

**Premature Deterioration in Michigan
Jointed Concrete Pavements on Open
Graded Drainage Courses**

Draft Final Report-Appendices
to the

Michigan Department of Transportation

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**Department of Civil and
Environmental Engineering**

The University of Michigan
College of Engineering

Ann Arbor, MI 48109-2125

TESTING AND RESEARCH SECTION
CONSTRUCTION AND TECHNOLOGY DIVISION
RESEARCH REPORT NO. RC-1456



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By

Dr. Will Hansen, Associate Professor
Department of Civil and Environmental Engineering
University of Michigan, Ann Arbor (U of M)

Dr. Thomas J. Van Dam, Assistant Professor
Department of Civil Engineering
Michigan Technological University (MTU)

Participating Researchers at U of M:

Chris Byrum, Andrew Definis, Gail Grove, Elin Jensen,
Ashraf Mohamed, Phil Mohr, and Ivindra Pane

Participating Researchers at MTU:

Matthew Wachholz

November 7, 1997

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APPENDIX A

OGDC Sections in Michigan

Appendix A. OGDC Sections in Michigan

This appendix lists in tabular form all pavement sections that have been built on open graded drainage courses in Michigan between 1980 and 1995. Included here are control section and job numbers for the various projects as well as route, location and direction information, and pavement age, length, thickness, and joint spacing. Also listed are the OGDC gradations used.

In this appendix, sections are listed by district. Within each district, the projects are listed by control section number in ascending order.

DATABASE OF OPEN GRADED DRAINAGE COURSE PROJECTS

PROJECT DESCRIPTION											
CONTROL SECTION	PROJECT NUMBER	ROUTE	LOCATION	MILE POST				DATE SURFACE COMPLETED	PAVEMENT THICKNESS (IN)	JOINT SPACING (FT)	GRADATION SERIES
				POB	POE	Total Miles	Dir.				
DISTRICT 3											
53021	53032-13718	US-10/US-31	W OF US-31 SOUTH TO E OF BRYE RD	2.283 0.000	2.316 0.000	0.023 2.152		Aug-90 Aug-90	8 8		
53032		US10		0.000 0.061 0.083	0.061 0.083 0.190	0.061 0.022 0.107	EB EB EB	90 90 90			
53032		US31		1.300	1.870	0.570	NB	90			
DISTRICT #3 TOTAL						2.935					
DISTRICT 5											
19022	34044-24654	I-96	W OF SUNFIELD RD TO 0.3 MI E OF CLINTON/IONIA CO LINE EB	0.000	0.328	0.328		Nov-88	9	41	34G, 5G?
19034		US27		0.000 0.982 0.000 0.982	0.982 9.982 0.982 9.982	0.982 9.000 0.982 9.000	NB NB SB SB	95 95 95 95			
19041		I89BL(LANSING)		0.491 0.459	1.162 1.130	0.671 0.671	NB SB	87 87			
19042	19042-24681	I-69	N OF CLARK RD TO W OF CHANDLER RD	0.000 0.000	1.889 1.961	1.889 1.961	EB WB	Jun-87	9	41	3G
19042	19042-24680	I-69	W OF CHANDLER RD TO E OF WEBSTER RD	1.889 1.961	4.454 4.532	2.585 2.571	EB WB	Nov-88	9	41	3G
19042	19042-02233	I-69	E OF WEBSTER RD TO N OF PEACOCK RD	4.454 4.532	8.052 8.118	3.598 3.586	EB WB	Aug-87	9	41	3G
19042	76024-01978	I-69	W OF PEACOCK RD TO E OF SHAFTSBURG RD	8.052 8.118	8.894 9.056	0.842 0.938	EB WB	Jul-91		41	3G(MI)
19043	19043-18357	I-69	I-89, I-96 TURNING RDWYS NW OF LANSING	0.000	2.340	2.340		Jul-85	9	41	8G
19043	19043-18632	I-69	GRAND RIVER AVE TO AIRPORT RD	0.894 1.300	4.683 5.008	3.689 3.708	EB WB	Jul-85	9	41	34G
19043		I69		0.306 0.342 0.000	0.342 8.064 8.083	0.036 7.722 8.083	NB NB SB	85 85 85			
34043	34043-24662	I-96	1.0 MI W OF CO LINE TO JORDAN LAKE REST AREA	0.000	7.111	7.111		Sep-87		41	8G
34043	34043-24663	I-96	JORDAN LAKE REST AREA TO M-66	7.111 7.111	12.031 12.031	4.920 4.920	EB WB	Nov-88 Oct-86	9	41	34G
34044	34043-24663	I-96	JORDAN LAKE REST AREA TO M-66	0.000	0.514	0.514	EB	Nov-88	9	41	34G
34044	34044-24664	I-96	W OF SUNFIELD RD TO 0.3 MI E OF CLINTON/IONIA CO LINE EB	0.000 3.378 8.329	2.880 13.554 13.544	2.880 10.178 5.215	WB EB WB	Oct-86 Nov-88		41	34G, 5G?
41024	41024-26759	I-96	W OF WITNEYVILLE RD TO N OF E CO LINE	4.015	11.451	7.436		Sep-88	9	41	34G, 8G
41024	34043-24662	I-96	1.0 MI W OF CO LINE TO JORDAN LAKE REST AREA	11.451	12.433	0.982		Sep-87		41	8G
41031		M37		6.421 8.601 6.421 8.601	8.601 8.630 8.601 8.630	2.180 0.029 2.180 0.029	NB NB SB SB	95 95 95 95			
76023		I196BL(HOLLAND)		4.560	5.033	0.473	EB	94			
DISTRICT #5 TOTAL						113.861					
DISTRICT 6											
25031		US23		0.000 5.450 5.900 5.900	5.450 5.900 12.315 12.437	5.450 0.450 6.415 6.537	NB NB NB SB	93 93 92 92			
25031	25031-30798	US-23	S OF THOMPSON RD TO I-75			0.000 0.000	SB NB	Jul-92 Aug-92	10	27	5G
44044	44044-18804	I-69	E OF BALDWIN RD TO W OF WILDER RD	0.000 0.000	3.668 3.672	3.668 3.672	EB WB	1984	9	41	8G
44044	44044-18805	I-69	W OF WILDER RD TO W OF LAKE GEORGE RD	3.668 3.672	7.115 7.110	3.447 3.438	EB WB	1984	9	41	8G, 34G
44044	44044-18807	I-69	W OF LAKE GEORGE RD TO 1650' E OF NEWARK RD	7.115 7.110	9.401 9.418	2.286 2.306	EB WB	1984	9	41	8G
44044	44044-18808	I-69	E OF NEWARK RD TO W OF M-53	9.401 9.416	12.736 12.707	3.335 3.291	EB WB	1984	9	41	8G, 34G
44044	44044-20821	I-69	W OF M-53 TO COX-DOTY DRAIN	12.736 12.707	17.612 17.583	4.876 4.876	EB WB	Aug-83	9	41	8G
73111	73112-24182	I-75	@ THE ZILWAUKEE BRIDGE APPROACHES	8.398	9.023	0.625		Oct-89			
73112	73112-24182	I-75	@ THE ZILWAUKEE BRIDGE APPROACHES	0.000	2.174	2.174		Oct-89			
76012		M52		1.038	2.292	1.164	NB	87			
76023	76024-27898	I-69	E OF SHAFTSBURG RD TO W OF CHURCH RD	0.000 0.000	1.413 1.234	1.413 1.234	EB WB	Oct-90 Jul-90	9	41	3G(MI)
76024	76024-01978	I-69	W OF PEACOCK RD TO E OF SHAFTSBURG RD	0.000 0.000	3.827 3.848	3.827 3.848	EB WB	Jul-91		41	3G(MI)
76024	76024-27898	I-69	E OF SHAFTSBURG RD TO W OF CHURCH RD	3.827 3.848	8.044 8.044	4.217 4.396	EB WB	Oct-90 Jul-90	9	41	3G(MI)
77024	44044-20821	I-69	W OF M-53 TO COX-DOTY DRAIN	0.000	5.831	5.831		Aug-83	9	41	8G
DISTRICT #6 TOTAL						82.576					
DISTRICT 7											
11014	11014-24750	I-94 WB	@ THE NEW BUFFALO WEIGH STATION			0.000		May-88	9		5G
11015	11015-29580	I-94	W OF I-94 BL NELY TO THE ST JOSEPH RIVER	19.400	23.431	4.031		Apr-95	11.5	27	
11016	11015-29580	I-94	W OF I-94 BL NELY TO THE ST JOSEPH RIVER	0.000	0.500	0.500		Apr-95	11.5	27	
11017		I94		0.137 1.015 5.875 1.015 5.875	1.015 5.875 6.604 5.875 6.604	0.878 4.680 0.729 4.680 0.729	EB EB EB WB WB	95 95 94 95 94			
11018		I94		0.000 0.000	2.038 2.038	2.038 2.038	EB WB	94 94			
11057		US31		0.171 2.944 5.369 9.083 9.260	2.944 5.369 9.083 9.260	2.773 2.425 3.714 0.177 2.907	NB NB NB NB NB	87 93 93 92 93			

PROJECT DESCRIPTION												
CONTROL SECTION	PROJECT NUMBER	ROUTE	LOCATION	MILE POST				DATE SURFACE COMPLETED	PAVEMENT THICKNESS (IN)	JOINT SPACING (FT)	GRADATION SERIES	
				POB	POE	Total Miles	Dir.					
11057		US-31		12.167	12.210	0.043	NB	92				
11057	11057-16847	US-31	US-12 TO WALTON RD	0.171	3.452	3.281	NB	May-87	9	41	8G, 34G	
11057	11057-27897	US-31	S OF WALTON RD TO S OF MATTHEW RD			0.000		Aug-92	8 1/2	41	3G(MI)	
11057	11057-29510	US-31	S OF MATTHEW RD TO N OF LAKE CHAPIN RD			0.000		Aug-92	8 1/2	41	3G(MI)	
11057	11057-29513	US-31	N OF LAKE CHAPIN RD TO EXIST US-31			0.000		Aug-92	8 1/2	41	3G(MI)	
13082	13082-28211	I-94	E OF M-86 TO W OF 11 MILE RD	0.570	5.181	4.611	EB	Sep-90	11	27	3G (M1)	
13082	13082-24814	I-94	E OF 11 MILE RD TO E OF OLD US-27	0.570	5.181	4.611	WB	Oct-90				
13082		I-94		6.354	11.599	5.245		Nov-86	9	41	8G	
13082		I-94		0.598	5.175	4.577	EB	90				
13082		I-94		6.394	11.599	5.205	EB	86				
13082		I-94		0.598	5.175	4.677	WB	90				
13082		I-94		6.394	11.599	5.205	WB	86				
13083		I-94		0.000	0.551	0.551	EB	86				
13083		I-94		0.551	5.995	5.444	EB	88				
13083		I-94		6.000	12.219	6.219	EB	86				
13083		I-94		12.219	13.509	1.290	EB	91				
13083		I-94		0.000	0.551	0.551	WB	86				
13083		I-94		0.551	5.995	5.444	WB	88				
13083		I-94		6.000	12.219	6.219	WB	86				
13083		I-94		12.219	13.509	1.290	WB	91				
13083	13082-24914	I-94	E OF 11 MILE RD TO E OF OLD US-27	0.000	0.551	0.551		Nov-86	9	41	8G	
13083	13083-24251	I-94	E OF OLD US-27 TO E OF 22 1/2 MILE RD	0.551	5.995	5.444	EB	Jun-88	10	41	8G	
13083		I-94		0.551	5.995	5.444	WB	Sep-88				
13083	13083-20992	I-94	W OF 24 MILE RD TO W OF 29 MI RD	6.786	12.5	5.714		Nov-85	10	41	8G	
13083	13083-21029	I-94	@ 28 MILE RD			0.000		Jun-88	10	41	8G, 34G, SOME 5G	
13083	38102-29508	I-94	W OF 29 MILE RD TO E OF MICHIGAN AVE	12.5	13.509	1.009		Jun-91	11	27	5G	
39022	39022-20736	I-94	W OF MILLER ST TO E OF MICHIGAN AVE			0.000	EB	1985	9	41	34G	
39022		I-94		4.015	8.337	4.322	EB	85				
39022		I-94		8.690	11.503	2.813	EB	86				
39022		I-94		4.015	11.503	7.488	WB	86				
39024		I-94		0.000	0.604	0.604	EB	87				
39024		I-94		0.604	4.242	3.638	EB	90				
39024	80024-24755	I-94	W OF THE S BRANCH OF PAW PAW RIVER TO FIRST ST	0.000	0.604	0.604	EB	Oct-87	10	41	8G, 34G	
39024		I-94		0.000	0.604	0.604	WB	Apr-88				
39025		I-94		0.000	1.112	1.112	EB	86				
39025		I-94		1.112	4.357	3.245	EB	83				
39025		I-94		0.000	1.112	1.112	WB	86				
39025		I-94		1.112	4.357	3.245	WB	83				
80023		I-94		2.273	3.674	1.401	EB	94				
80023		I-94		3.674	3.694	0.020	EB	94				
80023		I-94		3.694	12.632	8.938	EB	84				
80023		I-94		2.273	3.674	1.401	WB	95				
80023		I-94		3.674	3.694	0.020	WB	95				
80023		I-94		3.694	12.632	8.938	WB	84				
80023	80023-20993	I-94	E OF HARTFORD RD TO W OF M-51			0.000		1984	10	41	34G	
80023	80024-24754	I-94	W OF M-51 TO E OF M-40	12.650	13.490	0.840		Nov-86	10	41	8G, 34G	
80024	80024-24754	I-94	W OF M-51 TO E OF M-40	0.000	5.157	5.157	EB	Nov-88	10	41	8G, 34G	
80024		I-94		0.000	3.150	3.150	WB					
80024	80024-24755	I-94	W OF THE S BRANCH OF PAW PAW RIVER TO FIRST ST	5.157	10.555	5.398	EB	Oct-87	10	41	8G, 34G	
80024		I-94		3.150	8.736	5.586	WB	Apr-88				
DISTRICT #7 TOTAL				183.347								
DISTRICT 8												
23051		M-50		0.553	0.984	0.431	EB	92				
23063		I-69		0.000	12.099	12.099	NB	92				
23063		I-69		0.000	12.099	12.099	SB	91				
23063	23063-21823	I-69	N OF ISLAND HWY TO S OF SHANCE HWY			0.000		Nov-91	9	27	3G (M1)	
23063	23063-21824	I-69	S OF SHANCE HWY TO W OF NIXON RD			0.000		Aug-92	9	27	3G (M1)	
23063	23063-21825	I-69	W OF NIXON RD TO N OF DAVIS HWY			0.000		Aug-92	9	27	3G (M1)	
23063	23063-21826	I-69	N OF DAVIS HWY TO N OF MT. HOPE HWY			0.000		Jul-92	9	27	3G (M1)	
38102	38102-29508	I-94	W OF 29 MILE RD TO E OF MICHIGAN AVE	0.000	5.044	5.044		Jun-91	11	27	5G	
47065	47065-28214	I-96	W OF M-59 TO E OF CHILSON RD			0.000		Sep-92	10	41	5G	
47065	47065-28216	I-96	FROM DORR RD ELY TO E OF SPENCER RD			0.000						
47065		I-96		9.230	11.417	2.187	EB	93				
47065		I-96		11.417	14.100	2.683	EB	93				
47065		I-96		14.100	14.331	0.231	EB	93				
47065		I-96		9.230	11.417	2.187	WB	93				
47065		I-96		11.417	13.591	2.174	WB	93				
47065		I-96		13.591	14.100	0.509	WB	93				
58034		US-23		0.000	6.670	6.670	NB	93				
58034		US-23		6.021	10.000	3.979	NB	95				
58034		US-23		0.000	6.670	6.670	SB	92				
58034	58034-32750	US-23	STATE LINE TO N OF US-223			0.000	SB	Nov-92	10.5	27	5G	
58151		I-75 NB		0.000	6.242	6.242	NB	1993				
58151	58151-25556	I-75 NB	STATE LINE TO N OF LUNA PIER RD	0.000	6.242	6.242	NB	Oct-87	11	41	5G	
58151	58151-21908	I-75 NB	LUNA PIER RD TO DUNBAR RD	6.242	12.302	6.060	NB	1984	11	41	5G	
58151	58151-26762	I-75 SB	OHIO STATE LINE TO S OF DUNBAR RD	0.000	12.302	12.302	SB	Oct-88	11	41	5G	
58151	58151-27927	I-75	S OF DUNBAR RD TO I-275	12.302	16.256	2.954	NB	Jul-89	11	27	5G	
58152		I-75		12.302	16.256	2.954	SB	Oct-89	11	27	5G	
58152	58151-27827	I-75	S OF DUNBAR RD TO I-275	0.000	4.877	4.877	NB	Jul-89	11	27	5G	
58152		I-75		0.000	4.877	4.877	SB	Oct-89	11	27	5G	
58152	58152-28352	I-75	I-275 TO WAYNE-MONROE CO LINE	4.877	11.550	6.673	NB	Sep-90	11 & 12	27	3G	
81041	81041-23075	I-94	W OF HARRIS RD TO W OF RAWSONVILLE RD	0.000	2.037	2.037		Jul-90				
81041	81041-23076	US-12 EB	HARRIS ST TO DORSET ST			0.000		Jun-88	11	41	3G	
81041		I-94		2.050	2.192	0.142	EB	87				
81083		I-94		3.349	3.816	0.267	EB	89				
DISTRICT #8 TOTAL				106.346								
DISTRICT 9												
50011		M-53		5.287	8.095	2.808	NB	90				
50011	50011-25657	M-53	S OF 15 MILE RD TO N OF 18 MILE RD	7.100	10.500	3.400		Oct-89	10			

APPENDIX B

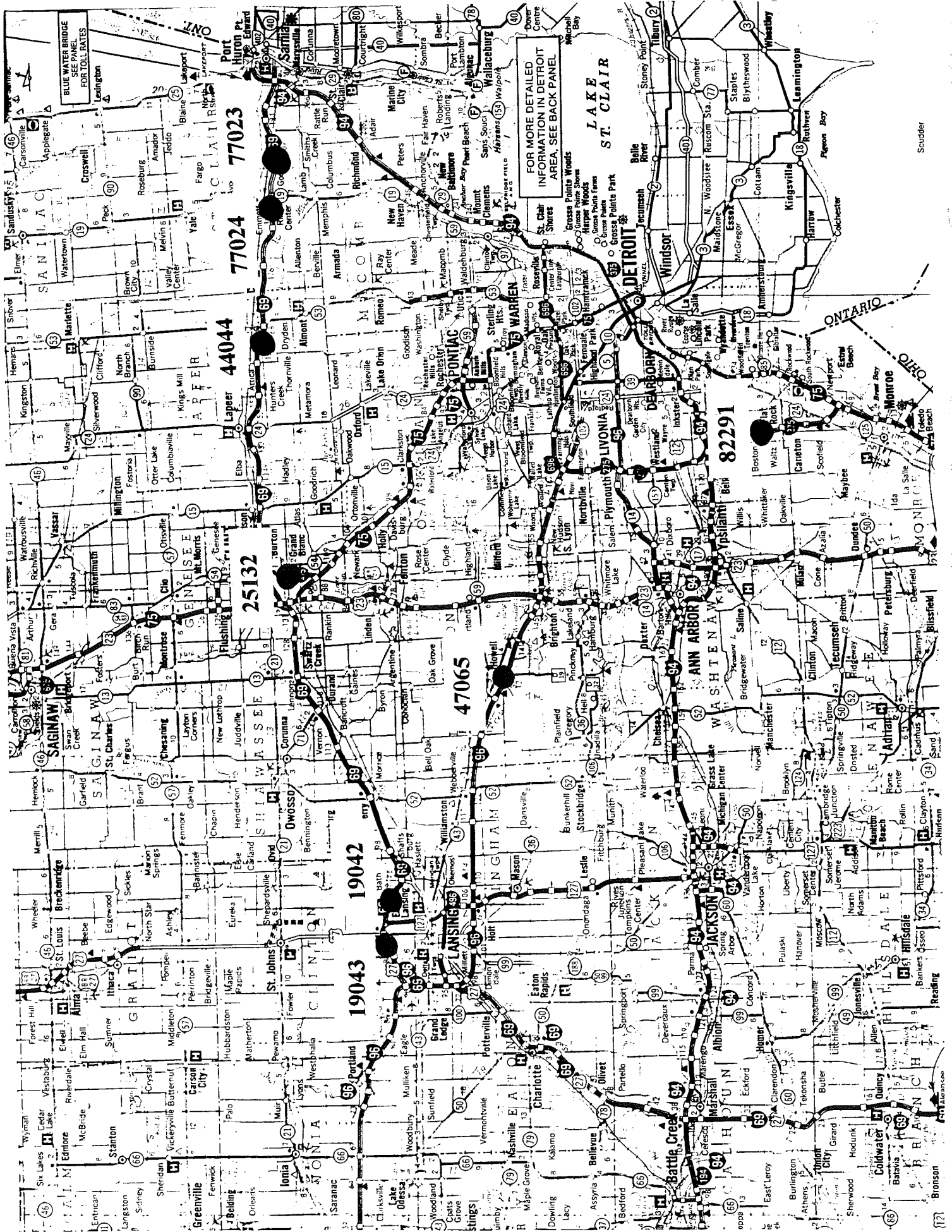
Section Summaries and Control Section Logs

Appendix B. Section Summaries and Control Section Logs

The purpose of this appendix is to give the reader a quick overview of all test sections associated with this project. The appendix begins with two overview maps of the site locations around Michigan, followed by a brief summary of each section tested, including a control section log, a pavement system profile, and a two page section summary.

The summary sheet for each section contains information such as site location, age, construction conditions, testing information, observed distresses, and material properties.

In this appendix, as in all of the appendices, the sites are listed in increasing numerical order by control section number and job number.



ONE



LIVE BIRD



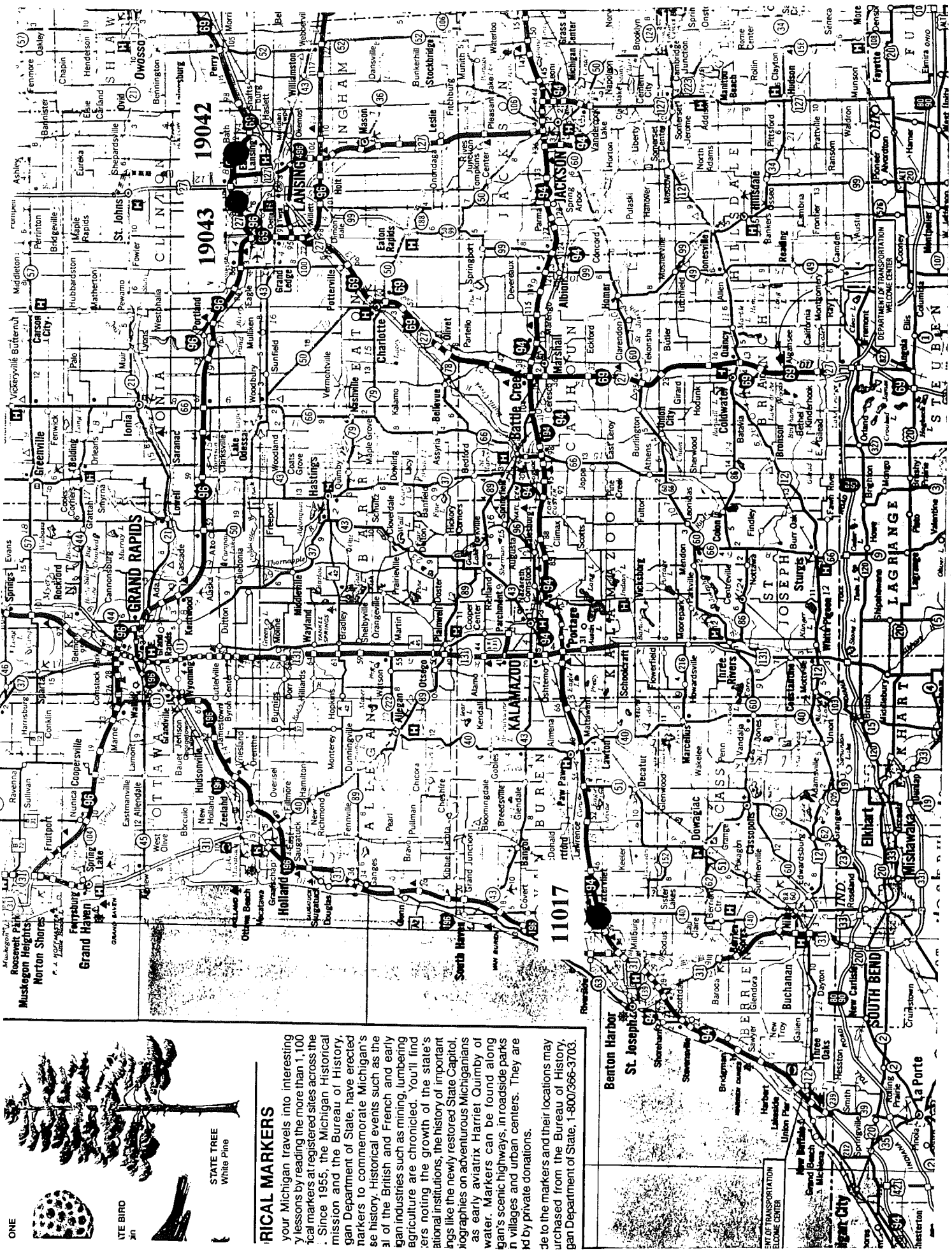
STATE TREE
White Pine



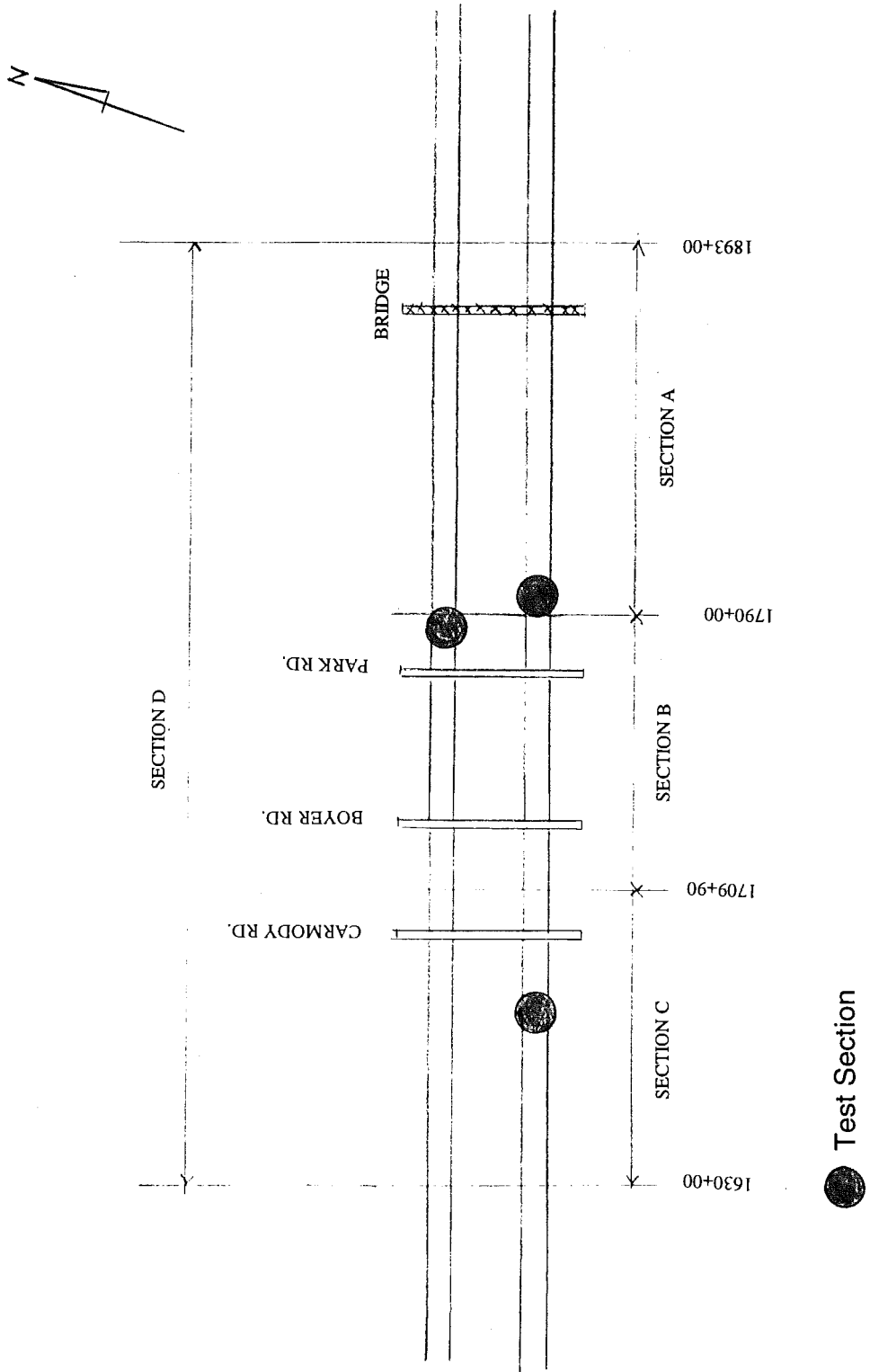
HISTORICAL MARKERS

Your Michigan travels into interesting lessons by reading the more than 1,100 historical markers at registered sites across the state. Since 1955, the Michigan Historical Commission and the Bureau of Historical Sites, Michigan Department of State, have erected markers to commemorate Michigan's rich history. Historical events such as the arrival of the British and French and early Michigan industries such as mining, lumbering and agriculture are chronicled. You'll find markers noting the growth of the state's educational institutions, the history of important figures like the newly restored State Capitol, Michigan's adventurous Michiganders as early aviator Harriet Quimby of water. Markers can be found along scenic highways, in roadside parks and villages and urban centers. They are made by private donations.

Go to the markers and their locations may be purchased from the Bureau of Historical Sites, Michigan Department of State, 1-800/366-3703.



I-94 11017-32516A



SECTION OVERVIEW

CSN/JN: 11017-32516A (Section A)

Site Information:

Job Location: I-94, East Bound, Near Park Road Overpass
Total lane ESAL's/Year: 406,500

Construction Information:

Date Constructed: August, 1995
Contractor: Interstate Highway Construction
Slab Length: 16 ft (14 ft widened truck lane)
Pavement System:
 Concrete: 12 in
 Base: 4 in OGDC
 Subbase: Class II Sand
Placing Temperature:
 Concrete: 85 F
 Air: High 86 F and low 60 F
Intermediate Shoulder Joints?: NO
Other: Asphalt Shoulders, Filter separator between base and subbase

Testing Information

Date Tested: 4/23/97
Stations Tested: 1790+09.5 to 1795+08
Job Miles Tested: 3.924 to 4.019
Weather Conditions: Mostly Sunny
Air Temperature: 50 to 60 F
Field Testing :
 Pavement System: FWD - morning, afternoon; Distress Survey;
 Drainage Survey
 Concrete: Concrete Coring
 Foundation: Soil Sampling - base, subbase; DCP
Laboratory Testing:
 Concrete: Compressive Strength; Split Tensile Strength;
 Elastic Modulus
 Foundation: Sieve Analysis - gradation of base, subbase
 Loss on Wash - subbase

Field Observations

Distress Noted: High distress for age of section, 11 of 31 slabs have full width cracks, beginnings of spalling, some longitudinal cracks, numerous partial width transverse cracks near longitudinal joints, small amount of plastic shrinkage cracking observed

Drainage System: Drains were clear and working. Water was seen flowing from outlets after coring

Other:

System Performance

Distresses:

PMS: N/A

RQI: N/A

FWD:

Concrete Properties

Avg. Thickness: 11.9 in

Avg. Compressive Strength: 6520 psi

Avg. Split Tensile Strength: 640 psi

Avg. Elastic Modulus: 4.64E+06 psi

Foundation

Gradation:

Base: 3G crushed lime stone

Subbase: Class II sand

Filter Criteria: Not met, subgrade samples were unattainable

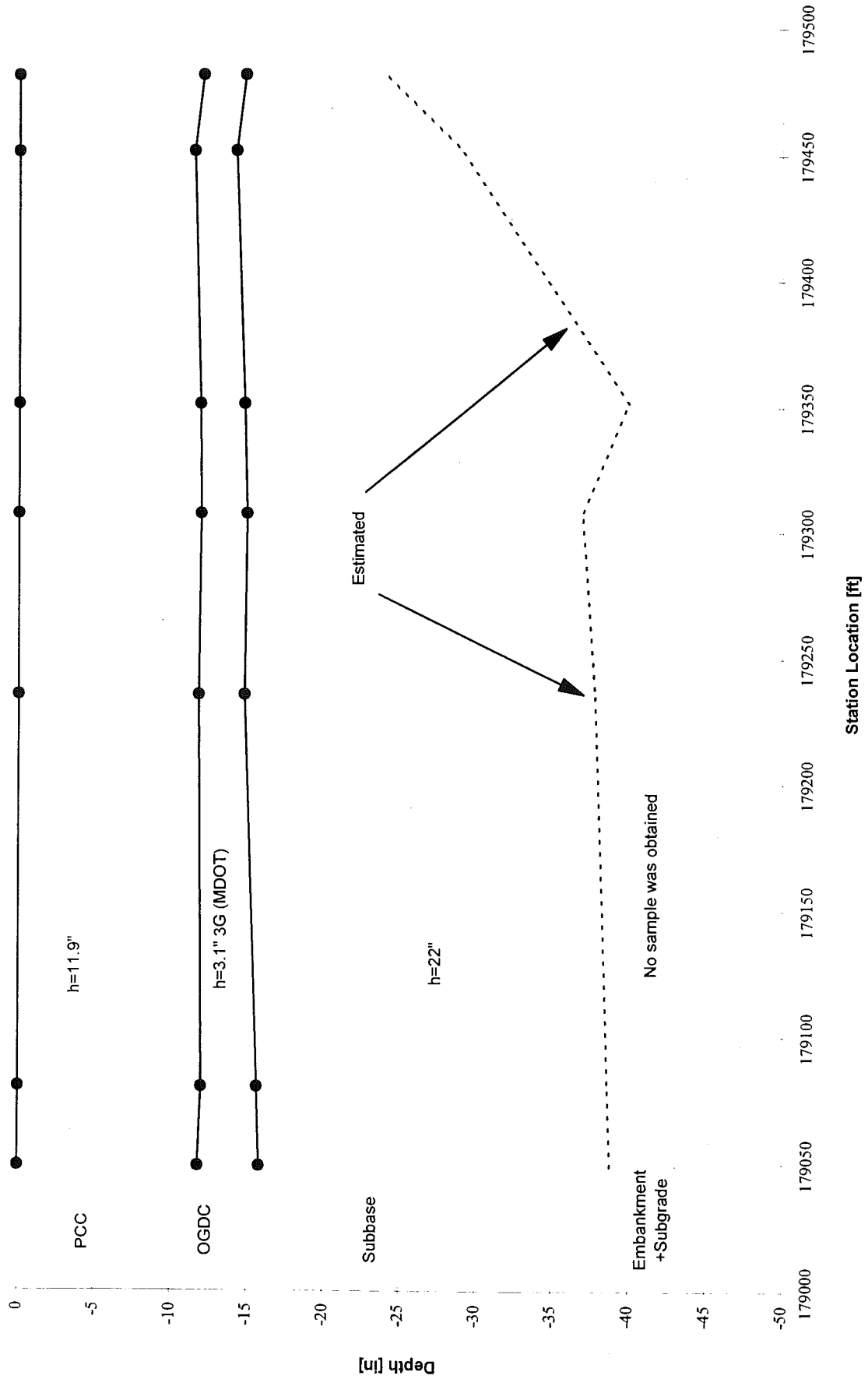
DCP

Base: 10 - 24 mm/blow

Subbase: 5 - 10 mm/blow

Other

I-94 11017-32516A (Section A) Profile



SECTION OVERVIEW

CSN/JN: 11017-32516A (Section C)

Site Information:

Job Location: I-94, East Bound, West of Carmody Road Overpass
Total lane ESAL's/Year: 406,500

Construction Information:

Date Constructed: September, 1995
Contractor: Interstate Highway Construction
Slab Length: 15, 16, 17 ft variable (14 ft widened truck lane)
Pavement System:
 Concrete: 12 in
 Base: 4 in OGDC, specified 3G crushed limestone
 Subbase
Placing Temperature:
 Concrete: 81 F
 Air: High 87 F and low 43 F
Intermediate Shoulder Joints?: NO
Other: Asphalt shoulders, Filter separator between base and subbase

Testing Information

Date Tested: 4/30/97
Stations Tested: 1682+62 to 1690+15
Job Miles Tested: 1.889 to 2.032
Weather Conditions: Partly Cloudy
Air Temperature: 45 to 50 F
Field Testing :
 Pavement System: FWD - morning, afternoon; Distress Survey;
 Drainage Survey
 Concrete: Concrete Coring
 Foundation: Soil Sampling - base, subbase; DCP
Laboratory Testing:
 Concrete: Compressive Strength; Split Tensile Strength;
 Elastic Modulus
 Foundation: Sieve Analysis - gradation of base, subbase
 Loss on Wash - subbase

Field Observations

Distress Noted: Low to Moderate distress for age of section, 2 of 47 slabs have full width cracks, low to moderate spalling, numerous partial width cracks extending from longitudinal joint

Drainage System:

Other:

System Performance

Distresses:

PMS: N/A

RQI: N/A

FWD: Low load transfer efficiency at cracks and joints

Concrete Properties

Average Thickness: 11.8 in.

Avg. Compressive Strength: 7030 psi

Avg. Split Tensile Strength: 580 psi

Avg. Elastic Modulus: 4.30E+06 psi

Foundation

Gradation:

Base Measured 4 in.

Subbase: Measured 9 in.

Filter Criteria Not met, subgrade samples were unattainable

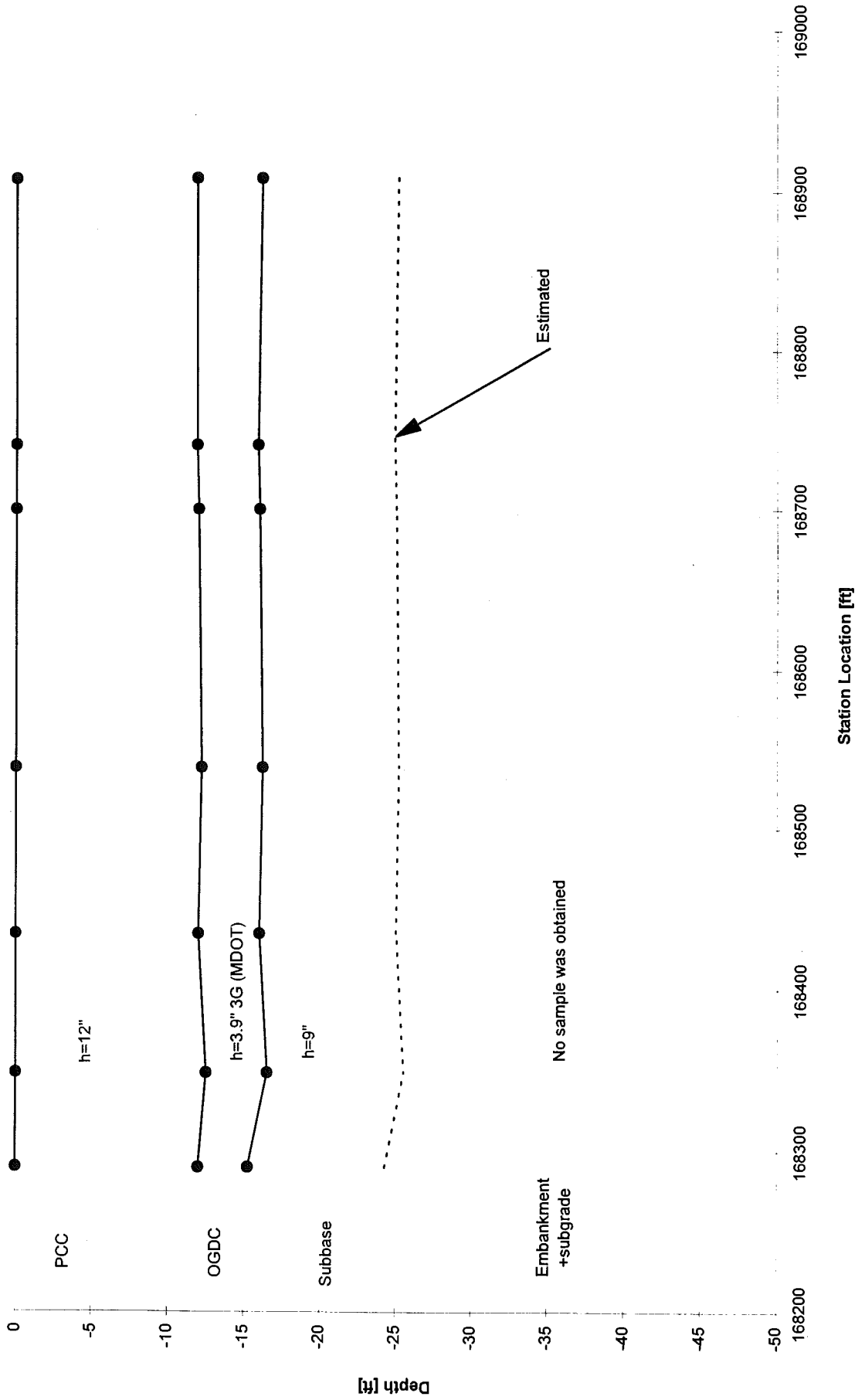
DCP

Base: 10 - 23 mm/blow

Subbase: 3 - 5 mm/blow

Other

I-94 11017-32516A (Section C) EB Profile



SECTION OVERVIEW

CSN/JN: 11017-32516A (Section D)

Site Information:

Job Location: I-94, Westbound, East of Park Road Overpass
Total lane ESAL's/Year: 406,500

Construction Information:

Date Constructed: May, 1996
Contractor: Interstate Highway Construction
Slab Length: 15 ft. (14 widened truck lane)
Pavement System:
 Concrete: 12 in.
 Base: 4 in. OGDC specified 3G
 Subbase: Class II Sand
Placing Temperature:
 Concrete: 75 F
 Air: High 80 F and low 40 F
Intermediate Shoulder Joints?: NO
Other: Asphalt Shoulders

Testing Information

Date Tested: 5/29/97
Stations Tested: 1793+08 to 1782+98
Job Miles Tested: 3.981 to 3.791
Weather Conditions: Mostly Cloudy
Air Temperature: 45 to 50 F
Field Testing :
 Pavement System: FWD - morning, afternoon, Distress Survey,
 Drainage Survey
 Concrete: Concrete Coring
 Foundation: Soil Sampling - base, subbase, embankment/subgrade, DCP
Laboratory Testing:
 Concrete: Compressive Strength, Split Tensile Strength,
 Elastic Modulus
 Foundation: Sieve Analysis - gradation of base, subbase, subgrade
 Loss on Wash - subbase, subgrade

Field Observations

Distress Noted: Low distress, minor spalling at some joints, longitudinal cracks present near longitudinal joint

Drainage System:

Other: Joints saw-cut to 2.5 in depth

System Performance

Distresses:

PMS: N/A

RQI: N/A

FWD:

Concrete Properties

Average Thickness: 12.0 in.

Avg. Compressive Strength: 5690 psi

Avg. Split Tensile Strength: 555 psi

Avg. Elastic Modulus: 4.84E+06 psi

Foundation

Gradation:

Base Measured thickness 3-4 in.

Subbase: Measured thickness 29-45 in.

