GENERAL DESIGN MEMORANDUM

GULFPORT HARBOR

MISSISSIPPI

DESIGN MEMORANDUM NO. 1

APPENDIX C

GEOTECHNICAL REPORT

US Army Corps
of Engineers
Mobile District

JUNE 1989

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This appendix considers all Geotechnical studies and data used to support the Studies for navigation improvements at Gulfport Harbor.

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

COESAM/PDFC-89/06

GENERAL DESIGN MEMORANDUM

GULFPORT HARBOR, MISSISSIPPI

APPENDIX C

GEOTECHNICAL REPORT

GENERAL DESIGN MEMORANDUM
GULFPORT HARBOR, MISSISSIPPI
APPENDIX C
GEOTECHNICAL REPORT

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GENERAL DESIGN MEMORANDUM
GULFPORT HARBOR AND CHANNELS
GULFPORT, MISSISSIPPI

GEOTECHNICAL REPORT

General Geology: Gulfport and the Mississippi Sound are located in the Gulf Coastal Plain Physiographic Province and are underlain by consolidated and unconsolidated sediments that range in age from Holocene to Miocene. The oldest (Miocene) sediments that outcrop in the coastal area consist of consolidated greenish gray to mottled clays interbedded with sand and gravel zones. The sand and gravel strata contain water under artesian pressure and are a major aquifer in the coastal area. In onshore and nearshore areas the Miocene section is several hundred feet thick and thickens offshore to several thousand feet. The Pliocene age Citronelle Formation unconformably overlies the Miocene deposits. The Citronelle Formation consists predominantly of red to reddish orange and yellow gravelly sand. Interspersed in the gravelly sand are lenses of white, gray, orange, and brown sandy clay. The thickness of the Citronelle Formation varies from a few tens of feet in offshore areas, up to possibly 200 feet in the subsurface in the vicinity of Ship Island. Semi-consolidated to unconsolidated sediments (sand, silty sand, clayey sand and clay) of Pleistocene and Holocene age overlay the Citronelle Formation in the Mississippi Sound. These sediments vary from only a few feet thick nearshore to several tens of feet thick offshore near the barrier islands, and blanket the bottom of the Mississippi Sound. The Holocene sediments range in thickness from 10 to 30 feet and are generally unconsolidated. Semi-consolidated Pleistocene age sediments underlie Holocene sediments and may be encountered at depths of 20 to 50 feet below sea level.

Previous Investigations: In 1958 twenty-one (21) splitspoon borings designated SS-1 through SS-21 were completed along the Mississippi Sound portion of the channel. These borings were terminated at depths ranging from -33 to -38 MLLW.

In 1962, sixteen (16) splitspoon borings with designations GSC-1 through GSC-16 were completed along the channel to depths between -35 and -38 MLLW. Undisturbed sampling was accomplished in some of the borings based on a review of the field logs. Most of the undisturbed samples were very difficult to retrieve due to the extreme softness of the materials encountered. Notes on the field logs indicate that the samples were forwarded to the Waterways Experiment Station (WES) in Vicksburg, MS. Unfortunately, it appears from their records that the samples were never classified or tested.

Field logs of borings without dates are on file that record the results of fifteen (15) other splitspoon borings completed in the past. These were designated P-1 through P-8, and 1, 1A through 6. Locations of these borings are shown on the boring layout plan as accurately as they could be placed based on historical files. Note that some of these borings were drilled outside of the channel on lines perpendicular to its direction. Samples were taken at random intervals and depths Results of lab tests on the samples returned are provided in the summary sheet on page 158.

In 1976, several vibracore borings were completed outside of the channel, using 20 foot long tubes, in separate areas within the sound as part of an investigation as to the feasibility of island construction. Borings on the island sites showed 4 to 11 feet of soft clay and silt over firmer material comprised mostly of sand. The consensus was that island construction was feasible based on the types of material to be dredged and the existing foundation conditions.

In 1977, twelve (12) additional vibracore borings were completed. These were spaced along the channel from the west end of Ship Island out into the Gulf of Mexico.

Results of the previous investigations including locations of borings, test data and boring logs are contained in this report along with the most recent data which was obtained in 1987. This report consolidates under one cover the Mobile District's information about the types and characteristics of the sediments surrounding the present and future Gulfport ship channel(s).

Geotechnical Investigation, 1987: In the summer of 1987 fifty-five (55) vibracore borings were performed in support of the ongoing study to improve the Gulfport channels. Vibracore consisted of twenty to thirty feet of four inch diameter plastic pipe held vertical and vibrated into the in situ soils to retrieve continuous core samples. The vibracore tubes, filled with continuous core samples were transported to the Mobile District's Exploration and Support Section. In the warehouse, three foot long sections were cut from selected tubes and sent with sample cores intact to the lab for determination of the unit weight of the material and other analyses. The remaining tubes were split so that soil samples could be taken at each change of material. These samples were forwarded to the Division Laboratory for tests which included moisture contents, specific gravity, Atterberg limits, sieve analyses, etc. Clays encountered in the split cores were tested with a pocket penetrometer and a torvane shear device to provide indications of the shear strength of the sample. The results of laboratory testing are summarized and presented in tabular form in pages 151 - 156.

Locations of the holes drilled are shown on the boring layout plan, plates 1 through 3. From the layout it can be seen that many borings were spaced along and within the existing channel. These were to compliment and verify information shown on boring logs from drilling performed in the past investigations. Several other borings were completed in a grid pattern around and within the bar channel at the west end of Ship Island. These were to gather information to be considered in the realigning of the channel in that area; in an effort to remove some of the turns.

Also as part of this investigation, an alternative alignment (see plates 1 through 3) for the main channel was investigated. Thirteen (13) vibracore borings were completed to investigate the marine sediments which would have to be dredged to realign the ship channel to pass through Loggerhead Shoal at Ship Island, or what is known as "hurricane cut". Expectedly, the waters became shallower near the shoal, and sand was found to be the material of the upper layer sediments. Fine-grained materials were found to be more common as the distance increased from the shoal, toward either the Mississippi Sound or the Gulf of Mexico. For more information regarding the soils of this alternate channel alignment, refer to the boring logs in this report designated GP-45-87 through GP-60-87.

Reference: A copy of the article "Soil Analysis and Dredging" by Alf H. Sorensen is available in the District Library for reference. Information presented therein is useful for interpreting the results of the soils investigations for dredging projects. It is published in Dredging and Dredged Material Disposal, by the American Society of Civil Engineers, 345 East 47th Street, New York, NY 10017-2398. (Raymond L. Montgomery and Jamie W. Leach editors).

Anchorage Basin: The vibracore borings GP-1-87, GP-81-87, and GP-82-87 were drilled along the channel centerline within the anchorage basin. The soils encountered included soft black and gray clays of high plasticity (CH), firm gray clayey sand (SC), firm silty clay (CL), and poorly graded medium to fine grained sand (SP). Information on the boring logs indicates that a large portion of the material within the basin will consist of firm clays, clay-sands, and sands. Therefore, it's possible that the material down to elevation -40 MLLW might be suitable for use as hydraulic fill in some cases.

Gulfport Channel, Mouth of Harbor to Ship Island: Thirteen (13) borings were completed in the channel between the mouth of the harbor and Ship Island. These were designated GP-2-87 through GP-14-87. The predominant soils encountered were plastic clays (CH), poorly graded sands (SP), and silty sands (SM). Occasional pockets of clayey sands (SC) and silty clays (CL) were also encountered.

From the harbor to the Gulf Intracoastal Waterway it's typical to find six to eight feet of the clay overlying the sandy soils (SP & SM), although, along some stretches of the channel no sand was encountered down to the maximum project cut of -40 MLLW. Toward Ship Island the upper sediments are composed almost entirely of sand and silty sand, as can be seen on the soil profiles. Within the Mississippi Sound portion of the channel, the average in situ densities for the clays and sands tested were found to be 87 pcf and 126 pcf, respectively. Most of the clays encountered were soft to very soft, however, firm (CH) was encountered in borings GP-4-87 and GP-5-87. Sandy soils encountered ranged from loose to dense in place.

Ship Island Pass, West end of Ship Island: At least sixteen (16) borings were completed outside of the existing channel which navigates Ship Island Pass.

The fine-grained soils of the pass have an average in situ density of 92 pcf and include plastic clays (CH), clayey silty sands (SC), and silts (ML). The sandy soils average 126 pcf and include poorly graded sand (SP), and silty sand (SM).

Most of the clay material is very soft or soft, although a few layers of firm SC material was encountered, see boring logs GP-19-87, GP-21-87, and GP-26-87.

Gulfport Channel Beyond Ship Island, Gulf of Mexico. Seven (7) borings were completed along the channel alignment in the Gulf of Mexico. From the soil profiles it can be seen that the upper layer sediments, down to the maximum project out of -42 MLLW consist almost entirely of soft gray plastic clay (CH). This material averages 87 pounds per cubic foot in situ.

General Summary. All materials encountered can be dredged by hydraulic cutterhead dredge.

The existing sideslopes are quite variable in the Gulfport channel, ranging from 1V:3H to 1V:16H. It's recommended that the latest channel surveys be reviewed closely, and that these variations be considered in computation of quantities and in drafting contract plans.

The majority of the clay soils existing in the harbor and channel down to the maximum project cut do not appear to have characteristics that would be conducive to clay ball formation. Such judgement is based on the criteria given in the paragraph 4.1.3 of the reference article described this report ("Soil Analysis and Dredging"). Fifteen (15) of the 38 borings completed in the Mississippi Sound part of the channel, in 1987, encountered clays with characteristics similar to those identified by the author as being good for clay ball formation.

Sands in the bar portion of the proposed alignment passing the west end of Ship Island might be utilized for beach nourishment. The majority of the sand grains fit in a narrow size range between 0.1mm and 0.4mm, which in the Unified Soil Classification System is characteristic of a poorly graded, fine-grained sand (SP).

BORING LOGS

LEGEND

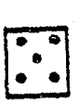
COARSE-GRAINED SOILS - MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE

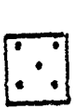
GW  WELL GRADED GRAVELS OR GRAVEL-SAND MIXTURES, LITTLE OR NO FINES

GP  POORLY GRADED GRAVELS OR GRAVEL-SAND MIXTURES, LITTLE OR NO FINES

GM  SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES

GC  CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES

SW  WELL GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES

SP  POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES

SM  SILTY SANDS, SAND-SILT MIXTURES

SM-H SAME AS ABOVE WITH HIGH LIQUID LIMIT

SC  CLAYEY SANDS, SAND-CLAY MIXTURES

SC-H SAME AS ABOVE WITH HIGH LIQUID LIMIT

FINE-GRAINED SOILS - MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE

ML  INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR. SANDY SILTS OR CLAYEY SILTS WITH SLIGHT PLASTICITY

MH  INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS

OL  ORGANIC SILTS AND ORGANIC SILT-CLAYS OF LOW PLASTICITY

OH  ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS

CL  INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS

CH  INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS

PT  PEAT AND OTHER HIGHLY ORGANIC SOILS

NOTES:

 NO SAMPLE OR RECOVERY

DUAL CLASSIFICATIONS, E.G. SP-SM, GP-GM, ML-CL AND SM-SC, WILL BE SHOWN BY PLACING BOTH SYMBOLS SIDE BY SIDE.

ABBREVIATIONS

@	AT
ACCUM.	ACCUMULATED
ALT.	ALTERNATING
ANG.	ANGULAR
APPROX.	APPROXIMATE, APPROXIMATELY
ARGIL.	ARGILLACEOUS
AUG.	AUGER
AVG.	AVERAGE
B.A.	BASE OF ALLUVIUM
BBL.	BARREL
BDD.	BED, BEDDED, BEDDING
BDR.	BEDROCK
BENT.	BENTONITIC
BGE.	BEIGE
B.I.	BREAKAGE INTERVAL
BKY.	BLOCKY
BL.	BLACK, BLACKISH
BLD.	BOULDER
B.O.H.	BOTTOM OF HOLE
BR.	BROWN, BROWNISH
BREC.	BRECCIATED
BRK.	BROKEN, BREAKAGE
C.	COARSE
CAL.	CALCITE, CALCAREOUS
CARB.	CARBONACEOUS
CAV.	CAVITY
CBL.	COBBLE
C.D.	CORRECTED DEPTH
CEM.	CEMENT
CHT	CHERT
CIRCLE.	CIRCULATION
CLY	CLAYEY
CMT'D	CEMENTED
CNTR.(S)	CONCENTRATION(S)
COMP	COMPACT
CONC	CONCRETE
CONCR.	CONCRETIONS
CONGL.	CONGLOMERATE
CONT	CONTINUED
CRM	CRUMBLY
CR'D	CRUSHED
CTD.	COATED
D	DEPTH
D	DENSE
D A.	DRILL ACTION
DECOM.	DECOMPOSED
DIAG.	DIAGONAL
DIS.	DISSEMINATED
DK.	DARK
DOL.	DOLOMITE, DOLOMITIC
DRL.	DRILLING
DSTG.	DISINTEGRATED
D T.	DRILL TIME
D W L.	DRILL WATER LOSS
D.W.R.	DRILL WATER RETURN
EL.	ELEVATION
ENC.	ENCOUNTERED
EST.	ESTIMATE, ESTIMATED
EXCL.	EXCLUDING
EXTR.	EXTREMELY
F.	FINE, FINELY
Fe	IRON
FERR.	FERRUGINOUS
FIS.	FISSILE
FLD.	FILLED
FM.	FORMATION
FOLIA.	FOLIATION
FOS.	FOSSIL, FOSSILIFEROUS
F.R.	FLUID RETURN
FRAC.	FRACTURE
FRAG.,	
FRAGS	FRAGMENT (S)
F/T	FISHTAILED
GEN.	GENERALLY
GLAU.	GLAUCONITE, GLAUCONITIC
GR.	GRAY, GRAYISH
GRA.	GRAIN, GRAINED
GRAD.	GRADATIONAL
GRN.	GREEN, GREENISH
GRT.	GROUT
GVL.	GRAVEL, GRAVELLY
GYP.	GYPSUM
G.W.	GROUNDWATER
H/A	HIGH ANGLE
H/B	HAMMER BREAK
HD.	HARD
HI.	HIGH, HIGHLY
HLD.	HEALED
HMR.	HAMMER
HOR.	HORIZONTAL
HYD.	HYDRAULIC
INCL.	INCLUDING, INCLUDED
INDT	INDURATED
INIT	INITIAL, INITIALLY
INTBDD	INTERBED, INTERBEDDED
INTLAM.	INTERLAMINATED
IRR.	IRREGULAR, IRREGULARLY
JT.'S	JOINT, JOINTS
JTD.	JOINTED
L/A	LOW ANGLE
LAM.	LAMINA, LAMINE, LAMINATED
LAY.	LAYER
L.C.	LOST CORE
L.D.W	LOST DRILL WATER
LEA.	LEACHED
LIG.	LIGNITIC
LIT	LITTLE
L.L.	LIQUID LIMIT
LN , LNS.	LENSE, LENSES
LO.	LOOSE
LS.	LIMESTONE

LT.	LIGHT
MAS.	MASSIVE
MAX.	MAXIMUM
MECH.	MECHANICAL
MED.	MEDIUM
MIC.	MICACEOUS
MIN	MINIMUM
MINR.	MINERALIZED MINERALIZATION
MIX.	MIXTURE
MOD.	MODERATE, MODERATE
MOT.	MOTTLING, MOTTLED
MST.	MOIST
MTL.	MATERIAL
MTX.	MATRIX
N/A	NOT APPLICABLE
N/E	NOT ENCOUNTERED
NOD.	NODULE
N/R	NO RECOVERY
NUM.	NUMEROUS
OB.	OVERBURDEN (UNCLASSIFIED)
OBS.	OBSERVED
OCC.	OCCASIONAL, OCCASIONALLY
OOL.	OOLITE, OOLITIC
OP.	OPEN, OPENED
OR.	ORANGE
ORG.	ORGANIC,
PART.	PARTIALLY
PCS.	PIECES
PETRO.	PETROLEUM.. PETROLIFEROUS
PHOS.	PHOSPHATE, PHOSPHOROUS
P.I.	PLASTICITY INDEX
PIT	PIT, PITTED, PITTING
PKT (S)	POCKET
P L.	PLASTICITY LIMIT
PLA.	PLATY
PLAS.	PLASTIC
PLN.	PLANE
PNK.	PINK
PR.	POORLY
PRED.	PREDOMINATELY
PRESS.	PRESSURE
PROB.	PROBABLE, PROBABILITY
P.T.	PRESSURE TEST
PTC.	PARTICLES
PTG.	PARTING
PUR.	PURPLE
QTZ.	QUARTZ
QTZE.	QUARTZITE
RDL.	RUBBLE
REC.	RECOVERED
RECEM.	RECEMENTED
RD.	RED.REDDISH
RND.	ROUND, ROUNDED
R.Q.D.	ROCK QUALITY DESIGNATION
RTS.	ROOTS
SAP.	SAPROLITE
SAT.	SATURATED
SCAT.	SCATTEREDLY
SCH (S)	SCHIST (OUS)
SD.	SAND
SDY.	SANDY
SH.	SHALE
SHT.	SHEET
SHY.	SHALY
SI.	SILT
SIS.	SILTSTONE
SIY.	SILTY
SL.	SLIGHT, SLIGHTLY
SLCS.	SILICEOUS
SLICK.	SLICKENSIDE
SML.	SMALL
SO.	SOFT
SOL.	SOLUTION, SOLUTIONED, SOLUTIONING
SPG.	SPECIFIC GRAVITY
SPT.	STANDARD PENETRATION TEST STANDARD SPLITSPOON
SS.	SANDSTONE
ST.	STAIN, STAINED, STAINING
STF.	STIFF
STR.	STRUCTURE
STRD.	STRINGER
STYL.	STYLOLITE, STYLOLITIC
SUR.	SURFACED
TEXT.	TEXTURE
T.F.R.	TOP OF FIRM ROCK
THN.	THIN
THK.	THICK
TI.	TIGHT
TN.	TAN, TANNISH
T.O.R.	TOP OF ROCK
TR.	TRACE
TRP.	TRIPOLI
T.S.R.	TOP OF SOUND ROCK
U.L.	UNACCOUNTABLE LOSS
UNACC.	UNACCOUNTABLE
UNWEA.	UNWEATHERED
V/	VERY
VERT.	VERTICAL
VGY.	VUGGY
W/	WITH
WEA.	WEATHERED
WHT.	WHITE
W/H	WEIGHT OF HAMMER
W.L.	WATER LEVEL
W/R	WEIGHT OF ROD
X-BDD.	CROSS-BEDDED
XL.	CRYSTAL
XLN.	CRYSTALLINE
YEL.	YELLOW

DRILLING LOG | DIVISION: S.A.D | INSTALLATION: M.D.O. | Hole No. GP- -87 | SHEET 1 OF 1 SHEETS

1. PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI
2. LOCATION (Coordinates or Station): N 251,233 E 418,756
3. DRILLING AGENCY: M.D.O.
4. HOLE NO. (As shown on drawing title and file number): GP-1-87
5. NAME OF DRILLER: FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 20.0' (EL. -52.9)
10. SIZE AND TYPE OF BIT: VIBRACORE TUBE
11. DATUM FOR ELEVATION SHOWN (MSL or MLLW): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 2 | UNDISTURBED —
14. TOTAL NUMBER CORE BOXES —
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 7-19-87 | COMPLETED 7-19-87
17. ELEVATION TOP OF HOLE: -32.9
18. TOTAL CORE RECOVERY FOR BORING
19. SIGNATURE OF INSPECTOR: BRYANT & JONES D.G.H.

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	% CORE RECOVERY (Rock only) (e)	SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-32.9						
			(ML) BLACK CLAYEY SILT (VERY SOFT)	266	1	LAB TESTING
-34.9	2					JAR CLASS. L.L. P.I.
						1 (CH) - - -
	4					2 SP NP NP NP, MA
			(SP) LIGHT GRAY POORLY GRADED SAND (FIRM)			
	6					
	8					
-42.9	10					
-42.9					2	
	12					
	14					
	16					
	18					
-52.9						E.O.H.

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PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | HOLE NO. GP-1-87

Hole No. GP-2-87

DRILLING LOG	DIVIS. S.A.D	INSTALLATION M.D.O.	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT VIBRACORE TUBE	
2. LOCATION (Coordinates or Station) N 248,644 E 421,252		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW	
3. DRILLING AGENCY M.D.O.		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-2-87		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2 / UNDISTURBED —	
5. NAME OF DRILLER FULLER		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
		16. DATE HOLE STARTED 7-19-87 COMPLETED 7-19-87	
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE -32.1	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING %	
9. TOTAL DEPTH OF HOLE 5.6' (EL. -37.7)		19. SIGNATURE OF INSPECTOR BRYANT & JONES D.G.H.	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY (RQD) W.C.	DRIVER SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-32.1						LAB. TESTING
-33.4	1		(ML) BLACK CLAYEY SILT (VERY SOFT)			JAR CLASS. PL P.
-33.9				201	1	1 (CH) - - -
-34.9	2					2 (SP-SM) - - -
	2.8					
-35.3			(SM) GRAY SILTY SAND W/ SOME WOOD FRAGS. (FIRM)			
-35.8	4			31	2	
-37.7	5.6		B.O.H			

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PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISS. MISSISSIPPI | HOLE NO. GP-2-87

Hole No. GP-3-87

DRILLING LOG	DIVIS: S.A.D	INSTALLATION: M.D.O.	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT: VIBRACORE TUBE	
2. LOCATION (Coordinates or Station): N/ 244,360 E 424,530		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: M.D.O.		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number): GP-3-87		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4-TUBE, 1-JAR; UNDISTURBED —	
5. NAME OF DRILLER: FULLER		14. TOTAL NUMBER CORE BOXES: —	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: N/A	
		16. DATE HOLE: STARTED 7-20-87; COMPLETED 7-20-87	
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE: -27.3	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING: %	
9. TOTAL DEPTH OF HOLE: 13.2' (EL. -40.5)		19. SIGNATURE OF INSPECTOR: BRYANT & JONES, D.G.H.	

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	% CORE RECOVERY (BORING) W.C. (e)	SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-27.3						
	3		(ML)	186	1	SAMPLES 1, 2, 3 & 4 WERE CUT, SEALED & SENT TO S.A.D. LAB IN VIBRACORE TUBE
-30.3						
	3		(SM)	18	2	∠ 0.0 TO ∠ 12.0 WERE VISUALLY CLASSIFIED WHILE CONTAINED IN CLEAR VIBRACORE TUBE.
-33.3						
	6		(SM)	22	3	LAB TESTING
-36.3						SAMPLE # CLASS LL PL PI Sp.g 1 (CH) 157 49 108 2.67 L.O.I. - 9.9, MA, HY 3 (CL) 26 17 9 2.62 MA, HY
	3		(SM)	22	4	
-39.3						
	2		(ML) GRAY SANDY SILT (CLAYEY) (FIRM)		5	
-40.5	13.2		E O H			

Sample #	LABORATORY TESTING Visual Classification and/or Remarks
1	Density taken @ El. 29.3 pcf = 26.9
2	El. 30.3-30.6 Dk. gray fat clay (CH)
	30.6-31.3 Gray clayey sand (SC)
	31.3-32.8 Tan poorly graded sand (SP)
	32.8-33.3 Tan fat clay (CH) w/ a little sand. Density taken @ El. 32.3 Pcf = 97.4
3	Density taken @ El. 35.3 pcf = 103.3
4	Density taken @ El. 38.4 pcf = 105.7
	El. 36.3-39.3 Total sample - Tan silty sand (SM)

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT: GULFPORT SHIP CHANNEL, GULFPORT, MISSISSIPPI — HOLE NO. GP-3-87

Hole No. GP-4-87

DRILLING LOG	DIVISION S.A.D	INSTALLATION M.D.O.	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT VIBRACORE TUBE	
2. LOCATION (Coordinates or Station) N. 240,930 E. 427,252		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) M.L.L.W.	
3. DRILLING AGENCY M.D.O.		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-4-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 1; UNDISTURBED —	
5. NAME OF DRILLER FULLER		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 7-20-87 COMPLETED 7-20-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -30.9	
9. TOTAL DEPTH OF HOLE 20.0 (EL -50.9)		18. TOTAL CORE RECOVERY FOR BORING %	
		19. SIGNATURE OF INSPECTOR BRYANT & JONES, D.G.H.	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERED (RQD) e	DISTURBED SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-30.9	0					
	2					
	4		(CH) GRAY FAT CLAY (FIRM)			
	6					
	8					
-40.9	10					SAMPLE #1 TORVANE-0.29 TSF
-41.4					1	PENETROMETER-0.5 TSF
	12					
	14					
	16					
	18					
-50.9	20					B.O.H

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI HOLE NO. GP-4-87

Hole No. GP-5-87

DRILLING LOG	DIVIS. S.A.D	INSTALLATION M.D.O.	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT VIBRACORE TUBE	
2. LOCATION (Coordinates or Station) N 76 992 E 429,999		11. DATUS FOR ELEVATION SHOWN (MSL or MLLW) MLLW	
3. DRILLING AGENCY M.D.O.		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-5-87		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5 / UNDISTURBED —	
5. NAME OF DRILLER FULLER		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
		16. DATE HOLE: STARTED 7-20-87 / COMPLETED 7-20-87	
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE -29.6	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING %	
9. TOTAL DEPTH OF HOLE 15.9' (E. -45.5)		19. SIGNATURE OF INSPECTOR BRYANT & JONES D.G.H.	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-29.6			(ML) BLACK CLAYEY SILT (VERY SOFT)			LAB. TESTING JAR # CLASS. % PASS #200 S.V. 1 (CH) 74 2 (CH) 83 3 (SM) 4 (SP) 5 (SM)
-31.6	2					
-32.1				185	1	
	4					
-34.6						
-35.6	6		(CH) GRAY FAT CLAY W/ SOME SHELL FRAGS (FIRM)			SAMPLE #2 TC UNC-0.2 TSF PENETROMETER- 0.7 TSF
-36.1				81	2	
-39.9	8					
	8.8					
-39.6	10		(SM) DARK GRAY SILTY SAND (CLAYEY) W/ TRACE SHELL FRAGS (FIRM)		3	
-40.1						
-41.0	12					
	13		(SP) LIGHT GRAY POORLY GRADED SAND (FIRM)			
-42.6					4	
-43.1						
-43.9	14.3					
-44.4			(SM) DARK GRAY SILTY SAND (CLAYEY) (FIRM)		5	
-44.9						
-45.5	15.9					
			B.O.H			

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISS. 5SIFPI | HOLE NO. GP-5-87

Hole No. GP-6-87

DRILLING LOG	DIVIS	S.A.D	INSTALLATION	M.D.O.	SHEET 1 OF 1 SHEETS
1. PROJECT	GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT	VIBRACORE TUBE	
2. LOCATION (Coordinates or Station)	N 234,045 E432,079		11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MLLW	
3. DRILLING AGENCY	M.D.O.		12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number)	GP-6-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN	DISTURBED 3	UNDISTURBED —
5. NAME OF DRILLER	FULLER		14. TOTAL NUMBER CORE BOXES	—	
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	N/A	
7. THICKNESS OF OVERBURDEN			16. DATE HOLE	STARTED 7-20-87	COMPLETED 7-20-87
8. DEPTH DRILLED INTO ROCK			17. ELEVATION TOP OF HOLE	-30.3	
9. TOTAL DEPTH OF HOLE	20.0 (EL. -50.3)		18. TOTAL CORE RECOVERY FOR BORING	%	
			19. SIGNATURE OF INSPECTOR	BRYANT & JONES D.G.H.	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	DISTURBED SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-30.3	0					LAB. TESTING JAR # CLASS % PASSING #200 SIEVE 1 (CH) 99 2 (CH) 87 3 - - MA
	2		(ML) BLACK CLAYEY SILT (VERY SOFT)			
-34.3	4			19C	1	
-34.8	6					
-37.2	6.9					
	8		(CH) GRAY FAT CLAY (SOFT)			SAMPLE #2 TORVANE - 0.25 T.S.F. PENETROMETER - 0.25 T.S.F.
-40.3	10			86	2	
-40.8						
-42.5	12.2					
	14		(SP) LIGHT GRAY POORLY GRADED SAND (SILTY) (FIRM)			
-46.3	16				3	
-46.8						
	18					
-50.3	20					E.O.H.

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI HOLE NO. GP-6-87

Hole No. GP- -87

DRILLING LOG	DIVIS S.A.D
1. PROJECT	GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI
2. LOCATION (Coordinates or Station)	N 273,603 E 434,520
3. DRILLING AGENCY	M.D.O.
4. HOLE NO. (As shown on drawing title and file number)	GP-7-87
5. NAME OF DRILLER	FULLER
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	
8. DEPTH DRILLED INTO ROCK	
9. TOTAL DEPTH OF HOLE	15.8 (EL. -46.7)
INSTALLATION	M.D.O. — SHEET 1 OF 1 SHEETS
10. SIZE AND TYPE OF BIT	VIBRACORE TUBE
11. DATUM FOR ELEVATION SHOWN (MSL or MLLW)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRACORE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 5 — UNDISTURBED —
14. TOTAL NUMBER CORE BOXES	—
15. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED 7-22-87 — COMPLETED 7-22-87
17. ELEVATION TOP OF HOLE	-30.9
18. TOTAL CORE RECOVERY FOR BORING	%
19. SIGNATURE OF INSPECTOR	D.G.H. BRYANT & JONES

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY (RQD) W.C.	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-30.9						
	2		(ML) DARK GRAY CLAYEY SILT (VERY SOFT)			LAB TESTING: JAR # CLASS LL PL PI % PASS #200 SIEVE; 1 (CH) .64 55 114 99; 3 (SM) - - - -; 4 (SC) - - - -; 5 (CH) - - - -
-33.9						
-34.4				20c	1	
	4					
	5					
-37.7	6.8					
-38.1			(CH) GRAY FAT CLAY (SOFT)			SAMPLE #2 TORVANE-0.05 TSF PENETROMETER-0.0 TSF
-38.7					2	
-38.9	8					
-39.5			(SP) GRAY POORLY GRADED SAND (SAND) (FINE)			
-40.0					3	
	3					
-42.1	11.2					
-42.9			(CH) GRAY FAT CLAY W/LAYERS OF SAND (SM) (SOFT)			SAMPLE #4 TORVANE-0.09 TSF PENETROMETER-0.4 TSF
-43.4	.2			35	4	
			FAT CLAY W/ PTE. & SHELL FRAGS			
	14					
-45.6						SAMPLE #5 TORVANE-0.13 TSF PENETROMETER-0.5 TSF
-46.1				59	5	
-46.7	15.8					
			B.O.H.			

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISS. SS. PP. — HOLE NO. GP-7-87

Hole No. GP-8-87

DRILLING LOG	DIVISION: S.A.D.
INSTALLATION: M.D.O.	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI	10. SIZE AND TYPE OF BIT: VIBRACORE TUBE
2. LOCATION (Coordinates or Station): N 227 737 E 436 649	11. DATUM FOR ELEVATION SHOWN (MSL or MLLW): MLLW
3. DRILLING AGENCY: M.D.O.	12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE
4. HOLE NO. (As shown on drawing title and file number): GP-8-87	13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 4-TUBE, 1-JAR; UNDISTURBED —
5. NAME OF DRILLER: FULLER	14. TOTAL NUMBER CORE BOXES: —
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER: N/A
7. THICKNESS OF OVERBURDEN	16. DATE HOLE: STARTED 7-20-87; COMPLETED 7-20-87
8. DEPTH DRILLED INTO ROCK	17. ELEVATION TOP OF HOLE: -14.8
9. TOTAL DEPTH OF HOLE: 14.7' (EL. -29.5)	18. TOTAL CORE RECOVERY FOR BORING: %
	19. SIGNATURE OF INSPECTOR: BRYANT & JONES D.G.H.

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	% CORE RECOVERY (e)	NUMBER SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-14.8						
	3		(ML)	147	1	SAMPLES 1, 2 & 4 WERE CUT, SEALED & SENT TO S.A.D. AS VIBRACORE TUBE.
-17.8						
	3		(VL)		2	± 0.0 TO ± 2.0 WERE VISUALLY CLASSIFIED WHILE CONTAINED IN CLEAR VIBRACORE TUBE.
-20.8						
	3		(VL)	98	3	LAB TESTING: Sample # / Class. / LL / PL / PI / % pass. #200 sieve: 1 (CH) - - - 75; 2 (CH) - - - -; 3 (CH) 74 22 52 - MA, HY; 4 - 54 16 38, MA, HY
-23.8						
	3		(EC)	57	4	
-26.8						
	3		(CH) GRAY FAT CLAY (SANDY) (FIRM);		5	SAMPLE #5 FOR A.E.-C.E. TEF PENETROMETER-C.E. TEF
-29.5	4.7		E.O.H.			

SAMPLE #	LABORATORY TESTING Visual Classification and/or Remarks	
1	El. 14.8-17.8	Disturbed soft fat clay (CH) w/ some sand
2	17.8-20.8	Dk gray fat clay (CH) w/ a trace of sand
3	20.8-23.8	Density taken @ El. 22.8 pcf = 45.4 spg = 2.65
4	23.8-26.8	Density taken @ El. 25.6 pcf = 65.9 spg = 2.64

Hole No. GP-7-87

DRILLING LOG	DIVIS: S.A.D	INSTALLATION: M.D.O.	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT: VIBRACORE TUBE	
2. LOCATION (Coordinates or Station): N 225,46- E 439,36-		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: M.D.O.		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number): GP-9-87		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2; UNDISTURBED —	
5. NAME OF DRILLER: FULLER		14. TOTAL NUMBER CORE BOXES: —	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 7-20-87; COMPLETED 7-20-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -32.3	
9. TOTAL DEPTH OF HOLE: 14.3' (EL. -46.5)		18. TOTAL CORE RECOVERY FOR BORING:	
		19. SIGNATURE OF INSPECTOR: BRYANT & JONES D.G.H	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY (Rock) e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-32.3						
	2		(ML) BLACK CLAYEY SILT (VERY SOFT)			LAB. TESTING JAR NO. CLASS % PASS #200 SIEVE 1 (CH) 27 2 (SP), MA
-35.3						
-35.8				223	1	
-36.0	4					
	6		(SM) GRAY SILTY SAND (FIRM) W TRACE SHELL FRAGE			
	8					
-42.3						
-42.8				27	2	
	12					
-46.0	14					
			E.O.H.			

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI HOLE NO. GP-9-87

Hole No. GP-10-87

DRILLING LOG — DIVISION: S.A.D	INSTALLATION: M.D.O. — SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI	10. SIZE AND TYPE OF BIT: VIBRACORE TUBE
2. LOCATION (Coordinates or Station): N 218,595 E 443,537	11. DATUM FOR ELEVATION SHOWN (MSL or MLLW): MLLW
3. DRILLING AGENCY: M.D.O.	12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE
4. HOLE NO. (As shown on drawing title and file number): GP-10-87	13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 2 / UNDISTURBED —
5. NAME OF DRILLER: FULLER	14. TOTAL NUMBER CORE BOXES: —
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER: N/A
7. THICKNESS OF OVERBURDEN	16. DATE HOLE: STARTED 7-20-87 / COMPLETED 7-20-87
8. DEPTH DRILLED INTO ROCK	17. ELEVATION TOP OF HOLE: -29.6
9. TOTAL DEPTH OF HOLE: 13.0' (EL -42.6)	18. TOTAL CORE RECOVERY FOR BORING: %
	19. SIGNATURE OF INSPECTOR: BRYANT & JONES, D.G.H.

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	% CORE RECOVERY (e)	SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-29.6	2		(MH) DARK GRAY ORGANIC SILT (VERY SOFT)			LAB. TESTING JAR CLASS LL PL PI 1 (CH) 83 27 56 MA, HY 2 - MA
-29.1	4					SAMPLE #1 TORVANE-0.05 TSF PENETROMETER- 0.0 TSF
-29.6				90	1	
-32.8	6					
	8					
	10		(SM) GRAY & BROWN SILTY SAND (CLAYEY) (FIRM)			
-36.6	12					
-37.1					2	
	14					
	16					
-42.6	18					
			B.O.H			

ENG FORM 1836 MAR 71 — PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT: GULFPORT SHIP CHANNEL, GULFPORT, MISSISSIPPI — HOLE NO. GP-10-87

Hole No. GP-11-87

DRILLING LOG	DIVIS. S.A.D	INSTALLATION M.D.O.	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT VIBRACORE TUBE	
2. LOCATION (Coordinates or Station) N 213,467 E 446,932		11. DATUM FOR ELEVATION SHOWN (MSL or MLLW) MLLW	
3. DRILLING AGENCY M.D.O		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-11-87		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 2-TUBE 1-JAR	UNDISTURBED —
5. NAME OF DRILLER FULLER		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 7-20-87 COMPLETED 7-20-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -33.9	
9. TOTAL DEPTH OF HOLE 14.0 (EL. -47.9)		18. TOTAL CORE RECOVERY FOR BORING %	
		19. SIGNATURE OF INSPECTOR BRYANT & JONES D.G.H	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY (INCL. W.C.) e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-33.9						
	3		(CH)	43	1	SAMPLE 1 & 2 WERE CUT SEALED & SENT TO E.A.D LAB IN VIBRACORE TUBE.
-36.9						
	3		(SM)	23	2	2 C.C TUBE 6 C WERE VISUALLY CLASSIFIED WHILE CONTAINED IN CLEAR VIBRACORE TUBE
-39.9						
	8		(SM) BROWNIE- GRAY SILTY SAND (FRAG)			LAB TESTING JAR SAMPLE CLASS 2 - MA 3 (SP-SM)
-43.9						
-44.4	0.5			23	3	
	2					
-47.9	1.4					
			E O B -			

SAMPLE # — LABORATORY TESTING — Visual Classification and/or Remarks

SAMPLE #		LABORATORY TESTING Visual Classification and/or Remarks
1	El. 33.9-34.9	Dk gray soft fat clay (CH) w/ trace of sand pcf = 75.9 LL=73 PL=23 PI=50
	34.9-35.9	Dk gray soft fat clay (CH) w/ (SM) pockets
	35.9-36.9	Gray clayey sand (SC) w/ wood Density taken @ El. 35.9
2	36.9-37.4	Dk gray soft clayey sand (SC) w/ wood pcf=98.1
	37.4-39.9	Brown silty sand (SM) w/ clay layers Density taken @ El. 39.5 Pcf=98.1

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI — HOLE NO. GP-11-87

Hole No. GP-12-87

DRILLING LOG	Divis: S.A.D	Installation: M.D.O.	Sheet 1 of 1 sheets
1. Project: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. Size and type of bit: VIBRACORE TUBE	
2. Location (Coordinates or Station): N 209,483 E 251,295		11. Datum for elevation shown (TBM or MSL): MLLW	
3. Drilling agency: M.D.O		12. Manufacturer's designation of drill: VIBRACORE	
4. Hole No. (As shown on drawing title and file number): GP-12-87		13. Total no. of overburden samples taken: Disturbed 4; Undisturbed —	
5. Name of driller: FULLER		14. Total number core boxes: —	
6. Direction of hole: ☒ Vertical ☐ Inclined ____ deg. from vert.		15. Elevation ground water: N/A	
7. Thickness of overburden		16. Date hole: Started 7-20-87; Completed 7-20-87	
8. Depth drilled into rock		17. Elevation top of hole: -28.8	
9. Total depth of hole: 20.0 (EL. -48.8)		18. Total core recovery for boring: %	
		19. Signature of inspector: BRYANT & JONES D.G.H.	

Elevation (a)	Depth (b)	Legend (c)	Classification of Materials (Description) (d)	% Core Recovery (RQD) (e)	Driven Sample No. (f)	Remarks (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-28.8						LAB TESTING
-29.8	1		(ML) BLACK CLAYEY SILT (VERY SOFT)			JAR CLASS LL PI PI
-30.3					1	1 (SC) - - -
-31.0	2.2					2 (SM) - - -
						3 (SM-SC) 22 15 7 .MA,HY
						4 (SC) 40 16 24, MA, HY
-32.3			(SM) GRAY SILTY SAND (SOFT)			SAMPLE #2 TORVANE-0.15 T.S.F
-32.8	4				2	PENETROMETER- 0.25 T.S.F
	6					
-35.8	7					
	8		(SC) BROWN & GRAY CLAYEY SAND (SOFT)			SAMPLE #3 TORVANE-0.09 T.S.F
-38.5						
-39.0	10			21	3	PENETROMETER- 0.4 T.S.F
-41.2	21					
	14		(CL) BROWN & GRAY SANDY CLAY (SILTY) (SOFT) W/TRACE WOOD FRAGS			SAMPLE #4 TORVANE-0.22 T.S.F
-44.6						
-45.1	16			34	4	PENETROMETER- 0.25 T.S.F
	18					
-48.8	20.0					E.O.H.

ENG FORM 1836 MAR 71 — PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

Project: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI — Hole No. GP-12-87

Hole No. GP-13-87

DRILLING LOG	DIVISION: S.A.D	INSTALLATION: M.D.O.	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT: VIBRACORE TUBE	
2. LOCATION (Coordinates or Station): N 205,195 E 452,512		11. DATUM FOR ELEVATION SHOWN (MSL or MLLW): MLLW	
3. DRILLING AGENCY: M.D.O.		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE	
4. HOLE NO. (As shown on drawing title and Site number): GP-13-87		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2 / UNDISTURBED —	
5. NAME OF DRILLER: FULLER		14. TOTAL NUMBER CORE BOXES: —	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: N/A	
		16. DATE HOLE: STARTED 7-20-87 / COMPLETED 7-20-87	
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE: -33.2	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING: %	
9. TOTAL DEPTH OF HOLE: 19.4 (EL. -52.6)		19. SIGNATURE OF INSPECTOR: BRYANT & JONES. D.G.H	

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	% CORE RECOVERY (e)	SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-33.2						LAB. TESTING
	2		(SM) GRAY SILTY SAND (FIRM)			JAR / CLASS / PL / LL / % PASS 200 SIEVE
						1 (SP) NP NP NP — MA
-36.2						2 (CH) 56 16 40 55
-36.7					1	
	4					
-38.4						
	5.2					
	6					
	8		(CH) GRAY FAT CLAY (F.R.M) W/TRACE WOOD FRAGS			
	10					
	12					SAMPLE #2 TOP VANE-0.3 TSF PENETROMETER-0.5 T.S.F
-46.2						
-46.7				37	2	
	14					
	16					
	18					
-52.6	19.4					
			B.O.H.			

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI HOLE NO. GP-13-87

Hole No. GP-17-87

DRILLING LOG	DIVIT. S.A-D	INSTALLATION M.D O.	SHEET 1 OF SHEETS
1. PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT VIBRACORE TUBE	
2. LOCATION (Coordinates or Station) N 203,189 E 455,340		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW	
3. DRILLING AGENCY M.D.O		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-14-87		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3-TJEE, 2-JAR; UNDISTURBED —	
5. NAME OF DRILLER FULLER		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
		16. DATE HOLE STARTED 7-20-87 COMPLETED 7-20-87	
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE -33.3	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING %	
9. TOTAL DEPTH OF HOLE 19.0' (EL. -52.3)		19. SIGNATURE OF INSPECTOR BRYANT & JONES D.G.H	

ELEVATION a	DEPTH b	LEGEND c	CLASIFICATION OF MATERIALS (Description) d	% CORE RECOVERY (BOX) e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-33.3						
			(SP)	25	1	SAMPLE 1,2 & 3 WERE CUT, SEALED & SENT TO M.D. LAB IN VIBRACORE TUBE.
-36.3	3					
			(SP)		*2	≈ 3.0 TO ≈ 9.0 WERE VISUALLY CLASSIFIED WHILE CONTAINED IN CLEAR VIBRACORE TJEE.
-39.3	6					
			(SP)	20	3	LAB. TESTING: JAR # CLASS LL PL PI % PASS #200 SIEVE 1 - MA - - - - 2 - MA - - - - 3 - MA - - - - 4 (SC) 49 18 31 48 5 (CH) - - - 54
-42.3	9					
-44.5			(CH) GRAY FAT CLAY (SILTY) (SOFT)	37	4	SAMPLE #4 TOPVANE-0.19 TSF PENETROMETER-0.4
-45.0	12					* See also petrographic analysis
	15		(CH) GRAY FAT CLAY (SOFT)			
-50.3				37	5	SAMPLE #5 TOPVANE-0.27 TSF PENETROMETER-0.4 T.S.F
-50.8	15					
-52.3	9		B.O.H			
			SEE LAB TEST ON SHT 2.			

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISS. | HOLE NO. GP-14-87

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -33.3 | Hole No. GP-14-87

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | INSTALLATION | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOV-ERY e	BOX OR SAMPLE NO f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g

SAMPLE #		LABORATORY TESTING Visual Classification and/or Remarks
1	El. 33.3-36.3	Lt gray poorly graded silty sand (SP-SM) w/ (CH) pockets Density taken @ El. 35.3 pcf=83.8
3	39.3-42.0	Lt gray poorly graded sand (SP) w/ layers of (CH)
	42.0-42.3	Dk gray fat clay (CH) w/ a little sand Density taken @ El. 41.3 pcf=94.2

ENG FORM 1836-A JUN 87 (ER 1110-1-1801) GPO 1988 0-635-693

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | HOLE NO GP-14-87

Hole No. GP-15-87

DRILLING LOG	DIVIS. S.A.D	INSTALLATION M.D.O.	SHEET 1 OF 2 SHEETS

1. PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI	10. SIZE AND TYPE OF BIT VIBRACORE TUBE
2. LOCATION (Coordinates or Station) N 203,313 E 451,187	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
3. DRILLING AGENCY M.D.O.	12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE
4. HOLE NO. (As shown on drawing title and file number) GP-15-87	13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN — DISTURBED 1 — UNDISTURBED —
5. NAME OF DRILLER FULLER	14. TOTAL NUMBER CORE BOXES —
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER N/A
	16. DATE HOLE STARTED 7-20-87 COMPLETED 7-20-87
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE -19.9
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING %
9. TOTAL DEPTH OF HOLE 20.3 (EL. -40.2)	19. SIGNATURE OF INSPECTOR BRYANT & JONES D.G.H.

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR BOX e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-19.9	0					
	2					
			(SP) LIGHT GRAY POORLY GRADED SAND (FIRM)			LAB. TESTING JAR CLASS. ... P PI (SP) ... MA petrographic analysis
	4					
	6					
	8					
-29.9	10					
-30.4					1	
	12					
	14					
	16		W/SHELL FRAGS			
	18					
-39.9						

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI — HOLE NO. GP-15-87

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE −19.5 | Hole No. GP-15-87

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | INSTALLATION M.D.O | SHEET 2 OF 2 SHEETS

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOV. ERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
-39.9	b	c	d	e	f	g
-40.2	20.7		(SP) LIGHT GRAY POORLY GRADED SAND (FIRM) W/ SHELL FRAGS			B.O.H.

ENG FORM 1836-A (ER 1110-1-1801) GPO 1986 OC-488-583

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | HOLE NO GP-15-87

Hole No. GP-16-87

DRILLING LOG	DIVIS. S.A.D	INSTALLATION M.D.O.	SHEET 1 OF 2 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT VIBRACORE TUBE	
2. LOCATION (Coordinates or Station) N 233,317 E 449,969		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW	
3. DRILLING AGENCY M.D.O.		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE.	
4. HOLE NO. (As shown on drawing title and file number) GP-16-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 5	UNDISTURBED —
5. NAME OF DRILLER FULLER		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 7-24-87 COMPLETED 7-24-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE −16.8	
9. TOTAL DEPTH OF HOLE 30.0' (EL.−46.8)		18. TOTAL CORE RECOVERY FOR BORING %	
		19. SIGNATURE OF INSPECTOR BRYANT & JONES	D.S.H

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BORING SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
−16.8						LAB TESTING
	2		(SP) LIGHT GRAY POORLY GRADED SAND (FIRM) W/ SOME WOOD & TRACE SHELLS			JAR CLASS — P P 1 (SP) NP NP MA 2 (SC) — — — 3 (SM) — — 4 (SM) — — — 5 (CH) — — —
	4					
	6					
−24.8						
−25.3					1	
	8					
	10					
	12					
	14					
	16					
−39.2						
−34.8			(CL) GRAY SANDY CLAY (SILTY) (SOFT)			SAMPLE #2 TORVANE-CONE PENETROMETER- CONE — —
−35.3				34	2	
−36.9						

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCE)

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | HOLE NO. GP-16-87

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -16.8 | Hole No. GP-16-87

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | INSTALLATION M.D.O | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc.; if significant) g
-36.8	20		(SM) GRAY SILTY SAND (CLAYEY) (FIRM)			
-38.8	22					
-39.3				21	3	
	24					
-41.8	25					
	26		(ML) GRAY SANDY SILT (F.M.)			
-43.8						
-44.3				29	4	
	25					
-45.6	25.8					SAMPLE "5"
-45.8			(CH) GRAY FAT CLAY (SOFT)		5	VANE-0.15 TSF
-46.3						PENETROMETER-
-46.8	30					0.25 TSF
			B.O.H			

ENG FORM 1836-A JAN 67 (ER 1110-1-1801) DPO 1984 OP-438-881

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | HOLE NO GP-16-87

Hole No. GP-17-87

DRILLING LOG	DIVIS: S.A.D	INSTALLATION: M.D.O.	SHEET 1 OF 2 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT: VIBRACORE TUBE	
2. LOCATION (Coordinates or Station): N 205,730 E 450,470		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: M.D.O		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number): GP-17-87		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4 / UNDISTURBED —	
5. NAME OF DRILLER: FULLER		14. TOTAL NUMBER CORE BOXES: —	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 7-24-87 / COMPLETED 7-24-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -17.9	
9. TOTAL DEPTH OF HOLE: 30.0 (EL. -47.9)		18. TOTAL CORE RECOVERY FOR BORING: %	
		19. SIGNATURE OF INSPECTOR: BRYANT & JONES D.G.H	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-17.9			(SM) GRAY SILTY SAND (CLAYEY) (FIRM)			
-19.4					1	
-19.9	2					LAB TESTING
-20.9	3					JAR CLASS: 1 (SP-SM), 2 (SP), 3 — MA
	4		(SP) - SHT GRAY POORLY GRADED SAND (F.F.M)			
-23.3						
-23.8	5				2	
-24.1	5.3					
	6		(SM) GRAY SILTY SAND (CLAYEY) (F.F.M)			
-29.9	7					
-30.4					3	
	8					
	9					
	10		SILTY SAND (FIRM)			
-34.9						
-35.4					4	
	11					
	12					
-37.9	13					

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISS. SS. FP1 HOLE NO. GP-17-87

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -17.9 | Hole No. GP-17-87

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | INSTALLATION M.D.O | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-37.9	20					
	22		(SM) GRAY SILTY SAND (FIRM)			
	24					
	26					
	28					
-47.9	30		B.C.			

ENG FORM 1836-A JAN 67 (ER 1110-1-1801) OPO 1966 OP-826-963

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | HOLE NO. GP-17-87

Hole No. GP-18-87

DRILLING LOG	DIVISION S.A.D	INSTALLATION M.D.O.	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT VIBRACORE TUBE	
2. LOCATION (Coordinates or Station) N 201,316 E 451,393		11. DATUM FOR ELEVATION SHOWN (TOW or MSL) MLLW	
3. DRILLING AGENCY M.D.O		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-18-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 1	UNDISTURBED —
5. NAME OF DRILLER FULLER		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 7-21-87 COMPLETED 7-21-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -23.1	
9. TOTAL DEPTH OF HOLE 20.0 (EL -43.1)		18. TOTAL CORE RECOVERY FOR BORING %	
		19. SIGNATURE OF INSPECTOR BRYANT & JONES D.G.H	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-23.1						LAB. TESTING
	2					JAR CLASS
						1 (SP)
	4		(SP) LIGHT GRAY POORLY GRADED SAND (FIRM)			
	6					
	8					
-33.1	10				1	
-33.6						
	12					
	14					
	16					
	18					
-43.1	20					B.C.-1

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISS. SSIPPI HOLE NO. GP-18-87

Hole No. GP-19-87

DRILLING LOG	Divis: S.A.D	INSTALLATION: M.D.O.	SHEET 1 of 2 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT: VIBRACORE TUBE	
2. LOCATION (Coordinates or Station): N 201,543 E 449 556		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: M.D.O.		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number): GP-19-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 3 / UNDISTURBED —	
5. NAME OF DRILLER: FULLER		14. TOTAL NUMBER CORE BOXES: —	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED: _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: N/A	
		16. DATE HOLE: STARTED 7-24-87 / COMPLETED 7-24-87	
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE: -18.4	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING:	
9. TOTAL DEPTH OF HOLE: 30.0 (E. -48.4)		19. SIGNATURE OF INSPECTOR: BRYANT & JONES D.G.H	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY or W.O.C.	NUMBER SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-18.4						LAB TESTING JAR # CLASS LL PI PI % PASS #200 SIEVE 1 - - - - MA 2 (SM-SC) 20 15 5 43 3 (CH) 25 24 1 79
	2		(SP) LIGHT GRAY POORLY GRADED SAND (FIRM)			
	9					
-23.4						
-23.9				—	1	
	6					
	3					
	0					
	12					
	14					
-34.6						
	16.2		(SC) GRAY CLAYEY SAND (VER. FIRM)			
	3					
-36.9						
-37.4				21	2	
-38.4						

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI — HOLE NO. GP-19-87

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -18.4 | Hole No. GP-19-87

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | INSTALLATION M.D.O | SHEET 2 OF 2 SHEETS

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	BLOWS PER 6 INCH. DRIVE WOC.	BOX OR SAMPLE NO. (f)	REMARKS (Drilling rate, water loss, depth of weathering, etc., if significant) (g)
-38.4	20		(SC) GRAY CLAYEY SAND (VERY FIRM)			
-40.9	22					
	22.5					
-42.9	24		(ML) GRAY SANDY SILT (CLAYEY) (SOFT)			SAMPLE #3 TORVANE - 0.11 T.S.F.
-43.4				32	3	PENETROMETER - 0.1 T.S.F
	26					
	28					
-48.9	30.0		B.O.H.			

ENG FORM 1836-A Aug 67 (ER 1110-1-1801) GPO 1966 O-P-630-663

PROJECT GULFPORT SHIP CHANNEL | HOLE NO. GP-19-87

Hole No. GP-20-87

DRILLING LOG	DIVISION: S.A.D	INSTALLATION: M.D.O.	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT: VIBRACORE TUBE	
2. LOCATION (Coordinates or Station): N 179,246 E 451,534		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: M.D.O		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number): GP-20-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 1 / UNDISTURBED —	
5. NAME OF DRILLER: FULLER		14. TOTAL NUMBER CORE BOXES: —	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 7-21-87 / COMPLETED 7-21-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -35.3	
9. TOTAL DEPTH OF HOLE: 12.4' (E -47.7)		18. TOTAL CORE RECOVERY FOR BORING: %	
		19. SIGNATURE OF INSPECTOR: BRYANT & JONES D.G.H.	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-35.3	0					LAB. TESTING JAR CLASS (SP) MA
	2		(SM) GRAY SILTY SAND (FINE GRAINED) (DENSE)			
	4					
-41.3	6				1	
-41.8						
	8					
	10					
-47.7	12					
			E.C 1			

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI

HOLE NO. GP-20-87

Hole No. GP-21-87

DRILLING LOG	DIVIS: S.A.D	INSTALLATION: M.D.O.	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT: VIBRACORE TUBE	
2. LOCATION (Coordinates or Station): N 193 332 E 450,477		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: M.D.O		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number): GP-21-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 3 / UNDISTURBED —	
5. NAME OF DRILLER: FULLER		14. TOTAL NUMBER CORE BOXES: —	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 7-21-87 / COMPLETED 7-21-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -24.2	
9. TOTAL DEPTH OF HOLE: 19.9 (EL -44.0)		18. TOTAL CORE RECOVERY FOR BORING: %	
		19. SIGNATURE OF INSPECTOR: BRYANT & JONES D.G.H.	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-24.2						LAB TESTING
	2		(SP) LIGHT GRAY POORLY GRADED SAND (SILTY) (FIRM), MICA W/SHELLS & WOOD FRAGS			JAR # CLASS — — —
						1 (SC)
						2 (SP) NP NP NP MA
-27.2						3 (SP-SM) NP NP NP MA
-27.5					1	
	4					
-29.4						
	6		(SM) GRAY SILTY SAND (CLAYEY) MICA W/SHELL FRAGS. (FIRM)			
-31.2						
-31.7					2	
	8					
			GRAY SILTY SAND (POORLY GRADED) MICA W. SHELLS (FIRM)			
	10					
	12					
-39.2						
-39.7					3	
	16					
	20					
-44.0						E.O.H.

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT: GULFPORT SHIP CHANNEL, GULFPORT, MISS. SSIPPI | HOLE NO. GP-21-87

Hole No. GP-22-87

DRILLING LOG	Divisi S.A.D	INSTALLATION M.D.O.	SHEET 1 OF 2 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT VIBRACORE TUBE	
2. LOCATION (Coordinates or Station) N 199 333 E 449 385		11. DATUM FOR ELEVATION SHOWN (MSL or MLLW) MLLW	
3. DRILLING AGENCY M.D.O.		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-22-87		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6	UNDISTURBED —
5. NAME OF DRILLER FULLER		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 7-24-87	COMPLETED 7-24-87
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -21.6	
9. TOTAL DEPTH OF HOLE 27.8 (EL. -49.4)		18. TOTAL CORE RECOVERY FOR BORING %	
		19. SIGNATURE OF INSPECTOR BRYANT & JONES D.G.H.	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY (RQD) W.C.	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-21.6						
	2		(SP) LIGHT GRAY POORLY GRADED SAND (SILTY) (FIRM)			LAB. TESTING
-24.1						JAR CLASS LL PL PI 200 #4 #10
-24.6					1	1 (SP) NP NP NP - - MA
	4					2 (CH) - - - 53 - -
						5 (SP) - - - - - -
	6					6 (SP) NP NP NP - - MA
-28.5	6.9					
			(CH) GRAY FAT CLAY (FIRM)			SAMPLE #2 TORVANE-0.12 TSF
-30.1						
-30.6				51	2	PENETROMETER- 0.55 TSF
	8					
-33.8	12.2					
-34.1			(SM) GRAY SILTY SAND (FIRM)			
-34.6					3	
-35.9	13.2					* SAMPLE #4
-35.8			(CH) GRAY FAT CLAY (SOFT)			TORVANE-0.11 TSF
-36.3					4	PENETROMETER- 0.1 TSF
-36.8	15.2					
			(SP) LIGHT GRAY POORLY GRADED SAND (SILTY) (FIRM) W/ TRACE SHELL FRAGS			
-38.1						
-38.6					5	
			(SM) BROWN ETAN SILTY SAND (FIRM)			
-41.0	3.4					
-41.6						

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISS. SHIP. HOLE NO. GP-22-87

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -21.6 | Hole No. GP-22-87

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | DATUM M.D.O | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOV-ERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling rate, water loss, depth of weathering, etc. if significant) g
-41.6	20					
	22		(SM) BROWN-TAN SILTY SAND (FIRM)			
-44.6					6	
-45.1						
	24					
	26					
-49.4	28		B.O.H.			

DRILLING LOG	DIVIS: S.A.D	INSTALLATION: M.D.O.	Hole No. GP-23-87
1. PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT: VIBRACORE TUBE	SHEET 1 OF 1 SHEETS
2. LOCATION (Coordinates or Station): N 196 9?? E 450,774		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): M.L.L.W.	
3. DRILLING AGENCY: M.D.O.		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number): GP-23-87		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1; UNDISTURBED —	
5. NAME OF DRILLER: FULLER		14. TOTAL NUMBER CORE BOXES: —	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 7-21-87; COMPLETED 7-21-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -32.4	
9. TOTAL DEPTH OF HOLE: 17.4 (EL. -49.8)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: BRYANT & JONES D.S.H.	

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	% CORE RECOVERY (e) W.C	CORE SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-32.4						
	2		(SM) GRAY SILTY SAND (FINE GRAINED) (FIRM) W/MICA & SHELL FRAGS			LAB. TESTING JAR CLASS LL PL PI 1 (SM) NP NP NP, MA
	4					
	6					
	8					
-42.4						
-42.9	10			28	1	
	12					
	14					
	16					
-49.8	17.4		B.C.H.			

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISS. SHIP. HOLE NO.: GP-23-87

Hole No. GP-24-87

DRILLING LOG	DIVISION S.A.D	INSTALLATION M.D.O.	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT VIBRACORE TUBE	
2. LOCATION (Coordinates or Station) N176,519 E449,953		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW	
3. DRILLING AGENCY M.D.O.		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-24-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 4	UNDISTURBED —
5. NAME OF DRILLER FULLER		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 7-21-87 COMPLETED 7-21-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -28.9	
9. TOTAL DEPTH OF HOLE 17.8 (EL -46.2)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR BRYANT & JONES	D.G.H.

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY (Rock) W.C.	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-28.9						
-29.9	1		(SP) LIGHT GRAY POORLY GRADED SAND (FIRM)		1	
	2		(CL) GRAY SILTY CLAY (VERY SOFT)			SAMPLE #2 TORVANE-0.066 T.S.F. PENETROMETER-0.0 T.S.F.
-32.4	4					
-32.8				114	2	
	6					LAB. TESTING
-36.2	7.8					JAR # CLASS LL PL PI % PASS #200 SIEVE
-36.6			(SM) GRAY SILTY SAND (DENSE) W/SHELL FRAGS.		3	2 (CH) - - - 91
-37.1						3 (SM) - - - -
-38.9	10					4 (SP) NP NP NP - - MA
	12		(SP) GRAY POORLY GRADED SAND (SILTY) (FIRM) W/TRACE ROOTS			
-42.4	14					
-42.9					4	
	16					
-46.2	17.3					
			E O H			

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI HOLE NO. GP-24-87

Hole No. GP-25-87

DRILLING LOG	DIVIS: S.A.D.	INSTALLATION: M.D.O.	SHEET 1 OF 2 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT: VIBRACORE TUBE	
2. LOCATION (Coordinates or Station): N 196,134 E 447,363		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: M.D.O.		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number): GP-25-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED —	
5. NAME OF DRILLER: FULLER		14. TOTAL NUMBER CORE BOXES: —	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 7-24-87; COMPLETED 7-29-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -20.2	
9. TOTAL DEPTH OF HOLE: 25.5' (EL. -45.7)		18. TOTAL CORE RECOVERY FOR BORING:	
		19. SIGNATURE OF INSPECTOR: BRYANT & JONES, D.G.H.	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY (Rock) W.C.	DISTURBED SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-20.2			(SP) LIGHT TAN POORLY GRADED SAND (FIRM)			
-21.7					1	LAB. TESTING
-22.2	2					JAR # CLASS % FINES % PASS. #200 SIEVE
-23.2	3					1 (SP) — — —
						2 (CH) 107 98 79 96
	4		(CH) GRAY FAT CLAY (SOFT)			3 (SP-SM) NP NP NP — MA
	6					
-28.7	8					SAMPLE #2
-29.2				108	2	T.V. VANE - 0.10 T.S.F
	10					PENETROMETER - 0.0 T.S.F.
	12					
-33.2						
	14		(SM) GRAY SILTY SAND (FIRM) W/ MICA & TRACE SHELLS			
	16					
-38.2						
-38.7	18			31	3	
-40.2						

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | HOLE NO. GP-25-87

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE -20.2	Hole No. GP-25-87
PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI	INSTALLATION M.D.O	SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-40.2	20					
			(SM) GRAY SILTY SAND (FIRM) W/MICA & TRACE SHELLS			
	22					
	24					
-45.7	25.5					
			E.O.H			

ENG FORM 1836-A JUN 67 (ER 1110-1-1801) GPO 1966 O7-456-003

PROJECT	HOLE NO.
GULFPORT SHIP CHANNEL GULFPORT MISSISSIPPI	GP-25-87

Hole No. GP-26-87

DRILLING LOG	DIVISION S.A.D	INSTALLATION M.D.O.	SHEET 1 OF 2 SHEETS

1. PROJECT: GULFPORT SHIP CHANNEL, GULFPORT, MISSISSIPPI
2. LOCATION (Coordinates or Station): N 174 758 E 453,714
3. DRILLING AGENCY: M.D.O
4. HOLE NO. (As shown on drawing title and file number): GP-26-87
5. NAME OF DRILLER: FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ______ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN:
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 22.5' (EL. -42.4)
10. SIZE AND TYPE OF BIT: VIBRACORE TUBE
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 3 | UNDISTURBED —
14. TOTAL NUMBER CORE BOXES: —
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 7-24-87 | COMPLETED 7-24-87
17. ELEVATION TOP OF HOLE: -19.9
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: BRYANT & JONES D.G.H.

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	% CORE RECOVERY (W.C.) (e)	BOX OR SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-19.9	0		(SM) GRAY SILTY SAND (CLAYEY) (FIRM) W. LAYERS OF GRAY FAT CLAY (CH)			LAB TESTING JAR NO. / CLASS 1 (SC) 2 (CH) 3 (SP)
-24.9 / -25.4				49	1	
-27.8	7.9		(CH) GRAY FAT CLAY (VERY SOFT)			
-30.4 / -30.9				67	2	SAMPLE #2 TORVANE-0.034 PENETROMETER-0.0 TSF
-32.6	12.7		(SM) GRAY SILTY SAND (CLAYEY) (FIRM) W, TRACE SHELL FRAGS			
-36.9 / -37.4				24	3	
-39.9	20					

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT: GULFPORT SHIP CHANNEL, GULFPORT, MISSISSIPPI | HOLE NO. GP-26-87

DRILLING LOG (Cont. Sheet) | ELEVATION TOP OF HOLE: -19.9 | Hole No. GP-26-87

PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | INSTALLATION: M.D.O | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LOGGED c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOV. (If) e	BOX OR SAMPLE NO. f	REMARKS (Drilling rate, water loss, depth of weathering, etc. if significant) g
-39.9	20		(SM) GRAY SILTY SAND (CLAYEY) (FIRM) W/TRACE SHELL FRAGS.			
-42.4	22.5		B.O.H			

ENG FORM 1836-A Jan 67 (ER 1110-1-1901) | PROJECT: GULFPORT SHIP CHANNEL GULFPORT MISSISSIPPI | HOLE NO. GP-26-87

Hole No. GP-27-87

DRILLING LOG	DIVISION: S.A.D	INSTALLATION: M.D.O.	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT: VIBRACORE TUBE	
2. LOCATION (Coordinates or Station): N 194,337 E 449,118		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: M.D.O.		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number): GP-27-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 2 / UNDISTURBED —	
5. NAME OF DRILLER: FULLER		14. TOTAL NUMBER CORE BOXES: —	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 7-22-87 / COMPLETED 7-22-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -29.8	
9. TOTAL DEPTH OF HOLE: 19.5 (EL -49.3)		18. TOTAL CORE RECOVERY FOR BORING: N/A %	
		19. SIGNATURE OF INSPECTOR: BRYANT & JONES D.S.H.	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY (RQD) e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-29.3						
	2		(CH) GRAY FAT CLAY (SOFT)			SAMPLE #1 TORVANE-0.11 TSF PENETROMETER-0.1 T.S.F.
-31.8						
-32.3				100	1	
	4					LAB TESTING
						JAR # CLASS LL PL PI
-35.3						1 (CH) - - -
	6		(SM) GRAY SILTY SAND (F.M.) W/ SOME SHELLS			2 (SP-SM) NP NP NP, MA
	8					
	10					
-41.8						
-42.3					2	
	14					
	16					
	18					
-49.3						
	19.5		B.C.T.			

ENG FORM 1836 MAR 71 — PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI — HOLE NO. GP-27-87

DRILLING LOG	DIVIS. S.A.D	INSTALLATION M.D.O.	Hole No. GP-23-87 SHEET 1 OF 2 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT VIBRACORE TUBE	
2. LOCATION (Coordinates or Station) N 194 032 E 447 467		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW	
3. DRILLING AGENCY M.D.O.		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-23-87		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3	UNDISTURBED —
5. NAME OF DRILLER FULLER		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 7-24-87	COMPLETED 7-24-87
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -18.9	
9. TOTAL DEPTH OF HOLE 30.0' (EL. -48.9)		18. TOTAL CORE RECOVERY FOR BORING N/A	
		19. SIGNATURE OF INSPECTOR BRYANT & JONES	D.G.H.

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY (RQD) W or C	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-18.9	0					
	1					
	2		(SP) LIGHT GRAY POORLY GRADED SAND (FIRM)			LAB. TESTING JAR CLASS LL PI PI #200 SIEVE 1 (SP) NP NP NP — 4 MA 2 (CH) 64 29 75 95 3 (SP-SM) - - - —
-22.9	4					
-23.4					1	
	6					
-25.9	7					
	8		(CH) GRAY FAT CLAY (VERY SOFT)			
	10					
	12					
-33.9	14					
-34.4				98	2	SAMPLE #2 TORVANE - 0.108 TSF PENETROMETER - 0.0 TSF
	16					
	18					
-38.9	20					

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISS. 55. FP! HOLE NO. GP-23-87

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -18.9 | Hole No. GP-28-87

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | INSTALLATION M.D.O | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOV-ERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling rate, water loss, depth of weathering, etc. if significant) g
-38.9	20					
	22		(SM) GRAY & BROWN SILTY SAND (CLAYEY) (FIRM)			
	24					
-43.9						
-44.4					3	
	26					
	28					
-48.9	30		B O H			

ENG FORM 1836-A JAN 67 (ER 1110-1-1801) GPO 1966 O-204-043

C-45

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | HOLE NO. GP-28-87

Hole No. GP-29-87

DRILLING LOG	Divisi S.A.D	INSTALLATION M.D.O.	SHEET 1 OF 2 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT VIBRACORE TUBE	
2. LOCATION (Coordinates or Station) N 191, 952 E 451, 058		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) M.L.L.W	
3. DRILLING AGENCY M.D.O.		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-29-87		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2-TUBE, 2-JAR; UNDISTURBED —	
5. NAME OF DRILLER FULLER		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 7-22-87; COMPLETED 7-22-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -33.1	
9. TOTAL DEPTH OF HOLE 19.0 (EL. -52.1)		18. TOTAL CORE RECOVERY FOR BORING N/A %	
		19. SIGNATURE OF INSPECTOR BRYANT & JONES, D.G.H.	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY etc. W.C.	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-33.1	0					
			(ML)	161	1	SAMPLES 1 & 2 WERE CUT, SEALED & SENT TO S.A.D. LAB IN VIBRACORE TUBE.
-36.1	3					
			(ML)	85	2	± 0.5 TO ± 3.5 WERE VISUALLY CLASSIFIED WHILE CONTAINED IN CLEAR VIBRACORE TUBE.
-39.1	6					
-40.1			(ML) BLACK CLAYEY SILT (VERY SOFT)			
-40.6				79	3	
-41.1	9					LAB TESTING: JAR # CLASS LL PL PI; 3 (CH) — — —; 4 (SM) NP NP NP, MA; VIBRACORE SAMP. # 2 (CH) 83 22 61 MA, HY
			(SM) GRAY SILTY SAND (FIRM) W/ TRACE SHELLS			
-45.1	12					
-45.6				23	4	
	14					
	16					
	18					
-52.1	19					
			B.O.H. SEE LAB TEST ON SHT. 2			

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -33.1 | Hole No. GP-29-87

PROJECT GULFPORT SHIP CHANNEL GULFPORT MISSISSIPPI | INSTALLATION MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOV. ERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc. if significant) g

SAMPLE #		LABORATORY TESTING Visual Classification and/or Remarks
1	El. 33.1-34.1	No Recovery
	34.1-35.6	Dk gray very soft & wet fat clay (CH)
	35.6-35.7	Dk gray (SP)
	35.7-36.1	Dk gray soft fat clay (CH)
		Density taken @ El. 35.1 pcf=32.1
2	36.1-39.1	Density taken @ El. 38.6 pcf=50.5
		spg=2.61 LOI=6.9 LL=83 PL=22 PI=61

ENG FORM 1836-A JAN 67 (ER 1110-1-1801) GPO 1966 O-220-603

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | HOLE NO GP-29-87

Hole No. GP-30-87

DRILLING LOG	DIVIS. S.A.D	INSTALLATION M.D.O.	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT VIBRACORE TUBE	
2. LOCATION (Coordinates or Station) N 191974 E 452,702		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW	
3. DRILLING AGENCY M.D.O.		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-30-87		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3	UNDISTURBED —
5. NAME OF DRILLER FULLER		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 7-22-87	COMPLETED 7-22-87
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -19.6	
9. TOTAL DEPTH OF HOLE 19.7' (EL. -38.3)		18. TOTAL CORE RECOVERY FOR BORING N/A %	
		19. SIGNATURE OF INSPECTOR BRYANT & JONES	D.G.H.

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY or W.C. f	SOUNDING SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-18.6	0					
	2		(SP) LIGHT GRAY POORLY GRADED SAND (FIRM)			LAB. TESTING JAR # CLASS. LL PL PI % PASS 200 SIEVE 1 (SP, NP NP NP -MA 2 - - - - -,MA 3 (CH) - - - 99 -
-22.1						
-22.6	4				1	
	6					
-25.6						
	7					
	8		(SM) GRAY SILTY SAND (FIRM) W/ .4' TO .8' LAYERS OF GRAY FAT CLAY (CH) (SOFT)			* TEST PERFORMED ON (CH) LAYERS BETWEEN EL. 7.0 AND EL 13.9'
-28.6						
-29.1	10				2*	TORVANE-0.25 TSF PENETROMETER- 0.0 T.S.F
	12					
-32.5						
	13.9					
	16		(CH) GRAY FAT CLAY (SOFT)			SAMPLE #3 TORVANE-0.09 TSF PENETROMETER- 0.1 T.S.F
-35.6						
-36.1				100	3	
	18					
-38.3						
	19.7		B.O.H.			

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PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | HOLE NO. GP-30-87

Hole No. GP-31-87

DRILLING LOG	DIVISION: SAD	INSTALLATION: M.D.O.	SHEET 1 OF 2 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT: VIBRACORE TUBE	
2. LOCATION (Coordinates or Station): N 191,836 E 449,907		11. DATUM FOR ELEVATION SHOWN (MSL or MLLW): MLLW	
3. DRILLING AGENCY: M.D.O.		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number): GP-31-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 2; UNDISTURBED —	
5. NAME OF DRILLER: FULLER		14. TOTAL NUMBER CORE BOXES: —	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 7-24-87; COMPLETED 7-24-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -17.8	
9. TOTAL DEPTH OF HOLE: 24.5' (EL. -42.3)		18. TOTAL CORE RECOVERY FOR BORING: N/A %	
		19. SIGNATURE OF INSPECTOR: BRYANT & JONES, D.G.H.	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY (Rock) W.C.	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-17.8	2		(SP) LIGHT GRAY POORLY GRADED SAND (FIRM)			LAB TESTING JAR CLASS LL PL PI % PASS #200 SIEVE 1 (SP) NP NP NP — 9 MA 2 (CH) 115 39 76 98
	4					
-24.3	6					
-24.8					1	
	8					
	10					
-30.3	12.5					
	14		(CH) GRAY FAT CLAY (VERY SOFT)			
	16					
-35.8	15					SAMPLE #2 TOR. VANE - 0.11 TSF PENETROMETER - 0.0 TSF
-36.3				.04	2	
-37.8						

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE (TRANSLUCENT)

PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | HOLE NO. GP-31-87

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -17.8 | Hole No. GP-31-87

PROJECT GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI | INSTALLATION M.D.O | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOV-ERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc. if significant) g
-37.8	20					
			(CH) GRAY FAT CLAY (VERY SOFT)			
	22					
-92.3	24.5		B.O.H.			

