	
Dibromomethane	ug/L	50	47.3	95	70-131	
Ethylbenzene	ug/L	50	45.9	92	70-130	
Iodomethane	ug/L	100	73.9	74	49-180	
m&p-Xylene	ug/L	100	89.3	89	70-130	
Methylene Chloride	ug/L	50	43.1	86	63-130	
o-Xylene	ug/L	50	44.3	89	70-130	
Styrene	ug/L	50	45.9	92	70-130	
Tetrachloroethene	ug/L	50	43.8	88	70-130	
Toluene	ug/L	50	46.6	93	70-130	
trans-1,2-Dichloroethene	ug/L	50	46.5	93	70-130	
trans-1,3-Dichloropropene	ug/L	50	45.2	90	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	42.2	84	70-141	
Trichloroethene	ug/L	50	45.2	90	70-130	
Trichlorofluoromethane	ug/L	50	44.8	90	62-133	
Vinyl acetate	ug/L	100	98.9	99	66-157	
Vinyl chloride	ug/L	50	50.3	101	50-150	
Xylene (Total)	ug/L	150	134	89	70-130	
1,2-Dichloroethane-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			102	70-130	

MATRIX SPIKE SAMPLE: 1718183

Parameter	Units	92294667002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	21.0	105	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	21.9	109	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20.4	102	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	21.9	110	70-130	
1,1-Dichloroethane	ug/L	ND	20	21.5	107	70-130	
1,1-Dichloroethene	ug/L	ND	20	23.7	119	70-166	
1,2,3-Trichloropropane	ug/L	ND	20	22.4	112	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	22.0	110	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	21.4	107	70-130	
1,2-Dichloroethane	ug/L	ND	20	19.9	100	70-130	
1,2-Dichloropropane	ug/L	ND	20	21.8	109	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	20.6	103	70-130	
2-Butanone (MEK)	ug/L	ND	40	46.8	117	70-130	
2-Hexanone	ug/L	ND	40	45.3	113	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	46.4	116	70-130	
Acetone	ug/L	ND	40	48.1	117	70-130	
Acrylonitrile	ug/L	ND	100	117	117	70-130	
Benzene	ug/L	ND	20	22.4	112	70-148	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

MATRIX SPIKE SAMPLE: 1718183

Parameter	Units	92294667002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromochloromethane	ug/L	ND	20	22.1	111	70-130	
Bromodichloromethane	ug/L	ND	20	21.7	109	70-130	
Bromoform	ug/L	ND	20	19.6	98	70-130	
Bromomethane	ug/L	ND	20	13.1	66	70-130	M1
Carbon disulfide	ug/L	ND	20	24.2	121	70-130	
Carbon tetrachloride	ug/L	ND	20	22.4	112	70-130	
Chlorobenzene	ug/L	ND	20	21.0	105	70-146	
Chloroethane	ug/L	ND	20	22.6	113	70-130	
Chloroform	ug/L	ND	20	21.3	106	70-130	
Chloromethane	ug/L	ND	20	21.1	106	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	21.8	109	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	21.8	109	70-130	
Dibromochloromethane	ug/L	ND	20	21.2	106	70-130	
Dibromomethane	ug/L	ND	20	22.4	112	70-130	
Ethylbenzene	ug/L	ND	20	21.6	108	70-130	
Iodomethane	ug/L	ND	40	25.0	62	70-130	M1
m&p-Xylene	ug/L	ND	40	41.4	104	70-130	
Methylene Chloride	ug/L	ND	20	20.7	103	70-130	
o-Xylene	ug/L	ND	20	20.7	103	70-130	
Styrene	ug/L	ND	20	21.4	107	70-130	
Tetrachloroethene	ug/L	ND	20	21.2	106	70-130	
Toluene	ug/L	ND	20	22.7	113	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	22.5	112	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	20.6	103	70-130	
trans-1,4-Dichloro-2-butene	ug/L	ND	20	16.5	83	70-130	
Trichloroethene	ug/L	ND	20	21.8	109	69-151	
Trichlorofluoromethane	ug/L	ND	20	23.4	117	70-130	
Vinyl acetate	ug/L	ND	40	39.3	98	70-130	
Vinyl chloride	ug/L	ND	20	24.7	124	70-130	
1,2-Dichloroethane-d4 (S)	%				98	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				103	70-130	

SAMPLE DUPLICATE: 1718184

Parameter	Units	92294948001 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		
1,1,1-Trichloroethane	ug/L	ND	ND		
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		
1,1,2-Trichloroethane	ug/L	ND	ND		
1,1-Dichloroethane	ug/L	ND	ND		
1,1-Dichloroethene	ug/L	ND	ND		
1,2,3-Trichloropropane	ug/L	ND	ND		
1,2-Dibromoethane (EDB)	ug/L	ND	ND		
1,2-Dichlorobenzene	ug/L	ND	ND		

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

SAMPLE DUPLICATE: 1718184

Parameter	Units	92294948001 Result	Dup Result	RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		
1,2-Dichloropropane	ug/L	ND	ND		
1,4-Dichlorobenzene	ug/L	ND	ND		
2-Butanone (MEK)	ug/L	ND	ND		
2-Hexanone	ug/L	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		
Acetone	ug/L	ND	ND		
Acrylonitrile	ug/L	ND	ND		
Benzene	ug/L	ND	ND		
Bromochloromethane	ug/L	ND	ND		
Bromodichloromethane	ug/L	ND	ND		
Bromoform	ug/L	ND	ND		
Bromomethane	ug/L	ND	ND		
Carbon disulfide	ug/L	ND	ND		
Carbon tetrachloride	ug/L	ND	ND		
Chlorobenzene	ug/L	ND	ND		
Chloroethane	ug/L	ND	ND		
Chloroform	ug/L	ND	ND		
Chloromethane	ug/L	ND	ND		
cis-1,2-Dichloroethene	ug/L	ND	ND		
cis-1,3-Dichloropropene	ug/L	ND	ND		
Dibromochloromethane	ug/L	ND	ND		
Dibromomethane	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
Iodomethane	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methylene Chloride	ug/L	ND	ND		
o-Xylene	ug/L	ND	ND		
Styrene	ug/L	ND	ND		
Tetrachloroethene	ug/L	ND	ND		
Toluene	ug/L	ND	ND		
trans-1,2-Dichloroethene	ug/L	ND	ND		
trans-1,3-Dichloropropene	ug/L	ND	ND		
trans-1,4-Dichloro-2-butene	ug/L	ND	ND		
Trichloroethene	ug/L	ND	ND		
Trichlorofluoromethane	ug/L	ND	ND		
Vinyl acetate	ug/L	ND	ND		
Vinyl chloride	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	102	100	2	
4-Bromofluorobenzene (S)	%	99	100	1	
Toluene-d8 (S)	%	100	99	1	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

QC Batch: MSV/36543 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92294250018, 92294250019

METHOD BLANK: 1718213 | Matrix: Water
Associated Lab Samples: 92294250018, 92294250019

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	04/24/16 17:52	
1,1,1-Trichloroethane	ug/L	ND	1.0	04/24/16 17:52	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	04/24/16 17:52	
1,1,2-Trichloroethane	ug/L	ND	1.0	04/24/16 17:52	
1,1-Dichloroethane	ug/L	ND	1.0	04/24/16 17:52	
1,1-Dichloroethene	ug/L	ND	1.0	04/24/16 17:52	
1,2,3-Trichloropropane	ug/L	ND	1.0	04/24/16 17:52	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	04/24/16 17:52	
1,2-Dichlorobenzene	ug/L	ND	1.0	04/24/16 17:52	
1,2-Dichloroethane	ug/L	ND	1.0	04/24/16 17:52	
1,2-Dichloropropane	ug/L	ND	1.0	04/24/16 17:52	
1,4-Dichlorobenzene	ug/L	ND	1.0	04/24/16 17:52	
2-Butanone (MEK)	ug/L	ND	5.0	04/24/16 17:52	
2-Hexanone	ug/L	ND	5.0	04/24/16 17:52	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	04/24/16 17:52	
Acetone	ug/L	ND	25.0	04/24/16 17:52	
Acrylonitrile	ug/L	ND	10.0	04/24/16 17:52	
Benzene	ug/L	ND	1.0	04/24/16 17:52	
Bromochloromethane	ug/L	ND	1.0	04/24/16 17:52	
Bromodichloromethane	ug/L	ND	1.0	04/24/16 17:52	
Bromoform	ug/L	ND	1.0	04/24/16 17:52	
Bromomethane	ug/L	ND	2.0	04/24/16 17:52	
Carbon disulfide	ug/L	ND	2.0	04/24/16 17:52	
Carbon tetrachloride	ug/L	ND	1.0	04/24/16 17:52	
Chlorobenzene	ug/L	ND	1.0	04/24/16 17:52	
Chloroethane	ug/L	ND	1.0	04/24/16 17:52	
Chloroform	ug/L	ND	1.0	04/24/16 17:52	
Chloromethane	ug/L	ND	1.0	04/24/16 17:52	
cis-1,2-Dichloroethene	ug/L	ND	1.0	04/24/16 17:52	
cis-1,3-Dichloropropene	ug/L	ND	1.0	04/24/16 17:52	
Dibromochloromethane	ug/L	ND	1.0	04/24/16 17:52	
Dibromomethane	ug/L	ND	1.0	04/24/16 17:52	
Ethylbenzene	ug/L	ND	1.0	04/24/16 17:52	
Iodomethane	ug/L	ND	5.0	04/24/16 17:52	
m&p-Xylene	ug/L	ND	2.0	04/24/16 17:52	
Methylene Chloride	ug/L	ND	2.0	04/24/16 17:52	
o-Xylene	ug/L	ND	1.0	04/24/16 17:52	
Styrene	ug/L	ND	1.0	04/24/16 17:52	
Tetrachloroethene	ug/L	ND	1.0	04/24/16 17:52	
Toluene	ug/L	ND	1.0	04/24/16 17:52	
trans-1,2-Dichloroethene	ug/L	ND	1.0	04/24/16 17:52	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

METHOD BLANK: 1718213 Matrix: Water
Associated Lab Samples: 92294250018, 92294250019

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,3-Dichloropropene	ug/L	ND	1.0	04/24/16 17:52	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	04/24/16 17:52	
Trichloroethene	ug/L	ND	1.0	04/24/16 17:52	
Trichlorofluoromethane	ug/L	ND	1.0	04/24/16 17:52	
Vinyl acetate	ug/L	ND	2.0	04/24/16 17:52	
Vinyl chloride	ug/L	ND	1.0	04/24/16 17:52	
Xylene (Total)	ug/L	ND	2.0	04/24/16 17:52	
1,2-Dichloroethane-d4 (S)	%	102	70-130	04/24/16 17:52	
4-Bromofluorobenzene (S)	%	101	70-130	04/24/16 17:52	
Toluene-d8 (S)	%	100	70-130	04/24/16 17:52	

LABORATORY CONTROL SAMPLE: 1718214

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	47.9	96	70-130	
1,1,1-Trichloroethane	ug/L	50	48.0	96	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	47.3	95	70-130	
1,1,2-Trichloroethane	ug/L	50	47.5	95	70-130	
1,1-Dichloroethane	ug/L	50	46.9	94	70-130	
1,1-Dichloroethene	ug/L	50	50.3	101	70-132	
1,2,3-Trichloropropane	ug/L	50	49.3	99	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	50.1	100	70-130	
1,2-Dichlorobenzene	ug/L	50	48.3	97	70-130	
1,2-Dichloroethane	ug/L	50	44.4	89	70-130	
1,2-Dichloropropane	ug/L	50	47.1	94	70-130	
1,4-Dichlorobenzene	ug/L	50	47.2	94	70-130	
2-Butanone (MEK)	ug/L	100	97.0	97	70-145	
2-Hexanone	ug/L	100	103	103	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	70-140	
Acetone	ug/L	100	99.8	100	50-175	
Acrylonitrile	ug/L	250	234	94	70-143	
Benzene	ug/L	50	47.5	95	70-130	
Bromochloromethane	ug/L	50	51.0	102	70-130	
Bromodichloromethane	ug/L	50	49.4	99	70-130	
Bromoform	ug/L	50	48.4	97	70-130	
Bromomethane	ug/L	50	42.4	85	54-130	
Carbon disulfide	ug/L	50	52.4	105	70-131	
Carbon tetrachloride	ug/L	50	50.3	101	70-132	
Chlorobenzene	ug/L	50	47.4	95	70-130	
Chloroethane	ug/L	50	47.7	95	64-134	
Chloroform	ug/L	50	46.4	93	70-130	
Chloromethane	ug/L	50	39.5	79	64-130	
cis-1,2-Dichloroethene	ug/L	50	46.6	93	70-131	
cis-1,3-Dichloropropene	ug/L	50	51.1	102	70-130	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

LABORATORY CONTROL SAMPLE: 1718214

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dibromochloromethane	ug/L	50	50.7	101	70-130	
Dibromomethane	ug/L	50	48.0	96	70-131	
Ethylbenzene	ug/L	50	47.9	96	70-130	
Iodomethane	ug/L	100	75.0	75	49-180	
m&p-Xylene	ug/L	100	95.9	96	70-130	
Methylene Chloride	ug/L	50	45.0	90	63-130	
o-Xylene	ug/L	50	46.3	93	70-130	
Styrene	ug/L	50	48.6	97	70-130	
Tetrachloroethene	ug/L	50	47.2	94	70-130	
Toluene	ug/L	50	48.8	98	70-130	
trans-1,2-Dichloroethene	ug/L	50	48.0	96	70-130	
trans-1,3-Dichloropropene	ug/L	50	48.6	97	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	47.9	96	70-141	
Trichloroethene	ug/L	50	46.3	93	70-130	
Trichlorofluoromethane	ug/L	50	46.6	93	62-133	
Vinyl acetate	ug/L	100	101	101	66-157	
Vinyl chloride	ug/L	50	52.7	105	50-150	
Xylene (Total)	ug/L	150	142	95	70-130	
1,2-Dichloroethane-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			102	70-130	

MATRIX SPIKE SAMPLE: 1718215

Parameter	Units	92294250018 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20.6	103	70-130	
1,1,1-Trichloroethane	ug/L	ND	20	21.8	109	70-130	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20.1	101	70-130	
1,1,2-Trichloroethane	ug/L	ND	20	21.6	108	70-130	
1,1-Dichloroethane	ug/L	ND	20	21.3	106	70-130	
1,1-Dichloroethene	ug/L	ND	20	23.3	116	70-166	
1,2,3-Trichloropropane	ug/L	ND	20	20.9	104	70-130	
1,2-Dibromoethane (EDB)	ug/L	ND	20	21.8	109	70-130	
1,2-Dichlorobenzene	ug/L	ND	20	20.4	102	70-130	
1,2-Dichloroethane	ug/L	ND	20	20.2	101	70-130	
1,2-Dichloropropane	ug/L	ND	20	21.4	107	70-130	
1,4-Dichlorobenzene	ug/L	ND	20	20.4	102	70-130	
2-Butanone (MEK)	ug/L	ND	40	45.5	114	70-130	
2-Hexanone	ug/L	ND	40	43.3	108	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	46.0	115	70-130	
Acetone	ug/L	ND	40	52.1	115	70-130	
Acrylonitrile	ug/L	ND	100	117	117	70-130	
Benzene	ug/L	ND	20	21.9	109	70-148	
Bromochloromethane	ug/L	ND	20	21.5	108	70-130	
Bromodichloromethane	ug/L	ND	20	21.0	105	70-130	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

MATRIX SPIKE SAMPLE: 1718215

Parameter	Units	92294250018 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromoform	ug/L	ND	20	18.6	93	70-130	
Bromomethane	ug/L	ND	20	16.4	82	70-130	
Carbon disulfide	ug/L	ND	20	23.3	117	70-130	
Carbon tetrachloride	ug/L	ND	20	21.9	110	70-130	
Chlorobenzene	ug/L	ND	20	20.9	104	70-146	
Chloroethane	ug/L	ND	20	23.7	119	70-130	
Chloroform	ug/L	ND	20	21.7	109	70-130	
Chloromethane	ug/L	ND	20	20.9	104	70-130	
cis-1,2-Dichloroethene	ug/L	ND	20	21.9	109	70-130	
cis-1,3-Dichloropropene	ug/L	ND	20	21.8	109	70-130	
Dibromochloromethane	ug/L	ND	20	20.4	102	70-130	
Dibromomethane	ug/L	ND	20	21.7	109	70-130	
Ethylbenzene	ug/L	ND	20	21.3	106	70-130	
Iodomethane	ug/L	ND	40	26.3	66	70-130	M1
m&p-Xylene	ug/L	ND	40	41.4	104	70-130	
Methylene Chloride	ug/L	ND	20	20.5	102	70-130	
o-Xylene	ug/L	ND	20	20.0	100	70-130	
Styrene	ug/L	ND	20	20.9	105	70-130	
Tetrachloroethene	ug/L	ND	20	20.8	104	70-130	
Toluene	ug/L	ND	20	22.5	113	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	22.9	115	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	19.9	100	70-130	
trans-1,4-Dichloro-2-butene	ug/L	ND	20	18.9	95	70-130	
Trichloroethene	ug/L	ND	20	21.6	108	69-151	
Trichlorofluoromethane	ug/L	ND	20	23.9	120	70-130	
Vinyl acetate	ug/L	ND	40	38.5	96	70-130	
Vinyl chloride	ug/L	ND	20	24.2	121	70-130	
1,2-Dichloroethane-d4 (S)	%				101	70-130	
4-Bromofluorobenzene (S)	%				98	70-130	
Toluene-d8 (S)	%				102	70-130	

SAMPLE DUPLICATE: 1718216

Parameter	Units	92294250019 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		
1,1,1-Trichloroethane	ug/L	ND	ND		
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		
1,1,2-Trichloroethane	ug/L	ND	ND		
1,1-Dichloroethane	ug/L	ND	ND		
1,1-Dichloroethene	ug/L	ND	ND		
1,2,3-Trichloropropane	ug/L	ND	ND		
1,2-Dibromoethane (EDB)	ug/L	ND	ND		
1,2-Dichlorobenzene	ug/L	ND	ND		
1,2-Dichloroethane	ug/L	ND	ND		
1,2-Dichloropropane	ug/L	ND	ND		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

SAMPLE DUPLICATE: 1718216

Parameter	Units	92294250019 Result	Dup Result	RPD	Qualifiers
1,4-Dichlorobenzene	ug/L	ND	ND		
2-Butanone (MEK)	ug/L	ND	ND		
2-Hexanone	ug/L	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		
Acetone	ug/L	ND	ND		
Acrylonitrile	ug/L	ND	ND		
Benzene	ug/L	ND	ND		
Bromochloromethane	ug/L	ND	ND		
Bromodichloromethane	ug/L	ND	ND		
Bromoform	ug/L	ND	ND		
Bromomethane	ug/L	ND	ND		
Carbon disulfide	ug/L	ND	ND		
Carbon tetrachloride	ug/L	ND	ND		
Chlorobenzene	ug/L	ND	ND		
Chloroethane	ug/L	ND	ND		
Chloroform	ug/L	ND	ND		
Chloromethane	ug/L	ND	ND		
cis-1,2-Dichloroethene	ug/L	ND	ND		
cis-1,3-Dichloropropene	ug/L	ND	ND		
Dibromochloromethane	ug/L	ND	ND		
Dibromomethane	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
Iodomethane	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methylene Chloride	ug/L	ND	ND		
o-Xylene	ug/L	ND	ND		
Styrene	ug/L	ND	ND		
Tetrachloroethene	ug/L	ND	ND		
Toluene	ug/L	ND	ND		
trans-1,2-Dichloroethene	ug/L	ND	ND		
trans-1,3-Dichloropropene	ug/L	ND	ND		
trans-1,4-Dichloro-2-butene	ug/L	ND	ND		
Trichloroethene	ug/L	ND	ND		
Trichlorofluoromethane	ug/L	ND	ND		
Vinyl acetate	ug/L	ND	ND		
Vinyl chloride	ug/L	ND	ND		
Xylene (Total)	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	102	104	2	
4-Bromofluorobenzene (S)	%	98	99	1	
Toluene-d8 (S)	%	98	99	1	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

QC Batch: WET/44411 | Analysis Method: SM 5210B
QC Batch Method: SM 5210B | Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 92294250022

METHOD BLANK: 1716299 | Matrix: Water
Associated Lab Samples: 92294250022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	ND	2.0	04/26/16 09:58	

LABORATORY CONTROL SAMPLE: 1716300

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	206	104	84.6-115.4	

SAMPLE DUPLICATE: 1716301

Parameter	Units	92294250022 Result	Dup Result	RPD	Qualifiers
BOD, 5 day	mg/L	65.3	52.7	21	D6

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

QC Batch: WETA/27350 | Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 | Analysis Description: 300.0 IC Anions
Associated Lab Samples: 92294250022

METHOD BLANK: 1718251 | Matrix: Water
Associated Lab Samples: 92294250022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	2.0	04/25/16 20:32	

LABORATORY CONTROL SAMPLE: 1718252

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	18.9	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1718253 1718254

Parameter	Units	92294139001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Sulfate	mg/L	8.7	20	20	29.8	29.6	105	104	90-110	1	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

QC Batch: WETA/27275
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 92294250022

METHOD BLANK: 1714849
Matrix: Water
Associated Lab Samples: 92294250022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.020	04/20/16 07:29	
Nitrogen, Nitrite	mg/L	ND	0.020	04/20/16 07:29	
Nitrogen, NO2 plus NO3	mg/L	ND	0.020	04/20/16 07:29	

LABORATORY CONTROL SAMPLE: 1714850

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	2.5	2.5	100	90-110	
Nitrogen, Nitrite	mg/L	1	0.98	98	90-110	
Nitrogen, NO2 plus NO3	mg/L	2.5	2.5	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1714851 1714852

Parameter	Units	92294202002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrogen, Nitrate	mg/L	1.8	2.5	2.5	4.3	4.3	99	100	90-110	0	
Nitrogen, Nitrite	mg/L	ND	1	1	1.1	1.1	108	110	90-110	2	
Nitrogen, NO2 plus NO3	mg/L	1.8	2.5	2.5	4.3	4.3	99	100	90-110	0	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

QC Batch: WETA/27310 | Analysis Method: EPA 365.1
QC Batch Method: EPA 365.1 | Analysis Description: 365.1 Phosphorus, Total
Associated Lab Samples: 92294250022

METHOD BLANK: 1716503 | Matrix: Water
Associated Lab Samples: 92294250022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	mg/L	ND	0.050	04/22/16 02:25	

LABORATORY CONTROL SAMPLE: 1716504

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	2.5	2.5	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1716505 1716506

Parameter	Units	92294439001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Phosphorus	mg/L	2.6	2.5	2.5	4.9	5.4	93	113	90-110	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1716507 1716508

Parameter	Units	92294397001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Phosphorus	mg/L	ND	2.5	2.5	2.5	2.5	98	98	90-110	0	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

QC Batch: WETA/27294 | Analysis Method: SM 4500-CN-E
QC Batch Method: SM 4500-CN-E | Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 92294250022

METHOD BLANK: 1715991 | Matrix: Water
Associated Lab Samples: 92294250022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0080	04/26/16 07:49	

LABORATORY CONTROL SAMPLE: 1715992

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1715993 1715994

Parameter	Units	92294264002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Cyanide	mg/L	0.0040J	.1	.1	0.096	0.099	92	95	75-125	2	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1715995 1715996

Parameter	Units	92294378001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Cyanide	mg/L	ND	.1	.1	0.099	0.095	94	89	75-125	4	

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QUALITY CONTROL DATA

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

QC Batch: WETA/27352 | Analysis Method: SM 5220D
QC Batch Method: SM 5220D | Analysis Description: 5220D COD
Associated Lab Samples: 92294250022

METHOD BLANK: 1718511 | Matrix: Water
Associated Lab Samples: 92294250022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	04/25/16 16:30	

LABORATORY CONTROL SAMPLE: 1718512

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	750	771	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1718513 1718514

Parameter	Units	92293505007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Chemical Oxygen Demand	mg/L	48.0	750	750	798	798	100	100	90-110	0	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1718515 1718516

Parameter	Units	92294893004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Chemical Oxygen Demand	mg/L	575	750	750	1220	1220	86	86	90-110	0	M1

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QUALIFIERS

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

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

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

TNI - The NELAC Institute.

LABORATORIES

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

ANALYTE QUALIFIERS

C9	Common Laboratory Contaminant.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92294250001	**SW-1**		FLD/		
92294250002	**SW-2**		FLD/		
92294250003	**SW-3**		FLD/		
92294250004	**SW-5**		FLD/		
92294250005	**SW-6**		FLD/		
92294250006	**SW-7**		FLD/		
92294250007	**MW-1A**		FLD/		
92294250008	**MW-2**		FLD/		
92294250009	**MW-2D**		FLD/		
92294250010	**MW-3R**		FLD/		
92294250011	**MW-3DR**		FLD/		
92294250012	**MW-4A**		FLD/		
92294250013	**MW-8**		FLD/		
92294250014	**MW-11s**		FLD/		
92294250015	**MW-11D**		FLD/		
92294250016	**MW-14**		FLD/		
92294250017	**MW-15**		FLD/		
92294250018	**MW-16**		FLD/		
92294250019	**MW-17**		FLD/		
92294250022	**Lechate**		FLD/		
92294250001	**SW-1**	EPA 3010A	MPRP/21439	EPA 6010	ICP/19256
92294250002	**SW-2**	EPA 3010A	MPRP/21439	EPA 6010	ICP/19256
92294250003	**SW-3**	EPA 3010A	MPRP/21439	EPA 6010	ICP/19256
92294250004	**SW-5**	EPA 3010A	MPRP/21439	EPA 6010	ICP/19256
92294250005	**SW-6**	EPA 3010A	MPRP/21439	EPA 6010	ICP/19256
92294250006	**SW-7**	EPA 3010A	MPRP/21439	EPA 6010	ICP/19256
92294250007	**MW-1A**	EPA 3010A	MPRP/21462	EPA 6010	ICP/19277
92294250008	**MW-2**	EPA 3010A	MPRP/21462	EPA 6010	ICP/19277
92294250009	**MW-2D**	EPA 3010A	MPRP/21462	EPA 6010	ICP/19277
92294250010	**MW-3R**	EPA 3010A	MPRP/21462	EPA 6010	ICP/19277
92294250011	**MW-3DR**	EPA 3010A	MPRP/21462	EPA 6010	ICP/19277
92294250012	**MW-4A**	EPA 3010A	MPRP/21462	EPA 6010	ICP/19277
92294250013	**MW-8**	EPA 3010A	MPRP/21462	EPA 6010	ICP/19277
92294250014	**MW-11s**	EPA 3010A	MPRP/21462	EPA 6010	ICP/19277
92294250015	**MW-11D**	EPA 3010A	MPRP/21462	EPA 6010	ICP/19277
92294250016	**MW-14**	EPA 3010A	MPRP/21462	EPA 6010	ICP/19277
92294250017	**MW-15**	EPA 3010A	MPRP/21463	EPA 6010	ICP/19278
92294250018	**MW-16**	EPA 3010A	MPRP/21463	EPA 6010	ICP/19278
92294250019	**MW-17**	EPA 3010A	MPRP/21463	EPA 6010	ICP/19278
92294250021	**EQUIP BLK**	EPA 3010A	MPRP/21463	EPA 6010	ICP/19278
92294250022	**Lechate**	EPA 3010A	MPRP/21465	EPA 6010	ICP/19280
92294250001	**SW-1**	EPA 8260	MSV/36500		
92294250002	**SW-2**	EPA 8260	MSV/36500		
92294250003	**SW-3**	EPA 8260	MSV/36500		
92294250004	**SW-5**	EPA 8260	MSV/36500		
92294250005	**SW-6**	EPA 8260	MSV/36500		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Haywood Wolf 4/18
Pace Project No.: 92294250

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92294250006	**SW-7**	EPA 8260	MSV/36500		
92294250007	**MW-1A**	EPA 8260	MSV/36542		
92294250008	**MW-2**	EPA 8260	MSV/36542		
92294250009	**MW-2D**	EPA 8260	MSV/36542		
92294250010	**MW-3R**	EPA 8260	MSV/36542		
92294250011	**MW-3DR**	EPA 8260	MSV/36542		
92294250012	**MW-4A**	EPA 8260	MSV/36542		
92294250013	**MW-8**	EPA 8260	MSV/36542		
92294250014	**MW-11s**	EPA 8260	MSV/36542		
92294250015	**MW-11D**	EPA 8260	MSV/36542		
92294250016	**MW-14**	EPA 8260	MSV/36518		
92294250017	**MW-15**	EPA 8260	MSV/36542		
92294250018	**MW-16**	EPA 8260	MSV/36543		
92294250019	**MW-17**	EPA 8260	MSV/36543		
92294250020	**TVL BLK**	EPA 8260	MSV/36500		
92294250021	**EQUIP BLK**	EPA 8260	MSV/36500		
92294250022	**Lechate**	EPA 8260	MSV/36529		
92294250022	**Lechate**	SM 5210B	WET/44411	SM 5210B	WET/44412
92294250022	**Lechate**	EPA 300.0	WETA/27350		
92294250022	**Lechate**	EPA 353.2	WETA/27275		
92294250022	**Lechate**	EPA 365.1	WETA/27310		
92294250022	**Lechate**	SM 4500-CN-E	WETA/27294		
92294250022	**Lechate**	SM 5220D	WETA/27352		

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Page 2 of 2 for Internal Use

Sample Condition Upon Receipt

Client Name: Wolf

Project **WO# : 92294250**

92294250

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:_____

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☐ No

Date/Initials Person Examining Contents: RDT

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other:_____

Thermometer: ☑ IR Gun #5 SN: 15527198 ☐ _____ **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has

Correction Factor: 0.0°C **Cooler Temp Corrected (°C):** 4.6 **Biological Tissue Frozen?** ☐ Yes ☐ No ☑ N

Temp should be above freezing to 6°C

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationa including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	12.
-Includes Date/Time/ID/Analysis Matrix: WW / WT				
All containers needing acid/base preservation have been checked?	☑ Yes	☐ No	☐ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☑ Yes	☐ No	☐ N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC,LLHg	☑ Yes	☐ No	☐ N/A	
Samples checked for dechlorination	☐ Yes	☐ No	☑ N/A	14.
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	15.
Trip Blank Present?	☐ Yes	☑ No	☐ N/A	16.
Trip Blank Custody Seals Present?	☐ Yes	☑ No	☐ N/A	
Pace Trip Blank Lot # (if purchased): _____				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager SCURF Review: _____ **Date:** 4/19/16

Project Manager SRF Review: _____ **Date:** 4/19/16

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 Off
Out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical
www.pacelabs.com

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

Page: 1 of

2045510

Section A Required Client Information:

Company: Haywood Co WS
Address:
Email To:
Phone: Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: SAN TRK
Copy To:
Purchase Order No.:
Project Name: Haywood W Dist
Project Number:

Section C Invoice Information:

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

REGULATORY AGENCY

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

Site Location STATE: NC

Section D Required Client Information

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

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	Composite Start TIME	Composite End/Grab DATE	Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	FLD	Static Hg	Anal VOC	Air Petrol		CO3 TP	Nitr-Nitr	BOD	SO4	COD		Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	SW-1					4-12-16	1345		4			1	3						Y		X	X									92294250-001
2	SW-2					4-12-16	1330		4			1	3						X		X	X									002
3	~~SW-3~~ SW-3					4-12-16	1320		4			1	3						X		X	X									003
4	SW-5					4-12-16	1240		4			1	3						X		X	X									004
5	SW-6					4-12	1130		4			1	3						X		X	X									005
6	SW-7					4-12	0940		4			1	3						X		X	X									006
7	~~[illegible]~~																														
8																															
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
		4-12-16	1650	[signature] Ave	4-12-16	~~1745~~				
	[signature] Ave	4-12-16	1745	Ruth Denise Trantham	4/12/16	1745	4.6	Y	N	Y

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

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MARK A. SWANN

SIGNATURE of SAMPLER: [signature] Ave

DATE Signed (MM/DD/YY): 4-12-16

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

Pace Analytical®
www.pacelabs.com
220 William Pitt Way
Pittsburgh, PA 15238
412-826-5245

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 2

010408

Section A Required Client Information:

Company: HAYWOOD CO WOLF	
Address:	
Email To:	
Phone:	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To: SAN TCK	
Copy To:	
Purchase Order No.:	
Project Name: WOLF MW'S	
Project Number:	

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES ✓ GROUND WATER DRINKING WATER
UST RCRA OTHER _____

Site Location STATE: NC

Section D Required Client Information

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

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	TSP	BAK	Zinc Acetate & NaOH	Other	Analysis Test (Y/N)	Fe	Static H_2O	VOC	Mercury	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-1A					4-19-16	1330		4			1	3						X	X	X	X		92294250-007
2	MW-2					4-19	1310		4			1	3						X	X	X	X		008
3	MW-2D					4-19	1320		4			1	3						X	X	X	X		009
4	MW-3R					4-19	1235		4			1	3						X	X	X	X		010
5	MW-3DR					4-19	1245		4			1	3						X	X	X	X		011
6	MW-4A					4-19	1345		4			1	3						X	X	X	X		012
7	MW-8					4-19	1215		4			1	3						X	X	X	X		013
8	MW-11S					4-19	1405		4			1	3						X	X	X	X		014
9	MW-11D					4-19	1420		4			1	3						X	X	X	X		015
10	MW-14					4-19	1505		4			1	3						X	X	X	X		016
11	MW-15					4-19	1450		4			1	3						X	X	X	X		017
12	MW-16					4-19	1200		4			1	3						X	X	X	X		018

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
		4-19-16	1520	[signature]	4-19-16	1520				
	[signature] AVL	4-19-16	1615	[signature] AVL	4/19/16	16:15	2.4	Y	Y	Y

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

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MARK A. SWANN

SIGNATURE of SAMPLER: [signature] AVL

DATE Signed (MM/DD/YY): 4-19-16

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

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 2

1996469

Section A Required Client Information:

Company: HAYWOOD CO	
Address:	
Email To:	
Phone:	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To: SANTEK	
Copy To:	
Purchase Order No.:	
Project Name: WOLF MW'S	
Project Number:	

Section C Invoice Information:

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

REGULATORY AGENCY

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

Site Location STATE: _____

Section D Required Client Information

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

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	Fe, Mn	SAFL Mn	APT VOC	APT Metals		BOD	COD TP	NO_3, NO_2, N		SO4			Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-17					4.19.16	1145		4			1	3						Y	Y	X	X										92294280-019
2																																
3	TUC BLK					4.12.16	815		2				2								Y											020
4	EQUIP BLK					4.12.16	816		3			1	2								Y	X										021
5																																
6																																
7																																
8	Leachate					4.19.16	1255		9	2	2	1	3	1					Y		Y	X		X	X	X	X	X				022
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
		4.19.16	1520	[signature] AVC	4-19.16	1520				
	[signature] AVC	4-19-16	1615	[signature] AVC	4/19/16	16:15	2.9	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MARK C. SWANZ

SIGNATURE of SAMPLER: [signature] AVC — DATE Signed (MM/DD/YY): 4-19.16

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

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

APPENDIX D

STATISTICAL CALCULATIONS

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

COMPOUND	TOTAL	ND	DETECTED	%ND	STATISTICAL TEST
Total Antimony	354	347	7	98.0%	Poisson Prediction Limits
Total Arsenic	354	327	27	92.4%	Poisson Prediction Limits
Total Barium	357	16	341	4.5%	Prediction Limits
Total Beryllium	355	311	44	87.6%	Kruskal-Wallis
Total Cadmium	355	311	44	87.6%	Kruskal-Wallis
Total Chromium	355	210	145	59.2%	Kruskal-Wallis
Total Cobalt	355	232	123	65.4%	Kruskal-Wallis
Total Copper	355	228	127	64.2%	Kruskal-Wallis
Total Lead	356	278	78	78.1%	Kruskal-Wallis
Total Nickel	356	165	191	46.3%	Kruskal-Wallis
Total Selenium	355	351	4	98.9%	Poisson Prediction Limits
Total Silver	355	352	3	99.2%	Poisson Prediction Limits
Total Thallium	355	335	20	94.4%	Poisson Prediction Limits
Total Vanadium	355	214	141	60.3%	Kruskal-Wallis
Total Zinc	355	137	218	38.6%	Kruskal-Wallis
Acetone	304	303	1	99.7%	Poisson Prediction Limits
Carbon Disulfide	304	301	3	99.0%	Poisson Prediction Limits
Chloroethane	304	303	1	99.7%	Poisson Prediction Limits
Iodomethane	304	303	1	99.7%	Poisson Prediction Limits
Dichloromethane	304	301	3	99.0%	Poisson Prediction Limits
2-Butanone	239	238	1	99.6%	Poisson Prediction Limits

Sampling Event	# Detected
N 1	64
N 2	13
N 3	14
N 4	3
N 5	64
N 6	0
N 7	0
N 8	0
N 9	0
N 10	53
N 11	88
N 12	59
N 13	55
N 14	74
N 15	49
N 16	61
N 17	60
N 18	28

LEGEND FOR THE FOLLOWING PAGES:

ND = *Not Detected* at the method detection limit
MCL = *Maximum Contaminant Level* ; NCAC 2L Standard
NE = *Not Established* ; NC has not established a MCL
NP = *Not Present* during sampling event
NS = *Not Sampled*
NT = *Not Tested*
NA = information *Not Available*
MDL = *Method Detection Limit*

N 19	38
N 20	43
N 21	57
N 22	52
N 23	58
N 24	55
N 25	37
N 26	27
N 27	46
N 28	41
N 29	54
N 30	43
N 31	45
N 32	40
N 33	35
N 34	34
N 35	19
N 36	41
N 37	40
N 38	33

Total Detected Concentrations (per compound) =	1523
Total Detected Concentrations (per event) =	1523
Are all accounted for ?	Yes
Statistical Package Prepared By:	IAI
Statistical Package Checked By:	DPO/MSP

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Antimony**
MCL (µg/l): Not Established
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**10**
06/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
07/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**30**
04/09/01	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**10**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**30**
04/15/02	**15**	ND	NS	ND	ND	ND	NT	ND	ND	**11**	NS	NP	NP	**10**
09/26/02	ND	ND	ND	**12**	ND	ND	ND	ND	ND	ND	**98**	NP	NP	**10**
04/28/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/30/03	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**12**	NP	NP	**5**
10/13/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**30**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/25/07	ND	ND	ND	ND	ND	**20**	ND	ND	ND	ND	ND	NP	NP	**6**
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**5**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**5**
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**5**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6.1**	ND	**5**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/28/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/27/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/19/16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 32.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 89$
$T_{n1} = 309$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where c = k/n
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 89$
$T_{n1} = 309$
$t\,[88,.01] = 2.3751$

$c = 0.0112$

$T^*_k = 8.0$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Arsenic**
MCL (µg/l): 10
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**10**
06/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
07/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**10**
04/09/01	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**10**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
04/15/02	ND	ND	NS	ND	ND	ND	NT	ND	ND	ND	NS	NP	NP	**10**
09/26/02	ND	**5.7**	ND	ND	ND	ND	ND	ND	**27**	ND	**68**	NP	NP	**5**
04/28/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**24**	NP	NP	**5**
10/30/03	ND	ND	NT	ND	ND	ND	ND	ND	ND	**5.3**	**81**	NP	NP	**5**
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	**7.4**	**30**	NP	NP	**5**
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**59**	NP	NP	**5**
04/18/05	ND	ND	ND	**10**	ND	ND	ND	ND	ND	**5.2**	**65**	NP	NP	**5**
10/13/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**44**	NP	NP	**5**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**42**	NP	NP	**10**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**13**	NP	NP	**5**
04/25/07	ND	ND	ND	ND	ND	**280**	ND	ND	ND	ND	**12**	NP	NP	**5**
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**21.4**	NP	NP	**5**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10.2**	NP	NP	**5**
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6.6**	NP	NP	**5**
04/22/09	ND	ND	**5.4**	ND	ND	**5.6**	ND	ND	ND	ND	NS	NP	NP	**5**
10/26/09	ND	ND	ND	ND	**6**	ND	NS	NS	NS	ND	ND	NP	NP	**5**
04/22/10	ND	ND	ND	ND	**7.4**	**9.8**	NS	NS	ND	ND	ND	NP	NP	**5**
10/27/10	ND	ND	ND	ND	**5.4**	**5.9**	ND	ND	ND	ND	ND	ND	ND	**5**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
04/28/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
10/27/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
04/19/16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 32.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 89$
$T_{n1} = 303.6$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where c = k/n
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 89$
$T_{n1} = 303.6$
$t\,[88,.01] = 2.3751$

$c = 0.0112$

$T^*_k = 7.9$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	5	5	5	5	5	5	5	5	5	5

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Barium**
NC MCL (µg/l): 700
Method: Prediction Limits

	BACKGROUND WELLS			DETECTION WELLS										
	MW-11S	**MW-11D**	**MW-14**	**MW-1A**	**MW-2**	**MW-2D**	**MW-3**	**MW-3D**	**MW-4A**	**MW-8**	**MW-15**	**MW-16**	**MW-17**	**MDL**
4/24/00	**250**	NS	NS	**240**	**420**	**200**	**63**	**300**	**93**	**230**	NS	NP	NP	**5**
6/26/00	**300**	**67**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
7/26/00	**330**	**30**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
9/18/00	NS	NS	NS	**330**	**92**	NS	NS	NS	NT	NS	NS	NP	NP	**500**
4/9/01	**1300**	**380**	NS	**180**	**330**	**120**	**80**	**290**	**360**	**970**	NS	NP	NP	**5**
9/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
1/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
2/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**500**
4/15/02	**1300**	**41**	NS	ND	ND	**160**	**23**	**190**	**460**	**1400**	NS	NP	NP	**5**
9/26/02	**330**	**500**	**750**	**4200**	**120**	**230**	**93**	**410**	**910**	**1400**	**11000**	NP	NP	**5**
4/28/03	**600**	**66**	**220**	**1800**	**160**	**140**	**110**	**92**	**360**	**800**	**2800**	NP	NP	**5**
10/30/03	**320**	**100**	NT	**210**	**310**	**130**	**95**	**110**	**1200**	**270**	**4900**	NP	NP	**5**
4/20/04	**320**	**56**	**120**	**410**	**460**	**170**	**140**	**210**	**62**	**940**	**2000**	NP	NP	**5**
10/21/04	**320**	**40**	**200**	**300**	**310**	**140**	**140**	**130**	**12**	**900**	**4900**	NP	NP	**5**
4/18/05	**480**	**55**	**160**	**7200**	**610**	**180**	**160**	**140**	**12**	**1000**	**3700**	NP	NP	**5**
10/13/05	**770**	**37**	**160**	**1700**	**870**	**250**	**160**	**140**	**27**	**810**	**2700**	NP	NP	**5**
4/25/06	**650**	ND	ND	ND	**1100**	ND	ND	ND	ND	**750**	**2700**	NP	NP	**500**
10/20/06	**410**	**22**	**180**	**470**	**1100**	ND	ND	ND	**160**	ND	**650**	NP	NP	**5**
4/25/07	**290**	ND	**200**	**240**	**1300**	**1500**	**130**	**180**	ND	ND	**600**	NP	NP	**100**
10/31/07	**501**	**31.5**	**223**	**198**	**1350**	**591**	**184**	**208**	**62.4**	**516**	**872**	NP	NP	**5**
4/23/08	**194**	**30.8**	**253**	**168**	**1230**	**661**	**216**	**202**	**61.8**	**151**	**361**	NP	NP	**5**
10/20/08	**474**	**66**	**313**	**224**	**1210**	**894**	**164**	**216**	**41.1**	**182**	**245**	NP	NP	**5**
4/22/09	**126**	**47.2**	**591**	**309**	**1300**	**817**	**230**	**216**	**77**	**163**	NS	NP	NP	**5**
10/26/09	**131**	**16.8**	**144**	**188**	**1720**	**987**	NS	NS	NS	**209**	**178**	NP	NP	**5**
4/22/10	**208**	**43.5**	**153**	**157**	**1920**	**1380**	NS	NS	**20.9**	**150**	**74.8**	NP	NP	**5**
10/27/10	**147**	**15.8**	**162**	**178**	**1760**	**1550**	**531**	**234**	**20**	**190**	**111**	**191**	**84.4**	**5**
4/29/11	**191**	**16.3**	**188**	**182**	**1620**	**1390**	**428**	**173**	**13.6**	**196**	**125**	**201**	**133**	**5**
10/25/11	**185**	**19.7**	**120**	**332**	**1200**	**1300**	**945**	**205**	**8.2**	**238**	**123**	**161**	**154**	**5**
4/20/12	**304**	**17.5**	**129**	**153**	**1020**	**1140**	**442**	**215**	**9.5**	**232**	**64.8**	**249**	**169**	**5**
10/24/12	**389**	**19**	**124**	**167**	**889**	**1030**	**393**	**229**	**26.1**	**235**	**43.2**	**177**	**181**	**5**
4/24/13	**241**	**16.8**	**100**	**164**	**842**	**964**	**344**	**226**	**9.3**	**218**	**96.5**	**116**	**190**	**5**
10/24/13	**255**	**18.1**	**156**	**166**	**839**	**1160**	**510**	**256**	**9.1**	**250**	**55.2**	**171**	**218**	**5**
4/24/14	**174**	**17.7**	**127**	**148**	**941**	**1290**	**378**	**248**	**8.3**	**238**	**27.5**	**148**	**189**	**5**
10/27/14	**117**	**16.1**	**102**	**136**	**1280**	**1410**	**363**	**224**	**8.6**	**228**	**23.2**	**156**	**180**	**5**
4/28/15	**119**	**16**	**109**	**199**	**1330**	**1380**	**345**	**260**	**9**	**218**	**30.2**	**156**	**190**	**5**
10/27/15	**346**	**16**	**95.7**	**164**	**1190**	**1400**	**352**	**247**	**13.8**	**279**	**18.8**	**188**	**191**	**5**
4/19/16	**222**	**16.1**	**55.2**	**211**	**889**	**1240**	**325**	**200**	**17.7**	**216**	**22.8**	**152**	**191**	**5**

1) Use the data above as-is for testing:

2) Calculate the Upper Prediction limit (T):

$T = xbar + t_{[n-1,\ 1-\alpha^*/k]} s\ [1+1/n)]^{-0.5}$

where:

$n = 89$	Number of background concentrations
$n_0 = 3$	Number of *ND* background concentrations
$n_1 = 86$	Number of *detected* background concentrations
$n_0/n = 0.0337$	Ratio of *ND* to *all* background values
$xbar = 213.15$	Average background concentration
$x'bar = 220.59$	Average *detected* background concentration
$\alpha^* = 0.05$	Sitewide error rate
$k = 10$	Number of Comparisons during the Current Sampling Event
$s' = 242.07$	Standard deviation of *detected* background concentrations
$s = 237.88$	Standard deviation of background concentrations
$\alpha^*/k = 0.005$	
$t\ [88, 0.005] = 2.6399$	Upper percentage point of Student's *t*-distribution (Table 6 of the IFG)
$T_n = 1240$	Maximum concentration detected during current sampling event

T = 844.6 Upper Prediction Limit

	MW-1A	**MW-2**	**MW-2D**	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
Current Concentration =	211	889	1240	325	200	17.7	216	22.8	152	191
Statistical Significance ?	No	**Yes**	**Yes**	No	No	No	No	No	No	No
If SSI, is current event above MCL?	-	**Yes**	**Yes**	-	-	-	-	-	-	-

2) Compare the *Upper Prediction Limit* (T) to the *Maximum Concentration Detected* (T_n) in the wells during the most recent sampling event. Since the Prediction Limit was exceeded, there is evidence that the detected concentrations during the current sampling event that the detected concentrations are statistically significant.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Barium**
NC MCL (µg/l): 700
Method: Shewhart-CUSUM Control Chart

Part 1: Check for Normality

	MW-2	MDL
9/26/02	**120**	**5**
4/28/03	**160**	**5**
10/30/03	**310**	**5**
4/20/04	**460**	**5**
10/21/04	**310**	**5**
4/18/05	**610**	**5**
10/13/05	**870**	**5**
4/25/06	**1100**	**500**
10/20/06	**1100**	**5**
4/25/07	**1300**	**100**
10/31/07	**1350**	**5**
4/23/08	**1230**	**5**
10/20/08	**1210**	**5**
4/22/09	**1300**	**5**
10/26/09	**1720**	**5**
4/22/10	**1920**	**5**
10/27/10	**1760**	**5**
4/29/11	**1620**	**5**
10/25/11	**1200**	**5**
4/20/12	**1020**	**5**
10/24/12	**889**	**5**
4/24/13	**842**	**5**
10/24/13	**839**	**5**
4/24/14	**941**	**5**
10/27/14	**1280**	**5**
4/28/15	**1330**	**5**
10/27/15	**1190**	**5**
4/19/16	**889**	**5**

If not detected (ND), use half of the detection limit.

X_{bar} = 1031.0714
SD = 469.62853
N = 28
$1/N\Sigma_i(X_i-X_{bar})^3$ = -24816166
γ_1= 0.2530246

Since the Coefficient of Skewness of 0.25 is less than 1.0, the data appear not to be significantly skewed.
Proceed with further statistical tests using the real detected values shown above.

X_{bar} = 6.7725641
SD = 0.6897979
N = 28
$1/N\Sigma_i(X_i-X_{bar})^3$ = -0.4773163
γ_1= 1.5357907

Use the real values (not log-transformed) indicated in the previous section.

Part 2: Shewhart-CUSUM Control Chart

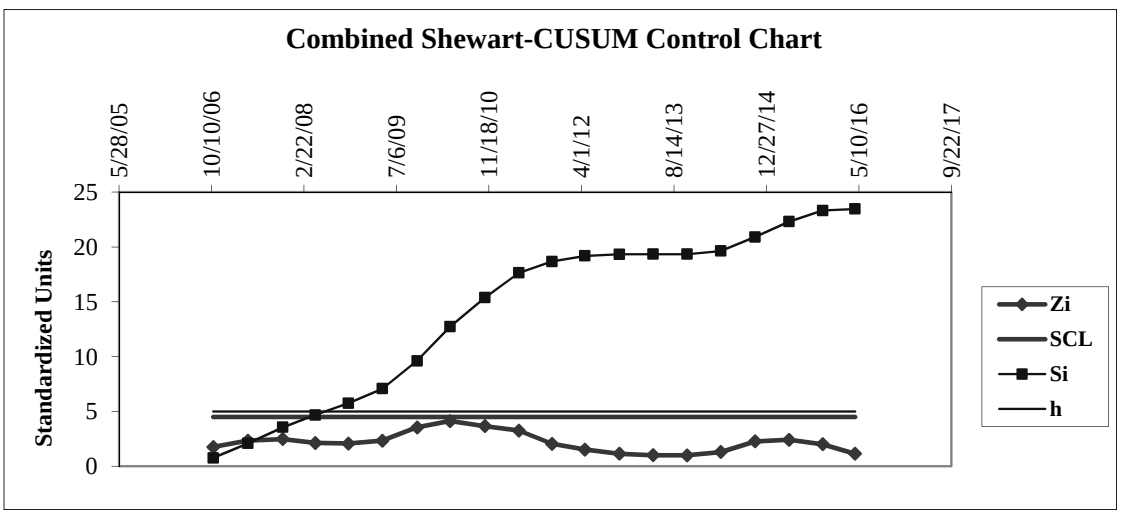
Compute the mean and standard deviation of the historical data:

492.5 = x_{mean} (Mean of N1-N8 historical data)
346.89438 = s (Standard Deviation of N1-N8 historical data)
1 = k (constant, reference value)
5 = h (constant, upper control limit for the CUSUM scheme)
4.5 = SCL (Constant, upper Shewhart Control Limit)

Compute the standardized mean (Z_i) and the cumulative sum (S_i) for each concentration.

Date	x_i	Z_i	S_i	h	SCL
			0		
10/20/06	1100	1.7512535	0.7512535	5	4.5
4/25/07	1300	2.3277978	2.0790513	5	4.5
10/31/07	1350	2.4719339	3.5509853	5	4.5
4/23/08	1230	2.1260073	4.6769926	5	4.5
10/20/08	**1210**	2.0683529	**5.7453454**	5	4.5
4/22/09	**1300**	2.3277978	**7.0731433**	5	4.5
10/26/09	**1720**	3.538541	**9.6116843**	5	4.5
4/22/10	**1920**	4.1150853	**12.72677**	5	4.5
10/27/10	**1760**	3.6538499	**15.380619**	5	4.5
4/29/11	**1620**	3.2502688	**17.630888**	5	4.5
10/25/11	**1200**	2.0395257	**18.670414**	5	4.5
4/20/12	**1020**	1.5206357	**19.19105**	5	4.5
10/24/12	**889**	1.1429992	**19.334049**	5	4.5
4/24/13	**842**	1.0075113	**19.34156**	5	4.5
10/24/13	**839**	0.9988631	**19.340423**	5	4.5
4/24/14	**941**	1.2929007	**19.633324**	5	4.5
10/27/14	**1280**	2.2701434	**20.903467**	5	4.5
4/28/15	**1330**	2.4142795	**22.317747**	5	4.5
10/27/15	**1190**	2.0106984	**23.328445**	5	4.5
4/19/16	**889**	1.1429992	**23.471444**	5	4.5

Plot Z_i and S_i versus time:



Compare the Z_i and S_i values to their respective control limits of SCL and h.
One, or both, of the control limits was exceeded. Therefore, there is statistically significant evidence of contamination in this well at the concentrations indicated above.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Barium**
NC MCL (µg/l): 700
Method: Shewhart-CUSUM Control Chart

Part 1: Check for Normality

	MW-2D	MDL
9/26/02	**230**	**5**
4/28/03	**140**	**5**
10/30/03	**130**	**5**
4/20/04	**170**	**5**
10/21/04	**140**	**5**
4/18/05	**180**	**5**
10/13/05	**250**	**5**
4/25/06	ND	**500**
10/20/06	ND	**5**
4/25/07	**1500**	**100**
10/31/07	**591**	**5**
4/23/08	**661**	**5**
10/20/08	**894**	**5**
4/22/09	**817**	**5**
10/26/09	**987**	**5**
4/22/10	**1380**	**5**
10/27/10	**1550**	**5**
4/29/11	**1390**	**5**
10/25/11	**1300**	**5**
4/20/12	**1140**	**5**
10/24/12	**1030**	**5**
4/24/13	**964**	**5**
10/24/13	**1160**	**5**
4/24/14	**1290**	**5**
10/27/14	**1410**	**5**
4/28/15	**1380**	**5**
10/27/15	**1400**	**5**
4/19/16	**1240**	**5**

If not detected (ND), use half of the detection limit.

X_{bar} = 842.01786
SD = 528.42058
N = 28
$1/N\Sigma_i(X_i-X_{bar})^3$ = -39725499
γ_1= 0.2843293

Since the Coefficient of Skewness of 0.28 is less than 1.0, the data appear not to be significantly skewed.
Proceed with further statistical tests using the real detected values shown above.

X_{bar} = 6.2842407
SD = 1.369189
N = 28
$1/N\Sigma_i(X_i-X_{bar})^3$ = -5.5806396
γ_1= 2.2960705

Use the real values (not log-transformed) indicated in the previous section.

Part 2: Shewhart-CUSUM Control Chart

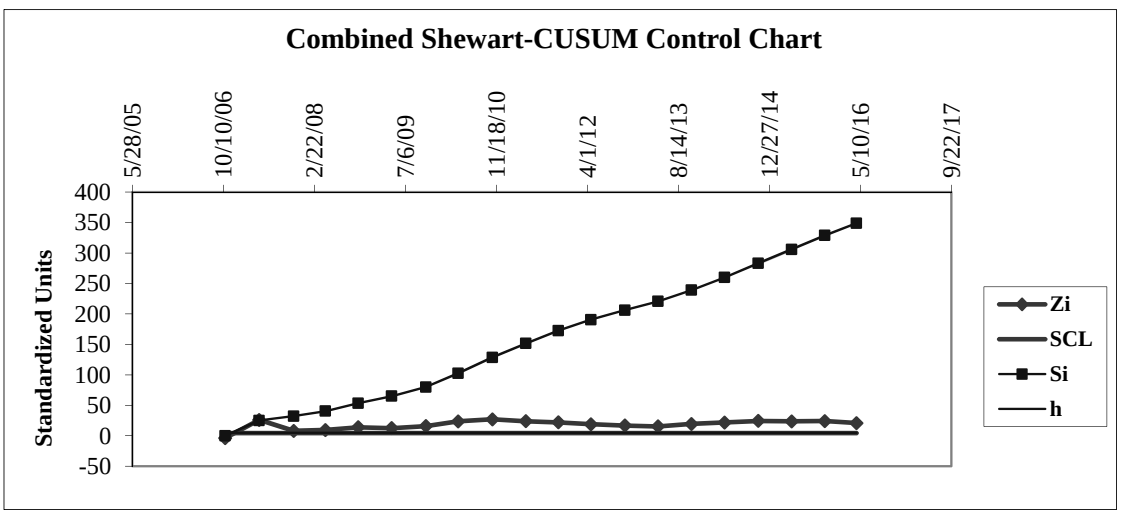
Compute the mean and standard deviation of the historical data:

186.25 = x_{mean} (Mean of N1-N8 historical data)
50.409041 = s (Standard Deviation of N1-N8 historical data)
1 = k (constant, reference value)
5 = h (constant, upper control limit for the CUSUM scheme)
4.5 = SCL (Constant, upper Shewhart Control Limit)

Compute the standardized mean (Z_i) and the cumulative sum (S_i) for each concentration.

