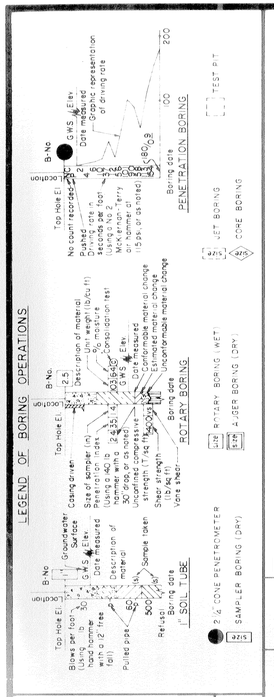
DIST.	COUNTY	ROUTE	POST MILES — TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	76			

ENGINEERING GEOLOGIST _____ CERTIFIED ENGINEERING GEOLOGIST NUMBER _____

DATE APPROVED _____

LEGEND OF BORING OPERATIONS



LEGEND OF EARTH MATERIALS

GRAVEL — SILTY CLAY or CLAYEY SILT
SAND — PEAT and/or ORGANIC MATTER
SILT — FILL MATERIAL
CLAY — IGNEOUS ROCK
SANDY CLAY or CLAYEY SAND — SEDIMENTARY ROCK
SANDY SILT or SILTY SAND — METAMORPHIC ROCK

CONSISTENCY CLASSIFICATION FOR SOILS

According to the Standard Penetration Test

Penetration (Blows/ft.)	Granular	Cohesive
0-5	Very loose	Very soft
5-10	Loose	Soft
10-20	Slightly compact	Stiff
20-35	Compact	Very stiff
35-70	Dense	Hard
70	Very dense	Very hard

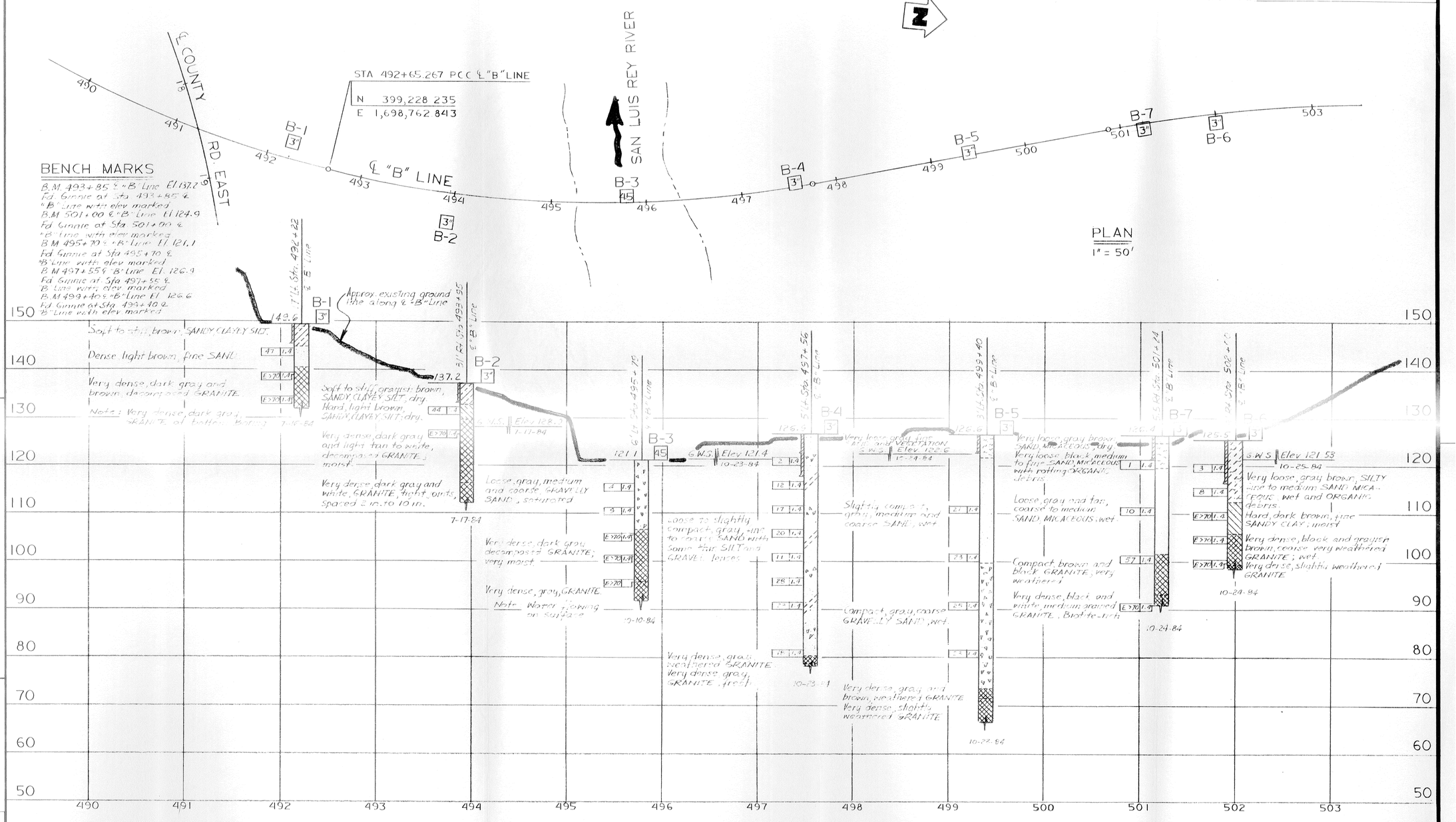
NOTE: Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply information on physical properties.

