

Field Report

CMA ENGINEERS, INC.
35 BOW STREET
PORTSMOUTH, NH 03801

REPORT NO: 036

DATE: 06/04/13

WEATHER: AM: Overcast 45F PM: Overcast 52F

Project: North Country Environmental Services Landfill – Phase II-B
Bethlehem, NH
CMA Project No: 865 (file: Field Reports: 865 C.1)

Contractor: Pike Industries, Inc.
3 Eastgate Park
Belmont, NH 03220

Equipment:	Personnel:
John Deere 370E Dump Truck	1 Operator
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John Deere 744K Loader	1 Operator
Caterpillar 345 BL Excavator	1 Operator
Caterpillar 336 EL Excavator	1 Operator
John Deere 750K Bulldozer	1 Operator
Caterpillar CS56 Roller	1 Operator
Water Truck	1 Operator

Engineer: CMA Engineers, Inc. (CMA): Adam J. Sandahl, P.E.

Others:

Kevin Roy, NCES
Josh Casey, NCES
Joe Gay, NCES
Matt Willey, Pike
Bob Grillo, CMA Engineers
Paul Gildersleeve, NHDES
Larry Provost, Terracon

Construction Activities:

0720 – Arrive on site.

Southern Expansion

0720 – Pike continues to uncover the anchor trench. Screened till placement is approximately 95 percent complete as of the end of the day yesterday.

0800 – Observed saturated soil from the anchor trench to approximately 3' up the slope. This area had previously had standing water since the heavy rain last week. It appears that the screened till placed yesterday has wicked moisture from the underlying saturated soil. Pike will need to replace this material prior to liner placement.

0830 – Larry Provost of Terracon is on site to perform in-place density testing. Preliminary results are below (95% compaction required):

Test #	DD	%M	%C
1	118.3	11.5	95.4
2	118.7	11.7	95.8
3	119.3	9.8	96.2
4	119.2	9.4	96.1
5	124.0	9.0	100.0
6	118.9	10.3	96.0
7	120.2	9.3	97.0

0900 – Performed two test pits, one 10' from the top of slope and one 10' from the existing anchor trench to confirm screened till depth of 12". Visual inspection of the till placement also confirmed 12" depth.

1000 – Paul Gildersleeve (NHDES) and Bob Grillo (CMA Engineers) are on site to inspect condition of exposed anchor trench.

1300 – Pike is replacing saturated soil along anchor trench with new screened till.

1400 – Located damaged liner locations by visual inspection for anchor trench that has been uncovered (Approximately 80% complete). Points are collected from east to west. Some of the damage was created during the uncovering of the anchor trench. Other damage does not appear recent. Summary below:

Point	N	E	Elev.	Description
1	641166.24	994524.7	1352.69	3' x 18" (Pike damage) - Through secondary liner
2	641163.40	994495.3	1351.98	4' x 12" (Pike damage) - Through primary liner
3	641155.93	994299.2	1348.18	4" sag, no damage apparent
4	641150.98	994235.8	1348.40	4' x 12" (Pike damage) - Through secondary liner
5	641149.76	994220.3	1347.80	4' x 18" (Pike damage) - Through primary liner
6	641149.30	994195.6	1347.10	5' x 3" (Pike damage) - Through primary liner
7	641148.74	994190.3	1346.25	3' x 1' deep dip in the anchor trench, no damage apparent
8	641145.31	994155.8	1347.64	Pike damage from cap removal, 1" x 1'
9	641141.45	994088.6	1348.79	6" x 1" damaged patch at top of anchor trench
10	641139.94	994061.9	1349.14	2" diameter puncture

There is a seam on Point #6 that is no longer welded. It is not clear where this section of liner becomes seamed and additional waste will need to be uncovered to determine where the weld begins.

It is not clear at this point if any of the above described damage is directly related to increased secondary leachate flows. Additional inspections will be performed as the anchor trench is being uncovered.

1500 – Pike continues to clean the anchor trench and place remaining screened till.

Northern Sump Repair

0720 – Pike is excavating and hauling trash. One Pike haul truck and the NCES haul truck are currently operating. The second Pike haul truck is being repaired.

1315 – Pike has ended waste excavation and is focusing efforts on prepping berm and anchor trench for liner work tomorrow.

END OF REPORT

Submitted by: Adam Sandahl, P.E., CMA Engineers, Inc.
cc: Jeff Murray, P.E., CMA Engineers, Inc.
Robert Grillo, P.E. CMA Engineers, Inc.



Waste Excavation – Looking South



Uncovering Anchor Trench – Looking Southeast