

GRAIN SIZE DISTRIBUTION TEST DATA

1/24/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2169

Depth: 348.5-350'

Sample Number: SS-49

Material Description: Brownish Yellow Fat CLAY

Date: 12-18-07

Natural Moisture: 21.5

Liquid Limit: 52

Plastic Limit: 18

USCS Class.: CH

Testing Remarks: Specific gravity is assumed

Tested by: CS

Checked by: LBJ

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer
214.70	0.00	0.00	#10	0.00	100.0
53.61	0.00	0.00	#20	0.03	99.9
			#40	0.05	99.9
			#60	0.16	99.7
			#100	0.52	99.0
			#140	0.82	98.5
			#200	1.72	96.8

Hydrometer Test Data

Hydrometer test uses material passing #10

Percent passing #10 based upon complete sample = 100.0

Weight of hydrometer sample = 53.61

Hygroscopic moisture correction:

Moist weight and tare = 27.86

Dry weight and tare = 27.53

Tare weight = 15.47

Hygroscopic moisture = 2.7%

Table of composite correction values:

Temp., deg. C: 12.8 27.3

Comp. corr.: -7.0 -3.0

Meniscus correction only = 1.0

Specific gravity of solids = 2.700

Hydrometer type = 152H

Hydrometer effective depth equation: $L = 16.294964 - 0.164 \times R_m$

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	R _m	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	22.9	44.0	39.8	0.0130	45.0	8.9	0.0274	75.4
5.00	22.9	38.0	33.8	0.0130	39.0	9.9	0.0183	64.0
15.00	22.9	32.0	27.8	0.0130	33.0	10.9	0.0111	52.7
30.00	22.8	29.0	24.8	0.0130	30.0	11.4	0.0080	46.9
60.00	23.0	25.0	20.8	0.0130	26.0	12.0	0.0058	39.4
240.00	23.6	17.0	13.0	0.0129	18.0	13.3	0.0030	24.6
1440.00	22.9	11.0	6.8	0.0130	12.0	14.3	0.0013	12.9

MACTEC, Inc.

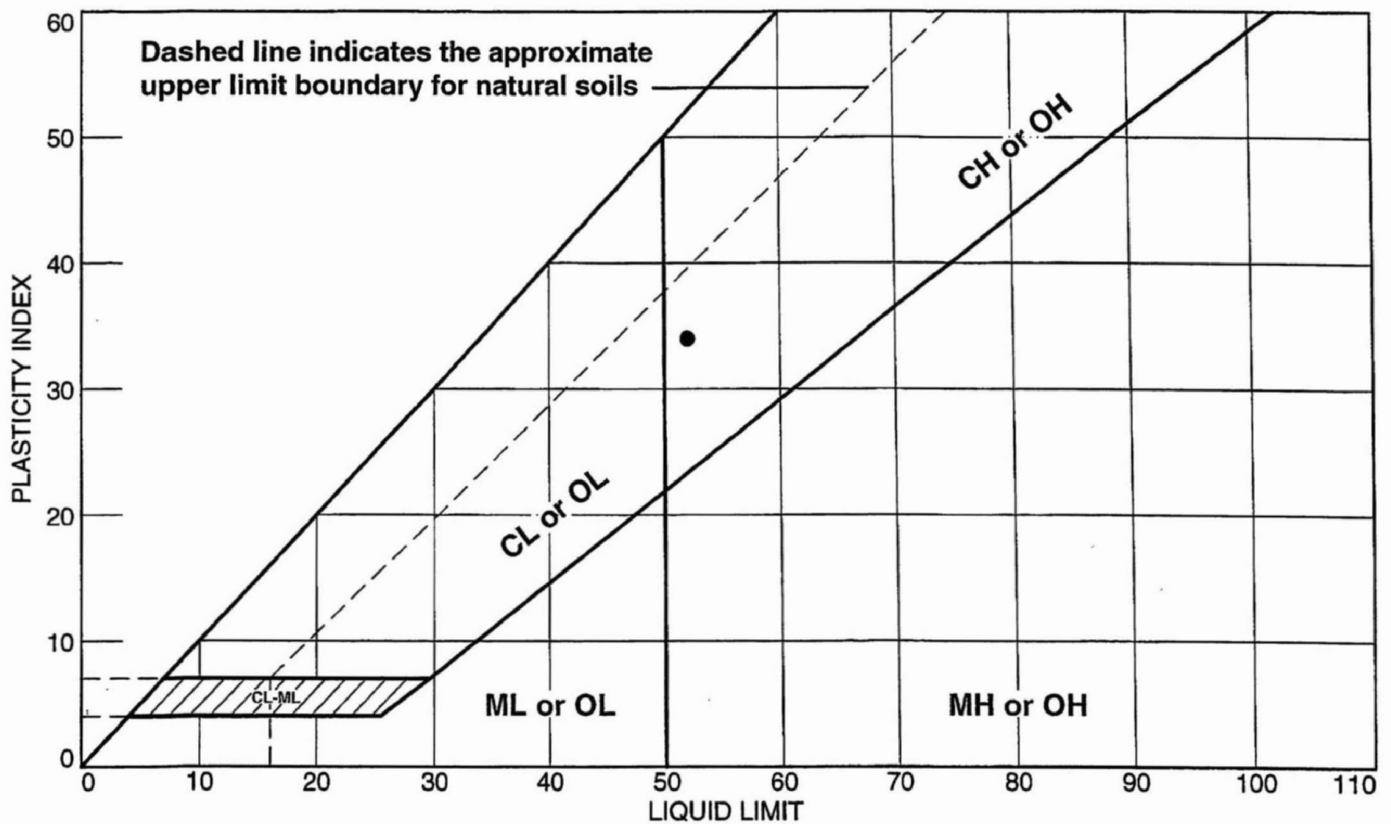
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.1	3.1	3.2	61.0	35.8	96.8

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
	0.0016	0.0023	0.0039	0.0095	0.0156	0.0323	0.0391	0.0485	0.0643

Fineness Modulus
0.01

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
•	Boring B-2169	SS-49	348.5-350'	21.5	18	52	34	CH

MACTEC, Inc.

Raleigh, North Carolina

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project No.: 6468071777

Figure NA

Tested By: CS

Checked By: LBJ DSC 1-25-08

LIQUID AND PLASTIC LIMIT TEST DATA

1/24/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2169

Depth: 348.5-350'

Sample Number: SS-49

Material Description: Brownish Yellow Fat CLAY

USCS: CH

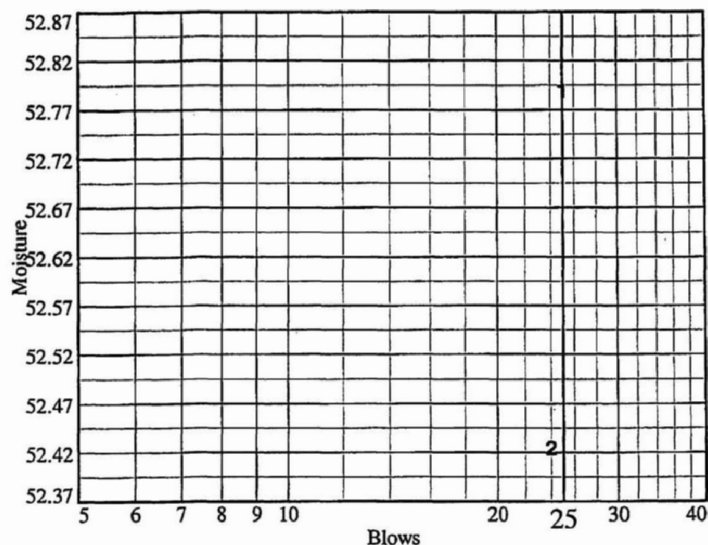
AASHTO: A-7-6(36)

Tested by: CS

Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	29.69	31.88				
Dry+Tare	24.77	26.26				
Tare	15.45	15.54				
# Blows	25	24				
Moisture	52.8	52.4				



Liquid Limit= 52
 Plastic Limit= 18
 Plasticity Index= 34
 Natural Moisture= 21.5
 Liquidity Index= 0.1