UNIFIED SOIL CLASSIFICATION SYSTEM

Major Divisions		Typical Names	Laboratory Classification Criteria
Coarse grained soils — Gravels — Clean gravels (Little or no fines)	GW	Well graded gravels, gravel sand mixtures, little or no fines	
	GP	Poorly graded gravels, gravel sand mixtures, little or no fines	
Gravels with fines (Appreciable amount of fines)	GM	Silty gravels, gravel sand silt mixtures	
	GC	Clayey gravels, gravel sand clay mixtures	
Sands — Clean sands (Little or no fines)	SW	Well graded sands, gravelly sands, little or no fines	
	SP	Poorly graded sands, gravelly sands, little or no fines	
Sands with fines (Appreciable amount of fines)	SM	Silty sands, sand silt mixtures	
	SC	Clayey sands, sand clay mixtures	
Fine grained soils — Silts and Clays (Liquid limit less than 50)	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity	
	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays	
	OL	Organic silts and organic silty clays of low plasticity	
Silts and Clays (Liquid limit greater than 50)	MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts	
	CH	Inorganic clays of high plasticity, fat clays	
	OH	Organic clays of medium to high plasticity, organic silts	
Highly Organic Soils	Pt	Peat and other highly organic soils	

BENCH MARKS

B.M. 493+85 ℄ "B" Line El 137.2
Fd. Ginnie at Sta 493+85 ℄
"B" Line with elev marked
B.M 501+00 ℄ "B" Line El 124.9
Fd Ginnie at Sta 501+00 ℄
"B" Line with elev marked
B.M 495+70 "B" Line El 121.1
Fd Ginnie at Sta 495+70 ℄
"B" Line with elev marked
B.M 497+55 "B" Line El. 126.9
Fd Ginnie at Sta 497+55 ℄
B. Line with elev marked
B.M 499+40 "B" Line El 126.6
Fd Ginnie at Sta 499+40 ℄
"B" Line with elev marked



APR 17 1985

ENGINEERING GEOLOGY AND TECHNICAL SERVICES BRANCH — TRANSPORTATION LABORATORY						
DRAWN BY	VICTOR SESTORAS, 11-20-84	J. EAGAN 1146	Approval Recommended By: M. C. Cain 732	CHARGE UNIT	EXPEND. AUTHOR	SPEC. DESIGN
CHECKED BY	PAUL FENNER	PROJECT GEOLOGIST CEG NO.	ENGINEERING GEOLOGIST C.E.G. NO.	11206	183930	4570957

State of CALIFORNIA
DEPARTMENT OF TRANSPORTATION

STRUCTURES - DESIGN
PROJECT ENGINEER REGISTERED CIVIL ENGINEER NO.

BRIDGE NO. 57-0957
POST MILE 9.5

SAN LUIS REY RIVER BRIDGE
LOG OF TEST BORINGS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 11206
WO 183930

Disregard prints bearing earlier revision dates →

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET OF

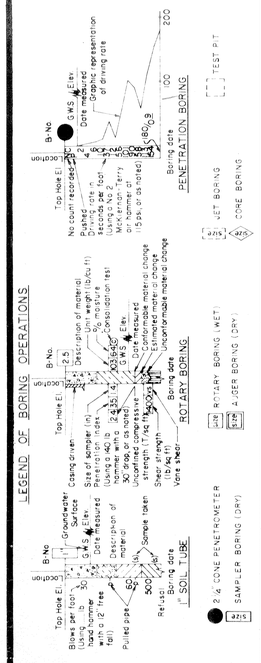
DS 0148

DIST.	COUNTY	ROUTE	POST MILES—TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	76			