Filter Criteria Not met

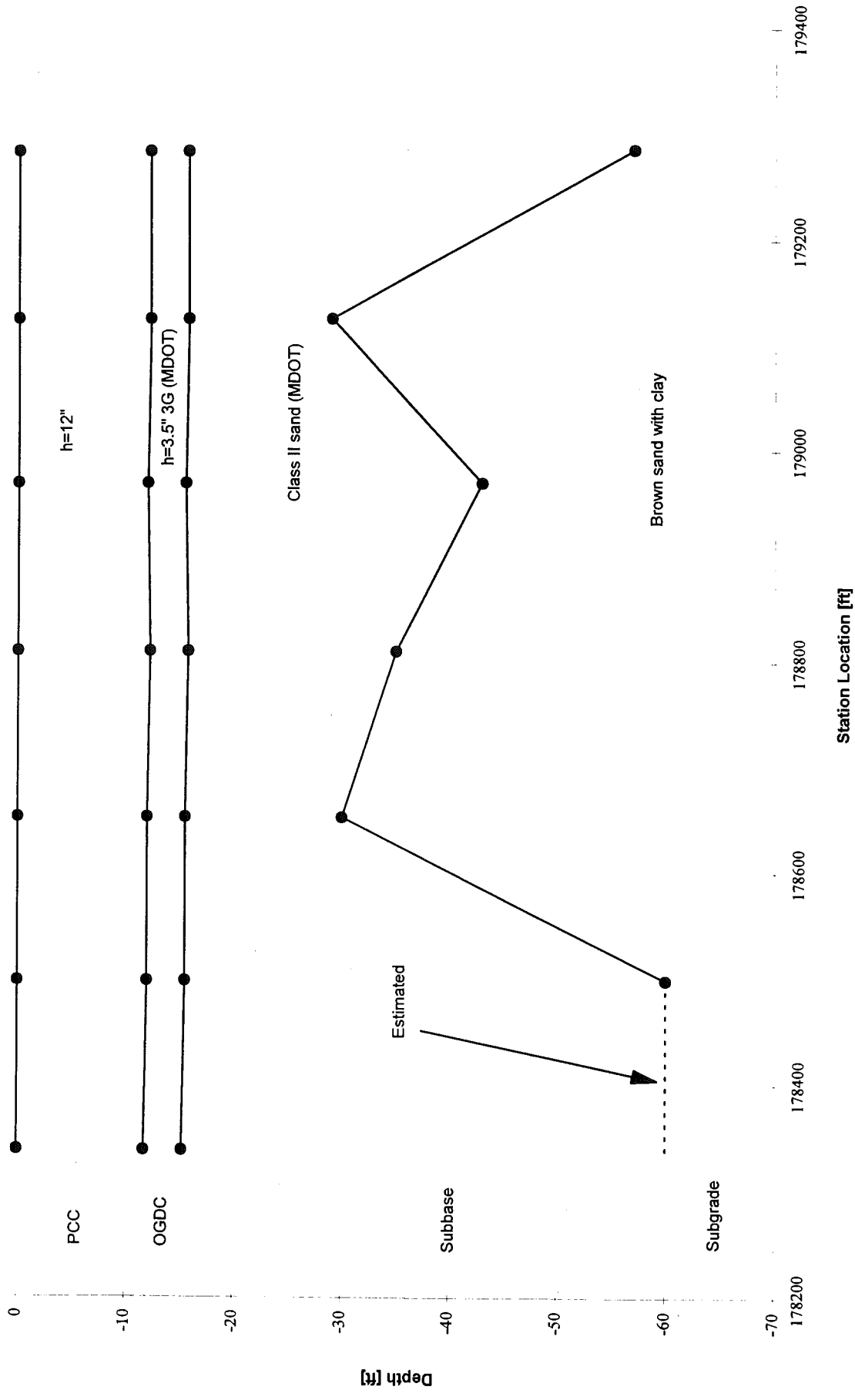
DCP

Base: 18 - 25 mm/blow

Subbase: 4 - 6 mm/blow

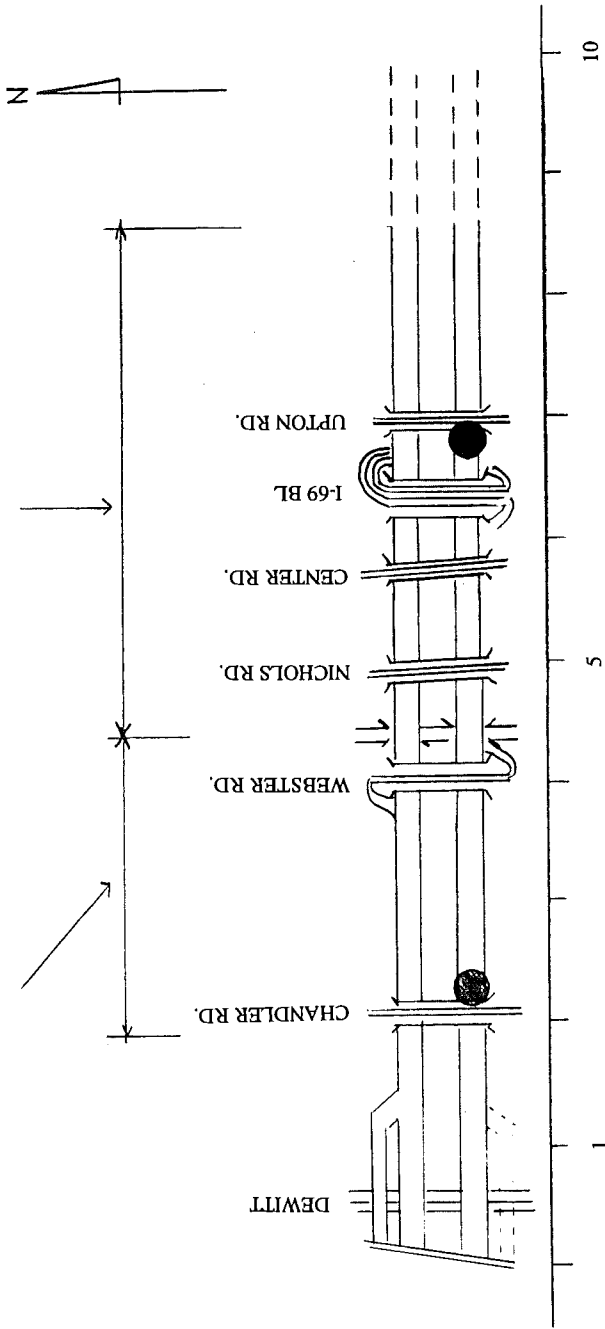
Other

I-94 11017-32516A (Section D) WB Profile



I-69 19042-02233A

I-69 19042-24680A



● Test Section

SECTION OVERVIEW

CSN/JN: 19042-24680A (Section B)

Site Information:

Job Location: I -69, East Bound, East of Chandler Road
Total lane ESAL's/Year: 406,500

Construction Information:

Date Constructed: September, 1986
Contractor: Tony Angelo
Slab Length: 41 ft.
Pavement System:
 Concrete: 9 in.
 Base: 4 in. OGDC, specified ????
 Subbase: 8 in, specified ???
Placing Temperature:
 Concrete: 68 F
 Air: 77 F
Intermediate Shoulder Joints? NO
Other: 1 ft. embankment beneath subbase
cut to fill section
expansion joints spaced at 328 ft.

Testing Information

Date Tested: 8/14/96
Stations Tested: 275+00 to 281+72
Mileposts Tested: 2.077 to 2.204
Weather Conditions: Cloudy in the morning, sunny at mid-day
Air Temperature: 65 - 95 F
Field Testing :
 Pavement System: FWD - morning, noon, afternoon, Distress Survey,
 Drainage Survey
 Concrete: Concrete Coring
 Foundation: Soil Sampling - base, subbase, embankment/subgrade, DCP
Laboratory Testing:
 Concrete: Compressive Strength, Split Tensile Strength,
 Elastic Modulus
 Foundation: Sieve Analysis - gradation of base, subbase, subgrade
 Loss on Wash - subbase, subgrade

Field Observations

Distress Noted: Minor transverse cracking, minor spalling
Few very thin transverse cracks initiated in outer wheel path
Network of very small shrinkage cracks detected

Drainage System: Drain outlets spaced at 500 ft.

Other: Joint sealants in poor condition
Timing of surface was very rough

System Performance

Distresses:

PMS: Entire CSN = 0.4 Job tested = 0.328

RQI: 1995 average = 52.074 Average growth = 0.02536

FWD: High load transfer efficiency at joints and cracks
High composite subgrade reaction calculated
High corner deflections, low midslab deflections

Concrete Properties

Avg. Thickness: in.

Avg. Compressive Strength: 6360 psi

Avg. Split Tensile Strength: 600 psi

Avg. Elastic Modulus: 4.60E+06 psi

Other: Concrete thickness increases as base gradation changes

Foundation

Gradation:

 Base: OGDC Crushed Stone varies from 5G to 3G classification
 thickness varies from 4 to 2 in as gradation gets coarser

 Subbase: 1 ft thick

Filter Criteria: Core M1 to M5 meet criteria and M6 to M10 do not

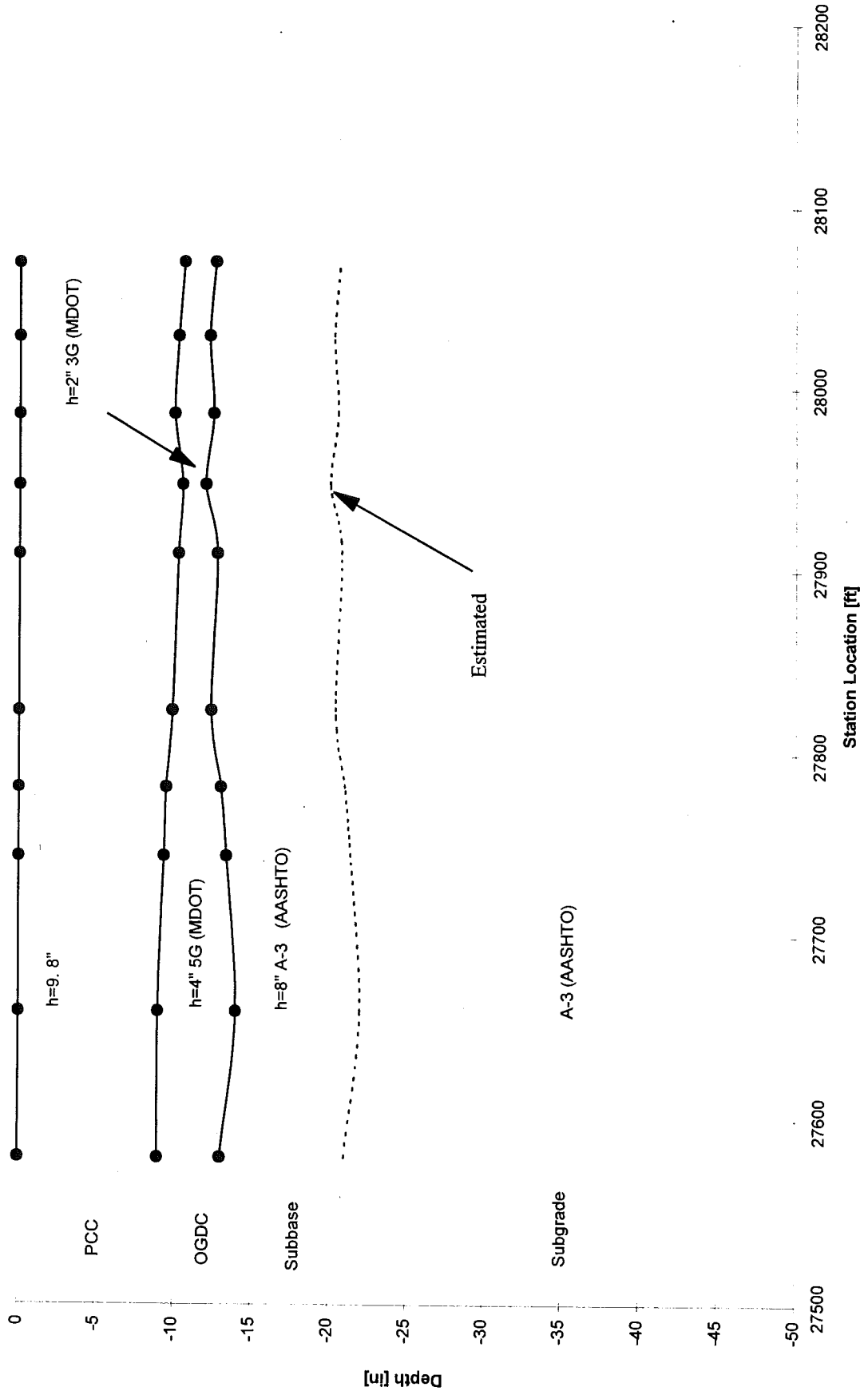
DCP

 Base: 3 - 6 mm/blow (large diameter DCP)

 Subbase: 1 - 2 mm/blow (large diameter DCP)

Other: Subgrade light brown silty clay with trace gravel
Near bridge, embankment sand changes color indicating
different origin

I-69 19042-24680A (Section B) Profile



SECTION OVERVIEW

CSN/JN: 19042-02233A (Section C)

Site Information:

Job Location: I-69, East Bound, East of Upton Road
Total lane ESAL's/Year: 455,300

Construction Information:

Date Constructed: August, 1987
Contractor: Holloway/Denton
Slab Length: 41 ft.
Pavement System:
 Concrete: 9 in.
 Base: 4 in. OGDC specified 3G
 Subbase: Specified 8 in.
Placing Temperature:
 Concrete: 86 F
 Air: 81 F
Intermediate Shoulder Joints?: NO
Other: 1 ft embankment below subbase
Cut Section

Testing Information

Date Tested: 8/7/96
Stations Tested: 527+20 to 533+00
Job Miles Tested: 6.863 to 6.973
Weather Conditions: Hot and Sunny
Air Temperature: 70-105 F
Field Testing :
 Pavement System: FWD - morning, noon, afternoon, Distress Survey,
 Drainage Survey
 Concrete: Concrete Coring
 Foundation: Soil Sampling - base, subbase, embankment/subgrade, DCP
Laboratory Testing:
 Concrete: Compressive Strength, Split Tensile Strength,
 Elastic Modulus
 Foundation: Sieve Analysis - gradation of base, subbase, subgrade
 Loss on Wash - subbase, subgrade

Field Observations

Distress Noted: 1-3 Transverse cracks per slab
Some cracks propagate into shoulder
Minor spalling at transverse cracks.
Joints are in good conditions

Drainage System: Drain outlets spaced at every 500 ft.
At station 527+50 drain was 1/2 clogged
At station 532+50 drain was in good condition
Swamp plants partly cover drains in ditch

Other:

System Performance

Distresses: Minor distress level - transverse cracking + minor spalling
PMS: Entire CSN = 0.4 Job tested = 0.472
RQI: 1995 average = 53.429 Average growth = 0.05636
FWD

Concrete Properties

Avg. Compressive Strength: 6600 psi
Avg. Split Tensile Strength: 660 psi
Avg. Elastic Modulus: 4.73E+06 psi

Foundation

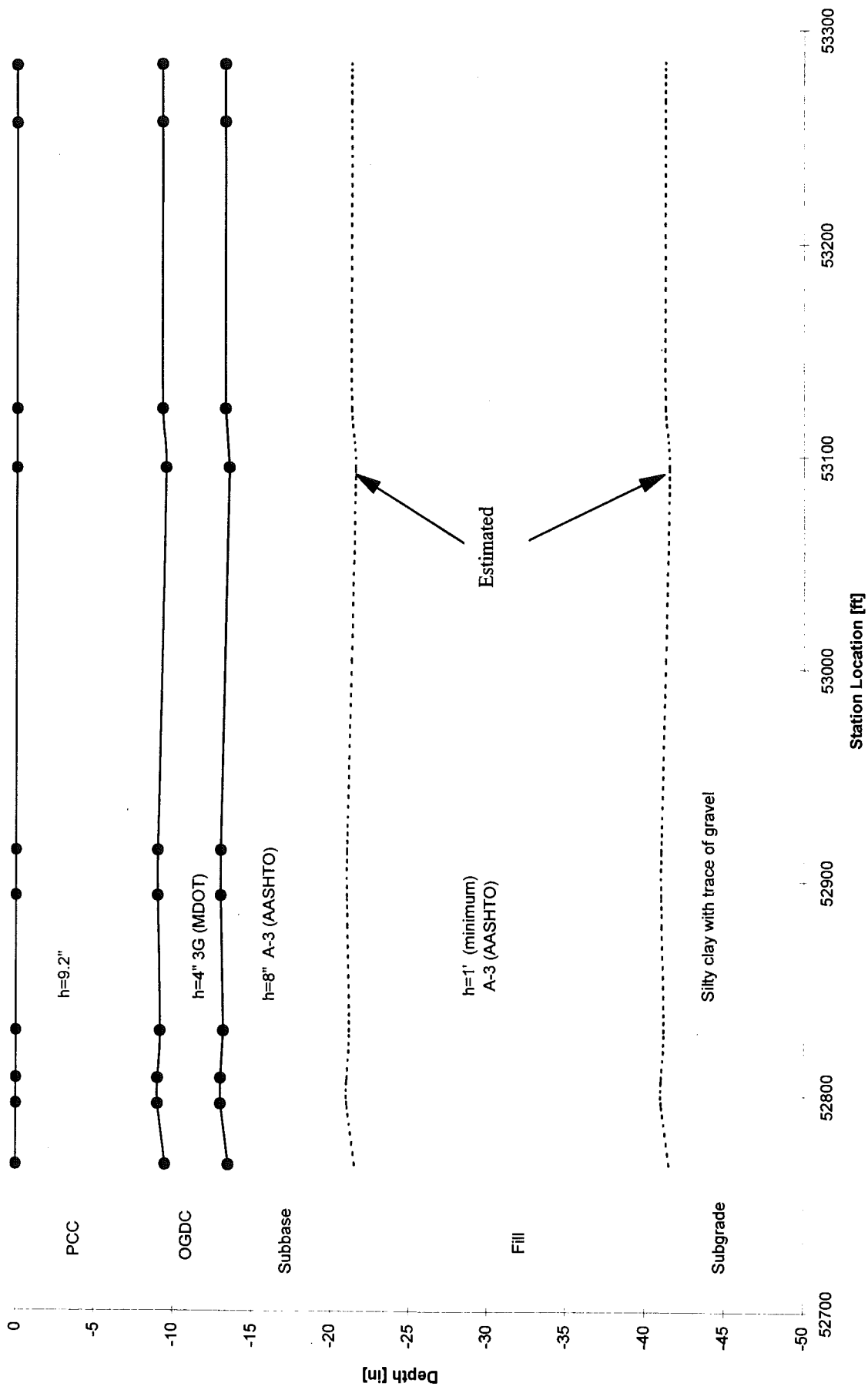
Gradation:
Base Classifies as 3G
Subbase: Sand

Filter Criteria Criteria is met on one out of the five core holes
DCP

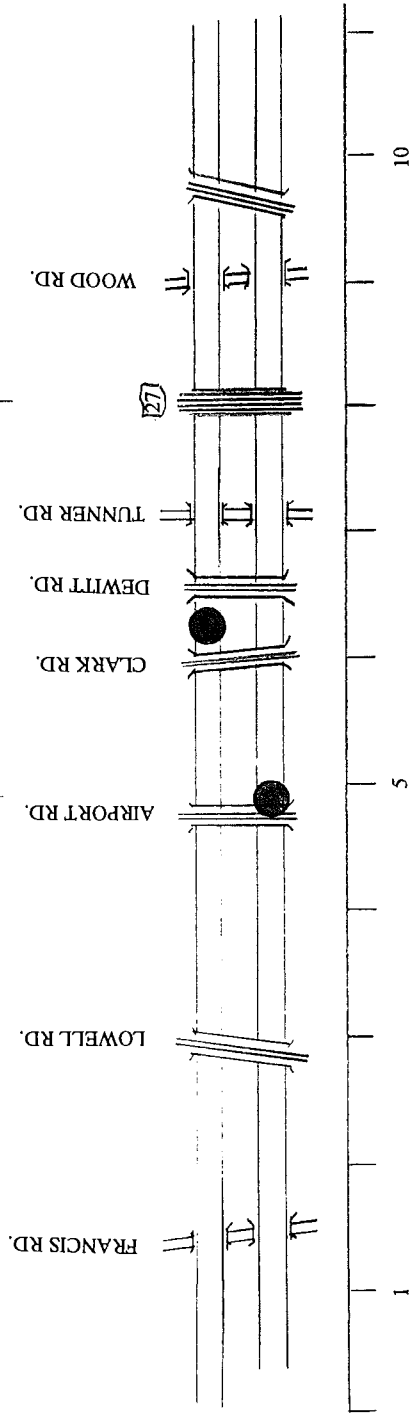
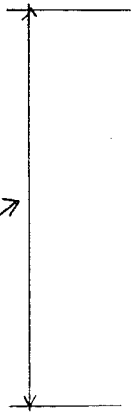
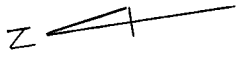
Base: 6 - 11 mm/blow
Subbase: 2 - 3 mm/blow

Other Base thickness varies slightly
Subbase + embankment approx. 2 ft thick.

I-69 19042-02233A (Section C) Profile



I-69 19043-02234A



● Test Section

SECTION OVERVIEW

CSN/JN: 19043-02234 EB

Site Information:

Job Location: I69, East Bound, Between Airport and Clark Road
Total lane ESAL's/Year: 374,000

Construction Information:

Date Constructed:
Contractor: M & B
Slab Length: 41 ft
Pavement System:
 Concrete 9 in
 Base 4 in DGBC
 Subbase 8 in
Placing Temperature:
 Concrete 53 F
 Air 45 F
Intermediate Shoulder
 Joints? YES
Other: 1 ft embankment below subbase

Testing Information

Date Tested: 8/15/96
Stations Tested (metric): 136+98 to 138+97
Miles Tested: 4.943 to 4.980
Weather Conditions: Cloudy in morning, sunny at mid-day
Air Temperature: 60-80 F
Field Testing :
 Pavement System: FWD - morning, noon, afternoon, Distress Survey,
 Drainage Survey
 Concrete: Concrete Coring
 Foundation: Soil Sampling - base, subbase, embankment/subgrade, DCP
Laboratory Testing:
 Concrete: Compressive Strength, Split Tensile Strength,
 Elastic Modulus
 Foundation: Sieve Analysis - gradation of base, subbase, subgrade
 Loss on Wash - subbase, subgrade

Field Observations

Distress Noted:
Drainage System:
Other:

System Performance

Distresses:
PMS: Entire CSN = 4.6 Job tested = 1.32
RQI: 1995 average = 54.4 Average growth = 0.02379
FWD

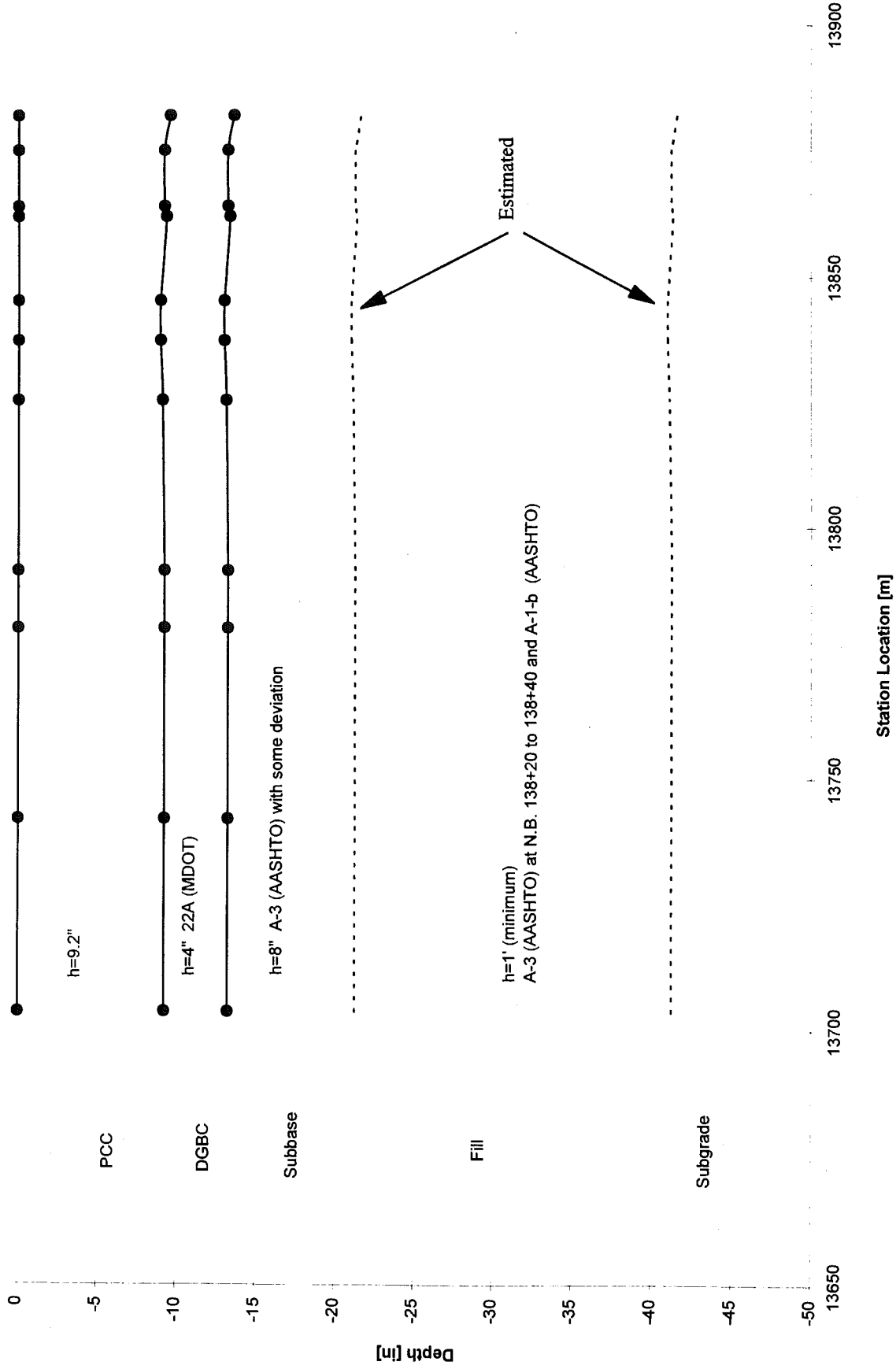
Concrete Properties

Average Thickness:
Avg. Compressive Strength: 7110 psi
Avg. Split Tensile Strength: 550 psi
Avg. Elastic Modulus: 5.23E+06

Foundation

Gradation:
Base Measured 4 in 22A
Subbase: Measured 8 in. with some deviations
Filter Criteria Criteria is met
DCP
Base: 2 - 4 mm/blow (large diameter DCP)
Subbase: 1 - 2 mm/blow (large diameter DCP)
Other

I-69 19043-02234A EB Profile



SECTION OVERVIEW

CSN/JN: 19043-02234A WB

Site Information:

Job Location: I-69, West Bound, between Dewitt and Clark Road
Total lane ESAL's/Year: 374,000

Construction Information:

Date Constructed:
Contractor: M & B
Slab Length: 41 ft
Pavement System:
 Concrete 9 in
 Base 4 in DGBC
 Subbase 8 in
Placing Temperature:
 Concrete 52 F
 Air 43 F
Intermediate Shoulder
 Joints? YES
Other: 1 ft embankment beneath subbase

Testing Information

Date Tested: 10/2/96
Stations Tested (metric): 150+82 to 147+80
Miles Tested:
Weather Conditions: Cloudy in Morning, Sunny at mid-day
Air Temperature: 35-65 F
Field Testing :
 Pavement System: FWD - morning, noon, afternoon, Distress Survey,
 Drainage Survey
 Concrete: Concrete Coring
 Foundation: Soil Sampling - base, subbase, embankment/subgrade, DCP
Laboratory Testing:
 Concrete: Compressive Strength, Split Tensile Strength,
 Elastic Modulus
 Foundation: Sieve Analysis - gradation of base, subbase, subgrade
 Loss on Wash - subbase, subgrade

Field Observations

Distress Noted: Very Low level of Transverse cracking
Transverse cracks initiated at intermediate shoulder joints
Not all intermediate joints had transverse cracks
and width of cracks decreased going west
Joints in good condition

Drainage System:

Other:

System Performance

Distresses:

PMS: Entire CSN = 3.3 Job tested = 4.22
RQI: 1995 average = 53.1667 Average growth = 0.02542
FWD Fair load transfer efficiency at joints
Good load transfer efficiency at transverse cracks
Low composite subgrade reaction K

Concrete Properties

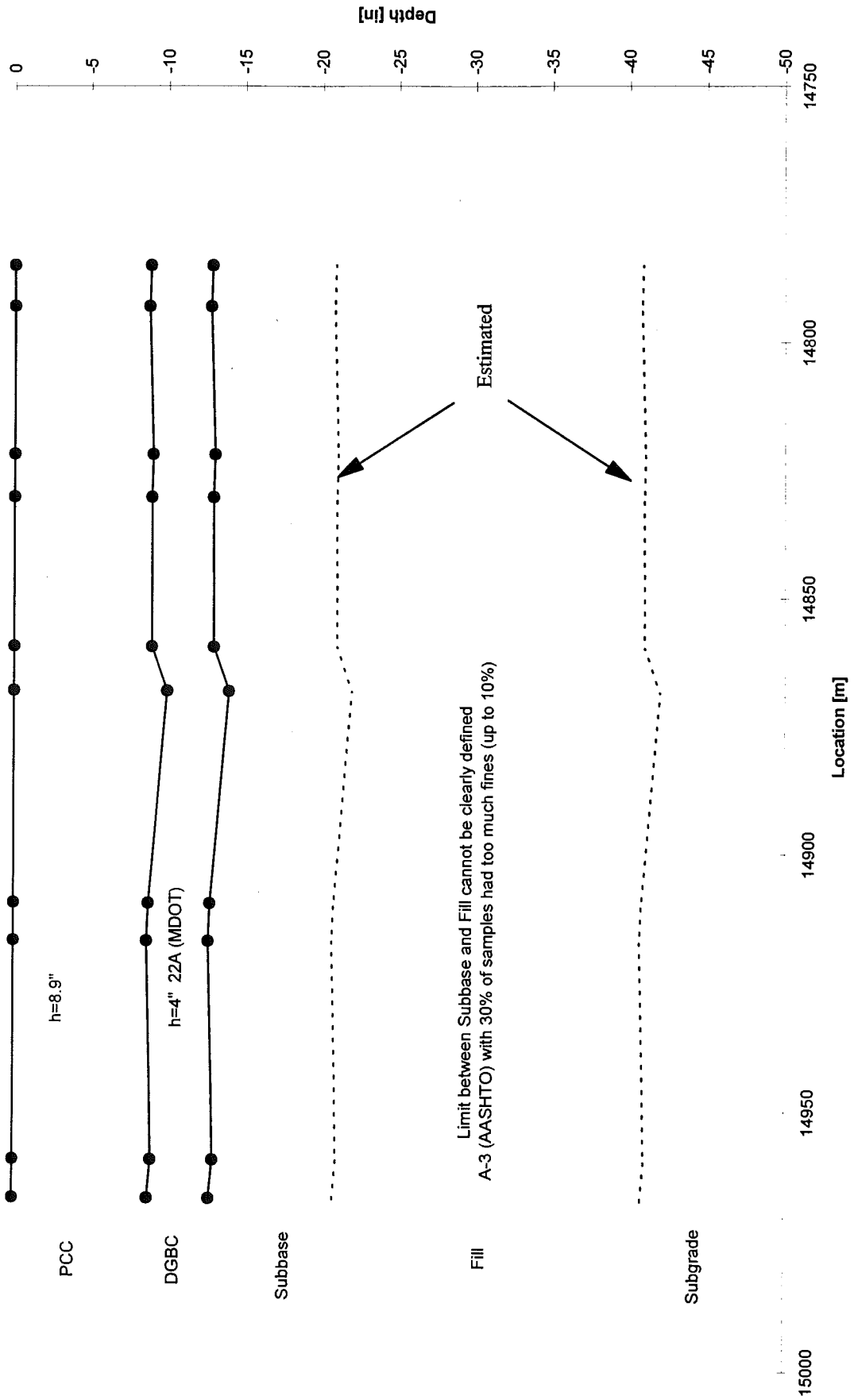
Avg. Thickness: 8.9 in
Avg. Compressive Strength: 6720
Avg. Split Tensile Strength: 590
Avg. Elastic Modulus: 5.49E+06

Foundation

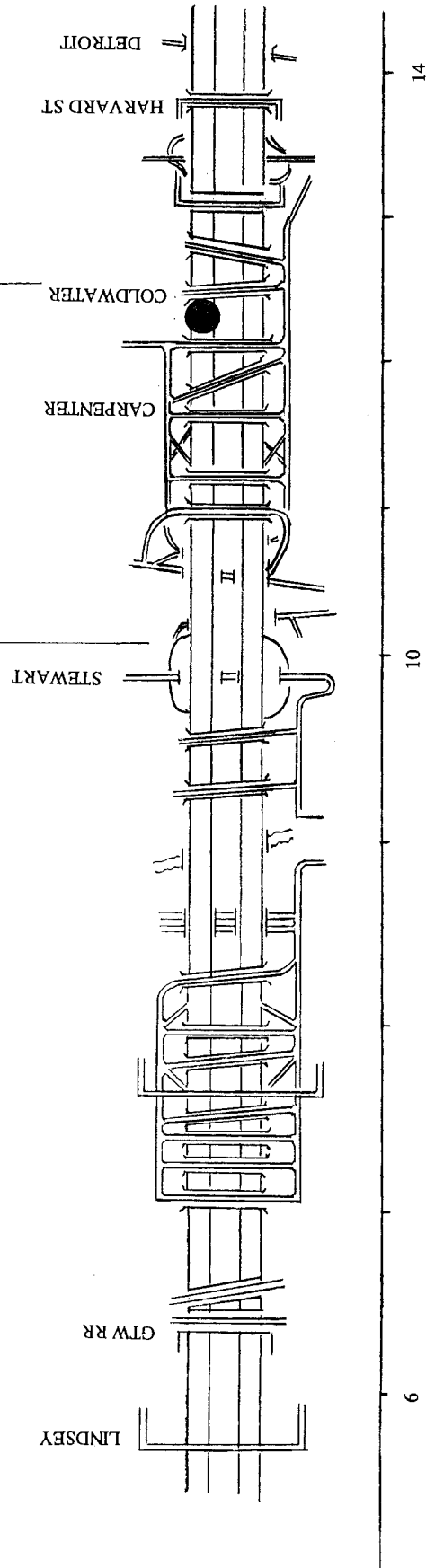
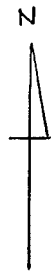
Gradation:

 Base Measured 4 in. 22A
 Subbase: Measured 8 in.
Filter Criteria No samples (for subbase)
DCP
 Base: 4 - 10 mm/blow
 Subbase: 2 - 3 mm/blow
Other

I-69 19043-02234A WB Profile



I-475 25132-06582A



● Test Section

SECTION OVERVIEW

CSN/JN: 25132-06582A

Site Information:

Job Location: I-475, South Bound, South of Coldwater Road Overpass
Total lane ESAL's/Year: 316,200

Construction Information:

Date Constructed: 1981
Contractor:
Slab Length: 44 ft.
Pavement System:
 Concrete 9 in
 Base 4 in DGBC
 Subbase
Placing Temperature:
 Concrete
 Air
Intermediate Shoulder
 Joints? YES
Other: Sewers for Drainage

Testing Information

Date Tested: 6/26/97
Stations Tested: 660+30 to 649+97
Mileposts Tested:
Weather Conditions: Mostly Sunny
Air Temperature: 80 to 85 F
Field Testing :
 Pavement System: FWD - morning, afternoon, Distress Survey, Drainage
 Survey, Faultmeter
 Concrete: Concrete Coring
 Foundation: Soil Sampling - base, subbase, subgrade, DCP
Laboratory Testing:
 Concrete: Compressive Strength, Split Tensile Strength,
 Elastic Modulus
 Foundation: Sieve Analysis - gradation of base, subbase, subgrade
 Loss on Wash - base, subbase, subgrade

Field Observations

Distress Noted: Moderate Distress. Sympathy cracks from shoulder joints, transverse cracks initiated by sewer grates, moderate spalling, some faulting, Joints are in good condition
Drainage System: Sewer system provides drainage, sewers every 300 ft.
Other:

System Performance

Distresses:
PMS: Entire CSN = 11.2 Job tested = 3.16
RQI: 1995 average = 55.88 Average growth = 0.01181
FWD Good load transfer at joints and cracks

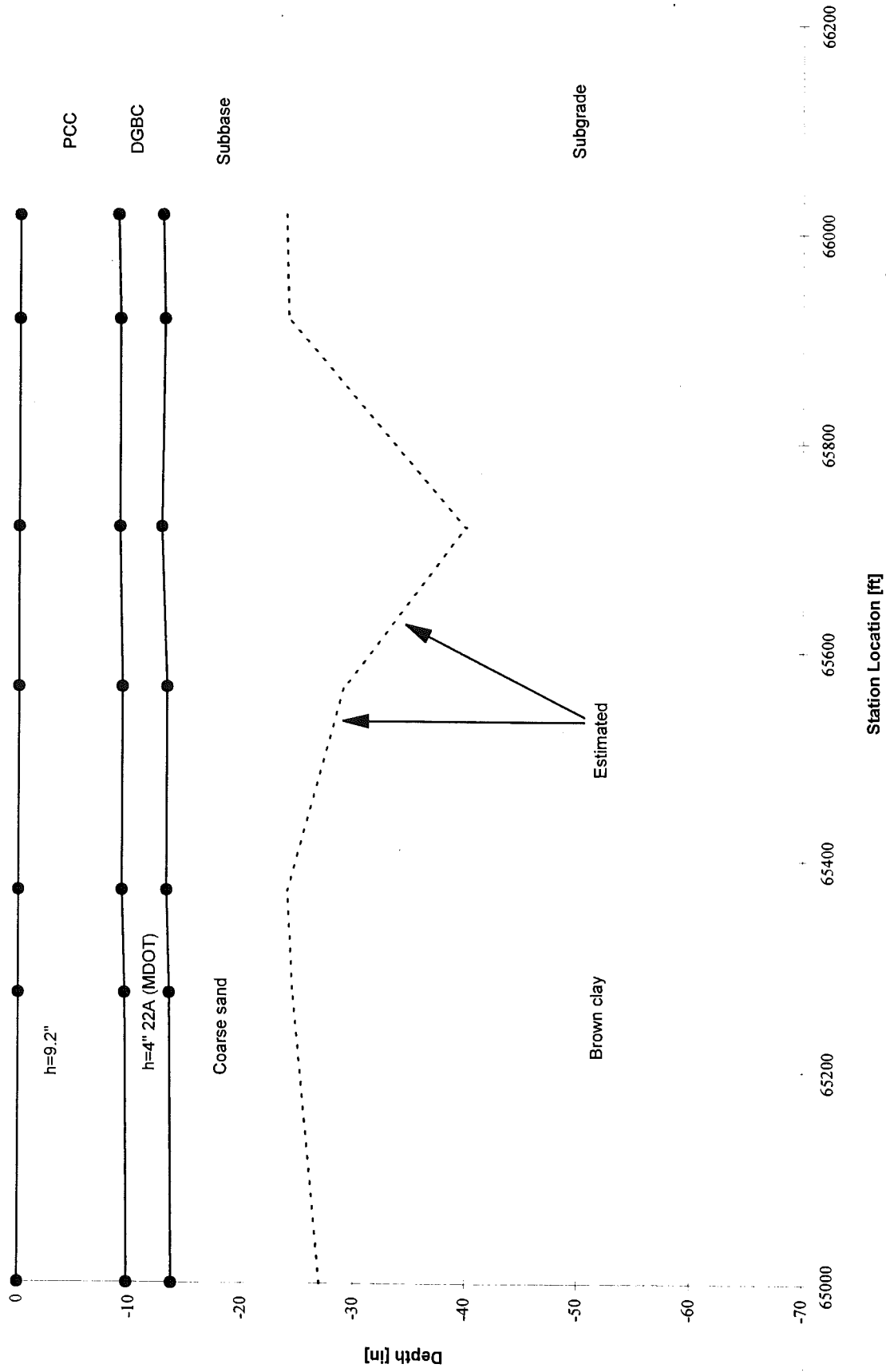
Concrete Properties

Average Thickness:
Avg. Compressive Strength: 5670 psi
Avg. Split Tensile Strength: 680 psi
Avg. Elastic Modulus: 5.69E+06 psi

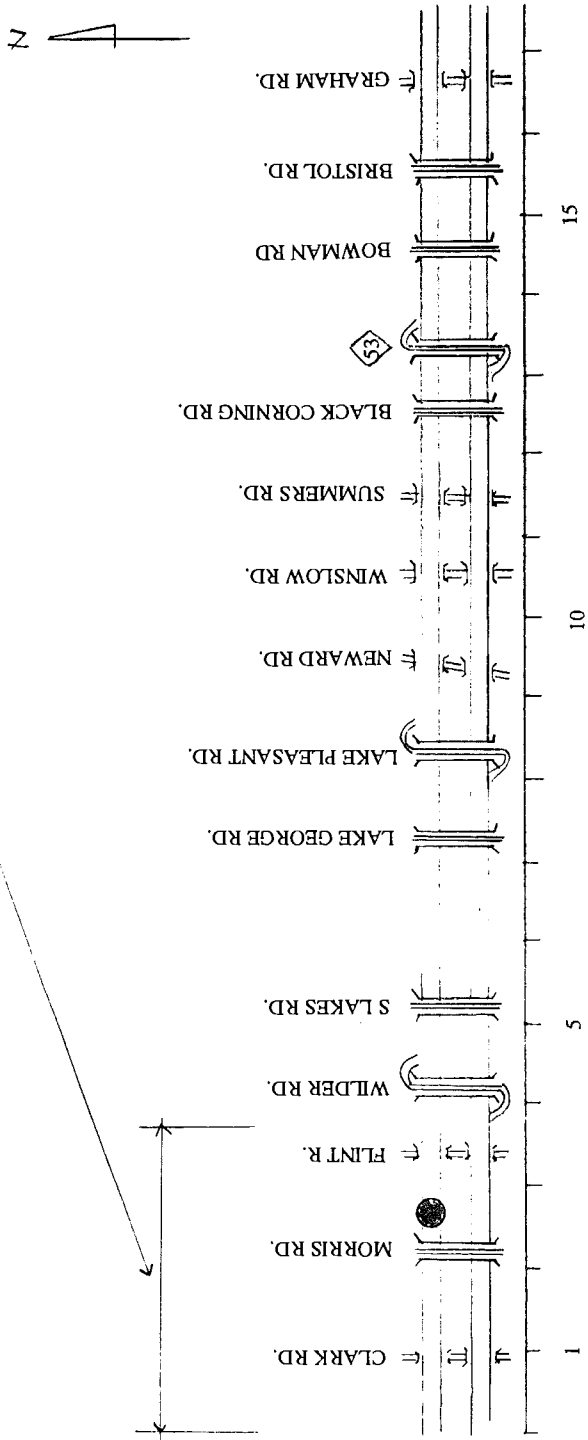
Foundation

Gradation:
Base Measured 4 in. 22A
Subbase: Measured 10 in.
Filter Criteria Criteria is met
DCP
Base: 7 - 12 mm/blow
Subbase: 4 - 7 mm/blow
Other

I-475 25132-06582A SB Profile



I-69 44044-18804A



SECTION OVERVIEW

CSN/JN: 44044-18804A

Site Information:

Job Location: I-69, West Bound, Between Morris Road and Clark Road
Total lane ESAL's/Year: 243,900

Construction Information:

Date Constructed: September, 1984
Contractor: Denton Construction
Slab Length: 41 ft
Pavement System:
 Concrete: 9 in
 Base: 4 in OGDC
 Subbase: 8 in
Placing Temperature:
 Concrete: 71 F
 Air: 69 F
Intermediate Shoulder
 Joints? YES
Other: 1 ft embankment beneath subbase

Testing Information

Date Tested: 7/23/96
Stations Tested: 671+70 to 666+04
Miles Tested: 1.732 to 1.839
Weather Conditions: Warm and Sunny
Air Temperature: 60 - 95 F
Field Testing :
 Pavement System: FWD - morning, noon, afternoon, Distress Survey,
 Drainage Survey
 Concrete: Concrete Coring
 Foundation: Soil Sampling - base, subbase, embankment/subgrade, DCP
Laboratory Testing:
 Concrete: Compressive Strength, Split Tensile Strength,
 Elastic Modulus
 Foundation: Sieve Analysis - gradation of base, subbase, subgrade
 Loss on Wash - subbase, subgrade

Field Observations

Distress Noted: High Distress Level, transverse cracking, spalling, and some faulting
Transverse cracks propagate from shoulder joints
Decreasing spalling and avg. crack width going west
Faulting of 0.25 in at station 669+00
Joints in good condition

Drainage System:

Other:

System Performance

Distresses:

PMS: Entire CSN = 2.6 Job tested = 0.883
RQI: 1995 average = 50.83 Average growth = 0.07307
FWD: Good load transfer efficiency of joints.
Low composite subgrade reaction K

Concrete Properties

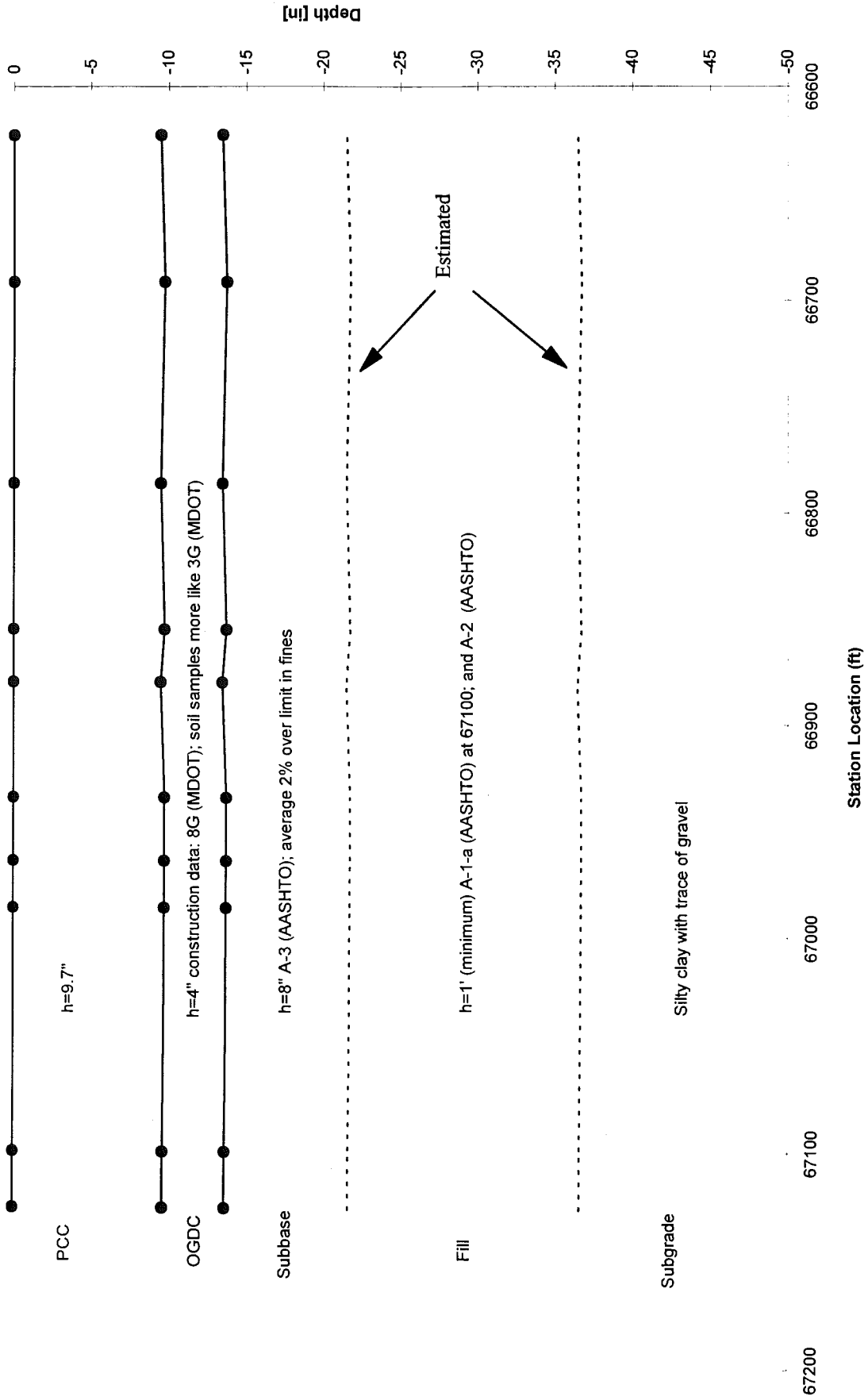
Avg. Compressive Strength: 7450 psi
Avg. Split Tensile Strength: 555 psi
Avg. Elastic Modulus: 4.72E+06 psi

Foundation

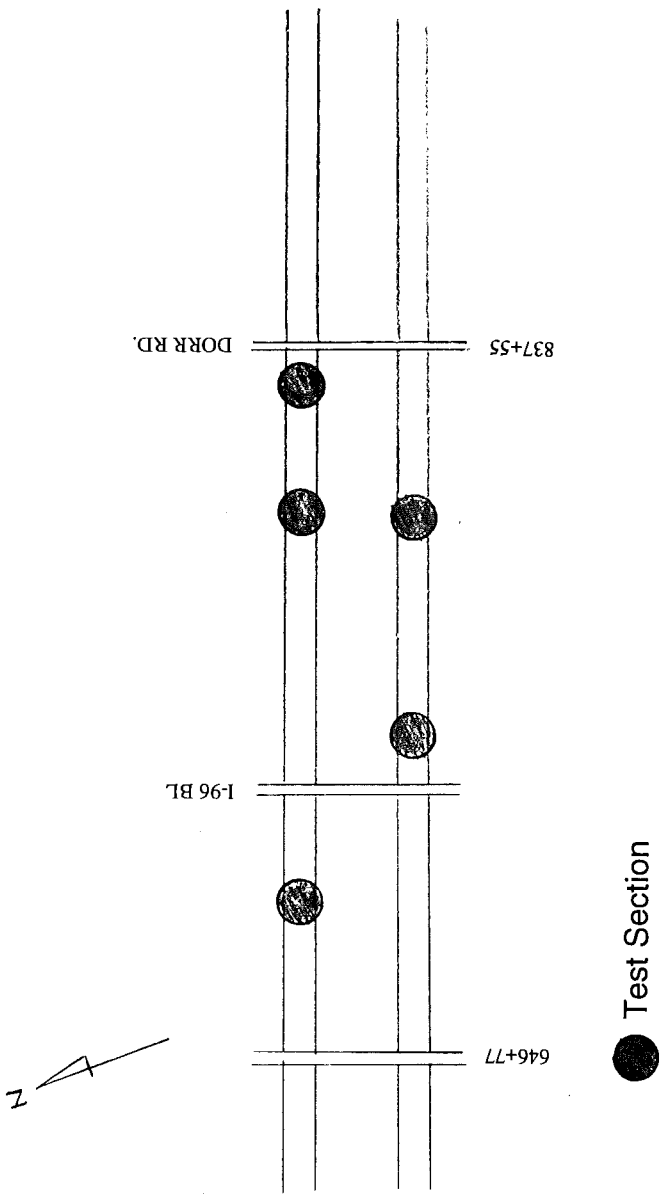
Gradation:

Base: Measured 4 in. 3G
Subbase: Measured 8 in. sand
Filter Criteria: Not met
DCP
Base: 9 - 25 mm/blow
Subbase: 3 - 5 mm/blow
Other:

I-69 44044-18804A WB Profile



I-96 47065-28215A



SECTION OVERVIEW

CSN/JN: 47065-28215A

Site Information:

Job Location: I-96 East Bound and West Bound
Total lane ESAL's/Year: 657,700

Construction Information:

Date Constructed: Westbound, Fast lane and Shoulder, 4/30/97 to 5/14/97
Eastbound, Fast Lane and Shoulder, 7/14/97 to 7/21/97
Contractor: Interstate Highway Construction
Slab Length: 15 ft.
Pavement System:
 Concrete 10 in.
 Base 4 in OGDC
 Subbase 10 in Granular
Placing Temperature:
 Concrete
 Air
Intermediate Shoulder
 Joints? NO
Other: 3 in aggregate separator specified 22A below base.

Testing Information

Date Tested: WB 6/3/97, EB 7/31/97
Stations Tested: Westbound 680+00 to 686+00 3G Slag
Westbound 785+55 to 796+00 350 AA Limestone
Westbound 820+65 to 829+84 350 AA Slag
Eastbound 728+00 to 733+66 3G Slag
Eastbound 784+88 to 795+07 3G Limestone
Weather Conditions: Mostly Sunny
Air Temperature: 80-85 F
Field Testing :
 Pavement System: FWD - morning, afternoon; Distress Survey
 Concrete(*EB only*): Concrete Coring
 Foundation(*EB only*): Soil Sampling - base, subbase, subgrade, DCP
Laboratory Testing(*EB only*):
 Concrete: Compressive Strength, Split Tensile Strength,
Elastic Modulus
 Foundation: Sieve Analysis - gradation of base, subbase, subgrade
Loss on Wash - subbase, subgrade

Field Observations

Distress Noted: None

Drainage System:

Other:

System Performance

Distresses:

PMS: N/A

RQI: N/A

FWD:

Concrete Properties

Average Thickness:

Avg. Compressive Strength: 4370 psi

Avg. Split Tensile Strength: 570 psi

Avg. Elastic Modulus: 3.51E+06 psi

Foundation

Gradation:

Base Measured 4 in. 3G limestone and slag

Subbase: Measured 10 in. coarse sand subbase

Filter Criteria

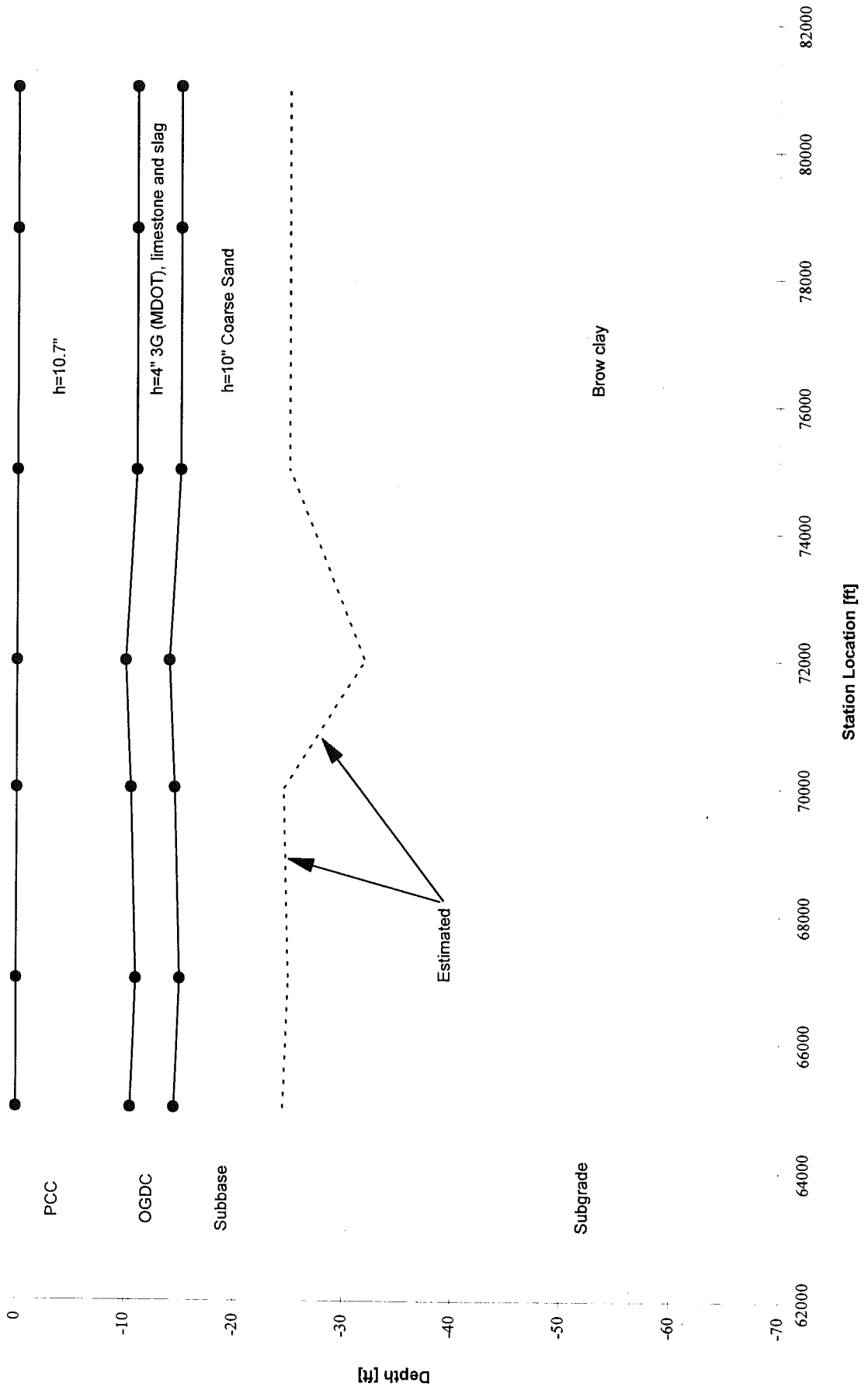
DCP

Base: 12 - 24 mm/blow

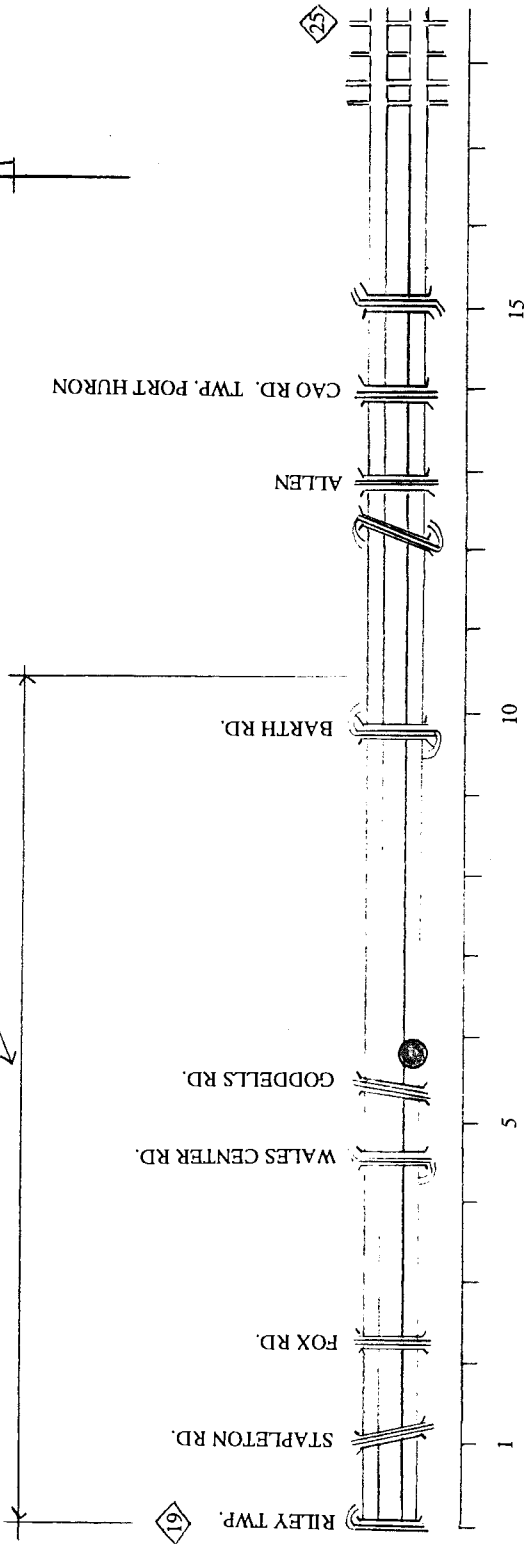
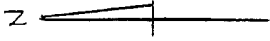
Subbase: 4 - 7 mm/blow

Other

I-96 47065-28215A EB and WB Profile



I-69 77023-21586A



● Test Section

SECTION OVERVIEW

CSN/JN: 77023-21586A

Site Information:

Job Location: I-69, East Bound, East of Goodells Road Overpass
Total lane ESAL's/Year: 178,900

Construction Information:

Date Constructed: 1984
Slab Length: 41 ft
Pavement System:
 Concrete: 9 in
 Base: 4 in OGDC, specified 8G
 Subbase
Placing Temperature:
 Concrete
 Air
Intermediate Shoulder
 Joints? YES
Other:

Testing Information

Date Tested: 7/2/97
Stations Tested: 1819+87 to 1835+03
Mileposts Tested:
Weather Conditions: Foggy and Overcast in the Morning, Clear in the Afternoon
Air Temperature: 65-90 F
Field Testing :
 Pavement System: FWD - morning, afternoon, Distress Survey, Drainage
 Survey, Faultmeter
 Concrete: Concrete Coring
 Foundation: Soil Sampling - base, subbase, subgrade, DCP
Laboratory Testing:
 Concrete: Compressive Strength, Split Tensile Strength,
 Elastic Modulus
 Foundation: Sieve Analysis - gradation of base, subbase, subgrade
 Loss on Wash - subbase, subgrade

Field Observations

Distress Noted: Severe transverse cracking, faulting and spalling for first 1/3 of section. Slight improvement in performance in second 2/3 of section

Drainage System: Drain outlets severely clogged with sand

Other: Cold patching is wearing off cracks, Joints are in good condition

System Performance

Distresses:

PMS: Entire CSN = 8.1 Job tested = 3.96

RQI: N/A

FWD: Low load transfer at joints and cracks

Concrete Properties

Average Thickness:

Avg. Compressive Strength: 7070 psi

Avg. Split Tensile Strength: 725 psi

Avg. Elastic Modulus: 5.34E+06 psi

Foundation

Gradation:

 Base: Measured 3.9 in. most closely fits 3G

 Subbase: Measured 10-13 in.

Filter Criteria: Not met

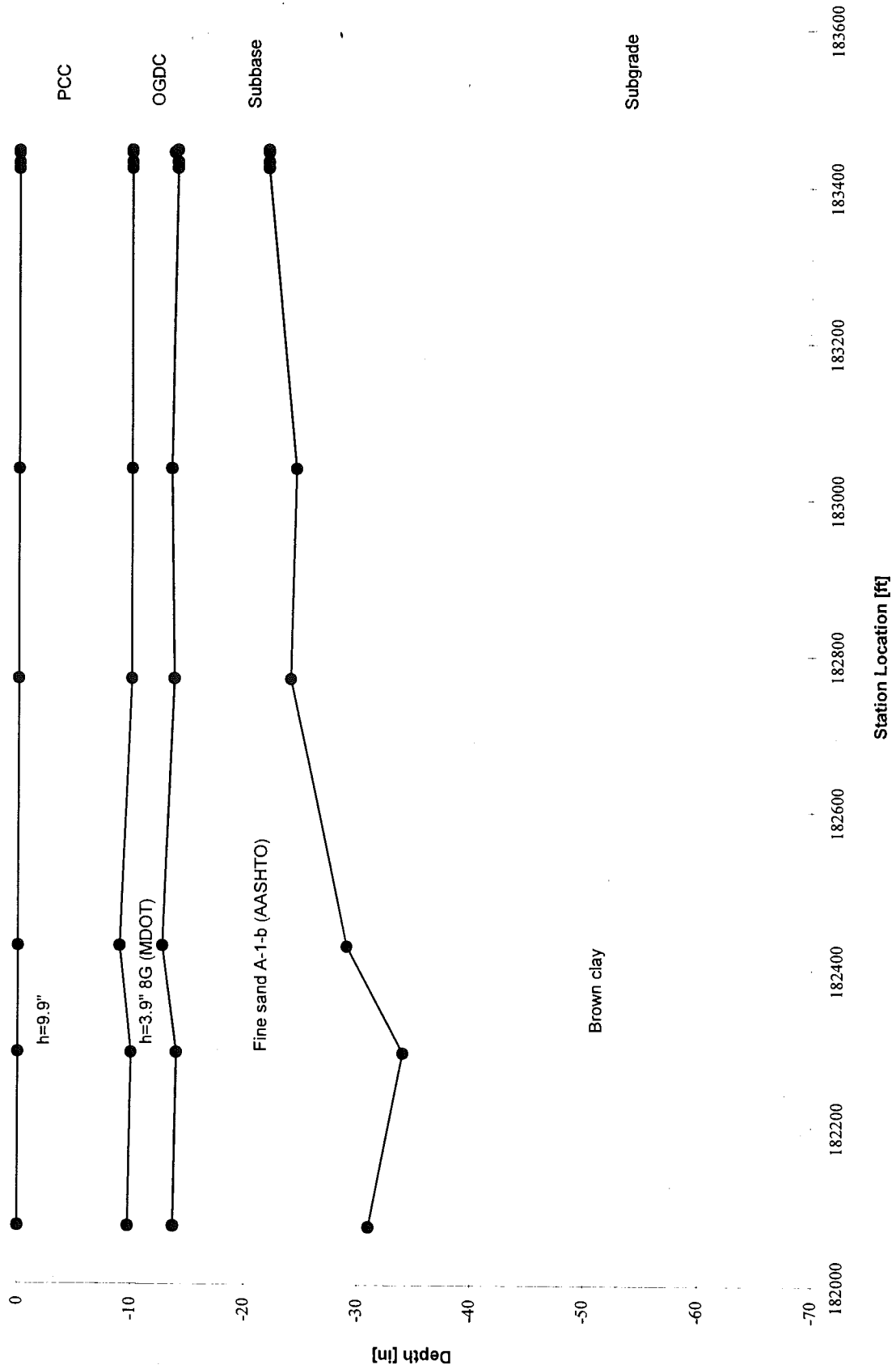
DCP

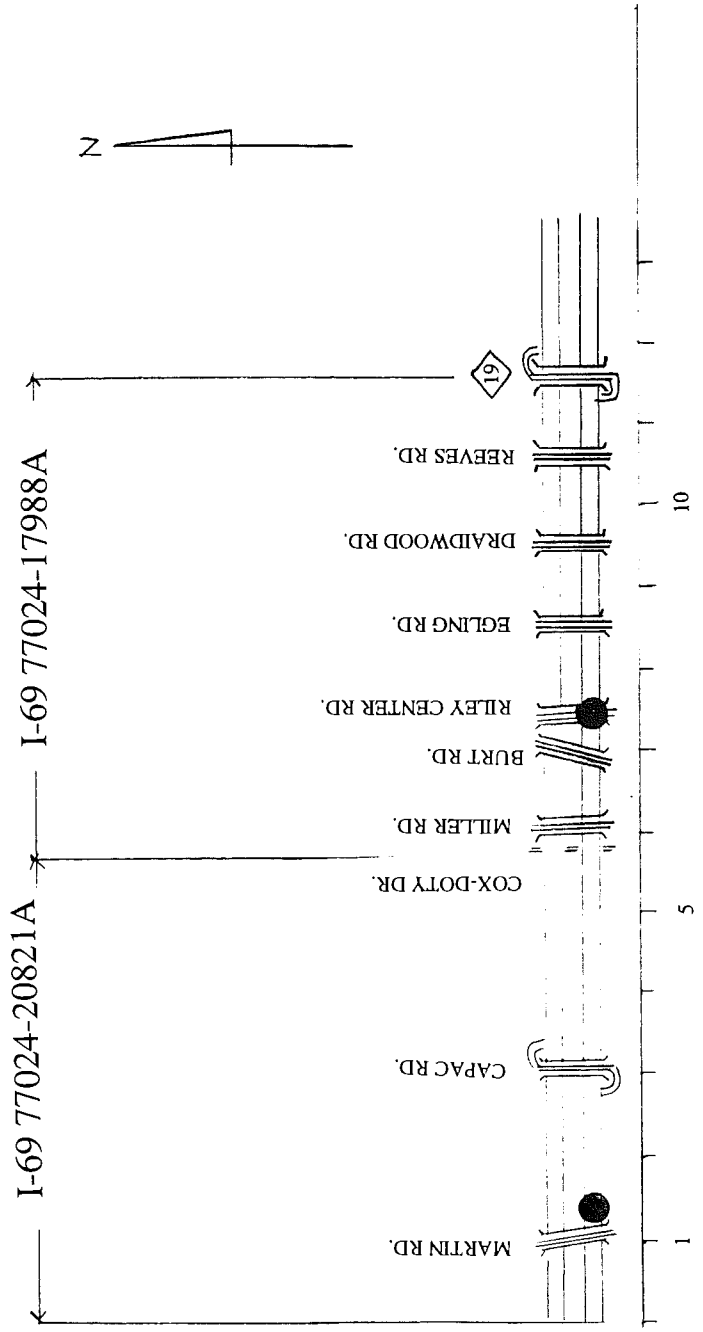
 Base: 16 - 25 mm/blow

 Subbase: 8 - 14 mm/blow

Other:

I-69 77023-21586A EB Profile





SECTION OVERVIEW

CSN/JN: 77024-20821A (Section A)

Site Information:

Job Location: I-69, East Bound, Between Martin Road and Exit 176
Total lane ESAL's/Year: 178,900

Construction Information:

Date Constructed: July, 1983
Contractor: Denton Construction
Slab Length: 41 ft
Pavement System:
 Concrete: Specified 9 in.
 Base: Specified 4 in.
 Subbase: Specified 8 in.
Placing Temperature:
 Concrete: 82 F
 Air: 75 F
Intermediate Shoulder Joints?: YES
Other: Lowland swampy area, cut to fill section

Testing Information

Date Tested: 10/17/96
Stations Tested: 83+50 to 90+00
Miles Tested: 1.312 to 1.430
Weather Conditions: Partly Sunny
Air Temperature: 50 to 70 F
Field Testing :
 Pavement System: FWD - morning, noon, afternoon, Distress Survey,
 Drainage Survey
 Concrete: Concrete Coring
 Foundation: Soil Sampling - base, subbase, embankment/subgrade, DCP
Laboratory Testing:
 Concrete: Compressive Strength, Split Tensile Strength,
 Elastic Modulus
 Foundation: Sieve Analysis - gradation of base, subbase, subgrade
 Loss on Wash - subbase, subgrade

Field Observations

Distress Noted: Very high distress, transverse cracking, spalling and faulting
joints
Transverse cracks initiated from intermediate shoulder
Drainage System: Drain outlets spaced at 500 ft
Drains in shoulder were 1/2 clogged with standing water
Drains in median were 1/2 clogged, but no standing water
Other: Drains in shoulder were covered by vegetation
Joints in good condition.
Severe faulting coincides with heavy spalling at cracks
Silt pockets found in subgrade near areas of high faulting

System Performance

Distresses:
PMS: Entire CSN = 1.9 Job tested = 0.448
RQI: 1995 average = 53.33 Average growth = 0.0488
FWD: Low corner deflections
Low load transfer efficiency at transverse cracks and joints

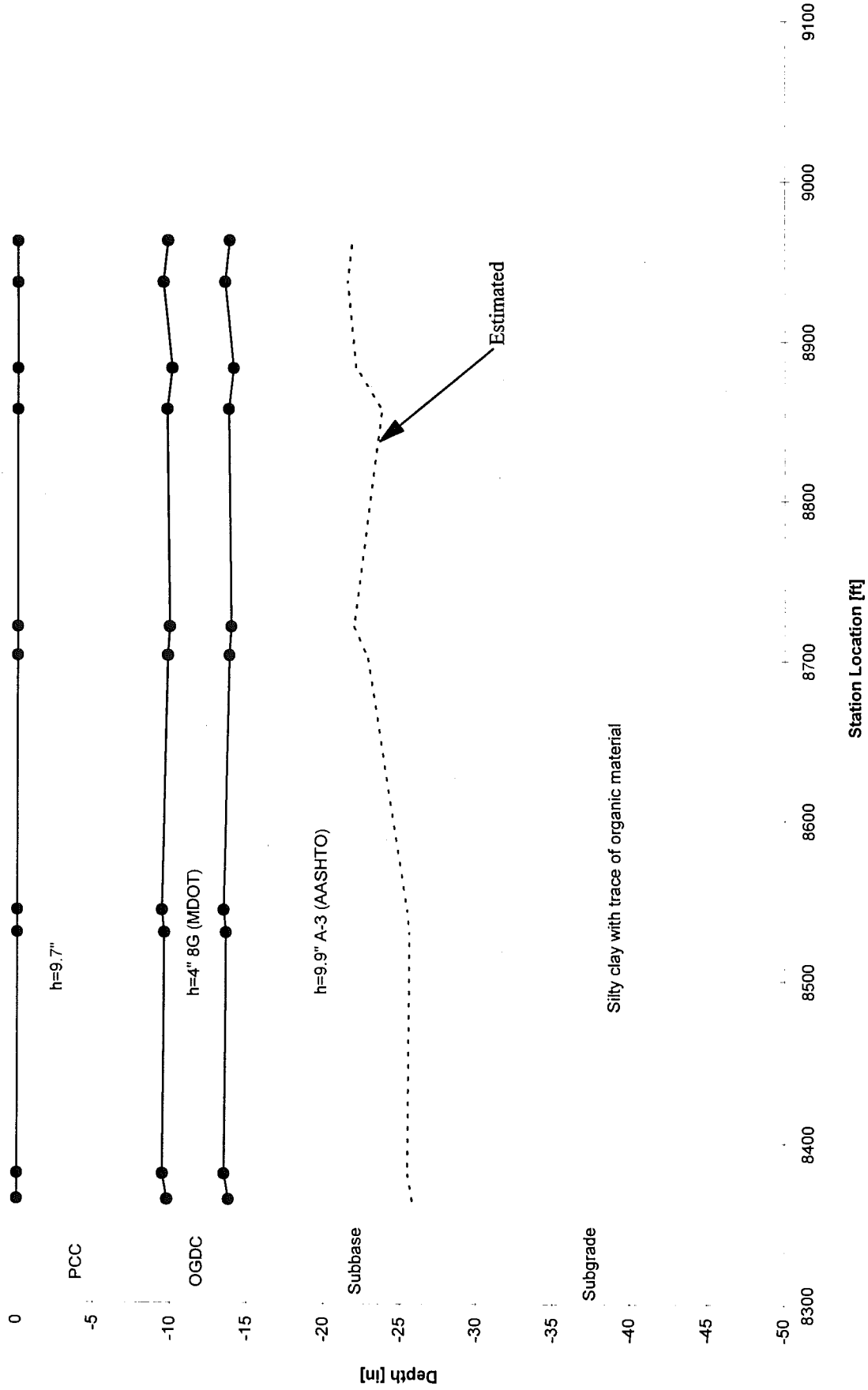
Concrete Properties

Avg. Compressive Strength: 6640
Avg. Split Tensile Strength: 725
Avg. Elastic Modulus: 5.63E+06

Foundation

Gradation:
Base Measured 4 in. 8G as specified
Subbase: Measured 9.9 in
Filter Criteria Subgrade is too fine for filter criteria
DCP Very low throughout job
Base: 18 - 25 mm/blow
Subbase: 9 - 38 mm/blow
Other Very high moisture content in base and subbase.
Very stiff clay subgrade

I-69 77024-20821A (Section A) Profile



SECTION OVERVIEW

CSN/JN: 77024-17988A (Section B)

Site Information:

Job Location: I-69 East Bound, Between Cox-Doty Drain and M19
Total lane ESAL's/Year: 195,100

Construction Information:

Date Constructed: June, 1984
Contractor: John Carlo
Slab Length: 41 ft.
Pavement System:
 Concrete: Specified 9 in.
 Base: Specified 4 in. OGDC 8G classification
 Subbase: Specified 8 in.
Placing Temperature:
 Concrete: 75 F
 Air: 70 F
Intermediate Shoulder
 Joints? YES
Other:

Testing Information

Date Tested: 10/29/96
Stations Tested: 408+06 to 418+29
Mileposts Tested: 7.452 to 7.646
Weather Conditions: Windy and Showers, Rain the night before
Air Temperature: 40 to 50 F
Field Testing :
 Pavement System: FWD - morning, noon, afternoon, Distress Survey,
 Drainage Survey
 Concrete: Concrete Coring
 Foundation: Soil Sampling - base, subbase, embankment/subgrade, DCP
Laboratory Testing:
 Concrete: Compressive Strength, Split Tensile Strength,
 Elastic Modulus
 Foundation: Sieve Analysis - gradation of base, subbase, subgrade
 Loss on Wash - subbase, subgrade

Field Observations

Distress Noted: Transverse cracking at shoulder joints.
Low to moderate spalling
Drainage System: Pea stone edge drain located beneath shoulder
Other: Very wet in ditches and low lying areas
Joints in good condition

System Performance

Distresses:
PMS: Entire CSN = 1.9 Job tested = 3.25
RQI: 1995 average = 55.897 Average growth = 0.0351
FWD: Good load transfer efficiency at cracks and joints

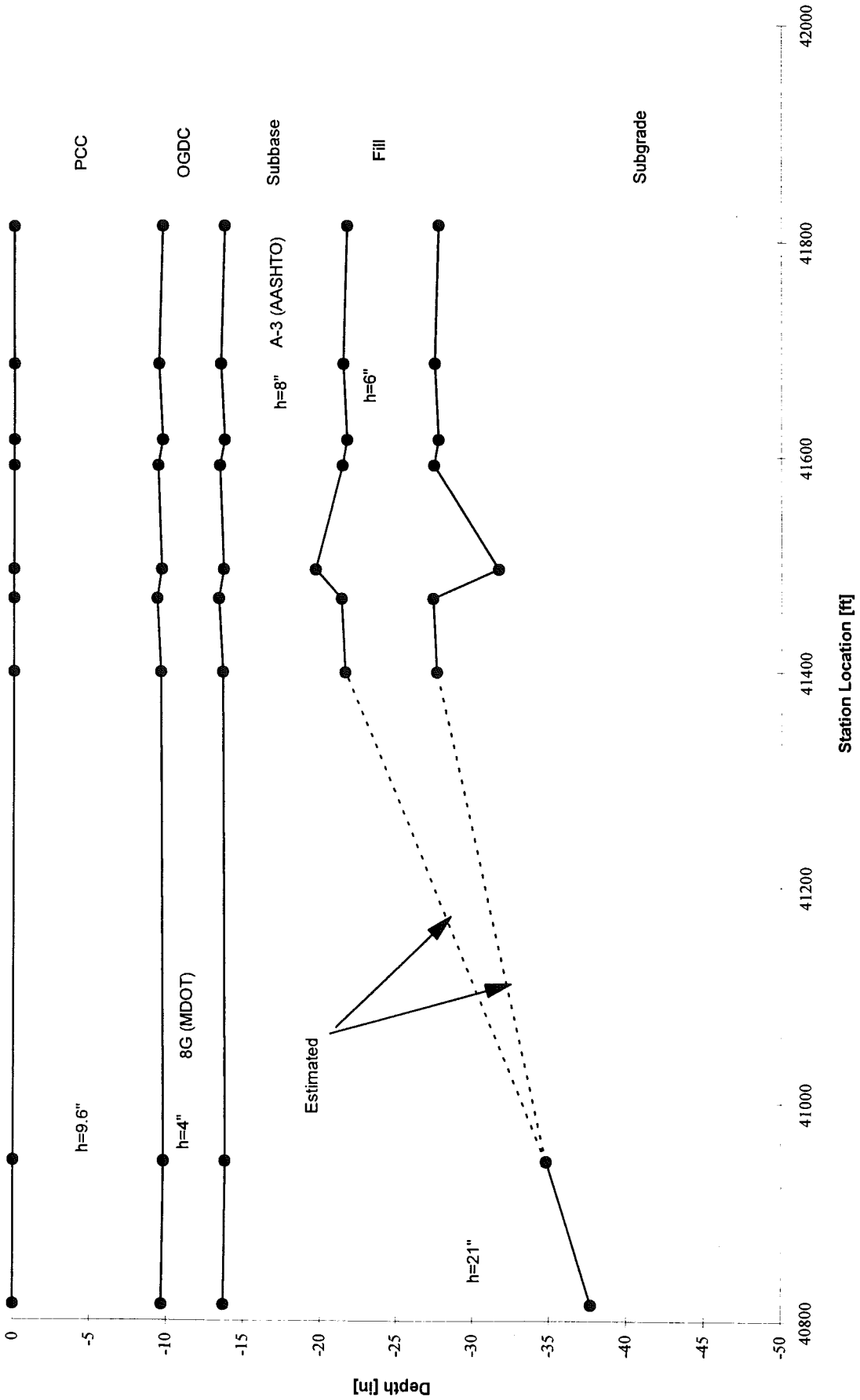
Concrete Properties

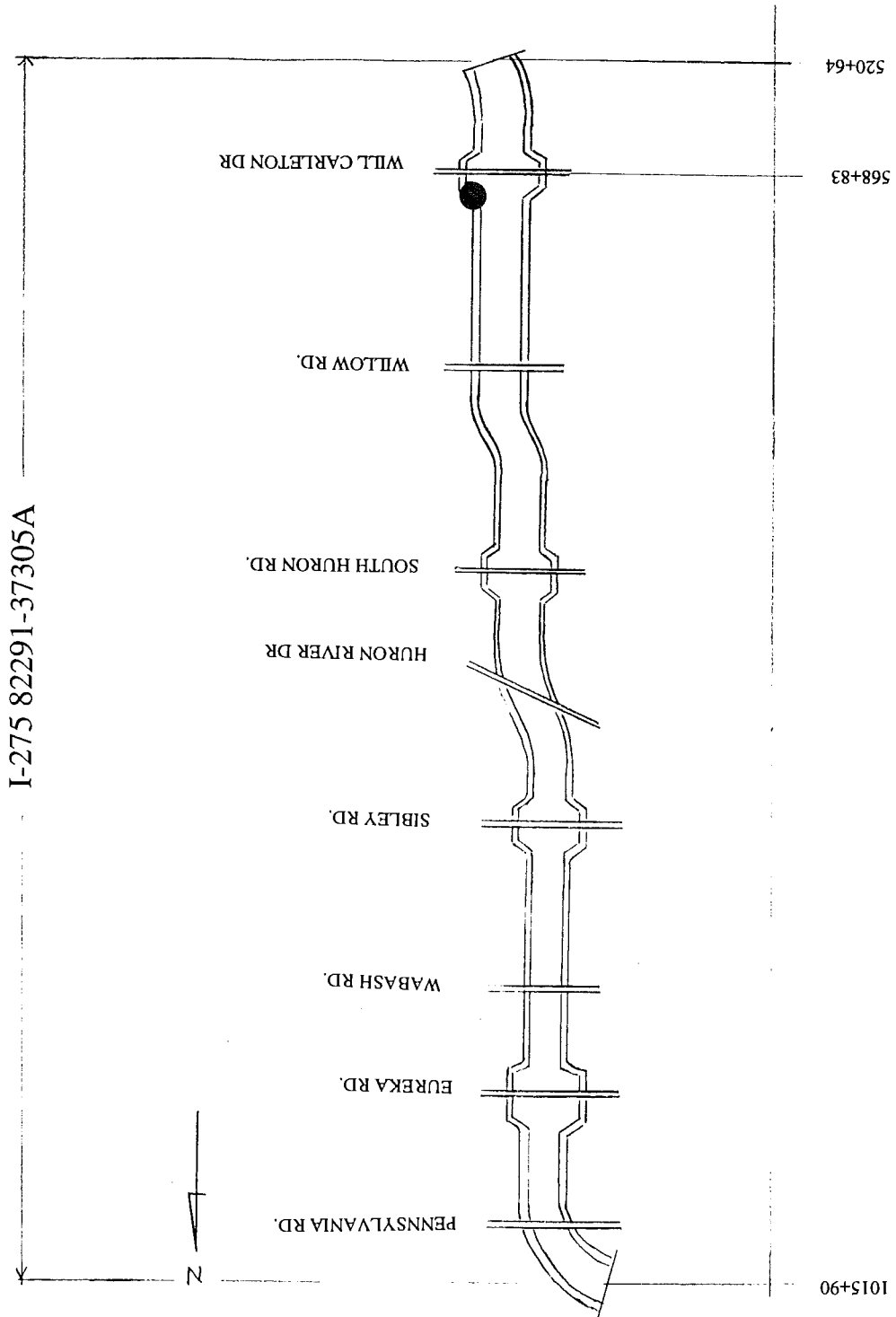
Avg. Compressive Strength: 5960
Avg. Split Tensile Strength: 610
Avg. Elastic Modulus: 4.46E+06

Foundation

Gradation:
 Base Measured 4 in. 8G as specified, high fines content passing
 #200 sieve
 Subbase: Measured 8-21 in.
Filter Criteria Not met
DCP
 Base: 19 - 26 mm/blow
 Subbase: 3 - 15 mm/blow
Other

I-69 77024-17988A (Section B)





● Test Section

SECTION OVERVIEW

CSN/JN: 82291-37305A

Site Information:

Job Location: I-275, North Bound,
Total lane ESAL's/Year: 392,100

Construction Information:

Date Constructed: July and August 1997
Contractor: Interstate Highway Construction
Slab Length: 27 ft
Pavement System:
 Concrete: Specified 11 in.
 Base: Specified 4 in. 350AA crushed limestone
 Subbase: Specified 10 in. sand
Placing Temperature:
 Concrete
 Air
Intermediate Shoulder
 Joints? No
Other: - 4 in. separator between base and subbase
 - Three lanes
 - Between Will Carleton and Williw Road approx. 2-3 in.
of old slag base course was left in place and new base was placed on top of this

Testing Information

Date Tested: 8/7/97 (FWD)
Stations Tested: 572+08 to 577+72
Mileposts Tested:
Weather Conditions: Mostly sunny
Air Temperature: 90 F to 95 F
Field Testing :
 Pavement System: FWD - morning, noon, and afternoon
 Concrete:
 Foundation:
Laboratory Testing:
 Concrete:
 Foundation:

Field Observations

Distress Noted:
Drainage System:
Other:

System Performance

Distresses:
PMS: N/A
RQI: N/A
FWD:

Concrete Properties

Average Thickness:
Avg. Compressive Strength:
Avg. Split Tensile Strength:
Avg. Elastic Modulus:

Foundation

Gradation:
 Base
 Subbase:
Filter Criteria
DCP
 Base: 10 - 24 mm/blow
 Subbase: 5 - 10 mm/blow
Other

APPENDIX C

Pavement Distress

Appendix C. Observed Pavement Distress

This appendix quantifies the distresses observed on site for each test section included in this study. At the site, distress surveys were conducted containing information on transverse cracks, spalling, visual faulting and drain conditions. Based on these observations the distresses have been quantified, and the level of distress has been evaluated.

The distresses quantified were transverse cracking, spalling and faulting. A crack was identified as a transverse crack if it is longer than 4 ft, and spaced more than 4 ft from another crack. The crack widths associated with the transverse cracks were measured using a Crack Comparator Card. The measured crack width was taken as the average of two measurements (e.g. the crack width at outer wheel path and at slab centerline). Spalling was measured as the length of spall; volume estimates were made and can be found on accompanying distress surveys. Faulting was measured using a faultmeter at 2 test sections, however the severity of faulting was estimated for all test sections.

