Re 4-14-08 DIN

34-12
6-5-00

7 wells

June 30, 2000

HDR

Mr. Larry Rose
North Carolina Department of Environment
and Natural Resources
Division of Solid Waste Management
Solid Waste Section
P. O. Box 27687
Raleigh, North Carolina 27611-7687

-No VOCs
-No metals > 2L std.

JUL 2000
Received
Solid Waste
Section

Re: Spring 2000 Semiannual [redacted] Sampling Analytical
and [redacted] Monitoring Results
Winston-Salem Construction and Demolition Landfill (No. 34-12)
Forsyth County, North Carolina
HDR Project No. 00162-130-018

Dear Mr. Rose:

HDR Engineering, Inc. of the Carolinas (HDR) is hereby submitting, on behalf of the City of Winston-Salem Utilities Division (City), the ground-water analytical and landfill gas monitoring results for the Spring 2000 monitoring period at the C&D Landfill (the Landfill) located in Forsyth County, North Carolina.

Ground-water samples were collected from on-site detection monitoring wells MW-1R, MW-2R, MW-3R, MW-4R, MW-5R, MW-6R, and MW-7 on June 5, 2000, for the eight RCRA metals and Appendix I volatile organic compound (VOC) analysis. A trip blank was also included for QA/QC purposes. Field measurements of pH, specific conductance, and temperature were also recorded during pre-sampling well purging. These measurements were recorded on field forms, which have been attached to the Report of Laboratory Analysis. Monitoring well construction record drawings for each monitoring well sampled are attached to this submittal. Based on past ground-water flow characteristics for the site, ground-water monitoring well MW-1R is hydraulically upgradient of the Landfill and is therefore considered as "background" for the site.

In addition, landfill gas monitoring was performed from the six permanent methane gas monitoring stations (MM-1 through MM-6) located around the perimeter of Phase I of the Landfill. Methane stations MM-2 and MM-4 are nested monitoring stations, while all other stations are constructed as a single monitoring point. Methane gas probe monitoring construction record drawings for each station are attached to this submittal.

The metals barium, chromium, and lead were the only trace metals detected in the ground water during this round of sampling. The concentrations detected were low and are reflective of the naturally-occurring trace metals typically present in the saprolite of this region. In addition, all of the trace metal concentrations this period were below their respective 2L ground-water standards. As reflected by the Pre-sampling Well Purging forms, the presence of these trace metal detections is due to the slight lingering well turbidity in each well. However, the recent redevelopment of the ground-water wells seems to have reduced the level of turbidity in each well as reflected by the slightly lower trace metal concentrations this period.

**HDR Engineering, Inc.**
**of the Carolinas**

*Employee Owned*

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No volatile organic compounds were detected in any of the ground-water monitoring wells this period. A trace of methylene chloride was detected in the trip blank. This occurrence is due to laboratory contamination and is not reflected in the ground-water results.

The Report of Laboratory Analysis for this sampling event at the Landfill is attached to this letter (including the Chain-of-Custody Record and field purging forms). Table 1 is also attached to this report and summarizes the results of all sampling events performed to date at the Landfill. The results of this recent sampling event indicate that the existing ground-water monitoring well network at the Landfill, with the recent installation of monitoring wells MW-3R and MW-6R, is adequate to provide representative ground-water quality data and release detection determination for the Old Salisbury Road Landfill.

Finally, only traces of methane were detected at the site in monitoring stations MM-3 and MM-4S at 120 parts per million (ppm) and 100 ppm, respectively. These concentrations are very low and may be a reflection of natural levels present onsite. Additional data is needed to verify this assumption. The absence of methane in MM-4D (screened between 20 to 40 feet below land surface) indicates that the presence of gas is localized within the upper 20 feet of saprolite at this location where MM-4S is screened. Overall, none of the gas levels reported this period exceeded the regulatory limit of 25% of the lower explosive limit (LEL).

If you have any questions or comments concerning the information summarized in this letter or in the attached analytical data report, please do not hesitate to contact me at (704) 338-6832.

Sincerely,

**HDR Engineering, Inc. of the Carolinas**

John R. Isham, P.G.
Project Hydrogeologist

JRI/jvw

Attachments: Table 1, Summary of Ground-Water Analytical Results
Report of Laboratory Analysis (w/Chain-of-Custody Record)
Perimeter Gas Probe Monitoring Field Data Form
Pre-sampling Well Purging Forms
Monitoring Well Construction Record Drawings
Methane Gas Monitoring Construction Record Drawings
Ground-Water and Methane Gas Monitoring Well Locations

cc: Ed Gibson, Winston-Salem Utilities Division

**TABLE 1**
**Summary of Ground-Water Analytical Results**
**Winston-Salem C&D Landfill**
**MW-1R**

| Parameter | 1/17/96 | 10/24/96 | 5/13/97 | 10/30/97 | 5/5/98 | 11/5/98 | 6/2/99 | 11/19/99 | [redacted] |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| Barium | 0.224 | 0.18 | 0.10 | 0.29 | 0.10 | 0.16 | 0.15 | 0.13 | 0.11 |
| Cadmium | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Chromium | <0.010 | 0.006 | 0.003 | 0.011 | 0.049 | 0.012 | 0.0078 | 0.0052 | <0.002 |
| Lead | 0.006 | <0.005 | <0.005 | 0.012 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| Mercury | 0.0018 | 0.0002 | <00002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| Selenium | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| Silver | <0.001 | <0.005 | <0.005 | <0.005 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Methyl Chloride | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Vinyl Chloride | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Bromomethane | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Chloroethane | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Trichlorofluoromethane | <5 | <5 | <5 | <5 | <5 | <5 | <10 | <10 | <10 |
| Acetone | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 |
| 1,1-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Methyl Iodide | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Acrylonitrile | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 |
| Dichloromethane | <5 | <5 | <5 | <5 | <5 | <5 | 13 | <5 | <5 |
| Carbon Disulfide | 23 | <5 | <5 | <5 | <5 | 28 | <5 | <5 | <5 |
| Trans-1,1-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1-Dichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Vinyl Acetate | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Methyl Ethyl Ketone | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 |
| Cis-1,2-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Chloroform | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Bromochloromethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,1-Trichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Carbon Tetrachloride | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Benzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dichloroporpane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Dibromomethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Bromodichloromethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 4-Methyl-2-Pentanone | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Cis-1,3-Dichloropropene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Toluene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trans-1,3-Dichloro-1-Propene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,2-Trichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 2-Hexanone | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Dibromochloromethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Tetrachloroethylene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dibromoethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Chlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,1,2-Tetrachloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Ethylbenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Xylenes (total) | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Styrene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Bromoform | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,2,2-Tetrachloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2,3-Trichloropropane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trans-1,4-Dichloro-2-Butene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,4-Dichlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dichlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dibromo-3-Chloropropane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |

**TABLE 1**
**Summary of Ground-Water Analytical Results**
**Winston-Salem C&D Landfill**
**MW-2R**

| Parameter | 1/17/96 | 10/24/96 | 5/13/97 | 10/30/97 | 5/5/98 | 11/5/98 | 6/2/99 | 11/20/99 | [redacted] |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.011 | <0.005 | <0.005 | <0.005 |
| Barium | 0.35 | 0.16 | 0.20 | 0.34 | 0.19 | 1.1 | 0.15 | 0.12 | 0.18 |
| Cadmium | <0.010 | <0.001 | 0.003 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Chromium | 0.012 | 0.009 | 0.004 | 0.043 | 0.034 | 0.21 | 0.0078 | 0.014 | 0.003 |
| Lead | 0.026 | 0.008 | 0.014 | 0.031 | 0.019 | 0.068 | <0.005 | 0.0069 | 0.0065 |
| Mercury | 0.0004 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| Selenium | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| Silver | <0.005 | <0.005 | 0.006 | <0.005 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Methyl Chloride | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Vinyl Chloride | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Bromomethane | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Chloroethane | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Trichlorofluoromethane | <5 | <5 | <5 | <5 | <5 | <5 | <10 | <10 | <10 |
| Acetone | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 |
| 1,1-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Methyl Iodide | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Acrylonitrile | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 |
| Dichloromethane | <5 | <5 | <5 | <5 | <5 | <5 | 13 | <5 | <5 |
| Carbon Disulfide | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trans-1,1-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1-Dichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Vinyl Acetate | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Methyl Ethyl Ketone | 86 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 |
| Cis-1,2-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Chloroform | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Bromochloromethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,1-Trichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Carbon Tetrachloride | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Benzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dichloroporpane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Dibromomethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Bromodichloromethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 4-Methyl-2-Pentanone | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Cis-1,3-Dichloropropene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Toluene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trans-1,3-Dichloro-1-Propene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,2-Trichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 2-Hexanone | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Dibromochloromethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Tetrachloroethylene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dibromoethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Chlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,1,2-Tetrachloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Ethylbenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Xylenes (total) | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Styrene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Bromoform | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,2,2-Tetrachloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2,3-Trichloropropane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trans-1,4-Dichloro-2-Butene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,4-Dichlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dichlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dibromo-3-Chloropropane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |

ANALYT

**TABLE 1**
**Summary of Ground-Water Analytical Results**
**Winston-Salem C&D Landfill**
**MW-3/3R**

| Parameter | 1/17/96 | 10/24/96 | 5/13/97 | 10/30/97 | 5/5/98 | 11/5/98 | 6/2/99 | 11/20/99 | [redacted] |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | ----- | 0.0059 | <0.005 |
| Barium | 1.23 | 0.79 | 0.80 | 0.62 | 0.86 | 1.4 | ----- | 0.052 | 0.30 |
| Cadmium | <0.010 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | ----- | <0.001 | <0.001 |
| Chromium | 0.009 | 0.020 | 0.028 | 0.016 | 0.025 | 0.077 | ----- | 0.024 | <0.002 |
| Lead | 0.015 | 0.015 | 0.027 | 0.026 | 0.032 | 0.039 | ----- | 0.040 | <0.005 |
| Mercury | 0.0007 | <0.0002 | <0.0002 | 0.0002 | <0.0002 | <0.0002 | ----- | <0.0002 | <0.0002 |
| Selenium | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | ----- | <0.005 | <0.005 |
| Silver | <0.001 | <0.005 | <0.005 | <0.005 | <0.002 | <0.002 | ----- | <0.002 | <0.002 |
| Methyl Chloride | <10 | <10 | <10 | <10 | <10 | <10 | ----- | <10 | <10 |
| Vinyl Chloride | <10 | <10 | <10 | <10 | <10 | <10 | ----- | <10 | <10 |
| Bromomethane | <10 | <10 | <10 | <10 | <10 | <10 | ----- | <10 | <10 |
| Chloroethane | <10 | <10 | <10 | <10 | <10 | <10 | ----- | <10 | <10 |
| Trichlorofluoromethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <10 | <10 |
| Acetone | <100 | <100 | <100 | <100 | <100 | <100 | ----- | <100 | <100 |
| 1,1-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Methyl Iodide | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Acrylonitrile | <100 | <100 | <100 | <100 | <100 | <100 | ----- | <100 | <100 |
| Dichloromethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Carbon Disulfide | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Trans-1,1-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,1-Dichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Vinyl Acetate | <50 | <50 | <50 | <50 | <50 | <50 | ----- | <50 | <50 |
| Methyl Ethyl Ketone | <100 | <100 | <100 | <100 | <100 | <100 | ----- | <100 | <100 |
| Cis-1,2-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Chloroform | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Bromochloromethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,1,1-Trichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,2-Dichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Carbon Tetrachloride | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Benzene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Trichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,2-Dichloroporpane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Dibromomethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Bromodichloromethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 4-Methyl-2-Pentanone | <50 | <50 | <50 | <50 | <50 | <50 | ----- | <50 | <50 |
| Cis-1,3-Dichloropropene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Toluene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Trans-1,3-Dichloro-1-Propene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,1,2-Trichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 2-Hexanone | <50 | <50 | <50 | <50 | <50 | <50 | ----- | <50 | <50 |
| Dibromochloromethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Tetrachloroethylene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,2-Dibromoethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Chlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,1,1,2-Tetrachloroethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Ethylbenzene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Xylenes (total) | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Styrene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Bromoform | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,1,2,2-Tetrachloroethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,2,3-Trichloropropane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Trans-1,4-Dichloro-2-Butene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,4-Dichlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,2-Dichlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,2-Dibromo-3-Chloropropane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |

ANALYT

**TABLE 1**
**Summary of Ground-Water Analytical Results**
**Winston-Salem C&D Landfill**
**MW-4R**

| Parameter | 1/17/96 | 10/24/96 | 5/13/97 | 10/30/97 | 5/5/98 | 11/6/98 | 6/2/99 | 11/20/99 | [illegible] |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.0075 | <0.005 |
| Barium | 0.595 | 0.72 | 0.28 | 0.65 | 0.85 | 2.0 | 0.95 | 0.86 | 0.57 |
| Cadmium | 0.007 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Chromium | 0.021 | 0.047 | <0.002 | 0.055 | 0.13 | 0.30 | 0.11 | 0.06 | <0.002 |
| Lead | 0.017 | 0.016 | 0.012 | 0.029 | 0.043 | 0.076 | 0.050 | 0.04 | 0.0095 |
| Mercury | 0.0017 | 0.0003 | <0.0002 | <0.0002 | <0.0002 | 0.00021 | <0.0002 | 0.00036 | <0.0002 |
| Selenium | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| Silver | <0.001 | <0.005 | 0.006 | <0.005 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Methyl Chloride | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Vinyl Chloride | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Bromomethane | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Chloroethane | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Trichlorofluoromethane | <5 | <5 | <5 | <5 | <5 | <5 | <10 | <10 | <10 |
| Acetone | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 |
| 1,1-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Methyl Iodide | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Acrylonitrile | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 |
| Dichloromethane | <5 | <5 | <5 | <5 | <5 | <5 | 10 | <5 | <5 |
| Carbon Disulfide | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trans-1,1-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1-Dichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Vinyl Acetate | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Methyl Ethyl Ketone | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 |
| Cis-1,2-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Chloroform | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Bromochloromethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,1-Trichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Carbon Tetrachloride | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Benzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dichloroporpane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Dibromomethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Bromodichloromethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 4-Methyl-2-Pentanone | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Cis-1,3-Dichloropropene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Toluene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trans-1,3-Dichloro-1-Propene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,2-Trichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 2-Hexanone | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Dibromochloromethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Tetrachloroethylene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dibromoethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Chlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,1,2-Tetrachloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Ethylbenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Xylenes (total) | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Styrene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Bromoform | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,2,2-Tetrachloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2,3-Trichloropropane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trans-1,4-Dichloro-2-Butene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,4-Dichlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dichlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dibromo-3-Chloropropane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |

ANALYT

**TABLE 1**
**Summary of Ground-Water Analytical Results**
**Winston-Salem C&D Landfill**
**MW-5R**

| Parameter | 1/17/96 | 10/24/96 | 5/13/97 | 10/30/97 | 5/5/98 | 11/6/98 | 6/2/99 | 11/20/99 | [redacted] |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | <0.005 | <0.005 | <0.005 | <0.005 | 0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| Barium | 1.00 | 0.62 | 0.33 | 0.61 | 0.82 | 0.48 | 0.24 | 0.20 | 0.20 |
| Cadmium | <0.010 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Chromium | 0.096 | 0.043 | 0.070 | 0.016 | 0.17 | 0.096 | 0.038 | 0.029 | 0.0081 |
| Lead | 0.019 | 0.020 | 0.014 | 0.031 | 0.069 | 0.029 | 0.016 | 0.0082 | <0.005 |
| Mercury | 0.0008 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| Selenium | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| Silver | <0.001 | <0.005 | <0.005 | <0.005 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Methyl Chloride | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Vinyl Chloride | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Bromomethane | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Chloroethane | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Trichlorofluoromethane | <5 | <5 | <5 | <5 | <5 | <5 | <10 | <10 | <10 |
| Acetone | <100 | <100 | <100 | <100 | <100 | [redacted] 150 | <100 | <100 | <100 |
| 1,1-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Methyl Iodide | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Acrylonitrile | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 |
| Dichloromethane | <5 | <5 | <5 | <5 | <5 | <5 | [redacted] 10 | <5 | <5 |
| Carbon Disulfide | <5 | <5 | <5 | <5 | <5 | 25 | <5 | <5 | <5 |
| Trans-1,1-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1-Dichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Vinyl Acetate | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Methyl Ethyl Ketone | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 |
| Cis-1,2-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Chloroform | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Bromochloromethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,1-Trichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Carbon Tetrachloride | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Benzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dichloroporpane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Dibromomethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Bromodichloromethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 4-Methyl-2-Pentanone | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Cis-1,3-Dichloropropene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Toluene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trans-1,3-Dichloro-1-Propene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,2-Trichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 2-Hexanone | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Dibromochloromethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Tetrachloroethylene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dibromoethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Chlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,1,2-Tetrachloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Ethylbenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Xylenes (total) | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Styrene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Bromoform | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,2,2-Tetrachloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2,3-Trichloropropane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trans-1,4-Dichloro-2-Butene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,4-Dichlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dichlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dibromo-3-Chloropropane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |

ANALYT

**TABLE 1**
**Summary of Ground-Water Analytical Results**
**Winston-Salem C&D Landfill**
**MW-6/6R**

| Parameter | 1/17/96 | 10/24/96 | 5/13/97 | 10/30/97 | 5/5/98 | 11/5/98 | 6/2/99 | 11/19/99 | [redacted] |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | ----- | <0.005 | <0.005 |
| Barium | 1.40 | 0.59 | 0.30 | 0.26 | 0.36 | 0.16 | ----- | 0.059 | 0.082 |
| Cadmium | <0.010 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | ----- | <0.001 | <0.001 |
| Chromium | 0.012 | 0.010 | 0.021 | 0.014 | 0.033 | 0.012 | ----- | 0.0028 | <0.002 |
| Lead | 0.018 | 0.011 | 0.014 | 0.014 | 0.020 | <0.005 | ----- | <0.005 | 0.0058 |
| Mercury | 0.0014 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | ----- | <0.0002 | <0.0002 |
| Selenium | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | ----- | <0.005 | <0.005 |
| Silver | <0.001 | <0.005 | <0.005 | <0.005 | <0.002 | <0.002 | ----- | <0.002 | <0.002 |
| Methyl Chloride | <10 | <10 | <10 | <10 | <10 | <10 | ----- | <10 | <10 |
| Vinyl Chloride | <10 | <10 | <10 | <10 | <10 | <10 | ----- | <10 | <10 |
| Bromomethane | <10 | <10 | <10 | <10 | <10 | <10 | ----- | <10 | <10 |
| Chloroethane | <10 | <10 | <10 | <10 | <10 | <10 | ----- | <10 | <10 |
| Trichlorofluoromethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <10 | <10 |
| Acetone | <100 | <100 | <100 | <100 | <100 | <100 | ----- | <100 | <100 |
| 1,1-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Methyl Iodide | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Acrylonitrile | <100 | <100 | <100 | <100 | <100 | <100 | ----- | <100 | <100 |
| Dichloromethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Carbon Disulfide | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Trans-1,1-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,1-Dichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Vinyl Acetate | <50 | <50 | <50 | <50 | <50 | <50 | ----- | <50 | <50 |
| Methyl Ethyl Ketone | <100 | <100 | <100 | <100 | <100 | <100 | ----- | <100 | <100 |
| Cis-1,2-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Chloroform | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Bromochloromethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,1,1-Trichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,2-Dichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Carbon Tetrachloride | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Benzene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Trichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,2-Dichloroporpane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Dibromomethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Bromodichloromethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 4-Methyl-2-Pentanone | <50 | <50 | <50 | <50 | <50 | <50 | ----- | <50 | <50 |
| Cis-1,3-Dichloropropene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Toluene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Trans-1,3-Dichloro-1-Propene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,1,2-Trichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 2-Hexanone | <50 | <50 | <50 | <50 | <50 | <50 | ----- | <50 | <50 |
| Dibromochloromethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Tetrachloroethylene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,2-Dibromoethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Chlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,1,1,2-Tetrachloroethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Ethylbenzene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Xylenes (total) | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Styrene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Bromoform | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,1,2,2-Tetrachloroethane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,2,3-Trichloropropane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| Trans-1,4-Dichloro-2-Butene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,4-Dichlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,2-Dichlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |
| 1,2-Dibromo-3-Chloropropane | <5 | <5 | <5 | <5 | <5 | <5 | ----- | <5 | <5 |