Plastic Limit Data

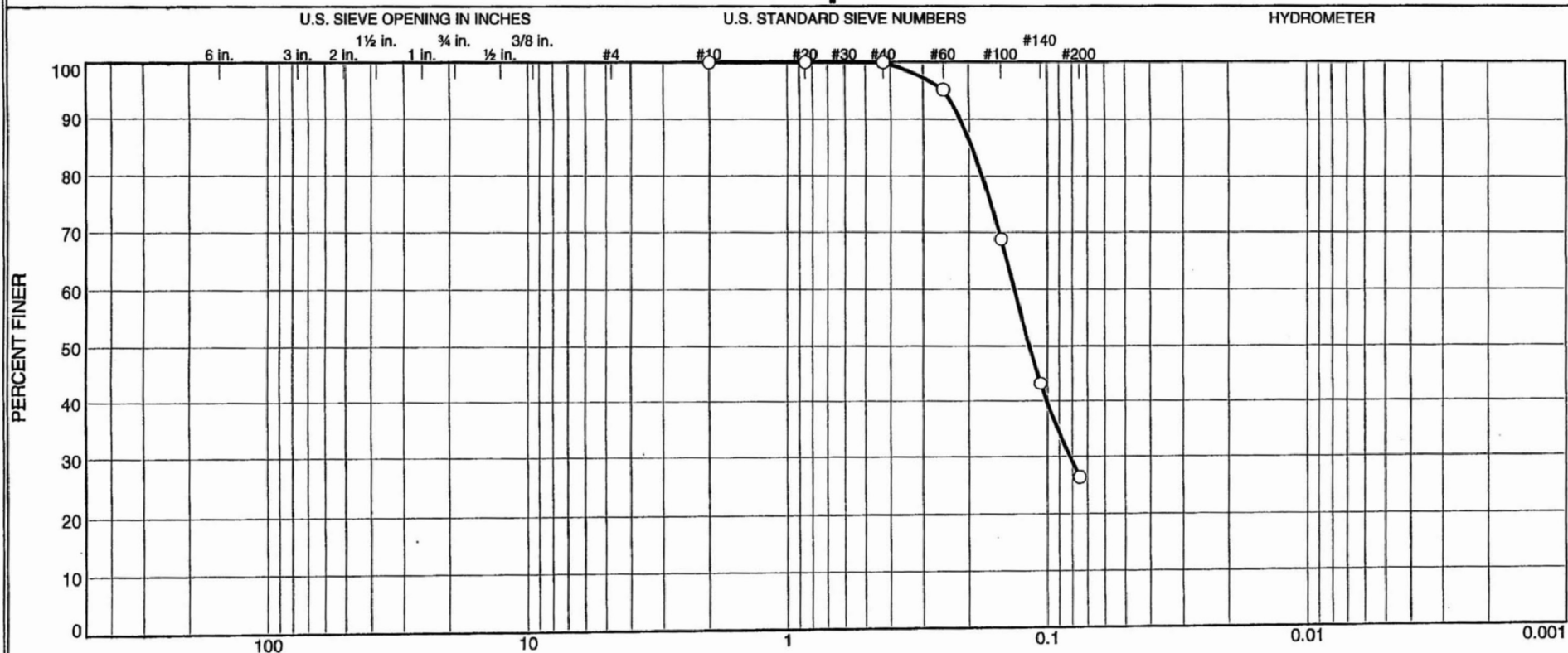
Run No.	1	2	3	4	
Wet+Tare	23.13	24.12			
Dry+Tare	21.96	22.84			
Tare	15.52	15.52			
Moisture	18.2	17.5			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
118.70	99.35	9.30	21.5

MACTEC, Inc.

Particle Size Distribution Report / ASTM D 6913-04e1



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.1	73.5	26.4	

Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
Boring B-2169	SS-50	358.5-360'	12/18/07	SC	Pale Yellow Clayey SAND (Visual)	ND	ND	ND

Client Bechtel		MACTEC, Inc.	○ SIEVE ANALYSIS ONLY ND = Not determined
Project Exelon Texas COL (Victoria)			
Project No. 6468071777	Figure NA	Raleigh, North Carolina	

GRAIN SIZE DISTRIBUTION TEST DATA

1/24/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2169

Depth: 358.5-360'

Sample Number: SS-50

Material Description: Pale Yellow Clayey SAND (Visual)

Date: 12/18/07

Natural Moisture: ND

Liquid Limit: ND

Plastic Limit: ND

USCS Class.: SC

Testing Remarks: SIEVE ANALYSIS ONLY

ND = Not determined

Tested by: CS

Checked by: LBJ

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer
112.80	0.00	0.00	#10	0.00	100.0
98.45	0.00	0.00	#20	0.00	100.0
			#40	0.07	99.9
			#60	4.77	95.2
			#100	30.72	68.8
			#140	55.99	43.1
			#200	72.50	26.4

Fractional Components

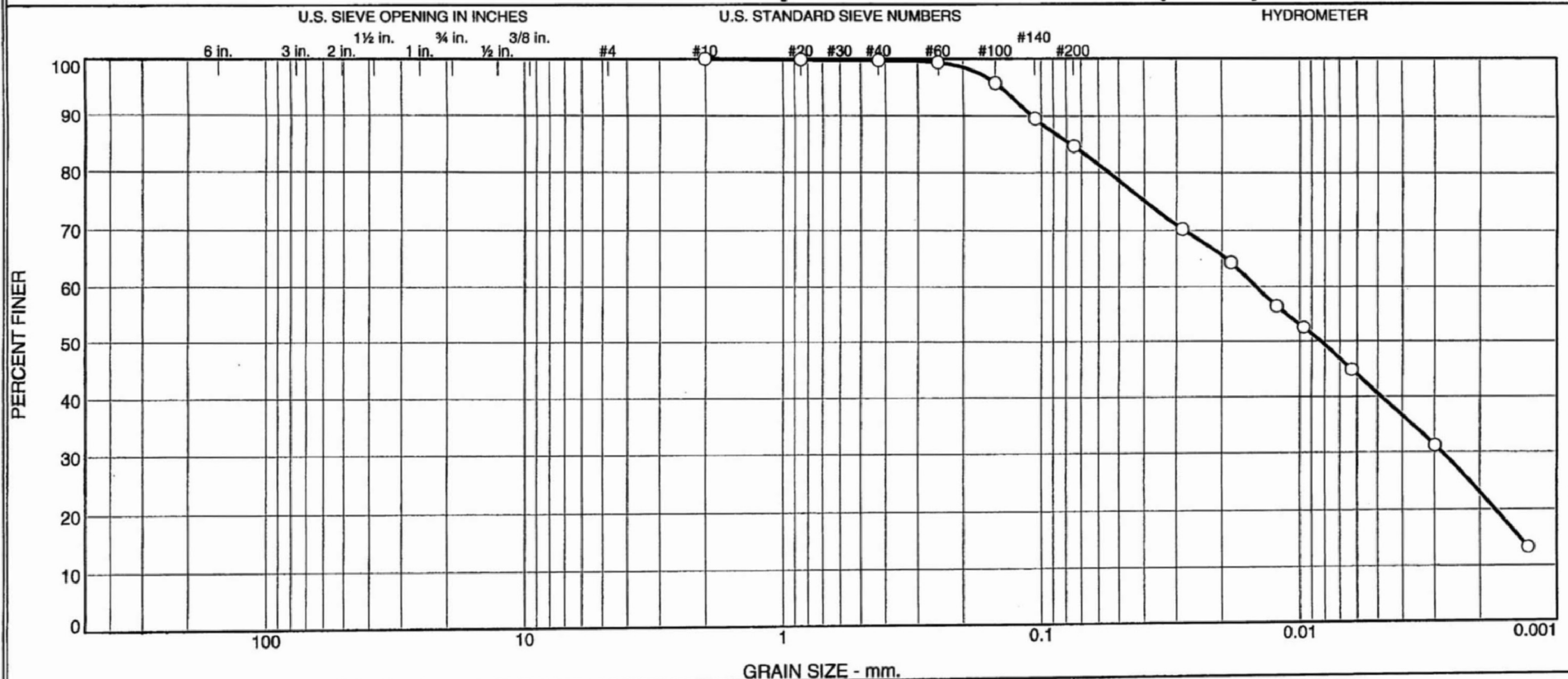
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.1	73.5	73.6			26.4

D10	D15	D20	D30	D50	D60	D80	D85	D90	D95
			0.0819	0.1171	0.1336	0.1775	0.1941	0.2158	0.2486

Fineness Modulus
0.34

MACTEC, Inc.

Particle Size Distribution Report / ASTM D 422-63(2002)e1



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.3	15.1	44.0	40.6

Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
Boring B-2169	SS-51	368.5-370'	12-18-07	CH	Brownish Yellow Fat CLAY with sand	23.0	60	25

Client Bechtel		MACTEC, Inc. Raleigh, North Carolina	○ Specific Gravity is assumed Organic content = 2.3% (ASTM D-2974-07)
Project Exelon Texas COL (Victoria)			
Project No. 6468071777	Figure NA		

GRAIN SIZE DISTRIBUTION TEST DATA

1/24/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2169

Depth: 368.5-370'

Sample Number: SS-51

Material Description: Brownish Yellow Fat CLAY with sand

Date: 12-18-07

Natural Moisture: 23.0

Liquid Limit: 60

Plastic Limit: 25

USCS Class.: CH

Testing Remarks: Specific Gravity is assumed

Organic content = 2.3% (ASTM D-2974-07)

Tested by: CS

Checked by: LBJ

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer
219.70	0.00	0.00	#10	0.00	100.0
52.21	0.00	0.00	#20	0.08	99.8
			#40	0.14	99.7
			#60	0.34	99.3
			#100	2.24	95.7
			#140	5.46	89.5
			#200	8.02	84.6

Hydrometer Test Data

Hydrometer test uses material passing #10

Percent passing #10 based upon complete sample = 100.0

Weight of hydrometer sample = 52.21

Hygroscopic moisture correction:

Moist weight and tare = 29.77

Dry weight and tare = 29.26

Tare weight = 15.48

Hygroscopic moisture = 3.7%

Table of composite correction values:

Temp., deg. C: 12.8 27.3

Comp. corr.: -7.0 -3.0

Meniscus correction only = 1.0

Specific gravity of solids = 2.700

Hydrometer type = 152H

Hydrometer effective depth equation: $L = 16.294964 - 0.164 \times R_m$

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	22.8	40.0	35.8	0.0130	41.0	9.6	0.0284	70.2
5.00	22.8	37.0	32.8	0.0130	38.0	10.1	0.0184	64.3
12.00	22.8	33.0	28.8	0.0130	34.0	10.7	0.0123	56.5
20.00	22.9	31.0	26.8	0.0130	32.0	11.0	0.0096	52.6
50.00	22.9	27.0	22.8	0.0130	28.0	11.7	0.0063	44.8
240.00	23.4	20.0	15.9	0.0129	21.0	12.9	0.0030	31.3
1440.00	22.9	11.0	6.8	0.0130	12.0	14.3	0.0013	13.3

MACTEC, Inc.