ENGINEERING GEOLOGIST — CERTIFIED ENGINEERING GEOLOGIST NUMBER

DATE APPROVED

LEGEND OF BORING OPERATIONS



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
GNEOUS ROCK
SEDIMENTARY ROCK
METAMORPHIC ROCK

CONSISTENCY CLASSIFICATION FOR SOILS

According to the Standard Penetration Test

Penetration (Blows/Ft.)	Granular	Cohesive
0-5	Very loose	Very soft
5-10	Loose	Soft
10-20	Slightly compact	Stiff
20-35	Compact	Very stiff
35-70	Dense	Hard
70	Very dense	very hard

NOTE: Classification of earth material as shown on this sheet is based upon visual inspection and is not to be construed to imply mechanical analysis.

UNIFIED SOIL CLASSIFICATION SYSTEM

Major Divisions	Group Symbols	Typical Names
Fine grained soils — Silts and Clays — Liquid limit less than 50	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands with slight plasticity
	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
	OL	Organic silts and organic silty clays of low plasticity
Silts and Clays — Liquid limit greater than 50	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
	CH	Inorganic clays of high plasticity, fat clays
	OH	Organic clays of medium to high plasticity, organic silts
Highly Organic Soils	Pt	Peat and other highly organic soils
Coarse grained soils — Gravels — Clean gravels: Little or no fines	GW	Well graded gravels, gravel-sand mixtures, little or no fines
	GP	Poorly graded gravels, gravel-sand mixtures, little or no fines
Gravels with fines: Appreciable amount of fines	GM	Silty gravels, gravel-sand-silt mixtures
	GC	Clayey gravels, gravel-sand-clay mixtures
Sands — Clean sands: Little or no fines	SW	Well graded sands, gravelly sands, little or no fines
	SP	Poorly graded sands, gravelly sands, little or no fines
Sands with fines: Appreciable amount of fines	SM	Silty sands, sand-silt mixtures
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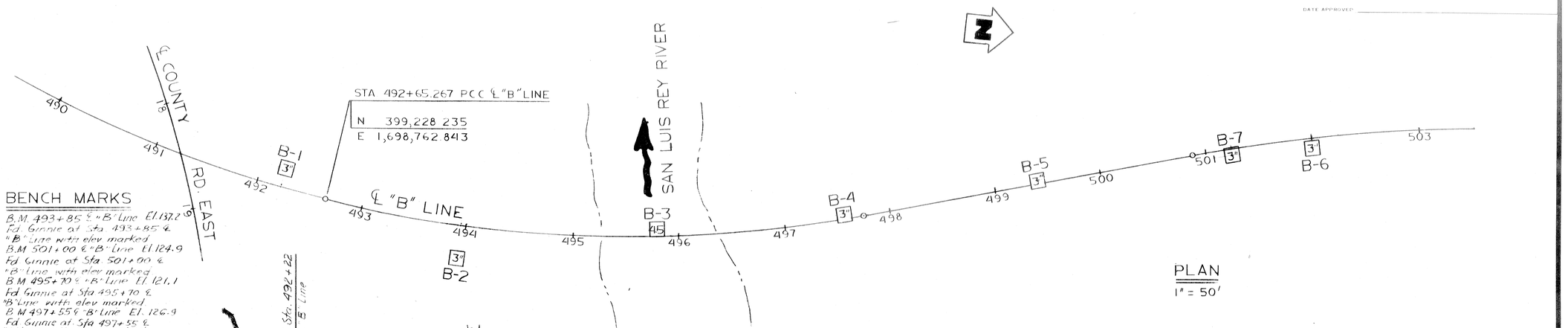
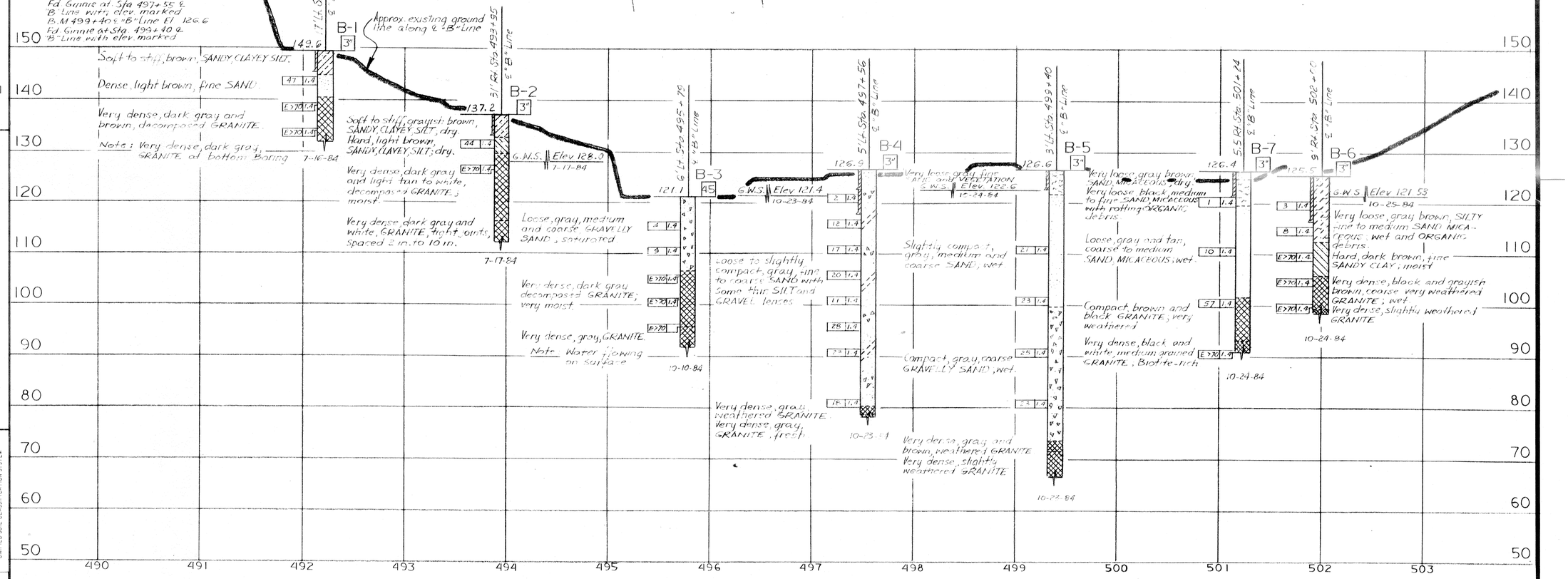
BENCH MARKS

