CDM
5400 Glenwood Avenue, Suite 300
Raleigh, North Carolina 27612
tel: 919 787-5620
fax: 919 781-5730

Fac/Perm/Co ID # | Date
PC | 6/16/09 | DIN

Received
SEP 2007
Waste Management

September 19, 2007

Ms. Jaclynne Drummond
Compliance Hydrogeologist
North Carolina Department of Environment and
Natural Resources – Division of Waste Management
Solid Waste Section
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27699-1646

Subject: Leachate Spill Assessment Plan
Buncombe County Subtitle D Landfill
Alexander, North Carolina
Permit # 11-07

Dear Jackie:

CDM, on behalf of Buncombe County, is providing this Assessment Plan for the leachate release outside of the waste cell at the Buncombe County Subtitle D Landfill. The Plan includes collection and analysis of soil, sediment, surface water and groundwater samples to assess the impacts of leachate outside of the cell. The scope of work provided is based on discussions from our meeting on September 18, 2007.

Background

On July 22, 2007, County staff discovered a leachate outbreak outside of the landfill liner near the Cell 3 leachate pump station. The leachate flowed to an adjacent stormwater ditch, into a culvert, and into a sediment pond. The leachate leak was estimated to have lasted for approximately 8 hours. On July 31, 2007, water samples were collected by Pace Analytical Services, Inc. from two of the down-gradient sediment ponds and analyzed for pH, conductivity, dissolved oxygen, and turbidity. Sample results were non-conclusive as to whether the ponds had been impacted by the release.

On September 7, 2007, a Compliance Order was issued by the Division of Waste Management (DWM) detailing violations of concern and the actions required by the County to come into compliance. One of the conditions was to assess the impact of the leachate release outside of the cell. In order to meet this condition and assess the impact of the release, CDM proposes the following scope:

CDM

Soil and Sediment Sampling
CDM will collect up to 6 soil samples from 3 locations in the base of the stormwater ditch down-gradient of the Cell 3 pump, and 1 sediment sample in the sediment pond at the culvert outfall. Samples will be collected at locations provided on Figure 1.

The soil samples will be collected with a hand-auger and will be obtained at depths of 6-inches and 2-feet below land surface. Sample S-1 will be collected at the leachate pump station, S-2 will be collected approximate 100-feet down-gradient of the pump station, and S-3 will be collected at the drop-inlet to the culvert. A pre-cleaned hand-auger head will be used to collect each sample.

Each soil sample will be screened for volatile organics with a Flame Ionization Detector (FID) utilizing head-space techniques. A portion of each sample will be placed in a sealed plastic bag and allowed to sit for 10 minutes, after that time, the head-space will be analyzed. If the head-space analysis on the sample from 2-feet indicates the presence of volatile organic compounds, a deeper sample from 3-feet will be collected and screened.

Sediment samples will be collected directly from the base of the pond at the culvert outfall. Similar to the soil samples, the sediment sample will be screened using head-space techniques. The sediment sample collection device will depend on the nature of the sediment at the outfall. Sediment sample location (S-4) is provided on Figure 1.

The remaining portions of each sample will be placed in laboratory supplied sample containers and placed in an iced cooler for overnight shipment to the laboratory. Soil and sediment samples will be analyzed by SGS Laboratories, Inc. in Wilmington, North Carolina for North Carolina Appendix I Volatile Organic Compounds (VOC) by EPA Method 8260 with 3550 preparation and RCRA Metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver).

Groundwater and Surface Water Sampling
As discussed in the September 18, 2007 meeting, groundwater samples from the down-gradient monitoring wells MW-2/2d and MW-10/10d will be collected and analyzed for Appendix I VOC and RCRA Metals. Monitoring well locations are provided on Figure 1. In addition, surface water samples will be collected from the sediment pond (SW-1) and the stream, directly down-gradient of the sediment pond outfall (SW-2). The surface water samples will also be analyzed for Appendix I VOC and RCRA Metals. Proposed surface water sample locations are provided on Figure 1.

CDM

Following receipt of the laboratory data, CDM will prepare a letter report detailing sampling activities and results and any recommendations for further investigation or remediation if necessary.

Schedule

Assuming DWM approval of this assessment plan, CDM is tentatively scheduled to begin the assessment the week of October 1, 2007. It is anticipated that field work will be completed in 2 days. Laboratory data should be available 10 working days from date of sample receipt by the laboratory. A final letter report will be submitted to the DWM within 2 weeks of receiving the laboratory reports.

If you have any questions or comments regarding the scope of work described in this assessment plan, please do not hesitate to contact me at (919) 787-5620.

