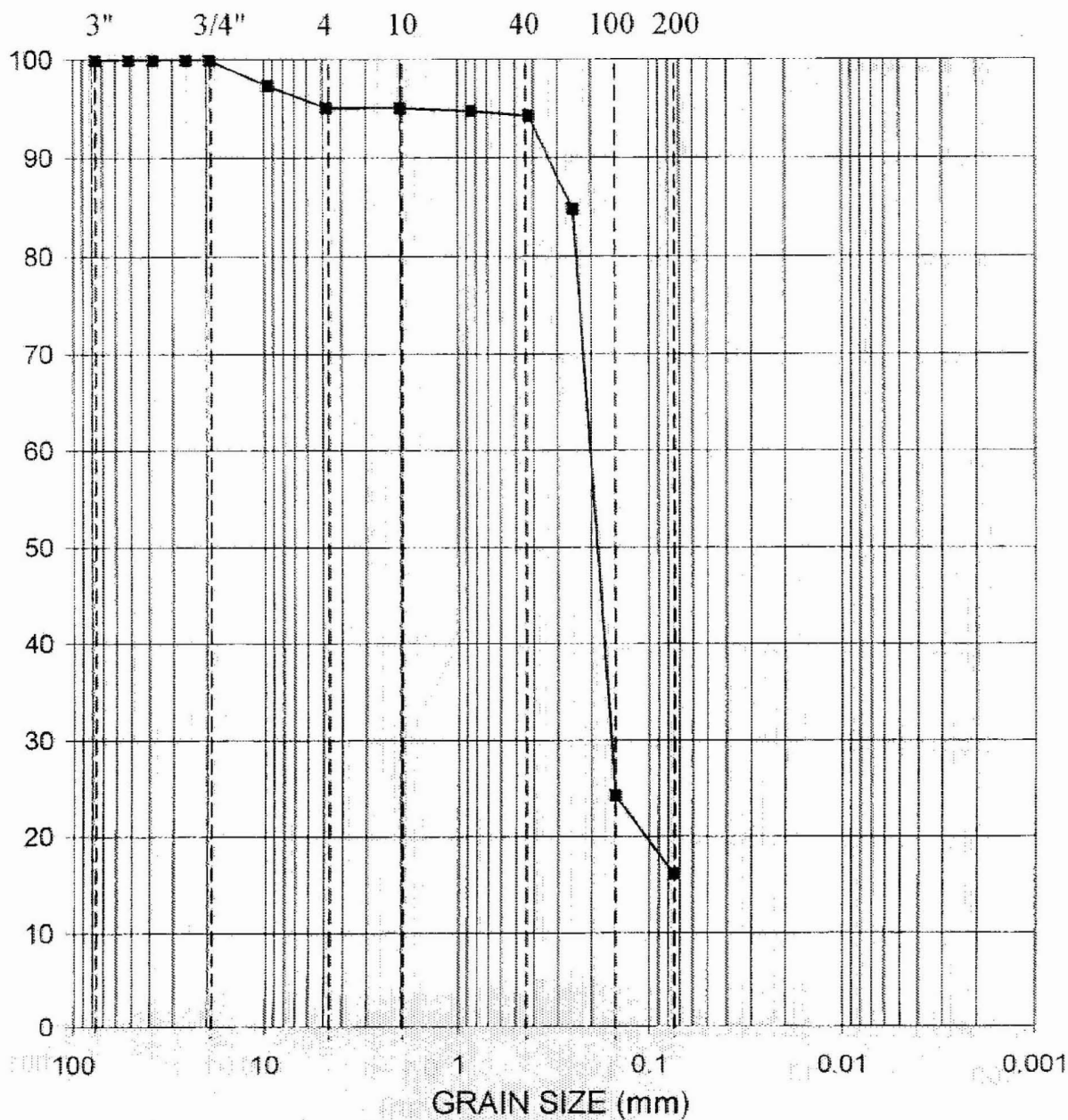


# U.S. Standard Sieve Nos.

PERCENT FINER BY WEIGHT



|        |      |              |
|--------|------|--------------|
| GRAVEL | SAND | SILT OR CLAY |
|--------|------|--------------|

