



Date: December 6, 2006
To: Mr. Mike Nichols
From: Mr. Bobby Williams
Subject: Plant Vogtle

Enclosed are the test results for the Plant Vogtle soil samples delivered to the Southern Company Central Laboratory on December 1, 2006. Tests performed include, Soil Particle Size Analysis (ASTM D-422).

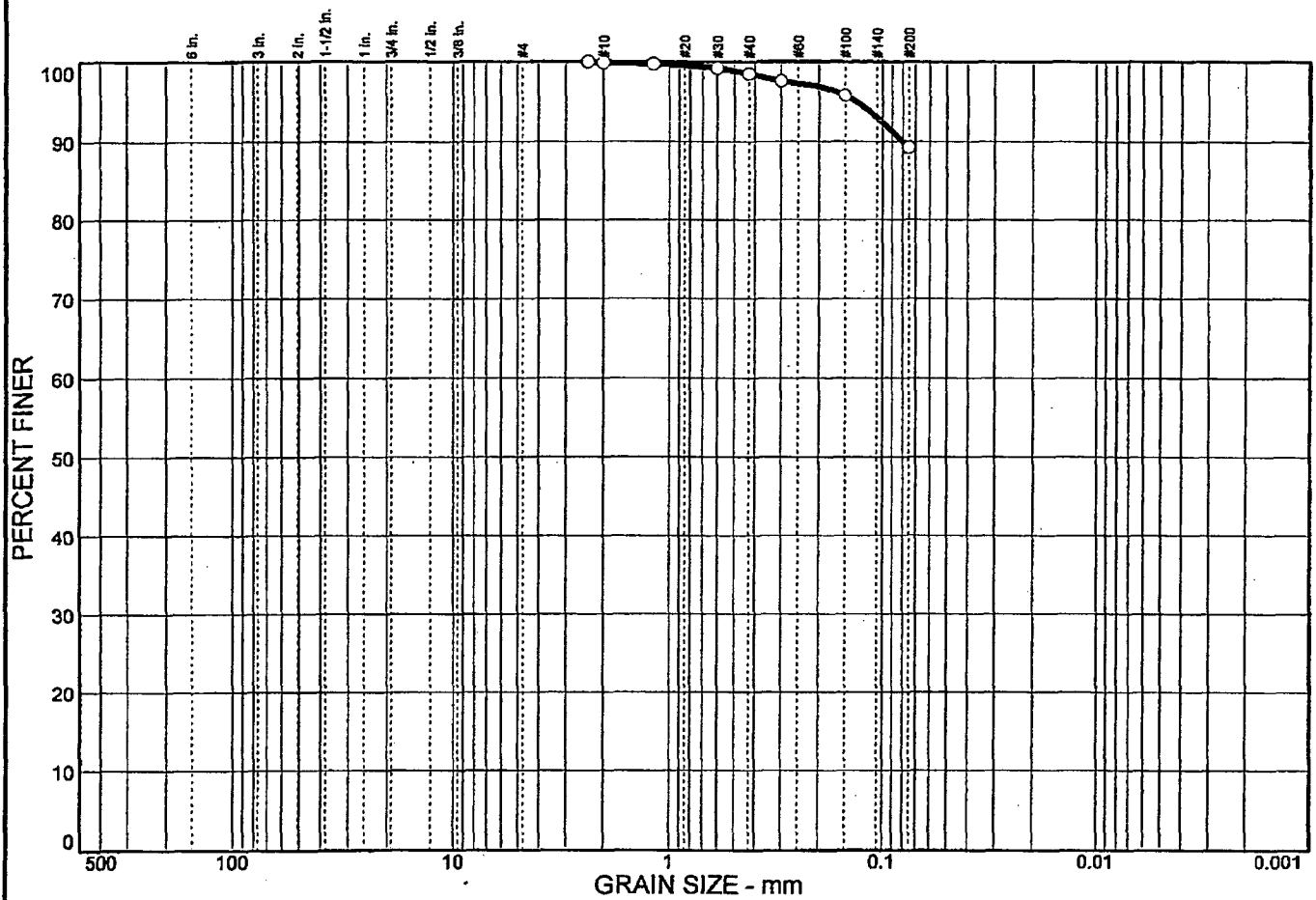
We appreciate the opportunity to assist you on this project. If there are any questions, or if we can be of any further assistance, please call me at 8-255-6508 or Sam Moore at 8-255-6061.

Sincerely,

Bobby Williams, PE
Geostructural Services

cc: Mr. Tom C. Moorer

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	0.0	10.8	89.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#8	100.0		
#10	99.9		
#16	99.7		
#30	99.2		
#40	98.5		
#50	97.6		
#100	95.8		
#200	89.2		

Soil Description

Brown Silt

Atterberg Limits

PL= LL= PI=

Coefficients

D₈₅= D₆₀= D₅₀=
D₃₀= D₁₅= D₁₀=
C_u= C_c=

Classification

USCS= ML AASHTO=

Remarks

* (no specification provided)

Sample No.: MA112806 - 1
 Location: Discharge

Source of Sample:

Date: 12/06/06
 Elev./Depth:

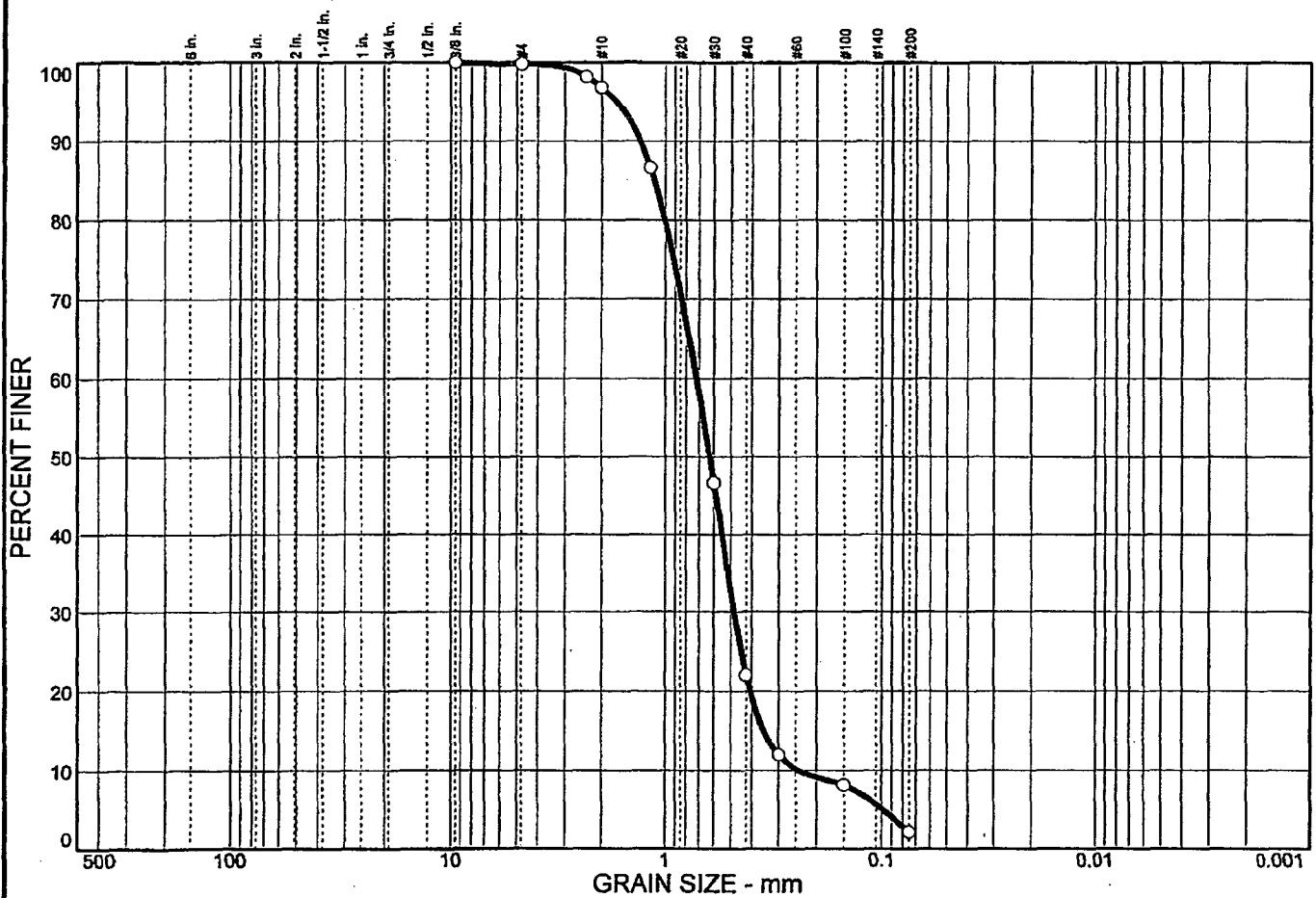
SOUTHERN COMPANY

Client: Southern Nuclear / Mike Nichols and Tom Moorer
 Project: Plant Vogtle

Project No: EWO -

Lab# 1

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	0.2	97.7	2.1	0.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.375 in.	100.0		
#4	99.8		
#8	98.2		
#10	96.8		
#16	86.6		
#30	46.6		
#40	22.0		
#50	12.0		
#100	8.1		
#200	2.1		

Soil Description

Brown Poorly graded sand

Atterberg Limits

PL= LL= PI=

Coefficients

D₈₅= 1.13 D₆₀= 0.720 D₅₀= 0.627

D₃₀= 0.483 D₁₅= 0.353 D₁₀= 0.243

C_u= 2.96 C_c= 1.33

Classification

USCS= SP AASHTO=

Remarks

* (no specification provided)

Sample No.: MA112806 - 2 Source of Sample:
 Location: Upper River Shoreline

Date: 12/06/06
 Elev./Depth:

