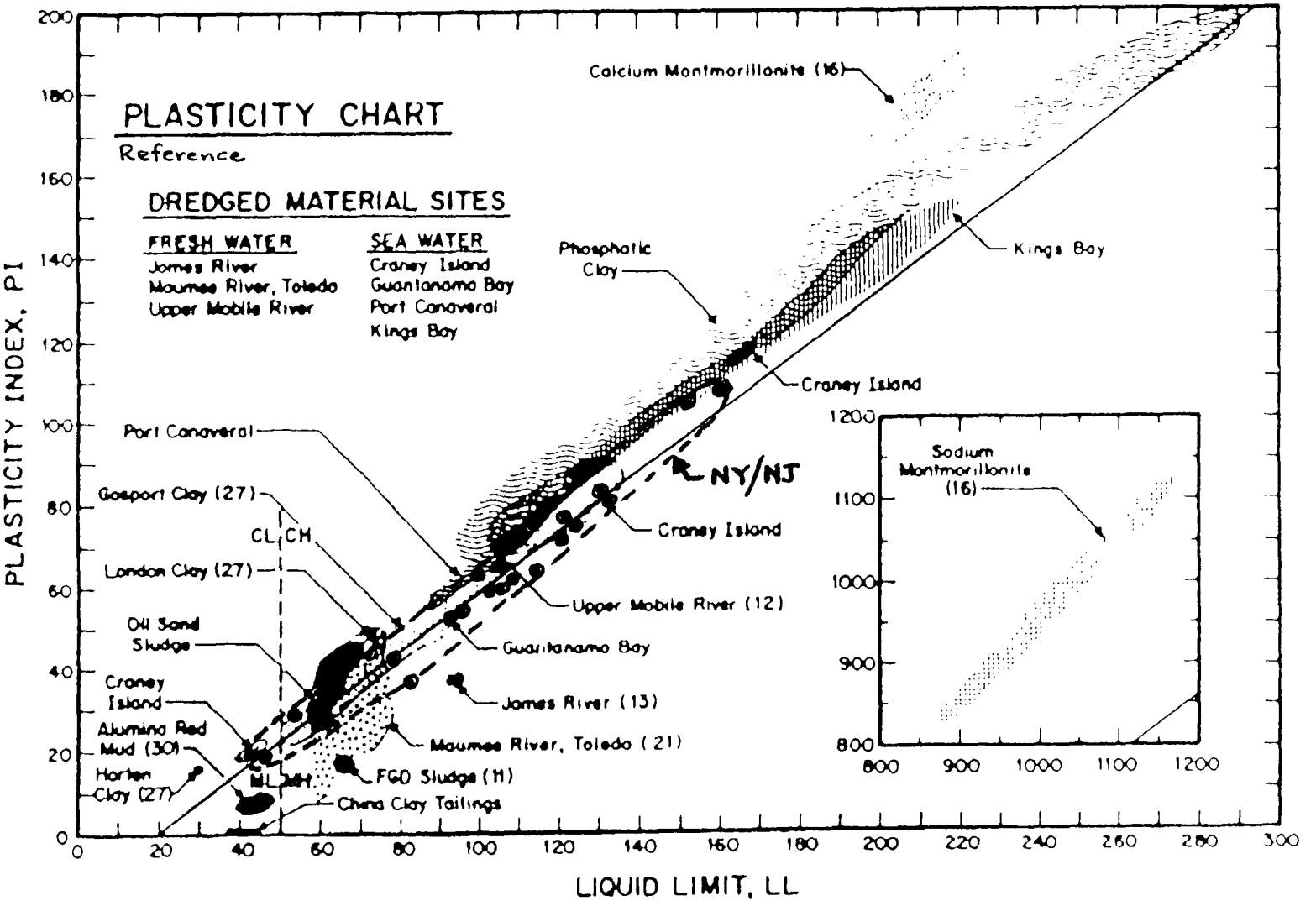
C. ATTERBERG LIMITS



● NY Dredged Material

Location: BPAMT (Location No. 3 -- Section A)

LL	PL	PI	w/c	SG	pH	Unit Weight	Reference
110	48.1	61.9	156	2.54		80.0	2
124	48.3	75.9	175.1	2.57		79.6	2
130.5	46.9	83.6	137.2	2.53		83.2	2
134.4	52.7	81.7	168.3	2.53		80.0	2

Location: PST (Location No. 1 -- Section A)

LL	PL	PI	w/c	SG	pH	Unit Weight	Reference
104.5	44.5	60	104.8				3
95	41	54	191				3
96	41	55	163				3
93	39	54	167				3
						76.0	5

Location: Howland Hook (Location No. 2 -- Section A)

LL	PL	PI	w/c	SG	pH	Unit Weight	Reference
				2.26			4
				·2.26			4
				2.39			4
				2.47			4
				2.33			4
				2.44			4
				2.47			4
				2.28			4
				2.28			4
				2.44			4
						82.4	6
						77.8	6
					7.7		6
					7.36		6