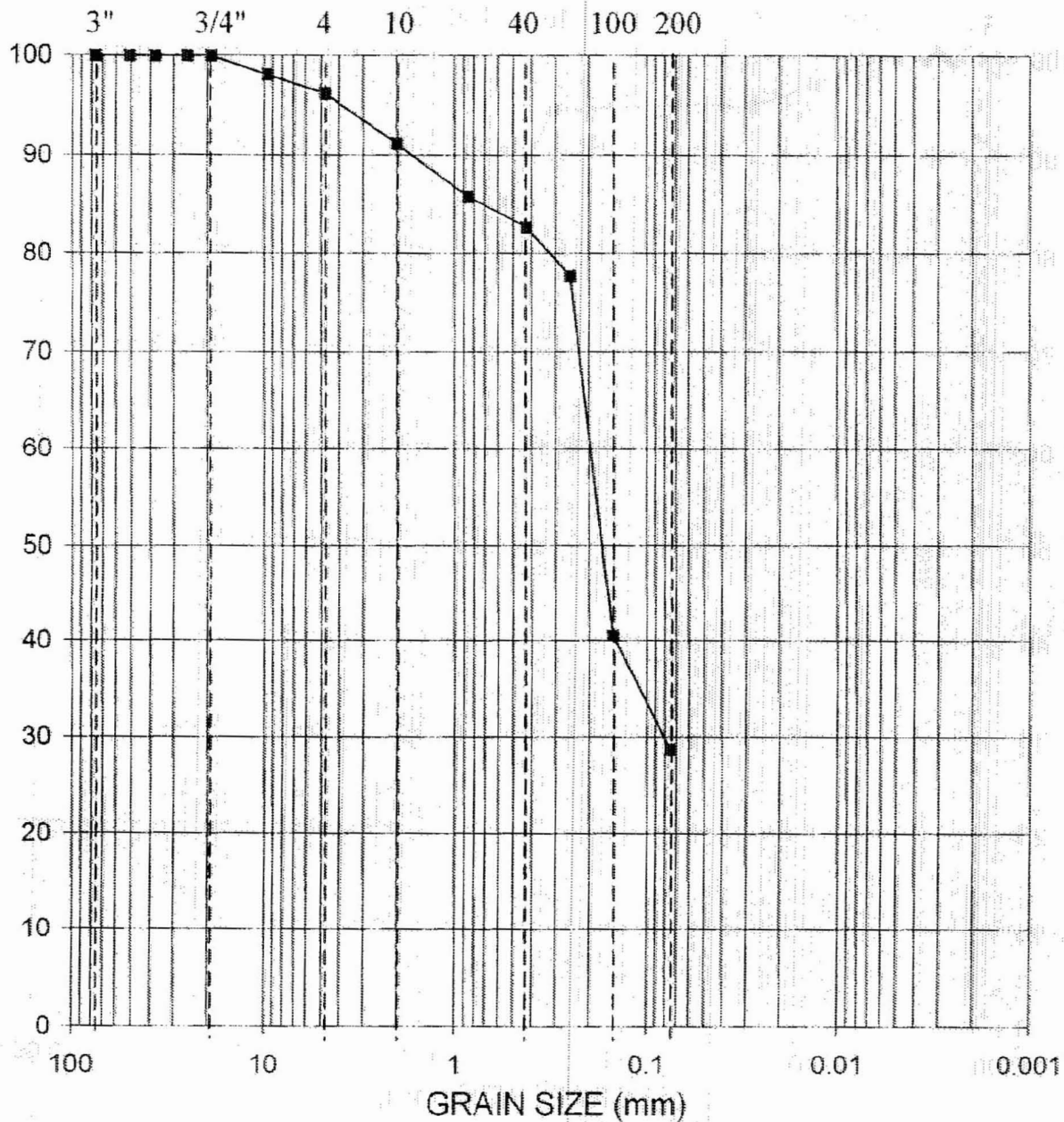
## GRADATION CURVE

ASTM D422

|            |                                                                                                                     |                                 |       |              |             |                                                                                       |           |
|------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------|-------|--------------|-------------|---------------------------------------------------------------------------------------|-----------|
| Project    | Constellation Energy Group COLA Project,<br>Calvert Cliffs Nuclear Power Plant (CCNPP),<br>Calvert County, Maryland |                                 |       | Contract No. | 06120048.00 | Date                                                                                  | 9/12/2006 |
| Boring No. | Depth (ft)                                                                                                          | Sample Description              | Class | LL           | PI          |  |           |
| B-413      | 118.5                                                                                                               | Silty SAND, trace shells, green | SM    |              |             |                                                                                       |           |

PERCENT FINER BY WEIGHT

U.S. Standard Sieve Nos.



GRAVEL

SAND

SILT OR CLAY

### GRADATION CURVE

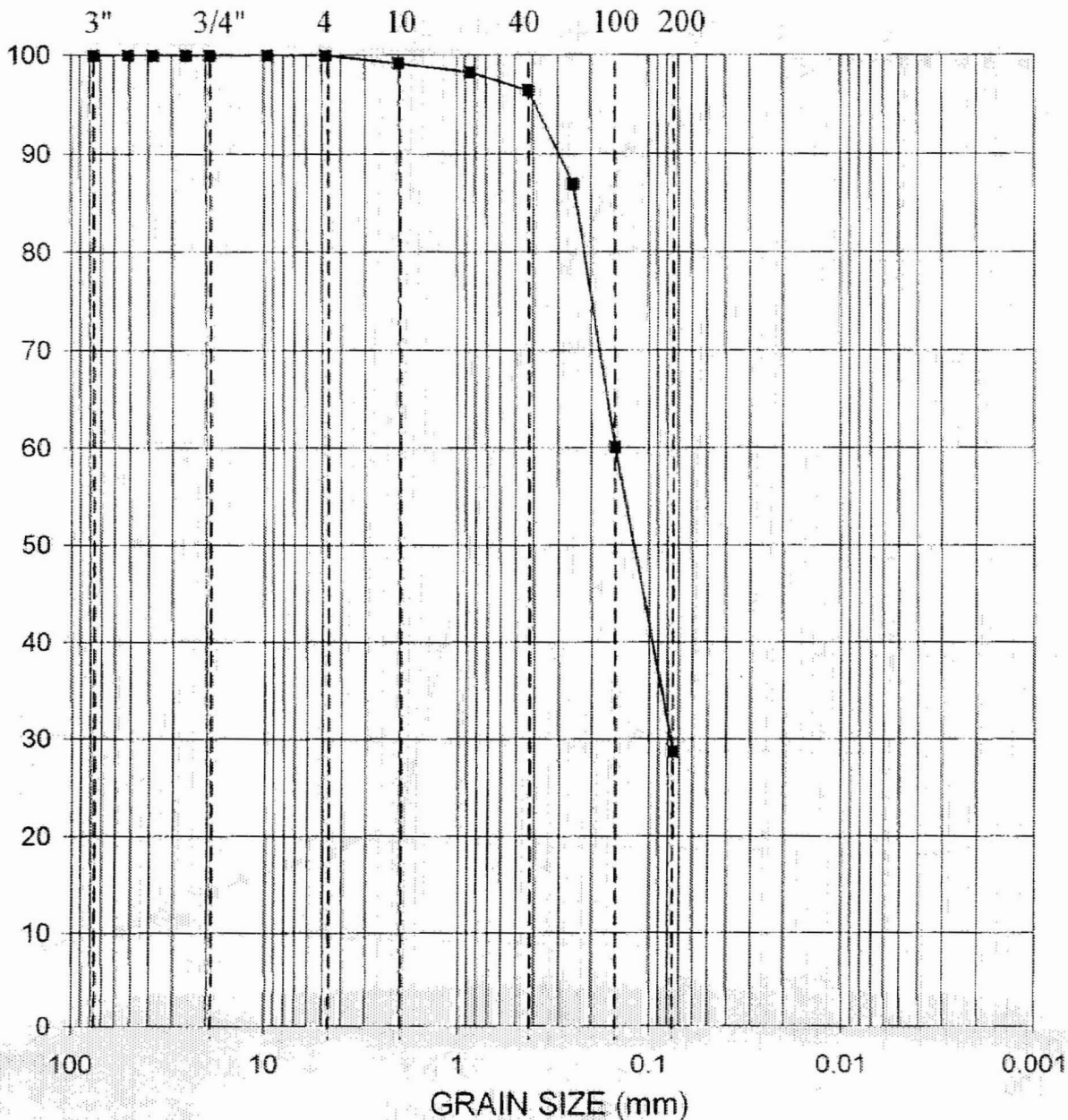
ASTM D422

|            |                                                                                                                     |                                 |       |               |             |                                                                                       |           |
|------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------|-------|---------------|-------------|---------------------------------------------------------------------------------------|-----------|
| Project:   | Constellation Energy Group COLA Project,<br>Calvert Cliffs Nuclear Power Plant (CCNPP),<br>Calvert County, Maryland |                                 |       | Contract No.: | 06120048.00 | Date:                                                                                 | 9/13/2006 |
| Boring No. | Depth (ft)                                                                                                          | Sample Description              | Class | LL            | PI          |  |           |
| B-413      | 133.5                                                                                                               | Silty SAND, trace shells, green | SM    |               |             |                                                                                       |           |



