

Table 30. Descriptions of sediments sampled along Sandy Run, Brushy Creek, and Beaverdam Creek, Cleveland County and Rutherford County, N.C.

| Block | Station number | Sample number | Material sampled | Depth of sample below surface of flood plain (feet) | Screening characteristics |                                                                  |                                         |                           |                       |                |               |                               |                |                        | Minerals in concentrate |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |           |          |            |            |                              |         |        |        |
|-------|----------------|---------------|------------------|-----------------------------------------------------|---------------------------|------------------------------------------------------------------|-----------------------------------------|---------------------------|-----------------------|----------------|---------------|-------------------------------|----------------|------------------------|-------------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|-----------|----------|------------|------------|------------------------------|---------|--------|--------|
|       |                |               |                  |                                                     | Plus 1/4 inch             |                                                                  |                                         | Minus 1/4 - plus 1/8 inch |                       | Minus 1/8 inch |               | Weight of concentrate (grams) | Sieve fraction |                        | Monazite                |                       | Ilmenite               |                       | Rutile                 |                       | Zircon                 |                       | Garnet                 |                       | Kyanite                |                       | Sillimanite            |                       | Magnetite | Hematite | Staurolite | Tourmaline | Amphibole, pyroxene, biotite | Epidote | Quartz | Others |
|       |                |               |                  |                                                     | Volume ratio              | Composition (percent)                                            | Maximum intermediate dimension (inches) | Volume ratio              | Composition (percent) | Sand           | Silt and clay |                               | Mesh           | Percent of concentrate | Percent of concentrate  | Pounds per cubic yard | Percent of concentrate | Pounds per cubic yard | Percent of concentrate | Pounds per cubic yard | Percent of concentrate | Pounds per cubic yard | Percent of concentrate | Pounds per cubic yard | Percent of concentrate | Pounds per cubic yard | Percent of concentrate | Pounds per cubic yard |           |          |            |            |                              |         |        |        |
|       |                |               |                  |                                                     |                           |                                                                  |                                         |                           |                       |                |               |                               |                |                        |                         |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |           |          |            |            |                              |         |        |        |
| A     | 1              | 51-PK-30      | Riffle gravel    |                                                     | No data                   | 6.5 gtz, 15 bio sch, 10 gr & peg, 10 fcls, & mica                | 4                                       | No data                   | See + #               | 7              | 168.9         | Total                         | 100            | 3.4                    | 11.5                    | 4.5                   | 15.2                   | 1                     | 0.3                    | 3                     | 1.0                    | 8                     | 2.7                    | —                     | —                      | —                     | —                      | 1                     | —         | —        | —          | —          | —                            | 8       |        |        |
|       | 2              | 51-PK-31      | Riffle gravel    |                                                     | No data                   | 70 gtz, 30 rock frags                                            | 8                                       | No data                   | See + #               | 16             | 198.7         | Total                         | 100            | 2.2                    | 8.7                     | 5.4                   | 21.4                   | 2                     | 0.8                    | 1                     | 0.4                    | 9                     | 3.6                    | —                     | —                      | 4                     | 1.6                    | —                     | —         | —        | —          | —          | 8                            |         |        |        |
|       | 3              | 51-PK-23      | Riffle sand      | 4                                                   | No data                   | 80 gtz, 10 sill sch, 5 gr & peg, 5 fcls                          | 1 1/2                                   | No data                   | See + #               | 20             | 58.8          | Total                         | 100            | 1.5                    | 1.8                     | 4.9                   | 5.8                    | 7                     | 0.8                    | 2                     | 0.2                    | 15                    | 1.8                    | —                     | —                      | 6                     | 0.7                    | —                     | —         | —        | —          | —          | 6                            |         |        |        |
|       | 4              | 51-PK-21      | Riffle gravel    |                                                     | No data                   | No data                                                          |                                         | No data                   |                       | 13             | 689.8         | Total                         | 100            | 2.4                    | 33.0                    | 5.4                   | 74.3                   | —                     | —                      | —                     | —                      | 5                     | 6.9                    | —                     | —                      | 2                     | 2.8                    | —                     | —         | —        | —          | —          | 15                           |         |        |        |
|       |                | 51-PK-22      | Bank clay        | 5                                                   | No data                   |                                                                  |                                         | No data                   |                       | 4              | 17.1          | Total                         | 100            | 2.4                    | 1.0                     | 5.7                   | 2.3                    | —                     | —                      | 1                     | 0.04                   | 1                     | 0.04                   | —                     | —                      | 11                    | 0.4                    | —                     | —         | —        | —          | —          | 6                            |         |        |        |
