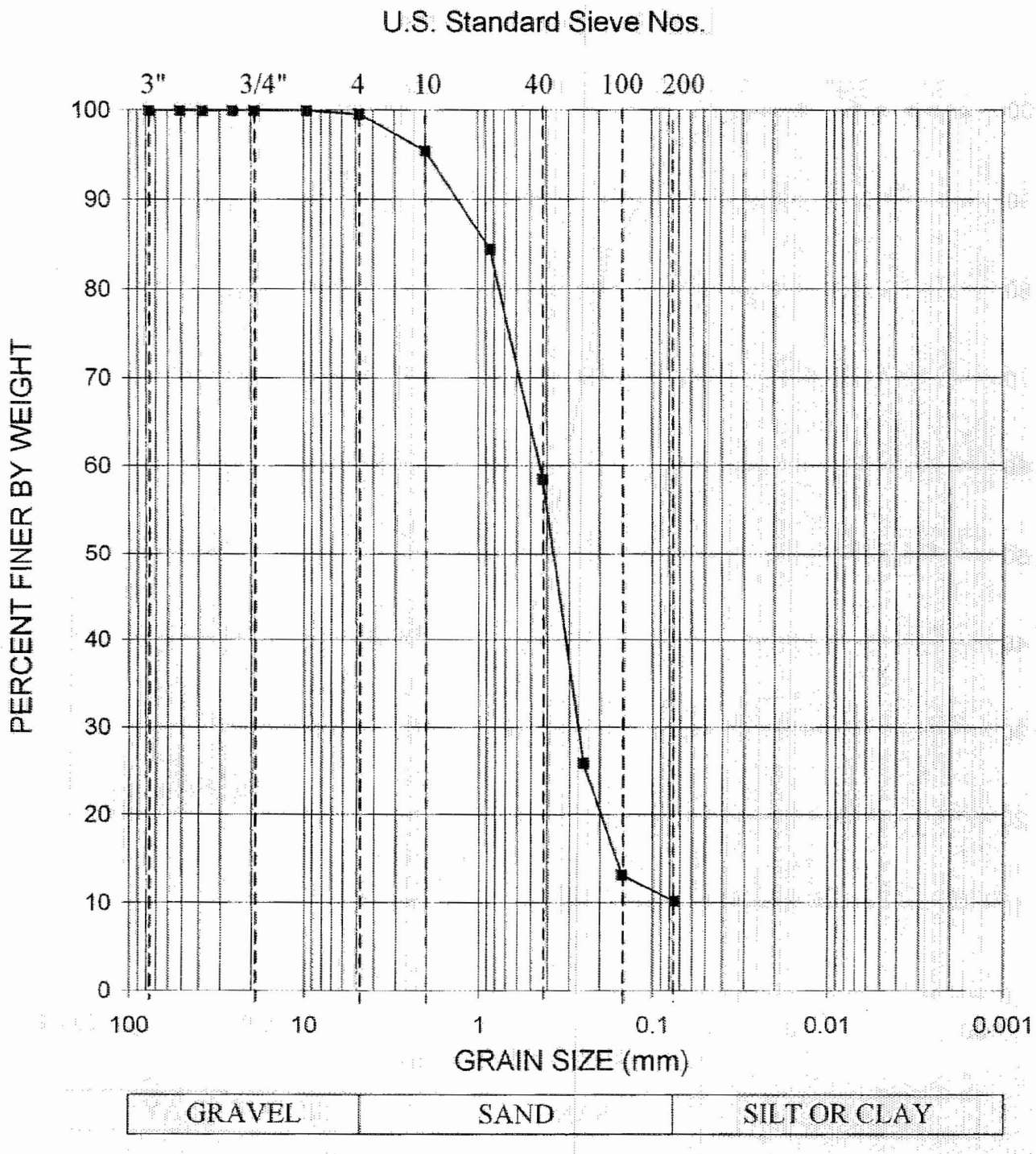


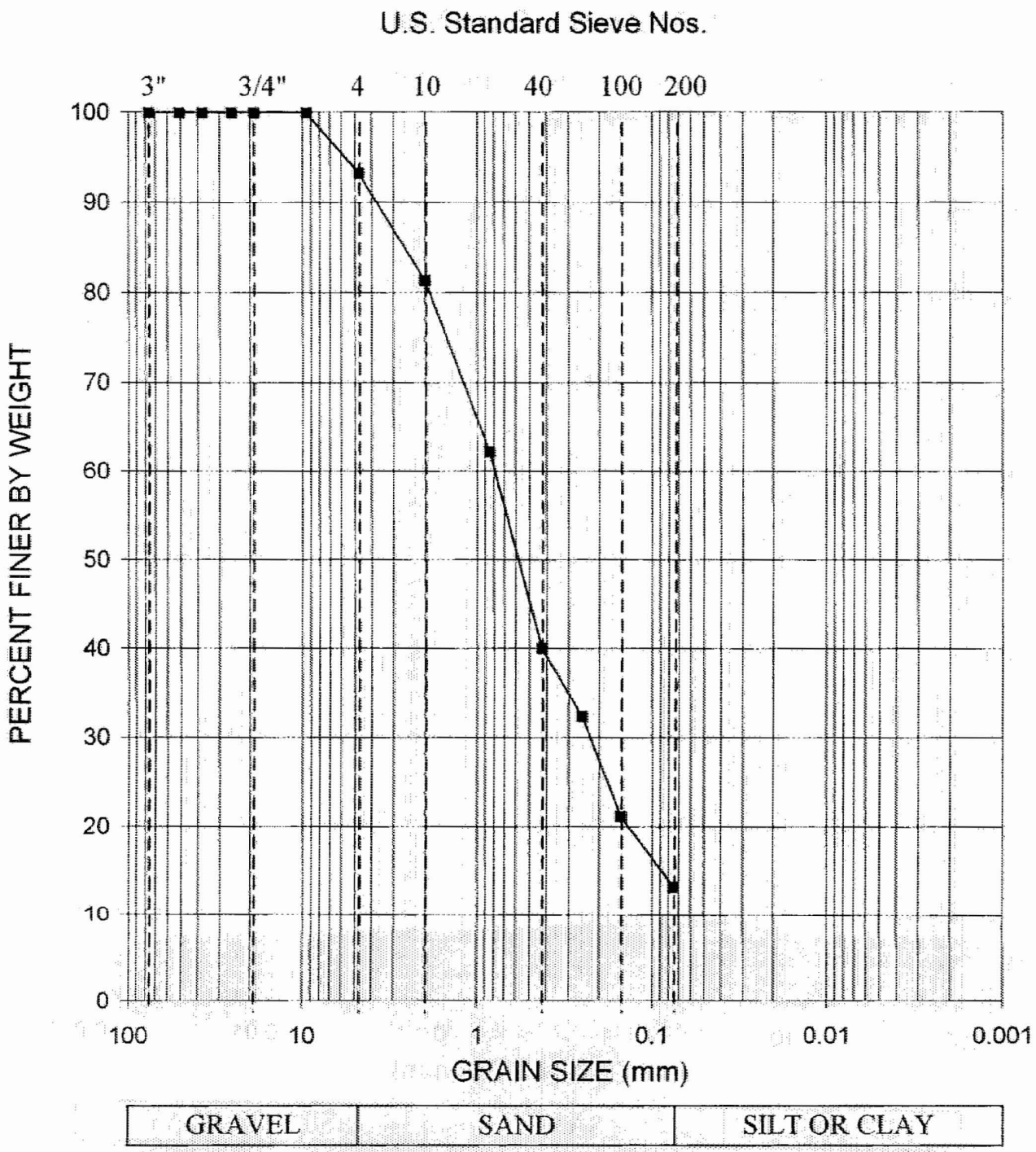
GRADATION CURVE

ASTM D422

Project:	Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland	Contract No.: 06120048.00	Date: 9/27/2006

