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May 31, 2011

Mr. Gregory M. Dorosh, P.E.
Principle Engineer
Environmental Compliance Section
Bureau of Engineering & Highway Operations
State of Connecticut Department of Transportation
2800 Berlin Turnpike, P.O. Box 317546
Newington, CT, 06131-7546

Attention: Ms. Denise Young / Mr. Christopher Bonsignore

RE: Clinton Shoreline East Station
Clinton, Connecticut
Addendum to Task 210 Report Dated February 2011
STATE PROJECT NO. 310-48
TRC Project No. 107307-3550

Dear Mr. Dorosh,

TRC Environmental Corporation (TRC), at the request of the Connecticut Department of Transportation (ConnDOT), conducted additional environmental investigation activities at the Clinton Shoreline East Station in Clinton, Connecticut (Figure 1) in May 2011. As documented in the Task 210 report prepared for the site, the results of the environmental sampling conducted in September 2010 indicated the presence of extractable total petroleum hydrocarbon (ETPH) impacts in the shallow subsurface around soil boring location IT-2. As IT-2 is a location at which infiltration structures will be installed as part of the up-coming improvements to the site, ConnDOT requested that additional delineation of the ETPH impacts be conducted in order to guide the removal of the soils such that infiltration will not occur through impacted soils. A brief discussion regarding the delineation of the ETPH impacts is presented below. This letter constitutes an addendum to TRC's February 2011 Task 210 Report for the Clinton Shoreline East Station.

ETPH Delineation – Drilling and Sampling

On May 20, 2011, Berkshire Environmental Services and Technology, LLC (Berkshire) of Torrington, Connecticut drilled five soil borings at the Clinton Shoreline East Station under the

supervision of TRC personnel. As indicated above, the additional borings were drilled to delineate an ETPH impact identified during the Task 210 investigation that was conducted in September 2010. Specifically, the results of the soil sampling conducted as part of the 2010 investigation showed that ETPH was detected at a concentration of 820 parts per million (ppm) in the three-to-six feet below grade (ftbg) interval at boring IT-2. This reported concentration exceeds both the Residential Direct Exposure Criteria (RDEC) and the GA Pollutant Mobility Criteria (PMC) as set forth on Connecticut's Remediation Standard Regulations (RSRs).

To delineate the ETPH contamination, boring GP-4 was drilled immediately adjacent to the original IT-2 boring location and borings GP-5, GP-6, GP-7 and GP-8, as shown on the attached Figure 2, were drilled around IT-2 at a ten-foot spacing. All five soil borings were advanced to a depth of eight ftbg. The soil sample collected from boring GP-4 (which was advanced directly adjacent to the original IT-2 location) was collected from the six-to-eight foot interval in order to evaluate the soils directly below the initial ETPH detection. Two soil samples were collected from each of the remaining soil borings to allow for both aerial and vertical delineation, as necessary. Specifically, soils from borings GP-5 through GP-8 were collected from the four-to-six foot interval and the six-to-eight foot interval (see the attached boring logs). The protocols for sample collection as outlined in the original Task 210 investigation work plan for the site were followed during this deployment.

All soils were delivered to Phoenix Environmental Laboratories, Inc. (Phoenix) of Manchester, Connecticut for ETPH analysis. The soil sample collected from boring GP-4, as well as the soil samples collected from the four-to-six foot intervals in each of the remaining borings, were submitted to Phoenix for ETPH analysis on an expedited turnaround time basis. The remaining soil samples were archived pending the results of the first round of analyses.

Results

As shown in the attached Table 1, ETPH was not detected in the soils located below the initial interval in which they were detected at location IT-2, nor was ETPH detected at the surrounding locations.

Conclusion

Based on the absence of ETPH in the soils around boring location IT-2 and below the initially identified zone of impact, it is TRC's opinion that the ETPH impact has been adequately defined. The impacted area is very limited and will be defined as an Area of Environmental Concern (AOEC) in the Task 310 Plans and Specifications for the up-coming project. Once the soils are removed and handled appropriately as Controlled Materials, this area of the project will be suitable for its intended use as an infiltration area.

Should you have any questions regarding the information presented above, please do not hesitate to call me at 860-298-6226 or reach me via e-mail at mmahoney@trcsolutions.com.

