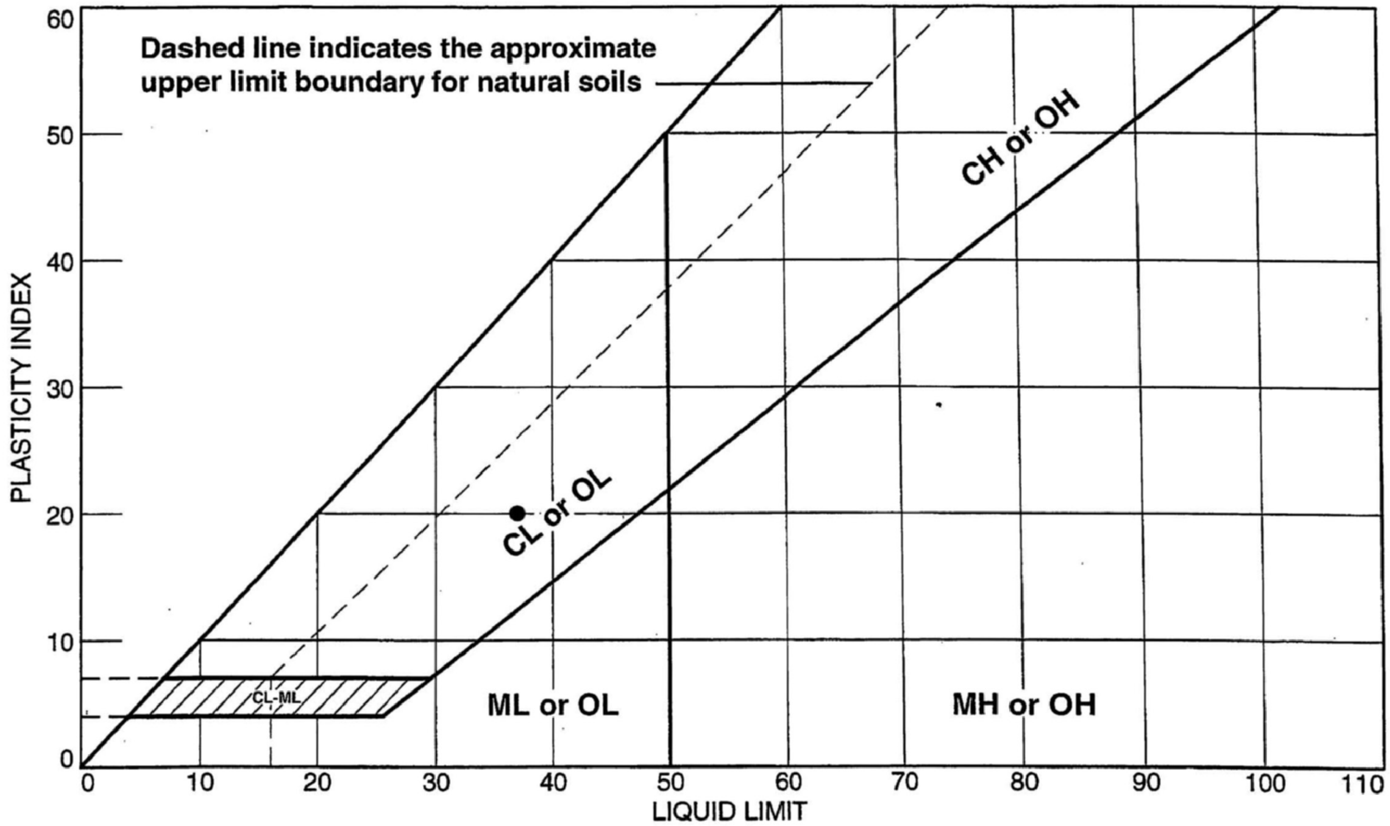
LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	Boring B-2251	SS-3	6-7.5'	16.4	17	37	20	CL

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

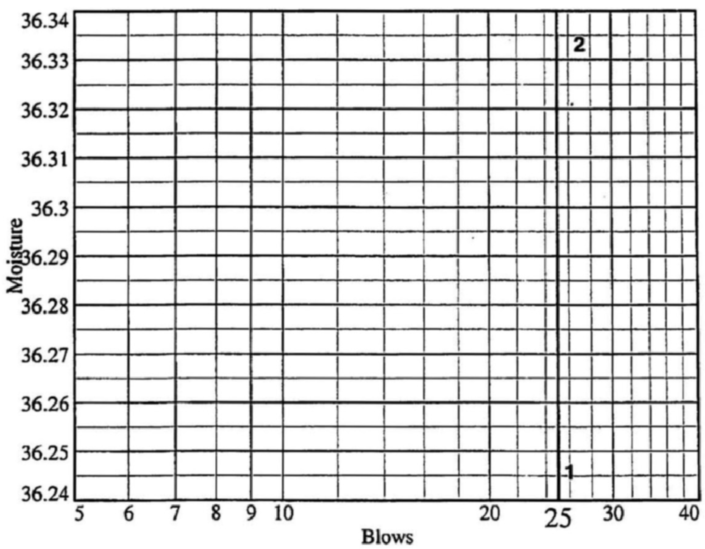
LIQUID AND PLASTIC LIMIT TEST DATA

1/24/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2251
Depth: 6-7.5'
Sample Number: SS-3
Material Description: Greenish Gray Lean CLAY with sand.
USCS: CL
AASHTO: A-6(16)
Tested by: CS
Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	23.98	23.76				
Dry+Tare	21.74	21.58				
Tare	15.56	15.58				
# Blows	26	27				
Moisture	36.2	36.3				