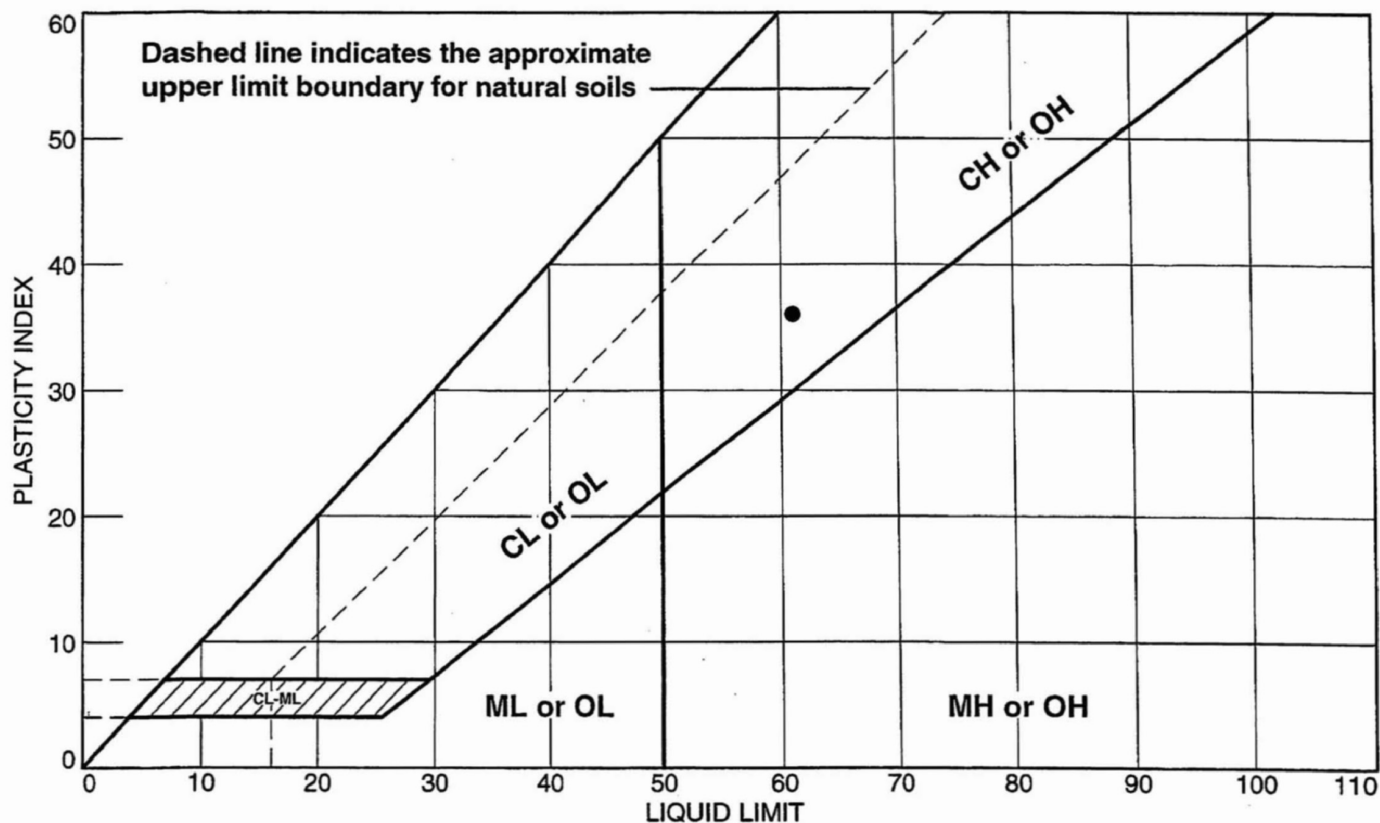
Fractonal Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.3	15.1	15.4	44.0	40.6	84.6

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
	0.0014	0.0017	0.0028	0.0083	0.0147	0.0547	0.0770	0.1089	0.1433

Fineness Modulus
0.05

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA

	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
•	Boring B-2169	SS-51	368.5-370'	23.0	25	61	36	CH

MACTEC, Inc.

Raleigh, North Carolina

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project No.: 6468071777

Figure *NP*

Tested By: CS

Checked By: LBJ

DSC 1-25-08

LIQUID AND PLASTIC LIMIT TEST DATA

1/24/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2169

Depth: 368.5-370'

Sample Number: SS-51

Material Description: Brownish Yellow Fat CLAY with sand

USCS: CH

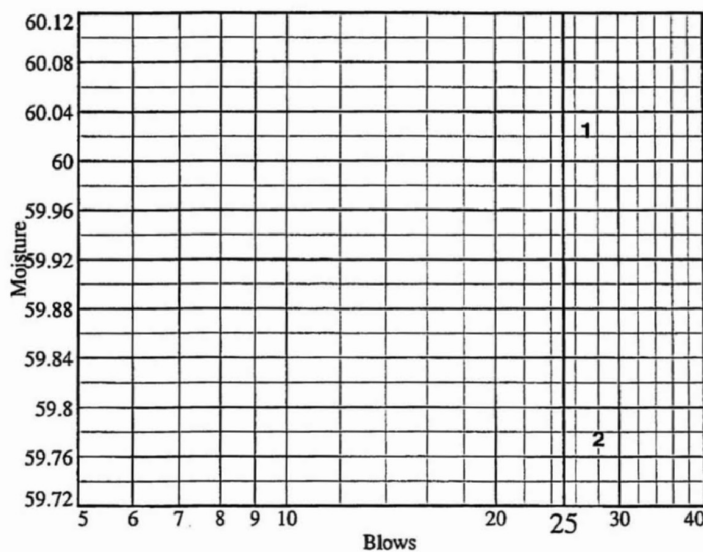
AASHTO: A-7-6(33)

Tested by: CS

Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	28.21	31.09				
Dry+Tare	23.42	25.25				
Tare	15.44	15.48				
# Blows	27	28				
Moisture	60.0	59.8				



Liquid Limit= 61
 Plastic Limit= 25
 Plasticity Index= 36
 Natural Moisture= 23.0
 Liquidity Index= -0.1

Plastic Limit Data

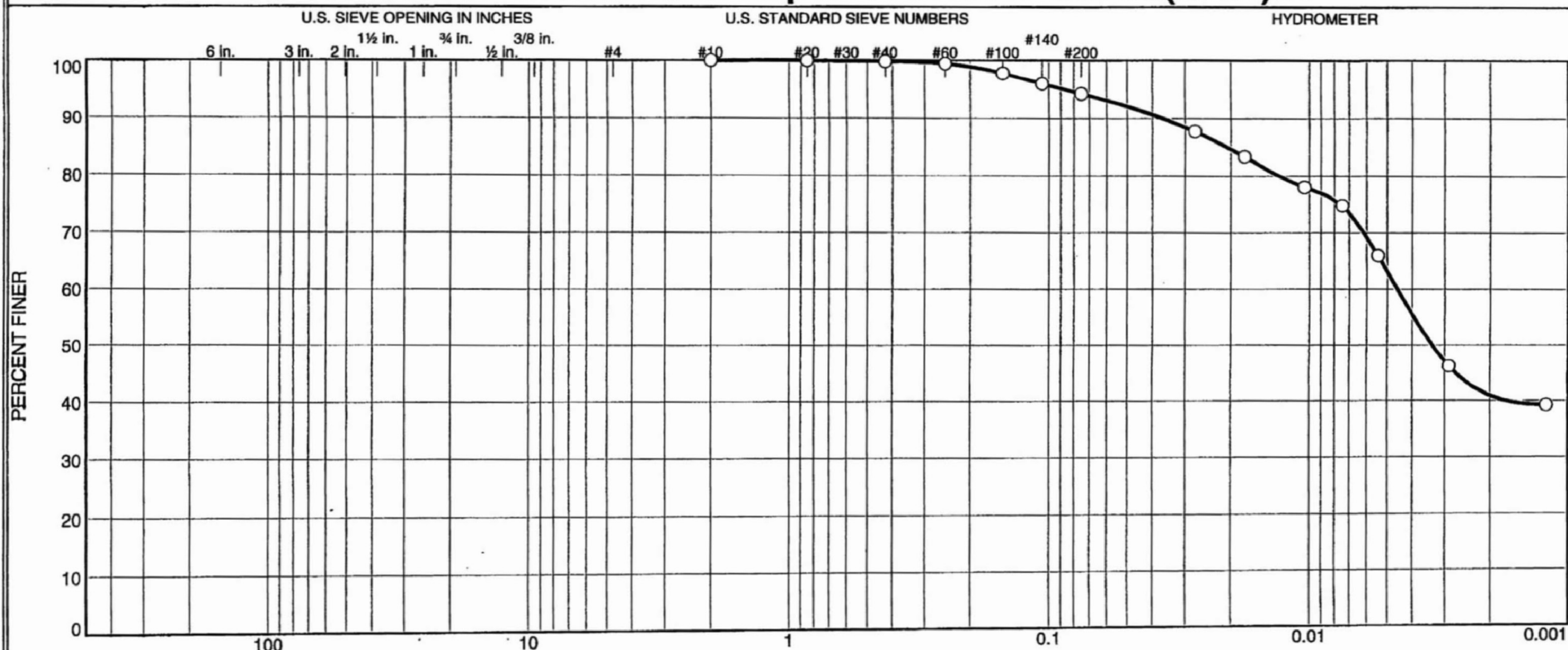
Run No.	1	2	3	4
Wet+Tare	22.79	22.04		
Dry+Tare	21.35	20.69		
Tare	15.43	15.32		
Moisture	24.3	25.1		

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
102.00	84.14	6.60	23.0

MACTEC, Inc.

