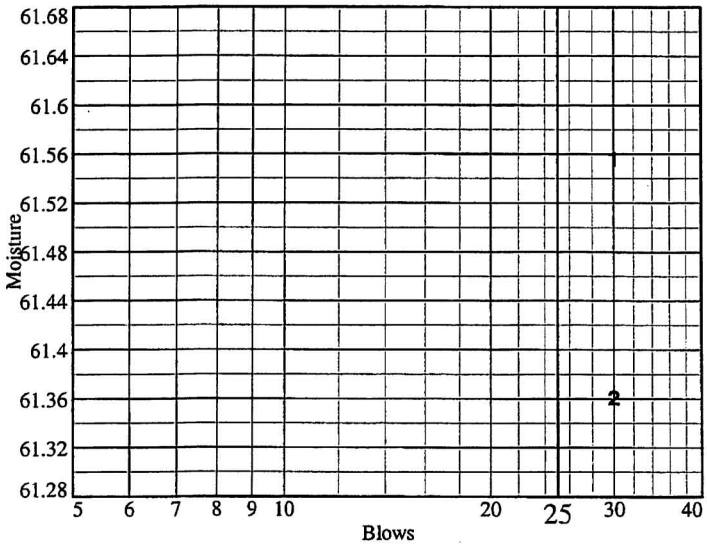
LIQUID AND PLASTIC LIMIT TEST DATA

2/26/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria Reservoir)
Project Number: 6468071777
Location: Boring B-2359
Depth: 109.8-111.3 **Sample Number:** SS-24
Material Description: Brownish Yellow Fat CLAY
USCS: CH **AASHTO:** A-7-6(43)
Tested by: CS **Checked by:** LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	25.13	30.21				
Dry+Tare	19.83	24.62				
Tare	11.22	15.51				
# Blows	30	30				
Moisture	61.6	61.4				



Liquid Limit= 63
Plastic Limit= 19
Plasticity Index= 44
Natural Moisture= 26.6
Liquidity Index= 0.2

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	24.30	23.61			
Dry+Tare	22.89	22.30			
Tare	15.55	15.47			
Moisture	19.2	19.2			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
122.64	98.81	9.16	26.6

MACTEC, Inc.

MACTEC ENGINEERING AND CONSULTING, INC.
RALEIGH, NORTH CAROLINA

REPORT OF THE STANDARD TEST METHOD FOR SPECIFIC GRAVITY OF SOILS
Performed in General Accordance with ASTM D 854-06 (Method B)

PROJECT NAME:EXELON COL PROJECT (VICTORIA)

PROJECT NUMBER: 6468071777

DATE: 2/14/08

SAMPLE IDENTIFICATION: B-2359 SS-24

(A) Mass of oven-dried soil, grams:		49.13
(B) Mass of pycnometer filled with water at test temperature (T), grams:		655.65
(C) Mass of pycnometer, water and soil, grams:		686.51
(T) Temperature of pycnometer, water and soil, °C when mass (C) determined:		22.2
(G) Specific Gravity at observed temperature:	A / [B - (C - A)]	2.689
(F)	***Correction factor:***	0.99952
(G x F)	**SPECIFIC GRAVITY @ 20°C:**	2.688

MATERIAL TESTED: [X] **- # 4** [ ] **- # 10**

PREPARATION METHOD: [X] **DRY** [ ] **WET (dispersed)**

REMARKS: Estimated % Passing # 4 :

Fat CLAY (CH)

EQUIPMENT USED

SCALES : 3.1.99

OVEN : 5.1.16

THERMOMETER :5.1.01

PYCNOMETER : P-3

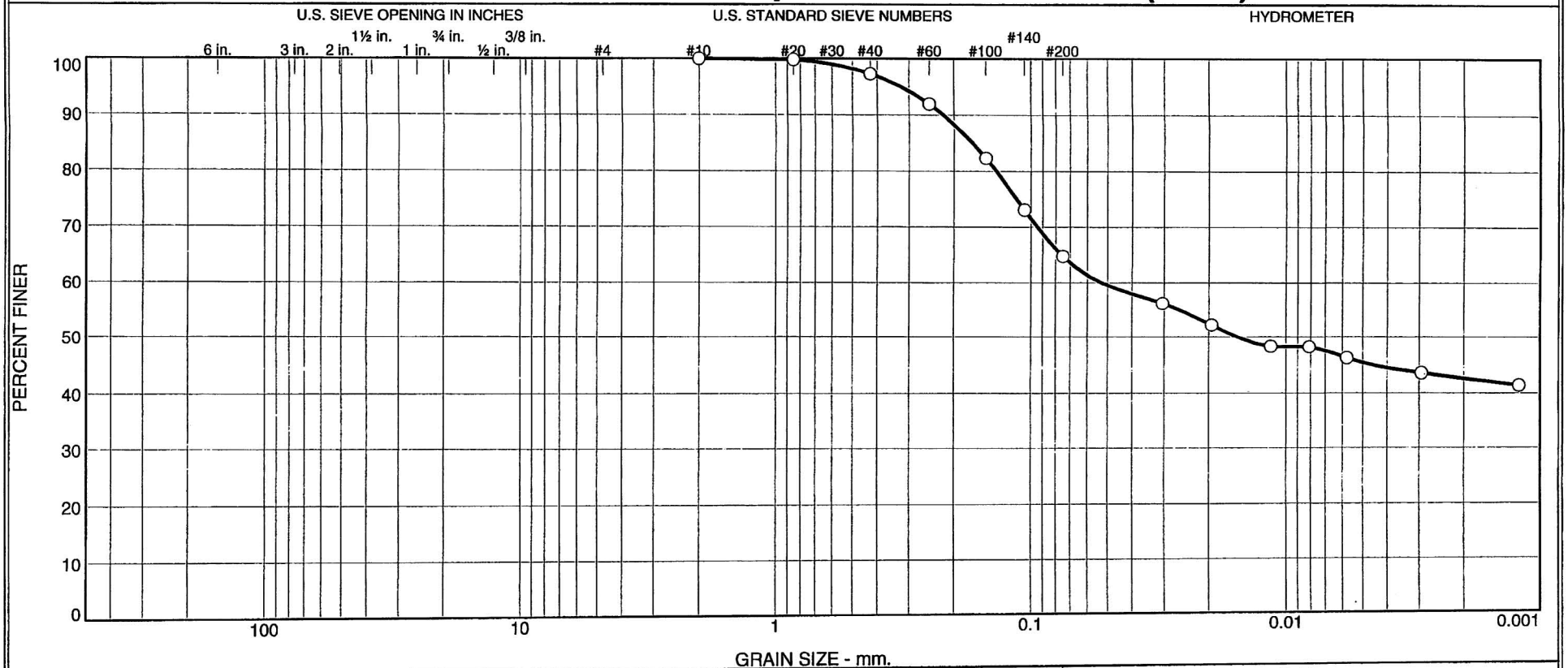
TESTED BY: CS

\Test Reports\Soils\SPECIFIC GRAVITY(ref).xls

REVIEWED BY: **Brian Johnson**

DSC 2-27-08

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	2.7	32.5	19.5	45.3

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	Boring B-2359	SS-25	119.8-121.3	1-3-08	CH	Greenish Gray Sandy Fat CLAY	21.0	54	18

Client Bechtel

Project Exelon Texas COL (Victoria Reservoir)

Project No. 6468071777 Figure N4

MACTEC, Inc.

Raleigh, North Carolina

○ Specific Gravity is assumed

Tested By: CS **Checked By:** LBJ DSC 2-27-08

GRAIN SIZE DISTRIBUTION TEST DATA

2/26/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria Reservoir)
Project Number: 6468071777
Location: Boring B-2359
Depth: 119.8-121.3 **Sample Number:** SS-25
Material Description: Greenish Gray Sandy Fat CLAY
Date: 1-3-08 **Natural Moisture:** 21.0
Liquid Limit: 54 **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
263.33	0.00	0.00	#10	0.00	100.0
52.10	0.00	0.00	#20	0.10	99.8
			#40	1.40	97.3
			#60	4.20	91.9
			#100	9.18	82.4
			#140	14.02	73.1
			#200	18.34	64.8

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =52.10
Hygroscopic moisture correction:
Moist weight and tare = 28.81
Dry weight and tare = 28.18
Tare weight = 15.77
Hygroscopic moisture = 5.1%
Table of composite correction values:

Temp., deg. C:	12.9	29.9
Comp. corr.:	-8.0	-2.0

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	21.9	33.0	28.2	0.0131	34.0	10.7	0.0304	56.2
5.00	21.9	31.0	26.2	0.0131	32.0	11.0	0.0195	52.2
15.00	21.9	29.0	24.2	0.0131	30.0	11.4	0.0114	48.2
30.00	21.8	29.0	24.1	0.0131	30.0	11.4	0.0081	48.1
60.00	21.8	28.0	23.1	0.0131	29.0	11.5	0.0058	46.2
240.00	20.9	27.0	21.8	0.0133	28.0	11.7	0.0029	43.5
1440.00	20.7	26.0	20.8	0.0133	27.0	11.9	0.0012	41.4

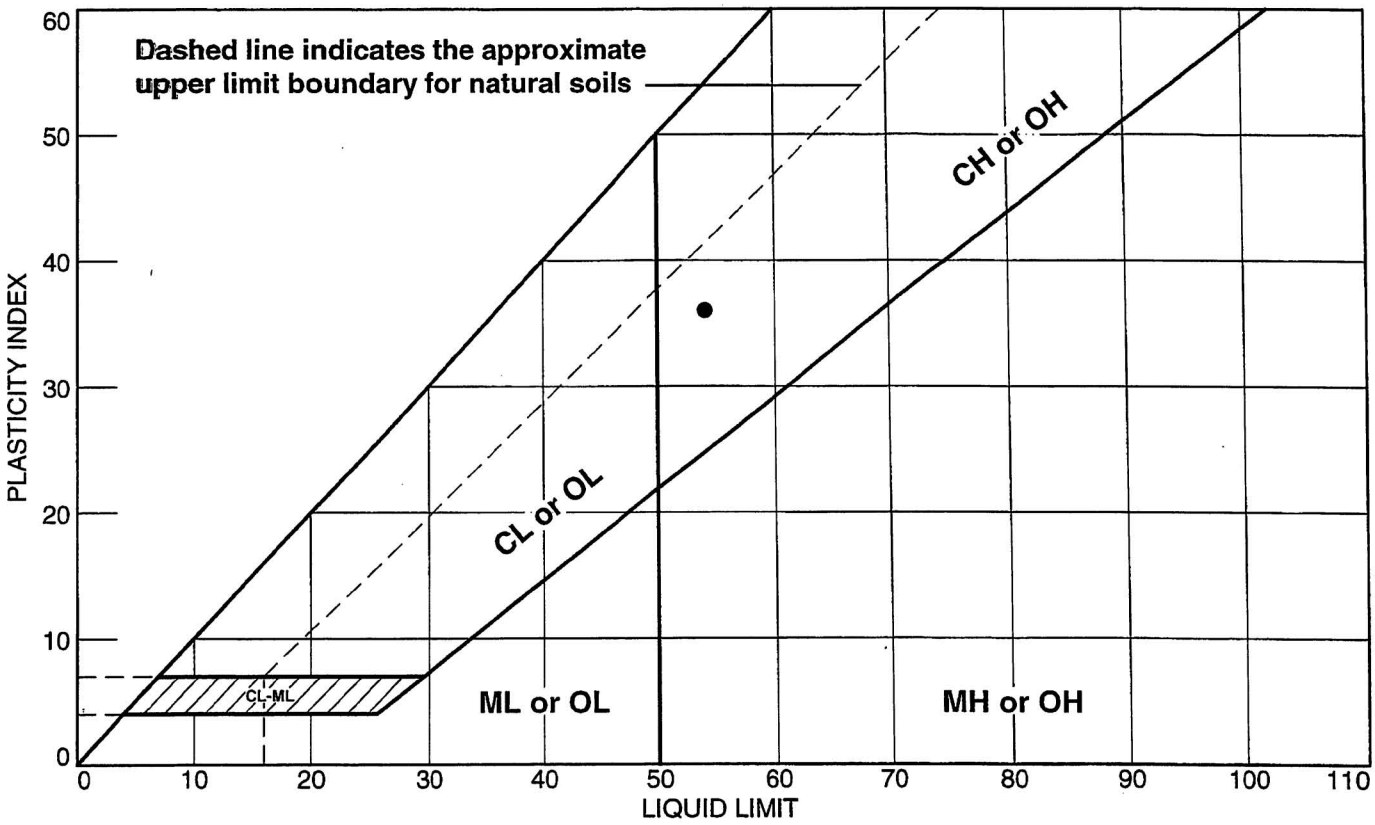
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	2.7	32.5	35.2	19.5	45.3	64.8

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
				0.0155	0.0528	0.1366	0.1681	0.2196	0.3227

Fineness Modulus
0.24

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-2359	SS-25	119.8-121.3	21.0	18	54	36	CH

MACTEC, Inc.

Raleigh, North Carolina

Client: Bechtel

Project: Exelon Texas COL (Victoria Reservoir)

Project No.: 6468071777

Figure N/A

Tested By: CS **Checked By:** LBJ DSC 2-27-08

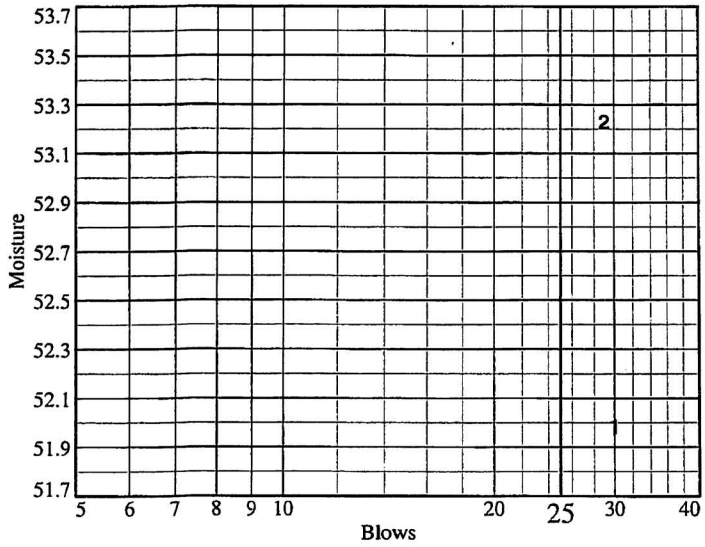
LIQUID AND PLASTIC LIMIT TEST DATA

2/26/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria Reservoir)
Project Number: 6468071777
Location: Boring B-2359
Depth: 119.8-121.3 **Sample Number:** SS-25
Material Description: Greenish Gray Sandy Fat CLAY
USCS: CH **AASHTO:** A-7-6(21)
Tested by: CS **Checked by:** LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	32.05	32.63				
Dry+Tare	26.42	26.70				
Tare	15.59	15.56				
# Blows	30	29				
Moisture	52.0	53.2				



Liquid Limit= 54
Plastic Limit= 18
Plasticity Index= 36
Natural Moisture= 21.0
Liquidity Index= 0.1

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	24.70	24.37			
Dry+Tare	23.26	22.98			
Tare	15.42	15.45			
Moisture	18.4	18.5			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
105.42	88.27	6.79	21.0

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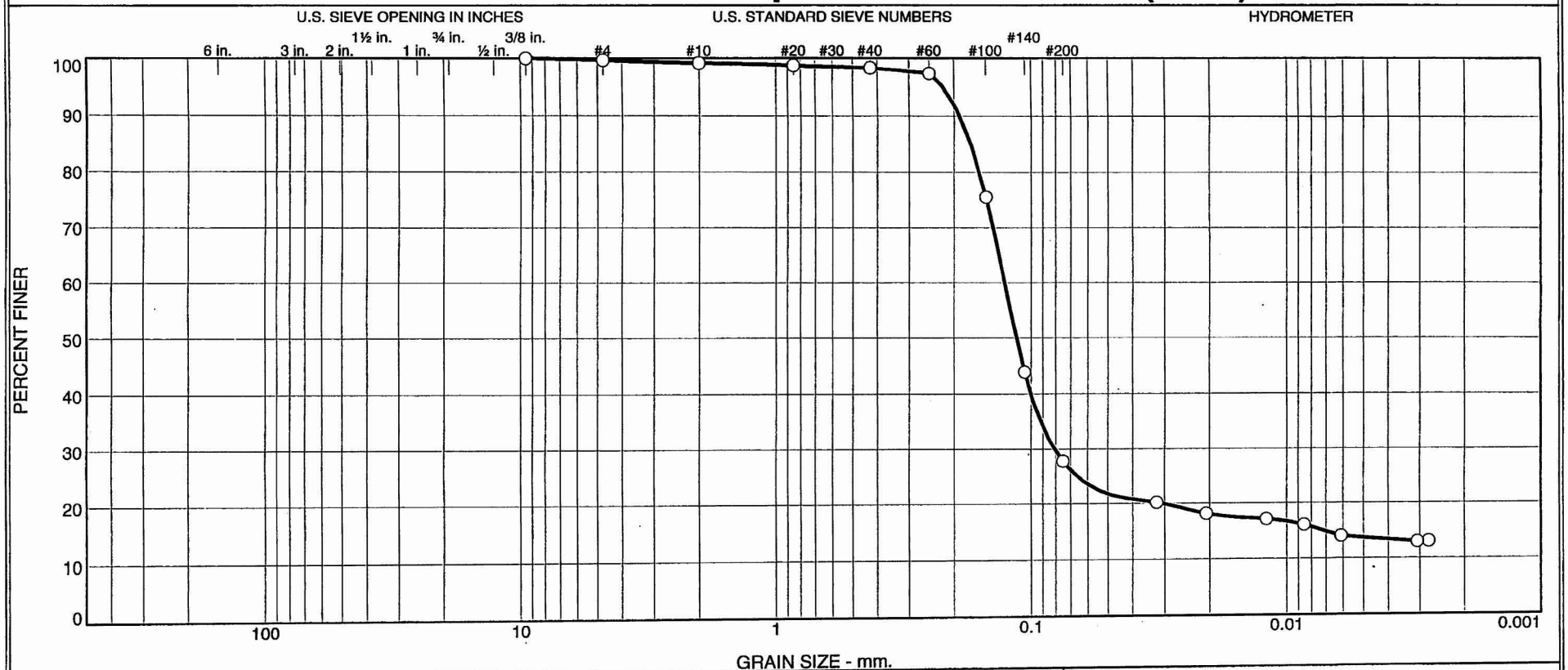
Particle Size Distribution Report / ASTM D 422-63(2002)e1



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.3	0.5	0.9	70.5	14.1	13.7

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	Boring B-2359	SS-26	129.8-131.3	1-04-08	SC	Light Gray Clayey SAND (Visual)	ND	ND	ND

Client Bechtel

Project Exelon Texas COL (Victoria)

Project No. 6468071777 Figure N4

MACTEC, Inc.

Raleigh, North Carolina

○ Specific Gravity is assumed
SIEVE ANALYSIS AND HYDROMETER ONLY
ND = Not Determined

Tested By: CS **Checked By:** LBJ DSC 2-27-08

GRAIN SIZE DISTRIBUTION TEST DATA

2/27/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2359
Depth: 129.8-131.3 **Sample Number:** SS-26
Material Description: Light Gray Clayey SAND (Visual)
Date: 1-04-08 **Natural Moisture:** ND
Liquid Limit: ND **Plastic Limit:** ND **USCS Class.:** SC
Testing Remarks: Specific Gravity is assumed
SIEVE ANALYSIS AND HYDROMETER 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
225.53	0.00	0.00	3/8"	0.00	100.0
			#4	0.75	99.7
			#10	1.89	99.2
97.16	0.00	0.00	#20	0.42	98.7
			#40	0.80	98.3
			#60	1.77	97.4
			#100	23.17	75.5
			#140	54.22	43.8
			#200	69.96	27.8

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 99.2
Weight of hydrometer sample =97.16
Hygroscopic moisture correction:
Moist weight and tare = 27.80
Dry weight and tare = 27.62
Tare weight = 15.50
Hygroscopic moisture = 1.5%
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 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	22.6	24.0	19.7	0.0130	25.0	12.2	0.0322	20.2
5.00	22.6	22.0	17.7	0.0130	23.0	12.5	0.0206	18.1
15.00	22.6	21.0	16.7	0.0130	22.0	12.7	0.0120	17.1
30.00	22.5	20.0	15.7	0.0130	21.0	12.9	0.0085	16.1
60.00	22.5	18.0	13.7	0.0130	19.0	13.2	0.0061	14.0
240.00	22.5	17.0	12.7	0.0130	18.0	13.3	0.0031	13.0
294.00	22.8	17.0	12.8	0.0130	18.0	13.3	0.0028	13.1

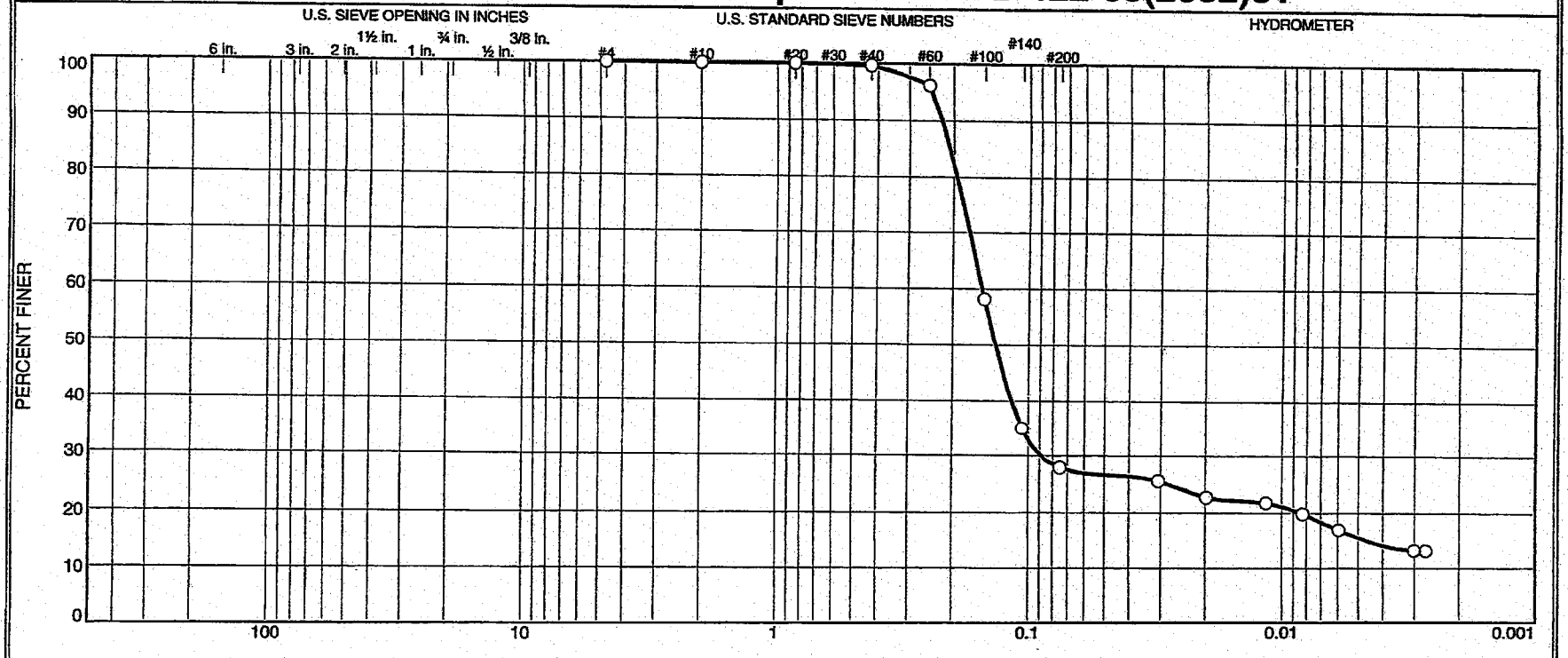
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.3	0.3	0.5	0.9	70.5	71.9	14.1	13.7	27.8

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
	0.0072	0.0307	0.0811	0.1141	0.1268	0.1591	0.1719	0.1900	0.2207

Fineness Modulus
0.30

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	71.7	12.4	15.6

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	Boring B-2359	SS-27	139.8-141.3	1-04-08	SC	Pale Brown Clayey SAND (Visual)	ND	ND	ND

Client Bechtel

Project Exelon Texas COL (Victoria)

Project No. 6468071777 Figure N4

MACTEC, Inc.

