GEODESIGN INCORPORATED
Geotechnical Engineers–Environmental Consultants–Construction Engineers
P.O. Box 699, Windsor, VT 05089, Phone: 802-674-2033, Fax: 802-674-5943
1233 Shelburne Rd, Suite 360, South Burlington, VT 05403, Phone: 802-652-5140

BORING LOG

Project Name: Knapp Airport, Berlin, Vermont

Boring No.: B-37 | Page No.: 1 of 1 | File No.: 965-03 | Checked By: KEW/AMH

Boring Company: Specialty Drilling & Investigation
Foreman: Chris Aldrich
GeoDesign Rep.: Dan Howey
Date Started: July 18, 2006 Date Finished: July 18, 2006
N. Coordinate: E. Coordinate:
Ground Surface Elevation (feet):
Station: Offset: ft

Casing:	Sampler:
Type: H.S.A.	SS
I.D.: 2.25 in.	1.38 in.
Hammer Wt.: NA	140 lbs
Hammer Fall: NA	30 in.
Rig Type: Simco 2800	
Hammer Type: Safety Hammer	

Groundwater Observations

Date	Depth (ft)	Elev. (ft)	Notes
▼ 7/18/06, 0:00			None observed
▼			
▼			

Depth (ft)	Casing Blows/ft	Sample Information: Number	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	Blows / 6 inch Interval: 0 - 6	6 - 12	12 - 18	18 - 24	Coring Time (min./ft)	PID Reading (ppm)	Strata Description: Depth & Elevation(feet)	Symbol	Sample Description (Classification System: Burmister)
		1	SS	24	13	0	1	3	5	6			Topsoil / Sandy Silt		Top 4": TOPSOIL Bottom 9": Loose, brown SILT, little fine Gravel, trace Root fibers, (moist)
		2	SS	24	16	2	2	4	6	6			4		Medium dense, brown SILT, and (–) fine Sand, little fine Gravel, trace Root fibers, (moist)
5		3	SS	24	0	4	20	21	17	35			Glacial Till		Dense, no recovery
		4	SS	24	15	6	21	21	35	33					Very dense, brown SILT, some (+) fine to coarse Sand, trace fine Gravel, (moist)
		5	SS	24	9	8	34	39	43	58					Very dense, brown SILT, little fine to coarse Sand, trace fine Gravel, (moist)
10													10		Bottom of Exploration at 10.0 ft
15															
20															

Remarks

Notes: 1) Soil Samples screened in the field using a Thermal Environmental Systems Model 580B Photoionization Detector (unless otherwise noted in Remarks). The meter was calibrated relative to a benzene in air standard. N.D. = None Detected; N. E. = Not Recorded; N.A. = Not Applicable; O.R. = Out of Range
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made. A.C. = After coring; N.R. = Not Recorded.
3) Sample Type Codings: A = Auger; C = Core; D = Driven; G = Grab; PS = Piston Sample; SS = Split Barrel (Split Spoon); ST = Shelby Tube; V = Vane; WOR/R = Weight of Rod/Hammer
4) Proportions Used: Trace = 1–10%; Little = 10–20%; Some = 20–35%; And = 35–50%
5) Stratification lines represent approximate boundary between material types, transitions may be gradual.

Boring No.: B-37

GEODESIGN INCORPORATED
Geotechnical Engineers–Environmental Consultants–Construction Engineers
P.O. Box 699, Windsor, VT 05089, Phone: 802-674-2033, Fax: 802-674-5943
1233 Shelburne Rd, Suite 360, South Burlington, VT 05403, Phone: 802-652-5140

BORING LOG

Project Name: Knapp Airport, Berlin, Vermont

Boring No.: B-38 | Page No.: 1 of 1 | File No.: 965-03 | Checked By: KEW/AMH

Boring Company: Specialty Drilling & Investigation
Foreman: Chris Aldrich
GeoDesign Rep.: Dan Howey
Date Started: July 18, 2006 Date Finished: July 18, 2006
N. Coordinate: E. Coordinate:
Ground Surface Elevation (feet):
Station: Offset: ft

Casing:	Sampler:
Type: H.S.A.	SS
I.D.: 2.25 in.	1.38 in.
Hammer Wt.: NA	140 lbs
Hammer Fall: NA	30 in.
Rig Type: Simco 2800	
Hammer Type: Safety Hammer	

Groundwater Observations

Date	Depth (ft)	Elev. (ft)	Notes
▼ 7/18/06, 0:00			None observed
▼			
▼			

Depth (ft)	Casing Blows/ft	Sample Information: Number	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	Blows / 6 inch Interval: 0 - 6	6 - 12	12 - 18	18 - 24	Coring Time (min./ft)	PID Reading (ppm)	Strata Description: Depth & Elevation(feet)	Symbol	Sample Description (Classification System: Burmister)
		1	SS	24	6	0	1	3	11	13			0.5 Topsoil / Sandy Silt		Medium dense, brown ORGANIC SILT, trace fine to coarse Sand, trace Root fibers, (moist)
		2	SS	24	9	2	15	20	29	27			2 Glacial Till		Dense, brown SILT, some fine to coarse Sand, little (–) fine to coarse Gravel, (moist)
5		3	SS	24	21	4	14	20	27	34					Dense, gray SILT and fine to coarse SAND, (moist)
		4	SS	23.5	19	6	36	40	57	100/5.5"			8		Very dense, brown SILT (layered), some (+) fine to coarse Sand, little fine to coarse Gravel, (moist)
10															Bottom of Exploration at 8.0 ft
15															
20															