Date	x_i	Z_i	S_i	h	SCL
			0		
10/20/06	2.5	-3.6451794	0	5	4.5
4/25/07	**1500**	**26.061793**	**25.061793**	5	4.5
10/31/07	**591**	**8.0293136**	**32.091107**	5	4.5
4/23/08	**661**	**9.4179534**	**40.50906**	5	4.5
10/20/08	**894**	**14.04014**	**53.5492**	5	4.5
4/22/09	**817**	**12.512636**	**65.061837**	5	4.5
10/26/09	**987**	**15.885047**	**79.946884**	5	4.5
4/22/10	**1380**	**23.681268**	**102.62815**	5	4.5
10/27/10	**1550**	**27.053679**	**128.68183**	5	4.5
4/29/11	**1390**	**23.879645**	**151.56148**	5	4.5
10/25/11	**1300**	**22.094251**	**172.65573**	5	4.5
4/20/12	**1140**	**18.920217**	**190.57594**	5	4.5
10/24/12	**1030**	**16.738069**	**206.31401**	5	4.5
4/24/13	**964**	**15.42878**	**220.74279**	5	4.5
10/24/13	**1160**	**19.316971**	**239.05976**	5	4.5
4/24/14	**1290**	**21.895874**	**259.95564**	5	4.5
10/27/14	**1410**	**24.276399**	**283.23204**	5	4.5
4/28/15	**1380**	**23.681268**	**305.9133**	5	4.5
10/27/15	**1400**	**24.078022**	**328.99133**	5	4.5
4/19/16	**1240**	**20.903988**	**348.89531**	5	4.5

Plot Z_i and S_i versus time:



Compare the Z_i and S_i values to their respective control limits of SCL and h.
One, or both, of the control limits was exceeded. Therefore, there is statistically significant evidence of contamination in this well at the concentrations indicated above.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Beryllium**
NC MCL (µg/l): Not Established
Method: Kruskal-Wallis
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	**4.4**	NS	NS	ND	**2**	ND	**2.2**	ND	ND	ND	NS	NP	NP	**2**
06/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
07/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**2**
04/09/01	**2.3**	**7**	NS	ND	ND	ND	ND	ND	**2.4**	**4.8**	NS	NP	NP	**2**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
04/15/02	**2.1**	ND	NS	ND	ND	ND	ND	ND	**2.5**	**5**	NS	NP	NP	**2**
09/26/02	ND	**7**	**2.1**	**5.1**	ND	ND	ND	ND	**8.5**	**4.7**	**95**	NP	NP	**2**
04/28/03	ND	ND	ND	ND	ND	ND	ND	ND	**2**	**2.2**	**20**	NP	NP	**2**
10/30/03	ND	ND	NT	ND	ND	ND	ND	ND	**2.4**	ND	**33**	NP	NP	**1**
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**21**	NP	NP	**1**
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.4**	**28**	NP	NP	**1**
04/18/05	ND	ND	ND	**7.2**	ND	ND	ND	ND	ND	**3.8**	**26**	NP	NP	**1**
10/13/05	ND	ND	ND	**3**	ND	ND	ND	ND	ND	**3.4**	**21**	NP	NP	**1**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	**2.1**	ND	**17**	NP	NP	**2**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.7**	NP	NP	**1**
04/25/07	ND	ND	ND	ND	ND	**14**	ND	ND	ND	ND	**4.9**	NP	NP	**1**
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6**	NP	NP	**1**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3**	NP	NP	**1**
10/20/08	ND	**1.2**	ND	ND	ND	ND	ND	ND	ND	ND	**1.9**	NP	NP	**1**
04/22/09	ND	ND	**1.5**	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**1**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	**1.7**	NP	NP	**1**
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**1**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.1**	ND	ND	**1**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.6**	ND	ND	**1**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.2**	ND	ND	**1**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
04/28/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
10/27/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
04/19/16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
N_i	33	32	27	31	31	31	29	29	30	31	27	12	12	
sum of rank values (R_i)	5665.0	5524.5	4539.0	5384.5	5000.5	5027.0	4693.5	4524.0	5720.5	6062.5	7305.0	1872.0	1872.0	
avg rank value (Rbar)	171.7	172.6	168.1	173.7	161.3	162.2	161.8	156.0	190.7	195.6	270.6	156.0	156.0	

	Number of each rank value													Rank Value
rank value of NDs =	30	29	25	28	30	30	28	29	24	24	10	12	12	156
rank value of 1.1s =	0	0	0	0	0	0	0	0	0	0	1	0	0	312

rank value of 1.2s =	0	1	0	0	0	0	0	0	0	0	1	0	0	313.5
rank value of 1.4s =	0	0	0	0	0	0	0	0	0	1	0	0	0	315
rank value of 1.5s =	0	0	1	0	0	0	0	0	0	0	0	0	0	316
rank value of 1.6s =	0	0	0	0	0	0	0	0	0	0	1	0	0	317
rank value of 1.7s =	0	0	0	0	0	0	0	0	0	0	1	0	0	318
rank value of 1.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	319
rank value of 2s =	0	0	0	0	1	0	0	0	1	0	0	0	0	320.5
rank value of 2.1s =	1	0	1	0	0	0	0	0	1	0	0	0	0	323
rank value of 2.2s =	0	0	0	0	0	0	1	0	0	1	0	0	0	325.5
rank value of 2.3s =	1	0	0	0	0	0	0	0	0	0	0	0	0	327
rank value of 2.4s =	0	0	0	0	0	0	0	0	2	0	0	0	0	328.5
rank value of 2.5s =	0	0	0	0	0	0	0	0	1	0	0	0	0	330
rank value of 3s =	0	0	0	1	0	0	0	0	0	0	1	0	0	331.5
rank value of 3.4s =	0	0	0	0	0	0	0	0	0	1	0	0	0	333
rank value of 3.8s =	0	0	0	0	0	0	0	0	0	1	0	0	0	334
rank value of 4.4s =	1	0	0	0	0	0	0	0	0	0	0	0	0	335
rank value of 4.5s =	0	0	0	0	0	0	0	0	0	1	0	0	0	336
rank value of 4.7s =	0	0	0	0	0	0	0	0	0	1	0	0	0	337
rank value of 4.8s =	0	0	0	0	0	0	0	0	0	1	0	0	0	338
rank value of 4.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	339
rank value of 5.1s =	0	0	0	1	0	0	0	0	0	0	0	0	0	340
rank value of 5.7s =	0	0	0	0	0	0	0	0	0	0	1	0	0	341
rank value of 6s =	0	0	0	0	0	0	0	0	0	0	1	0	0	342
rank value of 7s =	0	2	0	0	0	0	0	0	0	0	0	0	0	343.5
rank value of 7.2s =	0	0	0	1	0	0	0	0	0	0	0	0	0	345
rank value of 8.5s =	0	0	0	0	0	0	0	0	1	0	0	0	0	346
rank value of 14s =	0	0	0	0	0	1	0	0	0	0	0	0	0	347
rank value of 17s =	0	0	0	0	0	0	0	0	0	0	1	0	0	348
rank value of 20s =	0	0	0	0	0	0	0	0	0	0	1	0	0	349
rank value of 21s =	0	0	0	0	0	0	0	0	0	0	2	0	0	350.5
rank value of 26s =	0	0	0	0	0	0	0	0	0	0	1	0	0	352
rank value of 28s =	0	0	0	0	0	0	0	0	0	0	1	0	0	353
rank value of 33s =	0	0	0	0	0	0	0	0	0	0	1	0	0	354
rank value of 95s =	0	0	0	0	0	0	0	0	0	0	1	0	0	355
n =	**33**	**32**	**27**	**31**	**31**	**31**	**29**	**29**	**30**	**31**	**27**	**12**	**12**	

Compute the Kruskal-Wallis statistic:

$$H = \{[12/N(N+1)] * [\Sigma^{K}_{i=1} (R_i^2)/N_i]\} -3(N+1)$$

Well =	**Background**	**MW-1A**	**MW-2**	**MW-2D**	**MW-3**	**MW-3D**	**MW-4A**	**MW-8**	**MW-15**	**MW-16**	**MW-17**
Ri^2/N_i =	2688975.1	935253	806613	815185	759619	705744	1E+06	1E+06	2E+06	292032	292032
$N_{i\ bg}$ = 92											

N = 355
H = 28.53

Adjust H for ties:

T_i = 3E+07 sum of T1..T9

$H' = H/(1-(T_i/(N^3-N)))$
H' = 87.07
Chi-square = 18.31

Compare the calculated value H' to the tabulated Chi-square value with K-1 = # groups -1 = 17df at the 5% significance level from Table 1 of the IFG. The value is 18.31 which is less than H' =87.07.
Therefore, there is evidence of significant differences between the well groups.
Post-hoc pairwise comparisons are necessary (see below).

Calculate the critical values to compare each compliance well to the background wells:

Critical Value (C_x) = $P(N(N+1)/12)^{0.5} * (1/N_{i\,bg}+1/N_x)^{0.5}$
P = 2.33 Percentile of Standard Normal Distribution
from Table 4 of IFG
N = total sample size
$N_{i\,bg}$ = total samples (N_i) of background data
N_x = total samples (N_i) of well x

Difference between average ranks (Dx) = Rbar (well x) - avg Rbar (background)

Well =	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	**MW-15**	MW-16	MW-17
Rbar (well x) =	173.7	161.3	162.2	161.8	156.0	190.7	195.6	270.6	156.0	156.0
avg Rbar (background) =	171.0	171.0	171.0	171.0	171.0	171.0	171.0	171.0	171.0	171.0
Dx =	2.7	-9.7	-8.8	-9.1	-15.0	19.7	24.6	99.6	-15.0	-15.0
Cx =	49.7	49.7	49.7	50.9	50.9	50.3	49.7	52.3	73.4	73.4
Statistical Significance ?	No	No	No	No	No	No	No	**Yes**	No	No
If SSI, is current event above MCL?	-	-	-	-	-	-	-	NE	-	-

Compare each difference (Dx) with the corresponding critical value (Cx).
The Dx value for the above indicated wells do exceed the corresponding Cx value.
Therefore, we conclude that the concentration of Total Beryllium averaged over these compliance wells are significantly greater than that of the background wells.
Shewart-CUSUM Control Charts should be performed for each failing well to check for statistical significance.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Beryllium**
NC MCL (μg/l): Not Established
Method: Shewhart-CUSUM Control Chart

Part 1: Check for Normality

	MW-15	MDL
9/26/02	**95**	**2**
4/28/03	**20**	**2**
10/30/03	**33**	**1**
4/20/04	**21**	**1**
10/21/04	**28**	**1**
4/18/05	**26**	**1**
10/13/05	**21**	**1**
4/25/06	**17**	**2**
10/20/06	**5.7**	**1**
4/25/07	**4.9**	**1**
10/31/07	**6**	**1**
4/23/08	**3**	**1**
10/20/08	**1.9**	**1**
4/22/09	NS	**1**
10/26/09	**1.7**	**1**
4/22/10	ND	**1**
10/27/10	ND	**1**
4/29/11	**1.1**	**1**
10/25/11	**1.6**	**1**
4/20/12	ND	**1**
10/24/12	ND	**1**
4/24/13	**1.2**	**1**
10/24/13	ND	**1**
4/24/14	ND	**1**
10/27/14	ND	**1**
4/28/15	ND	**1**
10/27/15	ND	**1**
4/19/16	ND	**1**

If not detected (ND), use half of the detection limit.

X_{bar} = 10.855556
SD = 19.688875
N = 27
$1/N\Sigma_i(X_i-X_{bar})^3$ = 22298.649
γ_1= 3.0917294

Since the Coefficient of Skewness of 3.09 is greater than 1.0, the real data appear to be significantly skewed.
Do not assume that the data follow a Normal distribution.
Perform the Skewness Test on the natural log of the values.

X_{bar} = 1.028422
SD = 1.7253631
N = 27
$1/N\Sigma_i(X_i-X_{bar})^3$ = 2.2307735
γ_1= 0.4596207

Since the Coefficient of Skewness of 0.46 is less than 1.0, the data appear not to be significantly skewed. Proceed with further statistical tests using the log-transformed values shown above.

Part 2: Shewhart-CUSUM Control Chart

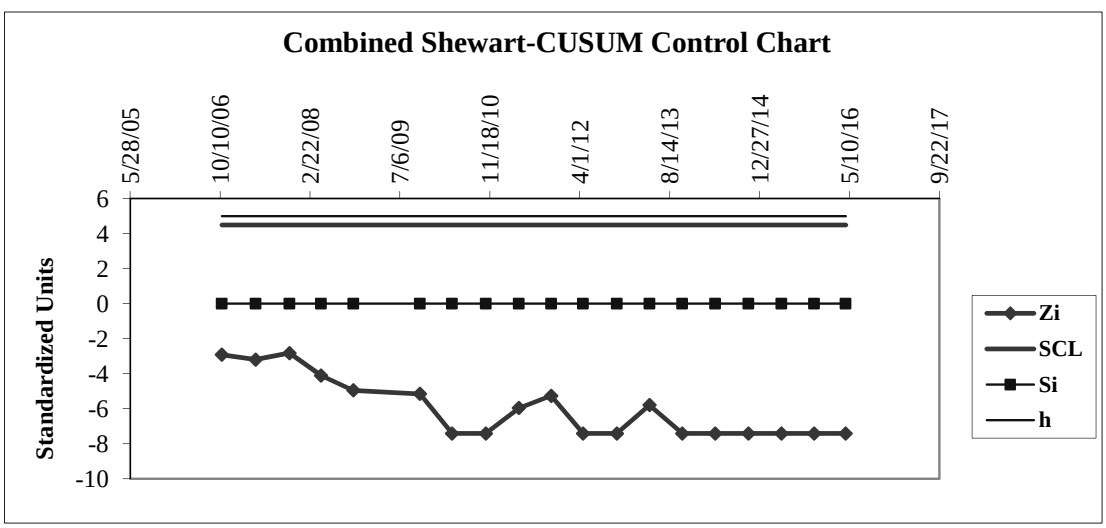
Compute the mean and standard deviation of the historical data:

3.3198345 = x_{mean} (Mean of N1-N8 historical data)
0.5413573 = s (Standard Deviation of N1-N8 historical data)
1 = k (constant, reference value)
5 = h (constant, upper control limit for the CUSUM scheme)
4.5 = SCL (Constant, upper Shewhart Control Limit)

Compute the standardized mean (Z_i) and the cumulative sum (S_i) for each concentration.

Date	x_i	Z_i	S_i	h	SCL
			0		
10/20/06	1.7404662	-2.9174229	0	5	4.5
4/25/07	1.5892352	-3.1967781	0	5	4.5
10/31/07	1.7917595	-2.8226735	0	5	4.5
4/23/08	1.0986123	-4.103061	0	5	4.5
10/20/08	0.6418539	-4.9467891	0	5	4.5
10/26/09	0.5306283	-5.152246	0	5	4.5
4/22/10	-0.693147	-7.4128146	0	5	4.5
10/27/10	-0.693147	-7.4128146	0	5	4.5
4/29/11	0.0953102	-5.9563693	0	5	4.5
10/25/11	0.4700036	-5.2642324	0	5	4.5
4/20/12	-0.693147	-7.4128146	0	5	4.5
10/24/12	-0.693147	-7.4128146	0	5	4.5
4/24/13	0.1823216	-5.7956412	0	5	4.5
10/24/13	-0.693147	-7.4128146	0	5	4.5
4/24/14	-0.693147	-7.4128146	0	5	4.5
10/27/14	-0.693147	-7.4128146	0	5	4.5
4/28/15	-0.693147	-7.4128146	0	5	4.5
10/27/15	-0.693147	-7.4128146	0	5	4.5
4/19/16	-0.693147	-7.4128146	0	5	4.5

Plot Z_i and S_i versus time:



Compare the Z_i and S_i values to their respective control limits of SCL and h.

The limits were not exceeded and do not indicate statistically significant evidence of contamination at the site.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Cadmium**
NC MCL (µg/l): 2
Method: Kruskal-Wallis
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	**2**	NS	NS	ND	**1.3**	**1.2**	**1.3**	**2.1**	ND	**5.4**	NS	NP	NP	**1**
06/26/00	**1.6**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**1**
07/26/00	**1.1**	**3.2**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**1**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**1**
04/09/01	**130**	**2**	NS	ND	ND	ND	**1.7**	**1.8**	**2.7**	**19**	NS	NP	NP	**1**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**1**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**1**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**1**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**1**
04/15/02	**13**	ND	NS	ND	ND	ND	**4**	ND	**5.5**	**19**	NS	NP	NP	**10**
09/26/02	ND	ND	**4.2**	**21**	ND	**10**	ND	**2.3**	**4.2**	**19**	**180**	NP	NP	**1**
04/28/03	**3.6**	ND	ND	**6**	ND	ND	ND	ND	**2.9**	**16**	**20**	NP	NP	**1**
10/30/03	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**1**
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	**8.8**	**8.9**	NP	NP	**1**
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**1**
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**1**
10/13/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**1**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**1**
10/20/06	**3.8**	ND	ND	ND	ND	ND	ND	ND	**1.5**	ND	**5.2**	NP	NP	**1**
04/25/07	ND	ND	ND	ND	ND	**2.2**	ND	ND	ND	ND	ND	NP	NP	**1**
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**1**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.6**	NP	NP	**1**
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**1**
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**1**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**1**
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**1**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**4.8**	ND	**1**
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**	ND	**1**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.2**	ND	**1**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
04/28/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2.3**	ND	**1**
10/27/15	**1.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3.1**	ND	**1**
04/19/16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
N_i	33	32	27	31	31	31	29	29	30	31	27	12	12	
sum of rank values (R_i)	6550.0	5337.5	4393.5	5220.0	4996.5	5355.5	5029.5	5032.5	5558.5	5983.0	5143.5	2718.0	1872.0	
avg rank value (Rbar)	198.5	166.8	162.7	168.4	161.2	172.8	173.4	173.5	185.3	193.0	190.5	226.5	156.0	

	Number of each rank value													Rank Value
rank value of NDs =	25	30	26	29	30	28	26	26	25	25	22	7	12	156
rank value of 1s =	0	0	0	0	0	0	0	0	0	0	0	1	0	312

rank value of 1.1s =	1	0	0	0	0	0	0	0	0	0	0	0	0	313
rank value of 1.2s =	0	0	0	0	0	1	0	0	0	0	0	1	0	314.5
rank value of 1.3s =	0	0	0	0	1	0	1	0	0	0	0	0	0	316.5
rank value of 1.5s =	0	0	0	0	0	0	0	0	1	0	0	0	0	318
rank value of 1.6s =	1	0	0	0	0	0	0	0	0	0	1	0	0	319.5
rank value of 1.7s =	0	0	0	0	0	0	1	0	0	0	0	0	0	321
rank value of 1.8s =	0	0	0	0	0	0	0	1	0	0	0	0	0	322
rank value of 1.9s =	1	0	0	0	0	0	0	0	0	0	0	0	0	323
rank value of 2s =	1	1	0	0	0	0	0	0	0	0	0	0	0	324.5
rank value of 2.1s =	0	0	0	0	0	0	0	1	0	0	0	0	0	326
rank value of 2.2s =	0	0	0	0	0	1	0	0	0	0	0	0	0	327
rank value of 2.3s =	0	0	0	0	0	0	0	1	0	0	0	1	0	328.5
rank value of 2.7s =	0	0	0	0	0	0	0	0	1	0	0	0	0	330
rank value of 2.9s =	0	0	0	0	0	0	0	0	1	0	0	0	0	331
rank value of 3.1s =	0	0	0	0	0	0	0	0	0	0	0	1	0	332
rank value of 3.2s =	0	1	0	0	0	0	0	0	0	0	0	0	0	333
rank value of 3.6s =	1	0	0	0	0	0	0	0	0	0	0	0	0	334
rank value of 3.8s =	1	0	0	0	0	0	0	0	0	0	0	0	0	335
rank value of 4s =	0	0	0	0	0	0	1	0	0	0	0	0	0	336
rank value of 4.2s =	0	0	1	0	0	0	0	0	1	0	0	0	0	337.5
rank value of 4.8s =	0	0	0	0	0	0	0	0	0	0	0	1	0	339
rank value of 5.2s =	0	0	0	0	0	0	0	0	0	0	1	0	0	340
rank value of 5.4s =	0	0	0	0	0	0	0	0	0	1	0	0	0	341
rank value of 5.5s =	0	0	0	0	0	0	0	0	1	0	0	0	0	342
rank value of 6s =	0	0	0	1	0	0	0	0	0	0	0	0	0	343
rank value of 8.8s =	0	0	0	0	0	0	0	0	0	1	0	0	0	344
rank value of 8.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	345
rank value of 10s =	0	0	0	0	0	1	0	0	0	0	0	0	0	346
rank value of 13s =	1	0	0	0	0	0	0	0	0	0	0	0	0	347
rank value of 16s =	0	0	0	0	0	0	0	0	0	1	0	0	0	348
rank value of 19s =	0	0	0	0	0	0	0	0	0	3	0	0	0	350
rank value of 20s =	0	0	0	0	0	0	0	0	0	0	1	0	0	352
rank value of 21s =	0	0	0	1	0	0	0	0	0	0	0	0	0	353
rank value of 130s =	1	0	0	0	0	0	0	0	0	0	0	0	0	354
rank value of 180s =	0	0	0	0	0	0	0	0	0	0	1	0	0	355
n =	**33**	**32**	**27**	**31**	**31**	**31**	**29**	**29**	**30**	**31**	**27**	**12**	**12**	

Compute the Kruskal-Wallis statistic:

$$H = \{[12/N(N+1)] * [\Sigma^{K}_{i=1} (R_i^2)/N_i]\} -3(N+1)$$

Well =	**Background**	**MW-1A**	**MW-2**	**MW-2D**	**MW-3**	**MW-3D**	**MW-4A**	**MW-8**	**MW-15**	**MW-16**	**MW-17**
Ri^2/N_i =	2881206.1	878981	805323	925206	872271	873312	1E+06	1E+06	979837	615627	292032

$N_{i\ bg}$ = 92
N = 355
H = 5.75

Adjust H for ties:

T_i = 3E+07 sum of T1..T8

$H' = H/(1-(T_i/(N^3-N)))$

H' = 17.56

Chi-square = 18.31

Compare the calculated value H' to the tabulated Chi-square value with K-1 = # groups -1 = 17df at the 5% significance level from Table 1 of the IFG. The value is 18.31 which is greater than H' =17.56. Therefore, the null hypothesis of no contamination at the 5% level holds true and significant evidence of contamination does not exist.

Calculate the critical values to compare each compliance well to the background wells:

Critical Value (C_x) = $P(N(N+1)/12)^{0.5} * (1/N_{i\,bg}+1/N_x)^{0.5}$

P = 2.33 Percentile of Standard Normal Distribution

from Table 4 of IFG

N = total sample size

$N_{i\,bg}$ = total samples (N_i) of background data

N_x = total samples (N_i) of well x

Difference between average ranks (Dx) = Rbar (well x) - avg Rbar (background)

Well =	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
Rbar (well x) =	168.4	161.2	172.8	173.4	173.5	185.3	193.0	190.5	226.5	156.0
avg Rbar (background) =	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0
Dx =	-8.6	-15.8	-4.2	-3.5	-3.4	8.3	16.0	13.5	49.5	-21.0
Cx =	49.7	49.7	49.7	50.9	50.9	50.3	49.7	52.3	73.4	73.4
Statistical Significance ?	No	No	No	No	No	No	No	No	No	No
If SSI, is current event above MCL?	-	-	-	-	-	-	-	-	-	-

Compare each difference (Dx) with the corresponding critical value (Cx).
No compliance well's difference between average ranks exceeded its corresponding critical value at a 5% significance level. Therefore, we conclude that significant evidence of contamination does not exist at the 5% significance level.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Chromium**
NC MCL (µg/l): 10
Method: Kruskal-Wallis
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	**15**	NS	NS	**18**	**17**	**11**	ND	**26**	**5.4**	**50**	NS	NP	NP	**5**
06/26/00	**22**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
07/26/00	**29**	**20**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**10**
04/09/01	**130**	ND	NS	**11**	**8.4**	ND	ND	**20**	**27**	**160**	NS	NP	NP	**5**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
04/15/02	**170**	ND	NS	ND	ND	**5.7**	**7**	**10**	**56**	**180**	NS	NP	NP	**5**
09/26/02	**33**	**5.4**	**33**	**510**	ND	**5.2**	ND	**37**	**36**	**230**	**770**	NP	NP	**5**
04/28/03	ND	ND	ND	**89**	ND	ND	ND	ND	ND	**110**	**27**	NP	NP	**5**
10/30/03	**30**	ND	NT	ND	**6.2**	ND	ND	ND	**31**	**4.6**	**140**	NP	NP	**2**
04/20/04	**33**	ND	**2.1**	**45**	**13**	ND	ND	**11**	**3.5**	**190**	**68**	NP	NP	**2**
10/21/04	**21**	ND	**2.8**	**16**	**2**	ND	ND	ND	ND	**120**	**140**	NP	NP	**2**
04/18/05	**49**	**12**	**8.3**	**680**	**2.9**	ND	ND	**3.2**	ND	**210**	**100**	NP	NP	**2**
10/13/05	**52**	ND	**3.7**	**230**	**4.7**	ND	ND	ND	ND	**150**	**88**	NP	NP	**2**
04/25/06	**65**	ND	**16**	ND	ND	ND	ND	ND	**16**	**100**	**93**	NP	NP	**10**
10/20/06	**50**	ND	**11**	**24**	ND	ND	ND	ND	**17**	ND	**27**	NP	NP	**5**
04/25/07	**20**	ND	ND	**16**	ND	**410**	ND	ND	ND	ND	**17**	NP	NP	**10**
10/31/07	**40.9**	ND	**11.9**	**10.9**	**7.8**	ND	ND	ND	**5.1**	**75.5**	**33.7**	NP	NP	**5**
04/23/08	**10.7**	ND	**16.8**	**7.8**	ND	ND	ND	ND	**7.6**	**7.3**	**14.9**	NP	NP	**5**
10/20/08	**38.6**	ND	**29.4**	**12.7**	ND	ND	ND	ND	ND	ND	**6.8**	NP	NP	**5**
04/22/09	**12.3**	ND	**28.9**	**19.7**	**5.1**	ND	ND	ND	**7.3**	ND	NS	NP	NP	**5**
10/26/09	**10**	ND	**8.1**	ND	**18.7**	ND	NS	NS	NS	**10.9**	**8.1**	NP	NP	**5**
04/22/10	**14.3**	**10.9**	**13.1**	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**5**
10/27/10	**10.1**	ND	**6.6**	**7.1**	ND	ND	**12**	**9.2**	ND	ND	**5.2**	ND	ND	**5**
04/29/11	**8**	ND	**8.6**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/25/11	**15**	ND	ND	**21.1**	ND	ND	**8.1**	ND	ND	**9.2**	**5.1**	ND	ND	**5**
04/20/12	**24.5**	ND	ND	**5.1**	ND	ND	**7.9**	ND	ND	ND	ND	**12.3**	ND	**5**
10/24/12	**30.4**	**6**	ND	**6.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/13	**19**	ND	ND	**8.8**	**6.8**	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/24/13	**14.5**	ND	**12.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/14	**12.8**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.1**	ND	**5**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/28/15	**10.3**	ND	**8.2**	**7.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/27/15	**31.4**	ND	ND	ND	ND	ND	ND	ND	ND	**7.7**	ND	ND	ND	**5**
04/19/16	**13.3**	ND	ND	**6.8**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
N_i	33	32	27	31	31	31	29	29	30	31	27	12	12	
sum of rank values (R_i)	9504.5	4140.5	5543.0	7023.0	4803.5	3922.5	3640.5	4245.5	5004.0	6563.0	5982.5	1551.5	1266.0	
avg rank value (Rbar)	288.0	129.4	205.3	226.5	155.0	126.5	125.5	146.4	166.8	211.7	221.6	129.3	105.5	

	Number of each rank value													Rank Value
rank value of NDs =	2	27	10	10	20	27	25	22	19	15	11	10	12	105.5
rank value of 2s =	0	0	0	0	1	0	0	0	0	0	0	0	0	211

rank value of 2.1s =	0	0	1	0	0	0	0	0	0	0	0	0	0	212
rank value of 2.8s =	0	0	1	0	0	0	0	0	0	0	0	0	0	213
rank value of 2.9s =	0	0	0	0	1	0	0	0	0	0	0	0	0	214
rank value of 3.2s =	0	0	0	0	0	0	0	1	0	0	0	0	0	215
rank value of 3.5s =	0	0	0	0	0	0	0	0	1	0	0	0	0	216
rank value of 3.7s =	0	0	1	0	0	0	0	0	0	0	0	0	0	217
rank value of 4.6s =	0	0	0	0	0	0	0	0	0	1	0	0	0	218
rank value of 4.7s =	0	0	0	0	1	0	0	0	0	0	0	0	0	219
rank value of 5.1s =	0	0	0	1	1	0	0	0	1	0	1	1	0	222
rank value of 5.2s =	0	0	0	0	0	1	0	0	0	0	1	0	0	225.5
rank value of 5.4s =	0	1	0	0	0	0	0	0	1	0	0	0	0	227.5
rank value of 5.7s =	0	0	0	0	0	1	0	0	0	0	0	0	0	229
rank value of 6s =	0	1	0	0	0	0	0	0	0	0	0	0	0	230
rank value of 6.2s =	0	0	0	0	1	0	0	0	0	0	0	0	0	231
rank value of 6.4s =	0	0	0	1	0	0	0	0	0	0	0	0	0	232
rank value of 6.6s =	0	0	1	0	0	0	0	0	0	0	0	0	0	233
rank value of 6.8s =	0	0	0	1	1	0	0	0	0	0	1	0	0	235
rank value of 7s =	0	0	0	0	0	0	1	0	0	0	0	0	0	237
rank value of 7.1s =	0	0	0	1	0	0	0	0	0	0	0	0	0	238
rank value of 7.3s =	0	0	0	0	0	0	0	0	1	1	0	0	0	239.5
rank value of 7.6s =	0	0	0	0	0	0	0	0	1	0	0	0	0	241
rank value of 7.7s =	0	0	0	0	0	0	0	0	0	1	0	0	0	242
rank value of 7.8s =	0	0	0	1	1	0	0	0	0	0	0	0	0	243.5
rank value of 7.9s =	0	0	0	1	0	0	1	0	0	0	0	0	0	245.5
rank value of 8s =	1	0	0	0	0	0	0	0	0	0	0	0	0	247
rank value of 8.1s =	0	0	1	0	0	0	1	0	0	0	1	0	0	249
rank value of 8.2s =	0	0	1	0	0	0	0	0	0	0	0	0	0	251
rank value of 8.3s =	0	0	1	0	0	0	0	0	0	0	0	0	0	252
rank value of 8.4s =	0	0	0	0	1	0	0	0	0	0	0	0	0	253
rank value of 8.6s =	0	0	1	0	0	0	0	0	0	0	0	0	0	254
rank value of 8.8s =	0	0	0	1	0	0	0	0	0	0	0	0	0	255
rank value of 9.2s =	0	0	0	0	0	0	0	1	0	1	0	0	0	256.5
rank value of 10s =	1	0	0	0	0	0	0	1	0	0	0	0	0	258.5
rank value of 10.1s =	1	0	0	0	0	0	0	0	0	0	0	0	0	260
rank value of 10.3s =	1	0	0	0	0	0	0	0	0	0	0	0	0	261
rank value of 10.7s =	1	0	0	0	0	0	0	0	0	0	0	0	0	262
rank value of 10.9s =	0	1	0	1	0	0	0	0	0	1	0	0	0	264
rank value of 11s =	0	0	1	1	0	1	0	1	0	0	0	0	0	267.5
rank value of 11.9s =	0	0	1	0	0	0	0	0	0	0	0	0	0	270
rank value of 12s =	0	1	0	0	0	0	1	0	0	0	0	0	0	271.5
rank value of 12.1s =	0	0	1	0	0	0	0	0	0	0	0	0	0	273
rank value of 12.3s =	1	0	0	0	0	0	0	0	0	0	0	1	0	274.5
rank value of 12.7s =	0	0	0	1	0	0	0	0	0	0	0	0	0	276
rank value of 12.8s =	1	0	0	0	0	0	0	0	0	0	0	0	0	277
rank value of 13s =	0	0	0	0	1	0	0	0	0	0	0	0	0	278
rank value of 13.1s =	0	0	1	0	0	0	0	0	0	0	0	0	0	279
rank value of 13.3s =	1	0	0	0	0	0	0	0	0	0	0	0	0	280
rank value of 14.3s =	1	0	0	0	0	0	0	0	0	0	0	0	0	281
rank value of 14.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	282
rank value of 14.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	283
rank value of 15s =	2	0	0	0	0	0	0	0	0	0	0	0	0	284.5
rank value of 16s =	0	0	1	2	0	0	0	0	1	0	0	0	0	287.5
rank value of 16.8s =	0	0	1	0	0	0	0	0	0	0	0	0	0	290
rank value of 17s =	0	0	0	0	1	0	0	0	1	0	1	0	0	292
rank value of 18s =	0	0	0	1	0	0	0	0	0	0	0	0	0	294
rank value of 18.7s =	0	0	0	0	1	0	0	0	0	0	0	0	0	295
rank value of 19s =	1	0	0	0	0	0	0	0	0	0	0	0	0	296
rank value of 19.7s =	0	0	0	1	0	0	0	0	0	0	0	0	0	297

rank value of 20s =	1	1	0	0	0	0	0	1	0	0	0	0	0	299
rank value of 21s =	1	0	0	0	0	0	0	0	0	0	0	0	0	301
rank value of 21.1s =	0	0	0	1	0	0	0	0	0	0	0	0	0	302
rank value of 22s =	1	0	0	0	0	0	0	0	0	0	0	0	0	303
rank value of 24s =	0	0	0	1	0	0	0	0	0	0	0	0	0	304
rank value of 24.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	305
rank value of 26s =	0	0	0	0	0	0	0	1	0	0	0	0	0	306
rank value of 27s =	0	0	0	0	0	0	0	0	1	0	2	0	0	308
rank value of 28.9s =	0	0	1	0	0	0	0	0	0	0	0	0	0	310
rank value of 29s =	1	0	0	0	0	0	0	0	0	0	0	0	0	311
rank value of 29.4s =	0	0	1	0	0	0	0	0	0	0	0	0	0	312
rank value of 30s =	1	0	0	0	0	0	0	0	0	0	0	0	0	313
rank value of 30.4s =	1	0	0	0	0	0	0	0	0	0	0	0	0	314
rank value of 31s =	0	0	0	0	0	0	0	0	1	0	0	0	0	315
rank value of 31.4s =	1	0	0	0	0	0	0	0	0	0	0	0	0	316
rank value of 33s =	2	0	1	0	0	0	0	0	0	0	0	0	0	318
rank value of 33.7s =	0	0	0	0	0	0	0	0	0	0	1	0	0	320
rank value of 36s =	0	0	0	0	0	0	0	0	1	0	0	0	0	321
rank value of 37s =	0	0	0	0	0	0	0	1	0	0	0	0	0	322
rank value of 38.6s =	1	0	0	0	0	0	0	0	0	0	0	0	0	323
rank value of 40.9s =	1	0	0	0	0	0	0	0	0	0	0	0	0	324
rank value of 45s =	0	0	0	1	0	0	0	0	0	0	0	0	0	325
rank value of 49s =	1	0	0	0	0	0	0	0	0	0	0	0	0	326
rank value of 50s =	1	0	0	0	0	0	0	0	0	1	0	0	0	327.5
rank value of 52s =	1	0	0	0	0	0	0	0	0	0	0	0	0	329
rank value of 56s =	0	0	0	0	0	0	0	0	1	0	0	0	0	330
rank value of 65s =	1	0	0	0	0	0	0	0	0	0	0	0	0	331
rank value of 68s =	0	0	0	0	0	0	0	0	0	0	1	0	0	332
rank value of 75.5s =	0	0	0	0	0	0	0	0	0	1	0	0	0	333
rank value of 88s =	0	0	0	0	0	0	0	0	0	0	1	0	0	334
rank value of 89s =	0	0	0	1	0	0	0	0	0	0	0	0	0	335
rank value of 93s =	0	0	0	0	0	0	0	0	0	0	1	0	0	336
rank value of 100s =	0	0	0	0	0	0	0	0	0	1	1	0	0	337.5
rank value of 110s =	0	0	0	0	0	0	0	0	0	1	0	0	0	339
rank value of 120s =	0	0	0	0	0	0	0	0	0	1	0	0	0	340
rank value of 130s =	1	0	0	0	0	0	0	0	0	0	0	0	0	341
rank value of 140s =	0	0	0	0	0	0	0	0	0	0	2	0	0	342.5
rank value of 150s =	0	0	0	0	0	0	0	0	0	1	0	0	0	344
rank value of 160s =	0	0	0	0	0	0	0	0	0	1	0	0	0	345
rank value of 170s =	1	0	0	0	0	0	0	0	0	0	0	0	0	346
rank value of 180s =	0	0	0	0	0	0	0	0	0	1	0	0	0	347
rank value of 190s =	0	0	0	0	0	0	0	0	0	1	0	0	0	348
rank value of 210s =	0	0	0	0	0	0	0	0	0	1	0	0	0	349
rank value of 230s =	0	0	0	1	0	0	0	0	0	1	0	0	0	350.5
rank value of 410s =	0	0	0	0	0	1	0	0	0	0	0	0	0	352
rank value of 510s =	0	0	0	1	0	0	0	0	0	0	0	0	0	353
rank value of 680s =	0	0	0	1	0	0	0	0	0	0	0	0	0	354
rank value of 770s =	0	0	0	0	0	0	0	0	0	0	1	0	0	355
n =	**33**	**32**	**27**	**31**	**31**	**31**	**29**	**29**	**30**	**31**	**27**	**12**	**12**	

Compute the Kruskal-Wallis statistic:

$$H = \{[12/N(N+1)] * [\Sigma^{K}_{i=1} (R_i^2)/N_i]\} -3(N+1)$$

Well =	**Background**	**MW-1A**	**MW-2**	**MW-2D**	**MW-3**	**MW-3D**	**MW-4A**	**MW-8**	**MW-15**	**MW-16**	**MW-17**
Ri^2/N_i =	4001949.4	2E+06	744310	496323	457008	621527	834667	1E+06	1E+06	200596	133563

$N_{i\,bg}$ = 92
N = 355
H = 52.05

Adjust H for ties:

T_i = 9E+06 sum of T1..T25

$H' = H/(1-(T_i/(N^3-N)))$
H' = 65.64
Chi-square = 18.31

Compare the calculated value H' to the tabulated Chi-square value with K-1 = # groups -1 = 17df at the 5% significance level from Table 1 of the IFG. The value is 18.31 which is less than H' =65.64.
Therefore, there is evidence of significant differences between the well groups.
Post-hoc pairwise comparisons are necessary (see below).