# U.S. Standard Sieve Nos.

PERCENT FINER BY WEIGHT



GRAVEL

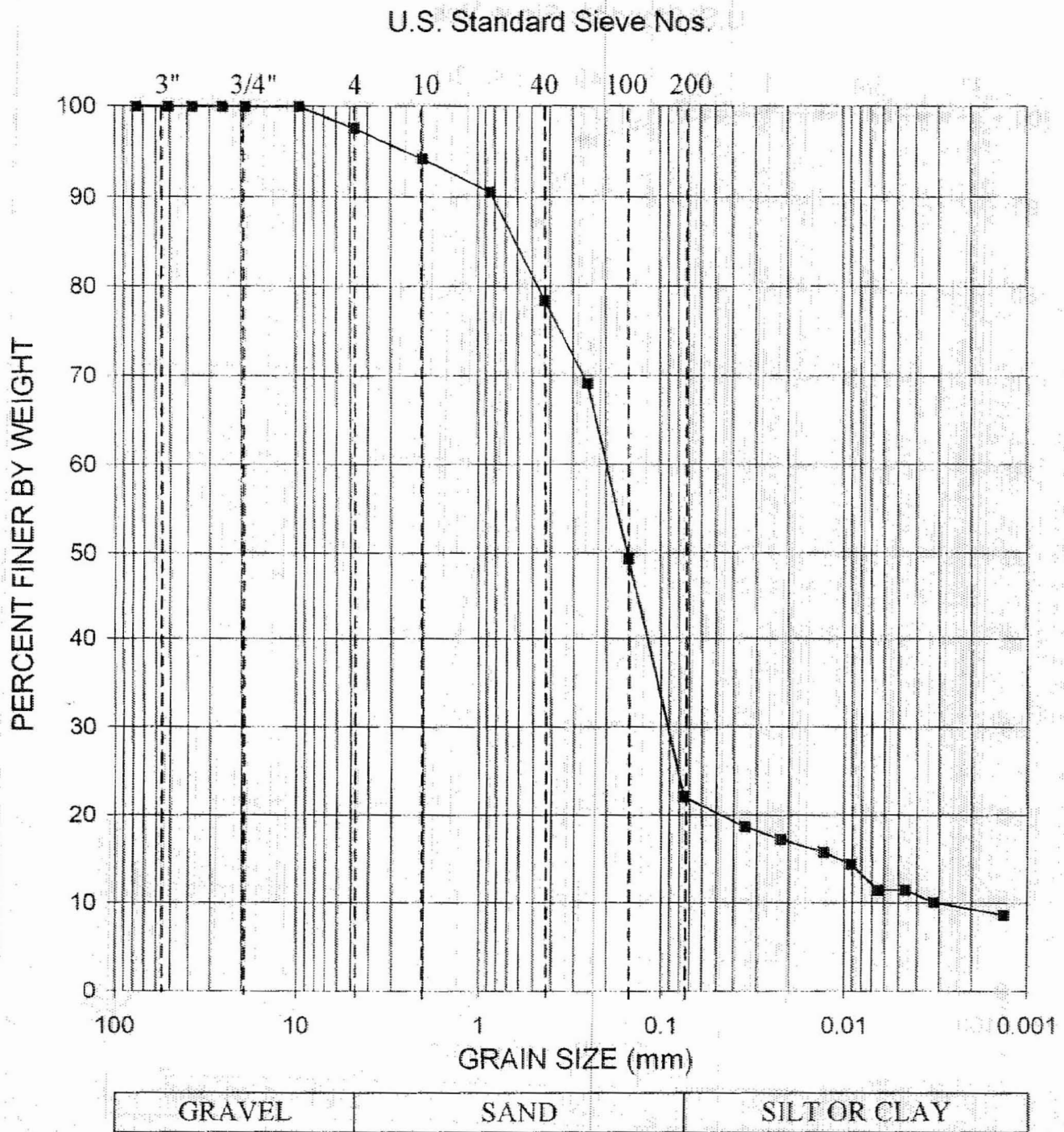
SAND

SILT OR CLAY

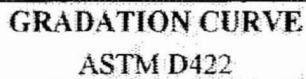
## GRADATION CURVE

ASTM D422

|            |                                                                                                                    |                                    |       |              |             |                                                                                       |           |
|------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------|-------|--------------|-------------|---------------------------------------------------------------------------------------|-----------|
| Project    | Constellation Energy Group COLA Project<br>Calvert Cliffs Nuclear Power Plant (CCNPP),<br>Calvert County, Maryland |                                    |       | Contract No. | 06120048 00 | Date                                                                                  | 9/13/2006 |
| Boring No. | Depth (ft)                                                                                                         | Sample Description                 | Class | LL           | PI          |  |           |
| B-413      | 148.5                                                                                                              | Silty SAND, contains shells, green | SM    |              |             |                                                                                       |           |



