STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH SECTION
SUBSURFACE INFORMATION

# BORING LOG

**BARNARD**
**BHF 0241(39)**
**VT-12 BR-25**

Boring No.: **B-103**
Page No.: 1 of 1
Pin No.: 10C410
Checked By: NSM

Boring Crew: SALISBURY, GARROW
Date Started: 5/03/12 Date Finished: 5/03/12
VTSPG NAD83: N 458436.07 ft E 1605096.79 ft
Station: 371+18 Offset: -24.00
Ground Elevation: 884.37 ft

| | Casing | Sampler |
|---|---|---|
| Type: | WB | SS |
| I.D.: | 4 in | 1.5 in |
| Hammer Wt: | N.A. | 140 lb. |
| Hammer Fall: | N.A. | 30 in. |
| Hammer/Rod Type: | Auto/AWJ | |
| Rig: | CME 45C TRACK | $C_E$ = 1.34 |

Groundwater Observations

| Date | Depth (ft) | Notes |
|---|---|---|
| | | Drilled same day. |

| Depth (ft) | Strata (1) | CLASSIFICATION OF MATERIALS (Description) | Run (Dip deg.) | Core Rec. % (RQD %) | Drill Rate minutes/ft | Blows/6" (N Value) | Moisture Content % | Gravel % | Sand % | Fines % |
|---|---|---|---|---|---|---|---|---|---|---|
| | | A-2-4, GrSiSa, brn, Moist, Rec. = 1.5 ft | | | | 4-4-7-4 (11) | 13.6 | 23.4 | 48.7 | 27.9 |
| 2.5 | | A-2-4, SiSa, brn, Moist, Rec. = 1.2 ft | | | | 3-3-2-2 (5) | 17.5 | 18.5 | 52.1 | 29.4 |
| 5.0 | | A-2-4, SiGrSa, brn, Moist, Rec. = 0.8 ft | | | | 3-2-2-2 (4) | 19.3 | 29.0 | 46.8 | 24.2 |
| | | A-2-4, SiGrSa, brn, Moist, Rec. = 0.5 ft | | | | 2-2-12-R@3.5" (14) | 18.4 | 37.0 | 41.7 | 21.3 |
| 7.5 | | Visual Description:, Broken Rock with Silty Sand, Rec. = 0.3 ft | | | | | 3.4 | | | |
| BOTTOM OF PILE CAP EL 876.00 | | 7.8 ft - 9.0 ft, NXDC, Weathered Rock. Very poor rock | | | | | | | | Top of Bedrock @ 7.8 ft |
| 10.0 | | 9.0 ft - 14.0 ft, Light gray, To pale-green schist and feldspathic biotite quartzite Hard, Unweathered to slightly weathered, Good rock, NXMDC, RMR = 62 | 1 (30) | 88 (58) | 4<br>4<br>4<br>4<br>3 | | | | | |
| 12.5 | | | | | | | | | | |
| 15.0 | | 14.0 ft - 19.0 ft, Light gray, To pale-green schist and feldspathic biotite quartzite Hard, Unweathered to slightly weathered, Good rock, NXMDC, RMR = 62 | 2 (30) | 100 (70) | 3<br>3<br>3<br>3<br>3 | | | | | |
| PILE TIP EL 866.0 | | | | | | | | | | |
| 17.5 | | Hole stopped @ 19.0 ft | | | | | | | | |
| 20.0 | | | | | | | | | | |
| 22.5 | | | | | | | | | | |

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. $C_E$ is the hammer energy correction factor.
3. 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.