B.M. 493+85 ℄ "B" Line El 137.2
Fd. Ginnie at Sta 493+85 ℄
"B" Line with elev marked
B.M 501+00 ℄ "B" Line El 124.9
Fd Ginnie at Sta 501+00 ℄
"B" Line with elev marked
B.M 495+70 ℄ "B" Line El 121.1
Fd Ginnie at Sta 495+70 ℄
"B" Line with elev marked
B.M 497+55 ℄ "B" Line El. 126.9
Fd. Ginnie at Sta 497+55 ℄
"B" Line with elev marked
B.M 499+40 ℄ "B" Line El 126.6
Fd. Ginnie at Sta 499+40 ℄
"B" Line with elev marked



PLAN
1" = 50'



PROFILE
HORIZ. 1" = 50'
VERT. 1" = 10'

ENGINEERING GEOLOGY AND TECHNICAL SERVICES BRANCH — TRANSPORTATION LABORATORY

DRAWN BY	CHECKED BY	Approved Recommended By	CHARGE UNIT	EXPEND. AUTHOR	SPEC. DESIGN
VICTOR SESTOKAS, 11-20-84	PAUL FEINLEIB 12-3-84	J. EAGAN 1146 (PROJECT GEOLOGIST, C.E.G. NO.) — W. C. Cain 732 (ENGINEERING GEOLOGIST, C.E.G. NO.)	11206	183930	4570957

State of CALIFORNIA
DEPARTMENT OF TRANSPORTATION

STRUCTURES - DESIGN
PROJECT ENGINEER — REGISTERED CIVIL ENGINEER NO.