Hole No. GP-32-87

DRILLING LOG	DIVIS: S.A.D	INSTALLATION: M.D.O.	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT: VIBRACORE TUBE	
2. LOCATION (Coordinates or Station): N 19,992 E 448,578		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: M.D.O		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number): GP-32-87		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3 / UNDISTURBED —	
5. NAME OF DRILLER: FULLER		14. TOTAL NUMBER CORE BOXES: —	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 7-22-87 / COMPLETED 7-22-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -24.4	
9. TOTAL DEPTH OF HOLE: 16.4' (EL. -40.8)		18. TOTAL CORE RECOVERY FOR BORING: N/A %	
		19. SIGNATURE OF INSPECTOR: BRYANT & JONES D.G.H	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY Dry W.C	DISTURB SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-24.4						
			(SM) GRAY SILTY SAND (FIRM) W/TRACE SHELL FRAGS.			
-26.4	2			34	1	
-26.9						LAB. TESTING
-27.9	3.5					JAR # CLASS LL PL PI 200 SIEVE or PASS
						1 (SP-SM) - - - -
						2 (CH) 77 24 53 95
						3 (SM) - - - -
	6		(CH) GRAY FAT CLAY (VERY SOFT)			
						SAMPLE #2
-32.4						T.V. ANE-0.074 T.S.F
-32.9	8			93	2	PENETROMETER- 0.0 T.S.F
	10					
	12					
-38.1	13.7					
-38.9			(SM) GRAY SILTY SAND (FIRM) W/SOME SHELLS		3	
-39.4						
-40.8	16.4		B.O.H.			

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C-51

PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISS. SHIP. CH. HOLE NO. GP-32-87

Hole No. GP-33-87

DRILLING LOG	DIVISION: S.A.D	INSTALLATION: M.D.O.	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. SIZE AND TYPE OF BIT: VIBRACORE TUBE	
2. LOCATION (Coordinates or Station): N 199,459 E 453,103		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: M.D.O.		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number): GP-33-87		TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 1 / UNDISTURBED —	
5. NAME OF DRILLER: FULLER		14. TOTAL NUMBER CORE BOXES: —	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 7-22-87 / COMPLETED 7-22-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -23.1	
9. TOTAL DEPTH OF HOLE: 14.0' (EL. -37.1)		18. TOTAL CORE RECOVERY FOR BORING: N/A %	
		19. SIGNATURE OF INSPECTOR: BRYANT & JONES. D.G.H.	

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	% CORE RECOVERY (RQD) (e)	BORING SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-23.1	0					
	2		(CL) GRAY SILTY CLAY (VERY SOFT)			LAB TESTING JAR # CLASS. LL PL PI 1 (CH) 86 24 62, MA S_g = 2.64
	4					
	6					SAMPLE #1 TORVANE - 0.079 TSF
-30.1						
-30.6				101		PENETROMETER - 0.0 T.S.F.
	8					
	10					
	12					
-37.1	14		B.O.H.			

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT: GULFPORT SHIP CHANNEL | HOLE NO.: GP-33-87

C-52 GULFPORT, MISS. SHIP

DRILLING LOG	Divis: S.A.D	Installation: M.D.O.	Hole No. GP-36-87
1. Project: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI		10. Size and Type of Bit: VIBRACORE TUBE	Sheet 1 of 1 Sheets
2. Location (Coordinates or Station): N 193,01- E 455,53-		11. Datum for Elevation Shown (MSL or MLLW): MLLW	
3. Drilling Agency: M.D.O.		12. Manufacturer's Designation of Drill: VIBRACORE	
4. Hole No. (As shown on drawing title and file number): GP-36-87		13. Total No. of Overburden Samples Taken: Disturbed 3 / Undisturbed —	
5. Name of Driller: FULLER		14. Total Number Core Boxes: —	
6. Direction of Hole: ☒ Vertical ☐ Inclined ____ Deg. From Vert.		15. Elevation Ground Water: N/A	
7. Thickness of Overburden		16. Date Hole: Started 7-22-87 / Completed 7-22-87	
8. Depth Drilled into Rock		17. Elevation Top of Hole: -34.7	
9. Total Depth of Hole: 19.6' (EL. -54.3)		18. Total Core Recovery for Boring: N/A %	
		19. Signature of Inspector: BRYANT & JONES D.G.H.	

Elevation (a)	Depth (b)	Legend (c)	Classification of Materials (Description) (d)	% Core Recovery (e)	Sample No. (f)	Remarks (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-34.7						
-36.7	2		(ML) DARK GRAY CLAYEY SILT (VERY SOFT)			
-37.2				115	1	
-39.2	4.5					LAB TESTING JAR # CLASS 1 (CH) 2 (CH) 3 (SM)
	6		(CL) GRAY SILTY CLAY (VERY SOFT)			
	8					
-44.2						SAMPLE = 2
-44.7				9	2	TORVANE = 0.068 TSF
-45.0	10.3					
	12		(SM) GRAY SILTY SAND (CLAYEY) (FIRM) W/SOME SHELL FRAGS			
-47.7						
-48.2				23	3	
	14					
	18					
-54.3	19.6					
			B C H			

ENG FORM 1836 MAR 71 — PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

Project: GULFPORT SHIP CHANNEL GULFPORT, MISSISSIPPI — Hole No. GP-36-87

Hole No. GP-37-C

DRILLING LOG — DIVISION: SOUTH ATLANTIC — INSTALLATION: N OO — SHEET 1 OF 1 SHEETS

1. PROJECT	GULFPORT SHIP CHANNEL STUDY
2. LOCATION (Coordinates or Station)	N. 176,987 E 459,906
3. DRILLING AGENCY	MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	GP-37-87
5. NAME OF DRILLER	FULLER C
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	
8. DEPTH DRILLED INTO ROCK	
9. TOTAL DEPTH OF HOLE	13.5 (EL. -43.1)
10. SIZE AND TYPE OF BIT	VIBRACORE
11. DATUM FOR ELEVATION SHOWN (MSL or MLW)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRACORE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 2 / UNDISTURBED
14. TOTAL NUMBER CORE BOXES	N/A
15. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED 7-22-87 / COMPLETED 7-22-87
17. ELEVATION TOP OF HOLE	-29.6
18. TOTAL CORE RECOVERY FOR BORING	N/A %
19. SIGNATURE OF INSPECTOR	Dave W. B. Owen B BRYANT

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	CORE RECOV. (%) W=C.	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-29.6						LAB TESTING
				179	1	JAR# CLASS. 1* (CH)
-32.6	3.0		(CL) GRAY SANDY CLAY (SOFT)		2	NOTE: THREE (3) SAMPLES, C.O.T. SEALED & SENT TO DIV LAB
-35.6	6.0				3	0.0 3.0-CL 3.0 6.0-CL 6.0 9.0-CH
-38.6	9.0					*SAMPLE #1 TORVANE-0.05 TSF PENETROMETER-0.05 TSF
-39.1			(CH) GRAY FAT CLAY		1*	
-41.6	12.0					
			(SM) GRAY SILTY SAND (MED)		2	
-43.1	13.5					BOH 13.5

SAMPLE #		LABORATORY TESTING Visual Classification and/or Remarks
1	El. 29.6-30.1	No Recovery
	30.1-32.6	Dk gray soft fat clay (CH) w/ trace of sand. Density taken @ El. 31.6, pcf=29 LL=117 PL=28 PI=98 % Passing 200 sieve=98
2	32.6-35.6	Dk gray soft fat clay (CH) w/ trace of sand Density taken @ El. 34.6 pcf=37.7 % Passing 200 sieve =99.7
3	35.6-38.6	Dk gray soft fat clay (CH) w/ trace of sand Density taken @ El. 37.6 pcf=41.7 % Passing 200 sieve = 99 LL=116 PL=32 PI=84

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PROJECT: GULFPORT SHIP CHANNEL STUDY — HOLE NO. GP-37-87

Hole No. GP-38-87

DRILLING LOG	Division: SOUTH ATLANTIC	Installation: N OO	Sheet 1 of 1 Sheets
1. Project: GULFPORT SHIP CHANNEL STUDY		10. Size and Type of Bit: VIBRACORE	
2. Location (Coordinates or Station): N. 166968 E. 967093		11. Datum for Elevation Shown (Type or MSL): MLLW	
3. Drilling Agency: MOBILE DISTRICT		12. Manufacturer's Designation of Drill: VIBRACORE	
4. Hole No. (As shown on drawing title and file number): GP-38-87		13. Total No. of Overburden Samples Taken: Disturbed 1 / Undisturbed	
5. Name of Driller: FULLER, C		14. Total Number Core Boxes: N/A	
6. Direction of Hole: ☒ Vertical ☐ Inclined ____ Deg. From Vert.		15. Elevation Ground Water: N/A	
7. Thickness of Overburden		16. Date Hole: Started 7-22-87 / Completed 7-22-87	
8. Depth Drilled into Rock		17. Elevation Top of Hole: -32.5	
9. Total Depth of Hole: 160 (EL. -98.5)		18. Total Core Recovery for Boring: N/A	
		19. Signature of Inspector: Douglas R. Brabec B. BRYANT	

Elevation (a)	Depth (b)	Legend (c)	Classification of Materials (Description) (d)	% Core Recovery / RQD / W.C.	Box or Sample No. (f)	Remarks (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-32.5	0					LAB TESTING JAR CLASS LL PL PI % PASS #200 SIEVE 1 (CH) 117 30 87 99
-40.5	8.0		(CH) GRAY FAT CLAY (SOFT)	127	1	SAMPLE #1 TORVANE-0.09 TSF PENETROMETER-0.2 TSF
-41.0						
-98.5	160					BOH 160

ENG FORM 1836 MAR 71 — PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

Project: GULFPORT SHIP CHANNEL STUDY — Hole No.: GP-38-87

Hole No. GP-39-87

DRILLING LOG | DIVISION SOUTH ATLANTIC | INSTALLATION MOBILE | SHEET 1 OF 1 SHEETS

1. PROJECT: GULFPORT SHIP CHANNEL STUDY
2. LOCATION (Coordinates or Station): N. 1763899 E. 469239
3. DRILLING AGENCY: MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number): GP-39-87
5. NAME OF DRILLER: FULLER C
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 16.8 (EL. -50.9)
10. SIZE AND TYPE OF BIT: VIBRACORE
11. DATUM FOR ELEVATION SHOWN (MSL or MLLW): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 7-22-87 | COMPLETED 7-22-87
17. ELEVATION TOP OF HOLE: -33.6
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: Douglas Bjorn B. BRYANT

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	TORVANE READING W.C.	SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
-33.6				119	1	NOTE: TWO (2) SAMPLES CUT, SEALED & SENT TO DIV LAB
-36.6					2	0.0 - 3.0 CH 3.0 - 6.0 CH LAB TESTING JAR # CLASS 1 (CH)
-39.6	6.0		(CH) GRAY FAT CLAY (SOFT)			
-43.6	10.0					*SAMPLE #1 TORVANE-0.095 TSF
-44.1				.3	#1	PENETROMETER-0.0 TSF
-50.9	16.8					BOH 8 9

SAMPLE #		LABORATORY TESTING Visual Classification and/or Remarks
1	El. 33.6-34.1	No Recovery
	34.1-36.6	Dk gray soft fat clay (CH) w/ trace of sand
		Density taken @ El. 35.6 pcf=39.5 SPG=2.71
		% Passing 200 sieve = 99.8 LL=102 PL=29 PI=73
2	36.6-39.6	Dk gray soft fat clay (CH) w/ trace of sand
		% Passing 200 sieve = 99.8

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

Project: GULFPORT SHIP CHANNEL STUDY | Hole No. GP-39-87

Hole No. GP-40-87

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION N.DO	SHEET 1 OF 1 SHEETS
1. PROJECT	GULFPORT SHIP CHANNEL STUDY	10. SIZE AND TYPE OF BIT	VIBRACORE
2. LOCATION (Coordinates or Station)	N. 161571 E. 471005	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MLLW
3. DRILLING AGENCY	MOBILE DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL	VIBRACORE
4. HOLE NO. (As shown on drawing title and file number)	GP-40-87	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1	UNDISTURBED —
5. NAME OF DRILLER	FULLER C	14. TOTAL NUMBER CORE BOXES	N/A
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER	N/A
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED	7-22-87
8. DEPTH DRILLED INTO ROCK		COMPLETED	7-22-87
9. TOTAL DEPTH OF HOLE	17.8 (EL. -53.5)	17. ELEVATION TOP OF HOLE	-35.7
		18. TOTAL CORE RECOVERY FOR BORING	N/A %
		19. SIGNATURE OF INSPECTOR	Douglas Bynum B BRYANT

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	SAMPLE RECOVERY W.C.	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-35.7						LAB. TESTING JAR # CLASS: 1 (CH)
-42.7	7.0					SAMPLE #1 TORVANE - 0.07 TSF
-43.6				.0±	1	PENETROMETER - 0.0 T.S.F.
			(CH) GRAY FAT CLAY (VERY SOFT)			
-53.5	17.8					BOH 17.8

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT GULFPORT SHIP CHANNEL STUDY

HOLE NO. GP-40-87

Hole No. GP-42-87

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: S.DO.	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL STUDY		10. SIZE AND TYPE OF BIT: VIBRACORE	
2. LOCATION (Coordinates or Station): N. 164242 E 477507		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number): GP-42-87		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2	UNDISTURBED —
5. NAME OF DRILLER: FULLER C		14. TOTAL NUMBER CORE BOXES: N/A	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: N/A	
		16. DATE HOLE: STARTED 7-22-87	COMPLETED 7-22-87
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE: -37.6	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING: N/A %	
9. TOTAL DEPTH OF HOLE: 16.9 (EL. -57.2)		19. SIGNATURE OF INSPECTOR: [signature] B. BRYANT	

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	% CORE RECOVERY OR W.C. (e)	BOX OR SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-37.6						LAB TESTING JAR CLASS. LL PL PI % PASS. 200 SIEVE 1 (CH) 122 44 78 99
-44.6	7.0		(CH) GRAY FAT CLAY (SOFT)	122	1	SAMPLE #1 TORVANE - 0.07 PENETROMETER - 0.0 T.S.F.
-45.1						
-52.5	14.9					
			(SM) GRAY SILTY SAND FINE GRAIN (DENSE)		2	
-54.5	16.9					BOH 16.9

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PROJECT: GULFPORT SHIP CHANNEL STUDY | HOLE NO. GP-42-87

Hole No. GP-45-87

DRILLING LOG | DIVISION: SOUTH ATLANTIC | INSTALLATION: N.O. | SHEET 1 OF 2 SHEETS

1. PROJECT: GULFPORT SHIP CHANNEL STUDY
2. LOCATION (Coordinates or Station): N 175916 E 990989
3. DRILLING AGENCY: MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number): GP-45-87
5. NAME OF DRILLER: FULLER C
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 20.0 (EL. -56.7)
10. SIZE AND TYPE OF BIT: VIBRACORE
11. DATUM FOR ELEVATION SHOWN (MLW or MSL): MLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 7-23-87; COMPLETED 7-23-87
17. ELEVATION TOP OF HOLE: -36.7
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: Douglas Bryan B. BRYANT

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% COHESIONLESS ONLY W o C.	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-36.7						
			(CH) GRAY FAT CLAY	151	1	NOTE: SAMPLE CUT, SEALED & SENT TO D.N LAB.
-39.7	3.0					
						LAB. TESTING JAR # CLASS @ PL % 1* (CH) 3* (CH)
-46.7	10.0		(CH) GRAY FAT CLAY (SOFT)			* SAMPLE TAKEN WITH 3" DIA. PISTON PENETROMETER - 0.05 TSF
-47.2				104	#1	
-53.7	17.0					
			SM GRAY SILTY SAND (MED)		2	
-54.7	18.0					* SAMPLE TAKEN WITH 3" DIA. PISTON PENETROMETER - 0.05 TSF
-55.7	19.0		(CH) GRAY FAT CLAY (SOFT) (SEE LAB DATA INSERT 2)	89	#3	
-56.2						
-56.7	20.0					BOH 20.0

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PROJECT: GULFPORT SHIP CHANNEL STUDY | HOLE NO. GP-45-87

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -36.7 | Hole No. GP-45-87

PROJECT: GULFPORT SHIP CHANNEL STUDY | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
			SAMPLE # / LABORATORY TESTING / Visual Classification and/or Remarks			
			1 El. 36.7-39.7 Density taken @ El. 38.7 pcf=33.2 LL=116 PL=38 PI=78 MA,HY			

ENG FORM 1836-A JAN 67 (ER 1110-1-1801) GPO 1983 O-426-683

PROJECT GULFPORT SHIP CHANNEL | HOLE NO GP-45-8

GULFPORT MISSISSIPPI

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: JO	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL STUDY		10. SIZE AND TYPE OF BIT: VIBRACORE	
2. LOCATION (Coordinates or Station): N 182576 E.486564		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number): GP-48-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 2 / UNDISTURBED —	
5. NAME OF DRILLER: FULLER C		14. TOTAL NUMBER CORE BOXES: N/A	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 7-23-87 / COMPLETED 7-23-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -31.7	
9. TOTAL DEPTH OF HOLE: 8.1 (EL. -39.8)		18. TOTAL CORE RECOVERY FOR BORING: N/A %	
		19. SIGNATURE OF INSPECTOR: Jeremiah Jones R Ryan	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	S. CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-31.7	0					
-34.4	2.7					SAMPLE #1
-34.9			(MH) GRAY INORGANIC SILT (SOFT)	1.3.7	1	TORVANE-0.05 TSF
						PENETROMETER-
						0.0 TSF
-37.2	5.5					LAB TESTING
-37.9	6.2					JAR CLASS W PL PI
-38.4					2	(CH) 114 29 85
			(SM) GRAY SILTY SAND (MED)			2 - - - - MA
-39.8	8.1					BOH 8.1

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PROJECT: GULFPORT SHIP CHANNEL STUDY

HOLE NO. GP-48-87

Hole No. GP-50-87

DRILLING LOG | DIVISION SOUTH ATLANTIC | ELEVATION 1.00 | SHEET 1 OF 1 SHEETS

1. PROJECT: GULFPORT SHIPCHANNEL STUDY
2. LOCATION (Coordinates or Station): N. 183277 E. 482791
3. DRILLING AGENCY: MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number): GP-50-87
5. NAME OF DRILLER: FULLER C
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 14.6 (EL.-44.4)
10. SIZE AND TYPE OF BIT: VIBRACORE
11. DATUM FOR ELEVATION SHOWN (MSL or MLW): MLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 2 | UNDISTURBED
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 7-23-87 | COMPLETED 7-23-87
17. ELEVATION TOP OF HOLE: -29.8
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: Douglas B | SIGNED B BRYANT

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	SAMPLE NUMBER AND TYPE RECOVERY W.C.	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-29.8						LAB TESTING JAR NO. CLASS LL PL PI 200 SIEVE 1 (CH) 118 29 89 98
-36.5	6.7		(CL) GRAY SILTY CLAY (VERY SOFT)	37	1	SAMPLE #1 -SP. VANE-0.07 PENETROMETER- 0.0 T.S.F.
-37.8						
-43.3	13.5				2	
-44.4	14.6		(SM) GRAY SILTY SAND (MED)			BOH 14.6

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PROJECT: GULFPORT SHIP CHANNEL STUDY | HOLE NO. GP-50-87

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: JO	Plate No. GP-51-87 SHEET 1 OF 2 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL STUDY		10. SIZE AND TYPE OF BIT: VIBRACORE	
2. LOCATION (Coordinates or Station): N. 191509 E. 480695		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number): GP-51-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 2 / UNDISTURBED —	
5. NAME OF DRILLER: FULLER C		14. TOTAL NUMBER CORE BOXES: N/A	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 7-22-87 / COMPLETED 7-22-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: −26.9	
9. TOTAL DEPTH OF HOLE: 20.3 (EL. −47.2)		18. TOTAL CORE RECOVERY FOR BORING: N/A %	
		19. SIGNATURE OF INSPECTOR: D. Fuller / B. BRYANT	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	MOISTURE CONTENT, % W.C.	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
−26.9						
−29.9	3.0		(SM) GRAY SILTY SAND FINE GRAIN (MED)		1	LAB TESTING JAR — CLASS U PI PI #200 SIEVE %DRES. 1 (SP) NP NP NP — MA 2 (SM) NP NP NP 15
−33.4	6.5					
−37.9						
−38.4			(ML) GRAY SANDY SILT (CLAYEY) (FIRM)	33	2	
−46.9	20.0					

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PROJECT: GULFPORT SHIP CHANNEL STUDY | HOLE NO.: GP-51-87

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION M O	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL STUDY		10. SIZE AND TYPE OF BIT VIBRACORE	
2. LOCATION (Coordinates or Station) N. 195070 E. 478536		11. DATUM FOR ELEVATION SHOWN (MSL or MLLW) MLLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-52-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 1	UNDISTURBED
5. NAME OF DRILLER FULLER, C		14. TOTAL NUMBER CORE BOXES N/A	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 7-23-87	COMPLETED 7-23-87
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -21.6	
9. TOTAL DEPTH OF HOLE 17.0 (EL. -38.6)		18. TOTAL CORE RECOVERY FOR BORING N/A %	
		19. SIGNATURE OF INSPECTOR Douglas B. Fowler B BRYANT	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Descriptions) d	CORE RECOV. (%) e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-21.6					1	
-24.6					2	NOTE FIVE (5) SAMPLES CUT SEALED & SENT TO DIV LAB 1.0 – 3.0 SP 3.0 – 6.0 " 6.0 – 9.0 " 9.0 – 12.0 " 12.0 – 15.0 SM
-27.6			(SP) GRAY POORLY GRADED SAND			
-30.6					3	LAB. TESTING JAR CLASS 1+ (SM)
-33.6					4	
-36.6	15.0		(SM) GRAY SILTY SAND		5	
-37.1					1+	
-38.6	17.0					BOH 17.0

SAMPLE #		LABORATORY TESTING Visual Classification and/or Remarks
2	El. 24.6-27.6	Gray poorly graded sand (SP)
3	27.6-30.6	Density taken @ El. 29.6 pcf=84.2
4	30.6-33.6	Gray poorly graded sand (SP) w/ shell fragments
5	33.6-36.6	Density taken @ El. 35.6 pcf=90.3

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PROJECT GULFPORT SHIP CHANNEL STUDY

HOLE NO. GP-52-87

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -27.0 | Hole No. GP-51-37

PROJECT: GULFPORT SHIP CHANNEL STUDY | INSTALLATION: MOBILE DISTRICT | SHEET 2 OF 2 SHEETS

ELEVATION -46.9 a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-47.2	20.3		(ML) GRAY SANDY SILT (CLAYEY) (FIRM)			BOH 20.3

ENG FORM 1836-A APR 67

PROJECT: GULFPORT SHIP CHANNEL STUDY

HOLE NO: GP-51-37

Hole No. GP-53-B

DRILLING LOG | DIVISION: SOUTH ATLANTIC | INSTALLATION: MOBILE | SHEET 1 OF 1 SHEETS

1. PROJECT: GULFPORT SHIP CHANNEL STUDY
2. LOCATION (Coordinates or Station): N 198156 E 479220
3. DRILLING AGENCY: MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number): GP-53-87
5. NAME OF DRILLER: FULLER C
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 15.2 (EL. -35.4)
10. SIZE AND TYPE OF BIT: VIBRACORE
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 2; UNDISTURBED
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 7-23-87; COMPLETED 7-23-87
17. ELEVATION TOP OF HOLE: -20.2
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: Douglas Bierce B BRYANT

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	SAMPLE OR CORE RECOVERY (Ft.) e	SAMPLE OR CORE BOX NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-20.2						LAB. TESTING: SAMPLE NO. 1 CLASS (SM) % PASSING #200 SIEVE — MA, HY; SAMPLE NO. 2 CLASS (SC) % PASSING #200 SIEVE 43
-24.2	4.0					
-24.7			(SM) GRAY SILTY SAND W/ TR (CH) LAYERS & SHELL FRAGS (FIRM.)	2.7	1	
-28.5	8.3					
-31.2	11.0			5.1	2	SAMPLE #2 AVERAGE C. TSF PENETROMETER - 0.25 TSF
-31.7			(CH) GRAY FAT CLAY W/ TR (SM) LAYERS (SOFT)			
-35.4	15.2					BOH 15.2

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PROJECT: GULFPORT SHIP CHANNEL STUDY | HOLE NO. GP-53-B

Hole No. GP-54-87

DRILLING LOG	DIVISION SOUT. ATLANTIC	INSTALLATION 1 JO	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL STUDY		10. SIZE AND TYPE OF BIT VIBRACORE	
2. LOCATION (Coordinates or Station) N 200000 E 475008		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-54-87		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 / UNDISTURBED —	
5. NAME OF DRILLER FULLER C		14. TOTAL NUMBER CORE BOXES N/A	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 7-25-87 COMPLETED 7-25-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -8.6	
9. TOTAL DEPTH OF HOLE 12.0 (EL. -20.6)		18. TOTAL CORE RECOVERY FOR BORING N/A %	
		19. SIGNATURE OF INSPECTOR Douglas R. Jones B BRYANT	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	SAMPLE OR CORE BOX NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-8.6						LAB. TESTING JAR CLASS — F, PI
						1 (SP) NP NP NP, MA
-14.1				—	—	
-14.6			(SP) GRAVELLY POORLY GRADED SAND (MED)	—	1	
-20.6	12.0					BOH 12.0

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PROJECT GULFPORT SHIP CHANNEL STUDY

HOLE NO. GP-54-9

Hole No. GP-55-87

DRILLING LOG	DIVISION SOUT ATLANTIC	INSTALLATION MLS	SHEET 1 OF 2 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL STUDY		10. SIZE AND TYPE OF BIT VIBRACORE	
2. LOCATION (Coordinates or Station) N. 202585 E 473526		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-55-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 3	UNDISTURBED —
5. NAME OF DRILLER FULLERC		14. TOTAL NUMBER CORE BOXES N/A	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 7-25-87 COMPLETED 7-25-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -14.3	
9. TOTAL DEPTH OF HOLE 24.2 (EL.-38.5)		18. TOTAL CORE RECOVERY FOR BORING N/A %	
		19. SIGNATURE OF INSPECTOR Douglas B Bryan B BRYANT	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	SAMPLE OR CORE RUN NO. AND/OR BLOW PER FT e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-14.3						
-16.0	1.7					
-16.5			(SP) LT GRAY POORLY GRADED SAND (MED.		1	LAB TESTING JAR # CLASS LL PI PI 1 (SP) - - - 2 (CH) - - - 3 (SP) NP NP NP, MA
-18.0	3.7					
-20.5	6.2		(CH) GRAY FAT CLAY (SOFT)	13C	2	SAMPLE #2 TORVANE-0.064 TSF PENETROMETER- 0.0 TSF
-21.0						
-23.3	9.0					
			(SP) LT GRAY POORLY GRADED SAND			
-30.8	16.5					
-31.5					3	
-39.3	22.8					

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PROJECT GULFPORT SHIP CHANNEL STUDY

HOLE NO. GP-55-87

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -14.3 | Hole No. GP-55-87

PROJECT: GULFPORT SHIP CHANNEL STUDY | INSTALLATION: MOBILE DISTRICT | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc.; if significant) g
-39.3			(SP) LT. GRAY POORLY GRADED SAND			
-38.5	24.2					BOH 24.2

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PROJECT: GULFPORT SHIP CHANNEL STUDY | HOLE NO: GP-55-87

Hole No. GP-56-87

DRILLING LOG | DIVISION SOUT. ATLANTIC | INSTALLATION M. S. | SHEET 1 OF 2 SHEETS

1. PROJECT: GULFPORT SHIP CHANNEL STUDY
2. LOCATION (Coordinates or Station): N. 204993 E 471925
3. DRILLING AGENCY: MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number): GP-56-87
5. NAME OF DRILLER: FULLERC
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 30.0 (EL. -44.6)
10. SIZE AND TYPE OF BIT: VIBRACORE
11. DATUM FOR ELEVATION SHOWN (MSL or MLW): MLW
12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED —
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 7-24-87; COMPLETED 7-24-87
17. ELEVATION TOP OF HOLE: -14.6
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: Douglas R Jones B BRYANT

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	GRAPHIC LOG OR W.C.	SAMPLE NO. (f)	REMARKS (g)
-14.6						LAB TESTING JAR CLASS LL PL PI % PASS 200 SIEVE 1 (SP) NP NP NP — 2 (SC-M) — — — — 3 (SC) 35 16 19 43
-20.1	5.5					
-20.6					1	
			(SP) LT GRY POORLY GRADED SAND (MED)			
-33.5	18.9					
-34.6			(SM)-LT GRAY SILTY SAND (CLAYEY) (DENSE)			

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT: GULFPORT SHIP CHANNEL STUDY | HOLE NO. GP-56-87

DRILLING LOG (Cont. Sheet) | ELEVATION TOP OF HOLE -19.6 | Hole No. GP-56-87

PROJECT: GULFPORT SHIP CHANNEL STUDY | INSTALLATION: MOBILE DISTRICT | SHEET 2 OF 2 SHEETS

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	MOISTURE CONTENT W.C.	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
-39.6	b	c	d		f	g
-35.6	21.0			21	2	
-36.1			(SM) LT GRAY SILTY SAND (CLAYEY) (DENSE)			
-39.6	25.0					
-40.6	26.0			26	3	SAMPLE #3 TORVANE - 0.2 T.S.F. PENETROMETER - 0.9 T.S.F.
-41.1			(CH) LT GRAY FAT CLAY (SOFT)			
-49.6	30.0					BOH 30.0

ENG FORM 1836-A JAN 67 | PROJECT GULFPORT SHIP CHANNEL STUDY | HOLE NO GP-56-87

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION NOJO	Hole No. GP-57-87 SHEET 1 OF 2 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL STUDY		10. SIZE AND TYPE OF BIT VIBRACORE	
2. LOCATION (Coordinates or Station) N 208962 E. 466 099		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-57-87		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5	UNDISTURBED
5. NAME OF DRILLER FULLER C		14. TOTAL NUMBER CORE BOXES N/A	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 7-24-87	COMPLETED 7-24-87
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -15.1	
9. TOTAL DEPTH OF HOLE 28.5 (EL. -43.6)		18. TOTAL CORE RECOVERY FOR BORING N/A	
		19. SIGNATURE OF INSPECTOR Douglas R. Jones B BRYANT	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	CORE RECOVERY (Inches) W.o.C.	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-15.1						
			(ML) DK GRAY CLAYEY SILT (SOFT)	76	1	LAB. TESTING
-17.5	2.4					JAR # CLASS. 1 (CH) 2 (SM) 3 (CH) 4 (SC-H) 5 (SP)
			(SM) DK. GRAY SILTY SAND (CLAYEY) (MED)	29	2	
-24.9	9.8					
			(CH) GRAY FAT CLAY (SOFT)	63	3	SAMPLE #3 TORVANE - 0.119 TSF PENETROMETER - 0.25 TSF
-30.7	15.6					
			(SM) GRAY SILTY SAND (MED)	30	4	
-35.1	20.0					

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PROJECT GULFPORT SHIP CHANNEL STUDY

HOLE NO. GP-57-87

DRILLING LOG (Cont Sheet) | TION TOP OF HOLE -15.1 | Hole No. GP-57-87

PROJECT: GULFPORT SHIP CHANNEL STUDY | INSTALLATION: MOBILE DISTRICT | SHEET 2 OF 2 SHEETS

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX. OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
-35.1	20.0	c	d	e	f	g
-35.7	20.6		(SM) GRAY SILTY SAND (MED)			
			(SP) LT GRAY POORLY GRADED SAND (MED)		5	
-43.6	28.5					BOH 28.5

ENG FORM 1836-A JUN 67

PROJECT: GULFPORT SHIP CHANNEL STUDY | HOLE NO. GP-57-87

Hole No. GP-58-87

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION 100	SHEET 1 OF 2 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL STUDY		10. SIZE AND TYPE OF BIT VIBRACORE	
2. LOCATION (Coordinates or Station) N 211183 E. 960618		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-58-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 3	UNDISTURBED
5. NAME OF DRILLER FULLER C		14. TOTAL NUMBER CORE BOXES N/A	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
		16. DATE HOLE STARTED 7-24-87 COMPLETED 7-24-87	
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE -19.9	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING N/A %	
9. TOTAL DEPTH OF HOLE 30.0 (EL. -99.9)		19. SIGNATURE OF INSPECTOR Douglas Bryant B BRYANT	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOV. ERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-19.9	0.0					LAB. TESTING JAR # CLASS LL PL PI % PASS #200 SIEVE 1 (SP) NP NP NP -, MA 2 (CH) - - - 70 3 (SP-SM) - - - -
-19.9	5.0					
-20.4					1	
			(SP) LT GRAY POORLY GRADED SAND (MED.			
-29.7	14.8					
-31.9	20.0					

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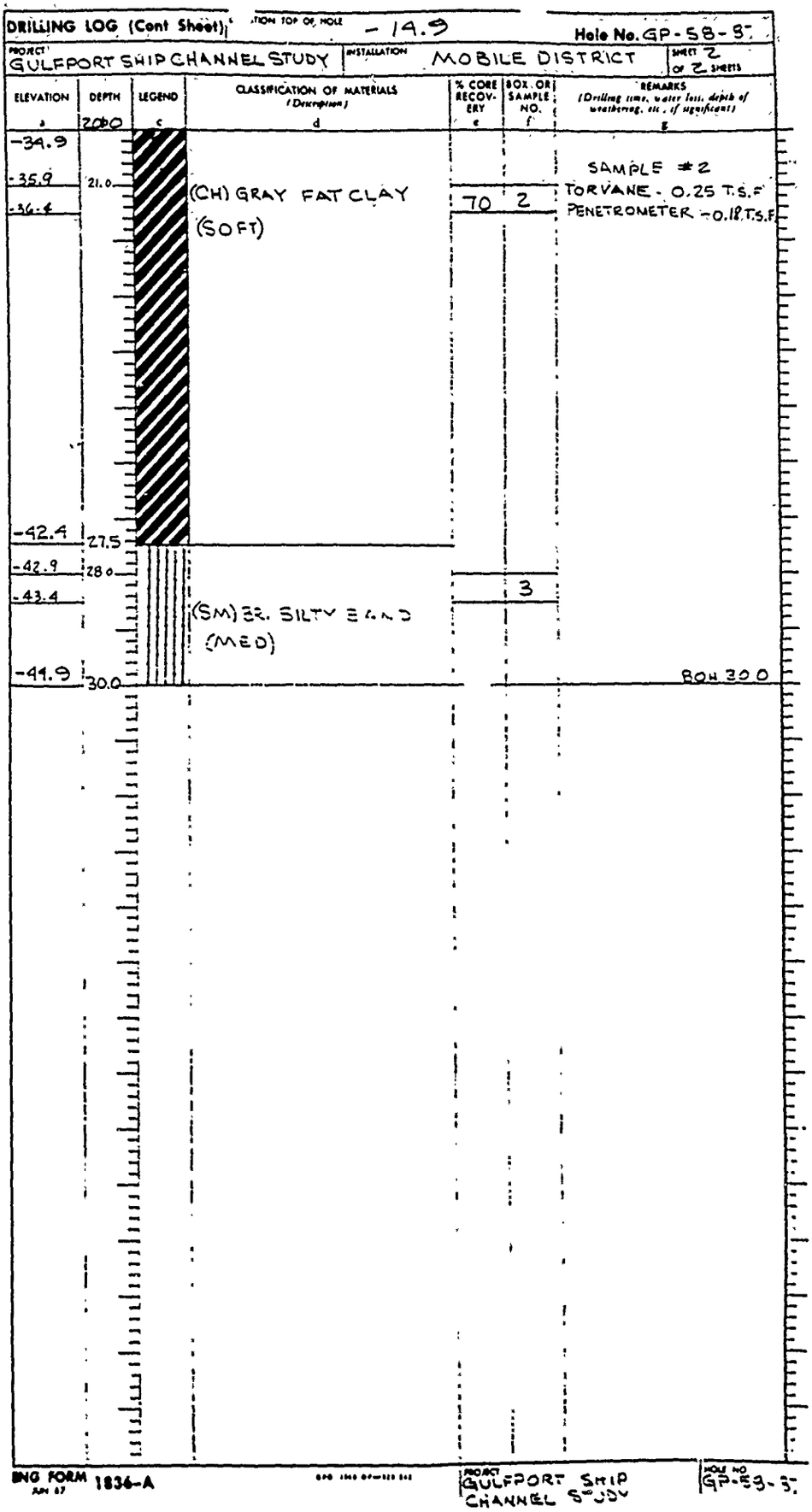
PROJECT GULFPORT SHIP CHANNEL STUDY

HOLE NO. GP-58-87



DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -19.9 | Hole No. GP-58-S

PROJECT: GULFPORT SHIP CHANNEL STUDY | INSTALLATION: MOBILE DISTRICT | SHEET 2 OF 2 SHEETS

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	% CORE RECOVERY (e)	BOX OR SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-34.9	20.0					
-35.9	21.0		(CH) GRAY FAT CLAY (SOFT)	70	2	SAMPLE #2 TORVANE - 0.25 T.S.F PENETROMETER - 0.18 T.S.F
-36.4						
-42.4	27.5					
-42.9	28.0				3	
-43.4			(SM) FR. SILTY SAND (MED)			
-41.9	30.0					BOH 30.0

ENG FORM 1836-A JAN 67

PROJECT: GULFPORT SHIP CHANNEL STUDY | HOLE NO. GP-58-S

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION 100	SHEET 1 OF 2 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL STUDY		10. SIZE AND TYPE OF BIT VIBRACORE	
2. LOCATION (Coordinates or Station) N. 213529 E 956215		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-59-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 3 / UNDISTURBED —	
5. NAME OF DRILLER FULLER C		14. TOTAL NUMBER CORE BOXES N/A	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 7-24-87 / COMPLETED 7-24-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -15.0	
9. TOTAL DEPTH OF HOLE 28.4 (EL. -43.1)		18. TOTAL CORE RECOVERY FOR BORING — %	
		19. SIGNATURE OF INSPECTOR B. Bryant	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOV. ERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-15.0						
				T2	1	NOTE. SAMPLE #ONE (1) CUT SEALED & SENT TO DIV LAB
-18.0	3.0					
						LAB. TESTING JAR # CLASS % PASSING 200 SIEVE 1R (SM) — 2R (CH) 68 3R (SP-SM) — VIBRACORE SAMP # CLASS LL PL PI 1 (SC-H) 58 16 42 NA 2 (CL) 36 16 20 NA 3 — — — — NA
-21.0	6.0		(SM) GRAY SILTY SAND (CLAYEY) (LO)			
-21.5						
-24.5	9.5					
-26.0						SAMPLE #2 CUT LENGTH - 0.1 FEET RECOVERY - 0.1 T.S.F.
-26.5				6	R2	
			(CH) GRAY FAT CLAY (SOFT)			
-30.0	15.0					
				F1	2	NOTE. SAMPLE # TWO (2) CUT SEALED & SENT TO DIV LAB
-33.0	18.0					
			(SP)	C=	3	NOTE. SAMPLE # THREE (3) CUT SEALED & SENT TO DIV LAB
-35.0	20.0					

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PROJECT GULFPORT SHIP CHANN. STUDY

HOLE NO. GP-59-87

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -15.0 | Hole No. GP-59-87

PROJECT: GULFPORT SHIP CHANNEL STUDY | INSTALLATION: MOBILE DISTRICT | SHEET 2 OF 2 SHEETS

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
-35.0	20.0	c	d	e	f	g
-36.0	21.0		(SP)			
-36.5					3*	
			(SP) LT GRAY POORLY GRADED SAND (MED)			NOTE: SEE SEPARATE INSTRUCTION FOR VISUAL ON SEALED SAMPLES.
-93.9	284					BOH 284

SAMPLE #		LABORATORY TESTING Visual Classification and/or Remarks
1	El. 15.0-18.0	Density taken @ El. 17.0 pcf=58.9 LL=58 PL=16 PI=42 spg=2.61
2	30.0-33.0	Density taken @ El. 32.0 pcf=89.7 LL=36 PL=16 PI=20 spg=2.67
3	33.0-36.0	Density taken @ El. 35.0 pcf=96.1

ENG FORM 1836-A JUN 67 | PROJECT GULFPORT SHIP CHANNEL STUDY | HOLE NO GP-59-87

Hole No. GP-60-87

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION N.D.O.	SHEET 1 OF 2 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL STUDY		10. SIZE AND TYPE OF BIT VIBRACORE	
2. LOCATION (Coordinates or Station) N. 219989 E. 452656		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-60-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 6; UNDISTURBED	
5. NAME OF DRILLER FULLER C		14. TOTAL NUMBER CORE BOXES N/A	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 7-24-87 COMPLETED 7-24-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -15.8	
9. TOTAL DEPTH OF HOLE 25.5 (EL. -41.3)		18. TOTAL CORE RECOVERY FOR BORING N/A %	
		19. SIGNATURE OF INSPECTOR Douglas B. Fuller B. BRYANT	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	MOISTURE CONTENT-DRY DENSITY W.C.	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-15.8						
-17.3	1.5		(ML) GRAY CLAYEY SILT (SANDY) FIRM,			
-17.8					1	LAB. TESTING
-18.3	2.5					JAR CLASS LL PL PI 200 SIEVE
-19.3	3.5					1 (CH) - - - -
-19.8					2	2 (SC) - - - -
			(SM) GRAY SILTY SAND (MED)			3 (CH) 60 18 42 61
-21.3	5.5					4 — — — — — MA
						5 (CH) 55 16 39 50
						6 (SM) - - - -
			(CH) GRAY FAT CLAY (SOFT)			
-26.8	11.0					SAMPLE #3 TORVANE-0.05
-27.3					3	PENETROMETER- 0.0 TSF
-29.1	13.3					
-30.8	15.0					
-31.3				47	4	
			SM, GRAY SILTY SAND CLAYEY (D)			
-33.7	17.9					
			(CH) GRAY FAT CLAY W/ SOME WOOD FRAGS (VERY SOFT)			
-35.8						

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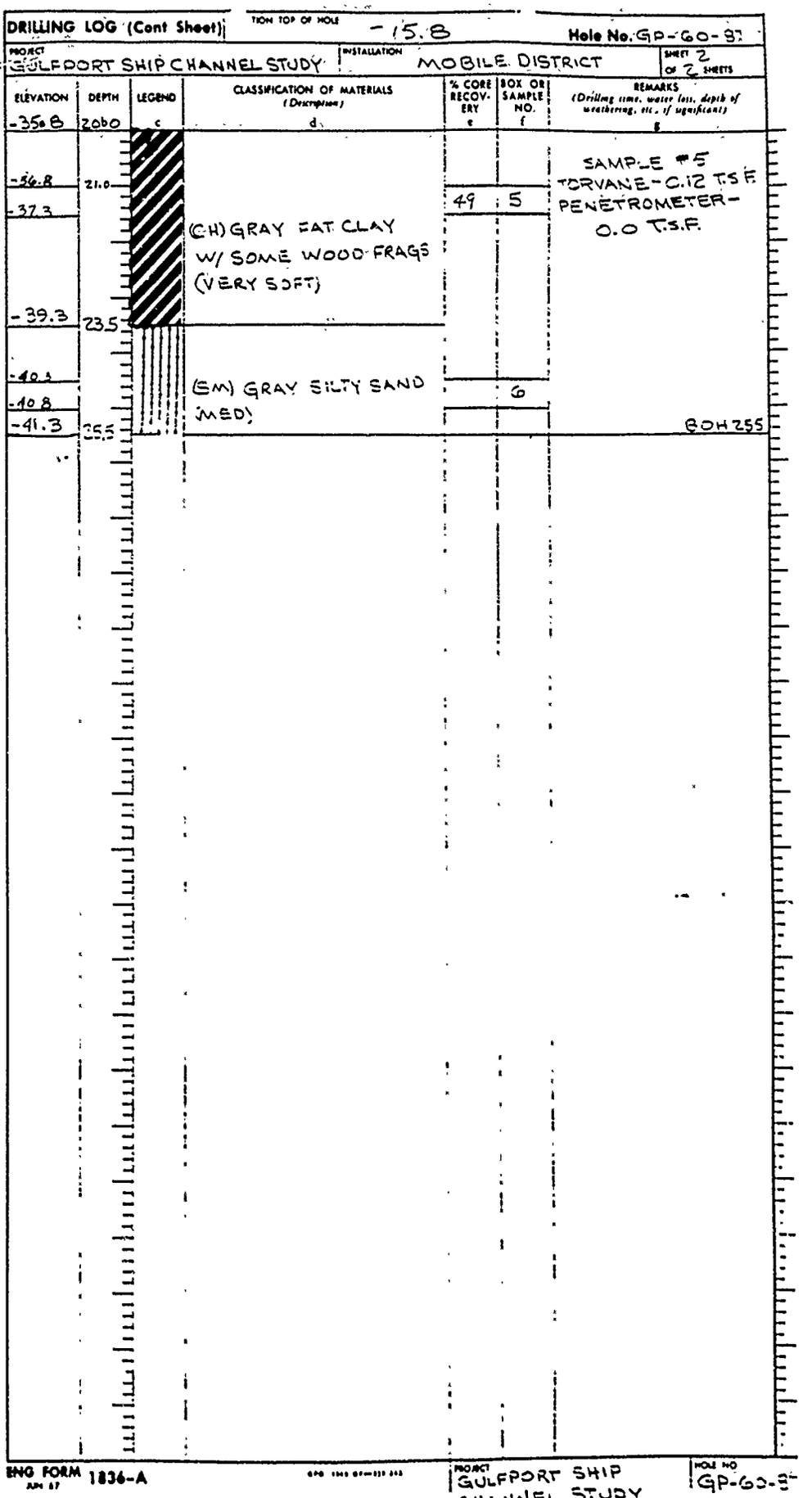
PROJECT GULFPORT SHIP CHANNEL STUDY

HOLE NO. GP-60-87


DRILLING LOG (Cont Sheet)
TION TOP OF HOLE -15.8
Hole No. GP-GO-S?
PROJECT GULFPORT SHIP CHANNEL STUDY
INSTALLATION MOBILE DISTRICT
SHEET 2 OF 2 SHEETS
ELEVATION
DEPTH
LEGEND
CLASSIFICATION OF MATERIALS (Description)
% CORE RECOV-ERY
BOX OR SAMPLE NO.
REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
-35.8
20.0
-56.8
21.0
-37.3
(CH) GRAY FAT CLAY W/ SOME WOOD FRAGS (VERY SOFT)
49
5
SAMPLE #5
TORVANE-0.12 T.S.F.
PENETROMETER-
0.0 T.S.F.
-39.3
23.5
-40.3
-40.8
(SM) GRAY SILTY SAND (MED)
6
-41.3
25.5
BOH 25.5
ENG FORM 1836-A
PROJECT GULFPORT SHIP CHANNEL STUDY
HOLE NO GP-60-S

DRILLING LOG	DIVISION SOU. . ATLANTIC	INSTALLATION N JO	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL STUDY		10. SIZE AND TYPE OF BIT VIBRACORE	
2. LOCATION (Coordinates or Station) N. 251,973 E. 419,117		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-61-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 4	UNDISTURBED
5. NAME OF DRILLER FULLER C		14. TOTAL NUMBER CORE BOXES N/A	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 7-19-87 COMPLETED 7-19-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -11.6	
9. TOTAL DEPTH OF HOLE 20.0 (EL. -31.6)		18. TOTAL CORE RECOVERY FOR BORING N/A %	
		19. SIGNATURE OF INSPECTOR Daniel B Bryant B. BRYANT	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	TORVANE READING (tsf) W.C.	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-11.6						LAB TESTING JAR NO. CLASS LL PL PI % PASSING 200 SIEVE 1 (CL) 43 24 19 81 2 (CL) 44 19 25 45 3 (CL) 47 15 32 69 4 (CL) 28 19 9 78
-14.6	3.0		(ML) BLK CLAYEY SILT (SOFT)	.62	1	
-15.1						
-18.1	6.5					SAMPLE #3 TORVANE-0.15 TSF PENETROMETER- 0.5 TSF
-18.6	7.0					
-19.1			(CL) GRAY SILTY CLAY (SANDY) W/ SOME SHELLS (FIRM)	33	2	
-23.8	12.2					
-26.8	15.2		(CH) GRAY FAT CLAY (FIRM)	33	3	SAMPLE #3 TORVANE-0.36 TSF PENETROMETER- 0.5 TSF
-27.3						
-27.9	16.3					
-29.4	17.8		MED. GRAY FAT CLAY W/ TRACE SHELLS	25	4	
-29.9						
-31.6	20.0					BOH 20.0

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PROJECT GULFPORT SHIP CHANNEL STUDY

HOLE NO. GP-61-87

Hole No. GP-62-87

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION [illegible]	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL STUDY		10. SIZE AND TYPE OF BIT: VIBRACORE	
2. LOCATION (Coordinates or Station): N. 250,707 E. 419,655		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number): GP-62-87		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED —	
5. NAME OF DRILLER: FULLER C		14. TOTAL NUMBER CORE BOXES: N/A	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 7-19-87; COMPLETED 7-19-87	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -33.8	
9. TOTAL DEPTH OF HOLE: 13.4 (EL. -52.2)		18. TOTAL CORE RECOVERY FOR BORING: N/A	
		19. SIGNATURE OF INSPECTOR: Douglas Bryant	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	SOIL SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc.; if slight fracture) g
-33.8						
-36.3	2.5					
-36.8			(SP) LT GRAY POORLY GRADED SAND (MED)		1	LAB TESTING JAR # GLASS 1 - MA 2 (CH) 3 (SM)
-38.6	4.8					
-42.8	1.0		(CH. GRAY FAT CLAY (SOFT)		2	SAMPLE #2 TORVANE-0.15 TSF PENETROMETER-0.25 T.S.F.
-43.3						
-46.3	12.5					
-47.3						
-47.8				25	3	
			(ML) GRAY CLAYEY SILT (FIRM)			
-52.2	18.4					33 x 154

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PROJECT: GULFPORT SHIP CHANNEL STUDY

HOLE NO. GP-62-87

Hole No. GP-63-B

DRILLING LOG	DIVISION SAD: ATLANTIC	INSTALLATION N.O.	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT SHIPCHANNEL STUDY		10. SIZE AND TYPE OF BIT : VIBRACORE	
2. LOCATION (Coordinates or Station) N. 169050 E. 473528		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE	
4. HOLE NO. (As shown on drawing title and file number) GP-63-B7		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1	UNDISTURBED —
5. NAME OF DRILLER FULLER C		14. TOTAL NUMBER CORE BOXES N/A	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER N/A	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 7-22-87	COMPLETED 7-22-87
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -39.8	
9. TOTAL DEPTH OF HOLE 18.2 (EL. -53.0)		18. TOTAL CORE RECOVERY FOR BORING N/A %	
		19. SIGNATURE OF INSPECTOR Darlene Brant	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-39.8						LAB TESTING JAR # CLASS LL PL PI 1 (CH) 125 40 83, MA, HY
			(CH) GRAY FAT CLAY (SOFT)			SAMPLE #1 TORVANE-0.2 TSF PENETROMETER-0.1 TSF
-49.3	10.5					
-49.8				11"	1	
-53.0	18.2					BOH @ 18.2'

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT GULFPORT SHIP CHANNEL STUDY

HOLE NO. GP-63-B

N 201,063 E 452,063

BORING LOG-S	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT	
2. LOCATION (Coordinates or Station): GULFPORT, MISSISSIPPI		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and file number): VC-1-77		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	
5. NAME OF DRILLER		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED / COMPLETED	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -31.2	
9. TOTAL DEPTH OF HOLE: 5.6		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: J. TYSON	

W C %	DEPTH (-)	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
87	1.6		GRAY SANDY FAT CLAY (CH) LL = 71, PL = 21 PI = 20	
	3.0		LIGHT GRAY PR. GRD. SAND (SP) W/ TR SHELL	V. BRACORED
	5.6		GRAY PR. GRD. SAND (SP) W/ TR SHELL LT GRAY PR GRD SAND (SP, W/ LITTLE SHELL	
	6.0		BOTTOM OF HOLE	
	9.0			
	12.0			
	15.0			
	18.0			
	21.0			
	24.0			
	27.0			

MOB FORM 827 APR 74 JC

HOLE NO. VC-1-77

N 194,[illegible]50 E 451,[illegible]53

BORING LOG-S	DIVISION South Atlantic	INSTALLATION Mobile District	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT	
2. LOCATION (Coordinates or Station) GULFPORT, MISSISSIPPI		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MSL	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and file number) VC-2-78		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED	UNDISTURBED
5. NAME OF DRILLER		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 8-30-77 COMPLETED 8-30-77	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -31.0	
9. TOTAL DEPTH OF HOLE: 18.5		18. TOTAL CORE RECOVERY FOR BORING	%
		19. SIGNATURE OF INSPECTOR J. TYSON	

W C %	DEPTH (')	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD-PENETRATION (BLOWS PER FOOT) 0 20 40 60
	0		DARK GRAY ORGANIC CLAY (OH)	
155	3.0		GRAY FAT CLAY (CH) W/ SOME SAND LL=96, PL=28, PI=68	
	4.0		GRAY CLAYEY SAND (SC) W/ TR. SHELL	
	5.0		GRAY FR. GRD SILTY SAND (SP-SM) W/ TR. SHELL	
47	6.0		DK GRAY SANDY FAT CLAY (CH) W/ TR. SHELL	
55			GRAY SANDY FAT CLAY (C-	VIBRACORED
	9.0		DARK GRAY SANDY FAT CLAY (CH) W/ TR SHELL	
	10.5		GRAY CLAYEY SAND (SC) W/ TR SHELL	
	12.0		GRAY CLAYEY SAND (SC) W/ TR DECOM. WOOD & SHELL	
	13.5		GRAY FR GRD SILTY SAND (SP-SM) W/ TR. SHELL & ROOTS	
	15.0		GRAY FR. GRD SILTY SAND (SP-SM) W/ LITTLE SHELL	
	18.0			
	18.5		BOTTOM OF HOLE	
	21.0			
	24.0			
	27.0			

MOB FORM 927 APR 74

HOLE NO. VC-2-77

N 193,167 E 44,1[illegible]

BORING LOG-S | Division: South Atlantic | Mobile District | SHEET 1 OF 1 SHEETS

1 PROJECT: GULFPORT SHIP C[illegible]

2. LOCATION (Coordinates or Stations): GULFPORT, MISS [illegible]

3 DRILLING AGENCY: MOBILE DISTRICT

4 HOLE NO (As shown on drawing title and file number): VC-3-78

5 NAME OF DRILLER:

6 DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG FROM VERT

7 THICKNESS OF OVERBURDEN:

8 DEPTH DRILLED INTO ROCK:

9 TOTAL DEPTH OF HOLE: 27.5'

11 TOTAL NO OF OVER-BURDEN SAMPLES TAKEN: DISTURBED ____ UNDISTURBED ____

12 TOTAL NUMBER CORE BOXES:

13 ELEVATION GROUND WATER: MSL

16 DATE HOLE: STARTED ____ COMPLETED ____

17 ELEVATION TOP OF HOLE: 21.7

18 TOTAL CORE RECOVERY FOR BORING: %

19 SIGNATURE OF INSPECTOR: [illegible]VSCH

W C %	DEPTH (-)	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION BLOWS PER FOOT 0 20 40 60
~~140~~			GRAY ORGANIC CLAY (OH)	
~~112~~	2.0		GRAY FAT CLAY (CH) W/ LITTLE LL=88, PL=29, PI=59	
129	3.0		GRAY ORGANIC CLAY (CH)	
181				
~~148~~	6.0		GRAY SANDY FAT CLAY (CH) SLIGHTLY ORGANIC	
82			GRAY SANDY FAT CLAY (CH) W/ TR SHELL	
48	9.0		GRAY CLAYEY SAND (SC) LL=30, PL=15, PI=15	VIBRACORED
32			GRAY CLAYEY SAND (SC)	
	12.0		BROWN SILTY SAND (SM) W/ TR SHELL	
	13.5		GRAY FR GRD SILTY SAND (SP-SM) W/ TR SHELL	
	15.0		BOTTOM OF HOLE	
	18.0			
	21.0			
	24.0			
	27.0			

NOB FORM 927 APR 74 JC

HOLE NO. VC-3-78

N 190,167 E 450,875

BORING LOG-S	Division: South Atlantic	Installation: Mobile District	Sheet 1 of 1 Sheets
1. Project: GULFPORT SHIP CHANNEL	10. Size and Type of Bit		
2. Location (Coordinates or Station): GULFPORT, MISSISSIPPI	11. Datum for Elevation Shown (TBM or MSL): MSL		
3. Drilling Agency: MOBILE DISTRICT	12. Manufacturer's Designation of Drill		
4. Hole No. (As shown on drawing title and file number): VC-4-77	13. Total No. of Overburden Samples Taken: Disturbed	Undisturbed	
5. Name of Driller	14. Total Number Core Boxes		
6. Direction of Hole: ☒ Vertical ☐ Inclined ____ Deg. From Vert.	15. Elevation Ground Water		
7. Thickness of Overburden	16. Date Hole: Started 8/29/77	Completed 8/29/77	
8. Depth Drilled into Rock	17. Elevation Top of Hole +1.5		
9. Total Depth of Hole 19.5'	18. Total Core Recovery for Boring		
	19. Signature of Inspector: J. TYSON		

W.C. %	Depth (-)	Sym	Classification of Materials (Description)	Standard Penetration (Blows per Foot) 0 20 40 60
	1.5		GRAY ORGANIC CLAY (OH)	
191	2.5		GRAY FAT CLAY (CH) W/TR. SAND LL=138, PL=35, PI=103	
177	3.0		DK GRAY ORGANIC CLAY (OH)	
87	3.5		GRAY FAT CLAY (CH) W/LITTLE SAND & SHELL	
74			GRAY SANDY FAT CLAY (CH)	
79	6.0		GRAY FAT CLAY (CH) W/LITTLE SAND	
96			GRAY FAT CLAY (CH) W/LITTLE SAND, LL=92, PL=29, PI=63	
			GRAY SANDY FAT CLAY (CH) W/TR. SHELL	
	9.0		GRAY CLAYEY SAND (SC) W/TR. SHELL	VIBRACORED
	10.5			
	12.0		GRAY SILTY SAND (SM) SL. PLASTIC W/TR. SHELL	
	15.0		GRAY SILTY SAND (SM) W/TR SHELL	
	18.0		GRAY PR. GRD. SILTY SAND (SP-SM) W/TR. SHELL	
	19.5			
	21.0		BOTTOM OF HOLE	
	24.0			
	27.0			

MOB Form 927 APR 74

Hole No. VC-4-77

N 198,000 E 452,250

BORING LOG-S	DIVISION South Atlantic	INSTALLATION Mobile District	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT	
2. LOCATION (Coordinates or Station) GULFPORT, MISSISSIPPI		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MSL	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and file number) VC-5-77		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED	UNDISTURBED
5. NAME OF DRILLER		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED	COMPLETED
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -24.0	
9. TOTAL DEPTH OF HOLE 18.2		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR J. TYSON	

W C %	DEPTH (-)	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
142	1.5		GRAY ORGANIC CLAY (OH)	
120			GRAY FAT CLAY (CH) W/ TR. SAND LL = 100, PL = 29, PI = 71	
110	3.0		GRAY FAT CLAY (CH)	
~~94~~			DK. GRAY FAT CLAY (CH) W/TR. SAND	
96			GRAY FAT CLAY (CH) W/TR SAND	
62	6.0		DK. GRAY FAT CLAY (CH) W/TR SHELL	
~~86~~			GRAY FAT CLAY (CH) W/LITTLE SAND	
120	8.5		GRAY FAT CLAY (CH)	
55	9.0 9.5		GRAY SANDY LEAN CLAY (CL) LL = 47, PL = 17, PI = 30	VIBRACORED
			DK. GRAY CLAYEY SAND (SC) W/TR. SHELL	
	12.0		GRAY CLAYEY SAND (SC) W/TR. SHELL	
	15.0		GRAY SILTY SAND (SM) SL. PL - ST. C W/LITTLE SHELL	
	18.0		GRAY SILTY SAND (SM) W/TR. SHELL	
	18.2		BOTTOM OF HOLE	
	21.0			
	24.0			
	27.0			

MOS FORM 827 APR 74

HOLE NO. VC-5-77

N 184,813 E 454,500

BORING LOG-S	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT	
2. LOCATION (Coordinates or Station): GULFPORT, MISSISSIPPI		11. DATUM FOR ELEVATION SHOWN (MSW or MSL)	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and file number): VC-6-77		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED	UNDISTURBED
5. NAME OF DRILLER		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED	COMPLETED
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -29.5	
9. TOTAL DEPTH OF HOLE: 14.0'		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: JOHNNY TYSON	

W.C. %	DEPTH (-)	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
	0		DARK GRAY ORGANIC CLAY (OH) W/ TR SHELL	
147	1.5		GRAY FAT CLAY (CH) W/ TR. SAND LL=107, PL=27, PI=80	
125	2.5		DK GRAY ORGANIC CLAY (OH)	
~~179~~	3.0		GRAY ORGANIC CLAY (OH)	
169	4.5		DARK GRAY FAT CLAY (CH) W/ TR. SAND	VIBRACORED
129	6.0		GRAY FAT CLAY (CH)	
~~192~~			DK. GRAY FAT CLAY (CH) W/ TR. SAND	
88	9.0		GRAY FAT CLAY (CH) W/ TR SAND LL=100, PL=37, PI=63	
111	10.5		GRAY CLAYEY SAND (SC) W/ TR. SHELL	
	12.0		GRAY CLAYEY SAND (SC) LL=40, PL=15 PI=25	
~~29~~	14.0		BOTTOM OF HOLE	
	15.0			
	18.0			
	21.0			
	24.0			
	27.0			

NOE FORM 827 APR 74 J C.

HOLE NO. VC-6-77

N 191,736 E 456,729

BORING LOG-S	DIVISION South Atlantic	INSTALLATION Mobile District	SHEET 1 OF 1 SHEETS

1. PROJECT: GULFPORT SHIP CHANNEL	10. SIZE AND TYPE OF BIT
2. LOCATION (Coordinates or Station): GULFPORT, MISSISSIPPI	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL
3. DRILLING AGENCY: MOBILE DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL
4. HOLE NO. (As shown on drawing title and file number): VC-7-77	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED
5. NAME OF DRILLER	14. TOTAL NUMBER CORE BOXES
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	15. ELEVATION GROUND WATER
7. THICKNESS OF OVERBURDEN	16. DATE HOLE: STARTED / COMPLETED
8. DEPTH DRILLED INTO ROCK	17. ELEVATION TOP OF HOLE -30.0
9. TOTAL DEPTH OF HOLE 17.0'	18. TOTAL CORE RECOVERY FOR BORING
	19. SIGNATURE OF INSPECTOR: J. TYSON

W.C. %	DEPTH (-)	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
146	1.0		GRAY FAT CLAY (CH) W/ TR SAND LL=119, PL=37, PI=82	
76			DK. GRAY ORGANIC CLAY (OH)	
~~95~~	3.0			
141			DK GRAY FAT CLAY (CH)	
118			GRAY FAT CLAY (CH) W/ TR. SAND LL=101, PL=30, PI=71	
~~121~~			DK. GRAY FAT CLAY (CH)	
39	6.0		GRAY FAT CLAY (CH) W/ TR SAND LL=101, PL=30, PI=71	
102	7.0		DK. GRAY FAT CLAY (CH) W/ TR. SAND	VIBRACORED
10	9.0		GRAY FAT CLAY (CH) W/ TR. SAND LL=104, PL=34, PI=70	
	10.5			
	12.0		GRAY CLAYEY SAND (SC) W/ TR SHELL	
	15.0			
	17.0			
	18.0		BOTTOM OF HOLE	
	21.0			
	24.0			
	27.0			

MOB FORM 827 APR 76

HOLE NO. VC-7-77

N 178,458 E 459,083

BORING LOG-S	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT	
2. LOCATION (Coordinates or Station): GULFPORT, MISSISSIPPI		11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and file number): VC-S-7B		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	
5. NAME OF DRILLER		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED / COMPLETED	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -30.6	
9. TOTAL DEPTH OF HOLE: 18.8'		18. TOTAL CORE RECOVERY FOR BORING: %	
		19. SIGNATURE OF INSPECTOR: J. TYSON	

W.C. %	DEPTH (-)	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
~~143~~			GRAY FAT CLAY (CH) W/ TR. SAND LL=106, PL=32, PI=76	
	2.0			
~~123~~			DK. GRAY ORGANIC CLAY (OH)	
166	3.0		GRAY ORGANIC CLAY (OH)	
	4.0			
130			DARK GRAY FAT CLAY (CH)	
~~156~~	5.0		GRAY ORGANIC CLAY (O-)	
	6.0			
130			DARK GRAY FAT CLAY (C-)	
98			GRAY FAT CLAY (CH) W/ TR. SAND LL=86, PL=27, PI=59	VIBRACORED
	9.0			
112				
115			GRAY FAT CL- (C-	
	12.0			
113				
106			GRAY FAT CLAY (CH) W SAND, LL=95, PL=32, PI=63	
	15.0			
			GRAY CLAYEY SAND (SC) W/ TR SHELL	
	18.0			
	18.8			
			BOTTOM OF HOLE	
	21.0			
	24.0			
	27.0			

NOS FORM 827 APR 74 J.C

HOLE NO. VC-S-7B

N 175,292 E 461,3[illegible]E

BORING LOG-S	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT	
2. LOCATION (Coordinates or Station): GULFPORT, MISSISSIPPI		11. DATUM FOR ELEVATION SHOWN (MSL or MLW):	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL:	
4. HOLE NO. (As shown on drawing title and file number): VC-9-77		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	
5. NAME OF DRILLER:		14. TOTAL NUMBER CORE BOXES:	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER:	
7. THICKNESS OF OVERBURDEN:		16. DATE HOLE: STARTED / COMPLETED	
8. DEPTH DRILLED INTO ROCK:		17. ELEVATION TOP OF HOLE: -30.7	
9. TOTAL DEPTH OF HOLE: 158'		18. TOTAL CORE RECOVERY FOR BORING:	
		19. SIGNATURE OF INSPECTOR: J. TYSON	

W C %	DEPTH (-)	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
			DK. GRAY ORGANIC CLAY (OH)	
	1.8			
166			GRAY FAT CLAY (CH) W/TR. SAND LL=110, PL=30, PI=80	
	3.0			
175			GRAY FAT CLAY (CH)	
128			GRAY FAT CLAY (CH) W/TR. SAND	
30			DK. GRAY FAT CLAY (CH)	
	6.0			
111			GRAY FAT CLAY (CH) W/TR SAND	
92			DK. GRAY FAT CLAY (CH)	VIBRACORED
	9.0			
106			GRAY FAT CLAY (CH) W/TR SAND LL=103, PL=26, PI=77	
117			GRAY FAT CLAY (CH) W/TR SAND	
	12.0			
78			GRAY FAT CLAY (CH)	
121			GRAY FAT CLAY (CH) LL=121, PL=36 PI=85	
	15.0			
86	15.8		GRAY FAT CLAY (CH)	
			BOTTOM OF HOLE	
	18.0			
	21.0			
	24.0			
	27.0			

MOS FORM 827 APR 74

HOLE NO. VC-9-77

N 172,933 E 463,083

BORING LOG-S	DIVISION South Atlantic	INSTALLATION Mobile District	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT	
2. LOCATION (Coordinates or Station) GULFPORT, MISSISSIPPI		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MSL	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and file number) VC-10-77		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED	UNDISTURBED
5. NAME OF DRILLER		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED	COMPLETED
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -31.0	
9. TOTAL DEPTH OF HOLE 9.5'		18. TOTAL CORE RECOVERY FOR BORING %	
		19. SIGNATURE OF INSPECTOR J. TYSON	

W C %	DEPTH (-)	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
164	0		DK. GRAY FAT CLAY (CH)	
157			GRAY FAT CLAY (CH) W/ TR. SAND LL=112, PL=32, PI=80	
154	3.0		DK. GRAY FAT CLAY (CH)	
135	3.5		GR.-BR. INORG. SILT (MH) W/ TR. SAND	
110	4.5			VIBRACORED
	6.0			
122			DK. GRAY FAT CLAY (CH)	
112			GRAY FAT CLAY (CH) W/ TR. SAND LL=111, PL=30, PI=80	
	9.0 9.5			
	12.0		BOTTOM OF HOLE	
	15.0			
	18.0			
	21.0			
	24.0			
	27.0			

MOS FORM 827 (APR 74) J.C

HOLE NO. VC-10-77

N 170,771 E 464,667

BORING LOG-S	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT	
2. LOCATION (Coordinates or Station): GULFPORT, MISSISSIPPI		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and file number): VC-11-77		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: UNDISTURBED	
5. NAME OF DRILLER		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED: COMPLETED	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -31.0	
9. TOTAL DEPTH OF HOLE: 20.0		18. TOTAL CORE RECOVERY FOR BORING: %	
		19. SIGNATURE OF INSPECTOR: J TYSON	

W.C %	DEPTH (-)	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
107			DK GRAY FAT CLAY (CH)	
171			GRAY FAT CLAY (CH) W/ TR. SAND LL=120, PL=37, PI=83	
172			DARK GRAY FAT CLAY (CH)	
	3.0			
162			GRAY FAT CLAY (CH) W/ TR. SAND	
154			DK GRAY FAT CLAY (CH)	
109			GRAY FAT CLAY (CH)	
	6.0			
100			GRAY FAT CLAY (CH) W/ TR SAND	
113			GRAY FAT CLAY (CH) W/ TR CFG. MATERIAL	
	9.0			
126			GRAY FAT CLAY (CH)	VIBRACORED
118			GRAY FAT CLAY (CH) W/ TR SAND LL=100, PL=30, PI=70	
	12.0			
120			GRAY FAT CLAY (CH)	
107			GRAY FAT CLAY (CH) W/ TR SHELL	
	15.0			
113			GRAY FAT CLAY (CH) W TR. SAND LL=110, PL=31, PI=79	
126			GRAY FAT CLAY (CH) W/ TR SHELL	
	18.0			
105			GRAY FAT CLAY (CH) W. TR. SAND	
	20.0			
	21.0		BOTTOM OF HOLE	
	24.0			
	27.0			

MOB FORM 927 APR 74 C

HOLE NO. VC-11-77

N 170,000 E 465,209

BORING LOG-S	DIVISION South Atlantic	INSTALLATION Mobile District	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT	
2. LOCATION (Coordinates or Station) GULFPORT, MISSISSIPPI		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MSL	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and file number) VC-12-77		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED	UNDISTURBED
5. NAME OF DRILLER		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED	COMPLETED
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -31.7	
9. TOTAL DEPTH OF HOLE 20.0'		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR J. TYSON	

W.C. %	DEPTH (ft.)	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
	0		GRAY FAT CLAY (CH)	
96			GRAY FAT CLAY (CH) W/ TR. SAND LL=77, PL=25, PI=52	
159	3.0		GRAY FAT CLAY (CH)	
148			GRAY FAT CLAY (CH) W/ TR. SAND LL=103, PL=28, PI=75	
106	6.0		GRAY FAT CLAY (CH) W/TR ORG. MAT.	
106			GRAY FAT CLAY (CH) W/ TR. SAND LL=110, PL=30, PI=80	
104	9.0		GRAY FAT CLAY (CH)	VIBRACORED
104			GRAY FAT CLAY (CH) W/ TR. SAND	
125	12.0		GRAY FAT CLAY (CH) W/TR. ORG. MAT.	
121			DK. GRAY FAT CLAY (CH) W/TR SHELL	
121	15.0		GRAY FAT CLAY (CH) W/TR SAND LL=99, PL=35, PI=64	
113			DK. GRAY FAT CLAY (CH)	
105	18.0		GRAY FAT CLAY (CH) W/ TR. SAND	
126	20.0		BOTTOM OF HOLE	
	21.0			
	24.0			
	27.0			

MOB FORM 827 APR 76

HOLE NO. VC-12-77

BORING LOG-S	DIVISION South Atlantic	INSTALLATION Mobile District	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT HARBOR		10. SIZE AND TYPE OF BIT	
2. LOCATION (Coordinates or Station) GULFPORT, MS.		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MSL	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and file number) VC-C-26-76		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED	UNDISTURBED
5. NAME OF DRILLER C. FULLER		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
		16. DATE HOLE STARTED 3-17-76 COMPLETED 3-17-76	
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE 32.2	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING	
9. TOTAL DEPTH OF HOLE 20.0'		19. SIGNATURE OF INSPECTOR GARDNER	

W.C %	DEPTH	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
			*	
	2.5			
71	3.0		GRAY SANDY FAT CLAY (CH) W/ TRACE SHELL FRAG.	
127	6.0		GRAY FAT CLAY (CH) W/ LITTLE SAND	
	7.0		*	VIBRACORED
	9.0			
	10.0		GRAY SILTY SAND (SM) SL. PLASTIC W/ TR. GRAVEL SIZE, CSE.-MED. SAND SIZE SHELL	
	12.0		GRAY POORLY GRADED SILTY SAND (SP-SM)	
14 F				
	15.0		*	
	18.0			
	20.0			
	21.0		BOTTOM OF HOLE	
	24.0		* SECTIONS REMOVED BY "GULF SOUTH RESEARCH INSTITUTE" FOR TESTING.	
	27.0			

MOB FORM 827

HOLE NO. VC-C-26-76

BORING LOG-S	DIVISION South Atlantic	INSTALLATION Mobile District	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT HARBOR		10. SIZE AND TYPE OF BIT	
2. LOCATION (Coordinates or Station) GULFPORT, MS.		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MSL	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL 1 -	
4. HOLE NO. (As shown on drawing title and file number) VC-C43-76		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED	UNDISTURBED
5. NAME OF DRILLER C. FULLER		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 3-17-76 COMPLETED 3-17-76	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE 31.2	
9. TOTAL DEPTH OF HOLE 20.0'		18. TOTAL CORE RECOVERY FOR BORING %	
		19. SIGNATURE OF INSPECTOR GARDNER	

W.C %	DEPTH	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD-PENETRATION (BLOWS PER FOOT) 0 20 40 60
	2.5		*	
35	3.0		GRAY CLAYEY SAND (SC) W/ SLIGHT TRACE WOOD FRAG.	
32	8.0			
	8.5			
	9.0		*	VIBRACORED
	11.5			
45	12.0		GRAY SANDY FAT CLAY (CH) W/ TR. WOOD PARTICLES	
	15.0		—	
41			GRAY FAT CLAY (CH) W/LITTLE SAND	
	17.0			
	18.0		*	
	20.0			
	21.0		BOTTOM OF HOLE	
	24.0		* SECTIONS REMOVED BY "GULF SOUTH RESEARCH INSTITUTE" FOR TESTING.	
	27.0			

MOB Form 927

HOLE NO. VC-C43-76

BORING LOG-S	DIVISION South Atlantic	INSTALLATION Mobile District	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT HARBOR		10. SIZE AND TYPE OF BIT	
2. LOCATION (Coordinates or Station) GULFPORT, MS.		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MSL	
3. DRILLING AGENCY MOBILE DISTRICT.		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and file number) VC-C55-7C		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED	UNDISTURBED
5. NAME OF DRILLER C. FULLER		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
		16. DATE HOLE STARTED: 3-17-76 COMPLETED: 3-17-76	
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE +5.2	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING	
9. TOTAL DEPTH OF HOLE 20.0'		19. SIGNATURE OF INSPECTOR GARDNER	

W.C %	DEPTH	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD-PENETRATION (BLOWS PER FOOT) 0 20 40 60
	2.4		*	
209	3.0		GRAY FAT CLAY (CH); VERY SOFT	
42	6.0		GRAY SANDY LEAN CLAY (CL) W/WOOD PARTICLES	VIBRACORED
	9.0 9.5			
	12.0		GRAY SILTY SAND (SM)	
	14.0			
	15.0		*	
	18.0			
	20.0			
	21.0		BOTTOM OF HOLE	
	24.0		* SECTIONS REMOVED BY "GULF SOUTH RESEARCH INSTITUTE" FOR TESTING.	
	27.0			