BORING LOG 2 BARNARD BHF 0241(39).GPJ VERMONT ACT.GDT 6/20/12

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH SECTION
SUBSURFACE INFORMATION

# BORING LOG

**BARNARD**
**BHF 0241(39)**
**VT-12 BR-25**

Boring No.: **B-104**
Page No.: 1 of 1
Pin No.: 10C410
Checked By: NSM

Boring Crew: SALISBURY, GARROW
Date Started: 5/16/12 Date Finished: 5/16/12
VTSPG NAD83: N 458462.67 ft E 1605125.39 ft
Station: 370+21.5 Offset: -8.00
Ground Elevation: 882.35 ft

| | Casing | Sampler |
|---|---|---|
| Type: | WB | SS |
| I.D.: | 4 in | 1.5 in |
| Hammer Wt: | N.A. | 140 lb. |
| Hammer Fall: | N.A. | 30 in. |
| Hammer/Rod Type: | Auto/AWJ | |
| Rig: | CME 45C TRACK | $C_E$ = 1.34 |

Groundwater Observations

| Date | Depth (ft) | Notes |
|---|---|---|
| | | |

| Depth (ft) | Strata (1) | CLASSIFICATION OF MATERIALS (Description) | Run (Dip deg.) | Core Rec. % (RQD %) | Drill Rate minutes/ft | Blows/6" (N Value) | Moisture Content % | Gravel % | Sand % | Fines % |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Asphalt Pavement, 0.0 ft - 0.6 ft | | | | | | | | |
| | | A-1-a, SaGr, brn, Moist, Rec. = 1.2 ft | | | | 7-9-12-16 (21) | 6.2 | 63.7 | 24.9 | 11.4 |
| 5 | | Field Note:, NXDC, Gravel<br>A-1-b, SaGr, brn, Moist, Rec. = 0.6 ft, Lab Note: Lots of Broken Rock was within sample. | | | | 5-4-4-5 (8) | 10.8 | 52.4 | 31.8 | 15.8 |
| BOTTOM OF PILE CAP EL 875.85 | | | | | | | | | | |
| | | Field Note:, NXDC, Gravel<br>Visual Description:, Very Weathered Rock, grn, Moist, Rec. = 0.6 ft | | | | 18-R@3.5" | 10.5 | | | |
| 10 | | Field Note:, NXDC, Cobbles | | | | | | | | |
| 15 | | A-1-b, SiGrSa, brn, Moist, Rec. = 1.5 ft | | | | 22-33-40-50 (73) | 9.7 | 38.7 | 38.8 | 22.5 |
| 20 | | Visual Description:, Weathered & Broken Rock, gry, Moist, Rec. = 0.4 ft | | | | R@6.0" | 9.7 | | | |
| | | Field Class:, NXDC, Cobbles | | | | | | | | |
| 25 | | A-2-4, GrSiSa, brn, Moist, Rec. = 1.6 ft | | | | 20-28-24-40 (52) | 12.5 | 22.3 | 49.6 | 28.1 |
| PILE TIP EL 855.85 | | | | | | | | | | |
| | | Field Note:, Soft Weathered Rock | | | | | | | | Top of Bedrock @ 26.5 ft |
| 30 | | 28.0 ft - 33.0 ft, Light gray, To pale-green schist and feldspathic biotite quartzite and amphibolite. Hard, Unweathered to slightly weathered, Good rock, NXMDC, RMR = 62 | 1 (85) | 100 (50) | 3<br>3<br>3<br>3<br>3 | | | | | |
| 35 | | 33.0 ft - 38.0 ft, Light gray, To pale-green schist and feldspathic biotite quartzite Hard, Unweathered to slightly weathered, Good rock, NXMDC, RMR = 66 | 2 (85) | 100 (84) | 3<br>3<br>2<br>2<br>2 | | | | | |
| | | Hole stopped @ 38.0 ft | | | | | | | | |

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. $C_E$ is the hammer energy correction factor.
3. 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.

BORING LOG 2 BARNARD BHF 0241(39).GPJ VERMONT ACT.GDT 6/20/12

PROJECT NAME: BARNARD
PROJECT NUMBER: ER BRF 0241(39)

FILE NAME: s10c410bor.dgn
PROJECT LEADER: K. HIGGINS
DESIGNED BY: J. SALVATORI
BORING LOGS

PLOT DATE: 29-AUG-2013
DRAWN BY: J. SALVATORI
CHECKED BY: W. LAMMER
SHEET 16 OF 39