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N.C.D.O.T. GEOTECHNICAL UNIT  
 BORING LOG

| PROJECT NO. 6.529005T  |              | ID. R-2610B(2)          |      | COUNTY Chatham                     |                 | GEOLOGIST C. Baldwin  |    |    |    |              |            |                           |
|--|--------------|-------------------------|------|------------------------------------|-----------------|-----------------------|----|----|----|--------------|------------|---------------------------|
| SITE DESCRIPTION Bridge on SBL US 421 (-L-) over Tick Creek  |              |                         |      |                                    |                 | GROUND WATER (m)      |    |    |    |              |            |                           |
| BORING NO. B2-A  |              | BORING LOCATION 97+10.2 |      | OFFSET 16.0m Lt.                   |                 | ALIGNMENT -L-         |    |    |    |              |            |                           |
| COLLAR ELEV. 138.25 m  |              | NORTHING 211,984.7      |      | EASTING 573,276.0                  |                 | 0 HR. N/A*            |    |    |    |              |            |                           |
| TOTAL DEPTH 8.97 m   |              | DRILL MACHINE CME 550   |      | DRILL METHOD 5.7cm ID HSA/NQ3 Core |                 | HAMMER TYPE Automatic |    |    |    |              |            |                           |
| DATE STARTED 4/24/03   |              | COMPLETED 4/24/03       |      | SURFACE WATER DEPTH N/A            |                 |                       |    |    |    |              |            |                           |
| ELEV.<br>(m)   | DEPTH<br>(m) | BLOW COUNT              |      |                                    | BLOWS PER 30 CM |                       |    |    |    | SAMP.<br>NO. | LOG<br>MOI | SOIL AND ROCK DESCRIPTION |
|  |              | 15cm                    | 15cm | 15cm                               | 0               | 20                    | 40 | 60 | 80 |              |            |                           |
| 138.25m  | 0.00         | 1                       | 1    | 2                                  | Ground Surface  |                       |    |    |    |              |            | 138.25m 0.00m             |
| 138  | 0.76         | 2                       | 1    | 2                                  |                 |                       |    |    |    |              |            | 136.72m 1.53m             |
| 136  | 2.29         | WOH                     | 1    | 1                                  |                 |                       |    |    |    |              |            | 134.89m 3.36m             |
|  | 3.50         | 50/2cm                  |      |                                    | 50/2cm          |                       |    |    |    |              |            | 134.75m 3.50m             |
| 134  |              |                         |      |                                    |                 |                       |    |    |    |              |            | 129.28m 8.97m             |
| 132  |              |                         |      |                                    |                 |                       |    |    |    |              |            |                           |
| 130  |              |                         |      |                                    |                 |                       |    |    |    |              |            |                           |
| Coring terminated at elev. 129.28m in NON-CRYSTALLINE ROCK (METAMUDSTONE & META-ARGILLITE).  |              |                         |      |                                    |                 |                       |    |    |    |              |            |                           |
| Notes:<br>1) Auger refusal at a depth of 3.50m.<br>2) SPT refusal at a depth of 3.52m.<br>3) Began coring at a depth of 3.52m.<br>* 0 hr. water level not measured due to water introduced for coring. |              |                         |      |                                    |                 |                       |    |    |    |              |            |                           |

| CORE BORING REPORT  |  |                      |                |              |           |   | DATE: 04/24-25/2003  |
|---|--|----------------------|----------------|--------------|-----------|---|--|
| PROJECT:  | 6.529005T                                  | I.D. NO.:            | R-2610 B (2)   | BORING NO.:  | B2-A      | GEOLOGIST:  | Chris Baldwin  |
| DESCRIPTION:  | Bridge on SBL US 421 (-L-) over Tick Creek |                      |                |              |           | SENIOR DRILLER:   | J.W. Gilchrist, Jr.  |
| COUNTY:   | Chatham                                    | COLLAR ELEVATION:    | 138.25m        | TOTAL DEPTH: | 8.97m     | DRILLING ASSISTANT:   | M.W. Renza   |
| Elev. (m)   | Depth (m)                                  | Drill Rate min./0.3m | Run Length (m) | REC (%)      | RQD (%)   | Sample #  | FIELD CLASSIFICATION AND REMARKS   |
| 134.73  | 3.52                                       | 5:29/0.29m           | 0.89           | 0.89/0.89    | 0.37/0.89 |   | NCR - 3.52-8.97m Blueish Gray, slightly weathered, hard Metamudstone and Meta-Argillite<br>Close to wide fracture spacing. |
| 133.84  | 4.41                                       | 5:41                 |                | 100%         | 42%       | RS-5  | RS-5 3.81-3.91m, $q_u = 108,933$ kPa   |
| 133.84  | 4.41                                       | 5:43/0.32m           | 1.52           | 1.52/1.52    | 1.52/1.52 |   | 3 joint at 0°<br>3 joints at 20°<br>4 joints at 30°<br>5 joints at 50°<br>1 joint at 60°<br>1 joint at 70°                 |
| 132.32  | 5.93                                       | 5:45/0.32m           | 1.52           | 1.52/1.52    | 1.41/1.52 |   |  |
| 132.32  | 5.93                                       | 5:40                 |                | 100%         | 93%       |   | STRATA REC.=95%<br>STRATA RQD.=83%   |
| 130.80  | 7.45                                       | 5:49                 |                |              |           |   |  |
| 130.80  | 7.45                                       | 5:51/0.32m           | 1.52           | 1.25/1.52    | 1.25/1.52 |   |  |
| 129.28  | 8.97                                       | 5:49                 |                | 82%          | 82%       |   |  |
|   |  |                      |                |              |           |   | Coring terminated at elevation 129.28m   |
| DRILLING EQUIPMENT:<br>CME - 550 ATV with automatic hammer.   |  |                      |                |              |           | NOTES:  |  |
| HOLE ADVANCEMENT:<br>1. HSA from 0.00 - 3.52 meters using 8.26cm hollow stem augers.<br>2. Cored using NQ3 w/SICB and a Series 2 diamond impregnated bit from 3.52 - 8.97 meters. |  |                      |                |              |           | 1.) Missing core from 8.70 - 8.97m fell out of core barrel in hole and was unretrievable<br>2.) New lifter was in place |  |