MOB FORM 927

HOLE NO. VC-C55-7a

BORING LOG-S	Division: South Atlantic	Installation: Mobile District	Sheet: of sheets
1. Project: GULFPORT HARBOR		10. Size and type of bit:	
2. Location (Coordinates or Station): GULFPORT, MS.		11. Datum for elevation shown (TBM or MSL): MSL	
3. Drilling agency: MOBILE DISTRICT		12. Manufacturer's designation of drill:	
4. Hole no. (As shown on drawing title and file number): VC-C65-76		13. Total no. of overburden samples taken: Disturbed / Undisturbed	
5. Name of driller: C. FULLER		14. Total number core boxes	
6. Direction of hole: ☒ Vertical ☐ Inclined ____ deg. from vert.		15. Elevation ground water	
7. Thickness of overburden		16. Date hole: Started 3-17-76 / Completed 3-17-76	
8. Depth drilled into rock		17. Elevation top of hole: 24.2	
9. Total depth of hole: 20.0'		18. Total core recovery for boring	
		19. Signature of inspector: GARDNER	

W/C %	Depth	Sym	Classification of materials (description)	Standard penetration (blows per foot) 0 20 40 60
	3.0		*	
211	3.5		GRAY CLAYEY INORGANIC SILT (MH)	
	5.9			
	6.0		*	VIBRACORED
	9.0			
	10.5			
97	11.5		GRAY CLAYEY INORG. SILT (MH) W/ ORG. DEBRIS	
	12.0			
47			GRAY SANDY LEAN CLAY (CL) W/ NUM. SHELL FRAG.	
	14.2			
	15.0		*	
	18.0			
	20.0			
	21.0		BOTTOM OF HOLE	
			* SECTIONS REMOVED BY "GULF SOUTH RESEARCH INSTITUTE" FOR TESTING.	
	24.0			
	27.0			

MOB FORM 827

HOLE NO. VC-C65-76

BORING LOG-S	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET: OF SHEETS
1. PROJECT: GULFPORT HARBOR		10. SIZE AND TYPE OF BIT	
2. LOCATION (Coordinates or Station): GULFPORT, MS.		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and file number): VC-C77-76		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	
5. NAME OF DRILLER: C. FULLER		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 3-17-76 / COMPLETED 3-17-76	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: 23.2	
9. TOTAL DEPTH OF HOLE: 20.0'		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: GARDNER	

W/C %	DEPTH	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
	3.0		*	
	6.0			
216	6.5		DK. GRAY FAT CLAY (CH) W/TR. SAND	VIBRACORED
	9.0			
29	9.5		TAN-GRAY LEAN CLAY (CL) W/ TR WOOD PARTICLES	
	11.5			
	12.0		*	
	15.0			
	18.0			
	20.5			
	21.0		BOTTOM OF HOLE	
	24.0		* SECTIONS REMOVED BY "GULF SOUTH RESEARCH INSTITUTE" FOR TESTING.	
	27.0			

MOB FORM 927

HOLE NO. VC-C77-76

BORING LOG-S	DIVISION South Atlantic	INSTALLATION Mobile District	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT HARBOR		10. SIZE AND TYPE OF BIT	
2. LOCATION (Coordinates or Station) GULFPORT, MISS.		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MSL	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and hole number) VC-SI-1-76		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED	UNDISTURBED
5. NAME OF DRILLER C. FULLER		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
		16. DATE HOLE STARTED 3-18-76 COMPLETED 3-18-76	
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE 7.0	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING	
9. TOTAL DEPTH OF HOLE 16.6'		19. SIGNATURE OF INSPECTOR GARDNER	

W/C %	DEPTH	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD-PENETRATION (BLOWS PER 700T) 0 20 40 60
189	3.0		GRAY FAT CLAY (CH) W/TR. SAND	
165	6.0		GRAY FAT CLAY (CH)	
126	7.5		GRAY FAT CLAY (CH) W/TR. SAND	
	9.0		GRAY SILTY SAND (SM) SL. PLASTIC	VIBRACORED
37	12.0		GRAY CLAYEY SAND (SC)	
28	15.0			
	16.6		BOTTOM OF HOLE	
	18.0			
	21.0			
	24.0			
	27.0			

HQDA FORM 827 APR 74

HOLE NO. VC-SI-1-76

BORING LOG-S	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT HARBOR		10. SIZE AND TYPE OF BIT	
2. LOCATION (Coordinates or Station): GULFPORT, MS.		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and file number): VC-SI-2-76		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED	UNDISTURBED
5. NAME OF DRILLER: C. FULLER		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 3-18-76	COMPLETED 3-18-76
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: 3.0	
9. TOTAL DEPTH OF HOLE: 16.5'		18. TOTAL CORE RECOVERY FOR BORING: %	
		19. SIGNATURE OF INSPECTOR: GARDNER	

W/C %	DEPTH	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
184	0			
	3.0		GRAY FAT CLAY (CH), W/ TR. SAND	
135				
	6.0			
160				VIBRA-CORED
	9.0			
~~52~~			DK. GRAY CLAYEY SAND (SC)	
	12.0		GRAY CLAYEY SAND (SC)	
	14.0			
	15.0		LT. GRAY POORLY GRADED SILTY SAND (SP-SM)	
	16.5			
	18.0		BOTTOM OF HOLE	
	21.0			
	24.0			
	27.0			

NOS FORM 927 APR 74

HOLE NO. VC-SI-2-76

BORING LOG-S	DIVISION South Atlantic	INSTALLATION Mobile District	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT HARBOR		10. SIZE AND TYPE OF BIT	
2. LOCATION (Coordinates or Station) GULFPORT, MS.		11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title) and file number VC-SII-1-76		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED	UNDISTURBED
5. NAME OF DRILLER C. FULLER		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER MSL	
		16. DATE HOLE STARTED 3-18-76	COMPLETED 3-18-76
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE 11.0	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING %	
9. TOTAL DEPTH OF HOLE 18.1'		19. SIGNATURE OF INSPECTOR GARDNER	

W/C %	DEPTH	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD-PENETRATION (BLOWS PER FOOT) 0 20 40 60
192	3.0		GRAY FAT CLAY (CH) W/TR. SAND	VIBRACORED
143	6.0			
~~192~~	8.0			
40	9.0		DK. GRAY CLAYEY SAND (SC)	
	10.5			
24	12.0		DK. GRAY SILTY SAND (SM) SLIGHTLY PLASTIC	
	13.5			
	15.0		BROWN-TAN POORLY GRADED SILTY SAND (SP-SM) W/WOOD PARTICLES	
	18.0		TAN FR. GRD. SILTY SAND (SP-SM)	
	18.1		BOTTOM OF HOLE	
	21.0			
	24.0			
	27.0			

MOS FORM 827 APR 74

HOLE NO. VC-SII-1-76

BORING LOG-S | DIVISION: South Atlantic | INSTALLATION: Mobile District. | SHEET 1 OF 1 SHEETS

1. PROJECT: GULFPORT HARBOR	10. SIZE AND TYPE OF BIT
2. LOCATION (Coordinates or Station): GULFPORT, MS.	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL
3. DRILLING AGENCY: MOBILE DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL
4. HOLE NO. (As shown on drawing title and file number): VC-SII-2-76	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED
5. NAME OF DRILLER: C. FULLER	14. TOTAL NUMBER CORE BOXES
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER
7. THICKNESS OF OVERBURDEN	16. DATE HOLE: STARTED 3-18-76 / COMPLETED 3-18-76
8. DEPTH DRILLED INTO ROCK	17. ELEVATION TOP OF HOLE: 13.0
9. TOTAL DEPTH OF HOLE: 18.5'	18. TOTAL CORE RECOVERY FOR BORING %
	19. SIGNATURE OF INSPECTOR: GARDNER

W/C %	DEPTH	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
167	0		GRAY FAT CLAY (CH) W/TR. SAND	
	3.0		—	
121			DK. GRAY FAT CLAY (CH) W/ LITTLE SAND	
	6.0			
~~33~~			GRAY CLAYEY SAND (SC-H)	
	8.0			
60	9.0		GRAY CLAYEY SAND (SC)	ABANDONED
	11.0			
	12.0		GRAY SILTY SAND (SM) W TR. WOOD PARTICLES	
	15.0		— BROWN SILTY SAND (SM) W/ WOOD PARTICLES	
	16.5		BROWNISH GRAY POORLY GRADED SAND (SP)	
	18.0			
	18.5		BOTTOM OF HOLE	
	21.0			
	24.0			
	27.0			

MOD FORM 827 APR 74

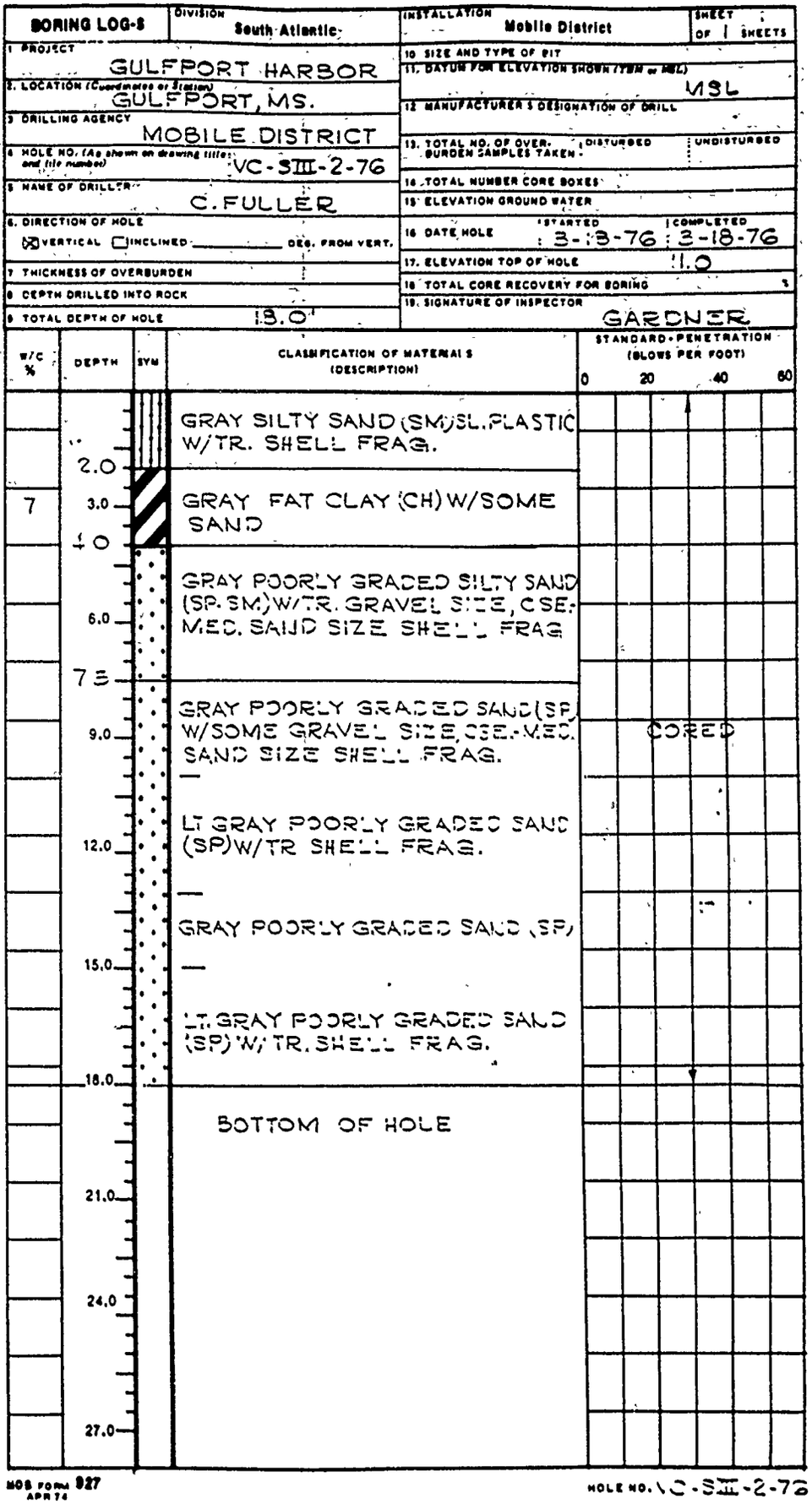
HOLE NO. VC-SII-2-76

BORING LOG-S	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT HARBOR		10. SIZE AND TYPE OF BIT	
2. LOCATION (Coordinates or Station): GULFPORT, MS.		11. DATUM FOR ELEVATION SHOWN (USN or MSL): MSL	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and file number): VC-SIII-1-76		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	
5. NAME OF DRILLER: C. FULLER		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 3-18-76 / COMPLETED 3-18-76	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: 7.0	
9. TOTAL DEPTH OF HOLE: 16.3'		18. TOTAL CORE RECOVERY FOR BORING: %	
		19. SIGNATURE OF INSPECTOR: GARDNER	

W/C %	DEPTH	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD-PENETRATION (BLOWS PER FOOT) 0 20 40 60
	0		LT. GRAY POORLY GRADED SAND (SP) W/ TR. GRAVEL	
42	3.0		GRAY CLAYEY SAND (SC)	
105	4.5		DK. GRAY FAT CLAY (CH) W/ TR. SAND	VIBRACORED
	9.0		GRAY FR. GRD. SILTY SAND (SP-SM) W/ TR. SHELL FRAG.	
	10.0		LT. GRAY POORLY GRADED SAND (SP,	
	12.0		—	
	15.0		GRAY POORLY GRADED SAND (SP) W/ TR. SHELL FRAG.	
	16.3		BOTTOM OF HOLE	
	18.0			
	21.0			
	24.0			
	27.0			

MOB FORM 827 APR 74

HOLE NO. VC-SIII-1-76



BORING LOG-S	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET: OF 1 SHEETS
1. PROJECT: GULFPORT HARBOR		10. SIZE AND TYPE OF BIT	
2. LOCATION (Coordinates or Station): GULFPORT, MS.		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and file number): VC-SIII-2-76		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED	UNDISTURBED
5. NAME OF DRILLER: C. FULLER		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 3-18-76	COMPLETED 3-18-76
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: +1.0	
9. TOTAL DEPTH OF HOLE: 18.0'		18. TOTAL CORE RECOVERY FOR BORING	%
		19. SIGNATURE OF INSPECTOR: GARDNER	

W/C %	DEPTH	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
	2.0		GRAY SILTY SAND (SM) SL. PLASTIC W/TR. SHELL FRAG.	
7	3.0		GRAY FAT CLAY (CH) W/SOME SAND	
	6.0		GRAY POORLY GRADED SILTY SAND (SP-SM) W/TR. GRAVEL SIZE, CSE.-MED. SAND SIZE SHELL FRAG	
	9.0		GRAY POORLY GRADED SAND (SP) W/SOME GRAVEL SIZE, CSE.-MED. SAND SIZE SHELL FRAG.	CORED
	12.0		LT GRAY POORLY GRADED SAND (SP) W/TR SHELL FRAG.	
	15.0		GRAY POORLY GRADED SAND (SP)	
	18.0		LT. GRAY POORLY GRADED SAND (SP) W/ TR. SHELL FRAG.	
	21.0		BOTTOM OF HOLE	
	24.0			
	27.0			

MOB FORM 927 APR 74

HOLE NO. VC-SIII-2-76

Hole No. GSC-I-62

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT: SPT	
2. LOCATION (Coordinates or Station): MS E: N247000 E422480		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): GSC-I-62		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5	UNDISTURBED
5. NAME OF DRILLER: LAMBERT		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: ± SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 7 FEB 62	COMPLETED 8 FEB 62
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -27.5	
9. TOTAL DEPTH OF HOLE: 10.5' (EL.-38.0)		18. TOTAL CORE RECOVERY FOR BORING: -	
		19. SIGNATURE OF INSPECTOR: SAWYER	DRAFTED: RC CHECKED:

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-27.5	0.0						
			(CH) DK BLUE GRAY FAT CLAY, V/ SOFT, SEMI-FLUID, DK ORG COLOR, NO VISIBLE ORG MATTER		1		0
	1.5					G.W. EL. N/A. HOLE DRILLED UNDER WATER.	
			(CH) DK BLUE GRAY FAT CLAY, V/ SOFT, SEMI-FLUID, DK ORG COLOR, NO VISIBLE ORG MATTER		2		0
	3.0					NOTE:	
			(CH) DK BLUE GRAY FAT CLAY, V/ SOFT, SEMI-FLUID, DK ORG COLOR, NO VISIBLE ORG MATTER		3	3" SHELBY TUBE SAMPLING ATTEMPT MADE-UNSUCCESSFUL, MATERIAL TOO SOFT.	0
	4.5					NO MATERIAL RETAINED IN SAMPLE TUBE.	
			NO RECOVERY FROM SAMPLER ASSUMED SAME AS ABOVE		-		0
	6.0						
			(CH) DK BLUE GRAY FAT CLAY, AS ABOVE, W/ SLIGHT INCREASE IN DENSITY & CONSISTENCY DUE TO SLIGHT DECREASE IN MOISTURE CONTENT		4		0
	7.5						
			NO RECOVERY FROM SAMPLER ASSUMED SAME AS ABOVE		-		0
	9.0						
			(CH) DK BLUE GRAY FAT CLAY, TYPICAL OF ABOVE SAMPLES		5		0
-38.0	10.5					B.O.H.	

Hole No. GSC-2-62

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT SPT	
2. LOCATION (Coordinates or Station) ZONE E: N 239890 E 427690		11. DATUM FOR ELEVATION SHOWN (TBM, MSL, or NGVD) MLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL BARGE	
4. HOLE NO. (As shown on drawing title and file number) GSC-2-62		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3	UNDISTURBED
5. NAME OF DRILLER LAMBERT		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER • SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 8 FEB 62	COMPLETED 8 FEB 62
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -30.0	
9. TOTAL DEPTH OF HOLE 6.0', (EL.-36.0)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR SAWYER	DRAFTED RC / CHECKED

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-30.0	0.0		(CH) DK BLUE GRAY FAT CLAY, SEMI-FLUID, V/ SOFT, ORG COLOR, NO VISIBLE ORG MATTER.		1	HOLE DRILLED UNDER WATER	0
	1.5		(CH) DK BLUE GRAY FAT CLAY, SEMI-FLUID, V/ SOFT, ORG COLOR, NO VISIBLE ORG MATTER		2	UNSUCCESSFUL 3" SHELBY TUBE SAMPLING ATTEMPT MADE - NO RECOVERY. MATERIAL TOO SOFT & FLUID.	0
	3.0		NO RECOVERY - ASSUMED SAME MAT'L AS ABOVE AND BELOW		-		0
	4.5		(CH) DK BLUE GRAY FAT CLAY, SLIGHT INCREASE IN DENSITY & CONSISTENCY DUE TO SLIGHT DECREASE IN MOISTURE CONTENT		3		0
-36.0	6.0					B.O.H.	

Hole No. GSC-3-62

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT: SPT	
2. LOCATION (Coordinates or Station): ZONE MS E: N 231610 E 433150		11. DATUM FOR ELEVATION SHOWN (TBM, MSL, or NGVD): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): GSC-3-62		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2 / UNDISTURBED	
5. NAME OF DRILLER: LAMBERT		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: * SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 8 FEB 62 / COMPLETED 8 FEB 62	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -29.5	
9. TOTAL DEPTH OF HOLE: 6.0', (EL.-35.5)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: SAWYER	DRAFTED: RC / CHECKED:

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR R.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-29.5	0.0		NO RECOVERY - ASSUMED SAME AS TYPICAL MATL' BELOW		-	HOLE DRILLED UNDER WATER	0
-31.0	1.5		(CH) DK BLUE GRAY FAT, ORG. COLOR STRONG, NO VISIBLE ORG MATTER. TYPICAL - V/ SOFT, SEMI-FLUID.		1		0
	3.0		NO RECOVERY - ASSUMED SAME MATL' AS ABOVE AND BELOW.		-		0
	4.5		(CH) SAME AS ABOVE		2		0
-35.5	6.0					B.O.H.	
						3" SHELBY TUBE UNDISTURBED SAMPLE ATTEMPTED - 6.5' PUSH, 0.7' SAMPLE RETAINED. 10.8% RECOVERY	

Hole No. GSC-4-62

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT: SPT	
2. LOCATION (Coordinates or Station): ZONE MS E: N 226500 E 437480		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): GSC-4-62		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2 / UNDISTURBED	
5. NAME OF DRILLER: LAMBERT		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: • SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 8 FEB 62 / COMPLETED 8 FEB 62	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -30.2	
9. TOTAL DEPTH OF HOLE: 6.0', (EL.-36.2)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: SAWYER	DRAFTED: RC / CHECKED:

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-30.2	0.0		NO RECOVERY - TOP MATL' TOO FLUID. ASSUMED SAME AS TYPICAL MATL' BELOW.		-	HOLE DRILLED UNDER WATER	0
	1.5		(CH) DK GRAY BLUE FAT CLAY, STRONG ORG COLORING, NO VISIBLE ORG MATTER, V/ SOFT.		1		0
	3.0		NO RECOVERY, SAME AS ABOVE.		-		0
	4.5		(CH) DK GRAY BLUE FAT CLAY, AS ABOVE. INCREASE IN CONSISTENCY, DECREASE IN W.C.		2		0
-36.2	6.0					B.O.H.	

Hole No. GSC-5-62

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT: SPT	
2. LOCATION (Coordinates or Station): ZONE MS E: N 224170 E 439180		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): GSC-5-62		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2 / UNDISTURBED	
5. NAME OF DRILLER: LAMBERT		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: * SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 8 FEB 62 / COMPLETED 8 FEB 62	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -31.1	
9. TOTAL DEPTH OF HOLE: 4.5', (EL.-35.6)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: SAWYER	DRAFTED: RC / CHECKED:

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-31.1	0.0						
			(CH) DK BLUE GRAY FAT CLAY, V/ SOFT, STRONG ORG COLOR, NO VISIBLE ORG MATTER.		1	HOLE DRILLED UNDER WATER.	0
	1.5						
			NO RECOVERY - SAME AS ABOVE		-	3" SHELBY SAMPLER ATTEMPT MADE. EL. 34.6 - 35.6. SAND TOO DENSE FOR SAMPLER TO PENETRATE APPRECIABLE SAMPLE DEPTH.	0
-34.1	3.0						
			(SM) MED. GRAY SILTY SAND, FINE GRAIN, DENSE.		2		33
-35.6	4.5					B.O.H.	

Hole No. GSC-6-62

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT: SPT	
2. LOCATION (Coordinates or Station): ZONE MS E: N 222180 E 440650		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): GSC-6-62		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2	UNDISTURBED
5. NAME OF DRILLER: LAMBERT		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: ± SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 12 FEB 62	COMPLETED 12 FEB 62
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -29.8	
9. TOTAL DEPTH OF HOLE: 6.0', (EL.-35.8)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: SAWYER	DRAFTED: RC / CHECKED:

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-29.8	0.0						
			(CH) DK BLUE GRAY FAT CLAY, STRONG ORG COLOR, SOFT, SEMI-FLUID, NO VISIBLE ORG MATTER.		1	HOLE DRILLED UNDER WATER.	0
	1.5		NO RECOVERY - AS ABOVE.		-	UNSUCCESSFUL 3" SHELBY TUBE SAMPLING ATTEMPT. MATERIAL TOO SOFT.	0
	3.0		(CH) DK BLUE GRAY FAT CLAY, SAME AS ABOVE.		2		0
	4.5		NO RECOVERY - ASSUMED, DUE TO EASE OF PENETRATION, SAME AS ABOVE MATL'.		-		0
-35.8	6.0					B.O.H.	

Hole No. GSC-7-62

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT: SPT	
2. LOCATION (Coordinates or Station): ZONE MS E: N 216600 E 444700		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): GSC-7-62		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1	UNDISTURBED
5. NAME OF DRILLER: LAMBERT		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: • SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 13 FEB 62	COMPLETED 13 FEB 62
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -32.3	
9. TOTAL DEPTH OF HOLE: 4.5', (EL.-36.8)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: SAWYER	DRAFTED: RC CHECKED:

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-32.3	0.0						
			(CH) DK BLUE GRAY FAT CLAY, STRONG ORG COLOR, NO VISIBLE ORG MATTER.		1	HOLE DRILLED UNDER WATER.	0
	1.5						
			NO SAMPLE ASSUMED SAME TYPICAL MATL' AS ABOVE DUE TO EASE OF PENETRATION.		-		0
-36.8	4.5					B.O.H.	
						UNSUCCESSFUL 3' SHELBY TUBE SAMPLING ATTEMPT. MATL' TOO SOFT.	

ENG FORM 1836 (CADD Facsimile) JAN. 1 5 1988

PROJECT: GULFPORT SHIP CHANNEL

HOLE NO.: GSC-7-62

Hole No. GSC-8-62

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT: SPT	
2. LOCATION (Coordinates or Station): ZONE MS E: N 210610 E 449100		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): GSC-8-62		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1	UNDISTURBED
5. NAME OF DRILLER: LAMBERT		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 13 FEB 62	COMPLETED 13 FEB 62
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -32.5	
9. TOTAL DEPTH OF HOLE: 3.0', (EL.-35.5)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: SAWYER	DRAFTED: RC / CHECKED

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g — SPT BLOWS/FT
-32.5	0.0					
			(CH) DK BLUE GRAY FAT, TYPICAL, V/ SOFT, ORG COLORING, NO VISIBLE ORG MATTER.		1	DRILLED UNDER WATER. 0
	1.5					
			NO SAMPLE - SAME AS ABOVE.		-	0
-35.5	3.0					B.O.H.
						3' SHELBY TUBE ATTEMPT UNSUCCESSFUL, MATL'TOO SOFT.

ENG FORM 1836 (CADD Facsimile) JAN. 1 5 1988

PROJECT: GULFPORT SHIP CHANNEL

HOLE NO.: GSC-8-62

Hole No. GSC-9-62

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT: SPT	
2. LOCATION (Coordinates or Station): ZONE MS E: N 204100 E 452390		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): GSC-9-62		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 / UNDISTURBED	
5. NAME OF DRILLER: LAMBERT		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: * SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 12 FEB 62 / COMPLETED 12 FEB 62	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -34.6	
9. TOTAL DEPTH OF HOLE: 1.5', (EL.-36.1)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: SAWYER	DRAFTED: RC / CHECKED:

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) SPT BLOWS/FT g
-34.6	0.0		(CH) DK BLUE GRAY FAT CLAY, V/ SOFT, SEMI-FLUID, ORG COLOR, NO VISIBLE ORG MATTER.		1	HOLE DRILLED UNDER WATER. 0
-36.1	1.5					B.O.H.
						UNSUCCESSFUL 3" SHELBY ATTEMPT, TOO SOFT.

ENG FORM 1836 (CADD Facsimile) JAN. 1 5 1988

PROJECT: GULFPORT SHIP CHANNEL

HOLE NO.: GSC-9-62

Hole No. GSC-10-62

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT: SHELBY, OPEN END PIPE	
2. LOCATION (Coordinates or Station): ZONE MS E: N 245200 E 419900		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: SMALL BOAT	
4. HOLE NO. (As shown on drawing title and file number): GSC-10-62		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2; UNDISTURBED 1	
5. NAME OF DRILLER: LAMBERT		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: • SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 12 FEB 62; COMPLETED 12 FEB 62	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -3.3	
9. TOTAL DEPTH OF HOLE: 26.7', (EL.-30.0)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: SAWYER	DRAFTED: RC; CHECKED:

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-3.3	0.0					HOLE DRILLED UNDER WATER
	2.0		NOT SAMPLED		-	DUE TO SHALLOW WATER & MANEUVERABILITY OF BARGE, SAMPLING OF THIS LOCATION WAS BY MEANS OF OPEN END PIPE FROM SMALL BOAT. OPEN END PIPE WAS EASILY PUSHED BY HAND.
-7.3	4.0					
	6.0		(CH) DK GRAY FAT CLAY, MARINE TYPE, 3" SHELBY TUBE SEALED SAMPLE		UD #1	
-11.3	8.0					
	10.0		(CH) DK BLUE GRAY FAT CLAY, EXTREMELY SOFT, W/ FINE SAND CONTENT		1	
-13.3	10.0					
	12.0		NOT SAMPLED		-	
-17.3	14.0					

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE -3.3	Hole No. GSC-10-62
PROJECT GULFPORT SHIP CHANNEL	INSTALLATION MOBILE DISTRICT	SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-17.3	14.0		NOT SAMPLED			
	16.0		(CH) DK BLUE GRAY FAT CLAY, TYPICAL		2	
	18.0					
-23.3	20.0					B.O.H.

Hole No. GSC-II-62

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT: SPT; AUGER	
2. LOCATION (Coordinates or Station): ZONE MS E: N 238050 E 425100		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTORER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): GSC-II-62		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 10 / UNDISTURBED	
5. NAME OF DRILLER: LAMBERT		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: * SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 2 FEB 62 / COMPLETED 2 FEB 62	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -8.5	
9. TOTAL DEPTH OF HOLE: 36.7', (EL.-45.2)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: MOORE	DRAFTED: RC / CHECKED:

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-8.5	0.0					HOLE DRILLED UNDER WATER.
	2.0		(CH) DK GRAY FAT CLAY, TYPICAL, V/ SOFT, SEMI-FLUID, NO VISIBLE ORG MATTER.		1	0
	3.0					
	4.0		(CH) DK GRAY FAY CLAY, TYPICAL, V/ SOFT, SEMI-FLUID, NO VISIBLE ORG MATTER		2	0
	6.0					
	8.0		(CH) DK GRAY FAT CLAY, TYPICAL, V/ SOFT, SEMI-FLUID, NO VISIBLE ORG MATTER		3	0
	9.0					
	10.0		(CH) DK GRAY FAT CLAY, TYPICAL, V/ SOFT, SEMI-FLUID, NO VISIBLE ORG MATTER		4	0
	12.0					
			NO SAMPLE - (CH) AS ABOVE TO APPROX. D. 13.5, THEN FAT CLAY W/ CLAYEY FINE SANDS IN MINUTE LAYERS.		-	0
-22.5	14.0					

ENG FORM 1836 (CADD Facsimile) JAN 15 1988.

PROJECT: GULFPORT SHIP CHANNEL

HOLE NO.: GSC-II-62

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -8.5 | Hole No: GSC-II-62

PROJECT: GULFPORT SHIP CHANNEL | INSTALLATION: MOBILE DISTRICT | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-22.5	14.0		NO SAMPLE - (CH) AS ABOVE TO APPROX. D. 13.5, THEN FAT CLAY W/ CLAYEY FINE SANDS IN MINUTE LAYERS.		-		
-23.5	15.0						
	16.0		(CL) GRAY LEAN CLAY, SANDY, HIGHLY PLASTIC, W/ CLAYEY FINE SAND (SC) IN SMALL LAYERS, SOFT.		6		0
-26.5	18.0						
-28.0	19.5		(SC) LT BROWN & GRAY CLAYEY FINE SAND		7		17
	20.0		NO SAMPLE		-		AUGER
-29.5	21.0						
-31.0	22.5		(SC) BROWN & GRAY CLAYEY FINE SAND W/ SAND & CLAY LAYERS		8		9
-31.5	23.0		NO SAMPLE		-		WR
-33.0	24.5		(SC) BROWN & GRAY CLAYEY FINE SAND		9		9
-35.2	26.7		NO SAMPLE RETAINED, GRAY AND BROWN (CL), SOFT		-		
-36.7	28.2		(SC) GRAY CLAYEY FINE SANDS		10	B.O.H.	5

ENG FORM 1836-A (CADD Possible) JAN. 1-85 1988 | PROJECT: GULFPORT SHIP CHANNEL | HOLE NO. GSC-II-62

Hole No. GSC-12-62

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT: SPT	
2. LOCATION (Coordinates or Station): ZONE MS E: N 222300 E 436700		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): GSC-12-62		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 8 / UNDISTURBED	
5. NAME OF DRILLER: LAMBERT		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: * SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 13 FEB 62 / COMPLETED 13 FEB 62	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -15.5	
9. TOTAL DEPTH OF HOLE: 22.5', (EL.-38.0)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: SAWYER	DRAFTED: RC / CHECKED:

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-15.5	0.0					HOLE DRILLED UNDER WATER.	
	2.0		(CH) DK BLUE GRAY FAT CLAY, TYPICAL, V/ SOFT, SEMI-FLUID, ORG COLOR, NO VISIBLE ORG MATTER.		1		0
	3.0						
	4.0		(CH) DK BLUE GRAY FAT CLAY, SAME AS ABOVE, SLIGHT DECREASE IN W.C. SLIGHT INCREASE IN CONSISTENCY, MATL' STILL ZERO BLOW COUNT.		2		0
	6.5						
	8.0		(CH) SAME AS ABOVE		3		0
	9.0						
	10.0		NO SAMPLE RETAINED (CH) SAME AS ABOVE		-		0
	12.0						
			(CH) SAME AS ABOVE		4		0
-29.5	14.0						

ENG FORM 1836 (CADD Facsimile) JAN 15 1988

PROJECT: GULFPORT SHIP CHANNEL

HOLE NO.: GSC-12-62

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE -15.5	Hole No. GSC-12-62
PROJECT GULFPORT SHIP CHANNEL	INSTALLATION MOBILE DISTRICT	SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-29.5	14.0						
			(CH) SAME AS ABOVE		4		
-30.5	15.0						
	18.0		(CH) SAME AS ABOVE		5		0
-33.5	18.0						
			(CL) GRAY SANDY CLAY- CLAY CONTENT VERY ACTIVE, PLASTIC, ORG GRAY COLOR.		6		1
-35.0	19.5						
			(CL) GRAY SANDY CLAY, SAME AS ABOVE.		7		8
-36.5	21.0						
			(SC) GRAY CLAYEY SAND		8		24
-38.5	23.0					B.O.H.	

Hole No. GSC-13-62

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT: SPT	
2. LOCATION (Coordinates or Station): ZONE MS E: N 208800 E 446500		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): GSC-13-62		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6 / UNDISTURBED	
5. NAME OF DRILLER: LAMBERT		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: • SEE 'REMARKS'	
		16. DATE HOLE: STARTED 12 FEB 62 / COMPLETED 12 FEB 62	
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE: -16.5	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING	
9. TOTAL DEPTH OF HOLE: 18.5', (EL.-35.0)		19. SIGNATURE OF INSPECTOR: SAWYER	DRAFTED: RC / CHECKED:

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-16.5	0.0					HOLE DRILLED UNDER WATER	
	2.0		(SC) MED GRAY CLAYEY SAND, FINE GRAIN-		1		0
	3.0						
	4.5		(SM) MED GRAY SILTY SAND, FINE GRAIN		2		14
	6.0		NO SAMPLE - ASSUMED (SM) SAME AS ABOVE.		-		16
	7.5		(SM) MED GRAY SILTY SAND, FINE GRAIN W/ BITS & FRAGMENTS OF SHELLS		3		40
	9.0		NO SAMPLE - ASSUMED (SM) AS ABOVE W/ SHELL BITS				40
	10.5		(SM) MED GRAY SILTY SAND, FINE GRAIN		4		45
	12.0		NO SAMPLE - SAME AS ABOVE AND BELOW.		-		50+
	13.5				-		50+
-30.5	14.0		(SM) MED GRAY SILTY SAND, FINE GRAIN		5		

ENG FORM 1836 (CADD Facsimile) JAN 1 = 1988 | PROJECT: GULFPORT SHIP CHANNEL | HOLE NO.: GSC-13-62

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -16.5 | Hole No. GSC-13-62

PROJECT: GULFPORT SHIP CHANNEL | INSTALLATION: MOBILE DISTRICT | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-30.5	14.0					
	15.0		(SM) MED GRAY SILTY SAND, FINE GRAIN		5	47
	16.0		(SM) MED GRAY SILTY SAND		6	66
-33.5	17.0					B.O.H.

ENG FORM 1836-A (CADD Facsimile) JAN. 1 5 1986

PROJECT: GULFPORT SHIP CHANNEL | HOLE NO. GSC-13-62

Hole No. GSC-14-62

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT SPT	
2. LOCATION (Coordinates or Station) ZONE MS E: N 240480 E 428480		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD) MLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL BARGE	
4. HOLE NO. (As shown on drawing title and file number) GSC-14-62		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 10; UNDISTURBED	
5. NAME OF DRILLER LAMBERT		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER • SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 30 JAN 62; COMPLETED 30 JAN 62	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -9.5	
9. TOTAL DEPTH OF HOLE 28.2', (EL.-37.7)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR SAWYER	DRAFTED RC; CHECKED

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-9.5	0.0					HOLE DRILLED UNDER WATER.
	2.0		(CH) DK GRAY FAT CLAY, ORGANIC COLOR & ODOR, V/ SOFT NO VISIBLE ORGANIC MATTER PRESENT.		1	0
	3.0					
	4.0		(CH) DK GRAY FAT CLAY - SAME AS ABOVE		2	0
	6.0					
	8.0		(CH) DK GRAY FAT CLAY - SAME AS ABOVE		3	0
	9.0					
	10.0		(CH) DK GRAY FAT CLAY - SAME AS ABOVE		4	0
	12.0					
			(CH) DK GRAY FAT CLAY - SAME AS ABOVE		5	0
-23.5	14.0					

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -9.5 | Hole No. GSC-14-62

PROJECT: GULFPORT SHIP CHANNEL | INSTALLATION: MOBILE DISTRICT | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-23.5	14.0					
	15.0		(CH) DK GRAY FAT CLAY - SAME AS ABOVE		JAR #5	
	16.0		(CH) DK GRAY FAT CLAY - SAME AS ABOVE		JAR #6	0
	18.0		(CH) DK GRAY FAT CLAY - SAME AS ABOVE W/ SLIGHT INCREASE IN CONSISTENCY & RESISTANCE AS DEPTH INCREASES.		JAR #7	0
	20.0					
	21.0					
	22.0		(CH) DK GRAY FAT CLAY W/SLIGHT FINE SAND CONTENT - INCREASE IN CONSISTENCY		JAR #8	0
-33.5	24.0					
-34.2	24.7		NO SAMPLE			
	26.2		(CL) & (SC) GRAY SANDY CLAY, HIGHLY PLASTIC W/ CLAYEY FINE SAND CONTENT, W/ CLAY CONTENT ACTIVE.		JAR #9	8
			(CL) GRAY & YELLOW SANDY CLAY, STIFF W/ YELLOW (CH) FAT CLAY IN MOTTLED GRAY & YELLOW PATTERN.		JAR #10	21
-37.7	28.2					B.O.H.

ENG FORM 1836-A (CADD Possible) JAN. 1 5 1988

PROJECT: GULFPORT SHIP CHANNEL | HOLE NO. GSC-14-62

Hole No. GSC-15-62

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT SPT	
2. LOCATION (Coordinates or Station) ZONE MS E: N 224920 E 440200		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD) MLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL BARGE	
4. HOLE NO. (As shown on drawing title and file number) GSC-15-62		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 7; UNDISTURBED	
5. NAME OF DRILLER LAMBERT		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER * SEE 'REMARKS'	
		16. DATE HOLE STARTED 31 JAN 62 COMPLETED 31 JAN 62	
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE -14.5	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING	
9. TOTAL DEPTH OF HOLE 22.0', (EL.-36.5)		19. SIGNATURE OF INSPECTOR MOORE; DRAFTED RC; CHECKED	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-14.5	0.0					HOLE DRILLED UNDER WATER	
	2.0		(CH) DK GRAY FAT, ORGANIC COLOR, SLIGHT ORG ODOR NO VISIBLE ORG MATTER, V/ SOFT		1		0
	3.0						
	4.0		(CH) DK GRAY FAT CLAY - SIMILAR MATERIAL AS ABOVE		2		0
	6.0						
	8.0		(CH) DK GRAY FAT CLAY - SIMILAR MATERIAL AS ABOVE		3		0
	9.0						
	10.0		(CH) DK GRAY FAT CLAY - SIMILAR MATERIAL AS ABOVE		4		0
	12.0						
-28.5	14.0		(CH) GRAY FAT CLAY W/ SOME (CL) SANDY CLAY & (SC) CLAYEY SAND W/ BITS OF SHELL		5		0

ENG FORM 1836 (CADD Facsimile) JAN 15 1988

PROJECT GULFPORT SHIP CHANNEL

HOLE NO. GSC-15-62

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE -14.5	Hole No. GSC-15-62
PROJECT GULFPORT SHIP CHANNEL	INSTALLATION MOBILE DISTRICT	SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-28.5	14.0					
-29.5	15.0		(CH) GRAY FAT CLAY W/ SOME (CL) SANDY CLAY & (SC) CLAYEY SAND W/ BITS OF SHELL		5	
	16.0		(CL) GRAY & YELLOW SANDY CLAY, HIGHLY PLASTIC W/ YELLOW (CH) FAT CLAY IN MOTTLED YELLOW & GRAY PATTERN, CONSISTENCY BECOMING FIRMER		6	0
	18.0		(CL) ASSUMED SAME AS ABOVE - NO SAMPLE RETAINED IN SPOON		-	8
	19.5		(CL) GRAY & YELLOW SANDY CLAY		7	6
-36.0	21.5					B.O.H.

Hole No. GSC-16-62

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT GULFPORT SHIP CHANNEL		10. SIZE AND TYPE OF BIT SPT	
2. LOCATION (Coordinates or Station) ZONE MS E: N 211400 E 450200		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD) MLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL BARGE	
4. HOLE NO. (As shown on drawing title and file number) GSC-16-62		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5	UNDISTURBED
5. NAME OF DRILLER LAMBERT		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER • SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 1FEB 62	COMPLETED 1FEB 62
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -21.5	
9. TOTAL DEPTH OF HOLE 16.0', (EL.-37.5)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR MOORE	DRAFTED RC / CHECKED

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
	2.0		(CH) DK GRAY FAT CLAY, ORG COLOR & ODOR, V/ SOFT, SEMI-FLUID, NO VISIBLE ORG MATTER		1	0
	4.0		(CH) DK GRAY FAT CLAY, SOFT, W/ MINUTE LAYERS OF SILTY FINE SAND (GRAY)		2	0
	6.0					
	8.0		(CH) DK GRAY FAT CLAY, SAME AS ABOVE W/ BITS OF SHELL		3	0
	9.0					
	10.0		(CH) DK GRAY FAT CLAY, SAME AS ABOVE		4	0
	12.0					
			(CH) GRAY FAT CLAY, WITH FINE SILTY SAND LAYER, V/SMALL NO SAMPLE RETAINED		-	0

ENG FORM 1836 (CADD Facsimile) JAN 15 1999 | PROJECT GULFPORT SHIP CHANNEL | HOLE NO. GSC-16-62

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE -21.5	Hole No. GSC-16-62
PROJECT GULFPORT SHIP CHANNEL	INSTALLATION MOBILE DISTRICT	SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-36.0	14.5		(CH) GR FAT CLAY, FN SILTY SAND LAYER, NO SAMPLE TAKEN		-	
-37.5	15.0		(CL) GRAY SANDY CLAY, V/ PLASTIC W/ (ML OR SC) CLAYEY FINE SAND, SMALL LAYERS		5	22 B.O.H.

ENG FORM 1836-A (CADD Possible) JAN 1 5 19??

PROJECT GULFPORT SHIP CHANNEL

HOLE NO. GSC-16-62

Hole No. P-1

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: GULFPORT HARBOR, MS.		10. SIZE AND TYPE OF BIT: ?	
2. LOCATION (Coordinates or Station): 8000' RT. ANGLE TO BN 64		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): P-1		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3	UNDISTURBED
5. NAME OF DRILLER: NIX		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: * SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE ? year: STARTED 4/23	COMPLETED 4/23
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -15.5	
9. TOTAL DEPTH OF HOLE: 24.5', (EL.-40.0)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: FLOYD	DRAFTED: WRS CHECKED

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-15.5	0.0					G.W. EL. N/A HOLE DRILLED UNDERWATER
	3.0					
	6.0		(SC) DARK GRAY MUCK W/ FEW OYSTER SHELLS		B651	
	9.0					
-28.0	12.5					
	15.0					
	18.0		(SM) SILTY SAND		X134	
-36.5	21.0					

ENG FORM 1836 JAN. 27 1988 (CADD Facsimile) | PROJECT: GULFPORT HARBOR, MS. | HOLE NO. P-1

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE -15.5	Hole No. P-1
PROJECT GULFPORT HARBOR, MS.	INSTALLATION MOBILE DISTRICT	SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR R.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-36.5	21.0		(SM) SILTY SAND		X134	
	22.6		(SM) SILTY SAND		994	
-40.0	24.5					B.O.H.

Hole No. P-2

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT HARBOR, MS.		10. SIZE AND TYPE OF BIT: ?	
2. LOCATION (Coordinates or Station): 6000' RT. ANGLE TO BN. 64		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or HGYD): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): P-2		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 / UNDISTURBED	
5. NAME OF DRILLER: NIX		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: * SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE ? year: STARTED 4/23 / COMPLETED 4/23	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -14.0	
9. TOTAL DEPTH OF HOLE: 12.0', (EL.-26.0)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: FLOYD	DRAFTED: WRS / CHECKED:

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) SPT BLOWS/FT g
-14.0	0.0					
	3.0					G.W. EL. N/A HOLE DRILLED UNDERWATER
	6.0		(SM-SC) DARK GRAY MUCK W/ SANDY CLAY		X136	
	9.0					
-26.0	12.0					B.O.H.

ENG FORM 1836 (CADD Facsimile)

PROJECT: GULFPORT HARBOR, MS.

HOLE NO. P-2

Hole No. P-3

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT HARBOR, MS.		10. SIZE AND TYPE OF BIT: F/T	
2. LOCATION (Coordinates or Station): 4000' RT. ANGLE TO BN 64		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): P-3		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 / UNDISTURBED	
5. NAME OF DRILLER: NIX		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: ± SEE "REMARKS"	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: ?year STARTED 4/23 COMPLETED 4/23	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -12.5	
9. TOTAL DEPTH OF HOLE: 19.4', (EL.-31.9)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: FLOYD	DRAFTED: WRS / CHECKED:

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g — BPF BLOWS/FT
-12.5	0.0					G.W. EL. N/A HOLE DRILLED UNDERWATER
	3.0					
	6.0					
	9.0		(SM) DARK GRAY MUCK W/ SANDY CLAY		X137	
	12.0					
	15.0					
-31.9	19.4					B.O.H.

ENG FORM 1836 (CADD Possible) JAN. 27 1988 | PROJECT: GULFPORT HARBOR, MS. | HOLE NO.: P-3

Hole No. P-4

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT GULFPORT HARBOR, MS.		10. SIZE AND TYPE OF BIT F/T	
2. LOCATION (Coordinates or Station) 2000' RT. ANGLE TO BN 64		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD) MLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL BARGE	
4. HOLE NO. (As shown on drawing title and file number) P-4		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED	UNDISTURBED
5. NAME OF DRILLER NIX		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER • SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE 1 year STARTED 4/23	COMPLETED 4/23
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -11.0	
9. TOTAL DEPTH OF HOLE 41.0', (EL.-52.0)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR FLOYD	DRAWN WRS / CHECKED

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-11.0	0.0					G.W. N/A HOLE DRILLED UNDERWATER
	3.0					
	6.0					
	9.0		(CH) DARK GRAY MUCK W/ SILTY SAND		X144	
	12.0					
	15.0					
	18.0					
-32.0	21.0					

SPT BLOWS/FT

ENG FORM 1836 JAN. 27 1983 (CADD Facsimile) | PROJECT GULFPORT HARBOR, MS. | HOLE NO. P-4

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -11.0 | Hole No. P-4

PROJECT: GULFPORT HARBOR, MS. | INSTALLATION: MOBILE DISTRICT | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-32.0	21.0					
	24.0		(CH) DARK GRAY MUCK W/ SILTY SAND		X144	
-36.5	25.5					
	27.0		(SC) CLAYEY SAND W/FEW OYSTER SHELLS		X128	
	30.0					
-43.0	32.0					
			SAMPLE NOT DESCRIBED		A351	
-52.0	41.0					B.O.H.

ENG FORM 1836-A (CADD Facsimile) JAN. 27 1988 | PROJECT: GULFPORT HARBOR, MS. | HOLE NO. P-4

Hole No. P-5

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT HARBOR, MS.		10. SIZE AND TYPE OF BIT F/T	
2. LOCATION (Coordinates or Station) 2000' LEFT ANGLE TO BN 64		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD) MLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTORER'S DESIGNATION OF DRILL BARGE	
4. HOLE NO. (As shown on drawing title and file number) P-5		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1	UNDISTURBED
5. NAME OF DRILLER NIX		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER * SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE ?year STARTED 4/5	COMPLETED 4/5
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -12.0	
9. TOTAL DEPTH OF HOLE 15.1', (EL.-27.1)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR FLOYD	DRAFTED WRS / CHECKED

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	X CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g (PT BLOWS/FT)
-12.0	0.0					
	3.0					G.W. N/A HOLED DRILLED UNDERWATER
	6.0		(CH) DARK GRAY MUCK W/ SILTY SANDY CLAY		X127	
	9.0					
	12.0					
-27.1	15.1					B.O.H.

ENG FORM 1836 JAN. 27 1988 (CADD Feasible) | PROJECT GULFPORT HARBOR, MS. | HOLE NO. P-5

Hole No. P-6

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT HARBOR, MS.		10. SIZE AND TYPE OF BIT F/T	
2. LOCATION (Coordinates or Station) 4000' LEFT ANGLE TO BN 64		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD) MLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL BARGE	
4. HOLE NO. (As shown on drawing title and file number) P-6		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 1 / UNDISTURBED
5. NAME OF DRILLER NIX		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER * SEE "REMARKS"	
		16. DATE HOLE ?year	STARTED 4/5 / COMPLETED 4/5
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE -12.0	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING	
9. TOTAL DEPTH OF HOLE 14.1', (EL.-26.1)		19. SIGNATURE OF INSPECTOR FLOYD	DRAFTED WRS / CHECKED

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR R.Q.D. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-12.0	0.0					G.W. N/A HOLE DRILLED UNDERWATER
	3.0					
	6.0		(SC) DARK GRAY MUCK W/ SANDY CLAY		A435	
	9.0					
	12.0					
-26.1	14.1					B.O.H.

ENG FORM 1836 JAN. 27 1988 (CADD Facsimile) | PROJECT GULFPORT HARBOR, MS. | HOLE NO. P-6

Hole No. P-7

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT GULFPORT HARBOR, MS.		10. SIZE AND TYPE OF BIT F/T	
2. LOCATION (Coordinates or Station) 6000' LEFT ANGLE TO BN 64		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD) MLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL BARGE	
4. HOLE NO. (As shown on drawing title and file number) P-7		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2	UNDISTURBED
5. NAME OF DRILLER NIX		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER ± SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE ? year STARTED 4/22	COMPLETED 4/22
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -12.0	
9. TOTAL DEPTH OF HOLE 27.0', (EL.-39.0)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR FLOYD	DRAFTED WRS / CHECKED

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g / SPT BLOWS/FT
-12.0	0.0					G.W. N/A HOLE DRILLED UNDERWATER
	3.0					
	6.0					
	9.0		(CH) DARK GRAY MUCK		X142	
	12.0					
	15.0					
	18.0					
-32.8	20.8		(CH) DARK GRAY CLAY W/ LITTLE		B365	
-35.0	23.0		SAND			

ENG FORM 1836 (CADD Feasible) JAN. 27 1988

PROJECT GULFPORT HARBOR, MS.

HOLE NO. P-7

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -12.0 | Hole No. P-7

PROJECT: GULFPORT HARBOR, MS. | INSTALLATION: MOBILE DISTRICT | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-33.0	21.0		(CH) DARK GRAY CLAY W/ LITTLE SAND		B365	
-39.0	27.0					B.O.H.

Hole No. P-8

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT GULFPORT HARBOR, MS.		10. SIZE AND TYPE OF BIT F/T	
2. LOCATION (Coordinates or Station) 8000' LEFT ANGLE TO BN 64		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or HGVD) MLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL BARGE	
4. HOLE NO. (As shown on drawing title and file number) P-8		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2	UNDISTURBED
5. NAME OF DRILLER NIX		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER ± SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE ? year STARTED 4/22	COMPLETED 4/22
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -12.0	
9. TOTAL DEPTH OF HOLE 27.2', (EL.-39.2)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR FLOYD	DRAFTED WRS / CHECKED

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-12.0	0.0					G.W. N/A HOLE DRILLED UNDERWATER
	3.0					
	6.0					
	9.0		(CH) DARK GRAY MUCK		475	
	12.0					
	15.0					
	18.0					
-32.4	20.4					
-33.0	21.0		(OL) DARK GRAY CLAY W/ LITTLE SAND		878	

ENG FORM 1836 (CADD Facsimile) JAN. 27 1988 | PROJECT GULFPORT HARBOR, MS. | HOLE NO. P-8

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE -12.0	Hole No. P-8
PROJECT GULFPORT HARBOR, MS.	INSTALLATION MOBILE DISTRICT	SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-33.0	21.0		(OL) DARK GRAY CLAY W/ LITTLE SAND		878	
-39.2	27.2					B.O.H.

Hole No. 1

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT GULFPORT HARBOR		10. SIZE AND TYPE OF BIT F/T	
2. LOCATION (Coordinates or Station) ZONE MS E: N 248300 E 421400		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD) MLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTORER'S DESIGNATION OF DRILL BARGE	
4. HOLE NO. (As shown on drawing title and file number) 1		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2	UNDISTURBED
5. NAME OF DRILLER NIX		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER • SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED	COMPLETED
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -13.0	
9. TOTAL DEPTH OF HOLE 22.5', (EL.-35.5)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR FLOYD	DRAFTED WRS / CHECKED

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-13.0	0.0					C.W. N/A. HOLE DRILLED UNDERWATER
	3.0					
	6.0					
	9.0		(CH) DRAK GRAY MUCK		B24	
	12.0					
	15.0					
	18.0					
-34.0	21.0					

ENG FORM 1836
(CADD Facsimile) JAN 27 1988

PROJECT GULFPORT HARBOR

HOLE NO.

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE -13.0	Hole No. 1
PROJECT GULFPORT HARBOR	INSTALLATION MOBILE DISTRICT	SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-34.0	21.0					
-34.5	21.5		(CH) DRAK GRAY MUCK		B24	
-35.5	22.5		(MH) SAMPLED NOT DESCRIBED		B6	B.O.H.

ENG FORM 1836-A (CADD Facsimile) JAN 27 1988

PROJECT GULFPORT HARBOR

HOLE NO. 1

Hole No. I-A

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT GULFPORT HARBOR		10. SIZE AND TYPE OF BIT F/T	
2. LOCATION (Coordinates or Station) 90' FROM EDGE OF CHANNEL AT LEFT ANGLE TO FL-73		11. DATUM FOR ELEVATION SHOWN (MSL, MLW or NGVD) MLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL BARGE	
4. HOLE NO. (As shown on drawing title and file number) I-A		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1; UNDISTURBED	
5. NAME OF DRILLER NIX		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER * SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED; COMPLETED	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -10.5	
9. TOTAL DEPTH OF HOLE 25.0', (EL.-35.5)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR FLOYD	DRAFTED WRS; CHECKED

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR R.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-10.5	0.0					G.W. N/A. HOLE DRILLED UNDERWATER
	3.0					
	6.0					
	9.0					
			(CH) DRAK GRAY MUCK W/SANDY CLAY		B346	
	12.0					
	15.0					
	18.0					
-31.5	21.0					

ENG FORM 1836 (CADD Facsimile) JAN 27 1986

PROJECT GULFPORT HARBOR

HOLE NO. I-A

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -10.5 | Hole No. I-A

PROJECT GULFPORT HARBOR | INSTALLATION MOBILE DISTRICT | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-31.5	21.0		(CH) DRAK GRAY MUCK W/SANDY CLAY		B346	
-35.5	25.0					B.O.H.

Hole No. 2

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: GULFPORT HARBOR		10. SIZE AND TYPE OF BIT: F/T	
2. LOCATION (Coordinates or Station): ZONE MS E: N 242600 E 426000		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTORER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): 2		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 / UNDISTURBED	
5. NAME OF DRILLER: NIX		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: * SEE 'REMARKS'	
		16. DATE HOLE: STARTED / COMPLETED	
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE: -11.0	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING	
9. TOTAL DEPTH OF HOLE: 25.3', (EL.-36.3)		19. SIGNATURE OF INSPECTOR: FLOYD	DRAFTED: WRS / CHECKED:

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) SPT BLOWS/FT g
-11.0	0.0					
	3.0					G.W. N/A. HOLE DRILLED UNDERWATER
	6.0					
	9.0		(CH) DRAK GRAY MUCK		75	
	12.0					
	15.0					
	18.0					
-32.0	21.0					

ENG FORM 1836 JAN 27 1988 (CADD Facsimile) | PROJECT: GULFPORT HARBOR | HOLE NO. 2

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE -11.0	Hole No. 2
PROJECT GULFPORT HARBOR	INSTALLATION MOBILE DISTRICT	SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-32.0	21.0		(CH) DRAK GRAY MUCK		75	G.W. N/A. HOLE DRILLED UNDERWATER
-36.3	25.3					B.O.H.

Hole No. 3

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT HARBOR		10. SIZE AND TYPE OF BIT: F/T	
2. LOCATION (Coordinates or Station): ZONE MS E: N 235733 E 431133		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): 3		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 / UNDISTURBED	
5. NAME OF DRILLER: NIX		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: • SEE 'REMARKS'	
		16. DATE HOLE: STARTED / COMPLETED	
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE: -12.0	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING	
9. TOTAL DEPTH OF HOLE: 16.5', (EL.-28.5)		19. SIGNATURE OF INSPECTOR: FLOYD	DRAFTED: WRS / CHECKED:

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR R.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-12.0	0.0					
	3.0					G.W. N/A. HOLE DRILLED UNDERWATER
	6.0					
			(SC-H) DARK GRAY MUCK W/ SAND		B255	
	9.0					
	12.0					
	15.0					
-28.5	16.5					B.O.H.

ENG FORM 1836 (CADD Facsimile) JAN 27 1988 | PROJECT: GULFPORT HARBOR | HOLE NO.: 3

Hole No. 4

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT GULFPORT HARBOR		10. SIZE AND TYPE OF BIT F/T	
2. LOCATION (Coordinates or Station) ZONE MS E: N 229267 E 435700		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD) MLW	
3. DRILLING AGENCY MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL BARGE	
4. HOLE NO. (As shown on drawing title and file number) 4		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1; UNDISTURBED	
5. NAME OF DRILLER NIX		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER • SEE 'REMARKS'	
		16. DATE HOLE STARTED; COMPLETED	
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE -15.5	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING	
9. TOTAL DEPTH OF HOLE 17.5', (EL.-33.0)		19. SIGNATURE OF INSPECTOR FLOYD	DRAFTED WRS; CHECKED

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-15.5	0.0					G.W. N/A. HOLE DRILLED UNDERWATER
	3.0					
	6.0					
	9.0				X125	
	12.0					
	15.0					
-33.0	17.5					B.O.H.

ENG FORM 1836 (CADD Facsimile) JAN 07 1988

PROJECT GULFPORT HARBOR

HOLE NO. 4

Hole No. 5

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT HARBOR		10. SIZE AND TYPE OF BIT: F/T	
2. LOCATION (Coordinates or Station): ZONE MS E: N 219600 E 442733		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): 5		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 / UNDISTURBED	
5. NAME OF DRILLER: NIX		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: a SEE 'REMARKS'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED / COMPLETED	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -15.5	
9. TOTAL DEPTH OF HOLE: 15.5', (EL.-31.0)		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: FLOYD	DRAFTED: WRS / CHECKED:

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if signif(ocnt) g — SPT BLOWS/FT
-15.5	0.0					G.W. N/A. HOLE DRILLED UNDERWATER
	3.0					
	6.0		(SC-H) DARK GRAY MUCK W/ SAND		56	
	9.0					
	12.0					
-31.0	15.5					B.O.H.

Hole No. 6

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT: GULFPORT HARBOR		10. SIZE AND TYPE OF BIT: F/T	
2. LOCATION (Coordinates or Station): ZONE MS E: N 205933 E 452833		11. DATUM FOR ELEVATION SHOWN (TBM, MSL or NGVD): MLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): 6		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 1 / UNDISTURBED	
5. NAME OF DRILLER: NIX		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: • SEE 'REMARKS'	
		16. DATE HOLE: STARTED / COMPLETED	
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE: -23.0	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING	
9. TOTAL DEPTH OF HOLE: 2.5', (EL.-25.5)		19. SIGNATURE OF INSPECTOR: FLOYD	DRAFTED: WRS / CHECKED:

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-23.0	0.0		(SM) SILTY SAND		X132	G.W. N/A. HOLE DRILLED UNDERWATER
-25.5	2.5					B.O.H.

ENG FORM 1836 (CADD Facsimile) JAN. 27 1988

PROJECT: GULFPORT HARBOR

HOLE NO. 6

SUMMARY OF TEST RESULTS

GULFPORT HARBOR AND CHANNEL IMPROVEMENTS, GENERAL DESIGN MEMORANDUM
LABORATORY TEST RESULTS FROM SAMPLES OBTAINED VIA 1987 VIBRACORE BORINGS

FILE NAME PORT BORING	SAMPLE EL. MLLW	LAB CLASS	FIELD CLASS	% WATER	LIQ. LIMIT	PLAS. LIMIT	PI	LOI	SPEC GRAV	DRY WT.	SAT. WT. (CALC'D)	TOR TSF	PEN TSF	C TSF	PHI	q TSF	SIEV ANAL	PETR ANAL
GP-1-87	-33.4/-33.9	CH	ML	266	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-42.4/-42.9	SP	SP	-	NP	NP	NP			-	-			-		-	MA	-
GP-2-87	-33.4/-33.9	CH	ML	201	-	-	-	9.6	2.67	-	80	-	-	-	-	-	-	-
	-35.3/-35.8	SP-SM	SM	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GP-3-87	-27.3/-30.3	CH	ML	186	157	49	108	9.9	2.57	26.9	95	-	-	-	-	-	MA/HY	-
	-30.3/-33.3	CH,SC,SP	SM	18	-	-	-	-	-	97.4	115	-	-	-	-	-	-	-
	-33.3/-36.3	CL	SM	22	26	17	9	-	2.62	103.3	128	-	-	-	-	-	MA/HY	-
	-36.3/-39.3	SM	SM	22	-	-	-	-	-	105.7	129	-	-	-	-	-	-	-
	-39.3/-40.5	-	ML	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GP-4-87	-40.9/-41.4	-	CH	-	-	-	-	-	-	-	-	0.29	0.5	-	-	-	-	-
GP-5-87	-31.6/-32.1	CH	ML	185	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-35.6/-36.1	CH	CH	81	-	-	-	-	-	-	-	0.21	0.7	-	-	-	-	-
	-39.6/-40.1	SM	SM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-42.6/-43.1	SP	SP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-44.4/-44.9	SM	SM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GP-6-87	-34.3/-34.8	CH	ML	190	-	-	-	9.4	-	-	-	-	-	-	-	-	-	-
	-40.3/-40.8	CH	CH	86	-	-	-	-	-	-	-	0.20	0.25	-	-	-	-	-
	-46.3/-46.8	-	SP	-	-	-	-	-	-	-	-	-	-	-	-	-	MA	-
GP-7-87	-33.9/-34.4	CH	ML	200	164	50	114	-	-	-	-	-	-	-	-	-	-	-
	-38.1/-38.7	-	CH	-	-	-	-	-	-	-	-	0.05	0.0	-	-	-	-	-
	-39.5/-40.0	SM	SP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-42.9/-43.4	SC	CH	35	-	-	-	-	-	-	-	0.09	0.4	-	-	-	-	-
	-45.6/-46.1	CH	CH	59	-	-	-	-	-	-	-	0.13	0.5	-	-	-	-	-
GP-8-87	-14.8/-17.8	CH	ML	147	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-17.8/-20.8	CH	ML	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-20.8/-23.8	CH	ML	98	74	22	52	6.5	2.65	45.4	92	-	-	-	-	-	MA/HY	-
	-23.8/-26.8	CH	SC	57	54	16	38	-	2.64	65.9	104	-	-	-	-	-	MA/HY	-
	-26.8/-29.5	-	CH	-	-	-	-	-	-	-	-	0.15	0.5	-	-	-	-	-
GP-9-87	-35.3/-35.8	CH	ML	223	-	-	-	9.3	2.64	-	78	-	-	-	-	-	-	-
	-42.3/-42.8	SP	SM	27	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	-
GP-10-87	-29.1/-29.6	CH	MH	90	83	27	56	-	-	-	-	0.05	0.0	-	-	-	MA/HY	-
	-36.6/-37.1	-	SM	-	-	-	-	-	-	-	-	-	-	-	-	-	MA	-

GULFPORT HARBOR AND CHANNEL IMPROVEMENTS, GENERAL DESIGN MEMORANDUM

LABORATORY TEST RESULTS FROM SAMPLES OBTAINED VIA 1987 VIBRACORE BORINGS

BORING	SAMPLE EL. MLLW	LAB CLASS	FIELD CLASS	% WATER	LIQ. LIMIT	PLAS. LIMIT	PI	LOI	SPEC GRAV	DRY WT.	SAT. WT. (CALC'D)	TOR TSF	PEN TSF	C TSF	PHI	q TSF	SIEV ANAL	PETR ANAL
GP-11-87	-33.9/-36.9	CH,SC	CH	43	73	23	50	-	-	75.9	109	-	-	-	-	-	-	-
	-36.9/-39.9	SM	SM	23	-	-	-	-	-	98.1	121	-	-	-	-	-	MA	-
	-43.9/-44.4	SP-SM	SM	23	-	-	-			-					-		-	-
GP-12-87	-29.8/-30.3	SC	ML	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-32.3/-32.8	SM	SM	-	-	-	-	-	-	-	-	0.18	0.25	-	-	-	-	-
	-38.5/-39.0	SM-SC	SC	21	22	15	7	-	2.60	-	128	0.08	0.4	-	-	-	MA/HY	-
	-44.6/-45.1	SC	CL	34	40	16	24	-	2.63	-	117	0.22	0.25	-	-	-	MA/HY	-
GP-13-87	-36.2/-36.7	SP	SM	-	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	-
	-46.2/-46.7	CH	CH	37	56	16	40	-		-	-	0.3	0.5	-	-	-	-	-
GP-14-87	-33.3/-36.3	SP-SM	SP	25	NP	NP	NP	-	-	83.8	105	-	-	-	-	-	MA	-
	-36.3/-39.3	SP	SP	-	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	YES
	-39.3/-42.3	SP	SP	20	NP	NP	NP	-	-	94.2	113	-	-	-	-	-	MA	-
	-44.5/-45.0	SC	CH	37	49	18	31	-	-	-	-	0.19	0.4	-	-	-	-	-
	-50.3/-50.8	CH	CH	37	-	-	-	-	-	-	-	0.27	0.4	-	-	-	-	-
GP-15-87	-29.9/-30.4	SP	SP	-	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	YES
GP-16-87	-24.8/-25.3	SP	SP	-	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	-
	-34.8/-35.3	SC	CL	34	-	-	-	-	-	-	-	0.12	0.25	-	-	-	-	-
	-38.8/-39.3	SM	SM	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-43.8/-44.3	SM	ML	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-45.8/-46.3	CH	CH	-	-	-	-	-	-	-	-	0.15	0.05	-	-	-	-	-
GP-17-87	-19.4/-19.9	SP-SM	SM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-23.4/-23.9	SP	SP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-29.9/-30.4	-	SM	-	-	-	-	-	-	-	-	-	-	-	-	-	MA	-
	-34.9/-35.4	-	SM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GP-18-87	-33.1/-33.6	SP	SP	-	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	-
GP-19-87	-23.4/-23.9	-	SP	-	-	-	-	-	-	-	-	-	-	-	-	-	MA	-
	-36.9/-37.4	SM-SC	SC	21	20	15	5	-	-	-	-	-	-	-	-	-	-	-
	-42.9/-43.4	CH	ML	32	25	24	1	-	-	-	-	0.11	0.1	-	-	-	-	-
GP-20-87	-41.3/-41.8	SP	SM	-	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	-

GULFPORT HARBOR AND CHANNEL IMPROVEMENTS, GENERAL DESIGN MEMORANDUM

LABORATORY TEST RESULTS FROM SAMPLES OBTAINED VIA 1987 VIBRACORE BORINGS

BORING	SAMPLE EL. MLLW	LAB CLASS	FIELD CLASS	% WATER	LIQ. LIMIT	PLAS. LIMIT	PI	LOI	SPEC GRAV	DRY WT.	SAT. WT. (CALC'D)	TOR TSF	PEN TSF	C TSF	PHI	q TSF	SIEV ANAL	PETR ANAL
GP-21-87	-27.2/-27.7	SC	SP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-31.2/-31.7	SP	SM	-	NP	NP	NP			-					-	-	MA	
	-39.2/-39.7	SP-SM	SM	-	NP	NP	NP		-	-		-	-	-	-	-	MA	-
GP-22-87	-24.1/-24.6	SP	SP	-	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	-
	-30.1/-30.6	CH	CH	51	-	-	-	-	-	-	-	0.12	0.55	-	-	-	-	-
	-35.8/-36.3	-	CH	-	-	-	-	-	-	-	-	0.11	0.1	-	-	-	-	-
	-38.1/-38.6	SP	SP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-44.6/-45.1	SP	SM	-	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	-
GP-23-87	-42.4/-42.9	SM	SM	28	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	-
	-32.4/-32.9	CH	CL	114	-	-	-	-	-	-	-	0.066	0.0	-	-	-	-	-
	-36.6/-37.1	SM	SM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-42.4/-42.9	SP	SP	-	NP	NP	NP	-	-	-	-	-	-	-	-	-	-	-
GP-25-87	-21.7/-22.2	SP	SP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-28.7/-29.2	CH	CH	108	107	28	79	-	-	-	-	0.10	0.0	-	-	-	-	-
	-38.2/-38.7	SP-SM	SM	31	NP	NP	NP	-		-	-	-	-	-	-	-	MA	-
GP-26-87	-24.9/-25.4	SC	SM	49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-30.4/-30.9	CH	CH	107	-	-	-	-	-	-	-	0.094	0.0	-	-	-	-	-
	-36.9/-37.4	SP	SM	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GP-27-87	-31.8/-32.3	CH	CH	100	-	-	-	-	-	-	-	0.11	0.1	-	-	-	-	-
	-41.8/-42.3	SP-SM	SM	-	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	-
GP-28-87	-22.9/-23.4	SP	SP	-	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	-
	-33.9/-34.4	CH	CH	98	104	29	75	-	-	-	-	0.108	0.0	-	-	-	-	-
	-43.9/-44.4	SP-SM	SM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GP-29-87	-33.1/-36.1	CH,SP	ML	161	-	-	-	-	-	32	-	-	-	-	-	-	-	-
	-36.1/-39.1	CH	ML	85	83	22	61	6.9	2.61	51	95	-	-	-	-	-	MA/HY	-
	-40.1/-40.6	CH	ML	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-45.1/-45.6	SM	SM	28	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	-
GP-30-87	-22.1/-22.6	SP	SP	-	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	-
	-28.6/-29.1	-	SM	-	-	-	-	-	-	-	-	0.25	0.0	-	-	-	MA	-
	-35.6/-36.1	CH	CH	100	-	-	-	-	-	-	-	0.09	0.1	-	-	-	-	-
GP-31-87	-24.3/-24.8	SP	SP	-	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	-
	-35.8/-36.3	CH	CH	104	115	39	76	-	-	-	-	0.11	0.0	-	-	-	-	-

GULFPORT HARBOR AND CHANNEL IMPROVEMENTS, GENERAL DESIGN MEMORANDUM

LABORATORY TEST RESULTS FROM SAMPLES OBTAINED VIA 1987 VIBRACORE BORINGS

BORING	SAMPLE EL. MLLW	LAB CLASS	FIELD CLASS	% WATER	LIQ. LIMIT	PLAS. LIMIT	PI	LOI	SPEC GRAV	DRY WT.	SAT. WT. (CALC'D)	TOR TSF	PEN TSF	C TSF	PHI	q TSF	SIEV ANAL	PETR ANAL
GP-32-87	-26.4/-26.9	SP-SM	SM	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-32.4/-32.9	CH	CH	93	77	24	53	-	-	-	-	0.074	0.0	-	-	-	-	-
	-38.9/-39.4	SM	SM	-	-	-	-			-					-	-	-	
GP-33-87	-30.1/-30.6	CH	CL	101	86	24	62	-	2.64	-	91	0.074	0.0	-	-	-	MA	-
GP-36-87	-36.7/-37.2	CH	ML	115	-	-	-	7.4	2.68	-	89	-		-	-	-	-	-
	-44.2/-44.7	CH	CL	119	-	-	-	-	-	-	-	0.068	-	-	-	-	-	-
	-47.7/-48.2	SM	SM	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GP-37-87	-29.6/-32.6	CH	CL	178	117	28	89	-	2.65	29	81	-	-	-	-	-	-	-
	-32.6/-35.6	CH	CL	126	-	-	-	-	2.69	37.7	85	-	-	-	-	-	-	-
	-35.6/-38.6	CH	CH	111	116	32	84	-	-	41.7	87	-	-	-	-	-	-	-
	-38.6/-39.1	CH	CH	-	-	-	-	-	-	-	-	0.05	0.05	-	-	-	-	-
GP-38-87	-40.5/-41.0	CH	CH	127	117	30	87	-	-	-	-	0.09	0.2	-	-	-	-	-
GP-39-87	-33.6/-36.6	CH	CH	119	102	29	73	6.9	2.71	39.5	-	-		-	-	-	-	-
	-36.6/-39.6	CH	CH	116	-	-	-	-	-	-	-	-		-	-	-	-	-
	-43.6/-44.1	CH	CH	119	-	-	-	-	-	-	-	0.098	0.0	-	-	-	-	-
GP-40-87	-42.7/-43.2	CH	CH	104	-	-	-	-	-	-	-	0.07	0.0	-	-	-	-	-
GP-42-87	-44.6/-45.1	CH	CH	120	122	44	78	-	-	-	-	0.07	0.0	-	-	-	-	-
GP-45-87	-36.7/-39.7	CH	CH	150	116	38	78	-	2.65	33.2	84	-	-	-	-	-	MA/HY	-
	-46.7/-47.2	CH	CH	106	-	-	-	-	-	-	-	0.076	0.0	-	-	-	-	-
	55.7/56.2	CH	CH	89	-	-	-	-	-	-	-	0.11	0.05	-	-	-	-	-
GP-48-87	-34.4/-34.9	CH	MH	137	114	29	85	-	-	-	-	0.03	0.0	-	-	-	-	-
	-37.9/-38.4	-	SM	-	-	-	-	-	-	-	-	-	-	-	-	-	MA	-
GP-50-87	-36.5/-40.0	CH	CL	133	118	29	89	-	-	-	-	0.07	0.0	-	-	-	-	-
GP-51-87	-29.9/-30.4	SP	SM	-	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	-
	-37.9/-38.4	SM	ML	30	NP	NP	NP	-	-	-	-	-	-	-	-	-	-	-