BRIDGE NO. 57-0957
POST MILE 9.5

SAN LUIS REY RIVER BRIDGE
LOG OF TEST BORINGS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 11206
WO 183930

Disregard prints bearing earlier revision dates →

REVISION DATES (PRELIMINARY STAGE ONLY) | SHEET | OF

DS 0148

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	76			

W. C. Cain 732
REGISTERED - CERTIFIED
ENGINEERING GEOLOGIST

PLANS APPROVAL DATE

REGISTERED GEOLOGIST
W.C. CAIN
No. 2497
Exp. 6-30-90
STATE OF CALIFORNIA

BENCH MARKS

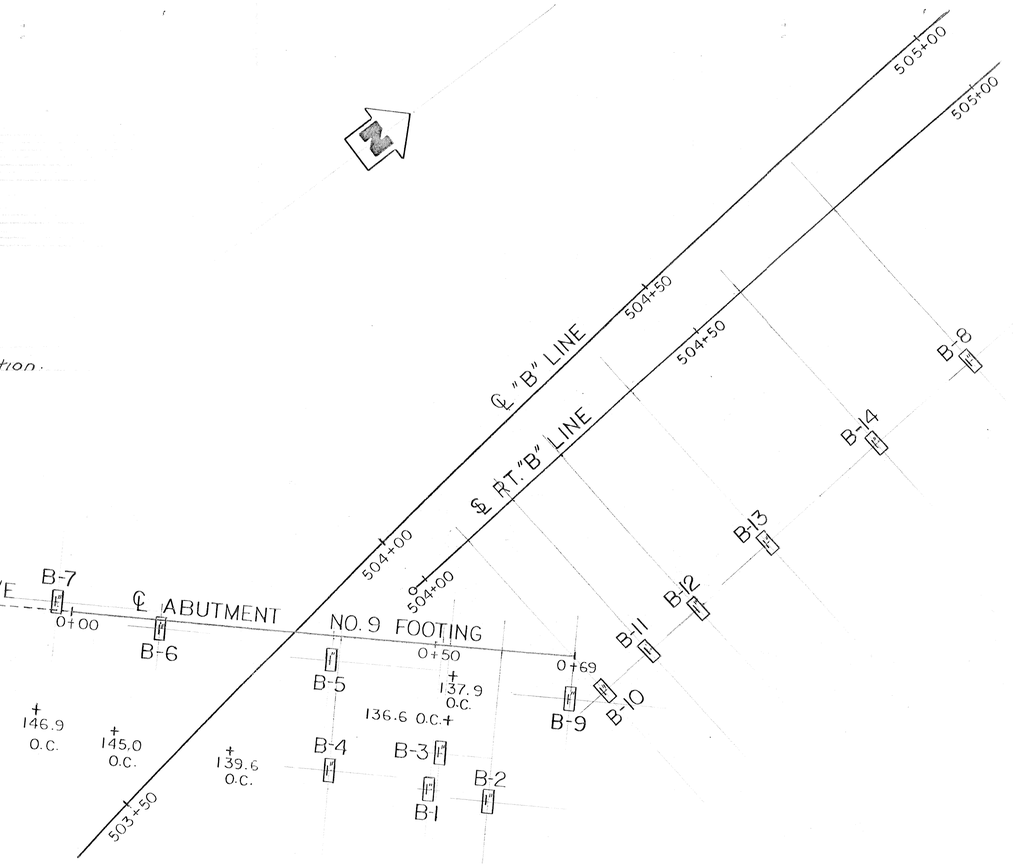
TBM Rt. Edge Elev. 136.6
Fd. painted DOT on rock at proposed Rt. edge Bridge at relocated end Bridge.

TBM Lt Edge Elev. 149.8
Fd. 1X2 marked at proposed Lt. edge Bridge at relocated end Bridge.

NOTE:

Symbol (+146.9 o.c.) represents Granitic Rock outcrop elevation.

NOTE:
NO GROUND WATER ENCOUNTERED DURING FIELD INVESTIGATION

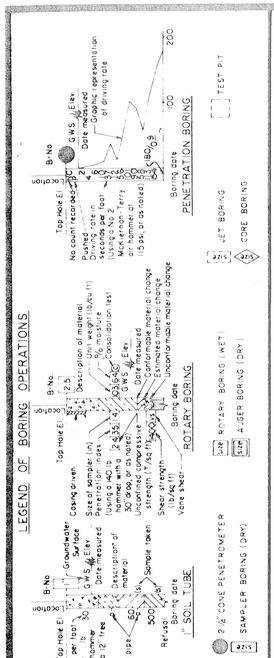


PLAN
1" = 10'

SUPPLEMENTAL SHEET 1 OF 2

MAR 27 1989

LEGEND OF BORING OPERATIONS



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

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.

CONSISTENCY CLASSIFICATION FOR SOILS

According to the Standard Penetration Test

Penetration Index (Blows/Ft.)	Granular	Cohesive
0-4	Very loose	Very soft
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20-34	Compact	Very stiff
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> 70	Very dense	Very hard

UNIFIED SOIL CLASSIFICATION SYSTEM

Major Divisions	Group Symbols	Typical Names
Coarse grained Soils — Gravels — Clean gravels (Little or no fines)	GW	Well graded gravels, gravel sand mixtures, little or no fines
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DRAWN BY	VICTOR SESTOKAS, 2-15-89	J. P. EGAN, Jr.	1146	Approval Recommended By	
CHECKED BY	[signature] 2-22-89	PROJECT GEOLOGIST	C.E.G. NO.	ENGINEERING GEOLOGIST	C.E.G. NO.