| B     | 5              | 51-PK-19      | Riffle gravel    |                                                     | No data                   | 70 gtz, 15 grs, 10 fcls, 5 sill sch, to musc                     | 2                                       | No data                   | See + #               | 18             | 129.2         | Total                         | 100            | 2.8                    | 7.2                     | 5.8                   | 15.0                   | 1                     | 0.3                    | —                     | —                      | 6                     | 1.5                    | —                     | —                      | 2                     | 0.5                    | —                     | —         | —        | —          | —          | 5                            |         |        |        |
|       | 6              | 51-PK-20      | Riffle sand      |                                                     | No data                   | 70 gtz, 15 sill sch, 10 fcls, 5 bio sch                          | No data                                 | No data                   | See + #               | 26             | 285.3         | Total                         | 100            | 2.4                    | 13.7                    | 6.8                   | 39.7                   | —                     | —                      | 1                     | 0.6                    | 3                     | 1.7                    | —                     | —                      | —                     | —                      | —                     | —         | —        | —          | —          | 3                            |         |        |        |
|       | 7              | 51-PK-16      | Riffle sand      |                                                     | No data                   | 75 gtz, 10 sill sch, 10 peg, 5 fcls, to bio sch                  | No data                                 | No data                   | See + #               | 23             | 175.4         | Total                         | 100            | 2.3                    | 8.1                     | 6.6                   | 23.1                   | —                     | —                      | —                     | —                      | 6                     | 2.1                    | —                     | —                      | 3                     | 1.1                    | —                     | —         | —        | —          | —          | 2                            |         |        |        |
|       |                | 51-PK-17      | Bank clay        | 5 1/2                                               | No data                   | 50 gr & peg, 20 gtz, 20 fcls, 5 musc                             | No data                                 | No data                   | See + #               | 15             | 25.8          | Total                         | 100            | 2.0                    | 1.2                     | 4.2                   | 2.6                    | —                     | —                      | 1                     | 0.06                   | 23                    | 1.4                    | —                     | —                      | 5                     | 0.3                    | —                     | —         | —        | —          | —          | 9                            |         |        |        |
|       |                | 51-PK-18      | Bank silt        | 3 3/4                                               | No data                   | gr, gtz, fcls                                                    | No data                                 | See + #                   |                       | 5              | 17.0          | Total                         | 100            | 1.4                    | 0.5                     | 6.5                   | 2.3                    | 4                     | 0.1                    | —                     | —                      | 5                     | 0.2                    | —                     | —                      | 10                    | 0.4                    | —                     | —         | —        | —          | —          | 2                            |         |        |        |
|       | 8              | 51-PK-24      | Riffle gravel    |                                                     | No data                   | 80 gtz, 10 sill sch, 5 peg, 5 fcls                               | 1 1/2                                   | No data                   | See + #               | 13             | 105.4         | Total                         | 100            | 7                      | 1.5                     | 6.0                   | 12.6                   | —                     | —                      | —                     | —                      | 23                    | 4.8                    | —                     | —                      | 2                     | 0.4                    | 1                     | —         | —        | —          | —          | 7                            |         |        |        |
|       | 9              | 51-PK-12      | Riffle sand      | 6                                                   | No data                   | 75 gtz, 15 sill sch, 5 fcls, 5 bio sch, to peg & garnet          | No data                                 | No data                   | See + #               | 20             | 111.0         | Total                         | 100            | 9                      | 2.0                     | 6.5                   | 14.4                   | 2                     | 0.4                    | 1                     | 0.2                    | 8                     | 1.8                    | —                     | —                      | 5                     | 1.1                    | 1                     | —         | —        | —          | —          | 9                            |         |        |        |
|       | 10             | 51-PK-13      | Riffle sand      |                                                     | No data                   | 85 gtz, 5 fcls, 5 sill sch, 5 grs                                | No data                                 | No data                   | See + #               | 23             | 8.2           | Total                         | 100            | 8                      | 0.1                     | 6.6                   | 1.1                    | 4                     | 0.07                   | —                     | —                      | 6                     | 0.1                    | —                     | —                      | 13                    | 0.2                    | —                     | —         | —        | —          | —          | 3                            |         |        |        |
|       | 11             | 51-PK-15      | Riffle sand      |                                                     | No data                   | 80 gtz, 10 peg, 5 fcls, 5 sill sch, to musc                      | 4                                       | No data                   | See + #               | 25             | 55.6          | Total                         | 100            | 9                      | 1.0                     | 6.4                   | 7.1                    | 2                     | 0.2                    | —                     | —                      | 9                     | 1.0                    | —                     | —                      | 9                     | 1.0                    | —                     | —         | —        | 1          | —          | 6                            |         |        |        |