Raleigh, North Carolina

○ Specific Gravity is assumed
SIEVE ANALYSIS AND HYDROMETER ONLY
ND = Not Determined

Tested By: CS **Checked By:** LBJ DSC 2-27-08

GRAIN SIZE DISTRIBUTION TEST DATA

2/27/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2359
Depth: 139.8-141.3 **Sample Number:** SS-27
Material Description: Pale Brown Clayey SAND (Visual)
Date: 1-04-08 **Natural Moisture:** ND
Liquid Limit: ND **Plastic Limit:** ND **USCS Class.:** SC
Testing Remarks: Specific Gravity is assumed
SIEVE ANALYSIS AND HYDROMETER 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
253.72	0.00	0.00	#4	0.00	100.0
			#10	0.09	100.0
103.57	0.00	0.00	#20	0.03	99.9
			#40	0.31	99.7
			#60	3.96	96.1
			#100	43.26	58.2
			#140	67.35	35.0
			#200	74.60	28.0

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =103.57
Hygroscopic moisture correction:
Moist weight and tare = 29.40
Dry weight and tare = 29.29
Tare weight = 15.50
Hygroscopic moisture = 0.8%
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 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	22.5	31.0	26.7	0.0130	32.0	11.0	0.0306	25.7
5.00	22.5	28.0	23.7	0.0130	29.0	11.5	0.0198	22.8
15.00	22.5	27.0	22.7	0.0130	28.0	11.7	0.0115	21.8
30.00	22.5	25.0	20.7	0.0130	26.0	12.0	0.0083	19.9
60.00	22.6	22.0	17.7	0.0130	23.0	12.5	0.0059	17.0
245.00	23.0	18.0	13.8	0.0130	19.0	13.2	0.0030	13.3
303.00	22.9	18.0	13.8	0.0130	19.0	13.2	0.0027	13.3

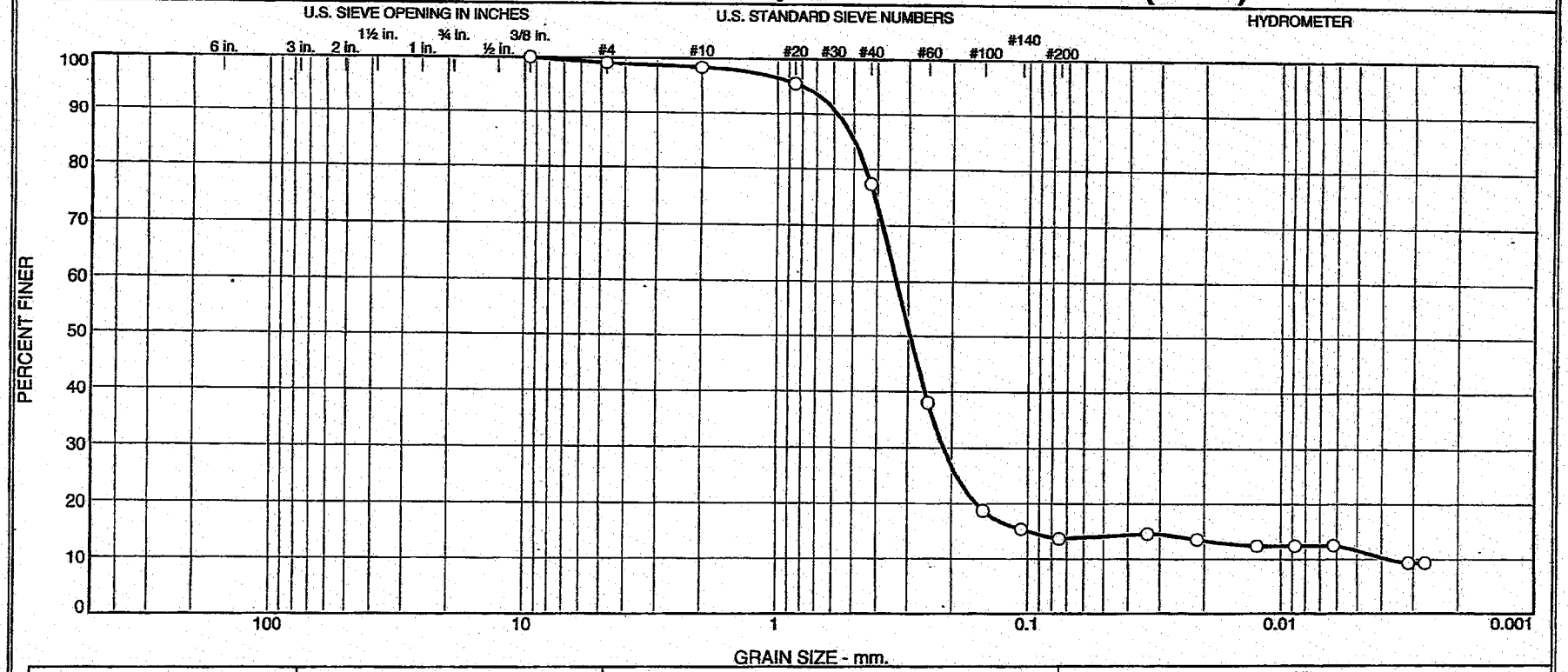
Fractional Components

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	71.7	72.0	12.4	15.6	28.0

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
	0.0046	0.0084	0.0896	0.1354	0.1532	0.1940	0.2071	0.2228	0.2437

Fineness Modulus
0.44

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	0.9	0.8	20.9	63.7	2.1	11.6

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	Boring B-2359	SS-28	149.8-151.3	1-04-08	SC	Light Brownish Gray Clayey SAND (Visual)	ND	ND	ND

Client Bechtel

Project Exelon Texas COL (Victoria)

Project No. 6468071777 Figure NA

MACTEC, Inc.

Raleigh, North Carolina

○ Specific Gravity is assumed
SIEVE ANALYSIS AND HYDROMETER ONLY
ND = Not Determined

Tested By: CS Checked By: LBJ DSC 2-27-08

GRAIN SIZE DISTRIBUTION TEST DATA

2/27/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2359
Depth: 149.8-151.3 **Sample Number:** SS-28
Material Description: Light Brownish Gray Clayey SAND (Visual)
Date: 1-04-08 **Natural Moisture:** ND
Liquid Limit: ND **Plastic Limit:** ND **USCS Class.:** SC
Testing Remarks: Specific Gravity is assumed
SIEVE ANALYSIS AND HYDROMETER 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
233.96	0.00	0.00	3/8"	0.00	100.0
			#4	2.20	99.1
			#10	3.87	98.3
95.33	0.00	0.00	#20	2.78	95.5
			#40	20.33	77.4
			#60	58.39	38.1
			#100	77.18	18.7
			#140	80.36	15.4
			#200	82.05	13.7

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 98.3
Weight of hydrometer sample =95.33
Hygroscopic moisture correction:
Moist weight and tare = 28.20
Dry weight and tare = 27.60
Tare weight = 15.60
Hygroscopic moisture = 5.0%
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 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	22.5	18.0	13.7	0.0130	19.0	13.2	0.0335	14.6
5.00	22.5	17.0	12.7	0.0130	18.0	13.3	0.0213	13.6
15.00	22.4	16.0	11.6	0.0131	17.0	13.5	0.0124	12.5
30.00	22.4	16.0	11.6	0.0131	17.0	13.5	0.0088	12.5
60.00	22.6	16.0	11.7	0.0130	17.0	13.5	0.0062	12.5
240.00	22.8	13.0	8.8	0.0130	14.0	14.0	0.0031	9.4
324.00	22.8	13.0	8.8	0.0130	14.0	14.0	0.0027	9.4

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.9	0.9	0.8	20.9	63.7	85.4	2.1	11.6	13.7

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
0.0038	0.0985	0.1605	0.2162	0.2946	0.3341	0.4451	0.4950	0.5761	0.7979

Fineness Modulus	C_u	C_c
1.44	88.61	37.12

Organic Content – Split Spoon Samples

MACTEC

ORGANIC CONTENT TEST REPORT

(ASTM D2974-07)

Project No. 6468071777 **Project Name** Exelon COL

Tested By CS **Reviewed By** LBJ

Test Date 1/29/2008 **Review Date** 2/6/2008

Boring No.	B-2302A	B-2302A	B-2302A	
Sample No.	SS-1	SS-2B	SS-3	
Sample Depth, Ft.	0.0-1.5	3.5-5.0	6.0-7.5	
A) Tare No.	2B	309	JP11	
B) Tare Weight, grams	9.26	9.39	6.81	
C) Wet Soil + Tare, grams	109.65	191.04	141.23	
D) Dry Soil + Tare, grams	99.44	164.22	121.14	
E) Weight of Dry Soil, grams [D - B]	90.18	154.83	114.33	
F) Weight of Moisture, grams [C - D]	10.21	26.82	20.09	
G) Moisture Content, % [F * 100 / E]	11.3	17.3	17.6	
(based on oven-dried weight)				
H) Tare No.	G	S	L	
I) Weight of Tare, grams	53.08	53.41	51.50	
J) Weight of Over-Dried Soil + Tare, grams	143.00	154.25	165.86	
K) Weight of Oven- Dried Soil, grams [J - I]	89.92	100.84	114.36	
L) Weight of Ignited Soil + Tare, grams	141.09	152.48	164.37	
M) Ash, grams [L - I]	88.01*	99.07	112.87	
N) Ash Content, % [M *100 / K]	97.9	98.2	98.7	
O) Organic Matter, % [100 - N]	**2.1**	**1.8**	**1.3**	

Remarks: Furnace temperature set @ 440° C

KAW 5/12/08

Equipment used:

oven: 5.1.16 muffle furnace 5.1.17

scales: 3.1.19

MACTEC

ORGANIC CONTENT TEST REPORT

(ASTM D2974-07)

Project No. 6468071777 **Project Name** Exelon COL

Tested By CS **Reviewed By** LBJ DSC

Test Date 1/30/2007 **Review Date** 2/8/2008 2-28-08

Boring No.	B-2304	B-2304	B-2304	
Sample No.	SS-1	SS-2	SS-3	
Sample Depth, Ft.	0.0-1.5	3.5-5.0	6.0-7.5	
A) Tare No.	309	JP-7	L	
B) Tare Weight, grams	9.50	6.80	7.08	
C) Wet Soil + Tare, grams	84.30	195.01	119.69	
D) Dry Soil + Tare, grams	72.49	165.01	101.86	
E) Weight of Dry Soil, grams [D - B]	62.99	158.21	94.78	
F) Weight of Moisture, grams [C - D]	11.81	30.00	17.83	
G) Moisture Content, % [F * 100 / E]	18.7	19.0	18.8	
(based on oven-dried weight)				

H) Tare No.	N	S	L	
I) Weight of Tare, grams	55.57	53.43	51.56	
J) Weight of Over-Dried Soil + Tare, grams	118.84	158.36	146.24	
K) Weight of Oven- Dried Soil, grams [J - I]	63.27	104.93	94.68	
L) Weight of Ignited Soil + Tare, grams	116.86	156.54	145.12	
M) Ash, grams [L - I]	61.29	103.11	93.56	
N) Ash Content, % [M *100 / K]	96.9	98.3	98.8	
O) Organic Matter, % [100 - N]	**3.1**	**1.7**	**1.2**	

Remarks: Furnace temperature set @ 440° C

Equipment used:

oven: 5.1.16 muffle furnace 5.1.17

scales: 3.1.19

ORIGINAL

MACTEC

ORGANIC CONTENT TEST REPORT

(ASTM D2974-07)

Project No. 6468071777 **Project Name** Exelon COL

Tested By CS **Reviewed By** LBJ DSC

Test Date 2/1/2008 **Review Date** 2/14/2008 2-28-08

Boring No.	B-2319	B-2319	B-2319	
Sample No.	SS-1	SS-2	SS-3	
Sample Depth, Ft.	0.0-1.5	3.5-5.0	6.0-7.5	
A) Tare No.	77	JP-22	ORANGE	
B) Tare Weight, grams	6.65	6.76	9.16	
C) Wet Soil + Tare, grams	129.13	145.11	177.24	
D) Dry Soil + Tare, grams	110.28	127.17	155.13	
E) Weight of Dry Soil, grams [D - B]	103.63	120.41	145.97	
F) Weight of Moisture, grams [C - D]	18.85	17.94	22.11	
G) Moisture Content, % [F * 100 / E]	18.2	14.9	15.1	
(based on oven-dried weight)				
H) Tare No.	G	L	H	
I) Weight of Tare, grams	53.07	51.57	52.10	
J) Weight of Over-Dried Soil + Tare, grams	156.88	168.27	146.98	
K) Weight of Oven- Dried Soil, grams [J - I]	103.81	116.70	94.88	
L) Weight of Ignited Soil + Tare, grams	153.94	166.44	145.13	
M) Ash, grams [L - I]	100.87	114.87	93.03	
N) Ash Content, % [M *100 / K]	97.2	98.4	98.1	
O) Organic Matter, % [100 - N]	**2.8**	**1.6**	**1.9**	

Remarks: Furnace temperature set @ 440° C

Equipment used:

oven: 5.1.16 muffle furnace 5.1.17

scales: 3.1.19

MACTEC

ORGANIC CONTENT TEST REPORT

(ASTM D2974-07)

Project No. 6468071777 **Project Name** Exelon COL

Tested By CS **Reviewed By** LBJ DSC

Test Date 2/1/2008 **Review Date** 2/18/2008 2-20-08

Boring No.	B-2321	B-2321	B-2321	
Sample No.	SS-1	SS-2	SS-3	
Sample Depth, Ft.	0.0-1.5	3.5-5.0	6.0-7.5	
A) Tare No.	84	H	XY	
B) Tare Weight, grams	6.63	6.53	7.02	
C) Wet Soil + Tare, grams	138.33	200.89	128.56	
D) Dry Soil + Tare, grams	116.93	165.13	109.80	
E) Weight of Dry Soil, grams [D - B]	110.30	158.60	102.78	
F) Weight of Moisture, grams [C - D]	21.40	35.76	18.76	
G) Moisture Content, % [F * 100 / E]	19.4	22.5	18.3	
(based on oven-dried weight)				
H) Tare No.	G	L	H	
I) Weight of Tare, grams	53.06	51.51	52.00	
J) Weight of Over-Dried Soil + Tare, grams	146.66	159.06	155.36	
K) Weight of Oven- Dried Soil, grams [J - I]	93.60	107.55	103.36	
L) Weight of Ignited Soil + Tare, grams	141.65	156.86	153.68	
M) Ash, grams [L - I]	88.59	105.35	101.68	
N) Ash Content, % [M *100 / K]	94.6	98.0	98.4	
O) Organic Matter, % [100 - N]	**5.4**	**2.0**	**1.6**	

Remarks: Furnace temperature set @ 440° C

Equipment used:

oven: 5.1.16 muffle furnace 5.1.17

scales: 3.1.19

MACTEC

ORGANIC CONTENT TEST REPORT

(ASTM D2974-07)

Project No. 6468071777 **Project Name** Exelon COL

Tested By CS **Reviewed By** LBJ

Test Date 2/7/2008 **Review Date** 2/18/2008

Boring No.	B-2352	B-2352	B-2352	
Sample No.	SS-1	SS-2	SS-3	
Sample Depth, Ft.	0.0-1.5	3.5-5.0	6.0-7.5	
A) Tare No.	TT	XY	2B	
B) Tare Weight, grams	6.69	6.89	9.30	
C) Wet Soil + Tare, grams	101.28	124.12	182.79	
D) Dry Soil + Tare, grams	83.73	107.18	155.28	
E) Weight of Dry Soil, grams [D - B]	77.04	100.29	145.98	
F) Weight of Moisture, grams [C - D]	17.55	16.94	27.51	
G) Moisture Content, % [F * 100 / E]	22.8	16.9	18.8	
(based on oven-dried weight)				
H) Tare No.	L	Q	G	
I) Weight of Tare, grams	51.50	51.13	53.00	
J) Weight of Over-Dried Soil + Tare, grams	128.21	151.38	144.58	
K) Weight of Oven- Dried Soil, grams [J - I]	76.71	100.25	91.58	
L) Weight of Ignited Soil + Tare, grams	124.15	149.59	142.89	
M) Ash, grams [L - I]	72.65	98.46	89.89	
N) Ash Content, % [M *100 / K]	94.7	98.2	98.2	
O) Organic Matter, % [100 - N]	**5.3**	**1.8**	**1.8**	

Remarks: Furnace temperature set @ 440° C

Equipment used:

oven: 5.1.16 muffle furnace 5.1.17

scales: 3.1.19

MACTEC

ORGANIC CONTENT TEST REPORT

(ASTM D2974-07)

Project No. 6468071777 **Project Name** Exelon COL

Tested By CS **Reviewed By** LBJ

Test Date 2/18/2008 **Review Date** 2/19/2008

Boring No.	B-2359	B-2359	B-2359	
Sample No.	SS-1	SS-2	SS-3	
Sample Depth, Ft.	0.0-1.5	3.5-5.0	6.0-7.5	
A) Tare No.	55	QQ	V	
B) Tare Weight, grams	7.05	6.87	6.99	
C) Wet Soil + Tare, grams	114.33	114.08	176.88	
D) Dry Soil + Tare, grams	105.40	97.21	149.74	
E) Weight of Dry Soil, grams [D - B]	98.35	90.34	142.75	
F) Weight of Moisture, grams [C - D]	8.93	16.87	27.14	
G) Moisture Content, % [F * 100 / E]	9.1	18.7	19.0	
(based on oven-dried weight)				
H) Tare No.	G	L	Q	
I) Weight of Tare, grams	53.10	51.53	51.13	
J) Weight of Over-Dried Soil + Tare, grams	151.36	141.34	160.19	
K) Weight of Oven- Dried Soil, grams [J - I]	98.26	89.81	109.06	
L) Weight of Ignited Soil + Tare, grams	149.32	139.83	158.60	
M) Ash, grams [L - I]	96.22	88.30	107.47	
N) Ash Content, % [M *100 / K]	97.9	98.3	98.5	
O) Organic Matter, % [100 - N]	**2.1**	**1.7**	**1.5**	

Remarks: Furnace temperature set @ 440° C

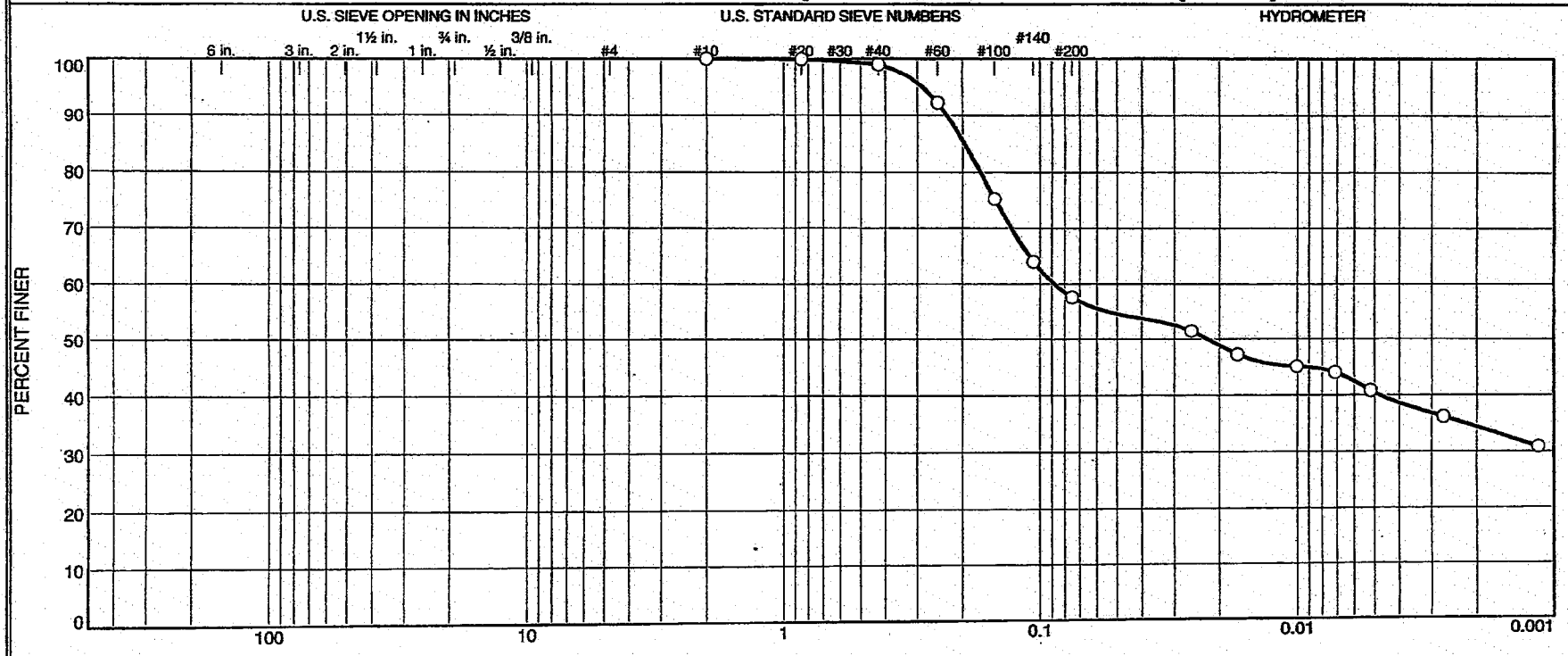
Equipment used:

oven: 5.1.16 muffle furnace 5.1.17

scales: 3.1.19

Soil Index Test Results – Test Pits

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



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	1.0	41.4	17.2	40.4

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	TP-2310	Bulk-1	5.0'	1/23/08	CL	Pale Yellow Sandy Lean CLAY	13.7	33	15

Client Bechtel

Project Exelon Texas COL (Victoria Reservoir)

Project No. 6468071777 Figure NA

MACTEC, Inc.

Raleigh, North Carolina

○ Specific Gravity = 2.687 (ASTM D854-06)
Organic Content = 0.8% (ASTM D2974-07)-S-2,5'
Natural Moisture and Organic Content were obtained from Jar Sample S-2, 5'

Tested By: CS **Checked By:** LBJ DSC 3-4-08

GRAIN SIZE DISTRIBUTION TEST DATA

3/4/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria Reservoir)
Project Number: 6468071777
Location: TP-2310
Depth: 5.0' **Sample Number:** Bulk-1
Material Description: Pale Yellow Sandy Lean CLAY
Date: 1/23/08 **Natural Moisture:** 13.7
Liquid Limit: 33 **Plastic Limit:** 15 **USCS Class.:** CL
Testing Remarks: Specific Gravity = 2.687 (ASTM D854-06)
Organic Content = 0.8% (ASTM D2974-07)-S-2,5'
Natural Moisture and Organic Content were obtained from Jar Sample S-2, 5'
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
350.27	0.00	0.00	#10	0.00	100.0
94.98	0.00	0.00	#20	0.10	99.9
			#40	0.91	99.0
			#60	7.39	92.2
			#100	23.45	75.3
			#140	34.20	64.0
			#200	40.25	57.6

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =94.98
Hygroscopic moisture correction:
Moist weight and tare = 30.08
Dry weight and tare = 29.63
Tare weight = 15.13
Hygroscopic moisture = 3.1%
Table of composite correction values:

Temp., deg. C:	12.9	29.9
Comp. corr.:	-8.0	-2.0

Meniscus correction only = 1.0
Specific gravity of solids = 2.687
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	20.9	53.0	47.8	0.0133	54.0	7.4	0.0257	51.5
5.00	20.9	49.0	43.8	0.0133	50.0	8.1	0.0170	47.2
15.00	20.9	47.0	41.8	0.0133	48.0	8.4	0.0100	45.0
30.00	21.1	46.0	40.9	0.0133	47.0	8.6	0.0071	44.0
60.00	21.1	43.0	37.9	0.0133	44.0	9.1	0.0052	40.8
240.00	20.5	39.0	33.7	0.0134	40.0	9.7	0.0027	36.3
1440.00	20.5	34.0	28.7	0.0134	35.0	10.6	0.0011	30.9

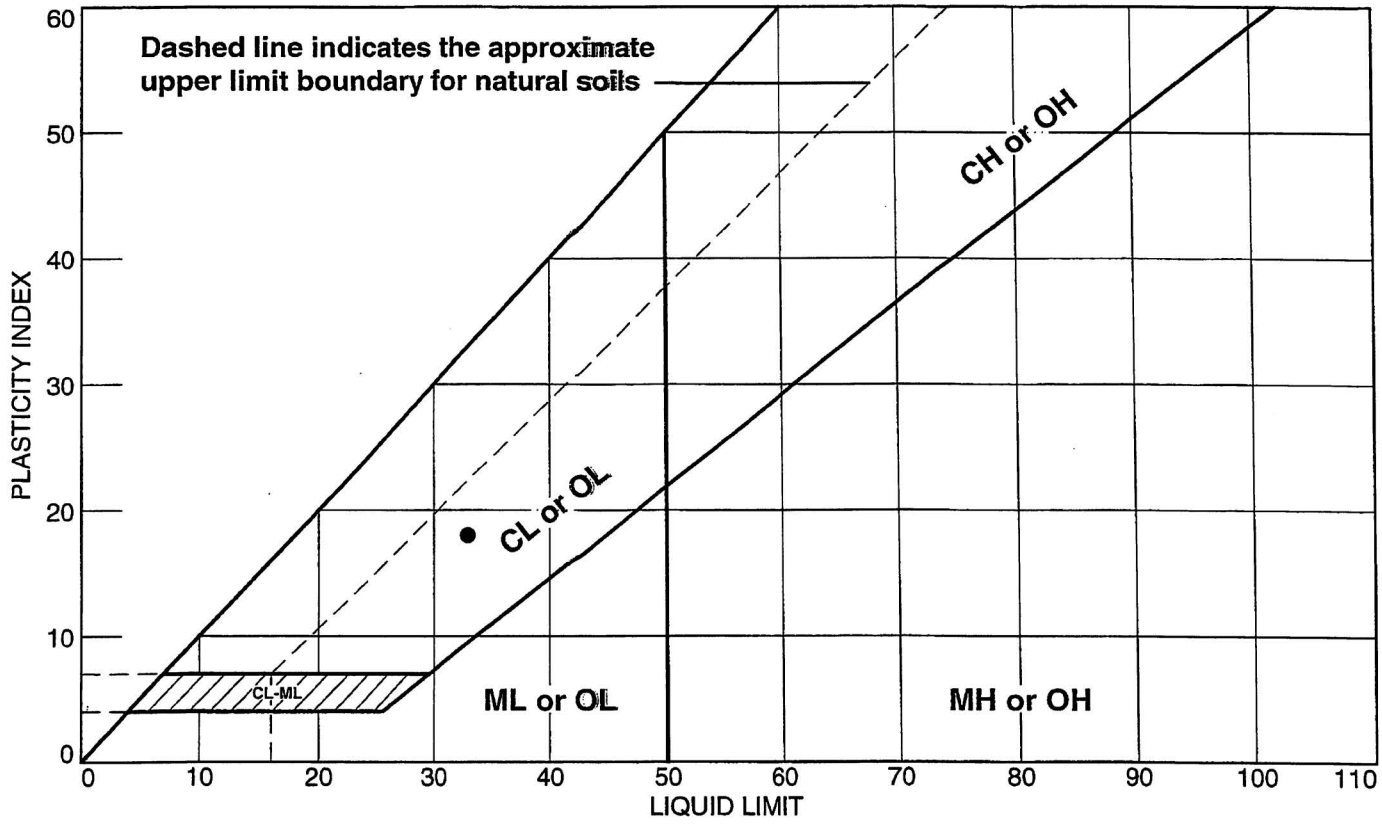
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	1.0	41.4	42.4	17.2	40.4	57.6

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
				0.0222	0.0882	0.1705	0.1962	0.2299	0.2859

Fineness Modulus
0.29

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



	SOIL DATA							
	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	TP-2310	Bulk-1	5.0'	13.7	15	33	18	CL

MACTEC, Inc.

Raleigh, North Carolina

Client: Bechtel

Project: Exelon Texas COL (Victoria Reservoir)

Project No.: 6468071777

Figure NA

Tested By: CS **Checked By:** LBJ DSC 3-4-08

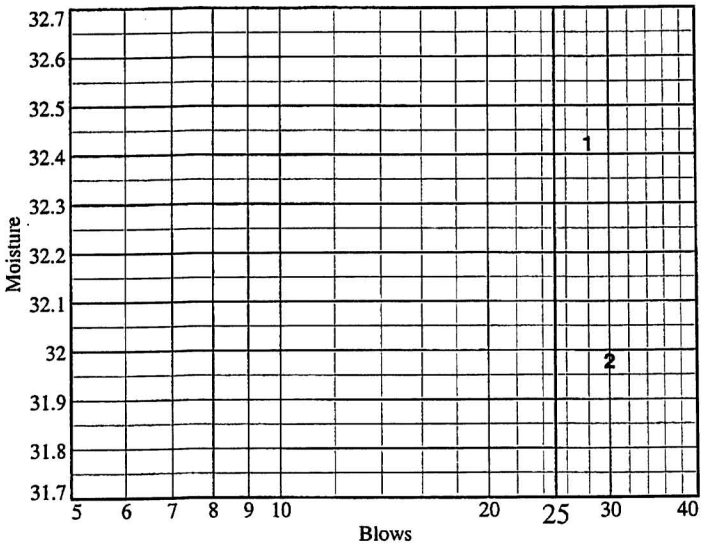
LIQUID AND PLASTIC LIMIT TEST DATA

3/4/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria Reservoir)
Project Number: 6468071777
Location: TP-2310
Depth: 5.0'
Sample Number: Bulk-1
Material Description: Pale Yellow Sandy Lean CLAY
USCS: CL
AASHTO: A-6(7)
Tested by: CS
Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	34.44	30.12				
Dry+Tare	29.81	26.58				
Tare	15.53	15.51				
# Blows	28	30				
Moisture	32.4	32.0				



Liquid Limit= 33
Plastic Limit= 15
Plasticity Index= 18
Natural Moisture= 13.7
Liquidity Index= -0.1

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	22.48	22.71			
Dry+Tare	21.54	21.76			
Tare	15.50	15.49			
Moisture	15.6	15.2			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
232.61	205.69	9.21	13.7

MACTEC, Inc.

