



| CLOUGH, HARBOUR & ASSOCIATES LLP | | Bennington-Hoosick D.P.I. 0146(1) | | | |
|--|----------------|--|--------------------|---|-------------------------------|
| SUBSURFACE LOG | | HOLE NUMBER B-726 | | | |
| PROJECT NUMBER: 516.07.04 November 1996 | | | | | |
| LOCATION: Station 16+801 Offset: 5.7m Lt | | | | | |
| CLIENT: VAOT | | DRILL FLUID: Water | | | |
| CONTRACTOR: New England Boring | | DRILLING METHOD: F.J.C. | | | |
| DRILLER: M.S.J. | | INSPECTOR: S. Pidgion | | | |
| START DATE: 11/9/96 | | FINISH DATE: 11/20/96 | | | |
| SURFACE ELEV.: 173.8m | | CHECKED BY: S. Pidgion | | | |
| SAMP. CORE NUMBER | DEPTH (meters) | DESCRIPTION AND CLASSIFICATION | ELEVATION (meters) | Remarks on Character of Drilling, water return, etc | WATER LEVELS AND/OR WELL DATA |
| S1 .5m | 1.5 | Clayey SILT, some f. Sand, trace m.c. sand and organics, brown, stiff, moist (A-2-4) | 173.5 | Use Solid Stem Auger to advance boring to 2.4m | |
| S2 .5m | 3.0 | f.m. SAND, little clayey silt and c. sand, trace f.c. gravel, brown, loose, moist (A-2-4) | 173.0 | | |
| S3 .5m | 4.5 | becomes loose (A-2-4) | 172.5 | | |
| S4 .5m | 6.0 | becomes wet (A-2-4) | 172.0 | | |
| S5 .5m | 7.5 | f. SAND, some clayey SILT, dk. brown, m. dense, wet (A-2-4) | 171.5 | | |
| S6 .5m | 9.0 | Clayey SILT, some f.m.c. Sand, little f. gravel, trace c. gravel, olive gray, hard, moist (A-4) | 171.0 | | |
| S7 .5m | 10.5 | f.c. GRAVEL, grayish, dense, wet (A-1-a) | 170.5 | | |
| S8 .5m | 12.0 | SILT, some f.c. Gravel, little f.m.c. sand and clay, olive gray, v. hard, moist (A-4) (TLU) | 170.0 | | |
| R1 1.5m | 13.5 | DOLOSTONE, gray, med. hard-hard, slightly weathered, close fracture spacing, poor RD, with numerous secondary calcite and quartz veins with pyrite and arsenopyrite mineralization | 169.5 | | |
| R2 1.5m | 15.0 | RD becomes fair, becomes coarser grained, spotted brownish | 169.0 | | |

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|--|----------------|---|--------------------|---|-------------------------------|
| SUBSURFACE LOG | | HOLE NUMBER B-730 | | | |
| PROJECT NUMBER: 516.07.04 July 1995 | | | | | |
| LOCATION: Station 16+838.1 Offset: 1.4m Rt | | | | | |
| CLIENT: VAOT | | DRILL FLUID: Water | | | |
| CONTRACTOR: Atlantic Testing | | DRILLING METHOD: F.J.C. | | | |
| DRILLER: M.H. | | INSPECTOR: H. Simpson | | | |
| START DATE: 7/10/95 | | FINISH DATE: 7/11/95 | | | |
| SURFACE ELEV.: 170.4m | | CHECKED BY: M.H. | | | |
| SAMP. CORE NUMBER | DEPTH (meters) | DESCRIPTION AND CLASSIFICATION | ELEVATION (meters) | Remarks on Character of Drilling, water return, etc | WATER LEVELS AND/OR WELL DATA |
| S1 .5m | 1.5 | f.m. SAND, some f.c. Gravel, little silt, brown, m. dense, wet (A-2-4) | 170.0 | Laboratory AASHTO classification performed on S8. | |
| S2 .5m | 3.0 | SILT and f. SAND, little c. sand, gray, v. stiff, wet (A-4) | 169.5 | | |
| S3 .5m | 4.5 | Similar soils (A-4) | 169.0 | | |
| S4 .5m | 6.0 | SILT, some f. Gravel, some c. Sand, gray, v. stiff, wet (A-4) | 168.5 | | |
| S5 .5m | 7.5 | Similar soils (A-4) | 168.0 | | |
| S6 .5m | 9.0 | becomes hard (A-4) | 167.5 | | |
| S7 .5m | 10.5 | becomes v. stiff (A-4) | 167.0 | | |
| S8 .5m | 12.0 | f.c. GRAVEL, some f.m.c. Sand, some SILT, gray, dense, wet (A-2-4) | 166.5 | | |
| R1 1.5m | 13.5 | DOLOSTONE, little quartz and calcite veiling, gray, medium hard, moderate weathering, thick bedding, very close fracturing, very poor RD. | 166.0 | | |
| R2 1.5m | 15.0 | Similar bedrock | 165.5 | | |