Boring No.	Depth (ft)	Sample Description	Class.	LL	PI
B-752	10.5	Well Graded SAND, with silt, orange	SW-SM		

Schnabel Engineering



GRADATION CURVE

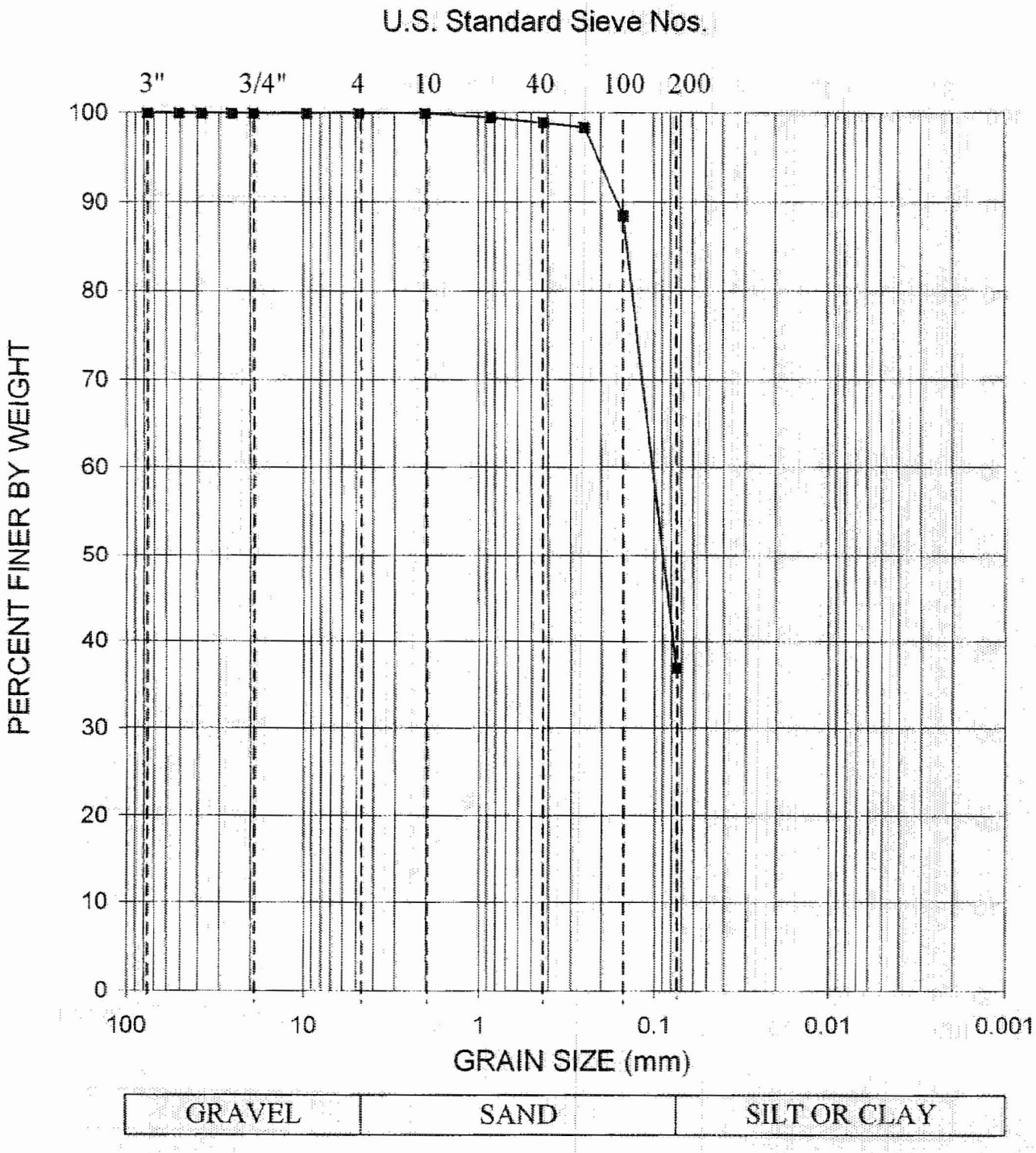
ASTM D422

Project:	Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland	Contract No.:	06120048.00	Date:	9/27/2006

Boring No.	Depth (ft)	Sample Description	Class.	LL	PI
B-752	18.5	Well Graded SAND, with silt, trace gravel, yellow-orange	SW-SM		