GULFPORT HARBOR AND CHANNEL IMPROVEMENTS, GENERAL DESIGN MEMORANDUM

LABORATORY TEST RESULTS FROM SAMPLES OBTAINED VIA 1987 VIBRACORE BORINGS

BORING	SAMPLE EL. MLLW	LAB CLASS	FIELD CLASS	% WATER	LIQ. LIMIT	PLAS. LIMIT	PI	LOI	SPEC GRAV	DRY WT.	SAT. WT. (CALC'D)	TOR TSF	PEN TSF	C TSF	PHI	q TSF	SIEV ANAL	PETR ANAL
GP-52-87	-21.6/-24.6	SP	SP	-	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	-
	-24.6/-27.6	SP	SP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-27.6/-30.6	SP	SP	33	NP	NP	NP	-	2.66	84.2	119						MA	-
	-30.6/-33.6	SP	SP	-	-	-	-			-	-	-	-	-	-	-	-	-
	-33.6/-36.6	-	SM	34	-	-	-	-	-	90.3	-	-	-	-	-	-	MA	-
	-36.6/-37.1	SM	SM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GP-53-87	-24.2/-24.7	SM	SM	27	-	-	-	-	-	-	-	-	-	-	-	-	MA/HY	-
	-31.2/-31.7	SC	CH	56	-	-	-	-	-	-	-	0.11	0.25	-	-	-	-	-
GP-54-87	-14.1/-14.6	SP	SP	-	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	-
GP-55-87	-16.0/-16.5	SP	SP	-	-	-		-	-	-		-	-	-	-	-	-	-
	-20.5/-21.0	CH	CH	130	-	-	-	-			-	0.064	0.0	-	-	-	-	-
	-30.8/-31.3	SP	SP	-	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	-
GP-56-87	-20.1/-20.6	SP	SP	-	NP	NP	NP	-	-	-	-	-	-	-	-	-	MA	-
	-35.6/-36.1	SC-H	SM	21	-	-	-	-	-	-	-	-	-	-	-	-	MA	-
	-40.6/-41.1	SC	CH	26	35	16	19	-	-	-		0.2	0.4	-	-	-	-	-
GP-57-87	-16.3/-16.8	CH	ML	76	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-19.1/-19.6	SM	SM	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-27.1/-27.6	CH	CH	63	-	-	-	-	-	-	-	0.114	0.25	-	-	-	-	-
	-33.1/-33.6	SC-H	SM	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-40.1/-40.6	SP	SP	-	-	-	-	-				-	-	-	-	-	-	-
GP-58-87	-19.9/-20.4	SP	SP	-	NP	NP	NP	-				-	-	-	-	-	MA	-
	-35.9/-36.4	CH	CH	70	-	-	-	-	-	-		0.25	0.18	-	-	-	-	-
	-42.9/-43.4	SP-SM	SM	-	-	-	-	-	-	-		-	-	-	-	-	-	-
GP-59-87	-15.0/-18.0	SC-H	SM	72	58	16	42	-	2.61	58.9	98	-	-	-	-	-	MA	-
	-21.0/-21.5	SM	SM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-26.0/-26.5	CH	CH	61	-	-	-	-	-	-	-	0.138	0.1	-	-	-	-	-
	-30.0/-33.0	CL	CH	31	36	16	20	-	2.67	89.7	121	-	-	-	-	-	MA/HY	-
	-33.0/-36.0	-	SP	23	-	-	-	-	-	96.1	-	-	-	-	-	-	MA	-
	-36.0/-36.5	SP-SM	SP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

GULFPORT HARBOR AND CHANNEL IMPROVEMENTS, GENERAL DESIGN MEMORANDUM

LABORATORY TEST RESULTS FROM SAMPLES OBTAINED VIA 1987 VIBRACORE BORINGS

BORING	SAMPLE EL. MLLW	LAB CLASS	FIELD CLASS	% WATER	LIQ. LIMIT	PLAS. LIMIT	PI	LOI	SPEC GRAV	DRY WT.	SAT. WT. (CALC'D)	TOR TSF	PEN TSF	C TSF	PHI	q TSF	SIEV ANAL	PETR ANAL
GP-60-87	-17.3/-17.8	CH	ML	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-19.3/-19.8	SC	SM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-26.8/-27.3	CH	CH	62	60	18	42	-	-	-	-	-	-	-	-	-	-	-
	-30.8/-31.3	-	SM	-	-	-	-			-			-		-	-	MA	-
	-36.8/-37.3	CH	CH	49	55	16	39	-	-	-	-	-	-	-	-	-	-	-
	-40.3/-40.8	SM	SM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GP-61-87	-14.6/-15.1	CH	ML	162	103	24	79	7.7	-	-	-	-	-	-	-	-	-	-
	-18.6/-19.1	SC	CL	38	44	19	25	-	-	-	-	-	-	-	-	-	-	-
	-26.8/-27.3	CL	CH	33	47	15	32	-	-	-	-	-	-	-	-	-	-	-
	-29.4/-29.9	CL	ML	25	28	19	9	-	-	-	-	-	-	-	-	-	-	-
GP-62-87	-36.3/-36.8	-	SP	-	-	-	-	-	-	-	-	-	-	-	-	-	MA	-
	42.8/-43.3	CH	CH	23	-	-	-	-	-	-	-	0.15	0.25	-	-	-	-	-
	-47.3/-47.8	SM	ML	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GP-63-87	-45.3/-45.8	CH	CH	117	123	40	83	-	-	-	-	0.2	0.1	-	-	-	MA/HY	-

GULFPORT SHIP CHANNEL
SUMMARY OF LAB. TEST RESULTS ON SOIL SAMPLES

Hole No.	Dept From	Dept To	Moisture Content	Percent Passing Sieve Number 10	20	40	60	100	200	Hydrometer % Silt	% Clay	Atterbergs LL	PI	Soil Class.
SS-1	0.0	5.0	223					100	99	62	37	148	115	OH
	5.0	10.0	177			100	99	98	96	56.	40	216	166	OH
	10.0	11.5	25		100	99	94	74	30	12	18	33	17	SC
SS-2	0.0	4.0	188		100	99	97	94	93	56	37	200	151	OH
	4.0	7.8	212					100	99	50	49	153	107	OH
	7.8	9.3	16		100	91	59	32	22	7	15	29		SC
	9.3	10.8	22		100	93	62	37	27	6	21	22	11	SC
SS-3	0.0	8.0	210				100	99	99	52	47	222	175	OH
	8.0	12.0	267				100	99	99	42	57	150	109	OH
	12.0	14.0	68			100	95	85	79	43	36	77	58	OH
	14.0	15.1	83			100	95	87	79	32	47	106	77	CH
SS-4	0.0	6.0	205						100	44	56	190	136	OH
	6.0	15.0	220						99	56	43	279	223	OH
	15.0	16.6	36		100	99	95	80	46	34	12	25	6	SM-SC
SS-5	0.0	7.0	198					100	99	42	57	202	150	OH
	7.0	15.2	216						100	55	45	205	140	OH
SS-6	0.0	6.0	236						100	66	34	337	283	OH
	6.0	13.7	207						100	63	37	370	331	OH
SS-7	0.0	6.0	277						100	52	48	279	233	OH
	6.0	13.7	237						100	57	43	220	149	OH
SS-8	0.0	7.0	71		100	98	89	80	64	34	30	136	92	OH
	7.0	12.0	189			100	99	99	98	55	43	344	277	OH
	12.0	13.5	28		100	98	90	79	62	31	31	57	36	CH
SS-9	0.0	8.0	208						100	51	49	145	92	OH
	8.0	14.0	274						100	50	50	-	-	OH
	14.0	16.0	92			100	99	99	98	70	28	105	74	CH
SS-10	0.0	11.0	220						100	48	52	147	107	OH
	11.0	13.5	79					100	98	69	29	71	37	CH
SS-11	0.0	5.0	201					100	99	46	53	193	147	OH
	5.0	10.5	203				100	99	98	48	50	140	86	OH
	10.5	12.0	25		100	99	96	80	14	9	5	-	-	SM
SS-12	0.0	7.2	161			100	99	98	94	51	43	178	139	OH
	7.2	8.7	23			100	92	65	15	11	4	-	-	SM

GULFPORT SHIP CHANNEL
SUMMARY OF LAB. TEST RESULTS ON SOIL SAMPLES

Hole No.	Dept From	Dept To	Moisture Content	Percent Passing Sieve Number 10	20	40	60	100	200	Hydrometer % Silt	% Clay	Atterbergs LL	PI	Soil Class.
SS-13	0.0	6.5	200				100	99	96	56	40	136	90	OH
	6.5	8.0	31		100	96	90	76	21	13	8	-	-	SC
SS-14	0.0	9.5	183					100	99	54	45	139	96	OH
	9.5	11.0	22		100	98	90	72	39	22	17	27	13	SC
SS-15	0.0	7.5	174				100	97	92	53	39	130	98	OH
	7.5	9.0	22		100	98	97	74	34	21	13	24	8	SC
	9.0	10.5	20			100	97	69	24	17	7	-	-	SC
SS-16	0.0	4.9	206					100	99	55	44	130	95	OH
	4.9	6.4	22			100	99	93	60	42	18	30	13	CL
SS-17	0.0	6.5	143	100	99	99	98	91	71	34	37	73	53	CH
	6.5	8.0	38			100	97	78	31	19	12	-	-	SC
SS-18	0.0	5.0	206				100	98	98	62	36	139	89	OH
	5.0	6.5	26		100	99	85	33	12	7	5	-	-	SM
SS-19	0.0	3.8	194					100	99	59	40	227	188	OH
	3.8	5.3	28		100	99	92	71	39	29	10	27	12	SC
SS-20	0.0	4.3	175				100	96	88	45	43	129	74	OH
	4.3	5.8	39			100	96	81	52	39	13	41	22	CL
	5.8	7.3	46	100	99	99	96	85	61	39	22	49	30	CL
SS-21	0.0	6.5	222				100	99	97	53	44	196	149	OH
	6.5	8.0	214				100	99	95	44	51	163	110	OH
1	0.0	21.5	92			100	99	95	92	37	55	101	66	CH
	21.5	22.5	92			100	98	94	91	32	59	72	36	MH
2	0.0	25.3	60			100	99	98	93	37	56	110	79	CH
3	0.0	16.5	47		100	98	91	67	39	14	25	51	30	SC-H
4	0.0	17.5	142					100	99	37	62	-	-	-
5	0.0	15.5	39		100	97	91	74	45	21	24	59	41	SC-H
6	0.0	2.5	42	100	98	97	92	66	20	14	6	-	-	SM

GULFPORT SHIP CHANNEL
SUMMARY OF LAB. TEST RESULTS ON SOIL SAMPLES

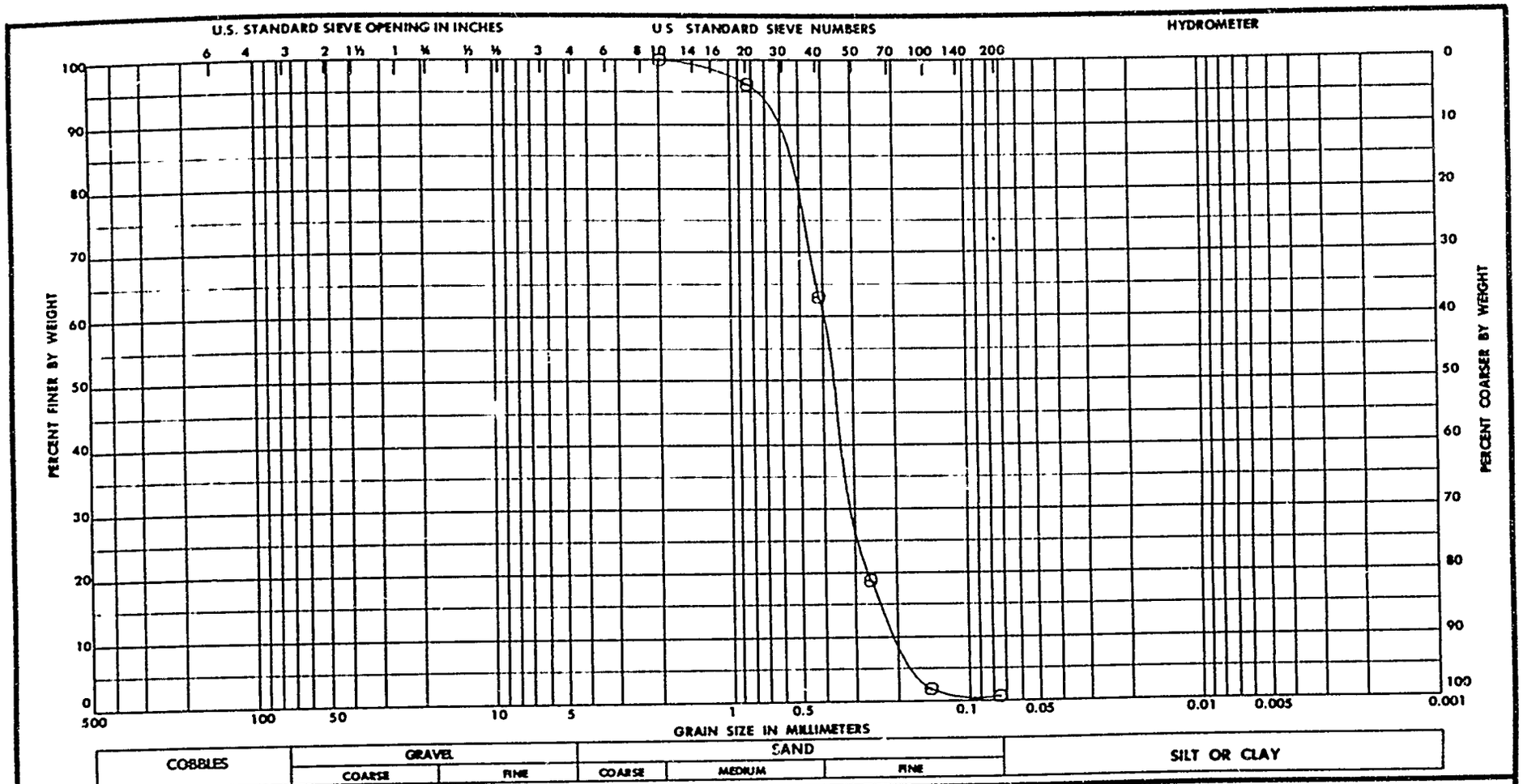
Hole No.	Depth From	Depth To	Moisture Content	Percent Passing Sieve Number 10	20	40	60	100	200	Hydrometer % Silt	% Clay	Atterbergs LL	PI	Soil Class.
P-1	0.0	12.5	71		100	98	89	63	46	6	40	47	27	SC
	12.5	22.6	20		100	94	80	55	16	8	8	-	-	SM
	22.6	24.6	20		100	93	78	55	13	7	6	19	2	SM
P-2	0.0	17.0	22		100	94	80	50	25	10	15	23	5	SM-SC
P-3	0.0	19.4	23		100	99	95	77	36	14	22	17	3	SM
P-4	0.0	25.5	38		100	99	97	89	72	24	48	57	36	CH
	25.5	32.0	24			100	97	87	40	15	25	34	19	SC
	32.0	41.0	28	100	89	84	63	31	14	4	10	-	-	SM
P-5	0.0	15.1	111		100	98	95	86	76	66	10	54	36	CH
P-6	0.0	14.1	39		100	96	87	60	32	10	22	27	9	SC
P-7	0.0	20.8	94				100	99	97	58	39	106	67	CH
	20.8	27.0	61		100	99	97	90	78	48	30	93	78	CH
P-8	0.0	20.4	93				100	99	96	36	60	119	80	CH
	20.4	27.2	52		100	98	93	83	77	21	56	44	33	CL
P-9	0.0	14.3	30		100	97	85	48	23	7	16	32	17	SC
P-10	0.0	29.0	63		100	99	97	91	78	32	46	95	78	CH
1-A	0.0	25.0	56		100	96	87	69	56	6	50	74	58	CH

Note: Most or all of the OH classifications in this summary would actually classify as CH when plotted on a plasticity chart, and records do not show that loss-on-ignition tests were performed. The classifier apparently observed a large amount of organic material in the samples, visually making the distinction between OH and CH classifications.

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No 5327

Req. No. 42-87-F&M



Sample No.	~~XXXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	-	POORLY GRADED SAND (SP)	--	NP	NP	NP
		TAN				

Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3494
Boring No. GP-1-87 . SAMPLE 2
Date 10/28/87

GRADATION CURVES

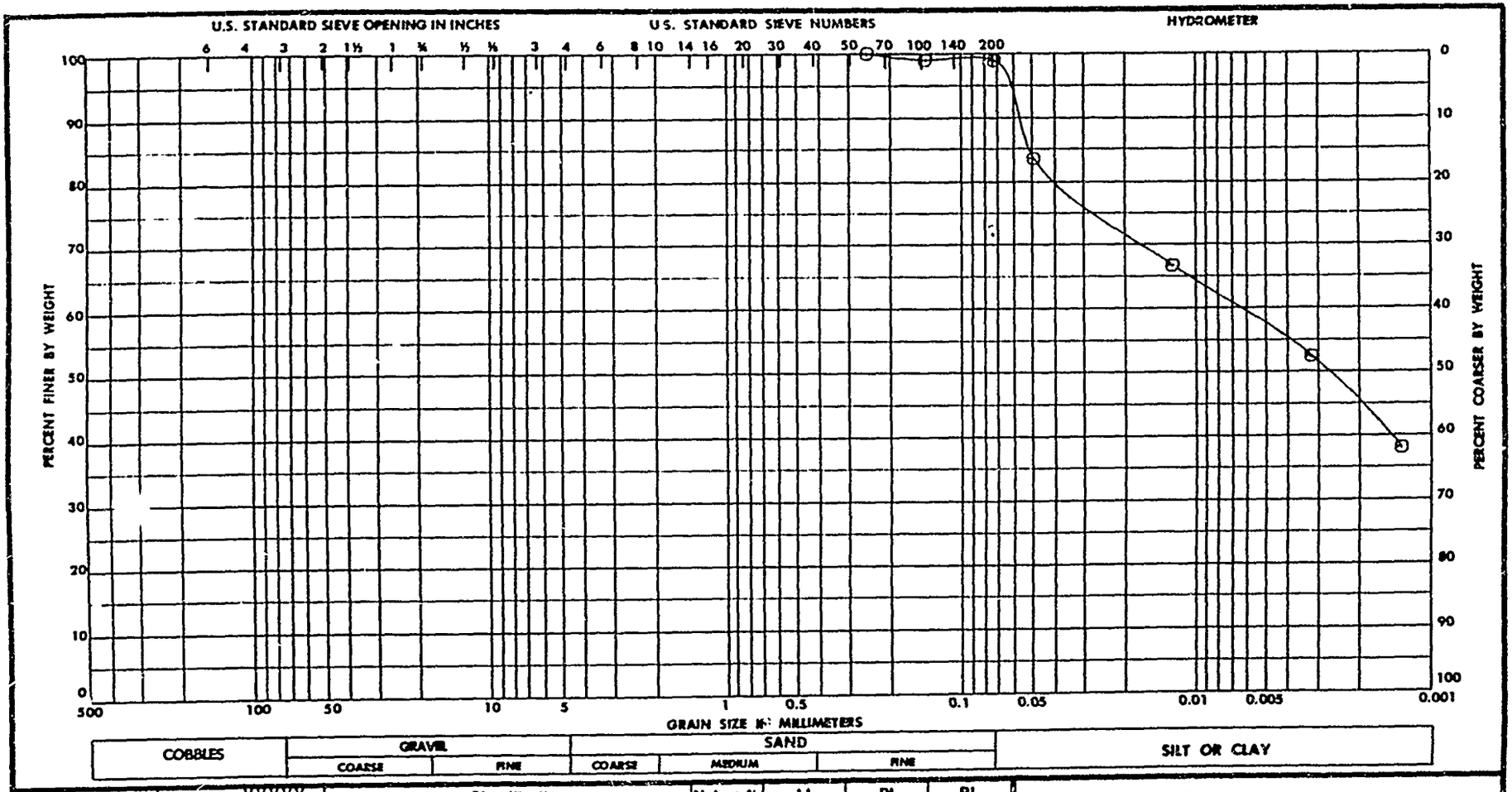
C-160

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	Elev or ~~Depth~~	Classification	Nat w %	LL	PL	PI
-	27.3--30.3'	FAT CLAY (CH)	186.0	157	49	108
		GRAY. W/A TRACE OF SAND &				
		MICA				
		SPECIFIC GRAVITY=2.57				

GRADATION CURVES

Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3497
Boring No. GP-3-87 .SAMPLE -
Date 11/07/87

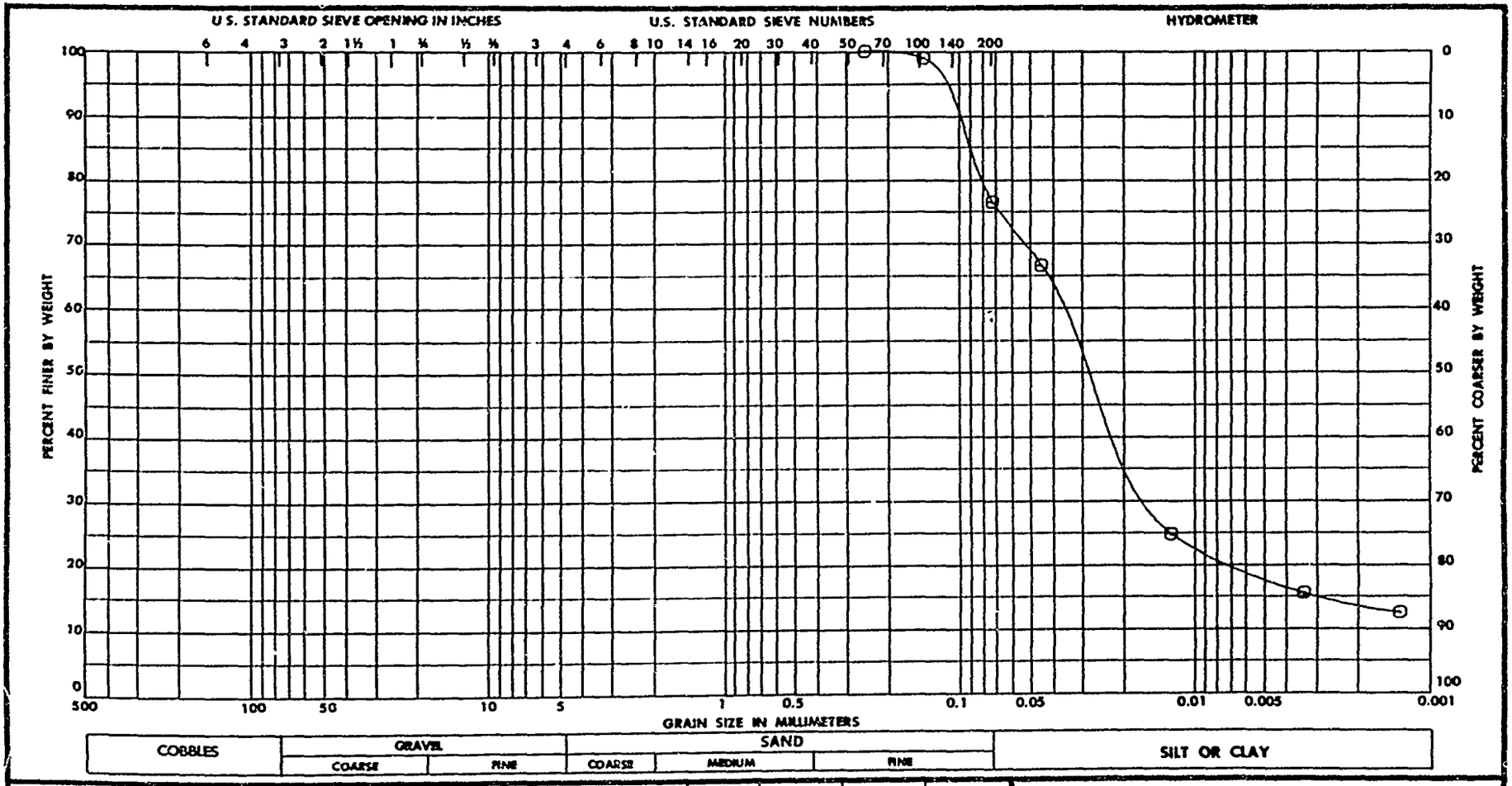
ENG FORM 1 MAY 63 2087

C-161

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	Elev of ~~XXXX~~	Classification	Nat w %	LL	PL	PI
--	33.3-36.3'	LEAN CLAY (CL)	22.5	26	17	9
		GRAY. W/SOME SAND & TRACE OF				
		MICA				
		SPECIFIC GRAVITY=2.62				

GRADATION CURVES

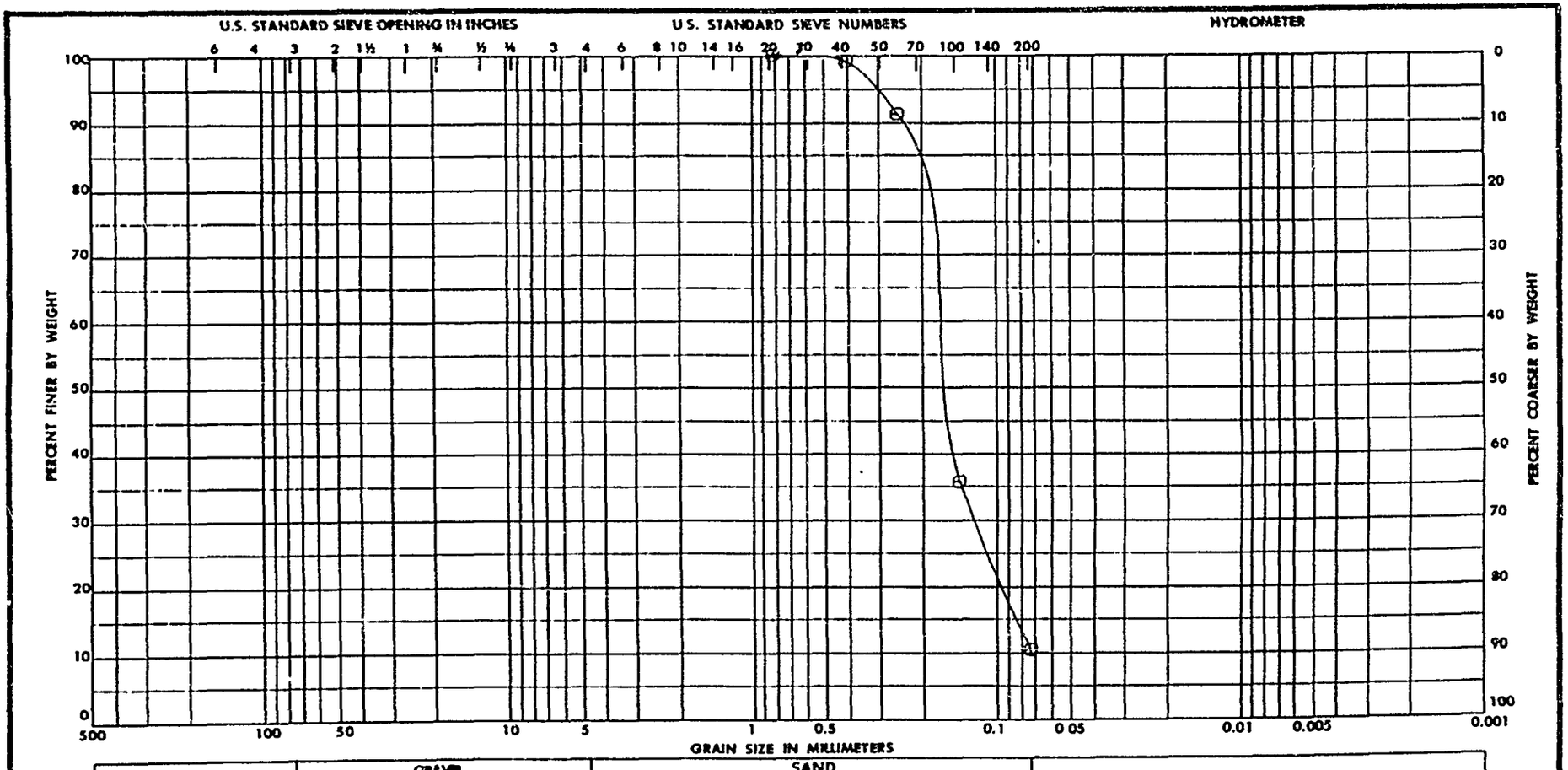
Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3499
Boring No. GP-3-87 . SAMPLE -
Date 11/07/87

ENG FORM 1AY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~Depth~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	-	CLASS. NOT REQUESTED	--	--	--	--
		.				

GRADATION CURVES

Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3510
Boring No. GP-6-87 . SAMPLE 3
Date 10/28/87

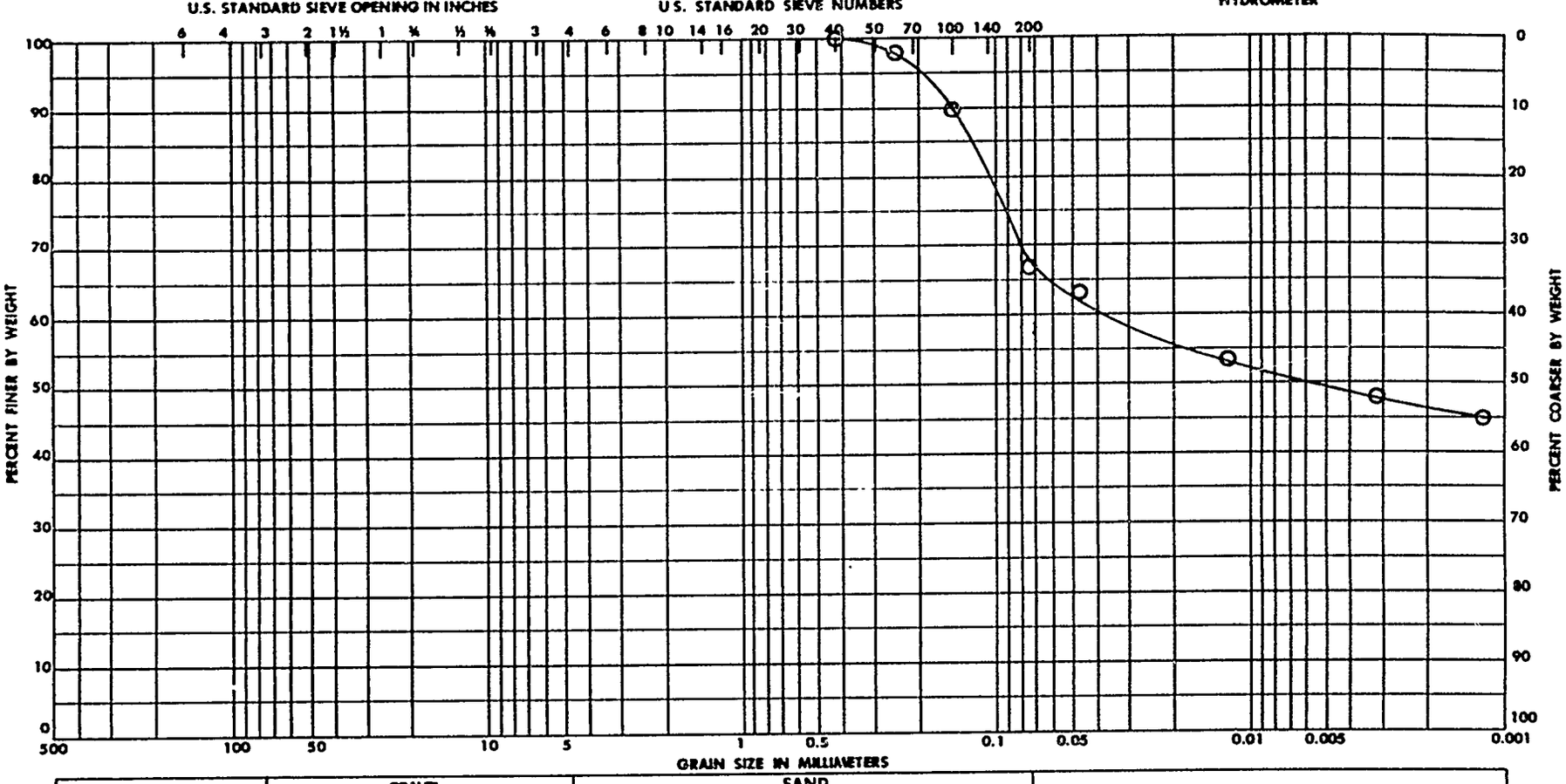
ENG FORM 1 MAY 63 2087

C-163

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	Elev ~~dX XM MX~~	Classification	Nat w %	LL	PL	PI
--	20.8-23.8'	FAT CLAY (CH) GRAY, WITH SOME SAND & TRACE OF MICA, SHELL FRAGMENTS	98.0	74	22	52
		SPECIFIC GRAVITY = 2.65				

GRADATION CURVES

Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3517
Boring No. GP-8-87 Sample--
Date 11/07/87

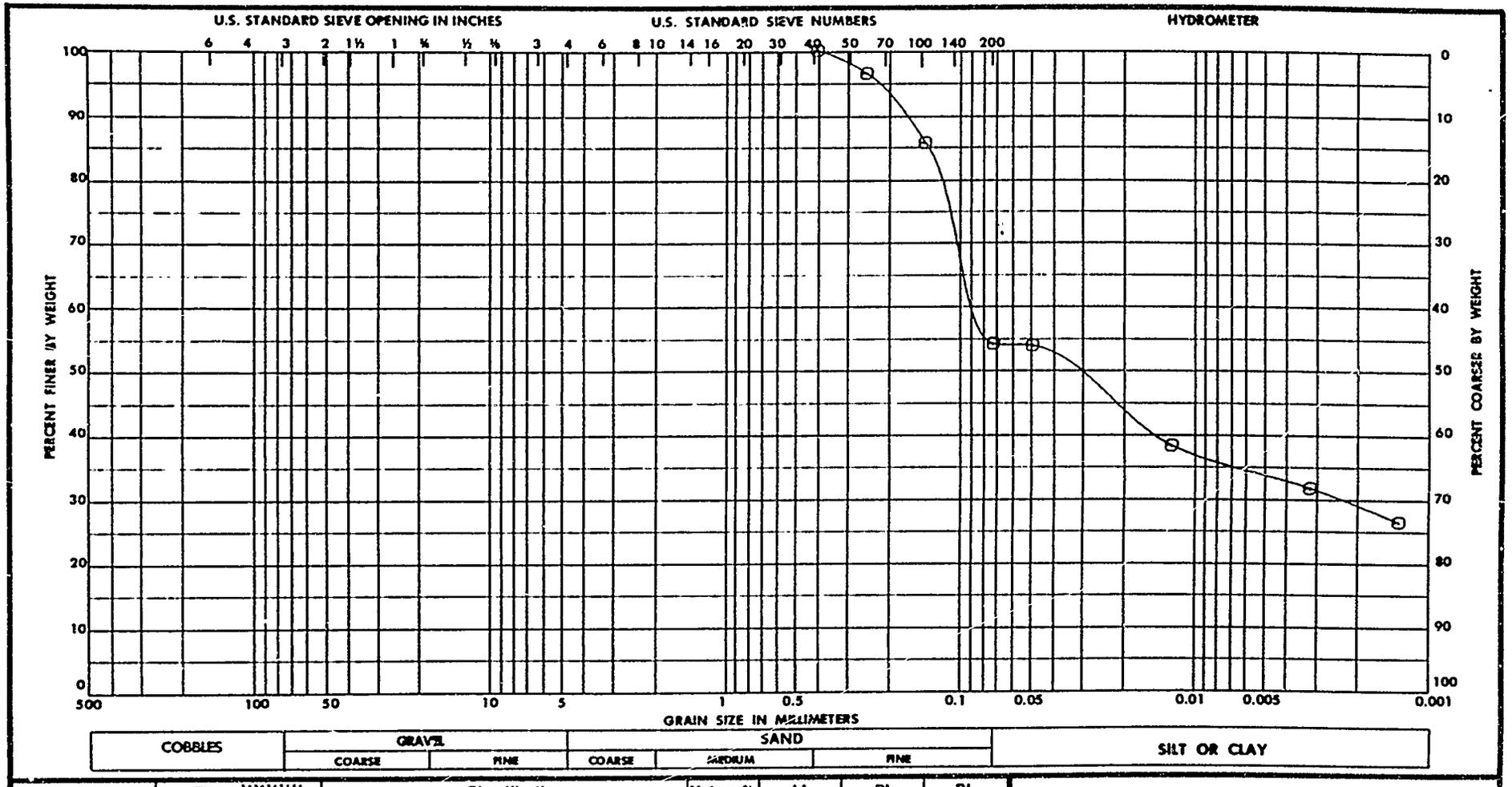
ENG. FORM MAY 63 2087

C-164

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	Elev or [illegible]	Classification	Nat w %	LL	PL	PI
--	23.8--26.8'	FAT CLAY (CH)	56.9	54	16	38
		GRAY, SANDY, W/A TRACE OF				
		MICA				
		SPECIFIC GRAVITY=2.64				

GRADATION CURVES

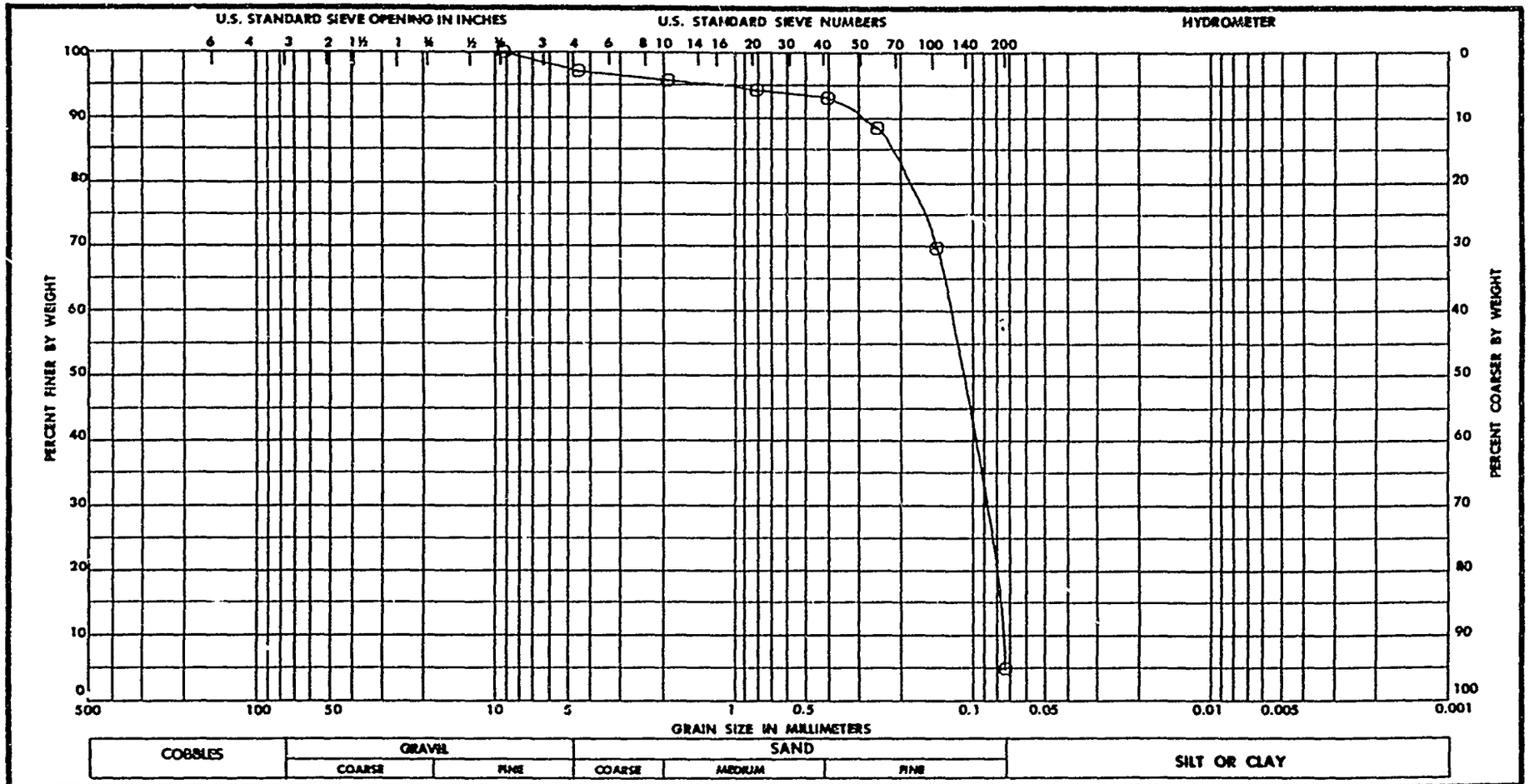
Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3518
Boring No. GP-8-87 . SAMPLE -
Date 11/07/87

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	-	POOR GRDED SAND (SP)	26.6	NP	NP	NP
		GRAY. W/TRACE OF MICA &				
		GRAVEL SIZE SHELL				

GRADATION CURVES

Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3521
Boring No. GP-9-87 . SAMPLE 2
Date 10/28/87

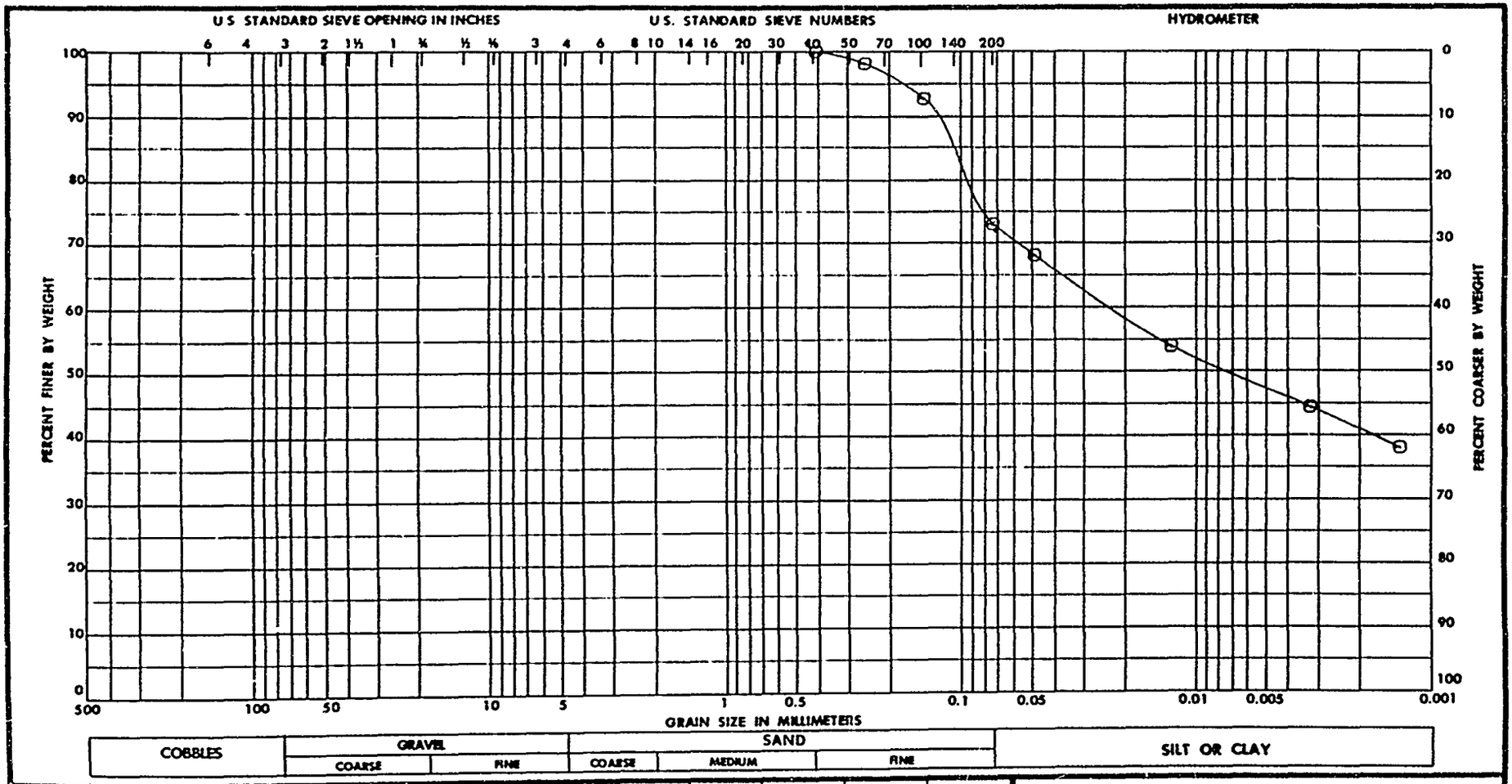
ENG FORM MAY 63 2087

C-166

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~XXXX~~ Depth	Classification	Nat w %	LL	PL	PI
1	-	FAT CLAY (CH)	89.8	83	27	56
		GRAY. W/SOME SAND & TRACE OF				
		MICA				

GRADATION CURVES

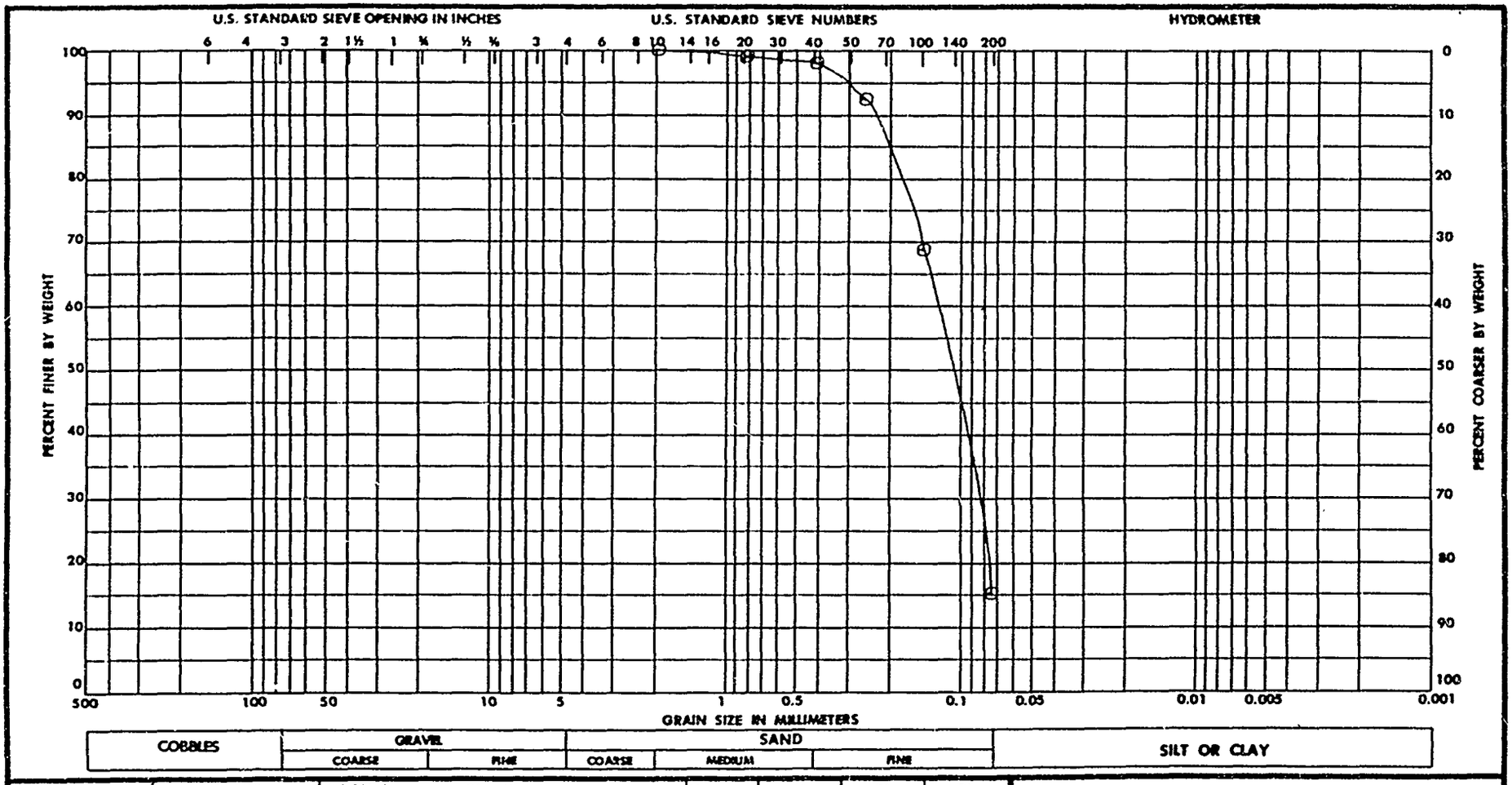
Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3522
Boring No. GP-10-87 . SAMPLE 1
Date 10/28/87

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~XXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	-	CLASS NOT REQUESTED	--	--	--	--
		.				

GRADATION CURVES

Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3523
Boring No. OP-10-87 . SAMPLE 2
Date 10/28/87

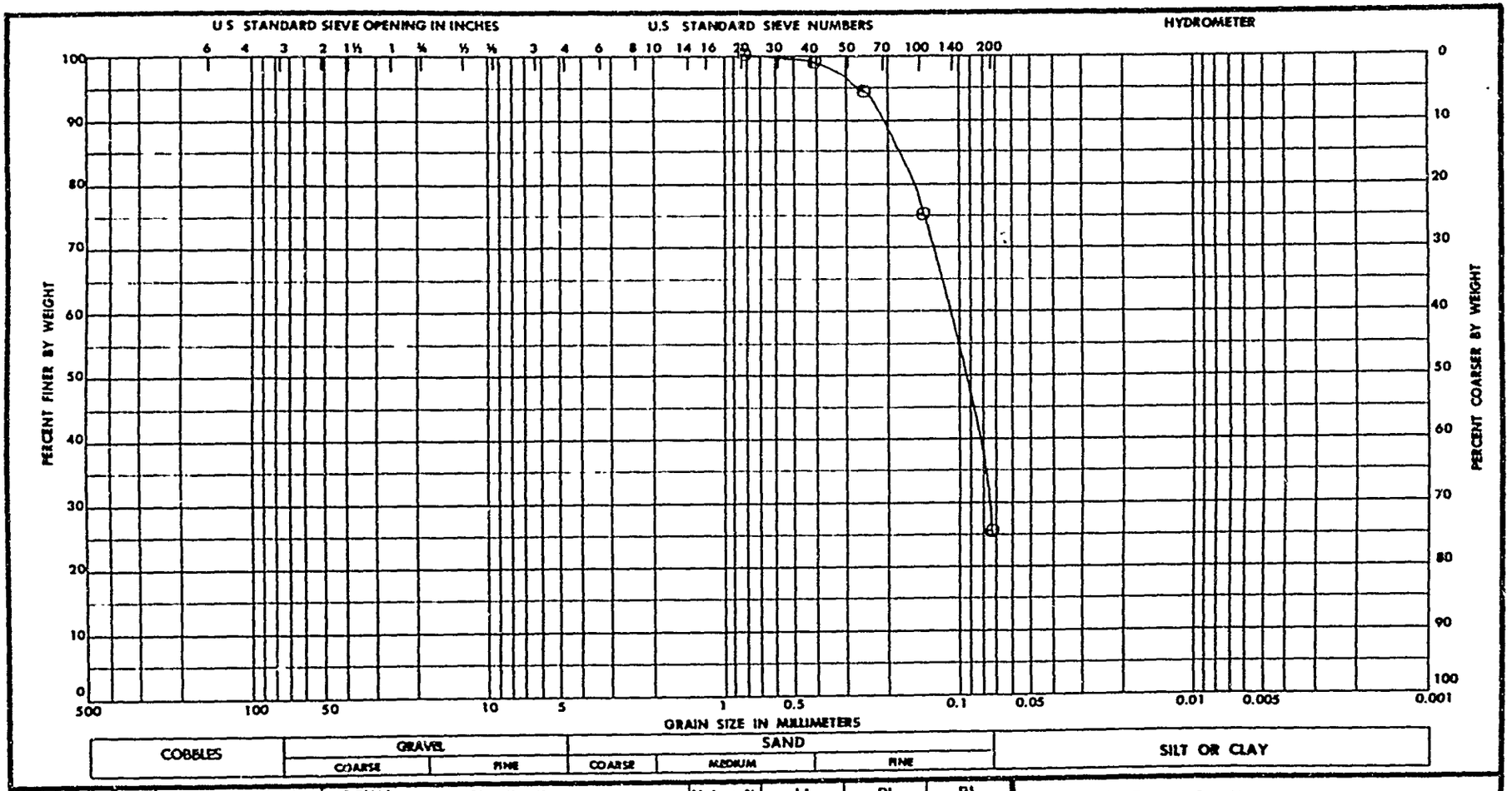
C-168

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
--	36.9-39.9'	SILTY SAND (SM)	23.4	--	--	--
		BROWN. W/A TRACE OF MICA &				
		WOOD CHIPS				

GRADATION CURVES

Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3525
Boring No. GP-11-87 . SAMPLE -
Date 11/07/87

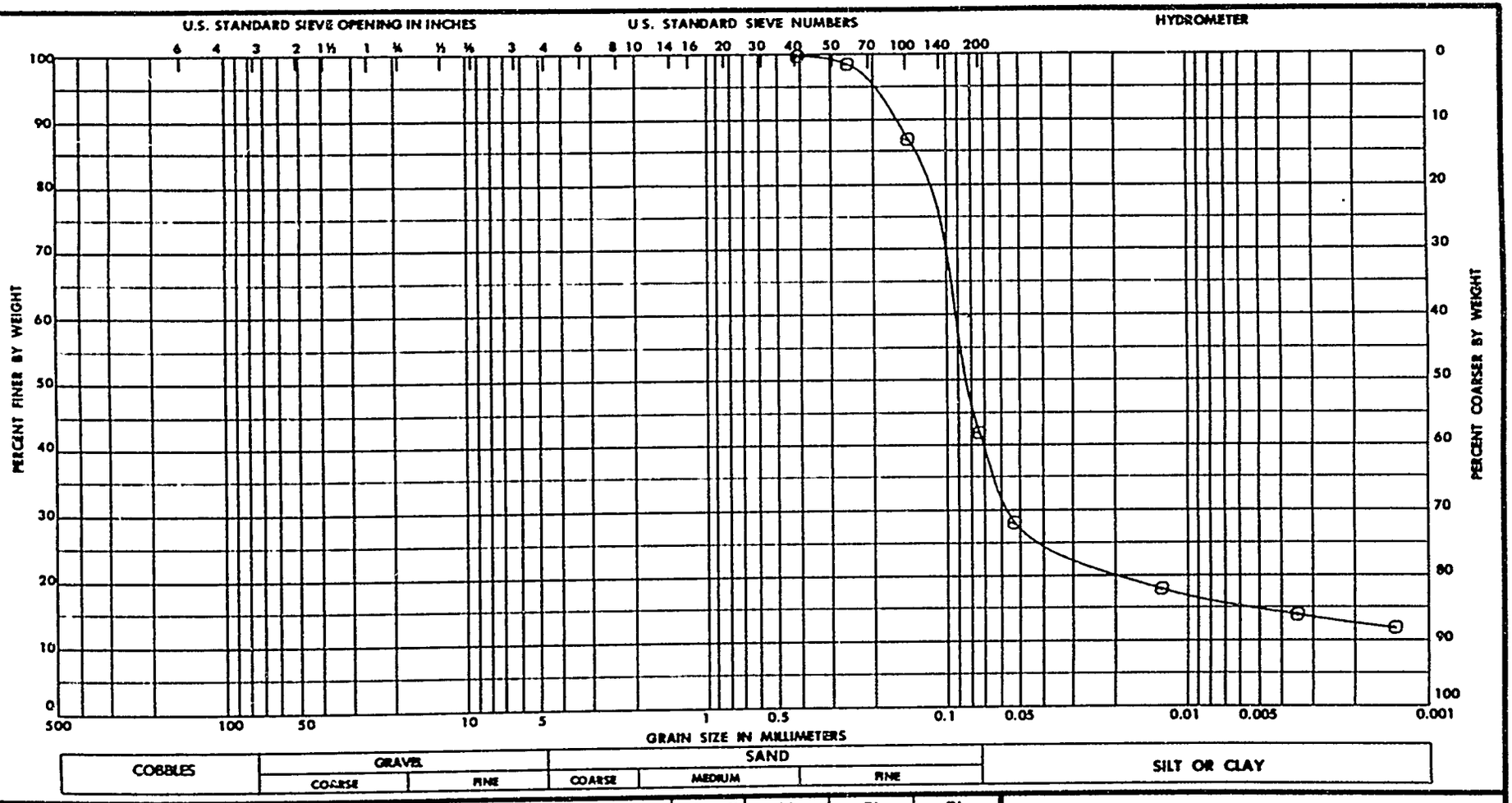
C-169

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI
3	-	SILTY CLAYEY SAND (SM-SC)	20.9	22	15	7
		GRAY & BROWN				
		SPECIFIC GRAVITY=2.60				

GRADATION CURVES

Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3529
Boring No. GP-12-87 , SAMPLE 3
Date 10/28/87

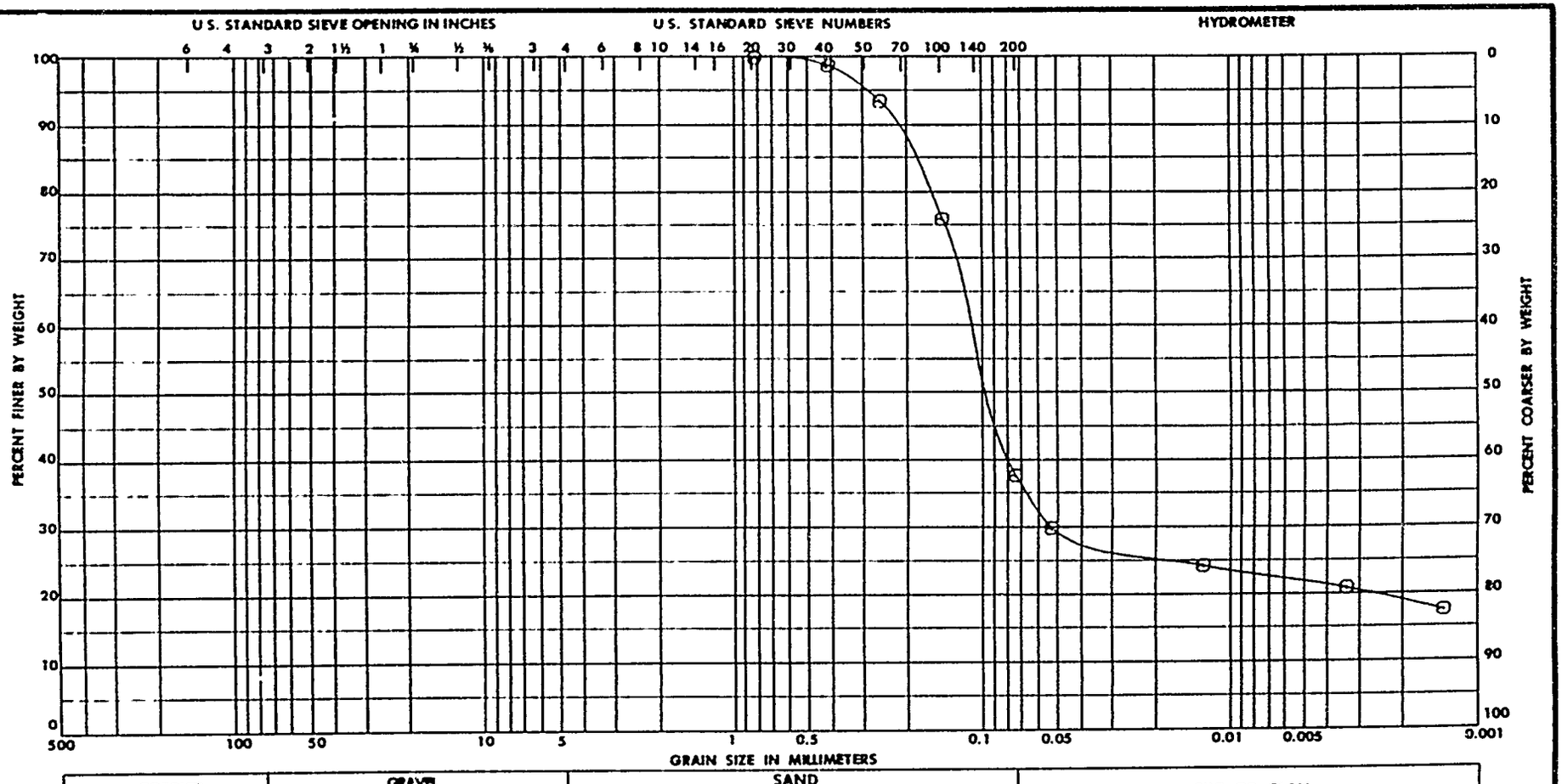
C-170

ENG FORM 1Y 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~Depth~~ Depth	Classification	Nat w %	LL	PL	PI
4	-	CLAYEY SAND (SC)	33.6	40	16	24
		GRAY. W/A TRACE OF MICA &				
		ORGANIC MATTER				
		SPECIFIC GRAVITY=2.63				

GRADATION CURVES

Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3530
Boring No. GP-12-87 . SAMPLE 4
Date 10/28/87

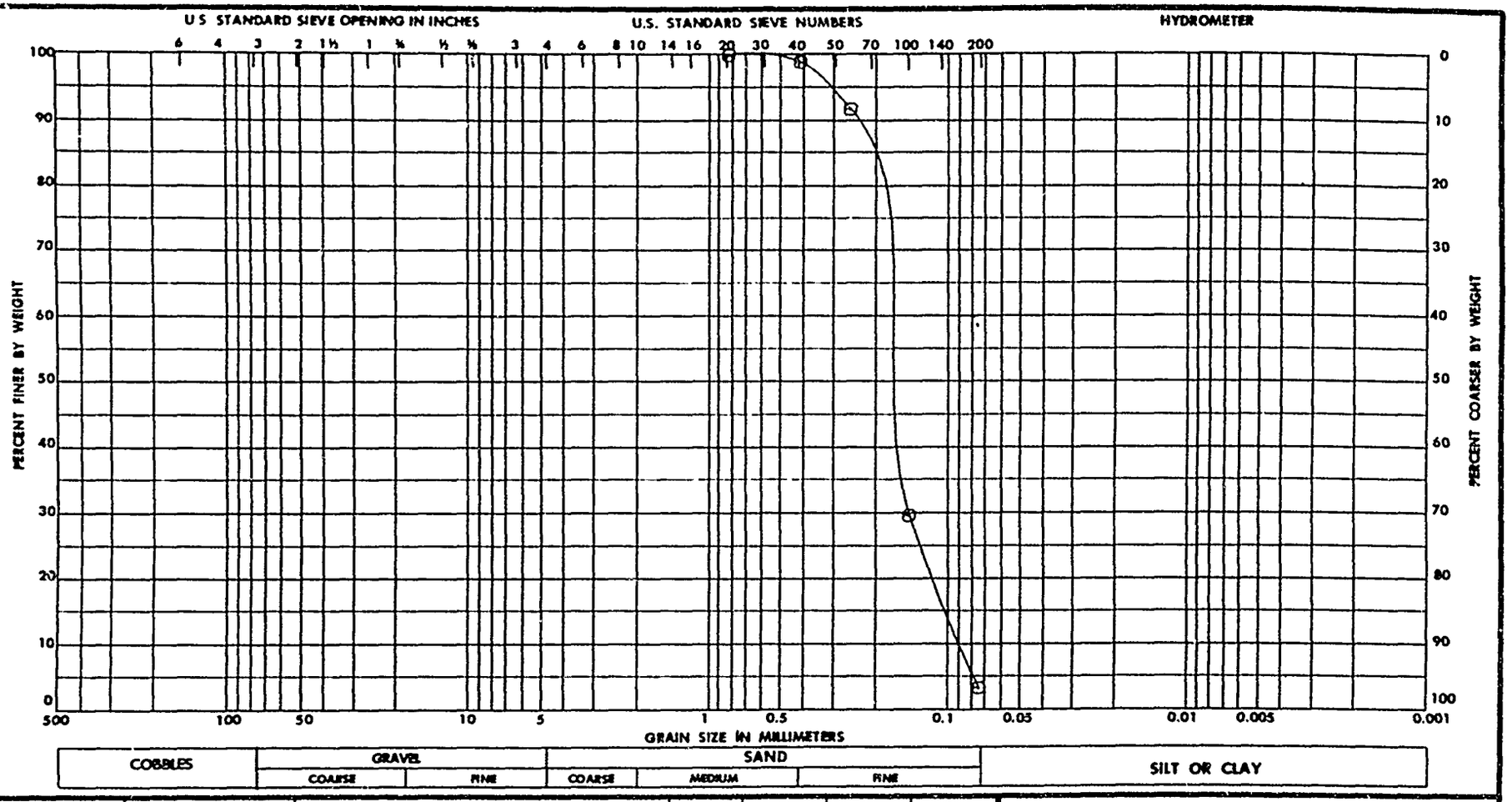
C-171

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	-	POORLY GRADED SAND (SP)	--	NP	NP	NP
		GRAY. W/A TRACE OF MICA &				
		CHARRED WOOD				

GRADATION CURVES

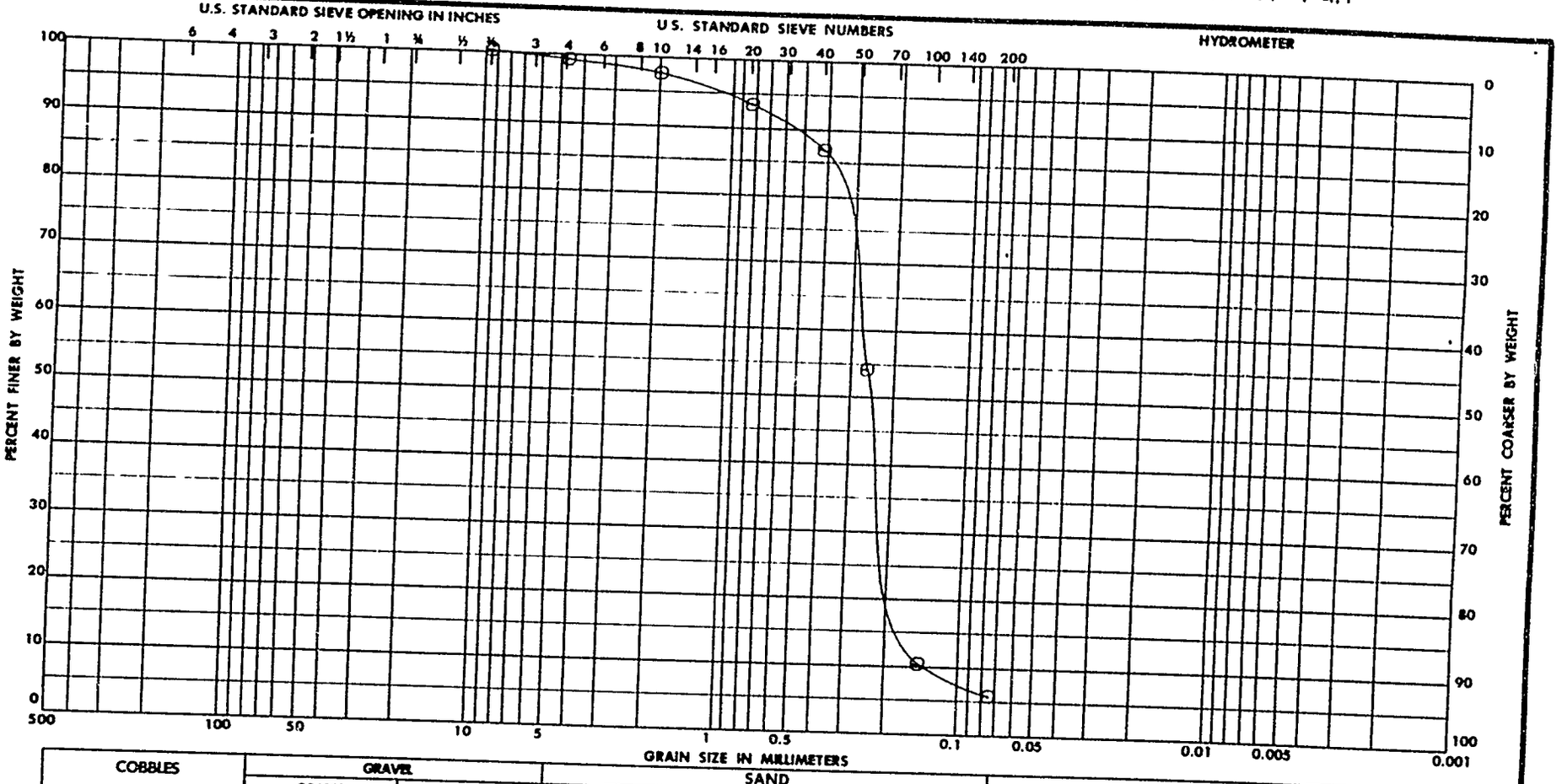
Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3531
Boring No. GP-13-87 . SAMPLE 1
Date 10/28/87

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

Sample No.	Elev or Depth	Visual Classification	Nat w %	LL	PL	PI
-	33.3-36.3'	POOR GRD SILTY SAND (SP-SM)	24.8	NP	NP	NP
		LT. GRAY. W/A TRACE OF MICA				
		& GRAVEL SIZE SHELL				

GRADATION CURVES

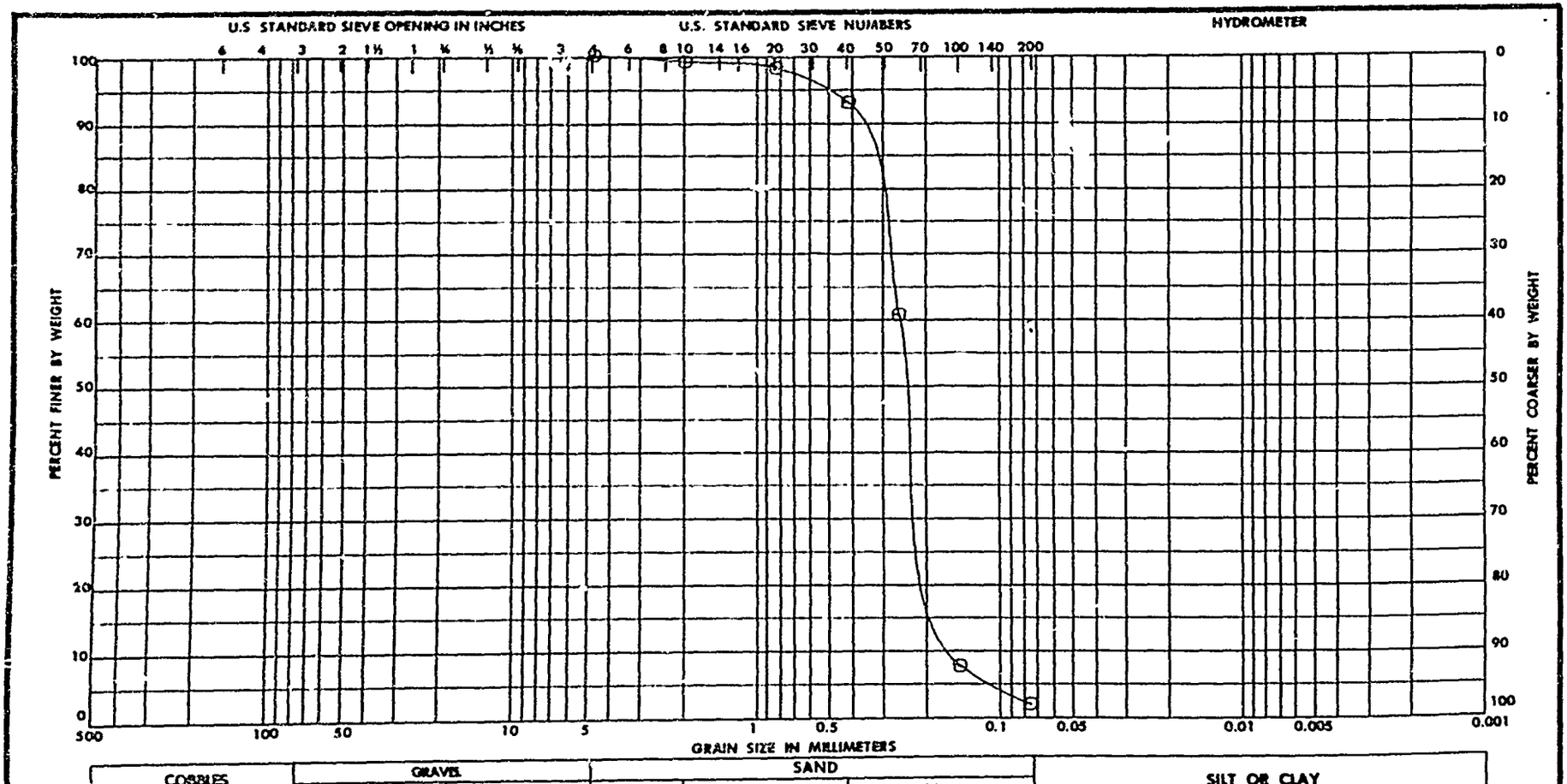
Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3533
Boring No. GP-14-87 .SAMPLE -
Date 11/07/87

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	Elev or ~~XXXXX~~	VISUAL Classification	Nat w %	LL	PL	PI
--	36.5-39.5'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. GRAY. W/A TRACE OF MICA				
		& SHELL FRAGMENTS				

GRADATION CURVES

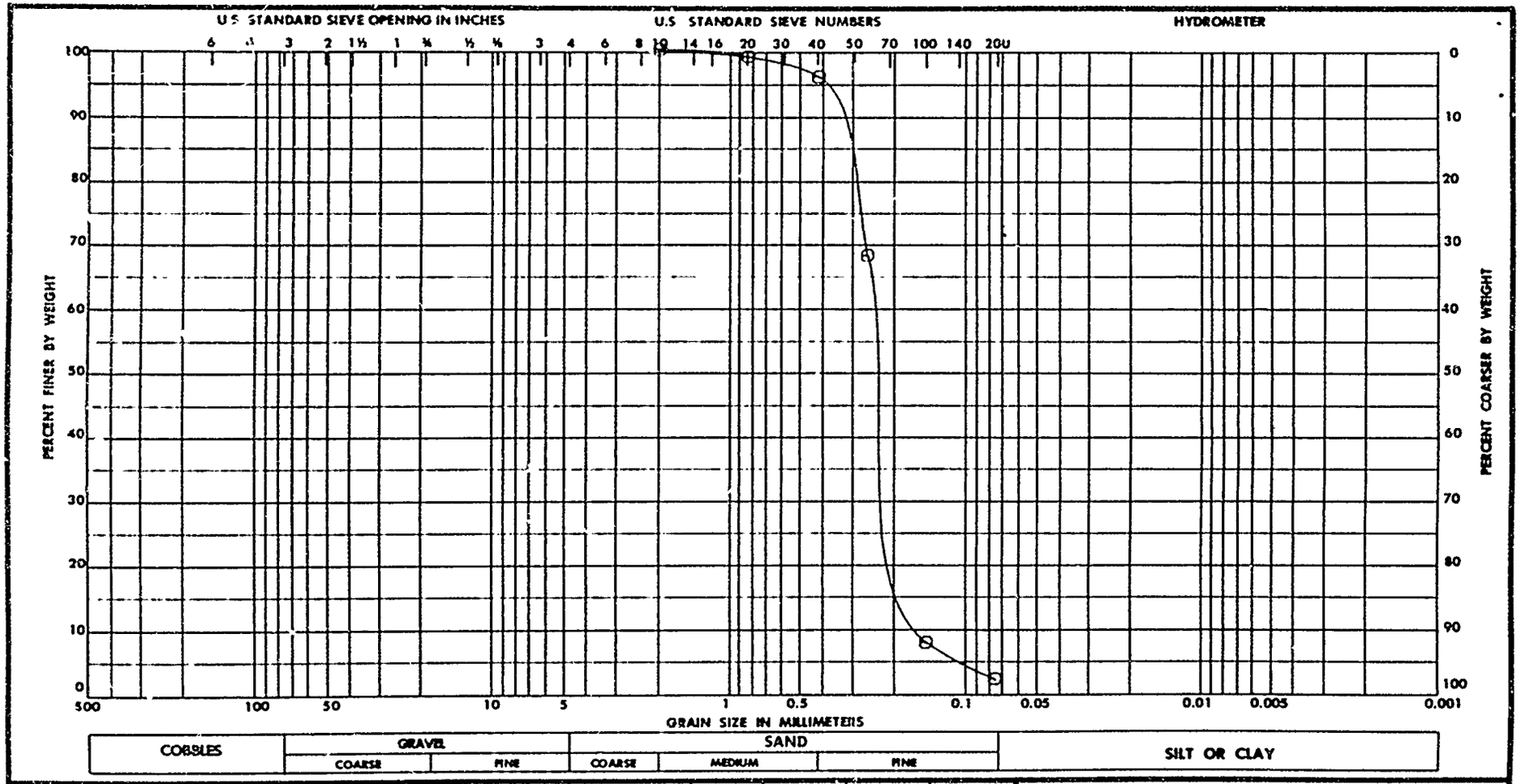
Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3534
Boring No. GP-14-87 . SAMPLE -
Date 11/07/87