| C     | 12             | 51-PK-3       | Riffle sand      | 6                                                   | No data                   | 45 gtz, 35 sill sch, 10 fcls, 5 bio sch, 5 gr & peg, to gr & il  | No data                                 | No data                   | See + #               | 20             | 272.0         | Total                         | 100            | 1.3                    | 7.2                     | 5.5                   | 30.4                   | 1                     | 0.6                    | —                     | —                      | 11                    | 6.1                    | —                     | —                      | 8                     | 4.4                    | —                     | —         | —        | —          | —          | 12                           |         |        |        |
|       |                | 51-PK-4       | Bank clay        | 5                                                   | No data                   | gtz, fcls, sill sch                                              | No data                                 | See + #                   |                       | 5              | 29            | Total                         | 100            | 1.3                    | 1.5                     | 5.7                   | 6.5                    | 4                     | 0.5                    | 1                     | 0.1                    | —                     | —                      | —                     | —                      | 20                    | 2.3                    | —                     | —         | —        | —          | —          | 5                            |         |        |        |
|       |                | 51-PK-5       | Bank silt        | 2 1/2                                               | No data                   | 45 gtz, 15 bio gr, 15 sill sch, 15 gr & peg, 10 fcls             | No data                                 | See + #                   |                       | 5              | 29            | Total                         | 100            | 1.3                    | 0.7                     | 5.5                   | 3.0                    | 3                     | 0.2                    | 1                     | 0.05                   | 1                     | 0.05                   | —                     | —                      | 23                    | 1.3                    | —                     | —         | —        | —          | —          | 4                            |         |        |        |
|       | 13             | 51-PK-6       | Riffle gravel    |                                                     | No data                   | 65 gtz, 20 sill sch, 5 peg, 5 fcls, 5 grs                        | No data                                 | No data                   | See + #               | 16             | 92.5          | Total                         | 100            | 1.5                    | 2.8                     | 5.8                   | 10.7                   | 3                     | 0.6                    | —                     | —                      | 6                     | 1.1                    | —                     | —                      | 8                     | 1.5                    | —                     | —         | —        | —          | —          | 10                           |         |        |        |
|       |                | 51-PK-7       | Bank clay        | 5 1/2                                               | No data                   | 65 gtz, 15 fcls, 15 bio gr, 5 gr & peg                           | No data                                 | See + #                   |                       | 5              | 29            | Total                         | 100            | 8                      | 0.9                     | 6.6                   | 7.5                    | —                     | —                      | 1                     | 0.1                    | 9                     | 1.0                    | —                     | —                      | 15                    | 1.7                    | —                     | —         | —        | —          | —          | 1                            |         |        |        |
|       | 14             | 51-PK-2       | Riffle gravel    | 4 1/2                                               | No data                   | 65 gtz, 20 grs, 5 bio sch, 5 sill sch, 5 fcls, musc, grs, to lav | 3 1/2                                   | See + #                   |                       | 15             | 2             | Total                         | 100            | 1.4                    | 4.1                     | 5.3                   | 15.4                   | —                     | —                      | —                     | —                      | 10                    | 2.9                    | —                     | —                      | 6                     | 1.7                    | —                     | —         | —        | —          | —          | 17                           |         |        |        |
|       | 15             | 51-PK-10      | Riffle sand      |                                                     | No data                   | 80 gtz, 10 grs, 5 fcls, 5 musc & sill sch                        | No data                                 | No data                   | See + #               | 25             | 36.3          | Total                         | 100            | 5                      | 0.4                     | 5.9                   | 4.3                    | —                     | —                      | —                     | —                      | 19                    | 1.4                    | —                     | —                      | 6                     | 0.4                    | —                     | —         | —        | —          | —          | 11                           |         |        |        |
|       |                | 51-PK-11      | Riffle gravel    | 5 1/2                                               | No data                   | 50 gtz, 20 bio sch, 15 sill sch, 10 gr & peg, 5 fcls, to grs     | No data                                 | No data                   | See + #               | 9              | 347.7         | Total                         | 100            | 1.9                    | 13.2                    | 6.3                   | 43.7                   | —                     | —                      | —                     | —                      | 8                     | 5.6                    | —                     | —                      | 2                     | 1.4                    | —                     | —         | —        | —          | —          | 8                            |         |        |        |
|       | 16             | 51-PK-8       | Riffle gravel    | 5 1/2                                               | No data                   | 70 gtz, 10 sill sch, 10 fcls, 5 bio sch, 5 peg & grs             | 3                                       | No data                   | See + #               | 18             | 426.1         | Total                         | 100            | 1.5                    | 12.8                    | 7.0                   | 59.5                   | 1                     | 0.9                    | 1                     | 0.9                    | 5                     | 4.3                    | —                     | —                      | 1                     | 0.9                    | —                     | —         | —        | —          | —          | 7                            |         |        |        |