Schnabel

Schnabel Engineering



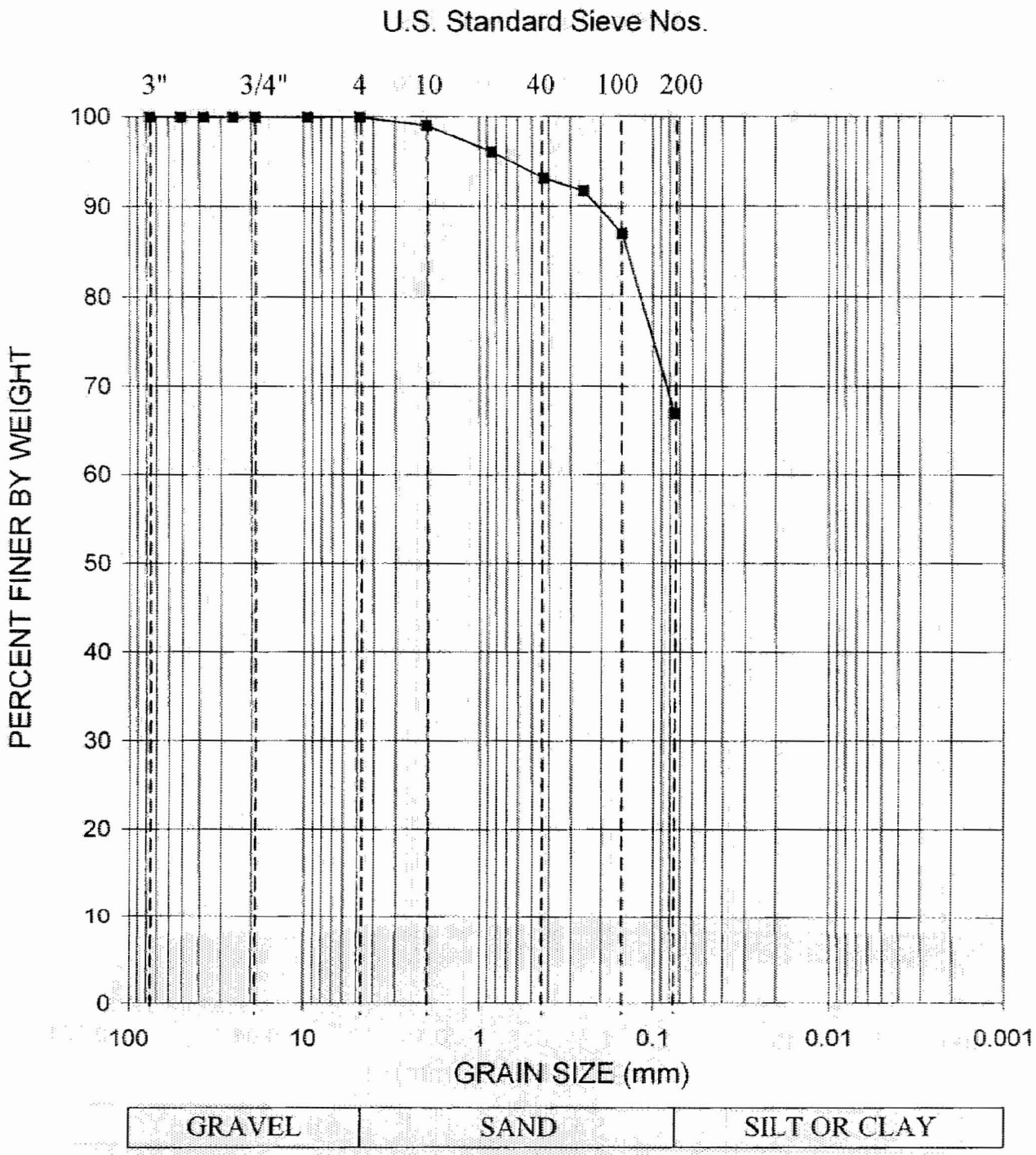
GRADATION CURVE

ASTM D422

Project:	Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland		Contract No.:	06120048.00		Date:	9/28/2006
Boring No.	Depth (ft)	Sample Description	Class.	LL	PI		
B-752	28.5	Silty SAND, dark gray	SM				

Schnabel

Schnabel Engineering



GRADATION CURVE

ASTM D422

Project:	Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland	Contract No.: 06120048.00	Date: 9/28/2006

Boring No.	Depth (ft)	Sample Description	Class.	LL	PI
B-752	33.5	Sandy FAT CLAY, gray	CH	52	29

Schnabel

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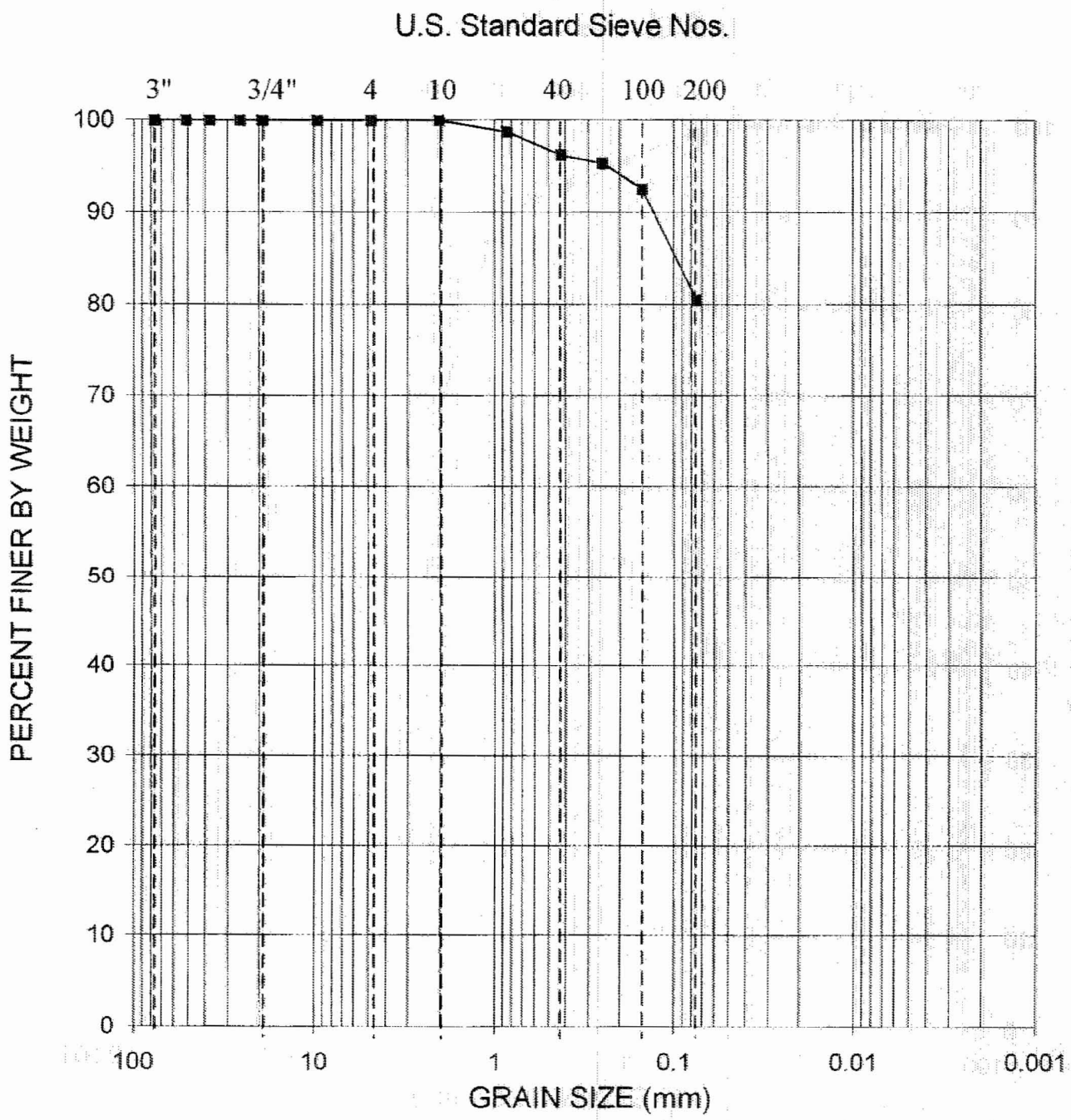
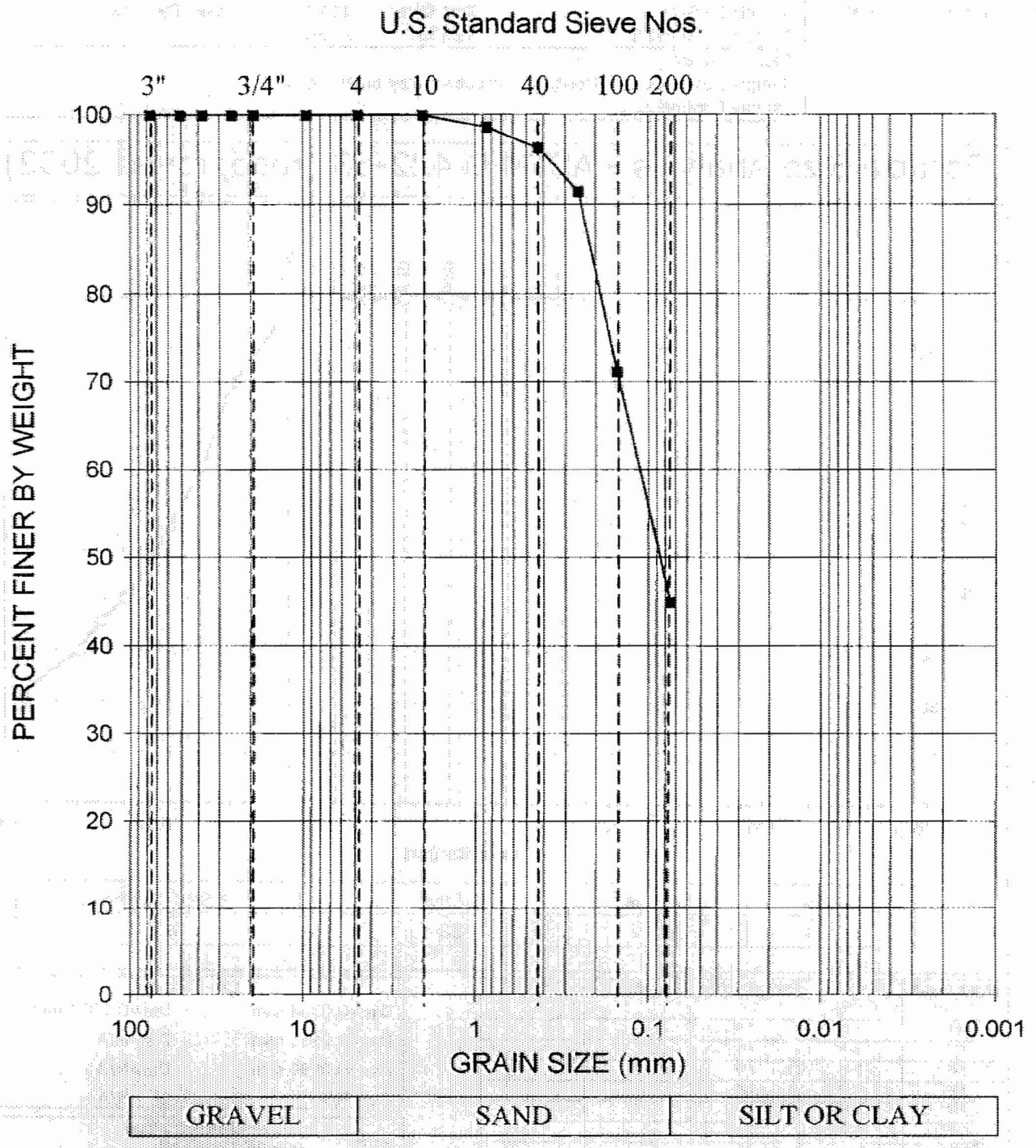