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No 5327

Req. No. 42-87-F&M



Sample No.	Elev or Depth	Visual Classification	Nat w %	LL	PL	PI
-	39.3-42.3'	POORLY GRADED SAND (SP)	19	NP	NP	NP
		LT. GRAY. W/A TRACE OF MICA				
		& SHELL FRAGMENTS				

GRADATION CURVES

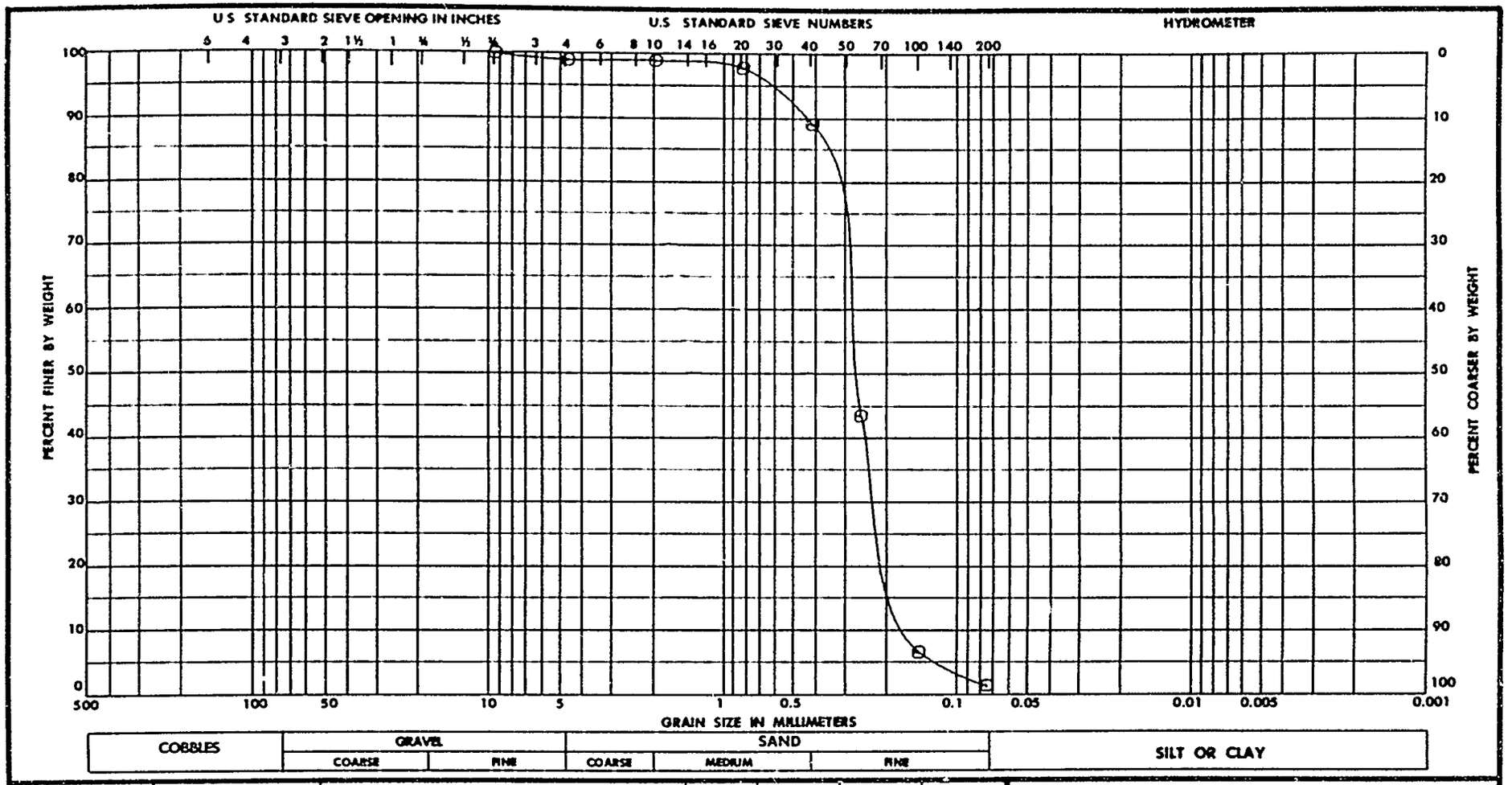
Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3535
Boring No. GP-14-87 . SAMPLE -
Date 11/07/87

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

WO No 5327

Req. No. 42-87-F&M



Sample No.	~~Elev.~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	-	POORLY GRADED SAND (SP) TAN. W/GRAVEL SIZE SHELL	--	NP	NP	NP

GRADATION CURVES

Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3538
Boring No. GP-15-87 , SAMPLE 1
Date 10/28/87

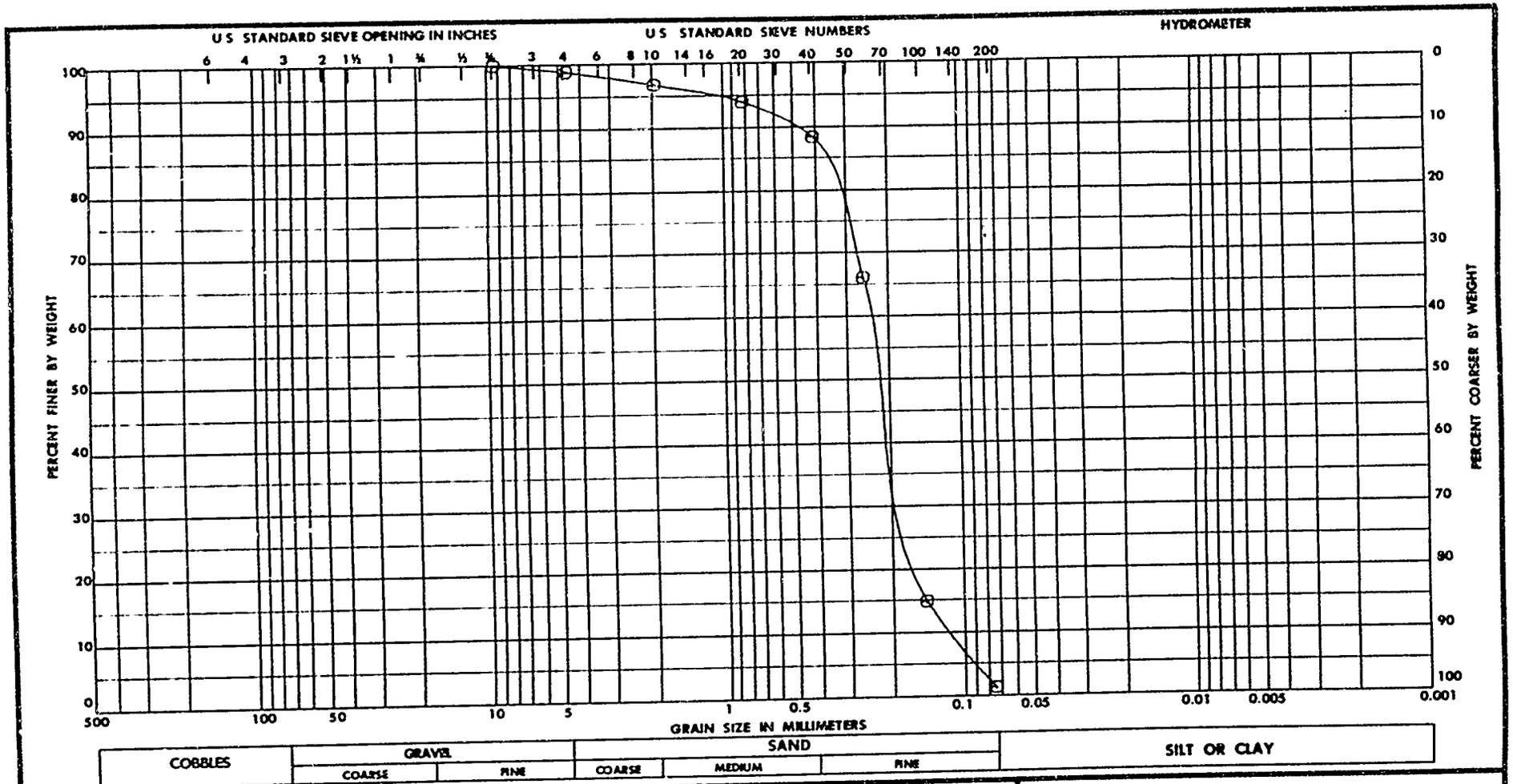
C-176

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~Depth~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	-	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. GRAY. W/A TRACE OF GRAVEL				
		SIZE SHELL & PIECES OF WOOD				

GRADATION CURVES

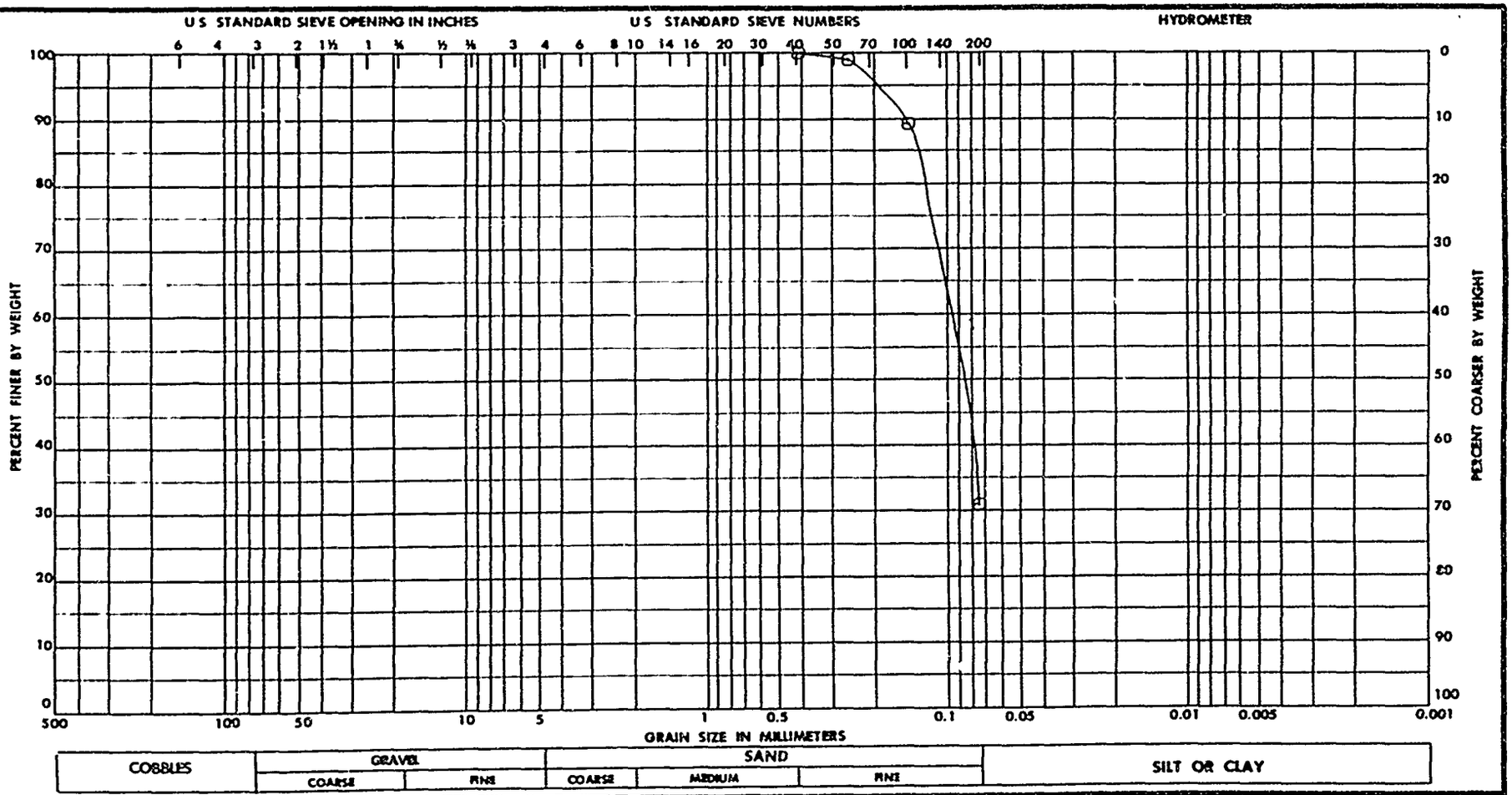
Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3539
Boring No. GP-16-87 .SAMPLE 1
Date 10/28/87

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

WO No. 5327

Req. No. 42-87-F&M



Sample No.	~~XXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	-	CLASS. NOT REQUESTED	--	--	--	--

GRADATION CURVES

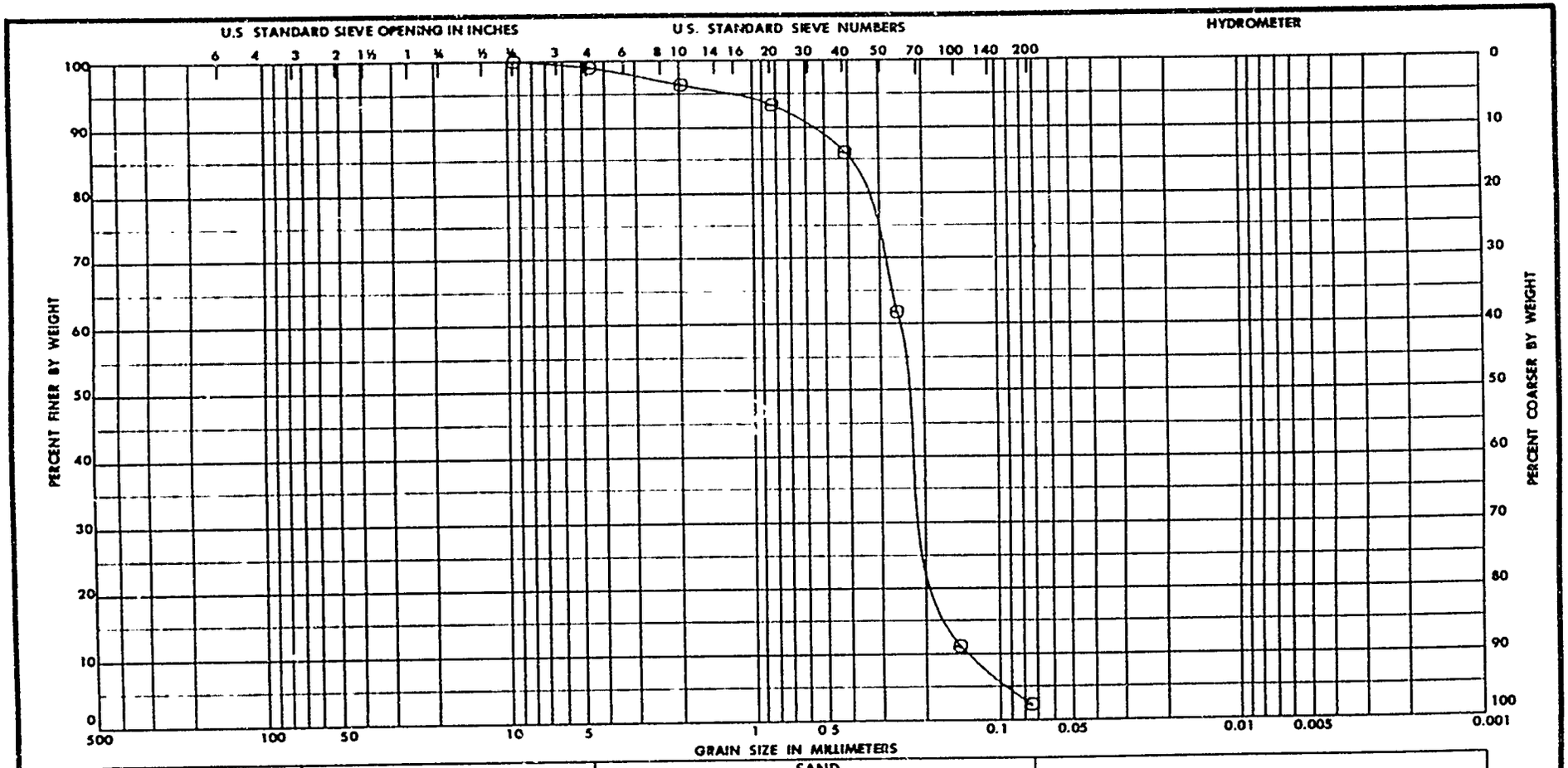
Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/35546
Boring No. GP-17-87 , SAMPLE 3
Date 10/28/87

ENG FORM MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~XXXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	-	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. GRAY. W/A TRACE OF GRAVEL				
		SIZE SHELL				

GRADATION CURVES

Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3548
Boring No. GP-18-87 . SAMPLE 1
Date 10/28/87

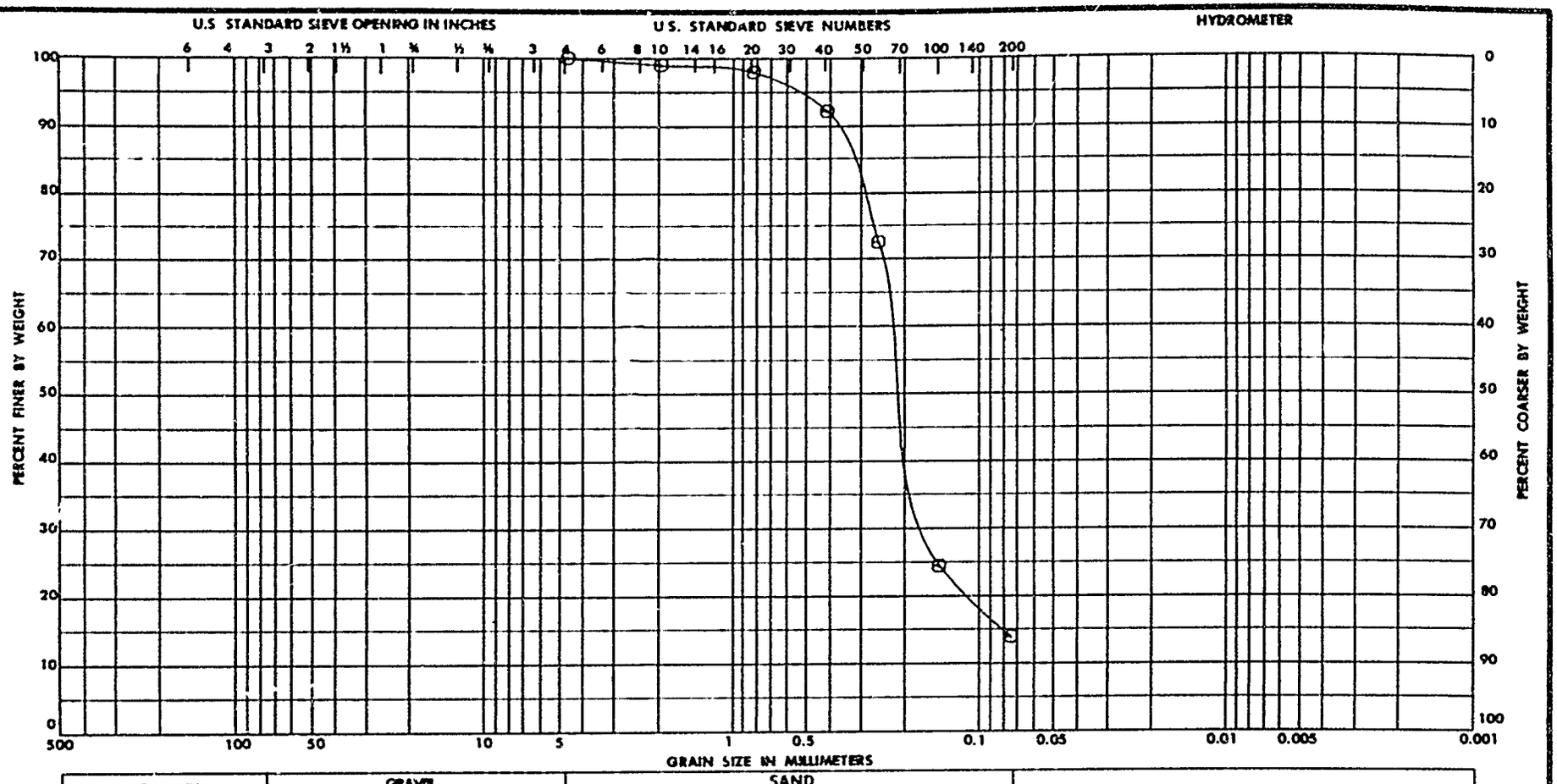
ENG FORM 1 MAY 63 2087

C-179

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~XNKXK~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	-	CLASS. NOT REQUESTED	--	--	--	--
		.				

GRADATION CURVES

Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3549
Boring No. GP-19-87 . SAMPLE 1
Date 10/28/87

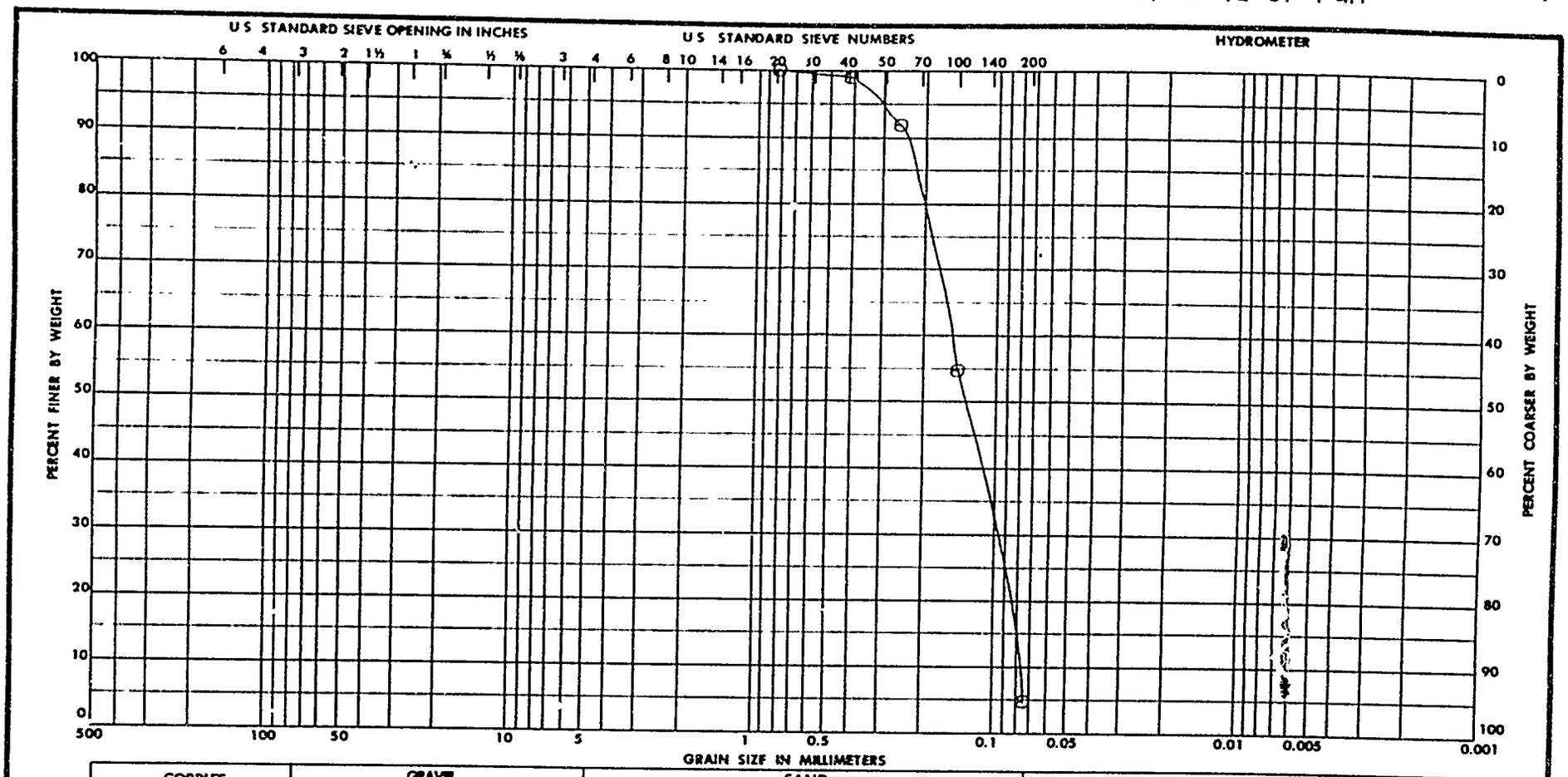
C-180

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

WO No. 5327

Req. No. 42-87-F&M



Sample No.	~~XXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	-	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. GRAY. W/A TRACE OF MICA				
		& CHARRED WOOD				

GRADATION CURVES

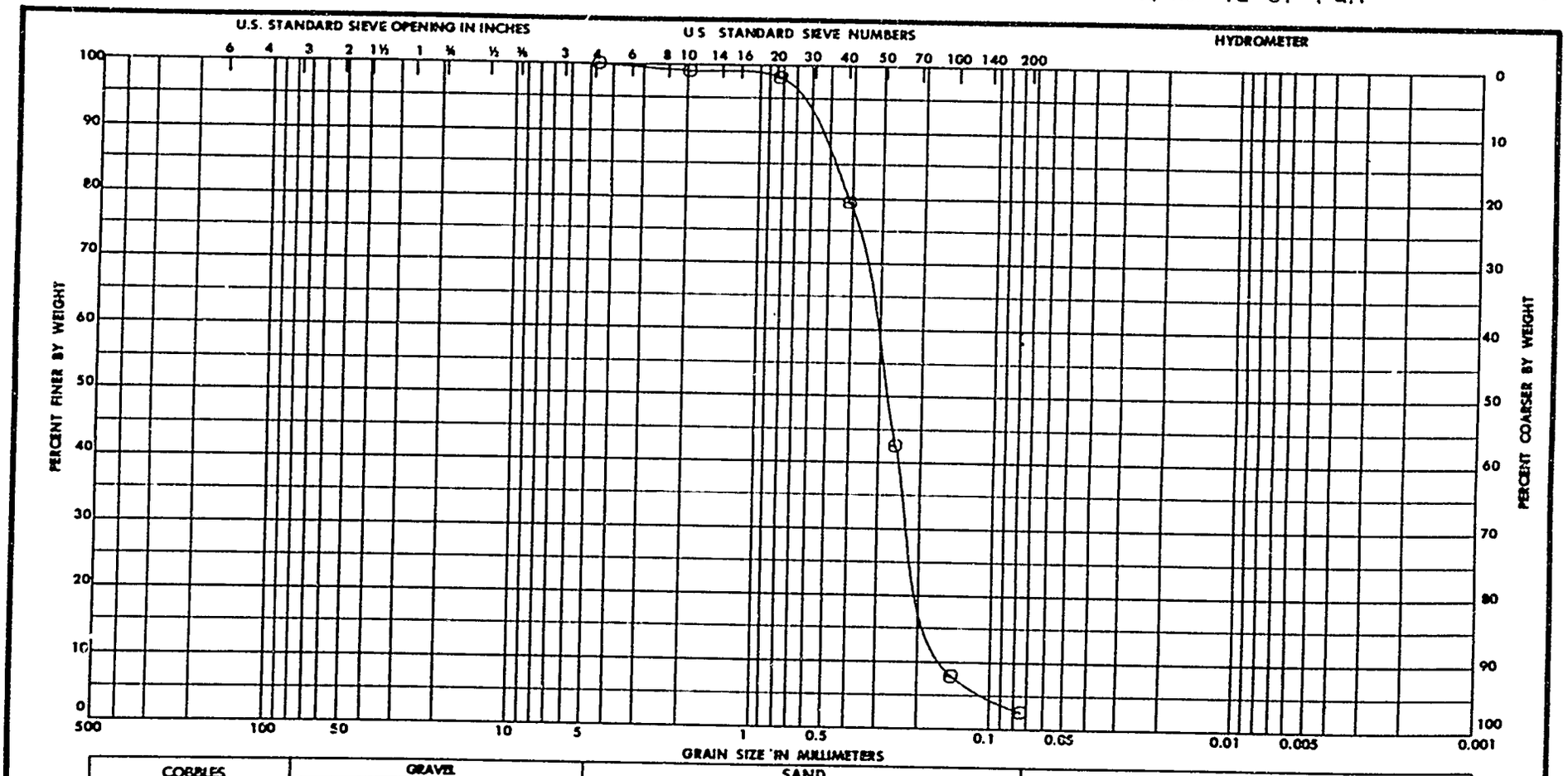
Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3552
Boring No. GP-20-87 , SAMPLE 1
Date 10/28/87

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~XXXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	-	POORLY GRADED SAND (SP)	---	NP	NP	NP
		GRAY. W/A TRACE OF SHELL				
		FRAGMENTS				

GRADATION CURVES

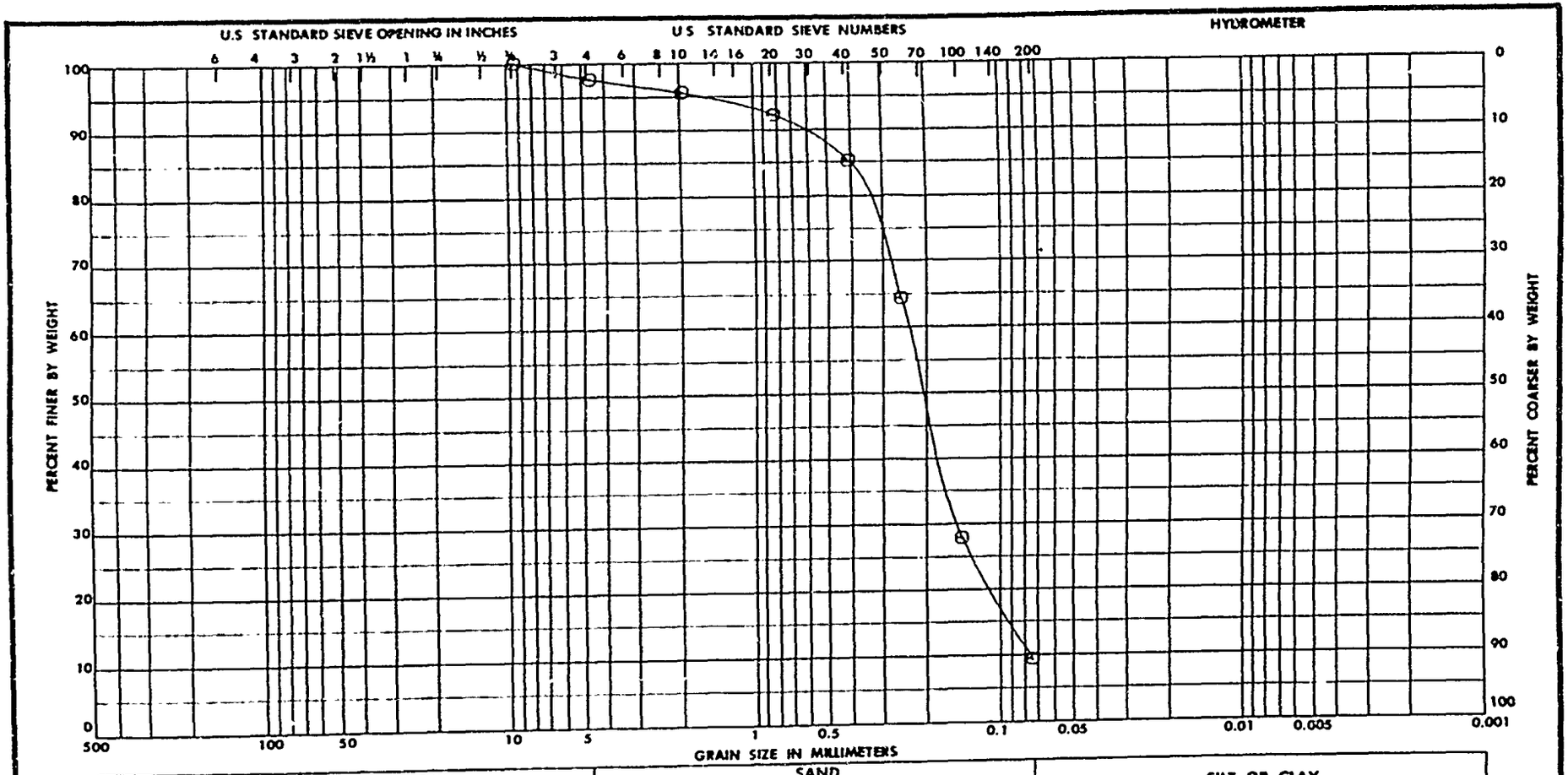
Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3554
Boring No. GP-21-87 . SAMPLE 2
Date 10/28/87

ENG . FORM . MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No 5327

Req. No. 42-87-F&M



Sample No.	~~XXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	-	POOR GRD SILTY SAND (SP-SM) GRAY. W/A TRACE OF GRAVEL SIZE SHELL & MICA	--	NP	NP	NP

GRADATION CURVES

Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3555
Boring No. GP-21-87 . SAMPLE 3
Date 10/28/87

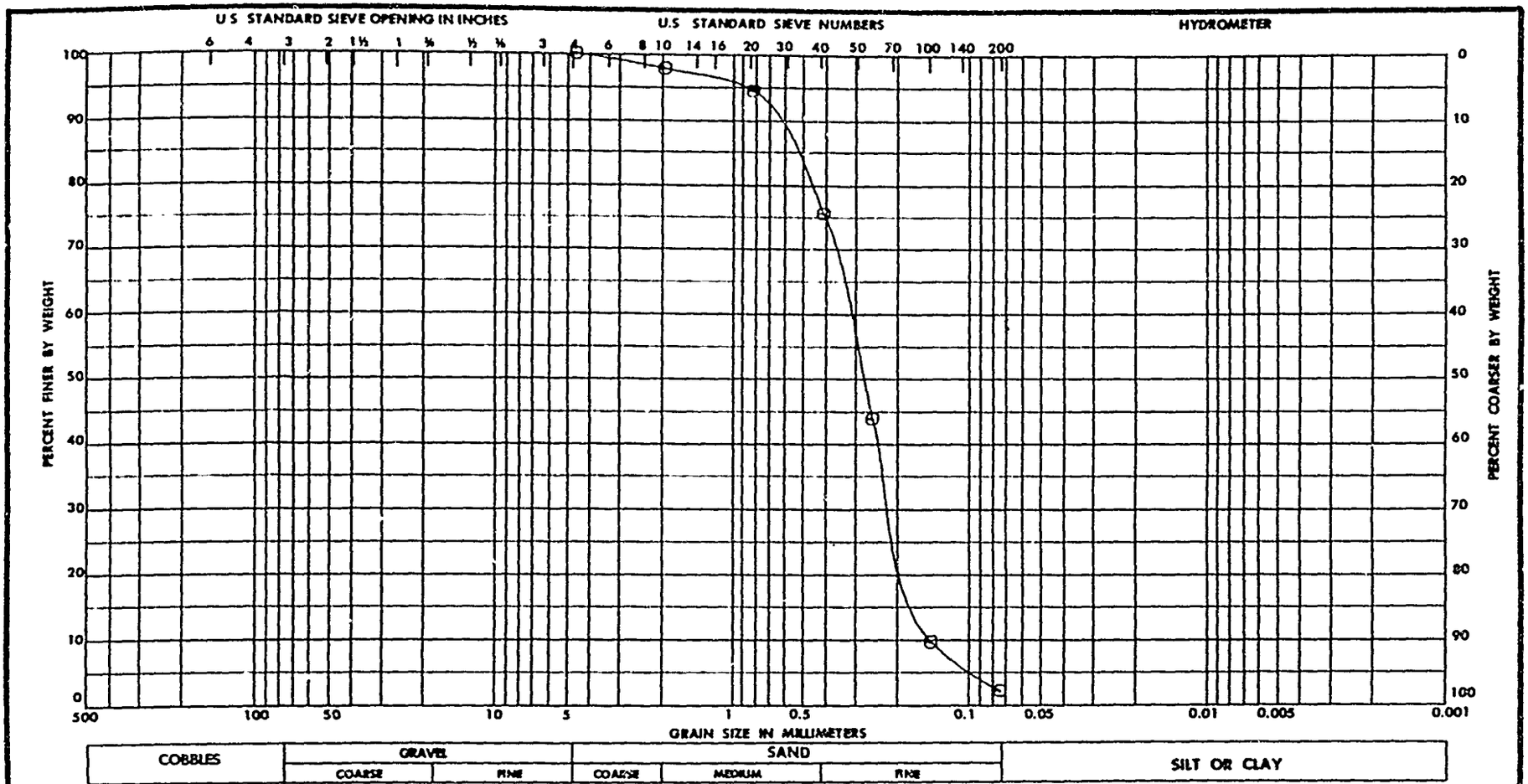
ENG FORM 1 MAY 63 2087

C-183

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No 5327

Req. No. 42-87-F&M



Sample No.	~~Depth~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	-	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. GRAY. W/SHELL FRAGMENTS				

GRADATION CURVES

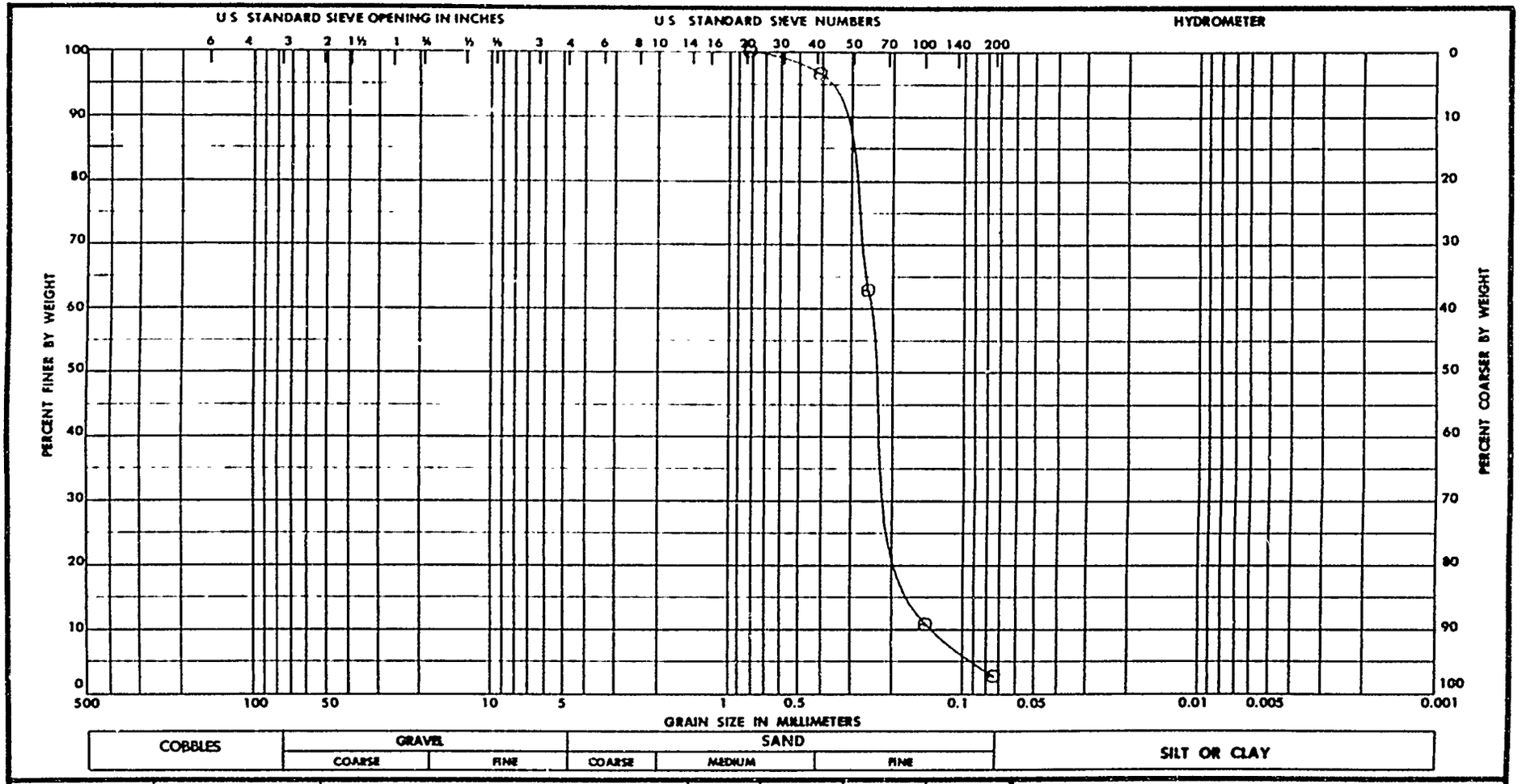
Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3556
Boring No. GP-22-87 . SAMPLE 1
Date 10/28/87

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA 30060

WO No 5327

Req. No. 42-87-F&M



Sample No.	~~Depth~~	VISUAL Classification	Nat w %	LL	PL	PI
G	--	POORLY GRADED SAND (SP)	--	NP	NP	NP
		BROWN & BLACK. W/SHELL				
		FRAGMENTS				

GRADATION CURVES

Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 87/3559
Boring No. GP-22-87 . SAMPLE 6
Date 10/28/87

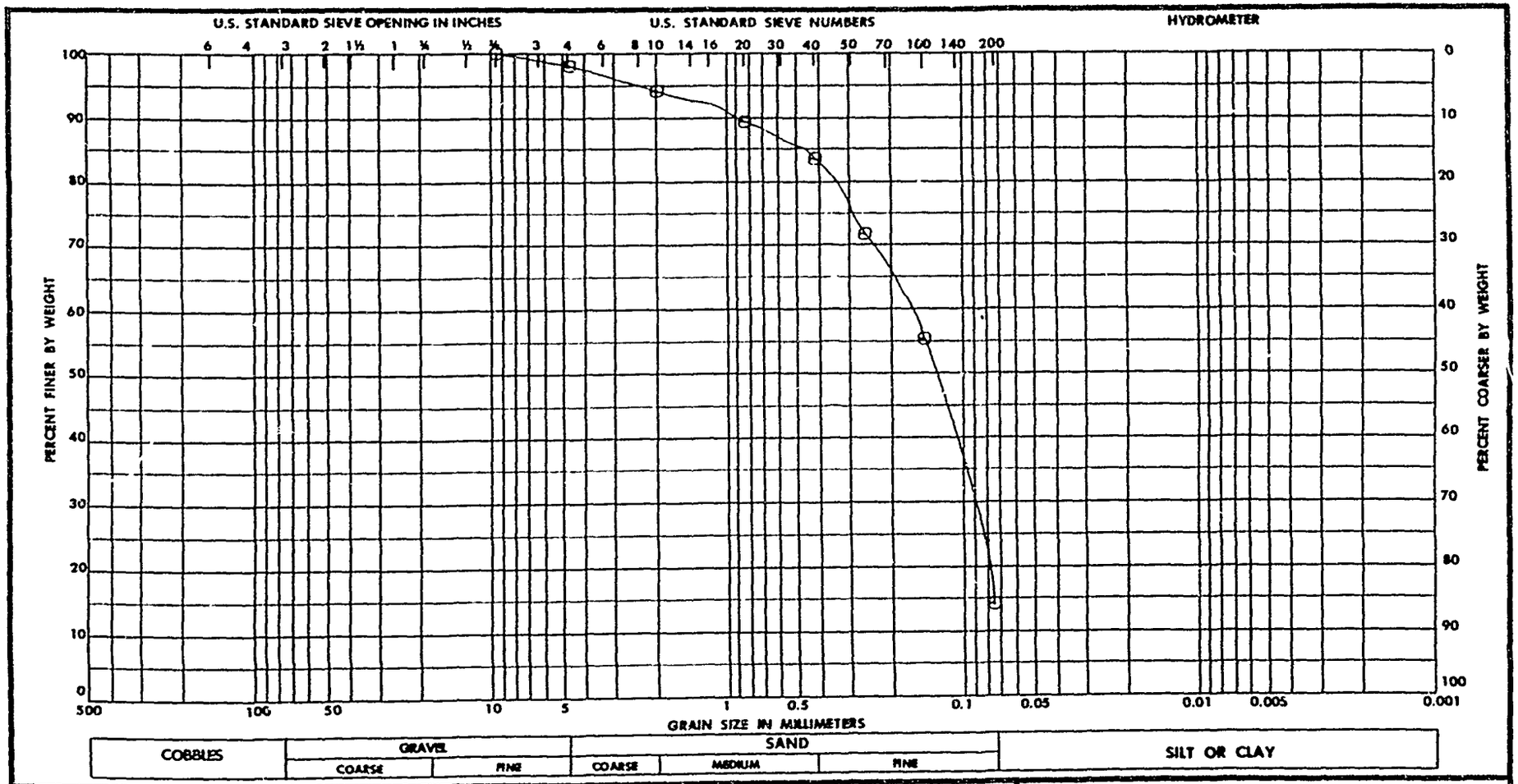
C-185

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	-	SILTY SAND (SM)	27.8	NP	NP	NP
		GRAY. W/A TRACE OF MICA &				
		GRAVEL SIZE SHELL				

GRADATION CURVES

Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3560
Boring No. GP-23-87 . SAMPLE 1
Date 10/28/87

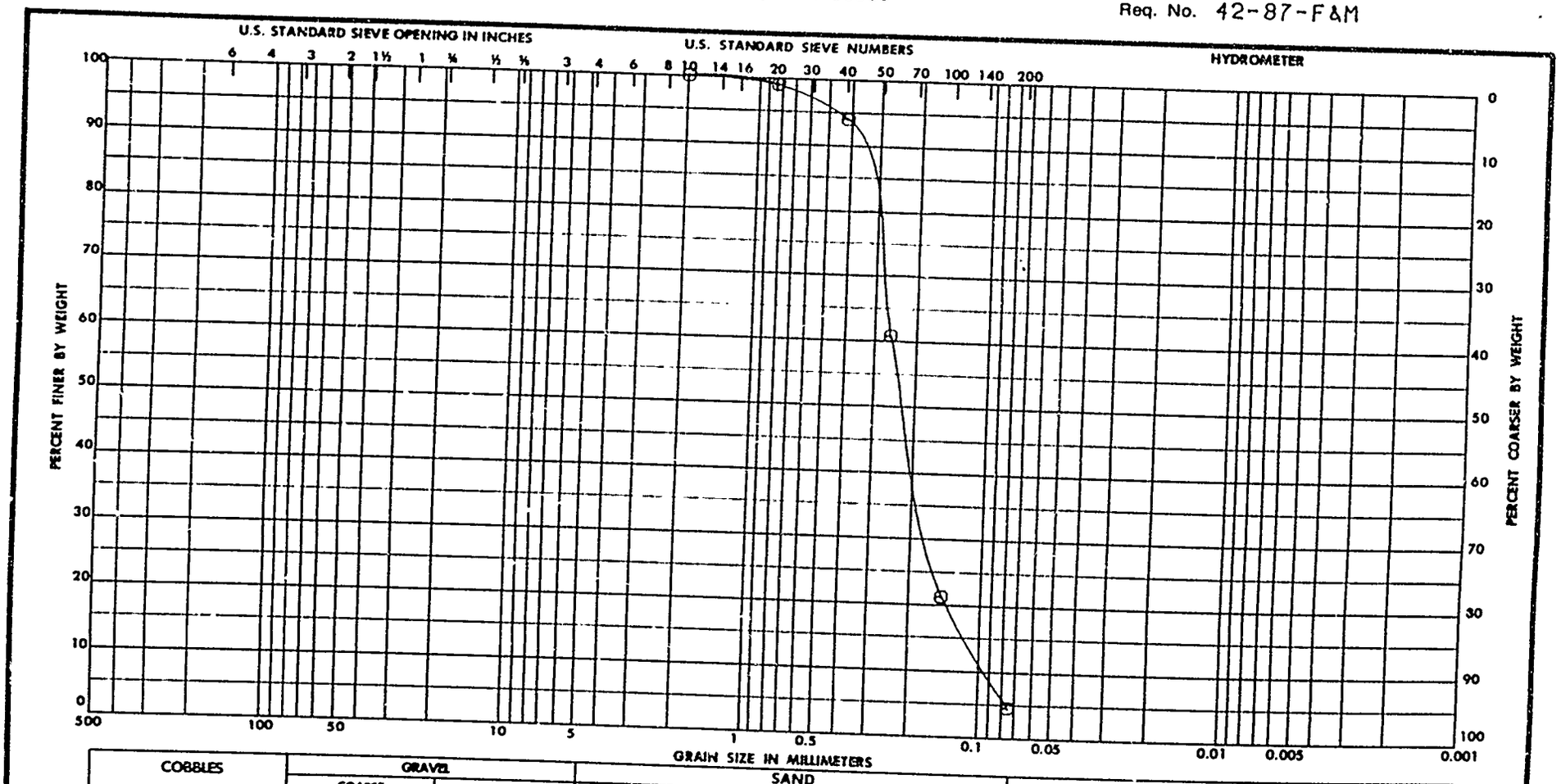
ENG FORM MAY 63 **2087**

C-186

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

WO No. 5327

Req. No. 42-87-F&M



Sample No.	~~XXXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	-	POORLY GRADED SAND (SP)	--	NP	NP	NP
		GRAY. W/A TRACE OF SHELL				
		FRAGMENTS				

GRADATION CURVES

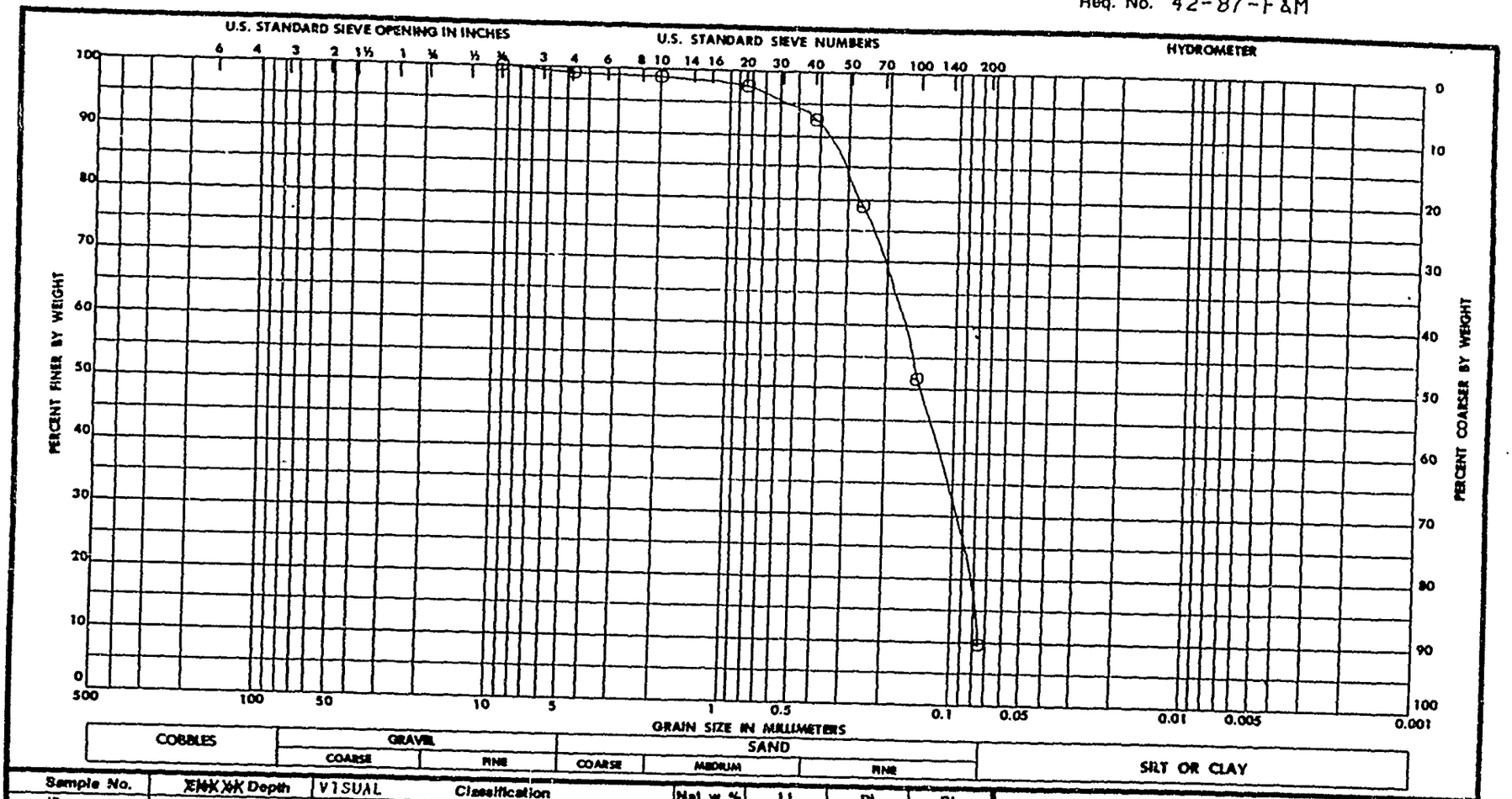
Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3563
Boring No. GP-24-87 . SAMPLE 4
Date 10/28/87

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~ENG XX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	-	POOR GRD SILTY SAND (SP-SM)	30.8	NP	NP	NP
		GRAY. W/A TRACE OF MICA &				
		GRAVEL SIZE SHELL				

GRADATION CURVES

Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3566
Boring No. GP-25-87 . SAMPLE 3
Date 10/28/87

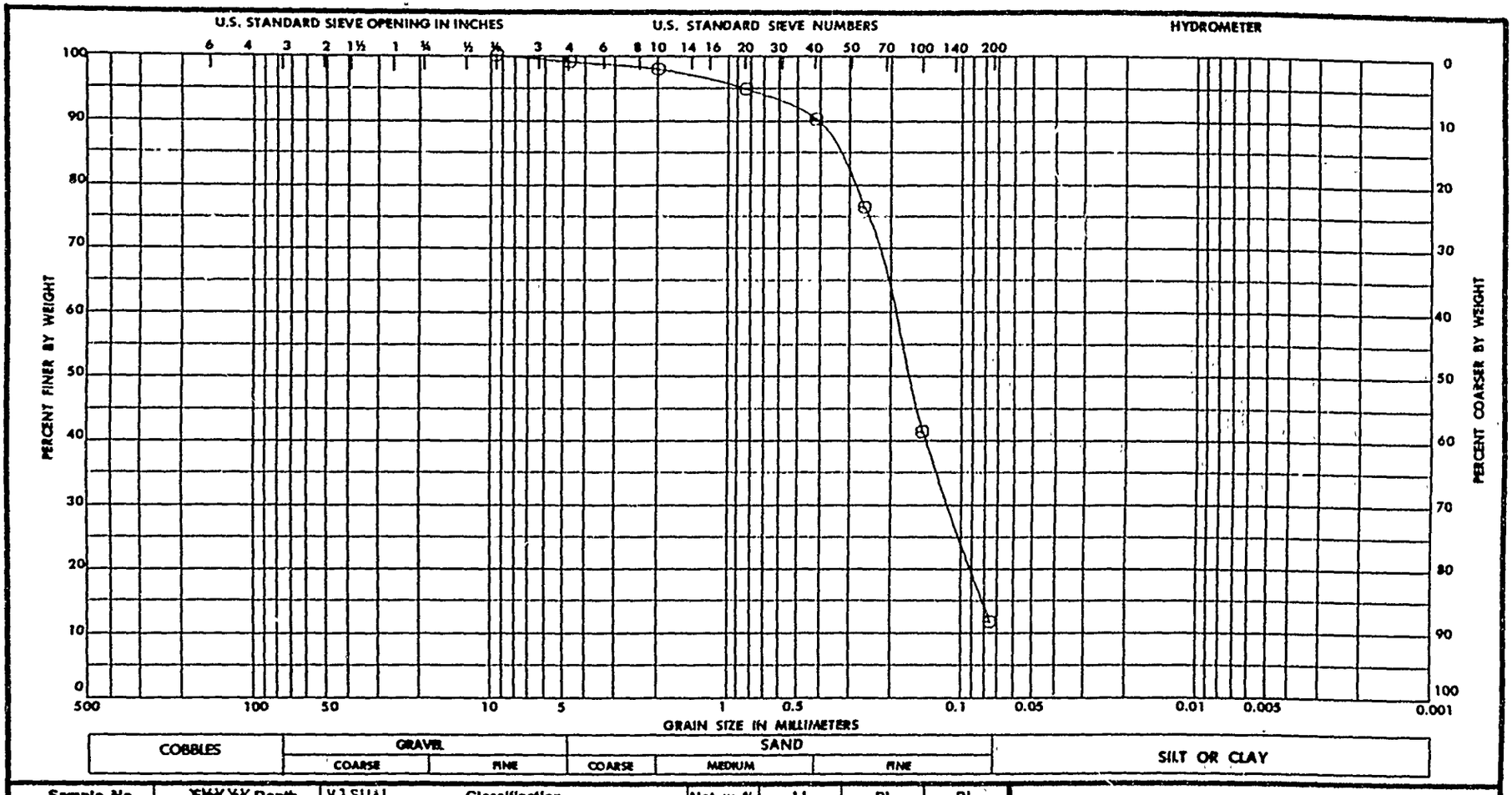
ENG FORM 1 MAY 63 2087

C-188

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~XXXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	-	POOR GRD SILTY SAND (SP-SM)	--	NP	NP	NP
		GRAY. W/A TRACE OF MICA &				
		GRAVEL SIZE SHELL				

GRADATION CURVES

Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3571
Boring No. GP-27-87 . SAMPLE 2
Date 10/28/87

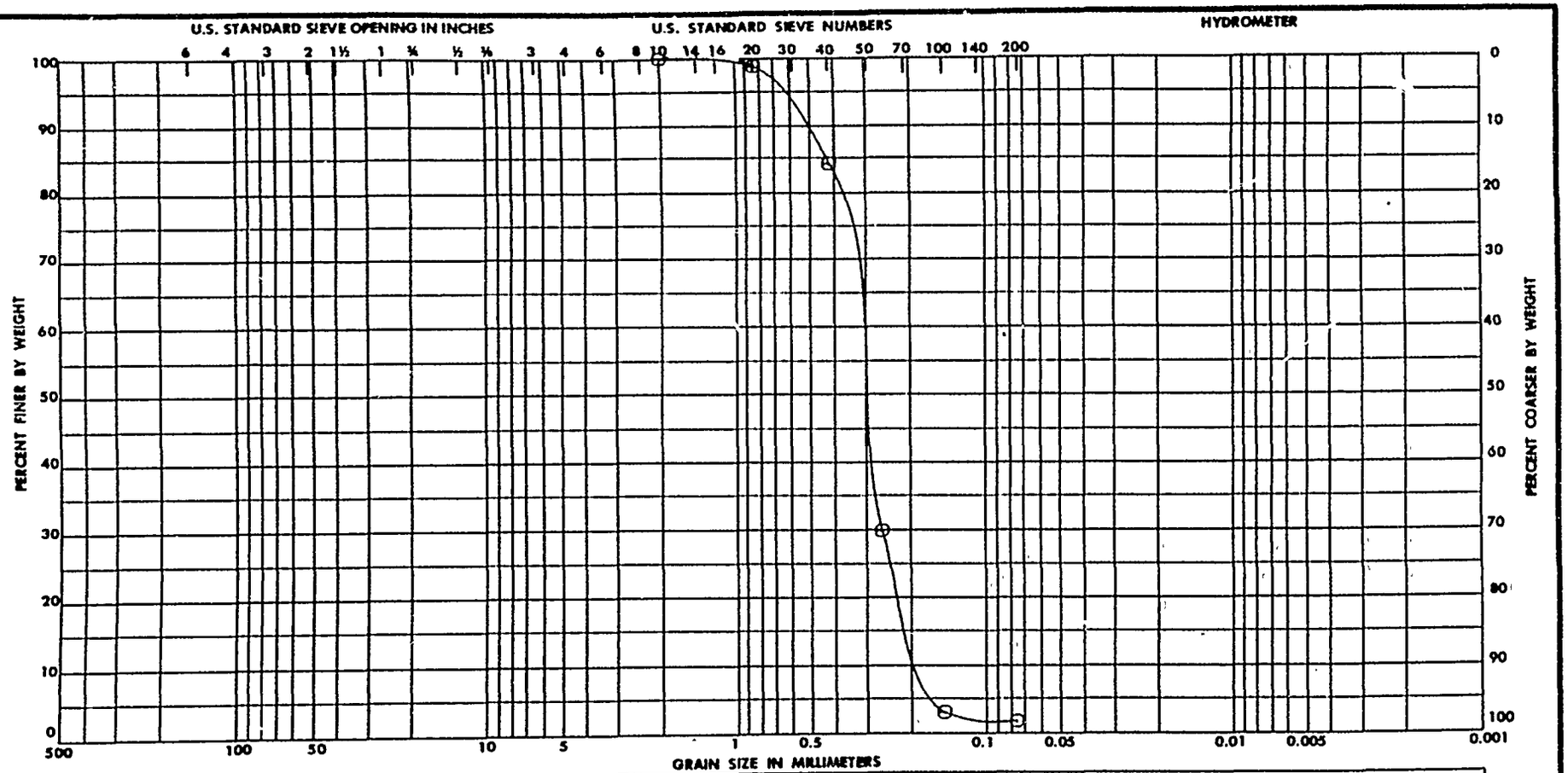
ENG FORM 1 MAY 63 2087

C-189

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~XXXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	-	POORLY GRADED SAND (SP)	--	NP	NP	NP
		TAN. W/SHELL FRAGMENTS				

GRADATION CURVES

Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3572
Boring No. GP-28-87 , SAMPLE 1
Date 10/28/87

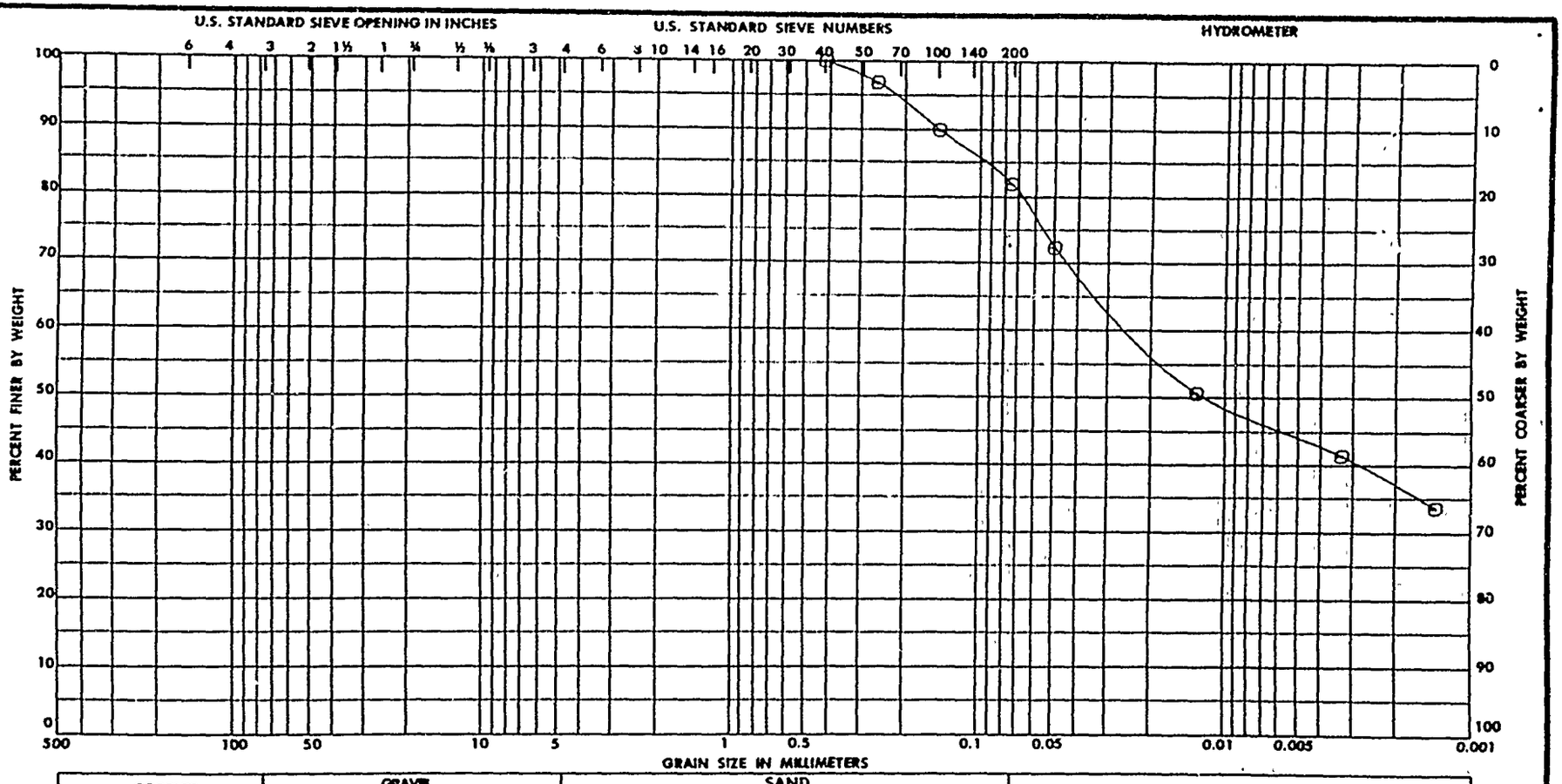
ENG FORM 1 MAY 63 2087

C-190

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	Elev (XXXX)	Classification	Nat w %	LL	PL	PI
-	36.1-39.1'	FAT CLAY (CH)	84.7	83	22	61
		GRAY. W/A LITTLE SAND & TRACE				
		OF MICA				
		SPECIFIC GRAVITY=2.61				

GRADATION CURVES

Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3576
Boring No. GP-29-87 , SAMPLE -
Date 11/07/87

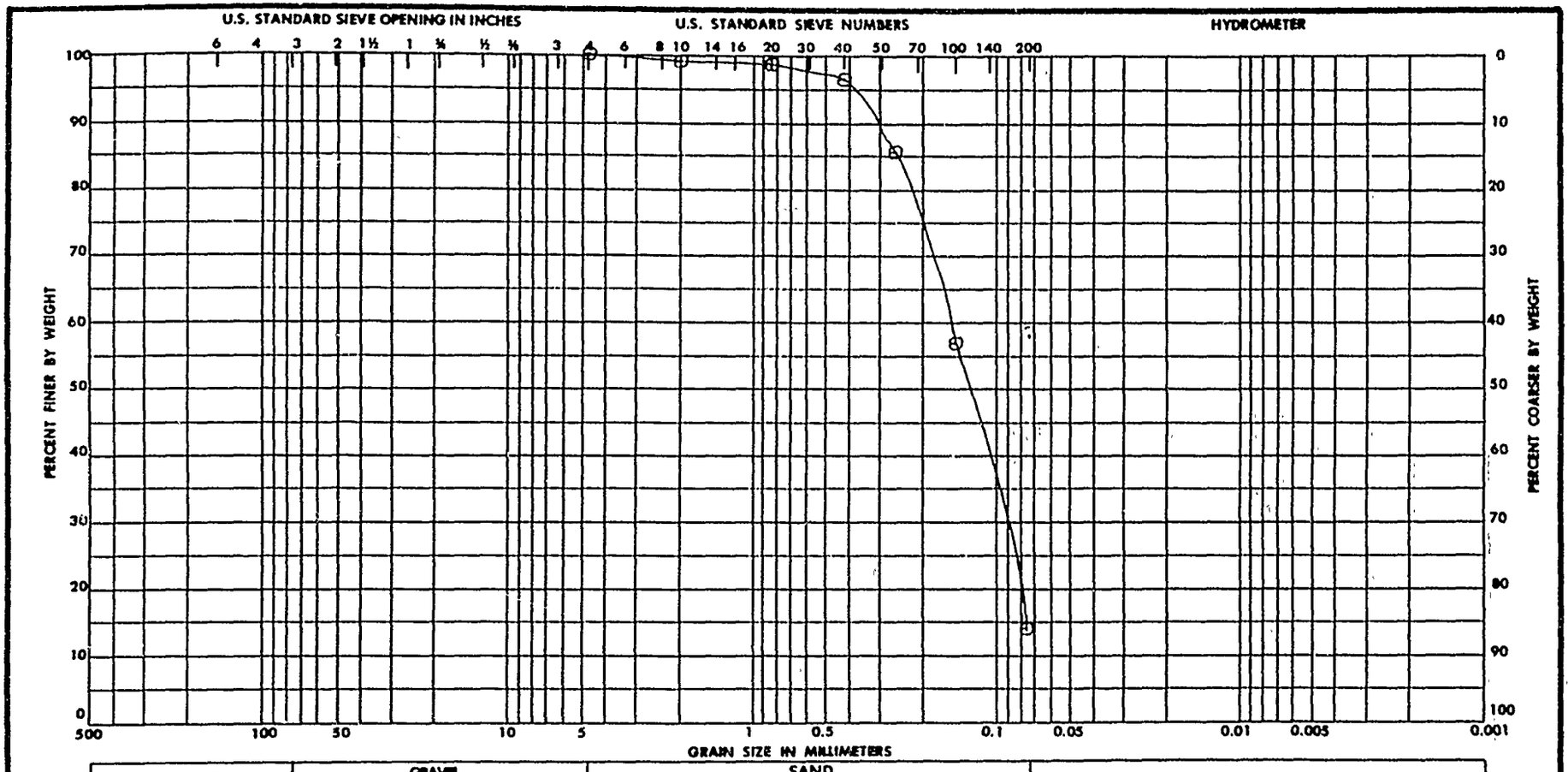
ENG FORM 1 MAY 63 2087

C-191

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~Depth~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	-	SILTY SAND (SM)	28.5	NP	NP	NP
		GRAY. W/A TRACE OF MICA &				
		SHELL FRAGMENTS				

GRADATION CURVES

Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3578
Boring No. GP-29-87 , SAMPLE 4
Date 10/28/87

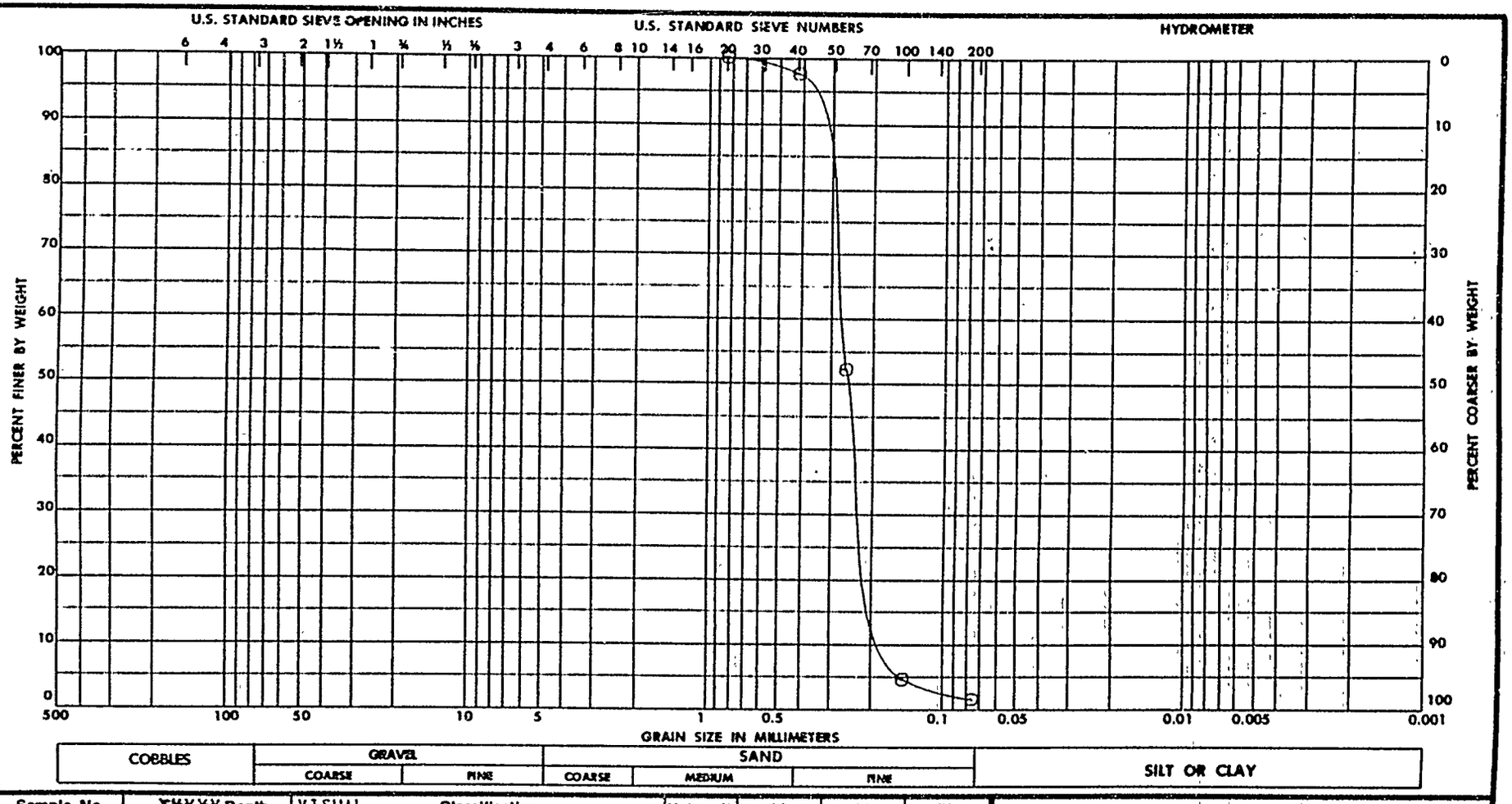
ENG FORM 1 MAY 63 2087

C-192

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~EM X K~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	-	POORLY GRADED SAND (SP)	--	NP	NP	NP
		TAN				

GRADATION CURVES

Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3579
Boring No. GP-30-87 . SAMPLE 1
Date 10/28/87

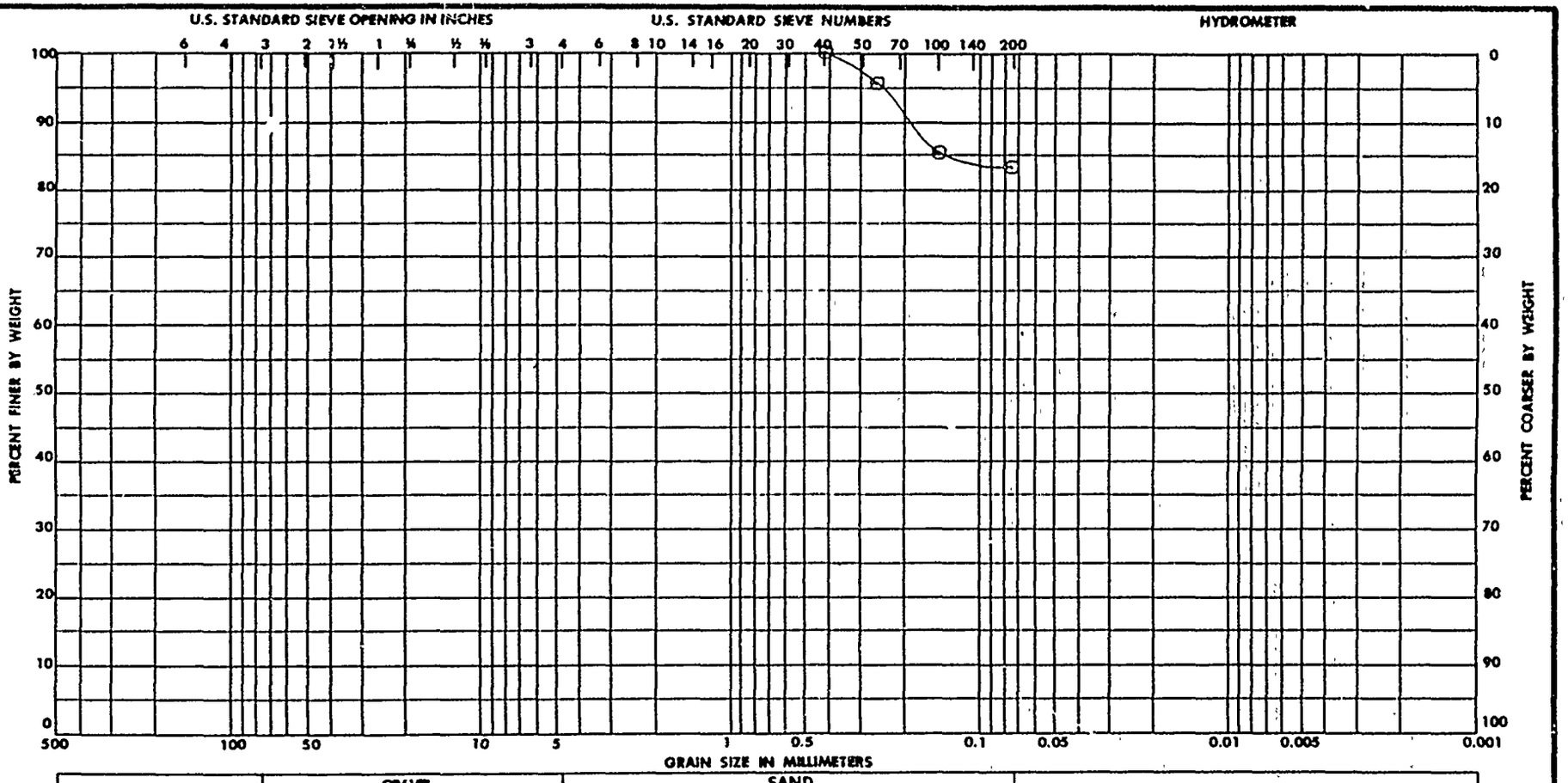
ENG FORM 1 MAY 63 2087

C-193

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~XXXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	-	CLASS. NOT REQUESTED	--	--	--	--
		.				