Remarks

Notes: 1) Soil Samples screened in the field using a Thermal Environmental Systems Model 580B Photoionization Detector (unless otherwise noted in Remarks). The meter was calibrated relative to a benzene in air standard. N.D. = None Detected; N. E. = Not Recorded; N.A. = Not Applicable; O.R. = Out of Range
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made. A.C. = After coring; N.R. = Not Recorded.
3) Sample Type Codings: A = Auger; C = Core; D = Driven; G = Grab; PS = Piston Sample; SS = Split Barrel (Split Spoon); ST = Shelby Tube; V = Vane; WOR/R = Weight of Rod/Hammer
4) Proportions Used: Trace = 1–10%; Little = 10–20%; Some = 20–35%; And = 35–50%
5) Stratification lines represent approximate boundary between material types, transitions may be gradual.

Boring No.: B-38

GEODESIGN INCORPORATED
Geotechnical Engineers–Environmental Consultants–Construction Engineers
P.O. Box 699, Windsor, VT 05089, Phone: 802-674-2033, Fax: 802-674-5943
1233 Shelburne Rd, Suite 360, South Burlington, VT 05403, Phone: 802-652-5140

BORING LOG

Project Name: Knapp Airport, Berlin, Vermont

Boring No.: B-39 | Page No.: 1 of 1 | File No.: 965-03 | Checked By: KEW/AMH

Boring Company: Specialty Drilling & Investigation
Foreman: Chris Aldrich
GeoDesign Rep.: Dan Howey
Date Started: July 18, 2006 Date Finished: July 18, 2006
N. Coordinate: E. Coordinate:
Ground Surface Elevation (feet):
Station: Offset: ft

Casing:	Sampler:
Type: H.S.A.	SS
I.D.: 2.25 in.	1.38 in.
Hammer Wt.: NA	140 lbs
Hammer Fall: NA	30 in.
Rig Type: Simco 2800	
Hammer Type: Safety Hammer	

Groundwater Observations

Date	Depth (ft)	Elev. (ft)	Notes
▼ 7/18/06, 0:00			None observed
▼			
▼			

Depth (ft)	Casing Blows/ft	Sample Information: Number	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	Blows / 6 inch Interval: 0 - 6	6 - 12	12 - 18	18 - 24	Coring Time (min./ft)	PID Reading (ppm)	Strata Description: Depth & Elevation(feet)	Symbol	Sample Description (Classification System: Burmister)
		1	SS	24	18	0	1	4	7	10			Topsoil / Sandy Silt		Top 3": TOPSOIL Bottom 15": Medium dense, brown SILT, some (+) fine to coarse Sand, little (–) fine to coarse Gravel, trace Root fibers, (moist)
		2	SS	24	14	2	19	14	30	25			2 Glacial Till		Dense, brown SILT, some (+) fine to coarse Sand, little fine to coarse Gravel, trace Root fibers, (moist)
5		3	SS	24	20	4	8	10	13	32					Medium dense, brown SILT, little fine to coarse Sand, trace fine Gravel, with two ½" thick dark brown Silty Sand seams, (moist)
		4	SS	24	20	6	23	27	29	40					Very dense, gray SILT, little fine to coarse Sand, little fine to coarse Gravel, (moist)
													8		Bottom of Exploration at 8.0 ft
10															
15															
20															

Remarks: While drilling at 8 foot depth, thunderstorm started and boring was ended.

Notes: 1) Soil Samples screened in the field using a Thermal Environmental Systems Model 580B Photoionization Detector (unless otherwise noted in Remarks). The meter was calibrated relative to a benzene in air standard. N.D. = None Detected; N. E. = Not Recorded; N.A. = Not Applicable; O.R. = Out of Range
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made. A.C. = After coring; N.R. = Not Recorded.
3) Sample Type Codings: A = Auger; C = Core; D = Driven; G = Grab; PS = Piston Sample; SS = Split Barrel (Split Spoon); ST = Shelby Tube; V = Vane; WOR/R = Weight of Rod/Hammer
4) Proportions Used: Trace = 1–10%; Little = 10–20%; Some = 20–35%; And = 35–50%
5) Stratification lines represent approximate boundary between material types, transitions may be gradual.

Boring No.: B-39

VT BORING LOG.PRJ 5/21/04 965-03.GPJ GEODESIGN PROMTEST-12-04.GDT 4/24/09

Hoyle, Tanner & Associates, Inc.
150 Dow Street
Manchester, NH 03101-1227
Tel 603-669-5555
Fax 603-669-4168
Web Page: www.hoyletanner.com

PROJECT NAME: E.F. KNAPP STATE AIRPORT
A.I.P. 3-50-0001-011-2009
PROJECT NUMBER: BERLIN AIR 04-3216

FILE NAME: z05h378sht_br1.dgn
PROJECT LEADER: S. FORTNEY
DESIGNED BY: S. BOUCHARD
BORING LOGS B37-B39

PLOT DATE: 11/22/2011
DRAWN BY: D. STANDISH
CHECKED BY: J. DOWNAR
SHEET 167 OF 173