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

SHEET 1 OF 1

| PROJECT NO. 8.T311002  |           | ID. R-2552B                 |      | COUNTY Johnston            |                 | GEOLOGIST D. Carr     |    |    |    |           |     |     |                           |  |
|--|-----------|-----------------------------|------|----------------------------|-----------------|-----------------------|----|----|----|-----------|-----|-----|---------------------------|--|
| SITE DESCRIPTION Relocation of Bridge #207 on SR 1560 over Little Creek  |           |                             |      |                            |                 | GROUND WATER (m)      |    |    |    |           |     |     |                           |  |
| BORING NO. B1-B  |           | BORING LOCATION 14+64.16    |      | OFFSET 3.13m Rt.           |                 | ALIGNMENT -Y11-REV    |    |    |    |           |     |     |                           |  |
| COLLAR ELEV. 59.55 m   |           | NORTHING 206,951.80         |      | EASTING 658,543.61         |                 | 0 HR. 1.31            |    |    |    |           |     |     |                           |  |
| TOTAL DEPTH 14.76 m  |           | DRILL MACHINE CME 550 Track |      | DRILL METHOD 8.26cm ID HSA |                 | HAMMER TYPE Automatic |    |    |    |           |     |     |                           |  |
| DATE STARTED 7/3/01  |           | COMPLETED 7/9/01            |      | SURFACE WATER DEPTH N/A    |                 |                       |    |    |    |           |     |     |                           |  |
| ELEV. (m)  | DEPTH (m) | BLOW COUNT                  |      |                            | BLOWS PER 30 CM |                       |    |    |    | SAMP. NO. | MOI | LOG | SOIL AND ROCK DESCRIPTION |  |
|  |           | 15cm                        | 15cm | 15cm                       | 0               | 20                    | 40 | 60 | 80 |           |     |     |                           | 100  |
| 59.55  |           |                             |      |                            |                 |                       |    |    |    |           |     |     |                           | 59.55m 0.00m   |
|  | 0.00      | WOH                         | 1    | 1                          |                 |                       |    |    |    |           |     |     |                           | Ground Surface   |
|  | 0.61      |                             |      |                            |                 |                       |    |    |    |           |     |     |                           | 58.94m 0.61m   |
|  | 1.07      |                             | 1    | 1                          |                 |                       |    |    |    |           |     |     |                           | -ALLUVIUM-<br>Gray/green & tan, silty fine SAND (A-2-4), with some clay & roots.   |
|  | 1.98      | WOH                         | 2    | 2                          |                 |                       |    |    |    |           |     |     |                           | Brown/gray, fine sandy SILT (A-4), with trace coarse sand, roots, some clay & trace 10mm diameter rounded quartz gravel. |
|  | 2.59      |                             | 12   | 9                          | 11              |                       |    |    |    |           |     |     |                           | 57.47m 2.08m   |
|  |           |                             | 20   | 28                         | 25              |                       |    |    |    |           |     |     |                           | 57.23m 2.32m   |
|  |           |                             |      |                            |                 |                       |    |    |    |           |     |     |                           | Light gray, silty fine to coarse SAND (A-1-b), with 2-40mm diameter rounded quartz gravel.                               |
|  |           |                             |      |                            |                 |                       |    |    |    |           |     |     |                           | -RESIDUAL-<br>Gray/green & white, fine sandy SILT (A-4), with some coarse sand, quartz rock fragments, saprolitic.       |
|  | 4.11      |                             | 18   | 70                         | 30/1cm          |                       |    |    |    |           |     |     |                           | 55.29m 4.26m   |
|  |           |                             |      |                            |                 |                       |    |    |    |           |     |     |                           | 55.13m 4.42m   |
|  |           |                             |      |                            |                 |                       |    |    |    |           |     |     |                           | -SOFT WEATHERED ROCK-<br>QUARTZ-MUSCOVITE SCHIST-<br>Tan/brown, quartz-muscovite schist.                                 |
|  | 5.64      |                             |      |                            |                 |                       |    |    |    |           |     |     |                           | 53.47m 6.08m   |
|  |           |                             |      |                            |                 |                       |    |    |    |           |     |     |                           | Tan/gray & white, moderately severely weathered, moderately fractured quartz-muscovite schist.                           |
|  |           |                             |      |                            |                 |                       |    |    |    |           |     |     |                           | Tan/gray & white, slightly to moderately weathered, sound to slightly fractured quartz-muscovite schist.                 |
|  |           |                             |      |                            |                 |                       |    |    |    |           |     |     |                           | 50.94m 8.61m   |
|  |           |                             |      |                            |                 |                       |    |    |    |           |     |     |                           | 50.54m 9.01m   |
|  |           |                             |      |                            |                 |                       |    |    |    |           |     |     |                           | Orange & brown, moderately severely weathered, extremely fractured quartz-muscovite schist.                              |
|  |           |                             |      |                            |                 |                       |    |    |    |           |     |     |                           | Tan/gray & white, moderately weathered, moderately to extremely fractured quartz-muscovite schist.                       |
|  |           |                             |      |                            |                 |                       |    |    |    |           |     |     |                           | 49.35m 10.20m  |
|  |           |                             |      |                            |                 |                       |    |    |    |           |     |     |                           | Tan/gray & white with orange, moderately weathered, moderately to extremely fractured quartz-muscovite schist.           |
|  |           |                             |      |                            |                 |                       |    |    |    |           |     |     |                           | 44.79m 14.76m  |
| Coring terminated at elev. 44.79m in QUARTZ-MUSCOVITE SCHIST.  |           |                             |      |                            |                 |                       |    |    |    |           |     |     |                           |  |
| Notes:<br>1) Geologist indicates strata change in split spoon at 2.08m and 2.32m.<br>2) 0 hr. groundwater depth taken before coring.<br>3) Driller switches to coring techniques at 4.42m.<br>4) 6.10m of casing set at 5.94m. |           |                             |      |                            |                 |                       |    |    |    |           |     |     |                           |  |