Calculate the critical values to compare each compliance well to the background wells:

Critical Value (C_x) = $P(N(N+1)/12)^{0.5} * (1/N_{i\,bg}+1/N_x)^{0.5}$
P = 2.33 Percentile of Standard Normal Distribution
from Table 4 of IFG
N = total sample size
$N_{i\,bg}$ = total samples (N_i) of background data
N_x = total samples (N_i) of well x

Difference between average ranks (Dx) = Rbar (well x) - avg Rbar (background)

Well =	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
Rbar (well x) =	226.5	155.0	126.5	125.5	146.4	166.8	211.7	221.6	129.3	105.5
avg Rbar (background) =	208.6	208.6	208.6	208.6	208.6	208.6	208.6	208.6	208.6	208.6
Dx =	18.0	-53.6	-82.0	-83.0	-62.2	-41.8	3.1	13.0	-79.3	-103.1
Cx =	49.7	49.7	49.7	50.9	50.9	50.3	49.7	52.3	73.4	73.4
Statistical Significance ?	No	No	No	No	No	No	No	No	No	No
If SSI, is current event above MCL?	-	-	-	-	-	-	-	-	-	-

Compare each difference (Dx) with the corresponding critical value (Cx).
No compliance well's difference between average ranks exceeded its corresponding critical value at a 5% significance level. Therefore, we conclude that significant evidence of contamination does not exist at the 5% significance level.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Cobalt**
NC MCL (µg/l): Not Established
Method: Kruskal-Wallis
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	ND	NS	NS	ND	**8.2**	**5.4**	ND	**14**	ND	**16**	NS	NP	NP	**5**
06/26/00	**10**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
07/26/00	**9.9**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**10**
04/09/01	**54**	ND	NS	ND	ND	ND	**13**	**12**	**13**	**59**	NS	NP	NP	**5**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
04/15/02	**58**	ND	NS	ND	ND	ND	**18**	**8**	**21**	**82**	NS	NP	NP	**5**
09/26/02	**13**	**5.4**	**16**	**100**	ND	**16**	**7.4**	**21**	**19**	**85**	**560**	NP	NP	**5**
04/28/03	**21**	ND	ND	**37**	ND	ND	**6.9**	ND	**17**	**50**	**81**	NP	NP	**5**
10/30/03	**9**	ND	NT	ND	ND	ND	**5.7**	ND	**52**	**8.8**	**110**	NP	NP	**5**
04/20/04	**9.5**	ND	ND	**7.7**	**5.2**	ND	**13**	**6.4**	ND	**43**	**50**	NP	NP	**5**
10/21/04	**6.2**	ND	ND	ND	ND	ND	ND	ND	ND	**31**	**120**	NP	NP	**5**
04/18/05	**12**	ND	ND	**110**	ND	ND	ND	ND	ND	**36**	**70**	NP	NP	**5**
10/13/05	**21**	ND	ND	**32**	ND	ND	**5.1**	ND	ND	**29**	**56**	NP	NP	**5**
04/25/06	**16**	ND	ND	ND	ND	ND	ND	ND	ND	**25**	**57**	NP	NP	**10**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/25/07	ND	ND	ND	ND	ND	**260**	ND	ND	ND	ND	ND	NP	NP	**10**
10/31/07	**16.8**	ND	ND	ND	**10.6**	ND	ND	ND	ND	ND	**17.6**	NP	NP	**5**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**22.3**	NP	NP	**5**
10/20/08	**27**	**10.4**	**19.5**	**9.4**	**7.7**	ND	**12.6**	**5.3**	**7.1**	ND	**18.4**	NP	NP	**5**
04/22/09	**5**	**6.3**	**17.1**	**8.5**	**5.7**	ND	**7**	ND	**6.4**	ND	NS	NP	NP	**5**
10/26/09	ND	ND	ND	ND	**6**	ND	NS	NS	NS	ND	**6**	NP	NP	**5**
04/22/10	**5.6**	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**5**
10/27/10	ND	ND	ND	ND	ND	ND	**17.3**	**5.6**	ND	ND	**7.8**	**29.6**	ND	**5**
04/29/11	ND	ND	ND	ND	**6.9**	ND	**8.9**	ND	ND	ND	ND	**26.3**	ND	**5**
10/25/11	**5.3**	ND	ND	**6.4**	**6.3**	ND	**21**	ND	ND	ND	ND	**42.4**	ND	**5**
04/20/12	**6.9**	ND	ND	ND	ND	ND	**6.4**	ND	ND	ND	ND	**134**	ND	**5**
10/24/12	**15.7**	ND	ND	ND	**5.6**	ND	**6.5**	ND	ND	ND	ND	**48.5**	ND	**5**
04/24/13	**16.5**	ND	ND	ND	**10.8**	ND	**5.6**	ND	ND	ND	**8.9**	**115**	ND	**5**
10/24/13	**11.8**	ND	ND	ND	**8**	ND	**7.5**	ND	ND	ND	ND	**84.5**	ND	**5**
04/24/14	ND	ND	ND	ND	**5.7**	ND	ND	ND	ND	ND	ND	**65.1**	ND	**5**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**24.2**	ND	**5**
04/28/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**29.3**	ND	**5**
10/27/15	**6.2**	ND	ND	ND	**5.6**	ND	ND	ND	ND	ND	ND	**39**	ND	**5**
04/19/16	**7.2**	ND	ND	ND	**12.1**	**6.4**	**5.1**	ND	ND	ND	ND	**101**	ND	**5**
N_i	33	32	27	31	31	31	29	29	30	31	27	12	12	
sum of rank values (R_i)	7729.0	4155.5	3711.5	5110.5	5637.5	4294.5	6018.5	4472.5	4758.0	5893.0	5992.5	3664.0	1398.0	
avg rank value (Rbar)	234.2	129.9	137.5	164.9	181.9	138.5	207.5	154.2	158.6	190.1	221.9	305.3	116.5	

	Number of each rank value													Rank Value
rank value of NDs =	10	29	24	23	17	27	12	22	23	20	13	0	12	116.5
rank value of 5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	233

rank value of 5.1s =	0	0	0	0	0	0	2	0	0	0	0	0	0	234.5
rank value of 5.2s =	0	0	0	0	1	0	0	0	0	0	0	0	0	236
rank value of 5.3s =	1	0	0	0	0	0	0	1	0	0	0	0	0	237.5
rank value of 5.4s =	0	1	0	0	0	1	0	0	0	0	0	0	0	239.5
rank value of 5.6s =	1	0	0	0	2	0	1	1	0	0	0	0	0	243
rank value of 5.7s =	0	0	0	0	2	0	1	0	0	0	0	0	0	247
rank value of 6s =	0	0	0	0	1	0	0	0	0	0	1	0	0	249.5
rank value of 6.2s =	2	0	0	0	0	0	0	0	0	0	0	0	0	251.5
rank value of 6.3s =	0	1	0	0	1	0	0	0	0	0	0	0	0	253.5
rank value of 6.4s =	0	0	0	1	0	1	1	1	1	0	0	0	0	257
rank value of 6.5s =	0	0	0	0	0	0	1	0	0	0	0	0	0	260
rank value of 6.9s =	1	0	0	0	1	0	1	0	0	0	0	0	0	262
rank value of 7s =	0	0	0	0	0	0	1	0	0	0	0	0	0	264
rank value of 7.1s =	0	0	0	0	0	0	0	0	1	0	0	0	0	265
rank value of 7.2s =	1	0	0	0	0	0	0	0	0	0	0	0	0	266
rank value of 7.4s =	0	0	0	0	0	0	1	0	0	0	0	0	0	267
rank value of 7.5s =	0	0	0	0	0	0	1	0	0	0	0	0	0	268
rank value of 7.7s =	0	0	0	1	1	0	0	0	0	0	0	0	0	269.5
rank value of 7.8s =	0	0	0	0	0	0	0	0	0	0	1	0	0	271
rank value of 8s =	0	0	0	0	1	0	0	0	0	0	0	0	0	272
rank value of 8.2s =	0	0	0	0	1	0	0	1	0	0	0	0	0	273.5
rank value of 8.5s =	0	0	0	1	0	0	0	0	0	0	0	0	0	275
rank value of 8.8s =	0	0	0	0	0	0	0	0	0	1	0	0	0	276
rank value of 8.9s =	0	0	0	0	0	0	1	0	0	0	1	0	0	277.5
rank value of 9s =	1	0	0	0	0	0	0	0	0	0	0	0	0	279
rank value of 9.4s =	0	0	0	1	0	0	0	0	0	0	0	0	0	280
rank value of 9.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	281
rank value of 9.9s =	1	0	0	0	0	0	0	0	0	0	0	0	0	282
rank value of 10s =	1	0	0	0	0	0	0	0	0	0	0	0	0	283
rank value of 10.4s =	0	1	0	0	0	0	0	0	0	0	0	0	0	284
rank value of 10.6s =	0	0	0	0	1	0	0	0	0	0	0	0	0	285
rank value of 10.8s =	0	0	0	0	1	0	0	0	0	0	0	0	0	286
rank value of 11.8s =	1	0	0	0	0	0	0	0	0	0	0	0	0	287
rank value of 12s =	1	0	0	0	0	0	0	1	0	0	0	0	0	288.5
rank value of 12.1s =	0	0	0	0	1	0	0	0	0	0	0	0	0	290
rank value of 12.6s =	0	0	0	0	0	0	1	0	0	0	0	0	0	291
rank value of 13s =	1	0	0	0	0	0	2	0	1	0	0	0	0	293.5
rank value of 14s =	0	0	0	0	0	0	0	1	0	0	0	0	0	296
rank value of 15.7s =	1	0	0	0	0	0	0	0	0	0	0	0	0	297
rank value of 16s =	1	0	1	0	0	1	0	0	0	1	0	0	0	299.5
rank value of 16.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	302
rank value of 16.8s =	1	0	0	0	0	0	0	0	0	0	0	0	0	303
rank value of 17s =	0	0	0	0	0	0	0	0	1	0	0	0	0	304
rank value of 17.1s =	0	0	1	0	0	0	0	0	0	0	0	0	0	305
rank value of 17.3s =	0	0	0	0	0	0	1	0	0	0	0	0	0	306
rank value of 17.6s =	0	0	0	0	0	0	0	0	0	0	1	0	0	307
rank value of 18s =	0	0	0	0	0	0	1	0	0	0	0	0	0	308
rank value of 18.4s =	0	0	0	0	0	0	0	0	0	0	1	0	0	309
rank value of 19s =	0	0	0	0	0	0	0	0	1	0	0	0	0	310
rank value of 19.5s =	0	0	1	0	0	0	0	0	0	0	0	0	0	311
rank value of 21s =	2	0	0	0	0	0	1	1	1	0	0	0	0	314
rank value of 22.3s =	0	0	0	0	0	0	0	0	0	0	1	0	0	317
rank value of 24.2s =	0	0	0	0	0	0	0	0	0	0	0	1	0	318
rank value of 25s =	0	0	0	0	0	0	0	0	0	1	0	0	0	319
rank value of 26.3s =	0	0	0	0	0	0	0	0	0	0	0	1	0	320
rank value of 27s =	1	0	0	0	0	0	0	0	0	0	0	0	0	321
rank value of 29s =	0	0	0	0	0	0	0	0	0	1	0	0	0	322
rank value of 29.3s =	0	0	0	0	0	0	0	0	0	0	0	1	0	323

rank value of 29.6s =	0	0	0	0	0	0	0	0	0	0	0	1	0	324
rank value of 31s =	0	0	0	0	0	0	0	0	0	1	0	0	0	325
rank value of 32s =	0	0	0	1	0	0	0	0	0	0	0	0	0	326
rank value of 36s =	0	0	0	0	0	0	0	0	0	1	0	0	0	327
rank value of 37s =	0	0	0	1	0	0	0	0	0	0	0	0	0	328
rank value of 39s =	0	0	0	0	0	0	0	0	0	0	0	1	0	329
rank value of 42.4s =	0	0	0	0	0	0	0	0	0	0	0	1	0	330
rank value of 43s =	0	0	0	0	0	0	0	0	0	1	0	0	0	331
rank value of 48.5s =	0	0	0	0	0	0	0	0	0	0	0	1	0	332
rank value of 50s =	0	0	0	0	0	0	0	0	0	1	1	0	0	333.5
rank value of 52s =	0	0	0	0	0	0	0	0	1	0	0	0	0	335
rank value of 54s =	1	0	0	0	0	0	0	0	0	0	0	0	0	336
rank value of 56s =	0	0	0	0	0	0	0	0	0	0	1	0	0	337
rank value of 57s =	0	0	0	0	0	0	0	0	0	0	1	0	0	338
rank value of 58s =	1	0	0	0	0	0	0	0	0	0	0	0	0	339
rank value of 59s =	0	0	0	0	0	0	0	0	0	1	0	0	0	340
rank value of 65.1s =	0	0	0	0	0	0	0	0	0	0	0	1	0	341
rank value of 70s =	0	0	0	0	0	0	0	0	0	0	1	0	0	342
rank value of 81s =	0	0	0	0	0	0	0	0	0	0	1	0	0	343
rank value of 82s =	0	0	0	0	0	0	0	0	0	1	0	0	0	344
rank value of 84.5s =	0	0	0	0	0	0	0	0	0	0	0	1	0	345
rank value of 85s =	0	0	0	0	0	0	0	0	0	1	0	0	0	346
rank value of 100s =	0	0	0	1	0	0	0	0	0	0	0	0	0	347
rank value of 110s =	0	0	0	1	0	0	0	0	0	0	1	0	0	348.5
rank value of 115s =	0	0	0	0	0	0	0	0	0	0	0	1	0	350
rank value of 120s =	0	0	0	0	0	0	0	0	0	0	1	0	0	351
rank value of 134s =	0	0	0	0	0	0	0	0	0	0	0	1	0	352
rank value of 260s =	0	0	0	0	0	1	0	0	0	0	0	0	0	353
rank value of 560s =	0	0	0	0	0	0	0	0	0	0	1	0	0	354
n =	**33**	**32**	**27**	**31**	**31**	**31**	**29**	**29**	**30**	**31**	**27**	**11**	**12**	

Compute the Kruskal-Wallis statistic:

$$H = \{[12/N(N+1)] * [\Sigma^{K}_{i=1} (R_i^2)/N_i]\} -3(N+1)$$

Well =	**Background**	**MW-1A**	**MW-2**	**MW-2D**	**MW-3**	**MW-3D**	**MW-4A**	**MW-8**	**MW-15**	**MW-16**	**MW-17**
Ri^2/N_i =	2643861.0	842491	1E+06	594927	1E+06	689767	754619	1E+06	1E+06	1E+06	162867

$N_{i\ bg}$ = 92
N = 355
H = 26.96

Adjust H for ties:

T_i = 1E+07 sum of T1..T20

$H' = H/(1-(T_i/(N^3-N)))$
H' = 37.40
Chi-square = 18.31

Compare the calculated value H' to the tabulated Chi-square value with K-1 = # groups -1 = 17df at the 5%

significance level from Table 1 of the IFG. The value is 18.31 which is less than H' =37.40.
Therefore, there is evidence of significant differences between the well groups.
Post-hoc pairwise comparisons are necessary (see below).

Calculate the critical values to compare each compliance well to the background wells:

Critical Value (C_x) = $P(N(N+1)/12)^{0.5} * (1/N_{i\,bg}+1/N_x)^{0.5}$

P = 2.33 Percentile of Standard Normal Distribution
from Table 4 of IFG

N = total sample size

$N_{i\,bg}$ = total samples (N_i) of background data

N_x = total samples (N_i) of well x

Difference between average ranks (Dx) = Rbar (well x) - avg Rbar (background)

Well =	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	**MW-15**	**MW-16**	MW-17
Rbar (well x) =	164.9	181.9	138.5	207.5	154.2	158.6	190.1	221.9	305.3	116.5
avg Rbar (background) =	169.5	169.5	169.5	169.5	169.5	169.5	169.5	169.5	169.5	169.5
Dx =	-4.7	12.3	-31.0	38.0	-15.3	-10.9	20.6	52.4	135.8	-53.0
Cx =	49.7	49.7	49.7	50.9	50.9	50.3	49.7	52.3	73.4	73.4
Statistical Significance ?	No	No	No	No	No	No	No	**Yes**	**Yes**	No
If SSI, is current event above MCL?	-	-	-	-	-	-	-	NE	NE	-

Compare each difference (Dx) with the corresponding critical value (Cx).
The Dx value for the above indicated wells do exceed the corresponding Cx value.
Therefore, we conclude that the concentration of Total Cobalt averaged over these compliance wells
are significantly greater than that of the background wells.
Shewart-CUSUM Control Charts should be performed for each failing well to check for statistical significance.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Cobalt**
NC MCL (µg/l): Not Established
Method: Shewhart-CUSUM Control Chart

Part 1: Check for Normality

	MW-15	MDL
9/26/02	**560**	**5**
4/28/03	**81**	**5**
10/30/03	**110**	**5**
4/20/04	**50**	**5**
10/21/04	**120**	**5**
4/18/05	**70**	**5**
10/13/05	**56**	**5**
4/25/06	**57**	**10**
10/20/06	ND	**5**
4/25/07	ND	**10**
10/31/07	**17.6**	**5**
4/23/08	**22.3**	**5**
10/20/08	**18.4**	**5**
4/22/09	NS	**5**
10/26/09	**6**	**5**
4/22/10	ND	**5**
10/27/10	**7.8**	**5**
4/29/11	ND	**5**
10/25/11	ND	**5**
4/20/12	ND	**5**
10/24/12	ND	**5**
4/24/13	**8.9**	**5**
10/24/13	ND	**5**
4/24/14	ND	**5**
10/27/14	ND	**5**
4/28/15	ND	**5**
10/27/15	ND	**5**
4/19/16	ND	**5**

If not detected (ND), use half of the detection limit.

X_{bar} = 45.185185
SD = 108.61749
N = 27
$1/N\Sigma_i(X_i-X_{bar})^3$ = 5036604
γ_1= 4.1593374

Since the Coefficient of Skewness of 4.16 is greater than 1.0, the real data appear to be significantly skewed.
Do not assume that the data follow a Normal distribution.
Perform the Skewness Test on the natural log of the values.

X_{bar} = 2.3689251
SD = 1.6405
N = 27
$1/N\Sigma_i(X_i-X_{bar})^3$ = 2.9617837
γ_1= 0.7099214

Since the Coefficient of Skewness of 0.71 is less than 1.0, the data appear not to be significantly skewed. Proceed with further statistical tests using the log-transformed values shown above.

Part 2: Shewhart-CUSUM Control Chart

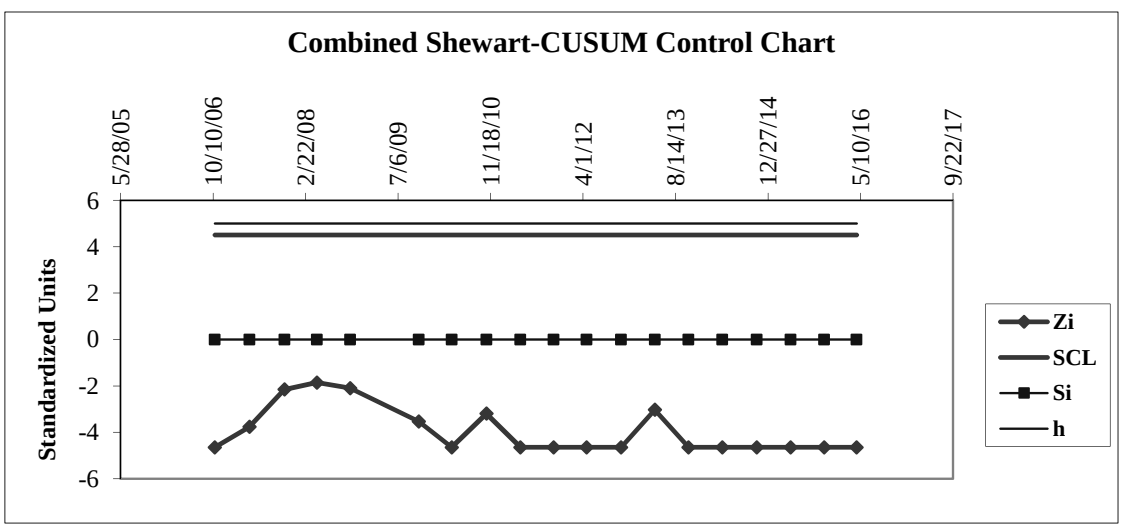
Compute the mean and standard deviation of the historical data:

4.5549099 = x_{mean} (Mean of N1-N8 historical data)
0.7832425 = s (Standard Deviation of N1-N8 historical data)
1 = k (constant, reference value)
5 = h (constant, upper control limit for the CUSUM scheme)
4.5 = SCL (Constant, upper Shewhart Control Limit)

Compute the standardized mean (Z_i) and the cumulative sum (S_i) for each concentration.

Date	x_i	Z_i	S_i	h	SCL
			0		
10/20/06	0.9162907	-4.6455844	0	5	4.5
4/25/07	1.6094379	-3.7606131	0	5	4.5
10/31/07	2.8678989	-2.1538808	0	5	4.5
4/23/08	3.1045867	-1.8516912	0	5	4.5
10/20/08	2.9123507	-2.0971273	0	5	4.5
10/26/09	1.7917595	-3.5278352	0	5	4.5
4/22/10	0.9162907	-4.6455844	0	5	4.5
10/27/10	2.0541237	-3.1928632	0	5	4.5
4/29/11	0.9162907	-4.6455844	0	5	4.5
10/25/11	0.9162907	-4.6455844	0	5	4.5
4/20/12	0.9162907	-4.6455844	0	5	4.5
10/24/12	0.9162907	-4.6455844	0	5	4.5
4/24/13	2.1860513	-3.0244255	0	5	4.5
10/24/13	0.9162907	-4.6455844	0	5	4.5
4/24/14	0.9162907	-4.6455844	0	5	4.5
10/27/14	0.9162907	-4.6455844	0	5	4.5
4/28/15	0.9162907	-4.6455844	0	5	4.5
10/27/15	0.9162907	-4.6455844	0	5	4.5
4/19/16	0.9162907	-4.6455844	0	5	4.5

Plot Z_i and S_i versus time:



Compare the Z_i and S_i values to their respective control limits of SCL and h.

The limits were not exceeded and do not indicate statistically significant evidence of contamination at the site.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Cobalt**
NC MCL (µg/l): Not Established
Method: Shewhart-CUSUM Control Chart

Part 1: Check for Normality

	MW-16	MDL
9/26/02	NP	**5**
4/28/03	NP	**5**
10/30/03	NP	**5**
4/20/04	NP	**5**
10/21/04	NP	**5**
4/18/05	NP	**5**
10/13/05	NP	**5**
4/25/06	NP	**10**
10/20/06	NP	**5**
4/25/07	NP	**10**
10/31/07	NP	**5**
4/23/08	NP	**5**
10/20/08	NP	**5**
4/22/09	NP	**5**
10/26/09	NP	**5**
4/22/10	NP	**5**
10/27/10	**29.6**	**5**
4/29/11	**26.3**	**5**
10/25/11	**42.4**	**5**
4/20/12	**134**	**5**
10/24/12	**48.5**	**5**
4/24/13	**115**	**5**
10/24/13	**84.5**	**5**
4/24/14	**65.1**	**5**
10/27/14	**24.2**	**5**
4/28/15	**29.3**	**5**
10/27/15	**39**	**5**
4/19/16	**101**	**5**

If not detected (ND), use half of the detection limit.

X_{bar} = 61.575
SD = 38.073473
N = 12
$1/N\Sigma_i(X_i-X_{bar})^3$ = 35212.622
γ_1= 0.7269654

Since the Coefficient of Skewness of 0.73 is less than 1.0, the data appear not to be significantly skewed. Proceed with further statistical tests using the real detected values shown above.

X_{bar} = 3.9486771
SD = 0.6089057

$N =$ 12

$1/N\Sigma_i(X_i-X_{bar})^3 =$ 0.0527795

$\gamma_1 =$ 0.2663776

Use the real values (not log-transformed) indicated in the previous section.

Part 2: Shewhart-CUSUM Control Chart

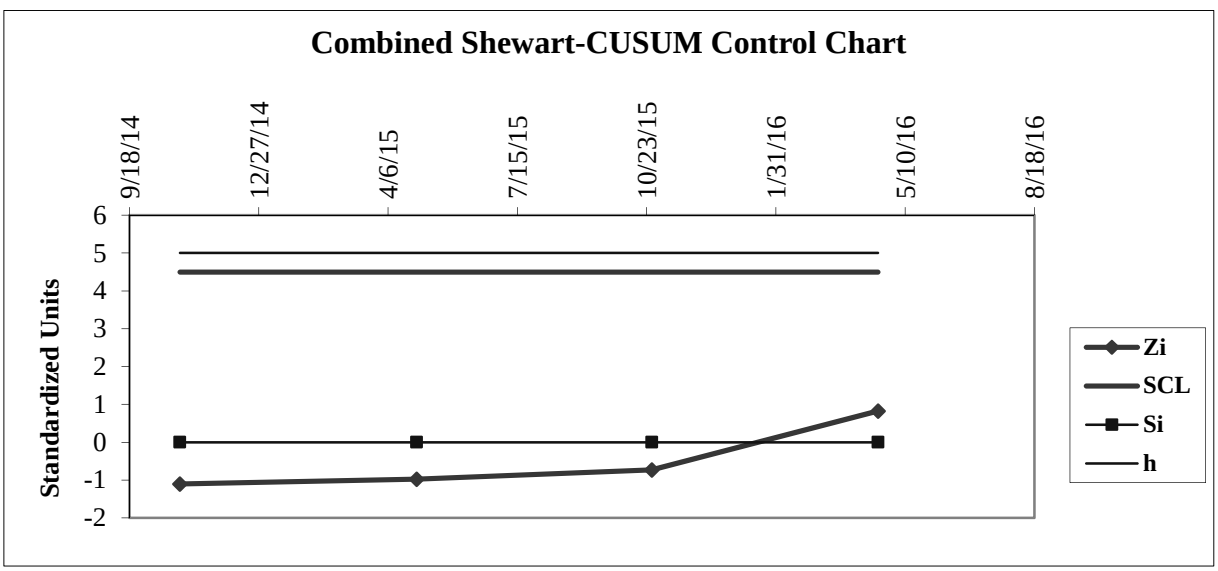
Compute the mean and standard deviation of the historical data:

68.175 = x_{mean} (Mean of N1-N8 historical data)
39.811117 = s (Standard Deviation of N1-N8 historical data)
1 = k (constant, reference value)
5 = h (constant, upper control limit for the CUSUM scheme)
4.5 = SCL (Constant, upper Shewhart Control Limit)

Compute the standardized mean (Z_i) and the cumulative sum (S_i) for each concentration.