CHARGE UNIT | EXPEND. AUTHOR. | SPEC. DESIGN.

GEOTECHNICAL BRANCH - TRANSPORTATION LABORATORY

State of **CALIFORNIA** DEPARTMENT OF TRANSPORTATION

STRUCTURES - DESIGN
PROJECT ENGINEER — REGISTERED CIVIL ENGINEER NO.

BRIDGE NO. 57-0957
POST MILE 9.5

SAN LUIS REY RIVER BRIDGE

LOG OF TEST BORINGS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 11206
EA 183934

Disregard prints bearing earlier revision dates →

REVISION DATES (PRELIMINARY STAGE ONLY) | SHEET | OF

OS 0146

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	76			

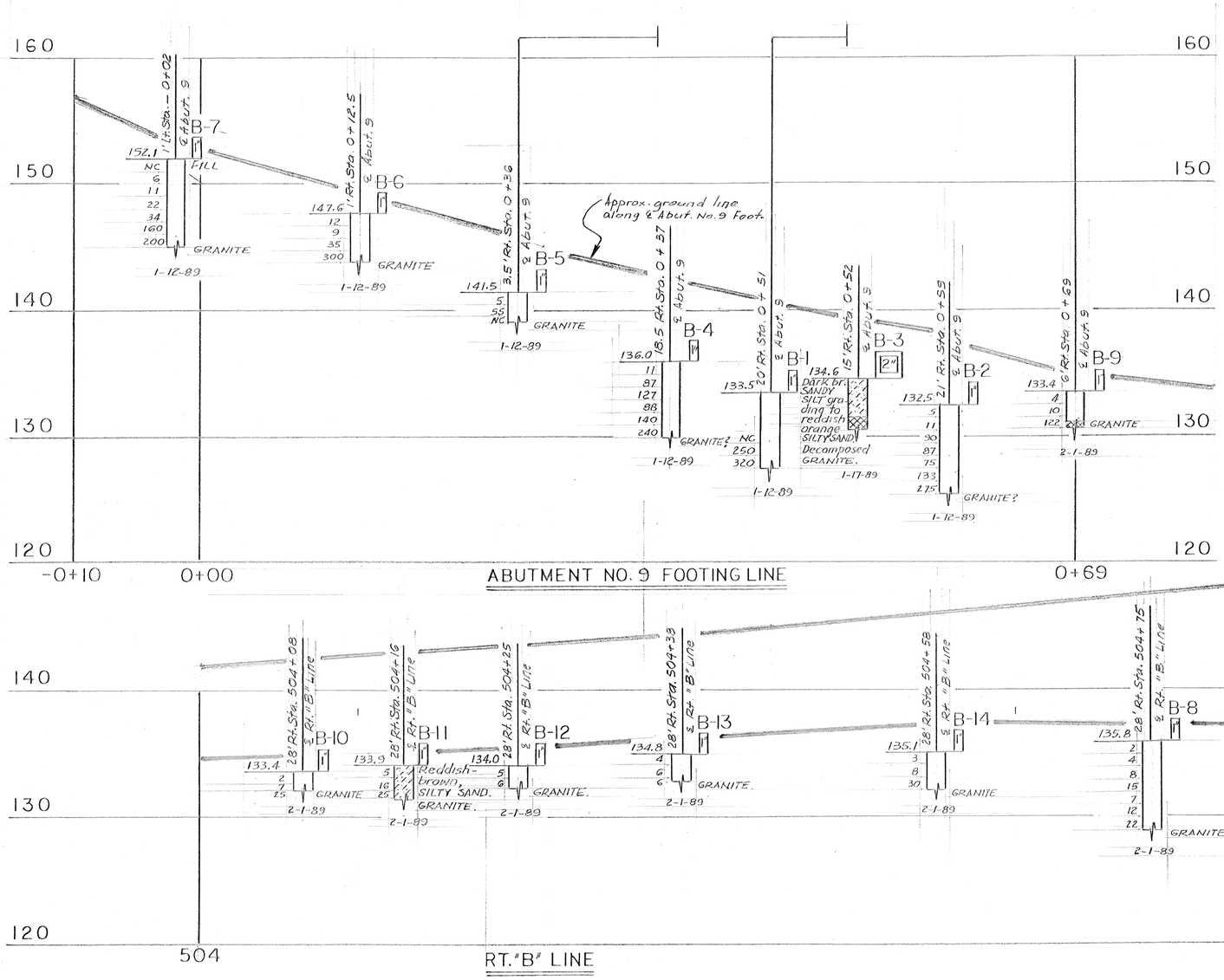
W. C. Cain 732
REGISTERED - CERTIFIED ENGINEERING GEOLOGIST