GRADATION CURVES

Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3580
Boring No. GP-30-87 , SAMPLE 2
Date 10/28/87

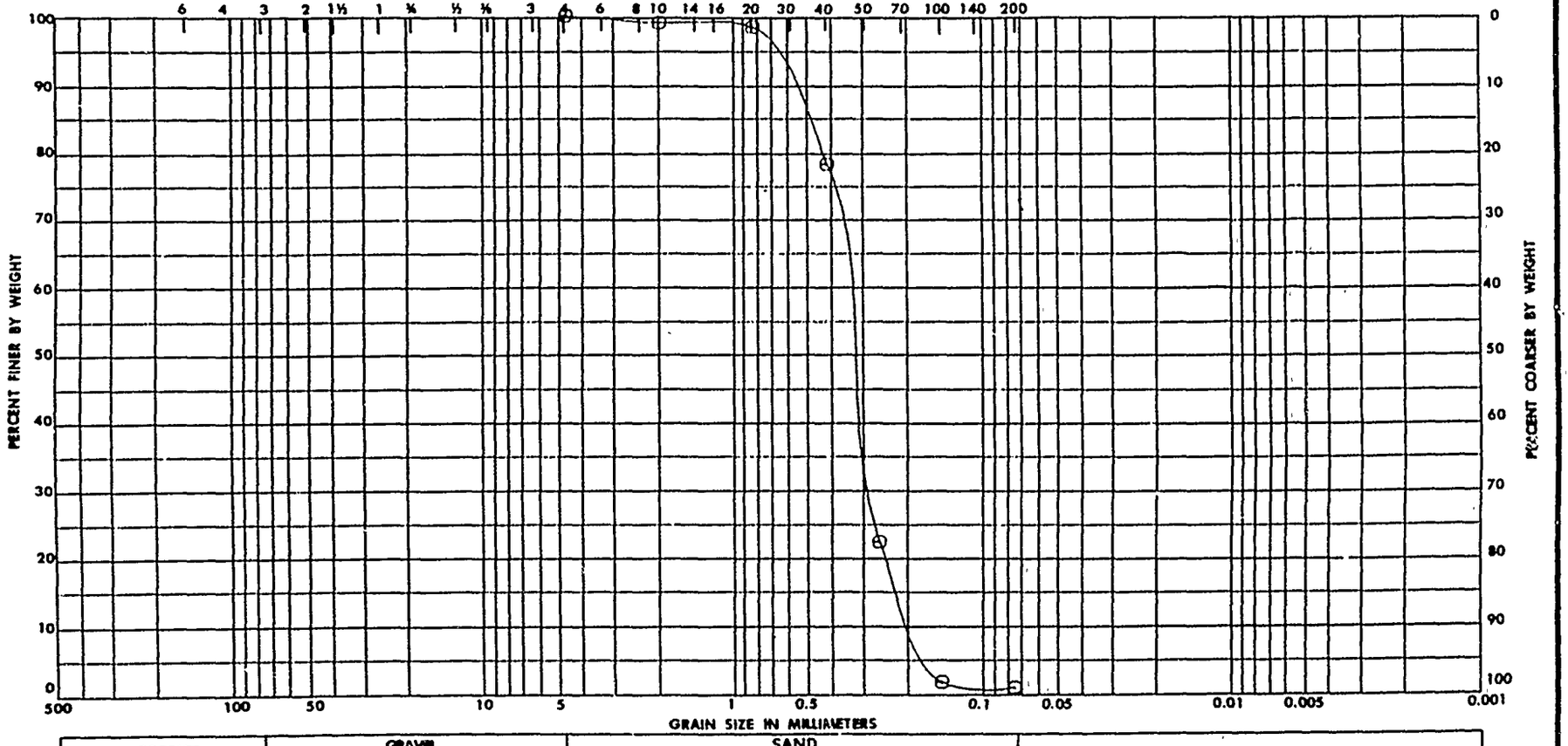
ENG. FORM MAY 63 2087

C-194

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	-	POORLY GRADED SAND (SP)	---	NP	NP	NP
		TAN				

GRADATION CURVES

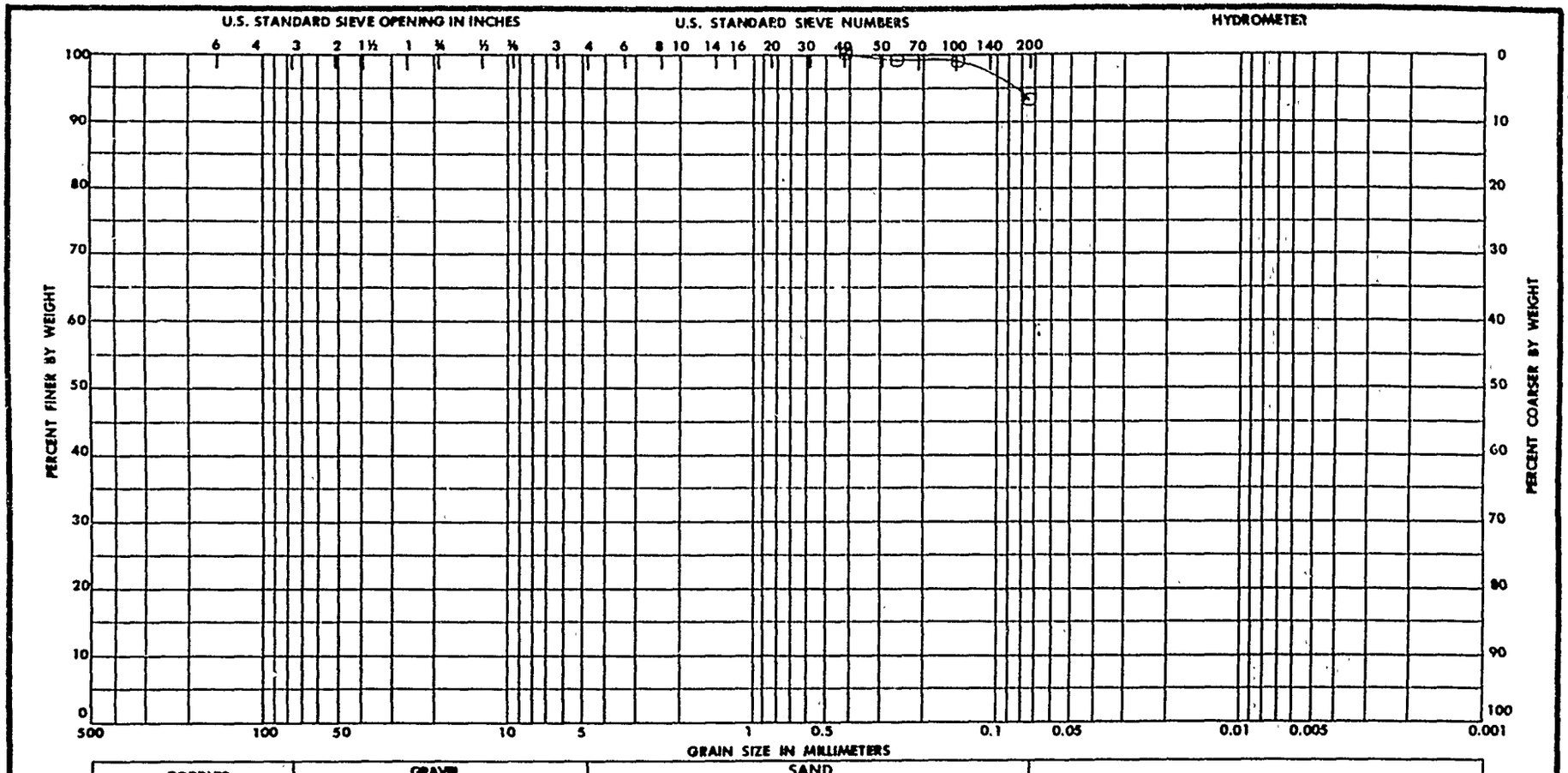
Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3582
Boring No. GP-31-87 . SAMPLE 1
Date 10/28/87

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
1	-	FAT CLAY (CH)	101.0	86	24	62
		GRAY. W/A TRACE OF SAND &				
		MICA				
		SPECIFIC GRAVITY=2.64				

GRADATION CURVES

Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3587
Boring No. GP-33-87 . SAMPLE 1
Date 10/28/87

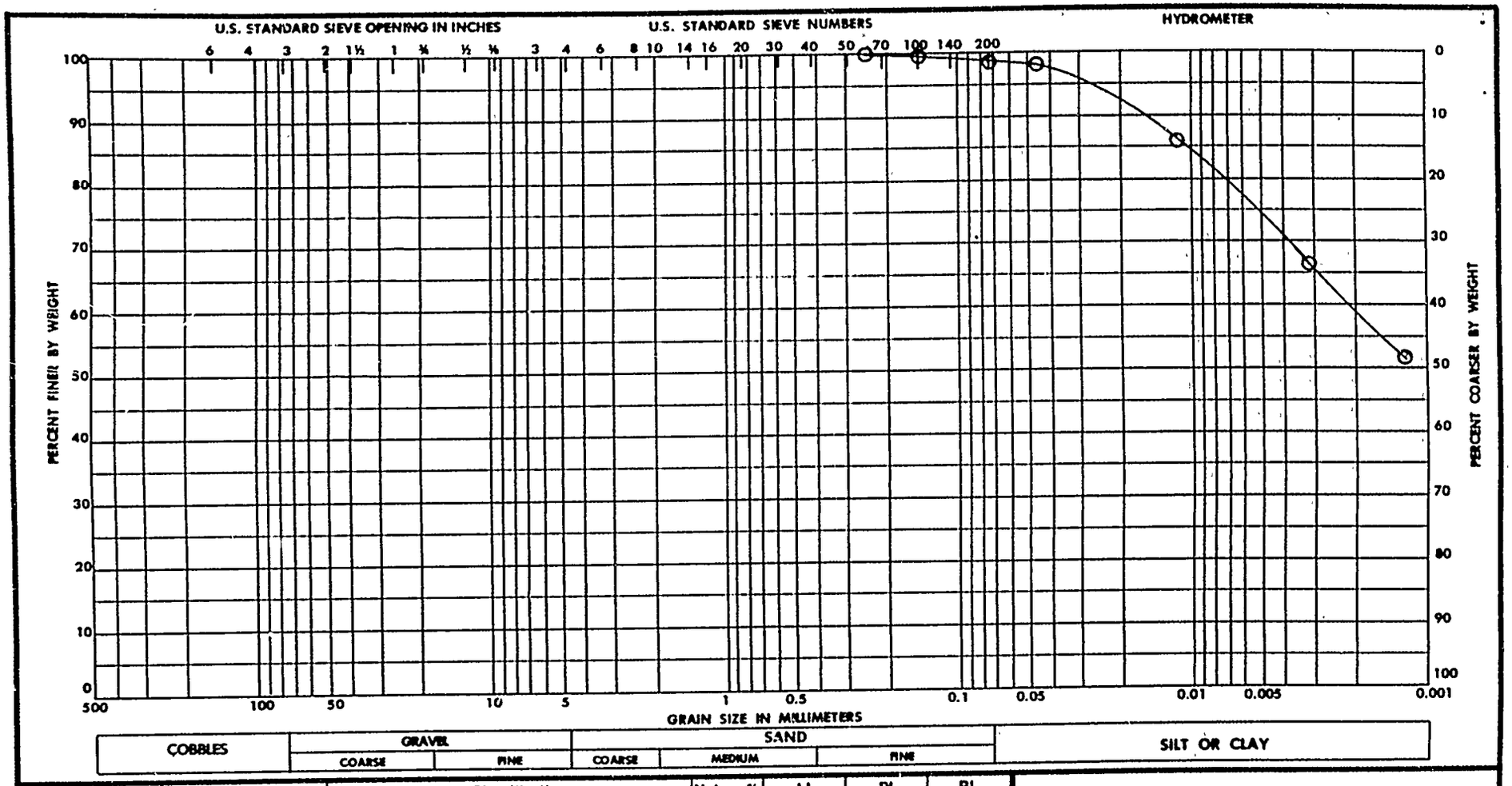
ENG FORM 1 MAY 63 2087

C-196

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	Elev ~~GX Depth~~	Classification	Nat w %	LL	PL	PI
--	36.7-39.7'	FAT CLAY (CH) GRAY. WITH A TRACE OF SAND & MICA	150.5	116	38	78
		SPECIFIC GRAVITY = 2.65				

GRADATION CURVES

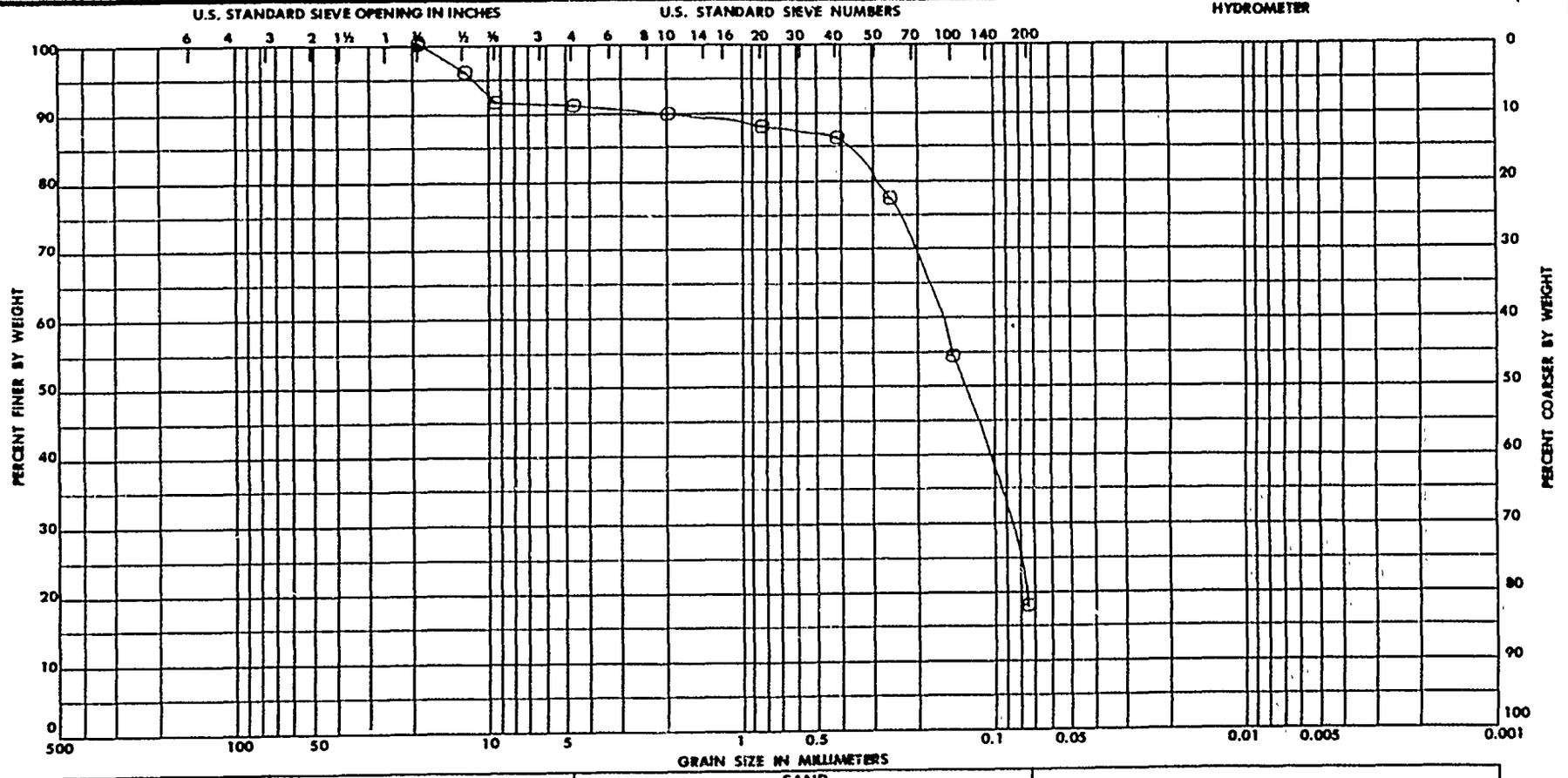
Project GULF PORT, MS
GULF PORT HARBOR
Area LAB NO. 57/3601
Boring No. GP-45-87 Sample --
Date 11/09/87

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~EM XX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	-	CLASS. NOT REQUESTED	--	--	--	--

GRADATION CURVES

Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3605
Boring No. GP-48-87 , SAMPLE 2
Date 10/28/87

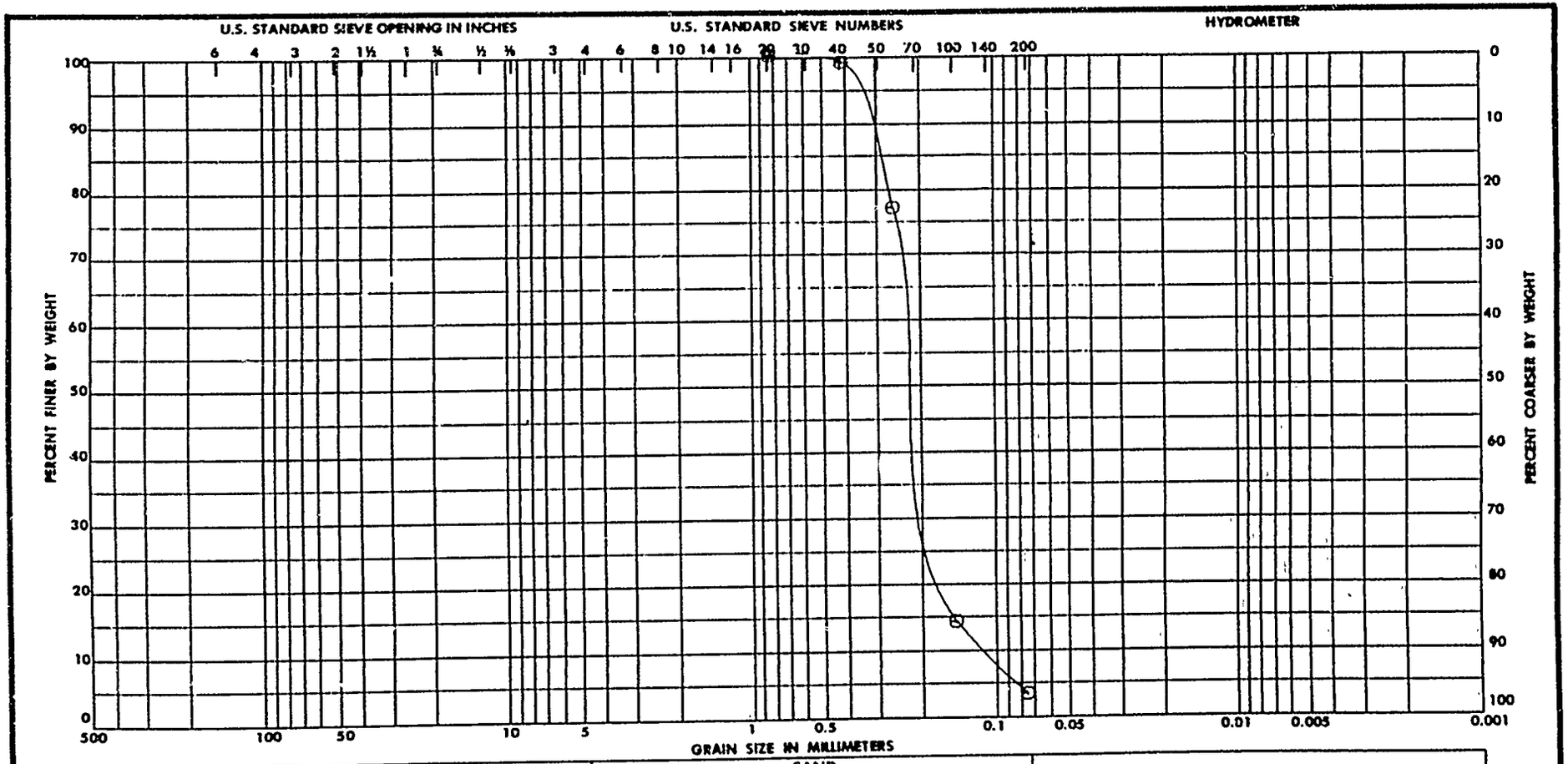
ENG FORM MAY 69 2087

C-198

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	-	POORLY GRADED SAND (SP)	---	NP	NP	NP
		LT. GRAY				

GRADATION CURVES

Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3607
Boring No. GP-51-87 , SAMPLE 1
Date 10/28/87

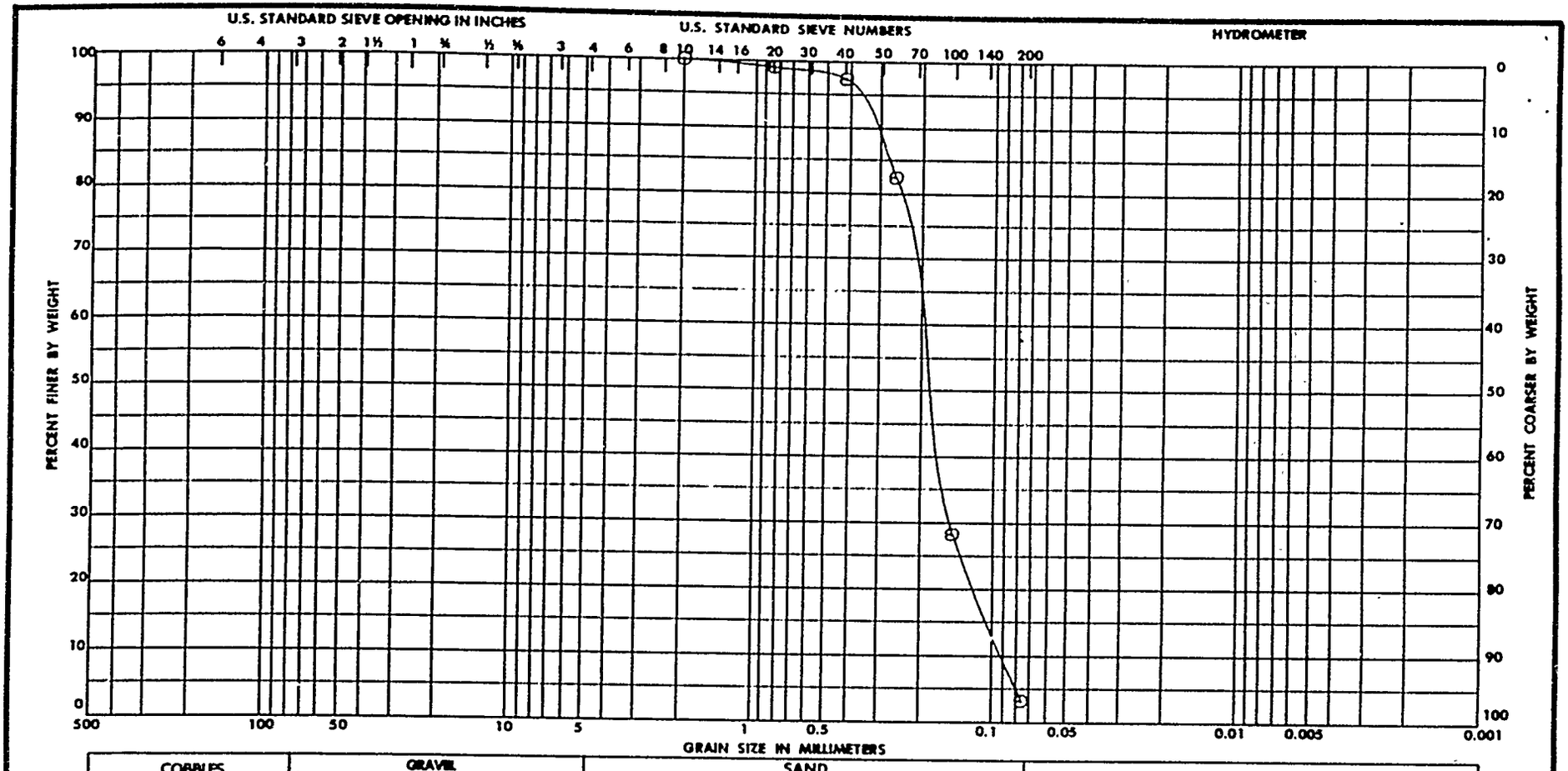
ENG FORM 1 MAY 63 2087

C-199

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	Elev (XXXX)	VISUAL Classification	Nat w %	LL	PL	PI
--	21.6-24.6'	POORLY GRADED SAND (SP)	---	NP	NP	NP
		GRAY. W/A TRACE OF MICA &				
		SHELL FRAGMENTS				

GRADATION CURVES

Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3609
Boring No. GP-52-87 . SAMPLE -
Date 11/07/87

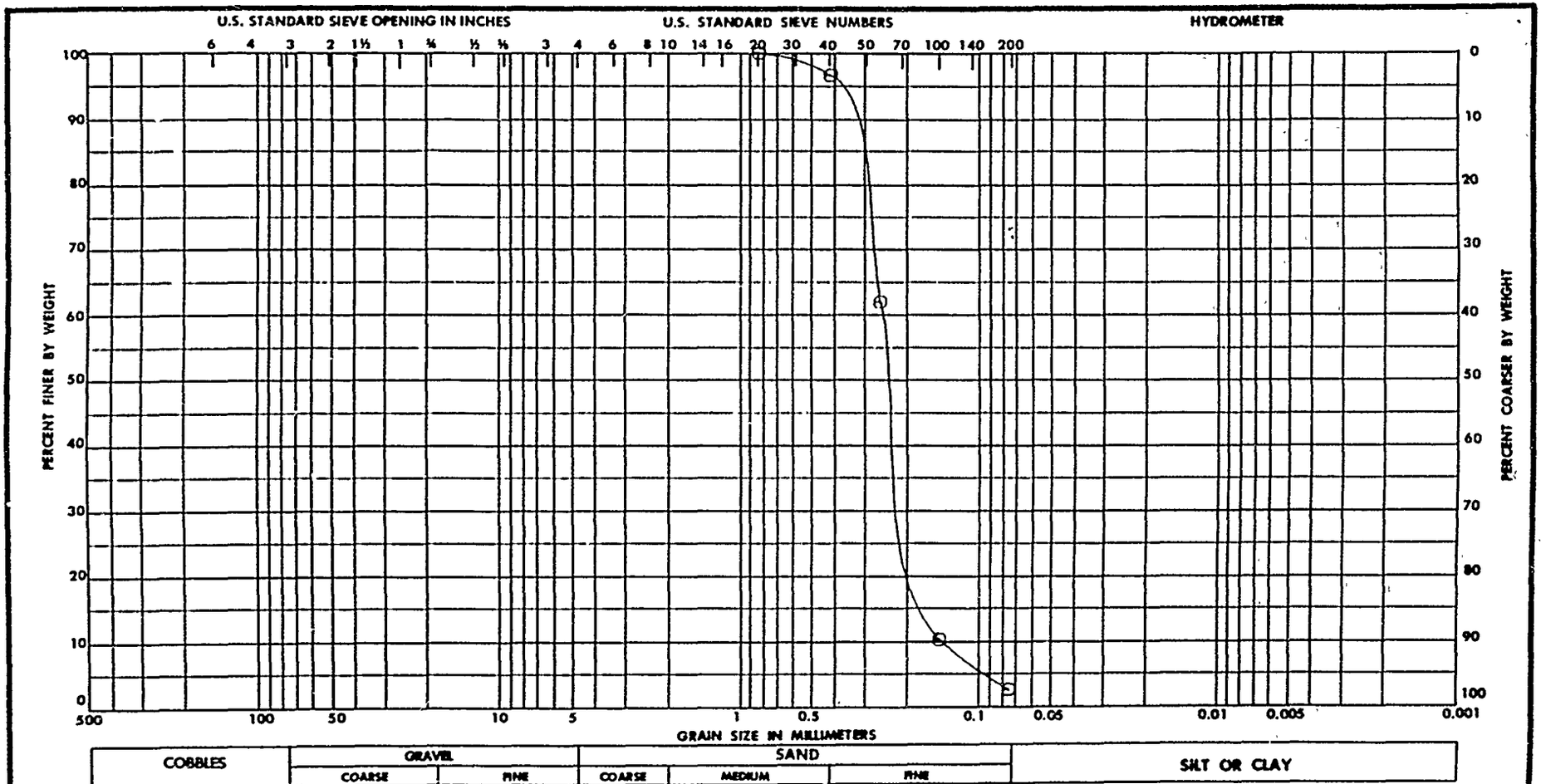
C-200

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	Elev of [illegible]	VISUAL Classification	Nat w %	LL	PL	PI
--	27.6-30.6'	POORLY GRADED SAND (SP)	33.3	NP	NP	NP
		GRAY. W/A TRACE OF MICA &				
		SHELL FRAGMENTS				
		SPECIFIC GRAVITY=2.66				

GRADATION CURVES

Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3611
Boring No. GP-52-87 . SAMPLE -
Date 11/07/87

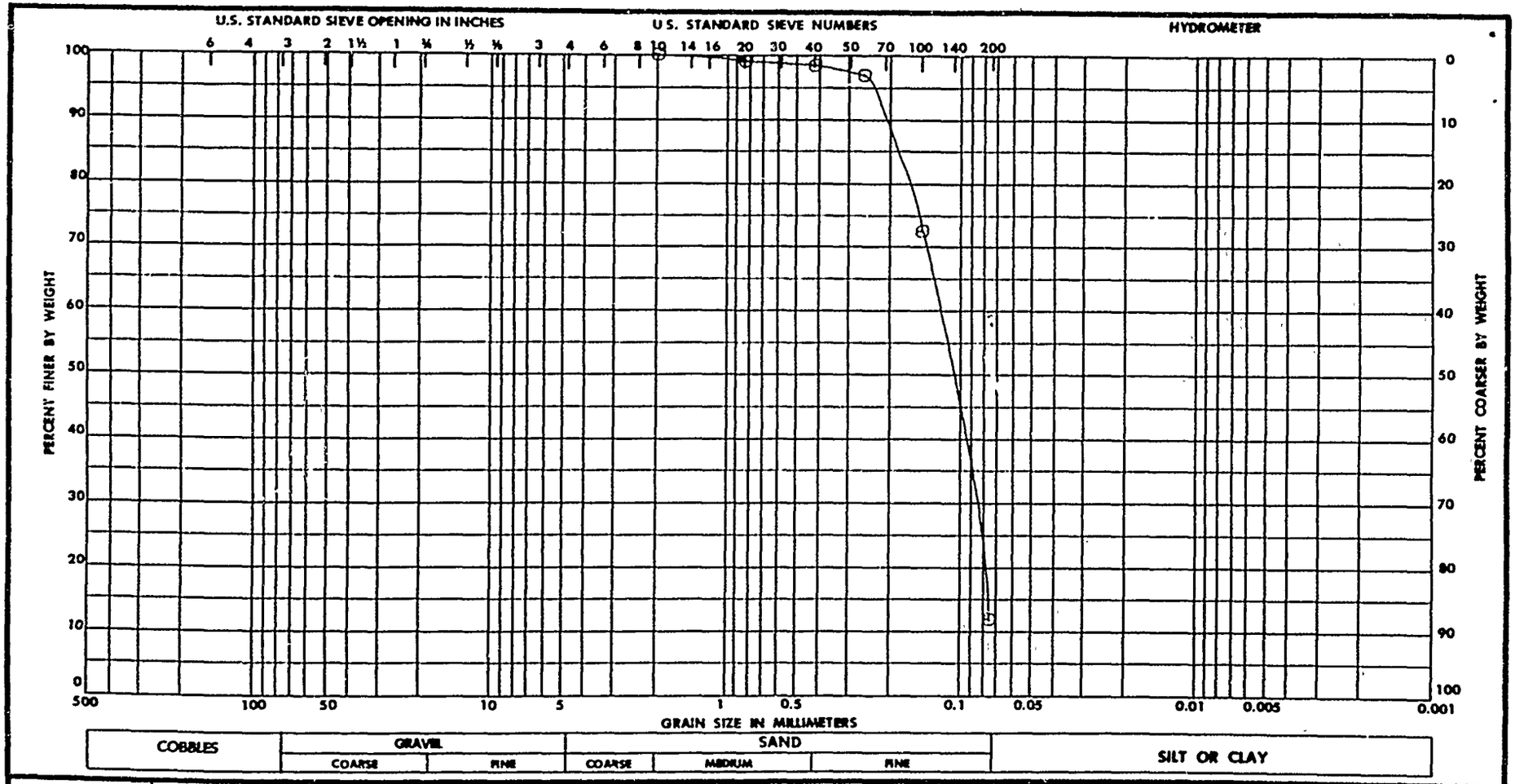
C-201

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	Elev ~~XXXXX~~	VISUAL Classification	Nat w %	LL	PL	PI
--	33.6-36.6'	CLASS. NOT REQUESTED	33.8	--	--	--
		.				

GRADATION CURVES

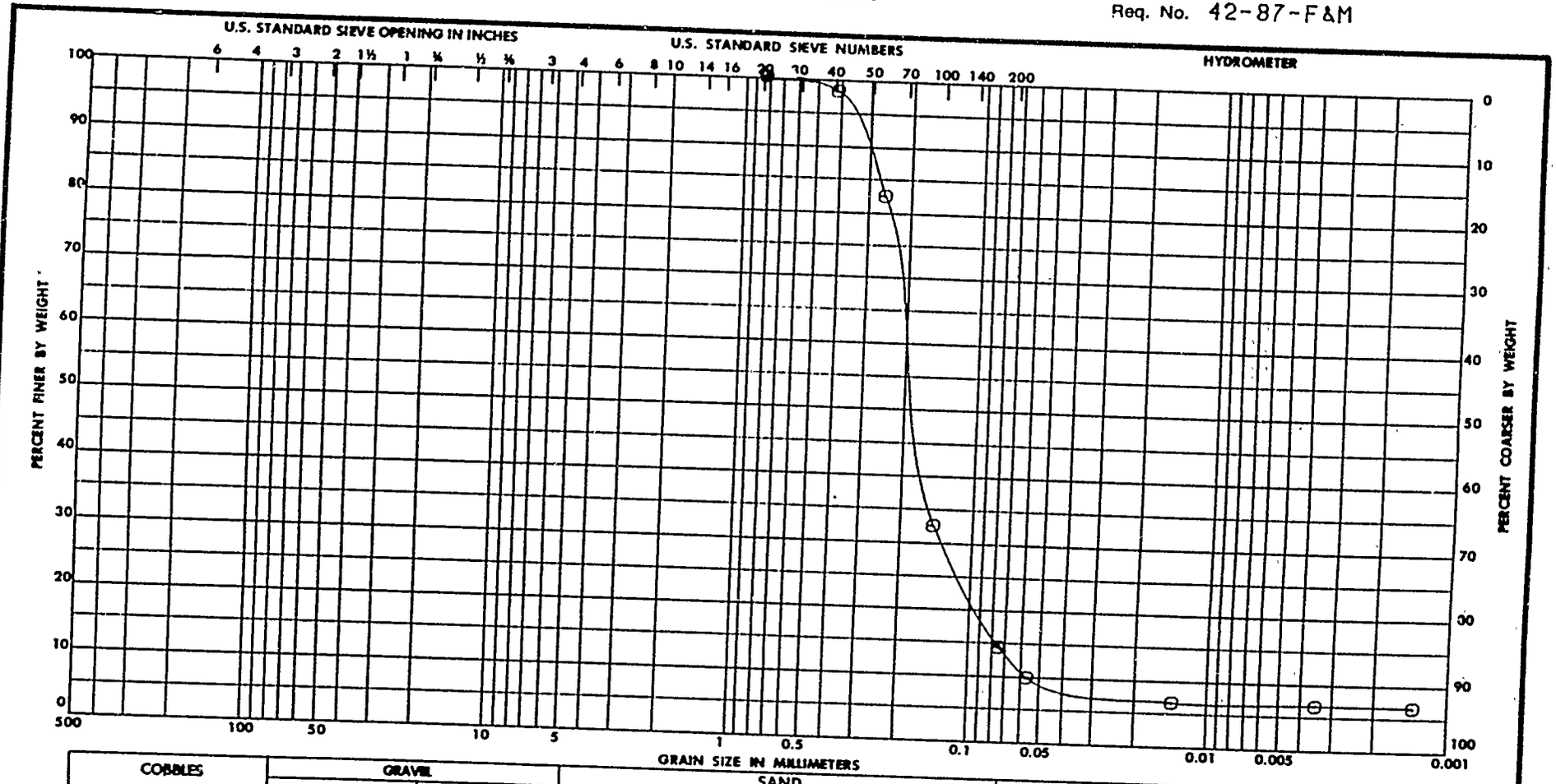
Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3613
Boring No. GP-S2-87 . SAMPLE -
Date 11/07/87

ENG FORM MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~XXX~~ Depth	Classification	Nat w %	LL	PL	PI
1	-	SILTY SAND (SM)	27.4	—	—	—
		GRAY				

GRADATION CURVES

Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3615
Boring No. GP-53-87 , SAMPLE 1
Date 10/28/87

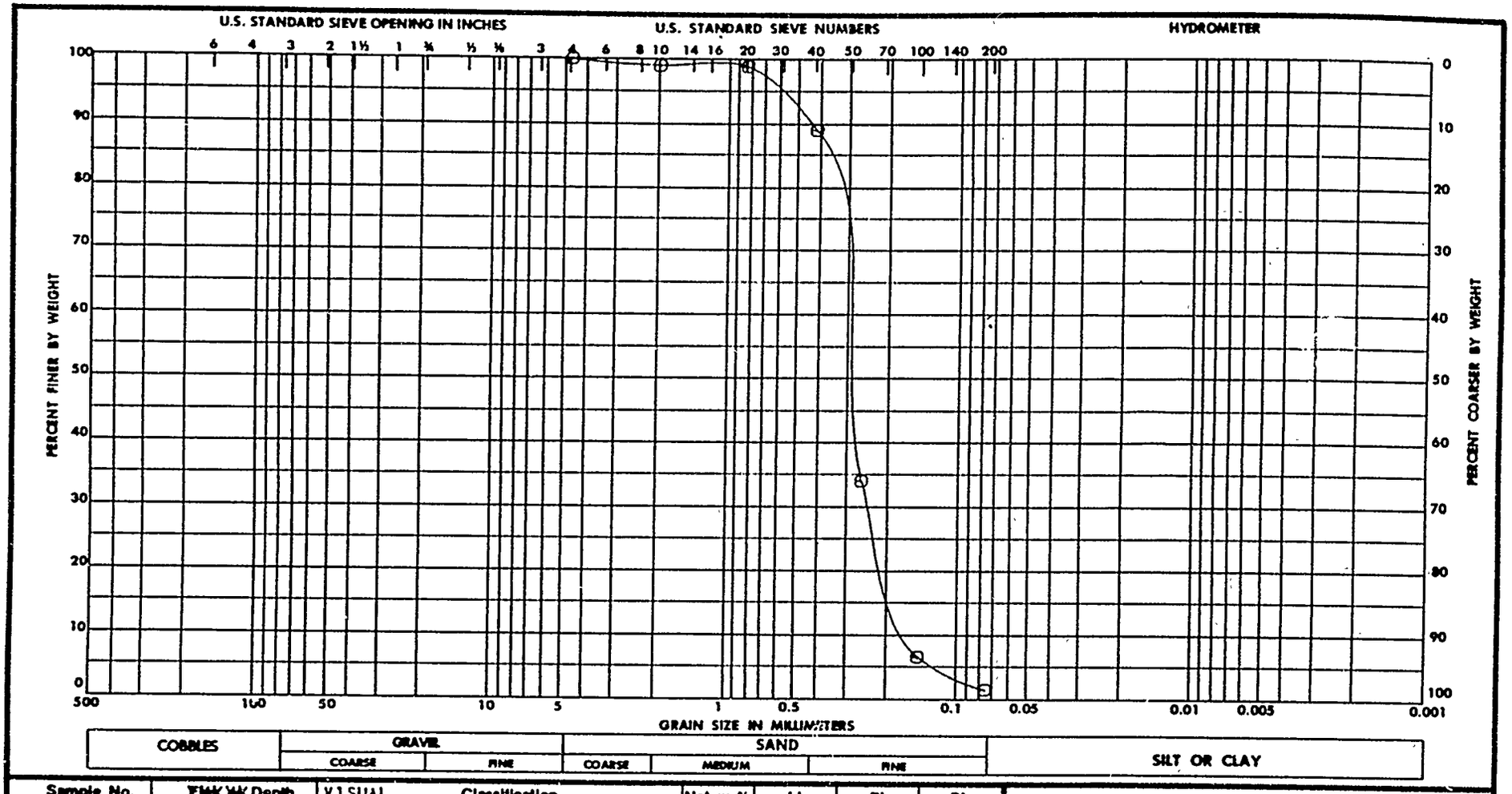
ENG FORM 1 MAY 63 2087

C-203

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	-	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. GRAY				

GRADATION CURVES

Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3617
Boring No. GP-54-87 . SAMPLE 1
Date 10/28/87

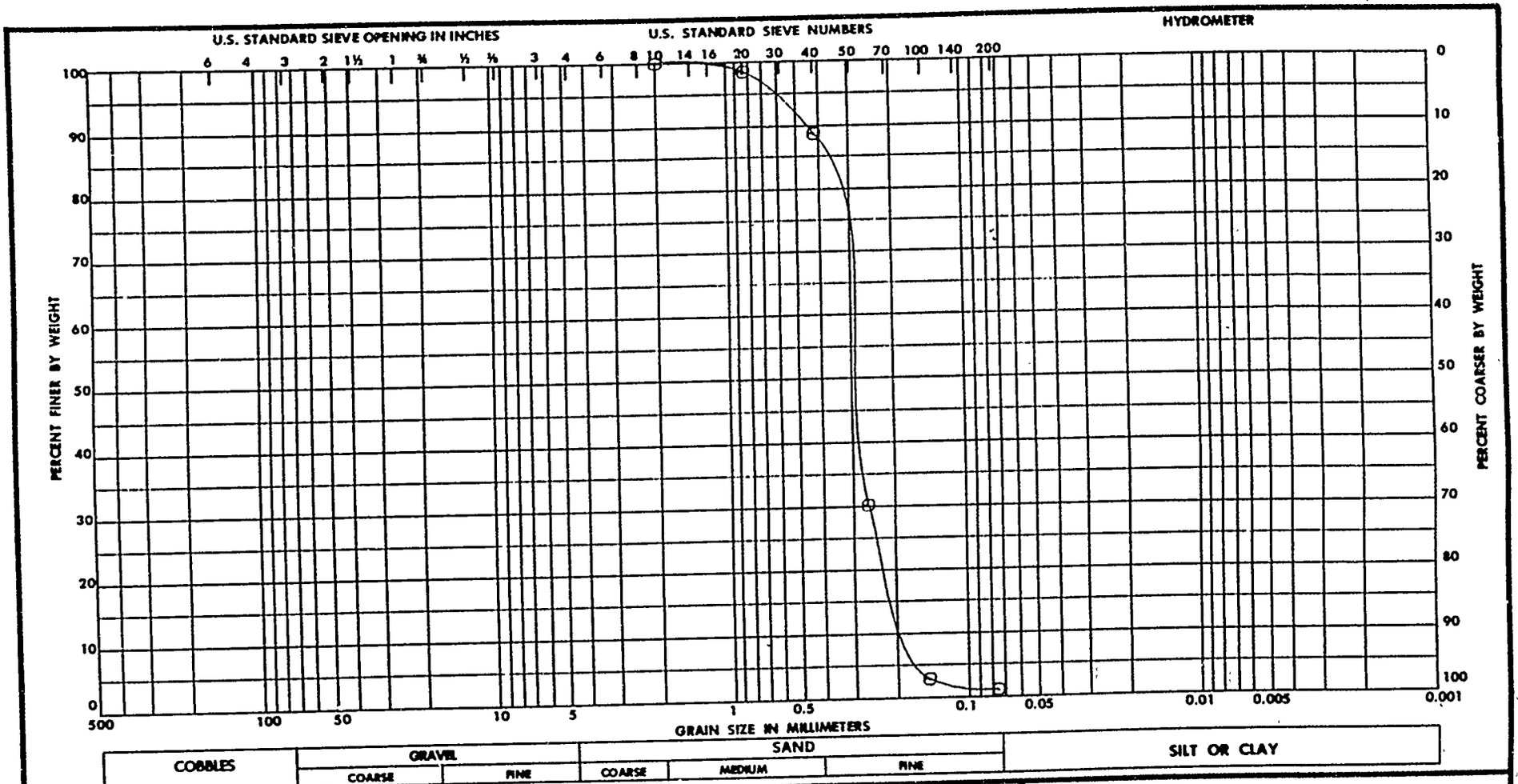
C-204

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	-	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. GRAY & TAN				

Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3620
Boring No. GP-SS-87 , SAMPLE 3
Date 10/28/87

GRADATION CURVES

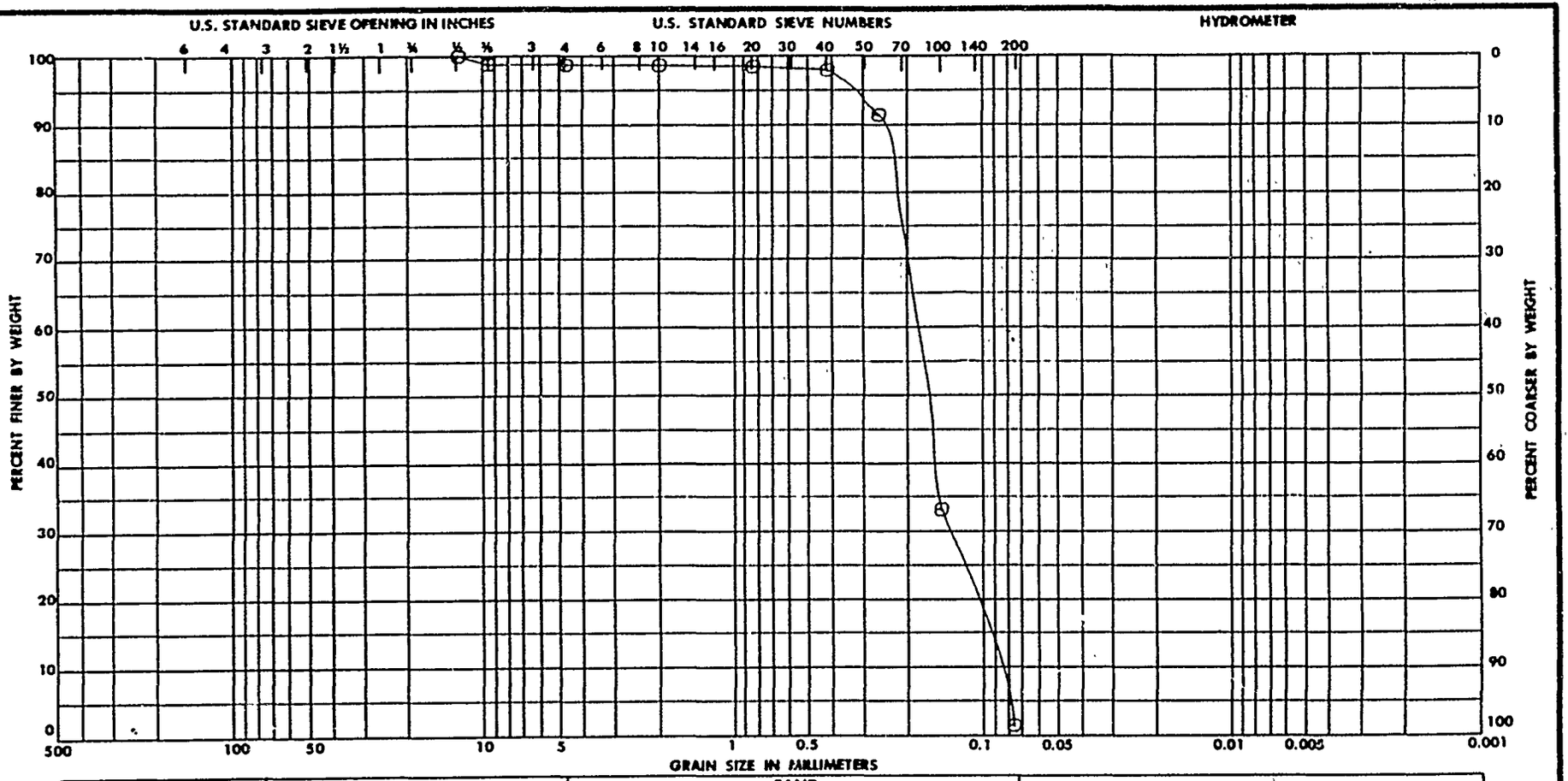
ENG FORM 1 MAY 63 2087

C-205

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~XXXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	-	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. GRAY. W/GRAVEL SIZE SHELL				

GRADATION CURVES

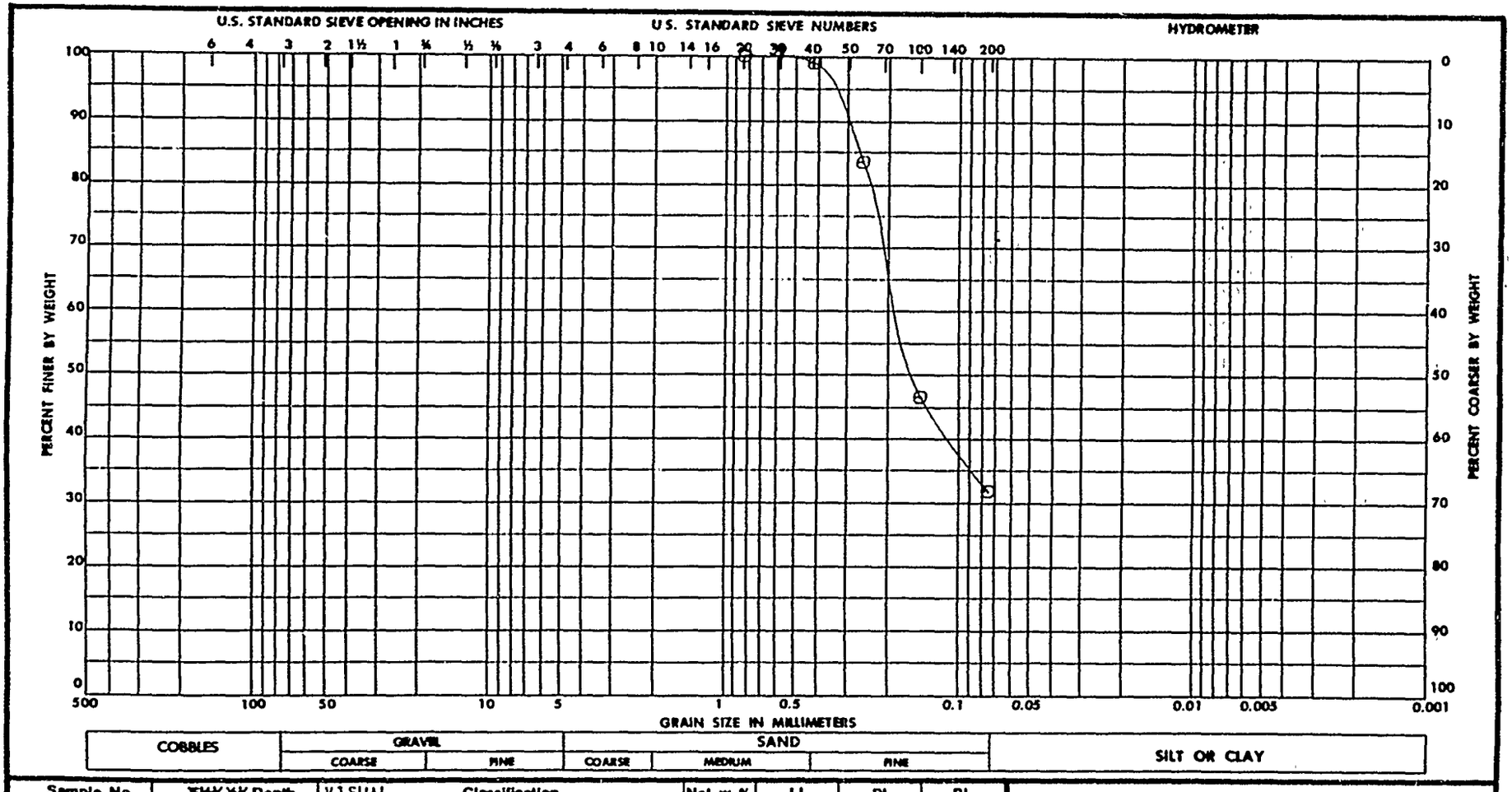
Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3621
Boring No. GP-56-87 SAMPLE 1
Date 10/28/87

ENG FORM MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	-	CLAYEY SAND. HIGH LL (SC-H)	20.8	--	--	--
		GRAY				

GRADATION CURVES

Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3622
Boring No. GP-56-87 . SAMPLE 2
Date 10/28/87

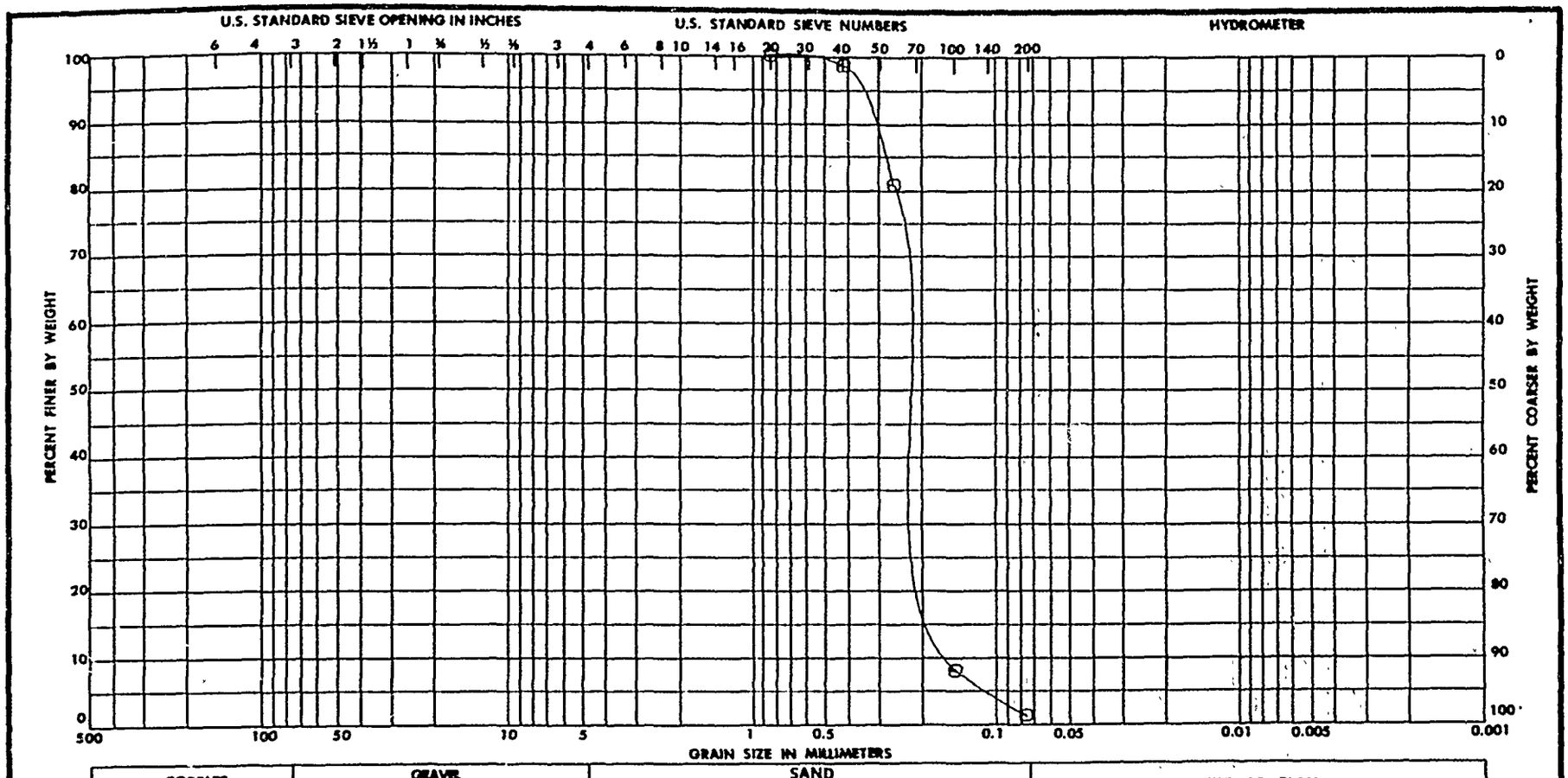
ENG FORM 1 MAY 63 2087

C-207

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~EXXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	-	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. GRAY & TAN				

GRADATION CURVES

Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 87/3629
Boring No. GP-58-87 , SAMPLE 1
Date 10/28/87

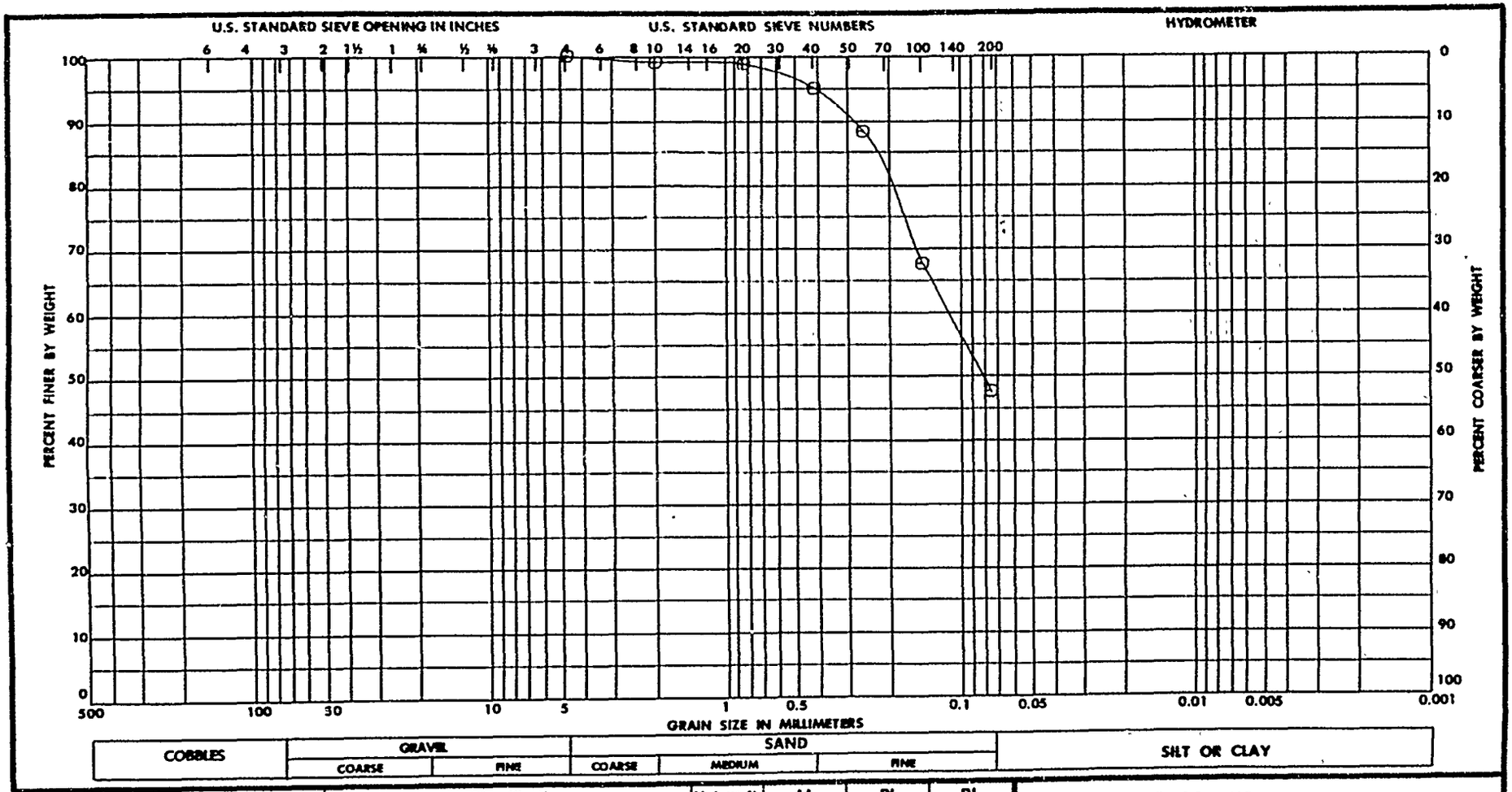
ENG FORM MAY 63 2087

C-208

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~XXXX~~ Depth	Classification	Nat w %	LL	PL	PI
--	15.0-18.0'	CLAYEY SAND. HIGH LL (SC-H)	71.3	58	16	42
		DK. GRAY. W/A TRACE OF MICA				
		& SHELL FRAGMENTS				
		SPECIFIC GRAVITY=2.61				

GRADATION CURVES

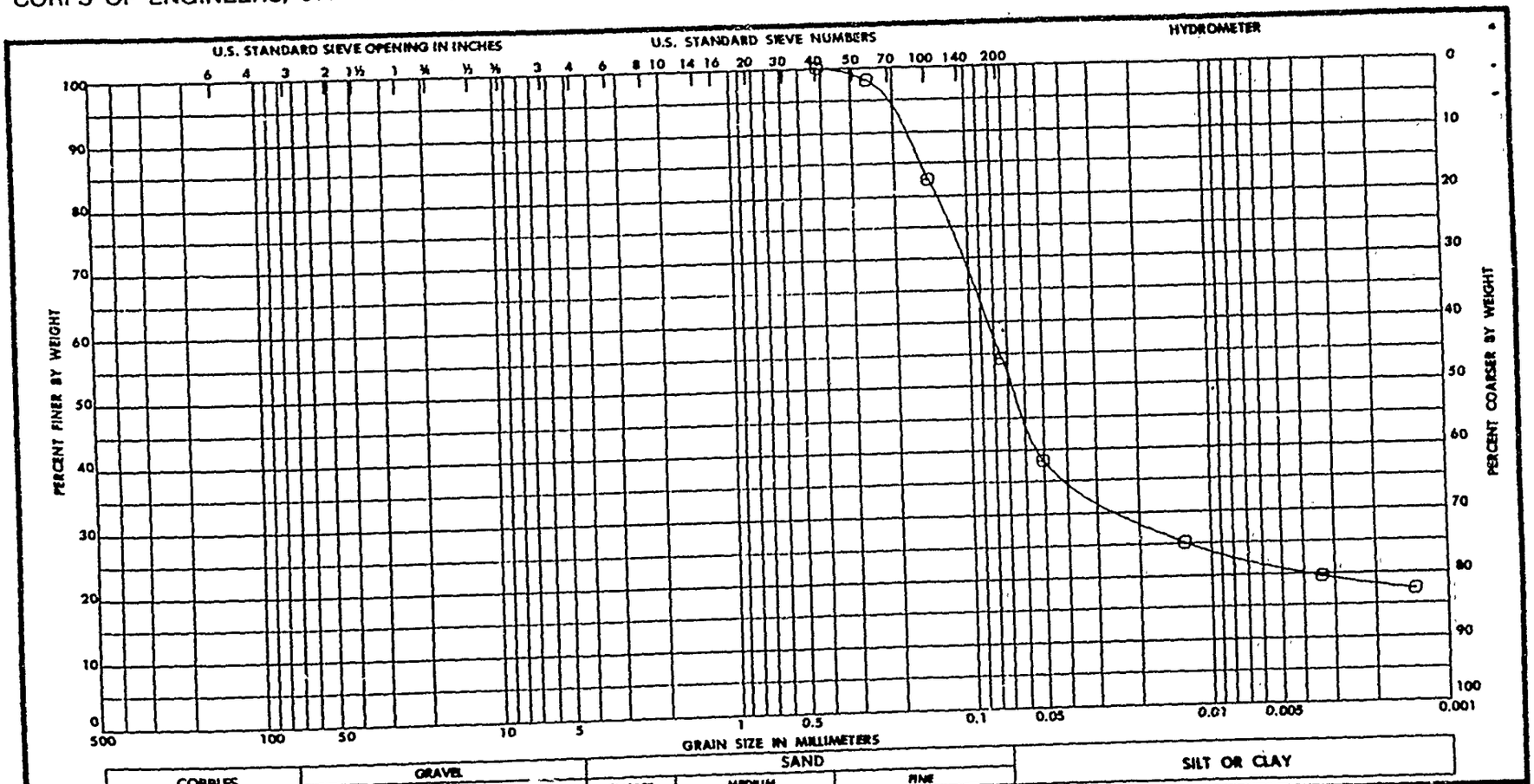
Project: GULF PORT. MS.
GULF PORT HARBOR
Area: LAB NO. 57/3632
Boring No. GP-59-87 . SAMPLE -
Date: 11/07/87

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	Elev ~~(X)(M)(M)~~	Classification	Nat w %	LL	PL	PI
--	30.0-33.0'	LEAN CLAY (CL)	30.7	36	16	20
		GRAY. SANDY. W/A TRACE OF				
		MICA				
		SPECIFIC GRAVITY=2.67				

Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3635
Boring No. GP-59-87 . SAMPLE -
Date 11/07/87

GRADATION CURVES

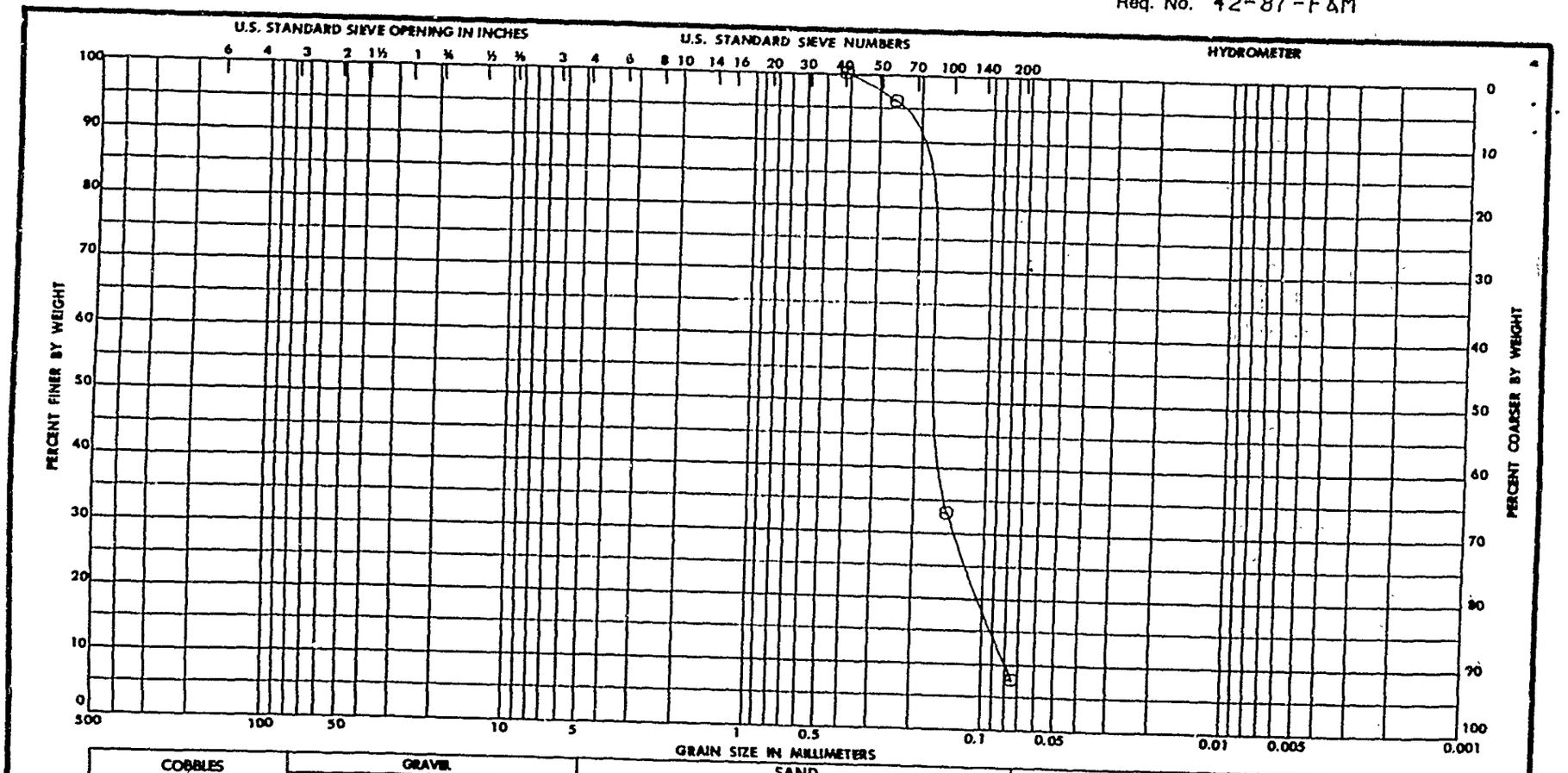
ENG FORM [illegible] 2087

C-210

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	Elev or ~~XXXX~~	Visual Classification	Nat w %	LL	PL	PI
--	33.0-36.0'	CLASS. NOT REQUESTED	22.6	--	--	--

GRADATION CURVES

Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3636
Boring No. GP-59-87 , SAMPLE -
Date 11/07/87

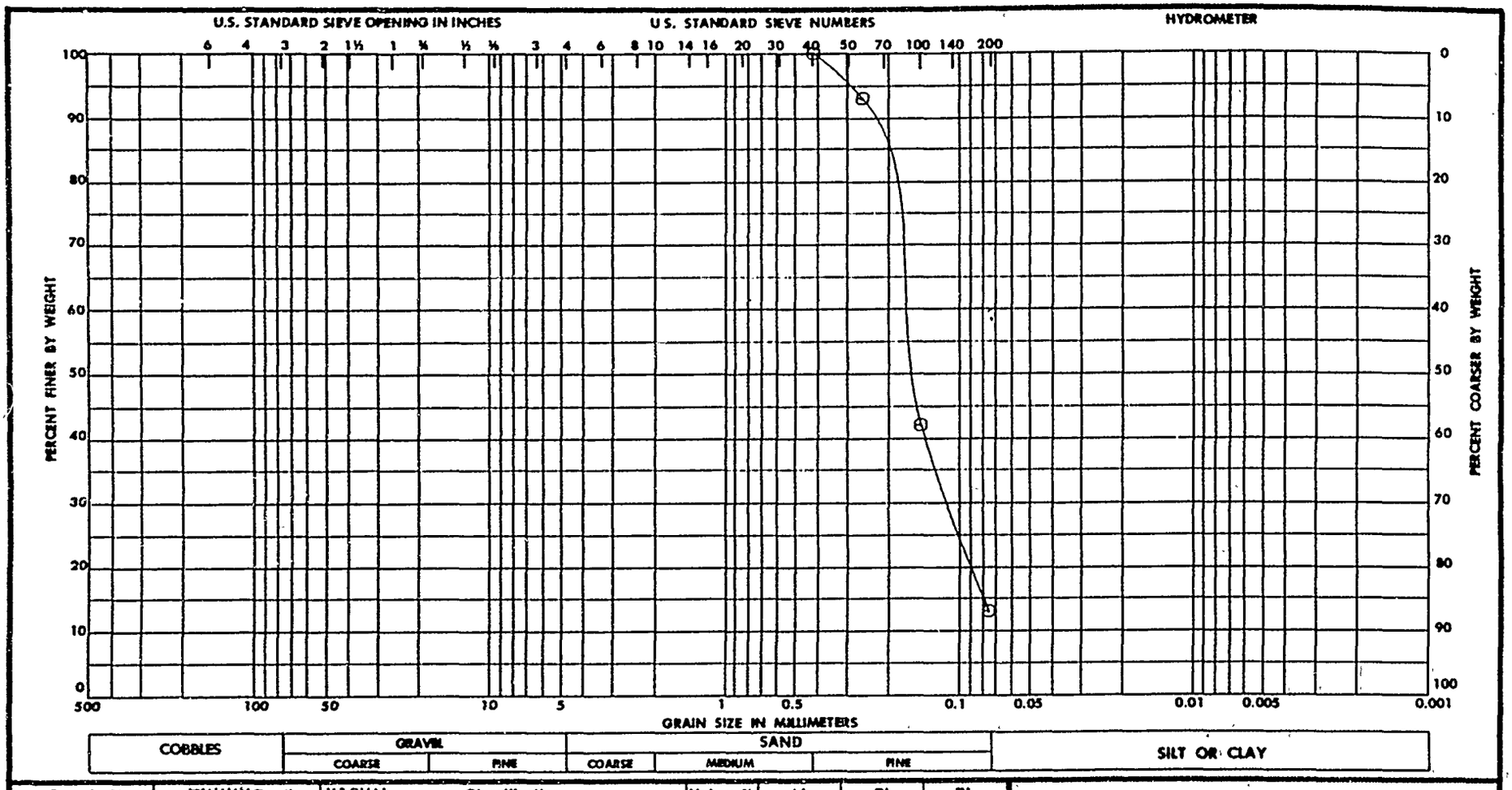
ENG FORM 1 MAY 63 2087

C-211

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~ENG XX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	-	CLASS. NOT REQUESTED	--	--	--	--
		.				