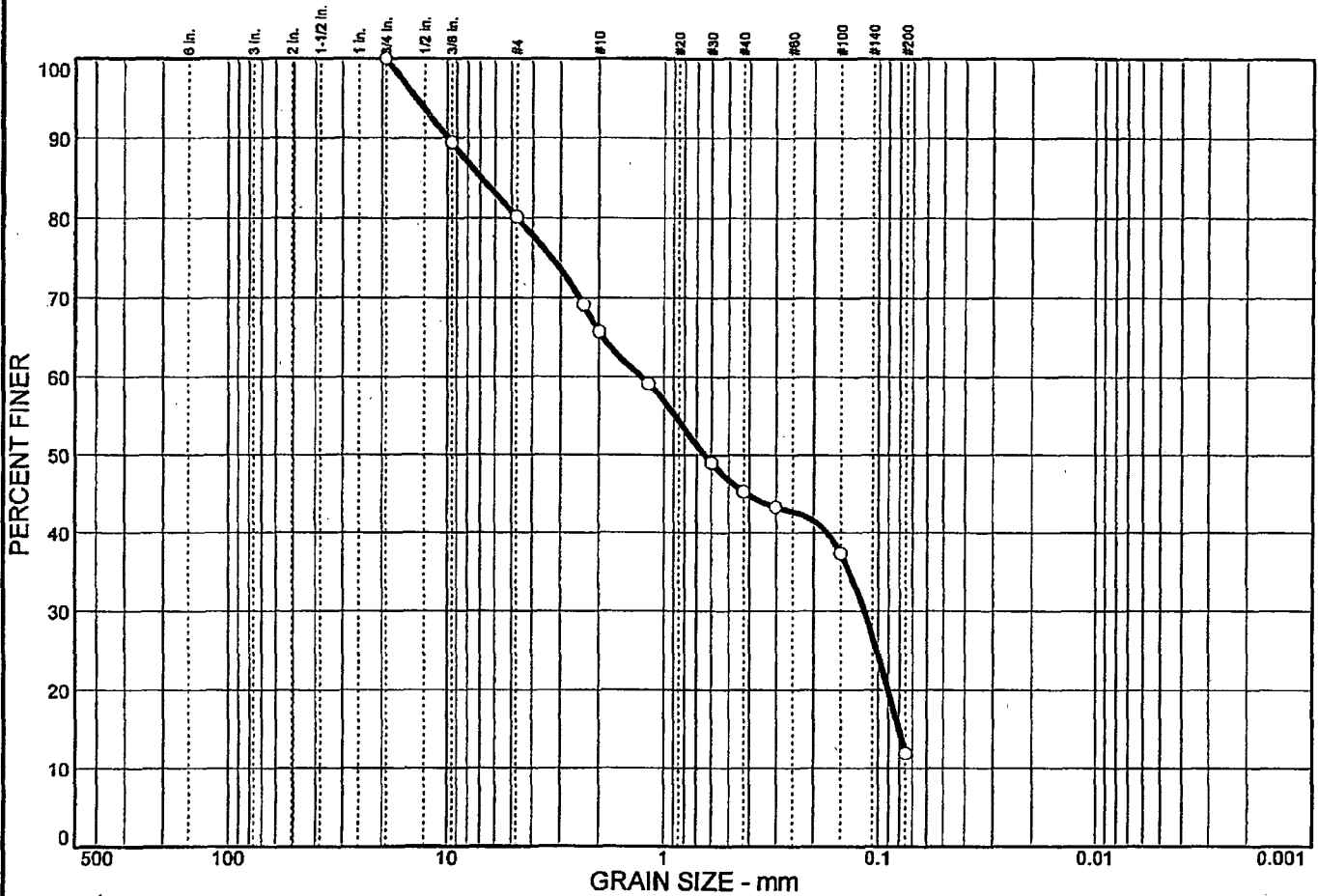
SOUTHERN COMPANY

Client: Southern Nuclear / Mike Nichols and Tom Moorer
 Project: Plant Vogtle

Project No: EWO -

Lab# 2

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	19.9	68.2	11.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
0.75 in.	100.0		
.375 in.	89.4		
#4	80.1		
#8	69.1		
#10	65.7		
#16	59.1		
#30	49.0		
#40	45.3		
#50	43.3		
#100	37.4		
#200	11.9		

Soil Description

Brown Poorly graded sand with silt and gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D₈₅= 6.91 D₆₀= 1.28 D₅₀= 0.644
D₃₀= 0.116 D₁₅= 0.0805 D₁₀=
C_u= C_c=

Classification

USCS= SP-SM AASHTO=

Remarks

* (no specification provided)

Sample No.: MA112806 - 3 Source of Sample:
 Location: Upper River Middle

Date: 12/06/06
 Elev./Depth:

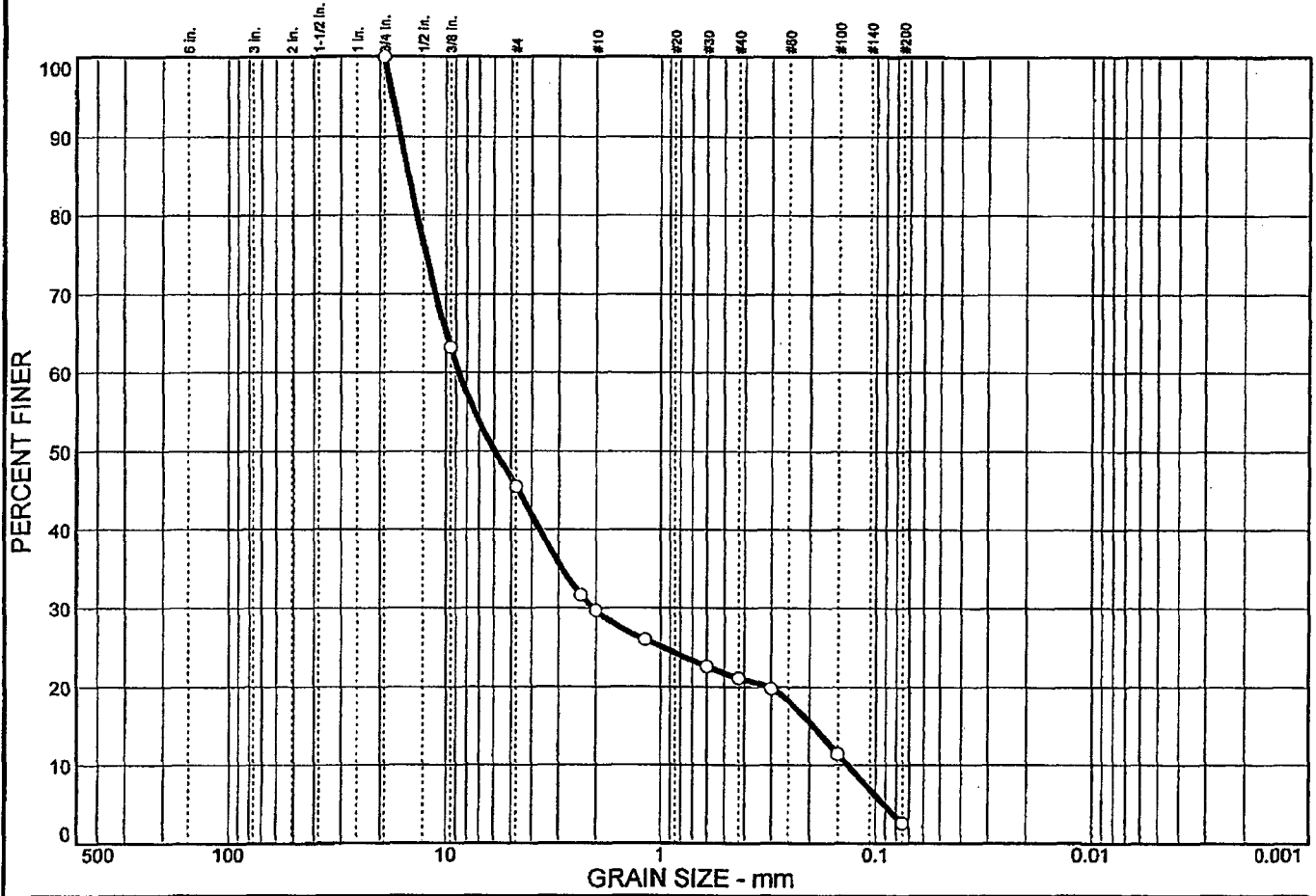
SOUTHERN COMPANY

Client: Southern Nuclear / Mike Nichols and Tom Moorer
 Project: Plant Vogtle

Project No: EWO -

Lab# 3

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	54.5	42.9	2.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
0.75 in.	100.0		
.375 in.	63.2		
#4	45.5		
#8	31.7		
#10	29.7		
#16	26.0		
#30	22.6		
#40	21.1		
#50	19.8		
#100	11.4		
#200	2.6		

Soil Description

Brown Poorly graded gravel with sand

Atterberg Limits

PL= LL= PI=

Coefficients

D₈₅= 14.8 D₆₀= 8.72 D₅₀= 5.93
D₃₀= 2.06 D₁₅= 0.193 D₁₀= 0.135
C_u= 64.34 C_c= 3.59

