



PAT MCCRORY

Governor

DONALD R. VAN DER VAART

Secretary

LINDA CULPEPPER

Director

January 26, 2016

Mr. Tom Raymond
S&ME, Inc.
3201 Spring Forest Road
Raleigh, NC 27616

Re: Work Plan and Cost Proposal Request - Task Orders 7607DP-24&25
E. H. Glass County LF
Greensboro, Guilford County
ID # NCD980557607

Dear Mr. Raymond:

Submit a task work plan and cost estimate to perform remedial investigation-contaminant delineation phase activities at the above referenced site. Conduct these activities in accordance with State Contract No. N10003S.

Investigation Goals: Further assess groundwater to the east and south of the waste disposal area, resample the existing monitoring wells at the site, resample collect surface water and sediment, and screen the existing landfill gas probes.

Scope of work for Task Order 7607DP-24:

Sub Task A: Work Plan and Cost Estimate Preparation:

- Prepare a work plan in accordance with S&ME's approved standard operating procedures dated July 2010, and include a schedule of daily activities.
- Submit an itemized cost estimate that identifies personnel and materials involved.
- Reference the most recent Guidelines for Addressing Pre-Regulatory Landfills and Dumps for details regarding procedures.
- Ensure personnel in the field are qualified to identify contaminated material and landfill waste and comply with OSHA-required health and safety training. Before task activities begin, photograph areas or objects that may be disturbed. If needed, photograph affected areas and objects, restoration efforts, and noteworthy items encountered during task activities. Submit these photographs upon completion of the activities, and a review will determine if any need to be included in the report.
- Collect GPS coordinates for each new boring location. Report coordinates in decimal degrees to the seventh order using the North American Datum of 1983 (NAD83) format and latitude and longitude using WGS 84 format. These coordinates will be tabulated and included as an appendix.



- Include background (light grey) topographic contour lines on figures detailing the Site and Site vicinity.
- For any invasive activities, provide a plan to properly manage investigation derived waste (IDW). If sampling results indicate non-hazardous IDW, spread within the waste disposal area. If sampling results indicate hazardous IDW, analyze containerized waste as required by waste hauler and include details of sampling and disposal of drums in the proposal. Remove all drummed waste and associated fencing from site within 90 days after field activities are concluded.
- For any field work, minimize the clearing of vegetative material to enable access to proposed sampling points. Using hand tools for clearing is the preferred method, otherwise an explanation must be provided for use of heavy equipment.
- Submit samples to a North Carolina-certified laboratory and analyze for the following parameters by the most current U.S. EPA Contract Laboratory Program Target Compound List: 1,4-dioxane by Method 8260SIM. Please note that any alternate method should be the U.S. EPA Method having the lowest detection limit and that at least achieves the detections equivalent to the 15A NCAC 2L standards or where these are not available, then federal maximum contaminant limits (MCLs). Soil analysis methods must meet the IHSB Preliminary Soil Remediation Goals Table.
- Upon completion of task activities, submit field notes, photographs, and validated analytical results for review.
- Provide daily updates via phone or email to the Unit Project Manager.

Sub Task B: Surface Water/Sediment/Seep Investigation:

- Collect one surface water sample from the six locations identified on the accompanying figure (SW-1, SW-4, SW-7, SW-11, SW-14 and SW-15) to submit for laboratory analysis of 1,4-Dioxane by Method 8260SIM

Sub Task C: Groundwater Investigation:

- Advance five soil borings (MW-15 through MW-19) outside of the waste to groundwater at the locations indicated on the attached map. Install a permanent two-inch diameter groundwater monitoring well in each boring. Depth to groundwater is estimated between ten and fifteen feet below land surface and the assumption is hollow stem augers will be required to advance the borings. Construct the wells with ten feet of screen such that it intersects the water table. Well installation must comply with the most current 15A NCAC 2C well construction standards. Construct wells with flush mount or stick up covers as appropriate.
- Log each boring in the field. Boring log information will include but is not limited to; top of ground elevation, detailed soil description and lithology at depths, depth of groundwater observed during drilling, notable reaction of drill rig during advancement, depth of competent rock encountered, detailed notes/remarks, and a well construction diagram.
- Determine ground water elevation for each well and collect water level measurements using all available groundwater wells (MW-1 through MW-19).
- Collect one groundwater sample from the new and existing monitoring wells (MW-1 through MW-19) each well to submit for laboratory analysis of 1,4-Dioxane by Method 8260SIM.



- Provide well construction details in a table and include installation date, top of casing elevation, ground surface elevation, total well depth, well screen interval, depth to groundwater, and groundwater elevation.

Sub Task D: Landfill Gas Probe Screening

- Screen the landfill gas probes (GP-1 through GP-8, GP-4A, and GP-11 through GP-16) for volatile organic compounds (VOCs), methane, oxygen, carbon dioxide, barometric pressure and hydrogen sulfide.
- Compare landfill gas probe screening results with the IHSB Residential Vapor Intrusion Screening levels.
- Do not abandon the gas probes following screening. A review of the field testing results will determine subsequent sample collection.

Scope of Work for Task Order 7607DP-25: Report Compilation

Compilation of the report will be approved as a separate task order. The Report will be titled “Remedial Investigation – Media Sampling”.

The report is to contain the following items:

- Text, tables, and figures to adequately summarize task activities.
- A section concerning any variations from the work plan or your SOPs.

Provide the work plan and cost estimate by February 9, 2016. A task authorization to begin work will be issued based on the approved proposal. Do not proceed with tasks prior to receiving this authorization. If you have any questions or concerns, contact me at (919)707-8230.

Sincerely,



David P. Kwiatkowski, Hydrogeologist
Division of Waste Management – NCDEQ