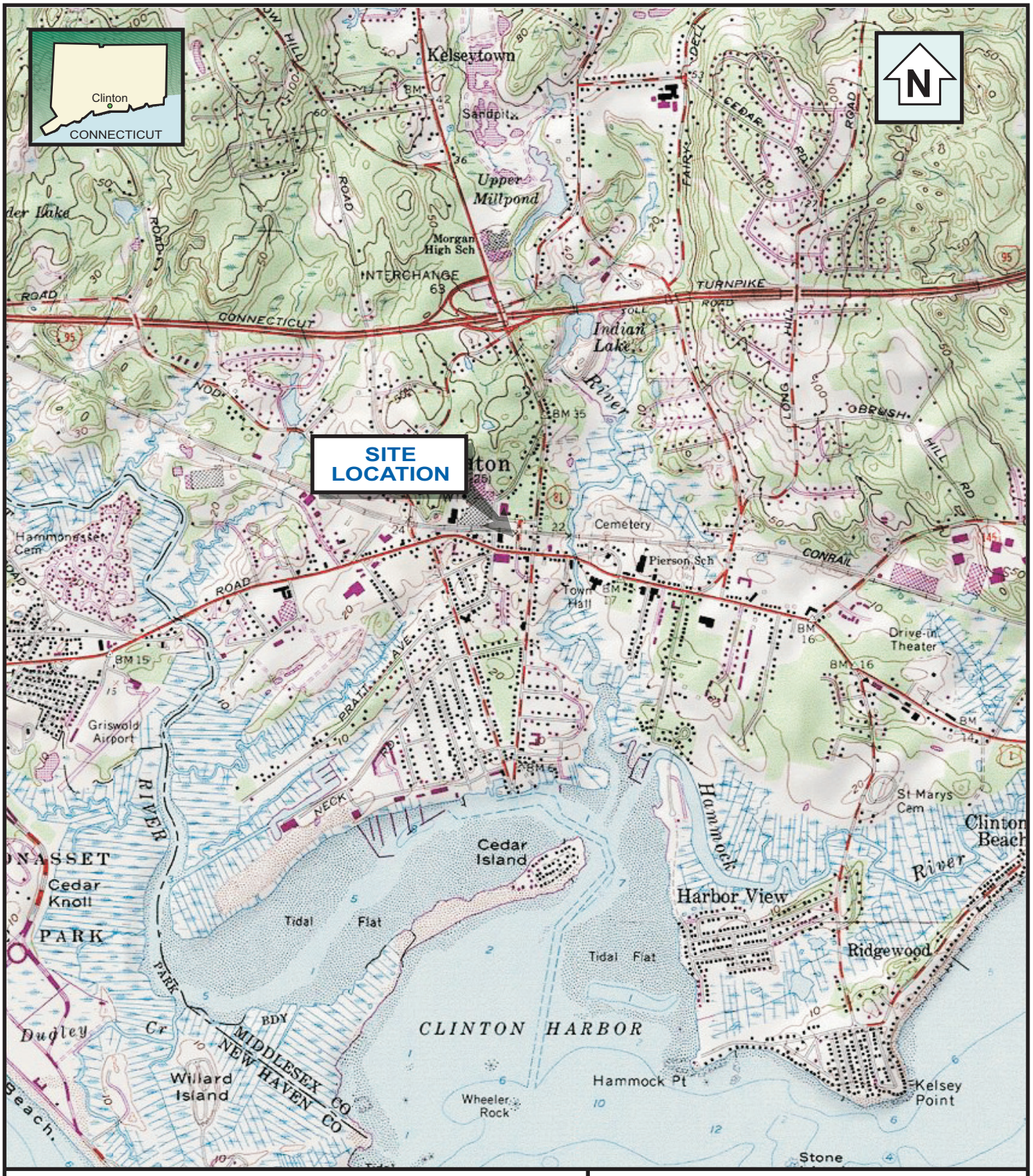
Sincerely,
TRC

Marya B Mahoney

Marya B. Mahoney, LEP
Project Manager

Attachments

c: D. Martin – TRC
M. Ross, P.E. - TRC



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NEW HAVEN, CT - 7.5' USGS TOPOGRAPHIC MAPS