Particle Size Distribution Report / ASTM D 422-63(2002)e1



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.2	5.6	31.1	63.1

Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
Boring B-2169	SS-52	378.5-380.5'	12-12-08	CH	Very Pale Brown Fat CLAY	36.1	92	30

Client Bechtel

Project Exelon Texas COL (Victoria)

Project No. 6468071777

Figure

NA

MACTEC, Inc.

Raleigh, North Carolina

○ Specific Gravity is assumed

Tested By: CS

Checked By: LBJ

DSC 1-25-08

GRAIN SIZE DISTRIBUTION TEST DATA

1/24/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2169

Depth: 378.5-380.5'

Sample Number: SS-52

Material Description: Very Pale Brown Fat CLAY

Date: 12-12-08

Natural Moisture: 36.1

Liquid Limit: 92

Plastic Limit: 30

USCS Class.: CH

Testing Remarks: Specific Gravity is assumed

Tested by: CS

Checked by: LBJ

Siege Test Data

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer
179.77	0.00	0.00	#10	0.00	100.0
47.36	0.00	0.00	#20	0.02	100.0
			#40	0.08	99.8
			#60	0.27	99.4
			#100	1.07	97.7
			#140	1.93	95.9
			#200	2.75	94.2

Hydrometer Test Data

Hydrometer test uses material passing #10

Percent passing #10 based upon complete sample = 100.0

Weight of hydrometer sample = 47.36

Hygroscopic moisture correction:

Moist weight and tare = 28.69

Dry weight and tare = 27.96

Tare weight = 15.49

Hygroscopic moisture = 5.9%

Table of composite correction values:

Temp., deg. C: 12.8 27.3

Comp. corr.: -7.0 -3.0

Meniscus correction only = 1.0

Specific gravity of solids = 2.700

Hydrometer type = 152H

Hydrometer effective depth equation: $L = 16.294964 - 0.164 \times R_m$

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	22.7	44.0	39.7	0.0130	45.0	8.9	0.0275	87.8
5.00	22.7	42.0	37.7	0.0130	43.0	9.2	0.0177	83.4
15.00	22.9	39.5	35.3	0.0130	40.5	9.7	0.0104	78.0
30.00	23.0	38.0	33.8	0.0130	39.0	9.9	0.0074	74.7
60.00	23.1	34.0	29.8	0.0129	35.0	10.6	0.0054	66.0
240.00	23.3	25.0	20.9	0.0129	26.0	12.0	0.0029	46.2
1440.00	22.8	22.0	17.8	0.0130	23.0	12.5	0.0012	39.3

MACTEC, Inc.

Fractional Components

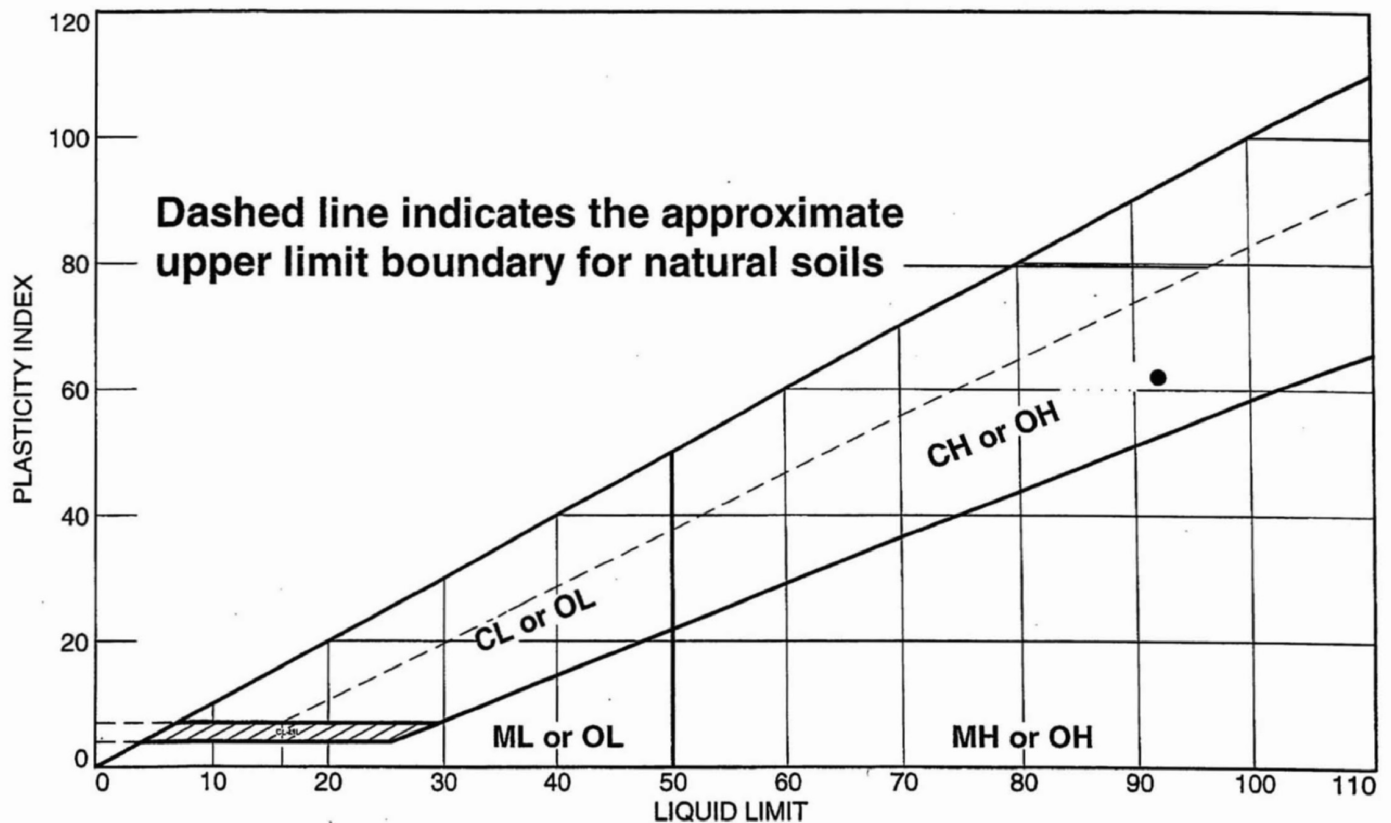
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.2	5.6	5.8	31.1	63.1	94.2

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
				0.0034	0.0046	0.0130	0.0205	0.0362	0.0883

Fineness Modulus
0.03

MACTEC, Inc.

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
•	Boring B-2169	SS-52	378.5-380.5'	36.1	30	92	62	CH

MACTEC, Inc.

Raleigh, North Carolina

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project No.: 6468071777

Figure NA

Tested By: CS

Checked By: LBJ

DSC 1-25-08

LIQUID AND PLASTIC LIMIT TEST DATA

1/24/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2169

Depth: 378.5-380.5'

Sample Number: SS-52

Material Description: Very Pale Brown Fat CLAY

USCS: CH

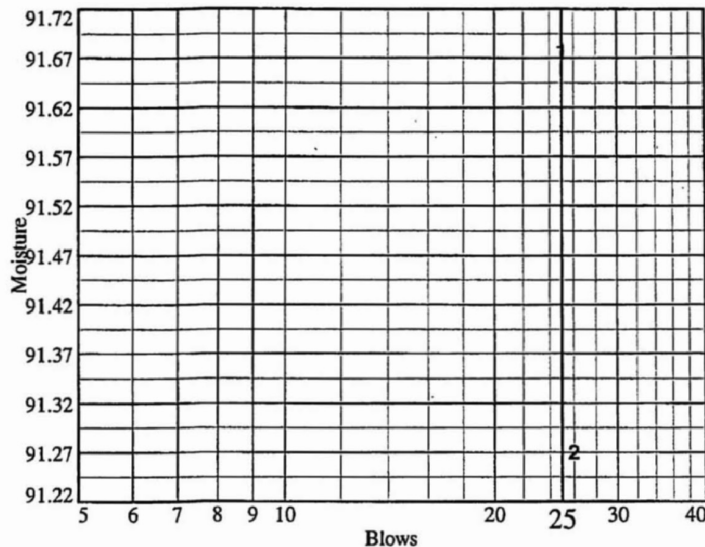
AASHTO: A-7-5(68)

Tested by: CS

Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	30.48	27.95				
Dry+Tare	23.32	21.99				
Tare	15.51	15.46				
# Blows	25	26				
Moisture	91.7	91.3				



Liquid Limit= 92
 Plastic Limit= 30
 Plasticity Index= 62
 Natural Moisture= 36.1
 Liquidity Index= 0.1