Note: LL = Atterberg liquid limit
PL = Atterberg plastic limit
PI = plasticity index
w/c = water content
SG = specific gravity
LL,PL,PI,and w/c are expressed in percent -- weight of water divided by dry unit weight
Unit Weight is pounds per cubic foot

PHYSICAL CHARACTERISTICS OF SEDIMENTS

Sample No.	Project	Sample Type	Ø Classification System Coarse %	Sand %	Silt %	Clay %	USC(1)	Water Content %	Liquid Limit %	Plasticity Index %	Coefficient of Permeability cm/sec.(k)
1	Lower Hackensack	Grab	3	96	1	0	SP				4.1×10^{-4}
2	Celanese	Grab	0	6	80	14	OH	172.5	83.6	37.4	6.9×10^{-8}
3	Lower Passaic	Core	0	4	74	22	OH	143.4	107.6	60.2	2.9×10^{-8}
4A	Newark Bay, Port	Core	0	19	72	9	OH	180.5	93.5	54.2	3.8×10^{-8}
4B	Elizabeth	Core	0	22	70	8	OH	175.4	87.8	52.1	4.0×10^{-8}
4C		Core	0	14	80	6	OH	146.4	100.3	64.7	5.5×10^{-8}
5	Newark Bay, Lower Channel	Core	8	40	50	2	OH	69.9	53.6	29.7	5.5×10^{-8}
6	North of Shooters Island	Core	19	8	65	8	OH	132.4	122.2	72.0	3.4×10^{-8}
7	Exxon Bayway	Grab	0	5	78	17	OH	288.7	155.0	107.1	5.1×10^{-8}
8	Con Ed	Grab	37	14	42	7	SC	149.7	123.0	77.4	7.1×10^{-5}
9	US Metals	Core	0	1	85	14	OH	191.4	160.0	110.9	7.3×10^{-8}
10	Shell	Core	1	16	75	8	OH	131.3	109.7	68.4	9.3×10^{-7}
11 Top	Perth Amboy	Core	5	8	76	11	OH	169.3	116.1	63.6	7.3×10^{-6}
11 Btm	Anchorage	Core	6	93	1	0	SP				
12A	Sequine Point Bend	Core	0	4	87	9	OH	116.6	101.6	55.5	2.9×10^{-7}
12B	Sequine Point Bend	Core	0	4	81	15	OH	116.0	99.0	54.1	4.5×10^{-8}
12C	Sequine Point Bend	Core	0	3	88	9	OH	117.0	105.7	59.6	4.6×10^{-8}
13	Earle, Navy	Core	3	22	62	13	OH	104.0	78.8	43.9	4.7×10^{-8}
14	Ambrose Channel	Grab	5	94	1	0	SP				3.4×10^{-4}
15	Gravesend Anchorage	Core	0	91	9	0	SP-SM				3.5×10^{-4}
16 Top	Bay Ridge Channel	Core	0	15	71	14	OH	155.6	107.4	63.9	7.4×10^{-8}
16 Btm	Bay Ridge Channel	Core	16	83	1	0	SP				
17A	Red Hook Channel	Core	3	36	58	3	OH	83.5	64.2	28.3	4.1×10^{-7}
17BCD	Red Hook Channel	Core	3	25	69	3	OH	95.5	63.2	31.1	7.9×10^{-7}
17E	Red Hook Channel	Grab	1	39	57	3	OH	117.3	80.2	44.9	2.8×10^{-6}
18	Buttermilk Channel	Grab	37	59	4	0	SP				3.2×10^{-5}
19A	40 Foot Channel	Core	7	60	26	7	SC	72.9	44.6	19.3	9.6×10^{-8}
19B	40 Foot Channel	Core	5	62	31	2	SC	70.3	45.5	18.5	1.5×10^{-6}
19C	40 Foot Channel	Core	2	23	59	16	OL	74.5	48.4	19.2	5.8×10^{-6}
20A	Newtown Creek (Mouth	Core	1	19	76	4	OH	96.9	67.6	32.0	7.6×20^{-6}
20B	of Dutch Kills)	Core	1	20	75	4	OH	72.2	72.9	38.9	5.2×10^{-8}
20C	Newtown Creek	Core	1	32	64	3	OL	93.6	49.2	21.8	2.6×10^{-6}
21	PA-NYNJ Terminals	Core	1	2	85	12	OH	159.4	105.3	61.2	2.7×10^{-8}
22	59th St. Sanitation Pier	Core	0	15	78	7	OH	95.2	74.6	33.5	3.4×10^{-6}
23	Edgewater-Weehawken, NJ	Core	0	6	70	24	OH	104.5	85.4	45.9	3.7×10^{-8}

Note: (1) Unified Soils Classification

(TABLE 3-10 Ref. 1)