MACTEC ENGINEERING AND CONSULTING, INC.
RALEIGH, NORTH CAROLINA

REPORT OF THE STANDARD TEST METHOD FOR SPECIFIC GRAVITY OF SOILS
Performed in General Accordance with ASTM D 854-06 (Method B)

PROJECT NAME:EXELON COL PROJECT (VICTORIA)

PROJECT NUMBER: 6468071777

DATE: 2/18/08

SAMPLE IDENTIFICATION: TP-2310, BULK 1,5'

(A) Mass of oven-dried soil, grams:		75.36
(B) Mass of pycnometer filled with water at test temperature (T), grams:		656.47
(C) Mass of pycnometer, water and soil, grams:		703.79
(T) Temperature of pycnometer, water and soil, °C when mass (C) determined:		21.9
(G) Specific Gravity at observed temperature:	A / [B - (C - A)]	2.688
(F)	***Correction factor:***	0.99959
(G x F)	**SPECIFIC GRAVITY @ 20°C:**	2.687

MATERIAL TESTED: [X] **- # 4** [ ] **- # 10**

PREPARATION METHOD: [X] **DRY** [ ] **WET (dispersed)**

REMARKS: Estimated % Passing # 4 : 100

Sandy Lean CLAY (CL)

EQUIPMENT USED

SCALES :3.1.99

OVEN : 5.1.16

THERMOMETER :5.1.01

PYCNOMETER :P-6

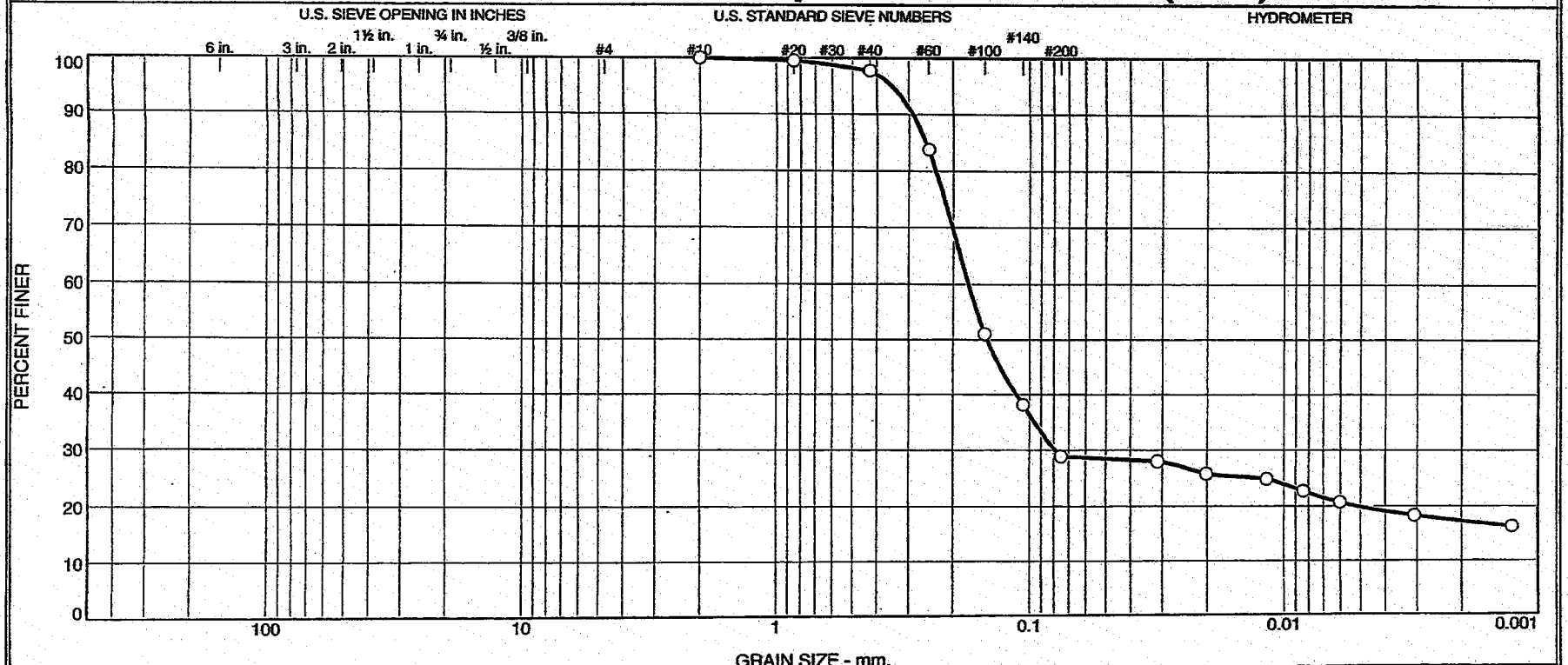
TESTED BY: CS

\Test Reports\Soils\SPECIFIC GRAVITY(ref).xls

REVIEWED BY: **Brian Johnson**

DSC 3-4-08

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



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	2.2	68.9	9.0	19.9

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	TP-2310	Bulk-2	10.0'	1/23/08	SC-SM	Olive Yellow Silty, Clayey SAND	8.3	24	17

Client Bechtel

Project Exelon Texas COL (Victoria Reservoir)

Project No. 6468071777 Figure A4

MACTEC, Inc.

Raleigh, North Carolina

○ Specific Gravity = 2.658 (ASTM D854-06)
Natural Moisture obtained from Jar Sample S-4, 10'

Tested By: CS **Checked By:** LBJ DSC 3-4-08

GRAIN SIZE DISTRIBUTION TEST DATA

3/4/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria Reservoir)
Project Number: 6468071777
Location: TP-2310
Depth: 10.0' **Sample Number:** Bulk-2
Material Description: Olive Yellow Silty, Clayey SAND
Date: 1/23/08 **Natural Moisture:** 8.3
Liquid Limit: 24 **Plastic Limit:** 17 **USCS Class.:** SC-SM
Testing Remarks: Specific Gravity = 2.658 (ASTM D854-06)
Natural Moisture obtained from Jar Sample S-4, 10'
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
305.94	0.00	0.00	#10	0.00	100.0
96.91	0.00	0.00	#20	0.44	99.5
			#40	2.17	97.8
			#60	15.74	83.8
			#100	47.50	51.0
			#140	59.95	38.1
			#200	68.88	28.9

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =96.91
Hygroscopic moisture correction:
Moist weight and tare = 28.46
Dry weight and tare = 28.32
Tare weight = 15.83
Hygroscopic moisture = 1.1%
Table of composite correction values:

Temp., deg. C:	12.9	29.9
Comp. corr.:	-8.0	-2.0

Meniscus correction only = 1.0
Specific gravity of solids = 2.658
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	21.1	32.0	26.9	0.0134	33.0	10.9	0.0313	28.0
5.00	21.1	30.0	24.9	0.0134	31.0	11.2	0.0201	25.9
15.00	21.3	29.0	24.0	0.0134	30.0	11.4	0.0117	25.0
30.00	21.1	27.0	21.9	0.0134	28.0	11.7	0.0084	22.8
60.00	21.1	25.0	19.9	0.0134	26.0	12.0	0.0060	20.7
240.00	20.4	23.0	17.6	0.0135	24.0	12.4	0.0031	18.4
1440.00	20.6	21.0	15.7	0.0135	22.0	12.7	0.0013	16.4

MACTEC, Inc.

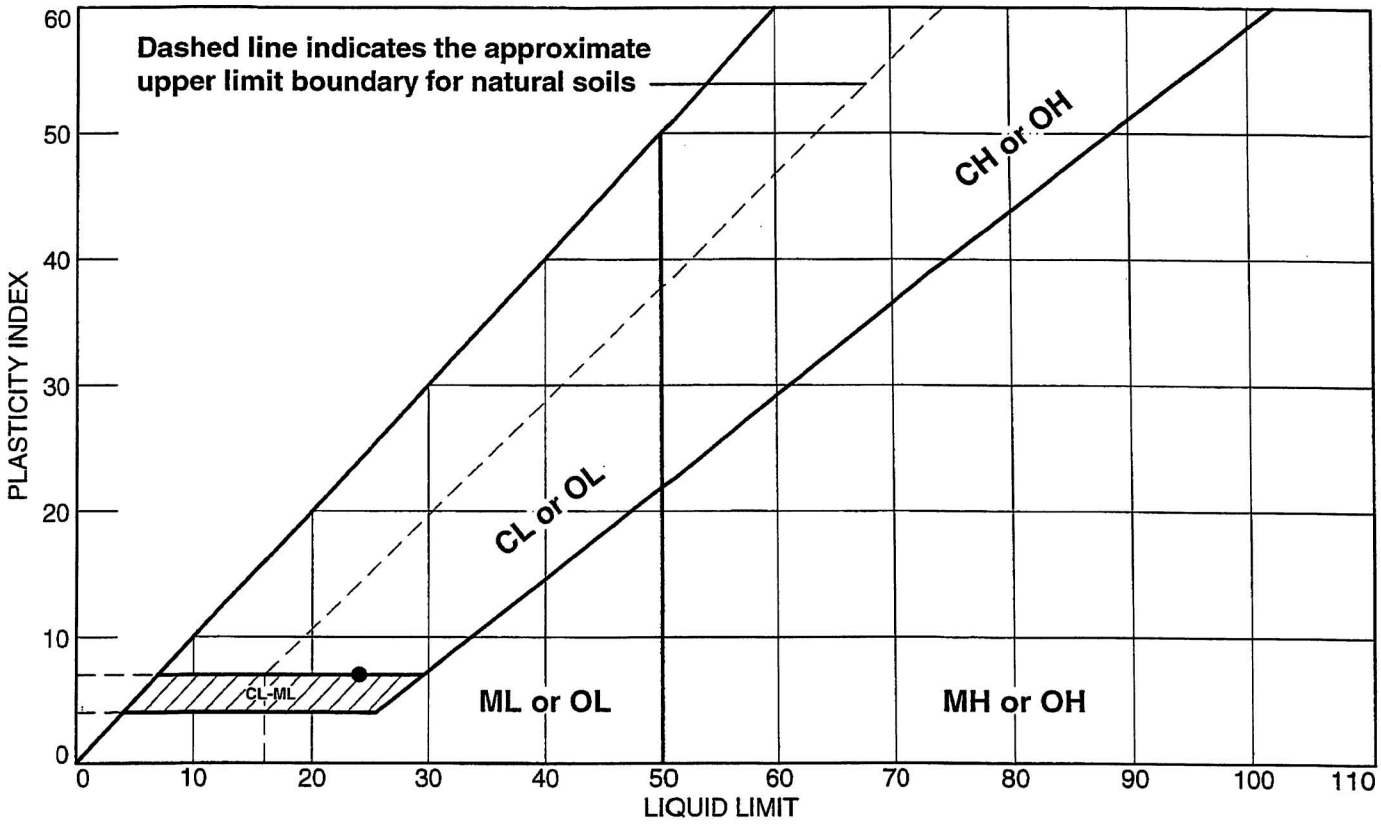
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	2.2	68.9	71.1	9.0	19.9	28.9

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
		0.0051	0.0791	0.1471	0.1741	0.2340	0.2561	0.2881	0.3468

Fineness Modulus
0.59

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	TP-2310	Bulk-2	10.0'	8.3	17	24	7	SC-SM

MACTEC, Inc.

Raleigh, North Carolina

Client: Bechtel

Project: Exelon Texas COL (Victoria Reservoir)

Project No.: 6468071777

Figure NA

Tested By: CS **Checked By:** LBJ DSC 3-4-08

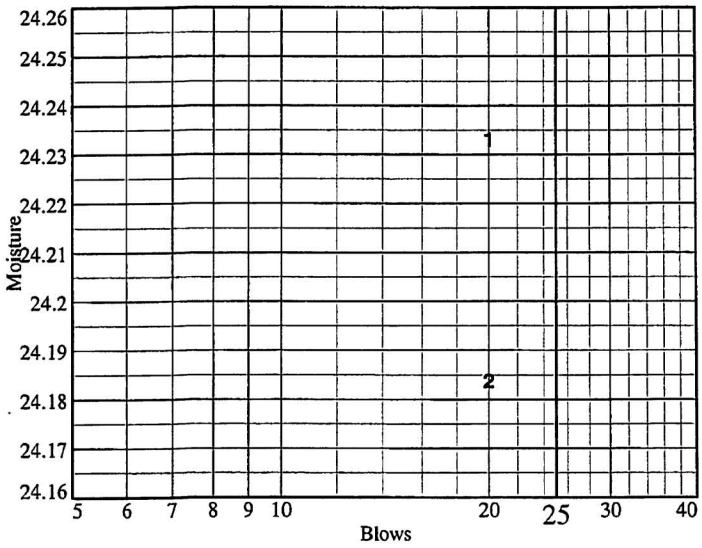
LIQUID AND PLASTIC LIMIT TEST DATA

3/4/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria Reservoir)
Project Number: 6468071777
Location: TP-2310
Depth: 10.0'
Sample Number: Bulk-2
Material Description: Olive Yellow Silty, Clayey SAND
USCS: SC-SM
AASHTO: A-2-4(0)
Tested by: CS
Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	31.67	34.43				
Dry+Tare	28.51	30.80				
Tare	15.47	15.79				
# Blows	20	20				
Moisture	24.2	24.2				



Liquid Limit= 24
Plastic Limit= 17
Plasticity Index= 7
Natural Moisture= 8.3
Liquidity Index= -1.2

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	22.25	23.87			
Dry+Tare	21.31	22.65			
Tare	15.65	15.49			
Moisture	16.6	17.0			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
254.28	235.23	6.78	8.3

MACTEC ENGINEERING AND CONSULTING, INC.
RALEIGH, NORTH CAROLINA

REPORT OF THE STANDARD TEST METHOD FOR SPECIFIC GRAVITY OF SOILS
Performed in General Accordance with ASTM D 854-06 (Method B)

PROJECT NAME:EXELON COL PROJECT (VICTORIA)

PROJECT NUMBER: 6468071777

DATE: 2/18/08

SAMPLE IDENTIFICATION: TP-2310, BULK 2,10'

(A) Mass of oven-dried soil, grams:	75.01
(B) Mass of pycnometer filled with water at test temperature (T), grams:	655.69
(C) Mass of pycnometer, water and soil, grams:	702.49
(T) Temperature of pycnometer, water and soil, °C when mass (C) determined:	21.4
(G) Specific Gravity at observed temperature: A / [B - (C - A)]	2.659
(F) ***Correction factor:***	0.99970
(G x F) **SPECIFIC GRAVITY @ 20°C:**	2.658

MATERIAL TESTED: [X] **- # 4** [ ] **- # 10**

PREPARATION METHOD: [X] **DRY** [ ] **WET (dispersed)**

REMARKS: Estimated % Passing # 4 : 100
Silty,Clayey SAND (SC-SM)

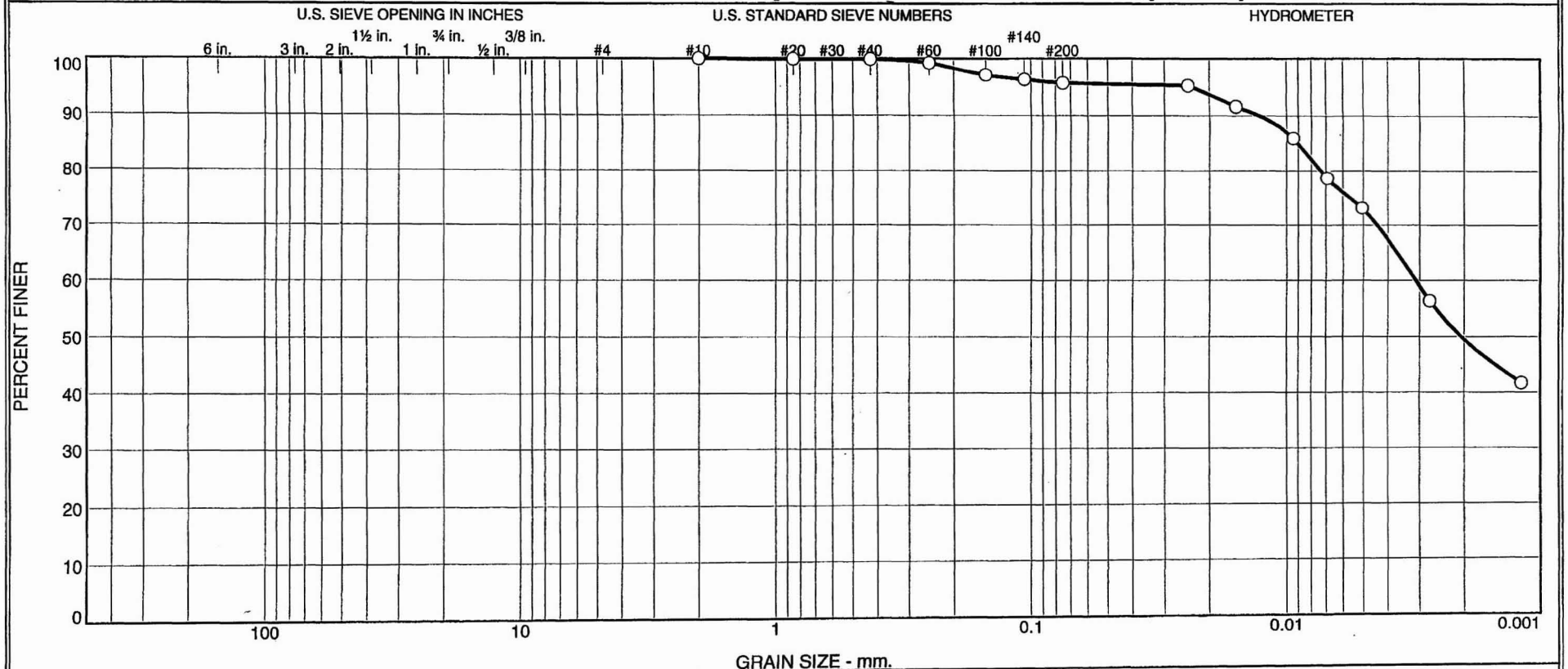
EQUIPMENT USED
SCALES :3.1.99
OVEN : 5.1.16
THERMOMETER :5.1.01
PYCNOMETER :P-6

TESTED BY: CS

\Test Reports\Soils\SPECIFIC GRAVITY(ref).xls **REVIEWED BY:** **Brian Johnson**

DSC 3-4-08

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	22.7	73.0

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	TP-2314	Bulk-2	5.0-10.0'	1/22/08	CH	Light Yellowish Brown Fat CLAY	22.7	54	23

Client Bechtel

Project Exelon Texas COL (Victoria Reservoir)

Project No. 6468071777 Figure NA

MACTEC, Inc.

Raleigh, North Carolina

○ Specific Gravity = 2.717 (ASTM D854-06)
Natural Moisture obtained from Jar Sample S-4, 10'

Tested By: CS **Checked By:** LBJ DSC 3-4-08

GRAIN SIZE DISTRIBUTION TEST DATA

3/4/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria Reservoir)
Project Number: 6468071777
Location: TP-2314
Depth: 5.0-10.0' **Sample Number:** Bulk-2
Material Description: Light Yellowish Brown Fat CLAY
Date: 1/22/08 **Natural Moisture:** 22.7
Liquid Limit: 54 **Plastic Limit:** 23 **USCS Class.:** CH
Testing Remarks: Specific Gravity = 2.717 (ASTM D854-06)
Natural Moisture obtained from Jar Sample S-4, 10'
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
317.84	0.00	0.00	#10	0.00	100.0
54.98	0.00	0.00	#20	0.05	99.9
			#40	0.09	99.8
			#60	0.43	99.2
			#100	1.59	97.1
			#140	2.00	96.4
			#200	2.35	95.7

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =54.98
Hygroscopic moisture correction:
Moist weight and tare = 29.41
Dry weight and tare = 29.09
Tare weight = 15.56
Hygroscopic moisture = 2.4%
Table of composite correction values:

Temp., deg. C:	12.9	29.9
Comp. corr.:	-8.0	-2.0

Meniscus correction only = 1.0
Specific gravity of solids = 2.717
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	21.2	57.0	51.9	0.0132	58.0	6.8	0.0243	95.3
5.00	21.2	55.0	49.9	0.0132	56.0	7.1	0.0157	91.6
15.00	21.1	52.0	46.9	0.0132	53.0	7.6	0.0094	86.0
30.00	21.1	48.0	42.9	0.0132	49.0	8.3	0.0069	78.7
60.00	21.1	45.0	39.9	0.0132	46.0	8.8	0.0050	73.2
240.00	20.7	36.0	30.8	0.0133	37.0	10.2	0.0027	56.4
1440.00	20.6	28.0	22.7	0.0133	29.0	11.5	0.0012	41.7

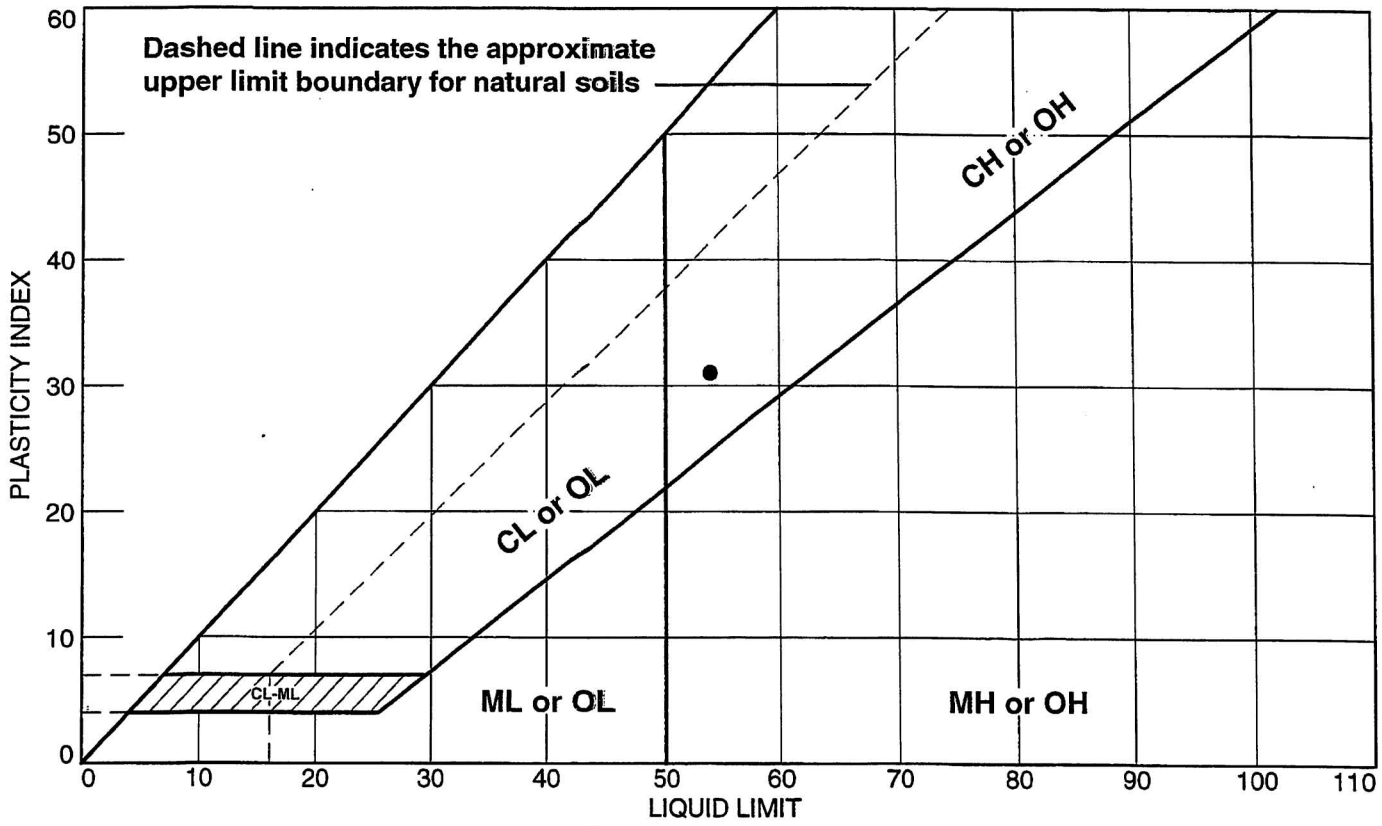
Fractional Components

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	22.7	73.0	95.7

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
				0.0021	0.0031	0.0073	0.0090	0.0127	0.0234

Fineness Modulus
0.03

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	TP-2314	Bulk-2	5.0-10.0'	22.7	23	54	31	CH

MACTEC, Inc. **Raleigh, North Carolina**	**Client:** Bechtel **Project:** Exelon Texas COL (Victoria Reservoir) **Project No.:** 6468071777 **Figure** N A

Tested By: CS **Checked By:** LBJ DSC 3-4-08

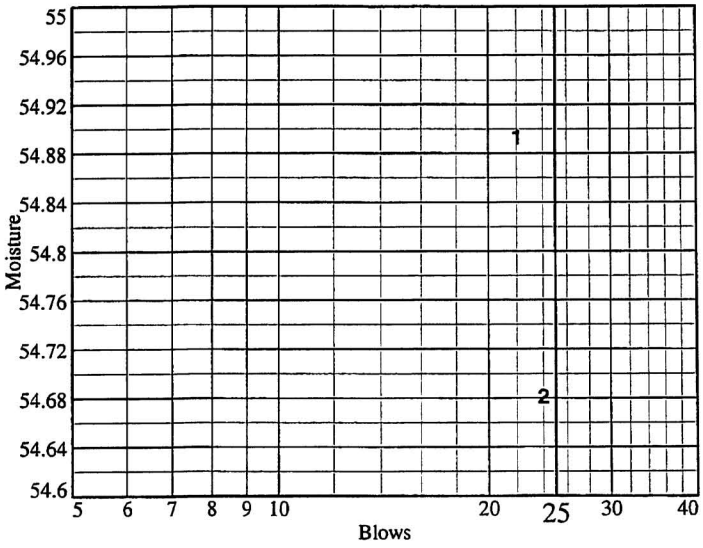
LIQUID AND PLASTIC LIMIT TEST DATA

3/4/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria Reservoir)
Project Number: 6468071777
Location: TP-2314
Depth: 5.0-10.0'
Sample Number: Bulk-2
Material Description: Light Yellowish Brown Fat CLAY
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	22.76	23.81				
Dry+Tare	20.18	20.89				
Tare	15.48	15.55				
# Blows	22	24				
Moisture	54.9	54.7				



