SUBMITTED TO:
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GEOTECHNICAL DATA REPORT

Little Egbert Multi-Benefit Project

SOLANO COUNTY, CA

SHANNON & WILSON

June 19th, 2023

Shannon & Wilson No: 110214 / 907.03

SHANNON & WILSON

June 19, 2023
Project No. 907.03

Westervelt Ecological Services, LLC
3636 American River Drive, Suite 120
Sacramento, California 95864

Attention: Mr. Mark Young

Draft
Geotechnical Data Report
Little Egbert Multi-Benefit Project
Solano County, California

Dear Mr. Young:

We are performing a geotechnical investigation for the Little Egbert Multi-Benefit Project in Solano County, California. The data collected for the project is presented in this report. This report presents the logs of borings and cone penetration tests as well as the laboratory test results. We have also included subsurface data from previous explorations in the project vicinity.

Our geotechnical engineering conclusions and recommendations will be published in a separate report. If you have any questions, please call.

Sincerely,

Shannon & Wilson, Inc.



Gregory R. Olsen
Geotechnical Engineer



R. Kevin Tillis
Geotechnical Engineer

GRO:RKT:kxb

Filename: 90703R01 Data Report

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I. INTRODUCTION

In this report, we describe our geotechnical data collection efforts and present the geotechnical data for the Little Egbert Multi-Benefit Project (Project) in Solano County, California. A vicinity map showing the approximate location of the site is presented on Plate 1. The locations of subsurface exploration are presented in the Site Plan, Plate 2. The locations on Plate 2 include subsurface explorations that we performed for the Project and explorations that were performed by others.

The investigation is being performed in phases. The data from each phase of exploration are presented in separate appendices of this report. The results of our geotechnical investigation will be presented in a separate report.

Elevations referred to in this report are referenced to the North American Vertical Datum of 1988 (NAVD88) unless otherwise stated.

II. EXISTING DATA, FIELD EXPLORATION, AND LABORATORY TESTING

A. Previous Subsurface Data

Previous subsurface explorations were performed by others within the project footprint and the surrounding vicinity. We obtained subsurface data from a database provided by the California Department of Water Resources (DWR), the California Department of Transportation (Caltrans) Digital Archive of Geotechnical Data (GeoDOG), and two 2019 memoranda from GEI for the Rio Vista Flood Control Feasibility Study. The locations of previous subsurface data are presented on the Site Plan, Plate 2 and on the Existing Data Location Map, Plate A-1. The names for the exploration locations correspond with the names assigned to the points in the DWR and Caltrans databases and GEI memoranda. In instances where points had duplicate names, as was common in the Caltrans database, the year that the exploration was performed was used to differentiate between points of the same name. The logs of previous subsurface data are included in Appendix A.

B. Field Exploration

Our field exploration consisted of drilling borings, excavating test pits, and pushing cone penetration tests (CPTs). The subsurface exploration locations that we performed are designated on maps throughout this report with an alphanumeric prefix that indicates the year that the exploration was performed and the type of exploration that was performed followed by a sequence number. The numeric portion of the prefix indicates the year that the exploration was performed. The letter indicates the type of exploration performed. Borings are designated with a “B” prefix. Test pits are designated with a “P” prefix. CPTs are designated with a “C” prefix. For example, location “21C-12” refers to the twelfth CPT performed in the year 2021.

1. 2018-2019 Exploration

Data from the 2018-2019 exploration are presented in Appendix B. We explored subsurface conditions in May 2019 by drilling 3 borings. The boring logs and laboratory testing from the 2019 borings are presented in Appendix B-1. We explored subsurface conditions in November 2018 and July 2019 by excavating 31 test pits. The test pit logs and laboratory testing from the 2018-2019 test pits are presented in Appendix B-2.

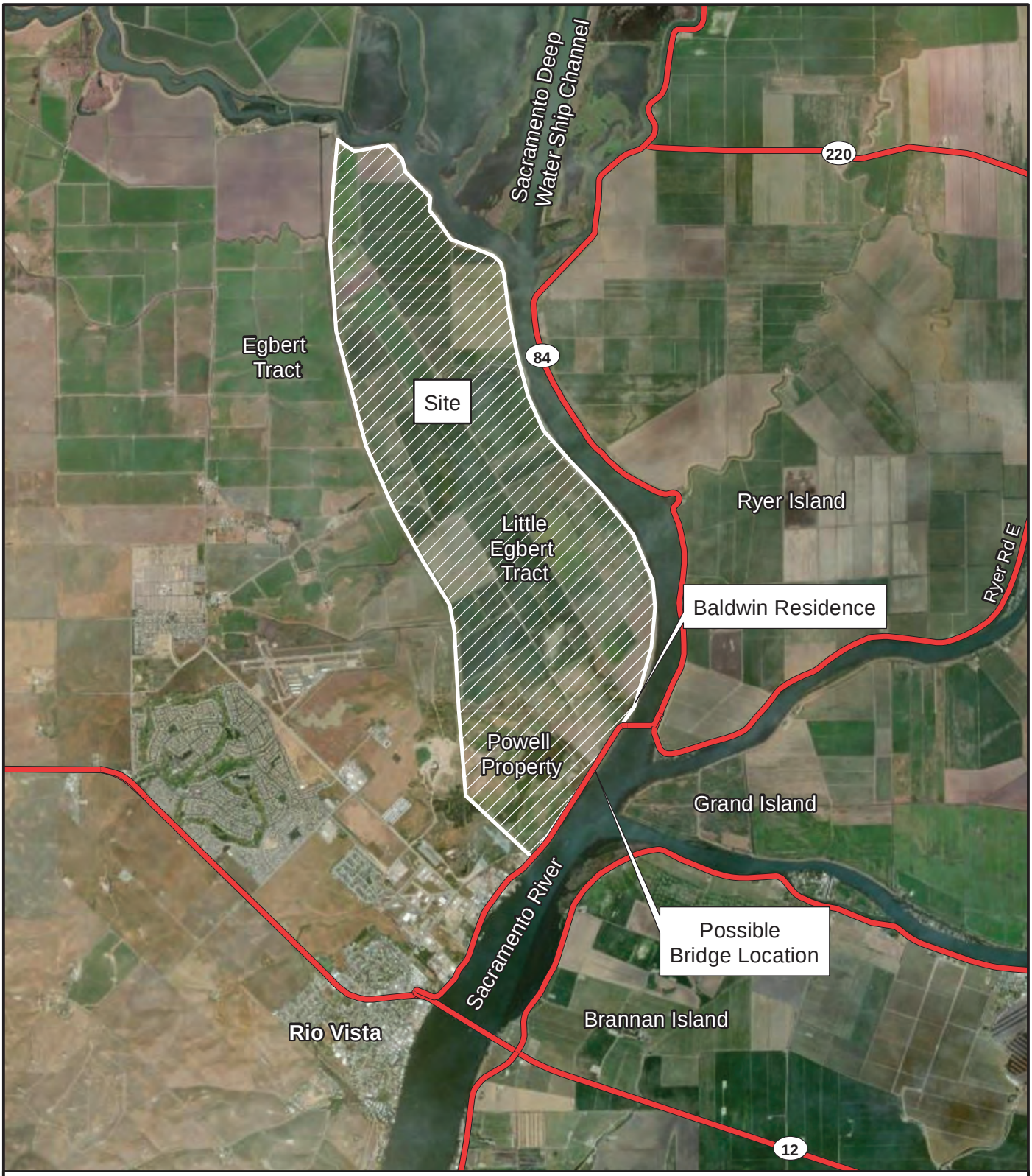
2. 2021 Exploration

Data from the 2021 exploration are presented in Appendix C. We explored subsurface conditions in September and October 2021 by drilling 23 borings, excavating 22 test pits, and performing 23 CPTs. The boring logs and laboratory testing from the 2021 borings are presented in Appendix C-1. The test pit logs and laboratory testing from the 2021 test pits are presented in Appendix C-2. The CPT logs and pore pressure dissipation test results from the CPTs are presented in Appendix C-3.

3. 2022 Exploration

Data from the 2022 exploration are presented in Appendix D. We explored subsurface conditions in May through August of 2022 by drilling 26 borings and performing 35 CPTs. The boring logs and laboratory testing from the 2022 borings are presented in Appendix D-1. The CPT logs and pore pressure dissipation test results from the CPTs are presented in Appendix D-2.

PLATES



Little Egbert Multi-Benefit Project
Solano County, California

Vicinity Map

Shannon & Wilson	Project No. 907.03	Plate No. 1



Little Egbert Multi-Benefit Project
Solano County, California

Site Plan

Shannon & Wilson	Project No. 907.03	Plate No. 2

APPENDIX A

LOGS OF PREVIOUS EXPLORATION BY OTHERS

I. INTRODUCTION

Previous geotechnical explorations were performed near or at the site. Previous subsurface data include 141 borings, eight cone penetration tests (CPTs) and two test pits. The approximate locations of the previous explorations are presented on Plate 2, the Existing Data Location Map, Plate A-1, and the Existing Data Map Details, Plates A-2 through A-6. The borings and CPTs were performed by five different agencies & consultants: United States Army Corps of Engineers (USACE), California Department of Transportation (Caltrans), Department of Water Resources (DWR), Kleinfelder, and GEI Consultants. Logs of borings performed by USACE, DWR and Kleinfelder were provided to Hultgren-Tillis Engineers by DWR in the form of a database in January of 2019. The boring and CPT logs from the DWR Boring Database are presented in Plates A-7 through A-232 and Plates A-245 through A-325. Logs of borings performed by Caltrans were obtained from Caltrans' Digital Archive of Geotechnical Data (GeoDOG). Boring locations from GeoDOG are presented in Plates A-233 through A-244. Logs of borings performed by GEI consultants were obtained from GEI's Sheet Pile Flood Wall Memorandum, dated February 14, 2019. Boring & CPT logs from GEI's memo are presented in Plates A-326 through A-328.

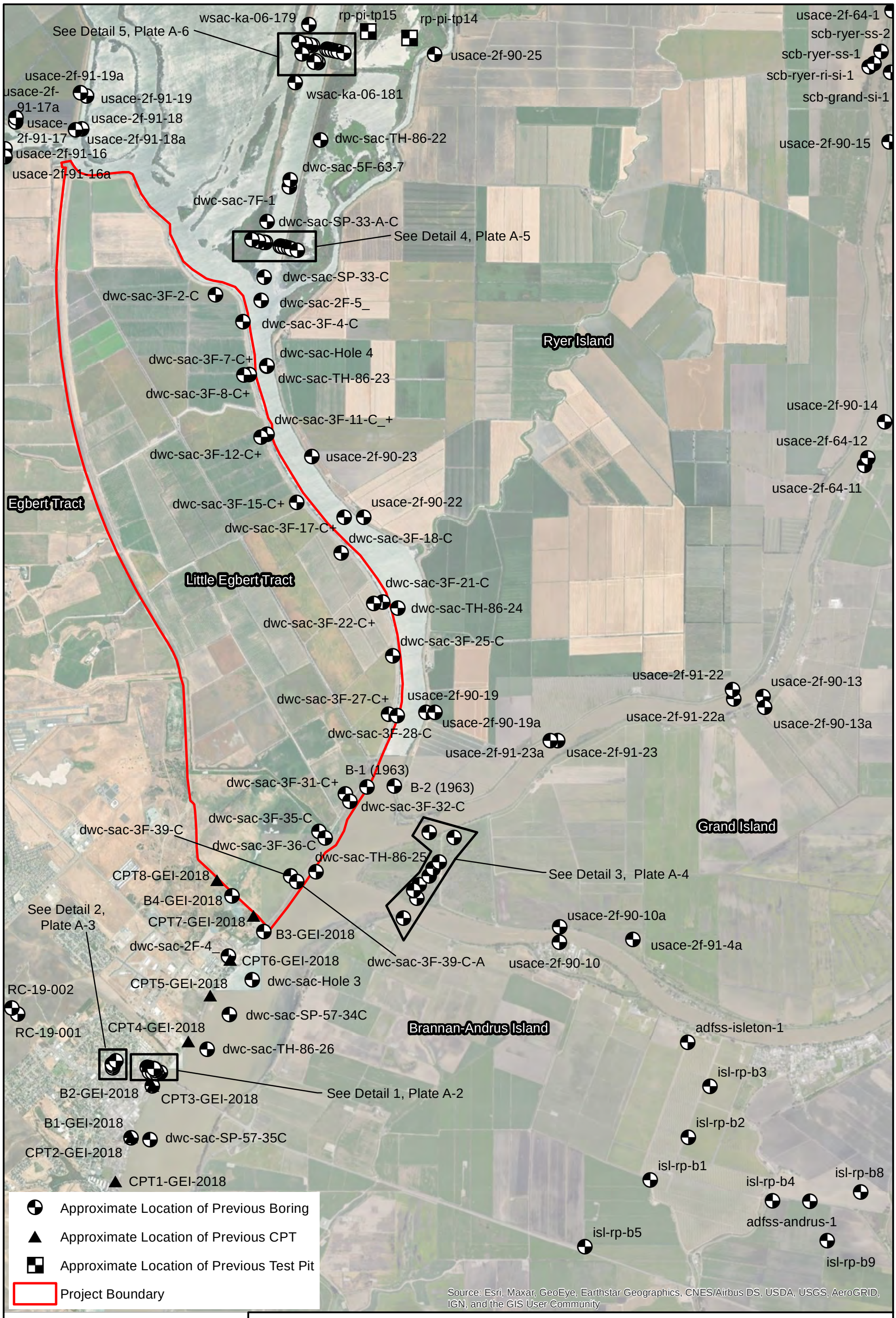
REFERENCES

Department of Water Resources. DWR Boring Database. Received by Hultgren-Tillis Engineers In January 2019 from DWR.

Caltrans. GeoDOG - Digital Archive of Geotechnical Data. Retrieved September 8, 2021, from https://geodog.dot.ca.gov/index.php

GEI Consultants. 2019. Rio Vista Flood Control Feasibility Study, Sheet Pile Flood Wall Memorandum. Rio Vista, California, dated February 14, 2019.

GEI Consultants. 2019. Rio Vista Flood Control Feasibility Study Mellin Levee Preliminary Geotechnical Evaluation, dated July 3, 2019.



N

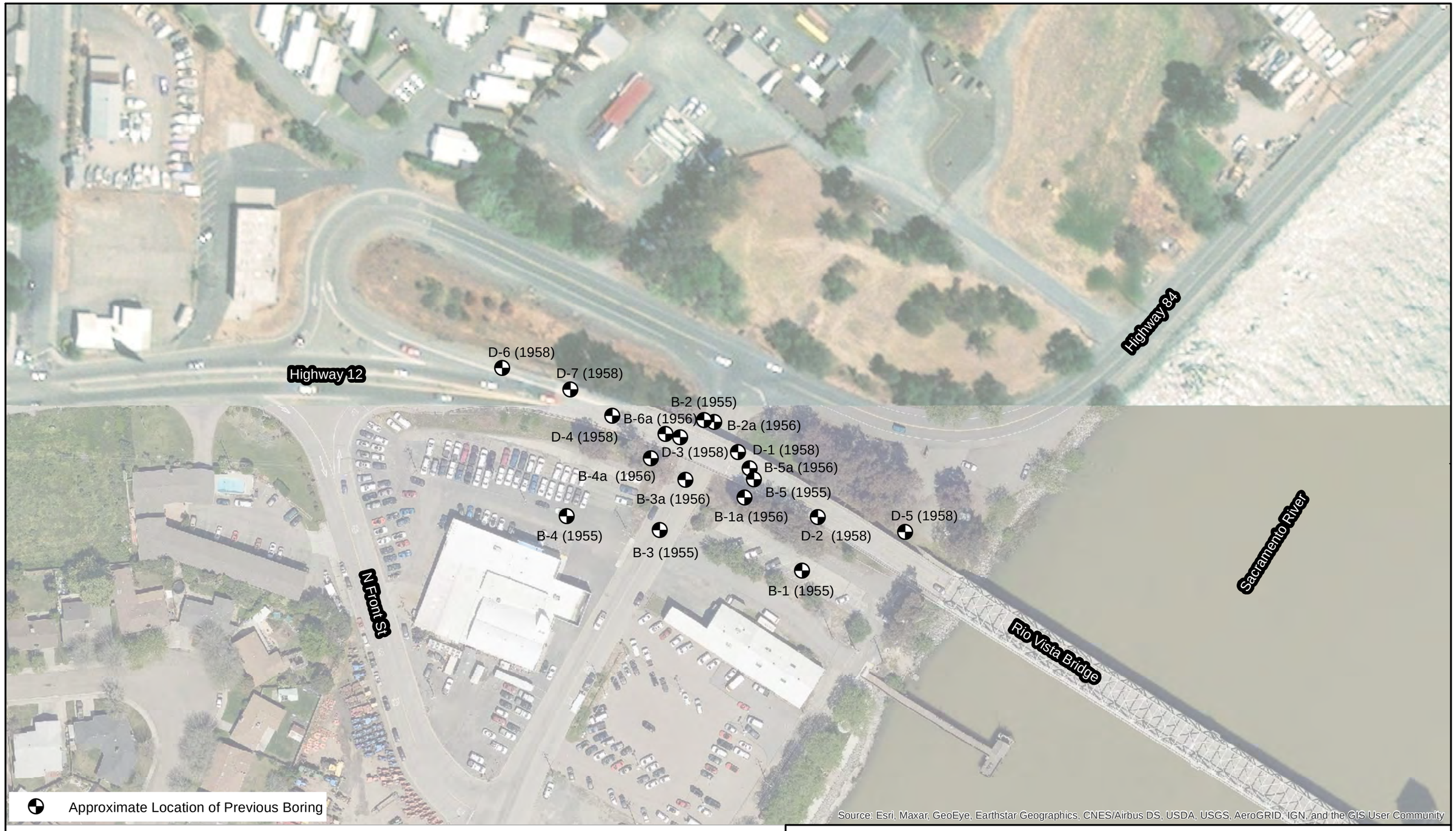
0 3,000 feet

1 inch = 3,000 feet

Little Egbert Multi-Benefit Project
Solano County, California

Existing Data Map

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. A-1



N

0 100 feet

1 inch = 100 feet

Little Egbert Multi-Benefit Project
Solano County, California

Existing Data Map
Detail 1

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. A-2



N

0 100 feet

1 inch = 100 feet

Little Egbert Multi-Benefit Project
Solano County, California

Existing Data Map
Detail 2

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. A-3



N

0 300 feet

1 inch = 300 feet

Little Egbert Multi-Benefit Project
Solano County, California

Existing Data Map
Detail 3

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. A-4



N

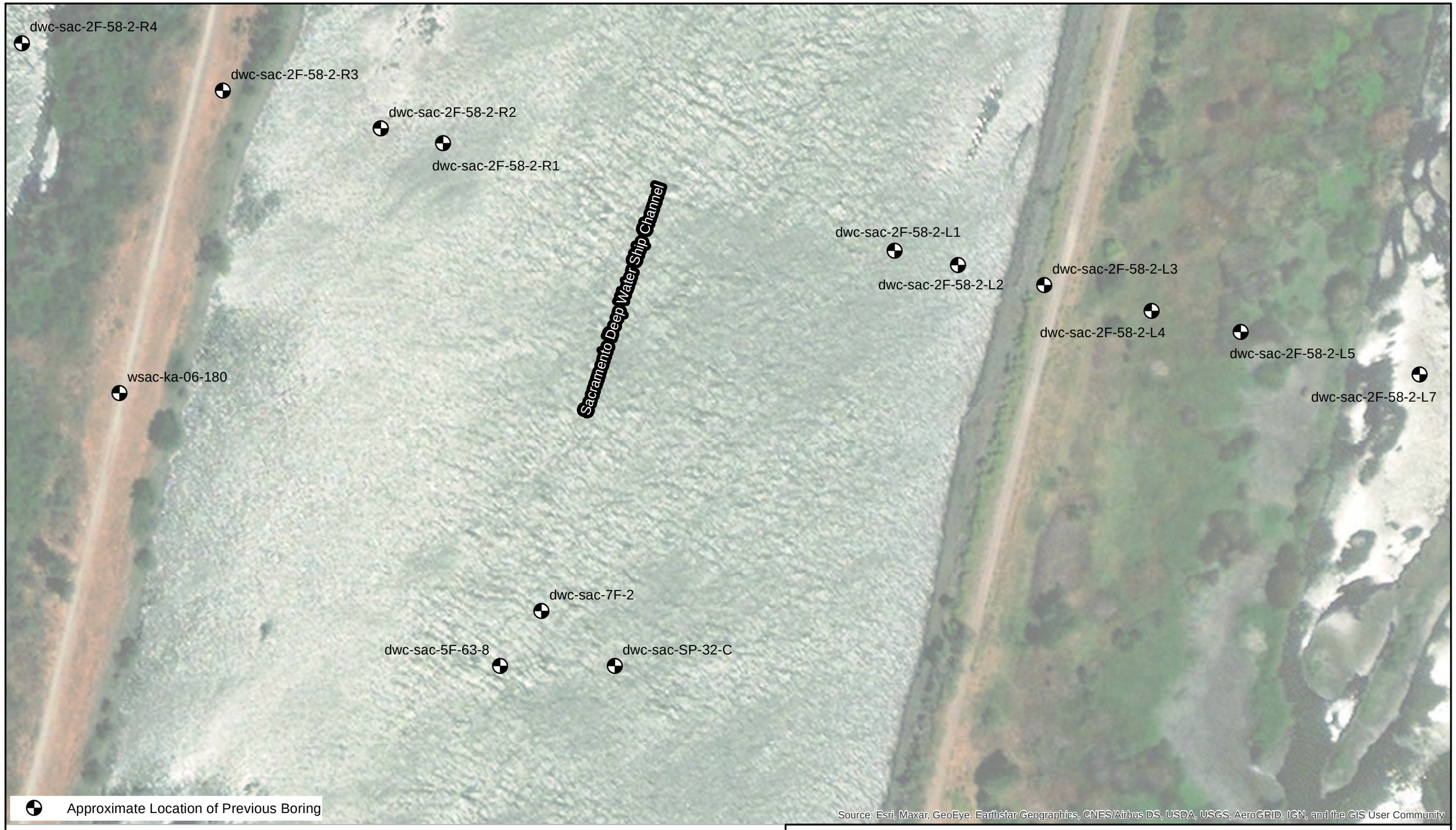
0 100 feet

1 inch = 100 feet

Little Egbert Multi-Benefit Project
Solano County, California

Existing Data Map
Detail 4

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. A-5



N

0 100 feet

1 inch = 100 feet

Little Egbert Multi-Benefit Project
Solano County, California

Existing Data Map
Detail 5

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. A-6

USACE

dwc-
sac-2F-4_

Hol. No. 2F-4-A

DRILLING LOG	DIVISION South PACIFIC	INSTALLATION MSA, D SACRAMENTO	SHEET OF SHEETS
1. PROJECT Sacto DWC		10. SIZE AND TYPE OF BIT 3" SHELBY TUBES	
2. LOCATION (Coordinates or Station) Just N of RIO VISTA BRIDGE		11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	
3. DRILLING AGENCY BARTEE		12. MANUFACTURER'S DESIGNATION OF DRILL OUR WATER BARTEE & DROP HAMMER	
4. HOLE NO. (As shown on drawing title and file number) 2F-4 A		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN	DISTURBED	UNDISTURBED 3
5. NAME OF DRILLER M BARTEE		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
		16. DATE HOLE	STARTED MAY 2, 1983	COMPLETED MAY 2, 1983
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING %	
9. TOTAL DEPTH OF HOLE		19. SIGNATURE OF INSPECTOR	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS d	BOX OR SAMPLE NO. e	% RECOVERY f	H_2O g	Wx h	REMARKS i
	34		0.6 SOFT MOIST AREA					WATER DEPTH 34 FT TIME 0940
	35		Silty clay, dark yellow-tan mod plastic, some V-fine sand -	TUBE #1 34.0 TO 35.5				
	36		As above in top	TUBE #2 35.5 TO 37.5				NOTE DRIVES VERY SLOW MOIST. VERY FIRM in PLACE
	37		Sandy silt, tan fine sand, some cemente fragments					
	38		Sandy clay, tan dark, mod plastic mostly fines	TUBE 3' 37.5 TO 39.2				NOTE DRIVES SHORT HARD 38.5 TO 39.2
	39		BOH					
	42							
	41							

ENG FORM 1836-R 1 APR 63 PREVIOUS EDITIONS MAY BE USED (EM 1110-1-1801) GPO 1963 O-687-276

PROJECT Sacto DWC MAPS at RIO VISTA Bridge HOLE NO. 2F-4-A

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-7

dwc-
sac-2F-4_

Hole No. 2F-4-B

DRILLING LOG	DIVISION South Pacific	INSTALLATION USAEN SACRAMENTO	SHEET 1 OF 1 SHEETS
1. PROJECT SACTO DWC		10. SIZE AND TYPE OF BIT 2" Ecologe TuBE	
2. LOCATION (Coordinates or Station) NORTH OF Rio Vista Bridge		11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	
3. DRILLING AGENCY BARTEE		12. MANUFACTURER'S DESIGNATION OF DRILL OVER WATER BARGE + DRO'HAMMER	
4. HOLE NO. (As shown on drawing title and file number) 2F-4-B		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN	DISTURBED / UNDISTURBED 3
5. NAME OF DRILLER M BARTEE		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 MAY 2, 1983 COMPLETED MAY 2, 1983	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE	
9. TOTAL DEPTH OF HOLE		18. TOTAL CORE RECOVERY FOR BORING %	
		19. SIGNATURE OF INSPECTOR	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS d	BOX OR SAMPLE NO. e	% RECOVERY f	H_2O g	Wx h	REMARKS i
	34		ORGANIC SILTS GRAY, WET-SOME VERY FINE SAND	TuB #1 E				WATER 34 FT TIME 1130
	35		SILTY CLAY, DAMP LIGHT BROWN + TAN MED PLASTIC	34.0 To 34.5				
	36							
			NOTE MOVE BARGE OVER TO OBTAIN TuBE #2 -					NOTE MOVING BARGE TO OBTAIN ECOLOGE SAMPLE IN SOFTER MATERIALS
	35.0		SAND, GRAY WET FINE TO MED GRAINED	TuB #2				
			SAND SILT GRAY DAMP, SOME ORGANIC MAY VFINE SAND	35.0 To 36.2				
	36		SILTY CLAY, LIGHT BROWN + TAN, MED PLASTIC, SOME CEM SILT NODULES					
			MOVED BARGE AGAIN					
	34.0		SAND, GRAY, WET FINE, TO MED SAND	TuB #3				
			ORGANIC SANDY SILT, DAMP, VERY FINE SAND	34.0 To 35.2				
	35		SILTY CLAY, LIGHT BROWN, MED PLASTIC					NOTE WATER SAMPLES TAKEN THIS SET UP-
			SOME CEMENTED SILT NODULES, BOTH					

ENG FORM 1836-R 1 APR 63 PREVIOUS EDITIONS MAY BE USED (EM 1110-1-1801) GPO 1963 O-710-670

PROJECT Sacto DWC north of Rio Vista Bridge HOLE NO.

Local nomenclature authorized by Par. 17

Hole No. 2F-5-A

dwc-
sac-2F-5_

DRILLING LOG	DIVISION South Pacific	INSTALLATION USAED SACRAMENTO	SHEET 1 OF 1 SHEETS

1. PROJECT Sacto Deep Water Channel	10. SIZE AND TYPE OF BIT 3" Shelby Sampler
2. LOCATION (Coordinates or Station)	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
3. DRILLING AGENCY Moore & Taber	12. MANUFACTURER'S DESIGNATION OF DRILL Concore + 16' x 22' Barge
4. HOLE NO. (As shown on drawing title and file number) 2F-5-A	13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN — DISTURBED 2 — UNDISTURBED
5. NAME OF DRILLER Gordon Jenkins	14. TOTAL NUMBER CORE BOXES
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER
	16. DATE HOLE — STARTED Aug 23, 1982 — COMPLETED Aug 23, 1982
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING %
9. TOTAL DEPTH OF HOLE 39.0	19. SIGNATURE OF INSPECTOR Melvin H. Howell

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS d	BOX OR SAMPLE NO. e	% RECOVERY f	H_2O g	Wx h	REMARKS i
	35		Organic silty sand, gray + blue gray	Tube #1 34.5 to 36.5				Water depth is 34.5 ft
	36							
	37		Silty sand, gray + blue gray with layers of cemented silts + clean sands	Tube #2 36.5 to 39.0				Sample tube has to be driven in + out of hole lost casing
	38							
	39		Bott					
	40							
	40.5							

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Local reproduction authorized 19 Jun 67

PROJECT Sacto D.W.C — HOLE NO. 2F-5-A

dwc-
sac-2F-5_

Hole No. 2F-5

DRILLING LOG	DIVISION South Pacific	INSTALLATION USAED SACRAMENTO	SHEET 1 OF 1 SHEETS

1. PROJECT Sacto Deep Water Channel	10. SIZE AND TYPE OF BIT 3" Shelby Sampler
2. LOCATION (Coordinates or Station)	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
3. DRILLING AGENCY Moore + Taber	12. MANUFACTURER'S DESIGNATION OF DRILL Concore Drill + 16x22 FT Barge
4. HOLE NO. (As shown on drawing title and file number) 2F-5	13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN — DISTURBED 2 — UNDISTURBED
5. NAME OF DRILLER Gordon Jenkins	14. TOTAL NUMBER CORE BOXES
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER
	16. DATE HOLE — STARTED Aug 23, 1982 — COMPLETED Aug 23, 1982
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING %
9. TOTAL DEPTH OF HOLE 395	19. SIGNATURE OF INSPECTOR [signature]

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS d	BOX OR SAMPLE NO. e	% RECOVERY f	H_2O g	Wx h	REMARKS i
			Organic silty sand Blue gray, organic odor.	TubE #1 35.0 To 37.5	Over Drive 0.5 Foot 2 FT in TubE			Water depth is 35.0 FT
	36							
	37		Layers of clean sand Some cemented silt in bottom of tube					
	38			TubE #2 37.5 To 39.5				Note - had to drive sampler the pulled off sample + went back in to pick it up Mat is very firm in place
	39		Blue gray sandy silty clay dwc-2F-4-B 30A					
	40							
	41							

ENG FORM 1836-R 1 APR 63 PREVIOUS EDITIONS MAY BE USED (EM 1110-1-1801) GPO 1963 : 07—712-675

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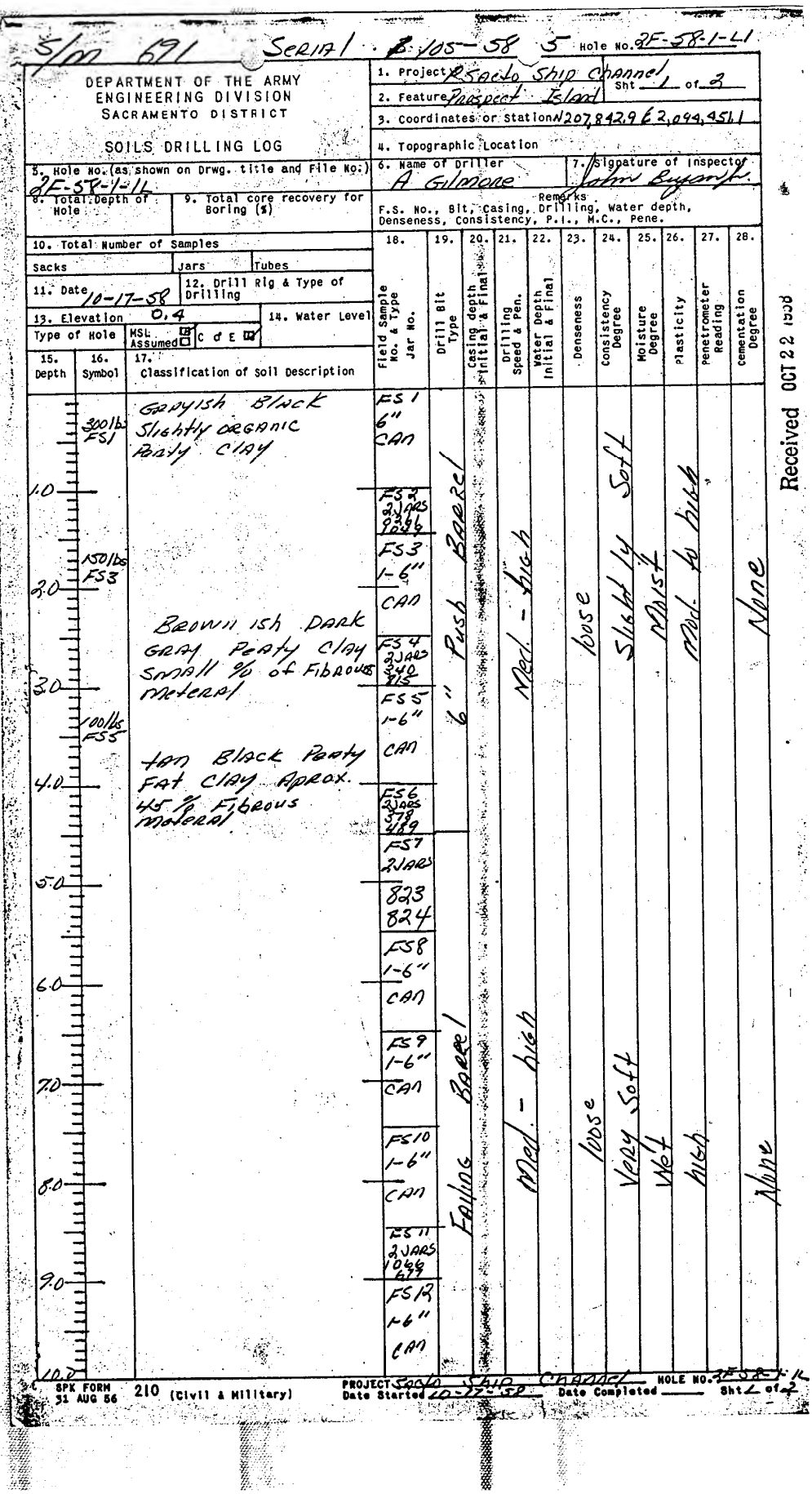
PROJECT Sacto D.W.C HOLE NO. 2F-5

dwc-
sac-2F-58-1-L1



S/m 691 SERIAL 105-58 3 Hole No. 2F-58-1-L1

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sacto Ship Channel Sht 1 of 3
2. Feature Prospect Island
3. Coordinates or Station N207,842.96 2,044,451.1
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-1-L1
6. Name of Driller A Gilmore
7. Signature of Inspector John Bynum Jr.
8. Total Depth of Hole
9. Total core recovery for Boring (%)
10. Total Number of Samples
Sacks Jars Tubes
11. Date 10-17-58
12. Drill Rig & Type of Drilling
13. Elevation 0.4
14. Water Level
Type of Hole MSL Assumed ☐ C ☑ D ☐ E ☑

Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
0.0	300lbs FS1	Grayish Black Slightly ORGANIC Peaty CLAY	FS1 6" CAN										
1.0			FS2 2 JARS 9366 1044	Push Barrel	6"	Med - high		loose	Slightly Soft	Moist	Med. to high		None
2.0	150lbs FS3		FS3 1-6" CAN										
3.0		Brownish Dark Gray Peaty CLAY small % of Fibrous Material	FS4 2 JARS 540 715										
	100lbs FS5		FS5 1-6" CAN										
4.0		Tan Black Peaty Fat CLAY Aprox. 45% Fibrous Material	FS6 2 JARS 378 489										
5.0			FS7 2 JARS 823 824										
6.0			FS8 1-6" CAN										
7.0			FS9 1-6" CAN	Failing Barrel		Med - high		loose	Very Soft	Wet	High		None
8.0			FS10 1-6" CAN										
9.0			FS11 2 JARS 1046 699										
10.0			FS12 1-6" CAN										

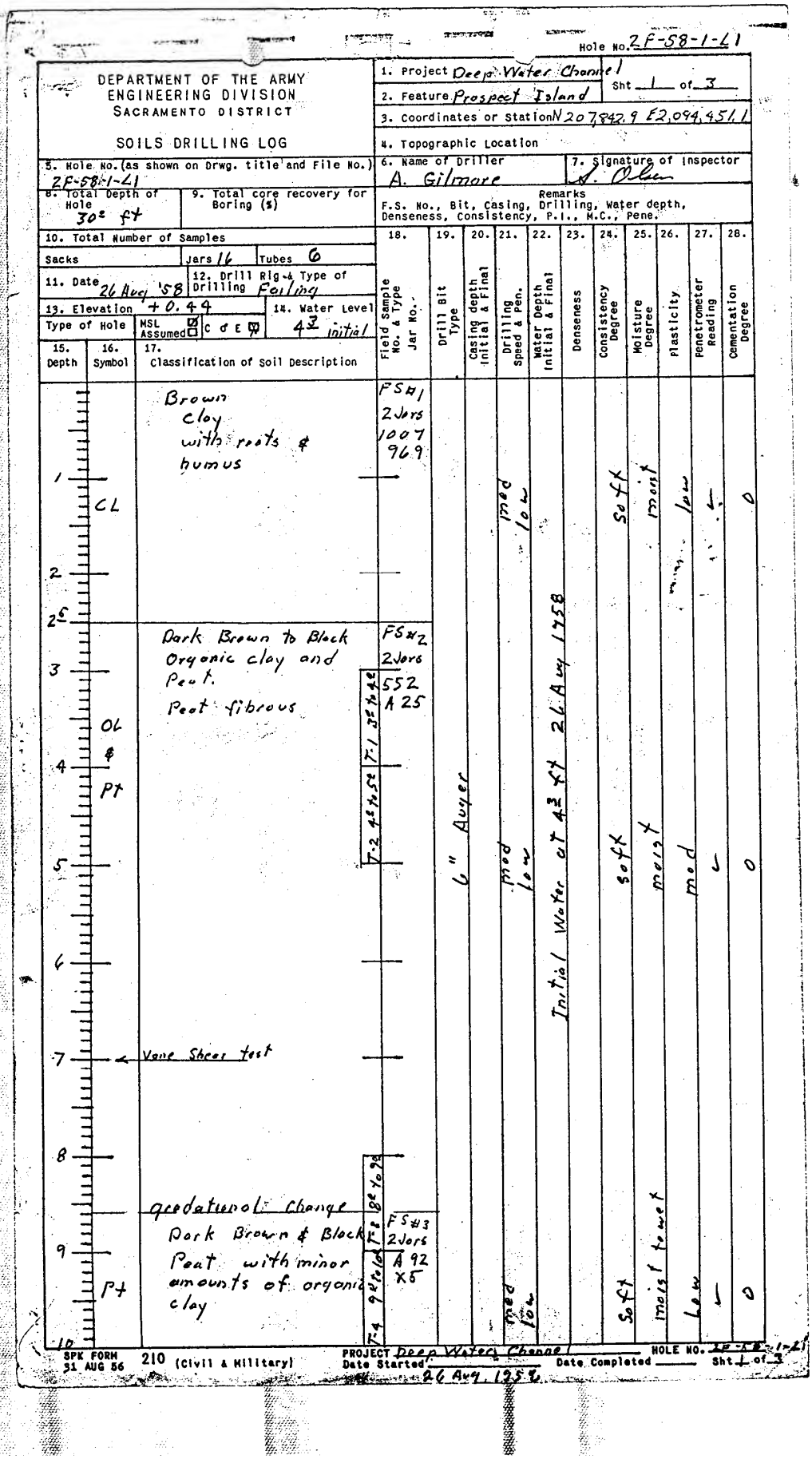
SPK FORM 31 AUG 56 210 (Civil & Military)

PROJECT Sacto Ship Channel HOLE NO. 2F-58-1-L1
Date Started 10-17-58 Date Completed ____ Sht 2 of 3

Received OCT 22 1958

dwc-
sac-2F-58-1-L1

Hole No. 2F-58-1-L1



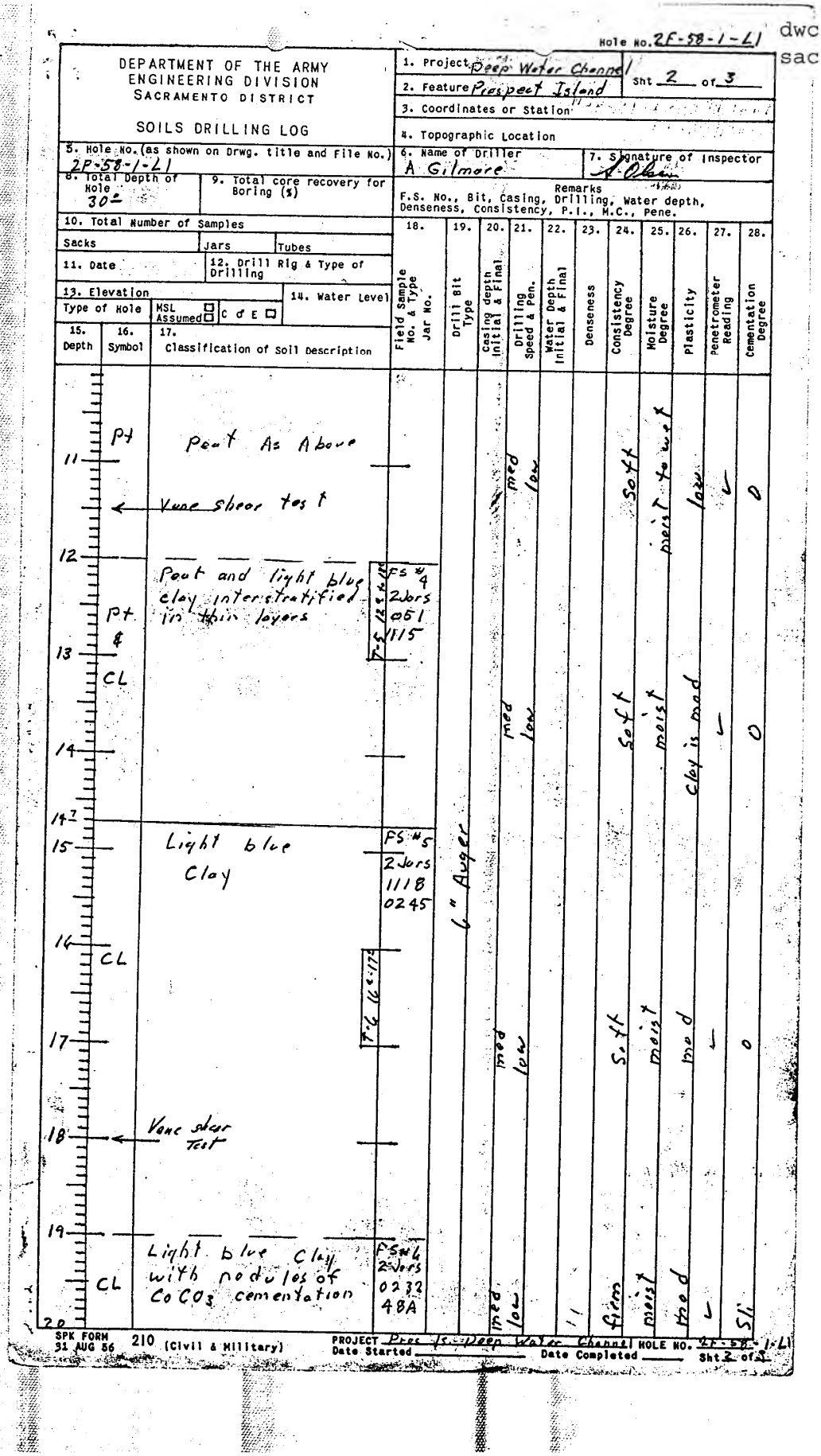
DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Deep Water Channel
2. Feature Prospect Island
Sht 1 of 3
3. Coordinates or Station N 207,842.9 E 2,094,451.1
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-1-L1
6. Name of Driller A. Gilmore
7. Signature of Inspector S. Olsen
8. Total Depth of Hole 30± ft
9. Total core recovery for Boring (%)
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples: Sacks; Jars 16; Tubes 6
11. Date 26 Aug '58
12. Drill Rig & Type of Drilling Failing
13. Elevation +0.44
Type of Hole: MSL Assumed ☒ C ☐ E ☒
14. Water Level 4.3 initial

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type / Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
0–2.5	CL	Brown clay with roots & humus	FS#1 2 Jars 1007 969			med low			soft	moist	low	–	0
2.5–8	OL & Pt	Dark Brown to Black Organic clay and Peat. Peat fibrous	FS#2 2 Jars 552 A 25; T-1 3.2 to 4.2; T-2 4.2 to 5.2	6" Auger		med low	Initial Water at 4.3 ft 26 Aug 1958		soft	moist	med	–	0
7		← Vane Shear test											
8–10	Pt	gradational change; Dark Brown & Black Peat with minor amounts of organic clay	T-3 8.2 to 9.2; T-4 9.2 to 10.2; FS#3 2 Jars A 92 X5			med low			soft	moist to wet	low	–	0

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Deep Water Channel
Date Started 26 Aug 1958
Date Completed
HOLE NO. 2F-58-1-L1
Sht 1 of 3



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

Hole No. 2F-58-1-L1 dwc-sac-2F-58-1-L1

1. Project Deep Water Channel — Sht 2 of 3
2. Feature Prospect Island
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-1-L1
6. Name of Driller A Gilmore
7. Signature of Inspector A Olsen
8. Total Depth of Hole 30'
9. Total core recovery for Boring (%)
10. Total Number of Samples — Sacks — Jars — Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation — Type of Hole — MSL ☐ Assumed ☐ — C d E ☐
14. Water Level

Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	Denseness	Consistency Degree	Moisture Degree	Plasticity	Penetrometer Reading	Cementation Degree
11	Pt	Peat As Above				med			Soft	moist to wet	low	↓	0
		← Vane shear test				low							
12		Peat and light blue clay interstratified in thin layers	FS #4 2 Jars 0051 1115										
13	Pt & CL					med			Soft	moist	clay is med	↓	0
14						low							
14.7													
15		Light blue Clay	FS #5 2 Jars 1118 0245		6" Auger								
16	CL												
17						med			Soft	moist	med	↓	0
18		← Vane shear Test				low							
19	CL	Light blue Clay with nodules of $CaCO_3$ cementation	FS #6 2 Jars 0232 48A			med			firm	moist	med	↓	Sl
20						low							

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Prospect Island Deep Water Channel HOLE NO. 2F-58-1-L1
Date Started ____ Date Completed ____ Sht 2 of 3

dwc-
sac-2F-58-1-L1

Hole No. 2F-58-1-L1

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

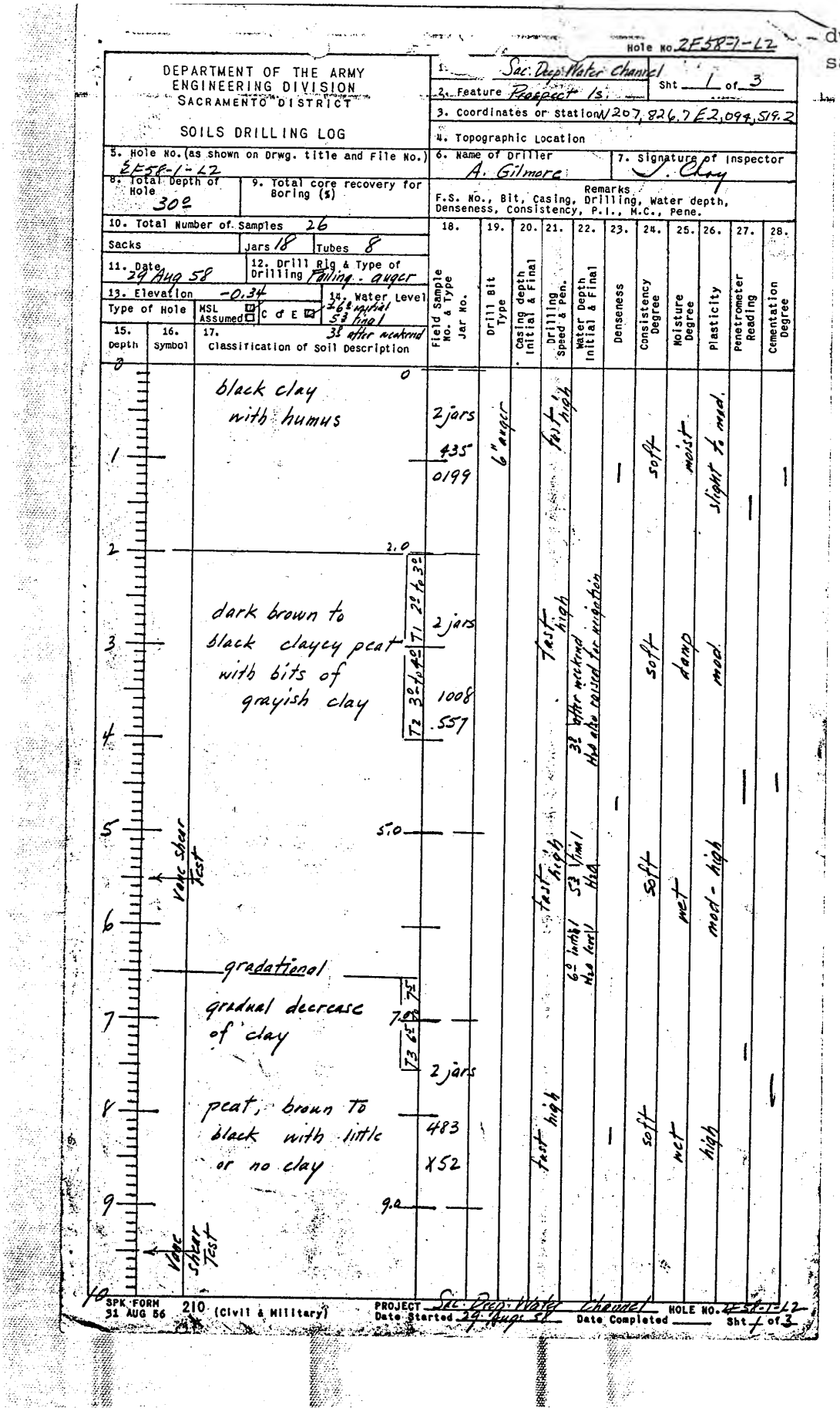
1. Project Deep Water Channel
2. Feature Prospect Island
Sht 3 of 3
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-1-L1
6. Name of Driller A. Gilmore
7. Signature of Inspector [signature]
8. Total Depth of Hole 30.0 ft.
9. Total core recovery for Boring (%)
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples
Sacks | Jars | Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation
Type of Hole: MSL Assumed ☐ C d E ☐
14. Water Level

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
		stiff clay as above											
21	CL					med low to med			firm	moist	med	L	Sli
22		Clay is sandy at 22E											
23													
24			FS #7 2 Jars 927 664										
25	CL	graditional change to sandy Clay		6" Auger		med med to high			Stiff	moist	med	L	Sli
26			FS #8 2 Jars 554 1070										
27		few nodules of $CaCO_3$ cementation											
28	CL					med high			Stiff	moist	Low	L	Sli
29													
30													

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Deep Water Channel HOLE NO. 2F-58
Date Started 26 Aug Date Completed Sht 3 of

dwc-
sac-2F-58-1-L2

Hole No. 2F58-1-L2



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

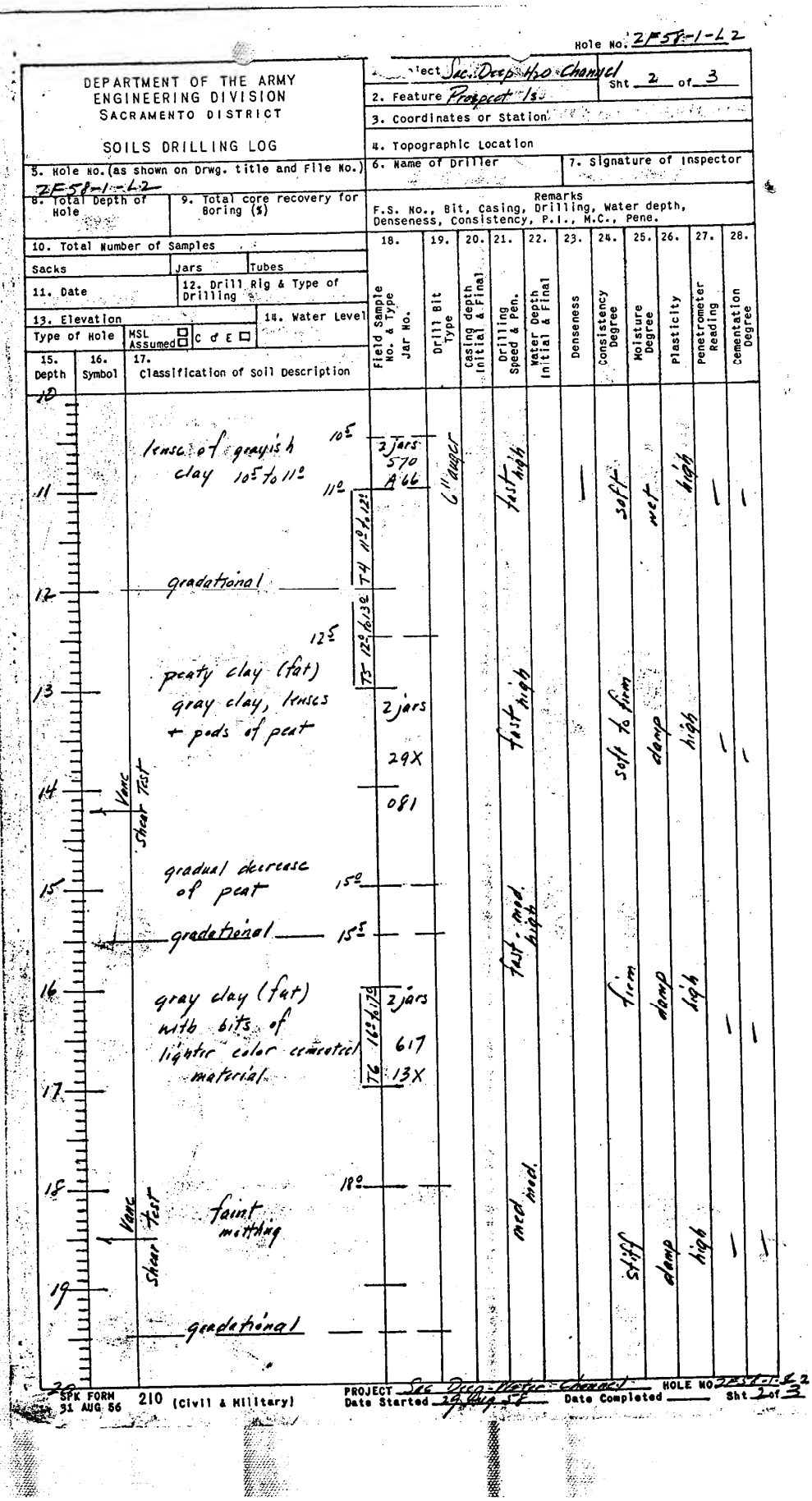
SOILS DRILLING LOG

1. Sac. Deep Water Channel
2. Feature Prospect Is.
Sht 1 of 3
3. Coordinates or Station N207,826.7 E2,094,519.2
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-1-L2
6. Name of Driller A. Gilmore
7. Signature of Inspector J. Chay
8. Total Depth of Hole 30°
9. Total core recovery for Boring (%)
Remarks F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples 26
Sacks
Jars 18
Tubes 8
11. Date 29 Aug 58
12. Drill Rig & Type of Drilling Failing - auger
13. Elevation -0.34
Type of Hole MSL Assumed ☐ C & E ☒
14. Water Level 26° initial 5° final 3° after weekend

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
0		black clay with humus	2 jars 435 0199	6" auger		fast high		—	soft	moist	slight to mod.	—	—
2.0		dark brown to black clayey peat with bits of grayish clay	T1 2° to 3° 2 jars 1008 T2 3° to 4° 557			fast high	3° after weekend H2O also raised for irrigation	—	soft	damp	mod.	—	—
5.0	Vane shear test					fast high	5° final H2O 6° initial H2O level		soft	wet	mod - high		
		gradational											
7.0		gradual decrease of clay	T3 6° to 7.5° 2 jars									—	—
8		peat, brown to black with little or no clay	483 X52			fast high		—	soft	wet	high		
9.0	Vane shear test												

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sac. Deep Water Channel HOLE NO. 2F58-1-L2
Date Started 29 Aug 58 Date Completed ____ Sht 1 of 3

dwc-
sac-2F-58-1-L2



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

Hole No. 2F58-1-L2

1. Project Sac. Deep H2O Channel — Sht 2 of 3
2. Feature Prospect 1
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-1-L2
6. Name of Driller
7. Signature of Inspector
8. Total Depth of Hole
9. Total core recovery for Boring (%)
10. Total Number of Samples — Sacks — Jars — Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation — Type of Hole — MSL / Assumed — C & E
14. Water Level

Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
10													
11		lense of grayish clay 10.5 to 11.0	10.5 2 jars 570 A66	6" auger		fast high			soft	wet	high		
12		gradational	11.0 to 12.1 T4										
			12.1 to 12.5 T3										
13		peaty clay (fat) gray clay, lenses + pods of peat	2 jars 29X 081			fast high			soft to firm	damp	high		
14		Vane Shear Test											
15		gradual decrease of peat	15.0										
		gradational	15.5			fast, med. high							
16		gray clay (fat) with bits of lighter color cemented material	2 jars 617 13X T6 16.5 to 17.9						firm	damp	high		
17													
18		Vane Shear Test faint mottling	18.0			med.			stiff	damp	high		
19													
		gradational											
20													

SPK FORM 31 AUG 56 210 (Civil & Military)

PROJECT See Deep Water Channel — HOLE NO. 2F58-1-L2
Date Started 29 Aug 58 — Date Completed — Sht 2 of 3

Little Egbert Multi-Benefit Project
Solano County, California — Project No. 907.02 — Plate No. A-16

dwc-
sac-2F-58-1-L2

Hole No. 2F58-1-L2

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sac. Deep Water Channel
2. Feature Prospect 1s
Sht 3 of 3
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-1-L2
6. Name of Driller
7. Signature of Inspector
8. Total Depth of Hole
9. Total core recovery for Boring (%)
Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples
Sacks | Jars | Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation
Type of Hole | MSL ☐ Assumed ☐ | C ☐ E ☐
14. Water Level

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
20		20° grayish green sandy clay	T7 20°+21°	6" auger		med mod			stiff	wet	high	—	—
21		slight mottling faintly stratified	T8 21° to 22° 2 jars X67										
22			228			slow-med mod			very stiff	wet	high	—	—
23													
24		24° bits of cemented material											
25			2 jars 23A			slow low			hard	wet	high	—	—
26		beginning to be hard drilling	516										
27		gradational gradual decrease of sand to greenish clay 27.5											
28		with very minor amt. or none of sand	2 jars 048			slow low			hard	wet	high	—	—
29		faintly stratified	X32										
30		Bottomed at 30°											

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sac. Deep Water Channel HOLE NO. 2F58-1-L2
Date Started 29 Aug 58 Date Completed ____ Sht 3 of 3

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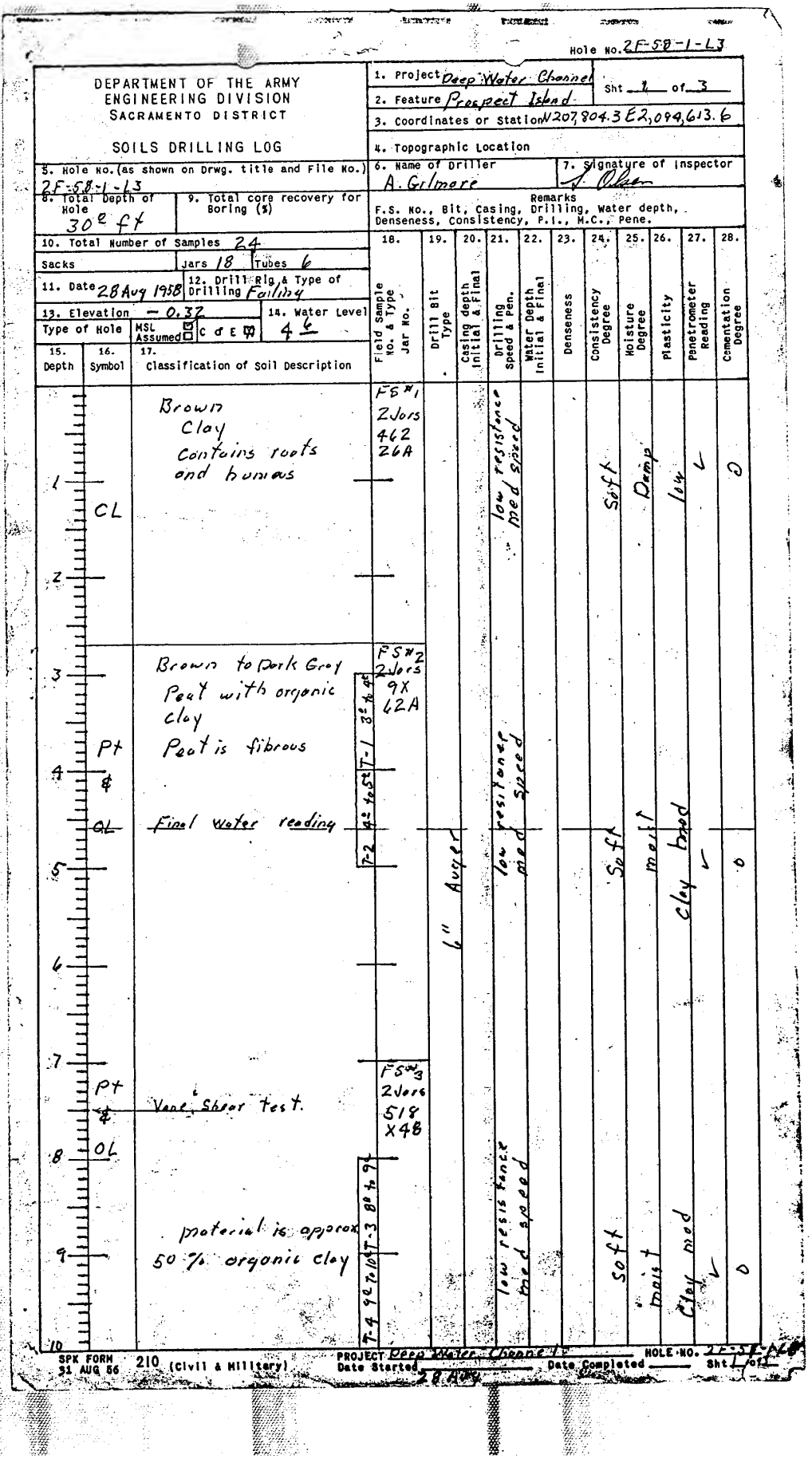
sac-2F-58-1-L3

Hole No. 2F-58-1-L3



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Deep Water Channel — Sht 1 of 3
2. Feature Prospect Island
3. Coordinates or Station N207,804.3 E2,094,613.6
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-1-L3
6. Name of Driller A. Gilmore
7. Signature of Inspector J. Olsen
8. Total Depth of Hole 30.0 ft
9. Total core recovery for Boring (%)
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples 24
Sacks — Jars 18 — Tubes 6
11. Date 28 Aug 1958
12. Drill Rig & Type of Drilling Failing
13. Elevation -0.32
Type of Hole — MSL Assumed ☐ C ☐ E ☒
14. Water Level 4.6

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
0–2.5	CL	Brown Clay Contains roots and humus	FS#1 2 Jars 462 26A			low resistance med speed			Soft	Damp	low	✓	0
2.5–7	Pt & OL	Brown to Dark Gray Peat with organic clay Peat is fibrous. Final water reading	FS#2 2 Jars 9X 62A; T-1 3.0 to 4.0; T-2 4.0 to 5.0	6" Auger		low resistance med speed			Soft	moist	clay mod	✓	0
7–10	Pt & OL	Vane Shear test. material is approx 50% organic clay	FS#3 2 Jars 518 X48; T-3 8.0 to 9.0; T-4 9.0 to 10.0			low resistance med speed			Soft	moist	Clay mod	✓	0

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Deep Water Channel HOLE NO. 2F-58-1-L3 Date Started 28 Aug Date Completed Sht 1 of 3

dwc-
sac-2F-58-1-L3

Hole No. 2F-58-1-L3

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

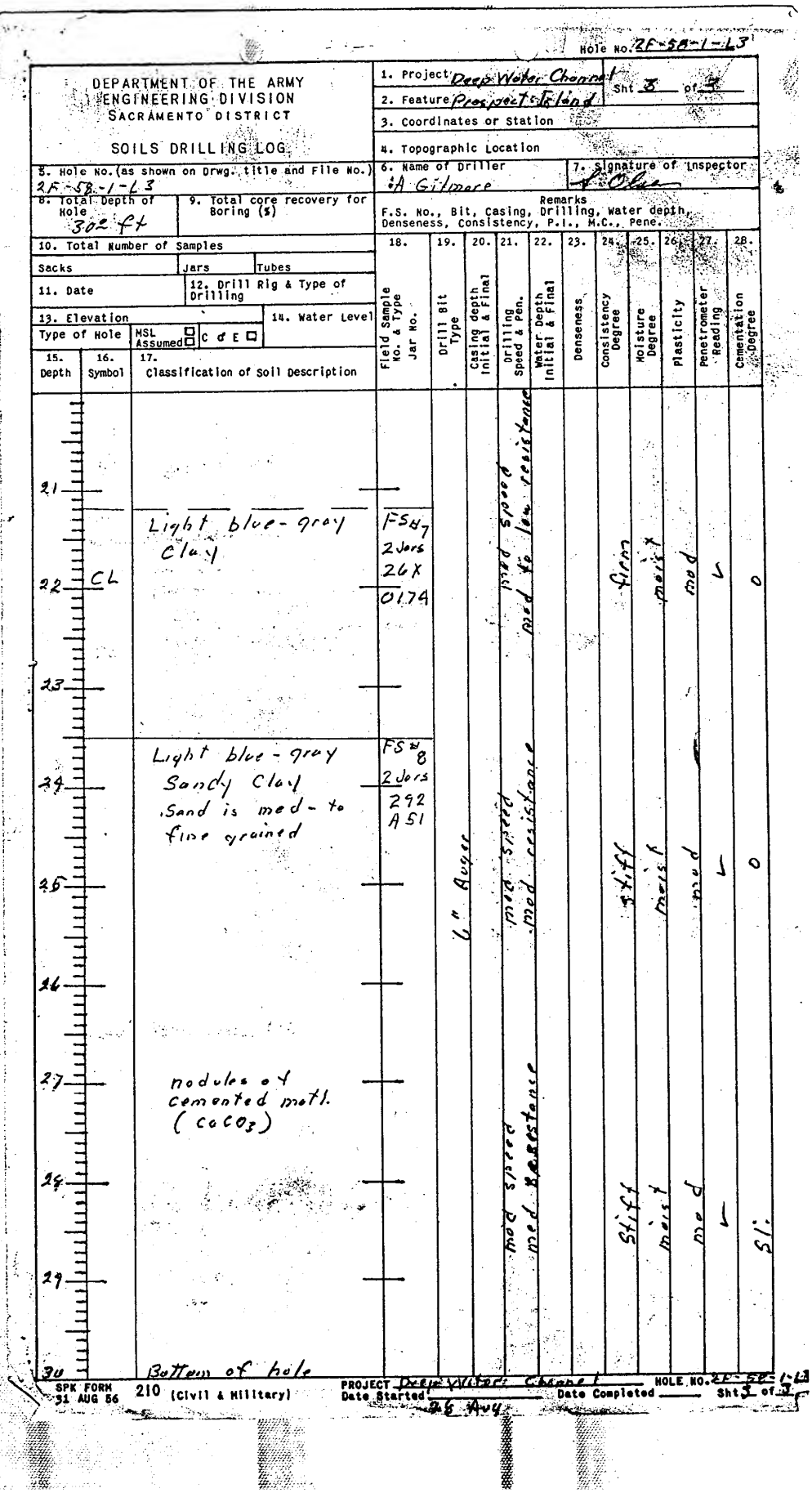
SOILS DRILLING LOG

1. Project Deep Water Channel
2. Feature Prospect Island
Sht 2 of 3
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-1-L3
6. Name of Driller A Gilmore
7. Signature of Inspector [signature]
8. Total Depth of Hole 30c
9. Total core recovery for Boring (%)
Remarks F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples
Sacks | Jars | Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation
Type of Hole MSL Assumed ☐ C ☐ E ☐
14. Water Level

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
	Pt & OL	as above											
11		Vane Shear test				med speed low resistance			Soft	moist to wet	mod	✓	0
12	CL	Dark Gray Clay with low % of peat	F5#4 2 Jars 407 0179										
13		Peat decreases with depth and is absent at 14 ft.	T-5 13' to 14'										
14			T-6 14' to 15'			med speed low resistance			Soft	moist	mod	✓	0
15				6" Auger									
16	CL	Vane Shear test											
17			A71 X65										
18		Light blue-gray Clay With nodules of $CaCO_3$	69 A 7 A			med speed med resistance			firm to stiff	moist	mod	✓	sli
19													
20													

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Deep Water Channel
Date Started 20 Aug
Date Completed
HOLE NO. 2F-58
Sht 2

dwc-
sac-2F-58-1-L3



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

Hole No. 2F-58-1-L3

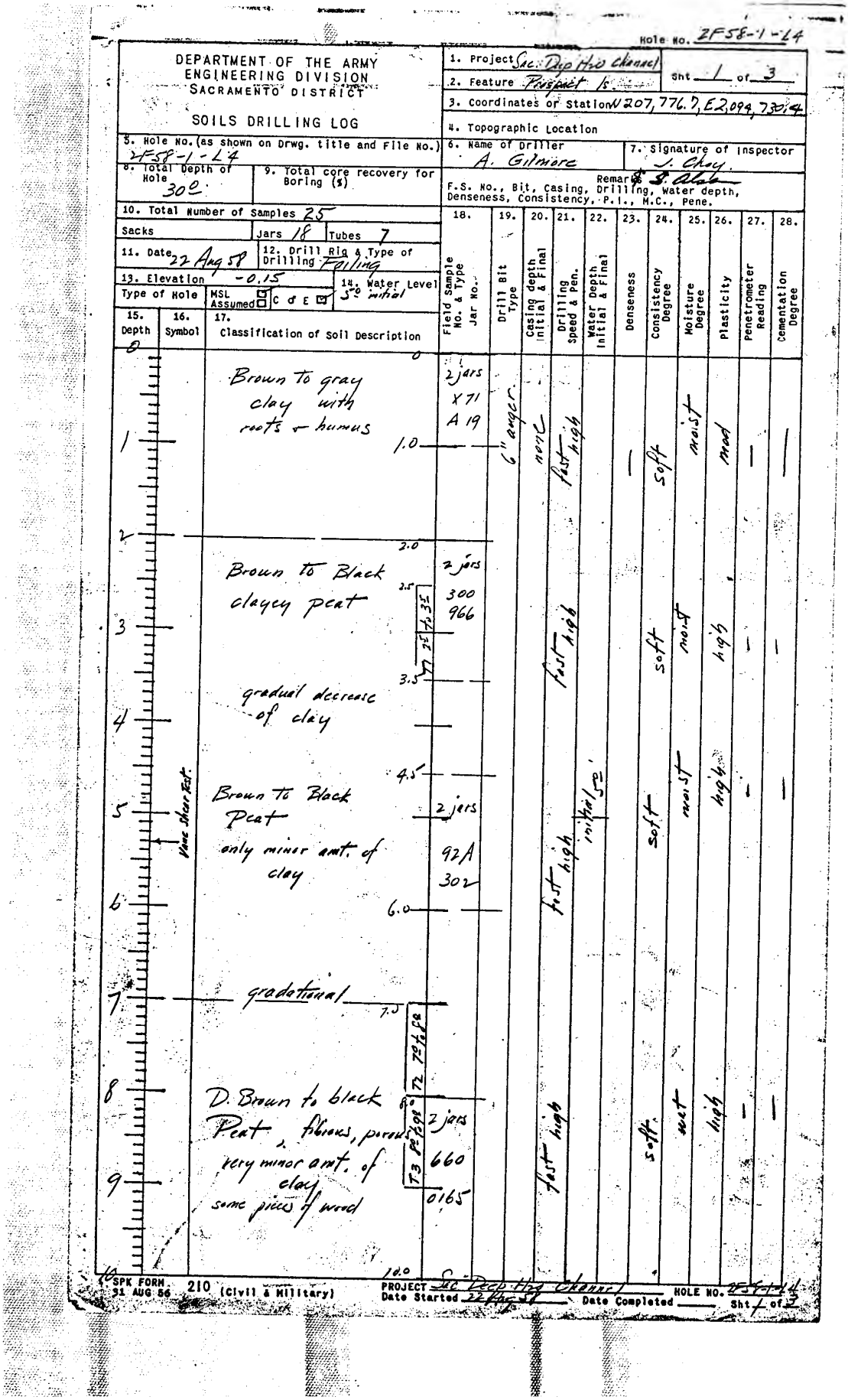
1. Project: Deep Water Channel — Sht 3 of 3
2. Feature: Prospect Island
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.): 2F-58-1-L3
6. Name of Driller: A Gilmore
7. Signature of Inspector: J Olea
8. Total Depth of Hole: 30± ft
9. Total core recovery for Boring (%)
10. Total Number of Samples — Sacks — Jars — Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation — Type of Hole — MSL Assumed ☐ — C ☐ D ☐ E ☐
14. Water Level
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
21													
22	CL	Light blue-gray Clay	FS#7 2 Jars 26X 01.74			med speed med to low resistance			firm	moist	med	V	0
23													
24		Light blue-gray Sandy Clay, Sand is med- to fine grained	FS#8 2 Jars 292 A51	6" Auger		med speed med. resistance			stiff	moist	med	V	0
25													
26													
27		nodules of cemented matl. ($CaCO_3$)				med speed med resistance			stiff	moist	med	V	0
28													
29													
30		Bottom of hole											

SPK FORM 210 31 AUG 56 (Civil & Military)
PROJECT Deep Water Channel — HOLE NO. 2F-58-1-L3
Date Started 26 Aug — Date Completed — Sht 3 of 3

dwc-
sac-2F-58-1-L4

Hole No. 2F58-1-L4



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sac. Deep H2O Channel
2. Feature Prospect 1s
Sht 1 of 3
3. Coordinates or Station N207,776.7, E2,094,730.4
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-1-L4
6. Name of Driller A. Gilmore
7. Signature of Inspector J. Choy
8. Total Depth of Hole 30.0
9. Total core recovery for Boring (%)
Remarks S. Alde
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples 25
Sacks | Jars 18 | Tubes 7
11. Date 22 Aug 58
12. Drill Rig & Type of Drilling Failing
13. Elevation -0.15
14. Water Level 5.0 initial
Type of Hole | MSL Assumed ☐ | C & E ☑

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
0		Brown to gray clay with roots + humus	2 jars X71 A19	6" auger	none	fast high		—	soft	moist	mod	—	—
1													
2		Brown to Black clayey peat	2 jars 300 966			fast high			soft	moist	high	—	—
3													
4		gradual decrease of clay											
5	Vane Shear Test	Brown to Black Peat only minor amt. of clay	2 jars 92A 302			fast high	initial 5.0'		soft	moist	high	—	—
6													
7		gradational											
8		D. Brown to black Peat, fibrous, porous very minor amt. of clay some pieces of wood	2 jars 660 0165			fast high			soft	wet	high	—	—
9													
10													

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sac Deep H2O Channel HOLE NO. 2F58-1-L4
Date Started 22 Aug 58 Date Completed ____ Sht 1 of 3

dwc-
sac-2F-58-1-L4

Hole No. 2F58-1-L4

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project
2. Feature
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.)
6. Name of Driller
7. Signature of Inspector
8. Total Depth of Hole
9. Total core recovery for Boring (s)
10. Total Number of Samples
Sacks | Jars | Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation
Type of Hole | MSL Assumed ☐ | C ☐ D ☐ E ☐
14. Water Level

Sht 2 of 3

Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

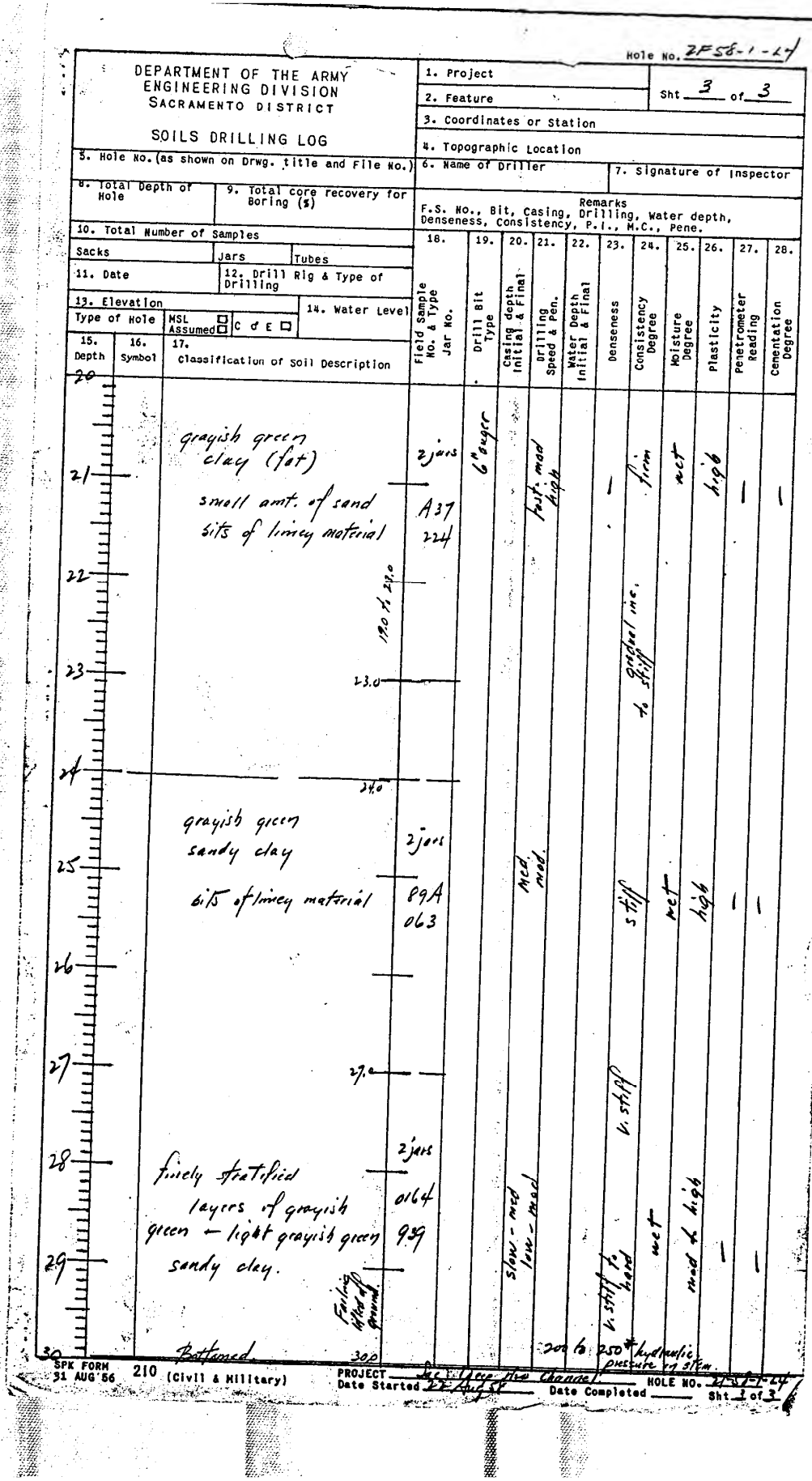
15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
10		Vane shear test											
		porous + fibrous Black to grayish black peat	11.0 2 jars 1014 312	6" auger	none	fast-high		1	soft	wet	high	—	—
13			13.0										
		grayish green clay (fat) with small amt. of peat	13.2-14.0 TX-1446 14.0 2 jars 671 X19			fast-med high		1	firm	wet	high	—	—
15			15.0										
16		Vane shear test											
17		grayish green clay.	17.2										
18			18.2 TX 1024 FC										
19		Vane shear test	19.0 2 JAR A37 224			fast-med high		1	firm	wet	high	—	—
20													

SPK FORM 31 AUG 56 210 (Civil & Military)

PROJECT Sac. Deep Water Channel HOLE NO. 2F58-1-L4
Date Started 17 Aug 57 Date Completed ____ Sht 2 of 3

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-22

dwc-
sac-2F-58-1-L4



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

Hole No. 2F58-1-L4

1. Project
2. Feature
Sht 3 of 3
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.)
6. Name of Driller
7. Signature of Inspector
8. Total Depth of Hole
9. Total core recovery for Boring (%)
Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples
Sacks
Jars
Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation
Type of Hole
MSL Assumed
C & E
14. Water Level

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
20													
21		grayish green clay (fat) small amt. of sand silts of limey material	2 jars A37 224	6" auger		fast mod light		1	firm	wet	high	—	—
22													
23									to stiff				
24													
25		grayish green sandy clay bits of limey material	2 jars 89A 063			med. med.			stiff	wet	high	—	—
26													
27									v. stiff				
28		finely stratified layers of grayish green ← light grayish green sandy clay.	2 jars 0164 939		slow - med low - med				to hard	wet	med & high	—	—
29													
30		Bottomed											

Failing after 30 min.

20 to 250 # hydraulic pressure in 5 min.

SPK FORM 31 AUG 56 210 (Civil & Military)

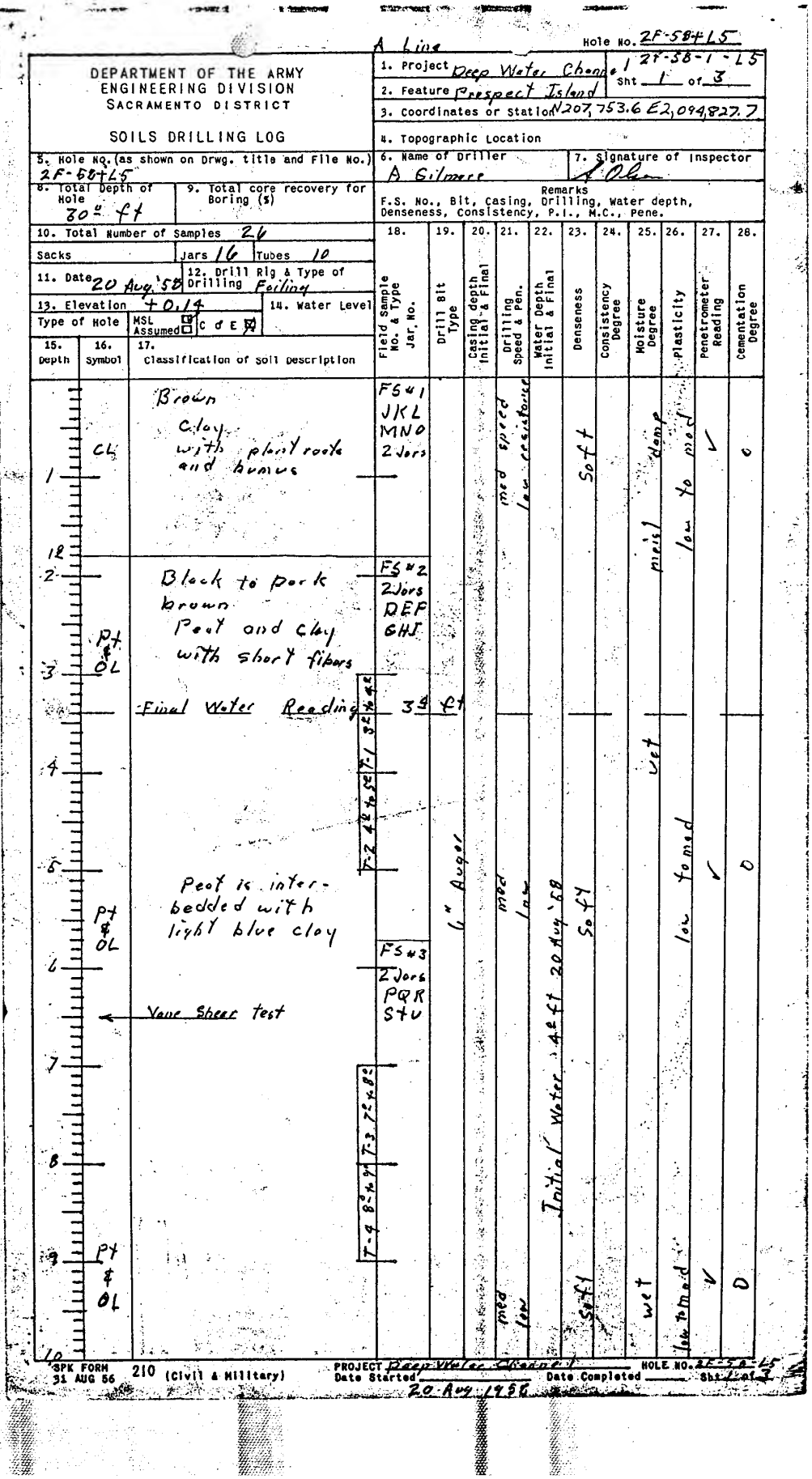
PROJECT Lit. Egbert Mtn. Channel HOLE NO. 2F58-1-L4
Date Started 22 Aug 58 Date Completed ____ Sht 1 of 3

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-23

dwc-
sac-2F-58-1-L5

A Line

Hole No. 2F-58+L5



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

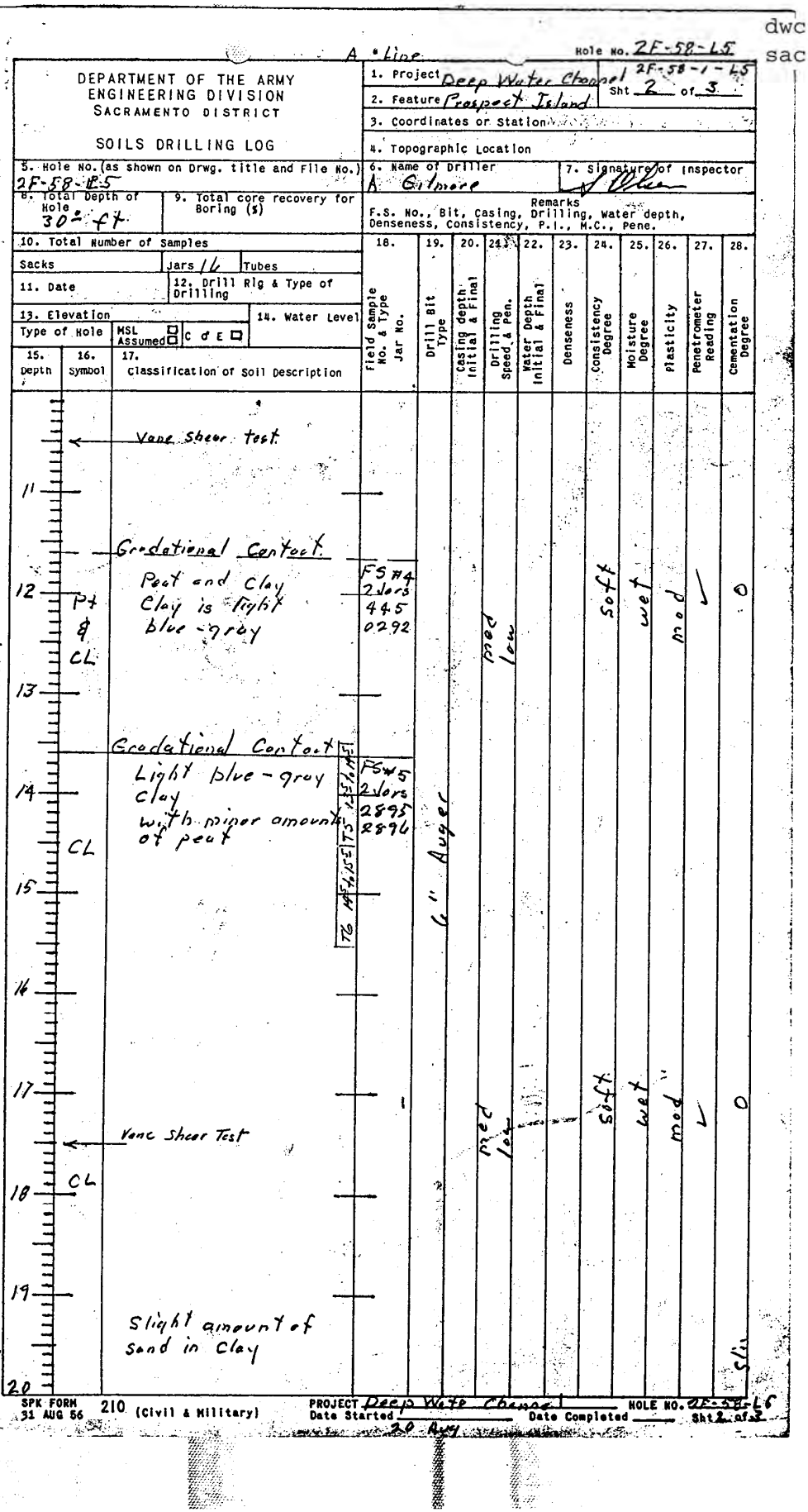
SOILS DRILLING LOG

1. Project Deep Water Channel 2F-58-1-L5 Sht 1 of 3
2. Feature Prospect Island
3. Coordinates or Station N207,753.6 E2,094,827.7
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58+L5
6. Name of Driller A Gilmore
7. Signature of Inspector [signature]
8. Total Depth of Hole 30.0 ft
9. Total core recovery for Boring (%)
Remarks F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples 26
Sacks Jars 16 Tubes 10
11. Date 20 Aug '58
12. Drill Rig & Type of Drilling Failing
13. Elevation +0.14
14. Water Level
Type of Hole MSL Assumed ☐ C ☐ E ☒

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
1	CL	Brown Clay with plant roots and humus	FS#1 JKL MNO 2 Jars			med speed low resistance		Soft		moist damp	low to med	✓	0
2	Pt & OL	Black to pork brown Peat and clay with short fibers	FS#2 2 Jars DEF GHI										
3		Final Water Reading	3.4 ft										
4			T-1 3.2 to 4.2							wet			
5			T-2 4.2 to 5.2	6" Auger		med low	Initial Water 4.2 ft 20 Aug '58	Soft			low to med	✓	0
6	Pt & OL	Peat is interbedded with light blue clay	FS#3 2 Jars PQR Stu										
7		← Vane Shear test											
8			T-3 7.2 to 8.2										
9	Pt & OL		T-4 8.2 to 9.2			med low		Soft		wet	low to med	✓	0
10													

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Deep Water Channel HOLE NO. 2F-58-L5
Date Started 20 Aug 1958 Date Completed Sht 1 of 3

dwc-
sac-2F-58-1-L5



A "Line" Hole No. 2F-58-L5

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Deep Water Channel 2F-58-1-L5 Sht 2 of 3
2. Feature Prospect Island
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-L5
6. Name of Driller A Gilmore
7. Signature of Inspector
8. Total Depth of Hole 30± ft.
9. Total core recovery for Boring (%)
10. Total Number of Samples
Sacks Jars 16 Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation
Type of Hole MSL Assumed ☐ C d E ☐
14. Water Level
Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

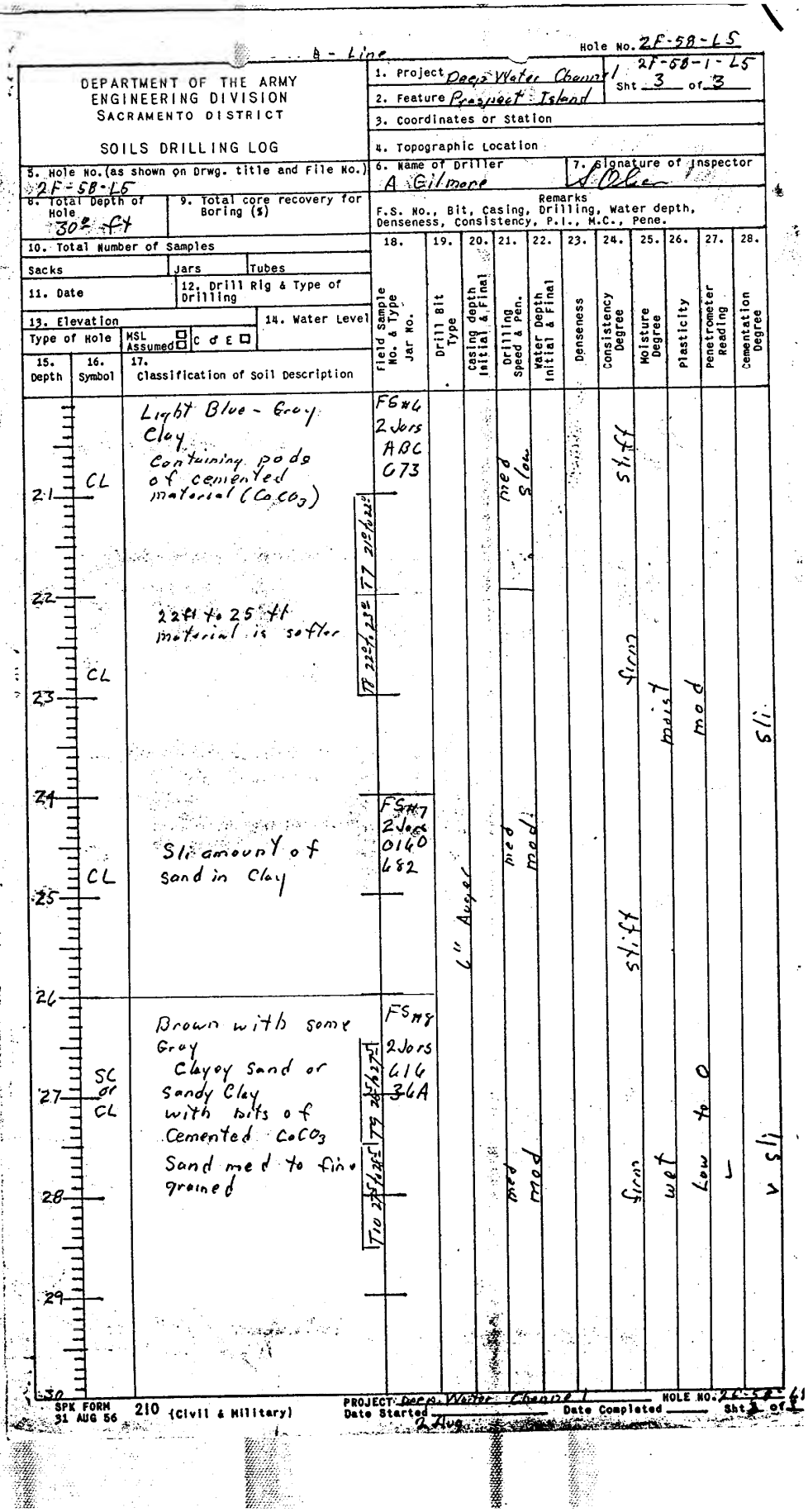
15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
11		Vane Shear test.											
		Gradational Contact.											
12	Pt & CL	Peat and Clay Clay is light blue-gray	FS #4 2 Jars 445 0292			med low			soft	wet	mod	✓	0
13													
		Gradational Contact											
14	CL	Light blue-gray clay with minor amounts of peat	FS #5 2 Jars 2895 2896	6" Auger									
15													
16													
17						med low			soft	wet	mod	✓	0
		Vane Shear Test											
18	CL												
19		Slight amount of sand in Clay											Sli
20													

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Deep Water Channel HOLE NO. 2F-58-L6
Date Started 20 Aug Date Completed Sht 2 of 3

dwc-
sac-2F-58-1-L5

A - Line

Hole No. 2F-58-L5



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Deep Water Channel 2F-58-1-L5 Sht 3 of 3
2. Feature Prospect Island
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-L5
6. Name of Driller A Gilmore
7. Signature of Inspector S Olen
8. Total Depth of Hole 30.0 ft
9. Total core recovery for Boring (%)
10. Total Number of Samples
Sacks | Jars | Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation
Type of Hole MSL Assumed ☐ C ☐ E ☐
14. Water Level

Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
21	CL	Light Blue - Gray Clay Containing pods of cemented material ($CaCO_3$)	FS#6 2 Jars ABC 673			med slow			stiff				
22	CL	22 ft to 25 ft material is softer	T7 21.0 to 22.0; T8 22.0 to 23.0						firm	moist	mod		sli
23													
24	CL	Sli amount of sand in Clay	FS#7 2 Jars 0140 682	6" Auger		med	mod		stiff				
25													
26	SC or CL	Brown with some Gray Clayey Sand or Sandy Clay with bits of Cemented $CaCO_3$ Sand med to fine grained	FS#8 2 Jars 616 36A; T9 26.5 to 27.5; T10 27.5 to 28.5			med	mod		firm	wet	Low to 0	–	v sli
27													
28													
29													
30													

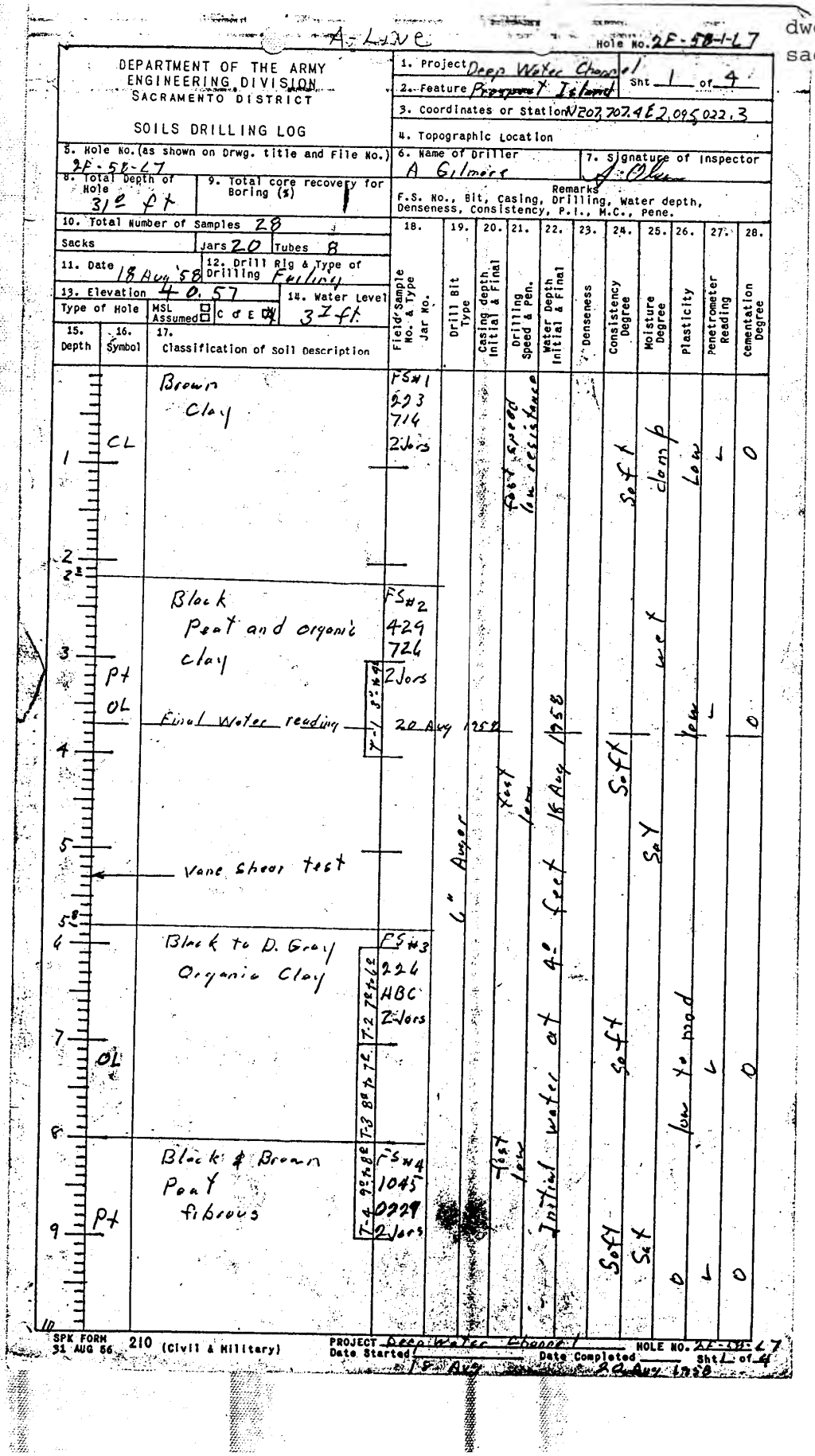
SPK FORM 31 AUG 56 210 (Civil & Military)

PROJECT Deep Water Channel HOLE NO. 2F-58-L5
Date Started 2 Aug Date Completed Sht 3 of 3

A-Line

Hole No. 2F-58-1-L7

dwc-
sac-2F-58-1-L7



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

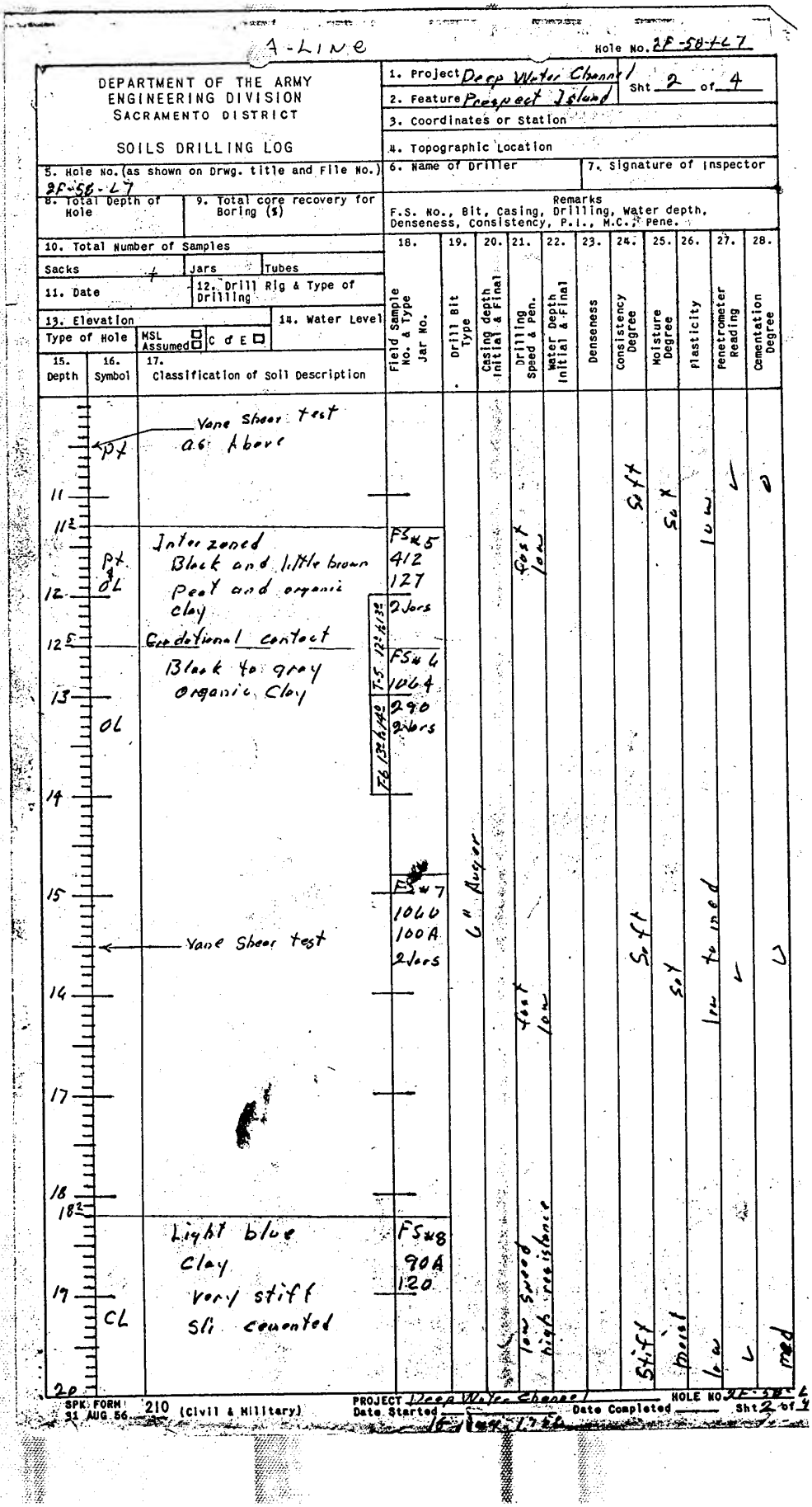
SOILS DRILLING LOG

1. Project Deep Water Channel
2. Feature Prospect Island
Sht 1 of 4
3. Coordinates or Station N207,707.4 E2,095,022.3
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-L7
6. Name of Driller A Gilmore
7. Signature of Inspector J. Olson
8. Total Depth of Hole 31.0 ft
9. Total core recovery for Boring (%)
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples 28
Sacks | Jars 20 | Tubes 8
11. Date 18 Aug '58
12. Drill Rig & Type of Drilling Failing
13. Elevation 40.57
Type of Hole | MSL Assumed ☐ | C ☐ E ☒
14. Water Level 3.7 ft.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
0–2.5	CL	Brown Clay	FS#1 223 714 2 Jars			fast speed low resistance			Soft	damp	Low	L	0
2.5–5.8	Pt OL	Black Peat and organic clay; Final Water reading 20 Aug 1958	FS#2 429 726 2 Jars; T-1 3.0 to 4.0	6" Auger		fast low	Initial water at 4.0 feet 18 Aug 1958		Soft	wet	low	L	0
		← Vane Shear test								Sat			
5.8–8	OL	Black to D. Gray Organic Clay	FS#3 226 HBC 2 Jars; T-2 7.0 to 6.0; T-3 8.0 to 7.0						Soft		low to mod	L	0
8–10	Pt	Black & Brown Peat fibrous	FS#4 1045 0229 2 Jars; T-4 9.0 to 8.0			fast low			Soft	Sat	0	L	0

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Deep Water Channel
Date Started 18 Aug
Date Completed 20 Aug 1958
HOLE NO. 2F-58-L7
Sht 1 of 4

dwc-
sac-2F-58-1-L7



A-Line

Hole No. 2F-58-L7

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Deep Water Channel — Sht 2 of 4
2. Feature Prospect Island
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-L7
6. Name of Driller
7. Signature of Inspector
8. Total Depth of Hole
9. Total core recovery for Boring (%)
10. Total Number of Samples — Sacks 4 — Jars — Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation — Type of Hole — MSL Assumed ☐ — C ☐ D ☐ E ☐
14. Water Level
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
11	PT	Vane Shear test as above											
11½	PT	Interzoned Black and little brown Peat and organic clay	FS#5 412 127 2 Jars			fast low							
12	OL												
12½		Gradational contact Black to gray Organic Clay	T-5 12½/13½ FS#6 1064 290 2 Jars										
13	OL												
14				6" Auger									
15			FS#7 1066 100A 2 Jars										
		Vane Shear test											
14						fast low							
17						low speed high resistance							
18													
18½		Light blue Clay very stiff Sli cemented	FS#8 90A 120										
19	CL												
20													

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Deep Water Channel — HOLE NO 2F-58-L7
Date Started — Date Completed — Sht 2 of 4

Little Egbert Multi-Benefit Project
Solano County, California — Project No. 907.02 — Plate No. A-28

dwc-
sac-2F-58-1-L7

A - Line

Hole No. 2F-58+L7

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Deep Water Canal
2. Feature Prospect Island
Sht 3 of 4
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-L7
6. Name of Driller
7. Signature of Inspector
8. Total Depth of Hole 31.2 ft
9. Total core recovery for Boring (%)
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples: Sacks | Jars | Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation
Type of Hole: MSL ☐ Assumed ☐ C ☐ E ☐
14. Water Level

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
21	CL	Blue stiff Clay Sli cemented	FS#9 X14 299 2 Jars	6" Auger		Slow speed high resis.			Stiff	moist	low	✓	low to med
22													
23													
24													
25													
26													
27													
28	CL	light Blue Sandy Clay low o/o sand & top (1ft) zone was Mostly sand	FS#10 X6 1029 2 Jars			Slow med			v. firm	moist	low	✓	low
29													
30													

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Date Started Date Completed HOLE NO. Sht of

dwc-
sac-2F-58-1-L7

A-LINE

Hole No. 2F-58-47

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Deep Water Channel — Sht 4 of 4
2. Feature Prospect Island
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-47
6. Name of Driller A. Gilmore
7. Signature of Inspector
8. Total Depth of Hole 31.4 ft
9. Total core recovery for Boring (%)
10. Total Number of Samples
Sacks | Jars | Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation
14. Water Level
Type of Hole | MSL Assumed ☐ | C & E ☐

Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample no. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
31	CL	Sandy Clay as above				as above							
32													
34													
35													

SPK FORM 210 (Civil & Military) 21 AUG 56

PROJECT Deep Water Channel HOLE NO. 2F-58-
Date Started 18 Aug Date Completed Sht 4 of 4

Little Egbert Multi-Benefit Project
Solano County, California — Project No. 907.02 — Plate No. A-30

dwc-
sac-2F-58-1-R1

StM 691 Ser # 105-58-5 Hole No. 2F-58-2-R1

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sacto Div. C. Sht 1 of 3
2. Feature Prospect Island
3. Coordinates or Station N 214,600.5 E 2,095,533.6
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-2-R1
6. Name of Driller A Gilmore
7. Signature of Inspector [signature]
8. Total Depth of Hole 30.0
9. Total core recovery for Boring (%)
Remarks F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples 82
Sacks 0 Jars 16 Tubes 4
11. Date 29 Sept 58
12. Drill Rig & Type of Drilling Parling
13. Elevation -0.30
14. Water Level Gr Sur.
Type of Hole MSL Assumed C d E

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
		Dark Brown & Black Peaty clay. fibrous								Dry			
1.0			FS#1 2 Jars 012-514	8" Auger		Slow Mod.		Loose	Soft	moist	Med	✓	✓
2.0		Plowed or disturbed depth.											
3.0			1T 3.0 4.0										
3.8													
4.0		Black Peaty clay Traces of Gray clay Low % fibrous, slight organic odor	FS#2 2 Jars 59A-460			Slow Low			Very Soft	wet			
5.0													
5.5		Vane Shear #1 Large vane											
6.0			2T 6.0 7.0										
7.0		Gray clay increasing											
8.0													
		no definate change											
9.0		Gray & Black Peaty clay (mottled) Gray clay increasing Moderate organic odor Low % fibrous mat.	FS#3 2 Jars XBB-88A							Sat.			
10.0													

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Sacto Deep Water Channel HOLE NO. 2F-58-2-R1
Date Started 29 Sept 58 Date Completed 29 Sept Sht 1 of 3

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-31

dwc-
sac-2F-58-1-R1

Hole No. 2F-58-2-RI

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sacto. D.W.C.
2. Feature Prospect Island
Sht 2 of 3
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-2-RI
6. Name of Driller A. Gilmore
7. Signature of Inspector [signature]
8. Total Depth of Hole 30.0
9. Total core recovery for Boring (%)
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples 17
Sacks | Jars 16 | Tubes 4
11. Date 29 Sept 58
12. Drill Rig & Type of Drilling FAILING
13. Elevation 0.30
14. Water Level
Type of Hole: MSL Assumed ☒ C d E ☒

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
11.0		GRAY CLAY INCREASING STRONG ORGANIC ODOR	3T 10.0 11.0 FS#4 2 JARS 057-X56	8" AUGER		Slow Mod.		Loose	Soft	wet	High	✓	✓
12.0		Vane Shear # II LARGE VANE											
13.0		BLACK MAT. MOTTLED IN GRAY CLAY.	4T 13.0 14.0	CONTINUOUS AUGER.									
14.0		Sharp contact BLUE GREEN CLAY LOW % FIBROUS ORGANIC MAT. NO (CONCRETIONS.)	FS#5 2 JARS 176-34X			Slow Mod.		dense	firm	moist	Med.		
15.0		CONCRETIONS START about 15.5											
16.0													
17.0													
18.0													
19.0		High % CONCRETIONS SAME BLUE GREEN CLAY GRAYISH ?	FS#6 2 JARS 820-34A										
20.0													

PRELIMINARY

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sacto. Deep Water Channel HOLE NO. 2F-58-2
Date Started 29 Sept 58 Date Completed [illegible] Sht 2

dwc-
sac-2F-58-1-R1

Hole No. 2F-58-2-RI

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sacto D.W.C.
2. Feature Prospect Island
Sht 3 of 3
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-2-RI
6. Name of Driller A. Gilmore
7. Signature of Inspector [signature]
8. Total Depth of Hole 30°
9. Total core recovery for Boring (%)
Remarks F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples
Sacks | Jars 16 | Tubes 4
11. Date 29 Sept 58
12. Drill Rig & Type of Drilling FAILING
13. Elevation 0.30
14. Water Level
Type of Hole | MSL Assumed ☒ | C ☐ E ☒

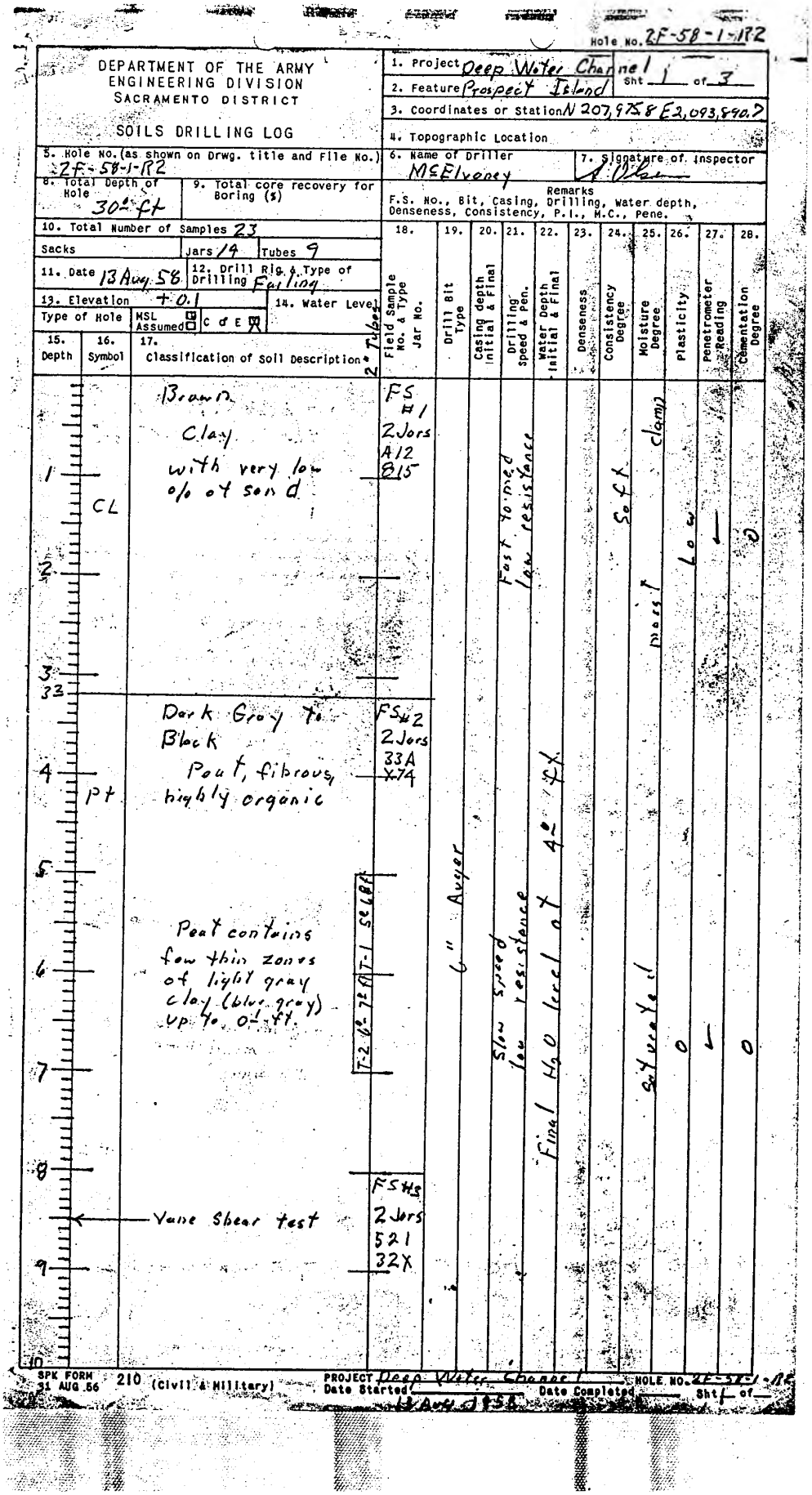
15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
		Change at 20° (definate) Blue Green clayey Sand. Fine Grain Sand.	FS#7 2 Jars 7K-37A	Continuous Auger		med. mod.		dense	firm	moist to wet	Very Low	✓	✓
21.0													
22.0													
23.0													
24.0													
25.0		Same as above clayey Sand. Fine Sand	M.C. FS#8 2 Jars A63-29										
26.0													
27.0													
28.0		Visual only Change at approximately 28° to Green (Dark) clayey Sand Low % clay med Grain Sand.											
29.0		water washed Sands from Auger on Recovery. No Sample Visual Only.											
30.0		Depth of hole As Specified											

PRELIMINARY

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Sacto Dep. Water Channel HOLE NO. 2F-58-2-RI
Date Started 29 Sept 58 Date Completed 29 Sept. Sht 3 of 3

dwc-
sac-2F-58-1-R2

Hole No. 2F-58-1-R2



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Deep Water Channel
2. Feature Prospect Island
Sht 1 of 3
3. Coordinates or Station N 207,975.8 E 2,093,890.7
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-1-R2
6. Name of Driller McElvoney
7. Signature of Inspector [signature]
8. Total Depth of Hole 30.0 ft
9. Total core recovery for Boring (%)
10. Total Number of Samples 23
Sacks | Jars 14 | Tubes 9
11. Date 13 Aug 58
12. Drill Rig & Type of Drilling Failing
13. Elevation +0.1
Type of Hole: MSL Assumed ☐ C d E ☒
14. Water Level

Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
0–3.3	CL	Brown Clay with very low % of sand	FS #1 2 Jars A12 815	6" Auger		Fast to med low resistance			Soft	moist clamp	Low	←	0
3.3–8	Pt	Dark Gray to Black Peat, fibrous, highly organic	FS #2 2 Jars 33A X74			Slow speed low resistance	Final H_2O level at 4.0 ft			Saturated	0	←	0
		Peat contains few thin zones of light gray clay (blue gray) up to 0.1 ft.	T-1 5.0 6.8 ft; T-2 6.0 7.2 ft										
8–10		← Vane Shear test	FS #3 2 Jars 521 32X										

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Deep Water Channel HOLE NO. 2F-58-1-R2
Date Started 13 Aug 1958 Date Completed Sht 1 of

dwc-
sac-2F-58-1-R2

Hole No. 2F-58-1-R2

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Deep Water Channel — Sht 2 of
2. Feature Prospect Island
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-1-R2
6. Name of Driller Mc Elvenay
7. Signature of Inspector A Olsen
8. Total Depth of Hole
9. Total core recovery for Boring (s)
10. Total Number of Samples — Sacks — Jars — Tubes
11. Date 13 Aug
12. Drill Rig & Type of Drilling Failing
13. Elevation 40.1
14. Water Level
Type of Hole — MSL Assumed ☐ C ☐ E ☒

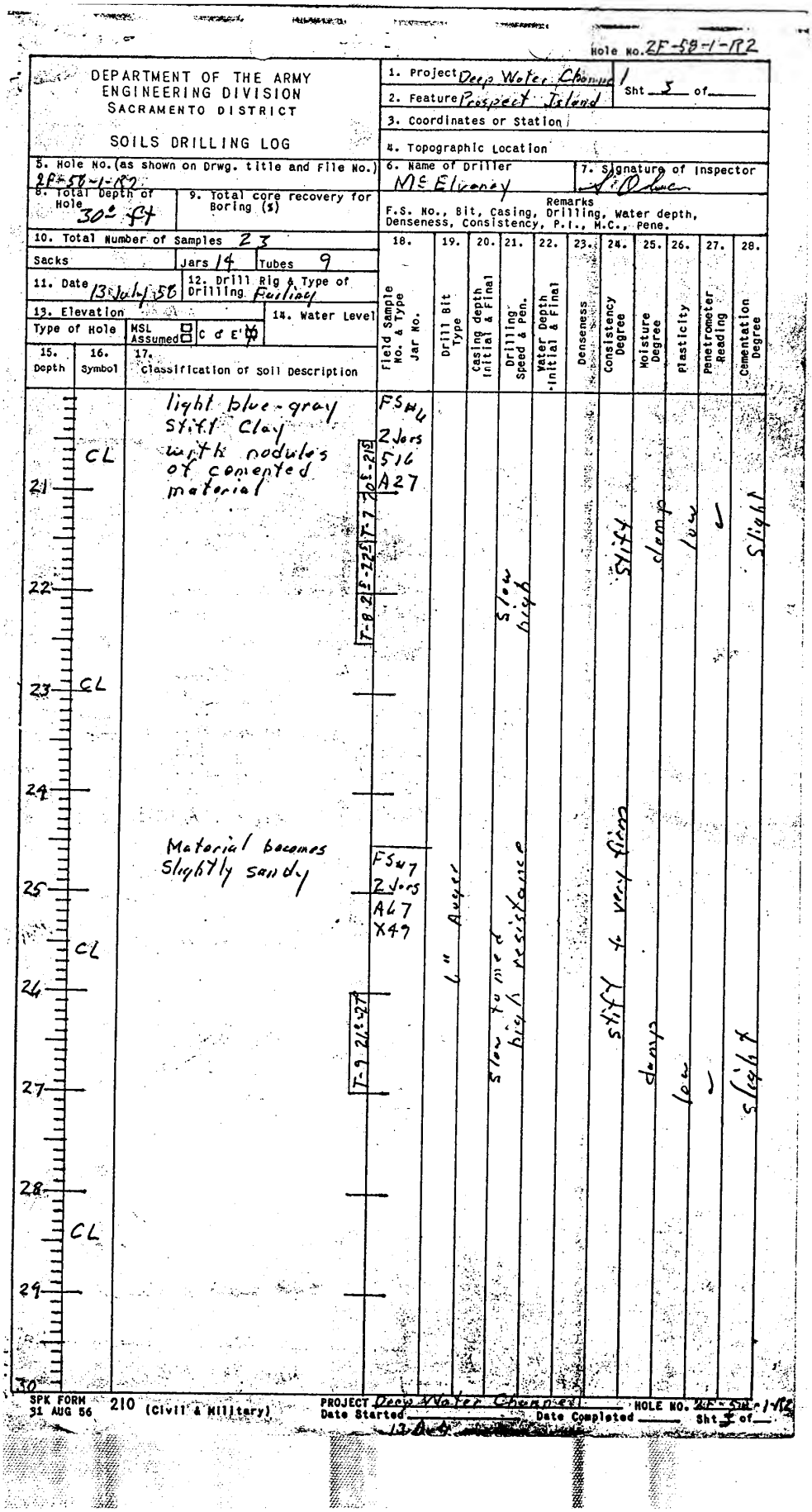
Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
11	Pt	Peat as above Vane Shear test				slow low			soft	Saturated	0	L	0
12	OL	Light green and black Organic Clay Contains lenses of peat. lenses decrease with depth	FS #4 2 hrs 116 288										
13													
14				4" Auger									
15		Vane Shear test				slow low			soft	Saturated	low	L	0
16													
17		Light green-gray and black Organic Clay	FS #5 2 hrs 0228 624										
18	OH												
19		Vane Shear test				slow low			soft	Saturated	med	L	0
19½													
20		See Next page											

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Deep Water Channel HOLE NO. 2F-58-1-R2 Sht 2 of
Date Started 13 AUG 58 Date Completed

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-35

dwc-
sac-2F-58-1-R2



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

Hole No. 2F-58-1-R2

1. Project: Deep Water Channel — Sht 1 of 5
2. Feature: Prospect Island
3. Coordinates or Station:
4. Topographic Location:
5. Hole No. (as shown on Drwg. title and File No.): 2F-58-1-R2
6. Name of Driller: M & Elvenay
7. Signature of Inspector: J. O'Leary
8. Total Depth of Hole: 30± ft
9. Total core recovery for Boring (%):
10. Total Number of Samples: 23 — Sacks: — Jars: 14 — Tubes: 9
11. Date: 13 July 58
12. Drill Rig & Type of Drilling: Portland
13. Elevation — Type of Hole: MSL Assumed ☐ C & E ☐
14. Water Level:

Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

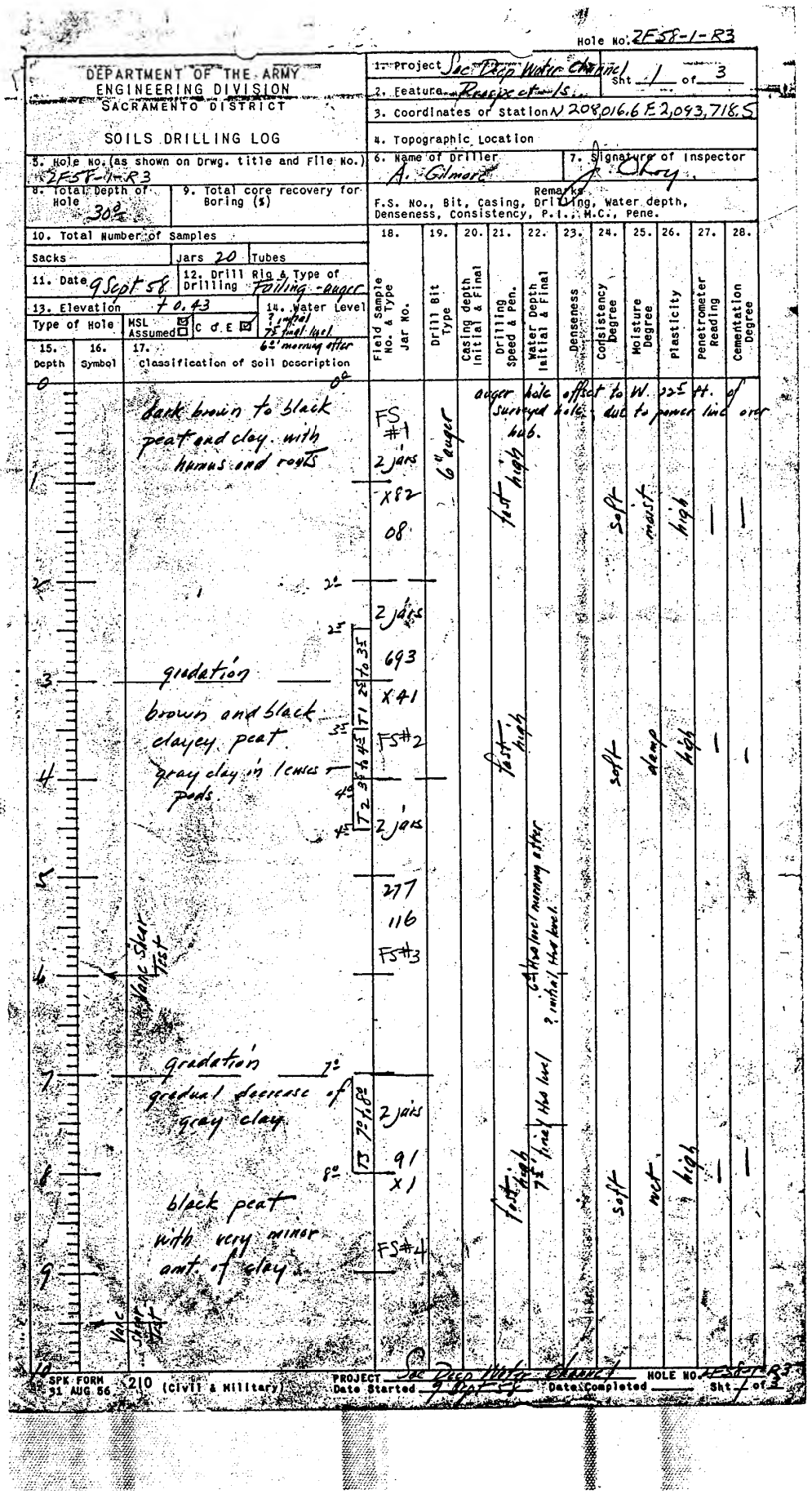
15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
21	CL	light blue-gray stiff clay with nodules of cemented material	FS #4 2 Jars 516 A27 T-8 21'-22'7" Tot-21'	6" Auger		Slow to med high resistance			stiff	damp	low	~	Slight
22													
23	CL												
24													
25	CL	Material becomes slightly sandy	FS #7 2 Jars A47 X49 T-9 24'-27'						stiff to very stiff	damp	low	~	Slight
26													
27													
28	CL												
29													
30													

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Deep Water Channel — HOLE NO. 2F-58-1-R2
Date Started 13 July 58 — Date Completed — Sht 1 of 5

Little Egbert Multi-Benefit Project
Solano County, California — Project No. 907.02 — Plate No. A-36

dwc-
sac-2F-58-1-R3

Hole No. 2F58-1-R3



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sac Deep Water Channel — Sht 1 of 3
2. Feature Prospect Is.
3. Coordinates or Station N 208,016.6 E 2,093,718.5
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-1-R3
6. Name of Driller A. Gilmore
7. Signature of Inspector J. Choy
8. Total Depth of Hole 30.0
9. Total core recovery for Boring (%)
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples: Sacks — Jars 20 — Tubes
11. Date 9 Sept 58
12. Drill Rig & Type of Drilling Failing - auger
13. Elevation + 0.43
14. Water Level ? initial, 7.5' final level, 6.0' morning after
Type of Hole: MSL Assumed ☑ C of E ☑

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
0		0.0 dark brown to black peat and clay with humus and roots	FS #1 2 jars X82 08	6" auger		fast high			soft	moist	high	—	—
1													
2		2.0	2 jars 693 X41										
3		gradation brown and black clayey peat. gray clay in lenses + pods.	FS#2			fast high			soft	damp	high	—	—
4		3.5 T1 2.5 to 3.5; 4.5 T2 3.5 to 4.5	2 jars 277 116 FS#3				6.0' H2O level morning after ? initial H2O level						
5													
6		Vane Shear Test											
7		gradation 7.0 gradual decrease of gray clay	2 jars 91 X1			fast high	7.5' final H2O level		soft	wet	high	—	—
8		8.0 black peat with very minor amt. of clay	FS#4										
9		Vane Shear Test											
10													

auger hole offset to W. 22.5 ft. of surveyed hole due to power line over hub.

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Sac Deep Water Channel HOLE NO. 2F58-1-R3 Date Started 9 Sept 58 Date Completed ____ Sht 1 of 3

dwc-
sac-2F-58-1-R3

Hole No 2F58-1-R3

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

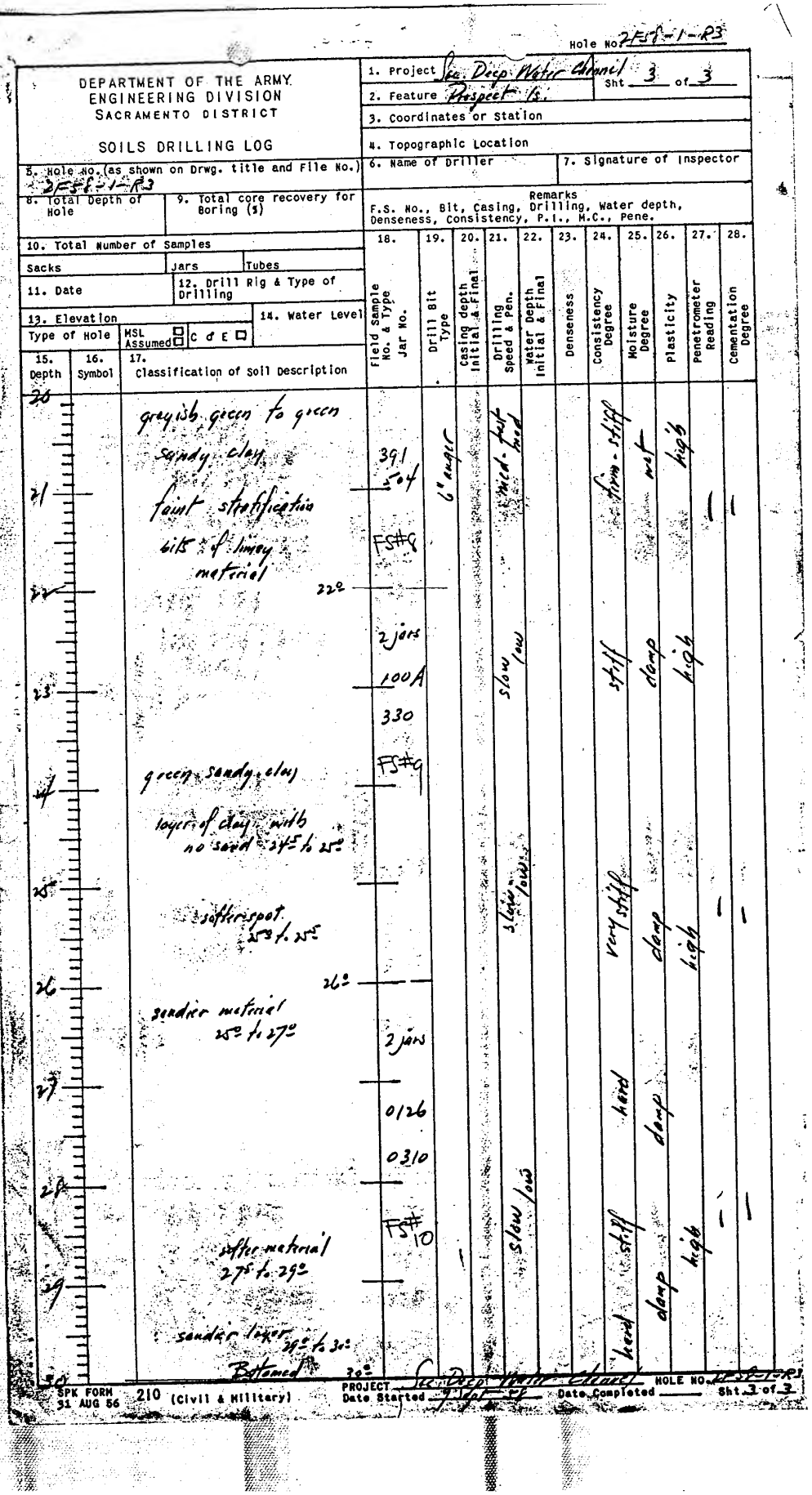
1. Project Sac Deep Water Channel Sht 2 of 3
2. Feature Prospect #5
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-1-R3
6. Name of Driller
7. Signature of Inspector
8. Total Depth of Hole
9. Total core recovery for Boring (%)
Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples
Sacks Jars 2 Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation
Type of Hole MSL Assumed ☐ C D E ☐
14. Water Level

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
10			91 X1										
		Gradation 10' slight increase of gray clay.	2 jars										
11		this layer of pebbles at 11½ depth.	275 0106			fast high			soft	wet	high		
12		peaty clay	FS#5										
		gray clay, black peat	12'										
13		Vane Shear Test	2 jars X11 596										
14		Gradation 14' gradual decrease of peat	FS#6										
			2 jars			fast high			soft	wet	high		
15		gray clay no peat	A76 055										
16		Vane Shear Test	FS#7										
17									soft	wet	high		
18		18'											
		grayish green sandy clay faint stratification some limey material	2 jars 391 504			fast high			soft to firm	wet	high		
19			FS#8										
20													

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sac Deep Water Channel HOLE NO 2F58-1-R3
Date Started 9 Oct 58 Date Completed Sht 2 of 3

dwc-
sac-2F-58-1-R3

Hole No. 2F58-1-R3



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sac. Deep Water Channel — Sht 3 of 3
2. Feature Prospect Is.
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-1-R3
6. Name of Driller
7. Signature of Inspector
8. Total Depth of Hole
9. Total core recovery for Boring (%)
10. Total Number of Samples: Sacks, Jars, Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation — Type of Hole: MSL Assumed ☐ C d E ☐
14. Water Level

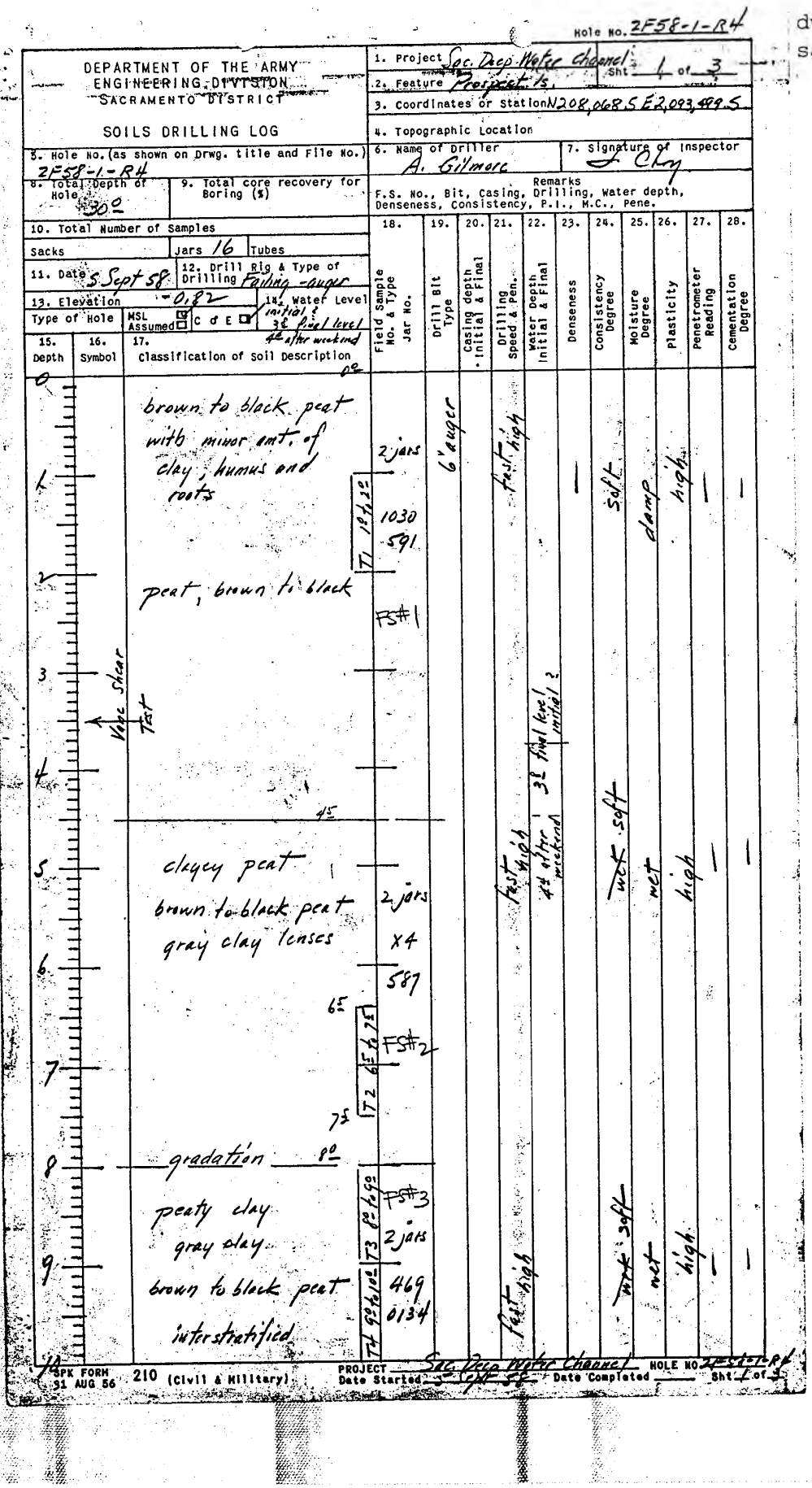
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
20		greyish green to green sandy clay	391	6" auger		med-fast med			firm-stiff	wet	high		
21		faint stratification	504									—	—
		bits of limey material	FS#8										
22		22°											
			2 jars			slow low			stiff	damp	high		
23			100A										
			330										
24		green sandy clay	FS#9										
		layer of clay with no sand 24.5 to 25°											
25		softer spot 25° to 25.5				slow low			very stiff	damp	high	—	—
26		26°											
		sandier material 25° to 27°	2 jars										
27			0126						hard	damp			
			0310										
28		softer material 27.5 to 29°	FS#10			slow low			stiff	damp	high	—	—
29		sandier layer 29° to 30°							hard				
30		Bottomed 30°											

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Sac. Deep Water Channel HOLE NO. 2F58-1-R3
Date Started 9 Sept 58 Date Completed ____ Sht 3 of 3

dwc-
sac-2F-58-1-R4

Hole No. 2F58-1-R4



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sac. Deep Water Channel Sht 1 of 3
2. Feature Prospect Is.
3. Coordinates or Station N208,068.5 E2,093,499.5
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-1-R4
6. Name of Driller A. Gilmore
7. Signature of Inspector J. Chy
8. Total Depth of Hole 30.0
9. Total core recovery for Boring (%)
10. Total Number of Samples
Sacks | Jars 16 | Tubes
11. Date 5 Sept 58
12. Drill Rig & Type of Drilling Failing - auger
13. Elevation -0.82
14. Water Level initial ? 3d final level 4d after weekend
Type of Hole | MSL Assumed ☑ | C d E ☐

Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type / Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
0		0.0 brown to black peat with minor amt. of clay, humus and roots	2 jars	6" auger		fast high		—	soft	damp	high	—	—
1		T1 1.0 to 2.0	1030 591										
2		peat, brown to black	FS#1										
3	Vane Shear Test						3d final level initial ?						
4		4.5					4d after weekend						
5		clayey peat brown to black peat gray clay lenses	2 jars x4 587			fast high			wet soft	wet	high	—	—
6		6.5											
7		T2 6.5 to 7.5	FS#2										
		7.5											
8		gradation 8.0											
		peaty clay gray clay	FS#3 2 jars										
9		T3 8.0 to 9.0 brown to black peat interstratified	469 0134			fast high			wet soft	wet	high	—	—
10		T4 9.0 to 10.0											

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Sac. Deep Water Channel HOLE NO. 2F58-1-R4 Date Started 5 Sept 58 Date Completed Sht 1 of 3

dwc-
sac-2F-58-1-R4

Hole No. 2F58-1-R4

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sac. Deep Water Channel — Sht 2 of 3
2. Feature Prospect 1S
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-1-R4
6. Name of Driller
7. Signature of Inspector
8. Total Depth of Hole
9. Total core recovery for Boring (%)
10. Total Number of Samples — Sacks — Jars — Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation — Type of Hole — MSL / Assumed — C D E
14. Water Level

Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
10		peaty clay	469	6" auger		fast high			soft	wet	high	1	1
		decrease of peat	0134										
11	Vane Shear Test		FS#3										
		peaty clay	2 jars										
12		gray clay	0315			fast high			soft	wet	high		
		brow + black peat	0189										
13		lenses + pods	FS#4										
14		gray clay	2 jars										
		no peat	0243										
15			1069			fast high			soft	wet	high		
16	Vane Shear Test		FS#5										
17		gray	2 jars										
		sandy clay	1062			fast high			soft	wet	high		
18		with very minor cont. of no peat	1048										
19	Vane Shear Test	gradual change from gray to grayish green	FS#6								mod. to high		
20													

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Sac. Deep Water Channel HOLE NO. 2F58-1-R4
Date Started 5 Sept 58 Date Completed ____ Sht 2 of 4

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-41

dwc-
sac-2F-58-1-R4

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

Hole No. 2F58-1-R4

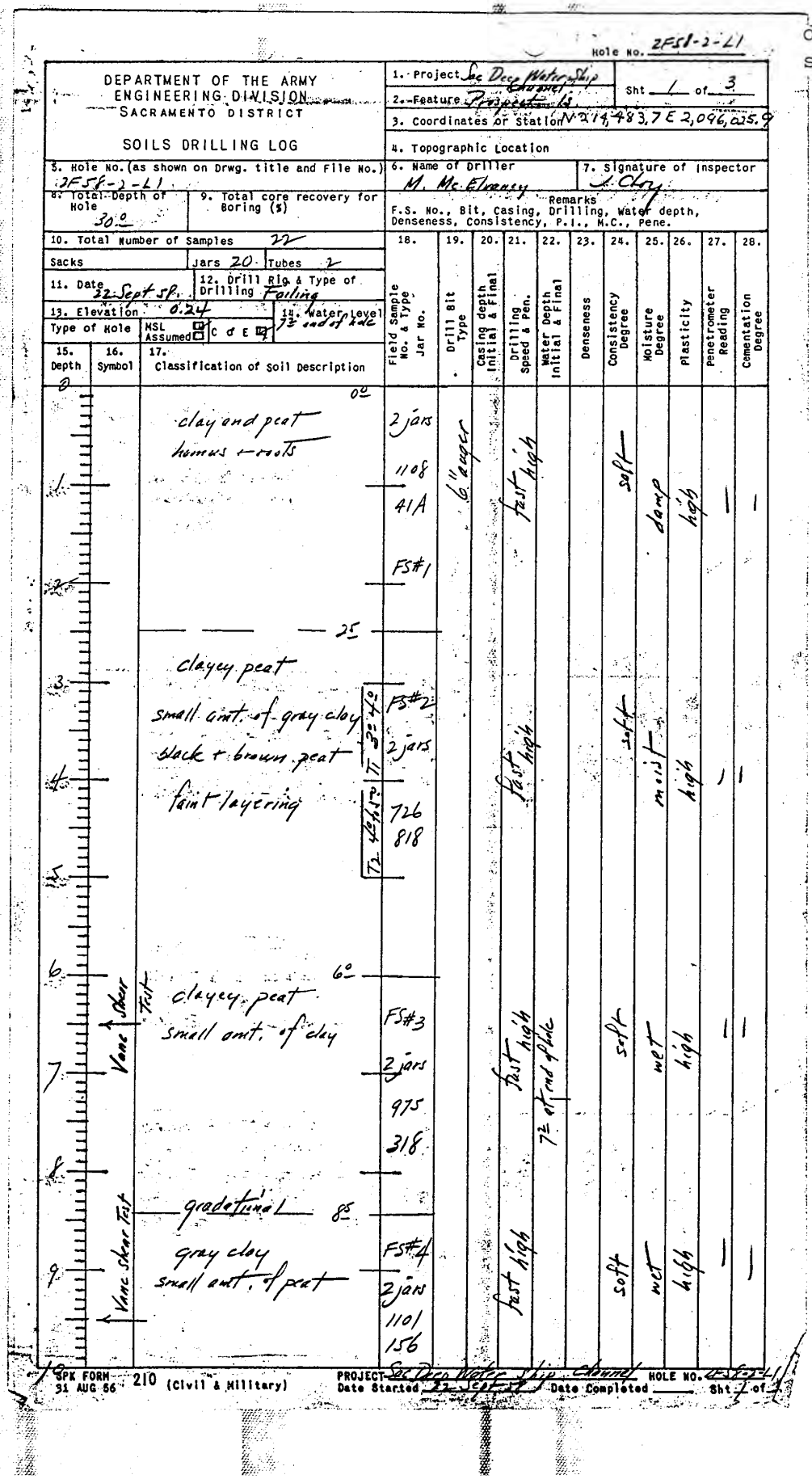
1. Project Sac. Deep Water Channel — Sht 3 of 3
2. Feature Prospect B.
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-1-R4
6. Name of Driller
7. Signature of Inspector
8. Total Depth of Hole
9. Total core recovery for Boring (%)
10. Total Number of Samples — Sacks — Jars — Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation — Type of Hole — MSL Assumed ☐ — C & E ☐
14. Water Level

Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
20		20±											
21		grayish green sandy clay inc to firm drilling	2 jars 866 9402	6" auger		med med			soft to firm	wet			
22		with minor amt. of cemented material drills stiff	F.S. #7			slow slow				damp to moist	med. to high		
23													
24		some thin clayey & softer lenses							stiff				
25		25±											
26			2 jars								med. to high		
27		grayish green sandy clay as above	13A X40			slow/no			stiff to v. stiff	moist			
28			F.S. #8								med. to high		
29		faint stratification											
30		Bottomed	30±										

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sac. Deep Water Channel HOLE NO. 2F58-1-R4
Date Started 1 Sept 58 Date Completed ____ Sht 3 of 3

dwc-
sac-2F-58-2-L1



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

Hole No. 2F58-2-L1

1. Project San Diego Water Ship Channel — Sht 1 of 3
2. Feature Prospect 4
3. Coordinates or Station N 214,483.7 E 2,096,025.9
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-2-L1
6. Name of Driller M. McElvaney
7. Signature of Inspector J. Clay
8. Total Depth of Hole 30.0
9. Total core recovery for Boring (%)
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples 22
Sacks — Jars 20 — Tubes 2
11. Date 22 Sept 58
12. Drill Rig & Type of Drilling Failing
13. Elevation 0.24
14. Water Level 7½ end of hole
Type of Hole — MSL Assumed ☐ — C & E ☒

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
0		0.0 clay and peat humus + roots	2 jars 1108 41A FS#1	6" auger	fast	high			soft	damp	high	1	1
2		2.5 clayey peat small amt. of gray clay black + brown peat faint layering	FS#2 2 jars 726 818		fast	high	3½ to 4½		soft	moist	high	1	1
6	Vane shear Fail	6.0 clayey peat small amt. of clay	FS#3 2 jars 975 318		fast	high	7½ at end of hole		soft	wet	high	1	1
8	Vane shear fail	8.5 gradational gray clay small amt. of peat	FS#4 2 jars 1101 156		fast	high			soft	wet	high	1	1

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT San Diego Water Ship Channel HOLE NO. 2F58-2-L1
Date Started 22 Sept 58 Date Completed ____ Sht 1 of 3

Little Egbert Multi-Benefit Project
Solano County, California — Project No. 907.02 — Plate No. A-43

dwc-
sac-2F-58-2-L1

Hole No. 2F58-2-L1

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sac. Deep Water Channel Sht 2 of 3
2. Feature Prospect 1S
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-2-L1
6. Name of Driller
7. Signature of Inspector
8. Total Depth of Hole
9. Total core recovery for Boring (%)
10. Total Number of Samples
Sacks Jars Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation
14. Water Level
Type of Hole MSL Assumed C d E

Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

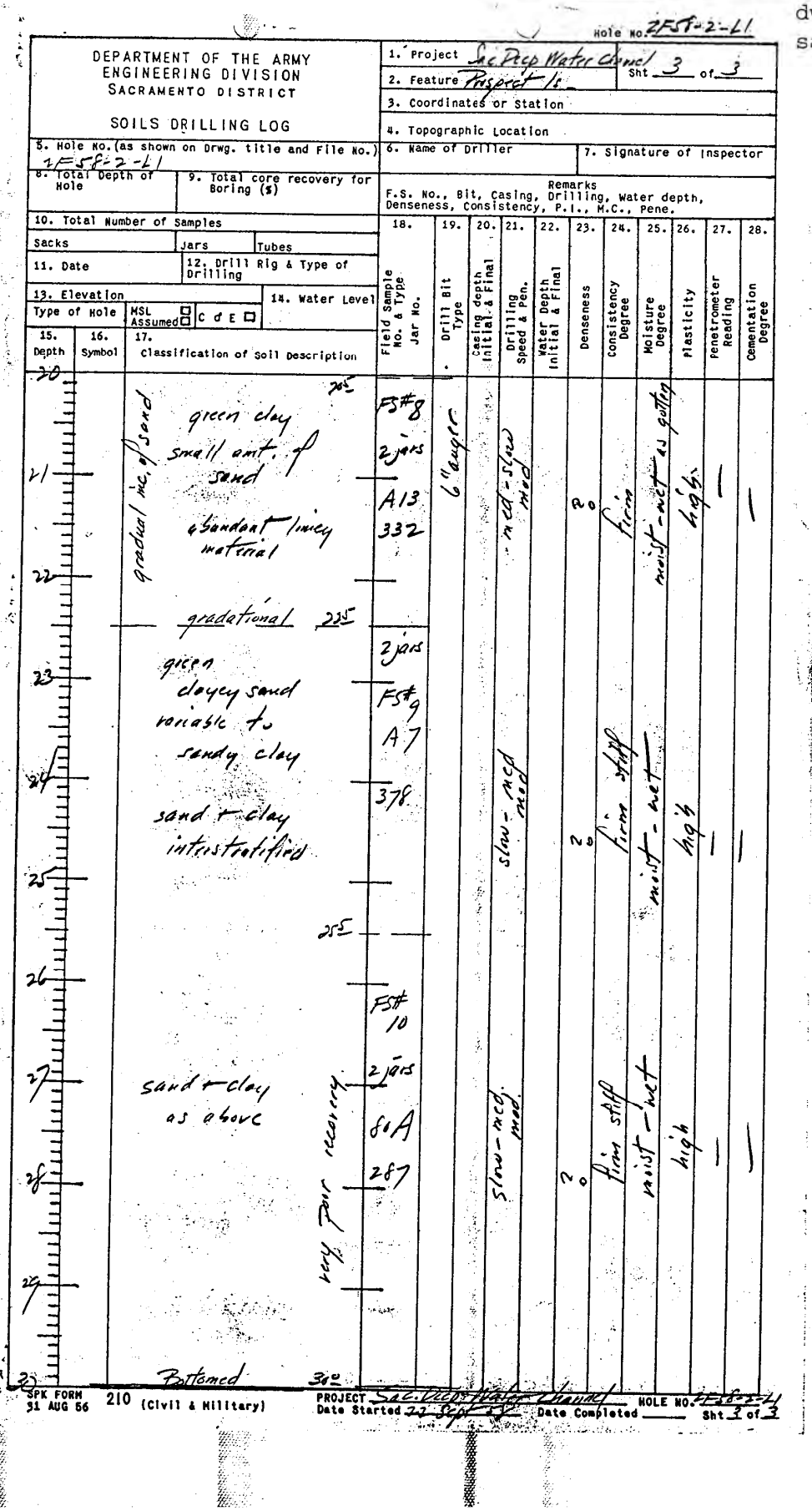
15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
10		gradual dec. of the small amt. of prat.	FS#4	6" auger		mod - fast			soft - firm	moist	high	1	1
		10.5				high							
11		gray clay very small amt. of peat.	FS#5										
			2 jars										
			18A										
12			041										
		gray clay											
13						mod	mod						
		13.5											
		gradual change of color from gray to grayish green.	FS#6						stiff - firm	moist	high	1	1
14			2 jars										
			340										
15			117			mod - slow	low - mod.						
		grayish green clay											
16		lenses of limey material							stiff	moist	high	1	1
		few rare peat streaks.											
17		17.0											
		green clay	FS#7										
18		slight increase of sand + limey material	398			slow	low						
			404										
19									firm - stiff	moist	high	1	1
		gradual increase of sand.	2 jars										
		20.0											

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Sac. Deep Water Ship Channel HOLE NO 2F-58-2-L1
Date Started 22 Sept 57 Date Completed ____ Sht 2 of 3

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-44

dwc-
sac-2F-58-2-L1

Hole No. 2F58-2-L1



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sac Deep Water Channel — Sht 3 of 3
2. Feature Prospect 1s
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-2-L1
6. Name of Driller
7. Signature of Inspector
8. Total Depth of Hole
9. Total core recovery for Boring (%)
10. Total Number of Samples: Sacks, Jars, Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation — Type of Hole: MSL ☐ Assumed ☐ C d E ☐
14. Water Level

Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
20		20.5											
		green clay small amt. of sand	FS#8 2 jars	6" auger		med-slow mod							
21		abundant limey material	A13 332					20	firm	moist-wet as gotten	high	—	—
22		gradational 22.5											
		green clayey sand variable to sandy clay	2 jars FS#9 A7										
23													
24		sand + clay interstratified	378			slow-med mod		20	firm stiff	moist-wet	high	—	—
25		25.5											
26			FS# 10										
27		sand + clay as above	2 jars 80A 287			slow-med mod		20	firm stiff	moist-wet	high	—	—
28		very poor recovery											
29													
30		Bottomed 30.0											

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Sac. Deep Water Channel HOLE NO. 2F58-2-L1
Date Started 22 Sept 58 Date Completed ____ Sht 3 of 3

dwc-
sac-2F-58-2-L2

Hole No. 2F58-2-L2

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sac Deep Water Channel — Sht 1 of 3
2. Feature Prospect 1s
3. Coordinates or Station N 214,467.6 E 2,096,094
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-2-L2
6. Name of Driller A. Gilmore
7. Signature of Inspector J. Clay
8. Total Depth of Hole 30'
9. Total core recovery for Boring (%)
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples 19
Sacks — Jars 18 — Tubes 1
11. Date 18 Sept 58
12. Drill Rig & Type of Drilling Falling
13. Elevation 0.20
14. Water Level 6' at end of drilling, 5' overnight
Type of Hole: MSL Assumed ☑ C & E ☑

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
0		0'											
1		black to brown clayey peat	2 jars	6" auger		fast high			soft	damp	high		
		small amt. of clay	1077									—	—
2		gray clay	X36										
3			FS#1						soft	moist	high	—	—
4			T1 4'-6.5'			fast high							
5		5'					6' at end of drilling 5' overnight						
		clayey peat same as above	2 jars							moist to wet	high	—	—
6			329						soft				
			A19			fast high							
7	Vane Shear Test		FS#2										
8		increase of clay											
		8'											
9		peaty clay gray clay	2 jars			fast high			soft	wet	high	—	—
			388										
			33A										
10													

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Sac Deep Water Ship Channel HOLE NO. 2F58-2-L2
Date Started 18 Sept 58 Date Completed ____ Sht 1 of 3

dwc-
sac-2F-58-2-L2

Hole No. 2F58-2-L2

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sac Deep Water Channel
2. Feature Prospect 1s
Sht 2 of 3
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-2-L2
6. Name of Driller A. Gilmore
7. Signature of Inspector J. Chay
8. Total Depth of Hole
9. Total core recovery for Boring (%)
10. Total Number of Samples
Sacks | Jars | Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation
Type of Hole | MSL ☐ Assumed ☐ | C d E ☐
14. Water Level

Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
10	Vane shear test	peaty clay gray clay black peat	388 33A	6" auger		med-fast mod			firm to soft	moist	high	—	—
11		dec. of peat 11.5	FS#3										
12		grayish green clay no peat	2 jars 680										
13			A91			med mod			firm	moist	high	—	—
14			FS#4										
15		15.0											
16		gray clay with limey material + elemented nodules.	2 jars 530			slow low			stiff	moist	high	—	—
17			P27										
18		gradual change from gray to green. 18.5	FS#5										
19		green sandy clay faint stratification	FS#6 1054 1119			slow low			stiff	moist-wet	med	—	—
20													

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sac Deep Water Channel HOLE NO. 2F58-2-L2
Date Started 18 Sept 58 Date Completed ____ Sht 2 of 3

dwc-
sac-2F-58-2-L2

Hole No. 2F58-2-L2

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sac Deep Water Channel
2. Feature Prospect Is.
Sht 3 of 3
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-2-L2
6. Name of Driller
7. Signature of Inspector
8. Total Depth of Hole
9. Total core recovery for Boring (%)
Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples
Sacks | Jars | Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation
Type of Hole | MSL Assumed | C d E
14. Water Level

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
20				6" auger		slow-med low			stiff hard	moist to wet	mod-high	/	/
21		21.0											
		green clay + sand interstratified	2 jars					loose to firm					
22		clayey sand or sandy clay.	0107 468			med fast mod							
23			FS #7										
24									stiff to firm	moist - wet	med to high	/	/
25		25.0											
		mottled browns + greens predominantly brown ~~sandy~~ clayey sand	2 jars			med mod							
26		sand + clay interstratified	30A 829										
27			FS #8										
28		28.0											
		mottled brown + green gravelly sandy clay.	2 jars 151			med mod			stiff to firm	moist wet	med. to high	/	/
29			427										
30		Bottomed 30.0	FS #9										

poor recovery

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Sac Deep Water Channel HOLE NO. 2F58-2-L2
Date Started 18 Sept 58 Date Completed ____ Sht 3 of 3

dwc-
sac-2F-58-2-L2

S/M 691 Trial 105-58-5 Hole No. 2F-58-2-2L

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sack. Ship Channel Sht 1 of 2
2. Feature Prospect Island
3. Coordinates or Station N214,467.6 E2,096,044
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-2-2L
6. Name of driller A Gilmore
7. Signature of Inspector John Bagan
8. Total Depth of Hole
9. Total core recovery for Boring (%)
10. Total Number of Samples
Sacks Jars Tubes
11. Date 10-21-58
12. Drill Rig & Type of Drilling FAILING 1500
13. Elevation 0.2
Type of Hole MSL Assumed ☐ C & E ☑
14. Water Level
Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
1.75	175 lbs	top 2" of FS1 disturbed Gray ish Black Peaty Clay	FS1 1-6" CAN	6" Push Barrel		Med High		loose	Soft	Moist	Med. to high		None
4.0			FS3 2 JARS 879 899										
1.5	150 lbs	Mottled Grayish Black and light Brown Peaty Clay Very Small % Peat in Brown Soil	FS3 1-6" CAN										
2.0			FS4 2 JARS 0197 468										
2.5			FS5 1-6" CAN										
3.0													
4.0	140 lbs		FS6 2 JARS 0181 01										
4.5													
5.0		Increasing Moisture	Last Sample										
5.5			FS7 1-6" CAN										
6.0													
6.5			FS8 2 JARS 0104 0256										
7.0				Failing Sample Barrel		Med - high		loose	Very Soft	Wet	High		None
8.0													
9.0													
10.0													

SPK FORM 31 AUG 56 210 (Civil & Military)

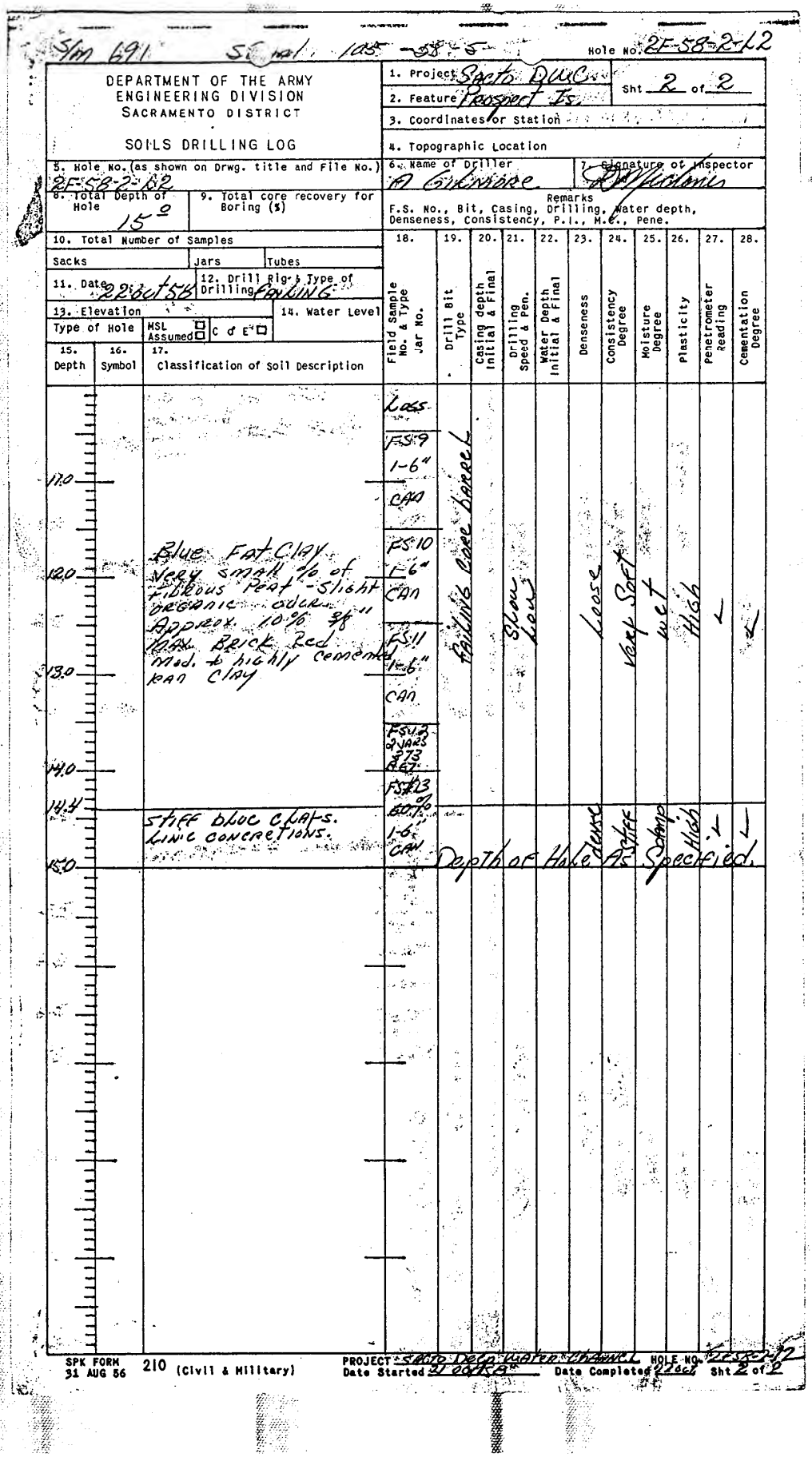
PROJECT Sack. Ship Channel HOLE NO. 2F-58-2-2L
Date Started 10-21-58 Date Completed 22 Sht 2 of 2

OCT 0 1958

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-49

dwc-
sac-2F-58-2-L2

S/m 691 S[illegible] 105 -58-5 Hole No. 2F-58-2-L2



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

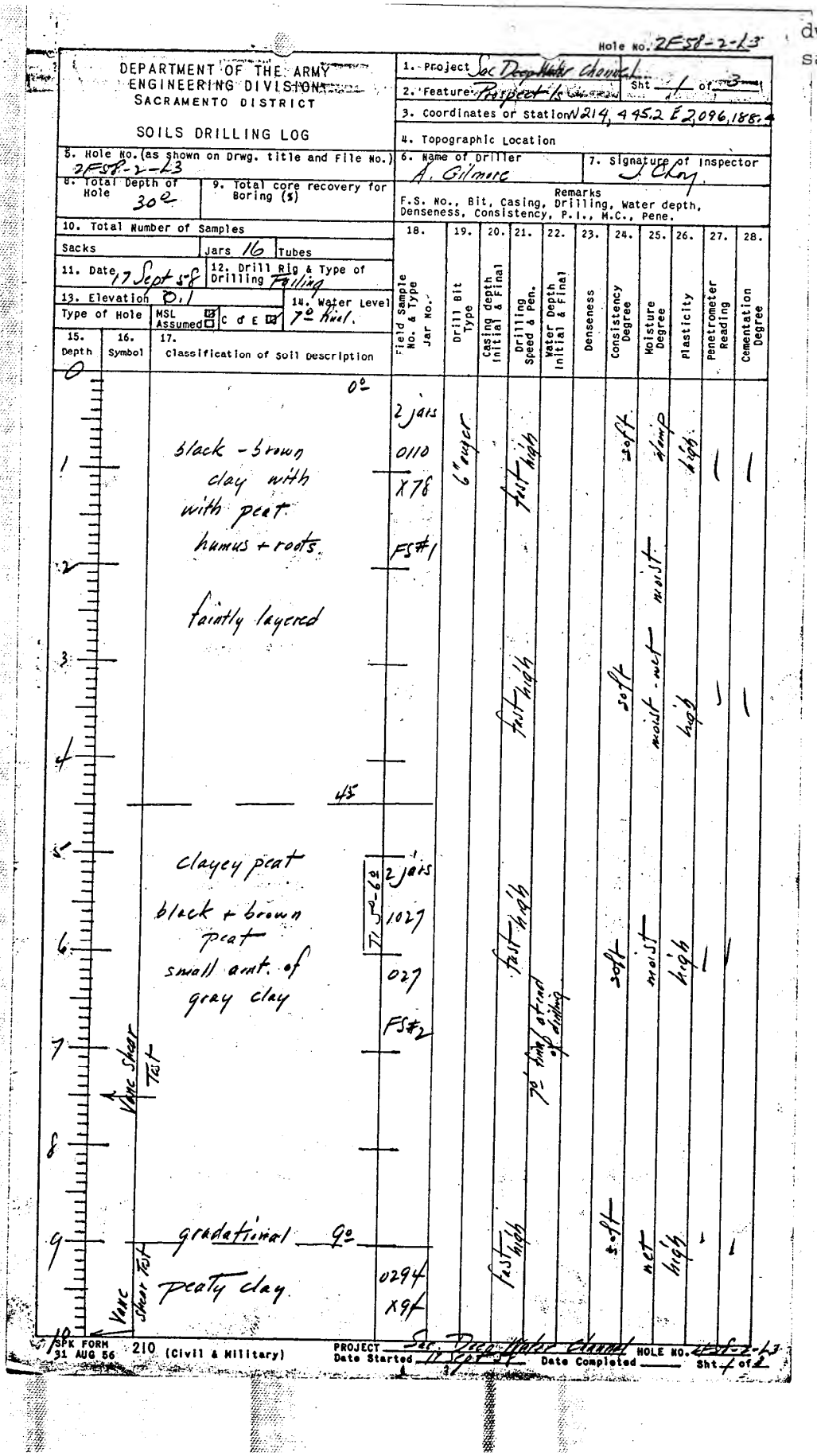
1. Project Sacto DWC
2. Feature Prospect Is.
Sht 2 of 2
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-2-L2
6. Name of Driller A Gilmore
7. Signature of Inspector [illegible]
8. Total Depth of Hole 15.0
9. Total core recovery for Boring (%)
Remarks F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples
Sacks | Jars | Tubes
11. Date 22 Oct 58
12. Drill Rig & Type of Drilling FAILING
13. Elevation
Type of Hole MSL Assumed C ☐ E ☐
14. Water Level

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
			Loss										
			FS9 1-6" CAN										
11.0													
		Blue Fat Clay. Very small % of fibrous Peat - slight organic odor. Approx. 10% 3/8" max. Brick Red Mod. to highly cemented Pan Clay	FS10 1-6" CAN	Failing Core barrel		Slow Low		Loose	Very Soft	wet	High	✓	✓
12.0													
			FS11 1-6" CAN										
13.0													
			FS12 2 JARS 373 867										
14.0													
14.4		Stiff blue clays. Lime concretions.	FS13 60% 1-6" CAN					dense	Stiff	Damp	High	✓	✓
15.0				Depth of Hole As Specified.									

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sacto Deep Water Channel HOLE NO. 2F58-2-L2
Date Started 21 Oct 58 Date Completed 22 Oct Sht 2 of 2

dwc-
sac-2F-58-2-L3

Hole No. 2F58-2-L3



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sac Deep Water Channel
2. Feature Prospect Is Sht 1 of 3
3. Coordinates or Station N214,445.2 E2,096,188.4
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-2-L3
6. Name of Driller A. Gilmore
7. Signature of Inspector J. Choy
8. Total Depth of Hole 30'
9. Total core recovery for Boring (%)
Remarks F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples
Sacks | Jars 16 | Tubes
11. Date 17 Sept 58
12. Drill Rig & Type of Drilling Failing
13. Elevation 0.1
Type of Hole | MSL Assumed ☑ | C & E ☑
14. Water Level 7' Final

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
0		0'											
1		black - brown clay with with peat humus + roots.	2 jars 0110 X78 FS#1	6" auger		fast high			soft	damp	high	1	1
2		faintly layered								moist			
3						fast high			soft	moist - wet	high	1	1
4		4.5'											
5		clayey peat black + brown peat small amt. of gray clay	2 jars 1027 027 FS#2			fast high	7' final at end of drilling		soft	moist	high	1	1
6													
7	Vane Shear Test												
8													
9		gradational 9'				fast high			soft	wet	high	1	1
10	Vane Shear Test	peaty clay	0294 X94										

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sac. Deep Water Channel HOLE NO. 2F58-2-L3
Date Started 17 Sept 58 Date Completed ____ Sht 1 of 2

dwc-
sac-2F-58-2-L3

Hole No. 2F58-2-L3

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sac. Deep Water Chan./ Sht 2 of 3
2. Feature Prospect 6
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-2-L3
6. Name of Driller
7. Signature of Inspector
8. Total Depth of Hole
9. Total core recovery for Boring (%)
10. Total Number of Samples
Sacks Jars Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation
14. Water Level
Type of Hole MSL Assumed ☐ C ☐ E ☐

Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
10		Peaty clay black frat gray clay	2 JARS 0294 X94	6" auger		fast mod			soft	wet	high	1	1
11			FS#3										
		11½							firm				
12		gray clay.	2 JARS 220										
		some limey material	361			med mod			stiff	moist	high	1	1
13			FS#4										
14		gradual increase of limey material + concretion nodules.											
		15½											
15		gradational											
		green clay	2 JARS 425										
16			A67			slow - med mod			stiff	moist	high	1	1
		fair to abundant amt. of limey material.	FS#5										
17													
18		18½											
			2 JARS 92A										
19			89A			med mod			stiff	moist	high	1	1
			FS#6										
20													

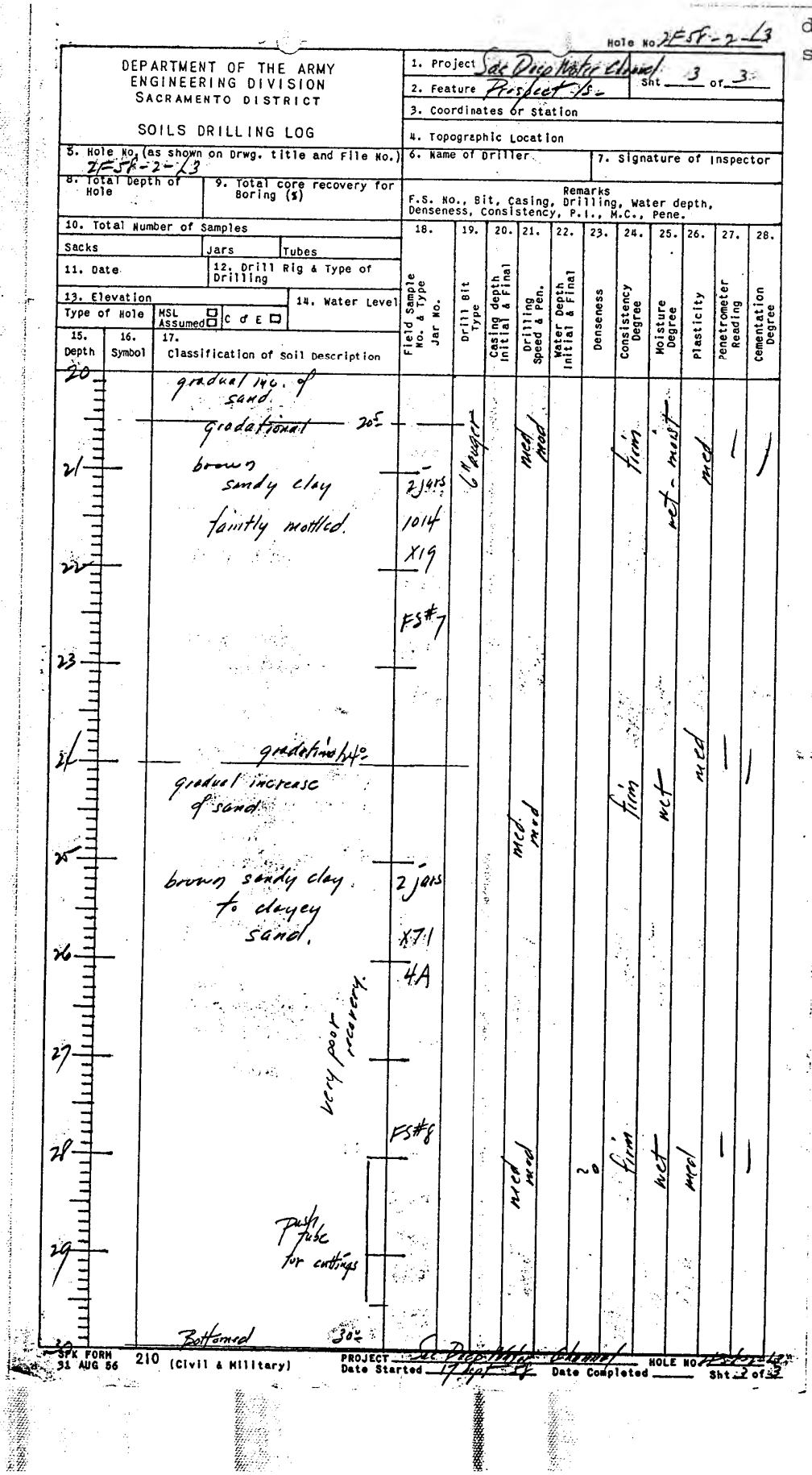
SPK FORM 31 AUG 56 210 (Civil & Military)

PROJECT Sac. Deep Water Channel HOLE NO. 2F58-2-L3
Date Started 7 Sept Date Completed Sht 3 of 3

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-52

dwc-
sac-2F-58-2-L3

Hole No. 2F58-2-L3



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sac Deep Water Channel
2. Feature Prospect Is. Sht 3 of 3
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-2-L3
6. Name of Driller
7. Signature of Inspector
8. Total Depth of Hole
9. Total core recovery for Boring (%)
10. Total Number of Samples
Sacks | Jars | Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation
Type of Hole: MSL ☐ Assumed ☐ C ☐ E ☐
14. Water Level

Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
20		gradual inc. of sand.											
		gradational 20.5											
21		brown sandy clay faintly mottled.	2 jars 1014 X19	6" auger		med mod			firm	wet - moist	med	—	—
22			FS#7										
23													
24		gradational 24.0											
		gradual increase of sand.				med mod			firm	wet	med	—	—
25		brown sandy clay to clayey sand.	2 jars X71 4A										
26		very poor recovery.											
27													
28			FS#8			med mod		~0	firm	wet	med	—	—
29		push tube for cuttings											
30		Bottomed 30.0											

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Sac Deep Water Channel HOLE NO. 2F58-2-L3
Date Started 17 Sept 58 Date Completed ____ Sht 3 of 3

dwc-
sac-2F-58-2-L4

Hole No. 2F58-2-L4

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sac. Deep Water Channel — Sht 1 of 3
2. Feature Prospect Is.
3. Coordinates or Station N 214,917.5 E 2,096,305.2
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-2-L4
6. Name of Driller A. Gilmore
7. Signature of Inspector J. Choy
8. Total Depth of Hole 30°
9. Total core recovery for Boring (%)
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples 17
Sacks — Jars 14 — Tubes 3
11. Date 16 Sept. 58
12. Drill Rig & Type of Drilling Failing
13. Elevation -0.10
Type of Hole — MSL Assumed ☑ — C & E ☑
14. Water Level 7° final level; 5° overnight level

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
0		0°											
1		black + brown clay with small amt. of peat. humus + roots	2 jars 630 197	6" auger		fast high			soft	damp	high	1	1
2			FS#1							moist			
3													
4		4°											
5		black + brown clayey peat small amt. of gray clay	T1 4° to 5° 2 jars; T2 5° to 6° 0195 397			fast high	5° 4° level overnight		soft	moist	high	1	1
6													
7	Vane Shear Test	gradual increase of clay	FS#2				7° No level final						
8		small amt. of sand at 7.5 to 8°											
		gradational 8°											
9		gray peaty clay gray clay	T3 8.5 to 9.5 2 jars 294 0273			med - fast high			soft	wet	high	1	1
10													

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Sac. Deep Water Channel HOLE NO. 2F58-2-L4
Date Started 16 Sept 58 Date Completed ____ Sht 1 of 3

dwc-
sac-2F-58-2-L4

Hole No. 2F58-2-L4

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sac Deep Water channel
2. Feature Prospect 1s.
Sht 2 of 3
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-2-L4
6. Name of Driller
7. Signature of Inspector
8. Total Depth of Hole
9. Total core recovery for Boring (%)
Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples
Sacks | Jars | Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation
Type of Hole | MSL ☒ Assumed ☐ | C ☐ E ☐
14. Water Level

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
10	Vane Shear Tat.	gradual inc. of clay	FS#3 29A 0273	6" auger		med mod			soft - firm	moist	high	1	1
11		gradational 11.2											
		gray clay	FS#4										
12		gray to grayish green clay	2 jars										
			X42										
13		green clay	5A						firm stiff	moist	high	1	1
14		small amt. of limey material				slow med-mod							
15		15.5											
16		green sandy clay with limey material nodules up to 1" size	2 jars A89 82A			slow low			stiff	wet	high	1	1
17			FS #5										
18		faint stratification											
19			865 40A										
20													

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sac Deep Water Channel HOLE NO. 2F58-2-L4
Date Started 11 Sept 58 Date Completed Sht 2 of 3

dwc-
sac-2F-58-2-L4

Hole No. 2F58-2-L4

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

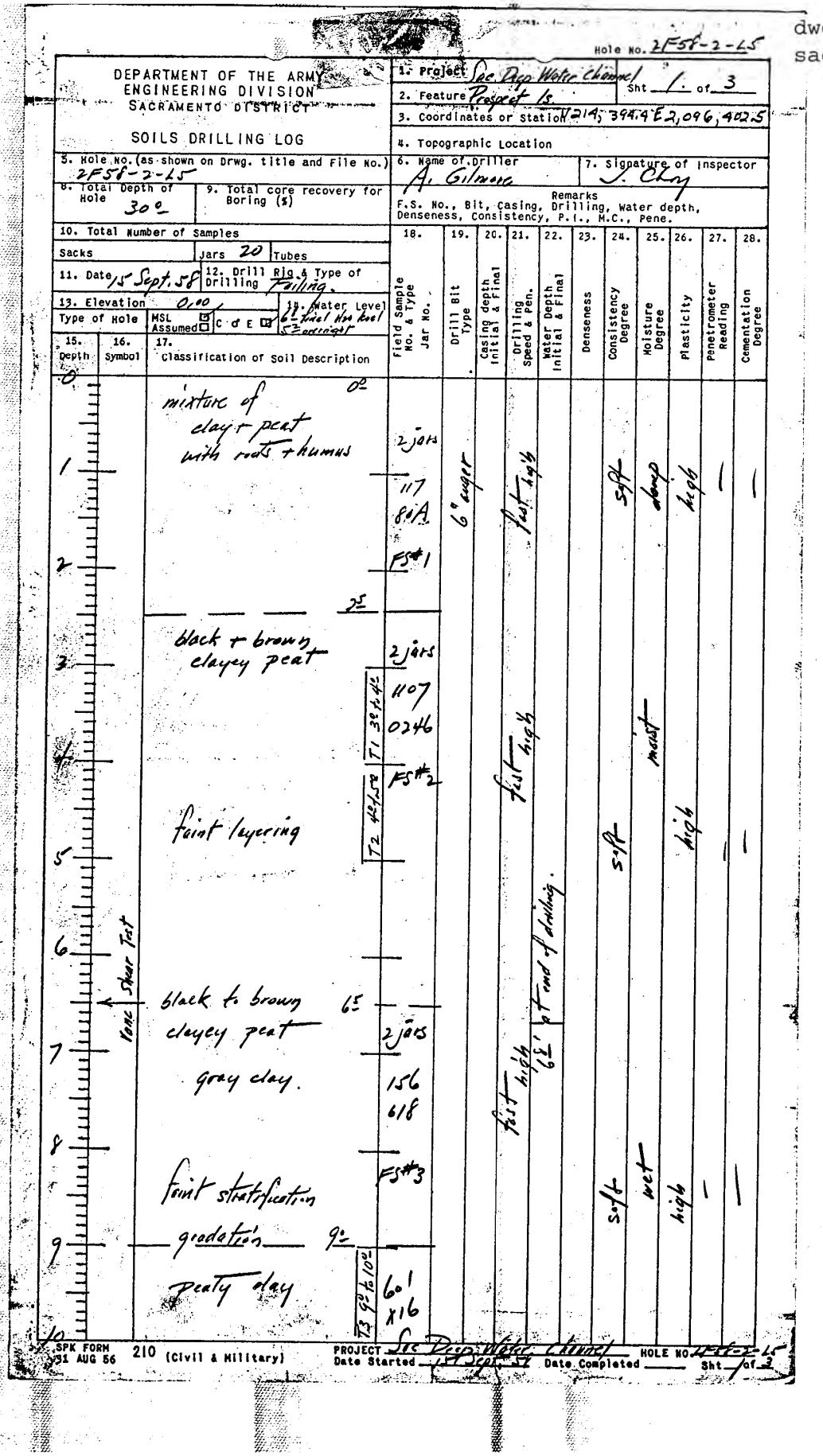
SOILS DRILLING LOG

1. Project Sac. Deep Water Channel
2. Feature Prospect 1s
Sht 3 of 3
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-2-L4
6. Name of Driller
7. Signature of Inspector
8. Total Depth of Hole
9. Total core recovery for Boring (%)
Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples
Sacks | Jars | Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation
Type of Hole | MSL ☐ Assumed ☐ | C ☐ E ☐
14. Water Level

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
20		green sandy clay	865	6" auger		med-med			stiff-firm	wet	high	1	1
21		some limey material	40A 2 jars										
22			FS#6										
23													
24		24°							firm	wet	high	1	1
25		green clayey sand or sandy clay	2 jars FS#7										
26		very poor recovery	364 73A			med-med			soft to firm	wet	low-med	1	1
27													
28													
29													
30		Bottomed 30°											

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sac. Deep Water Channel HOLE NO. 2F58-2-L4
Date Started 1st Sept 58 Date Completed ____ Sht 3 of 3

dwc-
sac-2F-58-2-L5



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

Hole No. 2F58-2-L5

1. Project Sac Drop Water Channel — Sht 1 of 3
2. Feature Prospect 1s
3. Coordinates or Station N214,394.4 E2,096,402.5
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-2-L5
6. Name of Driller A. Gilmore
7. Signature of Inspector J. Clay
8. Total Depth of Hole 30'
9. Total core recovery for Boring (%)
10. Total Number of Samples — Sacks — Jars 20 — Tubes
11. Date 15 Sept. 58
12. Drill Rig & Type of Drilling Failing.
13. Elevation 0.00
Type of Hole — MSL Assumed ☐ — C ☐ D ☐ E ☒
14. Water Level 6' Final Hrs Rest 5' overnight
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
0		0' mixture of clay + peat with roots + humus	2 jars										
1			117	6" auger		fast high			soft	damp	high	—	—
2			80A										
		2'	FS#1										
		black + brown clayey peat	2 jars										
3			1107										
4			0246	T1 3" to 42"		fast high				moist			
			FS#2										
		faint layering		T2 42" to 58"					soft		high	—	—
5													
6		Vane Shear Test											
		6' black to brown clayey peat	2 jars				6' Top of drilling						
7		gray clay.	156			fast high	7.5'		soft	wet	high	—	—
			618										
8			FS#3										
		faint stratification gradation											
9		9' peaty clay	60' x16	T3 9' to 10'									
10													

SPK FORM 221 AUG 56 210 (Civil & Military)
PROJECT Sac Drop Water Channel HOLE NO. 2F58-2-L5
Date Started 14 Sept. 58 Date Completed ____ Sht 1 of 3

dwc-
sac-2F-58-2-L7

Hole No. 2F58-2-L7

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sac. Deep Water Channel — Sht 1 of 3
2. Feature Project Ls.
3. Coordinates or Station N214,348.3 E2,096,597.1
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-2-L7
6. Name of Driller A. Gilmore
7. Signature of Inspector J. Choy
8. Total Depth of Hole 30.0
9. Total core recovery for Boring (%)
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples 24
Sacks — Jars 18 — Tubes 6
11. Date 11 Sept. 58
12. Drill Rig & Type of Drilling Failing-auger
13. Elevation -0.2
14. Water Level 5' overnight
Type of Hole — MSL Assumed ☐ C & E ☑

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type / Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
0		0.0 dark brown to black clay + peat with small amt. of sand, humus + roots	2 jars 041 404 FS#1	6" auger		fast high			soft	damp	high	—	—
2		gradation 2.0											
3		black to brown clayey peat small amt. of clay.	T1 3.0 to 4.0 2 jars 398 993 FS#2			fast high	? initial 5' overnight		soft	moist	high	—	—
5	Vane Shear Test	gradual increase of gray clay											
6		gradation 6.5											
7		pretty clay black peat gray clay.	T2 7.0 to 8.0 2 jars 01 0302 FS#3			fast high			soft	wet	high	—	—
9	Vane Shear Test	9.0 gradual increase of clay	FS#4 2 jars										
10													

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Sac. Deep Water Channel HOLE NO. 2F58-2-L7
Date Started 11 Sept. 58 Date Completed ____ Sht 1 of 3

dwc-
sac-2F-58-2-L7

Hole No. 2F58-2-L7

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sac. Deep Water Channel — Sht 2 of 3
2. Feature Prospect 15.
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F58-2-L7
6. Name of Driller
7. Signature of Inspector
8. Total Depth of Hole
9. Total core recovery for Boring (s)
10. Total Number of Samples — Sacks — Jars — Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation — Type of Hole — MSL Assumed ☐ — C ☐ D ☐ E ☐
14. Water Level

Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
10		Peaty clay	FS#4	6" auger		fast/high			soft	wet	high	1	1
		smaller amt of black peat than above	2 jars										
11		02" streak of sand at 10.5'	A20										
		gradation 10.5	10A										
12		bluish to greenish gray clay	2 jars			med			firm	moist			
		few lenses of limey material	378								high	1	1
13		very small amt of peat	RSL										
			FS #5			slow/low			stiff				
14													
15		grayish green clay	15.0										
		with bits of limey material	2 jars										
16		faint mottling & stratification	1022			slow/low			firm to stiff	wet	high	1	1
			695										
17			FS #6										
18			18.0										
		clay mottled browns & gray.											
19		bits of harder clay in softer clay.	FS#7			slow/low			firm	wet	high	1	1
			2 jars										
20			A13										
			127										

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sac. Deep Water Channel HOLE NO.
Date Started 11 Sept 57 Date Completed Sht 2 of 3

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-59

dwc-
sac-2F-58-2-L7

Hole No. 2F5f-2-L7

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project See Deep Water Channel Sht 3 of 3
2. Feature Prospect 1s
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F5f-2-L7
6. Name of Driller
7. Signature of Inspector
8. Total Depth of Hole
9. Total core recovery for Boring (%)
Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples
Sacks Jars Tubes
11. Date
12. Drill Rig & Type of Drilling
13. Elevation
Type of Hole MSL Assumed C d E
14. Water Level

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
20		Vane Test											
		mottled med brown & grayish brown clay.	2 jars	6" auger		med			firm	wet	high	1	1
21			A13			med							
			127										
		firmer darker brown clay fragments + bit	FS#7										
22		within softer + lighter grayish brown matrix	22°										
			2 jars										
23		increase of firmer brown clay fragments over grayish brown matrix	0160										
			299			med			firm	wet	high	1	1
24			FS#8			med							
		24° to 25° grayish clay layer											
25			25°										
			FS#9										
26		mottled gray-brown + light grayish brown clay	2 jars			med			firm	wet	high	1	1
27			A-7			med							
			X6										
28		brown sandy clay 28° to 29°											
29													
		bottomed 30°											
30													

SPK FORM 91 AUG 56 210 (Civil & Military) PROJECT See Deep Water Channel HOLE NO. 2F5f-2-L7
Date Started 11 Sept 58 Date Completed ____ Sht 2 of 2

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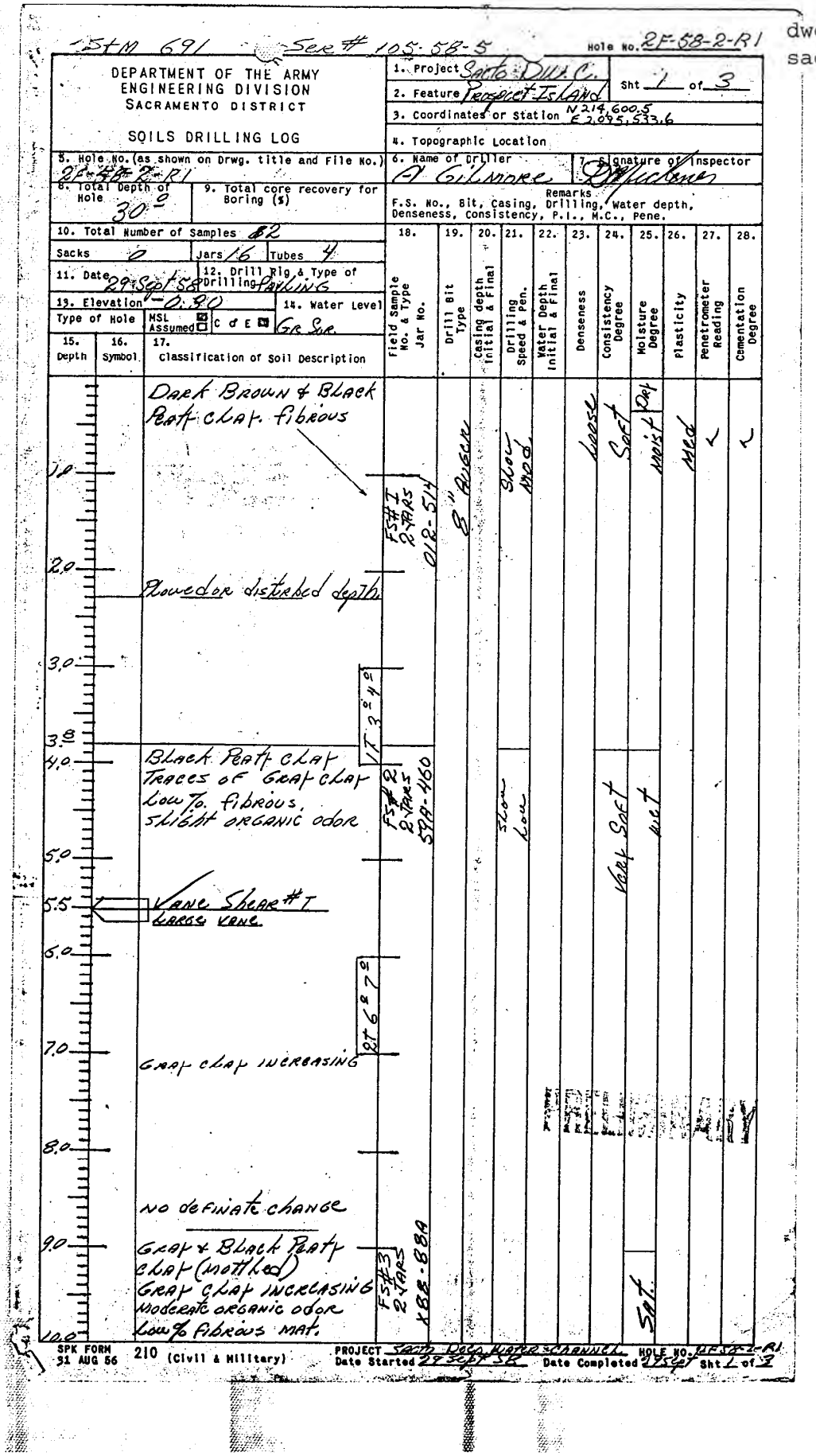
sac-2F-58-2-R1



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

Ser # 105-58-5 — Hole No. 2F-58-2-R1

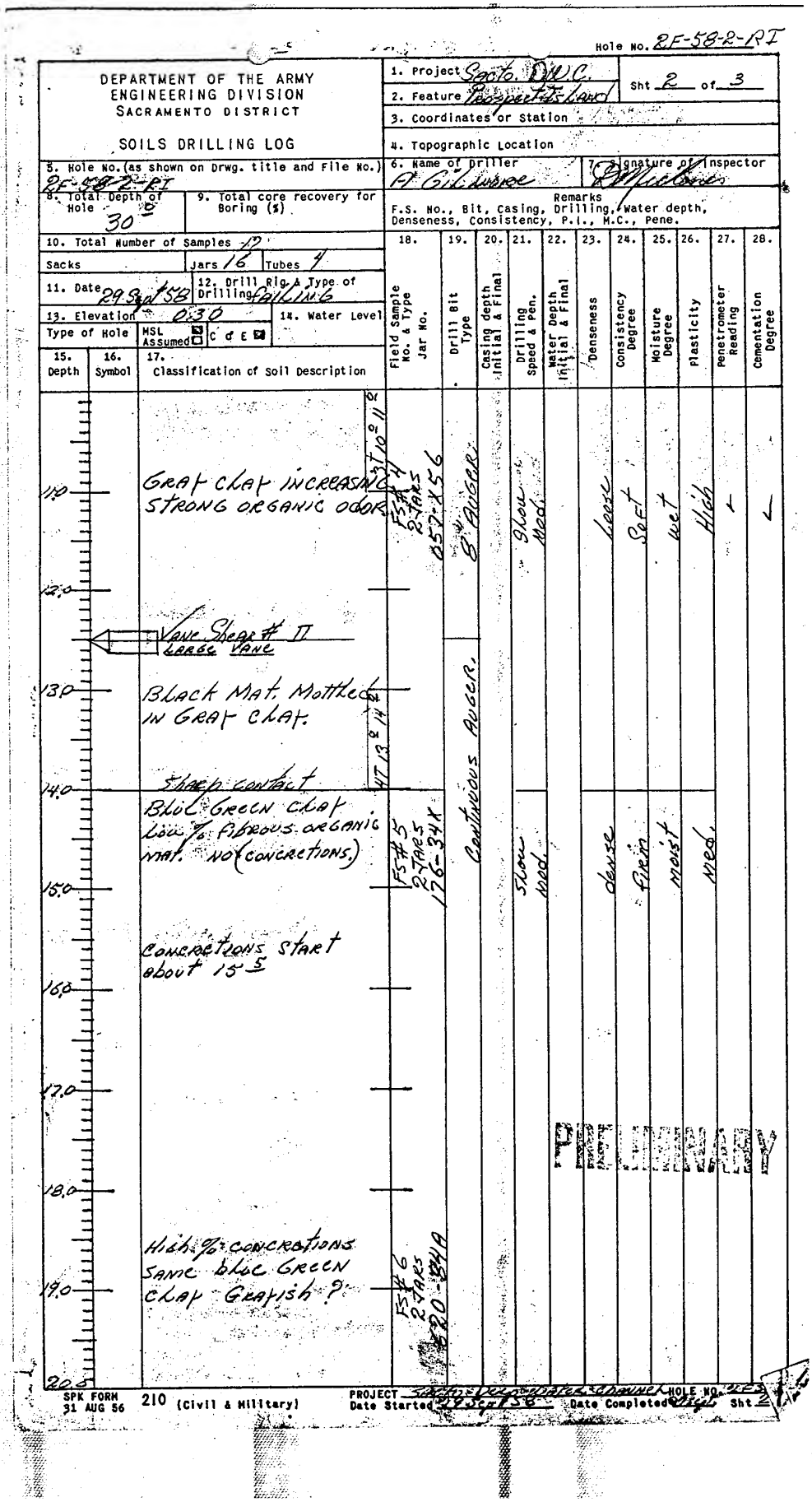
1. Project Suisun Dist. C. — Sht 1 of 3
2. Feature Prospect Island
3. Coordinates or Station N 214,600.5 E 2,045,533.6
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-2-R1
6. Name of Driller A. Gilmore — 7. Signature of Inspector
8. Total Depth of Hole 30'
9. Total core recovery for Boring (%)
10. Total Number of Samples 82
Sacks 0 — Jars 16 — Tubes 4
11. Date 29 Sept 58 — 12. Drill Rig & Type of Drilling TRUCK
13. Elevation -0.90 — 14. Water Level
Type of Hole — MSL Assumed ☐ — C ☐ D ☐ E ☒ — GR SR.

Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
1.0		Dark Brown & Black Peat clay. fibrous	FS#1 2 JARS 0'8-5'4	8" Auger		Slow Mod		Loose	Soft	Moist	Med	1	1
2.0		Plowed or disturbed depth											
3.0			VT 3'4"										
3.8													
4.0		Black Peat clay Traces of Gray clay Low to. fibrous, slight organic odor	FS#2 2 JARS 5'0-6'0			Slow Low			Very Soft	Wet			
5.0													
5.5		Vane Shear #1 Large vane.											
6.0													
6.7			VT 6'7"										
7.0		Gray clay increasing											
8.0													
8.8		No definate change											
9.0		Gray & Black Peaty clay (mottled) Gray clay increasing Moderate organic odor Low % fibrous mat.	FS#3 2 JARS 8'8-9'8							Sat.			
10.0													

SPK FORM 31 AUG 56 210 (Civil & Military) — PROJECT Suisun Dist. Water Channel — HOLE NO. 2F-58-2-R1
Date Started 29 Sept 58 — Date Completed 29 Sept 58 — Sht 1 of 3

dwc-2F-
sac-58-2-R1



Hole No. 2F-58-2-RI

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sacto. D.W.C.
2. Feature Prospect Island
Sht 2 of 3
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-2-RI
6. Name of Driller A. Gilmore
7. Signature of Inspector [signature]
8. Total Depth of Hole 30.0
9. Total core recovery for Boring (%)
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples 17
Sacks | Jars 16 | Tubes 4
11. Date 29 Sept 58
12. Drill Rig & Type of Drilling FAILING
13. Elevation 0.30
14. Water Level
Type of Hole: MSL Assumed ☒ C d E ☒

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type / Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
11.0		GRAY CLAY INCREASING STRONG ORGANIC ODOR	3T 10.0 11.0 FS#4 2 JARS 057-X56	8" AUGER		Slow Med.		Loose	Soft	wet	High	✓	✓
12.0		Vane Shear # II LARGE VANE											
13.0		BLACK MAT. MOTTLED IN GRAY CLAY.	4T 13.0 14.0	CONTINUOUS AUGER.									
14.0		Sharp contact BLUE GREEN CLAY LOW % FIBROUS ORGANIC MAT. NO (CONCRETIONS.)	FS#5 2 JARS 176-34X			Slow Med.		dense	firm	moist	Med.		
15.0		CONCRETIONS START about 15.5											
16.0													
17.0													
18.0													
19.0		High % CONCRETIONS SAME BLUE GREEN CLAY GRAYISH ?	FS#6 2 JARS 820-34A										
20.0													

PRELIMINARY

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sacto. Deep Water Channel HOLE NO. 2F-58-2-RI
Date Started 29 Sept 58 Date Completed [illegible] Sht 2

dwc-
sac-2F-58-2-R1

Hole No. 2F-58-2-RI

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sacto D.W.C.
2. Feature Prospect Island
Sht 3 of 3
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-2-RI
6. Name of Driller A. Gilmore
7. Signature of Inspector [signature]
8. Total Depth of Hole 30.0
9. Total core recovery for Boring (%)
Remarks F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples
Sacks | Jars 16 | Tubes 4
11. Date 29 Sept 58
12. Drill Rig & Type of Drilling FAILING
13. Elevation 0.30
Type of Hole | MSL Assumed ☐ | C ☐ E ☒
14. Water Level

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
		Change at 20° (definate) Blue Green clayey Sand. Fine Grain Sand.	FS#7 2 Jars 7K-37A	Continuous Auger		med. mod.		dense	firm	moist to wet	Very Low	✓	✓
21.0													
22.0													
23.0													
24.0													
25.0		Same as above clayey Sand. Fine Sand	M.C. FS#8 2 Jars A63-29										
26.0													
27.0													
28.0		Visual only Change at approximately 28° to Green (Dark) clayey Sand Low % clay Med Grain Sand.											
29.0		water washed Sands from Auger on Recovery. No Sample Visual Only.											
30.0		Depth of hole As Specified											

PRELIMINARY

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Sacto Deep Water Channel HOLE NO. 2F-58-2-RI
Date Started 29 Sept 58 Date Completed 29 Sept. Sht 3 of 3

dwc-
sac-2F-58-2-R2

S+M 691 Sc # 105-58-5

Hole No. 2F-58-2-R2

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sacto D.W.C. Sht 1 of 3
2. Feature Prospect Island
3. Coordinates or Station
4. Topographic Location N 214,616.6 E 2,095,465.5
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-2-R2
6. Name of Driller A Gilmore
7. Signature of Inspector D Mulcahy
8. Total Depth of Hole 30'
9. Total core recovery for Boring (%)
10. Total Number of Samples: Sacks 0 Jars 14 Tubes 4
11. Date 25 Sept 58
12. Drill Rig & Type of Drilling FAILING
13. Elevation 0.10
14. Water Level Gr S. 5.2'
Type of Hole: MSL Assumed ☐ C & E ☒

Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
		Dark Brown (Black) Peaty clay. Fibrous, no odor.											
1.0			FS#1 2 Jars 0138-175	8" Auger		Slow Low		Loose	Soft	Moist	Med	L	L
2.0		No Sample. Lense tan & brown Peaty clay fibrous											
3.0		no definate change.											
4.0		Low % Gray coming in original Black Peaty clay.											
5.0		Transition	1 t 5.0 6.0				Final 5.2 26 Sept 58 9:00						
5.2		No Gray clay this depth.											
6.0													
6.5		Black Peaty clay fibrous.	FS#2 2 Jars 502 1071						Very Soft	Wet			
7.0													
7.5		Vane Shear.											
8.0			2 t 8.0 9.0										
9.0		starting traces of Gray clay in Black Peaty clay mat.											
10.0													

SPK FORM 31 AUG 56 210 (Civil & Military)

PROJECT Sacto Deep Water Channel HOLE NO. 2F-58-2-R2
Date Started 25 Sept 58 Date Completed 26 Sept. Sht 1 of 3

dwc-
sac-2F-58-2-R2

Hole No. 2F-58-2-R2

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sacto DWC. Sht 2 of 3
2. Feature Prospect Island
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-2-R2
6. Name of Driller A. Gilmore
7. Signature of Inspector [signature]
8. Total Depth of Hole 30'
9. Total core recovery for Boring (%)
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples: Sacks 0 Jars 14 Tubes 4
11. Date 25 Sept 58
12. Drill Rig & Type of Drilling Failing 6
13. Elevation
14. Water Level
Type of Hole: MSL ☐ Assumed ☐ C of E ☐

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
11.0		Black Peaty Clay mottled with Gray clay	FS#3 2 Jars 971-A26	8" Auger		Slow Low		Loose	Very Soft	wet	Med.	✓	✓
12.0			3T 12' 13'	Continuous Auger.									
13.0													
14.0		Vane Shear.											
15.0		Sharp Contact	4T 14' 16'										
16.0		Blue (Gray) clay Very Low % organic Mat. fibrous slight organic odor.	FS#4 2 Jars 204-27			Slow Low		dense	firm	moist	High	✓	✓
17.0													
18.0		Sharp Contact Blue Gray clay High % Lime concretions strong organic odor.	FS#5 2 Jars 054-1039					stiff					
19.0													
20.0													

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sacto Deep Water Channel HOLE NO. 2F-58-2-R2
Date Started 25 Sept 58 Date Completed 26 Sept Sht 2 of 3

dwc-
sac-2F-58-2-R2

Hole No. 2F-58-2-R2

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project State DWR Sht 3 of 3
2. Feature Prospect Island
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-2-R2
6. Name of Driller A GILMORE
7. Signature of Inspector R Merkins
8. Total Depth of Hole 30
9. Total core recovery for Boring (%) 2
10. Total Number of Samples 18
Sacks Jars 14 Tubes 4
11. Date 26 Sept 58
12. Drill Rig/A Type of Drilling FAIRLING
13. Elevation +0.10
Type of Hole MSL Assumed ☐ C & E ☐
14. Water Level

Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
		CHANGE AT 20.0'											
		GREEN clayey SAND.	FS#6	CONTINUOUS AUGER		SLOW		LOOSE	SOFT	WET	LOW	✓	✓
		MED FAT CLAY	2 JARS			LOW							
21.0		FINE GRAIN SAND.	A10-077										
22.0													
23.0													
24.0		SAME M.C.											
		GREEN CLAYEY SAND	FS#7										
		FINE GRAIN SAND	2 JARS										
25.0			A10-X23										
26.0													
27.0		ACTUAL CHANGE											
		TOOK PLACE AT 27.2											
		ON REQUIRING CONT.											
		AUGER. WATER BROUGHT											
28.0		UP TO TOP OF HOLE											
		WASHED SAMPLE FROM											
		AUGER											
		COULD NOT RECOVER											
29.0		REPRESENTATIVE SAMPLE				FAST		LOOSE	SOFT	WET-SAT	LOW TO 0	✓	✓
		OF THIS DEPTH.				MIXT							
		GREEN CLAYEY SAND											
		FINE TO MED. GRAIN SAND.											
30.0		DEPTH OF HOLE AS SPECIFIED											

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT SACTO DEEP WATER CHANNEL HOLE NO. 2F-58-2-R2
Date Started 26 SEPT 58 Date Completed 26 SEPT 58 Sht 3 of 3

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-66

dwc-
sac-2F-58-2-R3

S+M # 691 = Sec # 105-58-5

Hole No. 2F-58-2-R3

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sacto. D.W.C.
2. Feature Prospect Island
Sht 1 of 3
3. Coordinates or Station
4. Topographic Location N 214,657.5 E 2,095,293.3
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-2-R3
6. Name of Driller R. Gilmore
7. Signature of Inspector D. Michener
8. Total Depth of Hole 30.0
9. Total core recovery for Boring (%)
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples
Sacks | Jars 16 | Tubes 4
11. Date 25 Sept 58
12. Drill Rig. & Type of Drilling Failing
13. Elevation 0.20
14. Water Level Gr. S. 6.0'
Type of Hole: MSL Assumed ☐ C & E ☒

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
		Black + Gray clay											
1.0		Peaty clay no odor. (fibrous)		8" Auger		Slow	Low	Loose	Soft	moist dry	med.	✓	✓
2.0		Plowed Ground.	FS#1 2 Jars 10X-66A										
3.0													
		Sharp contact											
4.0		Peaty clay (Black) clayey Peat. slight organic odor. (fibrous.)	LT 4.0 5.0 FS#2 2 Jars 31X-A21							wet			
5.0													
6.0		* Final H2O 25 Sept 58 9:00 AM.											
		Vane Shear #1											
7.0		No exact Point of change (transition)	RT 7.0 8.0										
8.0													
9.0		Black Peaty clay mottled with Gray clay Low % Gray clay. Strong organic odor.	FS#3 2 Jars 481-689							moist to wet	High		
10.0													

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sacto. Deep Water Channel HOLE NO. 2F-58-2-R3
Date Started 24 Sept 58 Date Completed 25 Sept Sht 1 of 3

dwc-
sac-2F-58-2-R3

Hole No. 2F-58-2-R3

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sacto. D.W.C. Sht 2 of 3
2. Feature Prospect Island
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-2-R3
6. Name of Driller A. GILMORE
7. Signature of Inspector
8. Total Depth of Hole 30'
9. Total core recovery for Boring (%)
10. Total Number of Samples
Sacks Jars 16 Tubes 4
11. Date 25 Sept 58
12. Drill Rig & Type of Drilling Failing 6
13. Elevation
14. Water Level
Type of Hole MSL Assumed C d E

Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
11.0		GRAY CLAY INCREASING IN BLACK ORGANIC MAT NON-FIBROUS.		8" AUGER		SLOW		LOOSE	SOFT	WET	HIGH	↓	↓
12.0		NO EXACT CHANGE DEPTH TRANSITION				VERY LOW							
13.0		MAT. IS PREDOMINANTLY GRAY BLUE CLAY. MOTTLED WITH BLACK ORGANIC CLAYS MOD. ODOR.	ST 12.2 13.2 FS#4 2 TAPS 0284-758	CONTINUOUS AUGER									
14.0		Vane Shear											
15.0			ST 15.2 16.2										
16.0		Sharp Contact BLUE CLAY SLIGHT ORGANIC ODOR. LOW % OF LINIC CONCRETIONS	FS#5 2 TAPS X76-X82			SLOW MED.		DENSE	STIFF	MOIST	MED. TO HIGH		
17.0													
18.0													
19.0		Sharp Contact BLUE GREEN CLAY. LIME CONTENT INCREASING RAPIDLY. HARD DRILLING	FS#6 2 TAPS 110-277			SLOW LOW		DENSE	STIFF		MED.		
20.0													

SPK FORM 31 AUG 56 210 (Civil & Military)

PROJECT Sacto. Deep Water Channel HOLE NO. 2F-58-2-R3
Date Started 24 Sept 58 Date Completed 25 Sept 58 Sht 2 of 3

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-68

Hole No. 2F-58-2-R3

dwc-
sac-2F-58-2-R3

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sacto. D.W.C.
2. Feature Prospect Island
Sht 3 of 3
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-2-R3
6. Name of Driller A Gilmore
7. Signature of Inspector [signature]
8. Total Depth of Hole 30.0'
9. Total core recovery for Boring (%)
Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples
Sacks
Jars 16
Tubes 4
11. Date 25 Sept 58
12. Drill Rig & Type of Drilling FAILING
13. Elevation
Type of Hole
MSL ☐ Assumed ☐ C & E ☐
14. Water Level

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
		Green blue clay.											
21.0													
22.0												✓	✓
		Blue Green Sandy clay Very fine Grain Sand. (Plastic)	FS#7 2 Tares 815-X21			Slow med.		Loose	Soft	wet	Low.		
23.0													
24.0													
25.0													
26.0													
27.0													
		Green clayey Sand. Fine to med Grain Sand. Slightly Plastic.	FS#8 2 Tares A56-541			Slow High		dense	firm				
28.0													
29.0													
30.0		Depth of hole As Specified											

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sacto Deep Water Channel HOLE NO. 2F58-2-R3
Date Started 24 Sept 58 Date Completed 25 Sept Sht 3 of 3

dwc-
sac-2F-58-2-R4

T 5 N R 4 E M.D.B.&M. Sec. # 105-58-5

Hole No. 2F-58-2-R4

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sacto D.W.C. — Sht 1 of 3
2. Feature Prospect Island
3. Coordinates or Station N 214,709.4 E 2,095,074.3
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-2-R4
6. Name of Driller A. Gilmore
7. Signature of Inspector R.M. Jackson
8. Total Depth of Hole 30'
9. Total core recovery for Boring (%)
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples — Sacks — Jars 18 — Tubes 2
11. Date 23 Sept 58
12. Drill Rig & Type of Drilling FALKING
13. Elevation 0.20
14. Water Level
Type of Hole — MSL Assumed ☐ — C ☐ D ☐ E ☐ — G.E.S. 5'

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
1.0		Black-Gray clay Predom. Black with moisture, has slight organic odor. Peaty	FS#1 2 STARS A-454-1017	8" Auger	Slow Low			Loose	Soft	Dry / Damp	Med.		
2.0		Planed Depth. Peat content increasing								Moist			
3.0		sharp decrease of Peat mat. in clay											
4.0		Black Peaty clay mottled with Gray clay. Strong organic odor.	FS#2 2 STARS 637-737		Slow Very Low			Loose	Very Soft		Med. to High		
5.0		H&S 24 Sept 58 8:30 AM. FINAL											
6.0		Vane Shear.											
7.0													
8.0		NO actual change. Transition mat. Gray clay increasing Low % Peat mat.	FS# 2 STARS 613-0111										
9.0		Mod organic odor.											
10.0													

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sacto Deep water channels — HOLE NO. 2F-58-2-R4
Date Started 23 Sept 58 — Date Completed 24 Sept 58 — Sht 2 of 3

Little Egbert Multi-Benefit Project
Solano County, California — Project No. 907.02 — Plate No. A-70

dwc-
sac-2F-58-2-R4

Hole No. 2F-58-2-R4

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sacto D.W.C.
2. Feature Prospect Island
Sht 2 of 3
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-2-R4
6. Name of Driller A Gilmore
7. Signature of Inspector [signature]
8. Total Depth of Hole 30.0
9. Total core recovery for Boring (%)
Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples
Sacks | Jars 18 | Tubes 2
11. Date 23 Sept 58
12. Drill Rig & Type of Drilling FAILING
13. Elevation
Type of Hole | MSL Assumed ☐ | C d E ☐
14. Water Level

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
		SAME		8" AUGER								✓	✓
11.0													
12.0		GRAY CLAY Very Low % Black ORGANIC MAT. mottled with Black. NON-FIBROUS	FS#4 2 JARS A49-251			Slow Very Low		Very Loose	Very Soft	wet	High		
13.0		2 T 13.0 to 14.0		Continuous Auger									
14.0													
15.0		Vane Shear II											
16.0													
17.0		Blue Gray Clay Peaty, Low % Very strong ORGANIC odor. NON-FIBROUS	FS#5 2 JARS ~~67A-97A~~ 031-979			Slow med.		dense	firm	moist	med.	✓	
18.0		Blue-GREEN Clay slight ORGANIC odor.	FS#6 2 JARS 67A-97A								High		
19.0		SMALL Particles of Linic or, Cal. deposits at 18.0											
20.0													

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sacto Deep Water Channel HOLE NO. 2F-58-2-R4
Date Started 23 Sept 58 Date Completed 24 Sept Sht 2 of 3

dwc-
sac-2F-58-2-R4

Hole No. 2F-58-2-R4

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sacto. D.W.C.
2. Feature Prospect Island
Sht 3 of 3
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 2F-58-2-R4
6. Name of Driller A. Gilmore
7. Signature of Inspector [signature]
8. Total Depth of Hole 30.0
9. Total core recovery for Boring (%)
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples: Sacks; Jars 18; Tubes 2
11. Date 23 Sept 58
12. Drill Rig & Type of Drilling FAILING
13. Elevation
Type of Hole: MSL ■ Assumed □ C ♂ E ■
14. Water Level

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
		SAME											
21.0		LIME CONCRETIONS INCREASING		CONTINUOUS AUGER								✓	✓
22.0													
23.0		GREEN BLUE CLAY LIME CONCRETIONS INCREASING CONSTANTLY. ACID REACTION.	FS#7 2 JARS A10-0127			SLOW VERY LOW		DENSE	STIFF	MOIST	MED		
24.0		VERY STIFF DRILLING											
25.0													
26.0		CLAYS GETTING SOFTER EASIER DRILLING LOW % CONCRETIONS											
27.0												✓	✓
28.0		BLUE GREEN CLAYEY SAND FINE TO MED. GRAIN SAND LOW % MED. FAT CLAY.	FS#8 2 JARS 0205-875			SLOW MED		LOOSE	SOFT	WET	LOW		
29.0													
30.0		Depth of Hole As Specified											

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sacto. Deep Water Channel HOLE NO. 2F-58-2-R4
Date Started 23 Sept 58 Date Completed 24 Sept. Sht 3 of 3

dwc-
sac-3F-2-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-2-C Date Started 10-21-49
Project Sacto Deep Water channel
Stream Sacramento River
Contractor US-C-C
Rig name and No. Sanborn Drill Rig
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" push Tubes Size of hole 10"

Angle Vert Bearing
Ground Elevation 0
Location of Hole Sta 8 + or —
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
7.00 Lef Engs Garage			push	Auger	casing	
8.10 Arrived at Job						
Gate Was Locked Had To Find a New Way Through Rio Vista. Arrived at Hole at 9.15					1761-49	Gray Brown organic clay
9.25 servicing Equip. & Lining up Rig	FS#1 US#1	100	2, 3, 4		1762-49	Gray Brown organic clay
9.50 Mech. From yard came To Make Repairs on Rig						
11.30 Rig Repaired		100	5, 6, 7		1763-49	Gray Brown clay Highly organic
11.45 Lunch						
12.15 Welding chain on Sample Plug	FS#2 US#1	100	8, 9, 10		1764-49	peat
12.30 Augerd To 2'	FS#3 US#2					
12.45 pushed To 4.8	FS#4 US#3					
1.00 pushed To 7.6		100	11, 12, 13		1765-49	peat
1.15 pushed To 10.4	FS#5 US#4					
1.30 pushed To 13.2						
1.45 Augered out						
2.00 pushed To 16.6	FS#6 US#5	100	14, 15, 16		1766-49	peat all the Way down. But thin Layer of Fat Blue Clay
2.30 Augered out & cleand out Hole						
End of Shift						Hole #3F-2-C From 0' To 16'

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald P — DRILL FOREMAN
10-21-49 — DATE
Day — SHIFT
Jones L.W. — INSPECTOR

BSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-3F-2-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-2-C Date Started 10-21-49
Project Sacto Deep Water Channel
Stream Sacto River
Contractor US-CE-C
Rig name and No. Sanborn Drill Rig
Type of explorations Solid rock ☐ Soils ☒
Method of exploration 6" push Tube Size of hole 10"

Angle Vert. Bearing
Ground Elevation 2.0
Location of Hole Sta 522+00
Datum
* Depth to water table 7.5 HT 2.5
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
7.40 Left Engs Garage			push	Auger	casing	
8.20 Arrived at Job			16			Blue Clay & peat
8.30 Servicing Equip			17			
8.50 Welding & Driving casing	FS #7 US #6	100	18	1717-49		
10.00 Bailing						
10.30 Augering			19			Blue Clay & peat
11.30 pushed To 18.5			20			
12.00 Lunch	FS #8 DS #2	Sock sample	21	1768-49		
12.30 pushed To 21.6 Last Sample plug Did Not Retract			22			Blue Clay & peat
1.00 Augered To 21.6 Got Sock Sample		100	23			
1.15 Broke chain 1/4 plug	FS #9 US #7		24	1769-49		
1.30 pushed To 24.4			25			Blue Clay & peat
1.45 Augered To 24.4	FS #10 US #8	100	26			
2.00 pushed To 27.2			27	1770-49		
2.15 Welding & Driving casing To 27.5 Hard To Drive	FS #11 US #7		28			Blue Clay & peat at Top To Lean clay at Bottom
2.45 Augered To 27.2		98	29	1771-49		
3.10 pushed To 30.2			30			
3.20 pushed To 32.2	FS #12 US #10		31			Blue Lean clay
End of Shift		100	32	1772-49		
			33			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald P — DRILL FOREMAN
10-24-49 — DATE
Day — SHIFT
Jones L W — INSPECTOR

BSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) Hole # 3F-2-C From 16 To 32.5

dwc-
sac-3F-2-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3E-2-C Date Started 10-21-49
Project South Pacific Intake Channel
Stream Sacramento River
Contractor CS-CE-C
Rig name and No. Sawyer Drill Rig
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" Pushed Tubes Size of hole 7"

Angle Vert. Bearing
Ground Elevation 2.5
Location of Hole 5 Fm 522+00
Datum
* Depth to water table 1.5
* Depth to top of solid rock
* Depth to bottom of hole 46

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
7:40 Left Engr Facility						
7:55 Arrived at Job						
8:30 Servicing Equip	FS #13	100				Lean Blue clay
9:00 Pushed To 35.6	US #11		32			
9:20 Welding & Driving Casing			33			
9:55 Augering	FS #14		34			
10:40 Pushed To 37.2	US #12	100	35			Lean Blue clay High Water Content
11:00 Augered			36			
11:30 Lunch	FS #15		37			
12:30 Prepared To Push	US #13	100	38			
12:40 Tube Jammed Frog Walked All Week Freely		1.06	39			Lean Blue clay
12:55 Pushed To 41.2			40			
1:30 Welding & Driving Casing Casing Drove Hard	FS #16		41			
1:40 Pushed To 44.2	US #14		42			
2:05 Augered To 44.2 Med Hard Time cleaning Hole			43			Blue clay
3:10 Cleaning up Rig End of shift			44			Hole # 3E-2-C From 32.2 To 44.2

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

A. C. Donald P. — DRILL FOREMAN
10-24-49 — DATE
Day — SHIFT
[illegible] — INSPECTOR

PSK. EORM 15 JULY 46 -6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-3F-2-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-2-C Date Started 10-21-49
Project Sacto Deep Water Channel
Stream Sacramento River
Contractor US-CE-C
Rig name and No. Sanborn Drill Rig
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" push Tubes Size of hole 10"

Angle vert Bearing
Ground Elevation 2.5
Location of Hole Sta 522+00
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
7.00 Left Eng's Garage			push	ager	casing	
7.15 Arrived at Equipment yard						
8.25 Left one man To Bring out Truck To Help move			44			Heavy Blue clay
7.45 Arrived at Job	FS #17	100	45		1777-49	
7.50 Servicing Equip	US #15					
9.20 pushed To 46.2			46			
9.50 pushed To 48.5 pushed very hard sheard studs on plug in pulling out. Lost sample & Tube			47 48 49 Lost sample & Tube			Final Log on This Hole
10.15 started To pull casing & Load Truck To come into yard			50			
2.00 Left for yard						
3.15 Arrived at yard						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald P — DRILL FOREMAN
10-26-49 — DATE
Day — SHIFT
Jones L W — INSPECTOR

PSK FORM 6 (CIVIL) (Replaces formerly numbered PADK Form 181) Hole # 3F-2-C From 44" To 46.2
15 JULY 46

dwc-
sac-3F-4-C

WAR DEPARTMENT
PADK-161
CORPS OF ENGINEERS, U.S. ARMY
U.S. ENGINEER OFFICE
WATER RESOURCES DIVISION, SACRAMENTO, CALIFORNIA

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-4-C Date Started 9/29/49 Angle Vert. Bearing
Project Sacramento Dewatering Channel Ground Elevation -2.11
Stream Sacramento River Location of Hole Sta. 9+10 550' Rt. D Line
Contractor USCE-C Datum N 204,640 E 2,092,800
Rig name and No. Sanberm plant #625 • Depth to water table
Type of explorations Solid rock ☐ Soils ☐ • Depth to top of solid rock
Method of exploration 2" push tube Size of hole 4" • Depth to bottom of hole

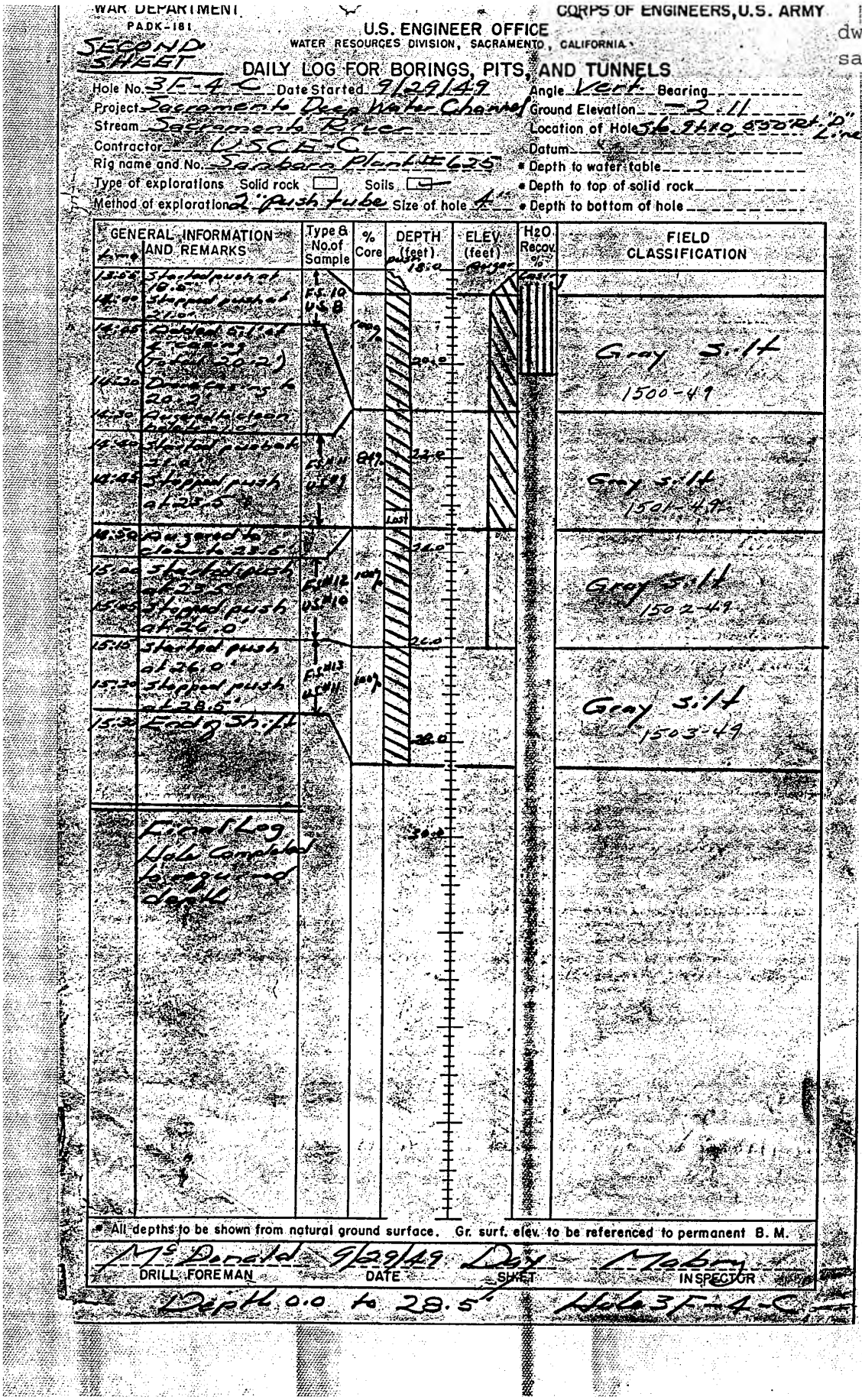
Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
07:00	Left Eng. Garage			push 0.0			
08:10	Serv. sled & finished						
	setting up at 3F-4-C						
08:20	Started 4"	F.S. #1					
	I.D. to 5.1	U.S. #1					
09:00	Prepared for push		100%	2.0			
09:05	Started push at 1.0	F.S. #2					
09:20	Stopped push at 3.5	U.S. #2					
09:25	Prepared for push						
09:35	Started push						
	at 3.8	F.S. #3		4.0			
09:40	Stopped push at	U.S. #3	34%				
	Ga. Refilled						
	& filled						
09:50	Augered to clean						
	hole to 3.5'						
09:55	Augered to clean	F.S. #4					
	hole from 3.5 to 6.0	U.S. #4		6.0			
10:00	Prepared for push						
10:10	Started push at 6.0	F.S. #5	50%				
10:18	Stopped push at 8.5	U.S. #5					
10:20	Augered to clean			8.0			
10:35	hole to 8.0'						
10:40	Prepared for push						
10:50	Started push at 8.5	F.S. 6					
11:00	Stopped pushed 11.0	U.S. 6	100%	10.0			
11:20	Augered to clean						
11:35	hole to 11.0'						
11:40	Prepared for push						
11:45	Started pushed 11.0	F.S. 7					
11:50	Stopped push at 13.5	U.S. 7	100%	12.0			
11:55	Loose						
12:00	Augered to clean						
	hole to 13.5'						
12:35	Started pushed 13.5	F.S. 8					
12:40	Stopped push at 16.0	U.S. 8		14.0			
12:45	Started 4-7/8"						
	casing & drilled 15.1		100%				
12:50	Drilled ahead to 15.1						
13:15	Augered hole to 16.0		0				
13:25	Started pushed 16.0	F.S. #9					
13:30	Stopped pushed 18.5	U.S. #9		16.0			
13:35	Augered to clean hole to 18.5		100%				
	See Next Sheet			18.0			
				20.0			

0 — 5.4 1491-49
Stiff peaty clay 1492-49
1493-49
Peaty clay (Low core recovery due to change from stiff to softer soil, stiff clay plus sand and silt)
D.S. 1494-49
Soft organic clay (Low core recovery appears similar to change from medium stiff clay to soft clay stiffer clay plus sand silt)
clayey peat 1496-49
Peaty clay 1497-49
Gray organic clay 1498-49
Gray Organic clay 1499-49

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald — DRILL FOREMAN
9/29/49 — DATE
Day — SHIFT
Mabry — INSPECTOR

Hole 3F-4-C



WAR DEPARTMENT
PADK-181
CORPS OF ENGINEERS, U.S. ARMY
U.S. ENGINEER OFFICE
WATER RESOURCES DIVISION, SACRAMENTO, CALIFORNIA
dwc-sac-3F-4-C

SECOND SHEET

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-4-C Date Started 9/29/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Sabara plant #625
Type of explorations: Solid rock ☐ Soils ☐
Method of exploration 2" Push tube Size of hole 4"

Angle Vert. Bearing
Ground Elevation −2.11
Location of Hole 36.9 Hr 0, 830 Ft. "D" Line
Datum
• Depth to water table
• Depth to top of solid rock
• Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
13:05 Started push at 18.0			18.0			
14:00 Stopped push at 21.0	F.S. 10 U.S.B	100%				
14:05 Started 5" tube 2.5 ft (at 20.2)			20.0			Gray S.Lt 1500-49
14:30 Down for 3 hr 20.2						
14:30 Started clean out to 24.0						
14:40 Started push at 24.0	F.S. 11 U.S. 9	84%	24.0			Gray S.Lt 1501-49
14:45 Stopped push at 25.5			Lost			
14:50 Approach to 28.5			24.0			
15:20 Started push at 25.5	F.S. 12 U.S. 10	100%				Gray S.Lt 1502-49
15:45 Stopped push at 26.0			26.0			
15:10 Started push at 26.0	F.S. 13 U.S. 11	100%				
15:30 Stopped push at 28.5						Gray S.Lt 1503-49
15:35 End of Sh: #1			28.0			
Final Log Hole Completed to ground depth			30.0			

All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Mc Donald 9/29/49 Dry Mabry
DRILL FOREMAN DATE SHEET INSPECTOR

Depth 0.0 to 28.5' Hole 3F-4-C

dwc-
sac-3F-7-C+

WAR DEPARTMENT
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WATER RESOURCES DIVISION, SACRAMENTO, CALIFORNIA

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-7-C Date Started 9/27/49 Angle Vert. Bearing
Project Sacramento Deep Water Channel Ground Elevation 1.91
Stream Sacramento River Location of Hole Sta. 29+80, 68' Rt. "D" Line
Contractor USCE-C Datum N202,660 E2,092,800
Rig name and No. Sanborn Plant #625 * Depth to water table
Type of explorations Solid rock ☐ Soils ☑ * Depth to top of solid rock
Method of exploration 2" Push tube Size of hole 4" * Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet) Push 0.0	ELEV. (feet) Auger	~~H2O Recov. %~~ Casing	FIELD CLASSIFICATION
07:00 Left Eng. Garage						
07:30 Picked up equip for 2" push tube sampling at Bryte						
08:45 Left Bryte			2.0			Silt
10:00 Serviced equip.						
10:20 Started augering at 0.0'	F.S.#1					
10:40 Pulled out at 3.5'	D.S.#1					1464-49
10:45 Augered from 3.5' to 4.5'	F.S.#2 D.S.#2		4.0			Silt to 4.0' Organic clay 4.0' to 4.5' 1465-49
10:50 Prepared for push						
11:05 Started push at 4.5'						
11:10 Stopped push at 7.2. Rotated & pulled	F.S.#3 U.S.#1	52%	6.0			Organic clay (Lost 1.3' due to compaction) 1466-49
11:15 Prepare for push						
11:20 Started push at 7.2						
11:25 Stopped push at 9.9 Rotated & pulled	F.S.#4 U.S.#2		8.0			
11:30 Prepared 4.0" casing for hole		100%				Peaty clay
12:00 Lunch						
12:30 Modified hammer to drive 4.0" casing						1467-49
13:00 Drove casing to 9.9'			10.0			
13:25 Adapting kelly rod to be able to auger & rotate push tubes in 4" casing			12.0			
15:30 End of shift						
			14.0			
			16.0			
			18.0			
			20.0			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B.M.

McDonald Day 9/27/49 Mabry
DRILL FOREMAN DATE SHIFT INSPECTOR

Depth 0.0 to 9.9 Hole 3F-7-C

dwc-
sac-3F-7-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-7-C Date Started 9/26/49
Project Sacramento-Deep Water Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Sanborn #625
Type of explorations Solid rock [ ] Soils [X]
Method of exploration 2" push tubes Size of hole 4"

Angle Vertical Bearing
Ground Elevation 1.91
Location of Hole Sta 29+80, 68' rt D Lin
Datum
Depth to water table
Depth to top of solid rock
Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
1530 START OF SHIFT Adapting Kelly rod to be able to auger & rotate push sample in 4" casing. 1545 Augered from 4.5 to 9.0 ft. 1550 Prepared to Push			PUSH 4	AUGER	CASING	
1600 Pushed from 9.0 to 12.4 - low core recovery probably due to change from stiff to more plastic clay. Stiff clay plugged mouth of tube.	FS #5 US #3		6, 8			
1620 Augered from 9.0 to 12.4. 1640 Prepared to Push. 1645 Pushed from 12.4 to 14.0. 1650 Added 5.2 ft of casing (Total 15.6). 1700 Drove casing to 14.0. 1710 Augered to 14.0. 1720 Prepared to push. 1730 Pushed from 14.0 to 17.4.	FS #6 DS #3	15 %	10, 12			U.S. 1468-49 Stiff, gray, organic clay & Blue fat clay D.S. 1469-49
	FS #7 US #4	100 %	14			Blue, fat, Clay 1470-49
1800 Prepared to Push. 1810 Pushed from 17.4 to 19.0. 1820 Push - prepared. 1830 Pushed from 19.0 to 22.4.	FS #8 US #5	76%	16			Gray, Organic Clay 1471-49
1900 Supper. 1930 Added 5.2 ft 4" casing. Total 20.8 ft. 2000 Drove casing to 20.4. 2030 Augered to 22.4. 2100 Added 2.5 ft casing. (Total 23.3). 2115 Drove casing to 22.4. 2145 Prepared to Push.	FS #9 US #6	100 %	18			Gray, Organic Clay 1472-49
	FS #10 US #7	100 %	20, 22			Gray, Organic Clay 1473-49
2200 Pushed from 22.4 to 24.0. 2215 Added 2.5 ft casing Tot 25.8. 2220 Drove casing to 24.0. 2230 END OF SHIFT	FS #11 US #8	100 %	24.0			Soft Gray Clay 1474-49

All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold	9/27/49	Night	Hadzima
DRILL FOREMAN	DATE	SHIFT	INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) Depth 9.0 to 24.0 ft Hole 3F-7-

dwc-
sac-3F-7-C+

WAR DEPARTMENT
PADK-181

CORPS OF ENGINEERS, U.S. ARMY

U.S. ENGINEER OFFICE
WATER RESOURCES DIVISION, SACRAMENTO, CALIFORNIA

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

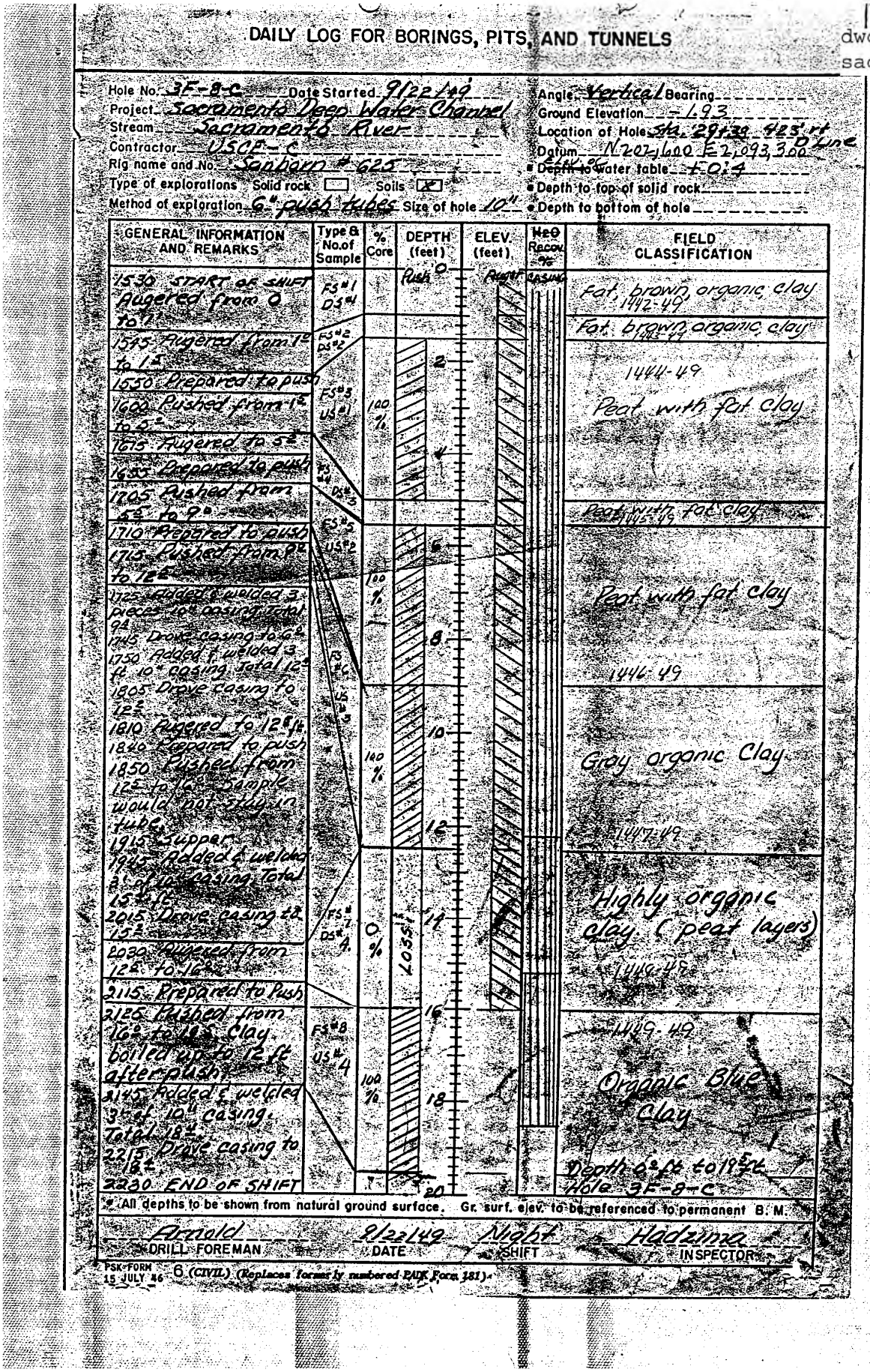
Hole No. 3F-7-C Date Started 9/27/49 Angle Vert. Bearing
Project Sacramento Deep Water Channel Ground Elevation 1.91
Stream Sacramento River Location of Hole Sta. 29+80, 68' Rt. D Line
Contractor USCE-C Datum
Rig name and No. Sanborn Plant #626 * Depth to water table
Type of explorations: Solid rock ☐ Soils ☑ * Depth to top of solid rock
Method of exploration 2" push tube Size of hole 4" * Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet) Push	ELEV. (feet) Auger	~~H2O Recov. %~~ Casing	FIELD CLASSIFICATION
07:00 Left Eng. Garage			22.0			
08:10 Serviced Equip.						
08:30 Hole filled to 21.0'						
08:35 Augered to clean hole to 24.9						
09:10 Prepared for push			24.0			
09:25 Started push at 24.9'	F.S. #12 U.S. #9	100%				Soft gray clay to sandy silt 1475-49
09:30 Stopped push at 27.4' Rotated & pulled			26.0			
09:40 Augered to clean hole to 27.4'						
10:15 Prepared for push						
10:35 Started push at 27.4	F.S. #13 U.S. #10	100%	28.0			Gray sandy silt 1476-49
10:40 Stopped push at 29.9' Rotated & pulled						
10:45 Added 5.0' of 4" casing (total 30.8)						
11:00 Drove casing to 29.9'			30.0			
11:30 Lunch						
11:55 Augered to clean hole to 29.9'		100%				Gray silt 1477-49
12:20 Prepared for push						
12:35 Started push at 29.9'	F.S. #14 U.S. #11		32.0			
12:40 Stopped push at 32.4 Rotated & pulled						
12:45 Augered to clean hole from 29.9 to 32.4		100%				Gray silt 1478-49
13:05 Repaired drilling cluts			34.0			
13:20 Started push at 32.4	F.S. #15 U.S. #12					
13:25 Stopped push at 34.9' Rotated & pulled						
13:30 Augered to clean hole to 34.9'						
13:50 Started push at 34.9'	F.S. #16 U.S. #13	100%	36.0			Gray silt (Push tube dented by rock) 1479-49
13:55 Stopped push at 37.4' Rotated & pulled						
14:00 Pulled casing						
14:25 Cleaned, serviced equipment & broke down casing						
15:30 End of shift						
Final Log Required Depth Reached						U.S. #9, 10, 11, 12, 13 probably broken in tube due to suction created in removing head.