Liquid Limit= 37
Plastic Limit= 17
Plasticity Index= 20
Natural Moisture= 16.4
Liquidity Index= 0.0

Plastic Limit Data

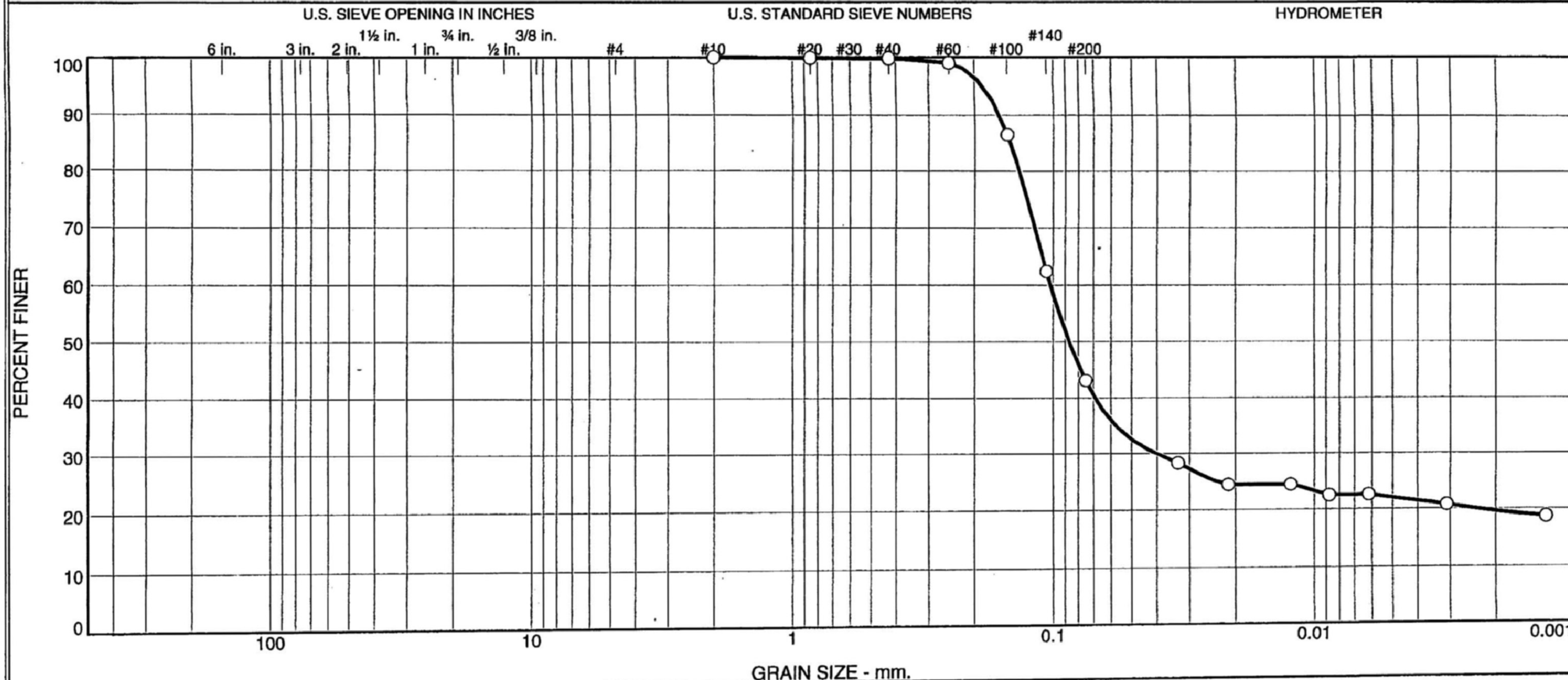
Run No.	1	2	3	4
Wet+Tare	26.78	28.20		
Dry+Tare	25.12	26.32		
Tare	15.48	15.51		
Moisture	17.2	17.4		

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
161.78	139.95	6.76	16.4

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	56.7	21.1	22.0

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	Boring B-2251	SS-4	8.5-10'	12-03-07	SC-SM	Yellowish Brown Silty, Clayey SAND	15.4	26	20

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-2251
Depth: 8.5-10' **Sample Number:** SS-4
Material Description: Yellowish Brown Silty, Clayey SAND
Date: 12-03-07 **Natural Moisture:** 15.4
Liquid Limit: 26 **Plastic Limit:** 20 **USCS Class.:** SC-SM
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
223.51	0.00	0.00	#10	0.00	100.0
52.33	0.00	0.00	#20	0.06	99.9
			#40	0.11	99.8
			#60	0.50	99.0
			#100	7.01	86.6
			#140	19.66	62.4
			#200	29.78	43.1

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =52.33
Hygroscopic moisture correction:
 Moist weight and tare = 29.43
 Dry weight and tare = 29.24
 Tare weight = 15.65
 Hygroscopic moisture = 1.4%
Table of composite correction values:

Temp., deg. C:	12.3	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 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	22.6	19.0	14.7	0.0130	20.0	13.0	0.0332	28.3
5.00	22.6	17.0	12.7	0.0130	18.0	13.3	0.0213	24.4
15.00	22.6	17.0	12.7	0.0130	18.0	13.3	0.0123	24.4
30.00	22.6	16.0	11.7	0.0130	17.0	13.5	0.0087	22.5
60.00	22.7	16.0	11.8	0.0130	17.0	13.5	0.0062	22.6
240.00	23.0	15.0	10.9	0.0130	16.0	13.7	0.0031	20.8
1440.00	22.6	14.0	9.7	0.0130	15.0	13.8	0.0013	18.7

MACTEC, Inc.