ANALYT

**TABLE 1**
**Summary of Ground-Water Analytical Results**
**Winston-Salem C&D Landfill**
**MW-7**

| Parameter | 1/17/96 | 10/24/96 | 5/13/97 | 10/30/97 | 5/5/98 | 11/6/98 | 6/2/99 | 11/20/99 | [redacted] |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.0098 | <0.005 | <0.005 |
| Barium | 1.93 | 0.97 | 0.75 | 1.8 | 1.2 | 1.3 | 0.96 | 0.39 | 0.36 |
| Cadmium | <0.010 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Chromium | 0.028 | 0.021 | 0.18 | 0.41 | 0.43 | 0.35 | 0.19 | 0.062 | 0.0025 |
| Lead | 0.017 | 0.006 | 0.023 | 0.053 | 0.038 | 0.036 | 0.03 | 0.012 | 0.0087 |
| Mercury | 0.0014 | 0.0004 | <0.0002 | 0.0002 | <0.002 | <0.002 | <0.0002 | <0.0002 | <0.0002 |
| Selenium | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| Silver | <0.001 | <0.005 | <0.005 | <0.005 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 |
| Methyl Chloride | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Vinyl Chloride | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Bromomethane | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Chloroethane | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Trichlorofluoromethane | <5 | <5 | <5 | <5 | <5 | <5 | <10 | <10 | <10 |
| Acetone | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 |
| 1,1-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Methyl Iodide | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Acrylonitrile | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 |
| Dichloromethane | <5 | <5 | <5 | <5 | <5 | <5 | 10 | <5 | <5 |
| Carbon Disulfide | <5 | <5 | <5 | <5 | <5 | 9 | <5 | <5 | <5 |
| Trans-1,1-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1-Dichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Vinyl Acetate | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Methyl Ethyl Ketone | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 |
| Cis-1,2-Dichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Chloroform | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Bromochloromethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,1-Trichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Carbon Tetrachloride | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Benzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trichloroethene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dichloroporpane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Dibromomethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Bromodichloromethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 4-Methyl-2-Pentanone | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Cis-1,3-Dichloropropene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Toluene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trans-1,3-Dichloro-1-Propene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,2-Trichloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 2-Hexanone | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| Dibromochloromethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Tetrachloroethylene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dibromoethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Chlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,1,2-Tetrachloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Ethylbenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Xylenes (total) | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Styrene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Bromoform | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,1,2,2-Tetrachloroethane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2,3-Trichloropropane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| Trans-1,4-Dichloro-2-Butene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,4-Dichlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dichlorobenzene | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 1,2-Dibromo-3-Chloropropane | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |

ANALYT

# PERIMETER GAS PROBE MONITORING
# FIELD DATA FORM

FORM 1

| | | | |
|---|---|---|---|
| Date: 5-6-2000 | Inspectors: J. Isham | Site Name: Old Salisbury Road C&D Landfill | Instrument (%)-S/No.: Gas Port<br>Instrument (%)-M/No.: |

Temperature @ Start: 68° F  Weather: Cloudy, Warm, Rain Likely

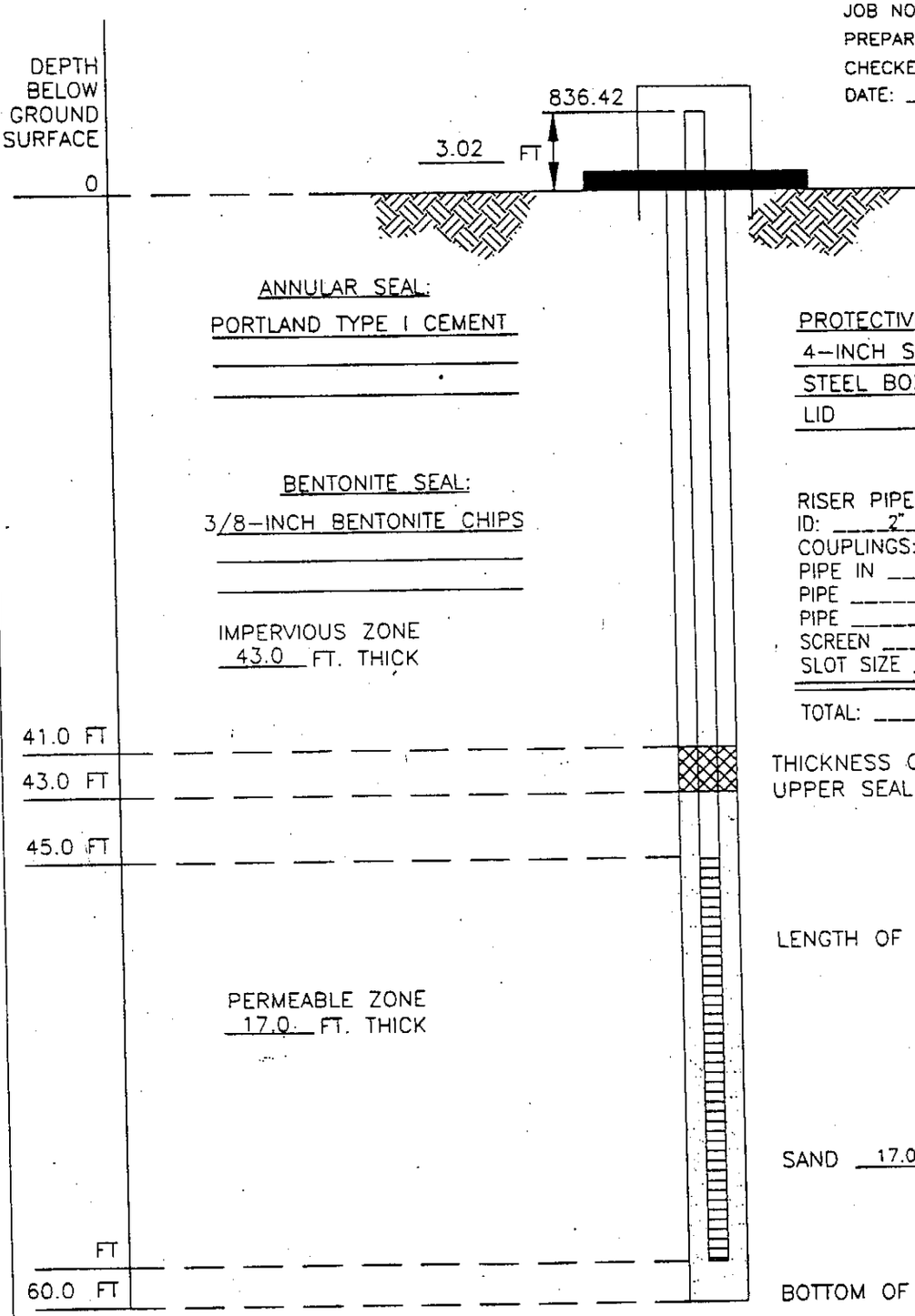
Temperature @ End: 65° F  Barometric Pressure: NA

Legend: T = Trace  CO = Carbon monoxide
W = Water  NA = No reading taken
ppm = Parts per million
LEL = Lower explosive limit

| MM # | Time | Static Pressure | Methane (%/ppm) | Oxygen (%) | Acceptable Reading (Yes or No) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 0930 | NA | 0 / 0 | NA | Yes | 0% LEL, 1 ppm CO |
| 2S | 0914 | NA | 0 / 0 | NA | Yes | 0% LEL, 0 ppm CO |
| 2D | 0917 | NA | 0 / 0 | NA | Yes | 0% LEL, 1 ppm CO |
| 3 | 1200 | NA | 0 / 120 | NA | Yes | 0% LEL, 1 ppm CO |
| 4S | 1142 | NA | 0 / 100 | NA | Yes | 0% LEL, 0 ppm CO |
| 4D | 1145 | NA | 0 / 0 | NA | Yes | 0% LEL, 2 ppm CO |
| 5 | 1230 | NA | 0 / 0 | NA | Yes | 0% LEL, 1 ppm CO |
| 6 | 1130 | NA | 0 / 0 | NA | Yes | 0% LEL, 1 ppm CO |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

# MONITORING WELL INSTALLATION DIAGRAM

LOCATION: WINSTON-SALEM C&D
WELL NO.: MW-1R
BORING NO.:
JOB NO.: 00162-082-018
PREPARED BY: J. ISHAM
CHECKED BY:
DATE: 12/27/95




PROTECTIVE METAL CASING
4-INCH SQUARE SILVER STEEL BOX WITH LOCKING LID

RISER PIPE: SCHEDULE 40
ID: 2" OD:
COUPLINGS: THREADED
PIPE IN 10.0 FT. LENGTHS
PIPE 1-8.0 FT
PIPE 4-10.0 FT
SCREEN 15.0 FT
SLOT SIZE 0.010 IN
TOTAL: 63.0 FT

THICKNESS OF UPPER SEAL 2.0 FT

LENGTH OF SCREEN 15.0 FT

SAND 17.0 FT

BOTTOM OF BORING

REMARKS: ALL MEASUREMENTS TO THE NEAREST 0.1 FT.

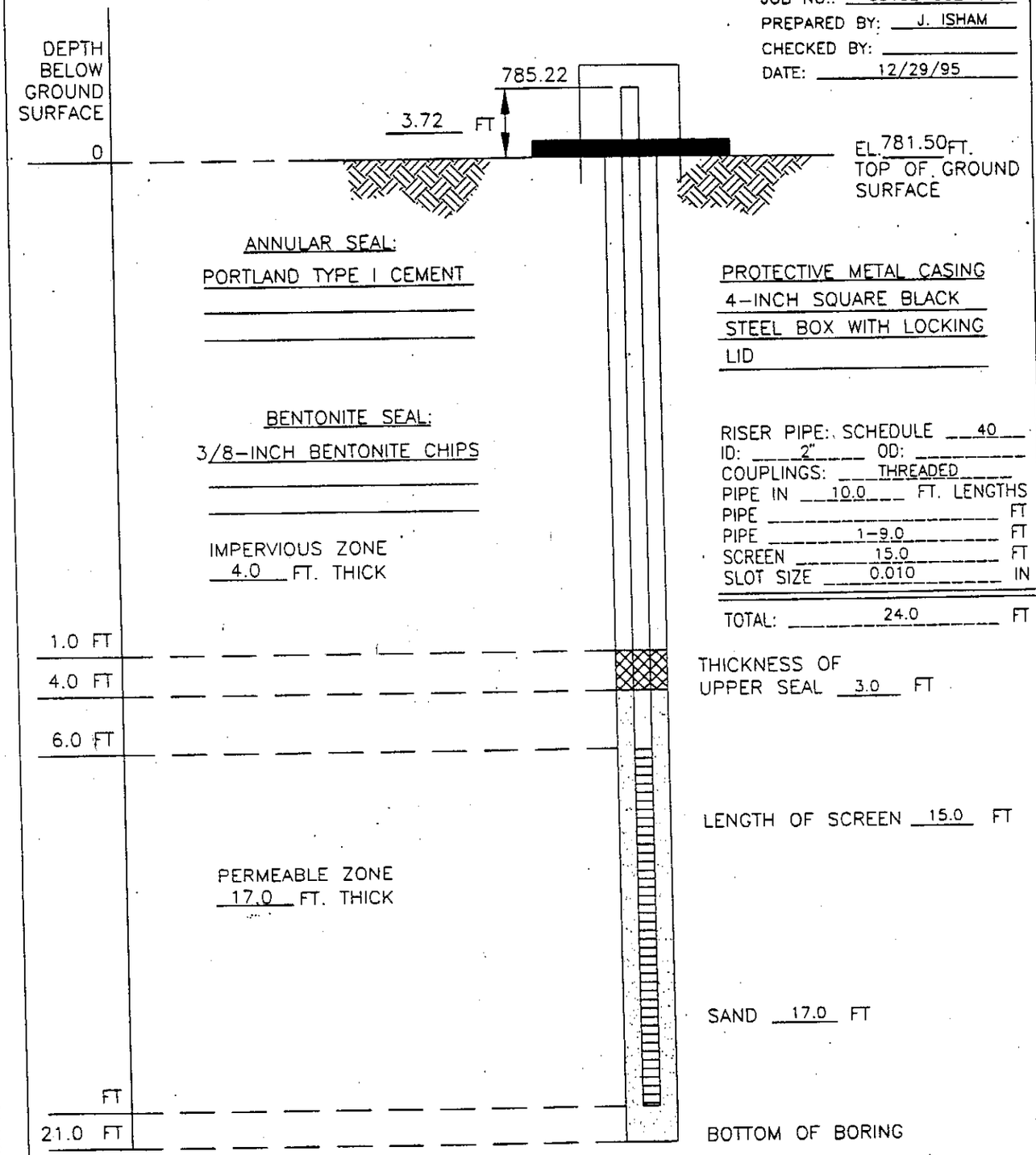
HDR

HDR Engineering, Inc.

FILENAME: MONITOR

# MONITORING WELL INSTALLATION DIAGRAM

LOCATION: WINSTON-SALEM C&D
WELL NO.: MW-2R
BORING NO.:
JOB NO.: 00162-082-018
PREPARED BY: J. ISHAM
CHECKED BY:
DATE: 12/29/95




REMARKS: ALL MEASUREMENTS TO THE NEAREST 0.1 FT.

HDR

HDR Engineering, Inc.

FILENAME: MONITOR

**Project No:** 00162-090-018

**Project:** Winston-Salem C&D Landfill

**Client:** City of Winston-Salem

**Location:** Old Salisbury Road

## *Geologist Log B-3R (MW-3R)*

**Ground Elevation:** 772.9' MSL

**Geologist:** John R. Isham, PG.

HDR

| SUBSURFACE PROFILE | | | | SAMPLE | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Depth | Symbol | Description | Depth/Elev. | Number | Type | Blows/ft | Recovery | Shear Strength blows/ft 20 40 60 80 | Well Data | Remarks |
| 0 | | Ground Surface | 0 | | | | | | | |
| | | ***RESIDUUM*** Dark to medium brown, micaceous silty clayey sand, slightly plastic, slightly moist, organics mixed, rooted. | 773 / 1 / 772 | | | | | | | |
| 1–6 | | ***CLAYEY SAND (SC)*** Orange-brown to tan, micaceous clayey sand, fine to medium-grained, some quartz granules, slightly plastic, moist. | | 1 | | 8 | 40% | | | Portland Type I Cement with 3% Bentonite |
| 7 | | | 7 / 766 | | | | | | | 3/8-inch Bentonite Chips |
| 10–17 | | ***SANDY CLAY (CL)*** Gray, soft, plastic, micaceous, mottled with orange-brown iron oxide staining, medium to coarse-grained quartz grains, very moist. | | 2 | | 5 | 40% | | | Old Creek Deposits |
| 15–16 | | | | 3 | | 8 | 40% | | | |
| 17 | | | 17.5 / 755 | | | | | | | Granitic Saprolite |
| 18–20 | | | | | | | | | | |

Drilled By: Engineering Tectonics, PA.

Drill Method: 4.25-inch ID HSA

Drill Date: July 7, 1999

HDR Engineering, Inc. of the Carolinas
128 S. Tryon Street
Suite 1400
Charlotte, NC. 28202

Hole Size 8-inch Diameter

Top-of-Casing 776.6' MSL

Sheet: 1 of 2

**Project No:** 00162-090-018

**Project:** Winston-Salem C&D Landfill

**Client:** City of Winston-Salem

**Location:** Old Salisbury Road

## *Geologist Log B-3R (MW-3R)*

**Ground Elevation:** 772.9' MSL

**Geologist:** John R. Isham, PG.

HDR

| SUBSURFACE PROFILE | | | | SAMPLE | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Depth | Symbol | Description | Depth/Elev. | Number | Type | Blows/ft | Recovery | Shear Strength blows/ft 20 40 60 80 | Well Data | Remarks |
| 21 | | | | 4 | | 9 | 50% | | | 2-inch Diameter SCH 40 PVC 0.010-inch Slots |
| 22 | | ***SILTY SAND (SM)*** Gray, white, and black, micaceous, medium-dense, fine to medium-grained, mottled with iron oxide staining, weak mineral alignment, very moist. | | | | | | | | |
| 23 | | | | | | | | | | |
| 24 | | | | | | | | | | |
| 25 | | | | 5 | | 18 | 50% | | | |
| 26 | | | | | | | | | | |
| 27 | | End of Borehole | 27 / 746 | | | | | | | |
| 28 | | | | | | | | | | |
| 29 | | | | | | | | | | |
| 30 | | | | | | | | | | |
| 31 | | | | | | | | | | |
| 32 | | | | | | | | | | |
| 33 | | | | | | | | | | |
| 34 | | | | | | | | | | |
| 35 | | | | | | | | | | |
| 36 | | | | | | | | | | |
| 37 | | | | | | | | | | |
| 38 | | | | | | | | | | |
| 39 | | | | | | | | | | |
| 40 | | | | | | | | | | |

Drilled By: Engineering Tectonics, PA.

Drill Method: 4.25-inch ID HSA

Drill Date: July 7, 1999

HDR Engineering, Inc. of the Carolinas
128 S. Tryon Street
Suite 1400
Charlotte, NC. 28202

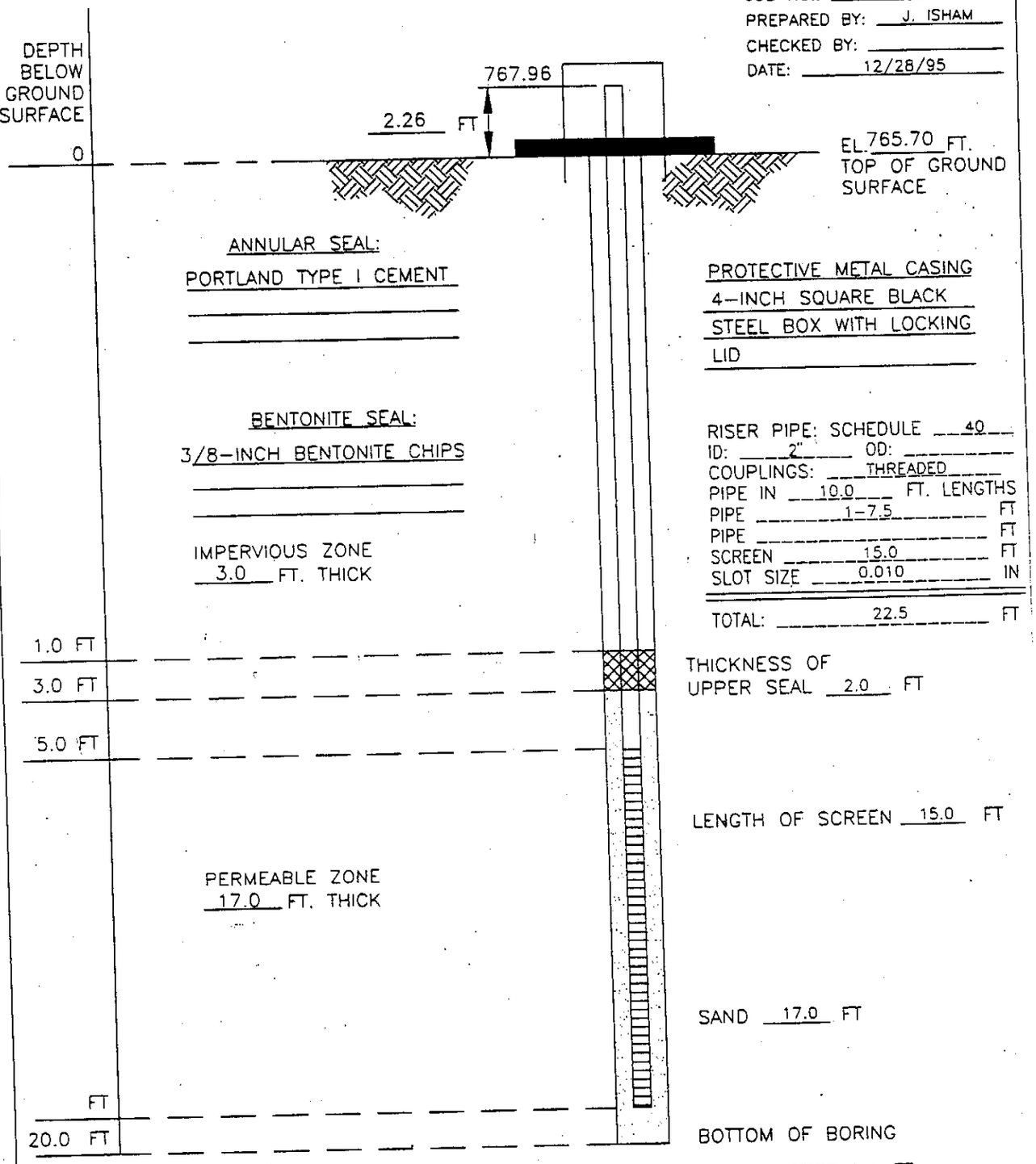
Hole Size 8-inch Diameter

Top-of-Casing 776.6' MSL

Sheet: 2 of 2

# MONITORING WELL INSTALLATION DIAGRAM

LOCATION: WINSTON-SALEM C&D
WELL NO.: MW-4R
BORING NO.:
JOB NO.: 00162-082-018
PREPARED BY: J. ISHAM
CHECKED BY:
DATE: 12/28/95




REMARKS: ALL MEASUREMENTS TO THE NEAREST 0.1 FT.