GRADATION CURVE

ASTM D422

Project:	Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland		Contract No.: 06120048.00		Date: 9/26/2006	
Boring No.	Depth (ft)	Sample Description	Class.	LL	PI	
B-752	38.5	ELASTIC SILT, with sand, dark gray	MH	63	32	Schnabel Engineering



GRADATION CURVE

ASTM D422

Project:	Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland	Contract No.:	06120048.00	Date:	9/28/2006

Boring No.	Depth (ft)	Sample Description	Class.	LL	PI
B-752	53.5	Silty SAND, yellow-dark gray	SM	40	11

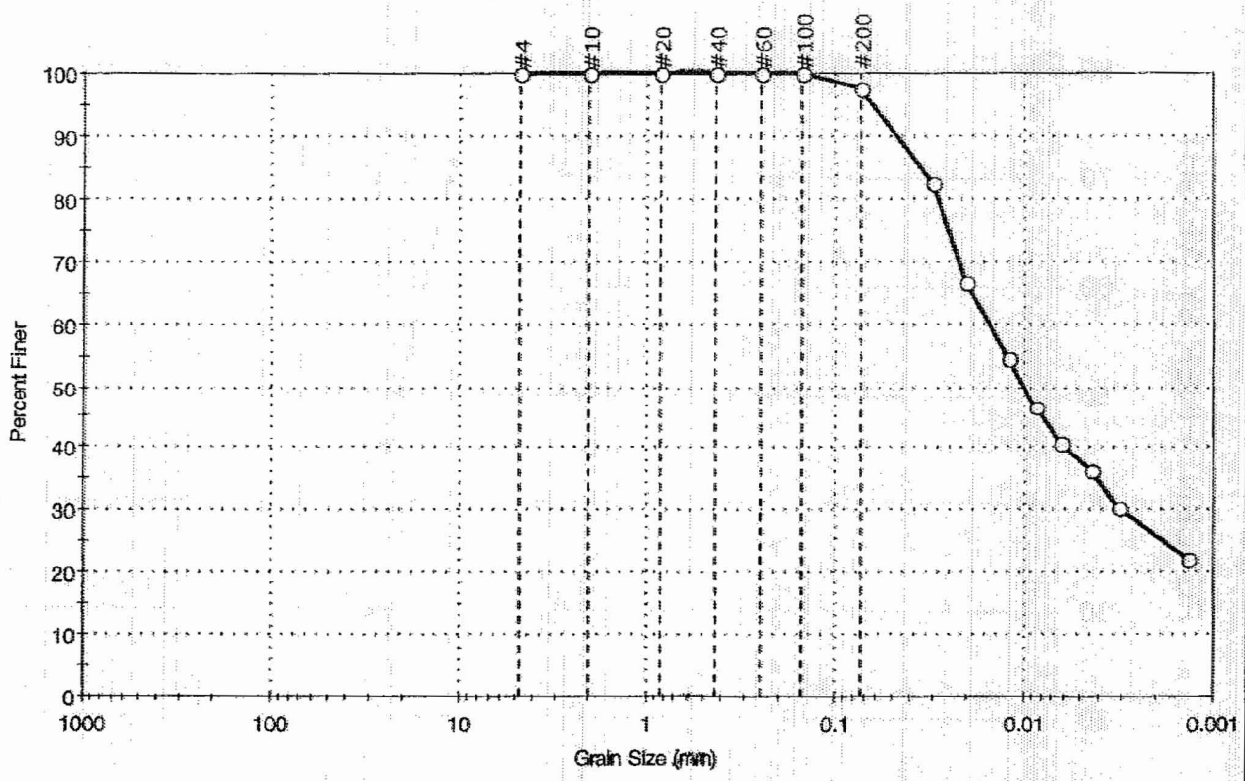
Schnabel

Schnabel Engineering

GeoTesting express
a subsidiary of Geocomp Corporation

Client:	Schnabel Engineering, Inc.		
Project:	Subsurface Investigation Calvert Cliffs Nuclear PP		
Location:	Calvert County, MD	Project No:	GTX-6880
Boring ID: B-752	Sample Type: tube	Tested By:	sam
Sample ID: S-15	Test Date: 11/01/06	Checked By:	mcm
Depth : 58-60 ft	Test Id: 98042		
Test Comment:	---		
Sample Description:	Moist, dark greenish gray organic clay		
Sample Comment:	---		

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



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	2.3	97.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.84	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#200	0.074	98		
---	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
—	0.0307	83		
—	0.0201	67		
—	0.0119	55		
—	0.0087	47		
—	0.0062	41		
—	0.0044	36		
—	0.0032	30		
—	0.0014	22		

Coefficients

D_{85} = 0.0354 mm D_{30} = 0.0030 mm
D_{60} = 0.0151 mm D_{15} = N/A
D_{50} = 0.0099 mm D_{10} = N/A
C_u = N/A C_c = N/A

Classification

ASTM organic clay (OH)

AASHTO Clayey Soils (A-7-6 (58))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : HARD