Date	x_i	Z_i	S_i	h	SCL
			0		
10/27/14	24.2	-1.104591	0	5	4.5
4/28/15	29.3	-0.9764861	0	5	4.5
10/27/15	39	-0.7328355	0	5	4.5
4/19/16	101	0.8245184	0	5	4.5

Plot Z_i and S_i versus time:



Compare the Z_i and S_i values to their respective control limits of SCL and h.
The limits were not exceeded and do not indicate statistically significant evidence of contamination at the site.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Copper**
NC MCL (µg/l): 1000
Method: Kruskal-Wallis
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	12	NS	NS	ND	ND	13	ND	27	ND	22	NS	NP	NP	5
06/26/00	17	6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
07/26/00	12	6.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	200
04/09/01	77	8.4	NS	ND	ND	5.4	ND	26	38	110	NS	NP	NP	5
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	200
04/15/02	69	ND	NS	ND	ND	ND	ND	13	68	120	NS	NP	NP	2
09/26/02	20	10	31	220	ND	ND	2.6	42	88	150	450	NP	NP	2
04/28/03	24	ND	2.6	40	ND	ND	ND	ND	28	94	71	NP	NP	2
10/30/03	18	ND	NT	ND	2.3	2.6	ND	3	85	4.4	150	NP	NP	2
04/20/04	18	ND	2.8	12	5.3	2.3	4.3	13	7.4	100	89	NP	NP	2
10/21/04	11	ND	ND	2	ND	ND	ND	ND	ND	63	140	NP	NP	2
04/18/05	29	ND	ND	240	ND	ND	ND	3.8	ND	120	130	NP	NP	2
10/13/05	31	2.6	3.5	70	ND	ND	ND	ND	3	82	96	NP	NP	2
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	200
10/20/06	26	ND	ND	9.6	ND	ND	ND	ND	20	ND	25	NP	NP	5
04/25/07	15	ND	ND	ND	ND	330	ND	ND	ND	ND	26	NP	NP	10
10/31/07	29.2	ND	ND	ND	ND	ND	ND	ND	6.3	40.3	47.4	NP	NP	5
04/23/08	7.2	ND	ND	ND	ND	ND	ND	ND	7.2	ND	17	NP	NP	5
10/20/08	26.5	ND	8.3	ND	ND	ND	ND	ND	ND	ND	9.7	NP	NP	5
04/22/09	5.1	ND	22.6	6	ND	ND	ND	ND	8.8	ND	NS	NP	NP	5
10/26/09	5.8	ND	ND	ND	6.4	ND	NS	NS	NS	ND	7.1	NP	NP	5
04/22/10	9.9	ND	ND	ND	ND	5.9	NS	NS	ND	ND	ND	NP	NP	5
10/27/10	6.7	ND	ND	ND	ND	ND	ND	12.4	ND	ND	53.9	ND	ND	5
04/29/11	6.4	ND	ND	ND	6.7	6.1	ND	ND	ND	ND	5.2	ND	ND	5
10/25/11	9.6	ND	ND	9.4	6.8	11.2	7.6	ND	ND	5.1	6.9	ND	ND	5
04/20/12	15.6	ND	ND	ND	5.8	5.2	ND	ND	ND	ND	ND	6.5	ND	5
10/24/12	22.7	ND	ND	ND	6	ND	ND	ND	5.1	ND	ND	ND	ND	5
04/24/13	13.4	ND	ND	ND	9.3	6	ND	ND	ND	ND	ND	ND	ND	5
10/24/13	12.6	ND	ND	ND	7.5	5.8	ND	ND	ND	ND	ND	ND	ND	5
04/24/14	7.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
04/28/15	7.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
10/27/15	19.1	ND	ND	ND	5.4	7.3	ND	ND	ND	ND	ND	6	ND	5
04/19/16	7.8	ND	5.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
N_i	33	32	27	31	31	31	29	29	30	31	27	12	12	
sum of rank values (R_i)	9461.0	4416.5	4166.0	5238.5	5006.0	5382.5	3729.5	4742.0	5605.0	6045.0	6355.0	1669.0	1374.0	
avg rank value (Rbar)	286.7	138.0	154.3	169.0	161.5	173.6	128.6	163.5	186.8	195.0	235.4	139.1	114.5	

	Number of each rank value													Rank Value
rank value of NDs =	2	27	20	22	21	19	26	21	18	19	11	10	12	114.5
rank value of 2s =	0	0	0	1	0	0	0	0	0	0	0	0	0	229

rank value of 2.3s =	0	0	0	0	1	1	0	0	0	0	0	0	0	230.5
rank value of 2.6s =	0	1	1	0	0	1	1	0	0	0	0	0	0	233.5
rank value of 2.8s =	0	0	1	0	0	0	0	0	0	0	0	0	0	236
rank value of 3s =	0	0	0	0	0	0	0	1	1	0	0	0	0	237.5
rank value of 3.5s =	0	0	1	0	0	0	0	0	0	0	0	0	0	239
rank value of 3.8s =	0	0	0	0	0	0	0	1	0	0	0	0	0	240
rank value of 4.3s =	0	0	0	0	0	0	1	0	0	0	0	0	0	241
rank value of 4.4s =	0	0	0	0	0	0	0	0	0	1	0	0	0	242
rank value of 5.1s =	1	0	0	0	0	0	0	0	1	1	0	0	0	244
rank value of 5.2s =	0	0	0	0	0	1	0	0	0	0	1	0	0	246.5
rank value of 5.3s =	0	0	0	0	1	0	0	0	0	0	0	0	0	248
rank value of 5.4s =	0	0	1	0	1	1	0	0	0	0	0	0	0	250
rank value of 5.8s =	1	0	0	0	1	1	0	0	0	0	0	0	0	253
rank value of 5.9s =	0	0	0	0	0	1	0	0	0	0	0	0	0	255
rank value of 6s =	0	1	0	1	1	1	0	0	0	0	0	1	0	258
rank value of 6.1s =	0	1	0	0	0	1	0	0	0	0	0	0	0	261.5
rank value of 6.3s =	0	0	0	0	0	0	0	0	1	0	0	0	0	263
rank value of 6.4s =	1	0	0	0	1	0	0	0	0	0	0	0	0	264.5
rank value of 6.5s =	0	0	0	0	0	0	0	0	0	0	0	1	0	266
rank value of 6.7s =	1	0	0	0	1	0	0	0	0	0	0	0	0	267.5
rank value of 6.8s =	0	0	0	0	1	0	0	0	0	0	0	0	0	269
rank value of 6.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	270
rank value of 7.1s =	0	0	0	0	0	0	0	0	0	0	1	0	0	271
rank value of 7.2s =	1	0	0	0	0	0	0	0	1	0	0	0	0	272.5
rank value of 7.3s =	0	0	0	0	0	1	0	0	0	0	0	0	0	274
rank value of 7.4s =	1	0	0	0	0	0	0	0	1	0	0	0	0	275.5
rank value of 7.5s =	0	0	0	0	1	0	0	0	0	0	0	0	0	277
rank value of 7.6s =	0	0	0	0	0	0	1	0	0	0	0	0	0	278
rank value of 7.8s =	1	0	0	0	0	0	0	0	0	0	0	0	0	279
rank value of 7.9s =	1	0	0	0	0	0	0	0	0	0	0	0	0	280
rank value of 8.3s =	0	0	1	0	0	0	0	0	0	0	0	0	0	281
rank value of 8.4s =	0	1	0	0	0	0	0	0	0	0	0	0	0	282
rank value of 8.8s =	0	0	0	0	0	0	0	0	1	0	0	0	0	283
rank value of 9.3s =	0	0	0	0	1	0	0	0	0	0	0	0	0	284
rank value of 9.4s =	0	0	0	1	0	0	0	0	0	0	0	0	0	285
rank value of 9.6s =	1	0	0	1	0	0	0	0	0	0	0	0	0	286.5
rank value of 9.7s =	0	0	0	0	0	0	0	0	0	0	1	0	0	288
rank value of 9.9s =	1	0	0	0	0	0	0	0	0	0	0	0	0	289
rank value of 10s =	0	1	0	0	0	0	0	0	0	0	0	0	0	290
rank value of 11s =	1	0	0	0	0	0	0	0	0	0	0	0	0	291
rank value of 11.2s =	0	0	0	0	0	1	0	0	0	0	0	0	0	292
rank value of 12s =	2	0	0	1	0	0	0	0	0	0	0	0	0	294
rank value of 12.4s =	0	0	0	0	0	0	0	1	0	0	0	0	0	296
rank value of 12.6s =	1	0	0	0	0	0	0	0	0	0	0	0	0	297
rank value of 13s =	0	0	0	0	0	1	0	2	0	0	0	0	0	299
rank value of 13.4s =	1	0	0	0	0	0	0	0	0	0	0	0	0	301
rank value of 15s =	1	0	0	0	0	0	0	0	0	0	0	0	0	302
rank value of 15.6s =	1	0	0	0	0	0	0	0	0	0	0	0	0	303
rank value of 17s =	1	0	0	0	0	0	0	0	0	0	1	0	0	304.5
rank value of 18s =	2	0	0	0	0	0	0	0	0	0	0	0	0	306.5
rank value of 19.1s =	1	0	0	0	0	0	0	0	0	0	0	0	0	308
rank value of 20s =	1	0	0	0	0	0	0	0	1	0	0	0	0	309.5
rank value of 22s =	0	0	0	0	0	0	0	0	0	1	0	0	0	311
rank value of 22.6s =	0	0	1	0	0	0	0	0	0	0	0	0	0	312
rank value of 22.7s =	1	0	0	0	0	0	0	0	0	0	0	0	0	313
rank value of 24s =	1	0	0	0	0	0	0	0	0	0	0	0	0	314
rank value of 25s =	0	0	0	0	0	0	0	0	0	0	1	0	0	315
rank value of 26s =	1	0	0	0	0	0	0	1	0	0	1	0	0	317

rank value of 26.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	319
rank value of 27s =	0	0	0	0	0	0	0	1	0	0	0	0	0	320
rank value of 28s =	0	0	0	0	0	0	0	0	1	0	0	0	0	321
rank value of 29s =	1	0	0	0	0	0	0	0	0	0	0	0	0	322
rank value of 29.2s =	1	0	0	0	0	0	0	0	0	0	0	0	0	323
rank value of 31s =	1	0	1	0	0	0	0	0	0	0	0	0	0	324.5
rank value of 38s =	0	0	0	0	0	0	0	0	1	0	0	0	0	326
rank value of 40s =	0	0	0	1	0	0	0	0	0	0	0	0	0	327
rank value of 40.3s =	0	0	0	0	0	0	0	0	0	1	0	0	0	328
rank value of 42s =	0	0	0	0	0	0	0	1	0	0	0	0	0	329
rank value of 47.4s =	0	0	0	0	0	0	0	0	0	0	1	0	0	330
rank value of 53.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	331
rank value of 63s =	0	0	0	0	0	0	0	0	0	1	0	0	0	332
rank value of 68s =	0	0	0	0	0	0	0	0	1	0	0	0	0	333
rank value of 69s =	1	0	0	0	0	0	0	0	0	0	0	0	0	334
rank value of 70s =	0	0	0	1	0	0	0	0	0	0	0	0	0	335
rank value of 71s =	0	0	0	0	0	0	0	0	0	0	1	0	0	336
rank value of 77s =	1	0	0	0	0	0	0	0	0	0	0	0	0	337
rank value of 82s =	0	0	0	0	0	0	0	0	0	1	0	0	0	338
rank value of 85s =	0	0	0	0	0	0	0	0	1	0	0	0	0	339
rank value of 88s =	0	0	0	0	0	0	0	0	1	0	0	0	0	340
rank value of 89s =	0	0	0	0	0	0	0	0	0	0	1	0	0	341
rank value of 94s =	0	0	0	0	0	0	0	0	0	1	0	0	0	342
rank value of 96s =	0	0	0	0	0	0	0	0	0	0	1	0	0	343
rank value of 100s =	0	0	0	0	0	0	0	0	0	1	0	0	0	344
rank value of 110s =	0	0	0	0	0	0	0	0	0	1	0	0	0	345
rank value of 120s =	0	0	0	0	0	0	0	0	0	2	0	0	0	346.5
rank value of 130s =	0	0	0	0	0	0	0	0	0	0	1	0	0	348
rank value of 140s =	0	0	0	0	0	0	0	0	0	0	1	0	0	349
rank value of 150s =	0	0	0	0	0	0	0	0	0	1	1	0	0	350.5
rank value of 220s =	0	0	0	1	0	0	0	0	0	0	0	0	0	352
rank value of 240s =	0	0	0	1	0	0	0	0	0	0	0	0	0	353
rank value of 330s =	0	0	0	0	0	1	0	0	0	0	0	0	0	354
rank value of 450s =	0	0	0	0	0	0	0	0	0	0	1	0	0	355
n =	**33**	**32**	**27**	**31**	**31**	**31**	**29**	**29**	**30**	**31**	**27**	**12**	**12**	

Compute the Kruskal-Wallis statistic:

$$H = \{[12/N(N+1)] * [\Sigma^{K}_{i=1} (R_i^2)/N_i]\} -3(N+1)$$

Well =	**Background**	**MW-1A**	**MW-2**	**MW-2D**	**MW-3**	**MW-3D**	**MW-4A**	**MW-8**	**MW-15**	**MW-16**	**MW-17**
Ri^2/N_i =	3538781.4	885222	808388	934558	479627	775399	1E+06	1E+06	1E+06	232130	157323

$N_{i\ bg}$ = 92
N = 355
H = 27.10

Adjust H for ties:

T_i = 1E+07 sum of T1..T24

$H' = H/(1-(T_i/(N^3-N)))$
H' = 36.86
Chi-square = 18.31

Compare the calculated value H' to the tabulated Chi-square value with K-1 = # groups -1 = 17df at the 5%

significance level from Table 1 of the IFG. The value is 18.31 which is less than H' =36.86.
Therefore, there is evidence of significant differences between the well groups.
Post-hoc pairwise comparisons are necessary (see below).

Calculate the critical values to compare each compliance well to the background wells:

Critical Value (C_x) = $P(N(N+1)/12)^{0.5} * (1/N_{i\,bg}+1/N_x)^{0.5}$

P = 2.33 Percentile of Standard Normal Distribution
from Table 4 of IFG

N = total sample size

$N_{i\,bg}$ = total samples (N_i) of background data

N_x = total samples (N_i) of well x

Difference between average ranks (Dx) = Rbar (well x) - avg Rbar (background)

Well =	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
Rbar (well x) =	169.0	161.5	173.6	128.6	163.5	186.8	195.0	235.4	139.1	114.5
avg Rbar (background) =	196.1	196.1	196.1	196.1	196.1	196.1	196.1	196.1	196.1	196.1
Dx =	-27.1	-34.6	-22.5	-67.5	-32.6	-9.3	-1.1	39.2	-57.0	-81.6
Cx =	49.7	49.7	49.7	50.9	50.9	50.3	49.7	52.3	73.4	73.4
Statistical Significance ?	No	No	No	No	No	No	No	No	No	No
If SSI, is current event above MCL?	-	-	-	-	-	-	-	-	-	-

Compare each difference (Dx) with the corresponding critical value (Cx).
No compliance well's difference between average ranks exceeded its corresponding critical value at a 5% significance level. Therefore, we conclude that significant evidence of contamination does not exist at the 5% significance level.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Lead**
NC MCL (µg/l): 15
Method: Kruskal-Wallis
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	**35**	NS	NS	ND	ND	ND	ND	**11**	ND	ND	NS	NP	NP	**10**
06/26/00	ND	**10**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
07/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	ND	NS	NS	NP	NP	**10**
04/09/01	ND	**59**	NS	ND	ND	ND	ND	ND	**18**	**2.5**	NS	NP	NP	**10**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
04/15/02	**13**	ND	NS	ND	ND	ND	ND	ND	**13**	**29**	NS	NP	NP	**10**
09/26/02	ND	**76**	**29**	ND	ND	ND	ND	ND	**150**	**20**	**740**	NP	NP	**10**
04/28/03	ND	ND	ND	ND	ND	ND	ND	ND	**25**	ND	**300**	NP	NP	**10**
10/30/03	**8.7**	**12**	NT	ND	ND	ND	ND	ND	**39**	**7.4**	**640**	NP	NP	**5**
04/20/04	**7.2**	**7**	**5.2**	**6.4**	**5.4**	ND	ND	ND	**12**	**39**	**250**	NP	NP	**5**
10/21/04	**7.2**	**5.6**	**5.7**	ND	ND	ND	ND	ND	ND	**24**	**430**	NP	NP	**5**
04/18/05	**13**	**8**	**5.2**	**73**	ND	ND	ND	ND	ND	**39**	**380**	NP	NP	**5**
10/13/05	**14**	**6.9**	ND	**20**	ND	ND	ND	ND	ND	**29**	**290**	NP	NP	**5**
04/25/06	**15**	ND	ND	ND	ND	ND	ND	ND	**53**	**19**	**300**	NP	NP	**10**
10/20/06	**20**	ND	ND	ND	ND	ND	ND	ND	**32**	ND	**89**	NP	NP	**5**
04/25/07	ND	ND	ND	ND	ND	**96**	ND	ND	ND	ND	**69**	NP	NP	**10**
10/31/07	**17.5**	**8.1**	ND	ND	ND	ND	ND	ND	ND	**12.3**	**123**	NP	NP	**5**
04/23/08	ND	ND	**8.4**	ND	ND	ND	ND	ND	**5.8**	ND	**50.2**	NP	NP	**5**
10/20/08	ND	**13.5**	**7.6**	ND	ND	ND	ND	ND	ND	ND	**25.9**	NP	NP	**5**
04/22/09	ND	**8.7**	**24.4**	ND	ND	ND	ND	ND	**9.8**	ND	NS	NP	NP	**5**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	**24.7**	NP	NP	**5**
04/22/10	ND	**10.5**	ND	ND	ND	ND	NS	NS	ND	ND	**9.2**	NP	NP	**5**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**16**	ND	ND	**5**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**11**	ND	ND	**5**
10/25/11	ND	ND	ND	ND	ND	ND	**6.3**	ND	ND	ND	**14.6**	ND	ND	**5**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6.4**	ND	ND	**5**
10/24/12	**5.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10.4**	ND	ND	**5**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/28/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/27/15	**7.7**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/19/16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
N_i	33	32	27	31	31	31	29	29	31	31	27	12	12	
sum of rank values (R_i)	6636.0	6469.0	4888.0	4861.5	4467.0	4531.0	4193.0	4213.5	6149.0	6123.5	7666.5	1674.0	1674.0	
avg rank value (Rbar)	201.1	202.2	181.0	156.8	144.1	146.2	144.6	145.3	198.4	197.5	283.9	139.5	139.5	

	Number of each rank value													Rank Value
rank value of NDs =	21	20	20	28	30	30	28	28	21	21	7	12	12	139.5
rank value of 2.5s =	0	0	0	0	0	0	0	0	0	1	0	0	0	279
rank value of 5.2s =	0	0	2	0	0	0	0	0	0	0	0	0	0	280.5
rank value of 5.4s =	0	0	0	0	1	0	0	0	0	0	0	0	0	282
rank value of 5.6s =	0	1	0	0	0	0	0	0	0	0	0	0	0	283
rank value of 5.7s =	0	0	1	0	0	0	0	0	0	0	0	0	0	284

rank value of 5.8s =	0	0	0	0	0	0	0	0	1	0	0	0	0	285
rank value of 5.9s =	1	0	0	0	0	0	0	0	0	0	0	0	0	286
rank value of 6.3s =	0	0	0	0	0	0	1	0	0	0	0	0	0	287
rank value of 6.4s =	0	0	0	1	0	0	0	0	0	0	1	0	0	288.5
rank value of 6.9s =	0	1	0	0	0	0	0	0	0	0	0	0	0	290
rank value of 7s =	0	1	0	0	0	0	0	0	0	0	0	0	0	291
rank value of 7.2s =	2	0	0	0	0	0	0	0	0	0	0	0	0	292.5
rank value of 7.4s =	0	0	0	0	0	0	0	0	0	1	0	0	0	294
rank value of 7.6s =	0	0	1	0	0	0	0	0	0	0	0	0	0	295
rank value of 7.7s =	1	0	0	0	0	0	0	0	0	0	0	0	0	296
rank value of 8s =	0	1	0	0	0	0	0	0	0	0	0	0	0	297
rank value of 8.1s =	0	1	0	0	0	0	0	0	0	0	0	0	0	298
rank value of 8.4s =	0	0	1	0	0	0	0	0	0	0	0	0	0	299
rank value of 8.7s =	1	1	0	0	0	0	0	0	0	0	0	0	0	300.5
rank value of 9.2s =	0	0	0	0	0	0	0	0	0	0	1	0	0	302
rank value of 9.8s =	0	0	0	0	0	0	0	0	1	0	0	0	0	303
rank value of 10s =	0	1	0	0	0	0	0	0	0	0	0	0	0	304
rank value of 10.4s =	0	0	0	0	0	0	0	0	0	0	1	0	0	305
rank value of 10.5s =	0	1	0	0	0	0	0	0	0	0	0	0	0	306
rank value of 11s =	0	0	0	0	0	0	0	1	0	0	1	0	0	307.5
rank value of 12s =	0	1	0	0	0	0	0	0	1	0	0	0	0	309.5
rank value of 12.3s =	0	0	0	0	0	0	0	0	0	1	0	0	0	311
rank value of 13s =	2	0	0	0	0	0	0	0	1	0	0	0	0	313
rank value of 13.5s =	0	1	0	0	0	0	0	0	0	0	0	0	0	315
rank value of 14s =	1	0	0	0	0	0	0	0	0	0	0	0	0	316
rank value of 14.6s =	0	0	0	0	0	0	0	0	0	0	1	0	0	317
rank value of 15s =	1	0	0	0	0	0	0	0	0	0	0	0	0	318
rank value of 16s =	0	0	0	0	0	0	0	0	0	0	1	0	0	319
rank value of 17.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	320
rank value of 18s =	0	0	0	0	0	0	0	0	1	0	0	0	0	321
rank value of 19s =	0	0	0	0	0	0	0	0	0	1	0	0	0	322
rank value of 20s =	1	0	0	1	0	0	0	0	0	1	0	0	0	324
rank value of 24s =	0	0	0	0	0	0	0	0	0	1	0	0	0	326
rank value of 24.4s =	0	0	1	0	0	0	0	0	0	0	0	0	0	327
rank value of 24.7s =	0	0	0	0	0	0	0	0	0	0	1	0	0	328
rank value of 25s =	0	0	0	0	0	0	0	0	1	0	0	0	0	329
rank value of 25.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	330
rank value of 29s =	0	0	1	0	0	0	0	0	0	2	0	0	0	332
rank value of 32s =	0	0	0	0	0	0	0	0	1	0	0	0	0	334
rank value of 35s =	1	0	0	0	0	0	0	0	0	0	0	0	0	335
rank value of 39s =	0	0	0	0	0	0	0	0	1	2	0	0	0	337
rank value of 50.2s =	0	0	0	0	0	0	0	0	0	0	1	0	0	339
rank value of 53s =	0	0	0	0	0	0	0	0	1	0	0	0	0	340
rank value of 59s =	0	1	0	0	0	0	0	0	0	0	0	0	0	341
rank value of 69s =	0	0	0	0	0	0	0	0	0	0	1	0	0	342
rank value of 73s =	0	0	0	1	0	0	0	0	0	0	0	0	0	343
rank value of 76s =	0	1	0	0	0	0	0	0	0	0	0	0	0	344
rank value of 89s =	0	0	0	0	0	0	0	0	0	0	1	0	0	345
rank value of 96s =	0	0	0	0	0	1	0	0	0	0	0	0	0	346
rank value of 123s =	0	0	0	0	0	0	0	0	0	0	1	0	0	347
rank value of 150s =	0	0	0	0	0	0	0	0	1	0	0	0	0	348
rank value of 250s =	0	0	0	0	0	0	0	0	0	0	1	0	0	349
rank value of 290s =	0	0	0	0	0	0	0	0	0	0	1	0	0	350
rank value of 300s =	0	0	0	0	0	0	0	0	0	0	2	0	0	351.5
rank value of 380s =	0	0	0	0	0	0	0	0	0	0	1	0	0	353
rank value of 430s =	0	0	0	0	0	0	0	0	0	0	1	0	0	354
rank value of 640s =	0	0	0	0	0	0	0	0	0	0	1	0	0	355
rank value of 740s =	0	0	0	0	0	0	0	0	0	0	1	0	0	356

n =	**33**	**32**	**27**	**31**	**31**	**31**	**29**	**29**	**31**	**31**	**27**	**12**	**12**

Compute the Kruskal-Wallis statistic:

$$H = \{[12/N(N+1)] * [\Sigma^{K}_{i=1} (R_i^2)/N_i]\} -3(N+1)$$

Well =	**Background**	**MW-1A**	**MW-2**	**MW-2D**	**MW-3**	**MW-3D**	**MW-4A**	**MW-8**	**MW-15**	**MW-16**	**MW-17**
Ri^2/N_i =	3519000.5	762393	643680	662257	606250	612192	1E+06	1E+06	2E+06	233523	233523

$N_{i\,bg}$ = 92
N = 356
H = 50.61

Adjust H for ties:

T_i = 2E+07 sum of T1..T12

$H' = H/(1-(T_i/(N^3-N)))$
H' = 96.62
Chi-square = 18.31

Compare the calculated value H' to the tabulated Chi-square value with K-1 = # groups -1 = 17df at the 5% significance level from Table 1 of the IFG. The value is 18.31 which is less than H' =96.62.
Therefore, there is evidence of significant differences between the well groups.
Post-hoc pairwise comparisons are necessary (see below).

Calculate the critical values to compare each compliance well to the background wells:

Critical Value (C_x) = $P(N(N+1)/12)^{0.5} * (1/N_{i\,bg}+1/N_x)^{0.5}$
P = 2.33 Percentile of Standard Normal Distribution
from Table 4 of IFG
N = total sample size
$N_{i\,bg}$ = total samples (N_i) of background data
N_x = total samples (N_i) of well x

Difference between average ranks (Dx) = Rbar (well x) - avg Rbar (background)

Well =	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	**MW-15**	MW-16	MW-17
Rbar (well x) =	156.8	144.1	146.2	144.6	145.3	198.4	197.5	283.9	139.5	139.5
avg Rbar (background) =	195.6	195.6	195.6	195.6	195.6	195.6	195.6	195.6	195.6	195.6
Dx =	-38.8	-51.5	-49.4	-51.0	-50.3	2.8	2.0	88.4	-56.1	-56.1
Cx =	49.8	49.8	49.8	51.1	51.1	49.8	49.8	52.5	73.6	73.6
Statistical Significance ?	No	No	No	No	No	No	No	**Yes**	No	No
If SSI, is current event above MCL?	-	-	-	-	-	-	-	No	-	-

Compare each difference (Dx) with the corresponding critical value (Cx).
The Dx value for the above indicated wells do exceed the corresponding Cx value.
Therefore, we conclude that the concentration of Total Lead averaged over these compliance wells are significantly greater than that of the background wells.
Shewart-CUSUM Control Charts should be performed for each failing well to check for statistical significance.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Lead**
NC MCL (μg/l): 15
Method: Shewhart-CUSUM Control Chart

Part 1: Check for Normality

	MW-15	MDL
9/26/02	**740**	**10**
4/28/03	**300**	**10**
10/30/03	**640**	**5**
4/20/04	**250**	**5**
10/21/04	**430**	**5**
4/18/05	**380**	**5**
10/13/05	**290**	**5**
4/25/06	**300**	**10**
10/20/06	**89**	**5**
4/25/07	**69**	**10**
10/31/07	**123**	**5**
4/23/08	**50.2**	**5**
10/20/08	**25.9**	**5**
4/22/09	NS	**5**
10/26/09	**24.7**	**5**
4/22/10	**9.2**	**5**
10/27/10	**16**	**5**
4/29/11	**11**	**5**
10/25/11	**14.6**	**5**
4/20/12	**6.4**	**5**
10/24/12	ND	**5**
4/24/13	**10.4**	**5**
10/24/13	ND	**5**
4/24/14	ND	**5**
10/27/14	ND	**5**
4/28/15	ND	**5**
10/27/15	ND	**5**
4/19/16	ND	**5**

If not detected (ND), use half of the detection limit.

X_{bar} = 140.62593
SD = 206.77348
N = 27
$1/N\Sigma_i(X_i-X_{bar})^3$ = 13139407
γ_1= 1.5728123

Since the Coefficient of Skewness of 1.57 is greater than 1.0, the real data appear to be significantly skewed.
Do not assume that the data follow a Normal distribution.
Perform the Skewness Test on the natural log of the values.

X_{bar} = 3.4172525
SD = 2.0348566
N = 27
$1/N\Sigma_i(X_i-X_{bar})^3$ = 0.9819207
γ_1= 0.1233277

Since the Coefficient of Skewness of 0.12 is less than 1.0, the data appear not to be significantly skewed. Proceed with further statistical tests using the log-transformed values shown above.

Part 2: Shewhart-CUSUM Control Chart

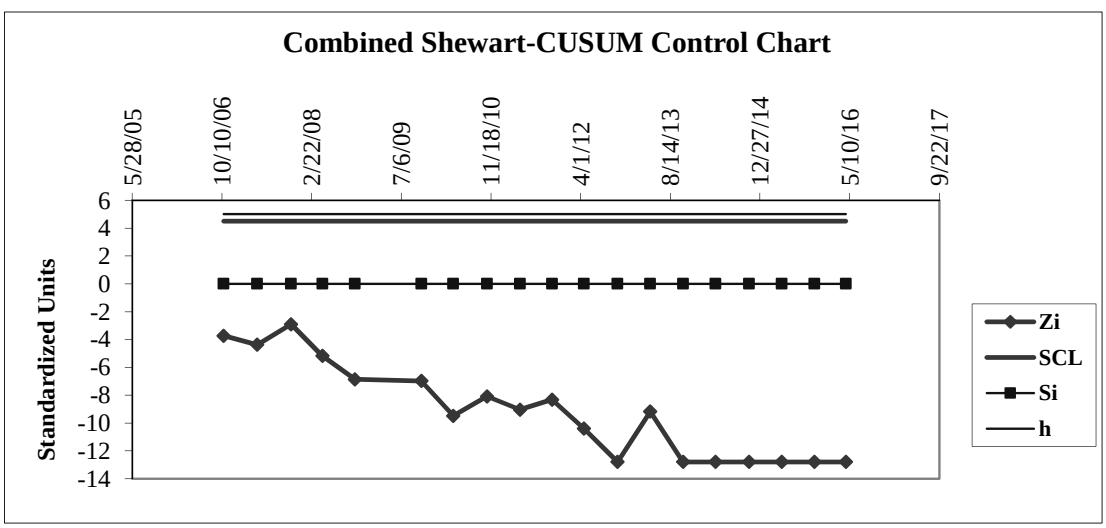
Compute the mean and standard deviation of the historical data:

5.9588727 = x_{mean} (Mean of N1-N8 historical data)
0.394346 = s (Standard Deviation of N1-N8 historical data)
1 = k (constant, reference value)
5 = h (constant, upper control limit for the CUSUM scheme)
4.5 = SCL (Constant, upper Shewhart Control Limit)

Compute the standardized mean (Z_i) and the cumulative sum (S_i) for each concentration.