# PERCENT FINER BY WEIGHT

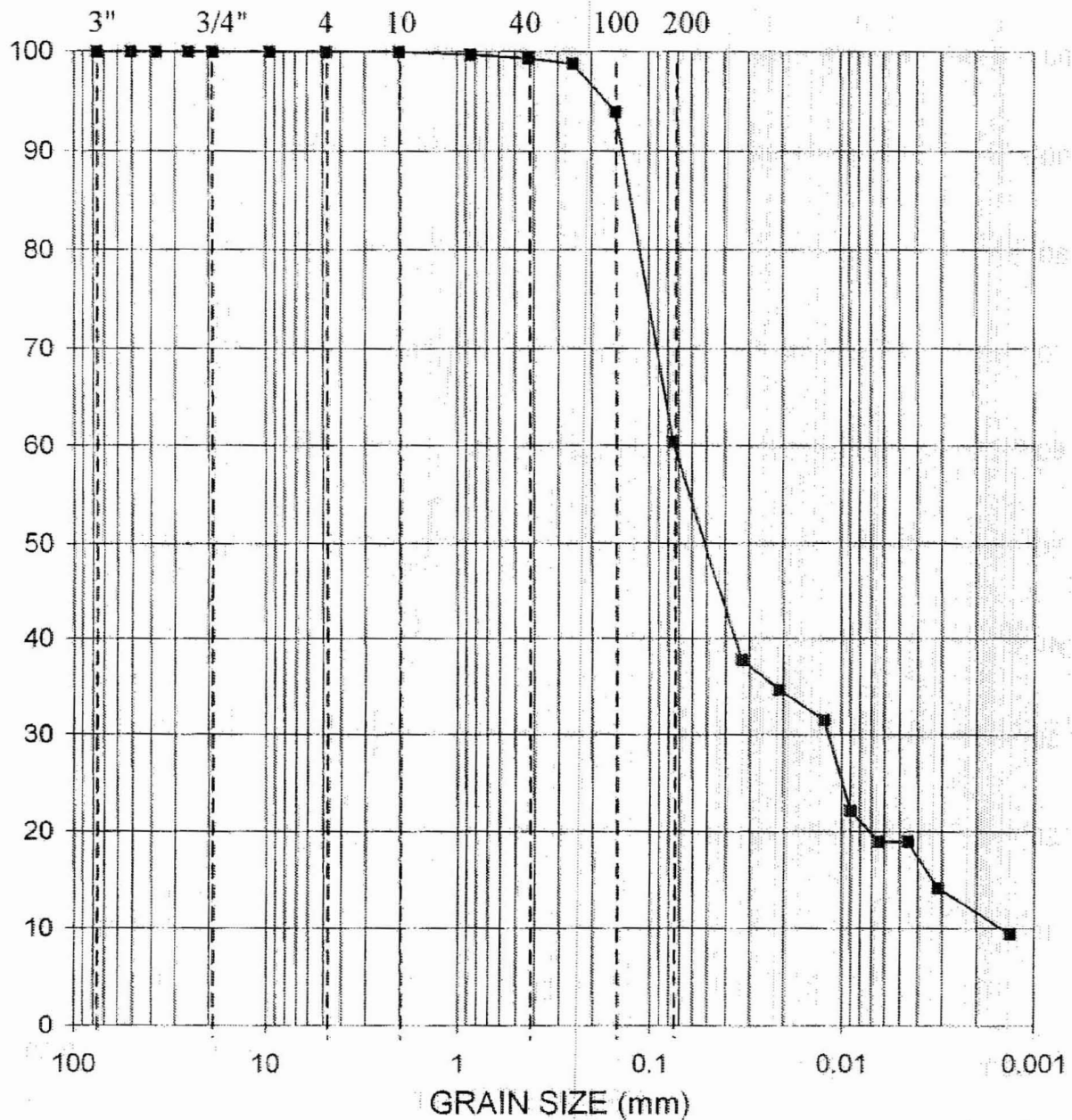


**Schnabel**  
Schnabel Engineering



PERCENT FINER BY WEIGHT

U.S. Standard Sieve Nos.

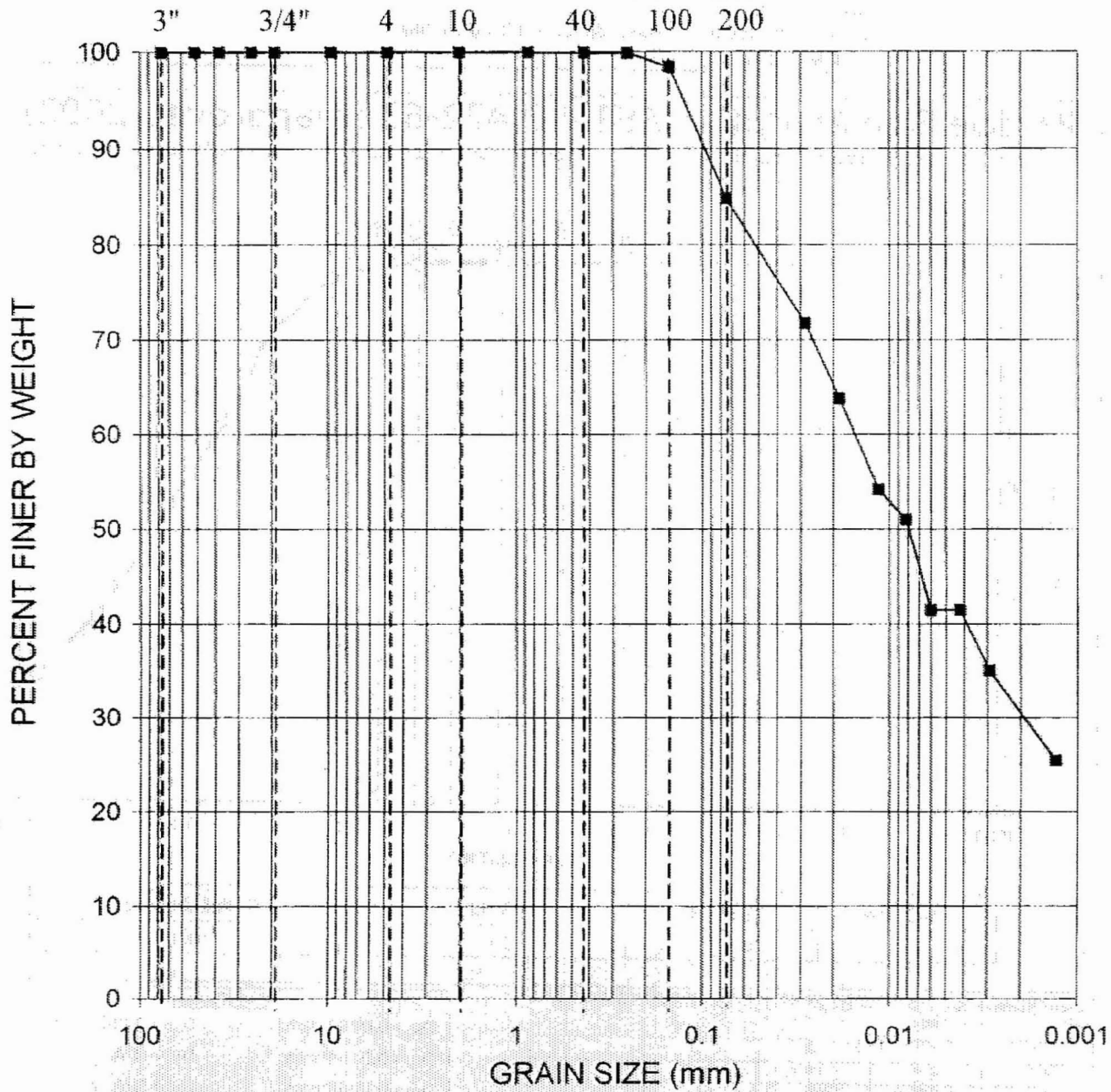


|        |      |              |
|--------|------|--------------|
| GRAVEL | SAND | SILT OR CLAY |
|--------|------|--------------|