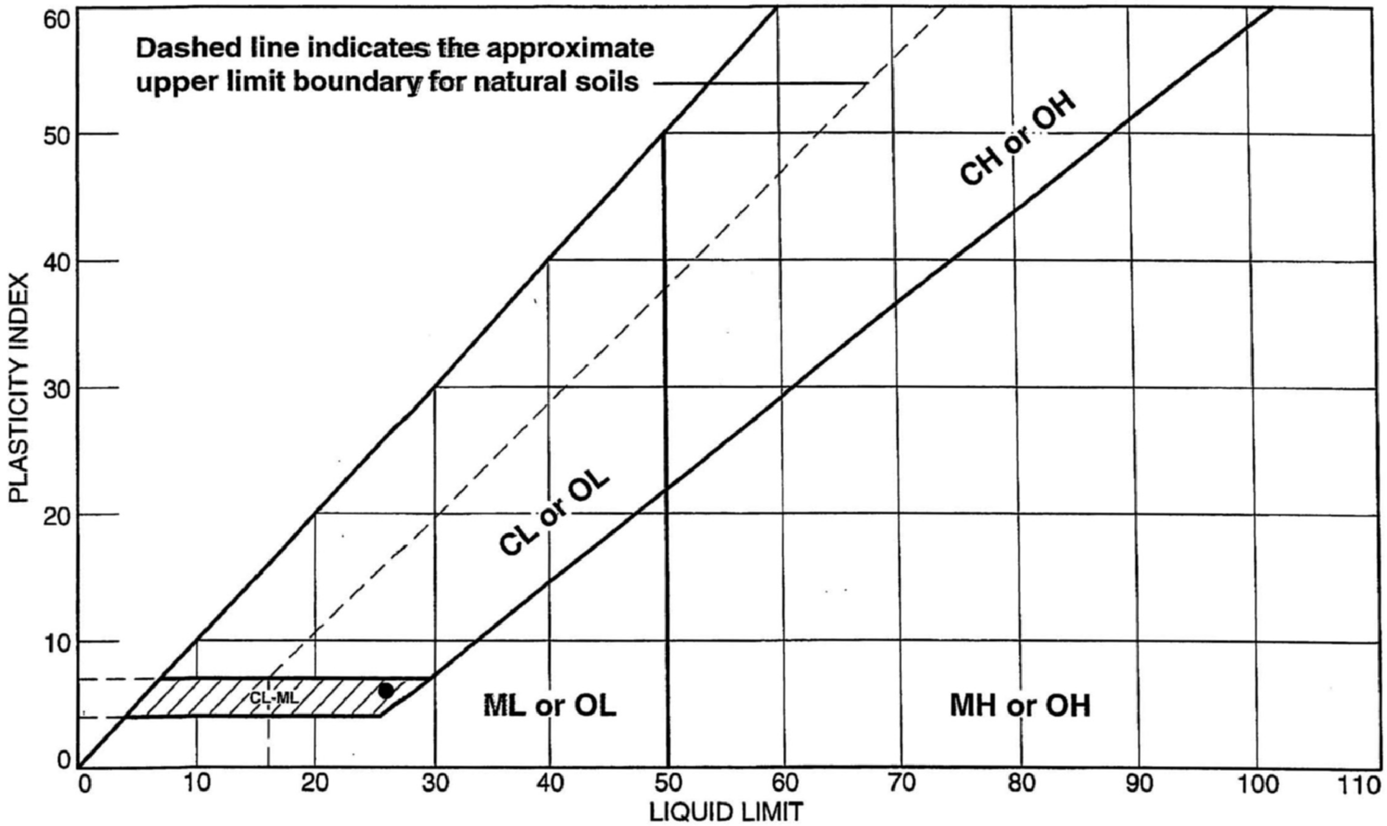
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.2	56.7	56.9	21.1	22.0	43.1

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
		0.0024	0.0403	0.0868	0.1023	0.1349	0.1458	0.1607	0.1859

Fineness Modulus
0.14

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-2251	SS-4	8.5-10'	15.4	20	26	6	SC-SM

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

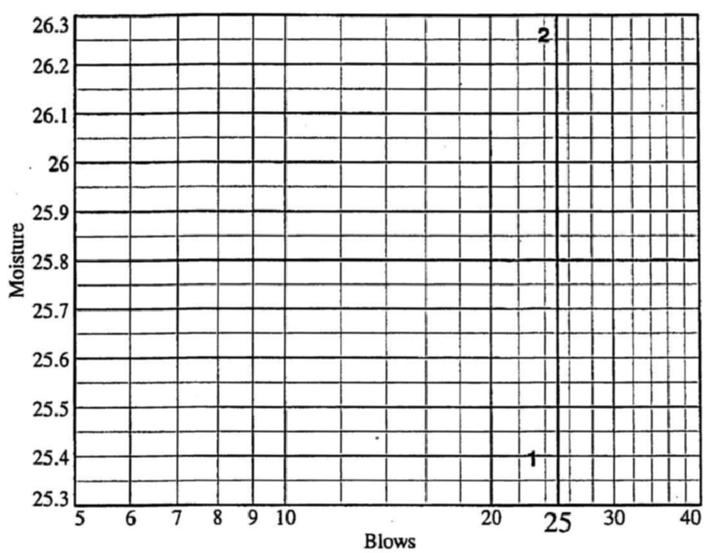
LIQUID AND PLASTIC LIMIT TEST DATA

1/24/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2251
Depth: 8.5-10' **Sample Number:** SS-4
Material Description: Yellowish Brown Silty, Clayey SAND
USCS: SC-SM **AASHTO:** A-4(0)
Tested by: CS **Checked by:** LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	28.29	22.15				
Dry+Tare	25.72	19.91				
Tare	15.60	11.38				
# Blows	23	24				
Moisture	25.4	26.3				