Date	x_i	Z_i	S_i	h	SCL
			0		
10/20/06	4.4886364	-3.7282898	0	5	4.5
4/25/07	4.2341065	-4.3737378	0	5	4.5
10/31/07	4.8121844	-2.9078226	0	5	4.5
4/23/08	3.916015	-5.1803681	0	5	4.5
10/20/08	3.254243	-6.8585187	0	5	4.5
10/26/09	3.2068032	-6.9788185	0	5	4.5
4/22/10	2.2192035	-9.4832172	0	5	4.5
10/27/10	2.7725887	-8.0799187	0	5	4.5
4/29/11	2.3978953	-9.0300828	0	5	4.5
10/25/11	2.6810215	-8.3121188	0	5	4.5
4/20/12	1.856298	-10.403489	0	5	4.5
10/24/12	0.9162907	-12.787201	0	5	4.5
4/24/13	2.3418058	-9.1723169	0	5	4.5
10/24/13	0.9162907	-12.787201	0	5	4.5
4/24/14	0.9162907	-12.787201	0	5	4.5
10/27/14	0.9162907	-12.787201	0	5	4.5
4/28/15	0.9162907	-12.787201	0	5	4.5
10/27/15	0.9162907	-12.787201	0	5	4.5
4/19/16	0.9162907	-12.787201	0	5	4.5

Plot Z_i and S_i versus time:



Compare the Z_i and S_i values to their respective control limits of SCL and h.

The limits were not exceeded and do not indicate statistically significant evidence of contamination at the site.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Nickel**
NC MCL (µg/l): 100
Method: Kruskal-Wallis
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3Dr	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	**15**	NS	NS	**17**	**12**	**8.3**	ND	**24**	**6.7**	**22**	NS	NP	NP	**5**
06/26/00	**15**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
07/26/00	**16**	**9.7**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
09/18/00	NS	NS	NS	**8.8**	NT	NS	NS	NS	NT	NS	NS	NP	NP	**50**
04/09/01	**76**	**7.2**	NS	**9.6**	**5.3**	ND	ND	**18**	**28**	**6.1**	NS	NP	NP	**5**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**50**
04/15/02	**74**	ND	NS	ND	ND	ND	**6**	**9**	**44**	**68**	NS	NP	NP	**5**
09/26/02	**16**	**6.8**	**31**	**400**	ND	ND	ND	**27**	**40**	**78**	**430**	NP	NP	**5**
04/28/03	ND	ND	ND	**90**	ND	ND	ND	ND	ND	**26**	**70**	NP	NP	**5**
10/30/03	**19**	ND	NT	**6.9**	**6.9**	ND	ND	ND	**48**	ND	**190**	NP	NP	**5**
04/20/04	**20**	ND	ND	**30**	**7.3**	ND	ND	**12**	**5.3**	**49**	**110**	NP	NP	**5**
10/21/04	**12**	ND	ND	**13**	ND	ND	ND	ND	ND	**35**	**160**	NP	NP	**5**
04/18/05	**29**	**9.6**	**17**	**460**	ND	ND	**5.5**	**5.4**	ND	**59**	**170**	NP	NP	**5**
10/13/05	**29**	ND	ND	**160**	**6.8**	ND	ND	**6.1**	ND	**46**	**100**	NP	NP	**5**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**88**	NP	NP	**50**
10/20/06	**22**	ND	**8.3**	**25**	ND	ND	ND	ND	**13**	ND	**24**	NP	NP	**5**
04/25/07	ND	ND	ND	ND	ND	**330**	ND	ND	ND	ND	ND	NP	NP	**50**
10/31/07	**24**	ND	**8**	**8.4**	**13.8**	ND	**5.8**	**9.8**	ND	**20.2**	**36.2**	NP	NP	**5**
04/23/08	**7.3**	ND	**12.9**	**6.3**	**10.8**	**5.7**	ND	**11.3**	**5.3**	ND	**19**	NP	NP	**5**
10/20/08	**23**	ND	**21**	**11.1**	**10.7**	**7.5**	ND	**14**	ND	ND	**8.5**	NP	NP	**5**
04/22/09	**5.6**	**7.2**	**19.7**	**16.7**	**10.9**	**6**	**5.1**	**14**	**6**	ND	NS	NP	NP	**5**
10/26/09	**6.7**	ND	**5.2**	**6**	**18**	**7.5**	NS	NS	NS	**6**	**8.4**	NP	NP	**5**
04/22/10	**8.6**	**9.6**	**7.6**	ND	**6.2**	ND	NS	NS	ND	ND	ND	NP	NP	**5**
10/27/10	**7**	ND	ND	ND	**7.4**	ND	**21.5**	**19**	ND	ND	**7.5**	**10.8**	ND	**5**
04/29/11	ND	ND	ND	ND	**10.5**	**8.6**	**19.5**	**15.2**	ND	ND	ND	**10.3**	ND	**5**
10/25/11	**6.9**	ND	ND	**14.7**	**8.8**	**7.5**	**20.8**	**19.9**	ND	ND	ND	**8**	ND	**5**
04/20/12	**12.2**	ND	ND	ND	**9.4**	**9.4**	**23.8**	**24.6**	ND	ND	ND	**19.3**	ND	**5**
10/24/12	**18.5**	ND	ND	ND	**10.1**	**8.9**	**20**	**25.3**	ND	ND	ND	**9.6**	ND	**5**
04/24/13	**10**	ND	ND	ND	**12**	**8.6**	**21.8**	**32.8**	ND	ND	ND	**9.2**	ND	**5**
10/24/13	**7.9**	ND	**8.3**	ND	**7.5**	**7**	**30.2**	**29.9**	ND	ND	ND	**12.1**	ND	**5**
04/24/14	**7**	ND	ND	ND	**9.3**	**10.1**	**23.6**	**33.9**	ND	ND	ND	**12.5**	ND	**5**
10/27/14	ND	ND	ND	ND	**10.7**	**10.1**	**29.5**	**31.4**	ND	ND	ND	**9.1**	ND	**5**
04/28/15	**6.3**	ND	**5.6**	**6.8**	**11.7**	**11.2**	**25.1**	**35.4**	ND	ND	ND	**8.3**	**5.1**	**5**
10/27/15	**21.3**	ND	ND	ND	**12.6**	**12.6**	**24.4**	**33.4**	ND	**5.9**	ND	**8.7**	ND	**5**
04/19/16	**7.2**	ND	ND	**5.9**	**12.3**	**13.2**	**21.7**	**30.9**	ND	ND	ND	**10.6**	ND	**5**
N_i	33	32	27	32	31	31	29	29	30	31	27	12	12	
sum of rank values (R_i)	7691.5	3470.0	3998.5	6105.5	6081.5	5108.0	5450.5	7079.0	4048.5	5065.0	5449.0	2919.5	1079.5	
avg rank value (Rbar)	233.1	108.4	148.1	190.8	196.2	164.8	187.9	244.1	135.0	163.4	201.8	243.3	90.0	

	Number of each rank value													Rank Value
rank value of NDs =	5	26	16	13	8	14	13	6	21	19	13	0	11	83
rank value of 5.1s =	0	0	0	0	0	0	1	0	0	0	0	0	1	166.5
rank value of 5.2s =	0	0	1	0	0	0	0	0	0	0	0	0	0	168
rank value of 5.3s =	0	0	0	0	1	0	0	0	2	0	0	0	0	170
rank value of 5.4s =	0	0	0	0	0	0	0	1	0	0	0	0	0	172

rank value of 5.5s =	0	0	0	0	0	0	1	0	0	0	0	0	0	173
rank value of 5.6s =	1	0	1	0	0	0	0	0	0	0	0	0	0	174.5
rank value of 5.7s =	0	0	0	0	0	1	0	0	0	0	0	0	0	176
rank value of 5.8s =	0	0	0	0	0	0	1	0	0	0	0	0	0	177
rank value of 5.9s =	0	0	0	1	0	0	0	0	0	1	0	0	0	178.5
rank value of 6s =	0	0	0	1	0	1	0	0	1	1	0	0	0	181.5
rank value of 6.1s =	0	0	0	0	0	0	0	1	0	1	0	0	0	184.5
rank value of 6.2s =	0	0	0	0	1	0	1	0	0	0	0	0	0	186.5
rank value of 6.3s =	1	0	0	1	0	0	0	0	0	0	0	0	0	188.5
rank value of 6.7s =	1	0	0	0	0	0	0	0	1	0	0	0	0	190.5
rank value of 6.8s =	0	1	0	1	1	0	0	0	0	0	0	0	0	193
rank value of 6.9s =	1	0	0	1	1	0	0	0	0	0	0	0	0	196
rank value of 7s =	2	0	0	0	0	1	0	0	0	0	0	0	0	199
rank value of 7.2s =	1	2	0	0	0	0	0	0	0	0	0	0	0	202
rank value of 7.3s =	1	0	0	0	1	0	0	0	0	0	0	0	0	204.5
rank value of 7.4s =	0	0	0	0	1	0	0	0	0	0	0	0	0	206
rank value of 7.5s =	0	0	0	0	1	3	0	0	0	0	1	0	0	209
rank value of 7.6s =	0	0	1	0	0	0	0	0	0	0	0	0	0	212
rank value of 7.9s =	1	0	0	0	0	0	0	0	0	0	0	0	0	213
rank value of 8s =	0	0	1	0	0	0	0	0	0	0	0	1	0	214.5
rank value of 8.3s =	0	0	2	0	0	1	0	0	0	0	0	1	0	217.5
rank value of 8.4s =	0	0	0	1	0	0	0	0	0	0	1	0	0	220.5
rank value of 8.5s =	0	0	0	0	0	0	0	0	0	0	1	0	0	222
rank value of 8.6s =	1	0	0	0	0	2	0	0	0	0	0	0	0	224
rank value of 8.7s =	0	0	0	0	0	0	0	0	0	0	0	1	0	226
rank value of 8.8s =	0	0	0	1	1	0	0	0	0	0	0	0	0	227.5
rank value of 8.9s =	0	0	0	0	0	1	0	0	0	0	0	0	0	229
rank value of 9.1s =	0	0	0	0	0	0	0	0	0	0	0	1	0	230
rank value of 9.2s =	0	0	0	0	0	0	0	1	0	0	0	1	0	231.5
rank value of 9.3s =	0	0	0	0	1	0	0	0	0	0	0	0	0	233
rank value of 9.4s =	0	0	0	0	1	1	0	0	0	0	0	0	0	234.5
rank value of 9.6s =	0	2	0	1	0	0	0	0	0	0	0	1	0	237.5
rank value of 9.7s =	0	1	0	0	0	0	0	0	0	0	0	0	0	240
rank value of 9.8s =	0	0	0	0	0	0	0	1	0	0	0	0	0	241
rank value of 10s =	1	0	0	0	0	0	0	0	0	0	0	0	0	242
rank value of 10.1s =	0	0	0	0	1	2	0	0	0	0	0	0	0	244
rank value of 10.3s =	0	0	0	0	0	0	0	0	0	0	0	1	0	246
rank value of 10.5s =	0	0	0	0	1	0	0	0	0	0	0	0	0	247
rank value of 10.6s =	0	0	0	0	0	0	0	0	0	0	0	1	0	248
rank value of 10.7s =	0	0	0	0	2	0	0	0	0	0	0	0	0	249.5
rank value of 10.8s =	0	0	0	0	1	0	0	0	0	0	0	1	0	251.5
rank value of 10.9s =	0	0	0	0	1	0	0	0	0	0	0	0	0	253
rank value of 11.1s =	0	0	0	1	0	0	0	0	0	0	0	0	0	254
rank value of 11.2s =	0	0	0	0	0	1	0	0	0	0	0	0	0	255
rank value of 11.3s =	0	0	0	0	0	0	0	1	0	0	0	0	0	256
rank value of 11.7s =	0	0	0	0	1	0	0	0	0	0	0	0	0	257
rank value of 12s =	1	0	0	0	2	0	0	1	0	0	0	0	0	259.5
rank value of 12.1s =	0	0	0	0	0	0	0	0	0	0	0	1	0	262
rank value of 12.2s =	1	0	0	0	0	0	0	0	0	0	0	0	0	263
rank value of 12.3s =	0	0	0	0	1	0	0	0	0	0	0	0	0	264
rank value of 12.5s =	0	0	0	0	0	0	0	0	0	0	0	1	0	265
rank value of 12.6s =	0	0	0	0	1	1	0	0	0	0	0	0	0	266.5
rank value of 12.9s =	0	0	1	0	0	0	0	0	0	0	0	0	0	268
rank value of 13s =	0	0	0	1	0	0	0	0	1	0	0	0	0	269.5
rank value of 13.2s =	0	0	0	0	0	1	0	0	0	0	0	0	0	271
rank value of 13.8s =	0	0	0	0	1	0	0	0	0	0	0	0	0	272
rank value of 14s =	0	0	0	0	0	0	0	2	0	0	0	0	0	273.5
rank value of 14.7s =	0	0	0	1	0	0	0	0	0	0	0	0	0	275
rank value of 15s =	2	0	0	0	0	0	0	0	0	0	0	0	0	276.5
rank value of 15.2s =	0	0	0	0	0	0	0	1	0	0	0	0	0	278
rank value of 16s =	2	0	0	0	0	0	0	0	0	0	0	0	0	279.5

rank value of 16.7s =	0	0	0	1	0	0	0	0	0	0	0	0	0	281
rank value of 17s =	0	0	1	1	0	0	0	0	0	0	0	0	0	282.5
rank value of 18s =	0	0	0	0	1	0	0	1	0	0	0	0	0	284.5
rank value of 18.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	286
rank value of 19s =	1	0	0	0	0	0	0	1	0	0	1	0	0	288
rank value of 19.3s =	0	0	0	0	0	0	0	0	0	0	0	1	0	290
rank value of 19.5s =	0	0	0	0	0	0	1	0	0	0	0	0	0	291
rank value of 19.7s =	0	0	1	0	0	0	0	0	0	0	0	0	0	292
rank value of 19.9s =	0	0	0	0	0	0	0	1	0	0	0	0	0	293
rank value of 20s =	1	0	0	0	0	0	1	0	0	0	0	0	0	294.5
rank value of 20.2s =	0	0	0	0	0	0	0	0	0	1	0	0	0	296
rank value of 20.8s =	0	0	0	0	0	0	1	0	0	0	0	0	0	297
rank value of 21s =	0	0	1	0	0	0	0	0	0	0	0	0	0	298
rank value of 21.3s =	1	0	0	0	0	0	0	0	0	0	0	0	0	299
rank value of 21.5s =	0	0	0	0	0	0	1	0	0	0	0	0	0	300
rank value of 21.7s =	0	0	0	0	0	0	1	0	0	0	0	0	0	301
rank value of 21.8s =	0	0	0	0	0	0	1	0	0	0	0	0	0	302
rank value of 22s =	1	0	0	0	0	0	0	0	0	1	0	0	0	303.5
rank value of 23s =	1	0	0	0	0	0	0	0	0	0	0	0	0	305
rank value of 23.6s =	0	0	0	0	0	0	1	0	0	0	0	0	0	306
rank value of 23.8s =	0	0	0	0	0	0	1	0	0	0	0	0	0	307
rank value of 24s =	1	0	0	0	0	0	0	1	0	0	1	0	0	309
rank value of 24.4s =	0	0	0	0	0	0	1	0	0	0	0	0	0	311
rank value of 24.6s =	0	0	0	0	0	0	0	1	0	0	0	0	0	312
rank value of 25s =	0	0	0	1	0	0	0	0	0	0	0	0	0	313
rank value of 25.1s =	0	0	0	0	0	0	1	0	0	0	0	0	0	314
rank value of 25.3s =	0	0	0	0	0	0	0	1	0	0	0	0	0	315
rank value of 26s =	0	0	0	0	0	0	0	0	0	1	0	0	0	316
rank value of 27s =	0	0	0	0	0	0	0	1	0	0	0	0	0	317
rank value of 28s =	0	0	0	0	0	0	0	0	1	0	0	0	0	318
rank value of 29s =	2	0	0	0	0	0	0	0	0	0	0	0	0	319.5
rank value of 29.5s =	0	0	0	0	0	0	1	0	0	0	0	0	0	321
rank value of 29.9s =	0	0	0	0	0	0	0	1	0	0	0	0	0	322
rank value of 30s =	0	0	0	1	0	0	0	0	0	0	0	0	0	323
rank value of 30.2s =	0	0	0	0	0	0	1	0	0	0	0	0	0	324
rank value of 30.9s =	0	0	0	0	0	0	0	1	0	0	0	0	0	325
rank value of 31s =	0	0	1	0	0	0	0	0	0	0	0	0	0	326
rank value of 31.4s =	0	0	0	0	0	0	0	1	0	0	0	0	0	327
rank value of 32.8s =	0	0	0	0	0	0	0	1	0	0	0	0	0	328
rank value of 33.4s =	0	0	0	0	0	0	0	1	0	0	0	0	0	329
rank value of 33.9s =	0	0	0	0	0	0	0	1	0	0	0	0	0	330
rank value of 35s =	0	0	0	0	0	0	0	0	0	1	0	0	0	331
rank value of 35.4s =	0	0	0	0	0	0	0	1	0	0	0	0	0	332
rank value of 36.2s =	0	0	0	0	0	0	0	0	0	0	1	0	0	333
rank value of 40s =	0	0	0	0	0	0	0	0	1	0	0	0	0	334
rank value of 44s =	0	0	0	0	0	0	0	0	1	0	0	0	0	335
rank value of 46s =	0	0	0	0	0	0	0	0	0	1	0	0	0	336
rank value of 48s =	0	0	0	0	0	0	0	0	1	0	0	0	0	337
rank value of 49s =	0	0	0	0	0	0	0	0	0	1	0	0	0	338
rank value of 59s =	0	0	0	0	0	0	0	0	0	1	0	0	0	339
rank value of 68s =	0	0	0	0	0	0	0	0	0	1	0	0	0	340
rank value of 70s =	0	0	0	0	0	0	0	0	0	0	1	0	0	341
rank value of 74s =	1	0	0	0	0	0	0	0	0	0	0	0	0	342
rank value of 76s =	1	0	0	0	0	0	0	0	0	0	0	0	0	343
rank value of 78s =	0	0	0	0	0	0	0	0	0	1	0	0	0	344
rank value of 88s =	0	0	0	0	0	0	0	0	0	0	1	0	0	345
rank value of 90s =	0	0	0	1	0	0	0	0	0	0	0	0	0	346
rank value of 100s =	0	0	0	0	0	0	0	0	0	0	1	0	0	347
rank value of 110s =	0	0	0	0	0	0	0	0	0	0	1	0	0	348
rank value of 160s =	0	0	0	1	0	0	0	0	0	0	1	0	0	349.5
rank value of 170s =	0	0	0	0	0	0	0	0	0	0	1	0	0	351

rank value of 190s =	0	0	0	0	0	0	0	0	0	0	1	0	0	352
rank value of 330s =	0	0	0	0	0	1	0	0	0	0	0	0	0	353
rank value of 400s =	0	0	0	1	0	0	0	0	0	0	0	0	0	354
rank value of 430s =	0	0	0	0	0	0	0	0	0	0	1	0	0	355
rank value of 460s =	0	0	0	1	0	0	0	0	0	0	0	0	0	356
n =	**33**	**32**	**27**	**32**	**31**	**31**	**29**	**29**	**30**	**31**	**27**	**12**	**12**	

Compute the Kruskal-Wallis statistic:

$$H = \{[12/N(N+1)] * [\Sigma^{K}_{i=1} (R_i^2)/N_i]\} -3(N+1)$$

Well =	**Background**	**MW-1A**	**MW-2**	**MW-2D**	**MW-3**	**MW-3Dr**	**MW-4A**	**MW-8**	**MW-15**	**MW-16**	**MW-17**
Ri^2/N_i =	2498104.3	1E+06	1E+06	841667	1E+06	2E+06	546345	827556	1E+06	710290	97110

$N_{i\,bg}$ = 92
N = 356
H = 36.65

Adjust H for ties:

T_i = 4E+06 sum of T1..T41

$H' = H/(1-(T_i/(N^3-N)))$
H' = 40.71
Chi-square = 18.31

Compare the calculated value H' to the tabulated Chi-square value with K-1 = # groups -1 = 17df at the 5% significance level from Table 1 of the IFG. The value is 18.31 which is less than H' =40.71.
Therefore, there is evidence of significant differences between the well groups.
Post-hoc pairwise comparisons are necessary (see below).

Calculate the critical values to compare each compliance well to the background wells:

Critical Value (C_x) = $P(N(N+1)/12)^{0.5} * (1/N_{i\,bg}+1/N_x)^{0.5}$
P = 2.33 Percentile of Standard Normal Distribution
from Table 4 of IFG
N = total sample size
$N_{i\,bg}$ = total samples (N_i) of background data
N_x = total samples (N_i) of well x

Difference between average ranks (Dx) = Rbar (well x) - avg Rbar (background)

Well =	MW-1A	MW-2	MW-2D	MW-3	**MW-3Dr**	MW-4A	MW-8	MW-15	**MW-16**	MW-17
Rbar (well x) =	190.8	196.2	164.8	187.9	244.1	135.0	163.4	201.8	243.3	90.0
avg Rbar (background) =	164.8	164.8	164.8	164.8	164.8	164.8	164.8	164.8	164.8	164.8
Dx =	26.0	31.4	0.0	23.2	79.3	-29.8	-1.4	37.0	78.5	-74.8
Cx =	49.2	49.8	49.8	51.1	51.1	50.4	49.8	52.5	73.6	73.6
Statistical Significance ?	No	No	No	No	**Yes**	No	No	No	**Yes**	No
If SSI, is current event above MCL?	-	-	-	-	No	-	-	-	No	-

Compare each difference (Dx) with the corresponding critical value (Cx).
The Dx value for the above indicated wells do exceed the corresponding Cx value.
Therefore, we conclude that the concentration of Total Nickel averaged over these compliance wells are significantly greater than that of the background wells.
Shewart-CUSUM Control Charts should be performed for each failing well to check for statistical significance.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Nickel**
NC MCL (µg/l): 100
Method: Shewhart-CUSUM Control Chart

Part 1: Check for Normality

	MW-3D	MDL
4/24/00	**24**	**5**
6/26/00	NS	**5**
7/26/00	NS	**5**
9/18/00	NS	**50**
4/9/01	**18**	**5**
9/18/01	NS	**5**
10/29/01	NS	**5**
1/30/02	NS	**5**
2/28/02	NS	**50**
4/15/02	**9.2**	**5**
9/26/02	**27**	**5**
4/28/03	ND	**5**
10/30/03	ND	**5**
4/20/04	**12**	**5**
10/21/04	ND	**5**
4/18/05	**5.4**	**5**
10/13/05	**6.1**	**5**
4/25/06	ND	**50**
10/20/06	ND	**5**
4/25/07	ND	**50**
10/31/07	**9.8**	**5**
4/23/08	**11.3**	**5**
10/20/08	**14**	**5**
4/22/09	**14**	**5**
10/26/09	NS	**5**
4/22/10	NS	**5**
10/27/10	**19**	**5**
4/29/11	**15.2**	**5**
10/25/11	**19.9**	**5**
4/20/12	**24.6**	**5**
10/24/12	**25.3**	**5**
4/24/13	**32.8**	**5**
10/24/13	**29.9**	**5**
4/24/14	**33.9**	**5**
10/27/14	**31.4**	**5**
4/28/15	**35.4**	**5**
10/27/15	**33.4**	**5**
4/19/16	**30.9**	**5**

If not detected (ND), use half of the detection limit.

X_{bar} = 18.706897
SD = 10.902324
N = 29
$1/N\Sigma_i(X_i-X_{bar})^3$ = -97.02121
γ_1= 0.0789168

Since the Coefficient of Skewness of 0.08 is less than 1.0, the data appear not to be significantly skewed.
Proceed with further statistical tests using the real detected values shown above.

X_{bar} = 2.6588212
SD = 0.8692936
N = 29

$1/N\Sigma_i(X_i-X_{bar})^3 =$ -0.612026
$\gamma_1 =$ 0.9820429

Use the real values (not log-transformed) indicated in the previous section.

Part 2: Shewhart-CUSUM Control Chart

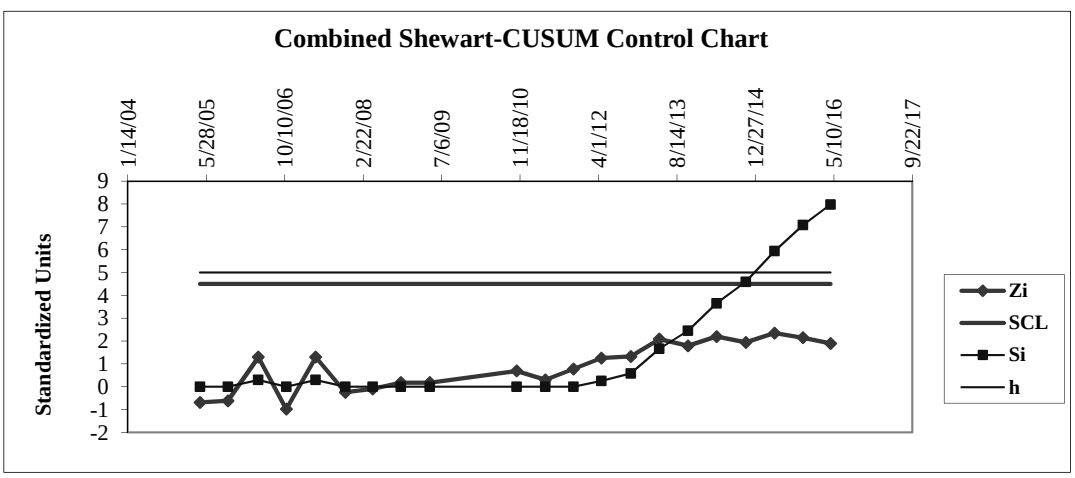
Compute the mean and standard deviation of the historical data:

12.2125 = x_{mean} (Mean of N1-N8 historical data)
9.8794791 = s (Standard Deviation of N1-N8 historical data)
1 = k (constant, reference value)
5 = h (constant, upper control limit for the CUSUM scheme)
4.5 = SCL (Constant, upper Shewhart Control Limit)

Compute the standardized mean (Z_i) and the cumulative sum (S_i) for each concentration.

Date	x_i	Z_i	S_i	h	SCL
			0		
4/18/05	5.4	-0.6895606	0	5	4.5
10/13/05	6.1	-0.6187067	0	5	4.5
4/25/06	25	1.2943496	0.2943496	5	4.5
10/20/06	2.5	-0.9830984	0	5	4.5
4/25/07	25	1.2943496	0.2943496	5	4.5
10/31/07	9.8	-0.244193	0	5	4.5
4/23/08	11.3	-0.0923632	0	5	4.5
10/20/08	14	0.1809306	0	5	4.5
4/22/09	14	0.1809306	0	5	4.5
10/27/10	19	0.6870301	0	5	4.5
4/29/11	15.2	0.3023945	0	5	4.5
10/25/11	19.9	0.7781281	0	5	4.5
4/20/12	24.6	1.2538617	0.2538617	5	4.5
10/24/12	25.3	1.3247156	0.5785772	5	4.5
4/24/13	32.8	2.0838649	1.6624422	5	4.5
10/24/13	29.9	1.7903272	2.4527694	5	4.5
4/24/14	33.9	2.1952068	3.6479762	5	4.5
10/27/14	31.4	1.9421571	4.5901332	5	4.5
4/28/15	**35.4**	2.3470367	**5.9371699**	5	4.5
10/27/15	**33.4**	2.1445969	**7.0817668**	5	4.5
4/19/16	**30.9**	1.8915471	**7.9733139**	5	4.5

Plot Z_i and S_i versus time:



Compare the Z_i and S_i values to their respective control limits of SCL and h.
One, or both, of the control limits was exceeded. Therefore, there is statistically significant evidence of contamination in this well at the concentrations indicated above.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Nickel**
NC MCL (µg/l): 100
Method: Shewhart-CUSUM Control Chart

Part 1: Check for Normality

	MW-16	MDL
4/24/00	NP	**5**
6/26/00	NP	**5**
7/26/00	NP	**5**
9/18/00	NP	**50**
4/9/01	NP	**5**
9/18/01	NP	**5**
10/29/01	NP	**5**
1/30/02	NP	**5**
2/28/02	NP	**50**
4/15/02	NP	**5**
9/26/02	NP	**5**
4/28/03	NP	**5**
10/30/03	NP	**5**
4/20/04	NP	**5**
10/21/04	NP	**5**
4/18/05	NP	**5**
10/13/05	NP	**5**
4/25/06	NP	**50**
10/20/06	NP	**5**
4/25/07	NP	**50**
10/31/07	NP	**5**
4/23/08	NP	**5**
10/20/08	NP	**5**
4/22/09	NP	**5**
10/26/09	NP	**5**
4/22/10	NP	**5**
10/27/10	**10.8**	**5**
4/29/11	**10.3**	**5**
10/25/11	**8**	**5**
4/20/12	**19.3**	**5**
10/24/12	**9.6**	**5**
4/24/13	**9.2**	**5**
10/24/13	**12.1**	**5**
4/24/14	**12.5**	**5**
10/27/14	**9.1**	**5**
4/28/15	**8.3**	**5**
10/27/15	**8.7**	**5**
4/19/16	**10.6**	**5**

If not detected (ND), use half of the detection limit.

X_{bar} = 10.708333
SD = 3.0512168

$N =$	12
$1/N\Sigma_i(X_i-X_{bar})^3 =$	49.30823
$\gamma_1 =$	1.977803

Since the Coefficient of Skewness of 1.98 is greater than 1.0, the real data appear to be significantly skewed.
Do not assume that the data follow a Normal distribution.
Perform the Skewness Test on the natural log of the values.