Plastic Limit Data

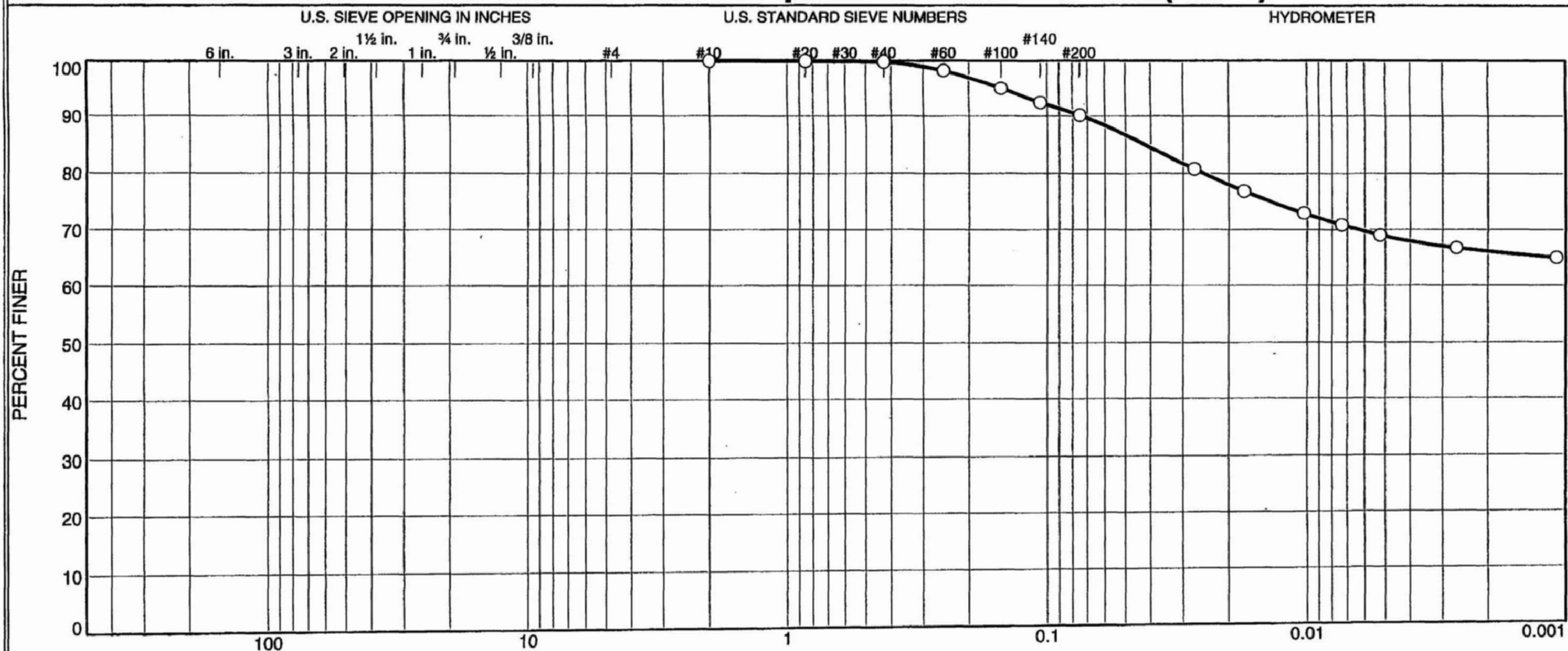
Run No.	1	2	3	4	
Wet+Tare	22.20	22.60			
Dry+Tare	20.67	20.95			
Tare	15.60	15.40			
Moisture	30.2	29.7			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
61.60	47.01	6.60	36.1

MACTEC, Inc.

Particle Size Distribution Report / ASTM D 422-63(2002)e1



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.2	9.6	21.4	68.8

Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
Boring B-2169	SS-53	388.5-390'	12-19-07	CH	Light Gray Fat CLAY	30.5	70	30

Client Bechtel		MACTEC, Inc. Raleigh, North Carolina	○ Specific Gravity is assumed
Project Exelon Texas COL (Victoria)			
Project No. 6468071777	Figure NA		

Tested By: CS

Checked By: LBJ DSC 1-25-08

GRAIN SIZE DISTRIBUTION TEST DATA

1/24/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2169

Depth: 388.5-390'

Sample Number: SS-53

Material Description: Light Gray Fat CLAY

Date: 12-19-07

Natural Moisture: 30.5

Liquid Limit: 70

Plastic Limit: 30

USCS Class.: CH

Testing Remarks: Specific Gravity is assumed

Tested by: CS

Checked by: LBJ

Siege Test Data

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer
212.18	0.00	0.00	#10	0.00	100.0
51.90	0.00	0.00	#20	0.02	100.0
			#40	0.09	99.8
			#60	0.90	98.3
			#100	2.59	95.0
			#140	3.93	92.4
			#200	5.10	90.2

Hydrometer Test Data

Hydrometer test uses material passing #10

Percent passing #10 based upon complete sample = 100.0

Weight of hydrometer sample = 51.89

Hygroscopic moisture correction:

Moist weight and tare = 27.46

Dry weight and tare = 27.00

Tare weight = 15.61

Hygroscopic moisture = 4.0%

Table of composite correction values:

Temp., deg. C: 12.8 27.3

Comp. corr.: -7.0 -3.0

Meniscus correction only = 1.0

Specific gravity of solids = 2.700

Hydrometer type = 152H

Hydrometer effective depth equation: $L = 16.294964 - 0.164 \times R_m$

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	22.7	45.0	40.7	0.0130	46.0	8.8	0.0272	80.8
5.00	22.9	43.0	38.8	0.0130	44.0	9.1	0.0175	76.9
15.00	22.9	41.0	36.8	0.0130	42.0	9.4	0.0103	72.9
30.00	22.7	40.0	35.7	0.0130	41.0	9.6	0.0073	70.8
60.00	23.0	39.0	34.8	0.0130	40.0	9.7	0.0052	69.0
240.00	22.5	38.0	33.7	0.0130	39.0	9.9	0.0026	66.8
1440.00	22.9	37.0	32.8	0.0130	38.0	10.1	0.0011	65.0

MACTEC, Inc.

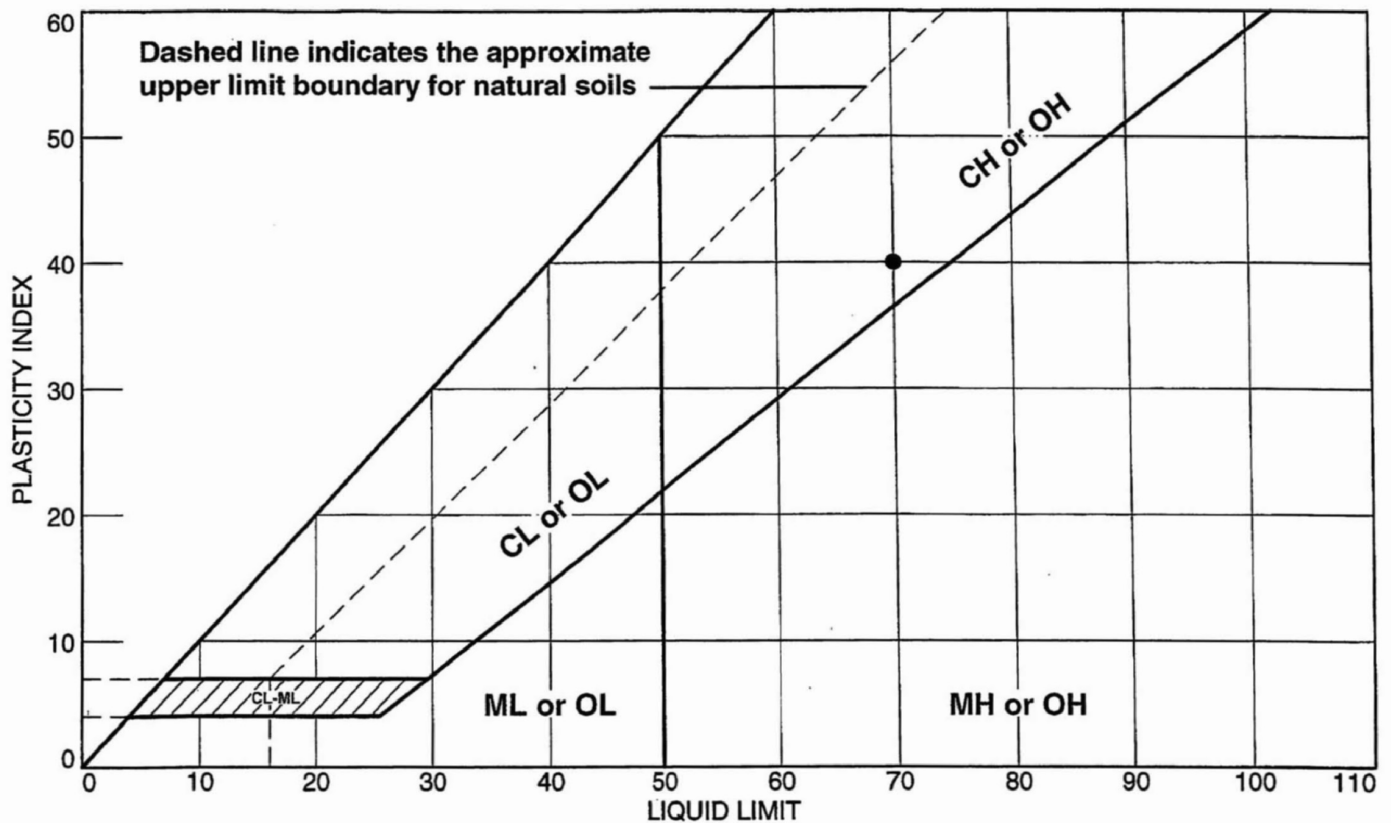
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.2	9.6	9.8	21.4	68.8	90.2

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
						0.0251	0.0418	0.0732	0.1498

Fineness Modulus
0.06

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
•	Boring B-2169	SS-53	388.5-390'	30.5	30	70	40	CH

MACTEC, Inc.