Liquid Limit= 54
Plastic Limit= 23
Plasticity Index= 31
Natural Moisture= 22.7
Liquidity Index= 0.0

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	22.05	23.41			
Dry+Tare	20.80	21.93			
Tare	15.48	15.49			
Moisture	23.5	23.0			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
207.10	170.49	9.34	22.7

MACTEC ENGINEERING AND CONSULTING, INC.
RALEIGH, NORTH CAROLINA

REPORT OF THE STANDARD TEST METHOD FOR SPECIFIC GRAVITY OF SOILS
Performed in General Accordance with ASTM D 854-06 (Method B)

PROJECT NAME:EXELON COL PROJECT (VICTORIA)

PROJECT NUMBER: 6468071777

DATE: 2/19/08

SAMPLE IDENTIFICATION: TP-2314 BULK 2,5'-10'

(A) Mass of oven-dried soil, grams:		50.01
(B) Mass of pycnometer filled with water at test temperature (T), grams:		656.44
(C) Mass of pycnometer, water and soil, grams:		688.05
(T) Temperature of pycnometer, water and soil, °C when mass (C) determined:		22.1
(G) Specific Gravity at observed temperature:	A / [B - (C - A)]	2.718
(F)	***Correction factor:***	0.99954
(G x F)	**SPECIFIC GRAVITY @ 20°C:**	2.717

MATERIAL TESTED: [X] **- # 4** [ ] **- # 10**

PREPARATION METHOD: [X] **DRY** [ ] **WET (dispersed)**

REMARKS: Estimated % Passing # 4 : 100

Fat CLAY (CH)

EQUIPMENT USED

SCALES : 3.1.99

OVEN :5.1.16

THERMOMETER :5.1.01

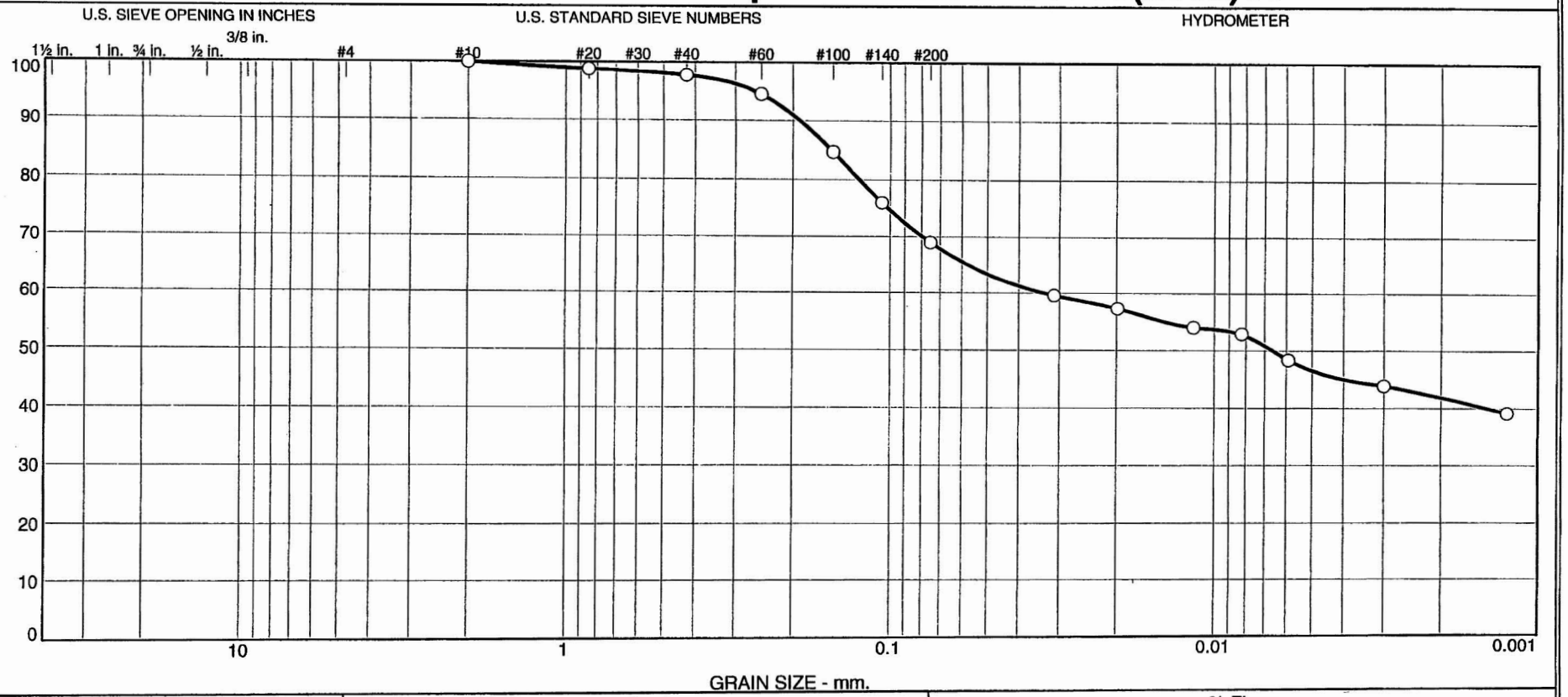
PYCNOMETER :P-6

TESTED BY: CS

\Test Reports\Soils\SPECIFIC GRAVITY(ref).xls **REVIEWED BY:** LBJ

DSC 3-4-08

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



	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	2.2	28.8	22.5	46.5

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	TP-2317	Bulk-1	3.0-5.0'	1/22/08	CL	Gray Sandy Lean CLAY	19.1	48	24

Client Bechtel

Project Exelon Texas COL (Victoria)

Project No. 6468071777 Figure NA

MACTEC, Inc.

Raleigh, North Carolina

○ Specific Gravity = 2.673 (ASTM D854-06)
Organic Content = 2.1% (ASTM D2974-07)
Natural Moisture and Organic Content obtained from Jar Sample S-2, 3.5-5.0'

Tested By: CS **Checked By:** JBJ DSC 4-2-08

GRAIN SIZE DISTRIBUTION TEST DATA

4/2/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: TP-2317
Depth: 3.0-5.0' **Sample Number:** Bulk-1
Material Description: Gray Sandy Lean CLAY
Date: 1/22/08 **Natural Moisture:** 19.1
Liquid Limit: 48 **Plastic Limit:** 24 **USCS Class.:** CL
Testing Remarks: Specific Gravity = 2.673 (ASTM D854-06)
Organic Content = 2.1% (ASTM D2974-07)
Natural Moisture and Organic Content obtained from Jar Sample S-2, 3.5-5.0'
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
408.32	0.00	0.00	#10	0.00	100.0
46.26	0.00	0.00	#20	0.55	98.8
			#40	1.02	97.8
			#60	2.53	94.5
			#100	7.08	84.7
			#140	11.09	76.0
			#200	14.35	69.0

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =46.26
Hygroscopic moisture correction:
Moist weight and tare = 29.67
Dry weight and tare = 29.27
Tare weight = 15.52
Hygroscopic moisture = 2.9%
Table of composite correction values:

Temp., deg. C:	12.9	29.9
Comp. corr.:	-8.0	-2.0

Meniscus correction only = 1.0
Specific gravity of solids = 2.673
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	21.2	32.0	26.9	0.0134	33.0	10.9	0.0311	59.6
5.00	21.1	31.0	25.9	0.0134	32.0	11.0	0.0199	57.3
15.00	21.1	29.5	24.4	0.0134	30.5	11.3	0.0116	54.0
30.00	21.1	29.0	23.9	0.0134	30.0	11.4	0.0082	52.9
60.00	21.0	27.0	21.9	0.0134	28.0	11.7	0.0059	48.4
240.00	20.9	25.0	19.8	0.0134	26.0	12.0	0.0030	43.9
1440.00	20.5	23.0	17.7	0.0135	24.0	12.4	0.0012	39.1

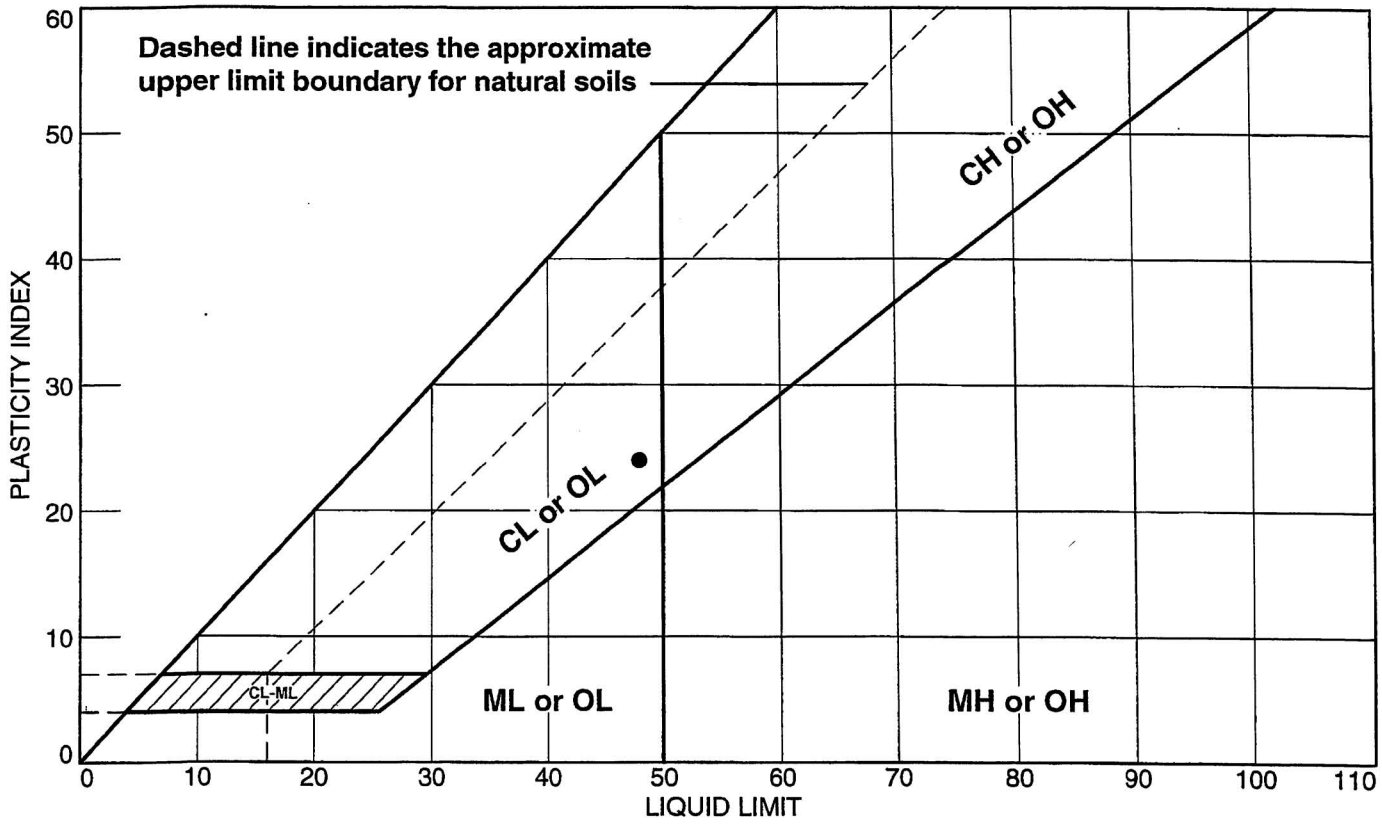
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	2.2	28.8	31.0	22.5	46.5	69.0

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
				0.0066	0.0334	0.1245	0.1519	0.1900	0.2602

Fineness Modulus
0.21

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA

	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	TP-2317	Bulk-1	3.0-5.0'	19.1	24	48	24	CL

MACTEC, Inc.

Raleigh, North Carolina

Client: Bechtel

Project: Exelon Texas COL (Victoria Reservoir)

Project No.: 6468071777

Figure N A

Tested By: CS **Checked By:** LBJ DSC 3-4-08

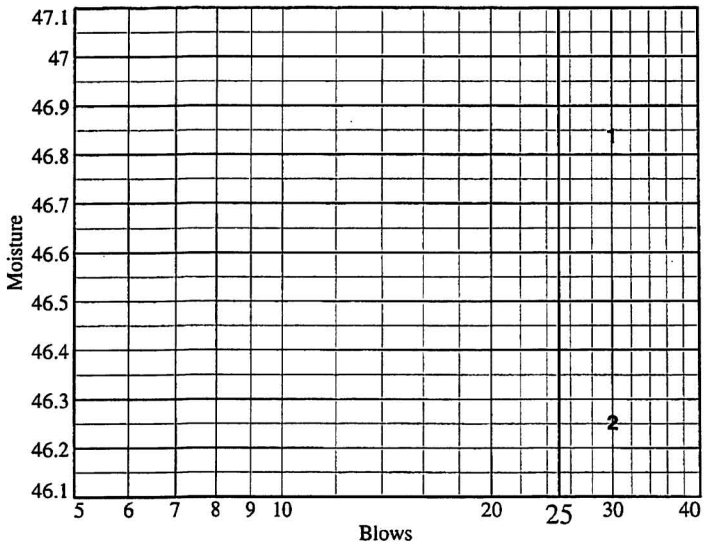
LIQUID AND PLASTIC LIMIT TEST DATA

3/4/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria Reservoir)
Project Number: 6468071777
Location: TP-2317
Depth: 3.0-5.0'
Sample Number: Bulk-1
Material Description: Gray Sandy Lean CLAY
USCS: CL
AASHTO: A-7-6(16)
Tested by: CS
Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	31.92	31.34				
Dry+Tare	26.66	26.34				
Tare	15.43	15.53				
# Blows	30	30				
Moisture	46.8	46.3				



Liquid Limit= 48
Plastic Limit= 24
Plasticity Index= 24
Natural Moisture= 19.1
Liquidity Index= -0.2

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	22.02	21.75			
Dry+Tare	20.77	20.53			
Tare	15.55	15.50			
Moisture	23.9	24.3			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
208.21	175.89	6.54	19.1

MACTEC ENGINEERING AND CONSULTING, INC.
RALEIGH, NORTH CAROLINA

REPORT OF THE STANDARD TEST METHOD FOR SPECIFIC GRAVITY OF SOILS
Performed in General Accordance with ASTM D 854-06 (Method B)

PROJECT NAME:EXELON COL PROJECT (VICTORIA)

PROJECT NUMBER: 6468071777

DATE: 2/19/08

SAMPLE IDENTIFICATION: TP-2317 BULK 1,3-5'

(A) Mass of oven-dried soil, grams:	50.37
(B) Mass of pycnometer filled with water at test temperature (T), grams:	655.68
(C) Mass of pycnometer, water and soil, grams:	687.21
(T) Temperature of pycnometer, water and soil, °C when mass (C) determined:	21.5
(G) Specific Gravity at observed temperature: A / [B - (C - A)]	2.674
(F) ***Correction factor:***	0.99968
(G x F) **SPECIFIC GRAVITY @ 20°C:**	2.673

MATERIAL TESTED: [X] **- # 4** [ ] **- # 10**

PREPARATION METHOD: [X] **DRY** [ ] **WET (dispersed)**

REMARKS: Estimated % Passing # 4 : 100

Sandy Lean CLAY (CL)

EQUIPMENT USED

SCALES : 3.1.99

OVEN : 5.1.16

THERMOMETER :5.1.01

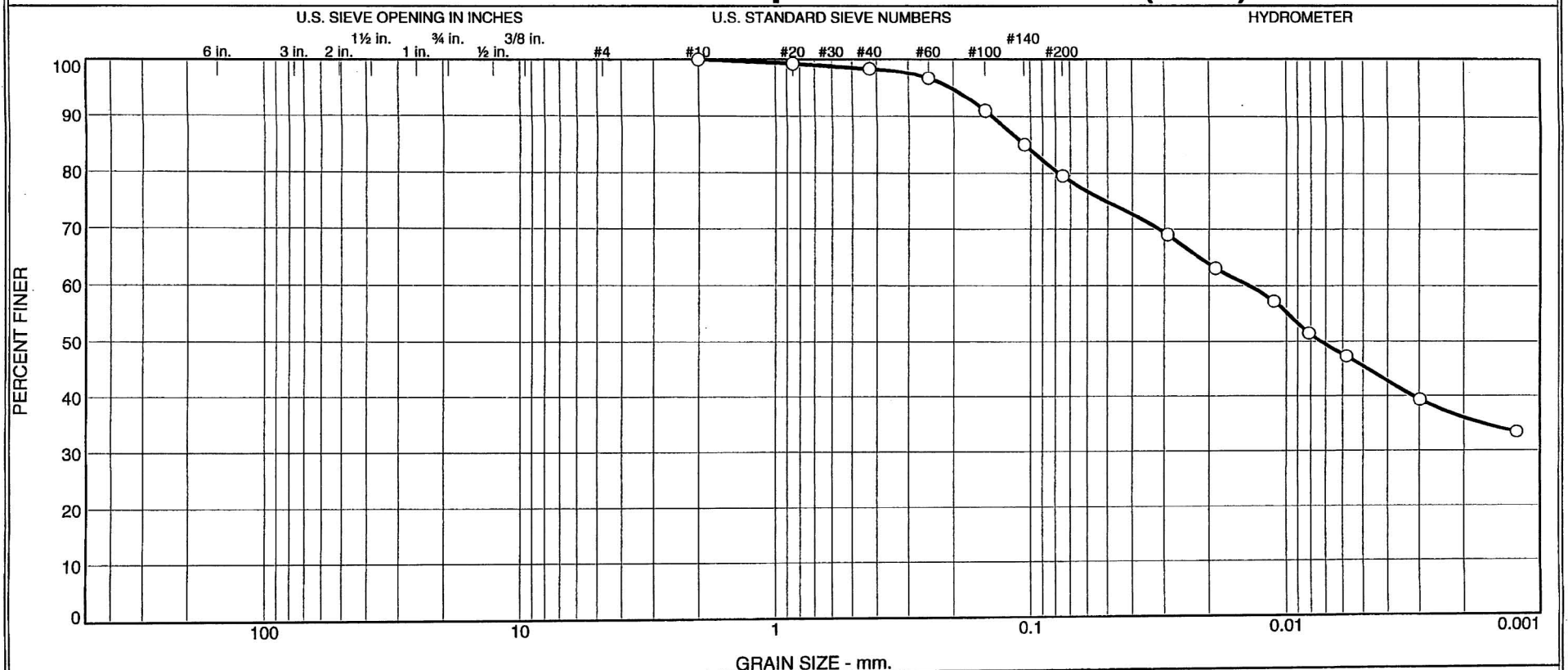
PYCNOMETER : P-3

TESTED BY: CS

\Test Reports\Soils\SPECIFIC GRAVITY(ref).xls **REVIEWED BY: Brian Johnson**

DSC 3-4-08

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	1.7	18.8	34.0	45.5

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	TP-2317	Bulk-2	5.0-10.0	1/22/08	CL	Pale Yellow Lean CLAY with sand	16.4	45	17

Client Bechtel
Project Exelon Texas COL (Victoria Reservoir)
Project No. 6468071777 Figure N4

MACTEC, Inc.
Raleigh, North Carolina

○ Specific Gravity = 2.698 (ASTM D854-06)
Natural Moisture obtained from Jar Sample S-3, 5-8'

Tested By: CS **Checked By:** LBJ DSC 3-4-08

GRAIN SIZE DISTRIBUTION TEST DATA

3/4/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria Reservoir)
Project Number: 6468071777
Location: TP-2317
Depth: 5.0-10.0 **Sample Number:** Bulk-2
Material Description: Pale Yellow Lean CLAY with sand
Date: 1/22/08 **Natural Moisture:** 16.4
Liquid Limit: 45 **Plastic Limit:** 17 **USCS Class.:** CL
Testing Remarks: Specific Gravity = 2.698 (ASTM D854-06)
Natural Moisture obtained from Jar Sample S-3, 5-8'
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
450.20	0.00	0.00	#10	0.00	100.0
51.17	0.00	0.00	#20	0.39	99.2
			#40	0.85	98.3
			#60	1.70	96.7
			#100	4.62	91.0
			#140	7.61	85.1
			#200	10.48	79.5

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =51.17
Hygroscopic moisture correction:
Moist weight and tare = 28.23
Dry weight and tare = 27.91
Tare weight = 15.52
Hygroscopic moisture = 2.6%
Table of composite correction values:

Temp., deg. C:	12.9	29.9
Comp. corr.:	-8.0	-2.0

Meniscus correction only = 1.0
Specific gravity of solids = 2.698
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	20.9	40.0	34.8	0.0133	41.0	9.6	0.0291	69.1
5.00	20.9	37.0	31.8	0.0133	38.0	10.1	0.0189	63.1
15.00	21.0	34.0	28.9	0.0133	35.0	10.6	0.0111	57.2
30.00	20.0	31.5	26.0	0.0135	32.5	11.0	0.0081	51.6
60.00	20.9	29.0	23.8	0.0133	30.0	11.4	0.0058	47.3
240.00	20.9	25.0	19.8	0.0133	26.0	12.0	0.0030	39.3
1440.00	21.0	22.0	16.9	0.0133	23.0	12.5	0.0012	33.4

MACTEC, Inc.

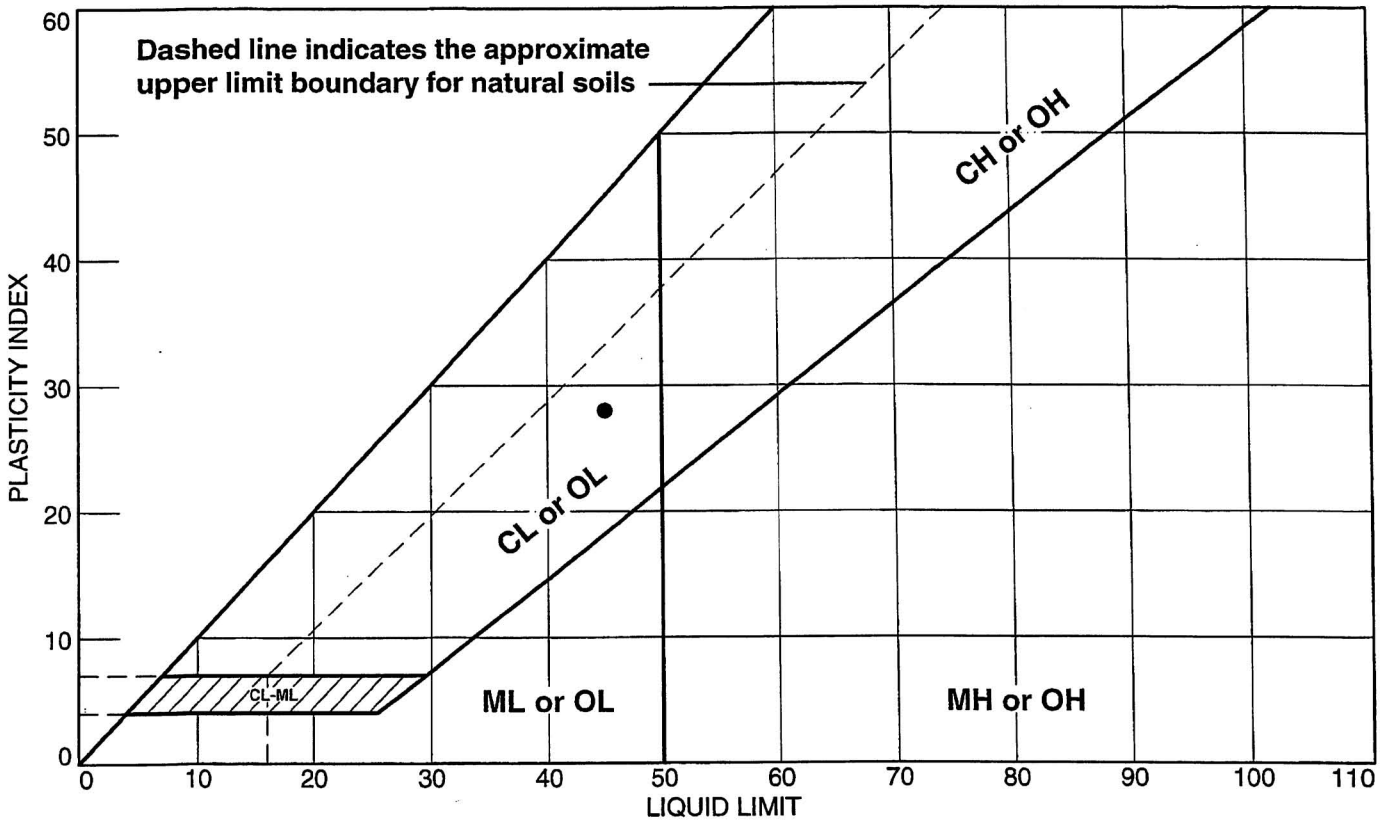
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	1.7	18.8	20.5	34.0	45.5	79.5

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
				0.0073	0.0139	0.0775	0.1052	0.1410	0.2051

Fineness Modulus
0.13

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	TP-2317	Bulk-2	5.0-10.0	16.4	17	45	28	CL

MACTEC, Inc.

Raleigh, North Carolina

Client: Bechtel

Project: Exelon Texas COL (Victoria Reservoir)

Project No.: 6468071777

Figure NA

Tested By: CS **Checked By:** LBJ DSC 3-4-08

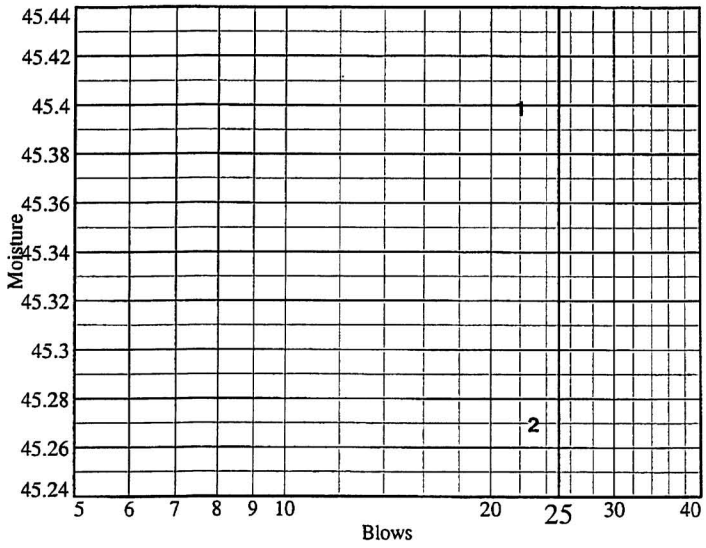
LIQUID AND PLASTIC LIMIT TEST DATA

3/4/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria Reservoir)
Project Number: 6468071777
Location: TP-2317
Depth: 5.0-10.0 **Sample Number:** Bulk-2
Material Description: Pale Yellow Lean CLAY with sand
USCS: CL **AASHTO:** A-7-6(22)
Tested by: CS **Checked by:** LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	31.94	36.65				
Dry+Tare	26.76	30.19				
Tare	15.35	15.92				
# Blows	22	23				
Moisture	45.4	45.3				



Liquid Limit= 45
Plastic Limit= 17
Plasticity Index= 28
Natural Moisture= 16.4
Liquidity Index= 0.0

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	22.42	22.50			
Dry+Tare	21.40	21.44			
Tare	15.44	15.45			
Moisture	17.1	17.7			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
151.37	131.00	6.68	16.4

MACTEC, Inc.

