



# Brown & Root Environmental

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C-49-10-5-303

October 25, 1995

Project Number 5082

Mr. Mark Evans  
Northern Division (Code 1823)  
Naval Facilities Engineering Command  
Mail Stop 82, 10 Industrial Highway  
Lester, Pennsylvania 19113-2090

Reference: CLEAN Contract N62472-90-D-1298  
Contract Task Order No. 203

Subject: Field Investigation Modifications  
Groundwater/Leachate Modeling Study  
Area A landfill Remedial Design  
Naval Submarine Base New London, Groton, Connecticut

Dear Mr. Evans:

As a result of the October 20, 1995 telephone conference held between the Navy, U.S. EPA Region I (USEPA), their oversight contractor TRC Environmental Corporation (TRC), and Brown & Root Environmental (B&R Environmental), it was agreed to modify the field investigation proposed in support of the Groundwater/Leachate Modeling Study as described in the Letter Work Plan, dated September 6, 1995, and the Letter Work Plan Addendum, dated October 5, 1995. Also, based on a site reconnaissance and utility interference check performed by B&R Environmental during the week of October 16, 1995, some proposed data points have been slightly relocated. The field investigation modifications as itemized below are reflected on attached Figure 3-1. Table A-2, which was first presented in Field Sampling Plan (FSAP) appended to the September 6 Letter Work Plan, has also been revised to reflect the agreed-upon field investigation modifications and a copy of revised Table A-2 is attached to this letter.

The following field investigation modifications will be implemented:

- Proposed well cluster 2LMW32F/2LMW32DS will be moved north about 100 feet toward the wetland boundary to determine groundwater elevations in the dredge spoil and fill near the downgradient edge of the landfill.
- A bedrock well, designated 2LMW32B, will be added to the 2LMW32F/2LMW32DS well cluster to establish a better estimate of the bedrock surface, hydraulic conductivity in the bedrock, and hydraulic potential in the bedrock at the northeast corner of the landfill.
- Proposed dredge spoil piezometer 2LPZ3DS will be moved to the wetland boundary.
- Proposed test boring 2LTB32DS will be converted to a dredge spoil monitoring well, re-designated 2LMW34DS, and moved to the southern edge of crane test pad near the existing 2LMW18 well cluster. This new well, together with the existing 2LMW18 cluster, will establish the hydraulic conductivity and hydraulic potential in the dredge spoil between transects B-B' and C-C'.



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- Proposed upgradient bedrock well 2LMW34B will be re-designated as 2LMW36B to account for the conversion of proposed test boring 2LTB32DS to dredge spoil well 2LMW34DS.
- An additional piezometer drive point 2LPZ1F will be installed in the fill near proposed staff gauge SG-11 to determine groundwater elevation in the fill/overburden along the wetland boundary between transects B-B' and C-C'.
- An additional piezometer drive point 2LPZ2F will be installed in the fill near existing soil boring 2GB13 to determine groundwater elevation in the fill/overburden at the upgradient, western portion of landfill.
- Proposed dredge spoil piezometer drive points 2LPZ1DS through 2LPZ3DS will be relocated and three additional dredge spoil piezometer drive points, 2LPZ4DS through 2LPZ6DS will be installed. These drive points will be coupled with proposed staff gauges, SG-7, SG-8, and SG-10 through SG-13 to ensure an estimate of the hydraulic potential in the wetland dredge spoil given that the wetland is presently dry.
- Proposed well cluster 2LMW29F/2LMW29DS will be moved south toward the hillside to obtain hydraulic data in the dredge spoil and fill closer to the upgradient boundary of the landfill.
- Proposed well cluster 2LMW31F/2LMW31DS will be moved south off the landfill service road as determined by the B&R Environmental site reconnaissance.

At this time, B&R Environmental is planning to initiate field work on October 31, 1995 and it is anticipated that all field activities will be completed around November 22, 1995.

This information is also being sent today to Ms. Kymberlee Keckler at USEPA (via express mail), to Mr. Dale Weiss at TRC (via express mail), and to Mr. Mark Lewis at the Connecticut Department Of Environmental Protection (CTDEP) (via regular mail). Copies of this letter and the attached figure and table are also being sent today in accordance with the distribution list shown below.

If you have any questions or comments regarding the proposed field investigation modifications, please contact me at (412) 921-8568 or Corey Rich at (412) 921-8244.

Sincerely yours,



Jean-Luc Glorieux, P.E.  
Project Manager

Attachment

JLG/jlg

cc: Mr. Roger Boucher, NORTHDIV (letter only)  
Mr. James Briggs, NORTHDIV (1 copy)  
Mr. Andrew Stackpole, NSB NLON, Environmental (1 copy)  
Mr. John Trepanowski, Brown & Root Environmental, Wayne (1 copy)  
Mr. Daryl Hutson, Brown & Root Environmental, Pittsburgh (letter only)  
File 5082

REVISED TABLE A-2

SUMMARY OF FIELD INVESTIGATION NOMENCLATURE  
 GROUNDWATER/LEACHATE MODELING STUDY  
 AREA A LANDFILL REMEDIAL DESIGN  
 NAVAL SUBMARINE BASE NEW LONDON - GROTON, CONNECTICUT

ITEM	NUMBER	NOMENCLATURE	COMMENTS
Infiltration Tests	10	2LIT1 through 2LIT10	Require description of ground surface, flow rate, height of water, and radius of pipe.
Staff Gauges	8	SG-7 through SG-14	Hand driven. SG-9 and SG-14 are stand-alone staff gauges. SG-7, SG-8, SG-10 through SG-13 are coupled with drive points.
Drive Point Piezometers	6 dredge spoil	2LPZ1DS through 2LPZ6DS	Hand or jack driven. "DS" means dredge spoil. These will also be used as/coupled with staff gauges.
Drive Point Piezometers	2 fill material	2LPZ1F and 2LPZ2F	Utilize drill rig. "F" means fill material.
Overburden Monitoring Wells	13	2LMW28F through 2LMW33F, 2LMW28DS through 2LMW33DS, and 2LMW34DS	"F" means fill; "DS" means dredge spoil. If dredge spoil is not present, well will be screened in alluvium and designated by "A".
Bedrock Monitoring Wells	3	2LMW32B, 2LMW35B, and 2LMW36B	2LMW32B is part of well cluster. 2LMW35B and 2LMW36B are on top of hillside.
Dredge Spoil Permeability Tests	7	2LMW28DS-P-XXXX through 2LMW34DS-P-XXXX	"P" means permeability test. XXXX is collection depth defined by field personnel, e.g. 0810 means 8 to 10 foot interval.
Dredge Spoil Triaxial Compression Tests	2	2LMW34DS-T-XXXX and 2LMW??DS-P-XXXX	?? means location will be field determined. "T" means triaxial compression test. XXXX is collection depth defined by field personnel, e.g. 0608 means the 6 to 8 foot interval.

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ITEM	NUMBER	NOMENCLATURE	COMMENTS
Slug Tests	18	2LMW28 through 2LMW33 well clusters, 2LMW34DS, 2LMW35B, 2LMW36B, 2LMW8D, 2LMW20D	13 new overburden wells, 3 new bedrock wells, and 2 existing bedrock wells.
Water Levels	68	1MW2S, 2DMW11S/11D, 2LMW7S/7D through 2LMW9S/9D, 2LMW13S/13D, 2LMW14D, 2LMW17S/17D through 2LMW20S/20D, 2LPW1S, 2LOW1S, 2LOW1D, 2LOW2S, 2LOW3S, 2LOW4S, 2WMW3S/3D, 3MW12S/12D, 4MW1S, 4MW2S, 4MW3S, 4MW4S, 4MW4D, 2LMW28 through 2LMW33 well clusters, 2LMW34DS, 2LMW35B, 2LMW36B, 2LPZ1DS through 2LPZ6DS, 2LPZ1F, 2LPZ2F, SG-6 through SG-14	35 existing wells, 16 new wells, 8 new drive points, 1 existing staff gauge, 8 new staff gauges.
Discharge Measurement	1	Not applicable	Construct weir.
Seep Sample	2	3MSP01, 3MSP01-R	"R" means rinsate blank.
Survey	32	SG-7 through SG-14, 2LPZ1DS through 2LPZ6DS, 2LPZ1F, 2LPZ2F, 2LMW28 through 2LMW33 well clusters, 2LMW34DS, 2LMW35B, 2LMW36B	8 staff gauges, 8 drive points, 13 new overburden wells, 3 new bedrock wells.