For each test section a table can be found listing each slab, and any distresses associated with it. Shown in the table for each slab is the station number at the midslab; the length of spalling; number of cracks; the total length of cracking in feet; average crack width in the slab; accumulated faulting; number of faults (1 joint is considered with each slab, as are the cracks); and finally the average fault per slab.

In addition, each table quantifies transverse cracking as sum of crack length divided by job length (L/L). This is also done for spalling. These calculations are performed so that the sections may be compared with similar sections in the SHRP LTPP database .

11017-32516A Section A

Slab #	Station number at midslab [ft]	Spalling Length [in]	Transverse Cracking		
			Number of Cracks	Crack Length [ft]	Average Crack Width [mm]
1	179017	0	0	0	0.00
2	179033	0	0	0	0.00
3	179049	0	1	3	0.08
4	179065	0	2	4	0.08
5	179081	4	1	3	0.08
6	179098	0	1	1	0.08
7	179116	0	1	14	0.35
8	179132	0	1	14	0.30
9	179148	0	1	14	0.35
10	179164	0	1	14	0.35
11	179180	0	1	14	0.00
12	179196	0	2	4.5	0.08
13	179212	0	1	14	0.30
14	179228	0	1	14	0.30
15	179244	0	1	14	0.30
16	179260	0	1	14	0.40
17	179276	0	2	4	0.09
18	179292	0	1	2	0.08
19	179308	0	1	14	0.20
20	179324	0	1	14	0.25
21	179340	0	2	3	0.08
22	179356	0	3	9	0.08
23	179372	0	1	3	0.08
24	179388	0	4	8	0.09
25	179404	0	1	2.5	0.08
26	179420	0	2	4	0.10
27	179436	0	2	4.5	0.13
28	179452	0	1	1	0.15
29	179468	0	2	4	0.09
30	179484	0	1	1	0.10
31	179500	0	1	3	0.08
Total length 499 ft		L/L = 0.0007		L/L = 0.4379	

11017-32516A Section C

Slab #	Station number at midslab [ft]	Spalling		Transverse Cracking			Faulting		
		Length [in]	Number of Cracks	Crack Length [ft]	Average Crack Width [mm]	Sum of Faults per Slab [mm]	Number of faulted locations	Average fault [mm]	
1	168270	0	1	0	0.08	-0.300	1	-0.300	
2	168286	0	1	0	0.08	-0.800	1	-0.800	
3	168303	0	1	0	0.08	-0.500	1	-0.500	
4	168220	0	1	0	0.08	-0.400	1	-0.400	
5	168336	0	1	0	0.08	-0.400	1	-0.400	
6	168351	0	1	0	0.08	-0.350	1	-0.350	
7	165368	0	1	0	0.08	-0.400	1	-0.400	
8	168384	0	1	0	0.08	-0.400	1	-0.400	
9	168399	0	1	0	0.08	-0.400	1	-0.400	
10	168416	0	1	0	0.08	-0.300	1	-0.300	
11	168432	0	1	0	0.08	-0.100	1	-0.100	
12	168447	0	1	0	0.08	-0.300	1	-0.300	
13	168464	0	1	0	0.08	-0.500	1	-0.500	
14	168480	0	1	0	0.08	-0.800	1	-0.800	
15	168494	0	1	0	0.08	0.000	1	0.000	
16	168511	0	1	0	0.10	-0.400	1	-0.400	
17	168527	0	0	0	0.00	-0.400	1	-0.400	
18	168542	0	0	0	0.00	-0.400	1	-0.400	
19	168559	0	0	0	0.00	-0.200	1	-0.200	
20	168575	0	0	0	0.00	-0.200	1	-0.200	
21	168590	0	0	0	0.00	-0.500	1	-0.500	
22	168606	0	1	0	0.08	-0.500	1	-0.500	
23	168622	0	1	0	0.08	-0.400	1	-0.400	
24	168637	0	1	0	0.08	-0.500	1	-0.500	
25	168654	0	1	0	0.10	-0.600	1	-0.600	
26	168670	0	1	0	0.08	-0.300	1	-0.300	
27	168685	0	1	0	0.08	-0.400	1	-0.400	
28	168703	0	1	0	0.08	-0.200	1	-0.200	
29	168719	0	1	0	0.10	-0.200	1	-0.200	
30	168734	0	1	0	0.08	-0.200	1	-0.200	
31	168751	0	1	14	0.60	-1.000	2	-1.000	
32	168767	0	1	0	0.08	-0.300	1	-0.300	
33	168782	0	0	0	0.00	-0.400	1	-0.400	
34	168800	0	1	0	0.08	-0.500	1	-0.500	
35	168816	0	1	7	0.08	-0.300	1	-0.300	
36	168832	0	1	0	0.08	-0.400	1	-0.400	
37	168848	0	1	14	0.33	-0.800	2	-0.400	
38	168864	0	0	0	0.00	0.000	1	0.000	
39	168879	0	0	0	0.00	-0.300	1	-0.300	
40	168895	0	1	0	0.10	-0.300	1	-0.300	
41	168911	0	1	0	0.08	-0.400	1	-0.400	
42	168926	0	1	0	0.10	0.000	1	0.000	
43	168943	0	1	0	0.08	-0.100	1	-0.100	
44	168959	0	1	0	0.10	-0.500	1	-0.500	
45	168974	0	1	0	0.08	1.300	1	1.300	
46	168991	0	1	14	0.55	-0.300	2	-0.150	
47	169007	0	1	0	0.08	-0.450	1	-0.450	
Total length 753 ft		L/L=0.0000		L/L=0.0485		Fault per 500 feet: -10.69 mm			

11017-32516A Section D

Slab #	Station number at midslab [ft]	Spalling	Transverse Cracking		
		Length [in]	Number of Cracks	Crack Length [ft]	Average Crack Width [mm]
1	179300	0	2	32	0.25
2	179285	0	1	16	0.35
3	179169	0	0	0	0.00
4	179153	0	0	0	0.00
5	179137	0	0	0	0.00
6	179121	0	0	0	0.00
7	179105	0	0	0	0.00
8	179089	0	0	0	0.00
9	179073	0	0	0	0.00
10	179057	0	0	0	0.00
11	179041	0	0	0	0.00
12	179025	0	0	0	0.00
13	179009	0	0	0	0.00
14	178993	0	0	0	0.00
15	178977	0	0	0	0.00
16	178961	0	0	0	0.00
17	178945	0	0	0	0.00
18	178929	0	0	0	0.00
19	178913	0	0	0	0.00
20	178897	0	0	0	0.00
21	178881	0	0	0	0.00
22	178865	0	0	0	0.00
23	178849	0	0	0	0.00
24	178833	0	0	0	0.00
25	178817	0	0	0	0.00
26	178801	0	0	0	0.00
27	178785	0	0	0	0.00
28	178769	0	0	0	0.00
29	178753	0	0	0	0.00
30	178737	0	0	0	0.00
31	178721	0	0	0	0.00
32	178705	0	0	0	0.00
33	178689	0	0	0	0.00
34	178673	0	0	0	0.00
35	178657	0	0	0	0.00
36	178641	0	0	0	0.00
37	178625	0	0	0	0.00
38	178609	0	0	0	0.00
39	178593	0	0	0	0.00
40	178577	0	0	0	0.00
41	178561	0	0	0	0.00
42	178545	0	0	0	0.00
43	178529	0	0	0	0.00
44	178513	0	0	0	0.00
45	178497	0	0	0	0.00
46	178481	0	0	0	0.00
47	178465	0	0	0	0.00
48	178449	0	0	0	0.00
49	178433	0	0	0	0.00
50	178417	0	0	0	0.00
51	178401	0	0	0	0.00
52	178385	0	0	0	0.00
53	178369	0	0	0	0.00
54	178353	0	0	0	0.00
55	178337	0	0	0	0.00
56	178321	0	0	0	0.00
57	178305	0	0	0	0.00
58	178289	0	0	0	0.00
59	178273	0	0	0	0.00
60	178257	0	0	0	0.00
61	178241	0	0	0	0.00
62	178225	0	0	0	0.00
63	178209	0	0	0	0.00
64	178193	0	0	0	0.00
Total length 1010 ft		L/L = 0.0000		L/L = 0.0475	

19042-24680A Section B

Slab #	Station number at midslab [ft]	Spalling Length [in]	Transverse Cracking		
			Number of Cracks	Crack Length [ft]	Average Crack Width [mm]
1	27540	0	0	0	0.00
2	27580	0	0	0	0.00
3	27620	0	0	0	0.00
4	27660	0	0	0	0.00
5	27700	0	0	0	0.00
6	27740	0	0	0	0.00
7	27780	0	1	6	0.15
8	27820	2	0	0	0.00
9	27865	15	0	0	0.00
10	27910	0	0	0	0.00
11	27950	0	0	0	0.00
12	27990	0	0	0	0.00
13	28035	2	1	6	0.10
14	28070	0	0	0	0.00
15	28110	12	2	24	0.20
16	28150	0	1	12	0.30
Total length 672 ft		L/L = 0.0038		L/L = 0.0714	

19042-02233A Section C

Slab #	Station number at midslab [ft]	Spalling Length [in]	Transverse Cracking		
			Number of Cracks	Crack Length [ft]	Average Crack Width [mm]
1	52740	5	2	24	0.55
2	52780	7	3	36	0.47
3	52820	0	3	36	0.40
4	52860	0	3	30	0.40
5	52900	5	5	45	0.27
6	52940	0	3	27	0.33
7	53070	0	3	36	0.40
8	53110	0	3	36	0.42
9	53150	0	3	28	0.27
10	53190	22	3	36	0.40
11	53230	0	1	9	0.30
12	53270	0	2	24	0.33
Total length 580 ft		L/L = 0.0056		L/L = 0.6328	

19043-02234A WB

Slab #	Station number at midslab [ft]	Spalling	Transverse Cracking		
		Length [in]	Number of Cracks	Crack Length [ft]	Average Crack Width [mm]
1	14976	0	1	12	0.25
2	14964.5	0	2	18	0.20
3	14951	0	2	15	0.09
4	14939	0	2	18	0.23
5	14926	0	0	0	0.00
6	14914	0	2	21	0.20
7	14900	0	0	0	0.00
8	14890	0	0	0	0.00
9	14877.5	0	2	18	0.23
10	14864	0	2	24	0.29
11	14851	0	1	12	0.33
12	14840	0	2	18	0.13
13	14826	0	1	12	0.33
14	14815	0	0	0	0.00
15	14802	0	0	0	0.00
16	14790	0	2	15	0.23
Total length 712 ft		L/L = 0.0000		L/L = 0.2570	

19043-02234A EB

Slab #	Station number at midslab [ft]	Spalling	Transverse Cracking		
		Length [in]	Number of Cracks	Crack Length [ft]	Average Crack Width [mm]
1	13705.5	3	2	24	0.30
2	13717	10	2	24	0.50
3	13731	10	2	24	0.55
4	13742	0	2	24	0.50
5	13755	0	2	18	0.34
6	13767	0	2	18	0.24
7	13780	0	2	15	0.29
8	13792	0	2	24	0.32
9	13804	0	1	12	0.33
10	13816	1	2	24	0.40
11	13830	0	2	24	0.37
12	13841.5	0	2	24	0.28
13	13854	0	2	18	0.20
14	13866	0	1	12	0.50
15	13878	0	1	12	0.30
16	13891	0	2	18	0.19
Total length 649 ft		L/L = 0.0031		L/L = 0.4854	

25132-06582A

Slab #	Station number at midslab [ft]	Spalling Length [in]	Transverse Cracking			Faulting		
			Number of Cracks	Crack Length [ft]	Average Crack Width [mm]	Sum of Faults per Slab [mm]	Number of faulted locations	Average fault [mm]
1	66012	0	1	12	0.50	0.800	2	0.400
2	65971	0	1	12	0.65	0.800	2	0.400
3	65927	0	1	12	0.90	0.075	1	0.075
4	65882	0	2	24	0.60	0.700	3	0.233
5	65828	18	1	12	0.60	0.070	2	0.035
6	65794	0	1	12	0.50	-3.400	2	-1.700
7	65751	0	1	12	0.40	-1.550	2	-0.775
8	65706	0	1	12	0.00	-1.400	2	-0.700
9	65662	0	1	12	0.50	0.300	2	0.150
10	65615	0	1	12	0.50	0.050	2	0.025
11	65575	0	1	12	0.65	-0.250	2	-0.125
12	65531	0	1	12	0.80	0.800	2	0.400
13	65490	0	1	12	0.50	-0.800	2	-0.400
14	65446	0	1	12	0.50	0.850	2	0.425
15	65402	0	1	12	0.80	-1.200	2	-0.600
16	65358	0	1	12	0.60	0.250	2	0.125
17	65313	0	0	12	0.00	0.350	1	0.350
18	65280	0	1	12	0.00	-0.500	2	-0.250
19	65235	0	2	24	0.50	-0.500	2	-0.250
20	65191	0	1	12	0.50	1.300	2	0.650
21	65147	0	1	12	0.70	-0.450	2	-0.225
22	65105	0	0	12	0.00	0.300	1	0.300
23	65061	0	1	12	0.70	0.500	2	0.250
24	65019	0	1	12	0.25	0.650	2	0.325
Total length 1037 ft		L/L = 0.0000		L/L = 0.3007		Fault per 500 feet: -1.087		

44044-18804A

Slab #	Station number at midslab [ft]	Spalling Length [in]	Transverse Cracking		
			Number of Cracks	Crack Length [ft]	Average Crack Width [mm]
1	66625	0	1	12	0.40
2	66665	0	2	24	0.25
3	66705	2	2	24	0.24
4	66745	0	2	24	0.40
5	66785	0	2	24	0.50
6	66825	4	2	24	0.50
7	66865	4	2	24	0.50
8	66905	42	2	24	0.70
9	66945	25	1	12	1.00
10	66985	4	1	12	0.60
12	67025	4	2	24	0.55
13	67065	36	2	24	0.50
14	67105	0	2	24	0.45
15	67145	54	2	24	0.55
Total length 556 ft		L/L = 0.0262		L/L = 0.5396	

77023-21586A

Slab #	Station number at midslab [ft]	Spalling Length [in]	Transverse Cracking		Faulting			
			Number of Cracks	Crack Length [ft]	Average Crack Width [mm]	Sum of Faults per Slab [mm]	Number of faulted locations	Average fault [mm]
1	182007		4	48	0.30	-5.200	3	-1.733
2	182048		3	36	0.63	-2.900	3	-0.967
3	182088		5	52	0.50	-10.000	3	-3.333
4	192128		4	48	0.48	-4.230	2	-2.115
5	182170		3	36	0.67	-1.700	4	-0.425
6	182211		3	36	0.53	0.225	3	0.075
7	182251		2	24	0.25	-8.525	3	-2.842
8	182292		3	36	0.53	-3.250	3	-1.083
9	182333		4	48	0.40	-9.000	4	-2.250
10	182375		3	36	0.53	-7.175	3	-2.392
11	182415		3	36	0.47	-3.070	3	-1.023
12	182454		4	48	0.30	-6.050	3	-2.017
13	182497		2	24	0.53	-4.500	3	-1.500
14	182537		2	24	0.60	0.375	3	0.125
15	182578		2	24	0.50	-0.775	2	-0.388
16	182620		3	36	0.37	0.225	2	0.113
17	182660		2	24	0.40	-3.500	3	-1.167
18	182700		2	24	0.40	-5.450	2	-2.725
19	182741		2	24	0.25	-1.875	2	-0.938
20	182783		3	36	0.37	-0.400	1	0.167
21	182825		2	24	0.40	0.500	3	0.125
22	182865		2	24	0.23	0.375	3	0.125
23	182906		2	24	0.25	-42.214		-1.213
24	182948		3	36	0.55	0.650	2	0.325
25	182990		2	24	0.20			
26	183030		2	24	0.35			
27	183071		2	24	0.25			
28	183113		2	24	0.25			
29	183153		3	36	0.30			
30	183194		3	36	0.17			
31	183235		2	24	0.20			
32	183276		3	36	0.29			
33	183317		2	24	0.25			
34	183357		2	24	0.22			
35	183398		3	36	0.22			
36	183441		4	48	0.25			
37	183486		3	36	0.27			
Total length 1516 ft		L/L >= 0.05	L/L = 0.7942		Fault per 500 feet:			

77024-20821A Section A

Slab #	Station number at midslab [ft]	Spalling Length [in]	Transverse Cracking		
			Number of Cracks	Crack Length [ft]	Average Crack Width [mm]
1	8380	12	2	24	0.55
2	8420	0	2	24	0.38
3	8460	16	2	24	0.50
4	8500	1	2	24	0.45
5	8544	76	2	24	0.80
6	8585	144	2	24	1.00
7	8625	0	2	24	0.38
8	8665	2	2	24	0.55
9	8705	1	2	24	0.55
10	8750	0	2	24	0.40
11	8790	12	1	12	0.50
12	8830	0	2	24	0.50
13	8870	73	2	24	1.00
14	8910	144	3	36	0.87
15	8950	73	3	36	0.53
16	8990	0	2	24	0.33
Total length 652 ft		L/L = 0.0708		L/L = 0.6074	

77024-17988(A) Section B

Slab #	Station number at midslab [ft]	Spalling Length [in]	Transverse Cracking		
			Number of Cracks	Crack Length [ft]	Average Crack Width [mm]
1	40830	0	2	24	0.33
2	40867	0	2	24	0.21
3	40908	0	1	12	0.10
4	40949	0	2	18	0.19
5	41362	0	2	24	0.30
6	41400	3	2	24	0.35
7	41440	0	2	20	0.24
8	41481	0	2	24	0.18
9	41524	0	3	30	0.21
10	41565	0	2	24	0.23
11	41606	0	2	18	0.12
12	41645	0	2	18	0.15
13	41688	0	2	24	0.15
14	41728	0	2	24	0.33
15	41757	0	0	0	0.00
16	41812	0	1	12	0.08
Total length 590 ft		L/L = 0.0004		L/L = 0.5424	

Project # 1017-32516 A Direction EB
 Survey Date 4-23-97 Slab Thickness 16ft Joint Spacing 1790 + 09.5
 Surveyed By AD Beginning Station 1795 + 08
 Ending Station 1795 + 08

Section A

1790+05	1790+25	1790+41	1790+57	1790+73	1790+89	1791+06	1791+22	1791+40	1791+56	1791+72
C1	S1	C2	S2	C3	S3	C4	S4	C5	S5	
1790+17	1790+33	1790+49	1790+65	1790+81	1790+97	1791+13	1791+29	1791+45	1791+61	1791+77
1790+17	1790+33	1790+49	1790+65	1790+81	1790+97	1791+13	1791+29	1791+45	1791+61	1791+77
1791+17	1791+33	1791+49	1791+65	1791+81	1791+97	1792+13	1792+29	1792+45	1792+61	1792+77
1793+17	1793+33	1793+49	1793+65	1793+81	1793+97	1794+13	1794+29	1794+45	1794+61	1794+77
C5	S6	C6	S7	C7	S8	C8	S9	C9	S10	C10
1791+17	1791+33	1791+49	1791+65	1791+81	1791+97	1792+13	1792+29	1792+45	1792+61	1792+77
1793+17	1793+33	1793+49	1793+65	1793+81	1793+97	1794+13	1794+29	1794+45	1794+61	1794+77
1795+17	1795+33	1795+49	1795+65	1795+81	1795+97	1796+13	1796+29	1796+45	1796+61	1796+77

Spider web cracking
 Plastic shrinkage
 water poured on it

Project # 11017-32516A Direction ER
Survey Date 4-23-97
Slab Thickness 16 ft
Beginning Station 1790+07.5
Ending Station 1795+02

Geometry 16 ft
Slab Thickness 18"

Surveyed By AD

16 ft Section A

13 ft 12															
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1794+92 1795+08
h/s

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Project # 11017-30516A Section C Direction EB
 Survey Date 4-30-97 Slab Thickness 12" Beginning Station 1682+62
 Ending Station 1692+15

1682+62	1682+78	1682+94	1683+11	1683+28	1683+44	1683+59	1683+76	1683+92	1684+07	1684+24
1	2	3	4	5	6	7	8	9	10	11
(17)	(16)	(15)	(17)	(16)	(15)	(17)	(15)	(17)	(15)	(17)
1.5ft W=108	2.5ft W=108	2.0ft W=108	2.5ft W=108	3.0ft W=108	2.5ft W=108	2.5ft W=108	2.5ft W=108	2.5ft W=108	3ft W=108	2ft W=108
	M1				M2					

1684+40	1684+55	1684+72	1684+88	1685+02	1685+19	1685+35	1685+50	1685+67	1685+83
12	13	14	15	16	17	18	19	20	21
(16)	(15)	(17)	(16)	(15)	(17)	(15)	(17)	(15)	(16)
1.5ft W=108	2ft W=108	2.5ft W=108	1.5ft W=108	3ft W=108	2.5ft W=108	2.5ft W=108	2.5ft W=108	2.5ft W=108	2.5ft W=108
M3									

1685+98	1686+14	1686+30	1686+45	1686+62	1686+78	1686+93	1687+11	1687+27	1687+42
22	23	24	25	26	27	28	29	30	31
(15)	(17)	(16)	(15)	(16)	(15)	(17)	(16)	(15)	(15)
2ft W=108	2ft W=108	1.5ft W=108	2.5ft W=108	3.5ft W=108	3ft W=108	3ft W=108	2.5ft W=108	2.5ft W=108	2ft W=108

Project # 1017-32516 A Direction EB Survey Date 4-30-97 Geometry 15, 16, 17 joint sp. Beginning Station 1682+62
Section C Surveyed By AD Slab Thickness 18" Ending Station 1691+15

14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
1687+50	1687+59	1687+75	1687+90	1688+08	1688+21	1688+38	1688+56	1688+73	1688+90	1689+07	1689+24	1689+41	1689+58	1689+75	1689+92	1690+09	1690+26	1690+43	1690+60
-11.2	+1.2	-1.5	-1.4	-1.5	5.8	-1.3	-1.4	-1.7	-1.1	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3

31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
1689+10	1689+19	1689+28	1689+37	1689+46	1689+55	1689+64	1689+73	1689+82	1689+91	1689+100	1689+109	1689+118	1689+127	1689+136	1689+145	1689+154	1689+163	1689+172	1689+181
Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full

51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
1689+190	1689+199	1689+208	1689+217	1689+226	1689+235	1689+244	1689+253	1689+262	1689+271	1689+280	1689+289	1689+298	1689+307	1689+316	1689+325	1689+334	1689+343	1689+352	1689+361

Section D

Project # 11017 - 32516A

Direction WB

Survey Date 5-28-97

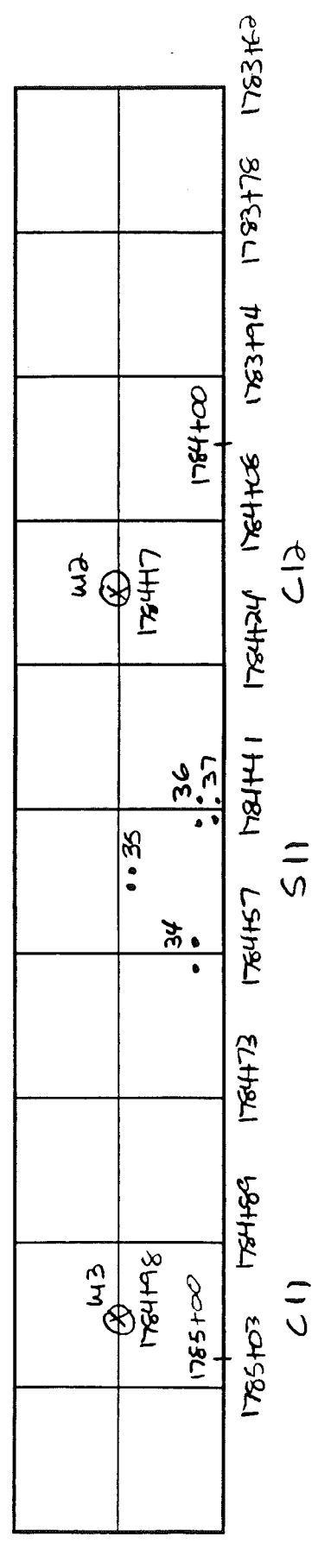
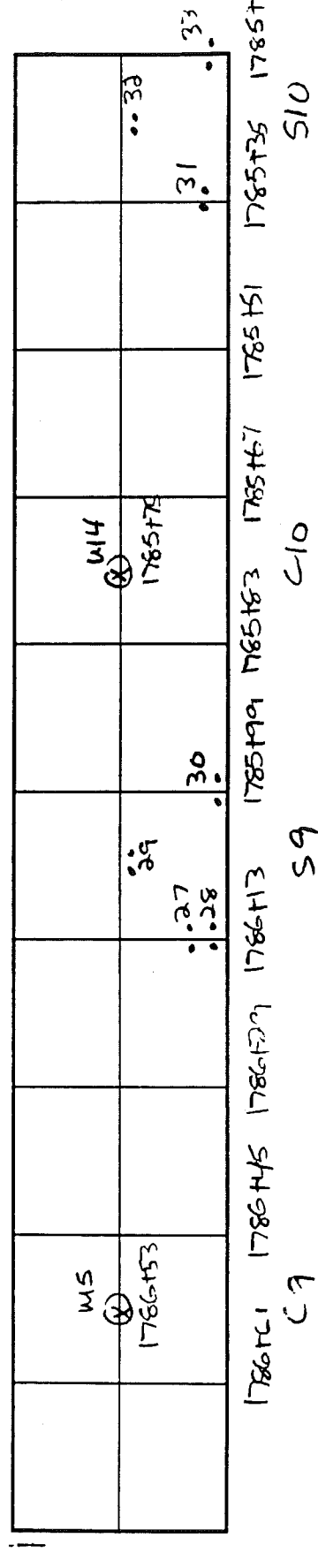
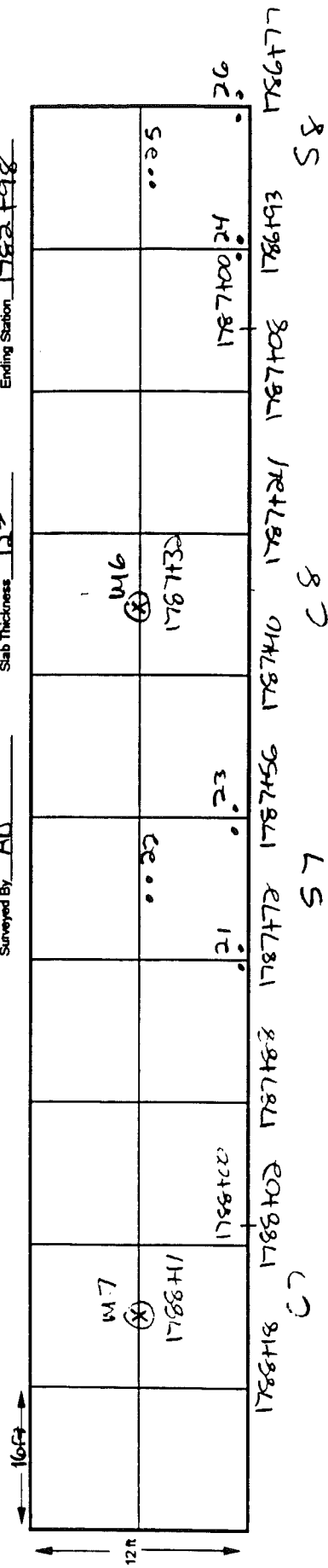
Surveyed By AD

Geometry 16 ft J.S.

Slab Thickness 12

Beginning Station 1793+08

Ending Station 1782+98



Section D

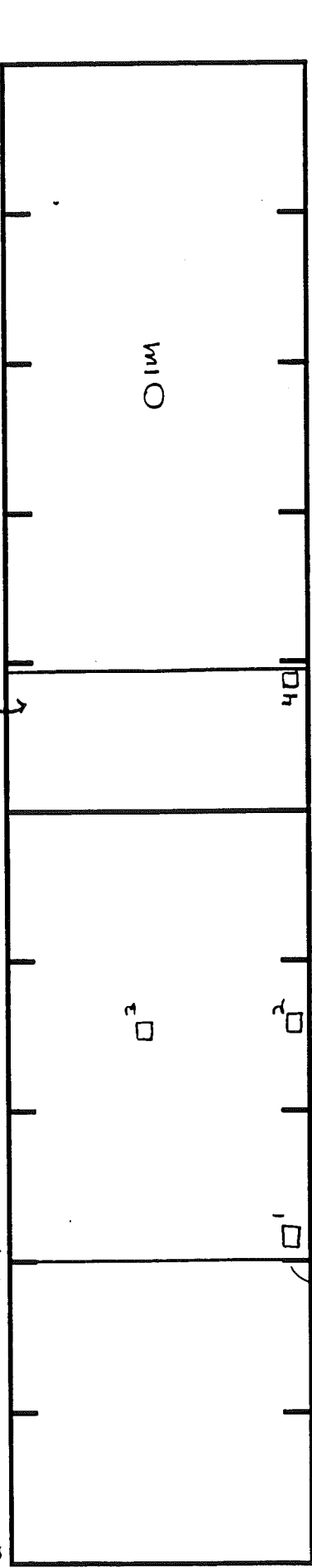
Project # 11017-32516A Direction WB Survey Date 5-26-97 Geometry 16ft JS Beginning Station 1793+06
 Ending Station 1782+98 Slab Thickness 8" Surveyed By AD

14 ft	16 ft																		

1783+46 1783+30 1783+14 1783+98
 C13 S12

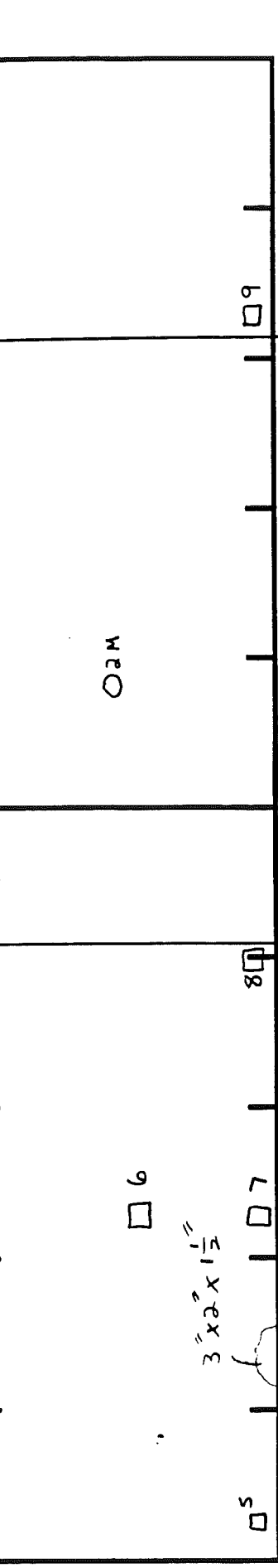
Project # **P042(B) - 2460A** Survey Date: **8-13-96** Beginning Station: **275+00** Weather:
 Surveyed By: **ET** End Station: **277+00** Comments:

Direction: **EBOL** Expansion Joint **repair**
 1 unit = 10 ft.
 STA **275+00** **275+36** **276+00**



needs repair
 repair

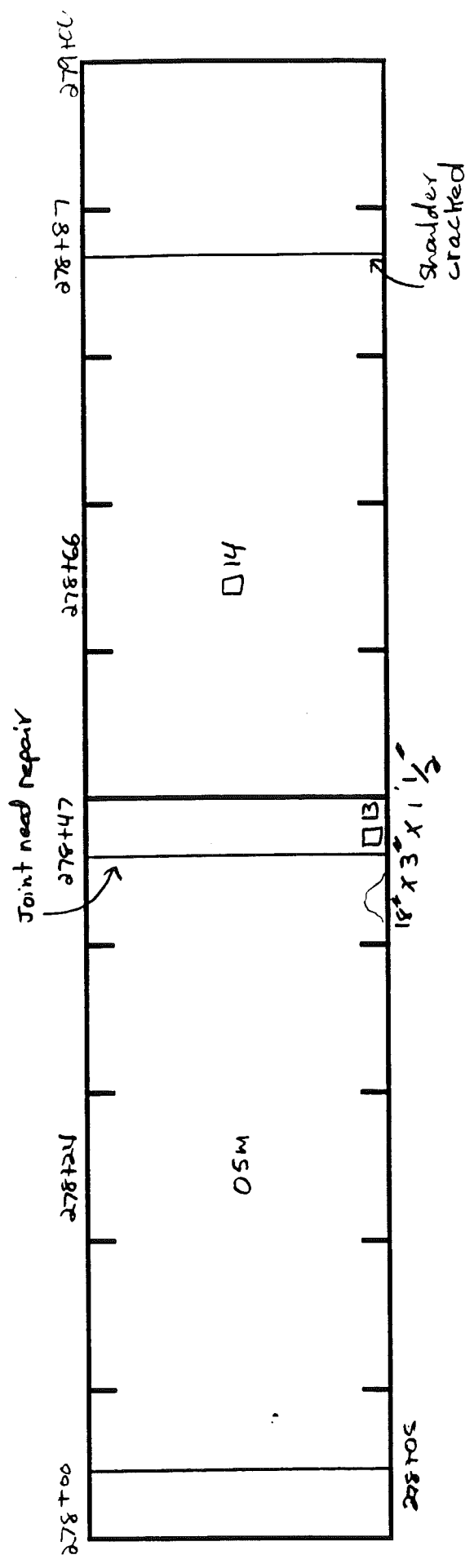
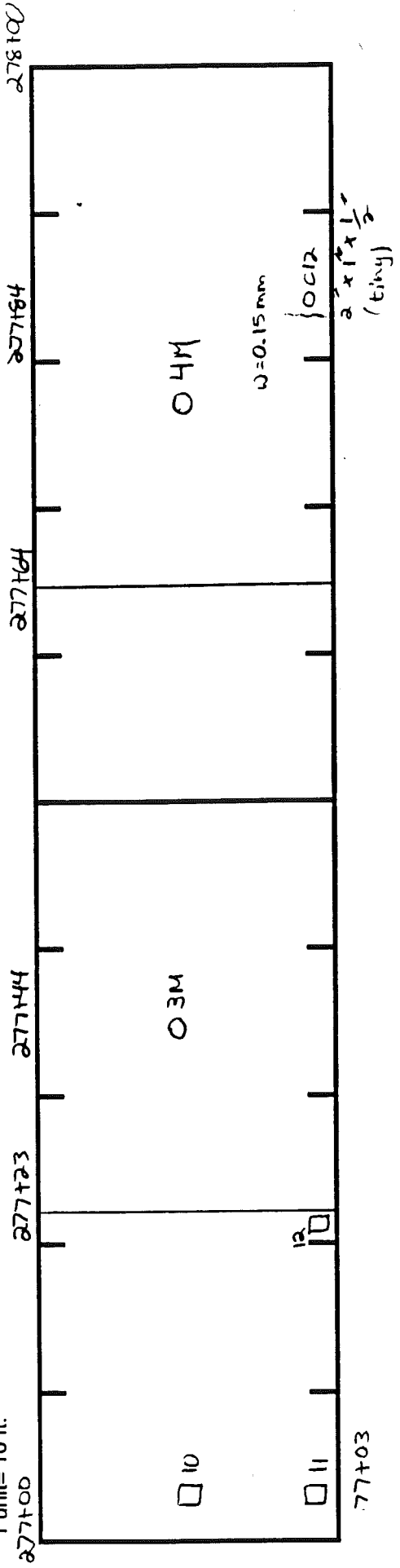
276+00 276+22 276+41 276+59 276+87 277+00



3' x 2' x 1 1/2''

Project # 19042(13)-24680A Survey Date: 8-13-96 Beginning Station: 277+00 Weather: Comments:
 Surveyed By: EJ End Station: 279+00

Direction: EBD
 1 unit = 10 ft.

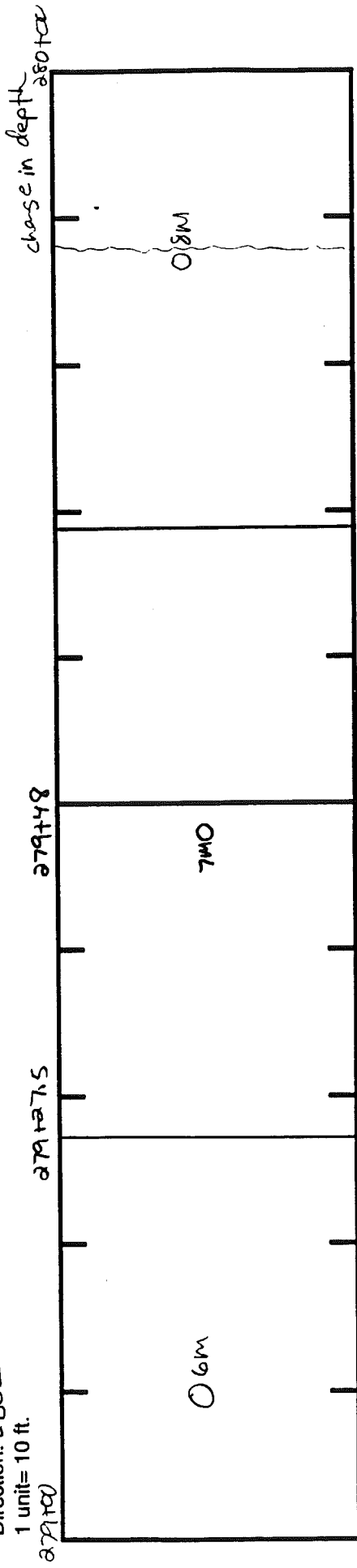


Project # 19042(B)-24680A Survey Date: 6-13-96
 Surveyed By: EJ

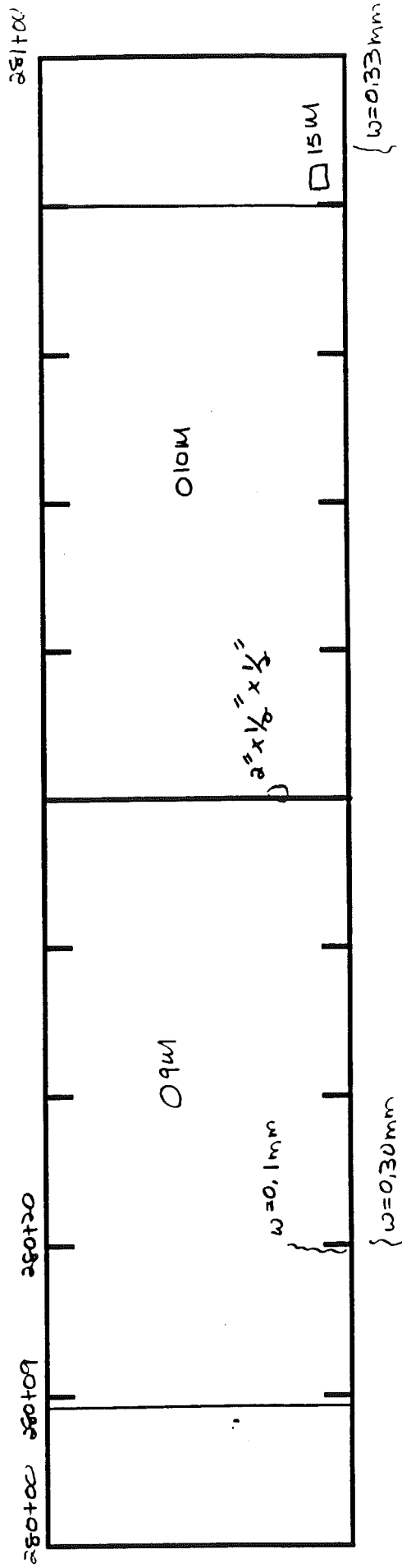
Beginning Station: 279+00
 End Station: 281+00

Weather:
 Comments:

Direction: EBL
 1 unit = 10 ft.



hole in shoulder
 $20' \times 15' \times 3'$

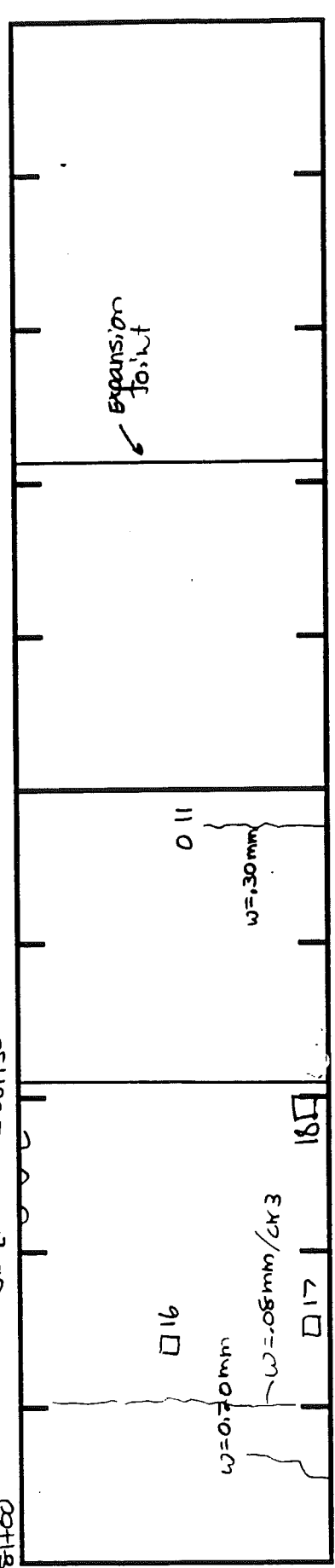


hole in shoulder
 $20' \times 15' \times 3'$

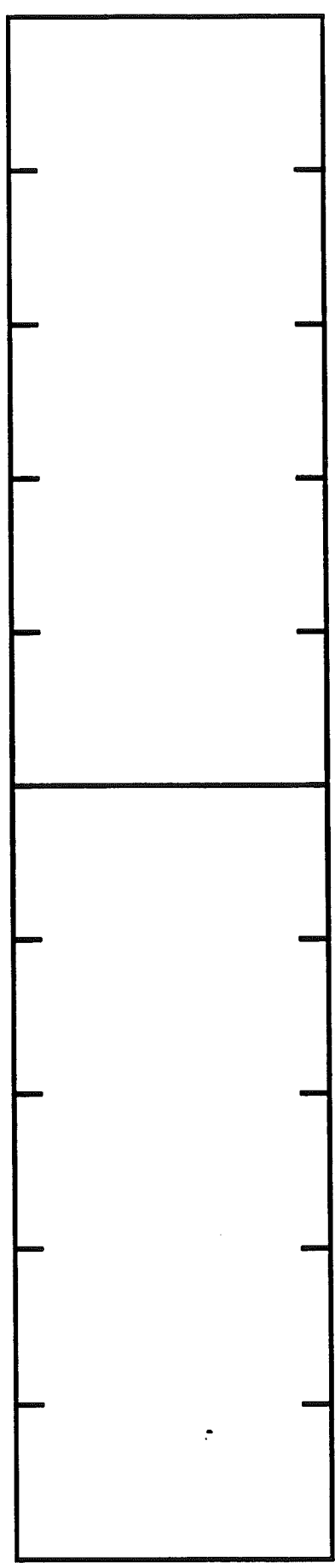
Project # **1042(0)-2460A** Survey Date: **8-13-96** Beginning Station: **281+00** Weather:
 Surveyed By: **EJ** End Station: **281+72** Comments:

Direction: **EBOL**
 1 unit = 10 ft.
281+00

3 @ [4' x 1' x 1'] 281+30

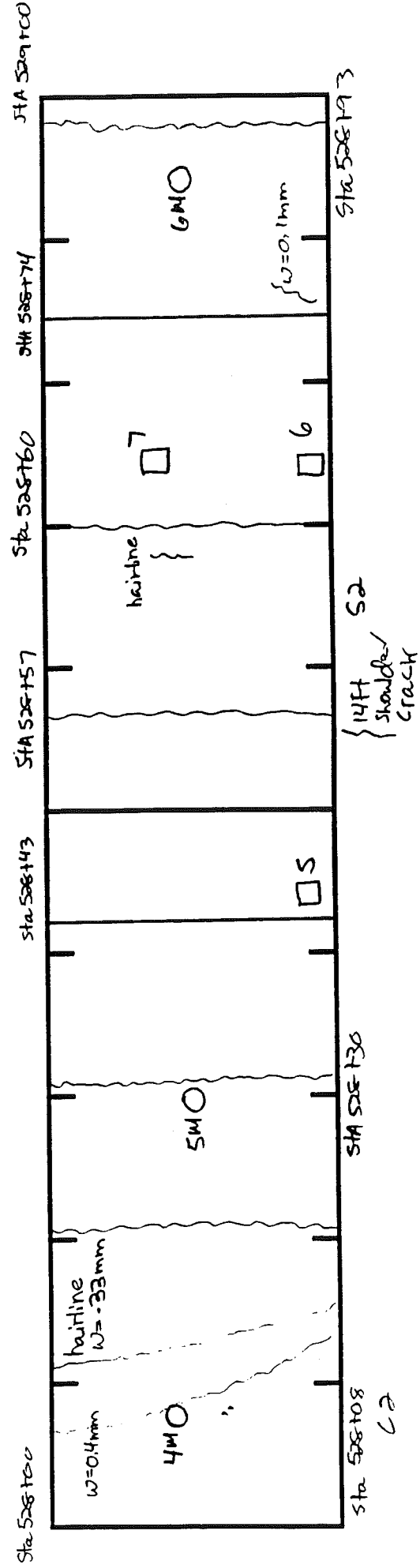
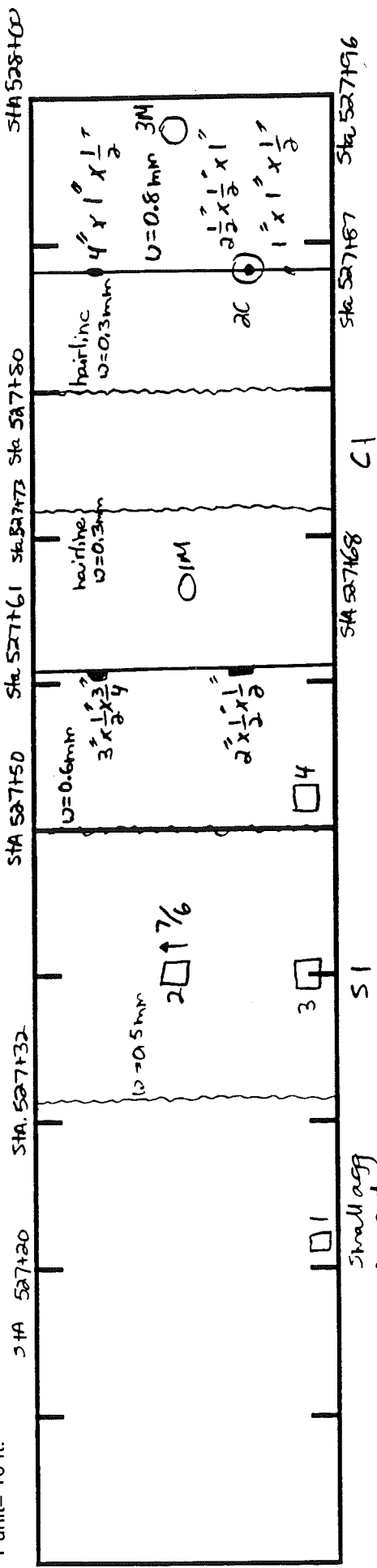


many transverse joints are in poor condition - Sealant popout =
 from Thermal Expansion, overall 3-6 popouts per slab



Project # 1904a(c)-02233A Survey Date: 7-8-96 Beginning Station: 527+20 End Station: 529+00
 Surveyed By: E.J. Weather: Comments:

Direction: E Bol
 1 unit = 10 ft.



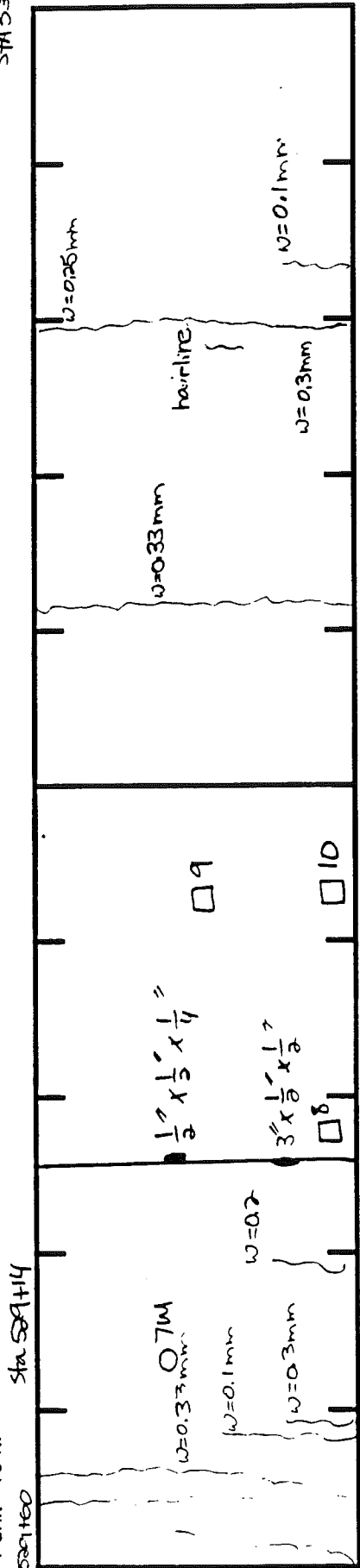
Project # ~~1002~~(C)-00033A
 Survey Date: 7-8-96
 Surveyed By: ET

Beginning Station: 527+00
 End Station: 531+00

Weather:
 Comments:

Direction:
 1 unit = 10 ft.

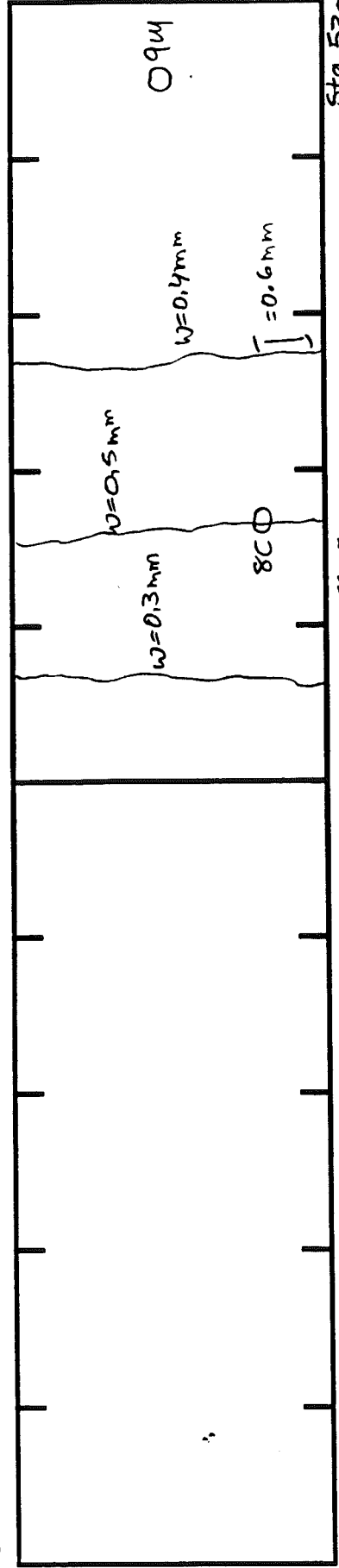
Sta 530+00



S3

Sta 531+00

Sta 530+00



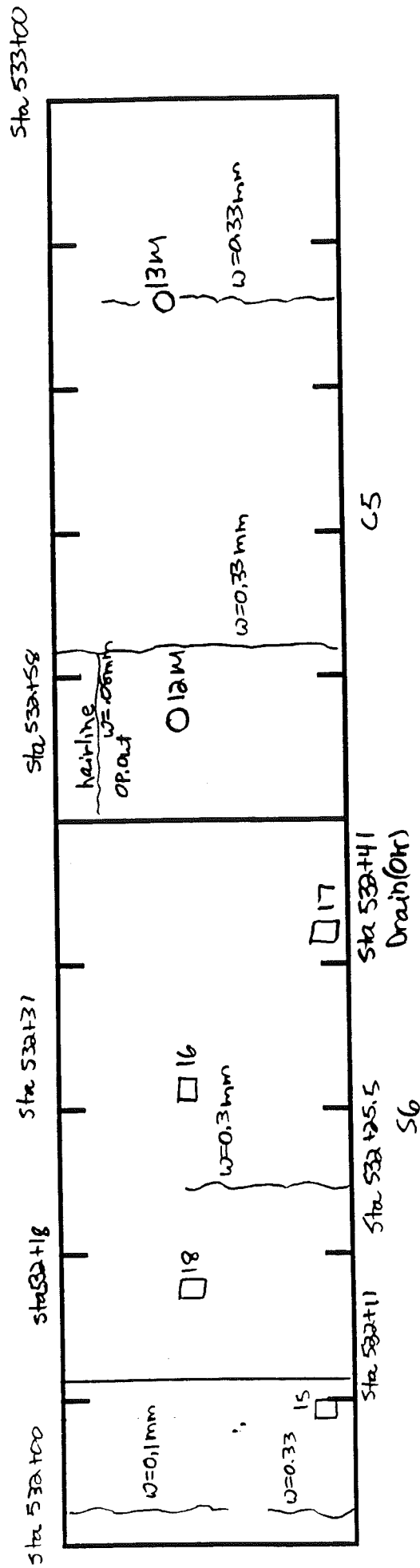
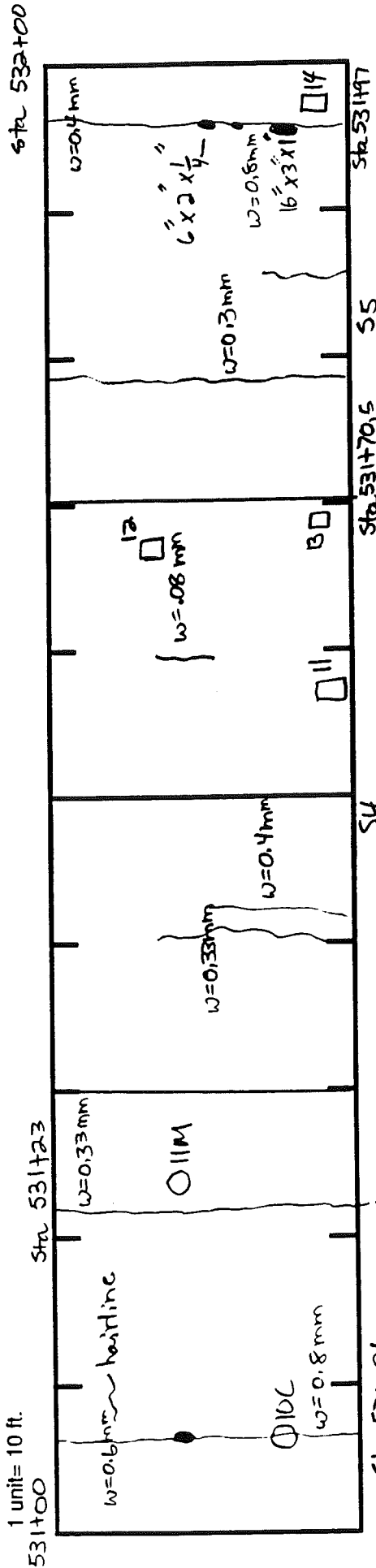
Sta 530+6

Project # 19042(C)-02233A
 Survey Date: 7-8-96
 Surveyed By: ET

Beginning Station: 531+00
 End Station: 533+00

Weather:
 Comments:

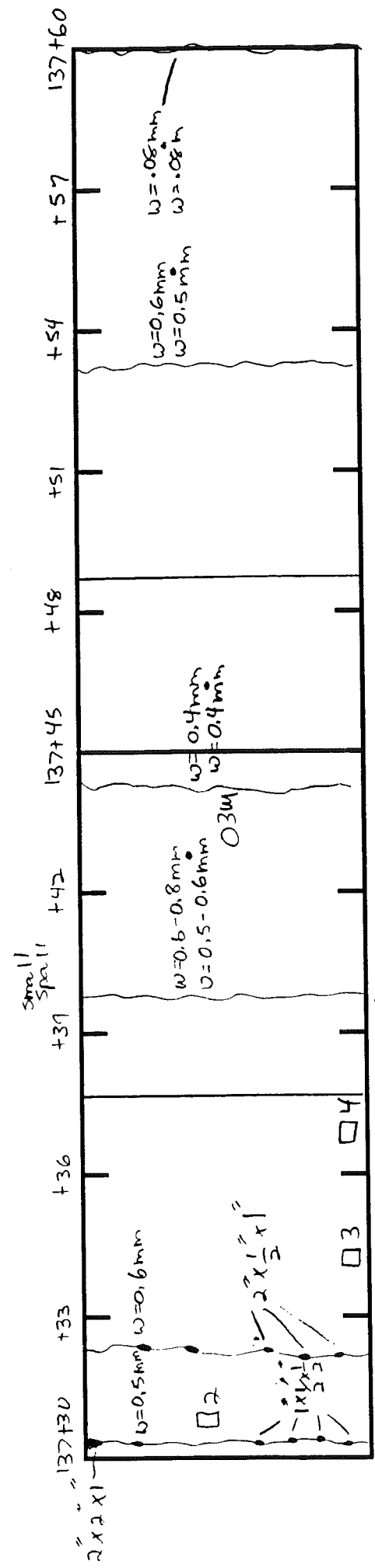
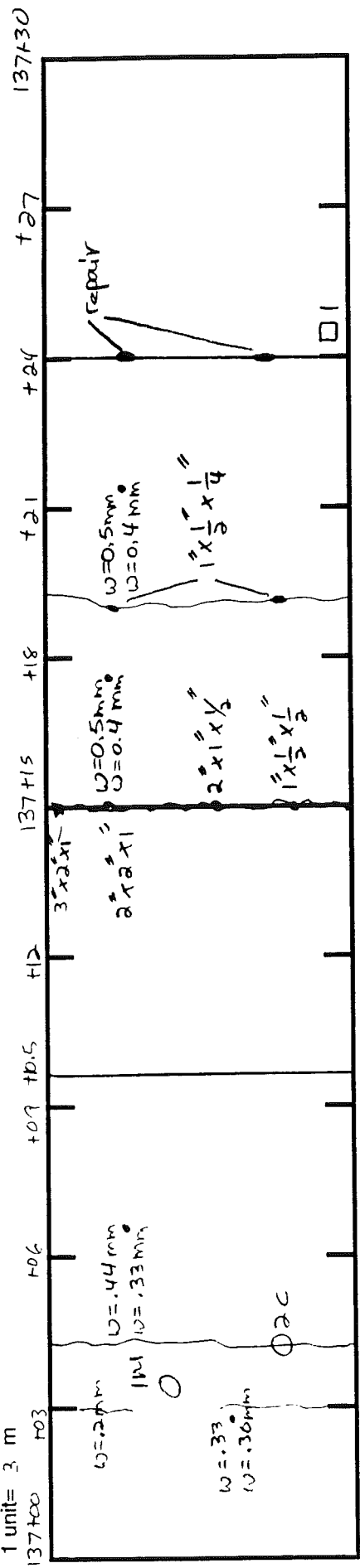
Direction: EBL
 1 unit = 10 ft.



no foot means beginning means end

Project # 17043-00034A Survey Date: 8-15-96 Beginning Station: 137+00 m Weather: warm/partly cloudy
Surveyed By: EJ End Station: 137+60 m Comments:

Direction: EROL
1 unit = 3 m



CK S1 Starting to fault

Project # 11043 - 08234A

Survey Date: 8-15-96
Surveyed By: E.J.

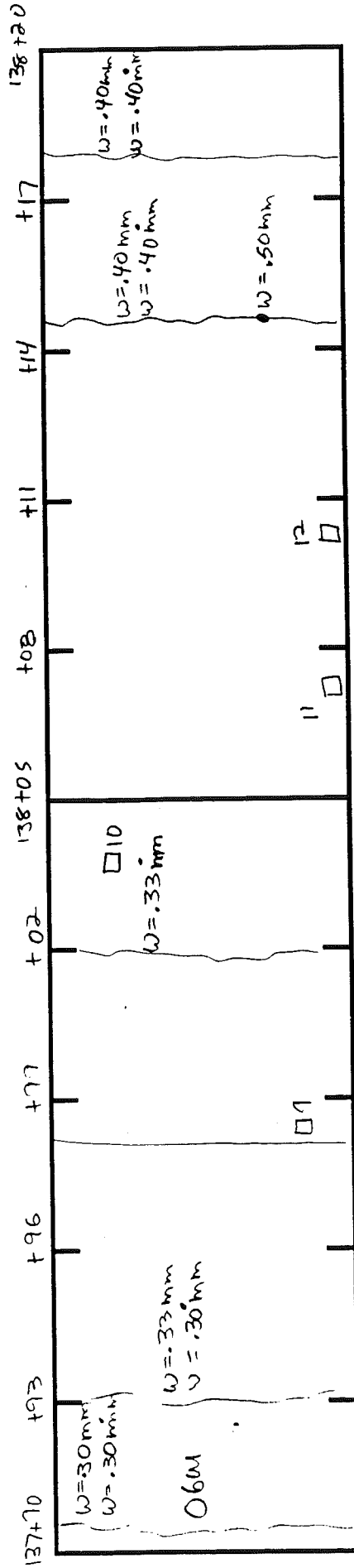
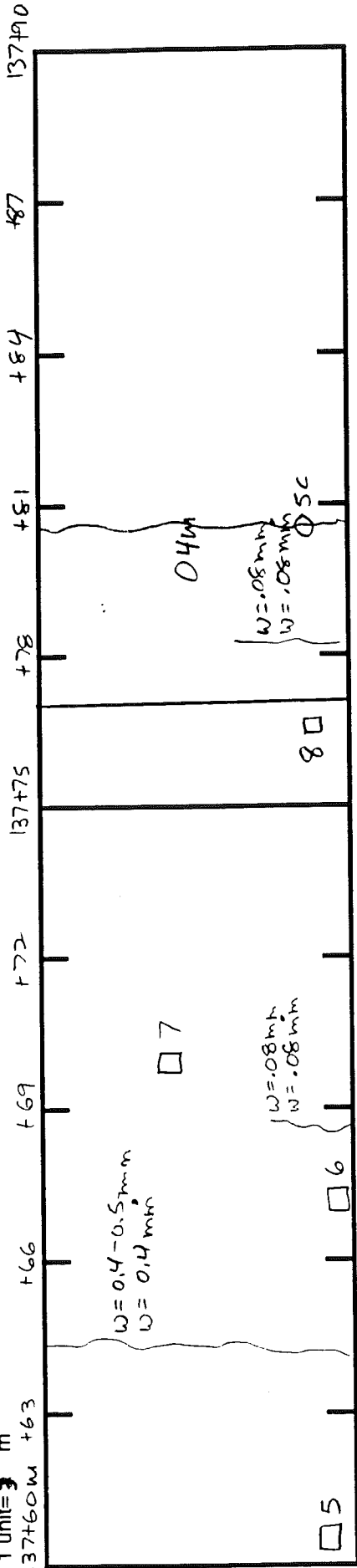
Beginning Station: 137+60 W
End Station: 138+20.1 V

Weather:
Comments:

Direction: E B O L

1 unit = 3 m

137+60 W +63



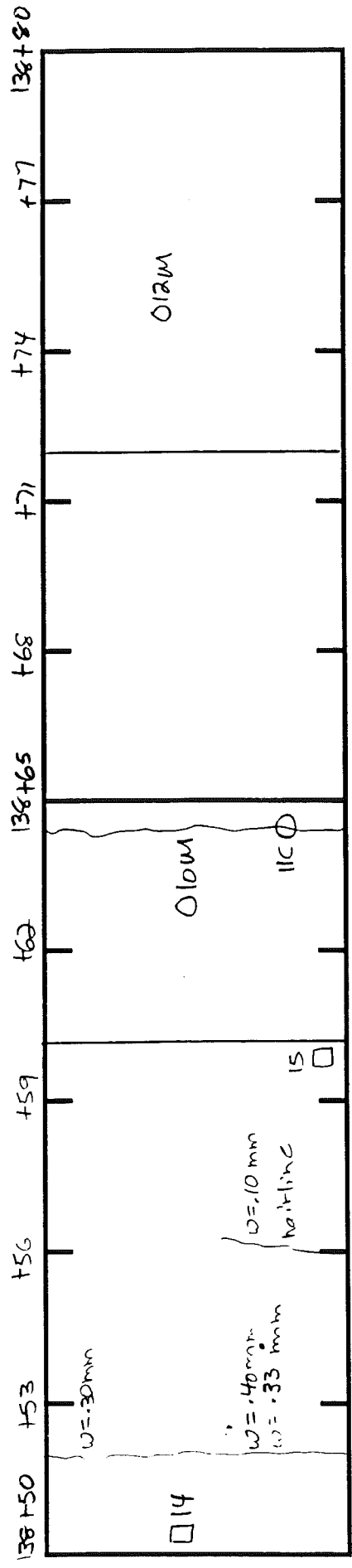
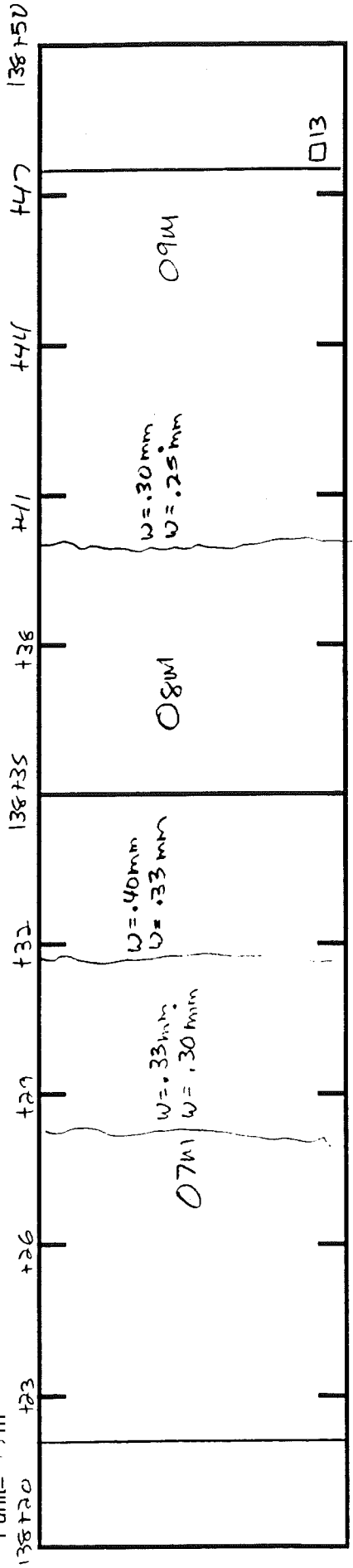
Project # 19043-0034A

Survey Date: 8-15-96
Surveyed By: ET

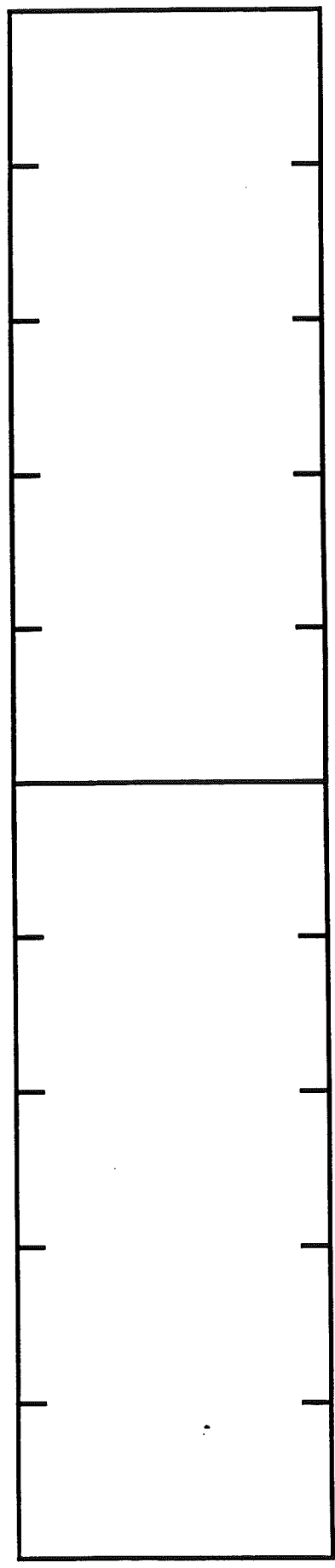
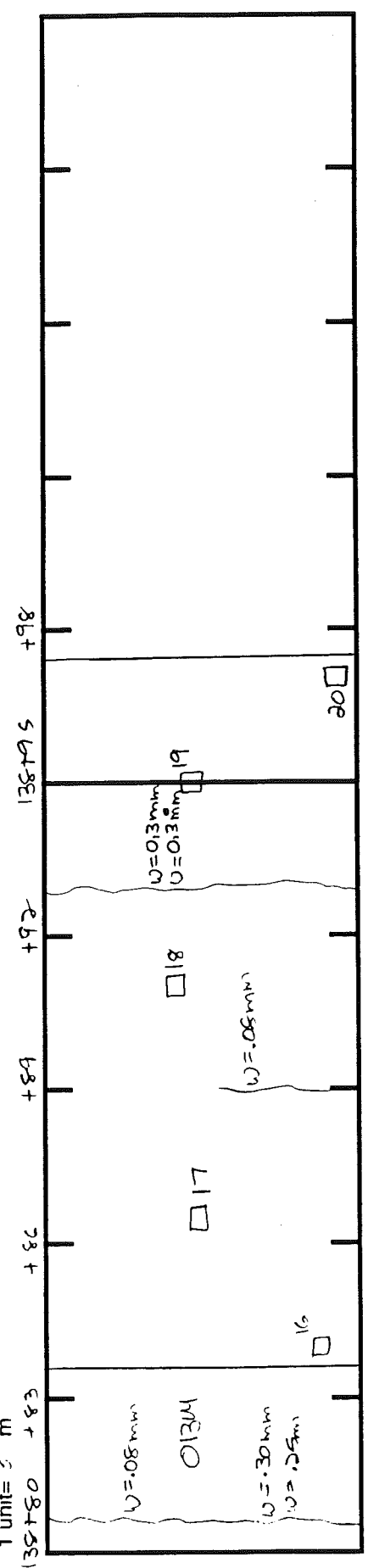
Beginning Station: 138+20m
End Station: 138+80m

Weather:
Comments:

Direction: E 30 L
1 unit = 2 m

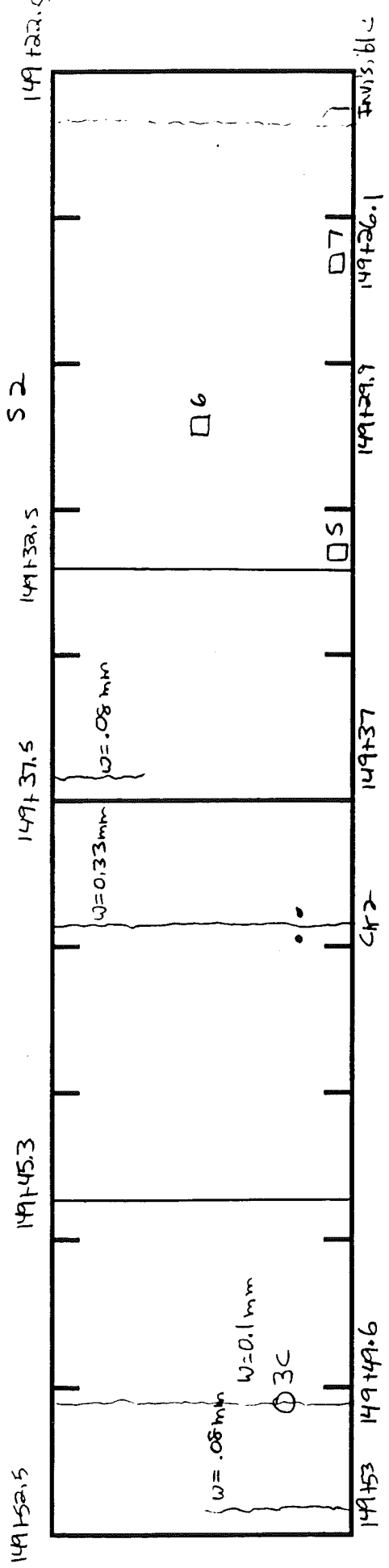
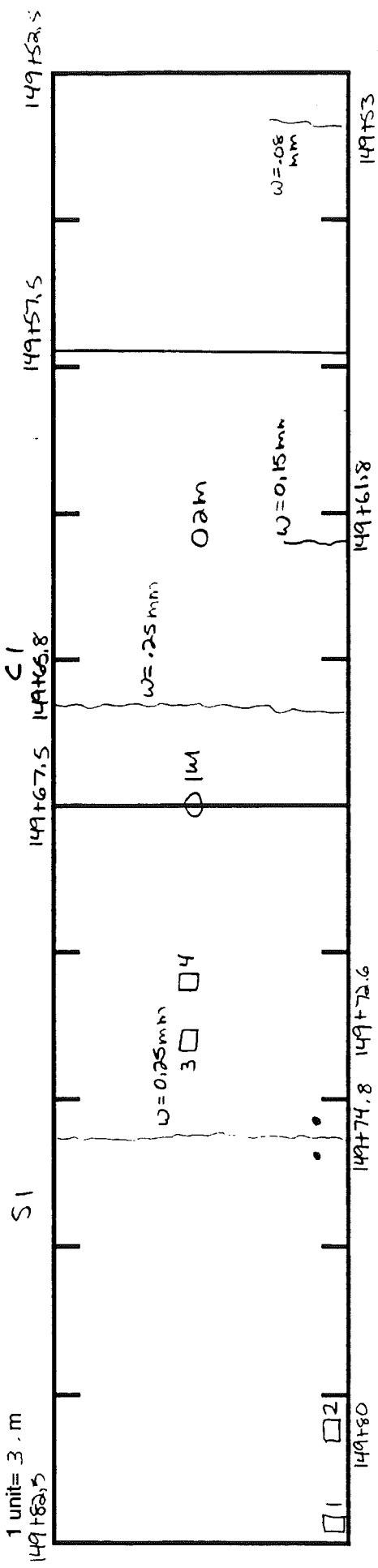


Project # 19043-02234A
 Survey Date: 8-15-96
 Surveyed By: E.J.
 Direction: E30L
 1 unit = 3 m
 Beginning Station: 138+80 m
 End Station: 138+97 m
 Weather:
 Comments:

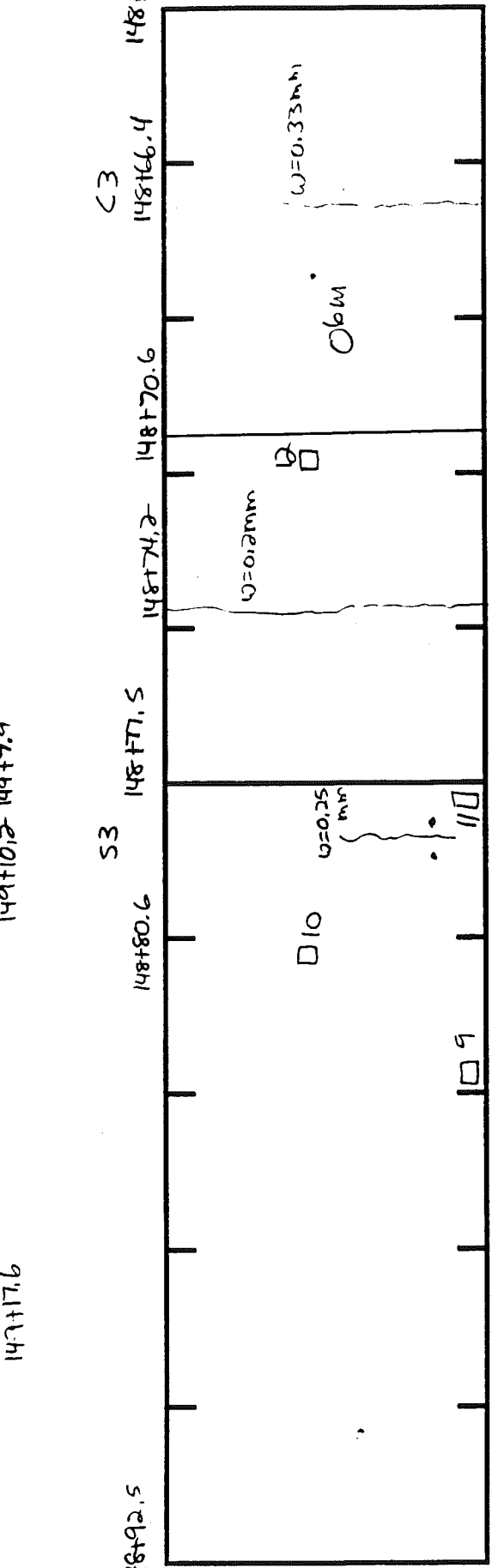
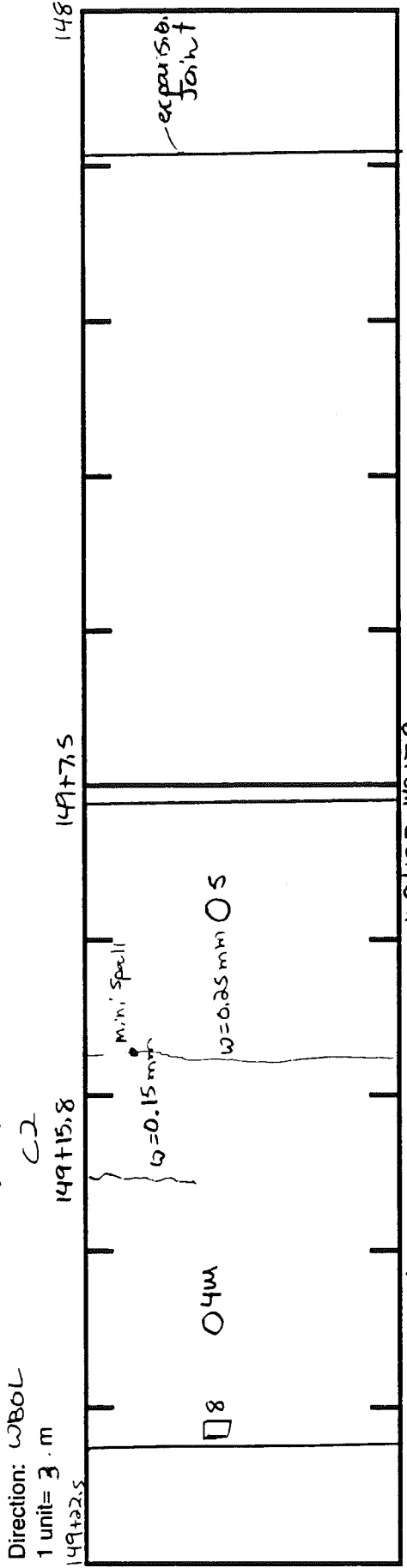


Project # K1013-02234A Survey Date: 10-3-96 Surveyed By: E.J. Beginning Station: 149+82.5 m End Station: 149+22.5 m Weather: Cold (Subzero), Sunny morning, partly cloudy during daylight

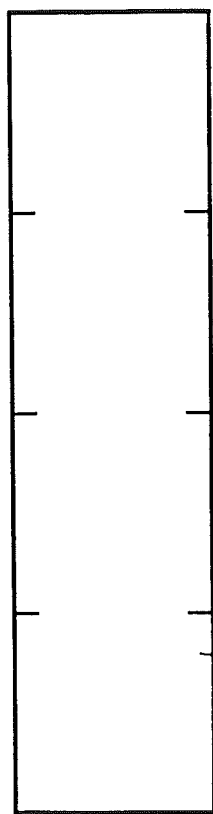
Direction: W80L
1 unit = 3.0 m



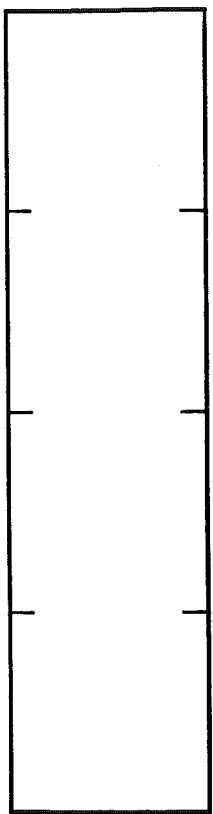
Project # 1013-02234A Survey Date: 10-3-96 Surveyed By: E.J. C-2
 Direction: W-BOL 1 unit = 3 m
 Beginning Station: 149+22.5m End Station: 148+62.5m
 Weather: Same as previous sheet
 Comments:



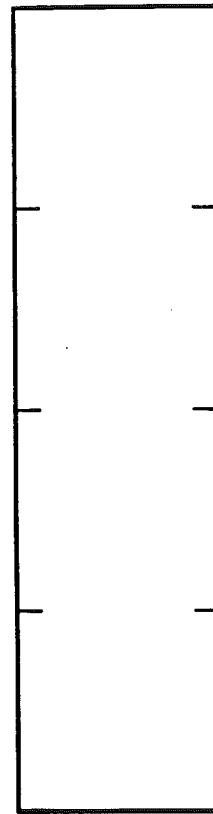
Project # 47065-28215A Date 7-31-97 JS 15 POB 784188
Direction EB By AO Slab 107 POE 795107



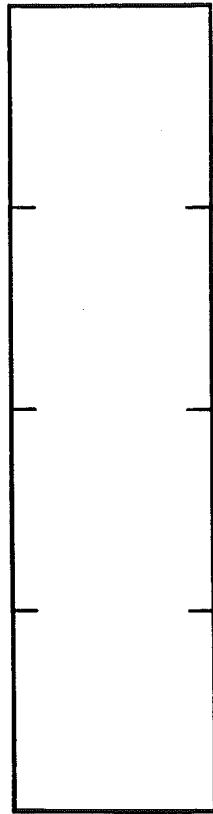
790127



790127



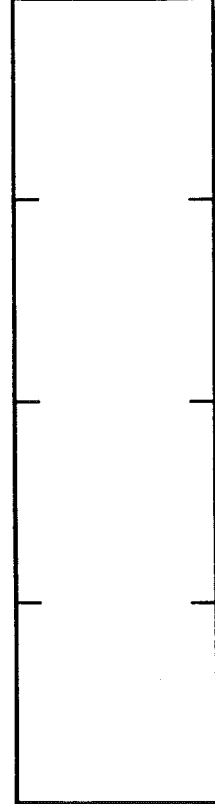
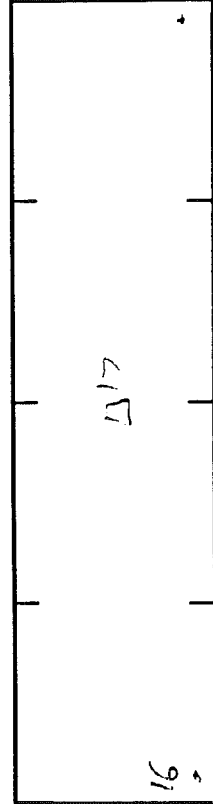
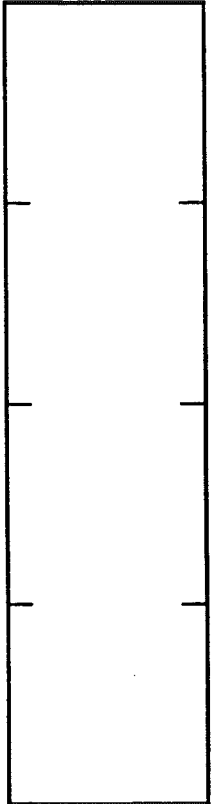
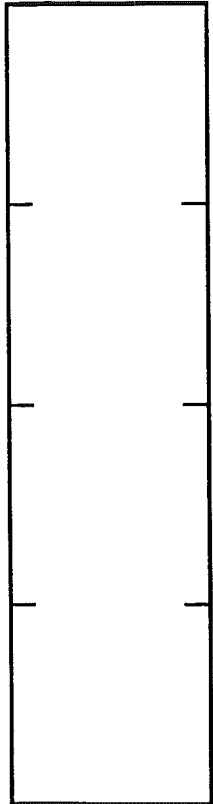
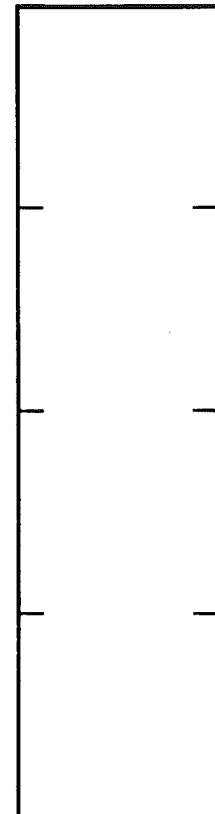
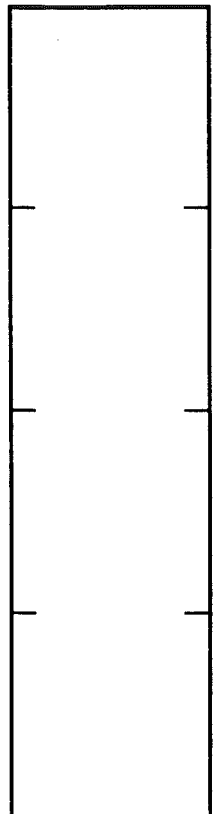
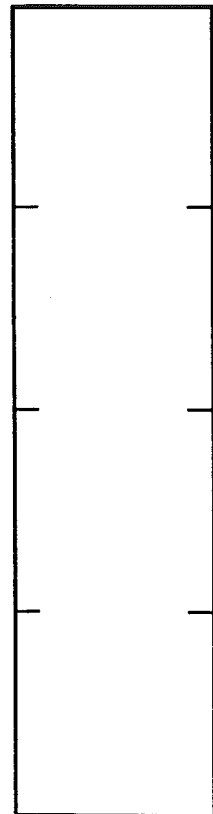
790127



790127

Project # 47065-28215A Date 7-31-97
Direction EB By AD

JS 15 Slab 10²
POB 784168 POE 795107



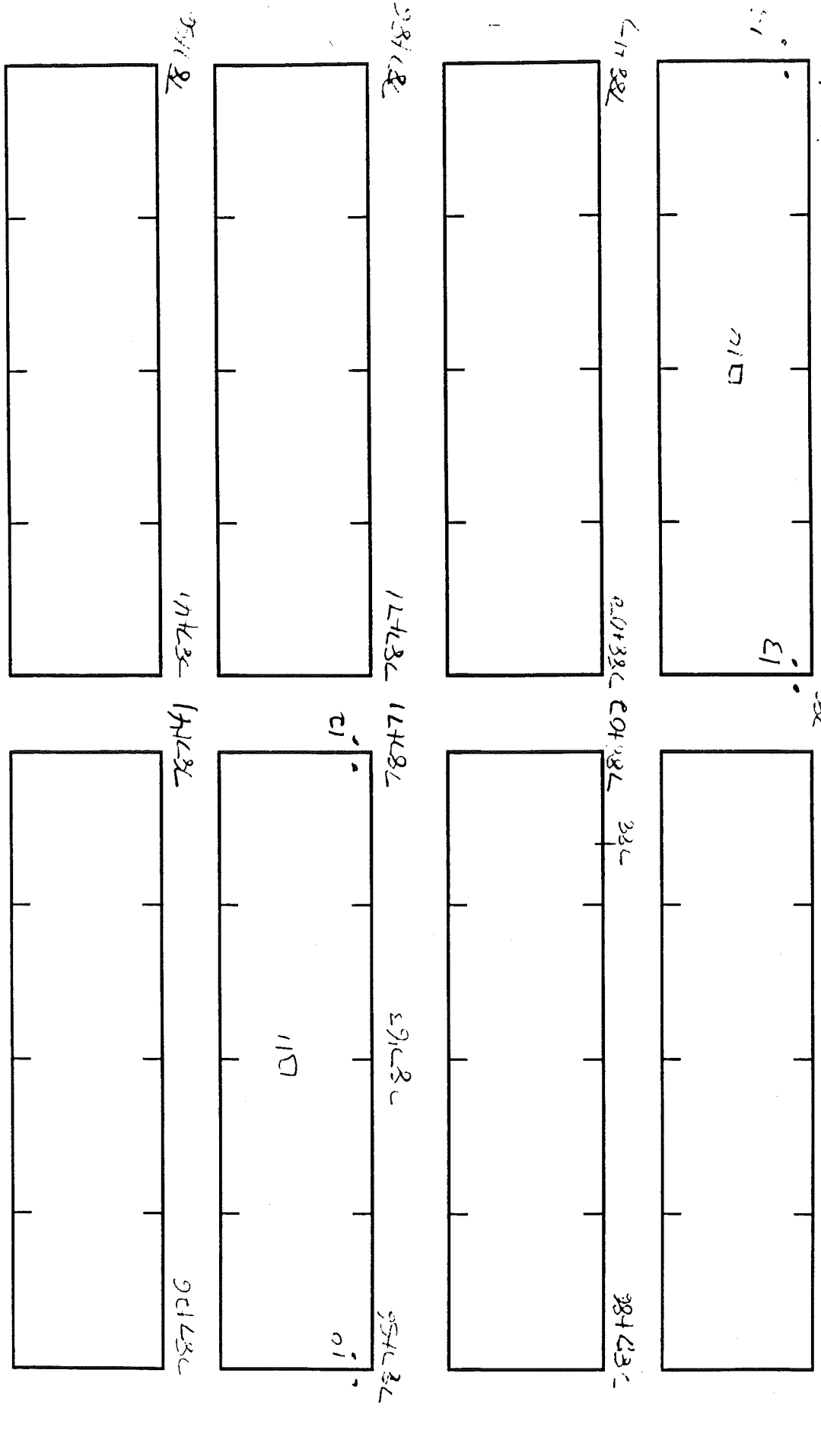
Project # 47065-28215A
Date 7-31-97
Direction EB

JS 15
Slab 10²

POB 784+88
POE 795+07

JS 15
Slab 10²

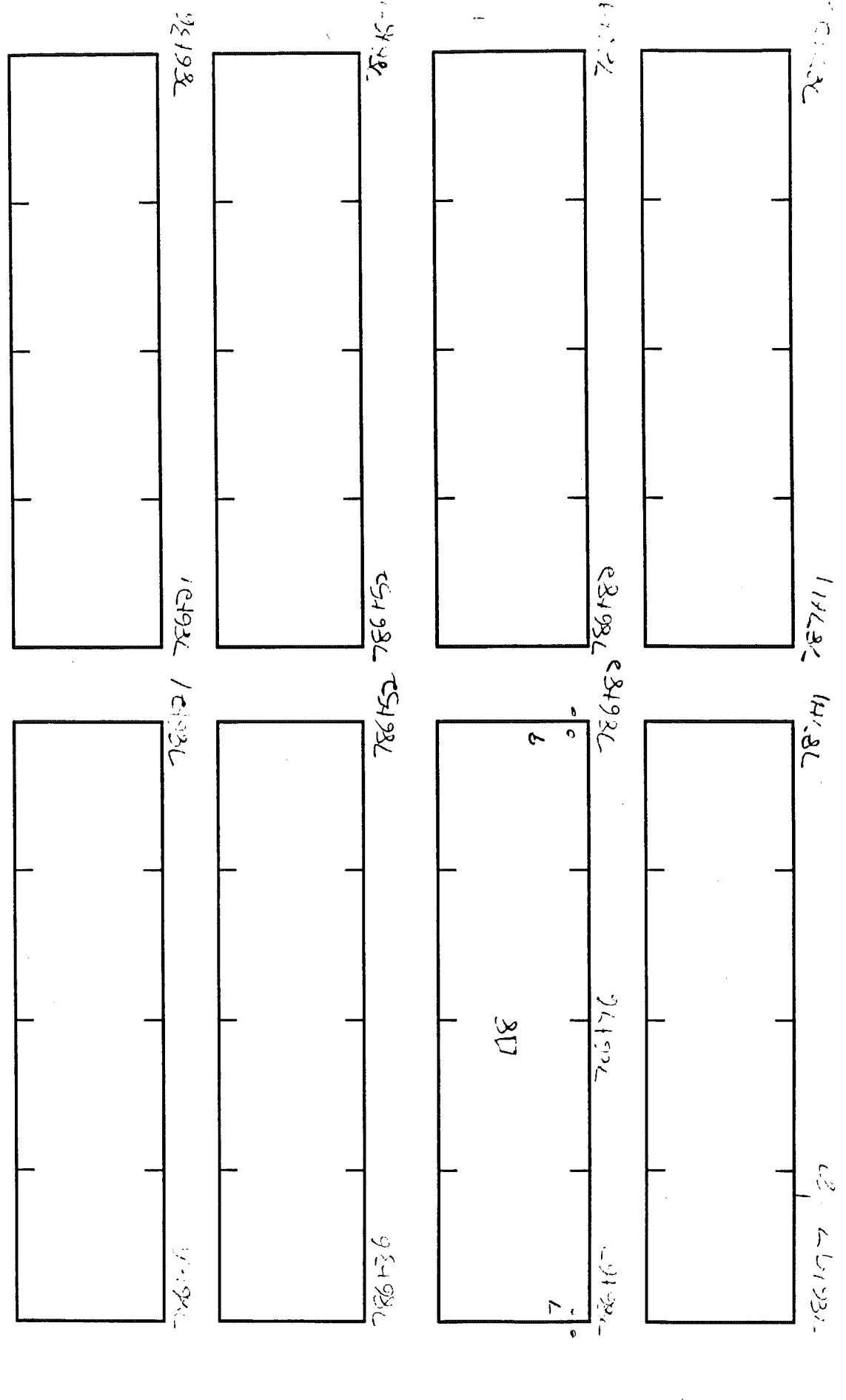
POB 784+88
POE 795+07



Project # 47066-28215A
Date 7-31-97
Direction EB By AD

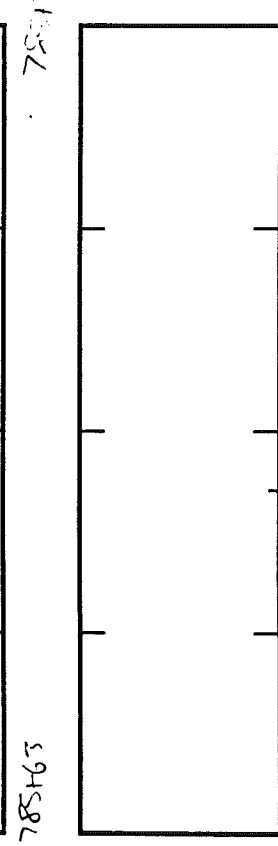
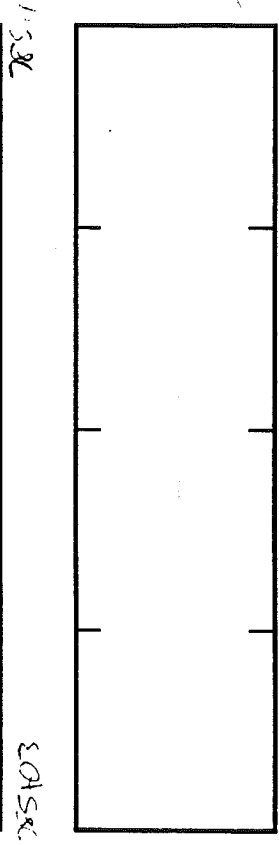
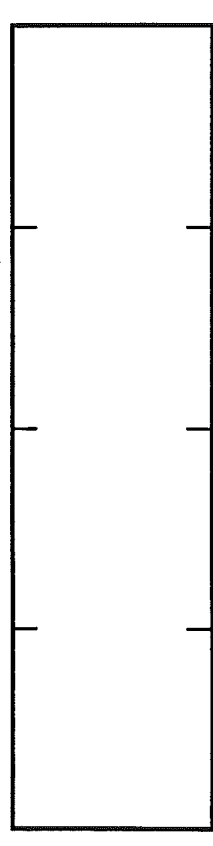
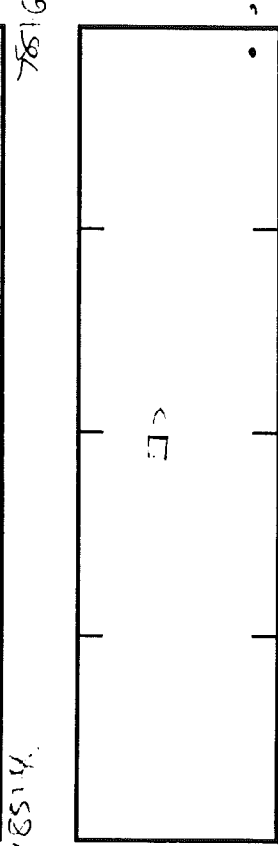
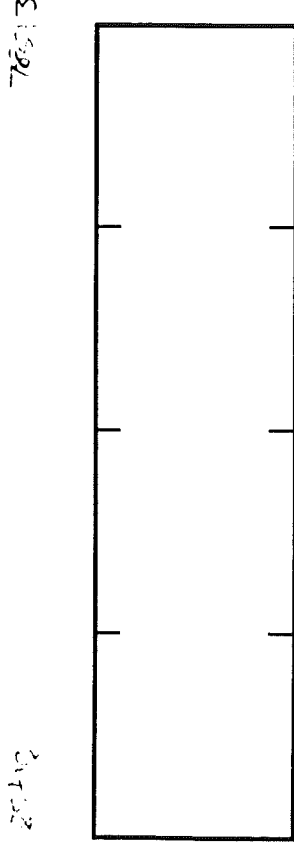
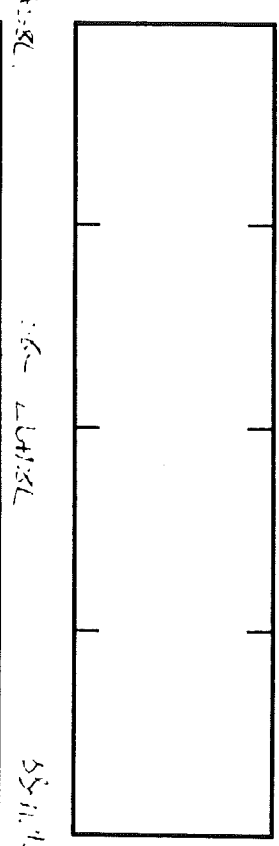
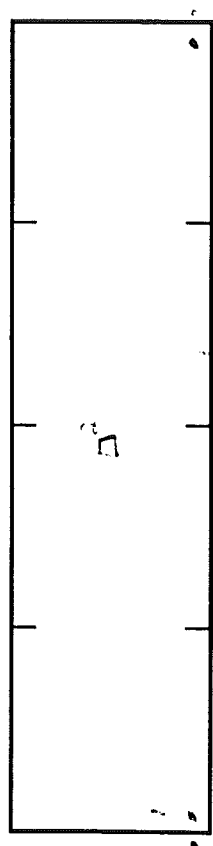
POB 784188
POE 795+07

JS 15
Slab 10



Shedder at least 1
 36 limestone seeds
 max fibres than 1-94
 water Mid

Project # 47065-2815A Date 7-31-90 JS 15 POB 78177
 Direction EB By AD Slab 10 POE 78177



East of Job

I-96 Hazel

Project # H7065-20215A Direction WB Survey Date 6-2-97 Geometry ISFT JS Beginning Station 829164
 Surveyed By AD Slab Thickness 0 Ending Station 820765

12 ft											
19 ft	30	29	26				27	26	25		
	820765	820770	820775	820780	820785	820790	820795	820800	820805	820810	820815

			23	24	22						
	822115	822120	822125	822130	822135	822140	822145	822150	822155	822160	822165

	20	21	19	17	16						
	823115	823120	823125	823130	823135	823140	823145	823150	823155	823160	823165

East end of Job
350 AA Slag

I-96 Haze 11

Project # 47065-28215A Direction WB

Survey Date 6-2-97
Surveyed By AP

Geometry 15 FT JS
Slab Thickness 10

Beginning Station 829184
Ending Station 829165

825715	825730	825745	825760	825775	825790	826105	826120	826135	826150	826165
			14	13						
		15								

826175	826180	826195	827110	827125	827155	827170	827185	828100	828115	828130
11							8	7		
	10						9			

828130	828145	828160	828175	828189	829105	829121	829137	829153	829169	829184
			5	4					2	1
		6							3	

Base 'me stone section

Project # 47065-28215A Direction WB
 Survey Date 6-3-97 Surveyed By AD
 Geometry 15ft JS
 Slab Thickness 10
 Beginning Station 785+85
 Ending Station 796+00

794+66	794+81	794+96	795+11	795+26	795+41	795+56	795+70	795+85	796+00
			5	4				3	1
								2	

isolate section

Project # 47065-28215A Direction WB Survey Date 6-3-97 Surveyed By AD Geometry 15ft sp Slab Thickness 10" Beginning Station 785+55 Ending Station 796+22

18			19	20	21				22

790+9 791+3 791+7 791+9 792+3 792+7 792+9 793+3 793+7 793+9 794+3 794+7 794+9 795+3 795+7 795+9 796+3 796+7 796+9

17	16				15	14	13		

791+6 791+7 791+8 791+9 792+0 792+1 792+2 792+3 792+4 792+5 792+6 792+7 792+8 792+9 793+0

12	11	10			9	8	7		

793+4 793+5 793+6 793+7 793+8 793+9 794+0 794+1 794+2 794+3 794+4 794+5 794+6 794+7 794+8 794+9 795+0

Base: Limestone
 Section
 350 AA Limestone

I-96 Howell

Project # 47065 28815A Direction WB Survey Date 6-3-97 Surveyed By AD Geometry 15 JT Sp Beginning Station 785+55 Ending Station 796+00
 Slab Thickness 10"

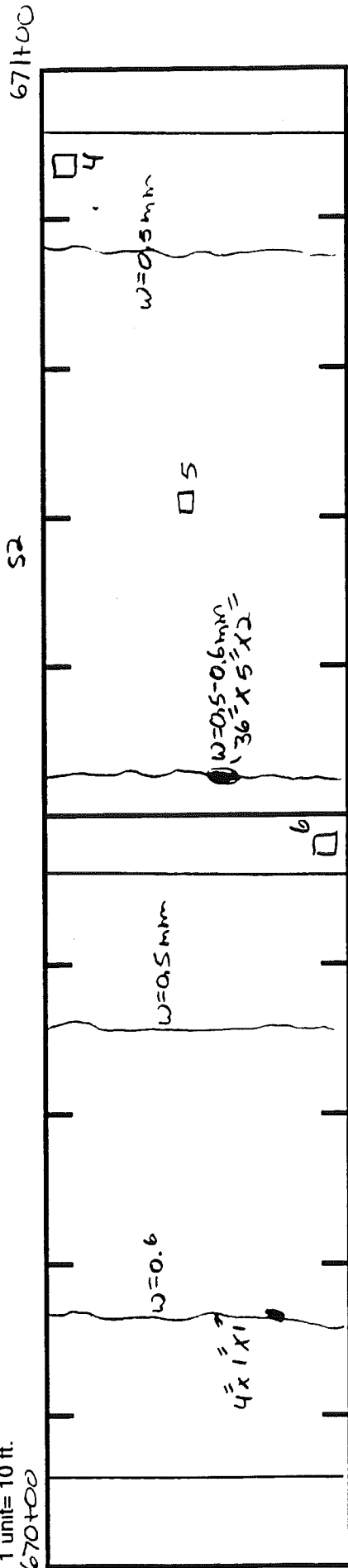
785+55	785+70	785+85	785+100	785+115	785+130	785+145	785+160	785+175	785+190	785+205
SS	HE						32			
ZE							33			31

785+220	785+235	785+250	785+265	785+280	785+295	785+310	785+325	785+340	785+355	785+370

785+385	785+400	785+415	785+430	785+445	785+460	785+475	785+490	785+505	785+520	785+535

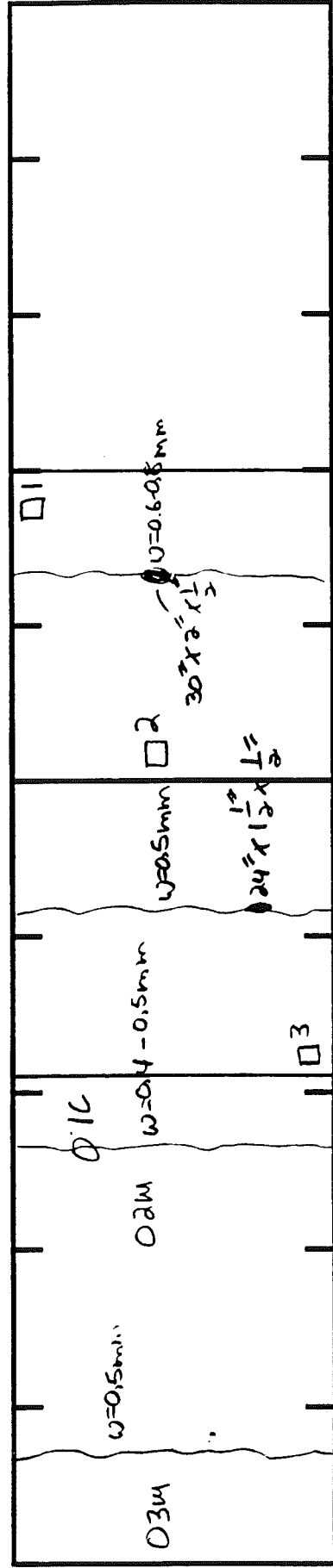
Project # 40444-18804A Survey Date: 7-24-96 Beginning Station: 670+00 Weather: Comments:
 Surveyed By: EJ End Station: 671+70

Direction: W/SOL
 1 unit = 10 ft.
 670+00



671+70

671+27



671+21

671+01

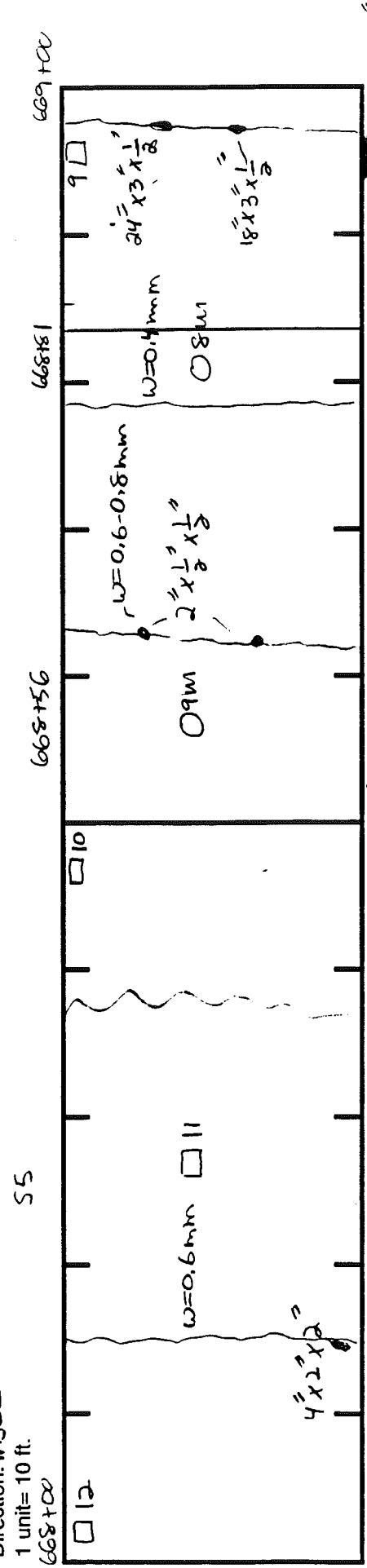
Project # 40444-18604A

Survey Date: 7-24-96
Surveyed By: E.J.

Beginning Station: 668+00
End Station: 670+00

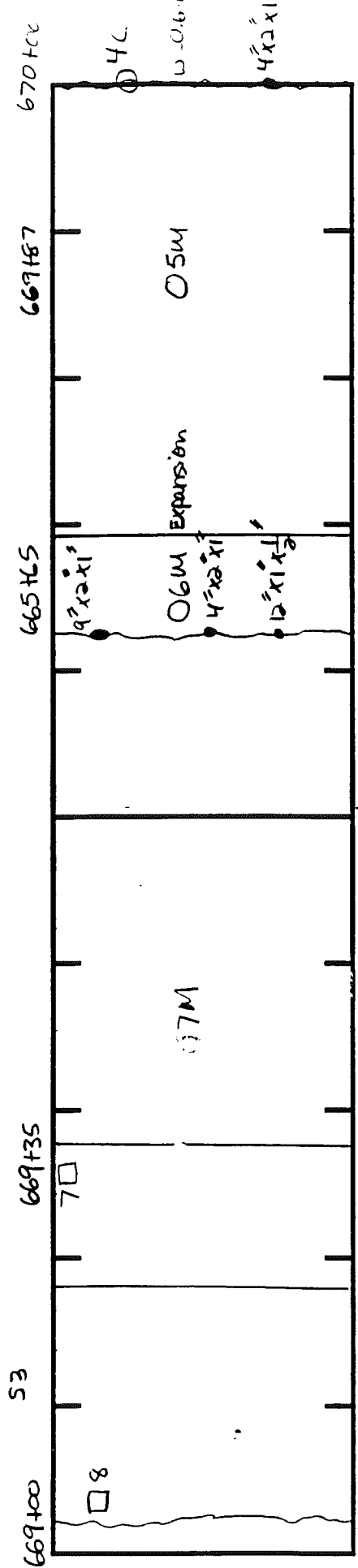
Weather:
Comments:

Direction: W/SOL
1 unit = 10 ft.
668+00



base sap. fault 1/4"

Joint

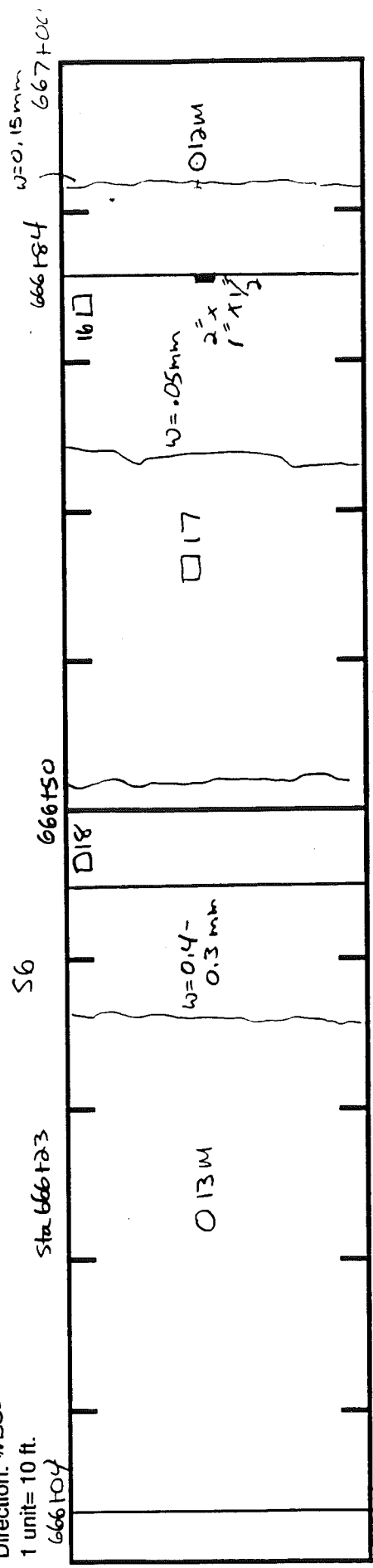


Project # 40444-18834A Survey Date: 7-24-96
 Surveyed By: EJ

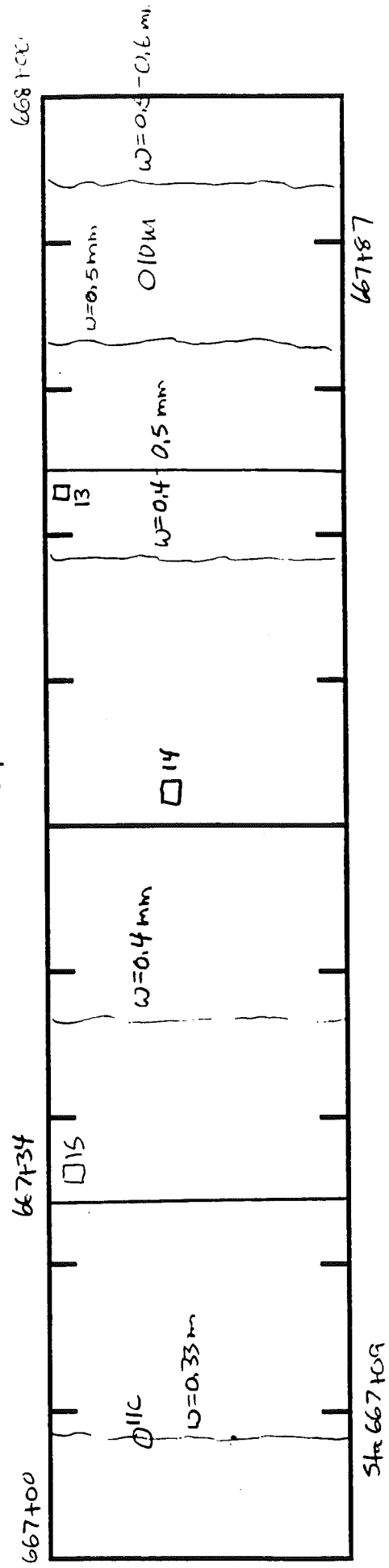
Beginning Station: 666104
 End Station: 668100

Weather:
 Comments:

Direction: W30L
 1 unit = 10 ft.
 666104

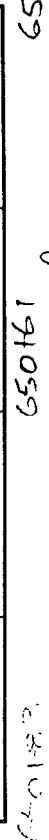
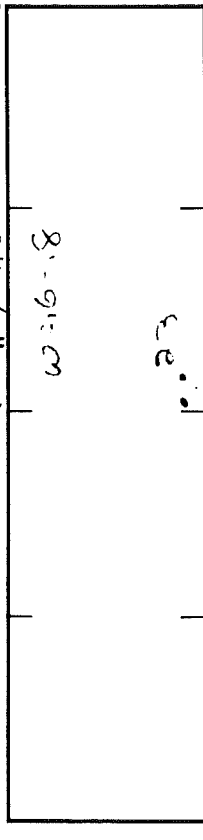
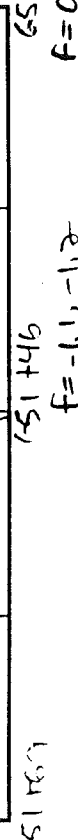
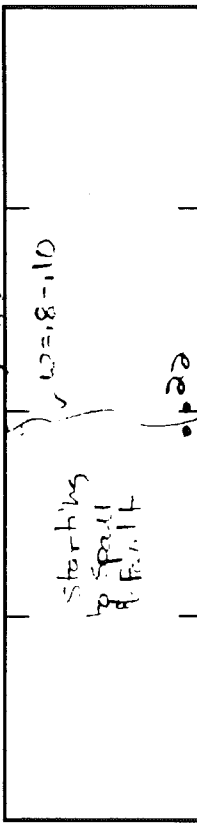
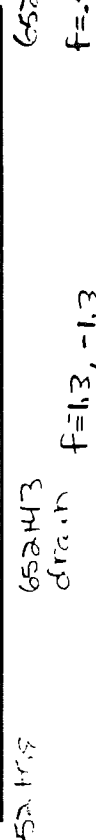
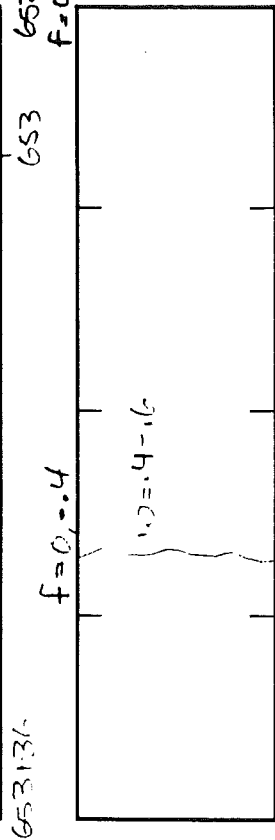
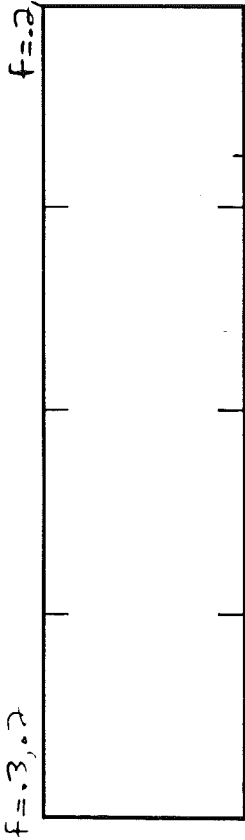
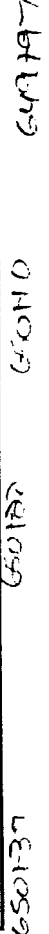
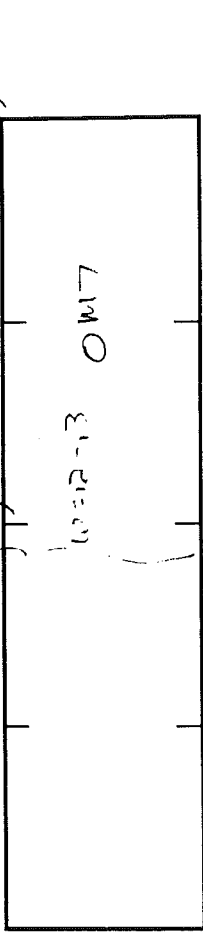
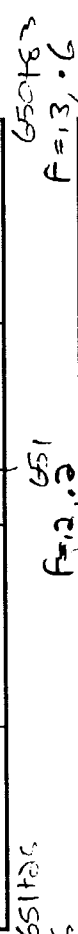
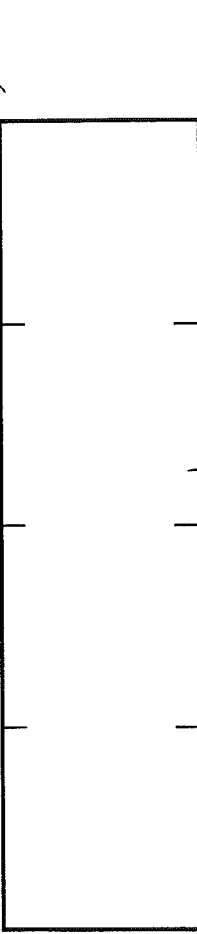
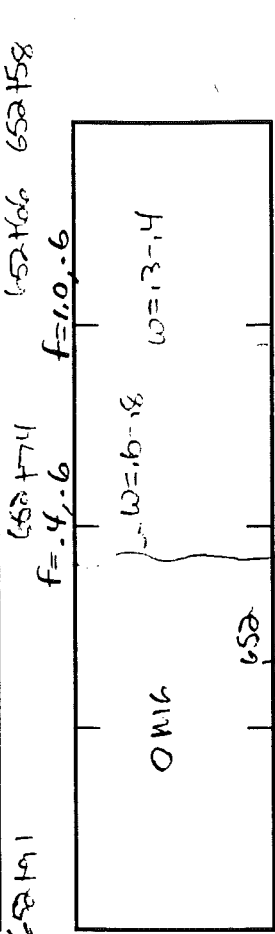
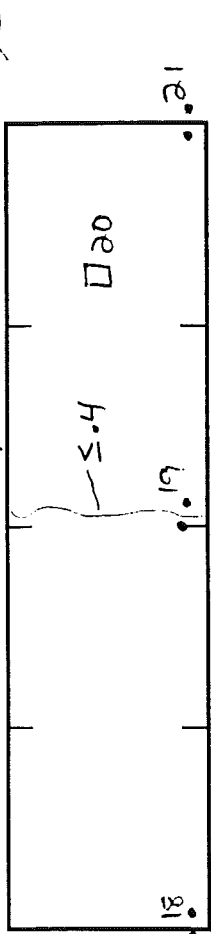


S4



Project # 25132-06582A Date 6-26-97 JS 44ft POB 660130
 Direction SB By AD Slab 7.0 POE 649197

f = 3, 0.2 f = 2, 0.5 f = -2, 0.2 f = -1, 0, 0



Project # 25132-0582A

Date 6-26-97

JS 44ft, 12ft Truck lane

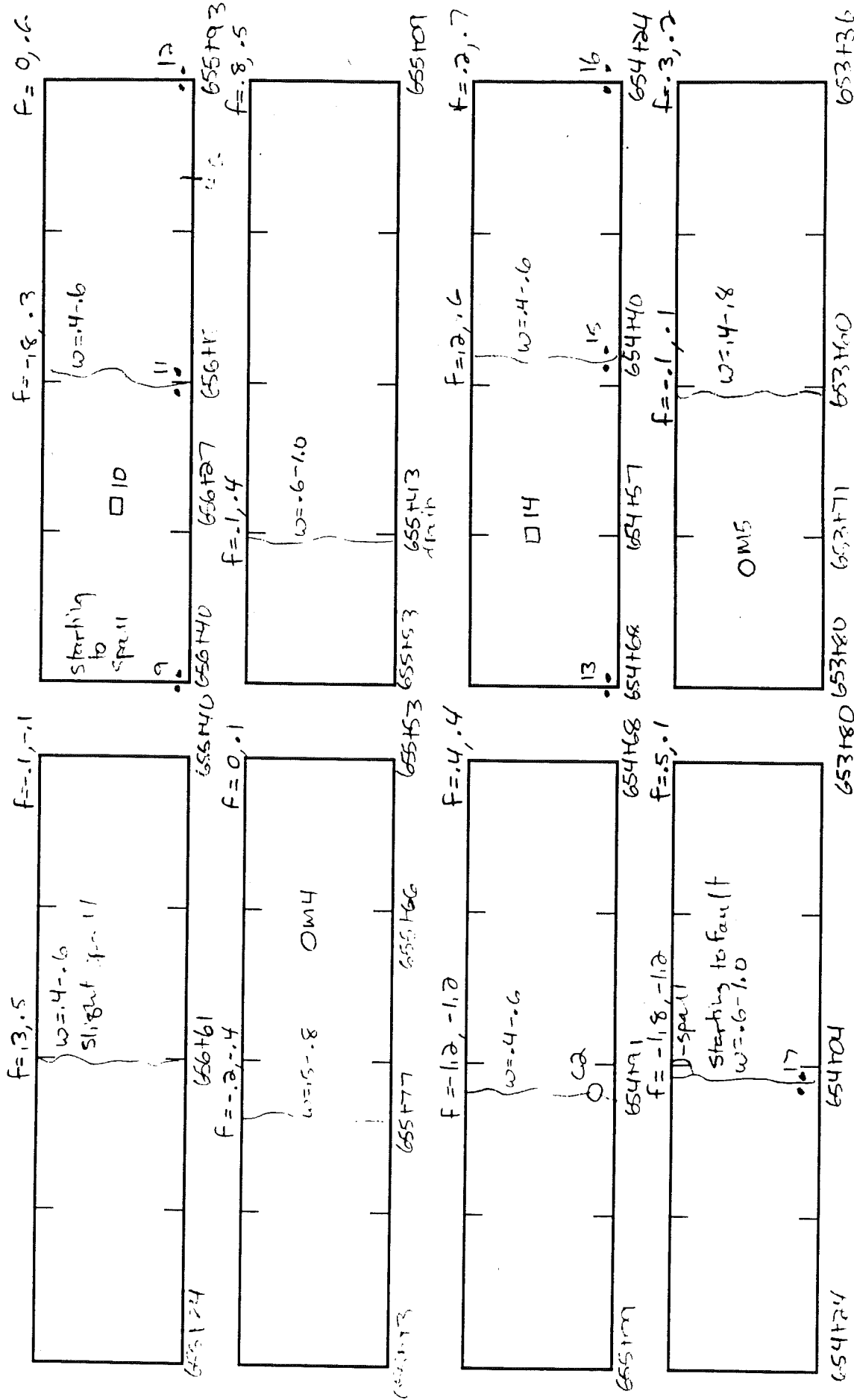
POB 66D130

Direction SB

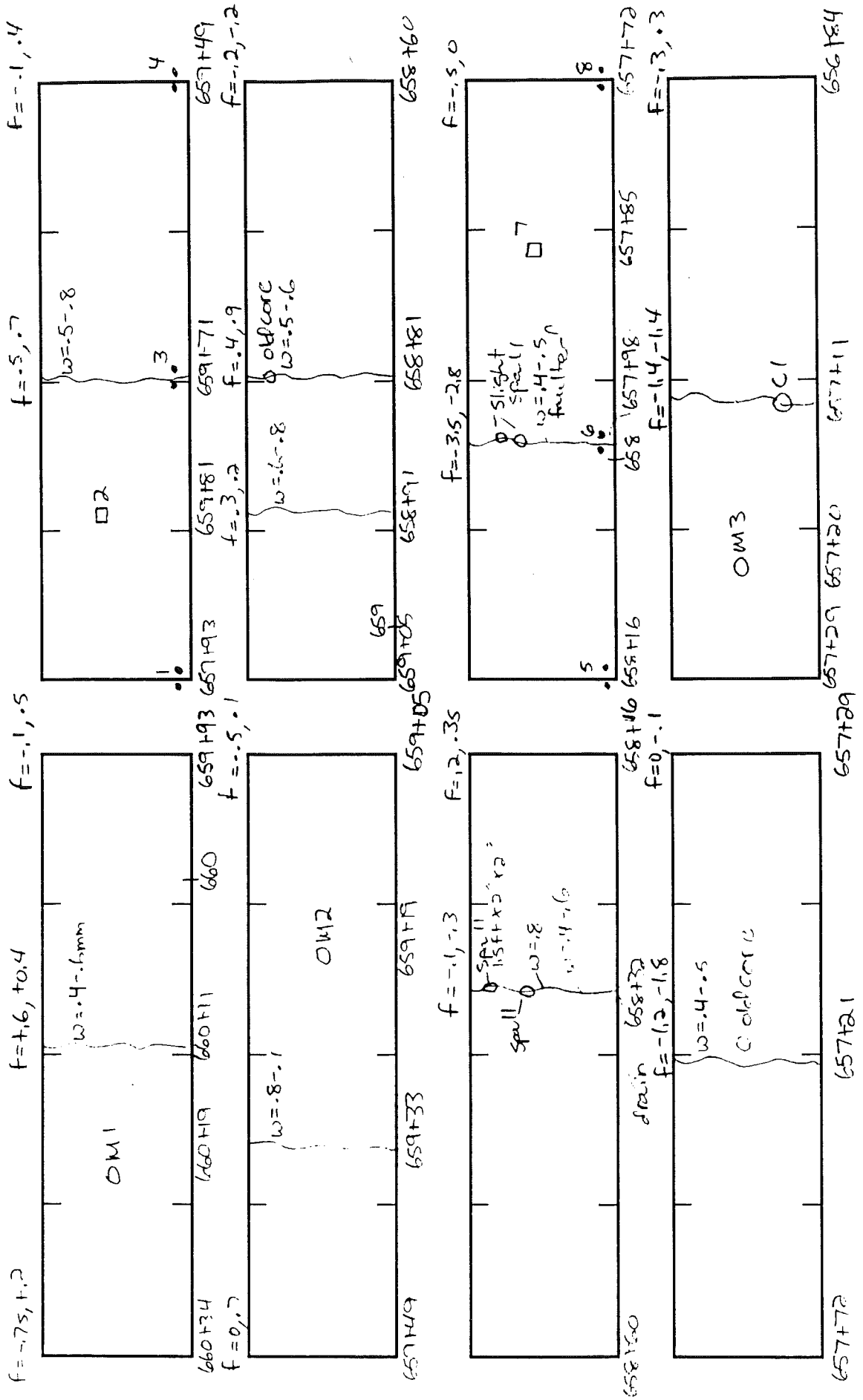
By AD

Slab 7 in

POE 649177



Project # 25132-(65821) Date 6-26-97 JS 44 ft POB 660+30
 Direction SB By AD Slab 9 in POE 649+97



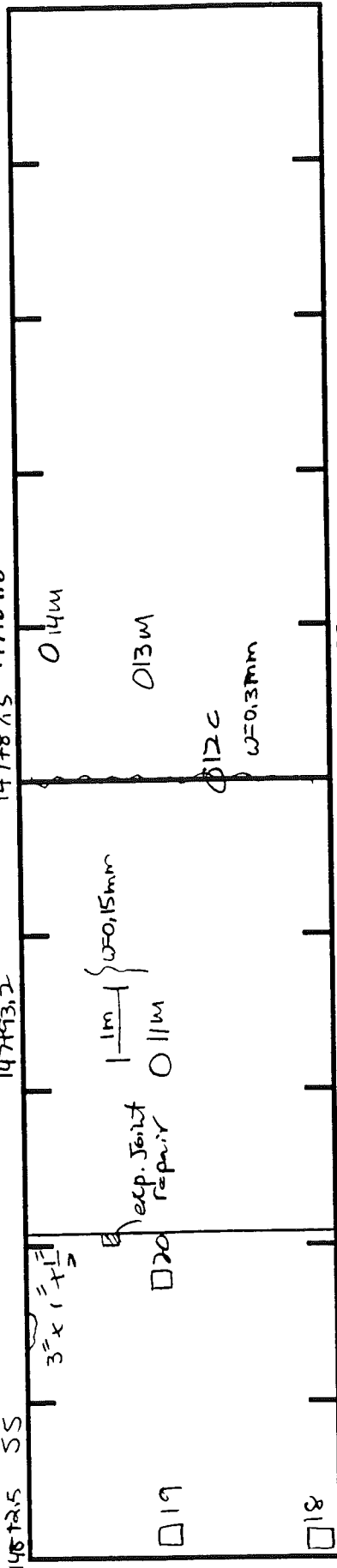
Project # 19043-00034A
 Survey Date: 10-3-96
 Surveyed By: EJ

Beginning Station: 148+2.5
 End Station: 147+83.7

Weather: Same as first sheet
 Comments:

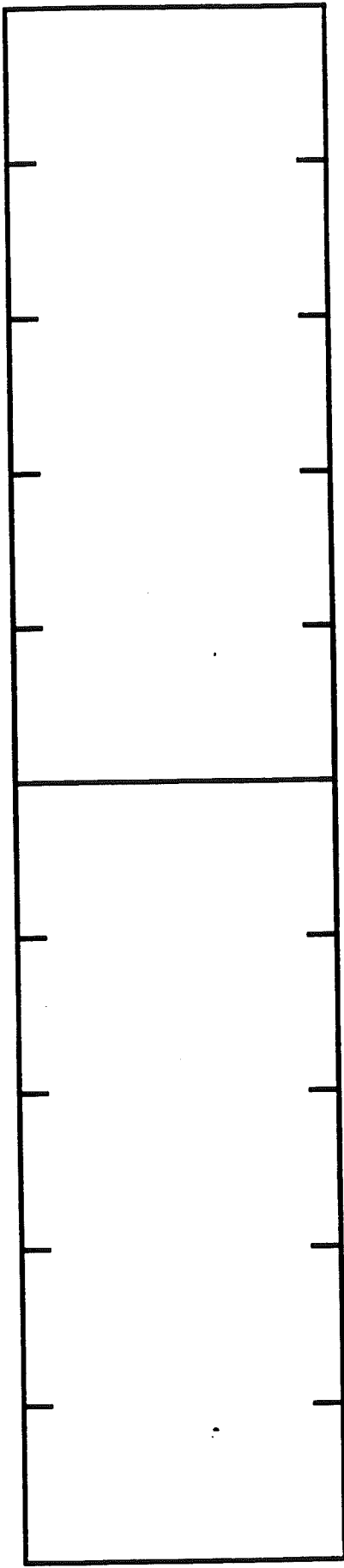
Direction: WBDL
 1 unit = 3 m
 148+2.5 SS

CS



148+2.4

147+85.2

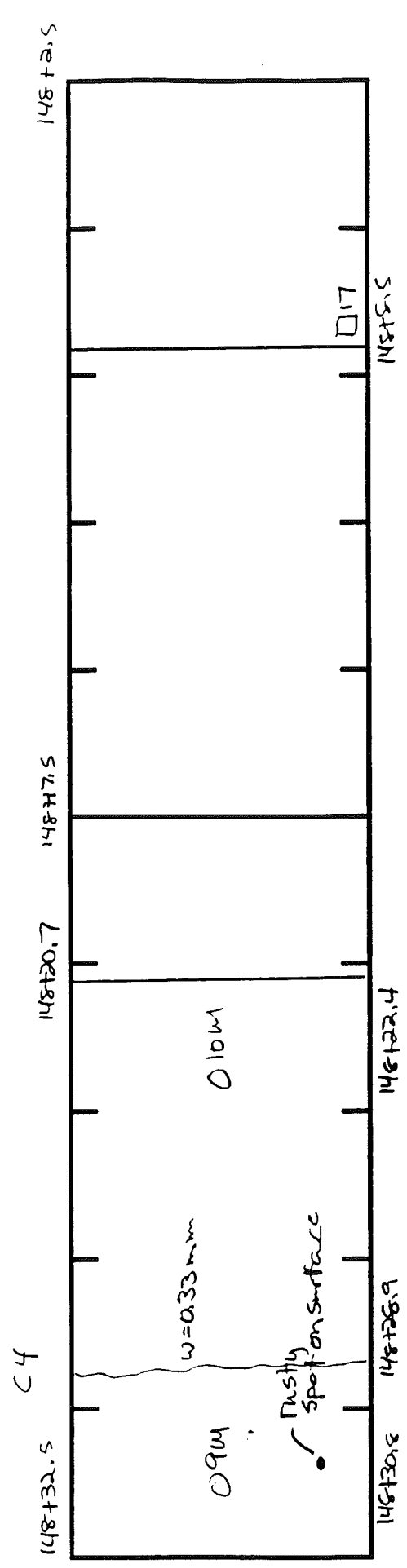
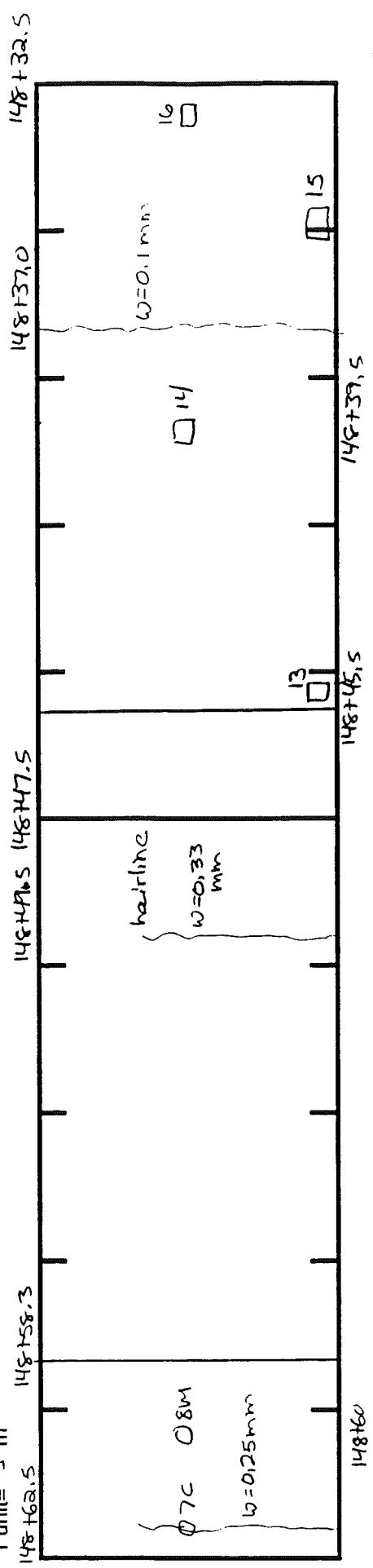


Project # 190173-00034A
 Survey Date: 10-3-96
 Surveyed By: E.J.