Raleigh, North Carolina

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project No.: 6468071777

Figure NA

Tested By: CS

Checked By: LBJ

DSC 1-25-08

LIQUID AND PLASTIC LIMIT TEST DATA

1/24/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2169

Depth: 388.5-390'

Sample Number: SS-53

Material Description: Light Gray Fat CLAY

USCS: CH

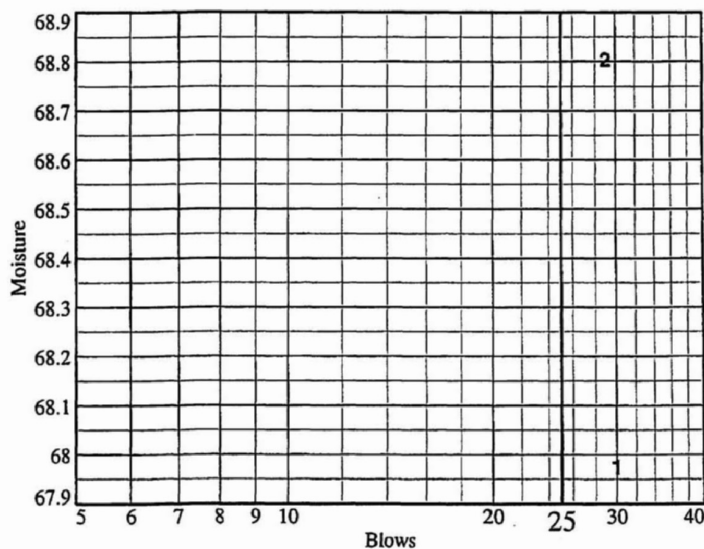
AASHTO: A-7-5(42)

Tested by: CS

Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	29.15	29.21				
Dry+Tare	23.61	23.74				
Tare	15.46	15.79				
# Blows	30	29				
Moisture	68.0	68.8				



Liquid Limit= 70
 Plastic Limit= 30
 Plasticity Index= 40
 Natural Moisture= 30.5
 Liquidity Index= 0.0

Plastic Limit Data

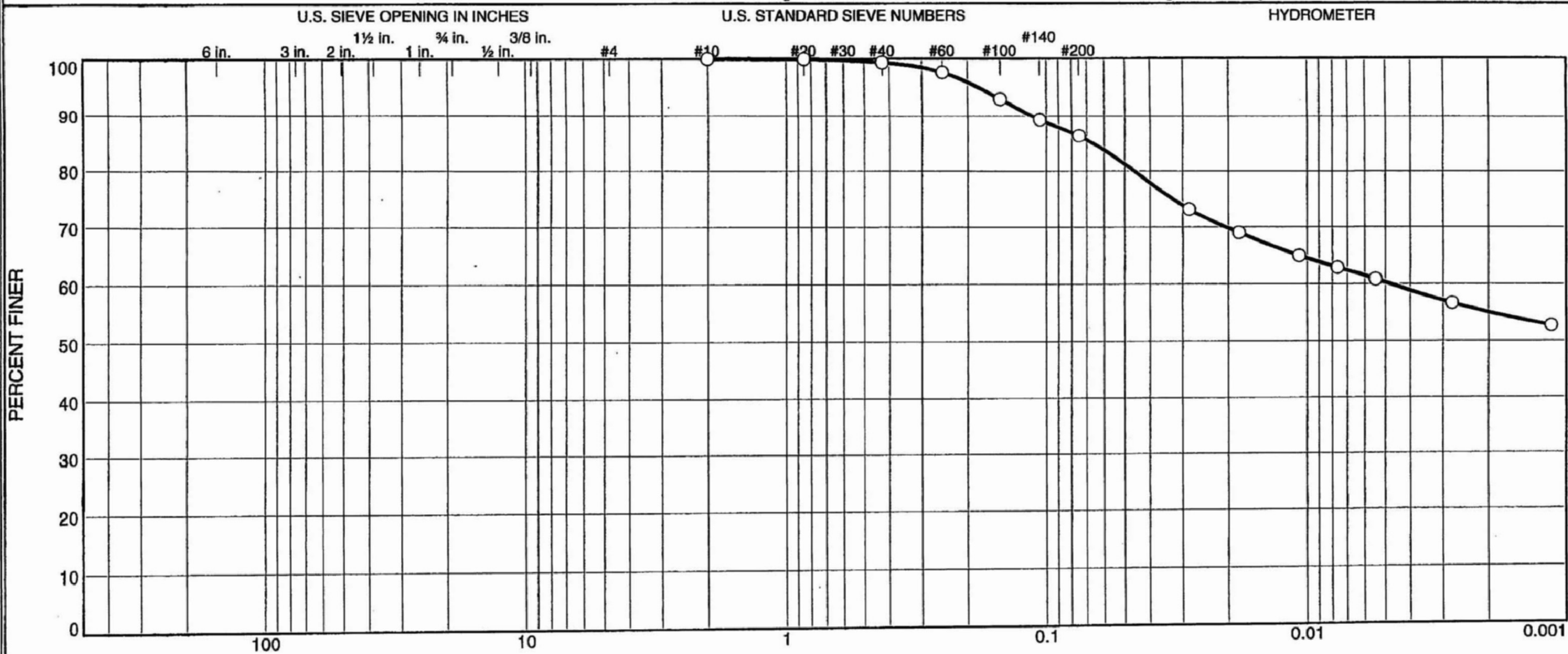
Run No.	1	2	3	4
Wet+Tare	22.43	23.43		
Dry+Tare	20.89	21.61		
Tare	15.85	15.47		
Moisture	30.6	29.6		

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
128.10	100.32	9.20	30.5

MACTEC, Inc.

Particle Size Distribution Report / ASTM D 422-63(2002)e1



GRAIN SIZE DISTRIBUTION TEST DATA

1/24/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2169

Depth: 398.5-400'

Sample Number: SS-54

Material Description: Pale Yellow Fat CLAY

Date: 12-19-07

Natural Moisture: 32.9

Liquid Limit: 63

Plastic Limit: 24

USCS Class.: CH

Testing Remarks: Specific Gravity is assumed

Tested by: CS

Checked by: LBJ

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer
208.71	0.00	0.00	#10	0.00	100.0
50.33	0.00	0.00	#20	0.03	99.9
			#40	0.32	99.4
			#60	1.20	97.6
			#100	3.53	93.0
			#140	5.36	89.4
			#200	6.82	86.4

Hydrometer Test Data

Hydrometer test uses material passing #10

Percent passing #10 based upon complete sample = 100.0

Weight of hydrometer sample = 50.34

Hygroscopic moisture correction:

Moist weight and tare = 22.05

Dry weight and tare = 21.64

Tare weight = 11.19

Hygroscopic moisture = 3.9%

Table of composite correction values:

Temp., deg. C: 12.8 27.3

Comp. corr.: -7.0 -3.0

Meniscus correction only = 1.0

Specific gravity of solids = 2.700

Hydrometer type = 152H

Hydrometer effective depth equation: $L = 16.294964 - 0.164 \times R_m$

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	23.1	40.0	35.8	0.0129	41.0	9.6	0.0283	73.2
5.00	23.0	38.0	33.8	0.0130	39.0	9.9	0.0182	69.0
15.00	22.9	36.0	31.8	0.0130	37.0	10.2	0.0107	64.9
30.00	22.9	35.0	30.8	0.0130	36.0	10.4	0.0076	62.9
60.00	22.9	34.0	29.8	0.0130	35.0	10.6	0.0054	60.8
240.00	22.8	32.0	27.8	0.0130	33.0	10.9	0.0028	56.7
1440.00	23.0	30.0	25.8	0.0130	31.0	11.2	0.0011	52.7

MACTEC, Inc.