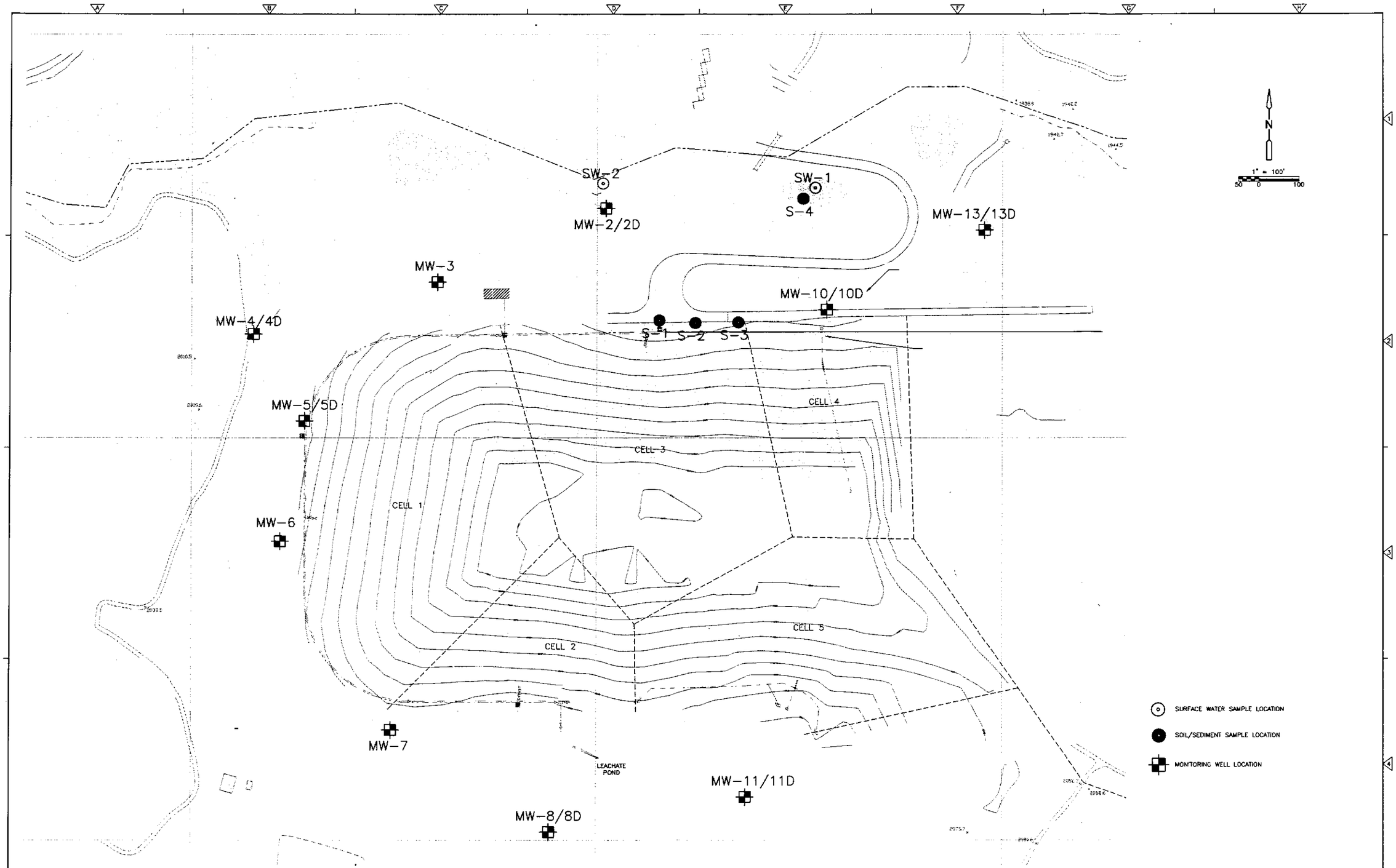
Very truly yours,

Mathew F. Colone, P.G.
Camp Dresser & McKee

NORTH CAROLINA SEAL 1851 GEOLOGIST MATHEW F. COLONE

9/19/2007

cc: J. Mears, BCSWMF
C. Gabel, CDM
D. Aja, NCDENR DWM
J. Wiseman, CDM
W.M. Brinchek, CDM
K. Yang, CDM



REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: M. COLONE
DRAWN BY: K. YANG
SHEET CHK'D BY: M. BRINCHEK
CROSS CHK'D BY:
APPROVED BY:
DATE: SEPTEMBER 2007

CDM
Camp Dresser & McKee
Carolina Corporate Center
5400 Glenwood Avenue, Suite 300
Raleigh, North Carolina 27612
Tel: (919) 787-6620 Fax: (919) 781-5730
consulting • engineering • construction • operations

BUNCOMBE COUNTY, NORTH CAROLINA

LEACHATE OUTBREAK ASSESSMENT
BUNCOMBE COUNTY SOLID WASTE MANAGEMENT FACILITY

PROPOSED
SAMPLING LOCATIONS

PROJECT NO. 6447-
FILE NAME: SHEET1.DWG
SHEET NO.
1

09/18/07 5:44:46 PM L:\BUNCOMBE\COMPLIANCE ORDER\SHEET1.DWG