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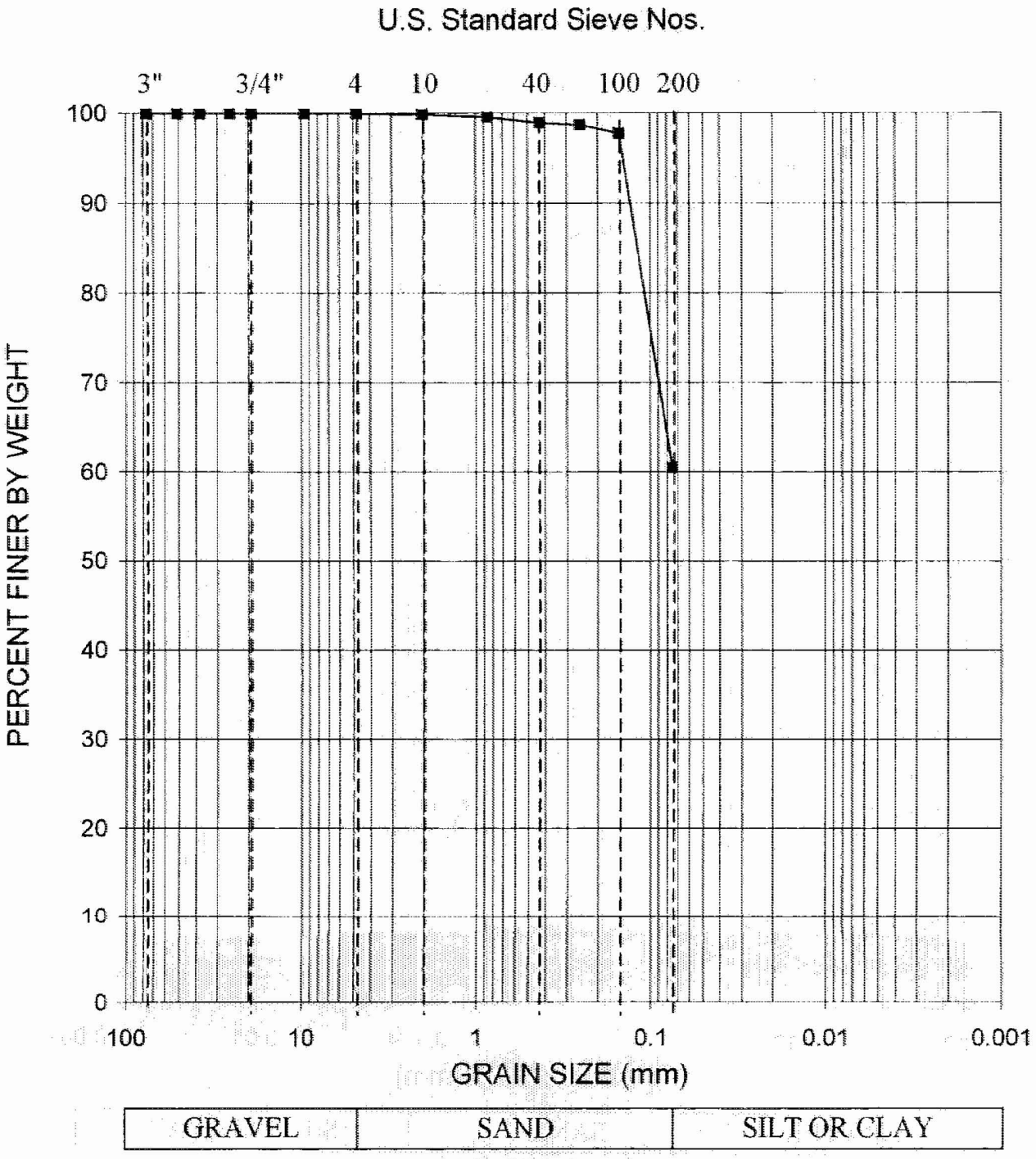
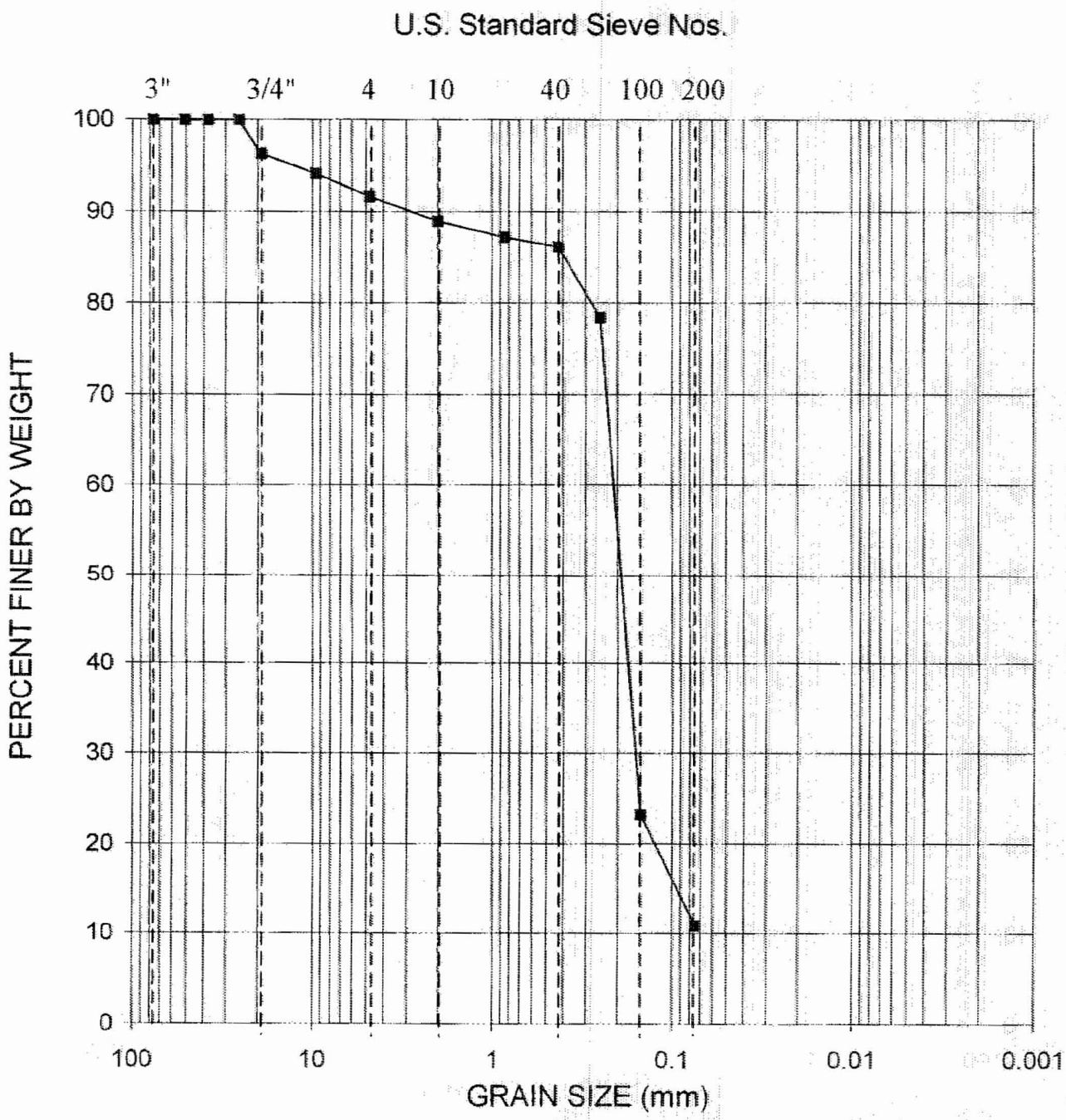