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald 9/28/49 Day Mabry
DRILL FOREMAN DATE SHIFT INSPECTOR

Depth 24.9 to 37.4' Hole 3F-7-C



DAILY LOG FOR BORINGS, PITS, AND TUNNELS

dwc-
sac-3F-8-C+

Hole No. 3F-8-C Date Started 9/22/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Sanborn #625
Type of explorations Solid rock ☐ Soils ☒
Method of exploration 6" push tubes Size of hole 10"

Angle Vertical Bearing
Ground Elevation -1.93
Location of Hole Sta. 29+39 423' rt D Line
Datum N 202,600 E 2,093,300
Elev. of Depth to water table +0.4
Depth to top of solid rock
Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
1530 START OF SHIFT Augered from 0 to 1'	FS#1 DS#1		Push 0	Auger	Casing	Fat, brown, organic clay 1442-49
1545 Augered from 1' to 1.5'	FS#2 DS#2					Fat, brown, organic clay 1443-49
1550 Prepared to push			2			1444-49
1600 Pushed from 1.5' to 5.5'	FS#3 US#1	100 %				Peat with fat clay
1615 Augered to 5.5'			4			
1655 Prepared to push	FS#4 DS#3					
1705 Pushed from 5.5' to 9.0'						Peat with fat clay 1445-49
1710 Prepared to push	FS#5 US#2		6			
1715 Pushed from 9.0' to 12.5'		100 %				Peat with fat clay
1725 Added & welded 3 pieces 10" casing Total 9.4'						
1745 Drove casing to 6.0'			8			
1750 Added & welded 3 ft 10" casing Total 12.5'	FS#6 US#3					1446-49
1805 Drove casing to 12.5'						
1810 Augered to 12.8 ft			10			
1840 Prepared to push		100 %				Gray organic Clay
1850 Pushed from 12.5' to 16.0' Sample would not stay in tube			12			1447-49
1915 Supper						
1945 Added & welded 3' of 10" casing Total 15.4 ft						Highly organic clay (peat layers)
2015 Drove casing to 15.2'	FS#7 DS#4	0 %	14			
2030 Augered from 12.5' to 16.0'						1448-49
2115 Prepared to Push						
2125 Pushed from 16.0' to 19.5' Clay boiled up to 12 ft after push	FS#8 US#4	100 %	16			1449-49
2145 Added & welded 3' of 10" casing. Total 18.4'			18			Organic Blue Clay
2215 Drove casing to 18.4'						Depth 0.0 ft to 19.5 ft
2230 END OF SHIFT			20			Hole 3F-8-C

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold — DRILL FOREMAN
9/22/49 — DATE
Night — SHIFT
Hadzima — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-3F-8-C+

WAR DEPARTMENT
PADK-181

CORPS OF ENGINEERS, U.S. ARMY

U.S. ENGINEER OFFICE
WATER RESOURCES DIVISION, SACRAMENTO, CALIFORNIA

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-8-C Date Started 9/22/49 Angle Vertical Bearing
Project Sacramento Deep Water Channel Ground Elevation -1.93
Stream Sacramento River Location of Hole Sta 29+38, 423' rt. D Line
Contractor USCE-C Datum
Rig name and No. Sanborn #625 Depth to water table
Type of explorations: Solid rock ☐ Soils ☒ Depth to top of solid rock
Method of exploration 6" push tubes Size of hole 10" Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H₂O Recov. %	FIELD CLASSIFICATION
0700 Left Engr. Camp 0810 Serviced Equipment 0900 Hole filled to 12' ft. Augered to 19' to clean hole 1000 Prepared to push 1015 Pushed from 19' to 23' 1030 Added & welded 3' of 10" casing. Total 21' 1045 Drove casing to 21' 1050 Augered to 23' 1100 Lunch 1130 Hole started to fill. Added & welded 3' of 10" casing. Total 24' 1145 Drove casing to 24' to seal off flow 1200 Augered from 23' to 24' 1230 Hole continued to fill. Added & welded 3' of 10" casing. Total 27' 1255 Drove casing to 27' 1310 Augered from 24' to 27' 1325 Hole continued to fill. Added & welded 3' of 10" casing. Total 30' 1340 Drove casing to 30' 1350 Augered from 27' to 30' ft. 1410 Hole filled to 24' ft. 1415 Added & welded 3' 10" casing. Total 33' 1445 Drove casing to 33' 1530 END OF SHIFT	FS #9 US #5 FS #10 DS #5 FS #11 DS #6 FS #12 DS #7	5.7 0% 0%	Push 16 Auger casing 18 20 22 24 26 28 30 32 34			1450-49 Gray organic clay 1451-49 Gray Silt 1453-49 Gray sandy Silt 1453-49 Gray Silt Depths 19' to 30' ft. Hole 3F-8-C

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald — DRILL FOREMAN
9/23/49 — DATE
Day — SHIFT
Heitzman — INSPECTOR

Drilled 19' to 30'. Hole 3F-8-C

dwc-
sac-3F-8-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-8-C Date Started 9/22/49 Angle Vert. Bearing ---
Project Sacramento Deep Water Channel Ground Elevation -1.93
Stream Sacramento River Location of Hole Sta. 29+30, 423 ft. L. of L. Line
Contractor USCE-C Datum ---
Rig name and No. Sacbain Plant #625 * Depth to water table ---
Type of explorations Solid rock ☐ Soils ☑ * Depth to top of solid rock ---
Method of exploration Ca "push tube" Size of hole 10" * Depth to bottom of hole ---

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet) push	ELEV. (feet) auger	H2O Recov. % Casing	FIELD CLASSIFICATION
15:30	Start of Sh. ft.						
15:35	Hole filled to 23.0'						
15:40	Augered to clear hole from 23.0' to 26.0'. Hole continued to fill while augering.						
16:30	Added & welded 3.0' of 10" casing (Total 36.4')						
17:00	Drove casing to 36.2'						
17:25	Hole filled to 21.0						
17:35	Augered to clear hole from 21.0' to 27.0'. Gray S. I. t. S. I. t. ll entering hole						
18:30	Added & welded 3.0' of 10" casing (Total 39.4')						
19:00	Drove casing to 39.2'						
19:20	Supper						
20:00	Hole filled to 21.0'						
20:10	Augered to clean from 21.0' to 30.0'						
20:50	Augered from 30.0' to 32.0'	F.S. #13 DS #7 F.S. 15 DS 7 A.		30.0			1454-49 Gray S. I. t.
21:10	Augered from 32.0' to 34.0'	F.S. #14 DS #8		32.0			1455-49 Gray S. I. t.
21:30	Augered from 34.0' to 36.0'	F.S. #15 DS #9		34.0			1456-49 Gray S. I. t.
21:45	Stopped augering because gray S. I. t. ll to fill hole. Left auger bit near end of casing. Used all casing.			36.0			
21:50	Cleaned & serviced equip.			38.0			
22:30	End of Sh. ft.			40.0			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

A. Arnold — DRILL FOREMAN; 9/23/49 — DATE; Night — SHIFT; Mabry — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

Dark 30.0 to 36.0 Hole 3F-8-C

dwc-
sac-3F-8-C+

WAR DEPARTMENT
PADK-101

CORPS OF ENGINEERS, U.S. ARMY

U.S. ENGINEER OFFICE
WATER RESOURCES DIVISION, SACRAMENTO, CALIFORNIA

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-8-C Date Started 9/22/49 Angle Vert. Bearing
Project Sacramento Deep Water Channel Ground Elevation -1.93
Stream Sacramento River Location of Hole Sta. 29+38, 423' Rt. Line
Contractor USCE-C Datum
Rig name and No. Sanborn #625 * Depth to water table
Type of explorations Solid rock ☐ Soils ☒ * Depth to top of solid rock
Method of exploration 6" Push Tubes Size of hole 10" * Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	~~H2O Recov. %~~	FIELD CLASSIFICATION
0700	Left Engr. Garage			30.0	Auger	casing	
0745	Picked up four 3.0' lengths of 10" casing at Bryte Bend - also picked up bailer & casing to be used when change to 2.0" push tube sampling			32.0			
0845	Left Bryte			34.0			
0955	Arrived at site of hole 3F-8-C						
1000	Checked equipment			36.0			
1010	Added & welded 3' 10" casing (TOTAL 42')						Gray silt to 37.0
1030	Drove casing to 42°						Blue clay 37.0' to 38.0' 1457-49
1040	Augered to clean hole to 36°			38.0			Blue clay 1458-49
1100	Started augering at 36°	FS#16 DS#10					
1110	Pulled out at 38°			40.0			Blue clay
1115	Augered from 38° to 39°	FS17 DS11					
1125	Augered from 39° to 42°	FS18 DS12					
1130	Prepared for 2" push tube sample			42.0			1469-49
1140	Started push at 42°	FS19					
1145	Stopped push at 44.5	US6	92				Stiff sandy clay
1150	Lunch			44.0			1460-49
1225	Hole filled with water to 1.0'						Stiff sandy clay 1461-49
1230	Added & welded 3' of 10" casing (Total 45°)						
1250	Drove casing to 45°		100	46.0			Very stiff sandy clay 1462-49
1310	Water fell to 6°'						
1330	Augered from 44° to 45°	FS20 DS13					
1340	Prepared for 6" push						
1350	Started push at 45° stopped at 47° Rotated & pulled	FS21 US7		48.0			1463-49 Sand & very stiff sandy clay
1405	Prepared for push		100				
1425	Started push at 47° stopped at 50°	FS22 US8					
1435	Cleaned & serviced equip.			50.0			
1530	END OF SHIFT						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald	9/26/49	Day	Mabry
DRILL FOREMAN	DATE	SHIFT	INSPECTOR

Depth 36.0 to 50.0 Hole 3F-8-C

dwc-
sac-3F-8-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-8-C Date Started 9/22/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Sanborn #625
Type of explorations Solid rock [ ] Soils [X]
Method of exploration 6" Push Tubes Size of hole 10"

Angle Vertical Bearing
Ground Elevation -1.93
Location of Hole Sta. 297+38, 423' Rt. D. Line
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet) PUSH	ELEV. (feet) AUG.	H2O Recov. % CASING	FIELD CLASSIFICATION
1530 START OF SHIFT Water filled hole completely to top. Rising at approximately 16" in 11 minutes. Added & welded 3' of 10" casing. (Total 46')			44			
1615 (approx.) water began to subside. Drove casing to 48'			46			
1700 Welded cap on casing to prevent artesian effect from hole.			48			
1800 Moved equipment from Hole 3F-8-C to Hole 3F-7-C & set it up.			50			
1930 Supper						
2000 Continued move & set up.						
2230 END OF SHIFT						

FINAL LOG - REQ'D DEPTH REACHED

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold	9/26/49	Night	Hadzima
DRILL FOREMAN	DATE	SHIFT	INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) Depth 50' to 50 ft. Hole 3F-8-C

dwc-
sac-3F-11-C_+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F11a Date Started 19 Oct 1949 Angle Vert Bearing
Project Deep Water Channel Ground Elevation
Stream Location of Hole
Contractor USCE Datum
Rig name and No. Sullivan 752 * Depth to water table
Type of explorations Solid rock ☐ Soils ☑ * Depth to top of solid rock
Method of exploration 6" push tube sampler Size of hole 10" * Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet) Push	ELEV. (feet) Auger	H2O Recov. % Change	FIELD CLASSIFICATION
0745-1200 trucking equipment from hard - changing from 2" to 6" push tubes. 1400 completed set up 1530 augered to 25'	FS1 DS1					Inorganic Clay
			25			1702-49

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

ARNOLD DRILL FOREMAN 20 Oct 1949 DATE day SHIFT [signature] INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) Hole 3F11C Depth 0 - 25

dwc-
sac-3F-11-C_+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F11c Date Started 19 Oct 1949 Angle Vert Bearing
Project Deep Water Channel Ground Elevation Approx +3 ±
Stream Location of Hole Approx. 49+70 ±
Contractor USCE Datum " 48 Rt ±
Rig name and No. Sullivan 75V * Depth to water table N200,850 E 2,094,500
Type of explorations Solid rock ☐ Soils ☑ * Depth to top of solid rock
Method of exploration 6" push tube sample Size of hole 10" * Depth to bottom of hole
Elev. of ground water = -0.7

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet) Push	ELEV. (feet) Gauge	H2O Recov. %	FIELD CLASSIFICATION
0745 start of shift 0900 servicing equipment 0915 pushed to 5⁴ full recovery	FS2 US1 FS6 US5	100	2⁵			organic clay
0930 augered to 5⁴ 1030 went to other rig for welder 1100 pushed to 8² full recovery	FS3 US2	100	5⁴			organic clay 1703-49
1130 pushed to 11³ full recovery 1200 drove casing to 10³ 1300 repairing welder	FS4 US3	100	8³			organic clay 1704-49
1345 bailed hole augered to 11³ 1415 pushed to 14¹ full recovery 1500 went to other rig for helmet 1530 drove casing to 14¹	FS5 US4	100	11³			organic clay 1705-49
			14¹			1706-49

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold — DRILL FOREMAN; 21 Oct 1949 — DATE; day — SHIFT; [signature] — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) Hole 3F11c depth 2⁵ - 14¹

dwc-
sac-3F-11-C_+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F11C Date Started 19 Oct 1949 Angle Vert Bearing
Project Deep Water Channel Ground Elevation 3±
Stream Location of Hole
Contractor USCE Datum
Rig name and No. Sullivan 752 * Depth to water table
Type of explorations Solid rock ☐ Soils ☑ * Depth to top of solid rock
Method of exploration 6" push tube sample Size of hole 10" * Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov.	FIELD CLASSIFICATION
0745 start of shift 0815 changed oil; serviced rig 0830 baled out hole 0900 augered to 14'			13			
0915 pushed to 17' full recovery upper 3" disturbed.	FS6 US5	100	14			organic clay 1707-49
0930 pushed to 20' full recovery upper 6" disturbed 1030 went for helmet for welding 1200 drove casing to 20'	FS7 US6	100	17			organic clay 1708-49
1225 augered to 20' took a disturbed sample from 20' to 20'	FS8 DS2		20			organic clay 1709-49
1250 pushed to 23' full recovery upper 3" disturbed 1320 augered to 23'	FS9 US7	100	20			Blue clay 1710-49
1345 pushed to 26' full recovery upper 3" disturbed 1430 drove casing to 26' 1500 augered to 26'	FS10 US8	100	23			organic clay 1711-49
1530 pushed to 29' full recovery upper 3" disturbed	FS11 US9	100	26			organic clay 1712-49
			29			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold	24 Oct 1949	day	[signature]
DRILL FOREMAN	DATE	SHIFT	INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) Hole 3F11C depth 14' to 29'

dwc-
sac-3F-11-C_+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F11c Date Started 19 Oct 1949
Project Deep Water Channel
Stream
Contractor USCE
Rig name and No. Sullivan 752
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" push to be sampler Size of hole 10"

Angle Vert Bearing
Ground Elevation 3±
Location of Hole
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
0745 start of shift 0845 drove casing to 29.5 0900 augered to 29.5			26.5			
0930 pushed to 32.5 lost last 10" of sample	FS12 US10	75	29.5			silt 1713-49
0945 baled out hole 1030 drove casing to 34.0 1050 augered to 34.0 disturbed sample	FS13 DS3		32.5			silt 1714-49
1115 augered to 35.5 disturbed sample	FS14 DS4		34			silt 1715-49
1300 pushed to 38.5 full recovery	FS15 US11	100	35.5			silt 1716-49
pulled casing load rig & at the close of shift pulled out for sacto — Final Log			38.5			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold — DRILL FOREMAN
25 Oct 1949 — DATE
day — SHIFT
[signature] — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

Hole 3F11c depth 29.5 to 38.5

dwc-
sac-3F-12-C+

WAR DEPARTMENT
PADK-181

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WATER RESOURCES DIVISION, SACRAMENTO, CALIFORNIA

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-12-C Date Started 9/29/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Sanborn #625
Type of explorations Solid rock [ ] Soils [X]
Method of exploration 2" Push Tubes Size of hole 4"

Angle Vertical Bearing
Ground Elevation -1.53
Location of Hole Sta. 48+70, 350' rt D Li
Datum N 200,770 E 2,094,190
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov %	FIELD CLASSIFICATION
0700 Left Engr. Garage 0800 Servicing equipment 0830 Prepared to Push	FS#1 DS#1	-	PUSH 0	AUGER 1505-49	CASING	Brown Organic Clay
0845 Pushed from 0 to 2°. Sample compacted. 0900 Prepared to Push	FS#2 DS#2	-	2	1506-49		Brown Organic Clay
0910 Pushed from 2° to 3.5. Sample compacted. 0915 Prepared to Push 0930 Pushed from 3.5 to 6°	FS#3 US#1	100 %	4	1507-49		Brown Organic Clay
0940 Prepared to Push 0955 Pushed from 6° to 8.5 1000 Prepared to Push 1010 Pushed from 8.5 to 11°	FS#4 US#2	100 %	6 8	1508-49		Clayey Peat
1015 Prepared 10.4 ft of 4" casing. (Total 10.4) 1025 Drove casing to 10.4 1030 Augered to 11° 1040 Prepared to Push 1045 Pushed from 11° to 13.5 1050 Prepared to Push	FS#5 US#3	100 %	10	1509-49		Clayey Peat
1100 Pushed from 13.5 to 16° 1110 Added 4.2 ft casing (Total 15.1) 1115 Drove casing to 15.1 1130 Lunch 1200. Augered to 16° ft. 1245 Prepared to Push	FS#6 US#4	100 %	12	1510-49		Soft, Gray Clay
1250 Pushed from ~~13.5 to 21°~~ 16° to 18.5	FS#7 US#5	100 %	14	1511-49		Soft Gray Clay
	FS#8 US#6		16 18	1512-49		Soft Blue Clay
			20			(See Sheet 2)

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald — DRILL FOREMAN
9/30/49 — DATE
Day — SHIFT
Hadzima — INSPECTOR

Sheet 1 of 2 Depth 0° to Hole 3F-12-C

dwc-
sac-3F-12-C+

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U.S. ENGINEER OFFICE
WATER RESOURCES DIVISION, SACRAMENTO, CALIFORNIA

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-12-C Date Started ~~9/30/49~~ 9/29/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Sanborn #625
Type of explorations Solid rock [ ] Soils [X]
Method of exploration 2" Push Tubes Size of hole 4"

Angle Vertical Bearing
Ground Elevation -1.53
Location of Hole Sta. 48+70, 350' rt D Line
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
1300 Prepared to Push			Push 16	Auger	Casing	Note: Continued from sheet #1
1305 Pushed from 18.5 to 21.0			Cont. from sht. 1			
1320 Added 5-ft casing. (Total 20.2)	FS #9		18			
1325 Drove casing to 20.2	US #7					
1330 Augered to 21.0			1513-49			
1340 Prepared to Push						
1345 Pushed from 21.0 to 23.5		100 %	20			Soft Blue Clay
1410 Augered to 23.5	FS #10					
1425 Prepared to Push						
1435 Pushed from 23.5 to 26.0	US #8					
1440 Added 5.0 ft casing. (Total 25.2)	FS 11	100 %	22			Fine, Silty, Gray Sand
1450 Drove casing to 25.2			1514-49			
1510 Cleaning & servicing equipment	US #9		24			
1530 END OF SHIFT		100 %	1515-49			Gray, Silty, Sand (High water content)
			26			
			28			
			30			
			32			
			34			
			36			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald	9/30/49	Day	Hadzima
DRILL FOREMAN	DATE	SHIFT	INSPECTOR

Sheet 2 of 2 Depth 0 to 26.0 ft. Hole 3F-12-C

dwc-
sac-3F-12-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-12-C Date Started 9/29/49
Project Sacramento Deepwater Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Jackson Plant #625
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 2" push tube Size of hole 4"

Angle Vert. Bearing
Ground Elevation -1.5.3
Location of Hole Sta. 48+70, 350' ±
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet) push	ELEV. (feet) Auger	H2O Recov. % casing	FIELD CLASSIFICATION
16:30	Start of shift			26.0			
15:15	Augered to clean hole to 26.0'						
15:50	pushed from 26.0 to 28.5'	FS #12 US #10	100%				Gray sandy silt
16:00	Augered to clean hole to 28.5'			28.0			
16:15	Prepared to push						
16:30	Started push at 28.5'	FS #13 US #11					
16:35	stopped push at 31.0'						
16:40	Added 5.0' of 4" casing (Total 30.3)		100%				Gray silt
16:55	Drove casing to 30.3			30.8			
17:00	Augered to clean hole to 31.0'						
17:45	Repaired drill rig clutch.						
18:30	Hole filled to 30.0'						
18:35	Prepared for push		100%	32.8			Gray silt
18:50	Augered to clean hole to 31.0'						
19:05	Started push at 31.0'	FS #14 US #12					
19:10	Stopped push at 33.5'						
19:15	Supper			34.8			
19:50	Augered to clean hole to 33.5'						
20:10	Started push at 33.5'	FS #15 US #13	140%				Gray silt
20:15	stopped pushed 36.0			36.0			
20:30	Added 5.0' of 4" casing (Total 35.3)						Stiff clay with traces of calcareous material
20:50	Drove casing to 35.3'						
20:55	Cable jumped sheave repaired						
21:30	Prepared to push			38.6			
21:45	Augered to clean hole to 36.0'						
22:00	Started push at 36.0	FS #16 US #14		40.8			
22:05	Stopped push at 38.5'						
22:10	Cleaned equip.						
22:30	End of shift						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold — DRILL FOREMAN | 9/30/49 — DATE | Night — SHIFT | Mabry — INSPECTOR

PSK FORM 15-JULY-55 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

Depth 26.0 to 38.5 Hole 3F-12-C

dwc-
sac-3F-12-C+

WAR DEPARTMENT
PADK-181

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U.S. ENGINEER OFFICE
WATER RESOURCES DIVISION, SACRAMENTO, CALIFORNIA

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-12-C Date Started 9/29/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Seaborn Plant #625
Type of explorations Solid rock ☐ Soils ☐
Method of exploration 2" push tube Size of hole 2"

Angle Vert. Bearing
Ground Elevation -1.5±3
Location of Hole Sta. 48+70, 350 ft. L.P. Line
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H₂O Recov. %	FIELD CLASSIFICATION
07:00	Left Eng. Garage			34.0 push			
08:10	Serviced equip.						
08:30	Hole filled to 33.0' water to 0.0'						
08:35	Baled to 24.0'			36.0			
09:00	Added 5.0' of 4" Casing (Total 40.0)						
09:10	Drove casing to 40.0' to shut off water						
09:45	Baled to 27.0'			38.0			
10:00	Augered to clean hole to 38.5'						
10:15	Prepared for push. Hose repaired						
10:56	Started push at 38.5'	C-S #17 U-S #15	100%	Pushed casing 1522.49			Stiff sandy clay with traces of calcareous material
18:00	Stopped push at 42.0			42.0			
11:00	Augered to clean hole to 42.0'						
11:20	Prepared for push						
11:25	Started push at 42.0'	C-S #18					
11:30	Stopped push at 43.5'	U-S #16	100%	43.5 1522.49			Gray clayey sand
11:40	Lunch						
12:10	Water over-flowing at ground surface						
12:15	Baled 5.0' of 4" casing (Total 48.8')			46.8			
12:20	Drove casing to 48.8' ground			1523-49			Stiff, gray sandy clay
12:50	Baled to 43.5'	C-S #19					
13:15	Augered from 43.5' to 45.5'						
13:35	Prepared for push		100%	46.0 1524.45			Stiff gray clayey sand
13:45	Started push at 46.0'	C-S #20					
14:10	Stopped push at 47.0'	U-S #17					
15:00	Mechanic to 0			48.0			
15:00	Baled to 43.5'						
15:00	Hauled back to 0						
14:45	Prepared for push						
14:50	Baled to 47.0'			1525.49			No recovery Push tube sheared off in probably hole. Stiff clay.
15:10	Pushed from 47.0' to 50.0'	C-S #21 U-S #18	No recovery Lost push tube	50.0			
15:25	Added 3.5' of 9" casing to shut off water flowing out of surface (Total 48.8') 48.8' in ground						Elev. ground water = -5.5 to -1.5

Final Log - Reqd Depth Reached

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B.M.

M.F. Donald 10/3/49 Day Mabry
DRILL FOREMAN DATE SHIFT INSPECTOR

Depth 38.5 to 47.5 Hole 3F-12-C

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-94

dwc-
sac-3F-15-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-15-C Date Started 10/3/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor ~~Sanborn #625~~ USCE-C
Rig name and No. Sanborn #625
Type of explorations Solid rock ☐ Soils ☒ 10"
Method of exploration 6 ~~8~~" Push Tubes Size of hole ~~4~~"

Angle Vertical Bearing
Ground Elevation -0.42
Location of Hole Sta. 69+00, 207' rt. D line
Datum N 199,150 E 2,095,460
* Depth to water table Very little water
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet) Push	ELEV. (feet) Auger	H2O Recov. % Casing	FIELD CLASSIFICATION
1530 START OF SHIFT Copped Hole 3F-12-C.		-	0			1557-49 Brown Organic Clay
1700 Tearing down at Hole 3F-12-C, Moving to Hole 3F-15-C, Setting up at Hole 3F-15-C. 1800 Supper 1830 Continued Move 1840 Light Plant wouldn't start. Exhaust valve stuck 1900 Repairing light plant	FS #1 DS #1 FS #2 US #1	100 %	2 4			1558-49 Fat, gray, organic Clay
2040 Augered from 0° to 1° ft.		100 %	6			1559-49 Soft, organic, blue Clay
2050 changing equipment from 2" to 6" 2140 Prepared to Push	FS #3 US #2		8			
2145 Pushed from ~~4~~ 1° to 4°			10			
2200 Prepared to Push						
2210 Pushed from 4° to 8° ft.			12			
2215 Augered from 1° to 8° ft. 2230 End of Shift			14 16 18 20			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold	10/3/49	Night	Hadzima
DRILL FOREMAN	DATE	SHIFT	INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) Depth 0° to 8° Hole 3F-15-C

dwc-
sac-3F-15-C+

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PADK-181

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U.S. ENGINEER OFFICE
WATER RESOURCES DIVISION, SACRAMENTO, CALIFORNIA

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-15-C Date Started 10/3/49 Angle Vert. Bearing
Project Sacramento Deep Water Channel Ground Elevation -0.42
Stream Sacramento River Location of Hole Sta. 69+00, 207' rt. D line
Contractor USCE-C Datum
Rig name and No. Sanborn Plant # 625 * Depth to water table
Type of explorations Solid rock ☐ Soils ☑ * Depth to top of solid rock
Method of exploration 6" push tube Size of hole 10" * Depth to bottom of hole

time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	~~H2O Recov. %~~	FIELD CLASSIFICATION
07:00	Left Engr. Garage			6.0			
07:45	Picked up 10" casing at Bryte yards & 55 gal. drum of gasoline at Sacramento weir						
09:15	Serviced Equip.			8.0			FS#4 1560-49 FS#5 1561-49
09:45	Hole filled to 6.0' water rose to 5.0'		No recovery				No recovery from push
09:50	Prepared for push						
10:05	Augered & baled to clean hole to 8.0			10.0			Auger recovery was soft organic clay
10:20	Started push at 8.0'	Lost					
10:25	Stopped push at 11.5'						
10:30	Welded shoe to 3.0' of 10" casing added & welded 3.0' more of 10" casing (Total 6.4')		100%	12.0			1562-49
11:00	Drove casing to 5.0'						Soft peaty clay
11:20	Added & welded 3.0' of 10" casing (Total 9.4')			14.0			
11:40	Lunch						
12:10	Drove casing to 6.4'						
12:25	Added & welded 3.0' of 10" casing (Total 12.4')						1563-49
12:50	Drove casing to 11.5'			16.0			
13:00	Hole filled to 2.7 with clay & water (muck)		100%				Soft peaty clay
13:05	Augered to clean hole to 8.0'						
13:15	Augered from 8.0 to 11.5'	FS#6 US#2		18.0			
13:35	Pushed from 11.5 to 15.0'	FS#6 US#3					
13:45	Added & welded 3.0' of 10" casing (Total 15.4')			20.0			
14:05	Drove casing to 15.0						
14:15	Augered to clean hole to 15.0						
14:35	Pushed from 15.0 to 18.5. Rotated & pulled	FS#7 US#4					
14:50	Cleaned equip.						
15:30	End of shift						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald 10/4/49 Day Mabry
DRILL FOREMAN DATE SHIFT INSPECTOR

Depth 8.0 to 18.5 Hole 3F-15-C

dwc-
sac-3F-15-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-15-C Date Started 10/3/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Sanborn #625
Type of explorations Solid rock ☐ Soils ☒
Method of exploration 6" Push Tubes Size of hole 10"

Angle Vertical Bearing
Ground Elevation -0.42
Location of Hole Sta. 69+00, 207' rt. D Line
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
1530 START OF SHIFT Added & welded 3' of 10" casing. (Total 18±) 1555 Drove casing to 18± ft. 1610 Augered to 18± 1630 Prepared to Push			Push 15	Auger	Casing	
1645 Pushed from 18± to 22°			17			
1700 Added & welded 3' of 10" casing. (Total 21±) 1715 Drove casing to 21± 1725 Repaired drill stem on auger 1740 Augered to 22° 1800 Supper 1830 Prepared to Push	FS#8 US#5	100 %	19 21			1564-49 Soft, Clayey, Peat
1840 Pushed from 22° to 25±	FS#9 US#6	100 %	23			1565-49 Grey Silt
1855 Added & welded 3' of 10" casing. (Total 24±) 1920 Drove casing to ~~24±~~ 25± 1940 Augered to 25± 2100 Prepared to Push			25			
2120 Pushed from 25± to 29°	FS#10 US#7	100 %	27			1566-49 Gray Silt
2140 Added & welded 6' of 10" casing (Total 30± ft) 2200 Drove casing to 29° ft. 2215 Augered to 29° 2230 END OF SHIFT			29			
			31			
			33			
			35			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold — DRILL FOREMAN
10/4/49 — DATE
Night — SHIFT
Hadzima — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

Depth 18± to 29° ft Hole 3F-15-C

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WATER RESOURCES DIVISION, SACRAMENTO, CALIFORNIA

dwc-
sac-3F-15-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-15-C Date Started 10/3/49 Angle Vert. Bearing
Project Sacramento Deep Water Channel Ground Elevation +0.42
Stream Sacramento River Location of Hole Sta. 69+00, 207' L.P. Line
Contractor U.S.C.E.-C Datum
Rig name and No. Seaboard Drill Rig #625 * Depth to water table
Type of explorations: Solid rock ☐ Solls ☐ * Depth to top of solid rock
Method of exploration 6" push tube Size of hole 10" * Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet) push / Auger	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
07:00	Left Engr. Garage						
08:10	Serviced equip.						
08:30	Hole filled to 25.0'						
08:35	Prepared for push						1567-49
08:50	Augered to clean hole to 29.0'			30.0			
09:10	Started push at 29.0'	F.S. #11 U.S. #8	100%				Gray Silt with high water content
09:15	Stopped push at 32.5'			32.0			
09:20	Added & welded 3.0' of 10" casing (Total 33.4')						1568-49
09:40	Drove casing to 33.4'						
09:55	Prepared to push						Gray Silt
10:05	Augered to clean hole to 32.5'		100%	34.0			
10:25	Started push at 32.5	F.S. #12 U.S. #9					
10:30	Stopped push at 35.3'						
10:35	Added & welded 3.0' of 10" casing (Total 36.4')			36.0			1569-49
11:00	Drove casing to 35.3'		100%				Gray Silt with high water content
11:10	Prepared to push						
11:25	Augered to clean hole to 36.3'			38.2			
11:40	Pushed from 35.3 to 38.1	F.S. #13 U.S. #10					1570-49
11:50	Lunch						Gray Silt
12:25	Added & welded 3.0' of 10" casing (Total 39.4')		100%	40.2			
12:40	Drove casing to 38.7'						
12:55	Prepared to push						
13:05	Augered to clean hole to 38.1'						
13:25	Pushed from 38.1 to 40.9'	F.S. #14 U.S. #11					1571-49
13:35	Prepared to push			42.2			Gray Silt to blue clay
13:45	Augered to clean hole to 40.9'		100%				
14:05	Pushed from 40.9' to 43.7'	F.S. #15 U.S. #12					
14:15	Added & welded 3.0' of casing (Total 42.4')			44.2			
14:40	Drove casing to 42.4'						
14:55	Serviced equip.						
15:30	End of Shift						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

M. Dana 10/5/49 Day Mabry
DRILL FOREMAN DATE SHIFT INSPECTOR

Depth 38.0 to 43.7' Hole 3F-15-C

dwc-
sac-3F-15-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-15-C Date Started 10/3/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Sanborn #625
Type of explorations Solid rock ☐ Soils ☒
Method of exploration 6" Push Tube Size of hole 10"

Angle Vertical Bearing
Ground Elevation -0.42
Location of Hole Sta 69+00, 207' rt. D. Line
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
1530 START OF SHIFT Prepared to Push			PUSH 40	Auger	CASING	
1600 Pushed from 43.7 to 46.5						
1630 Augered to 46.5			42			
1720 Prepared to Push						
1750 Pushed from 46.5 to 49.3 Considerable difficulty in pushing & pulling sample	FS #16 US #13		44			1572-49 Soft Gray Clay
1830 Supper		100 %				
1900 Pulled cut & loaded casing	FS #17 US #14		46			
2030 Preparing for move, loading, etc.						
2230 END OF SHIFT		100 %	48			1573-49 Stiff Blue Clay
			50			
LAST LOG						HOLE COMPLETED

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold	10/5/49	Night	Hadzima
DRILL FOREMAN	DATE	SHIFT	INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) Depth 43.7 to 49.3 Hole 3F-15-C

dwc-
sac-3F-17-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-17-C Date Started _____ Angle Vert. Bearing _____
Project Sacto Deep Water Channel Ground Elevation 15.00
Stream Sacramento River Location of Hole Sta. 88+80
Contractor US-CE-C Datum N197,920 E 2,097,030
Rig name and No. Sanborn Drill Rig * ~~Depth to~~ Elev. of water table -4.6
Type of explorations Solid rock ☐ Soils ☑ * Depth to top of solid rock _____
Method of exploration 6" Tube Size of hole 10" * Depth to bottom of hole _____

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
7.00 Left Engs Garage (1) Man Sick went to equipment yard & got Replacment		100	Push 0 1	Auger	Casing	Brown clay Highly organic 1652-49
9.00 arrived at Job	FS #1 DS #1	100	2 3 4			Dry Brown clay 1653-49
9.30 Moved To New hole						
9.45 Started unloading & Setting up Rig						
10.45 Servicing equip. & Building platform	FS #2 US #1	100	5 6			Dry Brown clay 1654-49
11.45 Lunch						
12.15 Drilled To 1'4						
12.45 prepared To Push for sample	FS #3 US #2	100	7 8 9			From Dry Brown clay at Top To Darker clay with Some Moisture at Bottom 1655-49
12.55 pulled sample						
1.10 pushed To 7.0	FS #4 US #3					
1.30 Augered To 7.0						
2.00 prepared To push						
2.15 pulled Sample						
2.40 prepared To push for sample	FS #5 US #4	75	10 11 12		1656-49	Dark Brown clay at Bottom With Some Fine Sand & Silt at Top May have Slough in From Top Compacting very Tight cause For Low % of Recovery
2.50 pulled sample						
3.00 Augered To 12.6						
3.30 End of Shift						
			13			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald p. DRILL FOREMAN — 10-12-49 DATE — Day SHIFT — L. W. Jones INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

Hole #3F-17-C From 0' to 12.6

dwc-
sac-3F-17-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-17-C Date Started
Project Sacto Deep Water Channel
Stream Sacramento River
Contractor US-C E-C
Rig name and No. Sanborn Drill Rig
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" Tube Size of hole

Angle Vert Bearing
Ground Elevation 15.00
Location of Hole 88+80
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
7.00 Left Engs garage			2	Auger	casing	
8.15 arrived at Job	FS #6 US #5	92	13, 14, 15			Brown clay at Top going into gray clay at Bottom Highly organic Compacting 1657-49
8.20 Servicing Equip						
8.45 Augered To 12.6						
9.05 pushed For Sample	FS #7 US #6	90	16, 17, 18			Brown clay at Top gray Clay at Buttom. Cause For Brow at Top is Sloughing in Highly organic Compacting 1658-49
9.20 prepared To push						
9.35 pushed for Sample						
9.50 welding Casing	FS #8 US #7	88	19, 20, 21			Brown clay To gray Clay Highly organic Compacting 1659-49
10.30 Sarted To Drive Casing						
11.00 Welding & Driving Casing						
11.45 Lunch	FS #9 US #8	83	22, 23			Gray Clay To Blue Clay Containes some organic Compacting 1660-49
12.15 Augered						
1.00 pushed for Sample						
1.15 Augered out						
1.45 pushed for Sample						
2.00 pushed for sample						
2.15 pushed for sample	FS #10 US #9	95	24, 25, 26			Blue Fat Clay Some organic Compacting 1661-49
2.30 Augereing						
2.45 pushed for sample						
3.00 got sample						
3.15 Cleaning up Rig	FS #11 US #10	100	27, 28, 29			Blue Fat Clay Some organic 1662-49
3.30 End of shift	FS #12 US #18	98	30, 31, 32			Blue Fat Clay Some organic Some compaction. 1663-49

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B.M.

McDonald P — DRILL FOREMAN
10-13-49 — DATE
Day — SHIFT
L.W. Jones — INSPECTOR

PSK FORM 6 (CIVIL) (Replaces formerly numbered PADK Form 181) 15 JULY 46

Hole # 3F-17C From 12.6 To 32.

dwc-
sac-3F-17-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-17-C Date Started
Project Sacto Deep Water Channel
Stream Sacramento River
Contractor US-CE-C
Rig name and No. Sanborn Drill Rig
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" Tube Size of hole 10"

Angle Vert. Bearing
Ground Elevation 15.00
Location of Hole Sta 88+80
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
7.00 Left Engs garage			Push 32	Augered	casing	Blue Clay Highly organic
7.15 Arrived at Soil Lab.		100	33			
7.30 Left Soil Lab			34			
8.40 Arrived at Job			35			1664-49
8.50 Servicing Equip.						Blue Clay at Top Appears To Be getting into silt at Bottom of Hole But still plastic
9.30 Augered out		100	36			
10.40 Welding & Driving casing			37			
10.50 Augering						1665-49
11.20 welding & Driving casing			38			Blue Silt
11.45 Augering		100	39			
12.05 Lunch						
12.35 prepared To Push			40			1666-49
12.55 pushed For sample			41			
1.10 pushed For sample			42			
1.25 Augered out			43			
1.45 prepared To Push						
1.55 pushed For sample						
2.10 pulled Sample						
2.30 welding & Driving casing						
3.15 cleaning up Rig						
3.30 End of Shift						

FS#13 US#12
FS#14 US#13
FS#15 US#14

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald P — DRILL FOREMAN
10-14-49 — DATE
Day — SHIFT
Jones L.W. — INSPECTOR

PSD FORM 1535 JULY-46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) Hole #3F-17-C 32.3 To 40.6

dwc-
sac-3F-17-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-17-C Date Started
Project Sacramento Deep Water Channel
Stream Sac. Ramp Lat
Contractor USCE-C
Rig name and No. Sacramento
Type of explorations: Solid rock ☐ Soils ☑
Method of exploration 6" Tubes Size of hole 10"

Angle Vert. Bearing
Ground Elevation +10.± (MLLW)
Location of Hole 884-8.0 St.
Datum
• Depth to water table
• Depth to top of solid rock
• Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
7.10 Left Engs Garage			Push	Auger	Casing	
8.20 Arrived at Job						
8.30 servicing Equip.						
9.05 Oil Line Broke on Rig. Went to Rio Vista for New one. None in stock Called Sacramento For Mach.						
11.45 Repaired old one & started Rig						
12.00 Lunch						
Welding & Driving casing 12.30						
12.50 Boring						
1.05 Augering Hole Filled in to 31'						
1.30 Mach Came with parts						
2.00 Rig started (Augered)						
2.15 pushed To 43±						
2.50 Welding & Driving casing	FS #16 US #15	97				Fine Blue Sandy Clay With very High Water Content
3.20 cleaning up						
3.30 End of Shift						1699-49
						35-17-C From 40± To 43±

30 31 32 33 34 35 36 37 38 39 40 41 42 43 44

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald — DRILL FOREMAN | 10-17-49 — DATE | Day — SHIFT | L.W. Jones — INSPECTOR

PSK FORM 35-JULY-46 6 (CIVIL) (Replaces formerly numbered PAIK Form 181)

dwc-
sac-3F-17-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-17-C Date Started 10-12-49 Angle Vert Bearing
Project Sacramento Deep Water Channel Ground Elevation 10 ±
Stream Sacramento River Location of Hole Sta 5+50
Contractor USE-CE-C Datum
Rig name and No. Sanborn drill Rig * Depth to water table
Type of explorations Solid rock ☐ Soils ☑ * Depth to top of solid rock
Method of exploration 6" Tube Size of hole 10" * Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
7⁰⁰ Left Engrs Garage			Push / Auger		Casing	
8¹⁰ Arrived at Job						
8¹⁵ Servicing Equip						
8⁴⁵ Started Rig			43			
9⁰⁰ Augering To 43±				44		Blue Silt With Sand High Water content
9³⁰ prepared To Push	FS # 17	100		45		
9⁴⁰ Pused To 46±	US # 16			46		1700-49
9⁵⁵ pushed To 49±						Blue Fine Sand & Silt High Water content
10¹⁰ Get Ready To Move. Cutting & Pulling Casing	FS # 18	100		47		
12⁰⁰ Lunch	US # 17			49		1701-49
12³⁰ Loading Truck				49		
2³⁰ Moved To Hole # 3F-18-C						End of Hole
3⁰⁰ Started unloading.						Final Log on This Hole
3³⁰ End of Shift						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald R. — DRILL FOREMAN | 10-18-49 — DATE | Day — SHIFT | Jones L.W. — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PAIK Form 181) 3F-17C From 43± To 49±

dwc-
sac-3F-18-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-18-C Date Started 10-19-49
Project Deep Water Channel
Stream Sacramento River
Contractor US-CE-C
Rig name and No. Sanborn Drill Rig
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" push Tubes Size of hole 10"

Angle Vert Bearing
Ground Elevation -32
Location of Hole Sta 88+4
Datum N197,700 E2,096,820
* ~~Depth to~~ Elev. water table -6.3
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
7.00 Left Engs Garage	FS#1 DS#1	100	push 0	auger	casing	adobe Highly organic
8.15 Arrived at Job			1			1717-49
8.30 Started Rig		50	2			Gray clay Highly organic
9.30 Augered To 1.2	FS#2 US#1		3			1718-49
10.00 prepared To push		US 60%	4			Gray To Brown clay Highly organic U.D. sample
10.15 pushed To 3.2	FS#3 DS#2		5			1719-49
10.30 pushed To 6.3 But Lost 40% of it So Went in With auger For Rest of sample	FS#4 US#2	DS 40%	6			Gray To Brown clay Highly organic D.S. 1720-49
11.00 pushed To 9.2	FS#5 US#3	100	7			Gray clay or peat
11.10 pushed To 11.2			8			1721-49
	FS#6 US#4	100	9			Gray To Blue clay Less Traces of peat
			10			1722-49
			11			
			12			Water Table 7'

Sheet 1 of 2

3F18-C

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald P. — DRILL FOREMAN
10-19-49 — DATE
Day — SHIFT
Jones L.W. — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

Depth 0 to 11.2

dwc-
sac-3F-18-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-18-C Date Started 10-19-49
Project Sacto Deep Water Channel
Stream Sacto River
Contractor WS-CE-C
Rig name and No. Sanborn Drill Rig
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" push Tube Size of hole 10"

Angle Vert Bearing
Ground Elevation -33
Location of Hole Sta 88+40
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
11.25 pushed To 14.7 26% of sample Ran out Top End	FS #7 US #5		push 11	Auger	casing	
11.40 Welding Casing		75	12			Gray To Blue clay some organic
12.00 Lunch			13			
12.30 Welding & Driving casing			14			1723-49
1.00 Augered To 14.7	FS #8 DS #3		15			Blue Gray Clay some organic But Enough To make it unsolid Very Wet
1.20 push To 17.5 But Lost Sample Augered it out			16			
			17			1724-49
1.40 pushed To 20.3	FS #9 US #6	100	18			Blue Fat Clay some organic
2.05 Welding & Driving casing			19			
			20			1725-49
2.30 prepared To push for sample	FS #10 US #7	100	21			Blue Fat Clay
2.45 pushed To 23.1			22			
3.30 End of Shift			23			1726-49
			24			Sheet 2 of 2
						Hole #3F-18-C From 0' To 23.1

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald P. — DRILL FOREMAN
10-19-49 — DATE
Day — SHIFT
Jones L.W. — INSPECTOR

PSK FORM 6 (CIVIL) (Replaces formerly numbered PADK Form 181)
15 JULY 46

11.9 to 23.1

dwc-
sac-3F-18-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-18-C Date Started 10-19-49 Angle Vert Bearing
Project Sacramento Deep Water Chann. Ground Elevation -32
Stream Sacramento River Location of Hole 88+40 Sta.
Contractor US-CE-C Datum
Rig name and No. Sandorn Drill Rig * Depth to water table
Type of explorations Solid rock ☐ Soils ☑ * Depth to top of solid rock
Method of exploration 6" push Tube Size of hole 10 * Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV (feet)	H2O Recov. %	FIELD CLASSIFICATION
7.00 Left Engs Garage			push	Auger	casing	
8.10 Arrived at Job						
8.20 Servicing Equipment						
8.50 Started Rig						
9.00 Tried To Start Arc Welder						
10.10 got it started Dead Battery			23			Blue sandy clay
10.15 Welding & Driving Casing			24			
10.45 Augered To 23'	FS #11 D #4		25			
11.00 Augerd To 27.0 For sample, Too Wet To get U.S.			26			1727-49
11.30 pushed To 29'	FS #12 US #8	100	27			Fine Blue sand
12.00 Lunch			28			
12.30 preparing To Move			29			1728-49
2.10 Left For Hole #???			30			Final Log on This Hole
Setting up Rig at New Location						
End of Shift						Hole # 3F-18-C From 23' To 29'

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald P — DRILL FOREMAN; 10-20-49 — DATE; Day — SHIFT; Jones L W — INSPECTOR

PSK FORM 15 JULY 46 (CIVIL) (Replaces formerly numbered PADK Form 181)

WAR DEPARTMENT
PADK-181

CORPS OF ENGINEERS, U.S. ARMY

dwc-
sac-3F-21-C

U.S. ENGINEER OFFICE
WATER RESOURCES DIVISION, SACRAMENTO, CALIFORNIA

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-21-C Date Started 9/15/49 Angle Vert. Bearing
Project Sacramento Deep Water Channel Ground Elevation -0.60
Stream Sacramento River Location of Hole N196,180 E2,098,310
Contractor USCE-C Datum
Rig name and No. Sanborn Plant #625 * ~~Depth to~~ Elev water table -3.6
Type of explorations Solid rock ☐ Soils ☑ * Depth to top of solid rock
Method of exploration 6" push tube Size of hole 10" * Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	~~H2O Recov. %~~	FIELD CLASSIFICATION
07:00	Left Eng. Garage			Push 0.0	Auger		
08:00	Arrived at hole 3F-21-C to find hole completed by night shift of 9/14/49.			1285-49			Sandy silt
				1286-49 2.0			Sandy silt (1.0 to 1.5) & Dense blue clay (1.5 to 2.2)
08:05	Loading & moving to site of hole 3F-21-C			1287-49			Organic clay (peaty dense)
12:00	Lunch						
12:30	Finished setting up at 3F-21-C		100%	4.0			Organic clay (peaty dense)
12:40	Started augering at 0.0	FS#1 DS#1					
12:50	pulled out at 1.0'				1288-49		
12:55	Augered from 1.0' to 2.2'	FS#2 DS#2		6.0			
13:05	Augered from 2.2' to 3.2'	FS#3 DS#3					
13:20	preparing for push				1289-49		
13:25	Started push at 3.2'	FS#4 DS#1	44%	8.0			Organic Clay (dense
13:30	stopped push at 6.4'						
13:35	~~[illegible]~~ Augered to clean hole to 6.4'			Lost			
13:45	Started push at 6.4'	FS#5 DS#2		10.0			
13:50	stopped push at 9.8'						
13:55	Moved welder from site of 3F-21-C			12.0			
14:30	welded two 3.0' sections of 10" casing						
15:10	Cleaned Equip.						
15:30	End of shift.						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald — DRILL FOREMAN
Day — DATE
9/15/49 — SHIFT
Mabry — INSPECTOR

Depth 6.0 to 9.8' Hole 3F-21-C

dwc-
sac-3F-21-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-21-C (50' South) Date Started 9/15/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Sanborn # 625
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" Push Tube Size of hole 10"

Angle Vertical Bearing
Ground Elevation
Location of Hole
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	~~H₂O Recov. %~~	FIELD CLASSIFICATION
1530 START OF SHIFT Added & welded 9.4 ft 10" casing. (Total 9.4 ft of casing) 1550 Drove casing to 9.8 ft. 1635 Repaired slipping brake on rig 1705 Augered from 3.8 ft to 7.9 ft.			Push 3, 5, 7	Auger	Casing	
1730 Augered from 7.9 ft to 10.8 ft. (PUSH SAMPLE COST LAST SHIFT) 1745 Prepared for push. 1800 Pushed from 10.8 to 14.4'	FS#6 DS#4		1290-49, 9			Dense, fat, Organic Clay
1810 Added & welded 6' of 10" casing. Total casing 15.4 ft. 1830 Drove casing to 14.4 ft. 1850 Supper 1920 Augered to 14.4 feet 2030 Prepared to push	FS#7 US#3	100 %	11, 1291-49, 13			Dense, fat, blue, organic, Clay
2035 Pushed from 14.4 to 17.9 2055 Added & welded 3' of 10" casing. Total 18.4 ft. casing 2100 Drove casing to 17.8 ft 2110 Augered to 17.9 2125 Prepared to push	FS#8 US#4	100 %	15, 1292-49, 17			Dense, fat, blue organic, Clay
2130 Pushed from 17.9 to 21.4 2140 Added & welded 3' 10" casing. Total 21.4 ft. casing 2150 Drove casing to 21.0 ft. 2200 Augered to 21.4 2230 END OF SHIFT	FS#9 US#5	100 %	19, 1293-49, 21			Dense, fat, blue Clay
			24			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold — DRILL FOREMAN; 9/15/49 — DATE; Night — SHIFT; Hadzima — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) Depth 9.8' to 21.4' Hole 3F-21-C

dwc-
sac-3F-21-C

WAR DEPARTMENT
PADK-181

CORPS OF ENGINEERS, U.S. ARMY

U.S. ENGINEER OFFICE
WATER RESOURCES DIVISION, SACRAMENTO, CALIFORNIA

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3E-21C Date Started 9/15/49 Angle Vertical Bearing
Project Sacramento Deep Water Channel Ground Elevation
Stream Sacramento River Location of Hole
Contractor USCE-C Datum
Rig name and No. Sanborn #625 * Depth to water table
Type of explorations: Solid rock ☐ Soils ☑ * Depth to top of solid rock
Method of exploration 6" Push Tube Size of hole 10" * Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H₂O Recov. %	FIELD CLASSIFICATION
0700 Left Engr. Garage 0800 Servicing Equipment 0830 Prepared to push 0840 Pushed from 21½ to 24½ ft. 0900 Added & welded 3' 10" casing. Total casing 24½ 0930 Drove casing to 24½ ft. 1000 Augered to 24½ 1015 Prepared to push 1030 Pushed from 24½ to 28½ 1045 Added & welded 3' of 10" casing. Total Casing 30½ ft. 1200 Lunch 1230 Added & welded 3' of 10" casing. Total casing 30½. 1300 Drove Casing to 30½ ft. Impossible to obtain U.S. Sample 1315 Bailed to 28½ ft. 1330 Augered from 28½ to 30½ ft. 1350 Prepared for push 1400 Pushed from 30½ to 33½ ft. 1420 Prepared for push 1430 Pushed from 33½ to 36½ END OF SHIFT	FS #10 US #6 FS #11 US #7 FS #12 DS #5 FS #13 US #8 FS #14 US #9	100 % 100 % — 100 % 75 %	PUSH 20 22 24 26 28 30 32 34 36	1294-49 1293-49 1291-49 1297-49 1298-49	RIGHT CASING	Fine, gray Sand Fine, silty Sand (High water content) Fine, silty Sand (High water content) Fine, silty Sand Fine, silty, Sand High water content
FINAL LOG - HOLE COMPLETED - DEPTH REACHED						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald — DRILL FOREMAN; 9/16/49 — DATE; Day — SHIFT; Hodgins — INSPECTOR

Depth 21½ to 36½ Date 3E-21C

dwc-
sac-3F-22-C+

WAR DEPARTMENT
PADK-181

CORPS OF ENGINEERS, U.S. ARMY

U.S. ENGINEER OFFICE
WATER RESOURCES DIVISION, SACRAMENTO, CALIFORNIA

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-22-C Date Started 9/16/49
Project Sacramento Deepwater Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Sanborn Diamond #620
Type of explorations Solid rock ☐ Soils ☐
Method of exploration 6" Push tube Size of hole 10"

Angle Vert. Bearing
Ground Elevation -2.49
Location of Hole 240' P.T. D'Line
Datum N196,060 E2,097,850
ELEV
* ~~Depth to~~ water table -3.0
* Depth to top of solid rock
* Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet) Push core	ELEV. (feet) Augr.	H2O Recov. % Casing	FIELD CLASSIFICATION
07:00	Left Eng. Garage						
07:25	Picked up equipment at						
09:15	Finished moving equip. from hole 3F-21-C						
10:45	Set up, Soaring, repair, drill, Lunch						
11:45	Augered from 0.0 to 0.7'	FS#1 DS#1		0.0			Sandy silt 1373-49
12:25	Augered from 0.7' to 1.9'	FS#2 DS#2					Sandy silt 1374-49
12:35	Augered from 1.9' to 3.2'	FS#3 DS#3		2.0			Sandy silt to 2.3' Organic clay from 2.3' to 3.2' 1375-49
12:40	Prepared for push						
12:50	Started push at 3.2'	FS#4 DS#1	100 %	4.0			Peaty clayey silt 1376-49
13:00	Stopped push at 6.6'						
13:10	Augered to clean hole to 6.6'			6.0			
13:20	Prep. for push						
13:30	Started push at 6.6'	FS#5 DS#2					
13:35	Stopped push at 10.0'			8.0			Peaty clayey silt 1377-49
13:45	Augered to clean hole to 10.0'						
14:00	Welded shoe to 3.0' of 10" casing Swelled together two 3.0' sections of 10" casing			10.0			
15:15	Cleaned equip.						
15:30	End of shift						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald 9/16/49 Day Makey
DRILL FOREMAN DATE SHIFT INSPECTOR

Depths 0 to 10.0 Hole 3F-22-C

dwc-
sac-3F-22-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-22C Date Started 9/16/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Sanborn #625
Type of explorations Solid rock ☐ Soils ☒
Method of exploration 6" Push Tubes Size of hole 10"

Angle Vertical Bearing
Ground Elevation -2.49
Location of Hole 740' rt D Line
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
1530 START OF SHIFT. Added & welded two 3', 10" casing. Total casing 6.4 ft. 1600 Water filled hole to 5.0 ft. 1605 Added & welded 3' 10" casing. Total casing 9.4 ft. 1615 Drove casing to 8.4 ft. 1700 Added & welded 3' of 10" casing. Total casing 12.4 ft. 1715 Drove casing to 10.0 ft. 1720 Augered to 10.0 ft to clean hole. 1800 Bailed from 5.0 to 10.0 ft. 1810 Prepared to push. 1815 Pushed from 10.0 to 13.5 ft.			Push 0	Auger	casing	Note: Whenever casing was driven the percussion caused earth vibrations at distances up to & greater than 50.0 ft from the rig.
1830 Added & welded 3' of 10" casing. Total casing 15.4 ft. 1900 Supper. 1930 Drove casing to 13.5 ft. 2000 Augered to 13.5 ft. 2045 Prepared to push. Chain attached to plunger ruptured as piston was being forced toward mouth of sampler. Repaired chain.	FS #6 US #3	100 %	10			Lean, Organic, Clay (peat) 1378-49
2115 Pushed from 13.5 to 17.0	FS #7 US #4	100 %	14			Slightly Plastic Peat 1379-49
2130 Added & welded 3' of 10" casing. Total casing 18.4. 2210 ~~Augered to 17~~ Drove casing to 17.0 ft. 2215 Augered to 17.0 ft. 2230 END OF SHIFT			18			
			20			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B.M.

Arnold — DRILL FOREMAN
9/16/49 — DATE
Night — SHIFT
Hadzima — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) Depth 10.0 to 17.0 ft. Hole 3F-22G

dwc-
sac-3F-22-C+

DEPARTMENT
PADK-181

CORPS OF ENGINEERS, U.S. ARMY

U.S. ENGINEER OFFICE
WATER RESOURCES DIVISION, SACRAMENTO, CALIFORNIA

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-22-C Date Started 9/16/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Sanborn Plant #625
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" Push tube Size of hole 10"

Angle Vert Bearing
Ground Elevation -2.49
Location of Hole 740 Rt. D Line
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	~~H2O Recov. %~~	FIELD CLASSIFICATION
07:00	Left Eng. Garage			Push 12.0	Auger	Casing	
08:00	Picked up load of 10" casing at Bryte Bend & 55 gal. drum of gasoline at Sacramento Weir			14.0			
09:30	Servicing equipment			16.0			
09:50	Preparing for push (Hole clean to 17.0')						
10:00	Started push at 17.0'	F.S.#8 U.S.#5	100%	18.0			Organic clay
10:05	Stopped push at 20.5'. Rotated & pulled						
10:10	Added & welded 3.0' of 10" casing (Total 21.4)						
10:35	Drove casing to 20.4'			20.0			1380-49
10:45	Prepared for push						
11:05	Augered to clean hole to 20.5'						
11:15	Started push at 20.5'	F.S.#9 U.S.#6	60%	22.0			plastic peat & organic sandy silt 1381-49
11:20	Stopped push at 24.0'						
11:30	Lunch						
12:00	Added & welded 3.0' of 10" casing (Total 24.4)			Lost 24.0			Organic sandy silt 1382-49
12:25	Drove casing to						
12:35	prepared for push						
12:50	Augered to clean hole to 24.0'	F.S. U.S.					
13:10	Started push at 24.0'	no recovery		LOST 26.0			organic sandy silt 1383-49
13:15	Stopped push at 27.5'						
13:25	Added & welded 3.0' of 10" casing (Total 27.4)						
13:40	Drove casing to 26.8'			28.0			
13:55	Augered to clean hole to 27.5'	F.S. U.S.					
14:45	Cleaned & serviced equipment						
15:30	End of shift						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B.M.

McDonald — DRILL FOREMAN
9/20/49 — DATE
Day — SHIFT
Mabry — INSPECTOR

Depth 10.0' to 27.5' Hole 3F-22-C

dwc-
sac-3F-22-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F 22 C Date Started 9/16/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Sanborn #625
Type of explorations Solid rock ☐ Soils ☒
Method of exploration 6" Push tubes Size of hole 10"

Angle Vertical Bearing
Ground Elevation -2.49
Location of Hole 240 rt. D Line
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
1530 START of SHIFT Prepared for push			Push 26	Augt Casing		
1600 Pushed from 27± to 31±	FS #12 US #7	100 %	28			Very fine Sandy Silt
1610 Added & welded 3 - 10" casing (Total 30±)						1384-49
1635 Drove casing to 30'			30			
1700 Augered to 31± ft (Soil has consistency of wet mortar) Brake on rig not functioning properly						Silt with high water content 1385-49
1800 Supper			32			
1830 Hole continually filled to 26± ft with sandy silt & water						Silt with high water content
1900 Added & welded 6 ft of 10" casing. Total 36± ft	FS #13 DS # 6		34			1386-49
2030 Drove casing to 36± to seal off water & silt. Impossible to obtain US sample	FS #14 DS # 14		36			
2100 Augered to 31±			38			
2115 Augered from 31± to 31 ft						
2130 Augered from 31± to 36±			40			
2230 END of SHIFT			42			
			44			
			46			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold — DRILL FOREMAN | 9/20/49 — DATE | Night — SHIFT | Hadzima — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PAUK Form 181) Depth 27± to 36± ft Hole 3F-22 C

dwc-
sac-3F-22-C+

WAR DEPARTMENT
PADK-181

CORPS OF ENGINEERS, U.S. ARMY

U.S. ENGINEER OFFICE
WATER RESOURCES DIVISION, SACRAMENTO, CALIFORNIA

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-22-C Date Started 9/16/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Sanborn Plant #625
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" Push tube Size of hole 10"

Angle Vert. Bearing
Ground Elevation -2.49
Location of Hole Sta. 111+00 740' Rt. "D" Line
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	~~H2O Recov. %~~	FIELD CLASSIFICATION
07:00	Left Eng. Garage			Push 34.0	Auger	Casing	
08:10	Serviced equip.						
08:30	Baled to 28.0' (Hole filled to 26.0' Water rose to 1.0')						
09:10	Augered to clean hole to 36.0'			36.0			very fine silt to 37.0'
09:35	Added & welded 3.0' of 10" casing (Total 39.4')						Blue clay from 37.0' to 39.0'
10:00	Drove casing to 39.0' to shut off water			38.0			1387-49
10:15	Started augering at 36.0'	F.S. #15 D.S. #8					1388-49
10:35	pulled out at 39.0'			Lost 40.0			stiff sandy clay
10:40	Prepared for push		66%				Note: pumping water during push, which washed away top 1.2' of sample (blue clay)
10:50	started push at 39.0'	F.S. #16 U.S. #8					
10:50	Stopped push at 42.5'			42.0			
11:00	Added & welded 3.0' of 10" casing (Total 42.4')						1389-49
11:25	Lunch		100%				stiff sandy clay
12:00	Drove casing to 42.0'			44.0			
12:20	Hole filled to 35.0' water rose to 15.0' Baled to 36.0'						
12:35	Replaced cable on sheave,						
12:50	water rose to 25.0'. Baled to 40.0'						
13:00	Augered to clean hole to 42.5'						
13:20	Prepared push tube						
13:40	Started push at 42.5'	F.S. #17 U.S. #9					
13:45	stopped push at 44.7'. Unable to push further						
14:00	Water rose to 15.0' Baled to 43.0'						
14:25	Augered to clean hole to 44.7'						
14:45	Cleaning servicing rig						
15:30	End of shift						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald 9/21/49 Day Mabry
DRILL FOREMAN DATE SHIFT INSPECTOR

Depth 36.0 to 44.7' Hole 3F-22-C

dwc-
sac-3F-22-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-22-C Date Started 9/16/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Sanborn #625
Type of explorations Solid rock ☐ Soils ☒
Method of exploration 6" Push Tube Size of hole 10"

Angle Vertical Bearing
Ground Elevation
Location of Hole 1240' rt. D line
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
1530 START OF SHIFT Prepared to push			Push 42' Auger Casing			
1615 Pushed from 42' to 48'. Extremely difficult to push			44			
1700 Prepared to Push	FS #18					
1730 Pushed from 48' to 51' ft.	US # 10	100 %	46			Stiff sandy Clay (W) small pieces of calcareous material
1800 Supper						1390-49
1830 Pulled casing & prepared to move to new site			48			
2230 END OF SHIFT	FS #19					Stiff blue Clay (W) calcareous material
	US # 11	100 %	50			1391-49
			52			
Hole Completed - Required depth Reached						
LAST LOG.						Depth 44' to 51' ft. Hole 3F-22C

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold — DRILL FOREMAN
9/21/49 — DATE
Night — SHIFT
Hadzima — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-3F-25-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F25C Date Started 7 Oct 1949
Project Deep Water Channel
Stream
Contractor US Corps of Engineers
Rig name and No. Sullivan 752
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 2" push tube sampler Size of hole 4"

Angle Vert Bearing
Ground Elevation 176
Location of Hole sta 34+80 out 370
Datum N194,030 E2,098,240
* ~~Depth to~~ Elev. water table -14.2
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet) Path	ELEV. (feet) Arg.	H2O Recov. % Casing	FIELD CLASSIFICATION
0745 start of shift completed setup, repairing motor on compressor. 1130 started pushing went from 0° to 2.5 at 1140 pulled no recovery compressor not operating right. 1140 to 1300 worked on compressor 1300 to 1320 augered from 0° to 3°, drove 4" casing from 0° to 3° total length of casing 4.2°	FS1 DS1		0°			organic clay
			3°			1636-49
1320-1330 pushed to 5° no recovery could not repair compressor - sent it to yard 1400-1430 augered to 5° and drove casing to 4° 1430 to 1630 servicing & cleaning equipment	FS2 DS2					organic clay
			5°			1637-49
			5°			

NO RECOVERY

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold	10 Oct 1949	Day	[signature]
DRILL FOREMAN	DATE	SHIFT	INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

3F25C
Depth 0 to 5°

dwc-
sac-3F-25-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F25C Date Started 7 Oct 1949 Angle Vert Bearing
Project Deep Water Channel Ground Elevation 1.76
Stream Location of Hole 3+a 34+80 out 370
Contractor USCE Datum
Rig name and No. Sullivan 7521 * Depth to water table
Type of explorations Solid rock ☐ Soils ☑ * Depth to top of solid rock
Method of exploration 2" push tube sampler Size of hole 4" * Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov.	FIELD CLASSIFICATION
0745 Start of shift Compressor being repaired in yard-arrived at 1145 1155 pushed to 8' recovered to 7' 1200 augered to 8' 1220 drove casing to 8' total length of casing 8'	FS3 US1	100%	push 5' 8'			Organic clay 1638-49
1235 pushed to 10' full recovery 1240 augered to 10'	FS4 US2	1 11/8"	10'			Organic clay 1639-49
1250 pushed to 13' recovered 2 1/2' 1300 augered to 13' 1310 drove casing to 13'	FS5 US3	1' 2" / 2' 5"	13'			Organic Clay 1640-49
1325 pushed to 16' recovered 2' 1330 augered to 16' 1345 drove casing to 16' ran out of old push tubes new tubes of smaller inside diameter. plunger would not work. plunger taken to yard to be turned down	FS6 US4	2' / 3'	16'			Organic Clay 1641-49

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold — DRILL FOREMAN; 11 Oct 1949 — DATE; day — SHIFT; Kenneth Sutton — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

Hole 3F25C Depth 5' to 16'

dwc-
sac-3F-25-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F25cc Date Started 7 Oct 1949
Project Deep Water Channel
Stream
Contractor USCE
Rig name and No. Sullivan 752
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 2" push tube sample Size of hole 4"

Angle Vert Bearing
Ground Elevation 1.76
Location of Hole Sta 3A+80 out 370
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet) Pull to	ELEV. (feet) Angle	H2O Recov. C/g/m	FIELD CLASSIFICATION
0745 start of shift 1030 plunger brought in from yard. 1055 pushed to 18.5 full recovery 1100 augered to 18.5	FS7 US5	100%	16.0			Organic clay 1673-49
1140 pushed to 21.0 full recovery 1210 drove casing to 21.0 1230 augered to 21.0	FS8 US6	100%	18.5			organic clay 1674-49
1255 pushed to 23.5 recovered 1.8 bottom 0.7 dropped out. 1310 augered to 23.5 took disturbed sample 22.5 to 23.5	FS9 US7 FS10 DS3	8/25	21.0			organic clay 1675-49 1676-49
1320 pushed to 26.0 full recovery 1335 drove casing to 26.0 1350 augered to 26.0 took disturbed sample	FS11 US8 FS12 DS4	100%	23.5			bottom of push tube in clay took an augered disturbed sample - all in clay 1677-49 1678-49
1415 pushed to 28.5 full recovery 1430 augered to 28.5	FS13 US9	100%	26.0	Bottom of casing		clay 1679-49
1445 pushed to 31.0 full recovery 1500 augered to 31.0	FS14 US10	100%	28.5			clay 1680-49
1520 pushed to 33.5 full recovery	FS15 US11	100%	31.0			clay 1681-49
Bottom of hole Final log			33.5			Water at -8.00 below top of ground

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold — DRILL FOREMAN; 12 Oct 1949 — DATE; Day — SHIFT; [signature] — INSPECTOR

Hole 3F25c
Depth 16.0 to 33.5

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-3F-27-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F 27C Date Started 9/12/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Sanborn #625
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" Push Tubes Size of hole 10"

Angle Vertical Bearing
Ground Elevation -2.54
Location of Hole Sta 156+50
Datum N192,060 E2,098,050
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
1530 - Start of shift - setting up rig - Moving equipment to new location	FS#1 DS #1		0 1299.49	Auger	CASING	Dark Brown Clay
1630 - Augered from 0' to 1'	FS#2 DS #2		2 1300.49			Dark Brown Clay (ADOBE)
1700 - Augered from 1' to 2½'	FS #3 DS #3		1301.49			Dark Gray Fat Clay
1715 Augered from 2½' to 3¾'			4			Gray Clay
1725 Push Tube from 3¾' to 7'	FS#4 UD#1 1 Tube	100%	1302.49 6			
1800 Supper						
1830 Augered from 3¾' to 7'						
2000 Push Tube from 7' to 10'	FS#5 UD#2 1 tube	100%	8 1303.49			Blue Clay (fat)
2030 Augered from 7' to 10'			10			
2130 Welded 3' of 10" casing - total casing 6.4'						
2200 Servicing equipment						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

M. Harris — DRILL FOREMAN
9/12/49 — DATE
Night — SHIFT
J. Hadzima — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) 0 to 10 3F27-C

dwc-
sac-3F-27-C+

WAR DEPARTMENT
PADK-181

CORPS OF ENGINEERS, U.S. ARMY

U.S. ENGINEER OFFICE
WATER RESOURCES DIVISION, SACRAMENTO, CALIFORNIA

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-27-C Date Started 9/12/49 Angle Vert. Bearing
Project Sacramento Deep Water Channel Ground Elevation -2.54
Stream Sacramento River Location of Hole Sta. 156+50, 570' Rt. D Line
Contractor USCE-C Datum
Rig name and No. Sanborn Plant #625 * Depth to water table
Type of explorations Solid rock ☐ Soils ☑ * Depth to top of solid rock
Method of exploration 6" push tube Size of hole 10" * Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H₂O Recov. %	FIELD CLASSIFICATION
07:00	Left Eng. Garage			8.0 push	Auger	Casing	
08:10	Servicing Equip.						
08:30	Cleaned hole to 10.0' water at 2.0'						
09:00	Prepared equip. for push						
09:25	Started push at 10.0'	F.S. #6 U.S. #3	100%	10.0			Organic Clay (Peat in end of sample)
09:30	Stopped push at 13.0'						
09:45	Added & welded 3.0' of 10" casing (Total 12.0')			12.0	1304-49		
10:00	Pushed casing into ground by hand to 11.5'						
10:10	Cleaned hole to 13.0' & prepared for push		100%	14.0	1305-49		Organic Clay
10:40	Started push at 13.0'	F.S. #7 U.S. #4					
10:45	Stopped push at 16.0'						
10:55	Added & welded 3.0' of 10" casing (Total 15.0') Drove to 14.5'		100%	16.0			Blue Clay with organic matter
11:30	Lunch						
12:00	Hole filled to 12.0' Cleaned to 16.0' & prepared to push			18.0	1306-49		
12:40	Started push at 16.0'	F.S. #8 U.S. #5					
12:45	Stopped push at 19.0'			20.0			
12:50	Added & welded 3.0' of 10" casing (Total 18.0')						
13:15	Drove casing to 17.0'						
13:30	Tore down & moved platform & bailer from site of hole 3F32C						
14:45	Cleaned hole to 19.0'						
15:10	Cleaned equip.						
15:30	End of Shift						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

M. Harris — DRILL FOREMAN | 9/13/49 — DATE | Day — SHIFT | M. Mabry — INSPECTOR

Depth 10.0' to 19.0' Hole 3F-27-C

dwc-
sac-3F-27-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-27-C Date Started 9/12/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Sanborn plant #625
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" Push Tube Size of hole 10"

Angle Vertical Bearing
Ground Elevation -2.54
Location of Hole Sta. 156+50, 570' rt. D Line
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
1530	Start of Shift			Push 16	Auger	CASING	
1600	Added & welded 3' of 10" casing. Total casing 21.4						
1615	Drove Casing to 19½'			18			
1630	Augered to 19'						
1700	Push from 19' to 22½'	FS#9 US#6		20			
~~1800~~ 1730	Added & welded 3' of 10" casing. Total Casing 24.4		100%		1307-49		Blue Clay
1800	Supper			22			
1830	Drove casing to 22½'						
1910	Augered to 22½'						
2005	Push from 22½ to 26'	FS#10 US#7	100%	24	1308-49		Blue Clay (lean)
2035	Attached & welded 3' of 10" casing. Total 27.4' casing			26			
2100	Drove casing to 25½'						
2110	Augered to ~~25½~~ 26'		Loss				
2130	Push Sample-failure-Hole filled to 19 ft.			28			
2140	Added & welded 3' of 10" casing Total 30.4' casing			30			
2150	Drove casing to 29.4'						
2200	Added & welded 3' of 10" casing. Total 33.4' casing			32			Note: Due to hole filling it was necessary to drive casing. Impossible to obtain push sample.
2215	Drove casing to 32.4'						
2230	END OF SHIFT			34			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

M. Harris — DRILL FOREMAN
9/13/49 — DATE
Night — SHIFT
Hadzima — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) Depth ~~16~~ 19' to 26' Hole 3F-27-C

dwc-
sac-3F-27-C+

WAR DEPARTMENT
PADK-181

CORPS OF ENGINEERS, U.S. ARMY

U.S. ENGINEER OFFICE
WATER RESOURCES DIVISION, SACRAMENTO, CALIFORNIA

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-27-C Date Started 9/12/49 Angle Vert. Bearing
Project Sacramento Deepwater Channel Ground Elevation -21.54 M.L.L.W.
Stream Sacramento River Location of Hole Sta 152+50, 370' Dline
Contractor USAE-C Datum
Rig name and No. Sanborn Plant #625 * Depth to water table
Type of explorations Solid rock ☐ Soils ☐ * Depth to top of solid rock
Method of exploration 6" push tube Size of hole 10" * Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
07:30 Left Eng. Garage 08:10 Serviced Equip. 08:30 Hole filled to 19.2' Started augering to clean hole			26.0 Augered or push		Casing	
Stopped augering at 33.4' (26.0' below casing)	F.S.#11 D.S.#4		28.0 1309-49 30.0			Blue clay
09:45 Preparing for push 09:55 Removed push tube head						
10:40 Started push at 33.4' 10:45 Stopped push at 34.8'	F.S.#12 U.S.#8	100%	32.0			
12:50 Welded 3.0" o/o 10" casing (Total 34.4')			34.0 1310-49			Sandy silt
11:15 Let casing sink 1.2' to 35.6' (Total 35.6') 11:30 Drilled 0.3' silt & gravel		100%				
12:00 Augered to hole to 36.8'			36.0			
12:25 Prepared equip. for push						
12:50 Started push at 36.8'	F.S.#13 U.S.#9	100%	38.0 1311-49			Silt
13:50 Stopped push at 40.2'						
13:10 Added 2nd load 3.0" o/o 10" casing (Total 39.4')						
14:10 Drove casing to 38.8'						
14:30 Augered to clean hole to 36.0' (Filled to 26.0')			40.0			
14:45 Bailed to 40.0' (Filled with 1.4' water & 3.4' silt)						
15:10 Cleaned Equipment						
15:30 End of Sh. #1						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

M. Harris — DRILL FOREMAN
9/14/49 — DATE
Day — SHIFT
M. Mabry — INSPECTOR

Depth 26.0' to 40.2' Hole 3F-27-C

dwc-
sac-3F-27-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F27-C Date Started 9/12/49 Angle Vert. Bearing
Project Sacramento Deep Water Channel Ground Elevation -2.54
Stream Sacramento River Location of Hole Sta 156+50 570 ft Dike
Contractor U.S.-G.E.-C. Datum
Rig name and No. Sacramento Plant #625 * Depth to water table
Type of explorations Solid rock ☐ Soils ☑ * Depth to top of solid rock
Method of exploration 6" Push Tube Size of hole 10" * Depth to bottom of hole 44.6

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
1530 Start of shift. Bailed to 27 ft. Hole kept filling with silt & water. 1605 Added & welded 3' of 10" casing. Total of 42.4 casing 1635 Hole filled with water to 6 ft. Drove casing to 41.7. Hole filled with water to 4 ft 1655 Bailed to 39.3			Start of shift 40			
1725 Augered to 41.6 to clean hole	PS #14 DS #5	132.49	Push attempted			Very dense fat Blue Clay
1800 started push at 41.6 ft. Pushed hard for one ft, then difficult for the next ft. Then extremely diff. & ult pushing for the next foot. Driller was advised to pull out two feet of sample, but he went to push for three feet. Driller attempted to rotate then pull out tube. No move. Then a try was made again to rotate. The two bronze bolts in the head sheared off (only two bolts could be placed due to faulty construction of push tubes) 1830 Pushed tube abandoned in hole. Per orders of Mr. Favre. Hole complete 1930 Pulling casing 2230 End of shift		0%	42 loss 44			Because of extreme difficulty of push and subsequent loss of push tube this material may be assumed to be the same as above
						Final log for this hole

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold DRILL FOREMAN 9/14/49 DATE Nite SHIFT Hedzima INSPECTOR HF

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) Depth 42.2 to 44.6 3F27-C

dwc-
sac-3F-28-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-28-C Date Started 10-7-49
Project Sacto Deep Water Channel
Stream Sacramento River
Contractor U.S.C.E.-C
Rig name and No. Sanborn #625
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" push Tube Size of hole 10"

Angle Vertical Bearing
Ground Elevation -1.12
Location of Hole Sta. 155+25
Datum N192,020 E2,098,390
* ~~Depth to~~ Elev. water table -7.4 to -6.2
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
7.00 Left Engr. garage arrived at hole at 8.10 started Rig at 8.15 Prepared To augere at 8.40	FS#1 US#1		Push 0	Auger Casing		organic silt or clay 1607-49
8.50 augered from 0' To 2'	FS#2 US#1	60%	2			organic clay
9.10 pushed from 2' To 4.2'			4			
9.20 pushed from 4.2' To 7.6'	FS#3 US#2					1608-49
9.35 pushed To 10.4'		90%	6			organic clay (adobe)
9.50 augered To 10.4' hole very wet & starting To slough in	FS#4 US#3					1609-49
10.00 welding casing						
10.40 Driving casing To 10.4'		90%	8			organic clay with adobe
11.10 welding & driving casing hole still sloughing in Drove casing To 13.4'			10			1610-49
11.50 started To augere & clean out hole						Blue clay with some organic
Lunch 12.00						
12.30 started To bail out hole	FS#5 US#2		12			
12.55 augered To 13'						1611-49
1.15 started To push For sample	FS#6 US#4					Blue Fat clay somewhat stiffer than Last Drive
1.55 welding & Driving casing To 15.2'		75%	14			1612-49
2.00 Bailing out hole still sloughing in some						
2.40 stoped To Repair Breaks on Rig.			16			
3.30 End off shift			18			
			20			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

McDonald — DRILL FOREMAN
10-7-49 — DATE
Day — SHIFT
L. W. Jones — INSPECTOR

PSK FORM 15 JULY 46 6-(CIVIL) (Replaces formerly numbered PADK Form 181)

Depth 0.2 to 15.2
3F-28-C

dwc-
sac-3F-28-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-28-C6" Date Started
Project Sacto Deep water channel
Stream Sacramento River
Contractor US-CE-C
Rig name and No. Sanborn #625
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" push Tube Size of hole 10"

Angle Vert. Bearing
Ground Elevation -1.15
Location of Hole 155+25
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
7.00 Left Engs. Garage arrived 8.10 On Job. Started Rig Tried To Start arc welder			1.5 push		Auger casing	
8.35 prepared To push	FS#7 US#5	90	17			Blue Fat clay High water content
8.45 pushed To 18.6 From 15.2						1613-49
9.00 Tried To start arc welder			19			Blue Fat clay High water content
10.40 got it started		90				
11.10 welding & driving casing To 18.4						
11.20 Bailing	FS#8 US#6		21			1614-49
11.35 Augered To 18.6						Blue Fat clay High water content
11.45 prepared To push		85				
11.55 pushed To 21.4			23			
12.15 Lunch						
12.45 welding & Driving casing						1615-49
1.15 Augered To 21.4	FS#9 US#7		25			
1.30 prepared To push For sample						
1.50 sampled To 24.2						
welding & Driving casing			27			
2.15 Bailing						
2.40 started To augere. But Too much water coming in From under casing it is imposebel To Take undisturbed sample at this Time						
3.10 welding & driving casing						
End of shift						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

DRILL FOREMAN	DATE	SHIFT	INSPECTOR
P. McDonald	10-10-49	Day	L. W. Jones

PSK FORM 15 JULY 46 (CIVIL) (Replaces formerly numbered PADK Form 181)

Depth 15.0 to 24.2
3F-28-C

dwc-
sac-3F-28-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-28-C Date Started
Project Deep water Channel
Stream Sacramento River
Contractor U.S.C.E.-C
Rig name and No. Sanford #625
Type of explorations Solid rock ☐ Soils ☑
Method of exploration Push Tube 6" Size of hole 10"

Angle Vert. Bearing
Ground Elevation -11.2
Location of Hole 310,455 + 25
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
7:00 Left Garage			24 Push	Auger Casing		Blue Fat clay very High water content To wet & sloppy To sample by Tube or Sack Took 1 Jar
8:10 arrived at Job						
8:15 Serviced Equp.						
9:00 Started To boil out Hole Found it Too Soft To Auger Boiled To 28 To Sloppy To sample By Tube or Sack	#1 10 15 43 D 1001		26			
10:15 Started To push For Sample	#1 Fail Use #B		28			1616-49
10:45 prepared To Push		85	30			Fat Blue Clay High Water Content material gett more solid at end of Tube
11:05 Pushed To 34 E.						1617-49
11:20 prepared To Cut Casing			32			Blue Fat Clay material Seems To be getting in To some Fine sand at end of Tube
12:00 puled Casing		75				1618-49
12:15 Lunch			34			
12:45 Cut Casing To Load on Truck						
1:15 prepared To move			36			Water Level 5' below ground on 10 & 11 oct. 49
3:30 End of Shift End of Hole						
Final log						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

D. McDonald — DRILL FOREMAN | 10-11-49 — DATE | Day — SHIFT | L. Wickland — INSPECTOR

PSK FORM 6 (CIVIL) (Replaces formerly numbered PAIK Form 181)
15 JULY-46

No attempt To E from 0 & 2

Hole 3F-28-C 6"

dwc-
sac-3F-31-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F 31c Date Started 13 oct 1949
Project Deep Water Channel
Stream
Contractor USCE
Rig name and No. Sullivan 752
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 2" push tube sample Size of hole 4"

Angle Vert Bearing
Ground Elevation 6.63
Location of Hole
Datum N 189,370 E 2,096,640
* Depth to water table -2.4
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov.	FIELD CLASSIFICATION
0745 Start of shift. Moved from 3F 35c and set up on 3F 31c at 1200	FS1 DS1		No sample			Organic Clay
1230 augered 0' to 3.5' drove casing to 3.5' length of casing 4.2'						1667-49
1300 pushed to 5.5' full recovery upper 0.2' disturbed	FS2 US1	100				Sand -
1310 augered to 5.5'			5.5'			1668-49
1330 pushed to 8.2' full recovery, compaction 10%	FS3 US2	100				Sand
1345 drove casing to 8.2' sand ~~packed~~ compacted in casing, had to pull casing to clean while augering			8.2'			1669-49
1420 water table 5.1'						Sand
1440 pushed to 10.5' full recovery	FS4 US3	100				
drove casing to 10.5' started to auger - then trouble began with the sand.						1670-49
1500 water table 3.2'			10.5'			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold — DRILL FOREMAN
13 oct 1949 — DATE
day — SHIFT
[signature] — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

Hole 3F 31c 0.2' to 10.5'

dwc-
sac-3F-31-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F31C Date Started 13 Oct 1942
Project Deep Water Channel
Stream
Contractor USCE
Rig name and No. Sullivan 752
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 2" push tube samples Size of hole 4"

Angle Vert Bearing
Ground Elevation 6.3
Location of Hole
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet) Push 10E	ELEV. (feet) Aug	H2O Recov. Chain	FIELD CLASSIFICATION
0745 start of shift 900 drove casing to 15E 1000 augered to 12E	F55 DS2					sand - blue 1671-49
1130 auger catches in casing - unscrewing casing obtained from other rig welding outfit Spot welded pipe drove to 15E 1200 drove casing to 20E total length 20E. 1230 repaired auger 1325 went down with auger - too thin to auger. baled and Packed sand in hole augered to 20E	F56 DS3		20E			1672-49
1520 drove casing to 26E total length 26E.			26E			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold — DRILL FOREMAN
14 Oct 1942 — DATE
day — SHIFT
[signature] — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

Hole 3F31c Depth 10E to 20E

dwc-
sac-3F-31-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F31c Date Started 13 Oct 1949
Project Deep Water Channel
Stream
Contractor USCE
Rig name and No. Sullivan 732
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 2" push tube samples Size of hole 4"

Angle Vert Bearing
Ground Elevation 6.63
Location of Hole
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov.	FIELD CLASSIFICATION
0745 Start of shift 0830 servicing equipment changed oil all around 0930 baled out hole to 20° 1000 augered to 21° could not auger deeper because of water baled again 1130 drove casing to 31° 12°° baled out hole 1240 augered to 29° 28° to 29° blue clay	FS7 DS4		Push 20°	Auger		Sand 20° to 28° Blue clay 28° to 29°
			26°			Casing 26°
1250 augered to 31° at 30° back in silt & sand	FS8 DS5		29			1694-49 Blue Clay 29° to 30° silt & sand 30° to 31°
1415 went down with push tube could not get to bottom. Water at 9.9' Sand at 18° 1600 drove casing to 34° total length 34°			31°			1695-49
			34°			casing 34° at end of shift

No samples taken

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold — DRILL FOREMAN
17 Oct 1949 — DATE
day — SHIFT
[signature] — INSPECTOR

PSK FORM 15 JULY 46 6-(CIVIL) (Replaces formerly numbered PADK Form 181)

Hole 3F31c depth 20° to 31°

dwc-
sac-3F-31-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F31C Date Started 13 Oct 1949
Project Deep Water Channel
Stream
Contractor USCE
Rig name and No. Sullivan 232
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 2" push tube sample Size of hole 4"

Angle Vert Bearing
Ground Elevation 6.63
Location of Hole
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
0745 start of shift 0830 servicing equipment 0930 baled out hole augered to 30° - sand filled hole to 21°. added 5° of casing and drove to 39°. 1230 added another 5' of pipe - during the driving of the pipe the hammer slide had to be taken to welder at other rig for repairs 1320 drove casing to 44° 1330 baled out hole 1345 tried to auger little success, attempted again no luck. 1415 baled again, went down with auger to 42° this disturbed sample is from baling & auger	FS9 DS6		push 31° 34° 39° 42°	Auger		casing at start of shift sand 1696-49
1430 water level 9° hole filled with sand to 32° 1615 added 5° of pipe & drove to 48.5 total length of pipe 44' End of shift			44° 48.5			

No push tube samples

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold — DRILL FOREMAN
18 Oct 1949 — DATE
day — SHIFT
Seaborn — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

Hole 3F31C Depth 31° to 42°

dwc-
sac-3F-31-C+

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F31C Date Started 13 Oct 1949 Angle Vert Bearing
Project DEEP WATER CHANNEL Ground Elevation 6.63
Stream Location of Hole
Contractor USCE Datum
Rig name and No. Sullivan 7320 * Depth to water table
Type of explorations Solid rock ☐ Soils ☑ * Depth to top of solid rock
Method of exploration 2" push tube sampler Size of hole 4" * Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
0745 start of shift 0830 drove casing to 42° 0900 baled out hole - tried to auger - baled again 0945 went down with auger to 46° - hit clay at 45.5	FS10 DS1		push 42° 48			sand to 45.5 brown clay 45.5 to 46° 1697-49
100 augered to 51° 1300 pulled casing and moved to Hole 3FHC in the p.m.	FS 11 DS 8		No Push Tube samples 48.5 49 51°			brown inorganic clay 1698-49
FINAL LOG						Water Level Noon -6° This is not a stable ground water, drilling had been carried on right up to Noon HF

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Arnold — DRILL FOREMAN; 19 Oct 1949 — DATE; Day — SHIFT; [signature] — INSPECTOR

PSK FORM 6 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) Hole 3F31c Depth 42° to 51°

dwc-
sac-3F-32-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-32-C Date Started 9-1-49
Project Sacramento Deep Water Channel
Stream
Contractor U.S. Corps of Engineers.
Rig name and No. Sanborn Plant #625
Type of explorations Solid rock ☐ Soils ☒
Method of exploration 6" Push tube Sampler Size of hole 10"

Angle Vertical Bearing
Ground Elevation +1.20'
Location of Hole Sta. 187+00, 100' Rt. "O"
Datum
• Depth to water table
• Depth to top of solid rock
• Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	Auger	DEPTH (feet)	ELEV (feet)	Auger	H2O Recov. %	FIELD CLASSIFICATION
					0				E. McDonald – Driller
0700	enroute to job.								
0845		F.S.#1							
0845	tearing down rig								
1130	moving to hole #3F-32-C from hole #3F-36-C	D.S.#1							Silt to clay.
1130									
1200	lunch.	1 Bag			2				
1200									
1315	setting up rig & equip.								
1315	Started Auger								
1335	pulled Auger.	F.S.#2	3.0						
1340	Started push.	U.S.#1	3.0		4				organic clay,
1345	rotated & pulled tube		100%						
1350	Started auger	1 tube							
1400	pulled auger.				6				
1415	Started push.	F.S.#3	3.0						
1420	rotated & pulled tube	U.S.#2	3.0						organic clay.
1430	Started Auger								
1435	pulled Auger.	1 tube	100%		8				
1440	Started push.	F.S.#4	3.0						
1445	rotated & pulled tube	U.S.#3	3.0						organic clay
1445	prepared samples.								(turning to sand)
1530	& shut down rig	1 tube	100%		10				
	– end of shift –								
					12.				

See note on general log of hole

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Harris — DRILL FOREMAN
9-1-49 — DATE
Day — SHIFT
0'–12' Hole #3F-32-C
R. G. Austad — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-3F-32-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-32-C Date Started 9-1-49
Project Sacramento Deep Water Channel
Stream
Contractor U.S. Corps of Engineers
Rig name and No. Sanborn Plant #625
Type of explorations Solid rock ☐ Soils ☒
Method of exploration 6" Push tube Sampler Size of hole 10"

Angle Vertical Bearing
Ground Elevation 4.20 ft.
Location of Hole Sta 187+00, 100' Rt. Dline
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	~~H₂O~~ Recov. %	FIELD CLASSIFICATION
			8			E. McDonald - Driller.
0700 Leave Garage						
0815 - Arrive at site			9.0'			
0815 Installing & driving 12' of casing.						~~Organic Clay to Sand~~
0920 Augering to 12'			10			
1020 Started push sample	FS#5					
1030 Recovered sample	US#4					
1035 Putting in 3' casing						
1100 Augering to 15'			12			
1115 Started push sample.						Organic Clay to Sand
1125 Rotated and pulled tube						
1230 Welding on 3' of casing & driving to 18°		100	14			
1250 Augering to 18°						
~~1310~~ Auger ~~trapped~~ in hole - difficult to recover	FS#6 US#5		16			Fine, clean sand
1410 Auger recovered. Baling hole since sand & water filled up hole to 9' from surface.		100	18			
1435 Installing & driving 3' of casing.			20			
1530 End of shift.			21			

Core / Auger / Casing / To 0'

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B.M.

Harris — DRILL FOREMAN
9-2-49 — DATE
Day — SHIFT
R.G. Austad. — INSPECTOR
12° to 18.0' Hole #3F-32-C

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-3F-32-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-32-C Date Started 9/1/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor U.S.C.E.-C.
Rig name and No. Sanborn Plant #625
Type of explorations: Solid rock ☐ Soils ☑
Method of exploration 6" Push Tubes Size of hole 10"

Angle Vert Bearing
Ground Elevation 4.2.0
Location of Hole Sta. 187+00 100' Rt. D Line
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS		Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
0700	Left Eng. Garage			Push	Auger	Casing	
0800	Servicing Equipment						
0830	Hole filled to 8.3 Augered To 11.3						
0900	Pulled out			15			
0915	Hole filled to 10.2 - Baled out to 14.3						Dark gray, medium grained sand and silt
0930	Added 3.0 of 10" casing & Drove to 23.0	F.S. #1 D.S. #2		20			
10:40	Baled from 13.0 To 15.2						
10:30	Started Augering at 15.2			22			
11:00	Pulled out at 18.4						
11:30	using cutting torch to adapt rod to fit auger.			24			
12:00	Started augering at 18.4						
12:30	Pulled out at 20.6 No Recovery			26			
12:45	Started Baling out Water						
1:00	Started Augering at 18.4			28			
1:15	Pulled out at 19.6 No Recovery						
1:30	Started Augering at 18.4			30			
1:45	Pulled out at 21.5						
2:00	Added & Welded 3.0 of 10" Casing.						
2:10	Drove casing to 26.0 Hole Filled To 12.3						
2:20	Baled out To 13.0						
2:30	Augered To 21.5						
3:30	End of Shift						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

M. Harris — DRILL FOREMAN
9/6/49 — DATE
Day — SHIFT
Ralph D. — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PAIK Form 181) Depth 18.0 To Hole 3F-32-C

dwc-
sac-3F-32-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-32-C Date Started 9/1/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor U.S.C.E.-C
Rig name and No. Sanborn Plant #625
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" Push Tubes Size of hole 10"

Angle Vert. Bearing
Ground Elevation 4:20
Location of Hole Sta. 187+00 100' Rt. D Line
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	~~H2O Recov. %~~	FIELD CLASSIFICATION
0700 Left Eng. Garage			20	Auger	Casing	
0800 Servicing Equipment						
08:30 Started Augering at 21.5						
08:45 Augered to 25.0 Pulled out at 25.0	F.S.#8 D.S.#3		22			Dark gray, medium grained sand with silt
09:00 Added & welded 3' of 10" casing (Total 30.4')						
09:15 Drove casing to 29.5' Hole filled to 13.7'			24			
09:45 Baled to 14.8'						
10:00 Augered to 17.5'						
10:15 Baled to 18.0'			26			
10:30 Started augering at 18.0'						
11:00 Pulled out at 20.0'			28			
11:30 Repairing auger head.						
12:00 Lunch						
12:30 Repairing auger head.			30			
1:00 Baled to 15.0' (Break in casing at 15.0')						
1:30 Cleaning & repairing equipment						
3:30 End of shift						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

M. Harris — DRILL FOREMAN
9/7/49 — DATE
Day — SHIFT
M. Mabry — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

Depth 21.5 to 25.0 Hole 3F-32-C

dwc-
sac-3F-32-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-32-C Date Started 9/1/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Sanborne Plant #625
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" Push Tubes Size of hole 10"

Angle Vertical Bearing
Ground Elevation 4'.20
Location of Hole Sta. 187+00 100' H.D. Line
Datum
• Depth to water table
• Depth to top of solid rock
• Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core Push	DEPTH (feet)	ELEV. (feet) Auger / Casing	H2O Recov. %	FIELD CLASSIFICATION
1580	Pulled casing. Casing ruptured at weld 15' from top.			20	26 ft. of		
1600	Repaired & checked welds.			22			
1700	Re-drove casing to 29.5'. Hole filled to 17.'			24			
1800	Bailed to 18'						
1820	Augered to clean hole from 18'			26			
1915	Supper						
1945	Continued augering hole. At 25' casing began to slip & hole started to fill with sand.			28			
2000	Added & welded 3' of 10" casing. (Total 33.4 ft.)			30			
2030	Drove casing to 31.1'. Hole filled to 12.5'						
2100	Bailed to 16.4						
2110	Augered to clean hole from 16.4' to 20.0'						
2200	Drove casing to 31.8'						
2230	End of Shift.						

• All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

M. Harris — DRILL FOREMAN | 9/2/49 — DATE | Night — SHIFT | L. Hackwig — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) H/e 3F-32-C

dwc-
sac-3F-32-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-32-C Date Started 9/1/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor U.S.C.E. - C
Rig name and No. Sanborn Plant #625
Type of explorations Solid rock ☐ Soils ☐
Method of exploration _____ Size of hole _____

Angle Vert. Bearing _____
Ground Elevation 4:20
Location of Hole Sta. 187+00, 100' Rt. "O" Line
Datum _____
* Depth to water table _____
* Depth to top of solid rock _____
* Depth to bottom of hole _____

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	~~H₂O Recov. %~~	FIELD CLASSIFICATION
07:00 Left Eng. Garage			24.0 Push	Auger	Casing	
08:20 Servicing Equipment						
08:50 Started augering at 20.0'	F.S. #9					Dark gray, medium grained sand with silt
09:20 Pulled out at 27.2'	D.S. #4		26.0			
09:30 Hole filled to 13.0 started Augering						
09:45 Baled To 15.0						
10:00 Added and Welded 3.0 of 10" casing			28.0			
10:15 Drove casing To 32.3						
10:30 Hole filled To 13.0 Baled To 16.0			30.0			
10:45 Drove Casing To 32.9						
10:55 Hole filled To 14.5 Baled To 17.0						
11:30 Drove Casing To 35.4			32.0			
12:00 Lunch						
12:30 Baled To 19.6						
1:00 Added + Welded 3.0 of 10" Casing			34.0			
1:15 Attempted Driving casing						
1:25 Started Baling - Collar						
1:50 on Ball Valve Baler Broke Loose from Baler by stripping threads allowing Baler to fall in hole at 24.8 - Wire cable supporting collar also parted			36			
2:15 Repaired Broken cable						
2:25 Arranging Equipment to Extract Baler From Hole.						
2:50 Removed Baler from Hole						
3:00 Cut, stripped Threads from Baler and cut Damaged section from collar						
3:30 End of shift.						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

M. Harris — DRILL FOREMAN
9/8/49 — DATE
Day — SHIFT
M. Mabry — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

Hole 3F-32-C
Depth 25.0' to 27.0

dwc-
sac-3F-32-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-32-C Date Started 9/1/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor U.S.C.E.-C
Rig name and No. Sanborn Plant #625
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" Push Tubes Size of hole 10"

Angle Vertical Bearing
Ground Elevation 4:20
Location of Hole Sta 187+00, 100' H D Lin.
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
1530	Repaired Bailer			24	Auger	CASING	
1620	Hole filled to 25'. Bailed to 26.4'			26			
1645	Repaired valve on Bailer						
1715	Bailed to 26.9'			28			
1725	Drove Casing to 37.4'						
1750	Attempted to ring Weld eye on Hammer head (repair). Could not weld - stainless steel rod not available - Removed hammer from casing.			30			
				32			
				34			
				36			
				38			
				40			
				42			
				44			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

M. Harris — DRILL FOREMAN
9/8/49 — DATE
Night — SHIFT
J. Hadzima — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-3F-32-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-32-C Date Started 9/1/49 Angle Vert. Bearing
Project Sacramento Deep Water Channel Ground Elevation 4:20
Stream Sacramento River Location of Hole Sta. 187+00 100' Rt. D. Line
Contractor USCE-C Datum
Rig name and No. Sanbaco Plant #625 * Depth to water table
Type of explorations Solid rock ☐ Soils ☑ * Depth to top of solid rock
Method of exploration 6" Push Tube Size of hole 10" * Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
15:30	Hole filled to 25.0 with 5.0' of water. Drove casing to 38.0'			25.0 Push	Air	Casing	
15:55	Bailed to 27.0'						
16:15	Started augering at 27.0'	F.S.#10 D.S.#5	54-0421	28.0			Medium grained dark gray sand with silt
16:40	Pulled out at 30.5'						
16:50	Added 6.0' of drill stem			30.0			
17:05	Started augering at 30.5'	F.S.#11 D.S.#6	54-1121	32.0			Medium grained dark gray sand with silt
17:25	Pulled out at 32.5'						
17:30	Repaired auger						
17:50	Started augering at 32.5'	F.S.#12 D.S.#7	54-1221	34.0			Medium grained dark gray sand with silt
18:10	Pulled out at 35.2'						
18:15	Augered from 35.2' to 36.6'	F.S.#13 D.S.#8	54-1321	36.0			Fine grained, dark gray sand & silt
18:40	Drove casing to 38.9'						
18:55	Added 6.0' of drill stem		54-1421	38.0			Fine grained, dark gray sand & silt
19:05	Started augering at 36.6'	F.S.#14 D.S.#9					
19:30	Pulled out at 38.6'						
19:40	Added & welded 3.0' of 10" casing			40.0			
20:15	Drove casing to 42.1'						
21:20	Bailed to 29.5' (water rose to 5.0' Hole filled to 29.0')			42.0			
21:45	Started augering at 29.5'						
22:10	Pulled out at 29.0'			44.0			
22:15	Cleaned equipment						
22:30	End of shift						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

M. Harris — 9/1/49 — Night — M. Mabry
DRILL FOREMAN — DATE — SHIFT — INSPECTOR

PSK Form 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) Depth 27.0' to 38.6'

dwc-
sac-3F-32-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-32-C Date Started 9/1/49 Angle Vert Bearing
Project Sacramento Deep Water Channel Ground Elevation 4.20
Stream Sacramento River Location of Hole Sta. 187+00 100' Rt. D Line
Contractor USCE-C Datum
Rig name and No. Sanborn Plant #625 * Depth to water table
Type of explorations Solid rock ☐ Soils ☑ * Depth to top of solid rock
Method of exploration 6" push tubes Size of hole 10" * Depth to bottom of hole

GENERAL INFORMATION AND REMARKS (time)		Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	~~H2O~~ Recov. %	FIELD CLASSIFICATION
07:00	Left Eng. Garage			36.0	Auger	Casing	
08:15	Servicing Equip.						
08:45	Baled to 27.5' (Hole filled to 26.0' water rose to 5.0')						
09:00	Cleaned hole to 32.0'			38.0			
09:25	Repaired auger head.						Medium grained, dark gray sand & silt
09:45	Cleaned hole to 38.6'						
10:00	Augered from 38.6' to 40.0'	P.S. #15 D.S. #10		1245-49			
				40.0			
	HOLE FINISHED						
10:20	Attempted to pull casing without success. Left casing in hole & welded on cover			42.0			
11:30	Lunch			44.0			
12:00	Moving equipment to site of hole 3F-27-C						
3:30	End of shift						

Final log

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

M. Harris	Day	9/12/49	M. Mabry
DRILL FOREMAN	DATE	SHIFT	INSPECTOR

PSK-FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) Depth 38.6 to 40.0' Hole 3F-27-C

dwc-
sac-3F-35-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-35-C Date Started 8-15-49
Project Sacramento Deep Water Channel
Stream
Contractor U.S. Corps of Engineers.
Rig name and No. Sanberg #626
Type of explorations Solid rock ☐ Soils ☒
Method of exploration Rush Tube Sampler Size of hole 6"

Angle Vertical Bearing
Ground Elevation 0.35 feet.
Location of Hole Sta 208+40, 560' Rt.
Datum 3 feet below mean Sea level.
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
				0			E. McDonald - Driller.
0730	Pickup Vac. pump						
0830	At Brute						
0830	Enroute to Rio Vista						Peat to organic clay
0930							(free water)
1030	Started to Auger	F.S.#1		2			
1040	Broke brake band						
1120	Restarted Auger.	D.S.#1		2.5'			
1130	Stopped Auger At 2.5' Depth.	1 Sack					
1245	Started push tube.	F.S.#2	2.6/3.0	4			organic clay (free water)
1255	Stopped push tube	U.S.#1	8/10				
	at 5.5'	1 tube	6				Sample compacted 0.4'
1325	Started Auger			5.5'			
1330	Stopped Auger.						
1345	Started push, broke			6			
	piston chain (too	F.S.#3	3.5				organic clay.
	much air pres.)	U.S.#2	3.5				(free water)
1435	Restarted push.	1 tube	100%				
1445	Stopped push.			8			
	at 9.0 feet.						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Harris — DRILL FOREMAN
8-15-49 — DATE
0' - 9.0' — SHIFT
Hole # 3F-35-C
R. G. Austad — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PAIK Form 181)

dwc-
sac-3F-35-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-35-C Date Started 8-15-49
Project Sacramento Deep Water Channel
Stream
Contractor U.S. Corps of Engineers
Rig name and No. Sanborn #625
Type of explorations Solid rock ☐ Soils ☒
Method of exploration Push Tube Sampler Size of hole 6"

Angle Vertical Bearing
Ground Elevation 0.35 ft.
Location of Hole Sta. 208+40. 560' Rt.
Datum 3.0 ft. below mean Sea level.
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
				4.0			E. McDonald — Driller.
0730 1200	Drill Crew at Bryte awaiting repair of push tube piston.			5.5			
1250	Started Auger			6.0			
1320	Stopped Auger			7			
				8			
				9			
1340	Piston chain broke under 30# air pres. (stopped operations pending repair) No further drilling for the day.						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Harris — DRILL FOREMAN
8-16-49 — DATE
(9.0) — SHIFT
R. E. Austad — INSPECTOR
166 # 3F-35-C

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-3F-35-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-35-C Date Started 8-15-49
Project Sacramento Deep Water Channel
Stream
Contractor U.S. Corps of Engineers
Rig name and No. Sanborn #625
Type of explorations Solid rock ☐ Soils ☒
Method of exploration Push Tube Sampler Size of hole 6"

Angle Vertical Bearing
Ground Elevation 0.35 ft.
Location of Hole Sta 208+40 560' Rt.
Datum 3.0 ft. below mean Sea level
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION E. McDonald - Driller
0730 1045	Awaiting repair of push tube piston			8		Casing to 0' Depth	
1055 1100	Started Auger Stopped Auger Augered to clean out hole from 5.5' to 9.0'			10			organic clay. (hole buckled slightly at about 5' after the push from 9.0 to 12.0)
1135 1140 1225-1300	Started Push Stopped Push. Augered.	F.S.#4 U.S.#3 1 tube	3.0 3.0 100%	12			from organic to inorganic clay. (lost one ft. of core from lower end of tube)
1325 1330	Started push Stopped push.	F.S.#5 U.S.#4 1 tube	2.0 3.0 67%	14 Lost			
1345 1440	Drove 12.0' of casing. (hole previously uncased)			16			
1455 1510	Start Auger Stop Auger						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Harris — DRILL FOREMAN
8-18-49 — DATE 9'-15' SHIFT Hole #3F-35-C
R. G. Austad. — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-3F-35-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-35-C Date Started 8-15-49 Angle Vertical Bearing
Project Sacramento Deep Water Channel Ground Elevation 0.35 ft.
Stream Location of Hole Sta 208+49, 56o' Rt.
Contractor U.S. Corps of Engineers Datum 30 ft. below mean sea level
Rig name and No. * Depth to water table
Type of explorations Solid rock ☐ Soils ☒ • Depth to top of solid rock
Method of exploration Pushtube Sampler Size of hole 6" • Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION E. McDonald - Driller.
0730	Drivers determining						
0945	Their Employment Status						
0945	enroute to						
1015	Job and reporting						
1040	death of land owner						
1115	Cleaned out hole 12'-15'			12			
1125	start pushing core	F.S.#6	3.0'	14			from inorganic to
1130	twisted & pulled core	U.S.#5	5.0'				organic clay.
1215	drove 6' of	1 tube	100%	16			
1300	casing left 1' out of hole						
1360	Repaired forming						
1400	shank & installed 10' drill rod			18			
1410	started Auger						organic clay.
1430	stopped Auger						
1445	started push.	F.S.#7	3.0'	20			
1450	twisted & pulled core	U.S.#6	3.0' 100%				
1510	started Auger.	1 tube		22			
1515	stopped & pulled Auger						

Auger — Casing

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Harris — DRILL FOREMAN
8-18-49 — DATE
15'-21' SHIFT Hole # 3F-35-C
R. G. Austad. — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PAIK Form 181)

dwc-
sac-3F-35-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-35-C Date Started 8-15-49
Project Sacramento Deep Water Channel.
Stream
Contractor U.S. Corps of Engineers.
Rig name and No. Sanbern Plant #625
Type of explorations Solid rock ☐ Soils ☒
Method of exploration Push Tube Sample Size of hole 6"

Angle Vertical Bearing
Ground Elevation 0.35 ft.
Location of Hole Sta 208+40 560 Rt. "D" line
Datum 3.0' below mean Sea level
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H₂O Recov. %	FIELD CLASSIFICATION
						Casing	E. McDonald - Driller
0715 0830	enroute to job						
0900 0905	Cleaned out hole from 18'-21'						
0905	Started Push.	F.S.#8	3.0'				
0930	Twisted & pulled core	U.S.#7	3.0'				organic clay.
0940	Started Auger		100%				
1000	Stopped & pulled Auger	1 Tube					
1005 1015	attached rod Ext.						
1020	started push.	F.S.#9	2.0'				organic clay.
1075	Twisted & pulled core	U.S.#8	3.0'				1st one ft. of core lost, sample disturbed.
		1 tube	67%				
1030	Casing pulled hole backfilled		lost.				
1630	Equip & Rig moved to Hole # 3F-36-C						
	Final						3F-35-C Elev gr. level +0.35 Gr. water to ground level -2.0 Elev. gr. water -1.6 Station 208+40 Offset 560 line D

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Harris — DRILL FOREMAN
8-19-49 — DATE
21'-27' — SHIFT
Hole #3F-35-C
R.G. Austad. — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-3F-36-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3E-36-C Date Started 8-22-49
Project Sacramento Deep Water Channel
Stream
Contractor U.S. Corps of Engineers
Rig name and No. Sanborn Plant #625
Type of explorations Solid rock ☐ Soils ☒
Method of exploration Push tube Sampler Size of hole 6"

Angle Vertical Bearing
Ground Elevation 7.06'
Location of Hole Sta 207+80, 120' Rt. "D" line
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
				0			~~E. McDonald - Driller~~
0700 0925	enroute to Rio Vista & preparing to drill.						Silt to Clay.
0925	started Auger	F.S.#1					
0950	stopped Auger.	D.S.#1 1 Bag		2			
				3.5'			
0950 1020	preparing push tube			4			Clay. (turning to sand)
1025	started push.	F.S.#2	3.0'				
1030	rotated & pulled tube	U.S.#1	3.0'				
1040	started Auger.	1 tube	100%	6			
1050	pulled Auger.			6.5			
1115	started push.	F.S.#3	3.0'				Sand.
1120	rotated & pulled tube	U.S.#2	3.0'	8			
1200	started Auger.	1 tube	100%				
1210	pulled Auger			9.5			
1215 1235	repaired push tube piston chain.			10			Sand to clay.
1235	started push.	F.S.#4	3.0'				
1240	rotated & pulled tube	U.S.#3	3.0'				
1250	started Auger	1 tube	100%				
1305	pulled Auger.			12			
1310 1500	Drove 12.4' casing from 0'-12.4' depth.						
1500 1530	Cleaning up.						

See note on final log - this hole

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Harris — DRILL FOREMAN
8-22-49 — DATE 0'-12.5' SHIFT Hole # 3F-36-C
R.G. Austad — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-3F-36-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-36-C Date Started 8-22-49 Angle Vertical Bearing
Project Sacramento D.W. Channel Ground Elevation 7.06
Stream Location of Hole Sta. 207+80, 120' Rt. "D" line
Contractor U.S. Corps of Engineers Datum
Rig name and No. Sanborn Plant #625 * Depth to water table
Type of explorations Solid rock ☐ Soils ☒ * Depth to top of solid rock
Method of exploration Push Tube Sample Size of hole 6" * Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
0700 0815	enroute to job.			8			
0815 0845	preparing to drill						
0845 0900	augered to clean hole			10			
0900 0940	Winch brake faulty tried adjusting			12			
1000 1005	Started push rotated & pulled tube	F.S.#5 U.S.#4 1 tube	2.7/3.0 90%	12.5			inorganic to organic clay
1010 1035	shut down because of faulty brake			14			(sample compacted 10%)
1035 1050	drove 3' of casing						
1055 1145	Started Auger stopped Auger	F.S.#6 U.S.#5 1 tube		16			organic clay (lost upper 10% of sample — disturbed)
1245 1250	started push rotated & pulled tube						
1255 1310	drove 3' casing			18			
1315 1415	Started Auger pulled Auger	F.S.#7 U.S.#6 1 Tube	2.7/3.0 90%				organic clay (lost upper 10% of sample — disturbed)
1420 1425	started push rotated & pulled tube			20			
1430 1530	drove 3' casing						
	End of shift						

Core — Sample compacted 0.3' — Auger — Casing

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Harris — DRILL FOREMAN; 8-23-49 — DATE; Day — SHIFT; R.G. Austad. — INSPECTOR

12.5'-21.5' Hole #3F-36-C

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-3F-36-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-36-C Date Started 8-22-44
Project Sacramento Deep Water Channel
Stream
Contractor U.S. Corps of Engineers
Rig name and No. Sanborn Plant #625
Type of explorations Solid rock ☐ Soils ☒
Method of exploration Push Tube Sampler Size of hole 6"

Angle Vertical Bearing
Ground Elevation 7.26'
Location of Hole Sta. 767+80 120' Rt. D line
Datum 30' below mean Sea Level
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
"No Drilling - Repairing Winch Brake			21.5			Fine Donald - Driller

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Harris — DRILL FOREMAN
8-24-44 — DATE
(21.5)
D&N — SHIFT
Hole #3F-36-C
R.G. Austad — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PAIK Form 181)

dwc-
sac-3F-36-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-36-C Date Started 8-22-49
Project Sacramento Deep Water Channel
Stream
Contractor U.S. Corps of Engineers.
Rig name and No. Sanborn Plant # 625
Type of explorations Solid rock ☐ Soils ☒
Method of exploration 4" Pushtube Sample Size of hole 10"

Angle Vertical Bearing
Ground Elevation 7.06?
Location of Hole Sta 207+80, 170' Rt. D Line
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
No Drilling – Drill required To take physical Exam.			21.5			E. McDonald Driller.

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Harris — DRILL FOREMAN
8-25 — DATE
Day — SHIFT
(21.5') Hole # 3F-36-C
R. G. Austed — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PAIK Form 181)

dwc-
sac-3F-36-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-36-C Date Started 8-22-49
Project Sacramento Deepwater Channel
Stream
Contractor U.S. Corps of Engineers.
Rig name and No. Sanborn Plant #625
Type of explorations Solid rock ☐ Soils ☒
Method of exploration 6" Push Tube Sample Size of hole 10"

Angle Vertical Bearing
Ground Elevation 7.06
Location of Hole Sta 2027+80, 180' Lt. D Line
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
			21.5			E. McDonald - Driller.
0700 } en route to job 0830 }						
0830 } preparing to drill 0900 }						
0900 } awaiting helper replacement. 1170 }						
1170 Harris reported - No replacement available.						
1170 } crew helped 1530 } on hole # 3F-39-C						
No drilling for today.						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Harris — DRILL FOREMAN
8-26-49 — DATE
Day (21.5) — SHIFT
Hole # 3F-36-C
R.G. Austad. — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-3F-36-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-36-C Date Started 8-22-49
Project Sacramento Deep Water Channel
Stream
Contractor U.S. Corps of Engineers
Rig name and No. Sanborn Plant #625
Type of explorations Solid rock ☐ Soils ☒
Method of exploration 6" Push tube Sampler Size of hole 10"

Angle Vertical Bearing
Ground Elevation 7.06'
Location of Hole Sta. 707+60, 120' Rt. D line
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

Time	GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION E. McDonald – Driller
0700 0815	enroute to job.			20			
0815 0840	preparing to drill.			21.5			
0840 0905	Augered from 18.5' to 21.5'	F.S.#8 U.S.#7 1 tube	3.0'/3.0' 100%	22			organic clay.
0910 0915	preparing to push.						
0915 0920	Started push. rotated & pulled tube			24			
0930 0940	Started Auger pulled Auger	F.S.#9 U.S.#8 1 tube	3.0'/3.0' 100%				organic clay.
0945 1005	installing & driving 3' casing			26			
1010 1100	Augered to clean hole (operation delayed to trim drill rod.)						
1110 1115	started push. rotated & pulled core	F.S.#10 U.S.#9 1 tube	3.0'/3.0' 100%	28			organic clay
1130 1200	lunch.			30			
1215 1230	Started Auger pulled Auger						
1235 1250	installing & driving 3' of casing.						
1250 1300	Augered to clean hole						
1325 1330	Started push rotated & pulled tube						
1340 1400	installing & driving 3' casing						
1400 1530	loading flatrack & mfg. drill rod						
	End of shift.						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Harris — DRILL FOREMAN
8-29-49 — DATE 21.5 – 30.5
Day — SHIFT Hole # 3F-36-C
R. G. Austad — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-3F-36-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-36-C Date Started 8-22-49
Project Sacramento Deep Water Channel
Stream
Contractor U.S. Corps of Engineers
Rig name and No. Sanborn Plant #625
Type of explorations Solid rock ☐ Soils ☒
Method of exploration 6" Push tube Sampler Size of hole 10"

Angle Vertical Bearing
Ground Elevation 7.06'
Location of Hole Sta 207+80, 120' Rt. D.
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
			26'			E. McDonald - Driller
0700-0900 Bryte Yds.						
0900-1020 Enroute to job						
1020-1045 preparing to drill			Core 27.5	Auger	Casing	
Time						
1045 Started Auger			28'			
1055 pulled Auger.						
			30'			
1100 Started push.						
1105 rotated & pulled tube		0%				pulled empty tube (No recovery) piston seal defective
1120 1150 lunch.			32'			
1150 1230 installing & driving 3' of casing.						D.S. - organic clay (mat'l from aborted push)
1230 Started Auger	F.S. #11					
1245 pulled Auger.	D.S. #2					
1245 1310 Augered to clean hole.			34'			No tube recovery. Started to suck water when vac. applied. - maintained 28 #/in² vac. out of hole but pulled empty tube.
1325 started push.	F.S. #12	0%				
1340 rotated & pulled tube	D.S. #3					
1350 1415 installing & driving 3' of casing			36'			D.S. Sample - organic cla
1415 1445 replacing piston leather						
1445 Started Auger						
1455 pulled Auger.						
1505 1515 Augered to clean hole						
1530 End of Shift.						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Harris 8/30/49 Day R. G. Anstad.
DRILL FOREMAN DATE 30.5-36.5 SHIFT Hole # 3F-36-C INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-3F-36-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-36-C Date Started 8-22-49
Project Sacramento Deep Water Channel
Stream
Contractor U.S. Corps of Engineers
Rig name and No. Sanborn Plant #625
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" Push Tube Sampler Size of hole 10"

Angle Vertical Bearing
Ground Elevation 7.06'
Location of Hole Sta. 207+80 120' Rt.
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION E. McDonald - driller
0700-0930 Enroute to job - delay due to breakdown of cable ferry.			Core 35' Auger		Casing	
0930 Start of shift. Preparing push tube. New head being fitted. Chain shortened.			36±			
1110 Head chain broke. - Welded.						Organic Clay
1200 Started push sample.						
1215 Sample recovered. 7½" of mud & water on top of sample	FS #13 US #10					
1220 Augering to 39±		80%	39±			
1255 Auger pulled.						
1300 Starting push tube.						
1315 Sample recovered						Sandy Clay
1330 Pulling casing - cutting casing - Picking up tools & equip.	FS #14 US #11					
1530 End of shift.		160%	42±			
						3F-36-C Elev. 7.06 Groundwater -4.5' to ground level Elev. groundwater +2.6' Sta 207+80 Offset 120 Line D

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Harris 8/31/49 Day
DRILL FOREMAN DATE 36± to 42± SHIFT Hole 3F-36-C INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces former Numbered PAUK Form 181)

dwc-
sac-3F-39-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Driller Williams

Hole No. 3F-39-C Date Started 8/18/49
Project Sacramento D.W. Channel
Stream Sacramento River
Contractor U.S.C.E.-C
Rig name and No. Sullivan #37
Type of explorations Solid rock ☐ Soils ☑
Method of exploration _____ Size of hole 12"

Angle Vert. Bearing _____
Ground Elevation _____
Location of Hole Sta. 228+60 250' Rt.
Datum _____
* Depth to water table 5.2
* Depth to top of solid rock _____
* Depth to bottom of hole 5.2

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H₂O Recov. %	FIELD CLASSIFICATION
9:30 Requisitioning Equipment at Byte Equipment yard			Push 5	Auger Casing		
10:00 Preparing equipment						
10:30 PUSHED 6" push Tube barrel to 7.5. No Recovery (USED 25.5 inches vacuum) Tube penetrated rapidly			Loss 6 7			
11:00 Constructing Stronger platform			8 9			
1:00 Welded casing + made necessary adapters to join NX rod to Kelly Rod Auger			10 11 12			
2:00 Drove Casing to 6.3			13			
2:30 Constructing Platform To remove arc welder from Truck						
3:30 Shift Ended						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Harris M. — DRILL FOREMAN
8/19/49 — DATE
Day — SHIFT
Ralph D.A. — INSPECTOR

From 5.2 To 5.2 3F-39-C

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-3F-39-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Driller Williams, R.

Hole No. 3F-39-C Date Started 8/18/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor USCE-C
Rig name and No. Sullivan # 37
Type of explorations Solid rock ☐ Soils ☑
Method of exploration _____ Size of hole 10"

Angle Vert Bearing _____
Ground Elevation _____
Location of Hole Sta. 227+50 250 Rt
Datum _____
* Depth to water table 5.2
* Depth to top of solid rock _____
* Depth to bottom of hole _____

GENERAL INFORMATION AND REMARKS		Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
0700	Left Engineers Garage			Push	Auger	Casing	
0800	Servicing equipment						
0830	Altered position of drill rig slightly to conform with casing			9			
0845	Hole filled to 7.5 Augered to 9.5						
0900	Pulled out - Hole filled To 8.1	F.S. #8 D.S. #8					Coarse subrounded subangular sand with traces of silt and pea sized pebbles.
0930	Augered To 10.5 with 8" Auger			10			
10:00	Pulled out - hole filled To 8.3						
10:30	Added And Welded 3' of 10" casing			11			
10:45	Drove casing to 13.3 Hole Filled To 7.8						
11:00	Using Ball Valve Baler baled out To 10.0			12			
11:20	Shortened And welded valve arm of Baler.			13			
12:00	Lunch						
12:30	Baled Out To 10.0						
12:45	Started Augering						
11:15	Pulled out at 11.5 No Recovery			14			
1:30	Welded Auger Tip						
1:40	Started Augering at 10.8						
1:50	Pulled Out at 11.5 No Recovery			15			
2:00	Added & Welded 3.0 casing and Drove To 10.8						
2:35	Baled Out To 9.5						
2:35	Started Augering						
2:45	Pulled out at 11.0			16			
3:00	Started Augering at 10.4						
3:15	Pulled out at 13.4 No Recovery						
3:30	End of Shift.						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Harris, M. — DRILL FOREMAN
8/23/49 — DATE
Day — SHIFT
Ralph, D. — INSPECTOR

K FORM 6 (CIVIL) (Replaces formerly numbered PADK Form 181) From 9.5 To 3F-39-C
JULY 46

dwc-
sac-3F-39-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Driller Williams, R

Hole No. 3F-39-C Date Started 8/18/49
Project Sacramento Deep Water Channel
Stream Sacramento River
Contractor U.S. CE-C
Rig name and No. Sullivan #37
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 8" Auger Size of hole

Angle Vert Bearing
Ground Elevation
Location of Hole Sta 227 +50 250 ft.
Datum
* Depth to water table 5.2
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov %	FIELD CLASSIFICATION
0700 Left Engineers Garage			Push	Auger	Casing	
0800 Servicing equipment						
0830 Hole filled to 7.0 started Augering						
0845 Pulled out at 10.0 No Recovery - Evidently washed out			Push Attempted			
0900 using ball valve baler - baled to 8.0						
10:00 Hole filling up as fast as it can be baled out - Added And welded 3'.0 of 10" Casing				Loss with Failing Core Barrel		
11:00 Shortened push tube plunger chain and re welded it.	#9 F.S. #9 D.S.		No Push			Coarse, well washed, subrounded, subangular sand with many pea sized pebbles
11:30 Lunch						
12:00 Drove casing to 19.6						
12:30 Welded bracing to valve arm of baler						
12:45 Baled from 9.3 to 12.0						
1:00 started Augering at 12.0 pulled out at 14.0 No Recovery						
1:30 started Drilling with FAILING CORE BARREL drilling smoothly & slowly.						
2:00 Pulled out at 13.6 No Recovery						
2:30 using cutting torch to repair Kelly Rod.						
2.45 started Augering						
3:00 pulled out at 12.0 No Recovery						
3.05 Baled out from 12.5 to 14.0						
3:15 started Augering						
3:30 Pulled out 17.4						
3.45 End of Shift						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

M. Harris — DRILL FOREMAN | 8/24/49 — DATE | Day — SHIFT | D. Ralph — INSPECTOR

FORM 6 (CIVIL) (Replaces formerly numbered PADK Form 181) JULY 46 Depth 10.5 To 12.4 Hole 3F-39-C

dwc-
sac-3F-39-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Williams, R.E. Driller

Hole No. 3F-39-C Date Started 8/13/49 Angle Vert. Bearing
Project Sacramento Deep Water Channel Ground Elevation 6.15
Stream Sacto. River Location of Hole Sta 227+50. 250
Contractor U.S.E.D. Datum
Rig name and No. Sullivan #37 * Depth to water table 5.0
Type of explorations: Solid rock ☐ Soils ☑ * Depth to top of solid rock
Method of exploration Size of hole 12" * Depth to bottom of hole 5.2

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
0700 Drillers attending conference in Wright Bldg. concerning a reduction of force	F.S. #1 D.S. #1	1.5/1.5 100%	0		Casing	very hard, dry, Light brown colored clay. Greatly fractured
			1			hard dry Light brown colored clay
	F.S. #2 D.S. #2	1.1/1.1 100%	2			Light Tan colored clay containing more moisture
0830 Enroute Rio Vista			3			
0930 Setting up equipment and building platforms.	F.S. #3 D.S. #3	1.8/1.8 100	4			Light Tan colored clay (non-organic)
	F.S. #4 D.S. #4	.9/.9 100	5			Dark green colored silt with traces of sand & clay & pebbles
						Encountered Water Table at 5.0
11:30 Started drilling with 12" saw tooth casing bit. drilling smoothly.			6			
12:00 Pulled out			7			
12:30 Started drilling with 12" casing bit Drilling smoothly			8			
1:15 Pulled out at 2.5						
1:30 Started drilling with 12" casing bit. operating smoothly in Low gear						
2:30 Pulled out at 4.3						
3:00 Started drilling in low gear with 12" saw tooth casing bit.						
3:30 Pulled out at 5.2						
4:00 cleaning and storing equipment						

See note on Final Log this hole

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Harris — DRILL FOREMAN | 8/18/49 — DATE | Day — SHIFT | Ralph — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PAIK Form 181)

From 0.0 To 5.2 3F-39-C

dwc-
sac-3F-39-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

R E Williams Driller

Hole No. 3F-39-C Date Started 8/18/49 Angle Vert Bearing
Project Sacramento Deep Water Channel Ground Elevation
Stream Sacramento River Location of Hole Sta. 227+50 250 Rt
Contractor U.S.E.D. Datum
Rig name and No. Sullivan #37 * Depth to water table 5.2
Type of explorations Solid rock ☐ Soils ☑ * Depth to top of solid rock
Method of exploration Size of hole * Depth to bottom of hole

GENERAL INFORMATION AND REMARKS		Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H₂O Recov. %	FIELD CLASSIFICATION
0760	Left Eng. Garage			Push 17	Auger	Casing	
0800	Servicing Equipment						
0830	Hole Filled to 14.0						Coarse, well washed sub-rounded sand & pea sized pebbles
0900	Baled out to 15.5						
0915	started Augering						
0930	Pulled out at 17.5 No Recovery	F.S.#10		18			
0945	Added & welded 3.0 of 10" Casing And Drove To 22.4	D.S.#10		19			
10:15	Hole Filled to 12.0 Baled Out To 13.5			1			
10:30	Augered To 16.5 Hole filled to 19.1 after pull out			20			
10:45	Augered To 16.8						
11:00	pulled out.						
11:15	Started Augering						
11:30	Pulled out at 19.3			21			
11:45	Attempted to recover Sample with push tube barrel ~~from~~ No Recovery 18.1-21						
11:55	Augered From 20.3 to 22.2 No Recovery			22			
12:00	Lunch						
12:30	Added & Welded 3.0 casing - Hole filled to 11.5 - Baled out			23			
1.00	Drove casing to 25.7 - Hole filled to 13.2						
2:00	Baled to 16.3			24			
2:30	Augered To 19.4						
3:00	Added & welded 3.0 of 10" casing Hole filled to 14.5 Baled to 17.0			25			
3:30	End of Shift						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

M. Harris — DRILL FOREMAN | 8/25/49 — DATE | Day — SHIFT | D. Ralph — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PAIK Form 181) From 17.4 3F-39-C

dwc-
sac-3F-39-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

R.F. Williams Driller

Hole No. 3F-39-C Date Started 8/18/49 Angle Vert Bearing
Project Sacramento Deep Water Channel Ground Elevation 6.45
Stream Sacramento River Location of Hole Sta. 227+50 250 Rt
Contractor U.S.C.E.-C Datum
Rig name and No. Sullivan # 37 * Depth to water table 5.2
Type of explorations Solid rock ☐ Soils ☑ * Depth to top of solid rock
Method of exploration Size of hole * Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
0700 Left Eng. Garage			Push	Auger	Casing	
0800 Servicing Equipment						
0830 DROVE casing To 28.5 DROVE hard & slow			19			
0915 Hole filled to 17.5 Baled To 18.0						Coarse sand and Pea sized pebbles with traces of silt.
0945 Attempted using 9" auger. Unable to Rotate due to frictur	F.S.#11 D.S.#11		20			
10:00 Heated & Beat cutting edge of Auger (9")			21			
10.15 Started Augering			22			
10:30 pulled out at 20.1 No Recovery			23			
10:45 Baled to 19.0						
10:55 Started Augering with 9" Auger,			24			
11:15 Pulled out at 23.8	F.S.#12 D.S.#12	100	25			Coarse sand and Pea sized ~~gravel~~ pebbles with traces of silt
11:30 Started augering at 23.0 using 9" auger.						Tan colored clay silt
12:10 pulled out at 25.9			26			
12:15 Pushed from 24.2 To 26.2 with push tube barrel using 25.5 Vacuum	F.S.#13 D.S.#13		27			Tan colored clay silt
12:35 Pulled out - Sample Disturbed from Driving casing			28			
1:00 Baled from 25.3 to 25.8			29			
1:20 Started Augering using 9" Auger			30			
2:00 Pulled out at 28.9			31			
2:30 Cleaning and storing gear for weekend			32			
300 End of shift.						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

M. Harris DRILL FOREMAN — 8/25/49 DATE — Day SHIFT — D. Ralph INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PSK Form 181) Depth 19.3 To 28.9 Hk 3F-39-C

dwc-
sac-3F-39-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-39-C Date Started 8/18/49 Angle Vert Bearing
Project Sacramento Deep Water Channel Ground Elevation
Stream Sacramento River Location of Hole Sta. 227+50 250 Rt
Contractor U.S.E.D. Datum
Rig name and No. Sullivan #37 • Depth to water table 5.2
Type of explorations Solid rock ☐ Soils ☑ • Depth to top of solid rock
Method of exploration 6" Push Tubes Size of hole 10" • Depth to bottom of hole

GENERAL INFORMATION AND REMARKS		Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	~~H2O Recov. %~~	FIELD CLASSIFICATION
0700	Left Eng. Garage			Push 28	Auger	Casing	
0800	Servicing Equipment						
0830	Baling Water from hole Water fills hole faster than it can be baled out Bottom of hole still at 28.9						
0900	Started Pushing 6" push tube barrel using 24.0 vacuum and 450 lb. pressure pushing slow	F.S. #14 U.D. #1	100	29 Probably Disturbed 30			Tan colored silt with traces of clay
0930	pulled out at 30.5 No Recovery						
0945	shortened and rewelded chain in push tube barrel. Mechanic from Yard working on Compressor-Vacuum rig			31			
12:00	Started Pushing using 25.5 inches vacuum 400 lb. pressure			32	Loss due to baling		
1:00	Pulled out at 31.4						
1:15	Erected Canopy to shade drill crew			33			
1:30	Added & Welded 3.0 of 10" Casing						
1.45	Drove Casing To 31.5						
2:00	Baled out water and silt to 33.6			34			Tan colored silt with Traces of clay
2:15	Started pushing at 33.6 using 25.5 inch vacuum 700 lb. pressure	F.S. #15 U.D. #2	100				
2:45	Pulled out at 35.9			35			
3.00	Added & Welded 3.0 of 10" Casing						
3:15	Drove casing To 34.6			36			
3:30	End of shift			37			
				38			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

M. Harris — DRILL FOREMAN; 8/29/49 — DATE; Day — SHIFT; D. A. Ralph — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) Depth 28.9 To 35.9 Hole 3F-39-C

dwc-
sac-3F-39-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-39-C Date Started 8/18/49 | Angle Vert. Bearing
Project Sacramento Deep Water Channel | Ground Elevation
Stream Sacramento River | Location of Hole Sta. 227+50 250 Rt.
Contractor U.S.C.E.-C | Datum
Rig name and No. Sullivan #37 | * Depth to water table 5.2
Type of explorations: Solid rock ☐ Soils ☑ | * Depth to top of solid rock
Method of exploration 6" Push Tube Size of hole 10" | * Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H₂O Recov. %	FIELD CLASSIFICATION
0700 Left garage and went to Bryte Equipment Yard to pick up Truck (1762) and 540 lb. hammer 0800 Filled gas drums at soils lab. 0900 Serviced Equipment 0930 Baled out hole to 36.6			Push 35 Auger Casing Loss Thru Baling 36			
1000 Started Pushing using 25.5" vacuum And 600 lb Pressure 1100 Pulled out at 99.6	F.S. 15 I.D. 3	100	37			Mixture of fine and coarse sand with pyrites (Area of change unknown)
1115 added & welded 3.0 of 10" casing 1130 Drove casing To 37.7 1145 Baled out To 39.6			38			12/10-49
12:30 started Pushing 1:00 pulled out at 40.2			39			Coarse sand & pea sized pebbles with strata of clay silt evident at tip of bit
1:15 Added & welded 3.0 of 10" casing 1:30 Drove Casing To 40.7 1:45 Baled out To 40.4	F.S. 17 D.S. 14		40			Coarse, well washed, sand and pyrites with traces of silt. 12/11-49
2:00 Shortened rod with welding torch to fit adapter 2:30 Started Augering with 9" Auger Hole caved to 38.2 300 Pulled out at 40.2 Hole caved to 38.2 3:15 Added and welded 3.0 of 10" Casing 3:30 Drove casing to 43.7 End of Shift			41 42 43 44 45			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

M. Harris — DRILL FOREMAN | 8/20/49 — DATE | Day — SHIFT | D. Ralph — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PWK Form 181) Depth 35'9" to 40.2 Hole 3F-39-C

dwc-
sac-3F-39-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. 3F-39-C Date Started 8/18/49
Project Sacto. Deep Water Channel
Stream Sacto. River
Contractor U.S.C.E.-C
Rig name and No. Sullivan # 37
Type of explorations Solid rock ☐ Soils ☑
Method of exploration 6" Push Tubes Size of hole 10"

Angle Vert Bearing
Ground Elevation 6.75
Location of Hole Sta 227+50 250'
Datum
* Depth to water table 5.2
* Depth to top of solid rock
* Depth to bottom of hole 50.0

GENERAL INFORMATION AND REMARKS		Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov %	FIELD CLASSIFICATION
0700	Left garage – detained by ferry Breakdown near Rio Vista			Push 40	Auger Casing		
1830	Servicing Equipment	F.S. #18 D.S. #15					Coarse sand and silt 40.2 To 40.5
0900	Baled hole from 36.7 To 40.2			41			Tan colored clay with traces of silt
0930	Started Augering with 9" Auger						
10:00	Pulled out at 42.3			42			1212-49
10:30	Started Augering						
10:50	Pulled out at 43.3						Tan colored clay with streaks of red oxidized material, clay contains some silt.
11:15	Started Pushing using 24.5 inches Vacuum, 60016. press.	F.S. #19 D.S. #16		43			
11.45	Pulled out – No Recovery						1213-49
12:00	Lunch			44			
12:30	Started Augering (8")						
1:00	Pulled out at 47.9						Light Brown, Fine, Sandy silt with traces of clay
1:15	Started augering at 46.7			45			
1:30	Pulled out at 49.0						
1:45	Started Augering at 47.5	F.S. #20 D.S. #17		46	LOST		1214-49
2:15	Pulled out at 50.0						
	Hole completed			47			
2:30	Dismantling Equipment and Loading it on Flat rack Truck						
3:30	Shift Ended			48			Dark, Well Washed, Coarse Sand
	Final log HE 22 Sept 49	F.S. #21 D.S. #18					1215-49
				49			Dark, well washed coarse sand.
		F.S. #22 D.S. #19					1216-49
				50			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

N. Harris — DRILL FOREMAN | 8/31/49 — DATE | Day — SHIFT | D. Ralph — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181) Depth 40.2 To 50.0 Hole 3F-39-C

Base

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

dwc-
sac-3F-39-C-A

Hole No. 3F-39-C "A" Date Started 8/18/49 | Angle Vert. Bearing
Project Sacramento Deep Water Channel | Ground Elevation 6.1 ±5
Stream Sacramento River | Location of Hole Sta. 227 ±50
Contractor U.S.C.E. - C | Datum
Rig name and No. Sullivan #37 | * Depth to water table 5.2
Type of explorations Solid rock ☐ Soils ☑ | * Depth to top of solid rock
Method of exploration 6" Push Tubes Size of hole 10" | * Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
0700 Left Eng. Garage 0800 Loading Equipment on flat rack Truck			0.0			
0900 Attempted pulling casing from hole using a two pulley-tackle arrangement and jarring simutaneously with 250 lb. hammer. Unable to pull casing due to limited strength of rig.	F.S. 23 U.D. #4	100%	1 2			Light Tan colored clay with scattered pebbles
	F.S. 24 U.D. #5	100%	3			Light Tan colored clay with scattered pebbles
1:00 Continuing Loading equipment. 1:30 Moved rig 5.0 East and prepared to push tube in moistened surface soil.	F.S. 25 U.D. 6	100%	4 5			Light Tan Colored clay (Material change can not be approximated as to depth) Dark green silt with traces of sand & clay
2:00 started Pushing at 0.5 using 24.0 inch vacuum 30 lb. pres. 2:15 Pulled out at 2.2			6			
2.30 started pushing at 2.2 3:00 Pulled out at 3.3						
3:15 Started Pushing at 3.3 3:30 Pulled out at 5.2						
End of shift						

Final?

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

M. Harris DRILL FOREMAN | 9/1/49 DATE | Day SHIFT | D. Ralph INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PAIK Form 181) Depth 0.5 to 5.2 Hole 3F-39-C "A"

dwc-
sac-5F-63-7

105-64-1 HOLE NO. 5F-63-7

DEPARTMENT OF THE ARMY
DIVISION SOUTH PACIFIC
INSTALLATION SACRAMENTO
DRILLING LOG

1. PROJECT SRDWSC CHANNEL BOTTOM SAMPLING — SHEET 1 OF 1
2. LOCATION (Coordinates or Station) STA. 1014+00 50' EAST OF CHANNEL ℄
3. DRILLING AGENCY BARTEE BROS.
4. HOLE NO. (As shown on drawing title and file No.) 5F-63-7 File No. 52-3-162, Sht #2
5. NAME OF DRILLER Bill BARTEE
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE MINUS 33 ℄
10. SIZE AND TYPE OF BIT 2" PUSH TUBE
11. DATUM FOR ELEVATION SHOWN (TBM or MSL) C℄E
12. MANUFACTURER'S DESIGNATION OF DRILL CONVERTED ACKER
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED —; UNDISTURBED 3 TUBES
14. TOTAL NO. CORE BOXES
15. ELEV. GROUND WATER
16. DATE HOLE: STARTED 9/5/63; COMPLETED 9/5/63
17. ELEV. TOP OF HOLE -27.0'
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR Robert Whitehead

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (drilling time, water loss, depth of weathering, etc., if significant)
						ELEVATIONS FROM WATER SURFACE GAGE SET IN CHANNEL
-27	0'		MINUS 27℄ EXTREMELY SOUPY MATERIAL (LIQUID MUD) FROM MINUS 27℄ TO ABOUT MINUS 31 TUBE #2 WAS FIRST SAMPLE TAKEN, MUD SHOWING ON DRILL ROD INDICATED MATERIAL UP TO -27 NO RECOVERY -27℄ TUBE #2, MATERIAL TOO LIQUID			
-28	1'					-28℄ TUBES 1 ℄ 2 TAKEN OUTSIDE CASING, WHICH WAS SET AT -32℄ TUBE #3 TAKEN INSIDE CASING AFTER WASHING DOWN TO -32℄
-29	2'		TUBE #1 GRAY BROWN SOUPY CLAY (MUD)		TUBE #1	
-30	3'					-30℄
-31	4'		TUBE #2 GRAY BROWN VERY SOFT CLAY SOME FINE SAND		TUBE #2	-31℄
-32	5'				NO SAMPLE	-32℄ ALL THREE TUBES PUSHED DOWN WITH HAND PRESSURE TUBE #1 HELD TO KEEP FROM GOING DEEPER
-33	6'		TUBE #3 GRAY SANDY CLAY SOFT		TUBE #3	
	6.5'		MINUS 33℄ BOTTOM OF HOLE			33℄
-34						

ENG FORM 1836 JUN 57 (TRANSLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE — PROJECT SRDWSC — HOLE NO 5F-63-7

105-64-1

HOLE NO. 5F-63-8

dwc-
sac-5F-63-8

DEPARTMENT OF THE ARMY
DIVISION SOUTH PACIFIC
INSTALLATION SACRAMENTO DIST.

DRILLING LOG

1. PROJECT SRDWSC CHANNEL BOTTOM
SHEET 1 OF 1
2. LOCATION (Coordinates or Station) STA 1054+00 50' WEST OF ℄
3. DRILLING AGENCY BARTEE BROS.
4. HOLE NO. (As shown on drawing title and file No.) 5F-63-B #52-3-162 Sht #42
5. NAME OF DRILLER Bill Bartee
6. DIRECTION OF HOLE ☑ VERTICAL ☐ INCLINED DEGREES WITH VERTICAL
7. THICKNESS OF OVER-BURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE MINUS 34.0
10. SIZE AND TYPE OF BIT 2" PUSH TUBE
11. DATUM FOR ELEVATION SHOWN (TBM or MSL) CNE
12. MANUFACTURER'S DESIGNATION OF DRILL LOM
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN DISTURBED — UNDISTURBED 3 Tubes
14. TOTAL NO. CORE BOXES
15. ELEV. GROUND WATER
16. DATE HOLE STARTED 3 July 63 COMPLETED 3 July 63
17. ELEV. TOP OF HOLE -29.0'
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR Robert G. Littlefield

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
			4" CASING SET AT	30.5		ELEVATIONS DETERMINED FROM WATER SURFACE GAGE SET AT EDGE OF CHANNEL WATER SURFACE +3.0 TO +2.0
			MINUS 29.0 EXTREMELY SOUPY MATERIAL ENCOUNTERED AT			
-29.0	0		THIS DEPTH, BROWN CLAYEY SEDIMENT ADHERING TO DRILL ROD INDICATES THIS, MATERIAL CANNOT BE FELT WITH DRILL ROD UNTIL ABOUT -30.8			-29.5
-30.0	1		TUBE #1 - VERY SOFT (SOUPY) CLAY IN TOP OF TUBE, BROWN COLOR. GRAY SILTY SAND AT BOTTOM OF TUBE, LOOSE FINE GRAINED		TUBE #1	PUSH #1 - DRILL ROD HAS TO BE HELD TO KEEP FROM GOING DEEPER TAKEN OUTSIDE OF CASING
-31.0	2					-31.0
-32	3		TUBE #2 GRAY SILTY SAND, LOOSE, FINE GRAINED, SOME BROWN SOUPY CLAY AT TOP, THIS MATERIAL FELL IN FROM ABOVE.		TUBE #2	#2 PUSH SLIGHT HAND PRESSURE TO PUSH DOWN TAKEN INSIDE CASING
						-32.5
-33	4		TUBE #3 GRAY SILTY SAND, MEDIUM DENSE, 1.5 PUSH, 1.0 RECOVERY		TUBE #3	#3 PUSH - HAND PUSH BUT MORE PRESSURE REQUIRED THAN FOR #2
						-33.5
-34	5					-33.5 TO 34.0 NO SAMPLE TUBE BLOCKED AT 33.5
			MINUS 34.0 BOTTOM OF HOLE			

ENG FORM 1836 (TRANSLUCENT) 1 JUN 57 (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE PROJECT SRDWSC HOLE NO. 5F63-B

dwc-sac-7F-1

HOLE NO. 7F-1

DEPARTMENT OF THE ARMY
DIVISION ENGINEERING
INSTALLATION SACRAMENTO DIST

DRILLING LOG

1. PROJECT Prospect Island — SHEET 1 OF 3
2. LOCATION (Coordinates or Station) N-209,840 E-2,094,755
3. DRILLING AGENCY USCE-C
4. HOLE NO. (As shown on drawing title and file No.) 7F-1 #52-13-59 Sht #59/1.1
5. NAME OF DRILLER A Gilmore
6. DIRECTION OF HOLE: [x] VERTICAL [ ] INCLINED — DEGREES WITH VERTICAL
7. THICKNESS OF OVER-BURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE 30'
10. SIZE AND TYPE OF BIT Failing barrel 6" CANS
11. DATUM FOR ELEVATION SHOWN (TBM or MSL) C of E DATUM
12. MANUFACTURER'S DESIGNATION OF DRILL Failing Portable Drill
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN — DISTURBED / UNDISTURBED
14. TOTAL NO. CORE BOXES
15. ELEV. GROUND WATER
16. DATE HOLE — STARTED 27 July-56 — COMPLETED
17. ELEV. TOP OF HOLE -1.1'
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR Don Michener

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
0.4			Black organic clay, dry Very Fat Soft Non Fibrous	FS# 1 ONE 6" CAN		Location 36' West of Farm Road & 24' North of irrigation ditch.
			Black organic Fibrous Peat Very Soft, Wet Very Fat.	6 Sks 0 to 4' composite		Road is in line with Power Poles
	10			FS# 2 2 Jars 272	216	
1.7			Water table 7:30 AM — Basically same material small amounts of Brown Fat clay bottom of can and in Jars Wet Sat.	FS# 3 ONE 6" CAN		28 July-56 Easy Push
	20					Drilling out after each run with 12" bucket
2.8				FS# 4 2 Jars 171	226	
	30		Standing Water 7:40 AM 1.7' was Saturated Soil FS #4 is Saturated AE. 5+6 Still organic Peat not quite as Fibrous has slight organic odor. Soupy. FS # 7 & 8 traces of Blue Grey clay Very Fat drier than above Wet but no standing water in Soil.	FS# 5 ONE 6" CAN		28 July-1956
	40			FS# 6 2 Jars 6	56	easy Push
	50			FS# 7 ONE 6" CAN		slightly harder Push.
				FS# 8 2 Jars 137	80	
	60					changed to Failing barrel + Mud.
	70		Same material.			
	80			FS# 9 ONE 6" CAN.		
8.8				FS# 10 2 Jars 26	224	
	90		Black + Blue-Grey clay Wet Very Soft Very Fat Peat in kidney's has decided organic odor Fibrous + Non Fibrous			easy Drilling
	100					

ENG FORM 1836 1 FEB 51 (Supersedes ENG Form 1836, 1 Jan 50, 1 May 50, Which May Be Used Until Stocks Are Exhausted) PROJECT Sacto DWC HOLE NO. U.S. GOVERNMENT PRINTING OFFICE: 16—50705-1

dwc-sac-7F-1

HOLE NO. 7F-1

DRILLING LOG (Continuation)

INSTALLATION Sacramento Dist

1. PROJECT Prospect Island Sacto. D.W.C.

SHEET 2 OF 3

2. LOCATION (Coordinates or Station) N-209,840 E-2,094,755

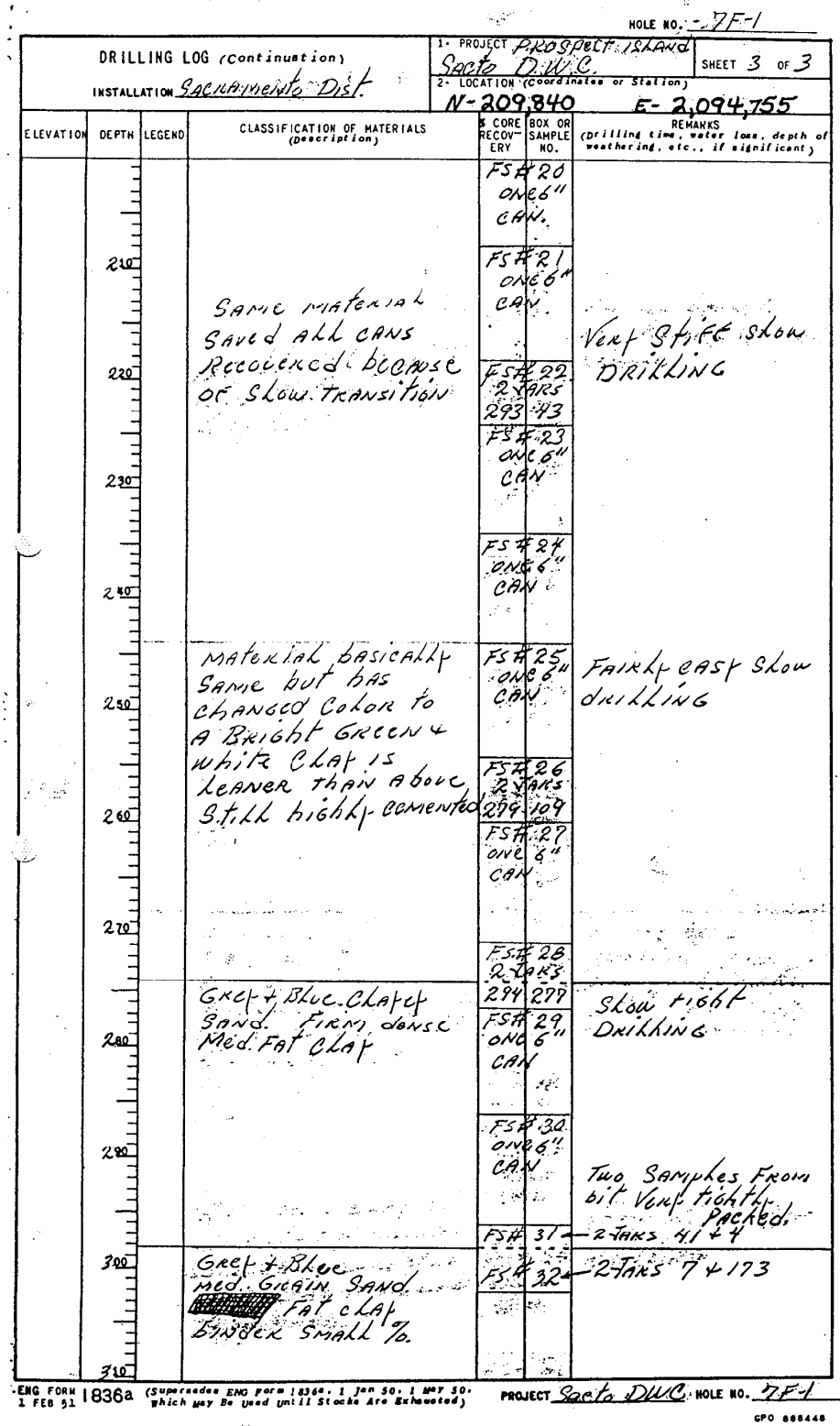
ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	110					Failing barrel not picking up sample.
	120		Fat blue clay with Peat in lumps very soft		FS# 11 2 JARS	
				98	225	
	130				FS# 12 one 6" can	
	140				FS# 13 one 6" can	
	150				FS# 14 one 6" can	
15.8	160				FS# 15 2 JARS	
				136	115	
					FS# 16 one 6" can	
	170		Blue clay Firm Moist Very Fat Particles of Moderate cementation. Similar to Montezuma Formations in Delta area.			Fairly hard Drilling slow. Could only make 2' run without forcing barrel.
	180				FS# 17 one 6" can	
					FS# 18 2 JARS	
				153	163	
	190				FS# 19 one 6" can	
			still blue clay but cementation increasing to highly cemented Rock like material very hard.			Very stiff slow drilling
	200				FS# 20 one 6" can.	
	210				FS# 21	

ENG FORM 1836a 1 FEB 51 (Supersedes ENG form 1836a, 1 JAN 50, 1 MAY 50, which may be used until Stocks Are Exhausted)

PROJECT Sacto D.W.C. HOLE NO. 7F-1

GPO 888448

dwc-sac-7F-1



HOLE NO. 7F-1

DRILLING LOG (Continuation)
INSTALLATION Sacramento Dist.

1. PROJECT Prospect Island Sacto D.W.C. SHEET 3 OF 3
2. LOCATION (Coordinates or Station) N-209,840 E-2,094,755

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	210		Same material Saved ALL CANS Recovered because of Slow Transition		FS# 20 ONE 6" CAN.	
					FS# 21 ONE 6" CAN.	Very Stiff Slow DRILLING
	220				FS# 22 2 JARS 293-43	
					FS# 23 ONE 6" CAN	
	230				FS# 24 ONE 6" CAN	
	240		Material basically Same but has changed Color to A Bright Green & white Clay is leaner than above Still highly cemented		FS# 25 ONE 6" CAN	Fairly easy Slow drilling
	250				FS# 26 2 JARS 279-109	
	260				FS# 27 ONE 6" CAN	
	270				FS# 28 2 JARS 294-279	
			Grey & Blue Clayey Sand. Firm, dense Med. Fat Clay		FS# 29 ONE 6" CAN	Slow tight Drilling
	280				FS# 30 ONE 6" CAN	Two Samples From bit Very tightly Packed.
					FS# 31	2 JARS 41 & 4
	300		Grey & Blue Med. Grain Sand. Fat Clay Binder Small %		FS# 32	2 JARS 7 & 173
	310					

ENG FORM 1836a 1 FEB 51 (Supersedes ENG form 1836a, 1 Jan 50, 1 May 50, which may be used until Stocks Are Exhausted)

PROJECT Sacto DWC HOLE NO. 7F-1

GPO 888448

HOLE NO. 7F-2 dwc-sac-7F-2

DEPARTMENT OF THE ARMY
DIVISION ENGINEERING
INSTALLATION SACRAMENTO DIST.

DRILLING LOG

1. PROJECT Sacto. DWC. Prospect 1 ISLAND — SHEET 1 OF 3
2. LOCATION (Coordinates or Station) N-214,090 E-2,095,640
3. DRILLING AGENCY USCE-C
4. HOLE NO. (As shown on drawing title and file No.) 7F-2 # 52-13-59 Sht # 59/21
5. NAME OF DRILLER A GILMORE
6. DIRECTION OF HOLE: ☑ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE 30'
10. SIZE AND TYPE OF BIT 8" FAILING BARREL
11. DATUM FOR ELEVATION SHOWN (GS or MSL) CofE DATUM
12. MANUFACTURER'S DESIGNATION OF DRILL FAILING Portable DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED ✓ UNDISTURBED
14. TOTAL NO. CORE BOXES
15. ELEV. GROUND WATER
16. DATE HOLE: STARTED 30-Jul-56 COMPLETED
17. ELEV. TOP OF HOLE 0.6'
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR Don Mickelsen

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (drilling time, water loss, depth of weathering, etc., if significant)
Water Table 31 Jul 56 830 A.M.			Blue Grey Non-Fibrous Fat clay Loose Soft Dry	FS# 1 ONE 6" CAN 6 gal Jars Of Wet Composite		Location 27' East of Dirt Road Inter-Section N-S Ditch Running Parallel with one road. Drilling out after each run of 6" Push barrel 12" Bucket easy push.
	10		Brown Peaty clay Medium Soft, Wet Fibrous Fat clay (organic)	FS# 2 2 Jars 24 296		
	20		0 to 4' composite Sacks	FS# 3 ONE 6" CAN		
	30			FS# 4 2 Jars 228 164		
				FS# 5 ONE 6" CAN		
	40		Tan Clayey Peat Fat clay Peat is of lessen degree of Decay.	FS# 6 2 Jars 235 25		
	50		Mixture of black Peat & clay Very Fat Wet Sat Soupy Material	FS# 7 ONE 6" CAN		Very Wet Soupy could not Recover with Push Barrel changed to Failing barrel.
	60			FS# 8 2 Jars 199 246		
	70					Water From Mud Pump Surge is Seeping out of Surface of entire drill Area.
	80		Cannot Recover Good Sample as Material is too Soft. Washes out of bit to Return ditch FS # 8 is Fair Representative Sample. 9.5 Starting to Get to blue clay			
	90					
	100					

ENG FORM 1836 1 FEB 51 (Supersedes ENG Form 1836, 1 Jan 50, 1 May 50, Which may Be Used Until Stocks Are Exhausted) PROJECT Sacto DWC. HOLE NO. 7F-2

U. S. GOVERNMENT PRINTING OFFICE: 16—80708-1

dwc-sac-7F-2

HOLE NO. 7F-2

DRILLING LOG (Continuation)
INSTALLATION Sacramento Dist

1. PROJECT Sac'to D.W.C. Prospect Island
2. LOCATION (Coordinates or Station) N-214,090 E-2,095,640
SHEET 2 OF 3

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	110		Blue CLAY Soft Wet Very FAT.	FS# 9 2 JARS		EASY DRILLING
	120					
	130					
	140		Blue CLAY drying out (White Streaks) I.E. LABS, CALCIUM OR LIME SOFT to FIRM to hard.	FS# 10 ONE 6" CAN. FS# 11 2 JARS		SLOW EASY DRILLING
	150					
	160		Blue CLAY hard STIFF dense Very FAT STREAKS OF CALCIUM OR LIME.	FS# 12 ONE 6" CAN		HARD SLOW DRILLING.
	170			FS# 13 2 JARS 156	85	
	180					
	190					
	200		Same material dried FIRMER	FS# 14, ONE 6" CAN		STILL HARD + SLOW
	210			FS# 15 2 JARS 211	175	

ENG FORM 1 FEB 51 1836a (Supersedes ENG Form 1836, 1 Jan 50, 1 May 50, which may be used until Stocks Are Exhausted)

PROJECT Sac'to DWC HOLE NO. 7F-2

GPO 888448

dwc-sac-7F-2

HOLE NO. 7F-2

DRILLING LOG (Continuation)

INSTALLATION Sacramento Dist.

1. PROJECT Sacto. D.W.C. Prospect Island — SHEET 3 OF 3

2. LOCATION (Coordinates or Station) N-214,090 E-2,095,640

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	210		Same material Moisture decreasing			
	220				FS# 16 ONE 6" CAN	100 PSI on Hydraulic
	230				FS#17 ONE 6" CAN.	
	240		Blue Sandy clay Fat Firm to hard wet Fine grain sand Good Mix.		FS# 18 2 JARS 172 219	easier slow Drilling Not using hydraulic
	250					
	260				FS#19 ONE 6" CAN	
	270				FS# 20 2 JARS 185 40	
	280					
	290				FS# 21 ONE 6" CAN	
	300		Depth of hole			as specified
	10				FS# 22 2 JARS 114 192	

ENG FORM 1836a 1 FEB 51 (Supersedes ENG form 1836a, 1 Jan 50, 1 May 50, which may be used until Stocks Are Exhausted)

PROJECT Sacto. DWC HOLE NO. 7F-2

GPO 886448

dwc-sac-Hole 3

Hole No. 3

DRILLING LOG	DIVISION Engr	INSTALLATION S. F. Dist	SHEET 1 OF 1 SHEETS
1. PROJECT Sacto. Riv. Deep Water Ship Channel Investigation		10. SIZE AND TYPE OF BIT 2½" Wash Boring	
2. LOCATION (Coordinates or Station) 13.5 mi up channel - E		11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	
3. DRILLING AGENCY S. F. Dist - Ark		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and file number) 3		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED	UNDISTURBED 5 pist tubes
5. NAME OF DRILLER		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE ☐ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
		16. DATE HOLE STARTED 18 Nov 74	COMPLETED Same
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING %	
9. TOTAL DEPTH OF HOLE -41.5' MLLW		19. SIGNATURE OF INSPECTOR RK Maynard	

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
			Top of Water			Started drilling 1530
						3.5' Tide 0 MLLW
						32.5' 29'
	29'	MLLW	River Bottom			
	30'		SAND: brownish gray, wet, Med. dense, fine grained, clean, occas very thin clay lense.	.9' Core Loss	PT-1	Samples taken in 2⅛" plastic tubes IOD #124 Drove 2.5' 26 blows Rec. 1.6' -31.5
	31'					
	32'			1.5' Core Loss	PT-2	IOD #120 Washed 2.5' Drove 2.5' 90 blows Rec. 1.0' -34.0
	33'					
	34'					
	35'		At About -33' to About -36' coarse SAND And fine gravel washed up in cuttings	2.0 Core Loss	PT-3	IOD #163 Washed 5.0' Drove 2.5' 70 blows Rec. 0.5' -36.5
	36'					
	37'			2.0' Core Loss	PT-4	IOD #140 Washed 7.5' Drove 2.5' 55 blows Rec. 0.5' -39.0
	38'		SAND is gray At About -39'			
	39'					
	40'		All SAND - Core loss due to sand being washed out of sampler		PT-5	IOD #161 Washed 10' Drove 2.5' 50 blows Rec. 0.5 -41.5
	41'					
	42'		Bottom of Hole			IOD #119 (background) Took 1 gal. BOD sample at 1530, flood tide

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

PROJECT Sacto Riv | HOLE NO. 3

Little Egbert Multi-Benefit Project
Solano County, California | Project No. 907.02 | Plate No. A-173

dwc-sac-Hole 4

Hole No. 4

DRILLING LOG	DIVISION Engr	INSTALLATION S. F. Dist	SHEET 1 OF 1 SHEETS
1. PROJECT Sacto Riv Deep Water Ship Channel Investigation		10. SIZE AND TYPE OF BIT 2½" Wash Boring	
2. LOCATION (Coordinates or Station) between buoys 654-60 18 Mi. up channel - E		11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	
3. DRILLING AGENCY S. F. Dist - Ark		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and file number) 4		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED / UNDISTURBED 2 push tube
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 19 Nov 74	COMPLETED SAME
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE	
9. TOTAL DEPTH OF HOLE -41' MLLW		18. TOTAL CORE RECOVERY FOR BORING	%
		19. SIGNATURE OF INSPECTOR RKMagnard	

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
			Top of Water			Started drilling 1000
						3' Tide
						0 MLLW
						40'
						37'
			River Bottom			
-37'		MLLW	CLAY:			
-38			gray, wet, hard, ~~sandy~~ CH, occas. fine gravel		PT-1	Samples taken in 2½" plastic tubes Drove 2½' IOD# 115 50 blows Rec. 2.6' -39.0
-39						
-40					PT-2	IOD# - 130 Washed 2.5' Drove 2.5 50 blows Rec. 2.6' -41.0
-41						
-42			Bottom of Hole			
-43						IOD #13 (Background)
						Took 1 gal BOD sample at 1000, Ebb Tide

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

PROJECT Sacto Riv HOLE NO. 4

dwc-
sac-SP-32-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. M 20 - SP-32C Date Started 18 Sept 1950
Project Sacramento River Deep Water Ship Channel
Stream Prospect Island L. Mile 20
Contractor U.S.C.E.
Rig name and No. Failing #732
Type of explorations Solid rock ☐ Soils ☒
Method of exploration Porter Size of hole 2"

Angle Vert Bearing
Ground Elevation +2.07
Location of Hole
Datum
* Depth to water table 5.5'
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
Drilling satisfactory Recovery 100% due to sufficient hardness of material to allow good sampling. From 32.3 to 36.6 occasional gravel to #4 size. Hole completed and rig & equipment moved to site of next hole. FS # 85, 86, 87 not in lab.?	59,60, 61,62, 63,64	100%	28.2			Fine Blue Sand with concretions to 3/8" size. Soft to firm.
	65,66, 67,68		30.0			As Above
	69,70, 71		31.3			Sand, Medium to Coarse, Soft to Firm.
	72,73, 74,75, 76,77 78,79 80,81 82,83		32.3			Sand, Medium to Coarse Firm to Hard
	84,85 86,87		35.3			Sand - Medium to Fine Fairly Compact
			36.6			Bottom of Hole El. -34.5'

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B.M.

Woods — DRILL FOREMAN
20 Sept 1950 — DATE
Day — SHIFT
Pease — INSPECTOR

PSK FORM 15 JULY-46 6 (CIVIL) (Replaces formerly numbered PAIK Form 181)

dwc-
sac-SP-32-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

e No. (Mile 20) SP32-C Date Started 18 Sept 1950
ject Sacramento River Deep Water Ship Channel
eam Prospect Island - Mile 20
ntractor U.S.C.E.
name and No. Failing # 732
e of explorations Solid rock ☐ Soils ☒
thod of exploration Porter Size of hole 2"

Angle Vert Bearing
Ground Elevation +2.07
Location of Hole
Datum
* Depth to water table 5.5'
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
Drilling satisfactory, at in areas of quicksand completely unable to recover. Used all types of pits available with Porter, but not successful. Used standard Porter, Clay Porter, Core catcher Porter, with and without drive point but unable to recover any sample except in layers where concretions were present. Depths that losses occur may not be exact but is best available information from the way the samples are recovered from the drive tubes. Concretions range from #10 to 1/4 and are little but easily broken by finger pressure.	FS & Tube 48 49 50, 51	100%	18.0 411-51			Lean Clay with concretions. Fairly hard.
	52, 53	100%	19.3 412-51			Silty Sand - very fine, fairly firm but softer than above
		0%	19.9			Loss - Quicksand Drainings very fine, all passing #100 Blue in color, quite abrasive
	54, 55 56		24.2 413-51			Very fine Sand - very soft - concretions present
			25.0			Loss - Quicksand Same as loss above.
	57, 58		27.3 414-51			Very fine sand, concretions, soft.
			28.0			

All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Woods — DRILL FOREMAN
19 Sept 1950 — DATE
Day — SHIFT
Pease — INSPECTOR

FORM 6 (CIVIL) (Replaces formerly numbered PADK Form 181)
JULY 46

dwc-
sac-SP-32-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

No. (Mile 20) SP-32-C Date Started 18 Sept 1950
ject Sacramento River Deep Water Ship Channel
eam Prospect Island - Mile 20
tractor U.S.C.E.
name and No. Failing #732
e of explorations Solid rock ☐ Soils ☒
hod of exploration Porter Size of hole 2"

Angle Vert Bearing
Ground Elevation 2.07
Location of Hole
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
			0.0	2.07		
Installed, recharged batteries in rig and got moved to new location, set up and started drilling.	FS-Tube 1,2,3	100%	396-51			Organic silt
			1.0			
	4,5	100%	397-51			Organic Clay
			1.5			
	6,7,8	100%	398-51			Peat with streak of Organic Clay
			2.5			
		100%	399-51			Fat Clay
Drilling going smoothly. Used core catcher bit to 6° then back to change to regular Porter bit with drive point, due to caving of hole. All samples obtained in 4' length Porter tubes & field classification is based on visual inspection of tube ends.		0%	2.8			Loss - Soft Material
			3.5			
	10,11		400-51			Organic Clay
			4.1			
	12,13, 14,15		401-51			Organic Clay with Peat intrusions
			5.5			
	16,17		402-51			Peat
			6.0			
	18,19		403-51			Peat with thin lenses of Clay
			6.5			
	20,21, 22,23, 24,25, 26,27, 28,29		404-51			Fat Organic Clay. Very oily feeling - has some decayed roots present.
			10.0			
Where losses are shown, they are due to compaction in the heavier soils and/or pushing into a heavy soil, then into a softer soil thereby bypassing the softer material.						Loss - Soft Material
			11.0			
	30,31, 32		405-51			Organic Clay - Soupy
			12.0			
	33,34, 35,36		406-51			Fat Clay - Blue
			13.3			Loss - Compaction
	37,38 39		407-51			Fat Clay - Blue
			14.4			
	40,41		408-51			Fat Clay - Blue, with calcareous concretions
The majority of the drives are 2', with none exceeding 3' push.			15.3			Loss - Compaction
			16.0			
	42,43		409-51			Fat Clay - Blue, with Calcareous concretions
			16.7			
	44,45, 46,47		410-51			Lean Clay - Blue, very little plasticity
			18.0			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Woods	18 Sept 1950	Day	Pease
DRILL FOREMAN	DATE	SHIFT	INSPECTOR

PSK FORM 6 (CIVIL) (Replaces formerly numbered PADK Form 181)
5 JULY 46

dwc-
sac-SP-32-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

ole No. M 20-SP-32C Date Started 18 Sept 1950 Angle Vert Bearing
roject Sacramento River Deep Water Ship Channel Ground Elevation +12.07
ream Prospect Island L. Nile 20 Location of Hole
ontractor U.S.C.E. Datum
ig name and No. Failing #732 * Depth to water table 5.5
ype of explorations Solid rock ☐ Soils ☒ * Depth to top of solid rock
ethod of exploration Porter Size of hole 2" * Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
Drilling retardation. Recovery 100% due to sufficient hardness of material to allow good sampling. From 32.3 to 36.6 occasional gravel to #4 size. Hole completed and rig & equipment moved to site of next hole. FS # 85, 86, 87 not in lab?	59,60, 61,62, 63,64	100%	28.2 41.5-51 30.0			Fine Blue Sand with concretions to 3/8" size. Soft to firm.
	65,66, 67,68		41.6-51 31.3			As Above
	69,70, 71		41.7-51 32.3			Sand, Medium to Coarse, Soft to Firm
	72,73, 74,75, 76,77 78,79 80,81 82,83		41.8-51 35.3			Sand, Medium to Coarse Firm to Hard
	84,85 86,87		41.9-51 36.6			Sand - Medium to Fine Fairly Compact
						Bottom of Hole El. -34.5'

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Woods — DRILL FOREMAN; 20 Sept 1950 — DATE; Day — SHIFT; Pease — INSPECTOR

SK FORM 5 JULY 46 6 (CIVIL) (Replaces formerly numbered PAIK Form 181)

dwc-
sac-SP-33-A-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. SP-33A-C Date Started
Project Sacramento River Deep Water Ship Channel
Stream Prospect Island
Contractor U.S.C.E.
Rig name and No. Failing #732
Type of explorations Solid rock ☐ Soils ☒
Method of exploration Push Tube Size of hole 6"

Angle Vert Bearing
Ground Elevation
Location of Hole
Datum
* Depth to water table 6°
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
Brought out new batteries and different carburetor. Hooked up everything. New carb. does not work. Took carb from mud pump, changed shaft and butterfly, changed gas fittings to make it fit and installed. Finally works. Welded 3° casing to first joint, drove down and then cleaned hole, all annular residue sacked up. Same procedure will be followed after each push throughout depth of hole.	Tube #2 3 sks 678-51	100%	3° 3.4			Organic peaty clay, top of tube - Peat at bottom. Easy pushing
	Tube #3 2 sks 679-51	100%	6.4 9.3			Peat at top - Organic clay at bottom with lots of red concretions present. Looks like brick crumbs.

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Woods — DRILL FOREMAN
6 Oct 1950 — DATE
Day — SHIFT
Pease — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-SP-33-A-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. SL-33A-C Date Started 5 Oct 1950
Project Sacramento River Deep Water Ship Channel
Stream Prospect Island
Contractor U.S.C.E.
Rig name and No. Failing #132
Type of explorations Solid rock ☐ Soils ☒
Method of exploration Push Tube Size of hole 6"

Angle Vert. Bearing
Ground Elevation
Location of Hole
Datum
* Depth to water table
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H_2O Recov. %	FIELD CLASSIFICATION
Finished moving rig, miscellaneous equipment and additional odds & ends to hole. Made first push, very good, put down a length of casing, started to weld up next joint. Dead battery, changed batteries, another dead battery, put on last battery, turned motor over. Water in tank & gas lines cleaned out everything. Carbureter flooded up, flooding. Took off in to Depot Yard, unable to find replacement.	Push Tube No 1	100%	0 3.4			Organic Clay but peat is predominant.

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Woods — DRILL FOREMAN
5 Oct 1950 — DATE
Day — SHIFT
Pease — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-SP-33-A-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. SP-33A-C Date Started Oct. 6-50
Project Sacramento Deep Water Channel
Stream
Contractor U.S.E.D.
Rig name and No. Failing Plant No. 732
Type of explorations: Solid rock ☐ Soils ☒
Method of exploration Push Tube Size of hole 6"

Angle Vertical Bearing —
Ground Elevation
Location of Hole Sta. 2954+00
Datum —
* Depth to water table 3'10" from grd. su
* Depth to top of solid rock —
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
Formation apparently hard and compact. Progress slow. Pulled core barrel out of hole at approx. 10:00	2 Sacks #6 Sample 1 tube	100% 682-51	14.8			A dark green plastic transported clay. Entire run highly plastic and extremely basic. (high in iron magnesium minerals)
Back into hole and began drilling. Progress extremely slow, formation very hard. Pulled at 14:00	1 Sack #7 Sample 1 tube	100% 683-51	16.8			A dark green partially consolidated sandstone. Top few inches of run was somewhat plastic material and remainder of run was gritty.
12 ft. of 10" casing in hole and temporarilly sealed at 11.2 ft. from ground level. Back into hole and began drilling at 14:15.			18.5			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Mike Orene — DRILL FOREMAN
9 Oct 50 — DATE
Day — SHIFT
John D. Greifenberg — INSPECTOR

PSK FORM 15-JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

From 14.8-18.5

dwc-
sac-SP-33-A-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. SP-33A-C Date Started 5 Oct 1950
Project Sacramento River Deep Water Ship Channel
Stream Prospect Island
Contractor U.S.C.E.
Rig name and No. Failing #732
Type of explorations Solid rock ☐ Soils ☒
Method of exploration Push Tube Size of hole 6"

Angle Vert. Bearing
Ground Elevation
Location of Hole
Datum
* Depth to water table 6.0'
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H_2O Recov. %	FIELD CLASSIFICATION
Same procedure followed as described on log 9" 6 Oct 1950 regarding pushing, casing & cleaning. Casing in each case after push is driven to not closer than 2" to bottom depth of push & cleaned to exact bottom depth of push. Pushing pressure increases with depth. At 12' pressure 250#. At 16' pressure was 450# and unable to push any deeper. Pulled out at end of 2nd run. Breaking down NX rod and putting in PK rod in preparation of using drive hammer	Tube #4 35 lbs 6.80	100% 57	9' 9"			Organic clay with red concretions at top of tube Fat Clay - Blue Firm - Slight bit of grey concretions
	Tube #5 28 lbs 6.81	100% 57	12'			Fat Clay - Grey - very heavily calcined - A sandy clay at bottom of tube with some concretions and a few quartz pebbles.
	Tube #6 Not cleaned Yet	100%	14' 8"			Same as above but very solid - at bottom of tube some peat & roots start to intermingle
			16' 8"			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Woods — DRILL FOREMAN
7 Oct 1950 — DATE
Day — SHIFT
Pease — INSPECTOR

PSK EDRH 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-SP-33-A-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. SP 33A-C Date Started Oct. 6 - 1950
Project Sacramento Deep Water Channel
Stream w
Contractor U.S.E.D.
Rig name and No. Failing Plant No. 732
Type of explorations Solid rock ☐ Soils ☒
Method of exploration Push Tube Size of hole 6"

Angle Vertical Bearing w
Ground Elevation ✓
Location of Hole Sta. 2954+00
Datum ✓
* Depth to water table 3' 10" from grd surf.
* Depth to top of solid rock ✓
* Depth to bottom of hole ✓

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
Drove casing (10"), from 17.4' to 20.2' with drive head and hammer. Attempted to get sample with 6" inch push tube. Pushed 3/10" to refusal.	None	.0/4 0%	21.2			No sample recovered
			21.6			
		2.0/2.7 79%	23.6			No recovery from 23.6 to 24.3
Pulled tube and obtained no sample. Mr. Fenton and Peterson saw the operation and after a conference it was decided to use 2" push tube. So a visual examination could be made by members of the Earth Design Section. Loss from 23.6' to 24.3' probably due to by passing of softer materials.	1 - Tube Samp. #9 2 - Sacks 685-51		24.3			Note: Auger showed high resistance to penetration (350 p.s.i.) down to 23.6'. Rapid penetration from 23.6 - 24.3. From 21.6 - 23.6 formation is composed of beds of greenish plastic clay interbedded with thin beds of fine grained highly compacted sand.

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Mike Greno — DRILL FOREMAN
11 Oct 50 — DATE
Day — SHIFT
John N. [illegible] — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-SP-33-A-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. S.P.33A-C Date Started Oct. 6-50
Project Sacramento Deep H2O Channel
Stream ✓
Contractor U.S.E.D.
Rig name and No. Falling Plant No. 732
Type of explorations Solid rock ☐ Soils ☒
Method of exploration Push Tube Size of hole 6"

Angle Vertical Bearing ✓
Ground Elevation ✓
Location of Hole Sta. 2954+00
Datum ✓
* Depth to water table 3' 10" from grd surf.
* Depth to top of solid rock ✓
* Depth to bottom of hole ✓

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
Formation very hard. Progress slow. Total length 10" casing string 24'. Casing temp. set at 17.4. Cannot drive casing any further.	2 sacks Sample No. 8 1 tube	100%	18.5			Dark green compact sand and clay. Formation very hard and partially consolidated.
		684-51	21.2			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Mike Arena — DRILL FOREMAN
10 Oct-50 — DATE
Day — SHIFT
John N. Greifenberg — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PAD Form 181)

From 18.5-25

dwc-
sac-SP-33-A-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. SP-33A-C Date Started Oct 6-1950 Angle Vertical Bearing ✓
Project Sacramento Deep Water Channel Ground Elevation ✓
Stream ✓ Location of Hole Sta. 2934+00
Contractor U.S.E.D. Datum ✓
Rig name and No. Failing Plant No. 732 * Depth to water table 3'10" from grd surf.
Type of explorations Solid rock ☐ Soils ☒ * Depth to top of solid rock ✓
Method of exploration Push Tube Size of hole 6" * Depth to bottom of hole ✓

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
Added 3.0' length of 10" casing to string. Total length of string 24 ft. Drove casing slowly with drive head and hammer. Casing temporarily seated at 23.0 ft.						
Hole caved during nite. Went into hole and augered out caved material.						
Went into hole with 6" push tube. Applied 500# p.s.i. pressure and made little or no headway. Pulled tube			24.3			
Went into hole with 2" push tube, applied between 450, to 500 p.s.i. pressure advanced 2.1' rather hurriedly. Pulled tube out of hole	686 2.1/2.1 51 1-tube Samp #10 2-sacks	100%	26.4			From 24.3' to 26.4 formation consists of fine grained sand and clay. Formation extremely hard.
Added 3.0' length of 10" casing to string. Total length of string 27 ft. Drove casing slowly with drivehead and hammer. Casing temp. seated at 25.5'.						
Attempted to auger hole. No success too slushy. Will use bailer.						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Mike Orena — DRILL FOREMAN; Oct. 12-50 — DATE; Day — SHIFT; John [illegible] — INSPECTOR

PSK FORM 6 (CIVIL) (Replaces formerly numbered PADK Form 181)
15 JULY 46

dwc-
sac-SP-33-A-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. SP 33A-C Date Started Oct 6 '50
Project Sacramento Deep Water Channel
Stream ✓
Contractor U. S. E. D.
Rig name and No. Failing Plant 732
Type of explorations Solid rock ☐ Soils ☒
Method of exploration Push Tube 6" Size of hole 6" 10"

Angle Vertical Bearing
Ground Elevation ✓
Location of Hole 2954+00
Datum ✓
* Depth to water table 3'10"
* Depth to top of solid rock ✓
* Depth to bottom of hole ✓

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
Went into hole with 8" bailer and bailed hole clean of sand.						
10" casing temporarily set at 26.5 after driving with drive head and hammer.			26.4			
Went into hole with 6" push tube and applied approx. 500# pressure p.s.i. Could not drive push tube. Pulled string of tools.		2.0 / 2.0 100%	28.4			
Went into hole with 2" push tube after bailing hole clean. Drove 2 ft. and began pulling run. Tube lost in hole after tearing loose from studs.	1 sack 1-2" tube 687-51 #11					
Went into hole with new push tube (2" size) and drove 2 ft. Pulled and recovered sample. Note: Sample of this stratum was obtained by off-setting approx. 3 inches.						From 26.4 - 28.4' formation is a fine grained highly plastic blue clay. Clay is very plastic and sticky and has a tendency to cling to push tube thus making sample hard to pull.
Went into hole with auger and made an attempt to remove tube which was lost. Removed most of tube.						
Went into hole with 6" push tube. Applied 500# pressure. No success						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Mike Orcano — DRILL FOREMAN
Oct 13, 50 — DATE
Day — SHIFT
John N. Greifenberg — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-SP-33-A-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. SP 33A-C Date Started Oct 6, 1950
Project Sacramento Deep Water Channel
Stream ✓
Contractor U.S.E.D.
Rig name and No. Failing Plant 732
Type of explorations Solid rock ☐ Soils ☒ 10"
Method of exploration Push Tube 6" Size of hole 6"

Angle Vertical Bearing
Ground Elevation ✓
Location of Hole 2954+00 on ℄ Channel
Datum ✓
* Depth to water table 3' 10"
* Depth to top of solid rock ✓
* Depth to bottom of hole ✓

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H_2O Recov. %	FIELD CLASSIFICATION
Went into hole with 9 5/8" auger and removed remainder of 2" push tube which was lost into hole Oct 13.						
Back into hole with 6" push tube. Applied 500# pressure p.s.i. Could not drive tube			28.4			
Reentered hole with 2" push tube. Applied 500# pressure p.s.i. Advanced 1 9/10' hurriedly. Discontinued driving as we did not want to stick tube.	1-tube 2-sack #12	1.9 1.9 100%	28.4 68.8-51 30.3			From 28.4 - 30.3 formation is a fine grained highly plastic blue clay.
Added 30' casing to string. Total length of string 30'. Casing temporarily set at 29.0' after driving.						
Went into hole with bailing bucket and bailed hole clean.						
10' Casing 6" & 2" push tube as indicated						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Mike Dreno	Oct 14 50	Day	John M. Guilfemberg
DRILL FOREMAN	DATE	SHIFT	INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-SP-33-A-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. SP-33A-C Date Started Oct. 6-1950
Project Sacramento Deep Water Channel
Stream ✓
Contractor U.S.E.D.
Rig name and No. Failing Plant No 732
Type of explorations Solid rock ☐ Soils ☒
Method of exploration Push Tube Size of hole 6"

Angle Vertical Bearing
Ground Elevation ✓
Location of Hole 2954+00 ℄ Channel
Datum ✓
* Depth to water table 3'10"
* Depth to top of solid rock ✓
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
Went into hole with 9⅝" auger and removed sluff which settled over weekend.						
Entered hole with 6" push tube. Applied 500# pressure per sq. inch. Made little if any headway. Formation too compact.						
Went into hole with 6" push tube. Applied 500# pressure. Pushed 1.3' ft rather hurriedly. Pulled and noticed tip of tube slightly bent due to extreme pressure.	R. Sacks No. 13	1.3 / 1.3 / 100%	30.3 / 689.57 / 31.6			From 30.3'-31.6. Fine grained highly plastic blue clay. Formation highly compacted and very difficult to pull tube after it is driven into clay to recover sample. Extreme caution taken in order not to pull tube from studs
Went into hole with 9⅝" auger and advanced to 30.6'.						Note: Bottom of run at 31.6' shows evidence that formation will change.
Reentered hole with auger and advanced to 31.6						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Mike Orens — DRILL FOREMAN
Oct. 16-50 — DATE
Day — SHIFT
John M. [illegible] — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-SP-33-A-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. SP33A-C Date Started Oct. 6-50
Project Sacramento Deep Water Channel
Stream ✓
Contractor U.S.E.D.
Rig name and No. Failing Plant No. 732
Type of explorations Solid rock ☐ Soils ☒
Method of exploration Push Tube Size of hole 6"

Angle Vertical Bearing
Ground Elevation ✓
Location of Hole 2954+00 on ℄ Channel
Datum ✓
* Depth to water table 3'10"
* Depth to top of solid rock ✓
* Depth to bottom of hole ✓

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
Went into hole with 2" push tube and applied 500# pressure p.s.i. Pushed 1.2 rather hurriedly. Pulled and noticed tip of tube bent due to extreme density of formation	2 sacks 1 tube No. 14 690-51	1.2 / 1.2 100%	31.6			From 31.6'-32.8' formation is a fine grained gray plastic clay which contains small angular pieces of quartz which imparts a gritty texture to the clay.
Attempted to push with 6" tube. No success. Pulled and went into hole with 2" push tube and advanced 1.4'. Fairly fast. Applied approx 450# pres. p.s.i.	2 sacks 1 tube No. 15 691-51	1.4 / 1.4 100%	32.8 / 34.2			From 32.8'-34.2' formation is a fine grained gray plastic clay containing some small angular pieces of quartz.
Went into hole with 9 5/8" auger and reamed hole. Attempted again to push with 6" tube but no success. Pulled 6" tube and string.	3 sacks 1 tube No. 16 692-51	2.0 / 2.0 100%	36.2			From 34.2'-36.2' formation is a fine grained gray plastic clay containing small pieces of angular quartz. Entire formation, from 31.6' to 36.2, is very hard and compact.
Went into hole with 2" push tube. Applied 500# pressure p.s.i. Pushed 2.0' rather fast. Pulled string.						Could not obtain any 6" push tube samples due to extremely high penetration resistance of the material.
						Hole completed Oct. 17-50. By ~~[illegible]~~ permission J. Boitano.

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent. B. M.

Mike Orena — DRILL FOREMAN
Oct. 17-50 — DATE
Day — SHIFT
John N. Gwaifenberg — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-SP-33-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. SP-33-C Date Started 13 Sept 1950
Project Sacramento River Deep Water Ship Channel
~~Stream~~ Prospect Island - M. 18.6
Contractor Corps of Engineers
Rig name and No. Failing #732
Type of explorations Solid rock ☐ Soils ☒
Method of exploration ~~[illegible]~~ Porter Size of hole 2"

Angle Vert Bearing
Ground Elevation
Location of Hole Mile 18.6
Datum
* Depth to water table 3.5'
* Depth to top of solid rock
* Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H_2O Recov. %	FIELD CLASSIFICATION
Set up at location. Made 2-3 ft runs but recovered only 1.3 ft of sample or 4 cans. Moved hole 1 ft and pushed to 7.5' in a series of 1 ft pushes. Recovered Top 30" Material below that appears very soupy and could not be recovered. Will attempt recovery with core catcher.	FS 1 2 3	100	0.0 420-51 1.0			Organic silt & Roots
	4 5	100	421-51 1.5			Organic Silt or Lean Clay
	6 7 8	75%	422-51 2 2.5			Peat
		Loss	4 6 7.5'			No Recovery
This material appears on the surface to be a Muskeg.						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Woods — DRILL FOREMAN
13 Sept 50 — DATE
Day — SHIFT
Pease — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-SP-33-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. SP-33-C Date Started 13 Sept 1950 Angle Vert Bearing
Project Sacramento River Deep Water Ship Channel Ground Elevation
~~Stream~~ Prospect Island - M. 18.6 Location of Hole Mile 18.6
Contractor Corps of Engineers Datum
Rig name and No. Failing #732 * Depth to water table 3.5'
Type of explorations Solid rock ☐ Soils ☒ * Depth to top of solid rock
Method of exploration Porter Size of hole 2" * Depth to bottom of hole

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H_2O Recov. %	FIELD CLASSIFICATION
Set up at location. Made 2-3 ft runs but recovered only 1.3 ft of sample or 4 cans. Moved hole 1 ft and pushed to 7.5' in a series of 1 ft pushes. Recovered Top 30" Material below that appears very soupy and could not be recovered. Will attempt recovery with core catcher.	FS 1 2 3	100	0.0 420-51 1.0			Organic silt & Roots
	4 5	100	421-51 1.5			Organic Silt or Lean Clay
	6 7 8	75%	422-51 2.2 2.5			Peat
		Loss	4 6 7.5'			No Recovery
This material appears on the surface to be a Muskeg.						

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Woods — DRILL FOREMAN; 13 Sept 50 — DATE; Day — SHIFT; Pease — INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-SP-33-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. SP-33-C Date Started _____ Angle _____ Bearing _____
Project Sacramento River Deep Water Ship Channel Ground Elevation -1.27
~~Stream~~ Prospect Island M. 18.6 Location of Hole _____
Contractor U.S. C.E. Datum _____
Rig name and No. Failing #756 * Depth to water table 3.0'
Type of explorations Solid rock ☐ Soils ☒ * Depth to top of solid rock _____
Method of exploration Porter Size of hole 2" * Depth to bottom of hole _____

GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
			7.0			
Started using core catcher bit adapted for Porter sampling. Very successful until hole started caving at 14°. Changed to regular Porter bit with drive point. Recovery satisfactory until depth of 21.8 when backing off the drive point, a thread jammed about 10" short of full retraction. Jamming was not apparent until removal from the hole.	FS 8 " 9 " 10 " 11 " 12 " 13 " 14 " 15 " 16	100	7.5 423-51 10.0			Organic Clay with pockets & lenses of well decomposed Peat.
	" 17 18 19 20	100	10.5 424-51			Fat Clay - Blue Marine
	21 22 23 24 25 26 27 28 29	100	11.8 12 425-51 14			Organic Clay with lenses of black peat.
	30 31 32 33 34	100	15.2 426-51 16			Blue Marine Clay - Fat Clay
	35 36 37 38 39 40	100	16.8 427-51 18			Organic clay - Peat lenses & pockets - Well decomposed
	41 42 43 44 45 46 47	100	18.8 428-51 20			Organic Clay -
Note - Drive Hammer has not been used as yet. Sampler pushed into soil by hand. Field Samples are all in 4" lengths	FS-48	100	21.4 429-51			Blue Marine Clay - Fat Clay
		0%	21.4 22			No Recovery
			24			

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B. M.

Woods	14 Sept	Day	Pease
DRILL FOREMAN	DATE	SHIFT	INSPECTOR

PSK FORM 15 JULY 46 6 (CIVIL) (Replaces formerly numbered PADK Form 181)

dwc-
sac-SP-33-C

DAILY LOG FOR BORINGS, PITS, AND TUNNELS

Hole No. ML 18.6 sp33-C Date Started 13 Sept 1950
Project Sacramento River Deep Water Ship Channel
Stream Prospect Island - Mile 18.6
Contractor U.S. C.E.
Rig name and No. Failing #732
Type of explorations: Solid rock ☐ Soils ☒
Method of exploration Porter Size of hole 2"

Angle _____ Bearing _____
Ground Elevation -1.27
Location of Hole _____
Datum _____
* Depth to water table 3.0
* Depth to top of solid rock _____
* Depth to bottom of hole _____

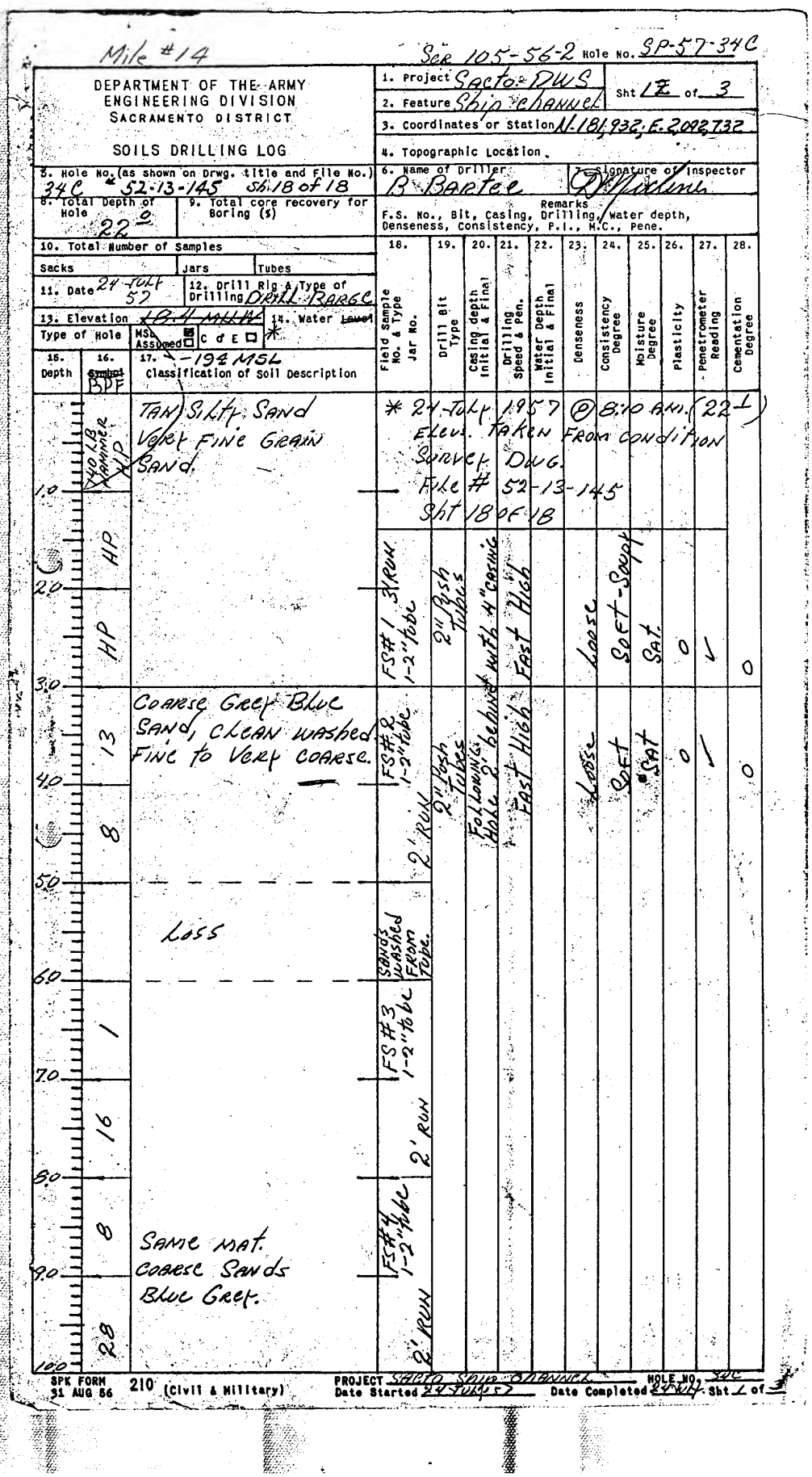
GENERAL INFORMATION AND REMARKS	Type & No. of Sample	% Core	DEPTH (feet)	ELEV. (feet)	H2O Recov. %	FIELD CLASSIFICATION
Using hydraulic push to 24' when we changed to drive hammer. Drives moderately hard. Unable to count blows due to damaged thread preventing full drop of hammer.			22'			
	FS-49 50,51	100%	430-51			Blue Marine Sandy Clay
			23.8			
	52,53 54	100%	431-51			Blue Marine Sand, calcareous deposits present
			24.8			
	55,56 57,58 59,60	100%	432-51			Calcareous grey sand, Calcined streations, fine to very fine sand
			27.2			See 27' to 29'
	X	0%	27'			Loss - Possibly due to plug.
Hole completed 15 Sept 1950	61,62 63,64 65,66	100%	433-51			Very compact, hard blue Silt with calcined areas
All samples recovered in 2" diam. 4' length Porter tubes	X	0%	29'			Loss - Due to plugging of shin friction or compaction
			30'			
	67,68 69	100%	434-51			Blue Sand - Fine
			31.8			
	70,71 72	100%	435-51			Blue Clayey Sand
			32.8			
	73 74,75	100%	436-51			Blue Sand - Fine
			33.8			Bottom of hole

* All depths to be shown from natural ground surface. Gr. surf. elev. to be referenced to permanent B.M.

Woods — DRILL FOREMAN; 15 Sept — DATE; _____ — SHIFT; Pease — INSPECTOR

PSK FORM JULY 46 6 (CIVIL) (Replaces formerly numbered PAUK Form 181)

dwc-
sac-SP-57-34C



Mile #14

Ser 105-56-2 Hole No. SP-57-34C

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sacto DWS
2. Feature Ship channel
Sht 1Z of 3
3. Coordinates or Station N-181,932; E-2,092,732
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 34C # 52-13-145 Sh 18 of 18
6. Name of Driller B Bartee
7. Signature of Inspector [signature]
8. Total Depth of Hole 22.0
9. Total core recovery for Boring (%)
Remarks F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples
Sacks | Jars | Tubes
11. Date 24 July 57
12. Drill Rig & Type of Drilling DRILL BARGE
13. Elevation ~~18.4 MLLW~~
14. Water ~~Level~~ *
Type of Hole MSL Assumed ☒ C d E ☐
15. Depth
16. ~~Symbol~~ BPF
17. -194 MSL Classification of Soil Description
18. Field Sample No. & Type Jar No.
19. Drill Bit Type
20. Casing depth Initial & Final
21. Drilling Speed & Pen.
22. Water Depth Initial & Final
23. Denseness
24. Consistency Degree
25. Moisture Degree
26. Plasticity
27. Penetrometer Reading
28. Cementation Degree

Depth	Symbol	Classification of Soil Description	Field Sample No. & Type Jar No.	Drill Bit Type	Casing depth Initial & Final	Drilling Speed & Pen.	Water Depth Initial & Final	Denseness	Consistency Degree	Moisture Degree	Plasticity	Penetrometer Reading	Cementation Degree
0.0–1.0	140 LB Hammer HP	TAN Silty Sand Very Fine Grain Sand.	* 24 July 1957 @ 8:10 AM. (22 ⊥) Elev. taken from condition Survey Dwg. File # 52-13-145 Sht 18 of 18										
1.0–2.0	HP												
2.0–3.0	HP		FS#1 3' Run 1-2" tube	2" Push Tubes	Following Hole 2' behind with 4" casing	Fast High		Loose	Soft-Soupy	Sat.	0	✓	0
3.0–4.0	13	Coarse Grey Blue Sand, clean washed Fine to Very coarse.	FS#2 1-2" tube	2" Push Tubes		Fast High		Loose	Soft	Sat	0	✓	0
4.0–5.0	8		2' Run										
5.0–6.0		Loss	Sands washed from tube.										
6.0–7.0	1		FS#3 1-2" tube										
7.0–8.0	16		2' Run										
8.0–9.0	8	Same mat. Coarse Sands Blue Grey.	FS#4 1-2" tube										
9.0–10.0	28		2' Run										

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Sacto Ship Channel HOLE NO. 34C
Date Started 24 July 57 Date Completed 24 July Sht 1 of 3

dwc-
sac-SP-57-34C

Ser # 105-56-2 Hole No. SP-57-34C

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

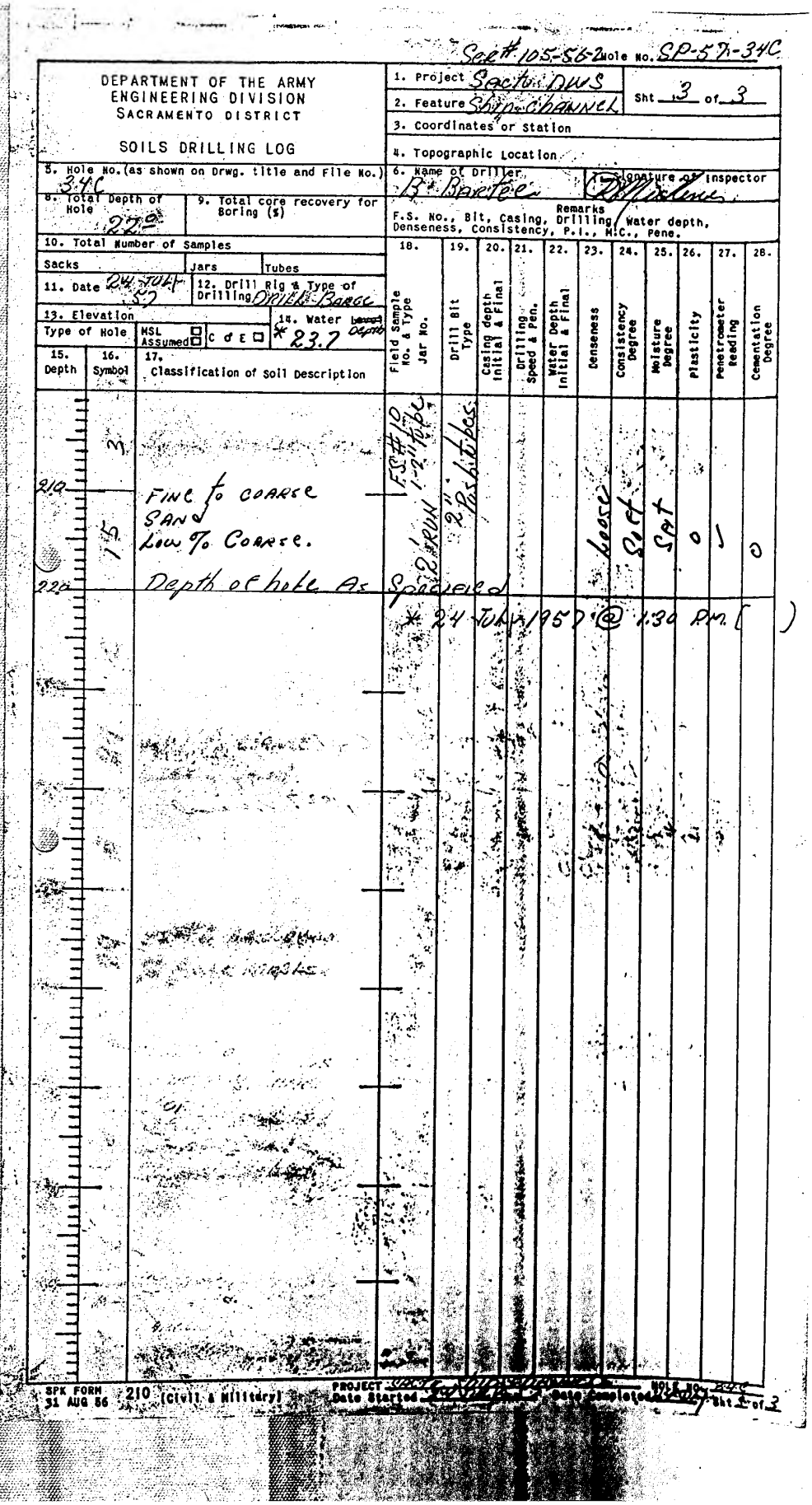
SOILS DRILLING LOG

1. Project Sacto DWS
2. Feature Ship Channel
Sht 2 of 3
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 34C
6. Name of Driller B. Bartec
7. Signature of Inspector [signature]
8. Total Depth of Hole 22.0
9. Total core recovery for Boring (%)
Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples: Sacks | Jars | Tubes
11. Date 24 July 57
12. Drill Rig & Type of Drilling Drill Barge
13. Elevation
14. Water Level
Type of Hole: MSL Assumed ☐ C & E ☐

15. Depth	16. ~~Symbol~~ DPF	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
110	5	Same Coarse Sand.	FS#5 1-2" tube	2" Push tubes				dense	Firm	Sat	0	✓	0
120	19		2' RUN										
130	5		FS#6 1-2" tube					dense as blows indicate					
140	24	Med. to coarse coarse Sand	2' RUN.	2" Push tubes	Following hole 2' behind.	✓							
150	8		FS#7 1-2" tube						Firm	Sat	0	✓	0
160	29	FS#7 has low % ½ MAX. Gravels	2' RUN										
170	16		FS#8 1-2" tube					Very dense	Firm-Stiff	Sat	0	✓	0
180	28	out of Gravels Coarse Sand Clean. (Washed.)	2' RUN										
190	14		FS#9 1-2" tube										
200	30	Larger % Fine + med. Sand. Same	2' RUN										

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sacto Ship Channel HOLE NO. 34C
Date Started 24 July 57 Date Completed 24 July Sht 2 of 3

dwc-
sac-SP-57-34C



Ser# 105-56-2 Hole No. SP-57-34C

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sacto DWS
2. Feature Ship Channel
Sht 3 of 3
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) 34C
6. Name of Driller B. Bartee
7. Signature of Inspector [signature]
8. Total Depth of Hole 22.0
9. Total core recovery for Boring (%)
10. Total Number of Samples
Sacks | Jars | Tubes
11. Date 24 JULY 57
12. Drill Rig & Type of Drilling DRILL BARGE
13. Elevation
Type of Hole | MSL Assumed | C d E
14. Water ~~Level~~ Depth * 23.7

Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
	3		FS#10 1-2" tube	2" Push tubes									
210	15	FINE to COARSE SAND Low % COARSE.	2' RUN					Loose	Soft	Sat	0	1	0
220		Depth of hole As Specified											

* 24 July 1957 @ 1:30 P.M. ( )

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT [illegible] HOLE NO. 34C Date Started [illegible] Date Completed [illegible] Sht 1 of 3

dwc-
sac-SP-57-35C

Mile #13 Ser # 105-56-2 Hole No. SP-57-35-C

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

1. Project Sacto D.W.S. Sht 1 of 3
2. Feature Ship Channel
3. Coordinates or Station N-177722; E-2,090,052
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) TH 35C #52-13-145 Sh. 17 of 18
6. Name of Driller B. Bartee
7. Signature of Inspector [signature]
8. Total Depth of Hole 25.0
9. Total core recovery for Boring (%)
10. Total Number of Samples
Sacks | Jars | Tubes
11. Date 23 JULY 57
12. Drill Rig & Type of Drilling Drill Barge
13. Elevation ~~15.5 MLLW~~
14. Water ~~Level~~ Depth * 20.0
Type of Hole | MSL Assumed ☐ | C d E ☒ | -16.6 MSL

Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. ~~Symbol~~ BPF	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
0.0–1.0	H.P.	Blue Grey Sandy Silt. Fine Grain Sand.	FS #1 1-2" tube	2" Push tubes	* 23 July @ 10:30 AM - Elev's taken taken from condition survey Dwg, File # 52-13-145 Sht. 17 of 18.								
1.0–2.0	HP							Loose	Very Soft	Sat	0	✓	0
2.0–3.0	H.P.	Blue Grey Clean washed Sand. Fine to med. Grain	3' Run		Following Hole 2' Behind with 4" Casing	Hand Push		Loose	Very Soft	Sat	0	✓	0
3.0–4.0	HP		FS #2 1-2" tube										
4.0–5.0	HP	Blue Grey Sandy Silt. P.P. Low % Fine Grain Sand.	2' Run	2" Push Tubes		Easy Push		Loose	Soft	Sat	0	✓	0
5.0–6.0	HP		FS #3 1-2" tube										
6.0–7.0	2		2' Run										
7.0–8.0	3	-Material Seems to be laid down in thin lenses of Sand Sandy Silt Coarse Sand. Slightly organic non fibrous. Cannot determine exact thickness of lenses in tube.	FS #4 1-2" tube			Fairly easy Push							
8.0–9.0	9		2' Run	2" Push Tube				Loose	Soft	Sat	0	✓	0
9.0–10.0	3		~~FS #5 1-2" tube~~										

SPK FORM 31 AUG 56 210 (Civil & Military) PROJECT Sacto Ship Channel HOLE NO. 35C
Date Started 23 July 57 Date Completed ____ Sht 1 of 3

dwc-
sac-SP-57-35C

Ser #105-56-2 Hole No. SP-57-35C

DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

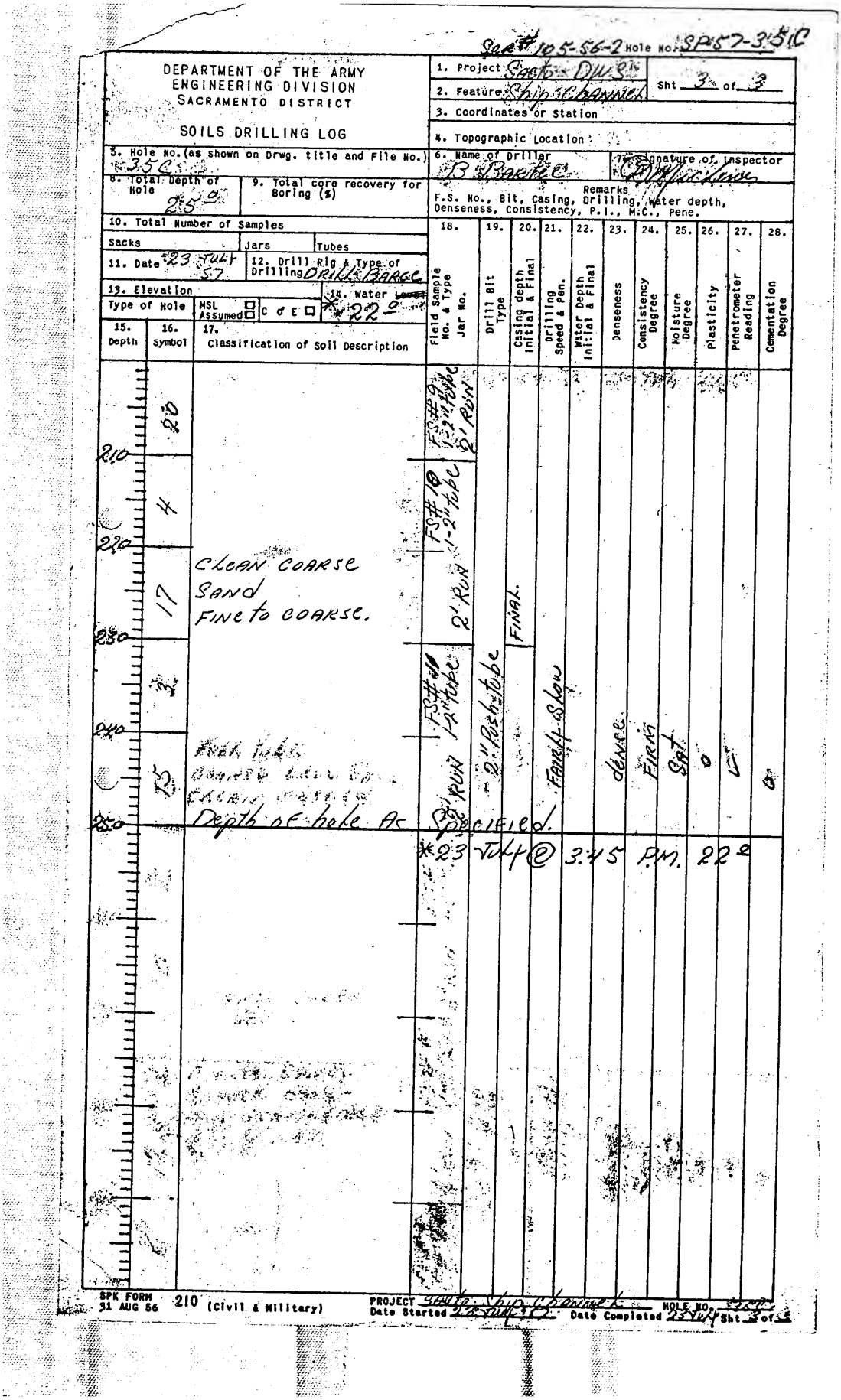
1. Project Sacto D.W.S. Sht 2 of 3
2. Feature Ship channel
3. Coordinates or Station
4. Topographic Location
5. Hole No. (as shown on Drwg. title and File No.) TH 35C
6. Name of Driller B Bartee
7. Signature of Inspector D Mickene
8. Total Depth of Hole 25.0
9. Total core recovery for Boring (%)
10. Total Number of Samples: Sacks | Jars | Tubes
11. Date 23 July 57
12. Drill Rig & Type of Drilling Drill Barge
13. Elevation
14. Water Level Depth 22.0
Type of Hole: MSL Assumed ☐ C d E ☐

Remarks: F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field Sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
	10		FS#5 1-2" tube 2' Run	23 July (9)				1130 PM			22.0		
11.0													
12.0		Sand Fell From Tube Recovering	Loss										
13.0	2		FS#6 1-2" tube	2" Push tubes	←	Fairly easy		Loose	Soft	Sat	0	✓	0
14.0	8	Full tube Coarse blue Sand clean washed.	2' Run										
15.0	2		FS#7 1-2" tube										
16.0	10		2' Run										
17.0		Coarse clean SAND	FS#8 1-2" tube										
18.0	2	Coarse Sand Gravel Good, mix, Gravels are 1/4" to 1/2" MAX.	2' Run	2" Push Tube	←	Stiff Push		dense	Firm	Sat	0	✓	0
19.0	12												
20.0	3		FS#9 1-2" tube										

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT Sacto Ship Channel HOLE NO. 35C
Date Started 23 July 57 Date Completed 23 July Sht 2 of 3

dwc-
sac-SP-57-35C



DEPARTMENT OF THE ARMY
ENGINEERING DIVISION
SACRAMENTO DISTRICT

SOILS DRILLING LOG

Sec # 105-56-2 Hole No. SP57-35C

1. Project: State Dwgs
2. Feature: Ship Channel
Sht 3 of 3
3. Coordinates or Station
4. Topographic Location:
5. Hole No. (as shown on Drwg. title and File No.) 35C
6. Name of Driller B Baetke
7. Signature of Inspector
8. Total Depth of Hole 25'0
9. Total core recovery for Boring (s)
Remarks
F.S. No., Bit, Casing, Drilling, Water depth, Denseness, Consistency, P.I., M.C., Pene.
10. Total Number of Samples
Sacks Jars Tubes
11. Date 23 JULY 57
12. Drill Rig & Type of Drilling DRILL BARGE
13. Elevation
Type of Hole MSL Assumed C & E
14. Water Level *22'0

15. Depth	16. Symbol	17. Classification of Soil Description	18. Field sample No. & Type Jar No.	19. Drill Bit Type	20. Casing depth Initial & Final	21. Drilling Speed & Pen.	22. Water Depth Initial & Final	23. Denseness	24. Consistency Degree	25. Moisture Degree	26. Plasticity	27. Penetrometer Reading	28. Cementation Degree
210	20		FS#9 1-2½"tube 2' Run										
220	4		FS#10 1-2½"tube 2' Run		FINAL								
230	17	CLEAN COARSE SAND FINE to COARSE.											
240	3		FS#11 1-2½"tube 2' Run	2½" Pitcher tube		Fairly Slow		dense	Firm	Sat.	0	6	0
250	25	Rock Fill Broken Concrete Rock Fragments Depth of hole As Specified.	25' Run										

*23 JULY @ 3:45 P.M. 22'0

SPK FORM 31 AUG 56 210 (Civil & Military)
PROJECT State Ship Channel HOLE NO. 35C
Date Started 22 July 57 Date Completed 25 July 57 Sht 3 of 3

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-199

Hole No. TH-86-22

dwc-
sac-TH-86-22

DRILLING LOG	DIVISION SOUTH PACIFIC	INSTALLATION USAED SACRAMENTO	SHEET 1 OF 3 SHEETS
1. PROJECT SACTO DEEP WATER SHIP CHANNEL		10. SIZE AND TYPE OF BIT 5" CASING	
2. LOCATION (Coordinates or Station) RIVER MILE 19.50		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) COE RYERS ISLAND TIDAL GAUGE	
3. DRILLING AGENCY SIERRA MADRE EXPLORATION		12. MANUFACTURER'S DESIGNATION OF DRILL CME-55	
4. HOLE NO. (As shown on drawing title and file number) TH-86-22 (A)		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5 GAL; UNDISTURBED	
5. NAME OF DRILLER BOB SCHWEGEL		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☑ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER —	
7. THICKNESS OF OVERBURDEN 0		16. DATE HOLE STARTED 30 MAY 86 COMPLETED 30 MAY 86	
8. DEPTH DRILLED INTO ROCK 0		17. ELEVATION TOP OF HOLE -30.4	
9. TOTAL DEPTH OF HOLE 5.0'		18. TOTAL CORE RECOVERY FOR BORING — %	
		19. SIGNATURE OF INSPECTOR K. Egbert	

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
	30					(A) 5 GALLON BULK SED COLUMN SETTLING 1 OF 3
						SOUNDING 49.3
						STAND 4.2
						36.1
						GAUGE 5.70
						30.4
	31		CLAYEY SILTY SAND - OLIVE GRAY (5Y 3/2), 50-60% VERY FINE-GRAINED SAND, 40-50% NON TO LOW PLASTICITY FINES.		Sample 1 of 3	
						0'
	32			3.5' / 5'	to 5'	BEGIN 1005
			ABUNDANT CLUMPS			END 1100
	33					
	34		BOTTOM OF TUBE			
			CLAYEY SAND - OLIVE GRAY (5Y 3/2), 70-80% VERY FINE TO FINE GRAINED SAND, 20-30% LOW TO			
	35		MEDIUM PLASTICITY FINES, VERY FIRM, SLIGHTLY CEMENTED IN ZONES, MICACEOUS, SCATTERED COARSE-GRAINED SAND AND GRAVEL TO 1-INCH.			TOH @ 35.4
			GRAVEL IS ANGULAR FRAGMENTS OF FINE-GRAINED OLIVE GRAY SANDSTONE			
	36					

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

PROJECT SACTO DEEP WATER SHIP CHANNEL

HOLE NO. TH-86-22

dwc-
sac-TH-86-22

Hole No. TH-86-22

DRILLING LOG	DIVISION SOUTH PACIFIC	INSTALLATION USAED SACRAMENTO	SHEET 2 OF 3 SHEETS
1. PROJECT SACTO DEEP WATER SHIP CHANNEL		10. SIZE AND TYPE OF BIT 5" CASING	
2. LOCATION (Coordinates or Station) RIVER MILE 19.50		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) COE RYERS ISLAND TIDAL GAUGE	
3. DRILLING AGENCY SIERRA MADRE EXPLORATION		12. MANUFACTURER'S DESIGNATION OF DRILL CME - 55	
4. HOLE NO. (As shown on drawing title and file number) TH-86-22 (A)		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5 GAL; UNDISTURBED —	
5. NAME OF DRILLER BOB SCHWEGER		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☑ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER —	
7. THICKNESS OF OVERBURDEN 0		16. DATE HOLE STARTED 30 MAY 86; COMPLETED 30 MAY 86	
8. DEPTH DRILLED INTO ROCK 0		17. ELEVATION TOP OF HOLE -30.7	
9. TOTAL DEPTH OF HOLE 5.0		18. TOTAL CORE RECOVERY FOR BORING — %	
		19. SIGNATURE OF INSPECTOR [signature]	

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
	30					(A) 5 GALLON BULK SED COLUMN SETTLING 2 OF 3
						SOUNDING 40.6
						STAND 4.2
						36.40
						GAUGE 5.70
						30.7
	31		SILTY SAND / SANDY SILT - OLIVE GRAY (5Y 3/2), 50% VERY FINE - GRAINED SAND, 50% NON TO LOW PLASTICITY FINES.		Sample 2 of 3	
						1115 BEGIN RUN
	32					1130 END RUN
						0.0 to 5.0
	33					
	34		CLAYEY SAND - OLIVE GRAY (5Y 3/2), 60-70% VERY FINE TO FINE - GRAINED SAND, 30-40% MEDIUM PLASTICITY FINES. SCATTERED GRAVEL TO 1-INCH, HIGH PLASTICITY CLAY NODULES AND CEMENTED ZONES, GRAVEL IS A FINE - GRAINED OLIVE - GRAY SANDSTONE.			
	35					BOH @ 35.7
	36					
	37					

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

PROJECT SACTO DEEP WATER SHIP CHANNEL | HOLE NO. TH-86-22

Little Egbert Multi-Benefit Project
Solano County, California | Project No. 907.02 | Plate No. A-201

Hole No. TH-86-22

dwc-
sac-TH-86-22

DRILLING LOG	DIVISION South Pacific	INSTALLATION USAED SACRAMENTO	SHEET 3 OF 3 SHEETS

1. PROJECT Sacto Deep Water Ship Channel	10. SIZE AND TYPE OF BIT 5" CASING
2. LOCATION (Coordinates or Station) River Mile 19.50	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) COE Ryers Island Tidal Gauge
3. DRILLING AGENCY Sierra Madre Exploration	12. MANUFACTURER'S DESIGNATION OF DRILL CME-55
4. HOLE NO. (As shown on drawing title and file number) TH-86-22 (A)	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN — DISTURBED 5 GAL — UNDISTURBED —
5. NAME OF DRILLER Bob Schwegel	14. TOTAL NUMBER CORE BOXES —
6. DIRECTION OF HOLE ☑ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER —
	16. DATE HOLE — STARTED 30 MAY 86 — COMPLETED 30 MAY 86
7. THICKNESS OF OVERBURDEN 0	17. ELEVATION TOP OF HOLE 30.7
8. DEPTH DRILLED INTO ROCK 0	18. TOTAL CORE RECOVERY FOR BORING — %
9. TOTAL DEPTH OF HOLE 5.0	19. SIGNATURE OF INSPECTOR [signature]

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
						(A) 5 Gallon Bulk Sed Column Settling 3 of 3
	30.0					Sounding 40.6 Stand 4.2 36.40
	31		Silty Sand / Sandy Silt Olive Gray (5Y 3/2), 50% very fine to fine-grained sand, 50% non to low plasticity fines,		Sample 3 of 3	Gauge 5.70 30.70
	32.0					1140 Begin Run 1215 End "
	33.0				0.0 to 5.0	
	34.0		Clayey Sand / Sandy Clay - Olive Gray (5Y 3/2) 50% very fine to fine-grained sand, scattered fine gravel, 50% high plasticity fines, scattered clam shells, corncobs and small, high plasticity clay nodules very dense.			Drilling very hard @ ~ 34.0-35.0
	35.0					
	36.0					Bob @ 35.7

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

PROJECT Sacto Deep Water Ship Channel — HOLE NO. TH-86-22

dwc-
sac-TH-86-23

Hole No. TH-86-23

DRILLING LOG	DIVISION South Pacific	INSTALLATION USACE SACRAMENTO	SHEET 1 OF 2 SHEETS
1. PROJECT SACTO Deep Water Ship Channel		10. SIZE AND TYPE OF BIT 3" Acker Split	
2. LOCATION (Coordinates or Station) River Mile 18.00		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) COE Rvrs Island Tidal Gauge	
3. DRILLING AGENCY Sierra Madre Exploration		12. MANUFACTURER'S DESIGNATION OF DRILL CME 55	
4. HOLE NO. (As shown on drawing title and file number) TH-86-23 (c)		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED — UNDISTURBED —
5. NAME OF DRILLER Bob Schwegler		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☑ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER —	
7. THICKNESS OF OVERBURDEN 0		16. DATE HOLE STARTED 30 MAY 86 COMPLETED 30 MAY 86	
8. DEPTH DRILLED INTO ROCK 0		17. ELEVATION TOP OF HOLE -32.4	
9. TOTAL DEPTH OF HOLE 36'		18. TOTAL CORE RECOVERY FOR BORING — %	
		19. SIGNATURE OF INSPECTOR K. Ver Dox	

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
	32'					(c) MODIFIED ELUTRIATE.
	33'		SILTY CLAYEY SAND - OLIVE GRAY (5Y 3/2), 70-80% FINE-GRAINED SAND, 20-30% MEDIUM TO HIGH PLASTICITY FINES, SCATTERED SUBANGULAR SANDSTONE GRAVEL. SLIGHTLY CEMENTED SANDY ZONES. VERY DENSE	2' / 2.5'	TUBE 1 0' to 2.5'	SOUNDING 41.3 STAND 4.6 36.7 GAUGE 4.3 -32.4
	34'					* NOTE: RIVER CHANNEL TOO DEEP HERE TO GET BOTH SAMPLES WITHIN CONTRACT SPECIFIED DEPTH OF 28' to 36' will move over FOR TUBE 2
	35'					BOH @ 35.4'
	36'					

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

PROJECT SACTO DEEP WATER SHIP CHANNEL | HOLE NO. TH-86-23

Hole No. TH-86-23

dwc-
sac-TH-86-23

DRILLING LOG	DIVISION: South Pacific	INSTALLATION: USAED - SACRAMENTO	SHEET 2 OF 2 SHEETS

1. PROJECT: Sacto Deep Water Ship Channel	10. SIZE AND TYPE OF BIT: 3" Acker Split
2. LOCATION (Coordinates or Station): River Mile 18.0	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): COE Ryers Island Tidal Gauge
3. DRILLING AGENCY: Sierra Madre Exploration	12. MANUFACTURER'S DESIGNATION OF DRILL: CME - 55
4. HOLE NO. (As shown on drawing title and file number): TH-86-23 (C)	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED — UNDISTURBED —
5. NAME OF DRILLER: Bob Schwegel	14. TOTAL NUMBER CORE BOXES: —
6. DIRECTION OF HOLE: ☑ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER: —
	16. DATE HOLE: STARTED 30 MAY 86 COMPLETED 30 MAY 86
7. THICKNESS OF OVERBURDEN: 0	17. ELEVATION TOP OF HOLE: -31.9
8. DEPTH DRILLED INTO ROCK: 0	18. TOTAL CORE RECOVERY FOR BORING: — %
9. TOTAL DEPTH OF HOLE: 2.5	19. SIGNATURE OF INSPECTOR: K. Aguirre

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
	31.0					(C) MODIFIED ELUTRIATE TUBE 2 OF 2 SOUNDING 40.8 STAND 4.6 36.2 GAUGE 4.3 31.9
	32.0		SILTY CLAYEY SAND - OLIVE GRAY (5Y 3/2), 70-80% VERY FINE TO FINE-GRAINED SAND, 20-30% MEDIUM TO HIGH PLASTICITY FINES. SCATTERED SUBANGULAR SANDSTONE GRAVEL to 1-INCH. SLIGHTLY CEMENTED SANDY ZONES, VERY DENSE	2.5 / 2.5 100%	TUBE 2 0.0 to 2.5	
	33.0					
	34.0					BOH @ 34.4
	35.0					
	36.0					

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

PROJECT: Sacto Deep Water Ship Channel | HOLE NO. TH-86-23

dwc-
sac-TH-86-23

Hole No. TH-86-23

DRILLING LOG	DIVISION South Pacific	INSTALLATION USAED - Sacramento	SHEET 1 OF 3 SHEETS
1. PROJECT Sacto Deep Water Ship Channel		10. SIZE AND TYPE OF BIT 5" Casing	
2. LOCATION (Coordinates or Station) River Mile 18.00		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) COE Ryers Island Tidal Gauge	
3. DRILLING AGENCY Sierra Madre Exploration		12. MANUFACTURER'S DESIGNATION OF DRILL CME-55	
4. HOLE NO. (As shown on drawing title and file number) TH-86-23 (A)		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5 Gal; UNDISTURBED	
5. NAME OF DRILLER Bob Schwegel		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☑ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER —	
7. THICKNESS OF OVERBURDEN 0		16. DATE HOLE: STARTED 30 May 86; COMPLETED 30 May 86	
8. DEPTH DRILLED INTO ROCK 0		17. ELEVATION TOP OF HOLE	
9. TOTAL DEPTH OF HOLE 49		18. TOTAL CORE RECOVERY FOR BORING — %	
		19. SIGNATURE OF INSPECTOR K Alexander	

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
	31'					(A) Bulk Sed. 5 Gal Column Settling
						Begin 1515
	32'		Sandy silty clay - grayish olive (10Y 4/2), 90% high plasticity fines, very stiff, 10% very fine - grained sand, scattered fine gravel and medium grained sand		Sample 1 of 3	End
	33'			5"		Sounding 40.8
				5"	0" to 5"	Stand 4.6
	34'					36.2
						Gauge 4.3
	35'		Bottom of tube			31.9
			Sandy clay - as above - very dense			
	36'					
	37'			100%		BOH @ 36.5'

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

PROJECT Sacto Deep Water Ship Channel

HOLE NO. TH-86-23

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. A-205

Hole No. TH-86-23

dwc-
sac-TH-86-23

DRILLING LOG	DIVISION SOUTH PACIFIC	INSTALLATION USAED SACRAMENTO	SHEET 2 OF 3 SHEETS
1. PROJECT SACTO DEEP WATER SHIP CHANNEL		10. SIZE AND TYPE OF BIT 5" CASING	
2. LOCATION (Coordinates or Station) RIVER MILE 18.00		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) COE RYOLS ISLAND TIDAL GAUGE	
3. DRILLING AGENCY SIERRA MADRE EXPLORATION		12. MANUFACTURER'S DESIGNATION OF DRILL CME-55	
4. HOLE NO. (As shown on drawing title and file number) TH-86-23A		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5 GAL; UNDISTURBED —	
5. NAME OF DRILLER BOB SCHWEGEL		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☑ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER —	
7. THICKNESS OF OVERBURDEN 0		16. DATE HOLE STARTED 30 MAY 86; COMPLETED 30 MAY 86	
8. DEPTH DRILLED INTO ROCK 0		17. ELEVATION TOP OF HOLE 31.9	
9. TOTAL DEPTH OF HOLE 4'		18. TOTAL CORE RECOVERY FOR BORING — %	
		19. SIGNATURE OF INSPECTOR K. Whelan	

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
	31'					(A) 5 GALLON BULK SOD COLUMN SETTLING;
	32'		SANDY CLAY - MODERATE OLIVE BROWN (5Y 4/4) 90% STIFF, HIGHLY PLASTIC FINES; 10% VERY FINE - GRAINED SAND; SCATTERED MEDIUM AND COARSE GRAINED SAND;		Sample 2 of 3 0' to 5'	SOUNDINGS 40.8 STAND 4.6 36.2 GAUGE 4.3 31.9
	33					
	34					
	35'					
	36'					BOHE 36'

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

PROJECT SACTO DEEP WATER SHIP CHANNEL

HOLE NO. TH-86-23

dwc-
sac-TH-86-23

Hole No. TH-86-23

DRILLING LOG	DIVISION South Pacific	INSTALLATION USAED SACRAMENTO	SHEET 3 OF 3 SHEETS
1. PROJECT SACTO Deep Water Ship Channel		10. SIZE AND TYPE OF BIT 5" CASING	
2. LOCATION (Coordinates or Station) River Mile 18.0		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) COE Rivers Island Tidal Gauge	
3. DRILLING AGENCY Sierra Madre Exploration		12. MANUFACTURER'S DESIGNATION OF DRILL CME-55	
4. HOLE NO. (As shown on drawing title and file number) TH-86-23(A)		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 5 GAL / UNDISTURBED
5. NAME OF DRILLER Bob Schmeder		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☑ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER —	
7. THICKNESS OF OVERBURDEN 0		16. DATE HOLE	STARTED 30 MAY 86 / COMPLETED 30 MAY 86
8. DEPTH DRILLED INTO ROCK 0		17. ELEVATION TOP OF HOLE -32°	
9. TOTAL DEPTH OF HOLE 4°		18. TOTAL CORE RECOVERY FOR BORING — %	
		19. SIGNATURE OF INSPECTOR [signature]	

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
						(A) 5 GALLON BULK SOIL COLUMN SETTLING
	32°		SANDY CLAY - GRAYISH OLIVE (10Y 4/2), 90% SILT, HIGH PLASTICITY FINES, 10% FINE-GRAINED SAND, SCATTERED ANGULAR MEDIUM AND COARSE-GRAINED SAND.		Sample 3 of 3	SOUNDING 40.9 STAND 4.6 36.3 GAUGE 4.3 32.0
	33°				0° to 4°	
	34°					
	35°					
	36°					BOH @ 36°

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

PROJECT SACTO Deep Water Ship Channel | HOLE NO. TH-86-23

Little Egbert Multi-Benefit Project
Solano County, California | Project No. 907.02 | Plate No. A-207

Hole No. TH-86-24

dwc-
sac-TH-86-24

DRILLING LOG	DIVISION: South Pacific	INSTALLATION: USED-Sacramento	SHEET 1 OF 1 SHEETS
1. PROJECT: Sacto Deep Water Ship Channel		10. SIZE AND TYPE OF BIT: 5" CASING	
2. LOCATION (Coordinates or Station): River Mile 16.70		11. DATUM FOR ELEVATION SHOWN (MSL or MLLW): COE Ryers Island Tide Gauge	
3. DRILLING AGENCY: Sierra Madre Exploration		12. MANUFACTURER'S DESIGNATION OF DRILL: CME-55	
4. HOLE NO. (As shown on drawing title and file number): TH-86-24 (C)		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED — UNDISTURBED 2	
5. NAME OF DRILLER: Bob Schweigel		14. TOTAL NUMBER CORE BOXES: —	
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: —	
7. THICKNESS OF OVERBURDEN: 0		16. DATE HOLE: STARTED 2 JUNE 86 COMPLETED 2 JUNE 86	
8. DEPTH DRILLED INTO ROCK: 0		17. ELEVATION TOP OF HOLE: -27.9	
9. TOTAL DEPTH OF HOLE: 5.0'		18. TOTAL CORE RECOVERY FOR BORING: — %	
		19. SIGNATURE OF INSPECTOR: K. Kelley	

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
	27.0					(C) MODIFIED ELUTRIATE 2 TUBES 5
	28.0		SILTY CLAY - OLIVE GRAY (5Y 3/2), VERY SOFT, GREASY, MODIUM TO HIGH PLASTICITY FINES, ORGANIC MATERIAL SCATTERED THROUGHOUT. SLIGHTLY GRITTY.	2.5 / 2.5	FS# TH-24C 1OF 2	SOUNDING 36.2 STAND 4.6 / 31.6 GAUGE 3.7 / -27.9
	29.0					BEGIN 1135 END 1145
	30.0					
	31.0		SILTY CLAY - OLIVE GRAY (5Y 3/2) - SAME AS ABOVE	2.5 / 2.5	FS# TH-24C 2OF 2	BEGIN 1150 END 1200
	32.0					
	33.0					BOH @ 32.1

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

PROJECT: SACTO DEEP WATER SHIP CHANNEL

HOLE NO.: TH-86-24

dwc-
sac-TH-86-24

Hole No. TH-86-24

DRILLING LOG	DIVISION SOUTH PACIFIC	INSTALLATION USAED SACRAMENTO	SHEET 1 OF 3 SHEETS
1. PROJECT SACTO DEEP WATER SHIP CHANNEL		10. SIZE AND TYPE OF BIT 5" CASING	
2. LOCATION (Coordinates or Station) RIVER MILE 16.20		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) COE RYERS ISLAND TIDAL GAUGE	
3. DRILLING AGENCY SIERRA MODOC EXPLORATIONS		12. MANUFACTURER'S DESIGNATION OF DRILL CME-55	
4. HOLE NO. (As shown on drawing title and file number) TH-86-24 (A)		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5 GAL; UNDISTURBED —	
5. NAME OF DRILLER BOB SCHNEIDER		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER —	
7. THICKNESS OF OVERBURDEN 0		16. DATE HOLE STARTED 2 JUNE 86; COMPLETED 2 JUNE 86	
8. DEPTH DRILLED INTO ROCK 0		17. ELEVATION TOP OF HOLE -27.90	
9. TOTAL DEPTH OF HOLE 5'		18. TOTAL CORE RECOVERY FOR BORING — %	
		19. SIGNATURE OF INSPECTOR K. Kelley	

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
-27.9	0					(A) Bulk Sed. Column Settling
						Sounding 36.2
						Stand 4.6
						31.6
						Gauge 3.7
						27.9
-28.9	1		CLAY - OLIVE GREEN (5Y 3/2), SOFT, GREASY, HIGH PLASTICITY FINES.		Sample 1 of 3	
				0"		SAMPLE 1 OF 3
				5"		BEGIN 0940
				5"		END 1040
-31.9	4					
-32.9	5			100%		BOH @

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

PROJECT SACTO DEEP WATER SHIP CHANNEL

HOLE NO. TH-86-24

Hole No. TH-86-24

dwc-
sac-TH-86-24

DRILLING LOG	DIVISION South Pacific	INSTALLATION USAED-SACRAMENTO	SHEET 2 OF 3 SHEETS

1. PROJECT Sacto Deep Water Ship Channel	10. SIZE AND TYPE OF BIT 5" CASING
2. LOCATION (Coordinates or Station) River Mile 16.20	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) COE Ryers Island Tidal Gauge
3. DRILLING AGENCY Sierra Madre Exploration	12. MANUFACTURER'S DESIGNATION OF DRILL CME-55
4. HOLE NO. (As shown on drawing title and file number) TH-86-24 (A)	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN — DISTURBED 5 GAL — UNDISTURBED —
5. NAME OF DRILLER Bob Schwegel	14. TOTAL NUMBER CORE BOXES —
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER —
	16. DATE HOLE — STARTED 2 June 86 — COMPLETED 2 June 86
7. THICKNESS OF OVERBURDEN 0	17. ELEVATION TOP OF HOLE -28.5
8. DEPTH DRILLED INTO ROCK 0	18. TOTAL CORE RECOVERY FOR BORING — %
9. TOTAL DEPTH OF HOLE 5°	19. SIGNATURE OF INSPECTOR [signature]

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
	28°					(A) Bulk Sed. Column Setting 2 of 3
	29°		Silty clay - olive gray (5Y 3/2), very soft, slightly gritty; medium to high plasticity fines, strong organic odor, scattered pockets of decomposing organic material - looks like straw or grass of some sort.		Sample 2 of 3	Sounding 36.8 Stand 4.6 32.2 Gauge -3.7 -28.5
	30°			5° / 5°	0° to 5°	Begin 1050 End 1105
	31°					
	32°					
	33°			100%		Boh @ 33.5
	34°					Note - wind and swells too rough to get too involved w/ changing locations to stay within -30° to -36°
	35°					
	36°					

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

PROJECT Sacto Deep Water Ship Channel — HOLE NO. TH-86-24

dwc-
sac-TH-86-24

Hole No. TH-86-24

DRILLING LOG	DIVISION South Pacific	INSTALLATION USACE SACRAMENTO	SHEET 3 OF 3 SHEETS
1. PROJECT Sacto Deep Water Ship Channel		10. SIZE AND TYPE OF BIT 5" CASING	
2. LOCATION (Coordinates or Station) River Mile 16.20		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) COE Ryers Island Tidal Gauge	
3. DRILLING AGENCY Sledge Madsen Exploration		12. MANUFACTURER'S DESIGNATION OF DRILL CME-55	
4. HOLE NO. (As shown on drawing title and file number) TH-86-24 (A)		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5 GAL; UNDISTURBED —	
5. NAME OF DRILLER Bob Schweizer		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☑ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER —	
7. THICKNESS OF OVERBURDEN 0		16. DATE HOLE STARTED 2 June 86; COMPLETED 2 June 86	
8. DEPTH DRILLED INTO ROCK 0		17. ELEVATION TOP OF HOLE -28.5	
9. TOTAL DEPTH OF HOLE 5.0		18. TOTAL CORE RECOVERY FOR BORING — %	
		19. SIGNATURE OF INSPECTOR R. Weber	

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
	28.0					(A) BULK SEDS COLUMN SETTLING 3 OF 3
	29.0		SILTY CLAY - OLIVE GRAY (5 Y 3/2), VERY SOFT, SLIGHTLY GRITTY, MEDIUM TO HIGH PLASTICITY FINES, POCKETS OF PEATY - DECOMPOSING ORGANIC MATERIAL THROUGHOUT (GRASSES, STRAW)		Sample 3 of 3	SOUNDING 36.8 STAND 4.6 32.2 GAUGE -3.7 28.5
	30.0				0.0 to 5.0	
	31.0			5.0 / 5.0		BEGN 1110 END, 1115
	32.0					DRILLING VERY EASY - MATERIAL VERY SOFT.
	33.0			100%		BOH @ 33.0
	34.0					
	35.0					
	36.0					

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

PROJECT Sacto Deep Water Ship Channel

HOLE NO. TH-86-24

dwc-
sac-TH-86-25

DRILLING LOG	DIVISION: South Pacific	INSTALLATION: USAES Sacramento	SHEET 1 OF 3 SHEETS
1. PROJECT: Sacto Deep Water Ship Channel		10. SIZE AND TYPE OF BIT: 5" Casing	
2. LOCATION (Coordinates or Station): River Mile 14.3		11. DATUM FOR ELEVATION SHOWN (MSL or MSL): Rylers Island Tide Gauge	
3. DRILLING AGENCY: Sierra Madre Exploration		12. MANUFACTURER'S DESIGNATION OF DRILL: CME 55	
4. HOLE NO. (As shown on drawing title and file number): F.S.-25A TH86-25 (A)		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 56A; UNDISTURBED —	
5. NAME OF DRILLER: Bob Schneidel		14. TOTAL NUMBER CORE BOXES: —	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: —	
7. THICKNESS OF OVERBURDEN: 0		16. DATE HOLE: STARTED 3 June 86; COMPLETED 5 June 86	
8. DEPTH DRILLED INTO ROCK: 0		17. ELEVATION TOP OF HOLE: -28.0	
9. TOTAL DEPTH OF HOLE: 7.0'		18. TOTAL CORE RECOVERY FOR BORING: — %	
		19. SIGNATURE OF INSPECTOR: Joni L. Jackle	

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
	1		Sandy clay, light olive brown, 5Y 5/6, wet, est. 70 to 80% medium to highly plastic fines, est. 20 to 30% fine sand, firm to stiff, non-cemented, F.C.	Sample #1 0' to 2'	run 1 0' to 5'	(A) Bulk Sed. Column Settling 1 of 3 1130 hours - 1st run. Soundings 30.5 Gauge 2.5 elevation -28.0 Ranges: Sta. 187 (472 m) sta. 186 (469 m) - lost 3' of sample
	2					
	3			2' / 5'		
	4					
	5		Clayey sand, mud. olive brown, 5Y 4/4 moist, est. 80% fine micaceous sand, est. 20% low to med. plasticity fines, very firm, non-cemented. (F.C.)	Sample 1 2' / 2'	run 2 5' to 7'	(1128) - 2nd run.
	6					
	7			100%		BOH 7.0 1145 hrs. This hole filled 1st 5 gal. sample.

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

PROJECT: Sacto Deep Water Ship Channel HOLE NO.: TH-86-25

dwc-
sac-TH-86-25

Hole No. TH-86-25

DRILLING LOG	DIVISION SOUTH PACIFIC	INSTALLATION USAED - SACRAMENTO	SHEET 2 OF 3 SHEETS
1. PROJECT SACTO DEEP WATER SHIP CHANNEL		10. SIZE AND TYPE OF BIT 5" CASING	
2. LOCATION (Coordinates or Station) RIVER MILE 14.30		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) COE BARS ISLAND TIDAL GAUGE	
3. DRILLING AGENCY SIERRA MADRE EXPLORATION		12. MANUFACTURER'S DESIGNATION OF DRILL CME-55	
4. HOLE NO. (As shown on drawing title and file number) TH-86-25(A)		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5 GAL; UNDISTURBED —	
5. NAME OF DRILLER BOB SCHWEDER		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☑ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER —	
7. THICKNESS OF OVERBURDEN 0		16. DATE HOLE STARTED 3 JUNE 86 COMPLETED 3 JUNE 86	
8. DEPTH DRILLED INTO ROCK 0		17. ELEVATION TOP OF HOLE -28.0	
9. TOTAL DEPTH OF HOLE 5.0'		18. TOTAL CORE RECOVERY FOR BORING — %	
		19. SIGNATURE OF INSPECTOR Joni L. Jackels	

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
	1		clay, yellowish gray, 5Y 7/2, moist, med. to highly plastic fines, stiff to very stiff, non-cemented, (F.C.)	SAMPLE #2	run 3	(A) Bulk Sed. COLUMN SETTLING 2 OF 3
					0' to 2.5'	1200 hrs 3rd run. SOUNDING 32.0'
	2					GAGE 4.0 ELEVATION -28.0
	3		clayey sand, gray to olive 10Y 4/2, moist to wet, est. 60 to 70% fine micaceous sand est. 30 to 40% med. plasticity fines very from non-cemented. (F.C.)	#2 2.5 / 2.5	Run 4 2.5 to 5'	1230 start run 4.
	4					
	5			100%		1239 pulled 4th run BOH 5' Filled sample 2
	6					
	7					

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

PROJECT SACTO DEEP WATER SHIP CHANNEL HOLE NO. TH-86-25

Hole No. TH-86-25

dwc-
sac-TH-86-25

DRILLING LOG

DIVISION: SOUTH PACIFIC
INSTALLATION: USAED - SACRAMENTO
SHEET 3 OF 3 SHEETS

1. PROJECT: SACTO DEEP WATER SHIP CHANNEL
2. LOCATION (Coordinates or Station): RIVER MILE 19.30
3. DRILLING AGENCY: SIERRA MADRE EXPLORATION
4. HOLE NO. (As shown on drawing title and file number): F.S.-25A | TH-86-25 (A)
5. NAME OF DRILLER: BOB SCHWEGER
6. DIRECTION OF HOLE: ☑ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: 0
8. DEPTH DRILLED INTO ROCK: 0
9. TOTAL DEPTH OF HOLE: 7.0'
10. SIZE AND TYPE OF BIT: 5" CASING
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): COE RYERS ISLAND TIDAL GAUGE
12. MANUFACTURER'S DESIGNATION OF DRILL: CME - 55
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5 GAL. | UNDISTURBED
14. TOTAL NUMBER CORE BOXES: —
15. ELEVATION GROUND WATER: —
16. DATE HOLE: STARTED 3 JUNE 86 | COMPLETED 3 JUNE 86
17. ELEVATION TOP OF HOLE: -29.0
18. TOTAL CORE RECOVERY FOR BORING: — %
19. SIGNATURE OF INSPECTOR: Jari L Inskeep

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
	1		Clayey sand, grayish olive, 10Y 4/2, moist to wet, est. 60 to 70% fine micaceous sand, est. 30 to 40% med. plasticity fines, firm to very firm, non-cemented (F.C.)	run 5	Sample # 3	(A) Bulk SCDS. Column Settling 3 of 3
	2			0' to 4'	4' / 4'	1257 hrs. Sounding 37.5 Stand 4.5 33.0 Gauge 4.0 -29.0
	3					
	4				100%	1310 pull 5th run
	5		As above	run 6	Sample 3	1321 making 6th run.
	6			4' to 7'	2' / 2'	
	7				100%	BOH 7.0' 1330 hrs.

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

PROJECT: SACTO DEEP WATER SHIP CHANNEL | HOLE NO. TH-86-25

dwc-
sac-TH-86-26

Hole No. TH-86-26

DRILLING LOG | DIVISION South Pacific | INSTALLATION Sacramento | SHEET 1 OF 1 SHEETS

1. PROJECT: Sacramento Deep Water Ship Channel
2. LOCATION (Coordinates or Station): River Mile 13.0
3. DRILLING AGENCY: Sierra Madre Exploration
4. HOLE NO. (As shown on drawing title and file number): TH-86-26 F.S. - 26C
5. NAME OF DRILLER: Bob Schwegel
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: 2'
8. DEPTH DRILLED INTO ROCK: —
9. TOTAL DEPTH OF HOLE: 7.5'
10. SIZE AND TYPE OF BIT: 3" Alker split sampler
11. DATUM FOR ELEVATION SHOWN (USM or MSL): COE — Army dock - Rio Vista
12. MANUFACTURER'S DESIGNATION OF DRILL: CME 55
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED — UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: —
15. ELEVATION GROUND WATER: —
16. DATE HOLE: STARTED 4 June 86 COMPLETED 4 June 86
17. ELEVATION TOP OF HOLE: -27.0
18. TOTAL CORE RECOVERY FOR BORING: — %
19. SIGNATURE OF INSPECTOR: Jon L. Jacobi

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
	1			Run 1		1020 sounding 30.0 gage 3.0 elev. -27.0
				0' to 2.5'	0' / 2.5'	lost sample down hole. Fine gravel was in the head of the sampler.
	2			0%		
	3		Gravelly sand, olive gray, 5Y 3/2, saturated, est. 70 to 80% fine to coarse, subangular to subrounded sand, est. 20 to 30% fine gravel as in sand, loose, non-cemented. (F.C.)	Run 2		1035 2nd run
				2.5 to 5.0	0' / 2.5'	lost sample again. Trying a straight shelby push with 3rd run.
	4					
	5		As above.	0%		
				Run 3		1045 3rd run.
	6			5.0 to 7.5	0' / 2.5'	
	7			0%		
	8					BOH 7.5 feet.

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

PROJECT Sacramento Deep Water Ship Channel | HOLE NO. TH-86-26 F.S. - 26C

Hole No. TH-86-26

dwc-
sac-TH-86-26

DRILLING LOG

DIVISION: South Pacific

INSTALLATION: Sacramento

SHEET 1 OF 1 SHEETS

1. PROJECT: Sacramento Deep Water Ship Channel
2. LOCATION (Coordinates or Station): River Mile 13
3. DRILLING AGENCY: Sierra Madre Exploration
4. HOLE NO. (As shown on drawing title and file number): TH-86-26 | F.S. 26-C
5. NAME OF DRILLER: Bob Schwegel
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: 0.
8. DEPTH DRILLED INTO ROCK: 0
9. TOTAL DEPTH OF HOLE: 2.5
10. SIZE AND TYPE OF BIT: 3" Split Barrel Sampler
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): COE (Army dock)
12. MANUFACTURER'S DESIGNATION OF DRILL: CME 55
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: | UNDISTURBED: x 0
14. TOTAL NUMBER CORE BOXES: -
15. ELEVATION GROUND WATER: -
16. DATE HOLE: STARTED 4 June 86 | COMPLETED 4 June 86
17. ELEVATION TOP OF HOLE: -32.0
18. TOTAL CORE RECOVERY FOR BORING: 0 %
19. SIGNATURE OF INSPECTOR: Joni L. Jaschke

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
	1			run 7		1411
				0'		Sounding 37.0
				to	0'	gage 5.0
				2.5	2.5	elev. -32.0
	2					no sample retained. One ¼" gravel in catcher.
				0%		
	3					BOH 2.5
	4					

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

PROJECT: Sacramento Deep Water Ship Channel

HOLE NO.: TH-86-26 F.S.-26 C

dwc-
sac-TH-86-26

Hole No. TH-86-26

DRILLING LOG	DIVISION SOUTH PACIFIC	INSTALLATION Sacramento	SHEET 1 OF 1 SHEETS
1. PROJECT Sacramento Deep Water Ship Channel		10. SIZE AND TYPE OF BIT 3" Acker	
2. LOCATION (Coordinates or Station) River Mile 13		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) COE	
3. DRILLING AGENCY Sierra Marine Exploration		12. MANUFACTURER'S DESIGNATION OF DRILL CME 55	
4. HOLE NO. (As shown on drawing title and file number) TH-86-26 F.S.-26C		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED	UNDISTURBED X
5. NAME OF DRILLER Bob Schwegel		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER —	
7. THICKNESS OF OVERBURDEN 2.5'		16. DATE HOLE STARTED 4 June 86 COMPLETED 4 June 86	
8. DEPTH DRILLED INTO ROCK —		17. ELEVATION TOP OF HOLE -26.5'	
9. TOTAL DEPTH OF HOLE 5.0'		18. TOTAL CORE RECOVERY FOR BORING — %	
		19. SIGNATURE OF INSPECTOR Joni L. Jacobs	

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
-26.5	0			Run 1		1054 sounding 30.0'
				0' to 2.5'	0' / 2.5'	gage 3.5 elev. -26.5
	1					lost sample down hole with straight shelby. Trying the Gas sampler next. This will be the 5th try.
	2			0%		
				Run 2		1124 5th run of the day in trying to get a undisturbed sample.
	3			2.5' to 5.0'	0' / 2.5'	lost sample again.
	4					
	5			0%		BOH 5.0'
						Moving to another location at RM 13.
	6					
	7					
	8					
-35.0	9					

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

PROJECT Sacramento Deep Water Ship Channel | HOLE NO. TH-86-26 F.S.-26

dwc-
sac-TH-86-26

Hole No. TH-86-26

DRILLING LOG	DIVISION South Pacific	INSTALLATION Sacramento	SHEET 1 OF 1 SHEETS

1. PROJECT: Sacramento Deep Water Ship Channel
2. LOCATION (Coordinates or Station): R.M. 13
3. DRILLING AGENCY: Sierra Madre Exploration
4. HOLE NO. (As shown on drawing title and file number): TH-86-26 F.S.-26C
5. NAME OF DRILLER: Bob Schwegel
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: 0'
8. DEPTH DRILLED INTO ROCK: 0'
9. TOTAL DEPTH OF HOLE: 2.5'
10. SIZE AND TYPE OF BIT: 3" split sampler with catcher
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): COE
12. MANUFACTURER'S DESIGNATION OF DRILL: CME 55
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED
14. TOTAL NUMBER CORE BOXES: —
15. ELEVATION GROUND WATER: —
16. DATE HOLE: STARTED 4 June 86 COMPLETED 4 June 86
17. ELEVATION TOP OF HOLE: -32.0
18. TOTAL CORE RECOVERY FOR BORING: — %
19. SIGNATURE OF INSPECTOR: Joni L. Jackle

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
	1		gravelly sand, olive gray, 5 Y 3/2, saturated, est. 80 to 90% fine to coarse, subangular to subrounded sand, est. 10 to 20% gravel, fine, very loose, non-cemented, F.C.	Run 6 0.0 to 2.5	0.0 / 2.5	1343 sounding 37.0 gage 5.0 elev. -32.0 — no sample return except 1/2 teaspoon perhaps.
	2			0%		1354 pull sampler. BOH 2.5
	3					
	4					
	5					
	6					
	7					

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

PROJECT: SACRAMENTO DEEP WATER SHIP CHAN. HOLE NO. TH-86-26 F.S.-26

dwc-
sac-TH-86-26

Hole No. TH-86-26

DRILLING LOG	DIVISION SOUTH PACIFIC	INSTALLATION Sacramento	SHEET 1 OF 1 SHEETS
1. PROJECT Sacramento Deep Water Ship Channel		10. SIZE AND TYPE OF BIT 3" Straight shelby	
2. LOCATION (Coordinates or Station) R.M. 12		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) COE (Gage at Army Dock)	
3. DRILLING AGENCY Sierra Madre Exploration		12. MANUFACTURER'S DESIGNATION OF DRILL CME 55	
4. HOLE NO. (As shown on drawing title and file number) TH-86-26 F.S.-26C		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED	UNDISTURBED Two Tubes
5. NAME OF DRILLER Bob Schwegel		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER —	
7. THICKNESS OF OVERBURDEN 0.0		16. DATE HOLE STARTED 5 June 86 COMPLETED 5 June 86	
8. DEPTH DRILLED INTO ROCK —		17. ELEVATION TOP OF HOLE -32.0	
9. TOTAL DEPTH OF HOLE 5.0'		18. TOTAL CORE RECOVERY FOR BORING — %	
		19. SIGNATURE OF INSPECTOR Joni L. Gample	

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
	1		Silty sand, olive gray, 5 Y 3/2, saturated, est. 70 to 80% fine micaceous sand, est. 20 to 30% low plasticity fines, loose, wood particles, non-cemented, (F.C.)	Run 1 0.0 to 2.5	Sample 1 Tube 1 1.5 / 2.5	0915 Sounding 36.5 Gage 4.5 Elev. -32.0
	2			60%		
	3		As above, gray with olive, 10 Y 4/2, no wood particles	Run 2 2.5 to 5.0	Sample 2 Tube 2 2.5 / 2.5	0935 taking 2nd sample
	4					
	5					BOH 0942 hrs. 5.0'
	6					
	7					
	8					

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

PROJECT Sacramento Deep Water Ship Channel

HOLE NO. TH-86-26 F.S.-26C

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. A-219

Hole No. TH-86-26

dwc-
sac-TH-86-26

DRILLING LOG	DIVISION: SOUTH PACIFIC	INSTALLATION: Sacramento	SHEET 1 OF 1 SHEETS

1. PROJECT: SACRAMENTO DEEP WATER SHIP CHAN.
2. LOCATION (Coordinates or Station): R.M. 12
3. DRILLING AGENCY: Sierra Madre Exploration
4. HOLE NO. (As shown on drawing title and file number): TH-86-26 F.S.-26C
5. NAME OF DRILLER: Bob Schwegel
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: 0.0'
8. DEPTH DRILLED INTO ROCK: –
9. TOTAL DEPTH OF HOLE: 5.0'
10. SIZE AND TYPE OF BIT: 311 straight Shelby
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): COE (Army Dock Gage)
12. MANUFACTURER'S DESIGNATION OF DRILL: CME 55
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED: ; UNDISTURBED: x 2 tubes
14. TOTAL NUMBER CORE BOXES: –
15. ELEVATION GROUND WATER: –
16. DATE HOLE: STARTED 5 June 86; COMPLETED 5 June 86
17. ELEVATION TOP OF HOLE: -32.0
18. TOTAL CORE RECOVERY FOR BORING: – %
19. SIGNATURE OF INSPECTOR: Joni L. Jackle

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
	1		Silty sand, olive gray, 5Y 3/2, saturated, est. 80 to 90% fine to med., subangular to subrounded micaceous sand, est. 10 to 20% low plasticity fines, non-cemented, F.C.	Run 1 0.0 to 2.5	Sample 3 Tube 3 2.5/2.5	1019 Added 2 sacks of mud. Sounding 36.5 gage 4.5 elev. -32.0 1058 pulled sampler.
	2			100%		
	3		As above.	Run 2 2.5 to 5.0	Sample 4 Tube 4 2.2/2.5	1105 going in hole with sampler.
	4					
	5			95%		BOH 5.0' (1115)
	6					
	7					
	8					

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

PROJECT: Sacramento Deep Water Ship Channel

HOLE NO. TH-86-26 F.S.-26C

dwc-
sac-TH-86-26

Hole No. TH-86-26

DRILLING LOG	DIVISION South Pacific	INSTALLATION Sacramento	SHEET 1 OF 1 SHEETS

1. PROJECT Sacramento Deep Water Ship Channel	10. SIZE AND TYPE OF BIT 3" Straight Shelby
2. LOCATION (Coordinates or Station) R.M. 12	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) COE Gage at Army Dock)
3. DRILLING AGENCY Sierra Madre Exploration	12. MANUFACTURER'S DESIGNATION OF DRILL CME 55
4. HOLE NO. (As shown on drawing title and file number) TH-86-26 F.S.-26B	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED x 1/2 tube
5. NAME OF DRILLER Bob Schwegel	14. TOTAL NUMBER CORE BOXES —
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER —
	16. DATE HOLE — STARTED 5 June 86 — COMPLETED 5 June 86
7. THICKNESS OF OVERBURDEN 0.0	17. ELEVATION TOP OF HOLE -31.0
8. DEPTH DRILLED INTO ROCK —	18. TOTAL CORE RECOVERY FOR BORING — %
9. TOTAL DEPTH OF HOLE 2.5	19. SIGNATURE OF INSPECTOR Jon L. Jackle

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
	1		Sand, olive gray, 5Y 3/2, saturated, fine micaceous sand very loose, non-cemented, (F.C.)	Run 1 0.0 to 2.5	Sample 1 1.5 / 2.5	1122 Sounding 35.5 gage 4.5 elev. -31.0
	2			60%		- lost 1.0 down hole.
	3					BOH 2.5' Moving over to start new hole and add more mud.
	4					
	5					
	6					
	7					
	8					

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

PROJECT Sacramento Deep Water Ship Channel — HOLE NO. TH-86-26 F.S.-26B

Hole No. TH-86-26

dwc-
sac-TH-86-26

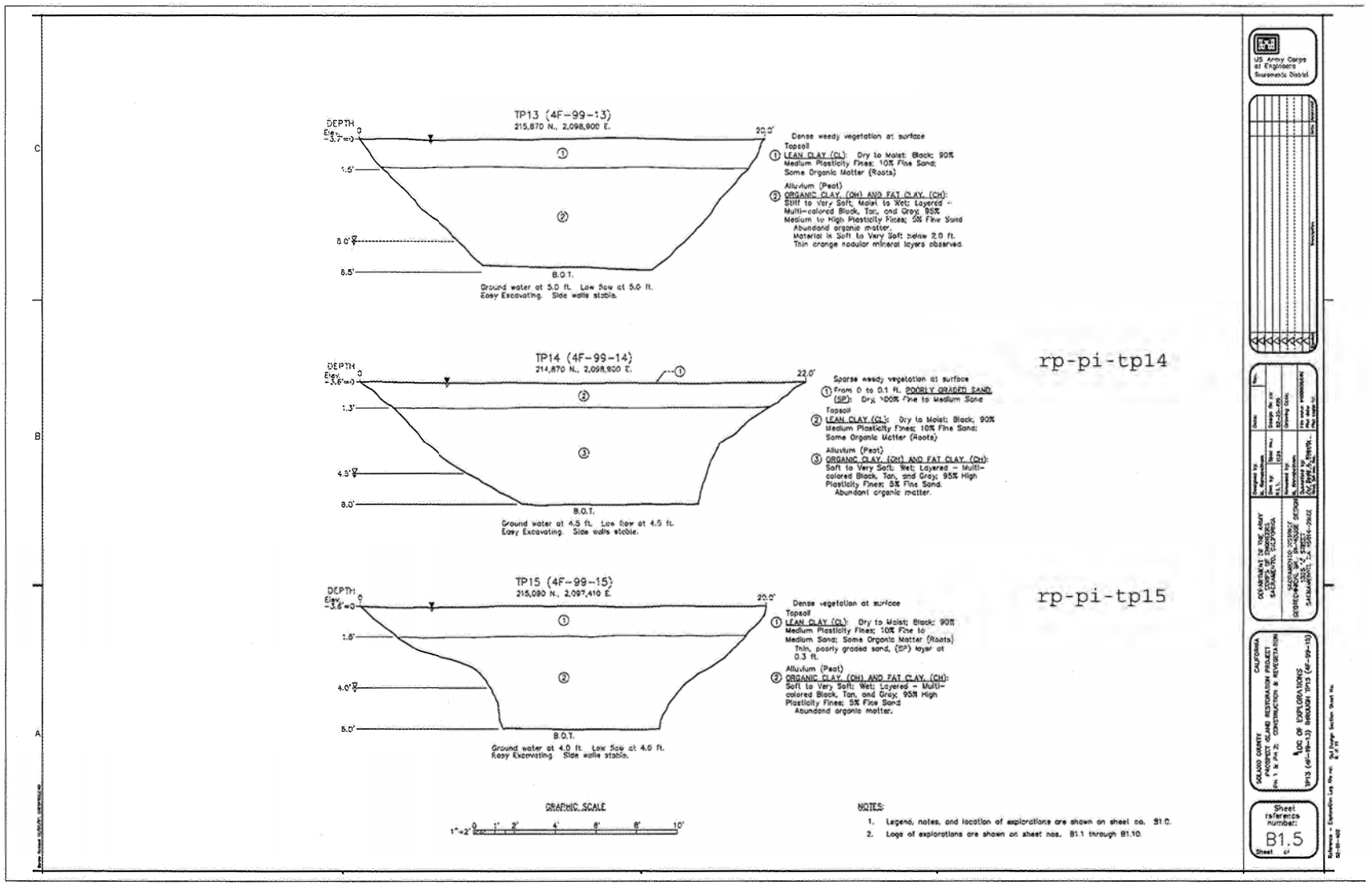
DRILLING LOG	DIVISION SOUTH PACIFIC	INSTALLATION Sacramento	SHEET 1 OF 1 SHEETS
1. PROJECT Sacramento Deep Water Ship Chan.		10. SIZE AND TYPE OF BIT 3" straight Shelby	
2. LOCATION (Coordinates or Station) River Mile 12		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) COE	
3. DRILLING AGENCY Sierra Madre Exploration		12. MANUFACTURER'S DESIGNATION OF DRILL CME 55	
4. HOLE NO. (As shown on drawing title and file number) TH-86-26	F.S.-26B	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED	UNDISTURBED x 2 tubes
5. NAME OF DRILLER Bob Schwegel		14. TOTAL NUMBER CORE BOXES —	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER —	
7. THICKNESS OF OVERBURDEN 0.0.		16. DATE HOLE STARTED 5 June 86 COMPLETED 5 June 86	
8. DEPTH DRILLED INTO ROCK —		17. ELEVATION TOP OF HOLE -30.5	
9. TOTAL DEPTH OF HOLE 5.0'		18. TOTAL CORE RECOVERY FOR BORING — %	
		19. SIGNATURE OF INSPECTOR Jane L. Jackle	

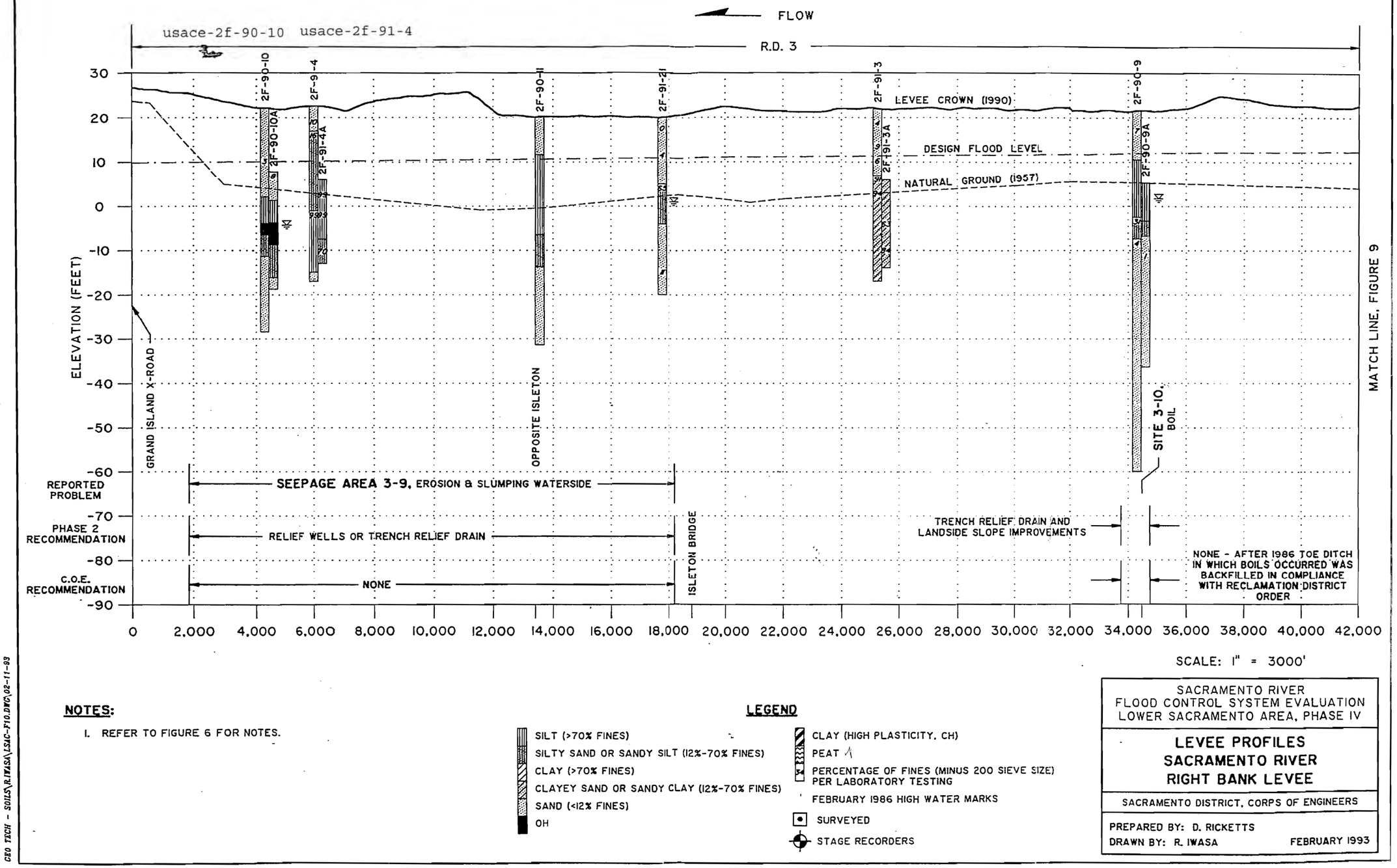
ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	1		Sand, olive gray, 5Y 3/2, saturated, ext. fine to med, micaceous sand, very loose non-cemented, (F.C.)	Run 1 0.0 to 2.5 / 2.5	Sample 2	1139 adding mud. sounding 35.0 gage 4.5 elev. -30.5
	2					1157 pulling sample.
				95%	//////	
	3		As above, some silt in suspension.	Run 2 2.5 to 5.0	Sample 3 1.6 / 2.5	1208 making 2nd run
	4					
	5			80%	//////	lost this part of sample out end of tube. BOH 5.0'
	6					
	7					
	8					

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

PROJECT Sacramento Deep Water Ship Channel

HOLE NO. TH-86-26 F.S-26B


TP13 (4F-99-13)
215,870 N., 2,098,900 E.
DEPTH
Elev.
-3.7'=0
0
20.0'
1.5'
8.0'
6.5'
B.O.T.
Ground water at 5.0 ft. Low flow at 5.0 ft.
Easy Excavating. Side walls stable.
Dense weedy vegetation at surface
Topsoil
① LEAN CLAY (CL): Dry to Moist; Black; 90% Medium Plasticity Fines; 10% Fine Sand; Some Organic Matter (Roots)
Alluvium (Peat)
② ORGANIC CLAY, (OH) AND FAT CLAY, (CH): Stiff to Very Soft; Moist to Wet; Layered - Multi-colored Black, Tan, and Gray; 95% Medium to High Plasticity Fines; 5% Fine Sand
Abundand organic matter.
Material is Soft to Very Soft below 2.0 ft.
Thin orange nodular mineral layers observed.
TP14 (4F-99-14)
214,870 N., 2,098,900 E.
DEPTH
Elev.
-3.6'=0
0
22.0'
1.3'
4.5'
8.0'
B.O.T.
Ground water at 4.5 ft. Low flow at 4.5 ft.
Easy Excavating. Side walls stable.
Sparse weedy vegetation at surface
① From 0 to 0.1 ft. POORLY GRADED SAND, (SP): Dry; 100% Fine to Medium Sand
Topsoil
② LEAN CLAY (CL): Dry to Moist; Black; 90% Medium Plasticity Fines; 10% Fine Sand; Some Organic Matter (Roots)
Alluvium (Peat)
③ ORGANIC CLAY, (OH) AND FAT CLAY, (CH): Soft to Very Soft; Wet; Layered - Multi-colored Black, Tan, and Gray; 95% High Plasticity Fines; 5% Fine Sand.
Abundant organic matter.
rp-pi-tp14
TP15 (4F-99-15)
215,090 N., 2,097,410 E.
DEPTH
Elev.
-3.6'=0
0
20.0'
1.5'
4.0'
6.0'
B.O.T.
Ground water at 4.0 ft. Low flow at 4.0 ft.
Easy Excavating. Side walls stable.
Dense vegetation at surface
Topsoil
① LEAN CLAY (CL): Dry to Moist; Black; 90% Medium Plasticity Fines; 10% Fine to Medium Sand; Some Organic Matter (Roots)
Thin, poorly graded sand, (SP) layer at 0.3 ft.
Alluvium (Peat)
② ORGANIC CLAY, (OH) AND FAT CLAY, (CH): Soft to Very Soft; Wet; Layered - Multi-colored Black, Tan, and Gray; 95% High Plasticity Fines; 5% Fine Sand
Abundand organic matter.
rp-pi-tp15
GRAPHIC SCALE
1"=2'
0 1' 2' 4' 6' 8' 10'
NOTES:
1. Legend, notes, and location of explorations are shown on sheet no. B1.0.
2. Logs of explorations are shown on sheet nos. B1.1 through B1.10.
US Army Corps of Engineers
Sacramento District
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA
SACRAMENTO-DISTRICT
GEOTECHNICAL BRANCH
SOLANO COUNTY
CALIFORNIA
PROSPECT ISLAND RESTORATION PROJECT
Ph. 1 & Ph. 2: CONSTRUCTION & REVEGETATION
LOG OF EXPLORATIONS
TP13 (4F-99-13) THROUGH TP15 (4F-99-15)
Sheet reference number:
B1.5
Sheet 21



SCALE: 1" = 3000'

NOTES:

1. REFER TO FIGURE 6 FOR NOTES.

LEGEND

- SILT (>70% FINES)
- SILTY SAND OR SANDY SILT (12%-70% FINES)
- CLAY (>70% FINES)
- CLAYEY SAND OR SANDY CLAY (12%-70% FINES)
- SAND (<12% FINES)
- OH
- CLAY (HIGH PLASTICITY, CH)
- PEAT
- PERCENTAGE OF FINES (MINUS 200 SIEVE SIZE) PER LABORATORY TESTING
- FEBRUARY 1986 HIGH WATER MARKS
- SURVEYED
- STAGE RECORDERS

SACRAMENTO RIVER
FLOOD CONTROL SYSTEM EVALUATION
LOWER SACRAMENTO AREA, PHASE IV

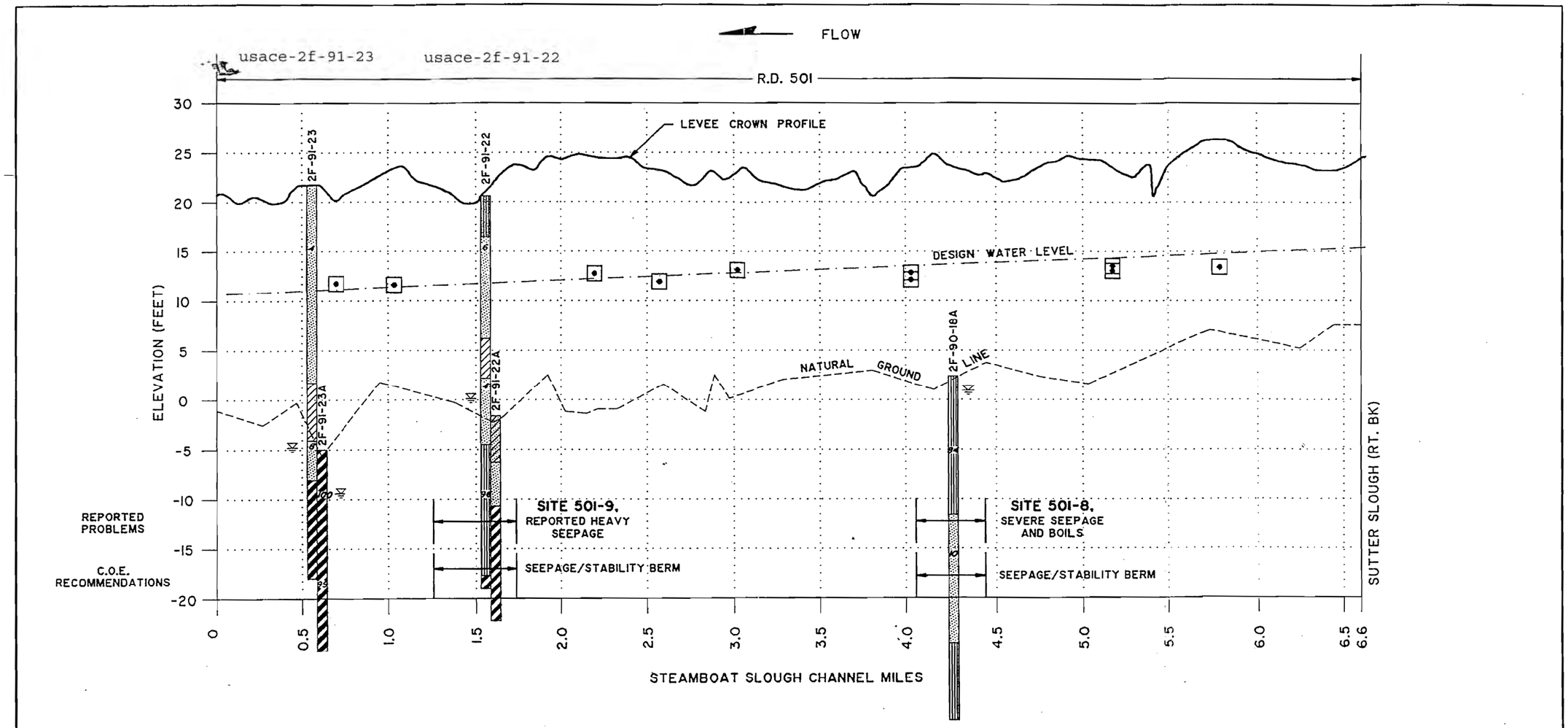
LEVEE PROFILES
SACRAMENTO RIVER
RIGHT BANK LEVEE

SACRAMENTO DISTRICT, CORPS OF ENGINEERS

PREPARED BY: D. RICKETTS
DRAWN BY: R. IWASA FEBRUARY 1993

GEO TECH - SOILS\R.IWASA\LSAC-F10.DWG\02-11-93

FIGURE 10



C:\GEO TECH - SOILS\R.IWASA\LSIC-F21.DWG\02-11-93

NOTES:

1. REFER TO FIGURE 6 FOR NOTES.

LEGEND

- SILT (>70% FINES)
- SILTY SAND OR SANDY SILT (12%-70% FINES)
- CLAY (>70% FINES)
- CLAYEY SAND OR SANDY CLAY (12%-70% FINES)
- SAND (<12% FINES)
- OH
- CLAY (HIGH PLASTICITY, CH)
- PEAT
- PERCENTAGE OF FINES (MINUS 200 SIEVE SIZE) PER LABORATORY TESTING
- FEBRUARY 1986 HIGH WATER MARKS
- SURVEYED
- STAGE RECORDERS

SCALE: 1" = 3000'

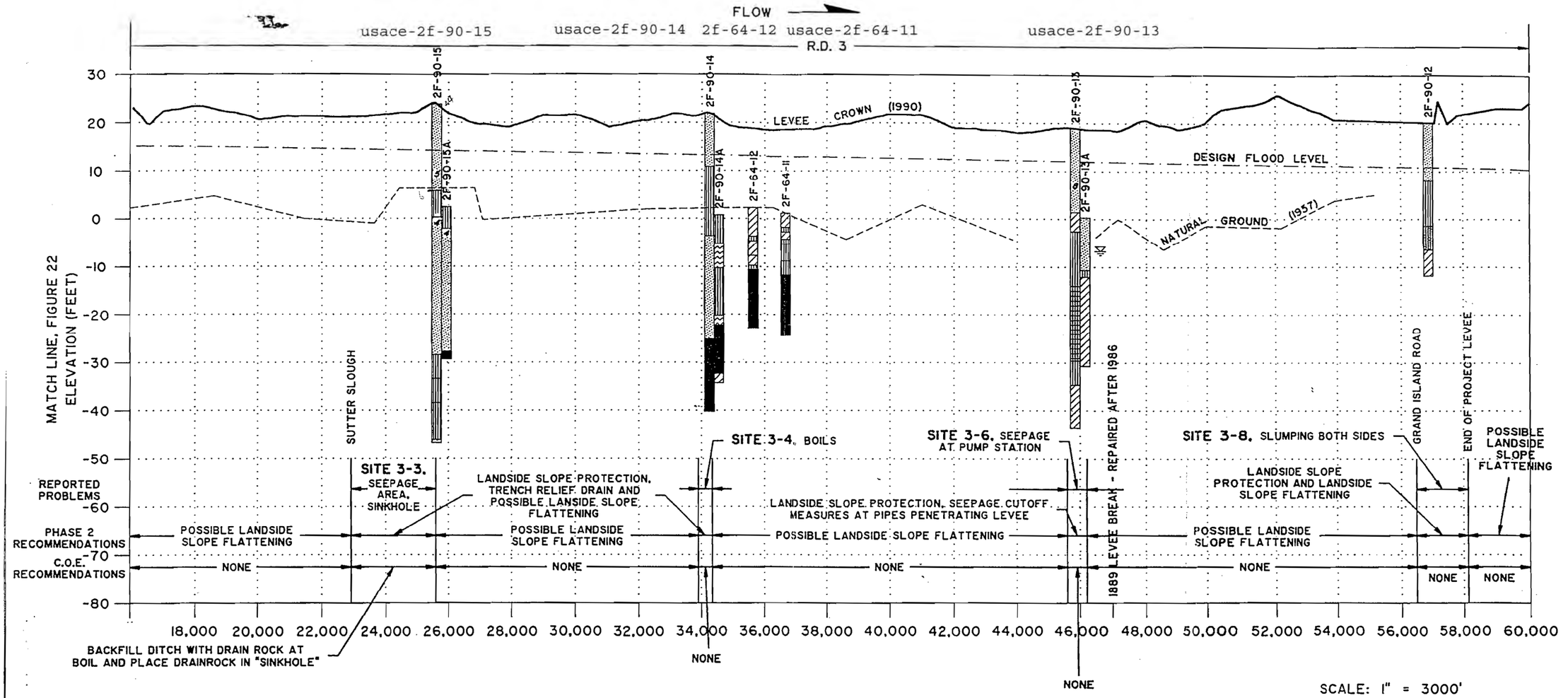
SACRAMENTO RIVER
FLOOD CONTROL SYSTEM EVALUATION
LOWER SACRAMENTO AREA, PHASE IV

LEVEE PROFILES
STEAMBOAT SLOUGH
RIGHT BANK LEVEE

SACRAMENTO DISTRICT, CORPS OF ENGINEERS

PREPARED BY: D. RICKETTS
DRAWN BY: R. IWASA FEBRUARY 1993

FIGURE 21



SCALE: 1" = 3000'

NOTES:

1. REFER TO FIGURE 6 FOR NOTES.

LEGEND

- SILT (>70% FINES)
- SILTY SAND OR SANDY SILT (12%-70% FINES)
- CLAY (>70% FINES)
- CLAYEY SAND OR SANDY CLAY (12%-70% FINES)
- SAND (<12% FINES)
- OH
- CLAY (HIGH PLASTICITY, CH)
- PEAT
- PERCENTAGE OF FINES (MINUS 200 SIEVE SIZE) PER LABORATORY TESTING
- FEBRUARY 1986 HIGH WATER MARKS
- SURVEYED
- STAGE RECORDERS

SACRAMENTO RIVER
FLOOD CONTROL SYSTEM EVALUATION
LOWER SACRAMENTO AREA, PHASE IV

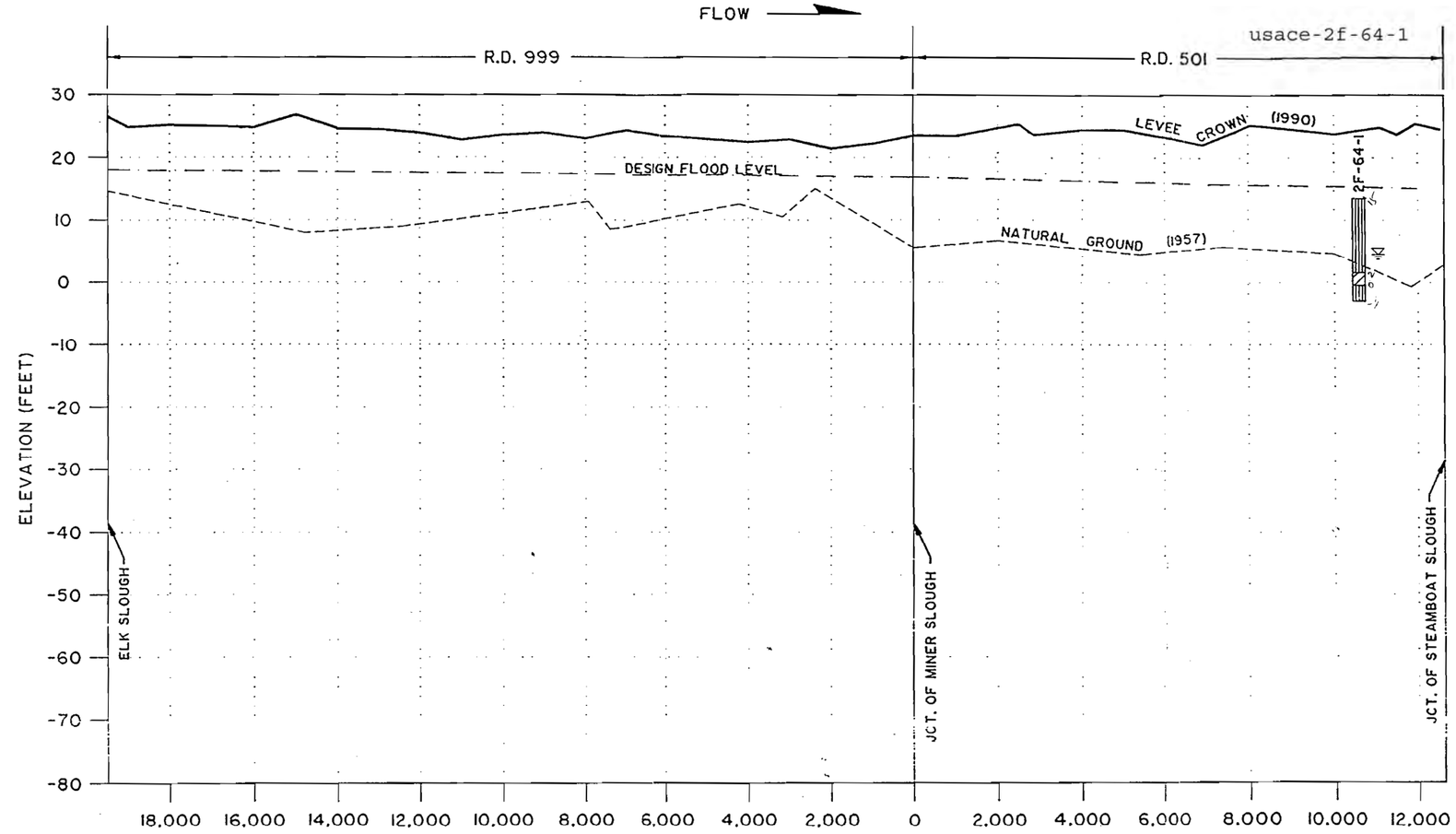
LEVEE PROFILES
STEAMBOAT SLOUGH
LEFT BANK LEVEE

SACRAMENTO DISTRICT, CORPS OF ENGINEERS

PREPARED BY: D. RICKETTS
DRAWN BY: R. IWASA
FEBRUARY 1993

FIGURE 23

usace-2f-64-1



GEO TECH - SOILS\R.IWASA\LSAC-F24.DWG\02-11-93

NOTES:

1. REFER TO FIGURE 6 FOR NOTES.

LEGEND

- SILT (>70% FINES)
- SILTY SAND OR SANDY SILT (12%-70% FINES)
- CLAY (>70% FINES)
- CLAYEY SAND OR SANDY CLAY (12%-70% FINES)
- SAND (<12% FINES)
- OH
- CLAY (HIGH PLASTICITY, CH)
- PEAT
- PERCENTAGE OF FINES (MINUS 200 SIEVE SIZE) PER LABORATORY TESTING
- FEBRUARY 1986 HIGH WATER MARKS
- SURVEYED
- STAGE RECORDERS

SCALE: 1" = 3000'

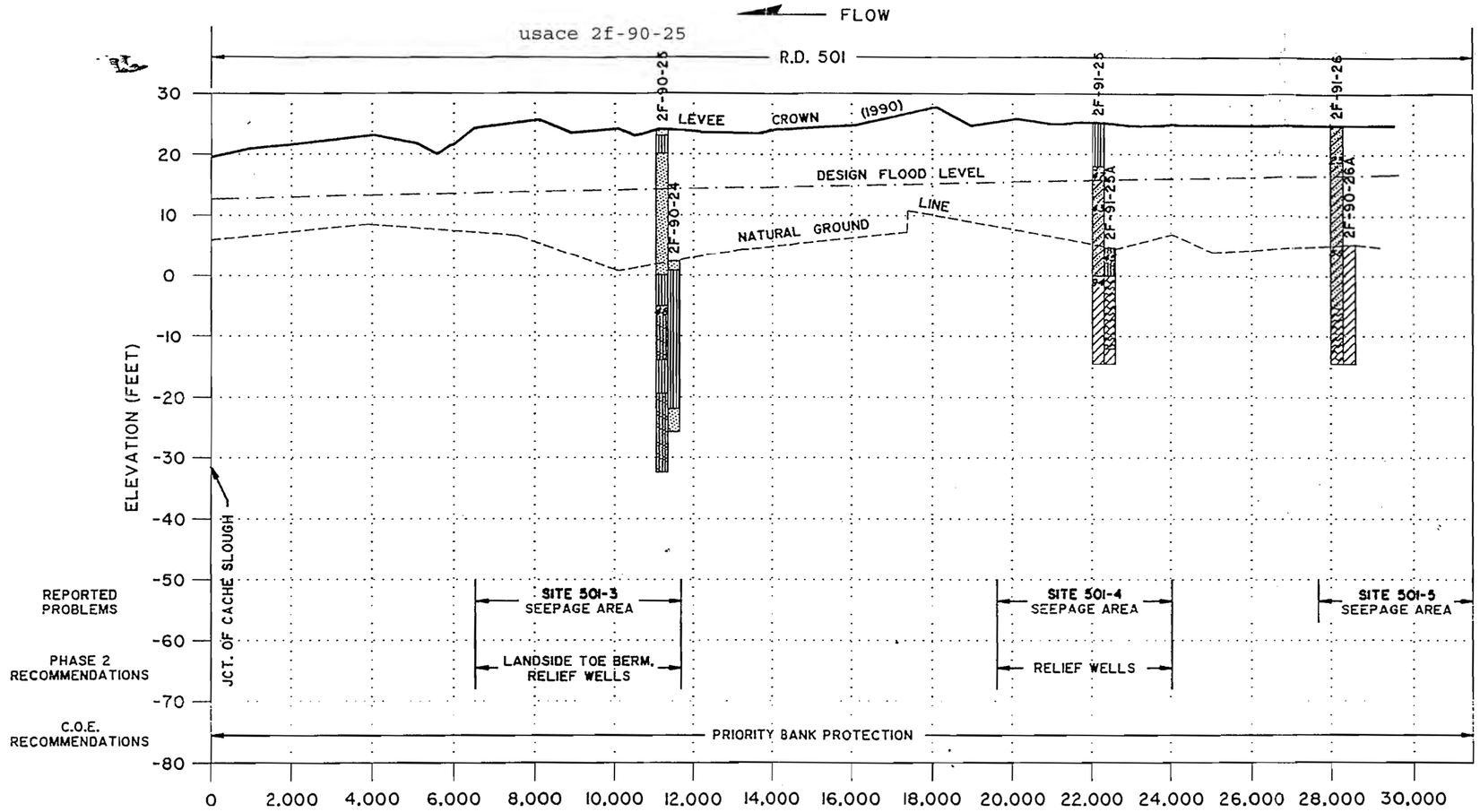
SACRAMENTO RIVER
FLOOD CONTROL SYSTEM EVALUATION
LOWER SACRAMENTO AREA, PHASE IV

LEVEE PROFILES
SUTTER SLOUGH
RIGHT BANK LEVEE

SACRAMENTO DISTRICT, CORPS OF ENGINEERS

PREPARED BY: D. RICKETTS
DRAWN BY: R. IWASA FEBRUARY 1993

FIGURE 24



NOTES:

1. REFER TO FIGURE 6 FOR NOTES.

LEGEND

- SILT (>70% FINES)
- SILTY SAND OR SANDY SILT (12%-70% FINES)
- CLAY (>70% FINES)
- CLAYEY SAND OR SANDY CLAY (12%-70% FINES)
- SAND (<12% FINES)
- OH
- CLAY (HIGH PLASTICITY, CH)
- PEAT
- PERCENTAGE OF FINES (MINUS 200 SIEVE SIZE) PER LABORATORY TESTING
- FEBRUARY 1986 HIGH WATER MARKS
- SURVEYED
- STAGE RECORDERS

SCALE: 1" = 3000'

SACRAMENTO RIVER
FLOOD CONTROL SYSTEM EVALUATION
LOWER SACRAMENTO AREA, PHASE IV

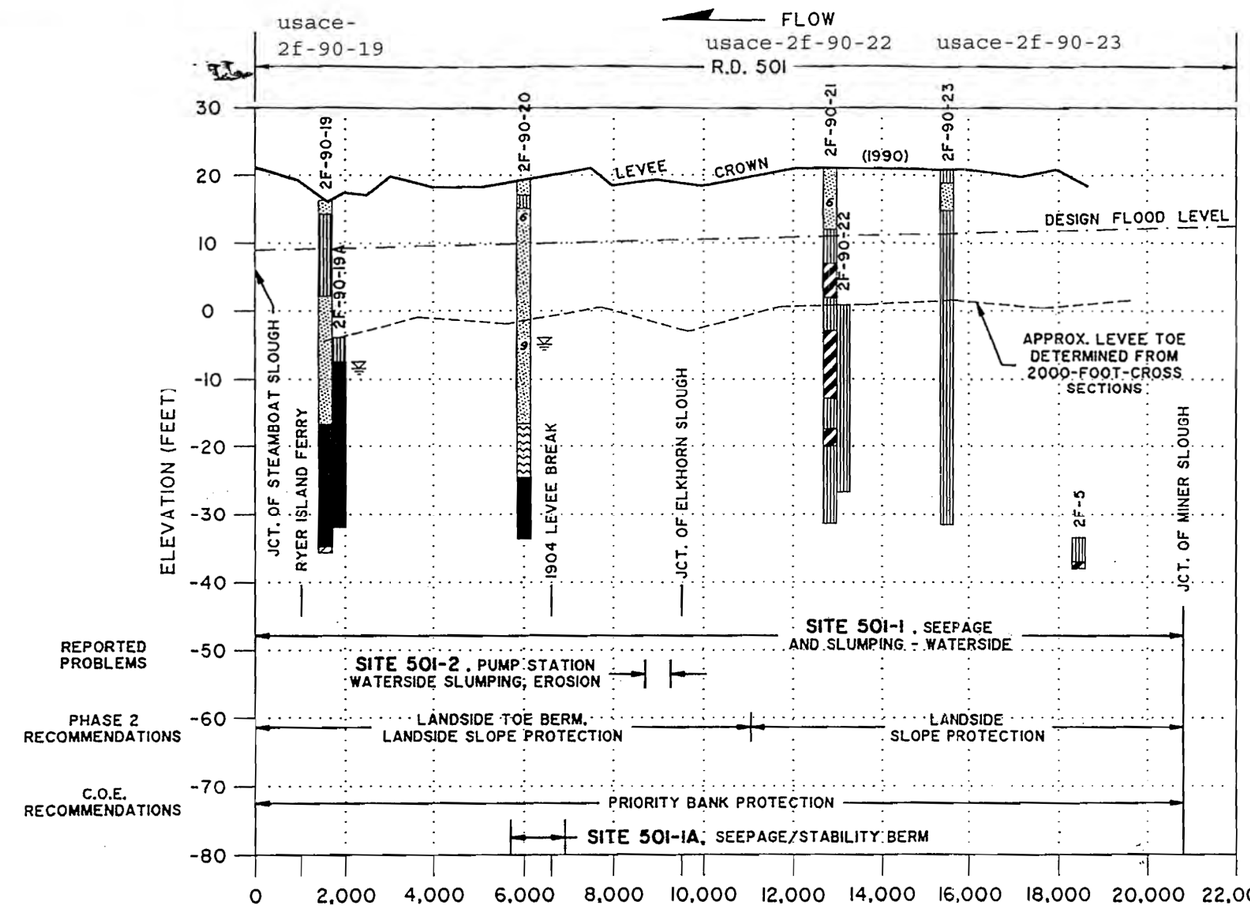
LEVEE PROFILES
MINER SLOUGH
LEFT BANK LEVEE

SACRAMENTO DISTRICT, CORPS OF ENGINEERS

PREPARED BY: D. RICKETTS
DRAWN BY: R. IWASA FEBRUARY 1993

C:\GEO TECH - SOILS\R.IWASA\LSAC-F28.DWG\02-11-93

FIGURE 28



SCALE: 1" = 3000'

NOTES:

1. REFER TO FIGURE 6 FOR NOTES.

LEGEND

- SILT (>70% FINES)
- SILTY SAND OR SANDY SILT (12%-70% FINES)
- CLAY (>70% FINES)
- CLAYEY SAND OR SANDY CLAY (12%-70% FINES)
- SAND (<12% FINES)
- OH
- CLAY (HIGH PLASTICITY, CH)
- PEAT
- PERCENTAGE OF FINES (MINUS 200 SIEVE SIZE) PER LABORATORY TESTING
- FEBRUARY 1986 HIGH WATER MARKS
- SURVEYED
- STAGE RECORDERS

SACRAMENTO RIVER
FLOOD CONTROL SYSTEM EVALUATION
LOWER SACRAMENTO AREA, PHASE IV

LEVEE PROFILES
CACHE SLOUGH
LEFT BANK LEVEE

SACRAMENTO DISTRICT, CORPS OF ENGINEERS

PREPARED BY: D. RICKETTS
DRAWN BY: R. IWASA FEBRUARY 1993

GEO TECH - SOILS\R.IWASA\LSAC-F29.DWG\02-11-93

FIGURE 29

usace-2f-91-18 & 19

R.D. 2060 | R.D. 2098 | R.D. 2068

ELEVATION (FEET)

LINDSEY SLOUGH (LT. BK.) | CACHE SLOUGH (RT. BK.) | CACHE SLOUGH (LT. BK.)

LEVEE CROWN PROFILE

DESIGN WATER SURFACE

GROUND LINE

NATURAL

2F-91-18 | 2F-91-18A | 2F-91-19 | 2F-91-19A | 2F-91-10 | 2F-91-10A | 2F-91-9 | 2F-91-9A

REPORTED PROBLEMS	SITE 2060-2. SEEPAGE AND LOW LEVEE CROWN	SITE 2098-4. REPORTED SEEPAGE, LANDSIDE SLOPE FAILURES	SITE 2098-6. WATERSIDE SLUMPING 1.7 MILES
		SITE 2098-2. EROSION OF WATERSIDE BANK SCATTERED SLUMPS 3500'	SITE 2098-3. HISTORICAL SUBSIDENCE 500'
		SITE 2068-2. ACTIVELY ERODING AND SLOUGHING BERM L9 MILES	SITE 2068-1. ACTIVELY ERODING AND SLOUGHING LANDSIDE LEVEE SLOPE 2500'
C.O.E. RECOMMENDATIONS	NONE	NONE - EXCEPT FOR BANK PROTECTION ON AS NEEDED BASIS	RESTORE LANDSIDE BERM AND PROVIDE SLOPE PROTECTION TO BOTH LANDSIDE AND AND WATERSIDE BERMS
			RESTORE LANDSIDE BERM AND PROVIDE SLOPE PROTECTION

30 25 20 15 10 5 0 -5 -10 -15 -20 -25 -30 -35

18.7 19.0 20.0 21.0 22.0 23.0 24.0 25.0 26.0 27.0 28.0 29.0 30.0

YOLO BYPASS CHANNEL MILES

SCALE: 1" = 1.0 MILES

NOTES:

1. REFER TO FIGURE 6 FOR NOTES.

LEGEND

- SILT (>70% FINES)
- SILTY SAND OR SANDY SILT (12%-70% FINES)
- CLAY (>70% FINES)
- CLAYEY SAND OR SANDY CLAY (12%-70% FINES)
- SAND (<12% FINES)
- OH
- CLAY (HIGH PLASTICITY, CH)
- PEAT
- PERCENTAGE OF FINES (MINUS 200 SIEVE SIZE) PER LABORATORY TESTING
- FEBRUARY 1986 HIGH WATER MARKS
- SURVEYED
- STAGE RECORDERS

SACRAMENTO RIVER
FLOOD CONTROL SYSTEM EVALUATION
LOWER SACRAMENTO AREA, PHASE IV

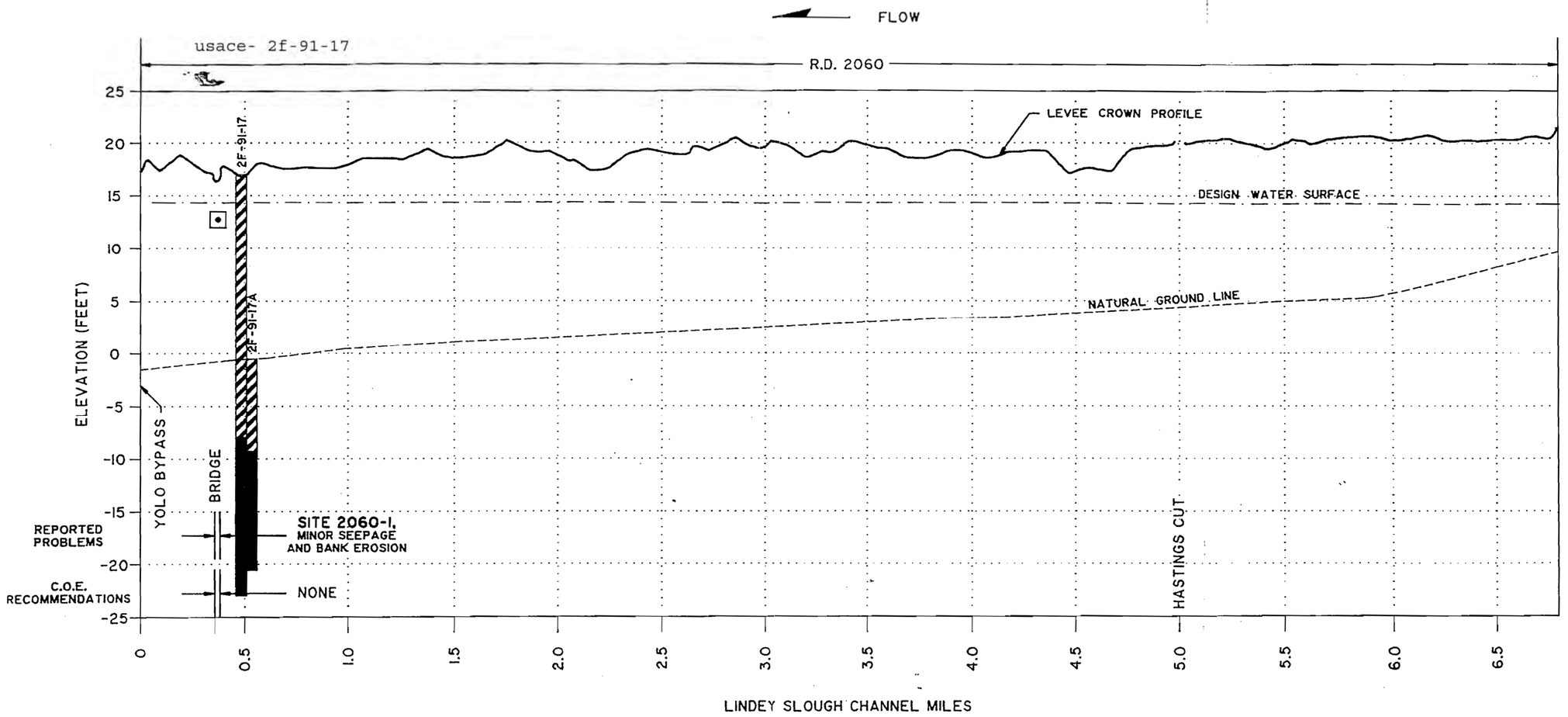
LEVEE PROFILES YOLO BYPASS RIGHT BANK LEVEE

SACRAMENTO DISTRICT, CORPS OF ENGINEERS

PREPARED BY: D. RICKETTS
DRAWN BY: R. IWASA FEBRUARY 1993

GEO TECH - SOILS\R.IWASA\LSAC-F91.DWG\02-11-93

FIGURE 31



NOTES:

1. REFER TO FIGURE 6 FOR NOTES.

LEGEND

- SILT (>70% FINES)
- SILTY SAND OR SANDY SILT (12%-70% FINES)
- CLAY (>70% FINES)
- CLAYEY SAND OR SANDY CLAY (12%-70% FINES)
- SAND (<12% FINES)
- OH
- CLAY (HIGH PLASTICITY, CH)
- PEAT
- PERCENTAGE OF FINES (MINUS 200 SIEVE SIZE) PER LABORATORY TESTING
- FEBRUARY 1986 HIGH WATER MARKS
- SURVEYED
- STAGE RECORDERS

SCALE: 1" = 0.5 MILES

SACRAMENTO RIVER
FLOOD CONTROL SYSTEM EVALUATION
LOWER SACRAMENTO AREA, PHASE IV

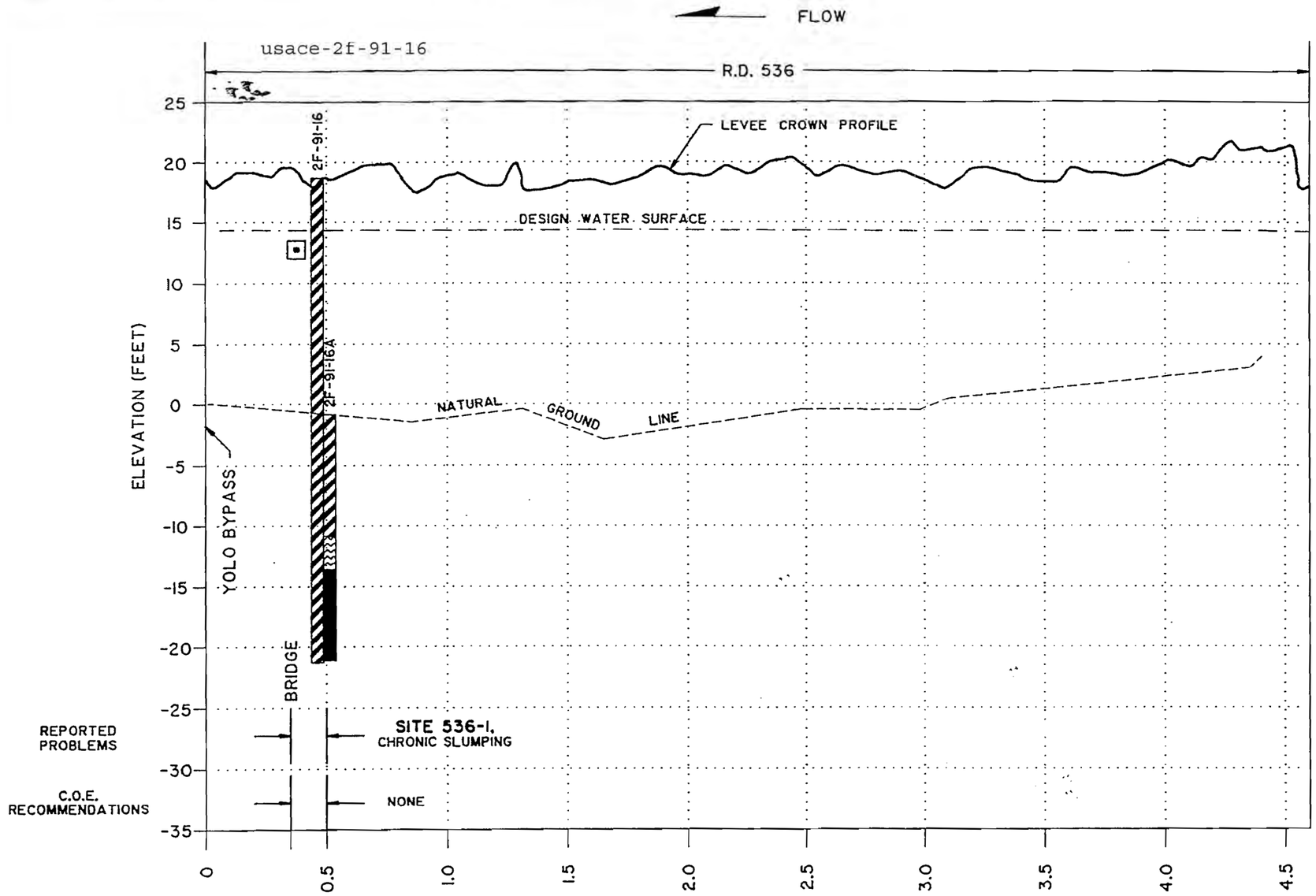
LEVEE PROFILES
LINDSEY SLOUGH
LEFT BANK LEVEE

SACRAMENTO DISTRICT, CORPS OF ENGINEERS

PREPARED BY: D. RICKETTS
DRAWN BY: R. IWASA FEBRUARY 1993

GEO TECH - SOILS\R.IWASA\LSAC-F92.DWG\02-11-93

FIGURE 32



NOTES:

1. REFER TO FIGURE 6 FOR NOTES.

LEGEND

- SILT (>70% FINES)
- SILTY SAND OR SANDY SILT (12%-70% FINES)
- CLAY (>70% FINES)
- CLAYEY SAND OR SANDY CLAY (12%-70% FINES)
- SAND (<12% FINES)
- OH
- CLAY (HIGH PLASTICITY, CH)
- PEAT
- PERCENTAGE OF FINES (MINUS 200 SIEVE SIZE) PER LABORATORY TESTING
- FEBRUARY 1986 HIGH WATER MARKS
- SURVEYED
- STAGE RECORDERS

SCALE: 1" = 0.5 MILES

SACRAMENTO RIVER
FLOOD CONTROL SYSTEM EVALUATION
LOWER SACRAMENTO AREA, PHASE IV

LEVEE PROFILES
LINDSEY SLOUGH
RIGHT BANK LEVEE

SACRAMENTO DISTRICT, CORPS OF ENGINEERS

PREPARED BY: D. RICKETTS
DRAWN BY: R. IWASA FEBRUARY 1993

GEO TECH - SOILS\R.IWASA\LSAC-F33.DWG\02-11-93

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

FIGURE 33
Plate No. A-232

CALTRANS

BRIDGE DEPARTMENT

B-1

B-2

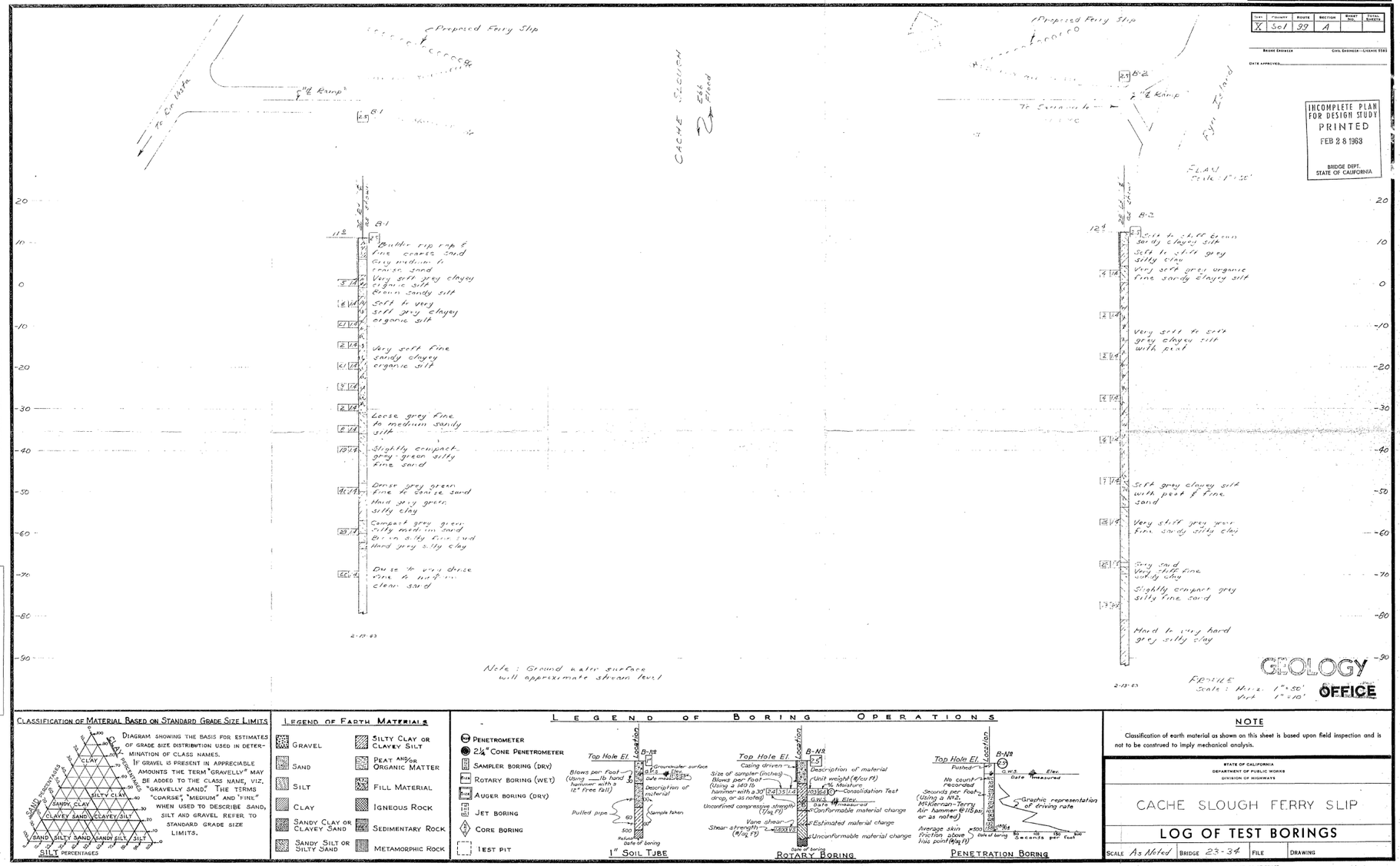
FED. ROAD DIV. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	CAL.				

DIST.	COUNTY	ROUTE	SECTION	BRIDGE NO.	TOTAL SHEETS
X	Sol	99	A		

BRIDGE ENGINEER — CIVIL ENGINEER—LICENSE 5583

DATE APPROVED

INCOMPLETE PLAN FOR DESIGN STUDY
PRINTED
FEB 28 1963
BRIDGE DEPT. STATE OF CALIFORNIA



Note: Ground water surface will approximate stream level

GEOLOGY OFFICE

FIELD STUDY by S. Silliman 2-26-63
DRAWN by M. Kenny 2-26-63
CHECKED by P. Sandvig 2-27-63
Engineering Geologist
Approved Recommended for

CLASSIFICATION OF MATERIAL BASED ON STANDARD GRADE SIZE LIMITS

DIAGRAM SHOWING THE BASIS FOR ESTIMATES OF GRADE SIZE DISTRIBUTION USED IN DETERMINATION OF CLASS NAMES. IF GRAVEL IS PRESENT IN APPRECIABLE AMOUNTS THE TERM "GRAVELLY" MAY BE ADDED TO THE CLASS NAME, VIZ. "GRAVELLY SAND." THE TERMS "COARSE," "MEDIUM" AND "FINE" WHEN USED TO DESCRIBE SAND, SILT AND GRAVEL REFER TO STANDARD GRADE SIZE LIMITS.

LEGEND OF EARTH MATERIALS

- GRAVEL
- SAND
- SILT
- CLAY
- SANDY CLAY OR CLAYEY SAND
- SANDY SILT OR SILTY SAND
- SILTY CLAY OR CLAYEY SILT
- PEAT AND/OR ORGANIC MATTER
- FILL MATERIAL
- IGNEOUS ROCK
- SEDIMENTARY ROCK
- METAMORPHIC ROCK

LEGEND OF BORING OPERATIONS

- PENETROMETER
- 2½" CONE PENETROMETER
- SAMPLER BORING (DRY)
- ROTARY BORING (WET)
- AUGER BORING (DRY)
- JET BORING
- CORE BORING
- TEST PIT

NOTE

Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

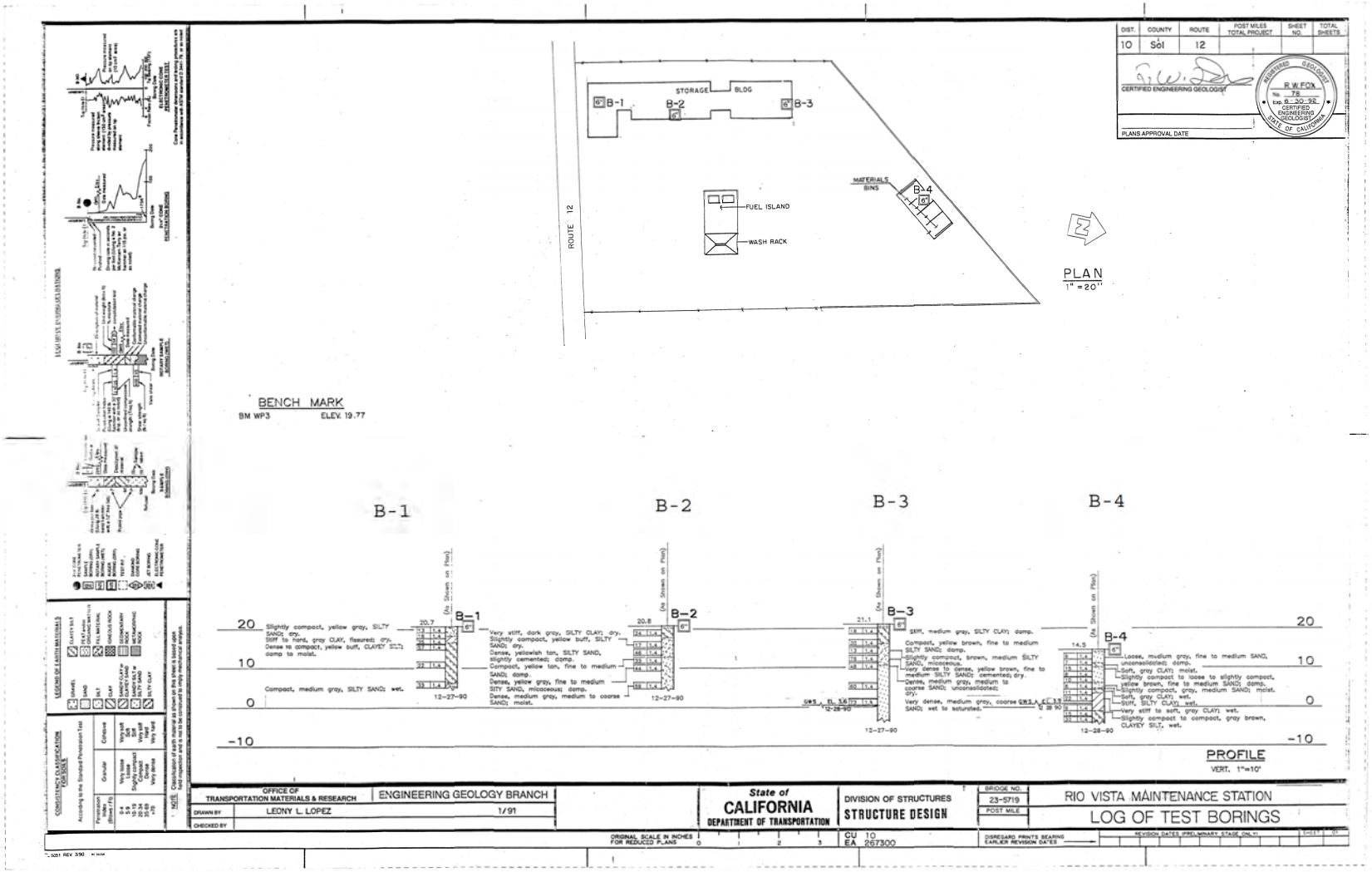
STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

CACHE SLOUGH FERRY SLIP

LOG OF TEST BORINGS

SCALE	BRIDGE	FILE	DRAWING
As Noted	23-34		

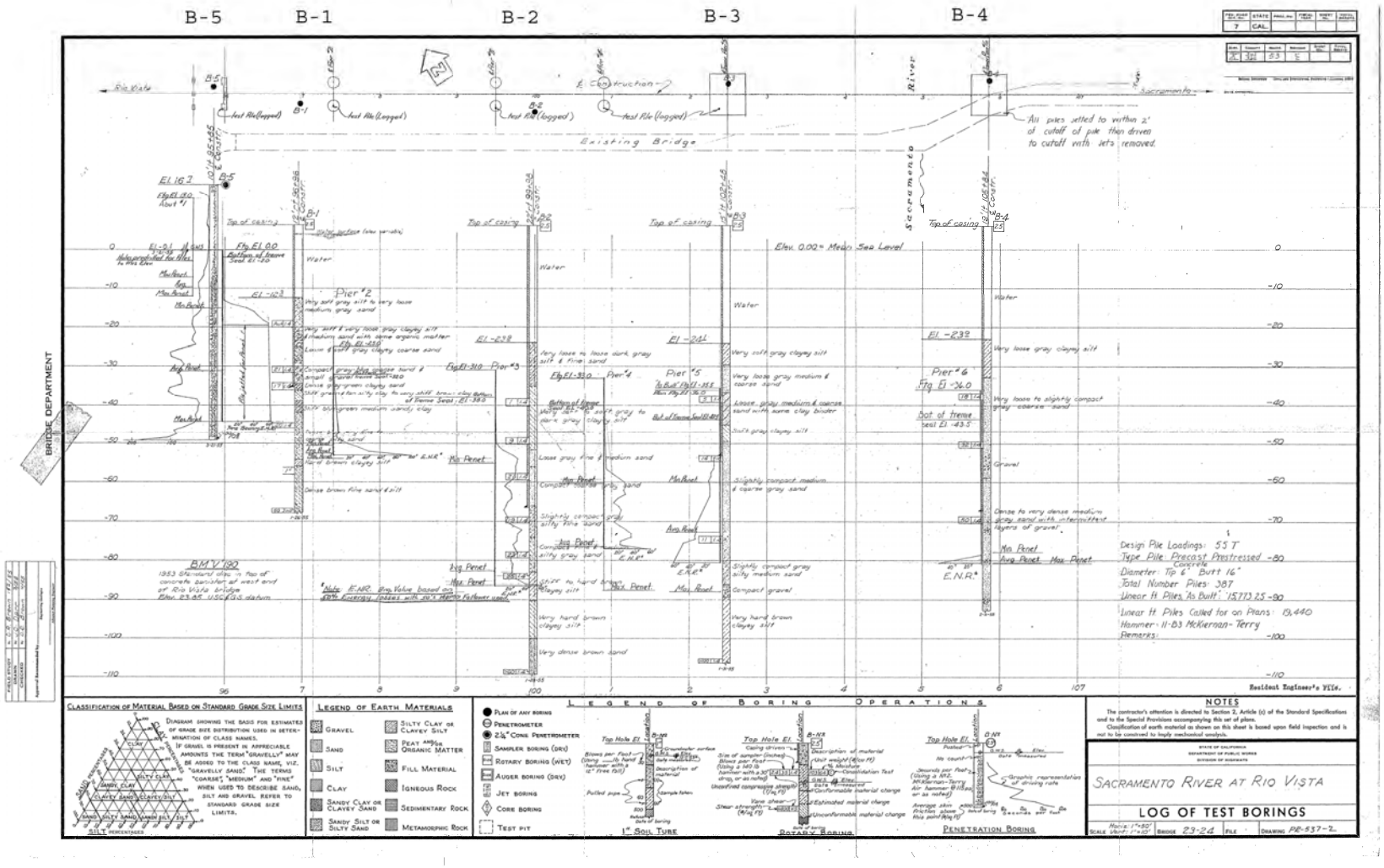
2334-16



Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

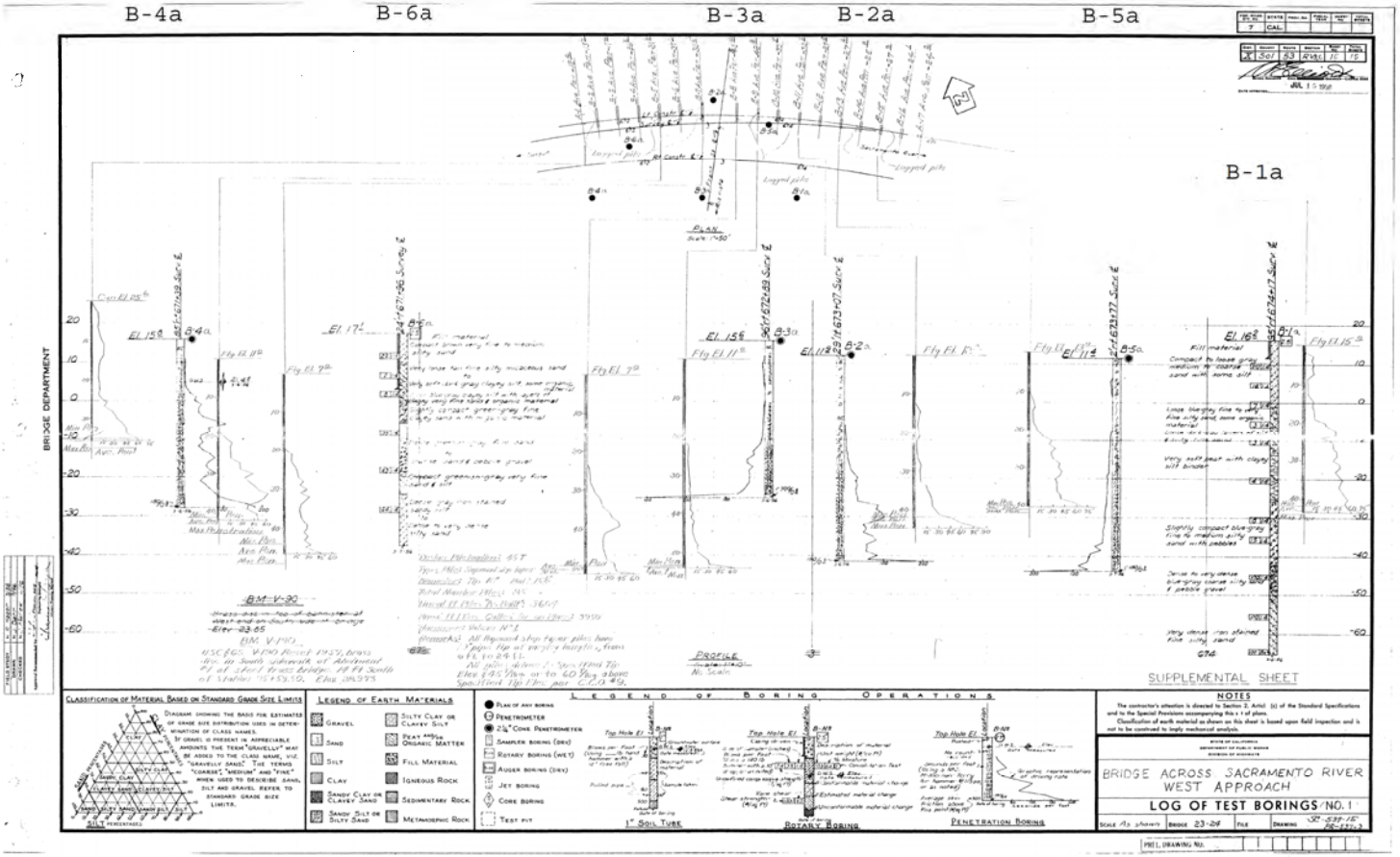
Plate No. A-234



Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

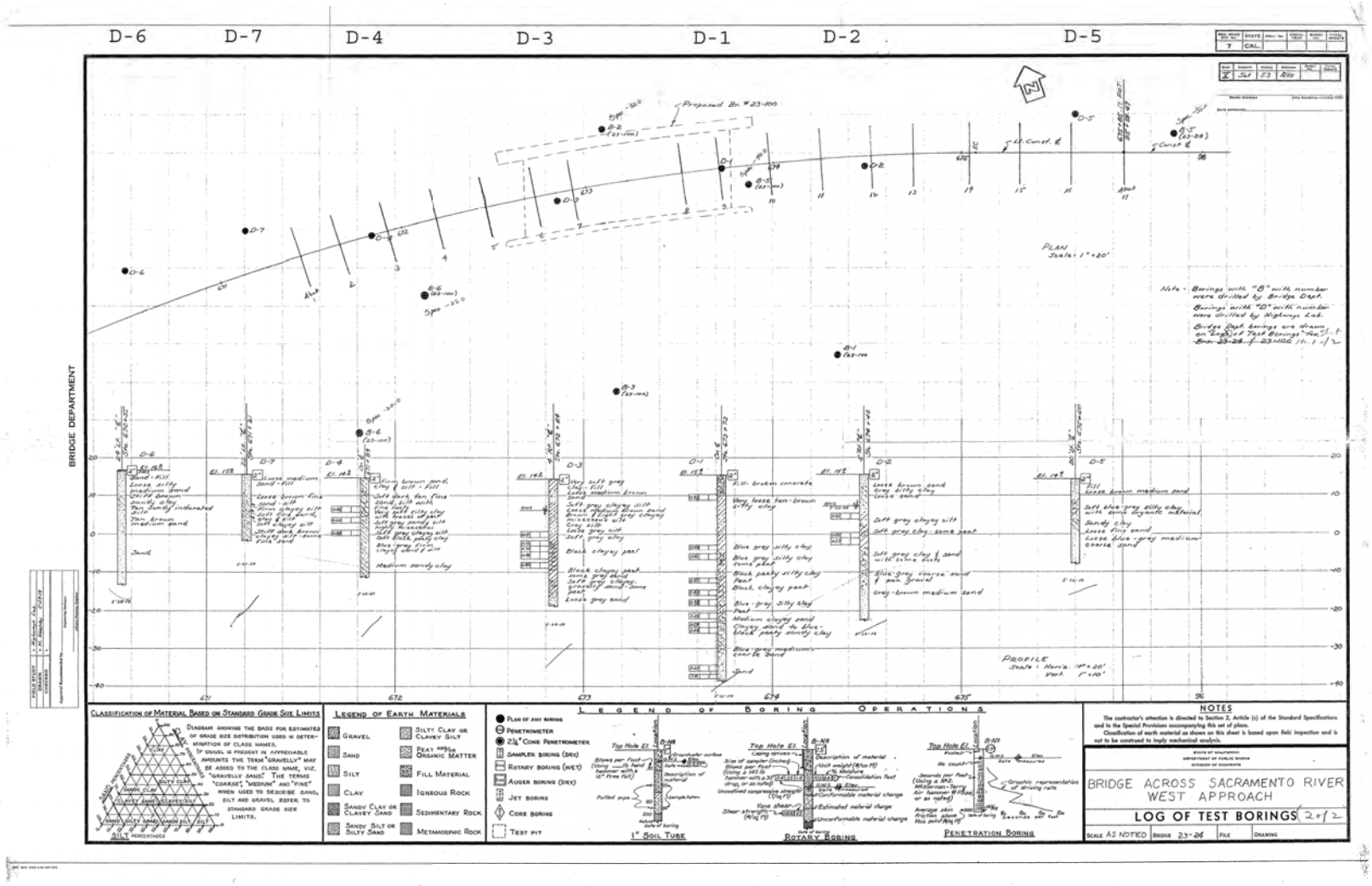
Plate No. A-235



Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. A-236



Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. A-237

LOGGED BY	BEGIN DATE	COMPLETION DATE	BOREHOLE LOCATION (Lat/Long or North/East and Datum)	HOLE ID
F. Olsen	4-8-19	4-10-19	38° 9' 57.23" / 121° 42' 11.95"	RC-19-001
DRILLING CONTRACTOR			BOREHOLE LOCATION (Offset, Station, Line)	SURFACE ELEVATION
Caltrans			10.0' Rt Sta 367+55	40.0 ft
DRILLING METHOD			DRILL RIG	BOREHOLE DIAMETER
Rotary Wire-Line			Mobile B57	4 in
SAMPLER TYPE(S) AND SIZE(S) (ID)			SPT HAMMER TYPE	HAMMER EFFICIENCY, ERi
SPT				52.1%
BOREHOLE BACKFILL AND COMPLETION			GROUNDWATER DURING DRILLING AFTER DRILLING (DATE) READINGS	TOTAL DEPTH OF BORING
4-10-19				92.5 ft

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
	0		ASPHALT CONCRETE (8); black.												
	1		AGGREGATE BASE very dense; gray; moist; fine to coarse sand (FILL).												
38.00	2		CLAYEY SAND (SC); medium dense; black; fine to coarse sand, trace fine gravel, trace asphault, [FILL].												
	3														
36.00	4														
	5														
			Fat CLAY with SAND (CH); hard; dark brown; moist; some fine to medium sand; PP>4.5.		1	38 19 10	29	50							
34.00	6														
	7														
32.00	8		- 200 PSI down pressure.												
	9		PP>4.5.												
30.00	10		Very stiff; grayish brown; PP=3.25.		2	6 8 14	22	75							PI
	11														
28.00	12														
	13														
26.00	14														
	15		Gray; wet; PP=3.5.		3	5 8 13	21	83							PA
24.00	16														
	17														
22.00	18														
	19														
20.00	20		Light brown; PP=3.5.		4	8 10 13	23	89							PI
	21														
18.00	22														
	23														
16.00	24														
	25														

(continued)

5 BR - STANDARD SOL-12, SLOUGH, B19-001 & B19-002.GPJ CALTRANS LIBRARY (FEB 2013).GLB 6/3/21

Department of Transportation
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design - North

REPORT TITLE				HOLE ID
BORING RECORD				RC-19-001
DIST.	COUNTY	ROUTE	POSTMILE	PROJECT ID
04	SOL	12	25.4	04-0J630
PROJECT OR BRIDGE NAME				
SOL-12 Widening				
BRIDGE NUMBER	PREPARED BY		DATE	SHEET
N/A	F. Olsen		4-29-19	1 of 4

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
	25		Hard; PP=4.0. Fat CLAY with SAND (CH) *(continued)*.		5	8 11 17	28	94							
14.00	26														
	27		CLAYEY SAND (SC); very dense; gray; wet; fine to medium sand.												
12.00	28														
	29														
10.00	30				6	24 29 40	69	67							PA
	31														
8.00	32														
	33														
6.00	34														
	35		Fat CLAY with SAND (CH); very stiff; light brown; wet; fine sand; PP=3.75.		7	18 14 21	35	100							
4.00	36														
	37														
2.00	38														
	39														
0.00	40		Very stiff; PP=3.5.		8	10 15 22	37	100							
	41														
-2.00	42		CLAYEY SAND (SC); medium dense; mottled light and dark brown; wet; fine to medium sand.												
	43														
-4.00	44														
	45				9	12 18 24	42	100							
-6.00	46		Lean CLAY (CL); mottled brown and brownish red; wet.												
	47														
-8.00	48														
	49														
-10.00	50				10	12 15 18	33	100							
	51														
-12.00	52														
	53		CLAYEY SAND (SC); dense; mottled light and dark brown; wet; fine to medium sand.												
-14.00	54														
	55														

(continued)

Department of Transportation
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design - North

REPORT TITLE				HOLE ID
BORING RECORD				**RC-19-001**
DIST.	COUNTY	ROUTE	POSTMILE	PROJECT ID
04	**SOL**	**12**	**25.4**	**04-0J630**
PROJECT OR BRIDGE NAME				
SOL-12 Widening				
BRIDGE NUMBER	PREPARED BY		DATE	SHEET
N/A	**F. Olsen**		**4-29-19**	**2 of 4**

5 BR - STANDARD SOL-12, SLOUGH, B19-001 & B19-002.GPJ CALTRANS LIBRARY (FEB 2013).GLB 6/3/21

RC-19-001

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
	55		CLAYEY SAND (SC) *(continued)*.		11	11 25 36	61	100							
-16.00	56		SANDY lean CLAY (CL); hard; olive brown; moist; fine to medium sand, fine gravel; PP>4.5.												
	57														
-18.00	58														
	59														
-20.00	60		PP=3.0.		12	15 20 34	54	39							
	61														
-22.00	62														
	63		CLAYEY SAND (SC); very dense; olive brown; moist; fine to coarse sand, trace fine gravel.												
-24.00	64														
	65				13	23 35 38	73	89							
-26.00	66														
	67														
-28.00	68														
	69		SANDY lean CLAY (CL); hard; olive brown; moist; fine sand; PP>4.5.												
-30.00	70				14	8 12 20	32	100							
	71														
-32.00	72														
	73														
-34.00	74														
	75				15	12 18 21	39	100							
-36.00	76														
	77														
-38.00	78														
	79														
-40.00	80				16	15 24 36	60	100							
	81														
-42.00	82														
	83														
-44.00	84														
	85														

(continued)

5 BR - STANDARD SOL-12, SLOUGH, B19-001 & B19-002.GPJ CALTRANS LIBRARY (FEB 2013).GLB 6/3/21

Department of Transportation
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design - North

REPORT TITLE				HOLE ID
BORING RECORD				**RC-19-001**
DIST.	COUNTY	ROUTE	POSTMILE	PROJECT ID
04	**SOL**	**12**	**25.4**	**04-0J630**
PROJECT OR BRIDGE NAME				
SOL-12 Widening				
BRIDGE NUMBER	PREPARED BY		DATE	SHEET
N/A	**F. Olsen**		**4-29-19**	**3 of 4**

RC-19-001

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
	85		SANDY lean CLAY (CL) *(continued)*.		17	18 28 36	64	100							
-46.00	86														
	87														
-48.00	88														
	89														
-50.00	90				18	18 20 24	44	100							
	91														
-52.00	92		SEDIMENTARY ROCK (CLAYSTONE); fine grained; brown.		19	50/.5"	REF	0							
	93		Bottom of borehole at 92.5 ft bgs												
-54.00	94														
	95		This Boring Record was developed in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010) except as noted on the Soil or Rock Legend or below.												
-56.00	96														
	97														
-58.00	98														
	99														
-60.00	100														
	101														
-62.00	102														
	103														
-64.00	104														
	105														
-66.00	106														
	107														
-68.00	108														
	109														
-70.00	110														
	111														
-72.00	112														
	113														
-74.00	114														
	115														

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Department of Transportation
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design - North

REPORT TITLE				HOLE ID
BORING RECORD				**RC-19-001**
DIST.	COUNTY	ROUTE	POSTMILE	PROJECT ID
04	**SOL**	**12**	**25.4**	**04-0J630**
PROJECT OR BRIDGE NAME				
SOL-12 Widening				
BRIDGE NUMBER	PREPARED BY		DATE	SHEET
N/A	**F. Olsen**		**4-29-19**	**4 of 4**

LOGGED BY	BEGIN DATE	COMPLETION DATE	BOREHOLE LOCATION (Lat/Long or North/East and Datum)	HOLE ID
F. Olsen	4-10-19	4-12-19	38° 9' 58.99" / 121° 42' 14.74"	RC-19-002
DRILLING CONTRACTOR			BOREHOLE LOCATION (Offset, Station, Line)	SURFACE ELEVATION
Caltrans			10.0' Rt Sta 364+80	47.0 ft
DRILLING METHOD			DRILL RIG	BOREHOLE DIAMETER
Rotary Wire-Line & Hollow Stem Auger			Mobile B57	4 in
SAMPLER TYPE(S) AND SIZE(S) (ID)			SPT HAMMER TYPE	HAMMER EFFICIENCY, ERi
SPT				52.1%
BOREHOLE BACKFILL AND COMPLETION			GROUNDWATER DURING DRILLING AFTER DRILLING (DATE) READINGS	TOTAL DEPTH OF BORING
4-12-19				61.5 ft

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
	0		ASPHALT CONCRETE (4).												
	1		AGGREGATE BASE (22).												
45.00	2														
	3		SANDY lean CLAY (CL); hard; Mottled Dark and Light Brown; moist; fine GRAVEL ; fine to coarse SAND ; PP=4.25.												
43.00	4														
	5				1	4 9 12	21	67							
41.00	6														
	7		- fine to coarse SAND; PP>4.5.												
39.00	8														
	9														
37.00	10		SANDY lean CLAY (CL); hard; Mottled Dark and Light Brown; wet; fine SAND ; PP>4.5.		2	7 10 11	21	100							PA
	11														
35.00	12														
	13														
33.00	14														
	15				3	10 24 38	62	100							
31.00	16														
	17														
29.00	18														
	19														
27.00	20				4	18 28 36	64	100							
	21														
25.00	22														
	23														
23.00	24														
	25														

(continued)

Department of Transportation
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design - North

REPORT TITLE				HOLE ID
BORING RECORD				RC-19-002
DIST.	COUNTY	ROUTE	POSTMILE	PROJECT ID
04	SOL	12	25.4	04-0J630
PROJECT OR BRIDGE NAME				
SOL-12 Widening				
BRIDGE NUMBER	PREPARED BY		DATE	SHEET
N/A	F. Olsen		4-24-19	1 of 3

5 BR - STANDARD SOL-12, SLOUGH, B19-001 & B19-002.GPJ CALTRANS LIBRARY (FEB 2013).GLB 6/3/21

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
	25		SANDY lean CLAY (CL) *(continued)*.		5	11 14 31	45	100							
21.00	26														
	27														
19.00	28														
	29														
17.00	30				6	10 24 40	64	94							
	31														
15.00	32														
	33														
13.00	34														
	35		Lean CLAY (CL); hard; brown; moist; fine SAND ; PP>4.5.		7	7 16 22	38	100							
11.00	36														
	37														
9.00	38														
	39														
7.00	40				8	6 15 23	38	100							
	41														
5.00	42														
	43														
3.00	44														
	45				9	7 16 22	38	100							
1.00	46														
	47														
-1.00	48														
	49														
-3.00	50		SANDY lean CLAY (CL); hard; brown and olive gray; wet; fine SAND ; PP>4.5.		10	17 26 34	60	83							
	51														
-5.00	52														
	53														
-7.00	54														
	55														

(continued)

5 BR - STANDARD SOL-12, SLOUGH, B19-001 & B19-002.GPJ CALTRANS LIBRARY (FEB 2013).GLB 6/3/21

Department of Transportation
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design - North

REPORT TITLE				HOLE ID
BORING RECORD				**RC-19-002**
DIST.	COUNTY	ROUTE	POSTMILE	PROJECT ID
04	**SOL**	**12**	**25.4**	**04-0J630**
PROJECT OR BRIDGE NAME				
SOL-12 Widening				
BRIDGE NUMBER	PREPARED BY		DATE	SHEET
N/A	**F. Olsen**		**4-24-19**	**2 of 3**

RC-19-002

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
	55														
-9.00	56		CLAYEY SAND (SC); very dense; brown and olive gray; wet; fine SAND.		11	10 17 26	43	100							
	57														
-11.00	58														
	59														
-13.00	60				12	15 22 28	50	100							
	61		Bottom of borehole at 61.5 ft bgs												
-15.00	62														
	63		This Boring Record was developed in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010) except as noted on the Soil or Rock Legend or below.												
-17.00	64														
	65														
-19.00	66														
	67														
-21.00	68														
	69														
-23.00	70														
	71														
-25.00	72														
	73														
-27.00	74														
	75														
-29.00	76														
	77														
-31.00	78														
	79														
-33.00	80														
	81														
-35.00	82														
	83														
-37.00	84														
	85														

5 BR - STANDARD SOL-12, SLOUGH, B19-001 & B19-002.GPJ CALTRANS LIBRARY (FEB 2013).GLB 6/3/21

Department of Transportation
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design - North

REPORT TITLE				HOLE ID
BORING RECORD				**RC-19-002**
DIST.	COUNTY	ROUTE	POSTMILE	PROJECT ID
04	**SOL**	**12**	**25.4**	**04-0J630**
PROJECT OR BRIDGE NAME				
SOL-12 Widening				
BRIDGE NUMBER	PREPARED BY		DATE	SHEET
N/A	**F. Olsen**		**4-24-19**	**3 of 3**

DWR

State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES

adfss-andrus-1

DRILLING AND SAMPLING LOG

ALTERNATIVE DELTA FACILITIES STUDIES

HOLE NO. A-1

ELEV. -12.8' (Survey)

FEATURE Andrus Island

DEPTH 49.0'

LOCATION N. 602,050; E.1,680,950 (Topo)

COUNTY Sacramento

LOGGED BY R. Bartlett

DATE DRILLED 1/27-28/76

WATER LEVEL 8.0' after 1 hour

DRILLING CO. Cal Trans

DRILLER L. Keep

DRILL RIG B-61 Auger

ELEV. (DEPTH)	CLASS.	DESCRIPTION FIELD IDENTIFICATION	SAMPLE NUMBER	MODE Recovery	REMARKS
-12.8 (0.0)	CL	0.0-3.5' Silty Clay: Brown, stiff, slightly moist. Specks of orange rust and black organics. Top 1' has 1/8" white caliche specks. Gradational contact.		1.4 / 3.0	Continuous Shelby Tube sampling thru hollow-stem auger; extruded all samples.
				3.0	
-16.8 (4.0)	PT	3.5-16.5' Peaty Muck: Black to very dark brown, highly organic (est. 70-80%), spongy, greasy, low dry strength, mostly short fiber minor 2-4" lenses having 1/2" fibers, slightly silty, medium dilatancy, very moist. A few 6" lenses with 30-40% silt, dark gray colored.		1.4 / 3.0	
				6.0	
				1.5 / 3.0	
-20.8 (8.0)		Saturated below 9.0'		9.0	Water in top of tube.
				2.5 / 2.5	*PVS = 0.25 TSF @ 10.0'
-24.8 (12.0)		11.4-11.6' Steel gray, less organics (est. 30-40%).		11.5	

*PVS = Pocket Vane Shear Test

SHEET 1 OF 4

DWR 885 (1) (Rev. 5/66)

State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES
DRILLING AND SAMPLING LOG

adfss-andrus-1

FEATURE Andrus Island HOLE NO. A-1

SAMPLE NO. | | | | | | |
DEPTH | | | | | | |

ELEV. (DEPTH)	CLASS.	DESCRIPTION FIELD IDENTIFICATION	SAMPLE NUMBER	MODE Recovery	REMARKS
-24.8 (12.0)	PT	3.5-16.5' Peaty Muck: (Contd) 13.2-13.4' A lens of fiberous peat, dark brown, spongy. 13.5-13.9' A clayey lens, dark gray, high plasticity, soft, very moist. Organics estimated 30-40%.		2.5 2.5	Discarded 0.2' of sloppy fill.
				14.0 2.5 2.5	Sample sloppy muck, half organic silt, probably disturbed (auger sank while push sampling).
-28.8 (16.0)		16.5-27.0' Interbedded Clayey Silt-Silty Clay: Bluish gray, very soft, slow dilatency, slightly micaceous, silty, very moist. Organic disseminated (est. 10-20%).		16.5 2.3 2.5	PVS= 0.1 TSF @ 18.2'
		18.5-19.0' An oxidized vertical reed 3 mm dia.		19.0 2.4 2.5	
-32.8 (20.0)	ML-CL (OL)			21.5 2.4 2.5	PVS 0.05 TSF @ 21.0'
		22.0-22.5' Organics estimated 5-10% 22.5-23.0' Cream colored ¼" caliche spots in clayey lens; inorganic.			
-36.8 (24.0)	SM	23.8-25.3' A Silty Sand Lens: Gray, very fine- to fine-grained; nonplastic, micaceous, 30-40% fines, saturated.		24.0 2.3 2.5	PVS 0.025 TSF @ 25.0'
	CL	25.3-26.0' A Silty Clay Lens: Bluish-gray, low plasticity, firm, moist.			
	SM	26.0-27.0' A Silty Sand Lens: Similar to 23.8-25.3' interval.		26.5 2.4 2.5	PVS 0.33 TSF @ 26.2' Sloppy wet 27.0-27.5'
-40.8 (28.0)	CL	27.0-34.6' Silty Clay: Bluish gray, medium plasticity, micaceous, very silty, slightly firm, very moist. A few % organics mostly as scattered lenses ¼" thick about 3' apart.			PVS= 0.2 TSF @ 28.0'
-42.8 (30.0)				29.0 2.3 2.5	

DWR 885 (2) (Rev. 5/66)

SHEET 2 OF 4

State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES

adfss-andrus-1

DRILLING AND SAMPLING LOG

FEATURE Andrus Island HOLE NO. A-1

SAMPLE NO.						
DEPTH						

ELEV. (DEPTH)	CLASS.	DESCRIPTION FIELD IDENTIFICATION	SAMPLE NUMBER	MODE Recovery	REMARKS
-42.8 (30.0)	CL	27.0-34.6' Silty Clay (Contd)		2.3/2.5	
	SM	31.5-32.2' A lens of fine sandy silt, medium gray, quick dilatancy, saturated.		31.5	
	CL			1.6/2.5	PVS = 0.05 TSF @ 33.0'
-46.8 (34.0)				34.0	
	CL-CH	34.6-43.2' Lean Clay-Fat Clay: Bluish-gray, medium to locally high plasticity, soft (firmer than soil above), moist. Organics minor and confined to lenses.		2.5/2.5	PVS = 0.1 TSF @ 35.5'
OL					
	CL-CH				
	CL	35.2-35.3' A lens of dark brown, organic silt, (est. 5-10% organics); slightly stiff.		36.5	
-50.8 (38.0)		36.5-37.1' A silty clay lens, low plasticity, very micaceous.		2.4/2.5	PVS = 0.13 TSF @ 38.0'
	CL-CH			39.0	
				2.3/2.5	PVS = 0.15 TSF @ 40.5'
-54.8 (42.0)	CL	42.2-43.2' Grades to a soft, silty clay with low plasticity.		41.5	PVS = 0.1 TSF @ 42.5'
	SM	43.2-49.0' Silty Sand: medium gray, very fine-to fine-grained; about 15% micaceous fines; moist.		2.5/2.5	
	SP	44.2-45.2' A lens of fine-grained sand with 5-10% fines; saturated.		44.0	Push pressure increases @ 44.0'
	SM	45.2-46.5' Micaceous fines increased to about 20%.		2.3/2.5	
-58.8 (46.0)					
	SP-SM	46.5-47.7' A lens of fine-grained sand with 10-20% fines, slightly micaceous saturated.		46.5	Sand sample slumped after extruding due to saturated condition.
-60.8 (48.0)	SM	47.7-49.0' About 20% micaceous fines.		2.5/2.5	

DWR 885 (2) (Rev. 5/66)

SHEET 3 OF 4

State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES

adfss-andrus-1

DRILLING AND SAMPLING LOG

FEATURE Andrus Island HOLE NO. A-1

SAMPLE NO.						
DEPTH						

ELEV. (DEPTH)	CLASS.	DESCRIPTION FIELD IDENTIFICATION	SAMPLE NUMBER	MODE Recovery	REMARKS
-60.8 (48.0) -61.8 (49.0)	SM	43.2-49.0' Silty Sand: (Contd). 47.7-49.0' About 20% micaceous fines.		2.5 2.5 49.0	Bottom 49.0' back-filled by pumping grout into bottom 20' interval; followed with soil to surface.

DWR 885 (2) (Rev. 5/66)

SHEET 4 OF 4

Alternative Studies

HOLE NO. IC-1

ELEV. -6.0' (Topo)

FEATURE Isleton Canal

DEPTH 40.0'

LOCATION Brannan Island N. 607,470; E. 1,676,920 (Approx.)

COUNTY Sacramento

LOGGED BY R. Bartlett

DATE DRILLED 5/27 - 28/76

WATER LEVEL Not determined

DRILLING CO. Cal Trans

DRILLER L. Keep

DRILL RIG Failing 1500SS

1. Log hole (Hole #1) advanced by pushing 3" I.D. Shelby tubes. Soils were extruded and logged at the site.
2. Sample hole (Hole #2) advanced by drilling with a 4-3/4" tricone bit circulating drilling mud.
3. Recovery ratio and maximum hydraulic pressure shown in Mode column. Sampling data are shown in REMARKS column.

ELEV. (DEPTH)	CLASS.	DESCRIPTION	SAMPLE NUMBER	MODE #2	MODE #1	REMARKS
-6.0 (0.0)		0.0-28.7 Silty Clay: brownish-gray, low plasticity, stiff becoming softer and moister with depth. Numerous brown rust specks. 0.0-1.0 Organic, abundant surface roots, stiff, dry. 0.0-6.0 Compressable, dry to slightly moist, hairlike roots.		RD	0.9 1.0 O#	0.0-1.0 Unable to extrude sample.
				P	P	1.0-2.3 Pushed 3" I.D.
				0.4 1.3 75#	1.2 2.0	Shelby rec 0.4, discarded. 1.9-5.8* PP exceeds 4.5 TSF
			2.7	RD P	O# P	2.7-4.0 Pushed 3" I.D. Shelby tube, lost bottom 0.1', saved
			S-1	1.2 1.3		3.0-6.0 rec 1.0 repushed to 7.0 rec 1.0
-10.0 (4.0)			3.9	O#	1.0 3.0	
					O#	6.1-7.3 PP values decrease from 3.4 TSF to 1.2 TSF
	CL-OL	6.0-8.3 Moist, moldable with difficulty. 7.0-8.3 Abundant orange rust stains, crumbly, very moist.		RD	P 1.0 4.0	8.0-9.3 Pushed 3" I.D. Shelby tube, saved. PVS = 0.40 TSF @ 8.4
					P	
-14.0 (8.0)		8.3-10.0 Bluish-gray color soft, moldable, moist. Abundant white caliche specks and a few scattered organic specks.	8.4	P	2.8 3.0	PVS = 0.35 TSF @ 9.8 10.0-13.0 rec 0.5' wet soil and 0.8' dry bentonite which plugged sample tube and pushed soft soil ahead, push pressure invalid.
			S-2	0.9 1.3		
			9.3	O#		
					O#	
		10.0-19.2 Very silty, bluish-gray, very soft,		RD	P	PVS = 0.15 TSF 10.5-11.0'

adfss-isleton-1

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. A-249

ELEV. (DEPTH)	CLASS.	DESCRIPTION FIELD IDENTIFICATION	SAMPLE NUMBER	MODE #2 #1	REMARKS
-18.0 (12.0)	CL	0.0-28.7 Silty Clay With Silt Lenses: 10.0-19.2 Very silty, bluish gray, very soft, saturated. A few scattered grass or tule blades.		0.5 3.0 100# P	14.8-23.4 PVS*values 0.11TSF increase to 0.22 TSF
				1.4 3.0 0#	
-22.0 (16.0)		16.0-19.2 Similar to above but slightly firmer and less moisture with depth, very moist, soft. Open tubes 1mm dia. from dried grass.		P 2.1 3.0 0#	
				P 2.7 3.0	21.0-22.3 Pushed 3" I.D. Shelby tube, saved
-26.0 (20.0)	ML	19.2-20.6 A silt lens, bluish-gray, soft, saturated.		P 12 200#	
	CL	20.6-23.4 Faint white caliche streaks, moist, soft.	S-3	L3 50# P	
				2.6 3.0	PP = 0.6 TSF @ 24.4'
-30.0 (24.0)	ML	23.4-27.6 A sandy silt lens, bluish-gray, minor fine sand, slightly compact, very moist to saturated.		200# RD	
				P 2.7 3.0	PP= 0.7 TSF @ 25.3'
	SM	26.5-26.8 A lens of fine-grained silty sand, saturated.			PP= 1.0 TSF @ 26.5
	ML	28.7-34.4 Interbedded Silty Sand and Silt:		75# P	
-34.0 (28.0)	CL	28.7-30.2 A silty sand lens, medium gray, very			PVS = 0.20 TSF @ 28.4

adfss-isleton-1

ELEV. (DEPTH)	CLASS.	DESCRIPTION FIELD IDENTIFICATION	SAMPLE NUMBER	MODE #2	MODE #1	REMARKS
-36.0 (30.0)	SM	28.7-34.4 Interbedded Silty Sand and Silt (Cont)			P 175#	
	ML	30.2-31.1 A lens of gray silt, soft, very moist to saturated.			P	
	SM	31.1-32.4 A silty sand lens similar to 28.7-30.2 interval, saturated.		RD	2.4 3.0	
	ML	31.1-34.4 Silt, slightly compact, moist to saturated.			200#	
-40.0 (34.0)	CL	34.4-37.2 Silty Clay: bluish-gray low plasticity, slightly stiff, moldable, slightly micaceous, moist. Scattered pale white caliche streaks.	35.1	P	P 2.8 3.0	PP= 1.6 TSF @ 34.6' 35.0-36.3 Pushed 3" I.D. Shelby tube, saved.
			S-4		1.2 1.3	PP = 1.6 TSF @ 36.4
			36.3		0# 200#	
-44.0 (38.0)	SM	37.2-40.0 Silty Sand: medium-gray, very fine-to fine-grained, about 40% non-plastic fines, slightly compact, very moist to saturated. Scattered 1" - 2" lenses of micaceous silt.			P 2.7 3.0	PP = 1.3 TSF @ 37.4 PP = 1.4 TSF @ 38.5
-46.0 (40.0)					150#	PP = 1.6 TSF @ 39.8 Cemented holes.

adfss-isleton-1

Sheet 1

ds-brannan-3bb

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

Map attached

DRILL LOG

HOLE NUMBER 3BB LOCATION 30' southwest of USCE Bench Mark C77, State Highway #12&24 between Rio Vista and Isleton. At base of levee in a pear orchard, 1.8 miles northeast of the eastern end of the Rio Vista Bridge.

GROUND ELEV. _____ COUNTY Sacramento T 4N, R 3E, SEC 28C1, M.D.B.&M.

TOTAL DEPTH 176 DEPTH TO GROUND WATER 5.1 8/17/55 DATE DRILLED 8/16/55 - 8/18/55

SOILS LAB. NOS.

SAMPLE DATA

SAMPLE NUMBER	(1)		
TYPE SAMPLE	Undisturbed (2")		
DEPTH	10.5 - 11.5		
TEST RECOMMENDED	Unconfined comp. Atterberg		
LAB. NUMBER	Limits, Consol., Sensitivity		
	Unit wt., Moisture Content		

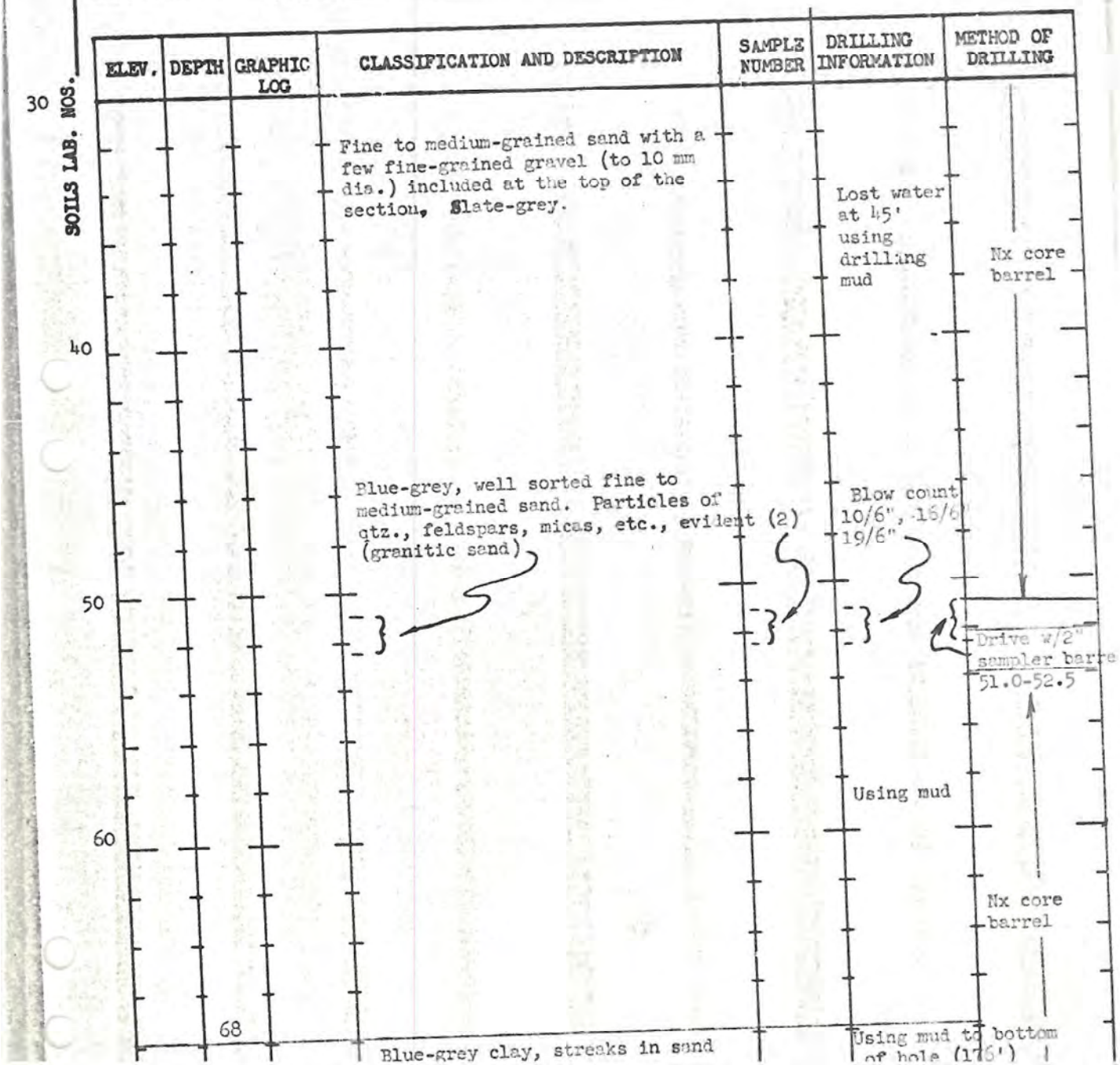
ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
0						
	3		Light tan, silty, fine-grained sand			6" auger
			----------Water level----------			
	8		Dark tan, silty clay			
10			Chocolate brown at top, blue from 9.5 down, sticky clay, hard layers and lumps present (fizzes with acid and shows carbonate content, probably from shells, high dry strength	(1)	Push	2" sample barrel; Nx core barrel
	13					
			Black, sticky, peaty clay			
	17					
				Lost sample	Push	2" sample barrel
20			Silty clay with small shells, shell particles and small bits of black organic matter included. Streaks of fine-grained sand			Nx core barrel
			Very high, dry strength Grey			
30	30		(Bottom of natural levee deposit)?			

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 3BB

SAMPLE DATA

SAMPLE NUMBER	(2)		
TYPE SAMPLE	Jar (drive)		
DEPTH	51.5 - 52.5		
TEST RECOMMENDED	M.A. & Microscope		
LAB. NUMBER			



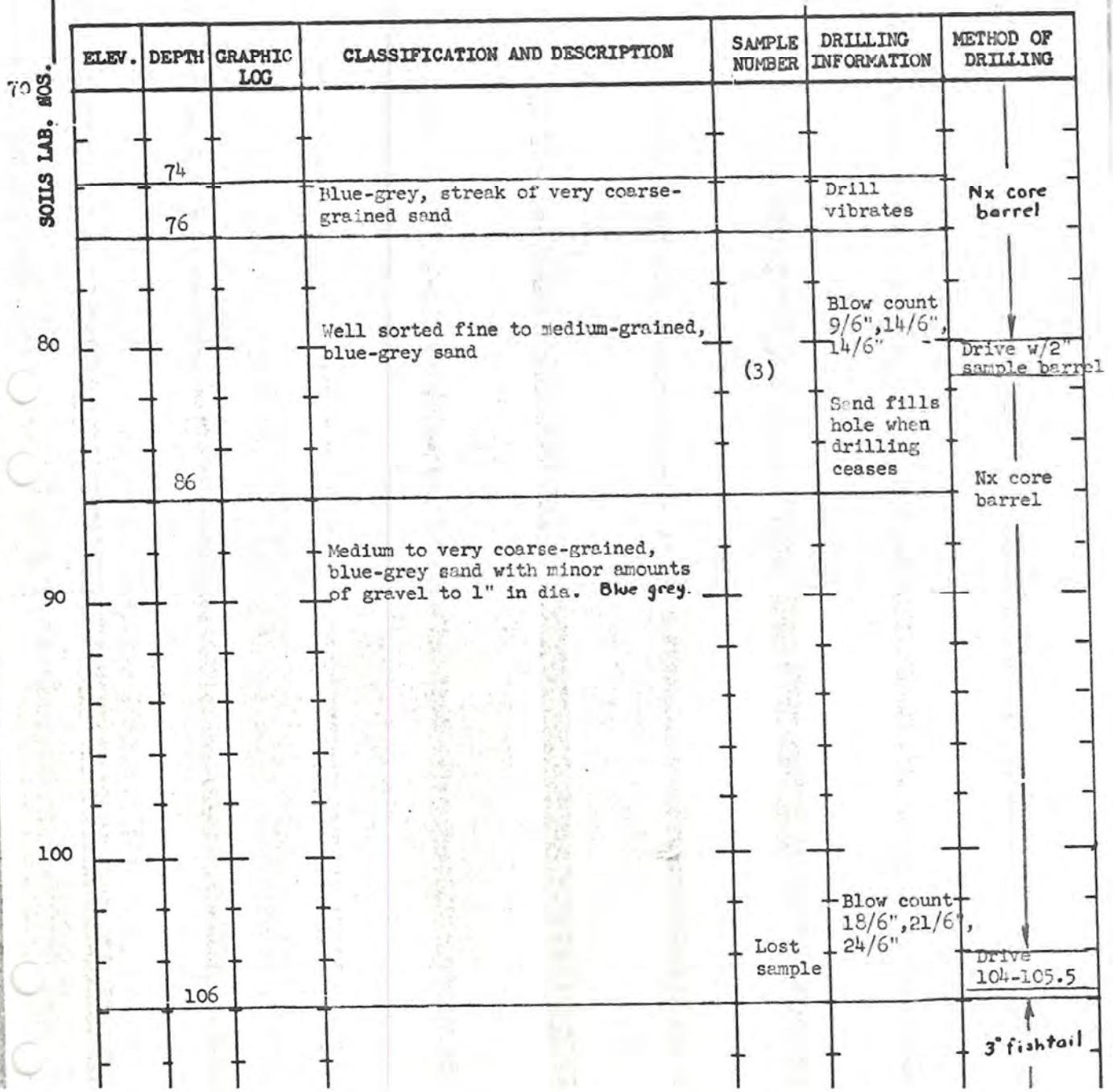
ds-brannan-3bb

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 3BB

SAMPLE DATA

SAMPLE NUMBER	(3)		
TYPE SAMPLE	Jar (drive)		
DEPTH	82.5 - 82.5		
TEST RECOMMENDED	M.A. & Microscope		
LAB. NUMBER			



ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 3BB

SAMPLE DATA

SAMPLE NUMBER			
TYPE SAMPLE			
DEPTH			
TEST RECOMMENDED	Samples fall out of sample barrel because the drill rods have to be broken loose by blows of hammer.		
LAB. NUMBER			

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
110			Fine to medium-grained sand with streaks of coarse-grained sand, blue-grey, small black particles of organic matter included			3" fishtail (gravel ruining Nx core barrel)
					Vibrates at coarser layers	
120						
130	130					
			Medium to coarse-grained, blue-grey sand, in layers		Blow count 36/6", 50/5" and refusal	Drive 131-132.5
					Hole fills in after mud pumps stops	3" fishtail
140						
	142					
			Coarse to very coarse-grained, blue-grey sand, in layers		Drill vibrates at coarser layers	

SOILS LAB. NOS.

ds-brannan-3bb

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 3BB

SAMPLE DATA

SAMPLE NUMBER			
TYPE SAMPLE			
DEPTH	Can't get samples for same reason mentioned on Sheet 4.		
TEST RECOMMENDED			
LAB. NUMBER			

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
160	161		Coarse to very coarse-grained sand with some gravel included		Drill vibrates	3" fishtail
	163		Medium-grained sand (blue-grey), becomes coarse-grained toward the bottom		Fairly easy drilling	
170						
	176		Bottom of hole			
180						

SOILS LAB. NOS.

scb-grand-1bb

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

DRILL LOG

Map attached

HOLE NUMBER 1BB LOCATION South abutment of barrier across Steamboat Slough. In middle of dirt road north of the levee on the north side of Junction Point leading 500' southeast of the intersection of the dirt road and the old tar road across Junction Point fill area.

GROUND ELEV. 16.1 COUNTY Sacramento T 4N, R 3E, SEC 16N1, M.D.B.&M.

TOTAL DEPTH 164' DEPTH TO GROUND WATER 25.1' (8/8/55) DATE DRILLED 8/4/55 - 8/10/55

SAMPLE DATA

SOILS LAB. NOS.

SAMPLE NUMBER	(1)	(2)	
TYPE SAMPLE	Jar	Undisturbed (2")	
DEPTH	6.5'	24.5 - 25.5	
TEST RECOMMENDED	M.A.	Unconfined comp. (Consol.)	
LAB. NUMBER		Atterberg Limits, M.C.	
		Unit wt., Sensitivity	

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
0						
			Tan, silty sand, hydraulic fill	(1)	Dry	6" auger
10						
	13.5					
			----------Water level----------			
			Chocolate brown, silty sand		Damp	
	17					
20						
	24.5					
	25.5		Sticky grey clay with some organic matter, medium plasticity	(2)	2" liners	Push
			Soft, sticky blue-grey silty clay (fairly plastic), high dry strength, silt streaks			Nx core barrel
30						

Driller Hoyte Logged by

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-257

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 1BB

SAMPLE DATA

SAMPLE NUMBER	(3)	(4)	
TYPE SAMPLE	Undisturbed (2")	Jar	
DEPTH	A - 12	59'	
TEST RECOMMENDED	Unconfined comp.(Consol.)	M.A. Atterberg Limits	
LAB. NUMBER	Atterberg Limits, M.C.	Unit wt.	
	Unit wt., Sensitivity		

SOILS LAB. NOS.	ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
				Hole cased to 34'		Hole cased to 34'	
					(3)	Soft drilling	
							Nx core barrel
						Soft	
					(4)		

30 40 50 60 70

1/ Drive sample

Sheet 3

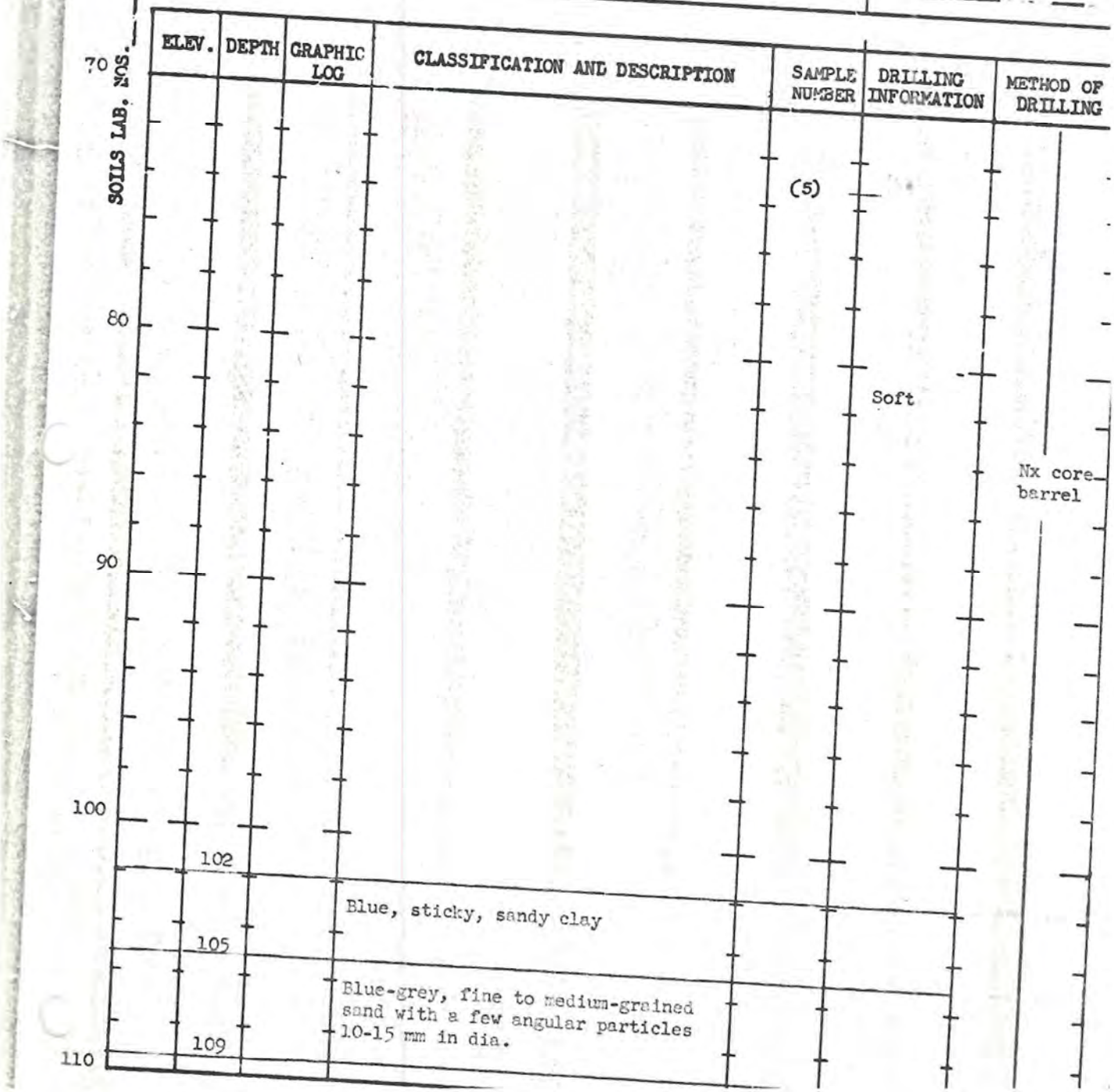
scb-grand-1bb

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 1BB

SAMPLE DATA

SAMPLE NUMBER	(5)		
TYPE SAMPLE	Disturbed (2")		
DEPTH	72.2 - 73.5		
TEST RECOMMENDED	Atterberg Limits,		
LAB. NUMBER	Unit wt.		



scb-grand-1bb

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 1BB

SAMPLE DATA

SAMPLE NUMBER	(6)	(7)
TYPE SAMPLE	Jar (drive)	Undisturbed (4") drive
DEPTH	111-112	131.5-132.5
TEST RECOMMENDED	Atterberg Limits, Unit wt.	Unconfined comp.(Consol.)Sensitivity, Atterberg Limits, Moisture Content, Unit wt.
LAB. NUMBER		

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
110				(6)	Blow count 3/6", 4/6", 7/6"	Drive 110.5-112.0
			Sticky blue clay with some sand content. Becomes firmer toward bottom and greener in color			
120						Nx core barrel
			Medium dry strength			
130	131			(7)	Blow count 4/6", 9/6", 12/6"	Drive 131-132.5
140			Sticky blue clay			Nx core barrel
150						

SOILS LAB. MOS.

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-260

scb-grand-1bb

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 1BB

SAMPLE DATA

SAMPLE NUMBER			
TYPE SAMPLE			
DEPTH			
TEST RECOMMENDED			
LAB. NUMBER			

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
150	152		1' streak of fine to med. textured sand			
	153		Sticky blue clay			Nx core barrel
	159					
160			Fine to medium-textured, blue-grey sand with some fine gravel			
	164		Bottom of hole	163-164	Blow count 22/6", 22/6", 22/6"	Drive
170						

SOILS LAB. NOS.

scb-grand-2bb

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

DRILL LOG

HOLE NUMBER 2BB LOCATION 1.0' west of shoulder of old asphalt road acros
hydraulic fill area of Junction Point, Grand Island. 0.2 mile south of intersection o
this asphalt road and dirt road on north side of Levee. 25' south of tall tree overha
the road. MSL 1929 Datum
GROUND ELEV. 22.4 COUNTY Sacramento T 4N, R 3E, SEC 21G1, M.D.B.&
TOTAL DEPTH 172' DEPTH TO GROUND WATER 25.1 DATE DRILLED 8/10/55-8/16/55
8/16/55

SAMPLE DATA

SOILS LAB. NOS.			
SAMPLE NUMBER	(1)	(2)	
TYPE SAMPLE	Jar	Jar	
DEPTH	23'	30'	
TEST RECOMMENDED	M.A. Atterberg Limits	M.A. Atterberg Limits	
LAB. NUMBER	Unit wt.	Unit wt.	

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD DRILL
0			Yellowish brown, fine-grained sand and silt (Hydraulic fill) - Dry		Very loose material (low density)	
10	10					
	13½		Dark brown damp clayey silt (Hydraulic fill)			
			Yellow brown clayey silt (Hydraulic fill?)		Damp Firmer than materials above	6" auger
20	20.5					
			Grey silty clay	(1) Jar	Soft	
	24					
			Water level			
			Dark slate-grey silty clay (very plastic) - some streaks of peaty material	(2) Jar	Soft, wet	Nx Casin (Push)
30						

Driller

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-262

scb-grand-2bb

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 2BB

SAMPLE DATA

SAMPLE NUMBER	(3)		
TYPE SAMPLE	Jar		
DEPTH	44-44.5		
TEST RECOMMENDED	M. A. Unit		
LAB. NUMBER	wt.		

SOILS LAB. NOS.	ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
				Slate grey, silty sand with clay layers		Soft and loose	
				Medium-grained, blue grey sand with thin clay streaks		Loosing water	Nx core barrel
					(3) Jar	Blow count 7/6",10/6" 10/6"	Drive 43.5-45
						Sand fills in hole when drilling ceased	Nx core barrel

30 40 50 60 70

scb-grand-2bb

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 2BB

SAMPLE DATA

SAMPLE NUMBER	(4)		
TYPE SAMPLE	Grab (from cuttings)		
DEPTH	Approx. 92'		
TEST RECOMMENDED	M. A. S. Microscope study		
LAB. NUMBER			

SOILS LAB. NOS.

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
70	70					
	73.9		Blue grey silty clay, low plasticity. (Material crumbles)		Hole cased to 71.3	Nx core barrel (push)
			Fine to medium-grained, grey sand			
	78		Medium to coarse-grained, slate-grey sand with fine gravel (to 10 mm dia. but averaging 3 mm dia.) included.		Using mud to prevent hole caving.	Nx core barrel
90				(4) Grab	Using mud	
100						
	104		Fine to medium-grained, blue-grey sand		Mud	
	106					

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CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

LE NUMBER 2BB

SAMPLE DATA

SAMPLE NUMBER	(5)
TYPE SAMPLE	Undisturbed (2") Push
DEPTH	125.5 - 126.5
TEST RECOMMENDED	Unconfined Comp. Consol.
LAB. NUMBER	Sensitivity, M. C.
	Atterberg Limits Unit wt.

SOILS LAB. NOS.

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
110						
	115		Firm silty blue clay with medium plasticity. (High dry strength)			Nx core barrel
120						
	125			(5)		
130	130					
	132		Fine-grained, blue sand			
			Firm silty blue clay. Medium plasticity (same as 115-130 above)			
140			High dry strength			

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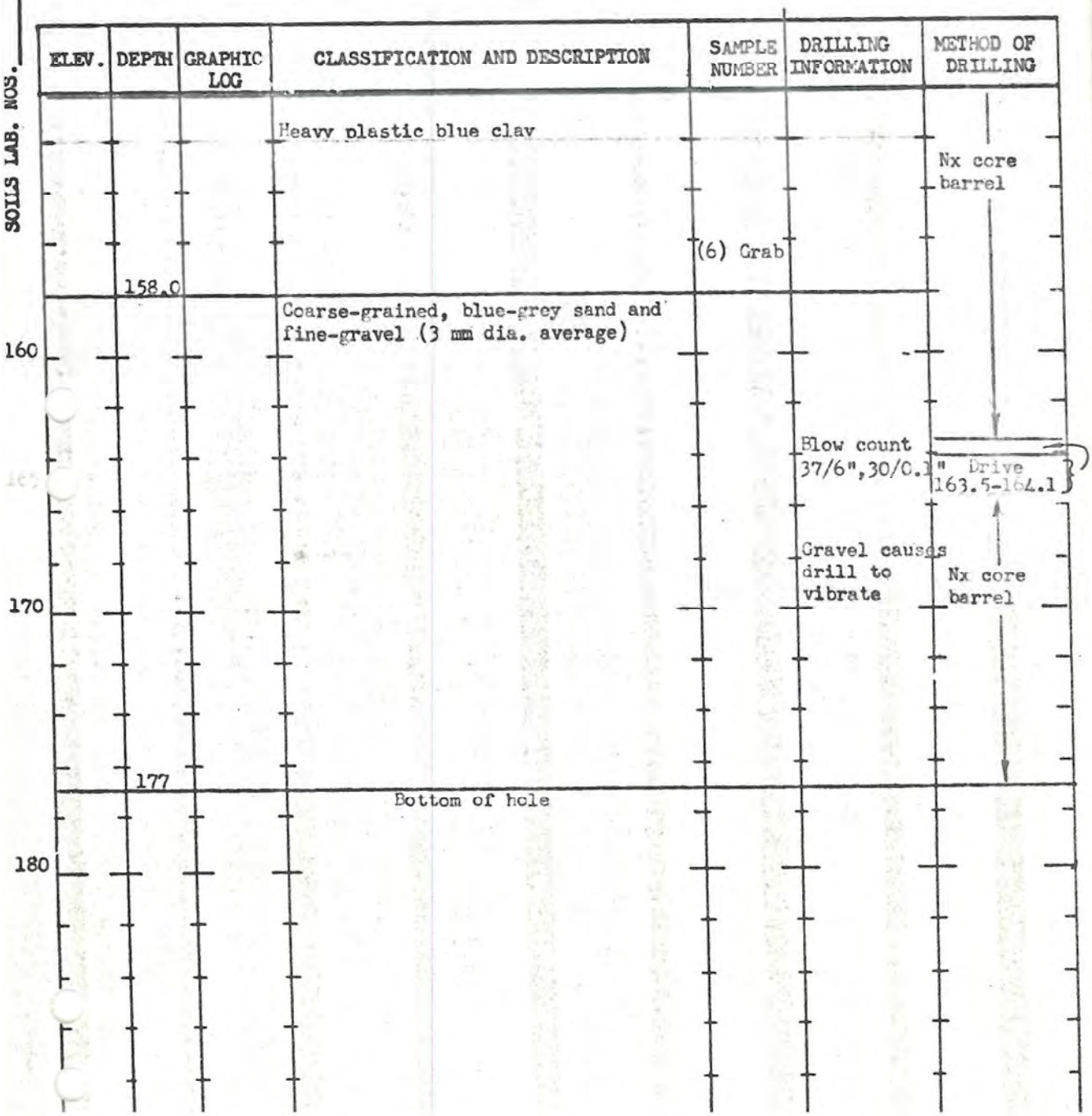
CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 2BB

SAMPLE DATA

SAMPLE NUMBER	(6)		
TYPE SAMPLE	Jar (Grab)		
DEPTH	156 (approx)		
TEST RECOMMENDED	for microscope		
LAB. NUMBER			



scb-grand-64bb

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

Map attached

DRILL LOG

HOLE NUMBER 64BB LOCATION Junction Point, Grand Island 300 feet S 65° W of Hole 2BB, Barge lock structure test hole.

GROUND ELEV. 32.4 COUNTY Sacramento T 4N, R 3E, SEC 21G1, M.D.B.&M.

TOTAL DEPTH 201.0 DEPTH TO GROUND WATER 32.0 (9:00 AM PST) DATE DRILLED 1/4/56 to 1/10/56

SAMPLE DATA

SOILS LAB. NOS.

SAMPLE NUMBER	(1)		
TYPE SAMPLE	Drive		
DEPTH	10.5-11.5		
TEST RECOMMENDED	M.A., Unit Wt.		
LAB. NUMBER			

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
0			Tan, medium to coarse-grained sand. Angular quartz grains and ferromagnesian minerals. Low mica content. (This material is hydraulic fill.)			6" augers
10	11.5			(1)	Blow count 6 for entire 1.5 feet	Drive 10.0-11.5
	16		Light brown, sandy silt-very low plasticity		Forms 1" diameter balls	
20			Medium-grained, micaceous sand, light tan in color. (Hydraulic fill material).			6" augers
30					Augers will not push at this depth	

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-267

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 64BB

SAMPLE DATA

SAMPLE NUMBER	(2)	(3)	(4)
TYPE SAMPLE	Push (Shelby Tube)	Push (Shelby Tube)	Jar (Core Barrel)
DEPTH	42.0-43.0	55.0-57.0	66.0
TEST RECOMMENDED	Unconfined comp., M.A.	M.A., Unit Wt., Consolidation, unconfined comp.	M.A., Unit Wt.,
LAB. NUMBER			

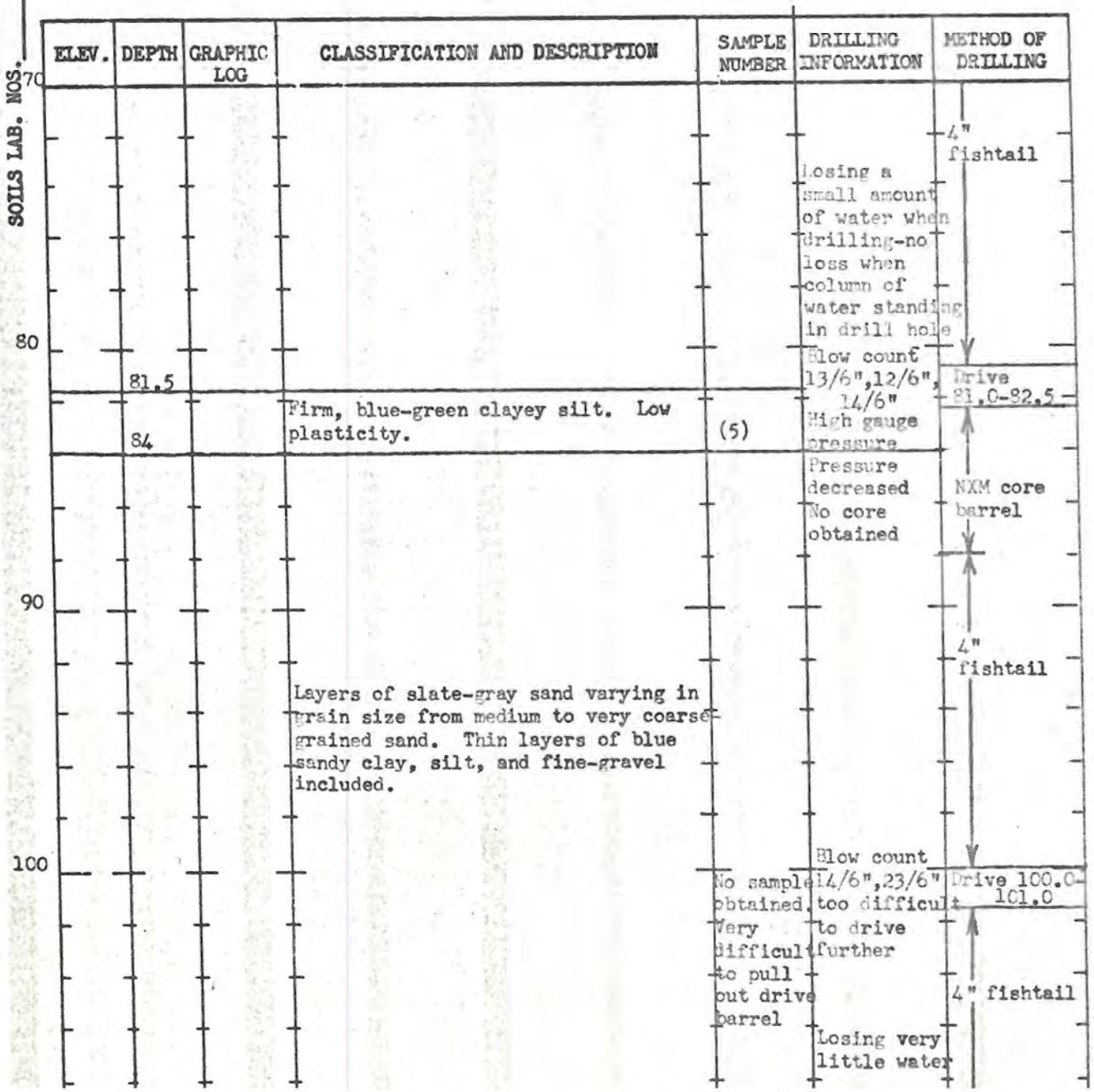
SOILS LAB. NOS.	ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
	30						
		32		Charcoal black, silty peat		Sticks to augers	6" augers
		34.5					
						4" casing to 38'8"	Wash shelby tube
	40			Layers of dark gray organic, silty fine-grained sand and dark gray organic silt. Thin streaks of highly plastic organic clay included. Fibers of organic material throughout.	(2)		Push shelby tube 42.0-43.0
						Very soft	NXM core barrel with mud
M1e-18	50	50					
				Layers of fine to medium-grained, micaceous sand and silty sand. Thin streaks of gray-green, organic silt.	(3)	Difficult pushing.	Push, shelby tube 55.0-57.0
	60						NXM core barrel using mud
		62.5					
				Slate-gray, medium-grained micaceous sand with a high percentage of ferromagnesian minerals.	(4)	Cannot push NXM core barrier here	
				Bits of twigs, leaves and other or-	No sample	Blow count 7/6",10/6",	Drive 67.0-68.5

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 64BB

SAMPLE DATA

SAMPLE NUMBER	(5)		
TYPE SAMPLE	NXM core barrel grab		
DEPTH	83-83.5		
TEST RECOMMENDED	M.C., Atterberg Limits,	Unit. Wt.	
LAB. NUMBER	Unconfined comp. (?)		



CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 64BB

SAMPLE DATA

SAMPLE NUMBER	(6)		
TYPE SAMPLE	Undisturbed (Shelby Tube		
DEPTH	130-132.5)		
TEST RECOMMENDED	Unit wt., M.C., Unconfined comp.		
LAB. NUMBER	Consol., Atterberg limits, sensitivity		

SOILS LAB. NOS.

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
110						4" fishtail
					Losing some water	
120						
	122			No sample obtained	Blow count 2/6", 3/6", 6/6"	Drive 122.0-123.5
						NXM core barrel
130				(6)		Push 130.0-132.5
			Layers of stiff blue clay with high plasticity and silty blue clay with medium plasticity. Very thin streaks of sand. Small amounts of organic matter included		Small chips of organic material coming up in return water	
	138					4" fishtail
140			Layers of tan to brown sandy and silty clay.-Plasticity is generally low. Thin streaks of silty sand included and isolated gravel fragments to 1" in diameter observed.		Material firm to drop of rods	

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 64BB

(10) Jar (from drive barrel)
180.5-181.5
Unit wt., M.A.

(11) Drive (2" sample barrel)
181.5-182.0
Unconfined comp., M.C.

SAMPLE DATA

	(7)	(8)	(9)
SAMPLE NUMBER			
TYPE SAMPLE	Grab from core barrel	Drive (2" sample barrel)	Jar
DEPTH	148-153 interval	153.0-153.5	153.5-153.75
TEST RECOMMENDED	M.A., Unit wt., M.C.	M.A., M.C., Unconfined comp. Atterberg limits, Unit wt.	M.A., Unit wt.
LAB. NUMBER			

SOILS LAB. NOS.

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
150				(7)		NXM core barrel
	153.5				Blow count 0/6",10/3" barrel will not penetrate further.	Drive 153-153.75
			Blue-grey, very coarse-grained sand and fine gravel. Material consists of angular grains of quartz and ferromagnesian minerals. Material becoming coarser with depth	(8)	Drill vibrates and chatters	
160						
	162					
			Fine gravel with coarse-grained sand.		Drill vibrates and chatters excessively 4" drill rods rebound when dropped losing some water. Difficult drilling	4" fishtail
170						
	172					
			Medium to coarse-grained sand with thin streaks of blue clay and silt. Well packed material.		No vibration of rods. Firm to drop of drill rods	
	179					
180	180		Very coarse-grained sand and fine gravel		Drill rods vibrate and chatter	
				(10) (11)	Blow count 16/6",11/6", 21/6"	Drive 180.5-182.0
			Medium to very fine-grained blue-grey sand. Thin layers of silt and fine gravel included. The silt layers contain oxidized leaves, twigs, and other organic matter.			4" fishtail

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CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 64BB

SAMPLE DATA

SAMPLE NUMBER			
TYPE SAMPLE			
DEPTH			
TEST RECOMMENDED			
LAB. NUMBER			

SOILS LAB. NOS.

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
190						
					Drill vibrates at this depth	
200				No sample obtained	Blow count 20/6", 29/6"	Drive 200-201
	201		Bottom of hole		barrel will not penetrate further	
210						

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CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

DRILL LOG

Map attached

HOLE NUMBER 65BB LOCATION Grand Island, Junction Point. 750-feet S 63° W of hole 2BB barge lock structure test hole.

GROUND ELEV. 32.9 COUNTY Sacramento T 4N, R 3E, SEC 21K1, M.D.B.&M.

TOTAL DEPTH 194.0 DEPTH TO GROUND WATER 33.3 (9:00 AM 1/17/56) DATE DRILLED 1/11/56-1/17/56

SAMPLE DATA

SOILS LAB. NOS.

SAMPLE NUMBER			
TYPE SAMPLE			
DEPTH			
TEST RECOMMENDED			
LAB. NUMBER			

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
0						
			Medium to coarse-grained micaceous sand. Tan in color and very loosely packed--hydraulic fill.			6" augers
10						
20						
			29			

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CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 65BB

SAMPLE DATA

SAMPLE NUMBER	(1) and (2)	(3)	
TYPE SAMPLE	Drive (2")	Drive (2")	
DEPTH	51.5-52.5	66.0-67.5	
TEST RECOMMENDED	M.A., M.C., Unconfined Comp., unit wt.	M.A. unit wt.	
LAB. NUMBER			

SOILS LAB. NOS.

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
-30						6" augers
			Layers of gray-green, organic silt; charcoal-black, nonfibrous peat and blue-grey, medium to coarse-grained, micaceous sand		Forms 1" diameter balls and curls around augers Augers will push	
-40	42					
			Layers of gray, organic silt and fine-grained, grey, micaceous sand		Drilling with mud. 4" casino to 49.0 feet	Wash drive barrel
-50				(1 & 2)	Blow count 6/6",6/6", 8/6"	Drive 51.0-52.5
Ele,-26'	53 29 24					
					No core recovery	NXM core barrel
-60			Layers of slate-gray medium and fine-grained, micaceous sand. High percentage of ferromagnesian minerals			
				No sample obtained (3)	Impossible to push over 1.5 feet Blow Count	Push 64.5-65.5 Wash drive brl Drive 66.0-67.5

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-274

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CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 65BB

SAMPLE DATA

SAMPLE NUMBER	(4)	(5)	
TYPE SAMPLE	Drive (2")	Push (Shelby)	
DEPTH	82.5-83.5	101.0-102.5	
TEST RECOMMENDED	M.A., Unit Wt.	Consol., M.C., Unit Wt.	
LAB. NUMBER		Sensitivity, unconfined comp.	

SOILS LAB. NOS.	ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
	70					Very hard to drop of rods	4" fishtail
	80	84			(4)	Blow count 5/6",9/6" 10/6"	Drive 82.0-83.5
	90			Medium-grained, micaceous sand with streaks of silty sand and clayey sand.		Very hard to drop of rods.	4" fishtail
		98				Very hard to drop of rods	
		99		Gravel to 1" in. diameter		Drill vibrates excessively	
	100			Firm blue clay. High plasticity.	(5)	Pressure increased suddenly Difficult push	Push 101-102.
		104		Tan to brown silt and silty clay. Medium to low plasticity. Bits of oxidized, organic material and very thin sand streaks occur throughout.		Fairly firm to drop of rods	NXM core barrel

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SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 65BB

SAMPLE DATA

SAMPLE NUMBER	(6)	(7) and (8)	(9)
TYPE SAMPLE	Grab from core barrel	Drive (2")	Drive
DEPTH	112.0	120.5-121.5	142.0-142.5
TEST RECOMMENDED	M.C., Unit wt., M.A.,	M.C., Unit wt., Atterberg	M.A., Unit wt.,
LAB. NUMBER	Atterberg limits	limits, unconfined comp.	M.C.

SOILS LAB. NOS.	ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
	110				(6)		NAM core barrel
		115		Blue, firmly packed silt containing some dark-brown particles of organic matter. Filaments of white calcareous material and thin streaks of sand and clay included.		Pressure fluctuates. Fairly firm to drop of rods.	4" fishtail
	120				(7) & (8)	Blow count 10/6",19/6", 27/6"	Drive 120.0-121.5
		123		Layers of sand with silt streaks		Pressure decreased hard to drop of rods	
		126		Blue, firmly packed silt. Streaks of sand and clay. Same material as 115 to 123.		Pressure increased	4" fishtail
	130						
		135					
	140			Light-brown, silty, very fine-grained sand. Thin layers of clay.	(9)	Blow count 11/6",23/6" 25/6"	Drive 141.0-142.5
							4" fishtail

CALIFORNIA STATE DIVISION OF WATER RESOURCES
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HOLE NUMBER 65BB

SAMPLE DATA

SAMPLE NUMBER	(10)	(11)	
TYPE SAMPLE	Drive (2")	Drive	
DEPTH	150.0-151.0	170.0-171.0	
TEST RECOMMENDED	M.A., Unit wt.	M.A., Unit wt.	
LAB. NUMBER			

SOILS LAB. NOS.

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
150			Slate-gray medium to very coarse-grained sand. Minor amounts of mica but with a high percentage of ferromagnesian minerals.	(10)	25/6",41/6" too difficult to penetrate further	Drive 150.0-151.0
			Thin layers of fine gravel to 10 mm in diameter and layers of silty sand		Drill vibrates severely at some coarser layers	4" fishtail
160					Drill vibrates severely between 162-164' in depth	
					Very hard to drop of rods	
170				(11)	Blow count 20/6",31/6" too difficult to penetrate further	Drive 170.0-171.0
						4" fishtail
					Softer to drop of rods here.	
180					Very hard to drop of rods	
	183					
			Very coarse-grained sand and fine gravel (to 3 mm in diameter in returning mud and a particle 10 mm in diameter stuck on fishtail bit.		Drill vibrates severely below 183 feet in depth	

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CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 65BB

SAMPLE DATA

SAMPLE NUMBER			
TYPE SAMPLE			
DEPTH			
TEST RECOMMENDED			
LAB. NUMBER			

SOILS LAB. NOS.

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
190					Pressure decreases	4" fishtail
	194		Bottom of hole		Judged to be too difficult to drive.	
200						

Little Egbert Multi-Benefit Project
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CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

DRILL LOG

Map attached

HOLE NUMBER 66BB LOCATION Junction Point, Grand Island 831 feet S 63° west of 64BB. Barge lock structure test hole

GROUND ELEV. 26.7 COUNTY Sacramento T 4N, R 3E, SEC 21 11, M.D.B.&M.

TOTAL DEPTH 177.0 DEPTH TO GROUND WATER 13.9 (1/56) DATE DRILLED 1-17-56 - 1-19-56

SOILS LAB. NOS.

SAMPLE DATA

SAMPLE NUMBER			
TYPE SAMPLE			
DEPTH			
TEST RECOMMENDED			
LAB. NUMBER			

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
0	1		Brown sandy silt		Forms 1" diameter balls	6" augers
	5		Light tan, medium-grained, micaceous sand. Streaks of brown silt.			
10			Light tan, medium-grained, micaceous sand.			
20	25		Grey-green, organic silt with streaks of sand.		Curls around augers and forms 3" diameter balls	

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 66BB

SAMPLE DATA

SAMPLE NUMBER	(1)	(2)	(3)
TYPE SAMPLE	Push (Shelby)	Drive	Drive
DEPTH	51.0-52.5	62.0-62.5	62.5-63.5
TEST RECOMMENDED	Consol., M.A., M.C.,	Observation	M.A., Unit wt.,
LAB. NUMBER	Unit wt., triaxial shear		

SOILS LAB. NOS.	ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
	30						
		33					
		34		Light blue clay interbedded with black peat		Curls around augers	
				Dark-gray organic silt with thin streaks of micaceous sand			6" augers
	40						
		42					
							Wash Shelby tube
	50			Dark blue-gray silt with layers of very fine-grained, micaceous sand.	(1)	4" casing to 49.0 feet	Push (Shelby 51.0-52.5
				Somewhat organic (note color)			
				Sand content increases with depth		Bits of silt coming up in wash water	4" fishtail
						Very soft to drop of rods.	
	60						
		61					
				Dark blue-gray, medium-grained, micaceous sand	(2) & (3)	Fairly hard to drop of rods	Drive 62.0-63.5
						Blow count 7/6",13/6", 20/6"	4" fishtail
				Thin streaks of blue-gray clay and gray-green, organic silt			

Ele -15'

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Solano County, California Project No. 907.02 Plate No. A-280

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CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 66BB

SAMPLE DATA

SAMPLE NUMBER	(4)		
TYPE SAMPLE	Drive		
DEPTH	100-101.5		
TEST RECOMMENDED	M.A., Unit wt., observation		
LAB. NUMBER			

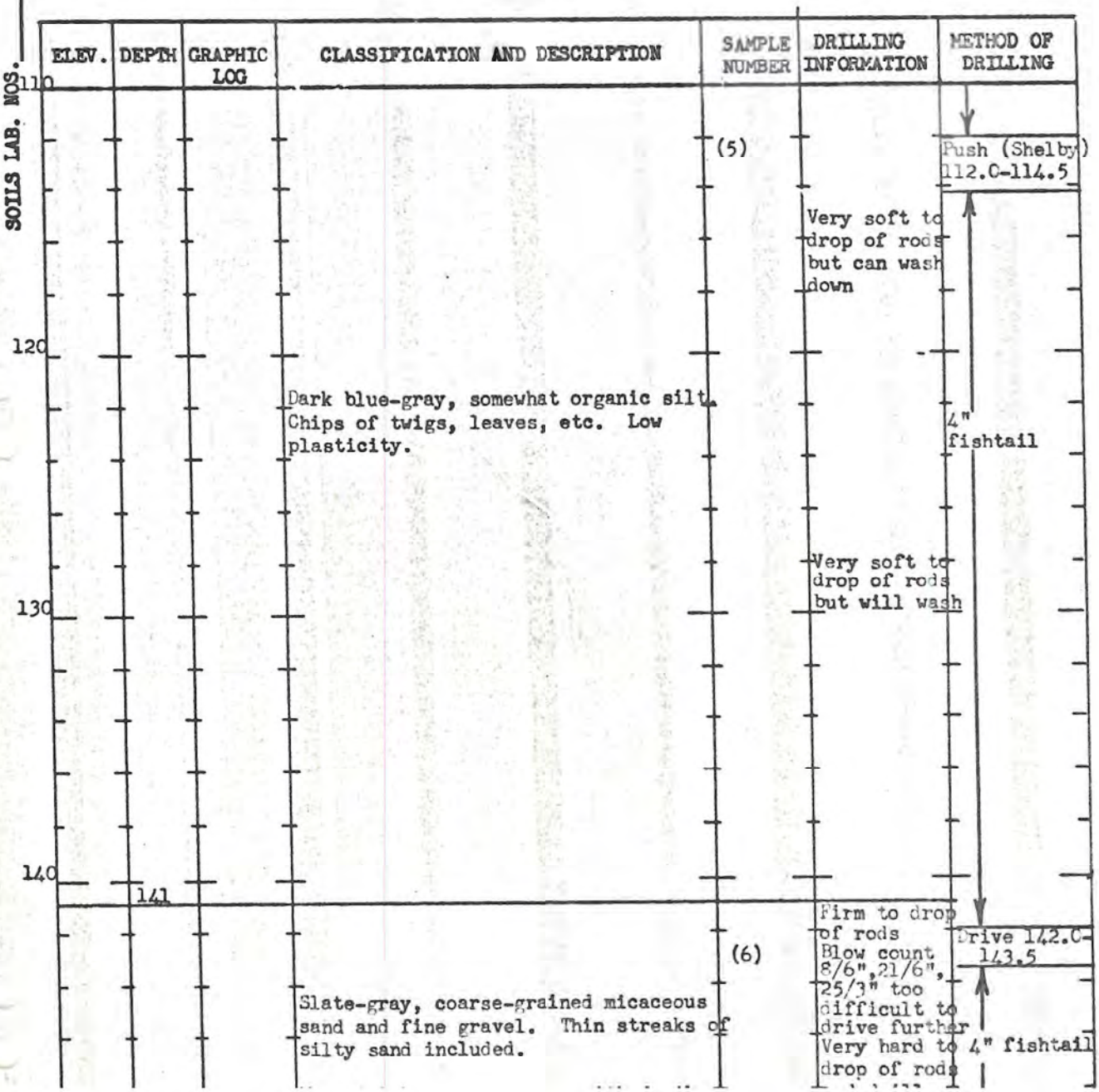
SOILS LAB. NOS.	ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
	70					Hard to drop of rods	
	80					Very hard to drop of rods	4" fishtail
	90						
		96				Drill vibrates	
	100			Medium to very coarse-grained sand with fine gravel (to 10 mm in diameter). Thin streaks of organic, gray green silk included.	(4)	Blow count 2/6", 8/6", 11/6"	Drive 100.0-101.5 4" fishtail

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 66BB

SAMPLE DATA

SAMPLE NUMBER	(5)	(6)	
TYPE SAMPLE	Push (Shelby)	Drive	
DEPTH	112.0-114.0	142.5-143.5	
TEST RECOMMENDED	M.C., M.A., Unit wt., consolidation	M.A., Unit wt.	
LAB. NUMBER			



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CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 66BB

SAMPLE DATA

SAMPLE NUMBER			
TYPE SAMPLE			
DEPTH			
TEST RECOMMENDED			
LAB. NUMBER			

SOILS LAB. NOS.

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
150					Gravel to 5 mm in diameter in wash water Slow, difficult drilling	
					Very hard to drop of rods and severe vibration - while drilling	4" fishtail
160						
	168					
170			Fine-gravel with streaks of even coarser material. Becomes coarser with depth.		Gravel binding rods Difficult drilling	
	177					
			Bottom of hole Too hard to drive			
180						

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scb-grand-67bb

CALIFORNIA STATE DIVISION OF WATER RESOURCES
FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

DRILL LOG

Map attached

NUMBER 67BBs LOCATION Junction Point, Grand Island. Test hole in dredged channel entrance to barge locks 520' S 62° W of 66 BB.

GROUND ELEV. 30.8 COUNTY Sacramento T 4N, R 3E, SEC 21L2, M.D.B.&M.

TOTAL DEPTH 58.0 DEPTH TO GROUND WATER _____ DATE DRILLED 1/19/56

SOILS LAB. NOS.

SAMPLE DATA

SAMPLE NUMBER			
TYPE SAMPLE			
DEPTH			
TEST RECOMMENDED			
LAB. NUMBER			

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
0	2		Tan, medium-grained, micaceous sand with thin streaks of silt			6" augers
10			Tan, medium to coarse-grained, micaceous sand			
20	23		Reddish brown medium to fine-grained silty sand			
30	29					

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CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 67BBs

SAMPLE DATA

SAMPLE NUMBER			
TYPE SAMPLE			
DEPTH			
TEST RECOMMENDED			
LAB. NUMBER			

SOILS LAB. NOS.

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
30						
40					Curls around augers and forms 2" diameter balls	6" augers
			Gray-green, organic silt with thin layers of medium-grained sand and very thin streaks of plastic blue clay.			
Ele. -15'						
			Sand content increases with depth			
50						Wash drive barrel
Ele-27'	58					
			Blue-gray micaceous sand			
60				No sample obtained	Blow count 6/6", 10/6", 10/6"	Drive 59.3-60.8
	60.8					
			Bottom of hole			

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-285

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CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

DRILL LOG

HOLE NUMBER 68BB LOCATION Junction Point, Grand Island, 675' southeast of the intersection of the asphalt levee road flanking the south side of Steamboat Slough and the asphalt road leading north-south across the USED fill area. 605 feet northeast of Hole 2BB.
GROUND ELEV. 10.6 COUNTY Sacramento T 4N, R 3E, SEC 2102, M.D.B.&M.

TOTAL DEPTH 170' DEPTH TO GROUND WATER 14.2 (1/25/56) DATE DRILLED 1/23/56 - 1/25/56

SAMPLE DATA

SOILS LAB. NOS.

SAMPLE NUMBER			
TYPE SAMPLE			
DEPTH			
TEST RECOMMENDED			
LAB. NUMBER			

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
0	2		Tan to brown silty, medium-grained micaceous sand			
	9		Gray-brown, medium-grained, micaceous sand			6" augers
10	12		Tan, silty, medium-grained, micaceous sand			
	16		Tan, coarse-grained, micaceous sand			
20			Dark gray to brown peaty silt with streaks of gray, micaceous sand at the top of the section. Brown fibers of peat included throughout.		Forms 2" diameter balls	
30						

scb-grand-68bb

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 68BB

SAMPLE DATA

SAMPLE NUMBER	(1)	(2)	
TYPE SAMPLE	Drive	Grab from core barrel	
DEPTH	60.0-60.5	64-65.0	
TEST RECOMMENDED	M.D., Unconfined comp.	M.C., Unit wt., Atterberg	
LAB. NUMBER	Unit wt., Atterberg Limits	Limits	
SOILS LAB. NOS.	Sensitivity		

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
30	31		Gray to gray-green organic silt with thin layers of blue-gray, coarse-grained, micaceous sand		Curls around augers	6" augers; Wash drive barrel
40					Augers can be pushed a little	
50					Soft to drop of rods Blow count 3/6", 4/6", 3/6"	Drive 50.0-51.5
	58				4" casing to 58.0 feet	Wash drive barrel
60			Layers of blue, very stiff clay with high plasticity and silty clay with low plasticity. Thin white filaments of calcareous material included throughout.	(1)	Firm to drop of rods Blow count 7/6", 10/6", 20/6"	Drive 59.0-60.5
				(2)		NXM core barrel
	68			No sample	Difficult push. Sand binds rods	Wash Shelby tube

scb-grand-68bb

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 68BB

SAMPLE DATA

SAMPLE NUMBER	(3)	(4)
TYPE SAMPLE	Undisturbed (Shelby)	Undisturbed (Shelby)
DEPTH	89.0-91.0	101.5-103.5
TEST RECOMMENDED	Consol. unconfined comp.	M.C., Atterberg Limits
LAB. NUMBER	M.C. Unit wt., Sensitivity (M.A.?)	

SOILS LAB. NOS.

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
70					Very hard to drop of rods	
			Slate-gray, coarse to medium-grained micaceous sand and fine gravel. Gravel particles to 10 mm. in diameter			4" fishtail
80						
	87					
					Sudden pressure increase	
90				(3)		Push (Shelby) 89.0-91.5
					Soft to drop of rods but will wash slightly	4" fishtail
			Layers of blue clay, silt, and silty clay. Brown particles of organic matter present in the clay and silty clay. Streaks of sand included. Plasticity of the clay is high. Plasticity of the silty clay is medium.			
100					Blow count 5/6", 7/6", 8/6"	Drive 99.0-100.5
				(4)	Difficult push	Push (Shelby) 100.5-103.5
			Sand content increases with depth			

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Solano County, California Project No. 907.02 Plate No. A-288

scb-grand-68bb

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 68BB

SAMPLE DATA

SAMPLE NUMBER	(5)	(6)	
TYPE SAMPLE	Jar from 2" liner	Undisturbed (2" liners)	
DEPTH	140.5-141.0	141.0-141.5	
TEST RECOMMENDED	M.A., M.C., Unit wt.	Unconfined comp.	
LAB. NUMBER	Atterberg Limits	Sensitivity	

SOILS LAB. NOS.	ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
	110						4" fishtail
	120				No sample obtained	Blow count 5/6", 6/6", 7/6"	Drive 120.0-121.5
						Firm to drop of rods	
	130						4" fishtail
	140				(5 & 6)		Push drive 5" 140.0-141.5
		144					4" fishtail

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-289

scb-grand-68bb

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 68BB

SAMPLE DATA

SAMPLE NUMBER	(7)		
TYPE SAMPLE	Drive		
DEPTH	151-151.5		
TEST RECOMMENDED	M.A., Unit wt		
LAB. NUMBER			

SOILS LAB. NOS.	ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
150					(7)	Blow count 5/6", 20/6", 40/6"	Drove 150.0-151.5
						Very hard to drop of rods	
						Drill vibrates excessively	4" fishtail
160				Blue-grey, very coarse-grained, micaceous sand and fine gravel			
						Drill vibrates	
170		170					
						Severe vibration	
				Bottom of hole			

scb-grand-69bb

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

DRILL LOG

HOLE NUMBER 69BB LOCATION Junction Point, Grand Island. Hole on north end of barrier across Sacramento River, 1000' west of the intersection of asphalt road across USED fill area and the asphalt levee road along the north flank of the Sacramento River.

GROUND ELEV. 20.3 COUNTY Sacramento T 4N, R 3E, SEC 21 P1, M.D.B.&M.

TOTAL DEPTH 120.0 DEPTH TO GROUND WATER 15.6 DATE DRILLED 1/26/56-1/27/56
(1/27/56-8:30 AM PST)

SOILS LAB. NOS.

SAMPLE DATA

SAMPLE NUMBER	(1)		
TYPE SAMPLE	Grab from augers		
DEPTH	20.0-24.0		
TEST RECOMMENDED	M.C., Atterberg Limits		
LAB. NUMBER			

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
0			Tan, medium to coarse-grained, micaceous sand			6" augers
	8					
10	10		Tan, coarse-grained, micaceous sand with streaks of brown silt		Silt forms 1" diameter balls	
			Tan, coarse-grained, micaceous sand.			
	19					
20			Gray-green to dark blue or brown organic to peaty silt and clayey silt. Generally highly plastic	(1)	Very soft	
	26				Lost sample	Push(Shelby) 25.0-26.0
30					4" casing to	Wash Shelby tube

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Solano County, California Project No. 907.02 Plate No. A-291

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CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 69BB

SAMPLE DATA

	(2)	(3)	(4)
SAMPLE NUMBER	(2)	(3)	(4)
TYPE SAMPLE	Shelby (Push)	Drive	Drive
DEPTH	30.0-31.0	41.0-41.5	50.5-51.5
TEST RECOMMENDED	M.A.	M.A., Unit wt.	M.A., Unit wt.
LAB. NUMBER			

SOILS LAB. NOS.	ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
		30			(2)	Easy push	Push (Shelby) 30.0-31.0
						Fairly firm to drop of rods	4" fishtail
		40		Layers of blue-gray, medium-grained, micaceous sand and dark blue to dark brown organic to peaty silt. Large amounts of twigs, leaves, and other organic matter in the sand layers	(3)	Blow count 2/6", 7/6", 8/6"	Drive 40.0-41.5
	Ele -25'	45				Very soft to drop of rods	4" fishtail
						Firm to drop of rods	
		50			(4)	Blow count 10/6", 12/6", 19/6"	Drive 50.0-51.5
				Dark blue, medium to very coarse-grained, micaceous sand. Tiny black, oxidized particles of twigs, leaves, etc. interspersed throughout.			
		60				Hard to drop of rods	4" fishtail

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Solano County, California Project No. 907.02 Plate No. A-292

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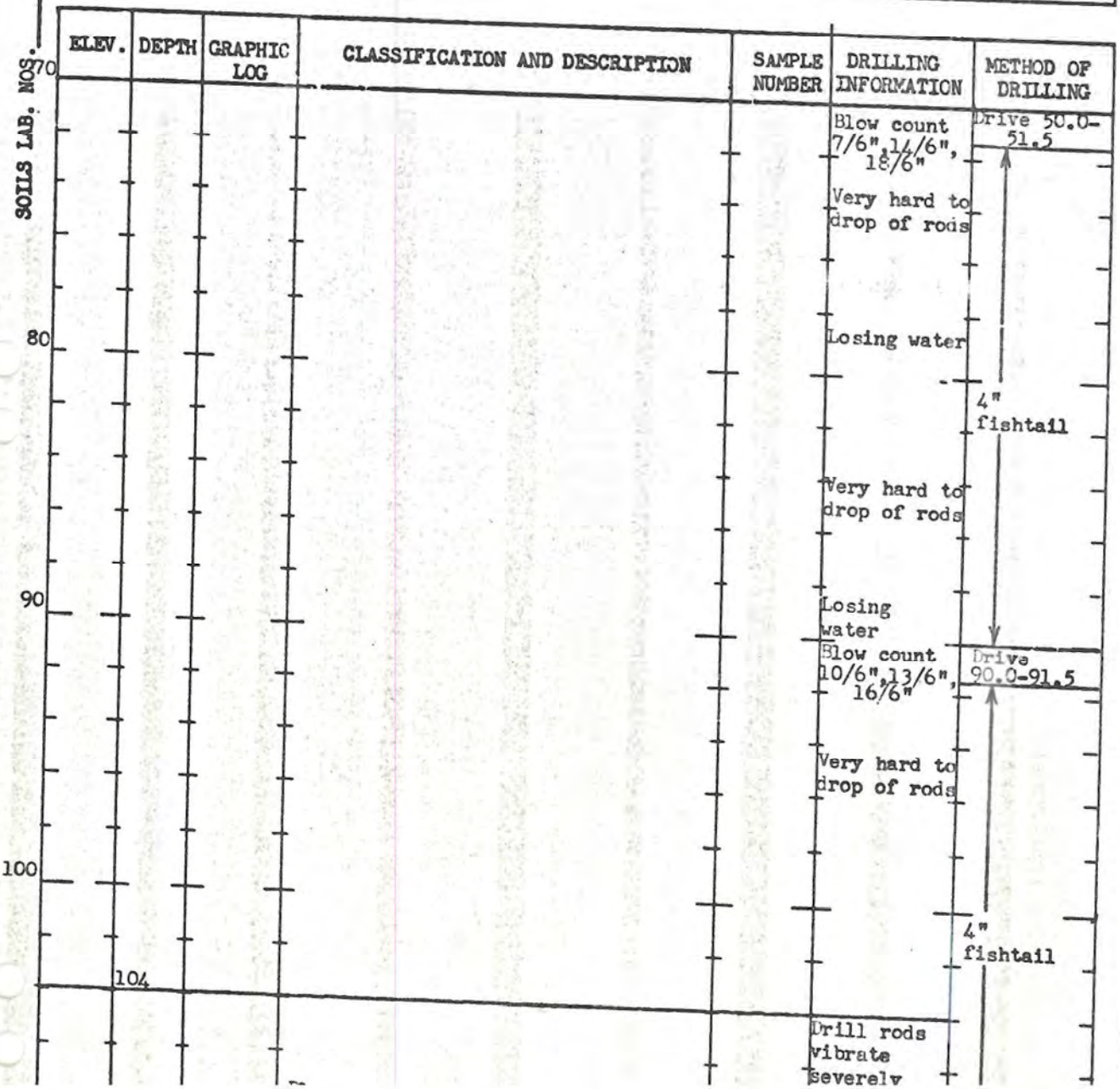
CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 69BB

SAMPLE DATA

SAMPLE NUMBER	(5)	(6)	
TYPE SAMPLE	Drive	Drive	
DEPTH	50.0-51.5	90.5-91.5	
TEST RECOMMENDED	M.A., Unit wt.	M.A., Unit wt.	
LAB. NUMBER			



scb-grand-69bb

CALIFORNIA STATE DIVISION OF WATER RESOURCES
SAN FRANCISCO BAY SALINITY CONTROL BARRIER INVESTIGATION

HOLE NUMBER 69BB

SAMPLE DATA

SAMPLE NUMBER			
TYPE SAMPLE			
DEPTH			
TEST RECOMMENDED			
LAB. NUMBER			

SOILS LAB. NOS.

ELEV.	DEPTH	GRAPHIC LOG	CLASSIFICATION AND DESCRIPTION	SAMPLE NUMBER	DRILLING INFORMATION	METHOD OF DRILLING
110					Very severe vibration of drill rods	4" fishtail
					Losing water	
120	120		Bottom of hole			
130						

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES
SALINITY CONTROL BARRIER INVESTIGATION

Grand Island - Structure 2"

LOCATION LONGITUDE 121° 35' 58" LATITUDE 38° 15' 10"

DESCRIPTION Hole located 100 yds ± south of confluence of Steamboat & Sutter Sloughs, at Toe of Levee, Grand Island, Sacramento Co.

BORING NO GI-SI-1
SHEET NO 1 OF 3
DATE DRILLED 4/17-18/58
GROUND ELEVATION

DIST FROM SURF FEET	GRAPHIC LOG	FIELD TUBE NO	SOILS LAB NO	DRILLING METHOD 1/	PER CENT RECOVERY	WEIGHT PER TUBE GRAMS	WET DENSITY LB/FT³	DRILLING INFORMATION	LOG OF MATERIAL
1			—					Shovel	Silt, micaceous, medium to dark brown color with rust brown streaks & blebs common
2			—						
3		1	—						
4								C & W	
5									
6									
7									
8		A	—	1				Drive	Silt & very fine sand, interbedded. Beds 1-2" thick. Bedding at 5°. Silt is dark brownish gray. Sand is dark greenish gray. Micaceous (both sand & silt). Organic fibres occasionally & also wood fragments
9		B	—	2	75%	789	109		
10		C	—	3		722	94		
11		D	B55-[illegible]					C & W	
12		E	B55-[illegible]						
13		F	—						
14		A	—	1				Drive	Silt to very fine sand, Quartzose & micaceous. Dark gray color. Occasional organic fibre
15		B	—	3	75%	792	110		
16		C	—	4		803	112	C & W	
17		D	B55-[illegible]						
18		E	B55-[illegible]					Drive	Sand, medium to coarse grained, Quartzose & micaceous. Medium gray color. Grains subrounded to rounded. Occasional wood fragments (large), probably old limbs
19		F	—						
20		A	—	5					
21		B	—	9	75%	820	116		
22		C	—	13		830	118	C & W	
23		D	B55-[illegible]						
24		E	B55-[illegible]					Drive	Sand as above
25		F	—						
		A	—	10					
		B	—	16	60%	767	104		
		C	—	17		854	129		
		D	B55-[illegible]						
		E	B55-[illegible]						
		F	—						

REMARKS Low wet density of 2E account wood fragment in bottom. Low density of 5D account wood fragment in top.

LOGGED BY McKinney
DRILLED BY Ackley

1/ NUMERALS IN DRILLING METHOD COLUMN INDICATE DRIVE BLOWS PER FOOT WITH 175 LB HAMMER 2.5' DROP

SECONDARY SAMPLER DRILLING LOG FORM NO DWR 105 - APRIL 9, 1957

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES
SALINITY CONTROL BARRIER INVESTIGATION

LOCATION LONGITUDE 121° ___' ___" LATITUDE 3 ___° ___' ___"
DESCRIPTION See Sheet #1

BORING NO GI-SC1
SHEET NO 2 OF 3
DATE DRILLED 4/17-18/58
GROUND ELEVATION

DIST FROM SURF FEET	GRAPHIC LOG	FIELD TUBE NO	SOILS LAB NO	DRILLING METHOD 1/	PER CENT RECOVERY	WEIGHT PER TUBE GRAMS	WET DENSITY LBS/FT³	DRILLING INFORMATION	LOG OF MATERIAL
26	0000 000 0000							2" DB C & W	
27	000 0000								
28	000 0000	NR	A — B — C —	5				Drive	Probably sand as above & below.
29	000 0000		D — E —	9	00%				
30	000 0000	6	F —	12					
31	000 0000							C & W	
32	000 0000		A — B — C —	9				Drive	Sand, medium to coarse grained with very coarse grains not uncommon. Quartzose & micaceous. Mica moderately abundant. Medium gray color. Wood chips rather common both singly & also in an occasional thin bed < 1cmm thick.
33	000 0000		D [illegible]	12	60%	840	121		
34	000 0000	7	E [illegible] F —	19		823	117		
35	000 0000							C & W	
36	000 0000								
37	000 0000								
38	000 0000		A — B — C —	11				Drive	Sand as above
39	000 0000		D [illegible]	17	75%	852	123		
40	000 0000	8	E [illegible] F —	20		855	124		
41								C & W	
42									
43			A — B — C —	23				Drive	Silt, somewhat clayey in places. Very slightly micaceous. Medium greenish gray to green-gray color. Rather firm
44			D [illegible]	33	55%	868	127		
45		9	E [illegible] F —	52		885	131		
46			A — B — C —	24				C & W Drive	Silt, with sand content nil to appreciable. Mica present but scarce. Sand appears to be quartzose. Color is light to medium green-gray. Firm
47			D [illegible]	40					
48		10	E [illegible] F —	50	55%	888	131		
49						894	133		
50								C & W	
									Sand, silty, as below

REMARKS

LOGGED BY McKinney
DRILLED BY Ackley

1/ NUMERALS IN DRILLING METHOD COLUMN INDICATE DRIVE BLOWS PER FOOT WITH 175 LB HAMMER 215' DROP

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES
SALINITY CONTROL BARRIER INVESTIGATION

LOCATION LONGITUDE 121° ___' ___" LATITUDE 3__° ___' ___"
DESCRIPTION See Sheet #1

BORING NO GI-SE1
SHEET NO 3 OF 3
DATE DRILLED 4/17-18/58
GROUND ELEVATION

DIST FROM SURF FEET	GRAPHIC LOG	FIELD TUBE NO	SOILS LAB NO	DRILLING METHOD 1/	PER CENT RECOVERY	WEIGHT PER TUBE GRAMS	WET DENSITY LBS/FT.³	DRILLING INFORMATION	LOG OF MATERIAL
								C & W	Sand, silty, Quartzose &
51		A	—	17				Drive	micaceous. Mica is scarce.
		B	—						Sand is fine to very fine
52		C	—	38					grained. Color is light to
		D	[illegible]		65%	896	133		medium gray-green.
53		E	[illegible]	62		884	131		Firm.
		11 F	—					C & W	
54									
55		A	—	13				Drive	Silt, sandy silt & silty
56		B	—						sand, quartzose & micaceous
		C	—	29	70%				color varies from light
57		D	[illegible]			839	121		gray-green to medium
		E	[illegible]	59		862	125		gray green. The higher the
58		12 F	—					C & W	silt content the lighter the color.
59									
60									
61		A	—	14				Drive	clay, silty. Light to medium
62		B	—						greenish gray color.
		C	—	26	75%				micaceous. Plastic
63		D	[illegible]			766	104		
		E	[illegible]	43		753	102		
64		13 F	—					C & W	Becomes silt, micaceous with very fine sand. Medium gray color
65									
66									
67		A	—	9				Drive	Silt, micaceous, some
68		B	—						very fine sand. Medium
		C	—	17	75%				gray color
69		D	[illegible]			802	112		
		E	[illegible]	33		788	109		
70 (3 ft above of hole)		14 F	—						
71									
72									
73									
74									
75									

REMARKS

LOGGED BY McKinney
DRILLED BY Ackley

1/ NUMERALS IN DRILLING METHOD COLUMN INDICATE DRIVE BLOWS PER FOOT WITH 175 LB HAMMER 2.5' DROP

SECONDARY SAMPLER DRILLING LOG FORM NO DWR 103 - APRIL 9, 1957

scb-ryer-ri-si-1

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES
SALINITY CONTROL BARRIER INVESTIGATION

LOCATION LONGITUDE 121° 36' 07" LATITUDE 38° 15' 12"
DESCRIPTION South of confluence of Steamboat & Sutter Sloughs

BORING NO RE-ST 1
SHEET NO 1 OF 3
DATE DRILLED 4/1-4/58
GROUND ELEVATION

DIST FROM SURF FEET	GRAPHIC LOG	FIELD TUBE NO	SOILS LAB NO	DRILLING METHOD V	PER CENT RECOVERY	WEIGHT PER TUBE GRAMS	WET DENSITY LBS/FT³	DRILLING INFORMATION	LOG OF MATERIAL
1								Fish Tail	Silt, micaceous. Some very fine sand. Medium brown color. Occasional organic fibres which are probably roots.
2									
3									
4									
5									
6									
7		A	—	3	40%			2" OD Drive	Silt, micaceous. Medium grayish brown to medium brownish gray color. Rust brown streaks & blebs not uncommon. Rather soft & moist. Few organic fibres which
8		B	—						
9		C	—	5					
		D	—						
	1	E	25244	6		807	113		
10		F	25345			796	111	C & W	are probably roots.
11									
12								Drive	Silt as above
		A	—	3					
13		B	—						
		C	—	4	75%				
14		D	25346			805	112		
		E	25247	9		798	111		
15		F	—					C & W	Silt with few peat fibres. Medium to dark brownish gray to grayish brown color. Micaceous.
16		2							
17								Drive	Silt, organic & peaty. Micaceous dark brownish gray color. Occasional 1" thick concentration of reddish brown peat fibres. Peat fibres also randomly scattered in silt.
		A	—	3					
18		B	—						
		C	—	5	70%				
19		D	25348			665	86		
		E	25249	7		663	86		
20		F	—					C & W	
	3								
21									
22								Drive	Silt as above. Few light to medium brown peat fibres. Lenses of laminated black peat 10 mm thick x 25 mm long not uncommon.
		A	—	6					
23		B	—						
		C	—						
24		D	—	6	45%				
		E	25250			717	93		
25		F	25251	6		710	92		
	4								

REMARKS

LOGGED BY McKinney
DRILLED BY Acklen

V NUMERALS IN DRILLING METHOD COLUMN INDICATE DRIVE BLOWS PER FOOT WITH 175 LB HAMMER 24" DROP

SECONDARY SAMPLER DRILLING LOG FORM NO DWR 103 - APRIL 9, 1951

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-298

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES
SALINITY CONTROL BARRIER INVESTIGATION

LOCATION LONGITUDE 121° ___' ___" LATITUDE 3 ___° ___' ___"
DESCRIPTION See Sheet #1

BORING NO RI-SC1
SHEET NO 2 OF 3
DATE DRILLED 4/1-4/58
GROUND ELEVATION

DIST FROM SURF FEET	GRAPHIC LOG	FIELD TUBE NO	SOILS LAB NO	DRILLING METHOD 1/	PER CENT RECOVERY	WEIGHT PER TUBE GRAMS	WET DENSITY LBS/FT³	DRILLING INFORMATION	LOG OF MATERIAL
								C&W	Silt, organic & peaty. Peat fibres more or less discontinuous. Micaceous. Medium to dark brownish gray to greenish gray color. Some lenses of decomposed peat 4x25-30 mm. Color is very dark brown to black.
26									
27		A	—	9				Drive	
		B	—						
28		C	—	7	45%				
		D	—						
29		E	[illegible]	8		759	103		
		F	[illegible]			712	92		
30								C&W	
31									
32		A	—	10				Drive	Silt, clayey to clay silty. Organic. Few discontinuous peat fibres. Medium grayish green color with some white streaks & blebs towards bottom. Occasional pebble 5-8 mm in diam. in bottom tube.
		B	—						
33		C	—	12	60%				
		D	[illegible]			749	100		
34		E	[illegible]	15		752	101		
		F	—						
35								C&W	
36									
37		A	—	15				Drive	Silt, clayey. Medium to light greenish gray color. Few pebbles as above towards top. Light green streaks & blebs common. Micaceous. Quite hard & dense in F tube
		B	—						
38		C	[illegible]	30	75%	858	125		
		D	[illegible]			832	119		
39		E	[illegible]	54		836	120		
		F	—						
40								C&W	
41		C	—	104				Drive	Siltstone. Light to medium grayish green color. Hard & indurated.
		D	—						
42		E	[illegible]	156	55%	832	119		
		F	[illegible]			857	124		
43								C&W	
44									Washings indicate as above but somewhat sandy.
45									
46									
47		A	—	35				Drive	Sand, fine to very fine grained. Quartzose & micaceous. Medium to dark grayish green color. Occasional light colored streaks & blebs. Occasional silt lense to 1" thick.
		B	—						
48		C	—	59	65%	847	122		
		D	[illegible]			843	122		
49		E	[illegible]	67					
		F	—						
50									

REMARKS

LOGGED BY McKinney
DRILLED BY Ackley

1/ NUMERALS IN DRILLING METHOD COLUMN INDICATE DRIVE BLOWS PER FOOT WITH 175 LB HAMMER 2.5' DROP

SECONDARY SAMPLER DRILLING LOG FORM NO DWR 103 - APRIL 9, 1957

scb-ryer-ri-si-1

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES
SALINITY CONTROL BARRIER INVESTIGATION

LOCATION LONGITUDE 121° ___' ___" LATITUDE 3__" ___' ___"
DESCRIPTION See Sheet #1

BORING NO RI-SCI
SHEET NO 3 OF 3
DATE DRILLED 4/1-4/58
GROUND ELEVATION

DIST FROM SURF FEET	GRAPHIC LOG	FIELD TUBE NO		SOILS LAB NO	DRILLING METHOD V	PER CENT RECOVERY	WEIGHT PER TUBE GRAMS	WET DENSITY LBS/FT³	DRILLING INFORMATION	LOG OF MATERIAL
									C & W	
51									↓	
52			A	=	24				Drive	Silt to very fine sand. Sparsely micaceous. Light
53			B	=						
			C	—	47	60%	819	116		To medium greyish green
54			D	[illegible]			821	116		To green-gray color.
		10	E	[illegible]	86				↓	
55			F	—					C & W	
56									↓	
57			A	=	29				Drive	Silt to very fine sand
58			B	=						as above but Medium To
			C	[illegible]	46	60%	817	115		dark greyish green color
59			D	[illegible]			823	117		
			E	—	87				↓	
60		11	F	[illegible]			861	125	C & W	Sand, fine to very fine
61										grained. Quartzose & micaceous
										Dark greenish-gray color
62									↓	
			A	=	29				Drive	Sand fine to very fine grained
63			B	=						with some silt. Quartzose &
			C	—	67	75%	833	119		micaceous. Medium green-gray
64			D	[illegible]			870	127		To dark gray color.
			E	[illegible]	66				↓	Sand is dark gray color.
65		12	F	—					C & W	Silty material is greenish gray
66										Sandy silty material appears
									↓	to be somewhat interbedded.
67									Drive	
			A	=	32					Sand, very fine grained
68			B	=						To silt, micaceous, Quartzose
			C	—	43	60%	803	112		Medium To dark gray color
69			D	[illegible]			817	115		
		13	E	[illegible]	61				↓	
70			F	—					C & W	
71									↓	
72									Drive	Silt, clayey To clay silty,
			A	=	11					occasional mica flakes.
73			B	=						Dark greenish gray color.
			C	—	22	75%	792	110		Quite soft & plastic
74			D	[illegible]			803	112		
			E	[illegible]	26				↓	
75		14	F	—						

Bottom of Hole

REMARKS

LOGGED BY McKinney
DRILLED BY Akley

V NUMERALS IN DRILLING METHOD COLUMN INDICATE DRIVE BLOWS PER FOOT WITH 175 LB. HAMMER 24" DROP
SECONDARY SAMPLER DRILLING LOG FORM NO. D-WR 103 APRIL 9, 19[illegible]

scb-ryer-ss-1

KINGHORN McGREGOR BORINGS

STEAM DONT SLOUGH (RYER ISL)

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES
SALINITY CONTROL BARRIER INVESTIGATION

CHIPPS ISL. SITE

LOCATION LONGITUDE 121° 36' 05" LATITUDE 38° 06' 10"
DESCRIPTION SOLE @ TOE OF LEVEE ON SOLANO CO. FACE 1/2 WAY UP THE TOE OF SLOPE 124

BORING NO S.S-1
SHEET NO 1 OF 2
DATE DRILLED 9-11-58
GROUND ELEVATION

DIST. FROM SURF FEET	ELEVATION	FIELD TUBE NO	SOILS LAB NO	BLOWS PER FOOT	PER CENT RECOVERY	WEIGHT PER TUBE GRAMS	WET DENSITY LBS/FT³	UNCONF COMP STRENGTH TEST NO	UNCONF COMP STRENGTH KG/CM²	LOG OF MATERIAL
										WATER SAMPLER
				150#						150# 30" FALL HAMMER
										TOP SOIL
1										
2										
3										FINE & MED SAND SANDY
4	CLF	1	B5402		76%	1625	117.2			TOP SOIL, LOW H2O CONTENT
5										LITTLE TO NO MICA, BROWN
6										IN COLOR.
7										
8										SILT-CLAY MATRIX, GREY IN
9		2	B5401		64%	1810	110.5	T		COLOR, FOSSILS, HIGH
10										MOISTURE CONTENT, SLIGHTLY
11										GREASY.
12										
13										BLUE-GREY CLAY, SLIGHTLY
14		3	B5402		60%	1959	124	T		TACKY, CLAY & ORG. STIFF IN
15										PLACE, LOW MOISTURE
16				PUSH						CONTENT, RUST COLORED
17					OK					STREAKS THROUGH OUT.
18										SAND, WITH FEAT UP TO
19		4	B5403		12%	1601	121	T		20% ±, STIFF IN PLACE
20										FEW CLAY & GRAVEL SEAMS
21										LOW H2O CONTENT, FINE
22										TO ½" IN LENGTH,
23		5								SOLID IN PLACE.
24										NO RECOVERY
25										

REMARKS
BOTTOM OF HOLE @ 130'

PRIMARY SAMPLER DRILLING LOG FORM NO D-WR-103 AUGUST 29 1956

(RYER ISL.)
STEAMBOAT
SLOUGH

scb-ryer-ss-1

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES
SALINITY CONTROL BARRIER INVESTIGATION

STRATIGRAPHIC SITE

LOCATION LONGITUDE 121° 35' 02" LATITUDE 38° 02' 11"
DESCRIPTION SEE SHEET #1

BORING NO CS-1
SHEET NO 2 OF 2
DATE DRILLED 4-15-58
GROUND ELEVATION

PORTER SNAPPER

DIST. FROM SURF. FEET	ELEVATION	FIELD TUBE NO	SOILS LAB NO	BLOWS PER FOOT	PER CENT RECOVERY	WEIGHT PER TUBE GRAMS	WET DENSITY LBS/FT.³	UNCONF COMP STRENGTH TEST NO	UNCONF COMP STRENGTH KG/CM²	LOG OF MATERIAL
										4" DEEP SAMPLER
1				3						
2				4						
3		A		6						SOFT 5 PER CENT MATRIX, SLIGHTLY MICA, USEL IN C
4		B		7						THICK SEAT, REGULAR INCLUDES TO TOP OF LOG,
5		C		7						SLIGHTLY SHELL, LOW WATER CONTENT, GRASSY AND WET.
6		D		2						
7		E		4						
8		A		5						
9		B		7						SOFT SILTY CLAYEY SAND MATERIAL AS ABOVE.
10		C		10						
11		D		10						
12		E		12						
13		A		14						BLUE-GREEN CLAY, DRY CALCAREOUS, VERY LOW H2O CONTENT, SLIGHT GRIT,
14		B	SS#103	24	100%	1961	108.1	2		ROCK LINE CANTILES, THROUGH CUT.
15		C		35						
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

REMARKS SEE SHEET #1

PRIMARY SAMPLER DRILLING LOG FORM NO DWR 103 - AUGUST 29 1956

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. A-302

SLOUGH
(RYER ISL.)

scb-ryer-ss-2

McGREGOR
ROBBINS

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES
SALINITY CONTROL BARRIER INVESTIGATION

STRUCTURE SITE

LOCATION LONGITUDE 121° 12' 17" LATITUDE 38° 36' 02"
DESCRIPTION HOLE @ TOE OF LEVEE, 250' [illegible] TIP OF SUTTER ISL.

BORING NO SS-2
SHEET NO 1 OF 2
DATE DRILLED 4-15-58
GROUND ELEVATION

DIST. FROM SURF FEET	ELEVATION	FIELD TUBE NO	SOILS LAB NO.	BLOWS PER FOOT	PER CENT RECOVERY	WEIGHT PER TUBE GRAMS	WET DENSITY LBS/FT.³	UNCONF COMP. STRENGTH TEST NO	UNCONF COMP. STRENGTH KG/CM²	LOG OF MATERIAL
				PUSH						150# DROP HAMMER
1		CLOSED								TOP SOIL
2										
3			A							FINE & MED GRAIN SANDY
			B							TOP SOIL, VERY LITTLE
4	M.A.	1	C							MICA, BROWN IN COLOR, LOW
			D	BS465		[illegible]	179.7	91.5		MOISTURE CONTENT.
			E							
5			F							
6		CLOSED		PUSH						
7										
8			A							
		2	B							
9			C		60%					NO RECOVERY
			D							
10			E							
			F							
11		CLOSED		PUSH						
12										
13			A							ORGANIC CLAYISH SILT, PRE-
			B							DOMINANTLY SILT, BLUE
14		3	C							GREY IN COLOR, CLASTIC
			D	BS466		70%	153.4	[illegible]	(1)	MATERIAL, INTERBEDDED
			E							WITH VEGETABLE DEPOSITS,
15			F							SLIGHT CLAY ODOR, MED. H2O
16		CLOSED		2						CONTENT.
17				7						
18			A	7						COARSE GRAIN SAND, BLUE-
			B							GREY IN COLOR, PREDOMIN-
19	MA	4	C	8						ANTLY QUARTZ & MICA,
			D	BS467		64%	205.7	115.7		VERY CLEAN, MED. MOISTURE
			E							CONTENT.
20			F	6						
21		CLOSED		6						
22				7						
23			A	5						SAME AS ABOVE
			B		42%					LOWER H2O
24	M.A.	5	C							
			D	BS468	16		211.5	121.5		
			E							
25			F	8						

REMARKS BOTTOM OF HOLE @ 40'

PRIMARY SAMPLER DRILLING LOG FORM NO DWR 103 - AUGUST 29, 1956

STEAMBOAT SLOUGH (RYER ISL)

scb-ryer-ss-2

MAGNECORE ROBBINS

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES
SALINITY CONTROL BARRIER INVESTIGATION

STRUCTURE SITE

LOCATION LONGITUDE 121° 42' 12" LATITUDE 38° 04' 32"
DESCRIPTION SEE SHEET #1

BORING NO SS-2
SHEET NO 2 OF 2
DATE DRILLED 2-15-58
GROUND ELEVATION

IMPORTED SAMPLES

DIST. FROM SURF FEET	ELEVATION	FIELD TUBE NO	SOILS LAB NO.	BLOWS PER FOOT	PER CENT RECOVERY	WEIGHT PER TUBE GRAMS	WET DENSITY LBS/FT.³	UNCONF COMP STRENGTH TEST NO	UNCONF COMP STRENGTH KG/CM²	LOG OF MATERIAL
		CLOSED		6						15" STEEL SHOE
20 1				5						
2										SAND, MED. & FINE GRAIN,
3		A		2						LIGHT BLUE-GRAY IN COLOR,
4		B								CLEAN, LIGHT & MED. RIGHT
	MA.	C		4	GAV					MED & FINE MED. CONTENT
SAND 5		D	B5167		10 A1	2183	1183			CHANGE IN CUT TO DARK
6		E		3						GRAY SILT-CLAY MATRIX.
7		F								ABSENCE OF SHELL IN SILT
		CLOSED		3						OVERALL CONSTIS. GRAY MUD
8										SLIGHT CLAY ODOR.
9				3						
10		A		7						ORGANIC SILT-CLAY, DEF-
11		B								INITE SILT, DK. BROWN
12		C								& VERY FIBROUS, CARBON
13	MA	D	B5172	6	WAV	A-1 2193	1143			RICH, GRASSLIKE, SOFT,
14		E	B5170	5		A-2 2180	1183	2		CHANGE IN 3" TUBE TO
15		F								A FINE GRAIN SAND, SMALL
		CLOSED		13						AMOUNT OF SILT THROUGH
16				14						OUT, CHANGE BACK TO ORG.
17										SILT IN 3" TUBE.
18		A		41						
19		B			30%					BLUE-GREY CLAY, VERY
20		C		52						STIFF IN PLACE, SLIGHTLY
21		D	B5171			A-1 2195	1243	3		TRIXY WHEN WET, CLAY
22		E		70						ORG. MINGLED WITH FINE
23		F								GRAIN SAND & SILT, VERY
24										LOW H2O CONTENT,
25										FIRMLY.

REMARKS SEE SHEET #1

PRIMARY SAMPLER DRILLING LOG FORM NO DWR 103 - AUGUST 29, 1956

KLEINFELDER

Date Completed: 6/8/90
Logged By: AEM
Total Depth: 41.5 feet

Surface Conditions: Edge of Corn Field.
Groundwater: Encountered at 6.5 foot depth.

Depth, ft	FIELD: Sample	FIELD: Blows/ft	LABORATORY: Dry Density pcf	LABORATORY: Moisture Content %	LABORATORY: Compress. Strength ksf	LABORATORY: Other Tests	DESCRIPTION (Soil Classification According to USCS)
							(OL) CLAYEY SILT - Tan, organic, Moist
5		6				CONSOL	(OL) CLAYEY SILT - Grey Tan, Medium Stiff, Slightly Organic
							(OL) CLAYEY SILT - Grey, Soft, Organic
10		3	66	54			
15							(PT) SILTY CLAYEY PEAT - Dark Grey
20		3					(OL) CLAYEY SILT - Black Grey, Soft, Organic
							(OL) CLAYEY SILT - Dark Grey, Organic
25		6	85	61	1.0		(OL) CLAYEY SILT - Dark Grey, Grades More Clayey, Medium Stiff, Organic
							(OL) CLAYEY SILT - Blue Grey, Soft, Organic
30		3					
35							(OL) CLAYEY SILT - Blue Grey, Medium Stiff, Organic

KLEINFELDER

PROJECT NO. 20-3282-01

Isleton River Park
Isleton, California

LOG OF BORING B-1

PLATE 1 of 2

A-3

Depth, ft	FIELD: Sample	FIELD: Blows/ft	LABORATORY: Dry Density pcf	LABORATORY: Moisture Content %	LABORATORY: Compress. Strength ksf	LABORATORY: Other Tests	DESCRIPTION
							(Continued from previous plate)
		7	86	31			
40		6					(ML) CLAYEY SILT - Tan Grey, Medium Stiff
							(SM) SILTY SAND - Tan Grey, Very Fine to Fine Grained
45							END OF BORING
50							
55							
60							
65							
70							
75							

KLEINFELDER

PROJECT NO. 20-3282-01

Isleton River Park
Isleton, California

LOG OF BORING B-1

PLATE 2 of 2

A-3

isl-rp-b2

Date Completed: 6/8/90
Logged By: AEM
Total Depth: 41.5 feet

Surface Conditions: Edge of Corn Field.
Groundwater: Encountered at 5 foot depth.

Depth, ft	FIELD: Sample	FIELD: Blows/ft	LABORATORY: Dry Density pcf	LABORATORY: Moisture Content %	LABORATORY: Compress. Strength ksf	LABORATORY: Other Tests	DESCRIPTION (Soil Classification According to USCS)
5		2	42	69		PI = 8	(OL) CLAYEY SILT - Dark Brown Grey, Very Organic, Very Soft, Moist
10		5	77	37	0.3		(PT) CLAYEY SILTY PEAT - Dark Grey Brown
							(OL) CLAYEY SILT - Blue Grey, Medium Stiff, Organic
15		8					(OL) CLAYEY SILT - Light Grey, Slightly Clayey, Organic
							(OL) CLAYEY SILT - Blue Grey, Medium Stiff to Stiff, Organic
20		4					(OL) SANDY SILT - Blue Grey, Very Fine Grained, Soft to Medium Stiff, Slightly Organic
25		4					(OL) CLAYEY SILT - Grey, Soft to Medium Stiff, Organic
30		3					
35							

KLEINFELDER

PROJECT NO. 20-3282-01

Isleton River Park
Isleton, California

LOG OF BORING B-2

PLATE 1 of 2

A-4

Depth, ft	FIELD Sample	FIELD Blows/ft	LABORATORY Dry Density pcf	LABORATORY Moisture Content %	LABORATORY Compress. Strength ksf	LABORATORY Other Tests	DESCRIPTION
							(Continued from previous plate)
		4	54	30	0.4		
							(OL) CLAYEY SILT - Grey, Medium Stiff to Stiff, Organic
40		8					
							END OF BORING
45							
50							
55							
60							
65							
70							
75							

KLEINFELDER

PROJECT NO. 20-3282-01

Isleton River Park
Isleton, California

LOG OF BORING B-2

PLATE 2 of 2

A-4

Date Completed: 6/8/90
Logged By: AEM
Total Depth: 40 feet

Surface Conditions: Edge of Corn Field.
Groundwater: Encountered at 12 foot depth.

Depth, ft	FIELD: Sample	FIELD: Blows/ft	LABORATORY: Dry Density pcf	LABORATORY: Moisture Content %	LABORATORY: Compress. Strength ksf	LABORATORY: Other Tests	DESCRIPTION (Soil Classification According to USCS)
							(OL) CLAYEY SILT - Dark Grey Brown, Organic, Moist
							(PT) CLAYEY SILT PEAT - Grey Brown Black, Soft
5		1 for 20"					(OL) CLAYEY SILT - Brown Grey, Organic, Soft
10		1 for 18"	68	55			(PT) CLAYEY SILT - Grey Brown
							(OL) CLAYEY SILT - Grey Brown, Organic, Soft
15		1 for 21"				#200 = 85	(ML) CLAYEY SILT - Brown Grey
20		2	91	31		GRADING	(SM) SILTY SAND - Brown Grey, Very Fine Grained, Very Loose
			72	137		DIRECT SHEAR	(CL/OL) CLAYEY SILT/SILTY CLAY - Organic
25		5					(OL) CLAYEY SILT - Brown Grey, Slightly Silty, Medium Stiff, Organic
30							(SM) SANDY SILT - Blue Grey, Slightly Sandy, Very Fine Grained
35							(OL) CLAYEY SILT - Blue Grey, Soft, Organic

KLEINFELDER

PROJECT NO. 20-3282-01

Isleton River Park
Isleton, California

LOG OF BORING B-3

PLATE 1 of 2

A-5

Depth, ft	FIELD: Sample	FIELD: Blows/ft	LABORATORY: Dry Density pcf	LABORATORY: Moisture Content %	LABORATORY: Compress. Strength ksf	LABORATORY: Other Tests	DESCRIPTION
							(Continued from previous plate)
		3	86	31			
							(SM) SANDY SILT - Blue Grey, Slightly Clayey, Very Fine Grained
40							END OF BORING
45							
50							
55							
60							
65							
70							
75							

KLEINFELDER

PROJECT NO. 20-3282-01

Isleton River Park
Isleton, California

LOG OF BORING B-3

PLATE 2 of 2

A-5

Date Completed: 6/11/90
Logged By: AEM
Total Depth: 40 feet

Surface Conditions: Edge of Corn Field.
Groundwater: Encountered at 7.5 foot depth.

Depth, ft	Sample	Blows/ft	Dry Density pcf	Moisture Content %	Compress. Strength ksf	Other Tests	DESCRIPTION (Soil Classification According to USCS)
							(OL) CLAYEY SILT -Grey Brown, Organic, Moist
							(PT) SILTY CLAYEY PEAT - Dark Grey Black, Moist
5		1 for 22"					(PT) PEAT - Soft
10			28	173		CONSOL	
			58	93		TRIAXIAL SHEAR,CU	(OL) CLAYEY SILT - Blue Grey, Soft, Organic
15		1 for 18"					(OL) CLAYEY SILT - Grey, Organic
20		1 for 14"	81	39		#200-81	(SM) SILTY SAND - Grey, Very Fine Grained, With Organics
							(ML) SANDY SILT - Grey, Very Fine Grained, With Organics
25		7	88	34			(OL) SANDY SILT - Grey, Grades Less Sand, Medium Stiff, With Organics
30							
35							

KLEINFELDER

PROJECT NO. 20-3282-01

Isleton River Park
Isleton, California

LOG OF BORING B-4

PLATE 1 of 2

A-6

Depth, ft	FIELD: Sample	FIELD: Blows/ft	LABORATORY: Dry Density pcf	LABORATORY: Moisture Content %	LABORATORY: Compress. Strength ksf	LABORATORY: Other Tests	DESCRIPTION
							(Continued from previous plate)
		2					(OL) SANDY SILT - Grey, Slightly Clayey, Very soft, Organic
40							END OF BORING
45							
50							
55							
60							
65							
70							
75							

KLEINFELDER

PROJECT NO. 20-3282-01

Isleton River Park
Isleton, California

LOG OF BORING B-4

PLATE 2 of 2

A-6

Date Completed: 6/11/90
Logged By: AEM
Total Depth: 40 feet

Surface Conditions: Next to Gravel Drive.
Groundwater: Encountered at 8 foot depth.

Depth, ft	FIELD: Sample	FIELD: Blows/ft	LABORATORY: Dry Density pcf	LABORATORY: Moisture Content %	LABORATORY: Compress. Strength ksf	LABORATORY: other Tests	DESCRIPTION (Soil Classification According to USCS)
0							(SP) GRAVELLY SILTY SAND - Brown, Very Fine to Fine Grained, Moist
							(OL) CLAYEY SILT - Dark Grey Brown, Very Organic, Moist
5						PI = 13	(PT) SILTY PEAT - Soft
10		3					
15		3					
							(OL) CLAYEY SILT - Black Grey, Very Organic
							(OL) CLAYEY SILT - Grey, Organic
20			90	32		CONSOL	
			69	38			
							(ML) CLAYEY SILT - Blue Grey
25		6	35	136	0.1		
							(OL) CLAYEY SILT - Blue Grey, Slightly Clayey, Organic
							(OL) CLAYEY SILT - Blue Grey, Organic
30							
							(ML) SANDY SILT - Grey, Very Fine Grained, With Organics
35							

KLEINFELDER

PROJECT NO. 20-3282-01

Isleton River Park
Isleton, California

LOG OF BORING B-5

PLATE 1 of 2

A-7

Depth, ft	FIELD: Sample	FIELD: Blows/ft	LABORATORY: Dry Density pcf	LABORATORY: Moisture Content %	LABORATORY: Compress. Strength ksf	LABORATORY: Other Tests	DESCRIPTION
							(Continued from previous plate)
		4				GRADING DIRECT SHEAR	(SM) SILTY SAND - Grey, Very Fine to Fine Grained
							(SM) SILTY SAND - Grey, Very Silty
40							END OF BORING
45							
50							
55							
60							
65							
70							
75							

KLEINFELDER

PROJECT NO. 20-3282-01

Isleton River Park
Isleton, California

LOG OF BORING B-5

PLATE 2 of 2

A-7

Date Completed: 8/24/90
Logged By: PCD
Total Depth: 40. feet

Surface Conditions:

Groundwater: Groundwater encountered at 4 foot depth.

Depth, ft	FIELD: Sample	FIELD: Blows/ft	LABORATORY: Dry Density pcf	LABORATORY: Moisture Content %	LABORATORY: Compress. Strength ksf	LABORATORY: Other Tests	DESCRIPTION
							Soil Classification According to USCS
							(OL) CLAYEY SILT - Dark Grey, Organic, Moist
							(PT) PEAT - Dark Brown-Grey, Very Soft, Wet
5							
10		1 for 9"	71	46			(OL) CLAYEY SILT - Black-Grey, Slightly Clayey, Very Soft
							(OL) CLAYEY SILT - Brown-Grey, Very Soft
15							(OL) CLAYEY SILT - Black-Grey, Soft
20		3	79	41			(OL) SANDY SILT - Black-Grey, Very Fine Grained, Soft
25							
30		3	79	40			(OL) CLAYEY SILT - Black-Grey, Slightly Clayey, Soft
							(OL) SANDY SILT - Black-Grey, Very Sandy, Very Fine Grained
35							(SM) SANDY SILT - Black-Grey, Slightly

KLEINFELDER

PROJECT NO. 20-3282-01

Isleton River Park
Isleton, California

LOG OF BORING B-8

PLATE 1 of 2

A-10

Depth, ft	FIELD: Sample	FIELD: Blows/ft	LABORATORY: Dry Density pcf	LABORATORY: Moisture Content %	LABORATORY: Compress. Strength ksf	LABORATORY: Other Tests	DESCRIPTION
							(Continued from previous plate)
							Sandy, Very Fine Grained
							(SM) SILTY SAND - Black-Grey, Very Fine Grained
40							**(ML) SANDY SILT** - Black-Grey, Slightly Sandy, Very Fine Grained
							END OF BORING
45							
50							
55							
60							
65							
70							
75							

KLEINFELDER

PROJECT NO. 20-3282-01

Isleton River Park
Isleton, California

LOG OF BORING B-8

PLATE 2 of 2

A-10

Date Completed: 8/24/90
Logged By: PCD
Total Depth: 41.5 feet

Surface Conditions:

Groundwater: Groundwater encountered at 3.5 foot depth.

Depth, ft	FIELD: Sample	FIELD: Blows/ft	LABORATORY: Dry Density pcf	LABORATORY: Moisture Content %	LABORATORY: Compress. Strength ksf	LABORATORY: Other Tests	DESCRIPTION
							Soil Classification According to USCS
							(ML) CLAYEY SILT - Brown-Grey, Dry
							(OL) CLAYEY SILT - Dark Grey, Moist
							(PT) PEAT - Dark Brown-Grey, Very Soft, Wet
5		1 for 22"					
10		1 for 25"					
15		1 for 20"					
20		2 for 18"	80	39	0.7		(OL) CLAYEY SILT - Black-Grey, Slightly Clayey, Very Soft
25		1 for 18"					
30		3	81	38			(ML) CLAYEY SILT - Black-Grey, Slightly Clayey, Very Soft
35							(ML) CLAYEY SILT - Green-Grey, Soft to

KLEINFELDER

PROJECT NO. 20-3282-01

Isleton River Park
Isleton, California

LOG OF BORING B-9

PLATE 1 of 2

A-11

isl-rp-b9

Depth, ft	FIELD: Sample	FIELD: Blows/ft	LABORATORY: Dry Density pcf	LABORATORY: Moisture Content %	LABORATORY: Compress. Strength ksf	LABORATORY: Other Tests	DESCRIPTION
							(Continued from previous plate)
		4					Medium Stiff
							(ML) SANDY SILT - Green-Grey, Very Sandy, Very Fine to Fine Grained
40		13					(SM) SILTY SAND - Green-Grey, Slightly Sandy, Very Fine to Fine Grained, Stiff
							END OF BORING
45							
50							
55							
60							
65							
70							
75							

KLEINFELDER

PROJECT NO. 20-3282-01

Isleton River Park
Isleton, California

LOG OF BORING B-9

PLATE 2 of 2

A-11

Surface Conditions: Levee crown
(*Conversion from NGVD29 to NAVD88 is +2.57ft.)
Groundwater: Groundwater not measured.
Method: Hollow Stem Auger/Mud Rotary
Equipment: CME 750 with 140lb. Automatic Hammer

Date Completed: 11/27/2006
Logged By: O. Khan
Total Depth: 51-1/2 feet
Boring Diameter: 8 inch/4 inch

Approximate Elevation: 14.9 feet (NGVD29*)
Approximate Northing: 1855689.10 feet
Approximate Easting: 6656769.17 feet

Elevation (ft., msl)	Depth (feet)	Sample Type	Sample No.	Blows/6 inches	Pocket Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Liquid Limit	Plasticity Index	Passing #4 Sieve (%)	Passing #200 Sieve (%)	Other Tests	Graphic Log	DESCRIPTION
				4										
			1a	10										**LEAN CLAY** (CL): Dark brown (7.5YR 3/3), moist, firm, medium plasticity, medium dry strength, slow dilatancy, medium toughness (Levee Fill)
			1b	14	4.0									
				4										
			2a	5										**Sandy SILT** (ML): Yellow brown (10YR 5/6), moist, firm, low plasticity, about 36% fine sand, medium dry strength, slow dilatancy, medium toughness (Levee Fill)
			2b	7							64			
10	5			4										
				3										
			3b	5	1.8									**LEAN CLAY** (CL): Dark brown (7.5YR 3/3), moist, firm, medium plasticity, medium dry strength, slow dilatancy, medium toughness (Levee Fill)
				2										**Clayey SAND** (SC): Gray brown (2.5Y 5/2), moist, fine to medium sand, about 40% fines, (Levee Fill)
			4a	4										
			4b	6	1.5						40			Interbedded lean clay layers
5	10			1										
				3										**ELASTIC SILT** (MH): Dark brown (7.5YR 3/3), moist, soft, high plasticity, medium dry strength, slow dilatancy, medium toughness
			5b	5	2.0			92	48			Atterberg; see Plate J-2		
				1										
				4										
			6b	4	0.5									
0	15			1										
			6c	2										
			6d	3										
				0										Yellow brown (10YR 5/6)
			7a	1										
			7b	3	<0.25									
-5	20			3										
			8a	6	<0.25									
			8b	8	1.0									Dark gray (7.5YR 4/1), firm
				3										
			9a	4										
			9b	5	0.8									
-10	25			2										
			10a	2				85	38			Atterberg; see Plate J-2		Soft
			10b	4	<0.5									
				0										
			11a	4										Dark gray (2.5Y 4/1)
			11b	4	<0.25									

P-LOG 2006 BLOWS PER 6 INCHES 73783-R9C.GPJ 9/20/07

KLEINFELDER

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File Number: 73783-R9c

LOG OF BORING KA-06-179
VOLUME 1 - PROBLEM IDENTIFICATION REPORT
WEST SACRAMENTO LEVEE ASSESSMENT
DWSC WEST LEVEE
YOLO AND SOLANO COUNTIES, CALIFORNIA

PLATE
1 of 2
E-114

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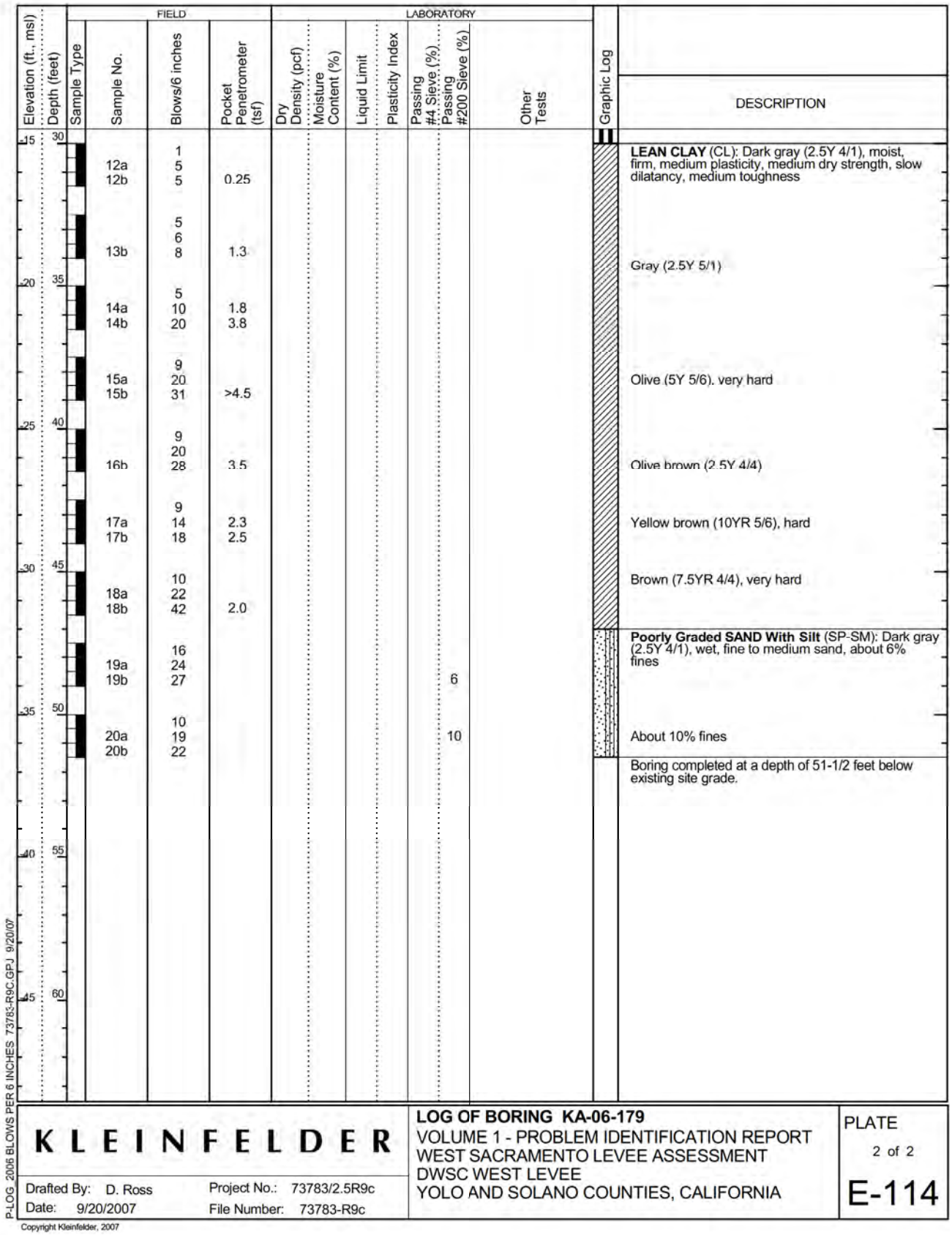

Elevation (ft., msl)	Depth (feet)	Sample Type	Sample No.	Blows/6 inches	Pocket Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Liquid Limit	Plasticity Index	Passing #4 Sieve (%)	Passing #200 Sieve (%)	Other Tests	Graphic Log	DESCRIPTION
15	30			1										
			12a	5										**LEAN CLAY** (CL): Dark gray (2.5Y 4/1), moist, firm, medium plasticity, medium dry strength, slow dilatancy, medium toughness
			12b	5	0.25									
				5										
				6										
			13b	8	1.3									Gray (2.5Y 5/1)
20	35			5										
			14a	10	1.8									
			14b	20	3.8									
				9										
			15a	20										Olive (5Y 5/6). very hard
			15b	31	>4.5									
25	40			9										
				20										
			16b	28	3.5									Olive brown (2.5Y 4/4)
				9										
			17a	14	2.3									Yellow brown (10YR 5/6), hard
			17b	18	2.5									
30	45			10										Brown (7.5YR 4/4), very hard
			18a	22										
			18b	42	2.0									
				16										
			19a	24										**Poorly Graded SAND With Silt** (SP-SM): Dark gray (2.5Y 4/1), wet, fine to medium sand, about 6% fines
			19b	27							6			
35	50			10										
			20a	19							10			About 10% fines
			20b	22										
														Boring completed at a depth of 51-1/2 feet below existing site grade.
40	55													
45	60													

P-LOG 2006 BLOWS PER 6 INCHES 73783-R9C.GPJ 9/20/07

KLEINFELDER

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WEST SACRAMENTO LEVEE ASSESSMENT
DWSC WEST LEVEE
YOLO AND SOLANO COUNTIES, CALIFORNIA

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Surface Conditions: Levee crown, aggregate base
(*Conversion from NGVD29 to NAVD88 is +2.57ft.)
Groundwater: Groundwater not measured.
Method: Hollow Stem Auger/Mud Rotary
Equipment: CME 750 with 140lb. Automatic Hammer

Date Completed: 11/22/2006
Logged By: G. Zhang
Total Depth: 51-1/2 feet
Boring Diameter: 8 inch/4 inch

Approximate Elevation: 14.0 feet (NGVD29*)
Approximate Northing: 1854716.12 feet
Approximate Easting: 6656538.47 feet

Elevation (ft., msl)	Depth (feet)	Sample Type	Sample No.	Blows/6 inches	Pocket Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Liquid Limit	Plasticity Index	Passing #4 Sieve (%)	Passing #200 Sieve (%)	Other Tests	Graphic Log	DESCRIPTION
														AGGREGATE BASE: (Levee Fill)
			1a	11										
			1b	14										
				12										
				4										**FAT CLAY** (CH): Brown (7.5YR 4/4), moist, firm, high plasticity, high dry strength, slow dilatancy, medium toughness (Levee Fill)
			2a	6										
			2b	9										
	5													
				5										**Sandy LEAN CLAY** (CL): Brown (7.5YR 4/4), moist, firm, medium plasticity, about 30% fine sand, medium dry strength, slow dilatancy, medium toughness (Levee Fill)
			3a	5										
			3b	5										
				3										**FAT CLAY** (CH): Dark gray (7.5YR 4/1), moist, firm, high plasticity, high dry strength, slow dilatancy, medium toughness (Levee Fill)
			4a	5										
			4b	7	0.5									
	10													
				3										**Silty SAND** (SM): Dark gray (7.5YR 4/1), wet, fine to medium sand, about 35% fines
			5a	6										
			5b	5							35			**FAT CLAY** (CH): Dark gray (7.5YR 4/1), moist, firm, high plasticity, high dry strength, slow dilatancy, medium toughness
				3										Soft
			6a	3										
			6b	3										
	15													
				3										**Silty SAND** (SM): Brown (7.5YR 4/4), moist, about 48% fine to coarse sand, medium dry strength, slow dilatancy, medium toughness
			7a	4						97	49	Sieve; see Plate J-3		
			7b	4										
				0										**LEAN CLAY** (CL): Olive brown (2.5Y 4/4), wet, very soft, medium plasticity, medium dry strength, slow dilatancy, medium toughness
			8a	0							94			
			8b	1	<0.25									
	20													
				0										**SILT** (ML): Gray (2.5Y 5/1), moist, firm, low plasticity, medium dry strength, slow dilatancy, medium toughness
			9a	1										
			9b	5	<0.25									
				0										**ELASTIC SILT** (MH): Dark gray (2.5Y 4/1), moist, firm, high plasticity, medium dry strength, slow dilatancy, medium toughness
			10a	4										
			10b	5	0.5			81	41			Atterberg; see Plate J-2		
	25													
				0										Dark gray (2.5Y 5/1), soft
			11a	2										
			11b	4	<0.5									
				0										
			12a	0										
			12b	3	<0.25									Very soft

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File Number: 73783-R9c

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WEST SACRAMENTO LEVEE ASSESSMENT
DWSC WEST LEVEE
YOLO AND SOLANO COUNTIES, CALIFORNIA

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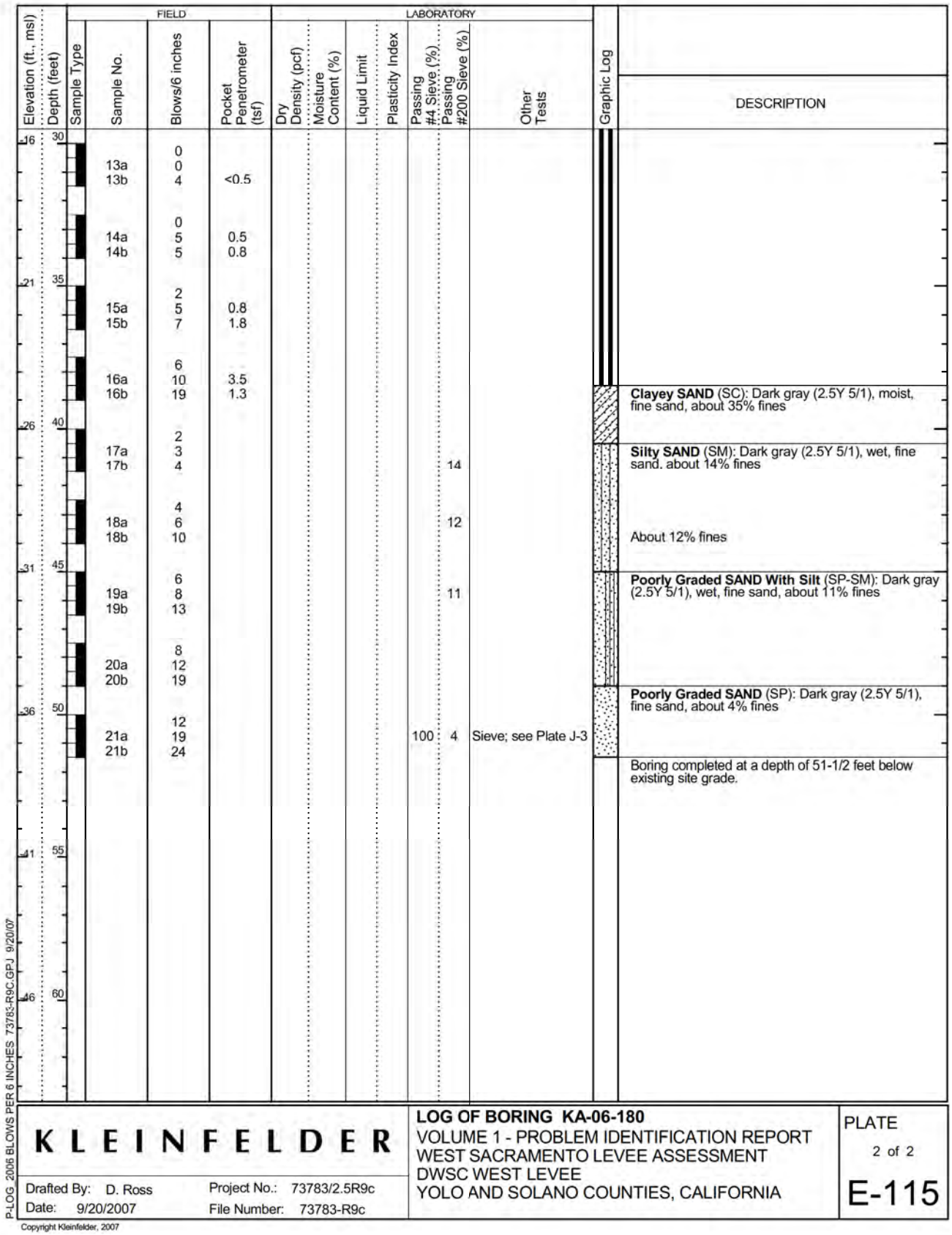

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WEST SACRAMENTO LEVEE ASSESSMENT
DWSC WEST LEVEE
YOLO AND SOLANO COUNTIES, CALIFORNIA

PLATE
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Surface Conditions: Levee crown
(*Conversion from NGVD29 to NAVD88 is +2.57ft.)
Groundwater: Groundwater not measured.
Method: Hollow Stem Auger/Mud Rotary
Equipment: CME 750 with 140lb. Automatic Hammer

Date Completed: 11/21/2006
Logged By: C. Wilhite
Total Depth: 76-1/2 feet
Boring Diameter: 8 inch/4 inch

Approximate Elevation: 13.8 feet (NGVD29*)
Approximate Northing: 1853742.56 feet
Approximate Easting: 6656309.88 feet

Elevation (ft., msl)	Depth (feet)	Sample Type	Sample No.	Blows/6 inches	Pocket Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Liquid Limit	Plasticity Index	Passing #4 Sieve (%)	Passing #200 Sieve (%)	Other Tests	Graphic Log	DESCRIPTION
				6										
			1a	12										
			1b	11	>4.5									**LEAN CLAY** (CL): Dark yellow brown (10YR 4/4), moist, firm, medium plasticity, medium dry strength, slow dilatancy, medium toughness (Levee Fill)
				4										
			2a	6										
			2b	8	>4.5									
	5													
				6										
			3a	6										
			3b	6										
				2										
			4a	4										
			4b	6	3.5									Very dark brown (10YR 2/2) and mottled olive brown (2.5Y 4/3), about 10% fine sand
	10													
				1										
			5a	5										
			5b	4	1.0									**FAT CLAY** (CH): Gray brown (2.5Y 5/2), moist, firm, high plasticity, high dry strength, slow dilatancy, medium toughness (Levee Fill)
				2										
			6a	2										**LEAN CLAY** (CL): Greenish black (GLEY 1 2.5/10Y), moist, soft, medium plasticity, about 15% fine sand, medium dry strength, slow dilatancy, medium toughness (Levee Fill)
			6b	3	1.0									**Sandy LEAN CLAY** (CL): Greenish black (GLEY 1 2.5/10Y), moist, soft, medium plasticity, medium dry strength, slow dilatancy, medium toughness Black (7.5YR 2.5/1)
	15													
				1										
			7a	4										
			7b	6							10			**Poorly Graded SAND With Silt** (SP-SM): Gray gray (GLEY 1 5/10Y), wet, fine to medium sand, about 10% fines
				0										
			8a	0										**ELASTIC SILT** (MH): Dark greenish gray (GLEY 1 4/10Y), moist, very soft, medium plasticity, medium dry strength, slow dilatancy, medium toughness
			8b	0	0.5									
	20													
				0										
			9a	1										**LEAN CLAY** (CL): Dark greenish gray (GLEY 1 4/10Y), moist, soft, medium plasticity, medium dry strength, slow dilatancy, medium toughness Black (2.5Y 2.5/1)
			9b	5										
				2										
			10a	4										Wet
			10b	4	1.0									
	25													
				1										
			11a	3										
			11b	4	1.5									Moist
				0										
			12a	1										**ELASTIC SILT** (MH): Black (2.5Y 2.5/1), moist, soft, high plasticity, medium dry strength, slow dilatancy, medium toughness
			12b	4	0.5									

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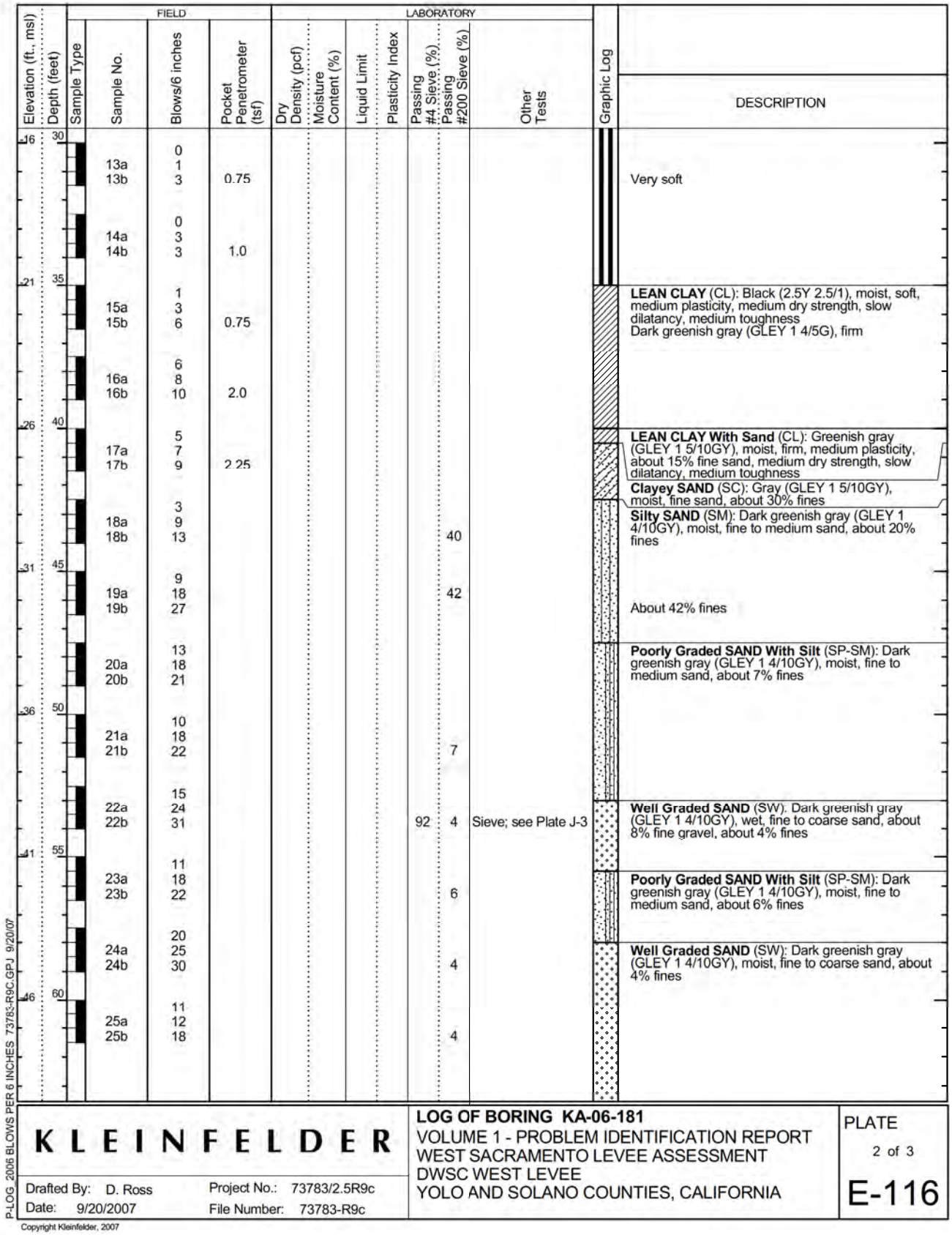

Elevation (ft., msl)	Depth (feet)	Sample Type	Sample No.	Blows/6 inches	Pocket Penetrometer (tsf)	Dry Density (pcf)	Moisture Content (%)	Liquid Limit	Plasticity Index	Passing #4 Sieve (%)	Passing #200 Sieve (%)	Other Tests	Graphic Log	DESCRIPTION
				FIELD		LABORATORY								
16	30			0										
			13a	1										
			13b	3	0.75									Very soft
				0										
			14a	3										
			14b	3	1.0									
21	35			1										
			15a	3										
			15b	6	0.75									**LEAN CLAY** (CL): Black (2.5Y 2.5/1), moist, soft, medium plasticity, medium dry strength, slow dilatancy, medium toughness Dark greenish gray (GLEY 1 4/5G), firm
				6										
			16a	8										
			16b	10	2.0									
26	40			5										
			17a	7										
			17b	9	2.25									**LEAN CLAY With Sand** (CL): Greenish gray (GLEY 1 5/10GY), moist, firm, medium plasticity, about 15% fine sand, medium dry strength, slow dilatancy, medium toughness
														Clayey SAND (SC): Gray (GLEY 1 5/10GY), moist, fine sand, about 30% fines
				3										
			18a	9										**Silty SAND** (SM): Dark greenish gray (GLEY 1 4/10GY), moist, fine to medium sand, about 20% fines
			18b	13							40			
31	45			9										
			19a	18							42			
			19b	27										About 42% fines
				13										
			20a	18										**Poorly Graded SAND With Silt** (SP-SM): Dark greenish gray (GLEY 1 4/10GY), moist, fine to medium sand, about 7% fines
			20b	21										
36	50			10										
			21a	18										
			21b	22							7			
				15										
			22a	24										
			22b	31						92	4	Sieve; see Plate J-3		**Well Graded SAND** (SW): Dark greenish gray (GLEY 1 4/10GY), wet, fine to coarse sand, about 8% fine gravel, about 4% fines
41	55			11										
			23a	18										**Poorly Graded SAND With Silt** (SP-SM): Dark greenish gray (GLEY 1 4/10GY), moist, fine to medium sand, about 6% fines
			23b	22							6			
				20										
			24a	25										**Well Graded SAND** (SW): Dark greenish gray (GLEY 1 4/10GY), moist, fine to coarse sand, about 4% fines
			24b	30							4			
46	60			11										
			25a	12										
			25b	18							4			

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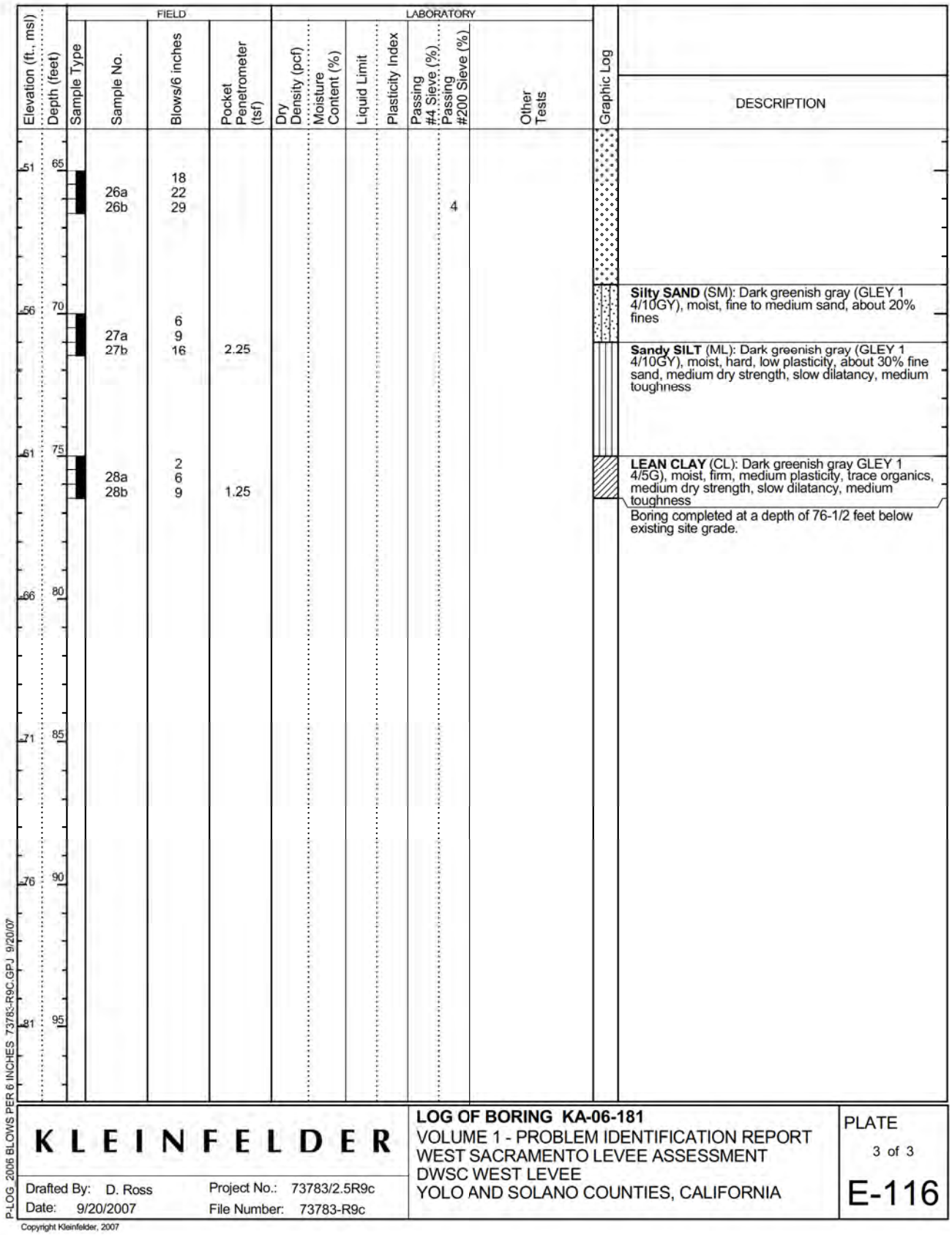

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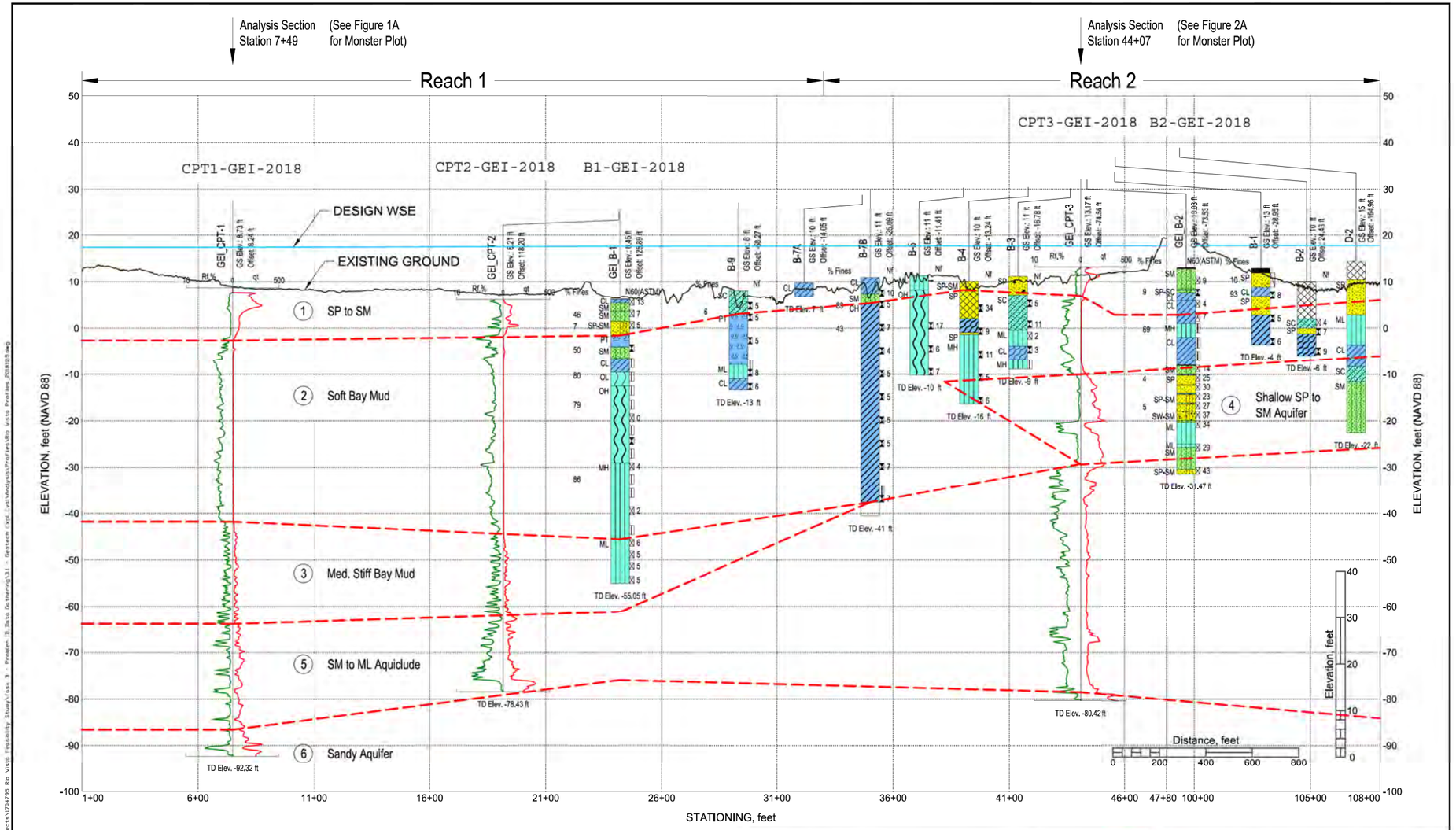
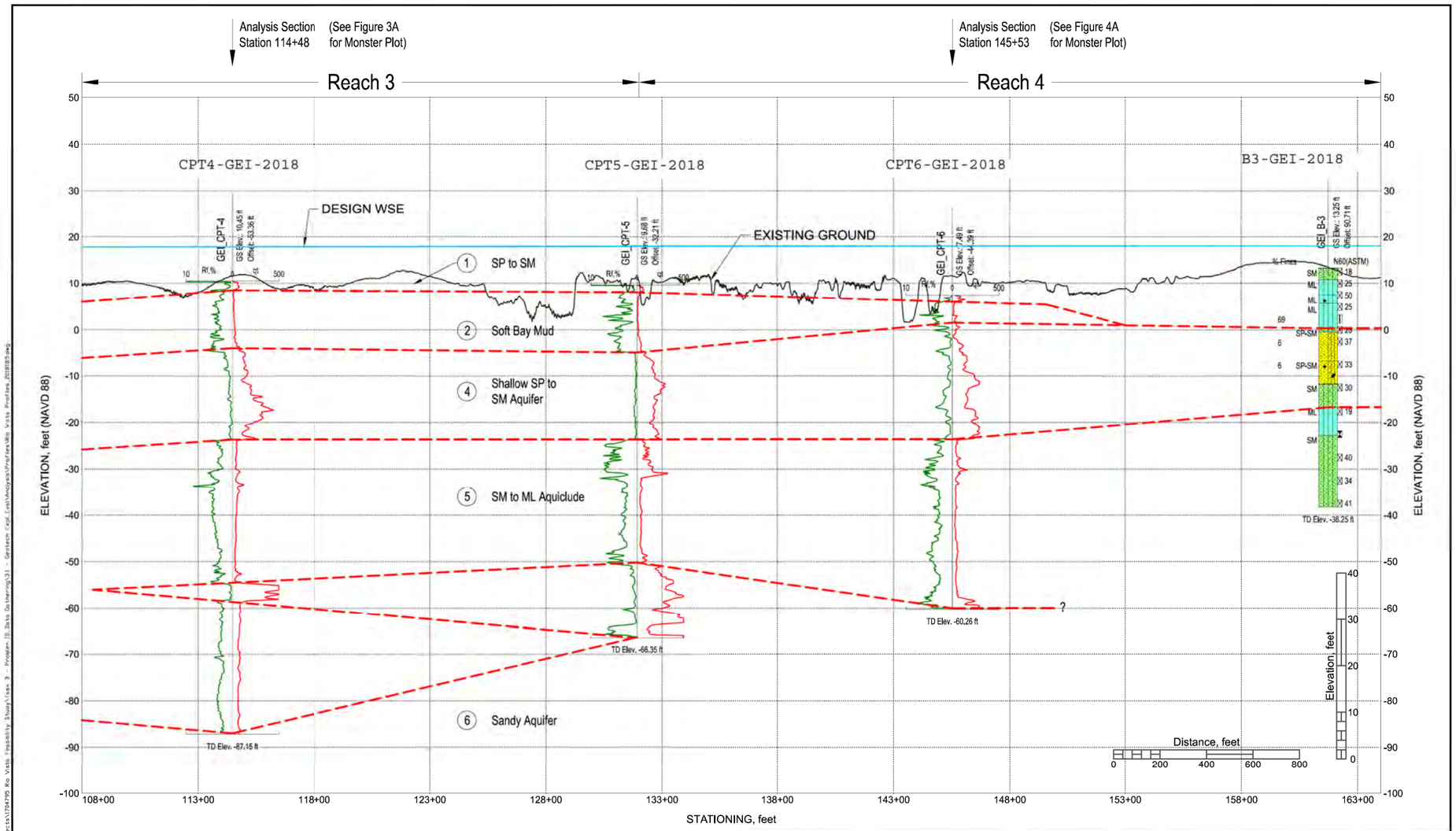


Notes:

1. Projected Existing Ground Surface is along developed project alignment, and does not necessarily represent the top of interpreted stratigraphy.

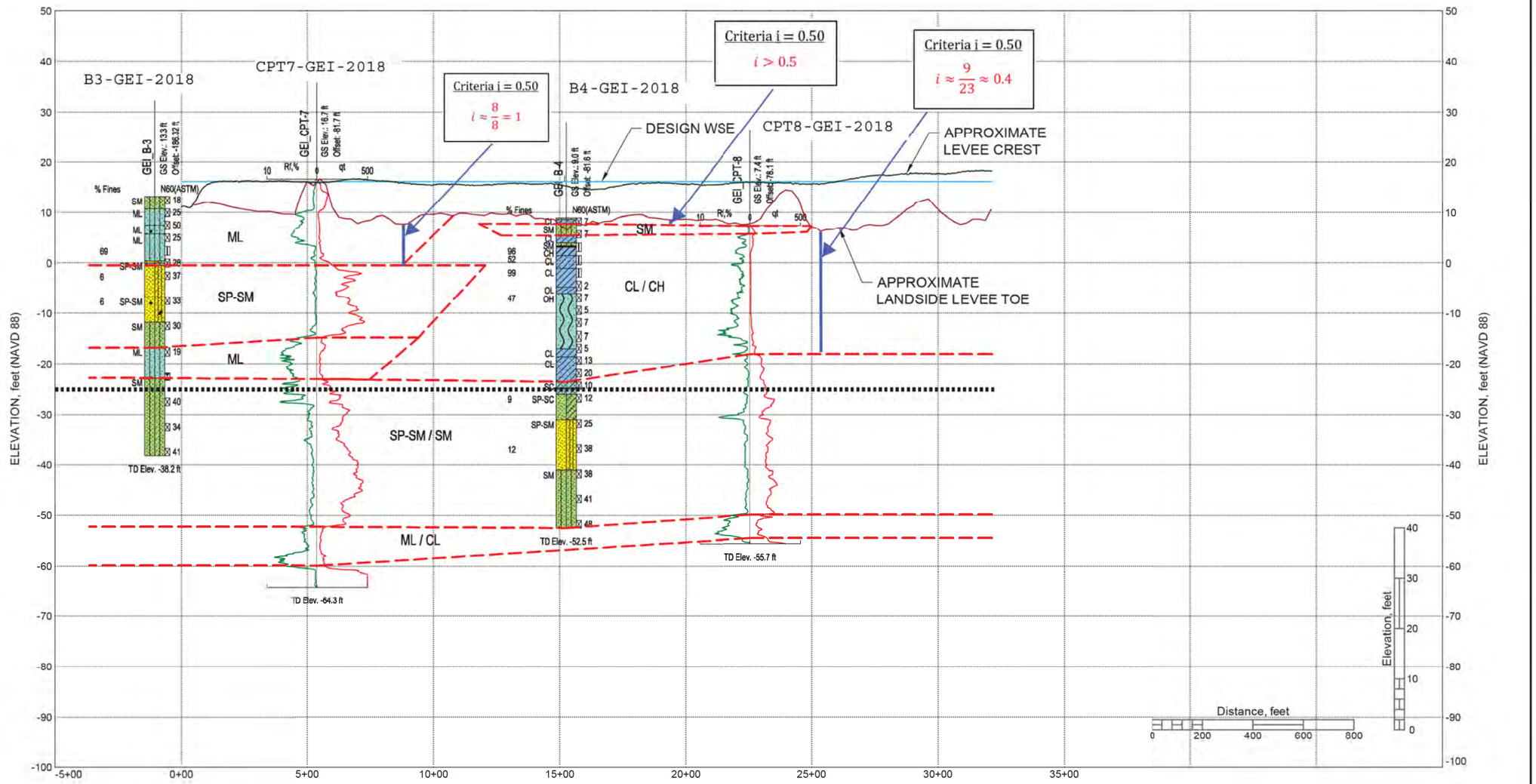
Rio Vista Flood Control Feasibility Study Rio Vista, CA	GEI Consultants	LONGITUDINAL PROFILE SACRAMENTO RIVER RIGHT BANK	
Solano County Water Agency	Project 1704795	October 2018	DRAFT Figure A2



Notes:

1. Projected Existing Ground Surface is along developed project alignment, and does not necessarily represent the top of interpreted stratigraphy.

Rio Vista Flood Control Feasibility Study Rio Vista, CA	GEI Consultants	LONGITUDINAL PROFILE SACRAMENTO RIVER RIGHT BANK	
Solano County Water Agency	Project 1704795	October 2018	DRAFT Figure A3



Rio Vista Flood Control Feasibility Study Rio Vista, CA	GEI Consultants	**LONGITUDINAL PROFILE MELLIN LEVEE**	
Solano County Water Agency	Project 1704795	July 2019 **DRAFT**	Figure 2

DRAWING: J:\Wood Rodgers\Projects\1704795 Rio Vista Feasibility Study\Task 3 – Problem ID\Data Gathering\3.1 – Geotech Expl_Eval\Analysis\Profiles\Rio Vista Profiles_20190620.dwg

APPENDIX B

2018-2019 EXPLORATION DATA

APPENDIX B-1
2019 BORINGS

I. INTRODUCTION

This appendix presents the data from our 2019 borings. The borings were drilled near the landside levee toe, outside of the levee footprint.

II. FIELD EXPLORATION AND LABORATORY TESTING

We explored subsurface conditions on May 8 and 9, 2019 by drilling 3 borings to depths of 49 to 55 feet below existing grade. The approximate boring locations are shown on the Site Plan, Plate 2 and on the 2019 Boring Location Map, Plate B-1-1. Our subcontractor drilled the borings with truck-mounted auger drilling equipment and hollow-stem augers. We collected samples with a 2.5-inch outside diameter (OD), 1.9-inch inside diameter (ID) split barrel sampler or a 2.0-inch OD, 1.4-inch ID, Standard Penetration Test (SPT) split barrel sampler. The samplers were driven with a 140-pound downhole hammer dropping approximately 30-inches for a penetration depth of up to 18-inches.

Our engineer logged the borings and recorded blow counts from driving the samplers. We recovered samples from the borings for further visual classification and for selection of materials for laboratory testing. Our engineer used a pocket penetrometer to evaluate unconfined compressive strength or a torvane to evaluate the soil shear strength. The borings were backfilled with grout.

The laboratory testing program consisted of:

- Moisture content and dry density (ASTM D 2216-10 and D7263b-21);
- Atterberg limits (ASTM D 4318-10); and
- Sieve analysis (ASTM D 6913-17).

We converted the field penetration resistance obtained while driving the 2.5-inch sampler to equivalent SPT N-values by multiplying by 0.80 to account for sampler size and 0.87 to account for hammer energy. These factors combine to result in a net correction factor of 0.69. We converted the field penetration resistance obtained while driving the 2.0-inch SPT sampler to equivalent SPT N-values by multiplying by 0.87 to account for hammer energy.

Soil descriptions, equivalent SPT N-values and the laboratory test data are shown on the Logs of Borings, Plates B-1-3 through B-1-8. The soil descriptions are presented in general

accordance with the Soil Classification System presented on Plate B-1-2 with laboratory test results presented in the manner described by the Key to Test Data. Atterberg limits test results are shown on Plate B-1-9. Sieve analysis test results are shown on Plates B-1-10 through B-1-12.



Approximate Location of Boring (2019)
Approximate Location of Levee Centerline

N

0 2,000 Feet

1 inch = 2,000 feet

Little Egbert Multi-Benefit Project
Solano County, California

2019 Boring Location Map

Hultgren - Tillis Engineers

Project No. 907.02

Plate No. B-1-1

MAJOR DIVISIONS				GROUP NAMES
COARSE GRAINED SOILS MORE THAN 50% RETAINED ON NO. 200 SIEVE	GRAVELS MORE THAN 50% OF COARSE FRACTION IS RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS WITH LESS THAN 5% FINES	GW	WELL GRADED GRAVEL
			GP	POORLY GRADED GRAVEL
		GRAVELS WITH OVER 12% FINES	GM	SILTY GRAVEL
			GC	CLAYEY GRAVEL
	SANDS 50% OR MORE OF COARSE FRACTION PASSES NO. 4 SIEVE	CLEAN SANDS WITH LESS THAN 5% FINES	SW	WELL GRADED SAND
			SP	POORLY GRADED SAND
		SANDS WITH OVER 12% FINES	SM	SILTY SAND
			SC	CLAYEY SAND
FINE GRAINED SOILS 50% OR MORE PASSES NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML	SILT
			CL	LEAN CLAY
			OL	ORGANIC CLAY, ORGANIC SILT
	SILTS AND CLAYS LIQUID LIMIT 50 OR MORE		MH	ELASTIC SILT
			CH	FAT CLAY
			OH	ORGANIC CLAY, ORGANIC SILT
HIGHLY ORGANIC SOILS			Pt	PEAT

UNIFIED SOIL CLASSIFICATION SYSTEM- ASTM D 2487

S - SPT

M - 2.5 inch

C - 3.0 inch

T - Shelby Tube

B - Bag

- Water Level at Time of Drilling
- Water Level after Drilling (with date measured)

Consol - Consolidation
Gs - Specific Gravity
LL - Liquid Limit (%)
PI - Plasticity Index (%)
TxUU - Shear Strength (psf) - Unconsolidated Undrained Triaxial Shear
TxCU - Shear Strength (psf) - Consolidated Undrained Triaxial Shear
UC - Compressive Strength (psf) - Unconfined Compression

P - Push
Perm - Permeability
Sieve - Particle Size Analysis
VS - Laboratory Vane Shear (psf)
-200 - % Passing No. 200 Sieve

KEY TO TEST DATA

Little Egbert Tract Restoration
Solano County, California

Soil Classification Chart

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 9

Date : 5/8/2019
Drilling Method : Hollow-Stem Auger
Elevation (Feet) :
Latitude : 38.20837
Longitude : -121.69112

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	21		CH		Fat Clay (CH), light gray with brown mottling, dry to moist, very stiff, high plasticity, no dilatancy, high toughness, high dry strength, trace sand, trace root fibers		3.5 2.5	31	89	LL=71 PI=48
5	M	19				Increased moisture, darker color		2.8 3.0 2.8 2.8			
	M	26		SM	▽	Silty Sand (SM), olive brown, fine grained sand, moist, dense			25	102	Sieve -200=41%
10	M	23		CH		Fat Clay (CH), brown, moist to wet, very stiff, high plasticity, no dilatancy, high toughness, trace angular gravel					
				SM		Silty Sand (SM), olive gray, fine grained sand, wet, medium dense, 2-inch thick silt layers					
	S	16		ML		Sandy Silt (ML), olive gray, wet, medium stiff to stiff, low plasticity, rapid dilatancy, low toughness, interbedded lenses of red-brown, oxide-stained clay			30		Sieve -200=58%
15	S	23									
	M	47				Poorly-Graded Sand with Silt (SP-SM), gray, fine to medium grained sand, wet, very dense, mica pieces			31	91	Sieve -200=10%
20											
	S	85/10"				Interbedded layers of fine and coarse sand, silt layers approximately 1/2-inch to 1-inch thick, trace subrounded fine gravel in the coarser sand layers					
25											
	S	43/2"		SP-SM							
30											
	S	75									
35											
	M	40				Grades coarser, fewer silt layers, slighly more gravel					Sieve -200=9%
40											
	M M	62/11"									

Little Egbert Tract Restoration
Solano County, California

Log of 19B-1
(Page 1 of 2)

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 3

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 5/8/2019 Drilling Method : Hollow-Stem Auger Elevation (Feet) : Latitude : 38.20837 Longitude : -121.69112					
50				SP-SM							
55	S	43 3"				Bottom of boring at 55.3 feet Groundwater encountered at 8 feet during drilling (5/8/2019)					

Little Egbert Tract Restoration
Solano County, California

Log of 19B-1
(Page 2 of 2)

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 4

Date : 5/9/2019
Drilling Method : Hollow-Stem Auger
Elevation (Feet) :
Latitude : 38.21588
Longitude : -121.69487

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	19		CH		Fat Clay (CH), brown, moist, very stiff, high plasticity, no dilatancy, high toughness		3.5			
5	M	26		CH		Fat Clay with Sand (CH), mottled gray, moist, very stiff, medium plasticity, slow dilatancy, medium toughness		3.8 2.8 2.8	22	99	LL=50 PI=31
10	M	35		ML	▽	Sandy Silt (ML), mottled yellow brown, moist, very stiff, low plasticity, low toughness 5/8/2019					
15	S	42				Silty Sand (SM), yellow brown, fine to medium grained sand, wet, dense to very dense			25		Sieve -200=15%
20	M	62									
25	M	35 5"		SM							
30	S	41									
35	M	35 3"				Grades medium to coarse grained sand					
40	S	43 4"		SP-SM		Poorly-Graded Sand with Silt (SP-SM), yellow brown, medium grained sand, moist, very dense					Sieve -200=11%
	M	35 4"									

Little Egbert Tract Restoration
Solano County, California

Log of 19B-2
(Page 1 of 2)

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 5

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 5/9/2019 Drilling Method : Hollow-Stem Auger Elevation (Feet) : Latitude : 38.21588 Longitude : -121.69487					
	S	43 4"		SP-SM		Bottom of boring at 48.8 feet Groundwater encountered at 11 feet during drilling					

Little Egbert Tract Restoration
Solano County, California

Log of 19B-2
(Page 2 of 2)

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 6

Date : 5/9/2019
Drilling Method : Hollow-Stem Auger
Elevation (Feet) :
Latitude : 38.23466
Longitude : -121.69830

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	38		OH		Organic Clay (OH), light brown, dry, very stiff, high plasticity, no dilatancy, high toughness, high dry strength, hard in top 6-inches, becomes mottled dark gray and red brown, moist		3.5 3.0 2.3 2.2	37	68	LL=85 PI=51
5	M	18			▽	5/8/2019					
	M	6		Pt		Peat (Pt), black, wet, medium stiff, medium plasticity, medium toughness, abundant plant fibers, 1- to 2-inch layers of interbedded fat clay	0.35		98	43	
10											
	M	30		CL		Sandy Lean Clay (CL), blue gray, wet, stiff, medium plasticity, no dilatancy, medium toughness, high dry strength, white staining, few organic lenses 1/8- to 1/4-inch thick		0.7 2.2 2.2	23	104	LL=43 PI=26
15											
	M	46 11"		SM		Silty Sand (SM), blue gray, fine grained sand, wet, dense			26	96	Sieve -200=25%
20											
	S	86 9"		ML		Sandy Silt (ML), blue gray, wet, very stiff, low plasticity, rapid dilatancy, low toughness, medium grained sand lenses, white nodules					Sieve -200=66%
25											
	M	68 10"				Silty Sand (SM), blue gray, wet, very dense, fine grained sand, lenses of silt and sand					Sieve -200=27%
30											
	S	43 4"		SM							
35											
	M	35 5"				Grades coarser, fewer fines					
40											
	S	43 4"				Grades slightly finer					

Little Egbert Tract Restoration
Solano County, California

Log of 19B-3
(Page 1 of 2)

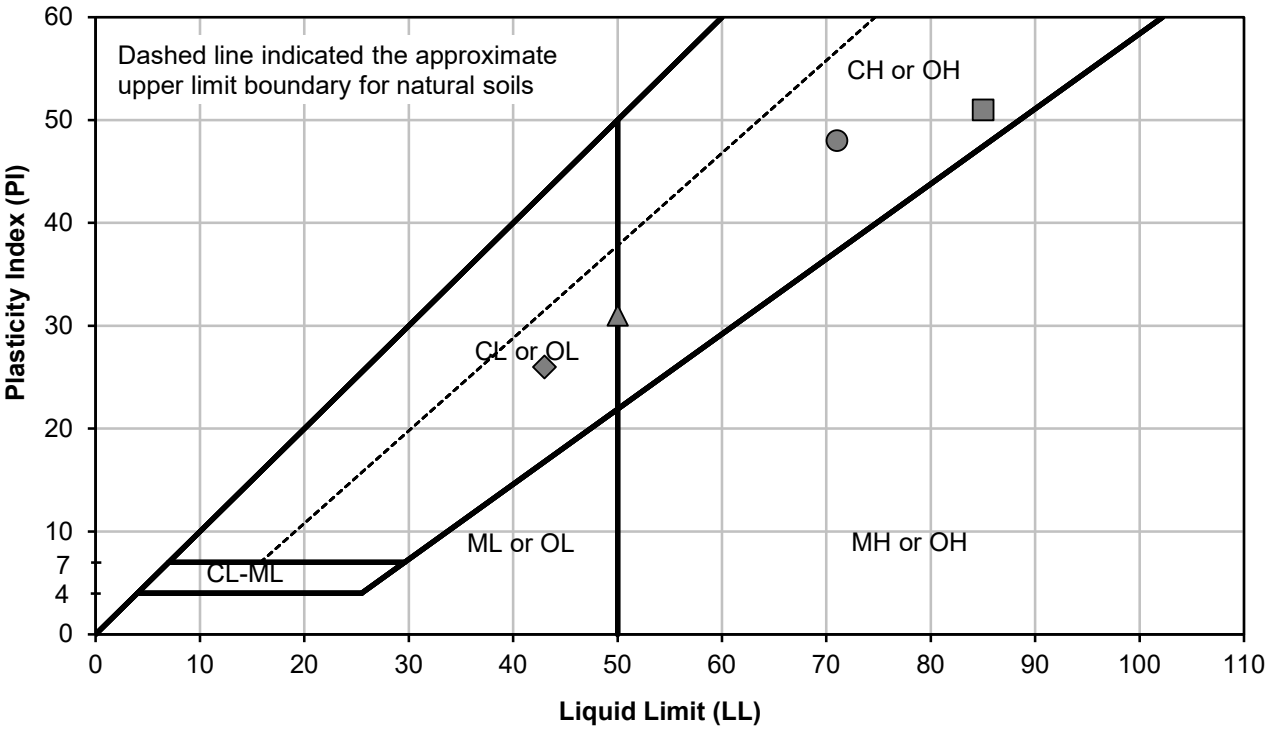
Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 7

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 5/9/2019 Drilling Method : Hollow-Stem Auger Elevation (Feet) : Latitude : 38.23466 Longitude : -121.69830					
	M	35 2"		SM		Grades slightly coarser Bottom of boring at 49.2 feet Groundwater encountered at 5 feet during drilling					

Little Egbert Tract Restoration
Solano County, California

Log of 19B-3
(Page 2 of 2)

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 8



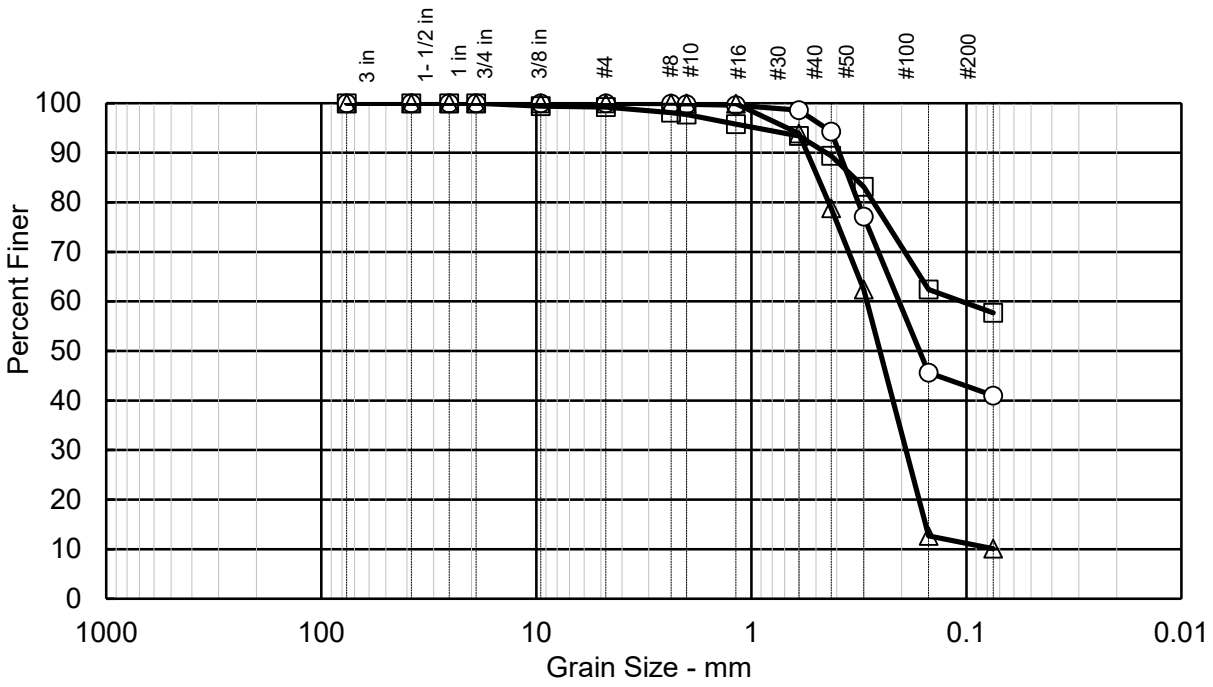
Symbol	Boring Number	Depth (feet)	Soil Description	LL (%)	PL (%)	PI (%)	Moisture Content (%)
●	19B-1	3.5	Light Gray with Brown Mottling Fat Clay	71	23	48	31
▲	19B-2	4.5	Mottled Gray Fat Clay	50	19	31	22
■	19B-3	1.5	Mottled Dark Gray and Red Brown Organic Clay	85	34	51	37
◆	19B-3	14.5	Blue Gray Sandy Lean Clay	43	17	26	23

Testing performed by B. Hillebrandt Soils Testing, Inc.

Little Egbert Tract Restoration
Solano County, California

Atterberg Limits

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 10



Sieve Size	○	□	△
	Percent Finer		
3 in	100.0	100.0	100.0
1-1/2 in	100.0	100.0	100.0
1 in	100.0	100.0	100.0
3/4 in	100.0	100.0	100.0
3/8 in	100.0	99.4	100.0
#4	100.0	99.2	100.0
#8	99.9	98.1	100.0
#10	99.8	97.7	100.0
#16	99.6	95.8	99.9
#30	98.6	93.4	93.9
#40	94.3	89.4	78.8
#50	77.1	83.1	62.4
#100	45.6	62.4	12.7
#200	41.0	57.7	10.1
	Grain Size		
D60	0.218	0.105	0.289
D30	-	-	0.196
D10	-	-	-
	Coefficients		
Cc	-	-	-
Cu	-	-	-

Soil Description	
○	Olive Brown Silty Sand (SM)
□	Olive Gray Sandy Silt (ML)
△	Gray Poorly-Graded Sand with Silt (SP-SM)

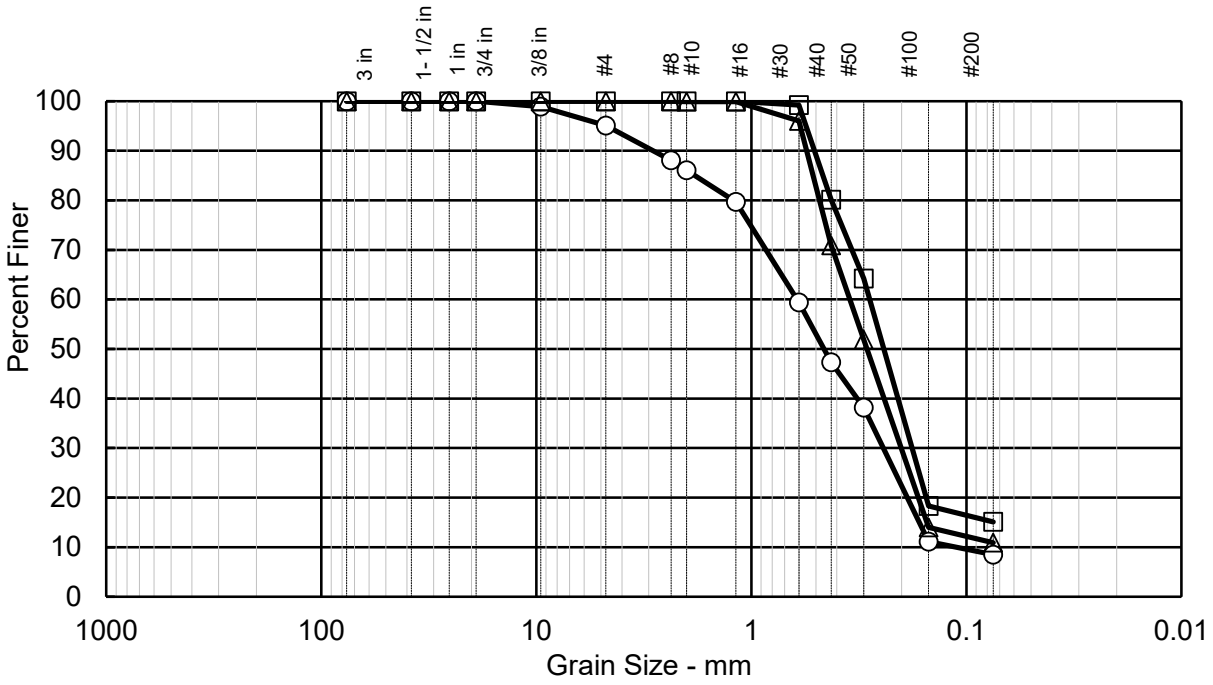
Sample Key	
○	19B-1 at 8.5 ft
□	19B-1 at 15 ft
△	19B-1 at 19 ft

Testing performed by
B. Hillebrandt Soils Testing, Inc.

Little Egbert Tract Restoration
Solano County, California

Sieve Analysis Results 1

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 11



Sieve Size	○	□	△
	Percent Finer		
3 in	100.0	100.0	100.0
1-1/2 in	100.0	100.0	100.0
1 in	100.0	100.0	100.0
3/4 in	100.0	100.0	100.0
3/8 in	98.9	100.0	100.0
#4	95.1	100.0	100.0
#8	88.1	100.0	100.0
#10	86.1	100.0	99.9
#16	79.7	100.0	99.9
#30	59.4	99.2	96.0
#40	47.3	80.1	70.9
#50	38.2	64.2	51.9
#100	11.1	18.3	14.0
#200	8.5	15.1	10.9
	Grain Size		
D60	0.610	0.279	0.352
D30	0.243	0.184	0.208
D10	0.111	-	-
	Coefficients		
Cc	0.87	-	-
Cu	5.48	-	-

Soil Description	
○	Gray Poorly-Graded Sand with Silt (SP-SM)
□	Yellow Brown Silty Sand (SM)
△	Yellow Brown Poorly-Graded Sand with Silt (SP-SM)

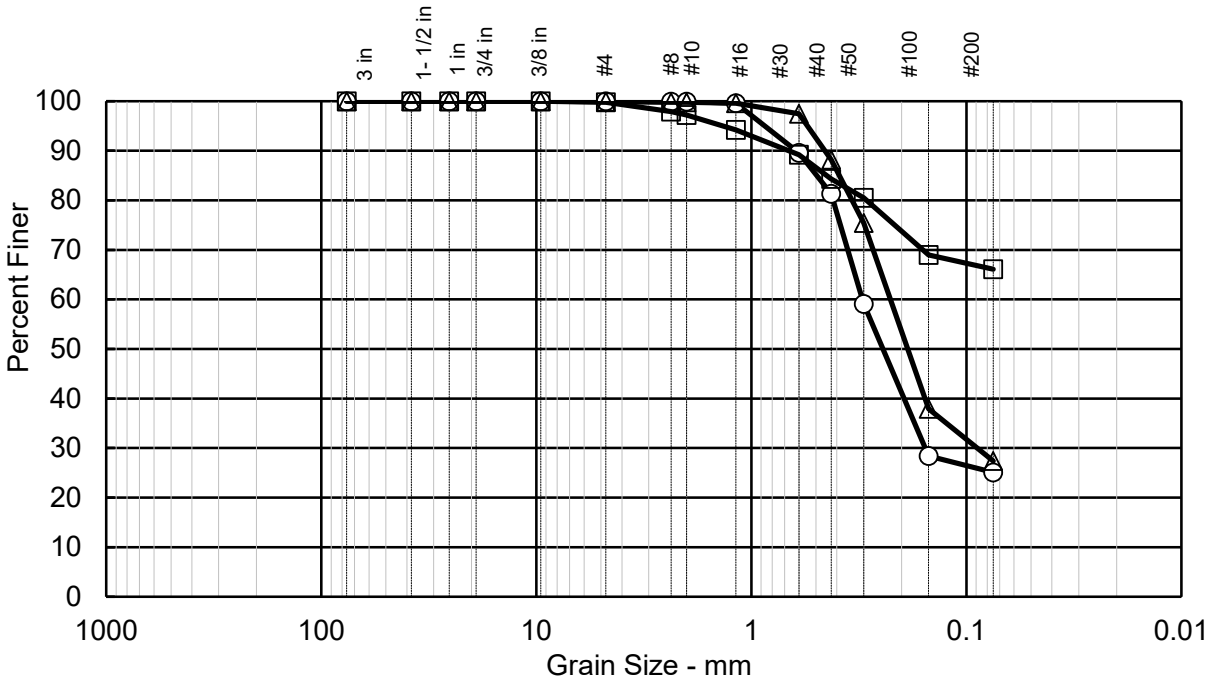
Sample Key	
○	19B-1 at 38.7 ft
□	19B-2 at 13.5 ft
△	19B-2 at 38.5 ft

Testing performed by
B. Hillebrandt Soils Testing, Inc.

Little Egbert Tract Restoration
Solano County, California

Sieve Analysis Results 2

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 12



Sieve Size	○	□	△
	Percent Finer		
3 in	100.0	100.0	100.0
1-1/2 in	100.0	100.0	100.0
1 in	100.0	100.0	100.0
3/4 in	100.0	100.0	100.0
3/8 in	100.0	100.0	100.0
#4	100.0	99.8	99.9
#8	99.9	97.9	99.8
#10	99.9	97.2	99.8
#16	99.6	94.2	99.6
#30	89.6	89.2	97.5
#40	81.3	84.3	88.2
#50	59.1	80.5	75.4
#100	28.4	69.0	37.9
#200	25.1	66.1	27.4
	Grain Size		
D60	0.304	-	0.227
D30	0.161	-	0.110
D10	-	-	-
	Coefficients		
Cc	-	-	-
Cu	-	-	-

Soil Description	
○	Blue Gray Silty Sand (SM)
□	Blue Gray Sandy Silt (ML)
△	Blue Gray Silty Sand (SM)

Sample Key	
○	19B-3 at 19 ft
□	19B-3 at 23.5 ft
△	19B-3 at 28.8 ft

Testing performed by
B. Hillebrandt Soils Testing, Inc.

Little Egbert Tract Restoration
Solano County, California

Sieve Analysis Results 3

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 13

APPENDIX B-2
2018-2019 TEST PITS

I. INTRODUCTION

This appendix presents the data from our 2018-2019 test pits. The test pits were excavated in the parcel interior.

II. FIELD EXPLORATION AND LABORATORY TESTING

We explored subsurface conditions on November 13 and 14, 2018 by excavating 15 test pits to depths of 4 to 8 feet below existing grade. We performed further subsurface condition explorations on July 11 and 12, 2019 by excavating 16 additional test pits to depths of 8 to 11 feet below existing grade. The approximate test pit locations are shown on the Site Plan, Plate 2 and the 2018-2019 Test Pit Location Map, Plate B-2-1. We used a rubber-tired backhoe to excavate the test pits.

Our engineer logged the test pits and collected samples for further visual classification and selection of materials for laboratory testing. The test pits were backfilled with spoils from the test pit excavations and tamped with the backhoe bucket.

The laboratory testing program consisted of:

- Moisture content (ASTM D 2216-10);
- Atterberg limits (ASTM D 4318-10);
- Sieve analysis (ASTM D 6913-17); and,
- Modified Proctor compaction testing (ASTM D 1557-12).

Atterberg limits tests were performed in accordance with the wet preparation method outlined in ASTM D 4318-10.

Soil descriptions are shown on the Logs of Test Pits, Plates B-2-3 through B-2-33. The soil descriptions are presented in general accordance with the Soil Classification System presented on Plate B-2-2 with laboratory test results presented in the manner described by the Key to Test Data. Atterberg limits test results are shown on Plates B-2-34 through B-2-36. The moisture content results are presented on the individual test pit logs. Sieve analysis test results are shown on Plates B-2-37 through B-2-39. Compaction test results are shown on Plates B-2-40 through B-2-44.



Approximate Location of Test Pit (2018-2019)

Approximate Location of Levee Centerline

N

0 2,000 Feet

1 inch = 2,000 feet

Little Egbert Multi-Benefit Project
Solano County, California

2018-2019 Test Pit Location Map

Hultgren - Tillis Engineers

Project No. 907.02

Plate No. B-2-1

MAJOR DIVISIONS				GROUP NAMES
COARSE GRAINED SOILS MORE THAN 50% RETAINED ON NO. 200 SIEVE	GRAVELS MORE THAN 50% OF COARSE FRACTION IS RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS WITH LESS THAN 5% FINES	GW	WELL GRADED GRAVEL
			GP	POORLY GRADED GRAVEL
		GRAVELS WITH OVER 12% FINES	GM	SILTY GRAVEL
			GC	CLAYEY GRAVEL
	SANDS 50% OR MORE OF COARSE FRACTION PASSES NO. 4 SIEVE	CLEAN SANDS WITH LESS THAN 5% FINES	SW	WELL GRADED SAND
			SP	POORLY GRADED SAND
		SANDS WITH OVER 12% FINES	SM	SILTY SAND
			SC	CLAYEY SAND
FINE GRAINED SOILS 50% OR MORE PASSES NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML	SILT
			CL	LEAN CLAY
			OL	ORGANIC CLAY, ORGANIC SILT
	SILTS AND CLAYS LIQUID LIMIT 50 OR MORE		MH	ELASTIC SILT
			CH	FAT CLAY
			OH	ORGANIC CLAY, ORGANIC SILT
HIGHLY ORGANIC SOILS			Pt	PEAT

UNIFIED SOIL CLASSIFICATION SYSTEM- ASTM D 2487

S - SPT

M - 2.5 inch

C - 3.0 inch

T - Shelby Tube

B - Bag

- Water Level at Time of Drilling
- Water Level after Drilling (with date measured)

Consol - Consolidation
Gs - Specific Gravity
LL - Liquid Limit (%)
PI - Plasticity Index (%)
TxUU - Shear Strength (psf) - Unconsolidated Undrained Triaxial Shear
TxCU - Shear Strength (psf) - Consolidated Undrained Triaxial Shear
UC - Compressive Strength (psf) - Unconfined Compression

P - Push
Perm - Permeability
Sieve - Particle Size Analysis
VS - Laboratory Vane Shear (psf)
-200 - % Passing No. 200 Sieve

KEY TO TEST DATA

Little Egbert Tract Restoration
Solano County, California

Soil Classification Chart

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 36

Date : 11/13/2018
Drilling Method : Test Pit
Elevation (Feet) :
Latitude : 38.19501
Longitude : -121.66090

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
0						Organic Clay (OH), brown, dry, stiff, high plasticity, no dilatancy, high toughness, becomes darker with depth					
1	B			OH		Becomes moist			34		LL=263 PI=180
1	B										
2						Elastic Silt (MH), mottled gray and yellowish brown, moist, stiff, medium plasticity, no dilatancy, medium toughness					
2	B			MH							
3	B					Organic Clay (OH), mottled brown and black, wet, soft to medium stiff, high plasticity, no dilatancy, high toughness, small plant fibers					
3				OH							
4	B				▽	11/13/2018					
4						Peat (Pt), black, wet, soft, with brown fibers, fibrous, long fibers and leaves			291		
5	B										
5				Pt							
6	B										
6						Organic Clay (OH), dark gray, wet, soft, medium plasticity, slow dilatancy, medium toughness, abundant organic fibers					
7	B			OH							
7	B					Bottom of test pit at 7 feet Groundwater encountered at 4.2 feet					

Little Egbert Tract Restoration
Solano County, California

Log of 18P-1
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 5

Date : 11/13/2018
Drilling Method : Test Pit
Elevation (Feet) :
Latitude : 38.19700
Longitude : -121.66737

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
0	B			OH		Organic Clay (OH), light brown, dry, stiff, high plasticity, no dilatancy, high toughness, mixed with manure, (fill) Becomes brown, moist					
1						Organic Clay (OH), brown, moist, stiff, high plasticity, no dilatancy, high toughness, (fill)					
2	B			OH		Becomes blue gray					
3	B					Organic Clay (OH), mottled dark brown and black, wet, soft to medium stiff, medium plasticity, no dilatancy, medium toughness, organics, old corn cobs, leaves, (fill)			58		
4	B				▽	11/13/2018					
5	B			OH		Plastic bag piece					
6	B			Pt		Peat (Pt), black, wet, soft to medium stiff, with brown fibers, fibrous			362		
7	B			OH		Organic Silt (OH), dark gray, wet, soft to medium stiff, medium plasticity, slow dilatancy, medium toughness, abundant fibers, small red clay pieces approximately 1/4-inch					

Bottom of test pit at 7 feet
Groundwater encountered at 4 feet

Little Egbert Tract Restoration
Solano County, California

Log of 18P-2
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 6

Date : 11/13/2018
Drilling Method : Test Pit
Elevation (Feet) :
Latitude : 38.20304
Longitude : -121.66679

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
0	B			OH		Sandy Organic Clay (OH), light brown, dry, stiff, high dry strength, tilled					
1						Organic Clay (OH), mottled brown, moist, stiff, high plasticity, no dilatancy, high toughness, trace small plant fibers					
2	B			OH							
3	B			MH		Elastic Silt (MH), mottled red brown, moist, stiff, medium plasticity, no dilatancy, medium toughness, trace sand			48		LL=64 PI=31
4	B			OH	▽ 11/13/2018	Organic Silt (OH), mottled gray brown, soft to medium stiff, medium plasticity, slow dilatancy, hard red clay pieces smaller than 1/4-inches					
5	B			OH		Organic Clay (OH), dark gray mottling and black, wet, soft, high plasticity, high toughness, fibrous organics			130		
6	B			Pt		Peat (Pt), black, wet, soft to medium stiff, with brown fibers, fibrous					
7	B										

Bottom of test pit at 7.5 feet
Groundwater encountered at 4 feet

Little Egbert Tract Restoration
Solano County, California

Log of 18P-3
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 7

Date : 11/13/2018
Drilling Method : Test Pit
Elevation (Feet) :
Latitude : 38.20960
Longitude : -121.67713

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
0	B			OH		Organic Clay (OH), brown, dry, stiff, tilled, roots in upper 1 foot			27		
1						Organic Clay (OH), brown, moist, stiff, high plasticity, no dilatancy, high toughness					
2	B B			OH		Black and brown mottling					
3	B			SM		Silty Sand (SM), red, fine to medium grained sand, wet, loose to medium dense, trace gravel sized pieces, iron-oxide staining					
4	B				▽	Peat (Pt), black, wet, soft, occasional lenses of blue gray clay 11/13/2018			173		LL=271 PI=188
5											
6	B B			Pt							
7	B										
8						Bottom of test pit at 8 feet Groundwater encountered at 4 feet					

Little Egbert Tract Restoration
Solano County, California

Log of 18P-4
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 8

Date : 11/13/2018
Drilling Method : Test Pit
Elevation (Feet) :
Latitude : 38.20515
Longitude : -121.67752

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
1	B			OH		Organic Clay (OH), dark gray, moist, stiff to very stiff, high plasticity, high toughness, high dry strength, shrinkage cracks at surface, rootlets Dry in upper 6-inches					
2	B			OL		Sandy Organic Silt (OL), mottled red, moist to wet, medium stiff, low plasticity, slow dilatancy, low toughness			67		Curve
3	B			OH		Organic Silt (OH), mottled brown and black, wet, medium stiff, high plasticity, no dilatancy, medium toughness, black fibers			72		LL=115 PI=60
4	B										
5	B										
6	B			OH		Organic Silt (OH), mottled gray and black, wet, soft, medium plasticity, slow dilatancy, low toughness, thinly interbedded layers with fibers					
7						Bottom of test pit at 7 feet No groundwater encountered					

Little Egbert Tract Restoration
Solano County, California

Log of 18P-5
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 9

Date : 11/13/2018
Drilling Method : Test Pit
Elevation (Feet) :
Latitude : 38.19995
Longitude : -121.67382

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
1	B			CH		Fat Clay (CH), gray brown, moist, stiff to very stiff, high plasticity, no dilatancy, high toughness, medium to high dry strength, shrinkage cracks at surface, dry in top 3-inches, moist below 3-inches			23		
2	B			SP-SM		Poorly-Graded Sand with Silt (SP-SM), yellow brown, fine grained sand, moist, dense to very dense			27		Sieve -200=10
3	B				▽	11/13/2018					
4	B					Backhoe encountered refusal					

Bottom of test pit at 4 feet
Groundwater encountered at 3.5 feet

Little Egbert Tract Restoration
Solano County, California

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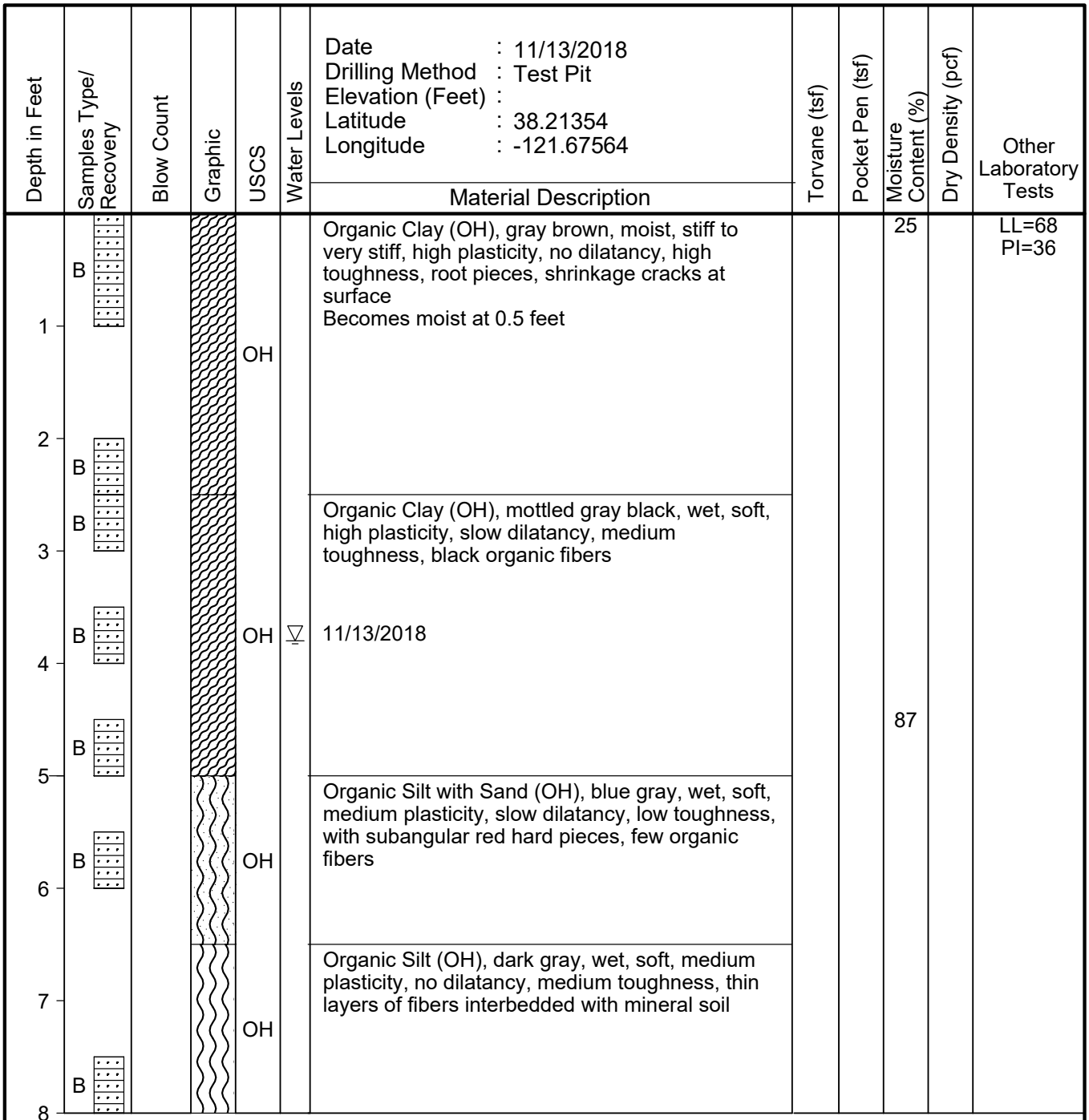
Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 10



Little Egbert Tract Restoration
Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 11

Date : 11/13/2018
Drilling Method : Test Pit
Elevation (Feet) :
Latitude : 38.21496
Longitude : -121.68042

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
1	B			OH		Organic Clay (OH), gray, dry, stiff to very stiff, high plasticity, no dilatancy, high toughness, high dry strength					Curve
2	B								35		
	B										
3	B					Peat (Pt), mottled gray and black, dry, stiff					
4	B			Pt							
5	B			OH		Organic Silt (OH), blue gray, wet, medium stiff, medium plasticity, slow dilatancy, medium toughness, with red oxide staining, occasional hard red pieces			74		
6	B				▽	11/13/2018					
	B					Peat (Pt), black, wet, soft, with blue gray clay lenses, partially decomposed leaves					
7				Pt							
8	B										

Bottom of test pit at 8 feet
Groundwater encountered at 6 feet

Little Egbert Tract Restoration
Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 12

Date : 11/14/2018
Drilling Method : Test Pit
Elevation (Feet) :
Latitude : 38.21902
Longitude : -121.68349

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
1	B			OH		Organic Clay (OH), light brown, dry, very stiff, medium dry strength, shrinkage cracks approximately 1 foot deep					
2	B			OH		Organic Clay (OH), dark brown with red mottling, moist, medium stiff					
3	B			Pt		Peat (Pt), dark brown with red mottling, moist, soft, amorphous			69		
4	B			OH	▽	Organic Clay (OH), dark brown, moist, soft, medium plasticity, medium toughness, with red plant roots 11/14/2018					
5	B					Peat (Pt), black, wet, soft, with red plant roots, fibrous, thin layers of blue gray clay					
6	B			Pt					184		
7						Bottom of test pit at 7 feet Groundwater encountered at 4 feet					

Little Egbert Tract Restoration
Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 13

Date : 11/14/2018
Drilling Method : Test Pit
Elevation (Feet) :
Latitude : 38.22233
Longitude : -121.67889

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
0						Organic Clay (OH), gray brown, moist, stiff, medium plasticity, no dilatancy, medium toughness, high dry strength, slight color variation with depth					
1	B										
2	B								34		LL=66 PI=40
3	B			OH							
4	B					Red brown mottling					
5	B				▽	Wet, increased mottling 11/14/2018					
6	B			OH		Organic Silt (OH), gray, wet, medium stiff to stiff, medium plasticity, no dilatancy, medium toughness, with red brown fibers			63		
7	B			MH		Elastic Silt (MH), blue gray, wet, medium stiff to stiff, medium plasticity, no dilatancy, medium toughness					

Bottom of test pit at 7.5 feet
Groundwater encountered at 5 feet

Little Egbert Tract Restoration
Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 14

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 11/14/2018 Drilling Method : Test Pit Elevation (Feet) : Latitude : 38.22423 Longitude : -121.68331					
1	B			OH		Organic Clay (OH), brown, dry, very stiff, medium dry strength, with red orange pieces					
2	B										
3	B			OH		Organic Silt (OH), dark gray, moist, stiff, high plasticity, medium toughness, with some organics and some red orange pieces			52		
4	B				▽	Medium stiff 11/14/2018					
5						Peat (Pt), black, wet, soft, with interbedded blue gray clay lenses, interbedded fibrous lenses			83		
6	B			Pt							
7	B					Bottom of test pit at 7 feet Groundwater encountered at 4.5 feet					

Little Egbert Tract Restoration
Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 15

Date : 11/14/2018
Drilling Method : Test Pit
Elevation (Feet) :
Latitude : 38.23096
Longitude : -121.68318

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
1	B					Organic Silt (OH), dark brown, moist, stiff, with some red plant roots and some orange lenses (approximately 2-inches thick), becomes darker with depth					
2	B			OH					50		
3	B										
	B								55		LL=92 PI=52
4	B					Organic Clay (OH), dark blue gray, moist, medium stiff, medium to high plasticity, medium toughness, traces of small fibers					
5	B			OH	▽	11/14/2018					
6	B					Peat (Pt), dark gray, wet, soft, with some plant roots, fibrous, frequent interbedded clay seams, interbedded black lenses (approximately 1/2-inch)					
7	B			Pt							

Bottom of test pit at 7.5 feet
Groundwater encountered at 5.5 feet

Little Egbert Tract Restoration
Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 16

Date : 11/14/2018
Drilling Method : Test Pit
Elevation (Feet) :
Latitude : 38.23487
Longitude : -121.68750

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
0	B			OH		Organic Clay (OH), dark gray, dry, hard, high plasticity, high toughness, with plant roots in upper 6-inches					
1						Organic Clay (OH), mottled dark brown, moist, stiff, medium plasticity, high toughness, with red inclusions					
2	B			OH					56		
3	B					Peat (Pt), black, wet, very soft, frequent 1-inch blue gray clay seams, interbedded lenses with varying fiber sizes					
4	B				▽	11/14/2018					Curve
5				Pt							
6	B								122		LL=168 PI=119
7	B										
						Bottom of test pit at 7 feet Groundwater encountered at 4 feet					

Little Egbert Tract Restoration
Solano County, California

Log of 18P-13
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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 17

Date : 11/14/2018
Drilling Method : Test Pit
Elevation (Feet) :
Latitude : 38.23982
Longitude : -121.68797

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
1	B			OH		Organic Clay (OH), dark gray brown, moist, medium stiff, high plasticity, medium toughness, plant roots in upper 6-inches					
2	B										
3	B								34		LL=72 PI=43
4	B			ML		Sandy Silt (ML), yellow brown, moist, stiff, medium plasticity, slow dilatancy, low toughness					
5	B			OH	▽	Organic Clay (OH), dark blue gray, moist, medium stiff, medium plasticity, low toughness, tule piece in trench wall, some organic fibers 11/14/2018					
6	B			OH		Organic Silt (OH), olive brown, moist, stiff, medium plasticity, slow dilatancy, low toughness			51		
7	B			OH		Organic Clay (OH), dark gray blue, moist, medium stiff, medium plasticity, low toughness					
8	B					Bottom of test pit at 8 feet Groundwater encountered at 5 feet					

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Solano County, California

Log of 18P-14
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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 18

Date : 11/14/2018
Drilling Method : Test Pit
Elevation (Feet) :
Latitude : 38.22676
Longitude : -121.68947

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
1	B			OH		Organic Clay (OH), dark brown, moist, stiff, medium plasticity, medium toughness, with plant roots			33		
2	B										
3	B					Organic Clay (OH), dark gray, moist, medium stiff, medium plasticity, medium toughness, seams of blue gray clay, small organic fibers					
4	B			OH	▽	11/14/2018					
5	B								93		
6	B			OH		Organic Silt (OH), dark gray, wet, soft, medium plasticity, no dilatancy, low toughness, larger organic fibers					
7	B										

Bottom of test pit at 7 feet
Groundwater encountered at 4 feet

Little Egbert Tract Restoration
Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 19

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 7/11/2019 Drilling Method : Test Pit Elevation (Feet) : 2.5 Latitude : 38.20016 Longitude : -121.68090					
0	B			CH		Fat Clay (CH), mottled light brown, dry, hard, high plasticity, no dilatancy, high toughness Becomes moist and stiff					
1	B								26		
2	B					Silty Sand (SM), yellow brown, fine grained sand, moist, dense, no plasticity, thinly interbedded layers of sand and silt approximately 1- to 2-inches thick					
3	B			SM							
4	B				▽	7/11/2019 Increasing sand					Sieve -200=41
5	B					Silty Sand (SM), brown, poorly graded, fine grained sand, wet, medium dense					
6	B			SM							
7	B										
8						Bottom of test pit at 8 feet Groundwater encountered at 4 feet					

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Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 20

Date : 7/11/2019
Drilling Method : Test Pit
Elevation (Feet) : 3.5
Latitude : 38.19837
Longitude : -121.67625

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
0	B			CH		Fat Clay (CH), dark brown, dry to moist, stiff, medium plasticity, medium toughness					
1	B			CL		Lean Clay (CL), gray mottled brown, moist, stiff, medium plasticity, medium toughness, cemented fragments					
2	B										
3	B					Lean Clay (CL), light brown, moist, medium stiff to stiff, medium plasticity, medium toughness					
4	B			CL		Wet					LL=39 PI=19 Compaction Curve
5	B								24		
6	B			CL		Lean Clay (CL), light gray brown, moist to wet, medium stiff, low plasticity, rapid dilatancy, low toughness					
7					▽	Sandy Silt (ML), brown, wet, soft, low plasticity, rapid dilatancy, low toughness 7/11/2019					
8	B			ML							
9	B										

Bottom of test pit at 9 feet
Groundwater encountered at 7 feet

Little Egbert Tract Restoration
Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 21

Date : 7/11/2019
Drilling Method : Test Pit
Elevation (Feet) : 7.8
Latitude : 38.19608
Longitude : -121.68104

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
0	B					Fat Clay (CH), dark brown, dry, very stiff, high plasticity, high toughness, very high dry strength					
1	B			CH		Becomes moist			27		LL=55 PI=41
2											
3	B			CL		Lean Clay (CL), brown, moist, stiff, medium plasticity, medium toughness					
4	B			CL		Lean Clay (CL), dark brown, dry, very stiff, high plasticity, high toughness					
5	B										
6	B			CL		Lean Clay (CL), gray to brown, moist, stiff, medium plasticity, medium toughness, mineral fragments (approx 1- to 2-inches)					
7	B										
8	B			ML		Sandy Silt (ML), brown, moist, very stiff, slow dilatancy, white cemented fragments (up to 4-inches)					
9	B										

Bottom of test pit at 9.5 feet
No groundwater encountered

Little Egbert Tract Restoration
Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 22

Date : 7/11/2019
Drilling Method : Test Pit
Elevation (Feet) : 9.3
Latitude : 38.19164
Longitude : -121.68107

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
1	B			CH		Fat Clay (CH), dark brown, dry to moist, stiff, high plasticity, high toughness, very high dry strength					
2	B										
3	B								23		
4	B			CL		Lean Clay (CL), brown, moist, stiff, medium to high plasticity, medium toughness					
5	B										
6	B			CL		Lean Clay (CL), light brown, stiff, medium plasticity, medium toughness, angular mineral fragments (1- to 2-inches)					
7	B					Lean Clay (CL), light brown, moist, very stiff, oxide staining					
8	B			CL							
9	B					Bottom of test pit at 9 feet No groundwater encountered					

Little Egbert Tract Restoration
Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 23

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 7/11/2019 Drilling Method : Test Pit Elevation (Feet) : 9.5 Latitude : 38.19315 Longitude : -121.67773					
1	B			CH		Fat Clay (CH), dark brown, dry, very soft, high plasticity, high toughness					
2	B										
3	B										
4	B			CL		Lean Clay (CL), brown, moist, stiff, medium plasticity, medium toughness			26		
5						Silt (ML), gray to yellow brown, moist, hard, oxide staining, cemented, rock like structure					
6				ML							
7	B										
8	B					Silt (ML), gray to yellow brown, wet, hard, low plasticity, slight cementation, white oxide staining, cementation diminishes with depth					
9	B			ML	▽	7/11/2019					
						Bottom of test pit at 9.5 feet Groundwater encountered at 9 feet					

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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 24

Date : 7/11/2019
Drilling Method : Test Pit
Elevation (Feet) : 7.6
Latitude : 38.19987
Longitude : -121.67389

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
1	B			CH		Fat Clay (CH), dark brown, moist, stiff, high plasticity, high toughness, (fill)					
2	B										
3	B			CH		Fat Clay (CH), mottled brown, moist, stiff, high plasticity, high toughness, (fill)					
4	B			CH		Fat Clay (CH), dark brown, moist, stiff, high plasticity, high toughness, (fill)					
5	B			Pt		Peat (Pt), black, moist, soft, amorphus			35		
6	B			OH		Organic Clay (OH), blue gray and mottled black, moist, soft, high plasticity, no dilatancy, high toughness					
7	B			CL		Lean Clay (CL), blue gray with brown mottling, moist, stiff, medium plasticity, medium toughness					
8	B					Grades sandy, 1/2-inch mineral fragments					
9	B										

Bottom of test pit at 9 feet
No groundwater encountered

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Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 25

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 7/11/2019 Drilling Method : Test Pit Elevation (Feet) : 5.8 Latitude : 38.19062 Longitude : -121.67348					
1	B			CH		Fat Clay (CH), dark brown, moist, stiff, medium to high plasticity, medium toughness					
2	B										
3	B			CL		Lean Clay (CL), dark brown, moist, stiff, medium plasticity, medium toughness, trace subrounded gravel			18		
4				SC		Clayey Sand (SC), brown, moist, medium dense, medium plasticity, medium toughness, subrounded gravel					
5	B										Sieve -200=32
6					▽	Clayey Sand (SC), red brown, fine to coarse grained sand, wet, medium dense, subrounded gravel, grades less clayey with depth 7/11/2019					
7	B			SC		Increasing sand					
8	B										
9	B										
						Bottom of test pit at 9 feet Groundwater encountered at 6.5 feet					

Little Egbert Tract Restoration
Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 26

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 7/11/2019 Drilling Method : Test Pit Elevation (Feet) : -0.2 Latitude : 38.19282 Longitude : -121.66874					
1	B			CL		Lean Clay (CL), light gray, dry, medium stiff, low plasticity, low toughness					
2											
3	B					Lean Clay with Sand (CL), blue gray, moist, stiff, high plasticity, high toughness			24		LL=47 PI=33
4	B			CL							Sieve -200=80
5	B				▽	7/11/2019					
6						Silt (ML), green gray, moist, very stiff, low plasticity, slow dilatancy, low toughness					
7	B			ML							
8	B					Sandy Silt (ML), green gray, wet, very stiff, low plasticity, rapid dilatancy, low toughness, cementation increases with depth					
9	B			ML							
10	B										

Bottom of test pit at 10.5 feet
Groundwater encountered at 5 feet

Little Egbert Tract Restoration
Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 27

Date : 7/12/2019
Drilling Method : Test Pit
Elevation (Feet) : 5.7
Latitude : 38.18963
Longitude : -121.66721

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
1	B			CH		Fat Clay (CH), red gray, dry, very stiff, medium to high plasticity, slow dilatancy, medium toughness, very high dry strength					
2	B					Strong cementation					
3	B			CH		Fat Clay (CH), red gray, moist, hard, medium to high plasticity, slow dilatancy, medium toughness					
4	B			ML		Silt (ML), red gray, dry, stiff, medium plasticity, slow dilatancy, medium toughness			29		
5	B										
6						Silty Sand (SM), brown, wet, medium dense, increasing fines with depth					
7	B										
				SM	▽	7/12/2019					
8	B										
9	B										

Bottom of test pit at 9 feet
Groundwater encountered at 7.5 feet

Little Egbert Tract Restoration
Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 28

Date : 7/12/2019
Drilling Method : Test Pit
Elevation (Feet) : 7.5
Latitude : 38.18549
Longitude : -121.16667

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
1	B			ML		Sandy Silt (ML), red gray, moist to wet, medium stiff, low plasticity, slow dilatancy, low toughness, (fill)					
2	B										
3											
4	B										
5											
6				OH		Organic Clay (OH), dark brown, wet, soft, amorphus					
7	B				▽	7/12/2019			36		
8	B			SC		Clayey Sand (SC), gray mottled brown, wet, loose					
9	B										
	B										

Bottom of test pit at 9.5 feet
Groundwater encountered at 7 feet

Little Egbert Tract Restoration
Solano County, California

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Hultgren - Tillis Engineers | Project No. 907.01 | Plate No. 29

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 7/12/2019 Drilling Method : Test Pit Elevation (Feet) : 6.6 Latitude : 38.18710 Longitude : -121.67614					
1						Fat Clay (CH), red gray, moist, stiff, high plasticity, no dilatancy, high toughness					
2	B			CH							
3	B										
4	B			ML		Silt (ML), light brown, moist, stiff, low plasticity, slow dilatancy, low toughness					
5	B					Sandy Silt (ML), light brown, moist to wet, very loose, low plasticity, slow dilatancy, low toughness			27		Sieve -200=57
6						Moderate cementation					
7	B			ML	▽	7/12/2019					
8											
9	B										
10	B					Bottom of test pit at 10 feet Groundwater encountered at 7 feet					

Little Egbert Tract Restoration
Solano County, California

Log of 19P-26
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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 30

Date : 7/12/2019
Drilling Method : Test Pit
Elevation (Feet) : 6.8
Latitude : 38.18331
Longitude : -121.16811

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
1	B			CH		Fat Clay (CH), dark brown, dry to moist, very stiff, high plasticity, no dilatancy, high toughness, high dry strength					
2	B					Lean Clay (CL), light brown, moist, stiff, medium plasticity, slow dilatancy, medium toughness					
3	B										
4											
5											
6	B			CL					31		LL=33 PI=13
7											
8	B					Oxide staining					
9	B					7/12/2019					
10				CL	▽	Sandy Lean Clay (CL), green gray, wet, medium stiff, medium plasticity, slow dilatancy, medium toughness					
11	B										

Bottom of test pit at 11 feet
Groundwater encountered at 10 feet

Little Egbert Tract Restoration
Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 31

Date : 7/12/2019
Drilling Method : Test Pit
Elevation (Feet) : 6.3
Latitude : 38.18881
Longitude : -121.67606

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
0						Silt (ML), red gray, dry, medium stiff, low plasticity, no dilatancy, low toughness, (fill)					
1				ML							
2	B										
3						Poorly-Graded Sand (SP), gray brown, medium grained sand, moist to wet, loose, (fill)					
4	B										
5				SP							
6	B				▽	7/12/2019 A 3 foot piece of electrical wire					
7	B			CL		Sandy Lean Clay (CL), dark brown, wet, medium stiff, medium plasticity, medium toughness, trace fibers, (fill)					
8	B			Pt		Peat (Pt), black, wet, soft, amorphus			57		
9				OH		Organic Clay (OH), blue gray mottled brown, wet, medium stiff, high plasticity, medium toughness, with layers of coarse sand					
10	B					Bottom of test pit at 10 feet Groundwater encountered at 6 feet					

Little Egbert Tract Restoration
Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 32

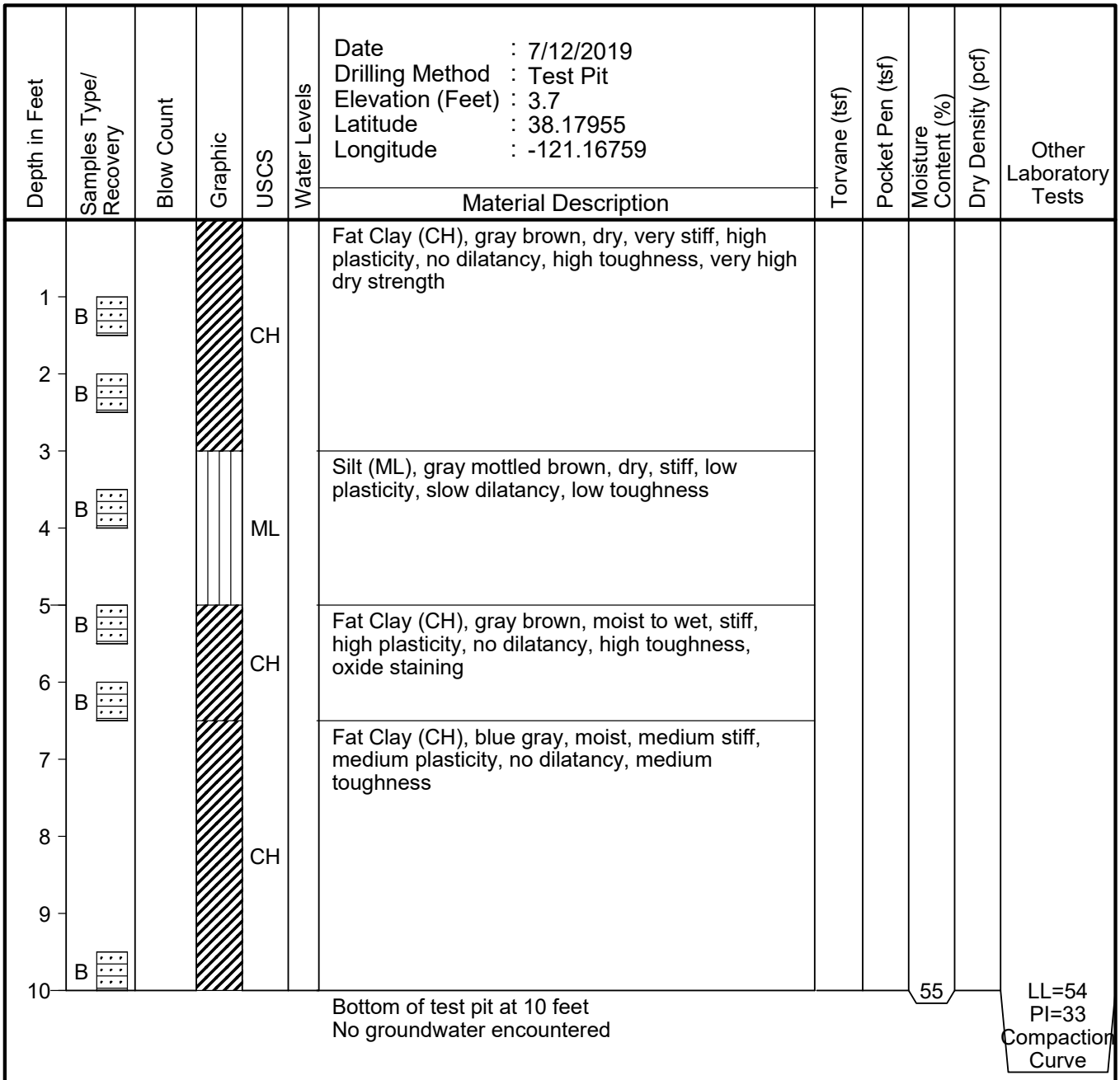
Date : 7/12/2019
Drilling Method : Test Pit
Elevation (Feet) : 5.7
Latitude : 38.18161
Longitude : -121.67111

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
0						Fat Clay (CH), gray brown, moist, stiff to very stiff, high plasticity, no dilatancy, high toughness					
1	B			CH							
2	B										
3											
4	B			CL		Lean Clay (CL), brown, wet, medium stiff, low plasticity, slow dilatancy, medium toughness Becomes mottled brown					
5	B				▽	7/12/2019 Organic Clay (OH), blue gray mottled brown, moist to wet, stiff, high plasticity, no dilatancy, high toughness, hard angular chunks			28		
6				OH							
7	B					Sandy Silt (ML), red gray, wet, medium stiff, low plasticity, slow dilatancy, low toughness, channels of coarse sand (approx. 1- to 2-inches)					Sieve -200=58
8				ML							
9	B					Cementation fragments					
10	B B			SM		Silty Sand (SM), gray brown, fine grained sand, wet, loose					
11						Bottom of test pit at 11 feet Groundwater encountered at 5 feet					

Little Egbert Tract Restoration
Solano County, California

Log of 19P-29
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 33



Little Egbert Tract Restoration
Solano County, California

Log of 19P-30
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 34

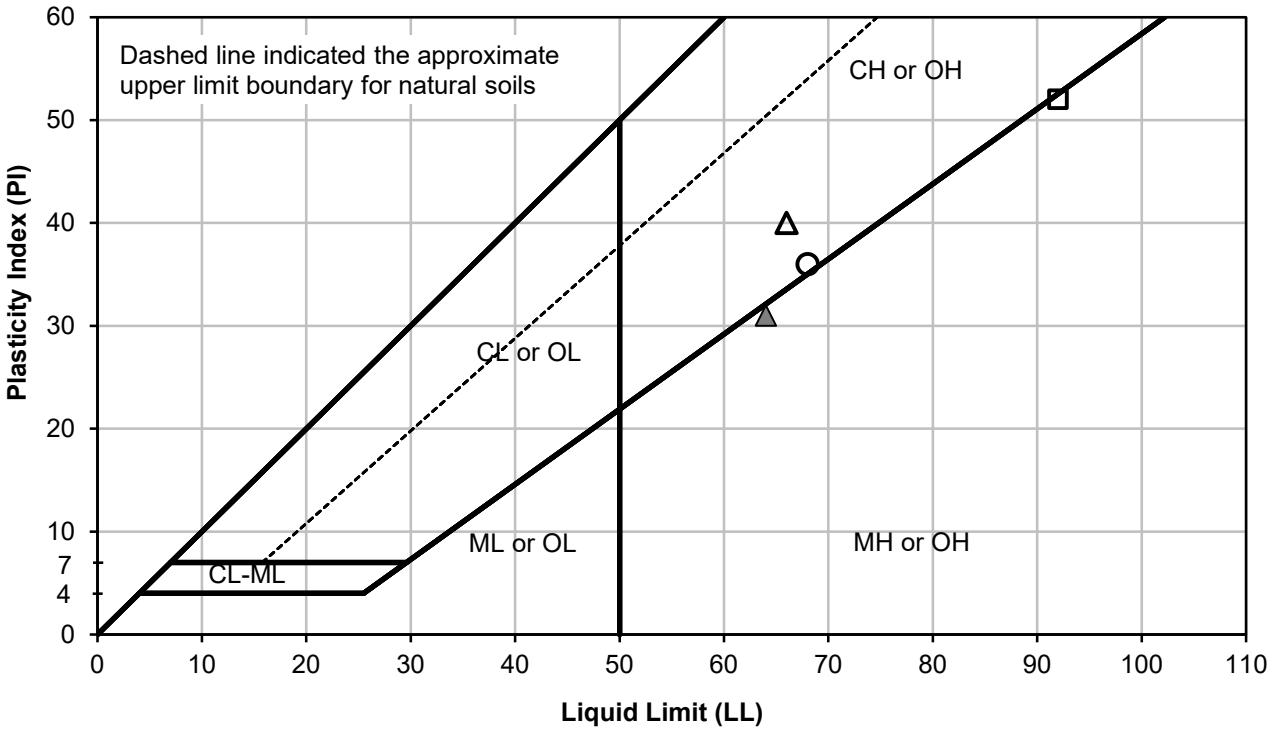
Date : 7/12/2019
Drilling Method : Test Pit
Elevation (Feet) :
Latitude : 38.17799
Longitude : -121.67278

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
1	B			CH		Fat Clay (CH), gray brown, dry, very stiff, high plasticity, no dilatancy, high toughness, high dry strength					
2											
3	B					Fat Clay (CH), red mottled gray, dry to moist, stiff, high plasticity, no dilatancy, high toughness, high dry strength					
4	B								29		LL=50 PI=36
5				CH							
6	B										
7	B				▽	7/12/2019					
8	B					Silty Sand (SM), red gray, wet, stiff, subangular gravel (1/8-inch), grades to fine					
9	B			SM							
10	B					Bottom of test pit at 10 feet Groundwater encountered at 7 feet					

Little Egbert Tract Restoration
Solano County, California

Log of 19P-31
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 35



Symbol	Test Pit Number	Depth (feet)	Soil Description	LL (%)	PL (%)	PI (%)	Moisture Content (%)
● *	18P-1	1.0-1.5	Brown Organic Clay	263	83	180	34
▲	18P-3	2.5-3.0	Mottled Red Brown Elastic Silt	64	33	31	48
■ *	18P-4	4.0-4.5	Black Peat	271	83	188	173
◆ *	18P-5	3.0-4.0	Mottled Brown and Black Organic Silt	115	55	60	72
○	18P-7	0-1.0	Gray Brown Organic Clay	68	32	36	25
△	18P-10	1.5-2.0	Gray Brown Organic Clay	66	26	40	34
□	18P-12	3.5-4.0	Dark Brown Organic Silt	92	40	52	55
◇*	18P-13	5.5-6.0	Black Peat	168	49	119	122

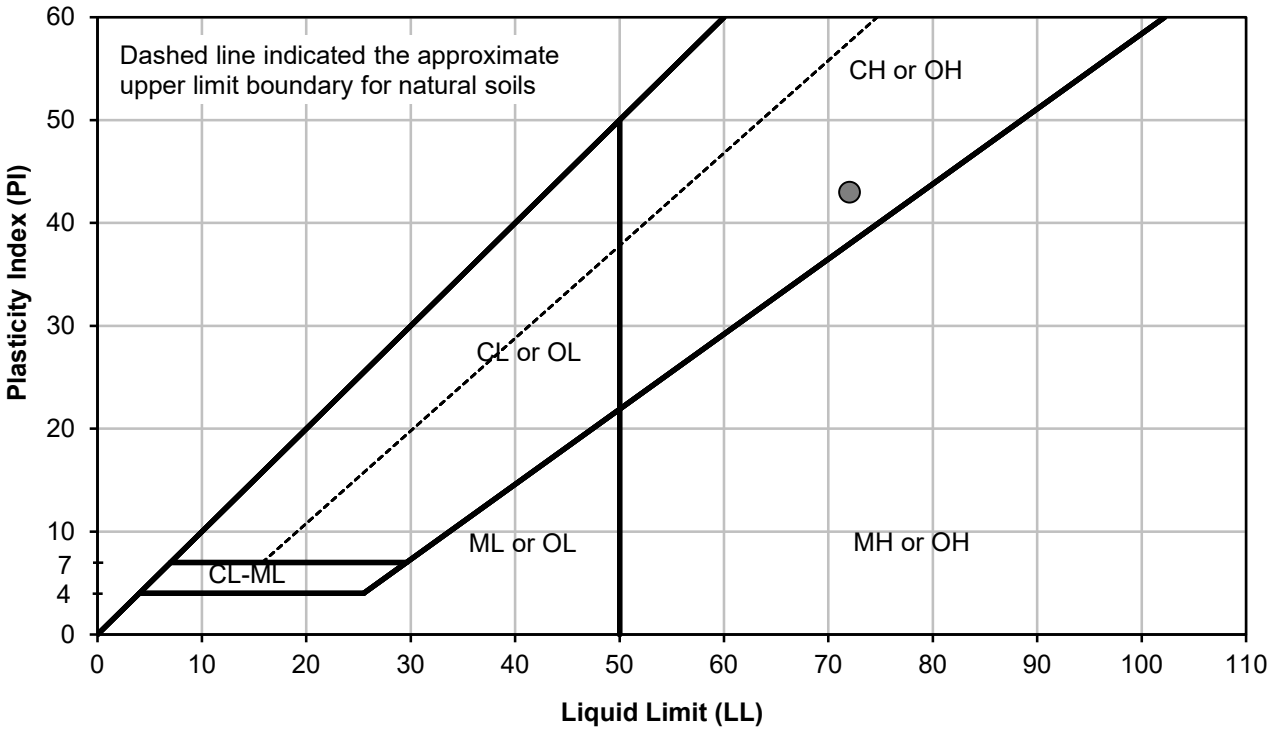
* Liquid Limit and Plasticity Index are outside the limits of the plot

Testing performed by B. Hillebrandt Soils Testing, Inc.

Little Egbert Tract Restoration
Solano County, California

Atterberg Limits

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 37



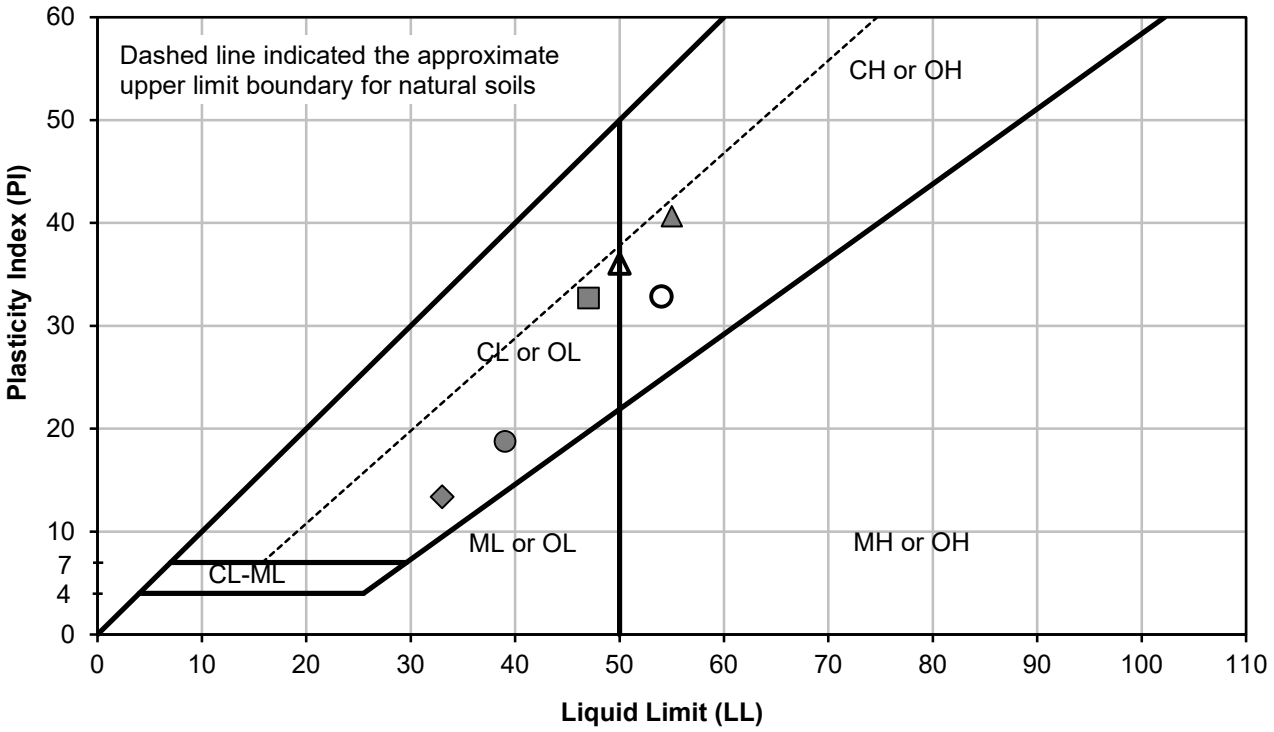
Symbol	Test Pit Number	Depth (feet)	Soil Description	LL (%)	PL (%)	PI (%)	Moisture Content (%)
●	18P-14	2.5-3.0	Dark Gray Brown Organic Clay	72	29	43	34

Testing performed by B. Hillebrandt Soils Testing, Inc.

Little Egbert Tract Restoration
Solano County, California

Atterberg Limits

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 38



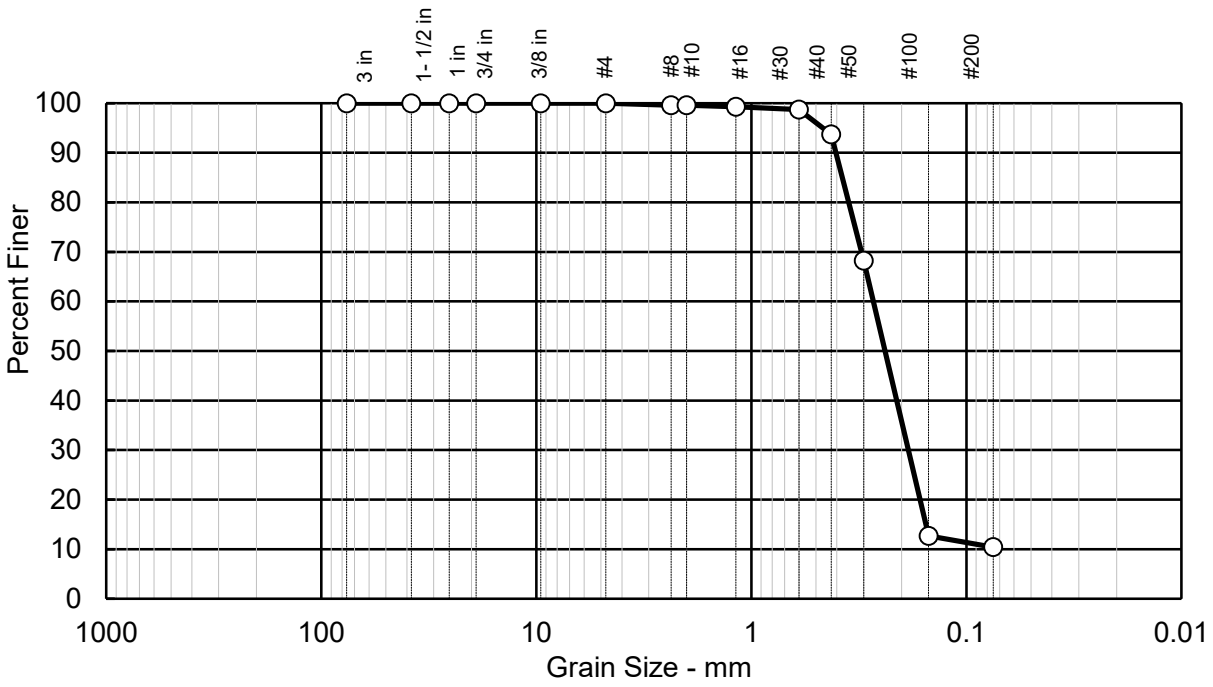
Symbol	Test Pit Number	Depth (feet)	Soil Description	LL (%)	PL (%)	PI (%)	Moisture Content (%)
●	19P-17	5 - 5.5	Light Brown Lean Clay	39	20	19	24
▲	19P-18	1	Dark Brown Fat Clay	55	14	41	27
■	19P-23	3	Blue Gray Lean Clay	47	14	33	24
◆	19P-27	6	Light Brown Lean Clay	33	20	13	31
○	19P-30	10	Blue Gray Fat Clay	54	21	33	55
△	19P-31	4	Red Mottled Gray Fat Clay	50	14	36	29

Testing performed by Hultgren - Tillis Engineers

Little Egbert Tract Restoration
Solano County, California

Atterberg Limits

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 39



Sieve Size	○	□	△
	Percent Finer		
3 in	100.0		
1-1/2 in	100.0		
1 in	100.0		
3/4 in	100.0		
3/8 in	100.0		
#4	100.0		
#8	99.6		
#10	99.6		
#16	99.3		
#30	98.7		
#40	93.7		
#50	68.2		
#100	12.7		
#200	10.4		
	Grain Size		
D60	0.275		
D30	0.197		
D10	-		
	Coefficients		
Cc	-		
Cu	-		

Soil Description	
○	Poorly-Graded Sand with Silt (SP-SM)
□	
△	

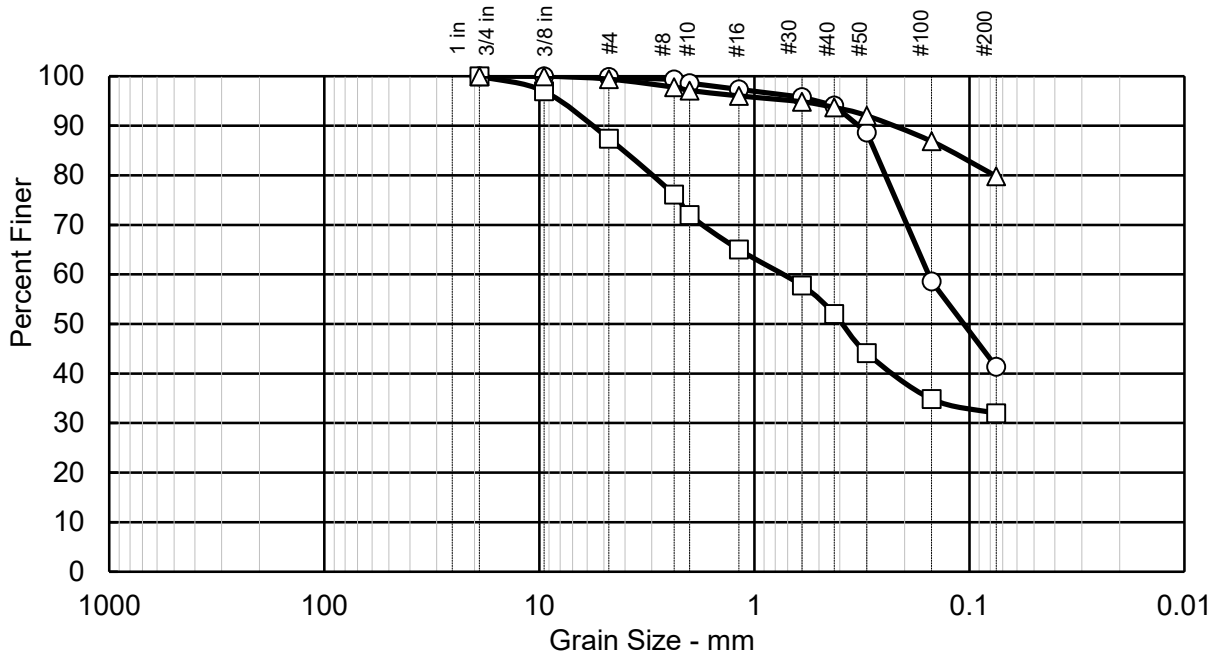
Sample Key	
○	18P-6 at 2.0 - 2.5 ft
□	
△	

Testing performed by
B. Hillebrandt Soils Testing Inc.

Little Egbert Tract Restoration
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 40



Sieve Size	○	□	△
	Percent Finer		
3/4-in	100.0	100.0	100.0
3/8-in	100.0	96.9	100.0
#4	99.8	87.4	99.4
#8	99.4	76.1	97.8
#10	98.6	72.0	97.1
#16	97.4	65.0	96.0
#30	95.8	57.8	94.8
#40	94.1	52.0	93.7
#50	88.6	44.1	92.0
#100	58.6	34.9	86.9
#200	41.3	31.9	79.8
	Grain Size		
D60	0.16	0.74	-
D30	-	-	-
D10	-	-	-
	Coefficients		
Cc	-	-	-
Cu	-	-	-

Soil Description	
○	Yellow Brown Silty Sand
□	Brown Clayey Sand
△	Blue Gray Lean Clay with Sand

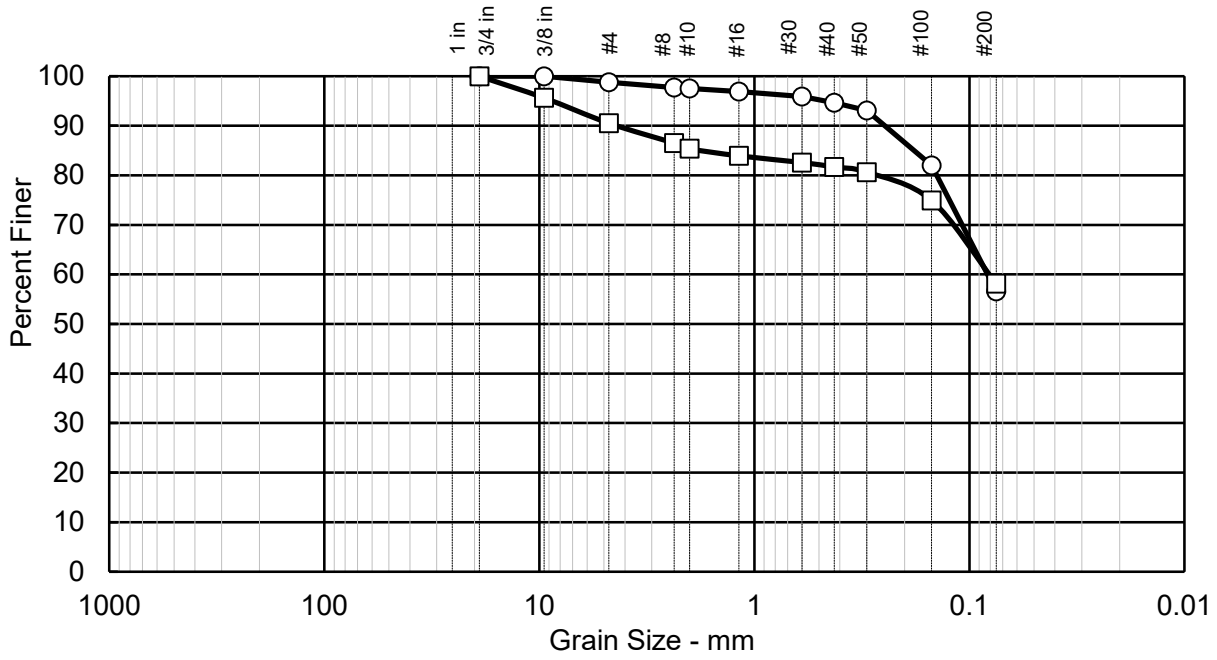
Sample Key	
○	19P-16 at 3 to 4 feet
□	19P-22 at 5 feet
△	19P-23 at 4 feet

Testing performed by
Hultgren - Tillis Engineers

Little Egbert Tract Restoration
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 41



Sieve Size	○	□	△
	Percent Finer		
3/4-in	100.0	100.0	-
3/8-in	100.0	95.6	-
#4	98.8	90.5	-
#8	97.7	86.5	-
#10	97.5	85.4	-
#16	96.9	83.9	-
#30	95.9	82.6	-
#40	94.6	81.7	-
#50	93.1	80.6	-
#100	82.0	74.9	-
#200	56.6	58.1	-
	Grain Size		
D60	0.08	0.08	-
D30	-	-	-
D10	-	-	-
	Coefficients		
Cc	-	-	-
Cu	-	-	-

Soil Description	
○	Light Brown Sandy Silt
□	Red Gray Sandy Silt
△	

Sample Key	
○	19P-26 at 5.5 feet
□	19P-29 at 7.5 feet
△	

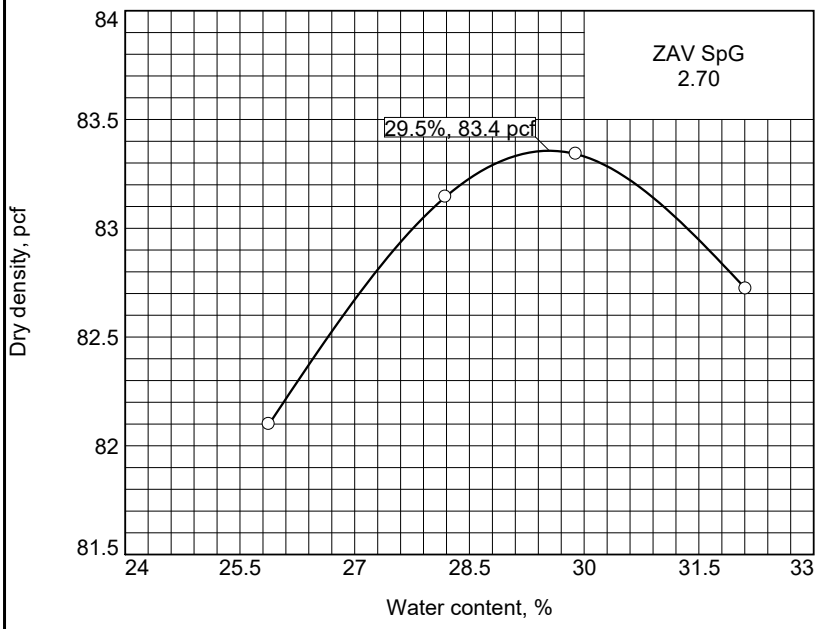
Testing performed by
Hultgren - Tillis Engineers

Little Egbert Tract Restoration
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 42

COMPACTION TEST REPORT



Curve No.
1

Test Specification:
ASTM D 1557-12 Method A Modified

Preparation Method
Hammer Wt. 10 lb.
Hammer Drop 18 in.
Number of Layers five
Blows per Layer 25
Mold Size 0.03333 cu. ft.

Test Performed on Material Passing #4 **Sieve**

NM **LL** **PI**
Sp.G. (ASTM D 854)
%>#4 **%<No.200**
USCS **AASHTO**
Date Sampled
Date Tested
Tested By BH

TESTING DATA

	1	2	3	4	5	6
WM + WS	3551.4	3600.3	3625.6	3641.2		
WM	1989.0	1989.0	1989.0	1989.0		
WW + T #1	1803.7	1881.6	1905.1	1891.3		
WD + T #1	1487.2	1532.2	1529.0	1500.4		
TARE #1	264.2	292.6	270.8	283.1		
WW + T #2						
WD + T #2						
TARE #2						
MOISTURE	25.9	28.2	29.9	32.1		
DRY DENSITY	82.1	83.1	83.3	82.7		

TEST RESULTS

Maximum dry density = 83.4 pcf

Optimum moisture = 29.5 %

Project No. 907.01 **Client:** Hultgren - Tillis Engineers
Project: Little Egbert Marsh Restoration

○ **Source of Sample:** 18P-5 **Depth:** 2.0 - 3.0'

B. HILLEBRANDT SOILS TESTING, INC.
+1 510-409-2816
SoilTesting@aol.com

Material Description

Dark brown CLAY

Remarks:

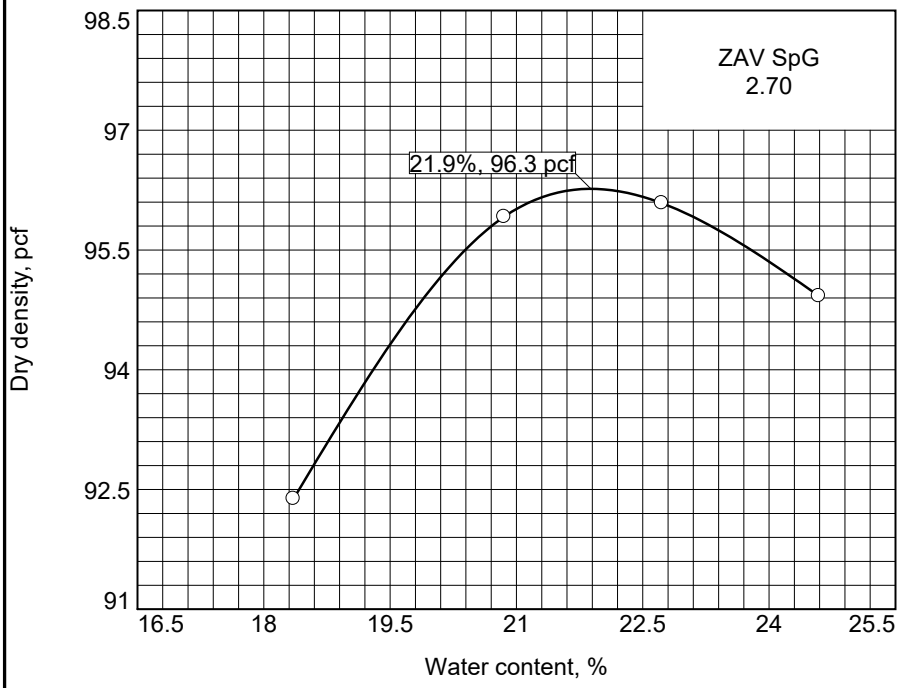
Checked by:
Title:

Figure

Little Egbert Tract Restoration
Solano County, California Project No. 907.01 Plate No. 43

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. B-2-40

COMPACTION TEST REPORT



Curve No.
2

Test Specification:
ASTM D 1557-12 Method A Modified

Preparation Method
Hammer Wt. 10 lb.
Hammer Drop 18 in.
Number of Layers five
Blows per Layer 25
Mold Size 0.03333 cu. ft.

Test Performed on Material Passing #4 **Sieve**

NM **LL** **PI**
Sp.G. (ASTM D 854)
%>#4 **%<No.200**
USCS **AASHTO**
Date Sampled
Date Tested
Tested By BH

TESTING DATA

	1	2	3	4	5	6
WM + WS	3642.0	3741.5	3771.8	3777.0		
WM	1989.0	1989.0	1989.0	1989.0		
WW + T #1	1842.2	1979.6	2021.4	2064.4		
WD + T #1	1592.2	1677.2	1699.5	1711.1		
TARE #1	230.0	227.1	283.1	274.4		
WW + T #2						
WD + T #2						
TARE #2						
MOISTURE	18.4	20.9	22.7	24.6		
DRY DENSITY	92.4	95.9	96.1	94.9		

TEST RESULTS

Maximum dry density = 96.3 pcf

Optimum moisture = 21.9 %

Material Description

Dark brown CLAY

Remarks:

Project No. 907.01 **Client:** Hultgren - Tillis Engineers
Project: Little Egbert Marsh Restoration

○ **Source of Sample:** 18P-8 **Depth:** 0.0 - 2.0'

B. HILLEBRANDT SOILS TESTING, INC.
+1 510-409-2816
SoilTesting@aol.com

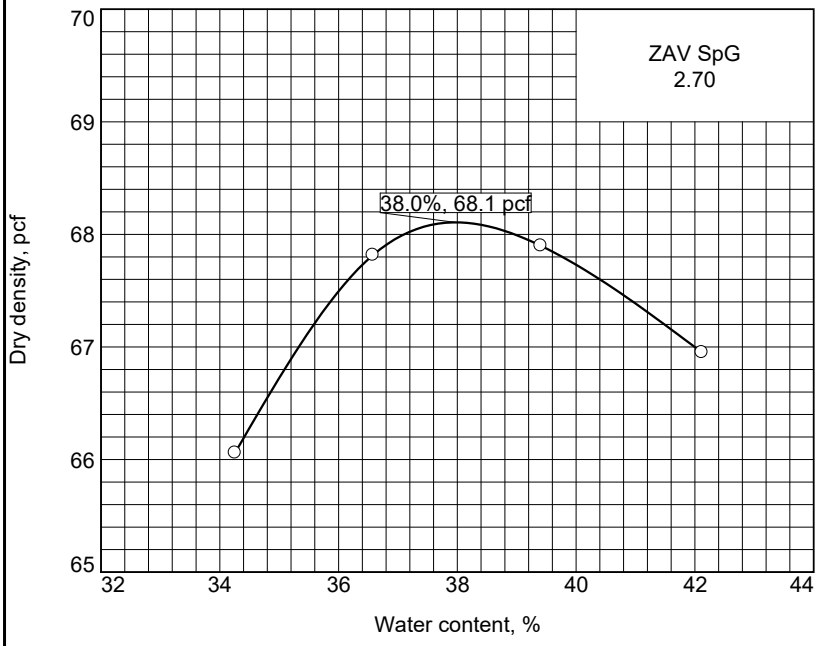
Checked by:
Title:

Figure

Little Egbert Tract Restoration
Solano County, California Project No. 907.01 Plate No. 44

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. B-2-41

COMPACTION TEST REPORT



Curve No.
3

Test Specification:
ASTM D 1557-12 Method A Modified

Preparation Method
Hammer Wt. 10 lb.
Hammer Drop 18 in.
Number of Layers five
Blows per Layer 25
Mold Size 0.03333 cu. ft.

Test Performed on Material Passing #4 **Sieve**

NM **LL** **PI**
Sp.G. (ASTM D 854)
%>#4 **%<No.200**
USCS **AASHTO**
Date Sampled
Date Tested
Tested By BH

TESTING DATA

	1	2	3	4	5	6
WM + WS	3329.8	3389.3	3420.0	3427.5		
WM	1989.0	1989.0	1989.0	1989.0		
WW + T #1	1765.8	1659.6	1691.6	1650.1		
WD + T #1	1429.0	1290.0	1290.0	1239.3		
TARE #1	445.8	279.6	270.8	263.9		
WW + T #2						
WD + T #2						
TARE #2						
MOISTURE	34.3	36.6	39.4	42.1		
DRY DENSITY	66.1	67.8	67.9	67.0		

TEST RESULTS

Maximum dry density = 68.1 pcf

Optimum moisture = 38.0 %

Material Description

Black organic CLAY

Remarks:

Project No. 907.01 **Client:** Hultgren - Tillis Engineers
Project: Little Egbert Marsh Restoration

○ **Source of Sample:** 18P-13 **Depth:** 4.0 - 5.5'

Checked by:
Title:

B. HILLEBRANDT SOILS TESTING, INC.
+1 510-409-2816
SoilTesting@aol.com

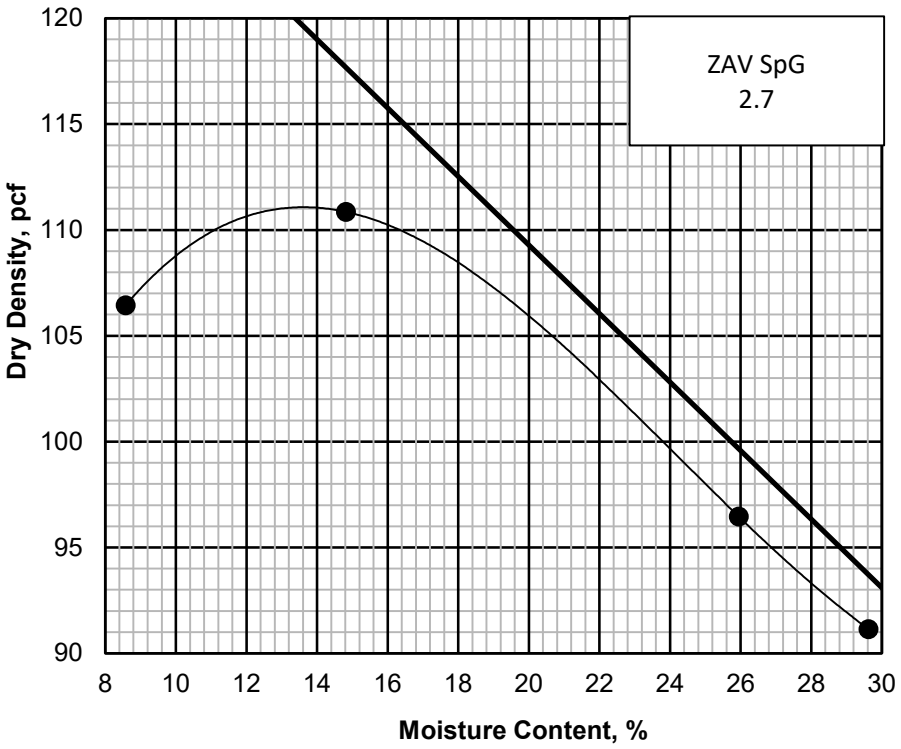
Figure

Little Egbert Tract Restoration
Solano County, California Project No. 907.01 Plate No. 45

Little Egbert Multi-Benefit Project
Solano County, California Project No. 907.02 Plate No. B-2-42

Compaction Test Results

Curve No. 4



Test Specification:
ASTM D-1557

Hammer Wt.: 10-lb
Hammer Drop: 18-inch
Number of Layers 5
Blows per Layer: 25
Mold Size: 4-inch

Testing Performed on Material Passing ___#4___ Sieve

Soil Data

NM	
Sp. G.	
LL	39
PI	19
%>3/4 inch	
%<#200	
USCS	

	1	2	3	4	5	6
WM + WS	5918.5	6095.5	6008.5	5958.0		
WM	4172.0	4172.0	4172.5	4172.5		
WW+ T #1	1094.7	1178.0	1068.3	1239.3		
WD + T #1	1030.6	1062.2	906.3	1022.0		
Tare #1	283.6	280.5	281.9	288.4		
WW + T #2						
WD + T #2						
Tare #2						
Moisture	8.6	14.8	25.9	29.6		
Dry Density	106.4	110.9	96.5	91.2		

Maximum Dry Density = 111 pcf
Optimum Moisture Content = 14%

Material Description: 19P-17 at 5 to 5.5 feet

Light Brown Lean Clay

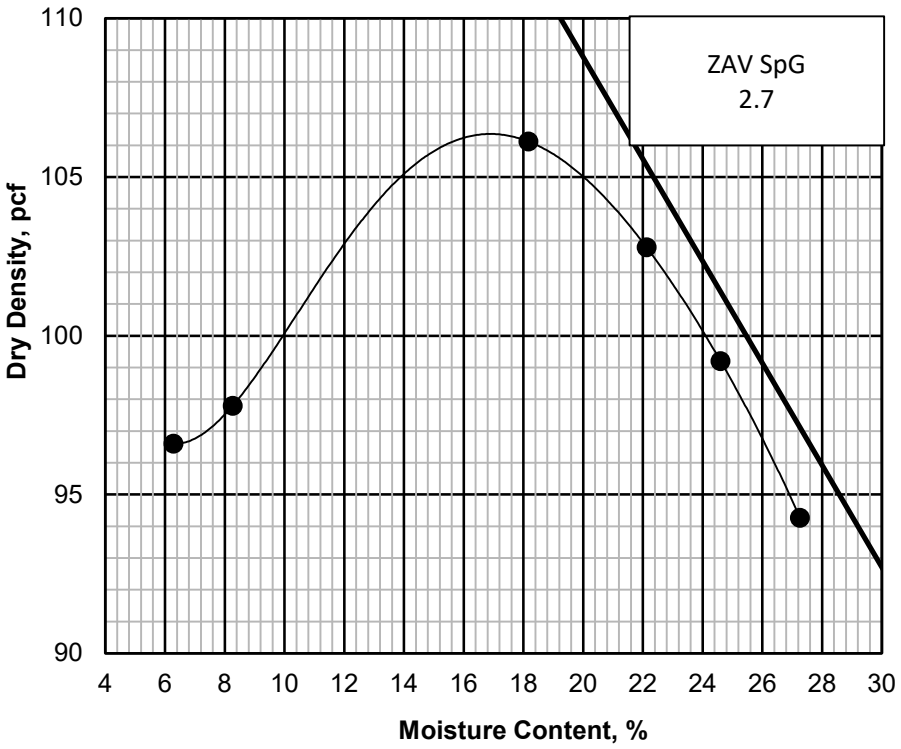
Little Egbert Tract Restoration
Solano County, California

Compaction Curve Results

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 46

Compaction Test Results

Curve No. 5



Test Specification:
ASTM D-1557

Hammer Wt.: 10-lb
Hammer Drop: 18-inch
Number of Layers 5
Blows per Layer: 25
Mold Size: 4-inch

Testing Performed on Material Passing ___#4___ Sieve

Soil Data

NM	
Sp. G.	
LL	54
PI	33
%>3/4 inch	
%<#200	
USCS	

	1	2	3	4	5	6
WM + WS	5724.0	5772.5	6067.0	6069.0	6040.0	5985.5
WM	4172.5	4172.5	4172.0	4172.0	4172.0	4172.5
WW+ T #1	450.5	421.5	732.1	949.0	971.6	772.0
WD + T #1	429.1	395.9	663.9	829.3	836.6	668.5
Tare #1	87.2	87.2	288.6	287.9	288.1	288.7
WW + T #2						
WD + T #2						
Tare #2						
Moisture	6.3	8.3	18.2	22.1	24.6	27.3
Dry Density	96.6	97.8	106.1	102.8	99.2	94.3

Maximum Dry Density = 106 pcf
Optimum Moisture Content = 17%

Material Description: 19P-30 at 10 feet
Blue Gray Fat Clay

Little Egbert Tract Restoration
Solano County, California

Compaction Curve Results

Hultgren - Tillis Engineers	Project No. 907.01	Plate No. 47

APPENDIX C
2021 EXPLORATION DATA

APPENDIX C-1
2021 BORINGS

I. INTRODUCTION

This appendix presents the data from our 2021 borings. The borings were drilled in levee crests, near the landside and waterside levee toes, and in the parcel interior. The logs of borings and laboratory test results are present in this appendix.

II. FIELD EXPLORATION AND LABORATORY TESTING

We explored subsurface conditions on September 21 through October 6, 2021 and October 14 and October 15, 2021, by drilling 23 borings to depths of 21.5 to 121.5 feet below existing grade. The approximate boring locations are shown on the Site Plan, Plate 2 and on the 2021 Boring Location Map, Plate C-1-1. Our subcontractor drilled the borings with truck-mounted hollow-stem auger and rotary wash drilling equipment. Soil samples were collected from the borings with three types of samplers: (1) 3.0-inch outside diameter (O.D.), 2.87-inch inside diameter (I.D.) Shelby tubes; (2) 2.5-inch O.D., 1.9-inch I.D. split barrel sampler; and (3) 2.0-inch O.D., 1.4-inch I.D. Standard Penetration Test (SPT) split barrel sampler. The Shelby tubes were advanced into the ground by hydraulic pressure. The other samplers were driven with a 140-pound hammer dropping approximately 30-inches for a penetration depth of 18-inches.

Our engineer logged the borings and recorded blow counts from driving the samplers. We recovered samples from the borings for further visual classification and for selection of materials for laboratory testing. Our engineer used a pocket penetrometer to evaluate unconfined compressive strength or a torvane to evaluate the soil shear strength. The borings were backfilled with grout.

The laboratory testing program consisted of:

- Moisture content and dry density (ASTM D 2216-10 and D7263b-21);
- Atterberg limits (ASTM D 4318-10);
- Sieve analysis (ASTM D 6913-17); and
- Unconsolidated Undrained Triaxial (ASTM D2850);

For Borings 1 through 14, we converted the field penetration resistance obtained while driving the 2.5-inch sampler to equivalent SPT N-values by multiplying by 0.80 to account for

sampler size and 1.25 to account for hammer energy. These factors combine to result in a net correction factor of 1. We converted the field penetration resistance obtained while driving the 2.0-inch SPT sampler to equivalent SPT N-values by multiplying by 1.25 to account for hammer energy.

For Borings 15 through 23, we converted the field penetration resistance obtained while driving the 2.5-inch sampler to equivalent SPT N-values by multiplying by 0.80 to account for sampler size and 0.90 to account for hammer energy. These factors combine to result in a net correction factor of 0.72. We converted the field penetration resistance obtained while driving the 2.0-inch SPT sampler to equivalent SPT N-values by multiplying by 0.90 to account for hammer energy.

Soil descriptions, equivalent SPT N-values and the laboratory test data are shown on the Logs of Borings, Plates C-1-3 through C-1-44. The soil descriptions are presented in general accordance with the Soil Classification System presented on Plate C-1-2 with laboratory test results presented in the manner described by the Key to Test Data. Atterberg limits test results are shown on Plate C-1-45 through C-1-49. Sieve analysis test results are shown on Plates C-1-50 through C-1-63. Unconsolidated-Undrained triaxial test results are shown on Plates C-1-64 and C-1-65.



Approximate Location of Boring (2021)
Approximate Location of Levee Centerline

N

0 2,000 Feet

1 inch = 2,000 feet

Little Egbert Multi-Benefit Project
Solano County, California

2021 Boring Location Map

Hultgren - Tillis Engineers

Project No. 907.02

Plate No. C-1-1

MAJOR DIVISIONS				GROUP NAMES
COARSE GRAINED SOILS MORE THAN 50% RETAINED ON NO. 200 SIEVE	GRAVELS MORE THAN 50% OF COARSE FRACTION IS RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS WITH LESS THAN 5% FINES	GW	WELL GRADED GRAVEL
			GP	POORLY GRADED GRAVEL
		GRAVELS WITH OVER 12% FINES	GM	SILTY GRAVEL
			GC	CLAYEY GRAVEL
	SANDS 50% OR MORE OF COARSE FRACTION PASSES NO. 4 SIEVE	CLEAN SANDS WITH LESS THAN 5% FINES	SW	WELL GRADED SAND
			SP	POORLY GRADED SAND
		SANDS WITH OVER 12% FINES	SM	SILTY SAND
			SC	CLAYEY SAND
FINE GRAINED SOILS 50% OR MORE PASSES NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML	SILT
			CL	LEAN CLAY
			OL	ORGANIC CLAY, ORGANIC SILT
	SILTS AND CLAYS LIQUID LIMIT 50 OR MORE		MH	ELASTIC SILT
			CH	FAT CLAY
			OH	ORGANIC CLAY, ORGANIC SILT
HIGHLY ORGANIC SOILS			Pt	PEAT

UNIFIED SOIL CLASSIFICATION SYSTEM- ASTM D 2487

S - SPT

M - 2.5 inch

C - 3.0 inch

T - Shelby Tube

B - Bag

- Water Level at Time of Drilling
- Water Level after Drilling (with date measured)

Consol - Consolidation
Gs - Specific Gravity
LL - Liquid Limit (%)
PI - Plasticity Index (%)
TxUU - Shear Strength (psf) - Unconsolidated Undrained Triaxial Shear
TxCU - Shear Strength (psf) - Consolidated Undrained Triaxial Shear
UC - Compressive Strength (psf) - Unconfined Compression

P - Push
Perm - Permeability
Sieve - Particle Size Analysis
VS - Laboratory Vane Shear (psf)
-200 - % Passing No. 200 Sieve

KEY TO TEST DATA

Little Egbert Multi-Benefit Project
Solano County, California

Soil Classification Chart

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-2

Date : 10/1/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 14.5
Latitude : 38.23695
Longitude : -121.68538

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	21		CH		Fat Clay (CH), dark brown, dry to moist, very stiff to hard, high plasticity, rapid dilatancy, medium toughness, low dry strength, (fill)		4.5+ 3.5			
	M	14				Organic Clay (OH), dark brown, moist, very stiff, high plasticity, no dilatancy, medium toughness, high dry strength, (fill)		2.3 4			
5	M	15		OH		Sand lense Dark brown mottled with reddish brown		4.5 3.5	25	97	
	M	6				Stiff	0.70	2.3 1.5			
10	M	1		OH		Organic Silt (OH), tan to light brown, moist to wet, medium stiff, (fill)	0.45 0.43		55	68	LL=54 PI=22
15	M	2		OH		Organic Clay (OH), dark gray to black, wet, medium stiff, medium plasticity, no dilatancy, low toughness, low dry strength, with peat	0.40 0.30		83	51	
20	M	3		OH		Organic Clay (OH), dark gray, moist, medium stiff, high plasticity, no dilatancy, low toughness, medium dry strength	0.40 0.40				
25	M	4					0.43 0.40				

Bottom of boring at 26.3 feet
No groundwater encountered

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21B-1
(Page 1 of 1)

Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-3

Date : 9/21/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 6
Latitude : 38.23878
Longitude : -121.69792

Depth in Feet	Samples Type/ Recovery	Blow Count	USCS	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	18		Organic Clay (OH), dark brown, moist, hard, high plasticity, no dilatancy, medium toughness, medium dry strength, iron oxide staining, (fill)		4.5+ 4.3			
	M	16	OH	Very stiff		3.5 2.5			
5	M	13		Sitff to very stiff		1.3 2.3	42	73	
	M	13	OH	Organic Clay (OH), dark gray, moist to wet, stiff Dark gray		2.0 1.5			
10	M	6		Peat (Pt), black to dark gray, moist to wet, stiff, medium plasticity, no dilatancy, low toughness	0.60		64	53	
	T	P	Pt	Mottled with gray, medium stiff	0.25				
15	M	P		Black	0.33 0.30		144	34	
20	T	P		Lean Clay (CL), bluish gray, wet, stiff, low plasticity, no dilatancy, medium toughness					
			CL						
25	M	8				1.5			
30	M	11		Sandy Lean Clay (CL), bluish gray, medium grained sand, wet, stiff to very stiff, low plasticity, no dilatancy, medium toughness		1.0 4.0	21	108	Sieve
			CL						
35	M	16		Less sand		2.5	23	105	LL=34 PI=19
40	M	43	SP-SM	Poorly-Graded Sand with Silt (SP-SM), gray, medium grained sand, wet, dense					Sieve
			SP	Poorly-Graded Sand (SP), gray, medium to coarse grained sand, wet, dense					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21B-2
(Page 1 of 3)

Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-4

Date : 9/21/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 6
Latitude : 38.23878
Longitude : -121.69792

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	42		SP					24	101	
50	M	53				Very dense, with gravel					
						Silty Sand with Gravel (SM), gray, medium grained sand, wet, dense to very dense					
55	M	37		SM					30	92	
60	S	65									
						Poorly-Graded Sand with Gravel (SP), gray to black, wet, very dense					
65	M	96		SP					12	120	Sieve
70											
						Poorly-Graded Sand (SP), dark gray, coarse grained sand, wet, very dense					
75	M	93/11		SP					19	109	
80											
						Silty Sand (SM), dark gray, medium grained sand, wet, dense					
85	S	44		SM							

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21B-2
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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-5

Date : 9/21/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 6
Latitude : 38.23878
Longitude : -121.69792

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
95						Gravelly					
100				SM							
105						Gravelly					
110						Lean Clay (CL), light brown, wet, very stiff					
115	S	34		CL							
120	M	27						3.3 2.0 2.3			
						Bottom of boring at 121.5 feet No groundwater encountered					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21B-2
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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-6

Date : 9/22/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 0
Latitude : 38.22232
Longitude : -121.69693

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	13		OH		Organic Clay (OH), dark brown, dry, hard, medium plasticity, no dilatancy, medium toughness, high dry strength		4.5			
	M	7				Peat (Pt), black, moist, firm to stiff, medium plasticity, no dilatancy, medium toughness					
5	M	3		Pt			0.65				
	M	3		OH		Organic Clay (OH), dark gray, wet, firm to stiff	0.28		27	98	LL=40 PI=27
							0.63				
10	T	P		CL		Lean Clay (CL), bluish gray, wet, stiff, low plasticity, no dilatancy, medium toughness		2.0			
						Sandy Lean Clay (CL), bluish gray, wet, very stiff					
15	M	18		CL				2.5	16	110	LL=35 PI=15 Sieve
						Poorly-Graded Sand with Silt (SP-SM), bluish gray, fine grained sand, wet, medium dense to dense					
20	M	16				Medium grained			27	87	Sieve
25						Gray					
30				SP-SM							
35											
40	M	37							28	96	Sieve

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21B-3
(Page 1 of 3)

Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-7

Date : 9/22/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 0
Latitude : 38.22232
Longitude : -121.69693

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
50				SP-SM							
55											
60	M	13		CH		Fat Clay (CH), light gray, wet, very stiff, high plasticity, no dilatancy, medium toughness		2.3 2.3	30	95	LL=65 PI=43
65	M	35						2.0 3.5			
70	M	24				Silty Sand (SM), light brown, fine grained sand, wet, medium dense			22	103	
75				SM		Gravelly					
80											
85											

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21B-3
(Page 2 of 3)

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 9/22/2021 Drilling Method : Hollow-Stem/Rotary Wash Elevation (Feet) : 0 Latitude : 38.22232 Longitude : -121.69693					
95				SM		Lean Clay (CL), light brown					
100				CL		Silty Sand (SM), light brown					
105											
110				SM		Well-Graded Sand with Gravel (SW), gray					
115											
120	B			SW		Bottom of boring at 120 feet No groundwater encountered					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21B-3
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Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-9

Date : 9/23/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 6
Latitude : 38.21451
Longitude : -121.69365

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	9		OH		Organic Clay (OH), dark brown, dry, very stiff, medium plasticity, no dilatancy, medium toughness, medium dry strength, (fill)		4.0			
	M	18				Hard		4.5+			
5	M	17						3.0	28	86	
						Fat Clay (CH), light gray, moist, very stiff, high plasticity, no dilatancy, medium toughness		2.5			
	M	11				Wet, iron oxide staining		2.5	26	99	LL=55
								2.0			PI=38
10	M	9		CH		Light brown, stiff to very stiff		2.0			
								1.5			
								1.5			
								2.3			
15	M	21		ML		Silt with Sand (ML), light brown, fine grained sand, wet, medium dense			31	92	Sieve
						Silty Sand (SM), dark brown, medium grained sand, wet, medium dense					
20	S	24									Sieve
				SM							
25											
						Poorly-Graded Sand (SP), brown, medium grained sand, wet, dense					
30						Gravelly					
35				SP		Gravelly					
40	M	52							19	108	Sieve

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21B-4
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Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-10

Date : 9/23/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 6
Latitude : 38.21451
Longitude : -121.69365

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
50				SP		Gravelly					
55											
60	S	18				Fat Clay (CH), bluish gray, wet, very stiff, high plasticity, no dilatancy, medium toughness					
65											
70	M	28		CH				2.7 2.8	32	88	LL=69 PI=47
75											
80											
85				SC		Clayey Sand (SC), light gray, fine grained sand, wet, medium dense					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21B-4
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Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	34		SC					17	111	

Date : 9/23/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 6
Latitude : 38.21451
Longitude : -121.69365

Bottom of boring at 91.5 feet
No groundwater encountered

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21B-4
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Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-12

Date : 9/24/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 9
Latitude : 38.18234
Longitude : -121.66699

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	29				Organic Clay (OH), dark brown, dry, hard, high plasticity, no dilatancy, high toughness, high dry strength, (fill)		4.5+ 4.5+			
	M	14		OH		Mottled with gray		4.5+ 4.5+	21	90	LL=55 PI=33
5	M	10				Very stiff, iron oxide staining		2.3 2.0			
	M	6				Organic Clay (OH), dark gray, wet, medium stiff, medium plasticity, no dilatancy, low toughness	0.28 0.30		49	70	
10	T	P				Stiff	0.55				
15	M	4				Medium stiff to stiff, iron oxide staining	0.60 0.45		48	69	
20	M	P		OH			0.45 0.65 0.48		57	64	LL=71 PI=47
25	M	P				Medium stiff	0.50 0.35 0.35				
30	M	P					0.45 0.48 0.30				
35	T	P									
						Sandy Lean Clay (CL), bluish gray, wet, very dense					
40	M	52		CL					23	106	Sieve

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21B-5
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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-13

Date : 9/24/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 9
Latitude : 38.18234
Longitude : -121.66699

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
50				CL							
						Silt with Sand (ML), light brown, fine grained sand, wet, stiff					
55				ML							
60	M	32						1.5	41	81	LL=27 PI=NP Sieve

Bottom of boring at 61.5 feet
No groundwater encountered

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21B-5
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Date : 9/24/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 13
Latitude : 38.19390
Longitude : -121.65897

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	20		CH		Fat Clay (CH), dark brown, moist, very stiff, high plasticity, no dilatancy, high toughness, (fill)		4.0			
	M	16						3.8			
						Silt with Sand (ML), reddish brown, moist, stiff, low plasticity, no dilatancy, medium toughness, (fill)		2.0			
5	M	15		ML	▽			3.0 2.0 3.8	36	85	LL=45 PI=18
	M	2									
10	M	14		CH		Fat Clay (CH), black to dark gray, moist, very stiff to hard, medium plasticity, no dilatancy, medium toughness		2.5 2.0 4.5+	29	92	
15	M	6				Organic Clay (OH), dark brown, moist, stiff to very stiff, high plasticity, no dilatancy, medium toughness		2.5 1.5 2.0			
20	M	7		OH		Stiff		2.0 2.0	60	64	LL=67 PI=35
25	M	11						1.5 1.5			

Bottom of boring at 26.5 feet
Groundwater encountered at 7.5 feet during drilling

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21B-6
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-15

Date : 9/27/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 3
Latitude : 38.19899
Longitude : -121.68375

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	13		CL		Lean Clay (CL), dark brown, dry to moist, very stiff to hard, medium plasticity, no dilatancy, medium toughness		4.5+ 3.5			
	M	12				Very stiff, moist		2.3			
5	M	4		OH		Organic Clay (OH), dark brown to black, moist, soft	0.15 0.25		74	55	LL=71 PI=25
	M	P				Wet, peat seams	0.20 0.25				
10	T	P			▽		0.15				
				CL		Sandy Lean Clay (CL), gray, wet, medium stiff to stiff, low plasticity, no dilatancy, medium toughness	0.45				
15	M	17		SM		Silty Sand (SM), bluish gray, medium grained sand, wet, medium dense			21 18	108 115	LL=30 PI=14 Sieve
						Gravelly					
20	M	13		SW		Well-Graded Sand (SW), dark gray, fine to coarse grained sand, wet, medium dense to dense					
25	S	30									
						Well-Graded Sand with Clay and Gravel (SW-SC), dark gray, rounded, wet, very dense Sandy					
30	M	71							8	130	Sieve
35				SW-SC		Sandy					
40						Sandy					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21B-7
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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-16

Date : 9/27/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 3
Latitude : 38.19899
Longitude : -121.68375

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
				SW-SC		Sandy					
						Clayey Sand (SC), bluish gray, fine grained sand, wet, dense					
50	M	37		SC					21	108	Sieve
						Lean Clay (CL), light brown, very stiff to hard, low plasticity, no dilatancy, medium toughness					
55	M	53				Light brown		4.5	21	111	LL=26 PI=11
60						Gravel lense					
				CL							
65											
70						Sand lense					
75	M	51				Lean Clay (CL), light brown, wet, very stiff to hard, low plasticity, no dilatancy, medium toughness		3.3 4.5+	27	99	LL=37 PI=13
80				CL							
85											

Little Egbert Multi-Benefit Project
Solano County, California

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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-17

Date : 9/27/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 3
Latitude : 38.19899
Longitude : -121.68375

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	67		CL		Iron oxide staining		4.5+	24	101	

Bottom of boring at 91.5 feet
Groundwater encountered at 10.2 feet during drilling

Date : 9/28/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 9
Latitude : 38.18394
Longitude : -121.68221

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	12		OH		Organic Clay (OH), dark brown, dry, hard, high plasticity, no dilatancy, high toughness, high dry strength, rootlets, (fill)		4.5+			
	M	18		CL		Lean Clay (CL), brown, moist, very stiff, low plasticity, no dilatancy, medium toughness		4.0 2.5			
5	M	23				Lean Clay (CL), light brown, moist, very stiff, iron oxide staining		4.3 3.5			
	M	12						2.6			
10	M	13		CL				2.7	27	99	LL=39 PI=14
15	M	21				Wet		1.3	32	109	LL=35 PI=14
						Poorly-Graded Sand with Silt (SP-SM), dark brown, fine grained sand, wet, medium dense					
20	M	20		SP-SM					29	96	Sieve
25						Gravelly					
						Poorly-Graded Sand with Silt (SP-SM), brown, medium grained sand, wet, dense					
30	M	40							25	98	Sieve
35				SP-SM		Gravelly					
40											

Little Egbert Multi-Benefit Project
Solano County, California

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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-19

Date : 9/28/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 9
Latitude : 38.18394
Longitude : -121.68221

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
50	S	48		SP-SM		Gravelly					
						Well-Graded Sand (SW), brown to gray, wet, dense					
55						Gravelly					
60				SW							
						Gravelly					
65						Gravelly					
70	M	90/11				Poorly-Graded Sand with Silt (SP-SM), gray, fine grained sand, wet, very dense			26	92	Sieve
75											
				SP-SM							
80						Gravelly					
85						Gravelly					
				CL		Lean Clay (CL), gray, wet, very stiff to hard, low plasticity, no dilatancy, high toughness					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21B-8
(Page 2 of 3)

Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-20

Date : 9/28/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 9
Latitude : 38.18394
Longitude : -121.68221

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	S	48				Wet					
95				CL							
100	M	1.5				Hard		4.5+ 4.5	28	99	
						Bottom of boring at 101.5 feet No groundwater encountered					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21B-8
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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-21

Date : 9/29/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 7
Latitude : 38.17441
Longitude : -121.67436

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	28		OH		Organic Clay (OH), dark brown, dry, hard, high plasticity, no dilatancy, medium toughness, high dry strength, rootlets, (fill)		4.5+			
	M	21						4.5+			
5	M	21		ML		Silt (ML), reddish brown, moist, very stiff to hard, low plasticity, rapid dilatancy, no dry strength, trace gravel Stiff		2.5 1.5	28	98	LL=29 PI=5
	M	34				Very stiff to hard		3.3 4.5+			
10	M	47				Well-Graded Sand (SW), gray, fine to coarse grained sand, wet, dense to very dense, rounded gravels					
15	M	54		SW							
20	M	41									
25	M	41		CL		Lean Clay (CL), light brown, wet, hard, low plasticity, no dilatancy, medium toughness, iron concretions (black)		4.5+			
30	M	49		SM		Silty Sand (SM), dark gray, medium grained sand, wet, dense			25	101	Sieve
35											
40				SP-SM		Poorly-Graded Sand with Silt (SP-SM), dark gray, medium grained sand, wet, dense					

Little Egbert Multi-Benefit Project
Solano County, California

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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-22

Date : 9/29/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 7
Latitude : 38.17441
Longitude : -121.67436

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
50	M	48		SP-SM					25	100	Sieve
55											
60											
65											
70	M	35		ML		Silt (ML), brown, wet, stiff, low plasticity, rapid dilatancy, low toughness		1.5 3.0	32	91	LL=33 PI=7
75						Silt (ML), dark gray, wet, hard, low plasticity, rapid dilatancy, medium toughness					
80						Sandy with gravel					
85				ML		Gravelly with sand					

Little Egbert Multi-Benefit Project
Solano County, California

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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-23

Date : 9/29/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 7
Latitude : 38.17441
Longitude : -121.67436

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	85/9		ML		Sandy		4.5+			
95											
100	M	54		CL		Lean Clay (CL), light brown, wet, hard, low plasticity, no dilatancy, high toughness		4.5+			
105				ML		Silt (ML), gray, wet, very stiff, low plasticity, rapid dilatancy, medium toughness					
110	M	54						2.5 4.0			

Bottom of boring at 111.5 feet
No groundwater encountered

Little Egbert Multi-Benefit Project
Solano County, California

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Date : 9/30/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 1
Latitude : 38.21871
Longitude : -121.69521

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	20				Organic Clay (OH), dark brown, dry, hard, high plasticity, no dilatancy, high toughness, high dry strength		4.5+			
	M	9		OH		Moist, very stiff		2.5			
5	M	4				Medium stiff	0.45				
	T	P				Lean Clay (CL), light gray, wet, medium stiff, medium dry strength, carbonate inclusions	0.43				
10	M	11		CL			0.40 0.50		32	90	LL=38 PI=16
						Silty Sand (SM), dark gray, fine grained sand, wet, medium dense, interbedded silt layers					
15	M	13		SM				1.8			
20	M	18							33	90	Sieve
						Silty Sand (SM), dark gray, fine to medium grained sand, wet, medium dense					
25	S	46				Dense, with gravel					
30	S	39				No gravel					
				SM							
35											
40						Gravelly					

Little Egbert Multi-Benefit Project
Solano County, California

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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-25

Date : 9/30/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 1
Latitude : 38.21871
Longitude : -121.69521

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
50	M	55		SM		Gravelly Gravelly Gravelly					
55						Lean Clay (CL), light gray, wet, stiff to very stiff, medium plasticity, medium toughness, low dry strength					
60	M	27						1.8 2.0 2.3	31	92	LL=43 PI=24
65	M	28		CL				4.0 3.5 2.5			
70											
75											
80	M	17				With sand Stiff		1.5 2.0 2.0			
						Bottom of boring at 81.5 feet No groundwater encountered					

Little Egbert Multi-Benefit Project
Solano County, California

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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-26

Date : 10/1/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 6
Latitude : 38.18142
Longitude : -121.68192

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	9		OH		Organic Clay (OH), dark brown, dry, hard, high plasticity, no dilatancy, high toughness, high dry strength, rootlets, (fill)		4.5+			
	M	9				Moist, stiff		2.3			
5	M	4		CH		Fat Clay (CH), light brown mottling with gray, moist, medium stiff, high plasticity, no dilatancy, low toughness, high dry strength	0.50	1.8			
	T	P			▽	Silt (ML), gray, moist, stiff, low plasticity, rapid dilatancy, medium toughness, low dry strength	0.25				
10	M	21		ML		Wet, stiff to very stiff		1.3 2.5 2.0	35	88	LL=39 PI=12
15	M	18				Very soft	0.10				
						Poorly-Graded Sand with Silt (SP-SM), brown, medium grained sand, wet, dense					
20	M	43							23	100	Sieve
25	M	3									
30	M	44		SP-SM		Medium dense					
35	M	42									
40						Sandy					

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Solano County, California

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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-27

Date : 10/1/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 6
Latitude : 38.18142
Longitude : -121.68192

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
50											
55	S	64				Clay lense Very dense					
60						Sandy					
				SP-SM							
65	M	55									
70	M	93 11.5				With gravel, very dense					
75						Sandy					
80											
						Lean Clay (CL), light brown, wet, hard, low plasticity, no dilatancy, medium toughness, high dry strength					
85	M	49		CL				4.5+			

Little Egbert Multi-Benefit Project
Solano County, California

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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-28

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 10/1/2021 Drilling Method : Hollow-Stem/Rotary Wash Elevation (Feet) : 6 Latitude : 38.18142 Longitude : -121.68192					
						Stiff					
95				CL							
100	M	48						4.5+			
						Bottom of boring at 101.5 feet Groundwater encountered at 9 feet during drilling					

Little Egbert Multi-Benefit Project
Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-29

Date : 10/4/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : -1
Latitude : 38.20504
Longitude : -121.68816

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	13		OH		Organic Clay (OH), dark brown, dry, hard, no dilatancy, high toughness, high dry strength, rootlets, (fill)		4.5+			
	M	9				Dry to moist, very stiff to hard		4.5+ 2.0	46	69	
5	M	P				Peat (Pt), dark brown to black, wet, medium stiff, no dilatancy, low toughness, low dry strength					
	T	P		Pt			0.40		114	40	TxUU=320
10	T	P			▽	Soft	0.20				
15	M	8		CL		Sandy Lean Clay (CL), bluish gray, wet, stiff, low plasticity, no dilatancy, medium toughness, trace sand		1.8 2.0 1.8	26	100	LL=41 PI=26 Sieve
20	M	10				Poorly-Graded Sand with Silt (SP-SM), gray, medium grained sand, wet, loose to medium dense			27	99	Sieve
25	S	33				Medium dense, trace fine gravel					
						Clay lense					
30	M	28		SP-SM		Fine-grained sand					
35						Sandy and gravelly					
40						Sandy					

Little Egbert Multi-Benefit Project
Solano County, California

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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-30

Date : 10/4/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : -1
Latitude : 38.20504
Longitude : -121.68816

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
				SP-SM							
50	M	39				Fat Clay with Sand (CH), light brown, wet, very stiff, high plasticity, no dilatancy, medium toughness		3.5	30	95	Sieve
55	M	35		CH		Hard, no sand		4.5+	28	97	LL=61 PI=39
60						Stiff, clayey					
65						Well-Graded Sand with Gravel (SW), gray, fine to coarse grained sand, wet, very dense					
70	M	95/11		SW							

Bottom of boring at 71.4 feet
Groundwater encountered at 12.5 feet during drilling

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21B-12
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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-31

Date : 10/5/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 12
Latitude : 38.19141
Longitude : -121.68269

Depth in Feet	Samples Type/ Recovery	Blow Count	USCS	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	23	CL	Lean Clay (CL), light brown, dry, hard, medium plasticity, high toughness, high dry strength, (fill)		4.5+			
	M	16				4.5+			
5	M	20	CH	Fat Clay (CH), dark brown, moist, very stiff, (fill)		3.5 2.8			
	M	12		Lean Clay (CL), light brown, medium stiff, medium plasticity, no dilatancy, low toughness	0.45				
10	M	10	CL	Trace fine grained sand	0.23 0.25		30	95	LL=33 PI=12
15	M	18							
	T	P		Poorly-Graded Sand with Silt (SP-SM), brown, medium grained sand, wet, medium dense			29	89	Sieve
20									
25	M	45		Dense					
30	M	20	SP-SM	Medium dense			32	88	Sieve
35				Sandy					
40				Sandy and gravelly					

Little Egbert Multi-Benefit Project
Solano County, California

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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-32

Date : 10/5/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 12
Latitude : 38.19141
Longitude : -121.68269

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
50	S	76		SP-SM		Sandy Very dense					Sieve
55						Sandy					
60											
65	M	49		CH		Fat Clay (CH), light brown, wet, very stiff to hard, high plasticity, no dilatancy, high toughness, iron oxide staining Sand lense		4.5+ 3.0	26	100	LL=61 PI=39
70	M	40				Olive gray, hard		4.5+			
75											
80	M	51						4.5+			

Bottom of boring at 81.5 feet
No groundwater encountered

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Solano County, California

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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-33

Date : 10/6/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 14
Latitude : 38.19670
Longitude : -121.68318

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	19				Lean Clay (CL), light brown, dry, hard, medium plasticity, high toughness, high dry strength, rootlets, (fill)		4.5+			
	M	14		CL				4.5+			
5	M	10						3.3			
	M	17		CH		Fat Clay (CH), dark brown, moist, very stiff, medium plasticity, no dilatancy, medium toughness, medium dry strength, (fill)		3.5 2.5	27	88	LL=97 PI=74
10	M	20		CL		Lean Clay (CL), light brown, moist, very stiff, low plasticity, rapid dilatancy, low toughness, low dry strength		3.0 2.3	22	93	LL=34 PI=14
15	M	12		SM		Silty Sand (SM), dark brown, fine grained sand, wet, loose			31	93	Sieve
20	S	23				Medium dense					Sieve
						Poorly-Graded Sand (SP), dark gray, coarse grained sand, wet, very dense, gravel to 1/2-inch					
25	M	50				With gravel			17	118	Sieve
30	S	45									
				SP							
35						Sandy					
40											

Little Egbert Multi-Benefit Project
Solano County, California

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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-34

Date : 10/6/2021
Drilling Method : Hollow-Stem/Rotary Wash
Elevation (Feet) : 14
Latitude : 38.19670
Longitude : -121.68318

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
50	M	85		SP		With gravel, dense					
55						Sandy					
60						Sandy with gravel					
65						Sandy					
				MH		Elastic Silt (MH), light brown, wet, very stiff to hard, medium plasticity, no dilatancy, medium toughness, medium dry strength		3.8 3.5			
70	M	32									
75	M	41		CH		Fat Clay (CH), gray, wet, hard, medium plasticity, no dilatancy, medium toughness, medium dry strength		4.5+ 4.0			
80				MH		Elastic Silt (MH), gray, wet, very stiff to hard, medium plasticity, no dilatancy, medium toughness, medium dry strength					
85	M	42						4.5+ 3.3			

Bottom of boring at 86.5 feet
No groundwater encountered

Little Egbert Multi-Benefit Project
Solano County, California

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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-35

Date : 10/14/2021
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 15
Latitude : 38.17430
Longitude : -121.67451

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	19		GP		Poorly-Graded Gravel (GP), gray, dry, medium dense		3.8			
	M	18		CL		Lean Clay (CL), dark brown, dry, hard, low plasticity, medium toughness, medium dry strength, minor gravel, (fill)		4.5+			
5	M	22				Sand lense		3.0			
	M	17		CH		Fat Clay with Sand (CH), light brown with mottled dark brown, moist, very stiff to hard, medium plasticity, medium toughness, medium dry strength, (fill)		4.3 3.0 4.5+	17		LL=56 PI=32
10	M	37				Silty Sand (SM), reddish brown, medium grained sand, moist, dense					
15	M	40		SM		Wet					Sieve
20	M	58 11				Very dense					
						Bottom of boring at 21.5 feet No groundwater encountered					

Little Egbert Multi-Benefit Project
Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-36

Date : 10/14/2021
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 15
Latitude : 38.17749
Longitude : -121.67863

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	17		GP		Poorly-Graded Gravel (GP), gray, dry, loose					
	M	14		SM		Silty Sand (SM), brown, medium grained sand, dry, medium dense, (fill)					
5	M	11		SP		Poorly-Graded Sand (SP), gray, medium grained sand, dry, medium dense, (fill)					Sieve
	M	14		CL		Lean Clay with Sand (CL), grayish brown, moist, hard, (fill)		4.0			
10	M	29		CH		Fat Clay with Sand (CH), dark brown, moist, very stiff to hard, medium plasticity, medium toughness, medium dry strength, (fill)		3.5 4.5+			
15	S	13		MH		Elastic Silt (MH), bluish gray, wet, high plasticity, low toughness, low dry strength					
20	T	P		OH		Organic Clay (OH), dark gray, moist, medium stiff, high plasticity, low toughness, low dry strength			57	64	TxUU=700
						Bottom of boring at 22 feet No groundwater encountered					

Little Egbert Multi-Benefit Project
Solano County, California

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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-37

Date : 10/14/2021
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 18
Latitude : 38.18018
Longitude : -121.68211

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	48		GP		Poorly-Graded Gravel (GP), gray, dry, dense					
	M	19				Poorly-Graded Sand with Silt (SP-SM), brown, medium grained sand, dry, medium dense, (fill)					Sieve
5	M	10		SP-SM		Moist, loose					
	S	5									
10	S	6									
						Clayey Sand (SC), dark gray, fine grained sand, dry, dense					
15	S	34		SC							
20	S	10				Medium dense					Sieve
						Bottom of boring at 21.5 feet No groundwater encountered					

Little Egbert Multi-Benefit Project
Solano County, California

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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-38

Date : 10/14/2021
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 14
Latitude : 38.18526
Longitude : -121.68256

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	63		SM		Silty Sand (SM), reddish brown, medium grained sand, dry, dense, (fill)					
	M	32				Moist					
5	M	25		CH		Fat Clay with Sand (CH), light brown to dark brown, moist, very stiff, high plasticity, medium toughness, medium dry strength, (fill)		3.3 2.8	20	104	LL=60 PI=42
	M	25						3.8			
10	M	25				Lean Clay (CL), light brown, moist, medium stiff, low plasticity, low toughness		2.5			
15	M	22		CL			0.40 0.30		30	95	LL=37 PI=15
20	M	19									

Bottom of boring at 21.5 feet
No groundwater encountered

Little Egbert Multi-Benefit Project
Solano County, California

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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-39

Date : 10/14/2021
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 23
Latitude : 38.19664
Longitude : -121.68370

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	S	23				Silty Sand (SM), brown, medium grained sand, dry, medium dense, (fill)					
	S	20									
5	S	16		SM		Moist, clay balls					Sieve
	S	12									
10	M	9				Loose, increasing clay content					
	S	30		CL		Lean Clay with Sand (CL), dark brown, moist, stiff, low plasticity, no dilatancy, medium toughness, high dry strength, (fill)					Sieve
15											
				CL		Lean Clay (CL), light brown, moist, stiff, trace fine grained sand, trace fine gravel					
	M	28									Sieve
20					▽	Silty Sand (SM), light brown, moist, medium dense					
25	M	30		SM		Wet					
30	M	62/12				Dense					
						Bottom of boring at 31 feet Groundwater encountered at 21 feet during drilling					

Little Egbert Multi-Benefit Project
Solano County, California

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Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-40

Date : 10/15/2021
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 22
Latitude : 38.19141
Longitude : -121.68328

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	S	21		SM		Silty Sand (SM), brown, medium grained sand, dry, medium dense, (fill)					
	S	38				Dense					
5	M	35		SC		Clayey Sand (SC), light brown, fine grained sand, dry, medium dense to dense, (fill)		4.5+	7	108	Sieve
	S	25									
10	M	19		CH		Fat Clay (CH), dark brown, moist, hard, high plasticity, no dilatancy, high toughness, high dry strength, (fill)		4.5+			
				SM		Silty Sand (SM), brown, medium grained sand, dry, medium dense, (fill)					
15	M	18		CH		Fat Clay (CH), dark brown, moist, very stiff, high plasticity, high toughness, high dry strength		2.5 3.0			
20	M	51		CL		Sandy Lean Clay (CL), light gray, moist, hard, low plasticity, medium toughness, medium dry strength		4.5+	17	109	LL=32 PI=13 Sieve
25	S	57		SM	▽	Silty Sand (SM), dark gray, medium grained sand, wet, very dense					

Bottom of boring at 26.5 feet
Groundwater encountered at 24 feet during drilling

Little Egbert Multi-Benefit Project
Solano County, California

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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-41

Date : 10/15/2021
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 14
Latitude : 38.24080
Longitude : -121.68834

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	14				Fat Clay (CH), gray mottled light brown, dry to moist, very stiff, high plasticity, medium toughness, medium dry strength, (fill)		3.5			
	M	9				Stiff		1.5			
5	M	13		CH		Moist, stiff to very stiff		2.0 1.8	39	77	LL=54 PI=25
	M	14				Stiff		1.5			
10	M	17						1.8 1.5			
15	M	16				Organic Clay (OH), tan, wet, stiff, high plasticity, medium toughness, medium dry strength, iron oxide staining		1.5	46	75	
						Dark gray					
20	M	15		OH			0.60				
25	M	29					0.55		74	58	

Bottom of boring at 25.8 feet
No groundwater encountered

Little Egbert Multi-Benefit Project
Solano County, California

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Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-1-42

Date : 10/15/2021
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 14
Latitude : 38.23364
Longitude : -121.68204

Depth in Feet	Samples Type/ Recovery	Blow Count	USCS	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	12	CH	Fat Clay (CH), reddish brown, dry, hard, medium plasticity, medium toughness, low dry strength, (fill)		4.5+			
	M	12		Brown, very stiff		3.0	27	83	
5	M	9		Dark brown, stiff		1.8			
	M	12				1.3 2.5			
10	M	17	CL	Lean Clay (CL), dark brown, moist, very stiff, low plasticity, medium toughness, medium dry strength, (fill)		3.0	32	89	
			OH	Organic Clay (OH), gray, moist, stiff, high plasticity, medium toughness, high dry strength					
15	M	14				1.5 1.3			
20	M	7		Medium stiff Peaty	0.50 0.35		144	34	
25	T	P	SM	Silty Sand (SM), dark gray, fine grained sand, moist, medium dense					

Bottom of boring at 26.7 feet
No groundwater encountered

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21B-22
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-43

Date : 10/15/2021
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 9
Latitude : 38.19305
Longitude : -121.67801

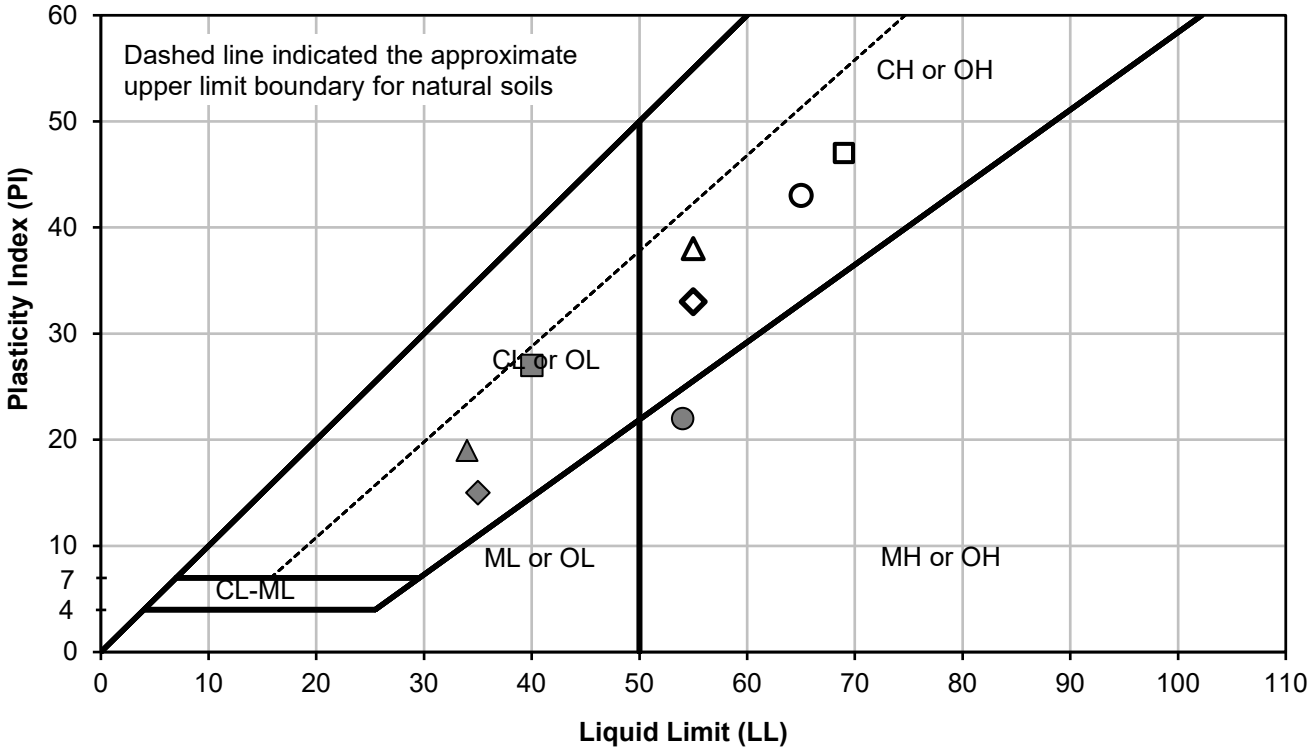
Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	31		CH		Fat Clay (CH), dark brown, dry to moist, hard, high plasticity, no dilatancy, high toughness, high dry strength, (fill)		2.5	25	94	
	M	29						3.5			
5	M	21		CH		Sandy Fat Clay (CH), light brown, moist, very stiff, medium plasticity, medium toughness, medium dry strength		3.5			
	M	19				Gravelly Lean Clay (CL), light brown, moist, stiff to very stiff, low plasticity, medium toughness, low dry strength		3.0 2.0 2.5	19	108	Sieve
10	M	21				Wet, stiff		1.5			
15	M	33		CL				1.3 1.5			
20	M	15						1.5 2.0	34	89	
25	S	50/6		SM		Silty Sand (SM), dark gray, medium grained sand, wet, very dense					

Bottom of boring at 25.5 feet
No groundwater encountered

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21B-23
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-44



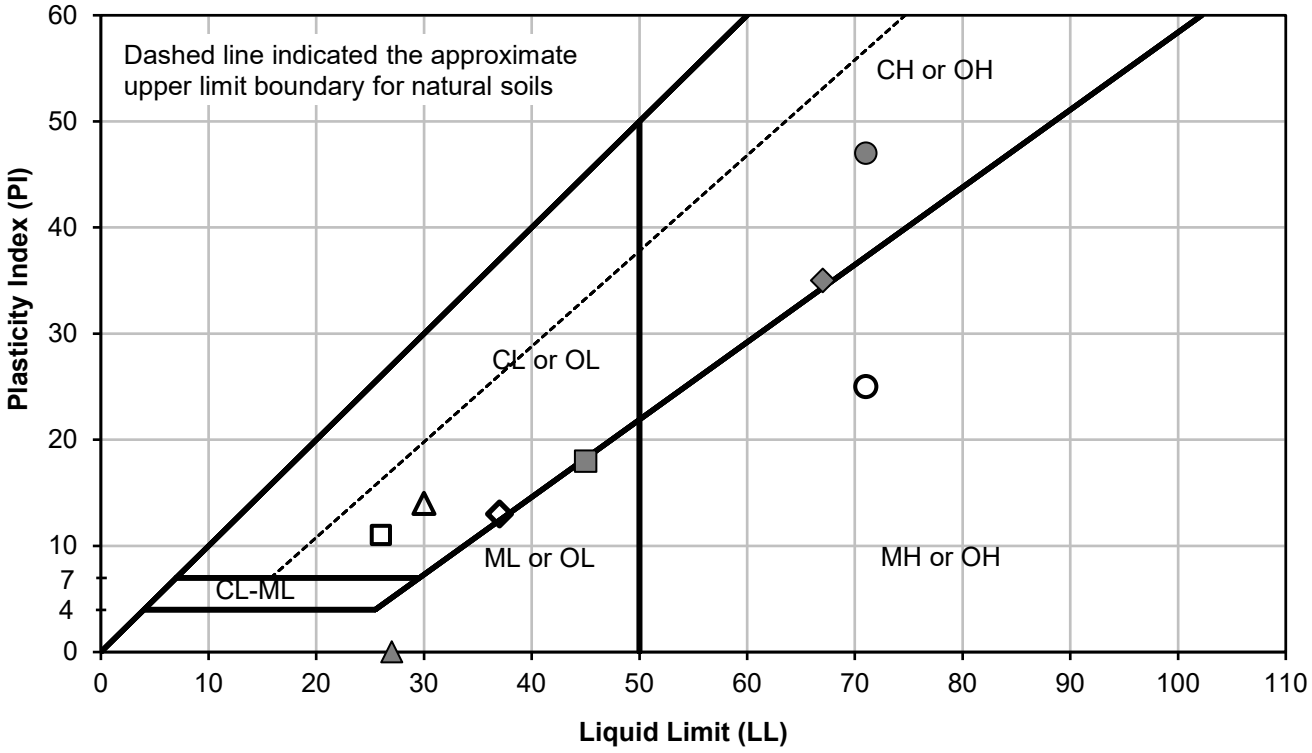
Symbol	Boring Number	Depth (feet)	Soil Description	LL (%)	PL (%)	PI (%)	Moisture Content (%)
●	21B-1	10.5-11	Light Brown Organic Silt	54	32	22	55
▲	21B-2	36-36.5	Bluish Gray Sandy Lean Clay	34	15	19	23
■	21B-3	7.9-8.4	Bluish Gray Lean Clay	40	13	27	27
◆	21B-3	15.7-16.2	Bluish Gray Sandy Lean Clay	35	20	15	16
○	21B-3	60.4-60.9	Light Gray Fat Clay	65	22	43	30
△	21B-4	8-8.5	Light Gray Fat Clay	55	17	38	26
□	21B-4	71-71.5	Bluish Gray Fat Clay	69	22	47	32
◇	21B-5	2.5-3	Dark Brown Organic Clay	55	22	33	21

Testing performed by Cooper Testing Laboratory and B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Atterberg Limits

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-45



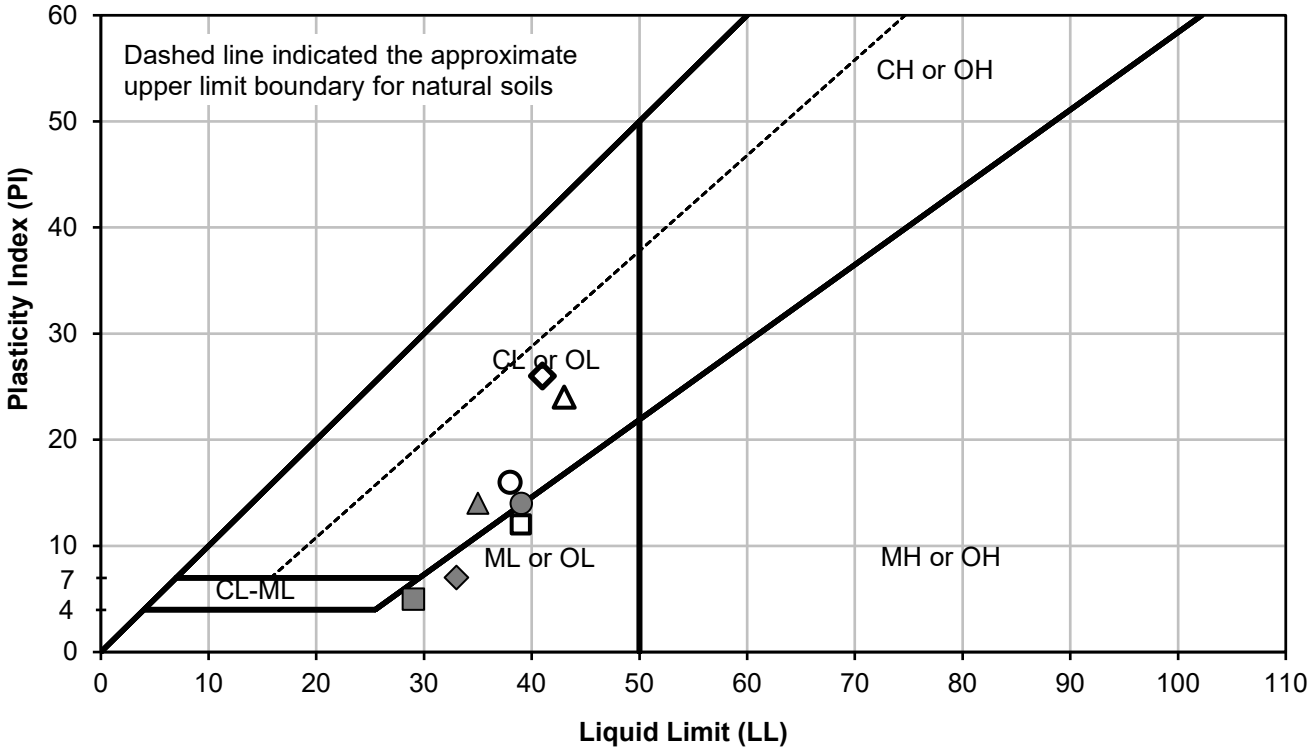
Symbol	Boring Number	Depth (feet)	Soil Description	LL (%)	PL (%)	PI (%)	Moisture Content (%)
●	21B-5	21-21.5	Dark Gray Organic Clay	71	24	47	57
▲	21B-5	61-61.5	Light Brown Silt with Sand	27	NP	NP	41
■	21B-6	5.8-6.3	Reddish Brown Silt with Sand	45	27	18	36
◆	21B-6	20.5-21	Dark Brown Organic Clay	67	32	35	60
○	21B-7	5.5-6	Dark Brown Organic Clay	71	46	25	74
△	21B-7	15-15.5	Gray Sandy Lean Clay	30	16	14	21
□	21B-7	56-56.5	Light Brown Lean Clay	26	15	11	21
◇	21B-7	76-76.5	Light Brown Lean Clay	37	24	13	27

Testing performed by Cooper Testing Laboratory and B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Atterberg Limits

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-46



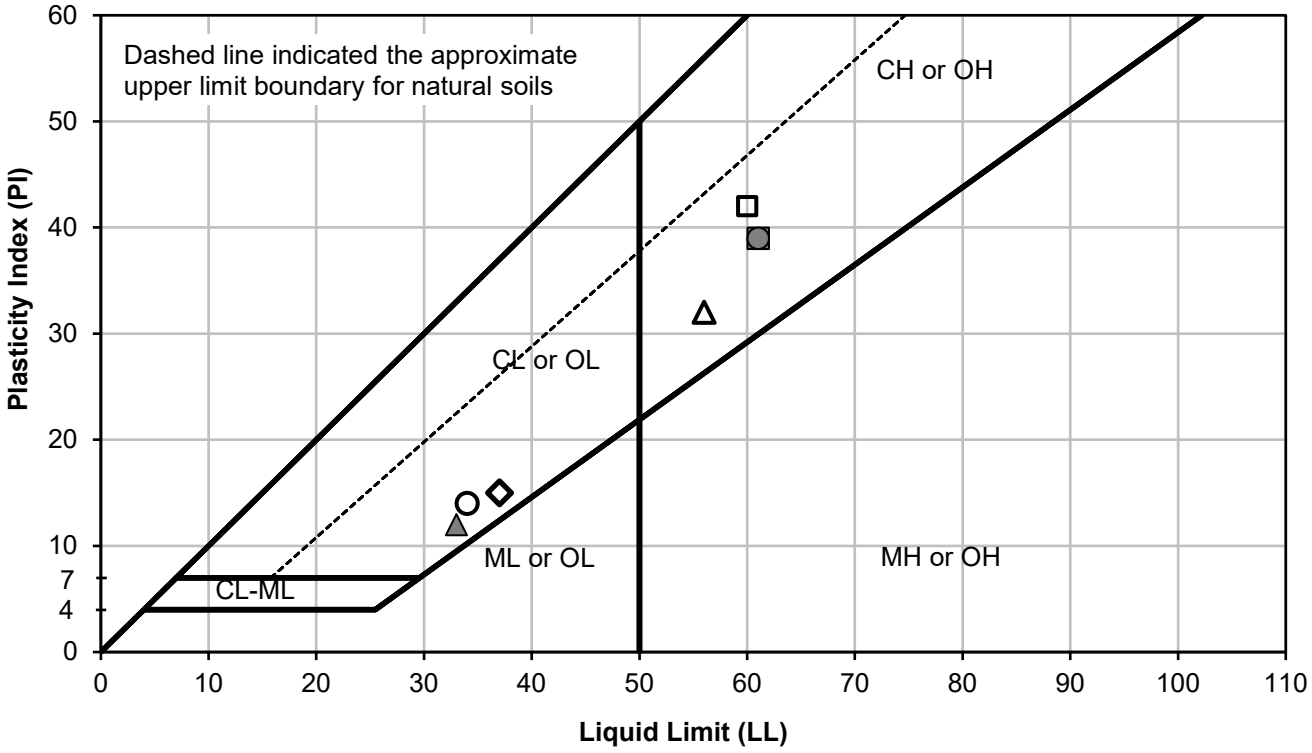
Symbol	Boring Number	Depth (feet)	Soil Description	LL (%)	PL (%)	PI (%)	Moisture Content (%)
●	21B-8	11-11.5	Light Brown Lean Clay	39	25	14	27
▲	21B-8	15.8-16.3	Light Brown Lean Clay	35	21	14	32
■	21B-9	5.8-6.3	Reddish Brown Silt	29	24	5	28
◆	21B-9	71-71.5	Brown Silt	33	26	7	32
○	21B-10	10.8-11.3	Light Gray Lean Clay	38	22	16	32
△	21B-10	60.8-61.3	Light Gray Lean Clay	43	19	24	31
□	21B-11	11-11.5	Gray Silt	39	27	12	35
◇	21B-12	15.8-16.3	Bluish Gray Sandy Lean Clay	41	15	26	26

Testing performed by Cooper Testing Laboratory and B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Atterberg Limits

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-47



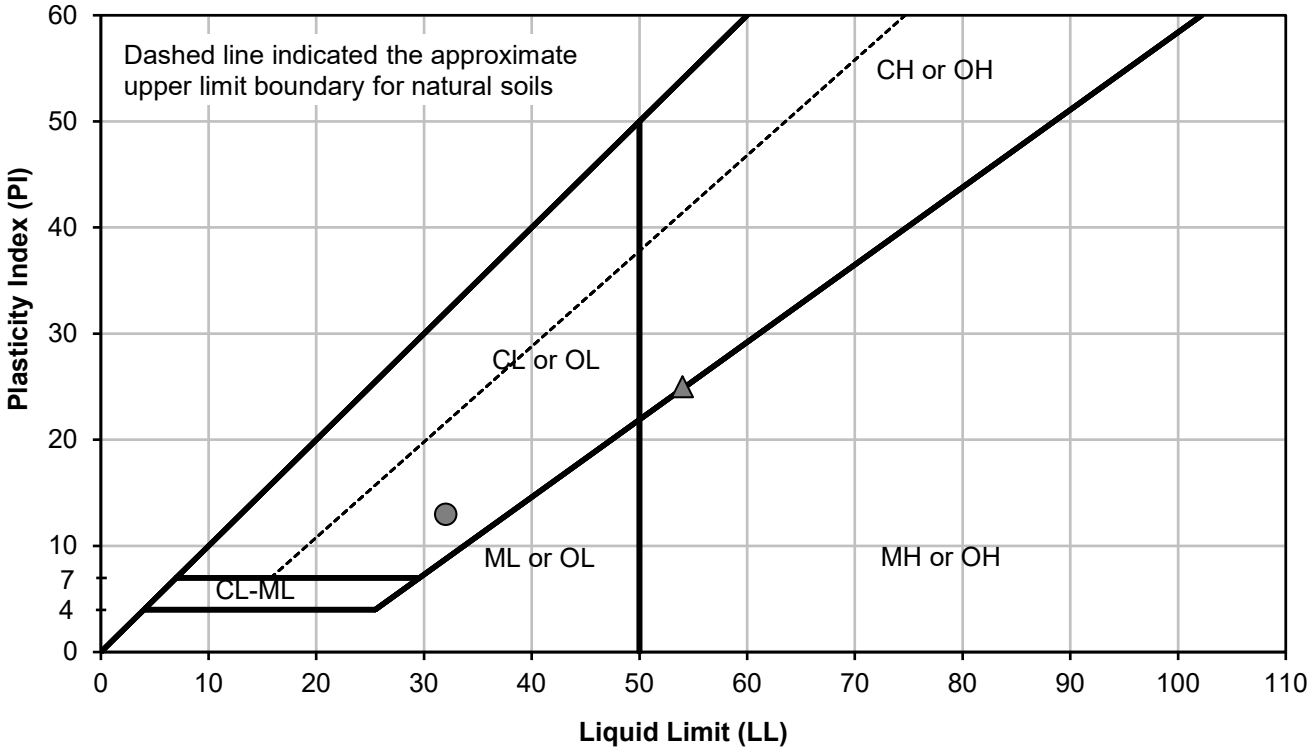
Symbol	Boring Number	Depth (feet)	Soil Description	LL (%)	PL (%)	PI (%)	Moisture Content (%)
●	21B-12	55.4-55.9	Light Brown Fat Clay with Sand	61	22	39	28
▲	21B-13	10.8-11.3	Light Brown Lean Clay	33	21	12	30
■	21B-13	65.4-65.9	Light Brown Fat Clay	61	22	39	26
◆	21B-14	8-8.5	Dark Brown Fat Clay	97	23	74	27
○	21B-14	10.5-11	Light Brown Lean Clay	34	20	14	22
△	21B-15	6-6.5	Light Brown Fat Clay with Sand	56	24	32	17
□	21B-18	5.5-6	Light Brown Fat Clay with Sand	60	18	42	20
◇	21B-18	16-16.5	Light Brown Lean Clay	37	22	15	30

Testing performed by Cooper Testing Laboratory and B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Atterberg Limits

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-48



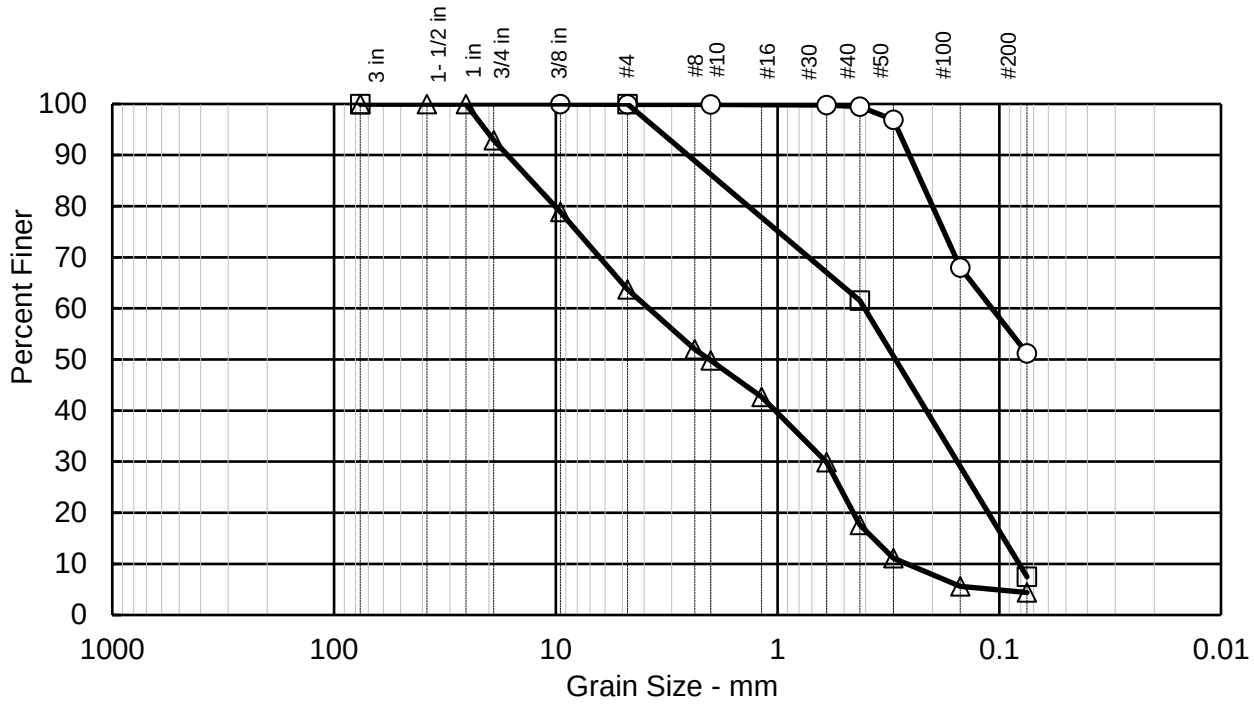
Symbol	Boring Number	Depth (feet)	Soil Description	LL (%)	PL (%)	PI (%)	Moisture Content (%)
●	21B-20	20.5-21	Light Gray Sandy Lean Clay	32	19	13	17
▲	21B-21	6-6.5	Gray Mottled Light Brown Fat Clay	54	29	25	39

Testing performed by Cooper Testing Laboratory and B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Atterberg Limits

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-49



Sieve Size	○	□	△
	Percent Finer		
3 in		100.0	100.0
1-1/2 in			100.0
1 in			100.0
3/4 in			92.9
3/8 in	100.0		78.9
#4	99.9	100.0	63.7
#8			52.0
#10	99.9		49.8
#16			42.7
#30	99.8		29.9
#40	99.5	61.5	17.6
#50	96.9		11.1
#100	68.0		5.6
#200	51.2	7.5	4.4
	Grain Size		
D60	0.117	0.401	3.938
D30	-	0.147	0.602
D10	-	0.081	0.273
	Coefficients		
Cc	-	0.67	0.34
Cu	-	4.97	14.43

Soil Description	
○	Bluish Gray Sandy Lean Clay (CL)
□	Gray Poorly-Graded Sand with Silt (SP-SM)
△	Gray to Black Poorly-Graded Sand with Gravel (SP)

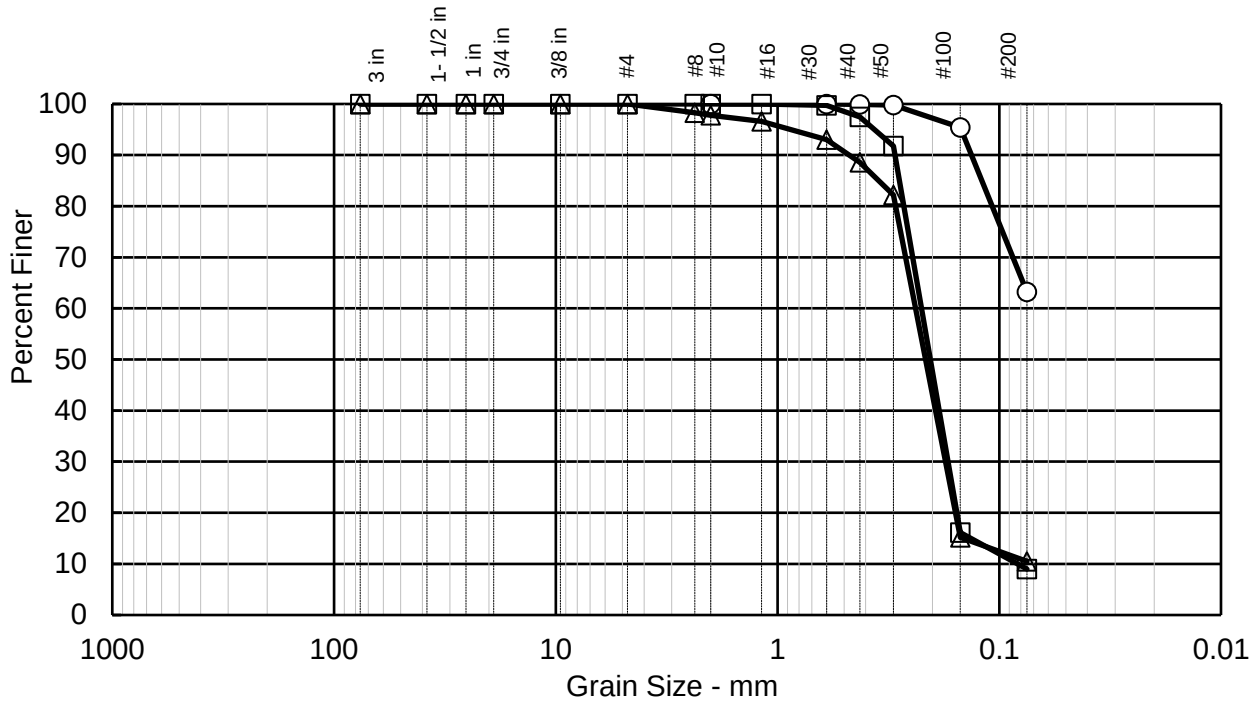
Sample Key	
○	21B-2 at 30.5 - 31.0 feet
□	21B-2 at 40.7 - 41.2 feet
△	21B-2 at 65.0 - 65.5 feet

Testing performed by
Cooper Testing Laboratory and B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-50



Sieve Size	○	□	△
	Percent Finer		
3 in		100.0	100.0
1-1/2 in		100.0	100.0
1 in		100.0	100.0
3/4 in		100.0	100.0
3/8 in		100.0	100.0
#4		100.0	100.0
#8		100.0	98.3
#10	100.0	100.0	97.8
#16		100.0	96.6
#30	100.0	99.7	93.0
#40	99.9	97.5	88.6
#50	99.8	91.8	82.2
#100	95.4	16.1	15.2
#200	63.2	9.0	10.5
	Grain Size		
D60	-	0.219	0.232
D30	-	0.172	0.177
D10	-	0.083	-
	Coefficients		
Cc	-	1.64	-
Cu	-	2.65	-

Soil Description	
○	Bluish Gray Sandy Lean Clay (CL)
□	Bluish Gray Poorly-Graded Sand with Silt (SP-SM)
△	Bluish Gray Poorly-Graded Sand with Silt (SP-SM)

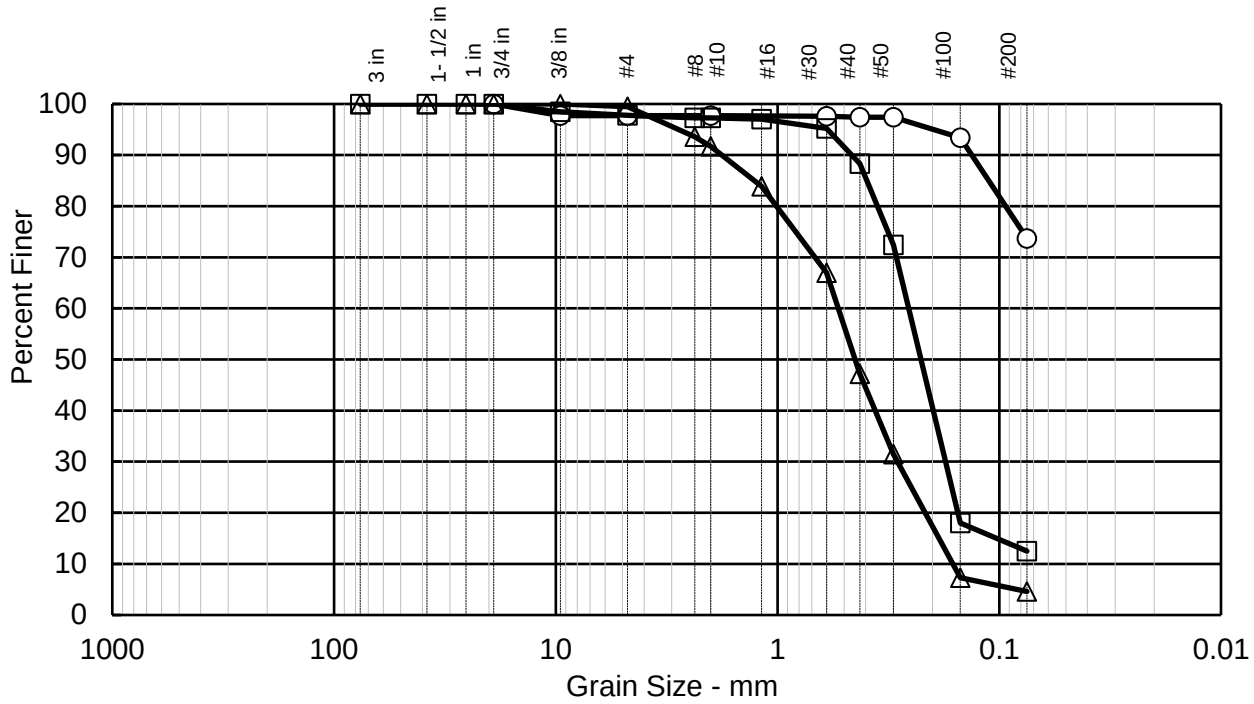
Sample Key	
○	21B-3 at 15.7 - 16.2 feet
□	21B-3 at 20.5 - 21.0 feet
△	21B-3 at 40.2 - 40.7 feet

Testing performed by
Cooper Testing Laboratory and B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-51



Sieve Size	○	□	△
	Percent Finer		
3 in		100.0	100.0
1-1/2 in		100.0	100.0
1 in		100.0	100.0
3/4 in	100.0	100.0	100.0
3/8 in	97.7	98.5	100.0
#4	97.7	97.8	99.5
#8		97.3	93.6
#10	97.7	97.3	91.7
#16		97.0	83.9
#30	97.6	95.2	67.0
#40	97.4	88.3	47.2
#50	97.4	72.4	31.5
#100	93.4	18.0	7.3
#200	73.7	12.5	4.6
	Grain Size		
D60	-	0.255	0.528
D30	-	0.180	0.289
D10	-	-	0.168
	Coefficients		
Cc	-	-	0.94
Cu	-	-	3.14

Soil Description	
○	Light Brown Silt with Sand (ML)
□	Dark Brown Silty Sand (SM)
△	Brown Poorly-Graded Sand (SP)

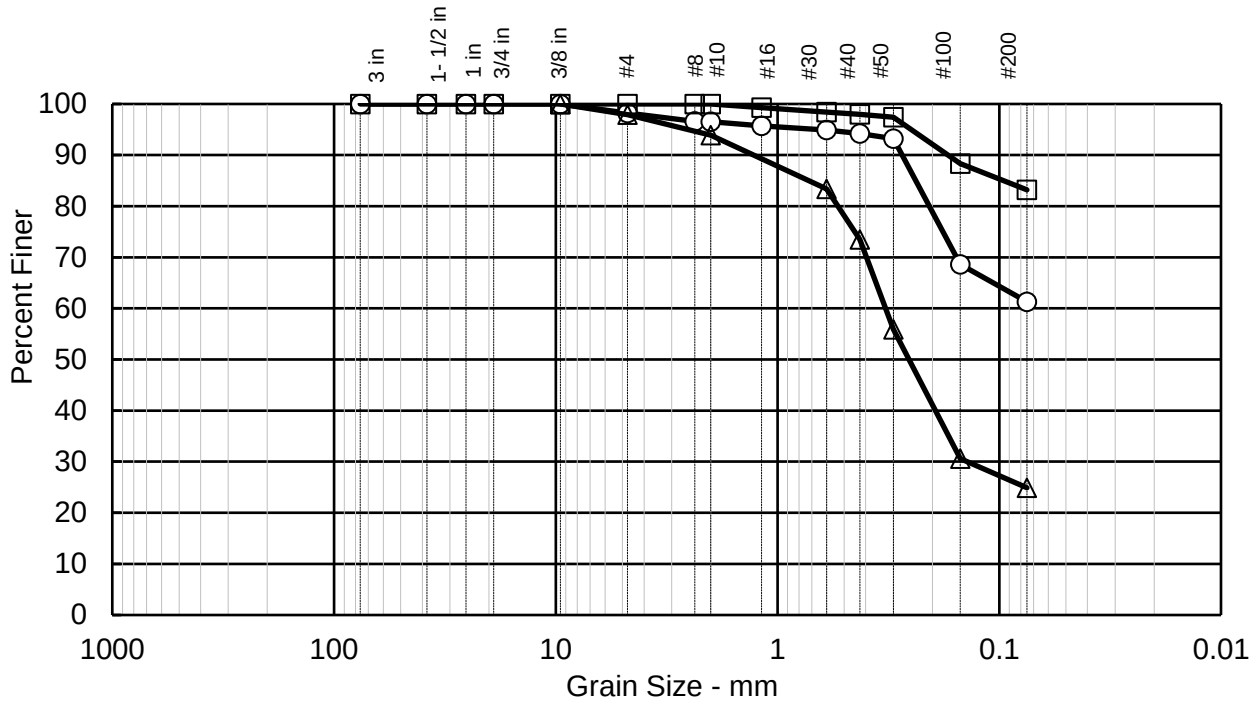
Sample Key	
○	21B-4 at 16.0 - 16.5 feet
□	21B-4 at 20.0 - 20.8 feet
△	21B-4 at 40.8 - 41.3 feet

Testing performed by
Cooper Testing Laboratory and B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-52



Sieve Size	○	□	△
	Percent Finer		
3 in	100.0	100.0	
1-1/2 in	100.0	100.0	
1 in	100.0	100.0	
3/4 in	100.0	100.0	
3/8 in	100.0	100.0	100.0
#4	98.2	100.0	97.9
#8	96.6	100.0	
#10	96.5	100.0	93.9
#16	95.7	99.3	
#30	94.9	98.4	83.4
#40	94.2	98.0	73.5
#50	93.2	97.4	55.9
#100	68.6	88.3	30.6
#200	61.3	83.2	24.9
	Grain Size		
D60	-	-	0.324
D30	-	-	0.145
D10	-	-	-
	Coefficients		
Cc	-	-	-
Cu	-	-	-

Soil Description	
○	Bluish Gray Sandy Lean Clay (CL)
□	Light Brown Silt with Sand (ML)
△	Bluish Gray Silty Sand (SM)

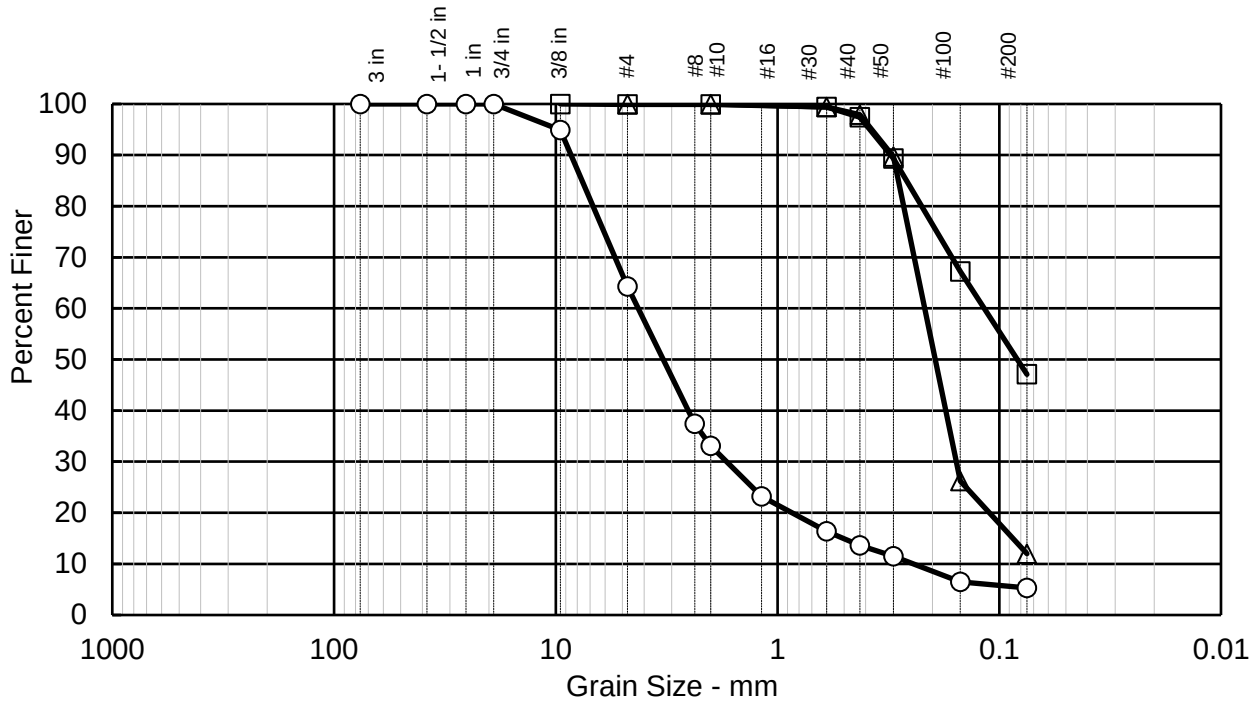
Sample Key	
○	21B-5 at 41.0 - 41.5 feet
□	21B-5 at 61.0 - 61.5 feet
△	21B-7 at 15.5 - 16.0 feet

Testing performed by
Cooper Testing Laboratory and B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-53



Sieve Size	○	□	△
	Percent Finer		
3 in	100.0		
1-1/2 in	100.0		
1 in	100.0		
3/4 in	100.0		
3/8 in	94.9	100.0	
#4	64.3	99.9	100.0
#8	37.4		
#10	33.1	99.9	100.0
#16	23.2		
#30	16.4	99.4	99.4
#40	13.6	97.4	97.9
#50	11.5	89.3	89.7
#100	6.5	67.2	26.2
#200	5.3	47.1	12.0
	Grain Size		
D60	4.332	0.118	0.213
D30	1.746	-	0.158
D10	0.244	-	-
	Coefficients		
Cc	2.88	-	-
Cu	17.73	-	-

Soil Description	
○	Dark Gray Well-Graded Sand with Clay and Gravel (SW-SC)
□	Bluish Gray Clayey Sand (SC)
△	Dark Brown Poorly-Graded Sand with Silt (SP-SM)

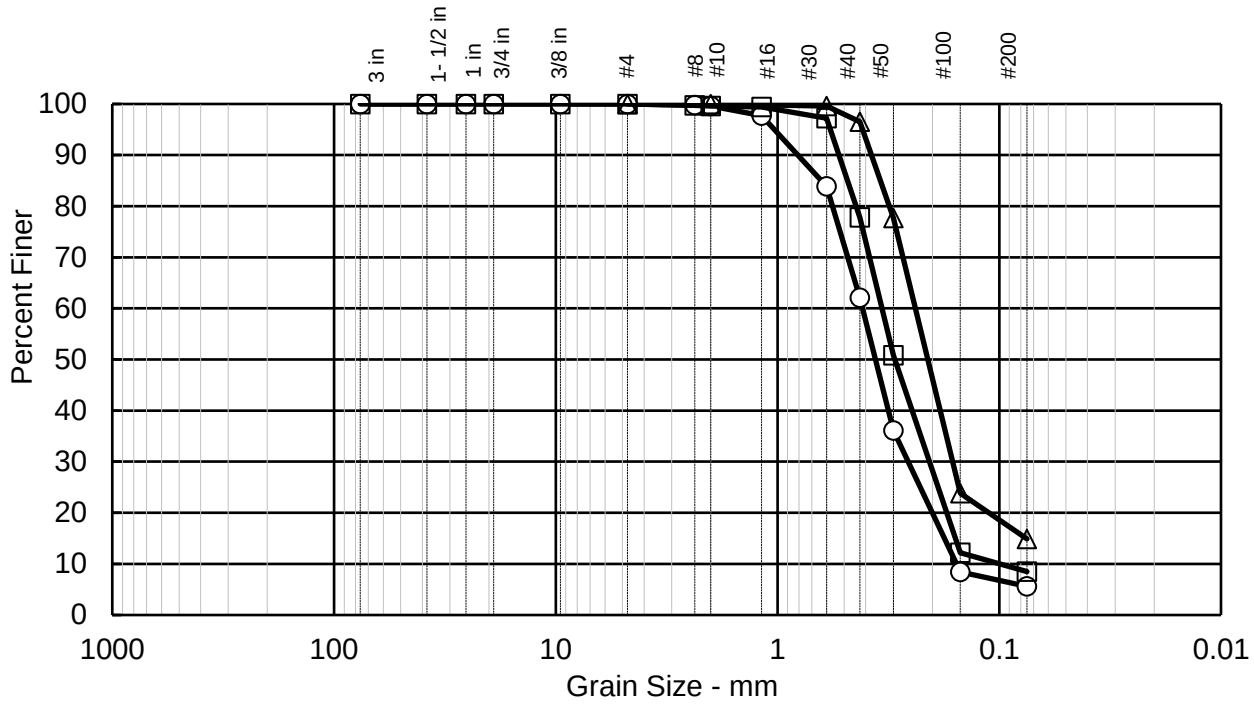
Sample Key	
○	21B-7 at 31.0 - 31.5 feet
□	21B-7 at 51.0 - 51.5 feet
△	21B-8 at 20.3 - 20.8 feet

Testing performed by
Cooper Testing Laboratory and B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-54



Sieve Size	○	□	△
	Percent Finer		
3 in	100.0	100.0	
1-1/2 in	100.0	100.0	
1 in	100.0	100.0	
3/4 in	100.0	100.0	
3/8 in	100.0	100.0	
#4	100.0	100.0	100.0
#8	99.8	99.7	
#10	99.6	99.6	100.0
#16	97.7	99.4	
#30	83.9	97.2	99.6
#40	62.1	77.8	96.5
#50	36.1	50.8	77.7
#100	8.4	12.2	23.8
#200	5.6	8.5	14.9
	Grain Size		
D60	0.413	0.338	0.240
D30	0.272	0.222	0.166
D10	0.163	0.099	-
	Coefficients		
Cc	1.10	1.48	-
Cu	2.54	3.42	-

Soil Description	
○	Brown Poorly-Graded Sand with Silt (SP-SM)
□	Gray Poorly-Graded Sand with Silt (SP-SM)
△	Dark Gray Silty Sand (SM)

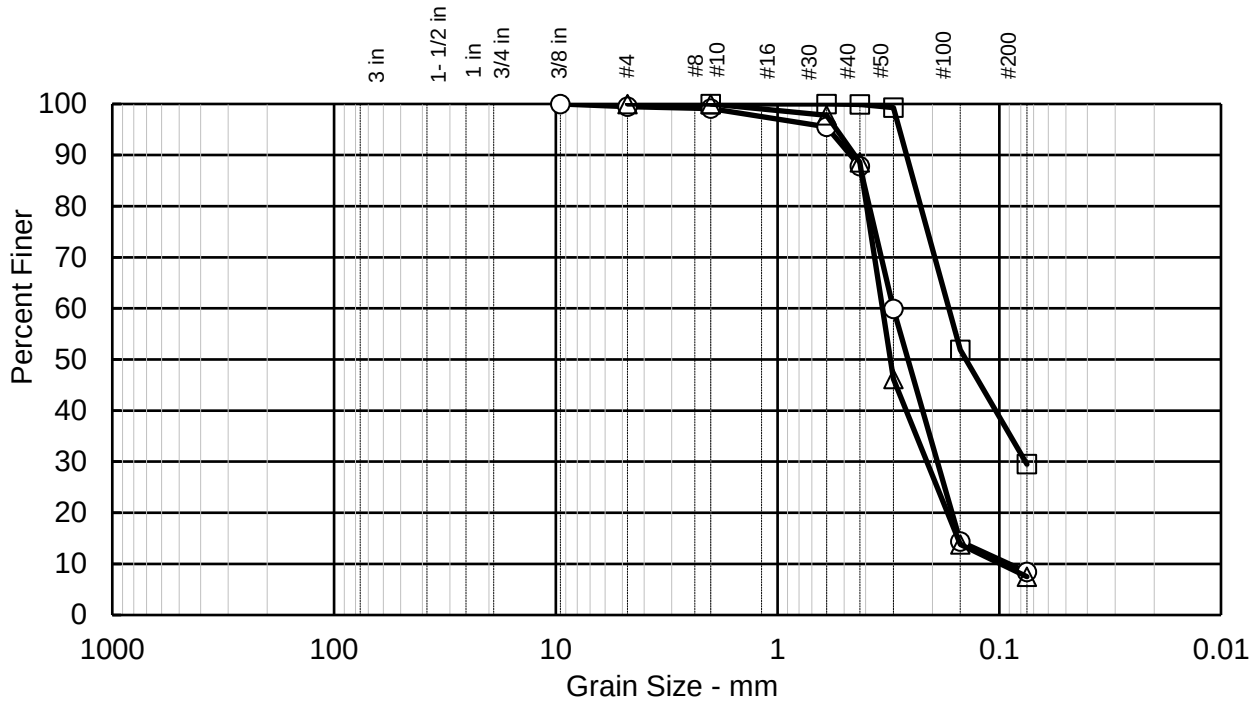
Sample Key	
○	21B-8 at 30.5 - 31.0 feet
□	21B-8 at 70.8 - 71.3 feet
△	21B-9 at 30.8 - 31.3 feet

Testing performed by
Cooper Testing Laboratory and B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-55



Sieve Size	○	□	△
	Percent Finer		
3 in			
1-1/2 in			
1 in			
3/4 in			
3/8 in	100.0		
#4	99.5		100.0
#8			
#10	99.1	100.0	100.0
#16			
#30	95.5	100.0	97.8
#40	87.8	99.9	88.6
#50	59.9	99.3	46.2
#100	14.4	51.9	13.8
#200	8.4	29.5	7.5
	Grain Size		
D60	0.300	0.173	0.340
D30	0.205	0.077	0.244
D10	0.090	-	0.109
	Coefficients		
Cc	1.55	-	1.62
Cu	3.33	-	3.13

Soil Description	
○	Dark Gray Poorly-Graded Sand with Silt (SP-SM)
□	Dark Gray Silty Sand (SM)
△	Brown Poorly-Graded Sand with Silt (SP-SM)

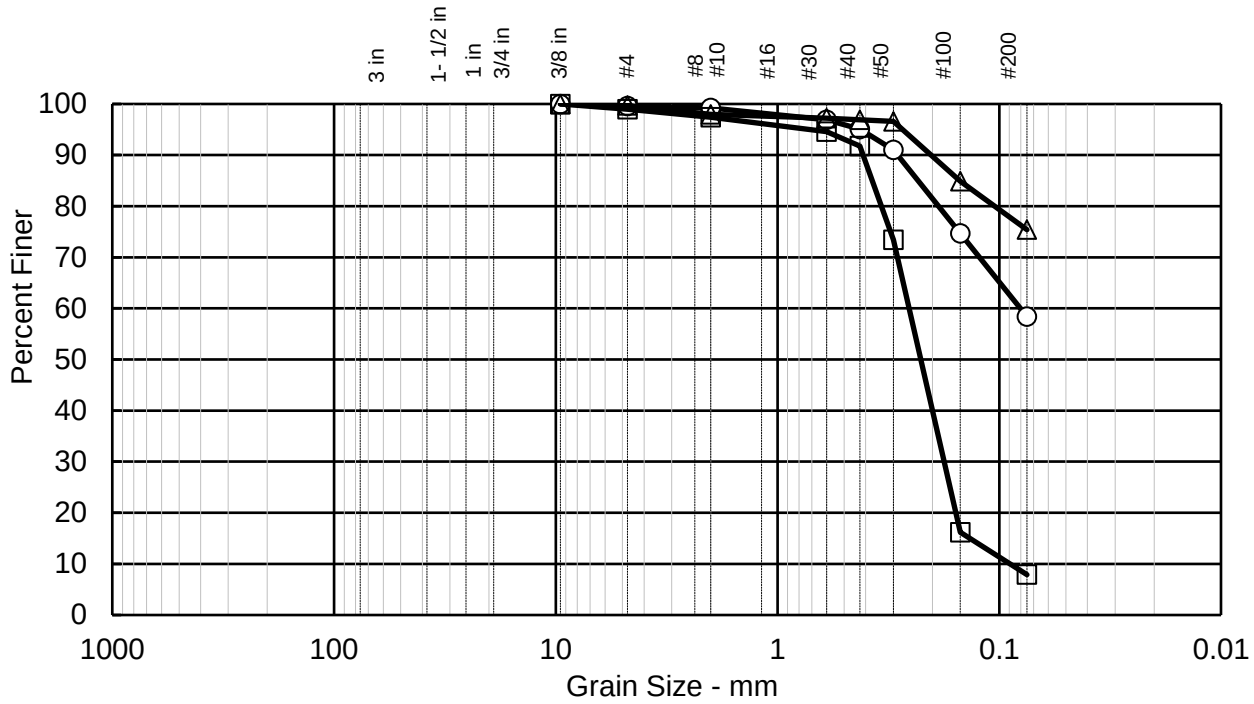
Sample Key	
○	21B-9 at 50.8 - 51.3 feet
□	21B-10 at 20.2 - 20.7 feet
△	21B-11 at 20.8 - 21.3 feet

Testing performed by
Cooper Testing Laboratory

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-56



Sieve Size	○	□	△
	Percent Finer		
3 in			
1-1/2 in			
1 in			
3/4 in			
3/8 in	100.0	100.0	100.0
#4	99.6	99.0	99.7
#8			
#10	99.2	97.4	98.0
#16			
#30	96.9	94.6	97.2
#40	95.1	91.8	96.9
#50	91.0	73.4	96.6
#100	74.7	16.2	84.9
#200	58.4	7.9	75.4
	Grain Size		
D60	0.081	0.254	-
D30	-	0.182	-
D10	-	0.089	-
	Coefficients		
Cc	-	1.46	-
Cu	-	2.84	-

Soil Description	
○	Bluish Gray Sandy Lean Clay (CL)
□	Gray Poorly-Graded Sand with Silt (SP-SM)
△	Light Brown Fat Clay with Sand (CH)

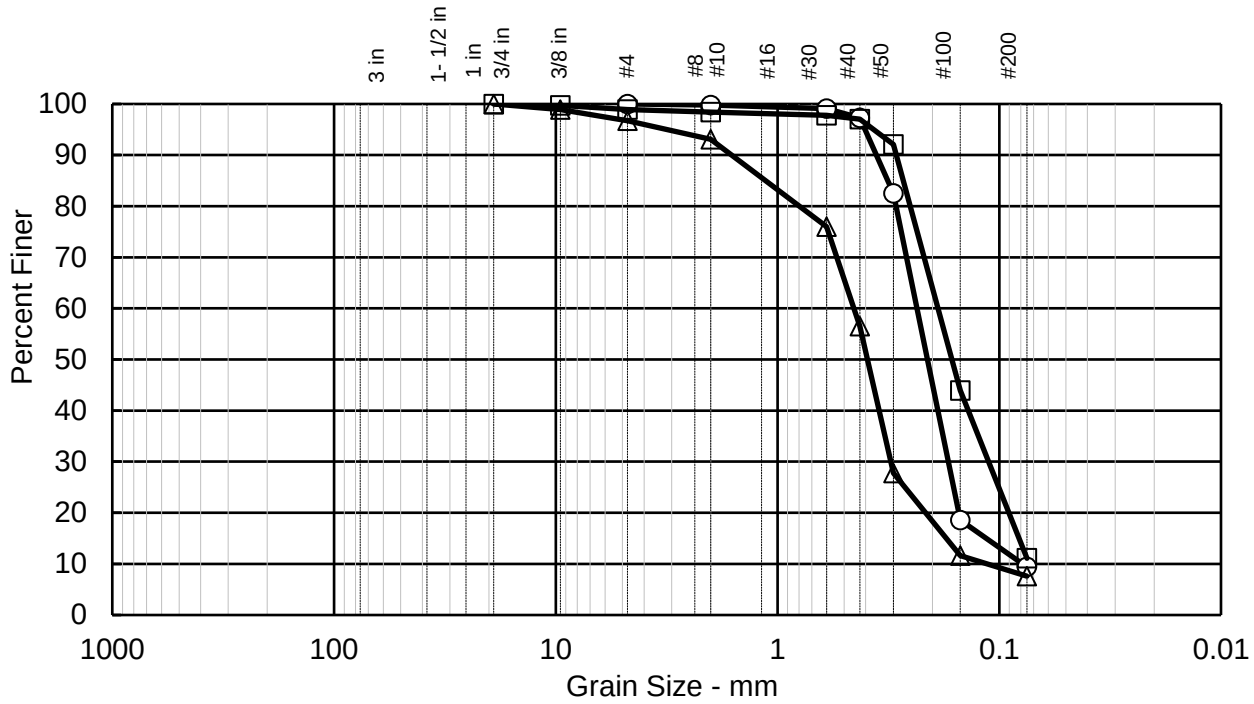
Sample Key	
○	21B-12 at 15.8 - 16.3 feet
□	21B-12 at 20.7 - 21.2 feet
△	21B-12 at 50.5 - 51.0 feet

Testing performed by
Cooper Testing Laboratory

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-57



Sieve Size	○	□	△
	Percent Finer		
3 in			
1-1/2 in			
1 in			
3/4 in		100.0	100.0
3/8 in		99.7	98.9
#4	100.0	98.9	96.7
#8			
#10	99.8	98.4	93.1
#16			
#30	99.1	97.8	76.0
#40	97.3	97.0	56.5
#50	82.5	92.1	27.8
#100	18.6	43.9	11.6
#200	9.4	11.1	7.6
	Grain Size		
D60	0.233	0.185	0.446
D30	0.173	0.119	0.309
D10	0.079	-	0.107
	Coefficients		
Cc	1.64	-	2.01
Cu	2.97	-	4.16

Soil Description	
○	Brown Poorly-Graded Sand with Silt (SP-SM)
□	Brown Poorly-Graded Sand with Silt (SP-SM)
△	Brown Poorly-Graded Sand with Silt (SP-SM)

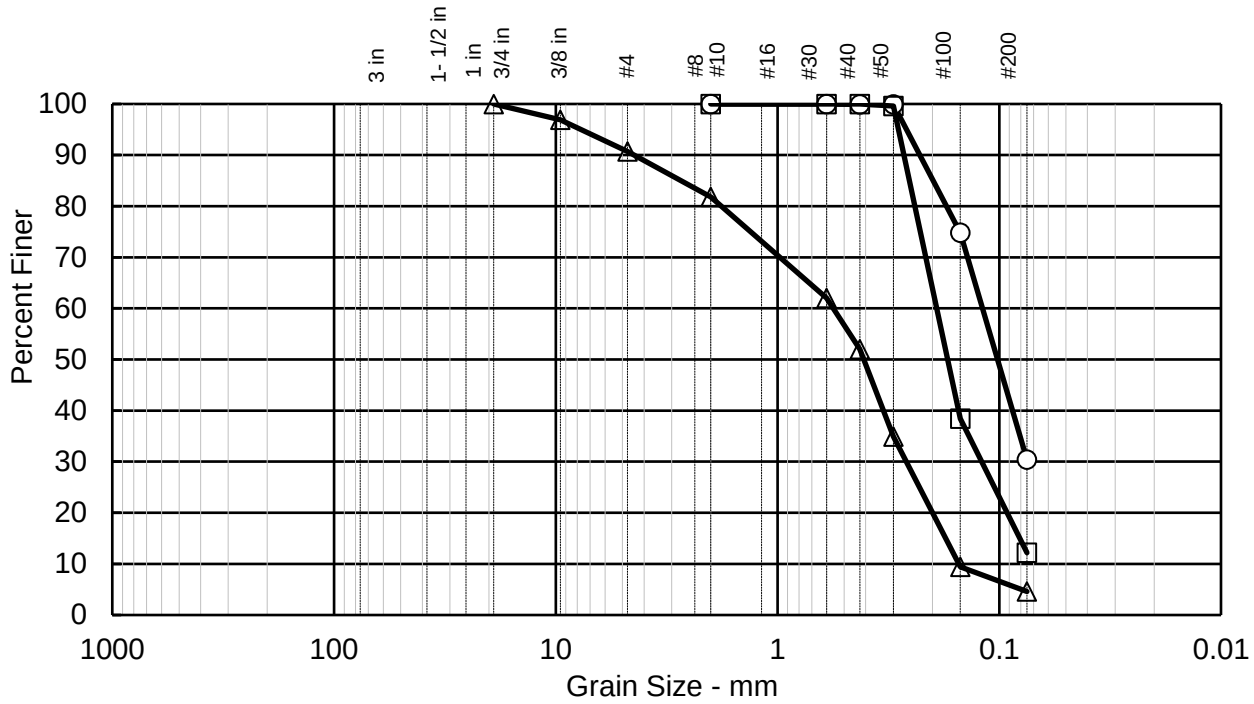
Sample Key	
○	21B-13 at 17.5 - 19.3 feet
□	21B-13 at 30.7 - 31.2 feet
△	21B-13 at 50.0 - 51.0 feet

Testing performed by
Cooper Testing Laboratory

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-58



Sieve Size	○	□	△
	Percent Finer		
3 in			
1-1/2 in			
1 in			
3/4 in			100.0
3/8 in			96.9
#4			90.7
#8			
#10	100.0	100.0	81.8
#16			
#30	100.0	100.0	62.0
#40	99.9	100.0	52.0
#50	99.9	99.6	34.9
#100	74.8	38.4	9.4
#200	30.4	12.2	4.6
	Grain Size		
D60	0.116	0.199	0.550
D30	-	0.129	0.271
D10	-	-	0.154
	Coefficients		
Cc	-	-	0.87
Cu	-	-	3.56

Soil Description	
○	Dark Brown Silty Sand (SM)
□	Dark Brown Silty Sand (SM)
△	Dark Gray Poorly-Graded Sand (SP)

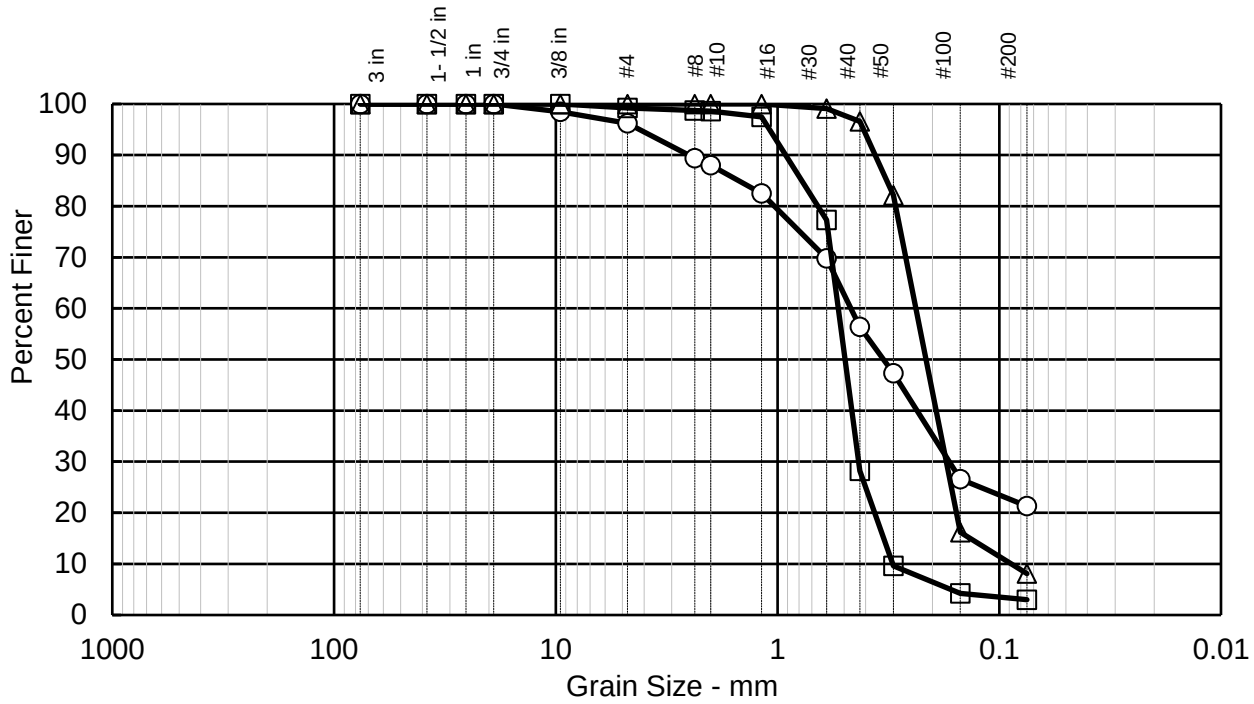
Sample Key	
○	21B-14 at 15.8 - 16.3 feet
□	21B-14 at 20.0 - 21.2 feet
△	21B-14 at 25.8 - 26.3 feet

Testing performed by
Cooper Testing Laboratory

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-59



Sieve Size	○	□	△
	Percent Finer		
3 in	100.0	100.0	100.0
1-1/2 in	100.0	100.0	100.0
1 in	100.0	100.0	100.0
3/4 in	100.0	100.0	100.0
3/8 in	98.5	100.0	100.0
#4	96.2	99.2	100.0
#8	89.4	98.7	100.0
#10	88.0	98.6	100.0
#16	82.5	97.5	100.0
#30	69.8	77.3	99.1
#40	56.4	28.2	96.6
#50	47.3	9.6	82.1
#100	26.6	4.2	16.2
#200	21.3	3.0	8.1
	Grain Size		
D60	0.469	0.530	0.236
D30	0.172	0.432	0.177
D10	-	0.306	0.088
	Coefficients		
Cc	-	1.15	1.51
Cu	-	1.73	2.68

Soil Description	
○	Reddish Brown Silty Sand (SM)
□	Gray Poorly-Graded Sand (SP)
△	Brown Poorly-Graded Sand with Silt (SP-SM)

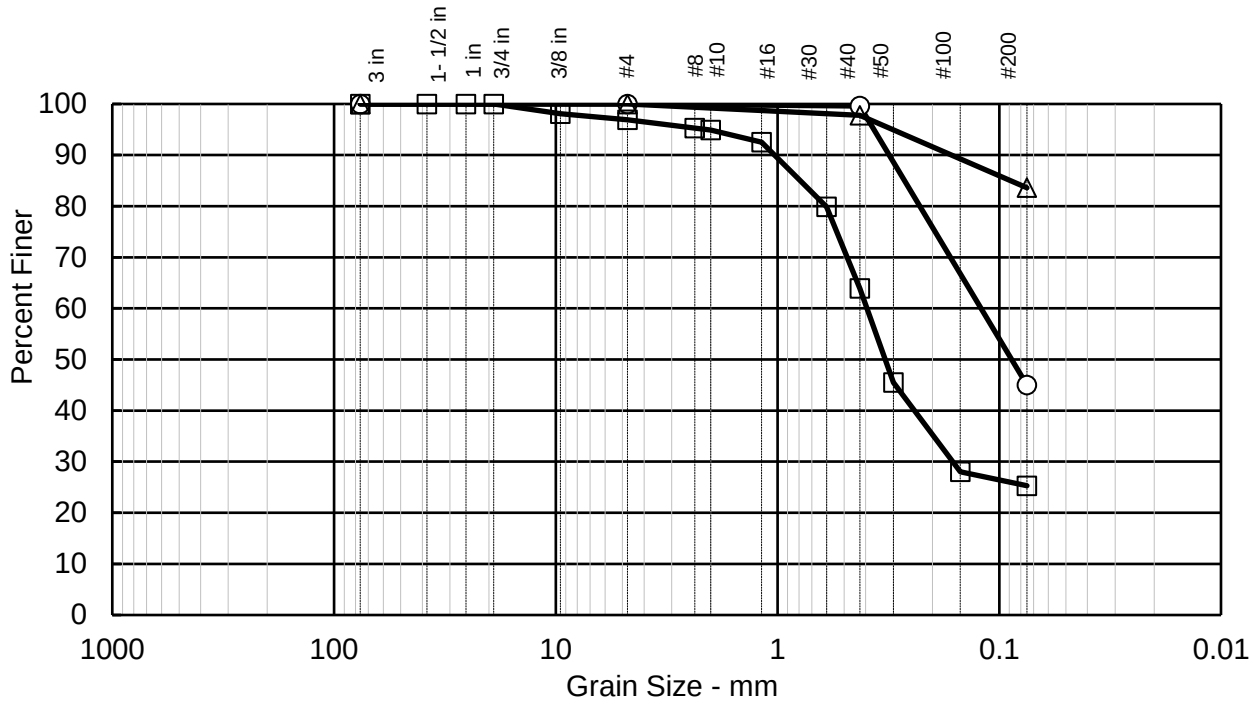
Sample Key	
○	21B-15 at 16.0 - 16.5 feet
□	21B-16 at 5.5 - 5.8 feet
△	21B-17 at 3.5 - 4.0 feet

Testing performed by
B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-60



Sieve Size	○	□	△
	Percent Finer		
3 in	100.0	100.0	100.0
1-1/2 in		100.0	
1 in		100.0	
3/4 in		100.0	
3/8 in		98.1	
#4	100.0	96.9	100.0
#8		95.3	
#10		94.9	
#16		92.5	
#30		79.9	
#40	99.6	63.9	97.8
#50		45.5	
#100		28.0	
#200	45.0	25.3	83.6
	Grain Size		
D60	0.111	0.396	-
D30	-	0.176	-
D10	-	-	-
	Coefficients		
Cc	-	-	-
Cu	-	-	-

Soil Description	
○	Dark Gray Clayey Sand (SC)
□	Brown Silty Sand (SM)
△	Dark Brown Lean Clay with Sand (CL)

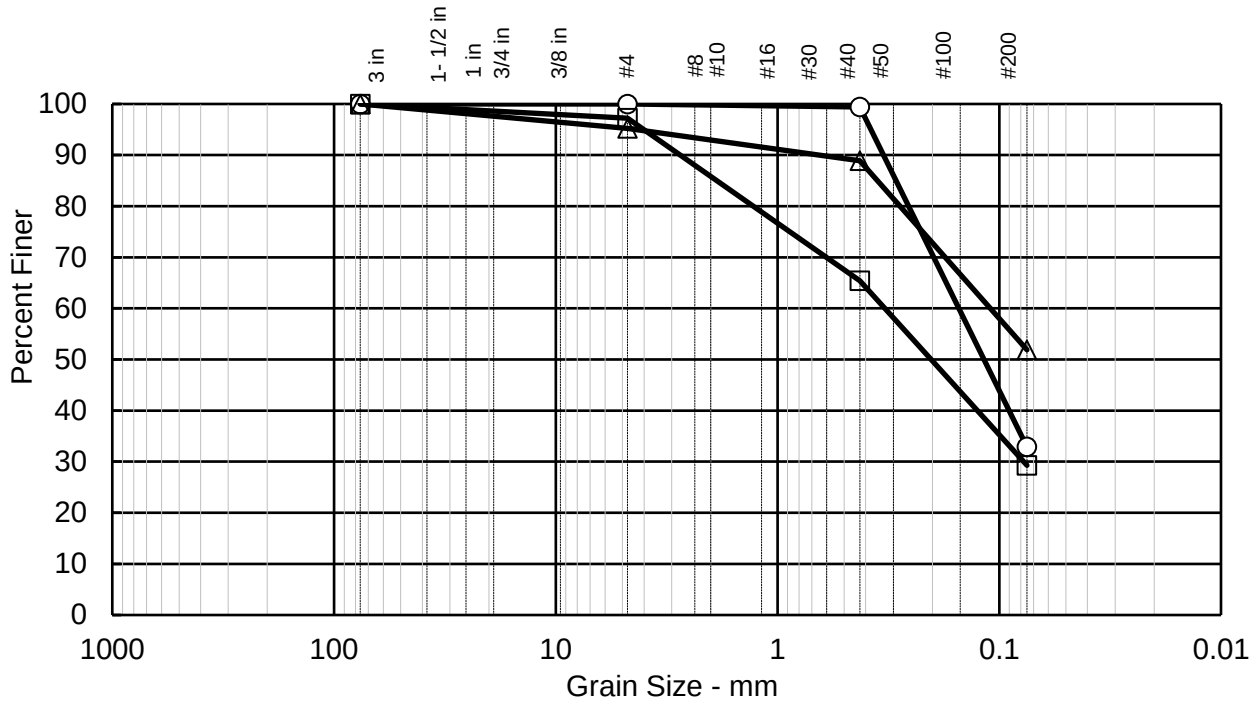
Sample Key	
○	21B-17 at 20.0 - 20.5 feet
□	21B-19 at 5.0 - 6.0 feet
△	21B-19 at 13.5 - 14.3 feet

Testing performed by
B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-61



Sieve Size	○	□	△
	Percent Finer		
3 in	100.0	100.0	100.0
1-1/2 in			
1 in			
3/4 in			
3/8 in			
#4	100.0	97.2	95.2
#8			
#10			
#16			
#30			
#40	99.4	65.4	88.9
#50			
#100			
#200	32.9	29.3	51.9
	Grain Size		
D60	0.136	0.320	0.103
D30	-	0.077	-
D10	-	-	-
	Coefficients		
Cc	-	-	-
Cu	-	-	-

Soil Description	
○	Light Brown Silty Sand (SM)
□	Light Brown Clayey Sand (SC)
△	Light Gray Sandy Lean Clay (CL)

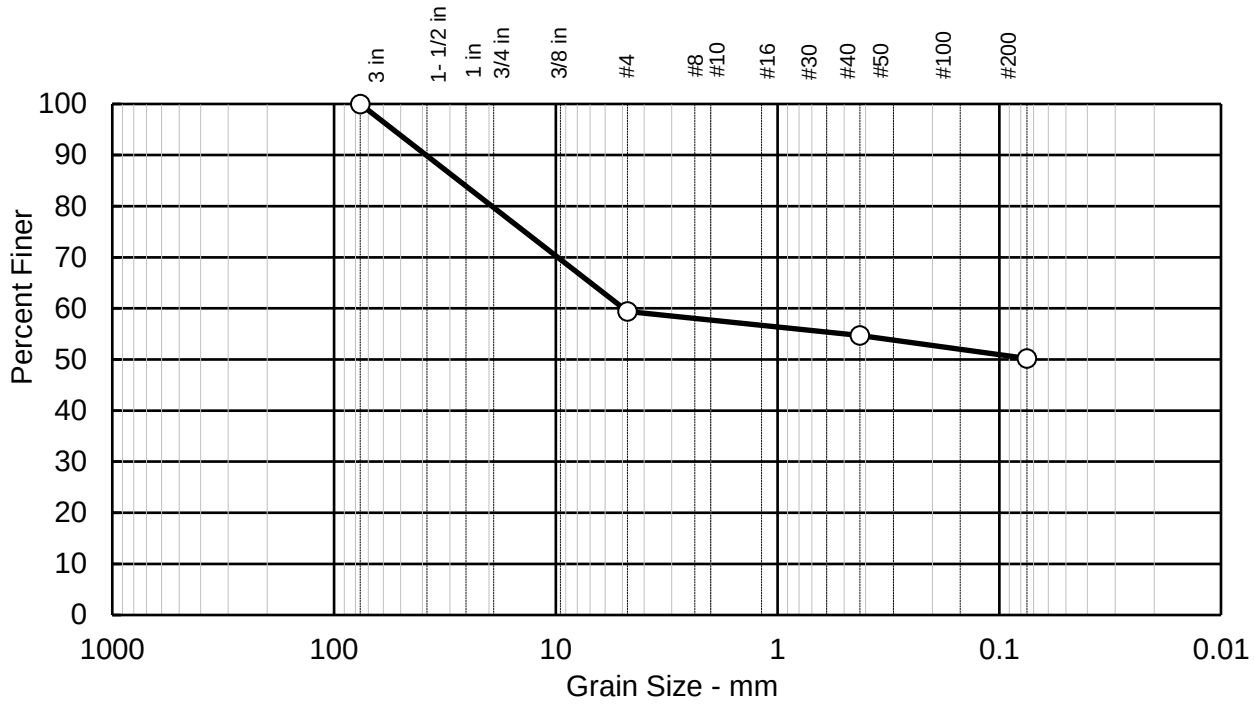
Sample Key	
○	21B-19 at 19.5 - 20.0 feet
□	21B-20 at 5.5 - 6.0 feet
△	21B-20 at 20.5 - 21.0 feet

Testing performed by
B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-62



Sieve Size	○	□	△
	Percent Finer		
3 in	100.0		
1-1/2 in			
1 in			
3/4 in			
3/8 in			
#4	59.4		
#8			
#10			
#16			
#30			
#40	54.7		
#50			
#100			
#200	50.2		
	Grain Size		
D60	5.174	-	-
D30	-	-	-
D10	-	-	-
	Coefficients		
Cc	-	-	-
Cu	-	-	-

Soil Description	
○	Light Brown Gravelley Lean Clay (CL)
□	
△	

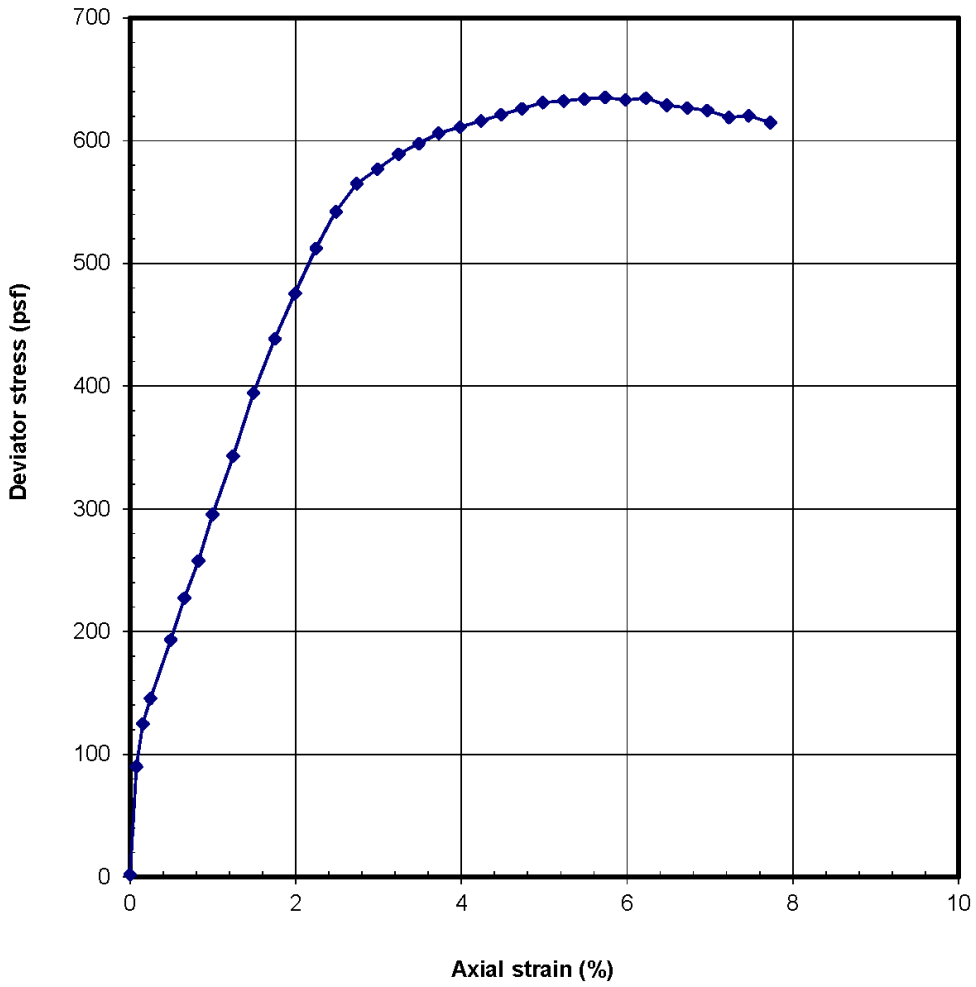
Sample Key	
○	21B-23 at 8.5 - 9.0 feet
□	
△	

Testing performed by
B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

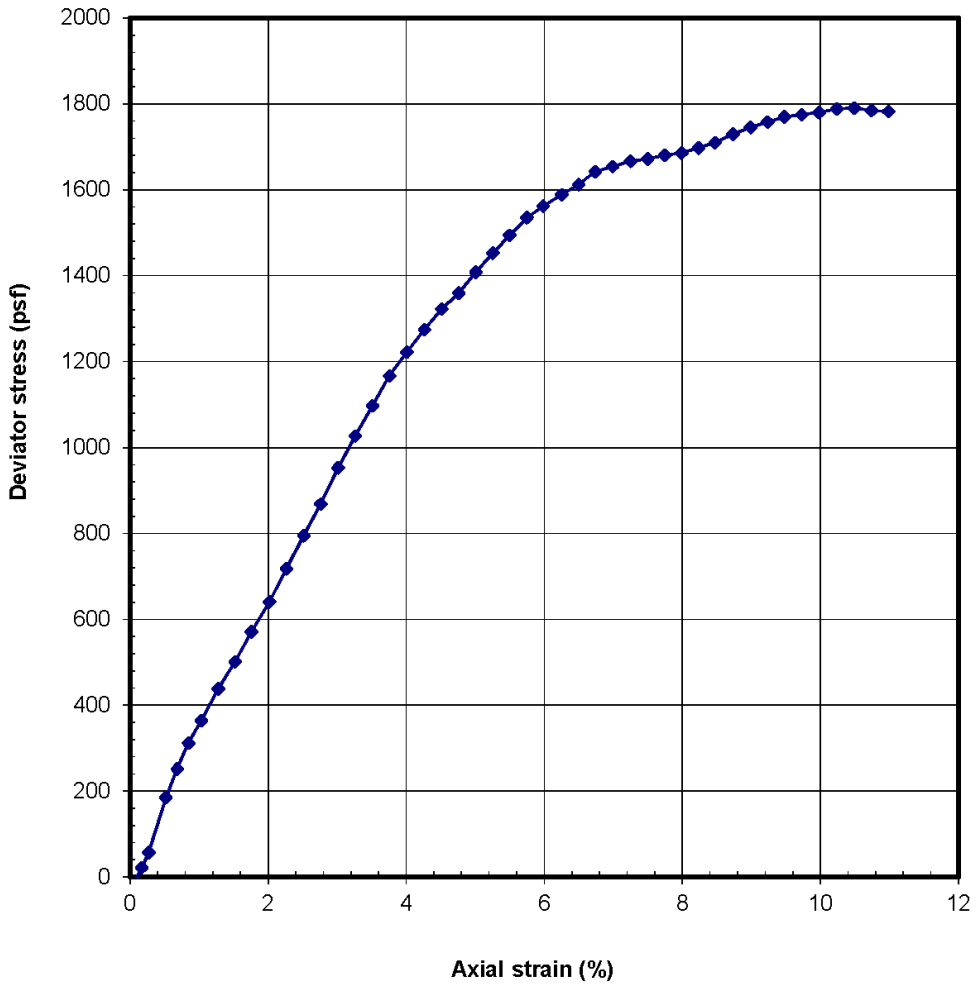
Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-63



Sampler Type: Shelby		Shear Strength:	320 psf
Diameter (in): 2.82	Height (in): 5.8	Strain at Failure:	5.7%
Moisture Content: 114 %		Confining Pressure:	350 psf
Dry Density: 40 pcf		Strain Rate:	1%/min
Source: 21B-12 at 12.0 feet			
Description: Dark Brown to Black Peat			

LITTLE EGBERT	**UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST**		
B. HILLEBRANDT SOILS TESTING, INC	Date: 11/02/21	Project #: 907.02	Figure

Little Egbert Multi-Benefit Project Solano County, California	**Unconsolidated-Undrained Triaxial Compression Test (TxUU)**	
Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-64



Sampler Type: Shelby		Shear Strength:	700 psf
Diameter (in): 2.80	Height (in): 6.23	Strain:	5%
Moisture Content:	57 %	Confining Pressure:	1200 psf
Dry Density:	64 pcf	Strain Rate:	1%/min
Source:	21B-16 at 21.5 feet		
Description:	Dark Gray Organic Clay		

LITTLE EGBERT		**UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST**	
B. HILLEBRANDT SOILS TESTING, INC	Date: 11/02/21	Project #: 907.02	Figure

Little Egbert Multi-Benefit Project
Solano County, California

Unconsolidated-Undrained Triaxial Compression Test (TxUU)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-1-65

APPENDIX C-2
2021 TEST PITS

I. INTRODUCTION

This appendix presents the data from our 2021 test pits. The test pits were excavated in the parcel interior. The logs of test pits and laboratory test results are presented in this appendix.

II. FIELD EXPLORATION AND LABORATORY TESTING

We explored subsurface conditions on October 12 and 13, 2021 by excavating 22 test pits to depths of 4 to 13 feet below existing grade. The approximate test pit locations are shown on the Site Plan, Plate 2 and the 2021 Test Pit Location Map, Plate C-2-1. We used a rubber-tired backhoe to excavate the test pits.

Our engineer logged the test pits and collected samples for further visual classification and selection of materials for laboratory testing. The test pits were backfilled with spoils from the test pit excavations and tamped with the backhoe bucket.

The laboratory testing program consisted of:

- Moisture content (ASTM D 2216-10);
- Atterberg limits (ASTM D 4318-10); and
- Sieve analysis (ASTM D 6913-17);

Atterberg limits tests were performed in accordance with the dry preparation method outlined in ASTM D 4318-10.

Soil descriptions are shown on the Logs of Test Pits, Plates C-2-3 through C-2-24. The soil descriptions are presented in general accordance with the Soil Classification System presented on Plate C-2-2 with laboratory test results presented in the manner described by the Key to Test Data. Atterberg limits test results are shown on Plates C-2-25 and C-2-26. The moisture content results are presented on the individual test pit logs. Sieve analysis test results are shown on Plate C-2-27.



Approximate Location of Test Pits (2021)
Approximate Location of Levee Centerline

N

0 2,000 Feet

1 inch = 2,000 feet

Little Egbert Multi-Benefit Project
Solano County, California

2021 Test Pit Location Map

Hultgren - Tillis Engineers

Project No. 907.02

Plate No. C-2-1

MAJOR DIVISIONS				GROUP NAMES
COARSE GRAINED SOILS MORE THAN 50% RETAINED ON NO. 200 SIEVE	GRAVELS MORE THAN 50% OF COARSE FRACTION IS RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS WITH LESS THAN 5% FINES	GW	WELL GRADED GRAVEL
			GP	POORLY GRADED GRAVEL
		GRAVELS WITH OVER 12% FINES	GM	SILTY GRAVEL
			GC	CLAYEY GRAVEL
	SANDS 50% OR MORE OF COARSE FRACTION PASSES NO. 4 SIEVE	CLEAN SANDS WITH LESS THAN 5% FINES	SW	WELL GRADED SAND
			SP	POORLY GRADED SAND
		SANDS WITH OVER 12% FINES	SM	SILTY SAND
			SC	CLAYEY SAND
FINE GRAINED SOILS 50% OR MORE PASSES NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML	SILT
			CL	LEAN CLAY
			OL	ORGANIC CLAY, ORGANIC SILT
	SILTS AND CLAYS LIQUID LIMIT 50 OR MORE		MH	ELASTIC SILT
			CH	FAT CLAY
			OH	ORGANIC CLAY, ORGANIC SILT
HIGHLY ORGANIC SOILS			Pt	PEAT

UNIFIED SOIL CLASSIFICATION SYSTEM- ASTM D 2487

S - SPT

M - 2.5 inch

C - 3.0 inch

T - Shelby Tube

B - Bag

- Water Level at Time of Drilling
- Water Level after Drilling (with date measured)

Consol - Consolidation

Gs - Specific Gravity

LL - Liquid Limit (%)

PI - Plasticity Index (%)

TxUU - Shear Strength (psf) - Unconsolidated Undrained Triaxial Shear

TxCU - Shear Strength (psf) - Consolidated Undrained Triaxial Shear

UC - Compressive Strength (psf) - Unconfined Compression

P - Push

Perm - Permeability

Sieve - Particle Size Analysis

VS - Laboratory Vane Shear (psf)

-200 - % Passing No. 200 Sieve

KEY TO TEST DATA

Little Egbert Multi-Benefit Project
Solano County, California

Soil Classification Chart

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-2

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 10/12/2021 Drilling Method : Test Pit Elevation (Feet) : 4 Latitude : 38.20369 Longitude : -121.67945					
1	B			OH		Organic Clay (OH), dark brown, dry to moist, hard to medium stiff, desiccated					
2	B										
3	B										
4	B					Peaty					
5	B			CL		Lean Clay with Sand (CL), light brown, moist, stiff, low plasticity, low dry strength					
6	B					Lean Clay (CL), light gray, moist, stiff, medium plasticity, medium toughness					
7	B			CL							
8	B					Trace fine gravel					
9	B			SC		Clayey Sand (SC), reddish brown, fine grained sand, wet, loose, cemented zones					
10	B			CL	▽	Sandy Lean Clay (CL), olive brown, fine grained sand, wet, soft					
11	B					Bottom of test pit at 11 feet Groundwater encountered at 11 feet					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-1
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-3

Date : 10/12/2021
Drilling Method : Test Pit
Elevation (Feet) : 5
Latitude : 38.20108
Longitude : -121.67842

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
1	B			CL		Lean Clay (CL), dark brown, moist to dry, medium plasticity, high toughness, high dry strength			16		LL=42 PI=24
2	B			SC		Clayey Sand (SC), reddish brown, moist, loose to medium dense					
3	B					Sandy Lean Clay (CL), reddish brown, moist, medium stiff to stiff					
4	B			CL							
5	B					Silty Sand (SM), reddish brown, moist, medium dense to dense, cemented					
6	B										
7	B			SM							
8	B										
9	B										
10	B			ML	▽	Silt (ML), brownish gray, moist to wet, hard, cemented					

Bottom of test pit at 10 feet
Groundwater encountered at 10 feet

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-2
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-4

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 10/12/2021 Drilling Method : Test Pit Elevation (Feet) : -2 Latitude : 38.19695 Longitude : -121.67158					
1	B			OH		Organic Clay (OH), dark brown, dry to moist, medium stiff to stiff, high plasticity, medium toughness					
2	B										
3	B										
4	B										
5	B										
6	B										
7	B			Pt		Peat (Pt), black, moist, medium stiff to soft, high plasticity, low toughness, low dry strength					
8	B										
9	B										
10	B										
11	B										
12	B										
13	B					Bottom of test pit at 13 feet No groundwater encountered					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-3
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-5

Date : 10/12/2021
Drilling Method : Test Pit
Elevation (Feet) : 6
Latitude : 38.19706
Longitude : -121.67858

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
1	B			CL		Lean Clay (CL), brown, dry, stiff, low plasticity, medium toughness					
2	B										
3	B					Sandy Lean Clay (CL), brown, fine grained sand, moist, loose to medium stiff			15		LL=32 PI=15 Sieve
4	B										
5	B			CL							
6	B										
7	B										
8	B				▽						
9	B			SM		Silty Sand (SM), brown, fine grained sand, moist, medium dense					

Bottom of test pit at 9 feet
Groundwater encountered at 8 feet

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-4
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-6

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 10/12/2021 Drilling Method : Test Pit Elevation (Feet) : 3 Latitude : 38.19731 Longitude : -121.67524					
1	B			CH		Fat Clay (CH), dark brown, dry to moist, stiff, high plasticity, high toughness, high dry strength					
2	B								21		LL=58 PI=37
3	B			CL		Lean Clay (CL), dark brown, moist, stiff, low plasticity, medium toughness					
4	B										
5	B			CL		Lean Clay (CL), gray with light brown mottling, moist to wet, stiff, medium plasticity, low toughness					
6	B										
						Bottom of test pit at 6 feet No groundwater encountered					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-5
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-7

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 10/12/2021 Drilling Method : Test Pit Elevation (Feet) : 8 Latitude : 38.19397 Longitude : -121.67569					
1	B			CH		Fat Clay (CH), dark brown, dry to moist, stiff, high plasticity, high toughness, high dry strength					
2	B										
3	B					Fat Clay (CH), light brown, moist, stiff, high plasticity, medium toughness			18		LL=74 PI=52
4	B			CH							
5	B										
6	B					Cemented					
						Bottom of test pit at 6 feet No groundwater encountered					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-6
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-8

Date : 10/12/2021
Drilling Method : Test Pit
Elevation (Feet) : 7.5
Latitude : 38.19221
Longitude : -121.67925

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
1	B			CH		Fat Clay (CH), dark brown, dry to moist, stiff, high plasticity, high toughness			11		LL=52 PI=30
2	B					Fat Clay (CH), light brown, moist, stiff, medium plasticity, medium toughness					
3	B			CH							
4	B								19		LL=35 PI=19
5	B					Lean Clay with Sand (CL), reddish brown, fine grained sand, moist, stiff					
6	B			CL							
7	B										
8	B					Sandy					
9	B			SM		Silty Sand with Gravel (SM), dark brown, moist, loose, gravel to 1/2-inch					
10	B			ML	▽	Silt (ML), reddish brown, wet, medium stiff, trace fine-grained sands					
						Bottom of test pit at 10 feet Groundwater enountered at 10 feet					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-7
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-9

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 10/12/2021 Drilling Method : Test Pit Elevation (Feet) : 6 Latitude : 38.19072 Longitude : -121.67660					
1	B			CH		Fat Clay (CH), dark brown, dry, stiff, high plasticity, high toughness, high dry strength, rootlets, desiccated			5		LL=56 PI=36
2	B										
3	B					Fat Clay (CH), light brown, moist, stiff, medium plasticity, medium toughness					
4	B			CH							
5	B					Silty Sand (SM), brown, fine grained sand, moist, loose					
6	B			SM							
				SM	▽	Silty Sand with Gravel (SM), dark brown, coarse grained sand, wet, loose, with gravel to 1/2-inch					
						Bottom of test pit at 6.5 feet Groundwater encountered at 6.5 feet					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-8
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-10

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 10/12/2021 Drilling Method : Test Pit Elevation (Feet) : 6 Latitude : 38.18935 Longitude : -121.67968					
1	B			CH		Fat Clay (CH), dark brown, dry, stiff, high plasticity, medium toughness, high dry strength					
2	B										
3	B					Fat Clay (CH), light brown, moist, stiff, medium plasticity, medium toughness, iron oxide staining					
4	B					Calcium carbonate deposits			22		LL=50 PI=33
5	B			CH							
6	B										
7	B										
8	B										
9	B			ML		Silt with Sand (ML), olive brown, fine grained sand, wet, stiff, slight cementation					
10	B			ML		Sandy Silt (ML), reddish brown, fine grained sand, wet, stiff					
11	B				▽	Bottom of test pit at 11 feet Groundwater encountered at 11 feet					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-9
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-11

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 10/12/2021 Drilling Method : Test Pit Elevation (Feet) : 10 Latitude : 38.18851 Longitude : -121.67433					
1	B			CH	▽	Fat Clay (CH), dark brown, dry to moist, stiff, high plasticity, high toughness, high dry strength, trace fine gravel, (road fill)					
2	B										
3	B										
4	B										
5	B										
6	B										
7	B										
8	B										
9	B					Bottom of test pit at 9 feet Groundwater encountered at 9 feet					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-10
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-12

Date : 10/13/2021
Drilling Method : Test Pit
Elevation (Feet) : 8
Latitude : 38.19176
Longitude : -121.67108

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
1	B			CH		Fat Clay (CH), dark brown, dry to moist, stiff, high plasticity, high toughness, high dry strength					
2	B										
3	B										
4	B								16		LL=56 PI=36
5	B										
6	B										
7	B										
8	B			CL		Lean Clay (CL), light gray, moist, stiff, low plasticity, medium toughness					
9	B				▽						
10	B			CL		Lean Clay (CL), reddish brown, moist to wet, stiff, low plasticity, medium toughness, low dry strength Trace fine-grained sand					

Bottom of test pit at 10 feet
Groundwater encountered at 9 feet

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-11
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-13

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 10/13/2021 Drilling Method : Test Pit Elevation (Feet) : -5 Latitude : 38.19931 Longitude : -121.66596					
1	B			CH		Fat Clay (CH), dark brown, dry, stiff, high plasticity, high toughness, high dry strength, (fill)					
2	B					Clayey Sand (SC), reddish brown, fine to medium grained sand, moist, loose to weakly cemented, (fill)					
3	B			SC							
4	B										
5	B					Organic Clay (OH), dark brown, wet, soft to medium stiff, high plasticity					
6	B			OH		Peat (Pt), black, wet, medium stiff, medium plasticity, low toughness, low dry strength					
7	B										
8	B										
9	B			Pt							
10	B										
11	B				▽	Bottom of test pit at 11 feet Groundwater encountered at 11 feet					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-12
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-14

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 10/13/2021 Drilling Method : Test Pit Elevation (Feet) : -1 Latitude : 38.19063 Longitude : -121.66525					
0				CH		Fat Clay (CH), dark brown, dry, stiff, high plasticity					
1	B					Silty Sand (SM), reddish brown, medium grained sand, moist to wet, loose					
2	B			SM		Silt seams from 2 to 3 feet					
3	B										
4	B				▽	Bluish gray					
						Bottom of test pit at 4 feet Groundwater encountered at 4 feet					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-13
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-15

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 10/13/2021 Drilling Method : Test Pit Elevation (Feet) : 8 Latitude : 38.18879 Longitude : -121.66892					
1	B			CH		Fat Clay (CH), dark brown, moist, stiff, high plasticity, medium toughness, high dry strength					
2	B								28		LL=60 PI=40
3	B					Sandy Lean Clay (CL), tan, fine grained sand, moist to wet, stiff, medium plasticity, medium toughness					
4	B								26		LL=33 PI=13 Sieve
5	B			CL							
6	B										
7	B										
8	B										
9	B			SM	▽	Silty Sand (SM), dark brown, medium grained sand, wet, loose					
						Bottom of test pit at 9 feet Groundwater encountered at 9 feet					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-14
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-16

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 10/13/2021 Drilling Method : Test Pit Elevation (Feet) : 5 Latitude : 38.18679 Longitude : -121.67147					
1	B			CH		Fat Clay (CH), dark brown, dry to moist, stiff, high plasticity, high toughness, high dry strength, (fill)					
2	B										
3	B										
4	B			OH		Organic Silt (OH), gray, moist to wet, soft, high plasticity, low toughness, medium dry strength					
5	B										
6	B										
7	B			OH		Organic Clay (OH), dark gray to black, moist to wet, medium stiff to stiff, high plasticity, medium toughness, high dry strength					
8	B										
9	B										
10	B										
11	B					Bottom of test pit at 11 feet No groundwater encountered					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-15
(Page 1 of 1)

Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-2-17

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 10/13/2021 Drilling Method : Test Pit Elevation (Feet) : 5 Latitude : 38.18509 Longitude : -121.66904					
1	B			CH		Fat Clay (CH), brown, dry to moist, stiff, high plasticity, high toughness, high dry strength, (fill)					
2	B										
3	B			CL		Lean Clay (CL), brown, moist, medium stiff, medium plasticity, medium toughness, (fill)					
4	B			SC		Clayey Sand (SC), brown, medium grained sand, moist to wet, medium dense, (fill)					
5	B					Dark gray					
6	B			MH		Elastic Silt (MH), gray, wet, medium stiff, high plasticity, low toughness					
7	B										
8	B				▽						
						Bottom of test pit at 8 feet Groundwater encountered at 8 feet					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-16
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-18

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 10/13/2021 Drilling Method : Test Pit Elevation (Feet) : 6 Latitude : 38.18320 Longitude : -121.66924					
1	B			CH		Fat Clay (CH), dark brown, dry, stiff, high plasticity, high toughness, high dry strength, (fill)					
2	B										
				ML		Silt (ML), gray mottling with brown, dry, low plasticity, low dry strength, (fill)					
3	B					Organic Silt (OH), dark gray, moist, stiff, high plasticity, medium toughness					
4	B										
5	B										
6	B			OH							
7	B										
8	B										
9	B										
				MH		Elastic Silt (MH), gray, moist to wet, stiff, high plasticity, low toughness					
10	B										
						Bottom of test pit at 10 feet No groundwater encountered					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-17
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-19

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 10/13/2021 Drilling Method : Test Pit Elevation (Feet) : 4 Latitude : 38.18171 Longitude : -121.67399					
1	B			CH		Fat Clay (CH), dark brown, dry, stiff, high plasticity, high toughness, high dry strength, (fill)					
2	B					Silt (ML), light brown, moist, stiff, low plasticity, medium toughness, medium dry strength, (fill)					
3	B			ML							
4	B					Clayey Sand (SC), brown to bluish gray, medium grained sand, moist to wet, loose to medium dense					
5	B										
6	B			SC							
7	B					Dark gray					
8	B				▽						
						Bottom of test pit at 8 feet Groundwater encountered at 8 feet					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-18
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-20

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 10/13/2021 Drilling Method : Test Pit Elevation (Feet) : 5 Latitude : 38.18189 Longitude : -121.67638					
1	B			ML		Silt (ML), light brown, dry, stiff, low plasticity, medium toughness, medium dry strength, (fill)					
2	B					Silty Sand (SM), light brown to light gray, dry to wet, loose to medium dense, with gravel to cobble sized clay balls, (fill)					
3	B										
4	B			SM							
5	B										
6	B				▽						
7	B			CL		Lean Clay (CL), light gray, wet, medium stiff to stiff, low plasticity, medium toughness					

Bottom of test pit at 7 feet
Groundwater encountered at 6 feet

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-19
(Page 1 of 1)

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-21

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 10/13/2021 Drilling Method : Test Pit Elevation (Feet) : 4 Latitude : 38.17791 Longitude : -121.67681					
1	B			CH		Fat Clay (CH), dark brown, dry, stiff, high plasticity, high toughness, high dry strength, (fill)					
2	B										
3	B			ML		Sandy Silt (ML), brown, dry to moist, stiff, low plasticity, medium toughness, medium dry strength, (fill)					
4	B										
5	B			SM		Silty Sand (SM), brown, medium grained sand, dry to moist, loose, (fill)					
6	B			OH		Organic Silt with Sand (OH), brown, moist to wet, medium plasticity, medium toughness					
7	B					Organic Clay (OH), bluish gray, soft to stiff, high plasticity, medium toughness					
8	B										
9	B			OH							
10	B										
11	B				▽	Bottom of test pit at 11 feet Groundwater encountered at 11 feet					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-20
(Page 1 of 1)

Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-2-22

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 10/13/2021 Drilling Method : Test Pit Elevation (Feet) : 7 Latitude : 38.18145 Longitude : -121.67869					
1	B			CH		Fat Clay (CH), dark brown, dry to moist, stiff, high plasticity, high toughness, high dry strength					
2	B										
3	B										
4	B					Lean Clay (CL), gray and brown mottling, moist, stiff, low plasticity, medium toughness					
5	B										
6	B			CL							
7	B										
8	B										
9	B			ML	▽	Silt (ML), reddish brown, moist to wet, stiff, low plasticity, medium toughness					
						Bottom of test pit at 9 feet Groundwater encountered at 9 feet					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-21
(Page 1 of 1)

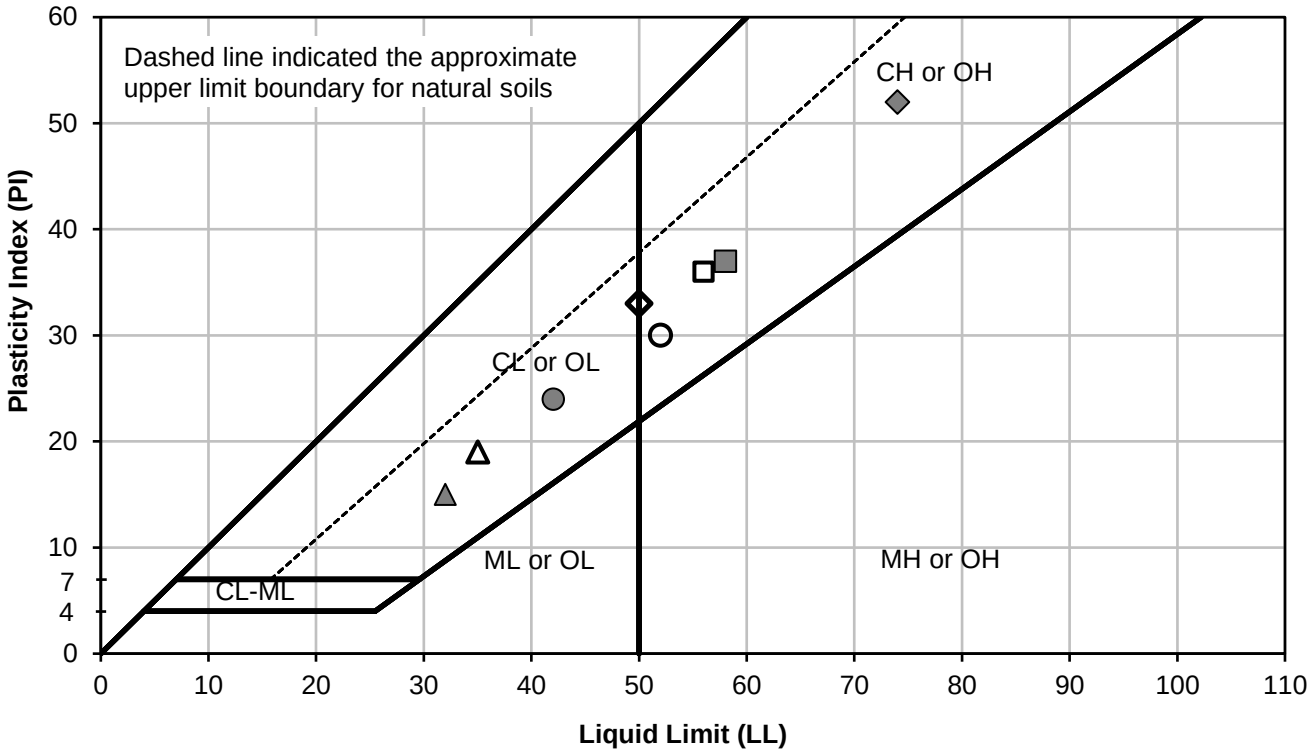
Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-23

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 10/13/2021 Drilling Method : Test Pit Elevation (Feet) : 6 Latitude : 38.18671 Longitude : -121.08264					
1	B			CH		Fat Clay (CH), dark brown, dry to moist, stiff, high plasticity, high toughness, high dry strength, (fill)					
2	B										
3	B			ML		Sandy Silt (ML), reddish brown, fine grained sand, moist, stiff, (fill)					
4	B										
5	B										
6	B										
7	B			OH		Organic Clay (OH), gray to black, wet, soft to medium stiff, high plasticity, medium toughness					
8	B			MH		Elastic Silt (MH), gray, wet, soft to medium stiff, high plasticity, medium toughness					
9	B										
10	B			OH		Organic Clay (OH), gray to black, wet, soft to medium stiff, high plasticity, low toughness					
11	B				▽	Bottom of test pit at 11 feet Groundwater encountered at 11 feet					

Little Egbert Multi-Benefit Project
Solano County, California

Log of 21P-22
(Page 1 of 1)

Hultgren - Tillis Engineers | Project No. 907.02 | Plate No. C-2-24



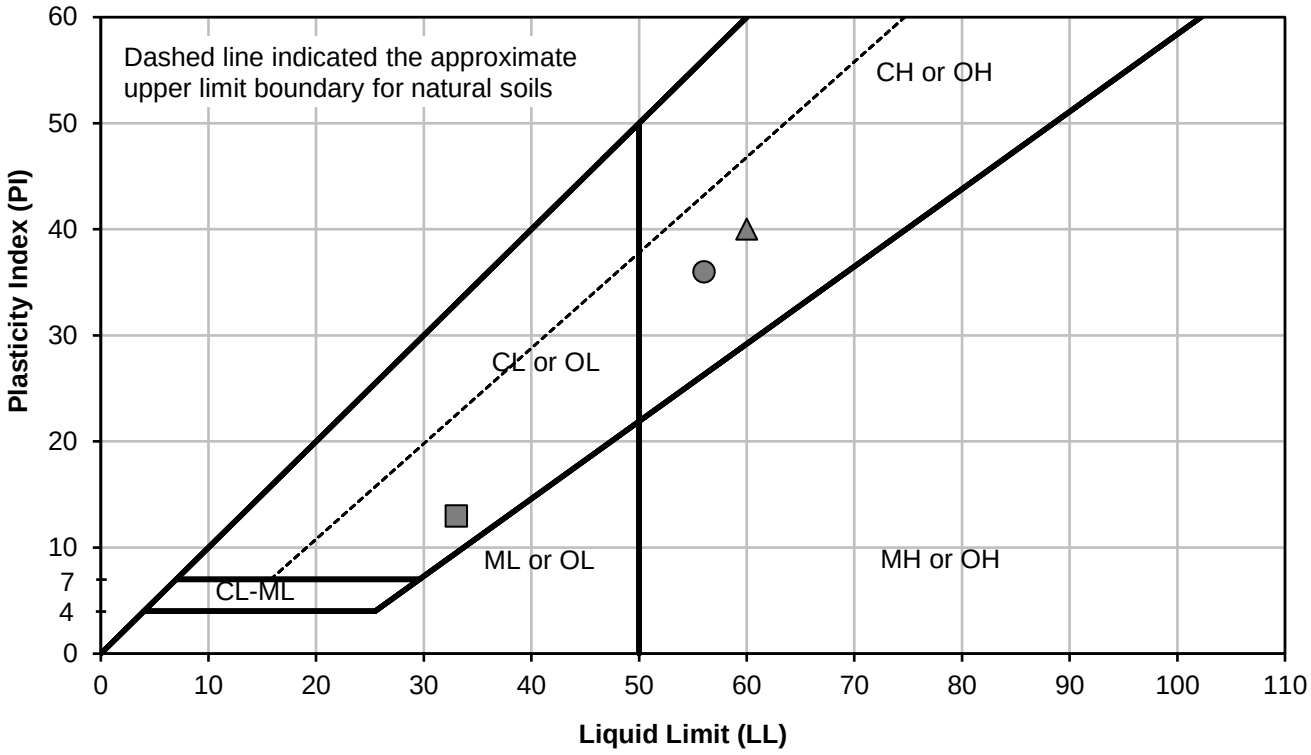
Symbol	Test Pit Number	Depth (feet)	Soil Description	LL (%)	PL (%)	PI (%)	Moisture Content (%)
●	21P-2	1	Dark Brown Lean Clay	42	18	24	16
▲	21P-4	3	Brown Sandy Lean Clay	32	17	15	15
■	21P-5	2	Dark Brown Fat Clay	58	21	37	21
◆	21P-6	3	Light Brown Fat Clay	74	22	52	18
○	21P-7	1	Dark Brown Fat Clay	52	22	30	11
△	21P-7	4	Reddish Brown Lean Clay with Sand	35	16	19	19
□	21P-8	1	Dark Brown Fat Clay	56	20	36	5
◇	21P-9	4	Light Brown Fat Clay	50	17	33	22

Testing performed by B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Atterberg Limits

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-25



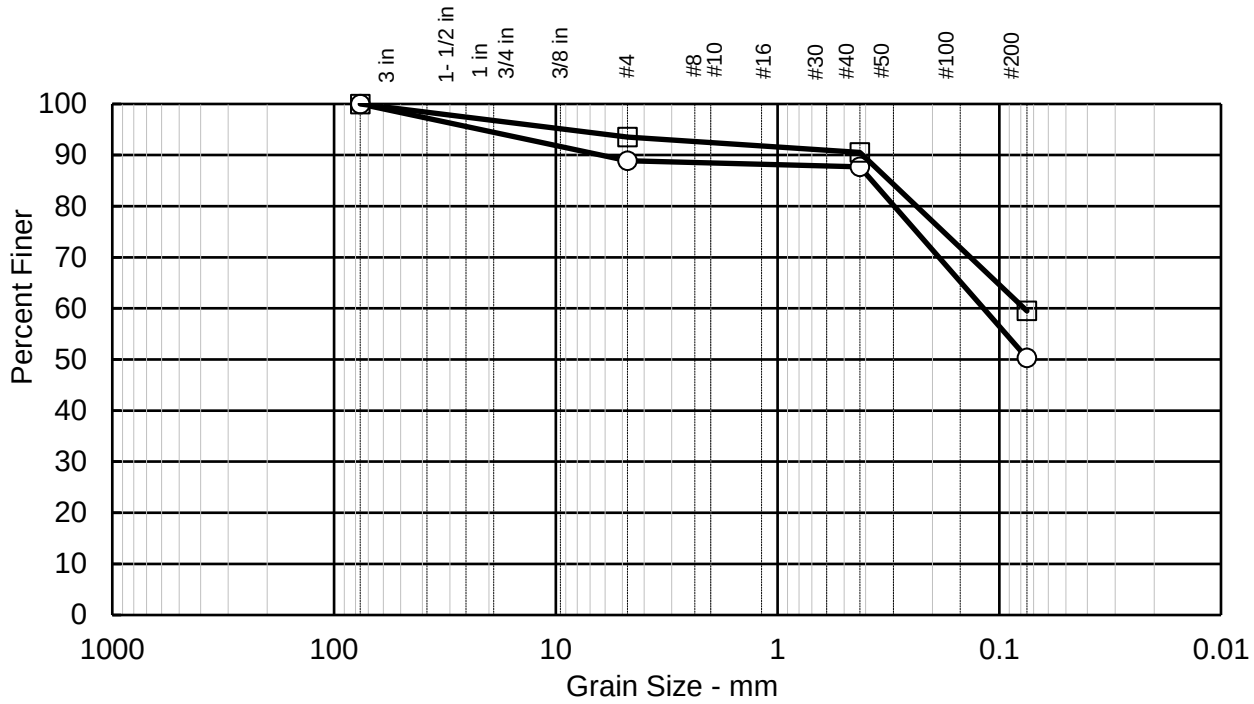
Symbol	Test Pit Number	Depth (feet)	Soil Description	LL (%)	PL (%)	PI (%)	Moisture Content (%)
●	21P-11	4	Dark Brown Fat Clay	56	20	36	16
▲	21P-14	2	Dark Brown Fat Clay	60	20	40	28
■	21P-14	4	Tan Sandy Lean Clay	33	20	13	26

Testing performed by B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Atterberg Limits

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-26



Sieve Size	○	□	△
	Percent Finer		
3 in	100.0	100.0	
#4	88.9	93.5	
#40	87.7	90.5	
#200	50.3	59.5	
	Grain Size		
D60	0.109	0.077	-
D30	-	-	-
D10	-	-	-
	Coefficients		
Cc	-	-	-
Cu	-	-	-

Soil Description	
○	Brown Sandy Lean Clay (CL)
□	Tan Sandy Lean Clay (CL)
△	

Sample Key	
○	21P-4 at 3.0 feet
□	21P-14 at 4.0 feet
△	

Testing performed by
B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-2-27

APPENDIX C-3
2021 CONE PENETRATION TESTS

I. INTRODUCTION

This appendix presents the data from our 2021 CPTs. The CPTs were completed near the waterside levee toe of the Reclamation District 536 levee and in the parcel interior. The logs of CPTs are presented in this appendix.

II. FIELD EXPLORATION AND LABORATORY TESTING

We explored subsurface conditions on October 4 through October 11, 2021 by completing 23 CPTs to depths of 50 to 127 feet below existing grade. The approximate CPT locations are shown on the Site Plan, Plate 2 and the 2021 CPT Location Map, Plate C-3-1.

The CPTs were completed with a truck-mounted CPT rig. After pushing the CPTs, the holes were backfilled with grout. The CPT logs are presented on Plates C-3-3 to C-3-37. The CPT soil descriptions are in general accordance with the CPT Soil Behavior Type Legend, shown on Plate C-3-2. Pore pressure dissipation test results are presented on Plates C-3-38 through C-3-126.



Approximate Location of CPT (2021)
Approximate Location of Levee Centerline

N

0 2,000 Feet

1 inch = 2,000 feet

Little Egbert Multi-Benefit Project
Solano County, California

2021 CPT Location Map

Hultgren - Tillis Engineers

Project No. 907.02

Plate No. C-3-1

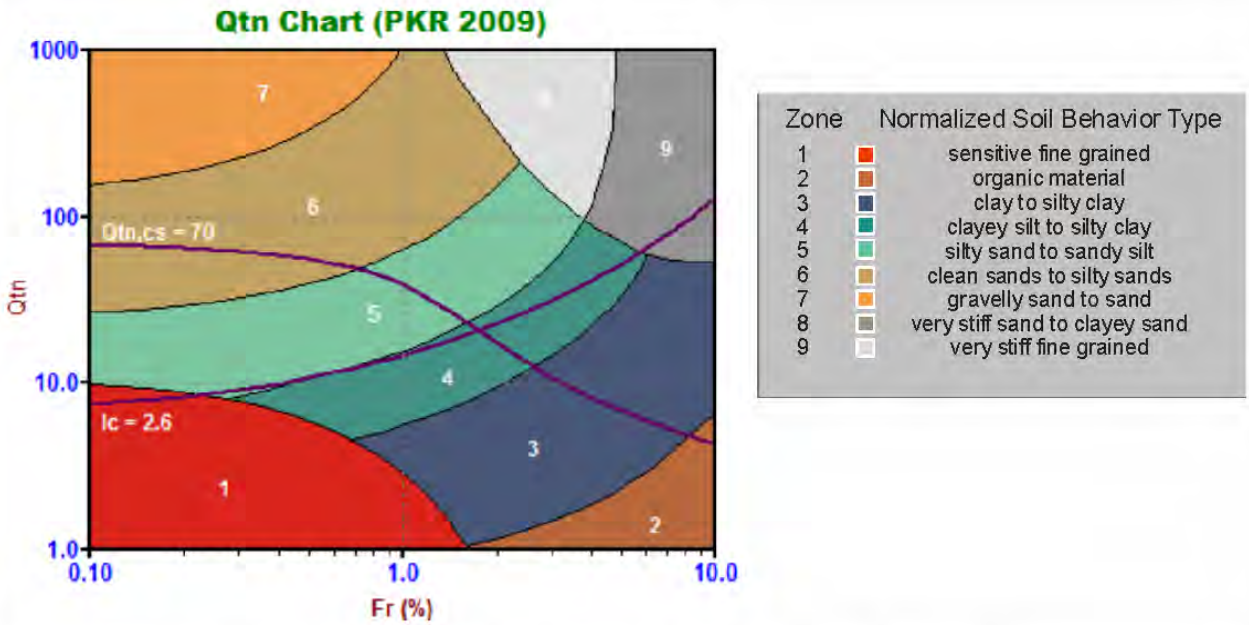


Figure 4. Normalized Soil Behavior Type Chart using Q_{tn} (SBT Qtn)

Note: Interpretation of Soil Behavior Type is based on the charts described by Robertson et al (2009).

Little Egbert Multi-Benefit Project Solano County, California	**CPT Soil Behavior Type Legend**	
Hultgren - Tillis Engineers	Project No. 907.02	Plate No. C-3-2

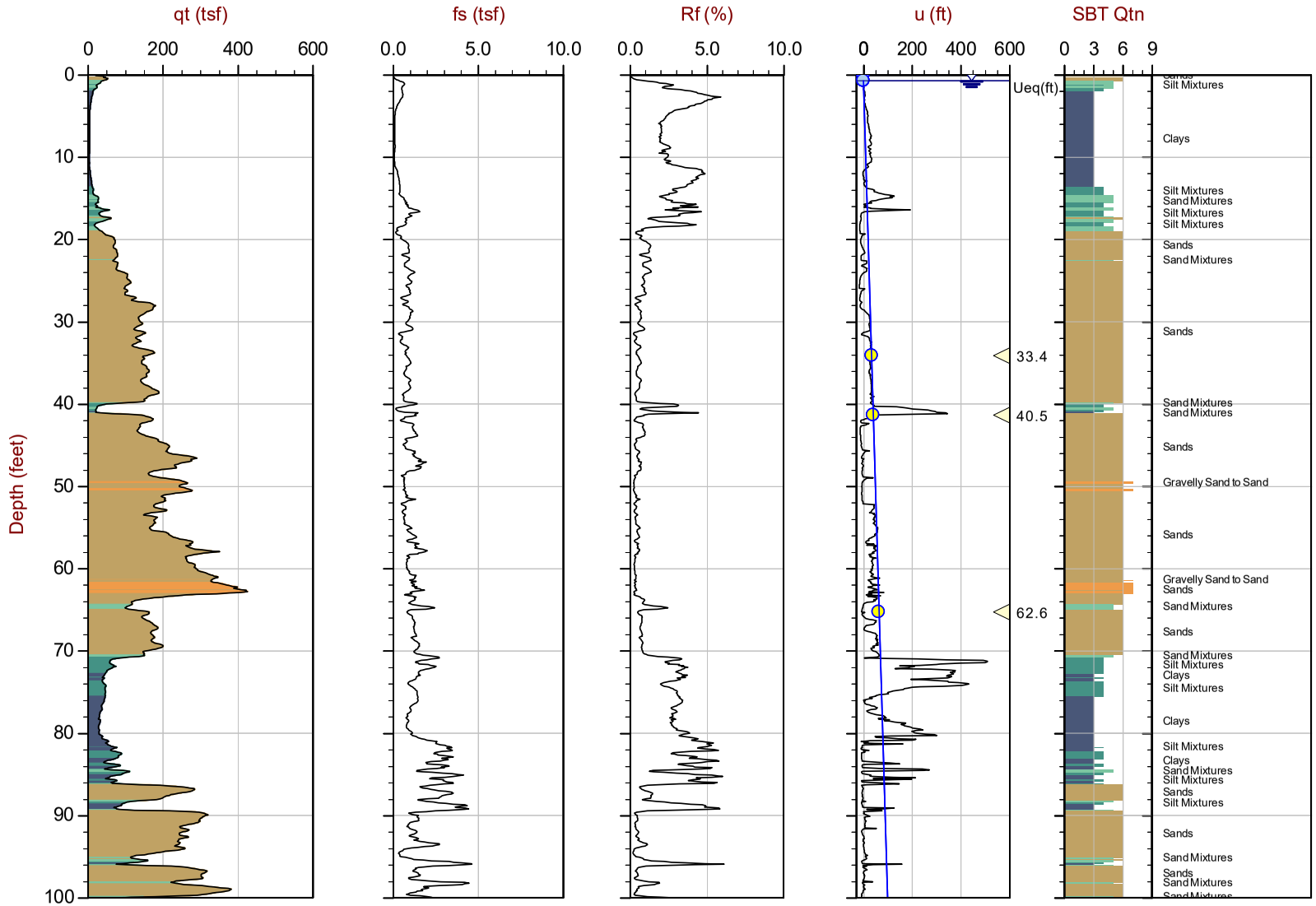
Elevation: -3 feet
Latitude: 38.24152
Longitude: -121.69696

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-04 08:48
Site: Little Egbert Tract

Sounding: 21C-1
Cone: 795:T1500F15U35 Area: 15cm2



Max Depth: 36.900 m / 121.06 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP01.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4233415m E: 614029m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-3

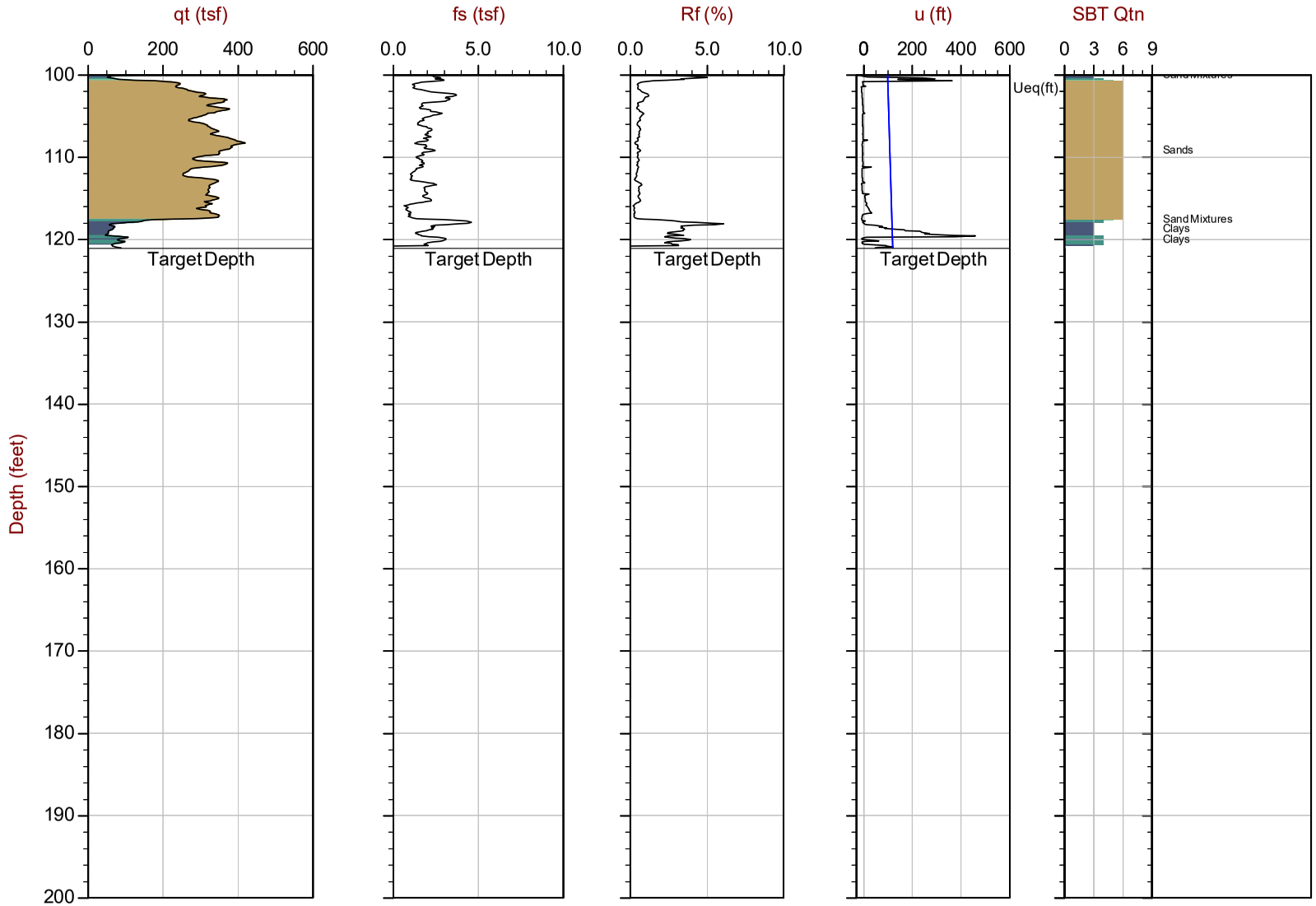
Elevation: -3 feet
Latitude: 38.24152
Longitude: -121.69696

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-04 08:48
Site: Little Egbert Tract

Sounding: 21C-1
Cone: 795:T1500F15U35 Area: 15cm2



Max Depth: 36.900 m / 121.06 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP01.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4233415m E: 614029m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-4

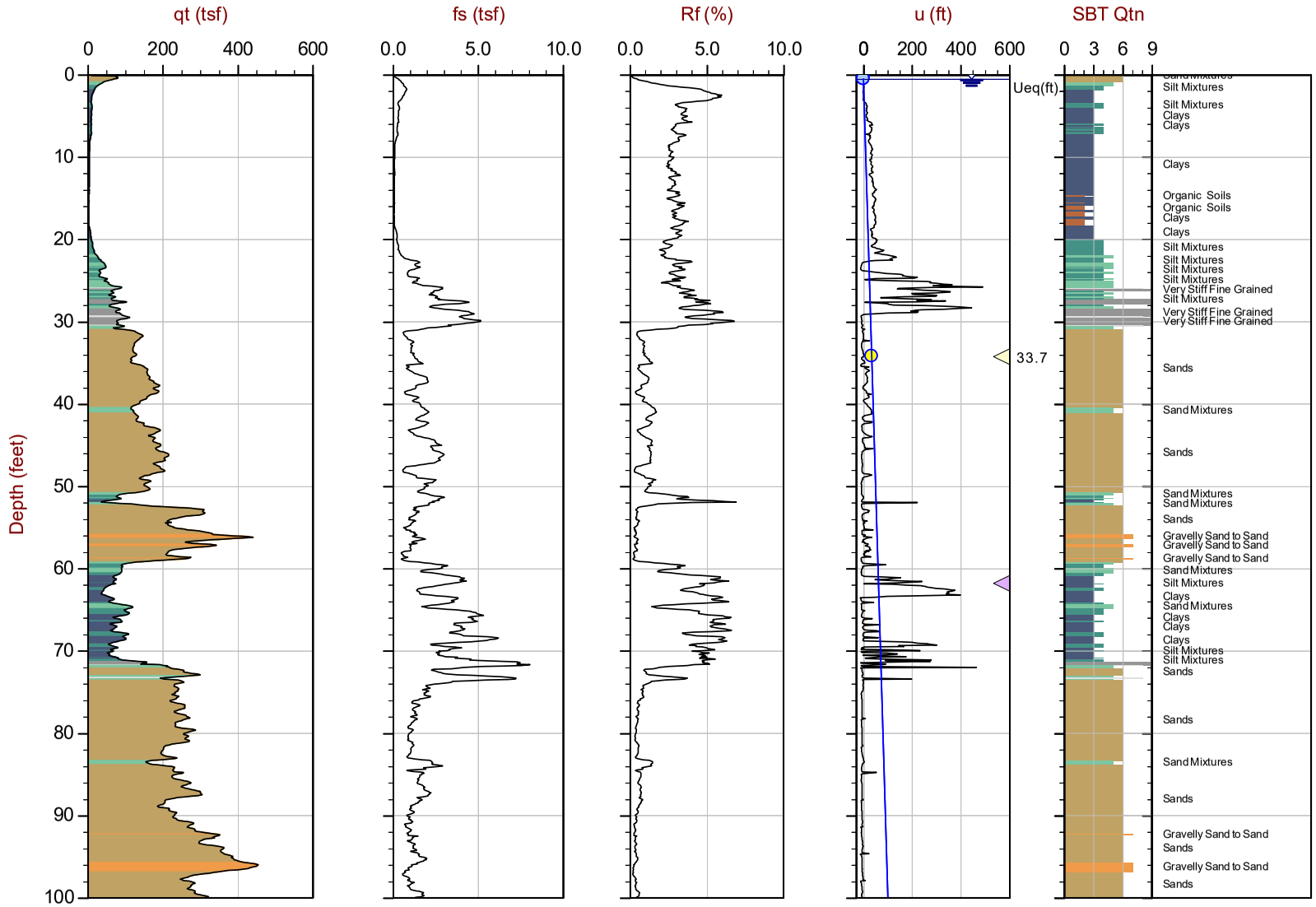
Elevation: -2 feet
Latitude: 38.23602
Longitude: -121.69749

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-04 10:38
Site: Little Egbert Tract

Sounding: 21C-2
Cone: 795:T1500F15U35 Area: 15cm2



Max Depth: 38.800 m / 127.30 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP02.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4232804m E: 613991m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-5

Elevation: -2 feet
Latitude: 38.23602
Longitude: -121.69749

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

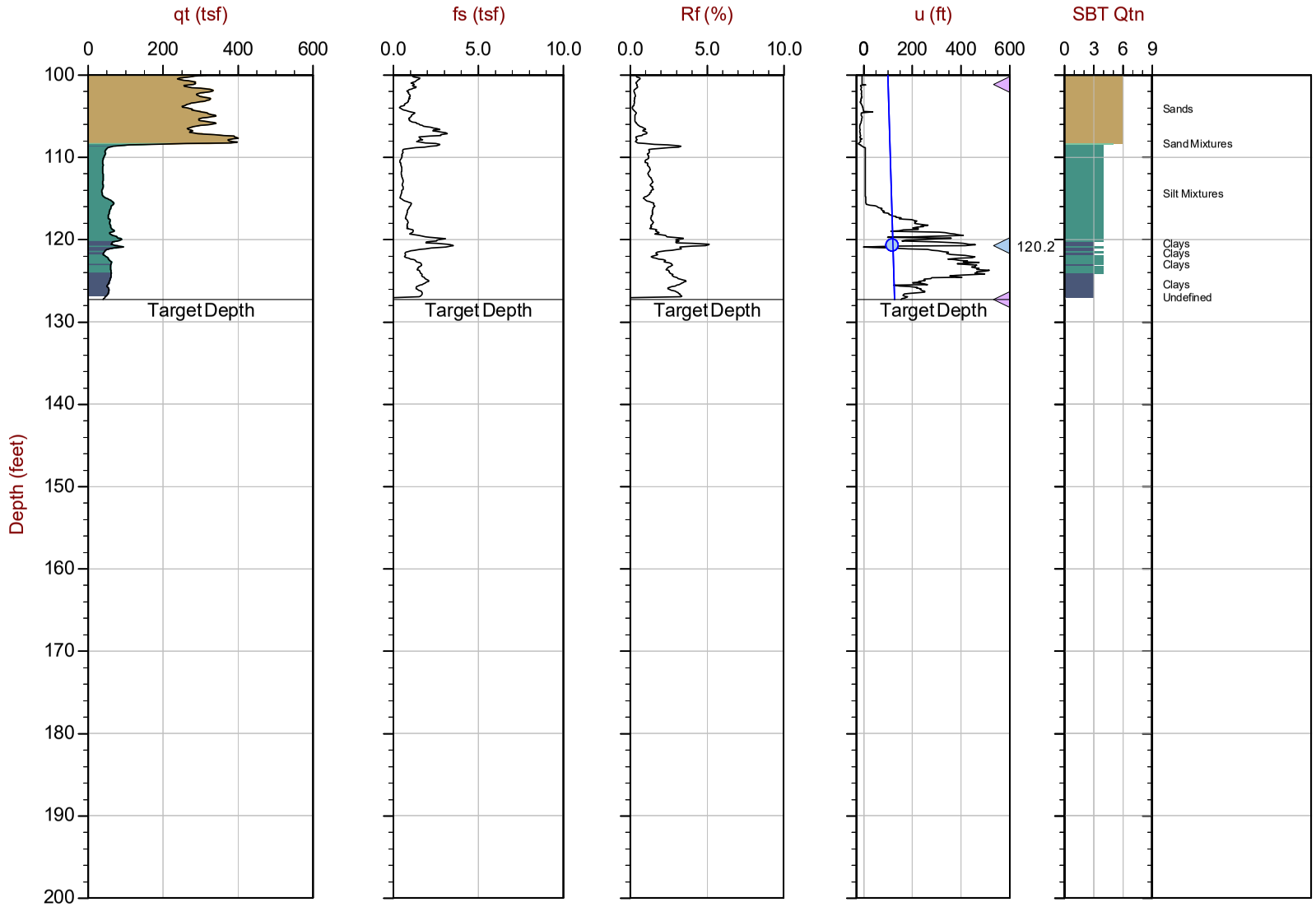
Plate No. C-3-6

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-04 10:38
Site: Little Egbert Tract

Sounding: 21C-2
Cone: 795:T1500F15U35 Area: 15cm2



Max Depth: 38.800 m / 127.30 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP02.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4232804m E: 613991m

Overplot Item: Ueq, Assumed Ueq, Dissipation, Ueq achieved, Dissipation, Ueq not achieved, Dissipation, Ueq assumed, Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

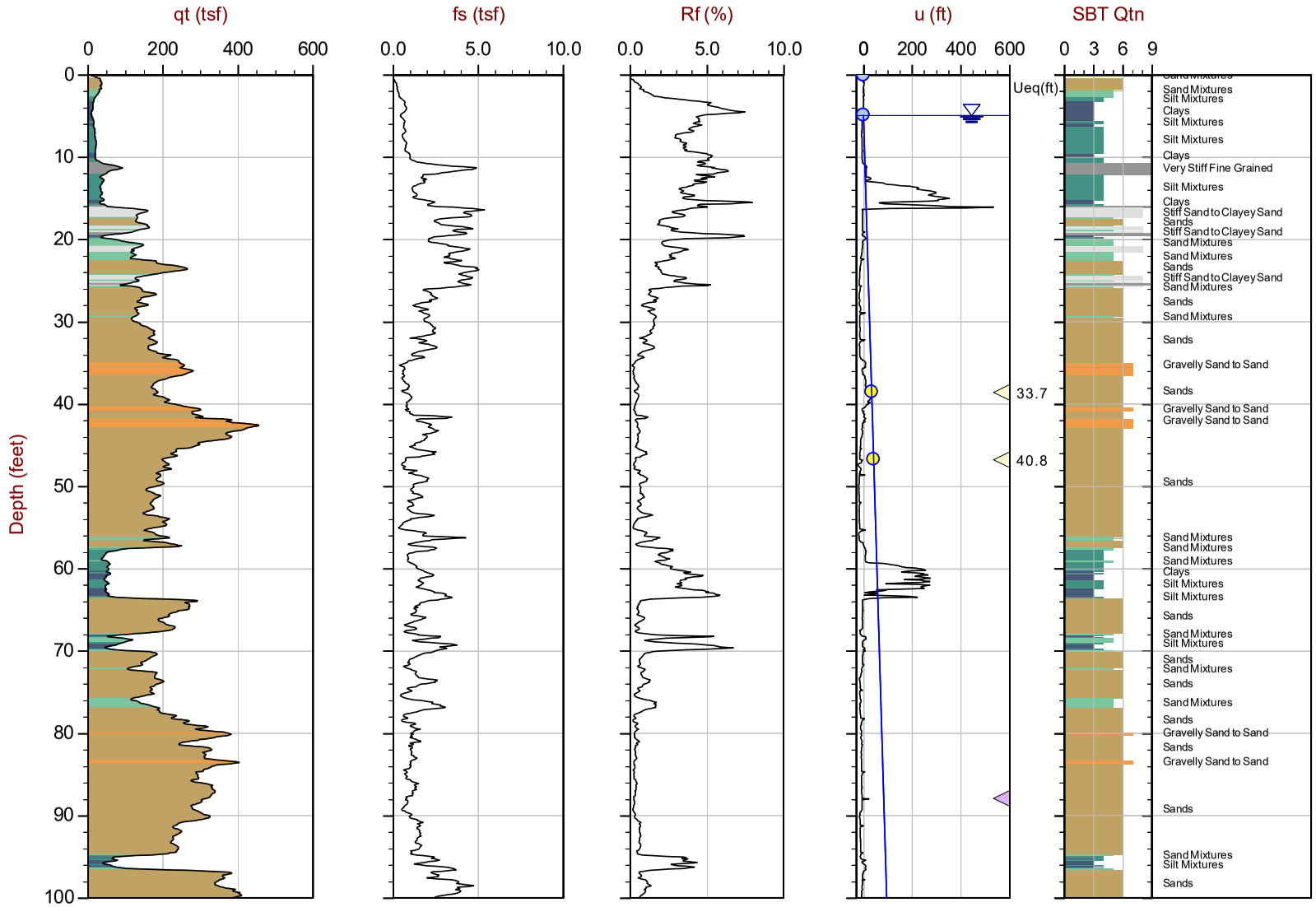
Elevation: 1.5 feet
Latitude: 38.22488
Longitude: -121.69674

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-04 16:13
Site: Little Egbert Tract

Sounding: 21C-3
Cone: 795:T1500F15U35 Area: 15cm2



Max Depth: 32.800 m / 107.61 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP03C.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4231562m E: 614075m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-7

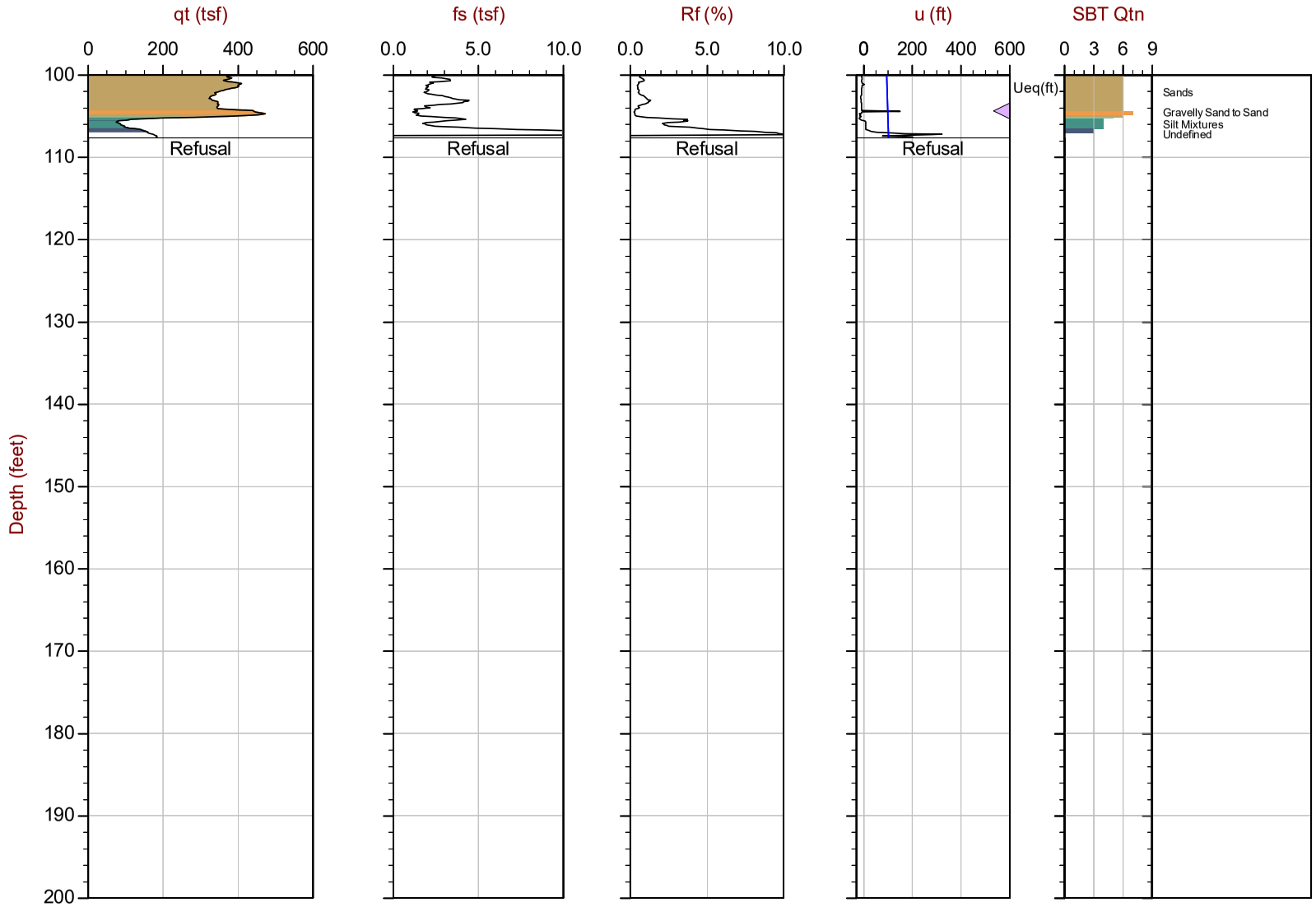
Elevation: 1.5 feet
Latitude: 38.22488
Longitude: -121.69674

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-04 16:13
Site: Little Egbert Tract

Sounding: 21C-3
Cone: 795:T1500F15U35 Area: 15cm2



Max Depth: 32.800 m / 107.61 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP03C.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4231562m E: 614075m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-8

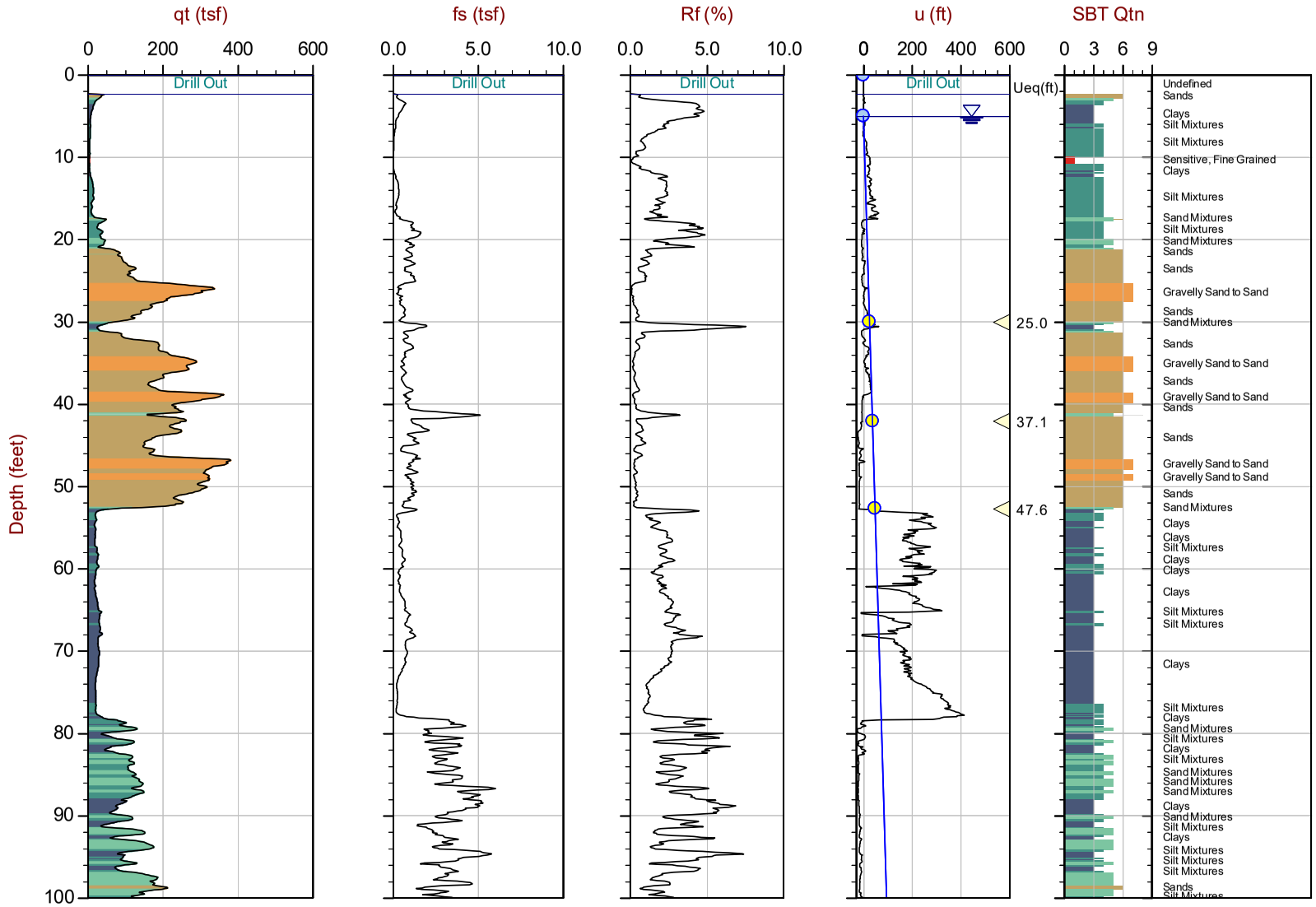
Elevation: 1.5 feet
Latitude: 38.21852
Longitude: -121.69517

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-05 08:08
Site: Little Egbert Tract

Sounding: 21C-4
Cone: 795:T1500F15U35 Area: 15cm2



Max Depth: 32.375 m / 106.22 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP04.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4230865m E: 614222m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-9

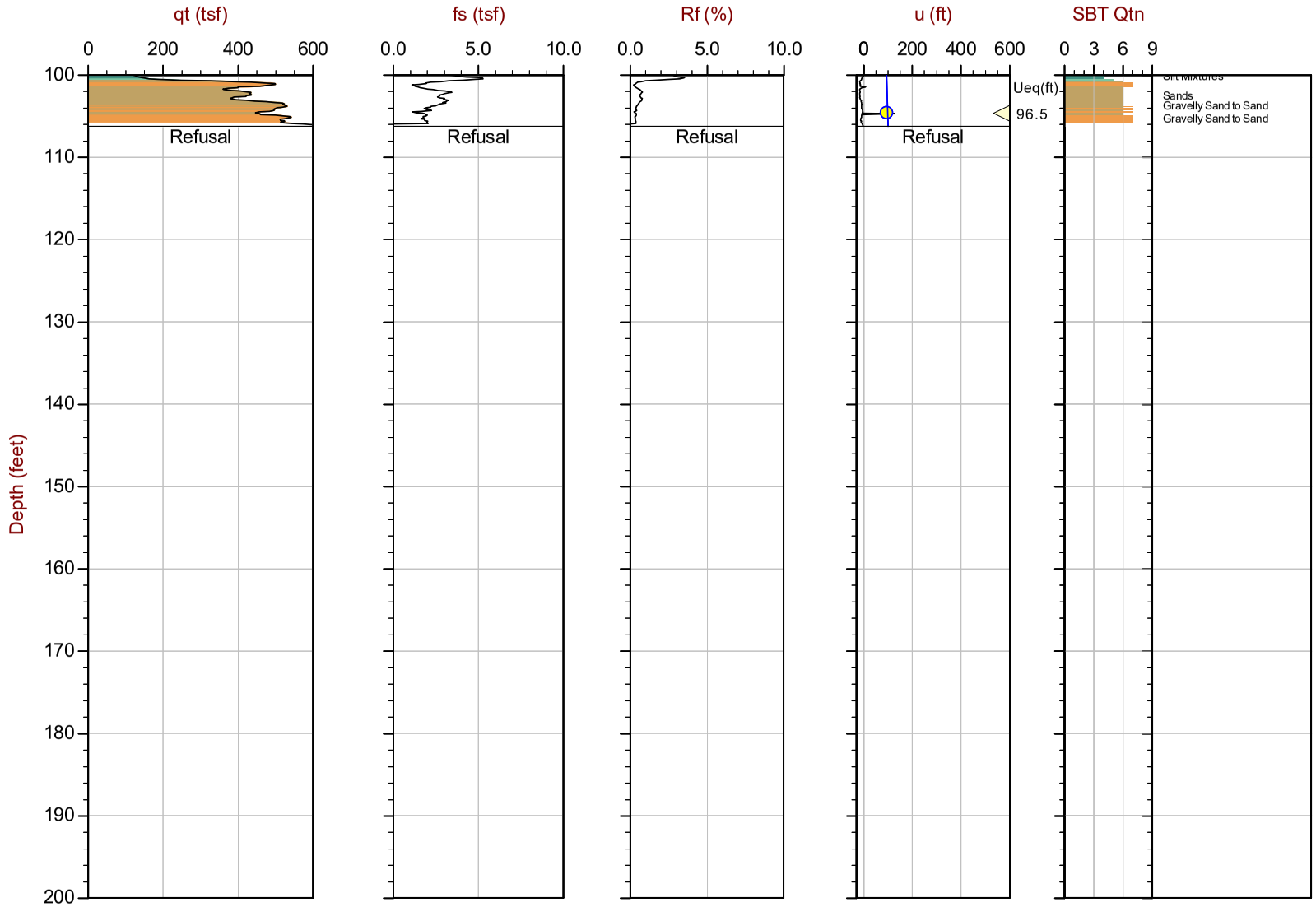
Elevation: 1.5 feet
Latitude: 38.21852
Longitude: -121.69517

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-05 08:08
Site: Little Egbert Tract

Sounding: 21C-4
Cone: 795:T1500F15U35 Area: 15cm2



Max Depth: 32.375 m / 106.22 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP04.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4230865m E: 614222m

Overplot Item: Ueq, Assumed Ueq, Dissipation, Ueq achieved, Dissipation, Ueq not achieved, Dissipation, Ueq assumed, Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-10

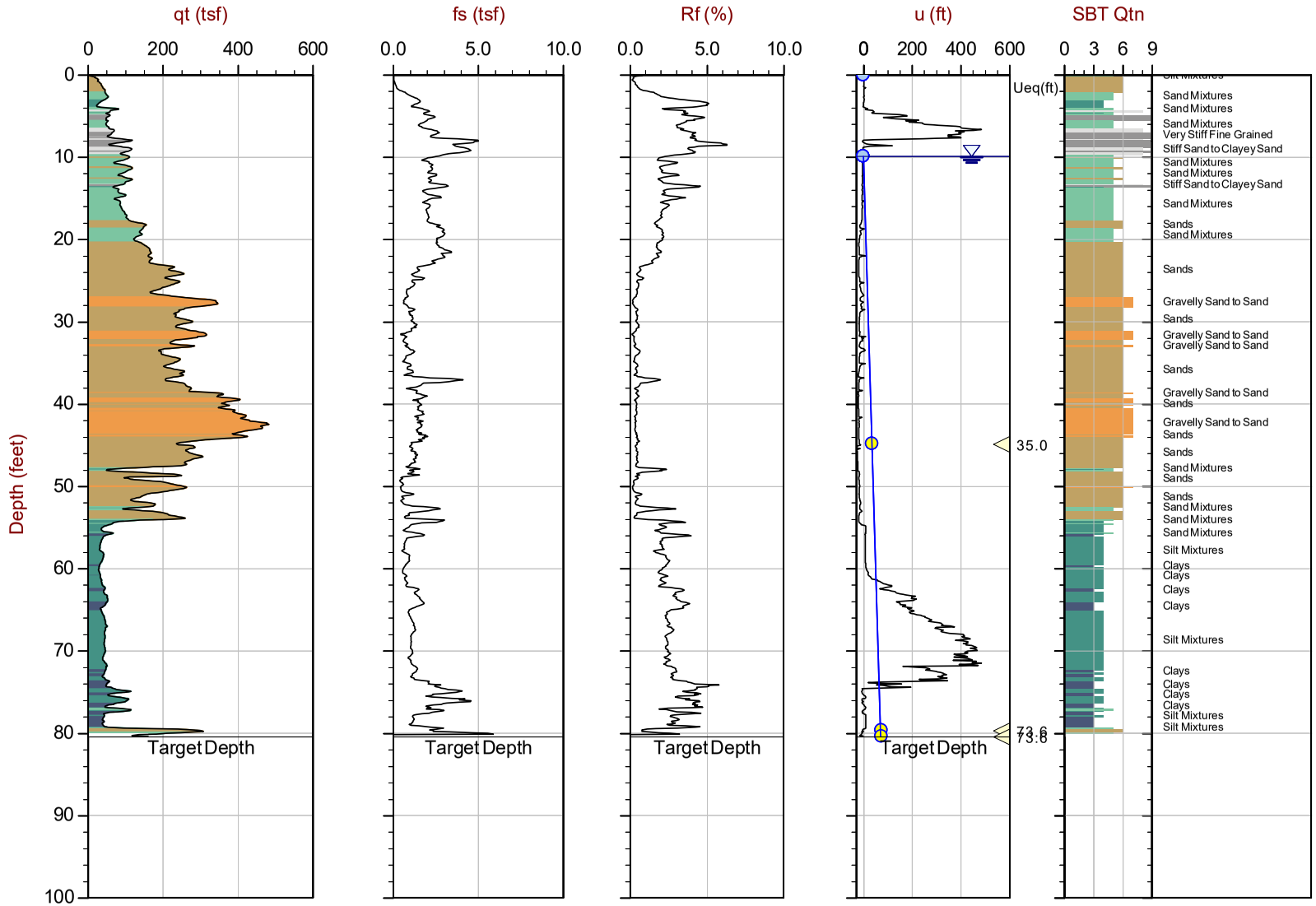
Elevation: 4 feet
Latitude: 38.20843
Longitude: -121.69034

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-05 10:35
Site: Little Egbert Tract

Sounding: 21C-5
Cone: 795:T1500F15U35 Area: 15cm2



Max Depth: 24.525 m / 80.46 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP05.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4229750m E: 614660m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-11

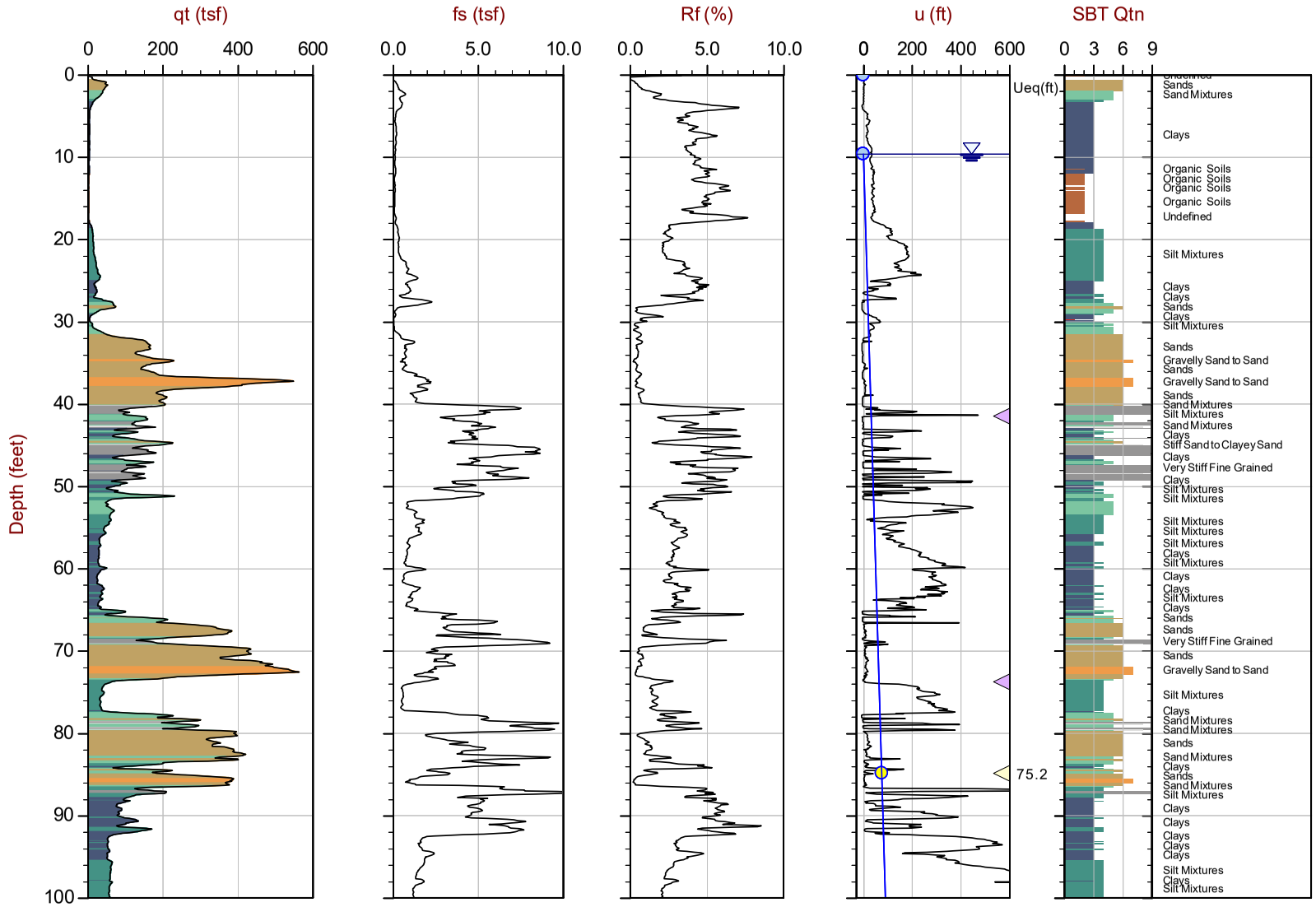
Elevation: 0 feet
Latitude: 38.20505
Longitude: -121.68827

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-05 11:39
Site: Little Egbert Tract

Sounding: 21C-6
Cone: 795:T1500F15U35 Area: 15cm2



Max Depth: 34.425 m / 112.94 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP06.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4229378m E: 614848m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-12

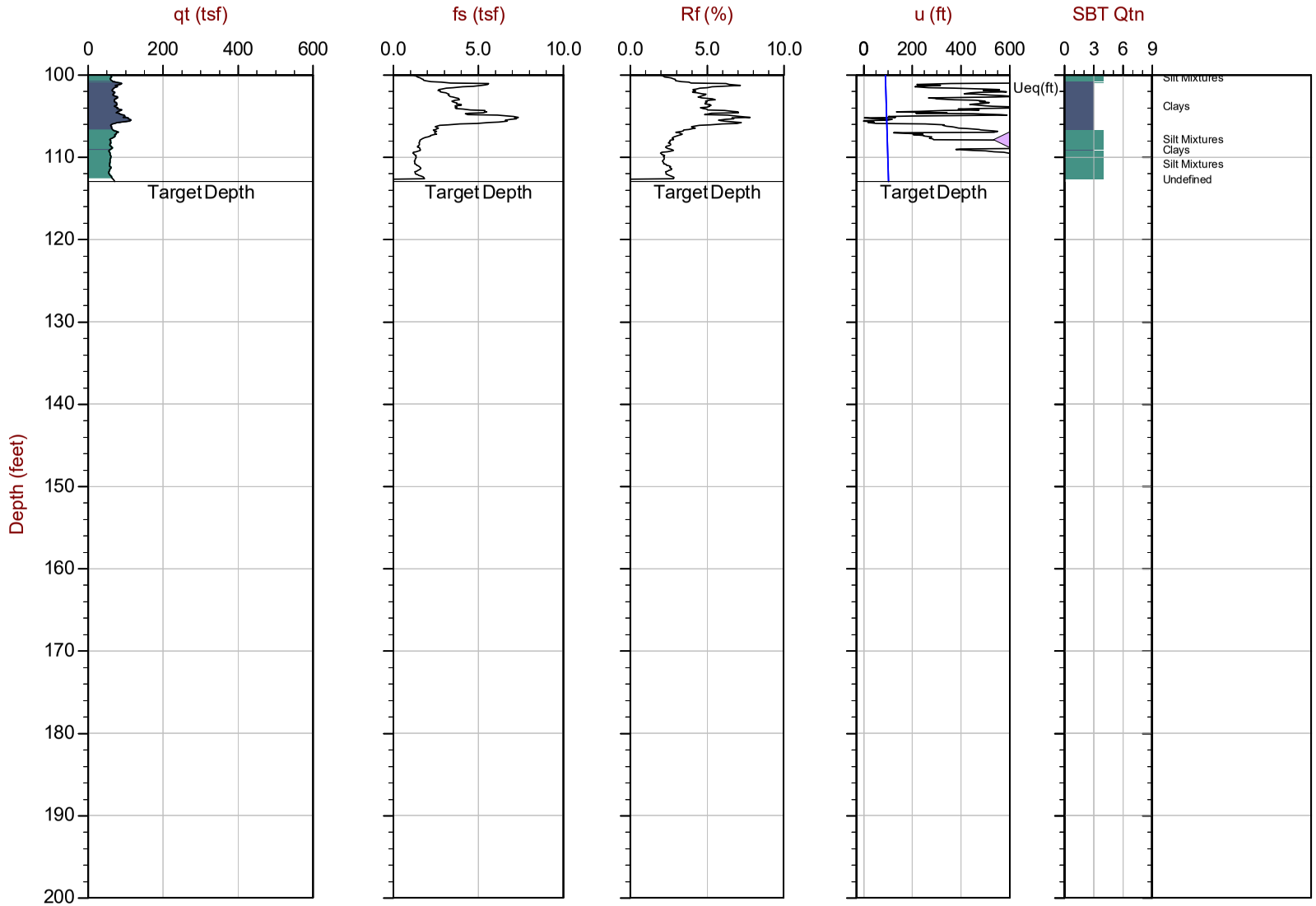
Elevation: 0 feet
Latitude: 38.20505
Longitude: -121.68827

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-05 11:39
Site: Little Egbert Tract

Sounding: 21C-6
Cone: 795:T1500F15U35 Area: 15cm2



Max Depth: 34.425 m / 112.94 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP06.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4229378m E: 614848m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-13

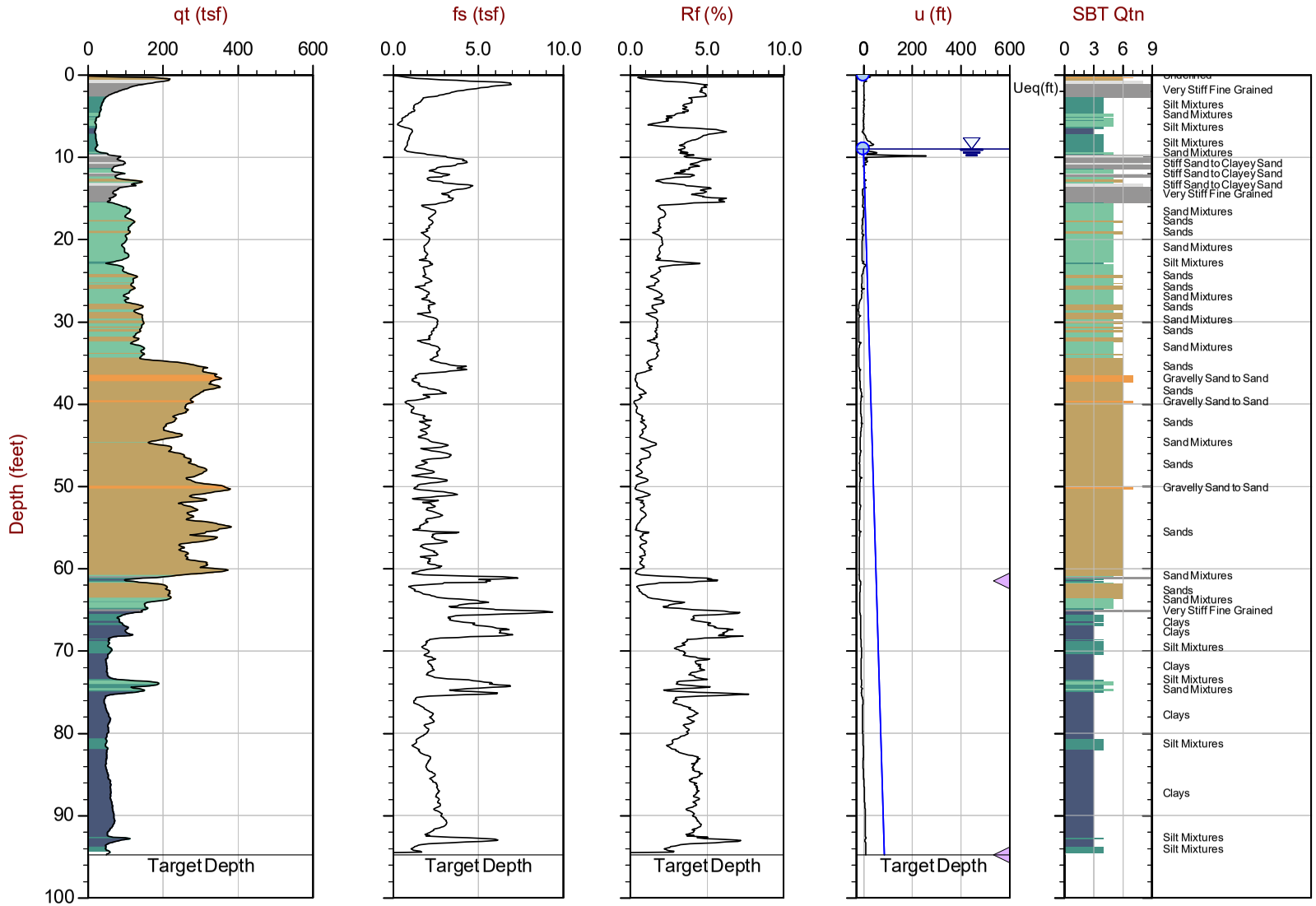
Elevation: 16 feet
Latitude: 38.19467
Longitude: -121.68299

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-05 14:23
Site: Little Egbert Tract

Sounding: 21C-7
Cone: 795:T1500F15U35 Area: 15cm2



Max Depth: 28.900 m / 94.82 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP07.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4228238m E: 615326m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-14

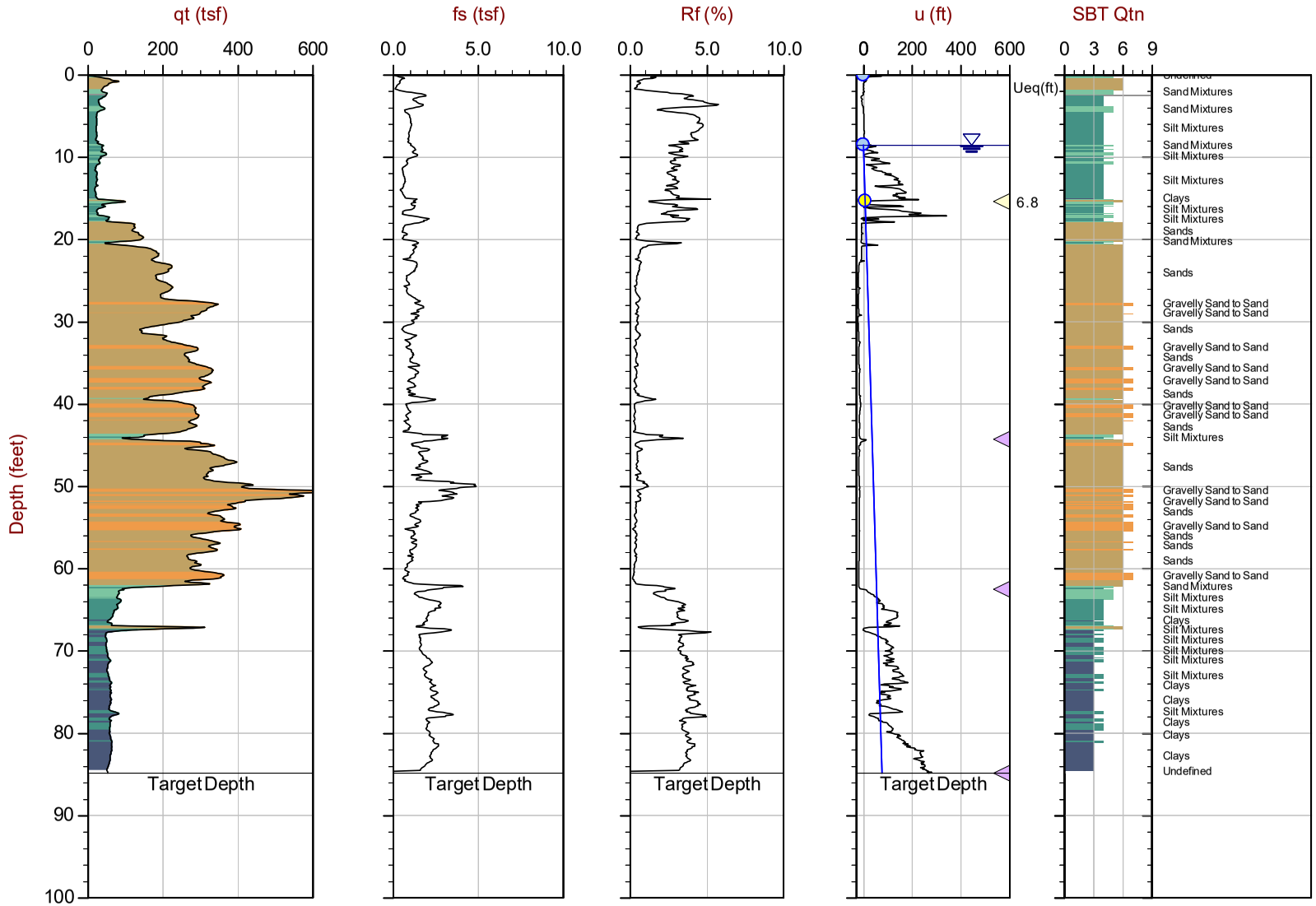
Elevation: 12 feet
Latitude: 38.19128
Longitude: -121.68271

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-06 08:36
Site: Little Egbert Tract

Sounding: 21C-8
Cone: 795:T1500F15U35 Area: 15cm2



Max Depth: 25.875 m / 84.89 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP08.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4227860m E: 615355m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-15

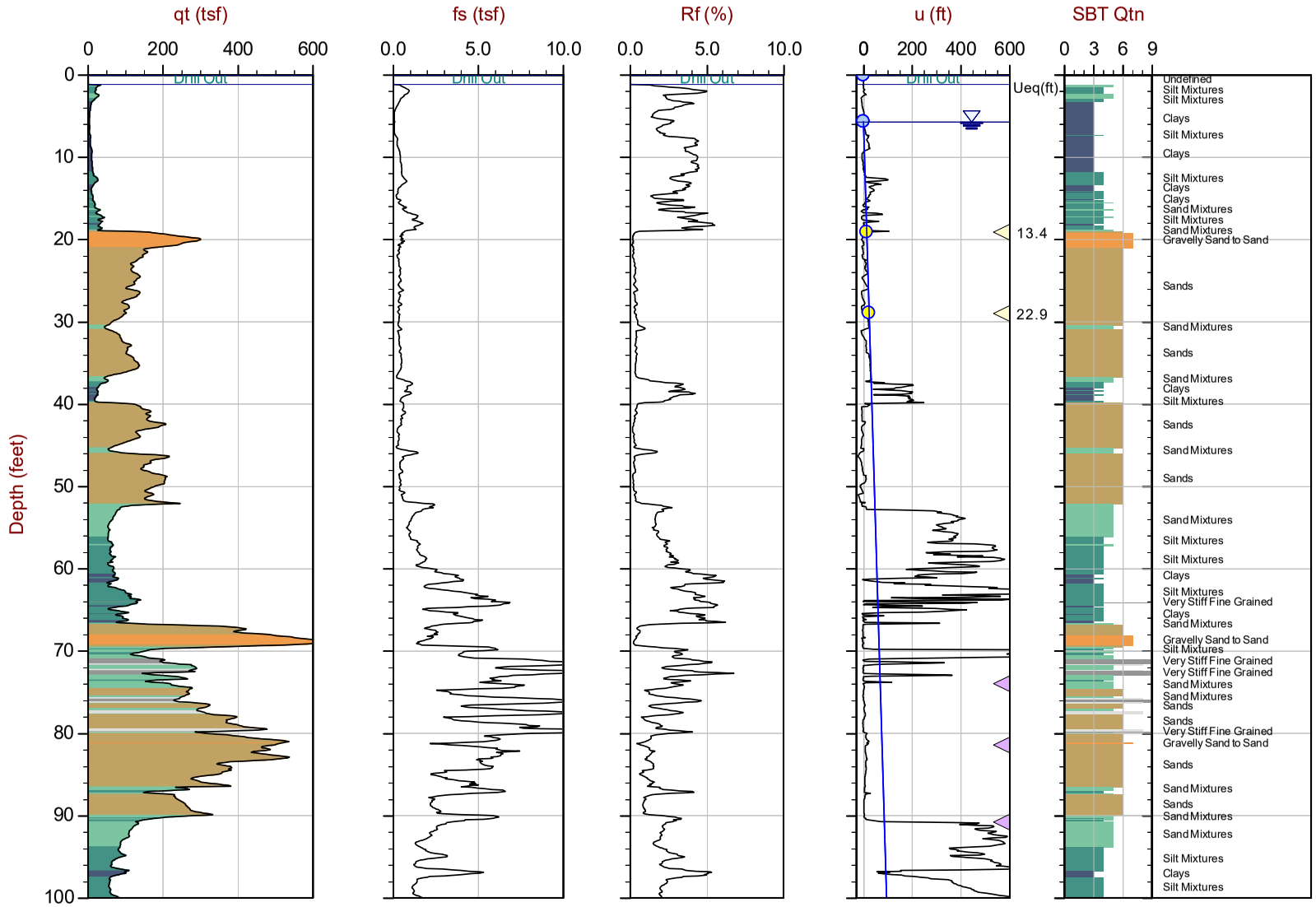
Elevation: 7 feet
Latitude: 38.17933
Longitude: -121.68039

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-06 09:54
Site: Little Egbert Tract

Sounding: 21C-9
Cone: 795:T1500F15U35 Area: 15cm2



Max Depth: 35.200 m / 115.48 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP09.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4226535m E: 615577m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-16

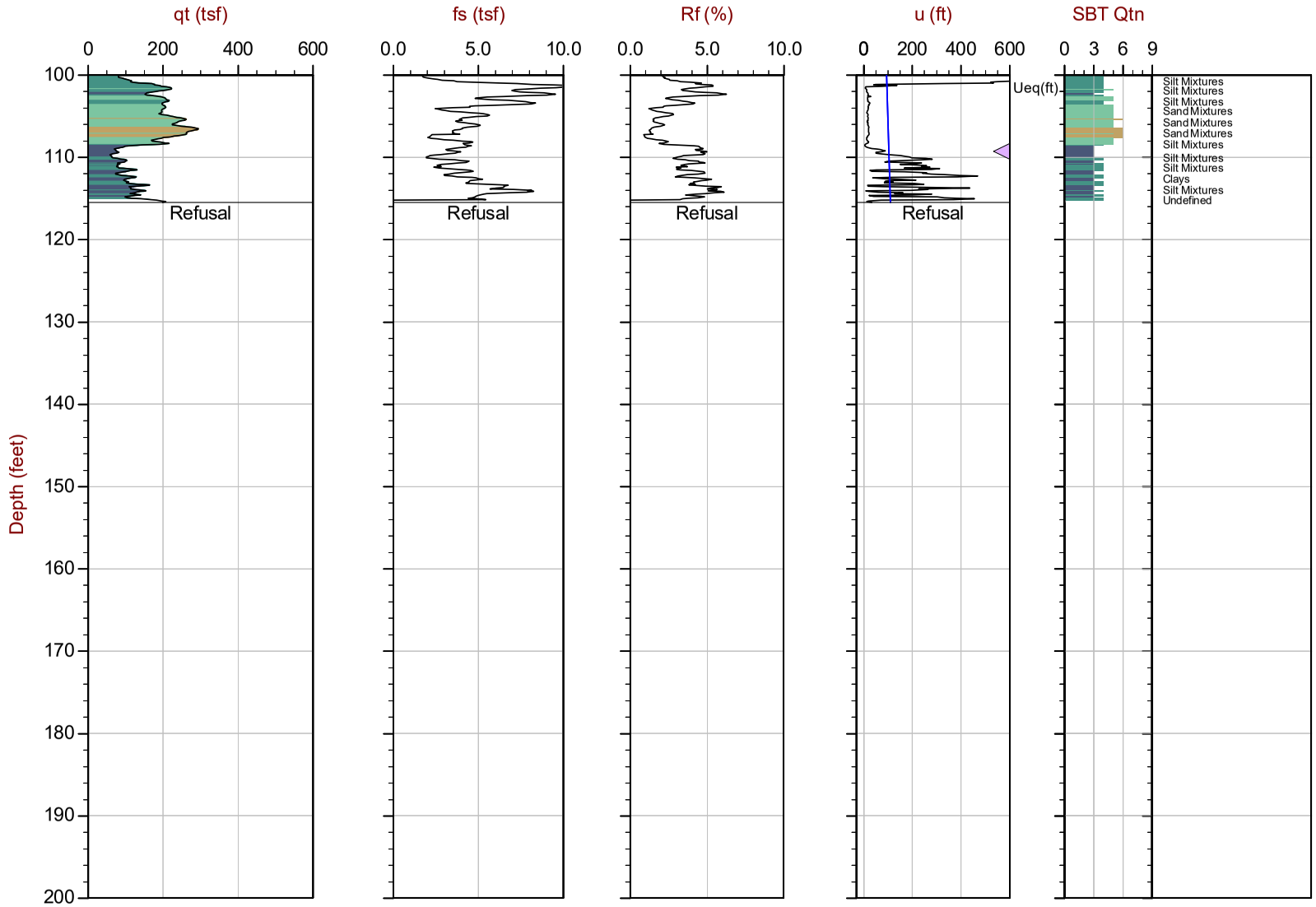
Elevation: 7 feet
Latitude: 38.17933
Longitude: -121.68039

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-06 09:54
Site: Little Egbert Tract

Sounding: 21C-9
Cone: 795:T1500F15U35 Area: 15cm2



Max Depth: 35.200 m / 115.48 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP09.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4226535m E: 615577m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-17

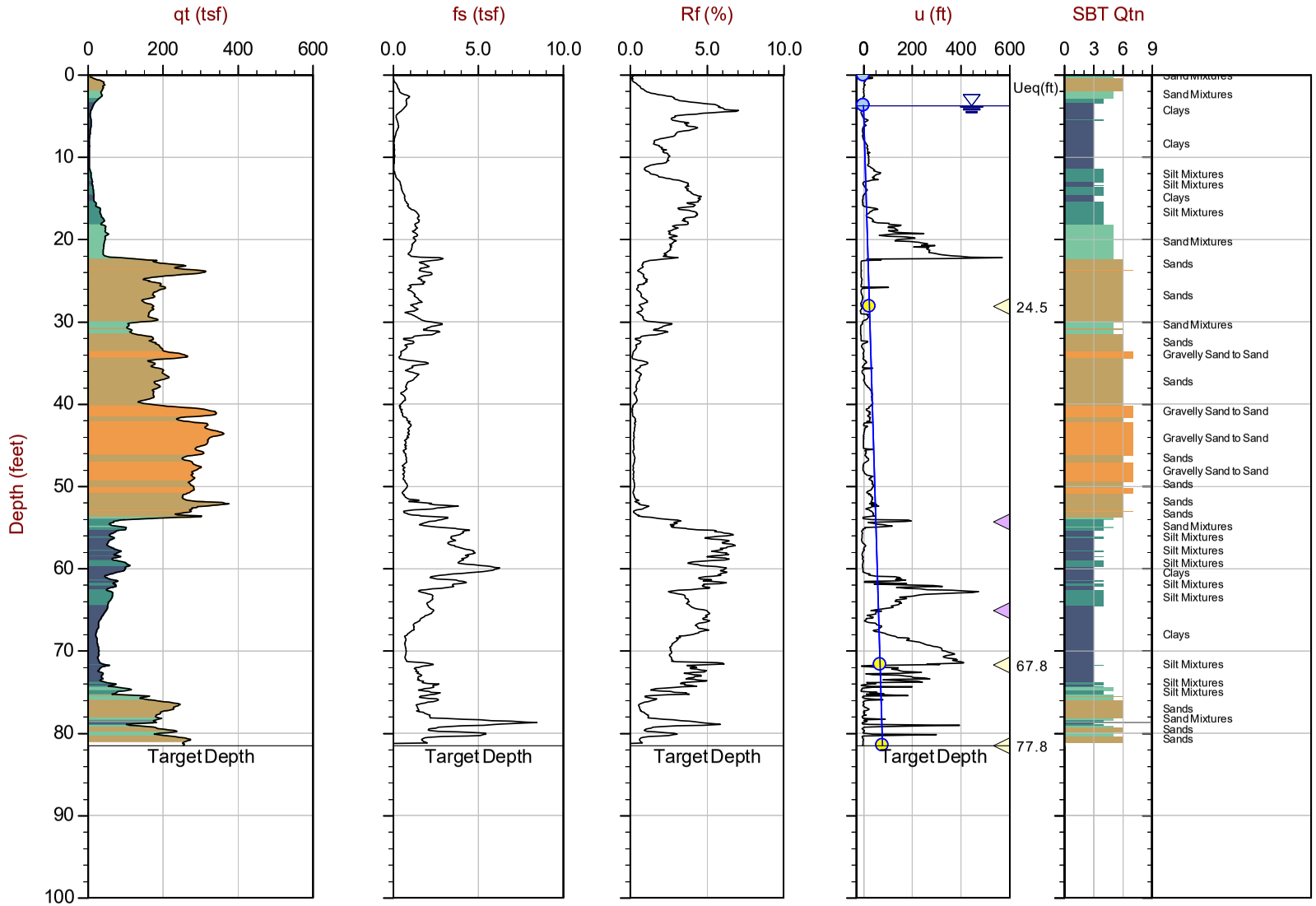
Elevation: -1.5 feet
Latitude: 38.23070
Longitude: -121.69743

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-07 08:58
Site: Little Egbert Tract

Sounding: 21C-10
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 24.850 m / 81.53 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP10.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4232214m E: 614004m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-18

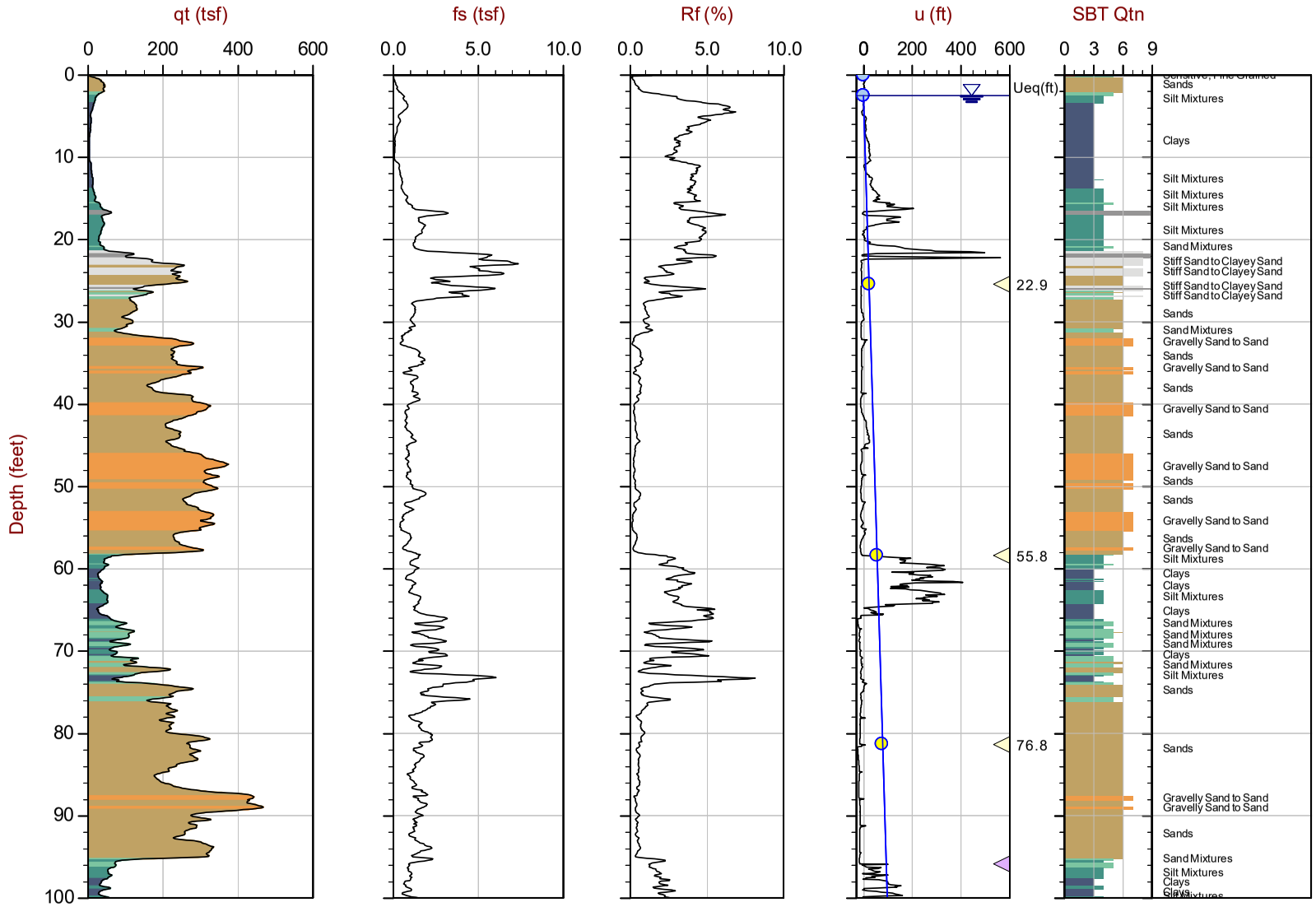
Elevation: -2 feet
Latitude: 38.23329
Longitude: -121.69752

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-07 10:25
Site: Little Egbert Tract

Sounding: 21C-11
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 33.800 m / 110.89 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP11.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4232502m E: 613993m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-19

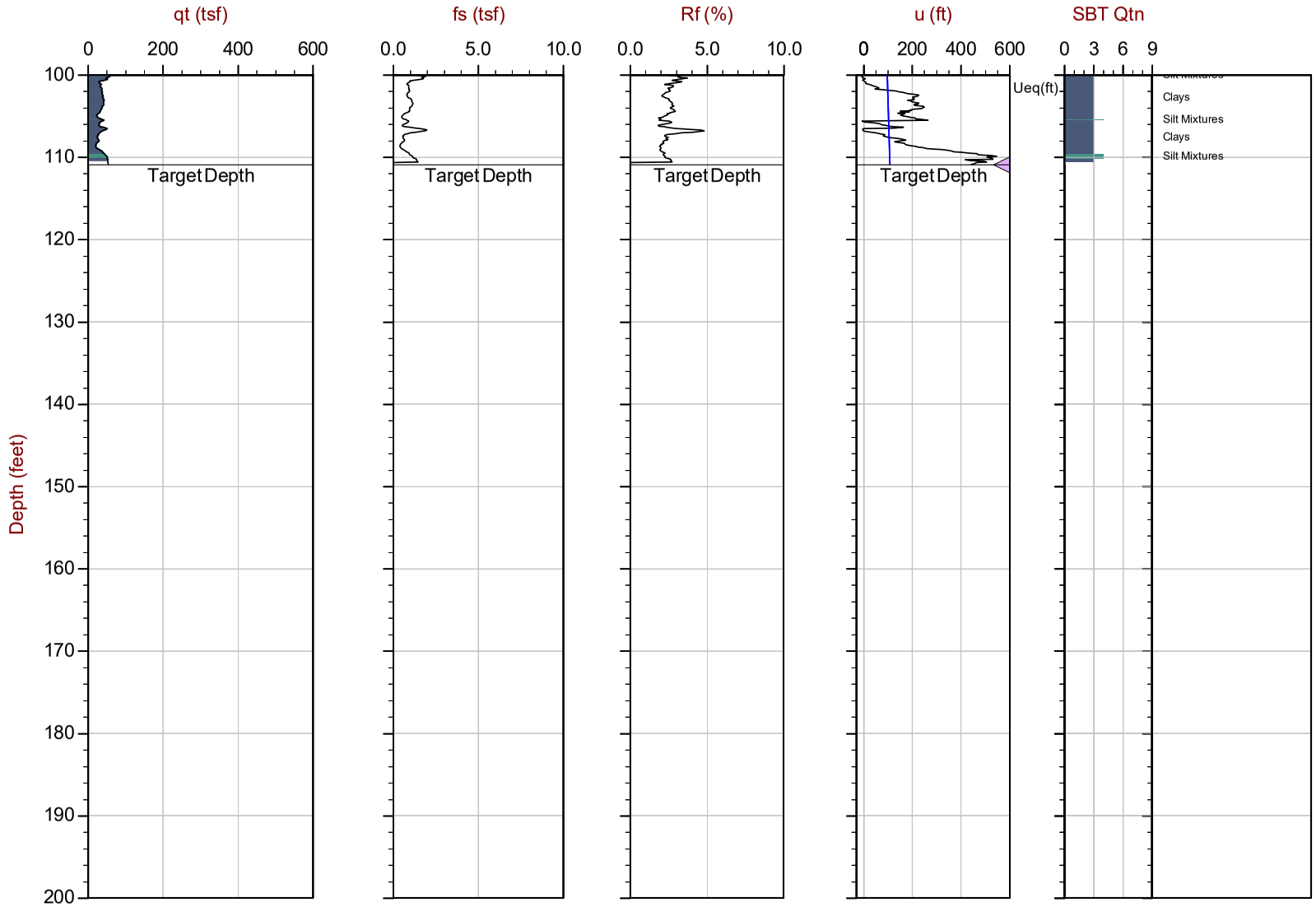
Elevation: -2 feet
Latitude: 38.23329
Longitude: -121.69752

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-07 10:25
Site: Little Egbert Tract

Sounding: 21C-11
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 33.800 m / 110.89 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP11.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4232502m E: 613993m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-20

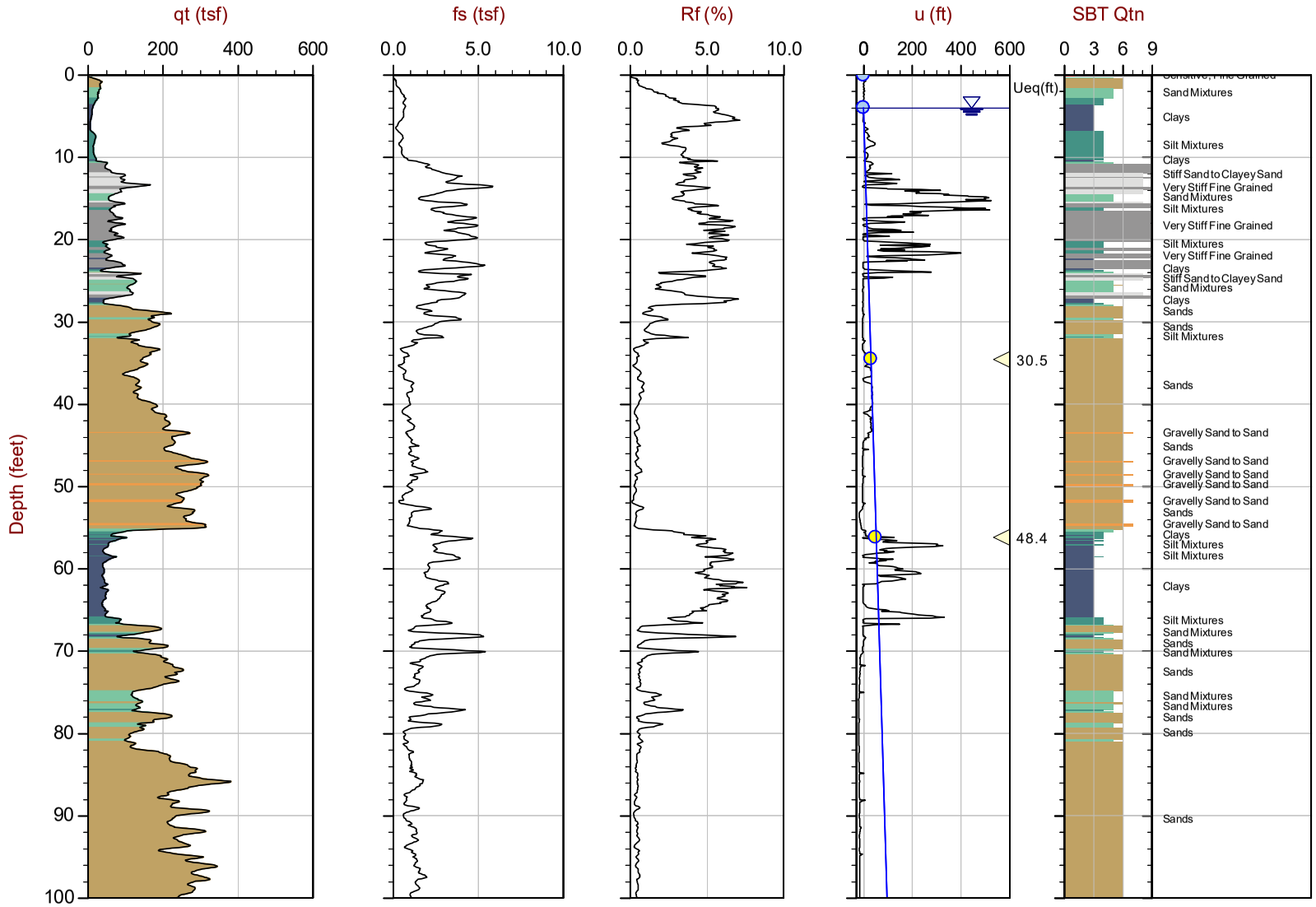
Elevation: -0.5 feet
Latitude: 38.22750
Longitude: -121.69715

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-07 12:19
Site: Little Egbert Tract

Sounding: 21C-12
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 36.400 m / 119.42 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP12.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4231859m E: 614034m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-21

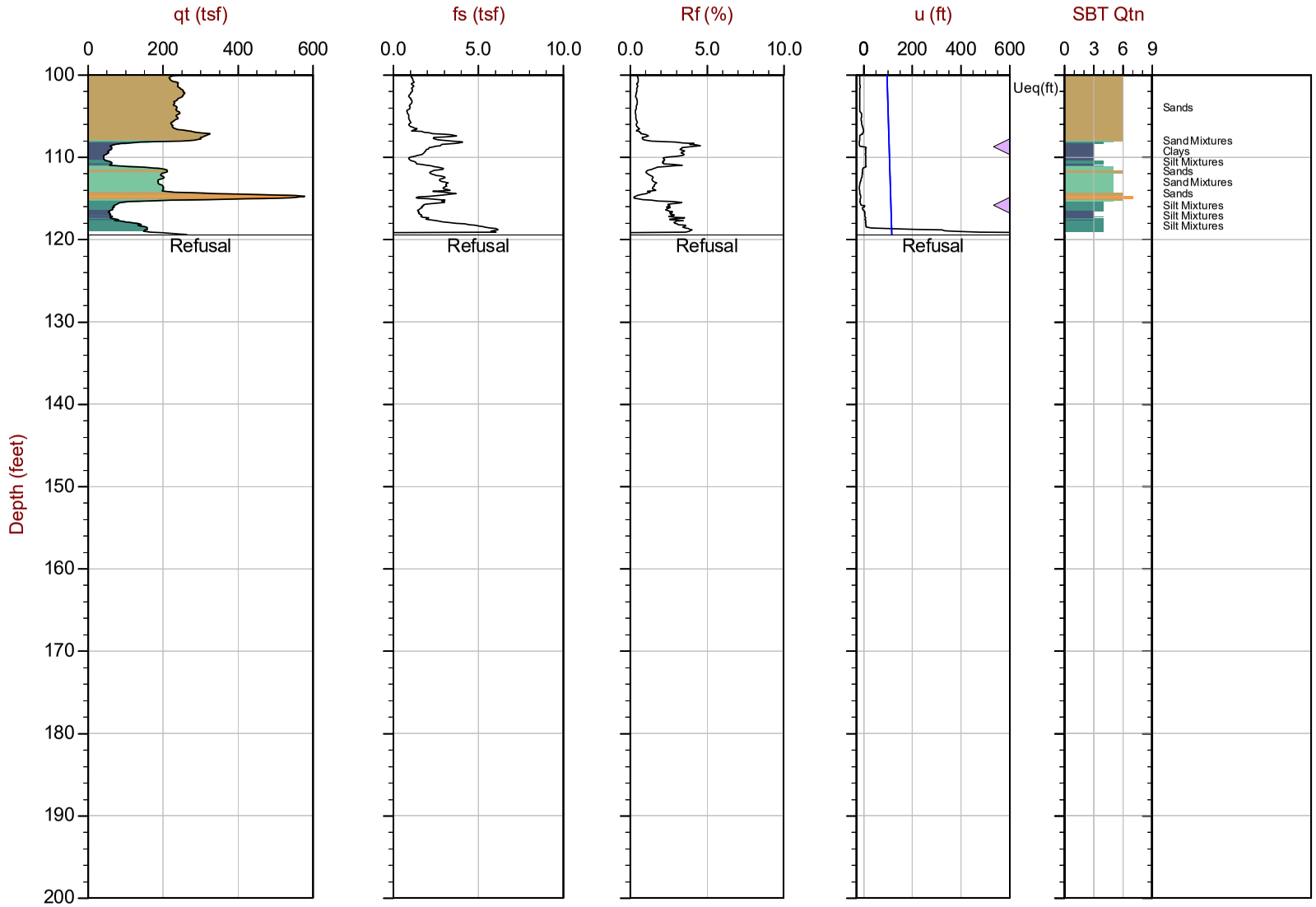
Elevation: -0.5 feet
Latitude: 38.22750
Longitude: -121.69715

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-07 12:19
Site: Little Egbert Tract

Sounding: 21C--12
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 36.400 m / 119.42 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP12.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4231859m E: 614034m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-22

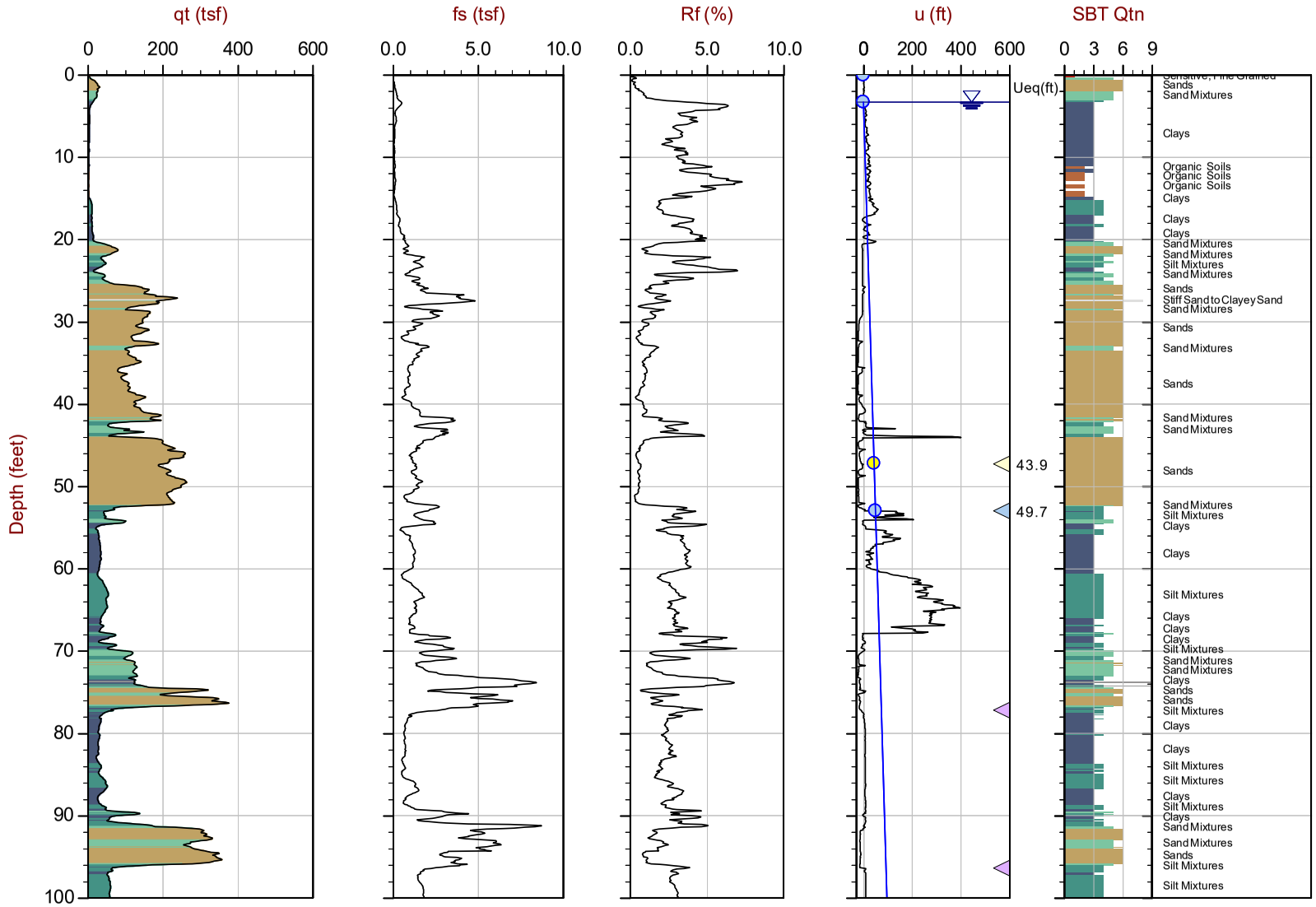
Elevation: 0.5 feet
Latitude: 38.21199
Longitude: -121.69240

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-07 14:26
Site: Little Egbert Tract

Sounding: 21C-13
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 36.600 m / 120.08 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP13.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4230144m E: 614474m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-23

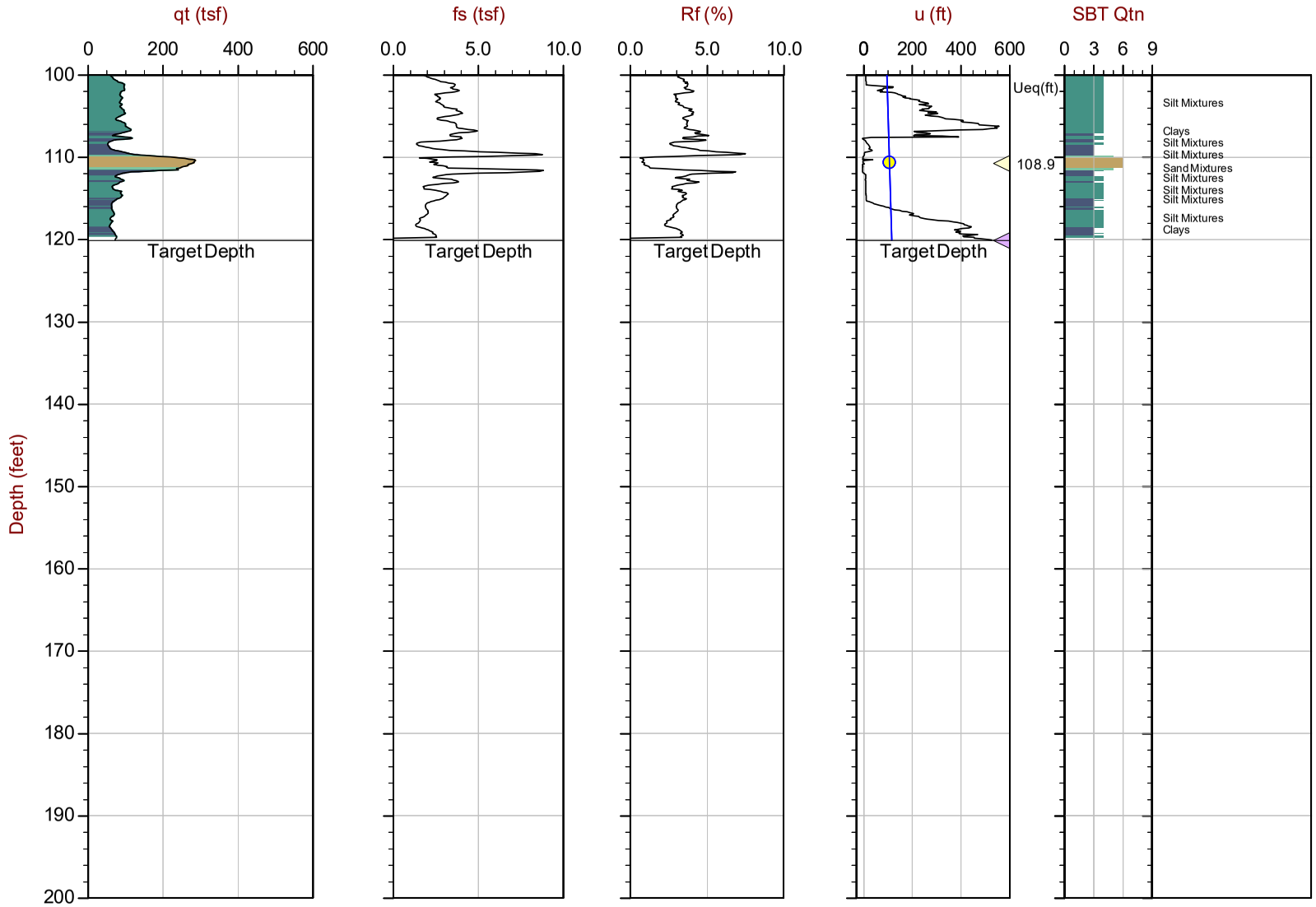
Elevation: 0.5 feet
Latitude: 38.21199
Longitude: -121.69240

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-07 14:26
Site: Little Egbert Tract

Sounding: 21C-13
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 36.600 m / 120.08 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP13.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4230144m E: 614474m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-24

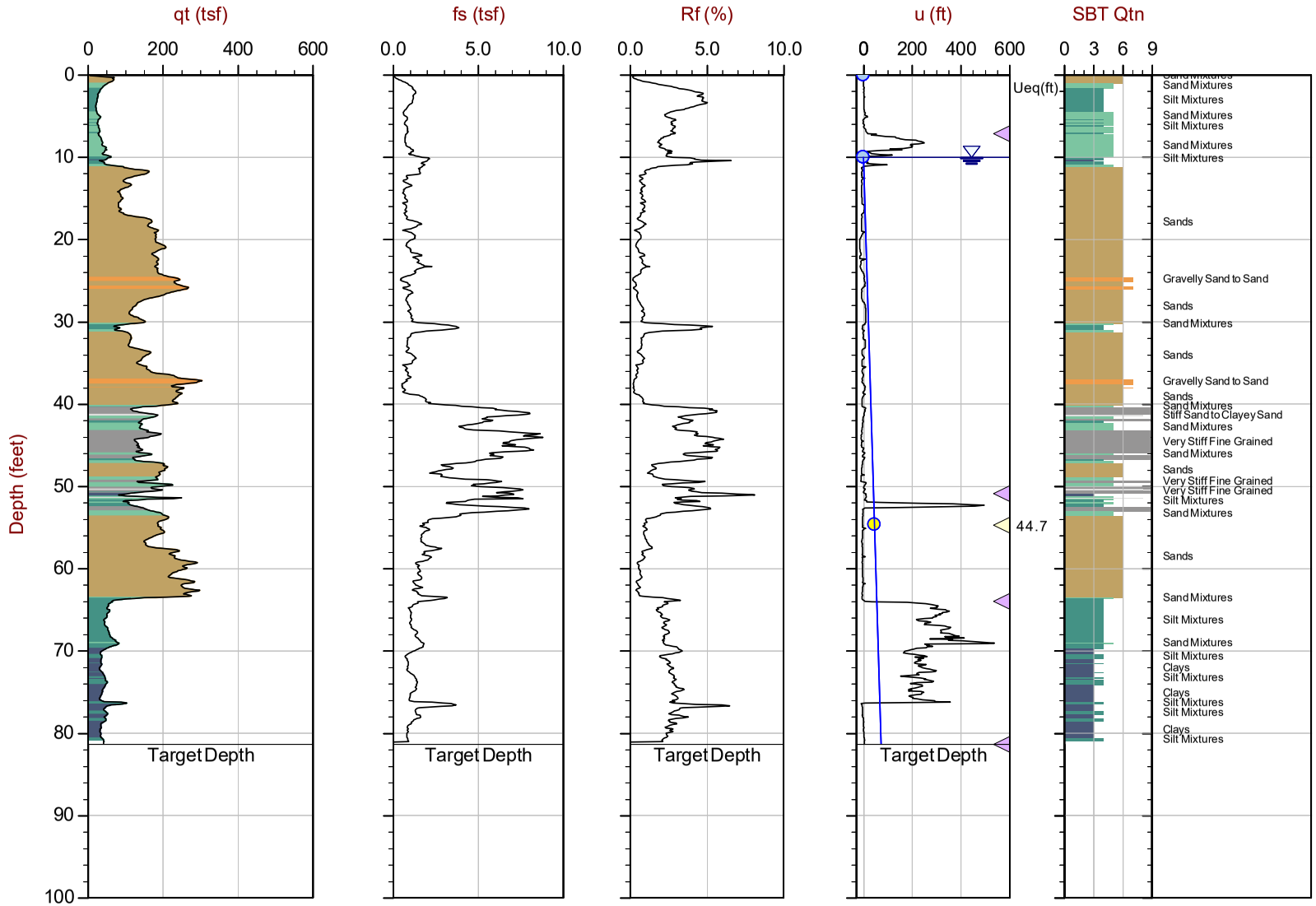
Elevation: 3 feet
Latitude: 38.20297
Longitude: -121.68397

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-08 08:51
Site: Little Egbert Tract

Sounding: 21C-14
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 24.800 m / 81.36 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP14.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4229153m E: 615247m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-25

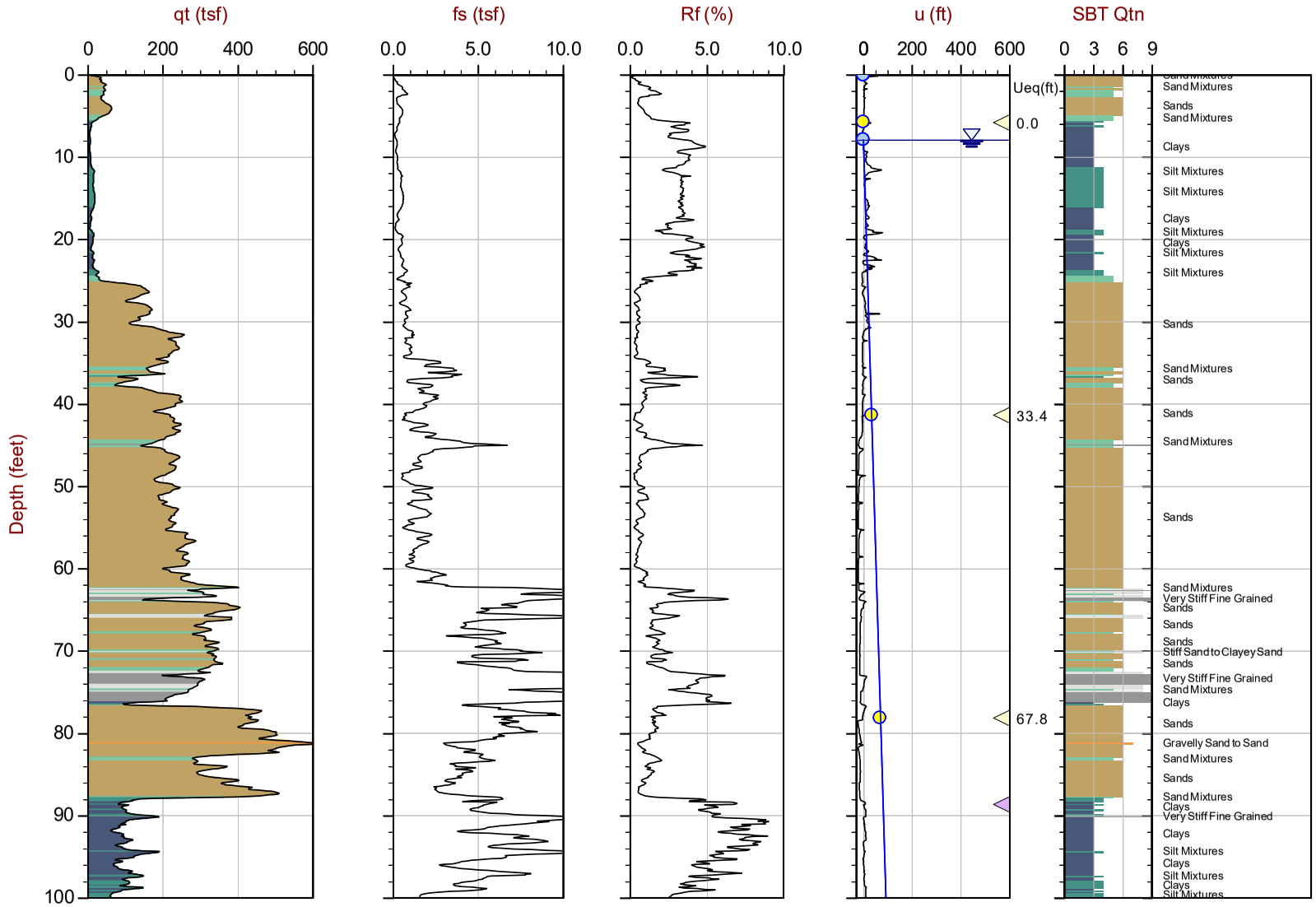
Elevation: 5 feet
Latitude: 38.18563
Longitude: -121.68239

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-08 11:13
Site: Little Egbert Tract

Sounding: 21C-15
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 33.175 m / 108.84 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP15.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4227231m E: 615392m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-26

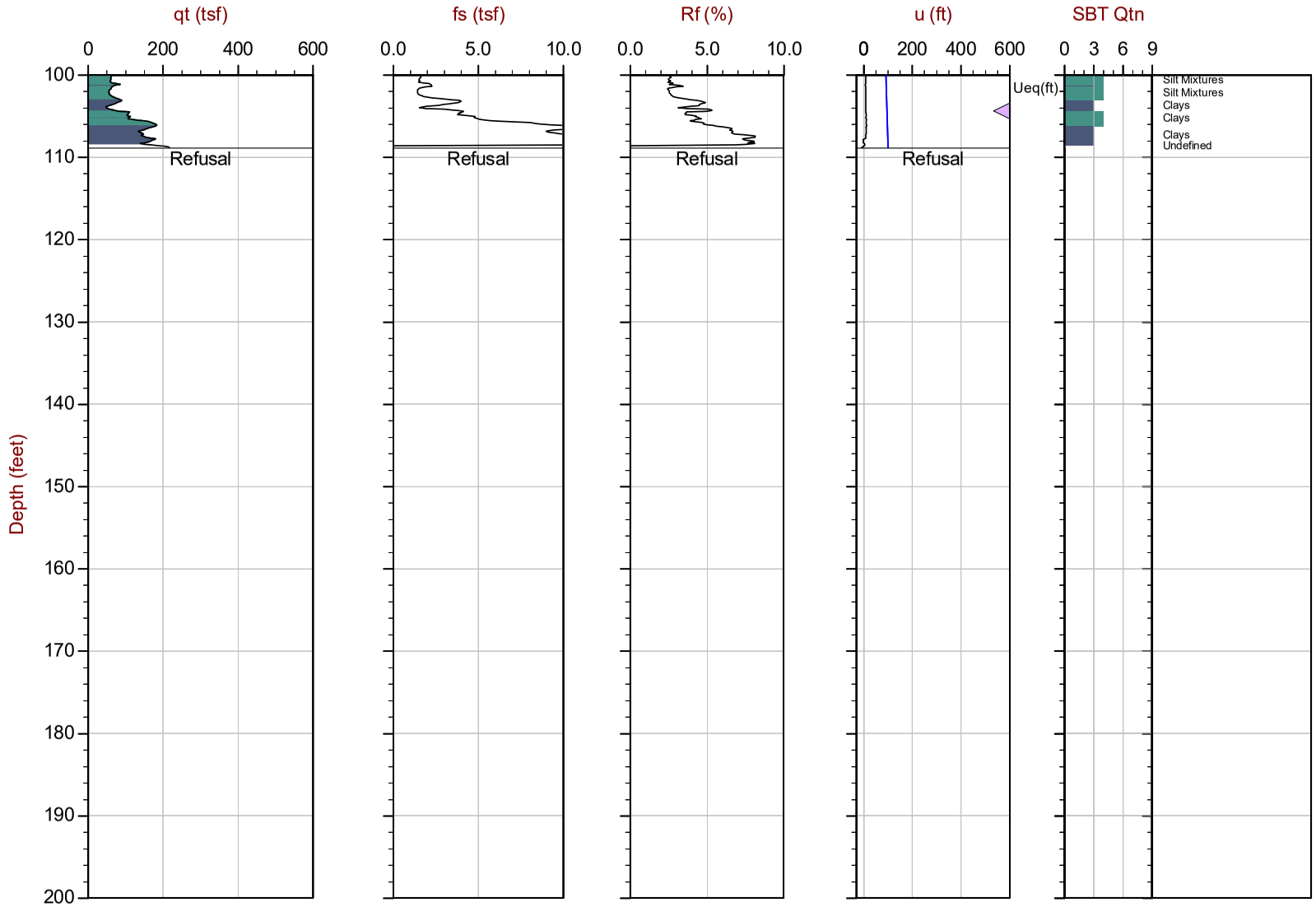
Elevation: 5 feet
Latitude: 38.18563
Longitude: -121.68239

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-08 11:13
Site: Little Egbert Tract

Sounding: 21C-15
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 33.175 m / 108.84 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP15.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4227231m E: 615392m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-27

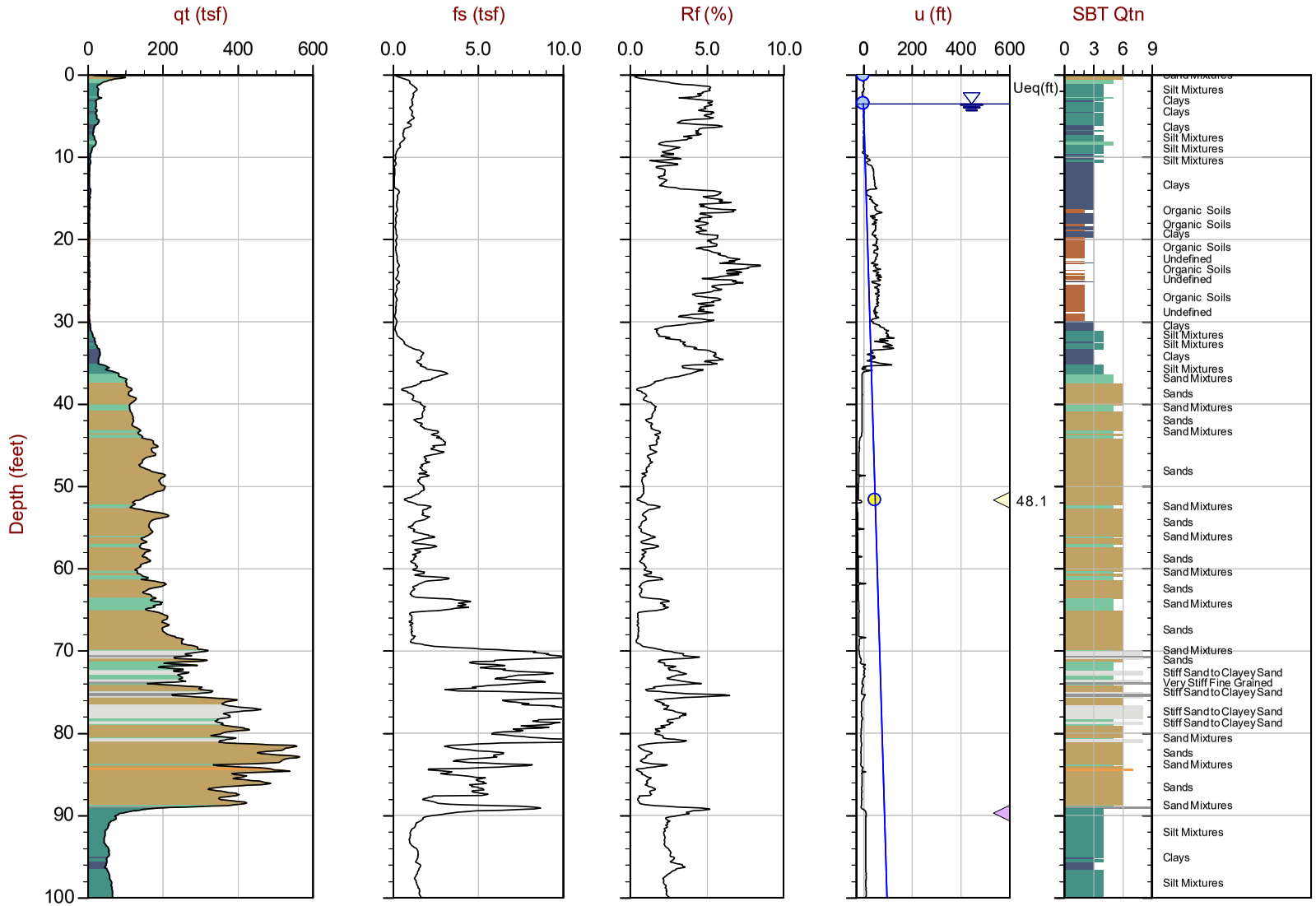
Elevation: 4 feet
Latitude: 38.17733
Longitude: -121.67805

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-08 12:55
Site: Little Egbert Tract

Sounding: 21C-16
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 31.825 m / 104.41 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP16.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4226315m E: 615786m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-28

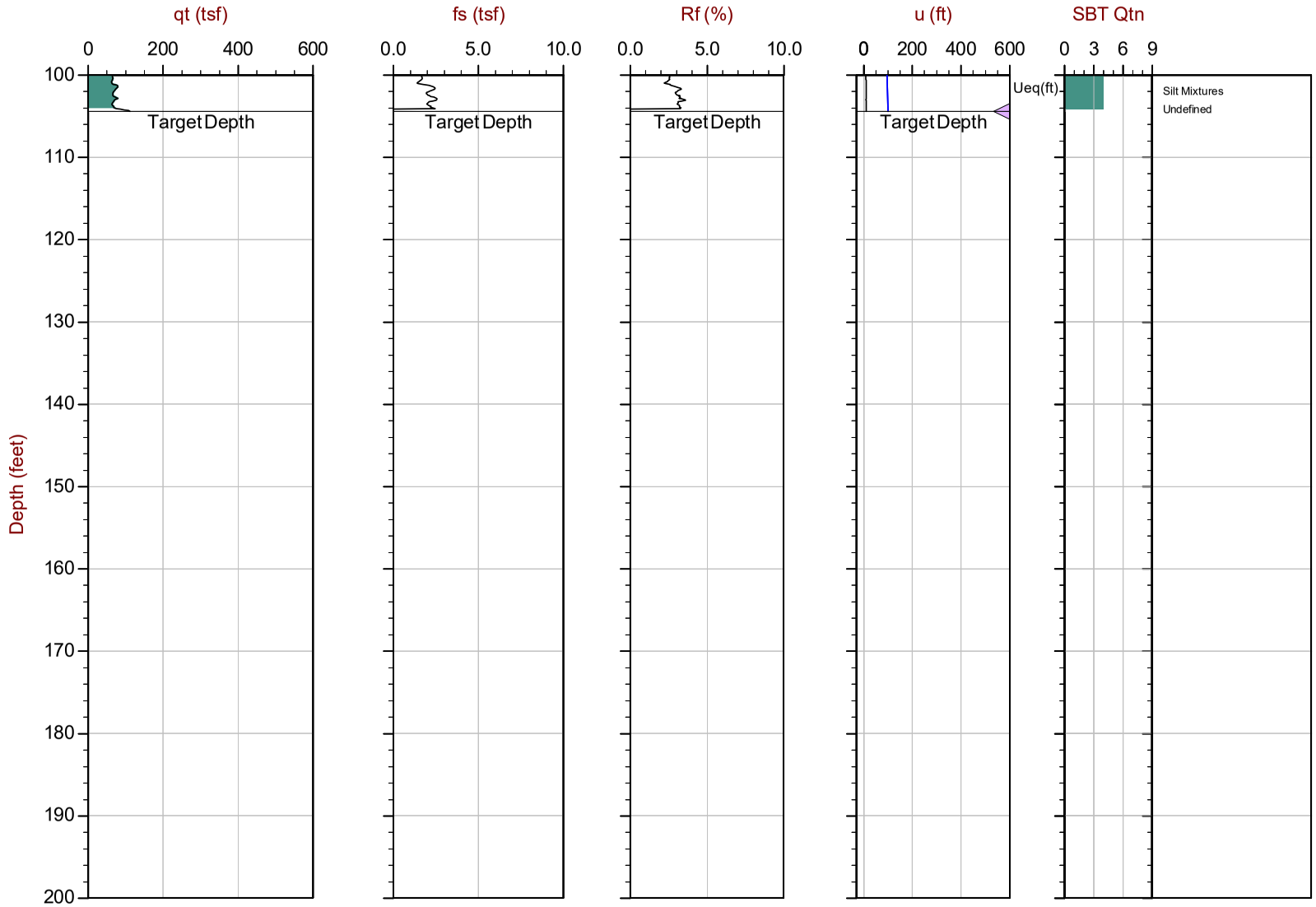
Elevation: 4 feet
Latitude: 38.17733
Longitude: -121.67805

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-08 12:55
Site: Little Egbert Tract

Sounding: 21C-16
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 31.825 m / 104.41 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP16.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4226315m E: 615786m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-29

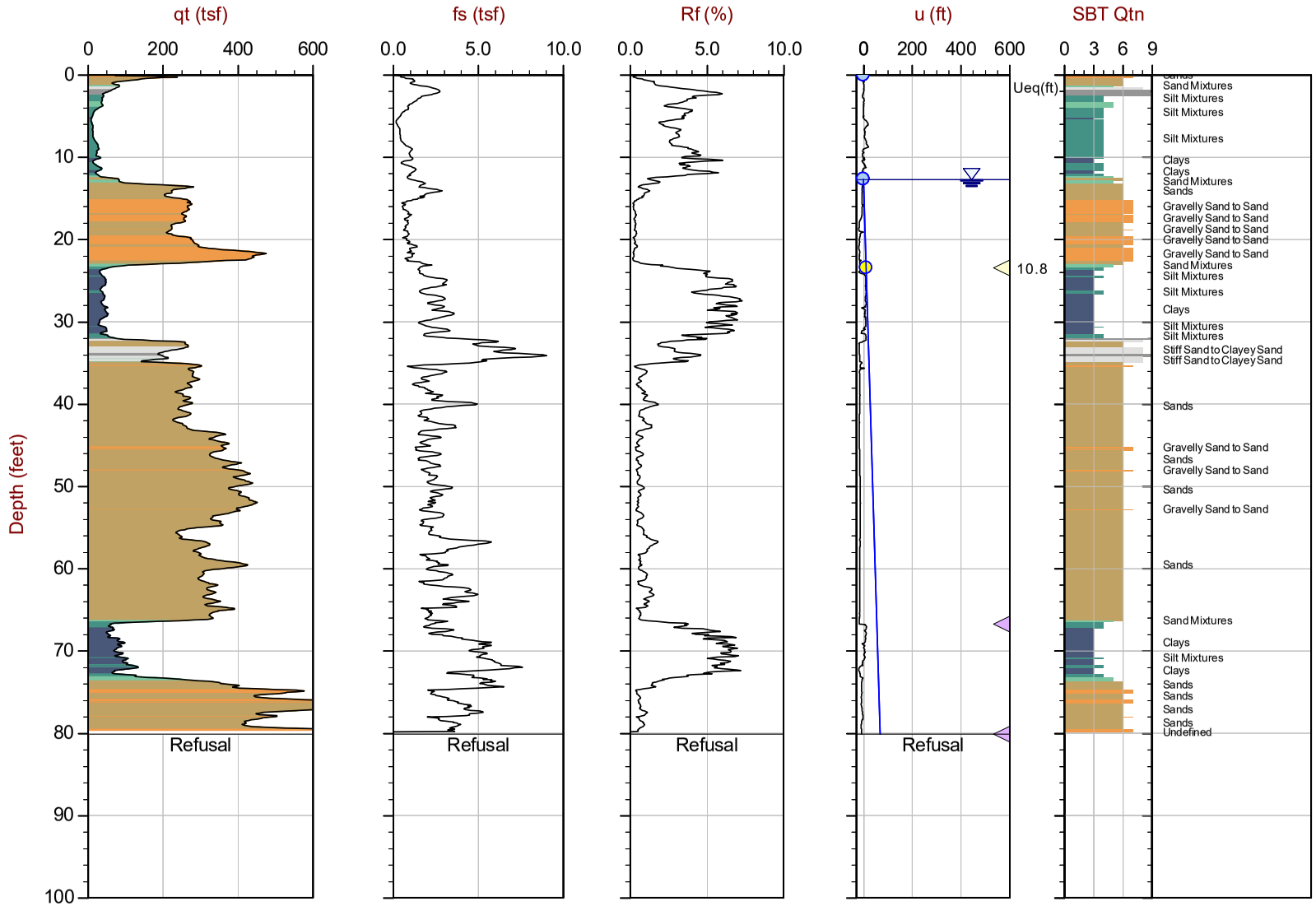
Elevation: 8.5 feet
Latitude: 38.17546
Longitude: -121.67568

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-08 14:58
Site: Little Egbert Tract

Sounding: 21C-17
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 24.425 m / 80.13 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP17.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4226111m E: 615996m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-30

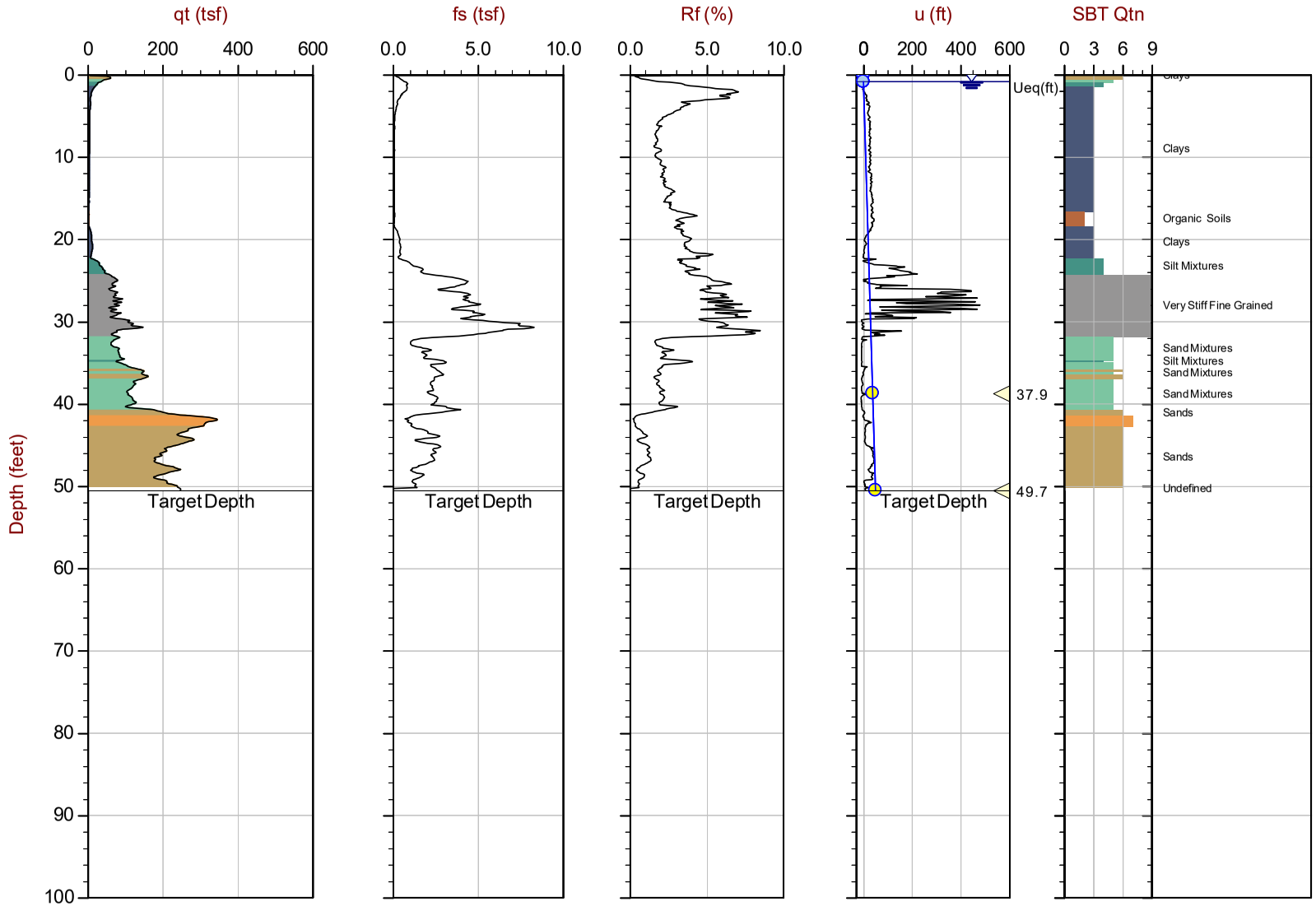
Elevation: -6 feet
Latitude: 38.22698
Longitude: -121.68969

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-11 08:36
Site: Little Egbert Tract

Sounding: 21C-18
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP18.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4231810m E: 614689m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-31

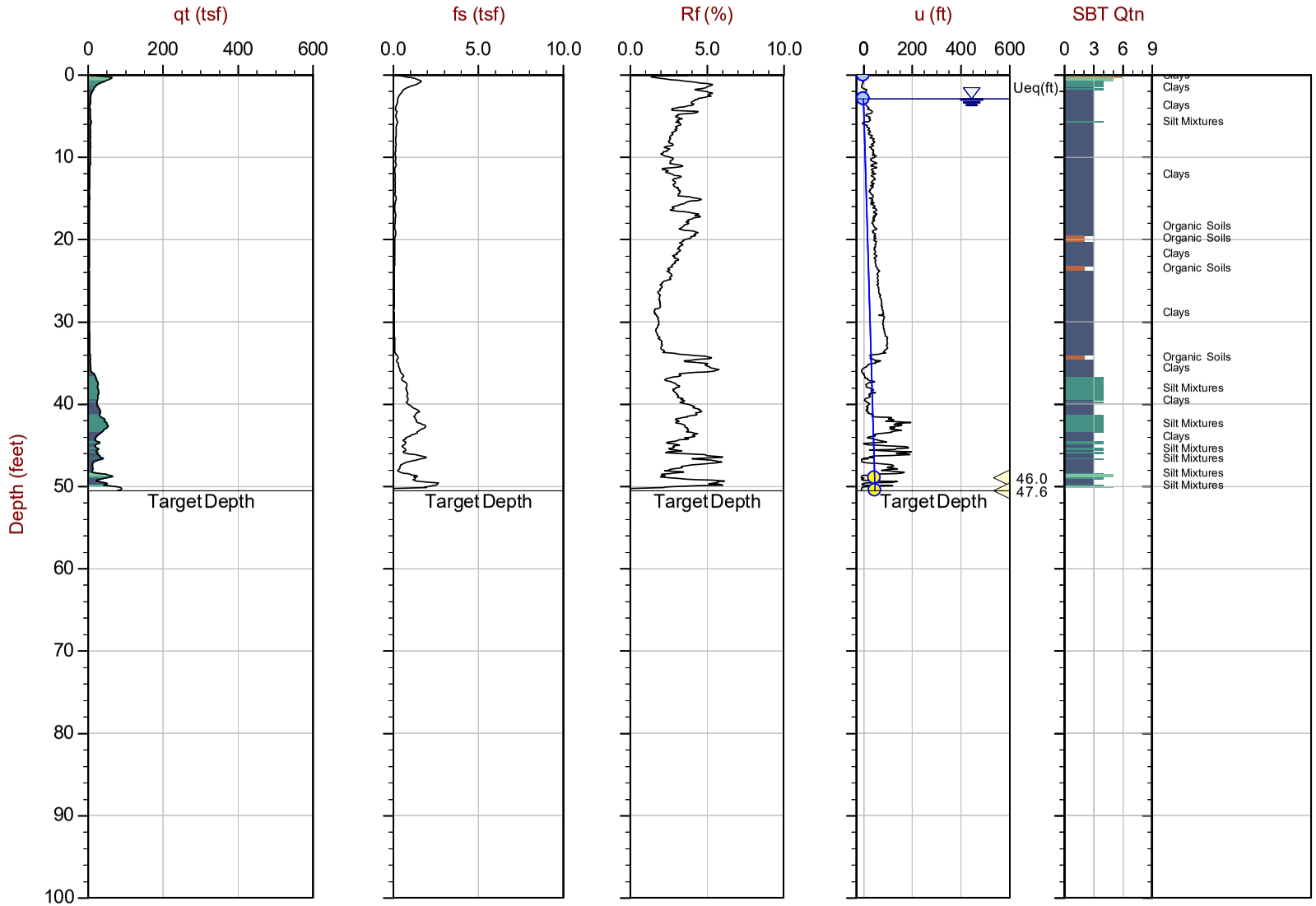
Elevation: -2 feet
Latitude: 38.22176
Longitude: -121.67921

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-11 09:39
Site: Little Egbert Tract

Sounding: 21C-19
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP19.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4231244m E: 615615m

Overplot Item: Ueq, Assumed Ueq, Dissipation, Ueq achieved, Dissipation, Ueq not achieved, Dissipation, Ueq assumed, Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-32

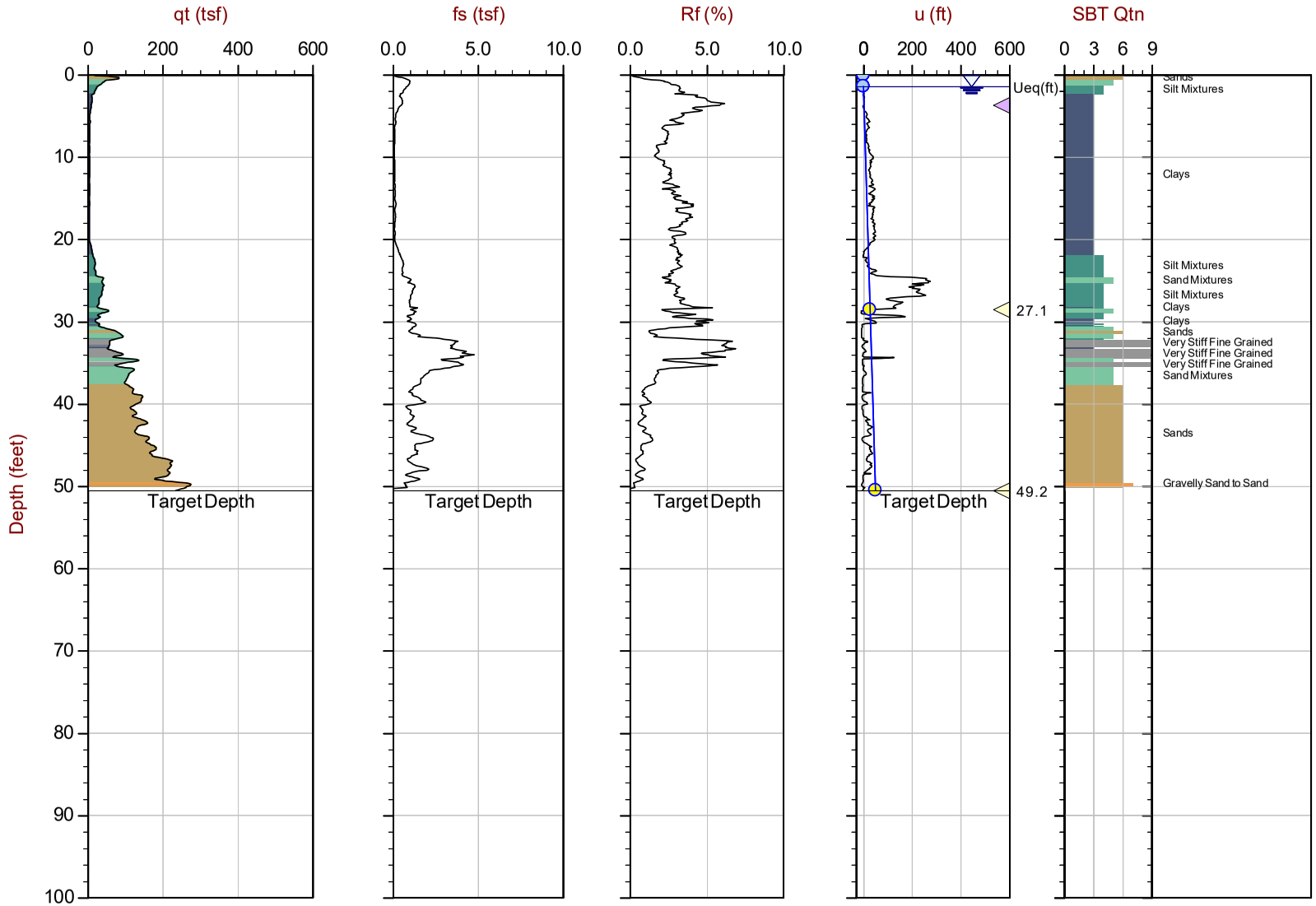
Elevation: -3 feet
Latitude: 38.20887
Longitude: -121.67970

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-11 10:43
Site: Little Egbert Tract

Sounding: 21C-20
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP20.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4229812m E: 615591m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-33

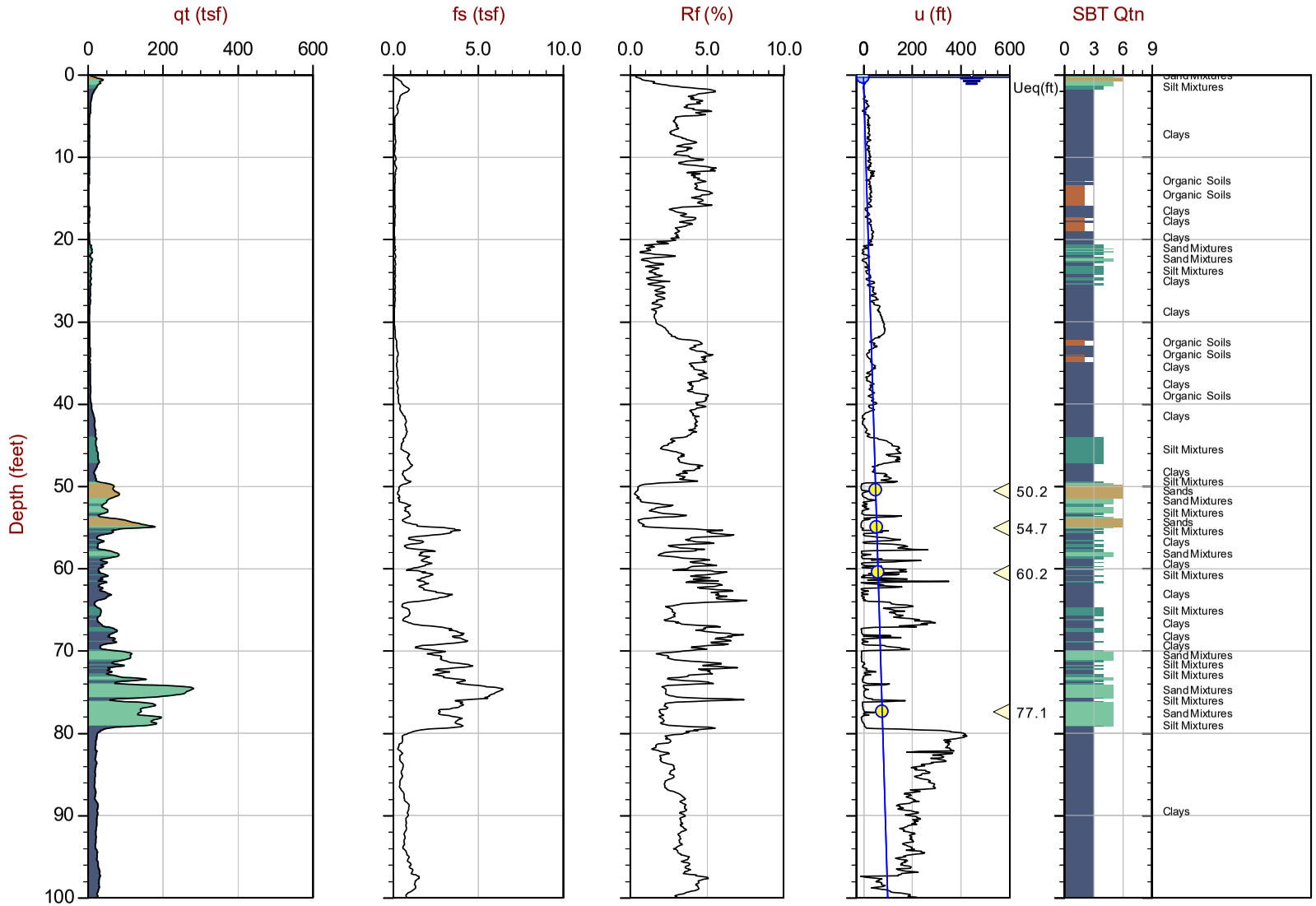
Elevation: -6 feet
Latitude: 38.20247
Longitude: -121.66642

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-11 12:14
Site: Little Egbert Tract

Sounding: 21C-21
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 36.750 m / 120.57 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP21.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4229120m E: 616794m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-34

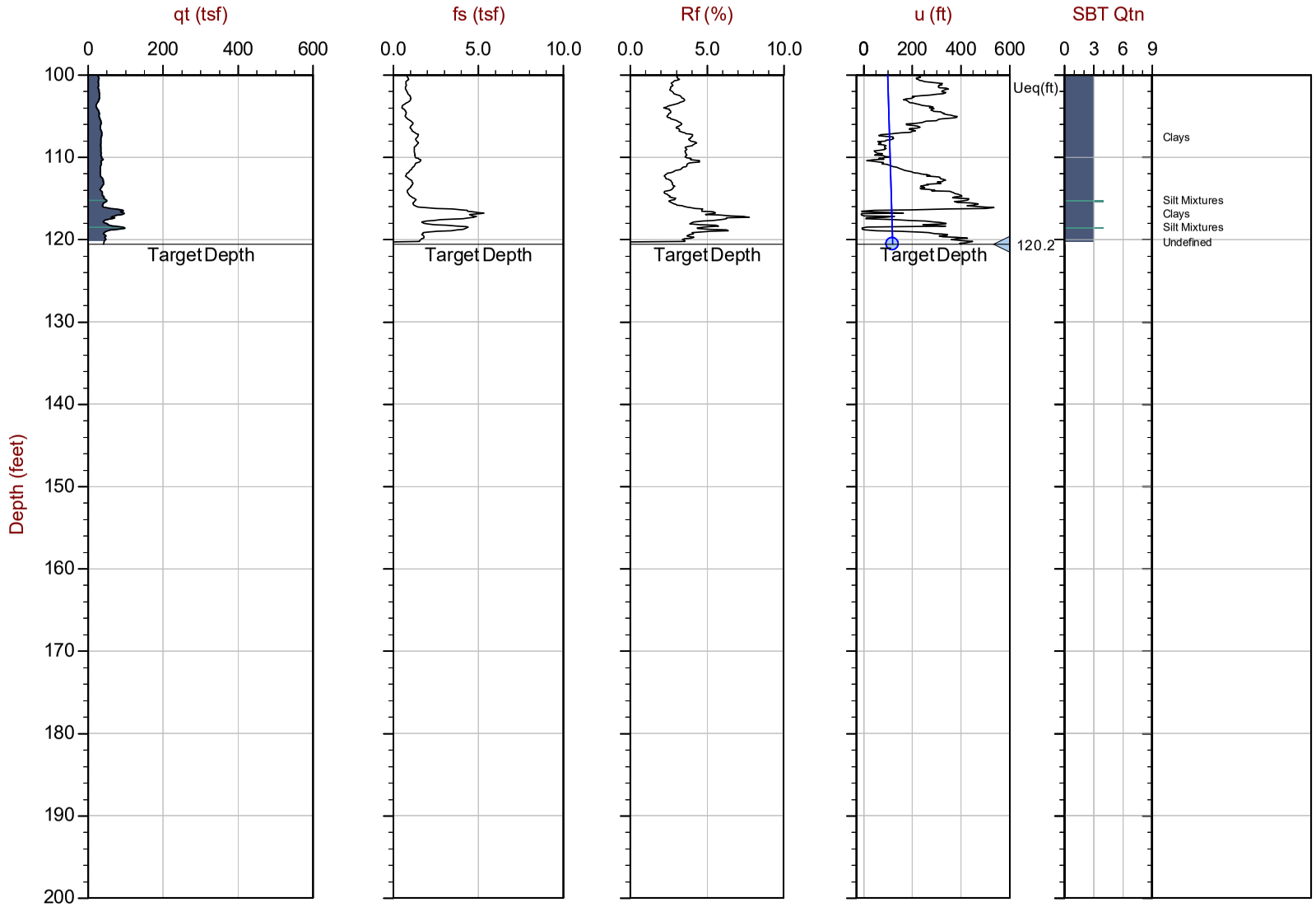
Elevation: -6 feet
Latitude: 38.20247
Longitude: -121.66642

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-11 12:14
Site: Little Egbert Tract

Sounding: 21C-21
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 36.750 m / 120.57 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP21.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4229120m E: 616794m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-35

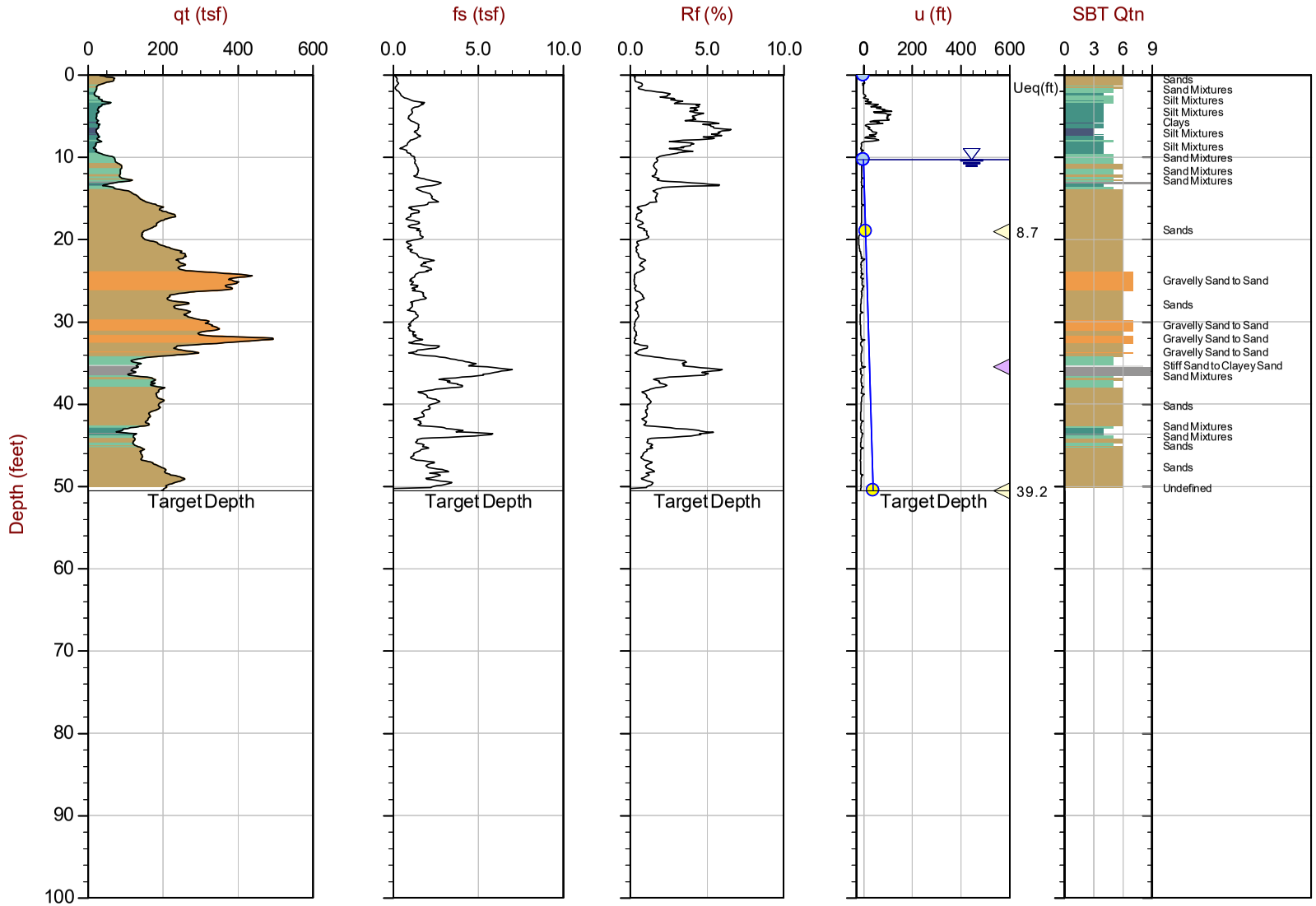
Elevation: 5 feet
Latitude: 38.19686
Longitude: -121.67930

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-11 14:09
Site: Little Egbert Tract

Sounding: 21C-22
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP22.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4228482m E: 615646m

Overplot Item: Ueq, Assumed Ueq, Dissipation, Ueq achieved, Dissipation, Ueq not achieved, Dissipation, Ueq assumed, Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-36

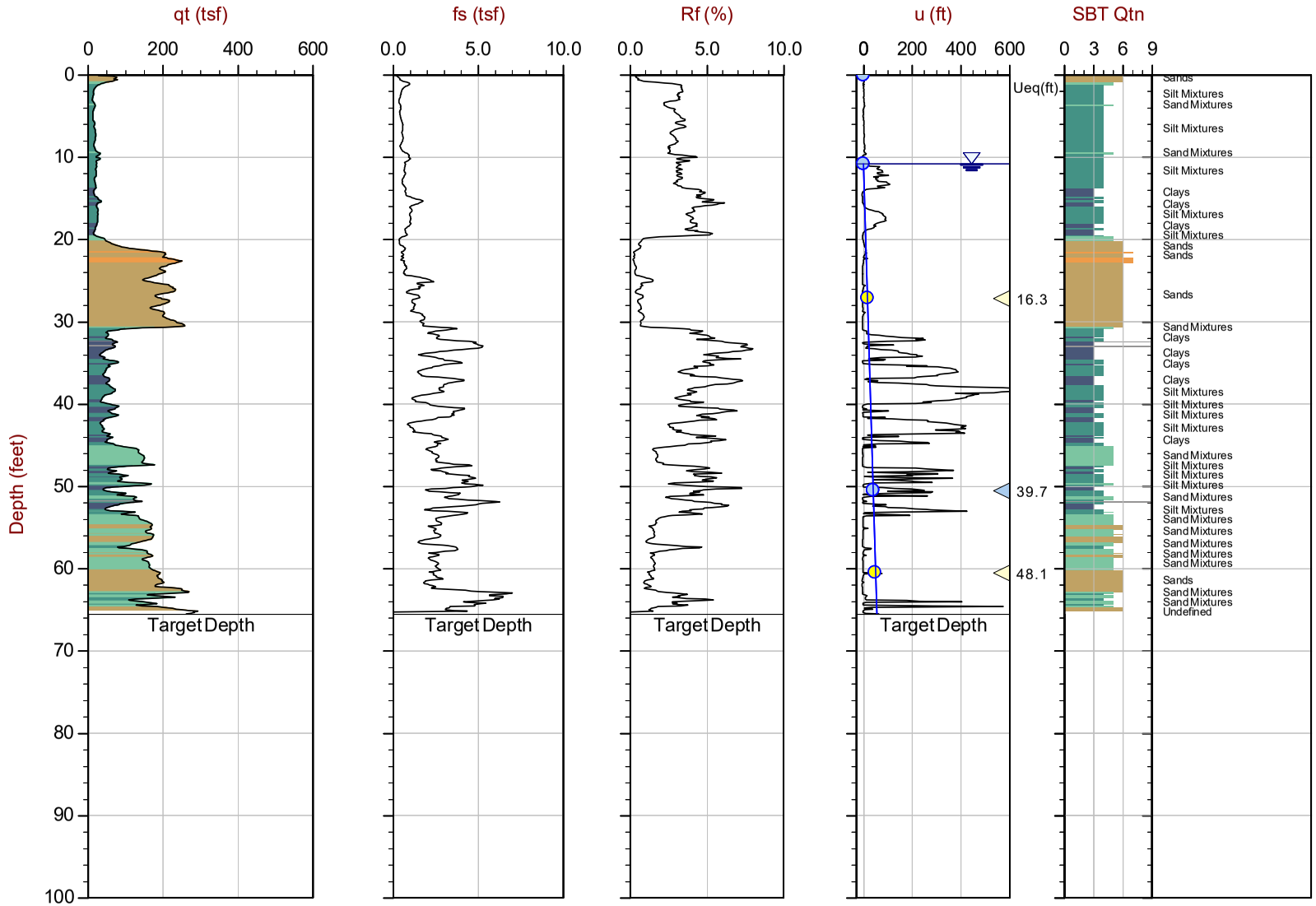
Elevation: 8 feet
Latitude: 38.19492
Longitude: -121.67389

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 2021-10-11 15:45
Site: Little Egbert Tract

Sounding: 21C-23
Cone: 814:T1500F15U35 Area: 15cm2



Max Depth: 19.975 m / 65.53 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 21-56-23090_CP23.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10N N: 4228272m E: 616122m

Overplot Item: Ueq | Assumed Ueq | Dissipation, Ueq achieved | Dissipation, Ueq not achieved | Dissipation, Ueq assumed | Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

Plate No. C-3-37

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

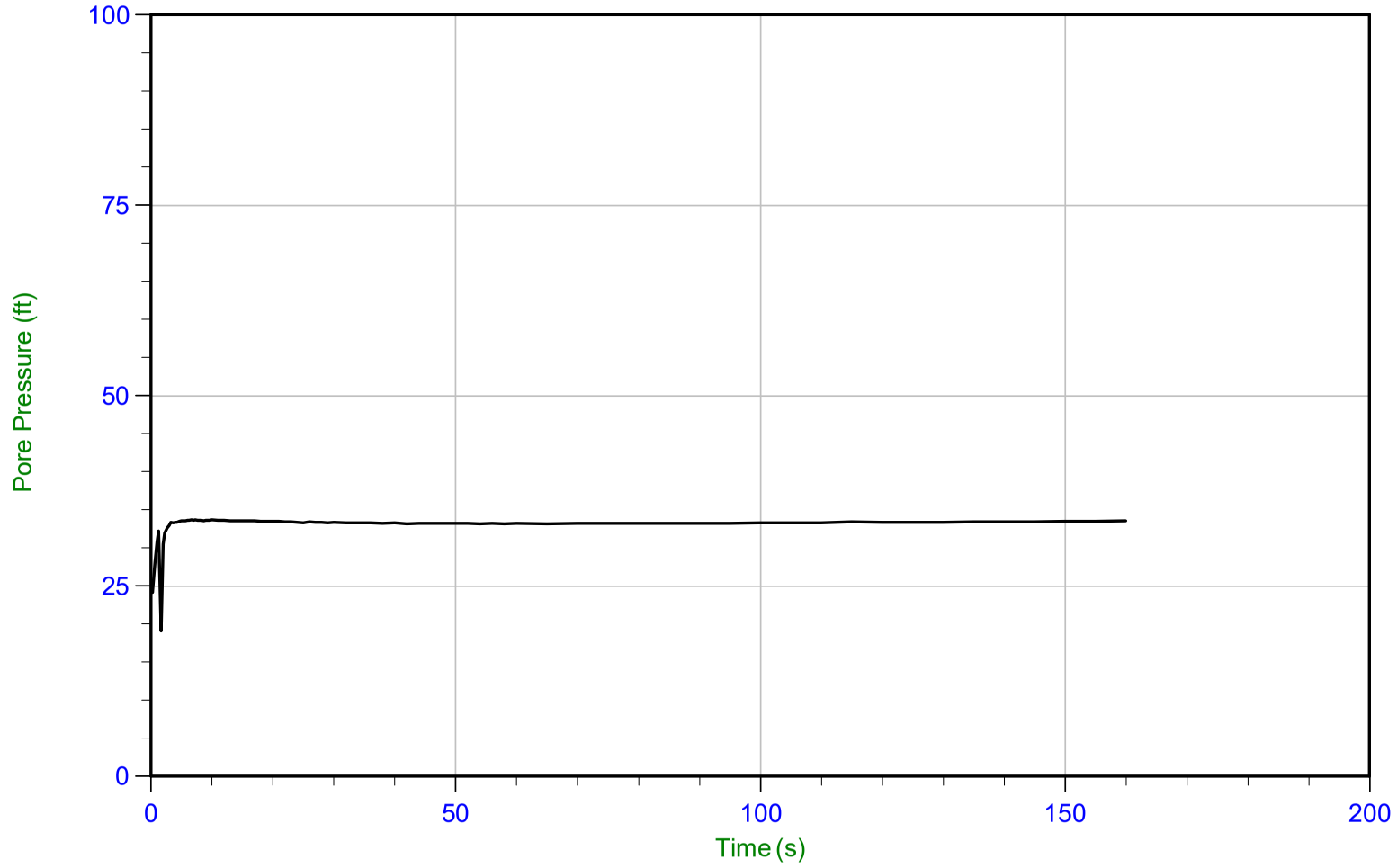
Plate No. C-3-38

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/04/2021 08:48
Site: Little Egbert Tract

Sounding: 21C-01
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP01.PPF
Depth: 10.400 m / 34.120 ft
Duration: 160.0 s

u Min: 19.1 ft
u Max: 33.7 ft
u Final: 33.5 ft

WT: 0.213 m / 0.699 ft
Ueq: 33.4 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

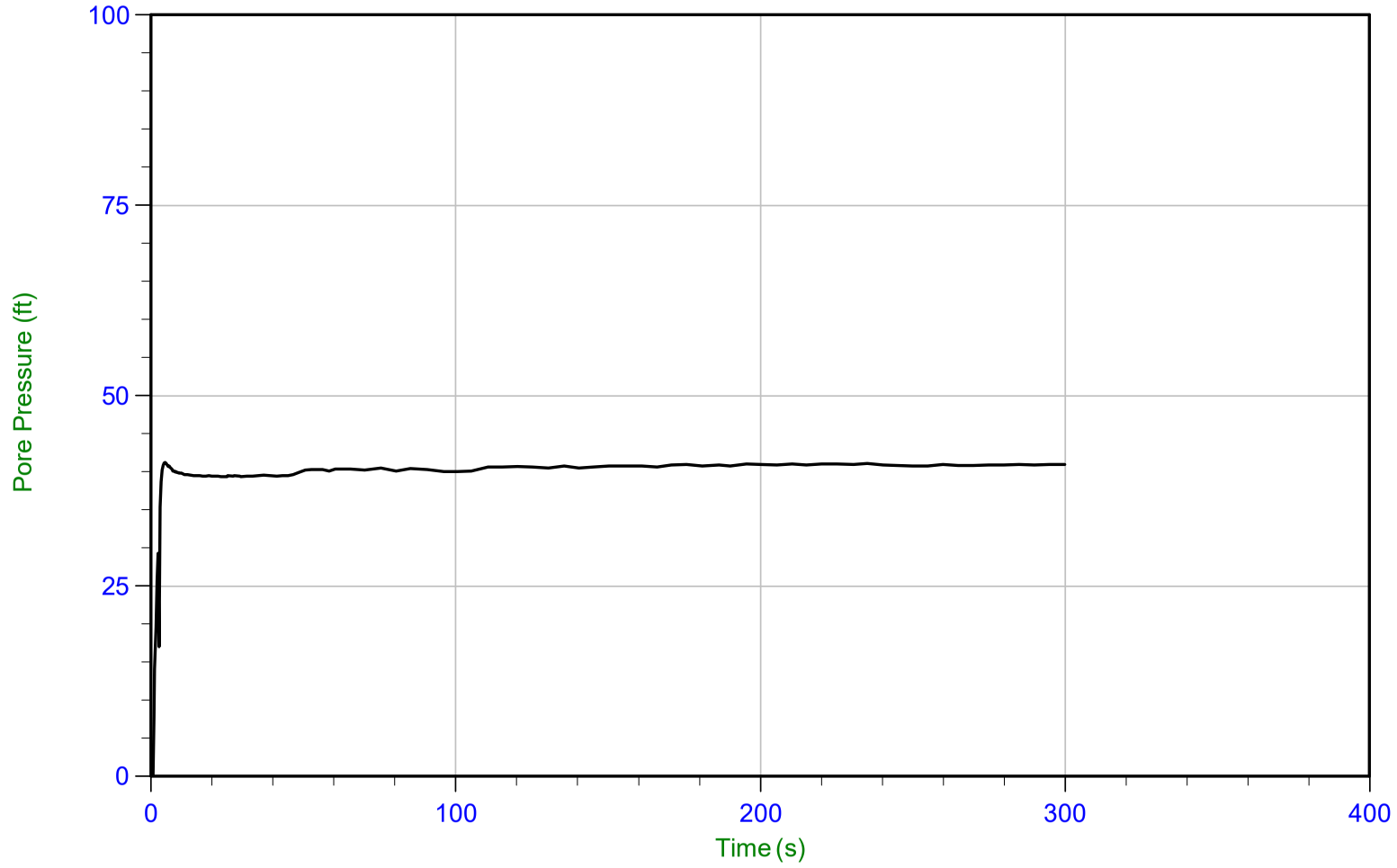
Plate No. C-3-39

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/04/2021 08:48
Site: Little Egbert Tract

Sounding: 21C-01
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP01.PPF
Depth: 12.600 m / 41.338 ft
Duration: 300.0 s

u Min: -3.9 ft
u Max: 41.2 ft
u Final: 41.0 ft

WT: 0.248 m / 0.814 ft
Ueq: 40.5 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

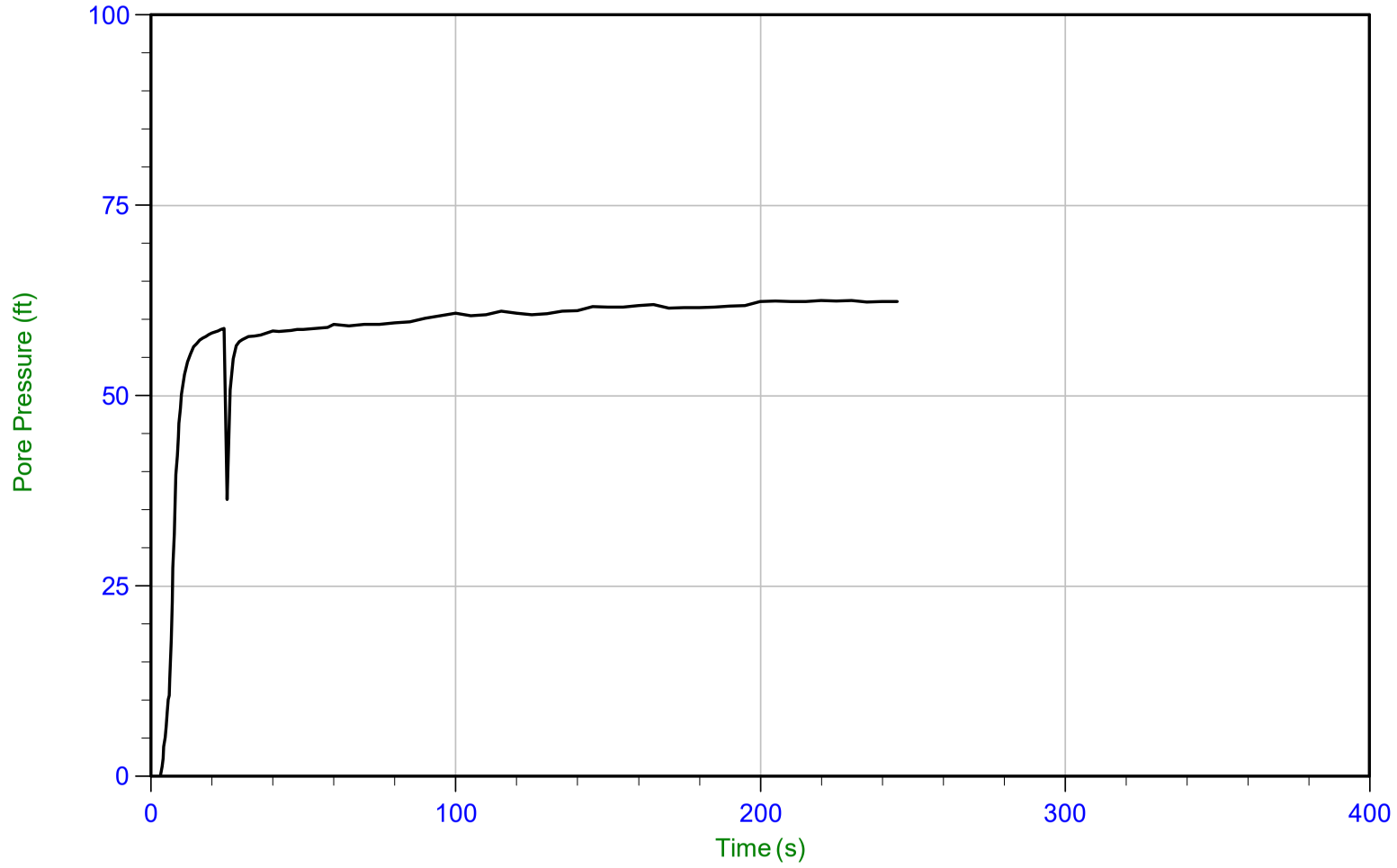
Plate No. C-3-40

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/04/2021 08:48
Site: Little Egbert Tract

Sounding: 21C-01
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP01.PPF
Depth: 19.900 m / 65.288 ft
Duration: 245.0 s

u Min: -7.9 ft
u Max: 62.5 ft
u Final: 62.4 ft

WT: 0.810 m / 2.657 ft
Ueq: 62.6 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

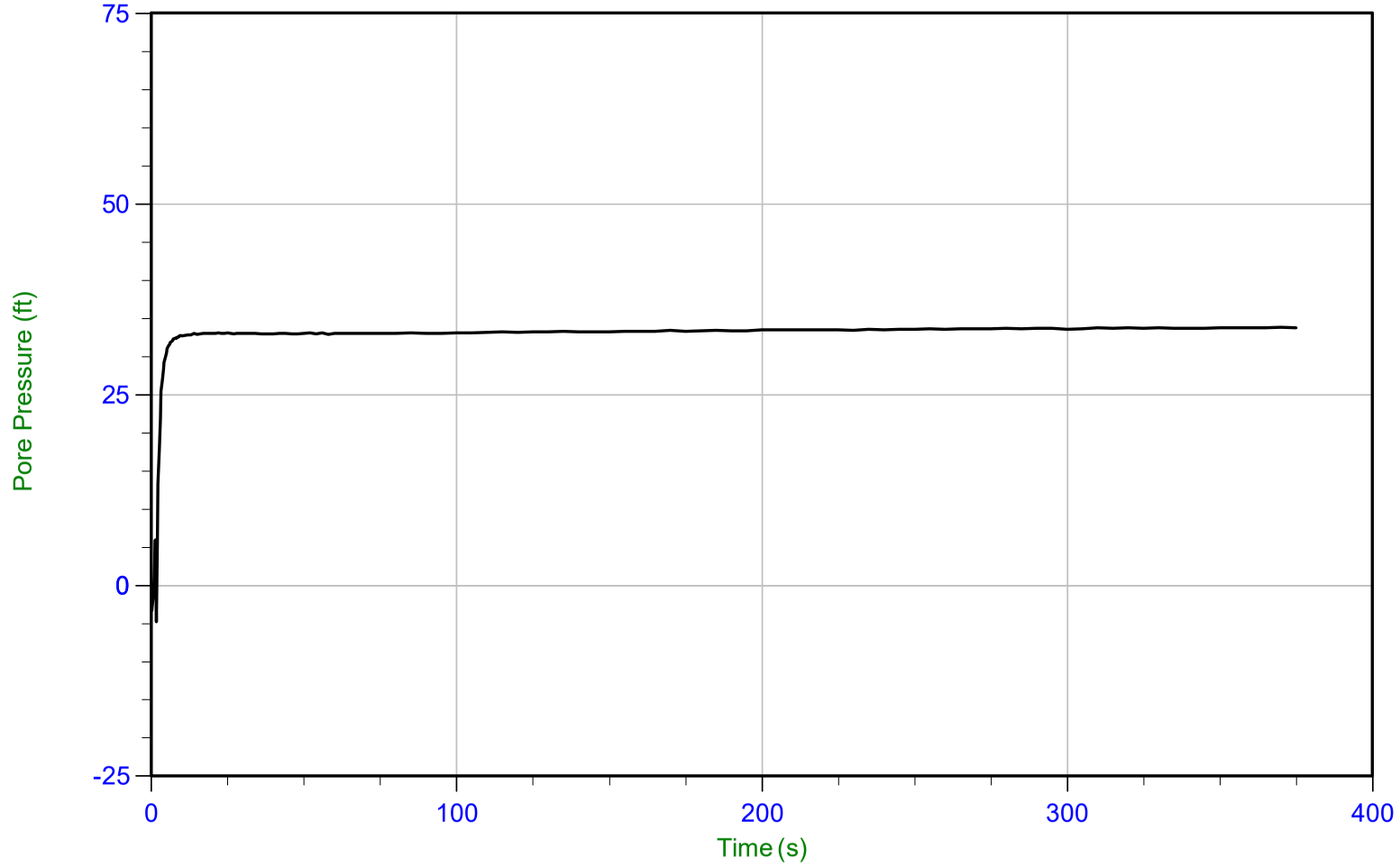
Plate No. C-3-41

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/04/2021 10:38
Site: Little Egbert Tract

Sounding: 21C-02
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP02.PPF
Depth: 10.425 m / 34.202 ft
Duration: 375.0 s

u Min: -4.8 ft
u Max: 33.8 ft
u Final: 33.8 ft

WT: 0.158 m / 0.518 ft
Ueq: 33.7 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

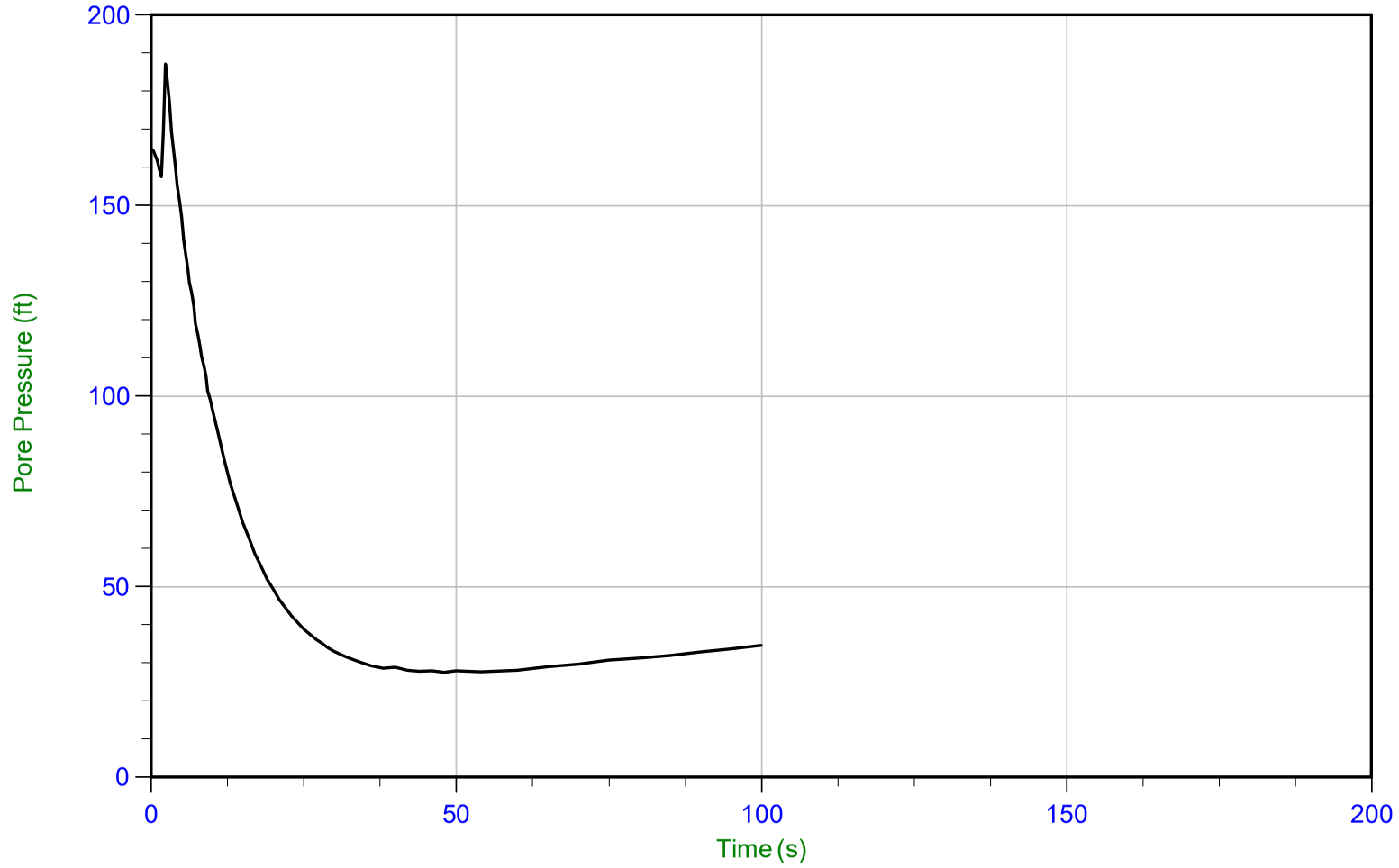
Plate No. C-3-42

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/04/2021 10:38
Site: Little Egbert Tract

Sounding: 21C-02
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP02.PPF
Depth: 18.825 m / 61.761 ft
Duration: 100.0 s

u Min: 27.5 ft
u Max: 187.1 ft
u Final: 34.7 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

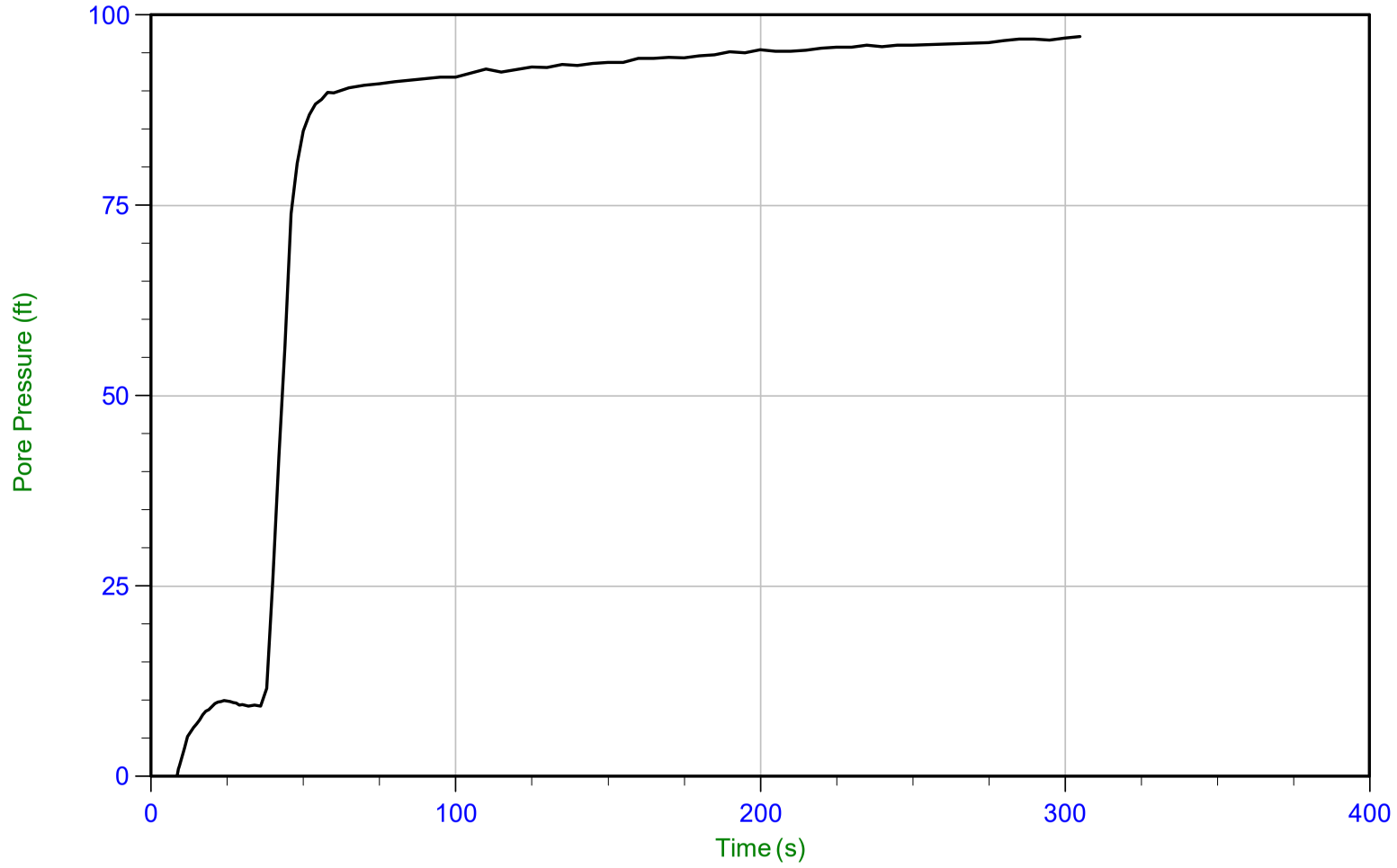
Plate No. C-3-43

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/04/2021 10:38
Site: Little Egbert Tract

Sounding: 21C-02
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP02.PPF
Depth: 30.825 m / 101.131 ft
Duration: 305.0 s

u Min: -6.9 ft
u Max: 97.2 ft
u Final: 97.2 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

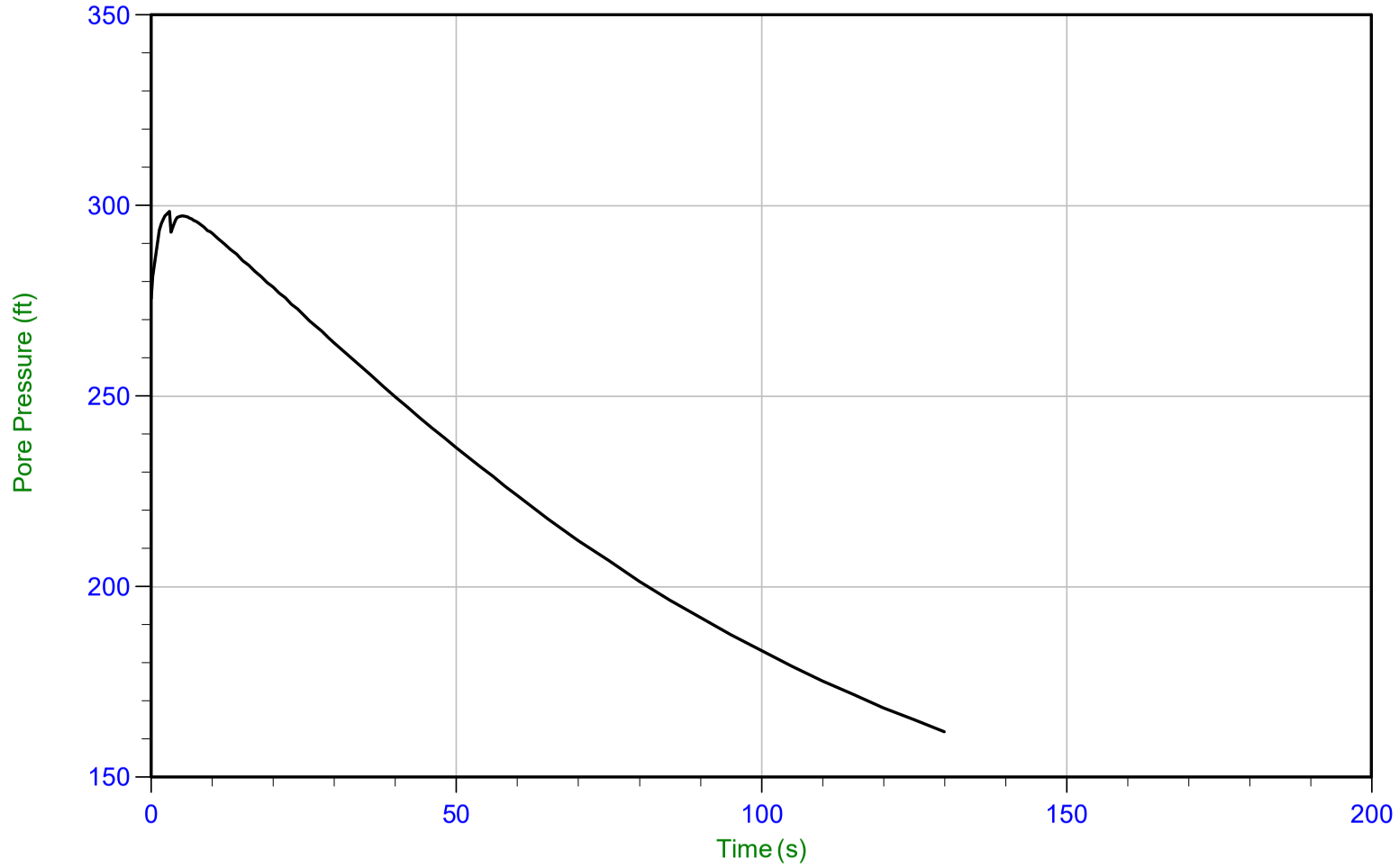
Plate No. C-3-44

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/04/2021 10:38
Site: Little Egbert Tract

Sounding: 21C-02
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP02.PPF
Depth: 36.800 m / 120.733 ft
Duration: 130.0 s

u Min: 161.9 ft
u Max: 298.5 ft
u Final: 161.9 ft

WT: 0.152 m / 0.499 ft
Ueq: 120.2 ft
U(50): 209.37 ft

T(50): 69.6 s
Ir: 100
Ch: 10.1 cm²/min

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

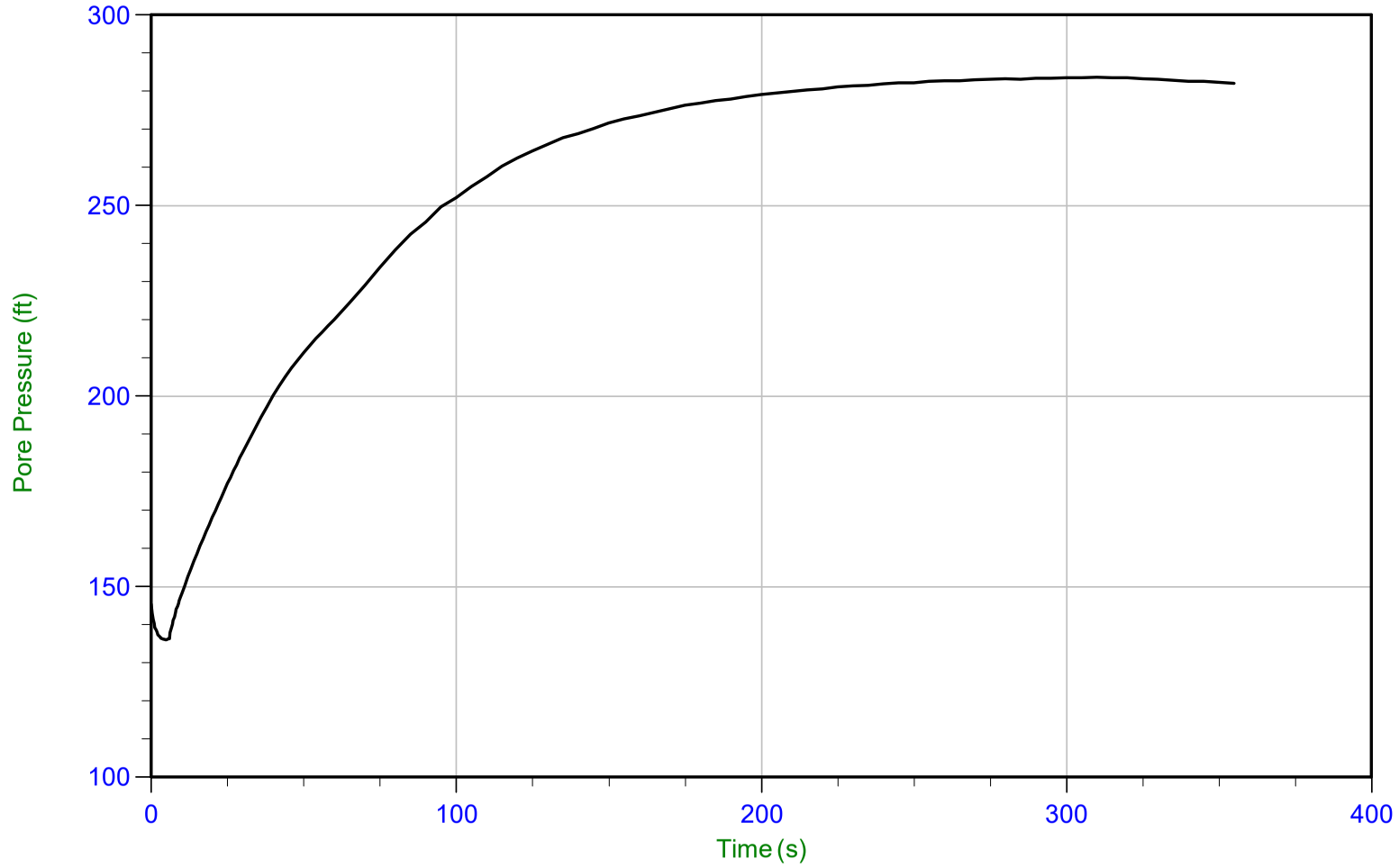
Plate No. C-3-45

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/04/2021 10:38
Site: Little Egbert Tract

Sounding: 21C-02
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP02.PPF
Depth: 38.800 m / 127.295 ft
Duration: 355.0 s

u Min: 136.1 ft
u Max: 283.6 ft
u Final: 282.1 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

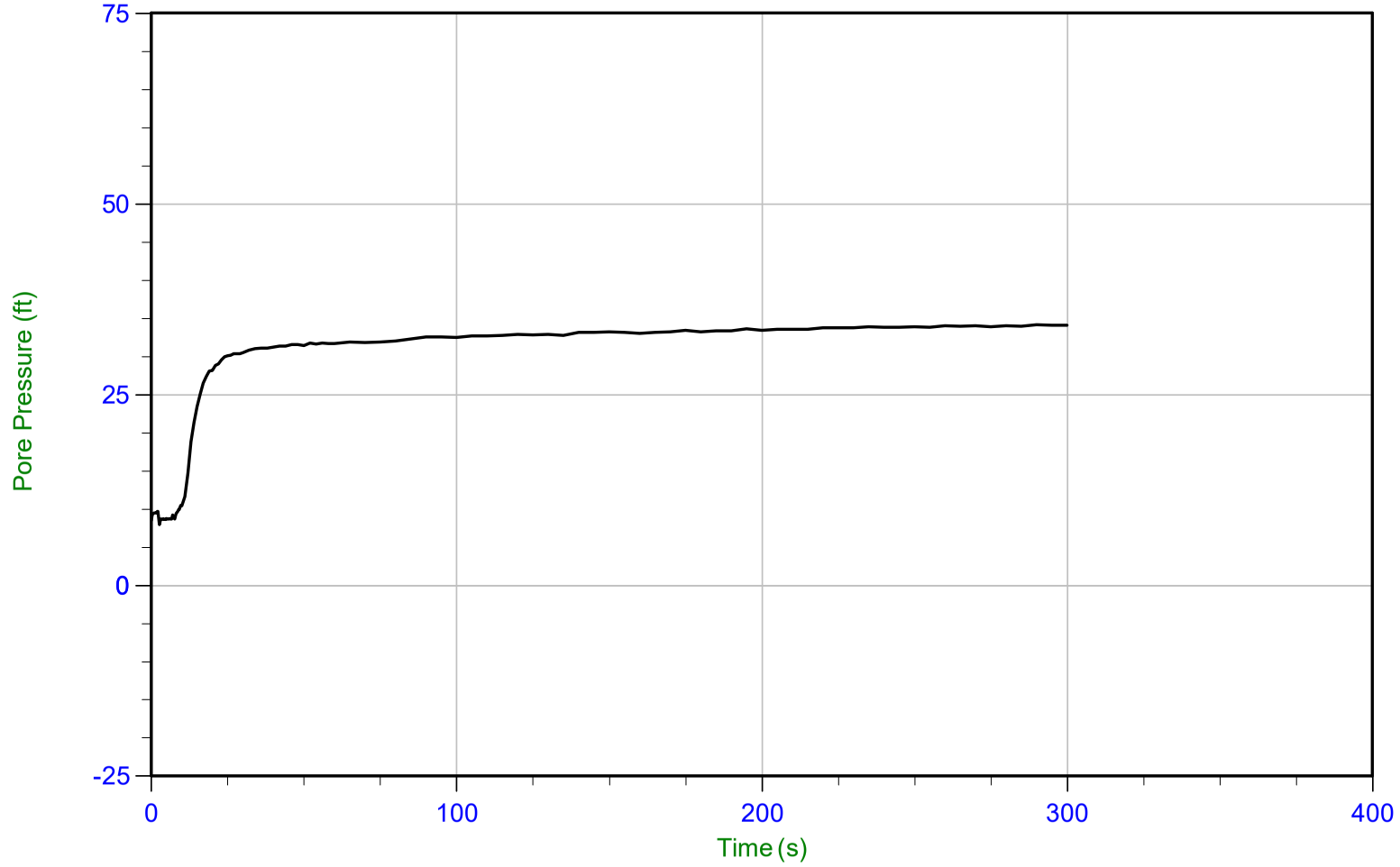
Plate No. C-3-46

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/04/2021 16:13
Site: Little Egbert Tract

Sounding: 21C-03
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP03c.PPF
Depth: 11.750 m / 38.549 ft
Duration: 300.0 s

u Min: 7.9 ft
u Max: 34.2 ft
u Final: 34.1 ft

WT: 1.483 m / 4.865 ft
Ueq: 33.7 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

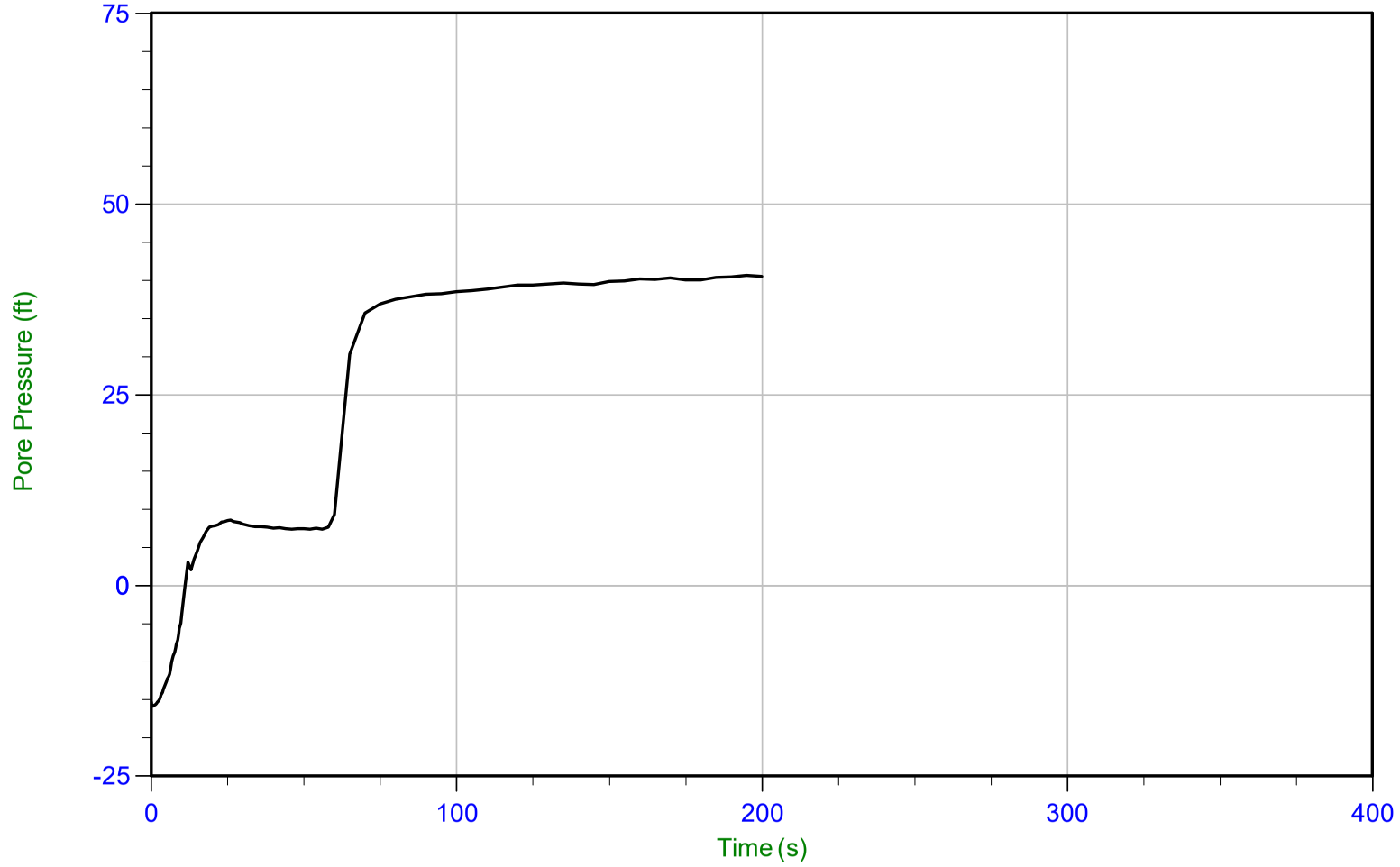
Plate No. C-3-47

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/04/2021 16:13
Site: Little Egbert Tract

Sounding: 21C-03
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP03c.PPF
Depth: 14.250 m / 46.751 ft
Duration: 200.0 s

u Min: -15.8 ft
u Max: 40.6 ft
u Final: 40.5 ft

WT: 1.817 m / 5.961 ft
Ueq: 40.8 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

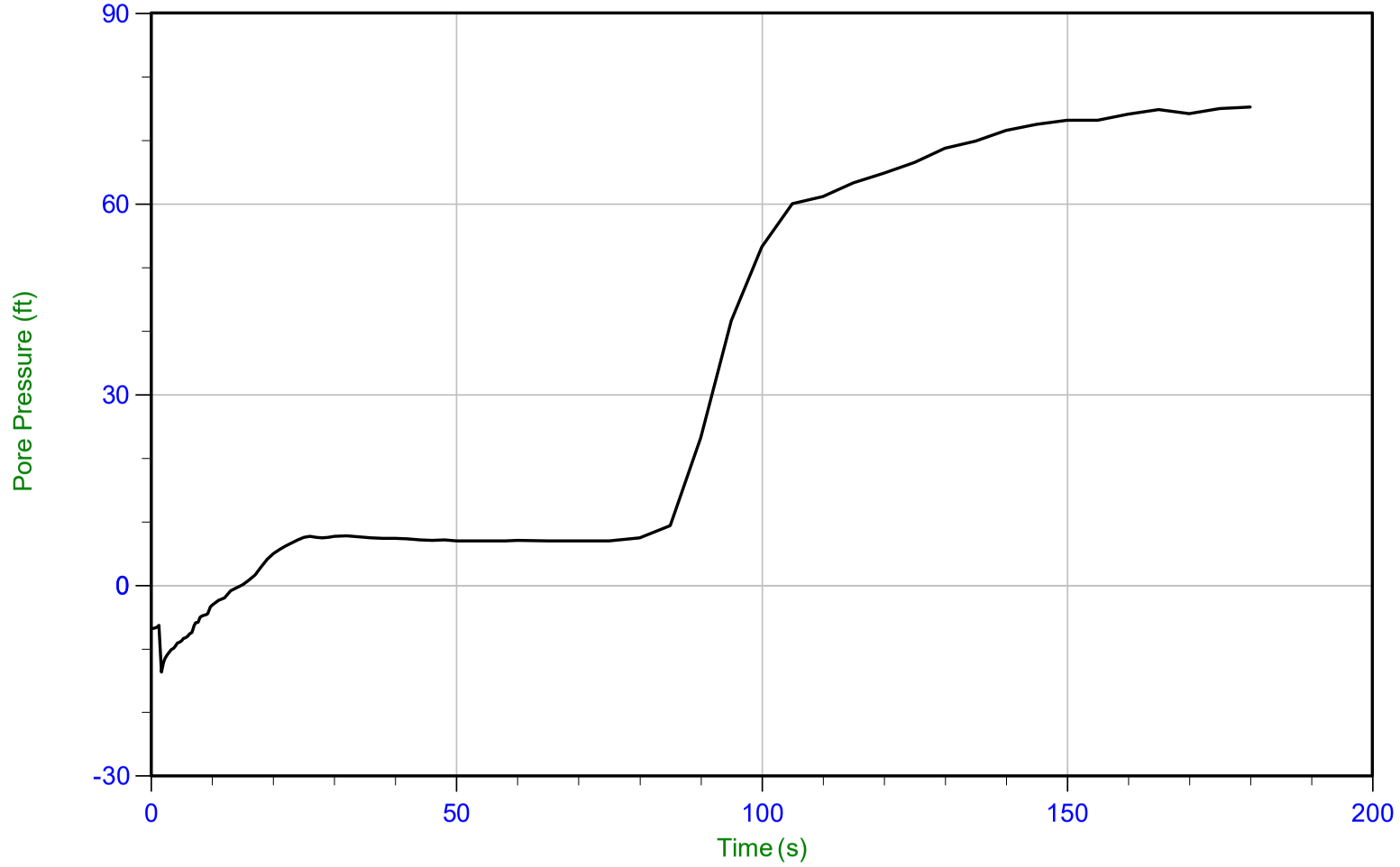
Plate No. C-3-48

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/04/2021 16:13
Site: Little Egbert Tract

Sounding: 21C-03
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP03c.PPF
Depth: 26.800 m / 87.925 ft
Duration: 180.0 s

u Min: -13.7 ft
u Max: 75.3 ft
u Final: 75.3 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

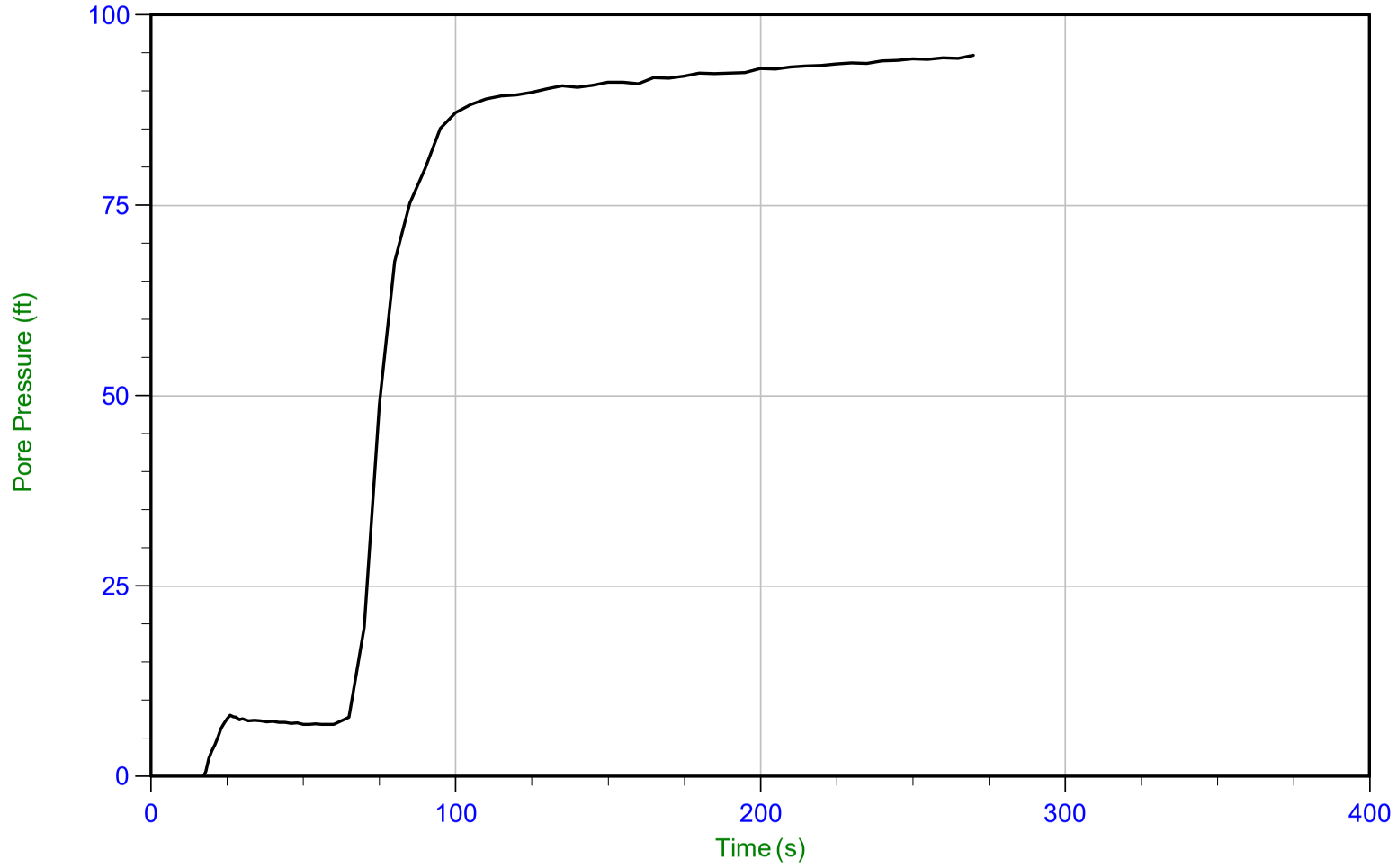
Plate No. C-3-49

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/04/2021 16:13
Site: Little Egbert Tract

Sounding: 21C-03
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP03c.PPF
Depth: 31.800 m / 104.329 ft
Duration: 270.0 s

u Min: -11.0 ft
u Max: 94.7 ft
u Final: 94.7 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

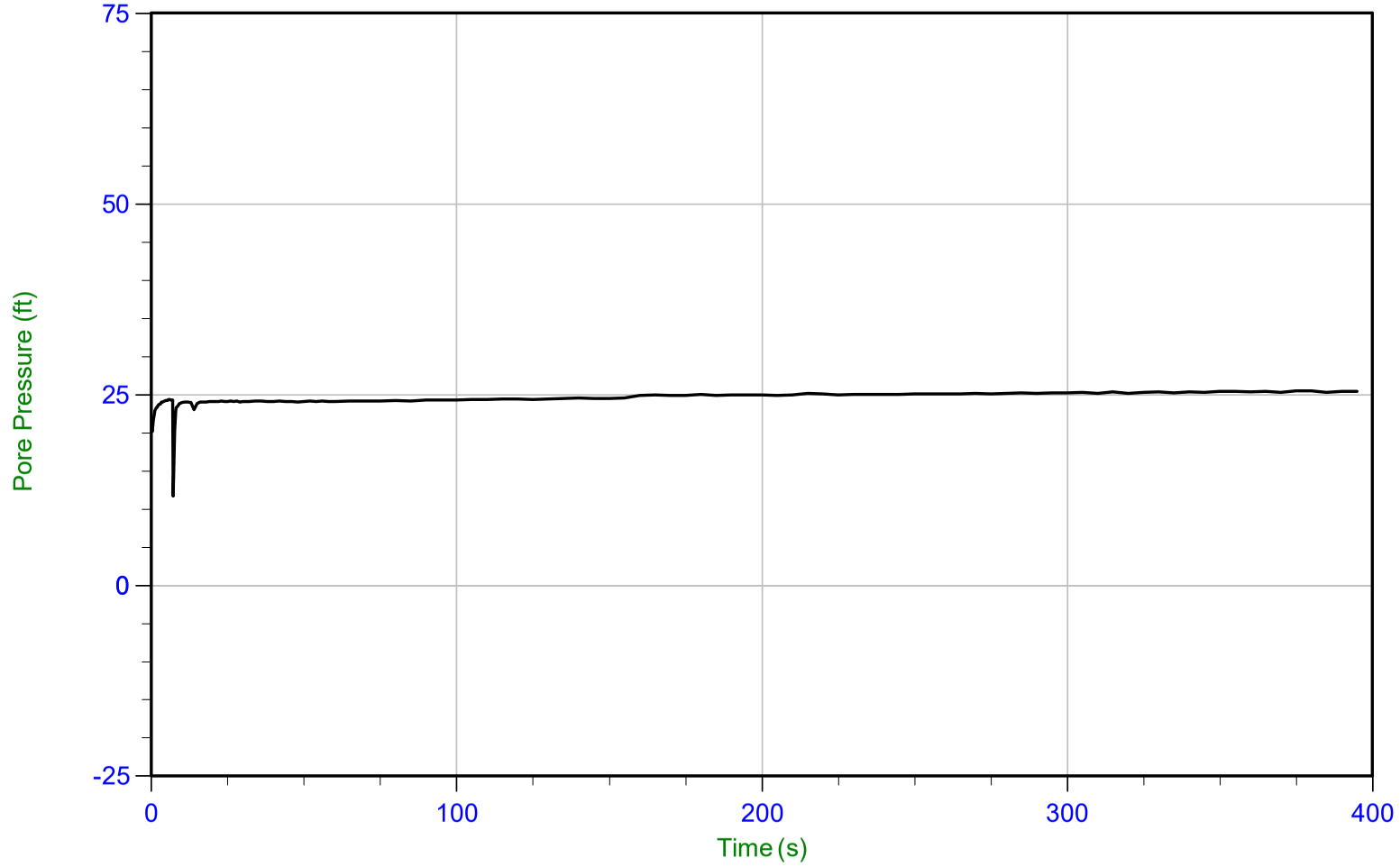
Plate No. C-3-50

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/05/2021 08:08
Site: Little Egbert Tract

Sounding: 21C-04
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP04.PPF
Depth: 9.150 m / 30.019 ft
Duration: 395.0 s

u Min: 11.7 ft
u Max: 25.5 ft
u Final: 25.4 ft

WT: 1.530 m / 5.020 ft
Ueq: 25.0 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

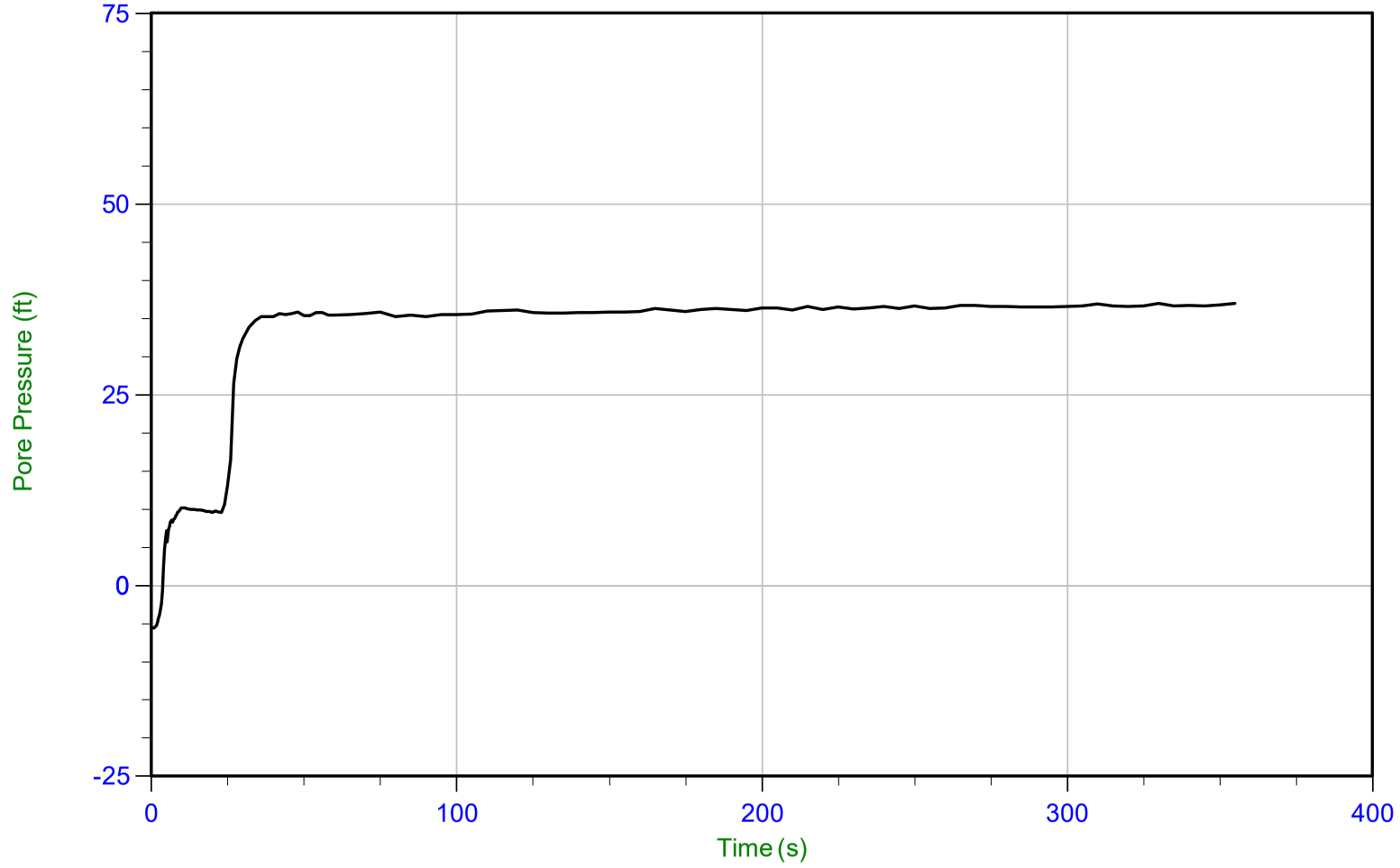
Plate No. C-3-51

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/05/2021 08:08
Site: Little Egbert Tract

Sounding: 21C-04
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP04.PPF
Depth: 12.825 m / 42.076 ft
Duration: 355.0 s

u Min: -5.6 ft
u Max: 37.0 ft
u Final: 37.0 ft

WT: 1.515 m / 4.970 ft
Ueq: 37.1 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

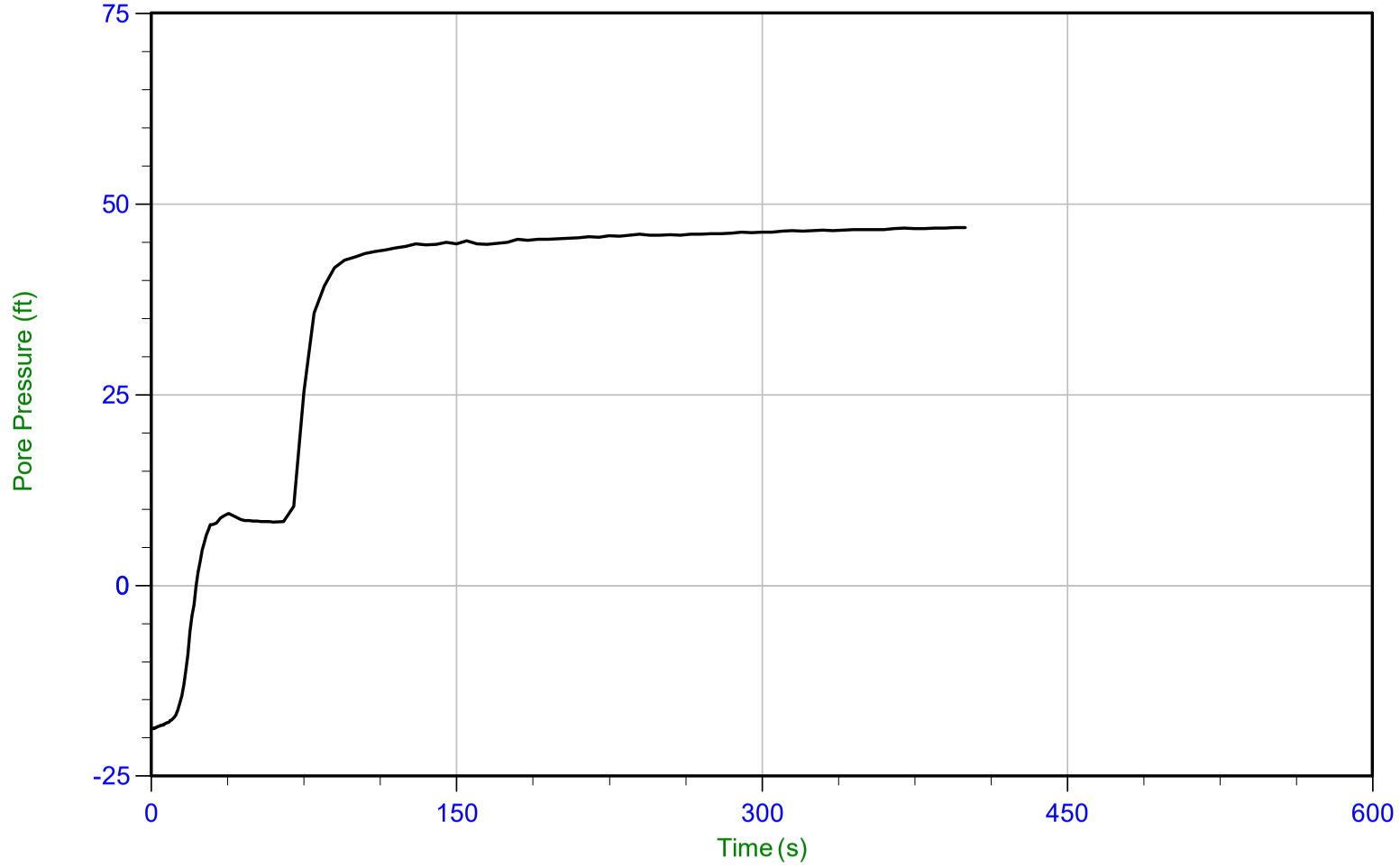
Plate No. C-3-52

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/05/2021 08:08
Site: Little Egbert Tract

Sounding: 21C-04
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP04.PPF
Depth: 16.075 m / 52.739 ft
Duration: 400.0 s

u Min: -18.8 ft
u Max: 46.9 ft
u Final: 46.9 ft

WT: 1.557 m / 5.108 ft
Ueq: 47.6 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

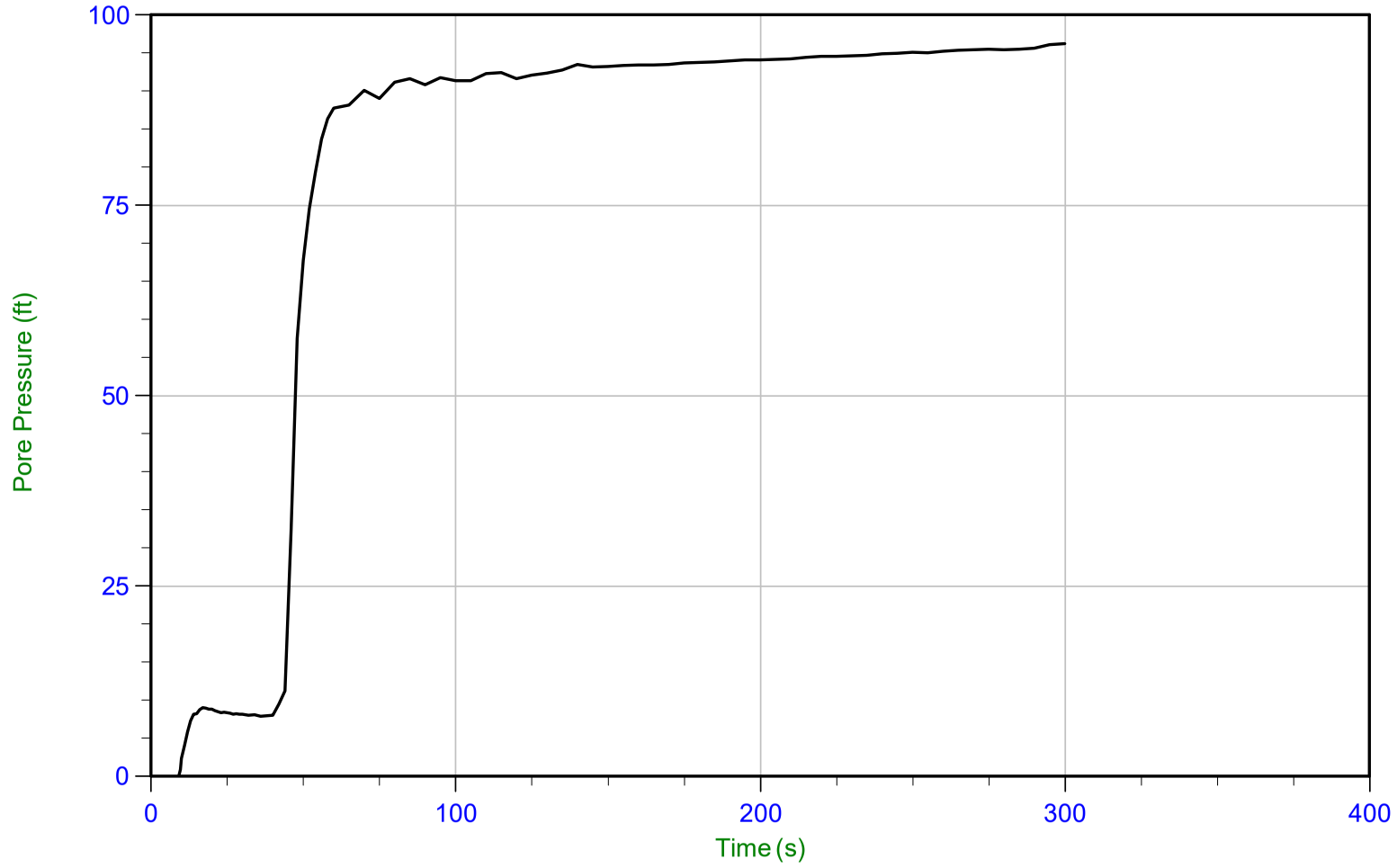
Plate No. C-3-53

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/05/2021 08:08
Site: Little Egbert Tract

Sounding: 21C-04
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP04.PPF
Depth: 31.900 m / 104.658 ft
Duration: 300.0 s

u Min: -8.8 ft
u Max: 96.2 ft
u Final: 96.2 ft

WT: 2.463 m / 8.081 ft
Ueq: 96.6 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

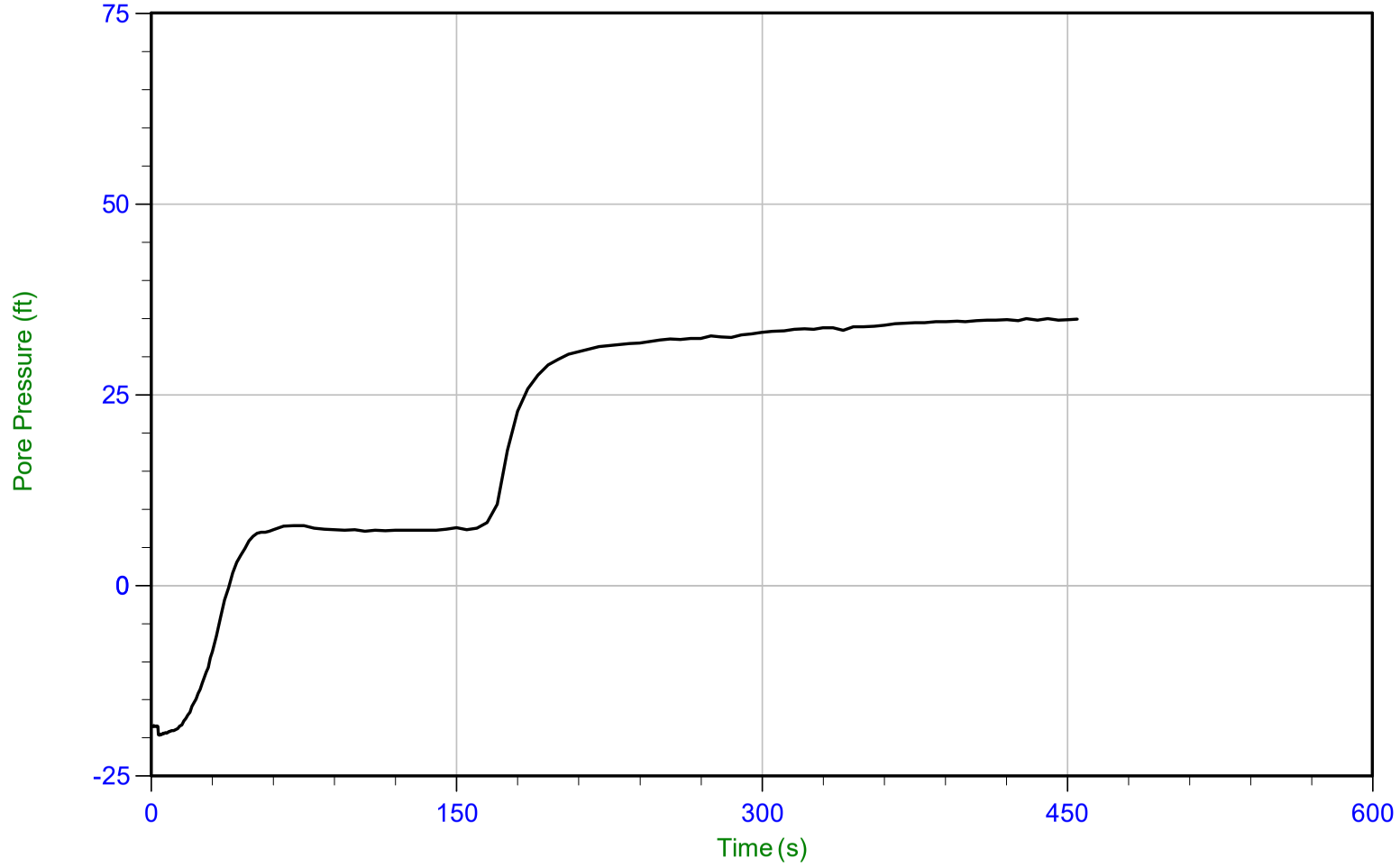
Plate No. C-3-54

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/05/2021 10:35
Site: Little Egbert Tract

Sounding: 21C-05
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP05.PPF
Depth: 13.675 m / 44.865 ft
Duration: 455.2 s

u Min: -19.6 ft
u Max: 35.0 ft
u Final: 34.9 ft

WT: 3.007 m / 9.865 ft
Ueq: 35.0 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

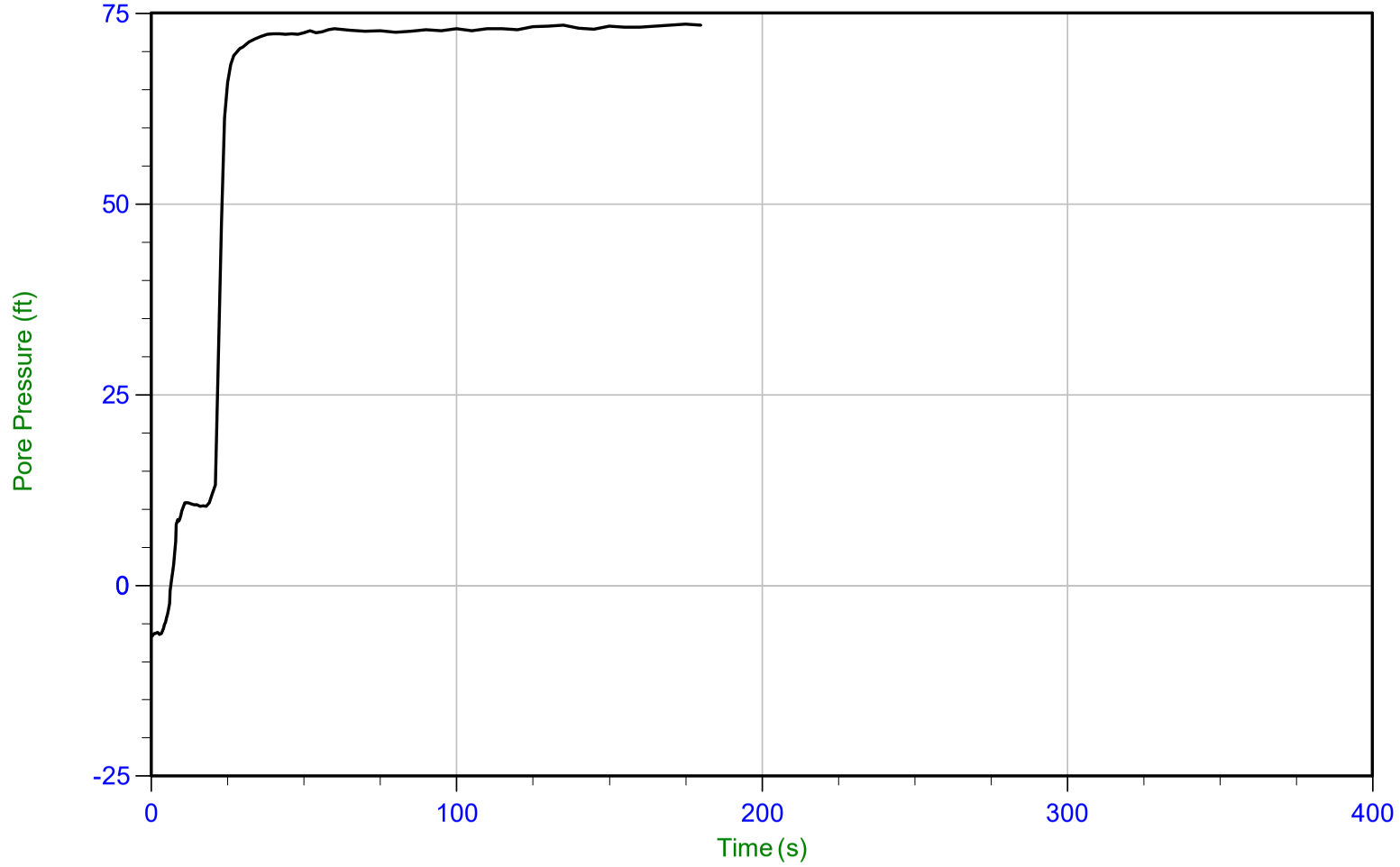
Plate No. C-3-55

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/05/2021 10:35
Site: Little Egbert Tract

Sounding: 21C-05
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP05.PPF
Depth: 24.300 m / 79.723 ft
Duration: 180.0 s

u Min: -6.7 ft
u Max: 73.6 ft
u Final: 73.4 ft

WT: 1.841 m / 6.040 ft
Ueq: 73.7 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

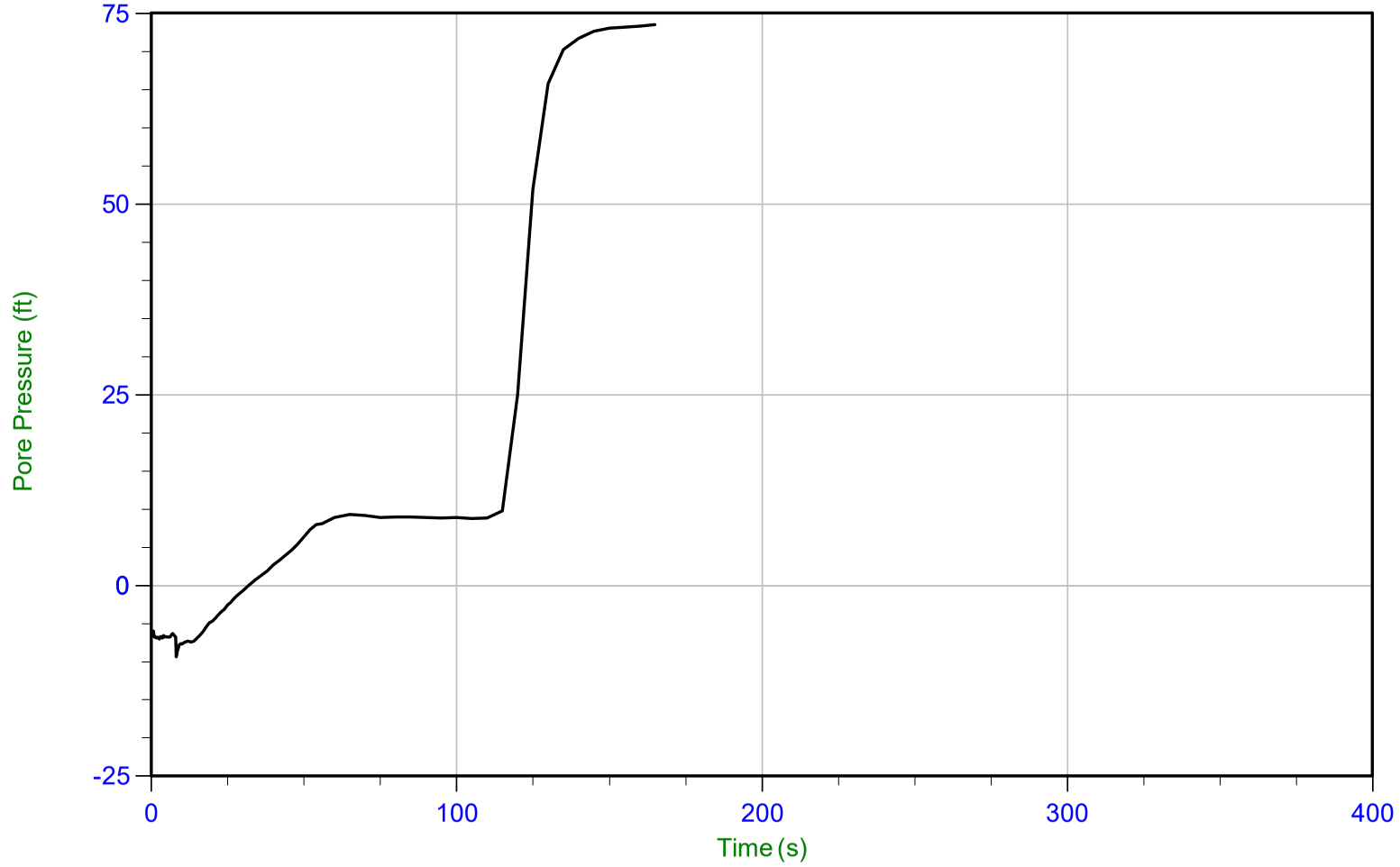
Plate No. C-3-56

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/05/2021 10:35
Site: Little Egbert Tract

Sounding: 21C-05
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP05.PPF
Depth: 24.525 m / 80.462 ft
Duration: 165.0 s

u Min: -9.4 ft
u Max: 73.5 ft
u Final: 73.5 ft

WT: 2.066 m / 6.778 ft
Ueq: 73.7 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

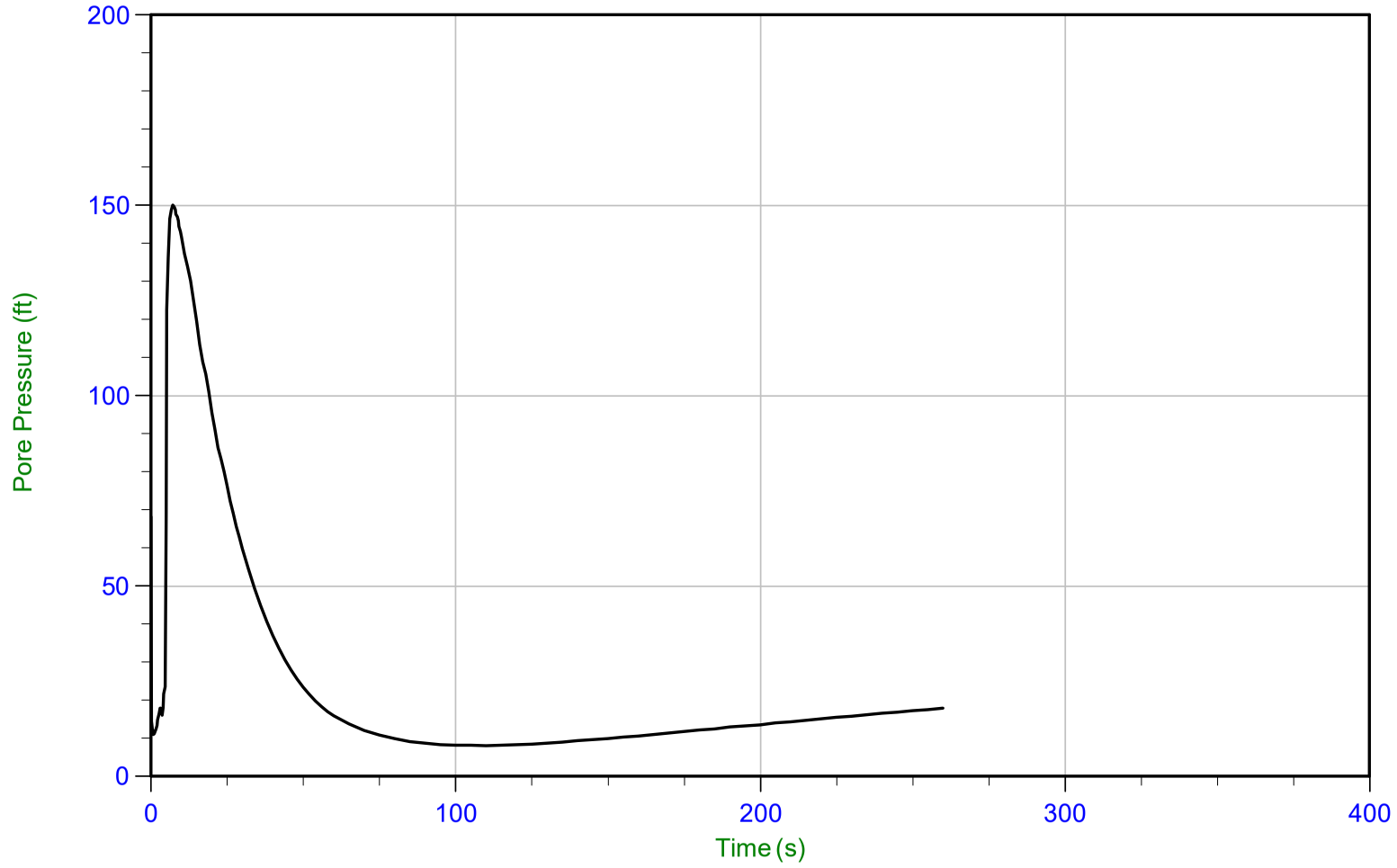
Plate No. C-3-57

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/05/2021 11:39
Site: Little Egbert Tract

Sounding: 21C-06
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP06.PPF
Depth: 12.625 m / 41.420 ft
Duration: 260.0 s

u Min: 8.1 ft
u Max: 150.0 ft
u Final: 17.9 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

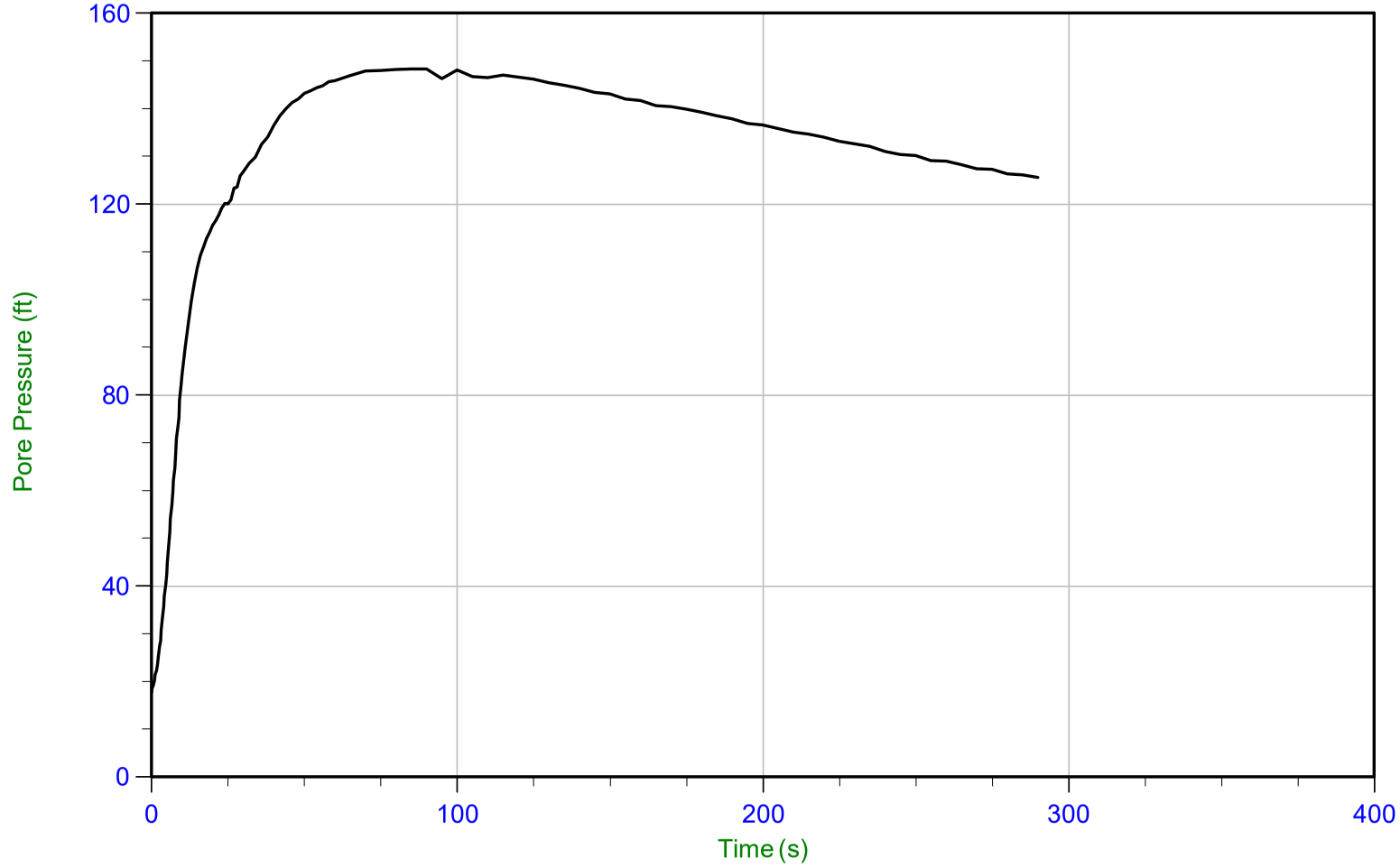
Plate No. C-3-58

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/05/2021 11:39
Site: Little Egbert Tract

Sounding: 21C-06
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP06.PPF
Depth: 22.475 m / 73.736 ft
Duration: 290.0 s

u Min: 17.7 ft
u Max: 148.4 ft
u Final: 125.6 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

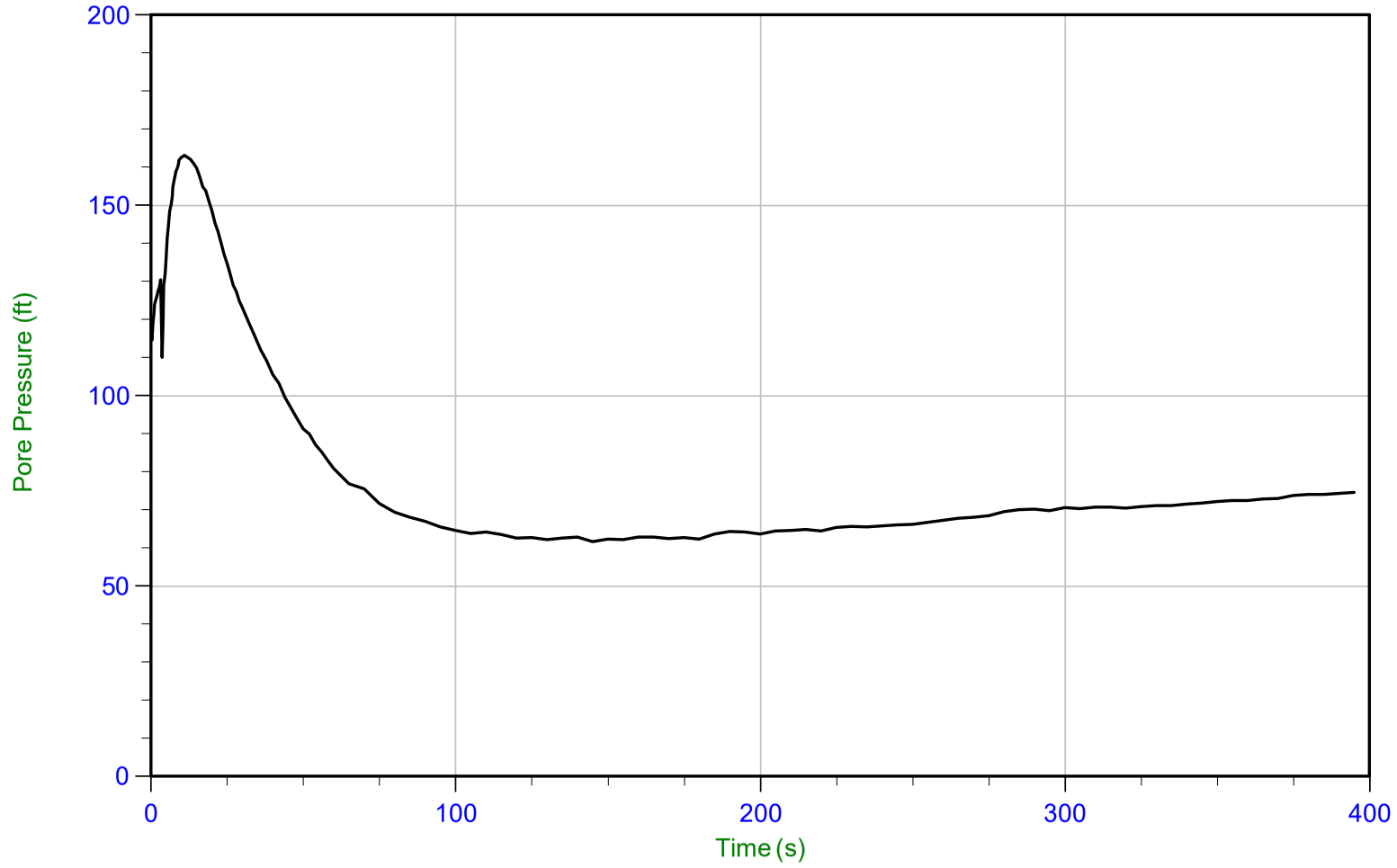
Plate No. C-3-59

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/05/2021 11:39
Site: Little Egbert Tract

Sounding: 21C-06
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP06.PPF
Depth: 25.875 m / 84.891 ft
Duration: 395.0 s

u Min: 61.7 ft
u Max: 163.1 ft
u Final: 74.6 ft

WT: 2.935 m / 9.629 ft
Ueq: 75.3 ft
U(50): 119.20 ft

T(50): 21.1 s
Ir: 100
Ch: 33.3 cm²/min

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

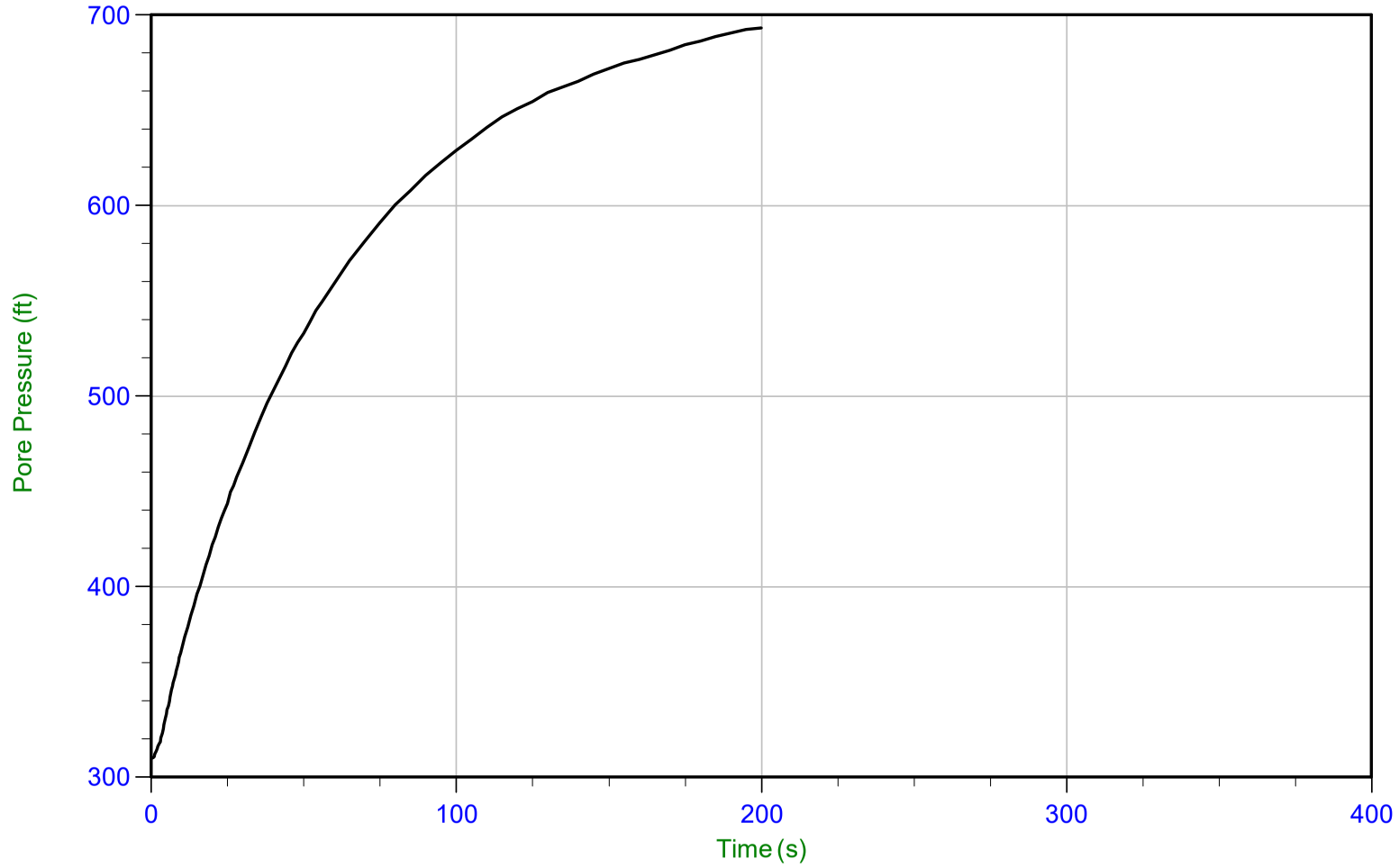
Plate No. C-3-60

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/05/2021 11:39
Site: Little Egbert Tract

Sounding: 21C-06
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP06.PPF
Depth: 32.875 m / 107.856 ft
Duration: 200.0 s

u Min: 309.9 ft
u Max: 693.3 ft
u Final: 693.3 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

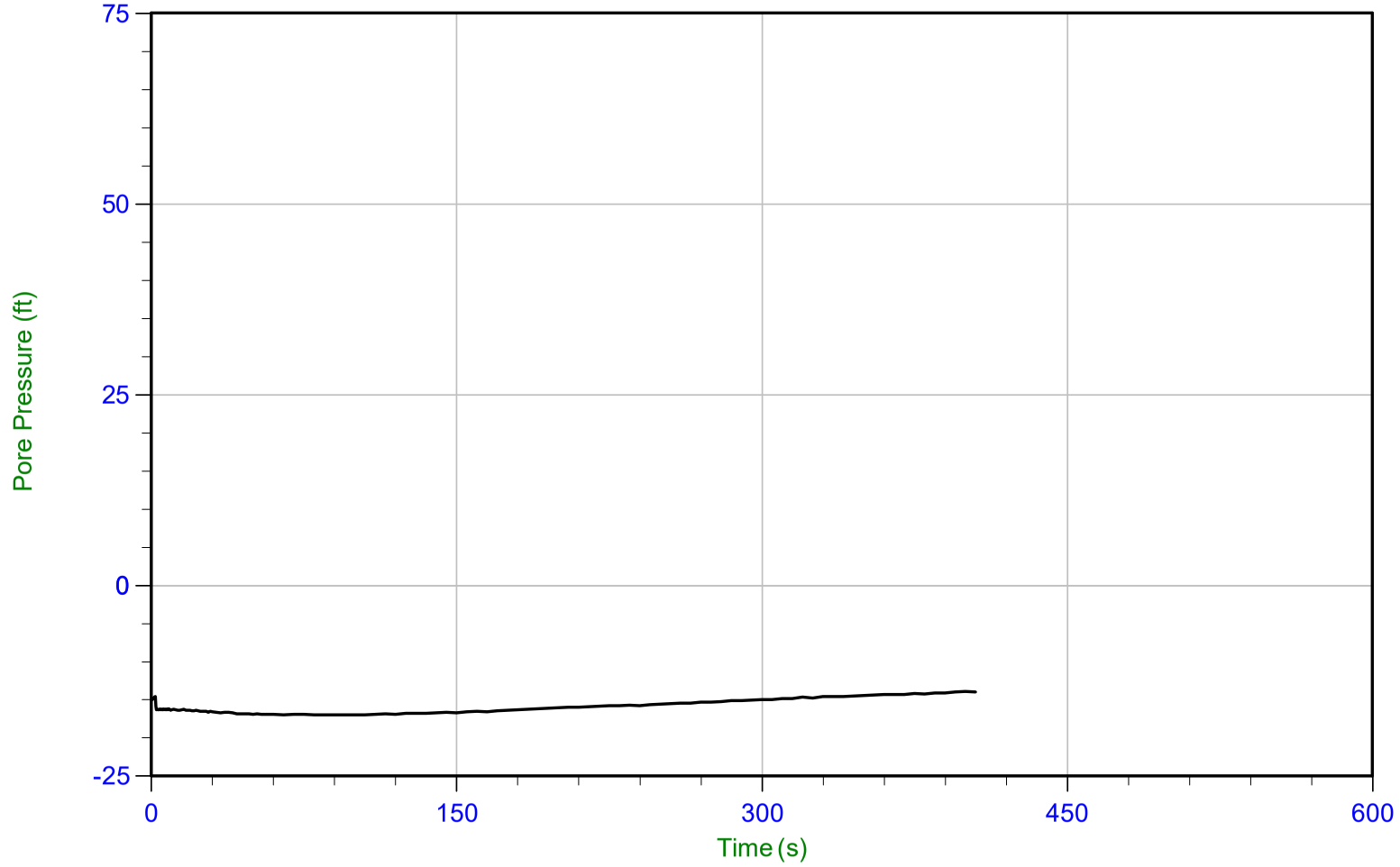
Plate No. C-3-61

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/05/2021 14:23
Site: Little Egbert Tract

Sounding: 21C-07
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP07.PPF
Depth: 18.750 m / 61.515 ft
Duration: 405.0 s

u Min: -17.0 ft
u Max: -13.9 ft
u Final: -14.0 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

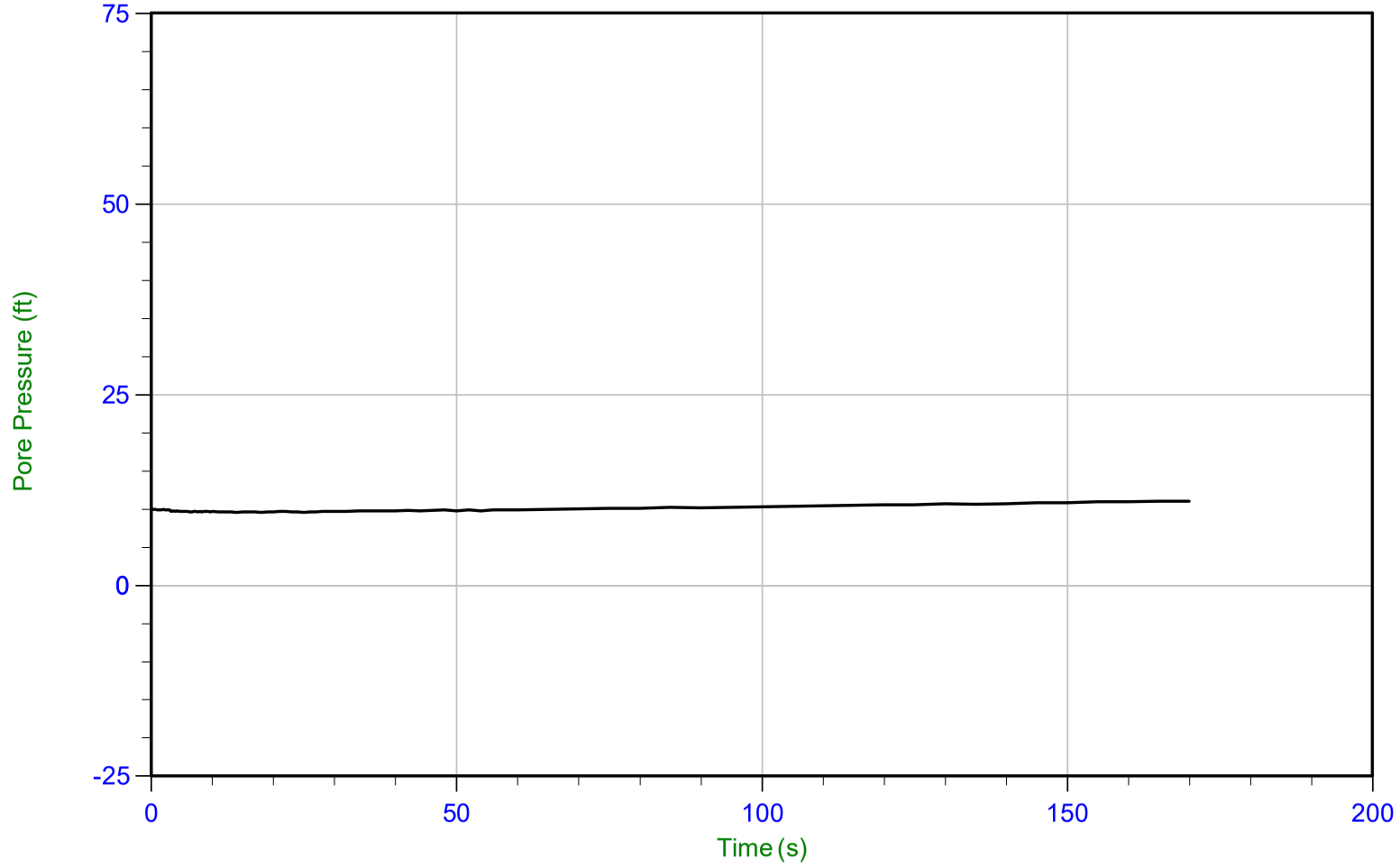
Plate No. C-3-62

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/05/2021 14:23
Site: Little Egbert Tract

Sounding: 21C-07
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP07.PPF
Depth: 28.900 m / 94.815 ft
Duration: 170.0 s

u Min: 9.5 ft
u Max: 11.1 ft
u Final: 11.1 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

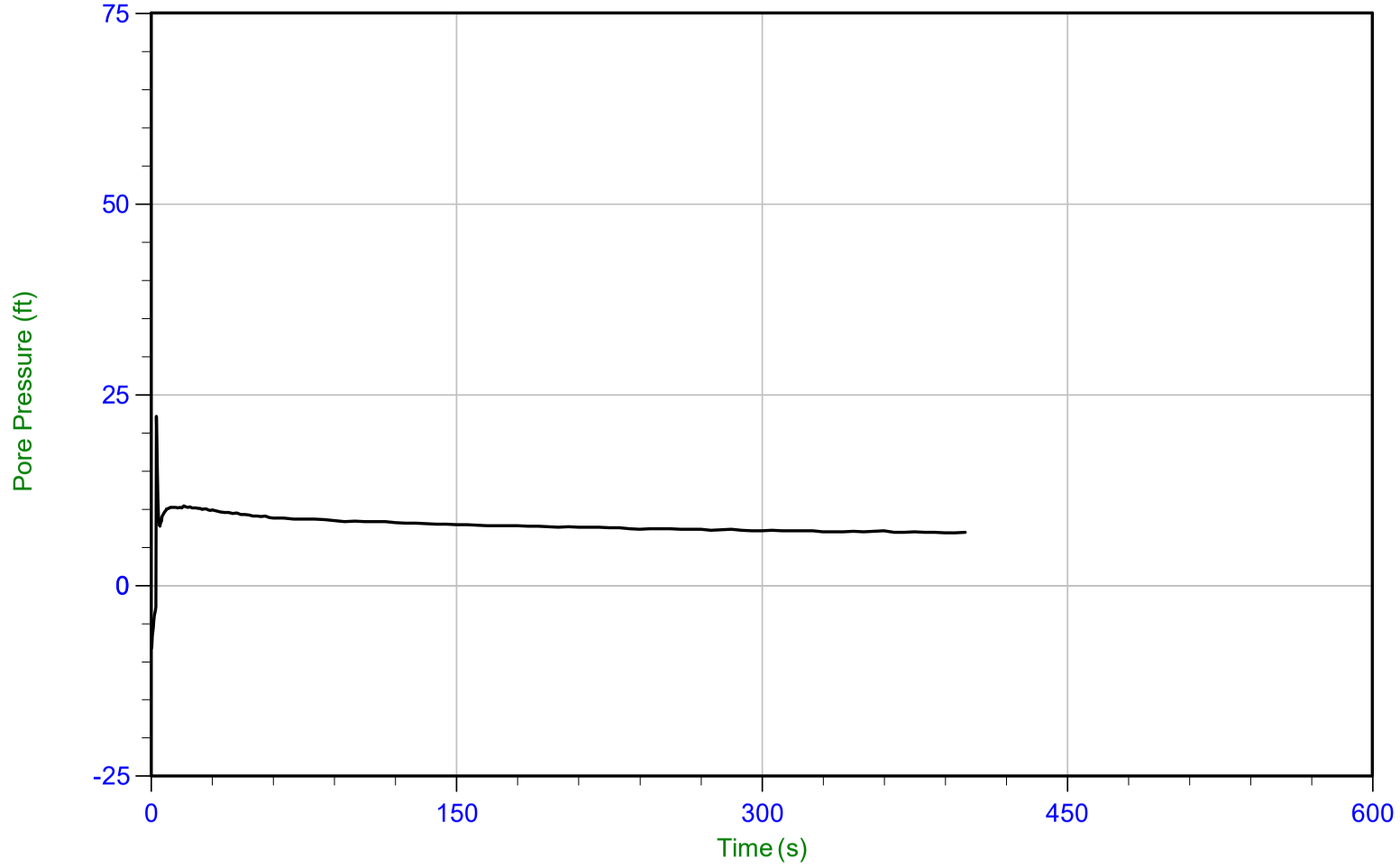
Plate No. C-3-63

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/06/2021 08:36
Site: Little Egbert Tract

Sounding: 21C-08
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP08.PPF
Depth: 4.675 m / 15.338 ft
Duration: 400.0 s

u Min: -8.3 ft
u Max: 22.2 ft
u Final: 7.0 ft

WT: 2.590 m / 8.497 ft
Ueq: 6.8 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

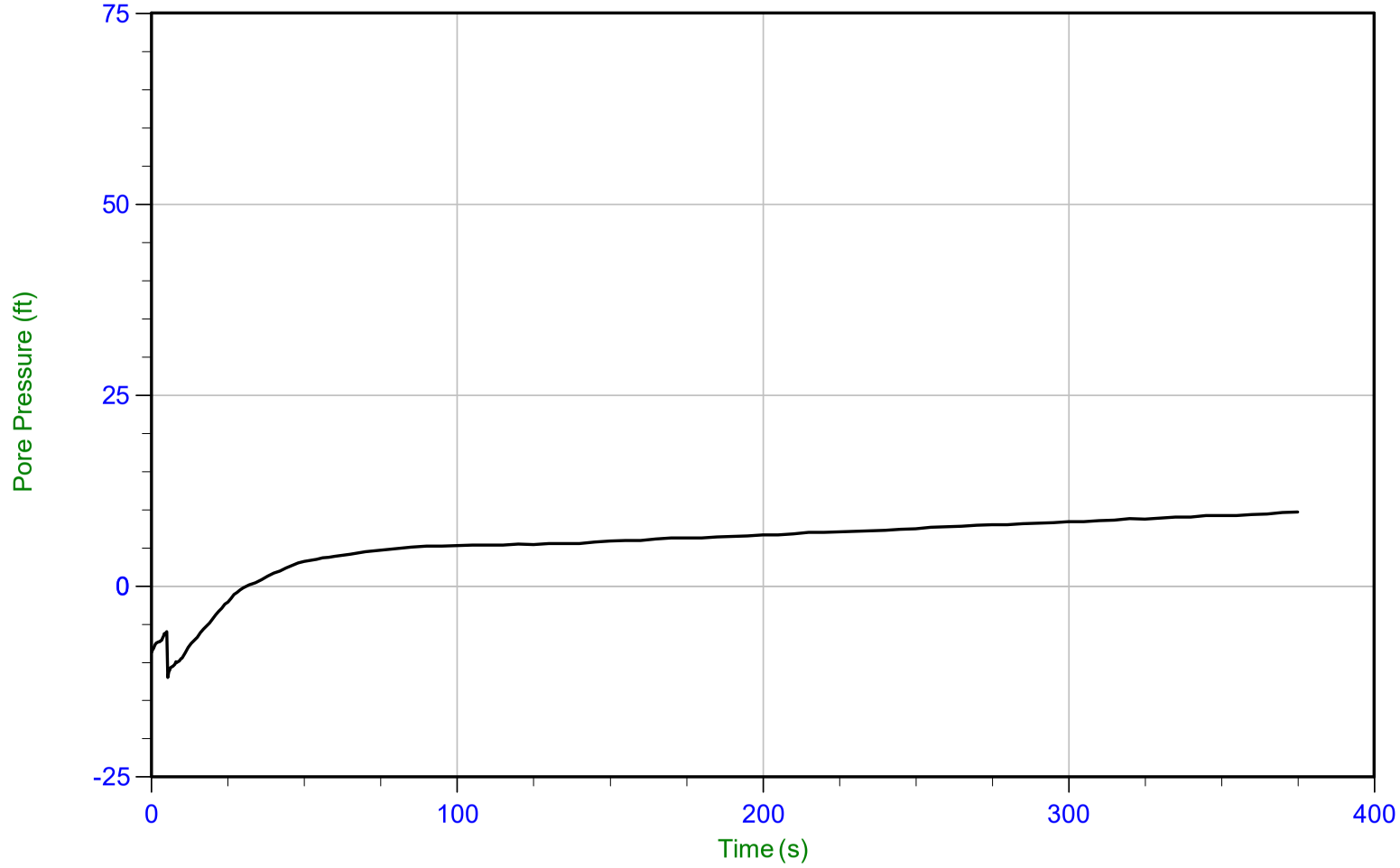
Plate No. C-3-64

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/06/2021 08:36
Site: Little Egbert Tract

Sounding: 21C-08
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP08.PPF
Depth: 13.500 m / 44.291 ft
Duration: 375.0 s

u Min: -12.0 ft
u Max: 9.7 ft
u Final: 9.7 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

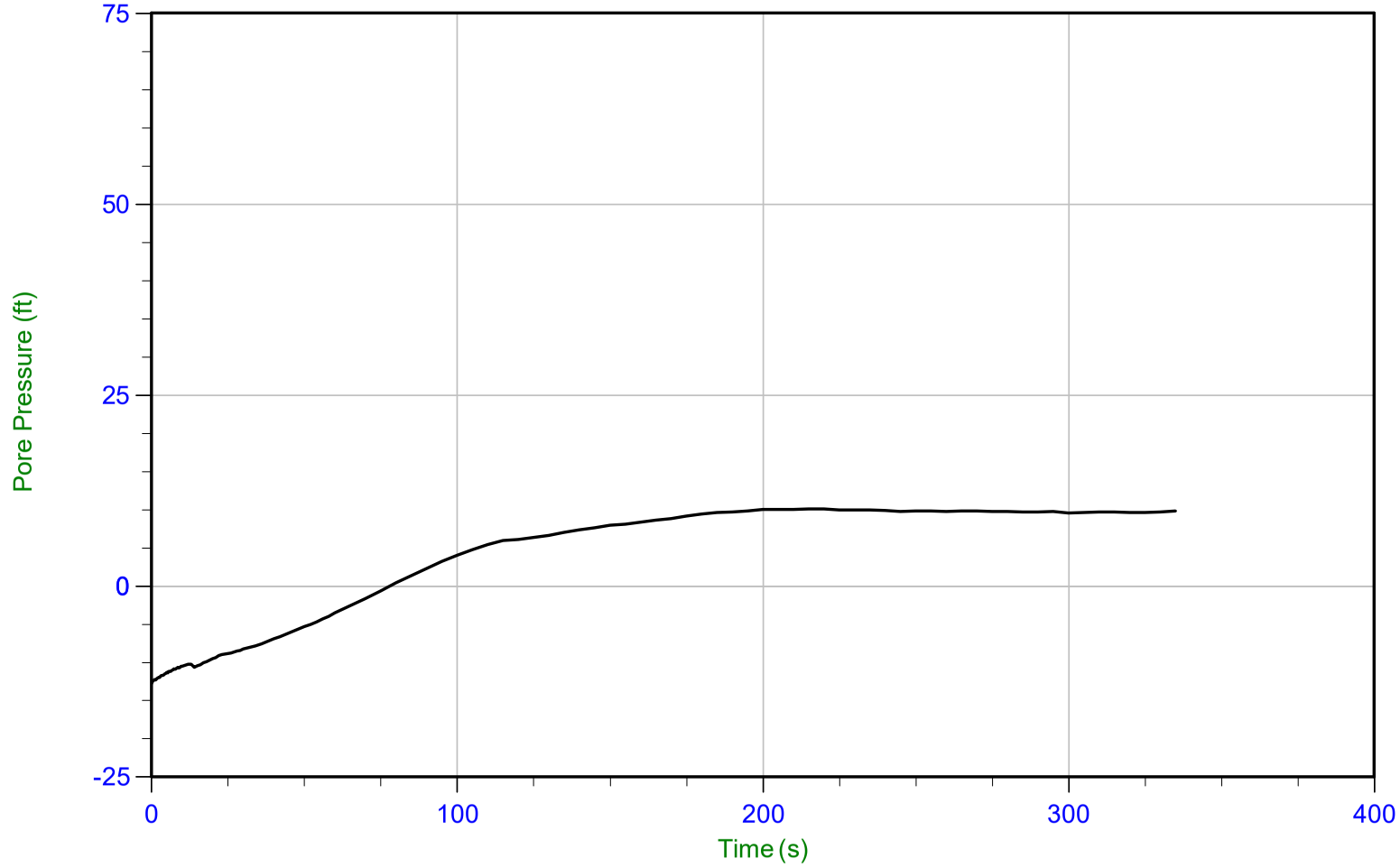
Plate No. C-3-65

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/06/2021 08:36
Site: Little Egbert Tract

Sounding: 21C-08
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP08.PPF
Depth: 19.050 m / 62.499 ft
Duration: 335.0 s

u Min: -12.7 ft
u Max: 10.1 ft
u Final: 9.9 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

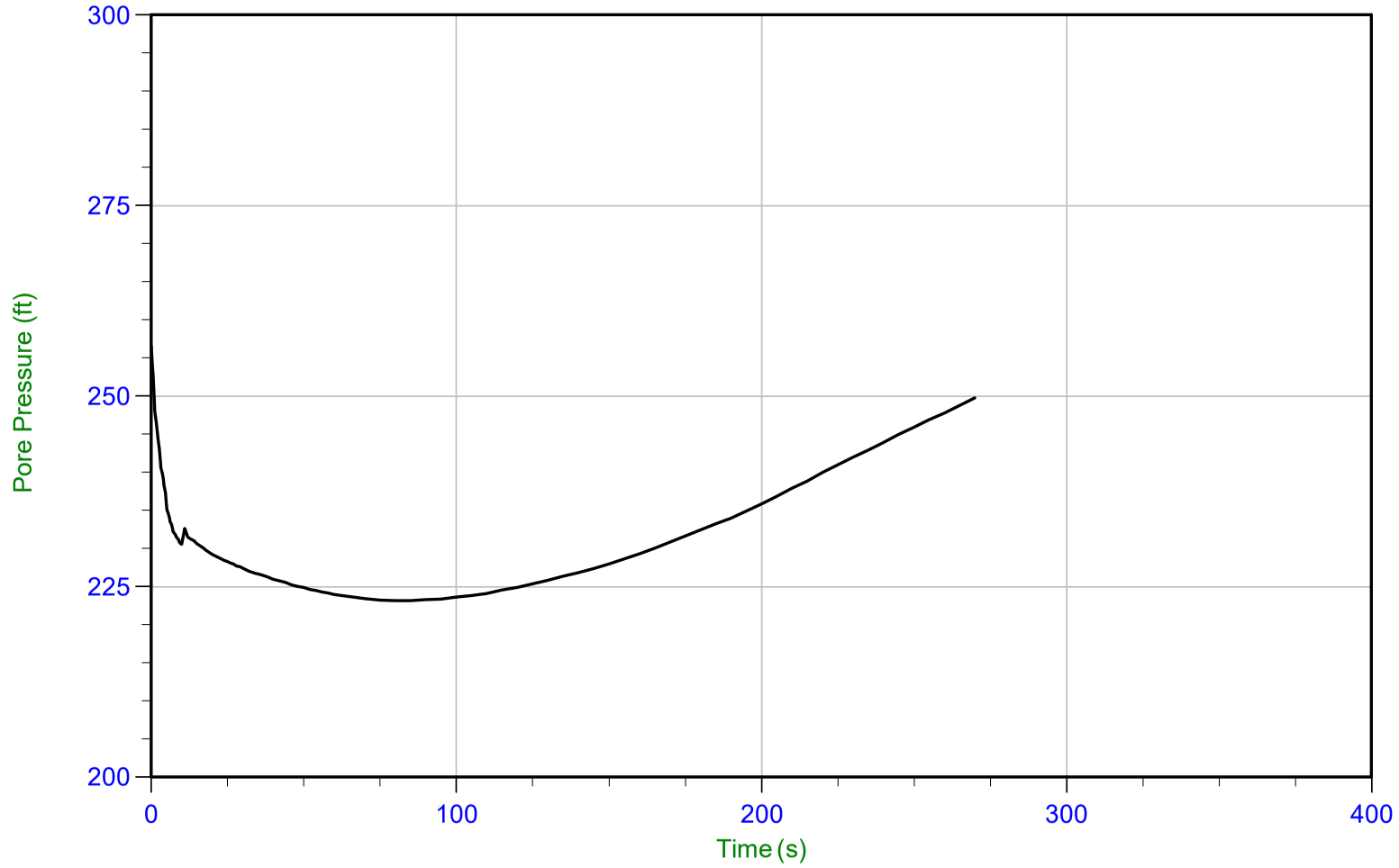
Plate No. C-3-66

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/06/2021 08:36
Site: Little Egbert Tract

Sounding: 21C-08
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP08.PPF
Depth: 25.875 m / 84.891 ft
Duration: 270.0 s

u Min: 223.2 ft
u Max: 256.6 ft
u Final: 249.8 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

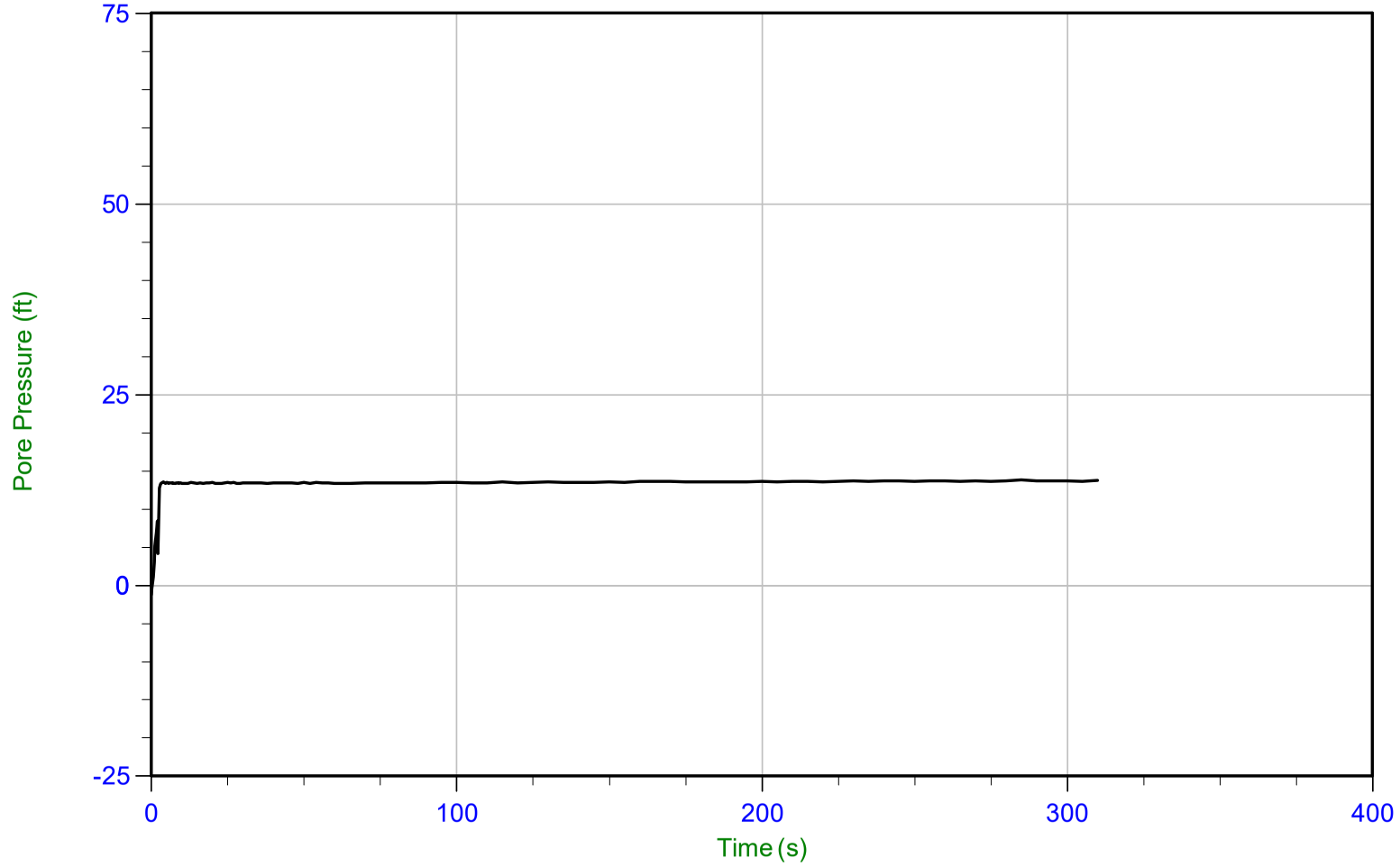
Plate No. C-3-67

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/06/2021 09:54
Site: Little Egbert Tract

Sounding: 21C-09
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP09.PPF
Depth: 5.825 m / 19.111 ft
Duration: 310.0 s

u Min: -1.2 ft
u Max: 13.8 ft
u Final: 13.7 ft

WT: 1.734 m / 5.689 ft
Ueq: 13.4 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

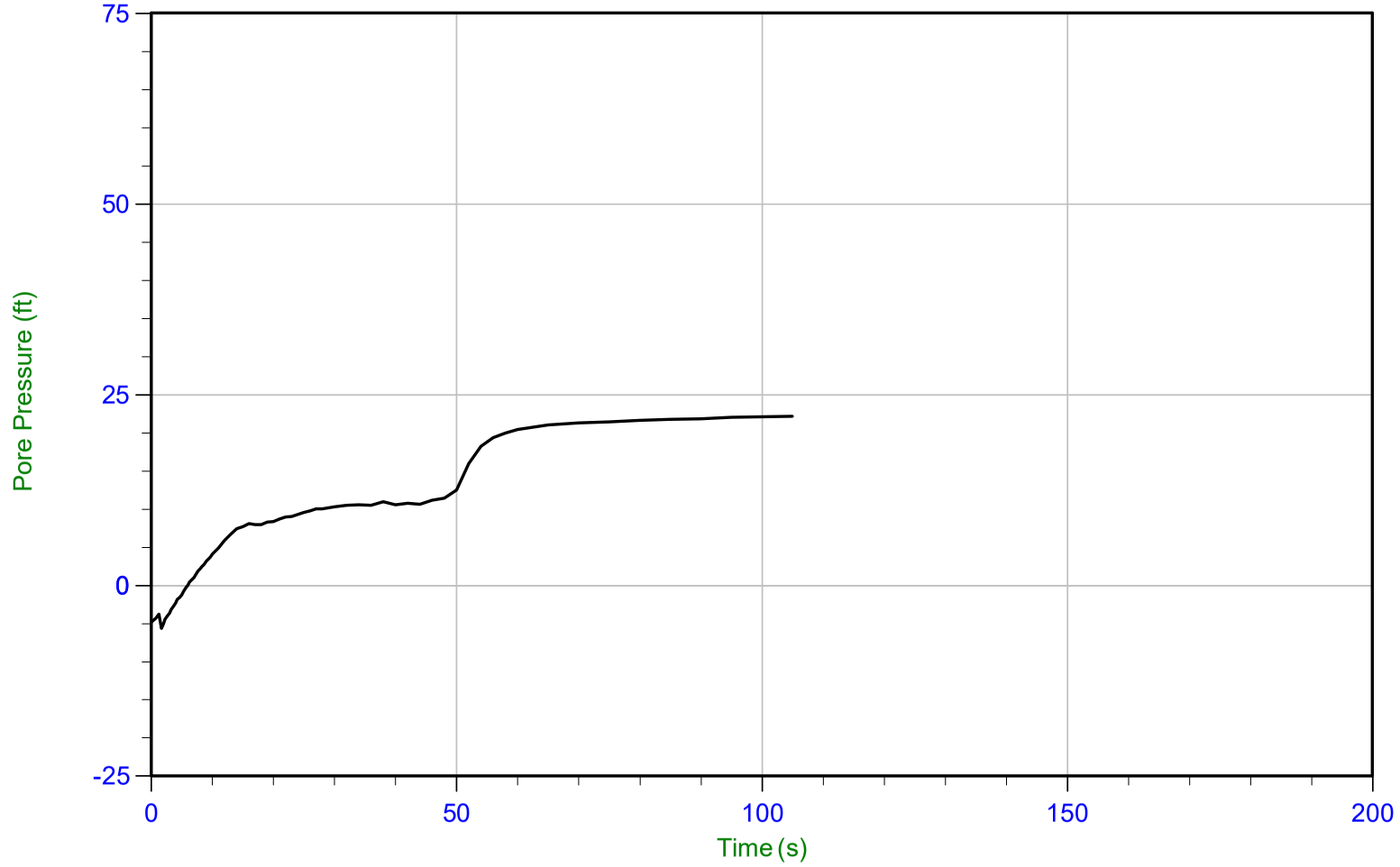
Plate No. C-3-68

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/06/2021 09:54
Site: Little Egbert Tract

Sounding: 21C-09
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP09.PPF
Depth: 8.825 m / 28.953 ft
Duration: 105.0 s

u Min: -5.6 ft
u Max: 22.1 ft
u Final: 22.1 ft

WT: 1.847 m / 6.060 ft
Ueq: 22.9 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

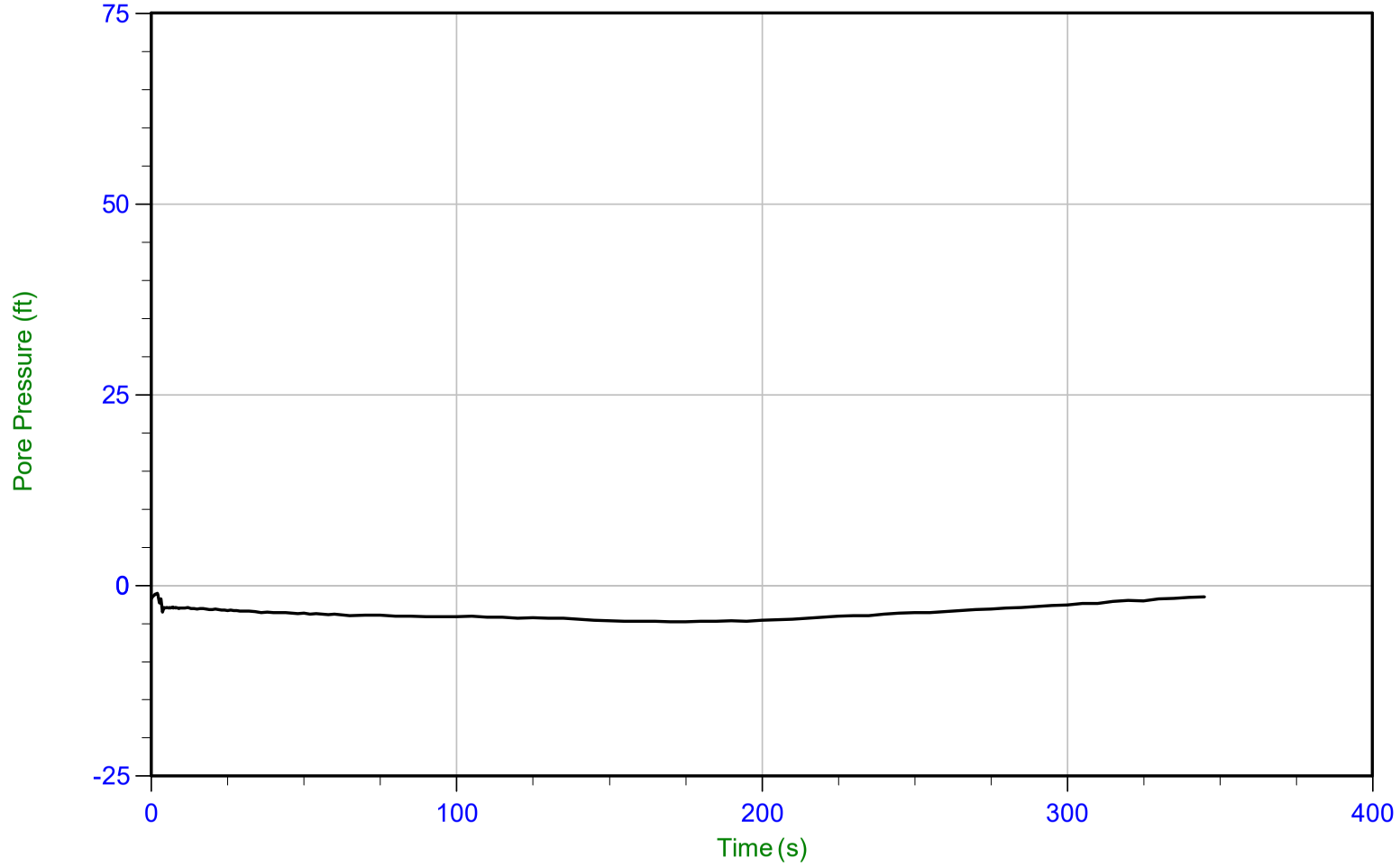
Plate No. C-3-69

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/06/2021 09:54
Site: Little Egbert Tract

Sounding: 21C-09
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP09.PPF
Depth: 22.550 m / 73.982 ft
Duration: 345.0 s

u Min: -4.8 ft
u Max: -1.1 ft
u Final: -1.5 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

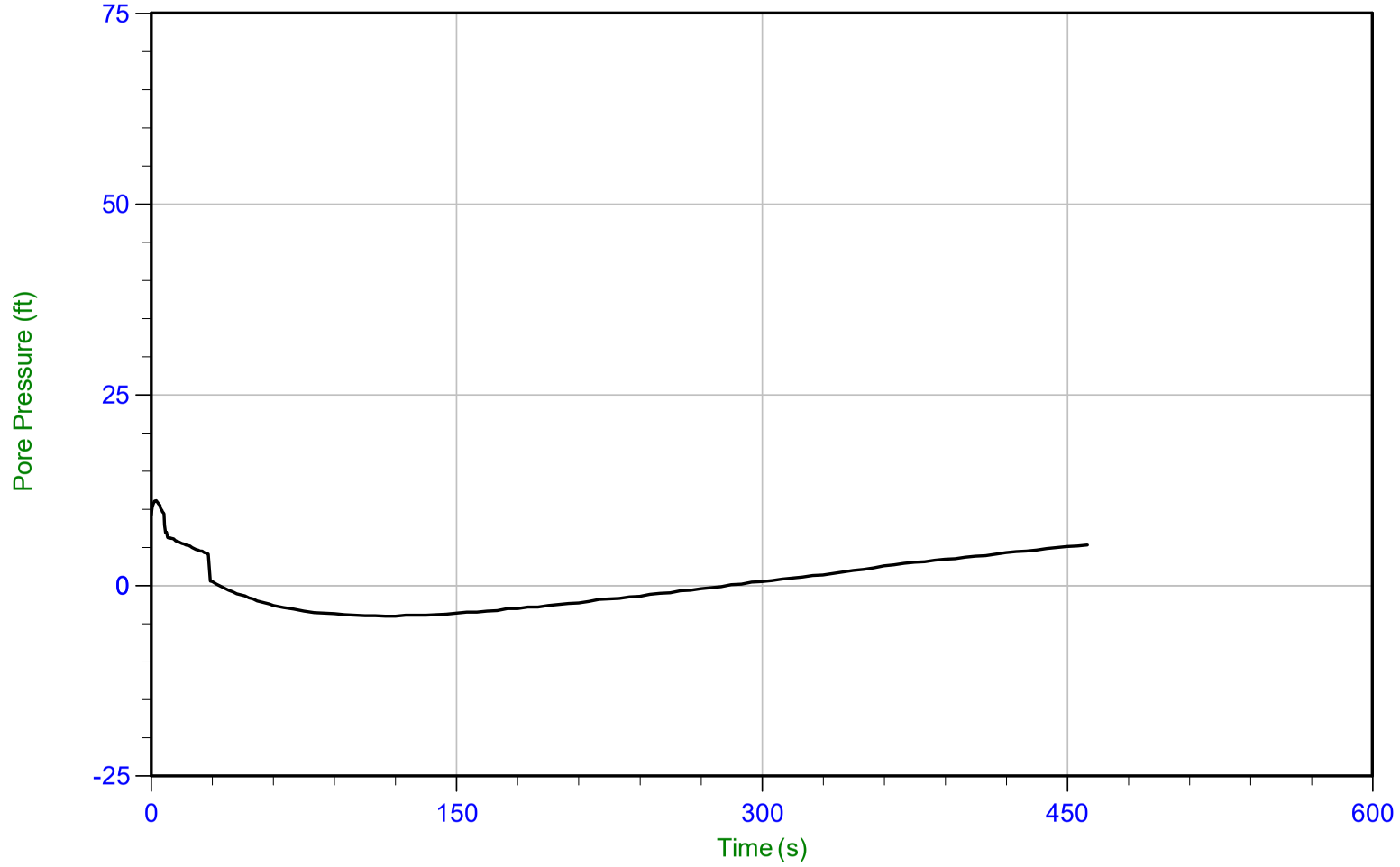
Plate No. C-3-70

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/06/2021 09:54
Site: Little Egbert Tract

Sounding: 21C-09
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP09.PPF
Depth: 24.825 m / 81.446 ft
Duration: 460.0 s

u Min: -4.0 ft
u Max: 11.1 ft
u Final: 5.3 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

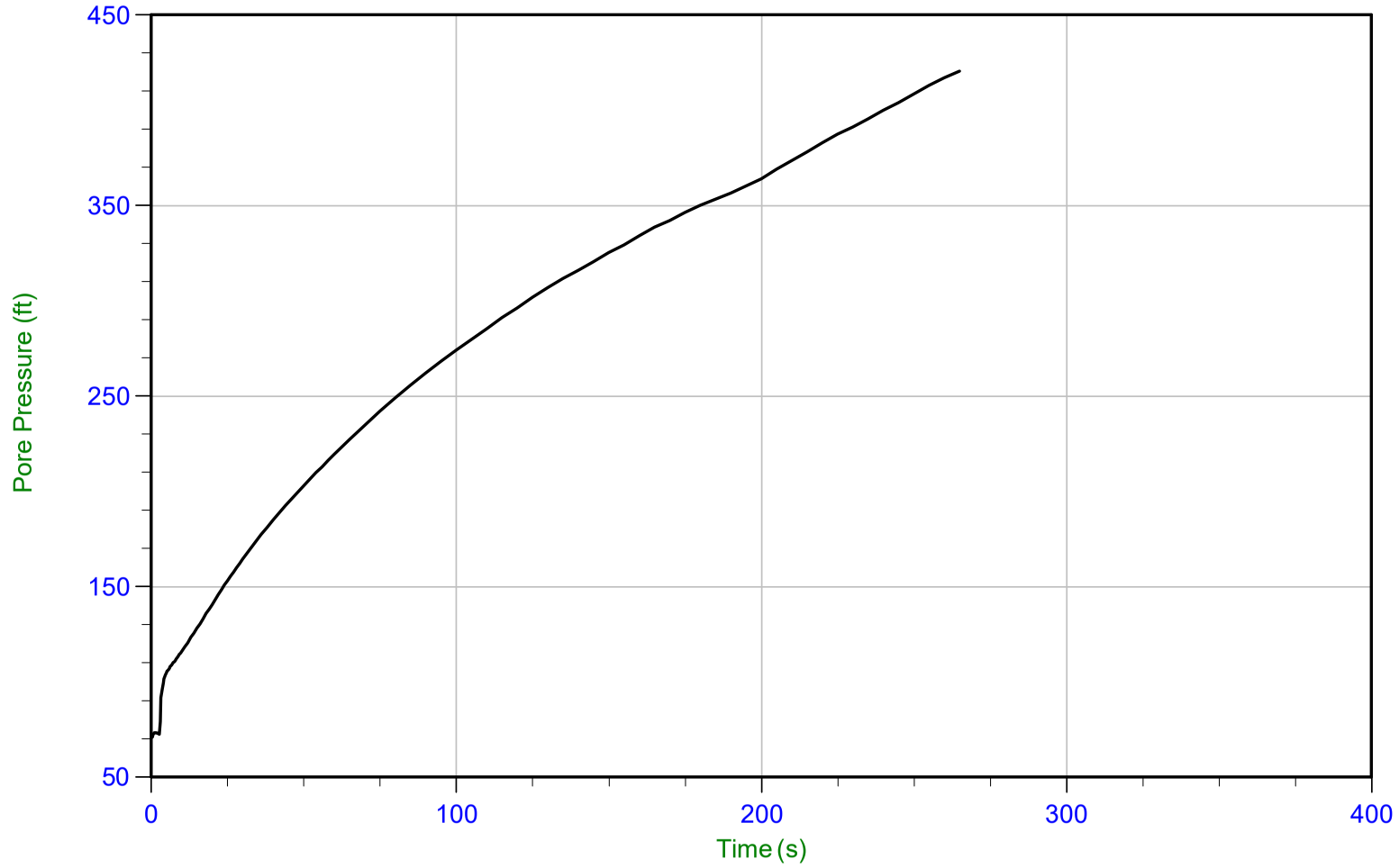
Plate No. C-3-71

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/06/2021 09:54
Site: Little Egbert Tract

Sounding: 21C-09
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP09.PPF
Depth: 27.675 m / 90.796 ft
Duration: 265.0 s

u Min: 70.8 ft
u Max: 420.6 ft
u Final: 420.6 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

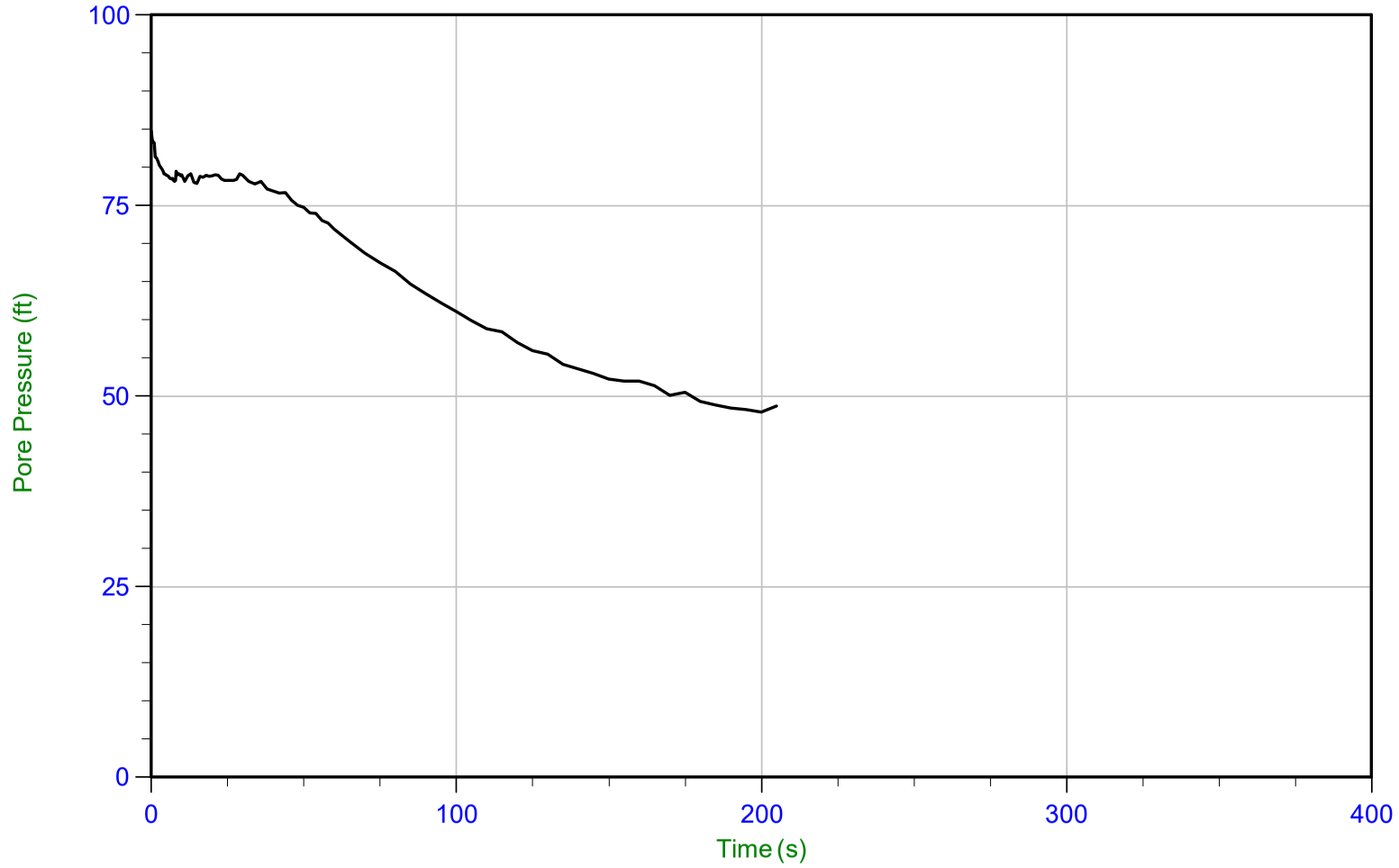
Plate No. C-3-72

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/06/2021 09:54
Site: Little Egbert Tract

Sounding: 21C-09
Cone: 795:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP09.PPF
Depth: 33.300 m / 109.251 ft
Duration: 205.0 s

u Min: 47.9 ft
u Max: 84.8 ft
u Final: 48.7 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

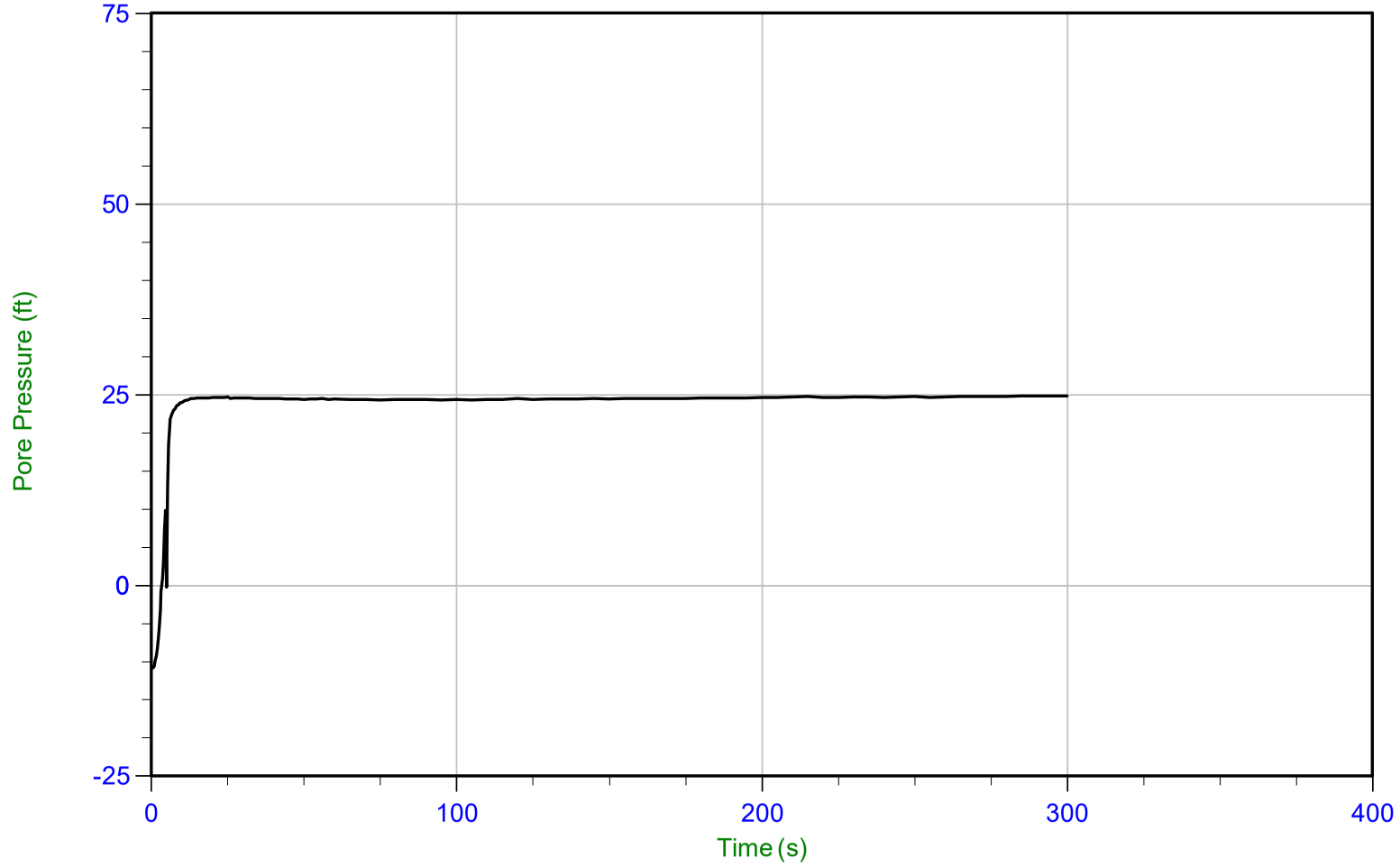
Plate No. C-3-73

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 08:58
Site: Little Egbert Tract

Sounding: 21C-10
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP10.PPF
Depth: 8.575 m / 28.133 ft
Duration: 300.0 s

u Min: -10.8 ft
u Max: 24.9 ft
u Final: 24.9 ft

WT: 1.115 m / 3.658 ft
Ueq: 24.5 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

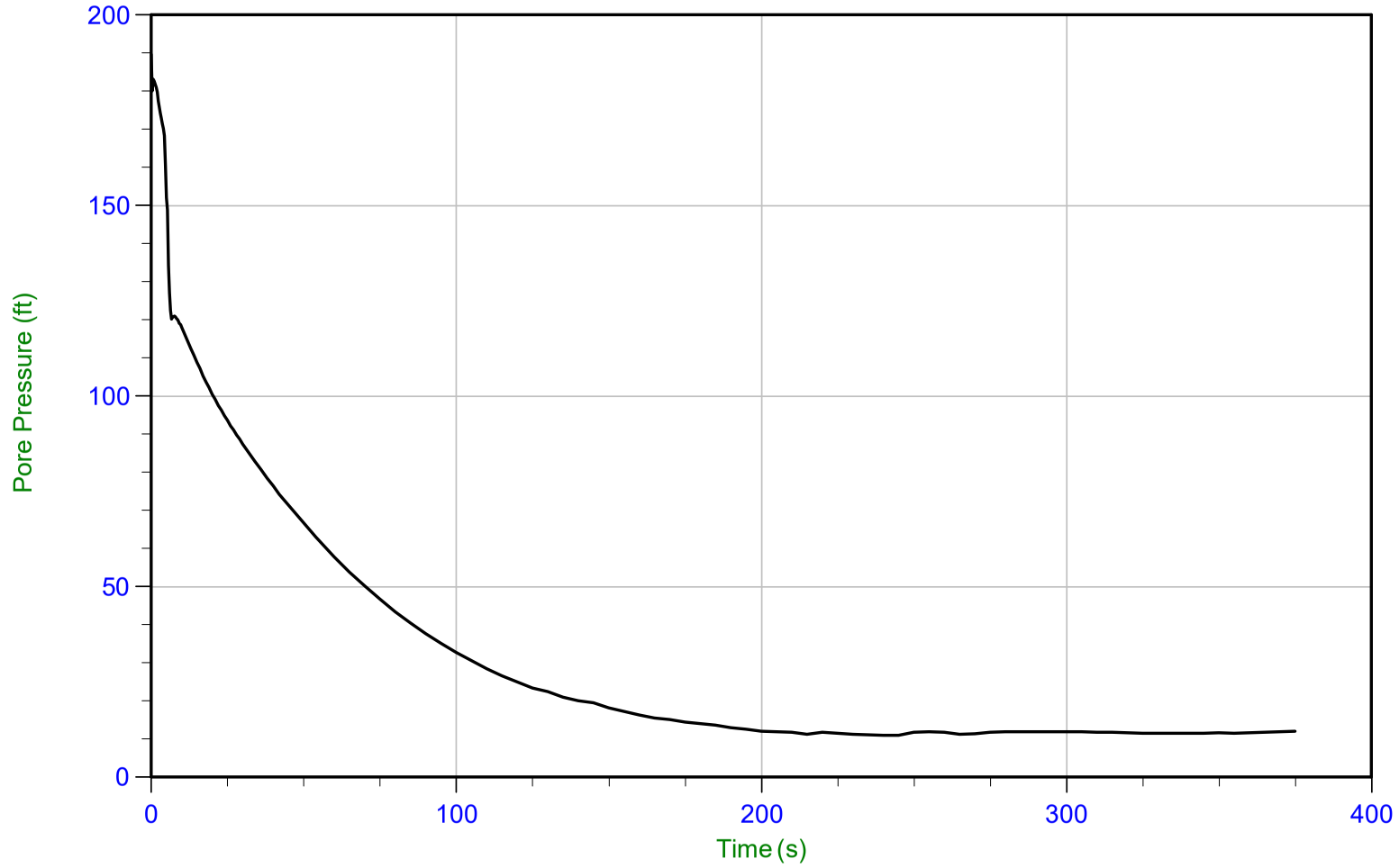
Plate No. C-3-74

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 08:58
Site: Little Egbert Tract

Sounding: 21C-10
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP10.PPF
Depth: 16.550 m / 54.297 ft
Duration: 375.0 s

u Min: 11.0 ft
u Max: 189.7 ft
u Final: 12.0 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

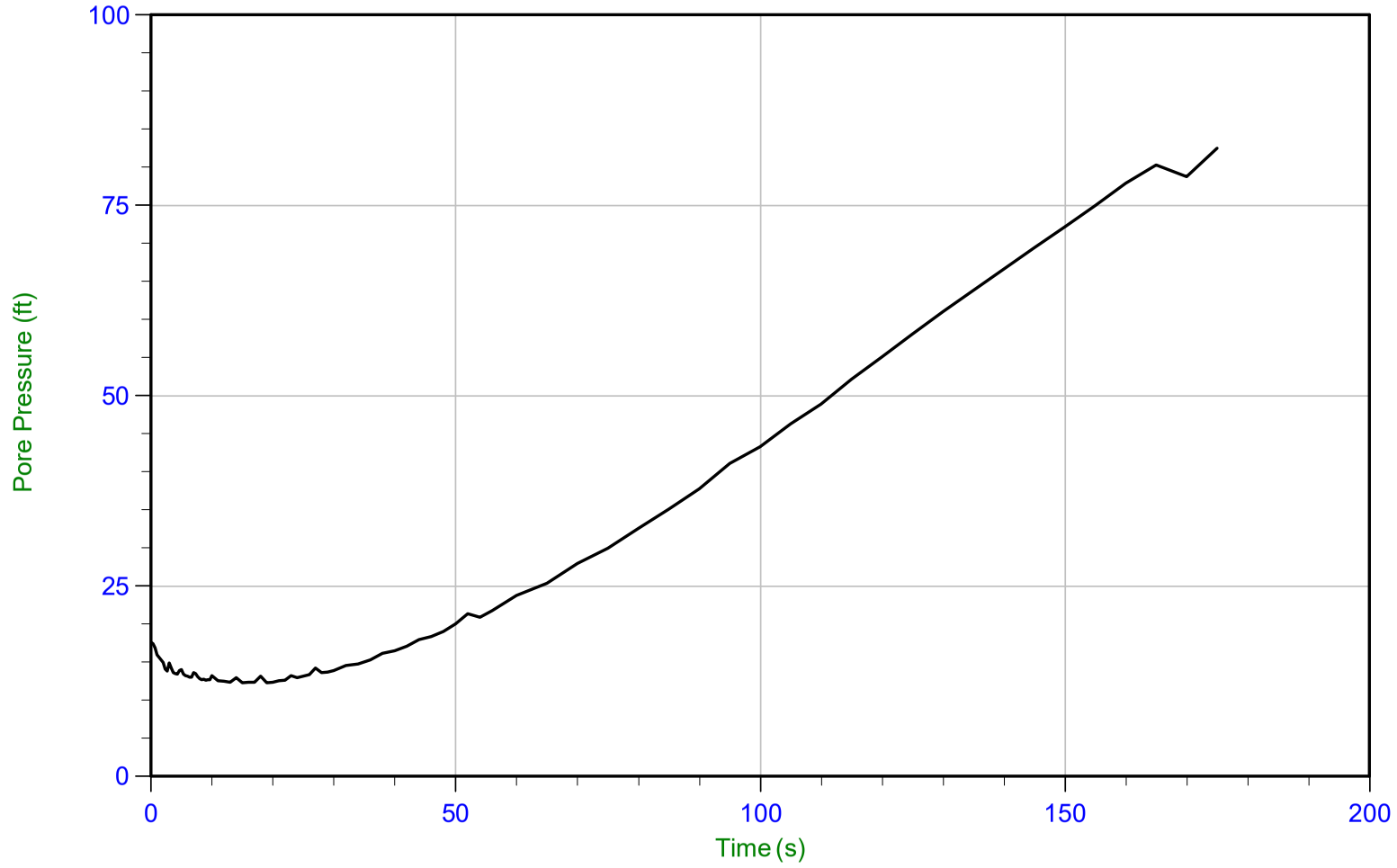
Plate No. C-3-75

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 08:58
Site: Little Egbert Tract

Sounding: 21C-10
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP10.PPF
Depth: 19.850 m / 65.124 ft
Duration: 175.0 s

u Min: 12.3 ft
u Max: 82.5 ft
u Final: 82.5 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

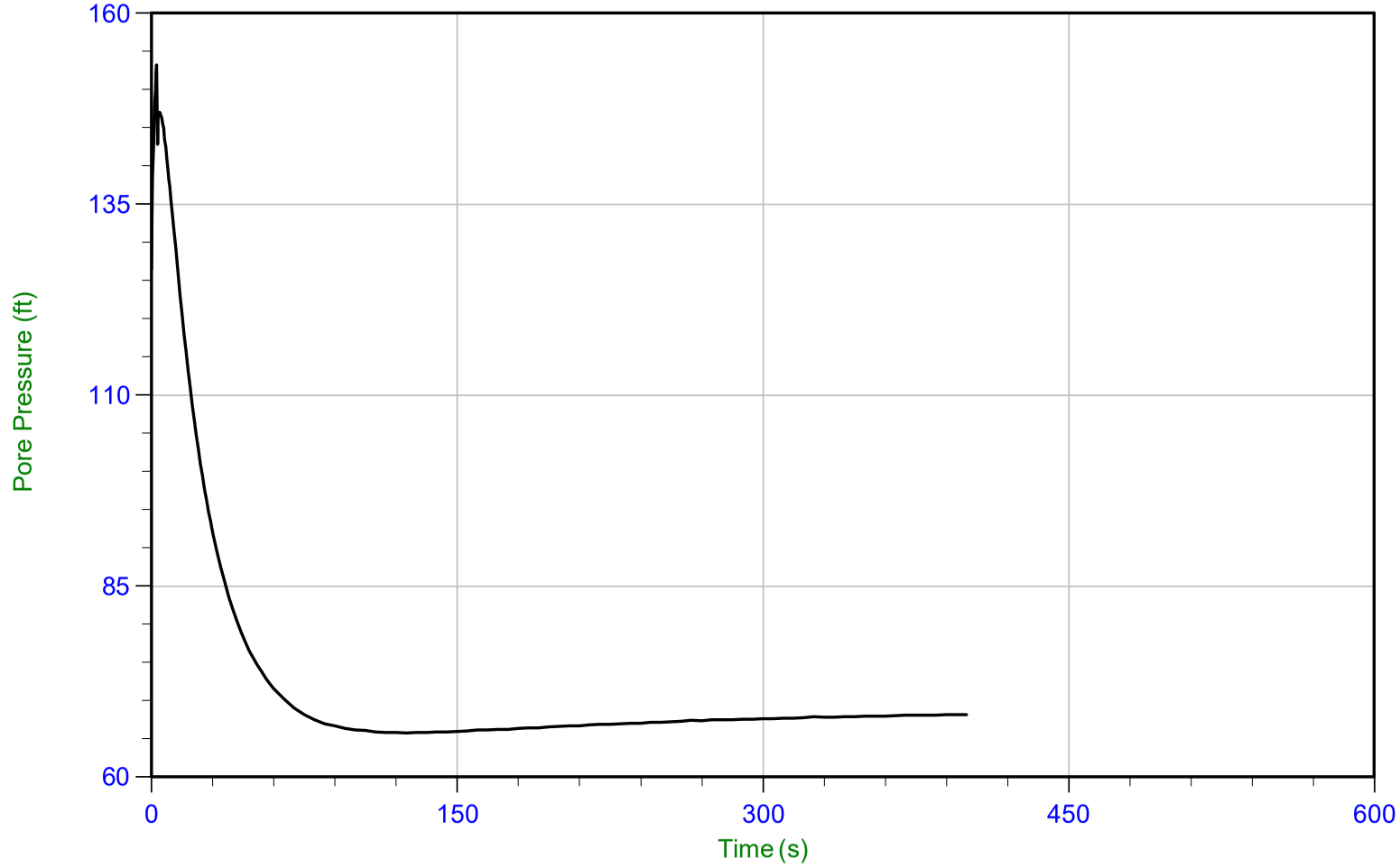
Plate No. C-3-76

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 08:58
Site: Little Egbert Tract

Sounding: 21C-10
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP10.PPF
Depth: 21.850 m / 71.685 ft
Duration: 400.0 s

u Min: 65.7 ft
u Max: 153.2 ft
u Final: 68.2 ft

WT: 1.156 m / 3.793 ft
Ueq: 67.9 ft
U(50): 110.56 ft

T(50): 16.5 s
Ir: 100
Ch: 42.5 cm²/min

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

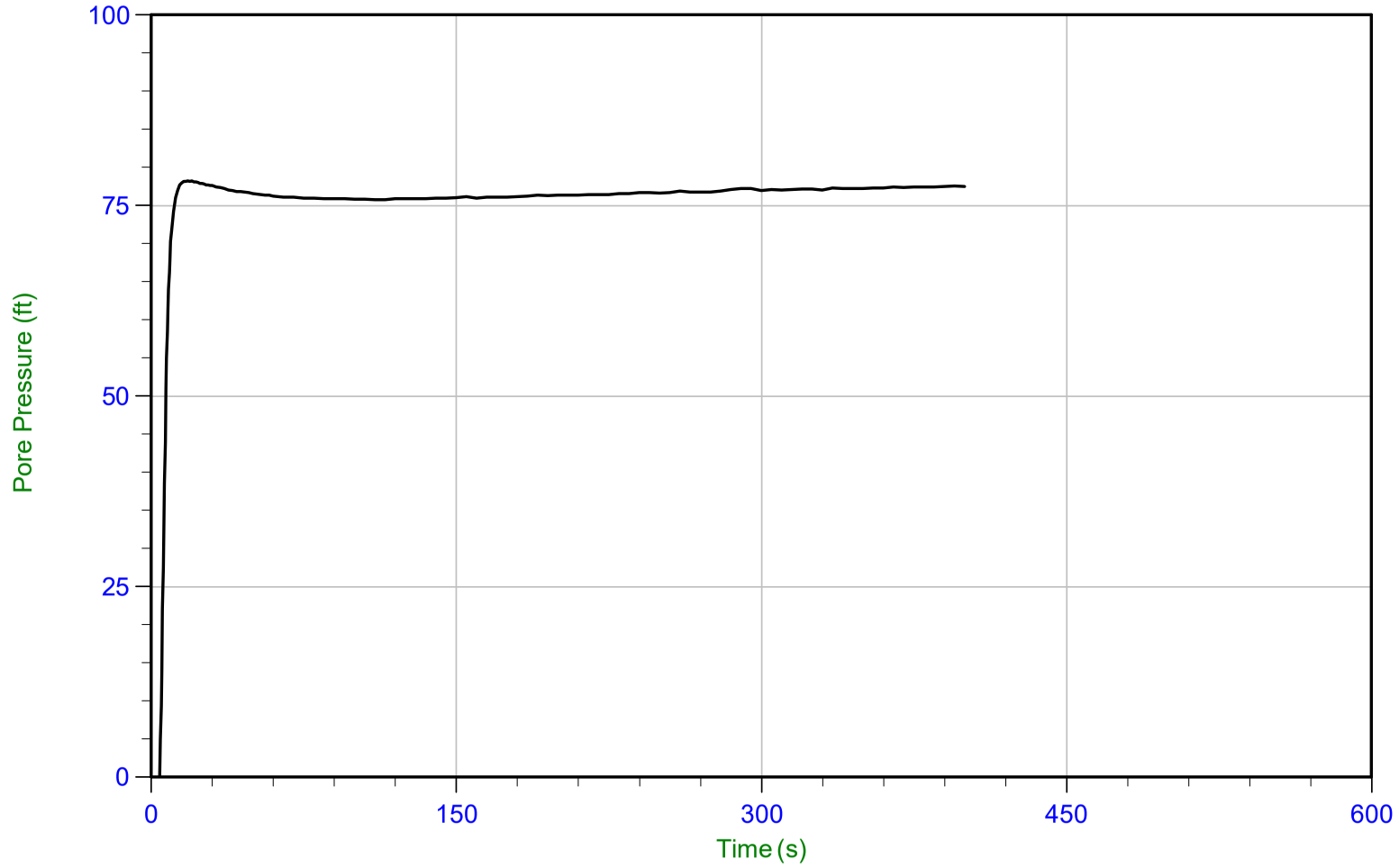
Plate No. C-3-77

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 08:58
Site: Little Egbert Tract

Sounding: 21C-10
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP10.PPF
Depth: 24.850 m / 81.528 ft
Duration: 400.0 s

u Min: -10.8 ft
u Max: 78.3 ft
u Final: 77.5 ft

WT: 1.108 m / 3.635 ft
Ueq: 77.9 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

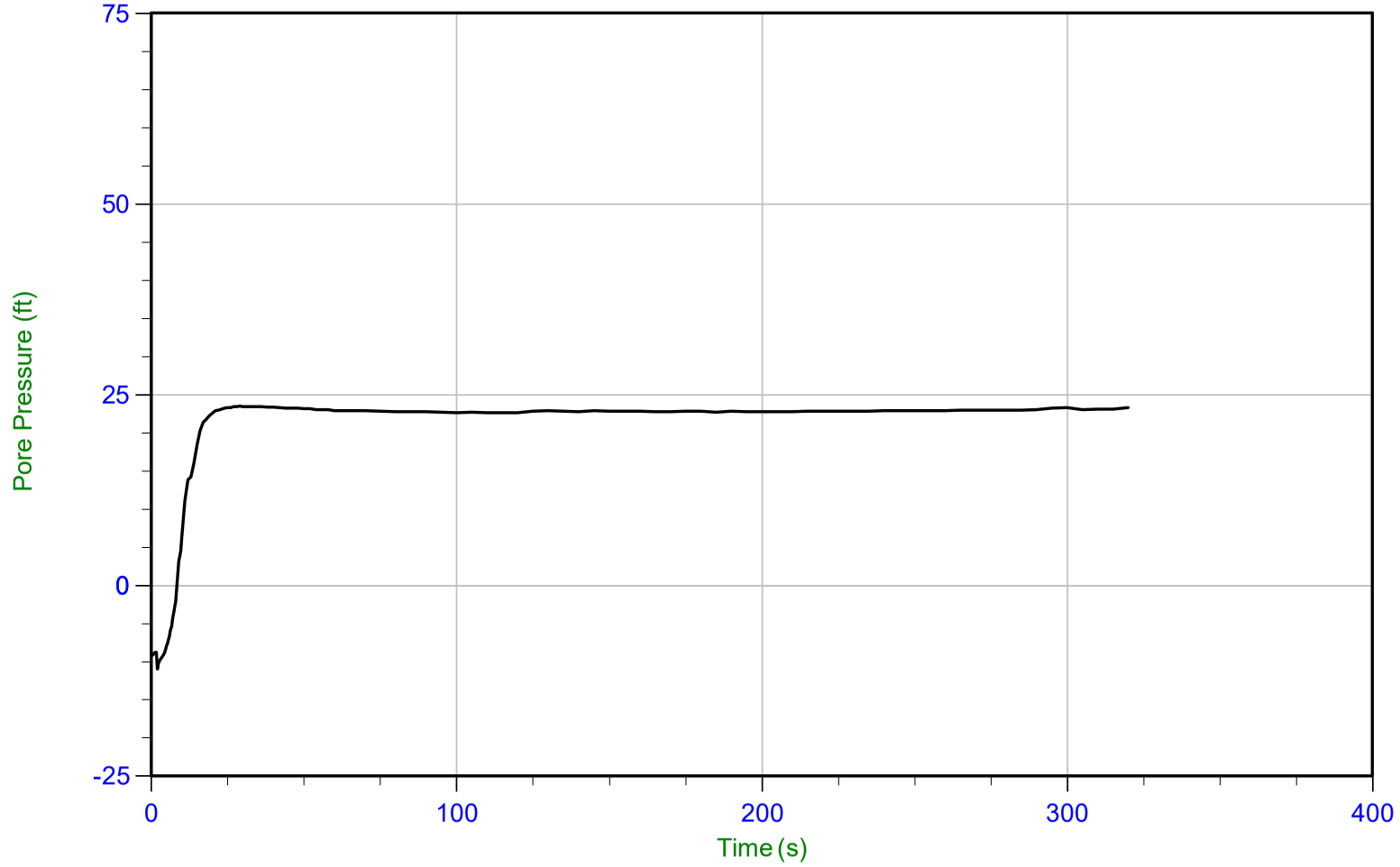
Plate No. C-3-78

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 10:25
Site: Little Egbert Tract

Sounding: 21C-11
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP11.PPF
Depth: 7.750 m / 25.426 ft
Duration: 320.0 s

u Min: -10.9 ft
u Max: 23.5 ft
u Final: 23.3 ft

WT: 0.772 m / 2.533 ft
Ueq: 22.9 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

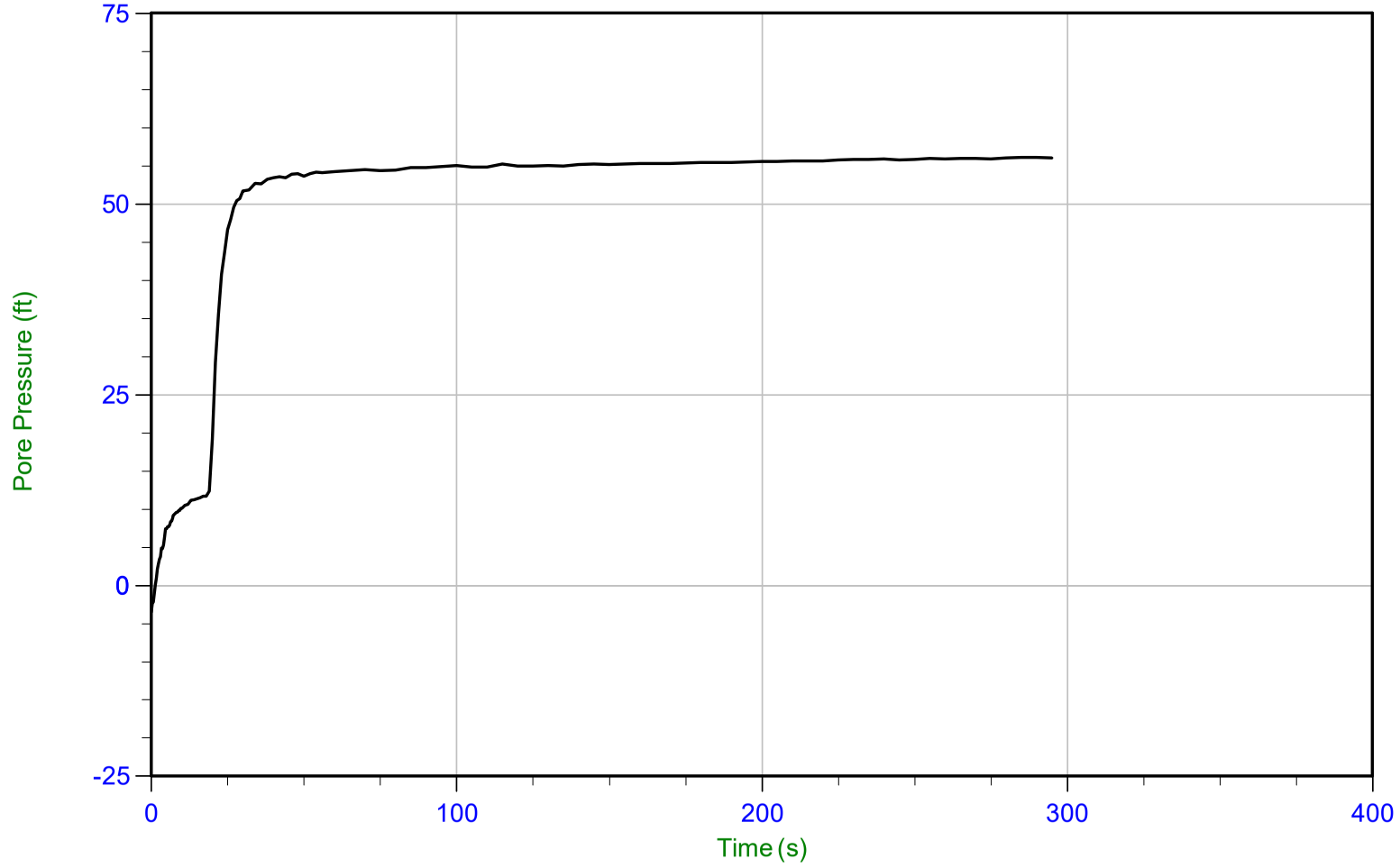
Plate No. C-3-79

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 10:25
Site: Little Egbert Tract

Sounding: 21C-11
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP11.PPF
Depth: 17.800 m / 58.398 ft
Duration: 295.0 s

u Min: -3.5 ft
u Max: 56.1 ft
u Final: 56.0 ft

WT: 0.795 m / 2.608 ft
Ueq: 55.8 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

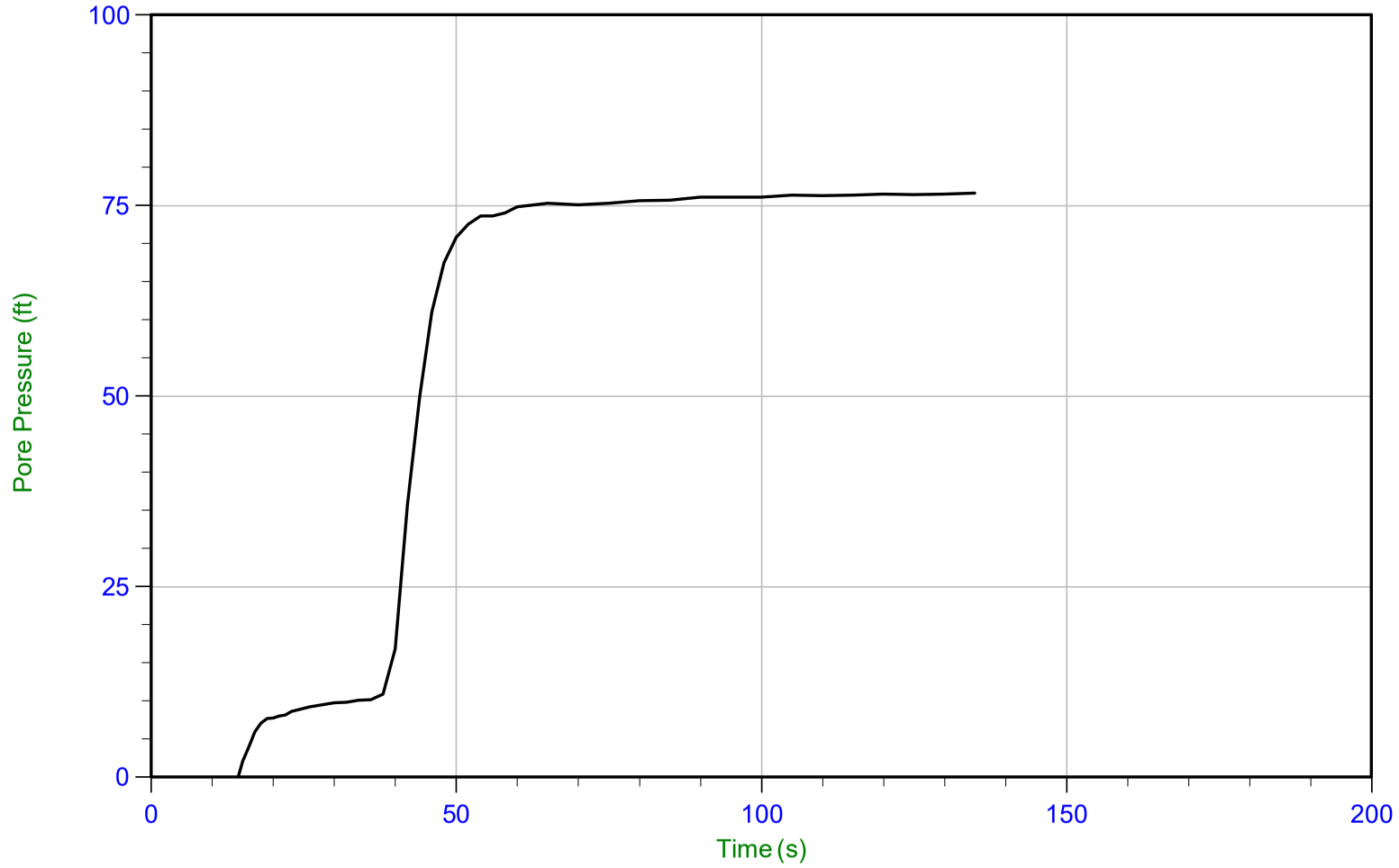
Plate No. C-3-80

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 10:25
Site: Little Egbert Tract

Sounding: 21C-11
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP11.PPF
Depth: 24.800 m / 81.364 ft
Duration: 135.0 s

u Min: -17.4 ft
u Max: 76.6 ft
u Final: 76.6 ft

WT: 1.379 m / 4.524 ft
Ueq: 76.8 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

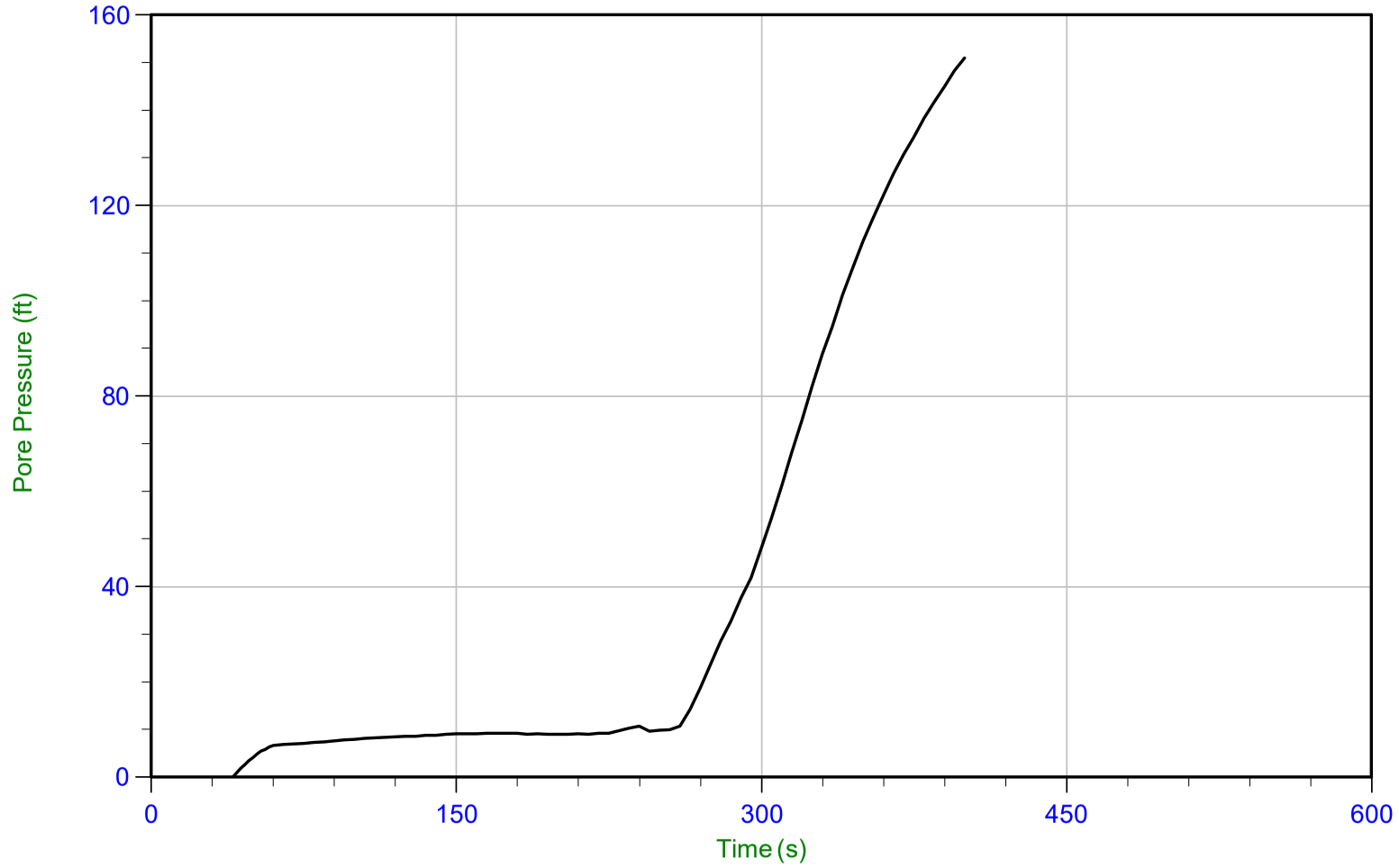
Plate No. C-3-81

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 10:25
Site: Little Egbert Tract

Sounding: 21C-11
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP11.PPF
Depth: 29.225 m / 95.881 ft
Duration: 400.0 s

u Min: -16.1 ft
u Max: 151.0 ft
u Final: 151.0 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

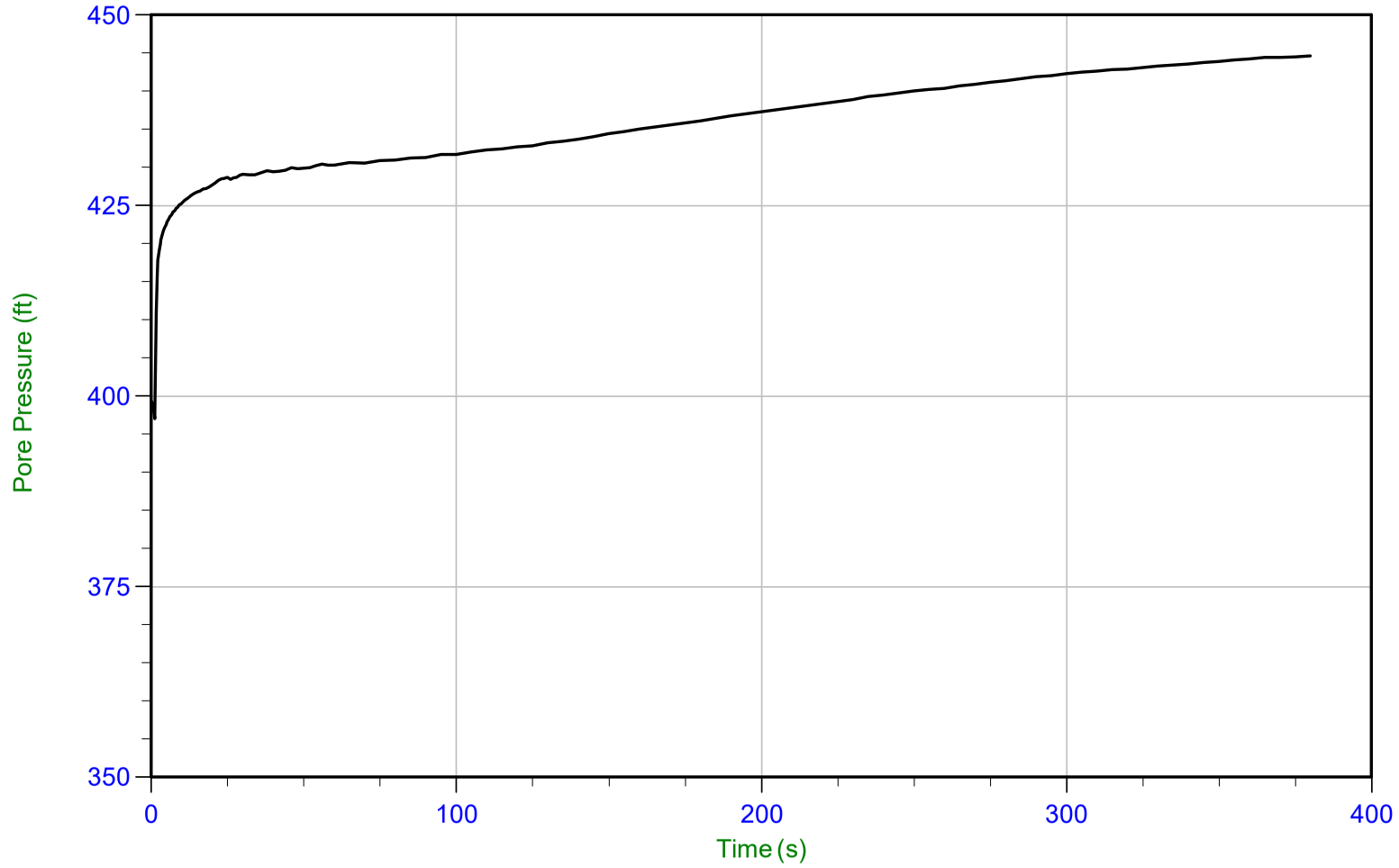
Plate No. C-3-82

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 10:25
Site: Little Egbert Tract

Sounding: 21C-11
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP11.PPF
Depth: 33.800 m / 110.891 ft
Duration: 380.0 s

u Min: 397.0 ft
u Max: 444.7 ft
u Final: 444.7 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

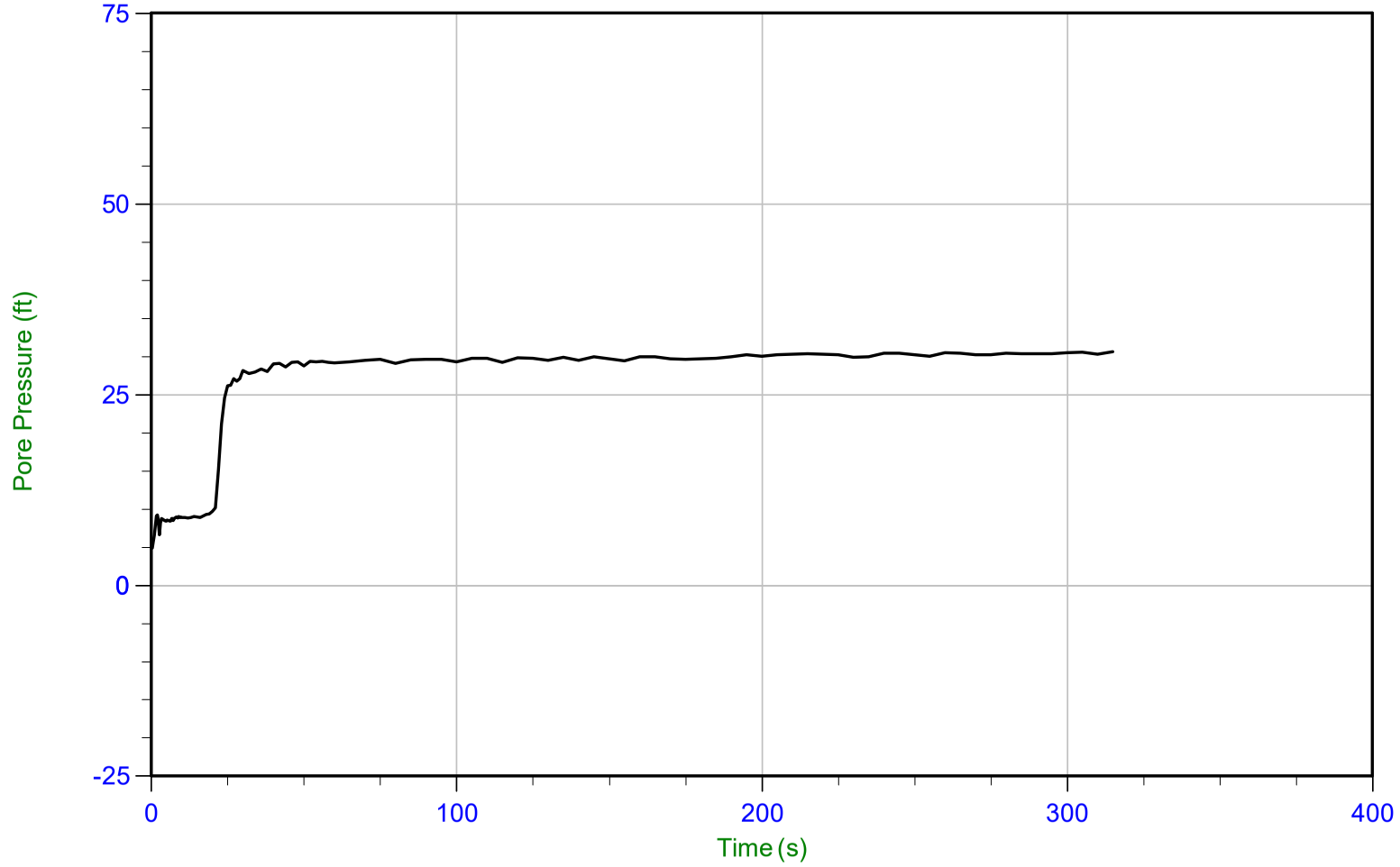
Plate No. C-3-83

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 12:19
Site: Little Egbert Tract

Sounding: 21C-12
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP12.PPF
Depth: 10.525 m / 34.530 ft
Duration: 315.0 s

u Min: 4.9 ft
u Max: 30.6 ft
u Final: 30.6 ft

WT: 1.221 m / 4.006 ft
Ueq: 30.5 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

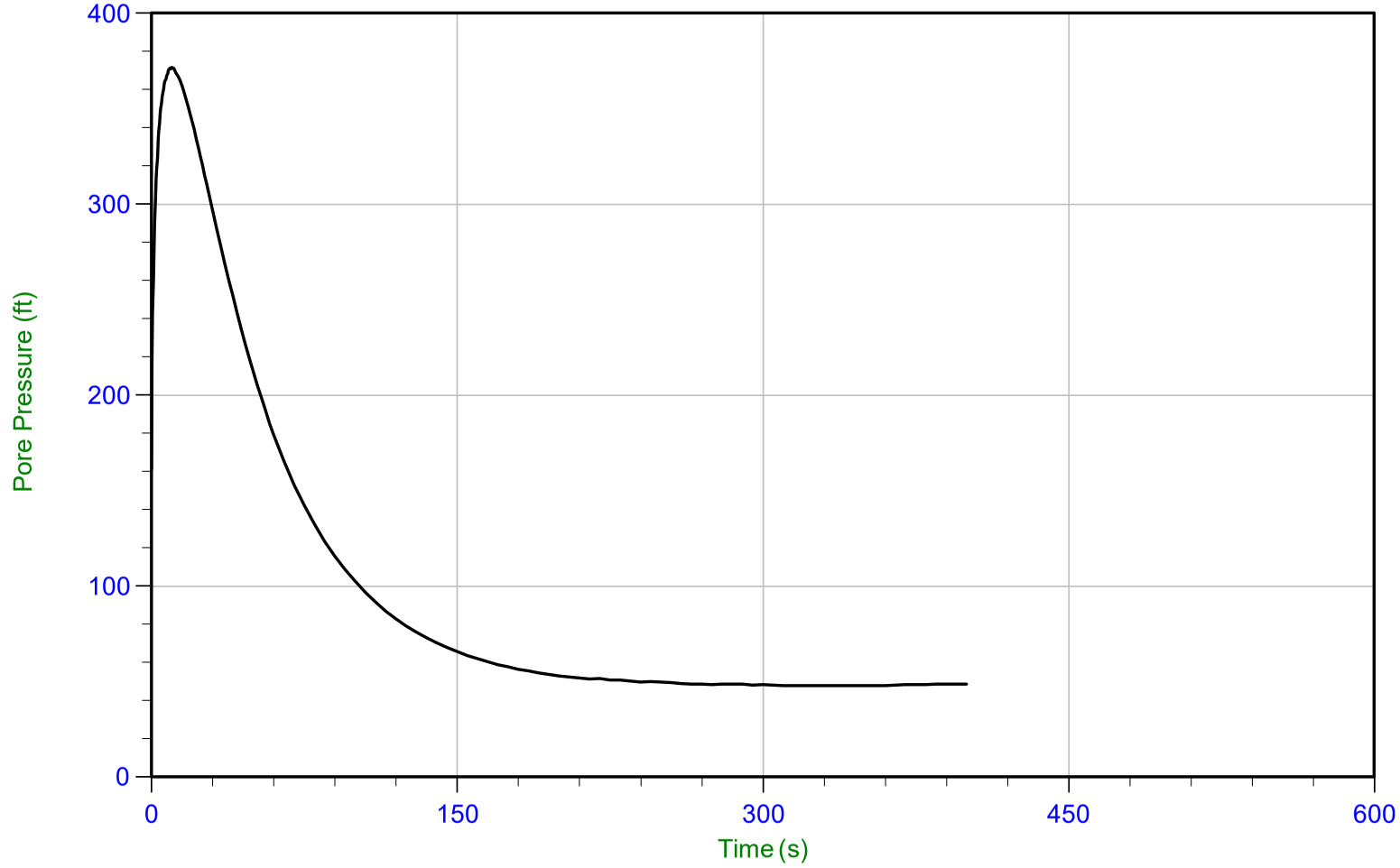
Plate No. C-3-84

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 12:19
Site: Little Egbert Tract

Sounding: 21C-12
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP12.PPF
Depth: 17.125 m / 56.184 ft
Duration: 400.0 s

u Min: 47.8 ft
u Max: 371.5 ft
u Final: 48.8 ft

WT: 2.366 m / 7.762 ft
Ueq: 48.4 ft
U(50): 209.98 ft

T(50): 40.6 s
Ir: 100
Ch: 17.3 cm²/min

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

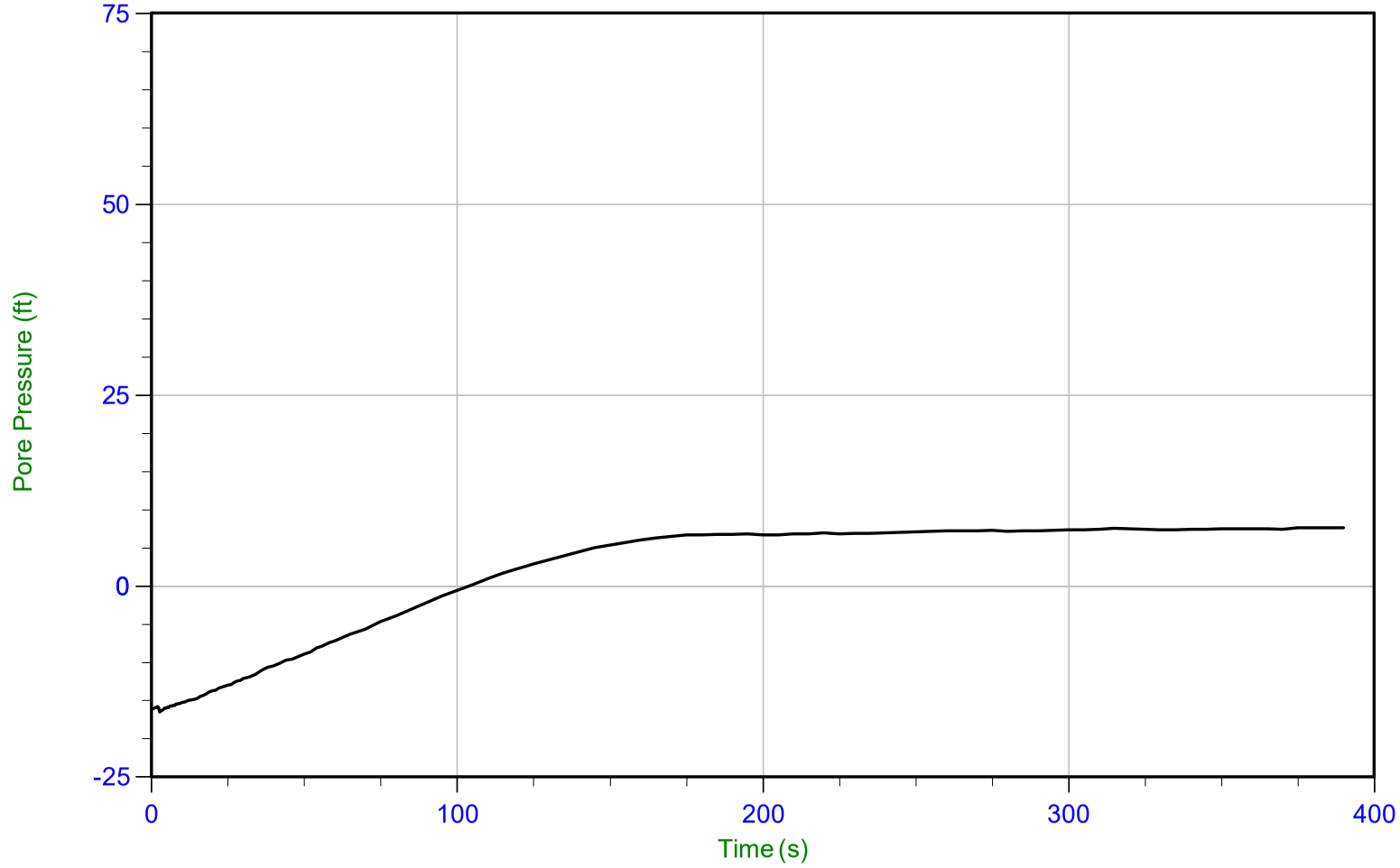
Plate No. C-3-85

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 12:19
Site: Little Egbert Tract

Sounding: 21C-12
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP12.PPF
Depth: 33.125 m / 108.677 ft
Duration: 390.0 s

u Min: -16.5 ft
u Max: 7.6 ft
u Final: 7.6 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

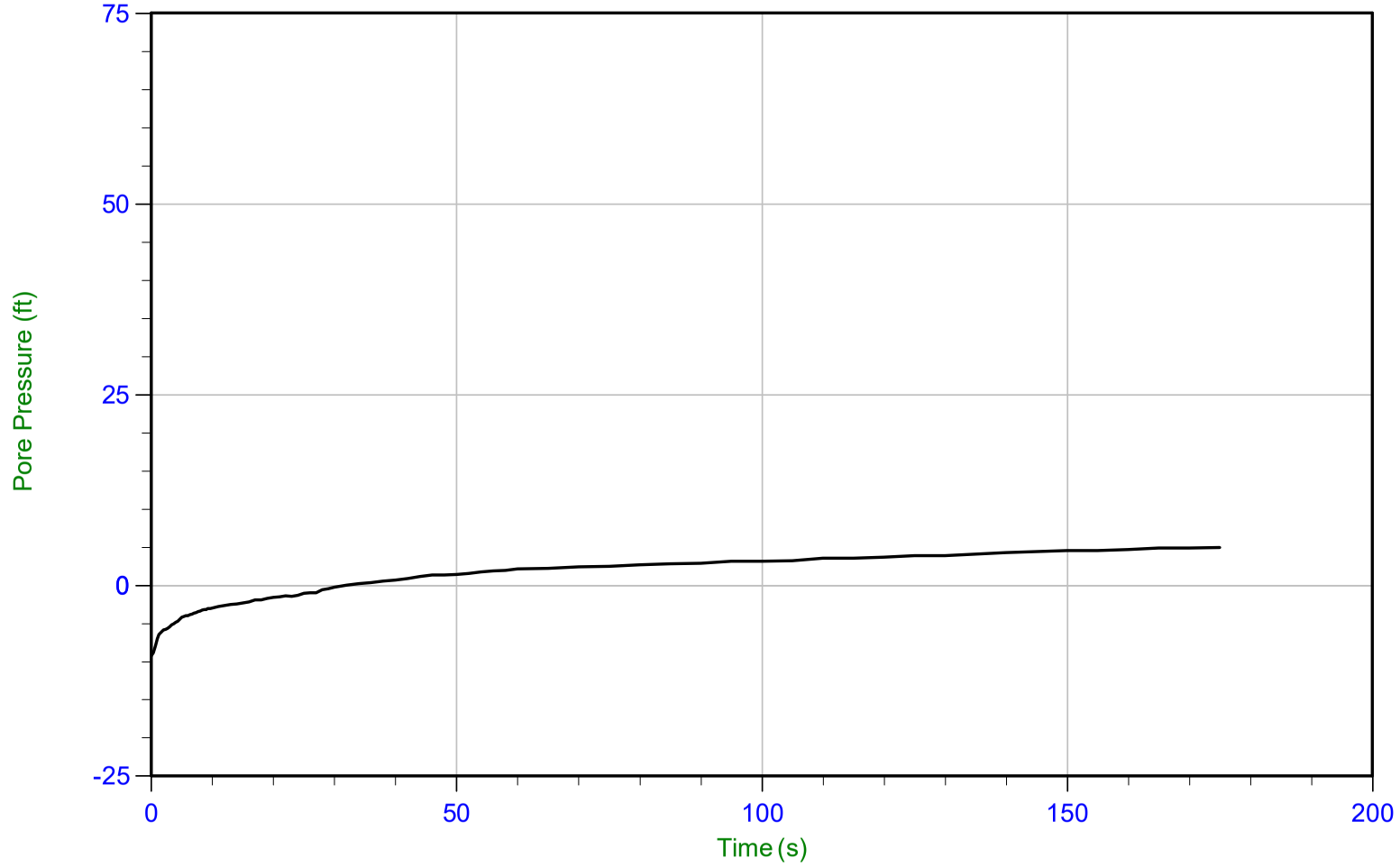
Plate No. C-3-86

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 12:19
Site: Little Egbert Tract

Sounding: 21C-12
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP12.PPF
Depth: 35.300 m / 115.812 ft
Duration: 175.0 s

u Min: -9.2 ft
u Max: 5.0 ft
u Final: 5.0 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

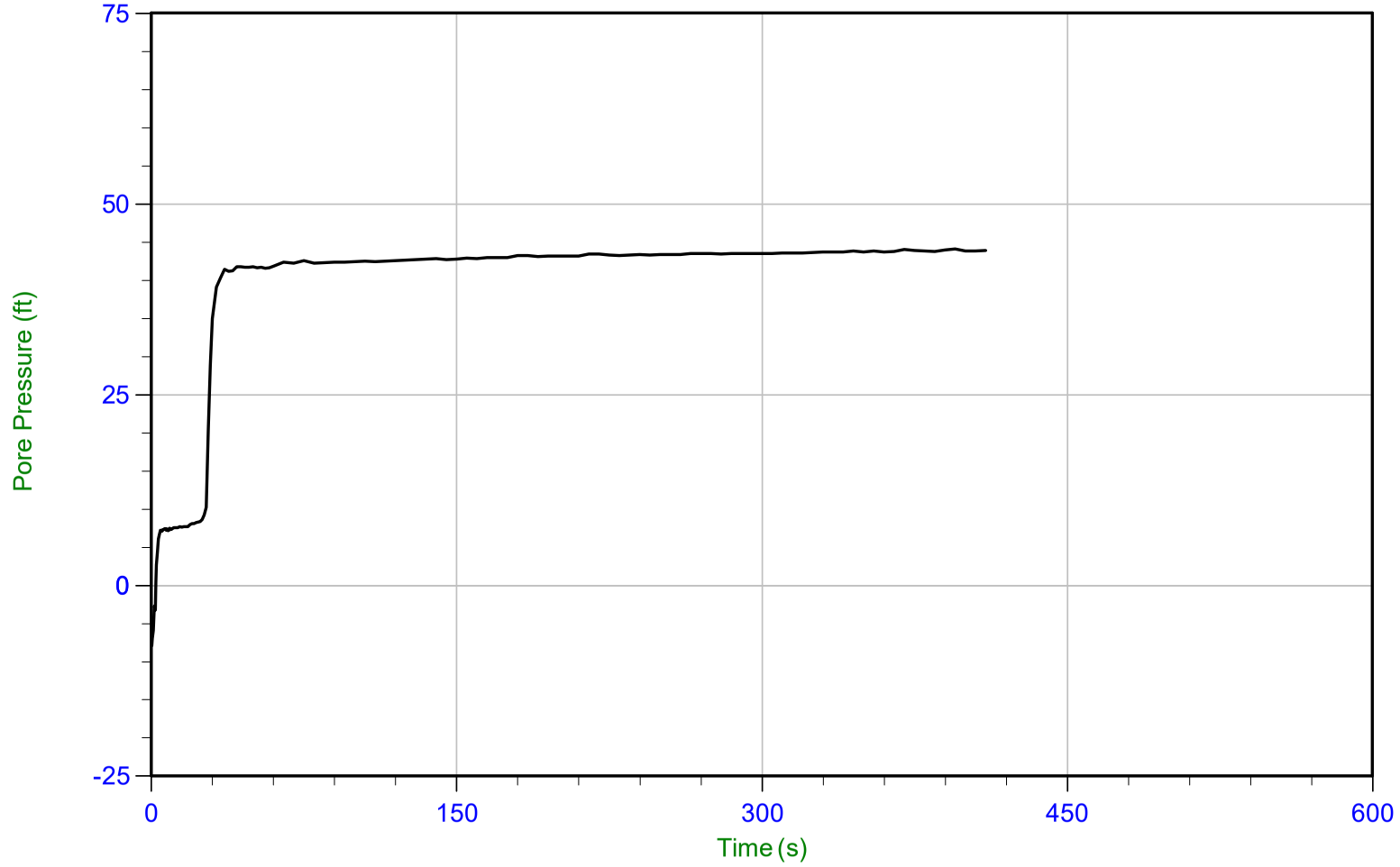
Plate No. C-3-87

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 14:26
Site: Little Egbert Tract

Sounding: 21C-13
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP13.PPF
Depth: 14.400 m / 47.244 ft
Duration: 410.0 s

u Min: -7.9 ft
u Max: 44.1 ft
u Final: 43.9 ft

WT: 1.005 m / 3.297 ft
Ueq: 43.9 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

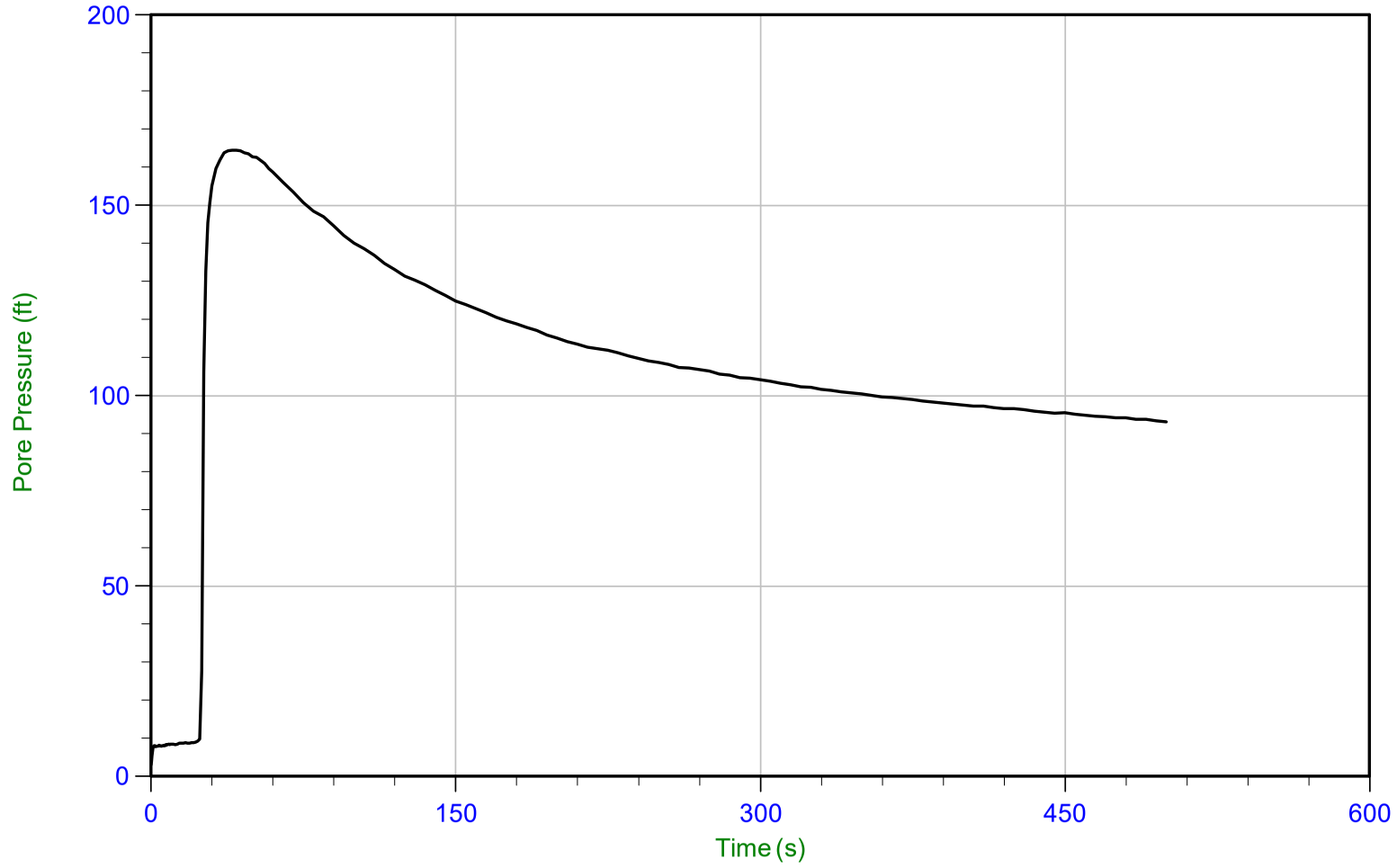
Plate No. C-3-88

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 14:26
Site: Little Egbert Tract

Sounding: 21C-13
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP13.PPF
Depth: 16.150 m / 52.985 ft
Duration: 500.0 s

u Min: 3.0 ft
u Max: 164.5 ft
u Final: 93.2 ft

WT: 1.006 m / 3.300 ft
Ueq: 49.7 ft
U(50): 107.08 ft

T(50): 225.7 s
Ir: 100
Ch: 3.1 cm²/min

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

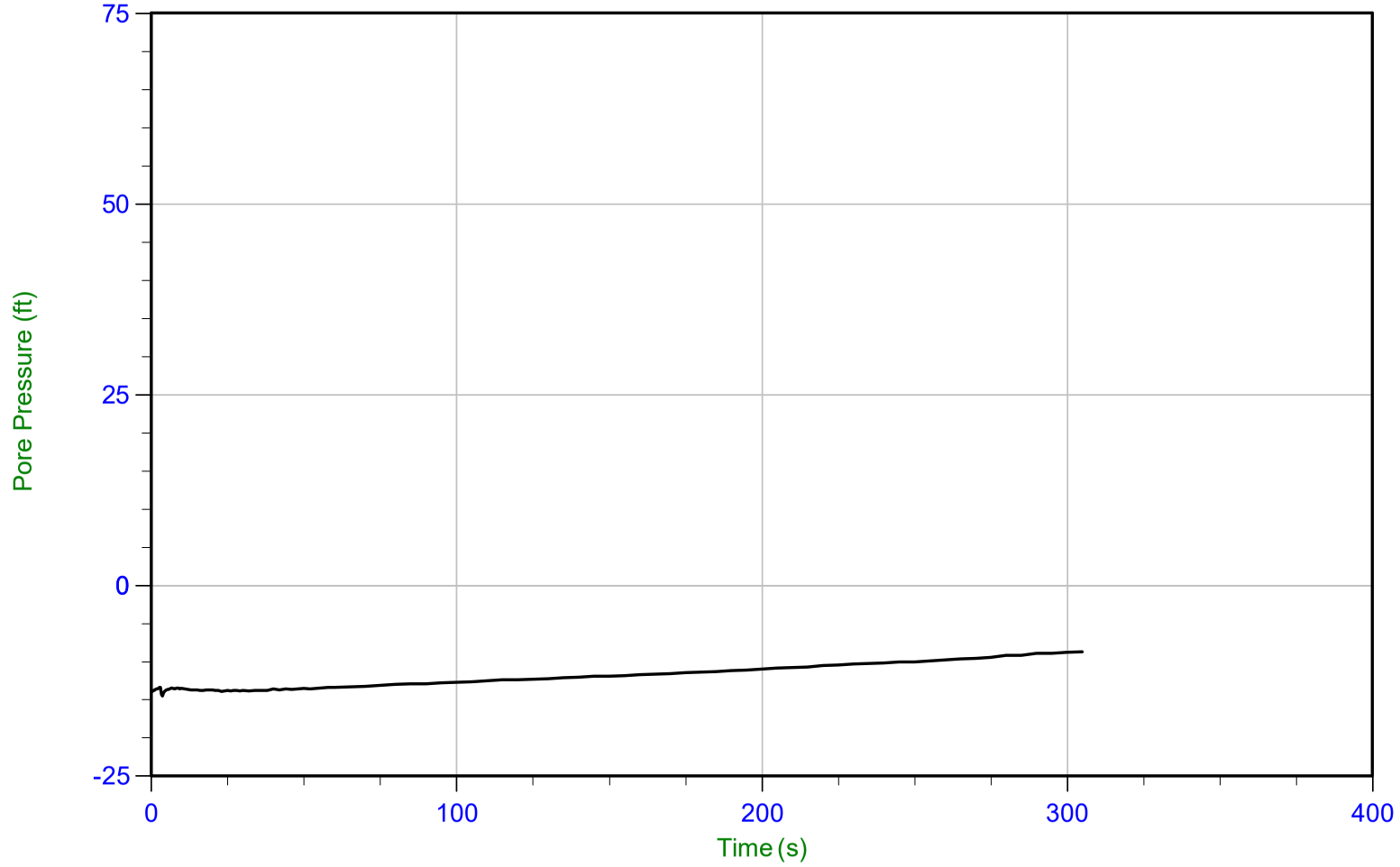
Plate No. C-3-89

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 14:26
Site: Little Egbert Tract

Sounding: 21C-13
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP13.PPF
Depth: 23.525 m / 77.181 ft
Duration: 305.0 s

u Min: -14.5 ft
u Max: -8.7 ft
u Final: -8.7 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

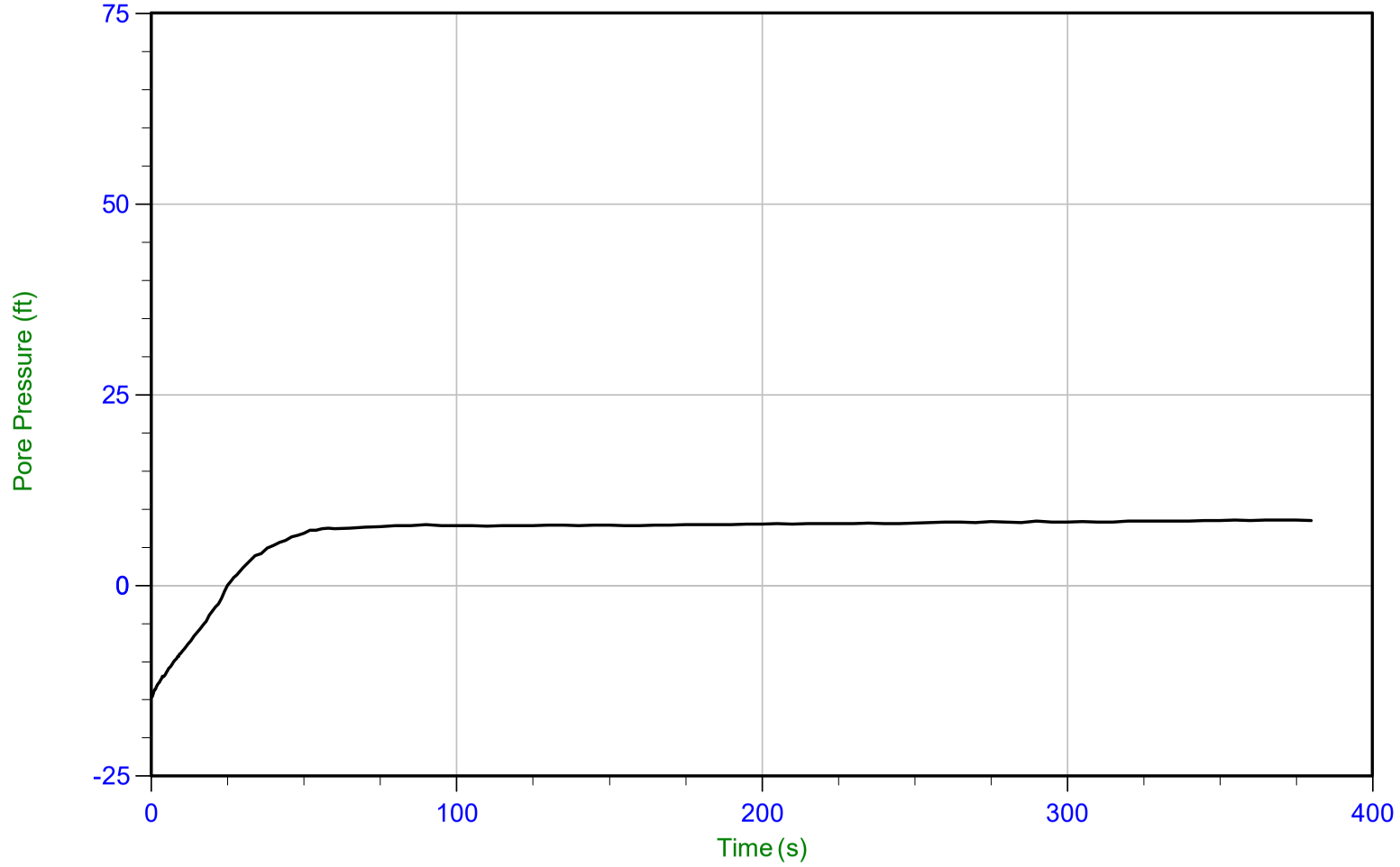
Plate No. C-3-90

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 14:26
Site: Little Egbert Tract

Sounding: 21C-13
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP13.PPF
Depth: 29.375 m / 96.374 ft
Duration: 380.0 s

u Min: -14.7 ft
u Max: 8.6 ft
u Final: 8.5 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

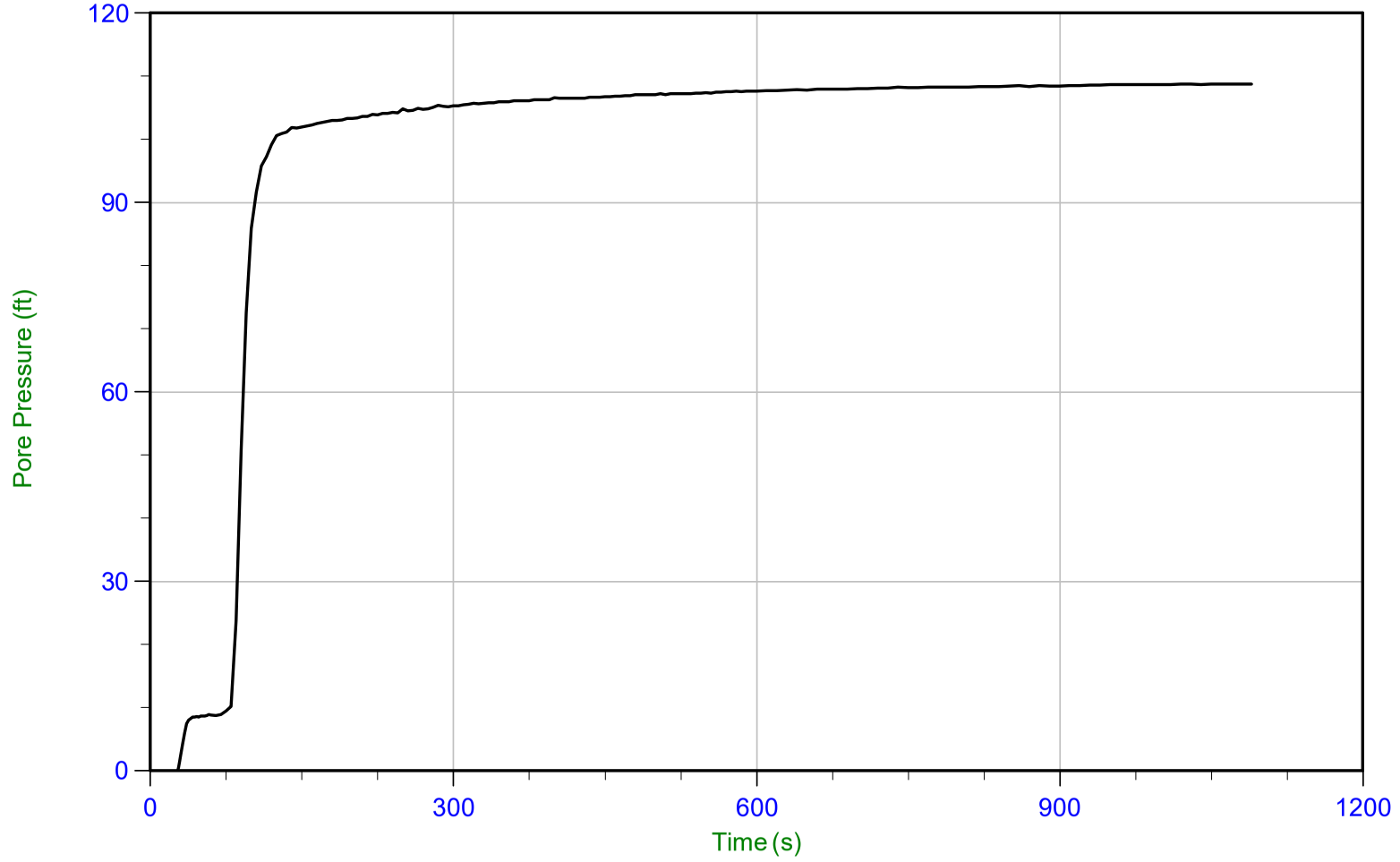
Plate No. C-3-91

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 14:26
Site: Little Egbert Tract

Sounding: 21C-13
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP13.PPF
Depth: 33.750 m / 110.727 ft
Duration: 1090.0 s

u Min: -3.1 ft
u Max: 108.8 ft
u Final: 108.8 ft

WT: 0.543 m / 1.781 ft
Ueq: 108.9 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

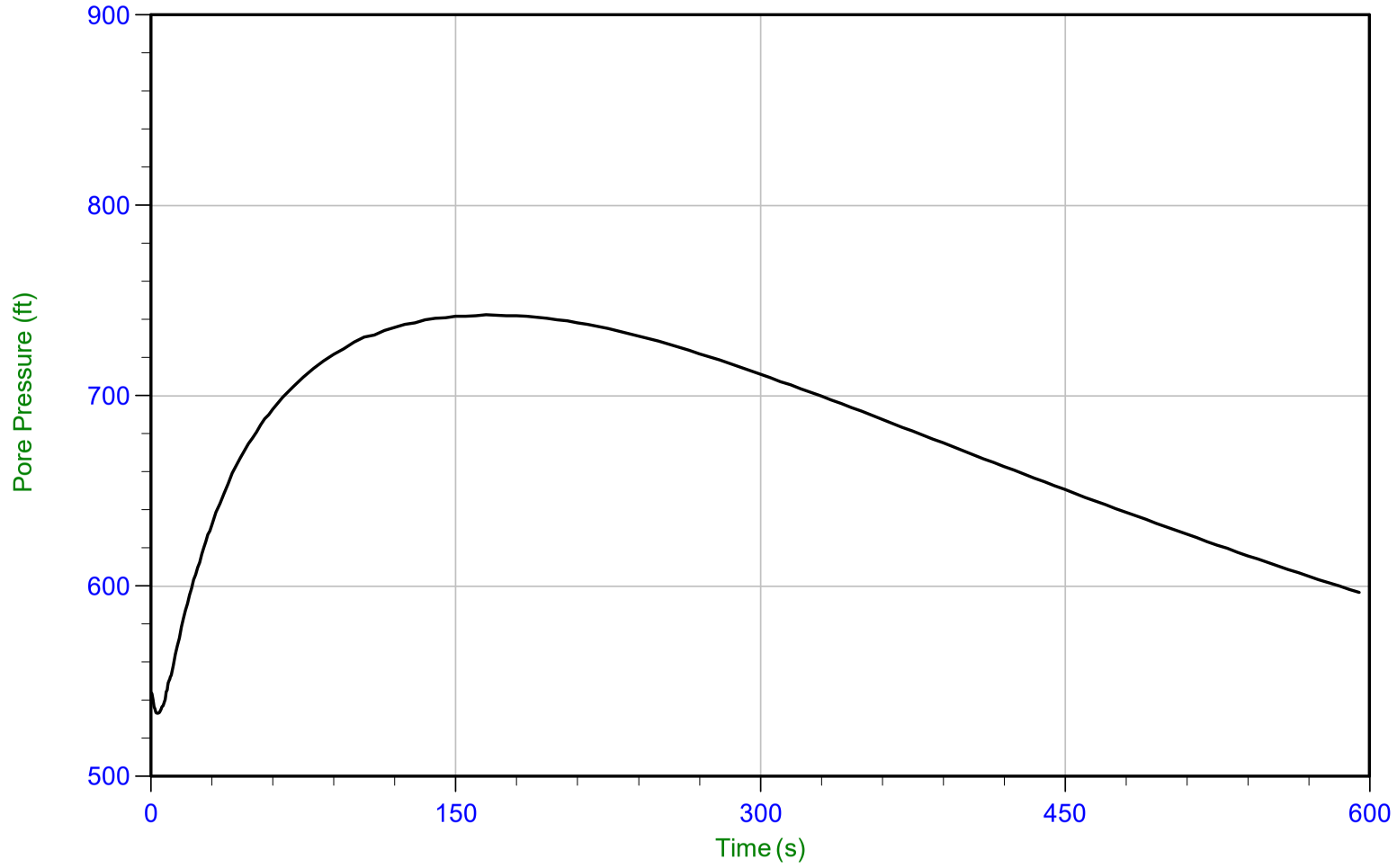
Plate No. C-3-92

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/07/2021 14:26
Site: Little Egbert Tract

Sounding: 21C-13
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP13.PPF
Depth: 36.600 m / 120.077 ft
Duration: 595.0 s

u Min: 533.2 ft
u Max: 742.4 ft
u Final: 596.5 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

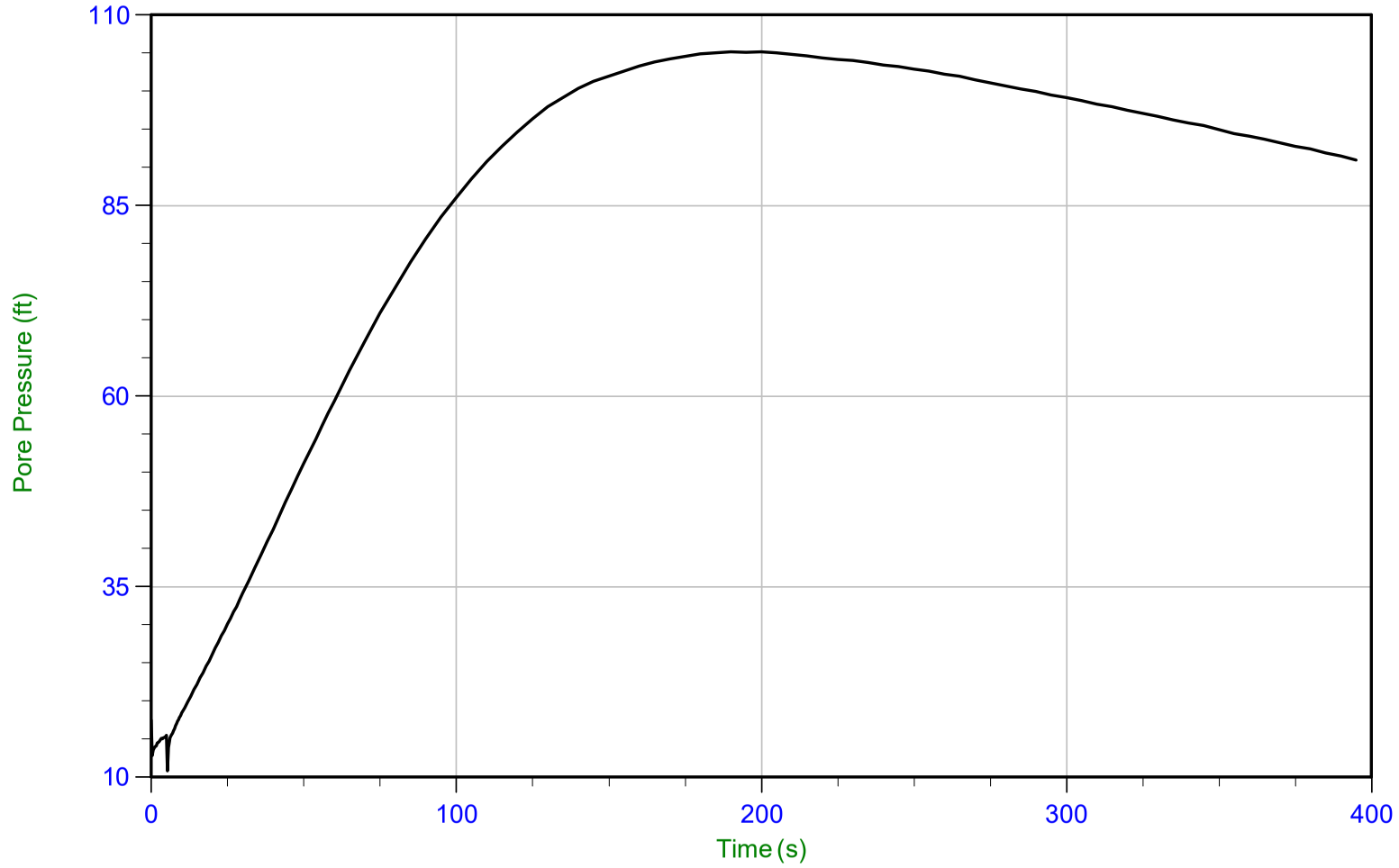
Plate No. C-3-93

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/08/2021 08:51
Site: Little Egbert Tract

Sounding: 21C-14
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP14.PPF
Depth: 2.175 m / 7.136 ft
Duration: 395.0 s

u Min: 10.9 ft
u Max: 105.2 ft
u Final: 91.0 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

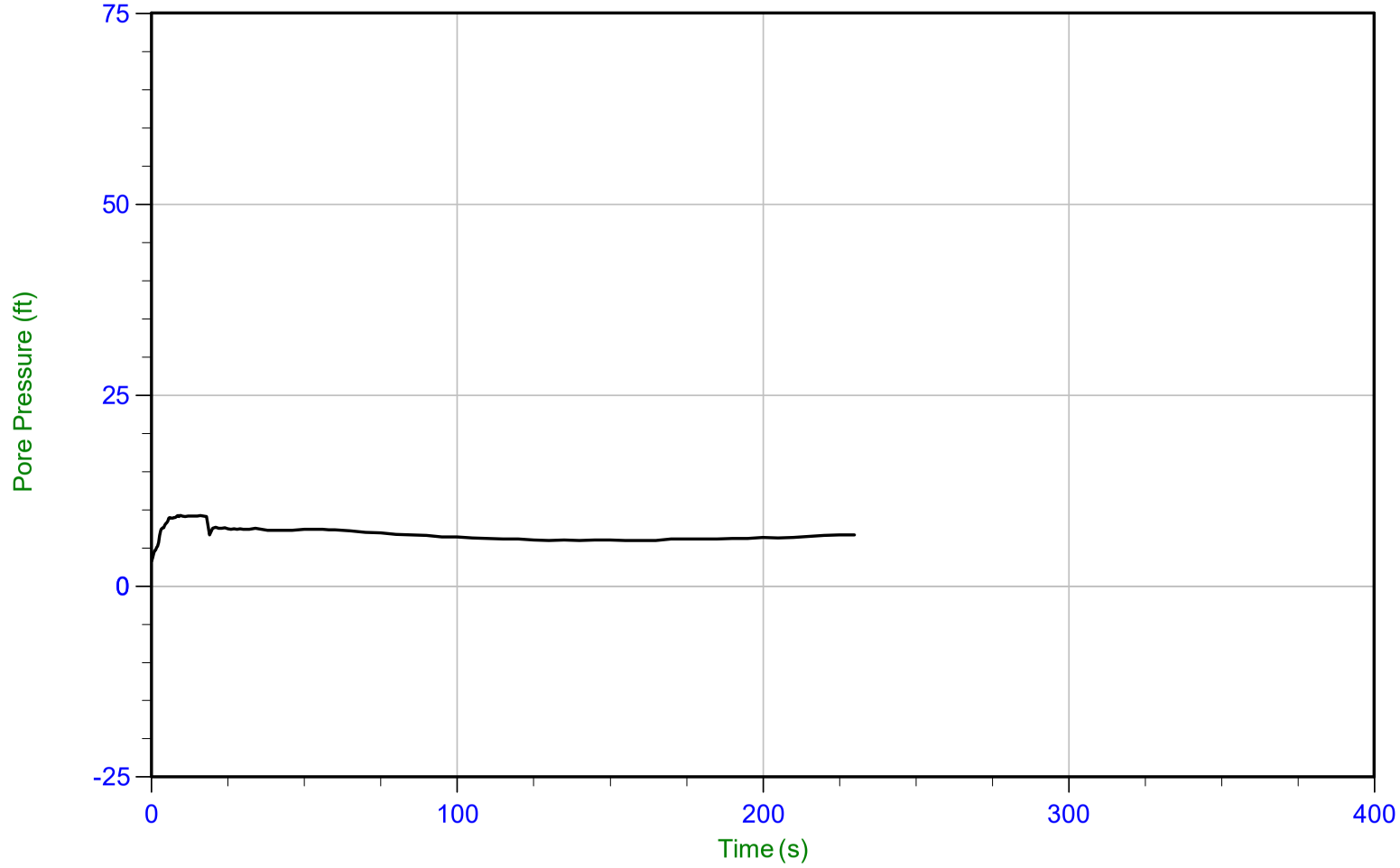
Plate No. C-3-94

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/08/2021 08:51
Site: Little Egbert Tract

Sounding: 21C-14
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP14.PPF
Depth: 15.500 m / 50.852 ft
Duration: 230.0 s

u Min: 3.2 ft
u Max: 9.2 ft
u Final: 6.7 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

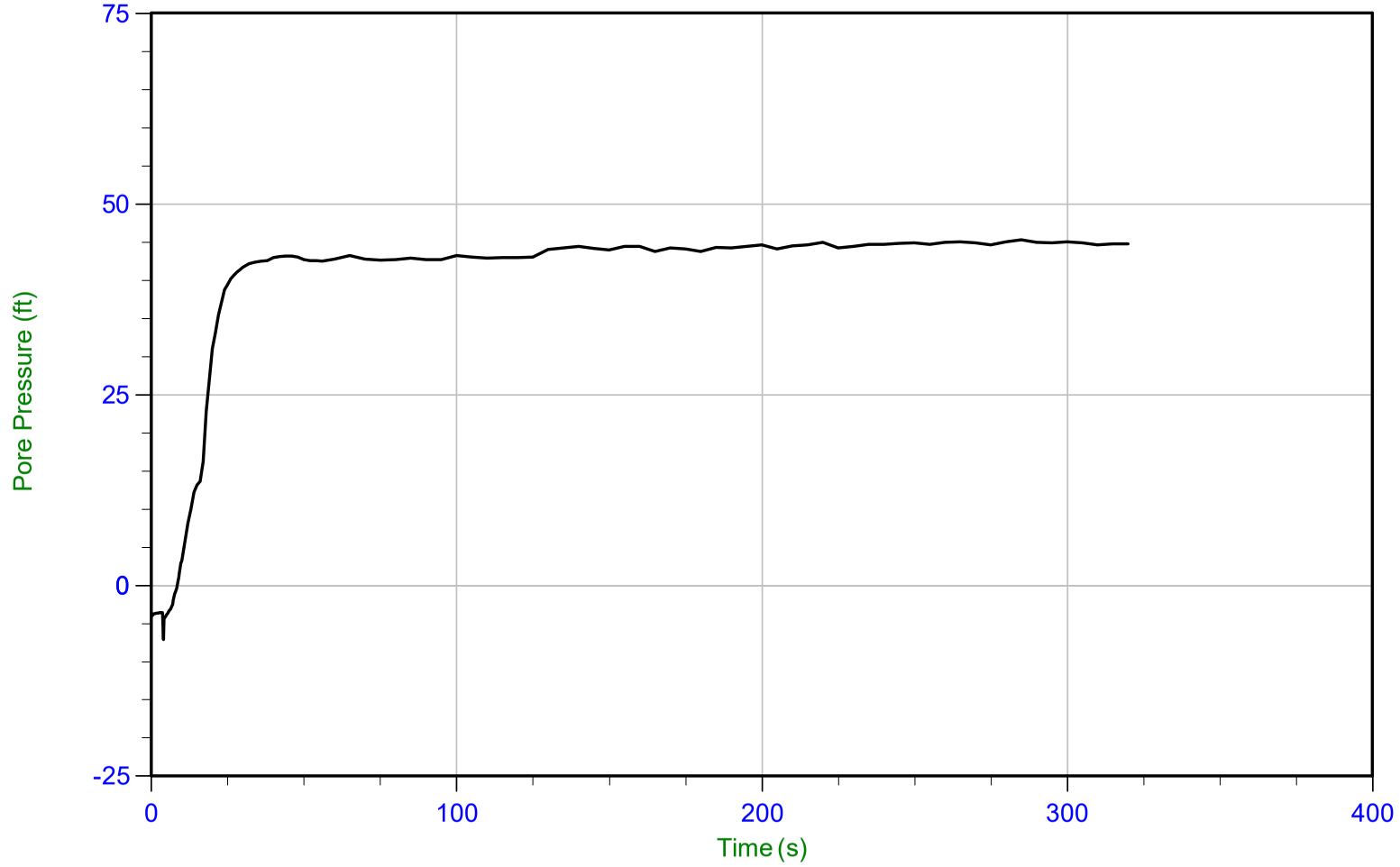
Plate No. C-3-95

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/08/2021 08:51
Site: Little Egbert Tract

Sounding: 21C-14
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP14.PPF
Depth: 16.675 m / 54.707 ft
Duration: 320.0 s

u Min: -7.1 ft
u Max: 45.3 ft
u Final: 44.8 ft

WT: 3.039 m / 9.970 ft
Ueq: 44.7 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

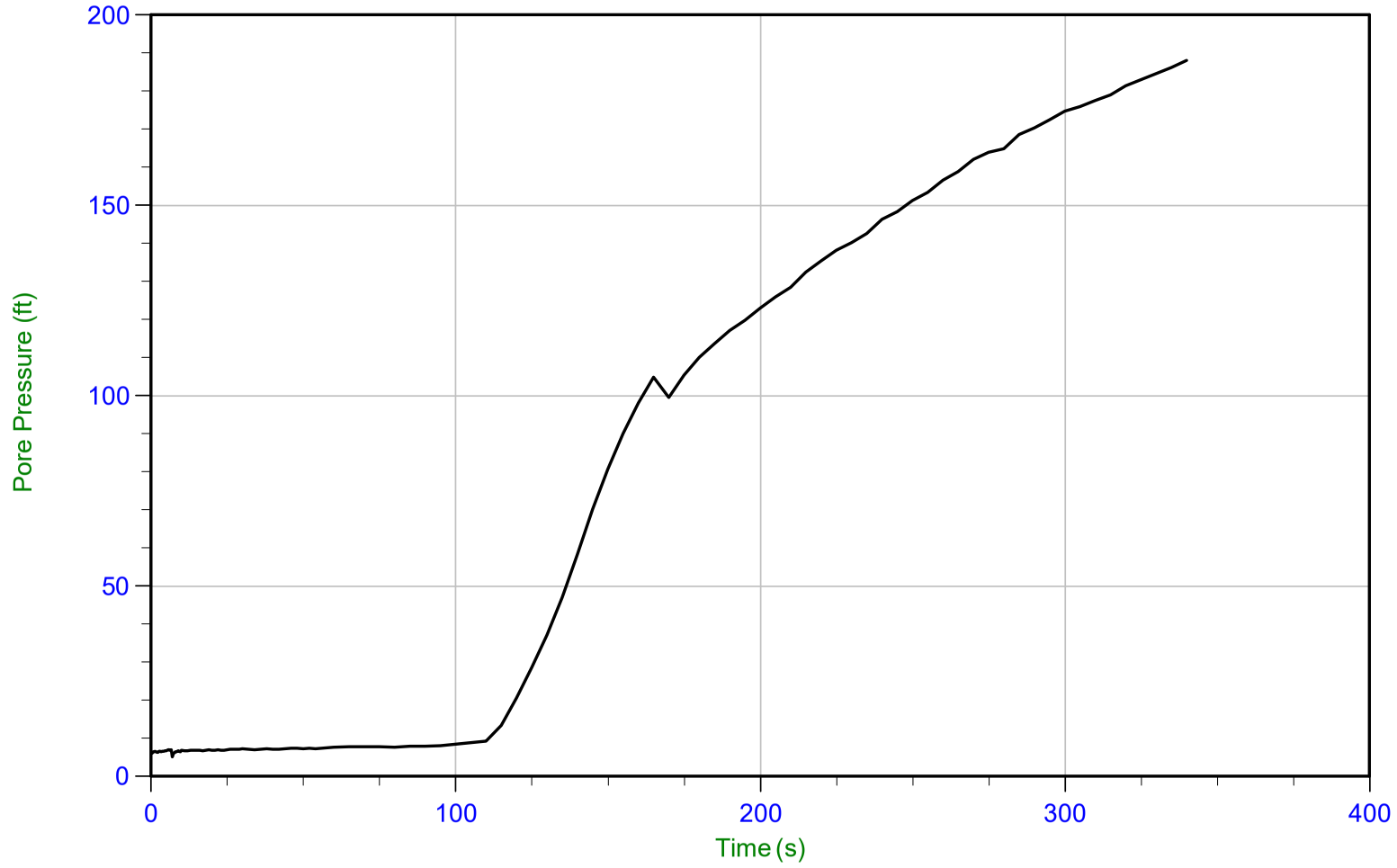
Plate No. C-3-96

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/08/2021 08:51
Site: Little Egbert Tract

Sounding: 21C-14
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP14.PPF
Depth: 19.500 m / 63.976 ft
Duration: 340.0 s

u Min: 5.1 ft
u Max: 188.0 ft
u Final: 188.0 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

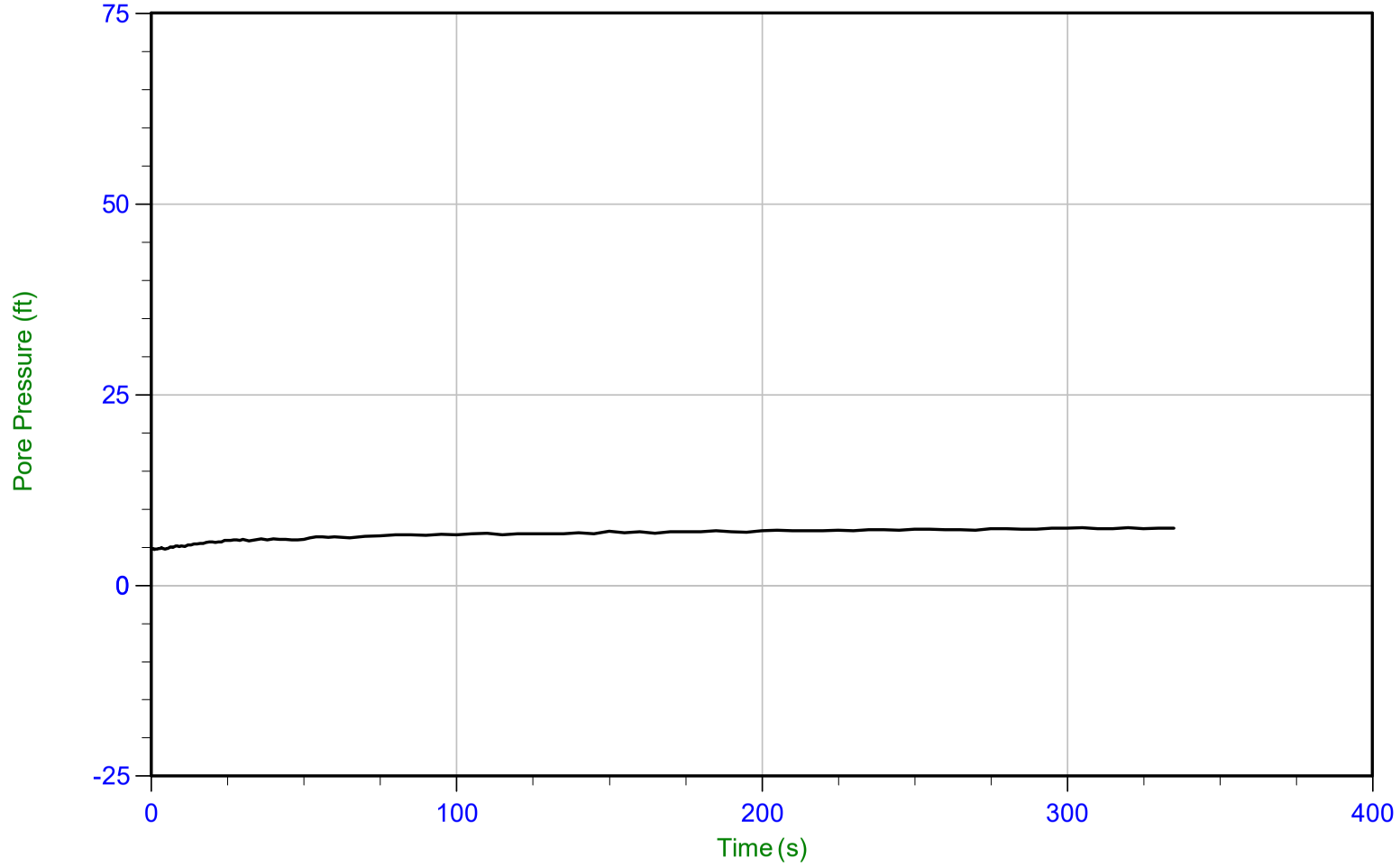
Plate No. C-3-97

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/08/2021 08:51
Site: Little Egbert Tract

Sounding: 21C-14
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP14.PPF
Depth: 24.800 m / 81.364 ft
Duration: 335.0 s

u Min: 4.7 ft
u Max: 7.6 ft
u Final: 7.5 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

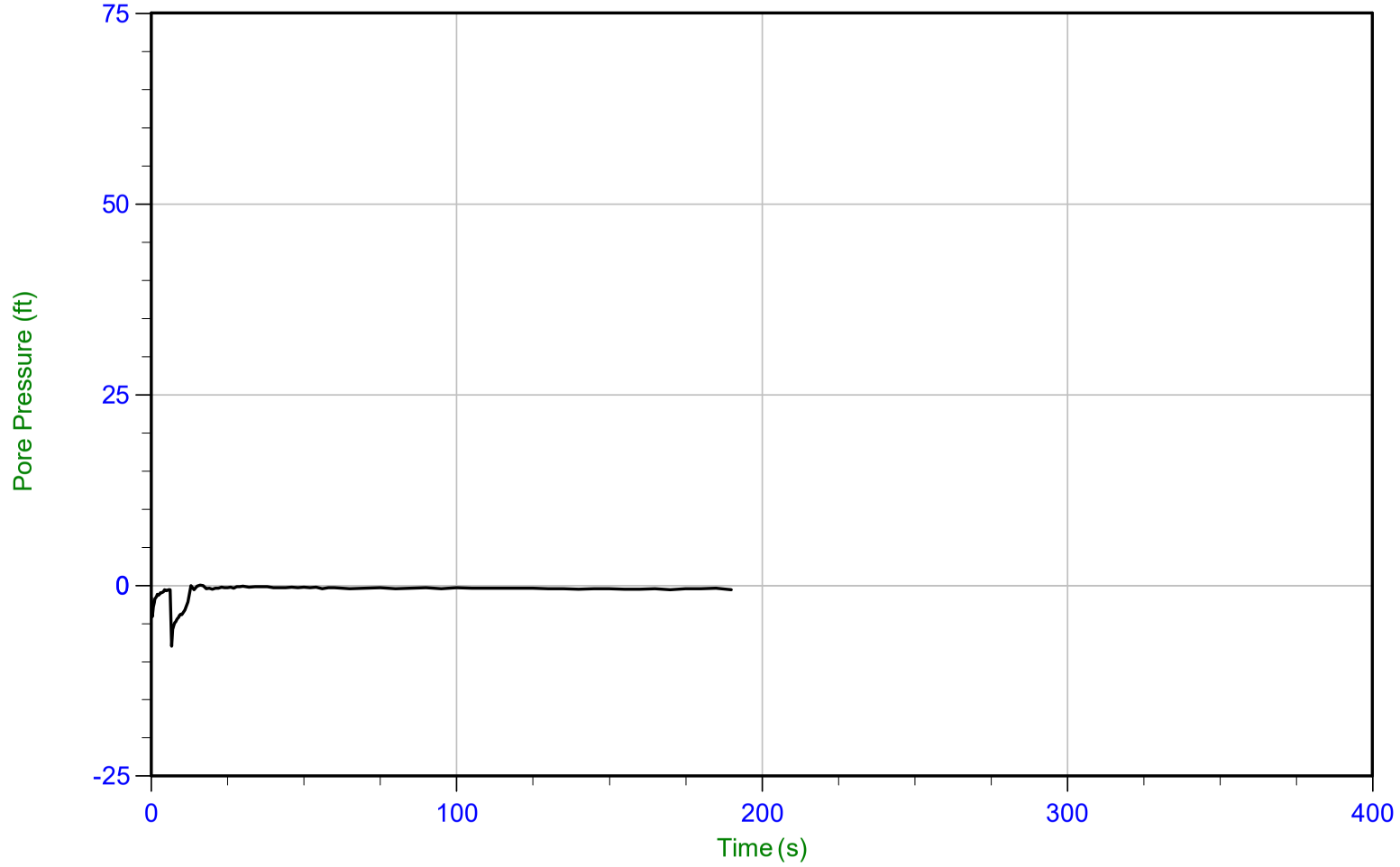
Plate No. C-3-98

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/08/2021 11:13
Site: Little Egbert Tract

Sounding: 21C-15
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP15.PPF
Depth: 1.750 m / 5.741 ft
Duration: 190.0 s

u Min: -8.0 ft
u Max: 0.0 ft
u Final: -0.5 ft

WT: 1.750 m / 5.741 ft
Ueq: 0.0 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

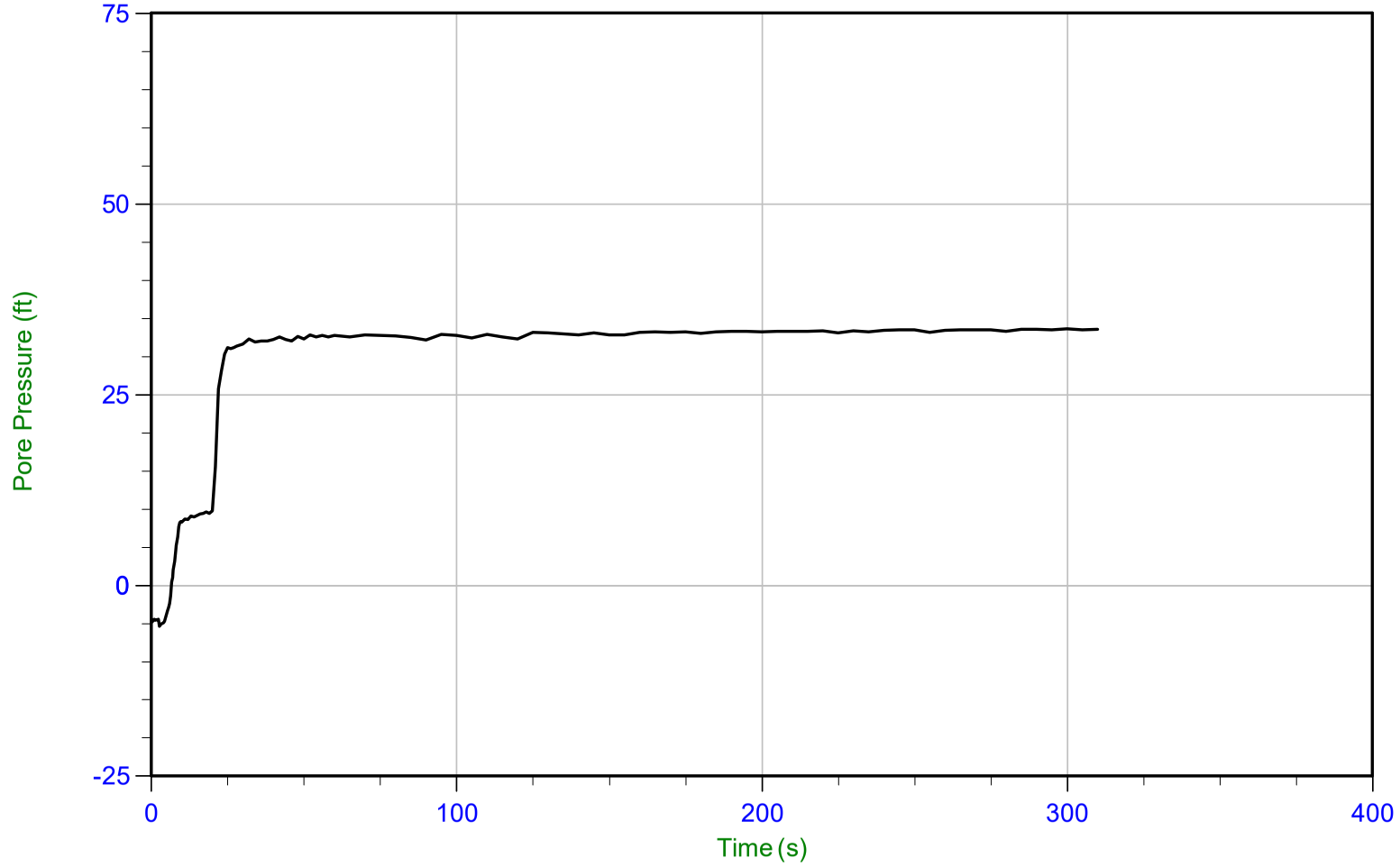
Plate No. C-3-99

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/08/2021 11:13
Site: Little Egbert Tract

Sounding: 21C-15
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP15.PPF
Depth: 12.600 m / 41.338 ft
Duration: 310.0 s

u Min: -5.4 ft
u Max: 33.6 ft
u Final: 33.6 ft

WT: 2.413 m / 7.917 ft
Ueq: 33.4 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

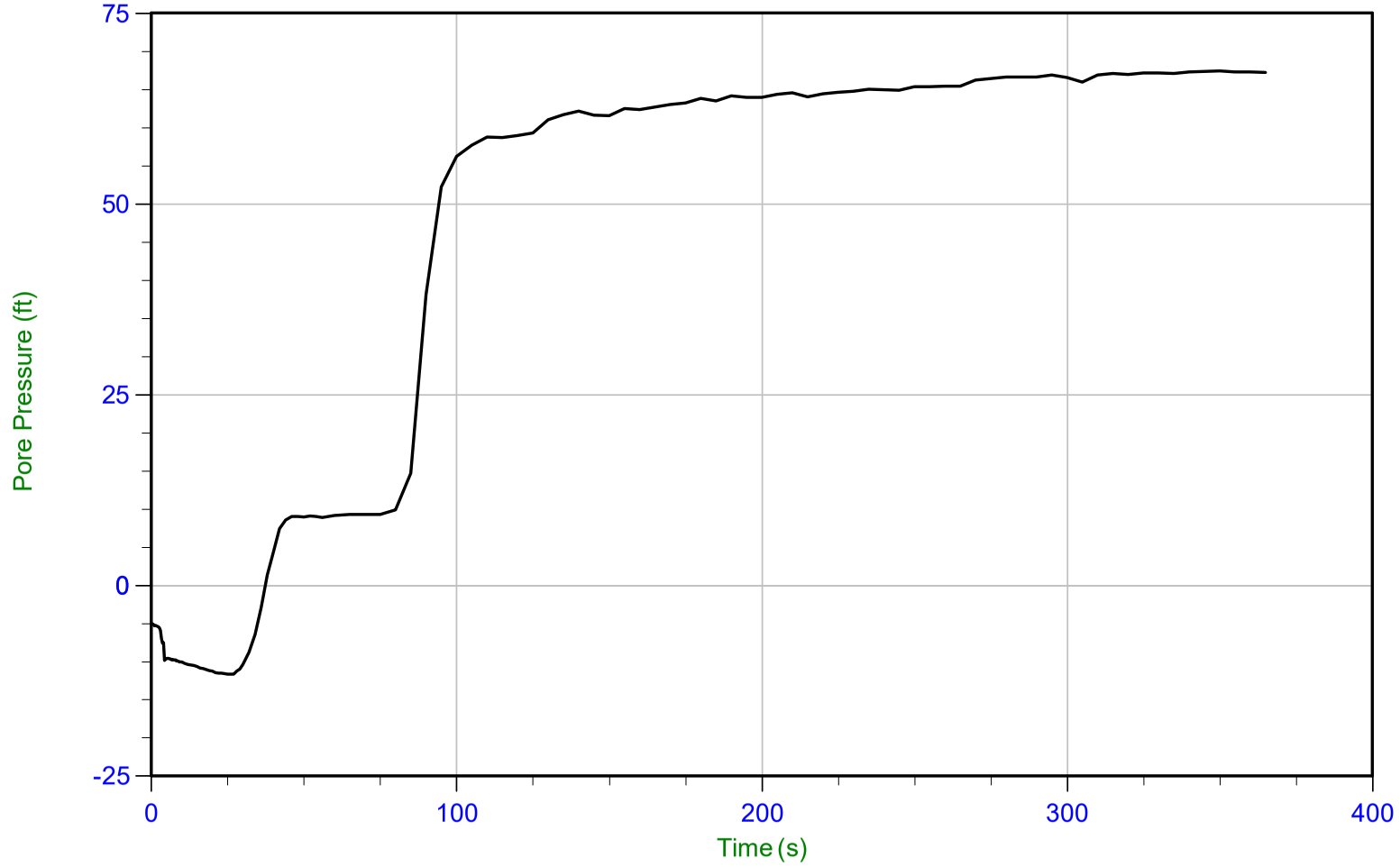
Plate No. C-3-100

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/08/2021 11:13
Site: Little Egbert Tract

Sounding: 21C-15
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP15.PPF
Depth: 23.825 m / 78.165 ft
Duration: 365.0 s

u Min: -11.6 ft
u Max: 67.4 ft
u Final: 67.3 ft

WT: 3.131 m / 10.272 ft
Ueq: 67.9 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

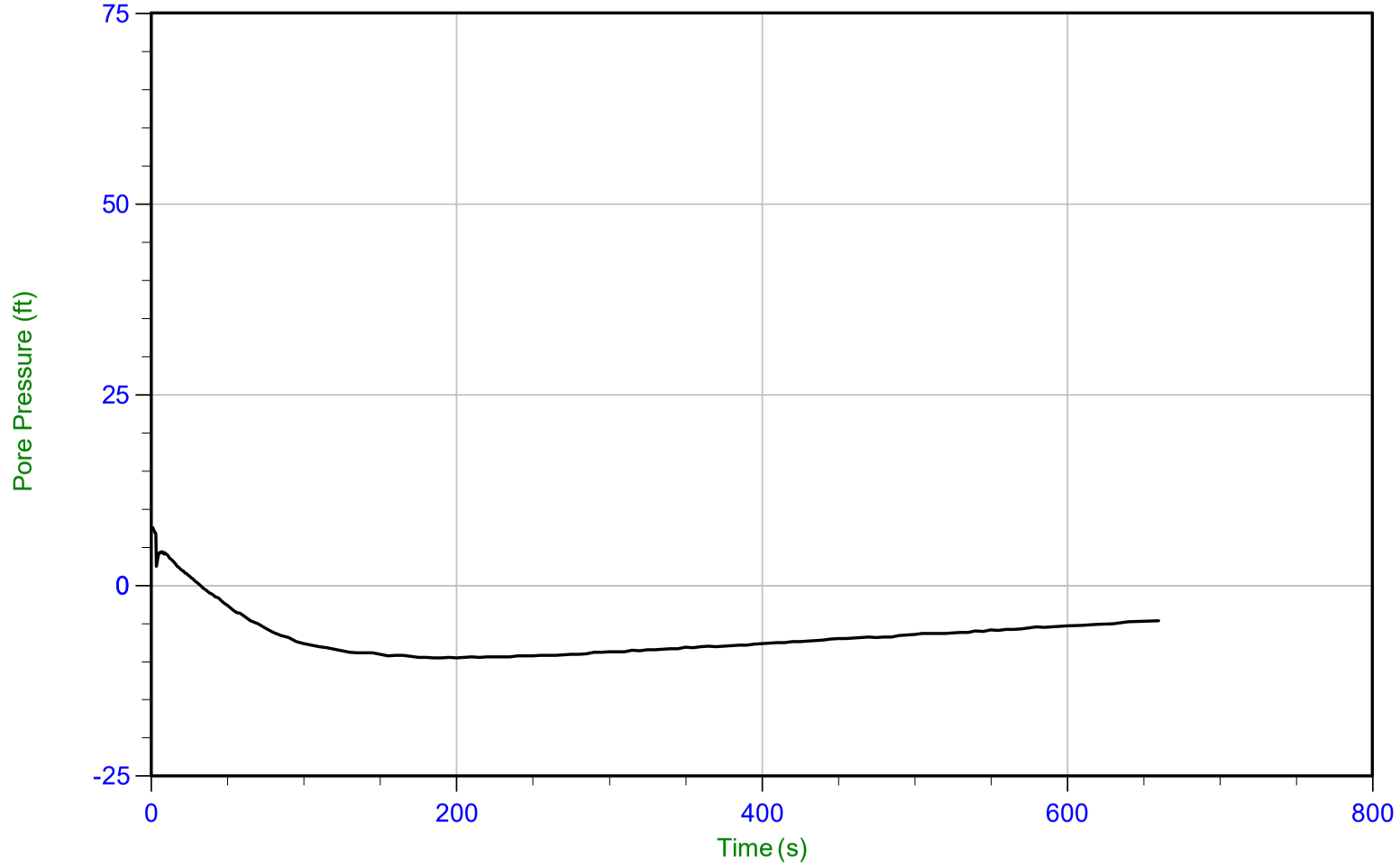
Plate No. C-3-101

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/08/2021 11:13
Site: Little Egbert Tract

Sounding: 21C-15
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP15.PPF
Depth: 27.025 m / 88.664 ft
Duration: 660.0 s

u Min: -9.5 ft
u Max: 7.6 ft
u Final: -4.6 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

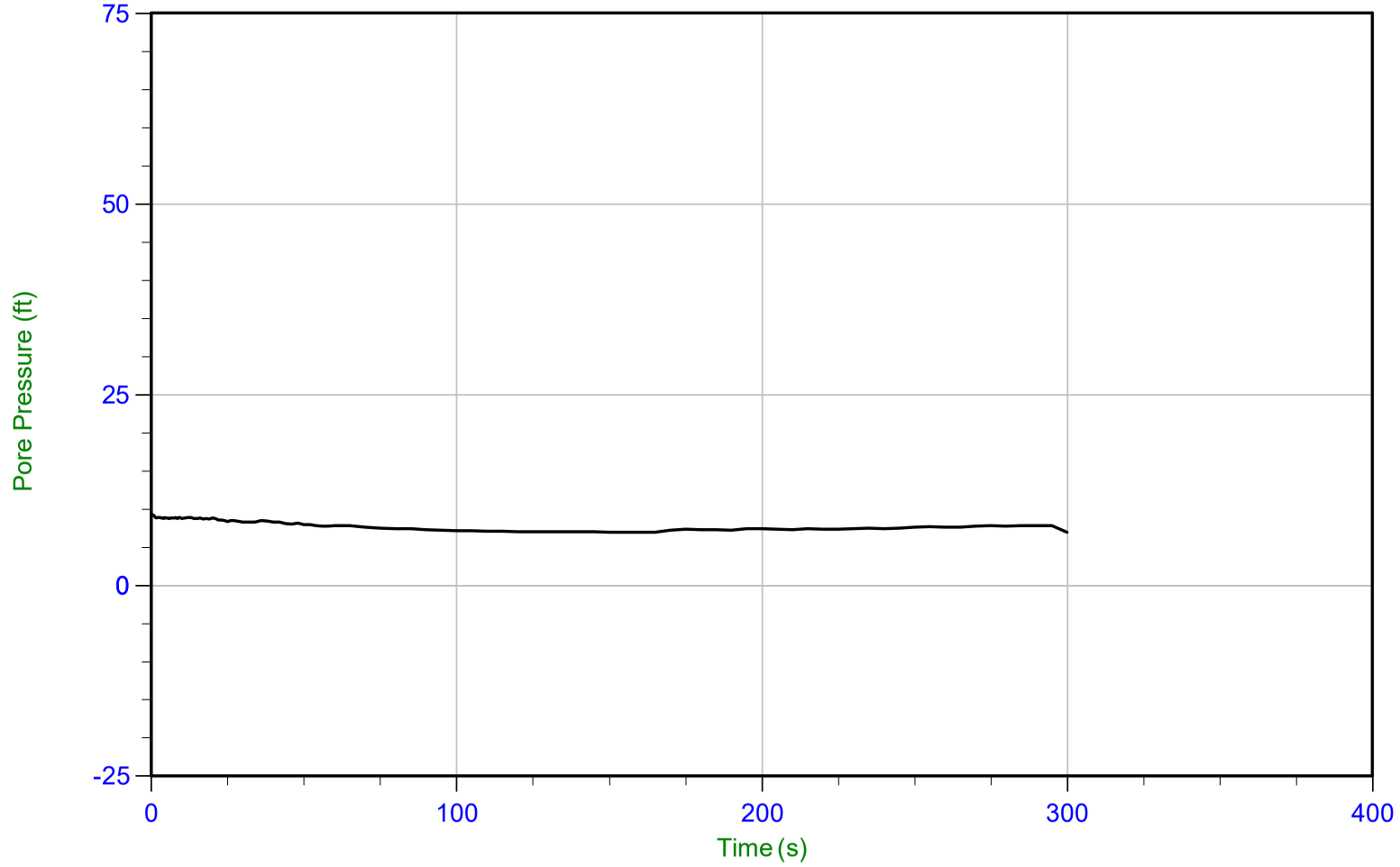
Plate No. C-3-102

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/08/2021 11:13
Site: Little Egbert Tract

Sounding: 21C-15
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP15.PPF
Depth: 31.800 m / 104.329 ft
Duration: 300.0 s

u Min: 7.0 ft
u Max: 9.3 ft
u Final: 7.0 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

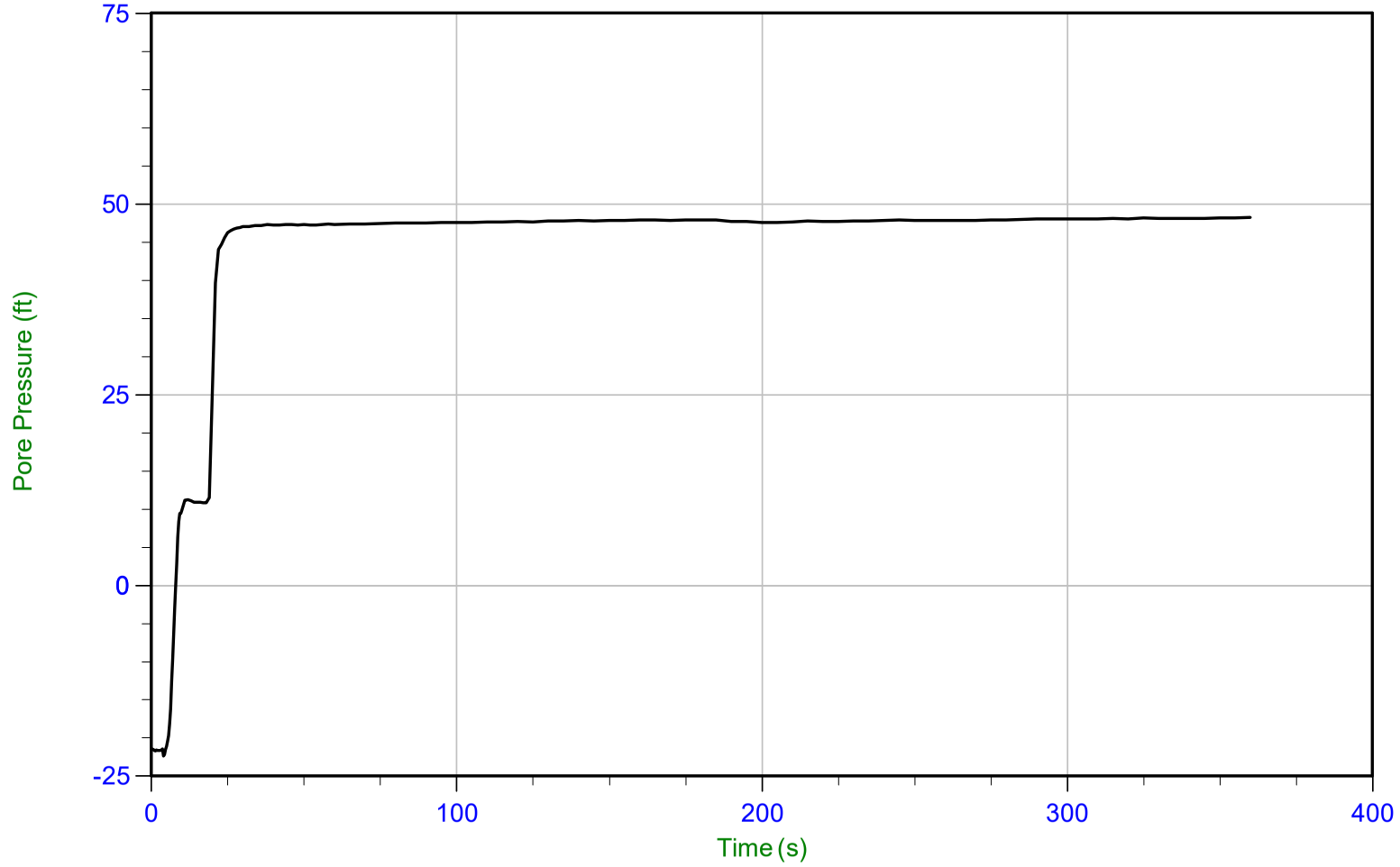
Plate No. C-3-103

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/08/2021 12:55
Site: Little Egbert Tract

Sounding: 21C-16
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP16.PPF
Depth: 15.750 m / 51.673 ft
Duration: 360.0 s

u Min: -22.4 ft
u Max: 48.2 ft
u Final: 48.2 ft

WT: 1.071 m / 3.514 ft
Ueq: 48.2 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

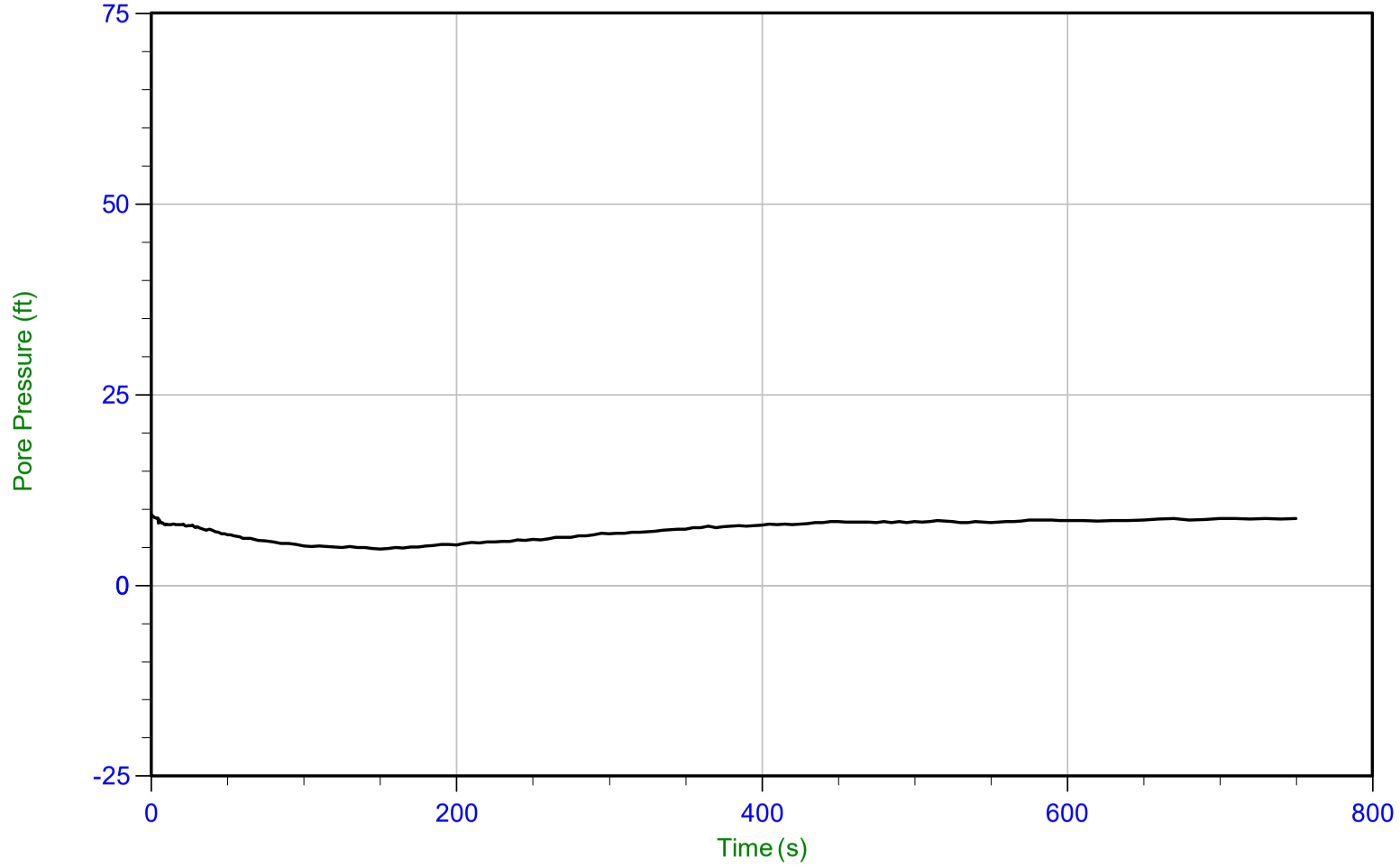
Plate No. C-3-104

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/08/2021 12:55
Site: Little Egbert Tract

Sounding: 21C-16
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP16.PPF
Depth: 27.350 m / 89.730 ft
Duration: 750.0 s

u Min: 4.8 ft
u Max: 9.3 ft
u Final: 8.8 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

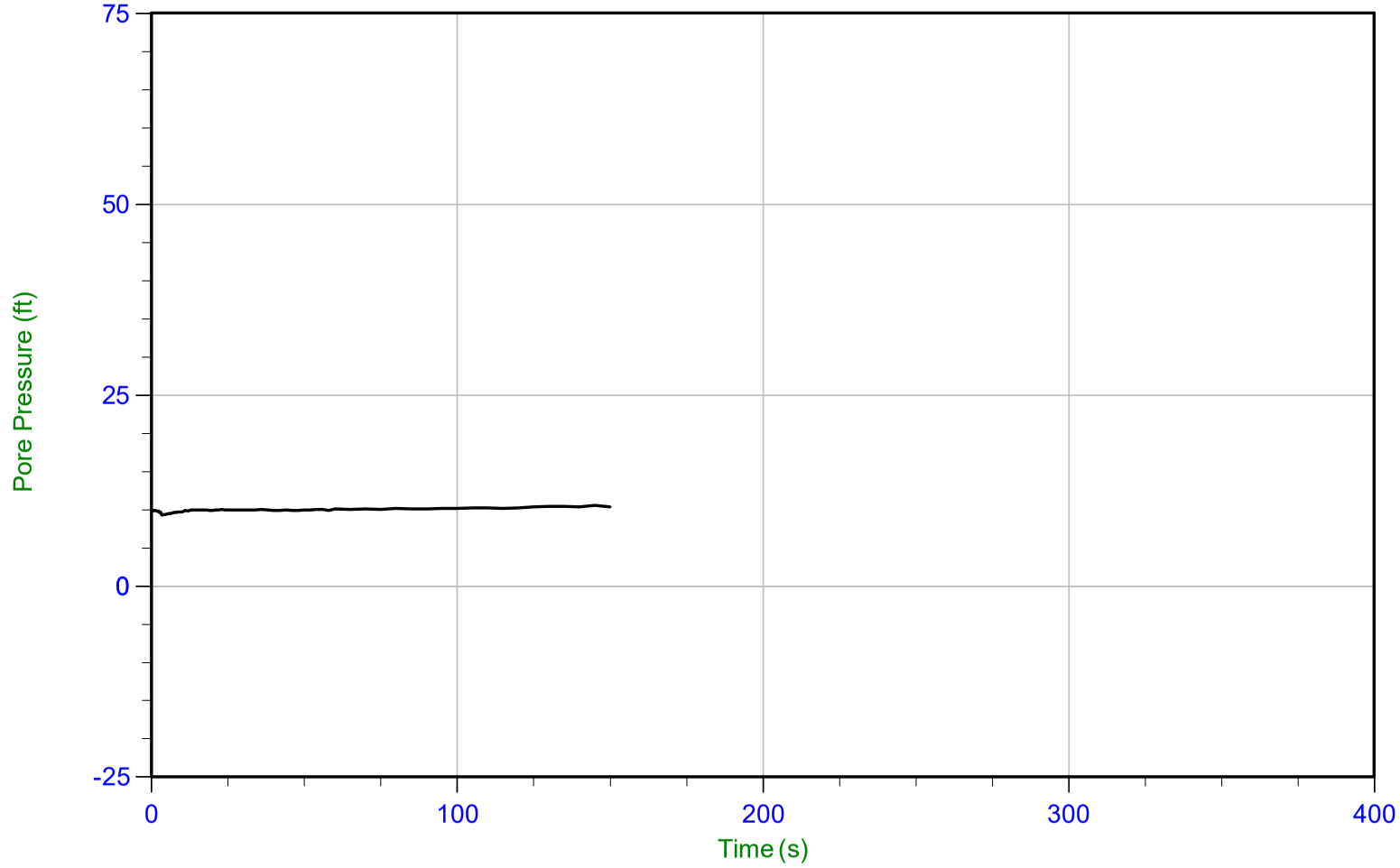
Plate No. C-3-105

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/08/2021 12:55
Site: Little Egbert Tract

Sounding: 21C-16
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP16.PPF
Depth: 31.825 m / 104.411 ft
Duration: 150.0 s

u Min: 9.3 ft
u Max: 10.5 ft
u Final: 10.4 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

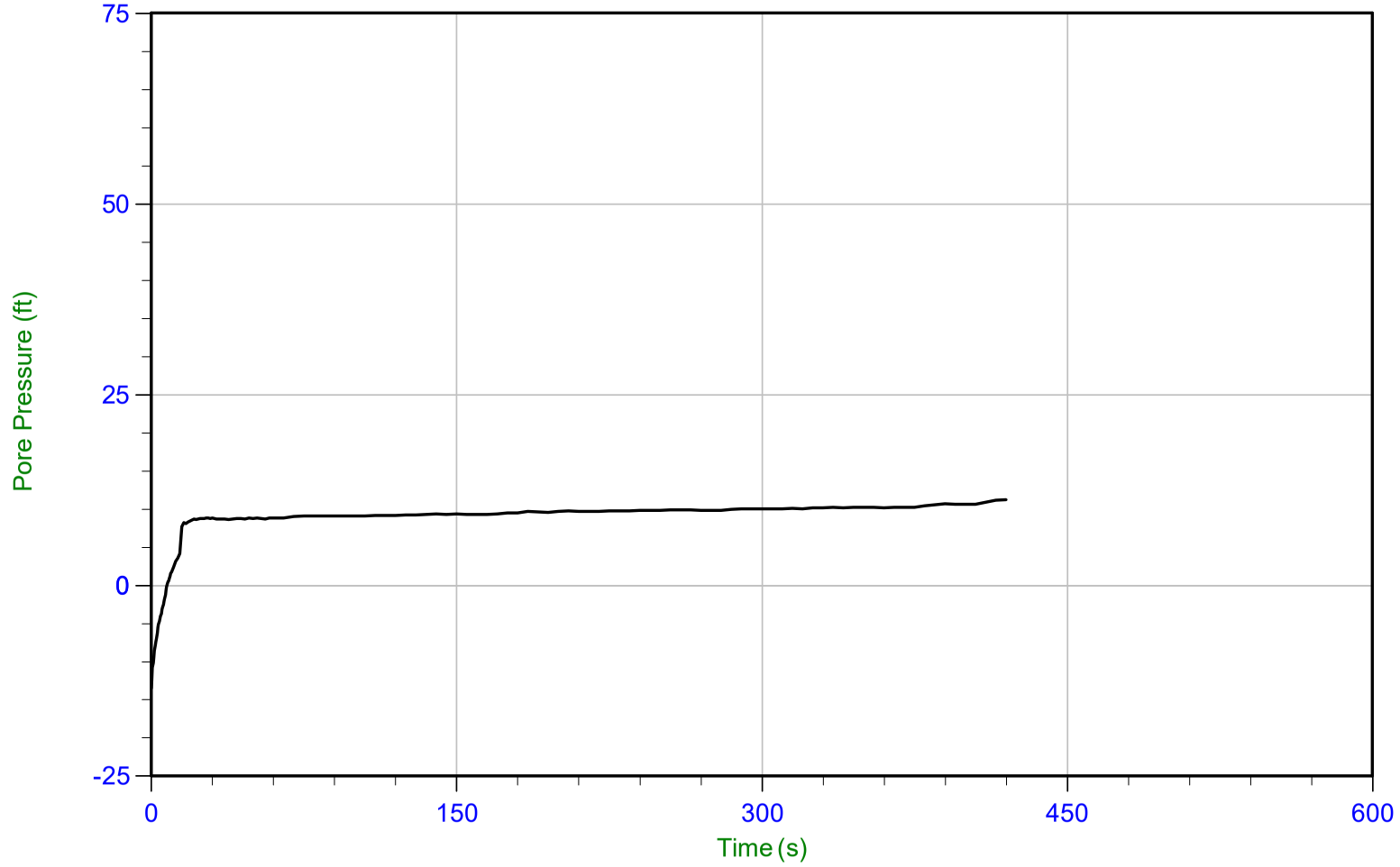
Plate No. C-3-106

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/08/2021 14:58
Site: Little Egbert Tract

Sounding: 21C-17
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP17.PPF
Depth: 7.150 m / 23.458 ft
Duration: 420.0 s

u Min: -13.5 ft
u Max: 11.2 ft
u Final: 11.2 ft

WT: 3.861 m / 12.667 ft
Ueq: 10.8 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

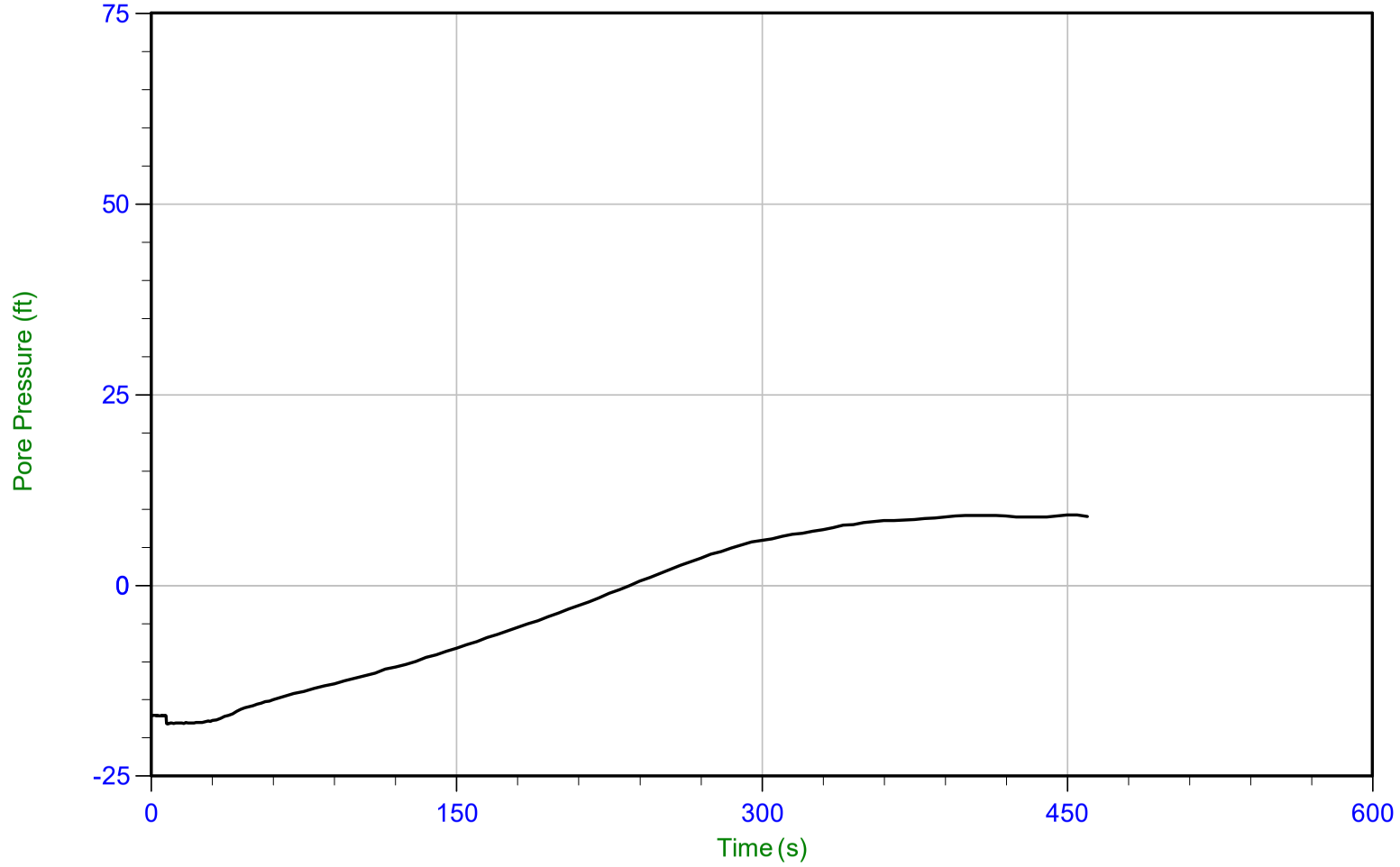
Plate No. C-3-107

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/08/2021 14:58
Site: Little Egbert Tract

Sounding: 21C-17
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP17.PPF
Depth: 20.350 m / 66.764 ft
Duration: 460.0 s

u Min: -18.2 ft
u Max: 9.3 ft
u Final: 9.0 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

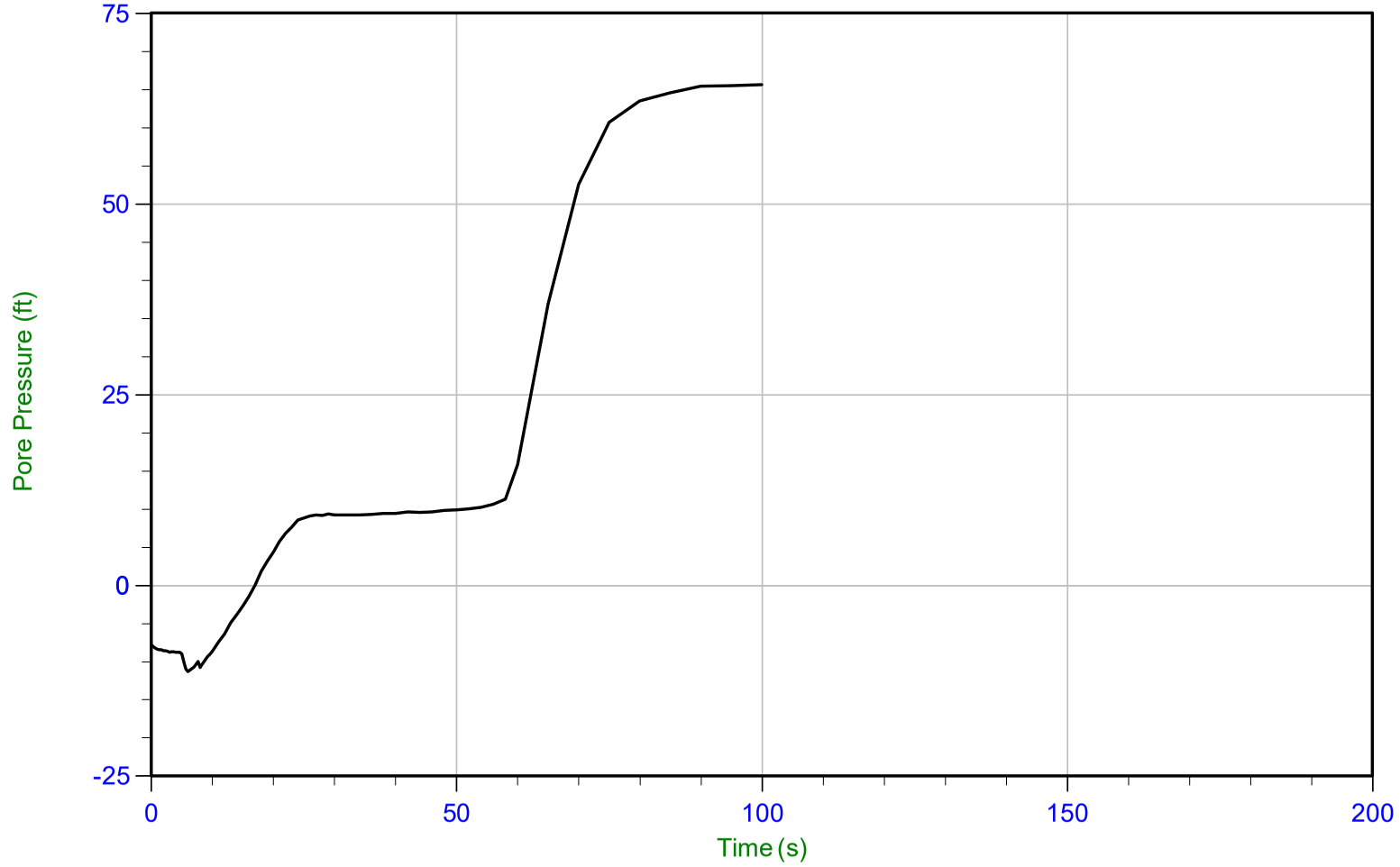
Plate No. C-3-108

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/08/2021 14:58
Site: Little Egbert Tract

Sounding: 21C-17
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP17.PPF
Depth: 24.425 m / 80.134 ft
Duration: 100.0 s

u Min: -11.3 ft
u Max: 65.7 ft
u Final: 65.7 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

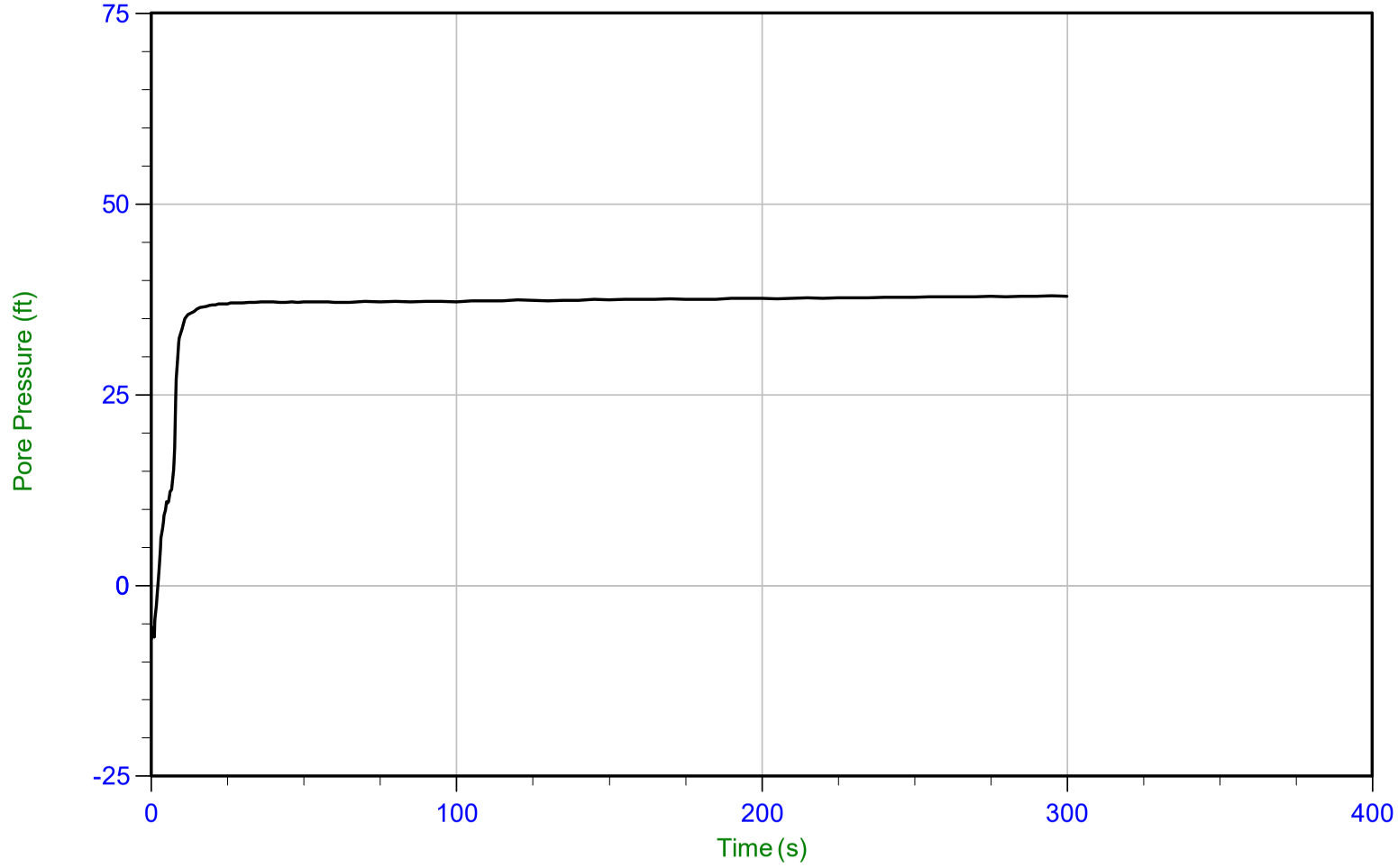
Plate No. C-3-109

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/11/2021 08:36
Site: Little Egbert Tract

Sounding: 21C-18
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP18.PPF
Depth: 11.800 m / 38.713 ft
Duration: 300.0 s

u Min: -7.0 ft
u Max: 37.9 ft
u Final: 37.9 ft

WT: 0.250 m / 0.820 ft
Ueq: 37.9 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

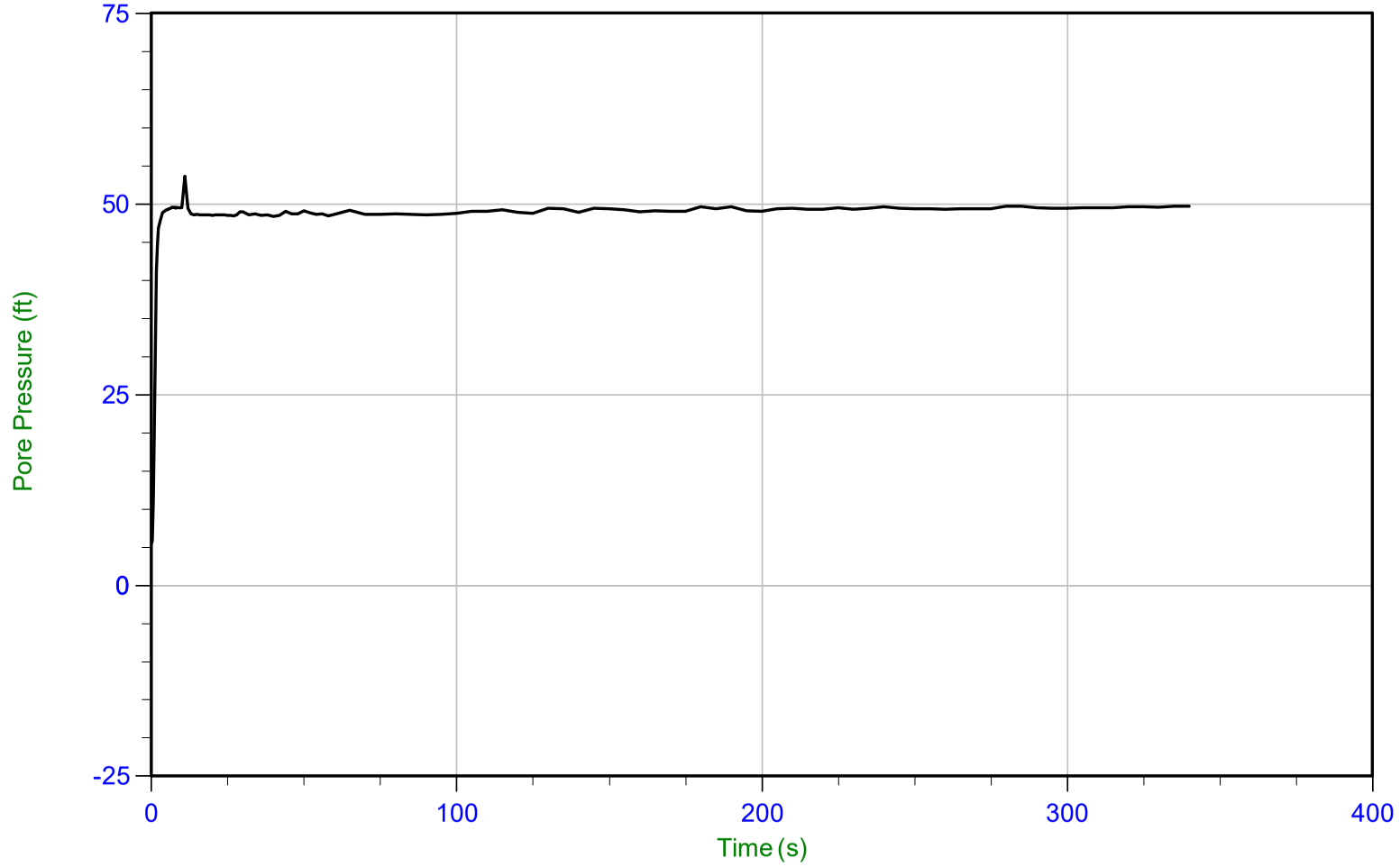
Plate No. C-3-110

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/11/2021 08:36
Site: Little Egbert Tract

Sounding: 21C-18
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP18.PPF
Depth: 15.400 m / 50.524 ft
Duration: 340.0 s

u Min: 5.4 ft
u Max: 53.7 ft
u Final: 49.7 ft

WT: 0.240 m / 0.787 ft
Ueq: 49.7 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

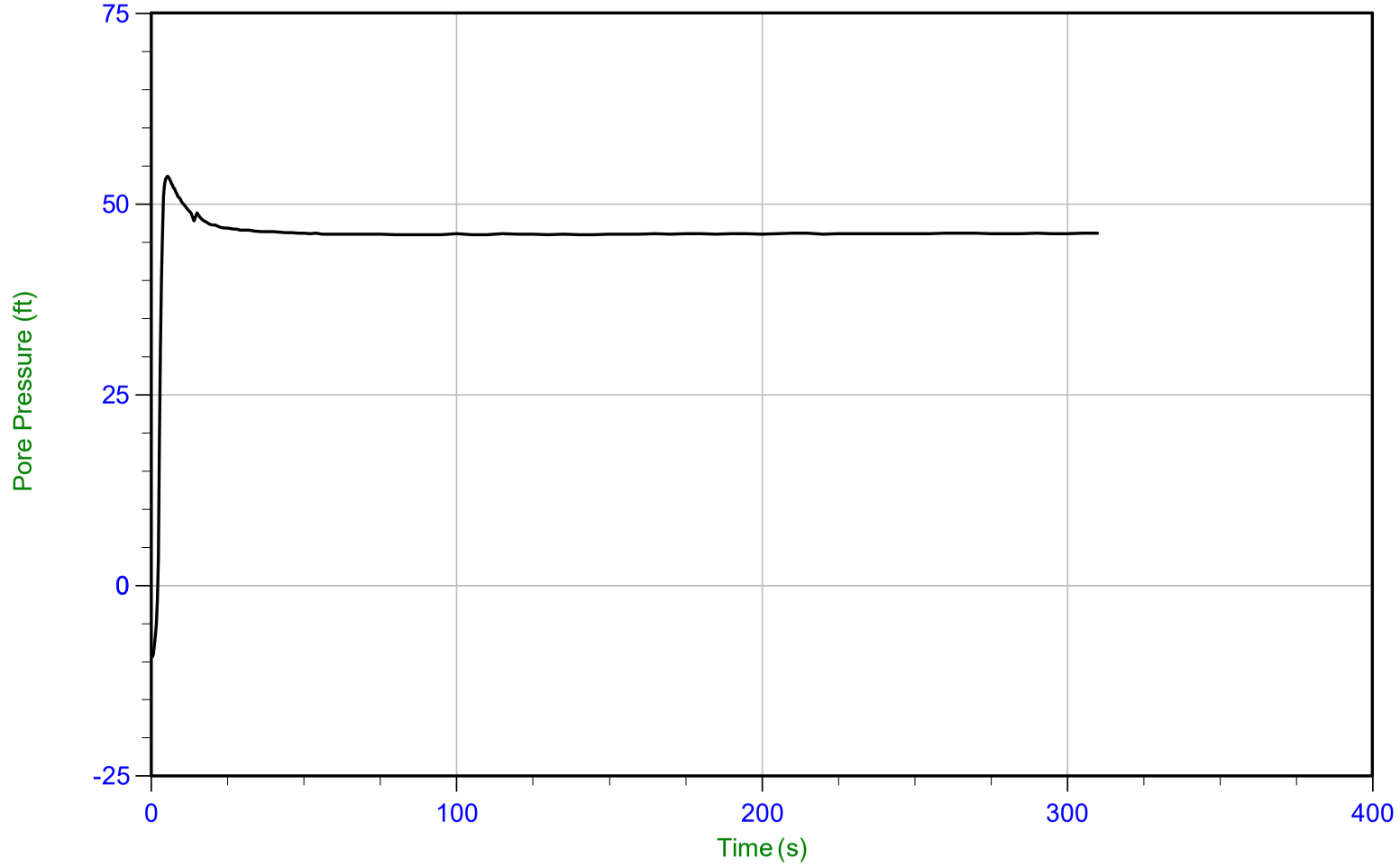
Plate No. C-3-111

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/11/2021 09:39
Site: Little Egbert Tract

Sounding: 21C-19
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP19.PPF
Depth: 14.925 m / 48.966 ft
Duration: 310.0 s

u Min: -9.4 ft
u Max: 53.6 ft
u Final: 46.2 ft

WT: 0.888 m / 2.913 ft
Ueq: 46.1 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

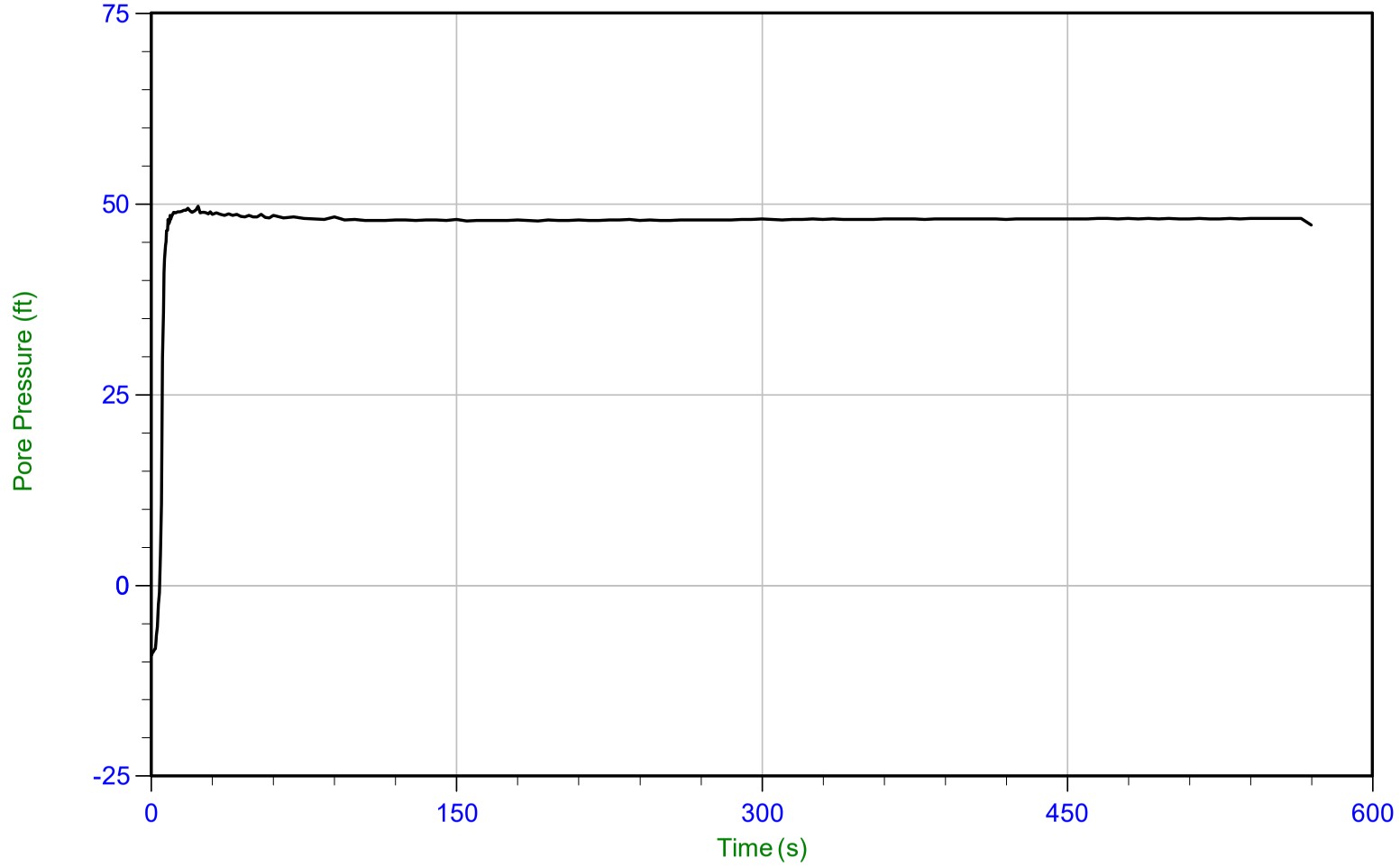
Plate No. C-3-112

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/11/2021 09:39
Site: Little Egbert Tract

Sounding: 21C-19
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP19.PPF
Depth: 15.400 m / 50.524 ft
Duration: 570.0 s

u Min: -9.1 ft
u Max: 49.7 ft
u Final: 47.2 ft

WT: 0.882 m / 2.894 ft
Ueq: 47.6 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

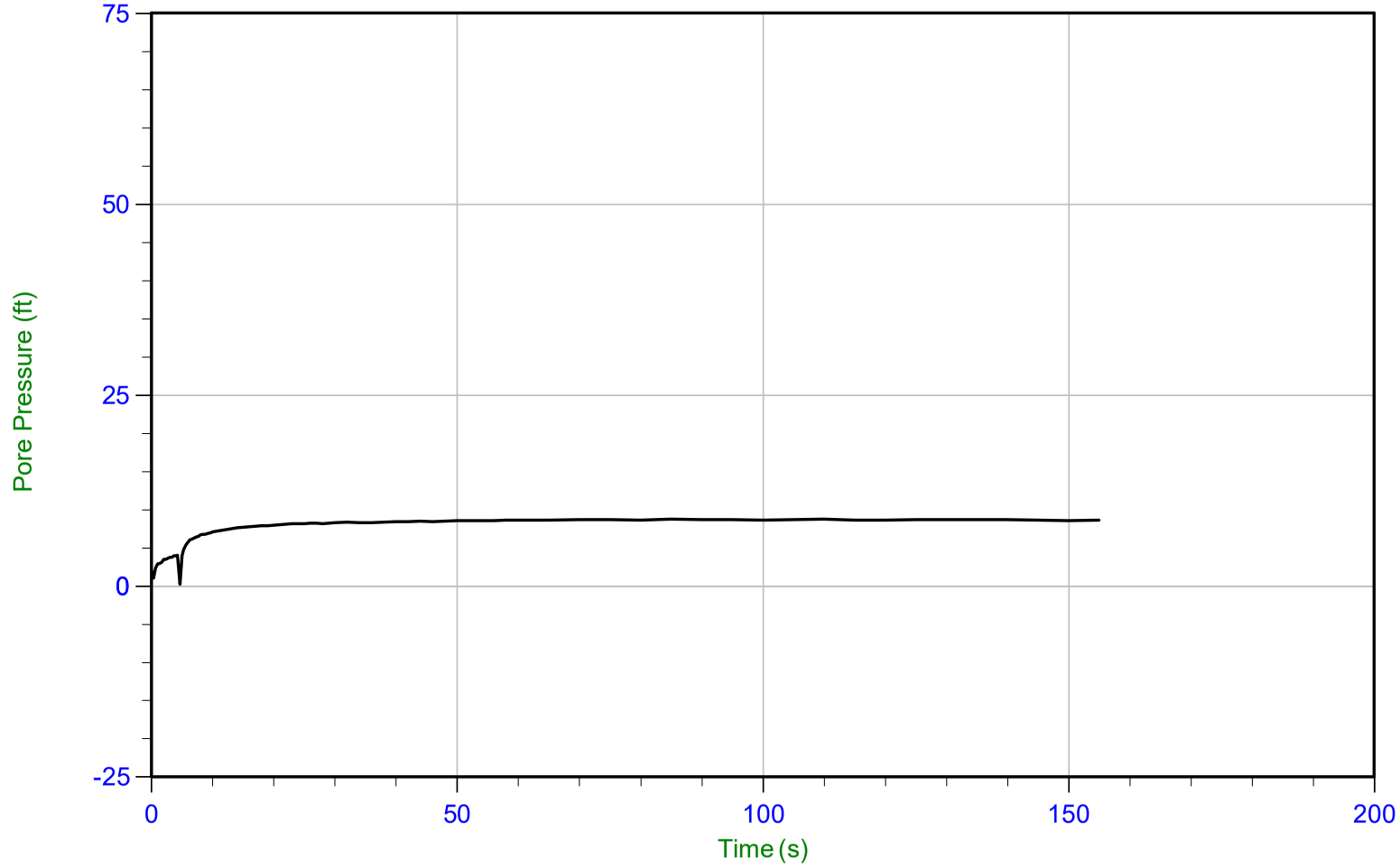
Plate No. C-3-113

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/11/2021 10:43
Site: Little Egbert Tract

Sounding: 21C-20
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP20.PPF
Depth: 1.125 m / 3.691 ft
Duration: 155.0 s

u Min: 0.3 ft
u Max: 8.8 ft
u Final: 8.6 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

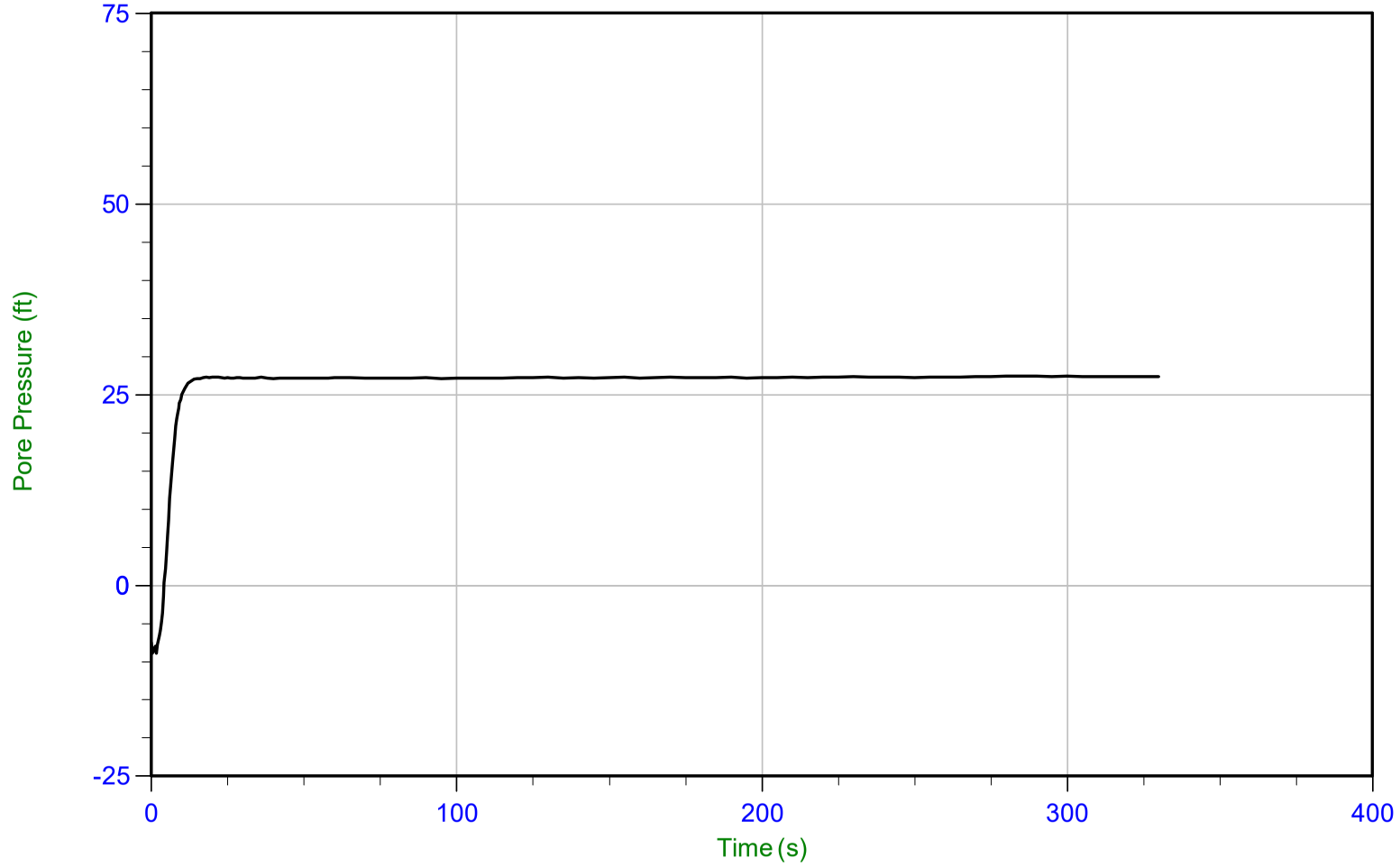
Plate No. C-3-114

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/11/2021 10:43
Site: Little Egbert Tract

Sounding: 21C-20
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP20.PPF
Depth: 8.700 m / 28.543 ft
Duration: 330.0 s

u Min: -8.9 ft
u Max: 27.4 ft
u Final: 27.4 ft

WT: 0.438 m / 1.437 ft
Ueq: 27.1 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

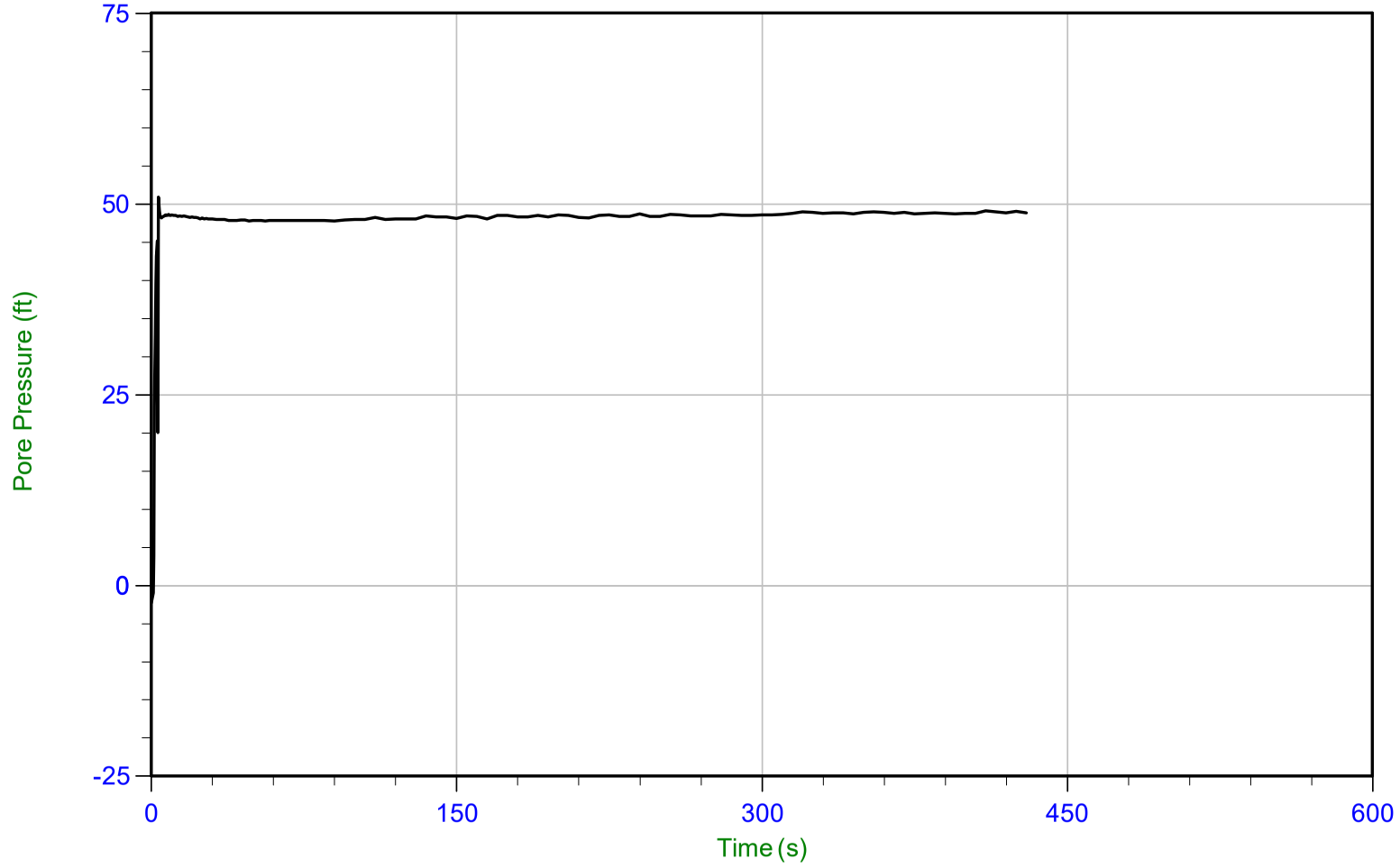
Plate No. C-3-115

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/11/2021 10:43
Site: Little Egbert Tract

Sounding: 21C-20
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP20.PPF
Depth: 15.400 m / 50.524 ft
Duration: 430.0 s

u Min: -2.3 ft
u Max: 50.9 ft
u Final: 48.9 ft

WT: 0.401 m / 1.316 ft
Ueq: 49.2 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

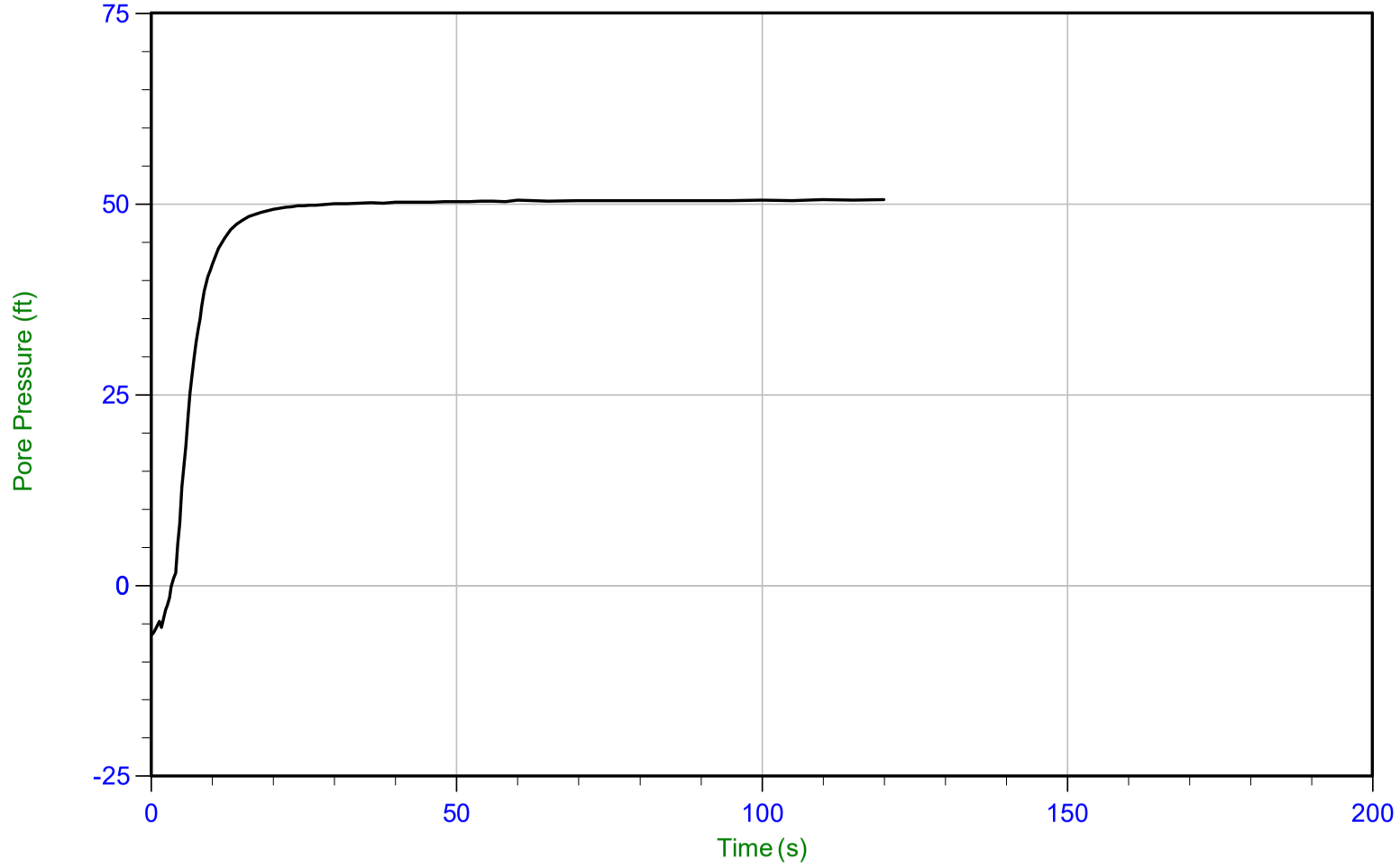
Plate No. C-3-116

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/11/2021 12:14
Site: Little Egbert Tract

Sounding: 21C-21
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP21.PPF
Depth: 15.400 m / 50.524 ft
Duration: 120.0 s

u Min: -6.5 ft
u Max: 50.6 ft
u Final: 50.6 ft

WT: 0.080 m / 0.262 ft
Ueq: 50.3 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

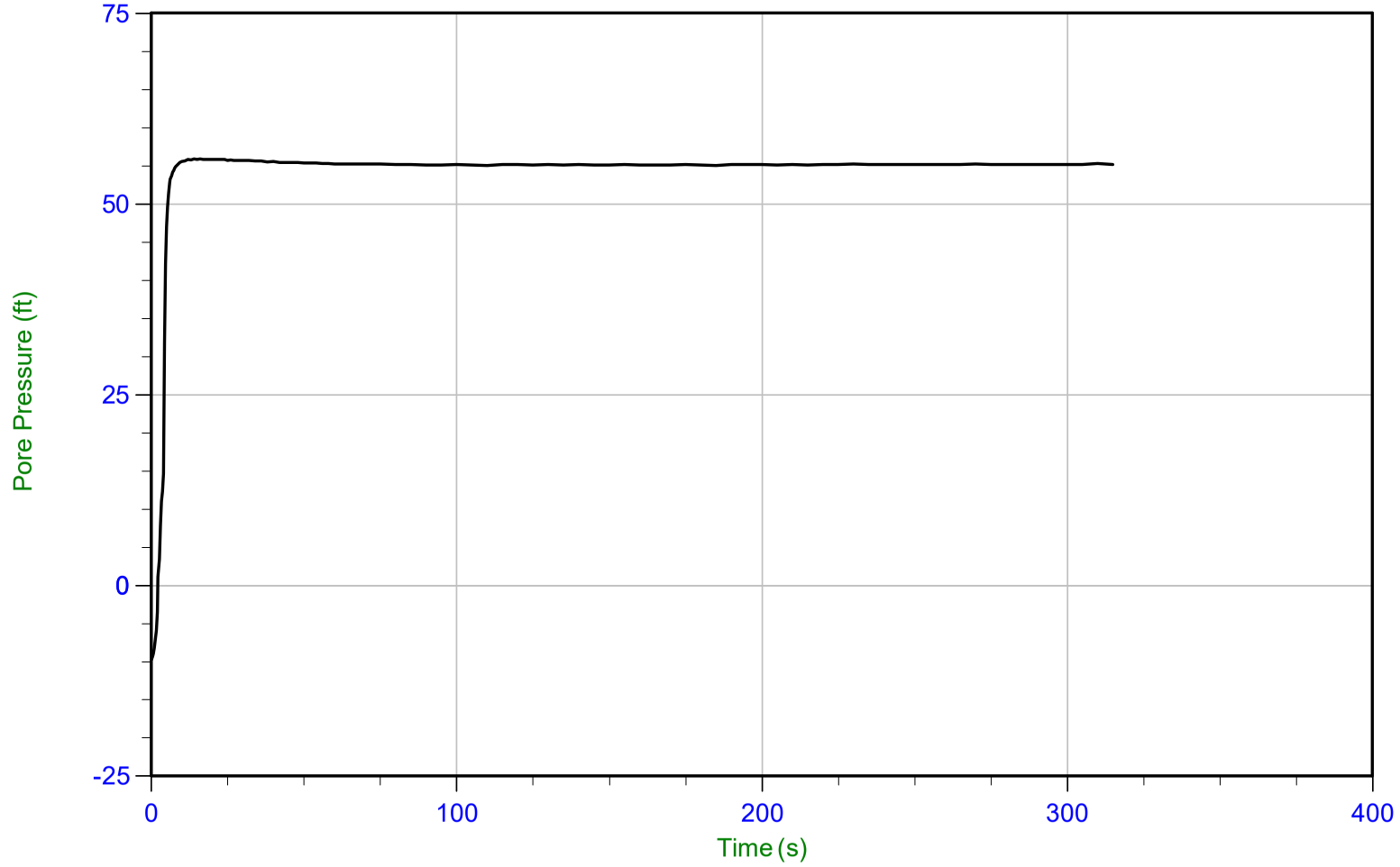
Plate No. C-3-117

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/11/2021 12:14
Site: Little Egbert Tract

Sounding: 21C-21
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP21.PPF
Depth: 16.775 m / 55.035 ft
Duration: 315.0 s

u Min: -9.8 ft
u Max: 55.9 ft
u Final: 55.2 ft

WT: 0.091 m / 0.299 ft
Ueq: 54.7 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

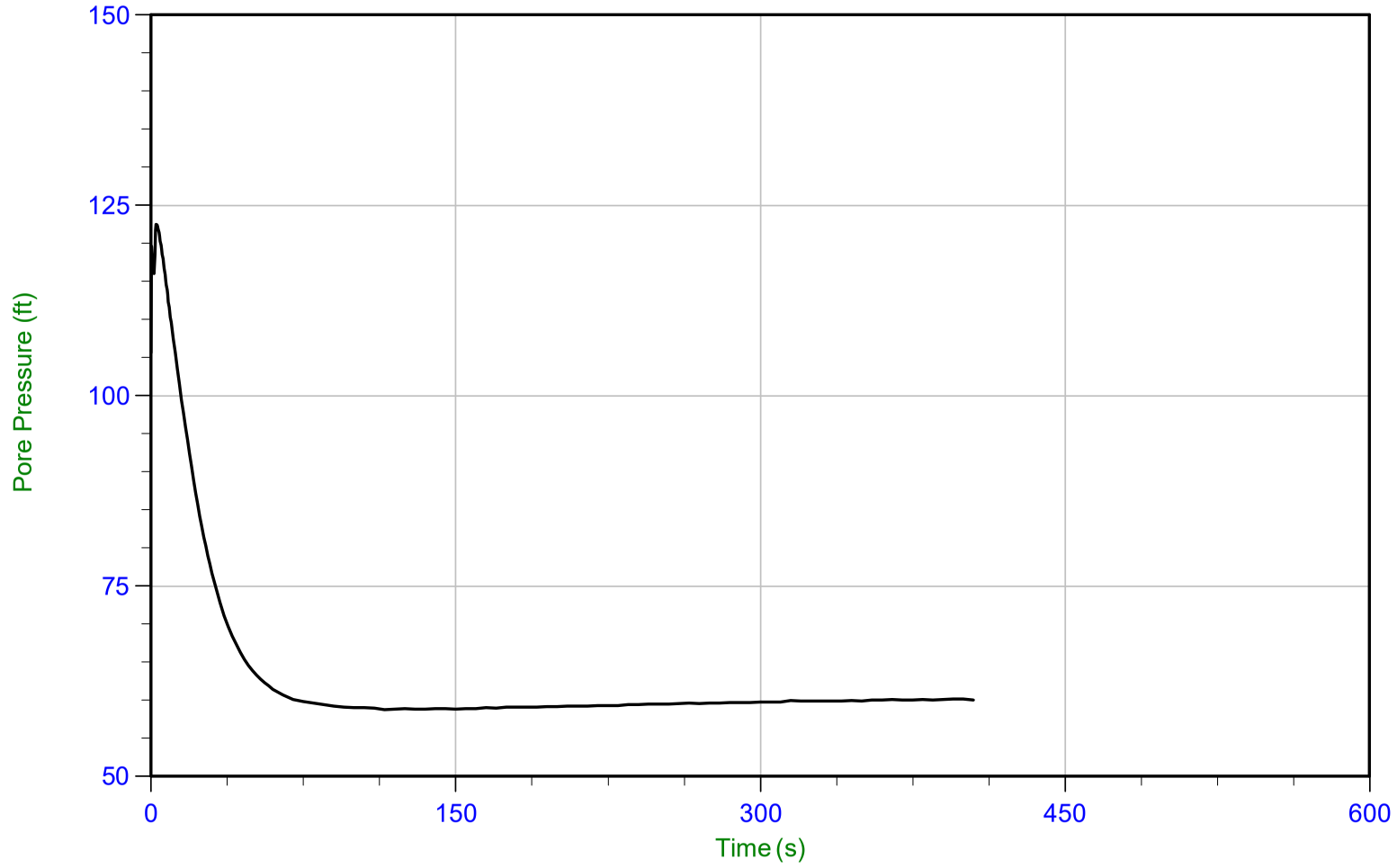
Plate No. C-3-118

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/11/2021 12:14
Site: Little Egbert Tract

Sounding: 21C-21
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP21.PPF
Depth: 18.450 m / 60.531 ft
Duration: 405.0 s

u Min: 58.8 ft
u Max: 122.5 ft
u Final: 60.1 ft

WT: 0.082 m / 0.269 ft
Ueq: 60.3 ft
U(50): 91.37 ft

T(50): 16.9 s
Ir: 100
Ch: 41.5 cm²/min

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

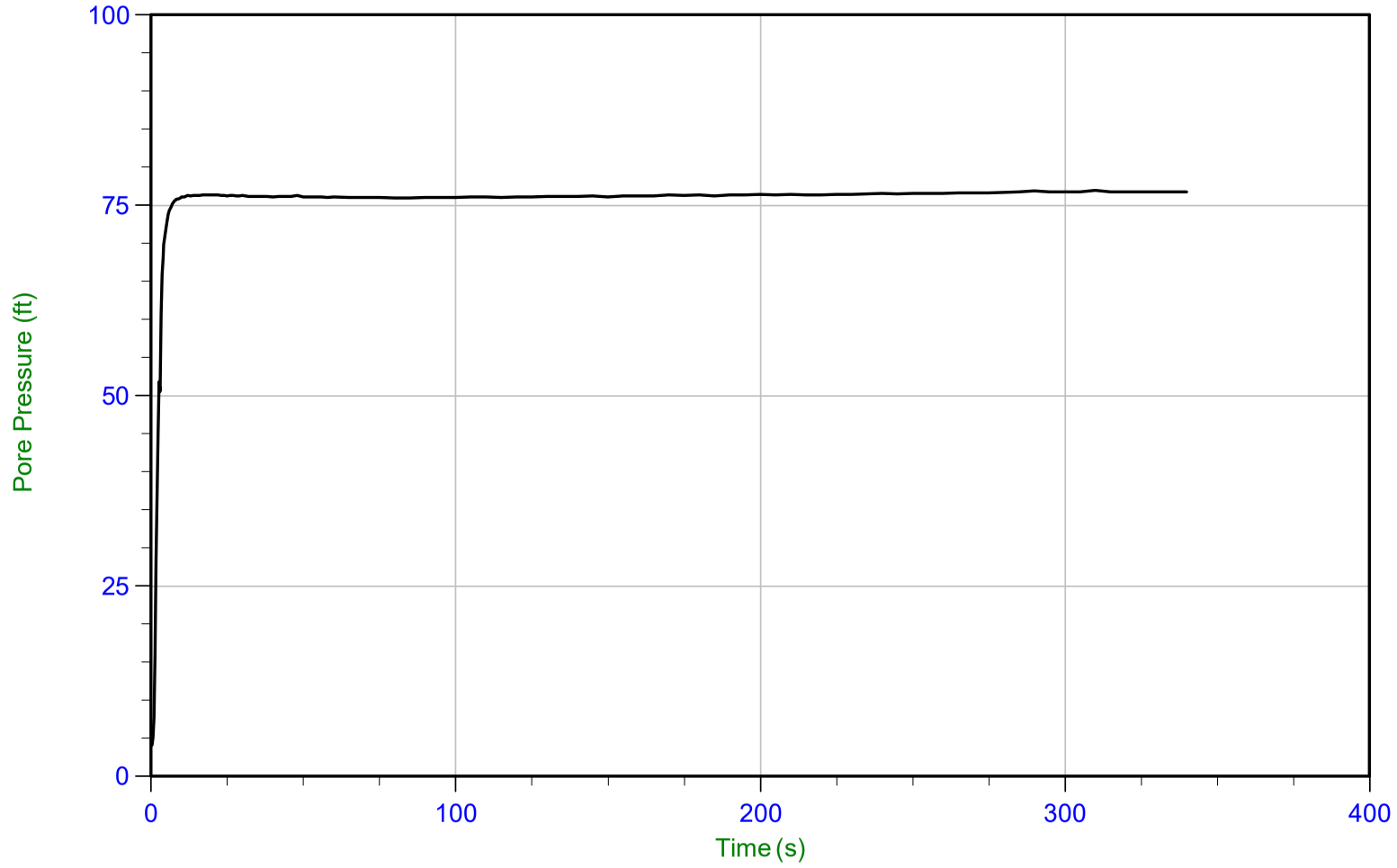
Plate No. C-3-119

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/11/2021 12:14
Site: Little Egbert Tract

Sounding: 21C-21
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP21.PPF
Depth: 23.600 m / 77.427 ft
Duration: 340.0 s

u Min: 4.1 ft
u Max: 76.9 ft
u Final: 76.8 ft

WT: 0.098 m / 0.322 ft
Ueq: 77.1 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

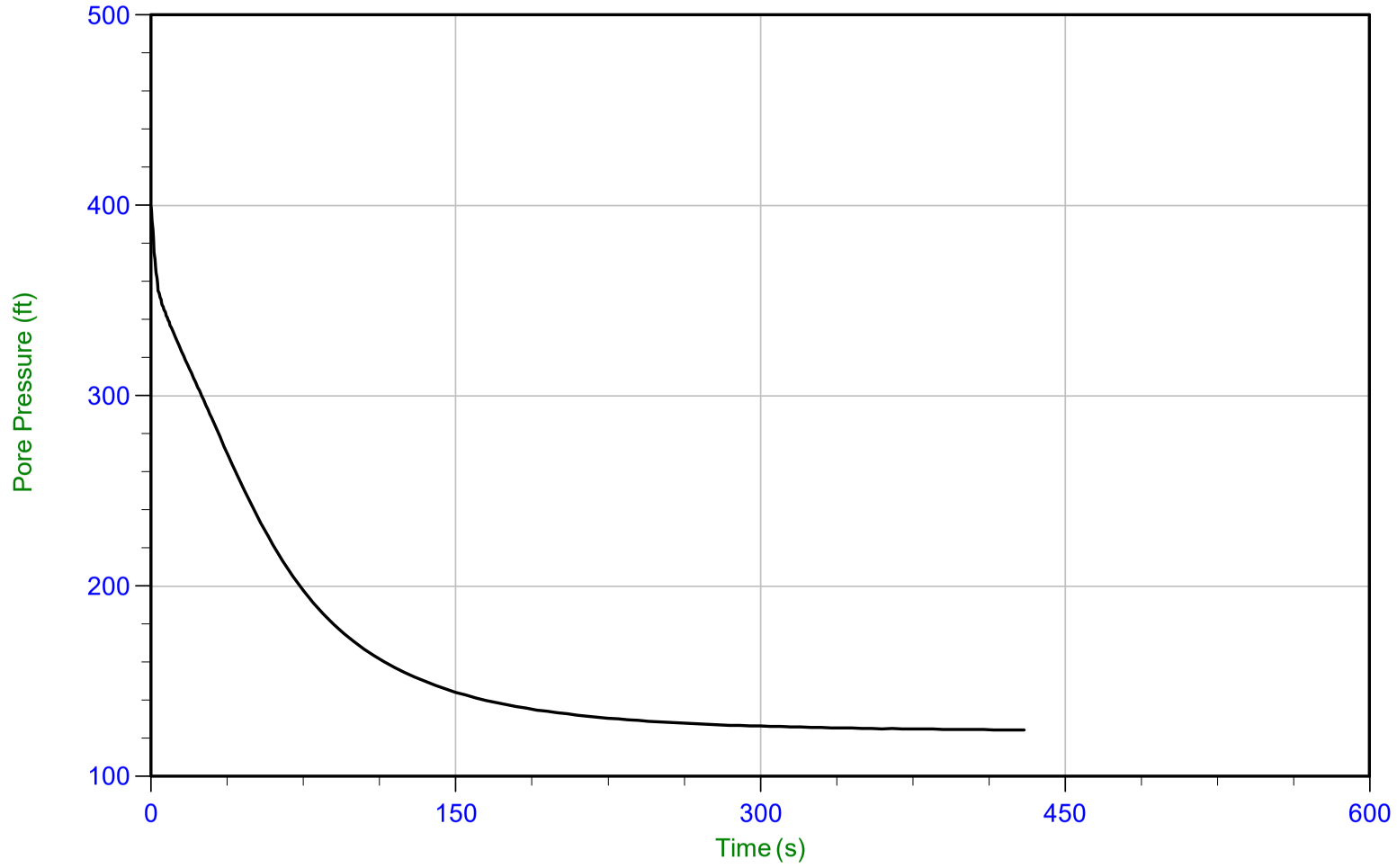
Plate No. C-3-120

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/11/2021 12:14
Site: Little Egbert Tract

Sounding: 21C-21
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP21.PPF
Depth: 36.750 m / 120.569 ft
Duration: 430.0 s

u Min: 124.4 ft
u Max: 399.2 ft
u Final: 124.4 ft

WT: 0.091 m / 0.299 ft
Ueq: 120.3 ft
U(50): 259.71 ft

T(50): 41.7 s
Ir: 100
Ch: 16.8 cm²/min

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

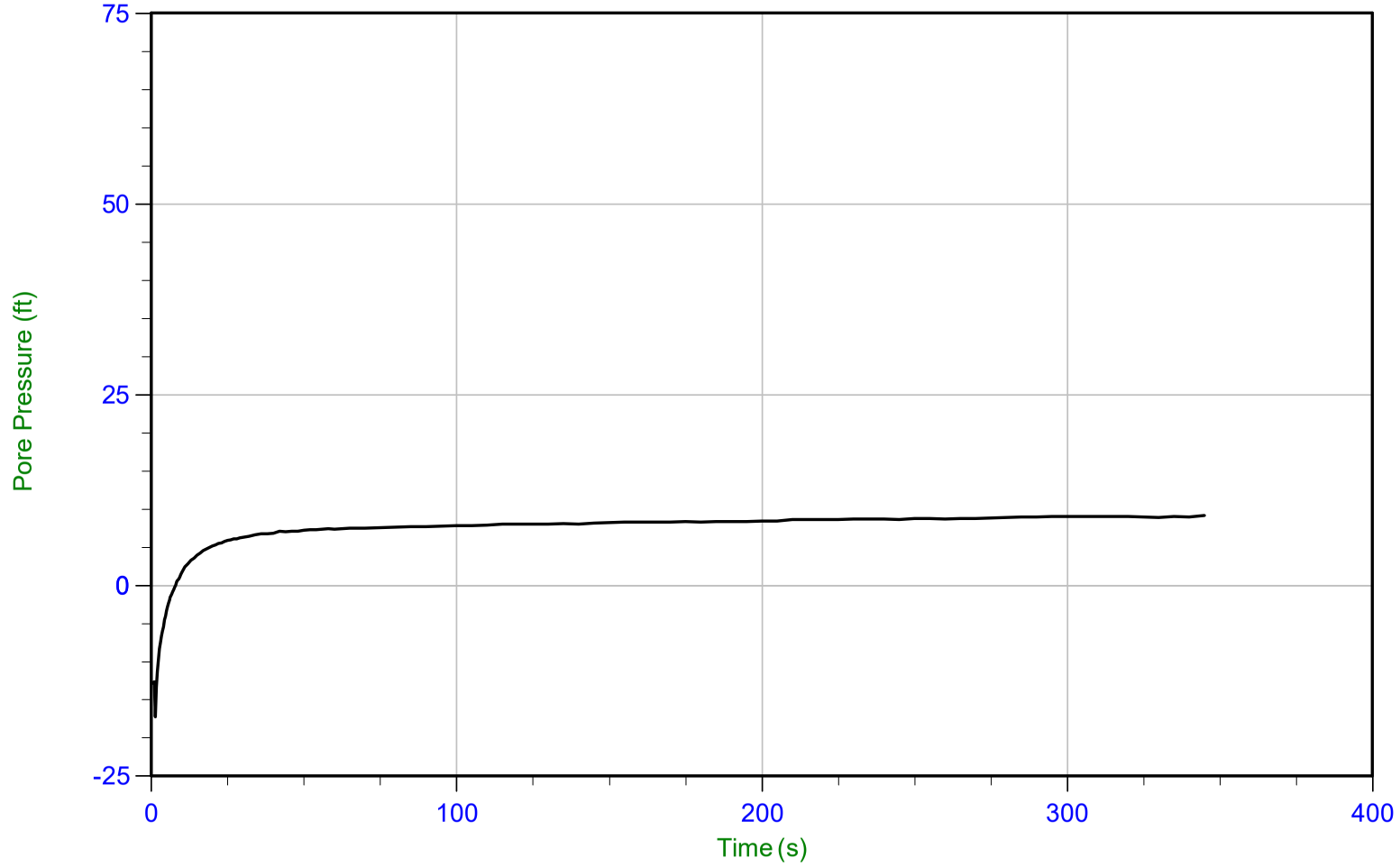
Plate No. C-3-121

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/11/2021 14:09
Site: Little Egbert Tract

Sounding: 21C-22
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP22.PPF
Depth: 5.800 m / 19.029 ft
Duration: 345.0 s

u Min: -17.2 ft
u Max: 9.2 ft
u Final: 9.2 ft

WT: 3.153 m / 10.344 ft
Ueq: 8.7 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

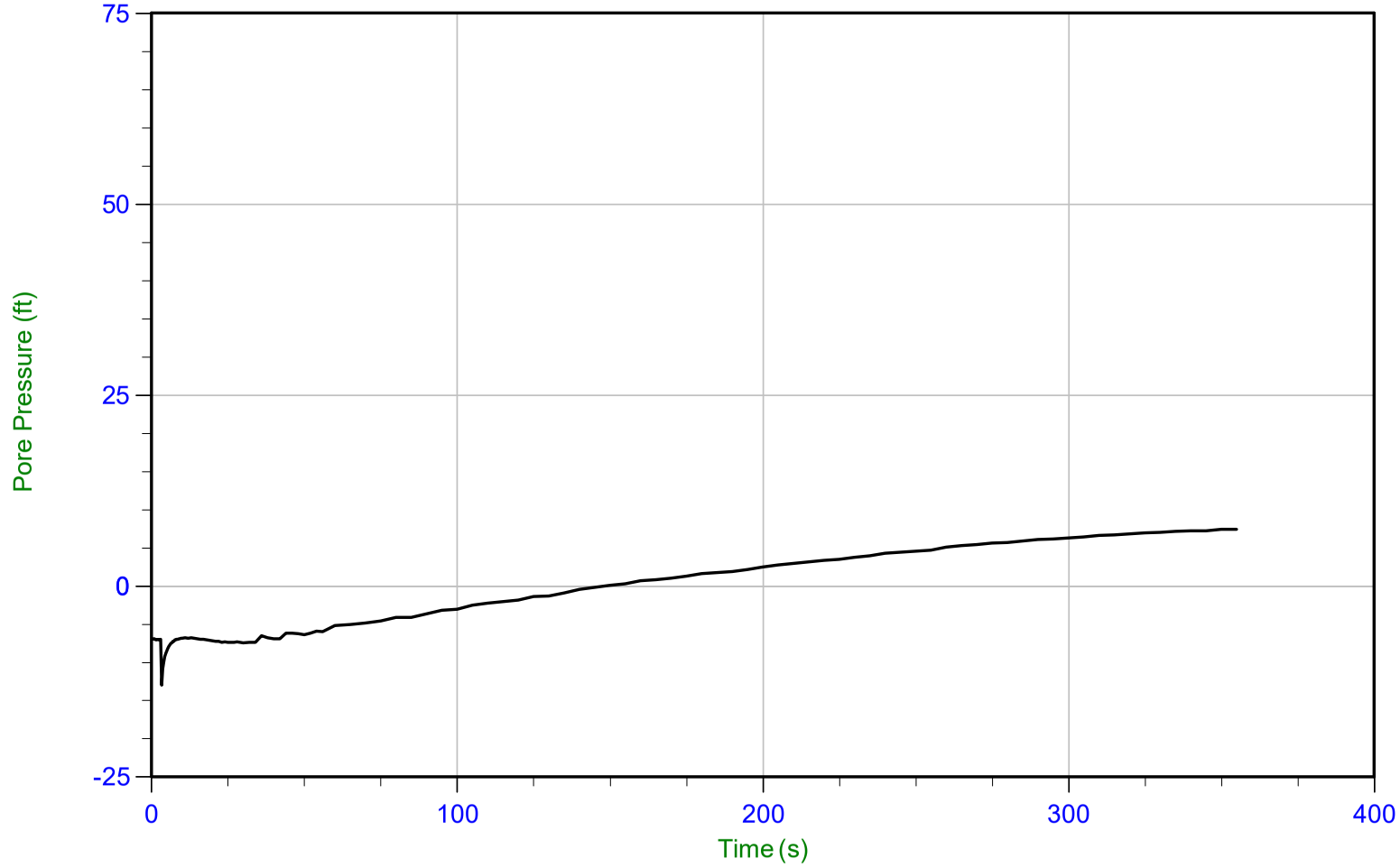
Plate No. C-3-122

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/11/2021 14:09
Site: Little Egbert Tract

Sounding: 21C-22
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP22.PPF
Depth: 10.800 m / 35.433 ft
Duration: 355.0 s

u Min: -13.0 ft
u Max: 7.4 ft
u Final: 7.4 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

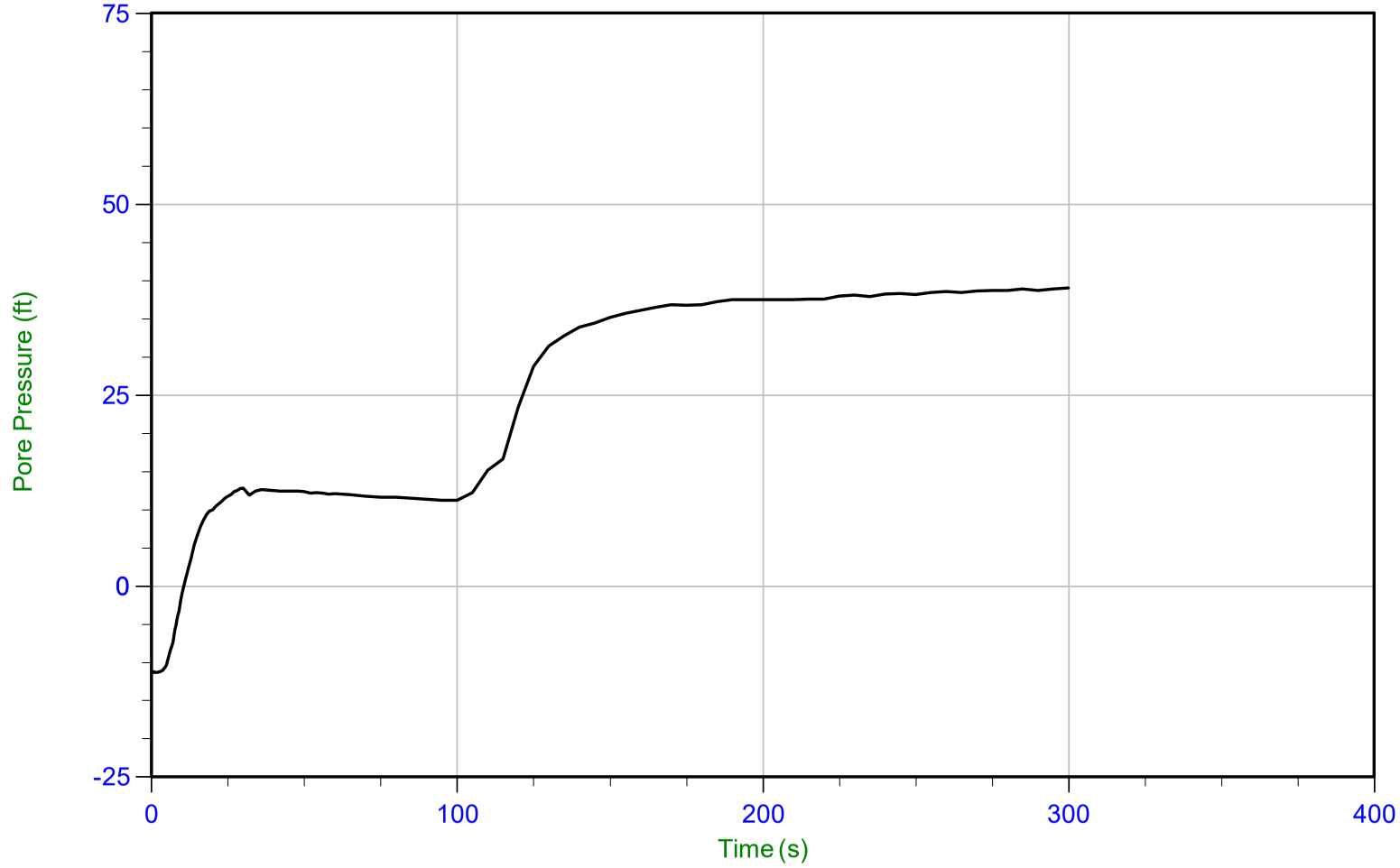
Plate No. C-3-123

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/11/2021 14:09
Site: Little Egbert Tract

Sounding: 21C-22
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP22.PPF
Depth: 15.400 m / 50.524 ft
Duration: 300.0 s

u Min: -11.3 ft
u Max: 39.0 ft
u Final: 39.0 ft

WT: 3.449 m / 11.315 ft
Ueq: 39.2 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

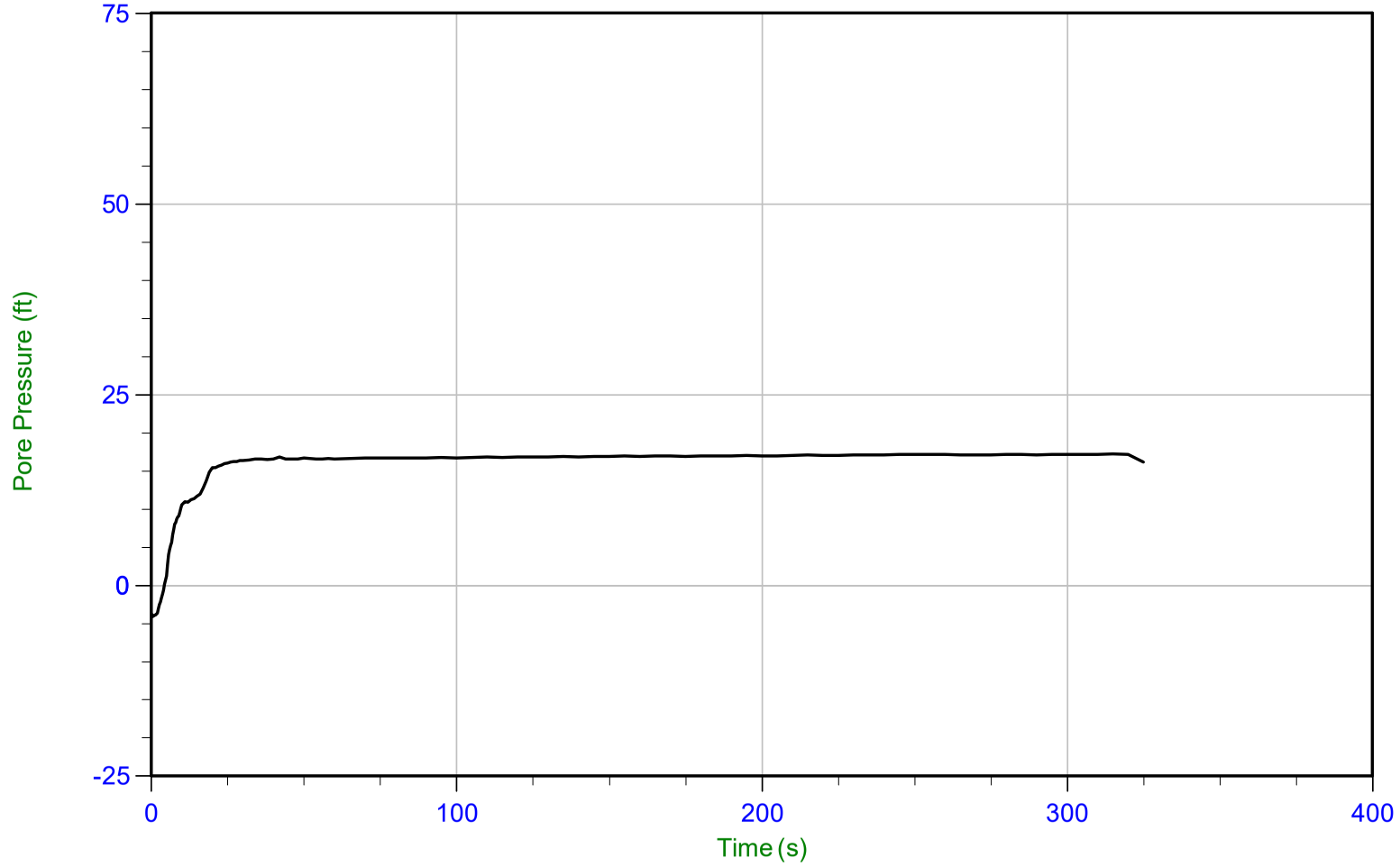
Plate No. C-3-124

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/11/2021 15:45
Site: Little Egbert Tract

Sounding: 21C-23
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP23.PPF
Depth: 8.275 m / 27.149 ft
Duration: 325.0 s

u Min: -4.1 ft
u Max: 17.2 ft
u Final: 16.2 ft

WT: 3.302 m / 10.833 ft
Ueq: 16.3 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.02

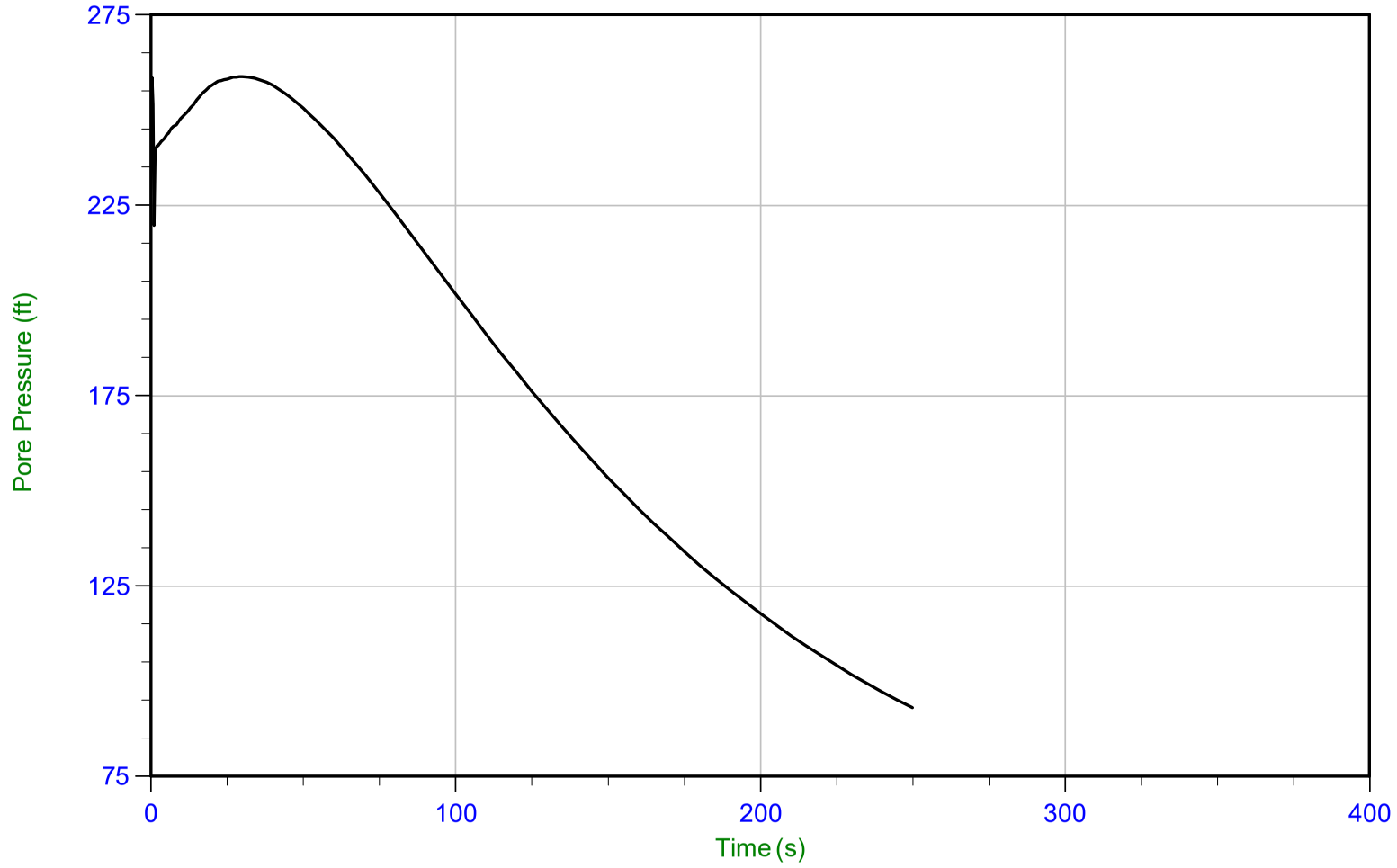
Plate No. C-3-125

CONETEC

Hultgren-Tillis Engineers

Job No: 21-56-23090
Date: 10/11/2021 15:45
Site: Little Egbert Tract

Sounding: 21C-23
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 21-56-23090_CP23.PPF
Depth: 15.400 m / 50.524 ft
Duration: 250.0 s

u Min: 93.0 ft
u Max: 258.8 ft
u Final: 93.0 ft

WT: 3.292 m / 10.800 ft
Ueq: 39.7 ft
U(50): 149.26 ft

T(50): 125.3 s
Ir: 100
Ch: 5.6 cm²/min

APPENDIX D
2022 EXPLORATION DATA

APPENDIX D-1
2022 BORINGS

I. INTRODUCTION

This appendix presents the data from our 2022 borings. The borings were drilled in levee crests, near the landside and waterside levee toes, and in the parcel interior. The logs of borings and laboratory test results are present in this appendix.

II. FIELD EXPLORATION AND LABORATORY TESTING

We explored subsurface conditions on June through August 2022 by drilling 26 borings to depths of 17 to 101.5 feet below existing grade. The approximate boring locations are shown on the Site Plan, Plate 2 and on the 2022 Boring Location Map, Plate D-1-1. Our subcontractor drilled the borings with truck-mounted hollow-stem auger and rotary wash drilling equipment. Soil samples were collected from the borings with three types of samplers: (1) 3.0-inch outside diameter (O.D.), 2.87-inch inside diameter (I.D.) Shelby tubes; (2) 2.5-inch O.D., 1.9-inch I.D. split barrel sampler; and (3) 2.0-inch O.D., 1.4-inch I.D. Standard Penetration Test (SPT) split barrel sampler. The Shelby tubes were advanced into the ground by hydraulic pressure. The other samplers were driven with a 140-pound hammer dropping approximately 30-inches for a penetration depth of 18-inches.

Our engineer logged the borings and recorded blow counts from driving the samplers. We recovered samples from the borings for further visual classification and for selection of materials for laboratory testing. Our engineer used a pocket penetrometer to evaluate unconfined compressive strength or a torvane to evaluate the soil shear strength. The borings were backfilled with grout.

The laboratory testing program consisted of:

- Moisture content and dry density (ASTM D 2216-10 and D7263b-21);
- Atterberg limits (ASTM D 4318-10);
- Sieve analysis (ASTM D 6913-17); and
- Consolidated Undrained Triaxial (ASTM D4767);
- Unconsolidated Undrained Triaxial (ASTM D2850); and
- Consolidation (ASTM D2435)

For Borings 1 through 11, we converted the field penetration resistance obtained while driving the 2.5-inch sampler to equivalent SPT N-values by multiplying by 0.8 to account for

sampler size and 1.43 to account for hammer energy. These factors combine to result in a net correction factor of 1.15. We converted the field penetration resistance obtained while driving the 2.0-inch SPT sampler to equivalent SPT N-values by multiplying by 1.43 to account for hammer energy.

For Borings 12 through 14, we converted the field penetration resistance obtained while driving the 2.5-inch sampler to equivalent SPT N-values by multiplying by 0.8 to account for sampler size and 1.37 to account for hammer energy. These factors combine to result in a net correction factor of 1.10. We converted the field penetration resistance obtained while driving the 2.0-inch SPT sampler to equivalent SPT N-values by multiplying by 1.37 to account for hammer energy.

For Borings 15 through 17, we converted the field penetration resistance obtained while driving the 2.5-inch sampler to equivalent SPT N-values by multiplying by 0.8 to account for sampler size and 1.30 to account for hammer energy. These factors combine to result in a net correction factor of 1.04. We converted the field penetration resistance obtained while driving the 2.0-inch SPT sampler to equivalent SPT N-values by multiplying by 1.30 to account for hammer energy.

For Borings 18 through 26, we converted the field penetration resistance obtained while driving the 2.5-inch sampler to equivalent SPT N-values by multiplying by 0.8 to account for sampler size and 0.9 to account for hammer energy. These factors combine to result in a net correction factor of 0.72. We converted the field penetration resistance obtained while driving the 2.0-inch SPT sampler to equivalent SPT N-values by multiplying by 0.9 to account for hammer energy.

Soil descriptions, equivalent SPT N-values and the laboratory test data are shown on the Logs of Borings, Plates D-1-3 through D-1-39. The soil descriptions are presented in general accordance with the Soil Classification System presented on Plate D-1-2 with laboratory test results presented in the manner described by the Key to Test Data. Atterberg limits test results are shown on Plate D-1-40 through D-1-45. Sieve analysis test results are shown on Plates D-1-46 through D-1-60. Unconsolidated-Undrained triaxial test results are shown on Plates D-1-61 through D-1-70. Consolidation test results are shown on Plates D-1-71 through D-1-79.



Approximate Location of Boring (2022)

Approximate Location of Levee Centerline

N

0 2,000 Feet

1 inch = 2,000 feet

Little Egbert Multi-Benefit Project
Solano County, California

2022 Boring Location Map

Shannon & Wilson, Inc.

Project No. 907.03

Plate No. D-1-1

MAJOR DIVISIONS				GROUP NAMES	
COARSE GRAINED SOILS MORE THAN 50% RETAINED ON NO. 200 SIEVE	GRAVELS MORE THAN 50% OF COARSE FRACTION IS RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS WITH LESS THAN 5% FINES	GW		WELL GRADED GRAVEL
			GP		POORLY GRADED GRAVEL
		GRAVELS WITH OVER 12% FINES	GM		SILTY GRAVEL
			GC		CLAYEY GRAVEL
	SANDS 50% OR MORE OF COARSE FRACTION PASSES NO. 4 SIEVE	CLEAN SANDS WITH LESS THAN 5% FINES	SW		WELL GRADED SAND
			SP		POORLY GRADED SAND
		SANDS WITH OVER 12% FINES	SM		SILTY SAND
			SC		CLAYEY SAND
FINE GRAINED SOILS 50% OR MORE PASSES NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML		SILT
			CL		LEAN CLAY
			OL		ORGANIC CLAY, ORGANIC SILT
	SILTS AND CLAYS LIQUID LIMIT 50 OR MORE		MH		ELASTIC SILT
			CH		FAT CLAY
			OH		ORGANIC CLAY, ORGANIC SILT
HIGHLY ORGANIC SOILS			Pt		PEAT

UNIFIED SOIL CLASSIFICATION SYSTEM- ASTM D 2487

S  - SPT

M  - 2.5 inch

C  - 3.0 inch

T  - Shelby Tube

B  - Bag

 - Water Level at Time of Drilling

 - Water Level after Drilling (with date measured)

Consol - Consolidation

Gs - Specific Gravity

LL - Liquid Limit (%)

PI - Plasticity Index (%)

TxUU - Shear Strength (psf) - Unconsolidated Undrained Triaxial Shear

TxCU - Shear Strength (psf) - Consolidated Undrained Triaxial Shear

UC - Compressive Strength (psf) - Unconfined Compression

P - Push

Perm - Permeability

Sieve - Particle Size Analysis

VS - Laboratory Vane Shear (psf)

-200 - % Passing No. 200 Sieve

KEY TO TEST DATA

Little Egbert Multi-Benefit Project
Solano County, California

Soil Classification Chart

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-2

Date : 6/1/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 21 (NAVD88)
Latitude : 38.21188
Longitude : -121.69271

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	22		GP		Poorly-Graded Gravel with Sand (GP), light yellowish brown, dry, medium dense, (fill)		4.5+			
	M	17				Fat Clay (CH), dark brown, dry to moist, hard, medium plasticity, (fill)		4.5+	31	67	
5	M	11				With few gravel (approximately 1/2-inch) and oxidation Very stiff		3.3	40	67	
				CH							
10	M	16				Shell fragments		3.0	56	60	
15	T	P							55	60	LL=71* PI=38*
	M	14				Organic Clay (OH), very dark, moist, very stiff, medium plasticity		2.4 2.2			TxUU=1225
20	T	P									
				OH							
25	T	P				Wood pieces at bottom		3.7	39	77	Consol

Bottom of boring at 27.5 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-1
(Page 1 of 1)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-3

Date : 6/2/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 22 (NAVD88)
Latitude : 38.21970
Longitude : -121.69586

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	17		GP		Poorly-Graded Gravel with Sand (GP), light brown, dry, medium dense, (fill)					
	M	17				Fat Clay (CH), dark brown, dry, hard, high plasticity, (fill) Very stiff		2.0	39	56	LL=75* PI=41*
5	M	15				With orange fragments		3.5	50	58	
				CH							
10	T	P							48	62	TxUU=1538
15	M	17				Elastic Silt (MH), very dark brown with bluish gray, moist, very stiff, medium plasticity, (fill)		3.0	52	61	LL=80* PI=43*
				MH							
20	T	P				Stiff		1.5	47	70	Consol
						Organic Silt (OL), very dark brown, moist, stiff, medium plasticity					
25	T	P		OL					20	99	TxUU=1100
				CL		Lean Clay with Sand (CL), olive brown, moist, very stiff, low to medium plasticity		2.3			

Bottom of boring at 27 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-2
(Page 1 of 1)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-4

Date : 6/2/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 22 (NAVD88)
Latitude : 38.22783
Longitude : -121.69761

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	21		GP CH		Poorly-Graded Gravel with Sand (GP), light brown, dry, medium dense, (fill)					
	M	13		CH		Fat Clay (CH), tan, dry, stiff, (fill)			31	67	
5	M	13		CH		Fat Clay (CH), tan, moist, stiff, (fill)		2.5			
						Very stiff					
						Fat Clay (CH), tan with orange mottling, moist to wet, stiff, (fill)					
10	M	11		CH		Fat Clay (CH), dark brown, moist, very stiff		2.5	45	70	LL=101*** PI=58*** LL=84* PI=50* LL=81**
15	T	P				Fat Clay (CH), very dark brown, moist, very stiff, (fill)		2.5			TxCU
20	M	15		CH				3.3			
25	T	P						3.3			LL=63* PI=35*
30	T	P		OL		Organic Silt (OL), very dark brown to olive gray, moist, stiff		1.2	37	70	TxUU=1468

Bottom of boring at 32 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method
**ASTM D 2487-10 Oven Dry Preparation Method
***ASTM D 4318-10 Wet Preparation Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-3
(Page 1 of 1)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-5

Date : 6/2/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 21 (NAVD88)
Latitude : 38.23605
Longitude : -121.69791

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	22		GP		Poorly-Graded Gravel with Sand (GP), light brown, dry, medium dense, (fill)		4.5+			
	B	13				Fat Clay (CH), tan to brown, dry, hard, (fill)					LL=58** PI=69***
5	M	18		CH		Dry to moist		4.5+	32	70	PI=41***
10	T	P				Fat Clay (CH), very dark brown, moist, very stiff, (fill)		3.0	40	75	TxUU=2703
15	M	19				Very dark brown and bluish gray		3.7	36	75	LL=73*** PI=35*** LL=72* PI=40* LL=65**
20	M	21		CH				2.6			
25	T	P						2.2	48	67	Consol
30	M	22						2.3	42	68	
35	T	P		OH		Organic Silt (OH), dark brown to black, moist, stiff, with seams of peat		1.9			

Bottom of boring at 37 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method
**ASTM D 2487-10 Oven Dry Preparation Method
***ASTM D 4318-10 Wet Preparation Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-4
(Page 1 of 1)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-6

Date : 6/3/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 21 (NAVD88)
Latitude : 38.19712
Longitude : -121.68361

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	11		GP		Poorly-Graded Gravel with Sand (GP), light yellowish brown, dry, loose, (fill)					
	M	19		CH		Oxidized gravel (approximately 1/2-inch) Fat Clay (CH), tan to brown, dry, hard, (fill)		4.5+	18	78	
5	M	17				Fat Clay (CH), brown and olive brown, dry to moist, very stiff, (fill)		4.5+			
	M	22		CH				4.0	19	99	LL=57* PI=40*
10	M	18				Interbedded layers, brown and olive gray, very stiff		3.5			
						Fat Clay (CH), brown, moist, very stiff					
15	M	10		CH				3.5	28	94	
20	M	18				Yellowish brown		3.2	28	85	Sieve -200=87
						Silty Sand (SM), gray, wet, medium dense					
25	M	18		SM	▽				29	95	Sieve -200=27

Bottom of boring at 26.5 feet
Groundwater encountered at 25 feet during drilling
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-5
(Page 1 of 1)

Shannon & Wilson, Inc. | Project No. 907.03 | Plate No. D-1-7

Date : 6/3/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 22 (NAVD88)
Latitude : 38.20444
Longitude : -121.68820

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	26		GP		Poorly-Graded Gravel with Sand (GP), yellowish brown, dry, medium dense, (fill)					
	M	27				Fat Clay (CH), brown, dry, hard, (fill)		4.5+			LL=55** LL=64*** PI=41***
5	M	23				Dry to moist		4.0	20	94	
				CH							
10	M	18				Brown and olive brown, moist		4.5+			
15	T	P							20	110	TxUU=1216
				CH		Fat Clay (CH), olive brown, moist, very stiff, (fill)		3.2			
						Fat Clay (CH), brown, moist, very stiff, (fill)					
				CH							
20	T	P				Lean Clay with Sand (CL), dark gray, moist, very stiff, low plasticity, cemented clay nodules		3.0	28	93	
				CL							
25	T	P				Olive brown with dark gray spots, hard		4.2			

Bottom of boring at 27 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method
**ASTM D 2487-10 Oven Dry Preparation Method
***ASTM D 4318-10 Wet Preparation Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-6
(Page 1 of 1)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-8

Date : 6/3/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 20 (NAVD88)
Latitude : 38.24424
Longitude : -121.69699

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	18		GP		Poorly-Graded Gravel with Sand (GP), light gray, dry, medium dense, (fill)		4.5+			
	M	11				Fat Clay (CH), brown and dark brown, dry to moist, hard, (fill) Very stiff		3.5			
5	M	15		CH				2.7	47	63	LL=85* PI=51*
10	T	P				Fat Clay (CH), very dark brown, moist, very stiff, (fill)		2.7			
				CH							
15	M	13				Organic Clay (OL), very dark brown with black, moist, stiff, medium plasticity		1.6	46	71	
				OL							
20	T	P						1.8	42	75	LL=76* PI=44* Consol

Bottom of boring at 22 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-7
(Page 1 of 1)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-9

Date : 6/7/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 17 (NAVD88)
Latitude : 38.18272
Longitude : -121.68227

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	14				Silty Sand (SM), yellowish brown, fine to medium grained sand, dry, medium dense, (fill)					
	M	17		SM					5	87	Sieve -200=34
5	M	9									
	M	21				Fat Clay (CH), brown, dry to moist, very stiff, high plasticity		2.3			
10	M	13		CH		Light brown, moist		1.6	30	86	LL=68* PI=47*
	T	P				Silt (ML), yellowish brown, moist, very stiff					
15											
	T	P		ML		Sandier lense, wet		2.4			
20	M	15				Soft		0.5	31	91	
25	M	30				Silty Sand (SM), yellowish brown, wet, medium dense to dense					
				SM							
30	S	43									Sieve -200=14
35						Poorly-Graded Sand with Silt (SP-SM), yellowish brown, wet, dense					
40	S	56		SP-SM							Sieve -200=9

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-8
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Shannon & Wilson, Inc. | Project No. 907.03 | Plate No. D-1-10

Date : 6/7/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 17 (NAVD88)
Latitude : 38.18272
Longitude : -121.68227

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
50	S	26		SM		Silty Sand (SM), olive brown, wet, medium dense to dense					Sieve -200=49
55						Reddish brown					
60	S	50									Sieve -200=28
65						Sandy Silt (ML), olive brown, wet, stiff					
70	S	59		ML							Sieve -200=69
75											
80	S	60									
85				SP-SM		Poorly-Graded Sand with Silt (SP-SM), gray, wet, very dense					

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-8
(Page 2 of 3)

Date : 6/7/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 17 (NAVD88)
Latitude : 38.18272
Longitude : -121.68227

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	S	120/4"		SP-SM							
95						Fat Clay (CH), light brown, moist, hard, medium plasticity					
				CH							
100	M	38						4.5+	27	97	LL=67* PI=44*

Bottom of boring at 101.5 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-8
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Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-12

Date : 6/8/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 10 (NAVD88)
Latitude : 38.18968
Longitude : -121.68318

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	17				Lean Clay (CL), light brown and brown, dry to moist, hard, low plasticity, (fill)		4.5+			
	M	15		CL		Stiff		1.9	23	95	
5	T	P									
	T	P				Lean Clay (CL), olive brown with grayish blue, moist, very stiff		2.5	24	101	
10	M	11				Stiff		1.3			
				CL							
15	M	29			▽						
				ML		Sandy Silt (ML), olive, moist, stiff					
20	S	46				Poorly-Graded Sand with Silt (SP-SM), yellowish and olive brown, wet, dense					Sieve -200=56
25											
30	S	57		SP-SM		Gray					Sieve -200=10
35											
40	S	50				Yellowish and reddish brown, medium dense					

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-9
(Page 1 of 2)

Date : 6/8/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 10 (NAVD88)
Latitude : 38.18968
Longitude : -121.68318

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
50	S	56		SP-SM		Gray, dense					Sieve -200=7
55						Sandy Lean Clay (CL), yellowish brown, wet, stiff					
60	S	33		CL							Sieve -200=53
65						Fat Clay (CH), light olive brown, moist, hard					
70	M	50		CH				4.5+	24	105	

Bottom of boring at 71.5 feet
Groundwater encountered at 15 feet during drilling

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-9
(Page 2 of 2)

Date : 6/9/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 2.5 (NAVD88)
Latitude : 38.21309
Longitude : -121.69299

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	115/10"		OH		Organic Clay (OH), dark brown, dry, very stiff, medium plasticity, desiccated in upper foot		3.2	23	71	
	M	11				With oxidation spots		3.5			
5	T	P		CH		Fat Clay (CH), light olive, moist to wet, firm		0.9	35	84	LL=56* PI=36* TxUU=535
10	M	48		ML		Silt (ML), bluish gray, moist, very stiff, with interbedded sand lenses		3.0	27	99	LL=21* PI=NP*
15	T	P		SP		Poorly-Graded Sand (SP), gray, fine grained sand, wet, medium dense					
20	M	23				Medium to coarse grained sand			25	100	Sieve -200=4
25	S	34				Lense of gravel, some fine-grained material					
				CL		Sandy Lean Clay (CL), bluish gray and reddish brown, wet, stiff					
30	S	27									
35	S	53		SP-SM		Poorly-Graded Sand with Silt (SP-SM), gray, wet, dense					Sieve -200=7
40	S	40		SP-SM		Poorly-Graded Sand with Silt and Gravel (SP-SM), gray, wet, medium dense, subrounded gravel to 1/2-inch					
				SM		Silty Sand (SM), gray, wet, medium dense, with					

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-10
(Page 1 of 2)

Date : 6/9/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 2.5 (NAVD88)
Latitude : 38.21309
Longitude : -121.69299

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	S	40		SM		trace fine gravel					
50	S	32									
						Fat Clay (CH), grayish blue, moist, very stiff					
55	M	25		CH							
60	M	32						2.5			

Bottom of boring at 61.5 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-10
(Page 2 of 2)

Date : 6/9/2022
Drilling Method : Rotary Wash
Elevation (Feet) : 0.5 (NAVD88)
Latitude : 38.21975
Longitude : -121.69544

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	16		CH		Fat Clay (CH), dark brown, dry, hard		4.1	18	85	
	T	P							29	96	
5								2.6			
	M	11		CH		Fat Clay with Sand (CH), light olive, dry to moist		2.5	25	101	
						Silt with Sand (ML), bluish gray, moist, hard, low plasticity, cemented					
10	M	71/11"		ML				4.5+	23	105	
						Poorly-Graded Sand with Silt (SP-SM), gray, wet, medium dense					
15	T	P		SP-SM					35	88	Sieve -200=7

Bottom of boring at 17 feet
No groundwater encountered

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-11
(Page 1 of 1)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-17

Date : 7/26/2022
Drilling Method : Rotary Wash
Elevation (Feet) : -5 (NAVD88)
Latitude : 38.24269
Longitude : -121.69665

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	11				Organic Silt (OH), dark brown, dry to moist, stiff		2.0			
	T	P				Moist, soft to firm		0.5			
5				OH					132	37	LL=92* PI=40*
	M	3				Soft		0.2			
	T	P				Moist to wet					
10	M	7				Fat Clay (CH), grayish blue, wet, stiff, high plasticity		1.8	56	67	LL=77* PI=49*
				CH							
15	M	8				Soft		1.0			
20	M	23				Poorly-Graded Sand with Silt (SP-SM), dark gray, medium to coarse grained sand, wet, medium dense			26	99	Sieve - 200=8
25											
30	S	28		SP-SM							
35											
40	S	56				Very dense					

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-12
(Page 1 of 2)

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 7/26/2022 Drilling Method : Rotary Wash Elevation (Feet) : -5 (NAVD88) Latitude : 38.24269 Longitude : -121.69665					
50	S	21		SP-SM		Medium dense					
55											
60	M	53				Very dense, with trace fine gravel					

Bottom of boring at 61.5 feet
Groundwater obscured due to drilling method
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-12
(Page 2 of 2)

Date : 7/26/2022
Drilling Method : Rotary Wash
Elevation (Feet) : -4.5 (NAVD88)
Latitude : 38.23607
Longitude : -121.69742

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	17				Organic Silt (OH), dark and light brown, dry to moist, stiff, high plasticity		2.7			
	T					Moist, firm, medium plasticity		0.8			
5	M	6			▽	Soft		0.5	90	48	LL=78* PI=30*
	T	P									
10	T	P		OH		Wet, with peat		0.4			Consol TxCU
15	M	4				Abundant peat	0.2	0.4 0.2	174	29	LL=93* PI=44*
20	T	P		SC		Clayey Sand (SC), grayish blue, moist to wet, medium dense					
25						Poorly-Graded Sand with Silt (SP-SM), dark gray, wet, medium dense					
30	S	20									
35				SP-SM							
40	S	24				Lense of silt (approximately 0.5-inches)					

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-13
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Shannon & Wilson, Inc. | Project No. 907.03 | Plate No. D-1-20

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 7/26/2022 Drilling Method : Rotary Wash Elevation (Feet) : -4.5 (NAVD88) Latitude : 38.23607 Longitude : -121.69742					
50	S	49		SP-SM		Dense					
55				ML		Silt with Sand (ML), gray, wet, very stiff, low plasticity					
60	M	31						2.3			

Bottom of boring at 61.5 feet
Groundwater encountered at 6 feet during drilling
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-13
(Page 2 of 2)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-21

Date : 7/27/2022
Drilling Method : Rotary Wash
Elevation (Feet) : -3 (NAVD88)
Latitude : 38.22785
Longitude : -121.69709

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	14				Organic Silt (OH), brown, dry, hard, high plasticity		4.5+			
	T	P		OH		Olive brown, dry to moist, stiff		1.2	46	65	LL=86* PI=47*
5	M	6				Stiff to firm		1.3 0.5			
	T	P				Moist					
				CH		Fat Clay (CH), grayish blue, moist, stiff, with cemented nodules, trace sand		1.3			
10	M	80		CH		Sandy Fat Clay (CH), blue, moist, hard, cemented		1.2			
						Silt (ML), tan, moist, hard, low to medium plasticity					
15	M	57		ML				4.0	29	95	LL=37* PI=11*
20	T	P				Dark gray					
						Silty Sand (SM), gray, wet, dense					
25	M	36							30	94	Sieve -200=18
30				SM							
35	M	28				Medium dense					
40											

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-14
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Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
						Date : 7/27/2022 Drilling Method : Rotary Wash Elevation (Feet) : -3 (NAVD88) Latitude : 38.22785 Longitude : -121.69709					
50	S	56		SM							

Bottom of boring at 51.5 feet
Groundwater obscured due to drilling method
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-14
(Page 2 of 2)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-23

Date : 8/15/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 15.5 (NAVD88)
Latitude : 38.17903
Longitude : -121.68064

Depth in Feet	Samples Type/ Recovery	Blow Count	USCS	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	T	P	CL	Sandy Lean Clay (CL), brown, fine to coarse grained sand, moist, medium stiff, few fine to coarse gravel, (fill)					Sieve -200=63
5	M	10	SC	Clayey Sand (SC), brown, fine to medium grained sand, moist, medium dense, (fill)			14	106	
10	T	P		Less sandy			18	108	Sieve -200=43
						2.5			
	S	13	CH	Fat Clay (CH), gray, moist, very stiff, high plasticity		2.5			
15	T	P	CL	Sandy Lean Clay (CL), dark brown, fine grained sand, wet, very loose			32	87	Sieve -200=51
	M	0		Gray					
				Organic Silt (OH), light gray, wet, soft, trace organic fibers					
20	T	P	OH						Consol
						0.5	84	50	LL=111*
	M	3				0.6			PI=61*
				Fat Clay (CH), greenish gray with light gray mottling, wet, stiff, trace rootlets		1.2			
25	T	P	CH				28	97	LL=53*
									PI=32*
						2.0	31	88	TxUU=1610
	M	32	SC	Clayey Sand with Gravel (SC), gray, fine grained sand, wet, dense, fine to coarse gravel					Consol
			SM						
30	S	20		Silty Sand (SM), gray, fine grained sand, wet, dense, trace fine gravel			26		Sieve -200=10
				Poorly-Graded Sand with Silt (SP-SM), gray, fine grained sand, wet, medium dense to dense					
35	S	18	SP-SM						
40	S	33					28		Sieve -200=8

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-15
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Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-24

Date : 8/15/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 15.5 (NAVD88)
Latitude : 38.17903
Longitude : -121.68064

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	S	30		SP-SM							
50	S	39				Brown			23		Sieve -200=7

Bottom of boring at 51.5 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-15
(Page 2 of 2)

Date : 8/15/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 14 (NAVD88)
Latitude : 38.17714
Longitude : -121.67820

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	19		SM		Silty Sand with Gravel (SM), gray brown, fine grained sand, moist, medium dense, fine gravel, (fill)		4.5	10	116	Sieve -200=46
				CL		Lean Clay with Sand (CL), dark brown, fine grained sand, moist, very stiff to hard, (fill)					
5				SM							
	M	18				Silty Sand with Gravel (SM), gray brown, fine grained sand, dry, medium dense, fine gravel, (fill)			4	96	Sieve -200=5
				SP		Poorly-Graded Sand (SP), brown, fine to medium grained sand, moist, medium dense, (fill)					
10	M	6				Loose		2.2			
				CL		Lean Clay with Sand (CL), brown, fine grained sand, moist, medium stiff to very stiff, medium plasticity, (fill)					
15	T	P		CL		Sandy Lean Clay (CL), green gray, fine to medium grained sand, moist, medium stiff to loose, low to medium plasticity		1.3	35	84	Sieve -200=70
						Fat Clay (CH), brown, fine grained sand, moist to wet, soft, high plasticity					
20	T	P		CH		Wet			51	71	LL=57* PI=29* Sieve 200=100 TxUU=675
	M	0				Green gray, wet, soft		0.5			
25	M	3		OH		Organic Clay (OH), dark gray, moist, medium stiff		0.8	143		
				Pt		Peat (Pt), dark brown to black, moist, soft, organic fibers					
30	T	P				Organic Silt (OH), dark reddish brown to dark gray, wet, very soft, organic fibers					
35	T	P		OH		Dark green		0.8			LL=99* PI=44* Consol
40	M	12		SC		Clayey Sand (SC), gray, fine to medium grained sand, wet, medium dense		3.5			
				CH		Sandy Fat Clay (CH), dark gray, fine grained sand, wet, very stiff					

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-16
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Shannon & Wilson, Inc. | Project No. 907.03 | Plate No. D-1-26

Date : 8/15/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 14 (NAVD88)
Latitude : 38.17714
Longitude : -121.67820

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	23		SC		Clayey Sand (SC), grayish brown, fine to medium grained sand, wet, medium dense			22	106	Sieve -200=20
						Silty Sand (SM), gray, fine to medium grained sand, wet, medium dense					
50	S	16									
55	S	23							29		Sieve -200=13
				SM							
60	S	34				Dense					
65	S	33				Trace clasts of green gray lean clay			25		Sieve -200=12
70	S	31									

Bottom of boring at 71.5 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-16
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Date : 8/16/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 16 (NAVD88)
Latitude : 38.17525
Longitude : -121.67567

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	27		SC		Clayey Sand with Gravel (SC), light grayish brown, fine to coarse grained sand, moist, medium dense, fine gravel, (fill)			2		Sieve -200=13
5	M	15		SP		Gray brown Poorly-Graded Sand (SP), brown, fine to medium grained sand, moist, medium dense, poorly compacted fill, (fill)					
10	T	P		CL		Sandy Lean Clay (CL), light gray brown, fine to medium grained sand, moist, very stiff, medium plasticity, (fill)		2.5			
	M	21		CH				1.8			
15	T	P		CL		Fat Clay (CH), dark gray, moist, stiff, trace fine sand, some iron oxide staining		2.0	26 28	97 94	Sieve -200=57 TxUU=1030 Consol
						Sandy Lean Clay (CL), light gray brown, fine to medium grained sand, moist, firm Yellowish brown to light grayish brown, fine grained sand, wet, very stiff, low plasticity					
20	M	21		SP-SM		Poorly-Graded Sand with Silt (SP-SM), brown, fine to medium grained sand, wet, medium dense			12	105	Sieve -200=6
25	S	33				Dense					
30	S	34		CL		Sandy Lean Clay (CL), yellow brown, fine grained sand, moist to wet, very stiff to hard			26		Sieve -200=6
35	M	23						2.5 4.2			
40	M	39		ML		Silt (ML), yellow brown, wet, very stiff to hard, trace fine grained sand		4.0			

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-17
(Page 1 of 2)

Date : 8/16/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 16 (NAVD88)
Latitude : 38.17525
Longitude : -121.67567

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	S	39				Poorly-Graded Sand with Silt (SP-SM), brown, wet, dense			24		Sieve -200=10
50	S	44		SP-SM		Brown to reddish brown, fine to medium grained sand, dense					
55	S	65				Fine to coarse grained sand, very dense			21		Sieve -200=6
60	S	61							24		Sieve -200=7

Bottom of boring at 61.5 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-17
(Page 2 of 2)

Date : 8/22/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 11 (NAVD88)
Latitude : 38.19791
Longitude : -121.65861

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	25		CL		Lean Clay with Sand (CL), red yellow, fine grained sand, moist, medium stiff to stiff, medium plasticity, (fill)					
5	M	13				Very stiff		1.5 2.0			
						Elastic Silt (MH), brown and reddish yellow, moist, stiff, high plasticity, (fill)					
10	M	8				Dark gray, little organic fibers		0.5 0.8			
15	T	P		MH		Medium stiff to stiff		0.5	46	74	LL=52* PI=22*
20	M	5				Organic Silt (OH), gray and greenish gray, moist, medium stiff, high plasticity		0.5 0.5	55	68	
25	M	5		OH		Dark gray and greenish gray, stiff	0.75 0.75				
30	M	2				Green gray, soft to medium stiff	0.50 0.50		52	70	LL=59* PI=26*

Bottom of boring at 31.5 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-18
(Page 1 of 1)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-30

Date : 8/22/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 12 (NAVD88)
Latitude : 38.19353
Longitude : -121.65907

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	12		SP-SM CH		Poorly-Graded Sand with Silt and Gravel (SP-SM), light gray, fine to coarse grained sand, moist, medium dense, no plasticity, fine gravel, (fill)	4.00		24	95	Sieve -200=97
						Fat Clay (CH), dark brown, moist, stiff, medium plasticity, (fill)					
5	M	11		ML		Silt with Sand (ML), reddish yellow to yellowish brown, fine grained sand, moist, very stiff, low plasticity, (fill)	2.25 3.75				
10	T	P		SC		Clayey Sand with Gravel (SC), green gray, fine to medium grained sand, moist, very stiff, low plasticity, few fine gravel, (fill)			29	92	Sieve -200=27
15	T	P		MH		Elastic Silt (MH), gray to greenish gray, fine to medium grained sand, moist, stiff, medium to high plasticity, sandy, (fill) Dark gray, organic fibers and odor	1.5				
20	T	P		OH		Organic Silt (OH), gray, fine to medium grained sand, moist to wet, soft, high plasticity		0.5	65	60	LL=86* PI=36*
	M	3				Dark gray to dark green, organic fibers Gray		0.5 0.5	76	53	LL=85* PI=37*
25	M	4				Gray to greenish gray		0.5 0.3			
30	M	5				Green	0.50 0.50		45	76	
35	M	2				Gray, soft to stiff	1.00 0.75				
40	M	6		ML		Sandy Silt (ML), dark gray, fine to medium grained sand, wet, loose, no plasticity, organic fibers and odor			41	80	Sieve -200=66
				SM		Silty Sand (SM), gray, fine to medium grained sand, wet, loose to medium dense					

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-19
(Page 1 of 2)

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	S	9		SM							
50	S	7							33		Sieve -200=41

Date : 8/22/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 12 (NAVD88)
Latitude : 38.19353
Longitude : -121.65907

Bottom of boring at 51.5 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-19
(Page 2 of 2)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-32

Date : 8/22/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 11 (NAVD88)
Latitude : 38.20577
Longitude : -121.66159

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	13		CL		Lean Clay with Gravel (CL), yellowish brown and dark brown, fine grained sand, moist, very stiff, medium plasticity, little fine to coarse gravel, (fill)	4.00				
5	M	6				Elastic Silt (MH), brown, moist, medium stiff, high plasticity, trace fine sand, (fill)		0.8	32	84	LL=67* PI=33*
10	T	P		MH		Dark gray, stiff, organic fibers and odor		1.5			
15	T	P						2.0	47	74	LL=70* PI=31*
20	M	6				Medium to high plasticity		1.5 1.3			
25	M	2		Pt		Peat (Pt), dark gray to dark green, wet, soft to medium stiff		1.0 0.5	137	35	
30	M	3				Interbedded with organic clay, trace fine sand, organic fibers and odor		0.5 0.8	144	34	

Bottom of boring at 31.5 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-20
(Page 1 of 1)

Date : 8/23/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 14 (NAVD88)
Latitude : 38.24319
Longitude : -121.69397

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	4		GM		Silty Gravel with Sand (GM), brown to light grayish brown, fine to coarse grained sand, moist, loose, fine to coarse gravel, (fill)		2.3	30	86	
5	M	3		ML		Silt (ML), brown and yellowish brown, moist, medium stiff, medium plasticity, iron oxide staining, (fill) Medium stiff to stiff		0.8 1.3			
10	T	P		MH		Elastic Silt (MH), gray, moist, soft, high plasticity, few fine sand, organic fibers, (fill)		0.5			
15	T	P							49	72	LL=77* PI=40*
	M	5				Organic Clay (OH), dark brown and black, moist, soft to medium stiff, high plasticity, organic fibers		0.5 0.5 0.5 0.5	54	69	LL=83* PI=46*
20	M	4						0.8 0.8			
25	M	6		OH				0.8 0.8	72	57	
30	M	6						0.5 0.5 0.8			

Bottom of boring at 31.5 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method
**ASTM D 2487-10 Oven Dry Preparation Method
***ASTM D 4318-10 Wet Preparation Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-21
(Page 1 of 1)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-34

Date : 8/23/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 14 (NAVD88)
Latitude : 38.23924
Longitude : -121.68641

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	6		CL		Lean Clay with Sand (CL), brown and yellowish brown, fine to medium grained sand, moist, stiff, medium plasticity, iron oxide staining, (fill)		4.5+ 2.0	32	80	
5	M	4		OH		Organic Silt (OH), brown to yellowish brown, moist, medium stiff to stiff, high plasticity, few fine sand, red to reddish yellow iron oxide staining, (fill)		1.8 1.5	51	70	LL=61* PI=21*
10	T	P				Brown		1.3			
15	M	4		CH		Organic Silt (OH), gray to blue gray, moist, very soft to soft, high plasticity, (fill)	0.25 0.25 0.50				
20	T	P				Olive brown, medium stiff			69	59	LL=79* PI=39*
						Organic Silt (OH), blue gray to gray, moist, medium stiff, high plasticity, organic fibers and faint odor		0.8			
25	M	4		OH				0.8 1.0			
						Dark gray to gray, soft, medium to high plasticity, few fine sand					
30	M	2						0.5 0.5	58	65	

Bottom of boring at 31.5 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-22
(Page 1 of 1)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-35

Date : 8/23/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 14 (NAVD88)
Latitude : 38.23337
Longitude : -121.68033

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	9		GC		Clayey Gravel with Sand (GC), light gray brown, fine to coarse grained sand, moist, loose, fine to coarse gravel, (fill)		2.5	22	91	LL=45* PI=16*
						Silt (ML), red yellow, moist, stiff, medium plasticity, few fine sand, caliche, (fill)					
5	M	4				Brown, moist, medium stiff to stiff, red orange iron oxide staining		2.5 2.0			
				ML							
10	M	4						1.0 1.3 1.8	45	77	LL=49* PI=19*
15	T	P				Organic Silt (OH), light gray to blue gray, moist to wet, medium stiff, high plasticity, organic fibers		0.5			
20	T	P						0.5	55	67	LL=63* PI=25*
				OH							
25	M	2				Reddish brown		0.8 0.5			
30	M	2				Dark brown		0.8 0.5	60	64	LL=71* PI=35*

Bottom of boring at 31.5 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-23
(Page 1 of 1)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-36

Date : 8/24/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 13 (NAVD88)
Latitude : 38.22697
Longitude : -121.67581

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	11		CL		Sandy Lean Clay with Gravel (CL), light gray brown, fine to coarse grained sand, moist, medium dense, low to medium plasticity, fine to coarse gravel, (fill)		3.5	25	99	Sieve -200=66
5	M	5				Lean Clay with Sand (CL), black to yellowish brown, fine grained sand, moist, stiff to very stiff, medium plasticity, (fill)		1.5			
						Brown and red, fine to medium grained sand		2.5			
				CL							
10	T	P						1.0	28	88	LL=45* PI=19*
15	T	P									
						Elastic Silt (MH), gray, moist, medium stiff, high plasticity, organic fibers, brown		1.3			
20	M	4						0.8			
								0.8			
				MH							
25	M	4				Sandy		0.8	55	67	LL=71* PI=35*
								0.8			
30	M	4				Soft, medium to high plasticity, few fine sand		0.5	46	75	
								0.5			
								0.5			

Bottom of boring at 31.5 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-24
(Page 1 of 1)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-37

Date : 8/24/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 12 (NAVD88)
Latitude : 38.21892
Longitude : -121.67372

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	27		CH		Gravelly Fat Clay (CH), brown, fine to coarse grained sand, moist, stiff, high plasticity, fine to coarse gravel, (fill) Cobble		3.5			
5	M	9				Fat Clay (CH), brown to yellowish brown, moist, stiff to very stiff, medium to high plasticity, (fill)		3.0 2.5			
10	M	6		CH		Gray to grayish brown, red iron oxide inclusions Gray and brown		2.0 0.5 1.5			
15	T	P						2.3	34	89	LL=55* PI=28*
20	T	P		MH		Elastic Silt (MH), gray to dark gray, moist, very stiff Medium stiff to stiff		1.0			
25	M	3		OH		Organic Silt (OH), gray, moist, medium stiff, high plasticity, few fine sand, organic fibers		0.8 0.8	58	65	LL=60* PI=24*
30	M	2				Soft		0.5 0.5			

Bottom of boring at 31.5 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-25
(Page 1 of 1)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-38

Date : 8/24/2022
Drilling Method : Hollow-Stem Auger
Elevation (Feet) : 12 (NAVD88)
Latitude : 38.21196
Longitude : -121.66833

Depth in Feet	Samples Type/ Recovery	Blow Count	Graphic	USCS	Water Levels	Material Description	Torvane (tsf)	Pocket Pen (tsf)	Moisture Content (%)	Dry Density (pcf)	Other Laboratory Tests
	M	12		GM		Silty Gravel with Sand (GM), light gray brown, fine to coarse grained sand, moist, medium dense, low plasticity, fine to coarse gravel		4.5+			
				CH		Fat Clay (CH), brown, moist, very stiff to hard, high plasticity, few fine to medium sand, trace fine gravel, (fill)					
5	M	7		SP-SM		Poorly-Graded Sand with Silt and Gravel (SP-SM), brown, fine to medium grained sand, moist, medium dense, medium plasticity, fine gravel, (fill)			5	115	Sieve -200=8
10	T	P		CH		Fat Clay (CH), dark gray and grayish brown, moist, stiff, high plasticity, trace sand, (fill)		1.0	29	93	LL=56* PI=32*
15	M	6				Dark gray and greenish gray		1.8 1.8 1.0			
20	T	P		OH		Organic Silt (OH), dark gray to greenish gray, moist, stiff, high plasticity		1.5	49	73	LL=72* PI=33*
25	M	5				Medium stiff		0.8 0.8			
30	M	4		Pt		Peat (Pt), dark brown, moist, medium stiff Gray, moist to wet		0.8 1.0	139	35	

Bottom of boring at 31.5 feet
No groundwater encountered
*ASTM D 4318-10 Dry Preparaton Method

Little Egbert Multi-Benefit Project
Solano County, California

Log of Boring 22B-26
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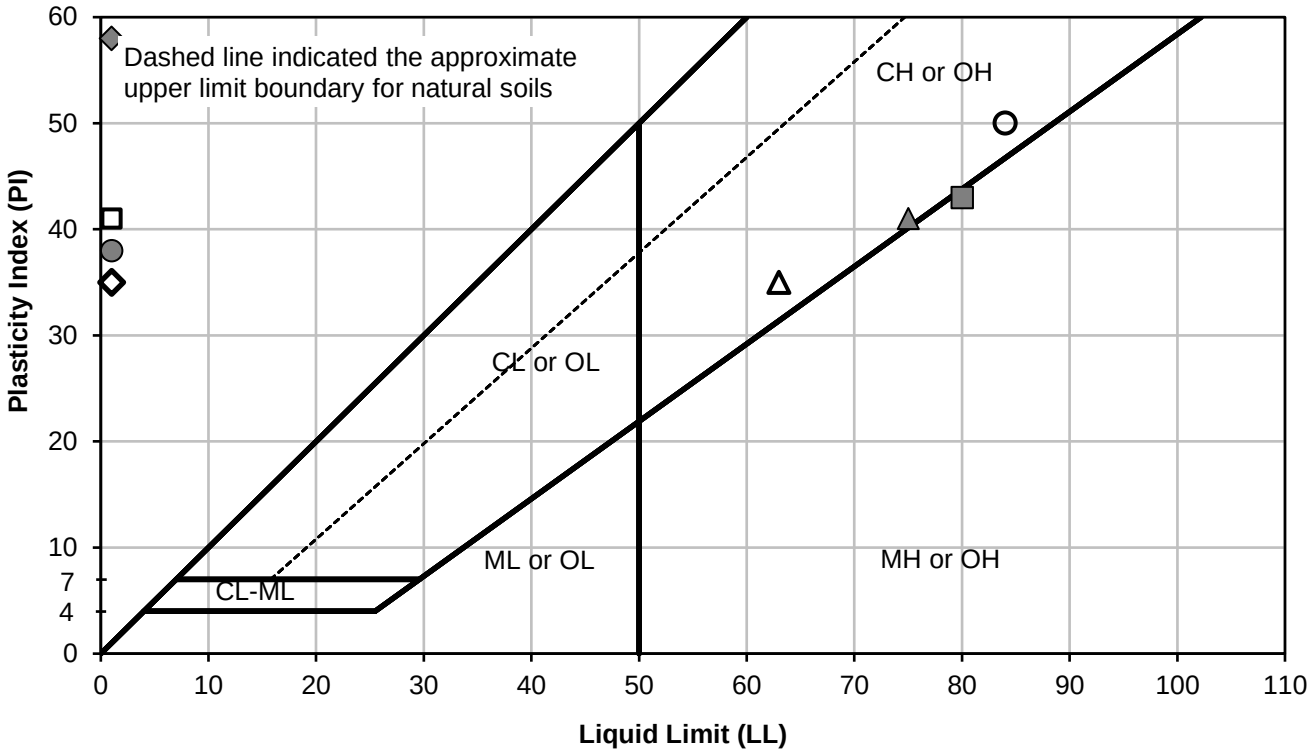
Shannon & Wilson, Inc. | Project No. 907.03 | Plate No. D-1-39



Symbol	Boring Number	Depth (feet)	Soil Description	LL (%)	PL (%)	PI (%)	Moisture Content (%)
●	22B-1	16 - 17	Dark Brown Fat Clay	71*	33*	38	55
▲	22B-2	3 - 3.5	Dark Brown Fat Clay	75	34	41	39
■	22B-2	15.2 - 15.7	Very Dark Brown with Bluish Gray Elastic Silt	80	37	43	52
◆	22B-3	10.2 - 10.7	Dark Brown Fat Clay	101**	43**	58	
○	22B-3	10.7 - 11.2	Dark Brown Fat Clay	84	34	50	45
△	22B-3	26.5 - 27	Very Dark Brown Fat Clay	63	28	35	
□	22B-4	2.5 - 3	Tan to Brown Fat Clay	69**	28**	41	
◇	22B-4	15.2 - 15.7	Very Dark Brown and Bluish Gray Fat Clay	73**	38**	35	

*Unless noted otherwise, test was performed using ASTM D4318-10 Dry Preparation Method

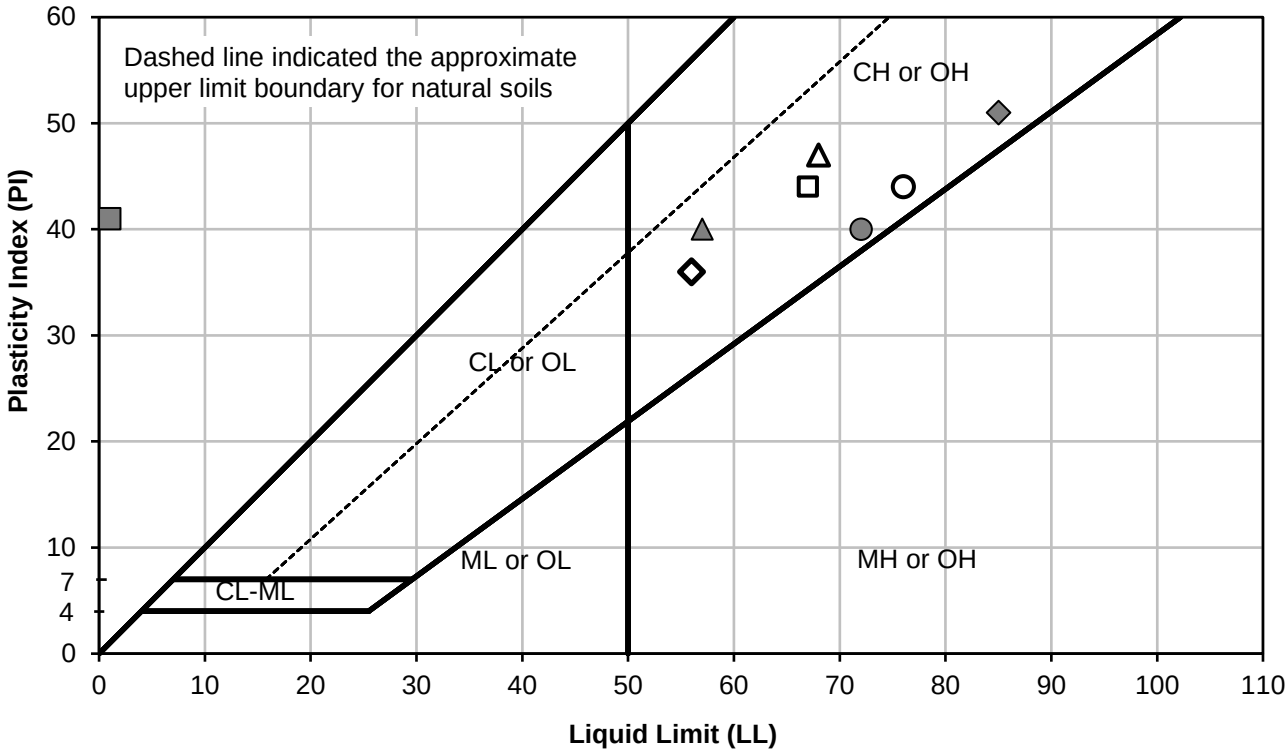
**Test performed using ASTM D4318-10 Wet Preparation Method

Testing performed by Cooper Testing Laboratory and B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Atterberg Limits

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-40



Symbol	Boring Number	Depth (feet)	Soil Description	LL (%)	PL (%)	PI (%)	Moisture Content (%)
●	22B-4	15.7 - 16.2	Very Dark Brown and Bluish Gray Fat Clay	72	32	40	36
▲	22B-5	7.5 - 8	Brown and Olive Brown Fat Clay	57	17	40	19
■	22B-6	2.6 - 3.1	Brown Fat Clay	64**	23**	41	
◆	22B-7	5.5 - 6	Brown and Dark Brown Fat Clay	85	34	51	47
○	22B-7	20.8 - 21.3	Very Dark Brown with Black Organic Clay	76	32	44	42
△	22B-8	10.5 - 11	Brown Fat Clay	68	21	47	30
□	22B-8	101 - 101.5	Light Brown Fat Clay	67	23	44	27
◇	22B-10	6 - 7	Light Olive Fat Clay	56	20	36	35

*Unless noted otherwise, test was performed using ASTM D4318-10 Dry Preparation Method

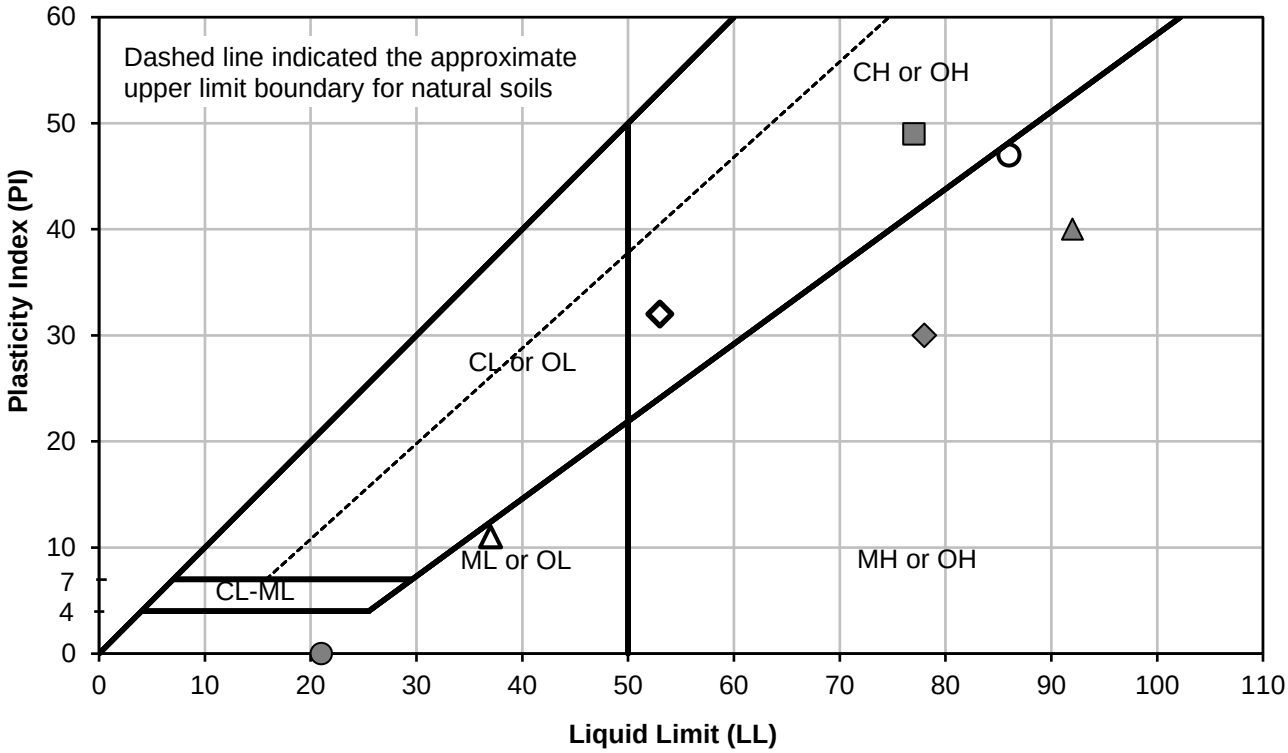
**Test performed using ASTM D4318-10 Wet Preparation Method

Testing performed by Cooper Testing Laboratory and B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Atterberg Limits

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-41



Symbol	Boring Number	Depth (feet)	Soil Description	LL (%)	PL (%)	PI (%)	Moisture Content (%)
●	22B-10	10.3 - 10.8	Bluish Gray Silt	21	NP	NP	27
▲	22B-12	5 - 5.5	Dark Brown Organic Silt	92	52	40	132
■	22B-12	10 - 10.5	Grayish Blue Fat Clay	77	28	49	56
◆	22B-13	5 - 5.5	Dark and Light Brown Organic Silt	78	48	30	90
○	22B-14	5 - 5.5	Olive Brown Organic Silt	86	39	47	46
△	22B-14	15 - 15.5	Tan Silt	37	26	11	29
□	22B-15	22 - 23	Light Gray Organic Silt	111	50	61	84
◇	22B-15	25 - 27	Greenish Gray with Light Gray Mottling Fat Clay	53	21	32	28

*Unless noted otherwise, test was performed using ASTM D4318-10 Dry Preparation Method

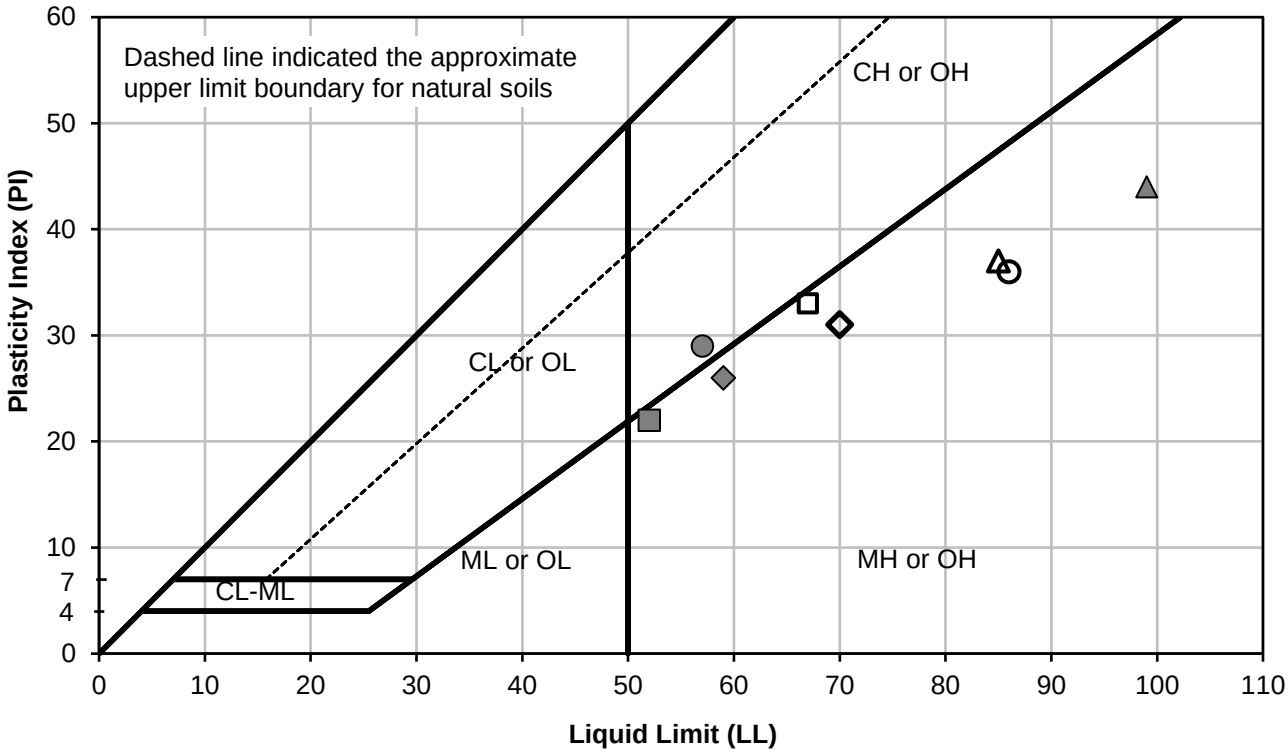
**Test performed using ASTM D4318-10 Wet Preparation Method

Testing performed by Cooper Testing Laboratory and B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Atterberg Limits

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-42



Symbol	Boring Number	Depth (feet)	Soil Description	LL (%)	PL (%)	PI (%)	Moisture Content (%)
●	22B-16	20 - 22	Brown Fat Clay	57	28	29	51
▲	22B-16	35 - 36.8	Dark Reddish Brown to Dark Gray Organic Silt	99	55	44	
■	22B-18	15 - 16.8	Dark Gray Elastic Silt	52	30	22	46
◆	22B-18	30.5 - 31	Green Gray Organic Silt	59	33	26	52
○	22B-19	20 - 21.9	Gray Organic Silt	86	50	36	65
△	22B-19	22.5 - 23	Dark Gray to Green Organic Silt	85	48	37	
□	22B-20	5 - 5.5	Brown Elastic Silt	67	34	33	32
◇	22B-20	15 - 17	Dark Gray Elastic Silt	70	39	31	47

*Unless noted otherwise, test was performed using ASTM D4318-10 Dry Preparation Method

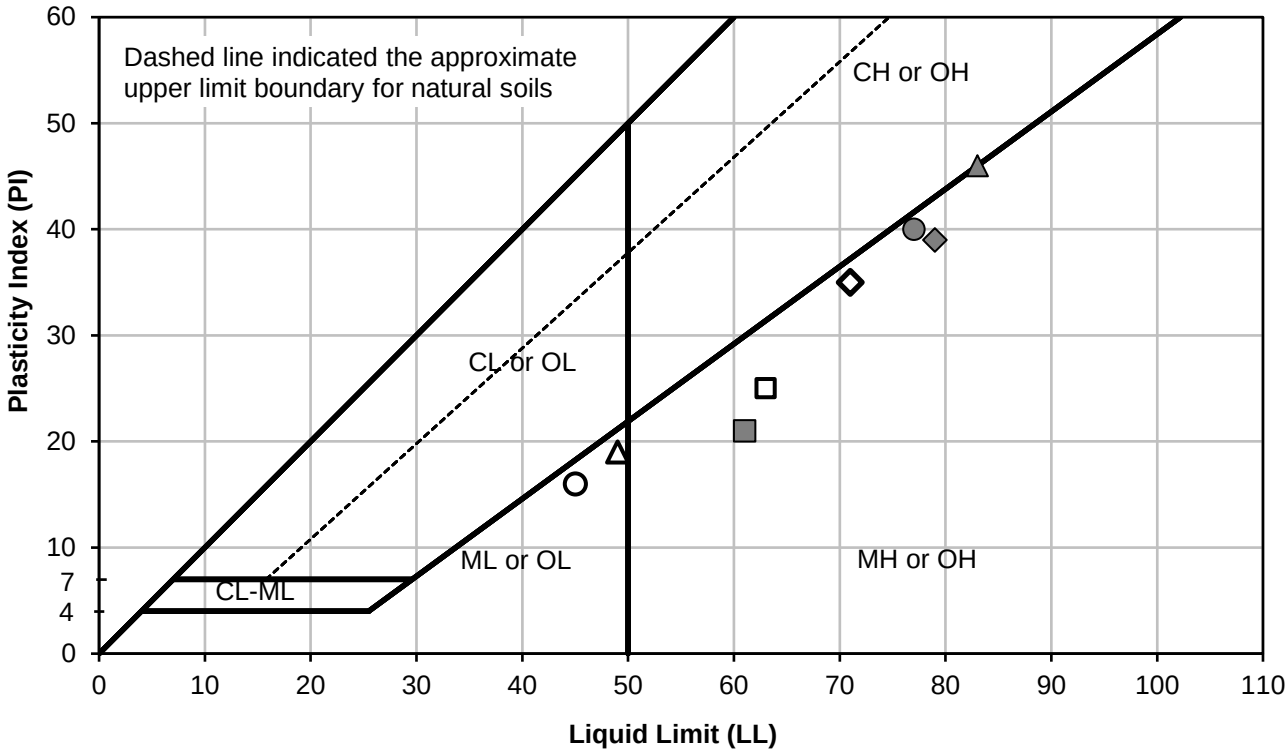
**Test performed using ASTM D4318-10 Wet Preparation Method

Testing performed by Cooper Testing Laboratory and B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Atterberg Limits

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-43



Symbol	Boring Number	Depth (feet)	Soil Description	LL (%)	PL (%)	PI (%)	Moisture Content (%)
●	22B-21	15 - 17	Gray Elastic Silt	77	37	40	49
▲	22B-21	17.5 - 18	Dark Brown Organic Clay	83	37	46	54
■	22B-22	5.5 - 6	Brown to Yellowish Brown Organic Silt	61	40	21	51
◆	22B-22	20 - 22	Olive Brown Organic Silt	79	40	39	69
○	22B-23	0.8 - 1.3	Light Gray Brown Clayey Gravel with Sand	45	29	16	22
△	22B-23	10.5 - 11	Brown Silt	49	30	19	45
□	22B-23	20 - 22	Light Gray to Blue Gray Organic Silt	63	38	25	55
◇	22B-23	31 - 31.5	Dark Brown Organic Silt	71	36	35	60

*Unless noted otherwise, test was performed using ASTM D4318-10 Dry Preparation Method

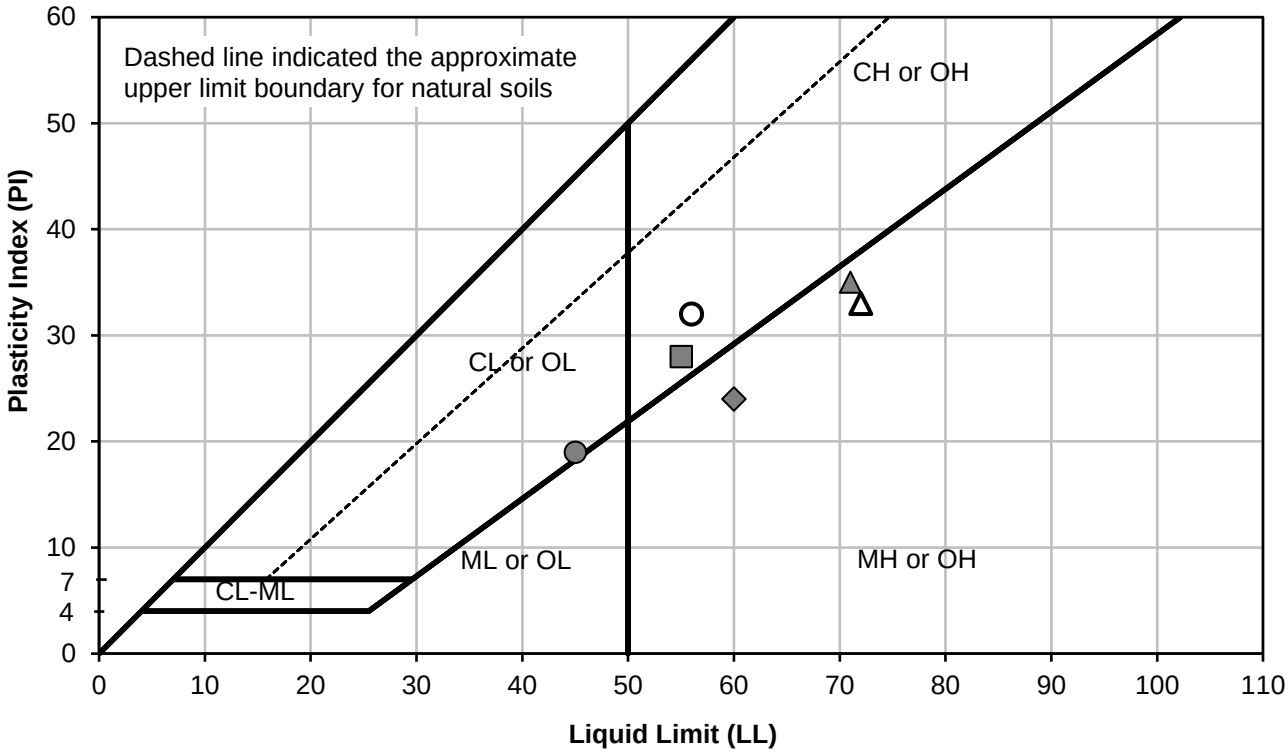
**Test performed using ASTM D4318-10 Wet Preparation Method

Testing performed by Cooper Testing Laboratory and B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Atterberg Limits

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-44



Symbol	Boring Number	Depth (feet)	Soil Description	LL (%)	PL (%)	PI (%)	Moisture Content (%)
●	22B-24	10 - 12	Brown and Red Lean Clay with Sand	45	26	19	28
▲	22B-24	25.5 - 26	Gray Elastic Silt	71	36	35	55
■	22B-25	15 - 16.8	Gray to Grayish Brown Fat Clay	55	27	28	34
◆	22B-25	26 - 26.5	Gray Organic Silt	60	36	24	58
○	22B-26	10 - 11.3	Dark Gray and Grayish Brown Fat Clay	56	24	32	29
△	22B-26	20 - 22	Dark Gray to Greenish Gray Organic Silt	72	39	33	49
□							
◇							

*Unless noted otherwise, test was performed using ASTM D4318-10 Dry Preparation Method

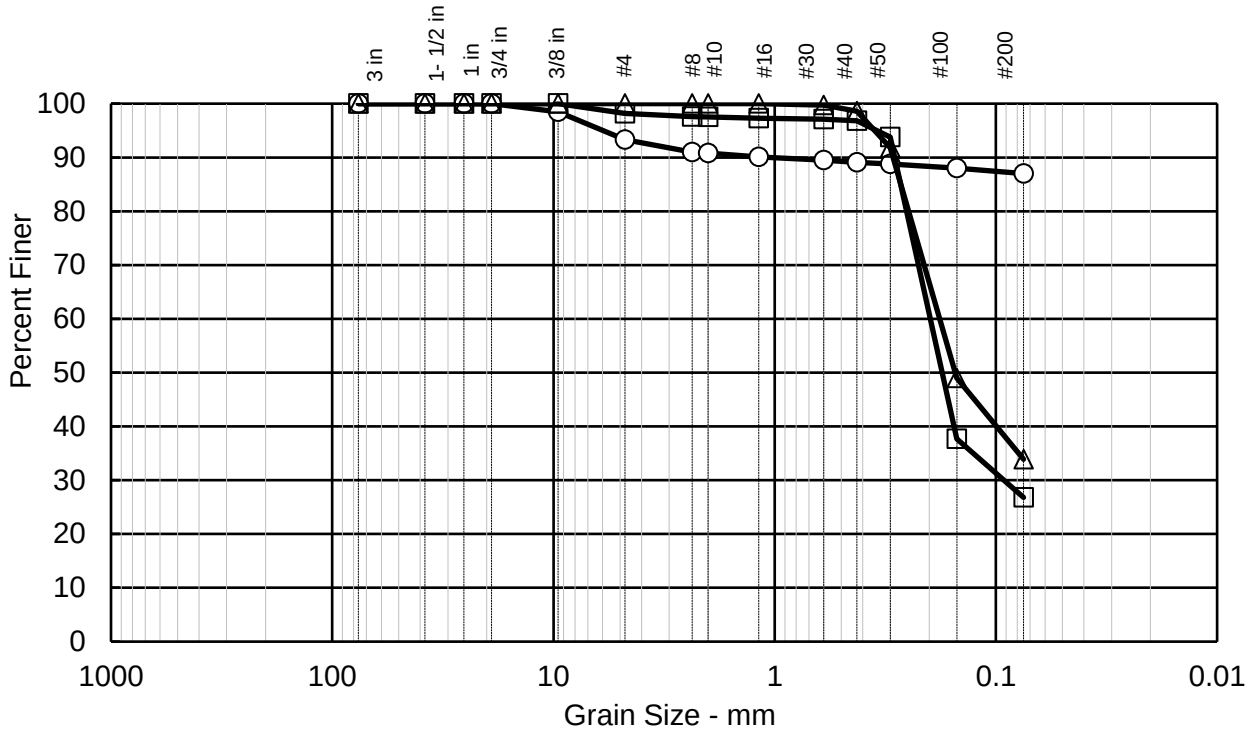
**Test performed using ASTM D4318-10 Wet Preparation Method

Testing performed by Cooper Testing Laboratory and B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Atterberg Limits

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-45



Sieve Size	○	□	△
	Percent Finer		
3 in	100.0	100.0	100.0
1-1/2 in	100.0	100.0	100.0
1 in	100.0	100.0	100.0
3/4 in	100.0	100.0	100.0
3/8 in	98.5	100.0	100.0
#4	93.3	98.2	100.0
#8	91.0	97.6	100.0
#10	90.8	97.5	100.0
#16	90.1	97.3	100.0
#30	89.5	97.1	99.7
#40	89.1	96.8	98.6
#50	88.8	93.8	91.8
#100	88.0	37.7	49.0
#200	87.0	26.8	33.9
	Grain Size		
D60	-	0.195	0.180
D30	-	0.092	-
D10	-	-	-
	Coefficients		
Cc	-	-	-
Cu	-	-	-

Soil Description	
○	Brown Fat Clay (CH)
□	Gray Silty Sand (SM)
△	Yellowish Brown Silty Sand (SM)

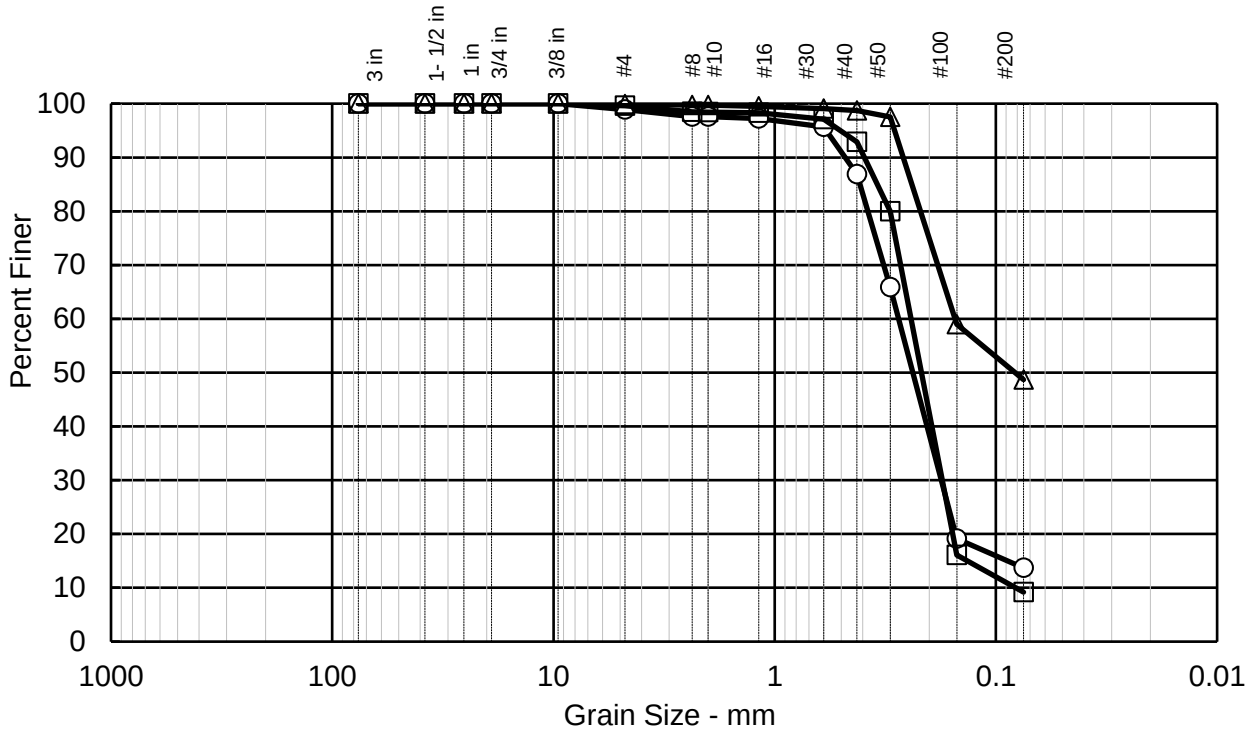
Sample Key	
○	22B-5 at 20.0 - 21.5 feet
□	22B-5 at 25.5 - 26.0 feet
△	22B-8 at 3.5 - 4.0 feet

Testing performed by
Cooper Testing Laboratory and B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Shannon & Willson, Inc.	Project No. 907.03	Plate No. D-1-46



Sieve Size	○	□	△
	Percent Finer		
3 in	100.0	100.0	100.0
1-1/2 in	100.0	100.0	100.0
1 in	100.0	100.0	100.0
3/4 in	100.0	100.0	100.0
3/8 in	100.0	100.0	100.0
#4	98.9	99.6	99.9
#8	97.6	98.5	99.7
#10	97.6	98.4	99.7
#16	97.2	98.3	99.5
#30	95.7	97.1	99.1
#40	86.9	92.9	98.7
#50	65.9	80.0	97.5
#100	19.1	16.1	59.0
#200	13.7	9.2	48.7
	Grain Size		
D60	0.277	0.238	0.153
D30	0.184	0.178	-
D10	-	0.081	-
	Coefficients		
Cc	-	1.64	-
Cu	-	2.94	-

Soil Description	
○	Yellowish Brown Silty Sand (SM)
□	Yellowish Brown Poorly-Graded Sand with Silt (SP-SM)
△	Olive Brown Silty Sand (SM)

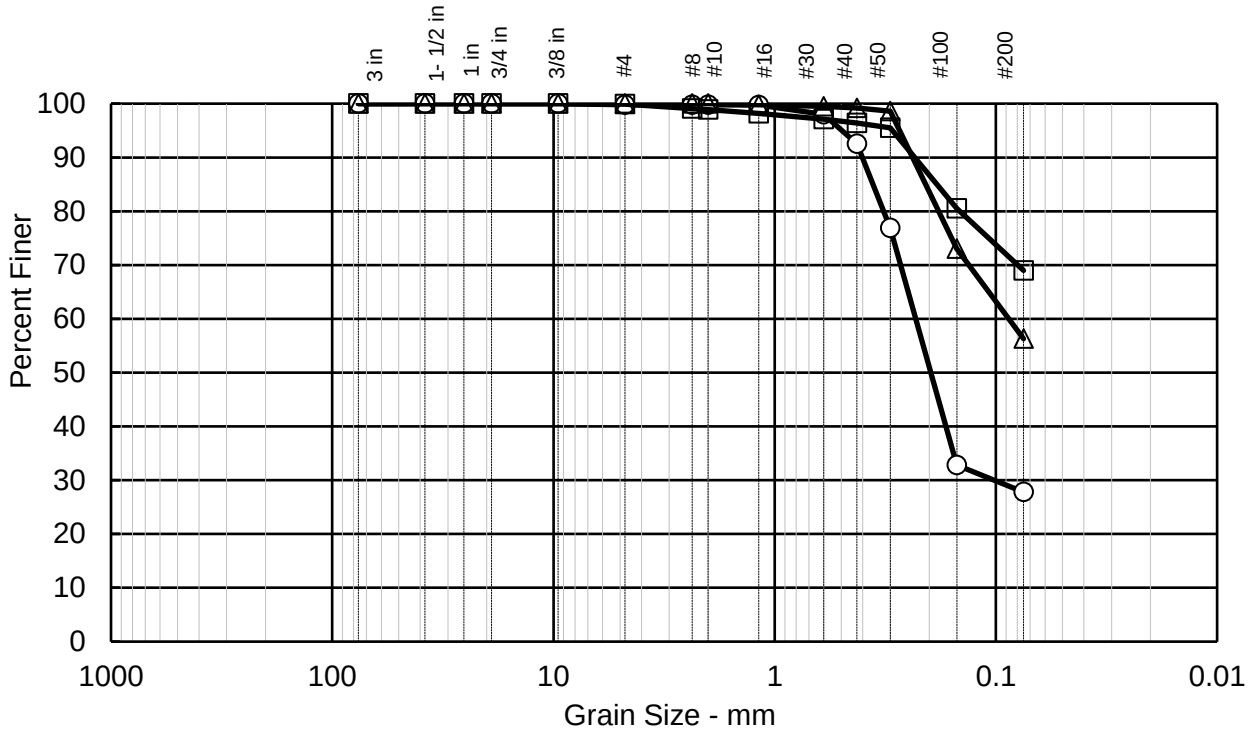
Sample Key	
○	22B-8 at 30.0 - 31.5 feet
□	22B-8 at 40.0 - 41.5 feet
△	22B-8 at 50.0 - 51.5 feet

Testing performed by
B. Hillebrandt Soils Testing Inc.

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Shannon & Willson, Inc.	Project No. 907.03	Plate No. D-1-47



Sieve Size	○	□	△
	Percent Finer		
3 in	100.0	100.0	100.0
1-1/2 in	100.0	100.0	100.0
1 in	100.0	100.0	100.0
3/4 in	100.0	100.0	100.0
3/8 in	100.0	100.0	100.0
#4	99.8	99.9	100.0
#8	99.8	99.1	100.0
#10	99.8	98.9	100.0
#16	99.7	98.2	99.8
#30	98.0	97.1	99.5
#40	92.5	96.4	99.2
#50	76.9	95.5	98.6
#100	32.8	80.5	73.0
#200	27.8	69.0	56.3
	Grain Size		
D60	0.234	-	0.092
D30	0.102	-	-
D10	-	-	-
	Coefficients		
Cc	-	-	-
Cu	-	-	-

Soil Description	
○	Reddish Brown Silty Sand (SM)
□	Olive Brown Sandy Silty (ML)
△	Olive Sandy Silt (ML)

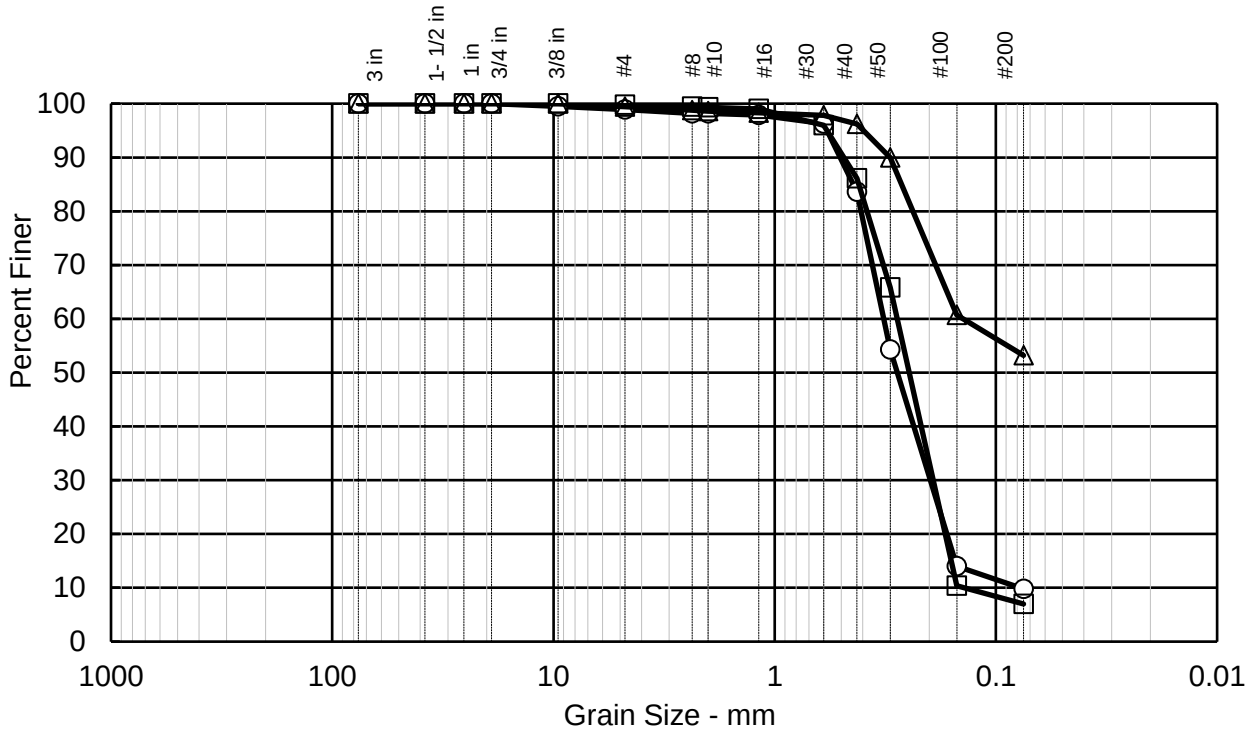
Sample Key	
○	22B-8 at 60.0 - 61.5 feet
□	22B-8 at 70.0 - 71.5 feet
△	22B-9 at 20.0 - 20.5 feet

Testing performed by
B. Hillebrandt Soils Testing Inc

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Shannon & Willson, Inc.	Project No. 907.03	Plate No. D-1-48



Sieve Size	○	□	△
	Percent Finer		
3 in	100.0	100.0	100.0
1-1/2 in	100.0	100.0	100.0
1 in	100.0	100.0	100.0
3/4 in	100.0	100.0	100.0
3/8 in	99.5	100.0	100.0
#4	98.9	99.8	99.4
#8	98.2	99.4	98.8
#10	98.2	99.3	98.6
#16	97.9	99.0	98.3
#30	96.3	96.0	97.8
#40	83.6	86.1	96.2
#50	54.3	65.8	90.0
#100	14.0	10.4	60.7
#200	9.8	7.0	53.2
	Grain Size		
D60	0.320	0.279	0.147
D30	0.216	0.199	-
D10	0.078	0.138	-
	Coefficients		
Cc	1.87	1.03	-
Cu	4.12	2.03	-

Soil Description	
○	Yellowish Brown and Olive Brown Poorly-Graded Sand with Silt (SP-SM)
□	Gray Poorly-Graded Sand with Silt (SP-SM)
△	Yellowish brown Sandy Lean Clay (CL)

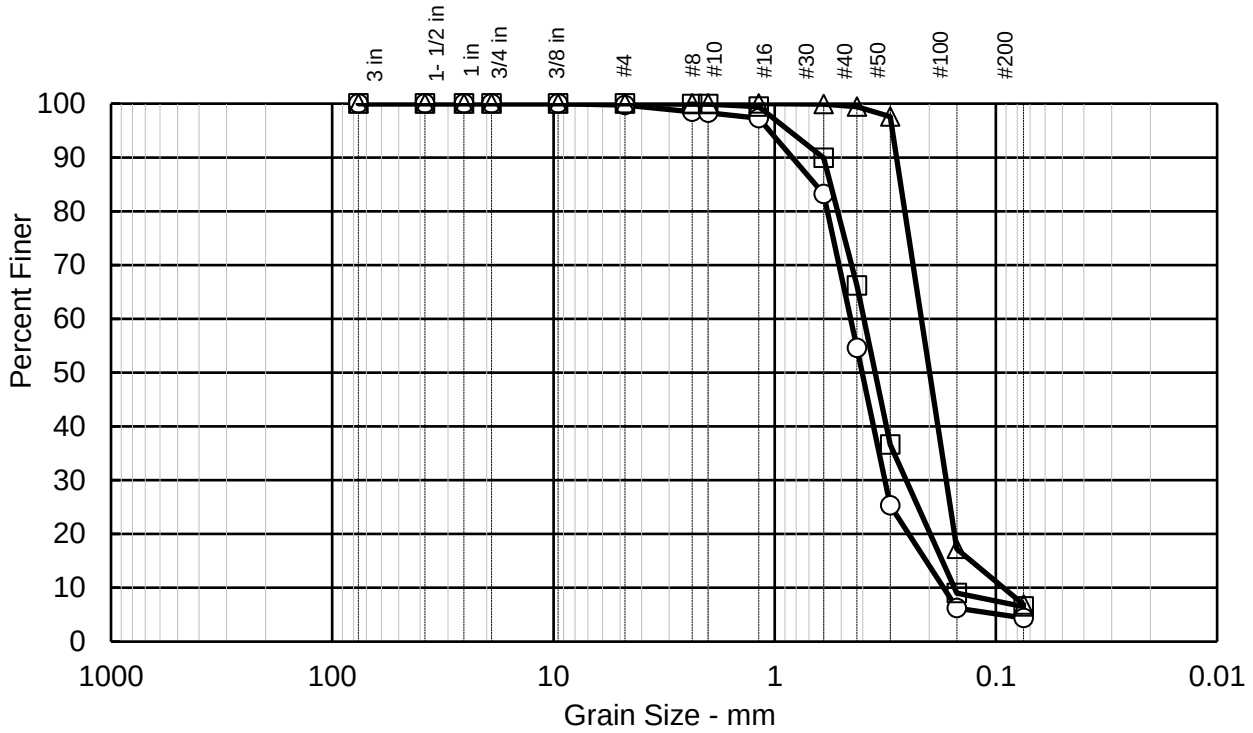
Sample Key	
○	22B-9 at 30.0 - 31.5 feet
□	22B-9 at 50.0 - 51.5 feet
△	22B-9 at 60.0 - 61.5 feet

Testing performed by
B. Hillebrandt Soils Testing Inc

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Shannon & Willson, Inc.	Project No. 907.03	Plate No. D-1-49



Sieve Size	○	□	△
	Percent Finer		
3 in	100.0	100.0	100.0
1-1/2 in	100.0	100.0	100.0
1 in	100.0	100.0	100.0
3/4 in	100.0	100.0	100.0
3/8 in	100.0	100.0	100.0
#4	99.7	100.0	100.0
#8	98.5	99.9	100.0
#10	98.3	99.9	100.0
#16	97.3	99.4	100.0
#30	83.2	89.9	99.9
#40	54.6	66.2	99.4
#50	25.3	36.6	97.6
#100	6.2	9.0	17.2
#200	4.4	6.5	6.9
	Grain Size		
D60	0.450	0.396	0.211
D30	0.321	0.272	0.169
D10	0.207	0.160	0.093
	Coefficients		
Cc	1.11	1.17	1.46
Cu	2.18	2.47	2.28

Soil Description	
○	Gray Poorly-Graded Sand (SP)
□	Gray Poorly-Graded Sand with Silt (SP-SM)
△	Gray Poorly-Graded Sand with Silt (SP-SM)

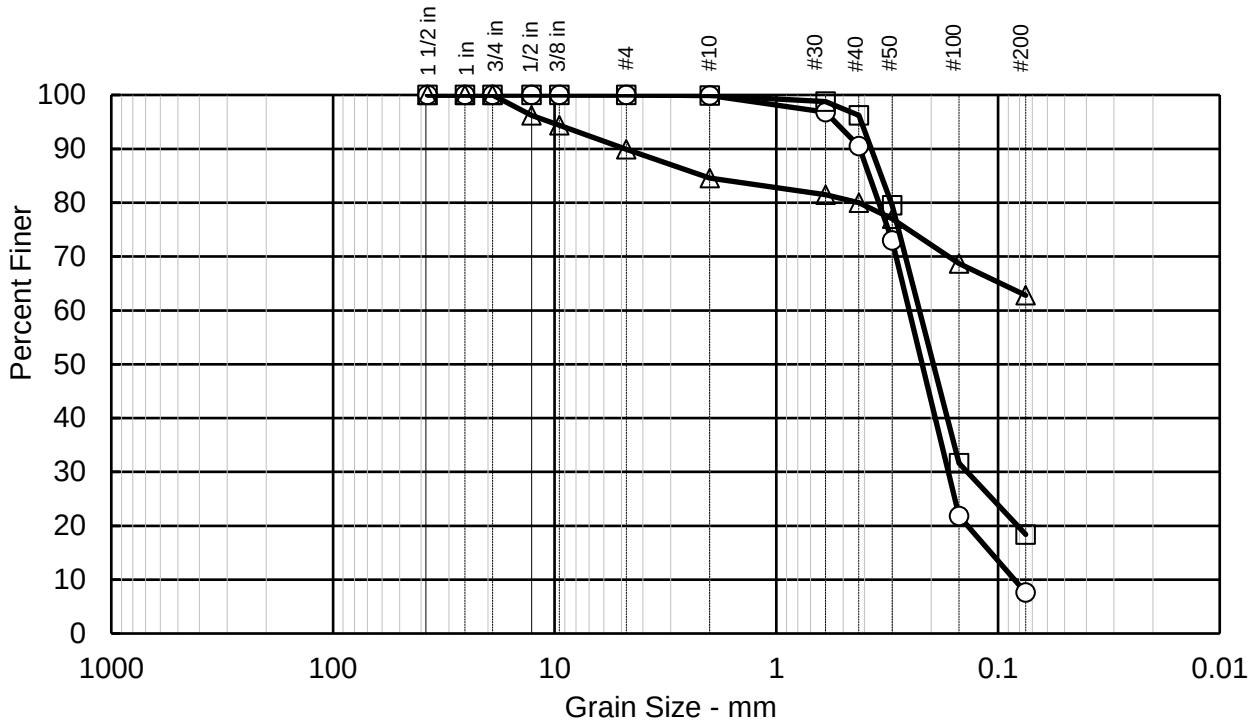
Sample Key	
○	22B-10 at 20.5 - 21.0 feet
□	22B-10 at 36.0 - 36.5 feet
△	22B-11 at 16.5 - 17.0 feet

Testing performed by
B. Hillebrandt Soils Testing Inc

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Shannon & Willson, Inc.	Project No. 907.03	Plate No. D-1-50



Sieve Size	○	□	△
	Percent Finer		
1.5 in	100.0	100.0	100.0
1 in	100.0	100.0	100.0
3/4 in	100.0	100.0	100.0
1/2 in	100.0	100.0	96.2
3/8 in	100.0	100.0	94.4
#4	100.0	100.0	89.9
#10	99.9	99.9	84.6
#30	96.8	98.8	81.5
#40	90.5	96.2	80.0
#50	73.0	79.5	77.0
#100	21.8	31.6	68.7
#200	7.6	18.4	62.8
	Grain Size		
D60	0.251	0.228	-
D30	0.173	0.144	-
D10	0.087	-	-
	Coefficients		
Cc	1.36	-	-
Cu	2.88	-	-

Soil Description	
○	Dark Gray Poorly-Graded Sand with Silt (SP-SM)
□	Gray Silty Sand (SM)
△	Brown Sandy Lean Clay (CL)

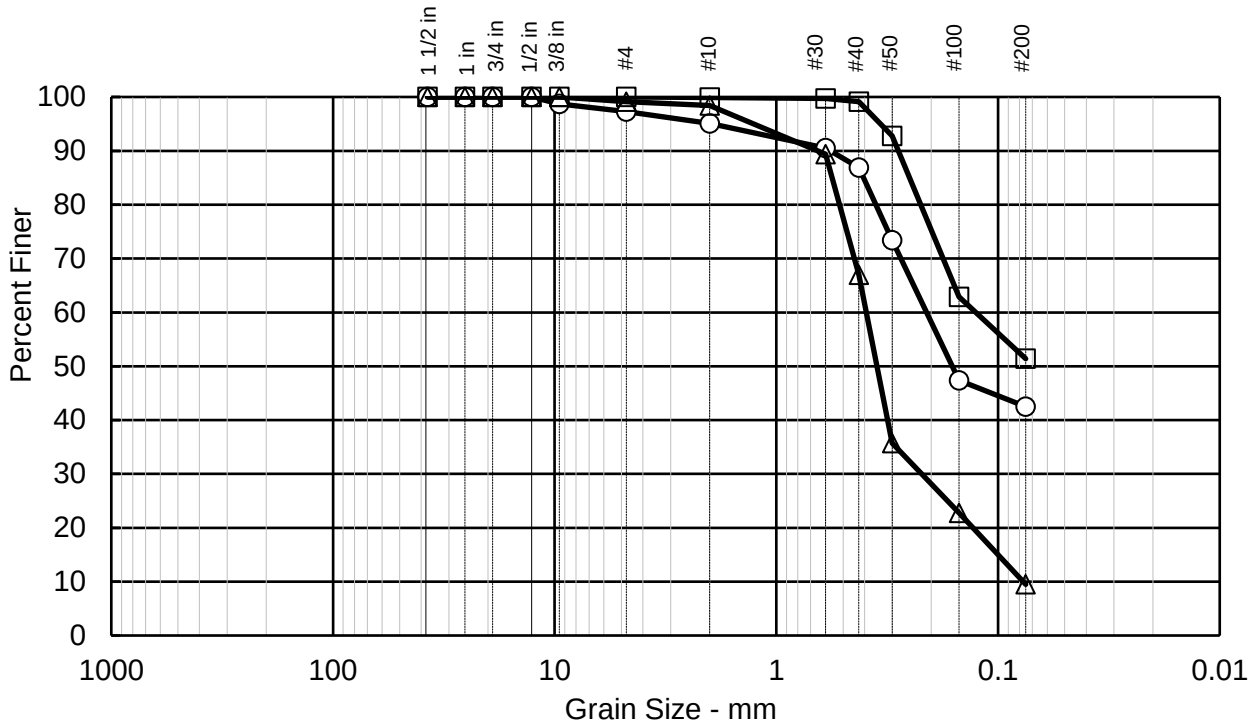
Sample Key	
○	22B-12 at 20 feet
□	22B-14 at 25 feet
△	22B-15 at 0 - 3 feet

Testing performed by
Cooper Testing Laboratory

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.03	Plate No. D-1-51



Sieve Size	○	□	△
	Percent Finer		
1.5 in	100.0	100.0	100.0
1 in	100.0	100.0	100.0
3/4 in	100.0	100.0	100.0
1/2 in	100.0	100.0	100.0
3/8 in	98.7	100.0	100.0
#4	97.3	100.0	99.1
#10	95.1	99.9	98.4
#30	90.5	99.7	89.4
#40	86.9	99.1	67.0
#50	73.4	92.8	35.7
#100	47.4	62.9	22.8
#200	42.5	51.4	9.5
	Grain Size		
D60	0.218	0.133	0.393
D30	-	-	0.261
D10	-	-	0.077
	Coefficients		
Cc	-	-	2.24
Cu	-	-	5.09

Soil Description	
○	Brown Clayey Sand (SC)
□	Dark Brown Sandy Lean Clay (CL)
△	Gray Poorly-Graded Sand with Silt (SP-SM)

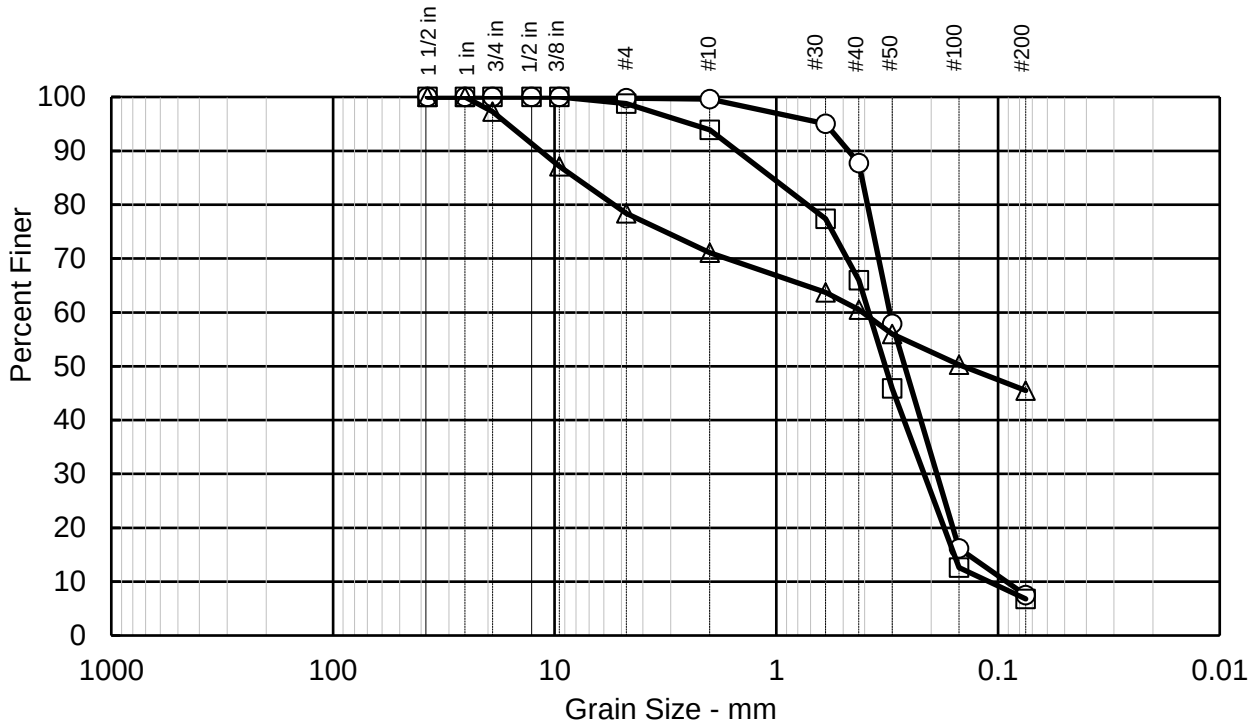
Sample Key	
○	22B-15 at 10 - 12 feet
□	22B-15 at 15 - 17 feet
△	22B-15 at 30 - 31 feet

Testing performed by
Cooper Testing Laboratory

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.03	Plate No. D-1-52



Sieve Size	○	□	△
	Percent Finer		
1.5 in	100.0	100.0	100.0
1 in	100.0	100.0	100.0
3/4 in	100.0	100.0	97.3
1/2 in	100.0	100.0	
3/8 in	100.0	100.0	87.1
#4	99.8	98.8	78.4
#10	99.6	93.9	71.1
#30	95.0	77.4	63.7
#40	87.7	66.0	60.5
#50	57.9	45.9	56.0
#100	16.2	12.6	50.3
#200	7.5	6.8	45.5
	Grain Size		
D60	0.308	0.380	0.406
D30	0.199	0.225	-
D10	0.108	0.131	-
	Coefficients		
Cc	1.19	1.02	-
Cu	2.85	2.91	-

Soil Description	
○	Gray Poorly-Graded Sand with Silt (SP-SM)
□	Brown Poorly-Graded Sand with Silt (SP-SM)
△	Gray Brown Silty Sand with Gravel (SM)

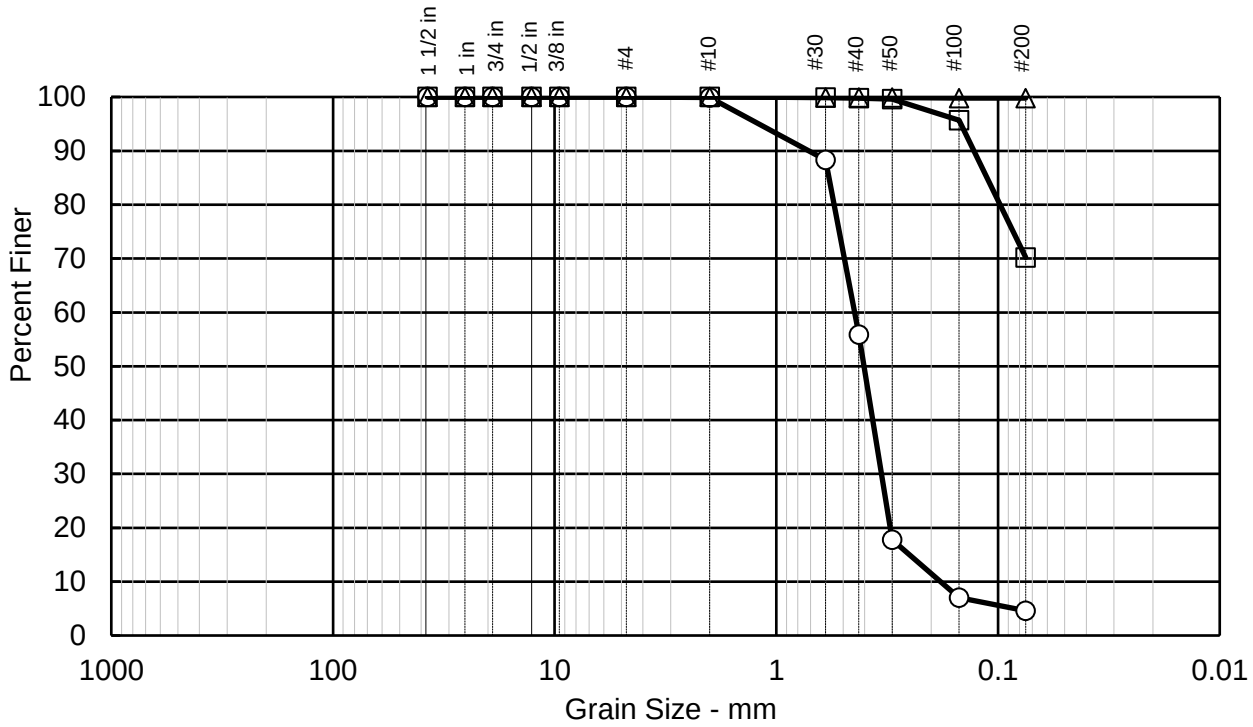
Sample Key	
○	22B-15 at 40 - 41 feet
□	22B-15 at 50 - 51.3 feet
△	22B-16 at 0.7 - 1.2 feet

Testing performed by
Cooper Testing Laboratory

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.03	Plate No. D-1-53



Sieve Size	○	□	△
	Percent Finer		
1.5 in	100.0	100.0	100.0
1 in	100.0	100.0	100.0
3/4 in	100.0	100.0	100.0
1/2 in	100.0	100.0	100.0
3/8 in	100.0	100.0	100.0
#4	100.0	100.0	100.0
#10	99.9	100.0	100.0
#30	88.3	99.9	99.9
#40	55.9	99.8	99.9
#50	17.8	99.6	99.9
#100	7.0	95.7	99.8
#200	4.6	70.2	99.8
	Grain Size		
D60	0.442	-	-
D30	0.344	-	-
D10	0.229	-	-
	Coefficients		
Cc	1.17	-	-
Cu	1.93	-	-

Soil Description	
○	Gray Brown Silty Sand with Gravel (SM)
□	Green Gray Sandy Lean Clay
△	Brown Fat Clay

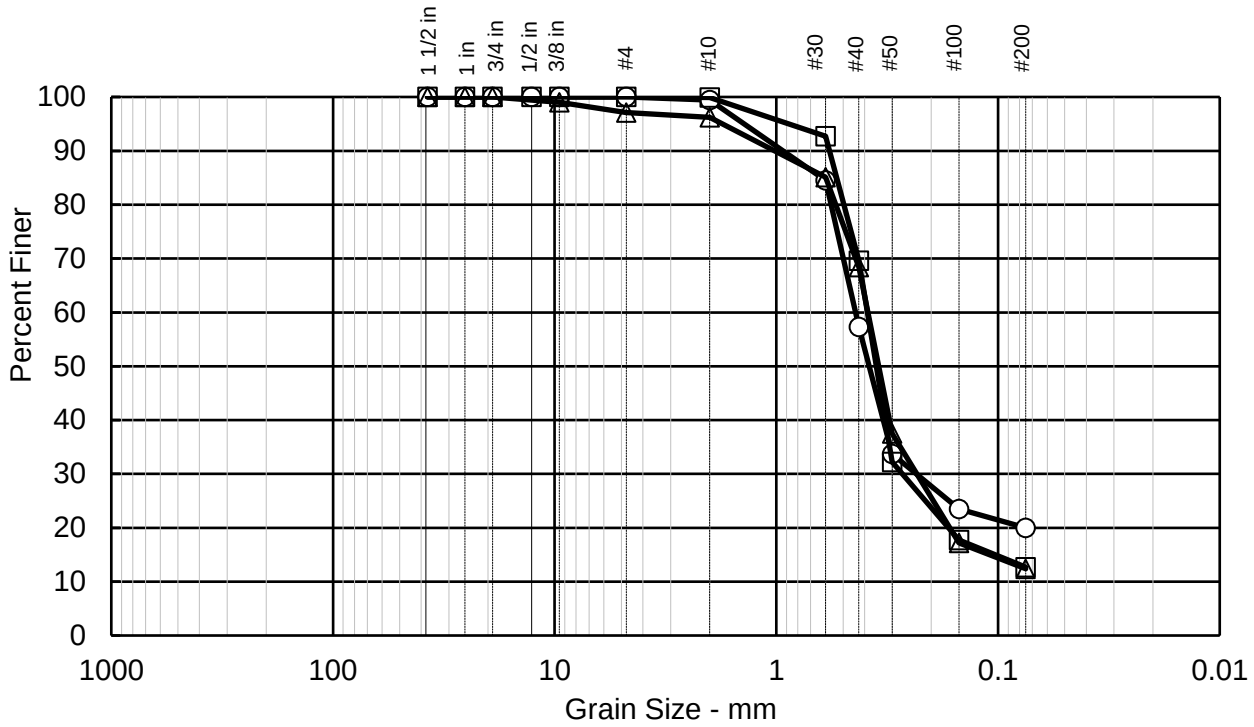
Sample Key	
○	22B-16 at 5.5 - 6 feet
□	22B-16 at 15 - 17 feet
△	22B-16 at 20 - 22 feet

Testing performed by
Cooper Testing Laboratory

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.03	Plate No. D-1-54



Sieve Size	○	□	△
	Percent Finer		
1.5 in	100.0	100.0	100.0
1 in	100.0	100.0	100.0
3/4 in	100.0	100.0	100.0
1/2 in	100.0	100.0	
3/8 in	100.0	100.0	99.0
#4	100.0	100.0	97.1
#10	99.4	99.9	96.2
#30	84.5	92.7	85.1
#40	57.3	69.6	68.4
#50	33.7	32.2	37.5
#100	23.5	17.7	17.2
#200	20.0	12.7	12.4
	Grain Size		
D60	0.440	0.388	0.385
D30	0.269	0.289	0.258
D10	-	-	-
	Coefficients		
Cc	-	-	-
Cu	-	-	-

Soil Description	
○	Grayish Brown Clayey Sand (SC)
□	Gray Silty Sand (SM)
△	Gray Silty Sand (SM)

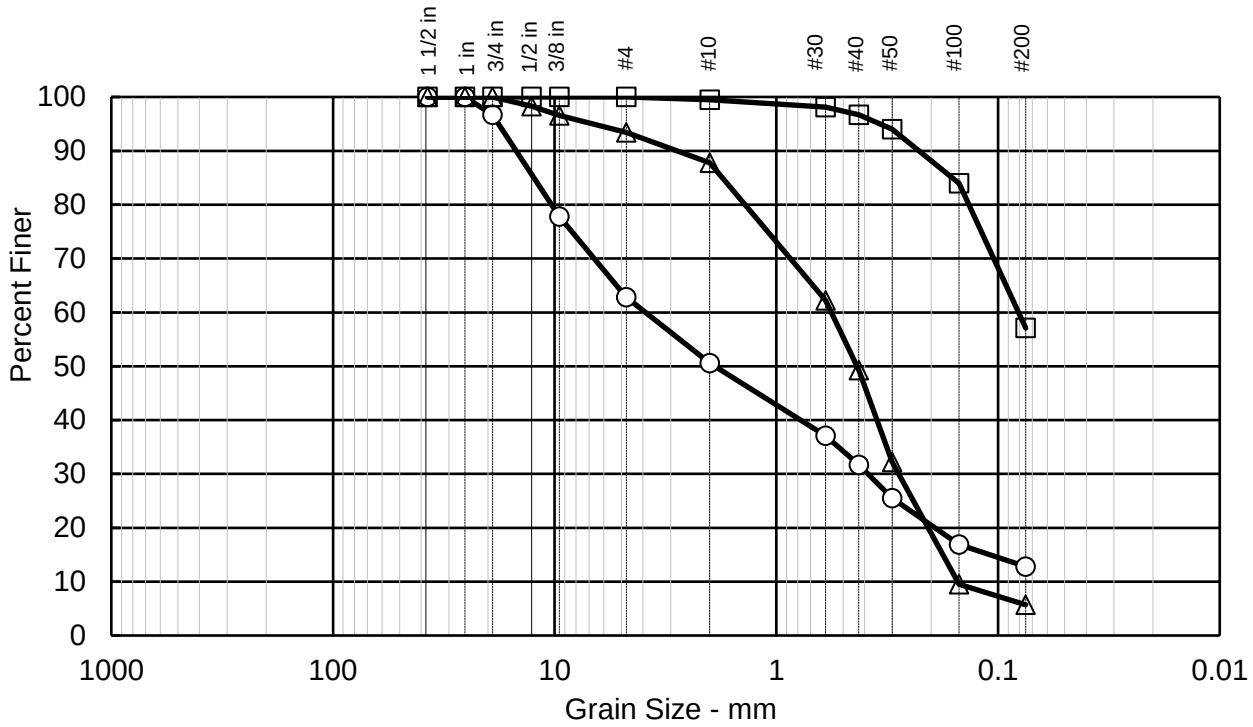
Sample Key	
○	22B-16 at 45.3 - 45.8 feet
□	22B-16 at 55 - 56.3 feet
△	22B-16 at 65 - 66.2 feet

Testing performed by
Cooper Testing Laboratory

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.03	Plate No. D-1-55



Sieve Size	○	□	△
	Percent Finer		
1.5 in	100.0	100.0	100.0
1 in	100.0	100.0	100.0
3/4 in	96.7	100.0	100.0
1/2 in		100.0	98.3
3/8 in	77.8	100.0	96.6
#4	62.8	100.0	93.4
#10	50.6	99.5	87.8
#30	37.1	98.1	62.2
#40	31.7	96.7	49.3
#50	25.5	94.0	32.2
#100	16.9	84.0	9.5
#200	12.8	57.1	5.7
	Grain Size		
D60	4.027	0.081	0.559
D30	0.386	-	0.285
D10	-	-	0.154
	Coefficients		
Cc	-	-	2.24
Cu	-	-	5.09

Soil Description	
○	Light Grayish Brown Clayey Sand with Gravel (SC)
□	Light Gray Brown Sandy Lean Clay (CL)
△	Brown Poorly-Graded Sand with Silt (SP-SM)

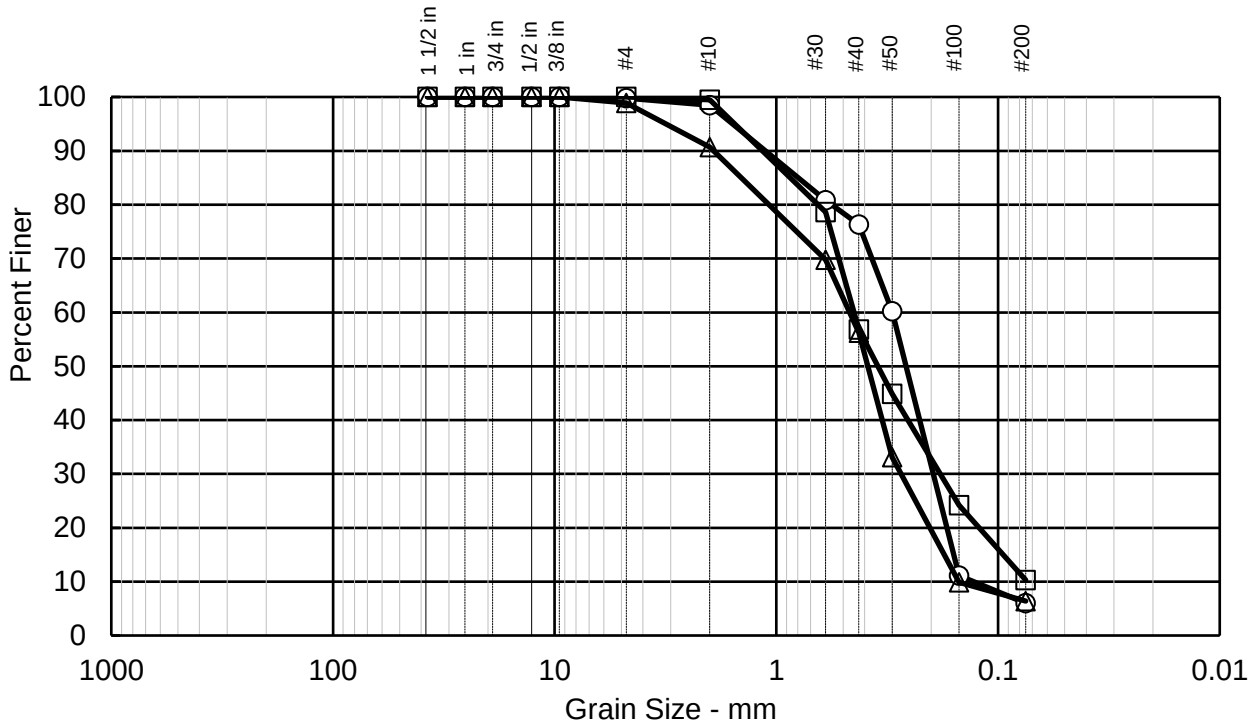
Sample Key	
○	22B-17 at 0.3 - 0.8 feet
□	22B-17 at 15 - 16.2 feet
△	22B-17 at 20.5 - 21 feet

Testing performed by
Cooper Testing Laboratory

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.03	Plate No. D-1-56



Sieve Size	○	□	△
	Percent Finer		
1.5 in	100.0	100.0	100.0
1 in	100.0	100.0	100.0
3/4 in	100.0	100.0	100.0
1/2 in	100.0	100.0	100.0
3/8 in	100.0	100.0	100.0
#4	99.8	100.0	98.9
#10	98.5	99.5	90.7
#30	80.8	78.6	69.8
#40	76.3	56.8	56.2
#50	60.2	44.9	33.1
#100	11.1	24.2	9.9
#200	6.0	10.3	6.4
	Grain Size		
D60	0.299	0.450	0.459
D30	0.206	0.186	0.282
D10	0.142	-	0.151
	Coefficients		
Cc	1.00	-	1.15
Cu	2.10	-	3.04

Soil Description	
○	Brown Poorly-Graded Sand with Silt (SP-SM)
□	Brown Poorly-Graded Sand with Silt (SP-SM)
△	Brown to Reddish Brown Poorly-Graded Sand with Silt (SP-SM)

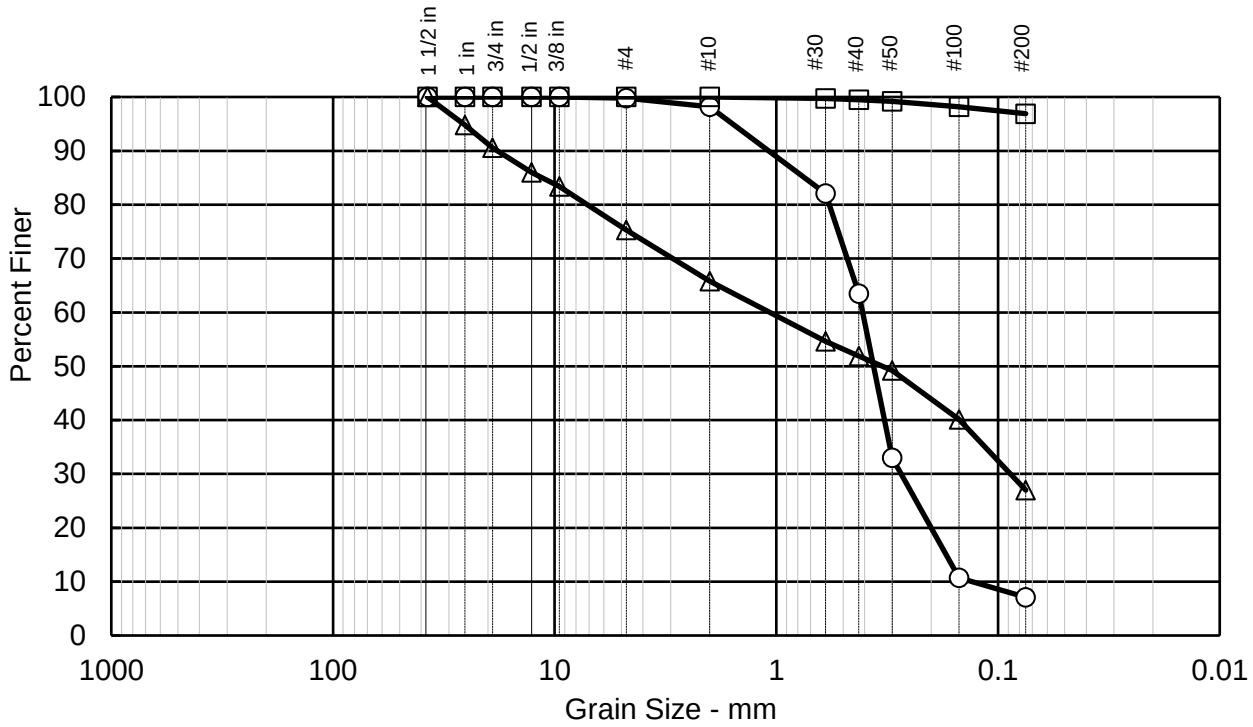
Sample Key	
○	22B-17 at 30 - 30.5 feet
□	22B-17 at 45 - 46.3 feet
△	22B-17 at 55 - 56.4 feet

Testing performed by
Cooper Testing Laboratory

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.03	Plate No. D-1-57



Sieve Size	○	□	△
	Percent Finer		
1.5 in	100.0	100.0	100.0
1 in	100.0	100.0	94.8
3/4 in	100.0	100.0	90.6
1/2 in	100.0	100.0	86.0
3/8 in	100.0	100.0	83.4
#4	99.8	100.0	75.3
#10	98.2	100.0	65.8
#30	82.1	99.7	54.6
#40	63.5	99.5	51.9
#50	33.0	99.2	49.2
#100	10.7	98.2	40.1
#200	7.1	96.9	27.0
	Grain Size		
D60	0.407	-	1.095
D30	0.285	-	0.088
D10	0.142	-	-
	Coefficients		
Cc	1.40	-	-
Cu	2.86	-	-

Soil Description	
○	Brown to Reddish Brown Poorly-Graded Sand with Silt (SP-SM)
□	Light Gray Poorly-Graded Sand with Silt and Gravel (SP-SM)
△	Reddish Yellow to Yellowish Brown Silt with Sand (ML)

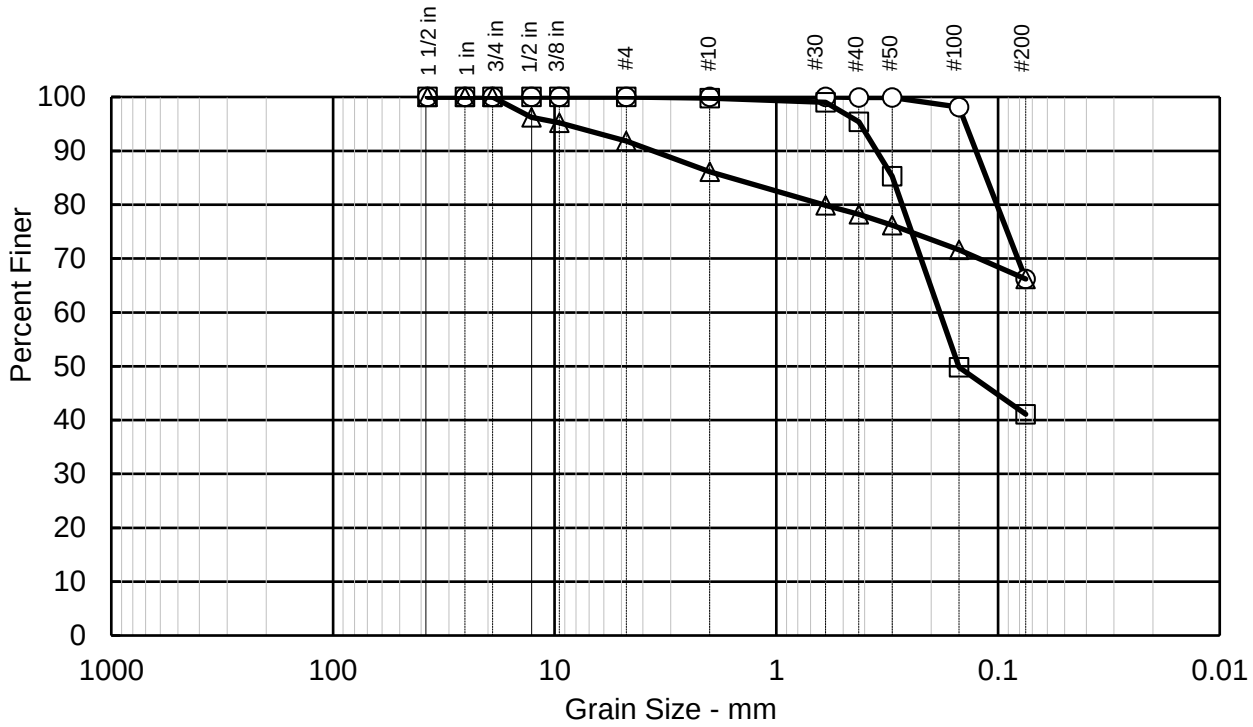
Sample Key	
○	22B-17 at 60 - 61.4 feet
□	22B-19 at 0.4 - 0.9 feet
△	22B-19 at 10 - 12 feet

Testing performed by
Cooper Testing Laboratory

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.03	Plate No. D-1-58



Sieve Size	○	□	△
	Percent Finer		
1.5 in	100.0	100.0	100.0
1 in	100.0	100.0	100.0
3/4 in	100.0	100.0	100.0
1/2 in	100.0	100.0	96.2
3/8 in	100.0	100.0	95.2
#4	100.0	100.0	91.8
#10	100.0	99.8	86.1
#30	100.0	99.0	79.9
#40	99.9	95.4	78.2
#50	99.9	85.3	76.2
#100	98.1	49.8	71.6
#200	66.2	41.1	66.2
	Grain Size		
D60	-	0.188	-
D30	-	-	-
D10	-	-	-
	Coefficients		
Cc	-	-	-
Cu	-	-	-

Soil Description	
○	Dark Gray Sandy Silt (ML)
□	Gray Silty Sand (SM)
△	Light Gray Brown Sandy Lean Clay (CL)

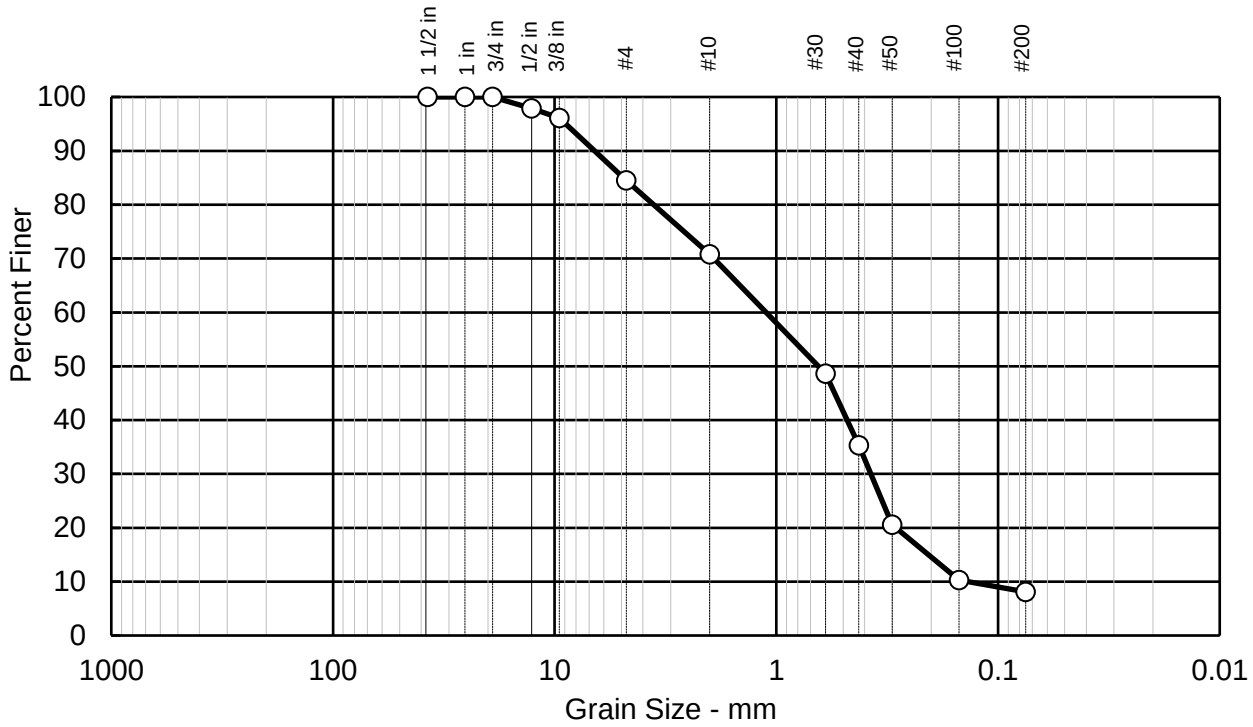
Sample Key	
○	22B-19 at 40.5 - 41 feet
□	22B-19 at 50 - 51.5 feet
△	22B-24 at 0.7 - 1.2 feet

Testing performed by
Cooper Testing Laboratory

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.03	Plate No. D-1-59



Sieve Size	○	□	△
	Percent Finer		
1.5 in	100.0		
1 in	100.0		
3/4 in	100.0		
1/2 in	97.9		
3/8 in	96.1		
#4	84.5		
#10	70.8		
#30	48.6		
#40	35.3		
#50	20.6		
#100	10.3		
#200	8.1		
	Grain Size		
D60	1.008	-	-
D30	0.377	-	-
D10	0.146	-	-
	Coefficients		
Cc	0.97	-	-
Cu	6.93	-	-

Soil Description	
○	Brown Poorly-Graded Sand with Silt and Gravel (SP-SM)
□	
△	

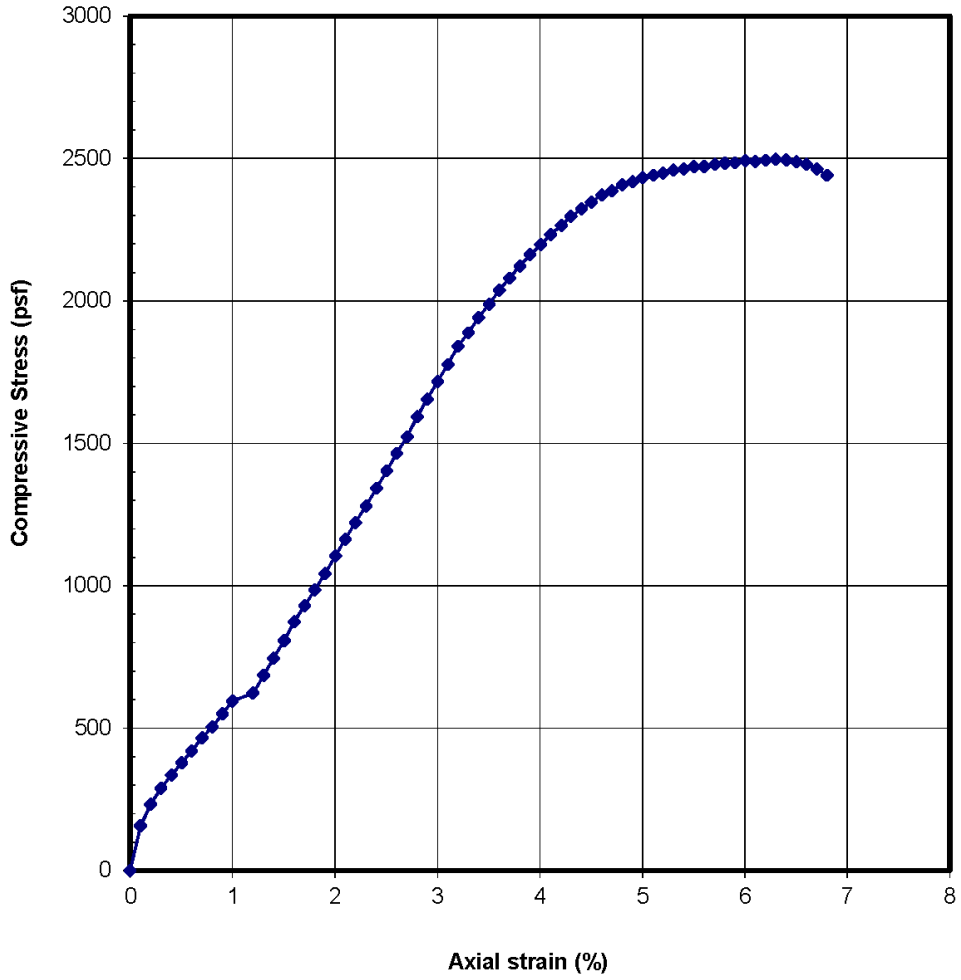
Sample Key	
○	22B-26 at 5.7 - 6.2 feet
□	
△	

Testing performed by
Cooper Testing Laboratory

Little Egbert Multi-Benefit Project
Solano County, California

Sieve Analysis Results

Hultgren - Tillis Engineers	Project No. 907.03	Plate No. D-1-60



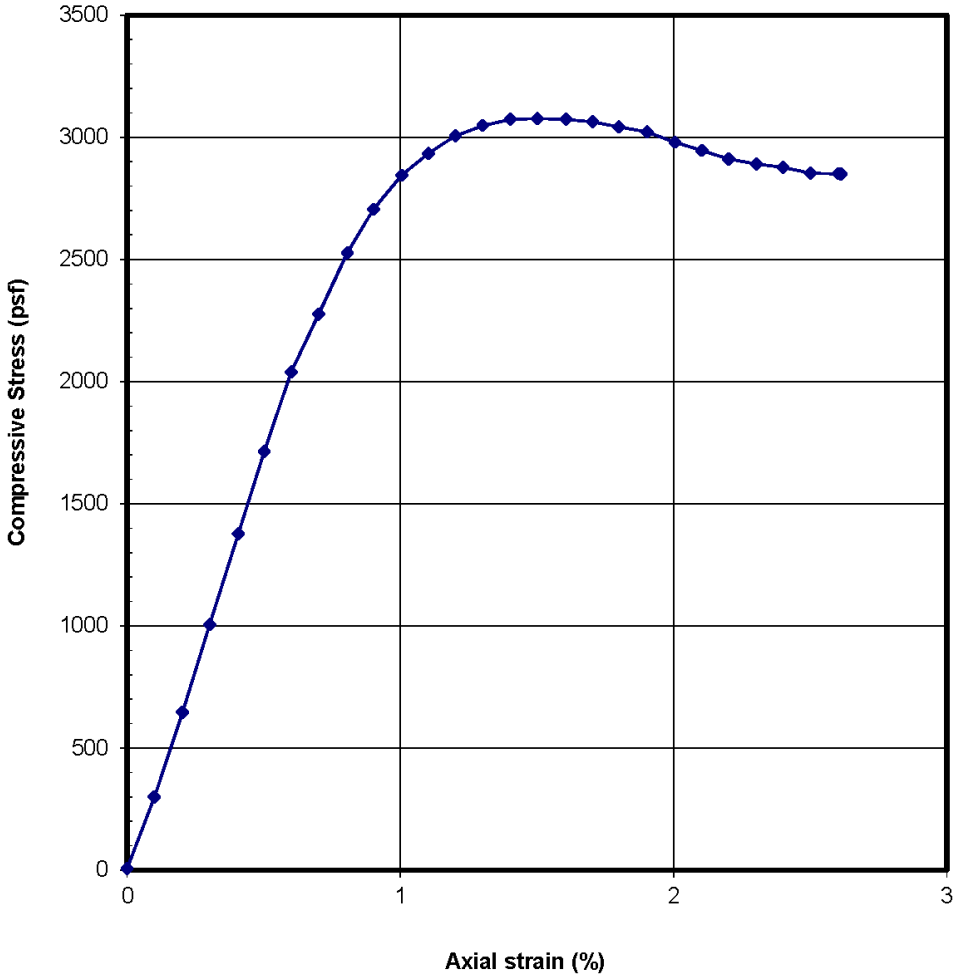
Sampler Type: Shelby		Shear Strength:	1225 psf
Diameter (in): 2.81	Height (in): 6.59	Strain:	5%
Moisture Content:	54.4 %	Confining Pressure:	1000 psf
Dry Density:	69.6 pcf	Strain Rate:	1%/min
Source: 22B-1 at 16.0 feet			
Description: Dark Brown Fat Clay			

LITTLE EGBERT TRACT	UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST		
B. HILLEBRANDT SOILS TESTING, INC	Date: 07/25/22	Project No. 907.02	Figure

Little Egbert Multi-Benefit Project
Solano County, California

Unconsolidation-Undrained Triaxial Compression Test (TxUU)

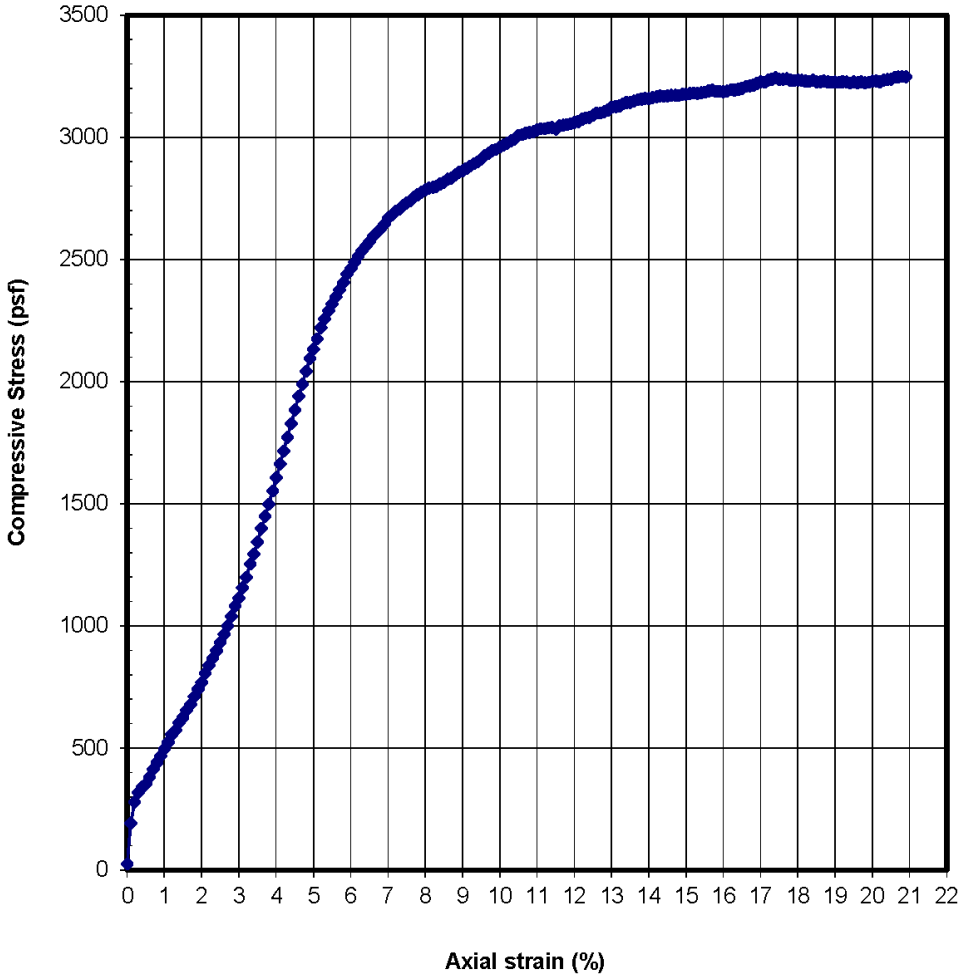
Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-61



Sampler Type: Shelby		Shear Strength:	1538 psf
Diameter (in): 2.81	Height (in): 6.15	Strain at Failure:	1.5%
Moisture Content:	47.9 %	Confining Pressure:	625 psf
Dry Density:	62.2 pcf	Strain Rate:	1%/min
Source: 22B-2 at 10.8 feet			
Description: Dark Brown Fat Clay			

LITTLE EGBERT TRACT	UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST		
B. HILLEBRANDT SOILS TESTING, INC	Date: 07/25/22	Project No. 907.02	Figure

Little Egbert Multi-Benefit Project Solano County, California	**Unconsolidation-Undrained Triaxial Compression Test (TxUU)**	
Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-62



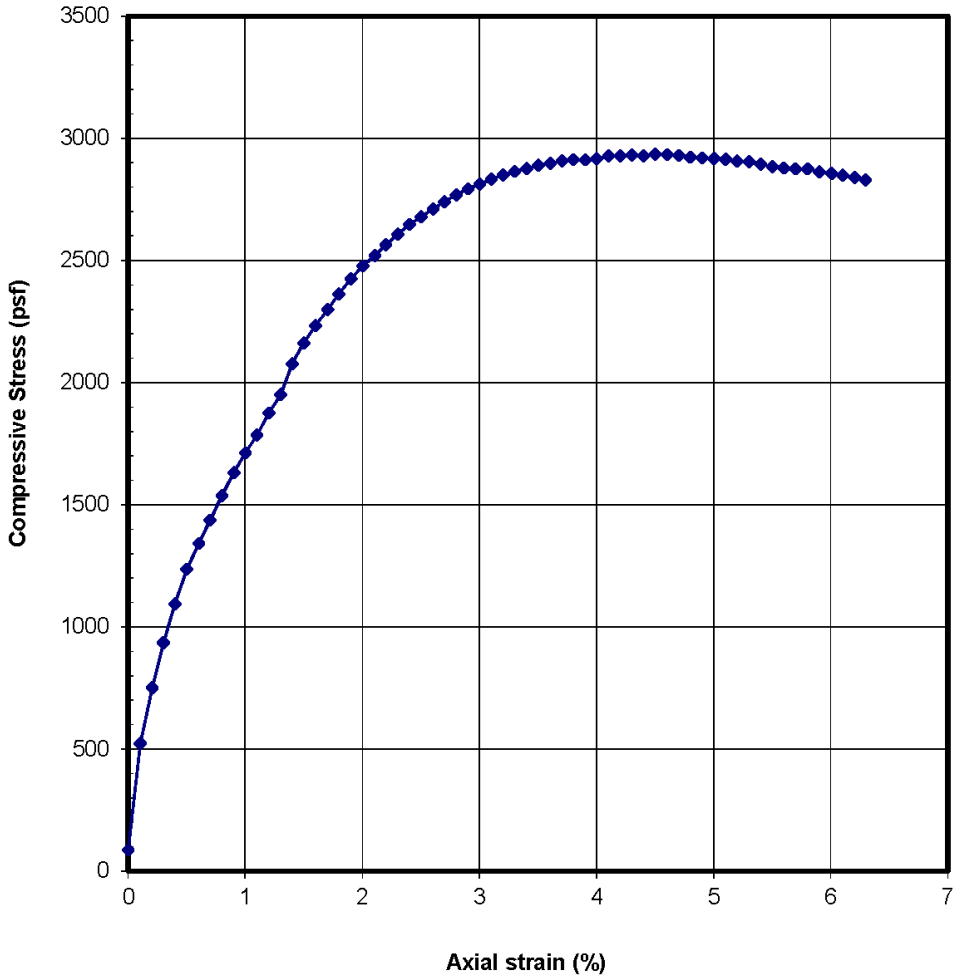
Sampler Type: Shelby		Shear Strength:	1100 psf
Diameter (in): 2.83	Height (in): 6.2	Strain:	5%
Moisture Content:	20.3 %	Confining Pressure:	1500 psf
Dry Density:	98.8 pcf	Strain Rate:	1%/min
Source: 22B-2 at 26.0 feet			
Description: Olive Brown Lean Clay with Sand			

LITTLE EGBERT TRACT	UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST		
B. HILLEBRANDT SOILS TESTING, INC	Date: 07/25/22	Project No. 907.02	Figure

Little Egbert Multi-Benefit Project
Solano County, California

Unconsolidation-Undrained Triaxial Compression Test (TxUU)

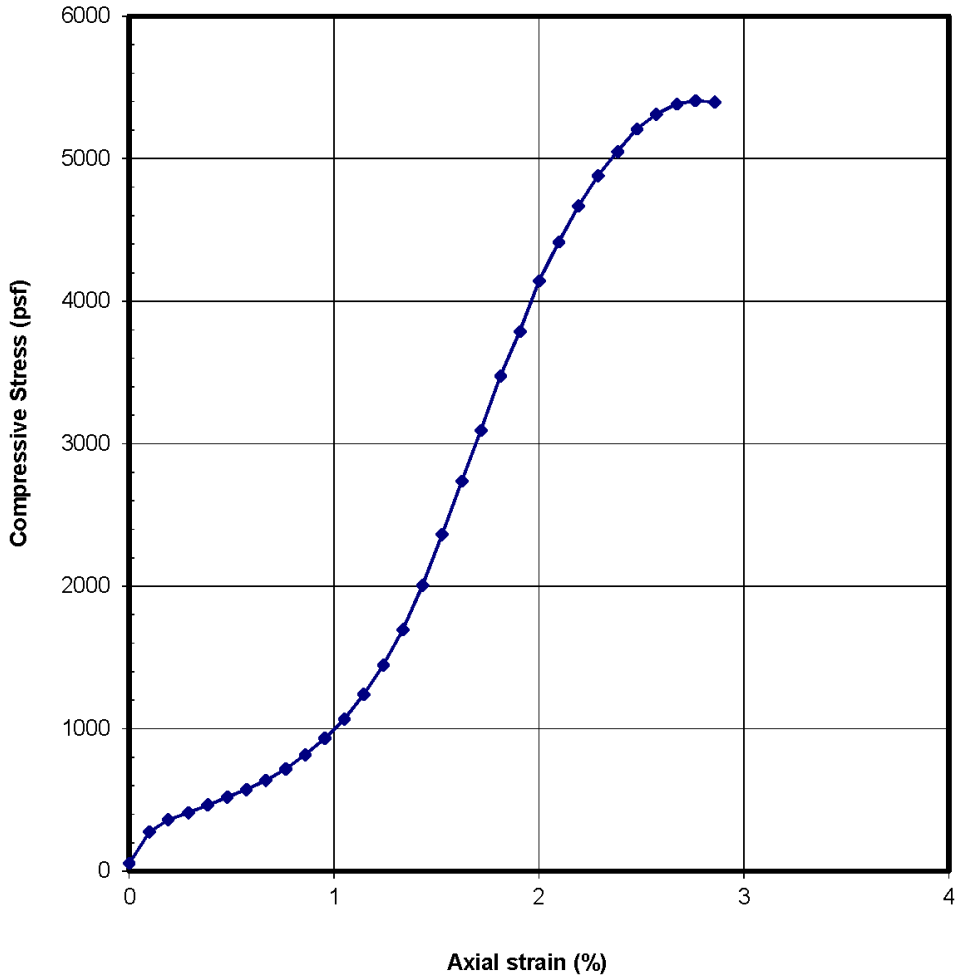
Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-63



Sampler Type: Shelby		Shear Strength:	1468 psf
Diameter (in): 2.80	Height (in): 6.32	Strain at Failure:	4.5%
Moisture Content:	36.6 %	Confining Pressure:	2000 psf
Dry Density:	70.5 pcf	Strain Rate:	1%/min
Source: 22B-3 at 31.0 feet			
Description: Very Dark Brown to Olive Gray Organic Silt			

LITTLE EGBERT TRACT	UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST		
B. HILLEBRANDT SOILS TESTING, INC	Date: 07/25/22	Project No. 907.02	Figure

Little Egbert Multi-Benefit Project Solano County, California	**Unconsolidation-Undrained Triaxial Compression Test (TxUU)**	
Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-64



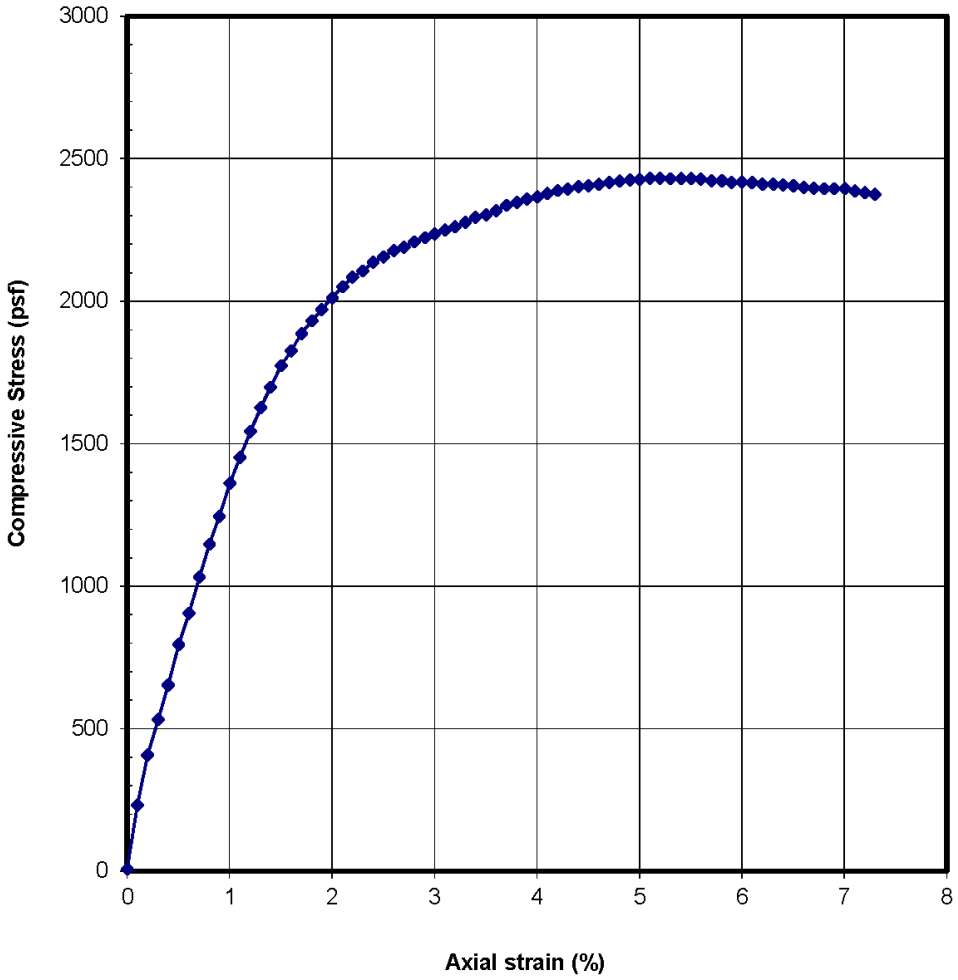
Sampler Type: Shelby		Shear Strength:	2703 psf
Diameter (in): 2.81	Height (in): 6.3	Strain at Failure:	2.8%
Moisture Content:	39.9 %	Confining Pressure:	625 psf
Dry Density:	74.6 pcf	Strain Rate:	1%/min
Source: 22B-4 at 11.5 feet			
Description: Very Dark Brown Fat Clay			

LITTLE EGBERT TRACT	UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST		
B. HILLEBRANDT SOILS TESTING, INC	Date: 07/25/22	Project No. 907.02	Figure

Little Egbert Multi-Benefit Project
Solano County, California

Unconsolidation-Undrained Triaxial Compression Test (TxUU)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-65



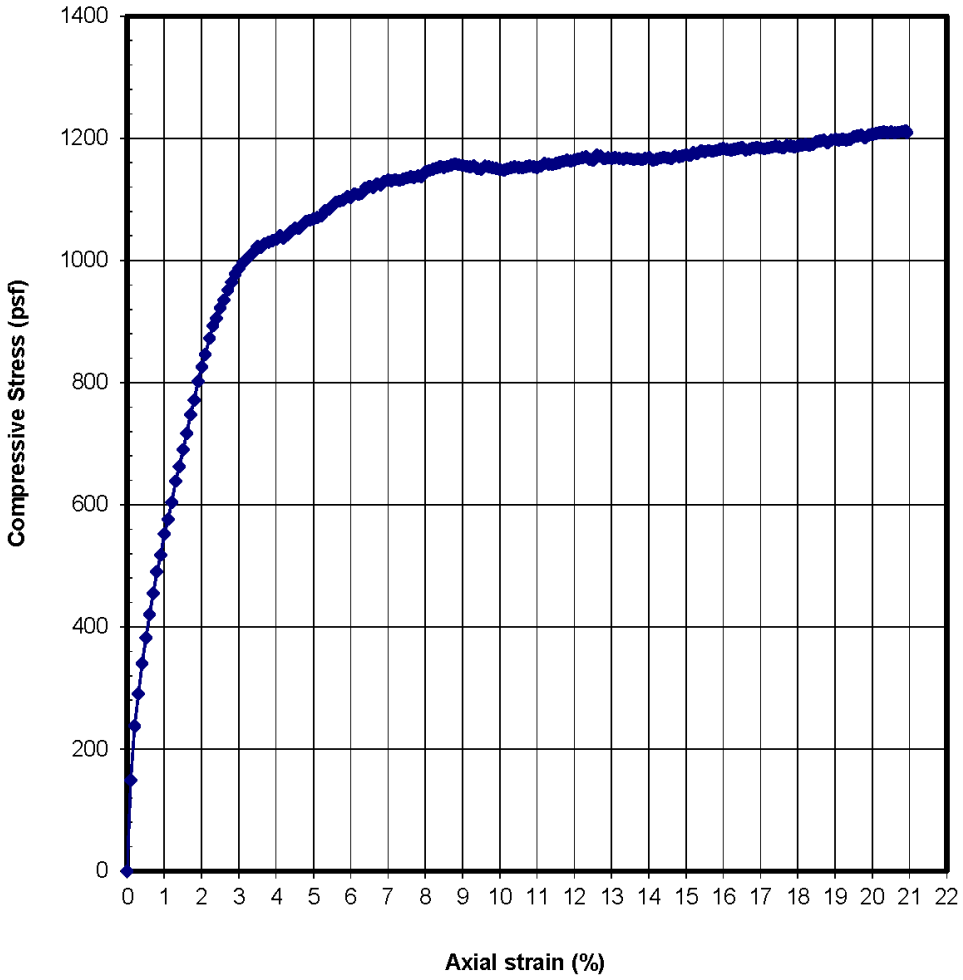
Sampler Type: Shelby		Shear Strength:	1216 psf
Diameter (in): 2.81	Height (in): 5.71	Strain at Failure:	5.2%
Moisture Content:	19.9 %	Confining Pressure:	1000 psf
Dry Density:	110 pcf	Strain Rate:	1%/min
Source: 22B-6 at 16.0 feet			
Description: Brown and Olive Brown Fat Clay			

LITTLE EGBERT TRACT		UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST	
B. HILLEBRANDT SOILS TESTING, INC		Date: 07/25/22	Project No. 907.02	Figure

Little Egbert Multi-Benefit Project
Solano County, California

Unconsolidation-Undrained Triaxial Compression Test (TxUU)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-66



Sampler Type: Shelby		Shear Strength:	535 psf
Diameter (in): 2.81	Height (in): 5.86	Strain:	5%
Moisture Content:	34.5 %	Confining Pressure:	300 psf
Dry Density:	84.1 pcf	Strain Rate:	1%/min
Source: 22B-10 at 6.0 feet			
Description: Light Olive Fat Clay			

LITTLE EGBERT TRACT		UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST	
B. HILLEBRANDT SOILS TESTING, INC		Date: 07/25/22	Project No. 907.02	Figure

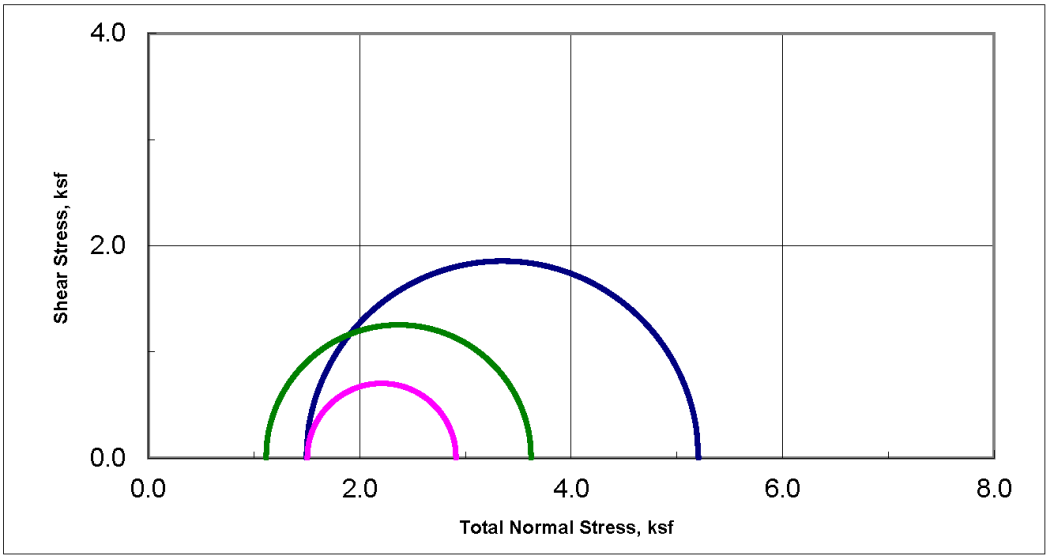
Little Egbert Multi-Benefit Project
Solano County, California

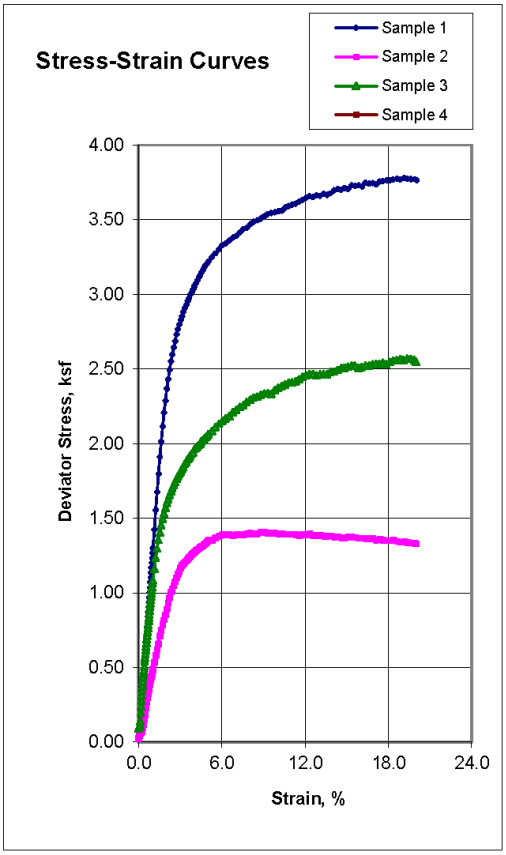
Unconsolidation-Undrained Triaxial Compression Test (TxUU)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-67

Cooper Testing Labs, Inc.
937 Commercial Street
Palo Alto, CA 94303

Unconsolidated-Undrained Triaxial Test
ASTM D2850





Sample Data	1	2	3	4
Moisture %	27.6	51.0	25.6	
Dry Den,pcf	97.2	71.4	97.1	
Void Ratio	0.766	1.405	0.736	
Saturation %	99.0	99.8	93.9	
Height in	6.00	6.00	6.01	
Diameter in	2.86	2.85	2.83	
Cell psi	10.4	10.4	7.7	
Strain %	15.00	8.81	15.00	
Deviator, ksf	3.711	1.408	2.510	
Rate %/min	1.00	1.00	1.00	
in/min	0.060	0.060	0.060	
Job No.:	212-208			
Client:	Hultgren-Tillis Engineers			
Project:	907.03, Order #3			
Boring:	22B-15	22B-16	22B-17	
Sample:				
Depth ft:	25-27(Tip-4")	20-22	15-16.2(Tip-4")	

Visual Soil Description	
Sample #	
1	Greenish Gray with Light Gray Fat Clay
2	Green Gray Fat Clay
3	Light Gray Brown Sandy Lean Clay
4	
Remarks:	

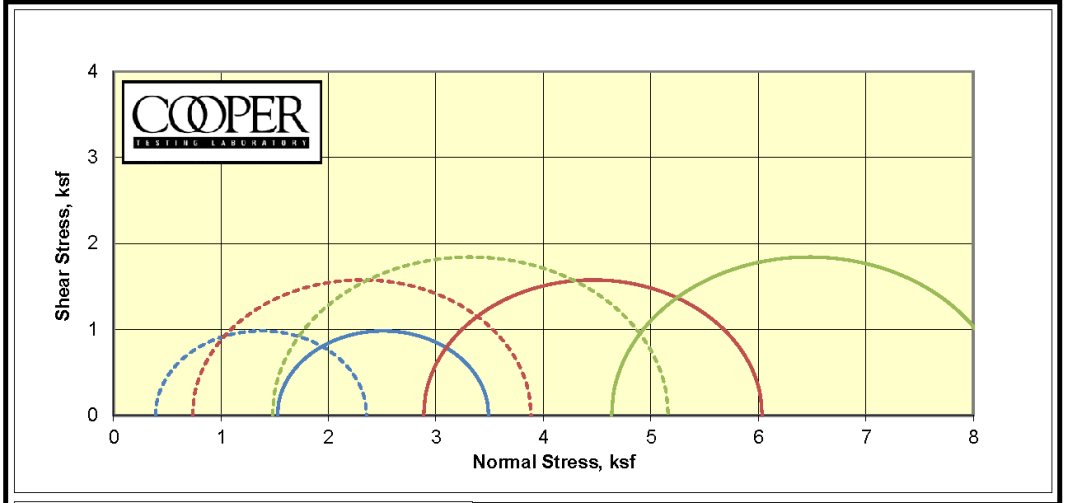
Note: Strengths are picked at the peak deviator stress or 15% strain which ever occurs first per ASTM D2850.

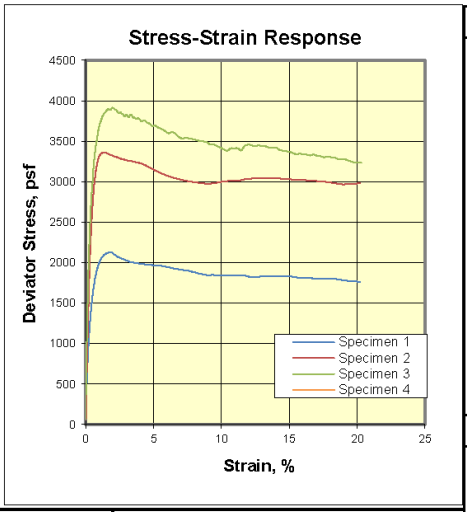
Little Egbert Multi-Benefit Project
Solano County, California

Unconsolidation-Undrained Triaxial Compression Test (TxUU)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-68

Consolidated Undrained Triaxial Compression with Pore Pressure
ASTM D4767





CTL Number:	212-205
Client Name:	Hultgren-Tillis Engineers
Project Name:	Little Egbert Tract Phase 2
Project Number:	907.03
Date:	8/26/2022 By: MD/DC
Total C	0.500 ksf
Total phi	12.7 degrees
Eff. C	0.450 ksf
Eff. Phi	27.0 degrees ©

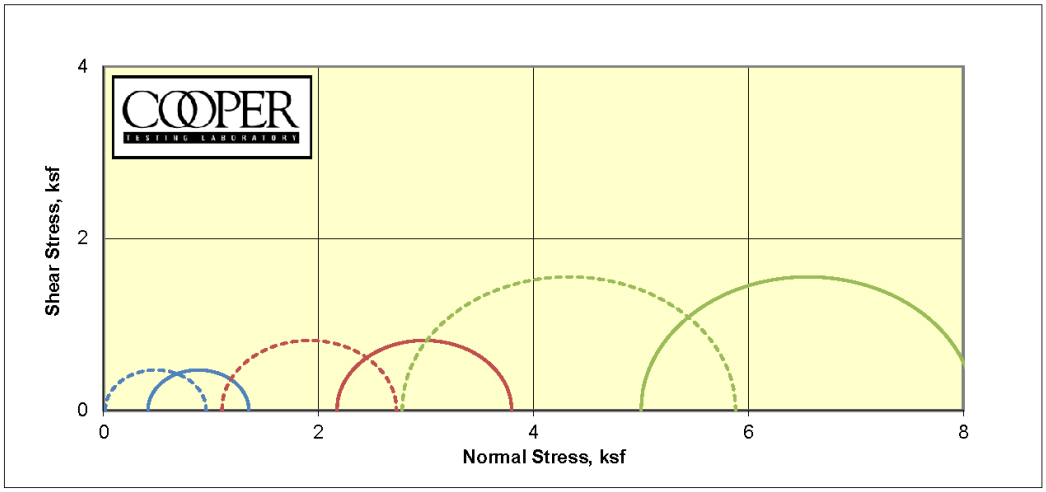
Specimen	1	2	3	4
Boring	22B-3	22B-3	22B-3	
Sample				
Depth	15(Tip-14")	15(Tip-7")	15(Tip-1/2")	
Visual Description	Very Dark Brown Fat Clay	Very Dark Brown Fat Clay	Very Dark Brown Fat Clay	
MC (%)	55.6	50.0	48.3	
Dry Density (pcf)	59.4	63.5	62.1	
Saturation (%)	82.6	82.5	76.9	
Void Ratio	1.784	1.606	1.664	
Diameter (in)	2.86	2.86	2.86	
Height (in)	5.97	5.98	5.99	
	Final			
MC (%)	64.4	56.5	55.3	
Dry Density (pcf)	61.1	66.3	67.1	
Saturation (%)	100.0	100.0	100.0	
Void Ratio	1.706	1.497	1.465	
Diameter (in)	2.83	2.82	2.77	
Height (in)	5.91	5.91	5.90	
Cell Pressure (psi)	108.9	120.8	130.7	
Back Pressure (psi)	98.4	100.8	98.5	
	Effective Stresses At:			
Strain (%)	5.0	5.0	5.0	
Deviator (ksf)	1.965	3.151	3.684	
Excess PP (psi)	7.9	14.9	21.9	
Sigma 1 (ksf)	2.355	3.886	5.163	
Sigma 3 (ksf)	0.390	0.734	1.479	
P (ksf)	1.373	2.310	3.321	
Q (ksf)	0.983	1.576	1.842	
Stress Ratio	6.035	5.291	3.491	
Rate (in/min)	0.0005	0.0005	0.0005	

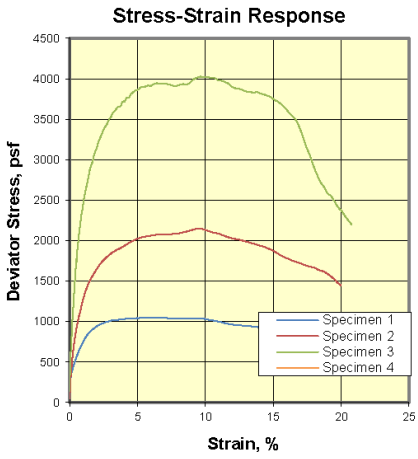
Little Egbert Multi-Benefit Project
Solano County, California

Consolidation-Undrained Triaxial Compression Test (TxCU)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-69

Consolidated Undrained Triaxial Compression with Pore Pressure
ASTM D4767





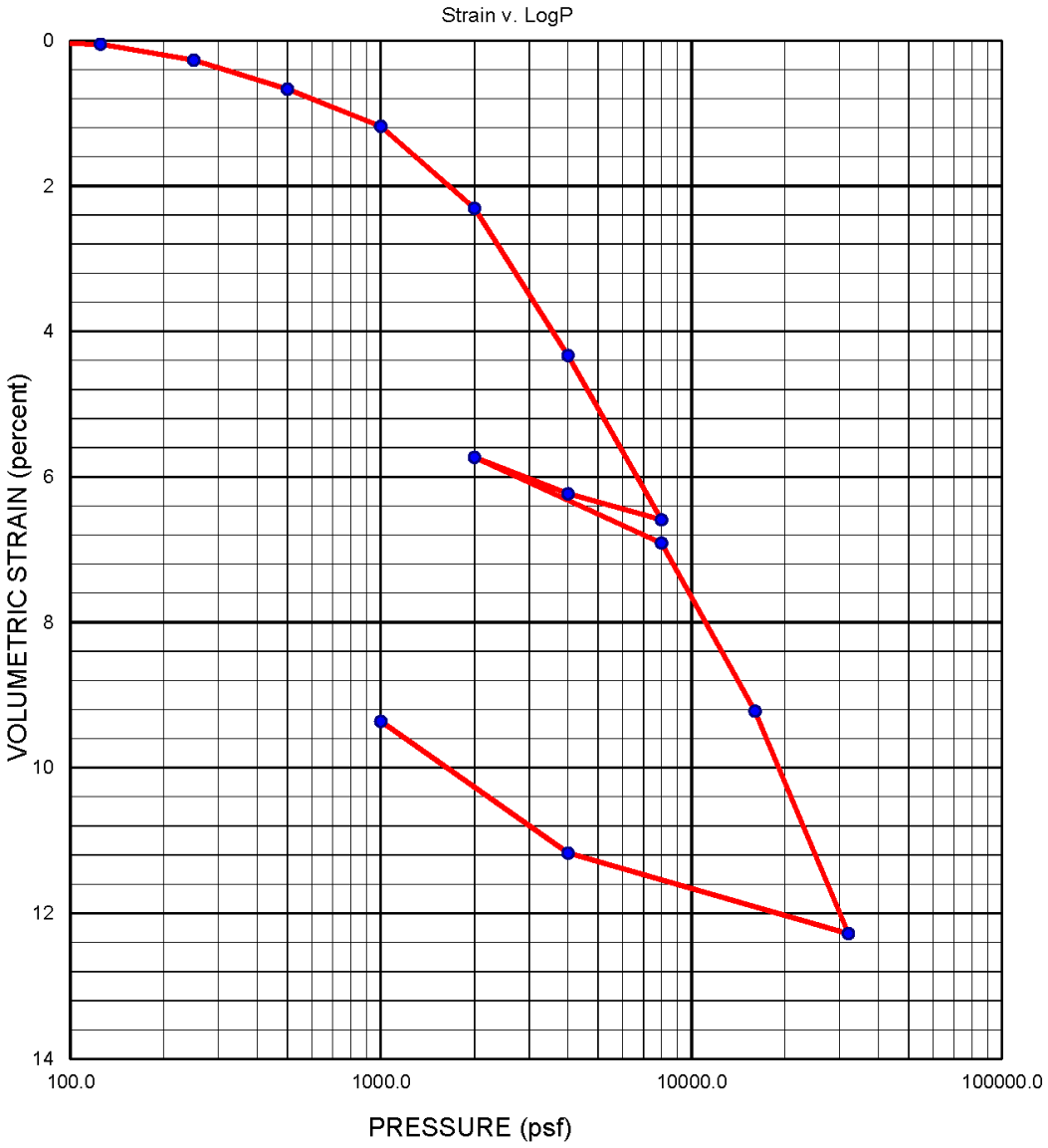
CTL Number:	212-205
Client Name:	Hultgren-Tillis Engineers
Project Name:	Little Egbert-Phase 2
Project Number:	907.03, Order #2
Date:	9/12/2022 By: MD/DC
Total C	0.300 ksf
Total phi	10.6 degrees
Eff. C	0.350 ksf
Eff. Phi	16.2 degrees ©

Specimen	1	2	3	4
Boring	22B-13	22B-13	22B-13	
Sample				
Depth	11(Tip-18")	11(Tip-11")	11(Tip-4.5")	
Visual Description	Dark and Light Brown Organic Silt	Dark and Light Brown Organic Silt	Dark and Light Brown Organic Silt	
MC (%)	146.7	152.4	130.7	
Dry Density (pcf)	32.3	30.3	35.7	
Saturation (%)	94.8	91.1	95.9	
Void Ratio	4.024	4.349	3.543	
Diameter (in)	2.85	2.86	2.86	
Height (in)	5.95	5.99	5.98	
	Final			
MC (%)	143.2	114.8	79.2	
Dry Density (pcf)	34.4	40.7	53.1	
Saturation (%)	100.0	100.0	100.0	
Void Ratio	3.724	2.984	2.059	
Diameter (in)	2.81	2.47	2.39	
Height (in)	5.75	5.99	5.75	
Cell Pressure (psi)	103.8	115.0	134.1	
Back Pressure (psi)	101.0	99.9	99.4	
	Effective Stresses At:			
Strain (%)	2.0	2.0	2.0	
Deviator (ksf)	0.940	1.628	3.106	
Excess PP (psi)	2.8	7.4	15.4	
Sigma 1 (ksf)	0.955	2.727	5.883	
Sigma 3 (ksf)	0.016	1.100	2.778	
P (ksf)	0.486	1.914	4.330	
Q (ksf)	0.470	0.814	1.553	
Stress Ratio	60.123	2.480	2.118	
Rate (in/min)	0.0002	0.0002	0.0002	

Little Egbert Multi-Benefit Project
Solano County, California

Consolidation-Undrained Triaxial Compression Test (TxCU)

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-70



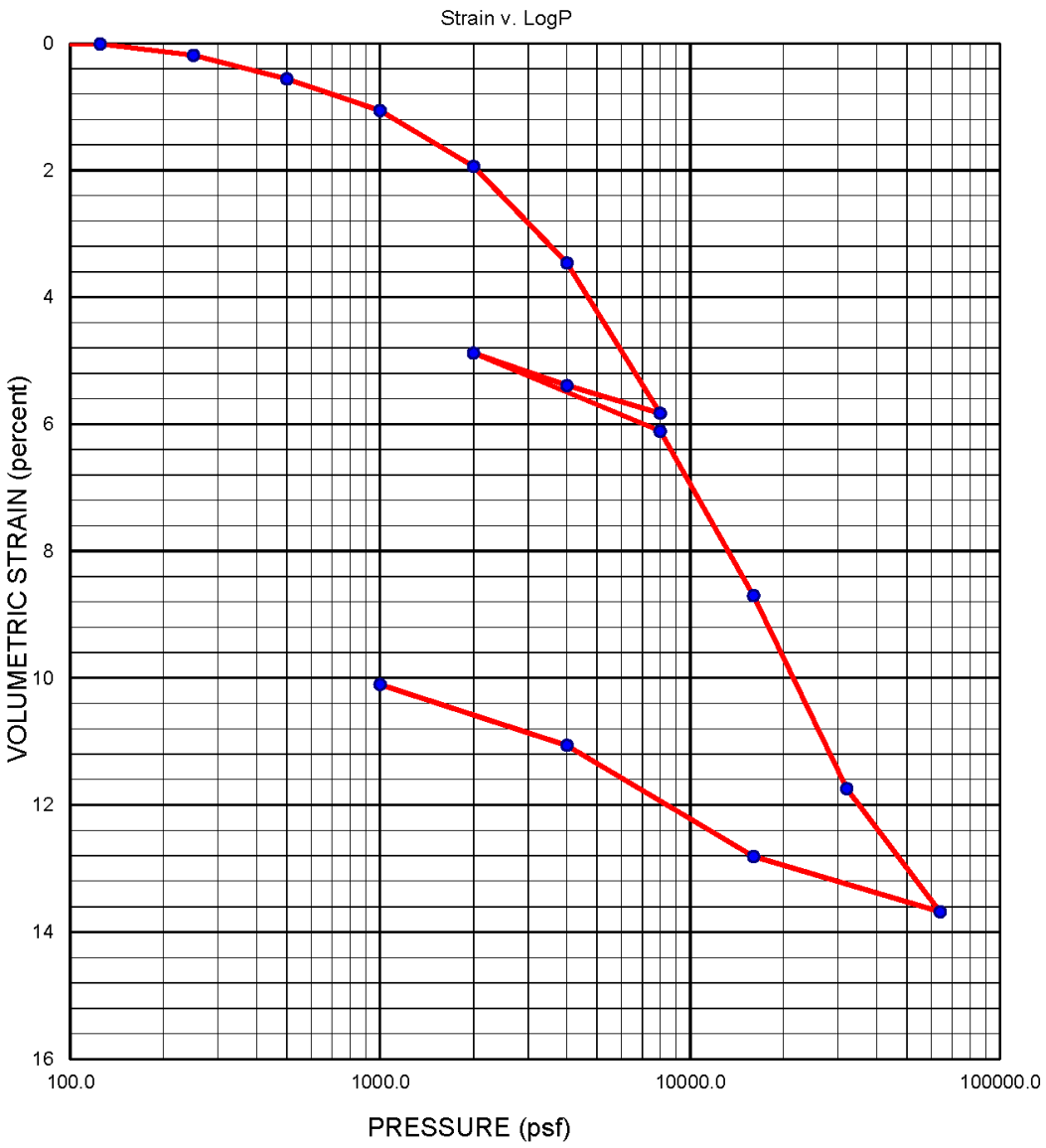
Sampler Type: Shelby				Condition	Before Test			After Test	
Diameter (in)	2.00	Height (in)	0.75	Water Content	w_o	39.4	%	w_f	33.1 %
Overburden Pressure, p_o			psf	Void Ratio	e_o	0.96		e_f	0.80
Preconsol. Pressure, p_c			psf	Saturation	S_o	99	%	S_f	100 %
Compression Ratio, C_{sc}				Dry Density	γ_d	77	pcf	γ_d	83 pcf
Recompression Ratio, C_{sr}		LL	PL	PI	G_s	2.40	(assumed)		
Source:	22B-1 at 25.8 feet								
Description:	Very Dark Organic Clay								

LITTLE EGBERT TRACT	**CONSOLIDATION TEST REPORT**		
B. HILLEBRANDT SOILS TESTING, INC	Date 07/15/22	Project No. 907.02	Figure

Little Egbert Multi-Benefit Project
Solano County, California

Consolidation Test

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-71



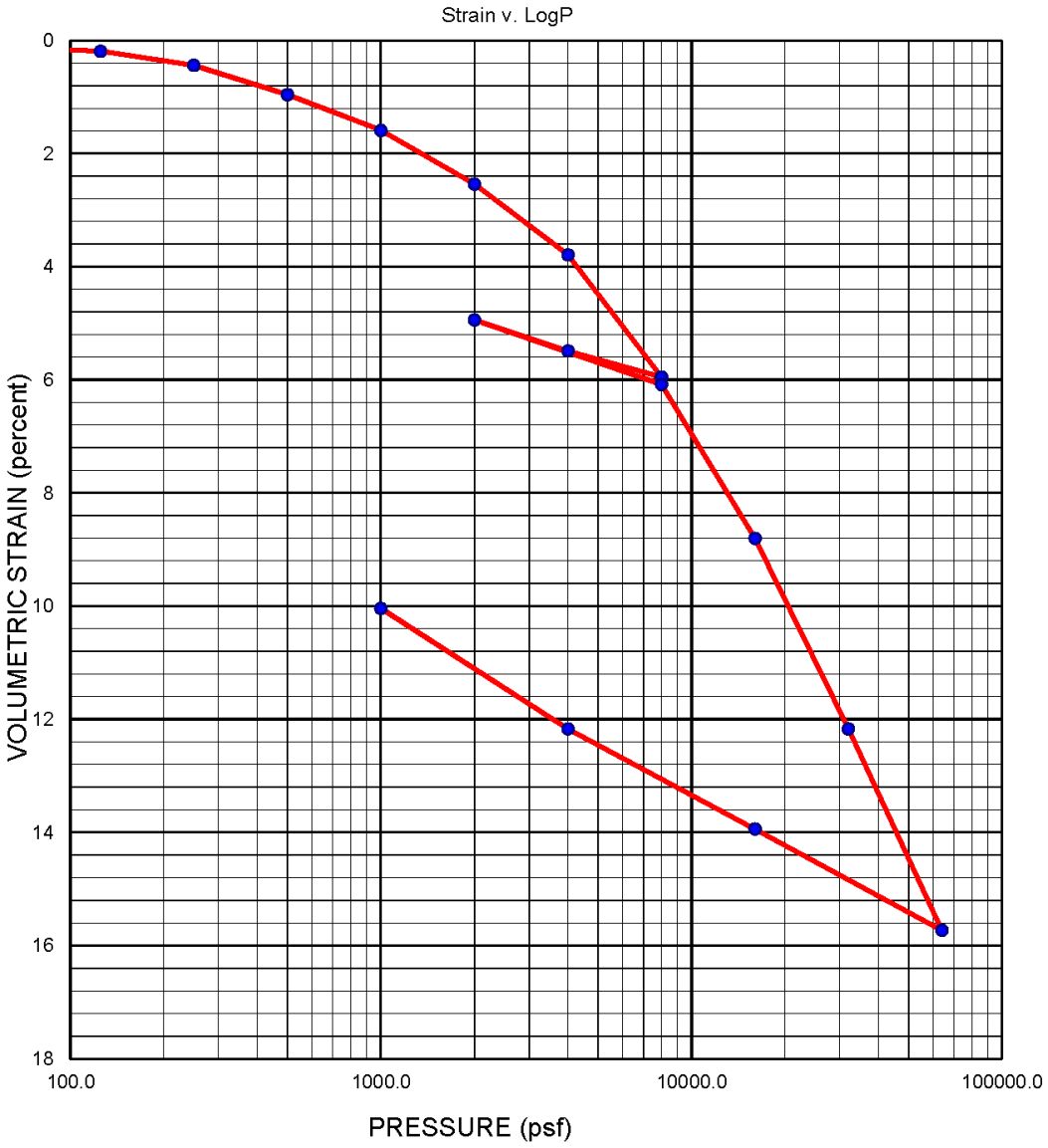
Sampler Type: Shelby				Condition	Before Test			After Test	
Diameter (in)	2.00	Height (in)	0.75	Water Content	w_o	47.2	%	w_f	44.2 %
Overburden Pressure, p_o			psf	Void Ratio	e_o	1.41		e_f	1.19
Preconsol. Pressure, p_c			psf	Saturation	S_o	91	%	S_f	100 %
Compression Ratio, C_{sc}				Dry Density	γ_d	70	pcf	γ_d	77 pcf
Recompression Ratio, C_{sr}		LL	PL	PI	G_s	2.70	(assumed)		
Source:	22B-2 at 21.3 feet								
Description:	Very Dark Brown with Bluish Gray Elastic Silt								

LITTLE EGBERT TRACT	**CONSOLIDATION TEST REPORT**		
B. HILLEBRANDT SOILS TESTING, INC	Date 07/12/22	Project No. 907.02	Figure

Little Egbert Multi-Benefit Project
Solano County, California

Consolidation Test

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-72



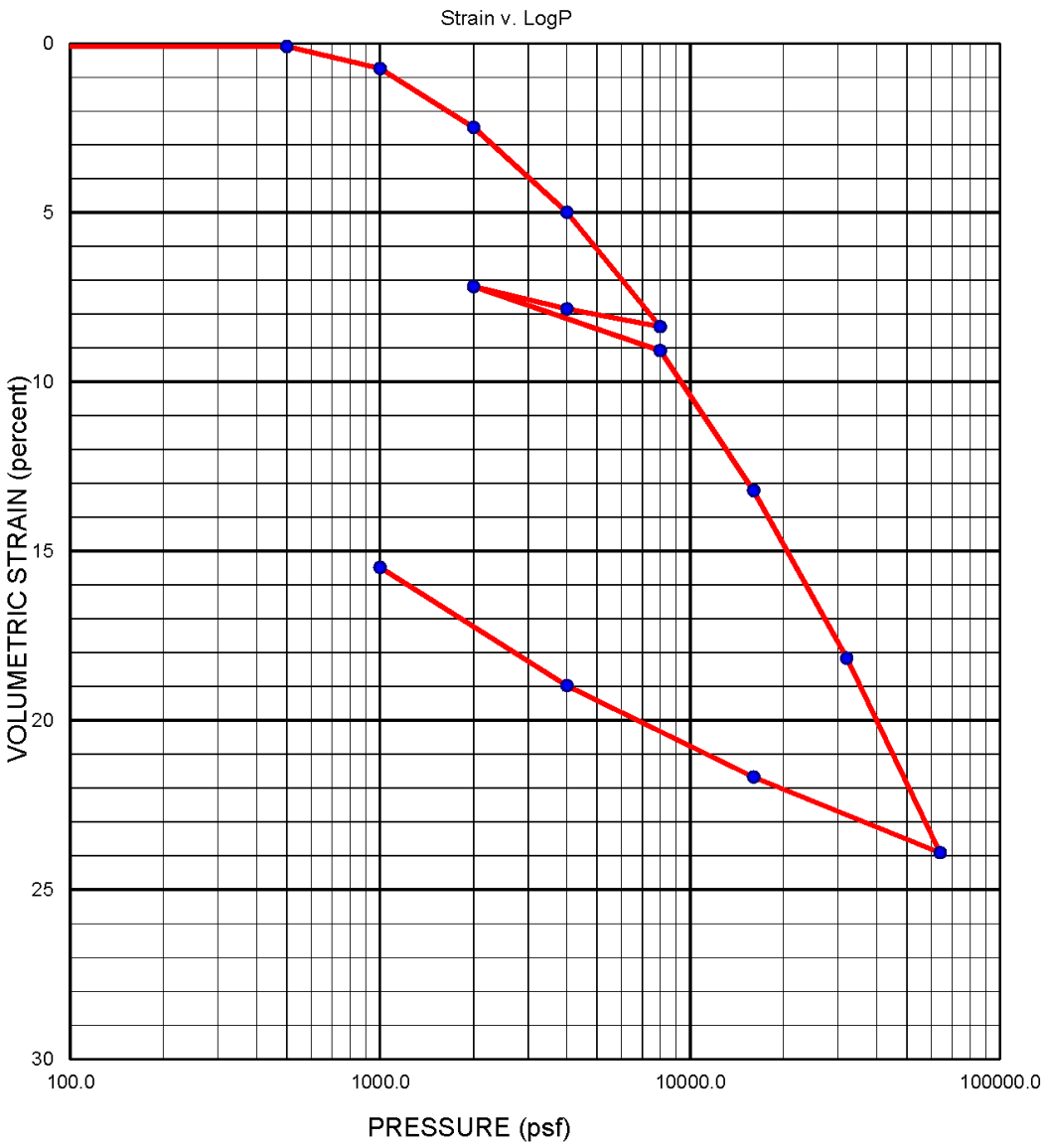
Sampler Type: Shelby				Condition	Before Test			After Test	
Diameter (in)	2.00	Height (in)	0.75	Water Content	w_o	47.8	%	w_f	42.1 %
Overburden Pressure, p_o			psf	Void Ratio	e_o	1.15		e_f	0.97
Preconsol. Pressure, p_c			psf	Saturation	S_o	95	%	S_f	100 %
Compression Ratio, C_{sc}				Dry Density	γ_d	67	pcf	γ_d	73 pcf
Recompression Ratio, C_{sr}		LL	PL	PI	G_s	2.30	(assumed)		
Source:	22B-4 at 26.0 feet								
Description:	Very Dark Brown and Bluish Gray Fat Clay								

LITTLE EGBERT TRACT	**CONSOLIDATION TEST REPORT**		
B. HILLEBRANDT SOILS TESTING, INC	Date 07/15/22	Project No. 907.02	Figure

Little Egbert Multi-Benefit Project
Solano County, California

Consolidation Test

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-73



Sampler Type: Shelby				Condition	Before Test			After Test	
Diameter (in)	2.42	Height (in)	1.00	Water Content	w_o	42.1	%	w_f	33.8 %
Overburden Pressure, p_o			psf	Void Ratio	e_o	1.25		e_f	0.91
Preconsol. Pressure, p_c			psf	Saturation	S_o	91	%	S_f	100 %
Compression Ratio, C_{sc}				Dry Density	γ_d	75	pcf	γ_d	88 pcf
Recompression Ratio, C_{sr}		LL	PL	PI	G_s	2.70	(assumed)		
Source:	22B-7 at 20.8 feet								
Description:	Very Dark Brown with Black Organic Clay								

LITTLE EGBERT TRACT	**CONSOLIDATION TEST REPORT**		
B. HILLEBRANDT SOILS TESTING, INC	Date 07/17/22	Project No. 907.02	Figure

Little Egbert Multi-Benefit Project
Solano County, California

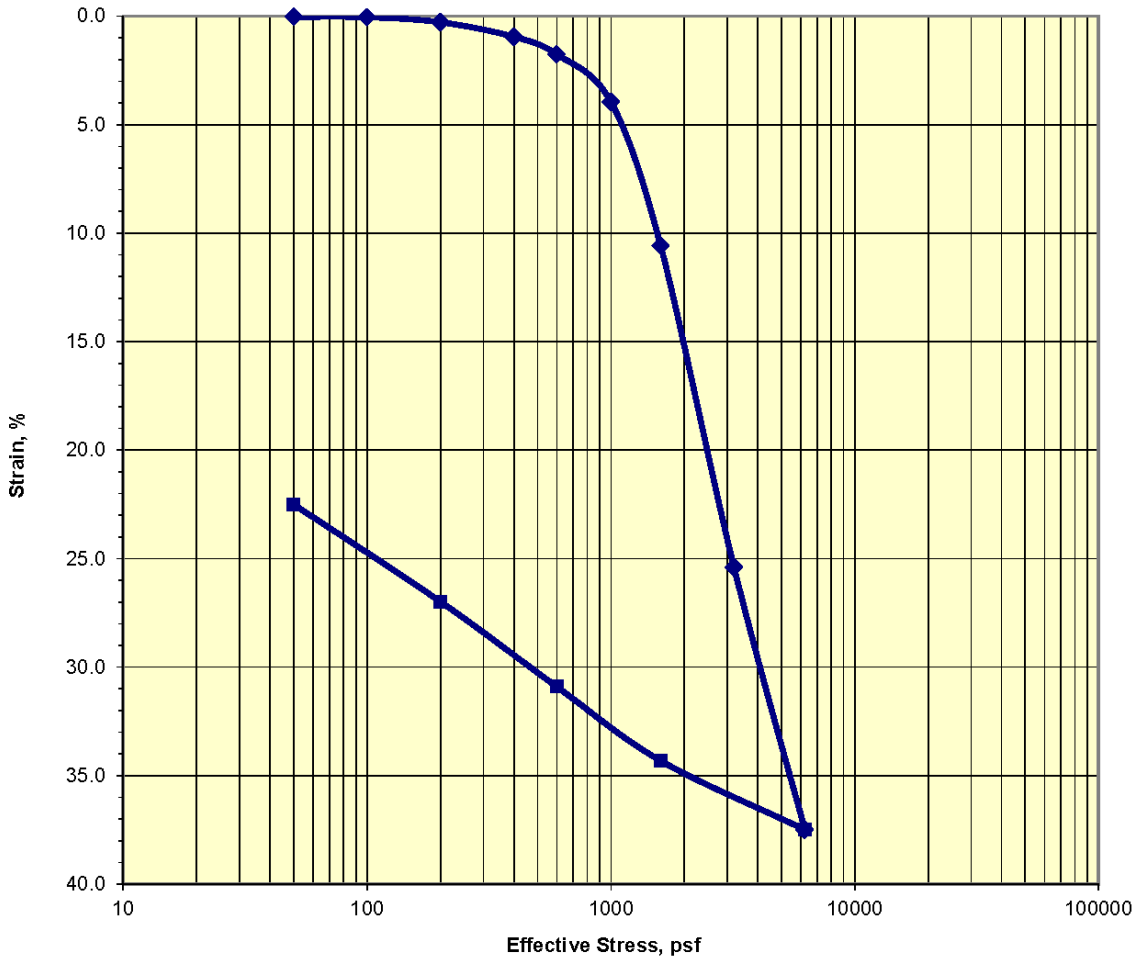
Consolidation Test

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-74

Consolidation Test
ASTM D2435

Job No.:	212-205	**Boring:**	22B-13	**Run By:**	MD
Client:	Hultgren-Tillis Engineers	**Sample:**		**Reduced:**	PJ
Project:	907.03	**Depth, ft.:**	11(Tip-3")	**Checked:**	PJ/DC
Soil Type:	Dark and Light Brown Organic Silt			**Date:**	8/30/2022

Strain-Log-P Curve



Assumed Gs 2.6	Initial	Final
Moisture %:	168.8	124.7
Dry Density, pcf:	28.6	38.3
Void Ratio:	4.675	3.243
% Saturation:	93.8	100.0

Remarks:

Little Egbert Multi-Benefit Project
Solano County, California

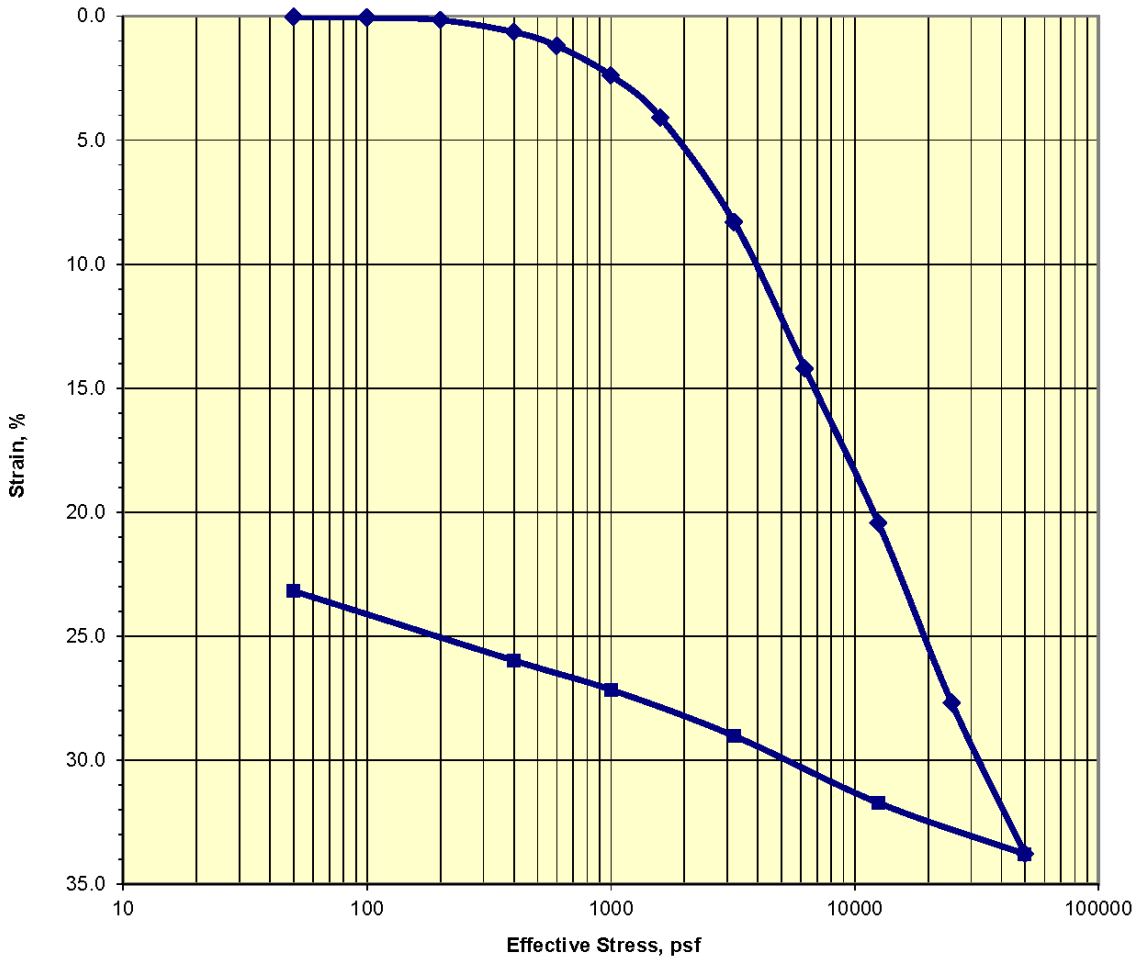
Consolidation Test

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-75

Consolidation Test
ASTM D2435

Job No.:	212-208	**Boring:**	22B-15	**Run By:**	MD
Client:	Hultgren-Tillis Engineers	**Sample:**		**Reduced:**	PJ
Project:	907.03, Order #3	**Depth, ft.:**	20-22(Tip-3")	**Checked:**	PJ/DC
Soil Type:	Light Gray Organic Silt			**Date:**	9/27/2022

Strain-Log-P Curve



Assumed Gs 2.7	Initial	Final
Moisture %:	84.3	58.5
Dry Density, pcf:	50.2	65.4
Void Ratio:	2.355	1.579
% Saturation:	96.7	100.0

Remarks:

Little Egbert Multi-Benefit Project
Solano County, California

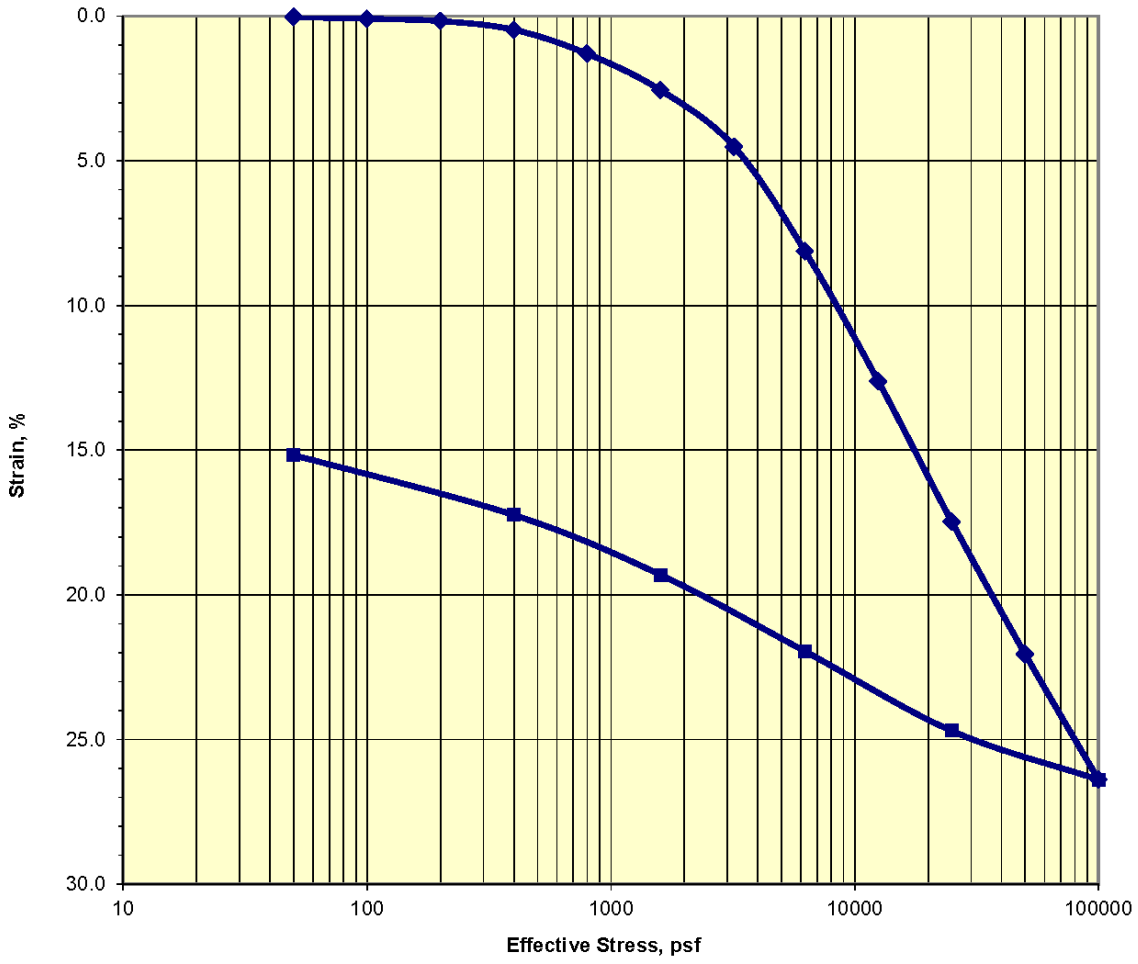
Consolidation Test

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-76

Consolidation Test
ASTM D2435

Job No.:	212-208	**Boring:**	22B-15	**Run By:**	MD
Client:	Hultgren-Tillis Engineers	**Sample:**		**Reduced:**	PJ
Project:	907.03, Order# 3	**Depth, ft.:**	25-27(Tip-3")	**Checked:**	PJ/DC
Soil Type:	Greenish Gray with Light Gray Fat Clay			**Date:**	9/27/2022

Strain-Log-P Curve



Assumed Gs 2.8	Initial	Final
Moisture %:	30.8	24.6
Dry Density, pcf:	87.5	103.5
Void Ratio:	0.997	0.689
% Saturation:	86.4	100.0

Remarks:

Little Egbert Multi-Benefit Project
Solano County, California

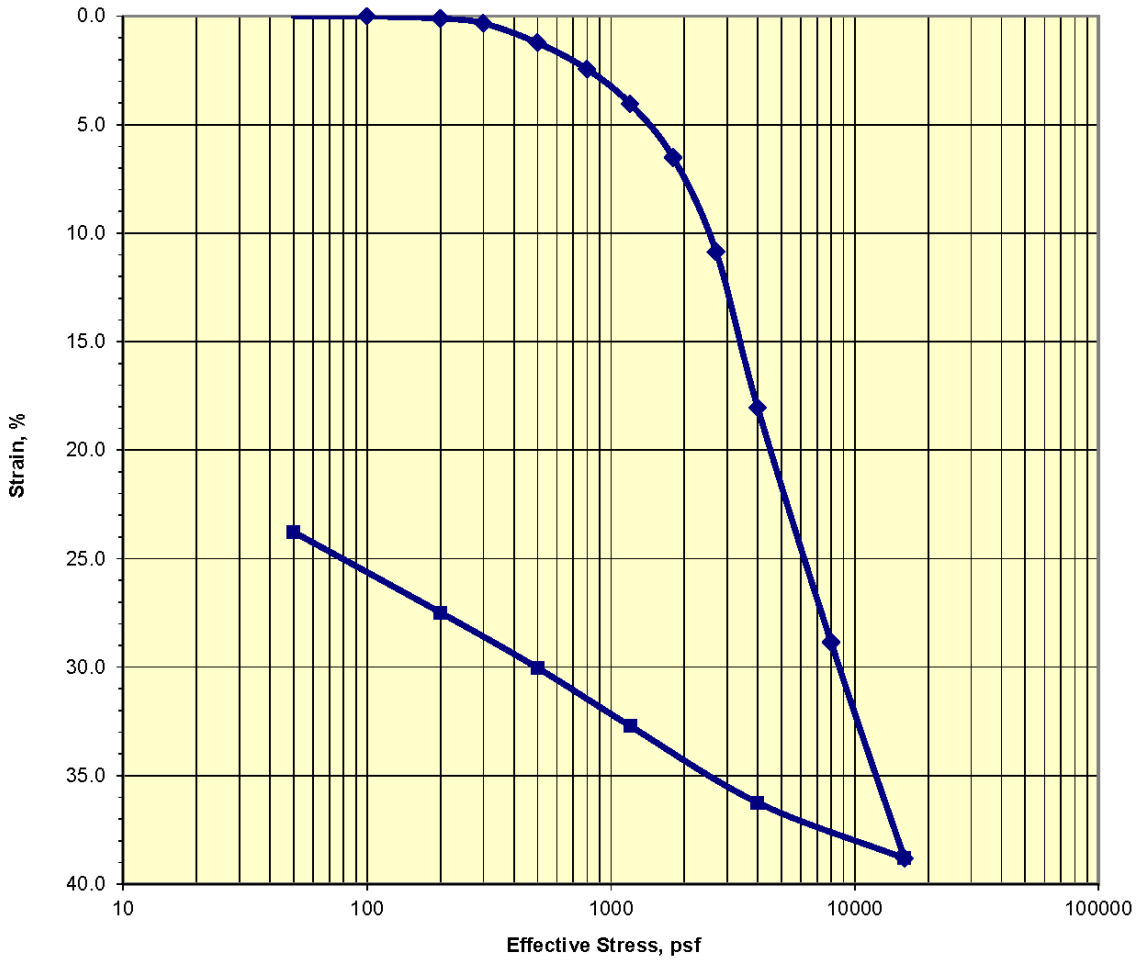
Consolidation Test

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-77

Consolidation Test
ASTM D2435

Job No.:	212-208	**Boring:**	22B-16	**Run By:**	MD
Client:	Hultgren-Tillis Engineers	**Sample:**		**Reduced:**	PJ
Project:	907.03, Order# 3	**Depth, ft.:**	35-36.8(Tip-3")	**Checked:**	PJ/DC
Soil Type:	Dark Green Organic Silt			**Date:**	9/27/2022

Strain-Log-P Curve



Assumed Gs 2.6	Initial	Final
Moisture %:	150.1	110.9
Dry Density, pcf:	30.9	41.8
Void Ratio:	4.254	2.884
% Saturation:	91.8	100.0

Remarks:

Little Egbert Multi-Benefit Project
Solano County, California

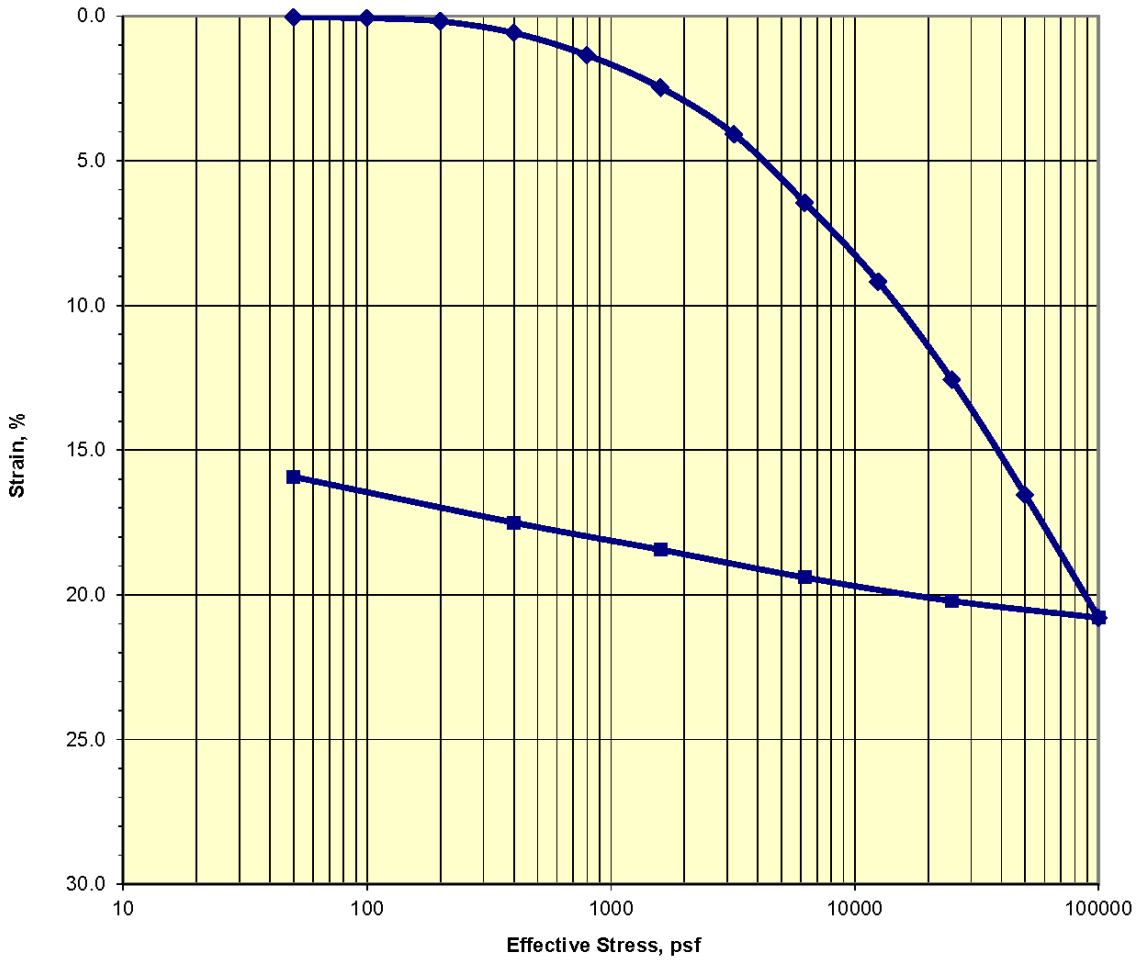
Consolidation Test

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-78

Consolidation Test
ASTM D2435

Job No.:	212-208	**Boring:**	22B-17	**Run By:**	MD
Client:	Hultgren-Tillis Engineers	**Sample:**		**Reduced:**	PJ
Project:	907.03, Order# 3	**Depth, ft.:**	15-16.2(Tip-2")	**Checked:**	PJ/DC
Soil Type:	Light Gray Brown Sandy Lean Clay			**Date:**	9/27/2022

Strain-Log-P Curve



Assumed Gs 2.8	Initial	Final
Moisture %:	28.1	20.4
Dry Density, pcf:	93.6	111.2
Void Ratio:	0.867	0.572
% Saturation:	90.7	100.0

Remarks:

Little Egbert Multi-Benefit Project
Solano County, California

Consolidation Test

Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-1-79

APPENDIX D-2
2022 CONE PENETRATION TESTS

I. INTRODUCTION

This appendix presents the data from our 2022 CPTs. The CPTs were completed near the levee crest, landside levee toe, and waterside levee toe and in the parcel interior. The logs of CPTs are presented in this appendix.

II. FIELD EXPLORATION AND LABORATORY TESTING

We explored subsurface conditions on May through August of 2022 by completing 35 CPTs to depths of 50 to 140 feet below existing grade. The approximate CPT locations are shown on the Site Plan, Plate 2 and the 2022 CPT Location Map, Plate D-2-1.

The CPTs were completed with a truck-mounted CPT rig. After pushing the CPTs, the holes were backfilled with grout. The CPT logs are presented on Plates D-2-3 to D-2-37. The CPT soil descriptions are in general accordance with the CPT Soil Behavior Type Legend, shown on Plate D-2-2. Pore pressure dissipation test results are presented on Plates D-2-38 through D-2-70.



Approximate Location of Completed CPT
Approximate Location of Levee Centerline

N

0 2,000 Feet

1 inch = 2,000 feet

Little Egbert Multi-Benefit Project
Solano County, California

2022 CPT Location Map

Shannon & Wilson, Inc.

Project No. 907.03

Plate No. D-2-1

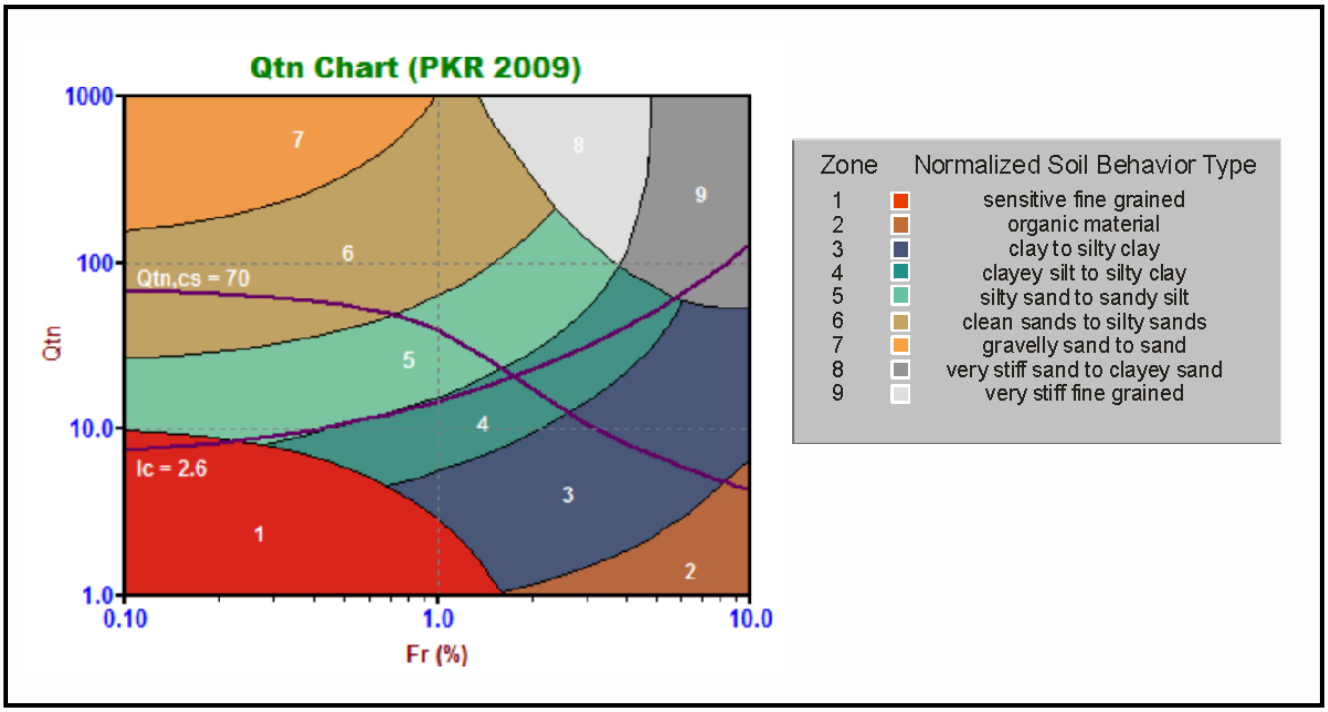


Figure 4. Normalized Soil Behavior Type Chart using Q_{tn} (SBT Qtn)

Note: Interpretation of Soil Behavior Type is based on the charts described by Robertson et al (2009).

Little Egbert Multi-Benefit Project Solano County, California	**CPT Soil Behavior Type Legend**

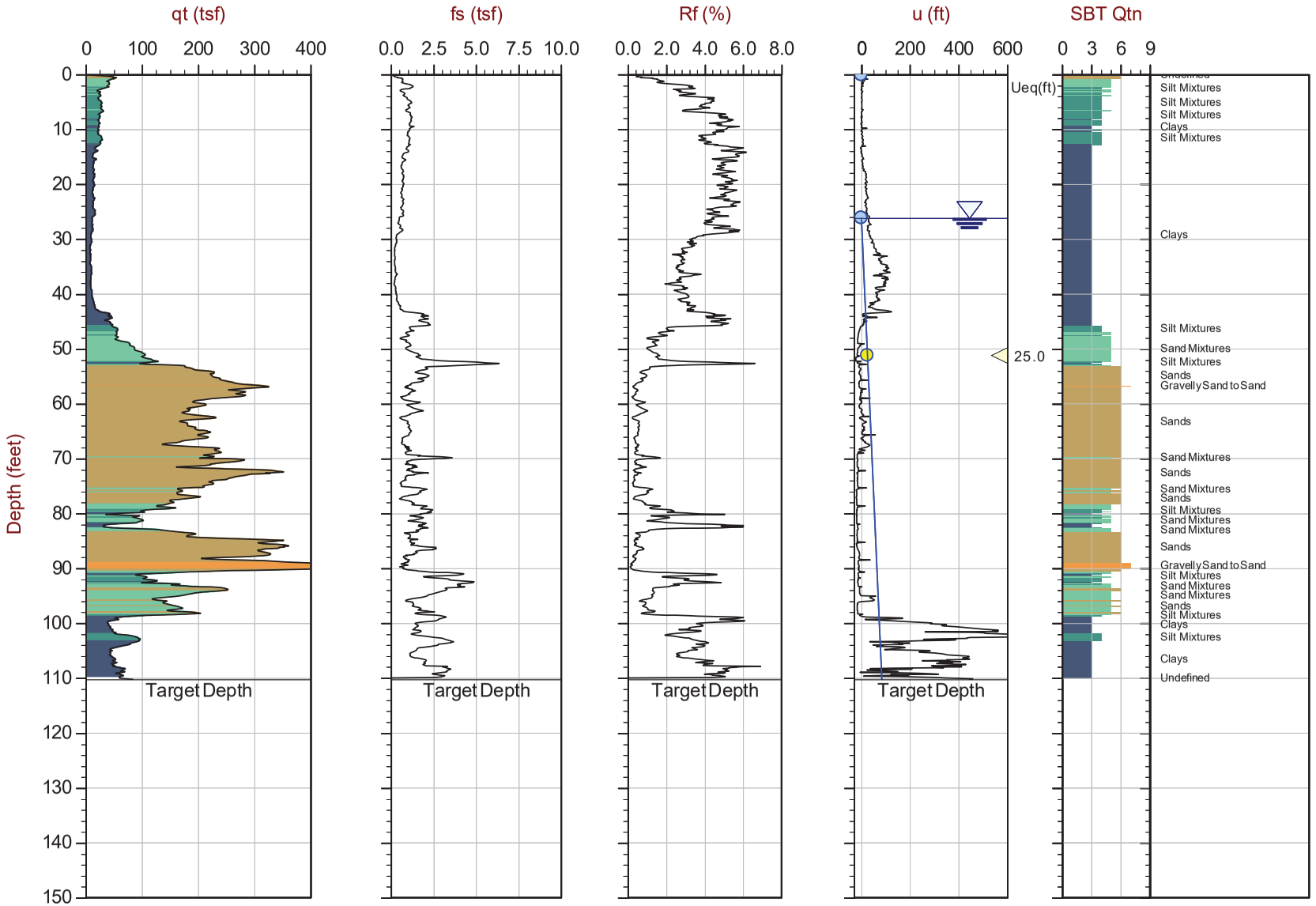
Shannon & Wilson, Inc.	Project No. 907.03	Plate No. D-2-2

Latitude: 38.24146 Longitude: -121.69734 Elevation: 22 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-01
Date: 2022-05-16 09:39 Cone: 811:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 33.600 m / 110.23 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP01.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4233409m E: 613996m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

Plate No. D-2-3

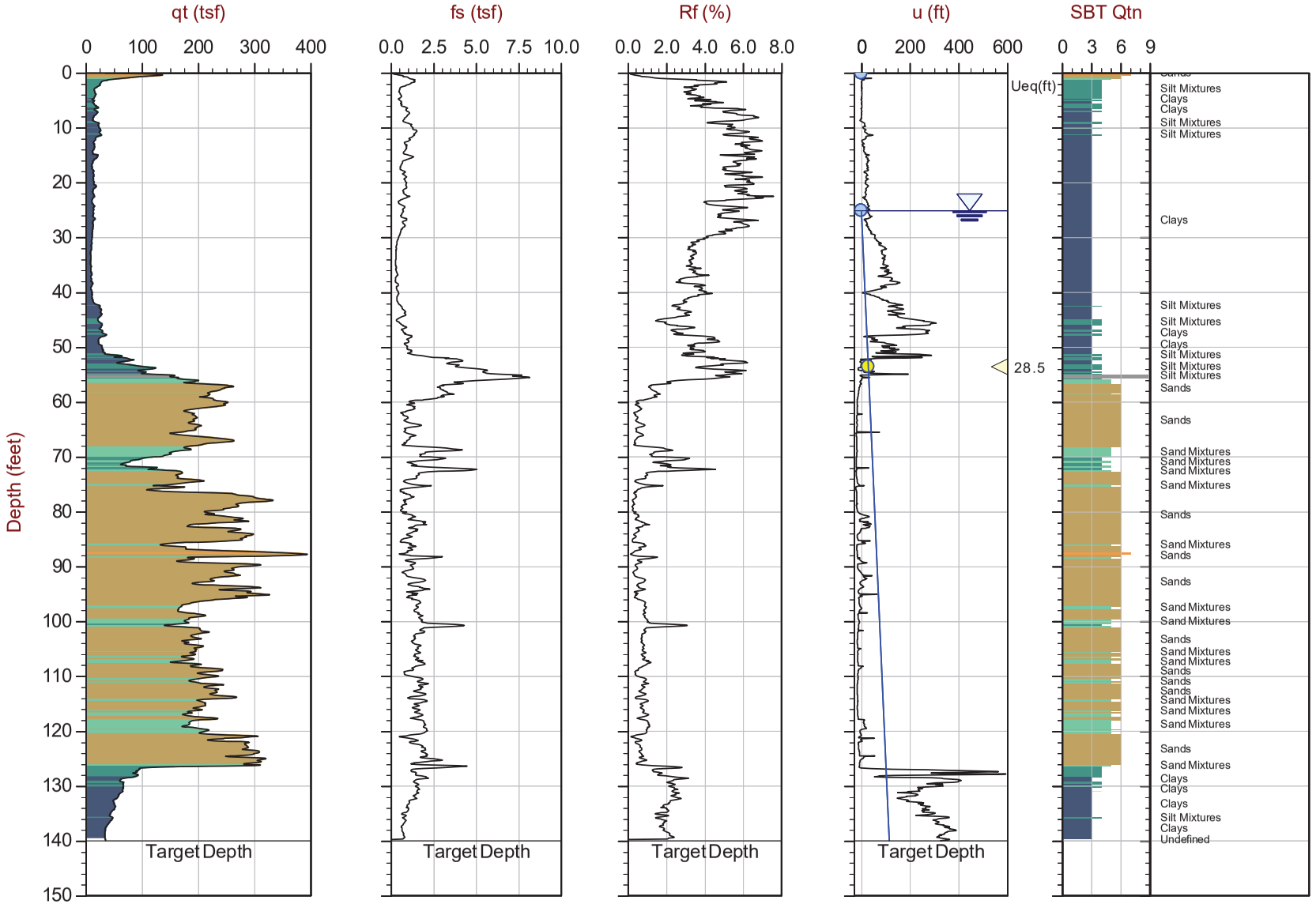
Latitude: 38.23875 Longitude: -121.69773 Elevation: 20.5 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 2022-05-16 10:50
Site: Little Egbert - Implementation Planning

Sounding: 22C-02
Cone: 811:T1500F15U35



Max Depth: 42.675 m / 140.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP02.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4233108m E: 613967m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

Plate No. D-2-4

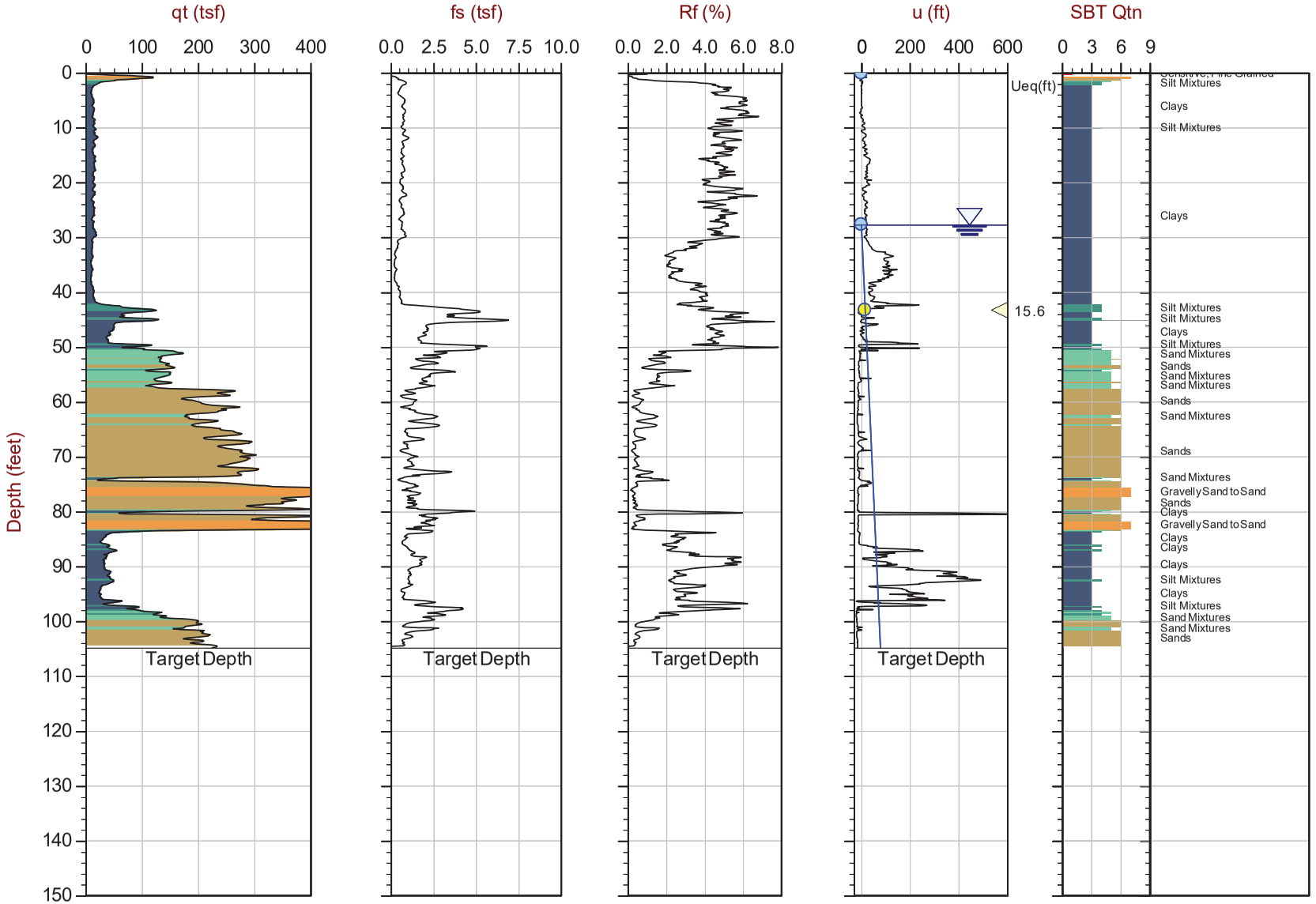
Latitude: 38.23330 Longitude: -121.69802 Elevation: 21 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 2022-05-16 14:12
Site: Little Egbert - Implementation Planning

Sounding: 22C-03
Cone: 811:T1500F15U35



Max Depth: 31.950 m / 104.82 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP03.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4232502m E: 613951m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

Plate No. D-2-5

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

Plate No. D-2-6

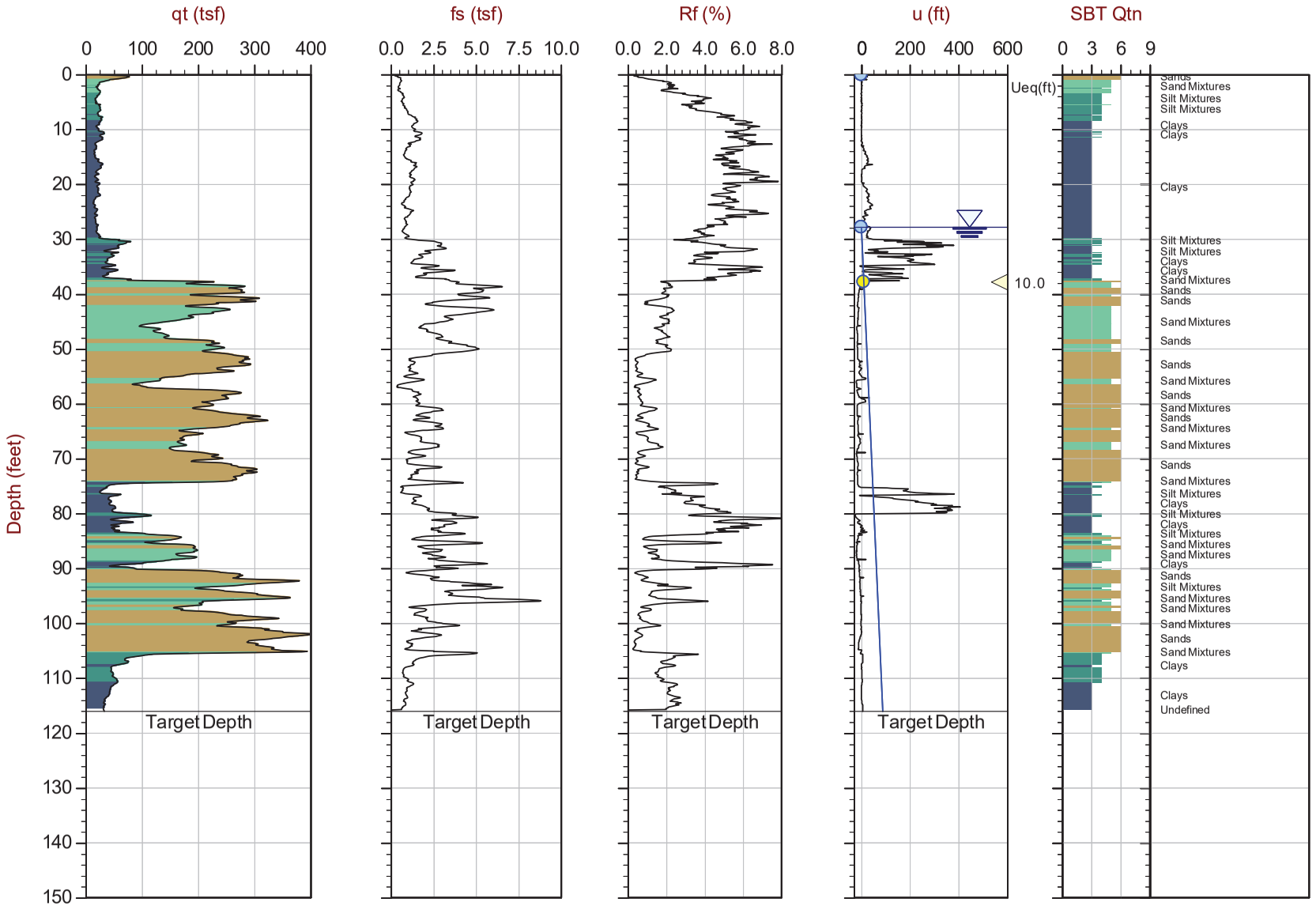
Latitude: 38.21702 Longitude: -121.69497 Elevation: 24 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 2022-05-17 09:10
Site: Little Egbert - Implementation Planning

Sounding: 22C-04
Cone: 811:T1500F15U35



Max Depth: 35.375 m / 116.06 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP04.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4230700m E: 614243m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

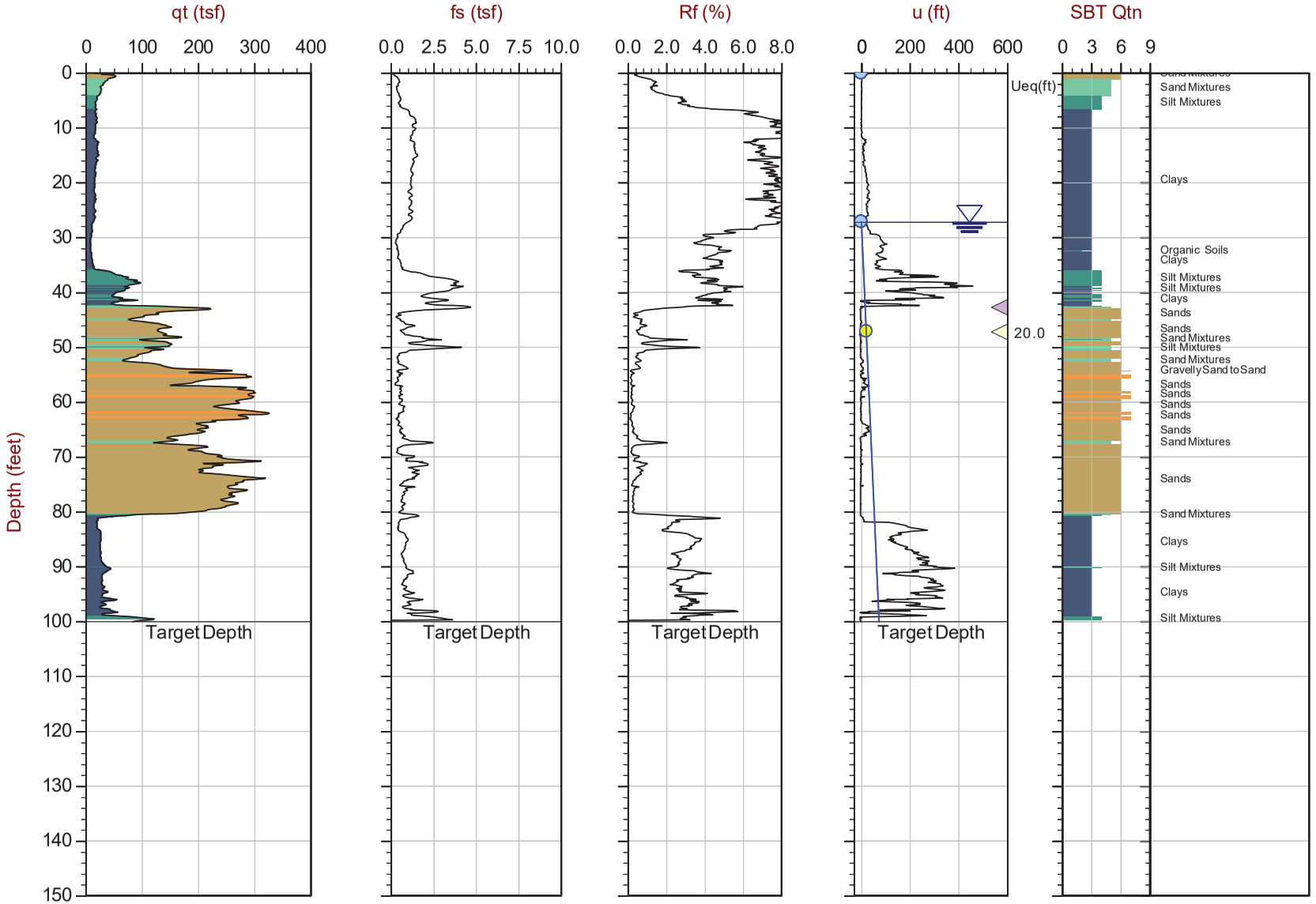
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Latitude: 38.22235 Longitude: -121.69663 Elevation: 22 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-05
Date: 2022-05-17 11:31 Cone: 811:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 30.500 m / 100.06 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP05.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4231289m E: 614089m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

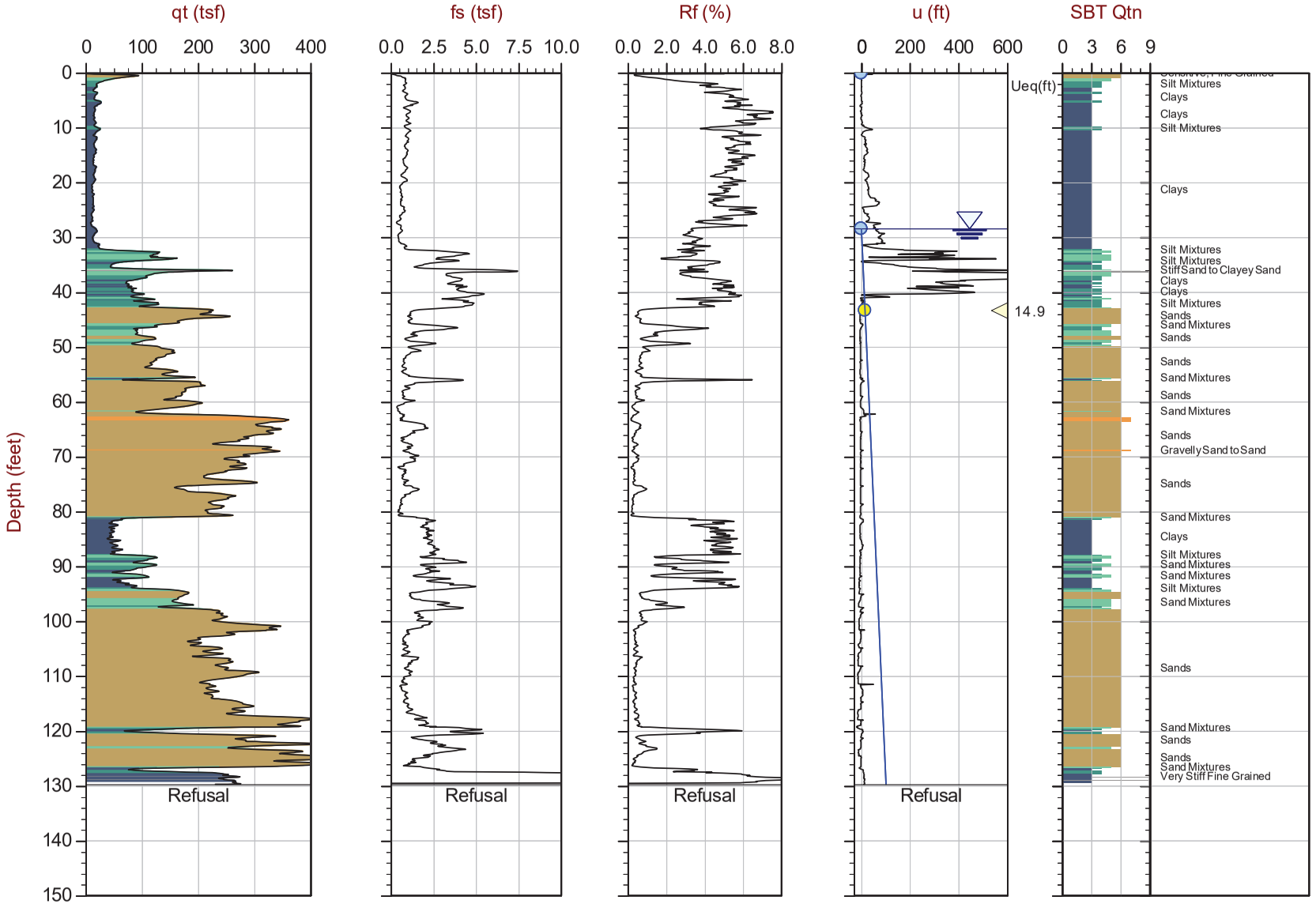
Plate No. D-2-7

Latitude: 38.22508 Longitude: -121.69720 Elevation: 23 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-06
Date: 2022-05-17 13:27 Cone: 811:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 39.550 m / 129.76 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP06.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4231591m E: 614035m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

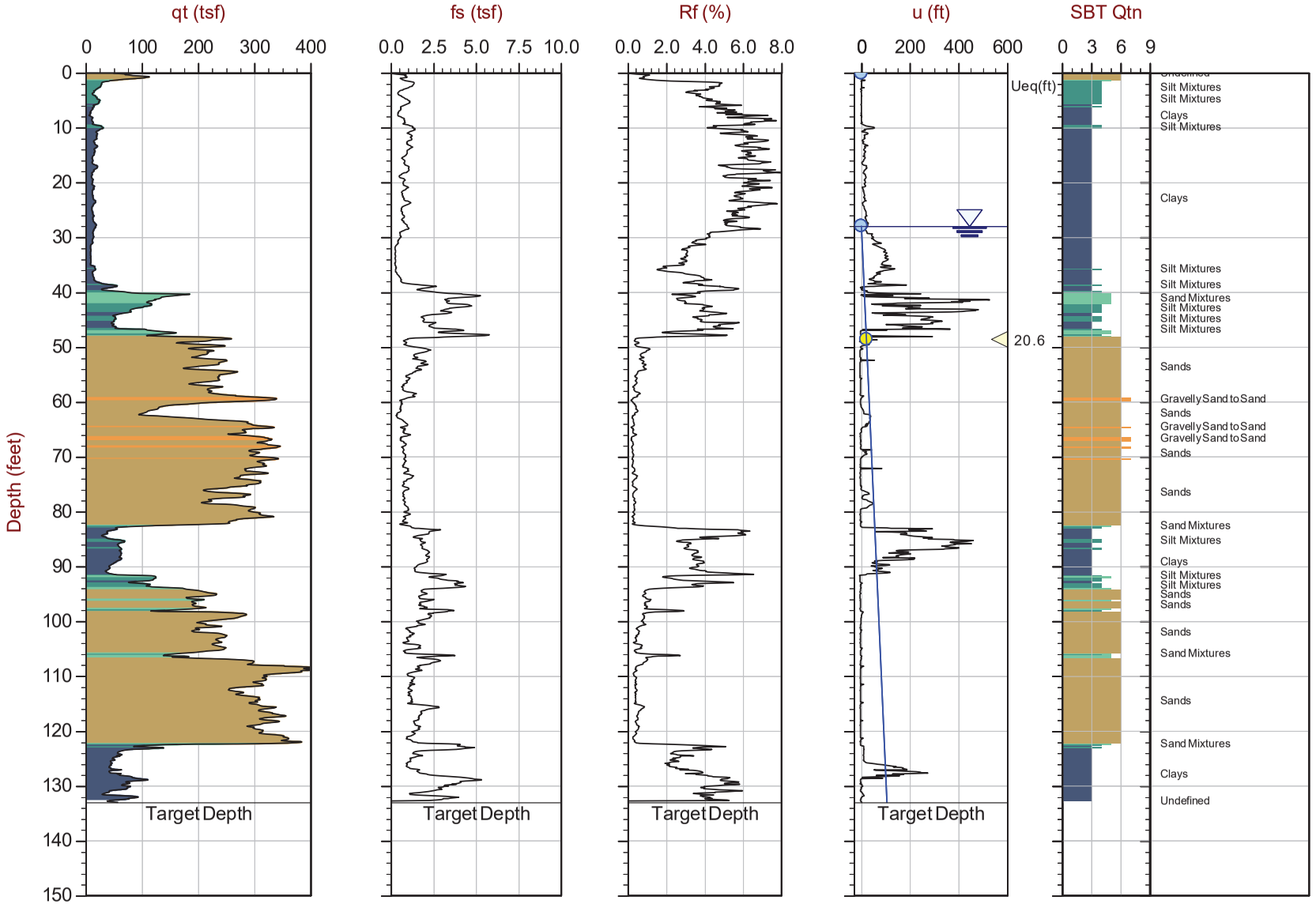
Little Egbert Multi-Benefit Project
Solano County, California
Project No. 907.03
Plate No. D-2-8

Latitude: 38.23053 Longitude: -121.69789 Elevation: 22 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-07
Date: 2022-05-17 14:50 Cone: 811:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 40.550 m / 133.04 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP07.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4232195m E: 613965m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

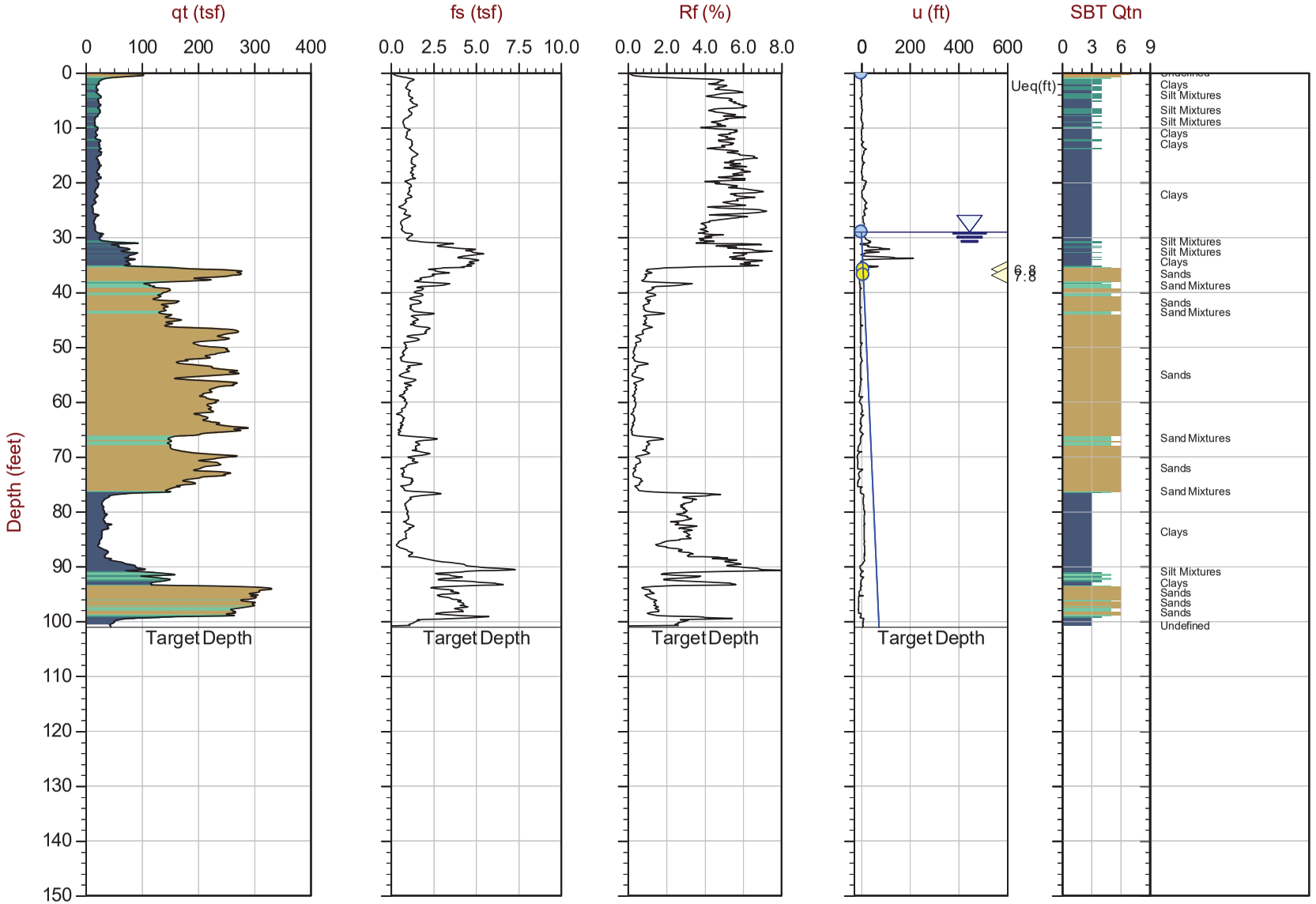
Plate No. D-2-9

Latitude: 38.21444 Longitude: -121.69395 Elevation: 24 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-08
Date: 2022-05-18 09:19 Cone: 811:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 30.800 m / 101.05 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP08.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4230414m E: 614335m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

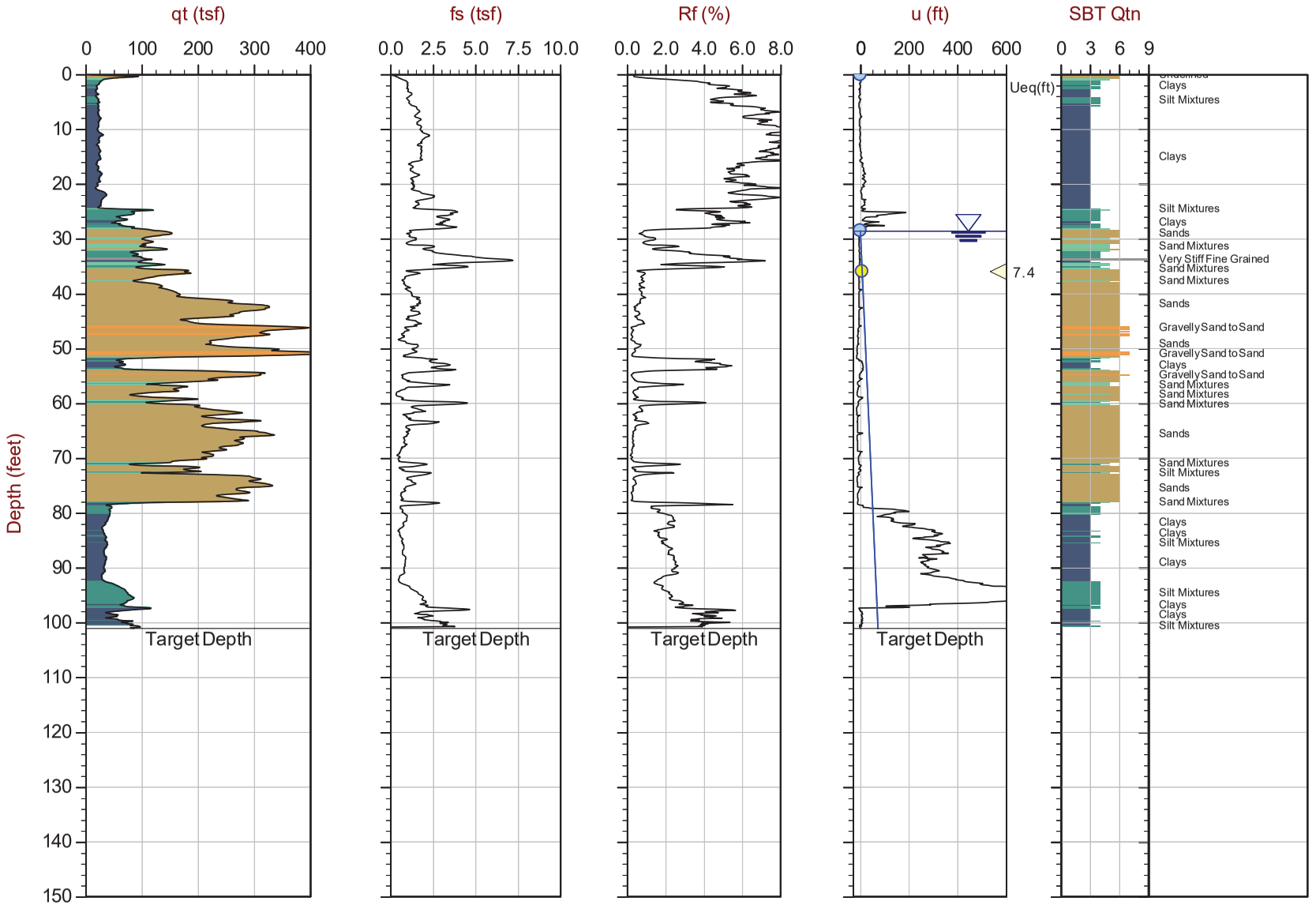
Plate No. D-2-10

Latitude: 38.20930 Longitude: -121.69135 Elevation: 23 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-09
Date: 2022-05-18 11:18 Cone: 811:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 30.800 m / 101.05 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP09.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4229847m E: 614571m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

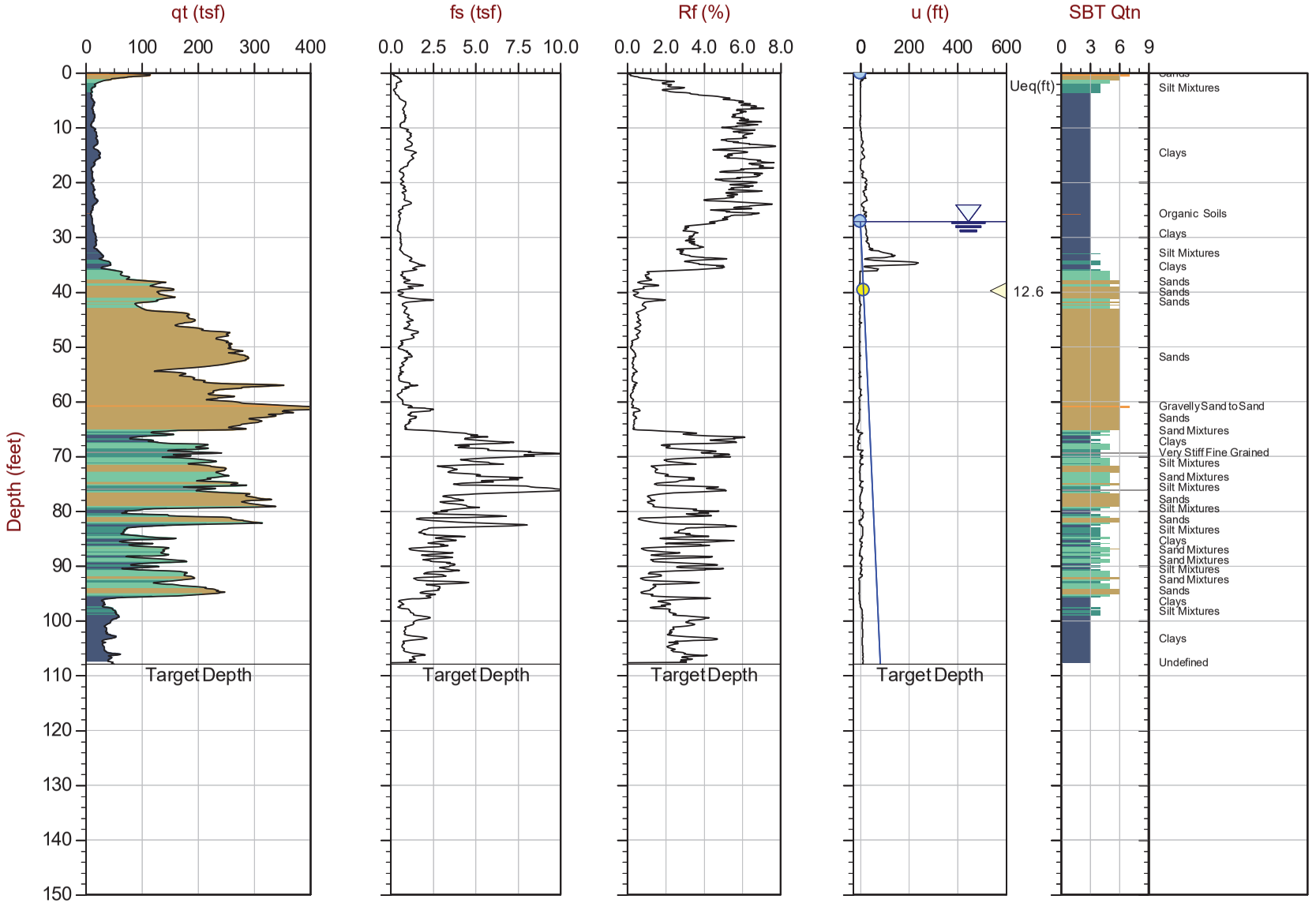
Plate No. D-2-11

Latitude: 38.20683 Longitude: -121.68986 Elevation: 21 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-10
Date: 2022-05-18 12:16 Cone: 811:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 32.900 m / 107.94 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP10.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4229575m E: 614705m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

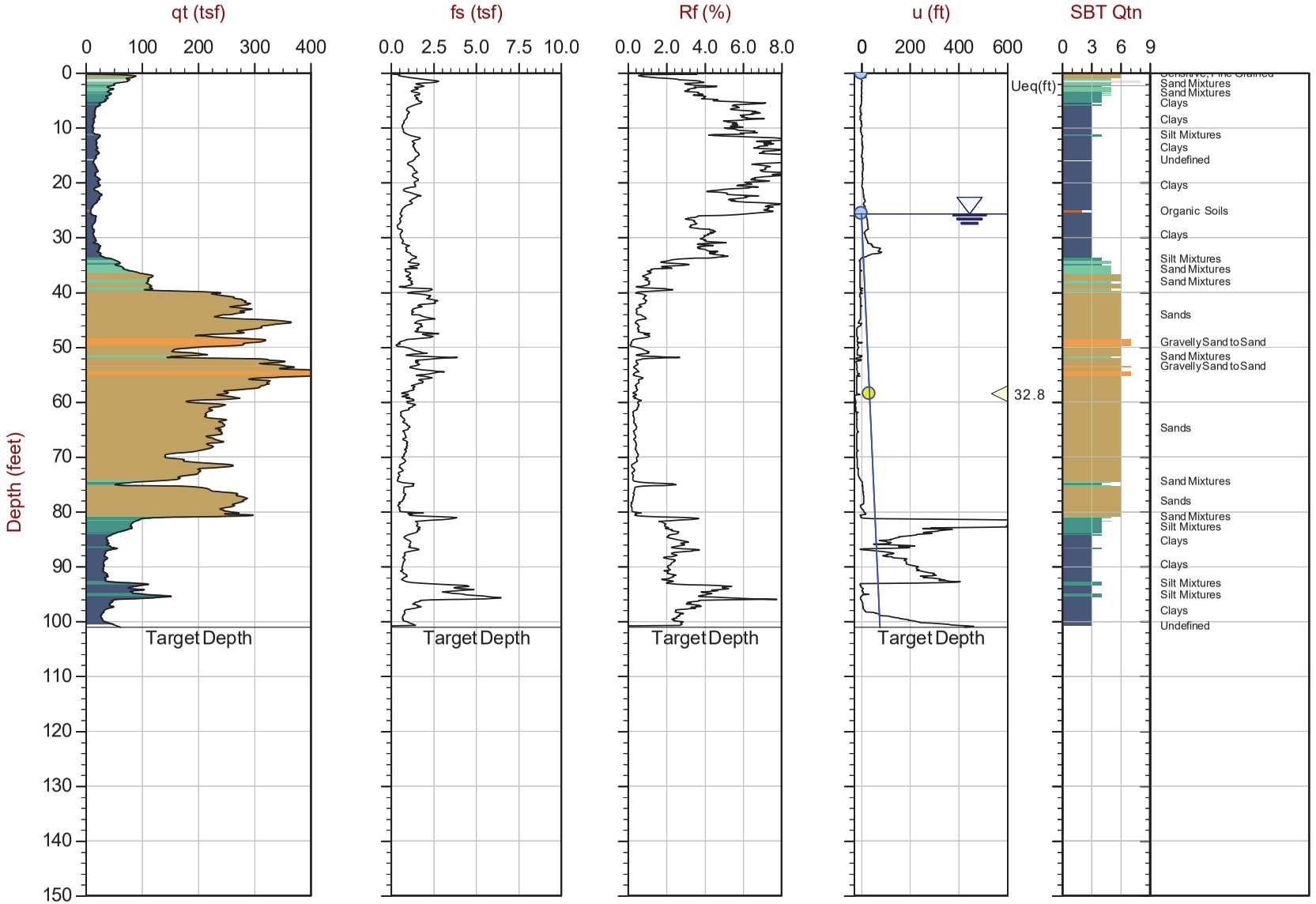
Plate No. D-2-12

Latitude: 38.20207 Longitude: -121.68648 Elevation: 21.5 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-11
Date: 2022-05-18 15:23 Cone: 811:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 30.800 m / 101.05 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP11.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4229051m E: 615010m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

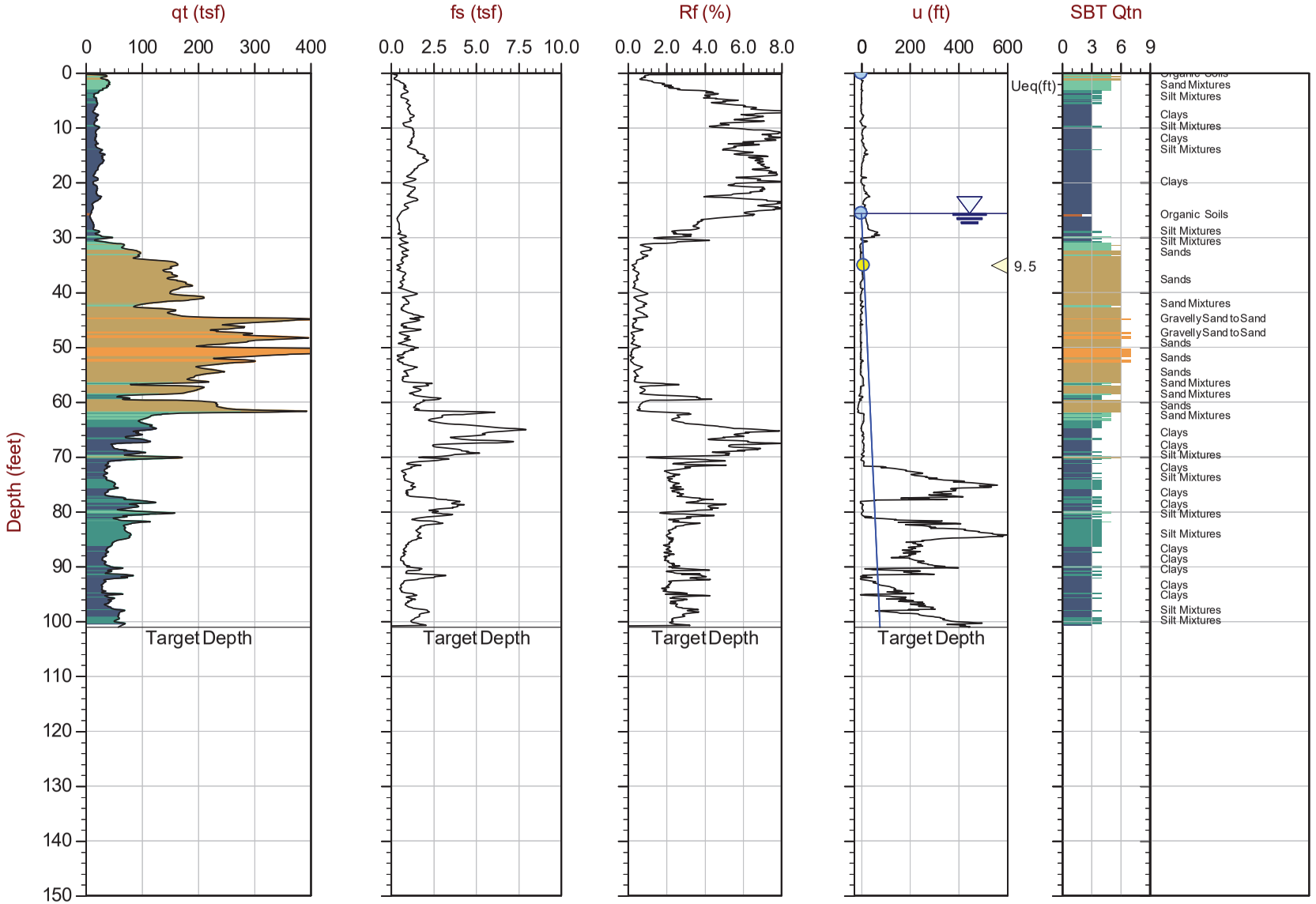
Plate No. D-2-13

Latitude: 38.19970 Longitude: -121.68470 Elevation: 21 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-12
Date: 2022-05-19 09:53 Cone: 811:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 30.800 m / 101.05 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP12.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4228790m E: 615168m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

Plate No. D-2-14

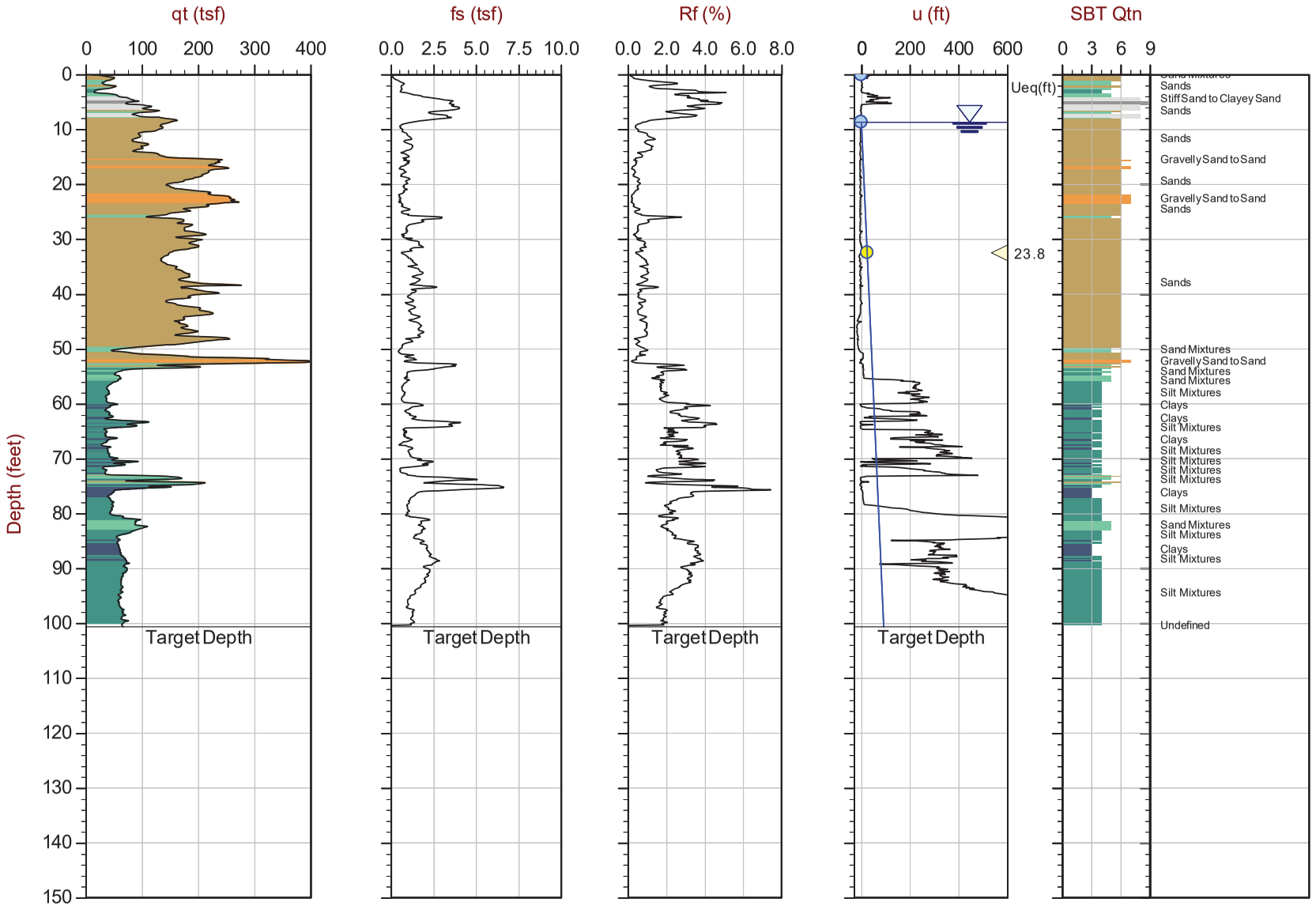
Latitude: 38.19737 Longitude: -121.68406 Elevation: 6 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 2022-05-19 11:08
Site: Little Egbert - Implementation Planning

Sounding: 22C-13
Cone: 811:T1500F15U35



Max Depth: 30.675 m / 100.64 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP13.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4228532m E: 615228m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

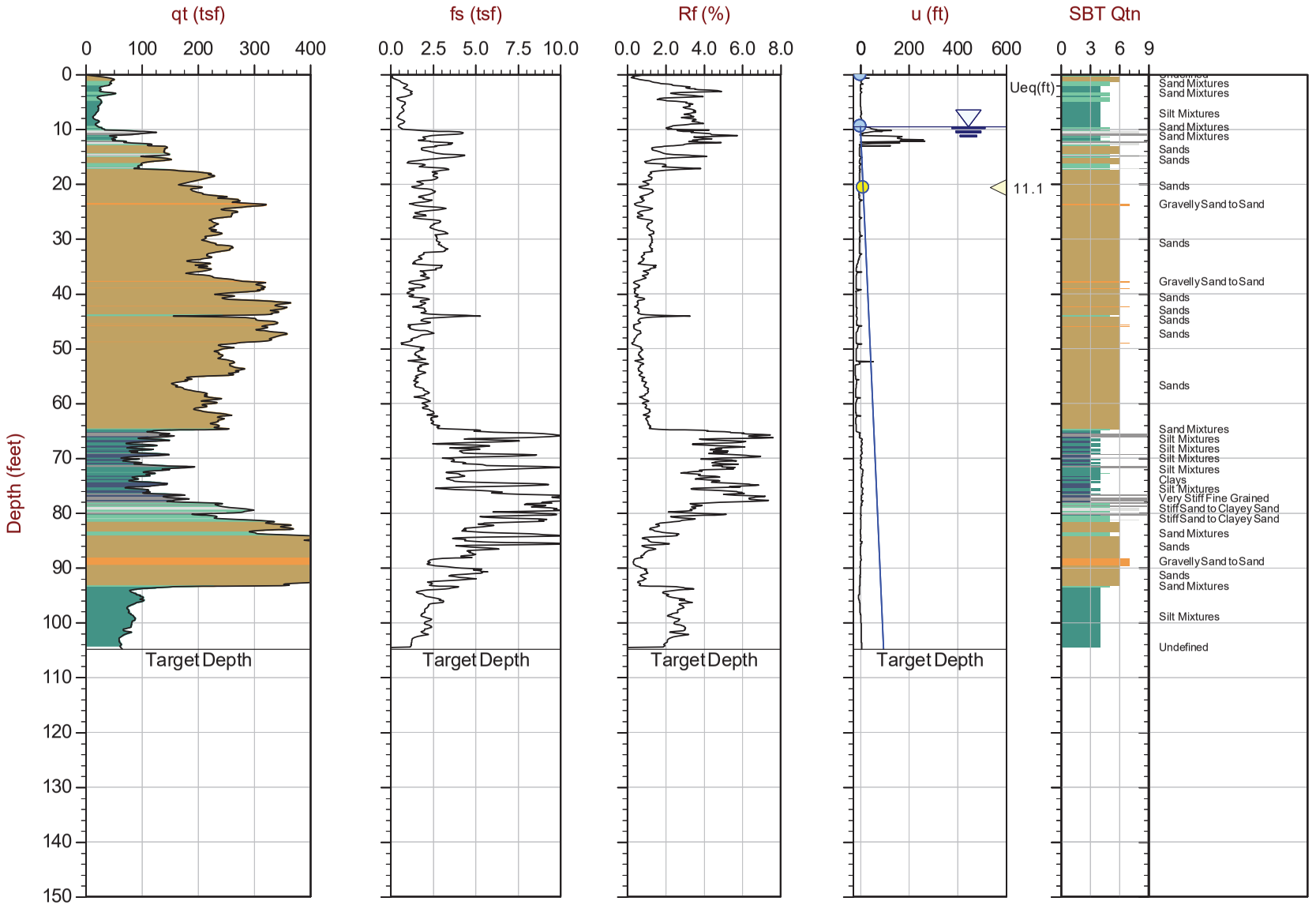
Plate No. D-2-15

Latitude: 38.18916 Longitude: -121.68223 Elevation: 7 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-14
Date: 2022-05-19 15:19 Cone: 811:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 31.950 m / 104.82 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP14.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4227624m E: 615401m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

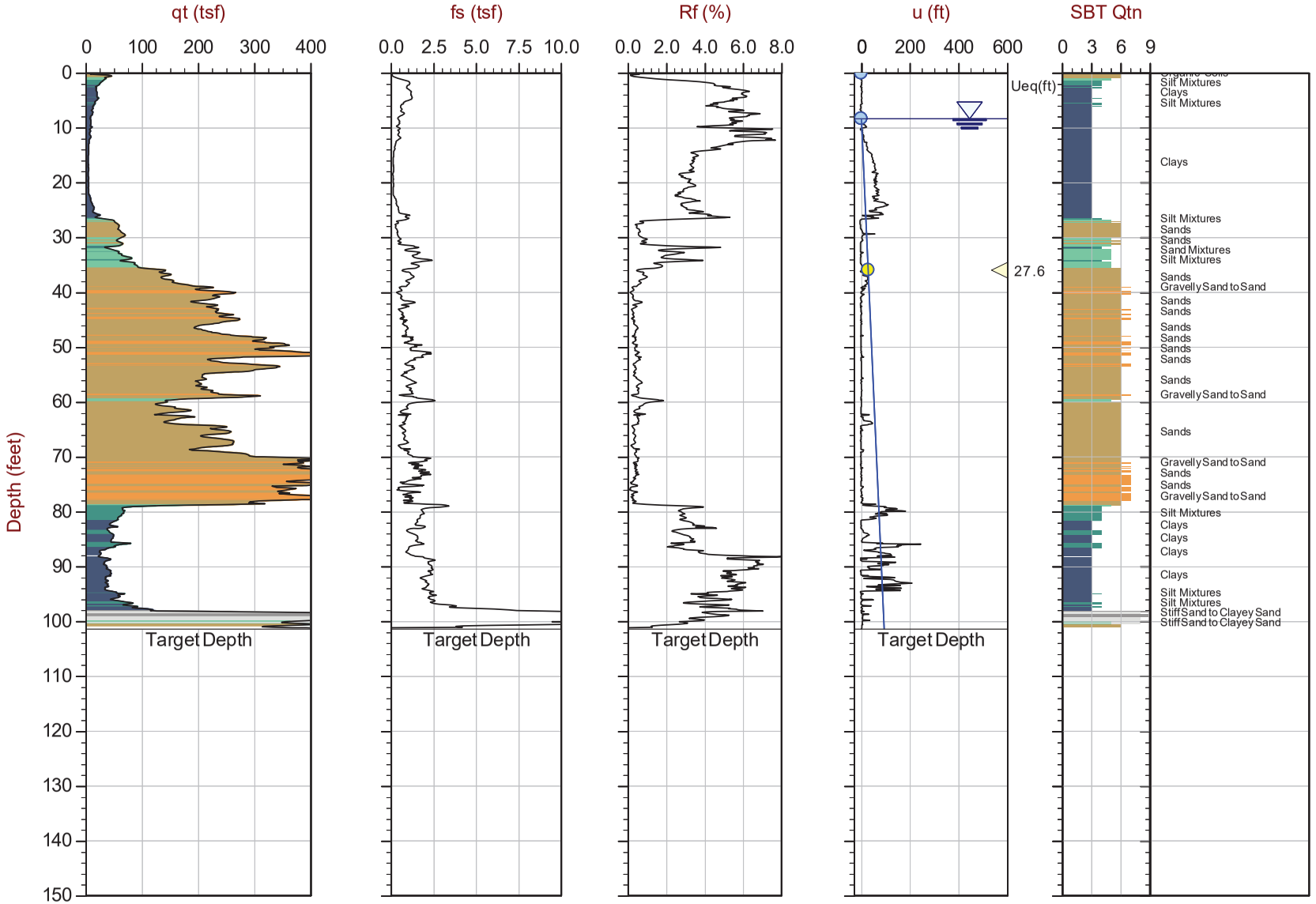
Plate No. D-2-16

Latitude: 38.24413 Longitude: -121.69732 Elevation: 4.5 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-15
Date: 2022-05-20 09:44 Cone: 811:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 30.900 m / 101.38 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP15.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4233704m E: 613995m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

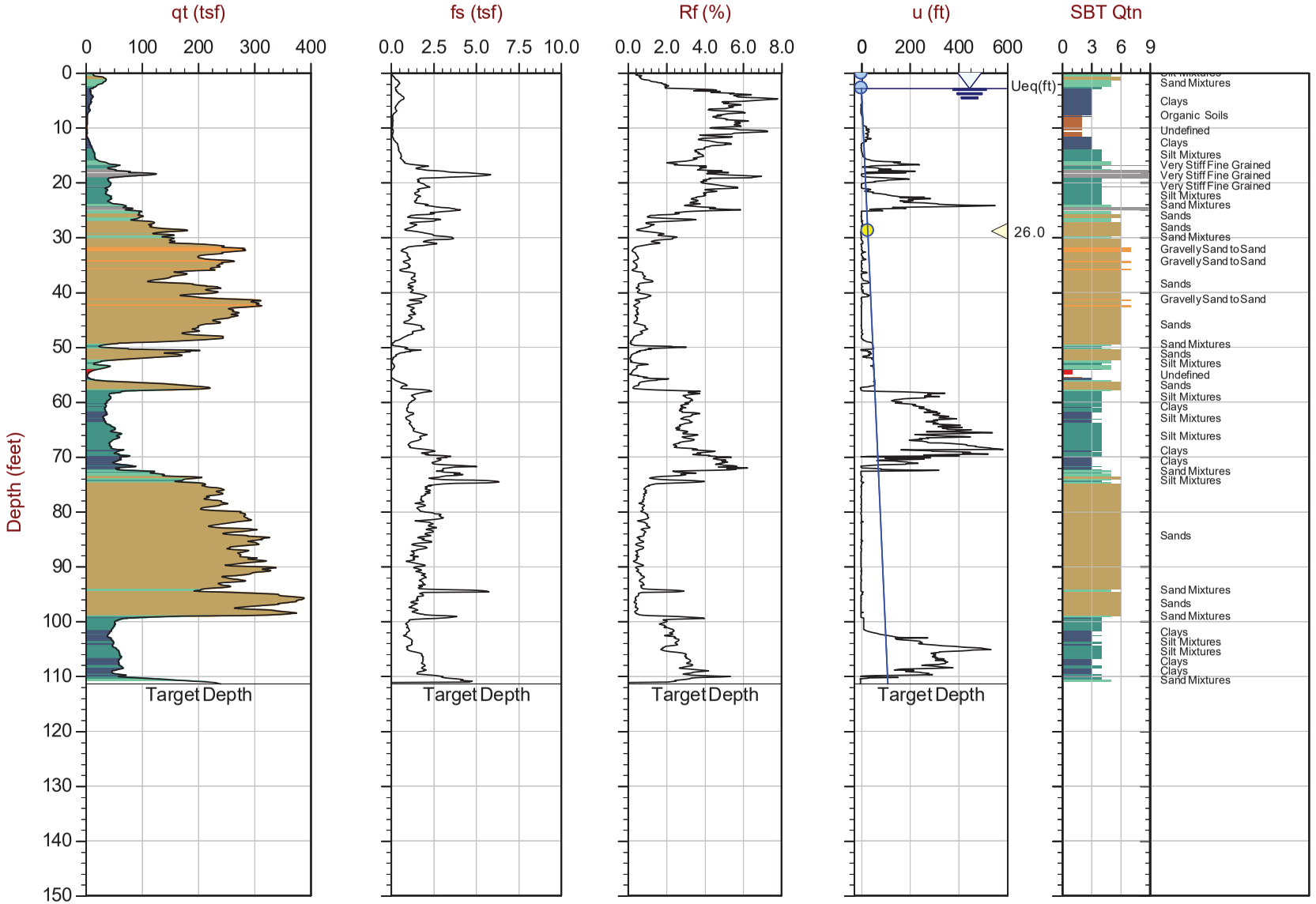
Plate No. D-2-17

Latitude: 38.23330 Longitude: -121.69830 Elevation: -2 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-16
Date: 2022-05-20 11:46 Cone: 811:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 33.950 m / 111.38 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP16.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4232502m E: 613925m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

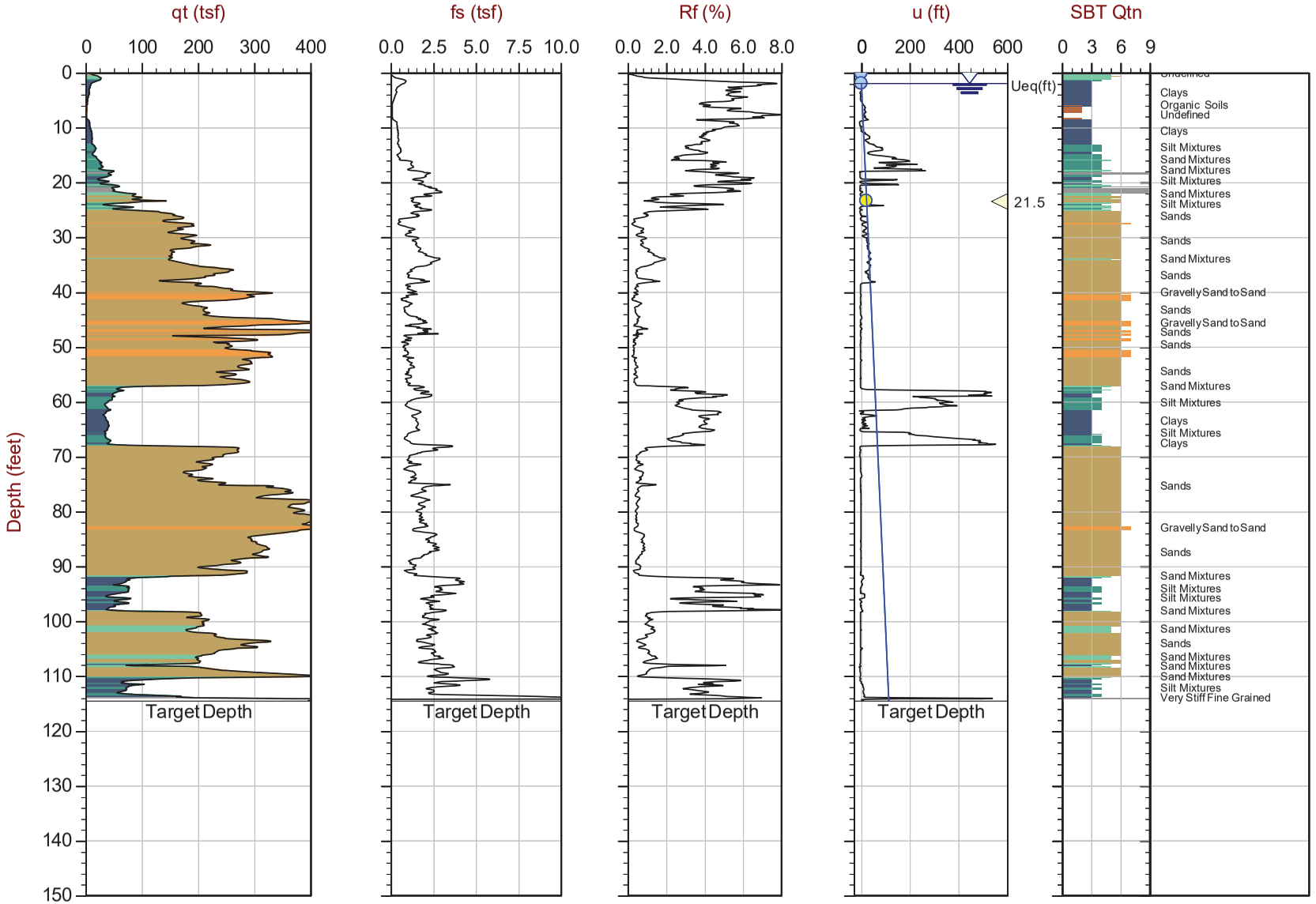
Plate No. D-2-18

Latitude: 38.22786 Longitude: -121.69796 Elevation: -3 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-17
Date: 2022-05-20 13:02 Cone: 811:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 34.900 m / 114.50 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP17.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4231898m E: 613964m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

Plate No. D-2-19

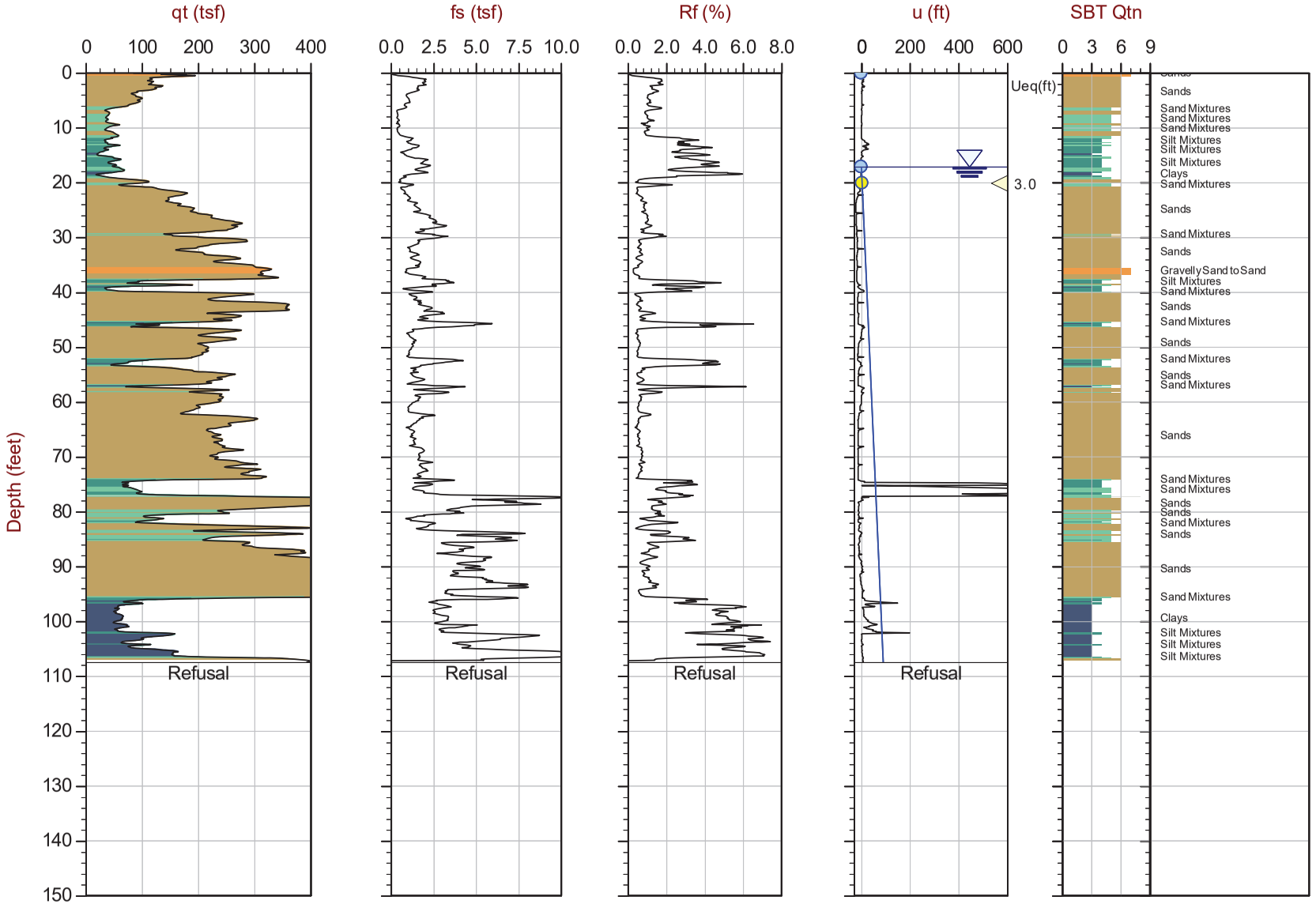
Latitude: 38.18542 Longitude: -121.68278 Elevation: 15 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 2022-05-23 08:43
Site: Little Egbert - Implementation Planning

Sounding: 22C-18
Cone: 814:T1500F15U35



Max Depth: 32.750 m / 107.45 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP18.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4227208m E: 615360m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

Plate No. D-2-20

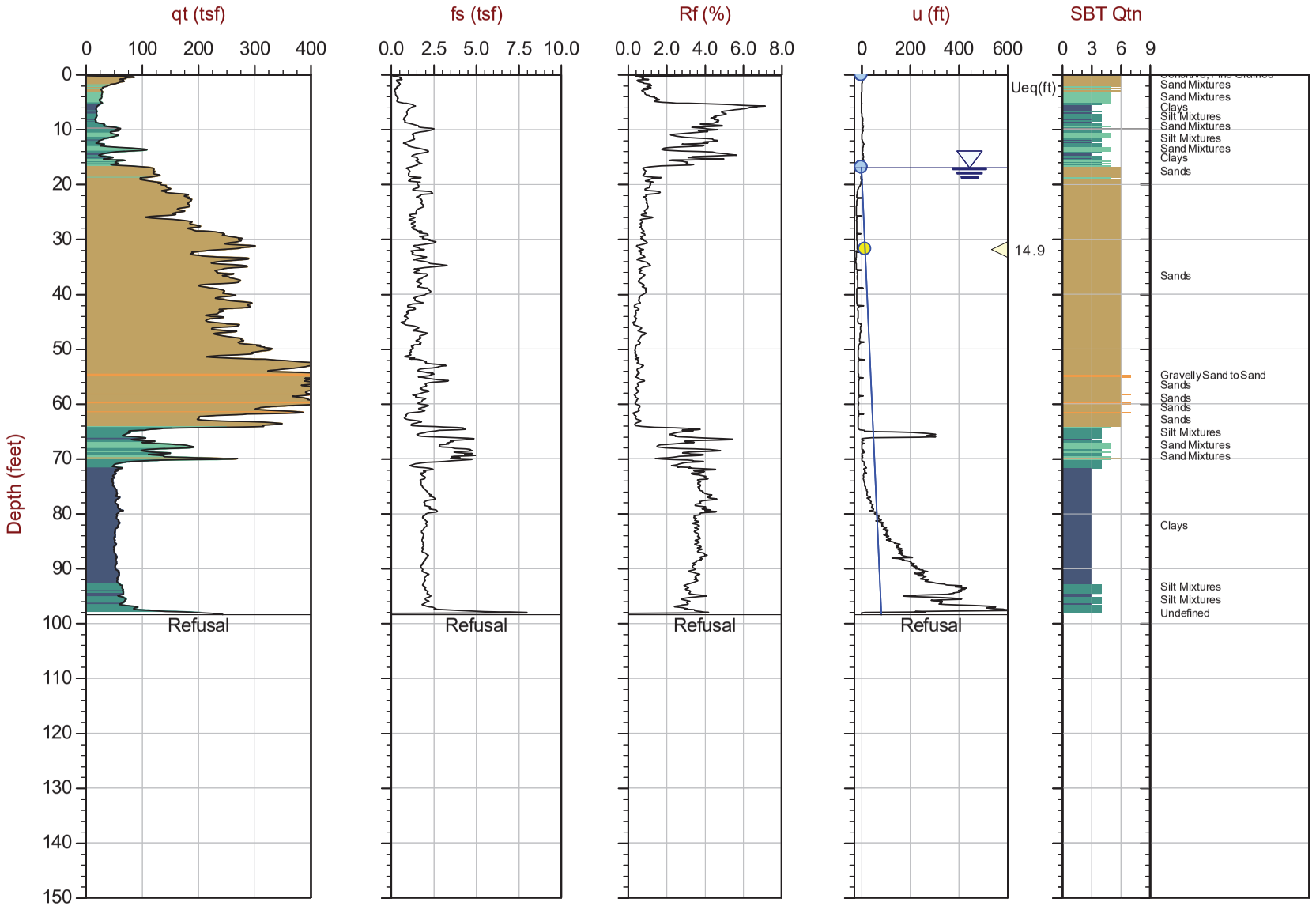
Latitude: 38.19198 Longitude: -121.68280 Elevation: 14.5 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 2022-05-23 12:41
Site: Little Egbert - Implementation Planning

Sounding: 22C-19
Cone: 814:T1500F15U35



Max Depth: 30.000 m / 98.42 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP19.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4227936m E: 615348m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

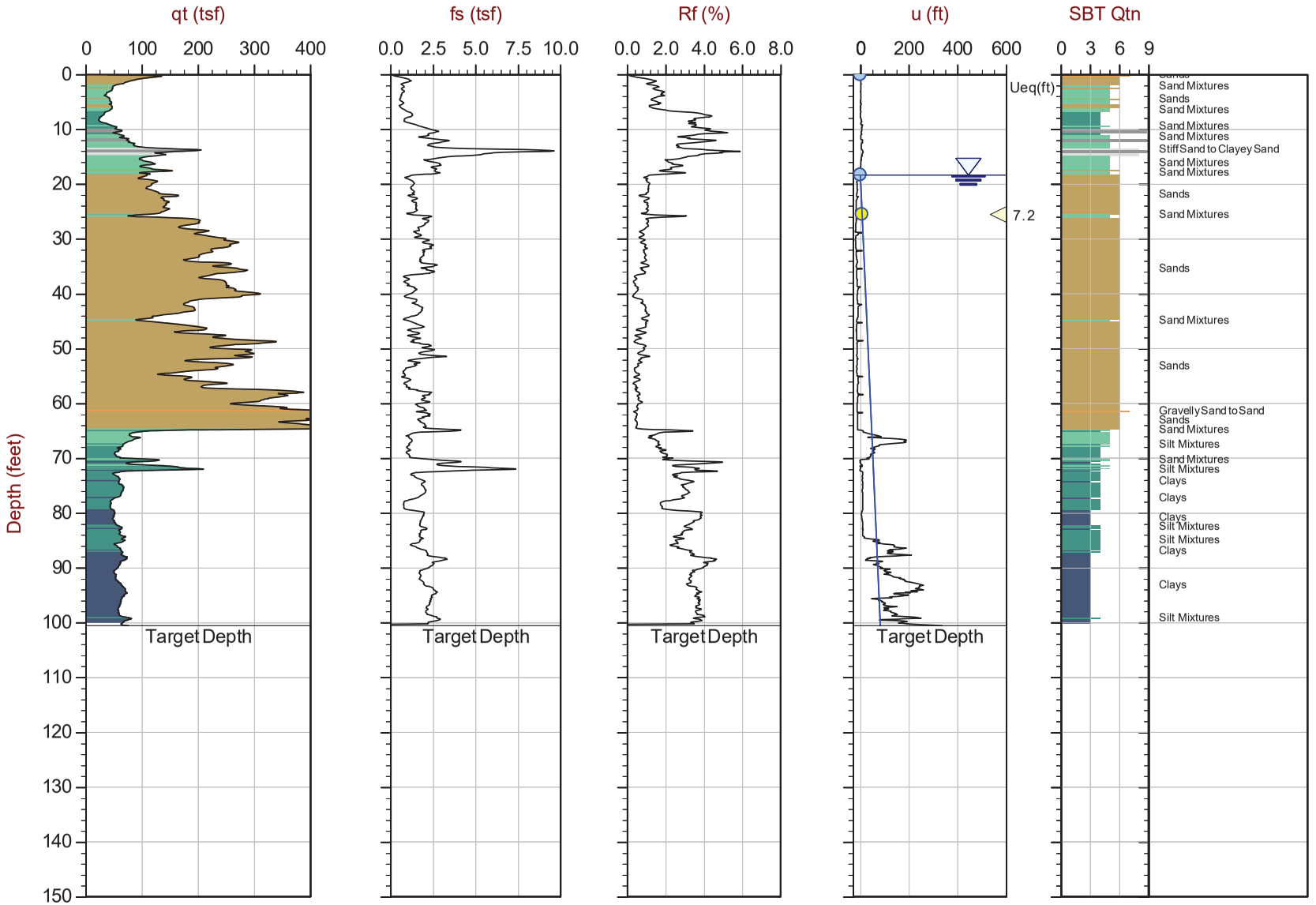
Plate No. D-2-21

Latitude: 38.19390 Longitude: -121.68294 Elevation: 15 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-20
Date: 2022-05-23 14:35 Cone: 814:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 30.650 m / 100.56 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP20.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4228149m E: 615333m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

Plate No. D-2-22

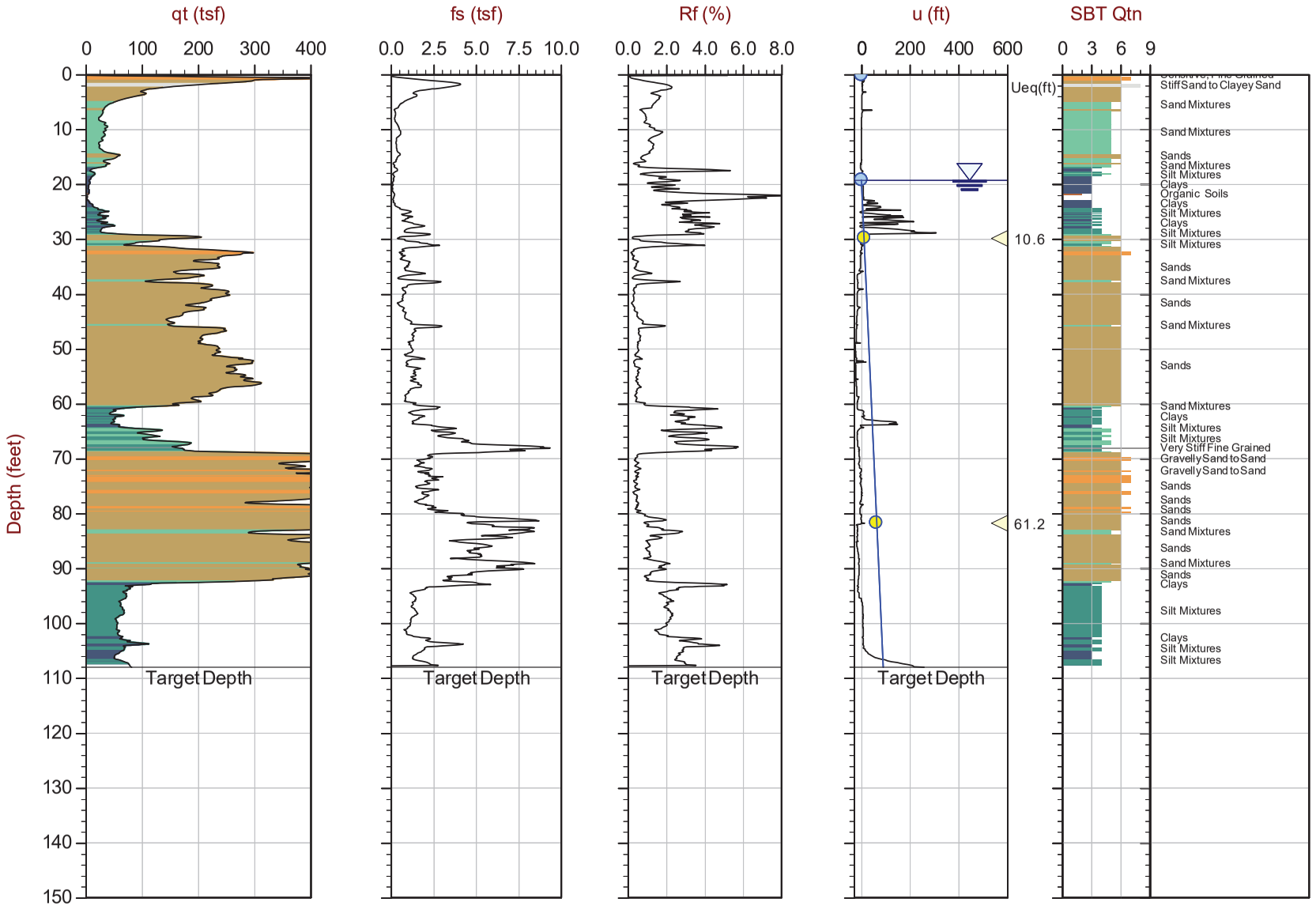
Latitude: 38.18011 Longitude: -121.68209 Elevation: 18 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 2022-08-17 09:41
Site: Little Egbert - Implementation Planning

Sounding: 22C-21
Cone: 814:T1500F15U35



Max Depth: 32.925 m / 108.02 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP21.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4226619m E: 615429m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

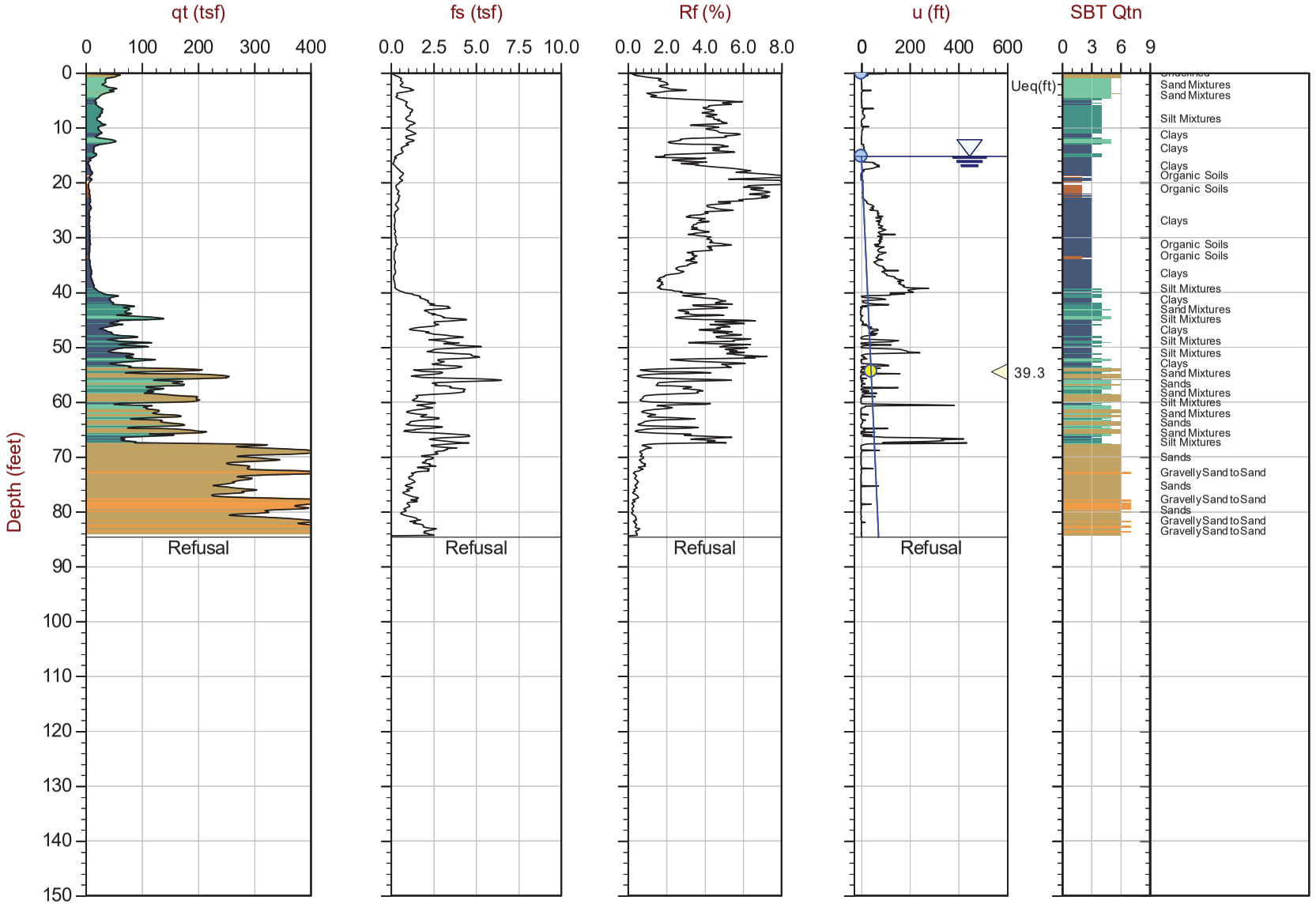
Plate No. D-2-23

Latitude: 38.17808 Longitude: -121.67944 Elevation: 15 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-22
Date: 2022-08-17 11:58 Cone: 814:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 25.800 m / 84.64 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP22.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4226398m E: 615664m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

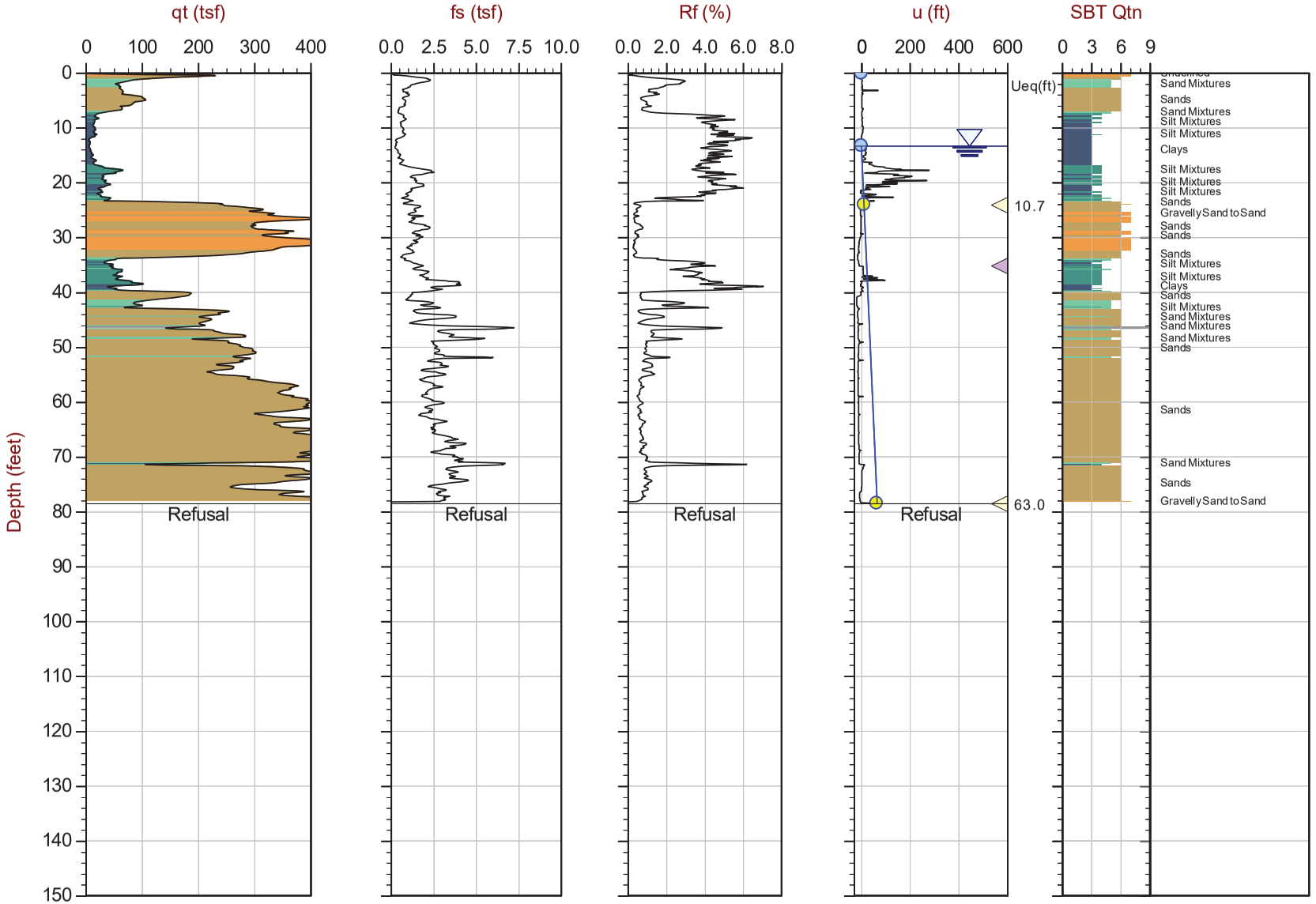
Plate No. D-2-24

Latitude: 38.17594 Longitude: -121.67663 Elevation: 15 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-23
Date: 2022-08-17 13:45 Cone: 814:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 23.925 m / 78.49 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP23.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4226164m E: 615913m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

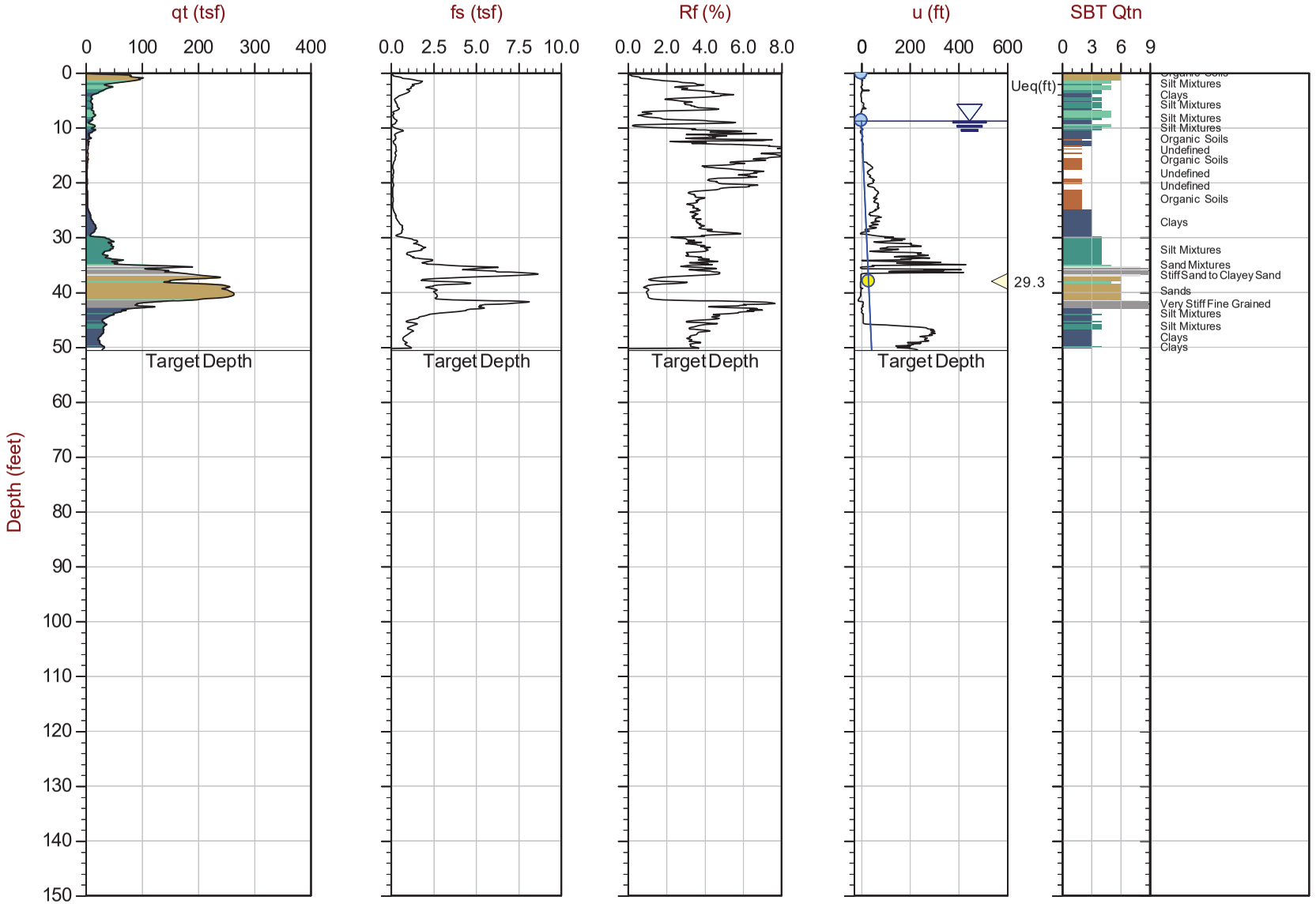
Plate No. D-2-25

Latitude: 38.18301 Longitude: -121.66670 Elevation: 10 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-24
Date: 2022-08-17 15:48 Cone: 814:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP24.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4226961m E: 616772m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

Plate No. D-2-26

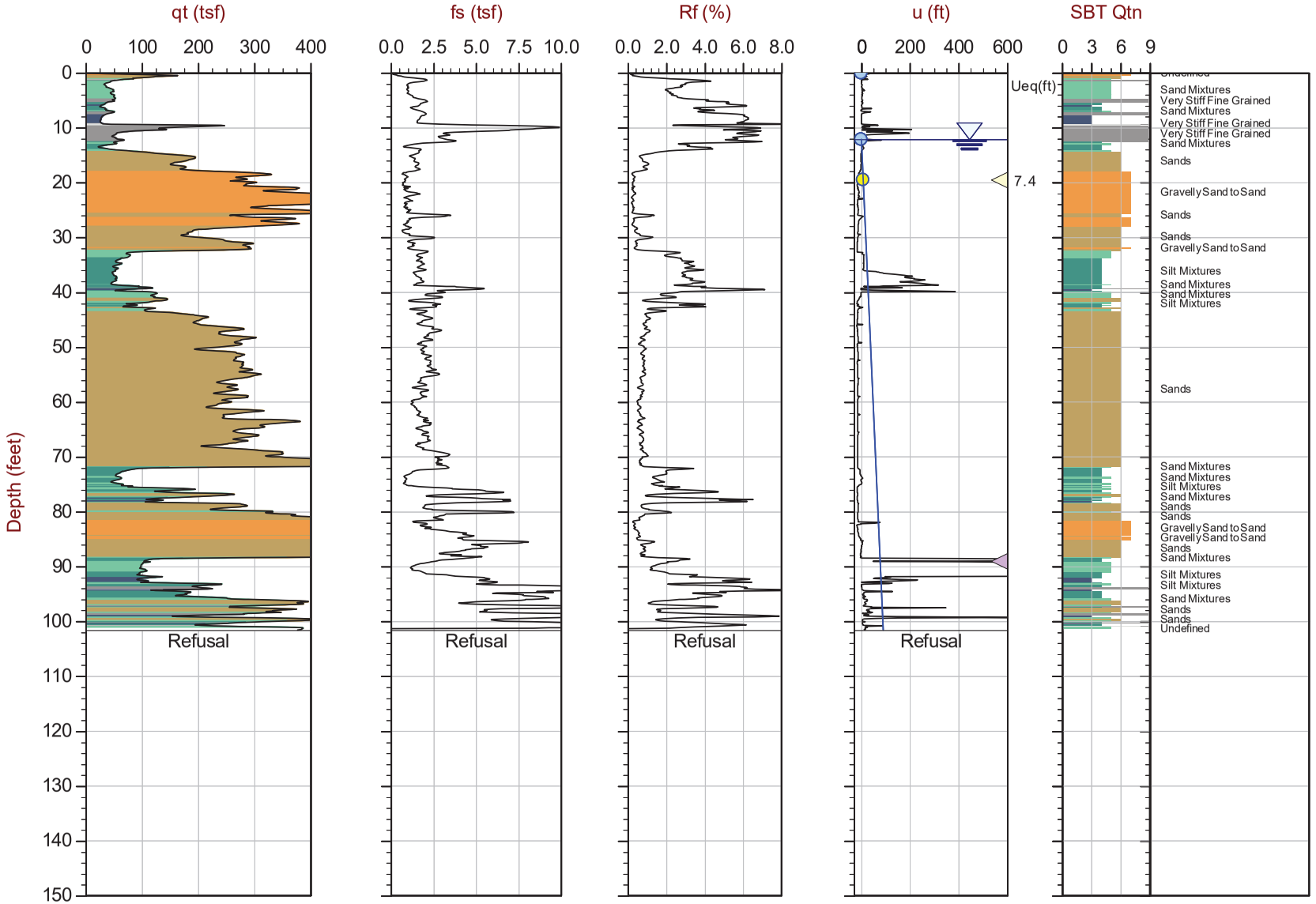
Latitude: 38.17420 Longitude: -121.67439 Elevation: 14.5 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 2022-08-18 09:08
Site: Little Egbert - Implementation Planning

Sounding: 22C-25
Cone: 814:T1500F15U35



Max Depth: 30.975 m / 101.62 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP25.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4225973m E: 616112m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

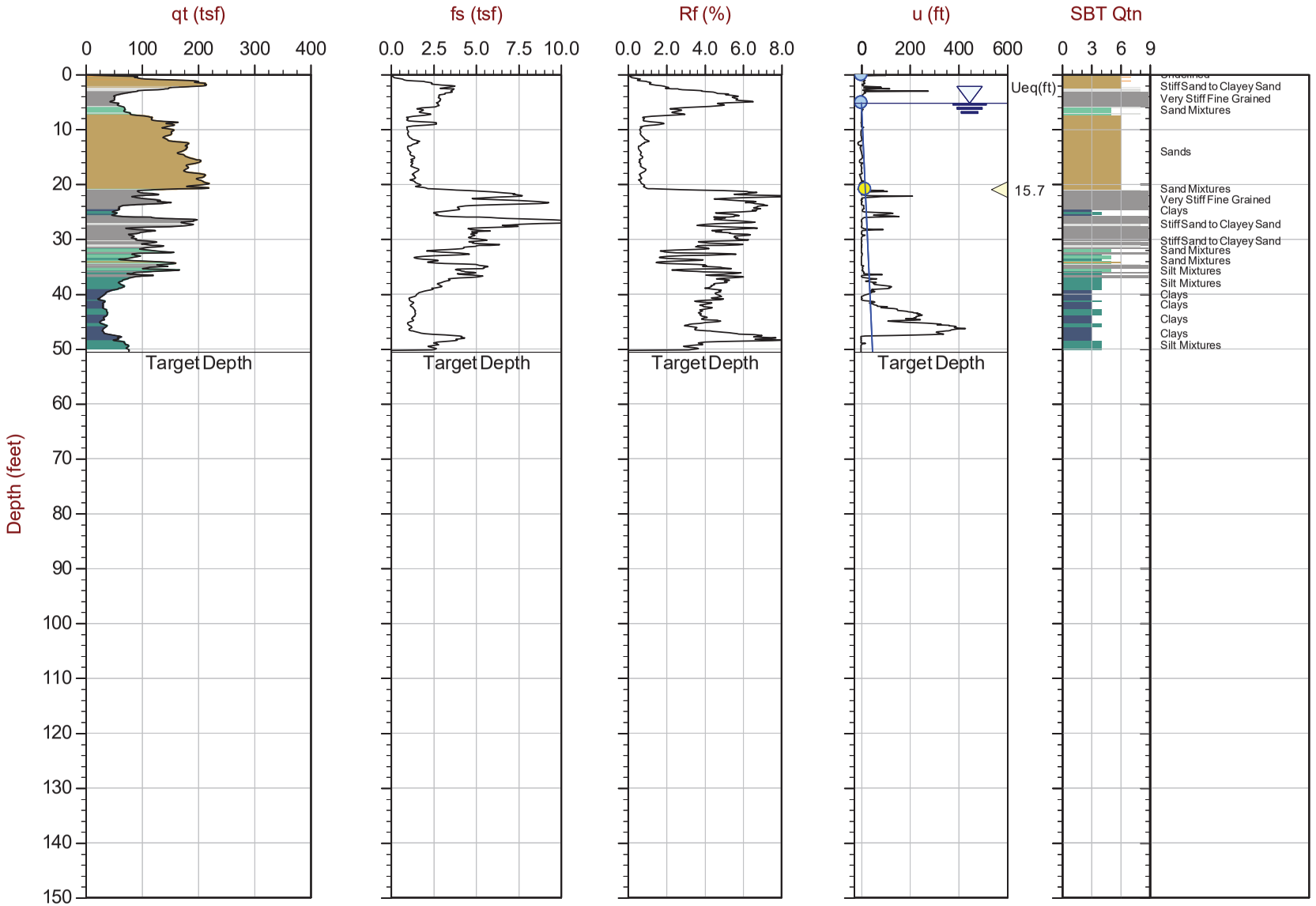
Plate No. D-2-27

Latitude: 38.18535 Longitude: -121.66506 Elevation: 6 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-26
Date: 2022-08-18 11:34 Cone: 814:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP26.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4227222m E: 616912m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

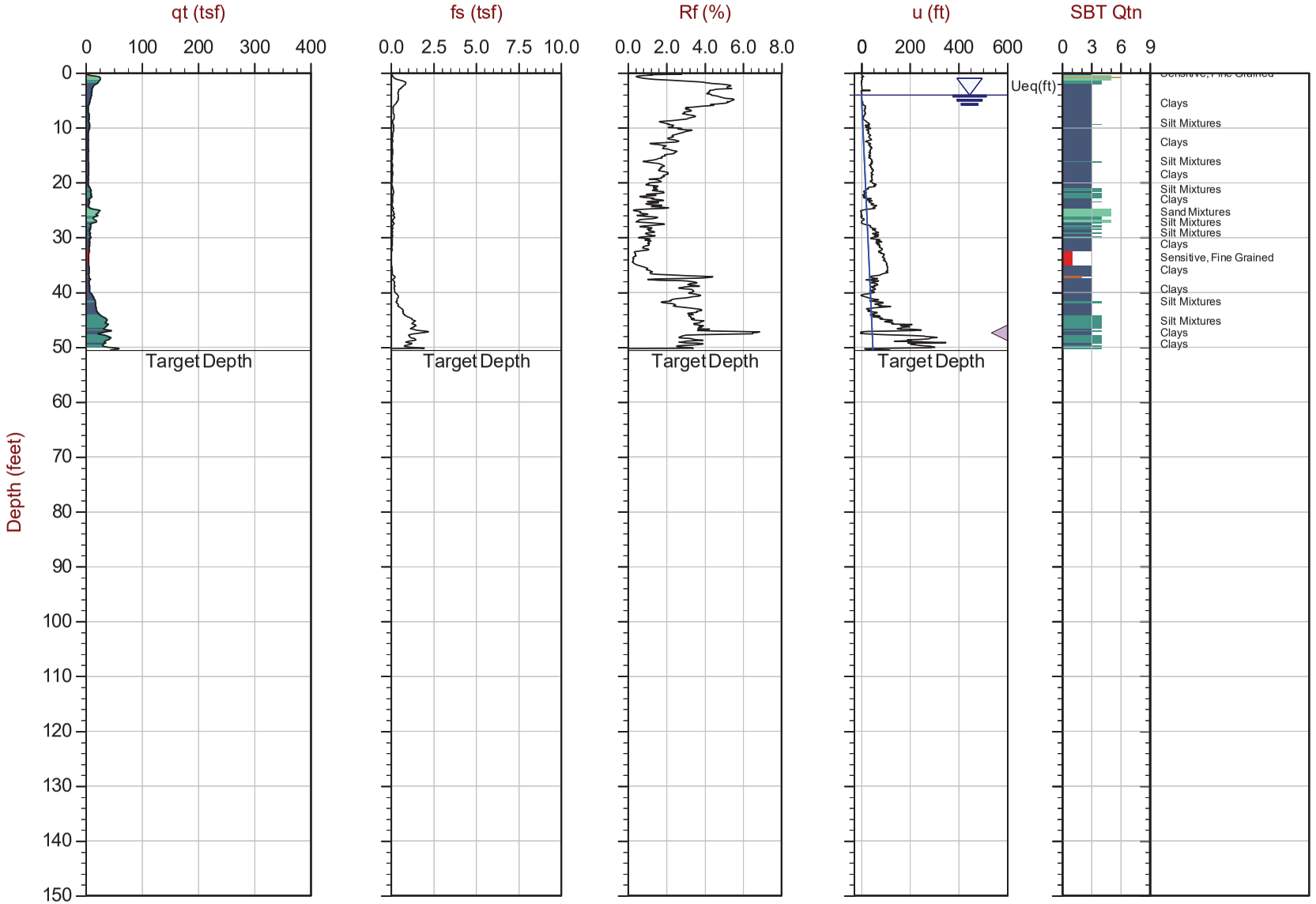
Little Egbert Multi-Benefit Project
Solano County, California
Project No. 907.03
Plate No. D-2-28

Latitude: 38.20881 Longitude: -121.66504 Elevation: -3 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-27
Date: 2022-08-18 13:16 Cone: 814:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP27.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4229826m E: 616876m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

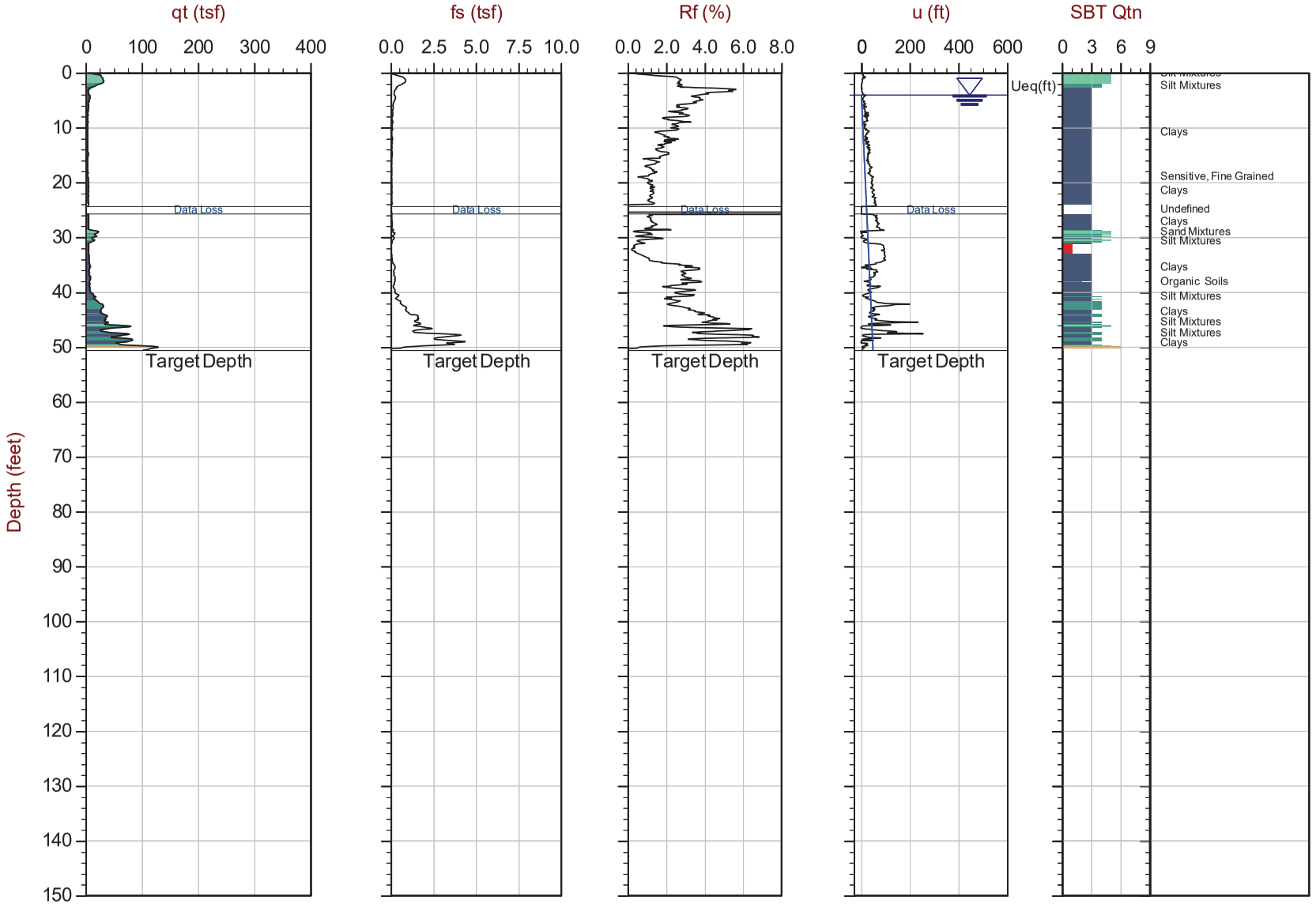
Plate No. D-2-29

Latitude: 38.20188 Longitude: -121.65978 Elevation: -3 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-28
Date: 2022-08-18 15:01 Cone: 814:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP28.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4229064m E: 617348m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

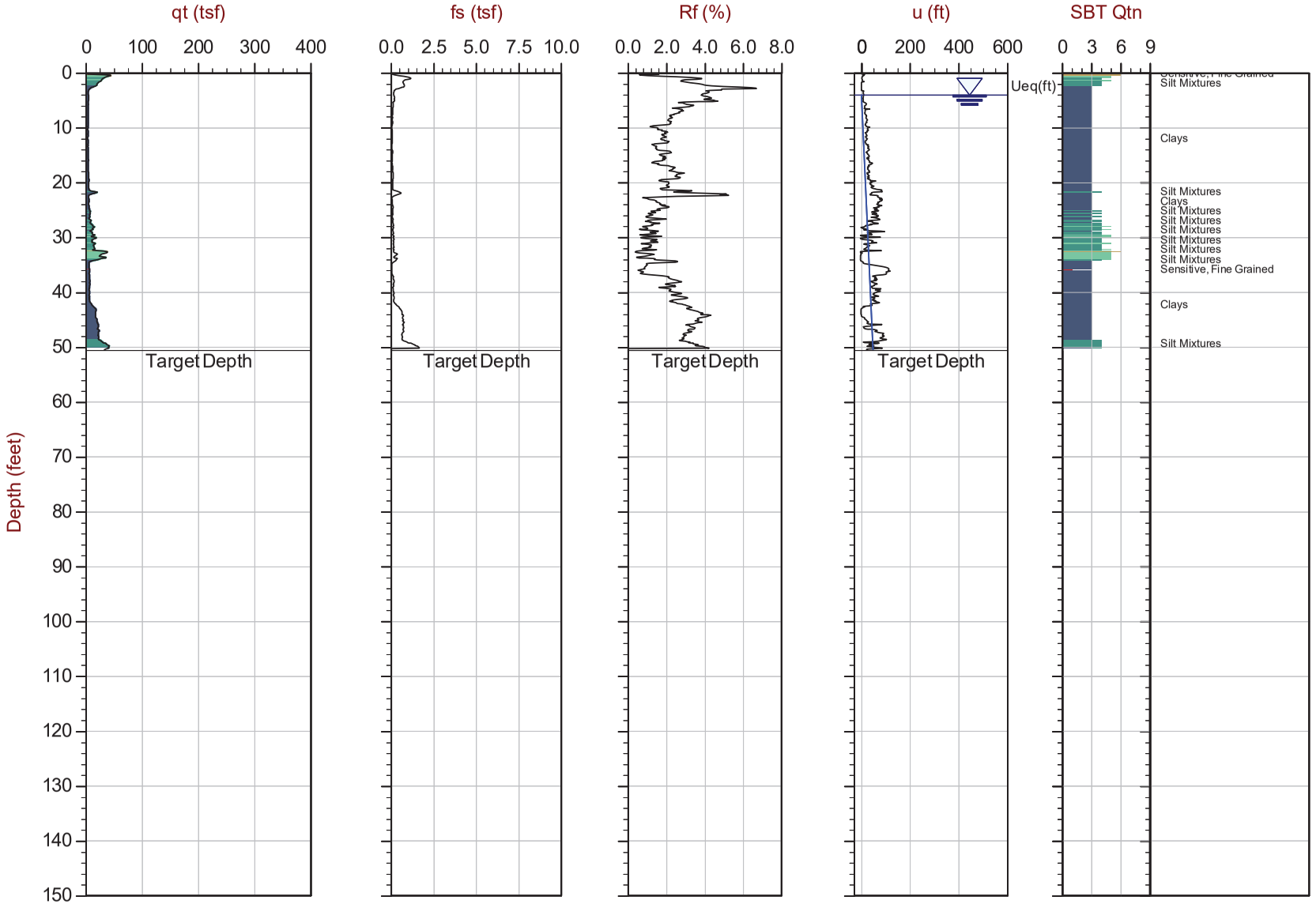
Plate No. D-2-30

Latitude: 38.19489 Longitude: -121.65911 Elevation: -2 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-29
Date: 2022-08-18 16:23 Cone: 814:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP29.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4228288m E: 617418m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

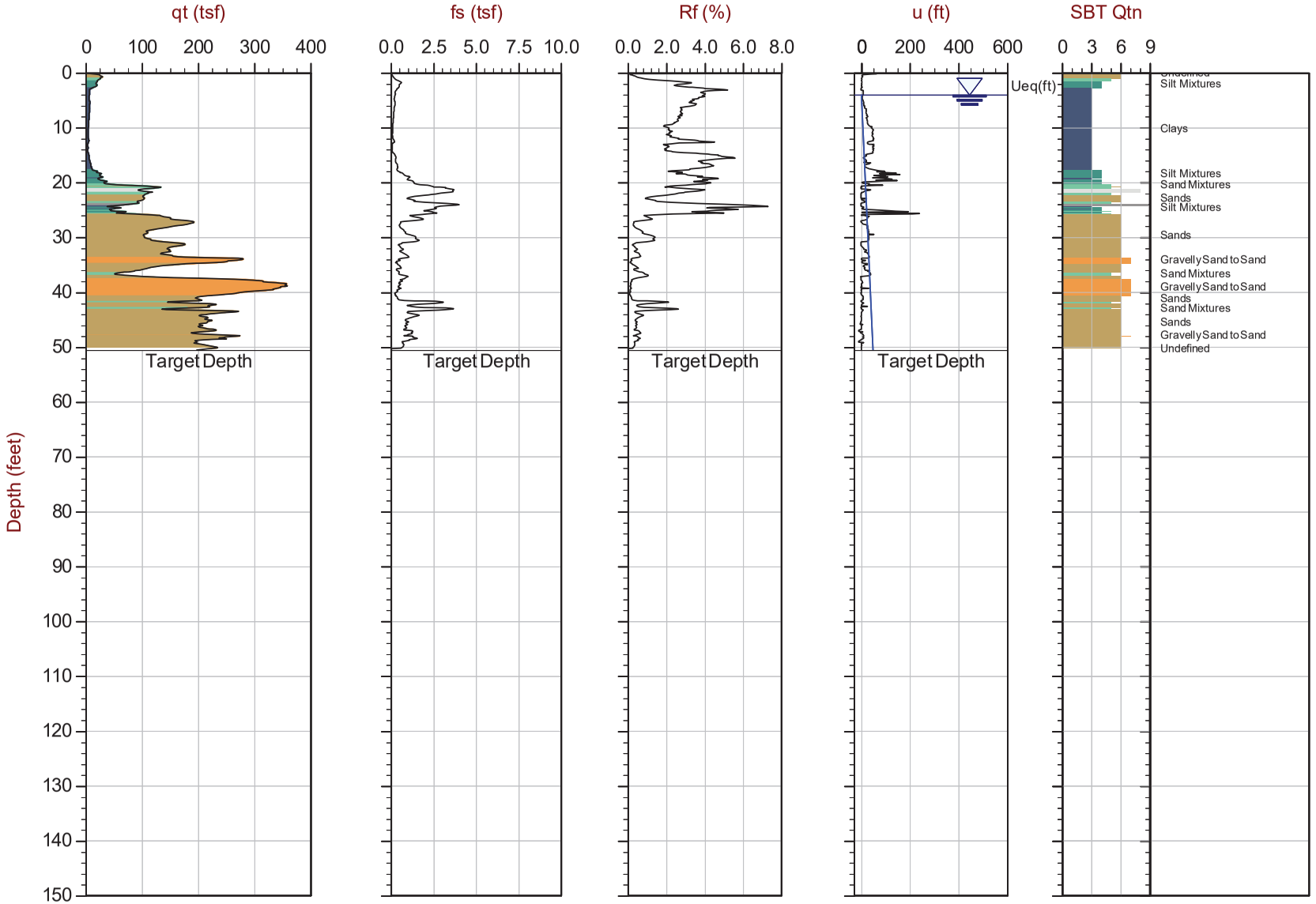
Plate No. D-2-31

Latitude: 38.24307 Longitude: -121.69600 Elevation: -5 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-30
Date: 2022-08-19 08:54 Cone: 814:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP30.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4233589m E: 614112m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

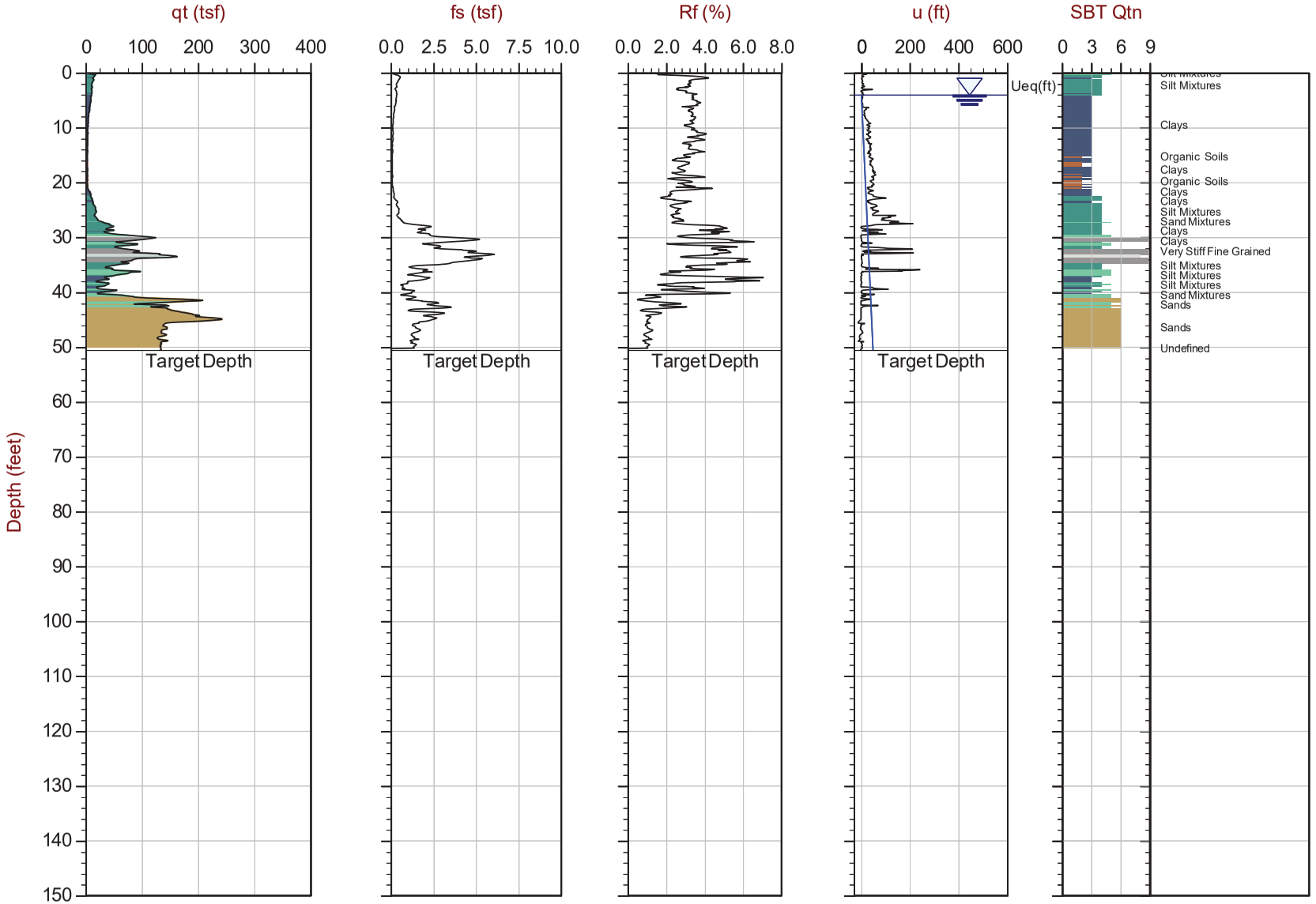
Plate No. D-2-32

Latitude: 38.24227 Longitude: -121.68995 Elevation: -8 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-31
Date: 2022-08-19 10:08 Cone: 814:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP31.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4233508m E: 614642m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

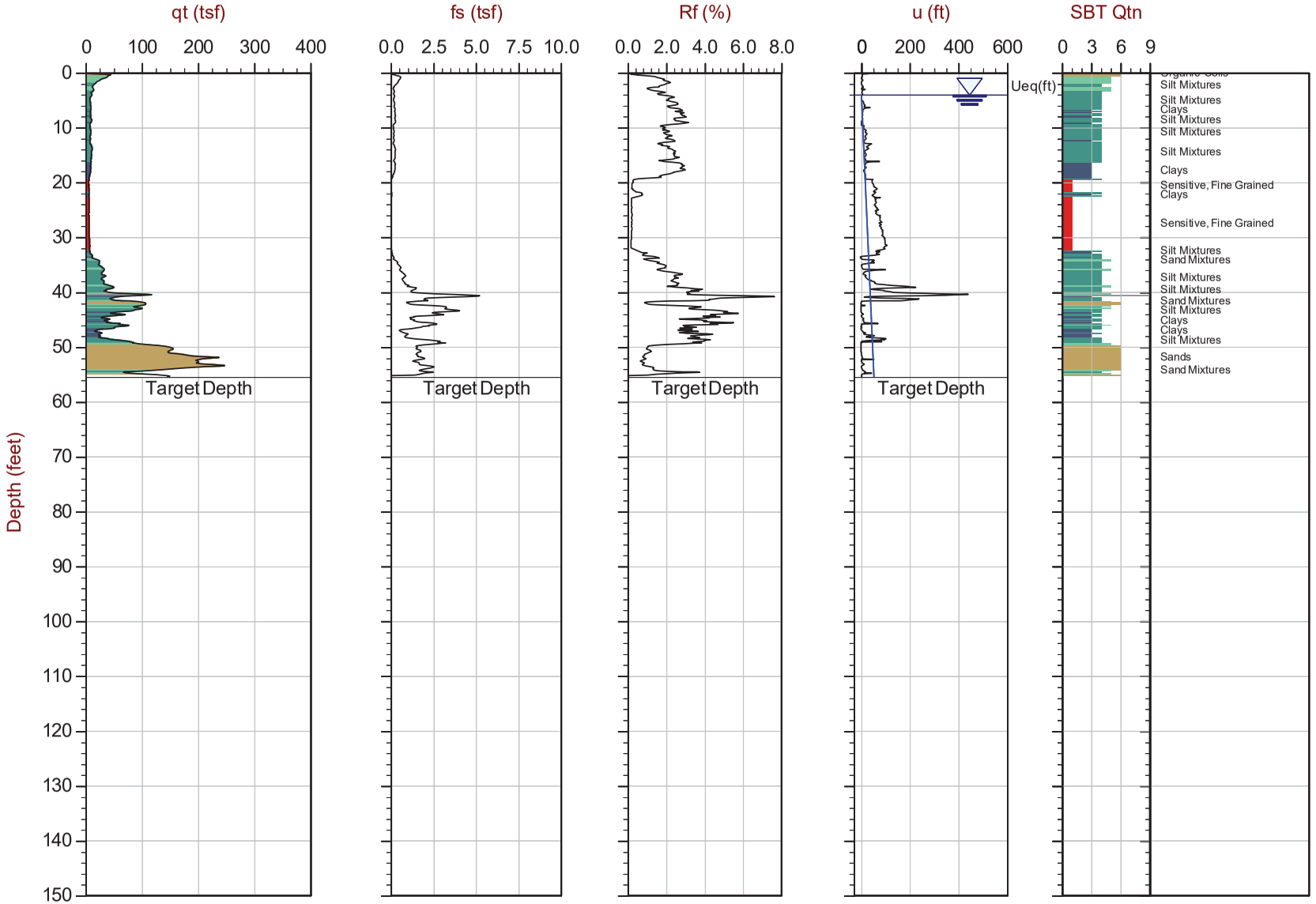
Plate No. D-2-33

Latitude: 38.23578 Longitude: -121.68463 Elevation: -3.5 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-32
Date: 2022-08-19 11:25 Cone: 814:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 16.900 m / 55.45 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP32.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4232794m E: 615119m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

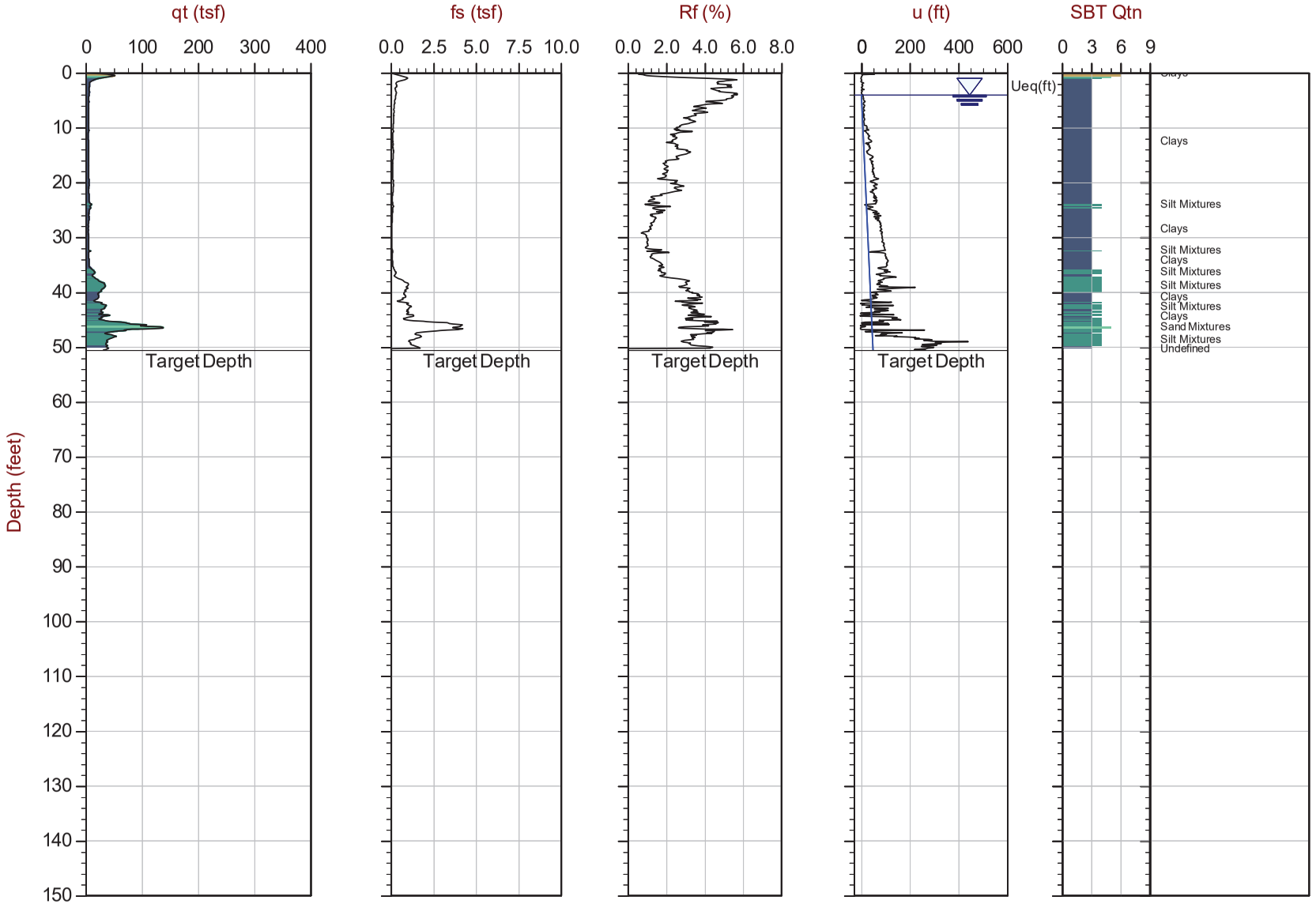
Plate No. D-2-34

Latitude: 38.23074 Longitude: -121.67695 Elevation: 0 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-33
Date: 2022-08-19 12:43 Cone: 814:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP33.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4232244m E: 615799m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

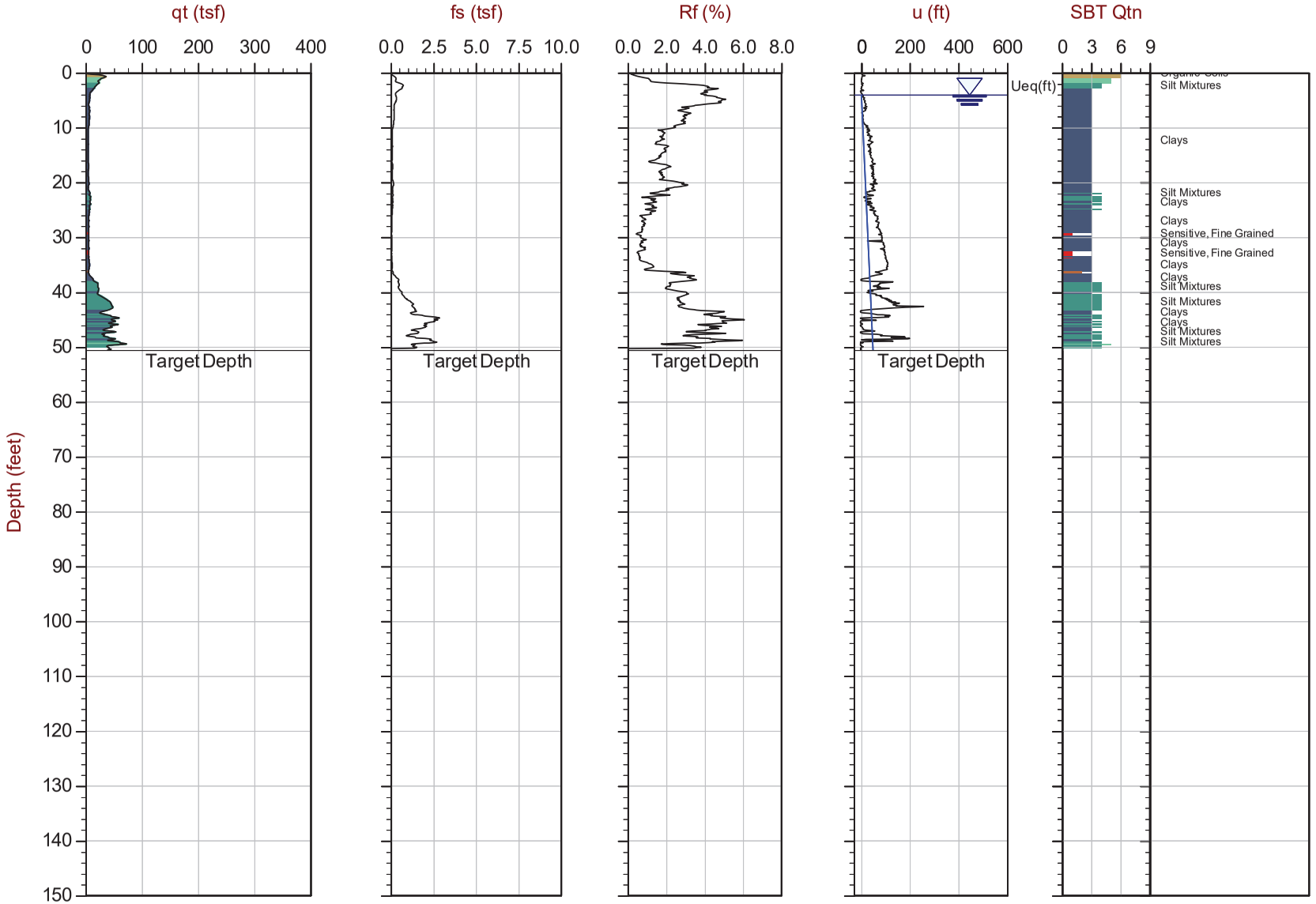
Plate No. D-2-35

Latitude: 38.22286 Longitude: -121.67533 Elevation: -2 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-34
Date: 2022-08-19 13:56 Cone: 814:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP34.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4231372m E: 615953m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

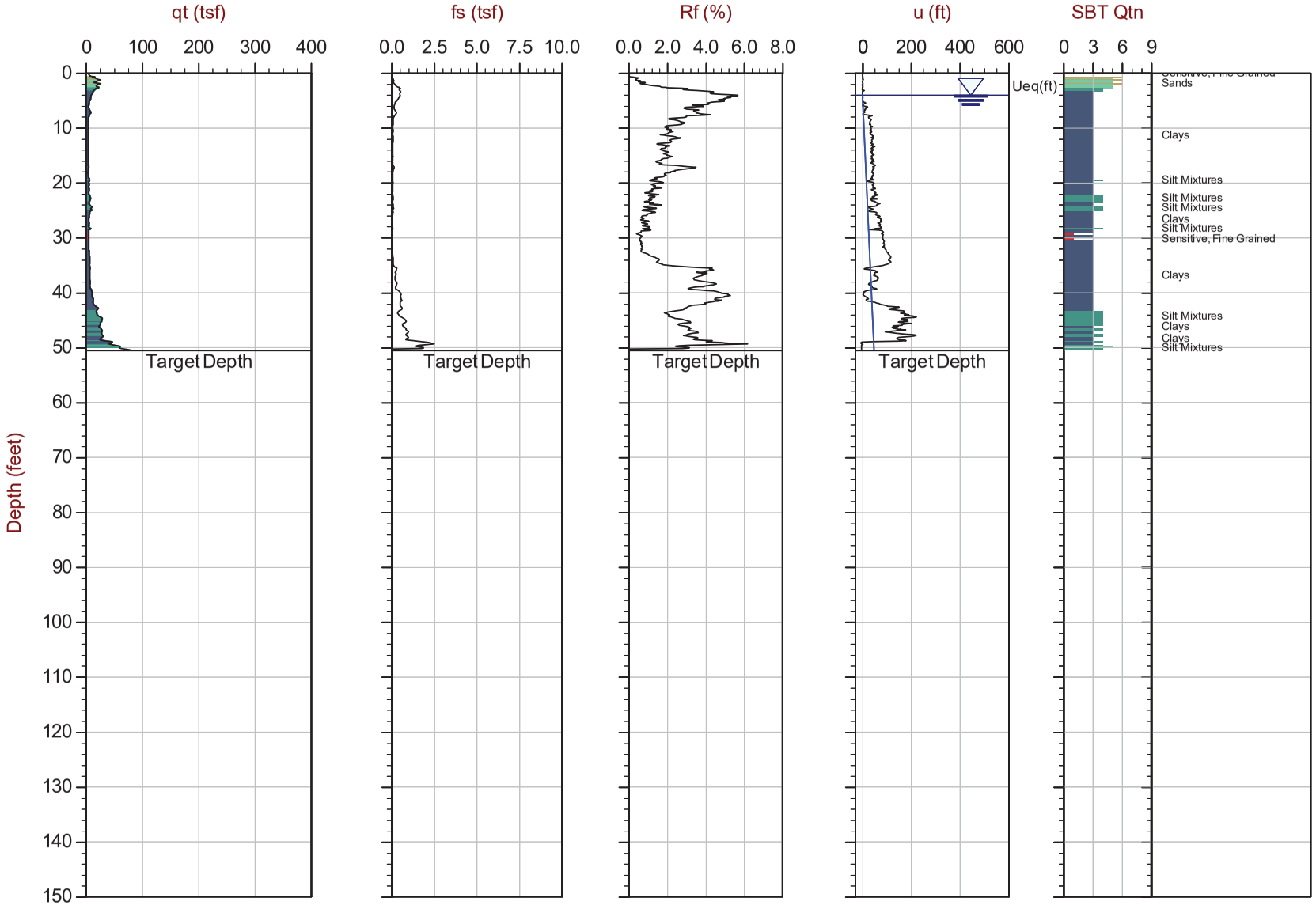
Plate No. D-2-36

Latitude: 38.21522 Longitude: -121.67171 Elevation: -3.5 feet

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153 Sounding: 22C-35
Date: 2022-08-19 14:58 Cone: 814:T1500F15U35
Site: Little Egbert - Implementation Planning



Max Depth: 15.400 m / 50.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 22-56-24153_CP35.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM 10S N: 4230529m E: 616281m

Equilibrium Pore Pressure (Ueq) Assumed Ueq Dissipation, Ueq achieved Dissipation, Ueq not achieved Hydrostatic Line

The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

Plate No. D-2-37

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

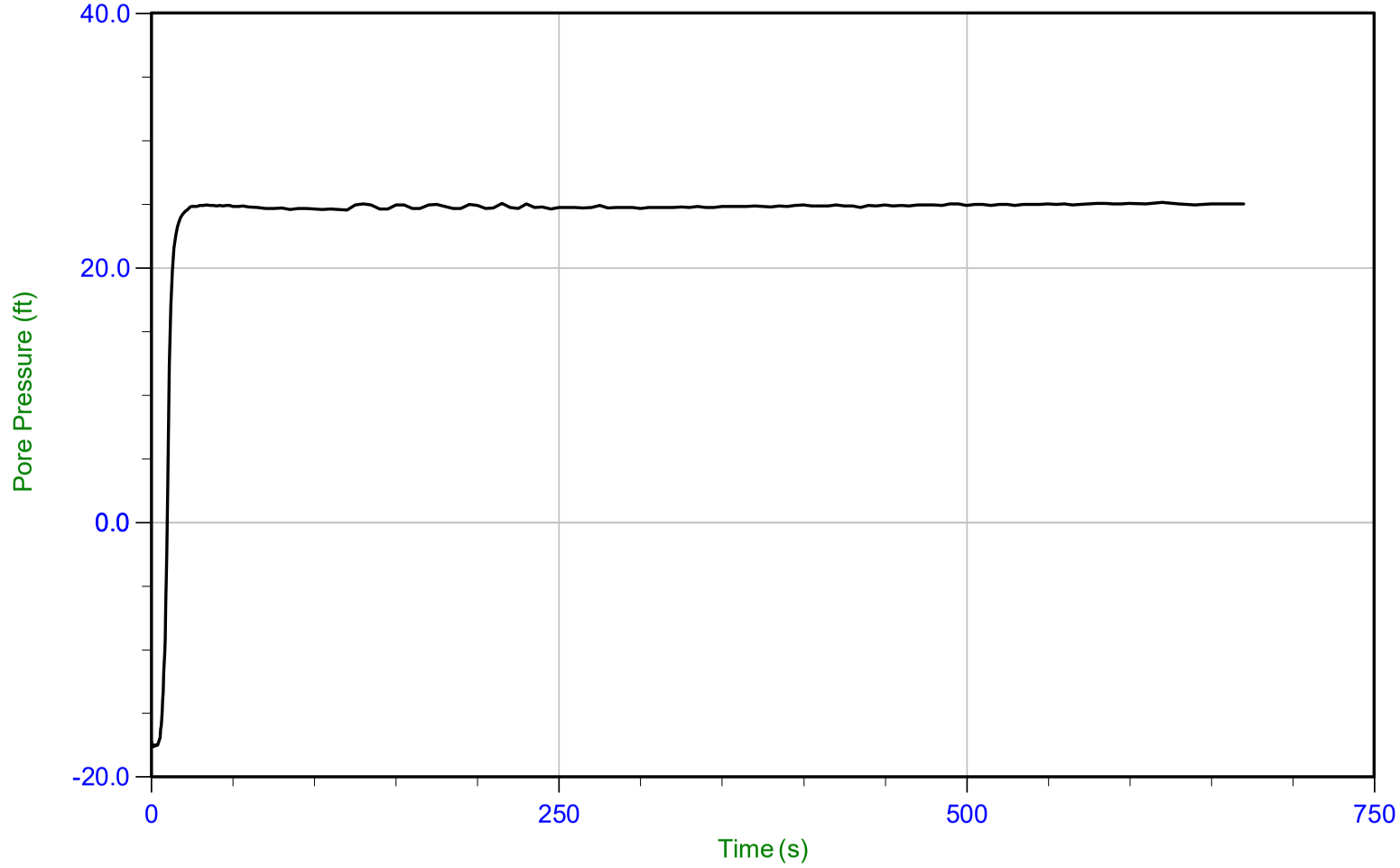
Plate No. D-2-38

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/16/2022 09:39
Site: Little Egbert - Implementation Planning

Sounding: 22C-01
Cone: 811:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP01.PPD2
Depth: 15.600 m / 51.180 ft
Duration: 670.0 s

u Min: -17.6 ft
u Max: 25.1 ft
u Final: 25.0 ft

WT: 7.973 m / 26.158 ft
Ueq: 25.0 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

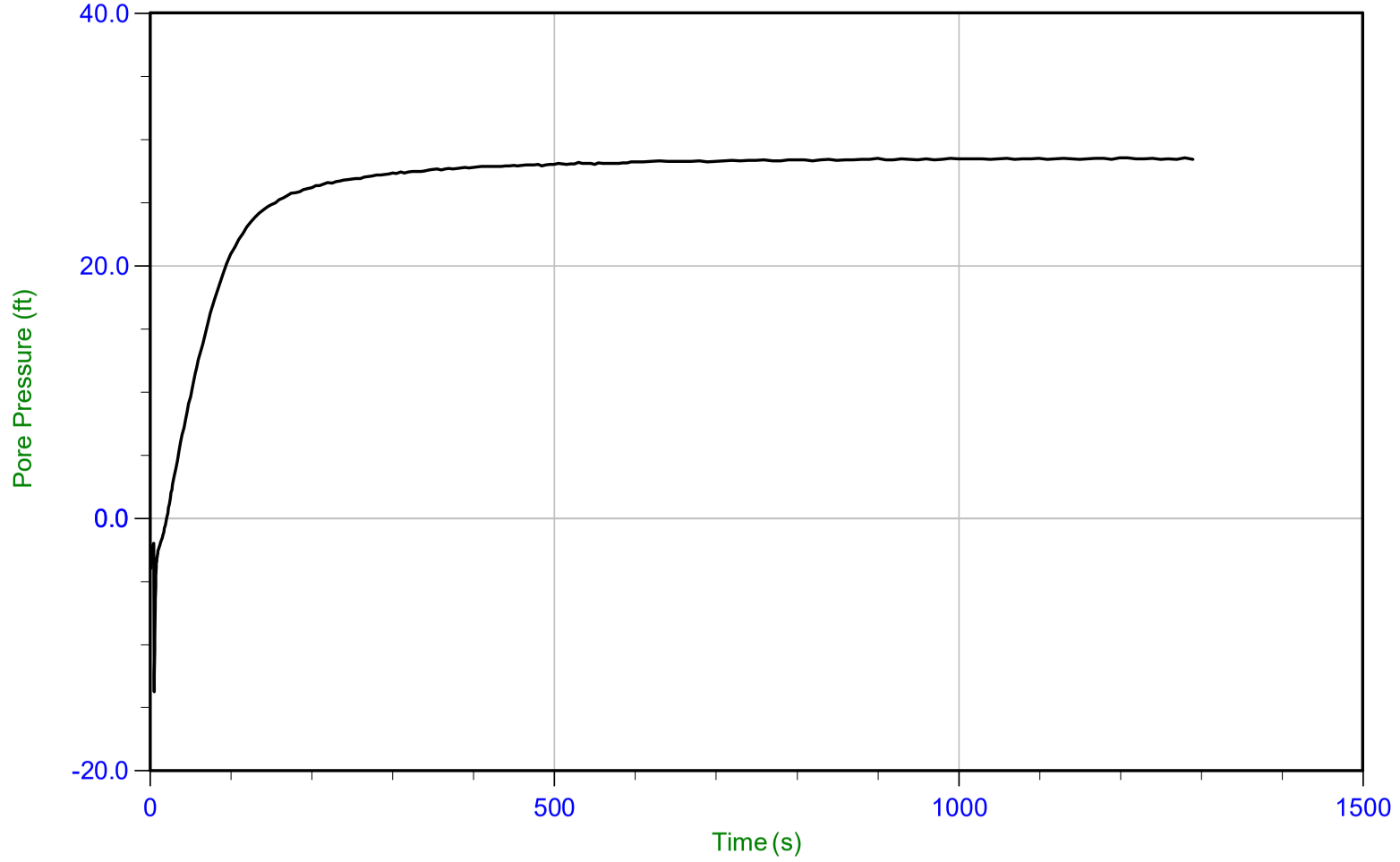
Plate No. D-2-39

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/16/2022 10:50
Site: Little Egbert - Implementation Planning

Sounding: 22C-02
Cone: 811:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP02.PPD2
Depth: 16.325 m / 53.559 ft
Duration: 1290.0 s

u Min: -13.7 ft
u Max: 28.5 ft
u Final: 28.4 ft

WT: 7.643 m / 25.075 ft
Ueq: 28.5 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

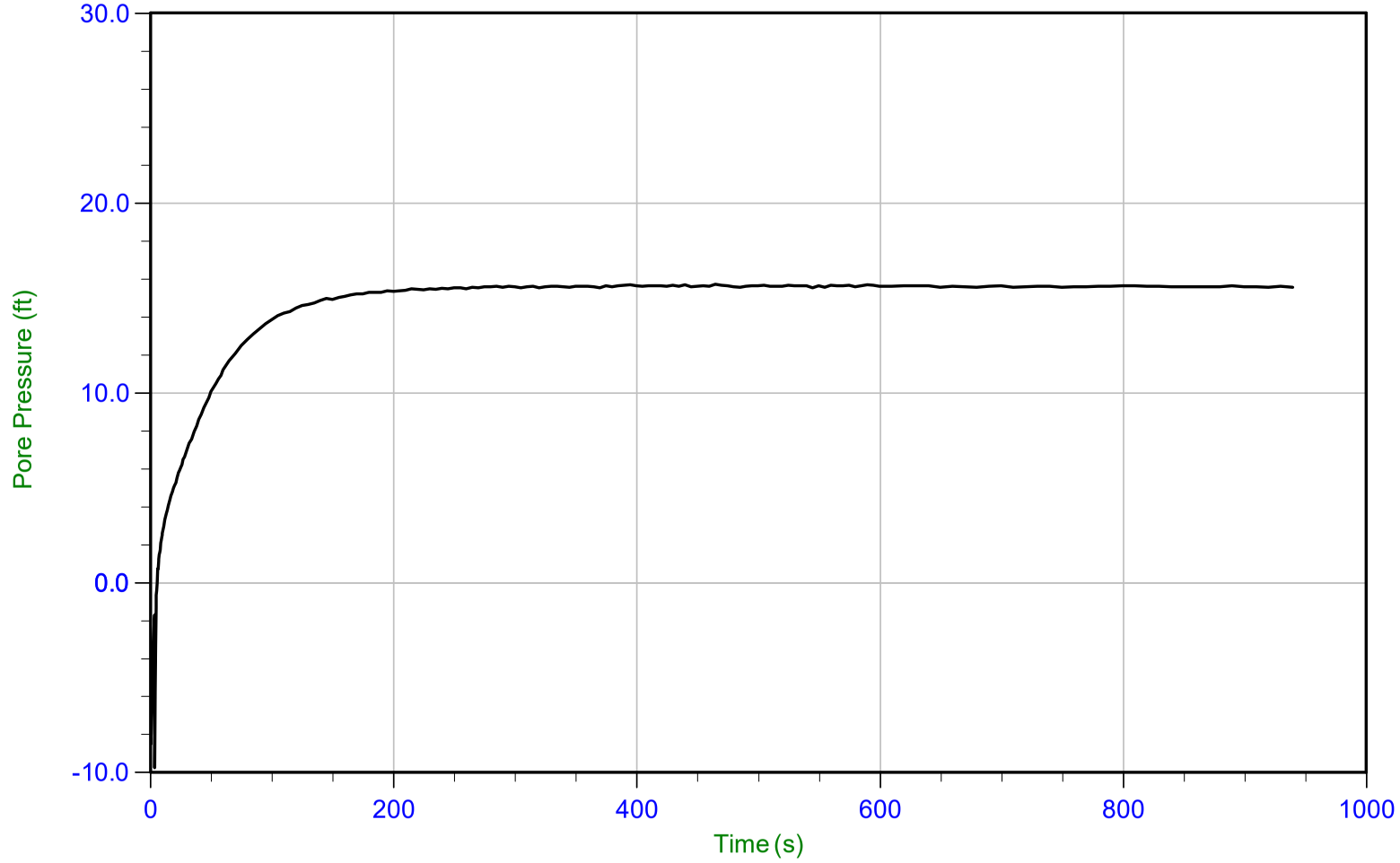
Plate No. D-2-40

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/16/2022 14:12
Site: Little Egbert - Implementation Planning

Sounding: 22C-03
Cone: 811:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP03.PPD2
Depth: 13.175 m / 43.225 ft
Duration: 940.0 s

u Min: -9.7 ft
u Max: 15.7 ft
u Final: 15.6 ft

WT: 8.431 m / 27.660 ft
Ueq: 15.6 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

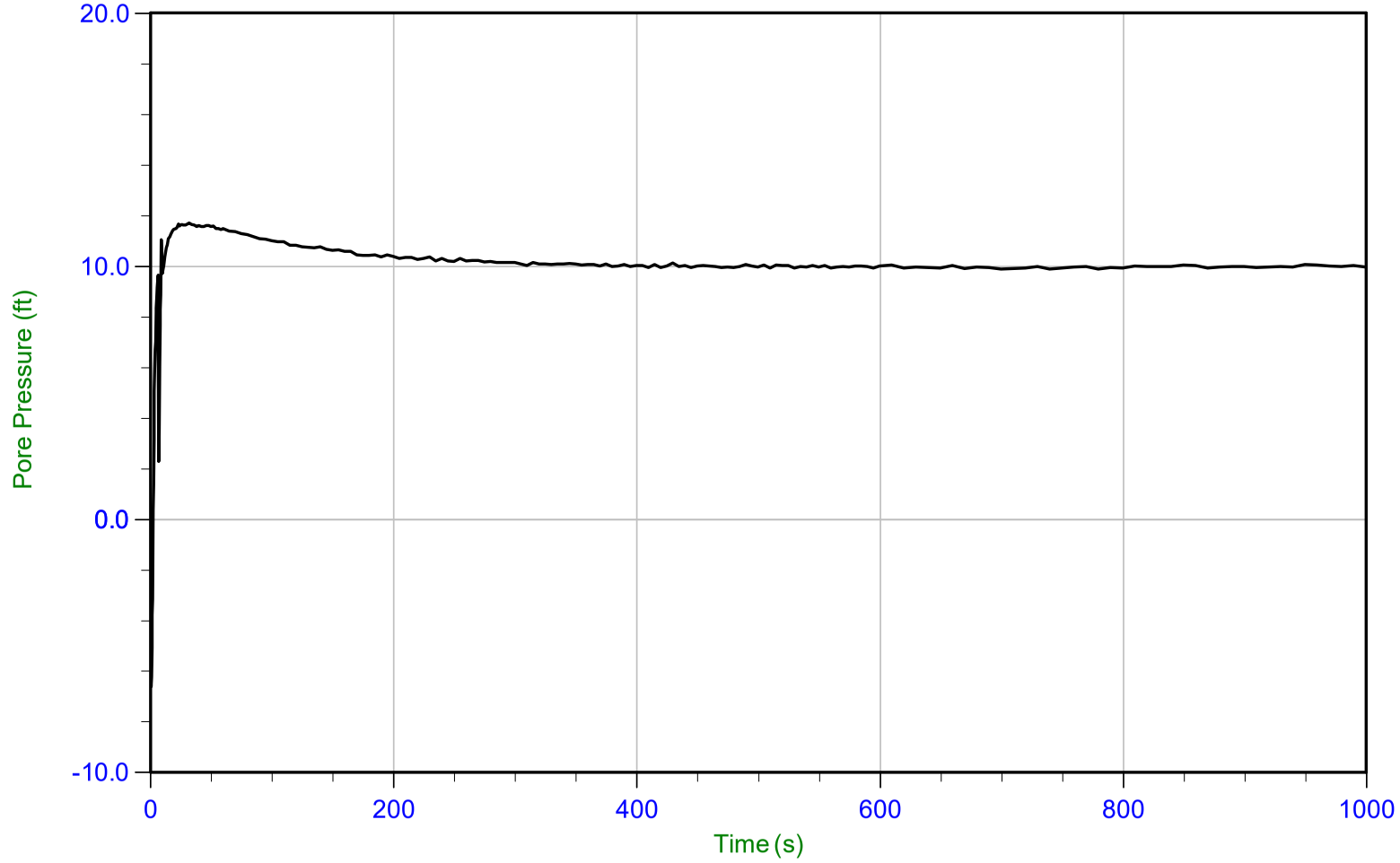
Plate No. D-2-41

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/17/2022 09:10
Site: Little Egbert - Implementation Planning

Sounding: 22C-04
Cone: 811:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP04.PPD2
Depth: 11.525 m / 37.811 ft
Duration: 1000.0 s

u Min: -6.6 ft
u Max: 11.7 ft
u Final: 10.0 ft

WT: 8.481 m / 27.824 ft
Ueq: 10.0 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

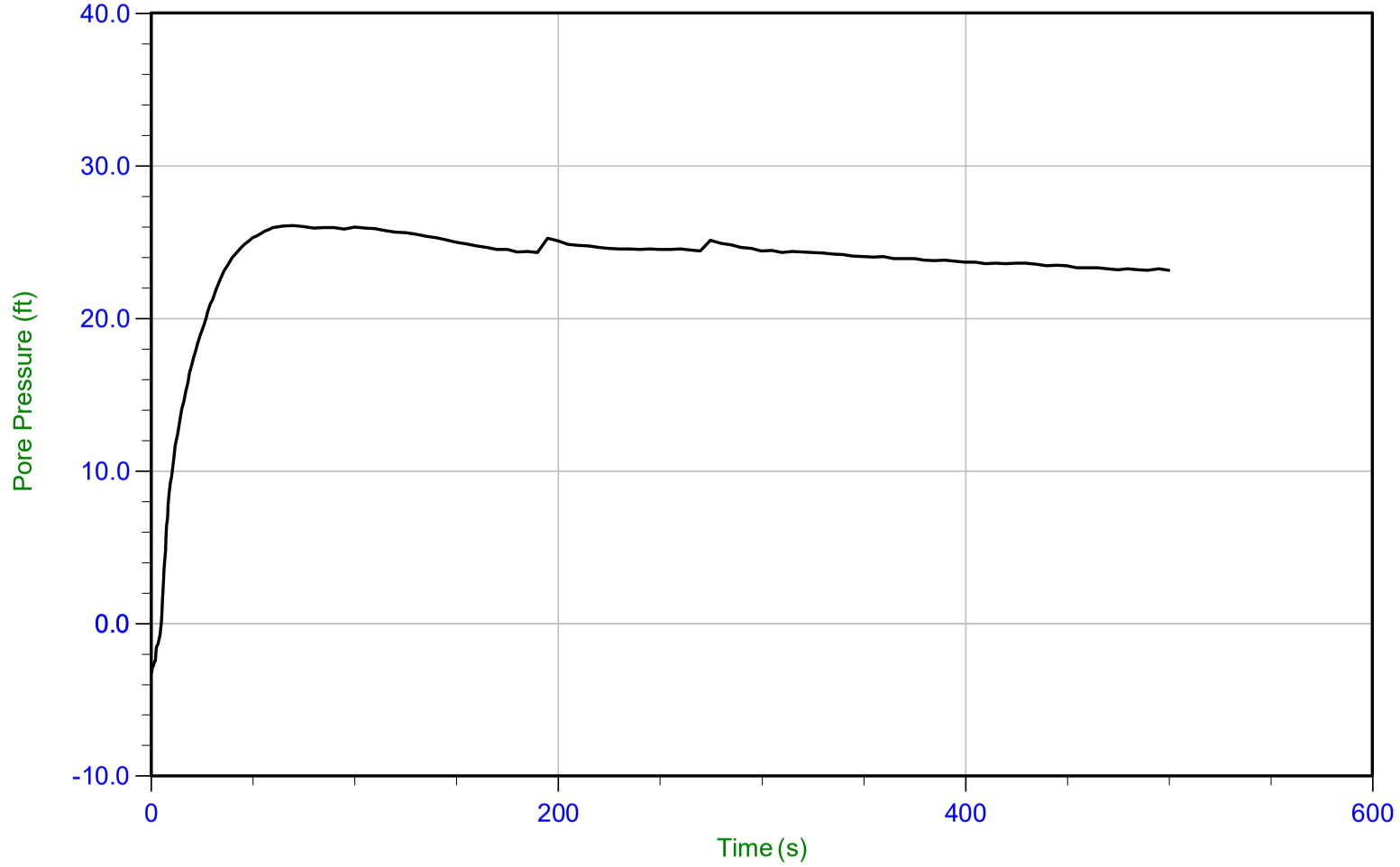
Plate No. D-2-42

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/17/2022 11:31
Site: Little Egbert - Implementation Planning

Sounding: 22C-05
Cone: 811:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP05.PPD2
Depth: 13.000 m / 42.650 ft
Duration: 500.0 s

u Min: -3.2 ft
u Max: 26.1 ft
u Final: 23.1 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

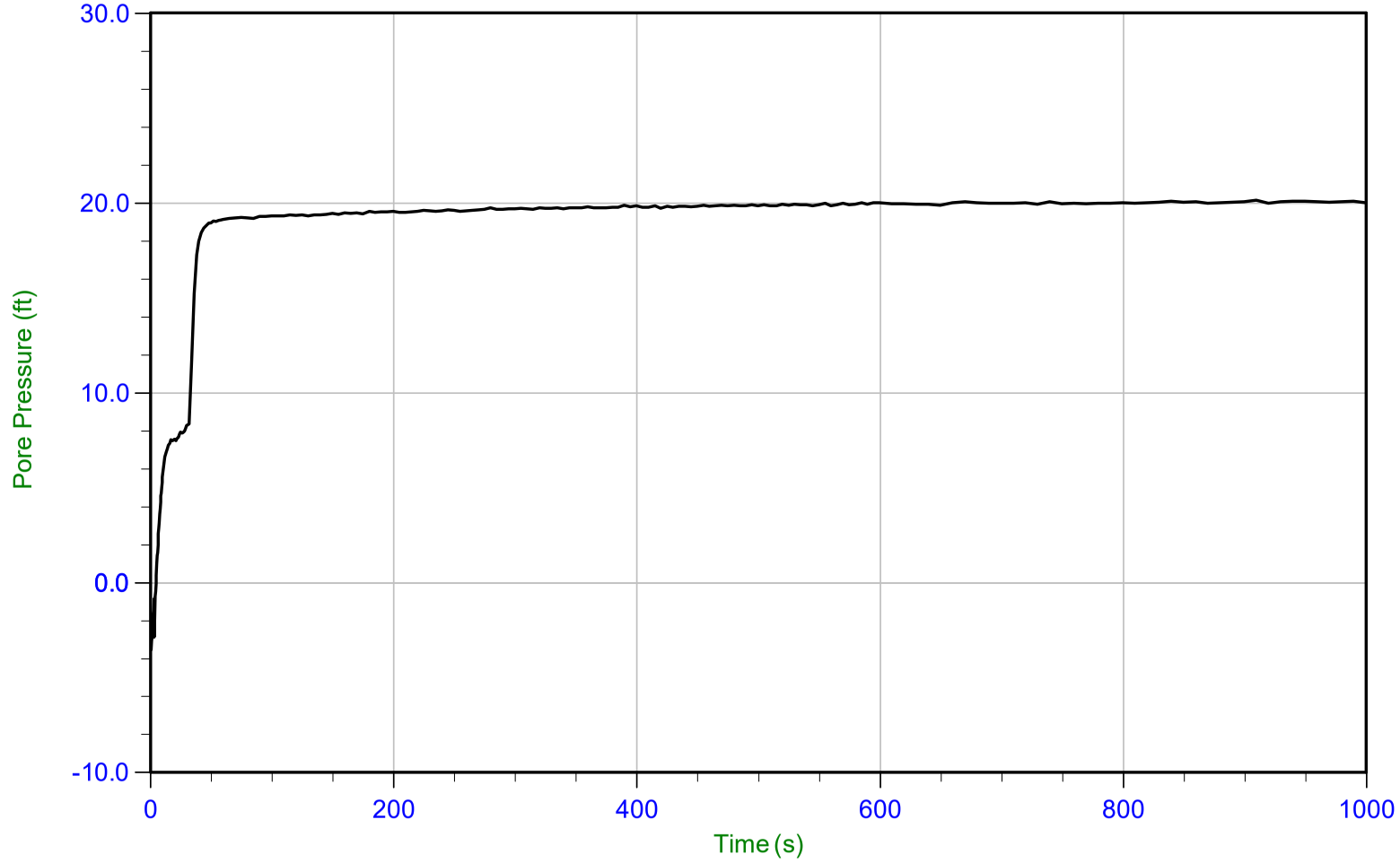
Plate No. D-2-43

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/17/2022 11:31
Site: Little Egbert - Implementation Planning

Sounding: 22C-05
Cone: 811:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP05.PPD2
Depth: 14.375 m / 47.162 ft
Duration: 1000.0 s

u Min: -3.5 ft
u Max: 20.1 ft
u Final: 20.0 ft

WT: 8.277 m / 27.155 ft
Ueq: 20.0 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

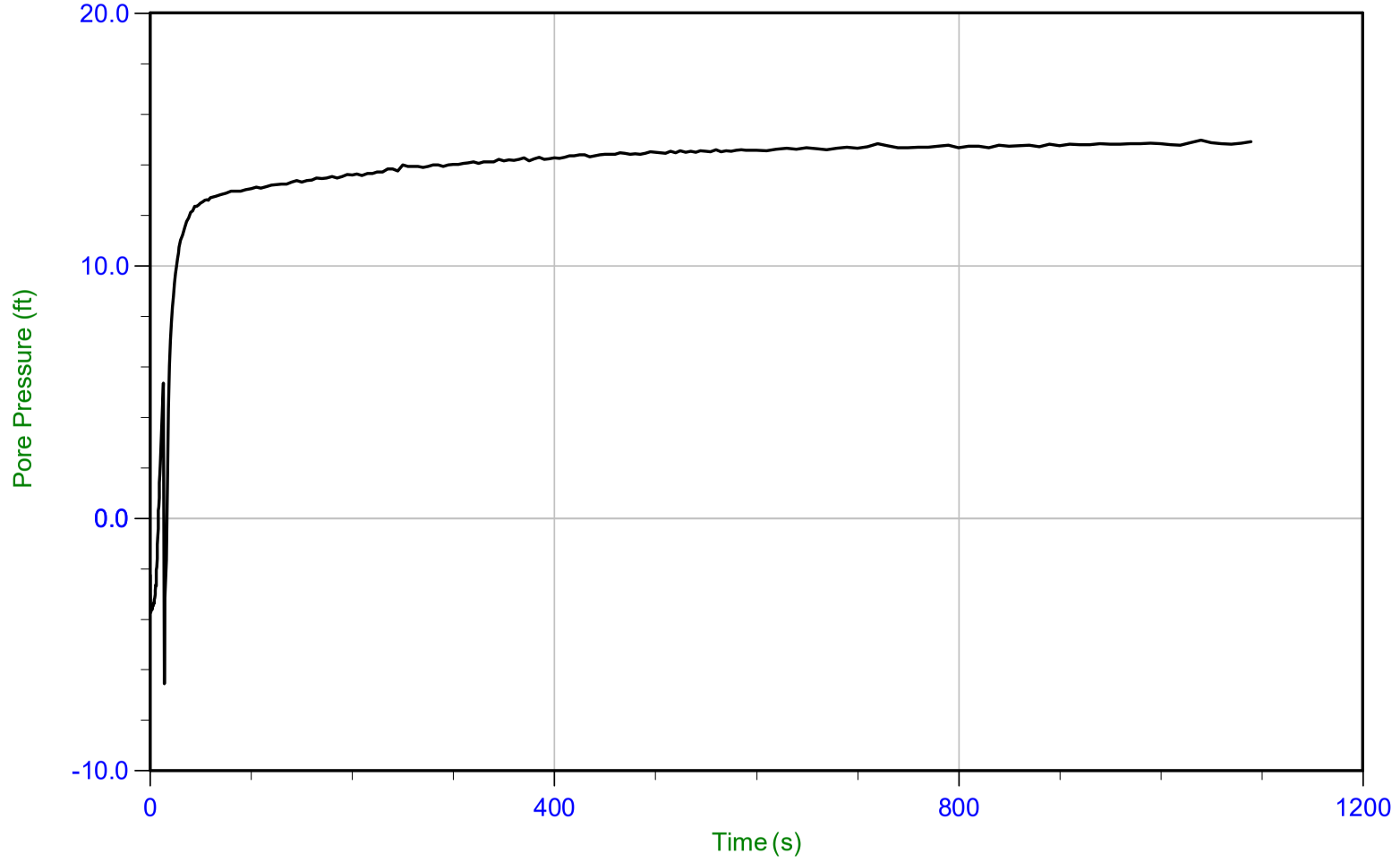
Plate No. D-2-44

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/17/2022 13:27
Site: Little Egbert - Implementation Planning

Sounding: 22C-06
Cone: 811:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP06.PPD2
Depth: 13.200 m / 43.307 ft
Duration: 1090.0 s

u Min: -6.5 ft
u Max: 15.0 ft
u Final: 14.9 ft

WT: 8.657 m / 28.402 ft
Ueq: 14.9 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

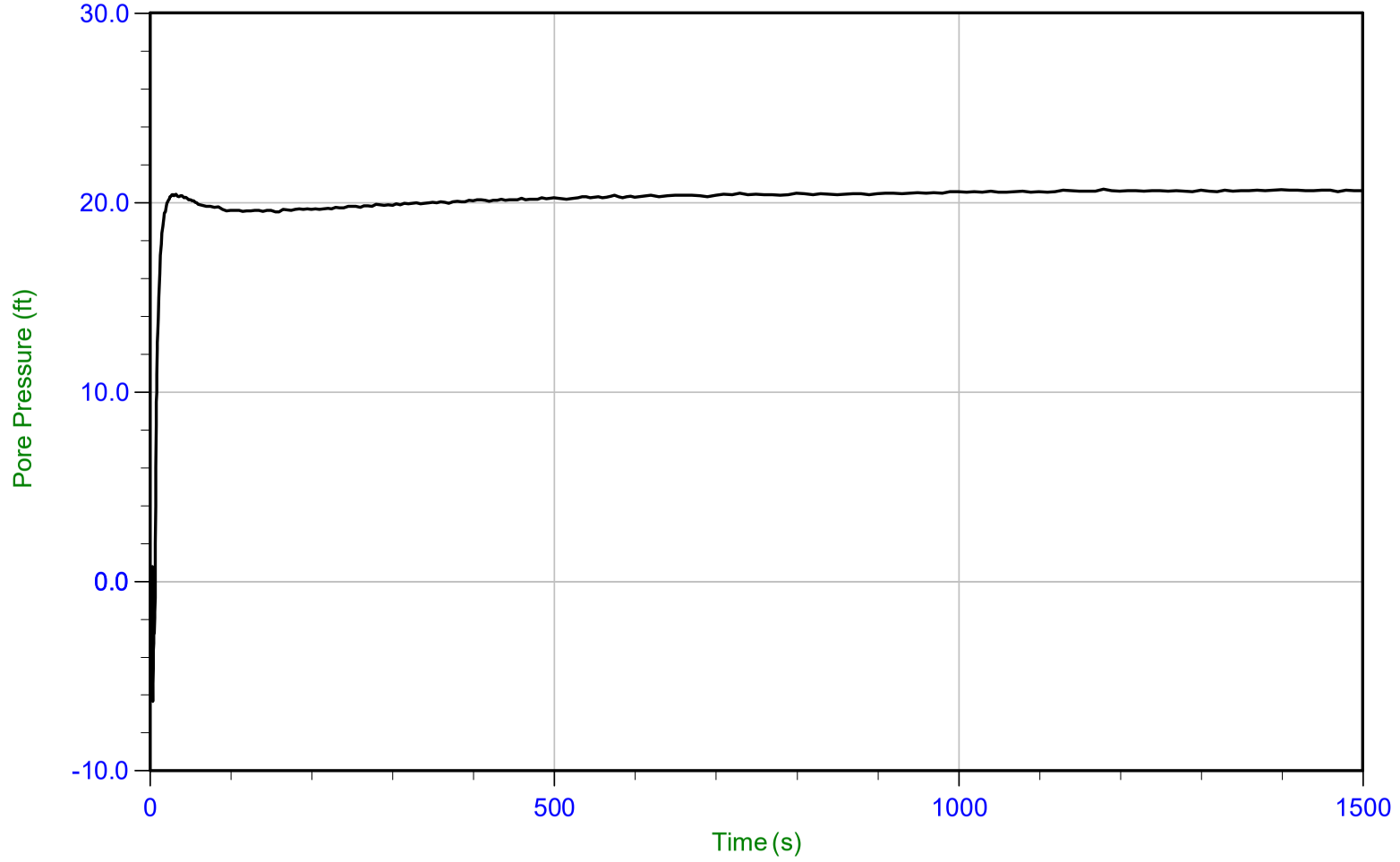
Plate No. D-2-45

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/17/2022 14:50
Site: Little Egbert - Implementation Planning

Sounding: 22C-07
Cone: 811:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP07.PPD2
Depth: 14.800 m / 48.556 ft
Duration: 1500.0 s

u Min: -6.3 ft
u Max: 20.7 ft
u Final: 20.6 ft

WT: 8.512 m / 27.926 ft
Ueq: 20.6 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

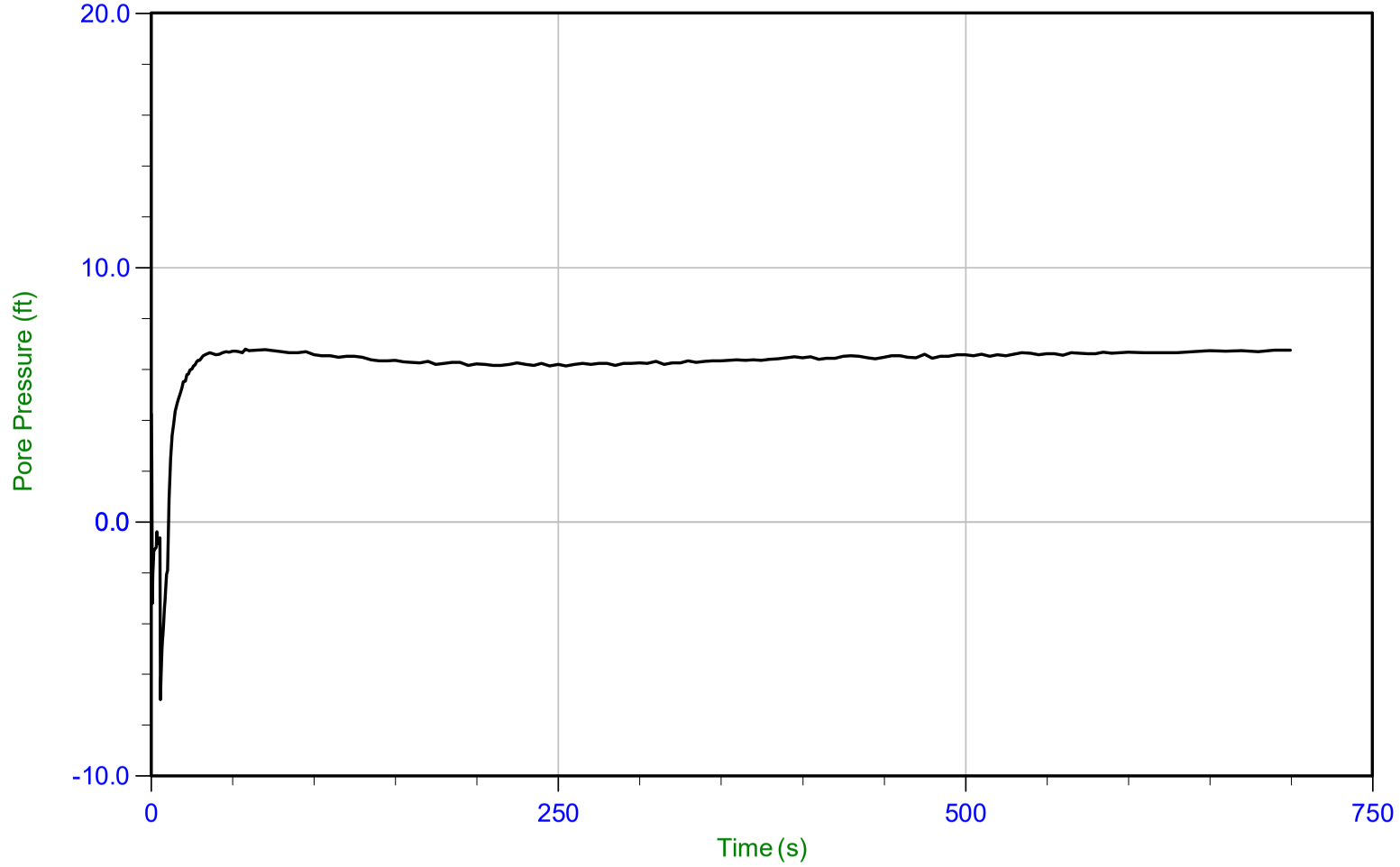
Plate No. D-2-46

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/18/2022 09:19
Site: Little Egbert - Implementation Planning

Sounding: 22C-08
Cone: 811:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP08.PPD2
Depth: 10.900 m / 35.761 ft
Duration: 700.0 s

u Min: -7.0 ft
u Max: 6.8 ft
u Final: 6.8 ft

WT: 8.839 m / 28.999 ft
Ueq: 6.8 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

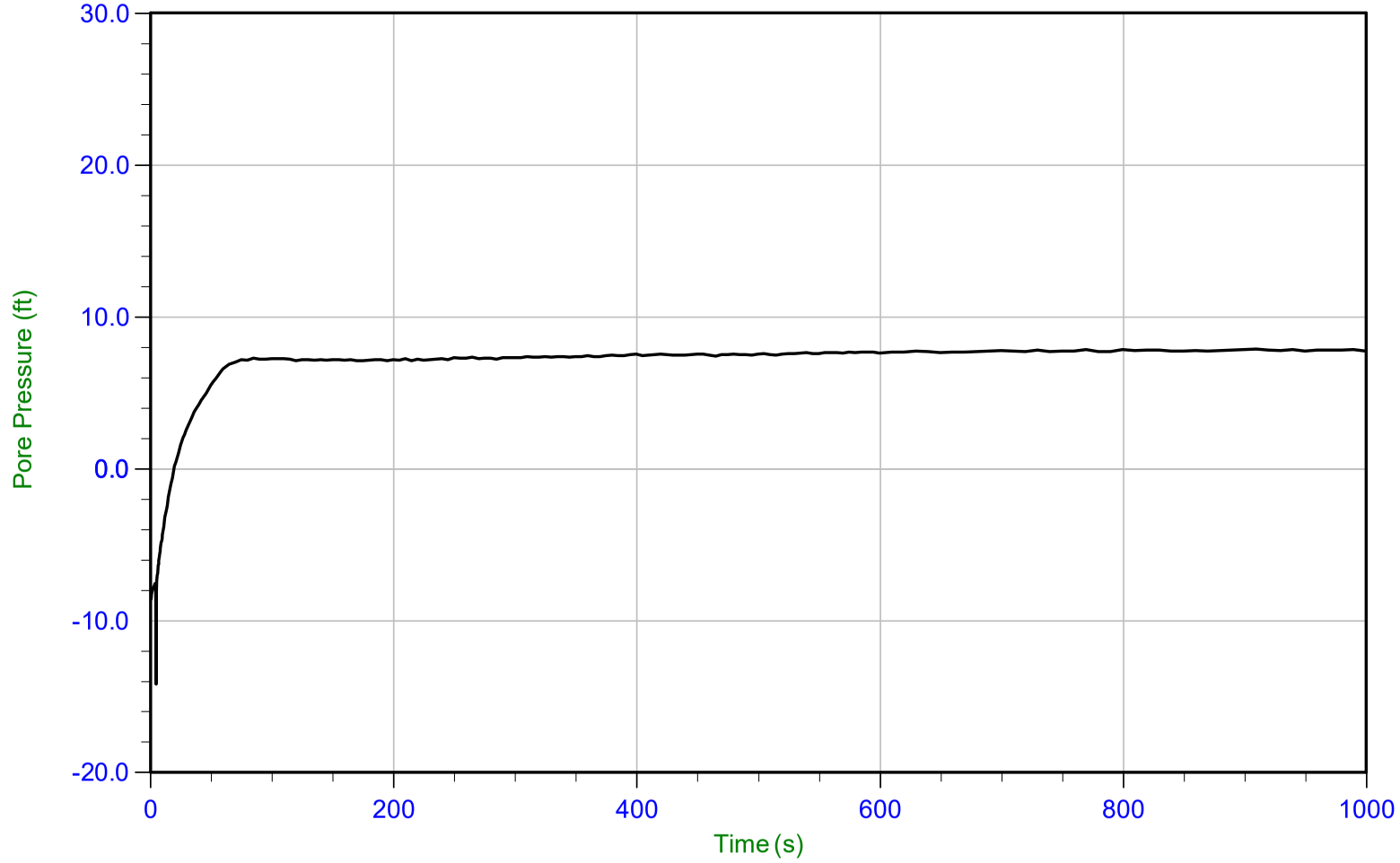
Plate No. D-2-47

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/18/2022 09:19
Site: Little Egbert - Implementation Planning

Sounding: 22C-08
Cone: 811:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP08.PPD2
Depth: 11.225 m / 36.827 ft
Duration: 1000.0 s

u Min: -14.2 ft
u Max: 7.9 ft
u Final: 7.8 ft

WT: 8.846 m / 29.022 ft
Ueq: 7.8 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

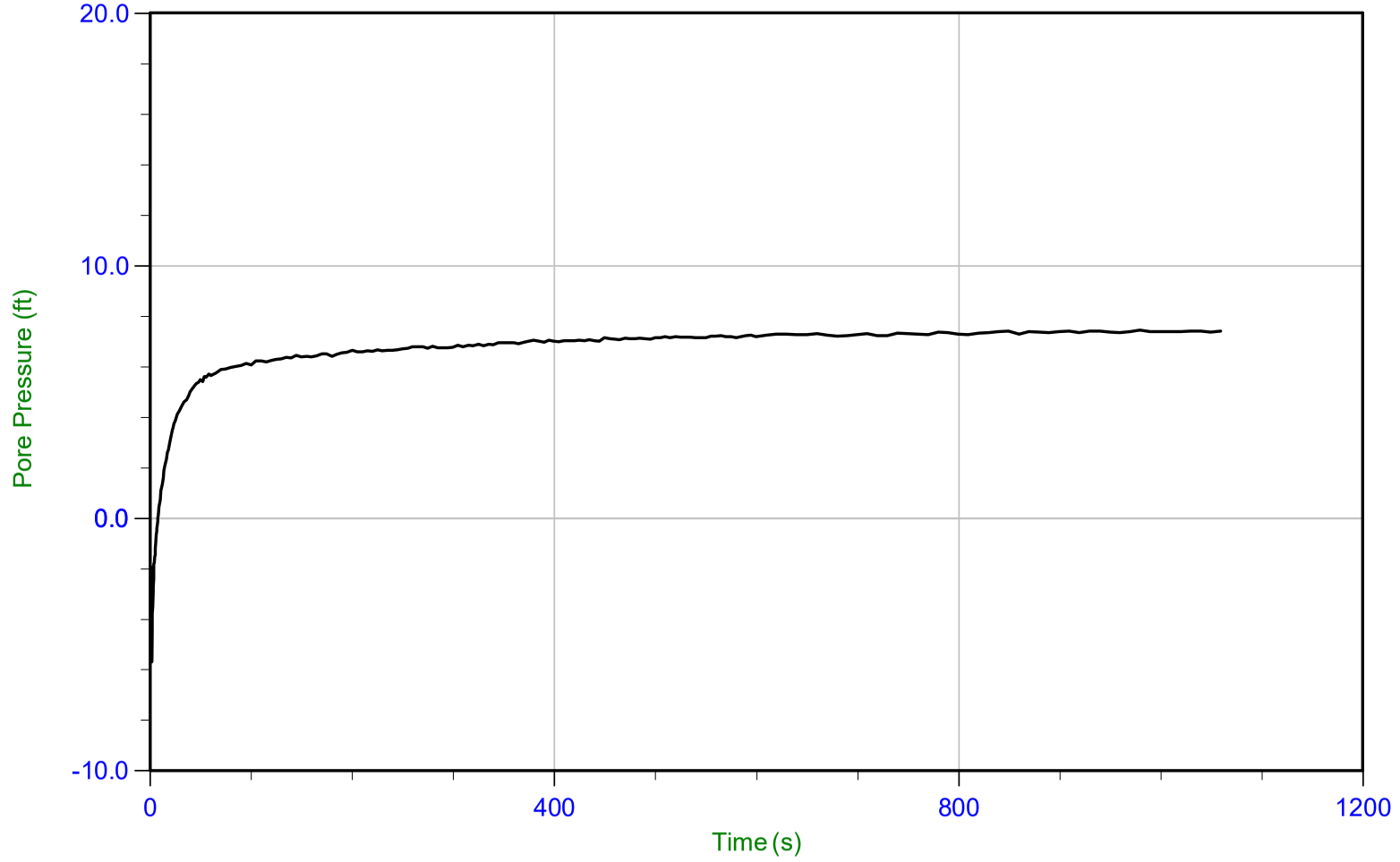
Plate No. D-2-48

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/18/2022 11:18
Site: Little Egbert - Implementation Planning

Sounding: 22C-09
Cone: 811:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP09.PPD2
Depth: 10.950 m / 35.925 ft
Duration: 1060.0 s

u Min: -5.7 ft
u Max: 7.5 ft
u Final: 7.4 ft

WT: 8.695 m / 28.527 ft
Ueq: 7.4 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

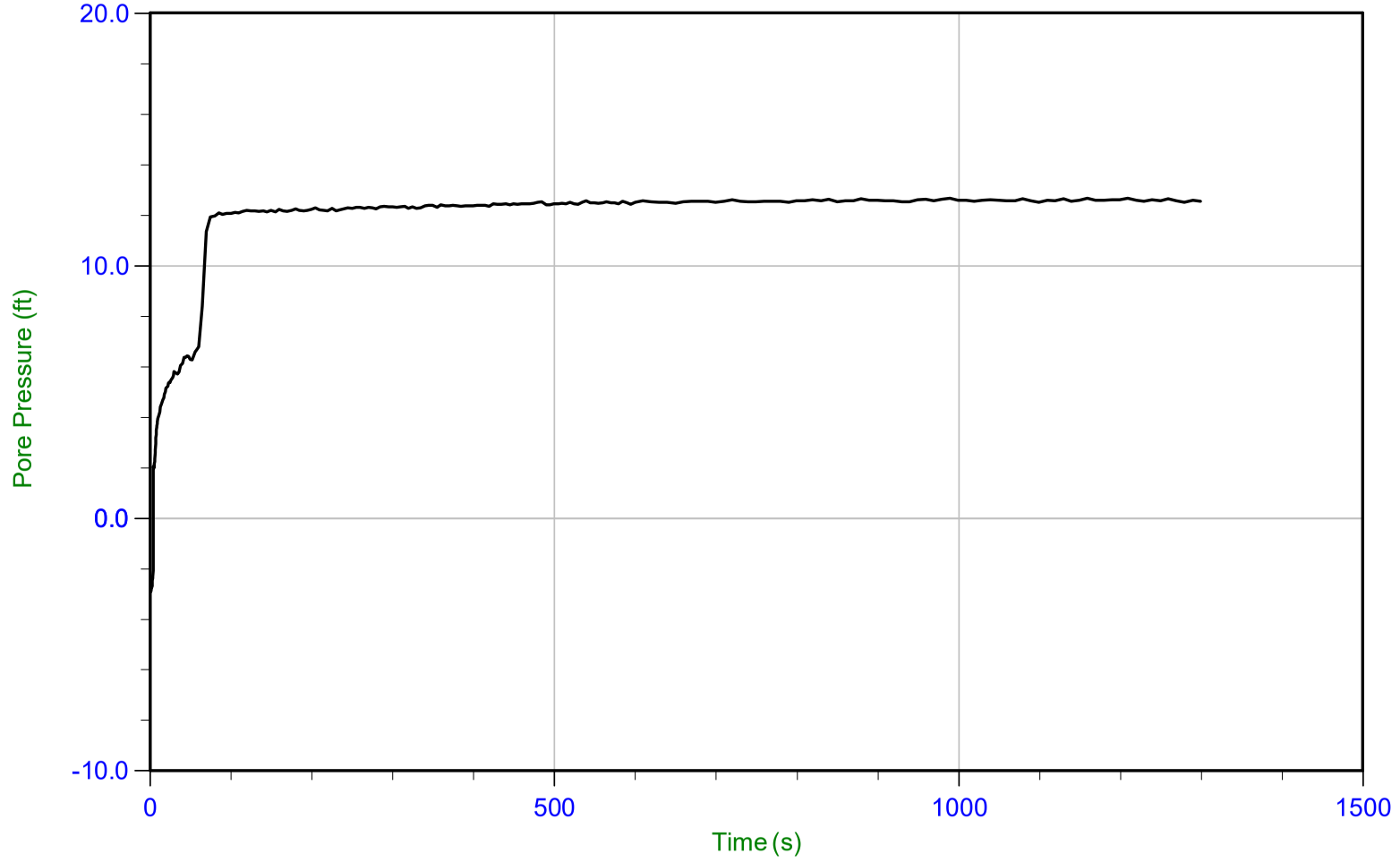
Plate No. D-2-49

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/18/2022 12:16
Site: Little Egbert - Implementation Planning

Sounding: 22C-10
Cone: 811:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP10.PPD2
Depth: 12.100 m / 39.698 ft
Duration: 1300.0 s

u Min: -2.9 ft
u Max: 12.7 ft
u Final: 12.6 ft

WT: 8.269 m / 27.129 ft
Ueq: 12.6 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

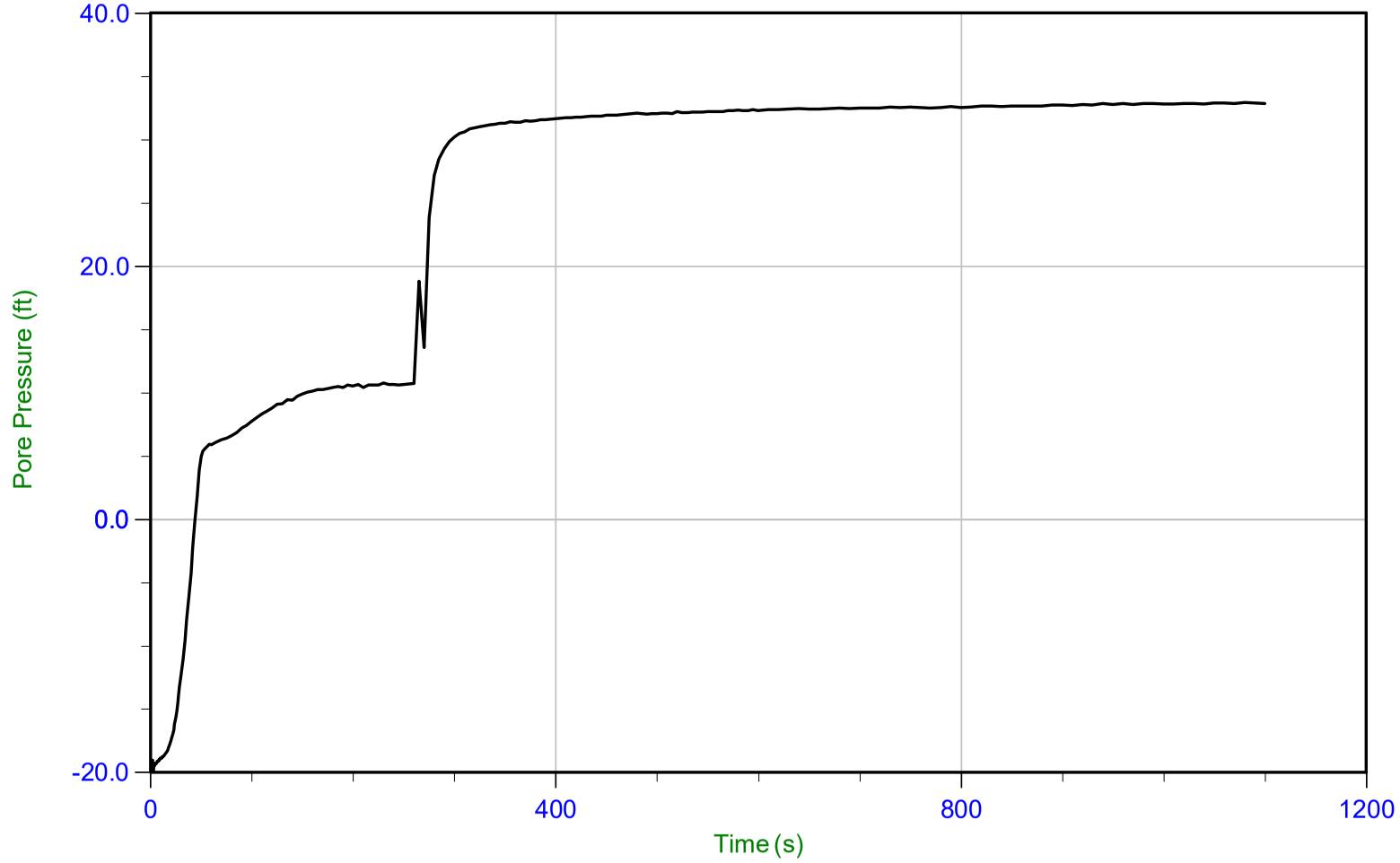
Plate No. D-2-50

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/18/2022 15:23
Site: Little Egbert - Implementation Planning

Sounding: 22C-11
Cone: 811:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP11.PPD2
Depth: 17.825 m / 58.480 ft
Duration: 1100.0 s

u Min: -21.0 ft
u Max: 32.9 ft
u Final: 32.8 ft

WT: 7.820 m / 25.656 ft
Ueq: 32.8 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

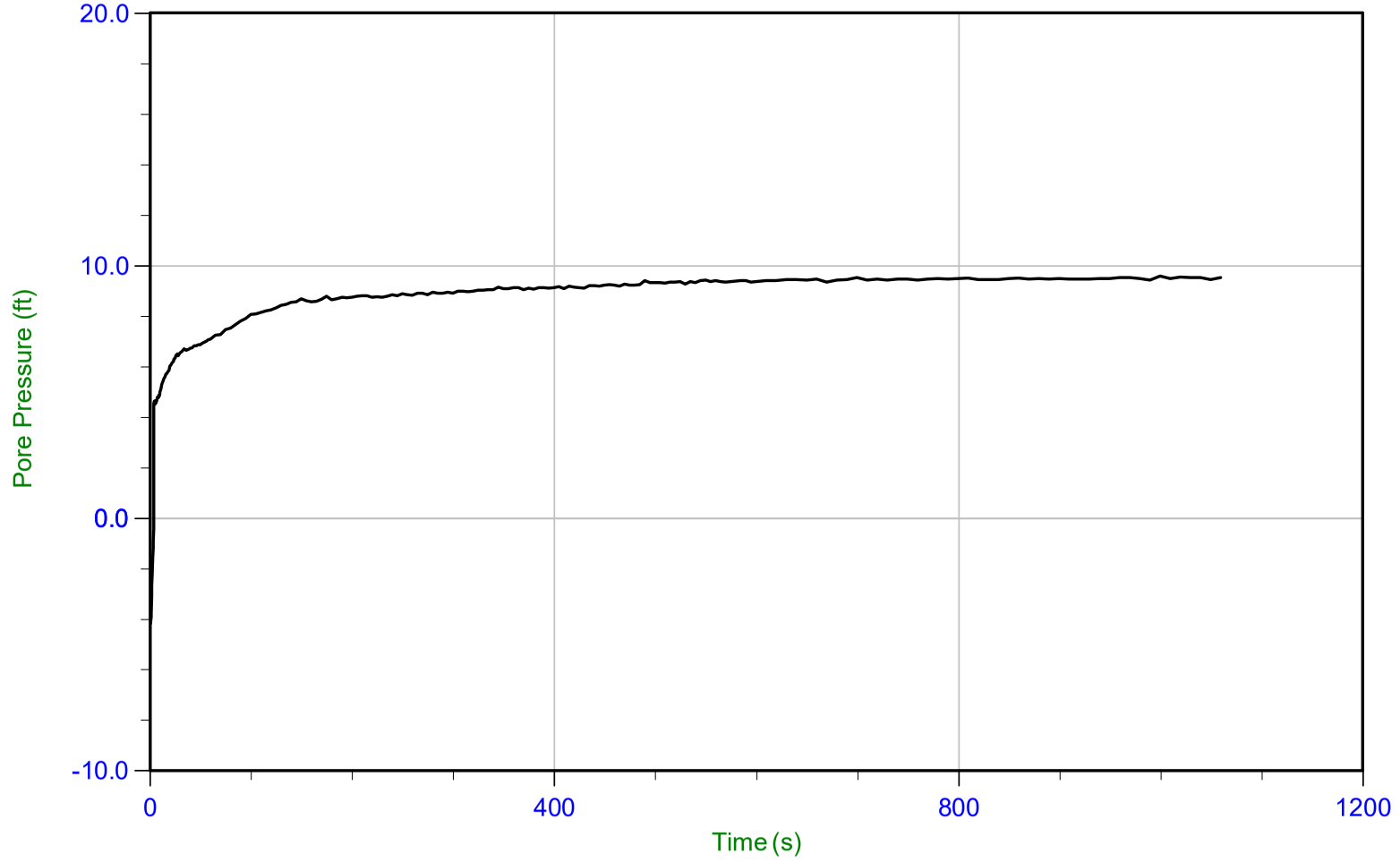
Plate No. D-2-51

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/19/2022 09:53
Site: Little Egbert - Implementation Planning

Sounding: 22C-12
Cone: 811:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP12.PPD2
Depth: 10.700 m / 35.105 ft
Duration: 1060.0 s

u Min: -4.2 ft
u Max: 9.6 ft
u Final: 9.5 ft

WT: 7.802 m / 25.597 ft
Ueq: 9.5 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

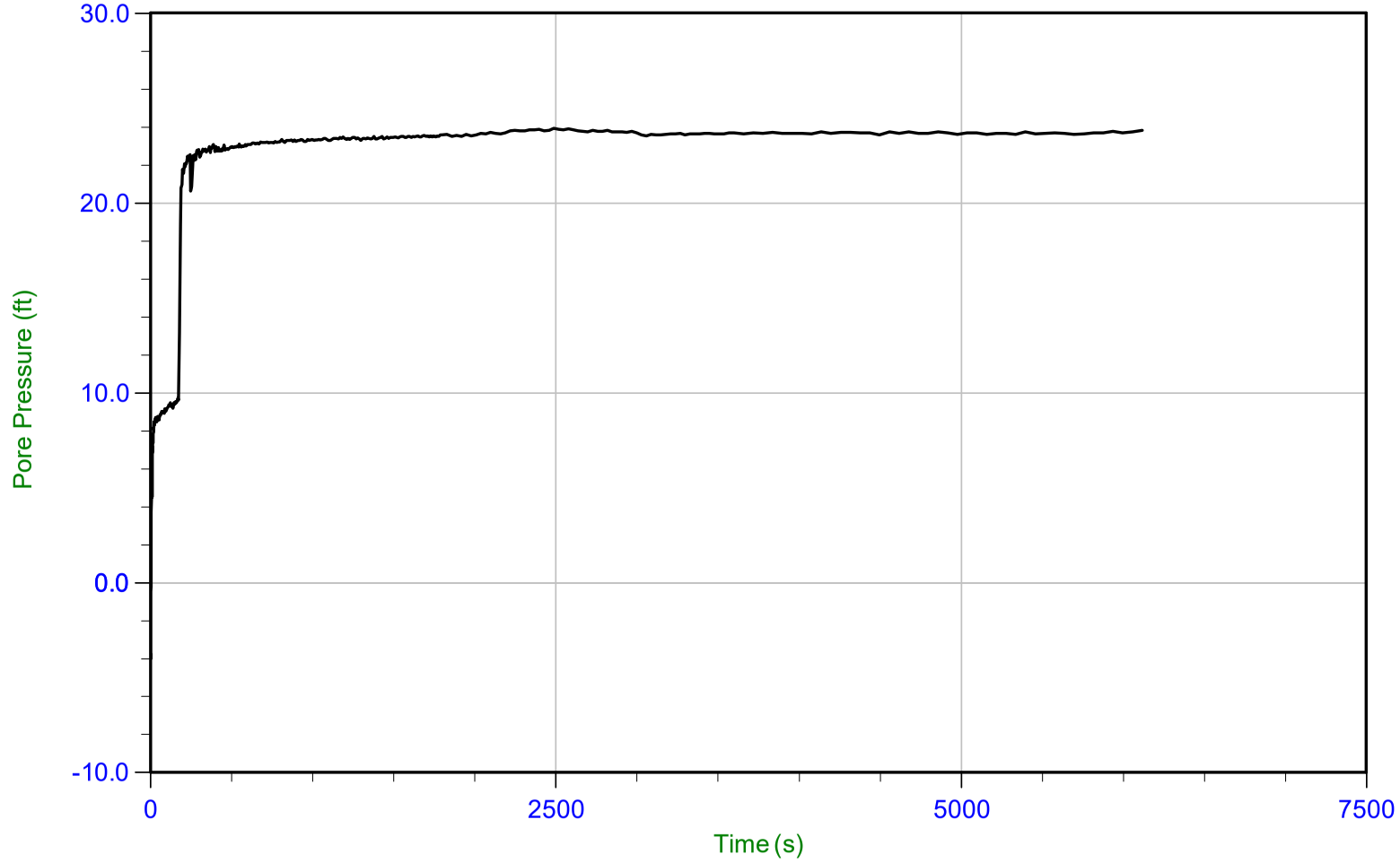
Plate No. D-2-52

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/19/2022 11:08
Site: Little Egbert - Implementation Planning

Sounding: 22C-13
Cone: 811:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP13.PPD2
Depth: 9.900 m / 32.480 ft
Duration: 6120.0 s

u Min: -4.0 ft
u Max: 23.9 ft
u Final: 23.8 ft

WT: 2.646 m / 8.681 ft
Ueq: 23.8 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

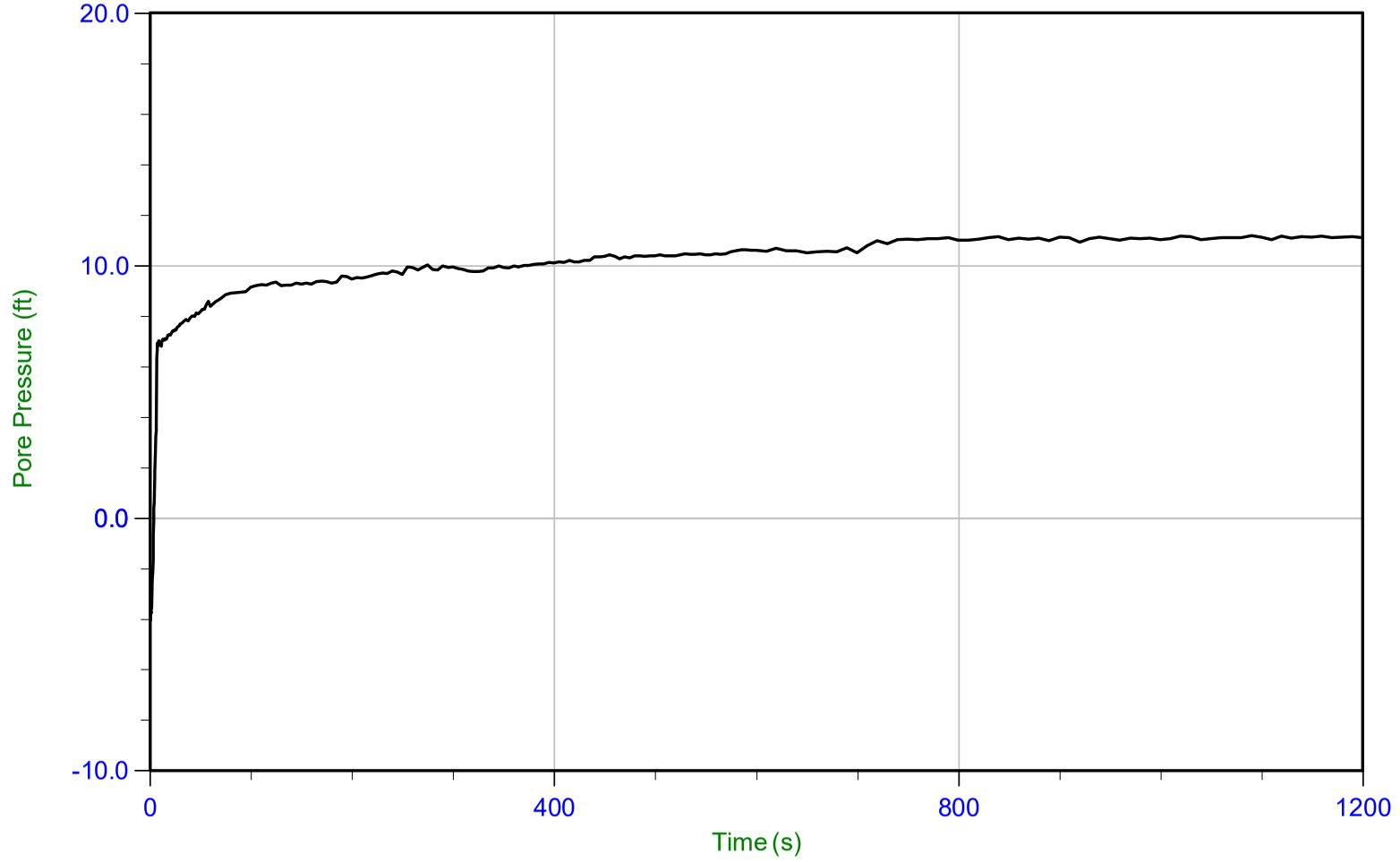
Plate No. D-2-53

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/19/2022 15:19
Site: Little Egbert - Implementation Planning

Sounding: 22C-14
Cone: 811:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP14.PPD2
Depth: 6.275 m / 20.587 ft
Duration: 1200.0 s

u Min: -4.1 ft
u Max: 11.2 ft
u Final: 11.1 ft

WT: 2.879 m / 9.445 ft
Ueq: 11.1 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

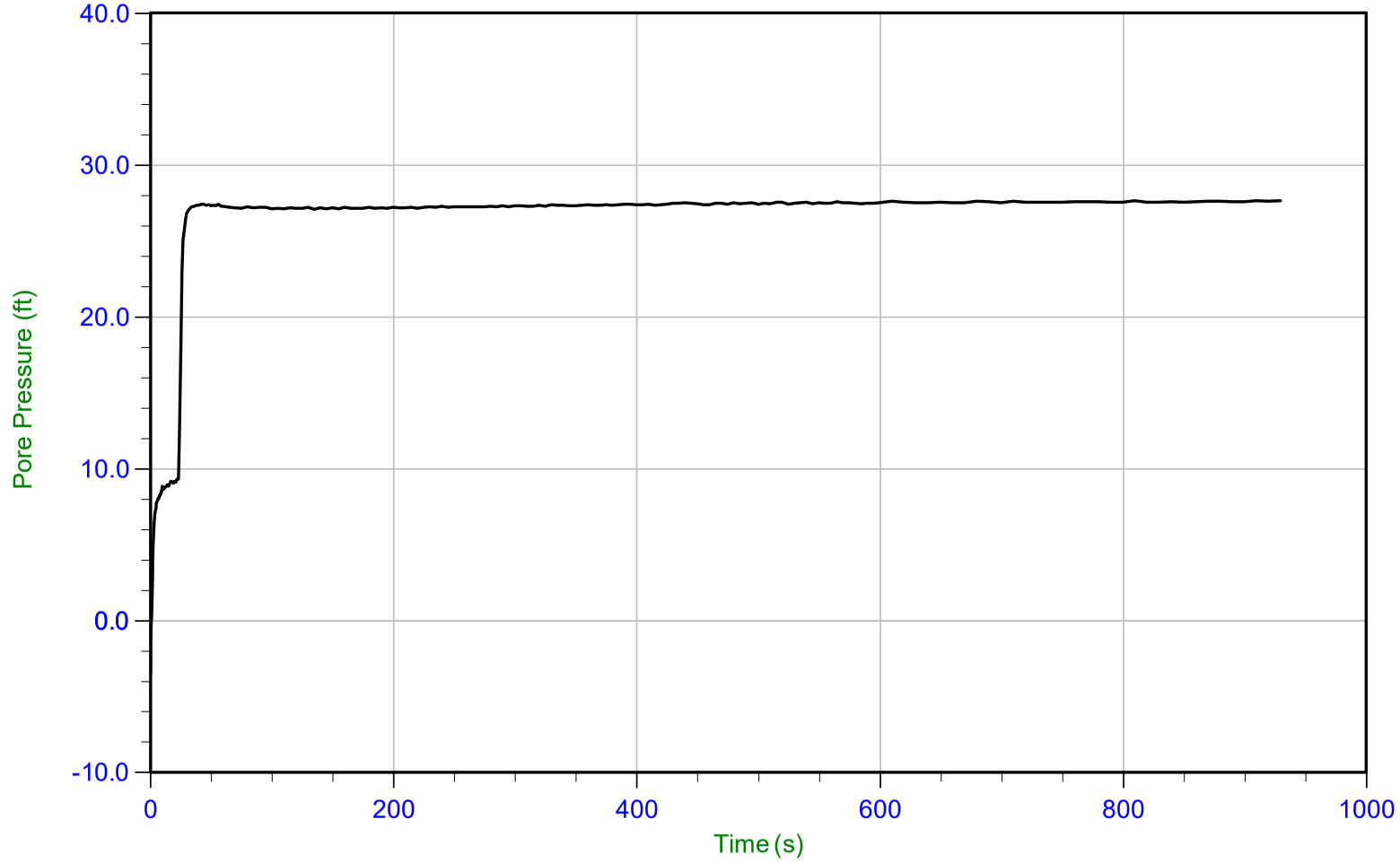
Plate No. D-2-54

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/20/2022 09:44
Site: Little Egbert - Implementation Planning

Sounding: 22C-15
Cone: 811:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP15.PPD2
Depth: 10.950 m / 35.925 ft
Duration: 930.0 s

u Min: -3.5 ft
u Max: 27.6 ft
u Final: 27.6 ft

WT: 2.540 m / 8.333 ft
Ueq: 27.6 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

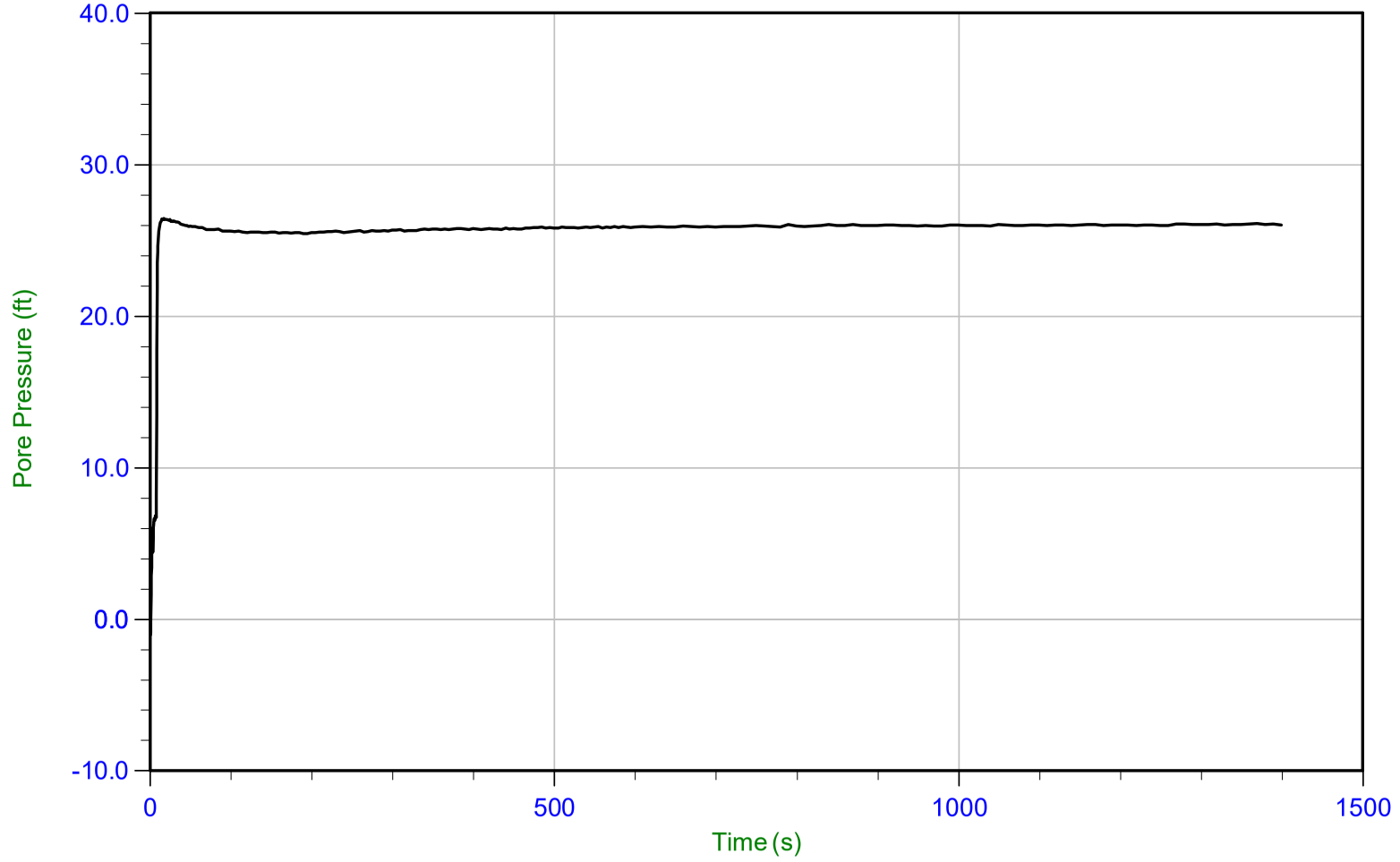
Plate No. D-2-55

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/20/2022 11:46
Site: Little Egbert - Implementation Planning

Sounding: 22C-16
Cone: 811:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP16.PPD2
Depth: 8.775 m / 28.789 ft
Duration: 1400.0 s

u Min: -1.0 ft
u Max: 26.5 ft
u Final: 26.0 ft

WT: 0.849 m / 2.785 ft
Ueq: 26.0 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

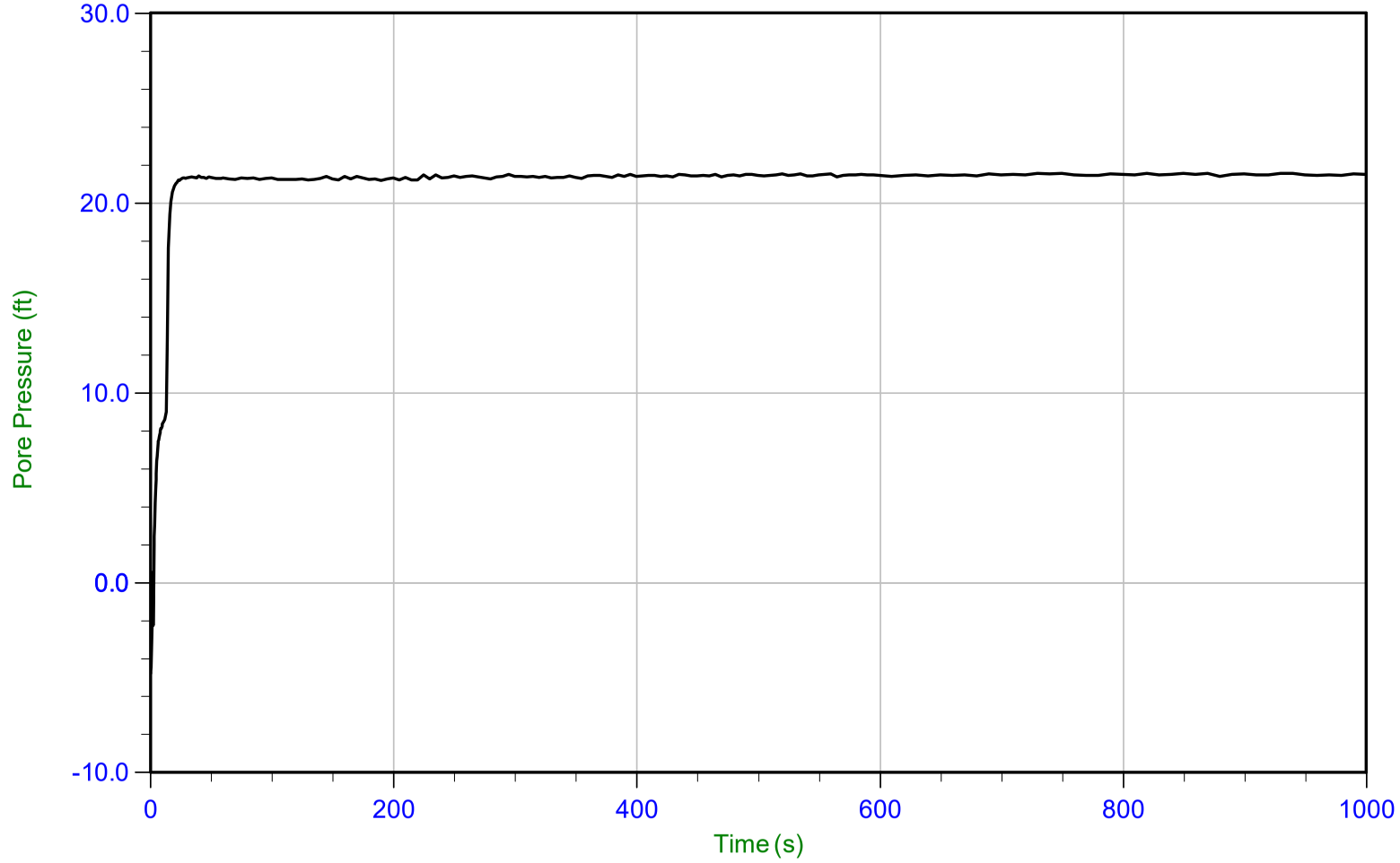
Plate No. D-2-56

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/20/2022 13:02
Site: Little Egbert - Implementation Planning

Sounding: 22C-17
Cone: 811:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP17.PPD2
Depth: 7.125 m / 23.376 ft
Duration: 1000.0 s

u Min: -4.8 ft
u Max: 21.6 ft
u Final: 21.5 ft

WT: 0.574 m / 1.883 ft
Ueq: 21.5 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

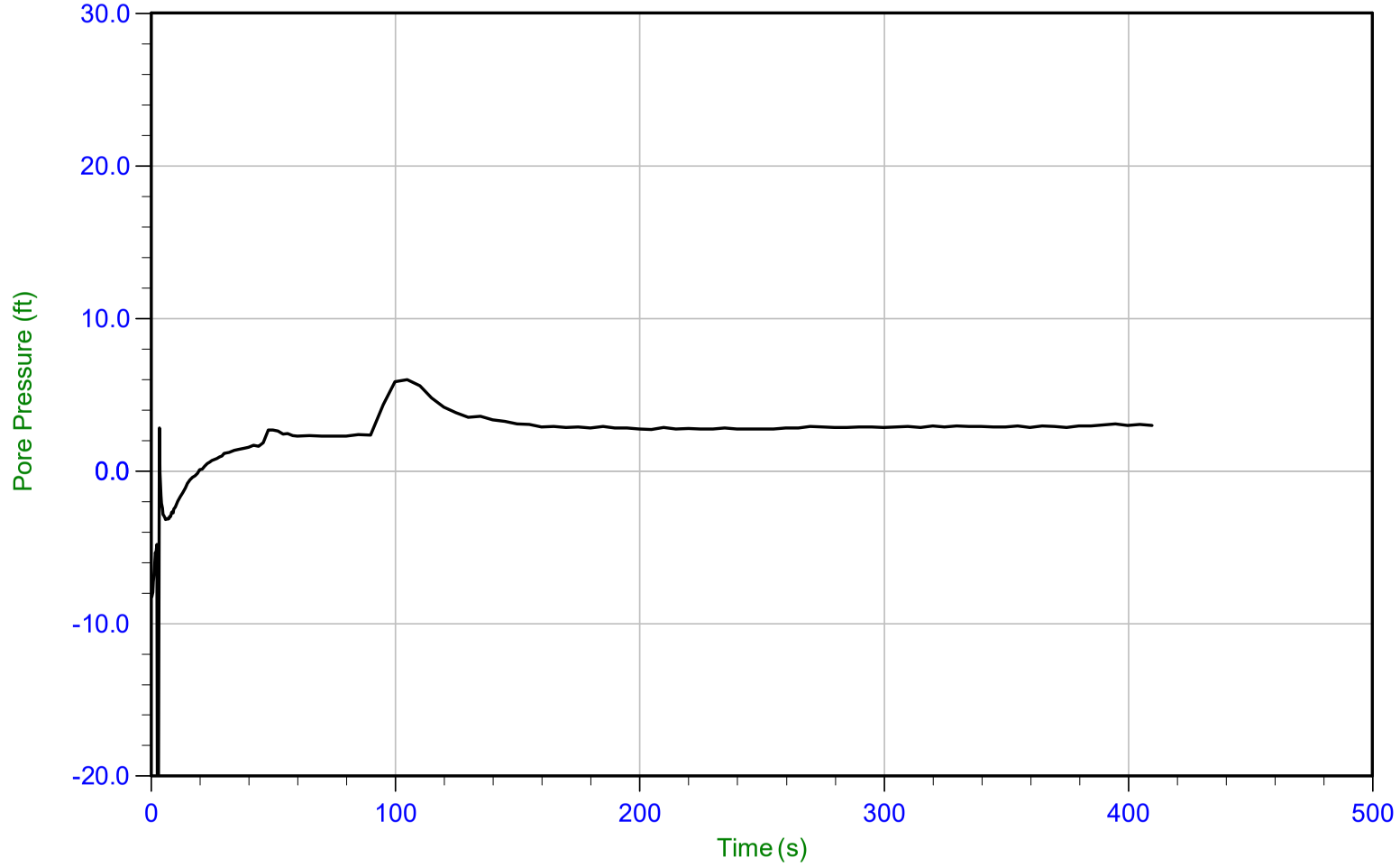
Plate No. D-2-57

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/23/2022 08:43
Site: Little Egbert - Implementation Planning

Sounding: 22C-18
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP18.PPD2
Depth: 6.125 m / 20.095 ft
Duration: 410.0 s

u Min: -22.8 ft
u Max: 6.0 ft
u Final: 3.0 ft

WT: 5.219 m / 17.122 ft
Ueq: 3.0 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

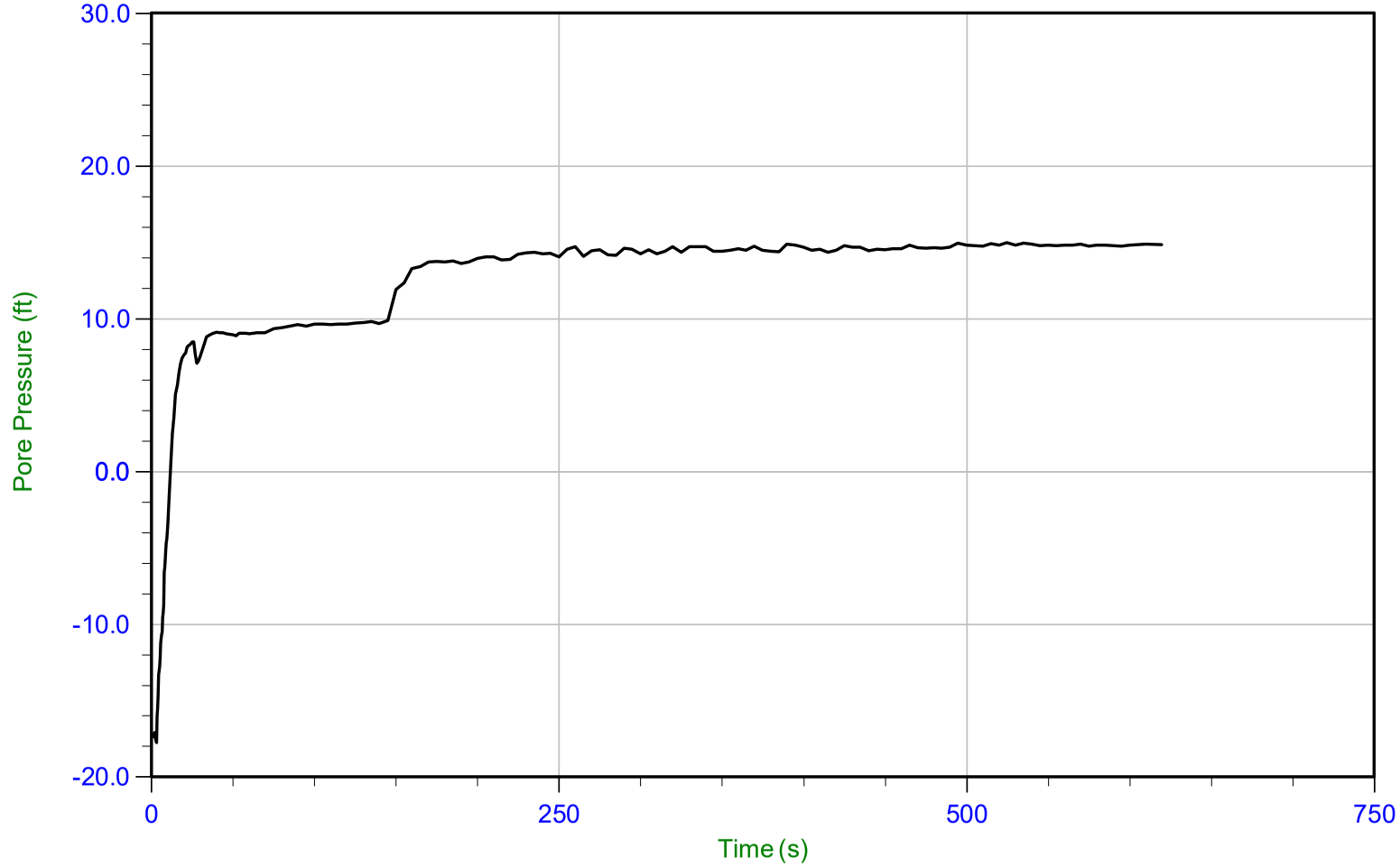
Plate No. D-2-58

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/23/2022 12:41
Site: Little Egbert - Implementation Planning

Sounding: 22C-19
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP19.PPD2
Depth: 9.700 m / 31.824 ft
Duration: 620.0 s

u Min: -17.7 ft
u Max: 15.0 ft
u Final: 14.9 ft

WT: 5.159 m / 16.926 ft
Ueq: 14.9 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

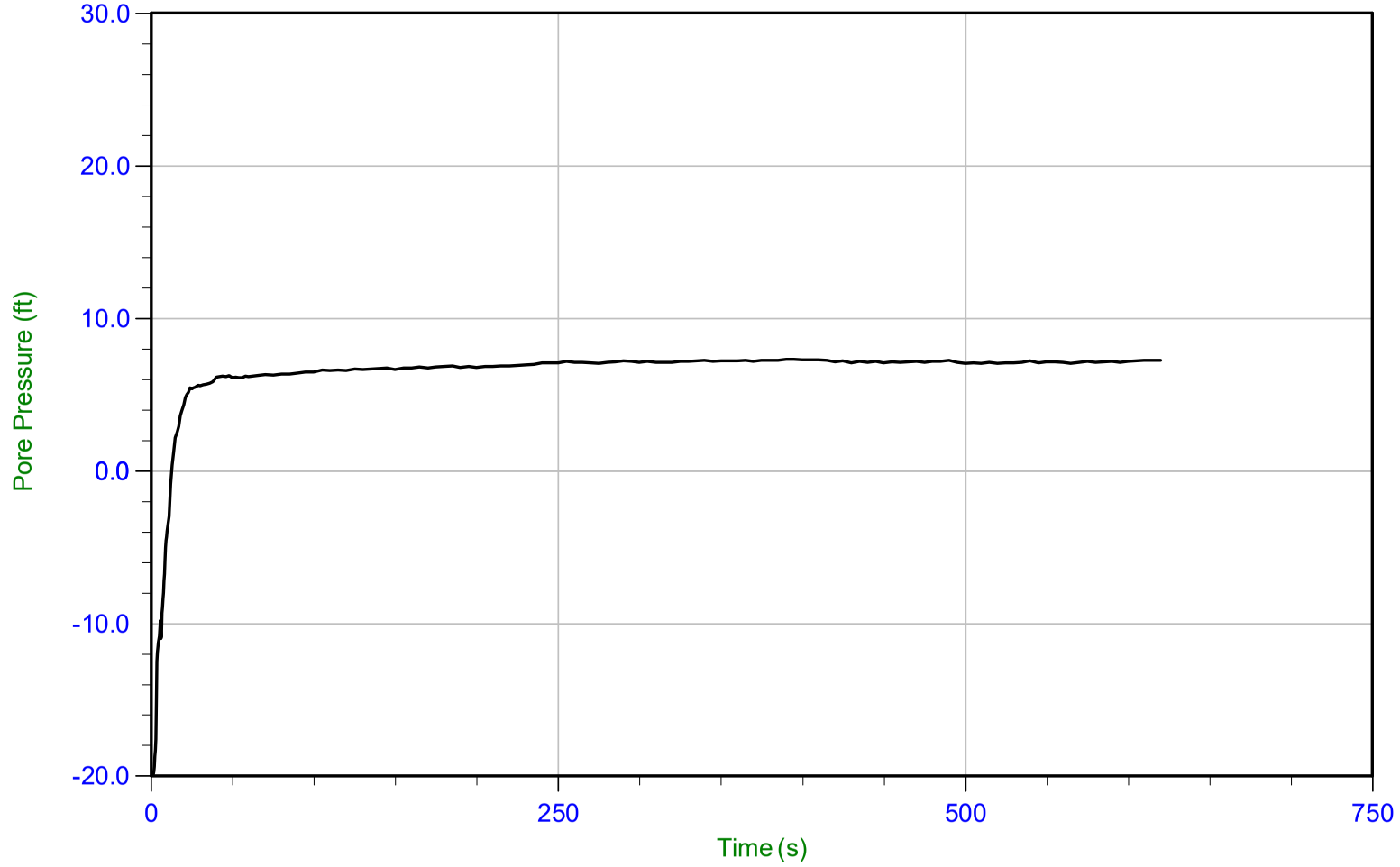
Plate No. D-2-59

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 05/23/2022 14:35
Site: Little Egbert - Implementation Planning

Sounding: 22C-20
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP20.PPD2
Depth: 7.775 m / 25.508 ft
Duration: 620.0 s

u Min: -20.2 ft
u Max: 7.3 ft
u Final: 7.2 ft

WT: 5.584 m / 18.320 ft
Ueq: 7.2 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

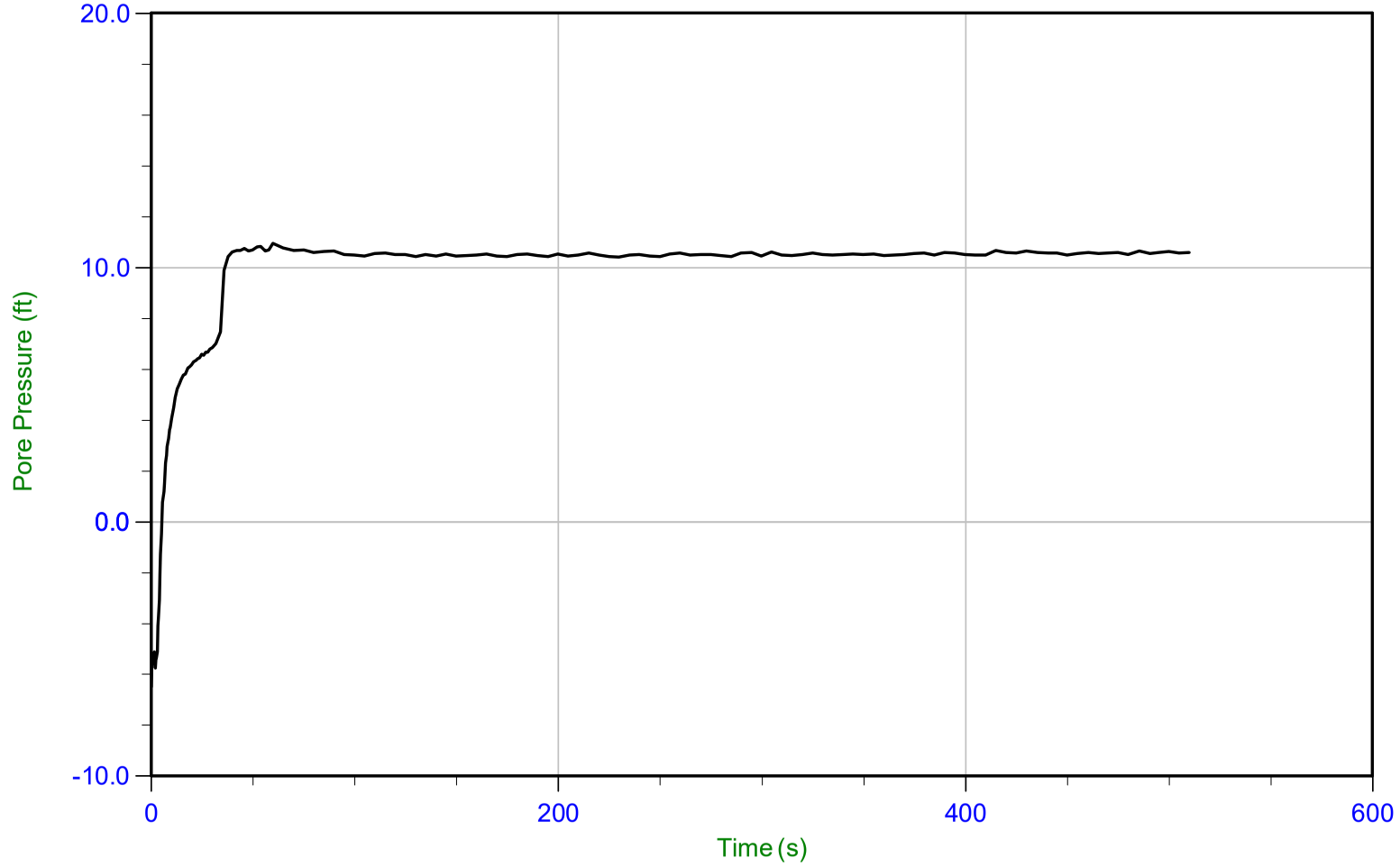
Plate No. D-2-60

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 08/17/2022 09:41
Site: Little Egbert - Implementation Planning

Sounding: 22C-21
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP21.PPD2
Depth: 9.075 m / 29.773 ft
Duration: 510.2 s

u Min: -6.5 ft
u Max: 10.9 ft
u Final: 10.6 ft

WT: 5.857 m / 19.216 ft
Ueq: 10.6 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

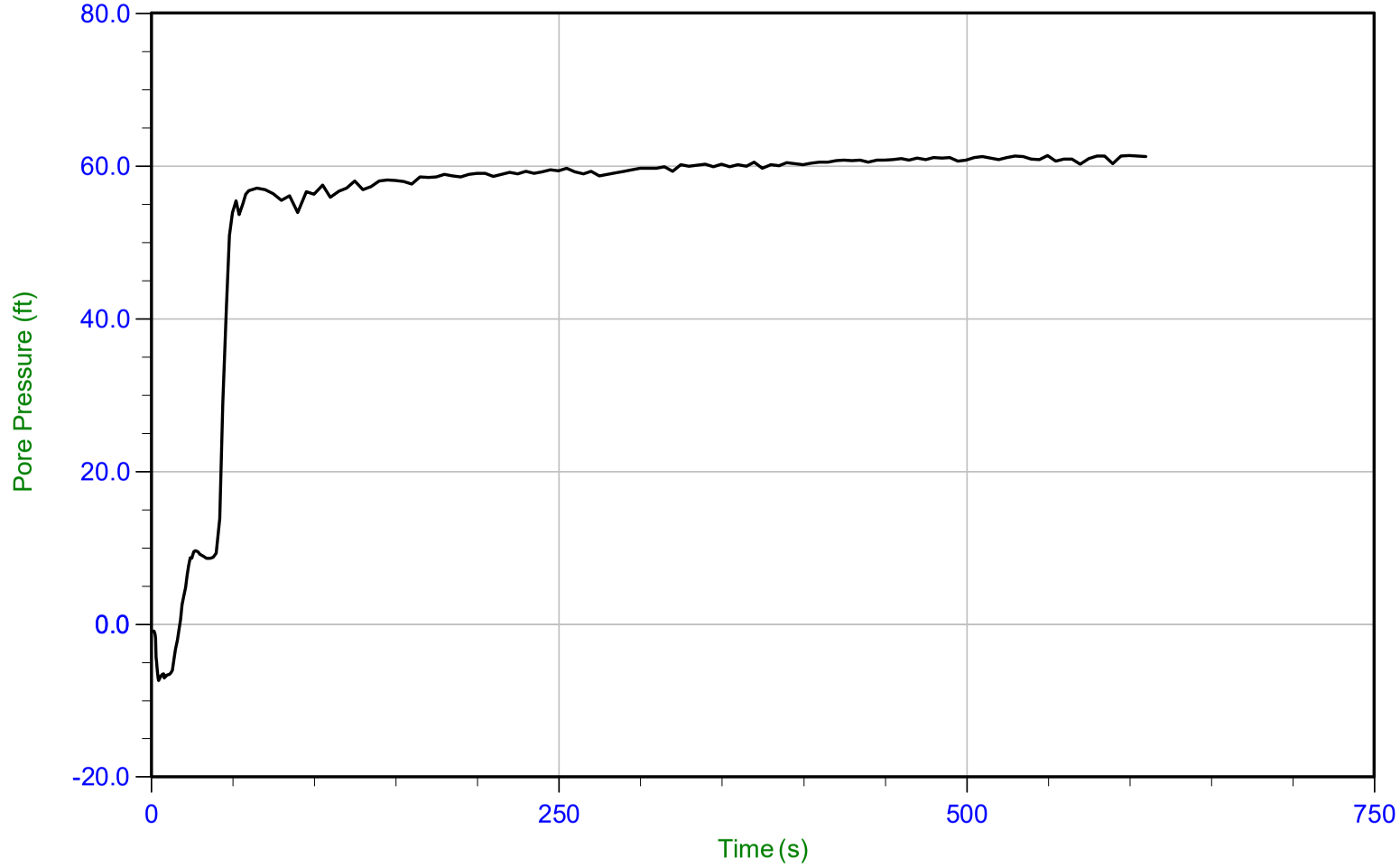
Plate No. D-2-61

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 08/17/2022 09:41
Site: Little Egbert - Implementation Planning

Sounding: 22C-21
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP21.PPD2
Depth: 24.900 m / 81.692 ft
Duration: 610.0 s

u Min: -7.3 ft
u Max: 61.4 ft
u Final: 61.2 ft

WT: 6.228 m / 20.433 ft
Ueq: 61.3 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

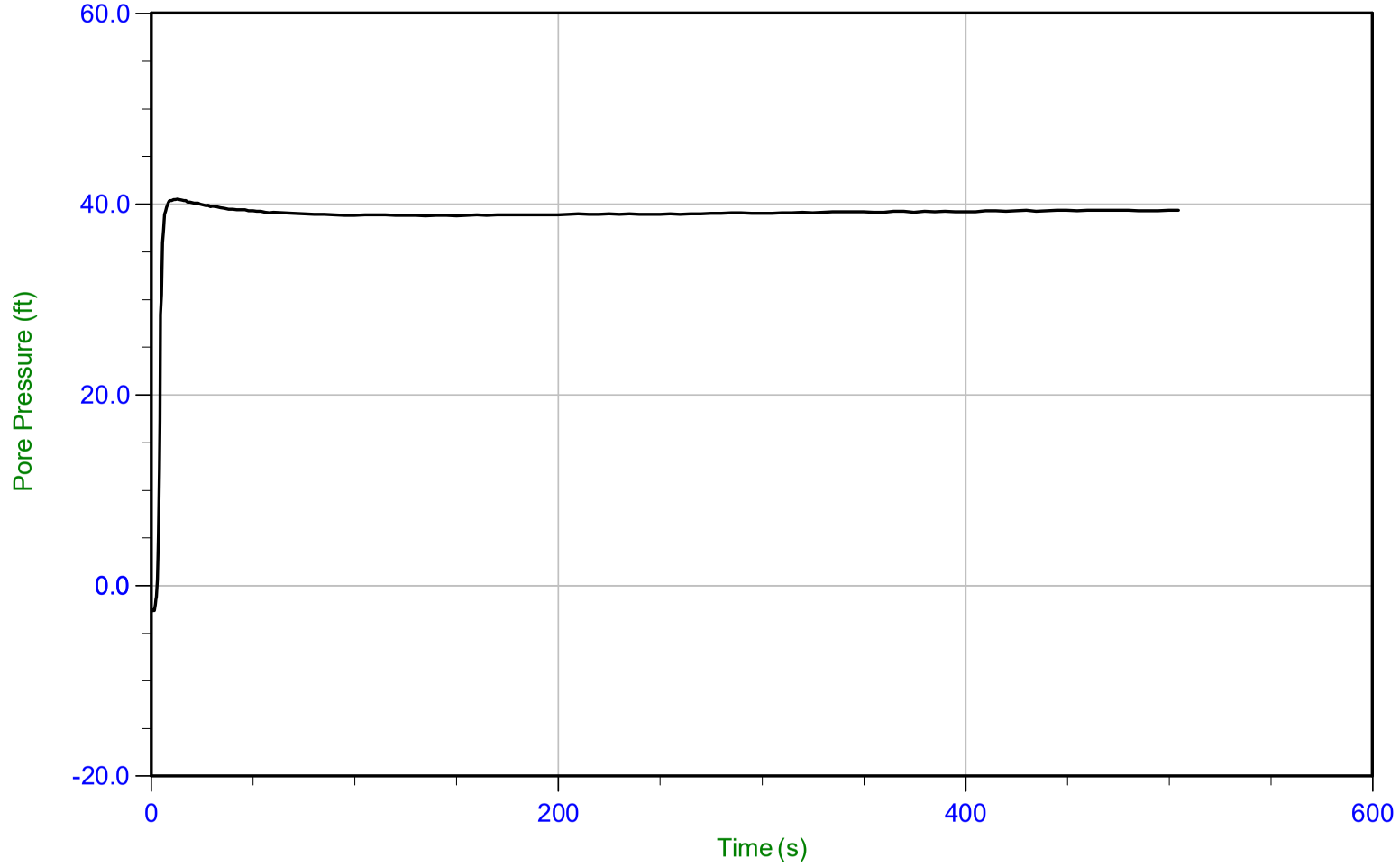
Plate No. D-2-62

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 08/17/2022 11:58
Site: Little Egbert - Implementation Planning

Sounding: 22C-22
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP22.PPD2
Depth: 16.600 m / 54.461 ft
Duration: 505.0 s

u Min: -2.7 ft
u Max: 40.5 ft
u Final: 39.3 ft

WT: 4.627 m / 15.180 ft
Ueq: 39.3 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

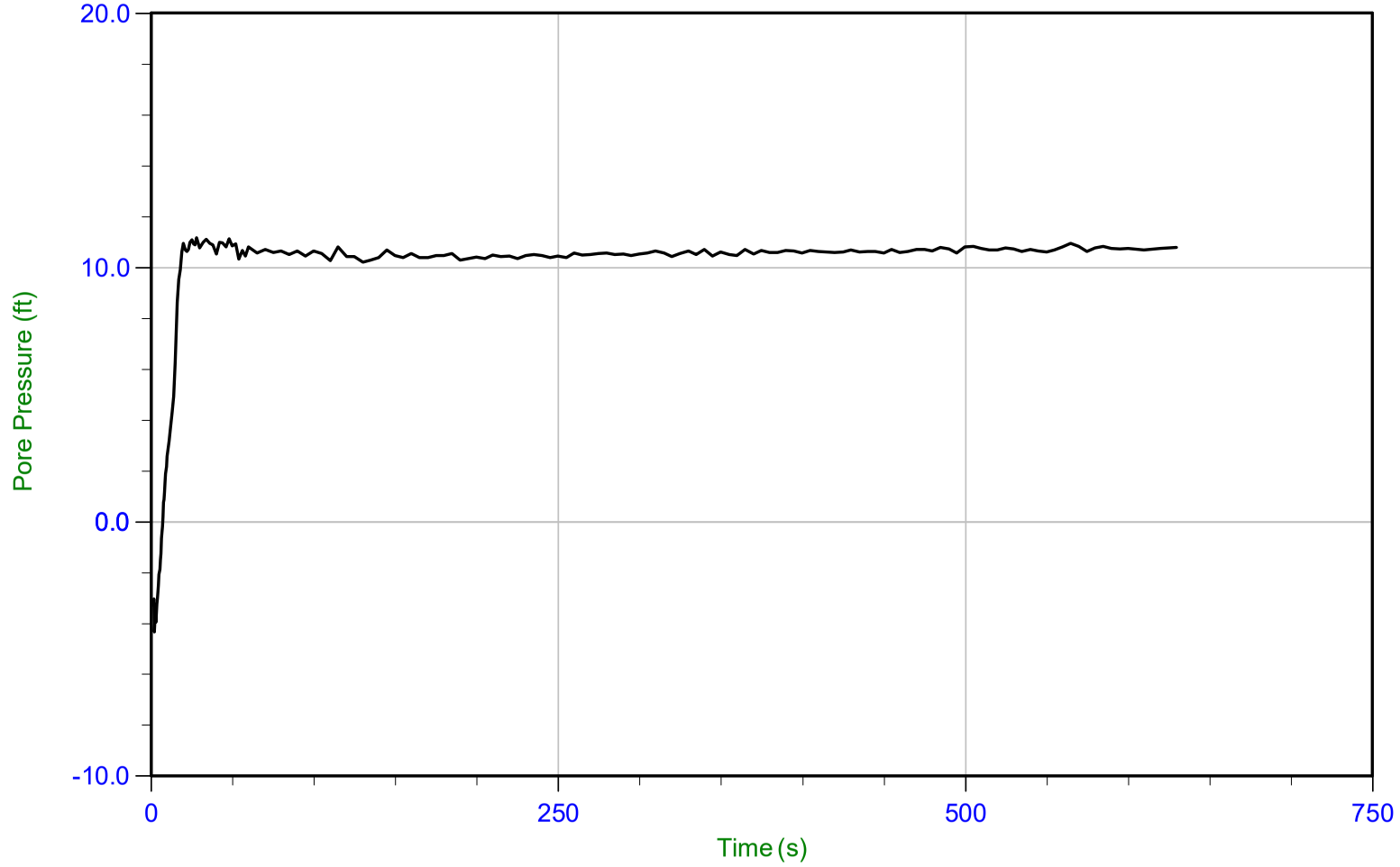
Plate No. D-2-63

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 08/17/2022 13:45
Site: Little Egbert - Implementation Planning

Sounding: 22C-23
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP23.PPD2
Depth: 7.325 m / 24.032 ft
Duration: 630.0 s

u Min: -4.3 ft
u Max: 11.2 ft
u Final: 10.8 ft

WT: 4.052 m / 13.294 ft
Ueq: 10.7 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

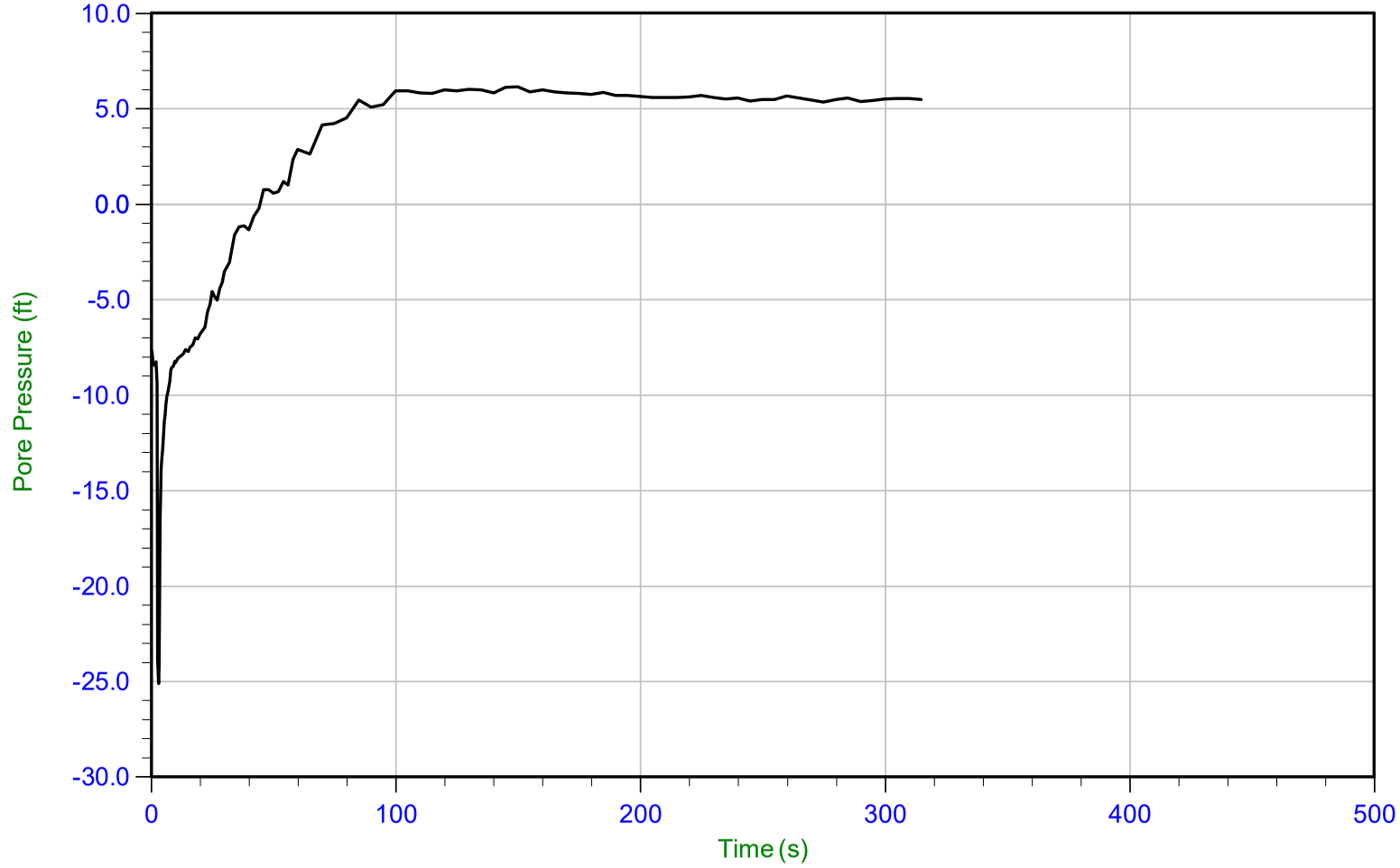
Plate No. D-2-64

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 08/17/2022 13:45
Site: Little Egbert - Implementation Planning

Sounding: 22C-23
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP23.PPD2
Depth: 10.725 m / 35.187 ft
Duration: 315.0 s

u Min: -25.1 ft
u Max: 6.1 ft
u Final: 5.5 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

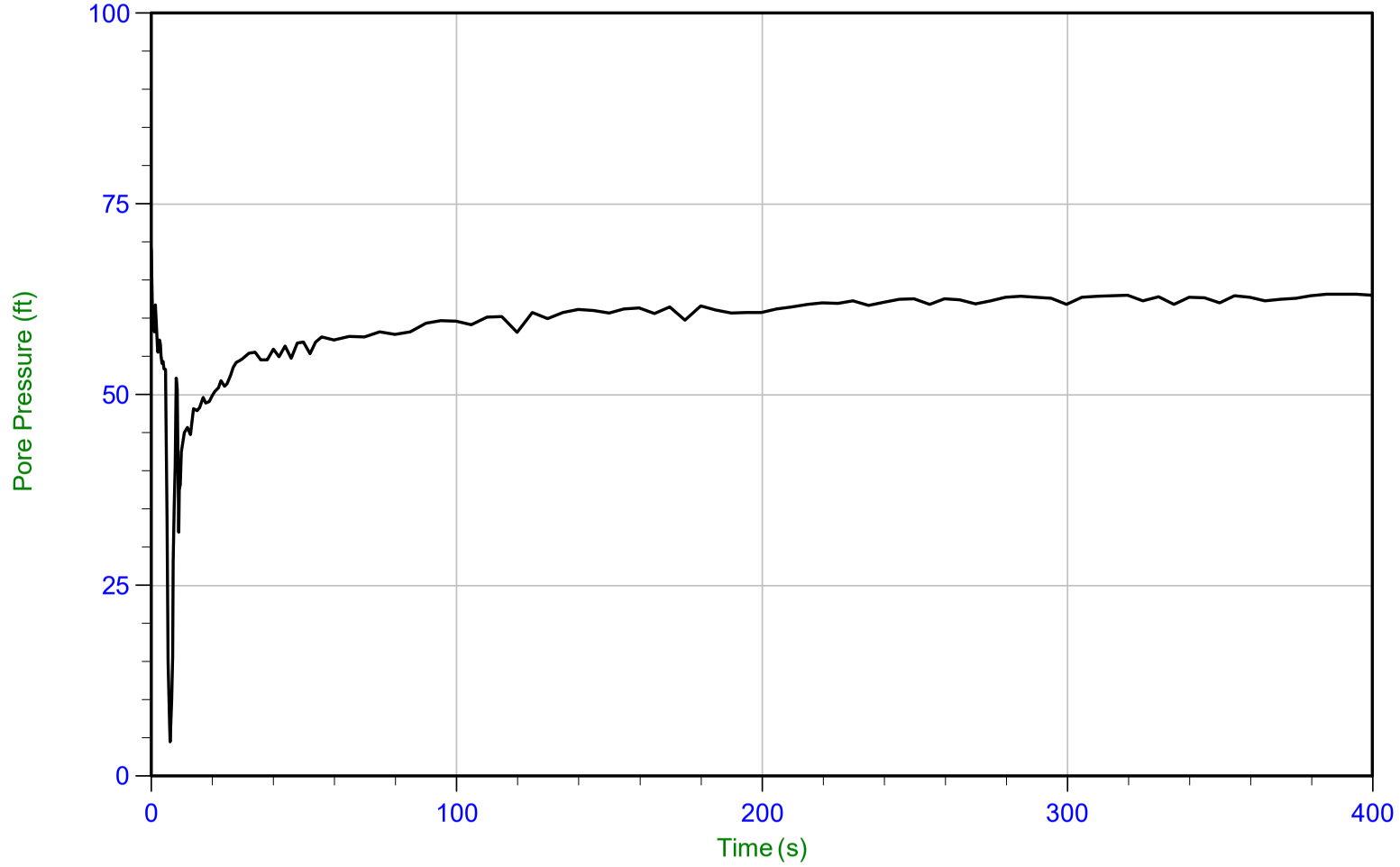
Plate No. D-2-65

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 08/17/2022 13:45
Site: Little Egbert - Implementation Planning

Sounding: 22C-23
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP23.PPD2
Depth: 23.925 m / 78.493 ft
Duration: 400.0 s

u Min: 4.5 ft
u Max: 69.1 ft
u Final: 63.0 ft

WT: 4.718 m / 15.479 ft
Ueq: 63.0 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

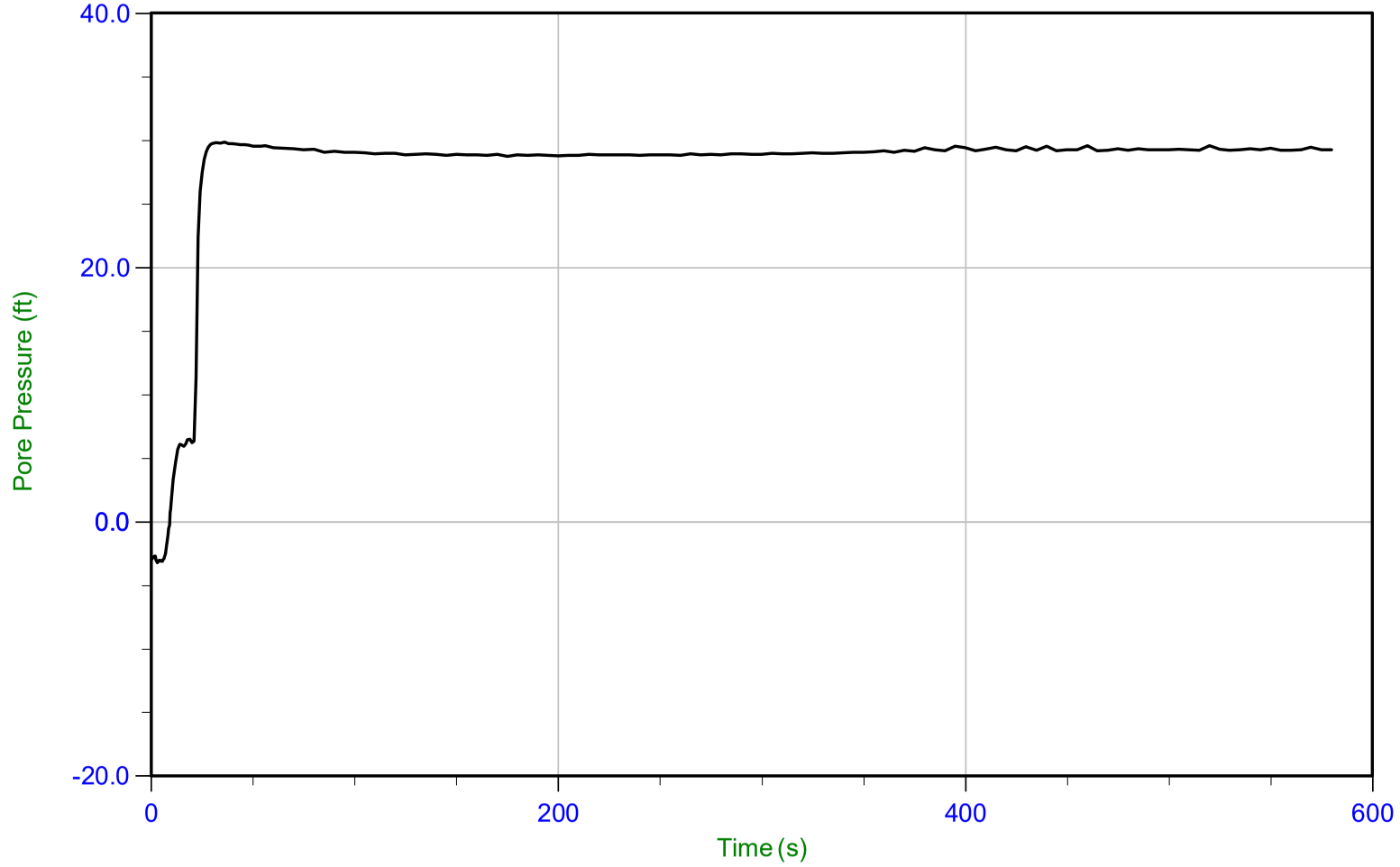
Plate No. D-2-66

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 08/17/2022 15:48
Site: Little Egbert - Implementation Planning

Sounding: 22C-24
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP24.PPD2
Depth: 11.575 m / 37.975 ft
Duration: 580.0 s

u Min: -3.2 ft
u Max: 29.8 ft
u Final: 29.3 ft

WT: 2.650 m / 8.694 ft
Ueq: 29.3 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

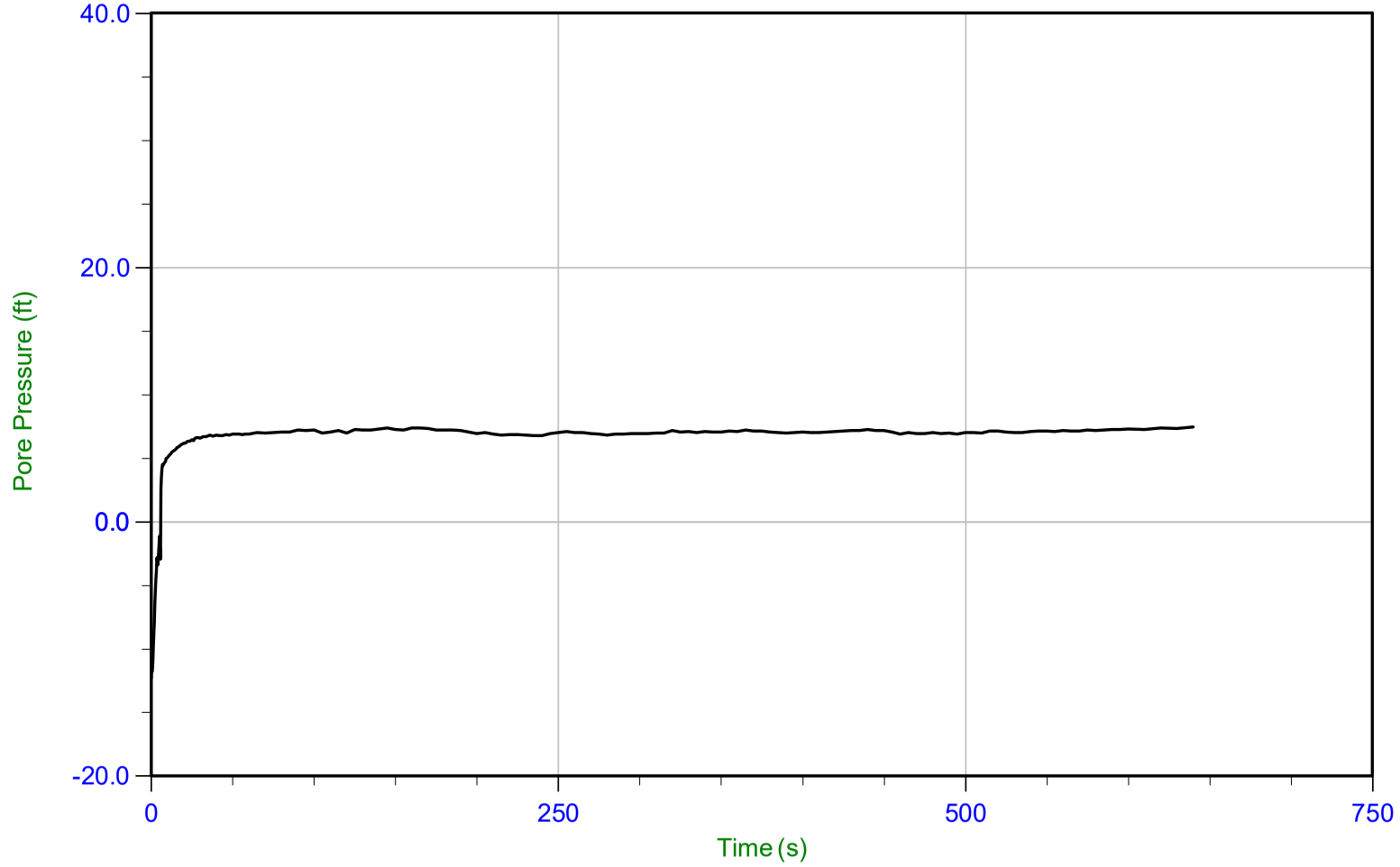
Plate No. D-2-67

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 08/18/2022 09:08
Site: Little Egbert - Implementation Planning

Sounding: 22C-25
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP25.PPD2
Depth: 5.950 m / 19.521 ft
Duration: 640.0 s

u Min: -12.3 ft
u Max: 7.4 ft
u Final: 7.4 ft

WT: 3.692 m / 12.113 ft
Ueq: 7.4 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

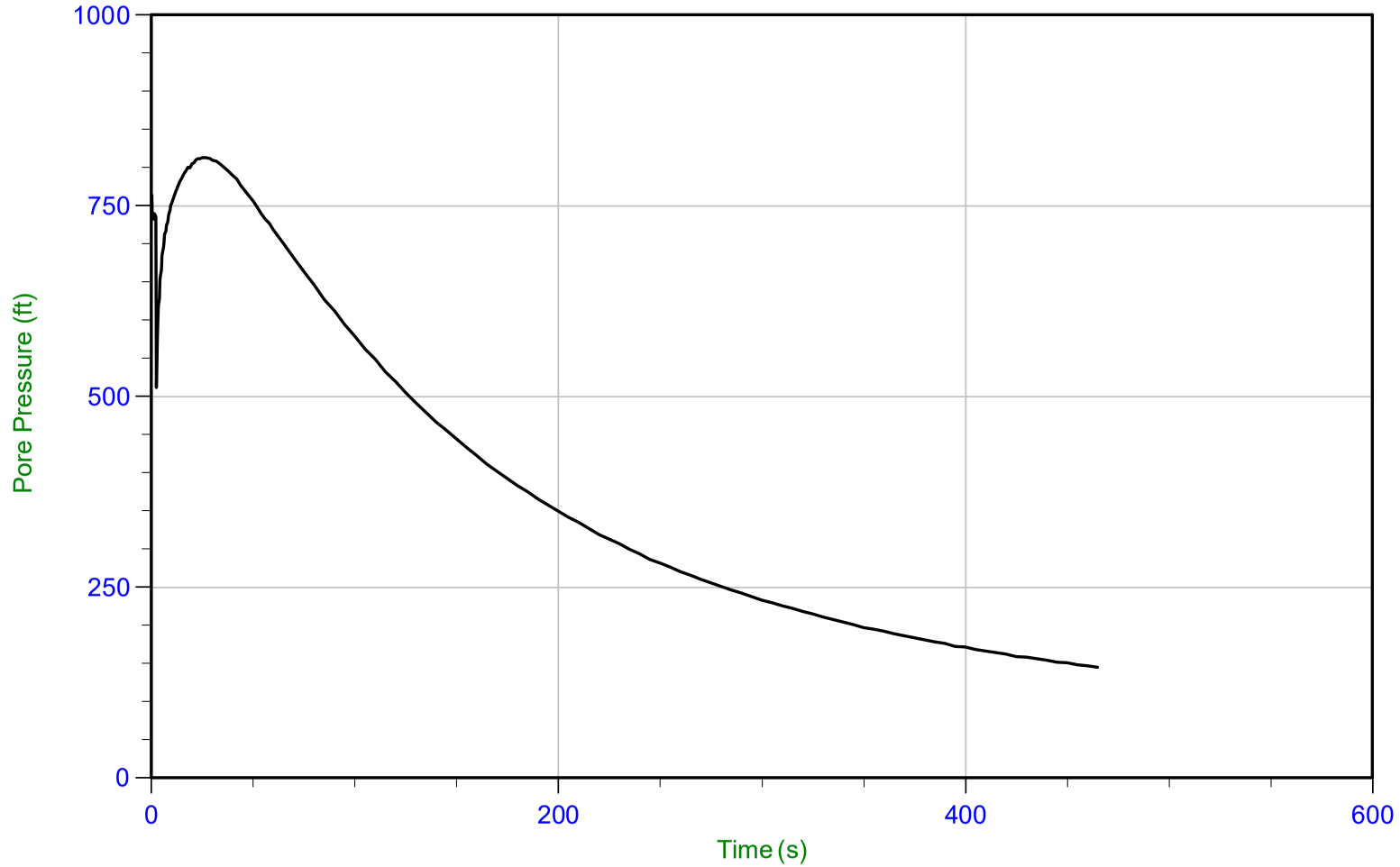
Plate No. D-2-68

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 08/18/2022 09:08
Site: Little Egbert - Implementation Planning

Sounding: 22C-25
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP25.PPD2
Depth: 27.125 m / 88.992 ft
Duration: 465.0 s

u Min: 144.8 ft
u Max: 813.3 ft
u Final: 144.8 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

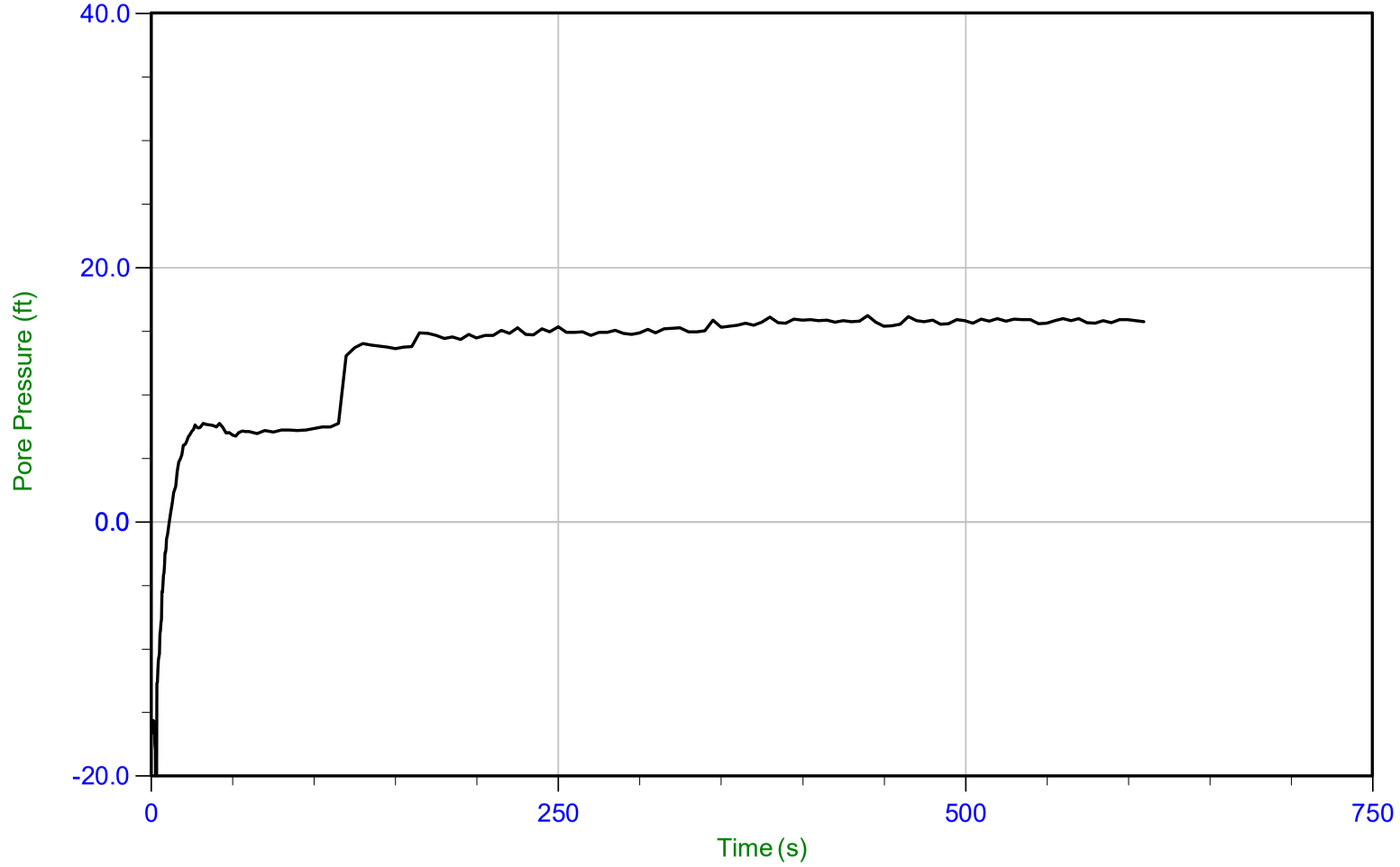
Plate No. D-2-69

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 08/18/2022 11:34
Site: Little Egbert - Implementation Planning

Sounding: 22C-26
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP26.PPD2
Depth: 6.375 m / 20.915 ft
Duration: 610.0 s

u Min: -26.1 ft
u Max: 16.2 ft
u Final: 15.7 ft

WT: 1.573 m / 5.161 ft
Ueq: 15.8 ft

Little Egbert Multi-Benefit Project
Solano County, California

Project No. 907.03

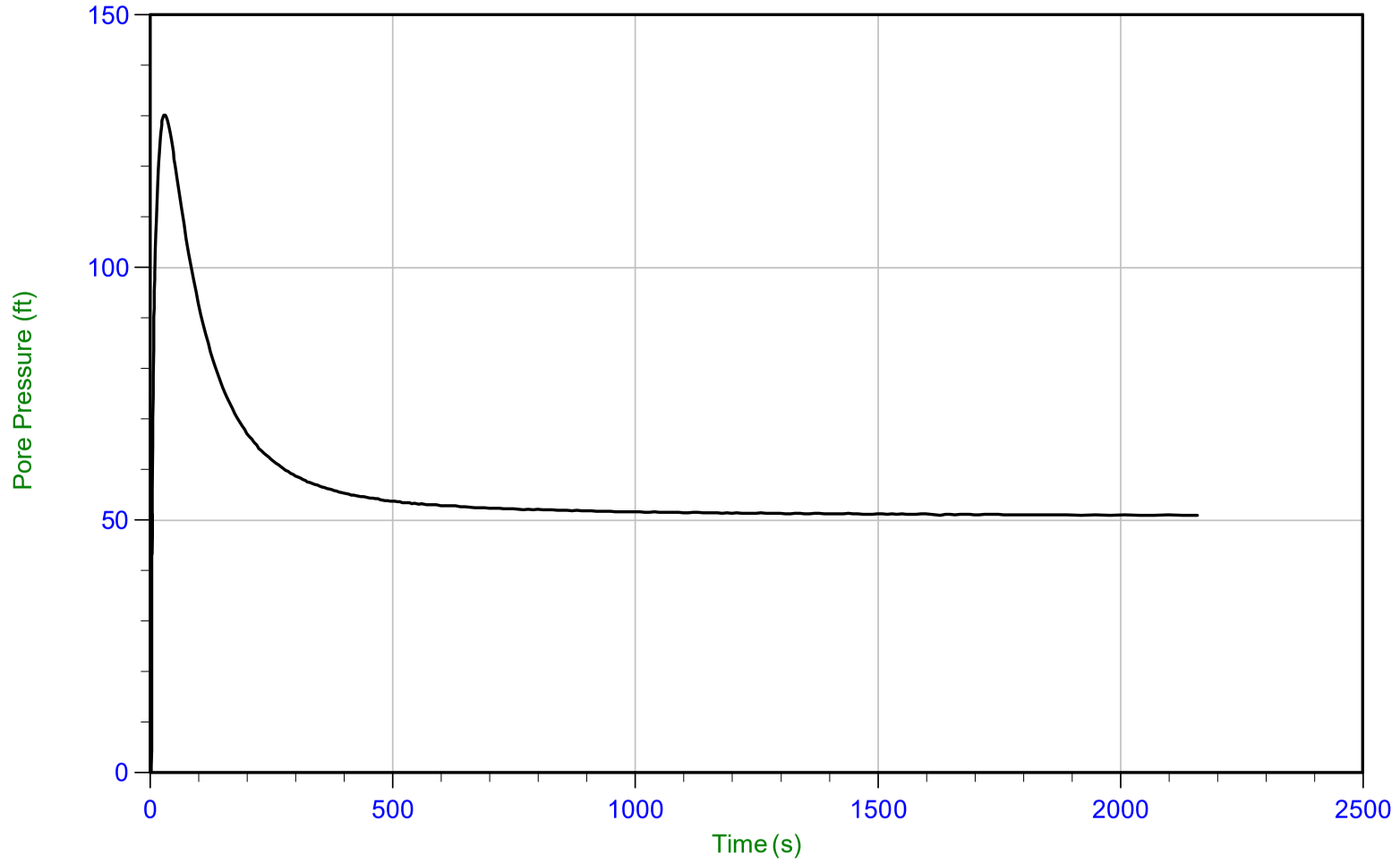
Plate No. D-2-70

CONETEC

Hultgren-Tillis Engineers

Job No: 22-56-24153
Date: 08/18/2022 13:16
Site: Little Egbert - Implementation Planning

Sounding: 22C-27
Cone: 814:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 22-56-24153_CP27.PPD2
Depth: 14.425 m / 47.326 ft
Duration: 2160.0 s

u Min: -2.5 ft
u Max: 130.2 ft
u Final: 50.9 ft