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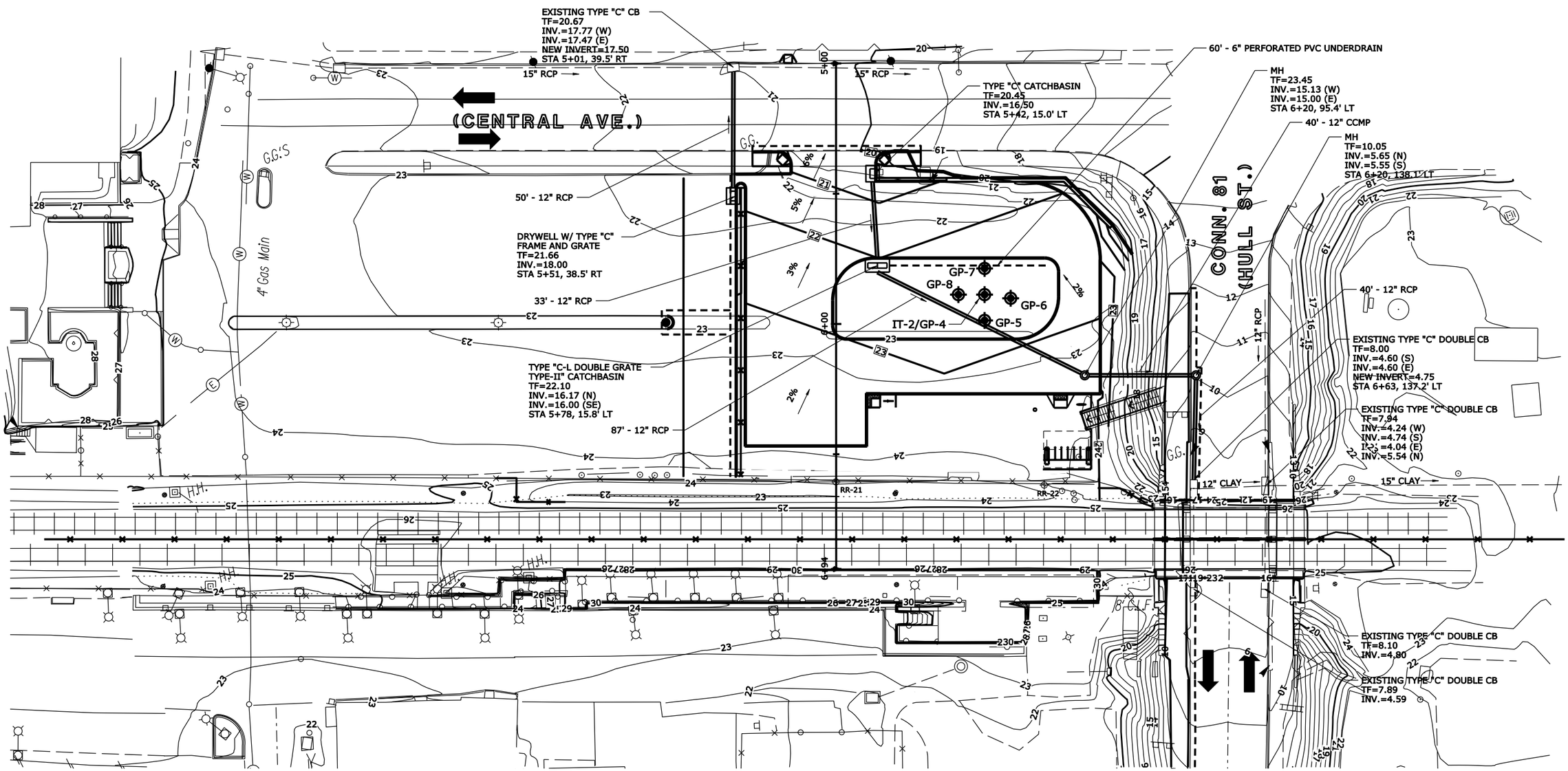
CLINTON SHORELINE EAST STATION
CLINTON, CONNECTICUT

FIGURE 1

SITE LOCATION MAP

Date: 01/11 | **Project No.** 107307.003550.00210

pers/haz/10737 ctdot/ 3550 CLINTON/3550 JUNE 08.FH10



LEGEND

GEOPROBE LOCATION

0 40' 80'

GRAPHIC SCALE

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CLINTON SHORELINE EAST STATION
CLINTON, CONNECTICUT

FIGURE 2
ENVIRONMENTAL SAMPLING LOCATIONS

Date: 5 / 11

Project No. 107307-003550-000210

107307/003550/000210/ENV-1

Table 1
Soil Sample Analytical Results
Clinton Shoreline East Station, Clinton, CT
ConnDOT Project No. 310-48
TRC Project No. 107307.003550.000210

Boring No. **Sample Interval (ftbg)** **Sample Date:** **PID Results (ppm):**	GP-4 (6-8) 6-8 05/20/11 ND	GP-5 (4-6) 4-6 05/20/11 ND	GP-6 (4-6) 4-6 05/20/11 ND	GP-7 (4-6) 4-6 05/20/11 ND	GP-8 (4-6) 4-6 05/20/11 ND	**CT RSRs**		
						RES DEC	I/C DEC	GA PMC
ETPH (ppm) **CT DEP Method**	ND	ND	ND	ND	ND	500	2,500	500

Notes:
ND - Not detected above reporting limits.