Liquid Limit= 26
Plastic Limit= 20
Plasticity Index= 6
Natural Moisture= 15.4
Liquidity Index= -0.8

Plastic Limit Data

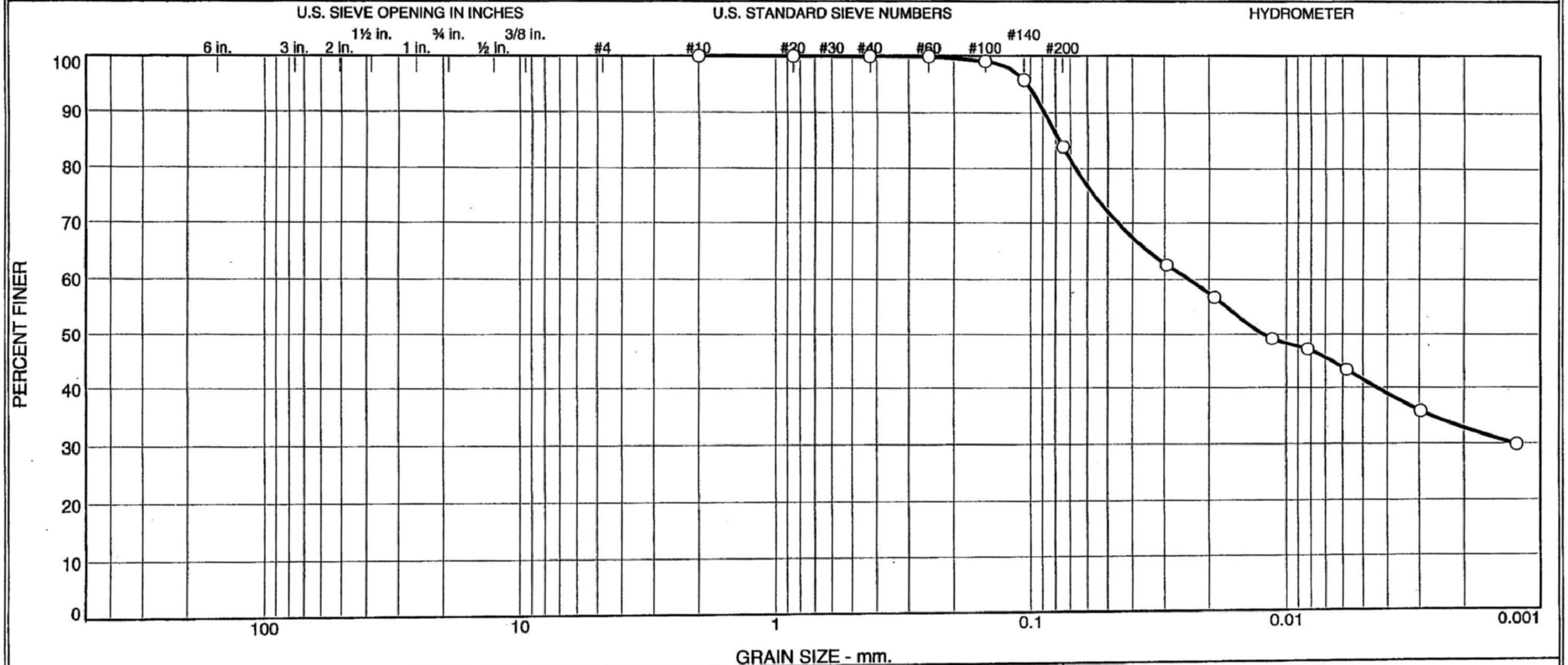
Run No.	1	2	3	4
Wet+Tare	22.47	22.27		
Dry+Tare	21.29	21.13		
Tare	15.52	15.49		
Moisture	20.5	20.2		

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
141.45	123.84	9.41	15.4

MACTEC, Inc.

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



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
O	0.0	0.0	0.0	0.0	0.1	16.0	42.4	41.5

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
O	Boring B-2251	SS-5	11-12.5'	12-03-07	CL	Yellowish Brown Lean CLAY with sand	20.6	36	17

Client Bechtel
Project Exelon Texas COL (Victoria)
Project No. 6468071777 Figure NA

MACTEC, Inc.
Raleigh, North Carolina

O Specific Gravity is assumed.
Organic Content = 3.4% (ASTM D2794-07)

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-2251
Depth: 11-12.5' **Sample Number:** SS-5
Material Description: Yellowish Brown Lean CLAY with sand
Date: 12-03-07 **Natural Moisture:** 20.6
Liquid Limit: 36 **Plastic Limit:** 17 **USCS Class.:** CL
Testing Remarks: Specific Gravity is assumed.
Organic Content = 3.4% (ASTM D2794-07)
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
166.94	0.00	0.00	#10	0.00	100.0
52.76	0.00	0.00	#20	0.02	100.0
			#40	0.05	99.9
			#60	0.06	99.9
			#100	0.52	99.0
			#140	2.25	95.7
			#200	8.47	83.9

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =52.76
Hygroscopic moisture correction:
Moist weight and tare = 28.50
Dry weight and tare = 28.20
Tare weight = 15.40
Hygroscopic moisture = 2.3%
Table of composite correction values:

Temp., deg. C:	12.3	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 x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	22.2	37.0	32.6	0.0131	38.0	10.1	0.0294	62.6
5.00	22.1	34.0	29.6	0.0131	35.0	10.6	0.0190	56.8
15.00	22.1	30.0	25.6	0.0131	31.0	11.2	0.0113	49.1
29.00	22.1	29.0	24.6	0.0131	30.0	11.4	0.0082	47.2
60.00	22.0	27.0	22.6	0.0131	28.0	11.7	0.0058	43.3
240.00	22.4	23.0	18.7	0.0131	24.0	12.4	0.0030	35.9
1440.00	22.0	20.0	15.6	0.0131	21.0	12.9	0.0012	29.9

MACTEC, Inc.