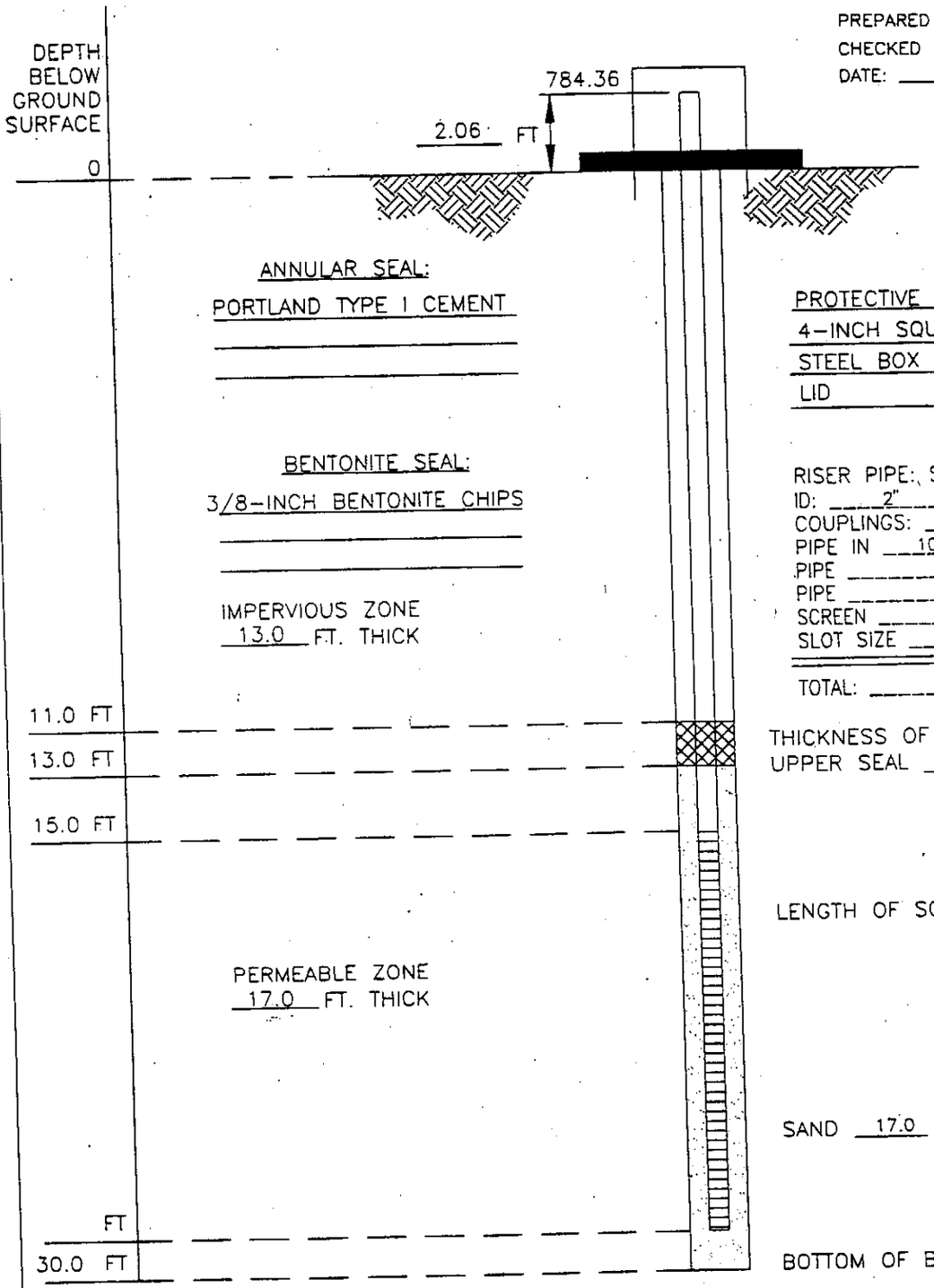
HDR

HDR Engineering, Inc.

FILENAME: MONITOR

# MONITORING WELL INSTALLATION DIAGRAM

LOCATION: WINSTON-SALEM C&D
WELL NO.: MW-5R
BORING NO.:
JOB NO.: 00162-082-018
PREPARED BY: J. ISHAM
CHECKED BY:
DATE: 12/29/95




PROTECTIVE METAL CASING
4-INCH SQUARE BLACK STEEL BOX WITH LOCKING LID

RISER PIPE: SCHEDULE 40
ID: 2" OD:
COUPLINGS: THREADED
PIPE IN 10.0 FT. LENGTHS
PIPE 1-7.5 FT
PIPE 1-10.0 FT
SCREEN 15.0 FT
SLOT SIZE 0.010 IN
TOTAL: 32.5 FT

THICKNESS OF UPPER SEAL 2.0 FT

LENGTH OF SCREEN 15.0 FT

SAND 17.0 FT

BOTTOM OF BORING

REMARKS: ALL MEASUREMENTS TO THE NEAREST 0.1 FT.

HDR

HDR Engineering, Inc.

FILENAME: MONITOR

**Project No:** 00162-090-018

**Project:** Winston-Salem C&D Landfill

**Client:** City of Winston-Salem

**Location:** Old Salisbury Road

# *Geologist Log B-6R (MW-6R)*

**Ground Elevation:** 817.8' MSL

**Geologist:** John R. Isham, PG.

HDR

| SUBSURFACE PROFILE | | | | SAMPLE | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Depth | Symbol | Description | Depth/Elev. | Number | Type | Blows/ft | Recovery | Shear Strength blows/ft 20 40 60 80 | Well Data | Remarks |
| | | Ground Surface | 0 / 818 | | | | | | | |
| 0–3 | | ***RESIDUUM*** Tan to light brown sandy loam. | | | | | | | | |
| 3–4 | | ***SANDY SILT (ML)*** Orange-brown, micaceous, fine-grained quartz grains, dry. | 3.5 / 814 | | | | | | | |
| 5–6 | | | | 1 | | 8 | 60% | | | |
| 10–11 | | | | 2 | | 7 | 75% | | | Portland Type I Cement with 3% Bentonite |
| 12–20 | | ***SILTY SAND (SM)*** Tan to yellow-brown, micaceous, fine to coarse-grained quartz grains, weak mineral alignment (horizontal), iron oxide staining, mottled, dry. | | | | | | | | |
| 15–16 | | | | 3 | | 8 | 75% | | | |

Drilled By: Engineering Tectonics, PA.

Drill Method: 4.25-inch ID HSA

Drill Date: July 8, 1999

HDR Engineering, Inc. of the Carolinas
128 S. Tryon Street
Suite 1400
Charlotte, NC. 28202

Hole Size 8-inch Diameter

Top-of-Casing 820.4' MSL

Sheet: 1 of 3

**Project No:** 00162-090-018

**Project:** Winston-Salem C&D Landfill

**Client:** City of Winston-Salem

**Location:** Old Salisbury Road

## *Geologist Log B-6R (MW-6R)*

**Ground Elevation:** 817.8' MSL

**Geologist:** John R. Isham, PG.

HDR

| SUBSURFACE PROFILE | | | | SAMPLE | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Depth | Symbol | Description | Depth/Elev. | Number | Type | Blows/ft | Recovery | Shear Strength blows/ft (20 40 60 80) | Well Data | Remarks |
| 21 | | ***SILTY SAND (SM)*** Tan to yellow-brown, micaceous, fine to coarse-grained quartz grains, weak mineral alignment (horizontal), iron oxide staining, mottled, dry. | | 4 | | 12 | 80% | | | |
| 22 | | | | | | | | | | |
| 23 | | | 23 / 795 | | | | | | | |
| 24 | | | | | | | | | | Granitic Saprolite |
| 25 | | | | | | | | | | |
| 26 | | | | 5 | | 15 | 75% | | | |
| 27 | | | | | | | | | | |
| 28 | | ***SILTY SAND (SM)*** Same as above, becoming mixed with partially weathered rock lenses, dry. | | | | | | | | |
| 29 | | | | | | | | | | |
| 30 | | | | | | | | | | Portland Type I Cement with 3% Bentonite |
| 31 | | | | 6 | | 27 | 75% | | | |
| 32 | | | | | | | | | | |
| 33 | | | | | | | | | | |
| 34 | | ***SILTY SAND w/ GRAVEL*** White, to light gray and tan, micacous, mottled with iron oxide staining, fine to coarse-grained quartz, feldspar, mica, weak foliation as mineral alighment, dry. | 34 / 784 | | | | | | | |
| 35 | | | | | | | | | | |
| 36 | | | | 7 | | 48 | 85% | | | |
| 37 | | | | | | | | | | |
| 38 | | | | | | | | | | |
| 39 | | | | | | | | | | |
| 40 | | | | | | | | | | |

Drilled By: Engineering Tectonics, PA.

Drill Method: 4.25-inch ID HSA

Drill Date: July 8, 1999

HDR Engineering, Inc. of the Carolinas
128 S. Tryon Street
Suite 1400
Charlotte, NC. 28202

Hole Size 8-inch Diameter

Top-of-Casing 820.4' MSL

**Project No:** 00162-090-018

**Project:** Winston-Salem C&D Landfill

**Client:** City of Winston-Salem

**Location:** Old Salisbury Road

## *Geologist Log B-6R (MW-6R)*

**Ground Elevation:** 817.8' MSL

**Geologist:** John R. Isham, PG.

HDR

| SUBSURFACE PROFILE | | | | SAMPLE | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Depth | Symbol | Description | Depth/Elev. | Number | Type | Blows/ft | Recovery | Shear Strength blows/ft 20 40 60 80 | Well Data | Remarks |
| 41 | | ***SILTY SAND w/ GRAVEL*** White, to light gray and tan, micacous, mottled with iron oxide staining, fine to coarse-grained quartz, feldspar, mica, weak foliation as mineral alighment, dry. | | 8 | | 84 | 75% | | | 3/8-inch Bentonite Chips |
| 42 | | | | | | | | | | |
| 43 | | | | | | | | | | #2 Silica Sand Pack |
| 44 | | | | | | | | | | |
| 45 | | | | 9 | | 90 | 10% | | | |
| 46 | | | | | | | | | | |
| 47 | | | | | | | | | | |
| 48 | | ***PWR*** Gray, white and tan, micacous granite saprolite with partially weathered rock lenses, fine to coarse-grained. | 48 770 | | | | | | | Partially Weathered Rock @ 48' |
| 49 | | | | | | | | | | |
| 50 | | | | | | | | | | |
| 51 | | | 51 767 | 10 | | 90 | 1% | | | Auger Refusal @ 51' |
| 52 | | | | | G | | | | | |
| 53 | | | | | G | | | | | |
| 54 | | | | | G | | | | | 2-inch Diameter SCH 40 PVC 0.010-inch Slots |
| 55 | | ***PWR*** As above, visual identification based on cuttings from air hammer drilling from 51 to 60'. | | 11 | G | | | | | |
| 56 | | | | | G | | | | | |
| 57 | | | | | G | | | | | |
| 58 | | | | | G | | | | | |
| 59 | | | | | G | | | | | |
| 60 | | | 60 758 | | G | | | | | |

Drilled By: Engineering Tectonics, PA.

Drill Method: 4.25-inch ID HSA

Drill Date: July 8, 1999

HDR Engineering, Inc. of the Carolinas
128 S. Tryon Street
Suite 1400
Charlotte, NC. 28202

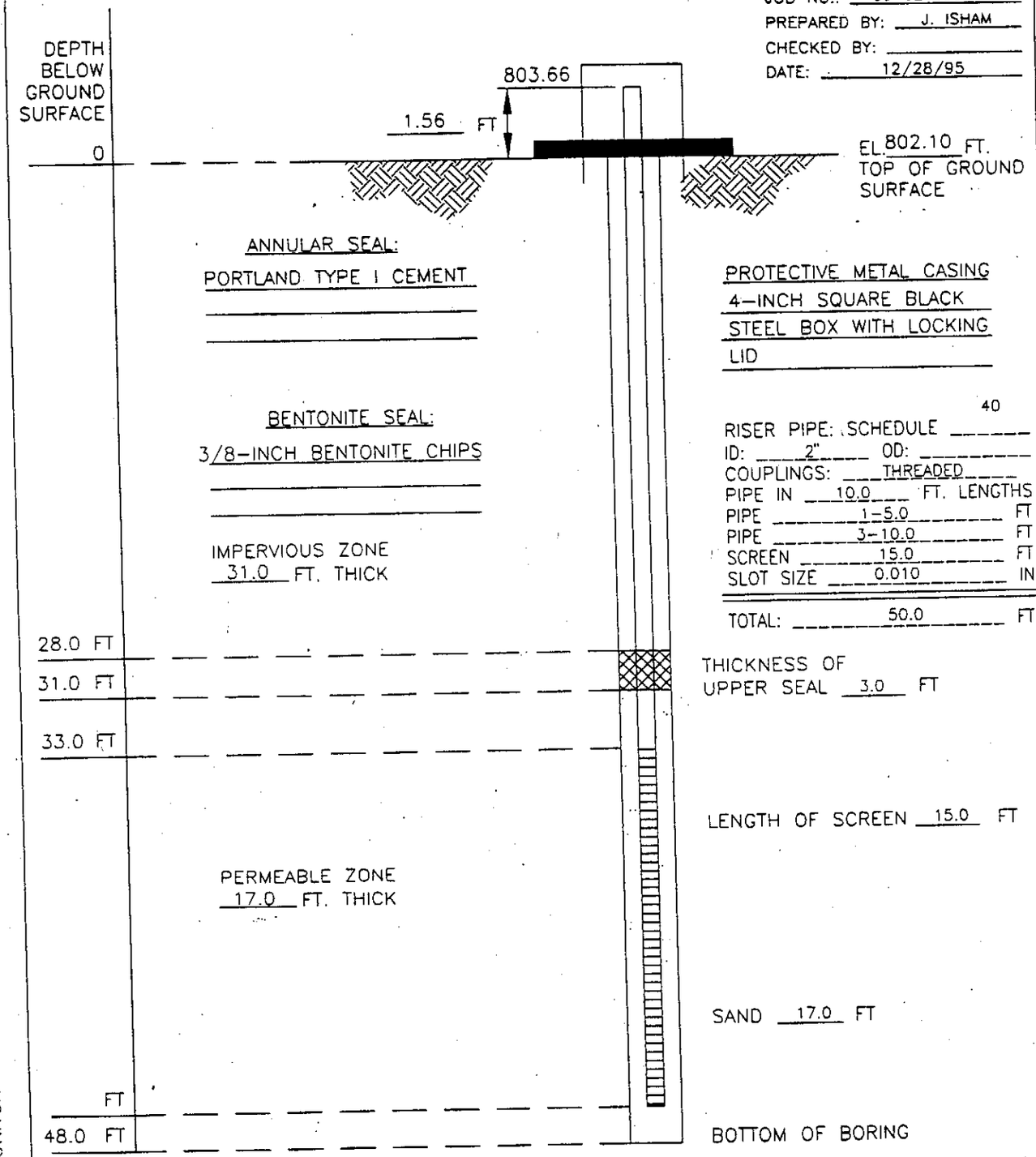
Hole Size 8-inch Diameter

Top-of-Casing 820.4' MSL

Sheet: 3 of 3

# MONITORING WELL INSTALLATION DIAGRAM

LOCATION: WINSTON-SALEM C&D
WELL NO.: MW-7
BORING NO.:
JOB NO.: 00162-082-018
PREPARED BY: J. ISHAM
CHECKED BY:
DATE: 12/28/95



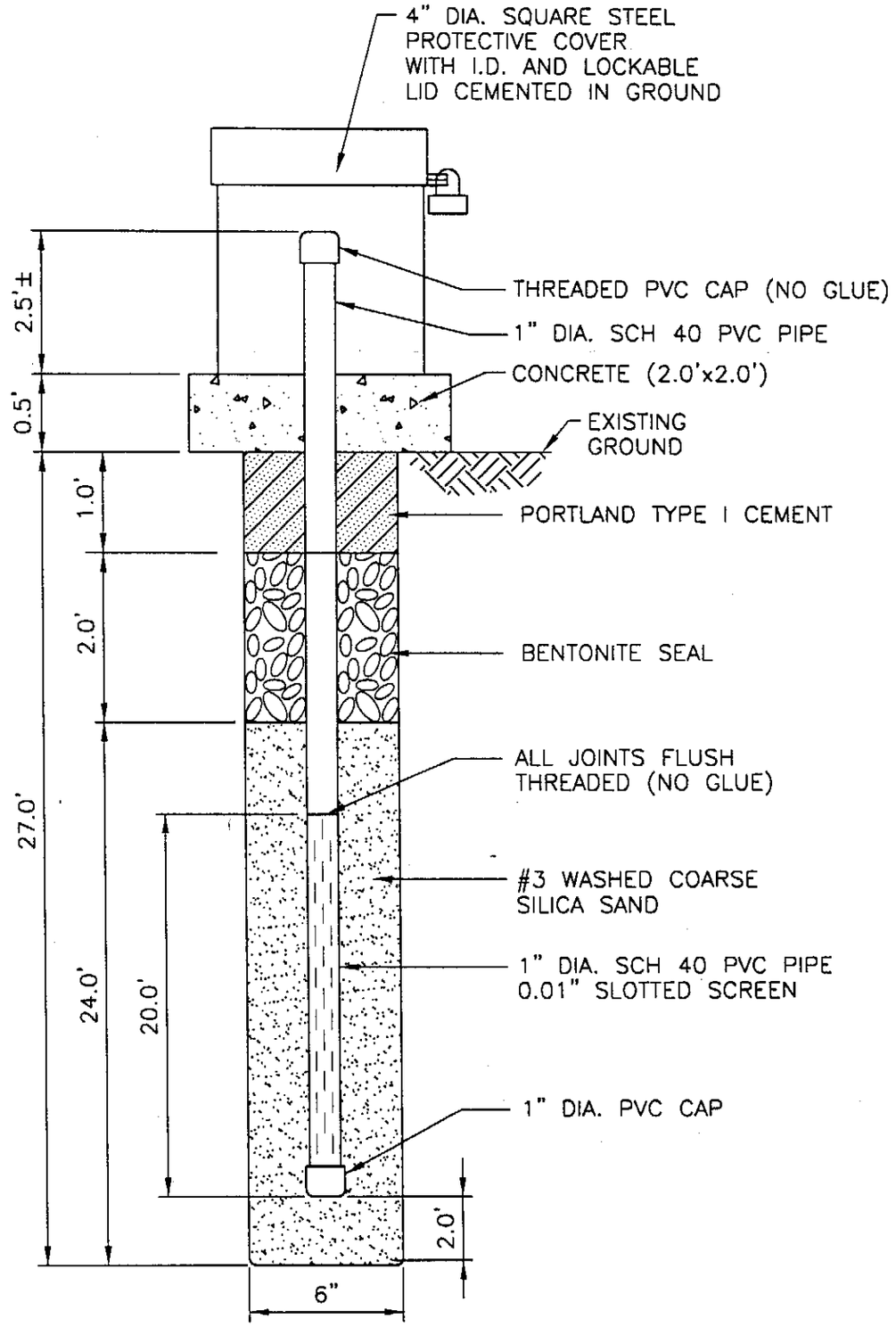

RISER PIPE: SCHEDULE 40
ID: 2" OD:
COUPLINGS: THREADED
PIPE IN 10.0 FT. LENGTHS
PIPE 1-5.0 FT
PIPE 3-10.0 FT
SCREEN 15.0 FT
SLOT SIZE 0.010 IN
TOTAL: 50.0 FT

REMARKS: ALL MEASUREMENTS TO THE NEAREST 0.1 FT.