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BORING NUMBER: **GP-4**

PROJECT INFORMATION		BORING INFORMATION			
Project Name:	**Clinton Shoreline East Station**	Boring Depth:	**8**	Hole Diameter:	
Project Location:	**Clinton, CT**	Date Started:	**5/20/11**	Date Completed:	**5/20/11**
Project Number:	**107307.003550.000210**	Coordinate System:			
Client:	**ConnDOT**	North:	**Not Surveyed**	East:	**Not Surveyed**
TRC Eng./Geol:	**Christopher Lindahl**	Ground Elevation:	**Not Surveyed**		
Checked By:	**Kate Sheffield**				

DRILLING INFORMATION		GROUND WATER OBSERVATIONS			
Drilling Contractor:	**Berkshire Environmental**	MEASUREMENT	At Time of Drilling	At End of Drilling	After Drilling
Driller(s):	**Lee**	DATE			
Drilling Method:	**Geoprobe**	DEPTH (ft.bgs.)			
Equipment/Model:	**Truck-mounted Geoprobe**	REFERENCE			
Sampler:	**4' Macrocore**	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
						Asphalt.	
1						Dark brown F-M SAND, some silt, damp, no odor, no stain.	
2	GB		4.0	2.7		Medium brown F-SAND and SILT, little f-gravel, damp, no odor, no stain.	
3							
4							
5						Tan F-M SAND, trace, c-sand, trace f-gravel, dry, no odor, no stain.	
6	GB		4.0	3.3			
7							
8							
9						Bottom of borehole at 8.0 feet.	
10							
11							
12							
13							
14							
15							

SOIL BORING / WELL COMPLETION - TRC-STD US.GDT - 6/1/11 14:31 - C:\PROGRAM FILES\GINT\PROJECTS\CLINTON 210 BORING LOGS.GPJ

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BORING NUMBER: **GP-5**

PROJECT INFORMATION		BORING INFORMATION			
Project Name:	**Clinton Shoreline East Station**	Boring Depth:	**8**	Hole Diameter:	
Project Location:	**Clinton, CT**	Date Started:	**5/20/11**	Date Completed:	**5/20/11**
Project Number:	**107307.003550.000210**	Coordinate System:			
Client:	**ConnDOT**	North:	**Not Surveyed**	East:	**Not Surveyed**
TRC Eng./Geol:	**Christopher Lindahl**	Ground Elevation:	**Not Surveyed**		
Checked By:	**Kate Sheffield**				

DRILLING INFORMATION		GROUND WATER OBSERVATIONS			
Drilling Contractor:	**Berkshire Environmental**	MEASUREMENT	At Time of Drilling	At End of Drilling	After Drilling
Driller(s):	**Lee**	DATE			
Drilling Method:	**Geoprobe**	DEPTH (ft.bgs.)			
Equipment/Model:	**Truck-mounted Geoprobe**	REFERENCE			
Sampler:	**4' Macrocore**	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm) (20 40 60 80)
						Asphalt.	
1						Dark brown SILT and F-SAND, little m-sand, trace f-gravel, no odor, no stain.	
2	GB		4.0	2.9		Medium brown SILT, trace f-sand, damp, no odor, no stain.	
3							
4							
						Medium brown SILT and F-SAND, trace f-gravel, dry, no odor, no stain.	
5							
6	GB		4.0	3.0		Tan F-M SAND, little c-sand, trace f-gravel, dry, no odor, no stain.	
7							
8							
9						Bottom of borehole at 8.0 feet.	
10							
11							
12							
13							
14							
15							