GRADATION CURVES

Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3641
Boring No. GP-80-87 . SAMPLE 4
Date 10/28/87

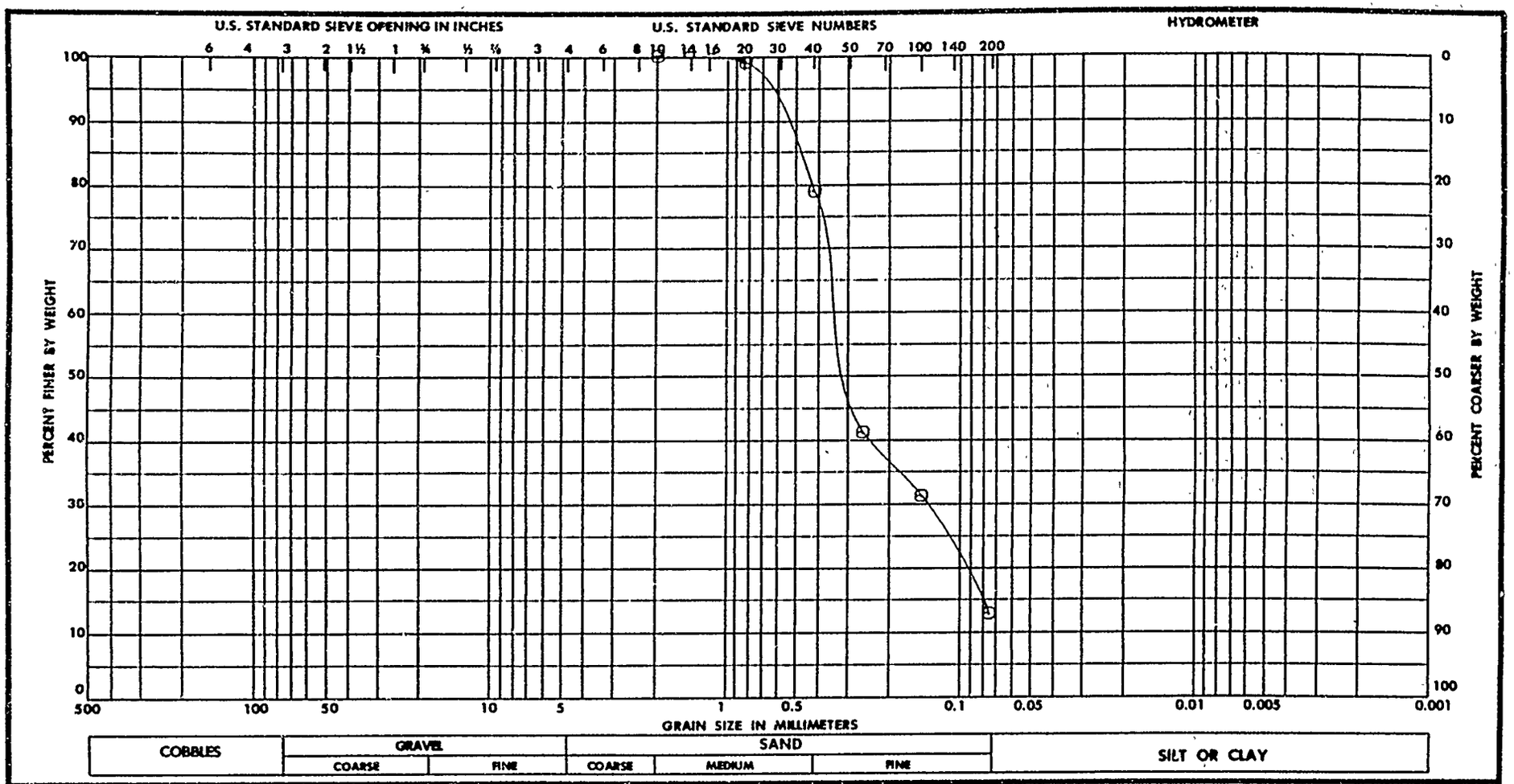
C-212

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	-	CLASS. NOT REQUESTED	--	--	--	--
		.				

GRADATION CURVES

Project GULF PORT, MS.
GULF PORT HARBOR
Area LAB NO. 57/3648
Boring No. GP-62-87 . SAMPLE 1
Date 10/28/87

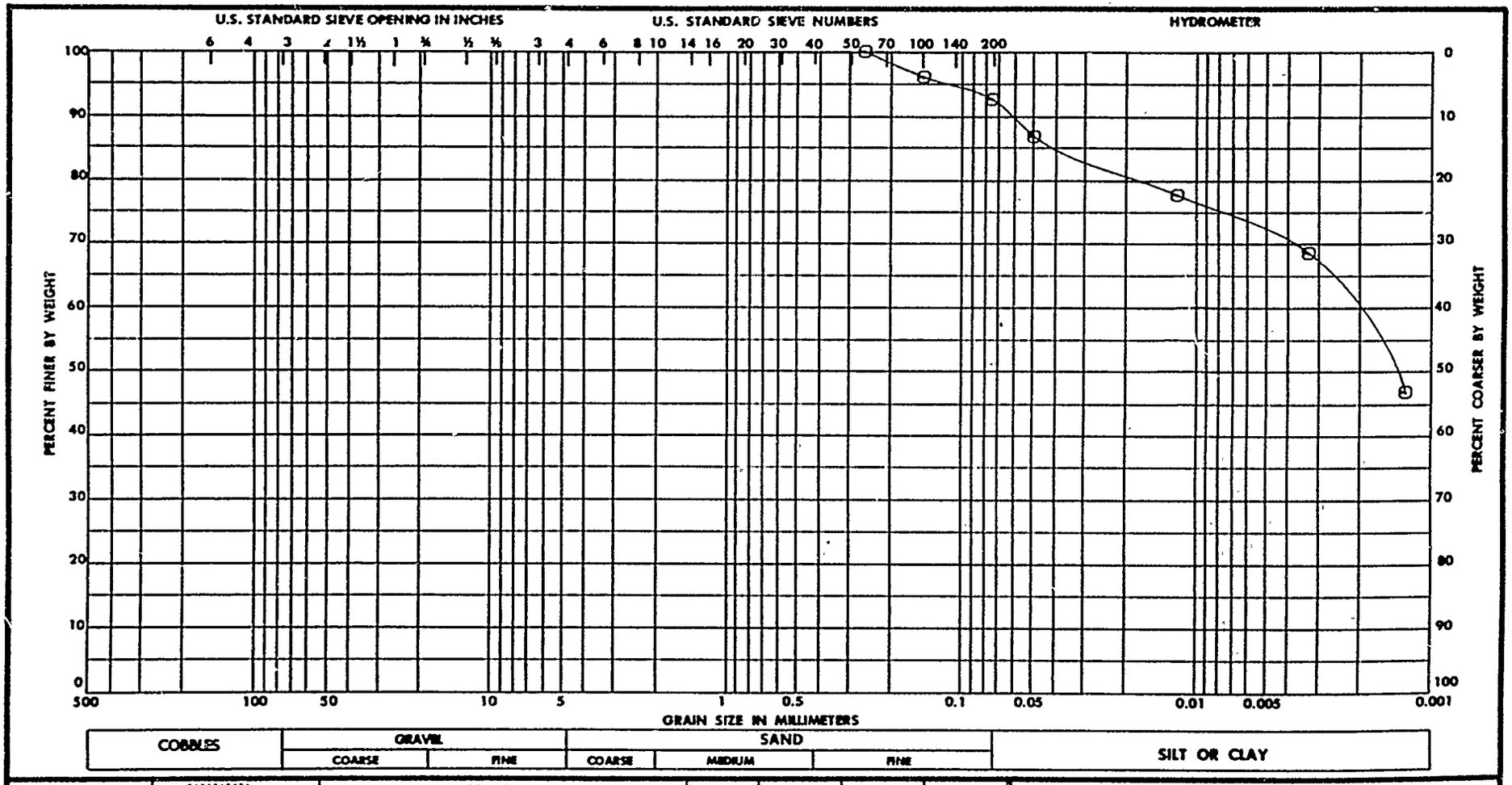
ENG FORM 1 MAY 63 2087

C-213

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 5327

Req. No. 42-87-F&M



Sample No.	~~Elev~~ Depth	Classification	Nat w %	LL	PL	PI
1	-	FAT CLAY (CH)	116.7	123	40	83.
		GRAY. W/A TRACE OF SAND &				
		MICA				

GRADATION CURVES

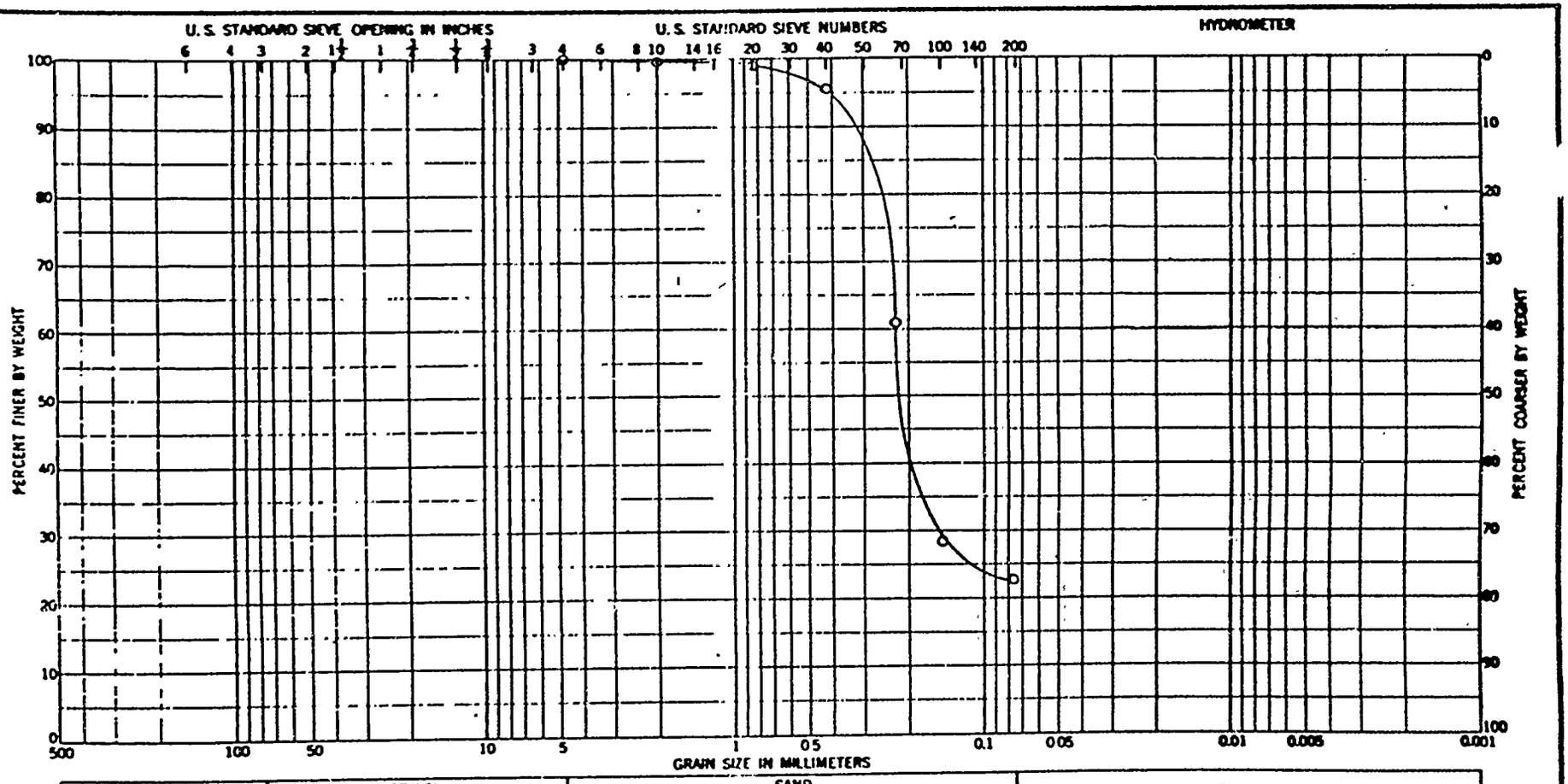
Project GULF PORT. MS.
GULF PORT HARBOR
Area LAB NO. 57/3651
Boring No. GP-63-87 .SAMPLE 1
Date 10/28/87

C-214

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30061

WORK ORDER NO. 9784
Req. No. 66-76-F & M



Sample No.	Elev/Mk Depth	Classification	Nat w %	LL	PL	PI
1	0.0-2.0'	Gray silty sand (SM) slightly plastic, w/a trace of shell fragments	--	--	--	--

GRADATION CURVES

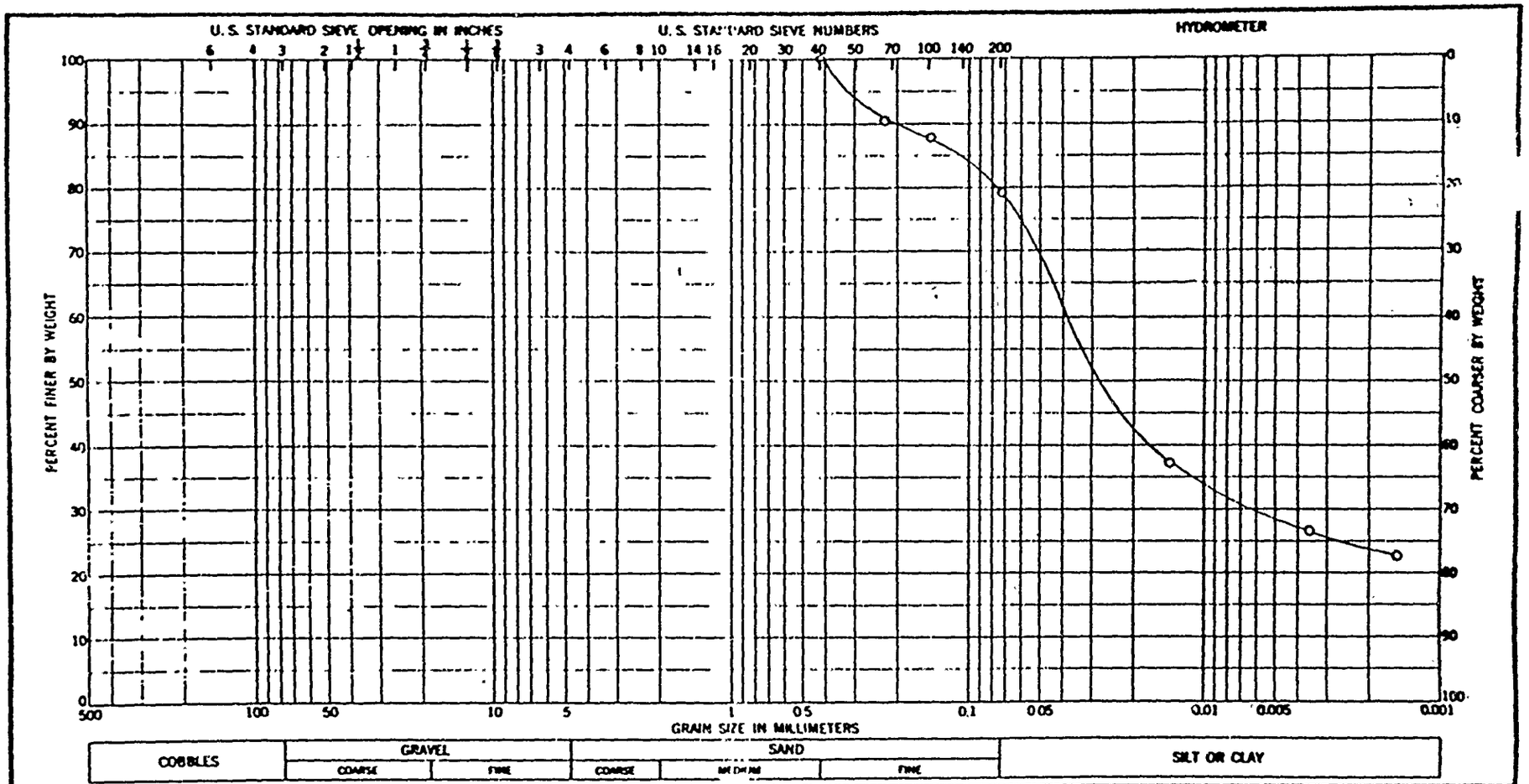
MOBILE DISTRICT
Project Gulfport Harbor
Lab. No. 57/7588
Area Spoil Area
Boring No. VC-SIII-2-76, Sample No. 1
Date 18 May 1976

ENG FORM 1 MAY 63 2087

C-215

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30061

WORK ORDER NO. 9784
Req. No. 66-76-F & M



Sample No.	Material Depth	Classification	Nat w %	LL	PL	PI
2	2.0-4.0'	Gray fat clay (CH) w/some sand	7.1	68	17	51

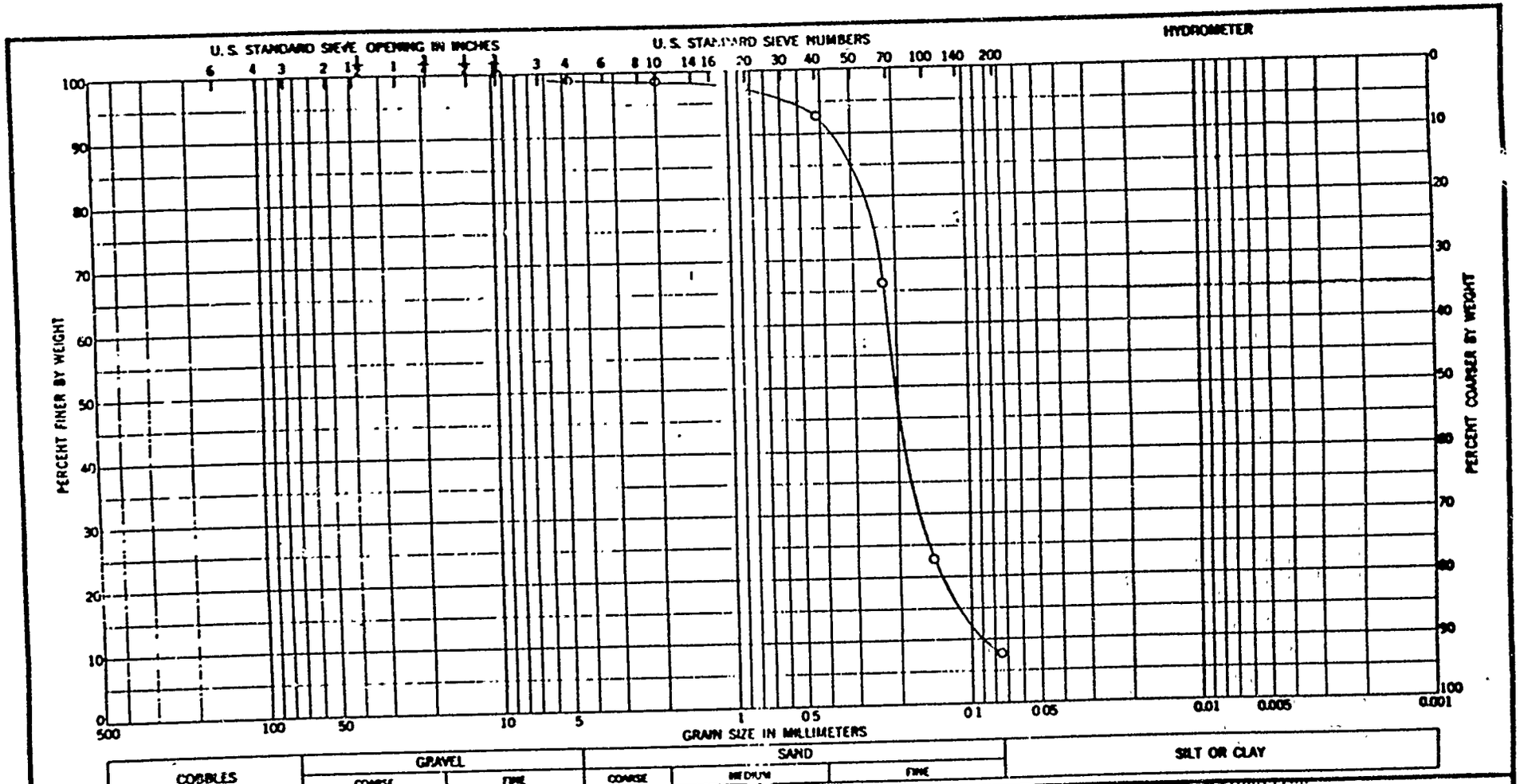
GRADATION CURVES

MOBILE DISTRICT
Project: Gulfport Harbor
Lab. No. 57/7589
Area: Spoil Area
Boring No.: VC-SIII-2-76, Sample No. 2
Date: 18 May 1976

ENG FORM 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30061

WORK ORDER NO. 9784
Req. No. 66-76-F & M



Sample No.	Elevation or Depth	Classification	Nat w %	LL	PL	PI
3	4.0-7.5'	Gray poorly graded silty sand (SP-SM) w/a trace of gravel size, coarse-med. sand size shell	--	--	--	--

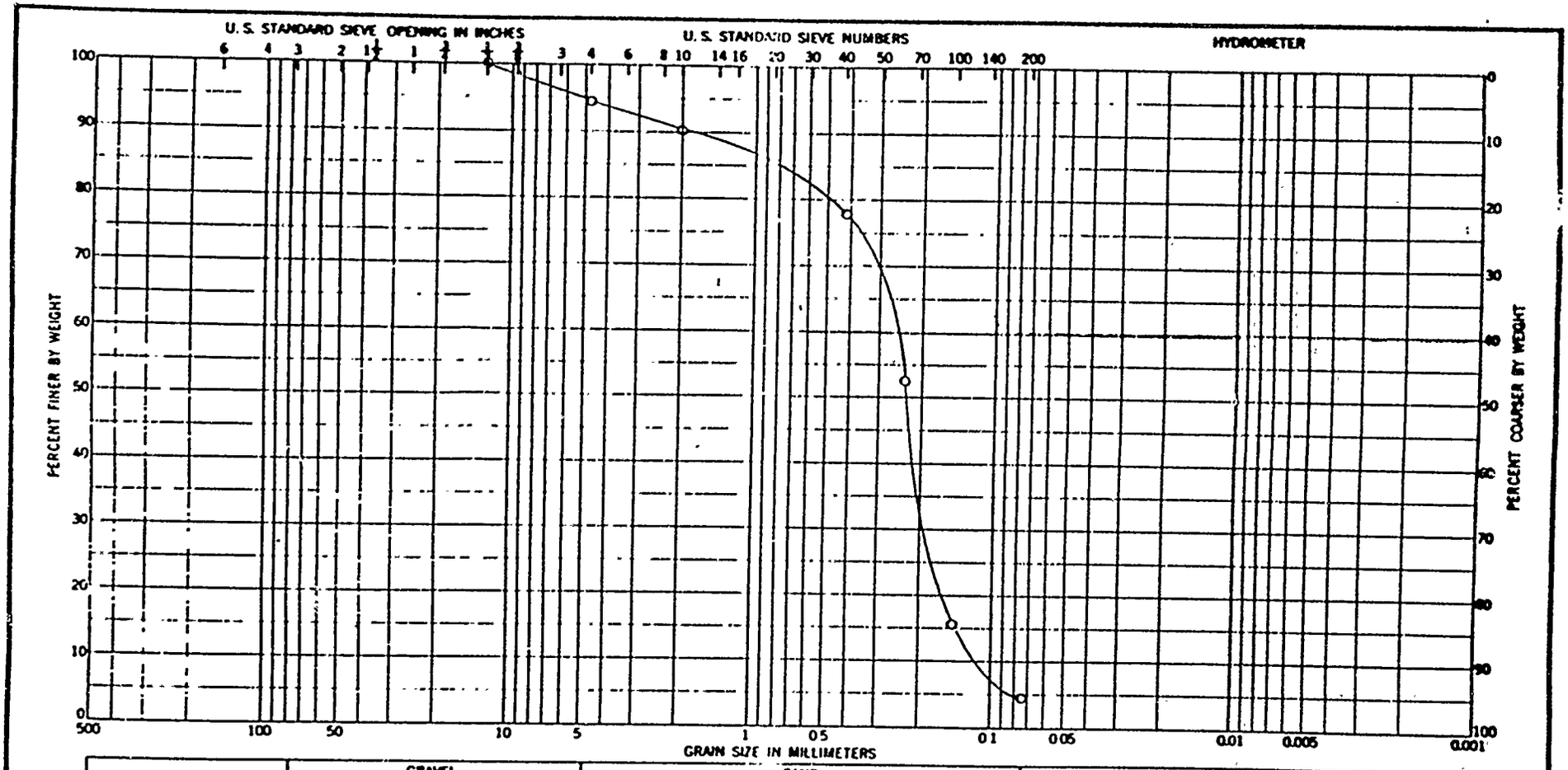
GRADATION CURVES

MOBILE DISTRICT
Project Gulfport Harbor
Lab. No. 57/7590
Area Spoil Area
Boring No. VC-SIII-2-76, Sample No. 3
Date 18 May 1976

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30061

WORK ORDER NO. 9784
Req. No. 66-76-F & M



Sample No	Elev or Depth	Classification	Nat w %	LL	PL	PI
4	7.5-10.0'	Gray poorly graded sand (SP) w/some gravel size, coarse-med. sand size shell fragments	--	--	--	--

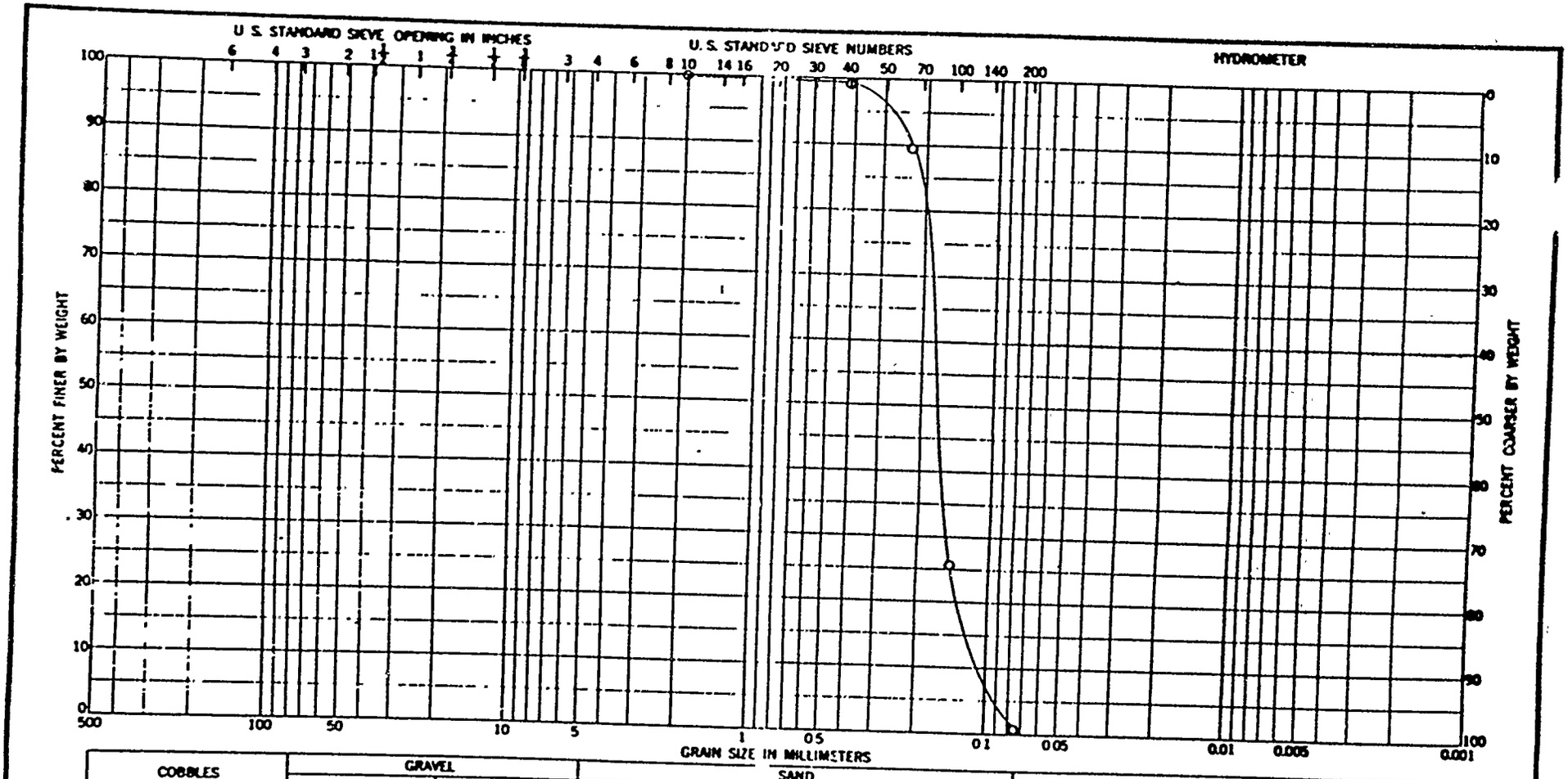
GRADATION CURVES

MOBILE DISTRICT
Project Gulfport Harbor
Lab. No. 57/7591
Area Spoil Area
Boring No. VC-SIII-2-76, Sample No. 4
Date 18 May 1976

ENG FORM MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30061

WORK ORDER NO. 9784
Req. No. 66-76-F & M



Sample No	Elev or Depth	Classification	Nat w %	LL	PL	PI
5	10.0-13.0'	Lt. gray poorly graded sand (SP) w/a trace of shell fragments	--	--	--	--

GRADATION CURVES

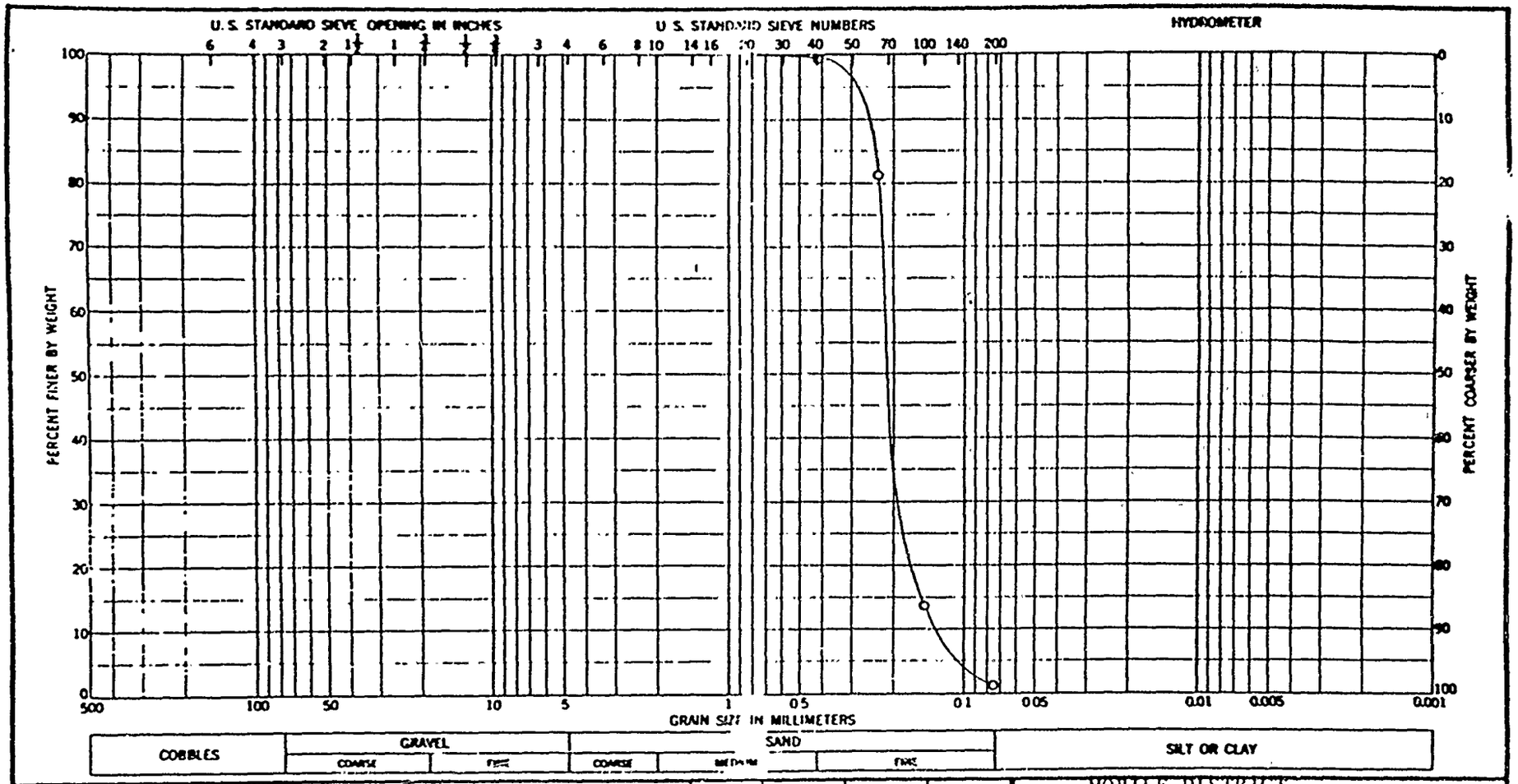
MOBILE DISTRICT
Project Gulfport Harbor
Lab.No. 57/7592
Area Spoil Area
Boring No. VC-SIII-2-76, Sample No. 5
Date 18 May 1976

ENG FORM 1 MAY 63 2087

C-219

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30061

WORK ORDER NO. 9784
Req. No. 66-76-F & M



Sample No	Elev. or Depth	Classification	Nat. w %	LL	PL	PI
6	13.0-15.0'	Gray poorly graded sand (SP)	--	--	--	--

GRADATION CURVES

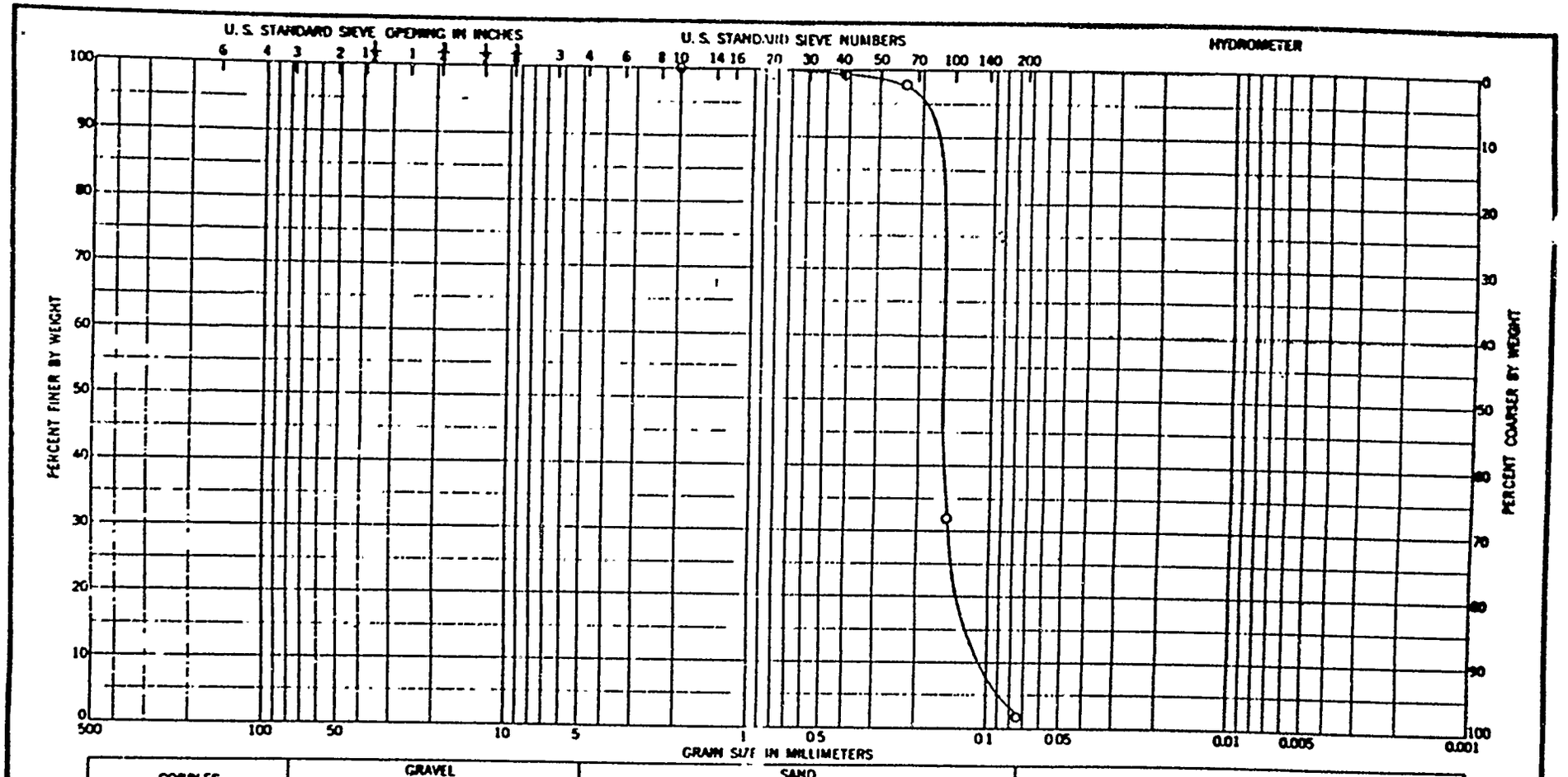
Project MOBILE DISTRICT
Gulfport Harbor
Lab. No. 57/7593
Area Spoil Area
Boring No. VC-SIII-2-76, Sample No. 6
Date 18 May 1976

C-220

ENG FORM MAY 69 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30061

WORK ORDER NO. 9784
Req. No. 66-76-F & M



Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI
7	15.0-18.3'	Lt. gray poorly graded sand (SP) w/c trace of shell fragments	--	--	--	--

GRADATION CURVES

MOBILE DISTRICT
Project Gulfport Harbor
Lab. No. 57/7594
Area Spoil Area
Boring No. VC-SIII-2-76, Sample No. 7
Date 18 May 1976

ENG FORM 1 MAY 63 2087

C-221

CESADEN-FL 17 November 1987

PETROGRAPHIC REPORT
GULF PORT HARBOR, BORING GP-14-87, E. 38.3 FT.
U.S. ARMY ENGINEER DISTRICT, MOBILE

INTRODUCTION

1. The natural sand from Boring GP-14-87, E.38.3 ft., Gulf Port Harbor is a shelly, gray silica sand. The gray color is mainly a function of the shelly debris prominant in the larger sieve size fractions and also due to some clay in the sample. The constitutes comprising the natural sand are listed in TABLE 1 (SAD FORM 3195). The percentage of each constitutent appears under the individual sieve size fractions in the columns to the right. The sample weighted averages appear in the center column. A description of each constitutent group comprising the sand appears below.

SAND COMPOSITION

Shell and Shelly Debris

2. Shell and shelly debris make up only two percent of the total sample. These are typically gray in color with only a few white or tan particles. The larger sizes, that is the No. 10-40 sieve sizes, contain relatively high percentages of these constituents. However, these fractions together only make up 7% of the sample, hence, the 2% weighted average. The shelly debris begins to decrease with decreasing sieve size but suprisingly the pan fraction (minus No. 200 size) contains about 10% of fragmental debris.

Skeletal Debris

3. Fragmented hard-parts or 'exoskeletal' constituents make up 4% of the natural sand. Examples of these type constituents include coral (?) fragments, fragmented sand dollars and other marine life. Most all of these have a dull tan color. Also included in this group are clear calcareous spicules (needle-like rods) which are found in the small (No.100 and below) sieve sizes.

Quartz

4. Fresh, hard, clear and translucent quartz particles make up the bulk of the sand constituents. These particles are 90% of the total sample. Particle shape is predominantly subangular in the larger sieve sizes, however, angular shapes are more typical in the smaller sieve size fractions. The bulk of the group are clear particles. A few well rounded frosted grains are present also.

All Others

5. Soft, gray clay lumps, heavy minerals, and mica make up the remaining 4% of the sand sample. The clay particles are particularly abundant in the No. 200 and pan fraction. They are 3% of the sand. The clay apparently did disaggregate when the sample was soaked and washed over the No.200 sieve during sample preparation.

6. A suite of miscellaneous heavy minerals (minerals with specific gravities greater than 2.65) are only 1% of the sample. These type particles are only

significant in the No.200 and pan fractions. Traces (less than 1%) of muscovite mica was found in the minus No. 40 sieve size fractions.

Ray Willingham

RAY WILLINGHAM
Geologist

Attached
TABLE 1 (SAD Form 3195)

TABLE 1

U. S. ARMY ENGINEER DIVISION LABORATORY, SOUTH ATLANTIC
CORPS OF ENGINEERS
MARIETTA, GEORGIA

AGGREGATE COMPOSITION AND CONDITION REPORT

DISTRICT: Mobile
PROJECT: Gulf Port Harbor
CONTRACT NO.: --

SOURCE: GP-14-87
LAB. NO.: 57/3534
DATE REPORTED: 17 November 1987
DATE RECEIVED: 31 July 1987
REQ. NO.: 42-87-F&M
WORK ORDER NO.: 5327

DESCRIPTION:
Natural Sand
Elevation 38.3 feet

	Weighted Average (Percent)	SIEVE SIZE (% Retained)								
		#10	#20	#40	#60	#100	#200	Pan		
Sample Gradation		1	2	5	37	49	3	3		
Shells & Shell Fragments	2	18	18	9	2	Tr	4	10		
Skeletal Debris	4	82	75	11	1	1	3	15		
Quartz	90	-	7	78	96	98	74	20		
Clay Lumps (Tr. Org.)	3	-	-	2	1	Tr	15	50		
Heavy Minerals	1	-	-	-	Tr	1	4	5		
Mica	Tr	-	-	Tr	Tr	Tr	Tr	Tr		
CONDITION:										
Percent Flat and Elongated										

REMARKS:
-Petrographic analysis based on examination of 300 particles whenever possible.

-The percentages shown for the No. 200 and pan fraction are estimates based on microscopic examination.

-The sand sample was washed prior to analysis.

REPORTED BY: ☐ PHONE ☐ WIRE
DATE

TESTED BY: RW
CHECKED BY: WLT
SAMPLED BY

SAD FORM 3195
1 Dec 81

CESAD-EN-FL 17 November 1987
SAD LAB. NO. 57/3538

PETROGRAPHIC REPORT
GULF PORT HARBOR, JAR SAMPLE NO. 1, BORING GP-15-87
U.S. ARMY ENGINEER DISTRICT,MOBILE

INTRODUCTION

1. The natural sand in jar sample No. 1, Boring GP-15-87, Gulf Port Harbor is a whitish gray, shelly, silica sand. Shell and exoskeletal debris make up 100% of the Nos. 10 (2.0mm) and 20 (0.84mm) sieve sizes, however, these constituents make up less than 10% of the total sample. Quartz particles, on the other hand, are found in all sieve sizes and make up the bulk of the sample. The percentage of these constituents in the individual sieve sizes along with their weighted averages appear in TABLE 1 (SAD FORM 3195). A description of the constituents comprising the sand is given below.

SAND COMPOSITION

Shell and Skeletal Debris

2. Intact shells and shell fragments including a variety of fragmented exoskeletal debris occur predominantly in the plus No.40 (0.42mm) sieve sizes. Traces of this group also appear in the smaller sizes. This group appears to be abundant in the sand but actually makes up only 6% of the sample. The shelly constituents are tan to dark gray and make up about 25% of the whole group. The fragmented hard-parts or exoskeletal constituents are typically tan and include a variety of marine life. The most abundant appears to be fragmented sand dollars. A few clear, calcareous needle-like spicules are also included in this group.

Quartz

3. Quartz particles occur in abundance. This group makes up 94% of the natural sand. Beginning with the No.40 (0.42mm) sieve size, quartz particles are subround to subangular in shape. With decreasing size, these become more angular and irregular in shape. Typical particles comprising the quartz group are clear and glassy (about 60%), while the rest are primarily translucent. Well rounded frosted grains are present, but are not abundant.

All Others

4. Heavy minerals (minerals with specific gravities > 2.65), and soft weathered particles make up less than 1% of the sand. Of this group, the heavy mineral suite is significant. These make up 4% of the No. 200 sieve size fraction but are essentially absent in the larger size fractions. Tourmaline, sphene, epidote and amphibole are examples of the heavy mineral suite.

Attached
TABLE 1 (SAD Form 3195)

RAY WILLINGHAM
Geologist

TABLE 1

U. S. ARMY ENGINEER DIVISION LABORATORY, SOUTH ATLANTIC
CORPS OF ENGINEERS
MARIETTA, GEORGIA

AGGREGATE COMPOSITION AND CONDITION REPORT

DISTRICT: Mobile
PROJECT: Gulf Port Harbor
CONTRACT NO.: --

SOURCE: GP-15-87, Jar Sample No. 1
LAB. NO.: 57/3538
DATE REPORTED: 17 November 1987
DATE RECEIVED: 31 July 1987
REQ. NO.: 42-87-F&M
WORK ORDER NO.: 5327

DESCRIPTION: Natural Sand

	Weighted Average (Percent)	SIEVE SIZE (% Retained)								
		#10	#20	#40	#60	#100	#200	Pan		
Sample Gradation		1	2	11	50	30	5	1		
Shell & Skeletal Debris	6	100	100	8	3	2	1	-		
Quartz	94	-	Tr	92	97	98	95	-		
Heavy Minerals	Tr	-	-	-	Tr	Tr	4	-		
Other (Soft, Wea.)	Tr	-	-	-	Tr	Tr	-	-		
CONDITION:										
Percent Flat and Elongated										

REMARKS:
Petrographic analysis based on examination of 300 particles whenever possible.

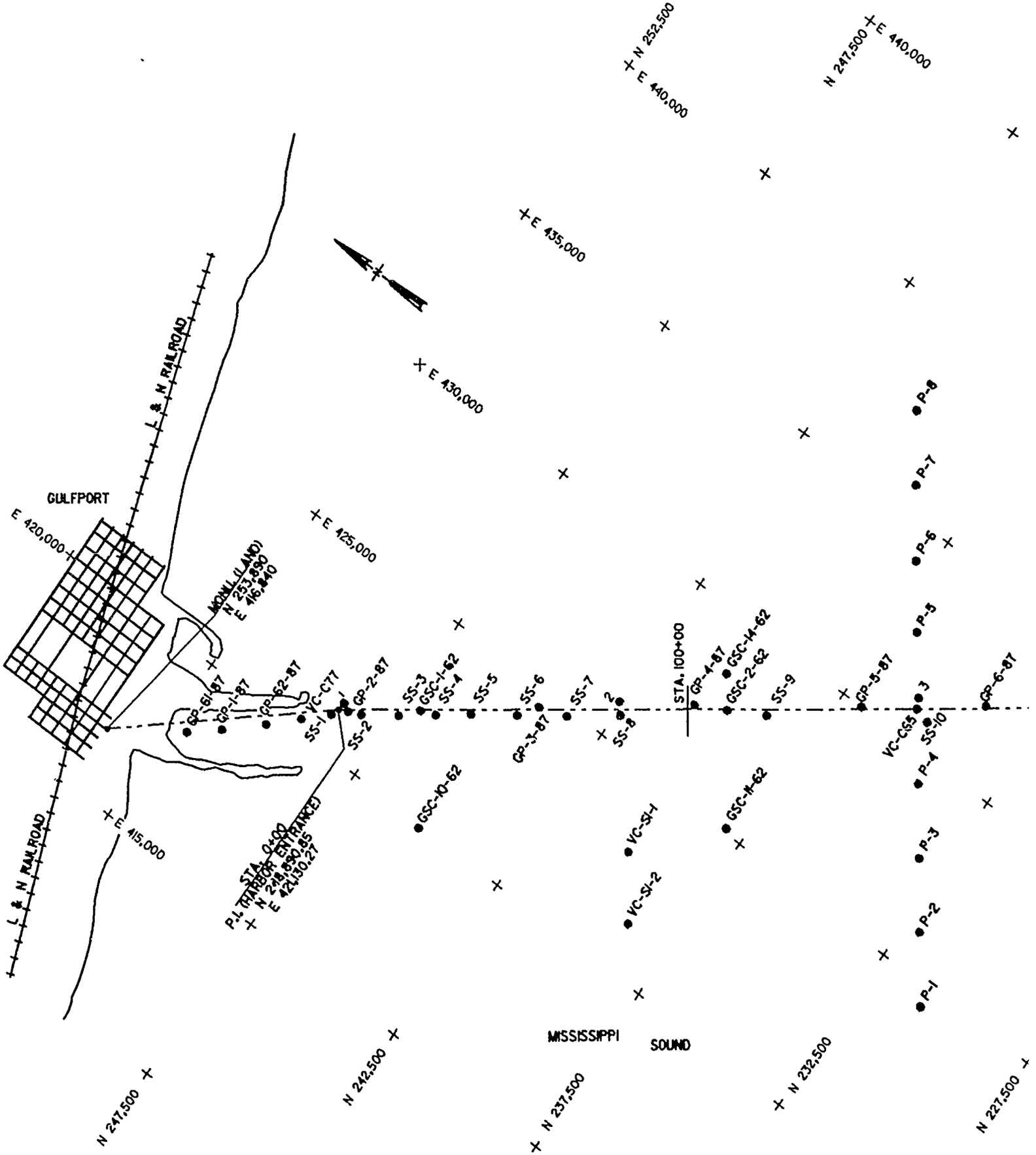
The sand sample was washed prior to anlaysis.

REPORTED BY: ☐ PHONE ☐ WIRE
DATE

TESTED BY: RW
CHECKED BY: WLT
SAMPLED BY:

SAD FORM 3195
1 Dec 81

LAYOUT OF BORINGS


N 252,500
E 440,000
N 247,500
E 440,000
E 435,000
E 430,000
E 425,000
E 420,000
E 415,000
GULFPORT
L & N RAILROAD
L & N RAILROAD
MONU. (LAND)
N 253,850
E 416,840
STA. 100+00
STA. 0+00
P.I. (HARBOR ENTRANCE)
N 248,850.85
E 421,130.27
GP-6I-87
GP-1-87
GP-62-87
VC-C77
GP-2-87
SS-3
GSC-1-62
SS-4
SS-5
SS-6
SS-7
GP-4-87
GSC-14-62
GSC-2-62
SS-9
GP-5-87
GP-6-87
SS-1
SS-2
GP-3-87
SS-8
VC-CS5
SS-10
GSC-10-62
GSC-11-62
VC-SI-1
VC-SI-2
P-8
P-7
P-6
P-5
P-4
P-3
P-2
P-1
MISSISSIPPI
SOUND
N 247,500
N 242,500
N 237,500
N 232,500
N 227,500

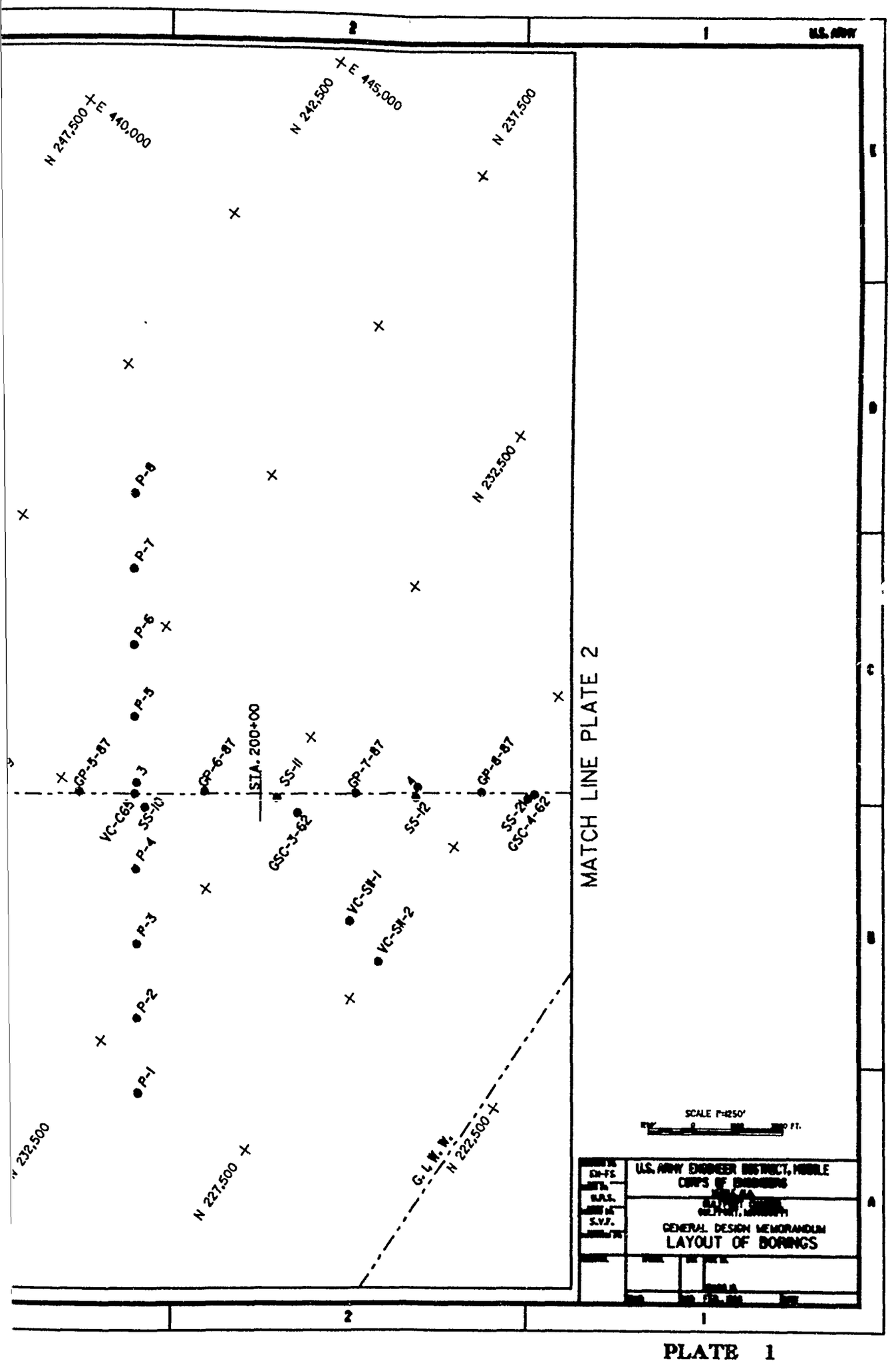
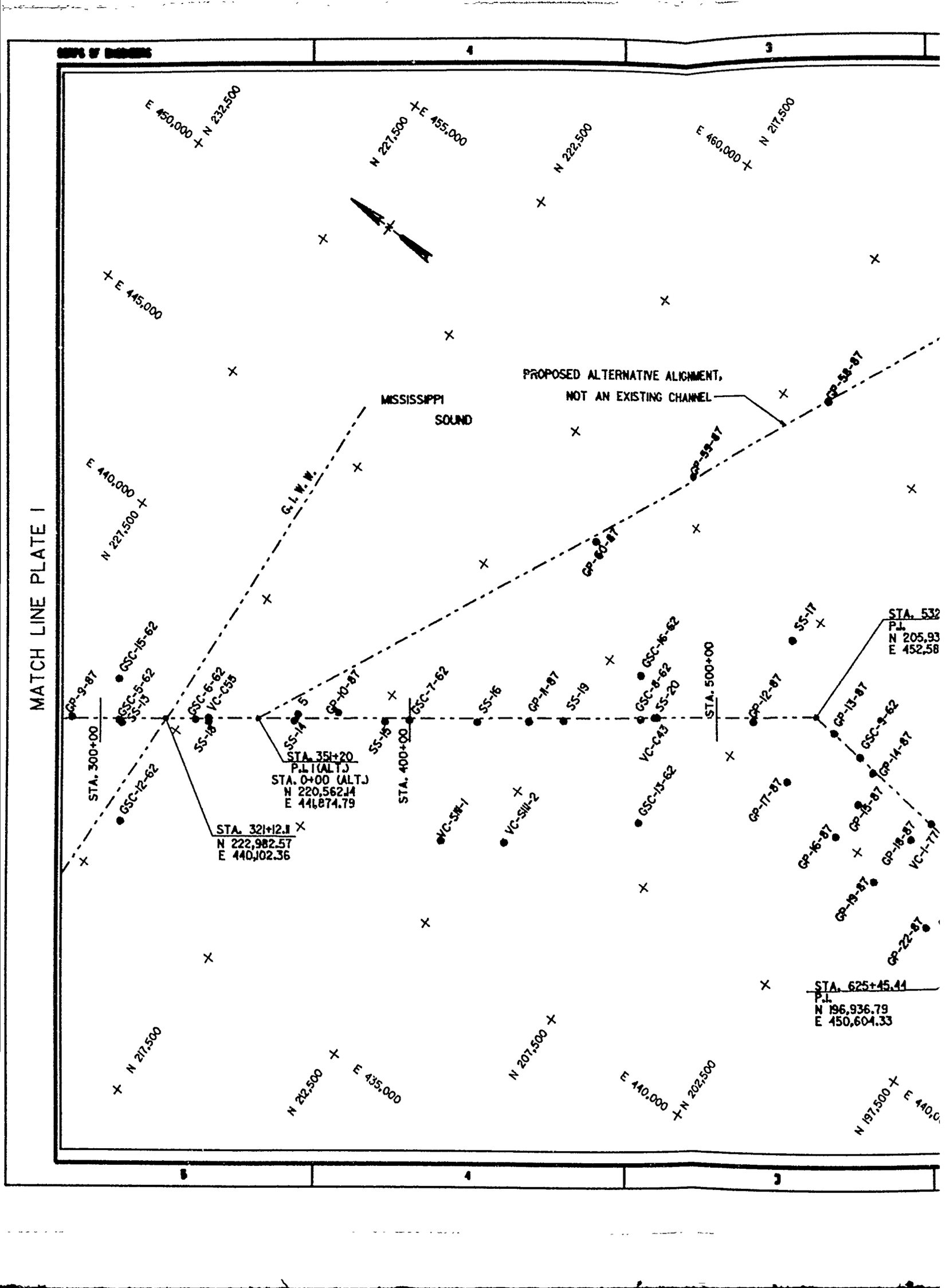

U.S. ARMY
N 247,500
E 440,000
N 242,500
E 445,000
N 237,500
N 232,500
N 227,500
N 222,500
N 232,500
P-8
P-7
P-6
P-5
P-4
P-3
P-2
P-1
GP-5-67
GP-6-67
GP-7-67
GP-8-67
3
SS-10
SS-11
SS-12
SS-2
VC-CG3
GSC-3-62
GSC-4-62
VC-SM-1
VC-SM-2
STA. 200+00
MATCH LINE PLATE 2
G. L. W. W.
SCALE 1"=250'
U.S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
GENERAL DESIGN MEMORANDUM
LAYOUT OF BORINGS

PLATE 1


MATCH LINE PLATE I
E 450,000
N 232,500
N 227,500
E 455,000
N 222,500
E 460,000
N 217,500
E 445,000
E 440,000
N 227,500
MISSISSIPPI SOUND
G.I.W.W.
PROPOSED ALTERNATIVE ALIGNMENT,
NOT AN EXISTING CHANNEL
GP-58-87
GP-59-87
GP-60-87
GP-9-87
GSC-15-62
GSC-5-62
SS-13
GSC-6-62
VC-C58
SS-18
GP-10-87
SS-14
SS-15
GSC-7-62
SS-16
GP-11-87
SS-19
GSC-16-62
GSC-8-62
SS-20
VC-C43
SS-17
GP-12-87
GP-13-87
GSC-9-62
GP-14-87
GP-17-87
GP-15-87
GP-16-87
GP-18-87
GP-19-87
GP-22-87
GSC-12-62
GSC-13-62
VC-SW-1
VC-SW-2
STA. 300+00
STA. 400+00
STA. 500+00
STA. 351+20
P.I. (ALT.)
STA. 0+00 (ALT.)
N 220,562.14
E 441,874.79
STA. 321+12.1
N 222,982.57
E 440,102.36
STA. 532
P.I.
N 205,93
E 452,58
STA. 625+45.44
P.I.
N 196,936.79
E 450,604.33
N 217,500
N 212,500
E 435,000
N 207,500
E 440,000
N 202,500
N 197,500
E 440,0

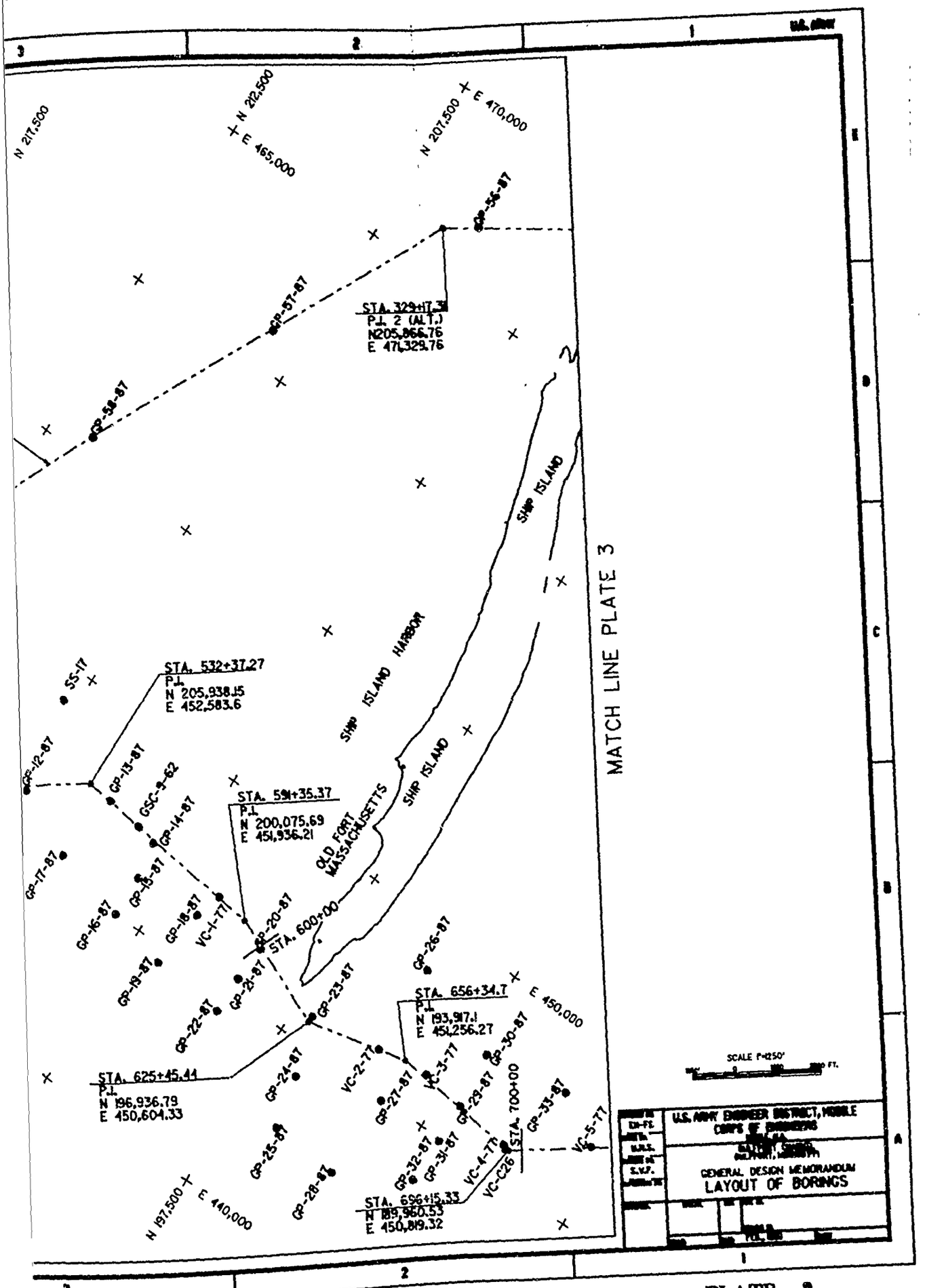
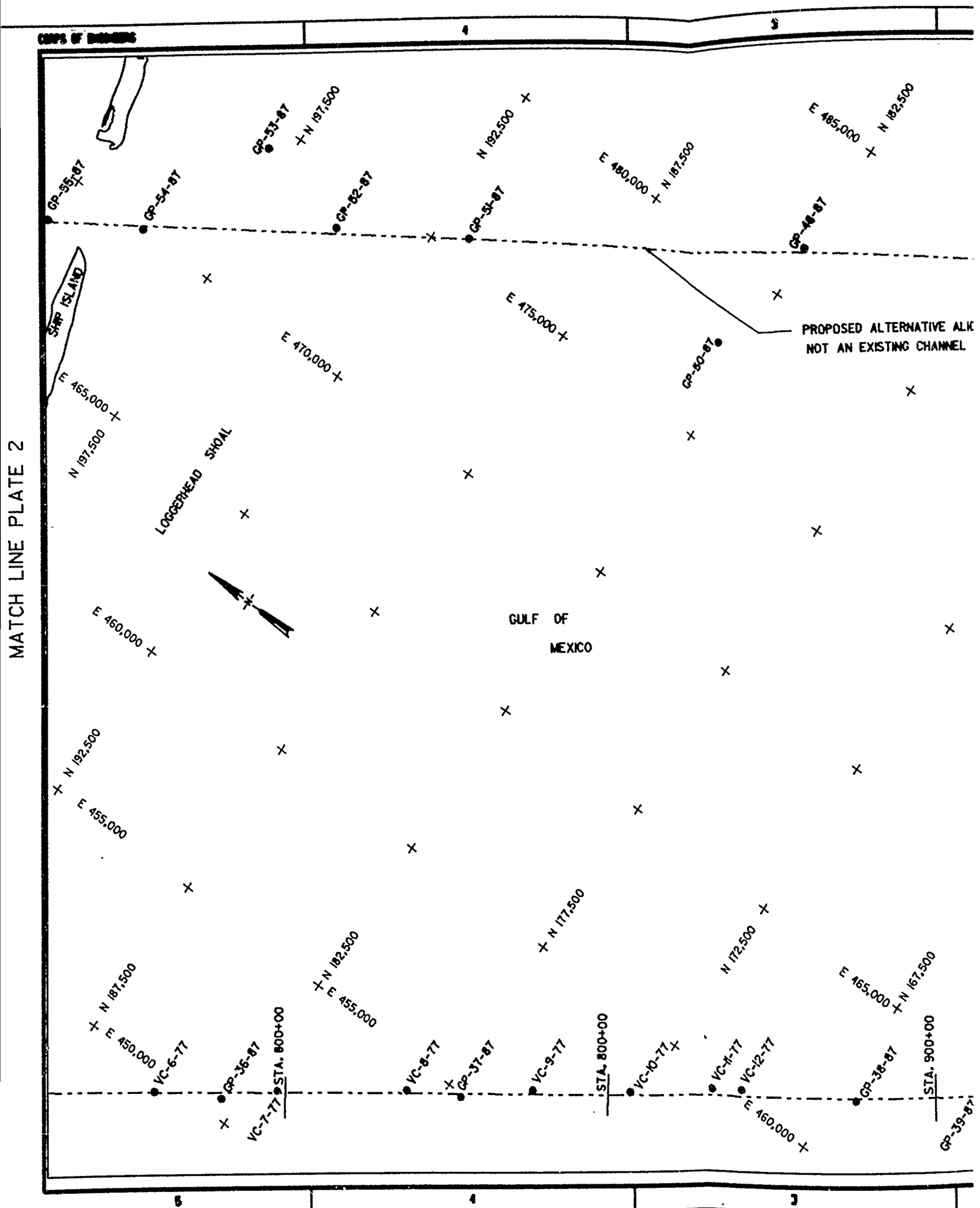

N 217,500
N 212,500
E 465,000
N 207,500
E 470,000
GP-56-87
GP-57-87
GP-58-87
STA. 329+17.38
P.I. 2 (ALT.)
N205,866.76
E 471,329.76
SHIP ISLAND
SHIP ISLAND HARBOR
MATCH LINE PLATE 3
SS-17
STA. 532+37.27
P.I.
N 205,938.15
E 452,583.6
GP-12-87
GP-13-87
GSC-9-62
GP-14-87
GP-17-87
GP-16-87
GP-15-87
GP-18-87
VC-1-77
STA. 591+35.37
P.I.
N 200,075.69
E 454,936.21
OLD FORT MASSACHUSETTS
SHIP ISLAND
GP-20-87
STA. 600+00
GP-19-87
GP-21-87
GP-22-87
GP-23-87
GP-26-87
STA. 656+34.7
P.I.
N 193,917.1
E 451,256.27
E 450,000
GP-30-87
STA. 625+45.44
P.I.
N 196,936.79
E 450,604.33
GP-24-87
VC-2-77
VC-3-77
GP-27-87
GP-29-87
STA. 700+00
GP-33-87
VC-5-77
GP-25-87
GP-32-87
GP-31-87
VC-4-77
VC-C26
GP-28-87
N 197,500
E 440,000
STA. 696+15.33
N 189,960.53
E 450,819.32
SCALE 1"=1250'
U.S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
GENERAL DESIGN MEMORANDUM
LAYOUT OF BORINGS

PLATE 2



MATCH LINE PLATE 2

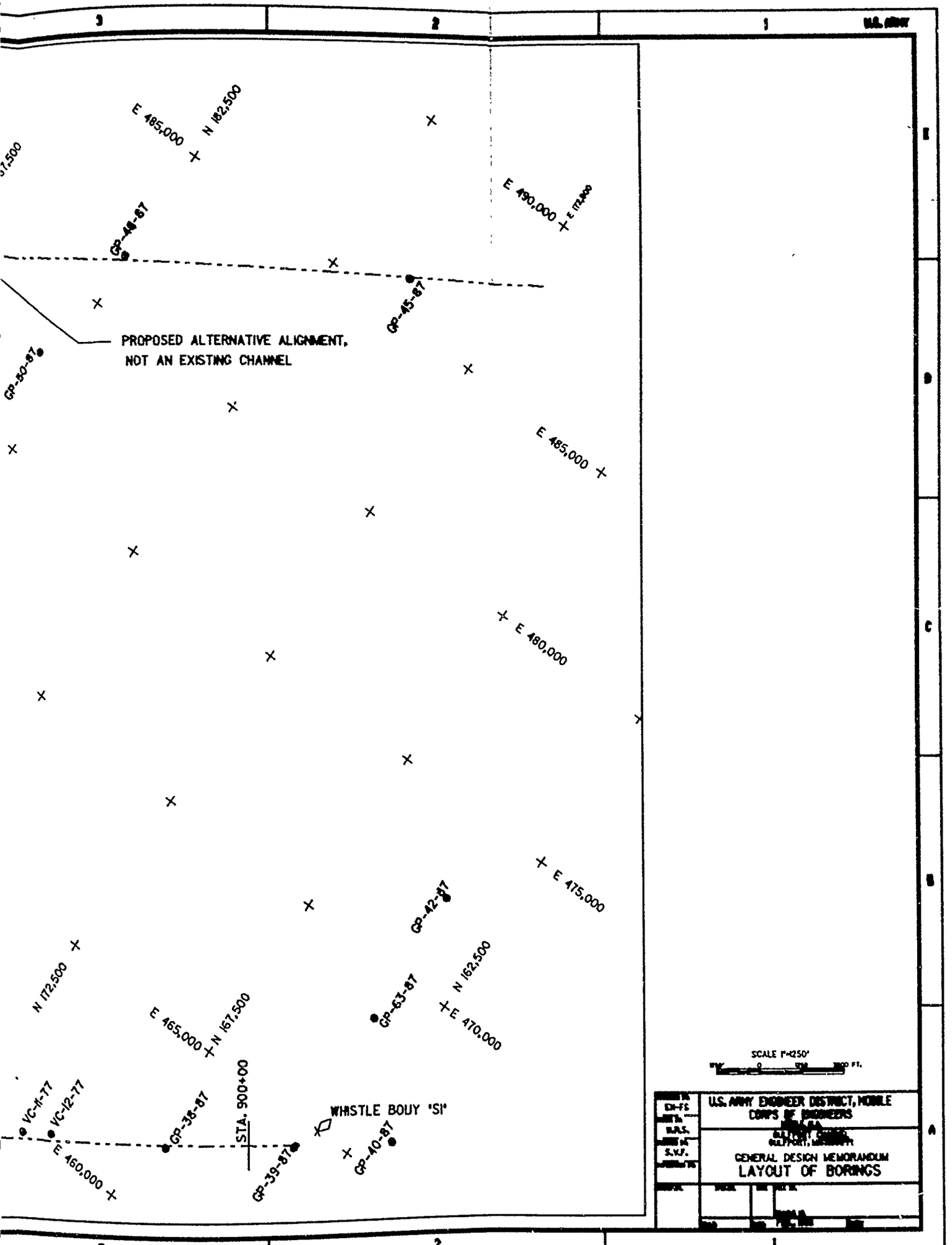
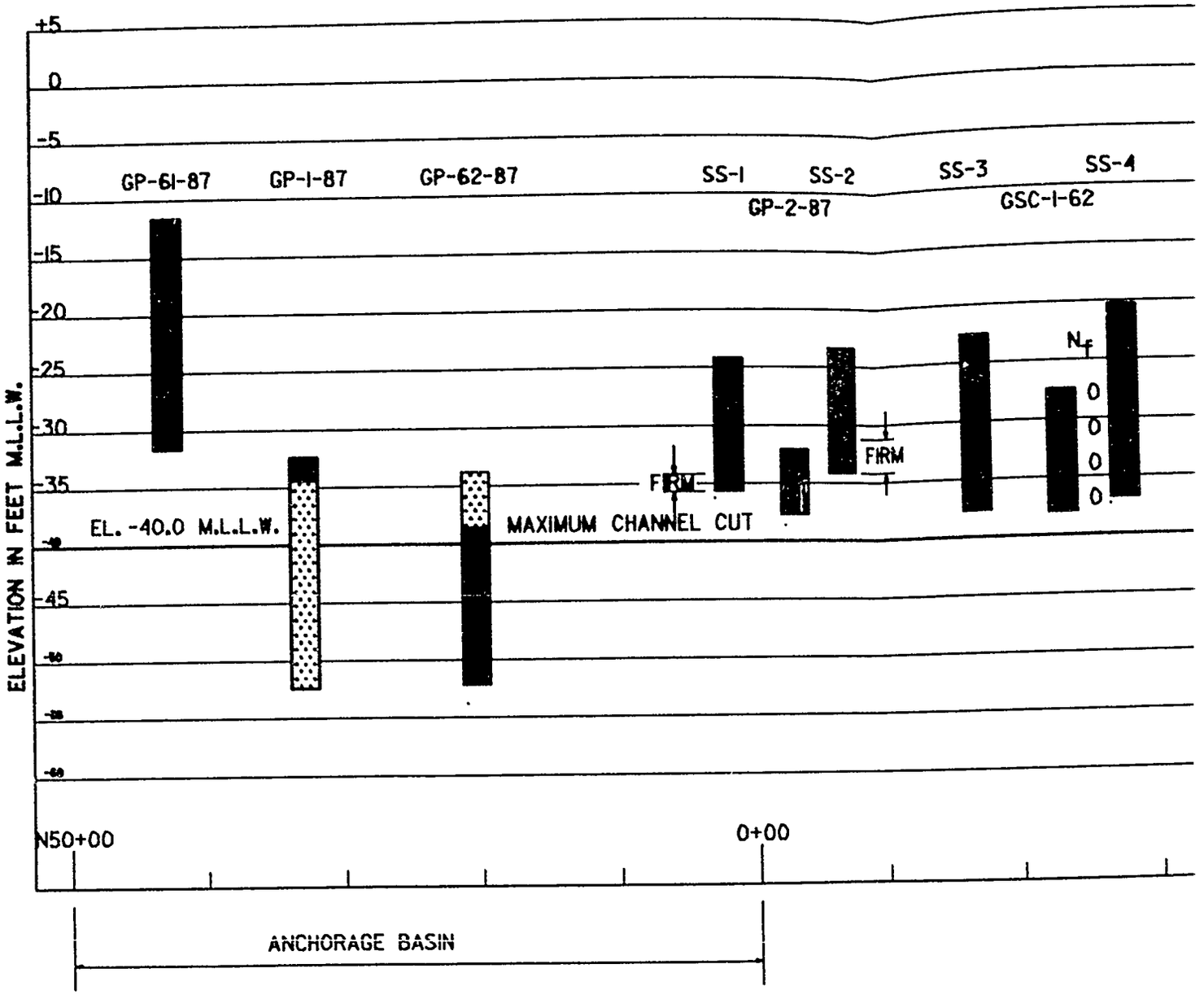

E 485,000
N 182,500
E 490,000
GP-44-87
GP-45-87
PROPOSED ALTERNATIVE ALIGNMENT,
NOT AN EXISTING CHANNEL
GP-50-87
E 485,000
E 480,000
E 475,000
GP-42-87
N 172,500
N 162,500
E 465,000
N 167,500
GP-63-87
E 470,000
SCALE 1"=1250'
VC-11-77
VC-12-77
GP-38-87
STA. 900+00
WHISTLE BOUY "SI"
E 460,000
GP-39-87
GP-40-87
U.S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
GENERAL DESIGN MEMORANDUM
LAYOUT OF BORINGS

PLATE 3

SOIL PROFILES



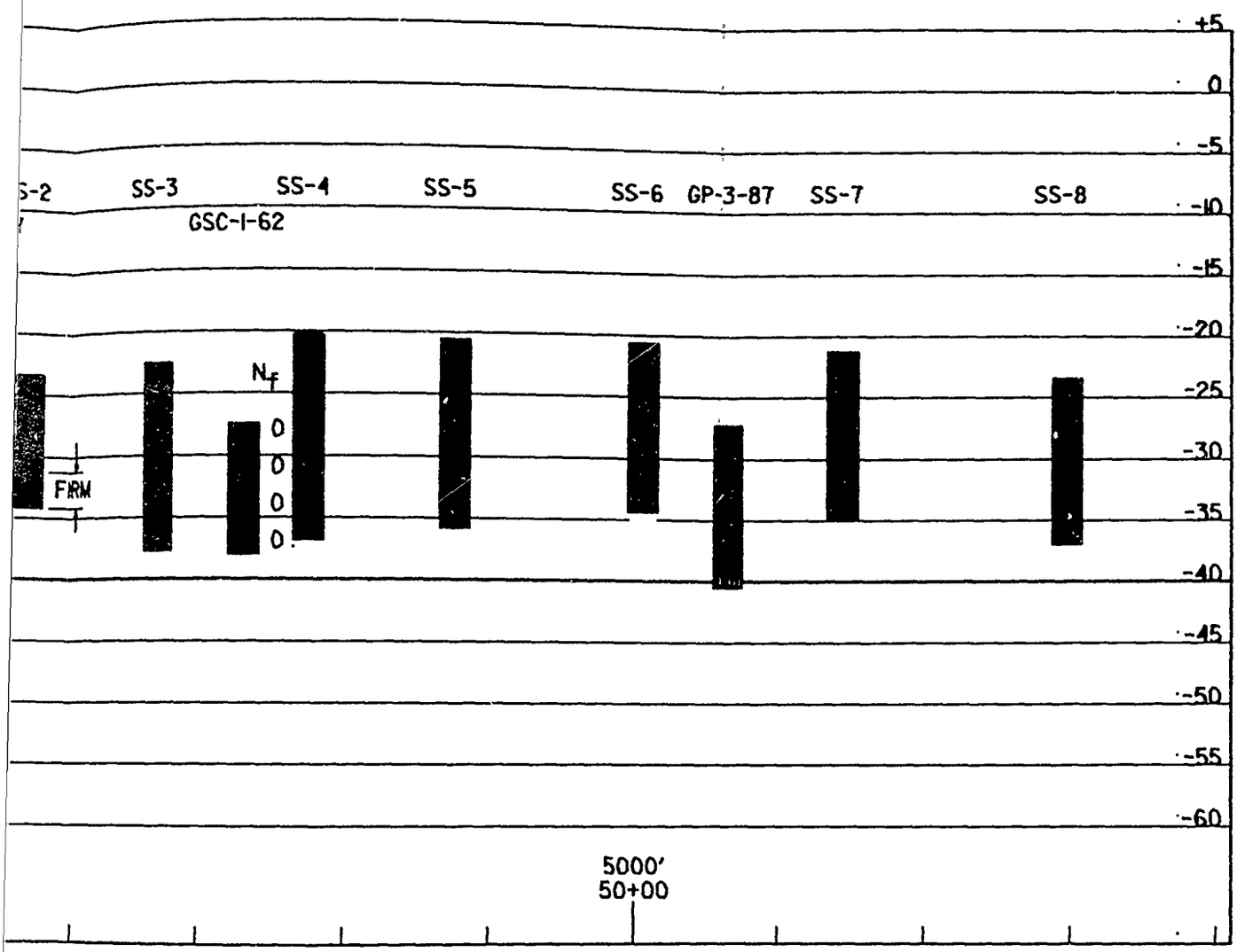
LEGEND

- CH — INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
- SP — POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES
- SM — SILTY SANDS, SAND-SILT MIXTURES
- SC — CLAYEY SANDS, SAND-CLAY MIXTURES
- ML — INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SANDY SILTS OR CLAYEY SILTS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
- CL — INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
- OL — ORGANIC SILTS AND ORGANIC SILT-CLAYS OF LOW PLASTICITY
- OH — ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS

N_f - BLOWS PER FOOT ARE DETERMINED WITH A 2" STANDARD SPLIT SPOON SAMPLER (O.D. 2", I.D. 1 3/8") AND A 140 LB. DROPPING HAMMER WITH A 30" DROP.