Classification

USCS= GP AASHTO=

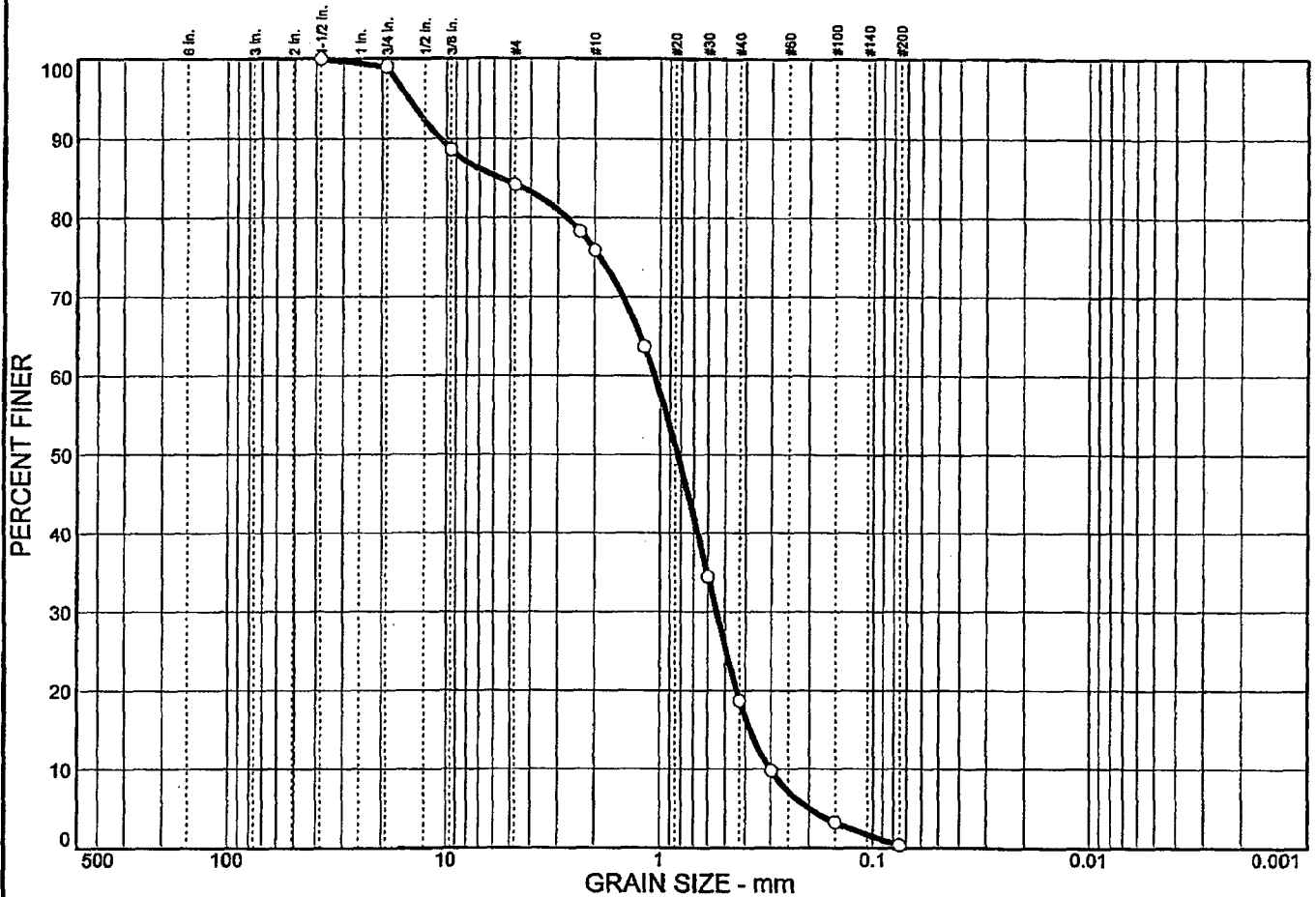
Remarks

* (no specification provided)

Sample No.: MA112806 - 4 Source of Sample: Date: 12/06/06
Location: Upper River Deep Elev./Depth:

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Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	15.8	83.8	0.4	0.4

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.50 in.	100.0		
0.75 in.	99.0		
.375 in.	88.6		
#4	84.2		
#8	78.3		
#10	75.9		
#16	63.7		
#30	34.5		
#40	18.7		
#50	9.8		
#100	3.3		
#200	0.4		

Soil Description

Brown Poorly graded sand with gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D₈₅= 5.58 D₆₀= 1.06 D₅₀= 0.831
D₃₀= 0.548 D₁₅= 0.379 D₁₀= 0.303
C_u= 3.50 C_c= 0.93

Classification

USCS= SP AASHTO=

Remarks

* (no specification provided)

Sample No.: MA112806 - 5 Source of Sample:
Location: Middle River Shoreline

Date: 12/06/06
Elev./Depth:

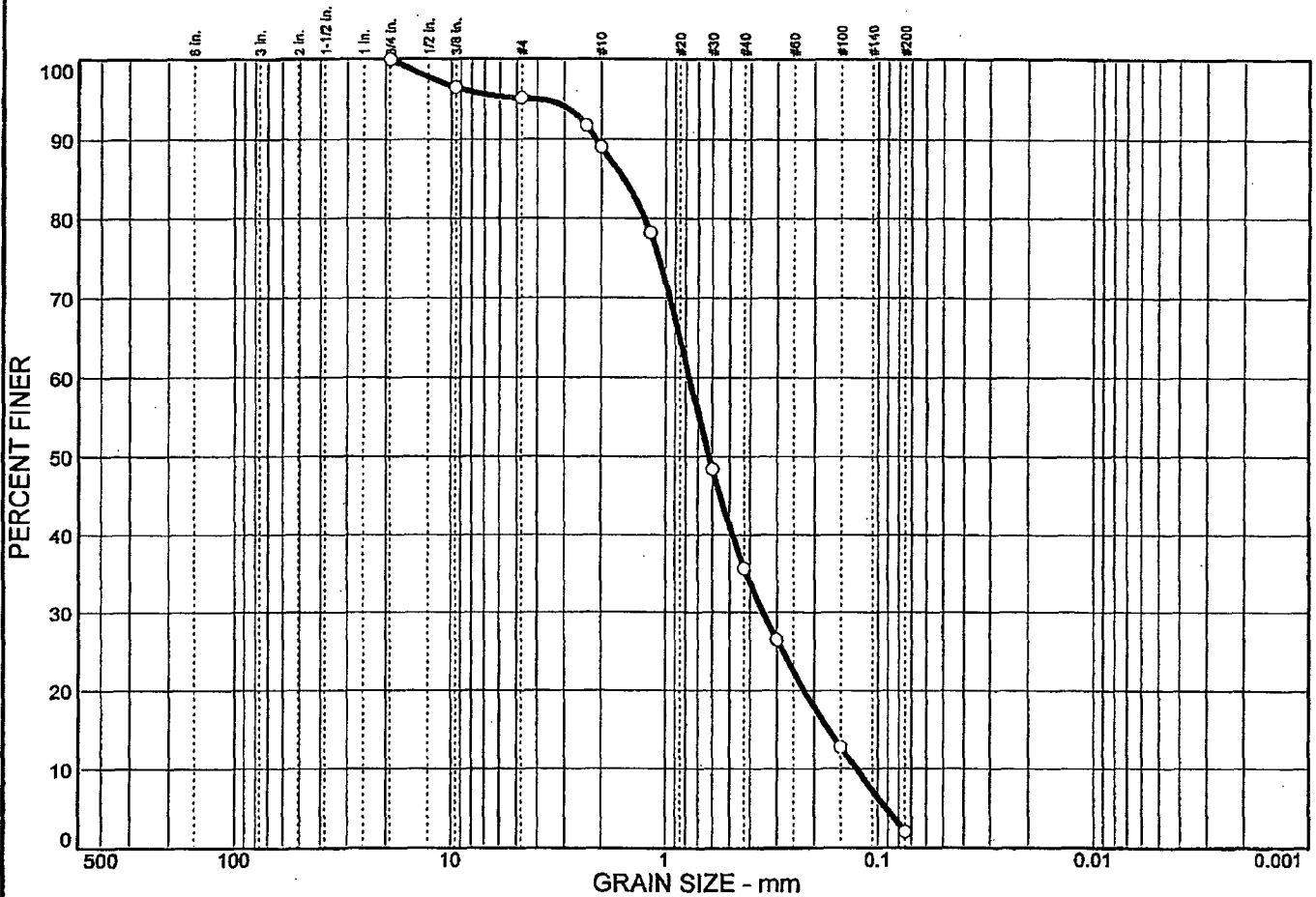
SOUTHERN COMPANY

Client: Southern Nuclear / Mike Nichols and Tom Moorer
Project: Plant Vogtle

Project No: EWO -

Lab# 5

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	4.9	93.0	2.1	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
0.75 in.	100.0		
.375 in.	96.5		
#4	95.1		
#8	91.7		
#10	89.0		
#16	78.2		
#30	48.4		
#40	35.7		
#50	26.4		
#100	12.8		
#200	2.1		

Soil Description

Brown Well-graded sand

Atterberg Limits

PL= LL= PI=

Coefficients

D₈₅= 1.57 D₆₀= 0.770 D₅₀= 0.622
D₃₀= 0.347 D₁₅= 0.171 D₁₀= 0.126
C_u= 6.09 C_c= 1.24

Classification

USCS= SW AASHTO=

Remarks

* (no specification provided)

Sample No.: MA112806 - 6 Source of Sample:
Location: Middle River Middle

Date: 12/06/06
Elev./Depth:

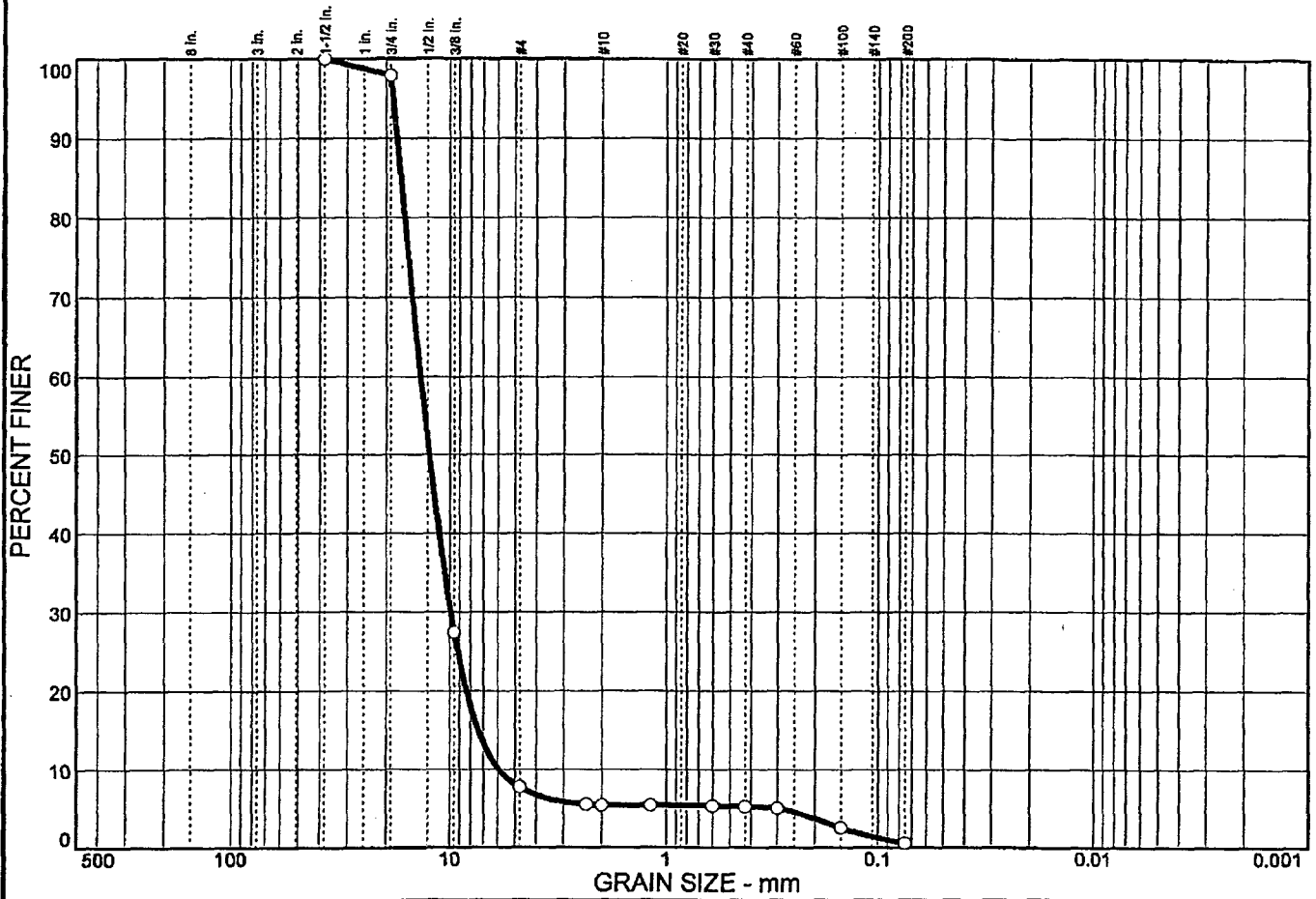
SOUTHERN COMPANY

Client: Southern Nuclear / Mike Nichols and Tom Moorer
Project: Plant Vogtle

Project No: EWO -

Lab# 6

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	92.2	7.2		0.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.50 in.	100.0		
0.75 in.	97.9		
.375 in.	27.4		
#4	7.8		
#8	5.6		
#10	5.5		
#16	5.5		
#30	5.4		
#40	5.3		
#50	5.1		
#100	2.6		
#200	0.6		