MACTEC ENGINEERING AND CONSULTING, INC.
RALEIGH, NORTH CAROLINA

REPORT OF THE STANDARD TEST METHOD FOR SPECIFIC GRAVITY OF SOILS
Performed in General Accordance with ASTM D 854-06 (Method B)

PROJECT NAME:EXELON COL PROJECT (VICTORIA)

PROJECT NUMBER: 6468071777

DATE: 2/20/08

SAMPLE IDENTIFICATION: TP-2317 BULK 2,5-10'

(A) Mass of oven-dried soil, grams:		49.56
(B) Mass of pycnometer filled with water at test temperature (T), grams:		655.55
(C) Mass of pycnometer, water and soil, grams:		686.75
(T) Temperature of pycnometer, water and soil, °C when mass (C) determined:		22.6
(G) Specific Gravity at observed temperature:	A / [B - (C - A)]	2.699
(F)	***Correction factor:***	0.99943
(G x F)	**SPECIFIC GRAVITY @ 20°C:**	2.698

MATERIAL TESTED: [X] **- # 4** [ ] **- # 10**

PREPARATION METHOD: [X] **DRY** [ ] **WET (dispersed)**

REMARKS: Estimated % Passing # 4 : 100

Lean CLAY with sand (CL)

EQUIPMENT USED

SCALES : 3.1.99

OVEN : 5.1.16

THERMOMETER :5.1.01

PYCNOMETER : P-3

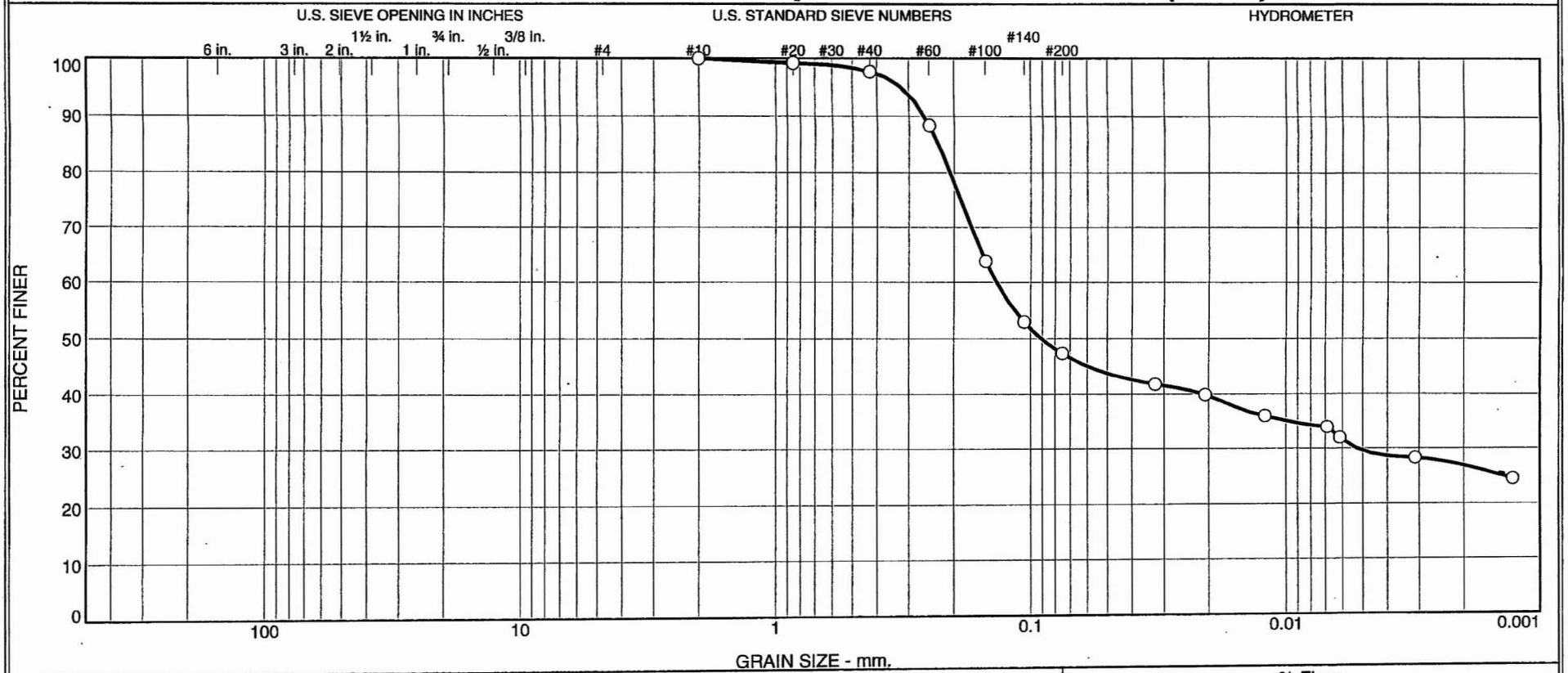
TESTED BY: CS

\Test Reports\Soils\SPECIFIC GRAVITY(ref).xls

REVIEWED BY: **Brian Johnson**

DSC 3-4-08

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



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	2.3	50.4	17.7	29.6

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	TP-2319	Bulk-2	3.0-10'	1/20/08	SC	Light Brownish Gray Clayey SAND	13.0	32	22

Client Bechtel

Project Exelon Texas COL (Victoria Reservoir)

Project No. 6468071777 Figure N4

MACTEC, Inc.

Raleigh, North Carolina

○ Specific Gravity = 2.667 (ASTM D854-06)
Natural Moisture obtained from Jar Sample S-3, 6.5'

Tested By: CS **Checked By:** LBJ DSC 3-4-08

GRAIN SIZE DISTRIBUTION TEST DATA

3/4/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria Reservoir)
Project Number: 6468071777
Location: TP-2319
Depth: 3.0-10' **Sample Number:** Bulk-2
Material Description: Light Brownish Gray Clayey SAND
Date: 1/20/08 **Natural Moisture:** 13.0
Liquid Limit: 32 **Plastic Limit:** 22 **USCS Class.:** SC
Testing Remarks: Specific Gravity = 2.667 (ASTM D854-06)
Natural Moisture obtained from Jar Sample S-3, 6.5'
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
401.47	0.00	0.00	#10	0.00	100.0
52.88	0.00	0.00	#20	0.42	99.2
			#40	1.23	97.7
			#60	6.10	88.5
			#100	19.11	63.9
			#140	24.89	52.9
			#200	27.85	47.3

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =52.88
Hygroscopic moisture correction:
Moist weight and tare = 27.70
Dry weight and tare = 27.55
Tare weight = 15.47
Hygroscopic moisture = 1.2%
Table of composite correction values:

Temp., deg. C:	12.9	29.9
Comp. corr.:	-8.0	-2.0

Meniscus correction only = 1.0
Specific gravity of solids = 2.667
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	21.1	27.0	21.9	0.0134	28.0	11.7	0.0324	41.8
5.00	21.1	26.0	20.9	0.0134	27.0	11.9	0.0206	39.8
15.00	21.1	24.0	18.9	0.0134	25.0	12.2	0.0121	36.0
47.00	20.9	23.0	17.8	0.0134	24.0	12.4	0.0069	34.0
60.00	20.8	22.0	16.8	0.0134	23.0	12.5	0.0061	32.0
240.00	20.9	20.0	14.8	0.0134	21.0	12.9	0.0031	28.3
1440.00	21.0	18.0	12.9	0.0134	19.0	13.2	0.0013	24.5

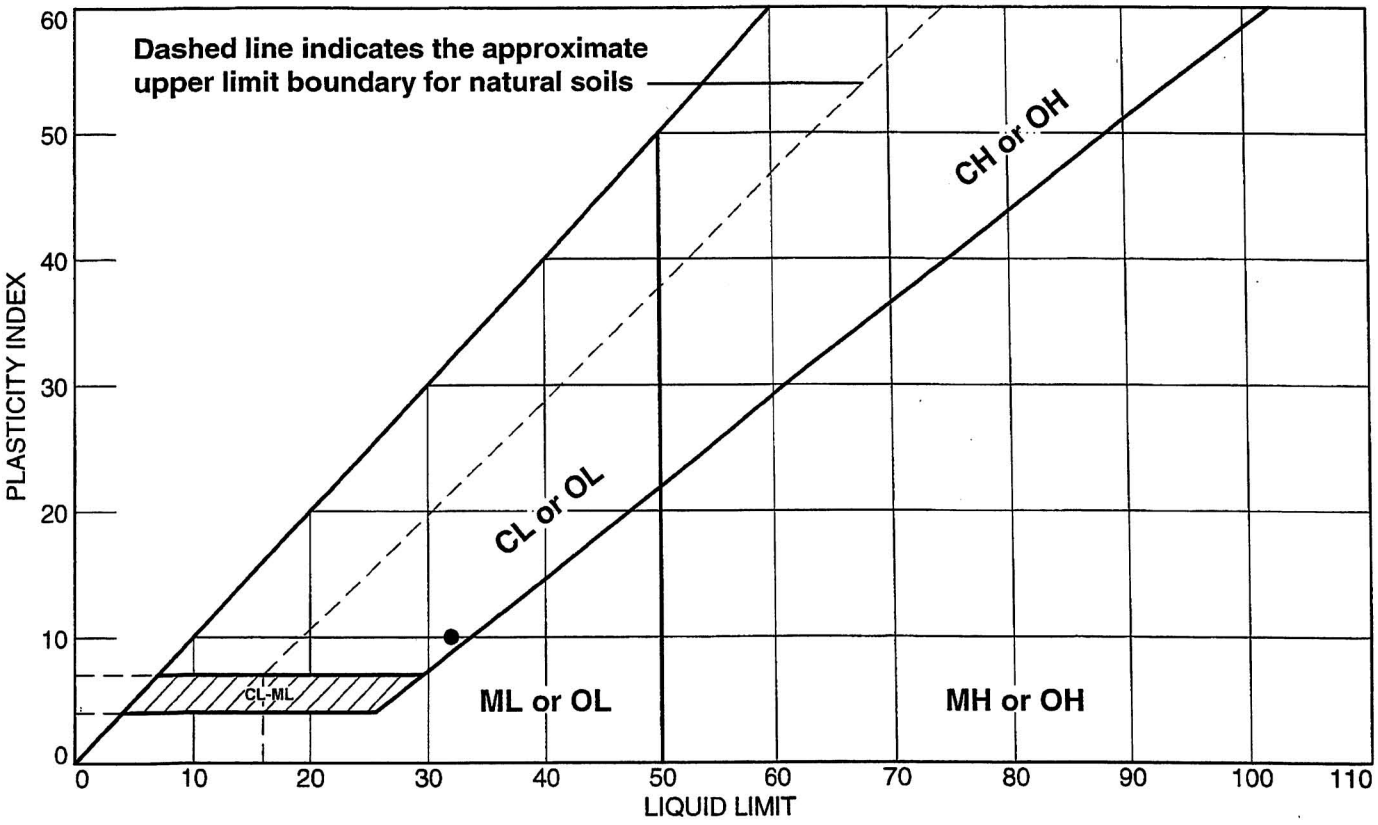
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	2.3	50.4	52.7	17.7	29.6	47.3

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
			0.0052	0.0909	0.1360	0.2071	0.2298	0.2612	0.3224

Fineness Modulus
0.44

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	TP-2319	Bulk-2	3.0-10'	13.0	22	32	10	SC

MACTEC, Inc. **Raleigh, North Carolina**	**Client:** Bechtel **Project:** Exelon Texas COL (Victoria Reservoir) **Project No.:** 6468071777 **Figure** NA

Tested By: CS **Checked By:** LBJ DSC 3-4-08

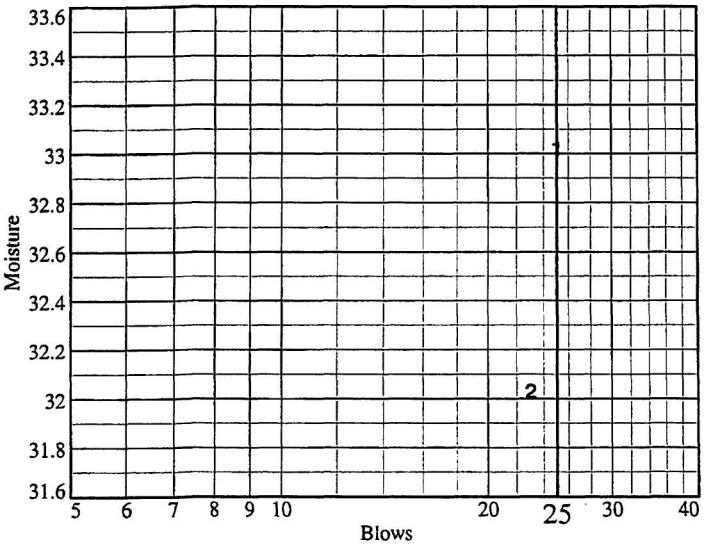
LIQUID AND PLASTIC LIMIT TEST DATA

3/4/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria Reservoir)
Project Number: 6468071777
Location: TP-2319
Depth: 3.0-10'
Sample Number: Bulk-2
Material Description: Light Brownish Gray Clayey SAND
USCS: SC
AASHTO: A-4(2)
Tested by: CS
Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	24.06	25.24				
Dry+Tare	21.94	22.86				
Tare	15.52	15.43				
# Blows	25	23				
Moisture	33.0	32.0				



Liquid Limit= 32
Plastic Limit= 22
Plasticity Index= 10
Natural Moisture= 13.0
Liquidity Index= -0.9

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	22.78	21.90			
Dry+Tare	21.46	20.78			
Tare	15.47	15.45			
Moisture	22.0	21.0			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
174.25	154.95	6.80	13.0

MACTEC ENGINEERING AND CONSULTING, INC.
RALEIGH, NORTH CAROLINA

REPORT OF THE STANDARD TEST METHOD FOR SPECIFIC GRAVITY OF SOILS
Performed in General Accordance with ASTM D 854-06 (Method B)

PROJECT NAME:EXELON COL PROJECT (VICTORIA)

PROJECT NUMBER: 6468071777

DATE: 2/20/08

SAMPLE IDENTIFICATION: TP-2319 BULK 2,3-10'

(A) Mass of oven-dried soil, grams:		75.01
(B) Mass of pycnometer filled with water at test temperature (T), grams:		656.50
(C) Mass of pycnometer, water and soil, grams:		703.39
(T) Temperature of pycnometer, water and soil, °C when mass (C) determined:		21.6
(G) Specific Gravity at observed temperature:	A / [B - (C - A)]	2.668
(F)	***Correction factor:***	0.99966
(G x F)	**SPECIFIC GRAVITY @ 20°C:**	2.667

MATERIAL TESTED: [X] **- # 4** [ ] **- # 10**

PREPARATION METHOD: [X] **DRY** [ ] **WET (dispersed)**

REMARKS: Estimated % Passing # 4 :100

Clayey SAND (SC)

EQUIPMENT USED

SCALES : 3.1.99

OVEN : 5.1.16

THERMOMETER :5.1.01

PYCNOMETER :P-6

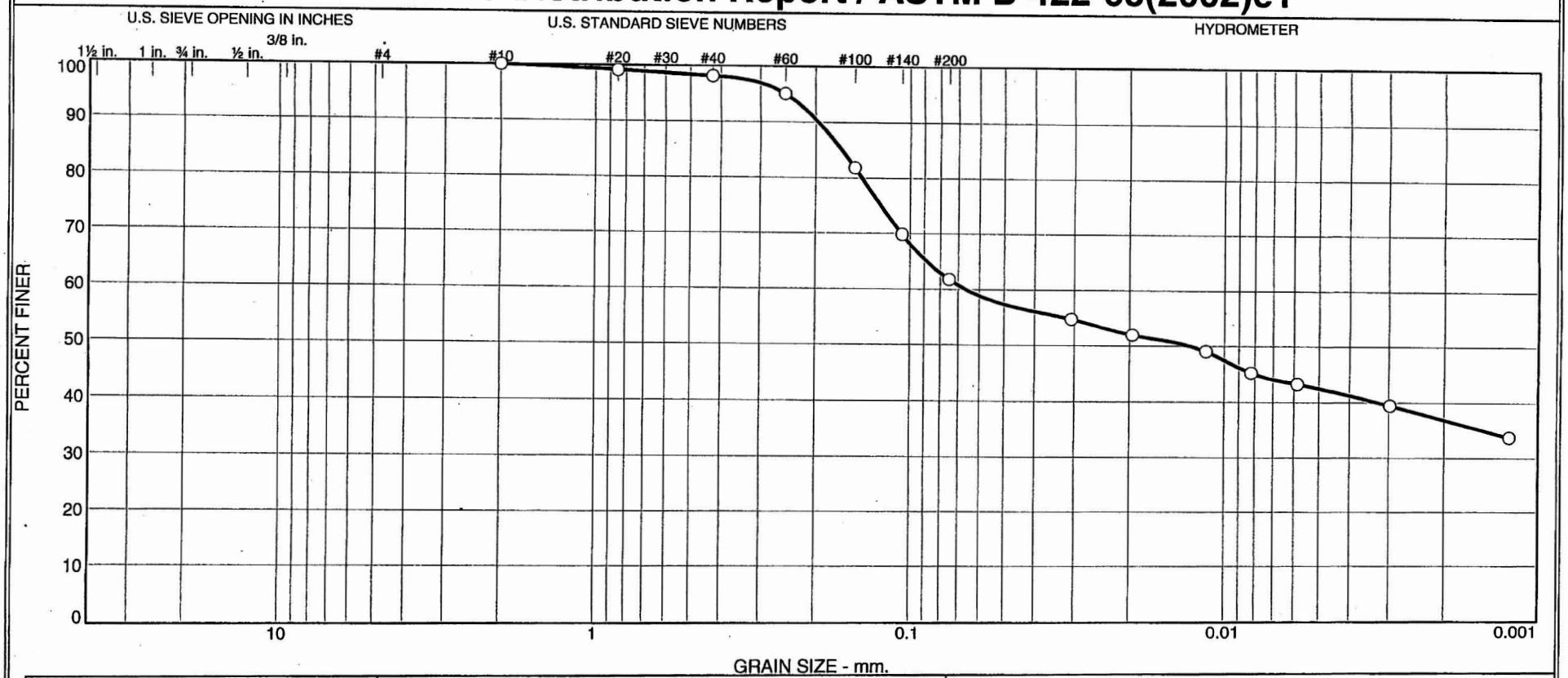
TESTED BY:CS

\Test Reports\Soils\SPECIFIC GRAVITY(ref).xls

REVIEWED BY: **Brian Johnson**

DSC 3-4-08

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



	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	1.8	36.4	19.3	42.5

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	TP-2320	Bulk 1	5.0'	1/19/08	CL	Light Brownish Gray Sandy Lean CLAY	12.0	42	17

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

MACTEC, Inc.
Raleigh, North Carolina

○ Specific Gravity = 2.686 (ASTM D854-06)
Organic Content = 2.6% (ASTM D2974-07)
Natural Moisture and Organic Content obtained from Jar Sample S-3, 5-10'

Tested By: CS Checked By: LBL DSC 4-2-08

GRAIN SIZE DISTRIBUTION TEST DATA

4/2/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: TP-2320
Depth: 5.0' **Sample Number:** Bulk 1
Material Description: Light Brownish Gray Sandy Lean CLAY
Date: 1/19/08 **Natural Moisture:** 12.0
Liquid Limit: 42 **Plastic Limit:** 17 **USCS Class.:** CL
Testing Remarks: Specific Gravity = 2.686 (ASTM D854-06)
Organic Content = 2.6% (ASTM D2974-07)
Natural Moisture and Organic Content obtained from Jar Sample S-3, 5-10'
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
277.62	0.00	0.00	#10	0.00	100.0
53.24	0.00	0.00	#20	0.46	99.1
			#40	0.98	98.2
			#60	2.63	95.1
			#100	9.67	81.8
			#140	16.05	69.9
			#200	20.33	61.8

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =53.24
Hygroscopic moisture correction:
Moist weight and tare = 28.72
Dry weight and tare = 28.48
Tare weight = 15.50
Hygroscopic moisture = 1.8%
Table of composite correction values:

Temp., deg. C:	12.9	29.9
Comp. corr.:	-8.0	-2.0

Meniscus correction only = 1.0
Specific gravity of solids = 2.686
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	21.0	34.0	28.9	0.0133	35.0	10.6	0.0306	54.8
5.00	21.0	32.5	27.4	0.0133	33.5	10.8	0.0196	51.9
15.00	21.0	31.0	25.9	0.0133	32.0	11.0	0.0114	49.1
30.00	20.9	29.0	23.8	0.0133	30.0	11.4	0.0082	45.2
60.00	20.8	28.0	22.8	0.0134	29.0	11.5	0.0059	43.2
240.00	20.8	26.0	20.8	0.0134	27.0	11.9	0.0030	39.4
1440.00	20.9	23.0	17.8	0.0133	24.0	12.4	0.0012	33.8

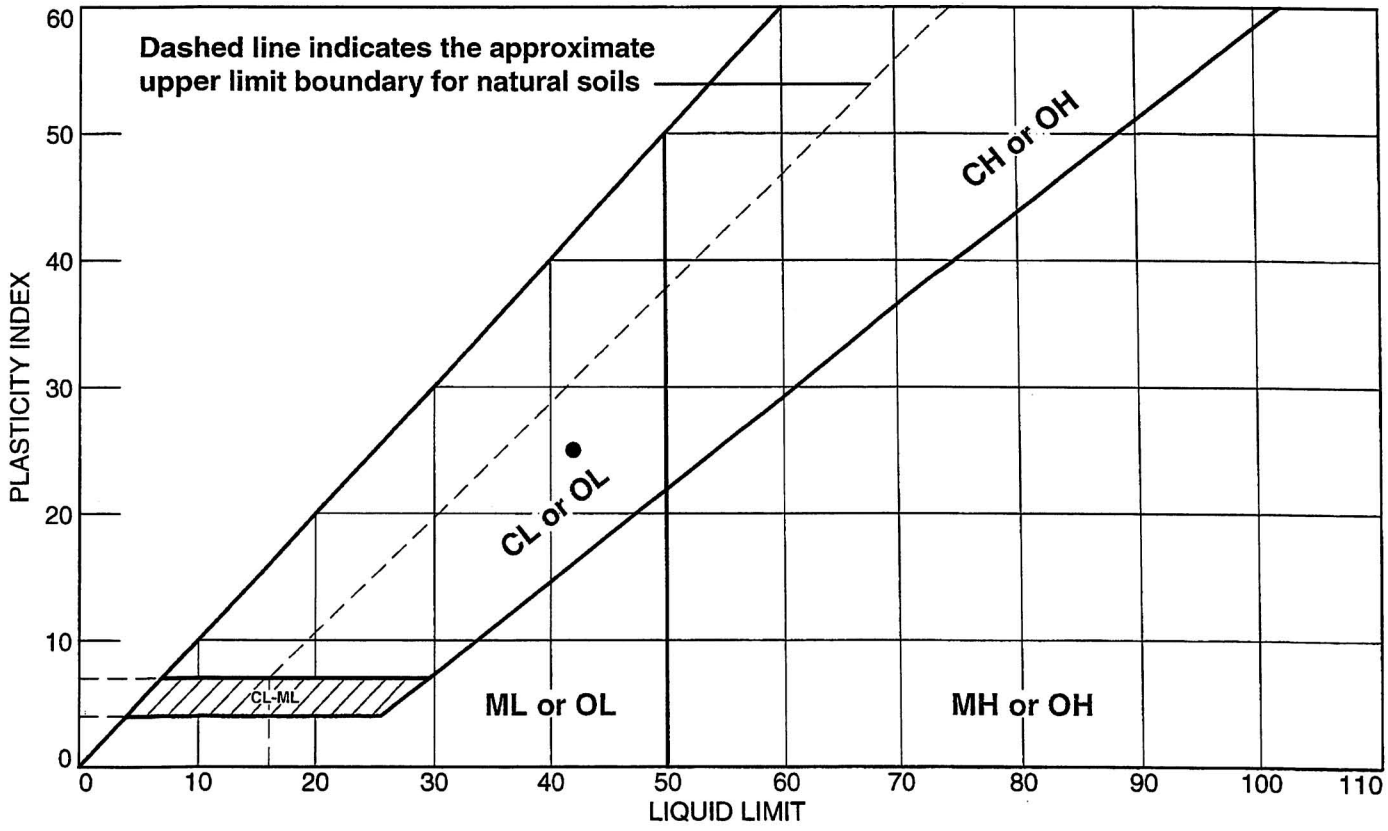
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	1.8	36.4	38.2	19.3	42.5	61.8

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
				0.0128	0.0662	0.1423	0.1650	0.1960	0.2490

Fineness Modulus
0.23

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	TP-2320	Bulk 1	5.0'	12.0	17	42	25	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 4-2-08

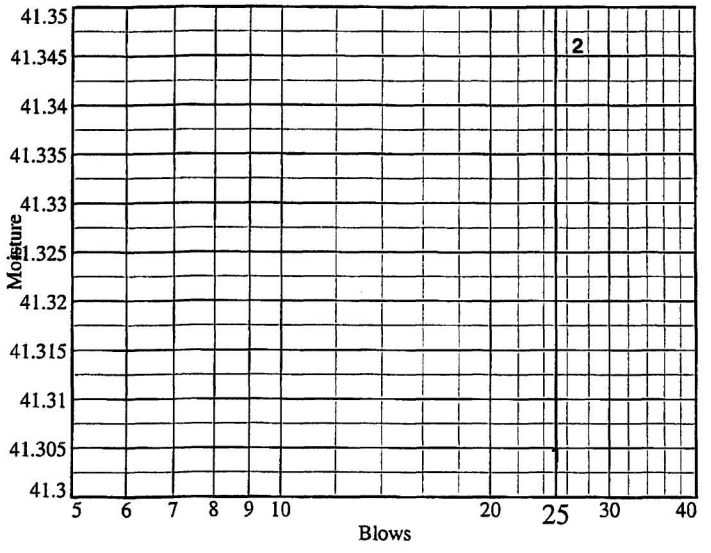
LIQUID AND PLASTIC LIMIT TEST DATA

4/2/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: TP-2320
Depth: 5.0'
Sample Number: Bulk 1
Material Description: Light Brownish Gray Sandy Lean CLAY
USCS: CL
AASHTO: A-7-6(13)
Tested by: CS
Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	25.25	25.89				
Dry+Tare	22.40	22.88				
Tare	15.50	15.60				
# Blows	25	27				
Moisture	41.3	41.3				



Liquid Limit= 42
Plastic Limit= 17
Plasticity Index= 25
Natural Moisture= 12.0
Liquidity Index= -0.2

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	22.52	22.16			
Dry+Tare	21.53	21.21			
Tare	15.48	15.50			
Moisture	16.4	16.6			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
183.27	164.63	9.24	12.0

MACTEC, Inc.