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BORING NUMBER: **GP-6**

PROJECT INFORMATION		BORING INFORMATION			
Project Name:	**Clinton Shoreline East Station**	Boring Depth:	**8**	Hole Diameter:	
Project Location:	**Clinton, CT**	Date Started:	**5/20/11**	Date Completed:	**5/20/11**
Project Number:	**107307.003550.000210**	Coordinate System:			
Client:	**ConnDOT**	North:	**Not Surveyed**	East:	**Not Surveyed**
TRC Eng./Geol:	**Christopher Lindahl**	Ground Elevation:	**Not Surveyed**		
Checked By:	**Kate Sheffield**				

DRILLING INFORMATION		GROUND WATER OBSERVATIONS			
Drilling Contractor:	**Berkshire Environmental**	MEASUREMENT	At Time of Drilling	At End of Drilling	After Drilling
Driller(s):	**Lee**	DATE			
Drilling Method:	**Geoprobe**	DEPTH (ft.bgs.)			
Equipment/Model:	**Truck-mounted Geoprobe**	REFERENCE			
Sampler:	**4' Macrocore**	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm) (20 40 60 80)
						Asphalt.	
1						Medium brown F-M SAND, little c-sand, trace f-gravel, trace silt, dry, no odor, no stain.	
2	GB		4.0	3.4			
3							
4							
						Tan F-M SAND, little c-sand, trace f-gravel, trace silt, dry, no odor, no stain.	
5							
6	GB		4.0	3.0			
7							
8							
						Bottom of borehole at 8.0 feet.	
9							
10							
11							
12							
13							
14							
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BORING NUMBER: **GP-7**

PROJECT INFORMATION		BORING INFORMATION			
Project Name:	**Clinton Shoreline East Station**	Boring Depth:	**8**	Hole Diameter:	
Project Location:	**Clinton, CT**	Date Started:	**5/20/11**	Date Completed:	**5/20/11**
Project Number:	**107307.003550.000210**	Coordinate System:			
Client:	**ConnDOT**	North:	**Not Surveyed**	East:	**Not Surveyed**
TRC Eng./Geol:	**Christopher Lindahl**	Ground Elevation:	**Not Surveyed**		
Checked By:	**Kate Sheffield**				

DRILLING INFORMATION		GROUND WATER OBSERVATIONS			
Drilling Contractor:	**Berkshire Environmental**	MEASUREMENT	At Time of Drilling	At End of Drilling	After Drilling
Driller(s):	**Lee**	DATE			
Drilling Method:	**Geoprobe**	DEPTH (ft.bgs.)			
Equipment/Model:	**Truck-mounted Geoprobe**	REFERENCE			
Sampler:	**4' Macrocore**	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
						Asphalt.	
1						Dark brown SILT, some f-c sand, trace f-gravel, damp, no odor, no stain.	
2	GB		4.0	2.4			
						Tan F-M SAND, dry, no odor, no stain.	
3							
4							
						Tan F-M SAND, dry, no dor, no stain.	
5							
6	GB		4.0	4.0			
7							
8							
						Bottom of borehole at 8.0 feet.	
9							
10							
11							
12							
13							
14							
15							

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BORING NUMBER: **GP-8**

PROJECT INFORMATION		BORING INFORMATION			
Project Name:	**Clinton Shoreline East Station**	Boring Depth:	**8**	Hole Diameter:	
Project Location:	**Clinton, CT**	Date Started:	**5/20/11**	Date Completed:	**5/20/11**
Project Number:	**107307.003550.000210**	Coordinate System:			
Client:	**ConnDOT**	North:	**Not Surveyed**	East:	**Not Surveyed**
TRC Eng./Geol:	**Christopher Lindahl**	Ground Elevation:	**Not Surveyed**		
Checked By:	**Kate Sheffield**				

DRILLING INFORMATION		GROUND WATER OBSERVATIONS			
Drilling Contractor:	**Berkshire Environmental**	MEASUREMENT	At Time of Drilling	At End of Drilling	After Drilling
Driller(s):	**Lee**	DATE			
Drilling Method:	**Geoprobe**	DEPTH (ft.bgs.)			
Equipment/Model:	**Truck-mounted Geoprobe**	REFERENCE			
Sampler:	**4' Macrocore**	STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
						Asphalt.	
1						Medium brown F-SAND, some silt, trace f-gravel, damp, no odor, no stain.	
2	GB		4.0	3.1			
3						Medium brown SILT, trace f-gravel, damp, no odor, no stain.	
4							
5						Tan F-M SAND, little silt, trace f-gravel, dry, no odor, no stain.	
6	GB		4.0	3.4			
7							
8							
9						Bottom of borehole at 8.0 feet.	
10							
11							
12							
13							
14							
15							

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