NCDOT\_GDT 9/24/01  
NCDOT\_BORE R255'

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| CORE BORING REPORT |  |                      |                |                 |                     |                     | DATE: 07/9/2001   |
|--------------------|--|----------------------|----------------|-----------------|---------------------|---------------------|---|
| PROJECT:           | 8.T311002  | I.D. NO.:            | R-2552B        | BORING NO.:     | B1-B                | GEOLOGIST:          | Dan Carr  |
| DESCRIPTION:       | Relocation of Bridge #207 on SR 1560 over Little Creek |                      |                | SENIOR DRILLER: | J.W. Gilchrist, Jr. |                     |   |
| COUNTY:            | Johnston   | COLLAR ELEVATION:    | 59.55m         | TOTAL DEPTH:    | 14.76m              | DRILLING ASSISTANT: | M.W. Renza  |
| Elev. (m)          | Depth (m)  | Drill Rate min./0.3m | Run Length (m) | REC (%)         | RQD (%)             | Sample #            | FIELD CLASSIFICATION AND REMARKS  |
| 55.13              | 4.42   | 4:14                 | 1.22           | 0.55/1.22       | 0.00/1.22           |                     | 55.13m (4.42m)  |
|                    |  | 6:03                 |                | 45.1%           | 0.0%                |                     | Tan/gray and white, moderately severely weathered, moderately fractured, quartz-muscovite schist with disseminated pyrite.<br><br>Major joint set between 0-10°<br><br>STRATA REC.= 34%<br>STRATA RQD.= 0%  |
|                    |  | 5:45                 |                |                 |                     |                     |   |
|                    |  | 4:23/0.32            |                |                 |                     |                     |   |
|                    |  | X                    |                |                 |                     |                     |   |
| 53.91              | 5.64   |                      |                |                 |                     |                     | SPT taken from 5.64-5.67m (N value=100/3cm) Schist  |
| 53.88              | 5.67   | 4:59/0.29            | 1.49           | 1.07/1.49       | 0.54/1.49           |                     | 53.47m (6.08m)  |
|                    |  | 6:52                 |                | 71.8%           | 36.2%               |                     | Tan/gray and white, slightly to moderately weathered, sound to slightly fractured, quartz-muscovite schist with disseminated pyrite.<br><br>Some moderately fractured zones.<br><br>Major joint set @ 45° and between 0-10°<br><br>STRATA REC.= 86%<br>STRATA RQD.= 35% |
|                    |  | 7:08                 |                |                 |                     |                     |   |
|                    |  | 6:01                 |                |                 |                     |                     |   |
| 52.39              | 7.16   | 4:23                 |                |                 |                     |                     | Severely weathered zones from 7.16-7.34 and 7.63-7.83m.   |
| 52.39              | 7.16   | 4:40                 | 1.52           | 1.17/1.52       | 0.35/1.52           | RS-3                | RS-3=28,355.80 kPa  |
|                    |  | 5:31                 |                | 77.0%           | 23.0%               |                     | Orange and brown, moderately severely weathered, extremely fractured, quartz-muscovite schist with disseminated pyrite.<br><br>STRATA REC.= 40%<br>STRATA RQD.= 0%  |
|                    |  | 5:46                 |                |                 |                     |                     |   |
|                    |  | 5:03                 |                |                 |                     |                     |   |
| 50.87              | 8.68   | 5:42/0.32            |                |                 |                     |                     | 50.94m (8.61m)  |
| 50.87              | 8.68   | 6:43                 | 1.52           | 1.14/1.52       | 0.00/1.52           |                     | 50.54m (9.01m)  |
|                    |  | 7:12                 |                | 75.0%           | 0.0%                |                     | Orange and brown, moderately severely weathered, extremely fractured, quartz-muscovite schist with disseminated pyrite.<br><br>STRATA REC.= 40%<br>STRATA RQD.= 0%  |
|                    |  | 5:43                 |                |                 |                     |                     |   |
|                    |  | 6:05                 |                |                 |                     |                     |   |
| 49.35              | 10.20  | 5:58/0.32            |                |                 |                     |                     | 49.15m (10.20m)   |
| 49.35              | 10.20  | 4:40                 | 1.52           | 1.39/1.52       | 0.00/1.52           |                     | Tan/gray and white with orange, moderately weathered, moderately to extremely fractured, quartz-muscovite schist with disseminated pyrite.<br><br>Major joint set @ 30°, 80°, and 90°.<br><br>STRATA REC.= 82%<br>STRATA RQD.= 2%                                       |
|                    |  | 5:27                 |                | 91.5%           | 0.0%                |                     |   |
|                    |  | 6:13                 |                |                 |                     |                     |   |
|                    |  | 5:29                 |                |                 |                     |                     |   |
| 47.83              | 11.72  | 5:23/0.32            |                |                 |                     |                     | Severely weathered zone from 10.20-10.33m.  |

Continued on sheet 2

DRILLING EQUIPMENT:  
 CME - 550 ATV Track rig with automatic hammer.  
 HOLE ADVANCEMENT:  
 1. HSA from 0.00 - 4.42 meters using 8.26cm hollow stem augers.  
 2. Cored using NQ3 triple barrel and a Series 6 face-discharge diamond impregnated bit from 4.42-14.76 meters.

NOTES: