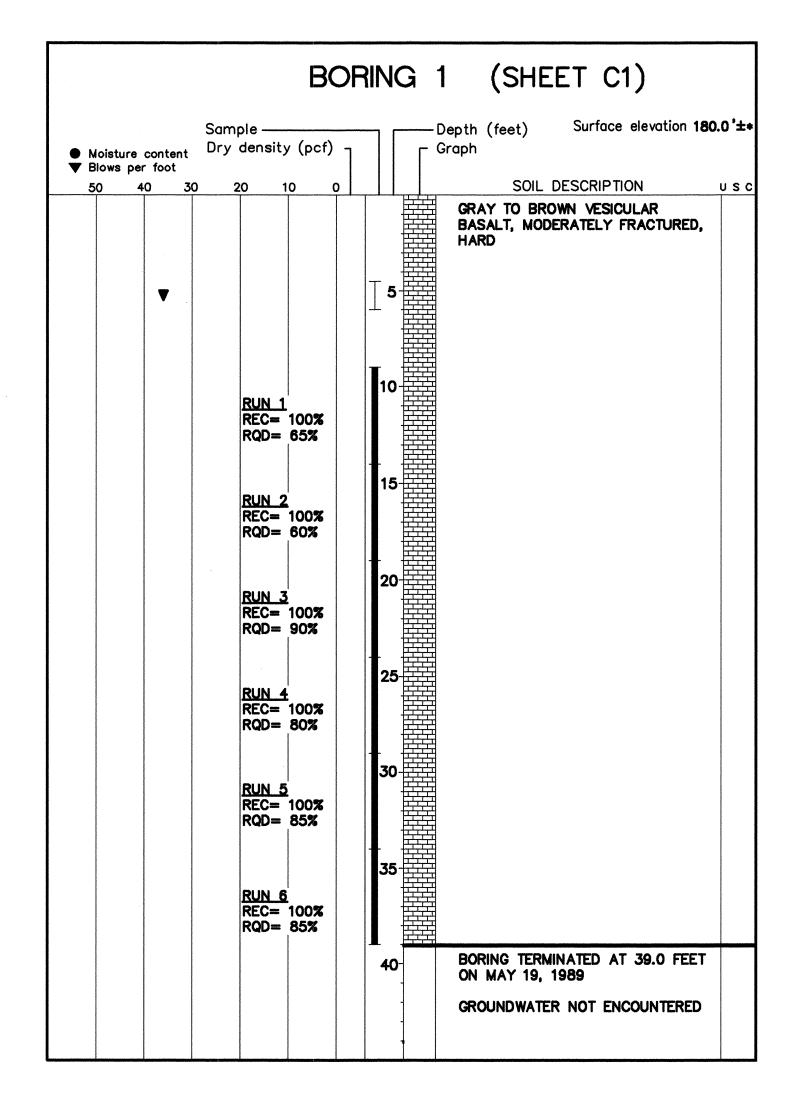
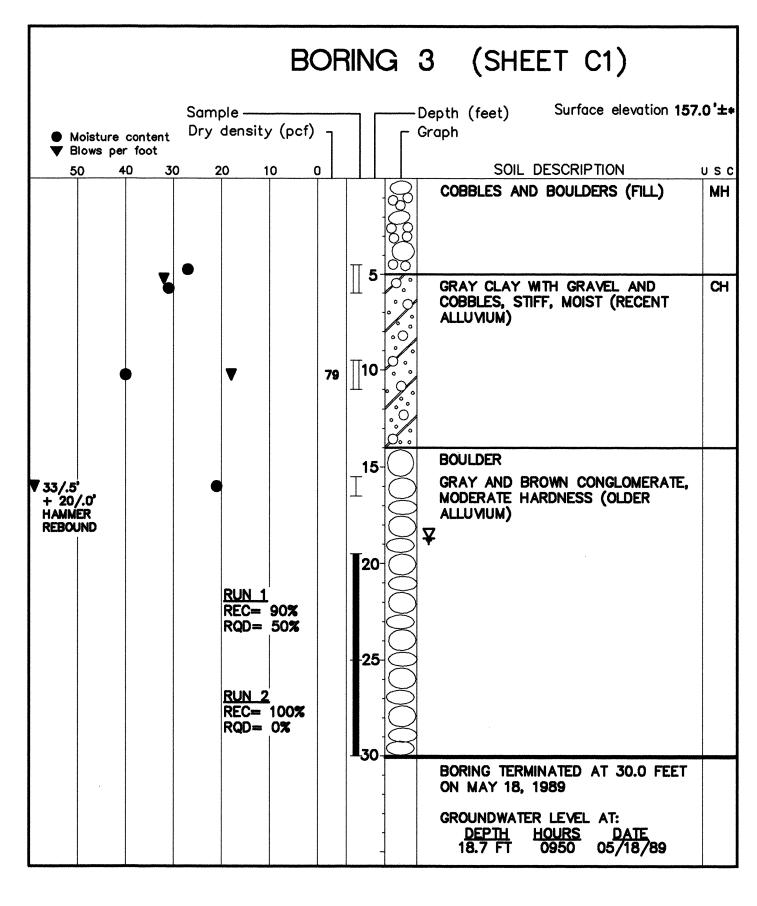
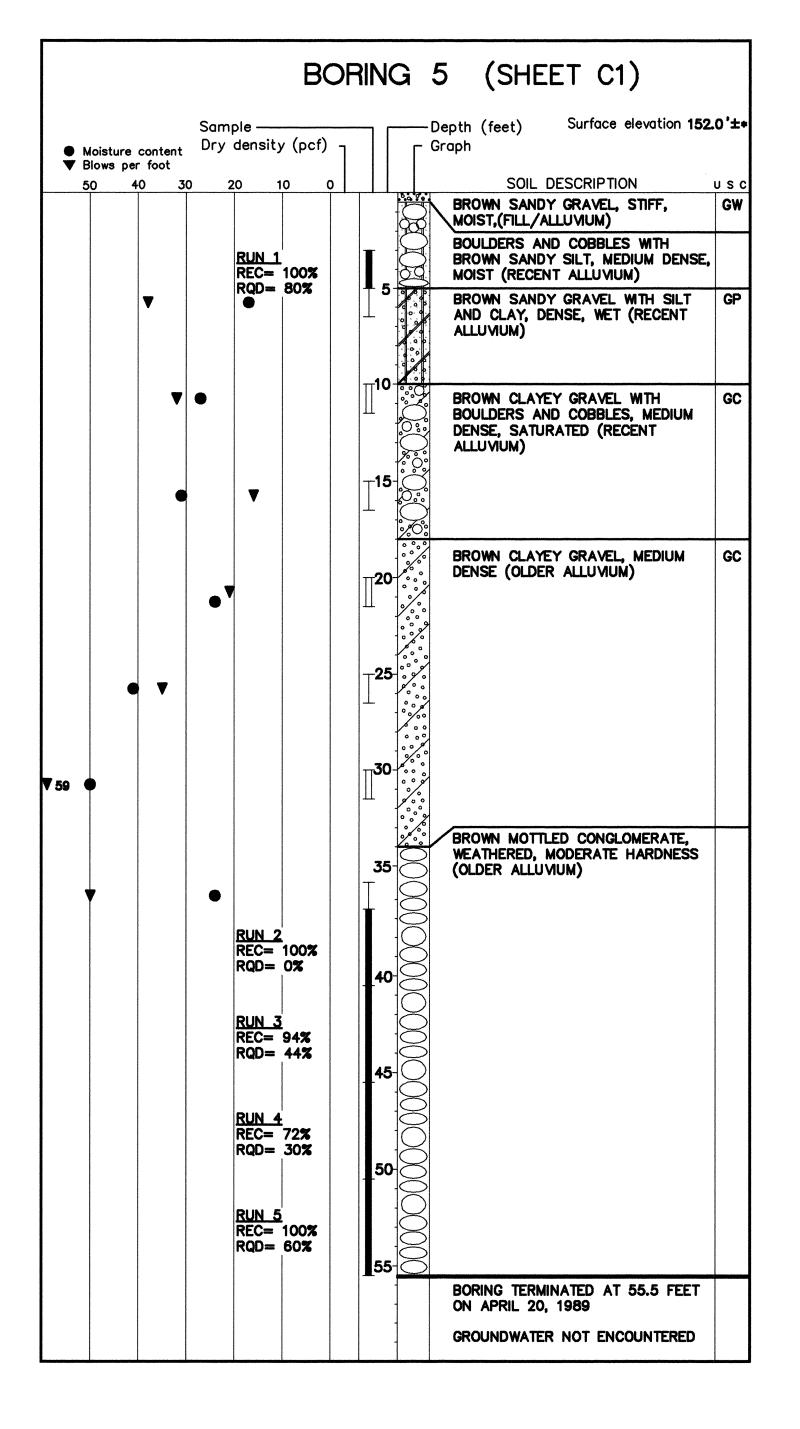
FED. ROAD DIS. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR		TOTAL SHEETS
HAWAII	HAW.	I-H3-1(59)	1993	ADD 146	211



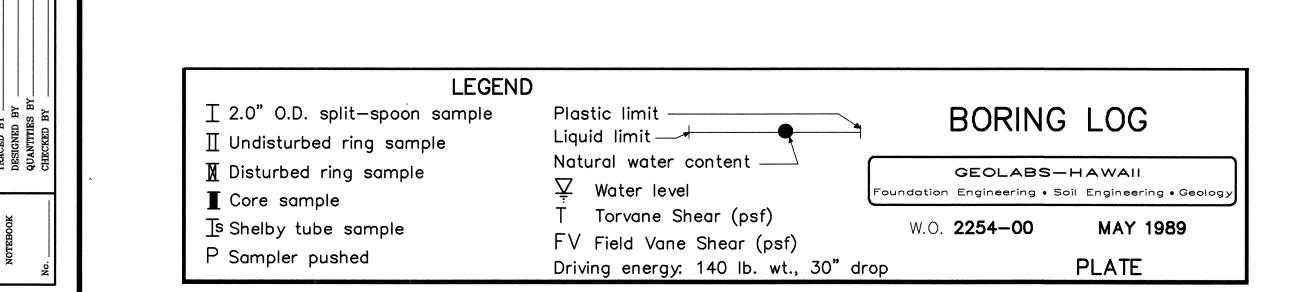


BORING 4 (SHEET C1) Surface elevation 159.0 ±+ Moisture content
 Dry density (pcf) ¬ ┌ Graph **▼** Blows per foot SOIL DESCRIPTION DARK BROWN CLAYEY GRAVEL AND GC COBBLES, MEDIUM DENSE, MOIST BOULDERS AND COBBLES WITH BROWN CLAYEY GRAVEL, MEDIUM DENSE, MOIST (RECENT ALLUYUM) RUN 1 REC= 35% RQD= 18% BROWN CLAYEY GRAVEL WITH COBBLES, LOOSE (RECENT ALLUVIUM) BOULDERS AND COBBLES WITH BROWN CLAYEY GRAVEL, LOOSE (RECENT ALLUYUM) BROWN CLAYEY GRAVEL, MEDIUM DENSE (RECENT ALLUMUM) BROWN CLAYEY GRAVEL WITH SAND. GO MEDIUM DENSE, SATURATED (OLDER ALLUVIUM) BROWN CLAYEY GRAVEL WITH SAND, GC MEDIUM DENSE (OLDER ALLUMUM) GREENISH GRAY AND BROWN CONGLOMERATE, WEATHERED, MODERATE HARDNESS (OLDER ALLUMUM) ▼ 50/.5' RUN 2 REC= 0% RQD= 0% RUN 3 REC= 94% RQD= 10% RUN 4 REC= 100% RQD= 8% RUN 5 REC= 98% RQD= 10% BORING TERMINATED AT 63.0 FEET ON APRIL 18, 1989 GROUNDWATER LEVEL AT:

DEPTH HOURS DATE
8.9 FT 0800 04/18/89



* ELEVATIONS ESTIMATED FROM GRADING AND DRAINAGE PLANS (UNDATED) BY PAREN, INC...



 9/30/93 ADDED NOTE FOR BORING LOCATIONS

DATE REVISION

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LOG OF BORINGS

INTERSTATE ROUTE H-3 F.A.I. PROJECT NO. I-H3-I(59)

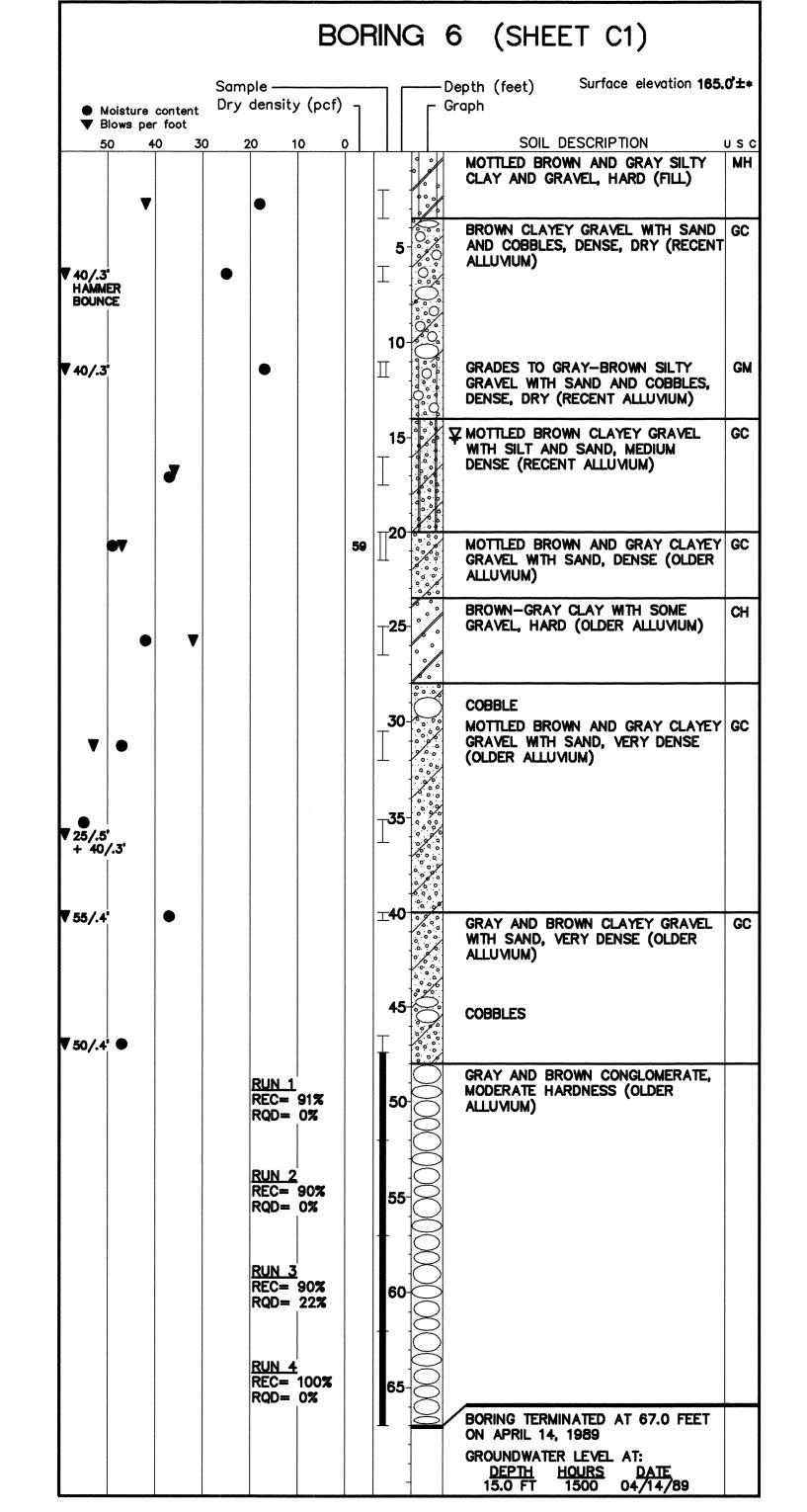
NOT TO SCALE DATE: JUNE 1993

SHEET No. B1 OF 6 SHEETS

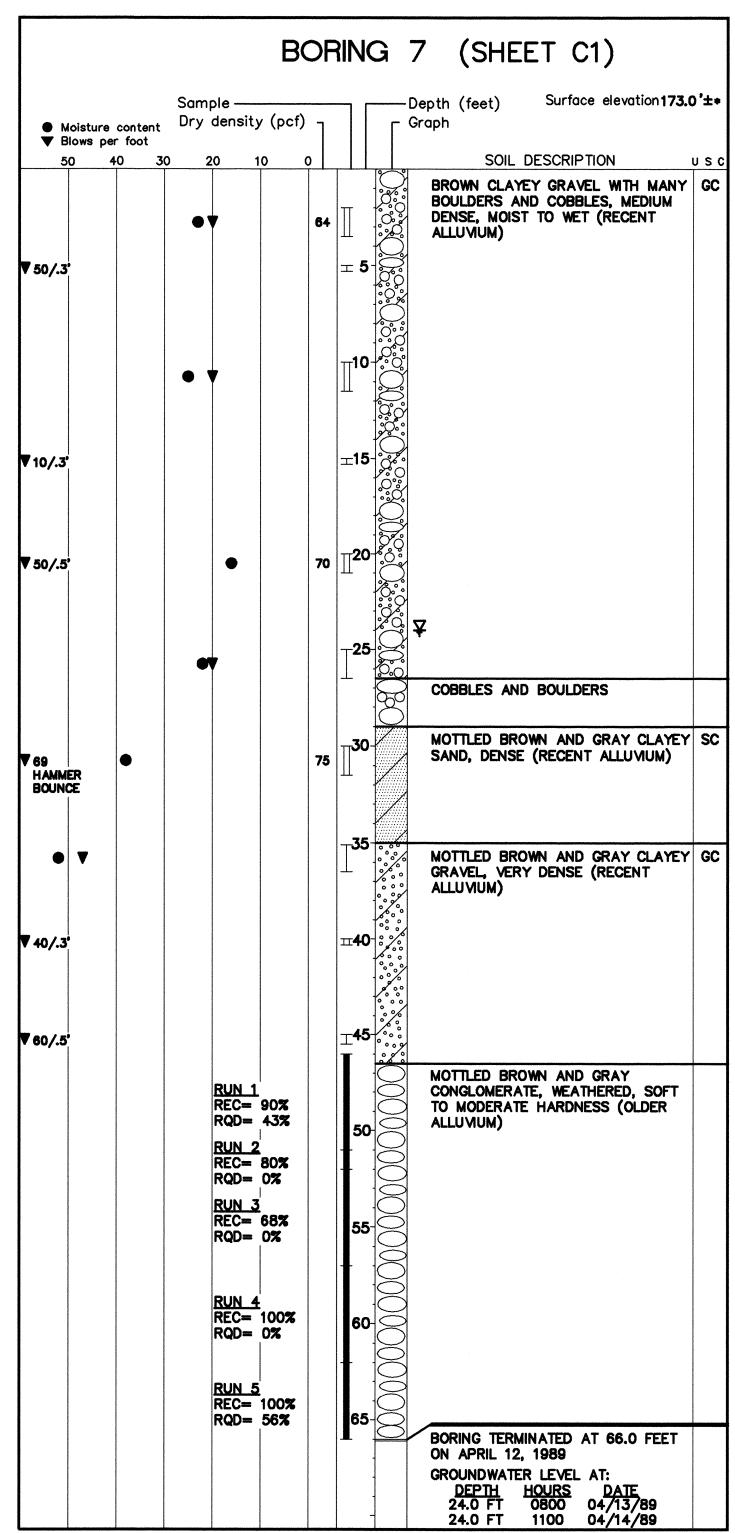
ADD. 146

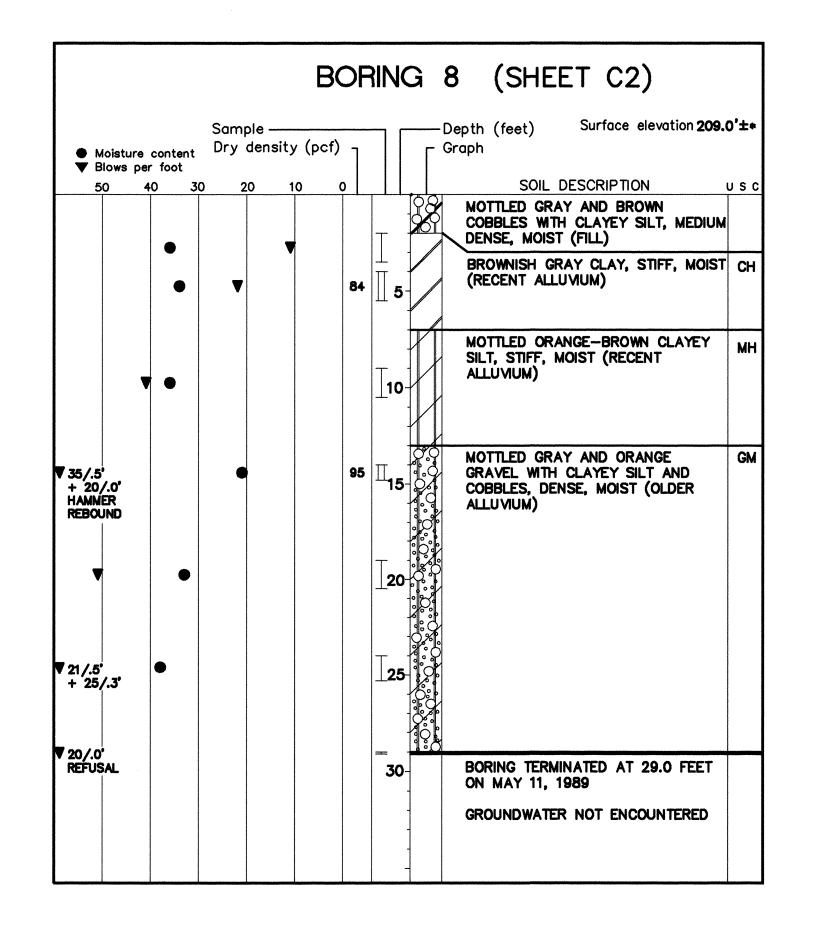
FED. ROAD DIS. NO. STATE FED. AID PROJ. NO. FISCAL SHEET TOTAL SHEETS

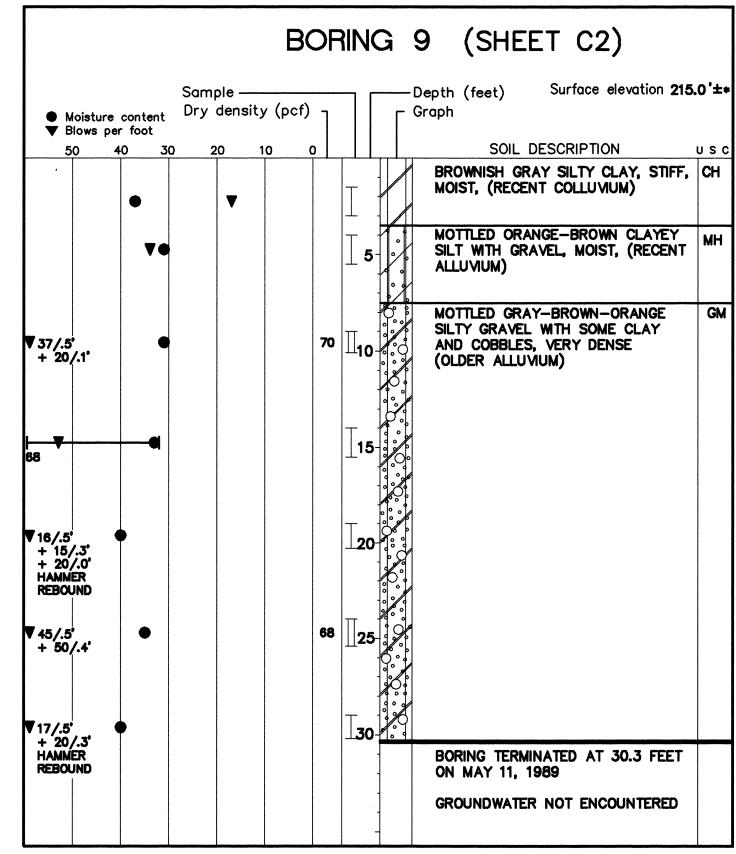
HAWAII HAW. I-H3-1(59) 1993 147 211



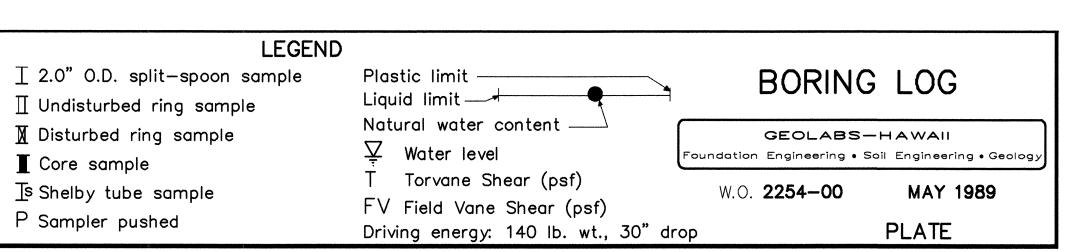
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* ELEVATIONS ESTIMATED FROM GRADING AND DRAINAGE PLANS (UNDATED) BY PAREN, INC..





INTERSTATE ROUTE H-3 F.A.I. PROJECT NO. I-H3-I(59)

NOT TO SCALE DATE: JUNE 1993

DEPARTMENT OF TRANSPORTATION

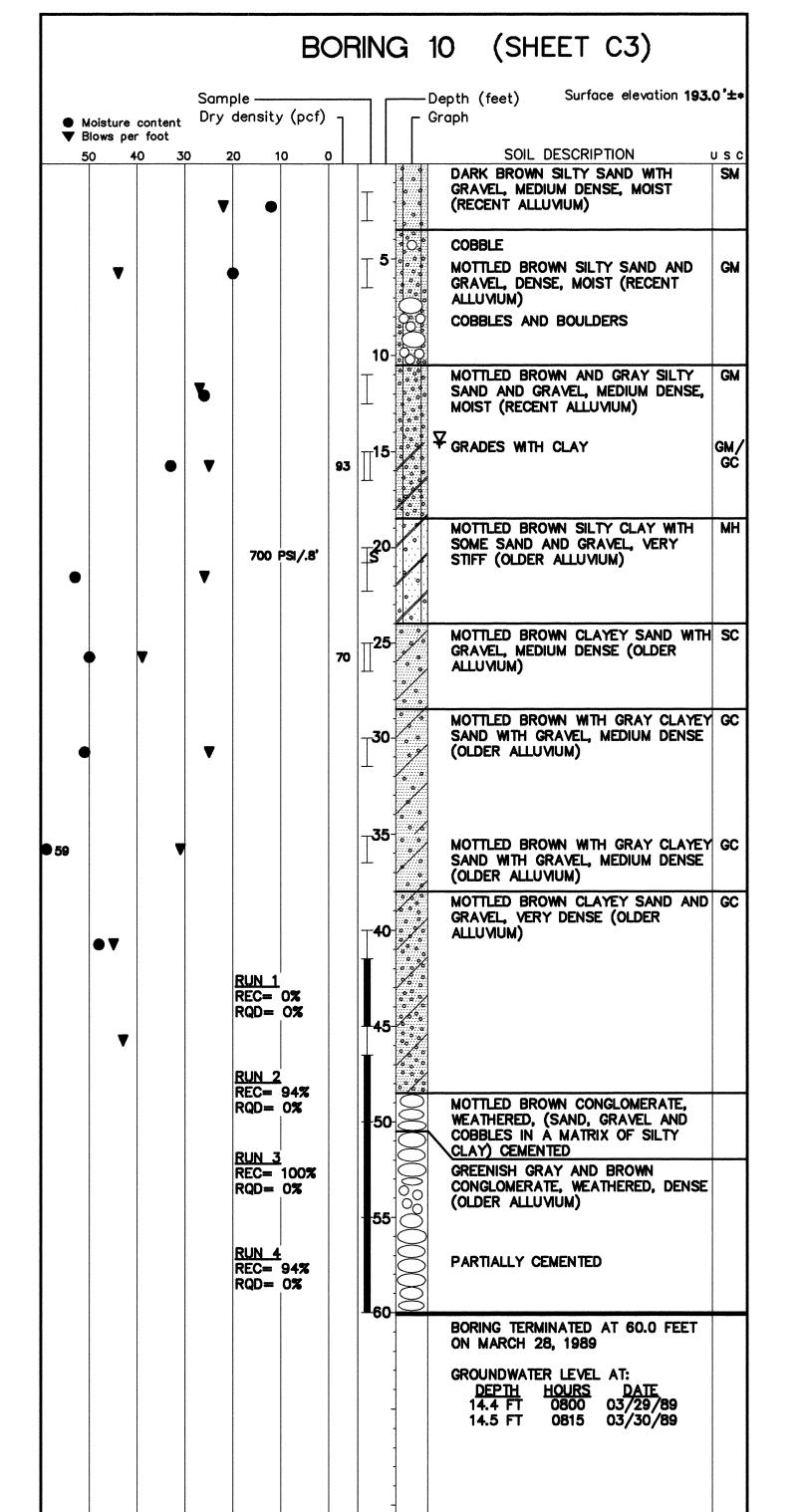
HIGHWAYS DIVISION

LOG OF BORINGS

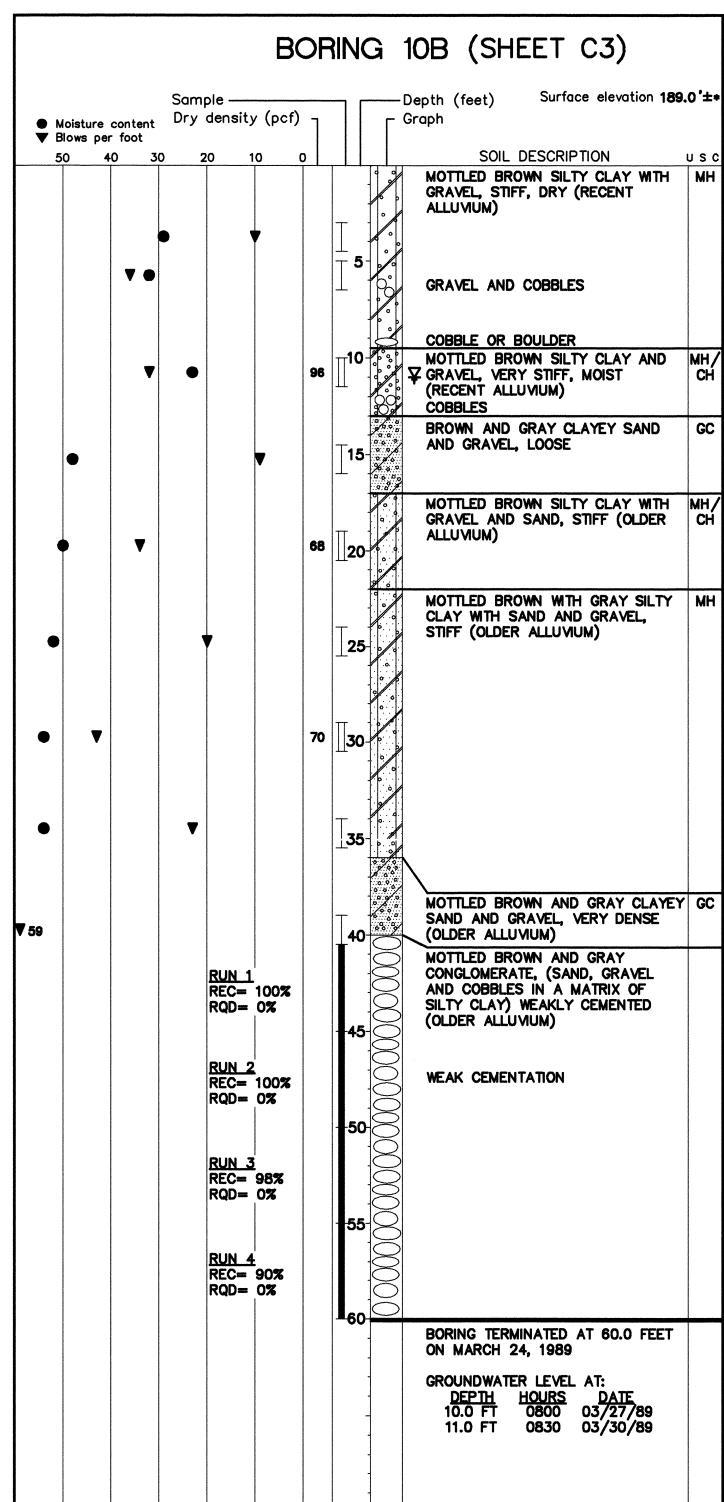
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147

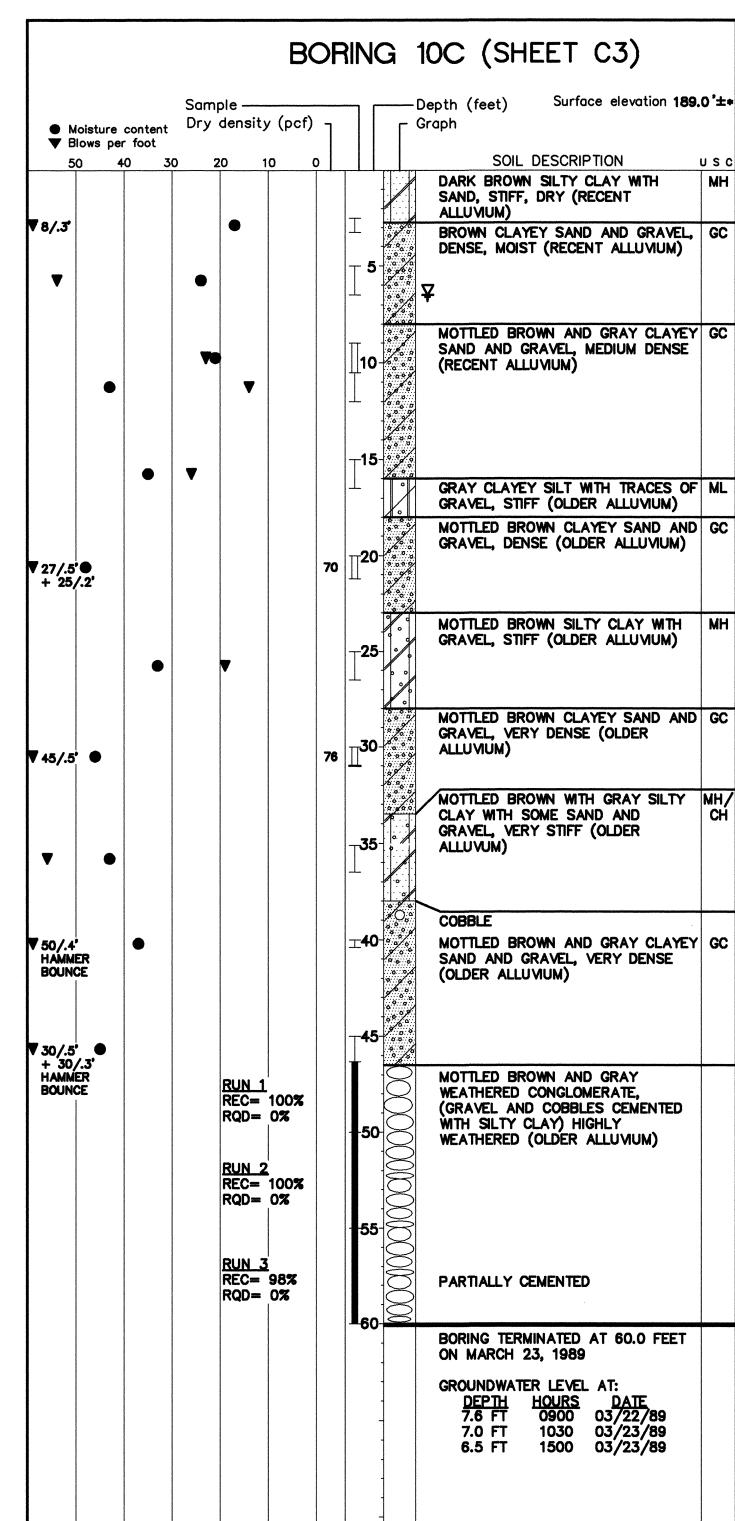
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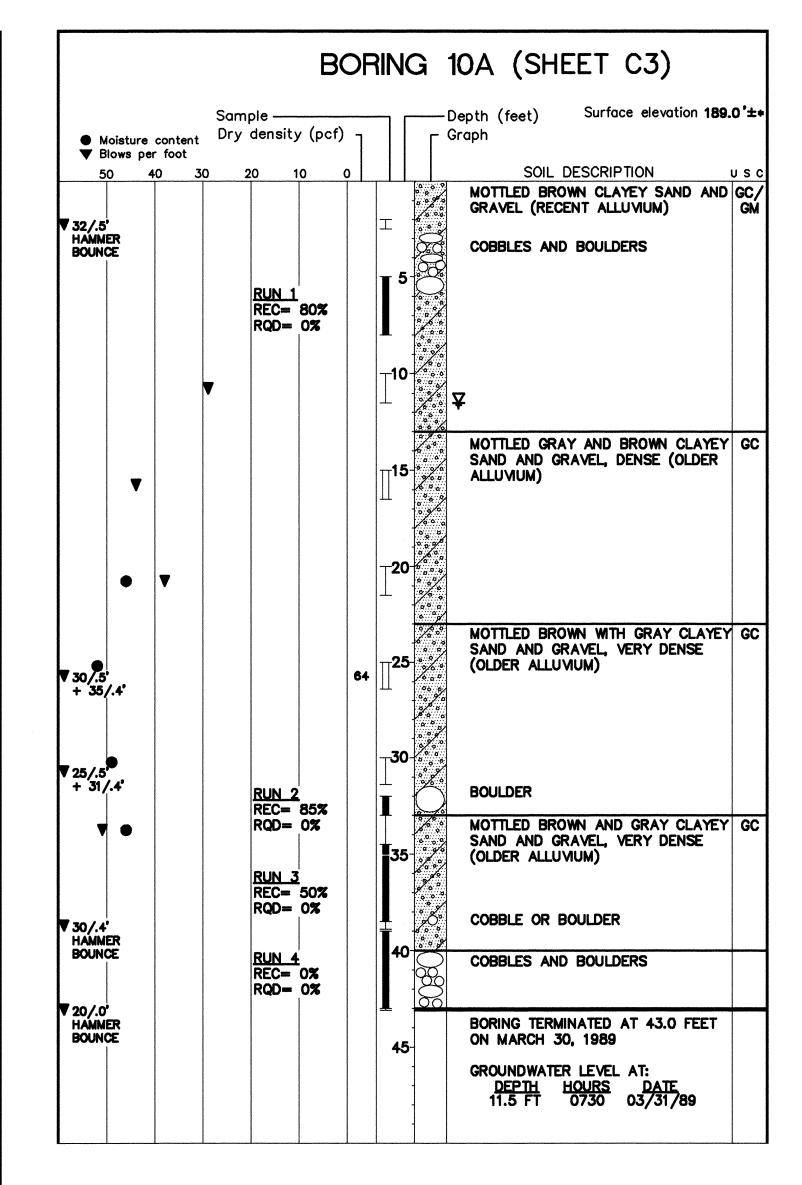


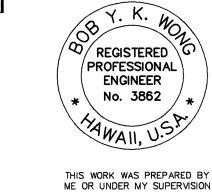
ATE



PLATE







STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

LOG OF BORINGS

INTERSTATE ROUTE H-3 F.A.I. PROJECT NO. I-H3-I(59)

NOT TO SCALE DATE: JUNE 1993 SHEET No. B3 OF 6 SHEETS

Gorg K. N/mp6-25-93

SIGNATURE HAS BEEN DIGITIZED

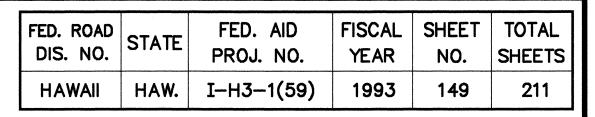
BORING LOG \perp 2.0" O.D. split-spoon sample Plastic limit — Liquid limit — Natural water content _____ ▼ Disturbed ring sample GEOLABS-HAWAII Water level oundation Engineering • Soil Engineering • Geology T Core sample Torvane Shear (psf) W.O. **2254-00** MAY 1989 Is Shelby tube sample FV Field Vane Shear (psf) P Sampler pushed

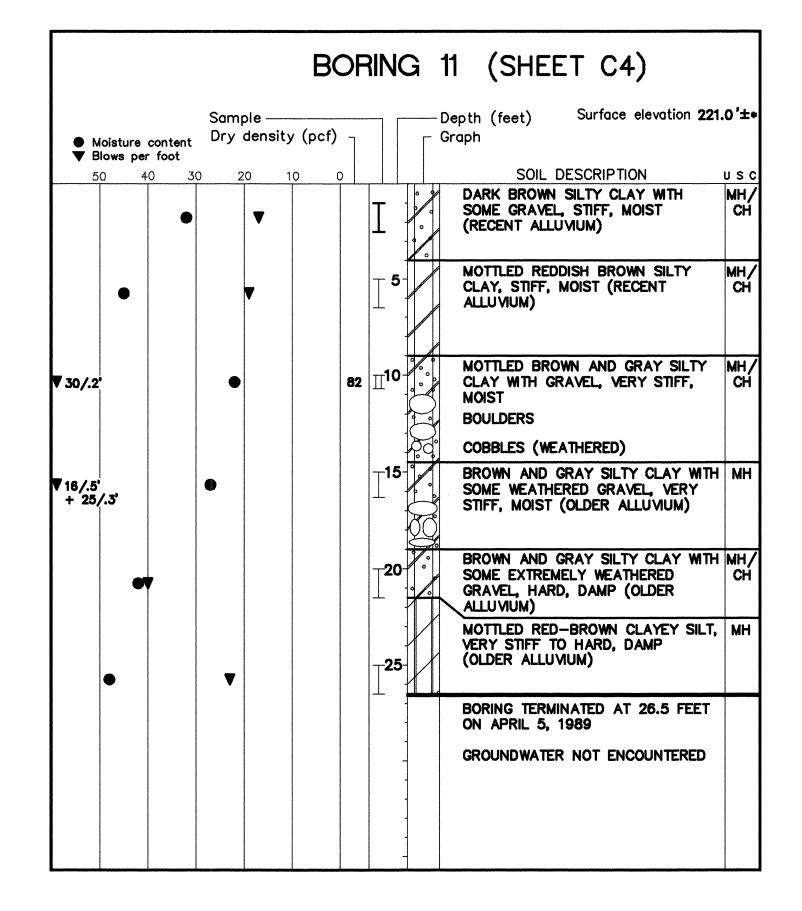
Driving energy: 140 lb. wt., 30" drop

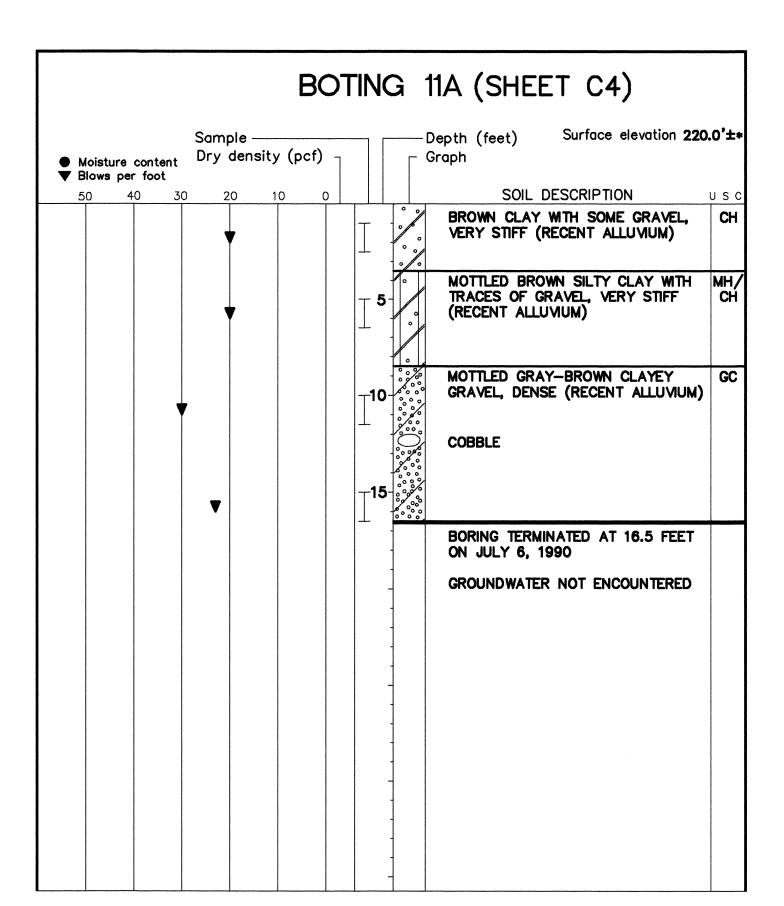
LEGEND

* ELEVATIONS ESTIMATED FROM GRADING AND DRAINAGE PLANS (UNDATED) BY PAREN, INC...

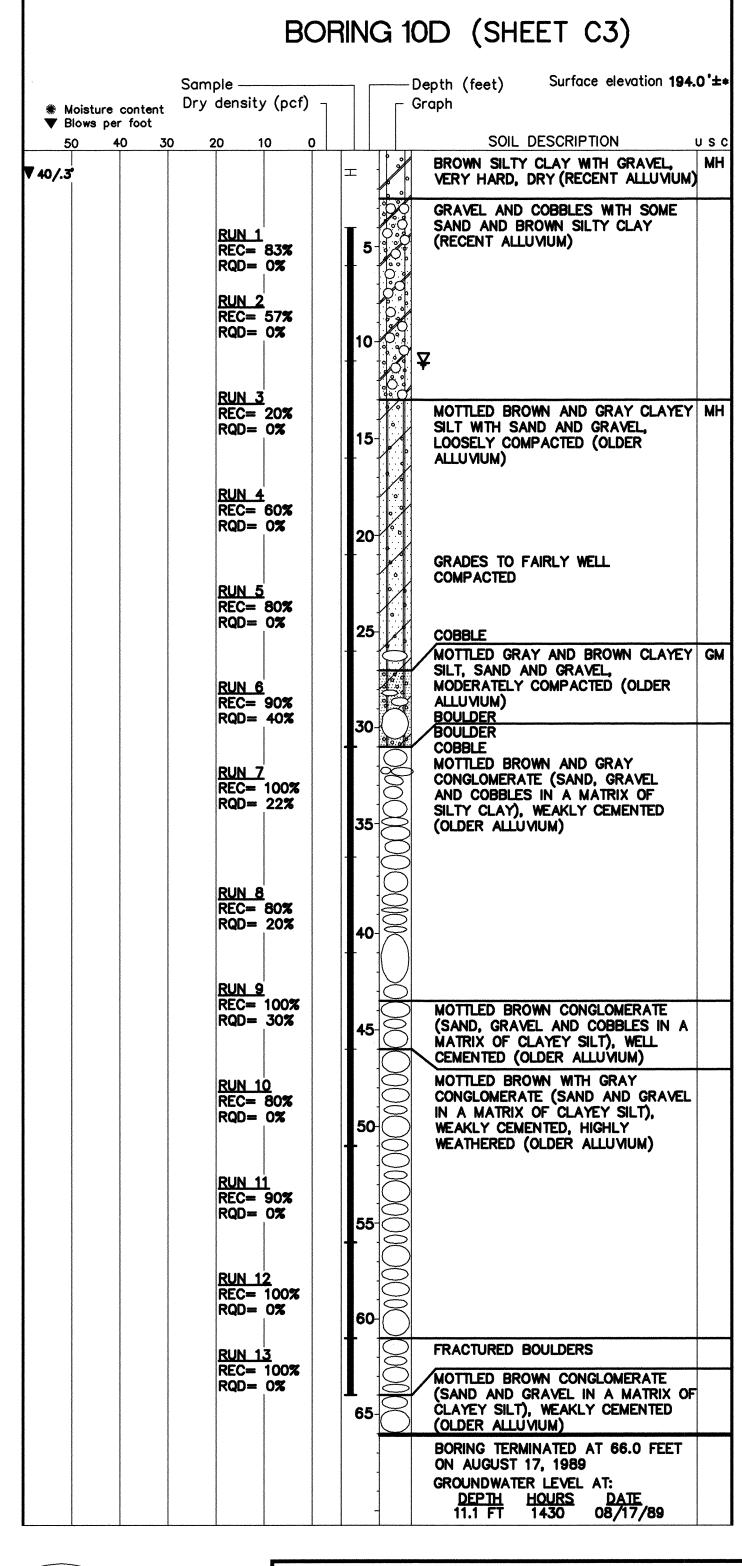
148



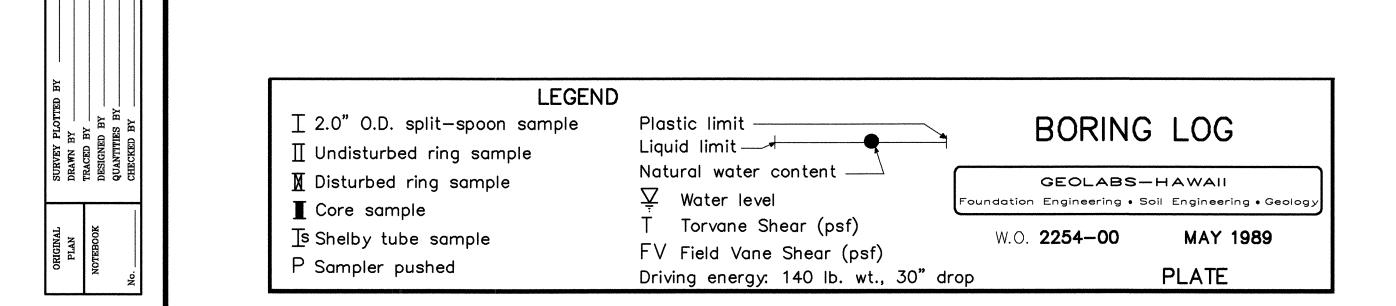


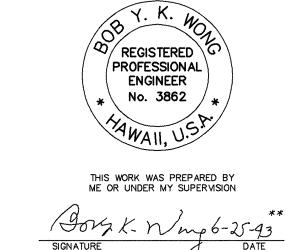


BORING 12 (SHEET C4) Surface elevation 269.0'±+ —Depth (feet) Dry density (pcf) - Graph Moisture content **▼** Blows per foot SOIL DESCRIPTION DARK BROWN SILTY CLAY WITH BOULDERS, MEDIUM STIFF, DAMP (RECENT COLLUMUM) MOTTLED BROWN AND GRAY SILTY CH-CLAY WITH GRAVEL AND BOULDERS, MH STIFF. DAMP (RECENT COLLUMUM) HIGHLY WEATHERED BOULDERS AND COBBLES, DENSE, DRY (OLDER ALLUVIUM) BROWN AND GRAY MOTTLED CLAYEY GC GRAVEL WITH SOME BOULDERS AND COBBLES, HARD, DRY WEAKLY CEMENTED (OLDER ALLUVIUM) BROWN SILTY CLAY WITH SOME GRAVEL AND COBBLES, VERY HARD BROWN AND GRAY AGGLOMERATE. WEATHERED, MODERATE HARDNESS RUN 1 REC= 80% (OLDER ALLUVIUM) RQD= 50% RUN_2 REC= 90% BROWN AND GREENISH GRAY CONGLOMERATE, WEATHERED, RQD= 50% MODERATE HARDNESS (OLDER ALLUVIUM) RUN 3 REC= 95% RQD= 45% RUN_4 REC= 100% RQD= 50% RUN 5 REC= 100% RQD= 15% RUN 6 REC= 100% RQD= 42% BORING TERMINATED AT 51.0 FEET ON APRIL 25, 1989 GROUNDWATER LEVEL AT:



* ELEVATIONS ESTIMATED FROM GRADING AND DRAINAGE PLANS (UNDATED) BY PAREN, INC...





SIGNATURE HAS BEEN DIGITIZED

DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

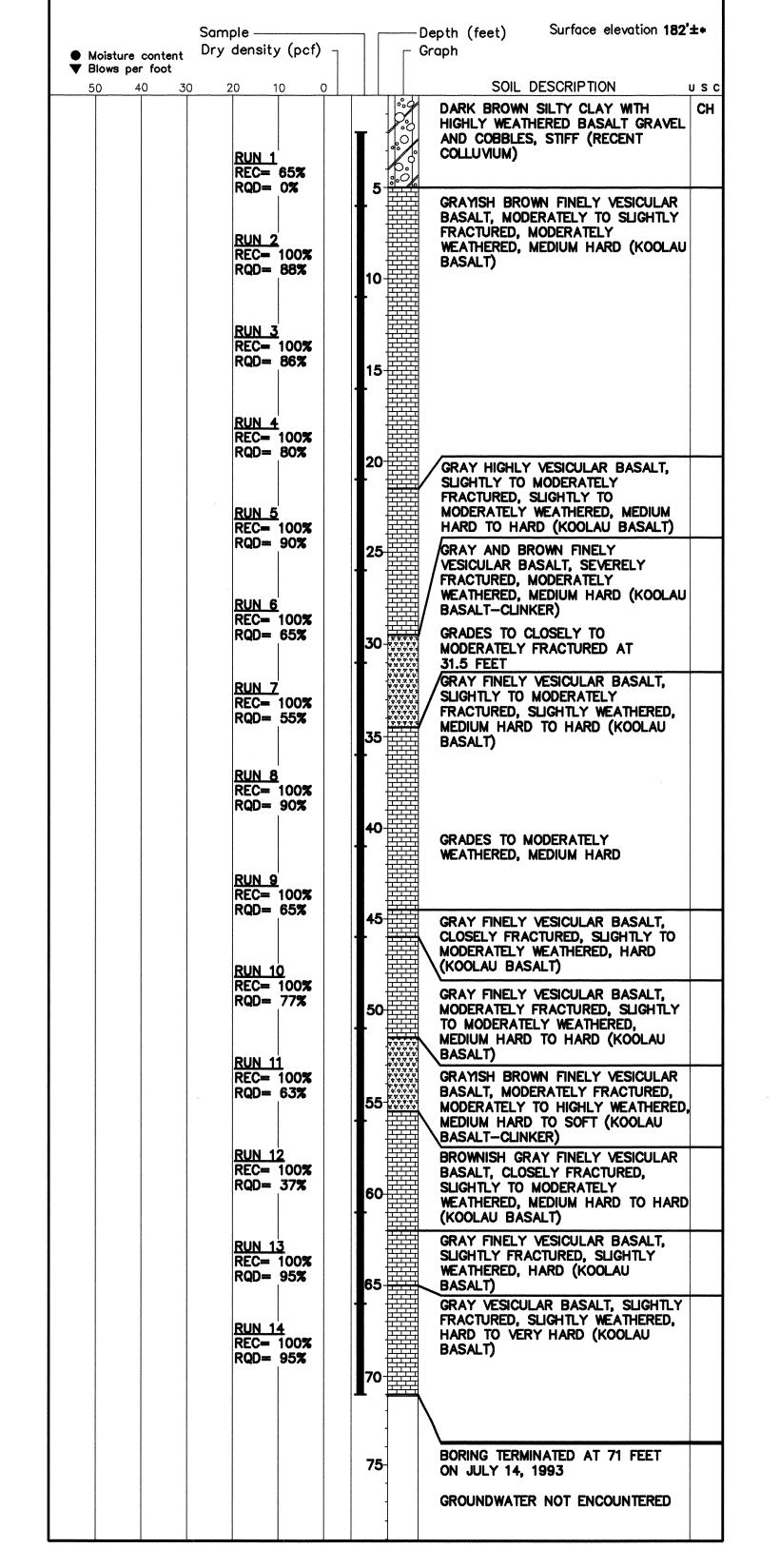
LOG OF BORINGS

LOG OF DOTHINGS

INTERSTATE ROUTE H-3 F.A.I. PROJECT NO. I-H3-I(59)

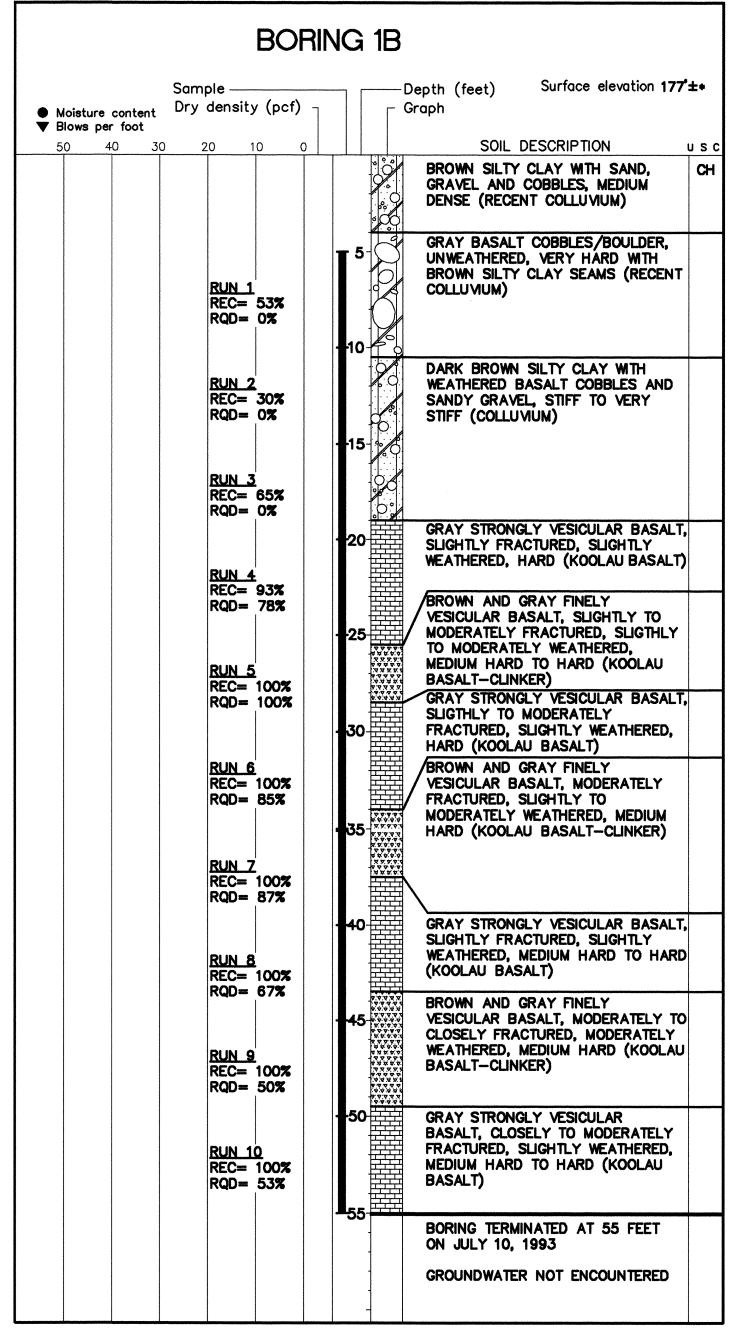
NOT TO SCALE DATE: JUNE 1993
SHEET No. B4 OF 6 SHEETS

FISCAL | SHEET | TOTAL FED. AID FED. ROAD DIS. NO. PROJ. NO. SHEETS YEAR NO. 1993 211 HAW. I-H3-1(59) HAWAII



AT. . . .

BORING 1A



LEGEND

Plastic limit

Liquid limit —

 ∇ Water level

Natural water content ———

Torvane Shear (psf)

FV Field Vane Shear (psf)

Driving energy: 140 lb. wt., 30" drop

BORING LOG

GEOLABS-HAWAII

W.O. **2254-60**

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JULY, 1993

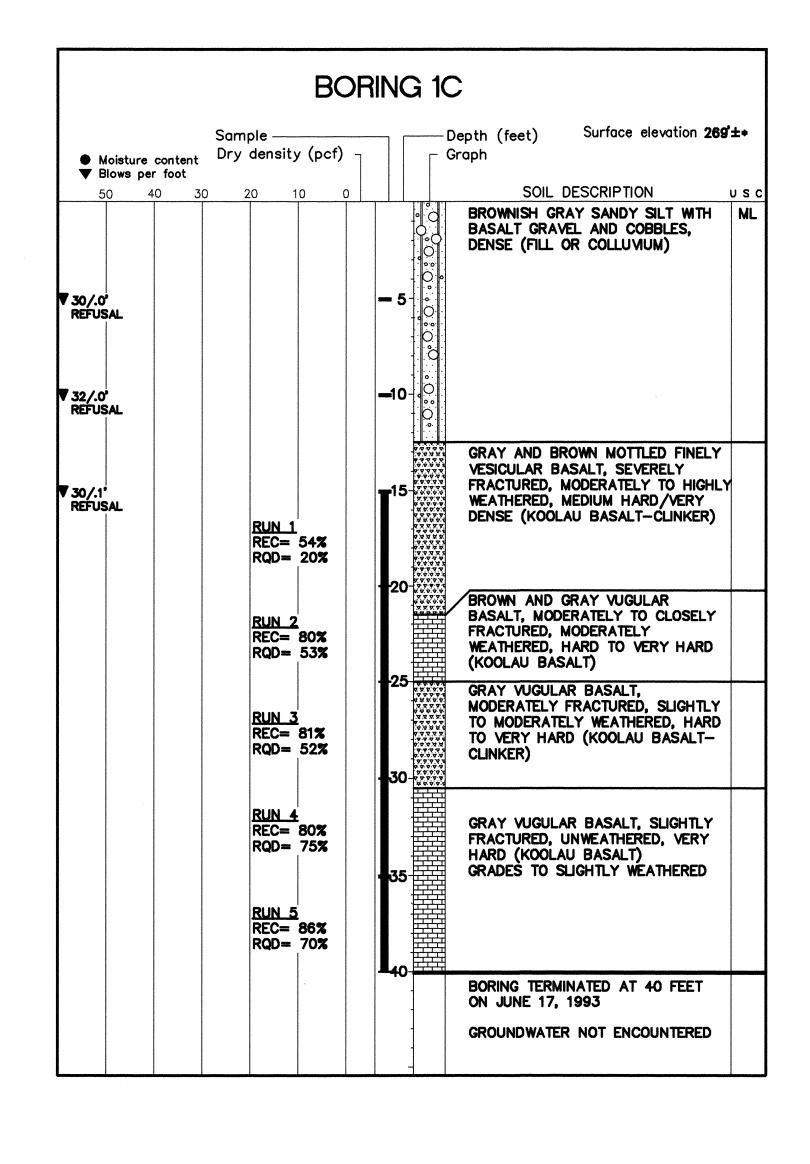
I 2.0" O.D. split-spoon sample

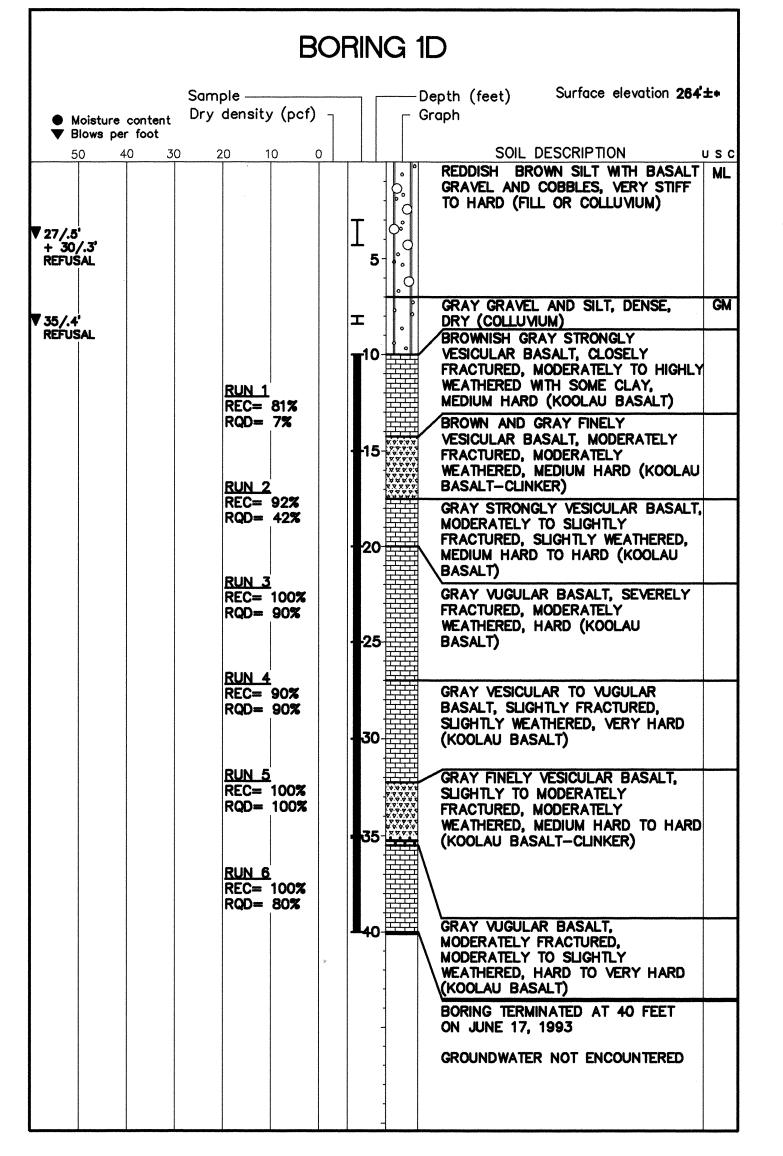
▼ Disturbed ring sample

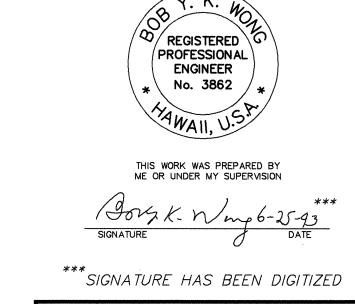
Is Shelby tube sample

P Sampler pushed

■ Core sample







STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

LOG OF BORINGS

INTERSTATE ROUTE H-3 F.A.I. PROJECT NO. I-H3-I(59)

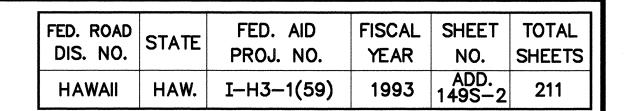
NOT TO SCALE

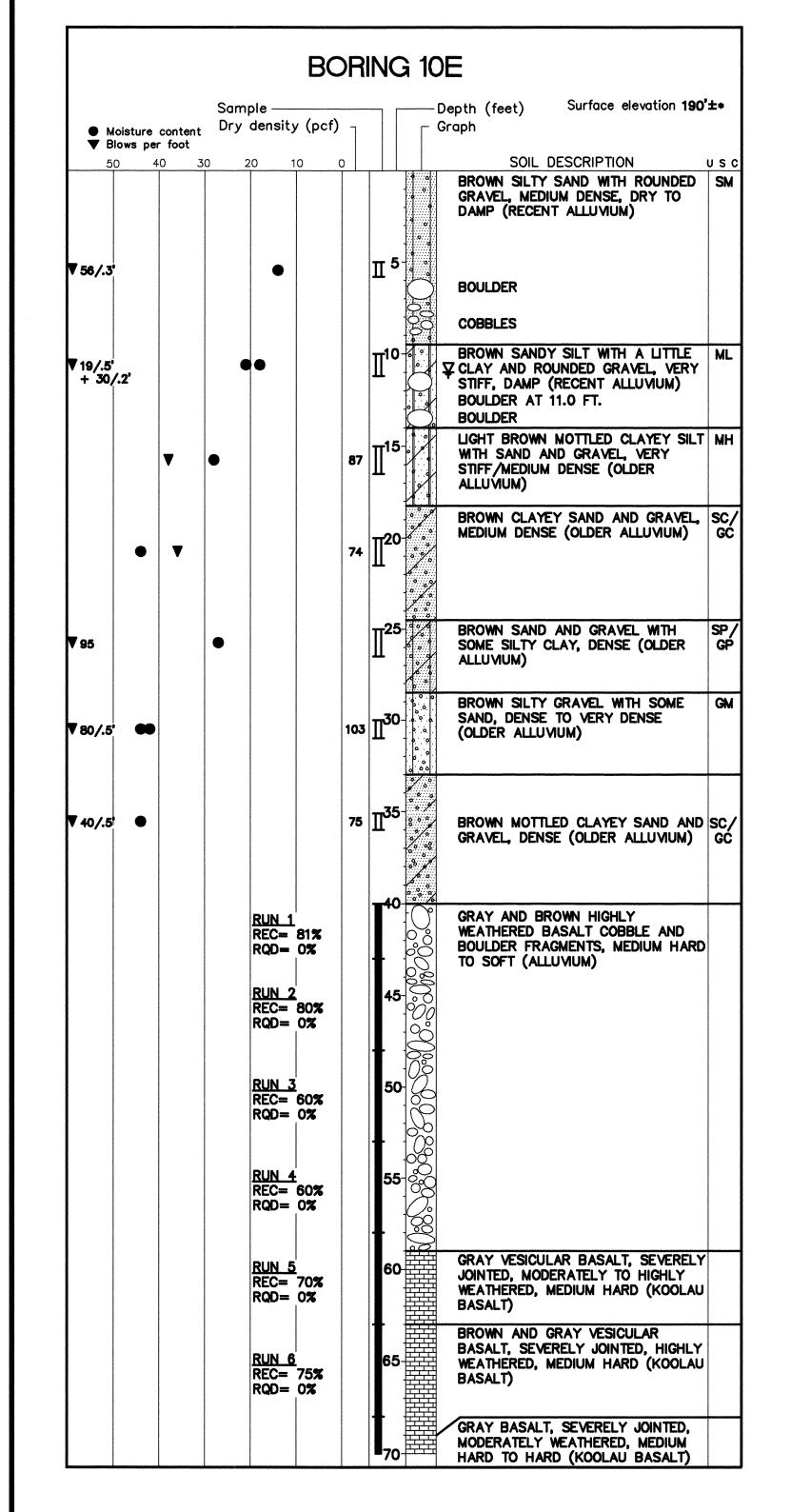
DATE: SEPT. 1993 SHEET No. B4A OF 6 SHEETS

ADDED NEW SHEET WITH BORINGS 1A, 1B, 9/30/93 1C AND 1D

DATE REVISION

1495-





LEGEND

Plastic limit -

Liquid limit —

Natural water content —

Torvane Shear (psf)

FV Field Vane Shear (psf)