GRADATION CURVE  
ASTM D422

|            |                                                                                                                     |                            |        |    |              |                                                                                       |      |           |
|------------|---------------------------------------------------------------------------------------------------------------------|----------------------------|--------|----|--------------|---------------------------------------------------------------------------------------|------|-----------|
| Project    | Constellation Energy Group COLA Project,<br>Calvert Cliffs Nuclear Power Plant (CCNPP),<br>Calvert County, Maryland |                            |        |    | Contract No. | 06120048.00                                                                           | Date | 9/14/2006 |
| Boring No. | Depth (ft)                                                                                                          | Sample Description         | Class. | LL | PI           |  |      |           |
| B-414      | 53.5                                                                                                                | Sandy LEAN CLAY, dark gray | CL     | 42 | 19           |                                                                                       |      |           |

# U.S. Standard Sieve Nos.



|        |      |              |
|--------|------|--------------|
| GRAVEL | SAND | SILT OR CLAY |
|--------|------|--------------|

## GRADATION CURVE ASTM D422

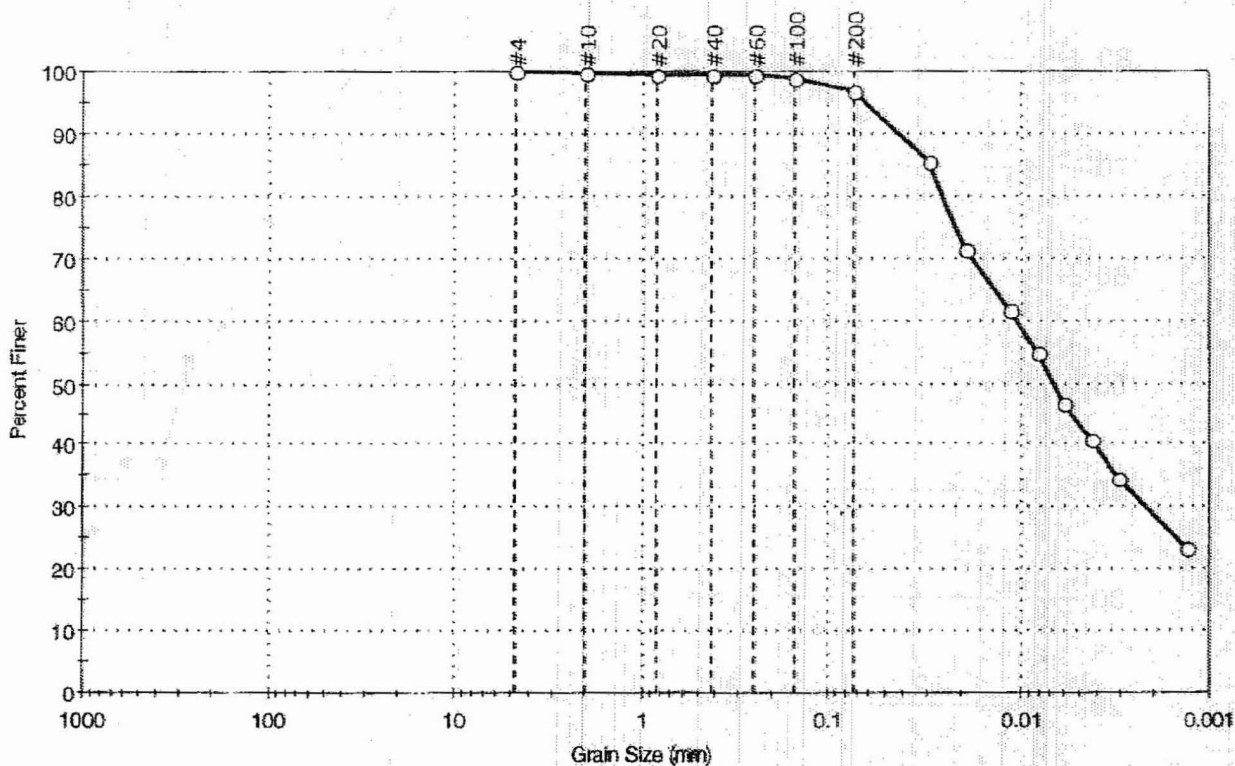
|            |                                                                                                                     |                                |        |               |             |                                                                                       |           |
|------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------|--------|---------------|-------------|---------------------------------------------------------------------------------------|-----------|
| Project:   | Constellation Energy Group COLA Project,<br>Calvert Cliffs Nuclear Power Plant (CCNPP),<br>Calvert County, Maryland |                                |        | Contract No.: | 06120048.00 | Date:                                                                                 | 9/20/2006 |
| Boring No. | Depth (ft)                                                                                                          | Sample Description             | Class. | LL            | PI          |  |           |
| B-414      | 58.0                                                                                                                | FAT CLAY, with sand, dark gray | CH     | 58            | 38          |                                                                                       |           |

# GeoTesting express

a subsidiary of Geocomp Corporation

|                                                    |                                                             |                      |
|----------------------------------------------------|-------------------------------------------------------------|----------------------|
| Client: Schnabel Engineering, Inc.                 | Project: Subsurface Investigation Calvert Cliffs Nuclear PP | Project No: GTX-6880 |
| Location: Calvert County, MD                       | Boring ID: B-414                                            | Sample Type: tube    |
| Sample ID: S-17                                    | Test Date: 10/27/06                                         | Tested By: sam       |
| Depth: 68.0-70.0 ft                                | Test ID: 98069                                              | Checked By: mcm      |
| Test Comment: ---                                  |                                                             |                      |
| Sample Description: Moist, dark greenish gray clay |                                                             |                      |
| Sample Comment: ---                                |                                                             |                      |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| —        | 0.1      | 3.1    | 96.8               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| #4         | 4.75               | 100           |               |          |
| #10        | 2.00               | 100           |               |          |
| #20        | 0.85               | 100           |               |          |
| #40        | 0.425              | 99            |               |          |
| #60        | 0.25               | 99            |               |          |
| #100       | 0.15               | 99            |               |          |
| #200       | 0.075              | 97            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0293             | 86            |               |          |
| ---        | 0.0192             | 71            |               |          |
| ---        | 0.0113             | 62            |               |          |
| ---        | 0.0082             | 55            |               |          |
| ---        | 0.0060             | 47            |               |          |
| ---        | 0.0043             | 41            |               |          |
| ---        | 0.0031             | 34            |               |          |
| ---        | 0.0013             | 23            |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.0287 mm | D <sub>30</sub> = 0.0022 mm |
| D <sub>60</sub> = 0.0104 mm | D <sub>15</sub> = N/A       |
| D <sub>50</sub> = 0.0068 mm | D <sub>10</sub> = N/A       |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM fat clay (CH)

AASHTO Clayey Soils (A-7-6 (41))

### Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---



## PERCENT FINER BY WEIGHT

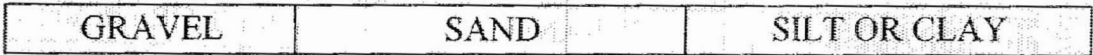


## ASTM D422



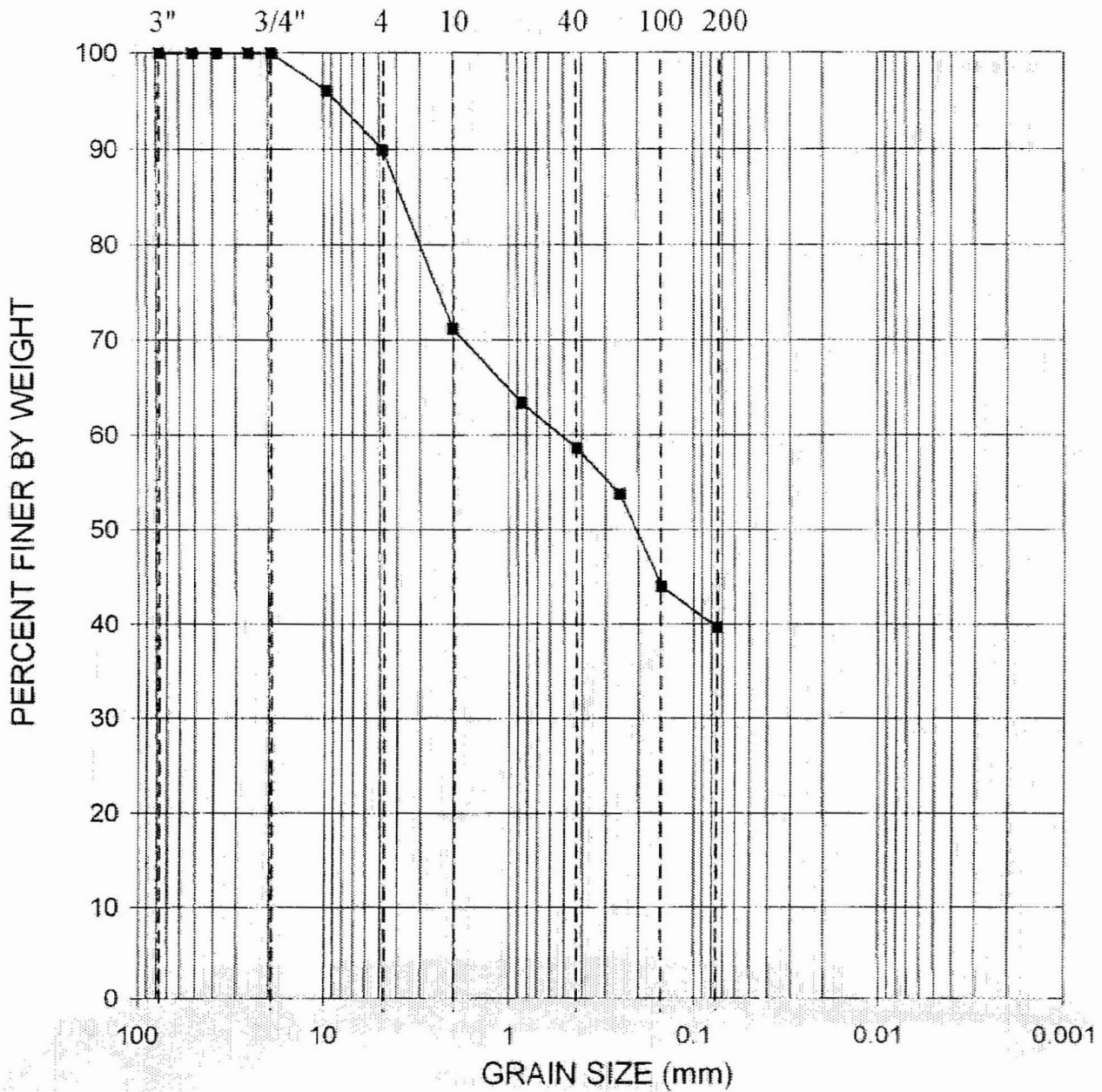
**Schnabel**  
Schnabel Engineering

## PERCENT FINER BY WEIGHT



## ASTM D422

# U.S. Standard Sieve Nos.



GRAVEL

SAND

SILT OR CLAY

## GRADATION CURVE

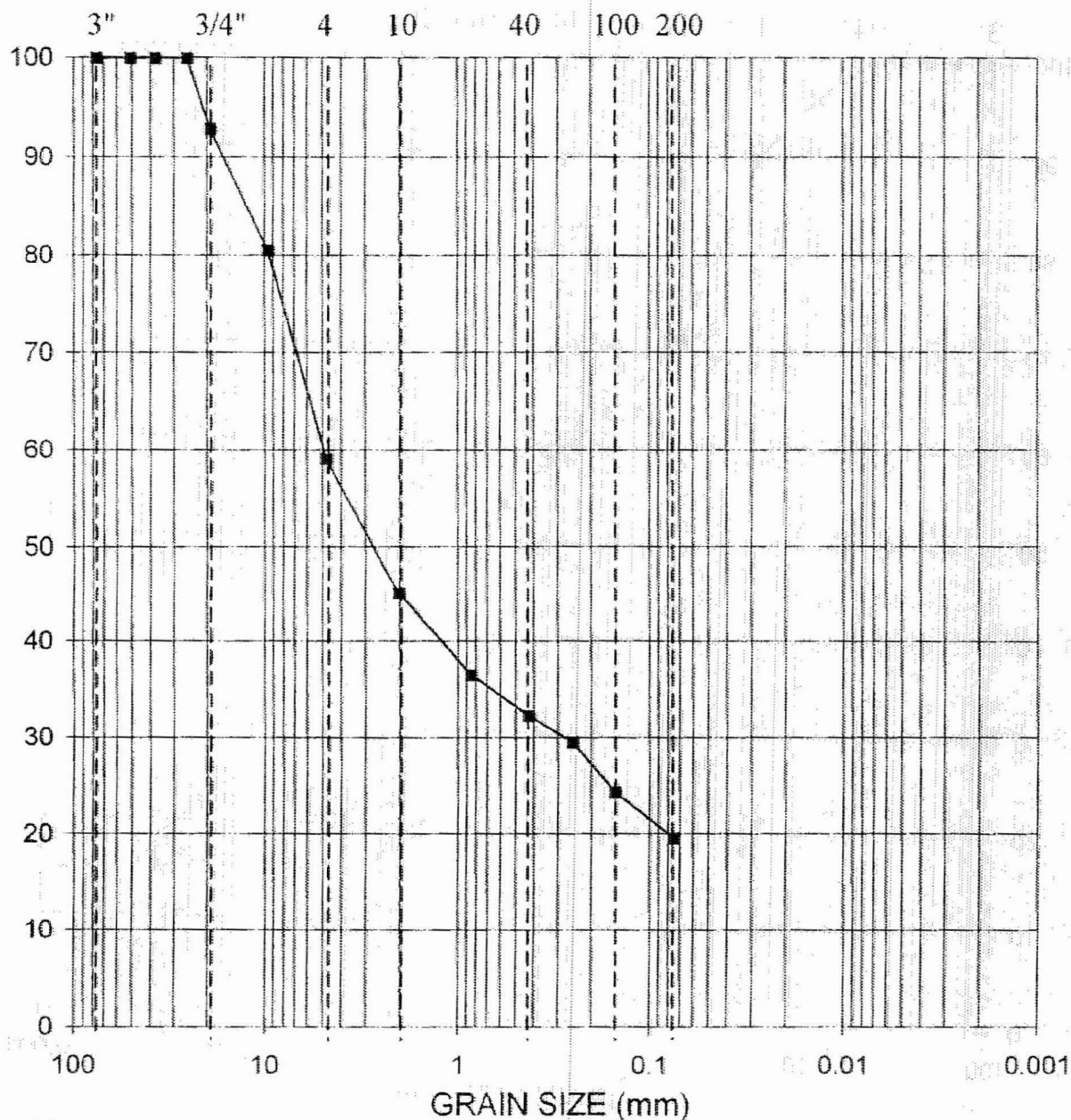
ASTM D422

|            |                                                                                                                     |                                 |       |              |             |                                                                                       |           |
|------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------|-------|--------------|-------------|---------------------------------------------------------------------------------------|-----------|