HDR

HDR Engineering, Inc.

FILENAME: MONITOR




NO SCALE

MM-1

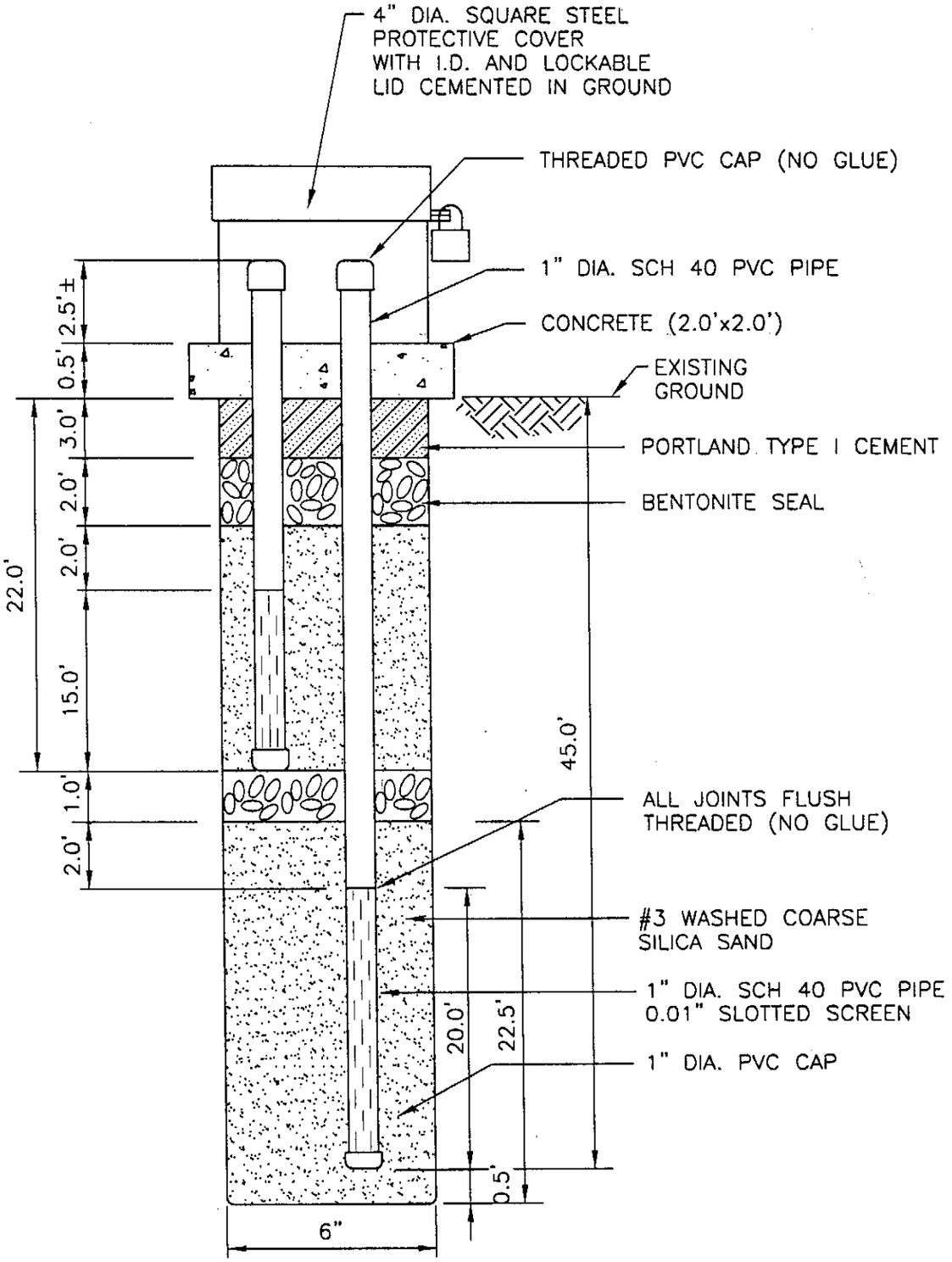
HDR
HDR Engineering, Inc. of the Carolinas
Suite 1400
128 S. Tryon Street
Charlotte, NC 28202-5001
(704) 338-1800

# OLD SALISBURY ROAD C & D LANDFILL METHANE MONITORING PROBE DETAIL

Date 9/1999

Figure 1

P:\WINSLCD\METH-F1.DWG




NO SCALE

MM-2S/2D

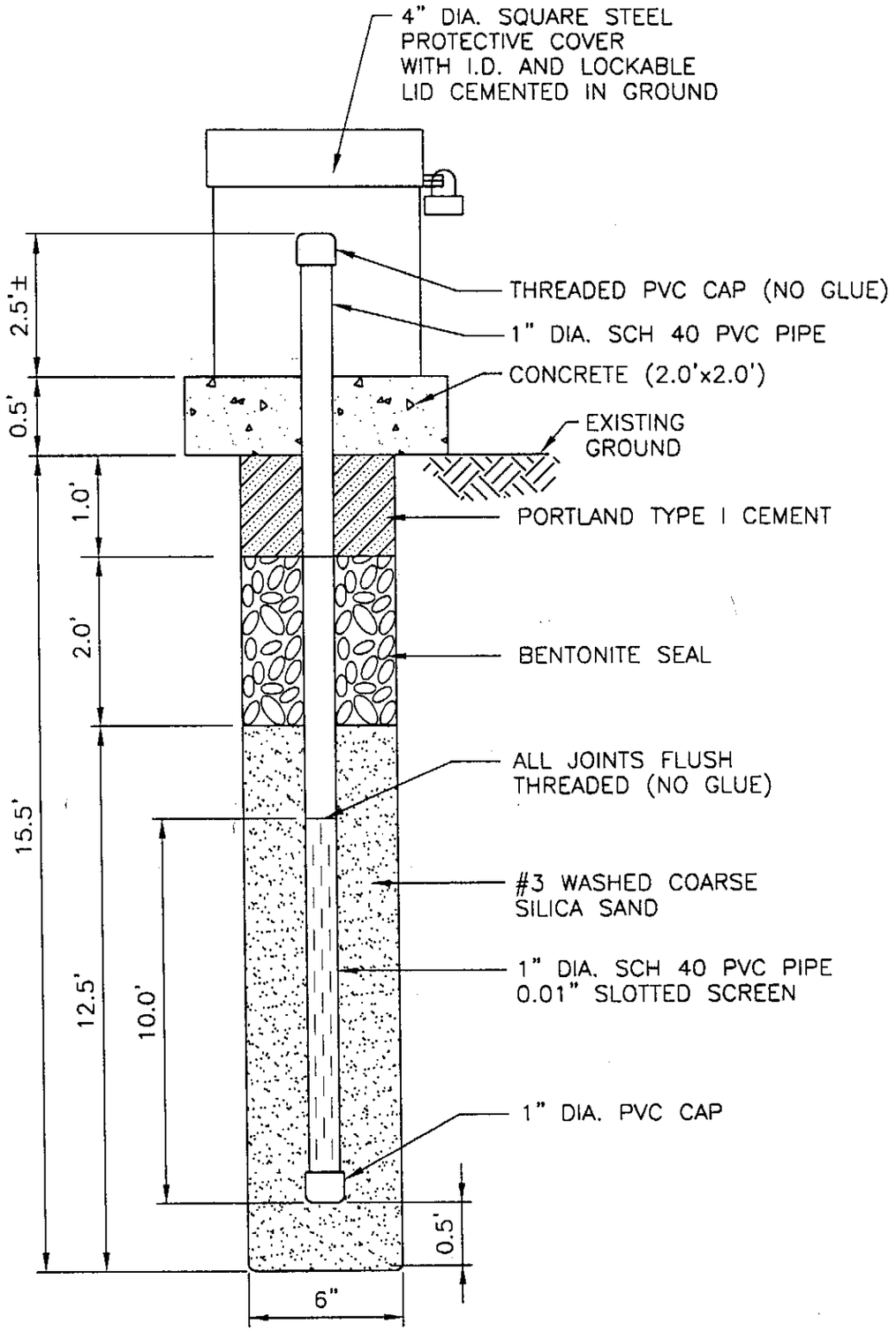
HDR Engineering, Inc. of the Carolinas
Suite 1400
128 S. Tryon Street
Charlotte, NC 28202-5001
(704) 336-1800

# OLD SALISBURY ROAD C & D LANDFILL METHANE MONITORING PROBE DETAIL

Date 9/1999

Figure 2

P:\WINSL-CD\METH-F2.DWG




NO SCALE

MM-3

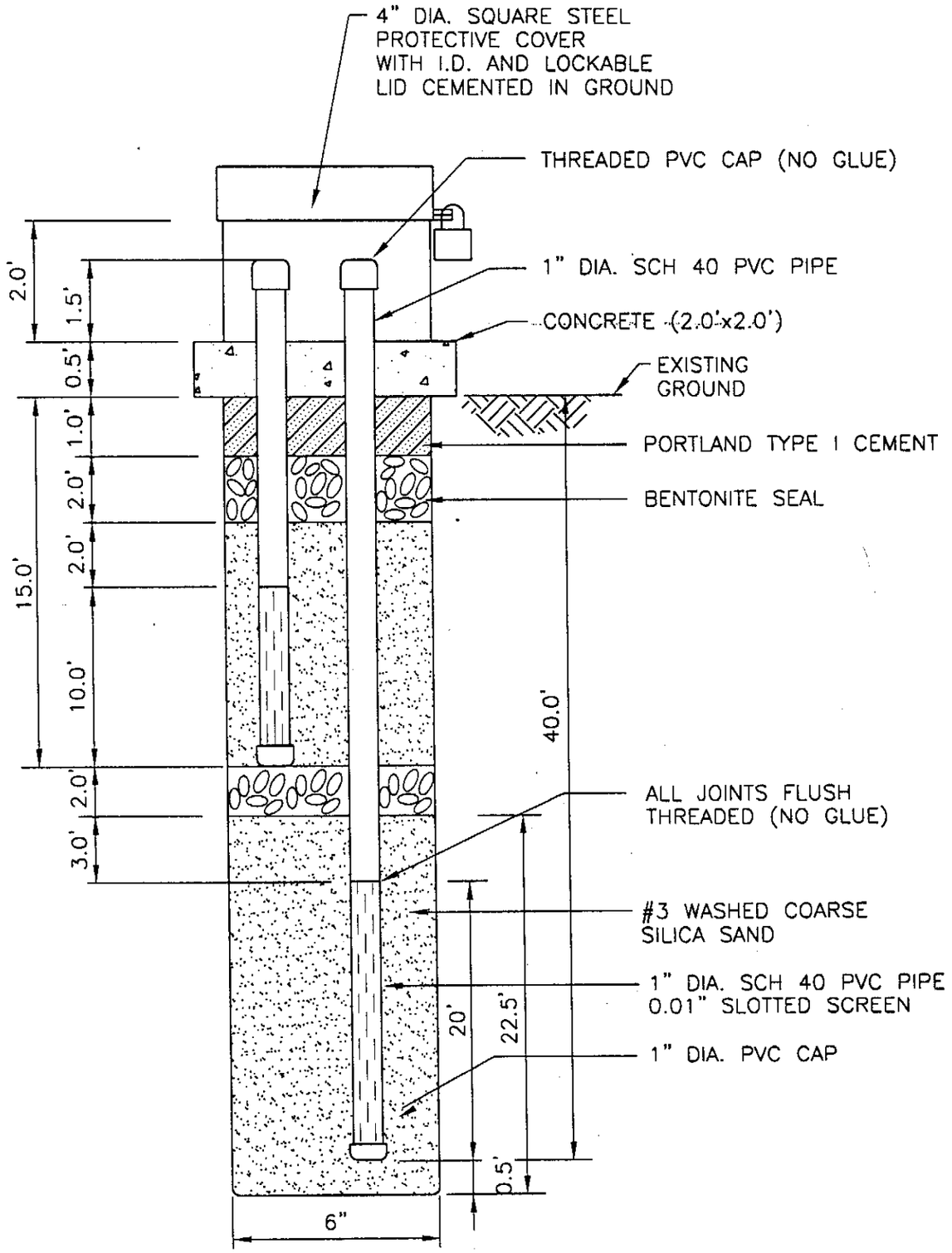
HDR Engineering, Inc. of the Carolinas
Suite 1400
128 S. Tryon Street
Charlotte, NC 28202-5001
(704) 338-1800

# OLD SALISBURY ROAD C & D LANDFILL METHANE MONITORING PROBE DETAIL

Date 9/1999

Figure 3

P:\WINSLCD\METH-F3.DWG




NO SCALE

MM-4S/4D

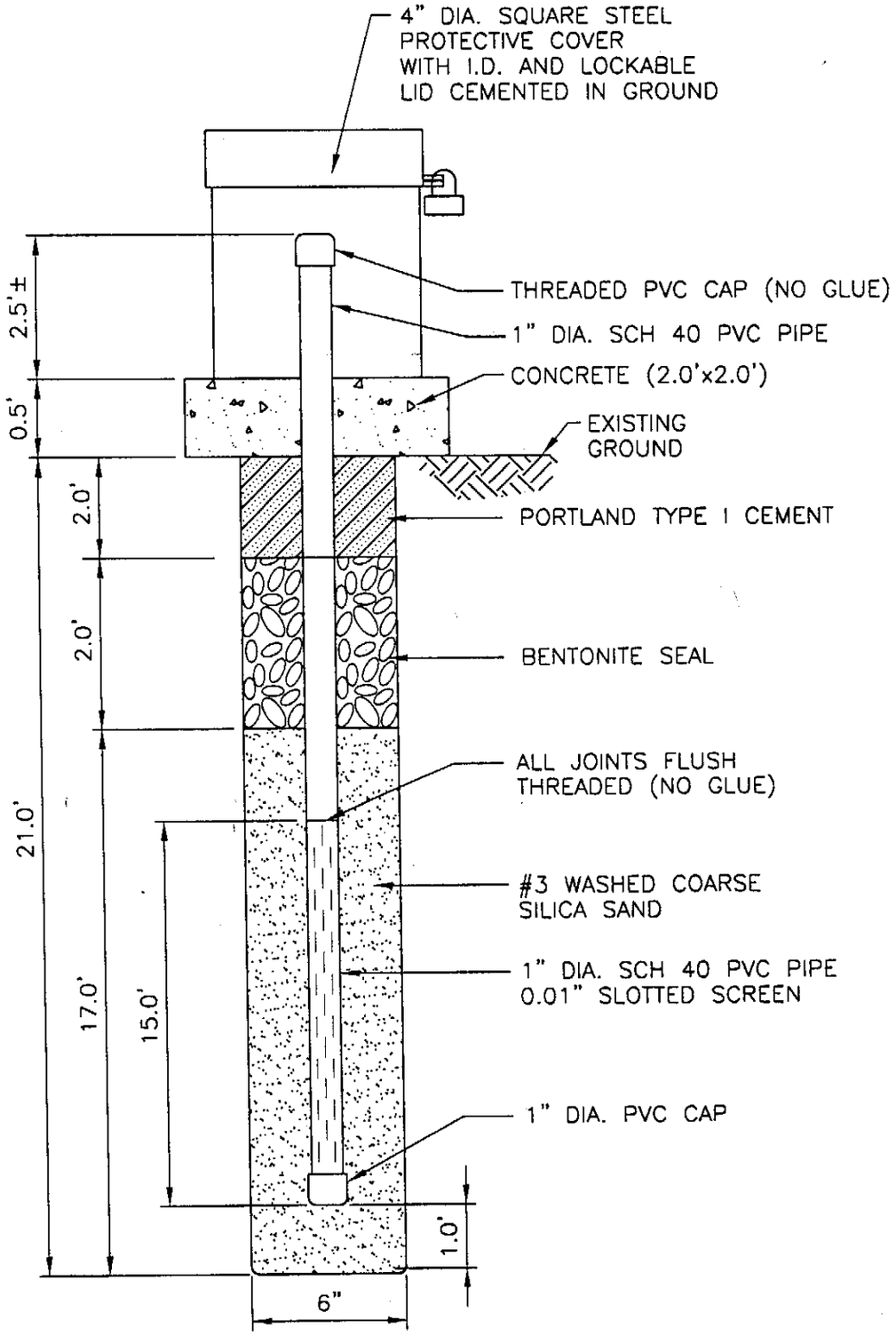
HDR Engineering, Inc. of the Carolinas
Suite 1400
128 S. Tryon Street
Charlotte, NC 28202-5001
(704) 338-1800

# OLD SALISBURY ROAD C & D LANDFILL METHANE MONITORING PROBE DETAIL

Date 9/1999

Figure 4

P:\WINSL-CD\METH-F4.DWG




NO SCALE

MM-5

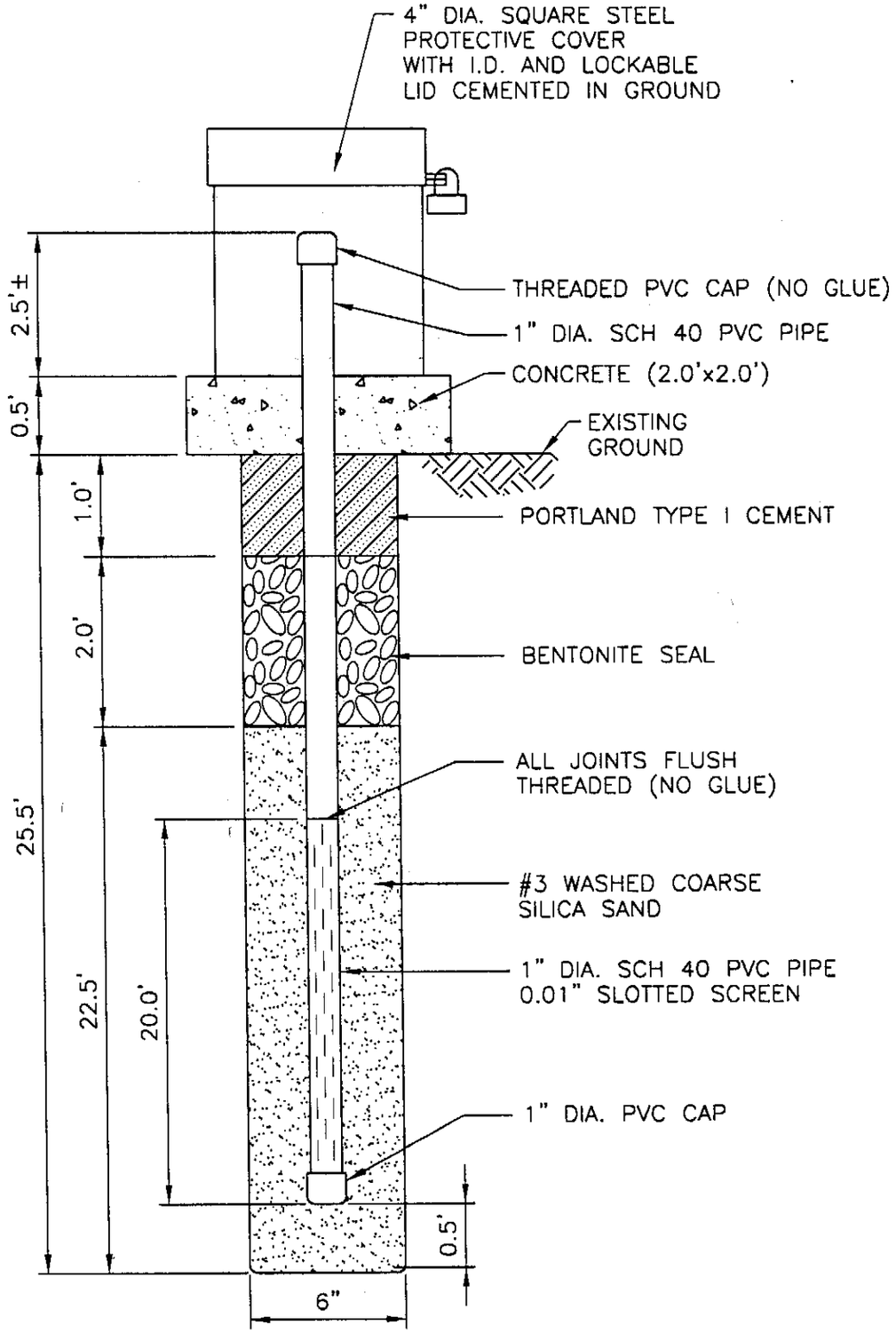
HDR Engineering, Inc. of the Carolinas
Suite 1400
128 S. Tryon Street
Charlotte, NC 28202-5001
(704) 338-1800