Fractional Components

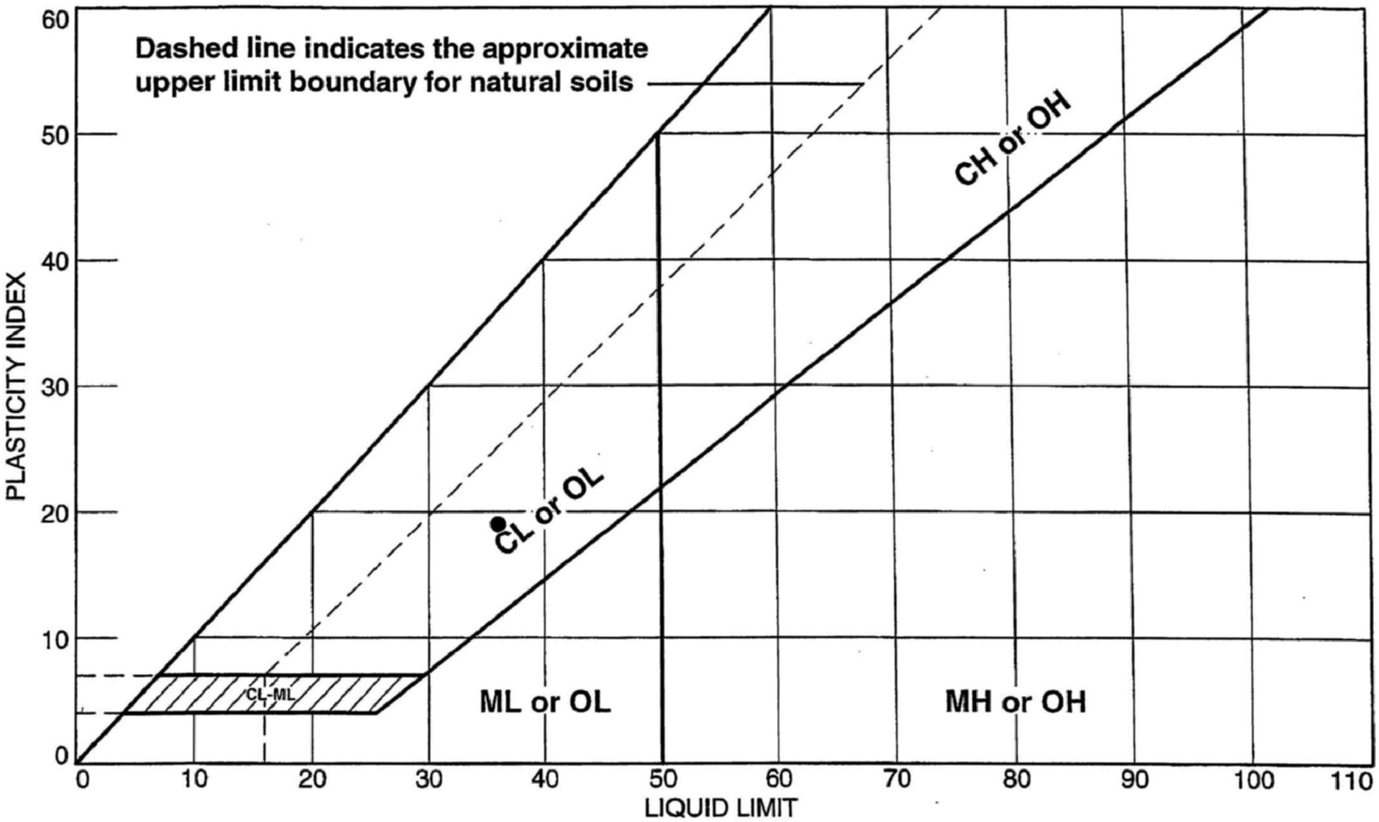
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.1	16.0	16.1	42.4	41.5	83.9

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
			0.0013	0.0123	0.0240	0.0668	0.0772	0.0881	0.1029

Fineness Modulus
0.01

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-2251	SS-5	11-12.5'	20.6	17	36	19	CL