|       |                | 51-PK-9       | Bank silt        | 5                                                   | No data                   | organic frags                                                    | No data                                 | No data                   | See + #               | 6              | 27            | Total                         | 100            | 1.3                    | 0.4                     | 7.1                   | 1.9                    | —                     | —                      | 2                     | 0.05                   | 7                     | 0.2                    | —                     | —                      | 7                     | 0.2                    | —                     | —         | —        | —          | —          | —                            |         |        |        |
|       | 17             | 51-PK-14      | Riffle gravel    | 5                                                   | No data                   |                                                                  |                                         | No data                   |                       | 11             | 55.7          | Total                         | 100            | 7                      | 0.8                     | 6.7                   | 7.5                    | 3                     | 0.3                    | —                     | —                      | 7                     | 0.8                    | —                     | —                      | 7                     | 0.8                    | —                     | —         | —        | —          | —          | 9                            |         |        |        |
| D     | 18             | 51-PK-32      | Riffle gravel    |                                                     | No data                   | 60 gtz, 20 sill sch, 10 gr & peg, 5 fcls, 5 bio sch              | 4                                       | No data                   | See + #               | 15             | 80.8          | Total                         | 100            | 2.1                    | 3.4                     | 5.9                   | 9.5                    | 3                     | 0.5                    | —                     | —                      | 8                     | 1.3                    | —                     | —                      | 5                     | 0.8                    | —                     | —         | —        | 1          | —          | 3                            |         |        |        |
|       | 19             | 51-PK-33      | Riffle gravel    |                                                     | No data                   | 85 gtz, 15 rock frags                                            | 7                                       | No data                   | See + #               | 15             | 37.7          | Total                         | 100            | 2.2                    | 1.7                     | 5.0                   | 3.8                    | 4                     | 0.3                    | 2                     | 0.2                    | 12                    | 0.9                    | —                     | —                      | 4                     | 0.3                    | —                     | —         | —        | 1          | 1          | 4                            |         |        |        |
|       | 20             | 51-PK-34      | Riffle gravel    |                                                     | No data                   | 80 gtz, 10 bio sch, 5 fcls, 5 gr & peg                           | No data                                 | No data                   | See + #               | 13             | 201.6         | Total                         | 100            | 2.3                    | 9.3                     | 5.8                   | 23.3                   | 2                     | 0.8                    | 3                     | 1.2                    | 4                     | 1.6                    | —                     | —                      | 2                     | 0.8                    | —                     | —         | —        | —          | —          | 8                            |         |        |        |
| E     | 21             | 51-PK-29      | Riffle gravel    |                                                     | No data                   | 90 gtz, 10 rock frags                                            | No data                                 | No data                   | See + #               | 17             | 47.1          | Total                         | 100            | 3.4                    | 3.2                     | 5.5                   | 5.2                    | 3                     | 0.3                    | 3                     | 0.3                    | 2                     | 0.2                    | —                     | —                      | —                     | —                      | —                     | —         | —        | —          | 3          |                              |         |        |        |
|       | 22             | 51-PK-28      | Riffle gravel    |                                                     | No data                   | 85 gtz, 10 bio sch, 5 peg, sill sch, fcls                        | 3 1/2                                   | No data                   | See + #               | 10             | 99.1          | Total                         | 100            | 3.3                    | 6.5                     | 4.4                   | 8.7                    | 1                     | 0.2                    | —                     | —                      | 8                     | 1.6                    | —                     | —                      | 1                     | 0.2                    | —                     | —         | —        | —          | —          | 13                           |         |        |        |
|       | 23             | 51-PK-26      | Riffle sand      |                                                     | No data                   | 90 gtz, 5 gr & peg, 5 fcls                                       | 1 1/2                                   | No data                   | See + #               | 21             | 18.5          | Total                         | 100            | 2.7                    | 1.0                     | 5.2                   | 1.9                    | 4                     | 0.1                    | 1                     | 0.04                   | 8                     | 0.3                    | —                     | —                      | 2                     | 0.07                   | —                     | —         | —        | —          | —          | 6                            |         |        |        |
|       |                | 51-PK-27      | Bank gravel      | 4 1/2                                               | No data                   | 97 gtz, 2 fcls, 1 gr & peg                                       | No data                                 | No data                   | See + #               | 13             | 157.8         | Total                         | 100            | 3.7                    | 13.8                    | 4.6                   | 17.2                   | —                     | —                      | 1                     | 0.4                    | 6                     | 2.2                    | —                     | —                      | —                     | —                      | —                     | —         | —        | —          | 10         |                              |         |        |        |