# OLD SALISBURY ROAD C & D LANDFILL METHANE MONITORING PROBE DETAIL

Date 9/1999

Figure 5

P:\WINSLCD\METH-F5.DWG




NO SCALE

MM-6

HDR Engineering, Inc. of the Carolinas
Suite 1400
128 S. Tryon Street
Charlotte, NC 28202-5001
(704) 338-1800

# OLD SALISBURY ROAD C & D LANDFILL METHANE MONITORING PROBE DETAIL

Date 9/1999

Figure 6

P:\WINSLCD\METH-F6.DWG

Pace Analytical™

**Pace Analytical Services, Inc.**
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078

Phone: 704.875.9092
Fax: 704.875.9091

RECEIVED
JUN 16 2000
HDR ENGINEERING, INC
OF THE CAROLINAS

June 14, 2000

Mr. John Isham
HDR Engineering
128 South Tryon Street
Suite 1400
Charlotte, NC 28202

RE: Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

Dear Mr. Isham:

Enclosed are the results of analyses for sample(s) received by the laboratory on June 5, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

for Bonnie Hervey
Project Manager

Enclosures

**Pace Analytical Services, Inc.**
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

DATE: 06/14/00


HDR Engineering
128 South Tryon Street
Suite 1400
Charlotte, NC 28202

Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

Attn: Mr. John Isham
Phone: (704)338-1800

Solid results are reported on a dry weight basis

Pace Sample No: 921025680 Date Collected: 06/05/00 Matrix: Water
Client Sample ID: MW-1R Date Received: 06/05/00

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| **Metals** | | | | | | | |
| Metals by Trace ICP | Method: EPA 6010 | | | | Prep Method: EPA 3010 | | |
| Arsenic | ND | mg/l | 0.005 | 06/13/00 | RWF | 7440-38-2 | |
| Barium | 0.11 | mg/l | 0.005 | 06/13/00 | RWF | 7440-39-3 | |
| Cadmium | ND | mg/l | 0.001 | 06/13/00 | RWF | 7440-43-9 | |
| Chromium | ND | mg/l | 0.002 | 06/13/00 | RWF | 7440-47-3 | |
| Lead | ND | mg/l | 0.005 | 06/13/00 | RWF | 7439-92-1 | |
| Selenium | ND | mg/l | 0.005 | 06/13/00 | RWF | 7782-49-2 | |
| Silver | ND | mg/l | 0.002 | 06/13/00 | RWF | 7440-22-4 | |
| Date Digested | | | | 06/08/00 | | | |
| Mercury, CVAAS, in Water | Method: EPA 7470 | | | | Prep Method: EPA 7470 | | |
| Mercury | ND | mg/l | 0.0002 | 06/12/00 | AST | 7439-97-6 | |
| **GC/MS Volatiles** | | | | | | | |
| GC/MS VOCs by 8260 | Method: EPA 8260 | | | | Prep Method: EPA 8260 | | |
| Chloromethane | ND | ug/l | 10 | 06/06/00 | CBD | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 06/06/00 | CBD | 75-01-4 | |
| Bromomethane | ND | ug/l | 10 | 06/06/00 | CBD | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 06/06/00 | CBD | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 06/06/00 | CBD | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 06/06/00 | CBD | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 06/06/00 | CBD | 107-13-1 | |
| Methylene Chloride | ND | ug/l | 5 | 06/06/00 | CBD | 75-09-2 | |
| Carbon Disulfide | ND | ug/l | 5 | 06/06/00 | CBD | 75-15-0 | |

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

**REPORT OF LABORATORY ANALYSIS**

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

**Pace Analytical Services, Inc.**
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091



Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

Pace Sample No: 921025680 Date Collected: 06/05/00 Matrix: Water
Client Sample ID: MW-1R Date Received: 06/05/00

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 06/06/00 | CBD | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 06/06/00 | CBD | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 06/06/00 | CBD | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 06/06/00 | CBD | 56-23-5 | |
| Benzene | ND | ug/l | 5 | 06/06/00 | CBD | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 75-27-4 | |
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 06/06/00 | CBD | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 06/06/00 | CBD | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 06/06/00 | CBD | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 06/06/00 | CBD | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 06/06/00 | CBD | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 06/06/00 | CBD | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 108-90-7 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 630-20-6 | |
| Ethylbenzene | ND | ug/l | 5 | 06/06/00 | CBD | 100-41-4 | |
| m&p-Xylene | ND | ug/l | 10 | 06/06/00 | CBD | 7816-60-0 | |
| Styrene | ND | ug/l | 5 | 06/06/00 | CBD | 100-42-5 | |
| o-Xylene (1,2-Dimethylbenzene) | ND | ug/l | 5 | 06/06/00 | CBD | 95-47-6 | |
| Bromoform | ND | ug/l | 5 | 06/06/00 | CBD | 75-25-2 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 79-34-5 | |
| 1,2,3-Trichloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 96-18-4 | |
| trans-1,4-Dichloro-2-Butene | ND | ug/l | 5 | 06/06/00 | CBD | 110-57-6 | |
| 1,4-Dichlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 106-46-7 | |
| 1,2-Dichlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 95-50-1 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 96-12-8 | |
| Dibromofluoromethane (S) | 101 | % | | 06/06/00 | CBD | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 98 | % | | 06/06/00 | CBD | 17060-07-0 | |
| Toluene-d8 (S) | 99 | % | | 06/06/00 | CBD | 2037-26-5 | |

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

## REPORT OF LABORATORY ANALYSIS

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

**Pace Analytical Services, Inc.**
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091



Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

Pace Sample No: 921025680 Date Collected: 06/05/00 Matrix: Water
Client Sample ID: MW-1R Date Received: 06/05/00

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| 4-Bromofluorobenzene (S) | 95 | % | | 06/06/00 | CBD | 460-00-4 | |



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Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091



Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

Pace Sample No: 921025698 Date Collected: 06/05/00 Matrix: Water
Client Sample ID: MW-2R Date Received: 06/05/00

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| **Metals** | | | | | | | |
| Metals by Trace ICP | Method: EPA 6010 | | | | Prep Method: EPA 3010 | | |
| Arsenic | ND | mg/l | 0.005 | 06/13/00 | RWF | 7440-38-2 | |
| Barium | 0.18 | mg/l | 0.005 | 06/13/00 | RWF | 7440-39-3 | |
| Cadmium | ND | mg/l | 0.001 | 06/13/00 | RWF | 7440-43-9 | |
| Chromium | 0.003 | mg/l | 0.002 | 06/13/00 | RWF | 7440-47-3 | |
| Lead | 0.0065 | mg/l | 0.005 | 06/13/00 | RWF | 7439-92-1 | |
| Selenium | ND | mg/l | 0.005 | 06/13/00 | RWF | 7782-49-2 | |
| Silver | ND | mg/l | 0.002 | 06/13/00 | RWF | 7440-22-4 | |
| Date Digested | | | | 06/08/00 | | | |
| Mercury, CVAAS, in Water | Method: EPA 7470 | | | | Prep Method: EPA 7470 | | |
| Mercury | ND | mg/l | 0.0002 | 06/12/00 | AST | 7439-97-6 | |
| **GC/MS Volatiles** | | | | | | | |
| GC/MS VOCs by 8260 | Method: EPA 8260 | | | | Prep Method: EPA 8260 | | |
| Chloromethane | ND | ug/l | 10 | 06/06/00 | CBD | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 06/06/00 | CBD | 75-01-4 | |
| Bromomethane | ND | ug/l | 10 | 06/06/00 | CBD | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 06/06/00 | CBD | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 06/06/00 | CBD | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 06/06/00 | CBD | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 06/06/00 | CBD | 107-13-1 | |
| Methylene Chloride | ND | ug/l | 5 | 06/06/00 | CBD | 75-09-2 | |
| Carbon Disulfide | ND | ug/l | 5 | 06/06/00 | CBD | 75-15-0 | |
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 06/06/00 | CBD | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 06/06/00 | CBD | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 06/06/00 | CBD | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 06/06/00 | CBD | 56-23-5 | |

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

**Pace Analytical Services, Inc.**
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091



Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

Pace Sample No: 921025698 Date Collected: 06/05/00 Matrix: Water
Client Sample ID: MW-2R Date Received: 06/05/00

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| Benzene | ND | ug/l | 5 | 06/06/00 | CBD | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 75-27-4 | |
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 06/06/00 | CBD | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 06/06/00 | CBD | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 06/06/00 | CBD | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 06/06/00 | CBD | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 06/06/00 | CBD | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 06/06/00 | CBD | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 108-90-7 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 630-20-6 | |
| Ethylbenzene | ND | ug/l | 5 | 06/06/00 | CBD | 100-41-4 | |
| m&p-Xylene | ND | ug/l | 10 | 06/06/00 | CBD | 7816-60-0 | |
| Styrene | ND | ug/l | 5 | 06/06/00 | CBD | 100-42-5 | |
| o-Xylene (1,2-Dimethylbenzene) | ND | ug/l | 5 | 06/06/00 | CBD | 95-47-6 | |
| Bromoform | ND | ug/l | 5 | 06/06/00 | CBD | 75-25-2 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 79-34-5 | |
| 1,2,3-Trichloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 96-18-4 | |
| trans-1,4-Dichloro-2-Butene | ND | ug/l | 5 | 06/06/00 | CBD | 110-57-6 | |
| 1,4-Dichlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 106-46-7 | |
| 1,2-Dichlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 95-50-1 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 96-12-8 | |
| Dibromofluoromethane (S) | 102 | % | | 06/06/00 | CBD | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 99 | % | | 06/06/00 | CBD | 17060-07-0 | |
| Toluene-d8 (S) | 89 | % | | 06/06/00 | CBD | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 93 | % | | 06/06/00 | CBD | 460-00-4 | |

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

**Pace Analytical Services, Inc.**
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091



Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

Pace Sample No: 921025706 Date Collected: 06/05/00 Matrix: Water
Client Sample ID: MW-3R Date Received: 06/05/00

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| **Metals** | | | | | | | |
| Metals by Trace ICP | Method: EPA 6010 | | | | Prep Method: EPA 3010 | | |
| Arsenic | ND | mg/l | 0.005 | 06/13/00 | RWF | 7440-38-2 | |
| Barium | 0.30 | mg/l | 0.005 | 06/13/00 | RWF | 7440-39-3 | |
| Cadmium | ND | mg/l | 0.001 | 06/13/00 | RWF | 7440-43-9 | |
| Chromium | ND | mg/l | 0.002 | 06/13/00 | RWF | 7440-47-3 | |
| Lead | ND | mg/l | 0.005 | 06/13/00 | RWF | 7439-92-1 | |
| Selenium | ND | mg/l | 0.005 | 06/13/00 | RWF | 7782-49-2 | |
| Silver | ND | mg/l | 0.002 | 06/13/00 | RWF | 7440-22-4 | |
| Date Digested | | | | 06/08/00 | | | |
| Mercury, CVAAS, in Water | Method: EPA 7470 | | | | Prep Method: EPA 7470 | | |
| Mercury | ND | mg/l | 0.0002 | 06/12/00 | AST | 7439-97-6 | |
| **GC/MS Volatiles** | | | | | | | |
| GC/MS VOCs by 8260 | Method: EPA 8260 | | | | Prep Method: EPA 8260 | | |
| Chloromethane | ND | ug/l | 10 | 06/06/00 | CBD | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 06/06/00 | CBD | 75-01-4 | |
| Bromomethane | ND | ug/l | 10 | 06/06/00 | CBD | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 06/06/00 | CBD | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 06/06/00 | CBD | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 06/06/00 | CBD | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 06/06/00 | CBD | 107-13-1 | |
| Methylene Chloride | ND | ug/l | 5 | 06/06/00 | CBD | 75-09-2 | |
| Carbon Disulfide | ND | ug/l | 5 | 06/06/00 | CBD | 75-15-0 | |
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 06/06/00 | CBD | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 06/06/00 | CBD | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 06/06/00 | CBD | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 06/06/00 | CBD | 56-23-5 | |

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

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TN UST List
VA Drinking Water 213

**Pace Analytical Services, Inc.**
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091



Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

Pace Sample No: 921025706 Date Collected: 06/05/00 Matrix: Water
Client Sample ID: MW-3R Date Received: 06/05/00

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| Benzene | ND | ug/l | 5 | 06/06/00 | CBD | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 75-27-4 | |
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 06/06/00 | CBD | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 06/06/00 | CBD | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 06/06/00 | CBD | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 06/06/00 | CBD | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 06/06/00 | CBD | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 06/06/00 | CBD | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 108-90-7 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 630-20-6 | |
| Ethylbenzene | ND | ug/l | 5 | 06/06/00 | CBD | 100-41-4 | |
| m&p-Xylene | ND | ug/l | 10 | 06/06/00 | CBD | 7816-60-0 | |
| Styrene | ND | ug/l | 5 | 06/06/00 | CBD | 100-42-5 | |
| o-Xylene (1,2-Dimethylbenzene) | ND | ug/l | 5 | 06/06/00 | CBD | 95-47-6 | |
| Bromoform | ND | ug/l | 5 | 06/06/00 | CBD | 75-25-2 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 79-34-5 | |
| 1,2,3-Trichloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 96-18-4 | |
| trans-1,4-Dichloro-2-Butene | ND | ug/l | 5 | 06/06/00 | CBD | 110-57-6 | |
| 1,4-Dichlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 106-46-7 | |
| 1,2-Dichlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 95-50-1 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 96-12-8 | |
| Dibromofluoromethane (S) | 101 | % | | 06/06/00 | CBD | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 100 | % | | 06/06/00 | CBD | 17060-07-0 | |
| Toluene-d8 (S) | 94 | % | | 06/06/00 | CBD | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 92 | % | | 06/06/00 | CBD | 460-00-4 | |

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

**REPORT OF LABORATORY ANALYSIS**

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

**Pace Analytical Services, Inc.**
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091



Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

Pace Sample No: 921025714 Date Collected: 06/05/00 Matrix: Water
Client Sample ID: MW-4R Date Received: 06/05/00

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| **Metals** | | | | | | | |
| Metals by Trace ICP | Method: EPA 6010 | | | | Prep Method: EPA 3010 | | |
| Arsenic | ND | mg/l | 0.005 | 06/13/00 | RWF | 7440-38-2 | |
| Barium | 0.57 | mg/l | 0.005 | 06/13/00 | RWF | 7440-39-3 | |
| Cadmium | ND | mg/l | 0.001 | 06/13/00 | RWF | 7440-43-9 | |
| Chromium | ND | mg/l | 0.002 | 06/13/00 | RWF | 7440-47-3 | |
| Lead | 0.0095 | mg/l | 0.005 | 06/13/00 | RWF | 7439-92-1 | |
| Selenium | ND | mg/l | 0.005 | 06/13/00 | RWF | 7782-49-2 | |
| Silver | ND | mg/l | 0.002 | 06/13/00 | RWF | 7440-22-4 | |
| Date Digested | | | | 06/08/00 | | | |
| Mercury, CVAAS, in Water | Method: EPA 7470 | | | | Prep Method: EPA 7470 | | |
| Mercury | ND | mg/l | 0.0002 | 06/12/00 | AST | 7439-97-6 | |
| **GC/MS Volatiles** | | | | | | | |
| GC/MS VOCs by 8260 | Method: EPA 8260 | | | | Prep Method: EPA 8260 | | |
| Chloromethane | ND | ug/l | 10 | 06/06/00 | CBD | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 06/06/00 | CBD | 75-01-4 | |
| Bromomethane | ND | ug/l | 10 | 06/06/00 | CBD | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 06/06/00 | CBD | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 06/06/00 | CBD | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 06/06/00 | CBD | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 06/06/00 | CBD | 107-13-1 | |
| Methylene Chloride | ND | ug/l | 5 | 06/06/00 | CBD | 75-09-2 | |
| Carbon Disulfide | ND | ug/l | 5 | 06/06/00 | CBD | 75-15-0 | |
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 06/06/00 | CBD | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 06/06/00 | CBD | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 06/06/00 | CBD | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 06/06/00 | CBD | 56-23-5 | |

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

**REPORT OF LABORATORY ANALYSIS**

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

**Pace Analytical Services, Inc.**
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078

Phone: 704.875.9092
Fax: 704.875.9091



Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

Pace Sample No: 921025714 | Date Collected: 06/05/00 | Matrix: Water
Client Sample ID: MW-4R | Date Received: 06/05/00

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| Benzene | ND | ug/l | 5 | 06/06/00 | CBD | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 75-27-4 | |
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 06/06/00 | CBD | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 06/06/00 | CBD | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 06/06/00 | CBD | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 06/06/00 | CBD | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 06/06/00 | CBD | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 06/06/00 | CBD | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 108-90-7 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 630-20-6 | |
| Ethylbenzene | ND | ug/l | 5 | 06/06/00 | CBD | 100-41-4 | |
| m&p-Xylene | ND | ug/l | 10 | 06/06/00 | CBD | 7816-60-0 | |
| Styrene | ND | ug/l | 5 | 06/06/00 | CBD | 100-42-5 | |
| o-Xylene (1,2-Dimethylbenzene) | ND | ug/l | 5 | 06/06/00 | CBD | 95-47-6 | |
| Bromoform | ND | ug/l | 5 | 06/06/00 | CBD | 75-25-2 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 79-34-5 | |
| 1,2,3-Trichloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 96-18-4 | |
| trans-1,4-Dichloro-2-Butene | ND | ug/l | 5 | 06/06/00 | CBD | 110-57-6 | |
| 1,4-Dichlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 106-46-7 | |
| 1,2-Dichlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 95-50-1 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 96-12-8 | |
| Dibromofluoromethane (S) | 101 | % | | 06/06/00 | CBD | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 100 | % | | 06/06/00 | CBD | 17060-07-0 | |
| Toluene-d8 (S) | 93 | % | | 06/06/00 | CBD | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 92 | % | | 06/06/00 | CBD | 460-00-4 | |

**Pace Analytical Services, Inc.**
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Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

Pace Sample No: 921025722 Date Collected: 06/05/00 Matrix: Water
Client Sample ID: MW-5R Date Received: 06/05/00