MACTEC ENGINEERING AND CONSULTING, INC.
RALEIGH, NORTH CAROLINA

REPORT OF THE STANDARD TEST METHOD FOR SPECIFIC GRAVITY OF SOILS
Performed in General Accordance with ASTM D 854-06 (Method B)

PROJECT NAME:EXELON COL PROJECT (VICTORIA)

PROJECT NUMBER: 6468071777

DATE: 2/21/08

SAMPLE IDENTIFICATION: TP-2320 BULK 1,5'

(A) Mass of oven-dried soil, grams:	52.69
(B) Mass of pycnometer filled with water at test temperature (T), grams:	656.59
(C) Mass of pycnometer, water and soil, grams:	689.67
(T) Temperature of pycnometer, water and soil, °C when mass (C) determined:	20.8
(G) Specific Gravity at observed temperature: A / [B - (C - A)]	2.687
(F) ***Correction factor:***	0.99983
(G x F) **SPECIFIC GRAVITY @ 20°C:**	2.686

MATERIAL TESTED: [X] **- # 4** [ ] **- # 10**

PREPARATION METHOD: [X] **DRY** [ ] **WET (dispersed)**

REMARKS: Estimated % Passing # 4 : 100

Sandy Lean CLAY (CL)

EQUIPMENT USED

SCALES : 3.1.99

OVEN : 5.1.16

THERMOMETER :5.1.01

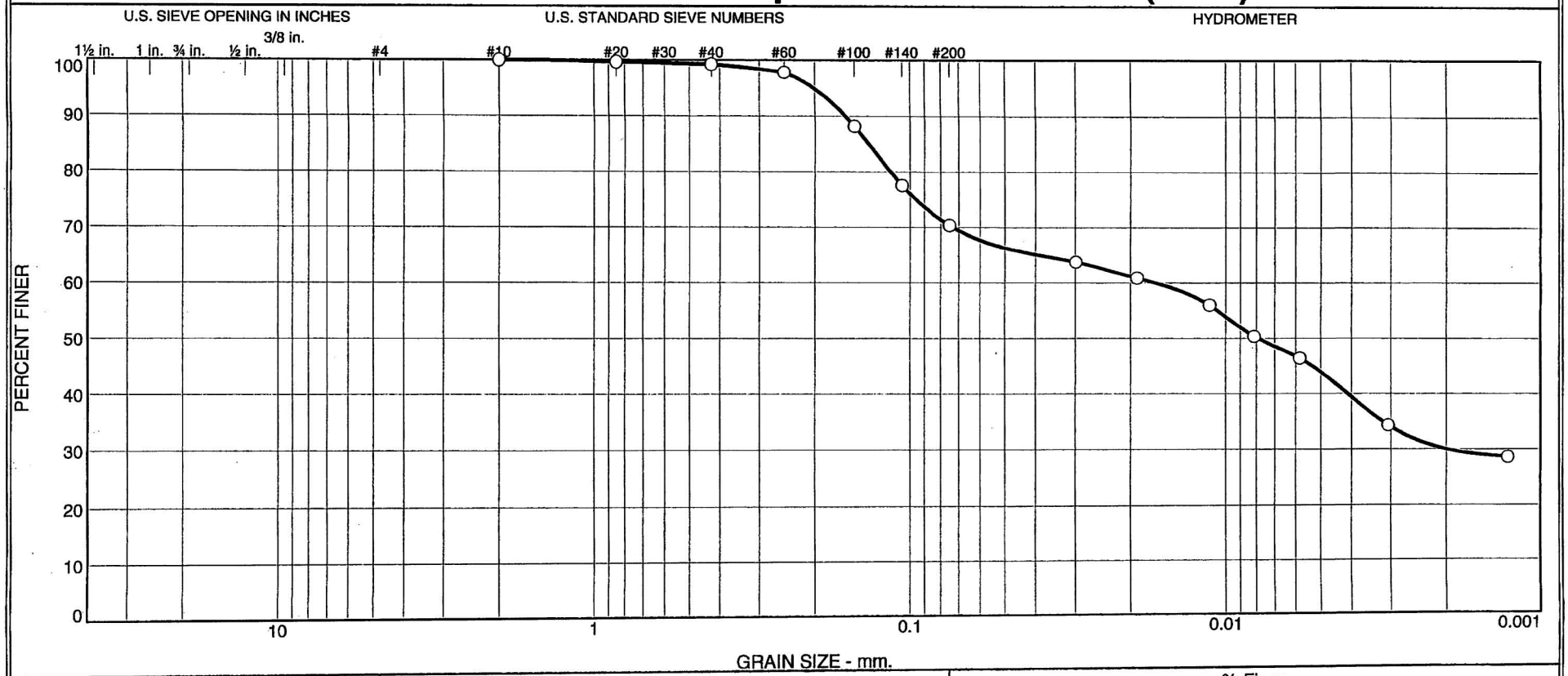
PYCNOMETER : P-6

TESTED BY: CS

\Test Reports\Soils\SPECIFIC GRAVITY(ref).xls **REVIEWED BY: Brian Johnson**

DSC 3-4-08

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



	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.7	28.9	26.4	44.0

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	TP-2320	Bulk 2	5.0-10.0'	1/19/08	CL	Olive Yellow Sandy Lean CLAY	9.3	41	16

Client Bechtel

Project Exelon Texas COL (Victoria)

Project No. 6468071777 Figure NA

MACTEC, Inc.

Raleigh, North Carolina

○ Specific Gravity = 2.671 (ASTM D854-06)
Natural Moisture obtained from Jar Sample S-4, 10'

Tested By: CS **Checked By:** LBJ DSC 4-2-08

GRAIN SIZE DISTRIBUTION TEST DATA

4/2/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: TP-2320
Depth: 5.0-10.0' **Sample Number:** Bulk 2
Material Description: Olive Yellow Sandy Lean CLAY
Date: 1/19/08 **Natural Moisture:** 9.3
Liquid Limit: 41 **Plastic Limit:** 16 **USCS Class.:** CL
Testing Remarks: Specific Gravity = 2.671 (ASTM D854-06)
Natural Moisture obtained from Jar Sample S-4, 10'
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
408.44	0.00	0.00	#10	0.00	100.0
51.83	0.00	0.00	#20	0.16	99.7
			#40	0.38	99.3
			#60	1.10	97.9
			#100	6.08	88.3
			#140	11.62	77.6
			#200	15.36	70.4

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =51.83
Hygroscopic moisture correction:
Moist weight and tare = 28.62
Dry weight and tare = 28.46
Tare weight = 15.47
Hygroscopic moisture = 1.2%
Table of composite correction values:

Temp., deg. C:	12.9	29.9
Comp. corr.:	-8.0	-2.0

Meniscus correction only = 1.0
Specific gravity of solids = 2.671
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	20.9	38.0	32.8	0.0134	39.0	9.9	0.0298	63.8
5.00	20.9	36.5	31.3	0.0134	37.5	10.1	0.0191	60.9
15.00	20.9	34.0	28.8	0.0134	35.0	10.6	0.0112	56.0
30.00	21.1	31.0	25.9	0.0134	32.0	11.0	0.0081	50.3
60.00	21.1	29.0	23.9	0.0134	30.0	11.4	0.0058	46.4
240.00	20.5	23.0	17.7	0.0135	24.0	12.4	0.0031	34.4
1440.00	20.6	20.0	14.7	0.0135	21.0	12.9	0.0013	28.6

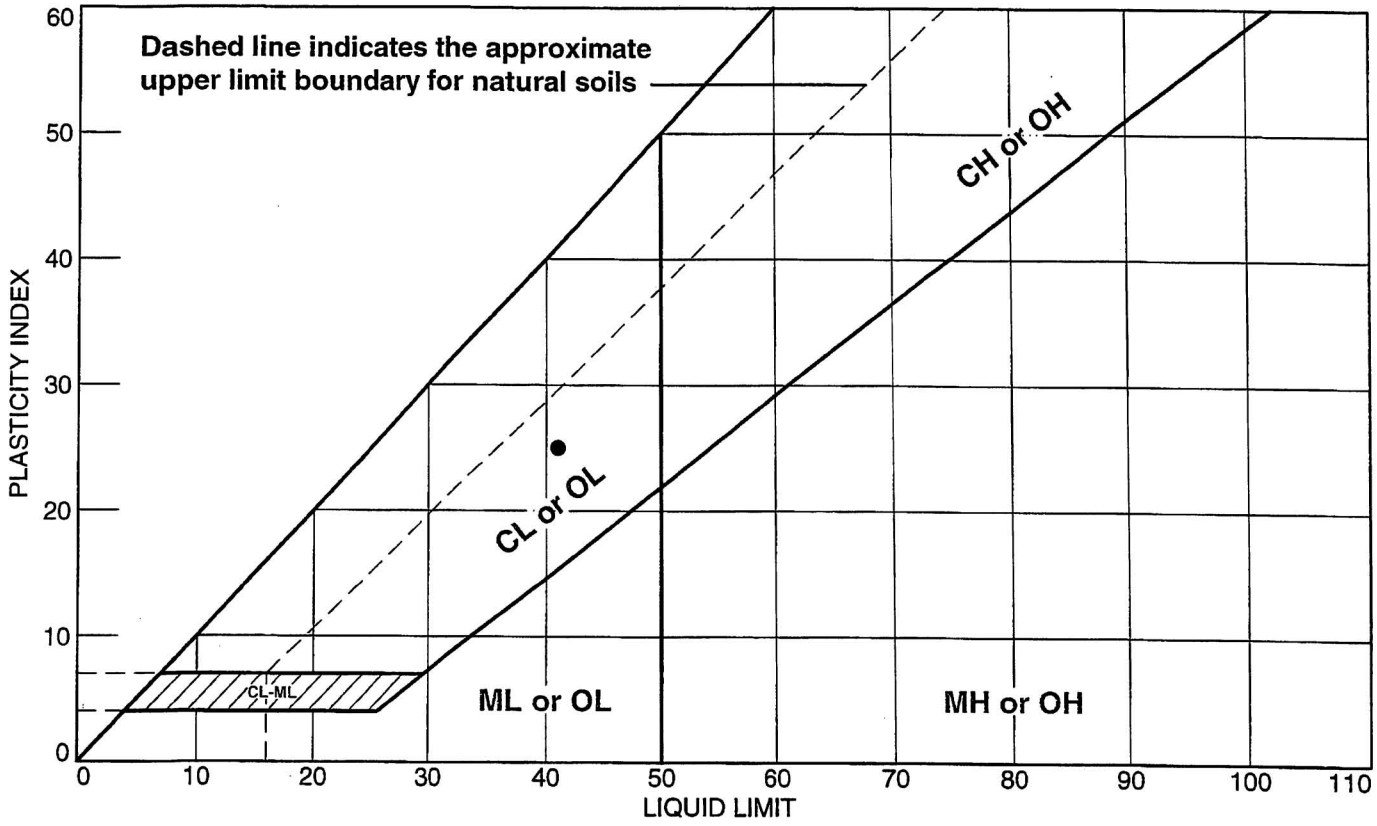
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.7	28.9	29.6	26.4	44.0	70.4

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
			0.0020	0.0079	0.0167	0.1151	0.1347	0.1597	0.2009

Fineness Modulus
0.14

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



	SOIL DATA							
	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	TP-2320	Bulk 2	5.0-10.0'	9.3	16	41	25	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 4-2-08

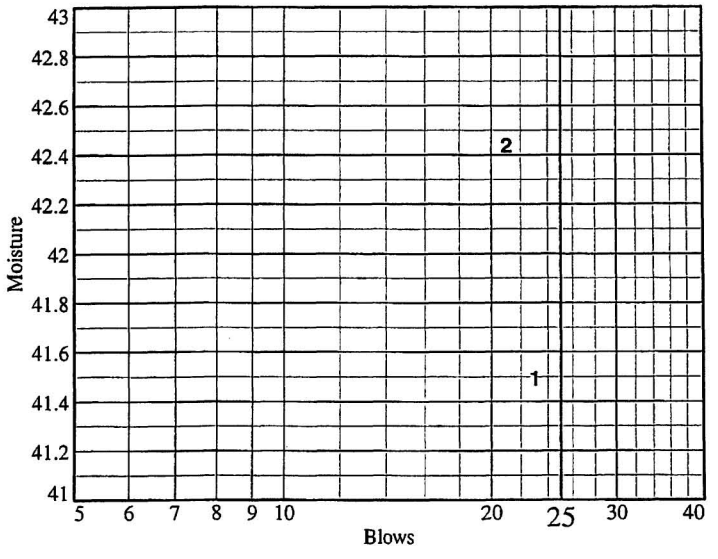
LIQUID AND PLASTIC LIMIT TEST DATA

4/2/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: TP-2320
Depth: 5.0-10.0'
Sample Number: Bulk 2
Material Description: Olive Yellow Sandy Lean CLAY
USCS: CL
AASHTO: A-7-6(15)
Tested by: CS
Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	22.29	23.74				
Dry+Tare	20.29	21.27				
Tare	15.47	15.45				
# Blows	23	21				
Moisture	41.5	42.4				



Liquid Limit= 41
Plastic Limit= 16
Plasticity Index= 25
Natural Moisture= 9.3
Liquidity Index= -0.3

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	22.91	22.07			
Dry+Tare	21.93	21.22			
Tare	15.59	15.76			
Moisture	15.5	15.6			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
160.85	148.00	9.26	9.3

MACTEC, Inc.

MACTEC ENGINEERING AND CONSULTING, INC.
RALEIGH, NORTH CAROLINA

REPORT OF THE STANDARD TEST METHOD FOR SPECIFIC GRAVITY OF SOILS
Performed in General Accordance with ASTM D 854-06 (Method B)

PROJECT NAME:EXELON COL PROJECT (VICTORIA)

PROJECT NUMBER: 6468071777

DATE: 2/17/08

SAMPLE IDENTIFICATION: TP-2320 BULK 2, 5-10'

(A) Mass of oven-dried soil, grams:		52.40
(B) Mass of pycnometer filled with water at test temperature (T), grams:		655.66
(C) Mass of pycnometer, water and soil, grams:		688.45
(T) Temperature of pycnometer, water and soil, °C when mass (C) determined:		21.6
(G) Specific Gravity at observed temperature:	A / [B - (C - A)]	2.672
(F)	***Correction factor:***	0.99966
(G x F)	**SPECIFIC GRAVITY @ 20°C:**	2.671

MATERIAL TESTED: [X] **- # 4** [ ] **- # 10**

PREPARATION METHOD: [X] **DRY** [ ] **WET (dispersed)**

REMARKS: Estimated % Passing # 4 : 100

Sandy Lean CLAY (CL)

EQUIPMENT USED

SCALES : 3.1.99

OVEN : 5.1.16

THERMOMETER :5.1.01

PYCNOMETER : P-6

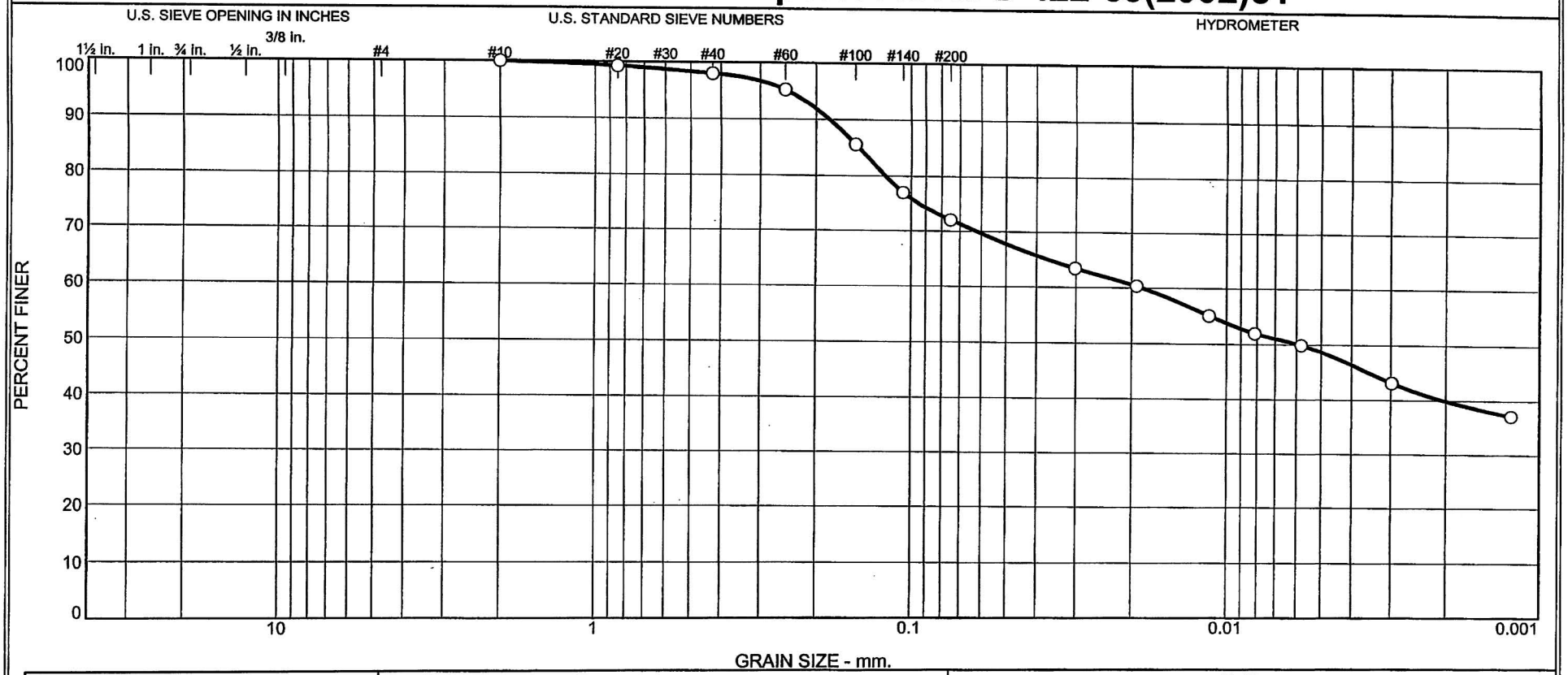
TESTED BY: CS

\Test Reports\Soils\SPECIFIC GRAVITY(ref).xls

REVIEWED BY: **Brian Johnson**

DSC 3-4-08

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



	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
O	0.0	0.0	0.0	2.0	26.0	23.3	48.7

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
O	TP-2321	Bulk 1	4.0-5.0'	1/30/08	CH	Dark Gray Fat CLAY with sand	15.3	51	20

Client Bechtel

Project Exelon Texas COL (Victoria)

Project No. 6468071777 Figure NA

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Raleigh, North Carolina

O Specific Gravity = 2.696 (ASTM D854-06)
Organic Content = 3.6% (ASTM D2974-07)
Natural Moisture and Organic Content obtained from Jar Sample S-2, 4'

Tested By: CS **Checked By:** LBJ DSC 4-2-08

GRAIN SIZE DISTRIBUTION TEST DATA

4/2/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: TP-2321
Depth: 4.0-5.0' **Sample Number:** Bulk 1
Material Description: Dark Gray Fat CLAY with sand
Date: 1/30/08 **Natural Moisture:** 15.3
Liquid Limit: 51 **Plastic Limit:** 20 **USCS Class.:** CH
Testing Remarks: Specific Gravity = 2.696 (ASTM D854-06)
Organic Content = 3.6% (ASTM D2974-07)
Natural Moisture and Organic Content obtained from Jar Sample S-2, 4'
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
367.94	0.00	0.00	#10	0.00	100.0
48.51	0.00	0.00	#20	0.36	99.3
			#40	0.98	98.0
			#60	2.32	95.2
			#100	6.94	85.7
			#140	11.15	77.0
			#200	13.56	72.0

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =48.51
Hygroscopic moisture correction:
Moist weight and tare = 30.21
Dry weight and tare = 29.87
Tare weight = 15.64
Hygroscopic moisture = 2.4%
Table of composite correction values:

Temp., deg. C:	12.9	29.9
Comp. corr.:	-8.0	-2.0

Meniscus correction only = 1.0
Specific gravity of solids = 2.696
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	21.1	35.5	30.4	0.0133	36.5	10.3	0.0301	63.5
5.00	21.1	34.0	28.9	0.0133	35.0	10.6	0.0193	60.4
15.00	21.1	31.5	26.4	0.0133	32.5	11.0	0.0114	55.1
30.00	21.1	30.0	24.9	0.0133	31.0	11.2	0.0081	52.0
60.00	21.1	29.0	23.9	0.0133	30.0	11.4	0.0058	49.9
240.00	20.4	26.0	20.6	0.0134	27.0	11.9	0.0030	43.1
1440.00	20.9	23.0	17.8	0.0133	24.0	12.4	0.0012	37.2

MACTEC, Inc.

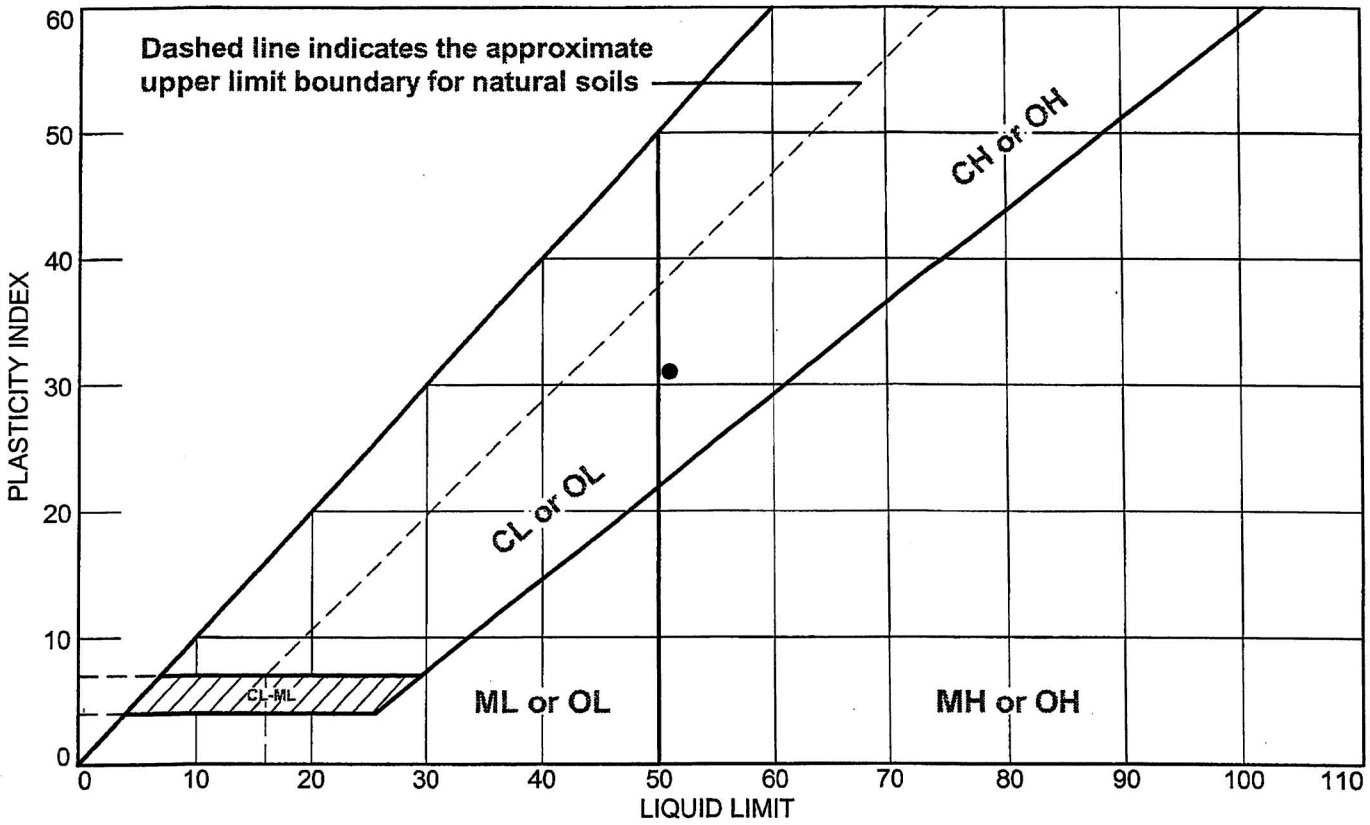
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	2.0	26.0	28.0	23.3	48.7	72.0

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
				0.0058	0.0185	0.1206	0.1460	0.1808	0.2453

Fineness Modulus
0.19

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	TP-2321	Bulk 1	4.0-5.0'	15.3	20	51	31	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 4-2-08

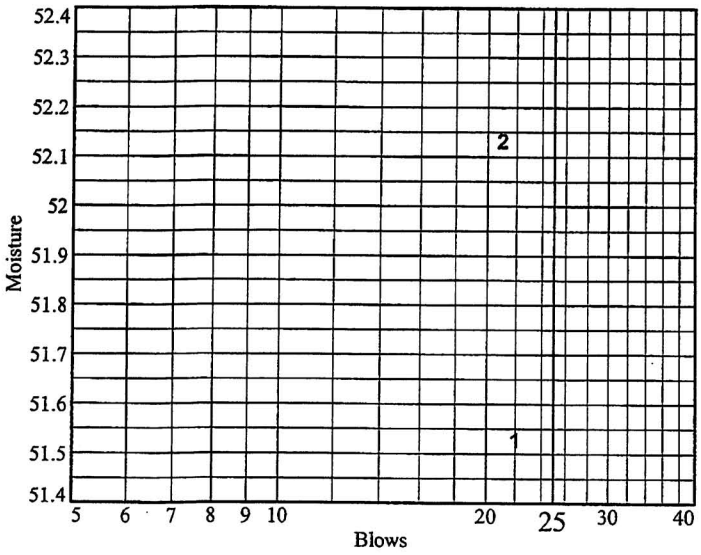
LIQUID AND PLASTIC LIMIT TEST DATA

4/2/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: TP-2321
Depth: 4.0-5.0'
Sample Number: Bulk 1
Material Description: Dark Gray Fat CLAY with sand
USCS: CH
AASHTO: A-7-6(21)
Tested by: CS
Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	25.56	25.05				
Dry+Tare	22.19	21.75				
Tare	15.65	15.42				
# Blows	22	21				
Moisture	51.5	52.1				



Liquid Limit= 51
Plastic Limit= 20
Plasticity Index= 31
Natural Moisture= 15.3
Liquidity Index= -0.2

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	22.60	22.88			
Dry+Tare	21.45	21.64			
Tare	15.72	15.51			
Moisture	20.1	20.2			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
202.51	176.58	6.82	15.3

MACTEC, Inc.