NOTES

1) SEE BORING LAYOUT PLATE 1, 2, & 3
2) BOT BORING LOGS REFLECT LABORATORY CLASSIFICATIONS, OTHER BORINGS MAY SHOW FIELD CLASSIFICATIONS.
3) PROFILE CONTINUES ON NEXT PLATE



NOTES

1 SEE BORING LAYOUT PLATE 1, 2, & 3

2) SOIL BORING LOGS REFLECT LABORATORY CLASSIFICATIONS. OTHER BORINGS MAY SHOW FIELD CLASSIFICATIONS.

3 PROFILE CONTINUES ON NEXT PLATE

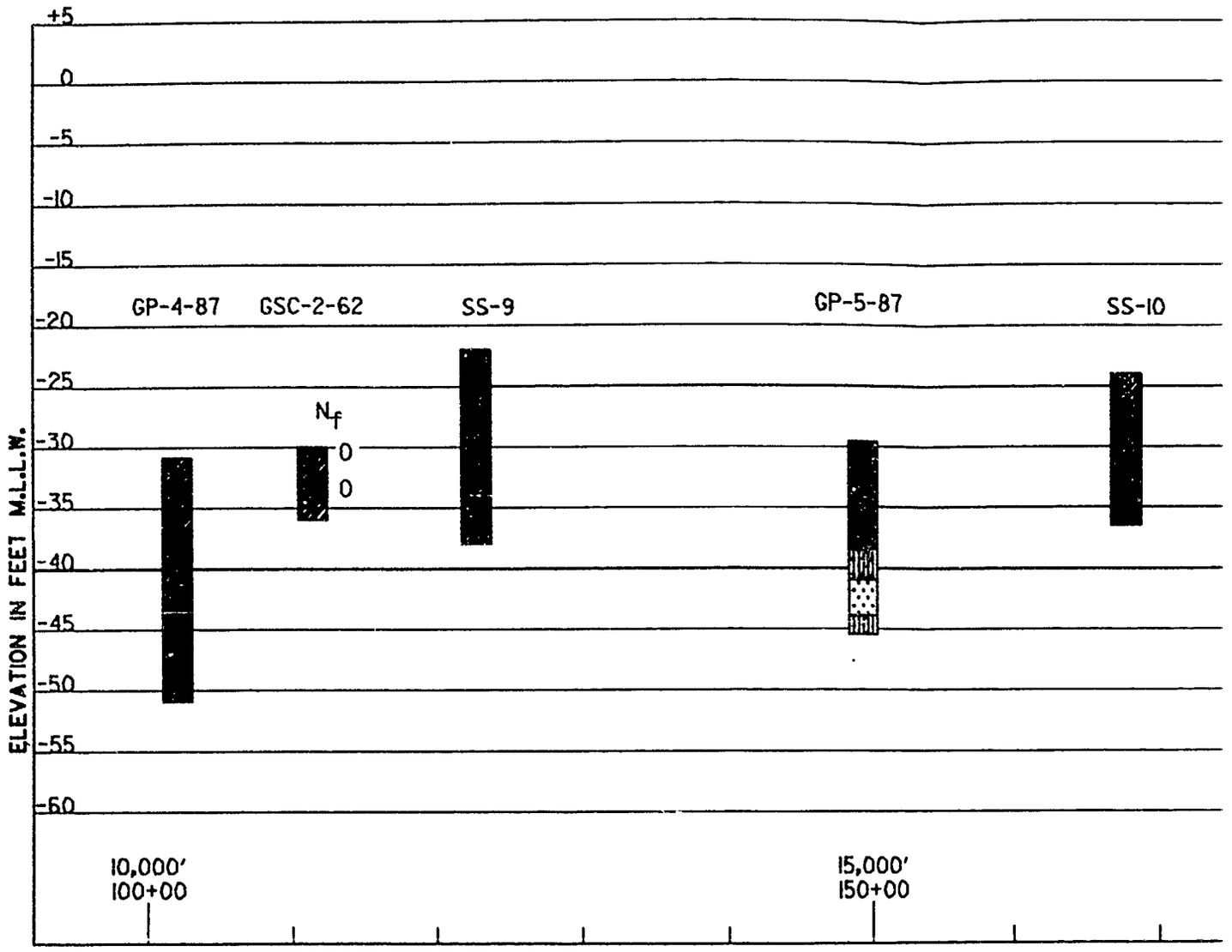
U.S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

SUPPORT CHANNEL
SULLIVAN, MISSISSIPPI

GENERAL DESIGN MEMORANDUM
SOIL PROFILES

S.V.F.
DH-FS
W.R.S.
FEB., 1959

PLATE 4



LEGEND

CH INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS

SP POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES

SM SILTY SANDS, SAND-SILT MIXTURES

SC CLAYEY SANDS, SAND-CLAY MIXTURES

ML INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SANDY SILTS OR CLAYEY SILTS OR CLAYEY SILTS WITH SLIGHT PLASTICITY

CL INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS

OL ORGANIC SILTS AND ORGANIC SILT-CLAYS OF LOW PLASTICITY

OH ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS

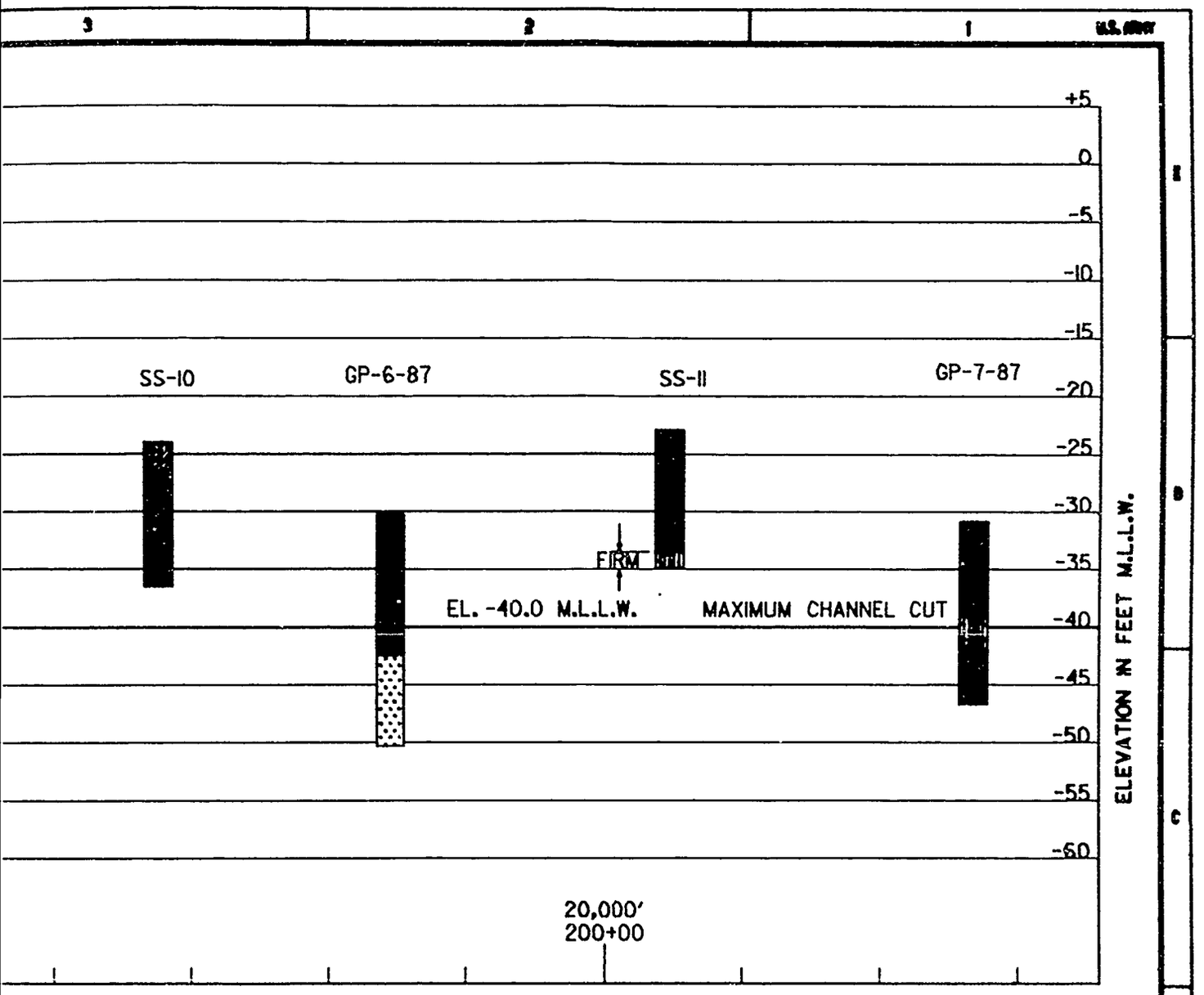
N_f = BLOWS PER FOOT ARE DETERMINED WITH A STANDARD SPLIT SPOON SAMPLER (1⅜" I.D., 2" O.D.) AND A 140 LB. HAMMER WITH A 30" DROP.

NOTES

1) SEE BORING LAYOUT PLATE 1, 2, & 3

2) BOT BORING LOGS REFLECT LABORATORY CLASSIFICATIONS. OTHER BORINGS MAY REFLECT FIELD CLASSIFICATIONS.

3) PROFILE CONTINUES ON NEXT PLATE



NOTES:

1) SEE BORING LAYOUT PLATE 1, 2, & 3

2) SOIL BORING LOGS REFLECT LABORATORY CLASSIFICATIONS. OTHER BORINGS MAY SHOW FIELD CLASSIFICATIONS.

3) PROFILE CONTINUES ON NEXT PLATE

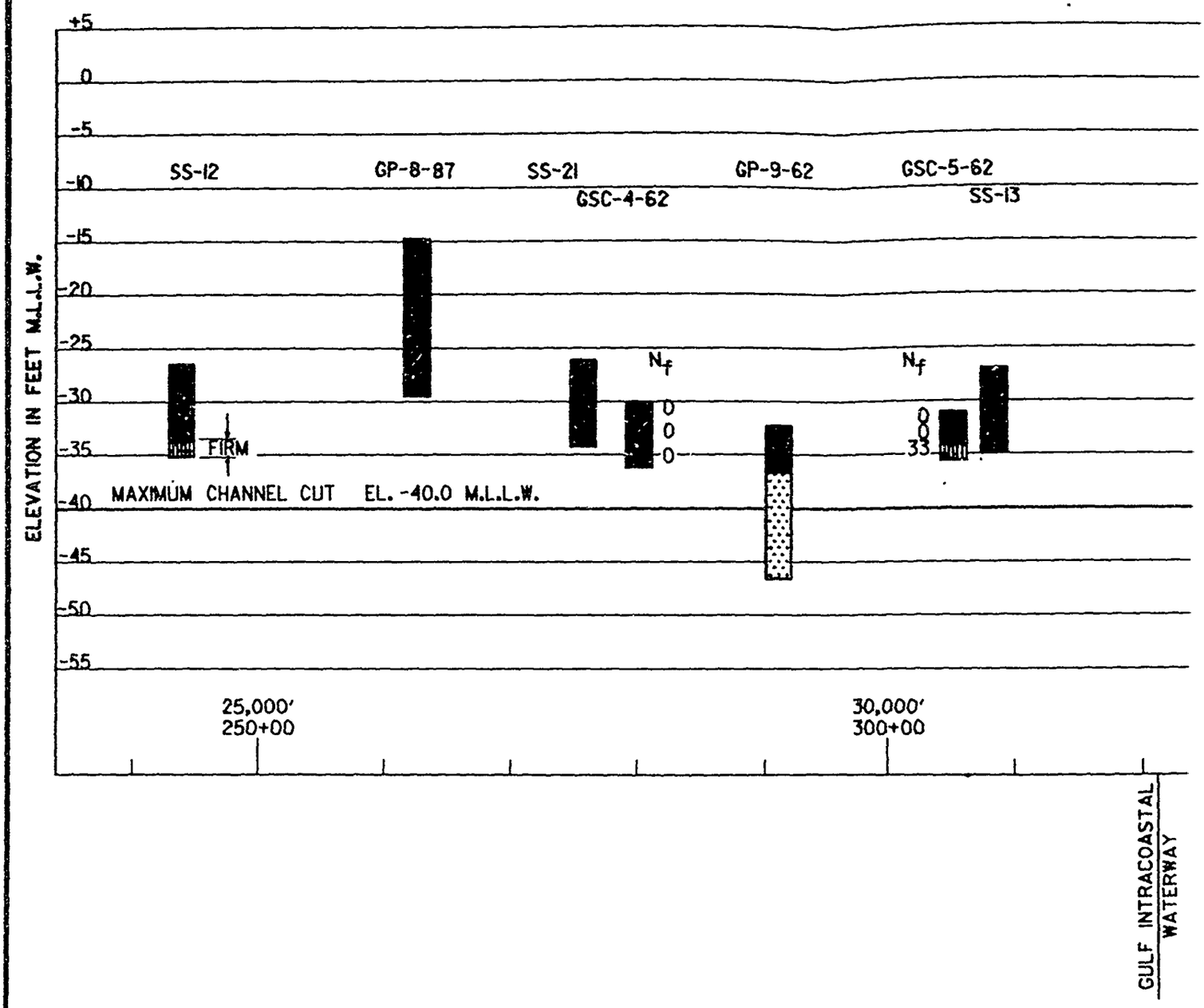
U.S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

DAVENPORT SHOALS
GULFPORT, MISSISSIPPI

GENERAL DESIGN MEMORANDUM
SOIL PROFILES

DESIGNED BY: S.V.S.
DRAWN BY: S.V.S.
CHECKED BY: EH-FS
SUBMITTED BY: S.V.S.
DATE: FEB., 1988

PLATE 5



LEGEND

- CH — INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
- SP — POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES
- SM — SILTY SANDS, SAND-SILT MIXTURES
- SC — CLAYEY SANDS, SAND-CLAY MIXTURES
- ML — INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SANDY SILTS OR CLAYEY SILTS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
- CL — INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
- OL — ORGANIC SILTS AND ORGANIC SILT-CLAYSOF LOW PLASTICITY
- OH — ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS

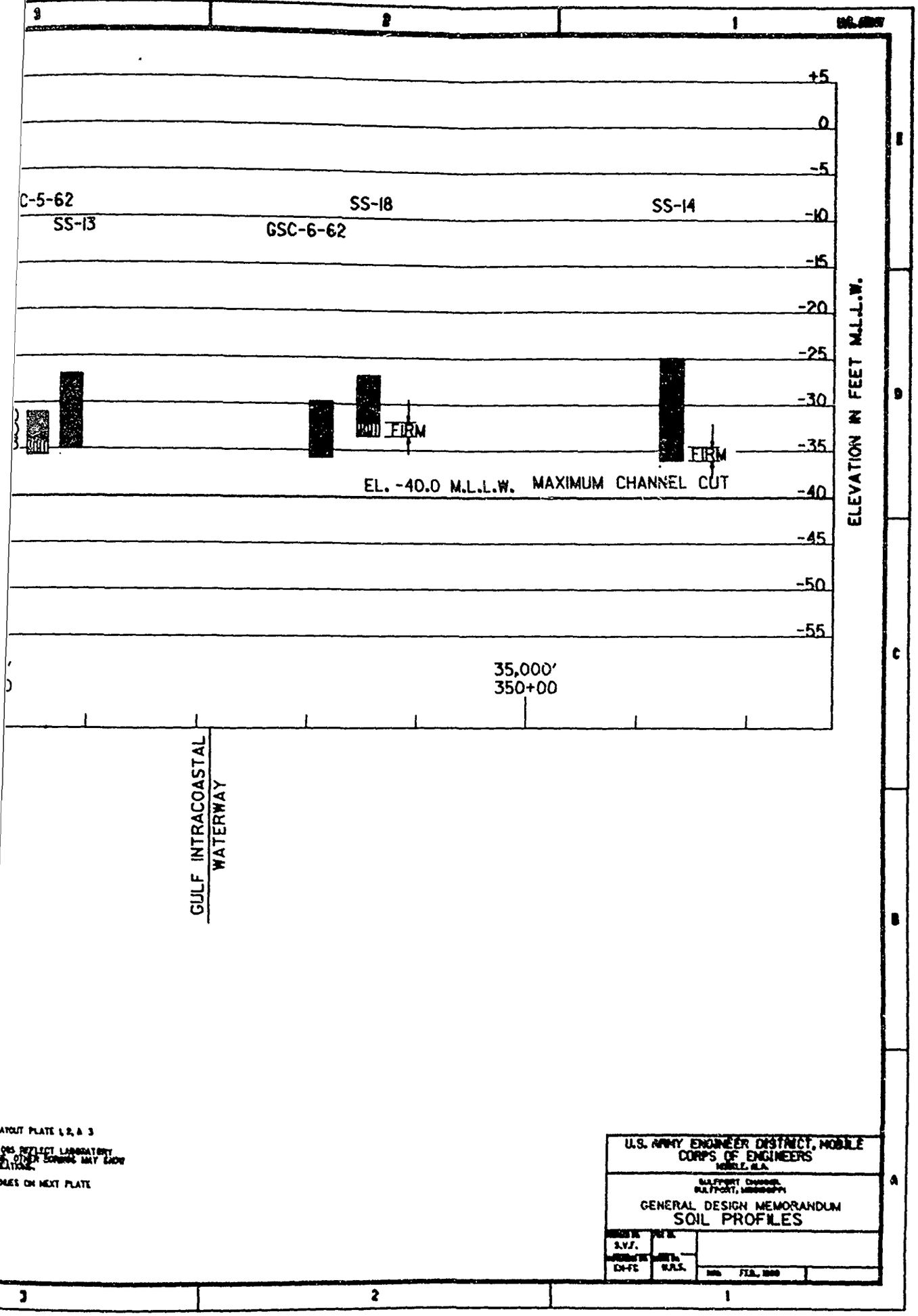
N_f - BLOWS PER FOOT ARE DETERMINED WITH A STANDARD SPLIT SPOON SAMPLER (1.75" I.D., 2" O.D.) AND A 140 LB. DRIVING HAMMER WITH A 30" DROP.

NOTES

1) SEE BORING LAYOUT PLATE 1, 2, & 3

2) BAT BORING LOGS REFLECT LABORATORY CLASSIFICATIONS, OTHER BORINGS MAY SHOW FIELD CLASSIFICATIONS.

3) PROFILE CONTINUES ON NEXT PLATE



LAYOUT PLATE 1, 2, & 3

LOGS REFLECT LABORATORY AND OTHER SOUNDS MAY SHOW VARIATIONS.

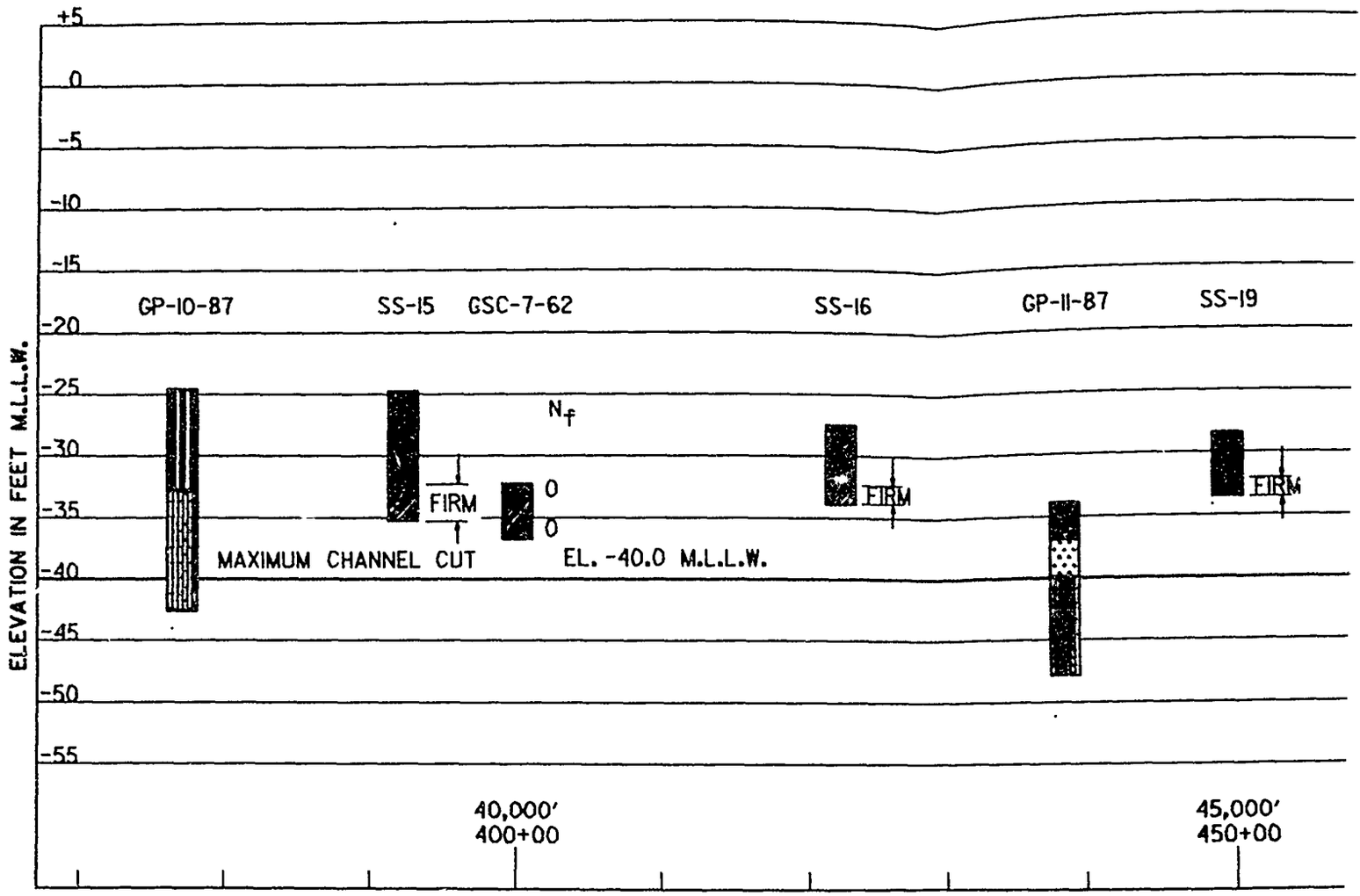
ITEMS ON NEXT PLATE

U.S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

VICKSBURG, MISS.

GENERAL DESIGN MEMORANDUM
SOIL PROFILES

PLATE 6

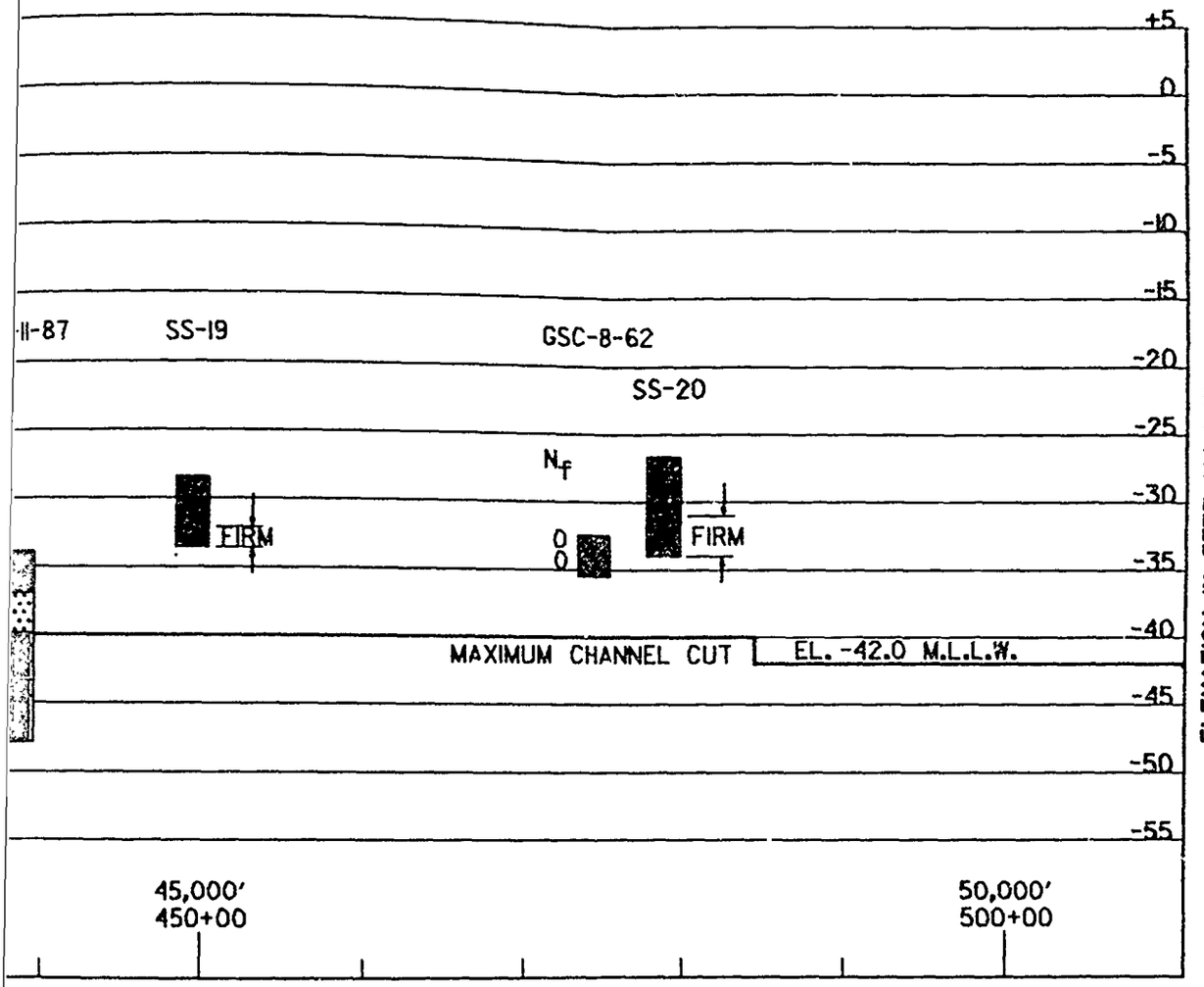


LEGEND

- CH — INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
- SP — POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES
- SM — SILTY SANDS, SAND-SILT MIXTURES
- SC — CLAYEY SANDS, SAND-CLAY MIXTURES
- ML — INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SANDY SILTY OR CLAYEY SILTS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
- CL — INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
- N_f = BLOWS PER FOOT ARE DETERMINED WITH A 1 3/8" INSIDE SPLIT SPOON SAMPLER (1 7/8" I.D., 2" O.D.) AND A 140 LB. DRIVING HAMMER WITH A 30" DROP.
- OL — ORGANIC SILTS AND ORGANIC SILT-CLAYEY LOW PLASTICITY
- CH — INORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC CLAYS

NOTES

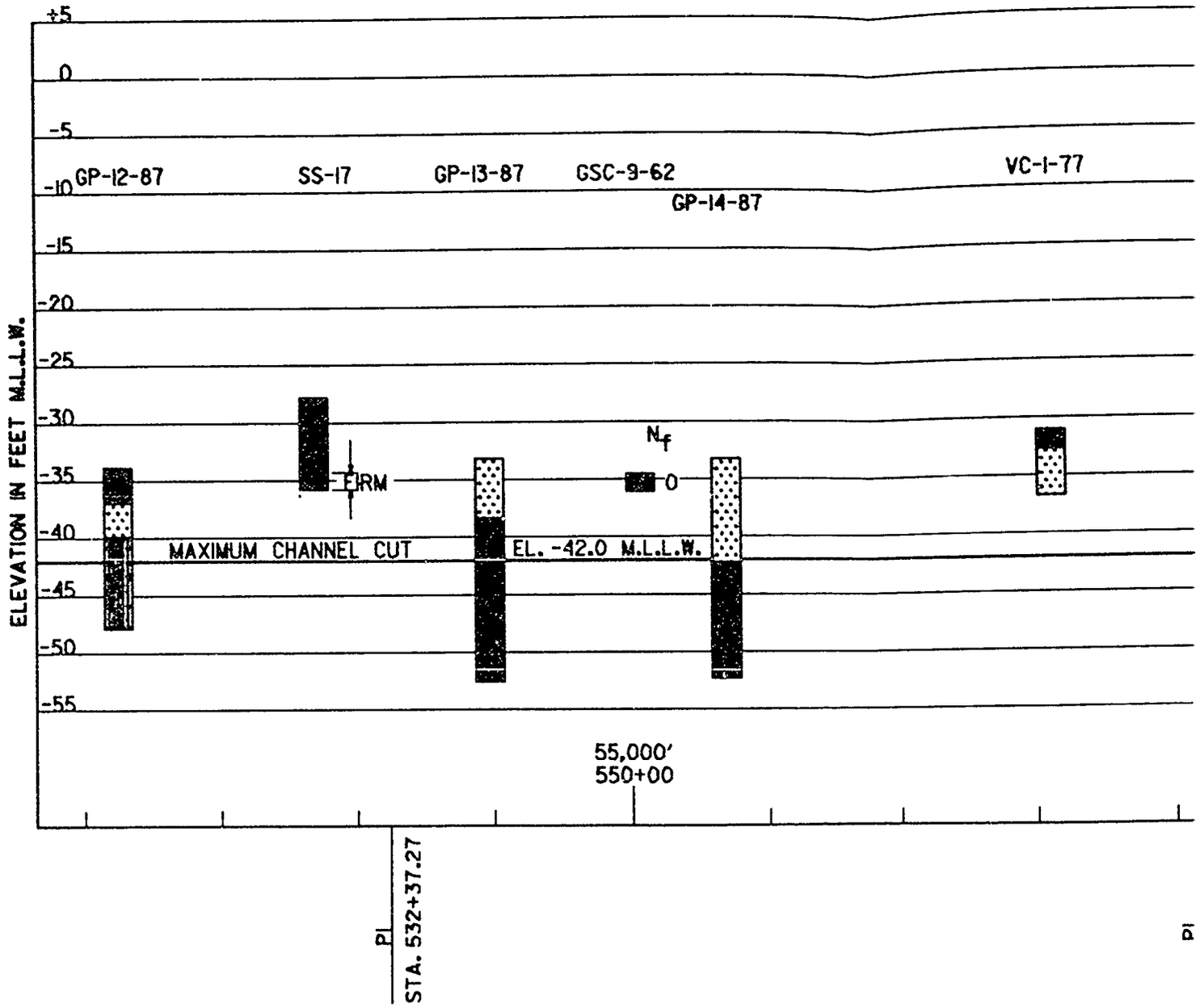
1. SEE BORING LAYOUT PLATE 1, 2, & 3
2. TEST BORING LOGS (SUBJECT LABORATORY CLASSIFICATIONS) OTHER BORINGS MAY SHOW FIELD CLASSIFICATIONS.
3. PROFILE CONTINUES ON NEXT PLATE



T PLATE 1, 2, & 3
PROJECT LABORATORY
ON NEXT PLATE

U.S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.
GULFPORT CHANNEL
GULFPORT, MISSISSIPPI
GENERAL DESIGN MEMORANDUM
SOIL PROFILES
S.V.J.
DH-FS
W.A.S.
FEB., 1959

PLATE 7



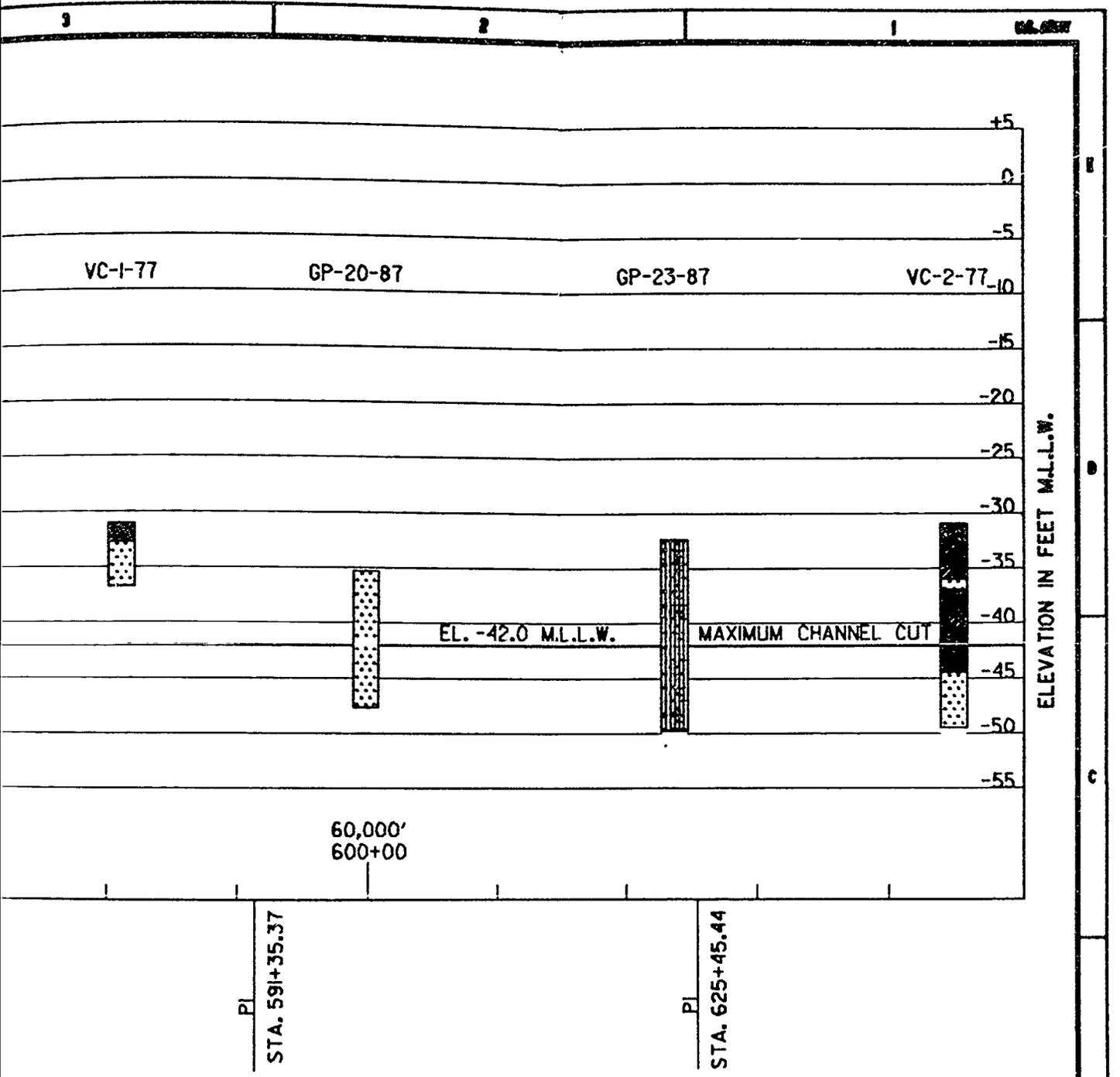
LEGEND

- CH — INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
- SP — POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES
- SM — SILTY SANDS, SAND-SILT MIXTURES
- SC — CLAYEY SANDS, SAND-CLAY MIXTURES
- ML — INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SANDY SILTS OR CLAYEY SILTS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
- CL — INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
- OL — ORGANIC SILTS AND ORGANIC SILT-CLAYS OF LOW PLASTICITY
- OH — ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS

N_f - BLOWS PER FOOT ARE DETERMINED WITH A STANDARD SPLIT SPOON SAMPLER (1.5" I.D., 2" O.D.) AND A 140 LB. DRIVING HAMMER WITH A 30" DROP.

NOTES

1. SEE BORING LAYOUT PLATE 1, 2, & 3
2. SOIL BORING LOGS REFLECT LABORATORY CLASSIFICATIONS. OTHER BORINGS MAY SHOW FIELD CLASSIFICATIONS.
3. PROFILE CONTINUES ON NEXT PLATE



NOTES

1. LAYOUT PLATE 1, 2, & 3
2. LOGS REFLECT LABORATORY CLASSIFICATIONS. OTHER BORINGS MAY SHOW FIELD CLASSIFICATIONS.

CONTINUES ON NEXT PLATE

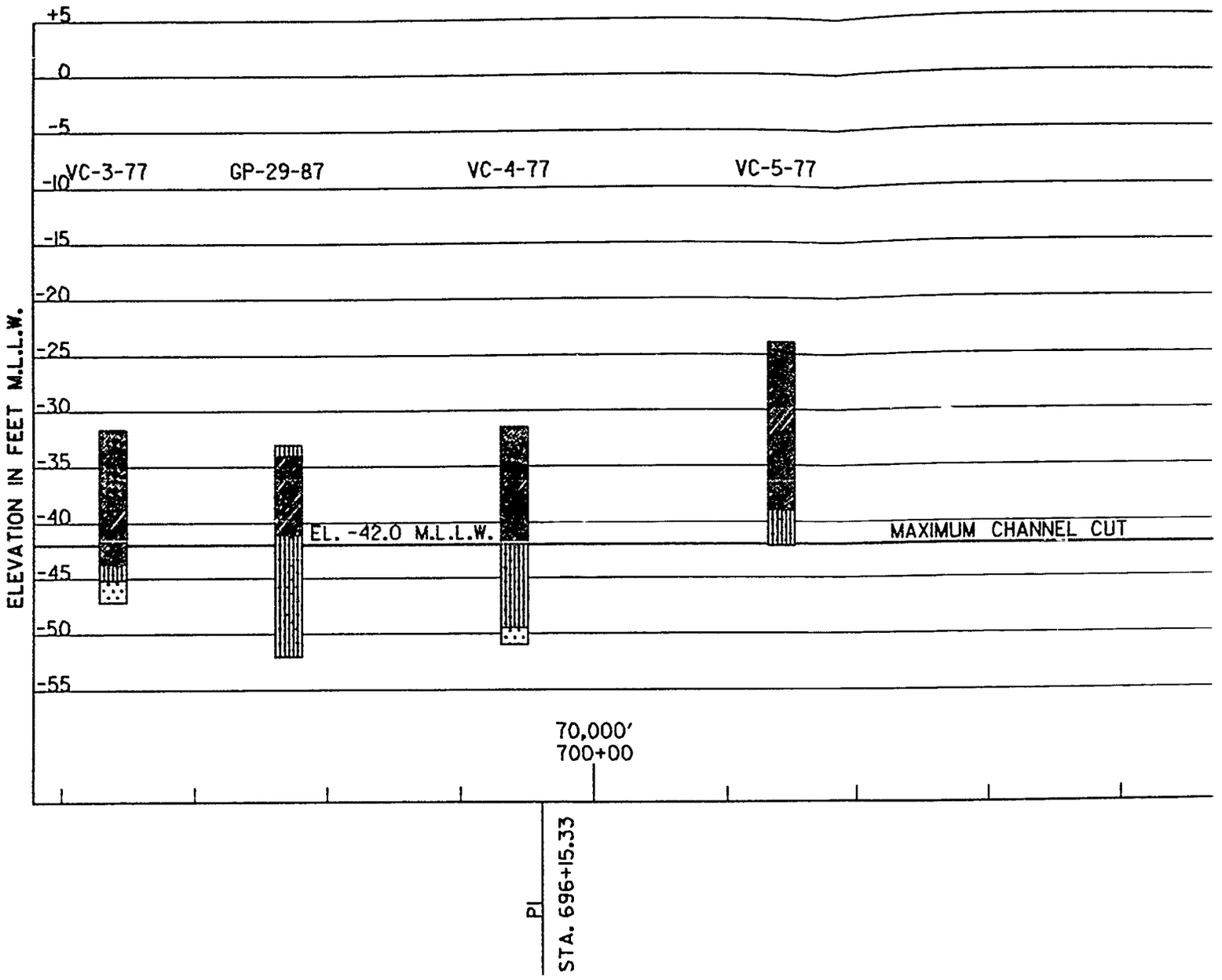
U.S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

SUNFLOWER CHANNEL
SUNFLOWER, MISSISSIPPI

GENERAL DESIGN MEMORANDUM
SOIL PROFILES

S.V.F.
EN-FS
W.R.S.

PLATE 8



LEGEND

- CH — INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
- SP — POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES
- SM — SILTY SANDS, SAND-SILT MIXTURES
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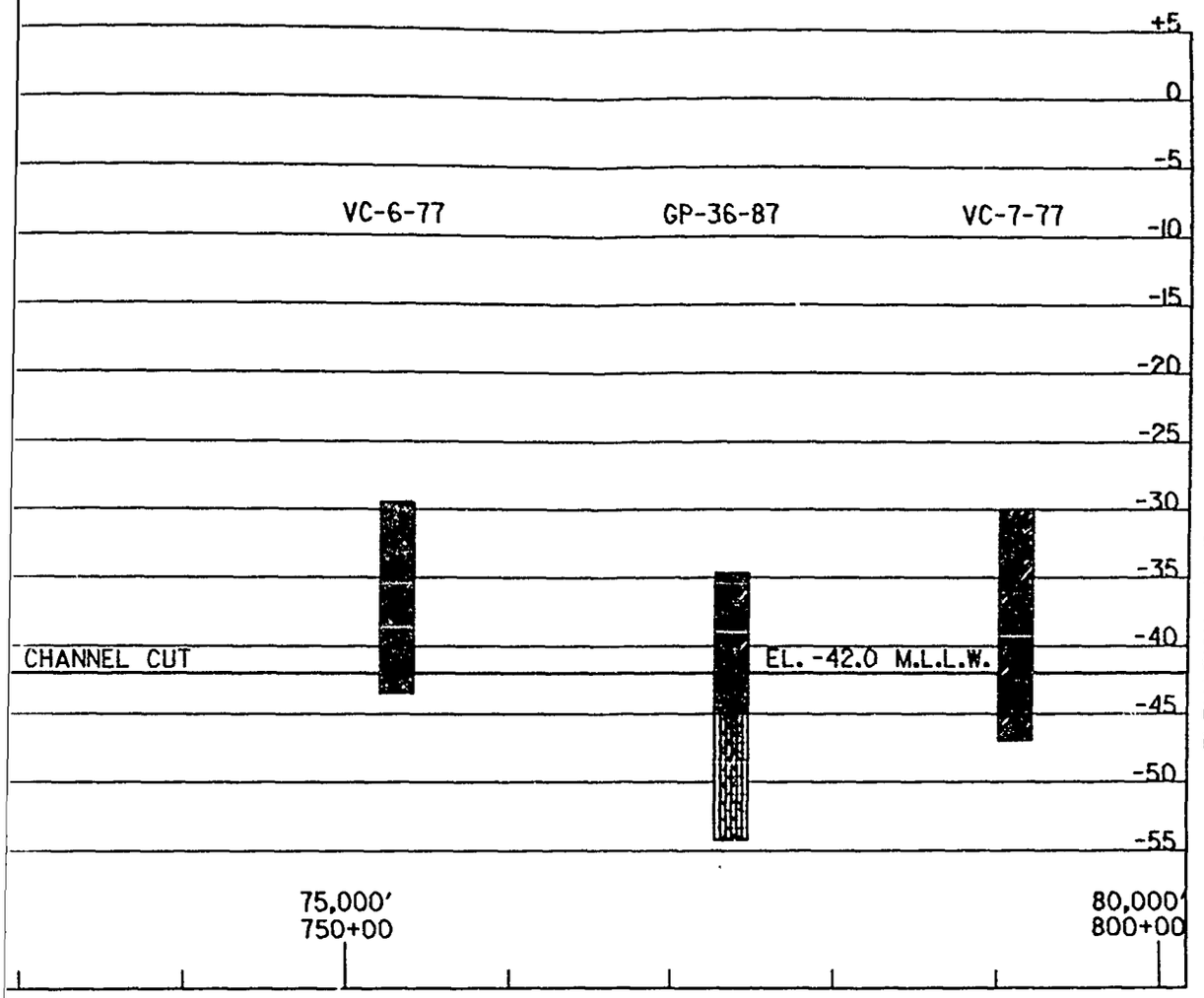
- CL — INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
- OL — ORGANIC SILTS AND ORGANIC SILT-CLAYS OF LOW PLASTICITY
- OH — ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS

NOTES

1) SEE BORING LAYOUT PLATE 1, 2, & 3
2) ICST BORING LOGS REFLECT LABORATORY CLASSIFICATIONS, OTHER BORINGS MAY SHOW FIELD CLASSIFICATIONS.
3) PROFILE CONTINUES ON NEXT PLATE



ATE 1, 2, & 3
ECT LABORATORY
BORINGS MAY SHOW

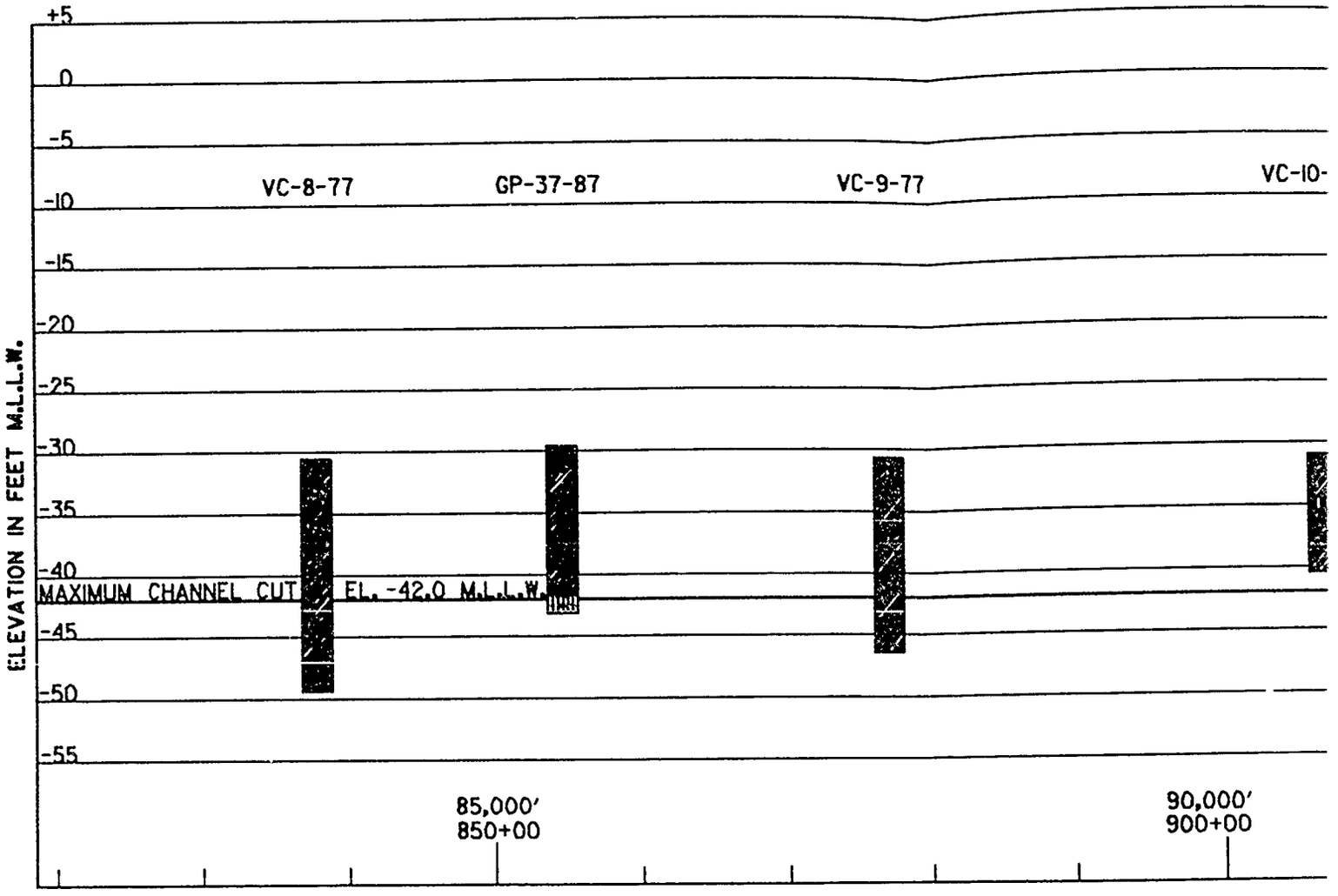
NEXT PLATE

U.S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.
SUBPORT CHANNEL
GULFPORT, MISSISSIPPI

GENERAL DESIGN MEMORANDUM
SOIL PROFILES

S.V.J.
CH-FS
W.R.S.
FEB., 1980

PLATE 9

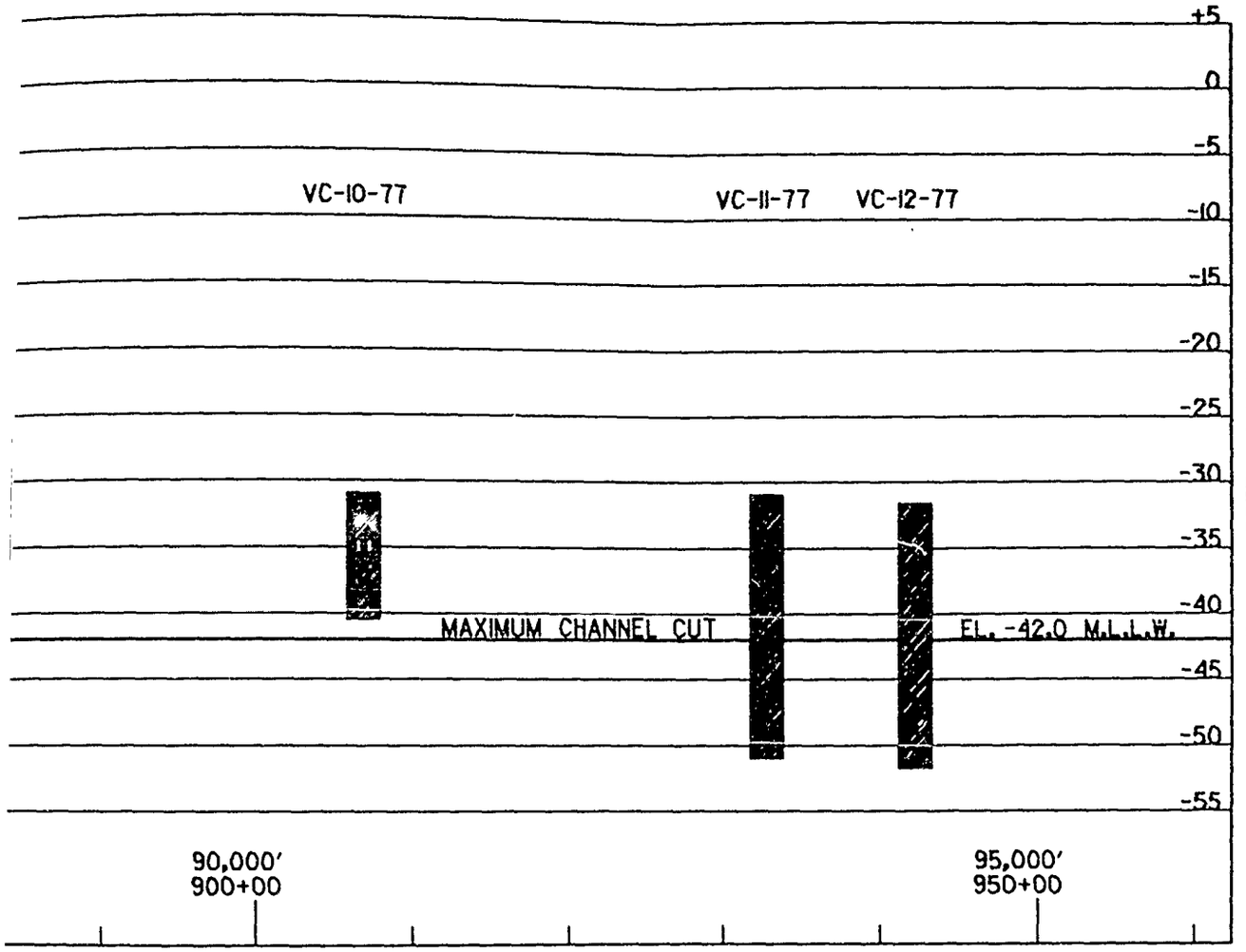


LEGEND

- CH INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
- SP POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES
- SM SILTY SANDS, SAND-SILT MIXTURES
- SC CLAYEY SANDS, SAND-CLAY MIXTURES
- ML INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SANDY SILTS OR CLAYEY SILTS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
- CL INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
- OL ORGANIC SILTS AND ORGANIC SILT-CLAYS OF LOW PLASTICITY
- OH ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS

NOTES

1. SEE BORING LAYOUT PLATE 1, 2, & 3
2. BEST BORING LOGS REFLECT LABORATORY CLASSIFICATIONS, OTHER BORINGS MAY SHOW FIELD CLASSIFICATIONS.
3. PROFILE CONTINUES ON NEXT PLATE



NOTES

BORING LAYOUT PLATE 1, 2, & 3

BORING LOGS REFLECT LABORATORY CLASSIFICATIONS. OTHER BORINGS MAY SHOW DIFFERENT CLASSIFICATIONS.

FILE CONTINUES ON NEXT PLATE

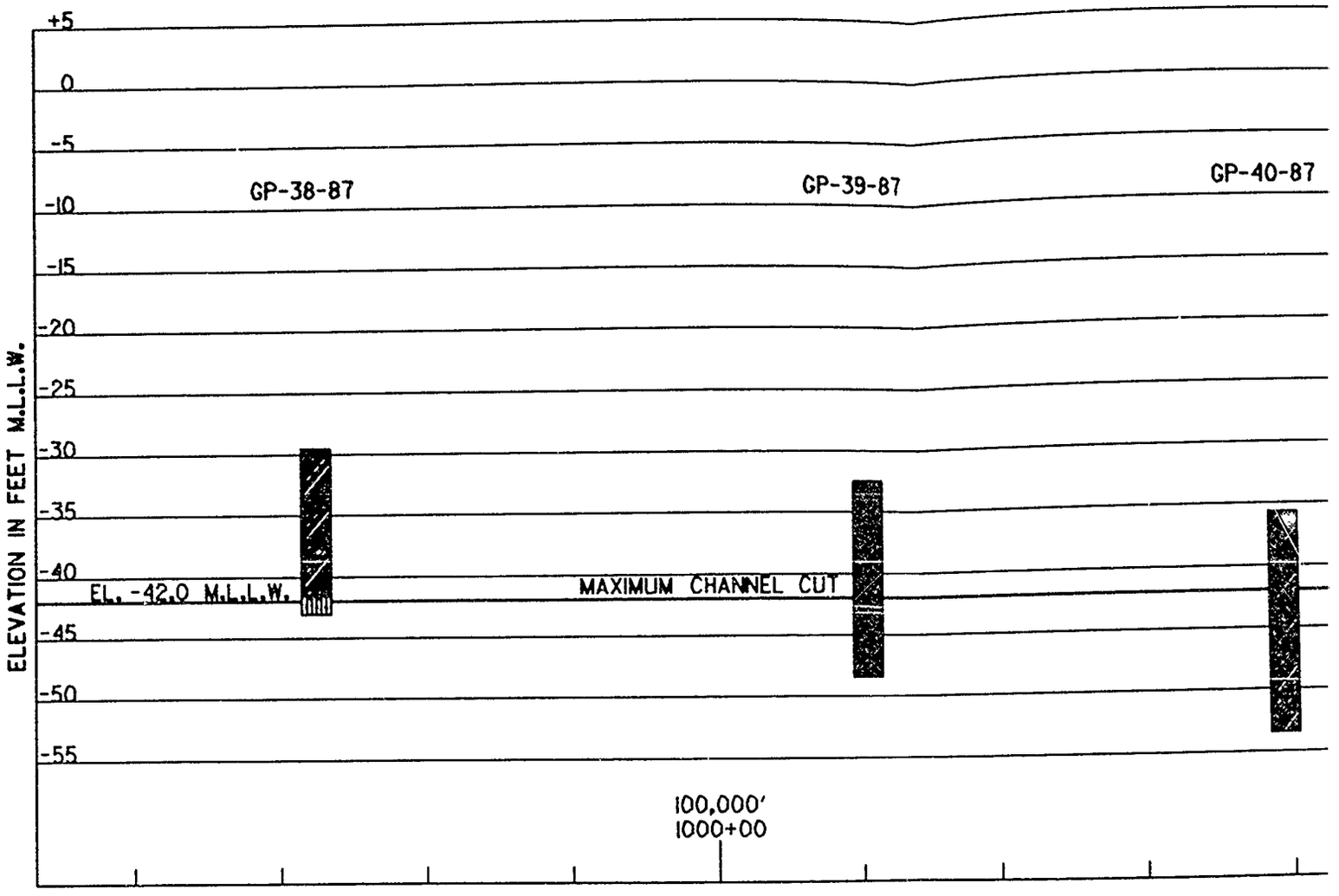
U.S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

GULFPORT CHANNEL
GULFPORT, MISSISSIPPI

GENERAL DESIGN MEMORANDUM
SOIL PROFILES

DESIGNED BY S.V.J.	DRAWN BY	CHECKED BY
SUBMITTED BY EN-FS	APPROVED BY D.R.S.	DATE FEB. 1980

PLATE 10

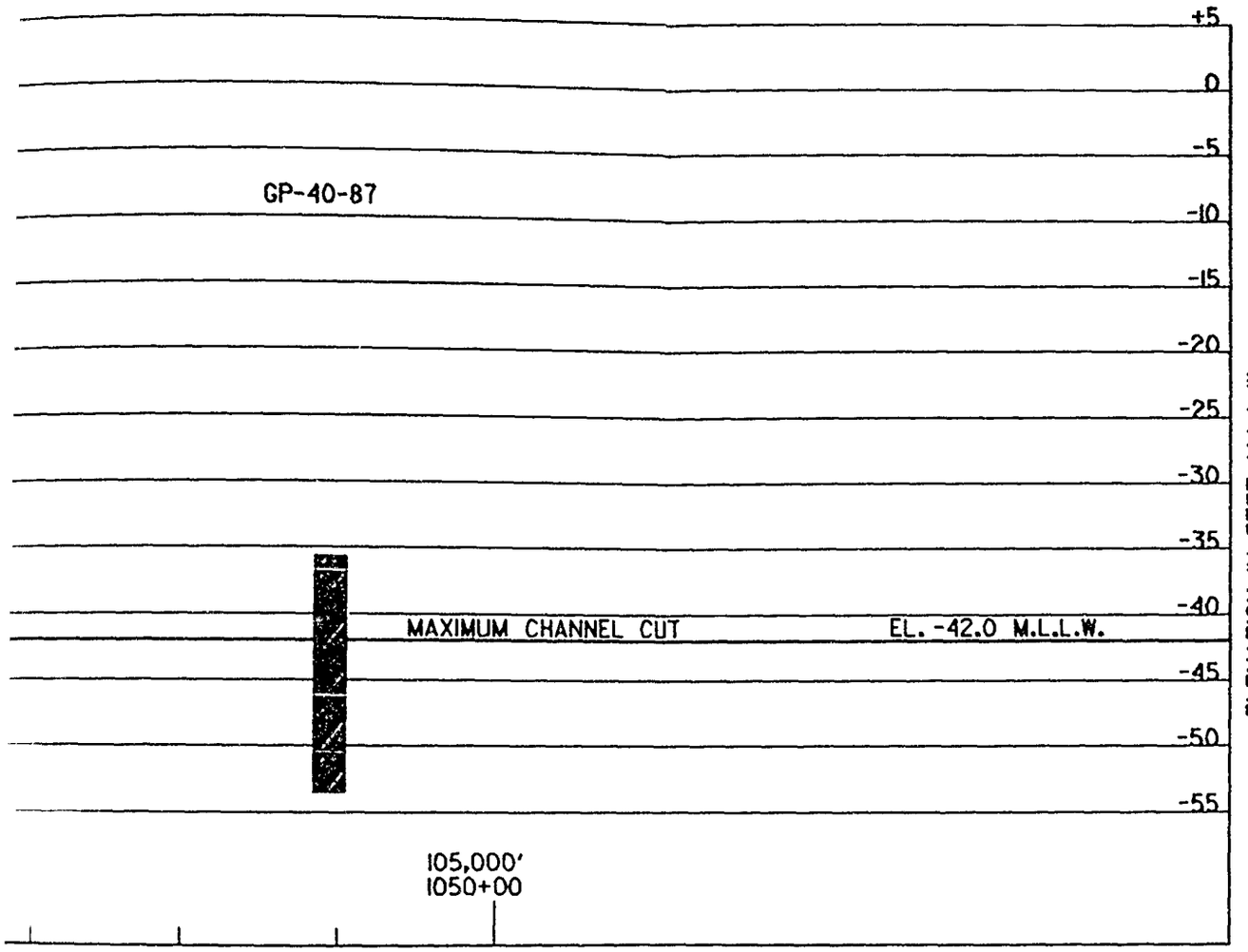


LEGEND

- CH INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
- SP POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES
- SM SILTY SANDS, SAND-SILT MIXTURES
- SC CLAYEY SANDS, SAND-CLAY MIXTURES
- ML INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SANDY SILTS OR CLAYEY SILTS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
- CL INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
- OL ORGANIC SILTS AND ORGANIC SILT-CLAYS OF LOW PLASTICITY
- OH ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS

NOTES

1) SEE BORING LAYOUT PLATE 1, 2, & 3
2) 1987 BORING LOGS REFLECT LABORATORY CLASSIFICATIONS, OTHER BORINGS MAY SHOW FIELD CLASSIFICATIONS.
3) PROFILE CONTINUES ON NEXT PLATE



NOTES

BORING LAYOUT PLATE 1, 2, & 3

BORING LOGS REFLECT LABORATORY CLASSIFICATIONS. OTHER BORINGS MAY SHOW FIELD CLASSIFICATIONS.

E CONTINUES ON NEXT PLATE

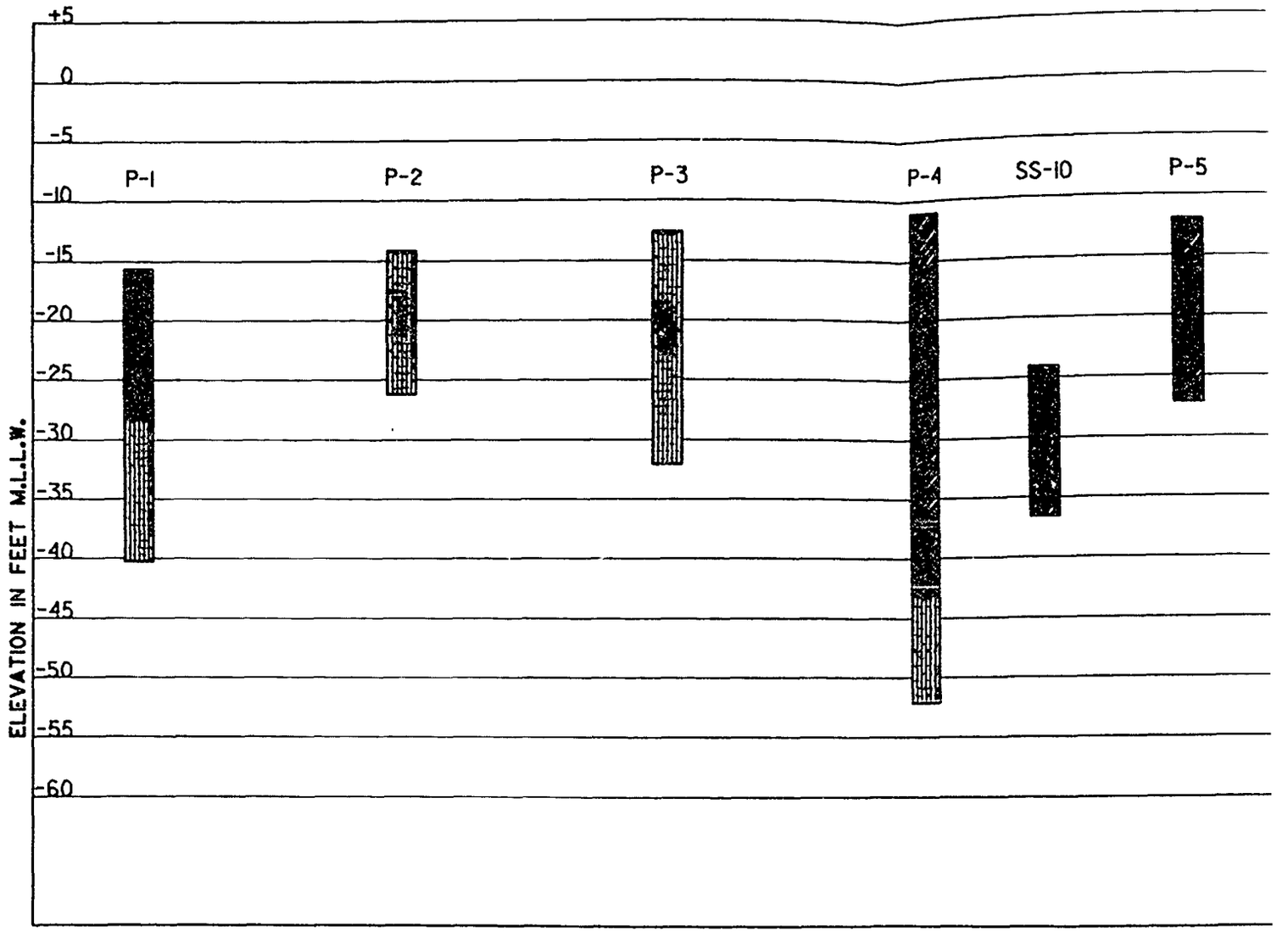
U.S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

BILOXI CHANNEL
BILOXI, MISSISSIPPI

GENERAL DESIGN MEMORANDUM
SOIL PROFILES

DESIGNED BY S.V.J.	CHECKED BY W.R.S.	
DRAWN BY DH-FS		DATE FEB., 1988

PLATE 11



LEGEND

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- SP — POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES
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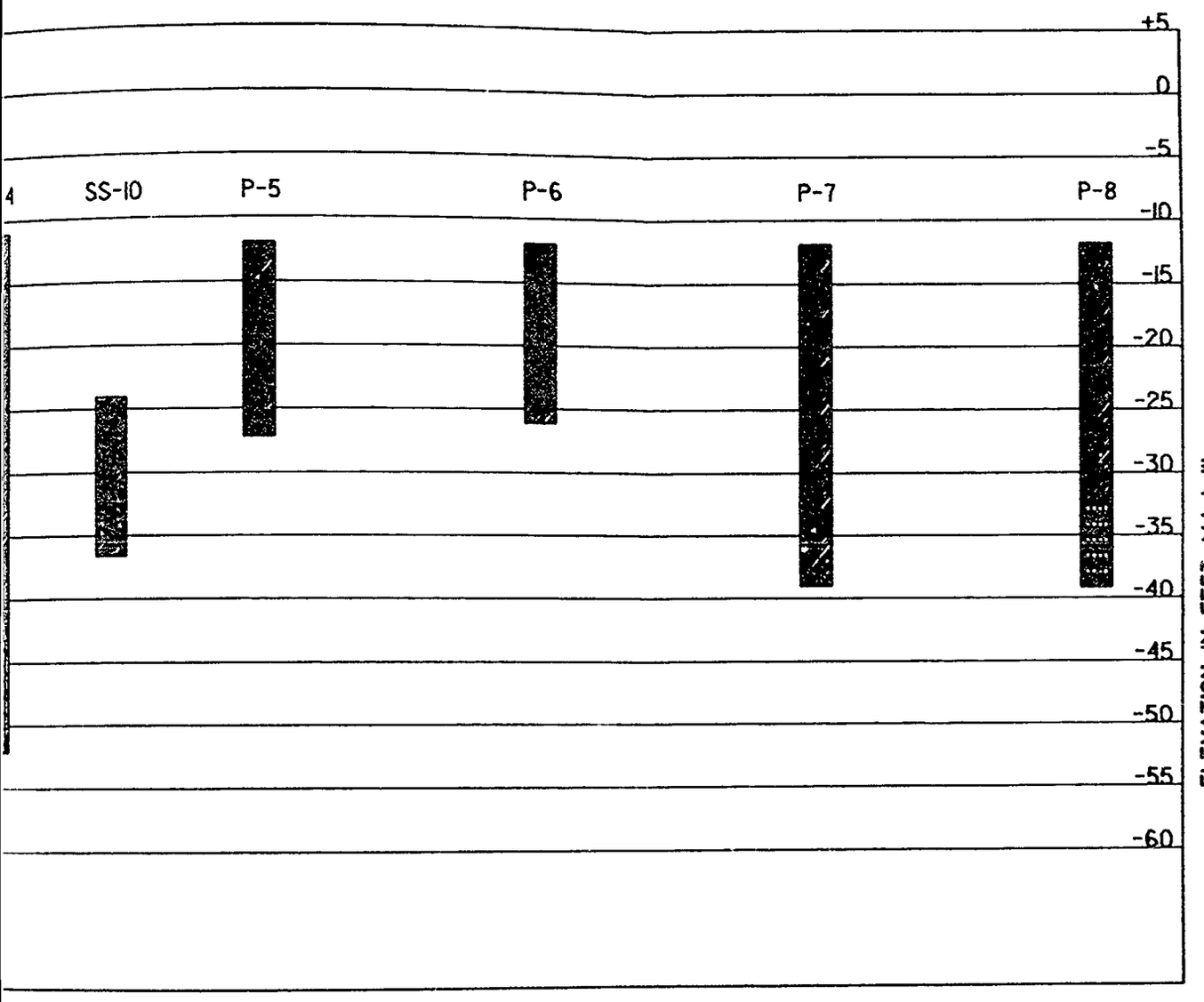
- OL — ORGANIC SILTS AND ORGANIC SILT-CLAYS OF LOW PLASTICITY
- OH — ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS

NOTES

1. SEE BORING LAYOUT PLATE 1, 2, & 3
2. DRY DENSITY, LOSS, PERFECT LABORATORY CLASSIFICATION, OTHER BORINGS MAY SHOW FIELD CLASSIFICATION.



NOTES

BORING LAYOUT PLATE 1, 2, & 3

SOIL LOSS REFLECT LABORATORY [illegible] OTHER BORINGS MAY [illegible]

U.S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

GULFPORT HARBOR
GULFPORT, MISSISSIPPI

GENERAL DESIGN MEMORANDUM
SOIL PROFILES

S.V.J.

DN-FS

W.R.S.

FEB., 1968

PLATE 12