GRADATION CURVE

ASTM D422

Project:	Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland		Contract No.:	06120048.00	Date:	9/29/2006
Boring No.	Depth (ft)	Sample Description	Class.	LL	PI	
B-752	68.5	Sandy SILT, dark green- gray	ML			Schnabel Engineering



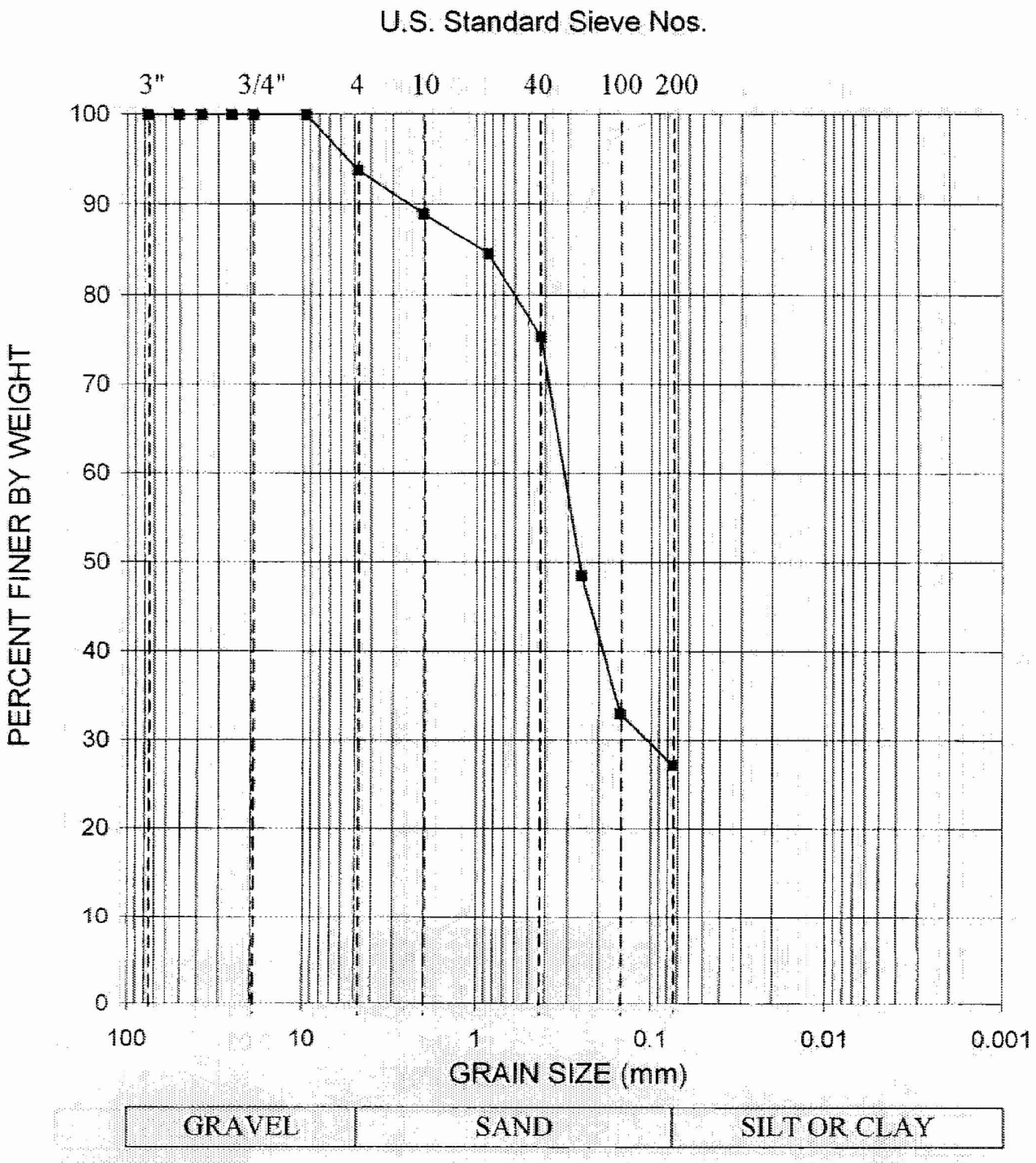
GRADATION CURVE

ASTM D422

Project:	Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland		Contract No.:	06120048.00	Date:	9/28/2006
Boring No.	Depth (ft)	Sample Description	Class.	LL	PI	
B-752	83.5	Poorly Graded SAND, with silt trace shells, dark green	SP-SM			