MACTEC ENGINEERING AND CONSULTING, INC.
RALEIGH, NORTH CAROLINA

REPORT OF THE STANDARD TEST METHOD FOR SPECIFIC GRAVITY OF SOILS
Performed in General Accordance with ASTM D 854-06 (Method B)

PROJECT NAME:EXELON COL PROJECT (VICTORIA)

PROJECT NUMBER: 6468071777

DATE: 2/17/08

SAMPLE IDENTIFICATION: TP-2321 BULK 1,4-5'

(A) Mass of oven-dried soil, grams:	52.03
(B) Mass of pycnometer filled with water at test temperature (T), grams:	656.49
(C) Mass of pycnometer, water and soil, grams:	689.23
(T) Temperature of pycnometer, water and soil, °C when mass (C) determined:	21.7
(G) Specific Gravity at observed temperature: A / [B - (C - A)]	2.697
(F) ***Correction factor:***	0.99963
(G x F) **SPECIFIC GRAVITY @ 20°C:**	2.696

MATERIAL TESTED: [X] **- # 4** [ ] **- # 10**

PREPARATION METHOD: [X] **DRY** [ ] **WET (dispersed)**

REMARKS: Estimated % Passing # 4 : 100

Fat CLAY with sand (CH)

EQUIPMENT USED

SCALES : 3.1.99

OVEN : 5.1.16

THERMOMETER :5.1.01

PYCNOMETER : P-6

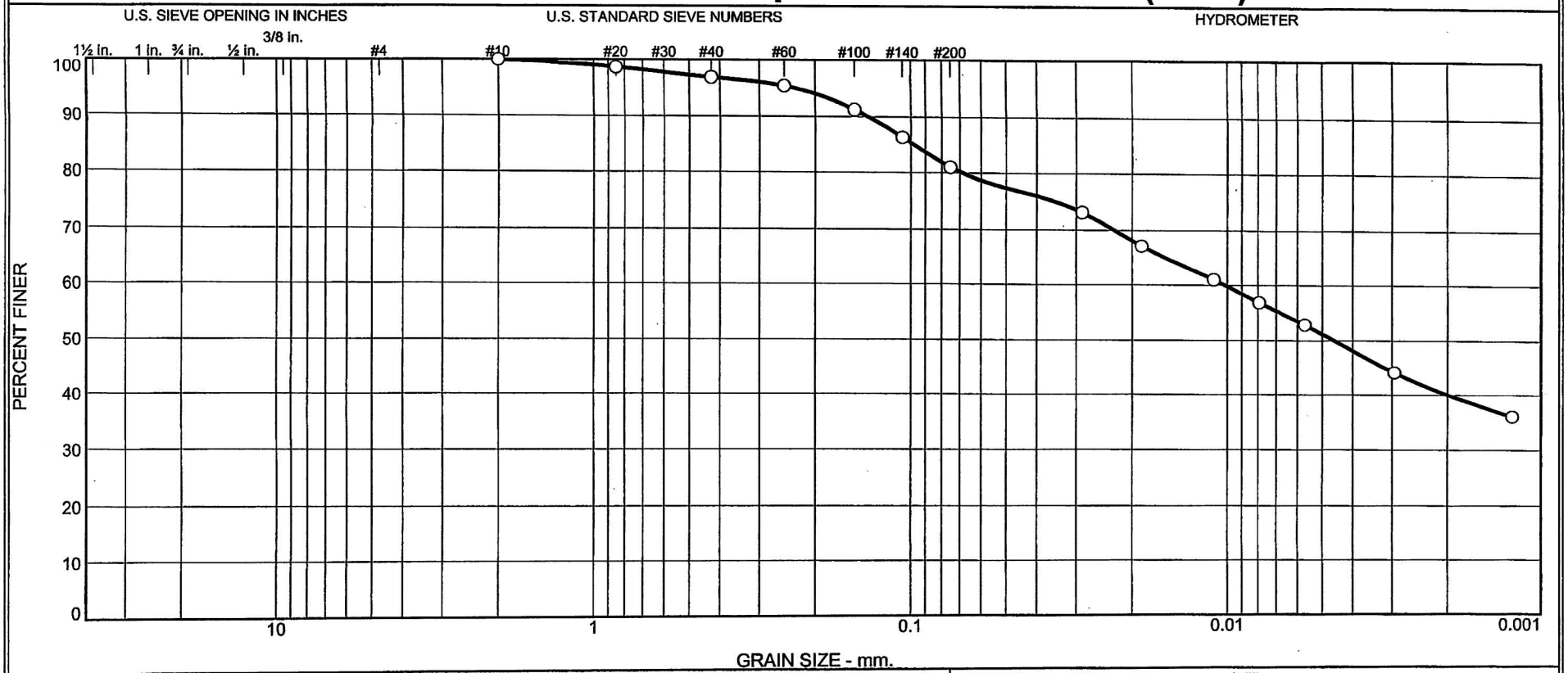
TESTED BY: CS

\Test Reports\Soils\SPECIFIC GRAVITY(ref).xls

REVIEWED BY: **Brian Johnson**

DSC 3-4-08

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



	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	3.1	15.9	29.8	51.2

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	TP-2321	Bulk 2	6.5-10.0	1/30/08	CL	Yellow Lean CLAY with sand	16.0	49	19

Client Bechtel

Project Exelon Texas COL (Victoria)

Project No. 6468071777 Figure N/A

MACTEC, Inc.

Raleigh, North Carolina

○ Specific Gravity = 2.703 (ASTM D854-06)
Natural Moisture and Organic Content was obtained from Jar Sample S-3,7'

Tested By: CS **Checked By:** LBJ DSC 4-2-08

GRAIN SIZE DISTRIBUTION TEST DATA

4/2/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: TP-2321
Depth: 6.5-10.0 **Sample Number:** Bulk 2
Material Description: Yellow Lean CLAY with sand
Date: 1/30/08 **Natural Moisture:** 16.0
Liquid Limit: 49 **Plastic Limit:** 19 **USCS Class.:** CL
Testing Remarks: Specific Gravity = 2.703 (ASTM D854-06)
Natural Moisture and Organic Content was obtained from Jar Sample S-3,7'
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
393.41	0.00	0.00	#10	0.00	100.0
49.33	0.00	0.00	#20	0.66	98.7
			#40	1.55	96.9
			#60	2.28	95.4
			#100	4.32	91.2
			#140	6.71	86.4
			#200	9.36	81.0

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =49.33
Hygroscopic moisture correction:
Moist weight and tare = 30.37
Dry weight and tare = 30.11
Tare weight = 15.68
Hygroscopic moisture = 1.8%
Table of composite correction values:

Temp., deg. C:	12.9	29.9
Comp. corr.:	-8.0	-2.0

Meniscus correction only = 1.0
Specific gravity of solids = 2.703
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	21.1	41.0	35.9	0.0132	42.0	9.4	0.0287	73.2
5.00	21.1	38.0	32.9	0.0132	39.0	9.9	0.0186	67.1
15.00	21.1	35.0	29.9	0.0132	36.0	10.4	0.0110	61.0
30.00	21.1	33.0	27.9	0.0132	34.0	10.7	0.0079	56.9
60.00	21.2	31.0	25.9	0.0132	32.0	11.0	0.0057	52.9
240.00	20.4	27.0	21.6	0.0134	28.0	11.7	0.0030	44.1
1440.00	20.5	23.0	17.7	0.0133	24.0	12.4	0.0012	36.1

MACTEC, Inc.

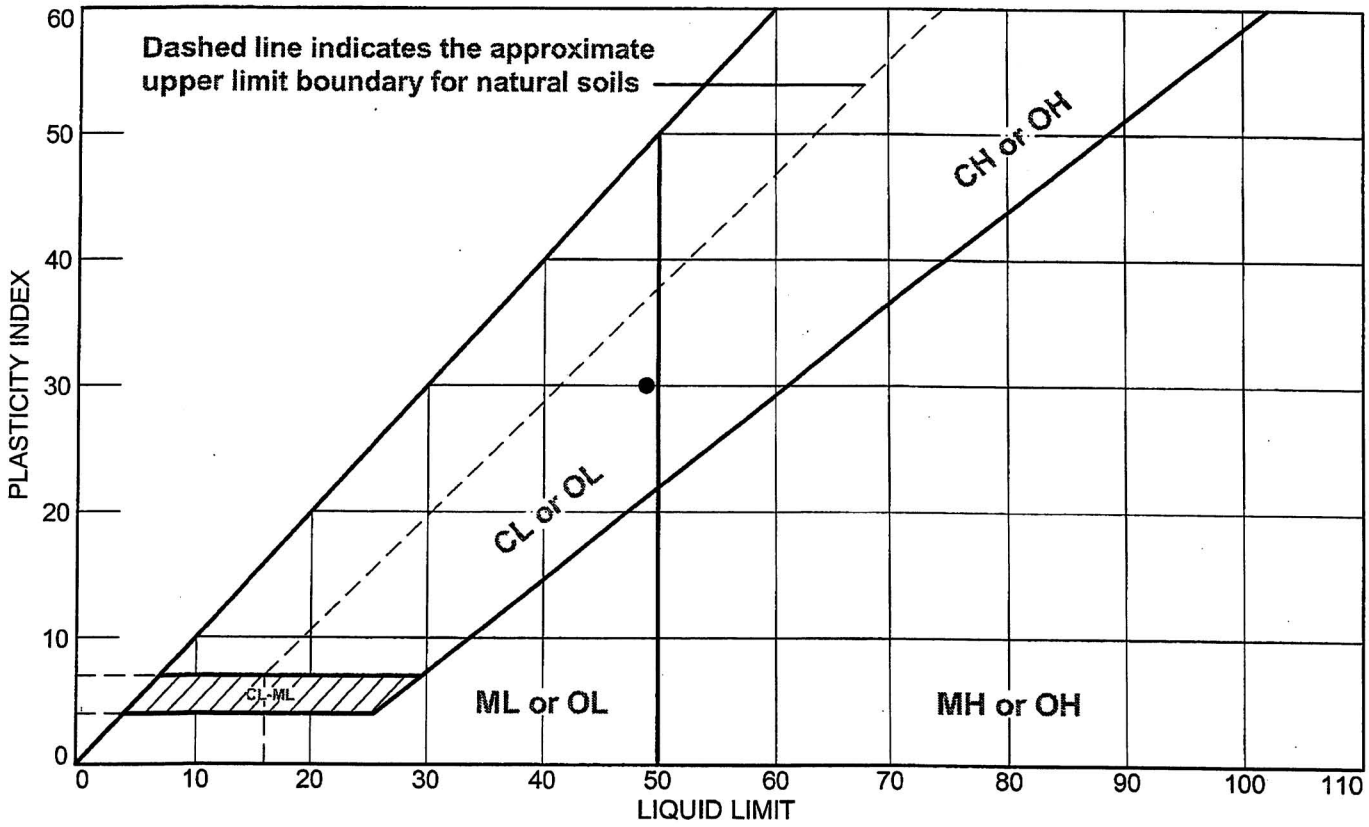
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	3.1	15.9	19.0	29.8	51.2	81.0

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
				0.0046	0.0102	0.0688	0.0973	0.1357	0.2324

Fineness Modulus
0.16

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA

	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	TP-2321	Bulk 2	6.5-10.0	16.0	19	49	30	CL

MACTEC, Inc. **Raleigh, North Carolina**	**Client:** Bechtel **Project:** Exelon Texas COL (Victoria) **Project No.:** 6468071777 **Figure** N A

Tested By: CS **Checked By:** LBJ DSC 4-2-08

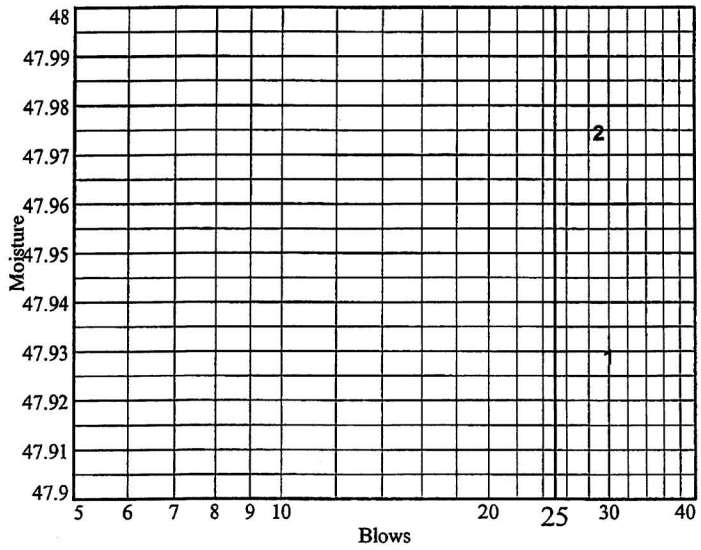
LIQUID AND PLASTIC LIMIT TEST DATA

4/2/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: TP-2321
Depth: 6.5-10.0 **Sample Number:** Bulk 2
Material Description: Yellow Lean CLAY with sand
USCS: CL **AASHTO:** A-7-6(24)
Tested by: CS **Checked by:** LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	32.90	34.05				
Dry+Tare	27.23	28.01				
Tare	15.40	15.42				
# Blows	30	29				
Moisture	47.9	48.0				



Liquid Limit= 49
Plastic Limit= 19
Plasticity Index= 30
Natural Moisture= 16.0
Liquidity Index= -0.1

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	22.26	21.82			
Dry+Tare	21.20	20.84			
Tare	15.61	15.51			
Moisture	19.0	18.4			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
176.61	153.15	6.73	16.0

MACTEC, Inc.

MACTEC ENGINEERING AND CONSULTING, INC.
RALEIGH, NORTH CAROLINA

REPORT OF THE STANDARD TEST METHOD FOR SPECIFIC GRAVITY OF SOILS
Performed in General Accordance with ASTM D 854-06 (Method B)

PROJECT NAME:EXELON COL PROJECT (VICTORIA)

PROJECT NUMBER: 6468071777

DATE: 2/22/08

SAMPLE IDENTIFICATION: TP-2321 BULK 2,6.5-10'

(A) Mass of oven-dried soil, grams:		53.54
(B) Mass of pycnometer filled with water at test temperature (T), grams:		655.74
(C) Mass of pycnometer, water and soil, grams:		689.48
(T) Temperature of pycnometer, water and soil, °C when mass (C) determined:		20.9
(G) Specific Gravity at observed temperature:	A / [B - (C - A)]	2.704
(F)	***Correction factor:***	0.99981
(G x F)	**SPECIFIC GRAVITY @ 20°C:**	2.704

MATERIAL TESTED: [X] **- # 4** [ ] **- # 10**

PREPARATION METHOD: [X] **DRY** [ ] **WET (dispersed)**

REMARKS: Estimated % Passing # 4 : 100

Lean CLAY with sand (CL)

EQUIPMENT USED

SCALES : 3.1.99

OVEN : 5.1.16

THERMOMETER :5.1.01

PYCNOMETER : P-3

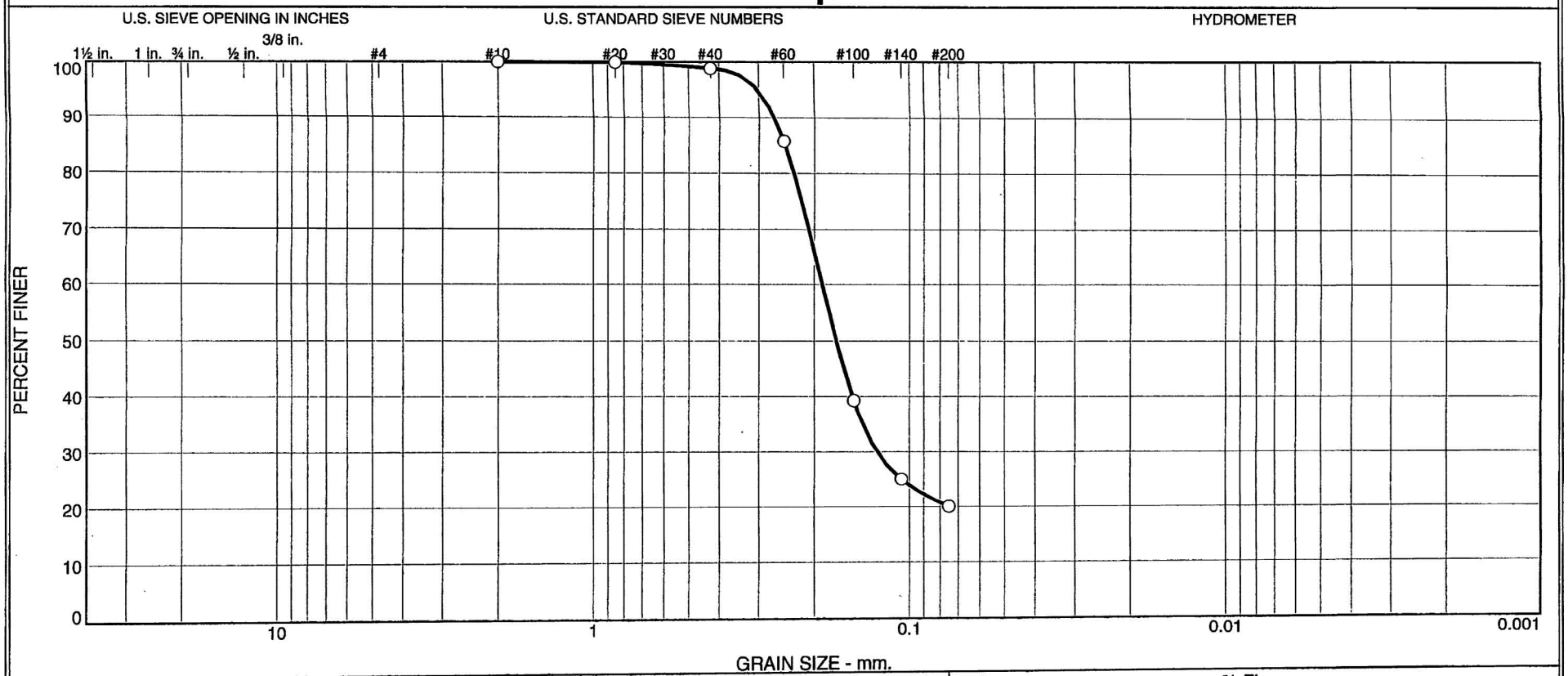
TESTED BY: CS

\Test Reports\Soils\SPECIFIC GRAVITY(ref).xls

REVIEWED BY: Brian Johnson

DSC 3-4-08

Particle Size Distribution Report / ASTM D 6913-04e1



	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	1.2	78.8	20.0	

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	TP-2332	Bulk 2	3.0-10.0	1/22/08	SM	Very Pale Brown Silty SAND (Visual)	10.9	ND	ND

Client Bechtel

Project Exelon Texas COL (Victoria)

Project No. 6468071777 Figure NA

MACTEC, Inc.

Raleigh, North Carolina

○ SIEVE ANALYSIS ONLY
Specific Gravity = 2.656 (ASTM D854-06)
Organic content = 1.9% (ASTM D2974-07)-(S-2 5'),
ND = Not Determined
Natural Moisture obtained from Jar Sample S-3, 7'

Tested By: CS Checked By: LBL DSC 4-2-08

GRAIN SIZE DISTRIBUTION TEST DATA

4/2/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: TP-2332
Depth: 3.0-10.0 **Sample Number:** Bulk 2
Material Description: Very Pale Brown Silty SAND (Visual)
Date: 1/22/08 **Natural Moisture:** 10.9
Liquid Limit: ND **Plastic Limit:** ND **USCS Class.:** SM
Testing Remarks: SIEVE ANALYSIS ONLY
Specific Gravity = 2.656 (ASTM D854-06)
Organic content = 1.9% (ASTM D2974-07)-(S-2 5'),
ND = Not Determined
Natural Moisture obtained from Jar Sample S-3, 7'
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
229.94	0.00	0.00	#10	0.00	100.0
98.94	0.00	0.00	#20	0.11	99.9
			#40	1.14	98.8
			#60	14.03	85.8
			#100	60.10	39.3
			#140	74.14	25.1
			#200	79.12	20.0

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	1.2	78.8	80.0			20.0

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
			0.1263	0.1704	0.1885	0.2319	0.2471	0.2678	0.3029

Fineness Modulus
0.67

MACTEC ENGINEERING AND CONSULTING, INC.
RALEIGH, NORTH CAROLINA

REPORT OF THE STANDARD TEST METHOD FOR SPECIFIC GRAVITY OF SOILS
Performed in General Accordance with ASTM D 854-06 (Method B)

PROJECT NAME:EXELON COL PROJECT (VICTORIA)

PROJECT NUMBER: 6468071777

DATE: 2/21/08

SAMPLE IDENTIFICATION: TP-2332 BULK 2,3-10'

(A) Mass of oven-dried soil, grams:		75.00
(B) Mass of pycnometer filled with water at test temperature (T), grams:		656.48
(C) Mass of pycnometer, water and soil, grams:		703.25
(T) Temperature of pycnometer, water and soil, °C when mass (C) determined:		21.8
(G) Specific Gravity at observed temperature:	A / [B - (C - A)]	2.657
(F)	***Correction factor:***	0.99961
(G x F)	**SPECIFIC GRAVITY @ 20°C:**	2.656

MATERIAL TESTED: [X] **- # 4** [ ] **- # 10**

PREPARATION METHOD: [X] **DRY** [ ] **WET (dispersed)**

REMARKS: Estimated % Passing # 4 : 100
Silty SAND (SM)-Visual

EQUIPMENT USED
SCALES : 3.1.99
OVEN : 5.1.16
THERMOMETER :5.1.01
PYCNOMETER : P-6

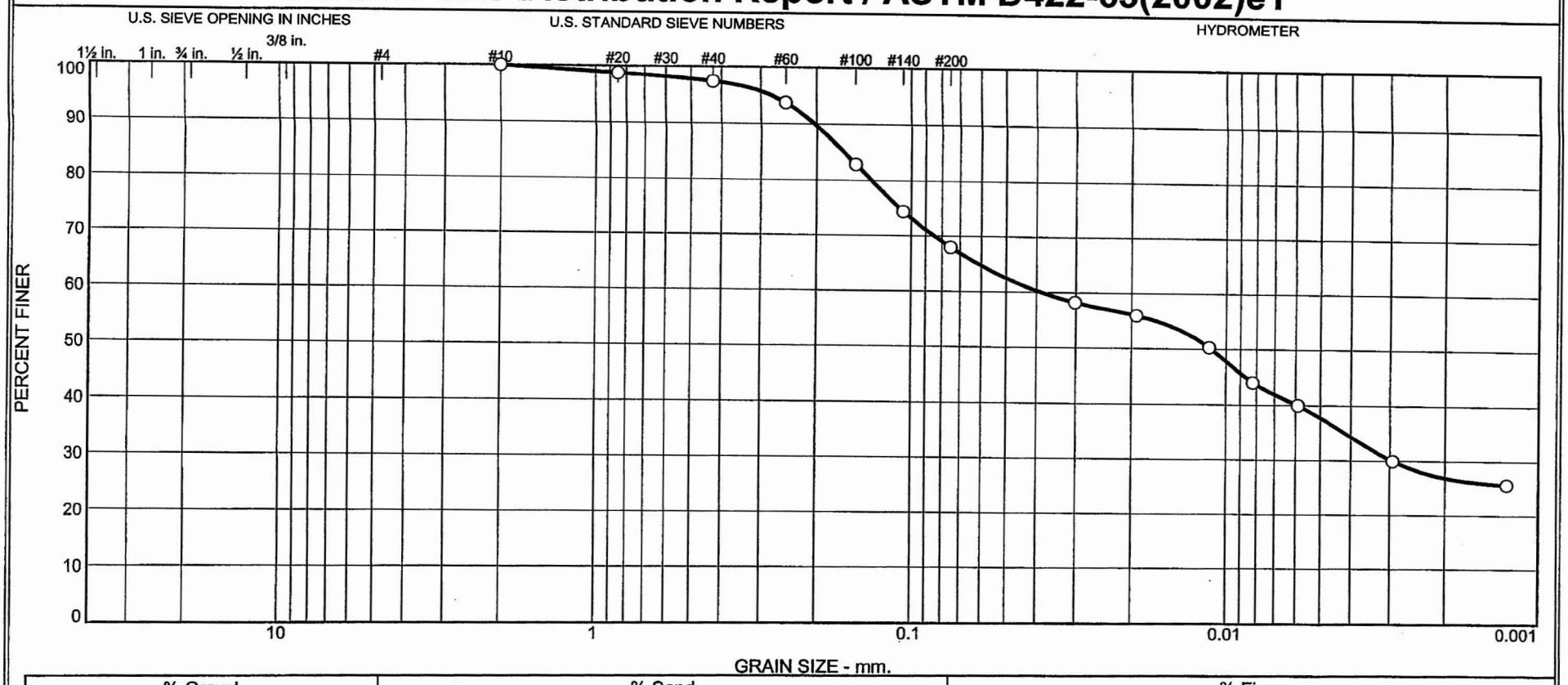
TESTED BY: CS

\Test Reports\Soils\SPECIFIC GRAVITY(ref).xls

REVIEWED BY: Brian Johnson

DSC 3-4-08

Particle Size Distribution Report / ASTM D422-63(2002)e1



	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	2.6	29.4	30.2	37.8

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	TP-2334	Bulk 1	2.0-5.0	1/20/08	CL	Light Brownish Gray Sandy Lean CLAY	14.8	44	13

Client Bechtel

Project Exelon Texas COL (Victoria)

Project No. 6468071777 Figure NA

MACTEC, Inc.