Soil Description

Brown Poorly graded gravel

Atterberg Limits

PL= LL= PI=

Coefficients

D₈₅= 17.1 D₆₀= 13.7 D₅₀= 12.5
D₃₀= 9.89 D₁₅= 7.36 D₁₀= 5.92
C_u= 2.32 C_c= 1.21

Classification

USCS= GP AASHTO=

Remarks

* (no specification provided)

Sample No.: MA112806 - 7
Location: Middle River Deep

Source of Sample:

Date: 12/06/06
Elev./Depth:

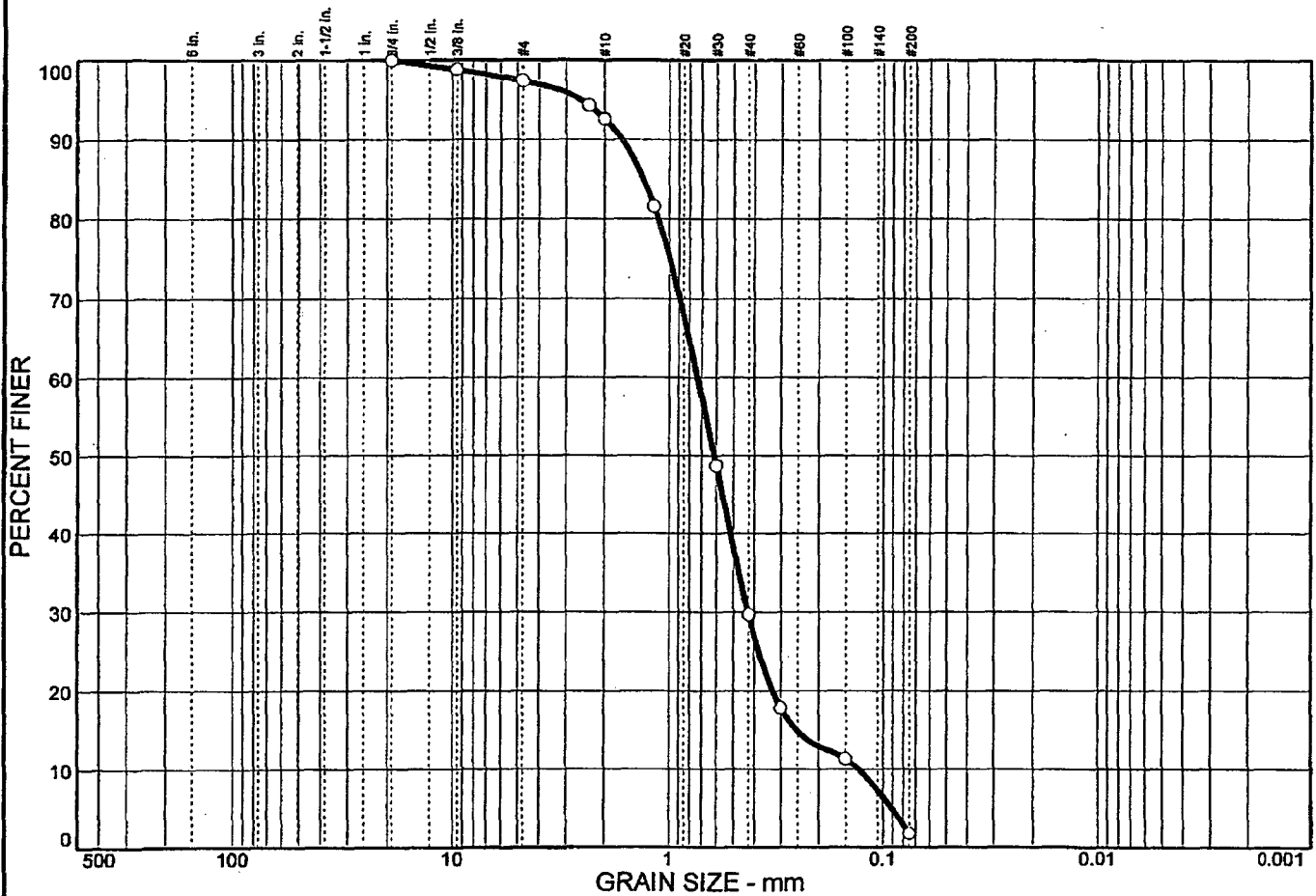
SOUTHERN COMPANY

Client: Southern Nuclear / Mike Nichols and Tom Moorer
Project: Plant Vogtle

Project No: EWO -

Lab# 7

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	2.6	95.6	1.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
0.75 in.	100.0		
.375 in.	98.8		
#4	97.4		
#8	94.3		
#10	92.6		
#16	81.6		
#30	48.7		
#40	29.7		
#50	17.8		
#100	11.3		
#200	1.8		

