



TRANSMITTAL 25

425 S. Palos Verdes Street Post Office Box 151 San Pedro, CA 90733-0151 TEL/TDD 310 SEA-PORT www.portoflosangeles.org

Antonio R. Villaraigosa Mayor, City of Los Angeles

Board of Harbor
Commissioners

Cindy Miscikowski
President

Jerilyn López Mendoza
Vice President

Kaylynn L. Kim

Douglas P. Krause

Joseph R. Radtsich

Geraldine Knatz, Ph.D.

Executive Director

September 9, 2010

Port of Long Beach
925 Harbor Plaza
Long Beach, CA 90802

Attention: Mr. Richard Cameron

SUBJECT: APPLICATION FOR PLACEMENT OF DREDGE MATERIAL IN PORT OF LONG BEACH MIDDLE HARBOR FILL SITE – MAIN CHANNEL DEEPENING PROJECT

Thank you for further consideration of our application to place approximately 630,000 cubic yards of dredge material from our Main Channel Deepening Project in the Port of Long Beach Middle Harbor Slip 1. We are transmitting additional information as requested in your letter dated August 26, 2010.

Please be aware that the chemistry data transmitted is raw data and has not been composited. POLA will conduct additional chemistry evaluations in accordance with standard protocols and develop a dredge plan that would propose sending only the non-hazardous sediments with levels below TTLC to Middle Harbor. We expect to complete this additional analysis by the end of 2010.

As stated in our original application, this material is fully permitted and entitled under the Main Channel Deepening Project to be deposited in a CDF at the Berth 243-245 slips.

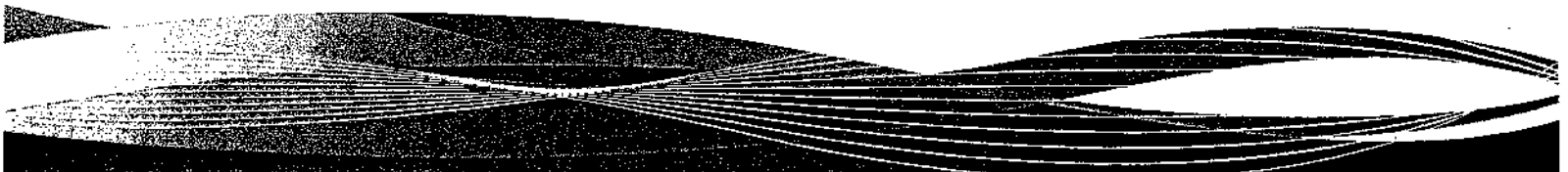
If you have any questions or need clarification regarding this information, please contact me at 310-732-3877 or Dave Walsh, Assistant Chief Harbor Engineer at 310-732-3639.

Sincerely,






ANTONIO V. GIOIELLO
Chief Harbor Engineer


LO #10-3654

AVG:mvr
Adm29122
Adm 2-9-1





Landfill Use Desirability	Material Types
High	 Primarily coarse-grained sediments (sand and silty sand).
Low-Moderate	 Interlayered deposits of coarse- and fine-grained sediments.
Very Low	 Primarily fine-grained sediments (silt, sandy silt, and clay).
Low-Very Low	 Intact and/or weathered Timms Point Silt (silt, sandy silt, silty sand) (Approximate location of contact between Holocene sediments and Timms Point Silt as projected vertically from an elevation of -60 ft MLLW.)
Very Low	 Intact and/or weathered Malaga Mudstone (elastic silts) (Approximate location of contact between Malaga Mudstone and Timms Point Silt as projected vertically from an elevation of -60 ft MLLW.)

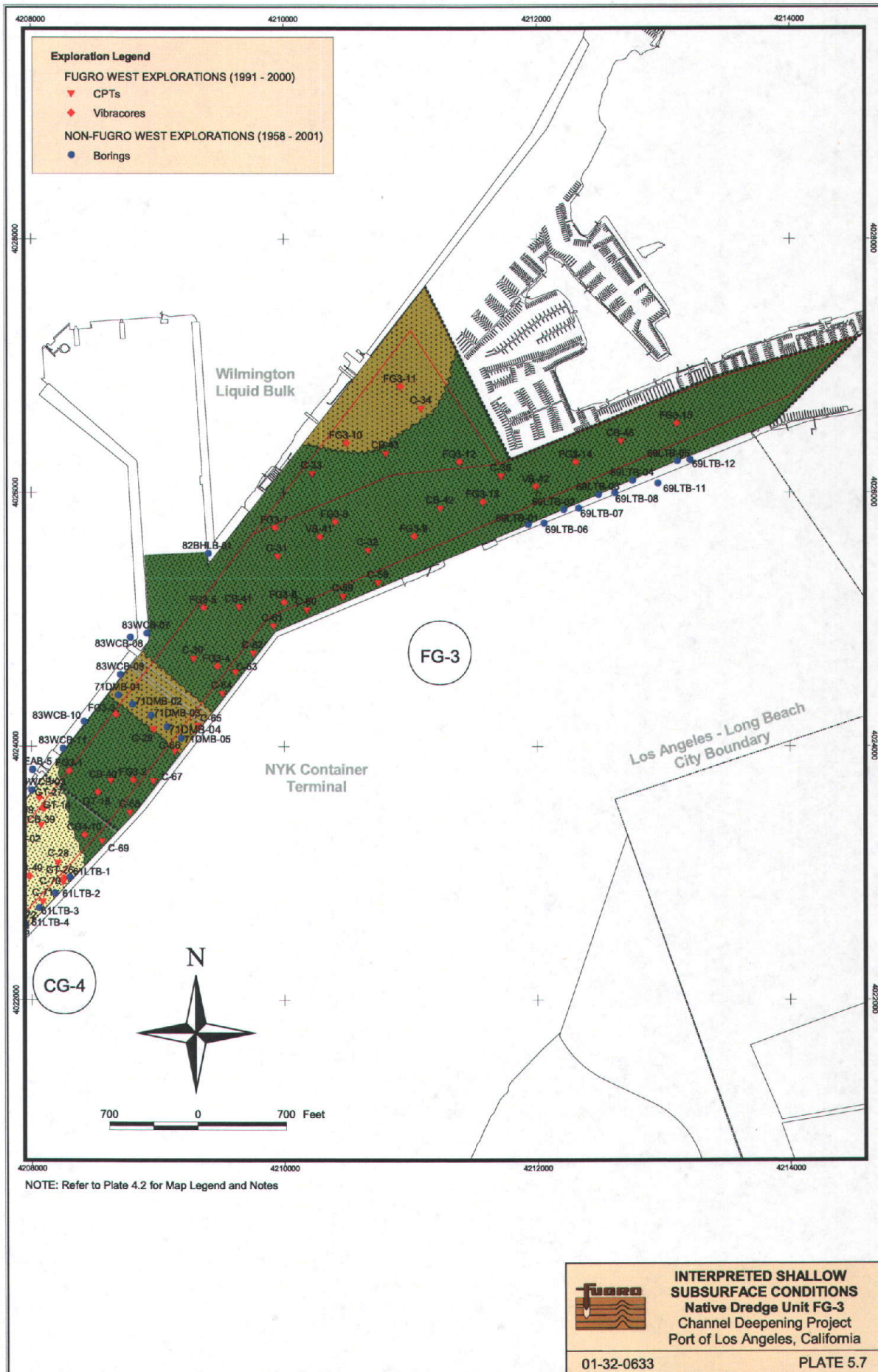
Legend	
.....	Native Dredge Unit Boundary
—	Utility Crossing Location (refer to notes)
Coordinate System is California State Plane, Zone 7, NAD 27, Feet.	
	Native Dredge Unit Designation
—	Federal Channel Dredging Limit

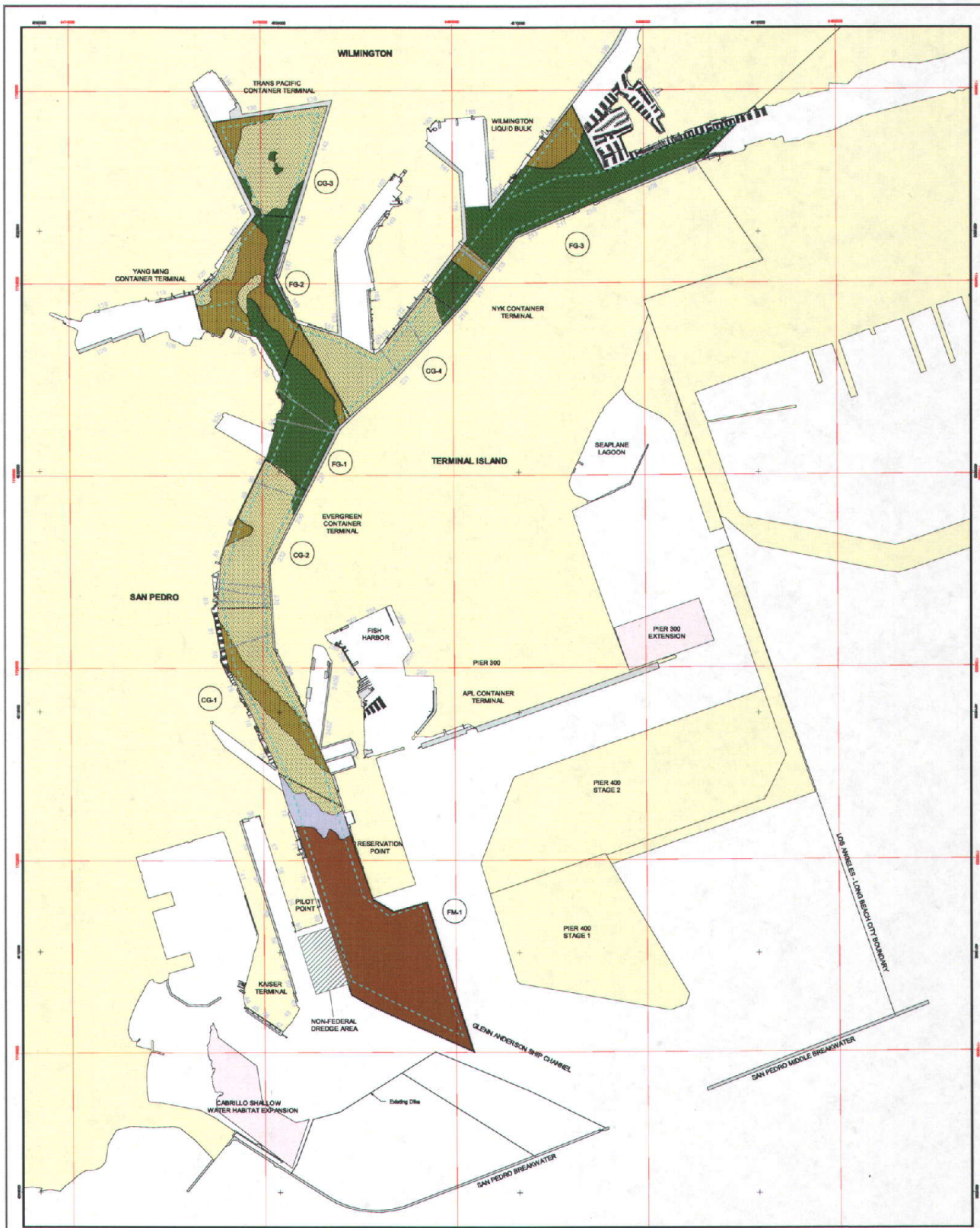
Notes

1. The interpreted shallow stratigraphic conditions shown on this map are generally representative of native sediments present above an elevation of about -55 feet MLLW. Non-native Harbor Bottom Sediments overlie the native sediments throughout much of the Inner Harbor. The presence of those Harbor Bottom Sediments did not influence delineation of the different stratigraphic deposits. Contact locations are approximate.
2. Utility locations are based on a geophysical survey performed by Fugro (2001e).
3. Vertical resolution of subbottom reflectors on geophysical data is +/- 0.5 to 1 millisecond, which represents 1.25 to 2.5 feet.

**KEY TO INTERPRETED SHALLOW
SUBSURFACE CONDITIONS (PLATES 4.1, 5.1 - 5.8)**
Channel Deepening Project
Port of Los Angeles, California







NOTES

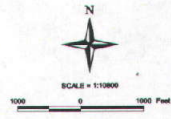
1. The interpreted shallow stratigraphic conditions shown on this map are generally representative of the subsurface present above an elevation of about -20 feet (6.1 M.L.W.). Non-tidal Harbor Bottom Sediments cover the harbor sediments throughout much of the inner Harbor (see Maps 5 and 6). The presence of these Harbor Bottom Sediments did not influence interpretation of the different stratigraphic deposits. Contact locations are approximate.
2. Utility locations from a Fugro West report, "Sub-bottom Profiling and Side Scan Sonar Survey, Port of Los Angeles Inner Channel Deepening Project, Phase 1 Field Survey" (2001).
3. Vertical resolution of subbottom reflections on geophysical data is +/- 0.5 to 1 millisecond, which represents 1.2 to 2.3 feet.
4. Vertical datum is M.L.W. in feet.

Landfill Use Desirability	Material Types
High	Primarily coarse-grained sediments (sand and silt sand)
Low-Moderate	Interfused deposits of coarse- and fine-grained sediments
Very Low	Primarily fine-grained sediments (silt, sandy silt, and clay)
Low-Very Low	Inert and/or weathered Three Point fill (silt, sandy silt, silty sand)
Very Low	Approximate location of contact between Tibourne sediments and Three Point fill as projected vertically from an elevation of 40 (3.0 M.L.W.)
Very Low	Inert and/or weathered Malaga Muckstone (silty silt)
Very Low	Approximate location of contact between Malaga Muckstone and Three Point fill as projected vertically from an elevation of 30 (2.1 M.L.W.)

LEGEND

- Native Dredge Unit Boundary
- Utility Crossing Location (refer to notes)
- Bath Number
- Native Dredge Unit Designation (CG-1)
- Federal Channel Dredging Limit

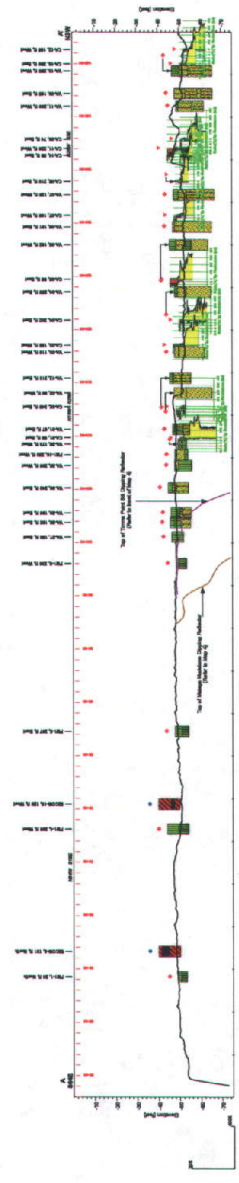
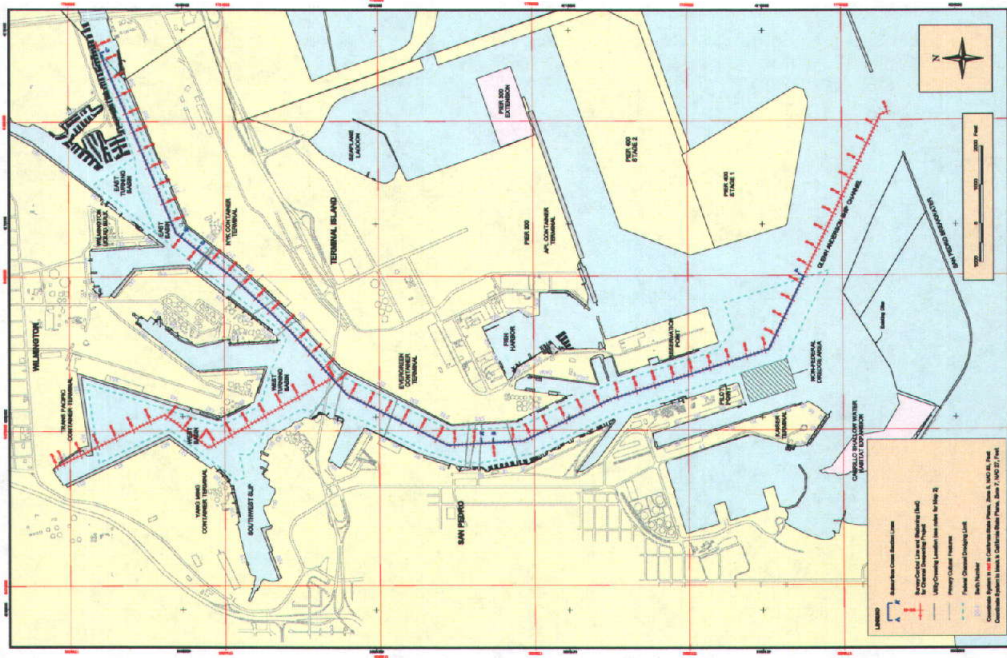
Coordinate System in red is California State Plane, Zone 5, NAD 83, Feet
 Coordinate System in black is California State Plane, Zone 7, NAD 27, Feet



FUGRO WEST, INC.
 4500 Michener St., Suite 100, Ventura, California 93003
 Tel: (805) 650-7000, Fax: (805) 650-7010

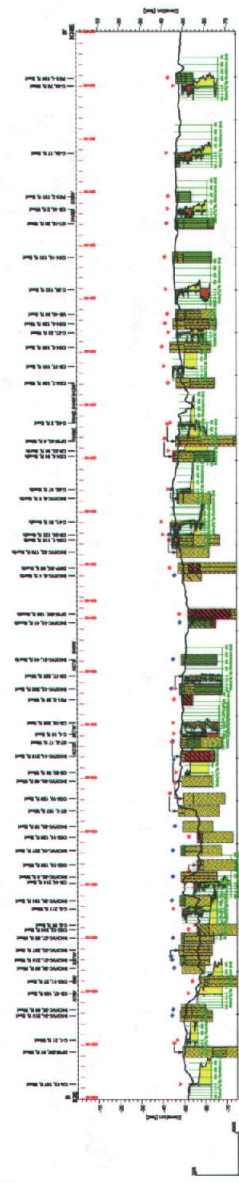
INTERPRETED SHALLOW SUBSURFACE CONDITIONS
 Channel Deepening Project
 Port of Los Angeles, California

April 2002 01-32-0633 Map 7



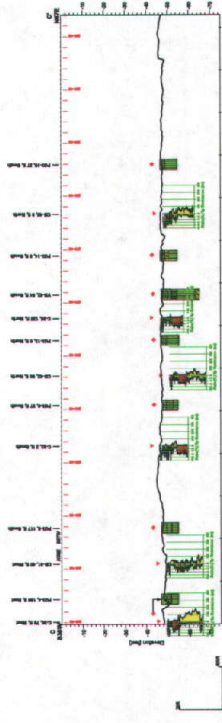
GENERAL NOTES

1. All dimensions are in feet unless otherwise indicated.
2. All dimensions are to the centerline of the structure.
3. All dimensions are to the centerline of the structure.
4. All dimensions are to the centerline of the structure.
5. All dimensions are to the centerline of the structure.



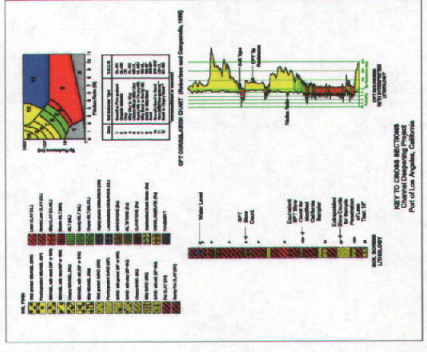
GENERAL NOTES

1. All dimensions are in feet unless otherwise indicated.
2. All dimensions are to the centerline of the structure.
3. All dimensions are to the centerline of the structure.
4. All dimensions are to the centerline of the structure.
5. All dimensions are to the centerline of the structure.



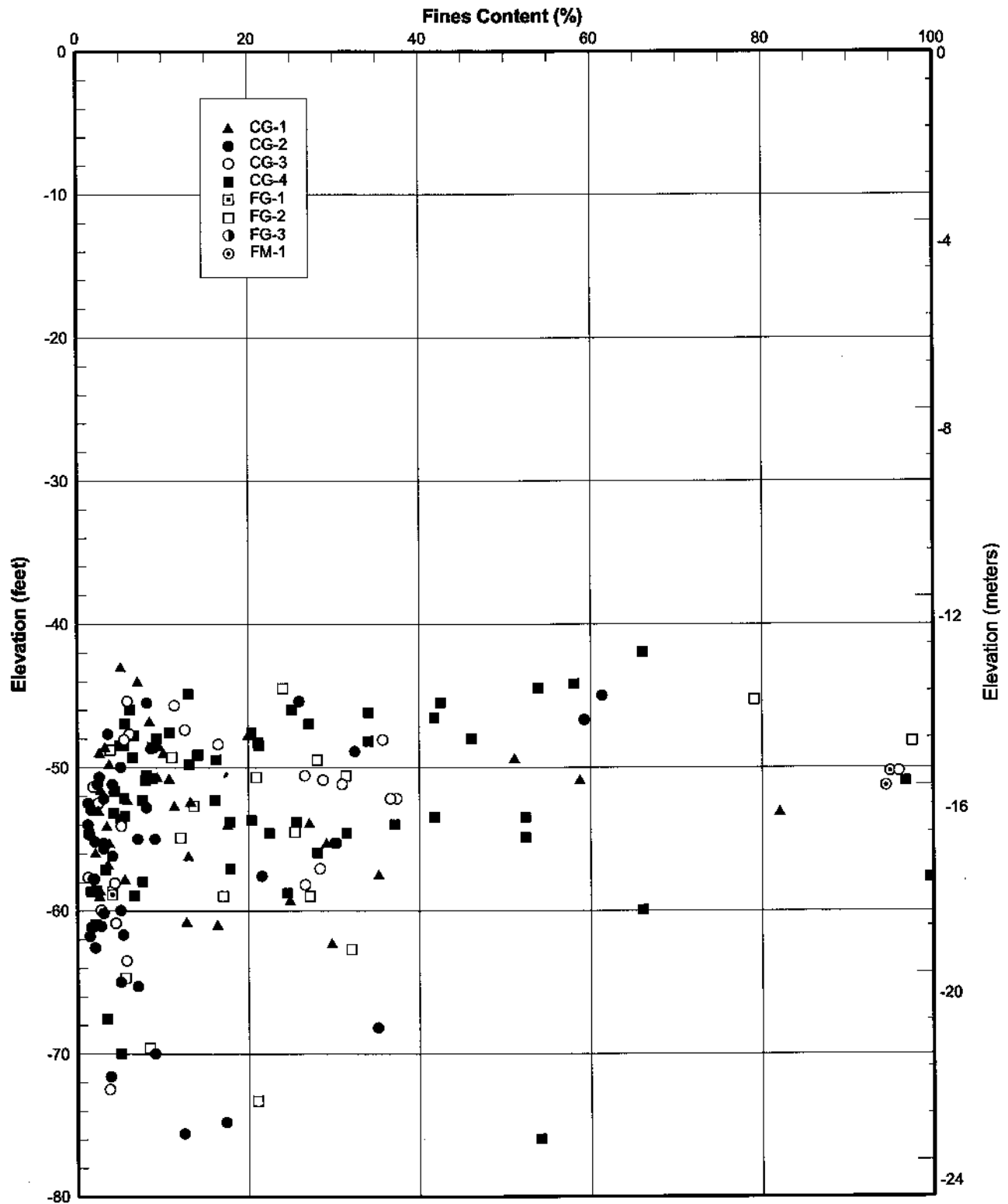
GENERAL NOTES

1. All dimensions are in feet unless otherwise indicated.
2. All dimensions are to the centerline of the structure.
3. All dimensions are to the centerline of the structure.
4. All dimensions are to the centerline of the structure.
5. All dimensions are to the centerline of the structure.



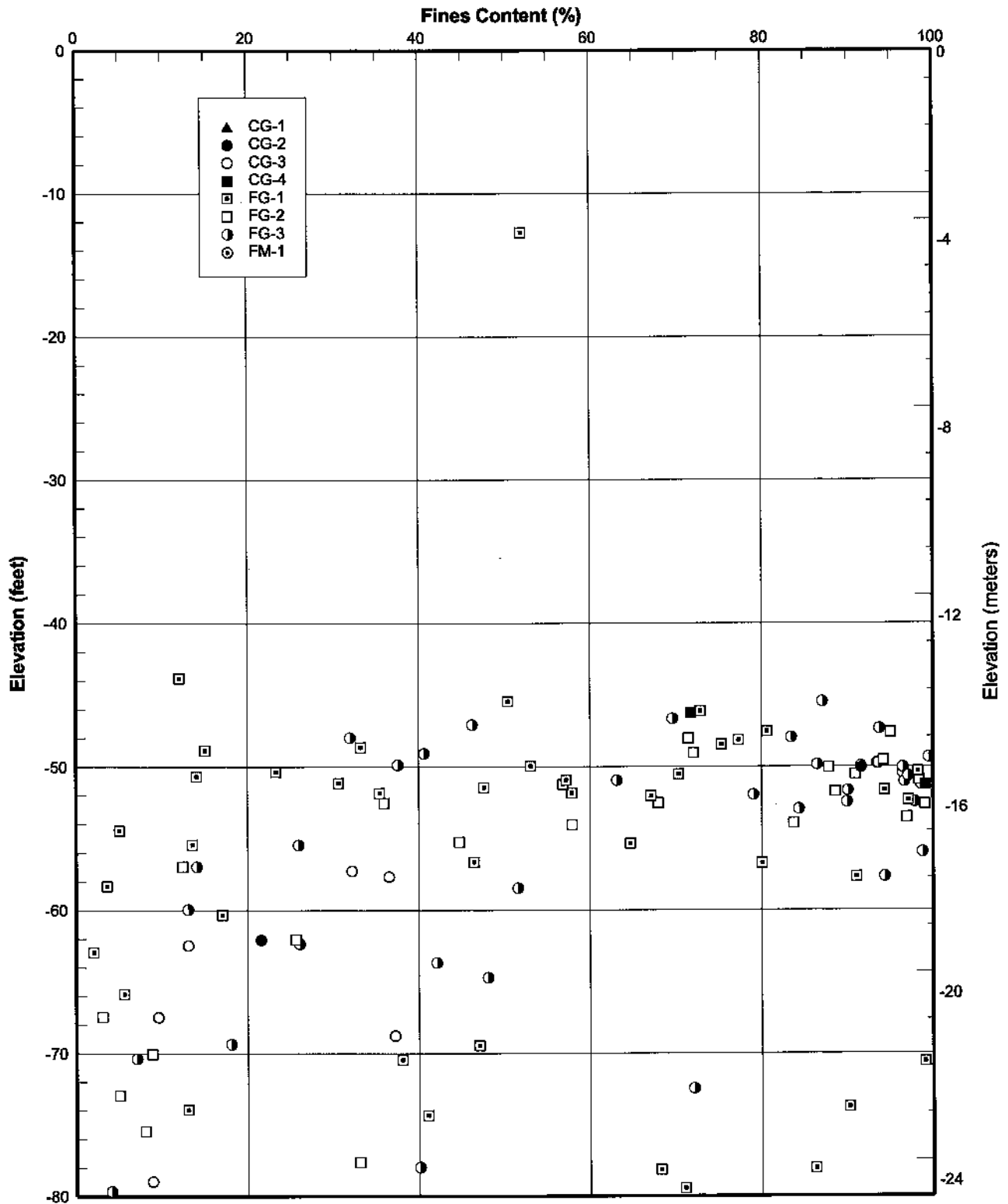
GENERAL NOTES

1. All dimensions are in feet unless otherwise indicated.
2. All dimensions are to the centerline of the structure.
3. All dimensions are to the centerline of the structure.
4. All dimensions are to the centerline of the structure.
5. All dimensions are to the centerline of the structure.



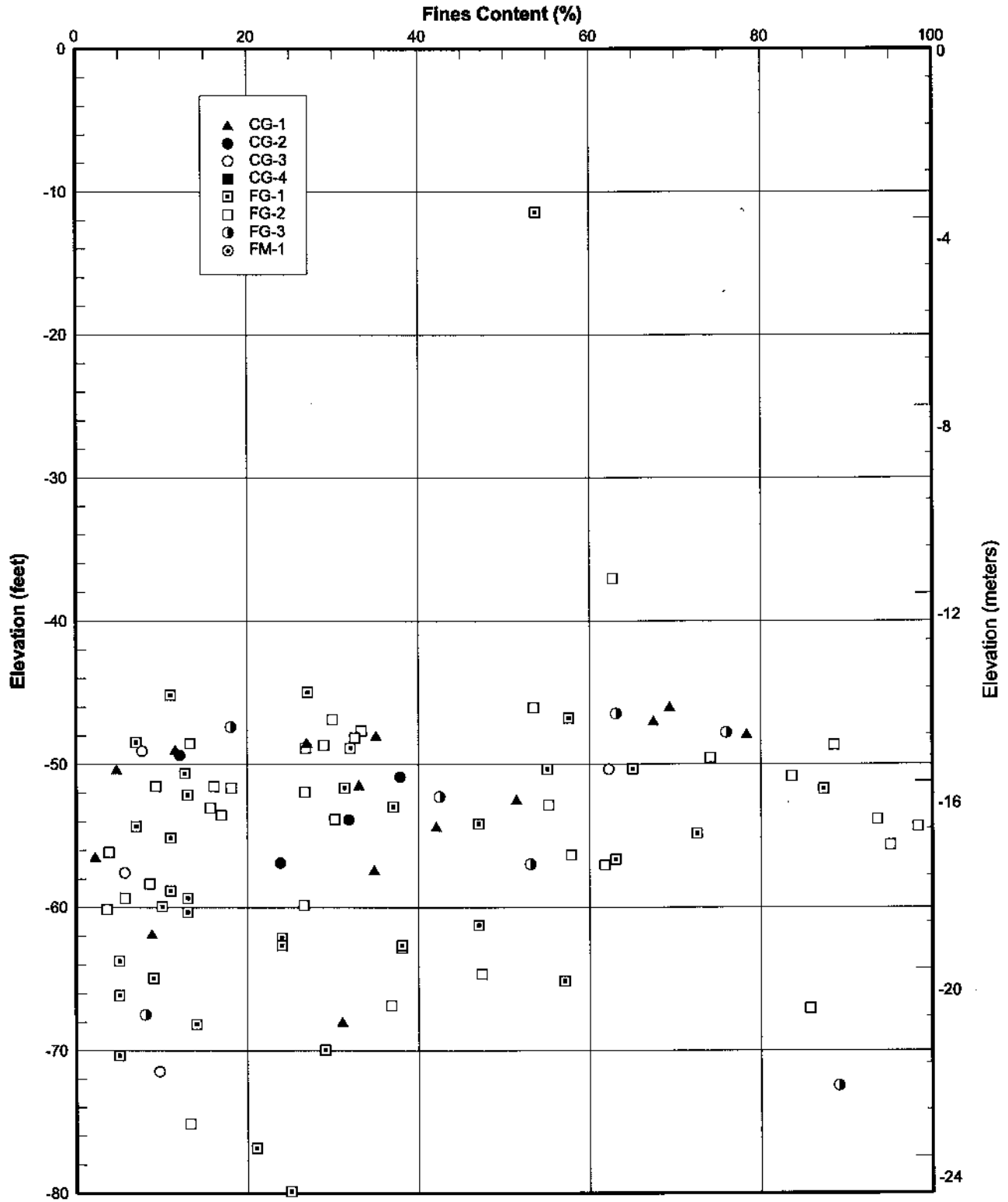
FINES CONTENT PROFILE
Coarse-Grained Sediments
Channel Deepening Project
Port of Los Angeles, California





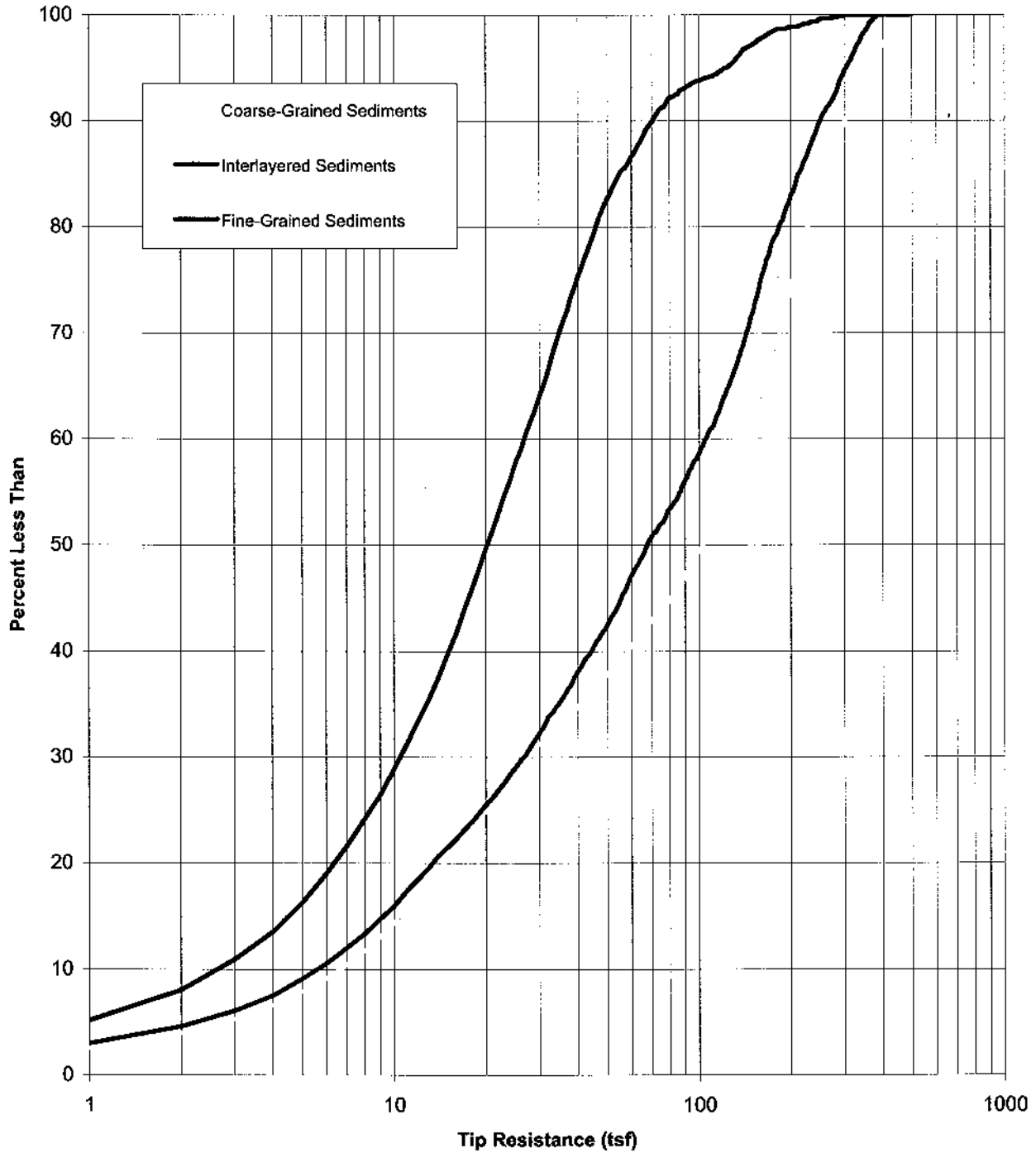
FINES CONTENT PROFILE
Fine-Grained Sediments
Channel Deepening Project
Port of Los Angeles, California





FINES CONTENT PROFILE
Interlayered Sediments
Channel Deepening Project
Port of Los Angeles, California

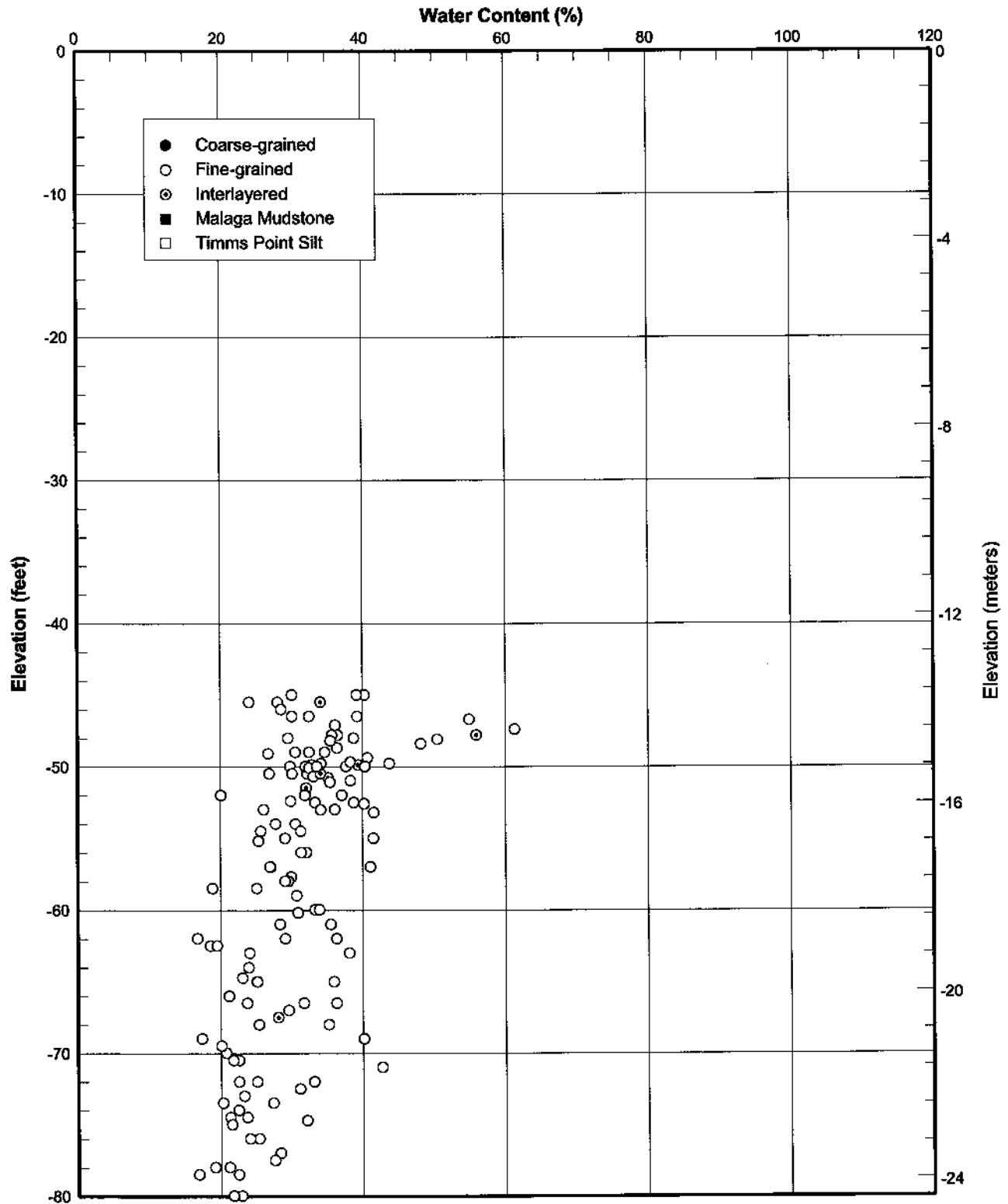




CUMULATIVE FREQUENCY DISTRIBUTION

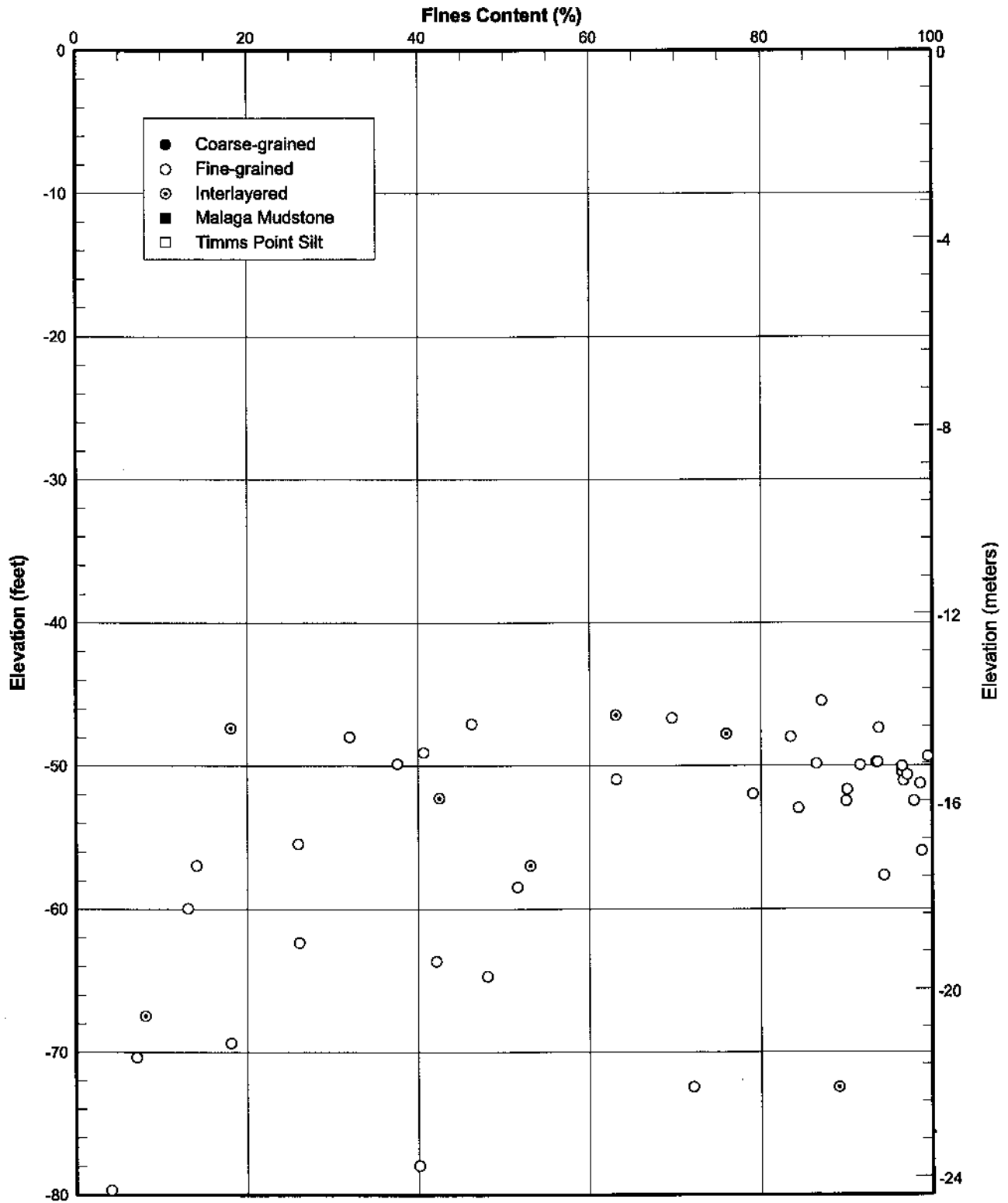
Channel Deepening Project
Port of Los Angeles, California

PLATE 5.13



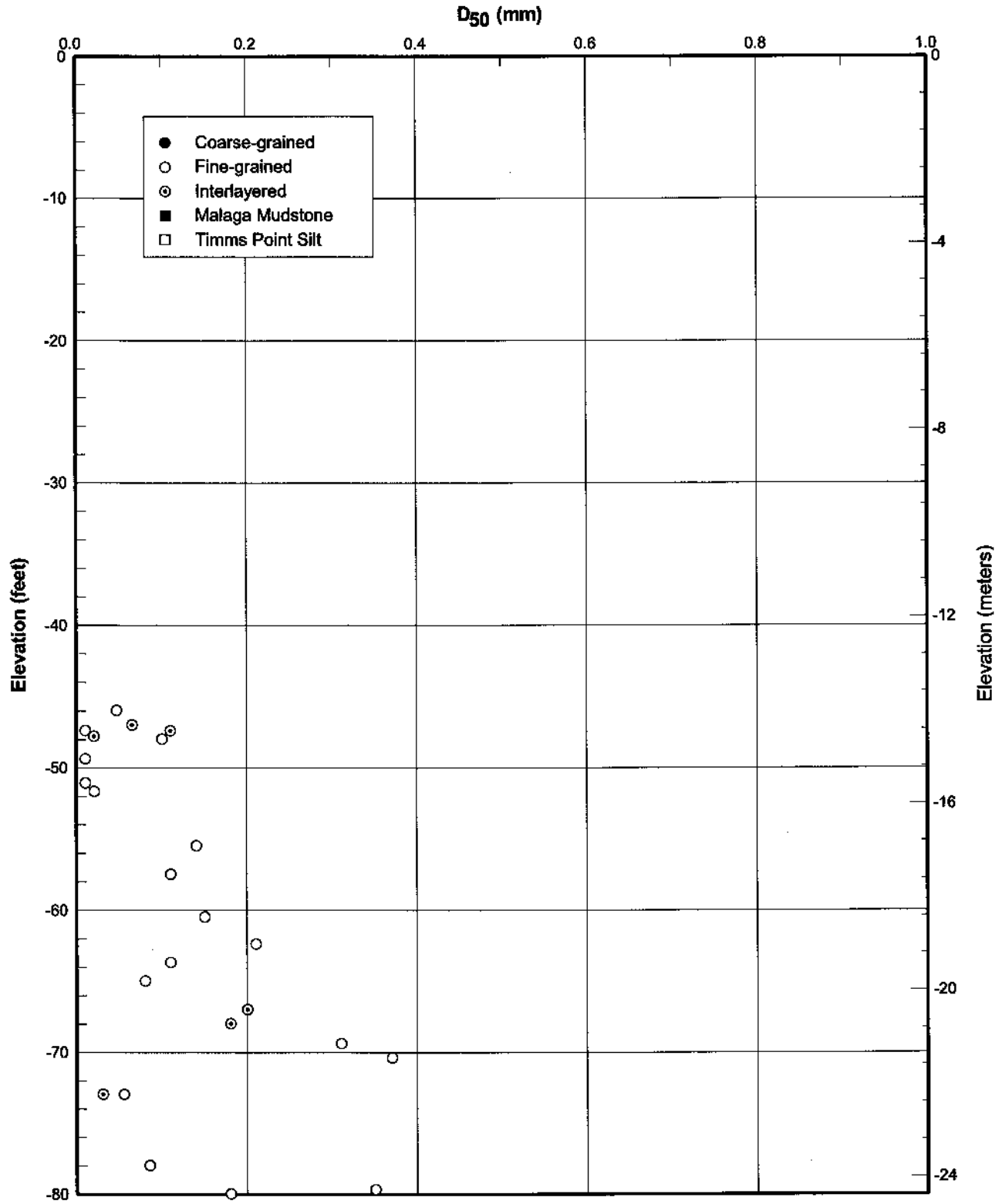
WATER CONTENT PROFILE
Native Dredge Unit FG-3
Channel Deepening Project
Port of Los Angeles, California





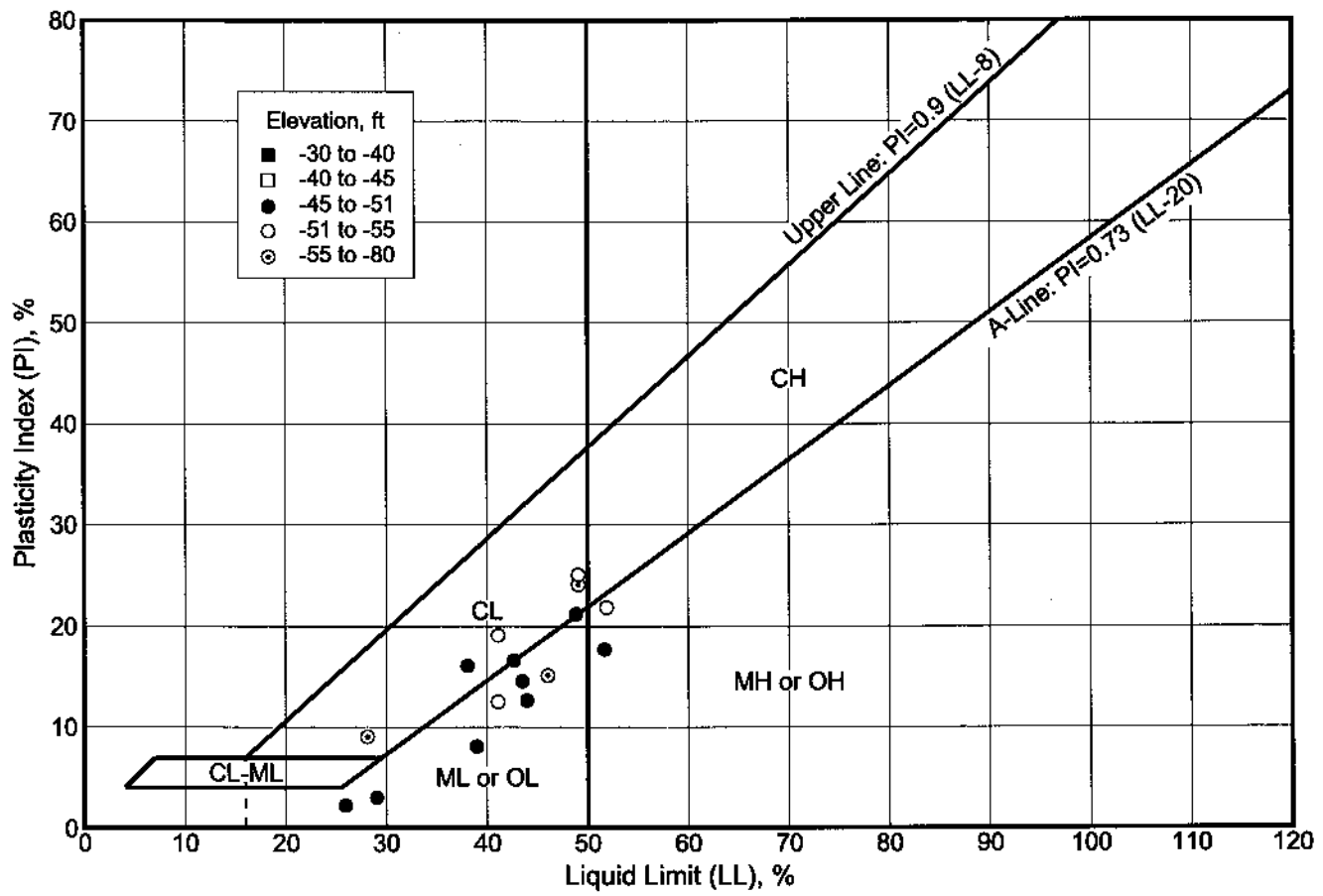
FINES CONTENT PROFILE
Native Dredge Unit FG-3
Channel Deepening Project
Port of Los Angeles, California





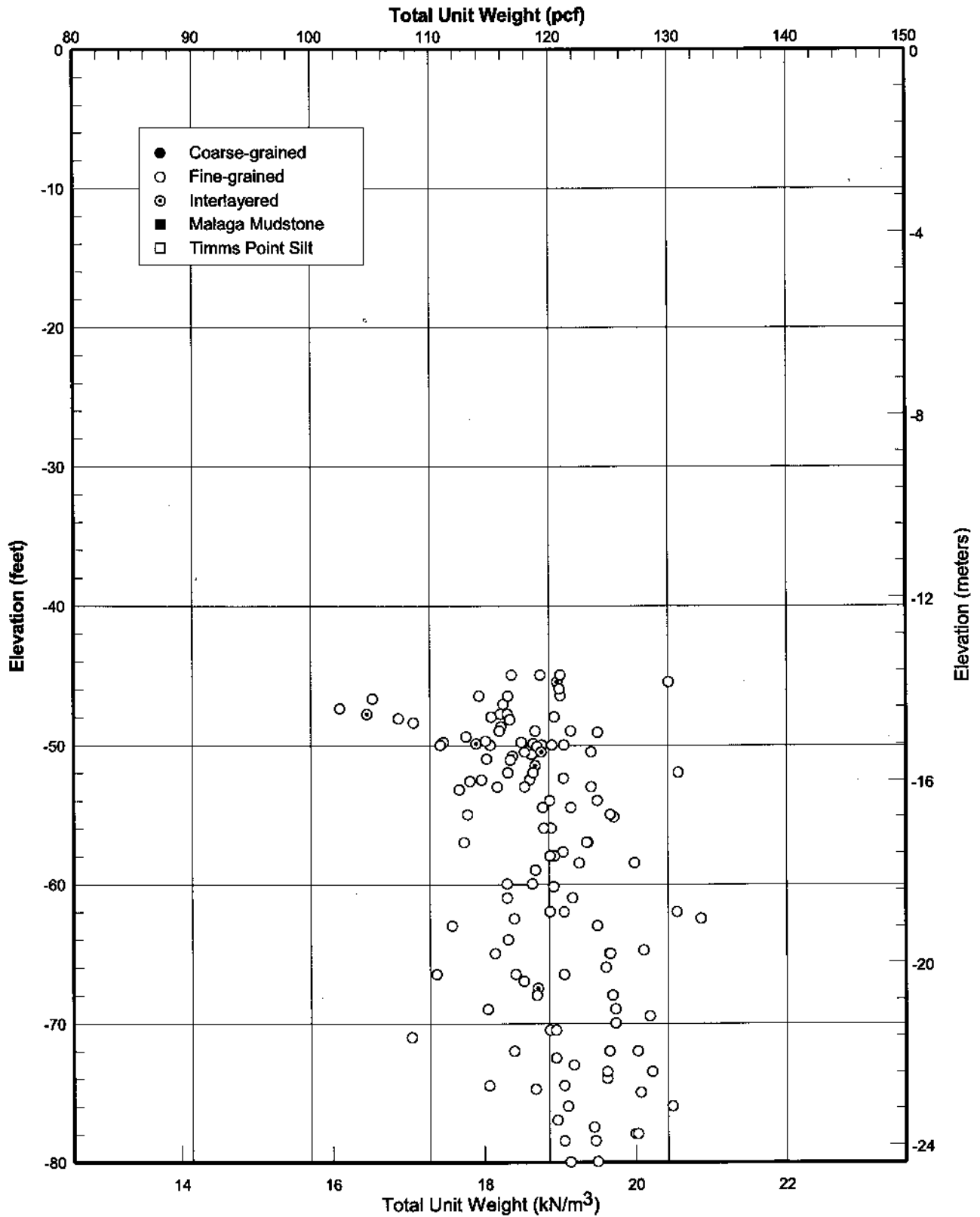
D₅₀ PROFILE
Native Dredge Unit FG-3
Channel Deepening Project
Port of Los Angeles, California





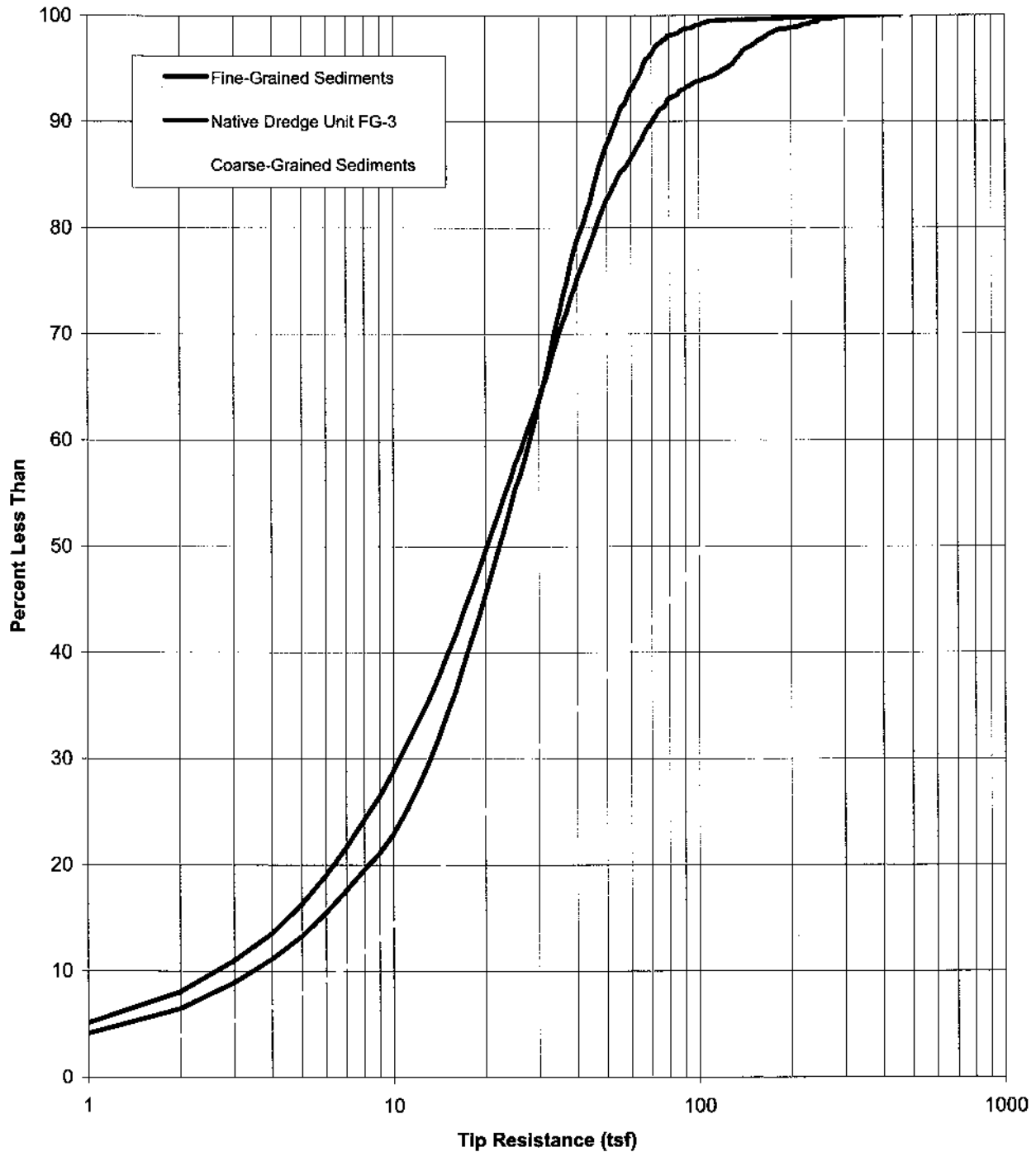
PLASTICITY CHART
Native Dredge Unit FG-3
 Channel Deepening Project
 Port of Los Angeles, California



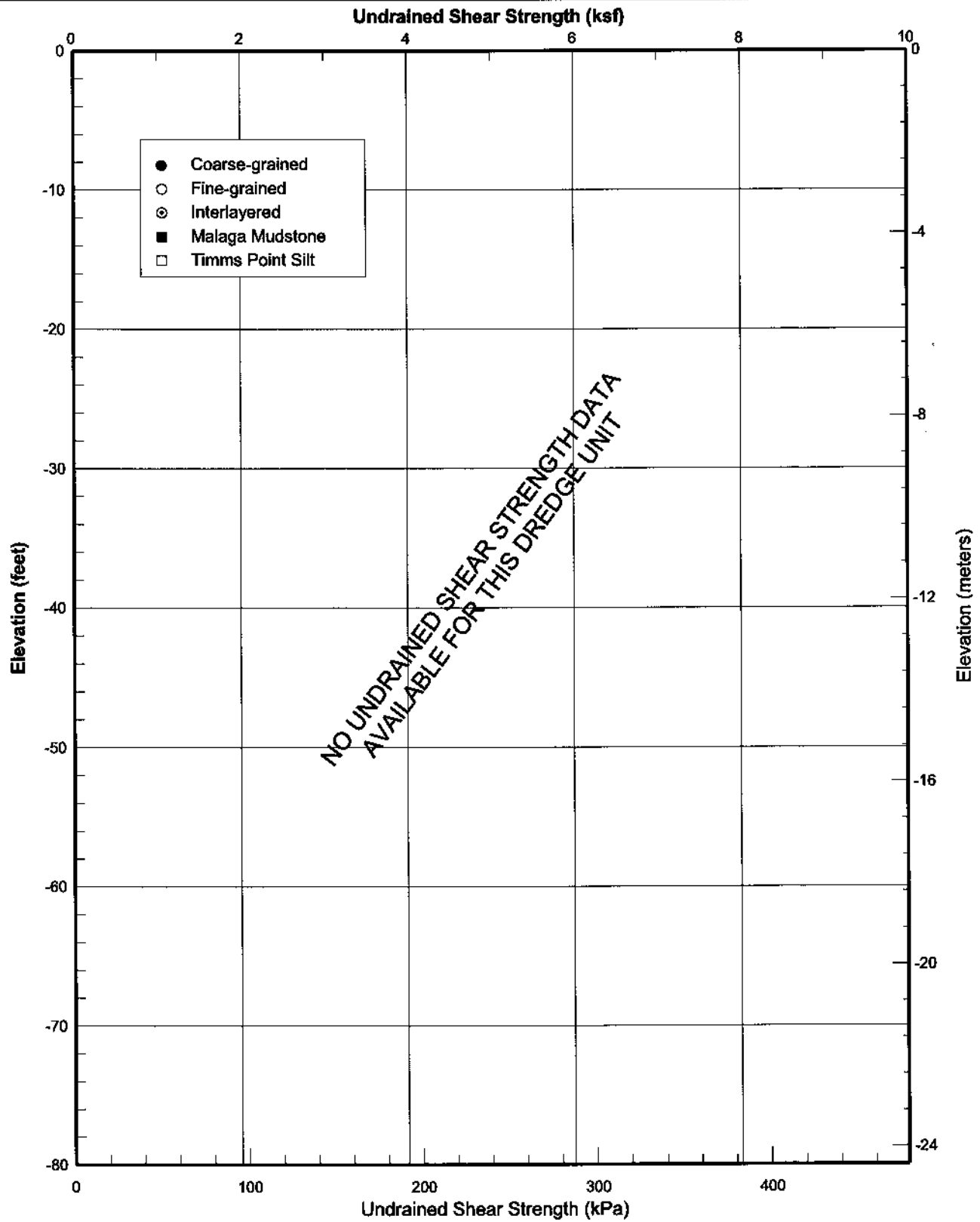


TOTAL UNIT WEIGHT PROFILE
Native Dredge Unit FG-3
Channel Deepening Project
Port of Los Angeles, California





CUMULATIVE FREQUENCY DISTRIBUTION
Native Dredge Unit FG-3
Channel Deepening Project
Port of Los Angeles, California



UNDRAINED SHEAR STRENGTH PROFILE
Native Dredge Unit FG-3
Channel Deepening Project
Port of Los Angeles, California

\\p01ps01d\main_channel_deepening\p06\fig-3\au\dsb_cdr\04252002