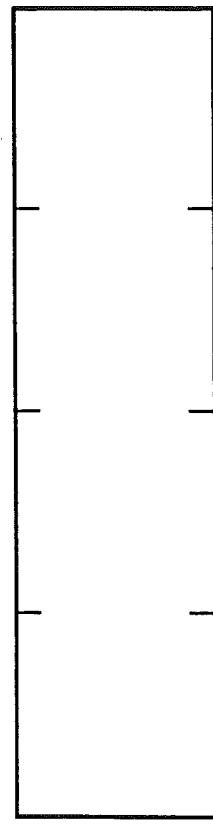
Beginning Station: 148+62.5 m
 End Station: 148+72.5 m

Weather: Same as first sheet
 Comments:

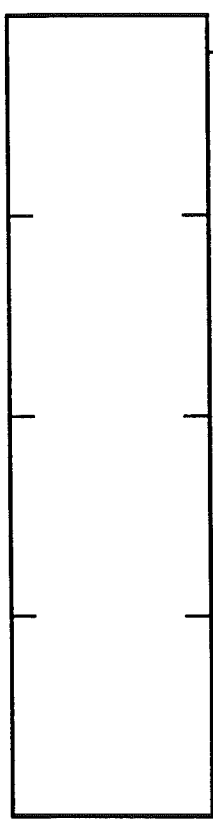
Direction: ω Bol
 1 unit = 3 m



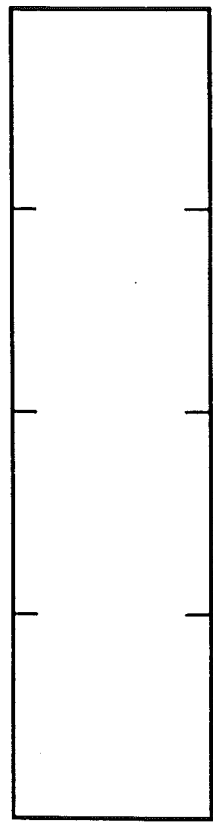
Project # 47066-2625A Date 7-31-97 JS 15 POB 784488
Direction CB By AD Slab 10 POE 795407



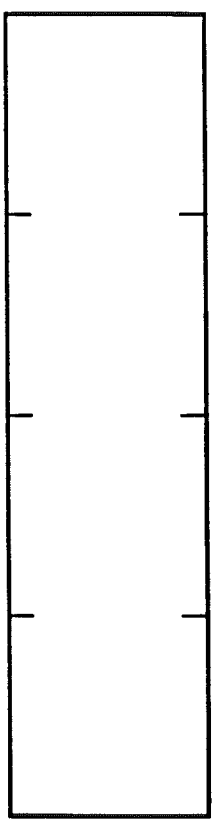
79116L



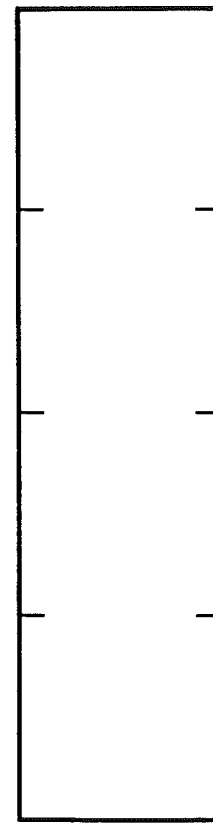
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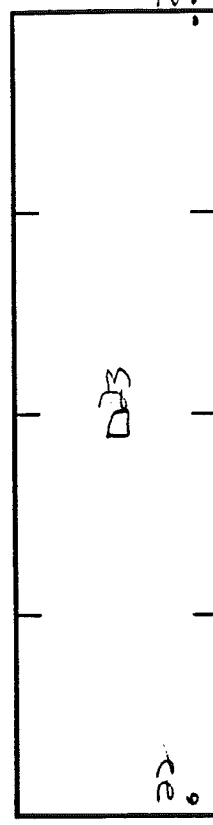
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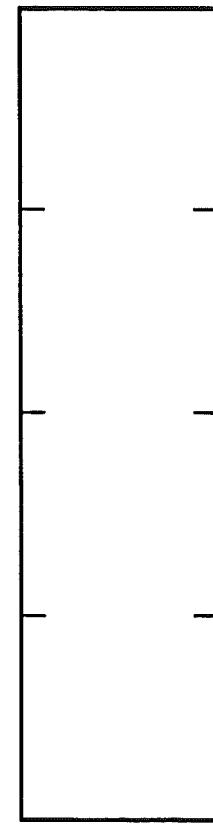
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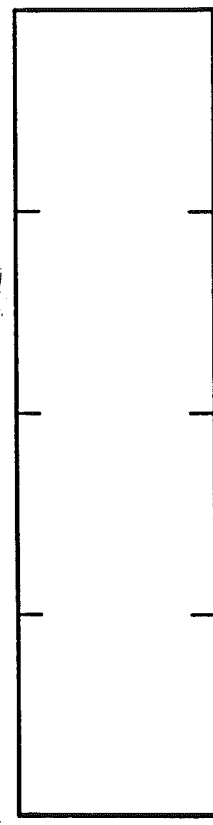
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79116A

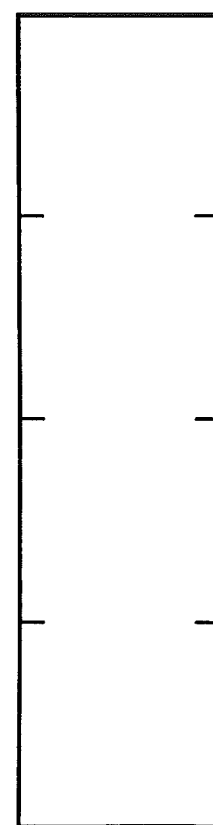
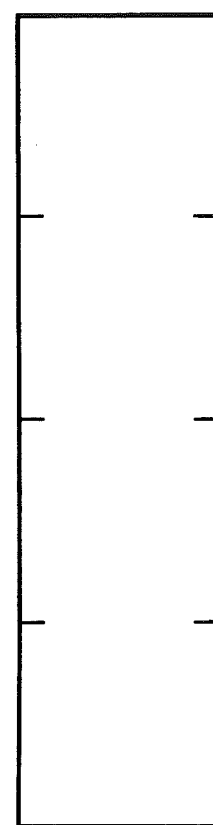
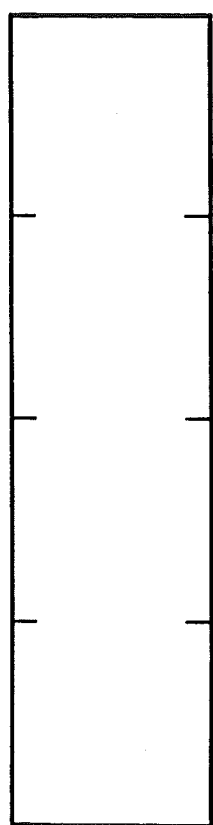
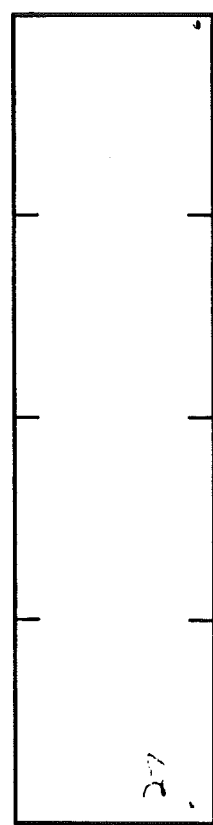
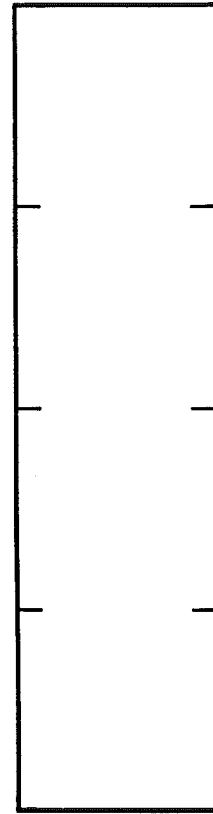
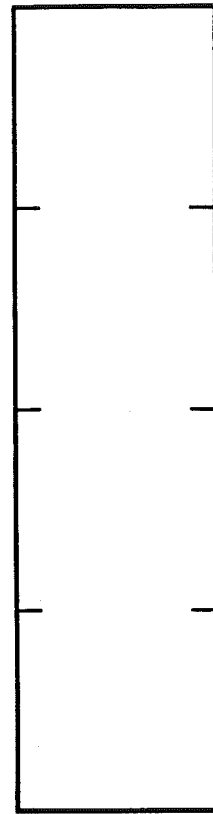
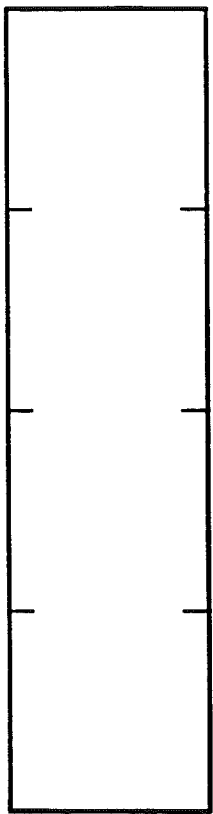
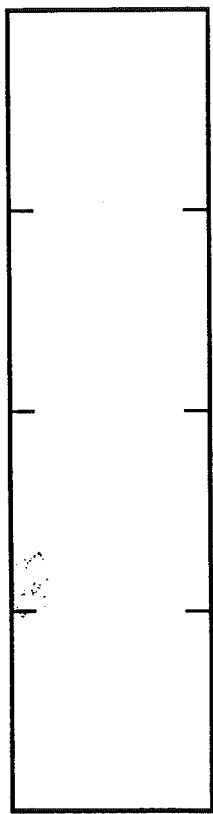


79116C



79116D

Project # 47065-25216A Date 7-31-97 JS 15 POB 784+88
 Direction EB By AD Slab 10' POE 795+07



36 Slag

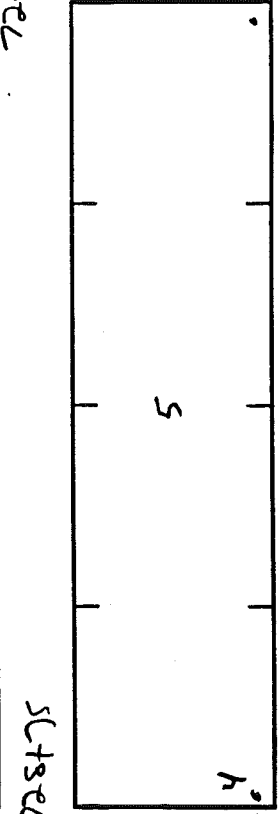
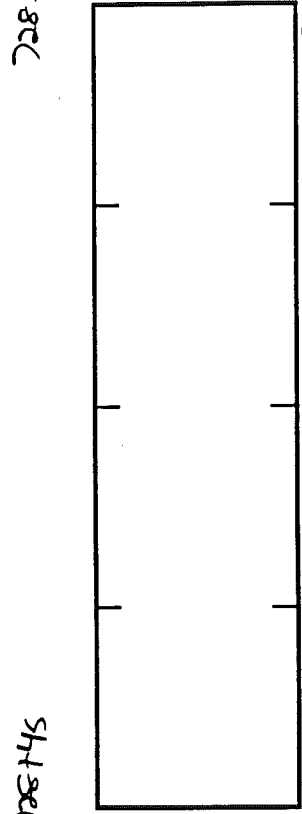
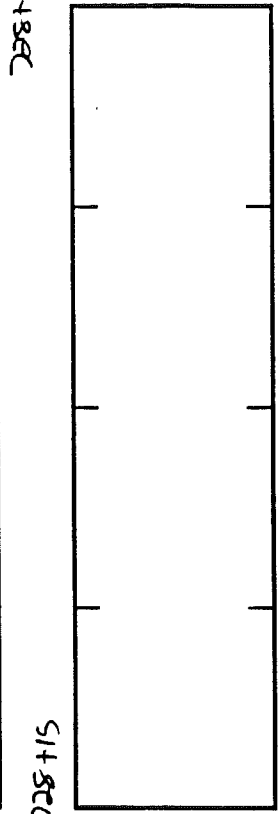
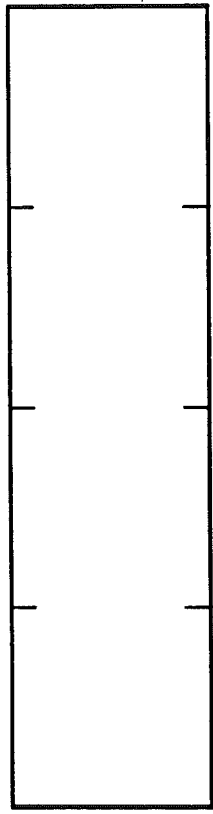
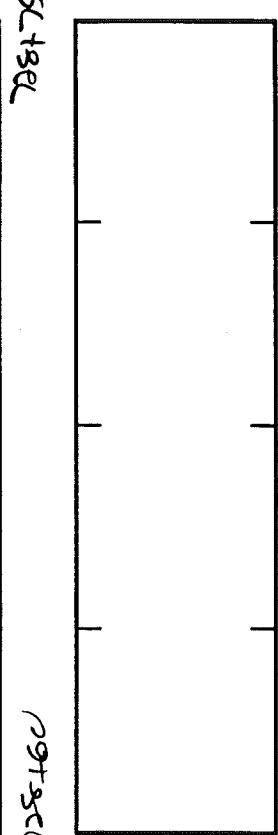
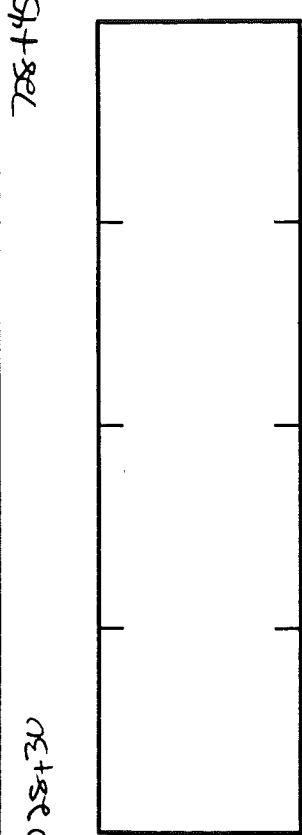
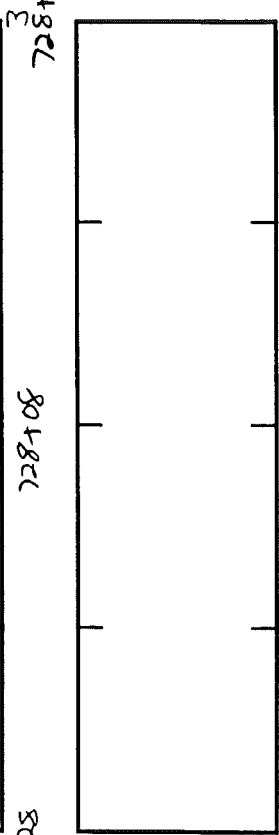
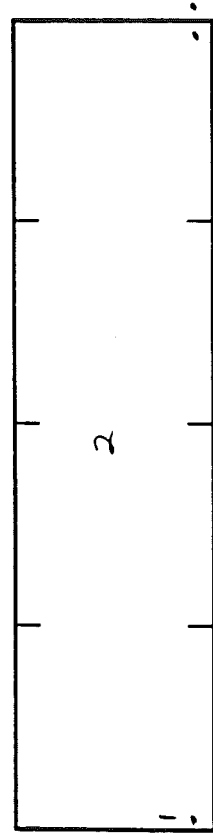
5, 11, 15 Slag

10" Sand subbase
3" 22A Separator
4" 36 Slag 06DC

POB 728+00
POE 733+60

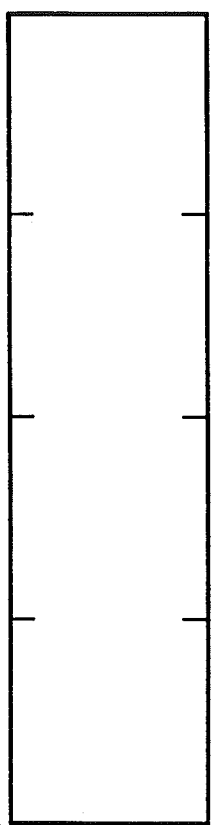
JS 15ft
Slab 11"

Project # 47065-28215A Date 8-6-97
Direction EB By AD



3651

Project # 47085-2825A Date 8-6-97 JS 15ft POB 728+60
 Direction EB By AD Slab H POE 733+66

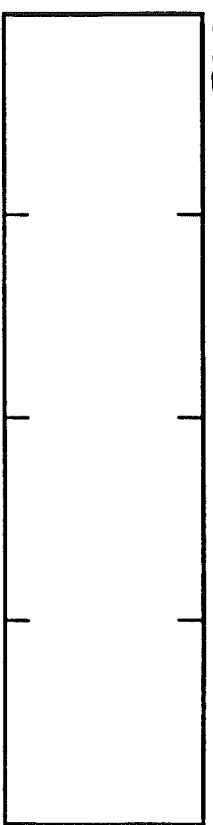


729+20

729+35

729+35

729+50

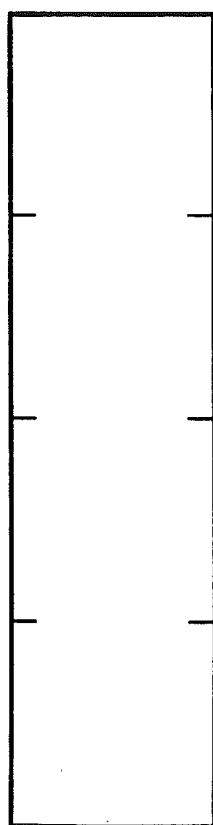


729+20

729+35

729+35

729+50

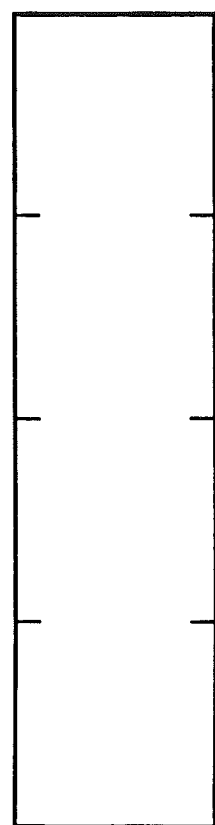


729+20

729+35

730

730+09



730+09

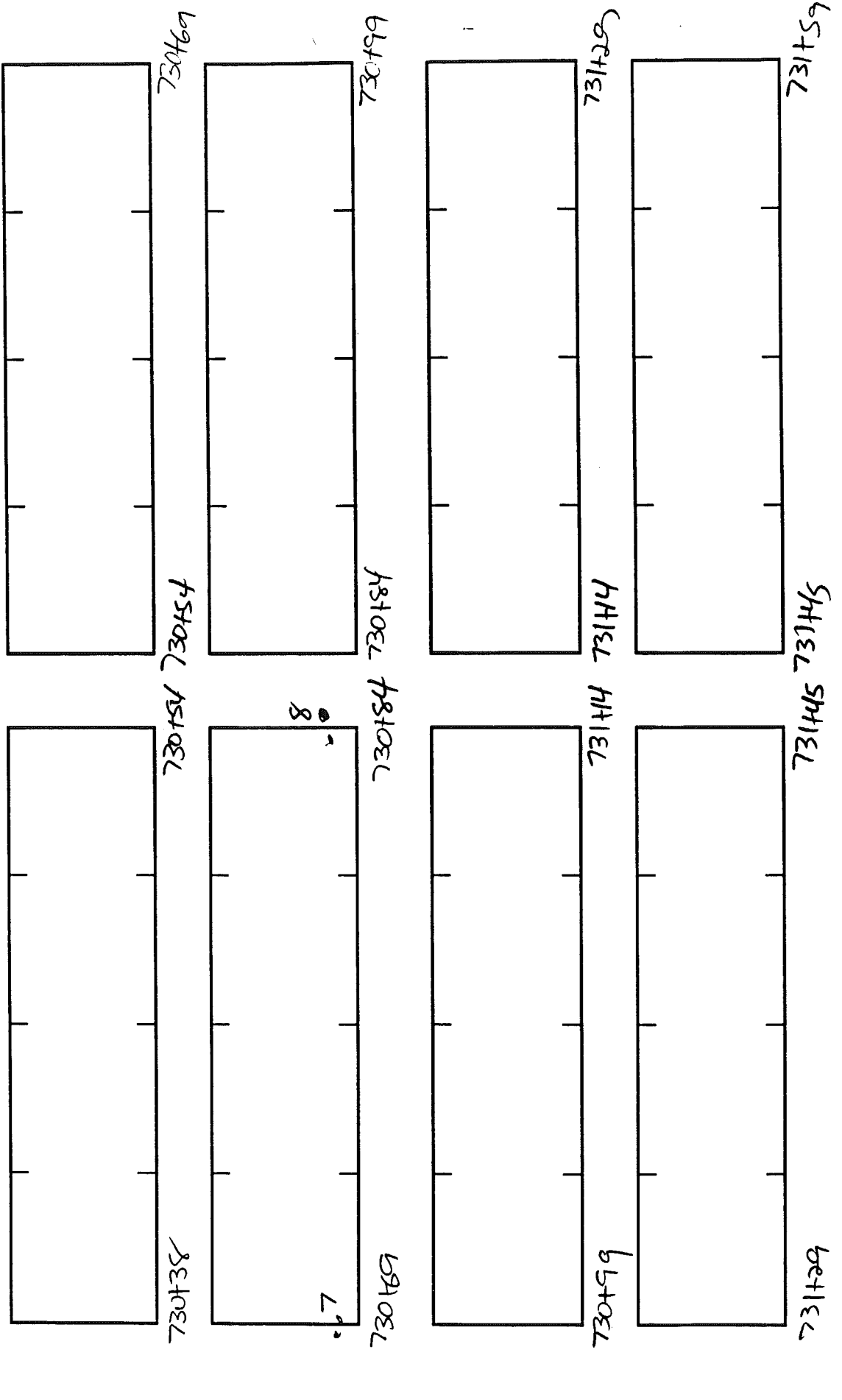
730+23

730+23

730+34

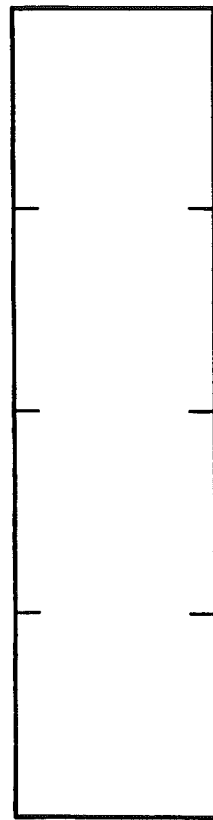
36 Slas

Project # 47065-28215A Date 8-6-97 JS 15ft POB 728100
 Direction EB By AD Slab 11 POE 733166

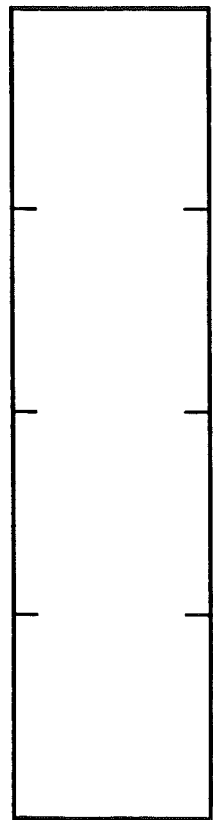


36 Slabs

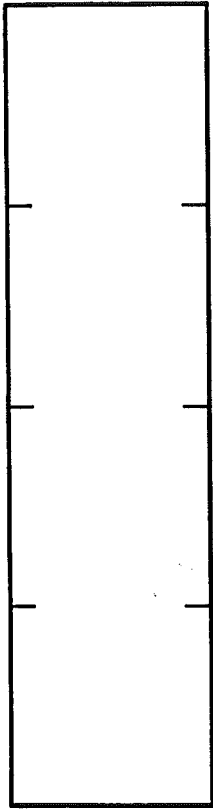
Project # 47065-28215 Date 8-6-97 JS 15ft POB 728+00
 Direction EB By AD Slab 11 POE 733+66



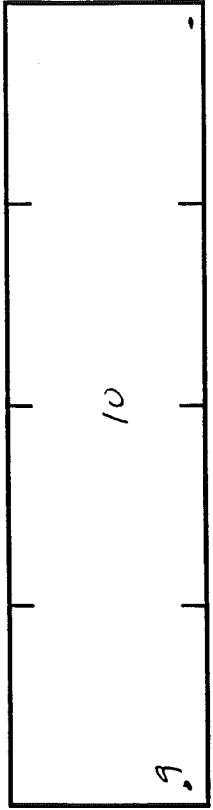
731+74



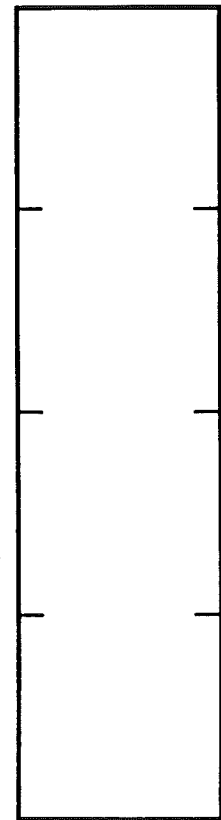
731+74



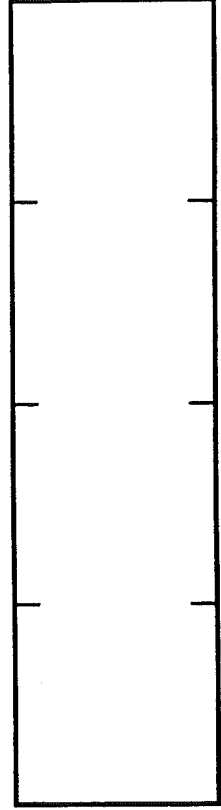
731+74



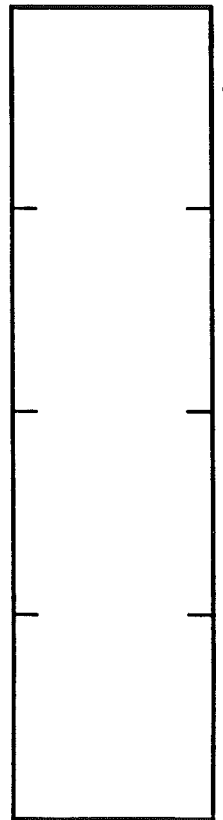
731+74



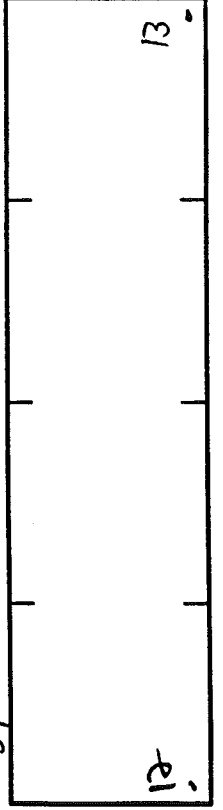
732+16



732+16

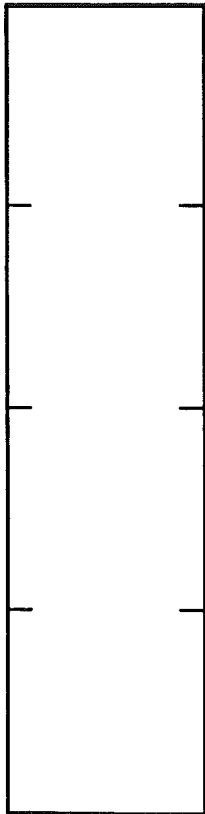


732+16



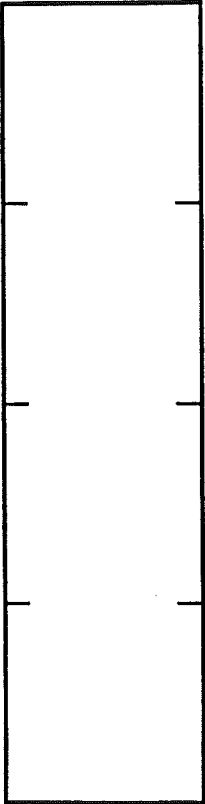
732+16

Project # 47065-2821SA Date 8-6-97 JS 15 POB 728100
 Direction SP By AD Slab 11 POE 733166

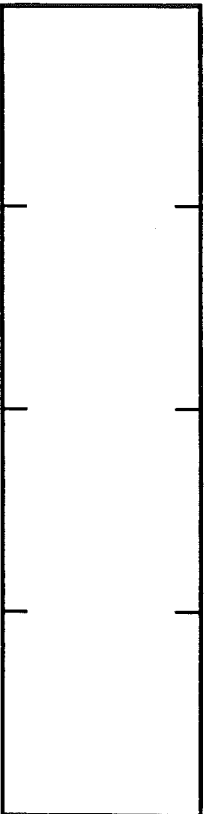


733176

733191 733191



733106

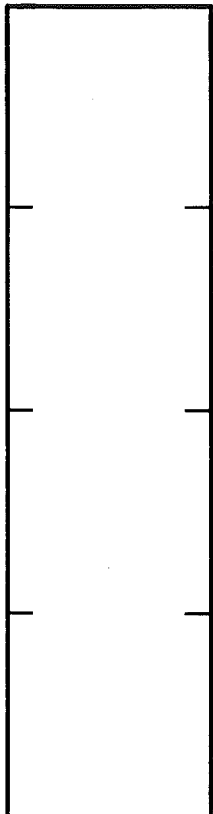


733106

733124

733101

733130



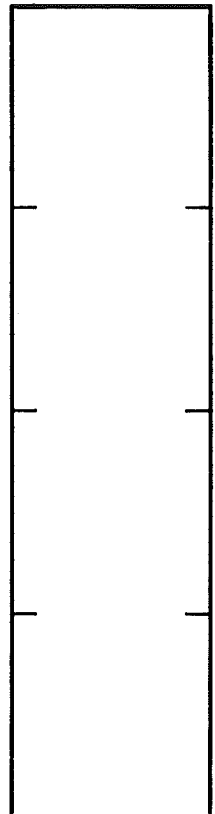
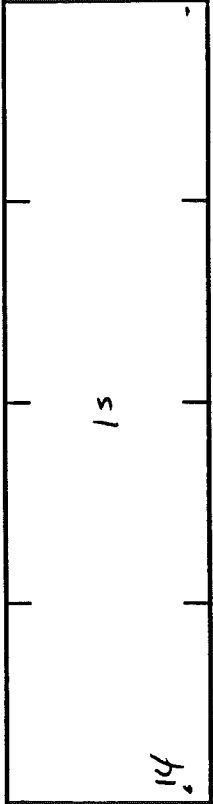
733136

733151

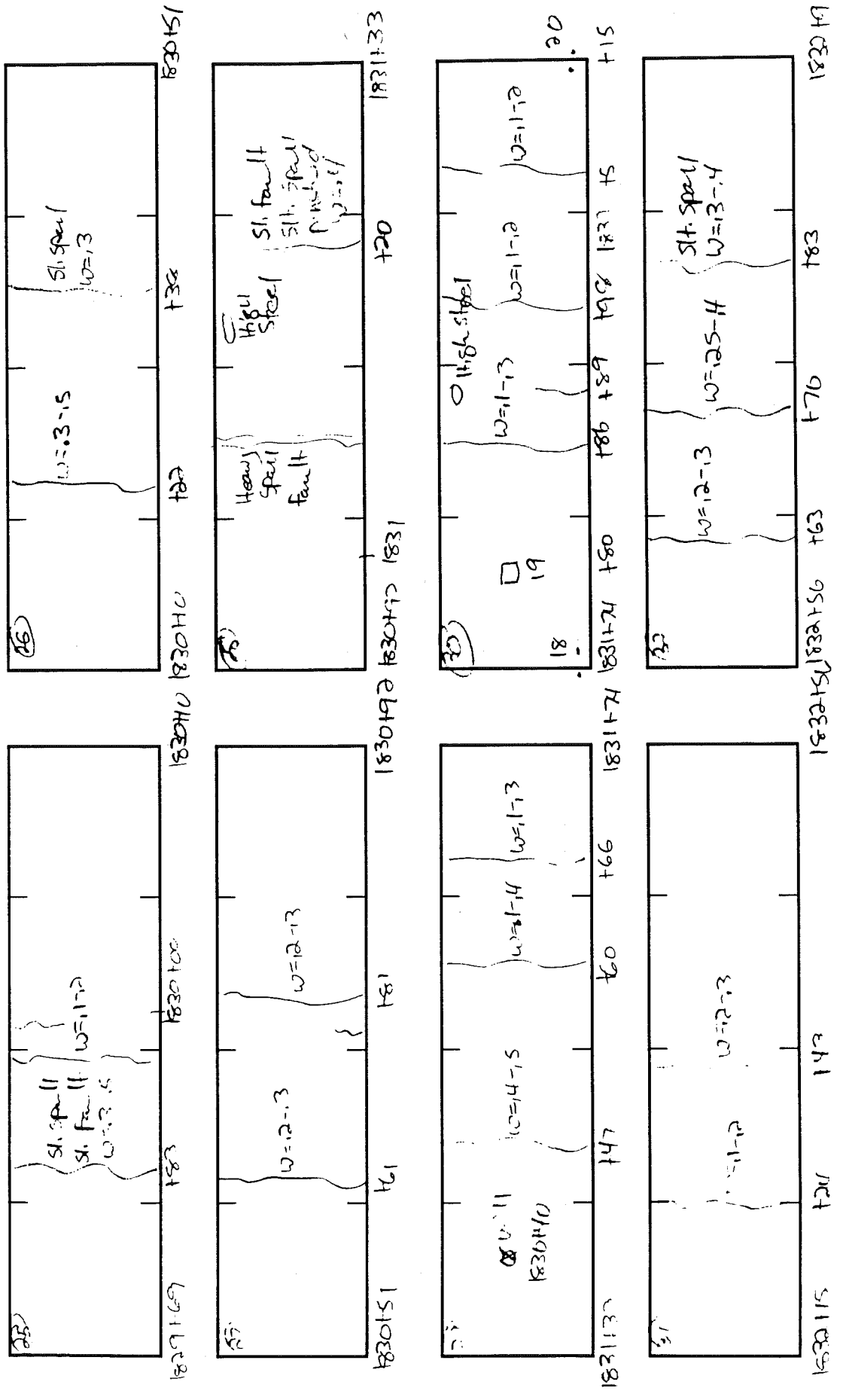
733151

733158

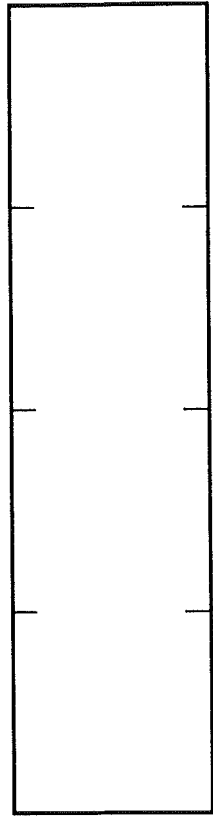
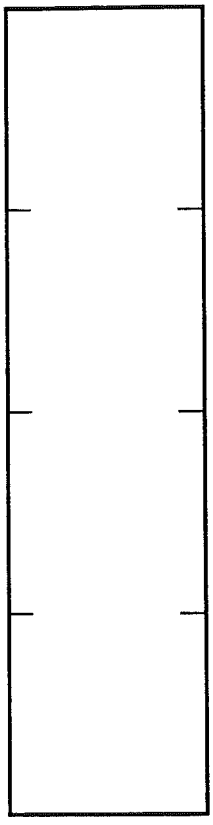
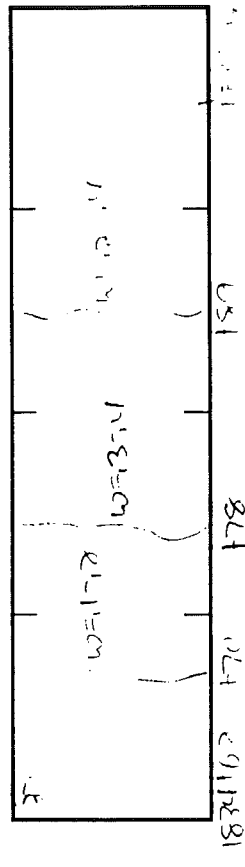
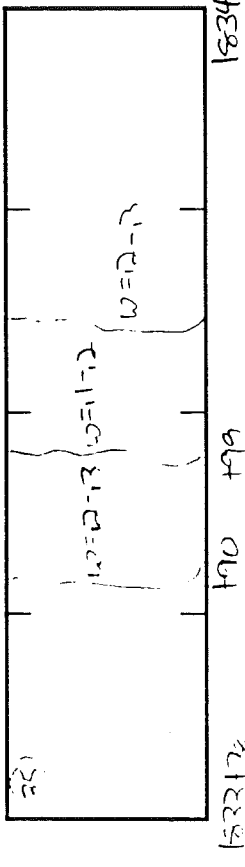
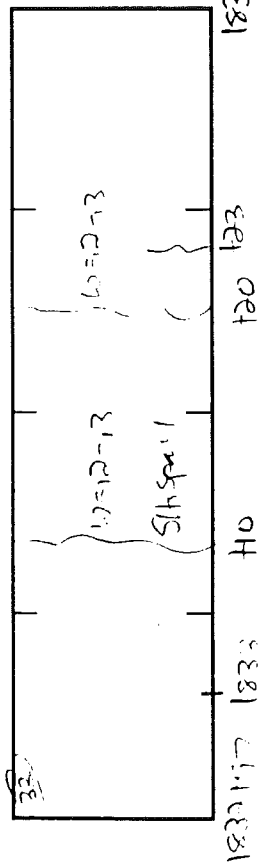
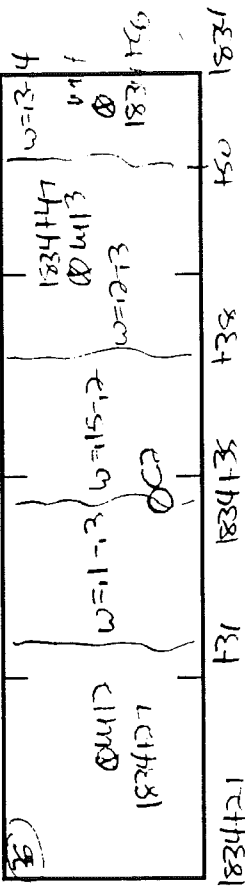
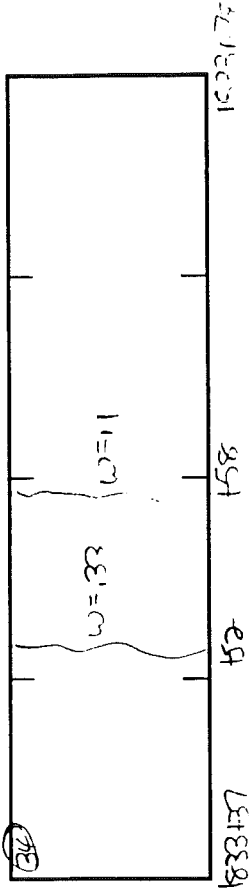
733166



Project # 77023-21586A Date 7-2-77 JS 41 ft POB 1819127
 Direction ED By AN Slab 9 POE 1835103



Project # 770232156A Date 7-2-97 JS 41 ft POB 1819 F87
Direction E/B By AD Slab 9' POE 1835 F03



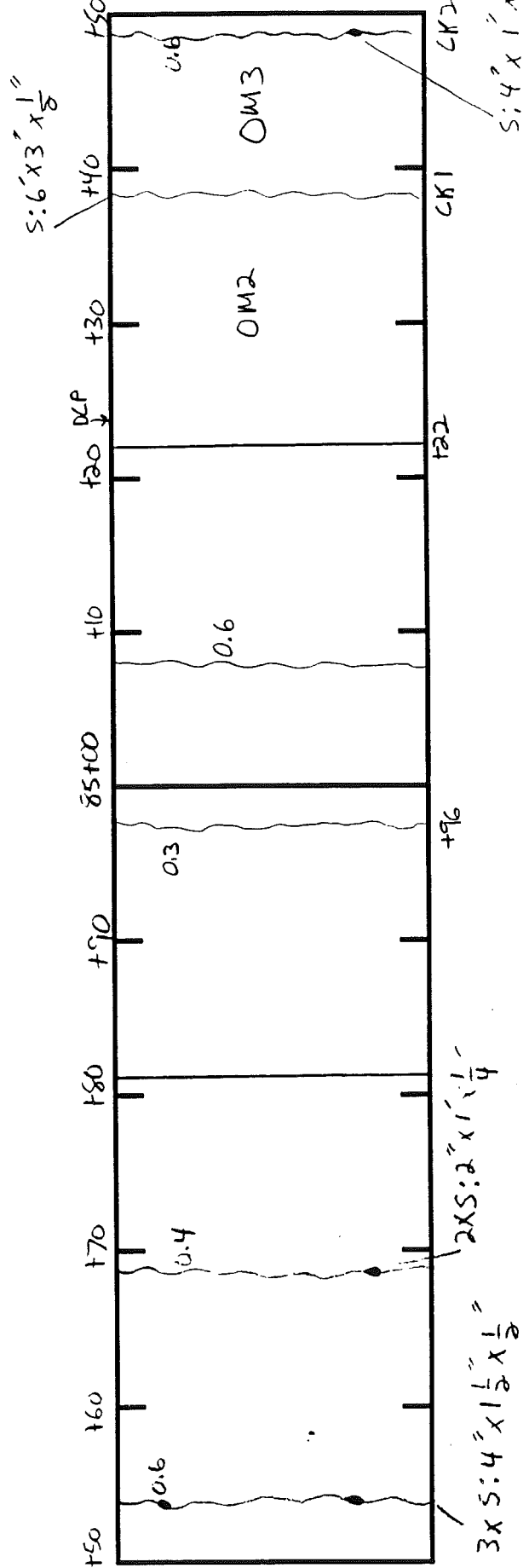
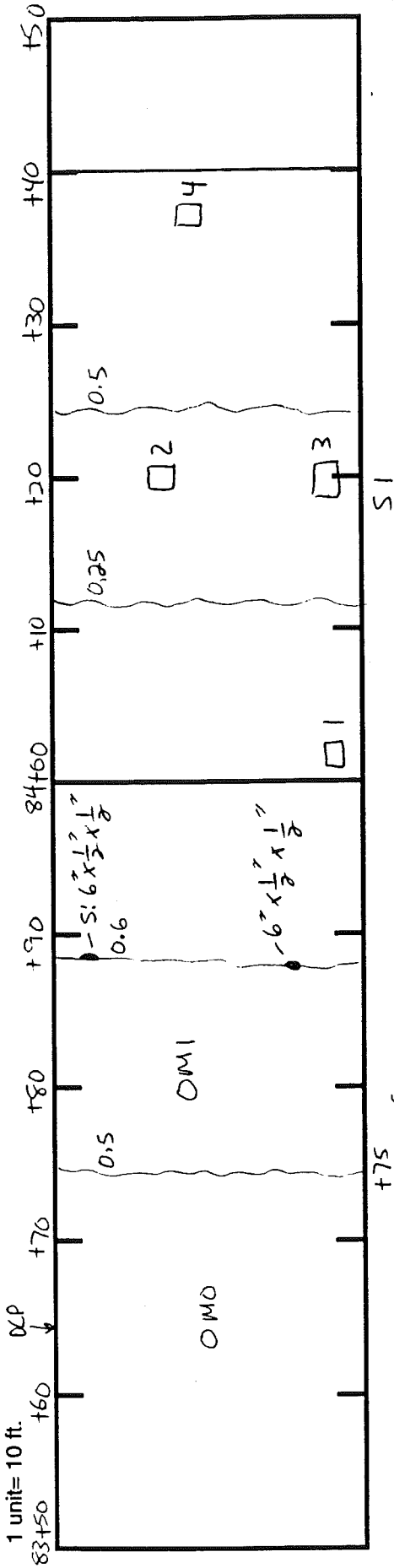
Project # 77024(A) - 20821A
 Survey Date: 10-17-96,
 Surveyed By: EJ

Beginning Station: 83+50
 End Station: 85+50

Weather:
 Comments:

Direction: EB

1 unit = 10 ft.