Soil Description

Brown Poorly graded sand

Atterberg Limits

PL= LL= PI=

Coefficients

D₈₅= 1.32 D₆₀= 0.733 D₅₀= 0.614
D₃₀= 0.428 C₁₅= 0.254 D₁₀= 0.131
C_u= 5.61 C_c= 1.91

Classification

USCS= SP AASHTO=

Remarks

* (no specification provided)

Sample No.: MA112806 - 8 Source of Sample:
Location: Down River Shoreline

Date: 12/06/06
Elev./Depth:

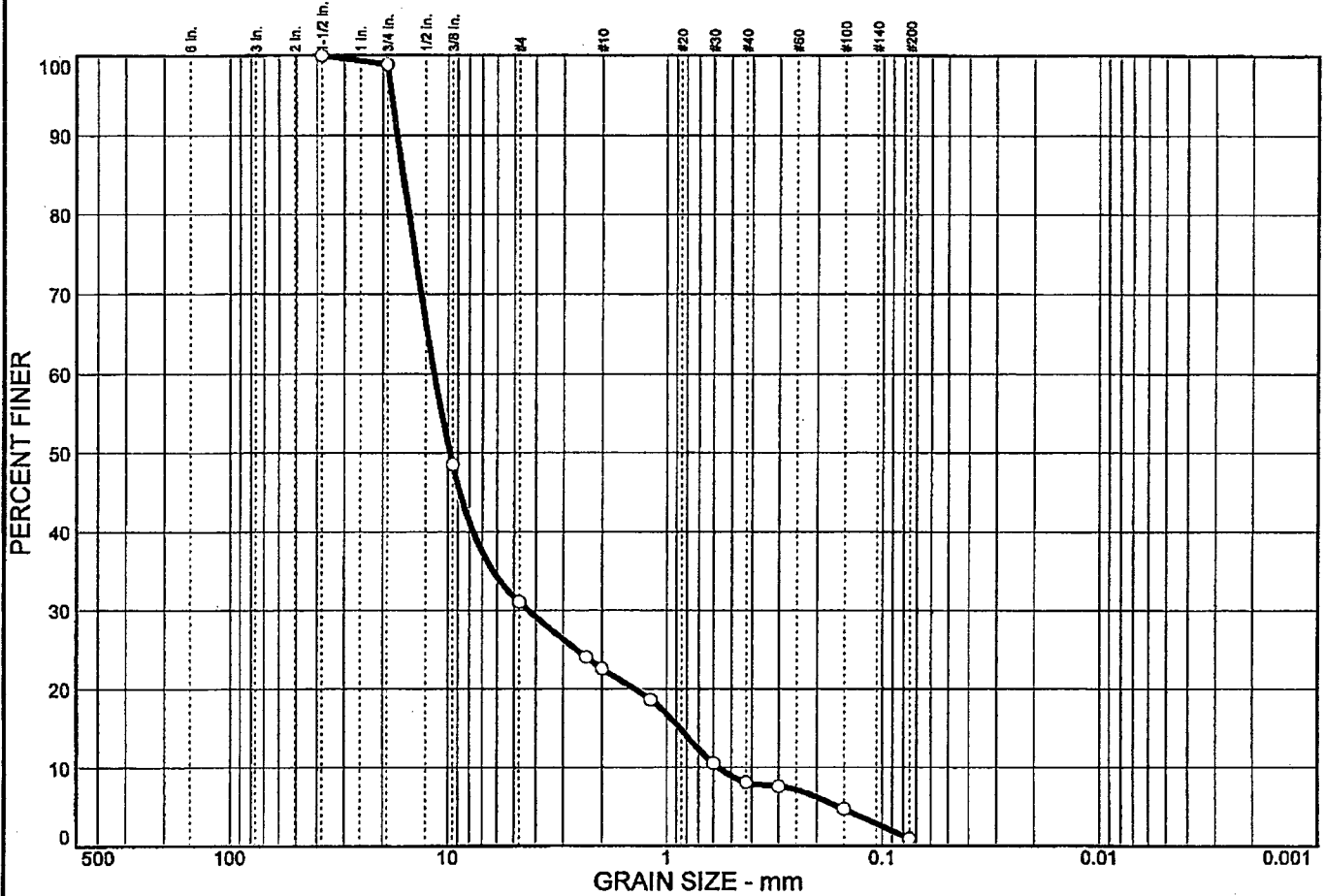
SOUTHERN COMPANY

Client: Southern Nuclear / Mike Nichols and Tom Moorer
Project: Plant Vogtle

Project No: EWO -

Lab# 8

Particle Size Distribution Report



% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
0.0	68.9	30.1	1.0	1.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.50 in.	100.0		
0.75 in.	98.9		
.375 in.	48.5		
#4	31.1		
#8	24.0		
#10	22.5		
#16	18.6		
#30	10.5		
#40	8.1		
#50	7.6		
#100	4.7		
#200	1.0		

Soil Description

Brown Well-graded gravel with sand

Atterberg Limits

PL= LL= PI=

Coefficients

D₈₅= 16.1 D₆₀= 11.6 D₅₀= 9.81
D₃₀= 4.31 D₁₅= 0.867 D₁₀= 0.570
C_u= 20.35 C_c= 2.81

Classification

USCS= GW AASHTO=

Remarks

* (no specification provided)

Sample No.: MA112806 - 10 Source of Sample:
 Location: Down River Deep

Date: 12/06/06
 Elev./Depth:

SOUTHERN COMPANY

Client: Southern Nuclear / Mike Nichols and Tom Moorer
 Project: Plant Vogtle

Project No: EWO -

Lab# 10