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

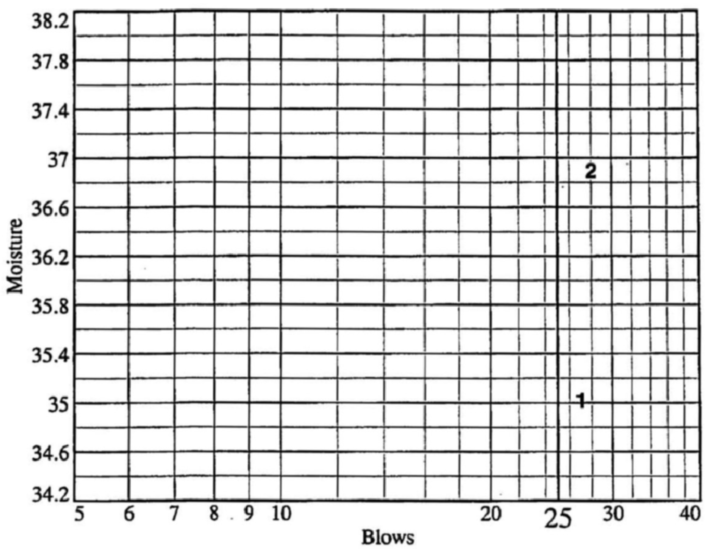
LIQUID AND PLASTIC LIMIT TEST DATA

1/24/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2251
Depth: 11-12.5' **Sample Number:** SS-5
Material Description: Yellowish Brown Lean CLAY with sand
USCS: CL **AASHTO:** A-6(15)
Tested by: CS **Checked by:** LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	24.49	23.81				
Dry+Tare	22.14	21.57				
Tare	15.43	15.50				
# Blows	27	28				
Moisture	35.0	36.9				



Liquid Limit= 36
Plastic Limit= 17
Plasticity Index= 19
Natural Moisture= 20.6
Liquidity Index= 0.2

Plastic Limit Data

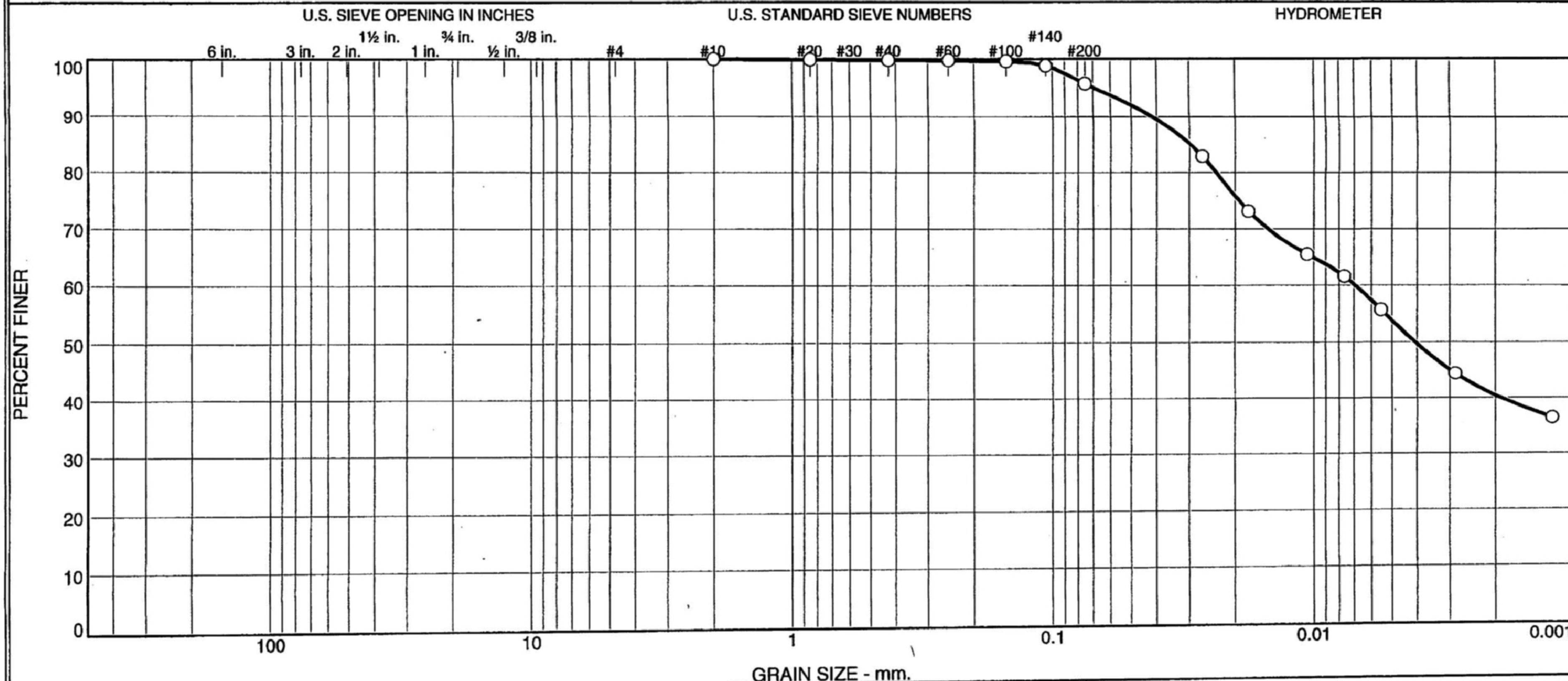
Run No.	1	2	3	4
Wet+Tare	22.85	24.23		
Dry+Tare	21.78	22.92		
Tare	15.59	15.51		
Moisture	17.3	17.7		

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
154.28	129.46	9.23	20.6

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	4.1	41.9	53.8

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	Boring B-2251	SS-6	13.5-15'	12-03-07	CL	Yellowish Brown Lean CLAY	22.8	44	16

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-2251
Depth: 13.5-15' **Sample Number:** SS-6
Material Description: Yellowish Brown Lean CLAY
Date: 12-03-07 **Natural Moisture:** 22.8
Liquid Limit: 44 **Plastic Limit:** 16 **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
213.51	0.00	0.00	#10	0.00	100.0
52.21	0.00	0.00	#20	0.05	99.9
			#40	0.09	99.8
			#60	0.13	99.8
			#100	0.23	99.6
			#140	0.60	98.9
			#200	2.22	95.7