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|--|----------------|---|--------------------|---|-------------------------------|
| SUBSURFACE LOG | | HOLE NUMBER B-732 | | | |
| PROJECT NUMBER: 516.07.04 November 1996 | | | | | |
| LOCATION: Station 16+864.0 Offset: 7m Rt | | | | | |
| CLIENT: VAOT | | DRILL FLUID: Water | | | |
| CONTRACTOR: New England Boring | | DRILLING METHOD: NX Core | | | |
| DRILLER: S. Graves | | INSPECTOR: S. Pidgion | | | |
| START DATE: 11/9/96 | | FINISH DATE: 11/9/96 | | | |
| SURFACE ELEV.: 171.8m | | CHECKED BY: S. Pidgion | | | |
| SAMP. CORE NUMBER | DEPTH (meters) | DESCRIPTION AND CLASSIFICATION | ELEVATION (meters) | Remarks on Character of Drilling, water return, etc | WATER LEVELS AND/OR WELL DATA |
| S1 .5m | 1.5 | f. SAND, little silt and organics, brown, dry, very loose (A-2-4) | 171.5 | Insert 10m SSA after Stand 52. Auger to 1.2m | |
| S2 .5m | 3.0 | SILT, some f. Sand, trace organics, brown, v. soft, moist (A-4) | 171.0 | | |
| S3 .5m | 4.5 | similar soils (A-4) | 170.5 | | |
| S4 .5m | 6.0 | f. SAND, little silt, trace f.c. gravel, brown, dense, wet (A-2-4) | 170.0 | | |
| S5 .5m | 7.5 | f.m. SAND, little f.c. gravel, trace silt, brown, loose, wet (A-3) | 169.5 | | |
| S6 .5m | 9.0 | f.m. SAND and f.c. GRAVEL, trace silt, brown, dense, wet (A-1-b) | 169.0 | | |
| S7 .5m | 10.5 | f. SAND and clayey SILT, gray, stiff, wet (A-4) | 168.5 | | |
| S8 .5m | 12.0 | Casing at 4.5m | 168.0 | | |
| S9 .5m | 13.5 | Rotabrit rough from 5.4m-6.1m. Possible gravel-rich layer. Casing at 6.1m | 167.5 | | |
| S10 .5m | 15.0 | Clayey SILT, some f.c. Gravel, little f.m.c. sand, gray, stiff, wet (A-4) | 167.0 | | |

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|---|----------------|--|--------------------|---|-------------------------------|
| SUBSURFACE LOG | | HOLE NUMBER B-724 | | | |
| PROJECT NUMBER: 5116.07.04 April 1998 | | | | | |
| LOCATION: Station 16+796.1 Offset: 12.0m Lt | | | | | |
| CLIENT: VAOT | | DRILL FLUID: WATER | | | |
| CONTRACTOR: ATLANTIC TESTING | | DRILLING METHOD: O.10m FJC | | | |
| DRILLER: R. P. | | INSPECTOR: C. RICCARDI | | | |
| START DATE: 4/6/98 | | FINISH DATE: 4/7/98 | | | |
| SURFACE ELEV.: 174.40m | | CHECKED BY: MSQ | | | |
| SAMP. CORE NUMBER | DEPTH (meters) | DESCRIPTION AND CLASSIFICATION | ELEVATION (meters) | Remarks on Character of Drilling, water return, etc | WATER LEVELS AND/OR WELL DATA |
| S1 .5m | 1.5 | SILT and ORGANICS, some roots, trace f.m.c. sand, dark brown, moist, moist (A-4) | 174.0 | Test boring moved 3m off toward Sil Road from staked location | |
| S2 .5m | 3.0 | f.m. SAND, little f. gravel, trace silt, light brown, loose, moist (A-3) | 173.5 | | |
| S3 .5m | 4.5 | f.m. SAND, some f. Gravel, trace silt, light brown, medium dense, moist (A-3) | 173.0 | | |
| S4 .5m | 6.0 | f.m. SAND, some f. Gravel, little silt, brown, medium dense, wet (A-1-b) | 172.5 | | |
| S5 .5m | 7.5 | Similar soils (A-1-b) | 172.0 | | |
| S6 .5m | 9.0 | f.m. SAND and SILT, some f. Gravel, gray, m. dense, wet (A-4) | 171.5 | | |
| S7 .5m | 10.5 | Similar soils (A-4) | 171.0 | | |
| S8 .5m | 12.0 | Clayey SILT, little m.c. sand, little f. gravel, gray, hard, wet (A-4) (TLU) | 170.5 | | |
| S9 .5m | 13.5 | DOLOSTONE, gray with calcite seams, med. hard-hard, slightly weathered, close fractures, thick bedding, poor RD. | 170.0 | | |
| R1 1.5m | 15.0 | Bottom of Boring at 5M meters | 169.5 | | |

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|---|----------------|--|--------------------|---|-------------------------------|
| SUBSURFACE LOG | | HOLE NUMBER B-728 | | | |
| PROJECT NUMBER: 5116.07.04 April 1998 | | | | | |
| LOCATION: Station 16+807.9 Offset: 12.5m Rt | | | | | |
| CLIENT: VAOT | | DRILL FLUID: WATER | | | |
| CONTRACTOR: ATLANTIC TESTING | | DRILLING METHOD: O.10m FJC | | | |
| DRILLER: R. P. | | INSPECTOR: C. RICCARDI | | | |
| START DATE: 4/7/98 | | FINISH DATE: 4/7/98 | | | |
| SURFACE ELEV.: 174.43m | | CHECKED BY: MSQ | | | |
| SAMP. CORE NUMBER | DEPTH (meters) | DESCRIPTION AND CLASSIFICATION | ELEVATION (meters) | Remarks on Character of Drilling, water return, etc | WATER LEVELS AND/OR WELL DATA |
| S1 .5m | 1.5 | f. SAND and SILT, some organics, dark brown, v. soft, moist (A-6) (TLU) | 174.0 | Casing at 4.5m | |
| S2 .5m | 3.0 | f. SAND, some clayey SILT, trace m.c. sand, trace f. gravel, brown, stiff, moist (A-2-4) (TLU) | 173.5 | | |
| S3 .5m | 4.5 | f.m. SAND, some f.c. Gravel, little silt, brown, m. dense, wet (A-2-4) | 173.0 | | |
| S4 .5m | 6.0 | f.m. SAND, some SILT, trace c. sand, brown, dense, wet (A-2-4) | 172.5 | | |
| S5 .5m | 7.5 | f.m. SAND and SILT, trace c. sand, trace f. gravel, gray, v. dense, wet (A-4) | 172.0 | | |
| S6 .5m | 9.0 | DOLOSTONE, Boulder | 171.5 | | |
| S7 .5m | 10.5 | f.m. SAND, some clayey SILT, some f. Gravel, gray, v. dense, wet (A-2-4) | 171.0 | | |
| S8 .5m | 12.0 | SILT, some f. Sand, gray, m. dense, wet (A-4) | 170.5 | | |
| S9 .5m | 13.5 | Similar soils (A-4) | 170.0 | | |
| S10 .5m | 15.0 | f.c. GRAVEL, some f.m.c. Sand, some SILT, gray, v. dense, wet (A-2-4) | 169.5 | | |

