

ENCLOSURE 5  
SOIL BORING LOGS

DUFFIELD ASSOCIATES, INC.  
Consultants in the Geosciences

**TEST PIT  
DESCRIPTIVE LOG**

PROJECT: Tweed's Tavern Relocation – Valley Road SWM & Recreation Facility      W.O. No.: 5039.GE02  
 CLIENT:      DATE: 4/20/2004  
 LOGGED BY: JPC

<u>Test Pit No.</u>	<u>Depth Range (ft.)</u>	<u>Generalized Soil Description</u>
TP-1 (Elev. = )	0 – 0.3	Topsoil and root material.
	0.3 – 2.1 S-1	APPARENT FILL: brown micaceous SILT, little crushed stone\ rock fragments, trace to little fine to coarse sand (damp) (soft to medium consistency).
	2.1 – 3.0 S-2	POSSIBLE FILL: brown, reddish brown mottled, micaceous SILT, trace to little fine sand (dry to damp) (medium to stiff consistency) (fine to medium sized mottling).
	3.0 – 3.9 S-3	Dark gray changing to light gray, yellowish brown mottled, micaceous SILT, trace to little clay, trace fine to medium sand (damp to moist) (medium to stiff consistency).
	3.9 – 4.2 S-4	Dark gray micaceous fine to medium SAND, trace to little silt, trace coarse sand, trace gravel (quartzite clasts) (damp to moist with very slight water seepage observed 1 hour after completion of excavation) (medium density)
	4.2 – 4.7 S-5	Dark gray micaceous CLAYEY SILT, little fine to medium sand, trace coarse sand, trace gravel (quartzite clasts) (medium consistency) (moist).
	4.7 – 6.4 S-6	Dark gray COBBLES \ small BOULDERS (quartzite clasts) and fine to coarse SAND, little to some silt (moist) (dense).
	6.4 – 11.0 S-7	Yellow, yellowish brown, brown, reddish yellow fine to medium mica SAND and SILT with occasional thin, cleaner, moist, micaceous sand lenses which produced very slight water seepage 1 hour after completion (loose to medium density) (possible schist residuum).
	S-8 obtained from 8.0' to 10'	

- NOTES: (1) Test pit terminated at 11.0 feet below existing ground surface (b.e.g.s.).  
 (2) Very slight water seepage (bleeding) observed between 4.0 and 9.5 feet +/- b.e.g.s. within the thin (0 1' thick +/-) zones of cleaner sand lenses.  
 (3) No measurable water level observed approximately 1 hour after completion of excavation.  
 (4) No caving of the excavation sidewalls was observed during or upon completion of excavation.  
 (5) Excavation backfilled upon completion.

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<u>Test Pit No.</u>	<u>Depth Range (ft.)</u>	<u>Generalized Soil Description</u>
TP-2 (Elev. = )	0 – 0.3	Topsoil and root material.
	0.3 – 2.0 S-1	APPARENT FILL: brown, grayish brown micaceous SILT, little to some fine to medium sand, trace to little gravel, trace cobbles, trace debris (rock, wood fragments).
	2.0 – 2.7	APPARENT FILL: asphalt blocks\ boulders (stone and concrete) interlain with micaceous sandy silt.
	2.7 – 3.5	APPARENT FILL: brown, grayish brown micaceous SILT, little to some fine to medium sand, trace to little gravel, trace cobbles, trace debris (rock, wood fragments).
	3.5 – 4.2 S-2	POSSIBLE FILL: black, very dark gray SILT, some to and fine to coarse sand, trace gravel, trace rock fragments, trace organics (roots) (soft consistency) (moist to wet).
	4.2 – 4.9 S-3	Light gray, yellowish brown, brown mottled SILT little clay, trace to little fine to medium sand, trace gravel, trace organics (rootlets) (stiff to very stiff consistency) (damp to moist) (quartzite cobbles and small boulders at base of strata).
	4.9 – 5.4 S-4	Orange, brown micaceous SILT, some to and fine to medium sand, trace coarse sand (stiff consistency) (damp to moist).
	5.4 – 8.2 S-5	Orange, yellow with trace dark brown\ black staining fine to medium SAND and GRAVEL (angular, quartzite clasts), little to some silt (wet and apparently hydraulically connected to the existing stream to the east).
	8.2 – 9.1 S-6	Brownish yellow, yellowish brown, reddish yellow, red micaceous CLAY, trace to little fine sand, trace gravel (quartzite clasts) (damp to moist)
	9.1 – 10.1 S-7	Reddish yellow, grayish brown, brown micaceous fine to medium SAND and SILT, trace coarse sand (dry to damp) (medium density).
	10.1 – ... S-8	COBBLES\ small BOULDERS (quartzite clasts) nterlain with reddish yellow, grayish brown, brown micaceous fine to medium SAND and SILT, trace coarse sand (dry to damp) (medium to dense).

- NOTES: (1) Test pit terminated at 10.5 feet below existing ground surface (b.e.g.s.) due to perched groundwater.  
(2) Moderate to rapid water seepage between 7.6 and 8.2 feet +/- b.e.g.s.  
(3) No caving of the excavation sidewalls was observed during or upon completion of excavation.  
(4) Water level at 7.5 feet +/- b.e.g.s. approximately 1.0 hour after completion of excavation.  
(5) Excavation backfilled upon completion.



Hydric Soil List - New Castle County, Delaware

<u>Map Unit Symbol</u>	<u>Map Unit Name</u>	<u>Occurrence</u>
Ba	Bayboro silt loam	Whole map unit
ElA	Elkton sand loam, 0 to 2 percent slopes	Whole map unit
EmA	Elkton silt loam, 0 to 2 percent slopes	Whole map unit
Fa	Fallsington sandy loam	Whole map unit
Fs	Fallsington loam	Whole map unit
Gp	Gravel pits and quarries	Floor of pit
Ha	Hatboro silt loam	Whole map unit
HbA	Hatboro silt loam, local alluvium, 0 to 3 percent slopes	Whole map unit
Jo	Johnston loam	Whole map unit
KeA	Keyport silt loam, 0 to 2 percent slopes	Depressions
KeB2	Keyport silt loam, 2 to 5 percent slopes, moderately eroded	Depressions
KrA	Kinkora silt loam, 0 to 3 percent slopes	Whole map unit
KrB	Kinkora silt loam, 3 to 8 percent slopes	Depressions
MtA	Mattapex silt loam, 0 to 2 percent slopes	Depressions
Mv	Mixed alluvial land	Whole map unit
Ot	Othello silt loam	Whole map unit
Po	Pocomoke loam	Whole map unit
StB	Silty and clayey land, gently sloping	In depressions
Tm	Tidal marsh	Whole map unit
WcA	Watchung and Calvert silt loams, 0 to 3 percent slopes	Whole map unit