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 =** 27.70
- **Dry weight and tare =** 27.40
- **Tare weight =** 15.51
- **Hygroscopic moisture =** 2.5%

Table of composite correction values:

Temp., deg. C:	12.3	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 x **Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	22.5	47.0	42.7	0.0130	48.0	8.4	0.0268	83.0
5.00	22.4	42.0	37.7	0.0131	43.0	9.2	0.0177	73.2
15.00	22.5	38.0	33.7	0.0130	39.0	9.9	0.0106	65.5
30.00	22.5	36.0	31.7	0.0130	37.0	10.2	0.0076	61.6
60.00	22.4	33.0	28.7	0.0131	34.0	10.7	0.0055	55.7
240.00	23.1	27.0	22.9	0.0129	28.0	11.7	0.0029	44.4
1440.00	22.6	23.0	18.7	0.0130	24.0	12.4	0.0012	36.4

MACTEC, Inc.

Fractional Components

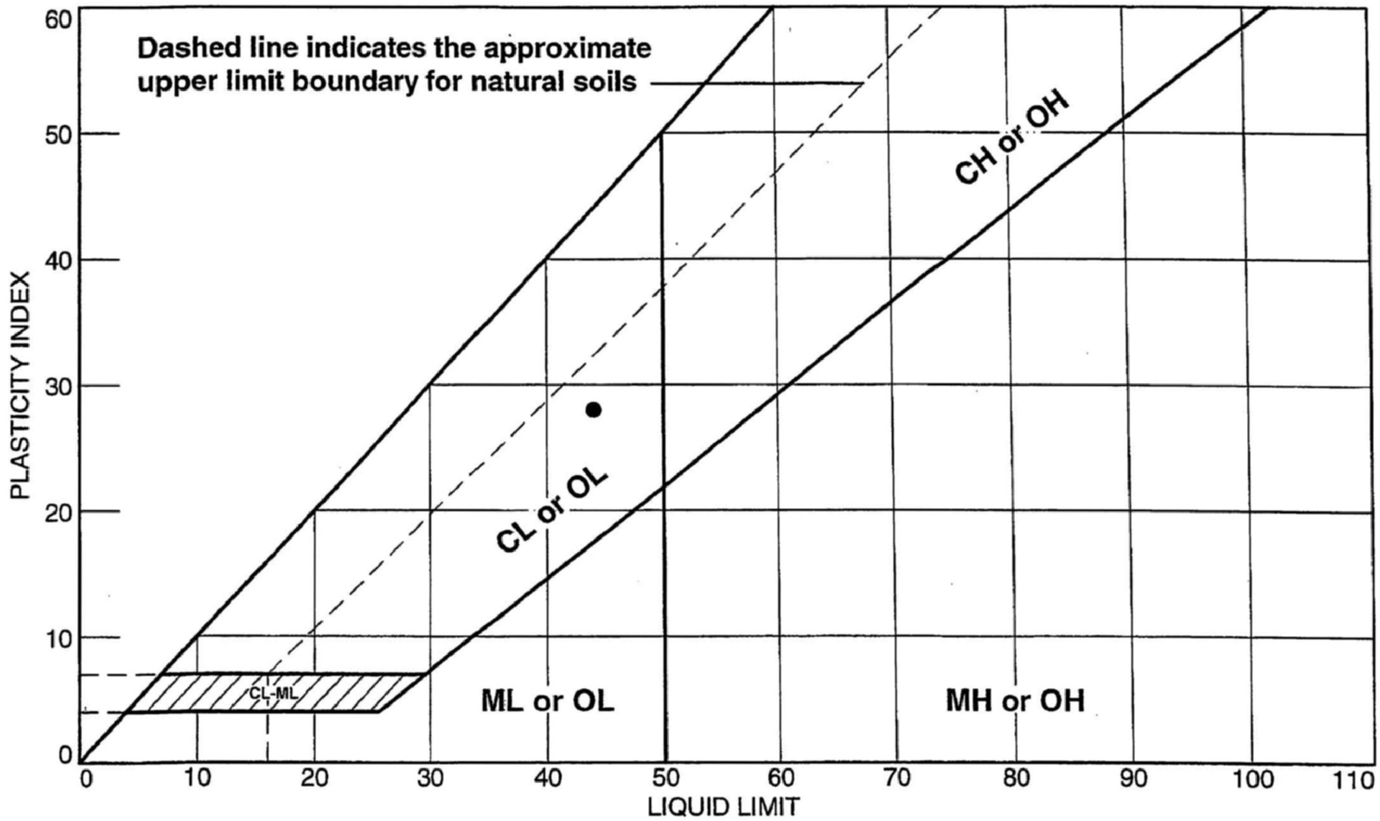
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.2	4.1	4.3	41.9	53.8	95.7

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
				0.0041	0.0069	0.0236	0.0296	0.0414	0.0694

Fineness Modulus
0.01

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-2251	SS-6	13.5-15'	22.8	16	44	28	CL