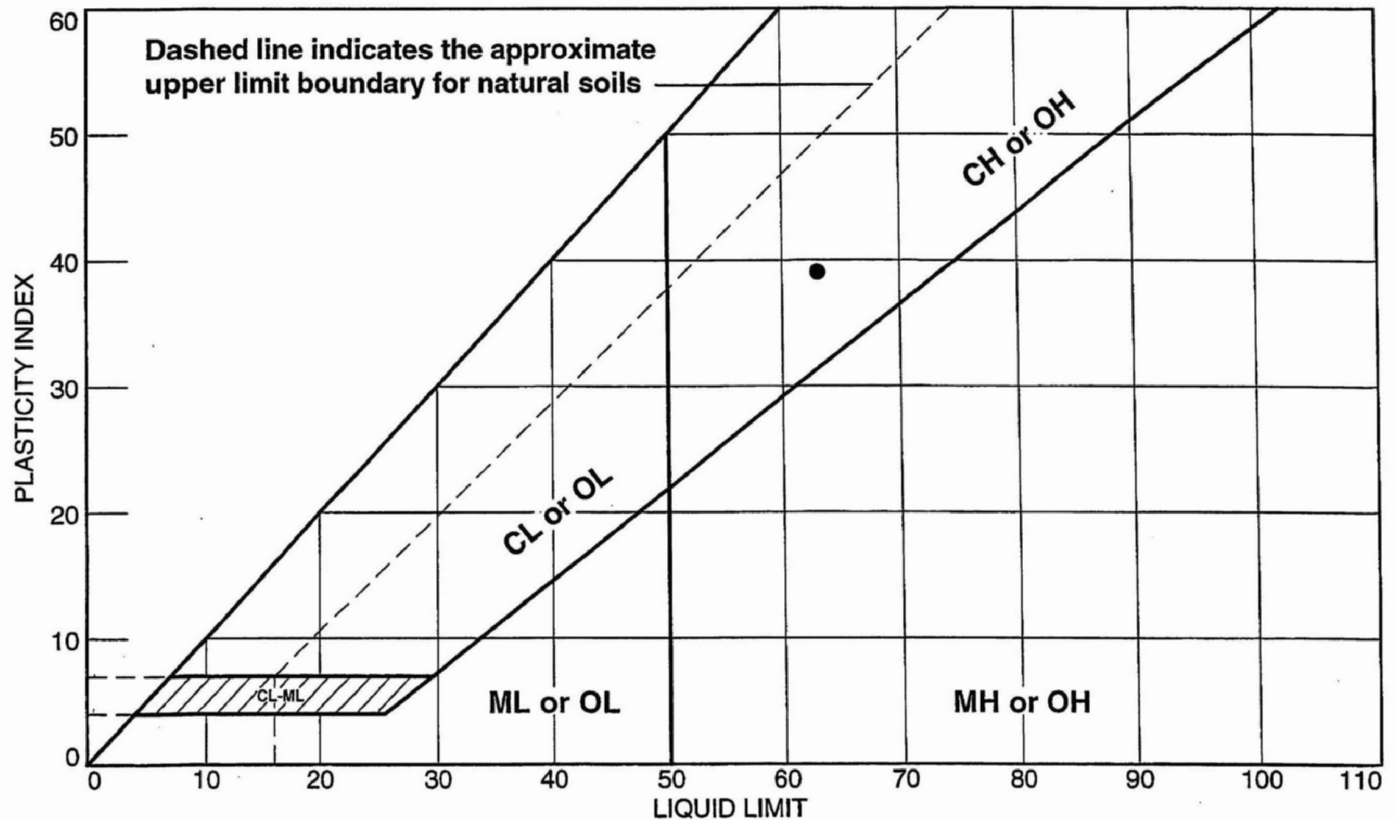
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.6	13.0	13.6	26.1	60.3	86.4

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
					0.0048	0.0460	0.0657	0.1136	0.1818

Fineness Modulus
0.09

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
•	Boring B-2169	SS-54	398.5-400'	32.9	24	63	39	CH

MACTEC, Inc.

Raleigh, North Carolina

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project No.: 6468071777

Figure NA

Tested By: CS

Checked By: LBJ

DSC 1-25-08

LIQUID AND PLASTIC LIMIT TEST DATA

1/24/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2169

Depth: 398.5-400'

Sample Number: SS-54

Material Description: Pale Yellow Fat CLAY

USCS: CH

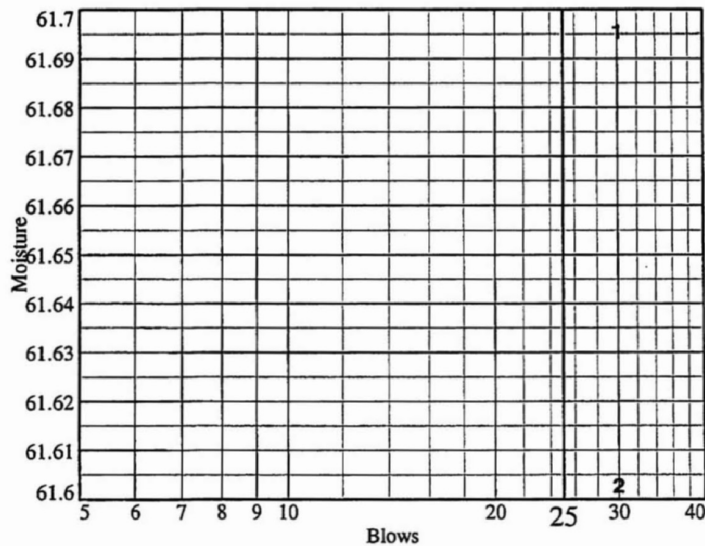
AASHTO: A-7-6(37)

Tested by: CS

Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	31.28	28.93				
Dry+Tare	25.24	23.78				
Tare	15.45	15.42				
# Blows	30	30				
Moisture	61.7	61.6				



Liquid Limit= 63
 Plastic Limit= 24
 Plasticity Index= 39
 Natural Moisture= 32.9
 Liquidity Index= 0.2

Plastic Limit Data

Run No.	1	2	3	4
Wet+Tare	19.70	24.90		
Dry+Tare	18.01	23.13		
Tare	11.10	15.80		
Moisture	24.5	24.1		

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
102.80	79.06	6.80	32.9

MACTEC, Inc.

Boring B-2170

U.S. SIEVE OPENING IN INCHES

U.S. STANDARD SIEVE NUMBERS

HYDROMETER

PERCENT FINER

GRAIN SIZE - mm.

Grain Size (mm)	Percent Finer (%)
100	100
75	100
60	100
40	100
20	100
10	100
7.5	100
6	100
4.75	100
3.75	100
3.0	100
2.5	100
2.0	100
1.5	100
1.18	100
0.85	100
0.75	100
0.6	100
0.425	100
0.3	100
0.25	100
0.2	100
0.15	100
0.125	100
0.106	100
0.075	100
0.06	98
0.05	95
0.0425	90
0.0375	85
0.030	78
0.025	70
0.020	60
0.015	55
0.0125	50
0.0106	45
0.0075	40
0.006	38
0.005	35

GRAIN SIZE - mm.							
% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.3	6.6	41.4	51.7

[illegible]

MACTEC, Inc.
Raleigh, North Carolina

○ Specific Gravity is assumed

DSC 2-6-08

GRAIN SIZE DISTRIBUTION TEST DATA

2/6/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2170

Depth: 158.5-160.0

Sample Number: SS-31

Material Description: Greenish Gray Lean CLAY

Date: 12-14-07

Natural Moisture: 15.1

Liquid Limit: 44

Plastic Limit: 15

USCS Class.: CL

Testing Remarks: Specific Gravity is assumed

Tested by: CS

Checked by: LBJ

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer
273.59	0.00	0.00	#10	0.00	100.0
46.16	0.00	0.00	#20	0.06	99.9
			#40	0.16	99.7
			#60	0.40	99.1
			#100	1.11	97.6
			#140	2.06	95.5
			#200	3.18	93.1

Hydrometer Test Data

Hydrometer test uses material passing #10

Percent passing #10 based upon complete sample = 100.0

Weight of hydrometer sample = 46.16

Hygroscopic moisture correction:

Moist weight and tare = 26.80

Dry weight and tare = 26.55

Tare weight = 15.40

Hygroscopic moisture = 2.2%

Table of composite correction values:

Temp., deg. C: 12.8 27.3

Comp. corr.: -7.0 -3.0

Meniscus correction only = 1.0

Specific gravity of solids = 2.700

Hydrometer type = 152H

Hydrometer effective depth equation: $L = 16.294964 - 0.164 \times R_m$

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	21.6	44.0	39.4	0.0132	45.0	8.9	0.0278	86.4
5.00	21.8	40.0	35.5	0.0131	41.0	9.6	0.0182	77.7
15.00	21.7	35.0	30.5	0.0132	36.0	10.4	0.0110	66.7
30.00	21.7	31.0	26.5	0.0132	32.0	11.0	0.0080	57.9
60.00	21.7	29.0	24.5	0.0132	30.0	11.4	0.0057	53.6
240.00	21.6	24.0	19.4	0.0132	25.0	12.2	0.0030	42.6
1440.00	20.6	20.0	15.2	0.0133	21.0	12.9	0.0013	33.2

MACTEC, Inc.

Fractional Components

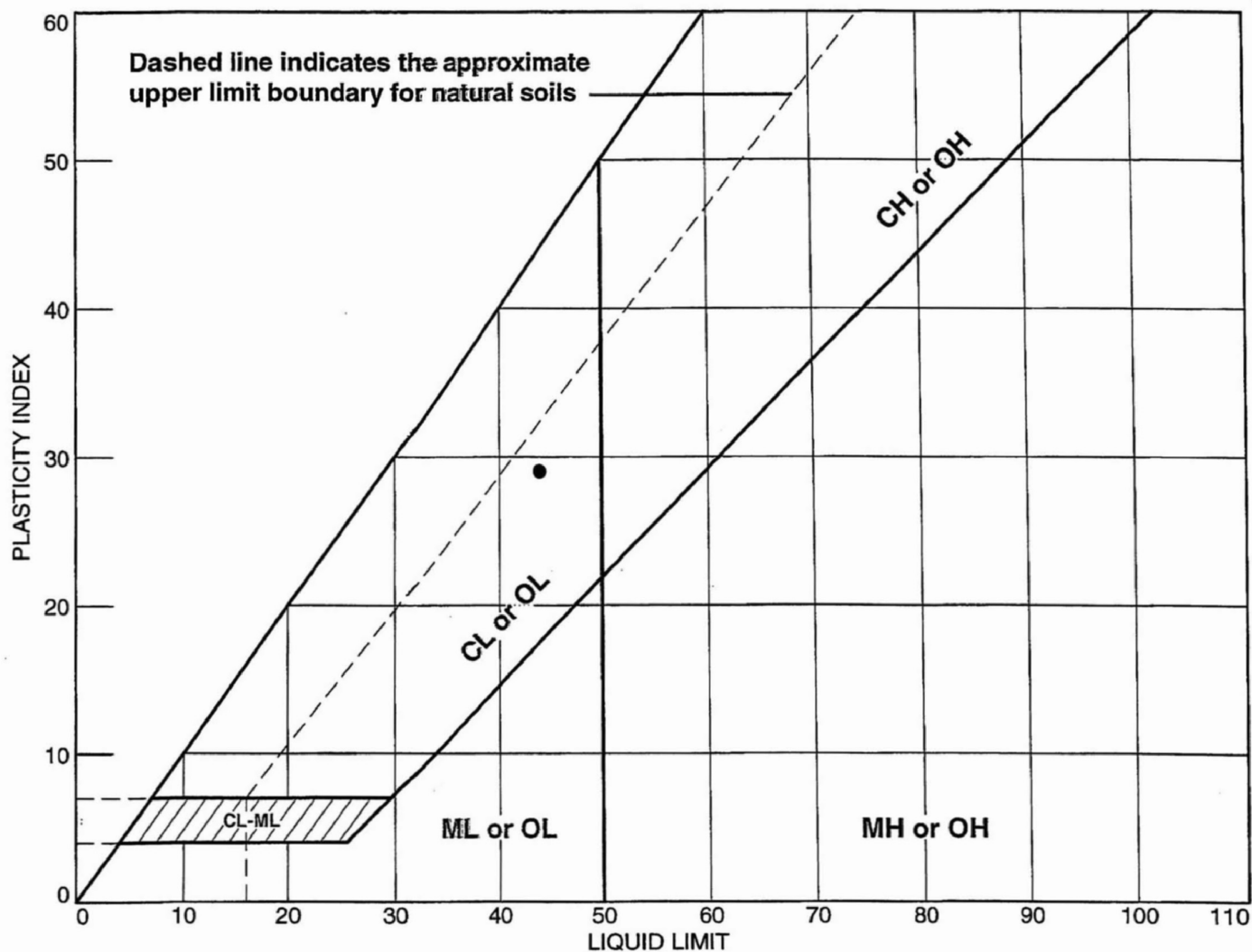
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.3	6.6	6.9	41.4	51.7	93.1