PLANS APPROVAL DATE

REGISTERED GEOLOGIST
W.C. CAIN
No. 2497
Exp. 6-30-90
STATE OF CALIFORNIA

NOTES:

For Bench Marks and Ground Water Stamp, refer to Sheet 1 of 2.

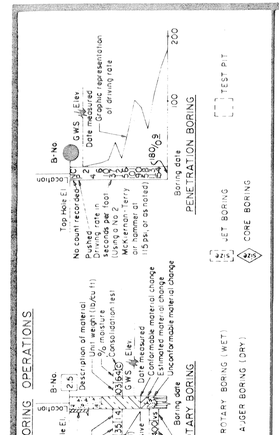


PROFILE
1" = 5'

SUPPLEMENTAL SHEET 2 OF 2

MAR 27 1989

LEGEND OF BORING OPERATIONS



LEGEND OF EARTH MATERIALS

- GRAVEL
- SAND
- SILT
- CLAY
- SILTY CLAY or CLAYEY SILT
- PEAT and/or ORGANIC MATTER
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- SEDIMENTARY ROCK
- METAMORPHIC ROCK
- SANDY CLAY or CLAYEY SAND
- SANDY SILT or SILTY SAND

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

CONSISTENCY CLASSIFICATION FOR SOILS

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GEOTECHNICAL BRANCH - TRANSPORTATION LABORATORY

DRAWN BY	VICTOR SESTOKAS, 2-21-89	Approval Recommended By	CHARGE UNIT	EXPEND. AUTHOR.	SPEC. DESIGN.
CHECKED BY	J.C. Ramos 2-22-89	J.P. EGAN, Jr. 1146			
		PROJECT GEOLOGIST C.E.G. NO.			
		ENGINEERING GEOLOGIST C.E.G. NO.			

State of CALIFORNIA DEPARTMENT OF TRANSPORTATION

STRUCTURES - DESIGN

PROJECT ENGINEER REGISTERED CIVIL ENGINEER NO.

BRIDGE NO. 57-0957
POST MILE 9.5

SAN LUIS REY RIVER BRIDGE
LOG OF TEST BORINGS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 11206
EA 183934

Disregard prints bearing earlier revision dates →

REVISION DATES (PRELIMINARY STAGE ONLY) | SHEET | OF

BS 0146

Manlab file

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	76			

W.C. Cain 732
CERTIFIED ENGINEERING GEOLOGIST

REGISTERED GEOLOGIST — W.C. CAIN No. 2497 CERTIFIED ENGINEERING GEOLOGIST — STATE OF CALIFORNIA

PLANS APPROVAL DATE

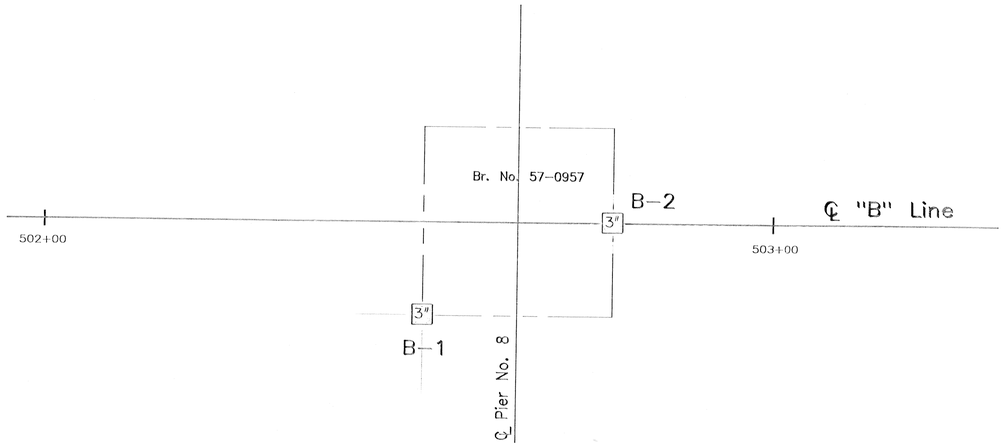
BENCH MARK

TBM: 183934 El. 135.4

Found ginnie marked 35' to ℄ Pier No. 8, El. =135.4. Set by construction contract surveyors.