| Project:   | Constellation Energy Group COLA Project,<br>Calvert Cliffs Nuclear Power Plant (CCNPP),<br>Calvert County, Maryland |                                 |       | Contract No. | 06120048.00 | Date:                                                                                 | 9/13/2006 |
| Boring No. | Depth (ft)                                                                                                          | Sample Description              | Class | LL           | PI          |  |           |
| B-414      | 93.5                                                                                                                | Silty SAND, trace shells, green | SM    |              |             |                                                                                       |           |



PERCENT FINER BY WEIGHT

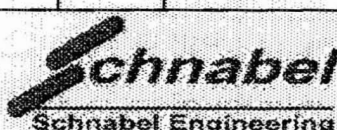
U.S. Standard Sieve Nos.



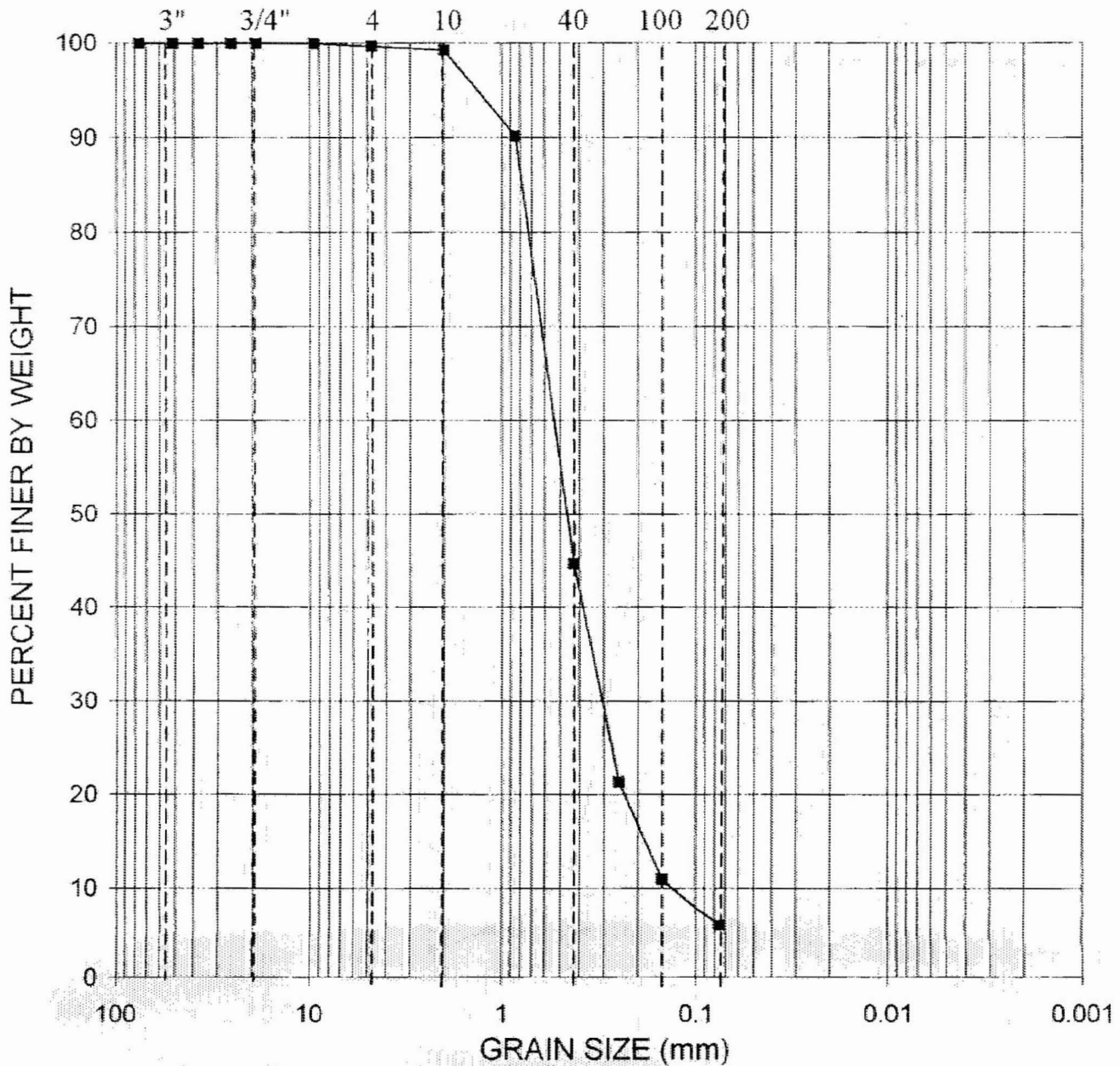
|        |      |              |
|--------|------|--------------|
| GRAVEL | SAND | SILT OR CLAY |
|--------|------|--------------|