Driving energy: 140 lb. wt., 30" drop

I 2.0" O.D. split-spoon sample

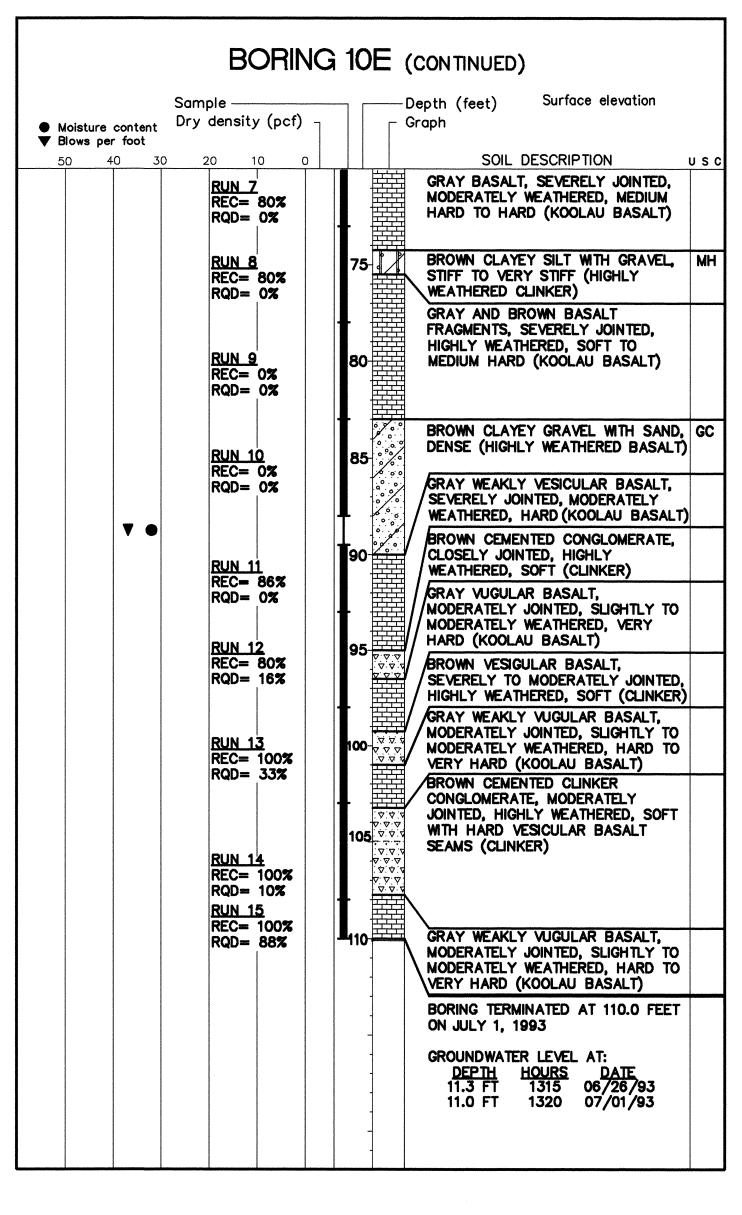
▼ Disturbed ring sample

Is Shelby tube sample

P Sampler pushed

I Core sample

ATI



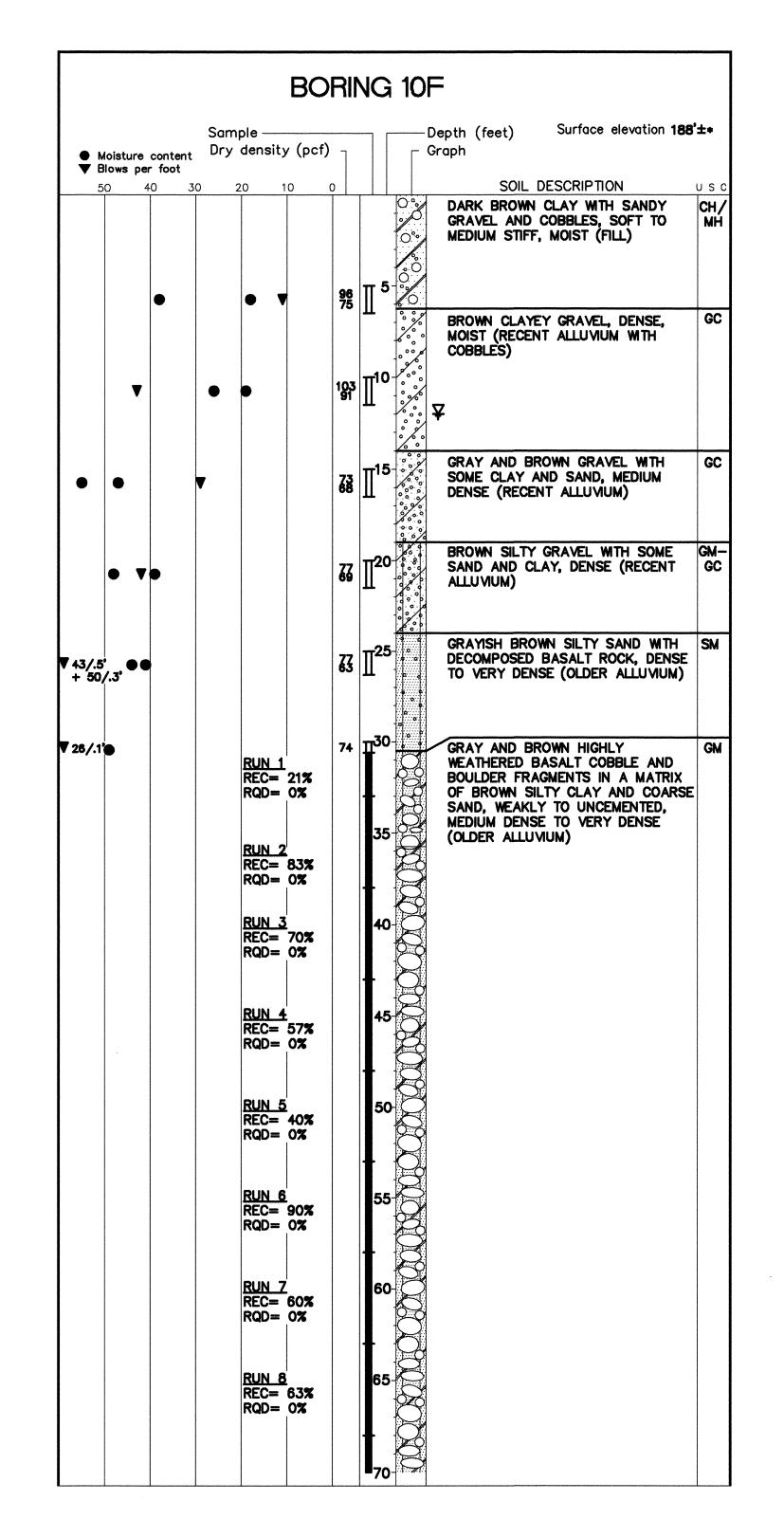
BORING LOG

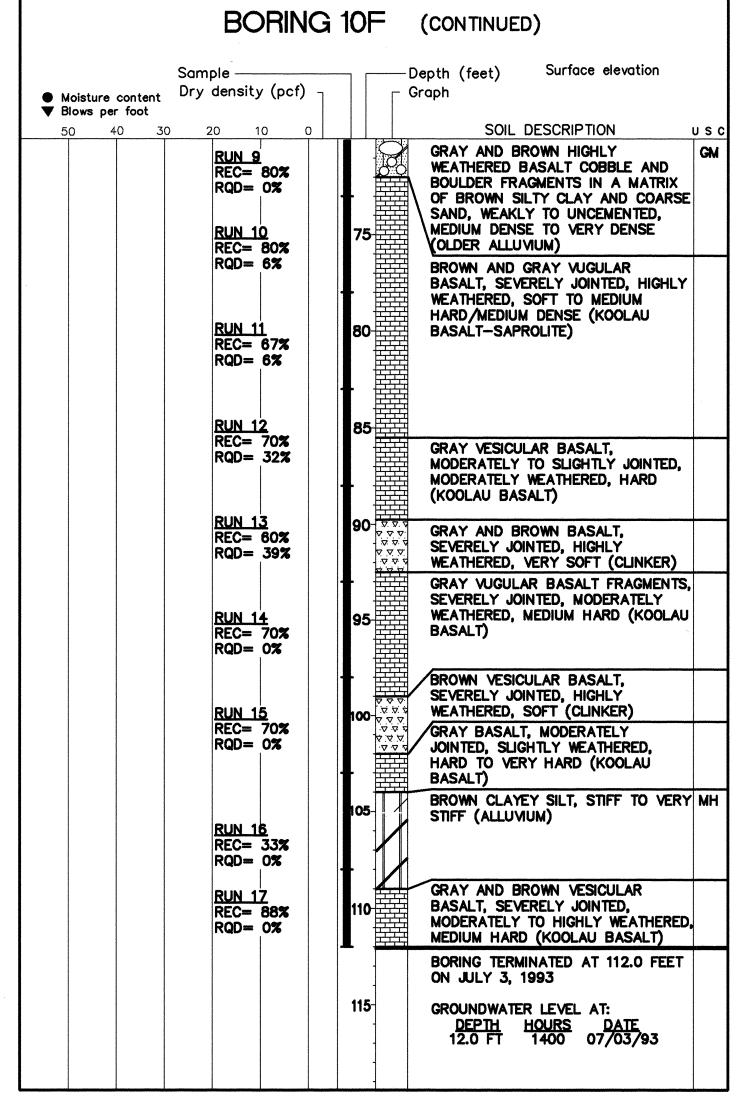
GEOLABS-HAWAII

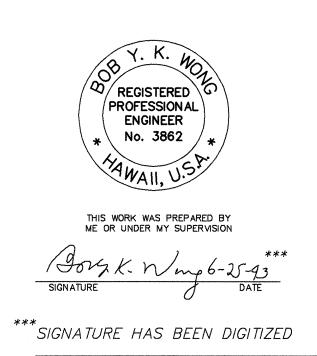
W.O. **2254-50**

Foundation Engineering • Soil Engineering • Geology

JULY, 1993







STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

LOG OF BORINGS

INTERSTATE ROUTE H-3 F.A.I. PROJECT NO. I-H3-I(59)

ADDED NEW SHEET WITH BORING 10E AND BORING 10F 9/30/93 DATE REVISION

NOT TO SCALE

DATE: SEPT. 1993 SHEET No. B4B OF 6 SHEETS