Raleigh, North Carolina

○ Specific Gravity = 2.722 (ASTM D854-06)
Organic content = 4.3% (ASTM D2974-07)
Natural Moisture and Organic Content obtained from Jar Sample S-2,2-5'

Tested By: CS **Checked By:** LBJ DSC 4-2-08

GRAIN SIZE DISTRIBUTION TEST DATA

4/2/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: TP-2334
Depth: 2.0-5.0 **Sample Number:** Bulk 1
Material Description: Light Brownish Gray Sandy Lean CLAY
Date: 1/20/08 **Natural Moisture:** 14.8
Liquid Limit: 44 **Plastic Limit:** 13 **USCS Class.:** CL
Testing Remarks: Specific Gravity = 2.722 (ASTM D854-06)
Organic content = 4.3% (ASTM D2974-07)
Natural Moisture and Organic Content obtained from Jar Sample S-2,2-5'
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
379.83	0.00	0.00	#10	0.00	100.0
50.25	0.00	0.00	#20	0.64	98.7
			#40	1.31	97.4
			#60	3.16	93.7
			#100	8.59	82.9
			#140	12.85	74.4
			#200	16.08	68.0

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =50.25
Hygroscopic moisture correction:
Moist weight and tare = 27.33
Dry weight and tare = 27.04
Tare weight = 15.53
Hygroscopic moisture = 2.5%
Table of composite correction values:

Temp., deg. C:	12.9	29.9
Comp. corr.:	-8.0	-2.0

Meniscus correction only = 1.0
Specific gravity of solids = 2.722
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	21.4	34.0	29.0	0.0131	35.0	10.6	0.0302	58.2
5.00	21.1	33.0	27.9	0.0132	34.0	10.7	0.0193	56.0
15.00	21.6	30.0	25.1	0.0131	31.0	11.2	0.0113	50.3
30.00	21.2	27.0	21.9	0.0132	28.0	11.7	0.0082	44.0
60.00	21.2	25.0	19.9	0.0132	26.0	12.0	0.0059	40.0
258.00	21.2	20.0	14.9	0.0132	21.0	12.9	0.0029	30.0
1440.00	20.9	18.0	12.8	0.0132	19.0	13.2	0.0013	25.7

MACTEC, Inc.

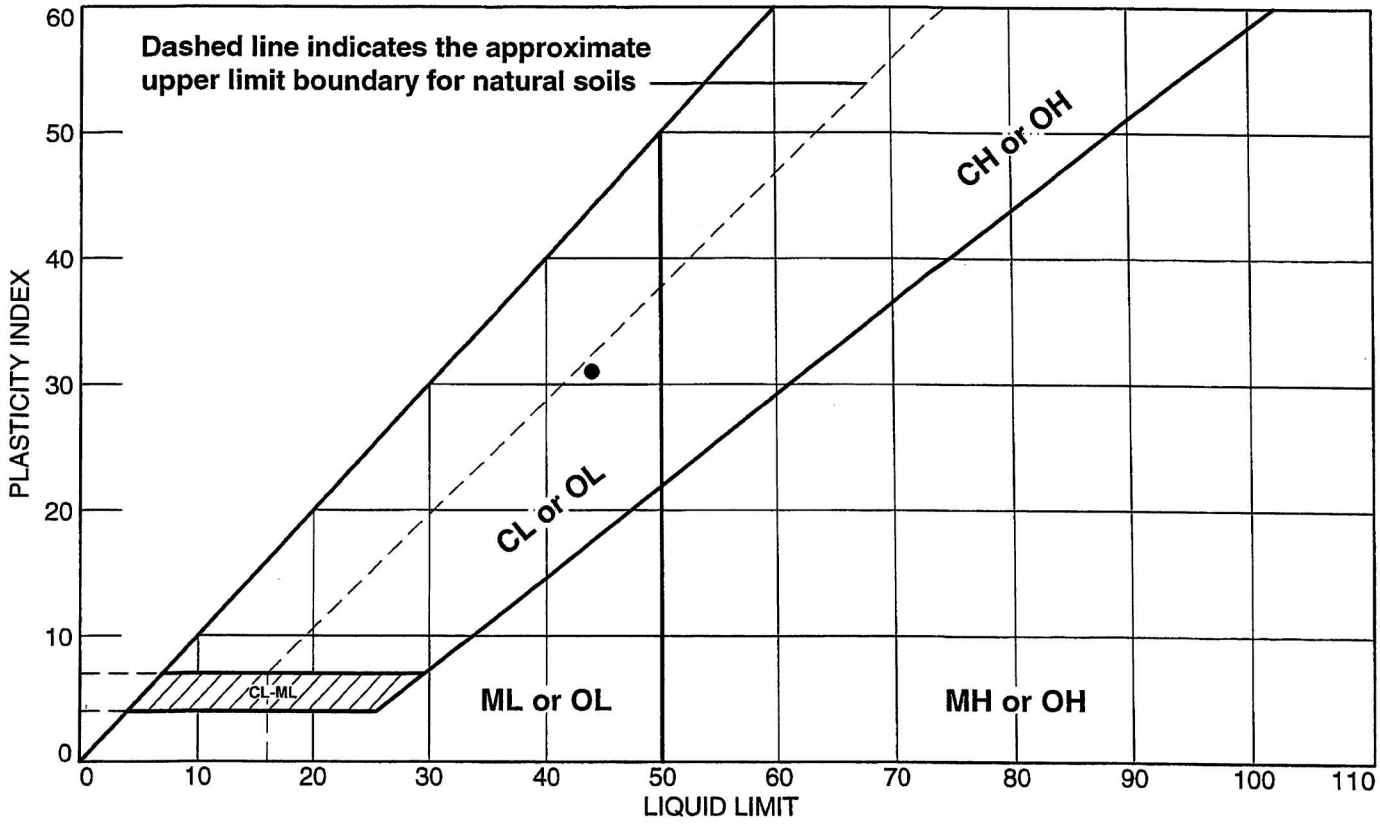
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	2.6	29.4	32.0	30.2	37.8	68.0

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
			0.0029	0.0111	0.0387	0.1337	0.1631	0.2028	0.2778

Fineness Modulus
0.24

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	TP-2334	Bulk 1	2.0-5.0	14.8	13	44	31	CL

MACTEC, Inc.

Raleigh, North Carolina

Client: Bechtel

Project: Exelon Texas COL (Victoria Reservoir)

Project No.: 6468071777

Figure NA

Tested By: CS **Checked By:** LBJ DSC 3-4-08

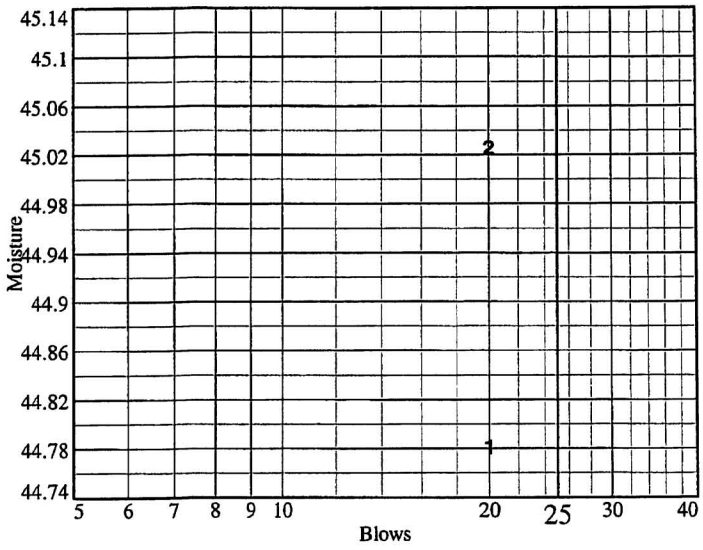
LIQUID AND PLASTIC LIMIT TEST DATA

3/4/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria Reservoir)
Project Number: 6468071777
Location: TP-2334
Depth: 2.0-5.0 **Sample Number:** Bulk 1
Material Description: Light Brownish Gray Sandy Lean CLAY
USCS: CL **AASHTO:** A-7-6(18)
Tested by: CS **Checked by:** LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	31.74	34.95				
Dry+Tare	26.72	28.93				
Tare	15.51	15.56				
# Blows	20	20				
Moisture	44.8	45.0				



Liquid Limit= 44
Plastic Limit= 13
Plasticity Index= 31
Natural Moisture= 14.8
Liquidity Index= 0.1

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	19.09	24.40			
Dry+Tare	18.20	23.40			
Tare	11.06	15.49			
Moisture	12.5	12.6			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
174.67	153.34	9.44	14.8

MACTEC, Inc.

MACTEC ENGINEERING AND CONSULTING, INC.
RALEIGH, NORTH CAROLINA

REPORT OF THE STANDARD TEST METHOD FOR SPECIFIC GRAVITY OF SOILS
Performed in General Accordance with ASTM D 854-06 (Method B)

PROJECT NAME:EXELON COL PROJECT (VICTORIA)

PROJECT NUMBER: 6468071777

DATE: 2/23/08

SAMPLE IDENTIFICATION: TP-2334 BULK 1,2-5'

(A) Mass of oven-dried soil, grams:	50.00
(B) Mass of pycnometer filled with water at test temperature (T), grams:	656.51
(C) Mass of pycnometer, water and soil, grams:	688.15
(T) Temperature of pycnometer, water and soil, °C when mass (C) determined:	21.5
(G) Specific Gravity at observed temperature: A / [B - (C - A)]	2.723
(F) ***Correction factor:***	0.99968
(G x F) **SPECIFIC GRAVITY @ 20°C:**	2.722

MATERIAL TESTED: [X] **- # 4** [ ] **- # 10**

PREPARATION METHOD: [X] **DRY** [ ] **WET (dispersed)**

REMARKS: Estimated % Passing # 4 : 100

Sandy Lean CLAY (CL)

EQUIPMENT USED

SCALES : 3.1.99

OVEN : 5.1.16

THERMOMETER :5.1.01

PYCNOMETER : P-6

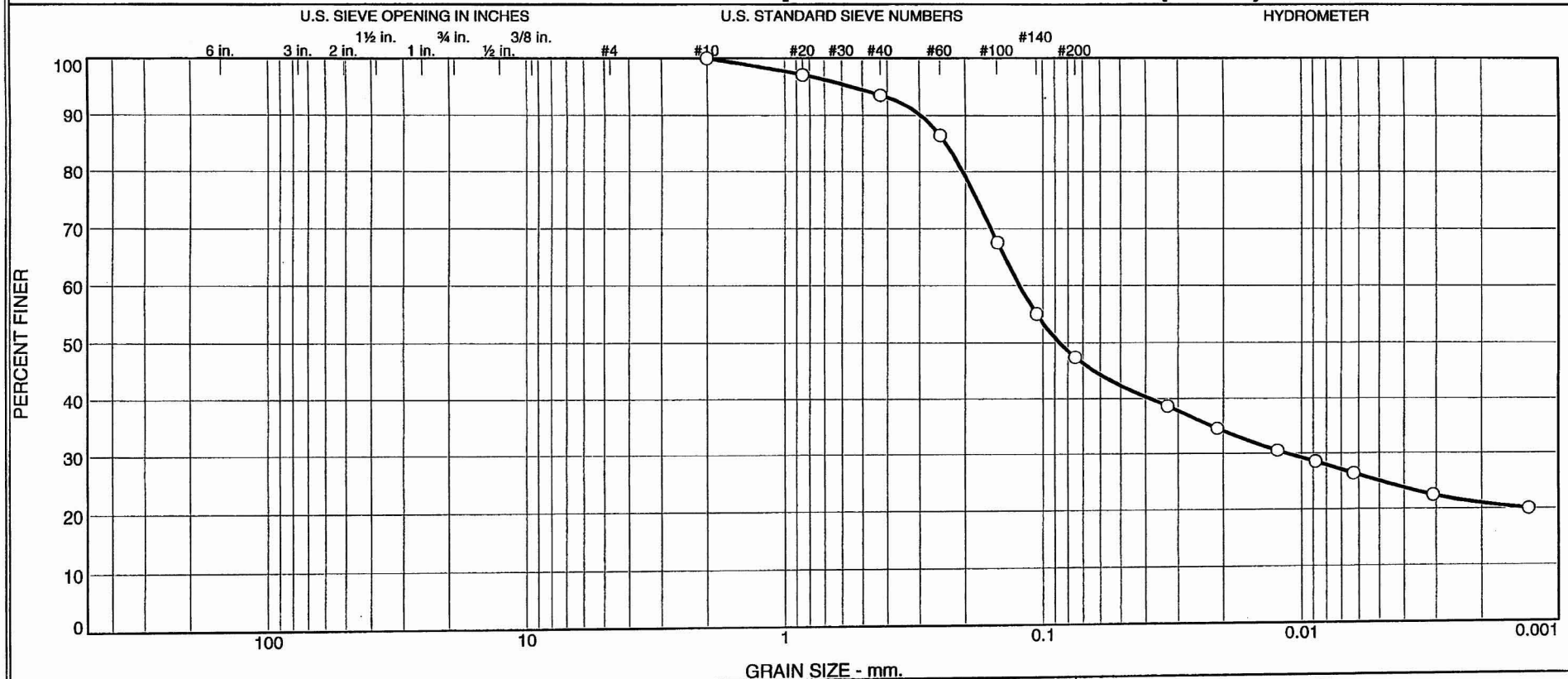
TESTED BY: CS

\Test Reports\Soils\SPECIFIC GRAVITY(ref).xls

REVIEWED BY: **Brian Johnson**

DSC 3-4-08

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	6.5	46.1	22.4	25.0

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	TP-2334	Bulk 2	5.0-10.0	1/20/08	SC	Light Pale Brown Clayey SAND	15.2	31	12

Client Bechtel

Project Exelon Texas COL (Victoria Reservoir)

Project No. 6468071777 Figure NA

MACTEC, Inc.

Raleigh, North Carolina

○ Specific Gravity = 2.669 (ASTM D854-06)
Natural Moisture was obtained from Jar Sample S-3,7'

Tested By: CS **Checked By:** LBJ DSC 3-4-08

GRAIN SIZE DISTRIBUTION TEST DATA

3/4/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria Reservoir)
Project Number: 6468071777
Location: TP-2334
Depth: 5.0-10.0 **Sample Number:** Bulk 2
Material Description: Light Pale Brown Clayey SAND
Date: 1/20/08 **Natural Moisture:** 15.2
Liquid Limit: 31 **Plastic Limit:** 12 **USCS Class.:** SC
Testing Remarks: Specific Gravity = 2.669 (ASTM D854-06)
Natural Moisture was obtained from Jar Sample S-3,7'
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
379.05	0.00	0.00	#10	0.00	100.0
49.97	0.00	0.00	#20	1.47	97.1
			#40	3.23	93.5
			#60	6.75	86.5
			#100	16.20	67.6
			#140	22.46	55.1
			#200	26.28	47.4

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =49.97
Hygroscopic moisture correction:
Moist weight and tare = 28.92
Dry weight and tare = 28.61
Tare weight = 15.29
Hygroscopic moisture = 2.3%
Table of composite correction values:

Temp., deg. C:	12.9	29.9
Comp. corr.:	-8.0	-2.0

Meniscus correction only = 1.0
Specific gravity of solids = 2.669
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	21.3	24.0	19.0	0.0134	25.0	12.2	0.0330	38.7
5.00	21.3	22.0	17.0	0.0134	23.0	12.5	0.0211	34.6
15.00	21.3	20.0	15.0	0.0134	21.0	12.9	0.0124	30.5
30.00	21.3	19.0	14.0	0.0134	20.0	13.0	0.0088	28.5
60.00	21.2	18.0	12.9	0.0134	19.0	13.2	0.0063	26.4
252.00	21.4	16.0	11.0	0.0133	17.0	13.5	0.0031	22.4
1440.00	20.9	15.0	9.8	0.0134	16.0	13.7	0.0013	20.0

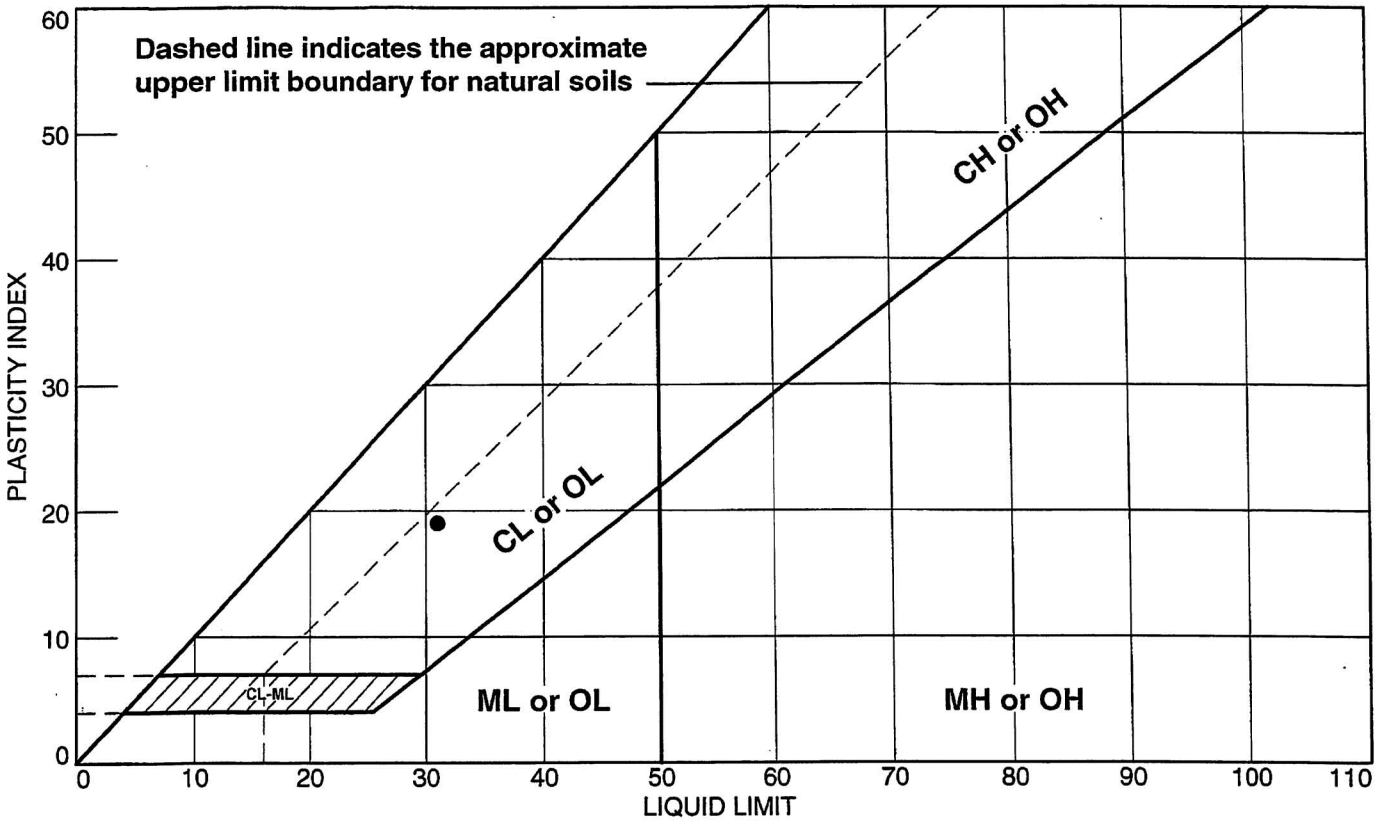
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	6.5	46.1	52.6	22.4	25.0	47.4

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
			0.0114	0.0864	0.1233	0.2043	0.2370	0.2960	0.5470

Fineness Modulus
0.48

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



	SOIL DATA							
	SOURCE	SAMPLE NO.	DEPTH (ft.)	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	TP-2334	Bulk 2	5.0-10.0	15.2	12	31	19	SC

MACTEC, Inc.

Raleigh, North Carolina

Client: Bechtel

Project: Exelon Texas COL (Victoria Reservoir)

Project No.: 6468071777

Figure NA

Tested By: CS **Checked By:** LBJ DSC 3-4-08

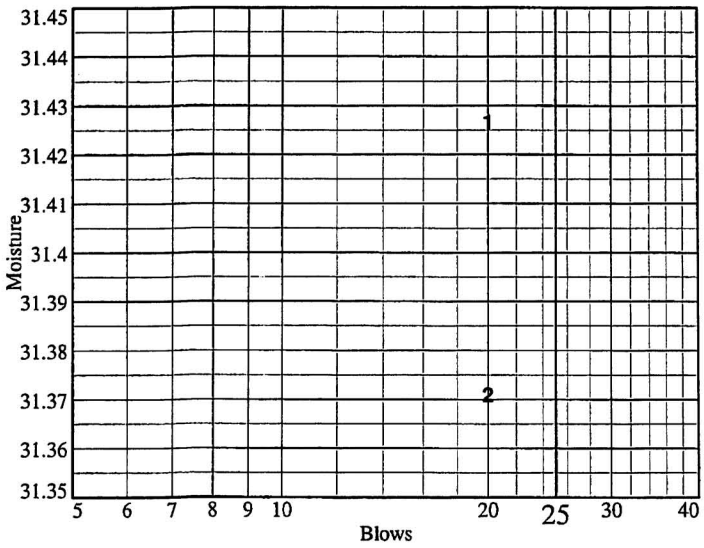
LIQUID AND PLASTIC LIMIT TEST DATA

3/4/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria Reservoir)
Project Number: 6468071777
Location: TP-2334
Depth: 5.0-10.0 **Sample Number:** Bulk 2
Material Description: Light Pale Brown Clayey SAND
USCS: SC **AASHTO:** A-6(5)
Tested by: CS **Checked by:** LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	35.92	33.16				
Dry+Tare	31.03	28.95				
Tare	15.47	15.53				
# Blows	20	20				
Moisture	31.4	31.4				



Liquid Limit= 31
Plastic Limit= 12
Plasticity Index= 19
Natural Moisture= 15.2
Liquidity Index= 0.2

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	23.45	23.62			
Dry+Tare	22.60	22.80			
Tare	15.52	15.67			
Moisture	12.0	11.5			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
138.32	121.28	9.10	15.2

MACTEC, Inc.

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RALEIGH, NORTH CAROLINA

REPORT OF THE STANDARD TEST METHOD FOR SPECIFIC GRAVITY OF SOILS
Performed in General Accordance with ASTM D 854-06 (Method B)

PROJECT NAME:EXELON COL PROJECT (VICTORIA)

PROJECT NUMBER: 6468071777

DATE: 2/23/08

SAMPLE IDENTIFICATION: TP-2334 BULK 2,5-10'

(A) Mass of oven-dried soil, grams:		51.63
(B) Mass of pycnometer filled with water at test temperature (T), grams:		655.70
(C) Mass of pycnometer, water and soil, grams:		687.99
(T) Temperature of pycnometer, water and soil, °C when mass (C) determined:		21.3
(G) Specific Gravity at observed temperature:	A / [B - (C - A)]	2.670
(F)	***Correction factor:***	0.99972
(G x F)	**SPECIFIC GRAVITY @ 20°C:**	2.669

MATERIAL TESTED: [X] **- # 4** [ ] **- # 10**

PREPARATION METHOD: [X] **DRY** [ ] **WET (dispersed)**

REMARKS: Estimated % Passing # 4 : 100
Clayey SAND (SC)

EQUIPMENT USED
SCALES : 3.1.99
OVEN : 5.1.16
THERMOMETER :5.1.01
PYCNOMETER : P-3

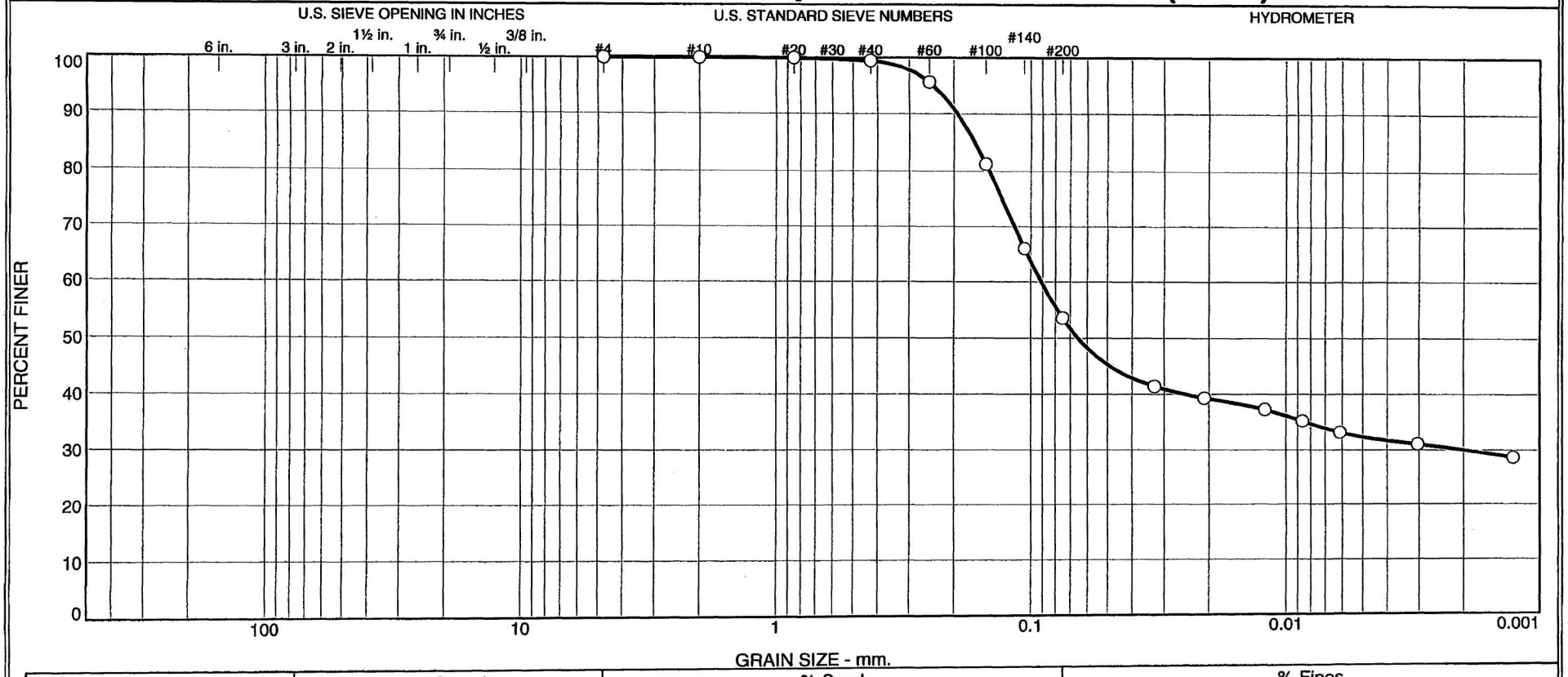
TESTED BY: CS

\Test Reports\Soils\SPECIFIC GRAVITY(ref).xls

REVIEWED BY: **Brian Johnson**

DSC 3-4-08

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



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	0.5	45.9	21.3	32.3

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	TP-2335	Bulk 2	4.0-8.0	1/20/08	CL	Pale Yellow Sandy Lean CLAY	11.2	37	14

Client Bechtel

Project Exelon Texas COL (Victoria Reservoir)

Project No. 6468071777 Figure NA

MACTEC, Inc.

Raleigh, North Carolina

○ Specific Gravity = 2.674 (ASTM D854-06)
Organic content = 3.9% (ASTM D2974-07)
Natural Moisture and Organic Content were obtained from Jar Sample S-3,6'

Tested By: CS **Checked By:** LBJ DSC 3-4-08