$X_{bar} =$	2.3416537
$SD =$	0.2396506
$N =$	12
$1/N\Sigma_i(X_i-X_{bar})^3 =$	0.0172046
$\gamma_1 =$	1.4242707

Since the Coefficient of Skewness of 1.42 is greater than 1.0, the data appear to be significantly skewed.
Do not assume that the data follow a Normal distribution.
A non-parametric testing procedure should be used on the data set.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Nickel**
GA MCL (ug/l): 100
Method: Kendall-Mann Non-Parametric Trend Test (Concentration vs. Time)
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	15	NS	NS	17	12	8.3	ND	24	6.7	22	NS	NP	NP	5
06/26/00	15	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
07/26/00	16	9.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
09/18/00	NS	NS	NS	8.8	NT	NS	NS	NS	NT	NS	NS	NP	NP	50
04/09/01	76	7.2	NS	9.6	5.3	ND	ND	18	28	6.1	NS	NP	NP	5
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	5
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	50
04/15/02	74	ND	NS	ND	ND	ND	6.2	9.2	44	68	NS	NP	NP	5
09/26/02	16	6.8	31	400	ND	ND	ND	27	40	78	430	NP	NP	5
04/28/03	ND	ND	ND	90	ND	ND	ND	ND	ND	26	70	NP	NP	5
10/30/03	19	ND	NT	6.9	6.9	ND	ND	ND	48	ND	190	NP	NP	5
04/20/04	20	ND	ND	30	7.3	ND	ND	12	5.3	49	110	NP	NP	5
10/21/04	12	ND	ND	13	ND	ND	ND	ND	ND	35	160	NP	NP	5
04/18/05	29	9.6	17	460	ND	ND	5.5	5.4	ND	59	170	NP	NP	5
10/13/05	29	ND	ND	160	6.8	ND	ND	6.1	ND	46	100	NP	NP	5
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	88	NP	NP	50
10/20/06	22	ND	8.3	25	ND	ND	ND	ND	13	ND	24	NP	NP	5
04/25/07	ND	ND	ND	ND	ND	330	ND	ND	ND	ND	ND	NP	NP	50
10/31/07	24	ND	8	8.4	13.8	ND	5.8	9.8	ND	20.2	36.2	NP	NP	5
04/23/08	7.3	ND	12.9	6.3	10.8	5.7	ND	11.3	5.3	ND	19	NP	NP	5
10/20/08	23	ND	21	11.1	10.7	7.5	ND	14	ND	ND	8.5	NP	NP	5
04/22/09	5.6	7.2	19.7	16.7	10.9	6	5.1	14	6	ND	NS	NP	NP	5
10/26/09	6.7	ND	5.2	6	18	7.5	NS	NS	NS	6	8.4	NP	NP	5
04/22/10	8.6	9.6	7.6	ND	6.2	ND	NS	NS	ND	ND	ND	NP	NP	5
10/27/10	7	ND	ND	ND	7.4	ND	21.5	19	ND	ND	7.5	10.8	ND	5
04/29/11	ND	ND	ND	ND	10.5	8.6	19.5	15.2	ND	ND	ND	10.3	ND	5
10/25/11	6.9	ND	ND	14.7	8.8	7.5	20.8	19.9	ND	ND	ND	8	ND	5
04/20/12	12.2	ND	ND	ND	9.4	9.4	23.8	24.6	ND	ND	ND	19.3	ND	5
10/24/12	18.5	ND	ND	ND	10.1	8.9	20	25.3	ND	ND	ND	9.6	ND	5
04/24/13	10	ND	ND	ND	12	8.6	21.8	32.8	ND	ND	ND	9.2	ND	5
10/24/13	7.9	ND	8.3	ND	7.5	7	30.2	29.9	ND	ND	ND	12.1	ND	5
04/24/14	7	ND	ND	ND	9.3	10.1	23.6	33.9	ND	ND	ND	12.5	ND	5
10/27/14	ND	ND	ND	ND	10.7	10.1	29.5	31.4	ND	ND	ND	9.1	ND	5
04/28/15	6.3	ND	5.6	6.8	11.7	11.2	25.1	35.4	ND	ND	ND	8.3	5.1	5
10/27/15	21.3	ND	ND	ND	12.6	12.6	24.4	33.4	ND	5.9	ND	8.7	ND	5
04/19/16	7.2	ND	ND	5.9	12.3	13.2	21.7	30.9	ND	ND	ND	10.6	ND	5

If not detected (ND), use half of the detection limit.

Trendline Slope =	-	-	-	-	-	-	-	-	-0.001	-
Standard Deviation =	-	-	-	-	-	-	-	-	3.0512	-
umber of observations **n** =	-	-	-	-	-	-	-	-	12	-
S =	-	-	-	-	-	-	-	-	-12	-
uncorrected for ties **τ** =	-	-	-	-	-	-	-	-	-0.18	-
U =	-	-	-	-	-	-	-	-	0	-
corrected for ties τ =	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-0.18**	**-**
Concentration Trend	-	-	-	-	-	-	-	-	**decrease**	-

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Selenium**
MCL (µg/l): 20
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**20**
06/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**20**
07/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**20**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**20**
04/09/01	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**20**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**20**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**20**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**20**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**20**
04/15/02	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**20**
09/26/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**20**
04/28/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**20**
10/30/03	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/20/04	ND	ND	ND	ND	ND	**5**	ND	ND	ND	ND	ND	NP	NP	**5**
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
10/13/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**20**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/07	**12**	ND	ND	ND	ND	**460**	ND	ND	ND	ND	**18**	NP	NP	**10**
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**10**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**10**
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**10**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
04/28/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
10/27/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
04/19/16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 32.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 89$
$T_{n1} = 507$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where c = k/n
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 89$
$T_{n1} = 507$
$t[88,.01] = 2.3751$

$c = 0.0112$

$T^*_k = 11.4$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	5	5	5	5	5	5	5	5	5	5

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Silver**
MCL (µg/l): 20
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	**3.7**	NS	NS	ND	ND	ND	**6.9**	ND	ND	ND	NS	NP	NP	**2**
06/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
07/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**10**
04/09/01	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**2**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
04/15/02	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**2**
09/26/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**2**
04/28/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**2**
10/30/03	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**2**
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**2**
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**2**
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**2**
10/13/05	**2.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**2**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/25/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**5**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**5**
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**5**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/28/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/27/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/19/16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 32.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 89$
$T_{n1} = 198.6$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where c = k/n
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 89$
$T_{n1} = 198.6$
$t[88,.01] = 2.3751$

$c = 0.0112$

$T^*_k = 5.8$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Thallium**
MCL (µg/l): Not Established
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	**2**	NS	NS	ND	**3**	**2**	**4**	ND	**2**	**5**	NS	NP	NP	**2**
06/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
07/26/00	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**20**
04/09/01	**40**	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**2**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**2**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**20**
04/15/02	**40**	ND	NS	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**2**
09/26/02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**65**	NP	NP	**2**
04/28/03	ND	ND	ND	**1.6**	ND	ND	ND	ND	**1.4**	ND	**15**	NP	NP	**1**
10/30/03	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/13/05	**22**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/07	ND	ND	ND	ND	ND	**35**	ND	ND	ND	ND	ND	NP	NP	**5.5**
10/31/07	**11.6**	ND	ND	ND	ND	ND	ND	ND	ND	**9.5**	ND	NP	NP	**5.5**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5.5**
10/20/08	**7.2**	ND	ND	ND	ND	ND	ND	**6.1**	ND	ND	ND	NP	NP	**5.4**
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**5.4**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**5.4**
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**5.4**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.6**	ND	**5.4**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**
04/28/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**
10/27/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**
04/19/16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**14.1**	ND	**5.4**

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 32.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 89$
$T_{n1} = 369.1$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where c = k/n
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 89$
$T_{n1} = 369.1$
$t\,[88,.01] = 2.3751$

$c = 0.0112$

$T^*_k = 9.0$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	14.1	2.7

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was exceeded in one, or more of the wells, Wilcoxon Rank Sum Tests must be performed to test the possibility that the detected concentrations are statistically significant.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Thallium**
MCL (mg/l): Not Established
Method: Wilcoxon Rank Sum
Background: GWA-1,-2S, -2D, -3, -4, & -5

	MW-11S	MW-11D	MW-14	MW-16	MDL
04/24/00	**2**	NS	NS	NP	**2**
06/26/00	ND	ND	NS	NP	**2**
07/26/00	ND	ND	NS	NP	**2**
09/18/00	NS	NS	NS	NP	**20**
04/09/01	**40**	ND	NS	NP	**2**
09/18/01	NS	NS	NS	NP	**2**
10/29/01	NS	NS	NS	NP	**2**
01/30/02	NS	NS	NS	NP	**2**
02/28/02	NS	NS	NS	NP	**20**
04/15/02	**40**	ND	NS	NP	**2**
09/26/02	ND	ND	ND	NP	**2**
04/28/03	ND	ND	ND	NP	**1**
10/30/03	ND	ND	NT	NP	**10**
04/20/04	ND	ND	ND	NP	**10**
10/21/04	ND	ND	ND	NP	**10**
04/18/05	ND	ND	ND	NP	**10**
10/13/05	**22**	ND	ND	NP	**10**
04/25/06	ND	ND	ND	NP	**10**
10/20/06	ND	ND	ND	NP	**10**
04/25/07	ND	ND	ND	NP	**6**
10/31/07	**11.6**	ND	ND	NP	**6**
04/23/08	ND	ND	ND	NP	**6**
10/20/08	**7.2**	ND	ND	NP	**5**
04/22/09	ND	ND	ND	NP	**5**
10/26/09	ND	ND	ND	NP	**5**
04/22/10	ND	ND	ND	NP	**5**
10/27/10	ND	ND	ND	ND	**5**
04/29/11	ND	ND	ND	ND	**5**
10/25/11	ND	ND	ND	ND	**5**
04/20/12	ND	ND	ND	ND	**5**
10/24/12	ND	ND	ND	ND	**5**
04/24/13	ND	ND	ND	ND	**5**
10/24/13	ND	ND	ND	ND	**5**
04/24/14	ND	ND	ND	**5.6**	**5**
10/27/14	ND	ND	ND	ND	**5**
04/28/15	ND	ND	ND	ND	**5**
10/27/15	ND	ND	ND	ND	**5**
04/19/16	ND	ND	ND	**14.1**	**5**

1) Rank the N = 104 observations from the smallest to the largest from background wells and compliance well MW-16.

n =	12
m =	92
N =	104
Ci (MW-16) =	684.0

# samples =	33	32	27	12
sum of rank values (Ri) =	1914.5	1552.0	1309.5	684.0
avg rank value (Rbar) =	58.0	48.5	48.5	57.0

	Number of each rank value				Rank Value
rank value of NDs =	27	32	27	10	48.5
rank value of 2s =	1	0	0	0	97
rank value of 5.6s =	0	0	0	1	98
rank value of 7.2s =	1	0	0	0	99
rank value of 11.6s =	1	0	0	0	100
rank value of 14.1s =	0	0	0	1	101

rank value of 22s =	1	0	0	0	102
rank value of 40s =	2	0	0	0	103.5
# samples =	**33**	**32**	**27**	**12**	
sum of rank values (R_i)	**1914.5**	**1552**	**1309.5**	**684**	

2) Compute the Wilcoxon statistic by adding up the compliance well ranks and subtracting n/(n+1)/2.

W = Ci - 1/2(n(n+1))

W = 606

3) Compute the expected value and standard deviation of W.

E(W) = 1/2mn

$SD(W) = \left((mn(N+1)/12)*(1-\Sigma^{g}_{i=1} (t_i^3 - t_i)/(N^3 - N))\right)^{0.5}$

E(W) = 552

Adjustment for tie values:

SD(W) = 45.412

4) Form the appropriate Z-score.

Z = (W - E(W) - 0.5)/SD(W)

Z = 1.178

5) Compare the observed Z-score to the upper 0.01 percentile of the normal distribution.

Z = 1.178

$Z_{0.01}$ = 2.326

Since Z is smaller, there is not significant evidence of contamination at the compliance well at the 1 percent significance level.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Vanadium**
NC MCL (µg/l): Not Established
Method: Kruskal-Wallis
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	**17**	NS	NS	**19**	**32**	**21**	ND	**29**	**8.9**	**78**	NS	NP	NP	**5**
06/26/00	**40**	**6.3**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
07/26/00	**45**	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**40**
04/09/01	**250**	**1.4**	NS	**13**	**19**	**9.3**	ND	**24**	**41**	**230**	NS	NP	NP	**5**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**5**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**40**
04/15/02	**240**	ND	NS	ND	ND	**11**	**21**	**14**	**69**	**260**	NS	NP	NP	**5**
09/26/02	**58**	**16**	**44**	**640**	ND	ND	ND	**42**	**50**	**310**	**1000**	NP	NP	**5**
04/28/03	**89**	ND	**9.6**	**170**	**6.8**	**6.8**	ND	ND	**37**	**230**	**130**	NP	NP	**5**
10/30/03	**54**	ND	NT	**6.6**	**16**	ND	ND	ND	**92**	**14**	**200**	NP	NP	**5**
04/20/04	**55**	ND	ND	**45**	**25**	ND	ND	**13**	**5.1**	**240**	**88**	NP	NP	**5**
10/21/04	**41**	ND	ND	**18**	ND	ND	ND	ND	ND	**160**	**210**	NP	NP	**5**
04/18/05	**85**	ND	ND	**680**	**5.4**	ND	ND	ND	ND	**240**	**110**	NP	NP	**5**
10/13/05	**82**	ND	ND	**210**	**8.9**	ND	ND	ND	ND	**170**	**82**	NP	NP	**5**
04/25/06	**110**	ND	ND	ND	ND	ND	ND	ND	ND	**120**	**85**	NP	NP	**40**
10/20/06	**79**	ND	ND	**28**	ND	ND	ND	ND	**23**	ND	**30**	NP	NP	**5**
04/25/07	**43**	ND	ND	ND	ND	**300**	ND	ND	ND	ND	**26**	NP	NP	**25**
10/31/07	**89**	ND	**8.8**	**14.7**	**20**	ND	ND	ND	**8.6**	**103**	**48.2**	NP	NP	**5**
04/23/08	**26.1**	ND	**11.4**	**9.7**	**10.1**	ND	ND	**5.1**	**9.7**	**10**	**23.1**	NP	NP	**5**
10/20/08	**79**	ND	**15.1**	**15.8**	ND	ND	ND	ND	**5.4**	ND	**14.8**	NP	NP	**5**
04/22/09	**16**	ND	**32.7**	**19.8**	**7.7**	ND	ND	ND	**13.3**	ND	NS	NP	NP	**5**
10/26/09	**17.9**	ND	ND	**5.3**	**33.6**	ND	NS	NS	NS	**12.2**	**11.9**	NP	NP	**5**
04/22/10	**27.9**	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**5**
10/27/10	**17.4**	ND	ND	**6.9**	ND	ND	**14.2**	**7.1**	ND	ND	**5.9**	ND	ND	**5**
04/29/11	**15.8**	ND	**5.1**	ND	ND	ND	ND	ND	ND	ND	**5.5**	**7.3**	ND	**5**
10/25/11	**25.6**	ND	ND	**23**	ND	ND	**15.1**	ND	ND	**9.7**	**6.3**	ND	ND	**5**
04/20/12	**44.3**	ND	ND	ND	ND	ND	**10**	ND	ND	ND	ND	**15**	ND	**5**
10/24/12	**59**	ND	ND	**5.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/13	**33.5**	ND	ND	**7.7**	**9.6**	ND	ND	ND	ND	ND	**5.4**	ND	ND	**5**
10/24/13	**30.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/14	**22.8**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/28/15	**15.5**	ND	ND	**8**	ND	ND	ND	ND	ND	ND	ND	**7**	ND	**5**
10/27/15	**44.5**	ND	ND	ND	ND	ND	ND	ND	ND	**7.4**	ND	**9.8**	ND	**5**
04/19/16	**21.6**	ND	ND	**6.5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
N_i	33	32	27	31	31	31	29	29	30	31	27	12	12	
sum of rank values (R_i)	9923.5	3832.0	3987.0	6849.5	5201.0	4158.0	3753.0	4231.0	5230.5	6620.0	6270.5	1844.0	1290.0	
avg rank value (Rbar)	300.7	119.8	147.7	221.0	167.8	134.1	129.4	145.9	174.4	213.5	232.2	153.7	107.5	

	Number of each rank value													Rank Value
rank value of NDs =	1	29	20	10	19	26	25	22	18	15	9	8	12	107.5
rank value of 1.4s =	0	1	0	0	0	0	0	0	0	0	0	0	0	215

rank value of 5.1s =	0	0	1	0	0	0	0	1	1	0	0	0	0	217
rank value of 5.3s =	0	0	0	1	0	0	0	0	0	0	0	0	0	219
rank value of 5.4s =	0	0	0	0	1	0	0	0	1	0	1	0	0	221
rank value of 5.5s =	0	0	0	0	0	0	0	0	0	0	1	0	0	223
rank value of 5.9s =	0	0	0	1	0	0	0	0	0	0	1	0	0	224.5
rank value of 6.3s =	0	1	0	0	0	0	0	0	0	0	1	0	0	226.5
rank value of 6.5s =	0	0	0	1	0	0	0	0	0	0	0	0	0	228
rank value of 6.6s =	0	0	0	1	0	0	0	0	0	0	0	0	0	229
rank value of 6.8s =	0	0	0	0	1	1	0	0	0	0	0	0	0	230.5
rank value of 6.9s =	0	0	0	1	0	0	0	0	0	0	0	0	0	232
rank value of 7s =	0	0	0	0	0	0	0	0	0	0	0	1	0	233
rank value of 7.1s =	0	0	0	0	0	0	0	1	0	0	0	0	0	234
rank value of 7.3s =	0	0	0	0	0	0	0	0	0	0	0	1	0	235
rank value of 7.4s =	0	0	0	0	0	0	0	0	0	1	0	0	0	236
rank value of 7.7s =	0	0	0	1	1	0	0	0	0	0	0	0	0	237.5
rank value of 8s =	0	0	0	1	0	0	0	0	0	0	0	0	0	239
rank value of 8.6s =	0	0	0	0	0	0	0	0	1	0	0	0	0	240
rank value of 8.8s =	0	0	1	0	0	0	0	0	0	0	0	0	0	241
rank value of 8.9s =	0	0	0	0	1	0	0	0	1	0	0	0	0	242.5
rank value of 9.3s =	0	0	0	0	0	1	0	0	0	0	0	0	0	244
rank value of 9.6s =	0	0	1	0	1	0	0	0	0	0	0	0	0	245.5
rank value of 9.7s =	0	0	0	1	0	0	0	0	1	1	0	0	0	248
rank value of 9.8s =	0	0	0	0	0	0	0	0	0	0	0	1	0	250
rank value of 10s =	0	0	0	0	0	0	1	0	0	1	0	0	0	251.5
rank value of 10.1s =	0	0	0	0	1	0	0	0	0	0	0	0	0	253
rank value of 11s =	0	0	0	0	0	1	0	0	0	0	0	0	0	254
rank value of 11.4s =	0	0	1	0	0	0	0	0	0	0	0	0	0	255
rank value of 11.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	256
rank value of 12.2s =	0	0	0	0	0	0	0	0	0	1	0	0	0	257
rank value of 13s =	0	0	0	1	0	0	0	1	0	0	0	0	0	258.5
rank value of 13.3s =	0	0	0	0	0	0	0	0	1	0	0	0	0	260
rank value of 14s =	0	0	0	0	0	0	0	1	0	1	0	0	0	261.5
rank value of 14.2s =	0	0	0	0	0	0	1	0	0	0	0	0	0	263
rank value of 14.7s =	0	0	0	1	0	0	0	0	0	0	0	0	0	264
rank value of 14.8s =	0	0	0	0	0	0	0	0	0	0	1	0	0	265
rank value of 15s =	0	0	0	0	0	0	0	0	0	0	0	1	0	266
rank value of 15.1s =	0	0	1	0	0	0	1	0	0	0	0	0	0	267.5
rank value of 15.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	269
rank value of 15.8s =	1	0	0	1	0	0	0	0	0	0	0	0	0	270.5
rank value of 16s =	1	1	0	0	1	0	0	0	0	0	0	0	0	273
rank value of 17s =	1	0	0	0	0	0	0	0	0	0	0	0	0	275
rank value of 17.4s =	1	0	0	0	0	0	0	0	0	0	0	0	0	276
rank value of 17.9s =	1	0	0	0	0	0	0	0	0	0	0	0	0	277
rank value of 18s =	0	0	0	1	0	0	0	0	0	0	0	0	0	278
rank value of 19s =	0	0	0	1	1	0	0	0	0	0	0	0	0	279.5
rank value of 19.8s =	0	0	0	1	0	0	0	0	0	0	0	0	0	281
rank value of 20s =	0	0	0	0	1	0	0	0	0	0	0	0	0	282
rank value of 21s =	0	0	0	0	0	1	1	0	0	0	0	0	0	283.5
rank value of 21.6s =	1	0	0	0	0	0	0	0	0	0	0	0	0	285
rank value of 22.8s =	1	0	0	0	0	0	0	0	0	0	0	0	0	286
rank value of 23s =	0	0	0	1	0	0	0	0	1	0	0	0	0	287.5
rank value of 23.1s =	0	0	0	0	0	0	0	0	0	0	1	0	0	289
rank value of 24s =	0	0	0	0	0	0	0	1	0	0	0	0	0	290
rank value of 25s =	0	0	0	0	1	0	0	0	0	0	0	0	0	291
rank value of 25.6s =	1	0	0	0	0	0	0	0	0	0	0	0	0	292
rank value of 26s =	0	0	0	0	0	0	0	0	0	0	1	0	0	293
rank value of 26.1s =	1	0	0	0	0	0	0	0	0	0	0	0	0	294
rank value of 27.9s =	1	0	0	0	0	0	0	0	0	0	0	0	0	295

rank value of 28s =	0	0	0	1	0	0	0	0	0	0	0	0	0	296
rank value of 29s =	0	0	0	0	0	0	0	1	0	0	0	0	0	297
rank value of 30s =	0	0	0	0	0	0	0	0	0	0	1	0	0	298
rank value of 30.4s =	1	0	0	0	0	0	0	0	0	0	0	0	0	299
rank value of 32s =	0	0	0	0	1	0	0	0	0	0	0	0	0	300
rank value of 32.7s =	0	0	1	0	0	0	0	0	0	0	0	0	0	301
rank value of 33.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	302
rank value of 33.6s =	0	0	0	0	1	0	0	0	0	0	0	0	0	303
rank value of 37s =	0	0	0	0	0	0	0	0	1	0	0	0	0	304
rank value of 40s =	1	0	0	0	0	0	0	0	0	0	0	0	0	305
rank value of 41s =	1	0	0	0	0	0	0	0	1	0	0	0	0	306.5
rank value of 42s =	0	0	0	0	0	0	0	1	0	0	0	0	0	308
rank value of 43s =	1	0	0	0	0	0	0	0	0	0	0	0	0	309
rank value of 44s =	0	0	1	0	0	0	0	0	0	0	0	0	0	310
rank value of 44.3s =	1	0	0	0	0	0	0	0	0	0	0	0	0	311
rank value of 44.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	312
rank value of 45s =	1	0	0	1	0	0	0	0	0	0	0	0	0	313.5
rank value of 48.2s =	0	0	0	0	0	0	0	0	0	0	1	0	0	315
rank value of 50s =	0	0	0	0	0	0	0	0	1	0	0	0	0	316
rank value of 54s =	1	0	0	0	0	0	0	0	0	0	0	0	0	317
rank value of 55s =	1	0	0	0	0	0	0	0	0	0	0	0	0	318
rank value of 58s =	1	0	0	0	0	0	0	0	0	0	0	0	0	319
rank value of 59s =	1	0	0	0	0	0	0	0	0	0	0	0	0	320
rank value of 69s =	0	0	0	0	0	0	0	0	1	0	0	0	0	321
rank value of 78s =	0	0	0	0	0	0	0	0	0	1	0	0	0	322
rank value of 79s =	2	0	0	0	0	0	0	0	0	0	0	0	0	323.5
rank value of 82s =	1	0	0	0	0	0	0	0	0	0	1	0	0	325.5
rank value of 85s =	1	0	0	0	0	0	0	0	0	0	1	0	0	327.5
rank value of 88s =	0	0	0	0	0	0	0	0	0	0	1	0	0	329
rank value of 89s =	2	0	0	0	0	0	0	0	0	0	0	0	0	330.5
rank value of 92s =	0	0	0	0	0	0	0	0	1	0	0	0	0	332
rank value of 103s =	0	0	0	0	0	0	0	0	0	1	0	0	0	333
rank value of 110s =	1	0	0	0	0	0	0	0	0	0	1	0	0	334.5
rank value of 120s =	0	0	0	0	0	0	0	0	0	1	0	0	0	336
rank value of 130s =	0	0	0	0	0	0	0	0	0	0	1	0	0	337
rank value of 160s =	0	0	0	0	0	0	0	0	0	1	0	0	0	338
rank value of 170s =	0	0	0	1	0	0	0	0	0	1	0	0	0	339.5
rank value of 200s =	0	0	0	0	0	0	0	0	0	0	1	0	0	341
rank value of 210s =	0	0	0	1	0	0	0	0	0	0	1	0	0	342.5
rank value of 230s =	0	0	0	0	0	0	0	0	0	2	0	0	0	344.5
rank value of 240s =	1	0	0	0	0	0	0	0	0	2	0	0	0	347
rank value of 250s =	1	0	0	0	0	0	0	0	0	0	0	0	0	349
rank value of 260s =	0	0	0	0	0	0	0	0	0	1	0	0	0	350
rank value of 300s =	0	0	0	0	0	1	0	0	0	0	0	0	0	351
rank value of 310s =	0	0	0	0	0	0	0	0	0	1	0	0	0	352
rank value of 640s =	0	0	0	1	0	0	0	0	0	0	0	0	0	353
rank value of 680s =	0	0	0	1	0	0	0	0	0	0	0	0	0	354
rank value of 1000s =	0	0	0	0	0	0	0	0	0	0	1	0	0	355
n =	**33**	**32**	**27**	**31**	**31**	**31**	**29**	**29**	**30**	**31**	**27**	**12**	**12**	

Compute the Kruskal-Wallis statistic:

$$H = \{[12/N(N+1)] * [\Sigma^{K}_{i=1} (R_i^2)/N_i]\} -3(N+1)$$

Well =	**Background**	**MW-1A**	**MW-2**	**MW-2D**	**MW-3**	**MW-3D**	**MW-4A**	**MW-8**	**MW-15**	**MW-16**	**MW-17**
Ri^2/N_i =	3421699.0	2E+06	872594	557709	485690	617288	911938	1E+06	1E+06	283361	138675

$N_{i\ bg}$ = 92
N = 355
H = 40.31

Adjust H for ties:

T_i = 1E+07 sum of T1..T30

$H' = H/(1-(T_i/(N^3-N)))$
H' = 51.61
Chi-square = 18.31

Compare the calculated value H' to the tabulated Chi-square value with K-1 = # groups -1 = 17df at the 5% significance level from Table 1 of the IFG. The value is 18.31 which is less than H' =51.61.
Therefore, there is evidence of significant differences between the well groups.
Post-hoc pairwise comparisons are necessary (see below).

Calculate the critical values to compare each compliance well to the background wells:

Critical Value (C_x) = $P(N(N+1)/12)^{0.5} * (1/N_{i\ bg}+1/N_x)^{0.5}$
P = 2.33 Percentile of Standard Normal Distribution
from Table 4 of IFG
N = total sample size
$N_{i\ bg}$ = total samples (N_i) of background data
N_x = total samples (N_i) of well x

Difference between average ranks (Dx) = Rbar (well x) - avg Rbar (background)

Well =	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
Rbar (well x) =	221.0	167.8	134.1	129.4	145.9	174.4	213.5	232.2	153.7	107.5
avg Rbar (background) =	192.9	192.9	192.9	192.9	192.9	192.9	192.9	192.9	192.9	192.9
Dx =	28.1	-25.1	-58.7	-63.4	-47.0	-18.5	20.7	39.4	-39.2	-85.4
Cx =	49.7	49.7	49.7	50.9	50.9	50.3	49.7	52.3	73.4	73.4
Statistical Significance ?	No	No	No	No	No	No	No	No	No	No
If SSI, is current event above MCL?	-	-	-	-	-	-	-	-	-	-

Compare each difference (Dx) with the corresponding critical value (Cx).
No compliance well's difference between average ranks exceeded its corresponding critical value at a 5% significance level. Therefore, we conclude that significant evidence of contamination does not exist at the 5% significance level.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Zinc**
NC MCL (µg/l): 1000
Method: Kruskal-Wallis
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	**150**	NS	NS	**35**	**48**	**36**	**12**	**43**	**28**	**68**	NS	NP	NP	**10**
06/26/00	**37**	**12**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
07/26/00	**65**	**66**	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**50**
04/09/01	**230**	**130**	NS	**12**	**24**	**18**	**17**	**33**	**75**	**200**	NS	NP	NP	**10**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**50**
04/15/02	**230**	**16**	NS	ND	ND	**13**	**33**	**38**	**120**	**230**	NS	NP	NP	**10**
09/26/02	**57**	**120**	**110**	**580**	ND	**20**	ND	**56**	**250**	**280**	**4800**	NP	NP	**10**
04/28/03	**86**	**14**	**31**	**160**	**16**	ND	ND	ND	**81**	**190**	**800**	NP	NP	**10**
10/30/03	**55**	**22**	NT	**17**	**26**	**10**	ND	ND	**140**	**26**	**1800**	NP	NP	**10**
04/20/04	**55**	**10**	ND	**44**	**30**	**11**	**14**	**19**	**23**	**220**	**770**	NP	NP	**10**
10/21/04	**29**	ND	ND	**17**	ND	**14**	ND	**12**	**15**	**70**	**1200**	NP	NP	**10**
04/18/05	**83**	ND	ND	**780**	ND	**30**	**13**	**10**	ND	**240**	**1200**	NP	NP	**10**
10/13/05	**92**	**13**	**12**	**230**	**19**	**25**	ND	ND	**14**	**170**	**800**	NP	NP	**10**
04/25/06	**130**	ND	**88**	ND	ND	ND	ND	ND	**110**	**120**	**780**	NP	NP	**50**
10/20/06	**74**	ND	**20**	**37**	ND	ND	ND	ND	**55**	ND	**200**	NP	NP	**10**
04/25/07	**55**	**21**	**30**	**30**	**22**	**830**	**22**	**15**	**10**	**12**	**200**	NP	NP	**10**
10/31/07	**86**	ND	**66.2**	**14**	**37.4**	**33.3**	**12**	ND	**11.6**	**91.1**	**336**	NP	NP	**10**
04/23/08	**27.3**	ND	**50.3**	**12.2**	**24.4**	**36.9**	ND	**10.3**	**17.5**	**38.8**	**138**	NP	NP	**10**
10/20/08	**66.5**	**19.9**	**59.2**	**15.3**	**10.6**	**29.1**	ND	**12.4**	ND	**17.4**	**71.5**	NP	NP	**10**
04/22/09	**23.1**	**43.5**	**99.9**	**25.3**	**17.9**	**17.6**	**10.5**	ND	**35.2**	ND	NS	NP	NP	**10**
10/26/09	**19.6**	ND	**14.8**	ND	**37.8**	ND	NS	NS	NS	ND	**63.8**	NP	NP	**10**
04/22/10	**22.2**	**14.2**	ND	ND	ND	ND	NS	NS	ND	ND	**24.6**	NP	NP	**10**
10/27/10	**19.1**	ND	**12.3**	**15**	ND	ND	**32.4**	**16.3**	ND	ND	**60.7**	ND	ND	**10**
04/29/11	**25.7**	ND	**21.9**	ND	**11.8**	**23.9**	**13.7**	ND	ND	ND	**42.9**	**20.5**	**21.5**	**10**
10/25/11	**34.5**	ND	**11.6**	**23.7**	**12.8**	**10.1**	**32.5**	ND	ND	**17.7**	**49.9**	**15.1**	ND	**10**
04/20/12	**47.6**	ND	**12.5**	ND	**11.6**	**10.1**	**21.1**	ND	ND	**11.1**	**30.7**	**50.8**	ND	**10**
10/24/12	**93.4**	**10.4**	**11.3**	**22.4**	**23.8**	ND	**10.3**	**16.1**	**14.9**	**12.2**	**15.7**	**15.8**	ND	**10**
04/24/13	**56.3**	ND	ND	ND	**18.6**	**14.9**	ND	ND	ND	ND	**33.2**	ND	ND	**10**
10/24/13	**30.6**	ND	ND	ND	ND	ND	**28.1**	ND	ND	**28.8**	**39.6**	**14.9**	ND	**10**
04/24/14	**25.8**	ND	ND	ND	ND	ND	**18.9**	ND	ND	ND	ND	**14.9**	**10.1**	**10**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
04/28/15	**51.7**	ND	**14.2**	**19**	**13.6**	ND	**14.8**	**12.9**	ND	ND	**11.3**	**13.3**	ND	**10**
10/27/15	**69.8**	ND	ND	ND	**14.3**	ND	ND	**11.8**	ND	**22.1**	ND	**36.4**	ND	**10**
04/19/16	**21.9**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**
N_i	33	32	27	31	31	31	29	29	30	31	27	12	12	
sum of rank values (R_i)	9168.0	4338.0	4679.5	5514.5	4956.0	4815.0	4149.5	3915.0	5016.0	6272.5	7295.0	2012.0	1059.0	
avg rank value (Rbar)	277.8	135.6	173.3	177.9	159.9	155.3	143.1	135.0	167.2	202.3	270.2	167.7	88.3	