Schnabel

Schnabel Engineering



GRADATION CURVE

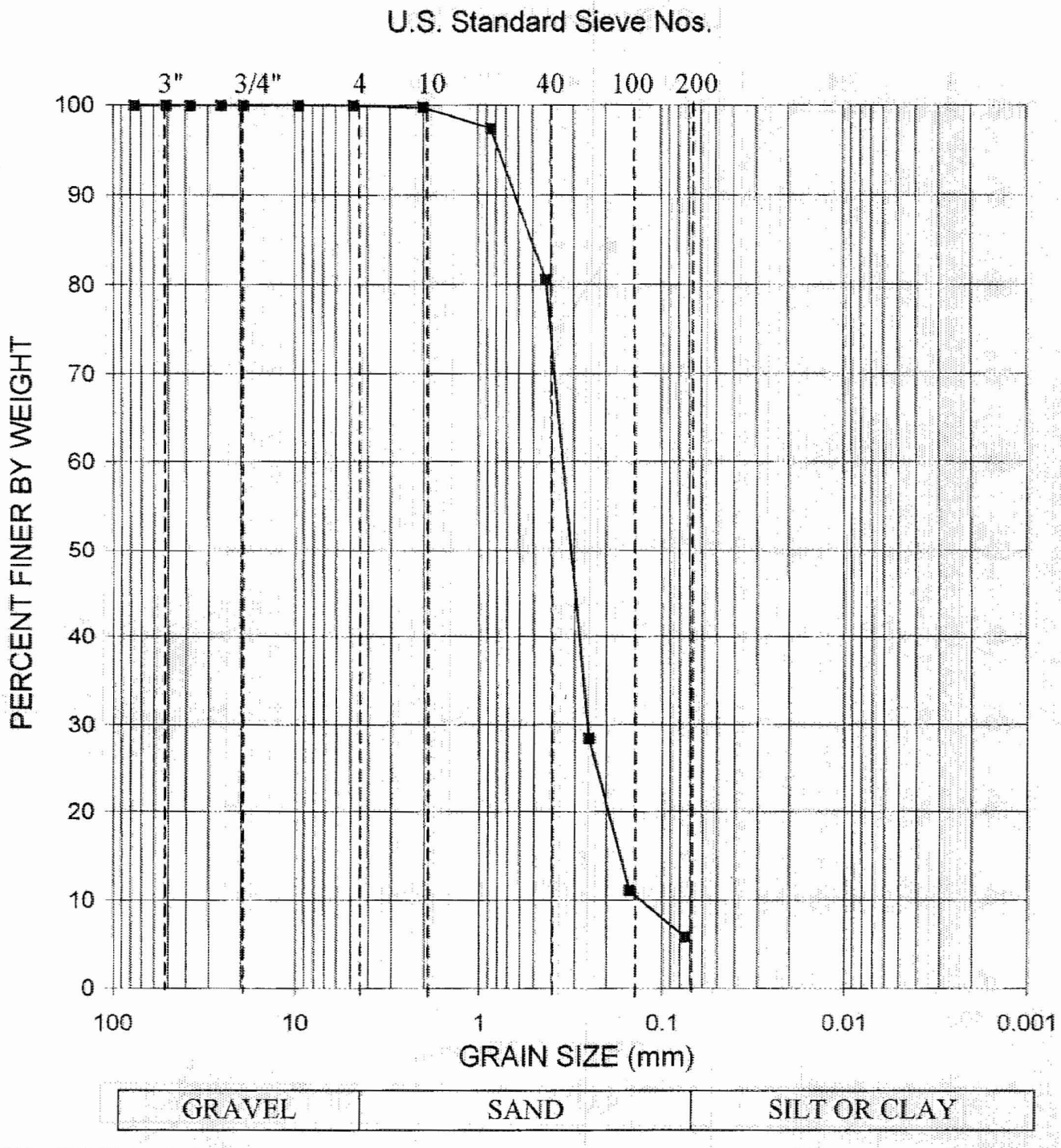
ASTM D422

Project:	Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland	Contract No.: 06120048.00	Date: 9/27/2006

Boring No.	Depth (ft)	Sample Description	Class.	LL	PI
B-752	98.5	Clayey SAND, trace shells, dark gray-green	SC		

Schnabel

Schnabel Engineering



GRADATION CURVE

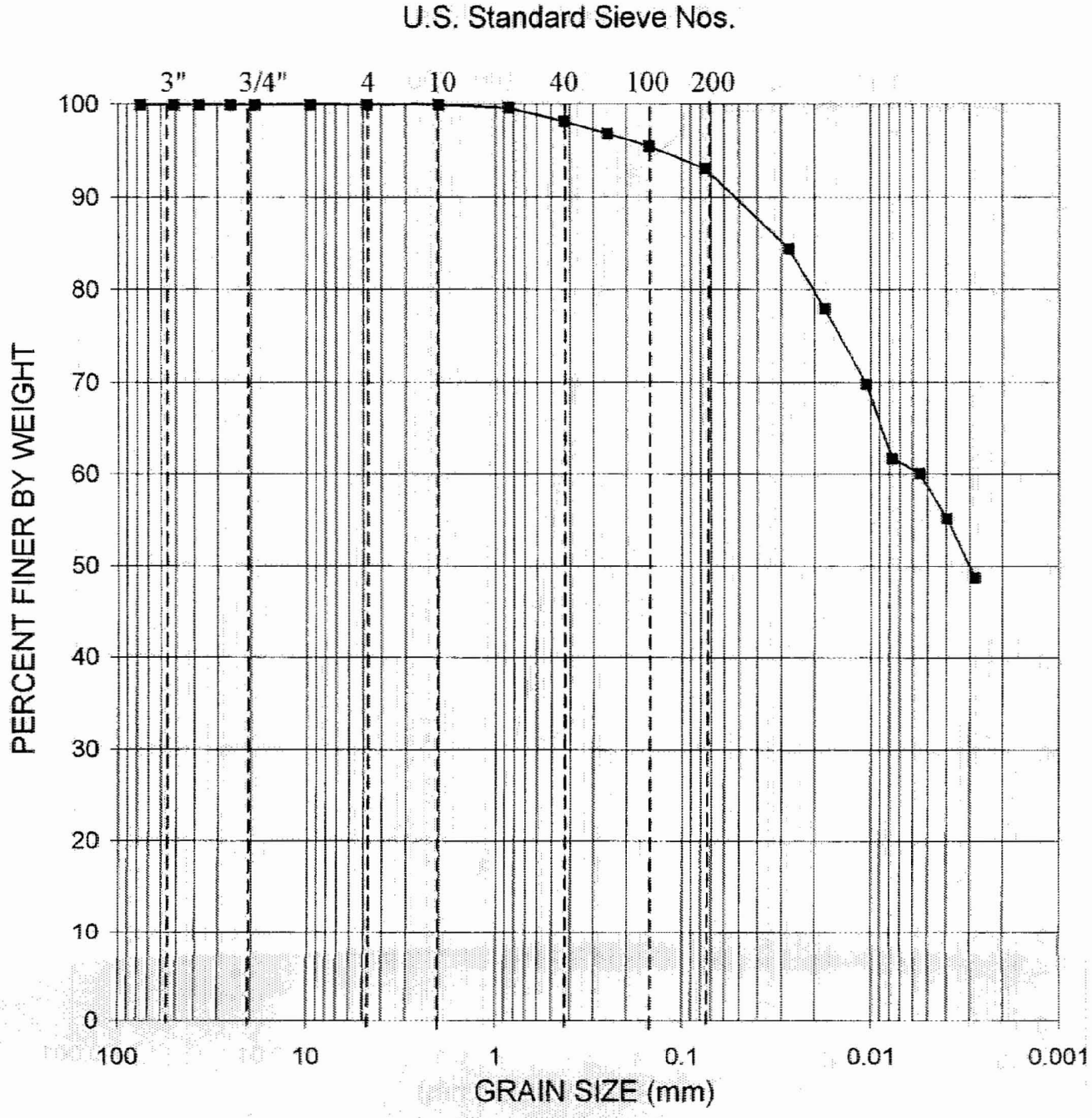
ASTM D422

Project:	Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland	Contract No.: 06120048.00	Date: 9/11/2006

Boring No.	Depth (ft)	Sample Description	Class.	LL	PI
TP-B-307	4.5-5.5	Poorly Graded SAND, with silt, brown	SP-SM		