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|---|----------------|--|--------------------|---|-------------------------------|
| SUBSURFACE LOG | | HOLE NUMBER B-734 | | | |
| PROJECT NUMBER: 5116.07.04 April 1998 | | | | | |
| LOCATION: Station 16+852.2 Offset: 19.0m Lt | | | | | |
| CLIENT: VAOT | | DRILL FLUID: WATER | | | |
| CONTRACTOR: ATLANTIC TESTING | | DRILLING METHOD: O.10m FJC | | | |
| DRILLER: R. P. | | INSPECTOR: C. RICCARDI | | | |
| START DATE: 4/8/98 | | FINISH DATE: 4/8/98 | | | |
| SURFACE ELEV.: 171.69m | | CHECKED BY: MSQ | | | |
| SAMP. CORE NUMBER | DEPTH (meters) | DESCRIPTION AND CLASSIFICATION | ELEVATION (meters) | Remarks on Character of Drilling, water return, etc | WATER LEVELS AND/OR WELL DATA |
| S1 .5m | 1.5 | f.c. GRAVEL, little m.c. sand, brown, m. dense, wet (A-1-a) | 171.5 | From 4/2/98 to 4/6/98 this location was under water due to snow melt. Wolcott River water on 4/8/98 at Elevation ± 171.6m | |
| S2 .5m | 3.0 | grades with some f.m.c. Sand, little f. sand, trace silt, brown, m. dense, wet (A-1-a) | 171.0 | | |
| S3 .5m | 4.5 | f.c. GRAVEL and m. SAND, little f. sand, trace silt, brown, m. dense, wet (A-1-a) | 170.5 | | |
| S4 .5m | 6.0 | Similar soils (A-1-a) | 170.0 | | |
| S5 .5m | 7.5 | f. SAND and SILT, gray, m. dense, wet (A-4) | 169.5 | | |
| S6 .5m | 9.0 | grades with little f. gravel (A-4) | 169.0 | | |
| S7 .5m | 10.5 | f.m. SAND, some clayey SILT, little f.c. gravel, gray, stiff, wet (A-2-4) | 168.5 | | |
| S8 .5m | 12.0 | becomes hard (A-2-4) | 168.0 | | |
| S9 .5m | 13.5 | f.c. GRAVEL and f.m. SAND, trace silt, gray, v. dense, wet (A-1-a) | 167.5 | | |
| R1 1.5m | 15.0 | DOLOSTONE, gray with interbedded calcite, med. hard-hard, slightly weathered, close fractures, massive bedding, poor RD. | 167.0 | | |

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

| | | | |
|--|------------|--------------------|------------------------|
| Town Of | BENNINGTON | Bridge No. | BR700 |
| Highway No. | VT. RTE. 9 | Log Sta. | |
| VT. RTE. 9 OVER SILK ROAD AND WALLOOMSAC RIVER | | | |
| SOIL BORING LOGS - 5 | | | |
| Designed By | W. HARRIS | Drawn by | M. CUEVAS/B. WEATHERBY |
| Checked by | M. QUINN | Date | 6/00 |
| PROJECT | | PROJECT NO. | |
| BENNINGTON-HOOSICK | | D.P.I. 0146(1) C/4 | |
| I.G.C. Info. | | | |
| Bridge Sheet No. | BR710 | Sheet | 193 OF 385 |



3573-9587(00) B-700-5(00) 7/12/00/BN/MSQ