	Number of each rank value													Rank Value
rank value of NDs =	1	18	10	12	12	13	13	15	14	11	4	4	10	69
rank value of 10s =	0	1	0	0	0	1	0	1	1	0	0	0	0	139.5

rank value of 10.1s =	0	0	0	0	0	2	0	0	0	0	0	0	1	143
rank value of 10.3s =	0	0	0	0	0	0	1	1	0	0	0	0	0	145.5
rank value of 10.4s =	0	1	0	0	0	0	0	0	0	0	0	0	0	147
rank value of 10.5s =	0	0	0	0	0	0	1	0	0	0	0	0	0	148
rank value of 10.6s =	0	0	0	0	1	0	0	0	0	0	0	0	0	149
rank value of 11s =	0	0	0	0	0	1	0	0	0	0	0	0	0	150
rank value of 11.1s =	0	0	0	0	0	0	0	0	0	1	0	0	0	151
rank value of 11.3s =	0	0	1	0	0	0	0	0	0	0	1	0	0	152.5
rank value of 11.6s =	0	0	1	0	1	0	0	0	1	0	0	0	0	155
rank value of 11.8s =	0	0	0	0	1	0	0	1	0	0	0	0	0	157.5
rank value of 12s =	0	1	1	1	0	0	2	1	0	1	0	0	0	162
rank value of 12.2s =	0	0	0	1	0	0	0	0	0	1	0	0	0	166.5
rank value of 12.3s =	0	0	1	0	0	0	0	0	0	0	0	0	0	168
rank value of 12.4s =	0	0	0	0	0	0	0	1	0	0	0	0	0	169
rank value of 12.5s =	0	0	1	0	0	0	0	0	0	0	0	0	0	170
rank value of 12.8s =	0	0	0	0	1	0	0	0	0	0	0	0	0	171
rank value of 12.9s =	0	0	0	0	0	0	0	1	0	0	0	0	0	172
rank value of 13s =	0	1	0	0	0	1	1	0	0	0	0	0	0	174
rank value of 13.3s =	0	0	0	0	0	0	0	0	0	0	0	1	0	176
rank value of 13.6s =	0	0	0	0	1	0	0	0	0	0	0	0	0	177
rank value of 13.7s =	0	0	0	0	0	0	1	0	0	0	0	0	0	178
rank value of 14s =	0	1	0	1	0	1	1	0	1	0	0	0	0	181
rank value of 14.2s =	0	1	1	0	0	0	0	0	0	0	0	0	0	184.5
rank value of 14.3s =	0	0	0	0	1	0	0	0	0	0	0	0	0	186
rank value of 14.8s =	0	0	1	0	0	0	1	0	0	0	0	0	0	187.5
rank value of 14.9s =	0	0	0	0	0	1	0	0	1	0	0	2	0	190.5
rank value of 15s =	0	0	0	1	0	0	0	1	1	0	0	0	0	194
rank value of 15.1s =	0	0	0	0	0	0	0	0	0	0	0	1	0	196
rank value of 15.3s =	0	0	0	1	0	0	0	0	0	0	0	0	0	197
rank value of 15.7s =	0	0	0	0	0	0	0	0	0	0	1	0	0	198
rank value of 15.8s =	0	0	0	0	0	0	0	0	0	0	0	1	0	199
rank value of 16s =	0	1	0	0	1	0	0	0	0	0	0	0	0	200.5
rank value of 16.1s =	0	0	0	0	0	0	0	1	0	0	0	0	0	202
rank value of 16.3s =	0	0	0	0	0	0	0	1	0	0	0	0	0	203
rank value of 17s =	0	0	0	2	0	0	1	0	0	0	0	0	0	205
rank value of 17.4s =	0	0	0	0	0	0	0	0	0	1	0	0	0	207
rank value of 17.5s =	0	0	0	0	0	0	0	0	1	0	0	0	0	208
rank value of 17.6s =	0	0	0	0	0	1	0	0	0	0	0	0	0	209
rank value of 17.7s =	0	0	0	0	0	0	0	0	0	1	0	0	0	210
rank value of 17.9s =	0	0	0	0	1	0	0	0	0	0	0	0	0	211
rank value of 18s =	0	0	0	0	0	1	0	0	0	0	0	0	0	212
rank value of 18.6s =	0	0	0	0	1	0	0	0	0	0	0	0	0	213
rank value of 18.9s =	0	0	0	0	0	0	1	0	0	0	0	0	0	214
rank value of 19s =	0	0	0	1	1	0	0	1	0	0	0	0	0	216
rank value of 19.1s =	1	0	0	0	0	0	0	0	0	0	0	0	0	218
rank value of 19.6s =	1	0	0	0	0	0	0	0	0	0	0	0	0	219
rank value of 19.9s =	0	1	0	0	0	0	0	0	0	0	0	0	0	220
rank value of 20s =	0	0	1	0	0	1	0	0	0	0	0	0	0	221.5
rank value of 20.5s =	0	0	0	0	0	0	0	0	0	0	0	1	0	223
rank value of 21s =	0	1	0	0	0	0	0	0	0	0	0	0	0	224
rank value of 21.1s =	0	0	0	0	0	0	1	0	0	0	0	0	0	225
rank value of 21.5s =	0	0	0	0	0	0	0	0	0	0	0	0	1	226
rank value of 21.9s =	1	0	1	0	0	0	0	0	0	0	0	0	0	227.5
rank value of 22s =	0	1	0	0	1	0	1	0	0	0	0	0	0	230
rank value of 22.1s =	0	0	0	0	0	0	0	0	0	1	0	0	0	232
rank value of 22.2s =	1	0	0	0	0	0	0	0	0	0	0	0	0	233
rank value of 22.4s =	0	0	0	1	0	0	0	0	0	0	0	0	0	234
rank value of 23s =	0	0	0	0	0	0	0	0	1	0	0	0	0	235

rank value of 23.1s =	1	0	0	0	0	0	0	0	0	0	0	0	0	236
rank value of 23.7s =	0	0	0	1	0	0	0	0	0	0	0	0	0	237
rank value of 23.8s =	0	0	0	0	1	0	0	0	0	0	0	0	0	238
rank value of 23.9s =	0	0	0	0	0	1	0	0	0	0	0	0	0	239
rank value of 24s =	0	0	0	0	1	0	0	0	0	0	0	0	0	240
rank value of 24.4s =	0	0	0	0	1	0	0	0	0	0	0	0	0	241
rank value of 24.6s =	0	0	0	0	0	0	0	0	0	0	1	0	0	242
rank value of 25s =	0	0	0	0	0	1	0	0	0	0	0	0	0	243
rank value of 25.3s =	0	0	0	1	0	0	0	0	0	0	0	0	0	244
rank value of 25.7s =	1	0	0	0	0	0	0	0	0	0	0	0	0	245
rank value of 25.8s =	1	0	0	0	0	0	0	0	0	0	0	0	0	246
rank value of 26s =	0	0	0	0	1	0	0	0	0	1	0	0	0	247.5
rank value of 27.3s =	1	0	0	0	0	0	0	0	0	0	0	0	0	249
rank value of 28s =	0	0	0	0	0	0	0	0	1	0	0	0	0	250
rank value of 28.1s =	0	0	0	0	0	0	1	0	0	0	0	0	0	251
rank value of 28.8s =	0	0	0	0	0	0	0	0	0	1	0	0	0	252
rank value of 29s =	1	0	0	0	0	0	0	0	0	0	0	0	0	253
rank value of 29.1s =	0	0	0	0	0	1	0	0	0	0	0	0	0	254
rank value of 30s =	0	0	1	1	1	1	0	0	0	0	0	0	0	256.5
rank value of 30.6s =	1	0	0	0	0	0	0	0	0	0	0	0	0	259
rank value of 30.7s =	0	0	0	0	0	0	0	0	0	0	1	0	0	260
rank value of 31s =	0	0	1	0	0	0	0	0	0	0	0	0	0	261
rank value of 32.4s =	0	0	0	0	0	0	1	0	0	0	0	0	0	262
rank value of 32.5s =	0	0	0	0	0	0	1	0	0	0	0	0	0	263
rank value of 33s =	0	0	0	0	0	0	1	1	0	0	0	0	0	264.5
rank value of 33.2s =	0	0	0	0	0	0	0	0	0	0	1	0	0	266
rank value of 33.3s =	0	0	0	0	0	1	0	0	0	0	0	0	0	267
rank value of 34.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	268
rank value of 35s =	0	0	0	1	0	0	0	0	0	0	0	0	0	269
rank value of 35.2s =	0	0	0	0	0	0	0	0	1	0	0	0	0	270
rank value of 36s =	0	0	0	0	0	1	0	0	0	0	0	0	0	271
rank value of 36.4s =	0	0	0	0	0	0	0	0	0	0	0	1	0	272
rank value of 36.9s =	0	0	0	0	0	1	0	0	0	0	0	0	0	273
rank value of 37s =	1	0	0	1	0	0	0	0	0	0	0	0	0	274.5
rank value of 37.4s =	0	0	0	0	1	0	0	0	0	0	0	0	0	276
rank value of 37.8s =	0	0	0	0	1	0	0	0	0	0	0	0	0	277
rank value of 38s =	0	0	0	0	0	0	0	1	0	0	0	0	0	278
rank value of 38.8s =	0	0	0	0	0	0	0	0	0	1	0	0	0	279
rank value of 39.6s =	0	0	0	0	0	0	0	0	0	0	1	0	0	280
rank value of 42.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	281
rank value of 43s =	0	0	0	0	0	0	0	1	0	0	0	0	0	282
rank value of 43.5s =	0	1	0	0	0	0	0	0	0	0	0	0	0	283
rank value of 44s =	0	0	0	1	0	0	0	0	0	0	0	0	0	284
rank value of 47.6s =	1	0	0	0	0	0	0	0	0	0	0	0	0	285
rank value of 48s =	0	0	0	0	1	0	0	0	0	0	0	0	0	286
rank value of 49.9s =	0	0	0	0	0	0	0	0	0	0	1	0	0	287
rank value of 50.3s =	0	0	1	0	0	0	0	0	0	0	0	0	0	288
rank value of 50.8s =	0	0	0	0	0	0	0	0	0	0	0	1	0	289
rank value of 51.7s =	1	0	0	0	0	0	0	0	0	0	0	0	0	290
rank value of 55s =	3	0	0	0	0	0	0	0	1	0	0	0	0	292.5
rank value of 56s =	0	0	0	0	0	0	0	1	0	0	0	0	0	295
rank value of 56.3s =	1	0	0	0	0	0	0	0	0	0	0	0	0	296
rank value of 57s =	1	0	0	0	0	0	0	0	0	0	0	0	0	297
rank value of 59.2s =	0	0	1	0	0	0	0	0	0	0	0	0	0	298
rank value of 60.7s =	0	0	0	0	0	0	0	0	0	0	1	0	0	299
rank value of 63.8s =	0	0	0	0	0	0	0	0	0	0	1	0	0	300
rank value of 65s =	1	0	0	0	0	0	0	0	0	0	0	0	0	301
rank value of 66s =	0	1	0	0	0	0	0	0	0	0	0	0	0	302

rank value of 66.2s =	0	0	1	0	0	0	0	0	0	0	0	0	0	303
rank value of 66.5s =	1	0	0	0	0	0	0	0	0	0	0	0	0	304
rank value of 68s =	0	0	0	0	0	0	0	0	0	1	0	0	0	305
rank value of 69.8s =	1	0	0	0	0	0	0	0	0	0	0	0	0	306
rank value of 70s =	0	0	0	0	0	0	0	0	0	1	0	0	0	307
rank value of 71.5s =	0	0	0	0	0	0	0	0	0	0	1	0	0	308
rank value of 74s =	1	0	0	0	0	0	0	0	0	0	0	0	0	309
rank value of 75s =	0	0	0	0	0	0	0	0	1	0	0	0	0	310
rank value of 81s =	0	0	0	0	0	0	0	0	1	0	0	0	0	311
rank value of 83s =	1	0	0	0	0	0	0	0	0	0	0	0	0	312
rank value of 86s =	2	0	0	0	0	0	0	0	0	0	0	0	0	313.5
rank value of 88s =	0	0	1	0	0	0	0	0	0	0	0	0	0	315
rank value of 91.1s =	0	0	0	0	0	0	0	0	0	1	0	0	0	316
rank value of 92s =	1	0	0	0	0	0	0	0	0	0	0	0	0	317
rank value of 93.4s =	1	0	0	0	0	0	0	0	0	0	0	0	0	318
rank value of 99.9s =	0	0	1	0	0	0	0	0	0	0	0	0	0	319
rank value of 110s =	0	0	1	0	0	0	0	0	1	0	0	0	0	320.5
rank value of 120s =	0	1	0	0	0	0	0	0	1	1	0	0	0	323
rank value of 130s =	1	1	0	0	0	0	0	0	0	0	0	0	0	325.5
rank value of 138s =	0	0	0	0	0	0	0	0	0	0	1	0	0	327
rank value of 140s =	0	0	0	0	0	0	0	0	1	0	0	0	0	328
rank value of 150s =	1	0	0	0	0	0	0	0	0	0	0	0	0	329
rank value of 160s =	0	0	0	1	0	0	0	0	0	0	0	0	0	330
rank value of 170s =	0	0	0	0	0	0	0	0	0	1	0	0	0	331
rank value of 190s =	0	0	0	0	0	0	0	0	0	1	0	0	0	332
rank value of 200s =	0	0	0	0	0	0	0	0	0	1	2	0	0	334
rank value of 220s =	0	0	0	0	0	0	0	0	0	1	0	0	0	336
rank value of 230s =	2	0	0	1	0	0	0	0	0	1	0	0	0	338.5
rank value of 240s =	0	0	0	0	0	0	0	0	0	1	0	0	0	341
rank value of 250s =	0	0	0	0	0	0	0	0	1	0	0	0	0	342
rank value of 280s =	0	0	0	0	0	0	0	0	0	1	0	0	0	343
rank value of 336s =	0	0	0	0	0	0	0	0	0	0	1	0	0	344
rank value of 580s =	0	0	0	1	0	0	0	0	0	0	0	0	0	345
rank value of 770s =	0	0	0	0	0	0	0	0	0	0	1	0	0	346
rank value of 780s =	0	0	0	1	0	0	0	0	0	0	1	0	0	347.5
rank value of 800s =	0	0	0	0	0	0	0	0	0	0	2	0	0	349.5
rank value of 830s =	0	0	0	0	0	1	0	0	0	0	0	0	0	351
rank value of 1200s =	0	0	0	0	0	0	0	0	0	0	2	0	0	352.5
rank value of 1800s =	0	0	0	0	0	0	0	0	0	0	1	0	0	354
rank value of 4800s =	0	0	0	0	0	0	0	0	0	0	1	0	0	355
n =	**33**	**32**	**27**	**31**	**31**	**31**	**29**	**29**	**30**	**31**	**27**	**12**	**12**	

Compute the Kruskal-Wallis statistic:

$$H = \{[12/N(N+1)] * [\Sigma^{K}_{i=1} (R_i^2)/N_i]\} -3(N+1)$$

Well =	**Background**	**MW-1A**	**MW-2**	**MW-2D**	**MW-3**	**MW-3D**	**MW-4A**	**MW-8**	**MW-15**	**MW-16**	**MW-17**
Ri^2/N_i =	3594700.1	980958	792321	747878	593736	528525	838675	1E+06	2E+06	337345	93457

$N_{i\ bg}$ = 92
N = 355
H = 47.47

Adjust H for ties:

T_i = 3E+06 sum of T1..T35

$H' = H/(1-(T_i/(N^3-N)))$

$H' = 50.37$

Chi-square = 18.31

Compare the calculated value H' to the tabulated Chi-square value with K-1 = # groups -1 = 17df at the 5% significance level from Table 1 of the IFG. The value is 18.31 which is less than H' =50.37.
Therefore, there is evidence of significant differences between the well groups.
Post-hoc pairwise comparisons are necessary (see below).

Calculate the critical values to compare each compliance well to the background wells:

Critical Value (C_x) = $P(N(N+1)/12)^{0.5} * (1/N_{i\,bg}+1/N_x)^{0.5}$

P = 2.33 Percentile of Standard Normal Distribution
from Table 4 of IFG

N = total sample size

$N_{i\,bg}$ = total samples (N_i) of background data

N_x = total samples (N_i) of well x

Difference between average ranks (Dx) = Rbar (well x) - avg Rbar (background)

Well =	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	**MW-15**	MW-16	MW-17
Rbar (well x) =	177.9	159.9	155.3	143.1	135.0	167.2	202.3	270.2	167.7	88.3
avg Rbar (background) =	197.7	197.7	197.7	197.7	197.7	197.7	197.7	197.7	197.7	197.7
Dx =	-19.8	-37.8	-42.3	-54.6	-62.7	-30.5	4.7	72.5	-30.0	-109.4
Cx =	49.7	49.7	49.7	50.9	50.9	50.3	49.7	52.3	73.4	73.4
Statistical Significance ?	No	No	No	No	No	No	No	**Yes**	No	No
If SSI, is current event above MCL?	-	-	-	-	-	-	-	No	-	-

Compare each difference (Dx) with the corresponding critical value (Cx).
The Dx value for the above indicated wells do exceed the corresponding Cx value.
Therefore, we conclude that the concentration of Total Zinc averaged over these compliance wells are significantly greater than that of the background wells.
Shewart-CUSUM Control Charts should be performed for each failing well to check for statistical significance.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Total Zinc**
NC MCL (µg/l): 1000
Method: Shewhart-CUSUM Control Chart

Part 1: Check for Normality

	MW-15	MDL
9/26/02	**4800**	**10**
4/28/03	**800**	**10**
10/30/03	**1800**	**10**
4/20/04	**770**	**10**
10/21/04	**1200**	**10**
4/18/05	**1200**	**10**
10/13/05	**800**	**10**
4/25/06	**780**	**50**
10/20/06	**200**	**10**
4/25/07	**200**	**10**
10/31/07	**336**	**10**
4/23/08	**138**	**10**
10/20/08	**71.5**	**10**
4/22/09	NS	**10**
10/26/09	**63.8**	**10**
4/22/10	**24.6**	**10**
10/27/10	**60.7**	**10**
4/29/11	**42.9**	**10**
10/25/11	**49.9**	**10**
4/20/12	**30.7**	**10**
10/24/12	**15.7**	**10**
4/24/13	**33.2**	**10**
10/24/13	**39.6**	**10**
4/24/14	ND	**10**
10/27/14	ND	**10**
4/28/15	**11.3**	**10**
10/27/15	ND	**10**
4/19/16	ND	**10**

If not detected (ND), use half of the detection limit.

X_{bar} = 499.5518519
SD = 983.2681849
N = 27
$1/N\Sigma_i(X_i-X_{bar})^3$ = 2994624903
γ_1= 3.33358931

Since the Coefficient of Skewness of 3.33 is greater than 1.0, the real data appear to be significantly skewed.
Do not assume that the data follow a Normal distribution.
Perform the Skewness Test on the natural log of the values.

X_{bar} = 4.584920912
SD = 2.024129921
N = 27
$1/N\Sigma_i(X_i-X_{bar})^3$ = 0.924717573
γ_1= 0.117999341

Since the Coefficient of Skewness of 0.12 is less than 1.0, the data appear not to be significantly skewed. Proceed with further statistical tests using the log-transformed values shown above.

Part 2: Shewhart-CUSUM Control Chart

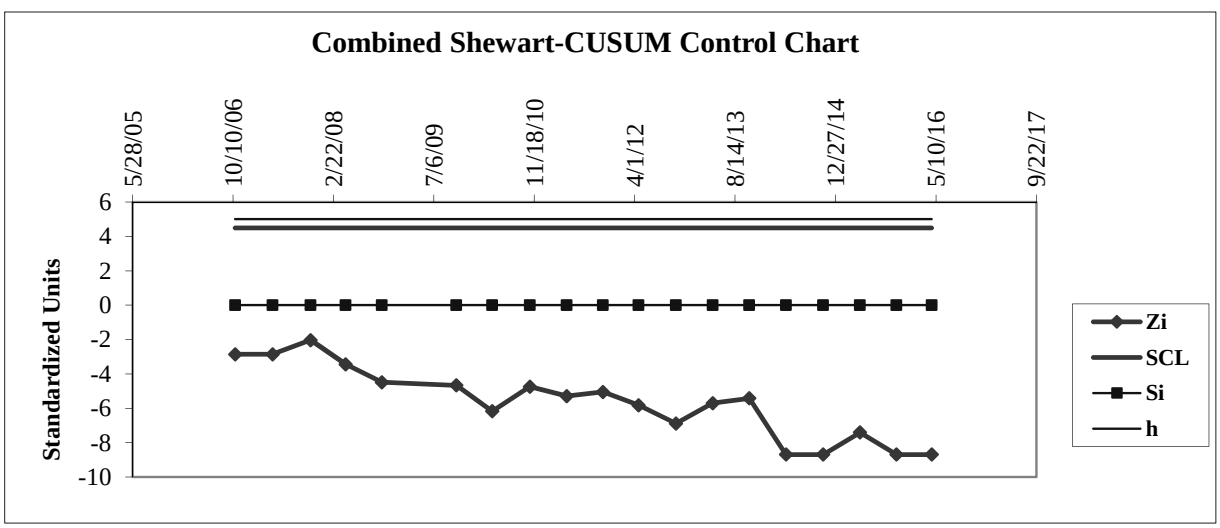
Compute the mean and standard deviation of the historical data:

7.103371838 = x_{mean} (Mean of N1-N8 historical data)
0.63200761 = s (Standard Deviation of N1-N8 historical data)
1 = k (constant, reference value)
5 = h (constant, upper control limit for the CUSUM scheme)
4.5 = SCL (Constant, upper Shewhart Control Limit)

Compute the standardized mean (Z_i) and the cumulative sum (S_i) for each concentration.

Date	x_i	Z_i	S_i	h	SCL
			0		
10/20/06	5.298317367	-2.8560645	0	5	4.5
4/25/07	5.298317367	-2.8560645	0	5	4.5
10/31/07	5.81711116	-2.0351981	0	5	4.5
4/23/08	4.927253685	-3.4431835	0	5	4.5
10/20/08	4.26969745	-4.483608	0	5	4.5
10/26/09	4.15575319	-4.6638974	0	5	4.5
4/22/10	3.202746443	-6.1718013	0	5	4.5
10/27/10	4.105943698	-4.7427089	0	5	4.5
4/29/11	3.758871826	-5.2918667	0	5	4.5
10/25/11	3.910021003	-5.0527095	0	5	4.5
4/20/12	3.424262655	-5.8213052	0	5	4.5
10/24/12	2.753660712	-6.8823714	0	5	4.5
4/24/13	3.502549876	-5.6974345	0	5	4.5
10/24/13	3.678829118	-5.418515	0	5	4.5
4/24/14	1.609437912	-8.6928288	0	5	4.5
10/27/14	1.609437912	-8.6928288	0	5	4.5
4/28/15	2.424802726	-7.4027101	0	5	4.5
10/27/15	1.609437912	-8.6928288	0	5	4.5
4/19/16	1.609437912	-8.6928288	0	5	4.5

Plot Z_i and S_i versus time:



Compare the Z_i and S_i values to their respective control limits of SCL and h.

The limits were not exceeded and do not indicate statistically significant evidence of contamination at the site.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Acetone**
MCL (µg/l): 6000
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**100**
06/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
07/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**100**
04/09/01	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**100**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
04/15/02	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**100**
09/26/02	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**100**
04/28/03	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**100**
10/30/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**25**
10/13/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**25**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**25**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**25**
04/25/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**25**
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**25**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**25**
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**140**	NP	NP	**25**
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**25**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**25**
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**25**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**
04/28/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**
10/27/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**
04/19/16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 25.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 75$
$T_{n1} = 870$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where c = k/n
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 75$
$T_{n1} = 870$
$t\,[74,.01] = 2.3825$

$c = 0.0133$

$T^*_k = 19.8$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Carbon Disulfide**
MCL (µg/l): 700
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**100**
06/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
07/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**100**
04/09/01	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**100**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
04/15/02	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**100**
09/26/02	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**100**
04/28/03	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**100**
10/30/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/21/04	ND	**24**	ND	ND	ND	ND	ND	ND	**15**	ND	ND	NP	NP	**10**
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/13/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**2**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**2**
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**2**
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	**4.5**	ND	NS	NP	NP	**2**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**2**
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**2**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/28/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
10/27/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/19/16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 25.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 75$
$T_{n1} = 190$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where c = k/n
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 75$
$T_{n1} = 190$
$t\,[74,.01] = 2.3825$

$c = 0.0133$

$T^*_k = 6.4$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	1	1	1	1	1	1	1	1	1	1

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Chloroethane**
MCL (µg/l): 3000
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**10**
06/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
07/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**10**
04/09/01	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**10**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
04/15/02	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**10**
09/26/02	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**10**
04/28/03	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**10**
10/30/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/13/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**1**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**1**
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**1**
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**1**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**1**
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**1**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
10/24/12	ND	ND	ND	ND	**4.4**	ND	ND	ND	ND	ND	ND	ND	ND	**1**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
04/28/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
10/27/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**
04/19/16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1**

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 25.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 75$
$T_{n1} = 145.5$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where c = k/n
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 75$
$T_{n1} = 145.5$
$t\,[74,.01] = 2.3825$

$c = 0.0133$

$T^*_k = 5.3$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Iodomethane**
MCL (µg/l): Not Established
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**10**
06/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
07/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**10**
04/09/01	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**10**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
04/15/02	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**10**
09/26/02	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**10**
04/28/03	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**10**
10/30/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/13/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**5**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**5**
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**5**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/28/15	ND	ND	ND	**10.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/27/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/19/16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 25.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 75$
$T_{n1} = 247.5$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where c = k/n
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 75$
$T_{n1} = 247.5$
$t\,[74,.01] = 2.3825$

$c = 0.0133$

$T^*_k = 7.7$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **Dichloromethane (Methylene chloride)**
MCL (µg/l): 5
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**10**
06/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
07/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**10**
04/09/01	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**10**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**10**
04/15/02	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**10**
09/26/02	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**10**
04/28/03	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**10**
10/30/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
10/13/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/25/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**2**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**2**
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**2**
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**2**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**2**
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**2**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/24/14	ND	ND	ND	ND	ND	**2**	ND	ND	ND	**2.2**	ND	ND	ND	**2**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/28/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2.2**	ND	ND	**2**
10/27/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**
04/19/16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 25.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 75$
$T_{n1} = 111$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where c = k/n
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 75$
$T_{n1} = 111$
$t\,[74,.01] = 2.3825$

$c = 0.0133$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	1	1	1	1	1	1	1	1	1	1

$T^*_k = 4.4$

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.

White Oak Landfill
Haywood County, North Carolina
BLE Project Number J16-1957-55

Compound: **2-Butanone**
MCL (µg/l): 4000
Method: Poisson Prediction Limits
Background: MW-11S, MW-11D, & MW-14

	MW-11S	MW-11D	MW-14	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17	MDL
04/24/00	NT	NS	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**100**
06/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
07/26/00	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
09/18/00	NS	NS	NS	NT	NT	NS	NS	NS	NT	NS	NS	NP	NP	**100**
04/09/01	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**100**
09/18/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
10/29/01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
01/30/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
02/28/02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NP	NP	**100**
04/15/02	NT	NT	NS	NT	NT	NT	NT	NT	NT	NT	NS	NP	NP	**100**
09/26/02	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**100**
04/28/03	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NP	NP	**100**
10/30/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/21/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/18/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/13/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/20/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
04/25/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**10**
10/31/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
04/23/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NP	NP	**5**
10/20/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**54.4**	NP	NP	**5**
04/22/09	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NP	NP	**5**
10/26/09	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND	ND	NP	NP	**5**
04/22/10	ND	ND	ND	ND	ND	ND	NS	NS	ND	ND	ND	NP	NP	**5**
10/27/10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/29/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/25/11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/20/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/24/12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/24/13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/24/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/27/14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/28/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
10/27/15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
04/19/16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**

1) If not detected (ND), use half of the detection limit.

2) Set the total number of data values for background wells (through the previous sampling event) equal to 'n' = 25.
Use 1/2 of the method detection limit to calculate the Total Poisson Count of the Sum (T_n).

$n = 75$
$T_{n1} = 247.5$

3) Using Gibbons' formula, calculate the upper Poisson Prediction limit T^*_k:

$$T^*_k = cT_{n1} + ct^2/2 + ct[T_{n1}(1+1/c) + t^2/4]^{-0.5}$$

where c = k/n
and where k = the number of future predicted measurements (one per well during the current sampling event)
and where t = the upper 99th percentile of the t-distribution with (n-1) degrees of freedom (Table 6 of the IFG).

$k = 1$
$n = 75$
$T_{n1} = 247.5$
$t\,[74,.01] = 2.3825$

$c = 0.0133$

$T^*_k = 7.7$

	MW-1A	MW-2	MW-2D	MW-3	MW-3D	MW-4A	MW-8	MW-15	MW-16	MW-17
T_{n2} =	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5

4) Compare the *Poisson Prediction Limit* (T^*_k) to the *Sum of the Concentrations Detected* (T_{n2}) in the wells during the most recent sampling event.
Since the Poisson Prediction Limit was not exceeded, there is no evidence of contamination.