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| **Metals** | | | | | | | |
| Metals by Trace ICP | Method: EPA 6010 | | | | Prep Method: EPA 3010 | | |
| Arsenic | ND | mg/l | 0.005 | 06/13/00 | RWF | 7440-38-2 | |
| Barium | 0.20 | mg/l | 0.005 | 06/13/00 | RWF | 7440-39-3 | |
| Cadmium | ND | mg/l | 0.001 | 06/13/00 | RWF | 7440-43-9 | |
| Chromium | 0.0081 | mg/l | 0.002 | 06/13/00 | RWF | 7440-47-3 | |
| Lead | ND | mg/l | 0.005 | 06/13/00 | RWF | 7439-92-1 | |
| Selenium | ND | mg/l | 0.005 | 06/13/00 | RWF | 7782-49-2 | |
| Silver | ND | mg/l | 0.002 | 06/13/00 | RWF | 7440-22-4 | |
| Date Digested | | | | 06/08/00 | | | |
| Mercury, CVAAS, in Water | Method: EPA 7470 | | | | Prep Method: EPA 7470 | | |
| Mercury | ND | mg/l | 0.0002 | 06/12/00 | AST | 7439-97-6 | |
| **GC/MS Volatiles** | | | | | | | |
| GC/MS VOCs by 8260 | Method: EPA 8260 | | | | Prep Method: EPA 8260 | | |
| Chloromethane | ND | ug/l | 10 | 06/06/00 | CBD | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 06/06/00 | CBD | 75-01-4 | |
| Bromomethane | ND | ug/l | 10 | 06/06/00 | CBD | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 06/06/00 | CBD | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 06/06/00 | CBD | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 06/06/00 | CBD | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 06/06/00 | CBD | 107-13-1 | |
| Methylene Chloride | ND | ug/l | 5 | 06/06/00 | CBD | 75-09-2 | |
| Carbon Disulfide | ND | ug/l | 5 | 06/06/00 | CBD | 75-15-0 | |
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 06/06/00 | CBD | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 06/06/00 | CBD | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 06/06/00 | CBD | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 06/06/00 | CBD | 56-23-5 | |



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Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

Pace Sample No: 921025722 Date Collected: 06/05/00 Matrix: Water
Client Sample ID: MW-5R Date Received: 06/05/00

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| Benzene | ND | ug/l | 5 | 06/06/00 | CBD | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 75-27-4 | |
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 06/06/00 | CBD | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 06/06/00 | CBD | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 06/06/00 | CBD | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 06/06/00 | CBD | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 06/06/00 | CBD | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 06/06/00 | CBD | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 108-90-7 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 630-20-6 | |
| Ethylbenzene | ND | ug/l | 5 | 06/06/00 | CBD | 100-41-4 | |
| m&p-Xylene | ND | ug/l | 10 | 06/06/00 | CBD | 7816-60-0 | |
| Styrene | ND | ug/l | 5 | 06/06/00 | CBD | 100-42-5 | |
| o-Xylene (1,2-Dimethylbenzene) | ND | ug/l | 5 | 06/06/00 | CBD | 95-47-6 | |
| Bromoform | ND | ug/l | 5 | 06/06/00 | CBD | 75-25-2 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 79-34-5 | |
| 1,2,3-Trichloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 96-18-4 | |
| trans-1,4-Dichloro-2-Butene | ND | ug/l | 5 | 06/06/00 | CBD | 110-57-6 | |
| 1,4-Dichlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 106-46-7 | |
| 1,2-Dichlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 95-50-1 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 96-12-8 | |
| Dibromofluoromethane (S) | 101 | % | | 06/06/00 | CBD | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 99 | % | | 06/06/00 | CBD | 17060-07-0 | |
| Toluene-d8 (S) | 94 | % | | 06/06/00 | CBD | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 93 | % | | 06/06/00 | CBD | 460-00-4 | |



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9800 Kincey Avenue, Suite 100
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Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

Pace Sample No: 921025730 Date Collected: 06/05/00 Matrix: Water
Client Sample ID: MW-6R Date Received: 06/05/00

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| **Metals** | | | | | | | |
| Metals by Trace ICP | Method: EPA 6010 | | | | Prep Method: EPA 3010 | | |
| Arsenic | ND | mg/l | 0.005 | 06/13/00 | RWF | 7440-38-2 | |
| Barium | 0.082 | mg/l | 0.005 | 06/13/00 | RWF | 7440-39-3 | |
| Cadmium | ND | mg/l | 0.001 | 06/13/00 | RWF | 7440-43-9 | |
| Chromium | ND | mg/l | 0.002 | 06/13/00 | RWF | 7440-47-3 | |
| Lead | 0.0058 | mg/l | 0.005 | 06/13/00 | RWF | 7439-92-1 | |
| Selenium | ND | mg/l | 0.005 | 06/13/00 | RWF | 7782-49-2 | |
| Silver | ND | mg/l | 0.002 | 06/13/00 | RWF | 7440-22-4 | |
| Date Digested | | | | 06/08/00 | | | |
| Mercury, CVAAS, in Water | Method: EPA 7470 | | | | Prep Method: EPA 7470 | | |
| Mercury | ND | mg/l | 0.0002 | 06/12/00 | AST | 7439-97-6 | |
| **GC/MS Volatiles** | | | | | | | |
| GC/MS VOCs by 8260 | Method: EPA 8260 | | | | Prep Method: EPA 8260 | | |
| Chloromethane | ND | ug/l | 10 | 06/06/00 | CBD | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 06/06/00 | CBD | 75-01-4 | |
| Bromomethane | ND | ug/l | 10 | 06/06/00 | CBD | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 06/06/00 | CBD | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 06/06/00 | CBD | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 06/06/00 | CBD | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 06/06/00 | CBD | 107-13-1 | |
| Methylene Chloride | ND | ug/l | 5 | 06/06/00 | CBD | 75-09-2 | |
| Carbon Disulfide | ND | ug/l | 5 | 06/06/00 | CBD | 75-15-0 | |
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 06/06/00 | CBD | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 06/06/00 | CBD | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 06/06/00 | CBD | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 06/06/00 | CBD | 56-23-5 | |

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

**Pace Analytical Services, Inc.**
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Huntersville, NC 28078
Phone: 704.875.9092
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Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

Pace Sample No: 921025730 Date Collected: 06/05/00 Matrix: Water
Client Sample ID: MW-6R Date Received: 06/05/00

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| Benzene | ND | ug/l | 5 | 06/06/00 | CBD | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 75-27-4 | |
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 06/06/00 | CBD | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 06/06/00 | CBD | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 06/06/00 | CBD | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 06/06/00 | CBD | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 06/06/00 | CBD | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 06/06/00 | CBD | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 108-90-7 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 630-20-6 | |
| Ethylbenzene | ND | ug/l | 5 | 06/06/00 | CBD | 100-41-4 | |
| m&p-Xylene | ND | ug/l | 10 | 06/06/00 | CBD | 7816-60-0 | |
| Styrene | ND | ug/l | 5 | 06/06/00 | CBD | 100-42-5 | |
| o-Xylene (1,2-Dimethylbenzene) | ND | ug/l | 5 | 06/06/00 | CBD | 95-47-6 | |
| Bromoform | ND | ug/l | 5 | 06/06/00 | CBD | 75-25-2 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 79-34-5 | |
| 1,2,3-Trichloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 96-18-4 | |
| trans-1,4-Dichloro-2-Butene | ND | ug/l | 5 | 06/06/00 | CBD | 110-57-6 | |
| 1,4-Dichlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 106-46-7 | |
| 1,2-Dichlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 95-50-1 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 96-12-8 | |
| Dibromofluoromethane (S) | 100 | % | | 06/06/00 | CBD | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 98 | % | | 06/06/00 | CBD | 17060-07-0 | |
| Toluene-d8 (S) | 94 | % | | 06/06/00 | CBD | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 93 | % | | 06/06/00 | CBD | 460-00-4 | |



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Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

Pace Sample No: 921025748 Date Collected: 06/05/00 Matrix: Water
Client Sample ID: MW-7 Date Received: 06/05/00

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| **Metals** | | | | | | | |
| Metals by Trace ICP | Method: EPA 6010 | | | | Prep Method: EPA 3010 | | |
| Arsenic | ND | mg/l | 0.005 | 06/13/00 | RWF | 7440-38-2 | |
| Barium | 0.36 | mg/l | 0.005 | 06/13/00 | RWF | 7440-39-3 | |
| Cadmium | ND | mg/l | 0.001 | 06/13/00 | RWF | 7440-43-9 | |
| Chromium | 0.0025 | mg/l | 0.002 | 06/13/00 | RWF | 7440-47-3 | |
| Lead | 0.0087 | mg/l | 0.005 | 06/13/00 | RWF | 7439-92-1 | |
| Selenium | ND | mg/l | 0.005 | 06/13/00 | RWF | 7782-49-2 | |
| Silver | ND | mg/l | 0.002 | 06/13/00 | RWF | 7440-22-4 | |
| Date Digested | | | | 06/08/00 | | | |
| Mercury, CVAAS, in Water | Method: EPA 7470 | | | | Prep Method: EPA 7470 | | |
| Mercury | ND | mg/l | 0.0002 | 06/12/00 | AST | 7439-97-6 | |
| **GC/MS Volatiles** | | | | | | | |
| GC/MS VOCs by 8260 | Method: EPA 8260 | | | | Prep Method: EPA 8260 | | |
| Chloromethane | ND | ug/l | 10 | 06/06/00 | CBD | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 06/06/00 | CBD | 75-01-4 | |
| Bromomethane | ND | ug/l | 10 | 06/06/00 | CBD | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 06/06/00 | CBD | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 06/06/00 | CBD | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 06/06/00 | CBD | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 06/06/00 | CBD | 107-13-1 | |
| Methylene Chloride | ND | ug/l | 5 | 06/06/00 | CBD | 75-09-2 | |
| Carbon Disulfide | ND | ug/l | 5 | 06/06/00 | CBD | 75-15-0 | |
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 06/06/00 | CBD | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 06/06/00 | CBD | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 06/06/00 | CBD | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 06/06/00 | CBD | 56-23-5 | |



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Fax: 704.875.9091



Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

Pace Sample No: 921025748 Date Collected: 06/05/00 Matrix: Water
Client Sample ID: MW-7 Date Received: 06/05/00

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| Benzene | ND | ug/l | 5 | 06/06/00 | CBD | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 75-27-4 | |
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 06/06/00 | CBD | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 06/06/00 | CBD | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 06/06/00 | CBD | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 06/06/00 | CBD | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 06/06/00 | CBD | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 06/06/00 | CBD | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 108-90-7 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 630-20-6 | |
| Ethylbenzene | ND | ug/l | 5 | 06/06/00 | CBD | 100-41-4 | |
| m&p-Xylene | ND | ug/l | 10 | 06/06/00 | CBD | 7816-60-0 | |
| Styrene | ND | ug/l | 5 | 06/06/00 | CBD | 100-42-5 | |
| o-Xylene (1,2-Dimethylbenzene) | ND | ug/l | 5 | 06/06/00 | CBD | 95-47-6 | |
| Bromoform | ND | ug/l | 5 | 06/06/00 | CBD | 75-25-2 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 79-34-5 | |
| 1,2,3-Trichloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 96-18-4 | |
| trans-1,4-Dichloro-2-Butene | ND | ug/l | 5 | 06/06/00 | CBD | 110-57-6 | |
| 1,4-Dichlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 106-46-7 | |
| 1,2-Dichlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 95-50-1 | |
| 1,2-Dibromo-3-Chloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 96-12-8 | |
| Dibromofluoromethane (S) | 100 | % | | 06/06/00 | CBD | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 99 | % | | 06/06/00 | CBD | 17060-07-0 | |
| Toluene-d8 (S) | 92 | % | | 06/06/00 | CBD | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 92 | % | | 06/06/00 | CBD | 460-00-4 | |



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Fax: 704.875.9091



Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

| | |
|---|---|
| ND | Not Detected |
| NC | Not Calculable |
| PRL | Pace Reporting Limit |
| RPD | Relative Percent Difference |
| (S) | Surrogate |
| [1] | Due to high analyte concentration and noted non -homogeneity of the QC matrix, the MS/MSD did not provide reliable results for accuracy and precision. Sample results for this QC batch accepted based on LCS percent recoveries. |
| [2] | The surrogate and/or spike recovery was outside acceptance limits. |
| [3] | Recovery falls outside of QC limits, however, this compound is not found in the associated samples. |
| [4] | RPD value was outside of control limits, however % Recoveries were acceptable. Samples for QC batch accepted based on % recoveries and completeness of QC data. |
| [5] | The spike recovery was outside acceptance limits for the MS and /or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable. |
| [6] | The calculated RPD was outside QC acceptance limits. |



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Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

Pace Sample No: 921025755 Date Collected: 06/05/00 Matrix: Water
Client Sample ID: TRIP BLANK Date Received: 06/05/00

GC/MS Volatiles

GC/MS VOCs by 8260 Method: EPA 8260 Prep Method: EPA 8260

| Parameters | Results | Units | PRL | Analyzed | Analyst | CAS# | Footnotes |
|---|---|---|---|---|---|---|---|
| Chloromethane | ND | ug/l | 10 | 06/06/00 | CBD | 74-87-3 | |
| Vinyl Chloride | ND | ug/l | 10 | 06/06/00 | CBD | 75-01-4 | |
| Bromomethane | ND | ug/l | 10 | 06/06/00 | CBD | 74-83-9 | |
| Chloroethane | ND | ug/l | 10 | 06/06/00 | CBD | 75-00-3 | |
| Trichlorofluoromethane | ND | ug/l | 10 | 06/06/00 | CBD | 75-69-4 | |
| Acetone | ND | ug/l | 100 | 06/06/00 | CBD | 67-64-1 | |
| 1,1-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 75-35-4 | |
| Iodomethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-88-4 | |
| Acrylonitrile | ND | ug/l | 100 | 06/06/00 | CBD | 107-13-1 | |
| Methylene Chloride | 7.3 | ug/l | 5 | 06/06/00 | CBD | 75-09-2 | |
| Carbon Disulfide | ND | ug/l | 5 | 06/06/00 | CBD | 75-15-0 | |
| trans-1,2-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 156-60-5 | |
| 1,1-Dichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 75-34-3 | |
| Vinyl Acetate | ND | ug/l | 50 | 06/06/00 | CBD | 108-05-4 | |
| 2-Butanone | ND | ug/l | 100 | 06/06/00 | CBD | 78-93-3 | |
| cis-1,2-Dichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 156-59-2 | |
| Chloroform | ND | ug/l | 5 | 06/06/00 | CBD | 67-66-3 | |
| Bromochloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-97-5 | |
| 1,1,1-Trichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 71-55-6 | |
| 1,2-Dichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 107-06-2 | |
| Carbon Tetrachloride | ND | ug/l | 5 | 06/06/00 | CBD | 56-23-5 | |
| Benzene | ND | ug/l | 5 | 06/06/00 | CBD | 71-43-2 | |
| Trichloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 79-01-6 | |
| 1,2-Dichloropropane | ND | ug/l | 5 | 06/06/00 | CBD | 78-87-5 | |
| Dibromomethane | ND | ug/l | 5 | 06/06/00 | CBD | 74-95-3 | |
| Bromodichloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 75-27-4 | |
| 4-Methyl-2-Pentanone | ND | ug/l | 50 | 06/06/00 | CBD | 108-10-1 | |
| cis-1,3-Dichloropropene | ND | ug/l | 5 | 06/06/00 | CBD | 10061-01-5 | |
| Toluene | ND | ug/l | 5 | 06/06/00 | CBD | 108-88-3 | |
| trans-1,3-Dichloropropene | ND | ug/l | 5 | 06/06/00 | CBD | 10061-02-6 | |
| 1,1,2-Trichloroethane | ND | ug/l | 5 | 06/06/00 | CBD | 79-00-5 | |
| 2-Hexanone | ND | ug/l | 50 | 06/06/00 | CBD | 591-78-6 | |
| Dibromochloromethane | ND | ug/l | 5 | 06/06/00 | CBD | 124-48-1 | |
| Tetrachloroethene | ND | ug/l | 5 | 06/06/00 | CBD | 127-18-4 | |
| 1,2-Dibromoethane | ND | ug/l | 5 | 06/06/00 | CBD | 106-93-4 | |
| Chlorobenzene | ND | ug/l | 5 | 06/06/00 | CBD | 108-90-7 | |

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

**REPORT OF LABORATORY ANALYSIS**

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

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Fax: 704.875.9091



Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

PARAMETER FOOTNOTES

| | |
|---|---|
| ND | Not Detected |
| NC | Not Calculable |
| PRL | Pace Reporting Limit |
| (S) | Surrogate |

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Fax: 704.875.9091

QUALITY CONTROL DATA



Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

METHOD BLANK: 921027819
Associated Pace Samples:
921025680 921025698 921025706 921025714 921025722 921025730 921025748
921025755

| Parameter | Units | Method Blank Result | PRL | Footnotes |
|---|---|---|---|---|
| 1,2-Dichloropropane | ug/l | ND | 5 | |
| Dibromomethane | ug/l | ND | 5 | |
| Bromodichloromethane | ug/l | ND | 5 | |
| 4-Methyl-2-Pentanone | ug/l | ND | 50 | |
| cis-1,3-Dichloropropene | ug/l | ND | 5 | |
| Toluene | ug/l | ND | 5 | |
| trans-1,3-Dichloropropene | ug/l | ND | 5 | |
| 1,1,2-Trichloroethane | ug/l | ND | 5 | |
| 2-Hexanone | ug/l | ND | 50 | |
| Dibromochloromethane | ug/l | ND | 5 | |
| Tetrachloroethene | ug/l | ND | 5 | |
| 1,2-Dibromoethane | ug/l | ND | 5 | |
| Chlorobenzene | ug/l | ND | 5 | |
| 1,1,1,2-Tetrachloroethane | ug/l | ND | 5 | |
| Ethylbenzene | ug/l | ND | 5 | |
| m&p-Xylene | ug/l | ND | 10 | |
| Styrene | ug/l | ND | 5 | |
| o-Xylene (1,2-Dimethylbenzene) | ug/l | ND | 5 | |
| Bromoform | ug/l | ND | 5 | |
| 1,1,2,2-Tetrachloroethane | ug/l | ND | 5 | |
| 1,2,3-Trichloropropane | ug/l | ND | 5 | |
| trans-1,4-Dichloro-2-Butene | ug/l | ND | 5 | |
| 1,4-Dichlorobenzene | ug/l | ND | 5 | |
| 1,2-Dichlorobenzene | ug/l | ND | 5 | |
| 1,2-Dibromo-3-Chloropropane | ug/l | ND | 5 | |
| Dibromofluoromethane (S) | % | 101 | | |
| 1,2-Dichloroethane-d4 (S) | % | 98 | | |
| Toluene-d8 (S) | % | 99 | | |
| 4-Bromofluorobenzene (S) | % | 96 | | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 921025367 921025375

| Parameter | Units | 921023230 | Spike Conc. | Matrix Spike Result | Spike % Rec | Matrix Sp. Dup. Result | Spike Dup % Rec | RPD | Footnotes |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ug/l | 0 | 50 | 53.60 | 107 | 47.87 | 95.7 | 11 | |
| Benzene | ug/l | 19680 | 50 | 4710 | -29900 | 4582 | -30200 | 1 | 1.1 |

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

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VA Drinking Water 213

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QUALITY CONTROL DATA



Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 921025367 921025375

| Parameter | Units | 921023230 | Spike Conc. | Matrix Spike Result | Spike % Rec | Matrix Sp. Dup. Result | Spike Dup % Rec | RPD | Footnotes |
|---|---|---|---|---|---|---|---|---|---|
| Trichloroethene | ug/l | 0 | 50 | 51.30 | 103 | 48.75 | 97.5 | 5 | |
| Toluene | ug/l | 31190 | 50 | 2840 | -56700 | 2815 | -94600 | 50 | 1,1 |
| Chlorobenzene | ug/l | 0 | 50 | 50.70 | 101 | 48.40 | 96.8 | 5 | |
| Dibromofluoromethane (S) | | | | | 104 | | 104 | | |
| 1,2-Dichloroethane-d4 (S) | | | | | 108 | | 106 | | |
| Toluene-d8 (S) | | | | | 93 | | 95 | | |
| 4-Bromofluorobenzene (S) | | | | | 95 | | 96 | | |

LABORATORY CONTROL SAMPLE: 921025391

| Parameter | Units | Spike Conc. | LCS Result | Spike % Rec | Footnotes |
|---|---|---|---|---|---|
| Chloromethane | ug/l | 50 | 63.13 | 126 | |
| Vinyl Chloride | ug/l | 50 | 45.34 | 90.7 | |
| Bromomethane | ug/l | 50 | 38.63 | 77.3 | |
| Chloroethane | ug/l | 50 | 43.36 | 86.7 | |
| Trichlorofluoromethane | ug/l | 50 | 47.56 | 95.1 | |
| Acetone | ug/l | 100 | 94.34 | 94.3 | |
| 1,1-Dichloroethene | ug/l | 50 | 50.17 | 100 | |
| Iodomethane | ug/l | 100 | 80.24 | 80.2 | |
| Acrylonitrile | ug/l | 250 | 219.4 | 87.8 | |
| Methylene Chloride | ug/l | 50 | 47.10 | 94.2 | |
| Carbon Disulfide | ug/l | 100 | 94.63 | 94.6 | |
| trans-1,2-Dichloroethene | ug/l | 50 | 50.72 | 101 | |
| 1,1-Dichloroethane | ug/l | 50 | 51.08 | 102 | |
| Vinyl Acetate | ug/l | 100 | 38.74 | 38.7 | 2 |
| 2-Butanone | ug/l | 100 | 92.15 | 92.2 | |
| cis-1,2-Dichloroethene | ug/l | 50 | 50.40 | 101 | |
| Chloroform | ug/l | 50 | 52.02 | 104 | |
| Bromochloromethane | ug/l | 50 | 58.62 | 117 | |
| 1,1,1-Trichloroethane | ug/l | 50 | 50.78 | 102 | |
| 1,2-Dichloroethane | ug/l | 50 | 47.50 | 95.0 | |
| Carbon Tetrachloride | ug/l | 50 | 49.16 | 98.3 | |
| Benzene | ug/l | 50 | 50.41 | 101 | |
| Trichloroethene | ug/l | 50 | 51.76 | 104 | |
| 1,2-Dichloropropane | ug/l | 50 | 50.22 | 100 | |
| Dibromomethane | ug/l | 50 | 43.60 | 87.2 | |
| Bromodichloromethane | ug/l | 50 | 49.68 | 99.4 | |
| 4-Methyl-2-Pentanone | ug/l | 100 | 94.69 | 94.7 | |
| cis-1,3-Dichloropropene | ug/l | 50 | 39.56 | 79.1 | |

Laboratory Certification IDs

| | |
|---|---|
| NC Wastewater | 12 |
| NC Drinking Water | 37706 |
| SC | 99006 |

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| TN UST List | |
| VA Drinking Water | 213 |

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QUALITY CONTROL DATA



Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

LABORATORY CONTROL SAMPLE: 921025391

| Parameter | Units | Spike Conc. | LCS Result | Spike % Rec | Footnotes |
|---|---|---|---|---|---|
| Toluene | ug/l | 50 | 52.72 | 105 | |
| trans-1,3-Dichloropropene | ug/l | 50 | 41.43 | 82.9 | |
| 1,1,2-Trichloroethane | ug/l | 50 | 50.78 | 102 | |
| 2-Hexanone | ug/l | 100 | 95.03 | 95.0 | |
| Dibromochloromethane | ug/l | 50 | 50.97 | 102 | |
| Tetrachloroethene | ug/l | 50 | 80.04 | 160 | 3 |
| 1,2-Dibromoethane | ug/l | 50 | 43.46 | 86.9 | |
| Chlorobenzene | ug/l | 50 | 49.99 | 100 | |
| 1,1,1,2-Tetrachloroethane | ug/l | 50 | 50.77 | 102 | |
| Ethylbenzene | ug/l | 50 | 50.17 | 100 | |
| m&p-Xylene | ug/l | 100 | 100.8 | 101 | |
| Styrene | ug/l | 50 | 51.98 | 104 | |
| o-Xylene (1,2-Dimethylbenzene) | ug/l | 50 | 50.69 | 101 | |
| Bromoform | ug/l | 50 | 51.94 | 104 | |
| 1,1,2,2-Tetrachloroethane | ug/l | 50 | 47.82 | 95.6 | |
| 1,2,3-Trichloropropane | ug/l | 50 | 50.69 | 101 | |
| trans-1,4-Dichloro-2-Butene | ug/l | 50 | 25.92 | 51.8 | 2 |
| 1,4-Dichlorobenzene | ug/l | 50 | 49.27 | 98.5 | |
| 1,2-Dichlorobenzene | ug/l | 50 | 49.02 | 98.0 | |
| 1,2-Dibromo-3-Chloropropane | ug/l | 50 | 52.31 | 105 | |
| Dibromofluoromethane (S) | | | | 105 | |
| 1,2-Dichloroethane-d4 (S) | | | | 94 | |
| Toluene-d8 (S) | | | | 100 | |
| 4-Bromofluorobenzene (S) | | | | 98 | |

SAMPLE DUPLICATE: 921025383

| Parameter | Units | 921023248 | Dup. Result | RPD | Footnotes |
|---|---|---|---|---|---|
| Benzene | ug/l | 1400 | 990.0 | 32 | 4 |
| Toluene | ug/l | 380.0 | 320.0 | 16 | |
| Ethylbenzene | ug/l | 100.0 | 77.00 | 26 | 4 |
| m&p-Xylene | ug/l | 400.0 | 340.0 | 17 | |
| o-Xylene (1,2-Dimethylbenzene) | ug/l | 180.0 | 150.0 | 21 | 4 |
| Dibromofluoromethane (S) | % | 103 | 100 | 0 | |
| 1,2-Dichloroethane-d4 (S) | % | 96 | 98 | 0 | |
| Toluene-d8 (S) | % | 100 | 99 | 0 | |
| 4-Bromofluorobenzene (S) | % | 97 | 95 | 0 | |

Laboratory Certification IDs

| | |
|---|---|
| NC Wastewater | 12 |
| NC Drinking Water | 37706 |
| SC | 99006 |

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| TN UST List | |
| VA Drinking Water | 213 |

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QUALITY CONTROL DATA

DATE: 06/14/00


HDR Engineering
128 South Tryon Street
Suite 1400
Charlotte, NC 28202

Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

Attn: Mr. John Isham
Phone: (704)338-1800

QC Batch ID: 27313
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: Metals by Trace ICP
Associated Pace Samples: 921025680 921025698 921025706 921025714 921025722 921025730 921025748

METHOD BLANK: 921031332
Associated Pace Samples:
921025680 921025698 921025706 921025714 921025722 921025730 921025748

| Parameter | Units | Method Blank Result | PRL | Footnotes |
|---|---|---|---|---|
| Arsenic | mg/l | ND | 0.005 | |
| Barium | mg/l | ND | 0.005 | |
| Cadmium | mg/l | ND | 0.001 | |
| Chromium | mg/l | ND | 0.002 | |
| Lead | mg/l | ND | 0.005 | |
| Selenium | mg/l | ND | 0.005 | |
| Silver | mg/l | ND | 0.002 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 921031340 921031357

| Parameter | Units | 921021499 | Spike Conc. | Matrix Spike Result | Spike % Rec | Matrix Sp. Dup. Result | Spike Dup % Rec | RPD | Footnotes |
|---|---|---|---|---|---|---|---|---|---|
| Arsenic | mg/l | 0 | 0.2500 | 0.2460 | 98.4 | 0.2620 | 105 | 6 | |
| Barium | mg/l | 0.9740 | 0.1875 | 1.110 | 72.5 | 1.180 | 110 | 41 | 5,6 |
| Cadmium | mg/l | 0 | 0.2500 | 0.2240 | 89.6 | 0.2370 | 94.8 | 6 | |
| Chromium | mg/l | 0.001310 | 0.2500 | 0.2180 | 86.7 | 0.2310 | 91.9 | 6 | |
| Lead | mg/l | 0.008250 | 0.2500 | 0.2380 | 91.9 | 0.2520 | 97.5 | 6 | |
| Selenium | mg/l | 0.001320 | 0.2500 | 0.2420 | 96.3 | 0.2540 | 101 | 5 | |
| Silver | mg/l | 0.001170 | 0.2500 | 0.2670 | 106 | 0.2830 | 113 | 6 | |

**Pace Analytical Services, Inc.**
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

QUALITY CONTROL DATA



Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

LABORATORY CONTROL SAMPLE: 921031373

| Parameter | Units | Spike Conc. | LCS Result | Spike % Rec | Footnotes |
|---|---|---|---|---|---|
| Arsenic | mg/l | 0.2500 | 0.2470 | 98.8 | |
| Barium | mg/l | 0.1875 | 0.1840 | 98.1 | |
| Cadmium | mg/l | 0.2500 | 0.2440 | 97.6 | |
| Chromium | mg/l | 0.2500 | 0.2170 | 86.8 | |
| Lead | mg/l | 0.2500 | 0.2380 | 95.2 | |
| Selenium | mg/l | 0.2500 | 0.2440 | 97.6 | |
| Silver | mg/l | 0.2500 | 0.2560 | 102 | |

SAMPLE DUPLICATE: 921031365

| Parameter | Units | 921021507 | Dup. Result | RPD | Footnotes |
|---|---|---|---|---|---|
| Arsenic | mg/l | ND | ND | NC | |
| Barium | mg/l | 0.7600 | 0.8100 | 7 | |
| Cadmium | mg/l | ND | ND | NC | |
| Chromium | mg/l | 0.01000 | 0.01000 | 3 | |
| Lead | mg/l | ND | 0.005200 | NC | |
| Selenium | mg/l | 0.01200 | 0.01300 | 11 | |
| Silver | mg/l | ND | ND | NC | |



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9800 Kincey Avenue, Suite 100
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QUALITY CONTROL DATA

DATE: 06/14/00


HDR Engineering
128 South Tryon Street
Suite 1400
Charlotte, NC 28202

Pace Project Number: 9214486
Client Project ID: C&D Landfill Old Salisbury Rd

Attn: Mr. John Isham
Phone: (704)338-1800

QC Batch ID: 27448
Analysis Method: EPA 7470
QC Batch Method: EPA 7470
Analysis Description: Mercury, CVAAS, in Water
Associated Pace Samples: 921025680 921025698 921025706 921025714 921025722 921025730 921025748

METHOD BLANK: 921038014
Associated Pace Samples:
921025680 921025698 921025706 921025714 921025722 921025730 921025748

| Parameter | Units | Method Blank Result | PRL | Footnotes |
|---|---|---|---|---|
| Mercury | mg/l | ND | 0.0002 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 921038428 921038436

| Parameter | Units | 603514407 | Spike Conc. | Matrix Spike Result | Spike % Rec | Matrix Sp. Dup. Result | Spike Dup % Rec | RPD | Footnotes |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | mg/l | 0 | 0.0050 | 0.004950 | 99.0 | 0.004280 | 85.6 | 15 | |

LABORATORY CONTROL SAMPLE: 921038055

| Parameter | Units | Spike Conc. | LCS Result | Spike % Rec | Footnotes |
|---|---|---|---|---|---|
| Mercury | mg/l | 0.0050 | 0.004540 | 90.8 | |

SAMPLE DUPLICATE: 921038444

| Parameter | Units | 921025680 | Dup. Result | RPD | Footnotes |
|---|---|---|---|---|---|
| Mercury | mg/l | ND | ND | NC | |

Laboratory Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006

**REPORT OF LABORATORY ANALYSIS**

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Laboratory Certification IDs
KY Drinking Water 90090
TN UST List
VA Drinking Water 213

Pace Analytical

# CHAIN OF CUSTODY / Analytical Request Document

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

541279

**Page:** of

**Required** Client Information: **Section A**

Company: HDR ENG.
Address: 128 S. TRYON ST. STE 1400 CHARLOTTE, NC. 28202
Phone: 338-6832 Fax: 338-6760

**Required** Client Information: **Section B**

Report To: JOHN BHAM
Invoice To: LEFT
P.O.:
Project Name: OLD SALISBURY RD
Project Number: C & D LANDFILL

Client Information (Check quote/contract):
Requested Due Date: NORMAL *TAT: 14

* Turn around times less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
Turn Around Time (TAT) in calendar days.

To Be Completed by Pace Analytical and Client **Section C**

Quote Reference:
Project Manager: BONNIE HERVEY
Project #: 9214486
Profile #:

**Section D** **Required** Client Information:

**SAMPLE ID**
One character per box.
(A–Z, 0–9 / .–)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

| MATRIX | CODE |
|---|---|
| WATER | WT |
| SOIL | SL |
| OIL | OL |
| WIPE | WP |
| AIR | AR |
| TISSUE | TS |
| OTHER | OT |

Requested Analysis: App. I VOCs, RCRA METALS

| ITEM # | SAMPLE ID | MATRIX CODE | DATE COLLECTED (mm / dd / yy) | TIME COLLECTED (hh: mm a/p) | # Containers | Preservatives: Unpreserved | $H_2SO_4$ | $HNO_3$ | HCl | NaOH | $Na_2S_2O_3$ | App. I VOCs | RCRA METALS | Remarks / Lab ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MW-1R | GW | 6/5 | 0905 | 5 | | | | 14 | | | X | X | 9210025680 |
| 2 | MW-2R | GW | 6/5 | 1015 | 5 | | | | 14 | | | X | X | 9210025698 |
| 3 | MW-3R | GW | 6/5 | 1125 | 5 | | | | 14 | | | X | X | 9210025706 |
| 4 | MW-4R | GW | 6/5 | 1445 | 5 | | | | 14 | | | X | X | 9210025714 |
| 5 | MW-5R | GW | 6/5 | 1500 | 5 | | | | 14 | | | X | X | 9210025722 |
| 6 | MW-6R | GW | 6/5 | 1165 | 5 | | | | 14 | | | X | X | 9210025730 |
| 7 | MW-7 | GW | 6/5 | 1410 | 5 | | | | 14 | | | X | X | 9210025748 |
| 8 | TRIP BLANK | W | | | 2 | | | | 2 | | | X | | 9210025755 |
| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | |

| Sample Condition | | Sample Notes | Item No. | Relinquished By / Company | Date | Time | Accepted By / Company | Date | Time |
|---|---|---|---|---|---|---|---|---|---|
| Temp in °C: | 10.4 | | | John R. Bham HDR | 6/5 | | CTH | 6/5 | 4:[illegible] |
| Received on ICE: | Y / N | | | | | | | | |
| Sealed Cooler: | Y / N | | | | | | | | |
| Samples Intact: | Y / N | | | | | | | | |

**Additional Comments:**

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: JOHN R. BHAM
SIGNATURE of SAMPLER: John R. Bham
DATE Signed: (MM / DD / YY) 5/6/00

**SEE REVERSE SIDE FOR INSTRUCTIONS**

Pace Analytical Services, Inc. Form COC01 02/00

HDR
HDR Engineering, Inc.

# PRE-SAMPLING WELL PURGING

PROJECT WINSTON-SALEM C.D
WELL NUMBER MW-6R
WELL INSIDE DIAMETER 2 INCHES
DEPTH OF BOTTOM 62.50 FEET
LENGTH OF GRAVEL PACK — FEET
DIAMETER OF GRAVEL PACK — INCHES

PROJECT NUMBER 00162-12-018
DATE 5/6/2000 PAGE 1 OF 1
AIR TEMPERATURE (FAHRENHEIT) 68°
WEATHER CONDITIONS CLOUDY, COOL
HNU/OVA READING NA
METHOD OF EVACUATION AND TYPE OF EQUIPMENT USED
BAILER

WITHDRAWAL OF WELL VOLUMES

| | WELL VOLUME | WELL VOLUME | WELL VOLUME | WELL VOLUME | WELL VOLUME |
|---|---|---|---|---|---|
| **FLUSHING** | | | | | |
| WATER LEVEL BEFORE | 38.53 | | | | |
| WATER LEVEL AFTER | NA | | | | |
| TIME BEGIN FLUSHING | 0830 | | | | |
| TIME END FLUSHING | 0900 | | | | |
| ESTIMATED VOLUME FLUSHING (gal) | 0 | 4 | 8 | 10 | 12 |
| WELL VOLUMES REMOVED | 0 | 1.02 | 2.05 | 2.56 | 3.07 |
| **FIELD ANALYSIS** | | | | | |
| WATER TEMPERATURE (°C) | 17.5 | 17.0 | 16.7 | 16.9 | 16.9 |
| SAMPLE (pH) | 4.75 | 5.10 | 5.12 | 5.12 | 5.11 |
| SAMPLE CONDUCTIVITY (umhos/cm) | 152 | 150 | 120 | 121 | 122 |
| BUFFER BEFORE | 4 | 4 | 4 | 4 | 4 |
| BUFFER AFTER | 4 | 4 | 4 | 4 | 4 |
| ODOR | NONE | NONE | NONE | NONE | NONE |
| COLOR | CLEAR | CLEAR | CLOUDY | CLOUDY | LT Yellow |
| OTHER TDS | | | | | 61 |

COMMENTS

SAMPLED: 0905

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)
$\pi r^2 \times h$ = WELL VOLUME IN $FT^3$
$\pi$ = 3.14

r = RADIUS IN INCHES/12 = RADIUS IN FEET
h = HEIGHT OF WATER COLUMN IN WELL IN FEET
CONVERSION FROM $FT^3$ TO GALLONS = 7.48 $gal/ft^3$

WELL RADIUS = 1.0 IN/12 = 0.0833 FT
h = 62.50 (WELL DEPTH) − 38.53 (DEPTH TO WATER) = 23.97 FT = h
3.14 × 0.0833 ($r^2$) × h = 0.522 $FT^3$ × 7.48 $gal/FT^3$ = 1 WELL VOLUME IN GAL = 3.91

WELLPURG.DWG

HDR
HDR Engineering, Inc.

# PRE-SAMPLING WELL PURGING

PROJECT WINSTON-SALEM C&D
WELL NUMBER MW-2R
WELL INSIDE DIAMETER 2 INCHES
DEPTH OF BOTTOM 24.93 FEET
LENGTH OF GRAVEL PACK — FEET
DIAMETER OF GRAVEL PACK — INCHES

PROJECT NUMBER 00162-128-018
DATE 6/5/2000 PAGE 1 OF 1
AIR TEMPERATURE (FAHRENHEIT) 68°
WEATHER CONDITIONS CLOUDY, COOL
HNU/OVA READING NA
METHOD OF EVACUATION AND TYPE OF EQUIPMENT USED
BAILER

## WITHDRAWAL OF WELL VOLUMES

| | WELL VOLUME | WELL VOLUME | WELL VOLUME | WELL VOLUME | WELL VOLUME |
|---|---|---|---|---|---|
| **FLUSHING** | | | | | |
| WATER LEVEL BEFORE | 9.93 | | | | |
| WATER LEVEL AFTER | NA | | | | |
| TIME BEGIN FLUSHING | 0945 | | | | |
| TIME END FLUSHING | 1000 | | | | |
| ESTIMATED VOLUME FLUSHING (gal) | 0 | 2 | 4 | 6 | 8 |
| WELL VOLUMES REMOVED | 0 | 0.82 | 1.64 | 2.46 | 3.28 |
| **FIELD ANALYSIS** | | | | | |
| WATER TEMPERATURE (°C) | 17.4 | 16.4 | 16.0 | | |
| SAMPLE (pH) | 4.25 | 4.70 | 4.69 | | |
| SAMPLE CONDUCTIVITY (umhos/cm) | 82 | 87 | 78 | | |
| BUFFER BEFORE | 4 | 4 | 4 | | |
| BUFFER AFTER | 4 | 4 | 4 | | |
| ODOR | NONE | NONE | SAME | | |
| COLOR | CLEAR | BROWN | SAME | | |
| OTHER TDS | 43 | 44 TURBID | 39 DRY | | |

COMMENTS

SAMPLED

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)
$\pi r^2 \times h$ = WELL VOLUME IN $FT^3$
$\pi$ = 3.14

r = RADIUS IN INCHES/12 = RADIUS IN FEET
h = HEIGHT OF WATER COLUMN IN WELL IN FEET
CONVERSION FROM $FT^3$ TO GALLONS = 7.48 $gal/ft^3$

WELL RADIUS = 1.0 IN/12 = 0.0833 FT
h = 24.93 (WELL DEPTH) − 9.93 (DEPTH TO WATER) = 15.00 FT = h
3.14 X 0.0833 ($r^2$) X h = 0.327 $FT^3$ X 7.48 $gal/FT^3$ = 1 WELL VOLUME IN GAL = 2.44

WELLPURG.DWG

HDR
HDR Engineering, Inc.