### GRADATION CURVE

ASTM D422

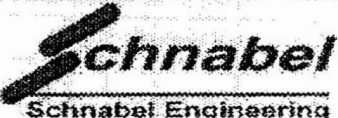
|            |                                                                                                                     |                               |        |              |             |                                                                                       |           |
|------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------|--------|--------------|-------------|---------------------------------------------------------------------------------------|-----------|
| Project:   | Constellation Energy Group COLA Project,<br>Calvert Cliffs Nuclear Power Plant (CCNPP),<br>Calvert County, Maryland |                               |        | Contract No. | 06120048.00 | Date:                                                                                 | 9/13/2006 |
| Boring No. | Depth (ft)                                                                                                          | Sample Description            | Class. | LL           | PI          |  |           |
| B-414      | 98.5                                                                                                                | Silty SHELLS, with sand, gray | GM     |              |             |                                                                                       |           |

# U.S. Standard Sieve Nos.



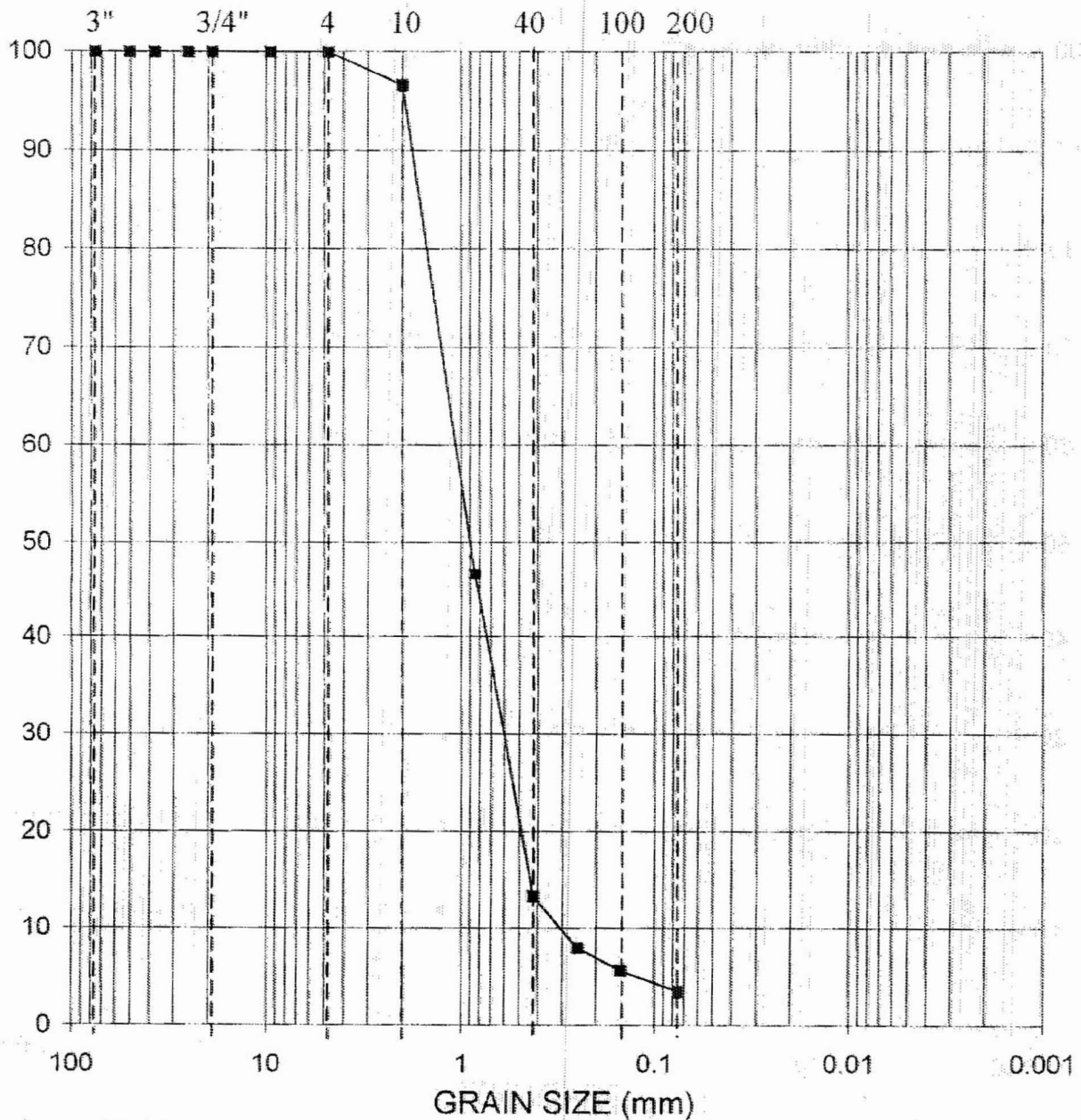
|        |      |              |
|--------|------|--------------|
| GRAVEL | SAND | SILT OR CLAY |
|--------|------|--------------|

## GRADATION CURVE ASTM D422

|            |                                                                                                                     |                                    |        |               |             |                                                                                       |           |
|------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------|--------|---------------|-------------|---------------------------------------------------------------------------------------|-----------|
| Project:   | Constellation Energy Group COLA Project,<br>Calvert Cliffs Nuclear Power Plant (CCNPP),<br>Calvert County, Maryland |                                    |        | Contract No.: | 06120048.00 | Date:                                                                                 | 10/4/2006 |
| Boring No. | Depth (ft)                                                                                                          | Sample Description                 | Class. | LL            | PI          |  |           |
| B-415      | 5                                                                                                                   | Poorly Graded SAND, with silt, tan | SP-SM  |               |             |                                                                                       |           |

PERCENT FINER BY WEIGHT

U.S. Standard Sieve Nos.



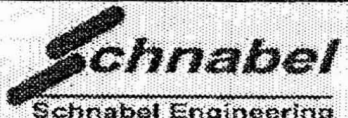
GRAVEL

SAND

SILT OR CLAY

### GRADATION CURVE

ASTM D422

|            |                                                                                                                     |                                       |        |               |             |                                                                                       |           |
|------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------|---------------|-------------|---------------------------------------------------------------------------------------|-----------|
| Project:   | Constellation Energy Group COLA Project,<br>Calvert Cliffs Nuclear Power Plant (CCNPP),<br>Calvert County, Maryland |                                       |        | Contract No.: | 06120048.00 | Date:                                                                                 | 10/4/2006 |
| Boring No. | Depth (ft)                                                                                                          | Sample Description                    | Class. | LL            | PI          |  |           |
| B-415      | 13.5                                                                                                                | Poorly Graded SAND, trace silt, brown | SP     |               |             |                                                                                       |           |