PLAN

1"=10'

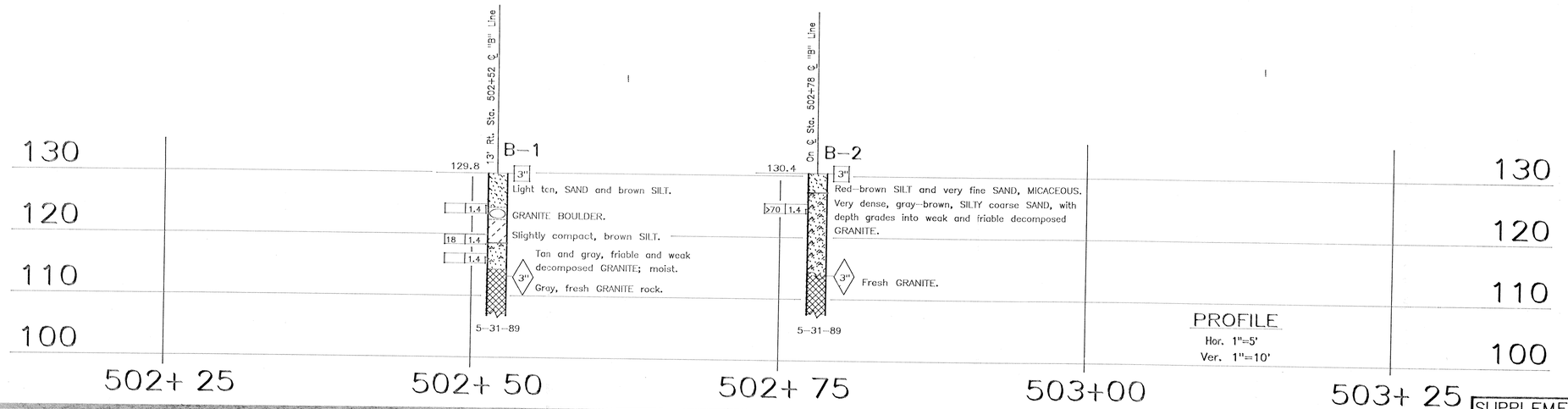


Note:

No ground water encountered during field investigation.

PROFILE

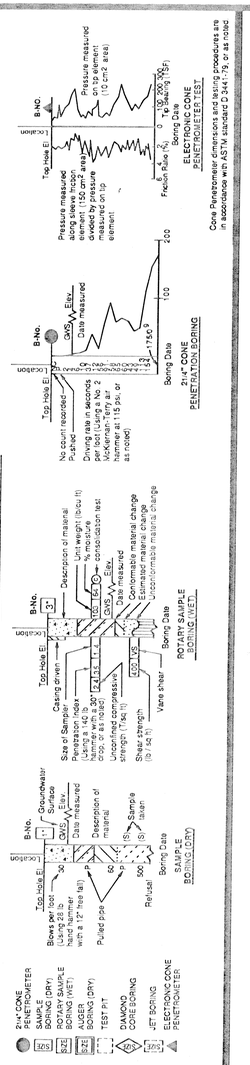
Hor. 1"=5'
Ver. 1"=10'



JUL 18 1989

SUPPLEMENTAL SHEET 3

LEGEND OF BORING OPERATIONS



LEGEND OF EARTH MATERIALS

GRAVEL · SAND · SILT · CLAY · SANDY CLAY or CLAYEY SAND · SANDY SILT or SILTY SAND · SILTY CLAY · CLAYEY SILT · PEAT and/or ORGANIC MATTER · FILL MATERIAL · IGNEOUS ROCK · SEDIMENTARY ROCK · METAMORPHIC ROCK

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ENGINEERING GEOLOGY BRANCH - TRANSPORTATION LABORATORY		
DRAWN BY	JOHN L. THORNE	7/89
CHECKED BY	Jeff Knight	7/89

J.P. EGAN, JR., PROJECT ENGINEER

State of CALIFORNIA DEPARTMENT OF TRANSPORTATION

DIVISION OF STRUCTURES
STRUCTURE DESIGN

BRIDGE NO.	57-0957
POST MILE	9.5

SAN LUIS REY RIVER BRIDGE

LOG OF TEST BORINGS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 11206
EA 183934

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY) | SHEET | OF

TL 6051 REV. 4/89 89 52500