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
				0.0045	0.0087	0.0202	0.0258	0.0383	0.0985

Fineness Modulus
0.03

MACTEC, Inc.

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
•	Boring B-2170	SS-31	158.5-160.0	15.1	15	44	29	CL

MACTEC, Inc.

Raleigh, North Carolina

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project No.: 6468071777

Figure NA

Tested By: CS

Checked By: LBJ

LIQUID AND PLASTIC LIMIT TEST DATA

2/6/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2170

Depth: 158.5-160.0

Sample Number: SS-31

Material Description: Greenish Gray Lean CLAY

USCS: CL

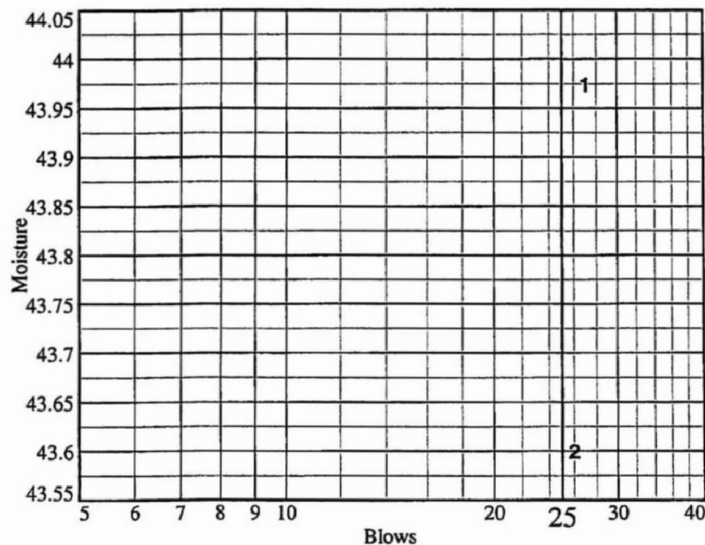
AASHTO: A-7-6(28)

Tested by: CS

Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	33.33	33.36				
Dry+Tare	27.93	27.91				
Tare	15.65	15.41				
# Blows	27	26				
Moisture	44.0	43.6				



Liquid Limit= 44
 Plastic Limit= 15
 Plasticity Index= 29
 Natural Moisture= 15.1
 Liquidity Index= 0.0

Plastic Limit Data

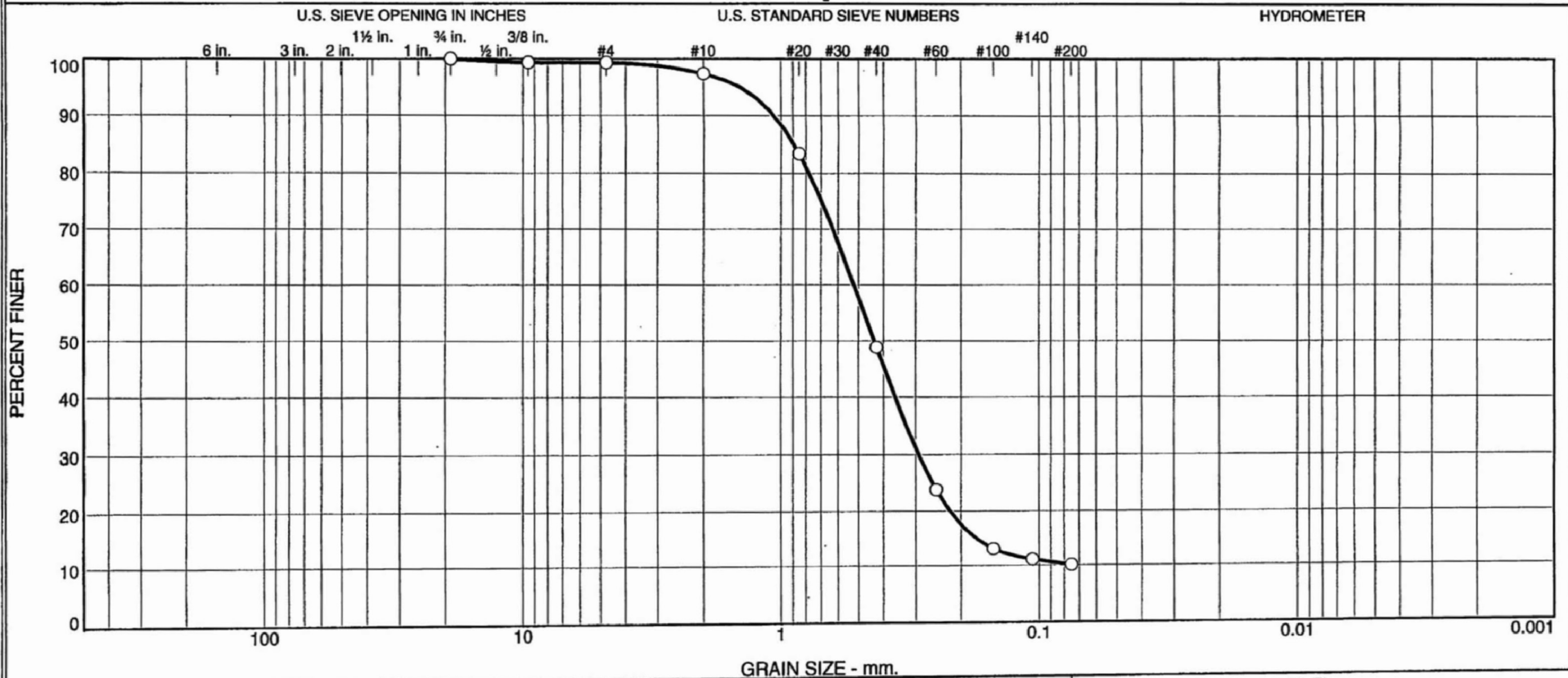
Run No.	1	2	3	4
Wet+Tare	27.30	24.68		
Dry+Tare	25.78	23.48		
Tare	15.59	15.46		
Moisture	14.9	15.0		

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
97.26	85.69	9.20	15.1

MACTEC, Inc.

Particle Size Distribution Report / ASTM D 6913-04e1



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.6	2.0	48.6	38.7	10.1	

Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
Boring B-2170	SS-32	168.5-170.0	12-15-07	SP-SC	Very Pale Brown Poorly Graded SAND with clay (Visual)	ND	ND	ND

Client Bechtel		MACTEC, Inc.	○ SIEVE ANALYSIS ONLY ND = Not determined
Project Exelon Texas COL (Victoria)			
Project No. 6468071777	Figure NA		
		Raleigh, North Carolina	

GRAIN SIZE DISTRIBUTION TEST DATA

1/26/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2170

Depth: 168.5-170.0

Sample Number: SS-32

Material Description: Very Pale Brown Poorly Graded SAND with clay (Visual)

Date: 12-15-07

Natural Moisture: ND

Liquid Limit: ND

Plastic Limit: ND

USCS Class.: SP-SC

Testing Remarks: SIEVE ANALYSIS ONLY

ND = Not determined

Tested by: LBJ

Checked by: LBJ

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer
230.79	0.00	0.00	3/4	0.00	100.0
			3/8"	1.45	99.4
			#4	1.48	99.4
			#10	6.03	97.4
101.52	0.00	0.00	#20	14.56	83.4
			#40	50.61	48.8
			#60	76.65	23.9
			#100	87.89	13.1
			#140	89.92	11.1
			#200	90.99	10.1

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.6	0.6	2.0	48.6	38.7	89.3			10.1

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
	0.1746	0.2208	0.2922	0.4341	0.5203	0.7784	0.8897	1.0640	1.4409

Fineness
Modulus

1.99

MACTEC, Inc.