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

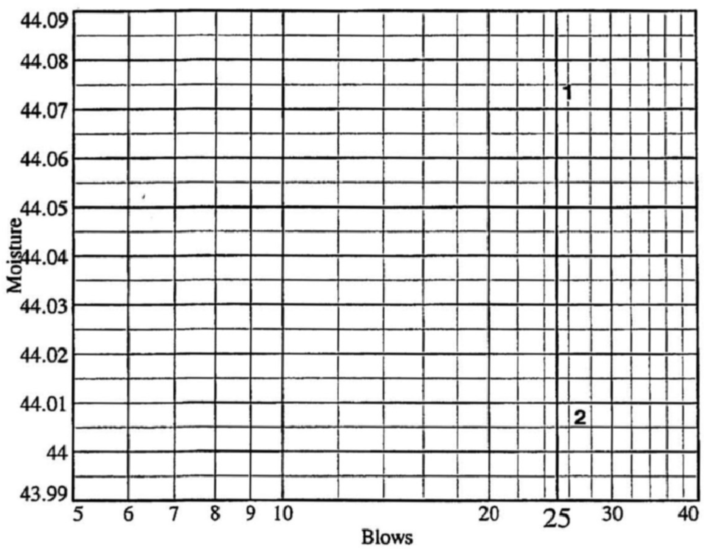
LIQUID AND PLASTIC LIMIT TEST DATA

1/24/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2251
Depth: 13.5-15' **Sample Number:** SS-6
Material Description: Yellowish Brown 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	24.10	19.16				
Dry+Tare	21.46	16.70				
Tare	15.47	11.11				
# Blows	26	27				
Moisture	44.1	44.0				



Liquid Limit= 44
Plastic Limit= 16
Plasticity Index= 28
Natural Moisture= 22.8
Liquidity Index= 0.2

Plastic Limit Data

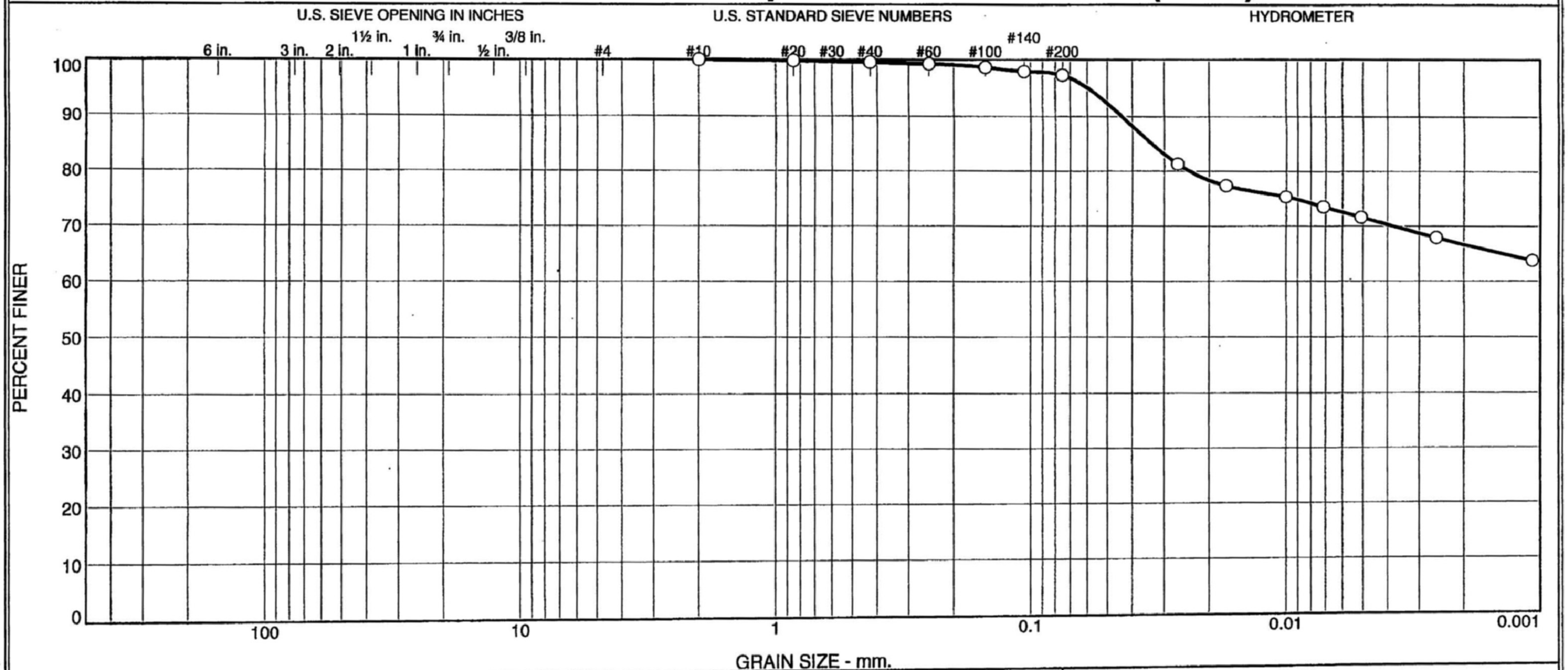
Run No.	1	2	3	4	
Wet+Tare	21.58	22.80			
Dry+Tare	20.71	21.86			
Tare	15.48	15.70			
Moisture	16.6	15.3			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
112.89	93.22	6.91	22.8

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	0.5	2.2	25.8	71.5

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	Boring B-2251	SS-7	18.5-20'	12-03-07	CH	Yellowish Brown Fat CLAY	30.7	84	28

Client Bechtel

Project Exelon Texas COL (Victoria)

Project No. 6468071777 Figure NA

MACTEC, Inc.

Raleigh, North Carolina

○ Specific Gravity = 2.750 (ASTM D854-06)
Organic content = 7.8% (ASTM D2794-07)

Tested By: CS **Checked By:** LBJ DSC 1-25-08