# PRE-SAMPLING WELL PURGING

PROJECT WINSTON-SALEM CID
WELL NUMBER MW-3R
WELL INSIDE DIAMETER 2 INCHES
DEPTH OF BOTTOM 31.14 FEET
LENGTH OF GRAVEL PACK — FEET
DIAMETER OF GRAVEL PACK — INCHES

PROJECT NUMBER 00162-128-018
DATE 6/5/2000 PAGE 1 OF 1
AIR TEMPERATURE (FAHRENHEIT) Cloudy, Cool
WEATHER CONDITIONS 69°
HNU/OVA READING NA
METHOD OF EVACUATION AND TYPE OF EQUIPMENT USED BAILER

## WITHDRAWAL OF WELL VOLUMES

| | WELL VOLUME | WELL VOLUME | WELL VOLUME | WELL VOLUME | WELL VOLUME |
|---|---|---|---|---|---|
| **FLUSHING** | | | | | |
| WATER LEVEL BEFORE | 22.76 | | | | |
| WATER LEVEL AFTER | NA | | | | |
| TIME BEGIN FLUSHING | 1115 | | | | |
| TIME END FLUSHING | 1120 | | | | |
| ESTIMATED VOLUME FLUSHING (gal) | 0 | 2 | 4 | 6 | |
| WELL VOLUMES REMOVED | 0 | 1.46 | 2.92 | 4.38 | |
| **FIELD ANALYSIS** | | | | | |
| WATER TEMPERATURE (°C) | 15.6 | 14.3 | | | |
| SAMPLE (pH) | 5.20 | 5.25 | | | |
| SAMPLE CONDUCTIVITY (umhos/cm) | 111 | 142 | | | |
| BUFFER BEFORE | 4 | 4 | | | |
| BUFFER AFTER | 4 | 4 | | | |
| ODOR | NONE | NONE | | | |
| COLOR | ORANGE | BROWN | | | |
| OTHER TDS | 55 | 70 | | | |
| | IRON BACK | DRY | | | |

**COMMENTS**

SAMPLED: 1125

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)
$\pi r^2 \times h$ = WELL VOLUME IN $FT^3$
$\pi$ = 3.14

r = RADIUS IN INCHES/12 = RADIUS IN FEET
h = HEIGHT OF WATER COLUMN IN WELL IN FEET
CONVERSION FROM $FT^3$ TO GALLONS = 7.48 $gal/ft^3$

WELL RADIUS = 1.0 IN/12 = 0.0833 FT
h = 31.14 (WELL DEPTH) − 22.76 (DEPTH TO WATER) = 8.38 FT = h
3.14 × 0.183 ($r^2$) × h = 0.0833 $FT^3$ × 7.48 $gal/FT^3$ = 1 WELL VOLUME IN GAL = 1.37

WELLPURG.DWG

HDR
HDR Engineering, Inc.

# PRE-SAMPLING WELL PURGING

PROJECT WINSTON-SALEM CTD
WELL NUMBER MW-4R
WELL INSIDE DIAMETER 2 INCHES
DEPTH OF BOTTOM ~~19.60~~ 22.30 FEET
LENGTH OF GRAVEL PACK — FEET
DIAMETER OF GRAVEL PACK — INCHES

PROJECT NUMBER 00162-128-018
DATE 6/5/2000 PAGE 1 OF 1
AIR TEMPERATURE (FAHRENHEIT) 68°
WEATHER CONDITIONS CLOUDY, COOL
HNU/OVA READING NA
METHOD OF EVACUATION AND TYPE OF EQUIPMENT USED BAILER

## WITHDRAWAL OF WELL VOLUMES

| | WELL VOLUME | WELL VOLUME | WELL VOLUME | WELL VOLUME | WELL VOLUME |
|---|---|---|---|---|---|
| **FLUSHING** | | | | | |
| WATER LEVEL BEFORE | 8.62 | | | | |
| WATER LEVEL AFTER | NA | | | | |
| TIME BEGIN FLUSHING | 1400 | | | | |
| TIME END FLUSHING | 1440 | | | | |
| ESTIMATED VOLUME FLUSHING (gal) | 0 | 2 | 4 | 7 | 8 |
| WELL VOLUMES REMOVED | 0 | 0.89 | 1.79 | 3.14 | 3.59 |
| **FIELD ANALYSIS** | | | | | |
| WATER TEMPERATURE (°C) | 16.5 | 16.0 | 14.8 | 14.8 | 14.8 |
| SAMPLE (pH) | 5.15 | 5.25 | 5.29 | 5.30 | 5.29 |
| SAMPLE CONDUCTIVITY (umhos/cm) | 155 | 165 | 162 | 162 | 162 |
| BUFFER BEFORE | 4 | 4 | 4 | 4 | 4 |
| BUFFER AFTER | 4 | 4 | 4 | 4 | 4 |
| ODOR | NONE | NONE | NONE | NONE | SAME |
| COLOR | NONE | BROWN | BROWN | SAME | SAME |
| OTHER | CLEAR | TURBID | TURBID | SAME | SAME |

COMMENTS

SAMPLED: 1445

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)
$\pi r^2 \times h$ = WELL VOLUME IN $FT^3$
$\pi$ = 3.14

r = RADIUS IN INCHES/12 = RADIUS IN FEET
h = HEIGHT OF WATER COLUMN IN WELL IN FEET
CONVERSION FROM $FT^3$ TO GALLONS = 7.48 $gal/ft^3$

WELL RADIUS = 1.0 IN/12 = 0.0833 FT
h = 22.30 (WELL DEPTH) − 8.62 (DEPTH TO WATER) = 13.68 FT = h
3.14 × 0.0833 ($r^2$) × h = 0.298 $FT^3$ × 7.48 $gal/FT^3$ = 1 WELL VOLUME IN GAL = 2.23

WELLPURG.DWG

HDR
HDR Engineering, Inc.

# PRE-SAMPLING WELL PURGING

PROJECT WINSTON-SALEM C&D
WELL NUMBER MW-5R
WELL INSIDE DIAMETER 2 INCHES
DEPTH OF BOTTOM 32.20 FEET
LENGTH OF GRAVEL PACK — FEET
DIAMETER OF GRAVEL PACK — INCHES

PROJECT NUMBER 00167-128-018
DATE 6/5/2000 PAGE 1 OF 1
AIR TEMPERATURE (FAHRENHEIT) 75
WEATHER CONDITIONS CLOUDY, LT RAIN
HNU/OVA READING NA
METHOD OF EVACUATION AND TYPE OF EQUIPMENT USED
BAILER

## WITHDRAWAL OF WELL VOLUMES

| | WELL VOLUME | WELL VOLUME | WELL VOLUME | WELL VOLUME | WELL VOLUME |
|---|---|---|---|---|---|
| **FLUSHING** | | | | | |
| WATER LEVEL BEFORE | 11.62 | | | | |
| WATER LEVEL AFTER | NA | | | | |
| TIME BEGIN FLUSHING | 1300 | | | | |
| TIME END FLUSHING | 1315 | | | | |
| ESTIMATED VOLUME FLUSHING (gal) | 0 | 4 | 6 | 8 | 10 |
| WELL VOLUMES REMOVED | 0 | 1.19 | 1.79 | 2.39 | 3.28 |
| **FIELD ANALYSIS** | | | | | |
| WATER TEMPERATURE (°C) | 16.1 | 14.6 | 14.6 | 14.6 | 14.5 |
| SAMPLE (pH) | 5.90 | 5.70 | 5.72 | 5.73 | 5.71 |
| SAMPLE CONDUCTIVITY (umhos/cm) | 166 | 164 | 160 | 160 | 160 |
| BUFFER BEFORE | 4 | 4 | 4 | 4 | 4 |
| BUFFER AFTER | 4 | 4 | 4 | 4 | 4 |
| ODOR | NONE | NONE | NONE | NONE | NONE |
| COLOR | CLEAR | CLOUDY | BROWN | SAME | SAME |
| OTHER | TDS 83 | 82 | 80 TURBID | 80 SAME | 79 |

COMMENTS

SAMPLED = 1320

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)
$\pi r^2 \times h$ = WELL VOLUME IN $FT^3$
$\pi$ = 3.14

r = RADIUS IN INCHES/12 = RADIUS IN FEET
h = HEIGHT OF WATER COLUMN IN WELL IN FEET
CONVERSION FROM $FT^3$ TO GALLONS = 7.48 $gal/ft^3$

WELL RADIUS = 1.0 IN/12 = 0.0833 FT
h = 32.20 (WELL DEPTH) − 11.62 (DEPTH TO WATER) = 20.58 FT = h
3.14 × 0.0833 ($r^2$) × h = 0.448 $FT^3$ × 7.48 $gal/FT^3$ = 1 WELL VOLUME IN GAL = 3.35

WELLPURG.DWG

HDR
HDR Engineering, Inc.

# PRE-SAMPLING WELL PURGING

PROJECT WINSTON-SALEM CCD
WELL NUMBER MW-6R
WELL INSIDE DIAMETER 2 INCHES
DEPTH OF BOTTOM 75.00 FEET
LENGTH OF GRAVEL PACK — FEET
DIAMETER OF GRAVEL PACK — INCHES

PROJECT NUMBER 00162-128-018
DATE 6/5/2000 PAGE 1 OF 1
AIR TEMPERATURE (FAHRENHEIT) 75
WEATHER CONDITIONS CLOUDY, COOL
HNU/OVA READING NA
METHOD OF EVACUATION AND TYPE OF EQUIPMENT USED BAILER

## WITHDRAWAL OF WELL VOLUMES

| | WELL VOLUME | WELL VOLUME | WELL VOLUME | WELL VOLUME | WELL VOLUME |
|---|---|---|---|---|---|
| **FLUSHING** | | | | | |
| WATER LEVEL BEFORE | 48.75 | | | | |
| WATER LEVEL AFTER | NA | | | | |
| TIME BEGIN FLUSHING | 1020 | | | | |
| TIME END FLUSHING | 1100 | | | | |
| ESTIMATED VOLUME FLUSHING (gal) | 0 | 4 | 8 | 10 | 13 |
| WELL VOLUMES REMOVED | 0 | 0.93 | 1.87 | 2.24 | 3.04 |
| **FIELD ANALYSIS** | | | | | |
| WATER TEMPERATURE (°C) | 15.8 | 16.1 | 15.5 | 15.6 | 15.6 |
| SAMPLE (pH) | 5.05 | 5.50 | 5.52 | 5.51 | 5.52 |
| SAMPLE CONDUCTIVITY (umhos/cm) | 87 | 82 | 85 | 82 | 81 |
| BUFFER BEFORE | 4 | 4 | 4 | 4 | 4 |
| BUFFER AFTER | 4 | 4 | 4 | 4 | 4 |
| ODOR | NONE | NONE | NONE | NONE | NONE |
| COLOR | CLEAR | CLOUDY | CLOUDY | CLOUDY | SAME |
| OTHER TDS | 43 | 41 | 42 | 41 | 40 |

COMMENTS

SAMPLED: 1105

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)
$\pi r^2 \times h$ = WELL VOLUME IN $FT^3$
$\pi$ = 3.14

r = RADIUS IN INCHES/12 = RADIUS IN FEET
h = HEIGHT OF WATER COLUMN IN WELL IN FEET
CONVERSION FROM $FT^3$ TO GALLONS = 7.48 $gal/ft^3$

WELL RADIUS = 1.0 IN/12 = 0.0833 FT
h = 75.00 (WELL DEPTH) − 48.75 (DEPTH TO WATER) = 26.25 FT = h
3.14 × 0.0833 ($r^2$) × h = 0.572 $FT^3$ × 7.48 $gal/FT^3$ = 1 WELL VOLUME IN GAL = 4.28

WELLPURG.DWG

HDR
HDR Engineering, Inc.

# PRE-SAMPLING WELL PURGING

PROJECT WINSTON-SALEM CSD
WELL NUMBER MW-7R
WELL INSIDE DIAMETER 2 INCHES
DEPTH OF BOTTOM 35.66 FEET
LENGTH OF GRAVEL PACK — FEET
DIAMETER OF GRAVEL PACK — INCHES

PROJECT NUMBER 00167-128-018
DATE 6/5/2000 PAGE 1 OF 1
AIR TEMPERATURE (FAHRENHEIT)
WEATHER CONDITIONS CLOUDY, LT RAIN
HNU/OVA READING NA
METHOD OF EVACUATION AND TYPE OF EQUIPMENT USED
BAILER

## WITHDRAWAL OF WELL VOLUMES

| | WELL VOLUME | WELL VOLUME | WELL VOLUME | WELL VOLUME | WELL VOLUME |
|---|---|---|---|---|---|
| **FLUSHING** | | | | | |
| WATER LEVEL BEFORE | 35.66 | | | | |
| WATER LEVEL AFTER | NA | | | | |
| TIME BEGIN FLUSHING | 1350 | | | | |
| TIME END FLUSHING | 1405 | | | | |
| ESTIMATED VOLUME FLUSHING (gal) | 0 | 2 | 4 | 6 | |
| WELL VOLUMES REMOVED | 0 | 1.10 | 2.20 | 3.30 | |
| **FIELD ANALYSIS** | | | | | |
| WATER TEMPERATURE (°C) | 16.4 | 15.8 | | | |
| SAMPLE (pH) | 5.30 | 5.36 | | | |
| SAMPLE CONDUCTIVITY (umhos/cm) | 90 | 89 | | | |
| BUFFER BEFORE | 4 | 4 | | | |
| BUFFER AFTER | 4 | 4 | | | |
| ODOR | None | NONE | | | |
| COLOR | clear | BROWN | | | |
| OTHER TDS | 44 | 42 | | | |
| | | TURBID | | | |

COMMENTS

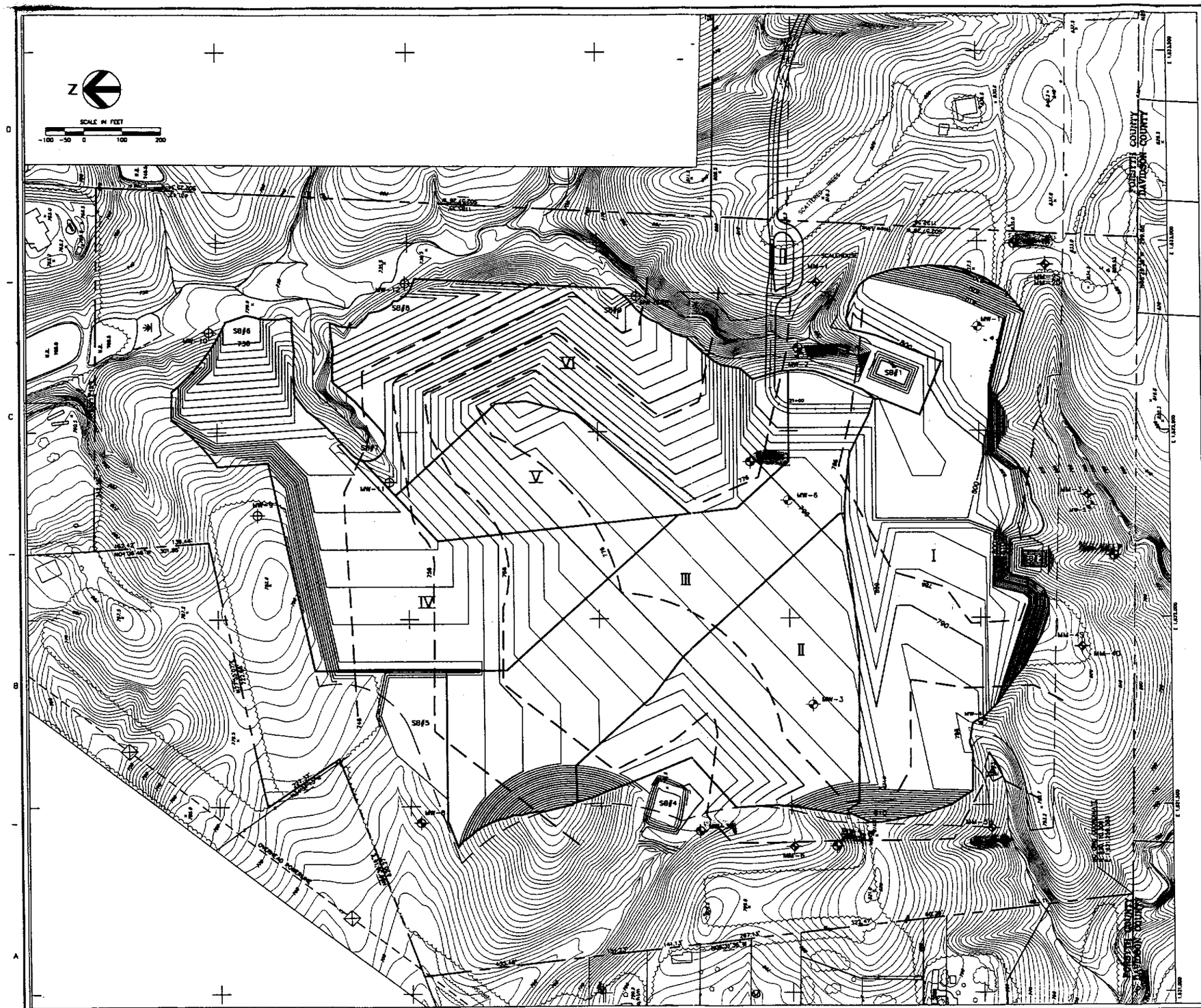
SAMPLED : 1410

WELL VOLUME CALCULATIONS (1cf = 7.48 gal)
$\pi r^2 \times h$ = WELL VOLUME IN $FT^3$
$\pi$ = 3.14

r = RADIUS IN INCHES/12 = RADIUS IN FEET
h = HEIGHT OF WATER COLUMN IN WELL IN FEET
CONVERSION FROM $FT^3$ TO GALLONS = 7.48 $gal/ft^3$

WELL RADIUS = 1.0 IN/12 = 0.0833 FT
h = 46.83 (WELL DEPTH) − 35.66 (DEPTH TO WATER) = 11.17 FT = h
3.14 × 0.0833 ($r^2$) × h = 0.243 $FT^3$ × 7.48 $gal/FT^3$ = 1 WELL VOLUME IN GAL = 1.82

WELLPURG.DWG




## LEGEND

- 780 — PROPOSED CONTOURS
- 810 — EXISTING CONTOURS
- PROPERTY BOUNDARY
- COUNTY LINE
- STREAM
- POTENTIAL EXTENT OF WASTE
- PROPOSED PHASING BOUNDARY
- SEASONAL HIGH GROUND-WATER CONTOURS
- EXISTING GROUND-WATER MONITORING WELL
- EXISTING METHANE GAS MONITORING PROBE
- PROPOSED GROUND-WATER MONITORING WELL ("R" - DENOTES REPLACEMENT WELL)
- ABANDONED MONITORING WELLS
- PRIVATE WATER SUPPLY WELL
- SB#2 SEDIMENTATION BASIN

## NOTES

1. TOPOGRAPHIC INFORMATION PROVIDED BY CARTOGRAPHIC AERIAL MAPPING DATED NOVEMBER 12, 1993.
2. PROPERTY SURVEY TAKEN FROM DATA SUPPLIED BY BRADY SURVEYING, INC. DATED MARCH 15, 1994.
3. THIS DRAWING SHOWS ABANDONED, EXISTING AND PROPOSED MONITORING WELLS, AND METHANE GAS MONITORING PROBES.
4. S - DEPICTS SHALLOW
   D - DEPICTS DEEP

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| Revision No. | Description | Date | Drawn | Chkd. | Appr. | Appr. |
|---|---|---|---|---|---|---|
| C | ADDED METHANE GAS PROBES MW-1 TO MW-6 | 8/22/99 | CRN | | | |
| B | ADDED MW-3R, MW-6, AND MW-6R | 8/18/99 | CRN | | | |
| A | ISSUED FOR APPROVAL | | | | | |

Project Manager: J.C. READLING, P.E.
Engineers: G.E./Project
G.A.: E.A. WRIGHT, P.E.
Electrical: Structural
Hydrologist: Drawn By: J. CHUL

OLD SALISBURY ROAD
CONSTRUCTION AND DEMOLITION LANDFILL
PHASE II AND III
CONSTRUCTION PLAN APPLICATION
WINSTON-SALEM NORTH CAROLINA

EXIST. AND PROP. GROUND-WATER MONITORING WELL AND METHANE GAS PROBE LOCATIONS

| Date | Project No. | Dwg. No. | Rev. |
|---|---|---|---|
| APRIL 1999 | 0152-090-016 | C-5 | C |

Scale: 1"=100'