Schnabel

Schnabel Engineering



GRADATION CURVE

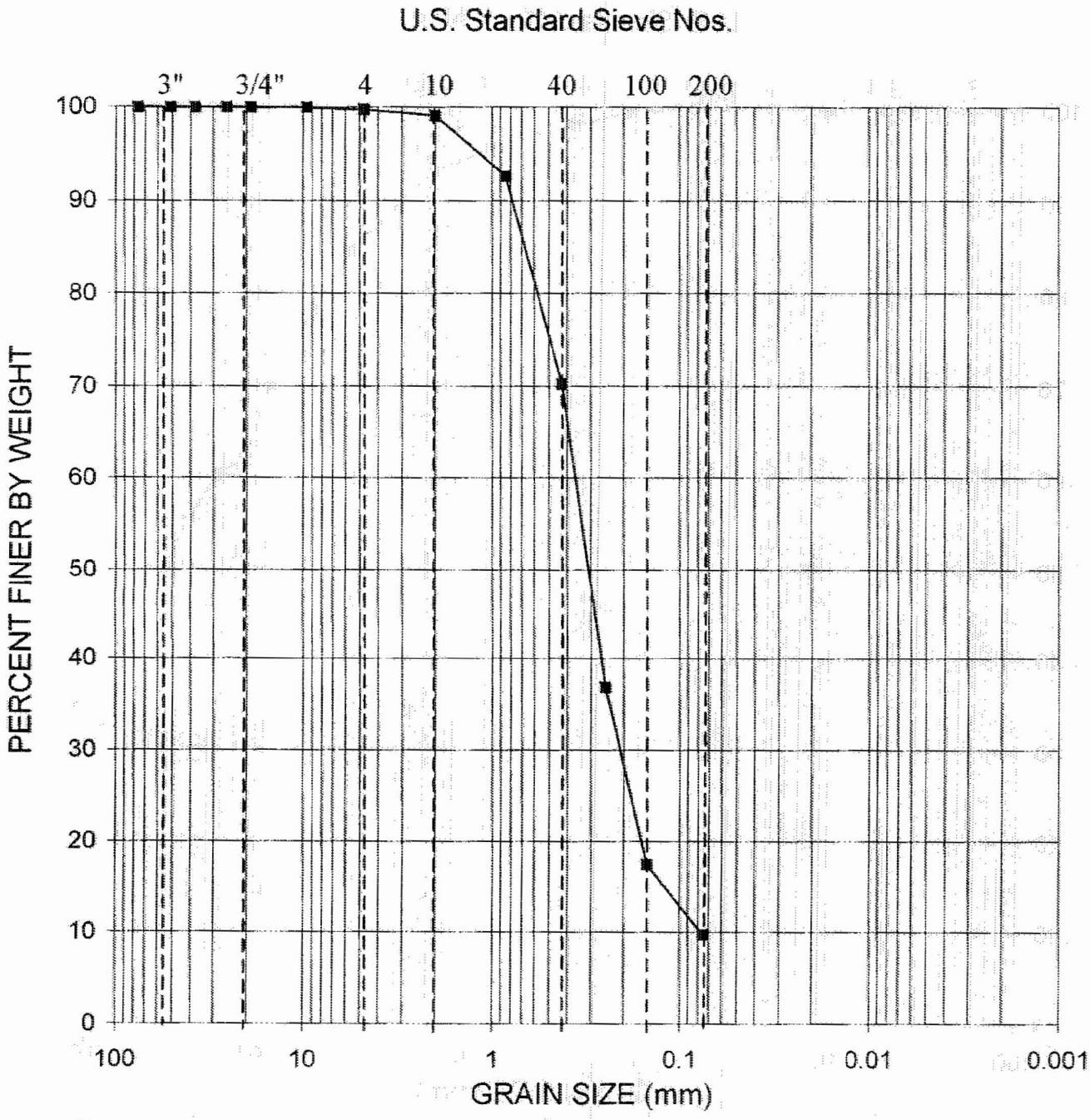
ASTM D422

Project:	Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland	Contract No.:	06120048.00	Date:	10/11/2006

Boring No.	Depth (ft)	Sample Description	Class.	LL	PI
TP-B-314	4.0-5.0	FAT CLAY, trace sand, gray-brown	CH	71	47

Schnabel

Schnabel Engineering



GRADATION CURVE

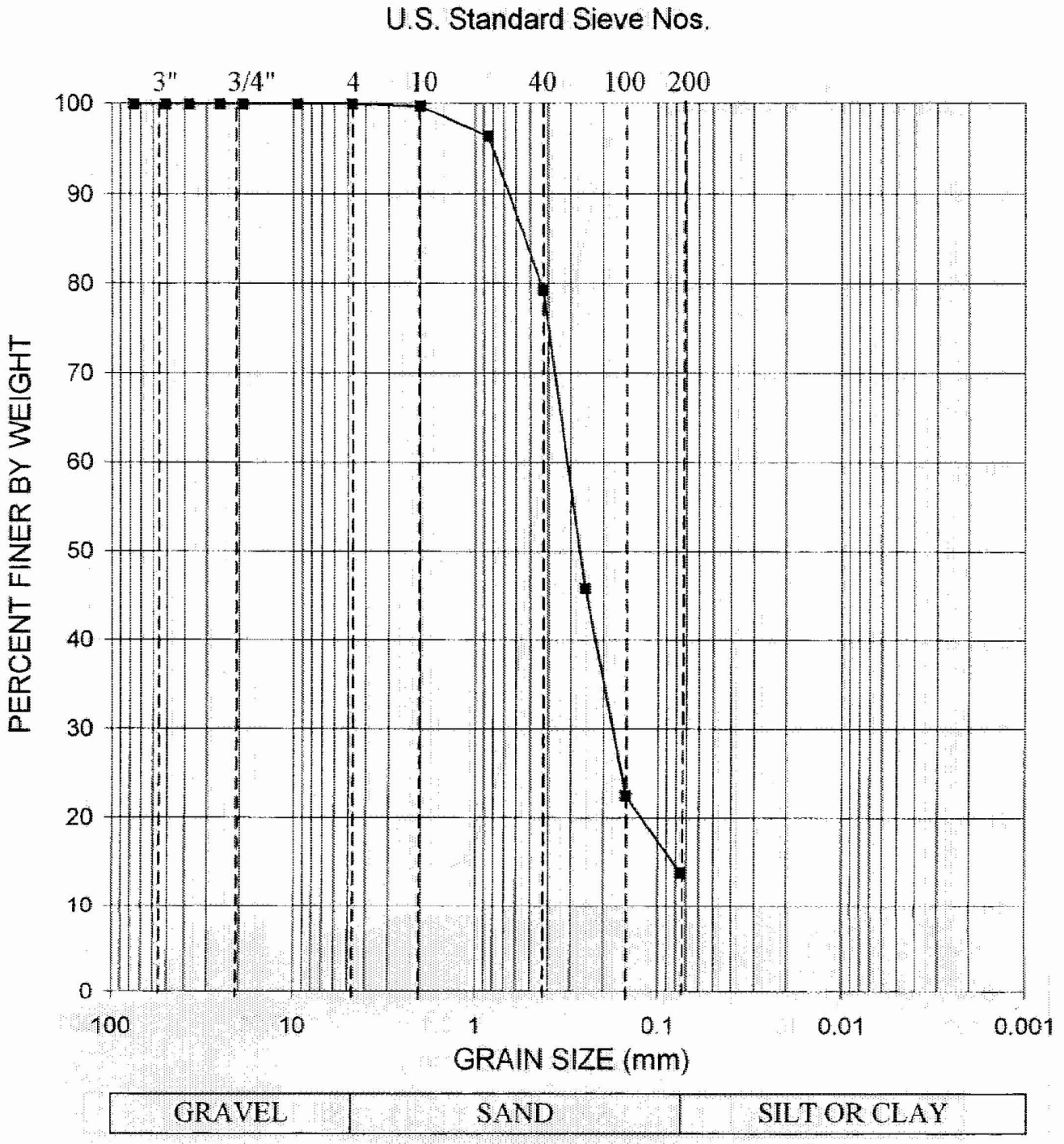
ASTM D422

Project:	Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland	Contract No.:	06120048.00	Date:	8/29/2006

Boring No.	Depth (ft)	Sample Description	Class.	LL	PI
TP-B-315	6.0-7.0	Poorly Graded SAND, with silt, tan	SP-SM		

Schnabel

Schnabel Engineering



GRADATION CURVE

ASTM D422

Project:	Constellation Energy Group COLA Project, Calvert Cliffs NuclearPower Plant (CCNPP), Calvert County, Maryland		Contract No.:	06120048.00	Date:	8/28/2006
Boring No.	Depth (ft)	Sample Description	Class.	LL	PI	
TP-B-334	3.0-4.0	Silty SAND, brown	SM			Schnabel Engineering