Project # 77024(A)-2082/A Survey Date: 10-17-96

Surveyed By: E.J.

Beginning Station: 85+50

End Station: 87+50

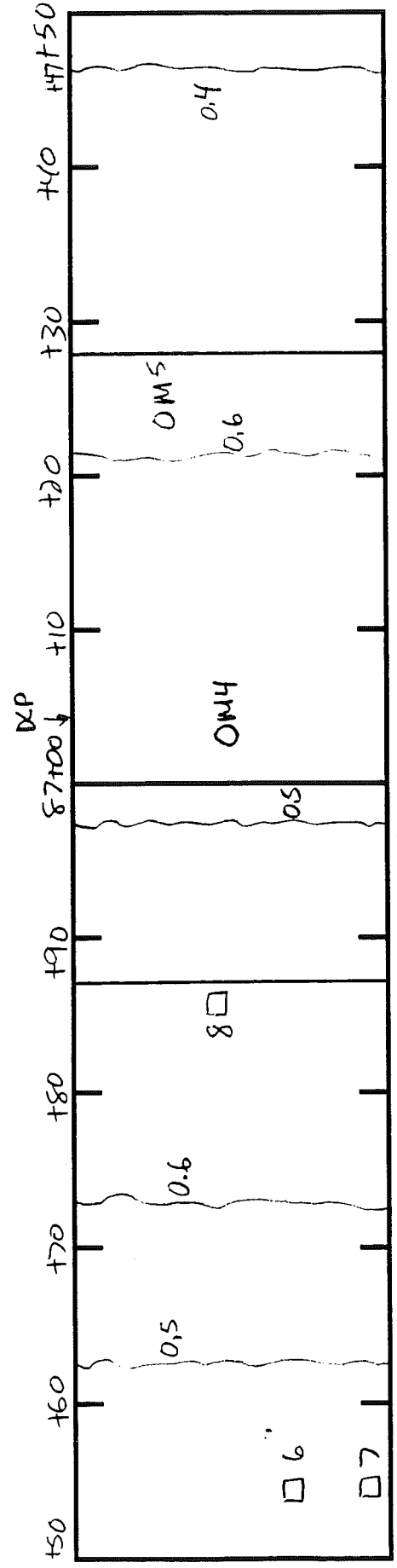
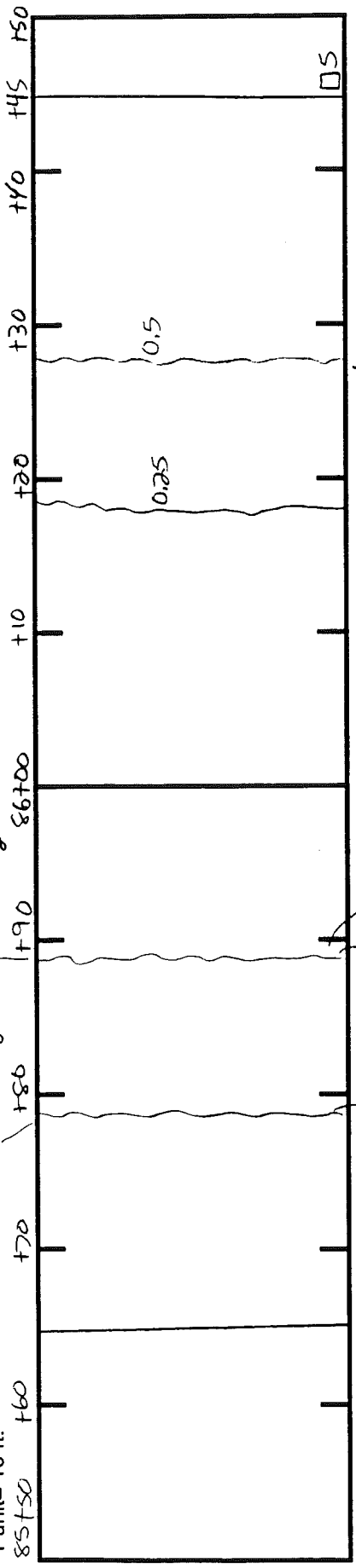
Weather:

Comments:

Direction: EB
1 unit = 10 ft.

5'6" x 4' x 1 1/2"

5'6" x 4' x 1 1/2"

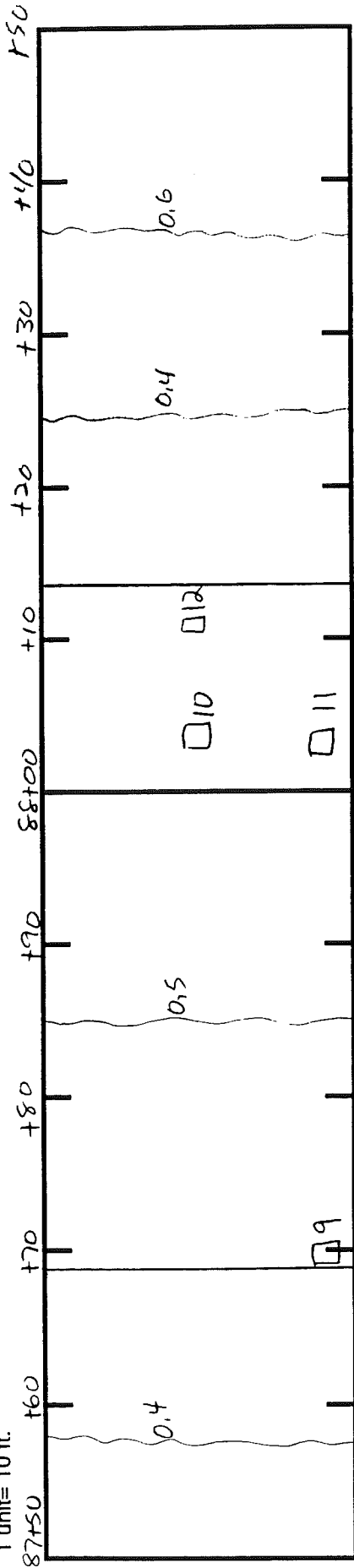


Project # 77024(A) - 20824A Survey Date: 10-17-96
 Surveyed By: E.J

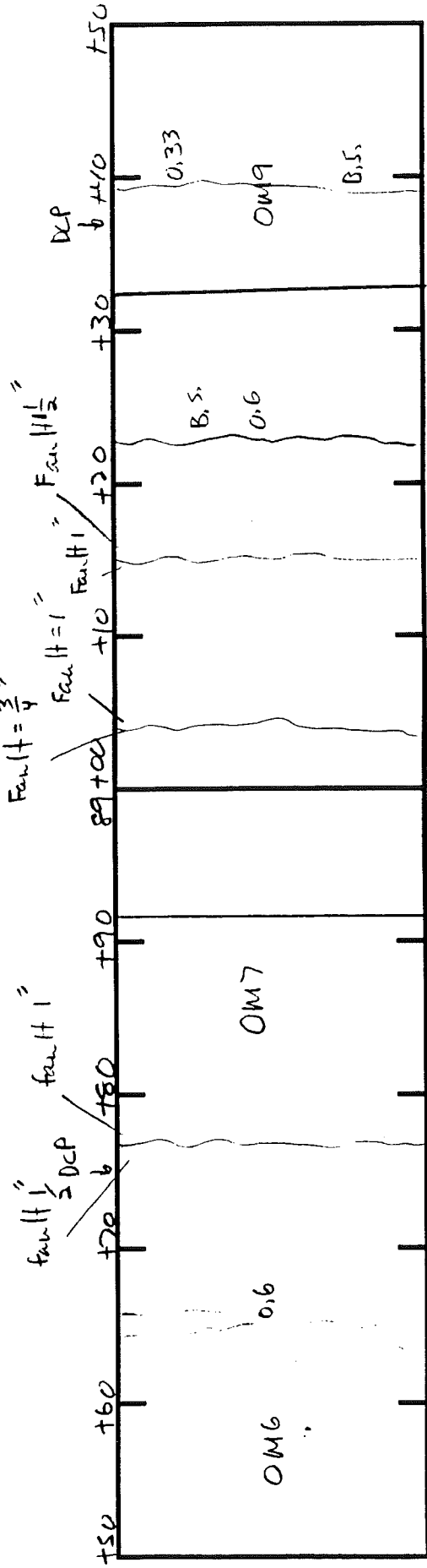
Beginning Station: 87+50
 End Station: 89+50

Weather:
 Comments:

Direction: EB
 1 unit = 10 ft.



C-68

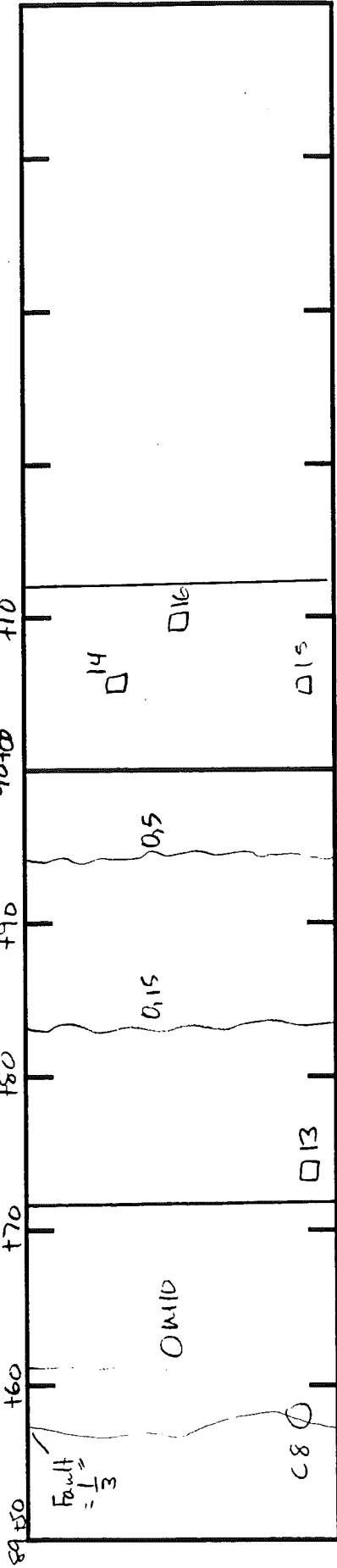


C5

B.S.
 CR5
 CR6
 51.6 x 5 x 1 1/2
 CH

Project # 77022(A) - 20821/A Survey Date: 10-17-96 Beginning Station: 89+50 Weather: Comments:
 Surveyed By: E.J. End Station:

Direction: E13
 1 unit = 10 ft.

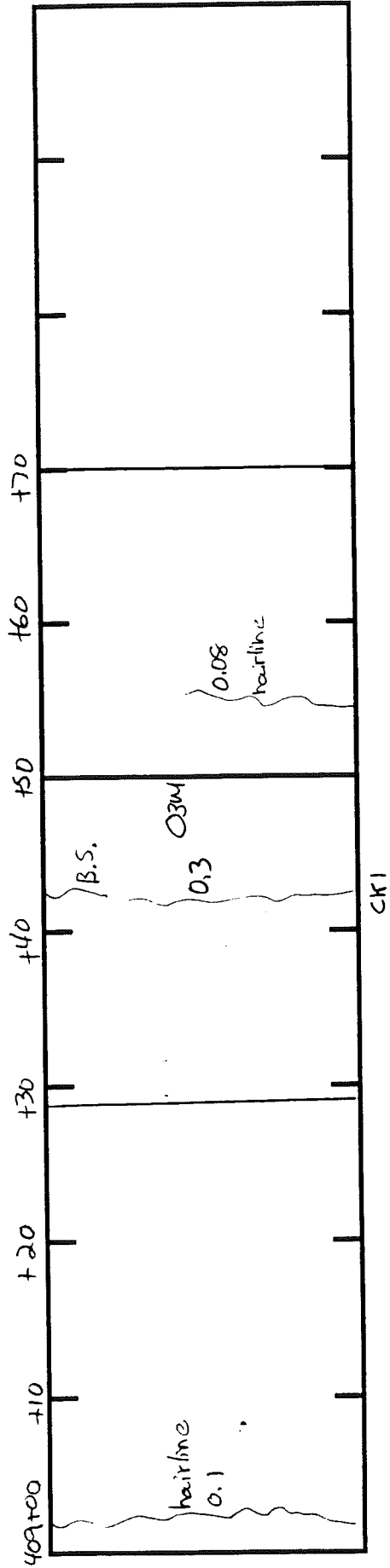
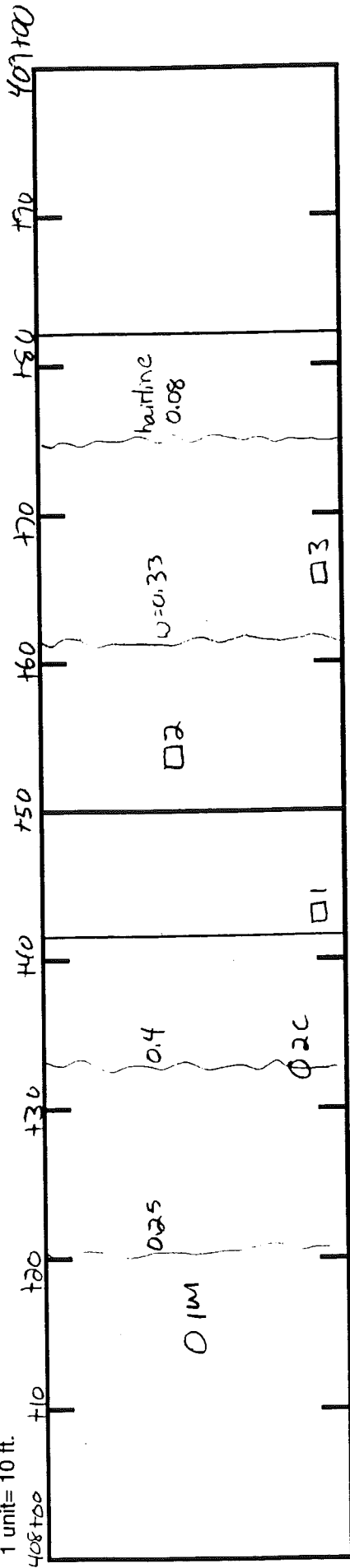


Rain night before
 Windy + Showers
 Comments: very wet in ditches and
 water in lowland

Beginning Station: 408+00
 End Station: 409+70

Project # 77084(B) - 1788A Survey Date: 10-29-96
 Surveyed By: E.J.

Direction: EB
 1 unit = 10 ft.

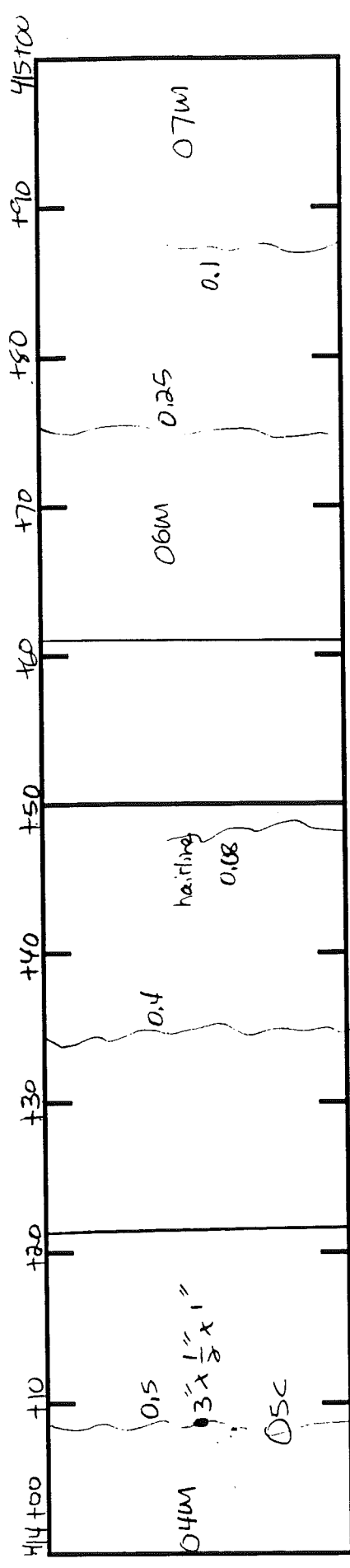
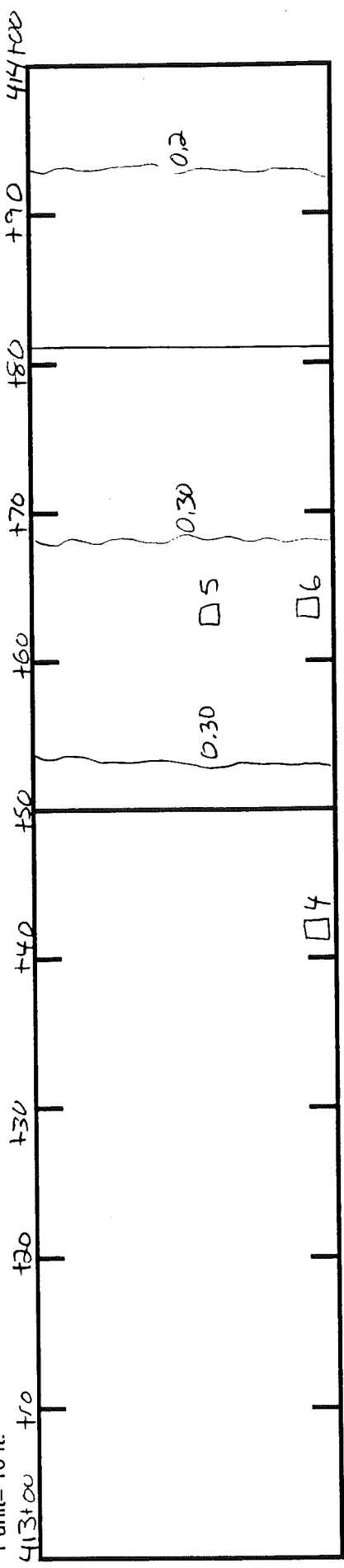


Project # 77024(B)1788A Survey Date: 10-29-96
 Surveyed By: E.J.

Beginning Station: 413+00
 End Station: 415+00

Direction: E/B
 1 unit = 10 ft.

Weather: See first sheet
 Comments:

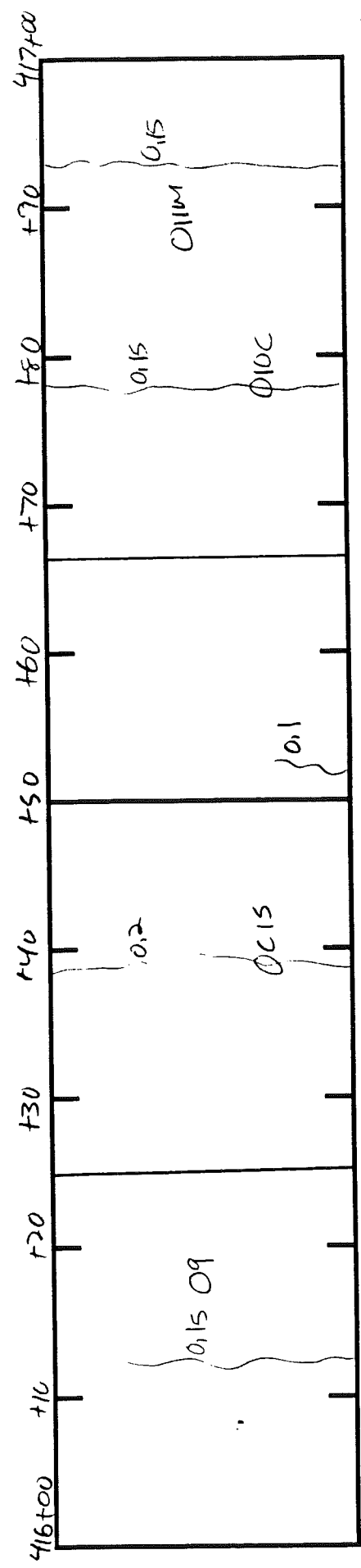
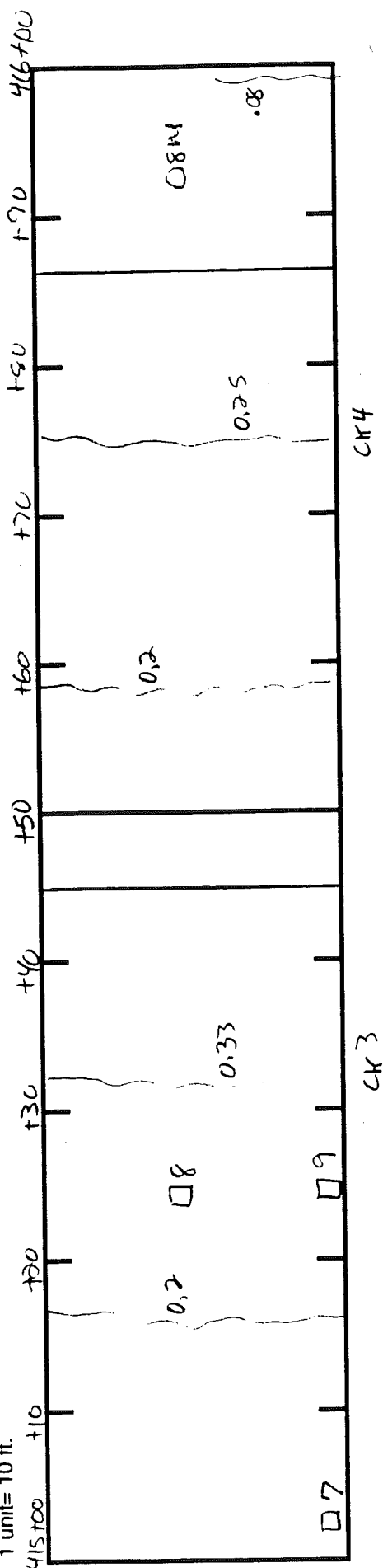


Project # 77021(6)-1788 Survey Date: 10-29-96
 Surveyed By: EJ

Beginning Station: 415+00
 End Station: 417+00

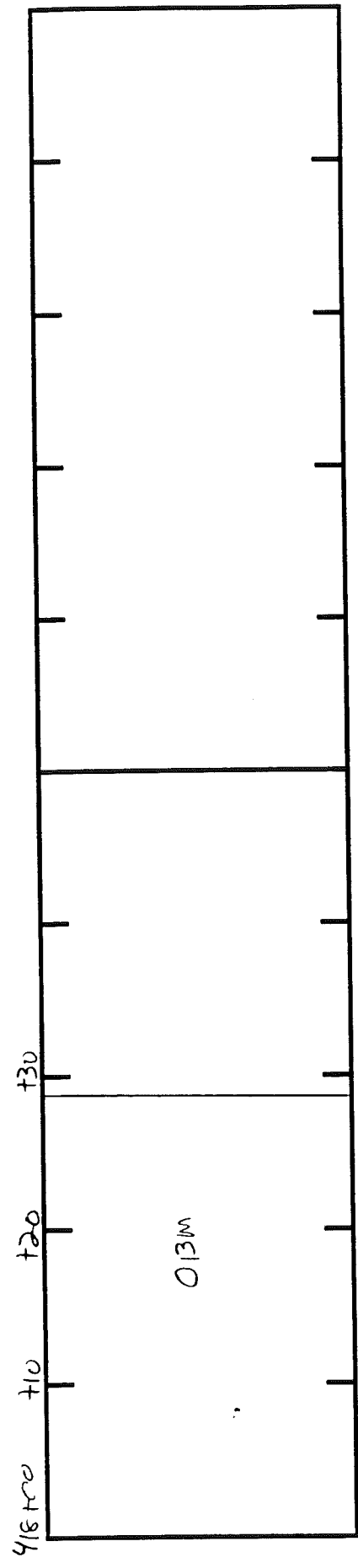
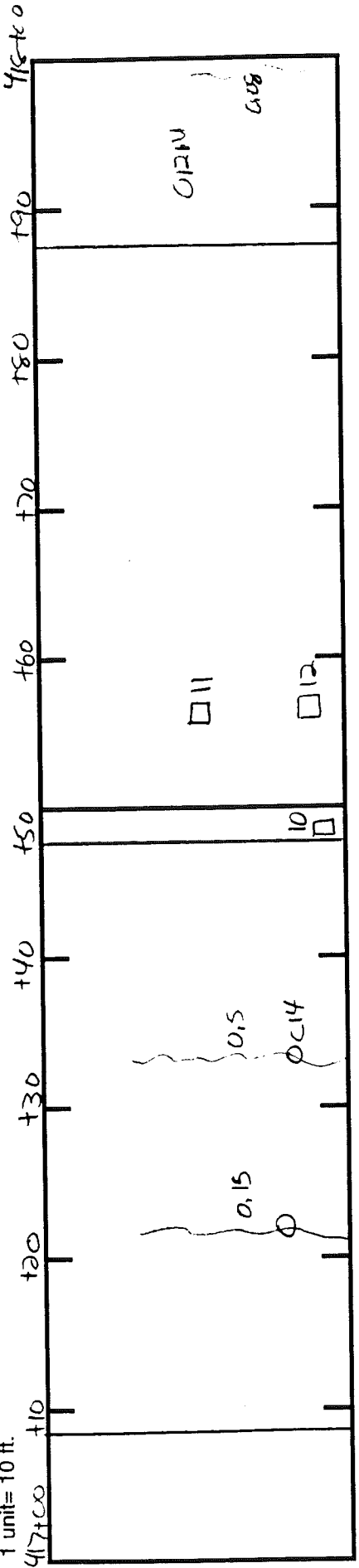
Weather: See first sheet
 Comments:

Direction: E-B
 1 unit = 10 ft.



Project # 77024(S)-17188A Survey Date: 10-29-96 Beginning Station: 47+00 End Station: 47+00
 Surveyed By: EJ Weather: See First Sheet Comments:

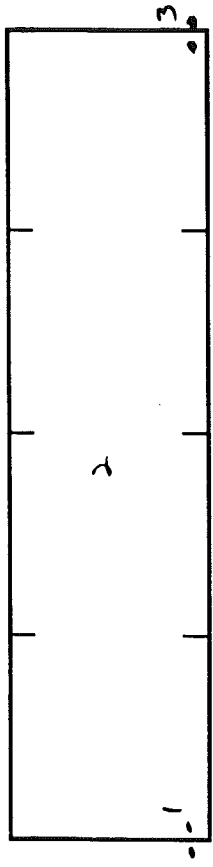
Direction: ES
 1 unit = 10 ft.



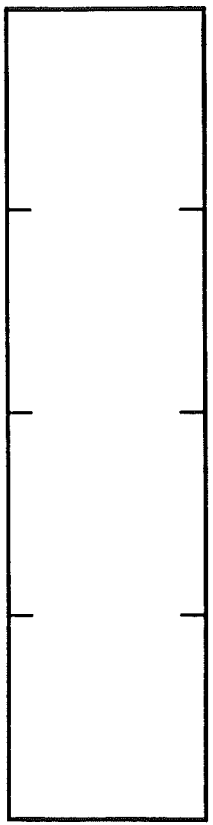
Also tested was Station 649, one slab north of willow
 Also tested Near 549, one slab, south of will Carelton

4" Base 350 AA Limestone OSDC
 4" Aggregate separator Course
 2" Slag Base from old I-275
 which was not removed from
 will Carelton
 to willow
 Rds

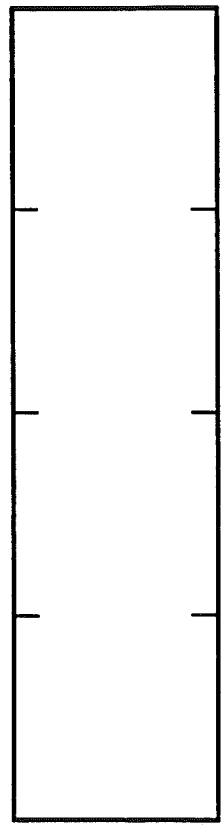
Project # 82291-37305A Date 8-7-97 JS 27 POB 572+08
 Direction NP By AD Slab 11 POE 577+72



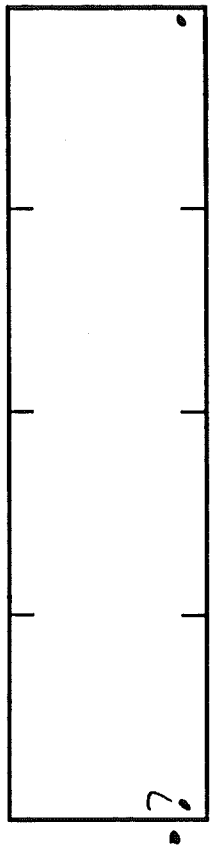
572+08 572+33 572+35 572+35



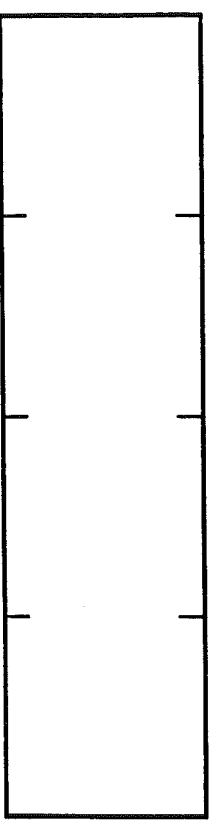
572+62 572+89 572+89 573+00



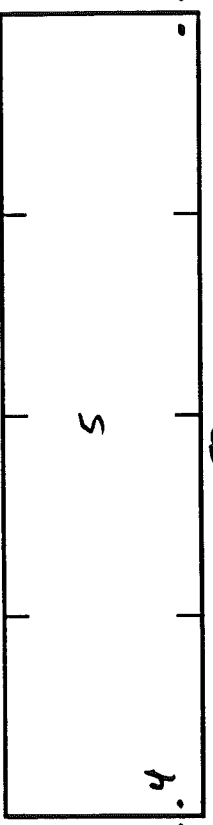
573+15 573+41 573+41



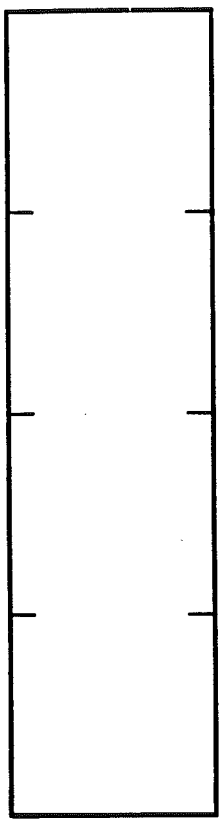
573+69 573+95 573+95



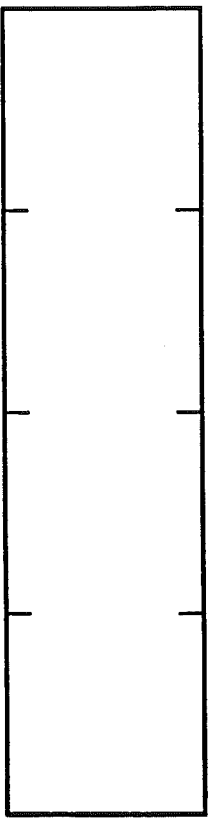
572+62



573+15

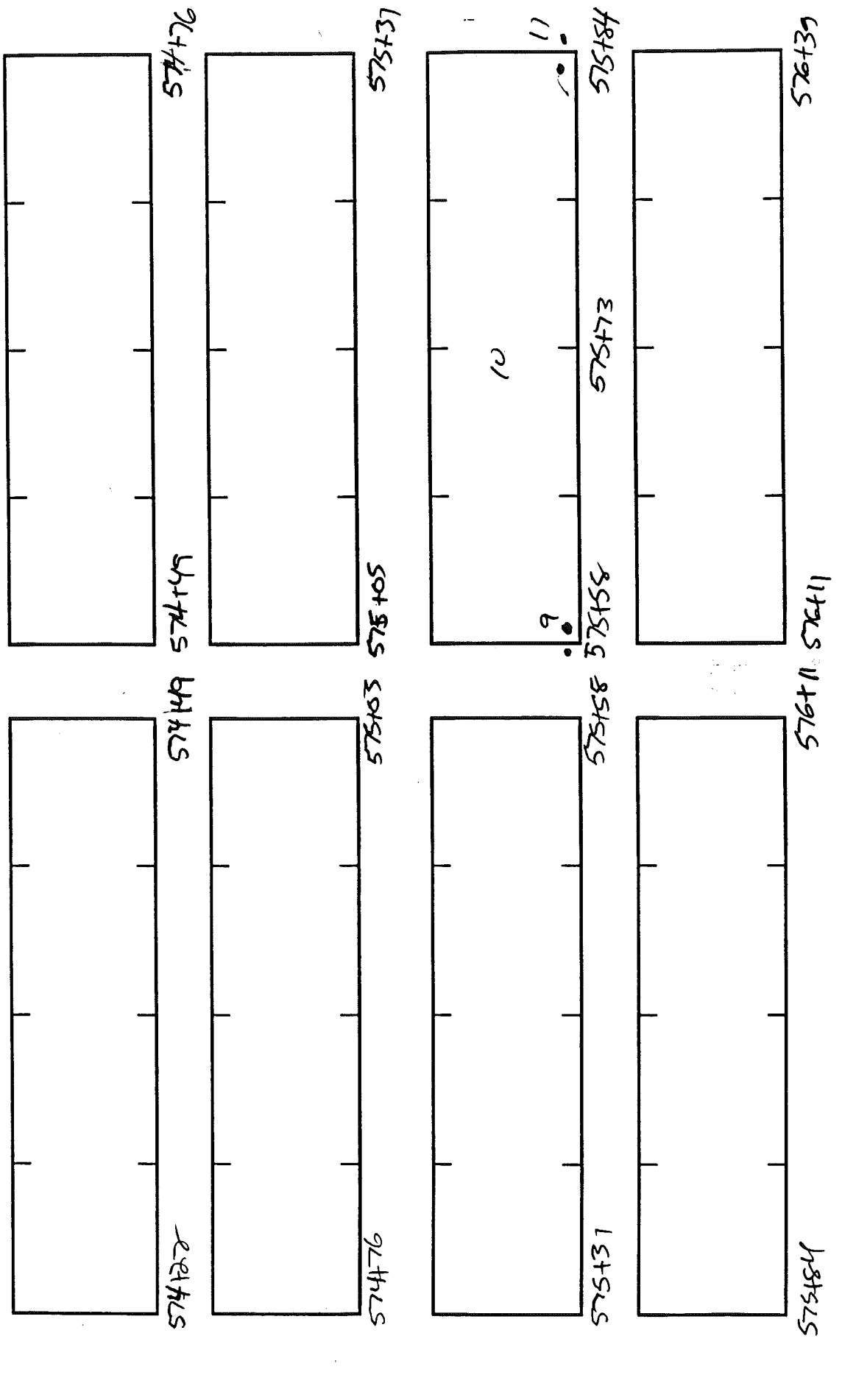


573+69



574+22

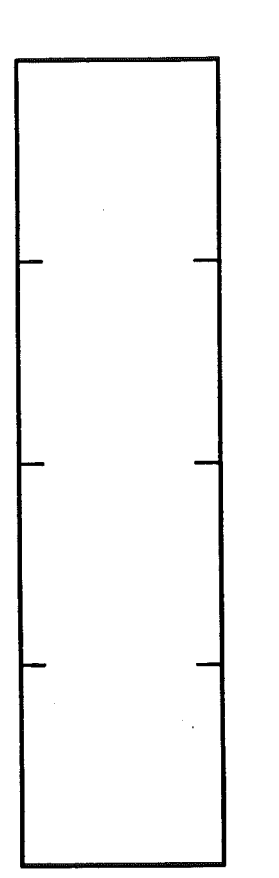
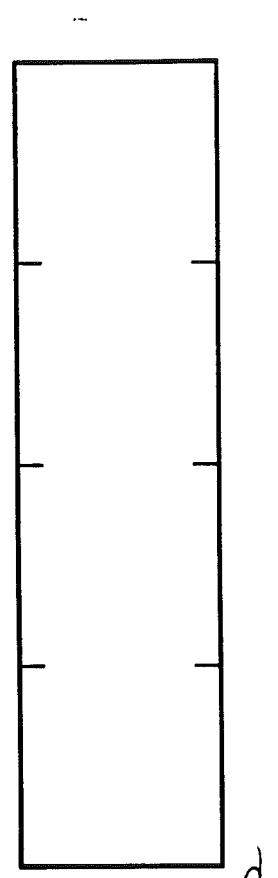
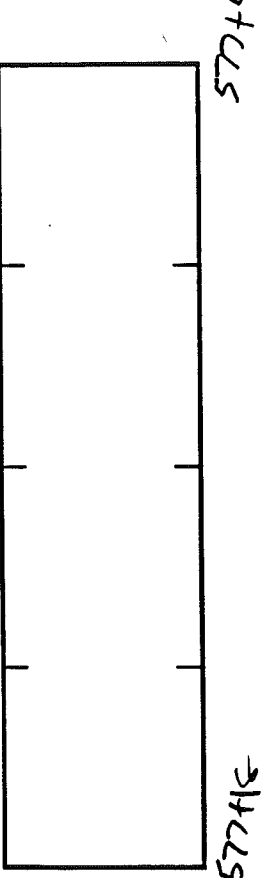
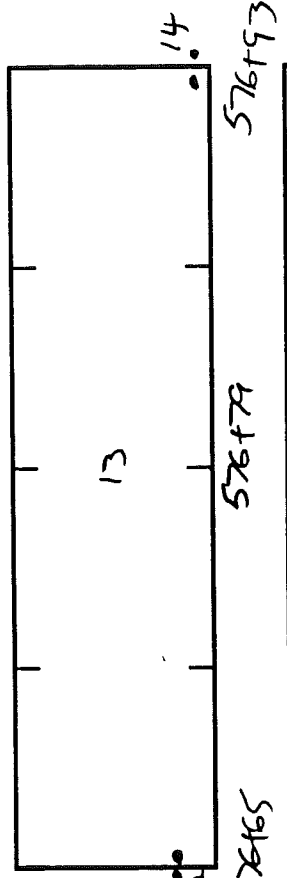
Project # 82291-37205A Date 8-7-97 JS 27 POB 572+08
Direction NB By AD Slab 11" POE 577+72



Project # 82291-3735A
Date 8-7-97
Direction NB

JS 27
Slab 11

POB 572+08
POE 577+72



APPENDIX D

Selected Site Photos

Appendix D. Selected Site Photos

It is recognized that a visual record of a pavement section's condition is invaluable. Thus, this appendix is included to provide a brief overview of each test section. The photos presented for each test section include a site overview, photos of typical distresses in the section, and highlights of notable features on the site, such as clogged edge drain outlets.

The photos are ordered by control section and job number in ascending order. Four photos are included for each test section.

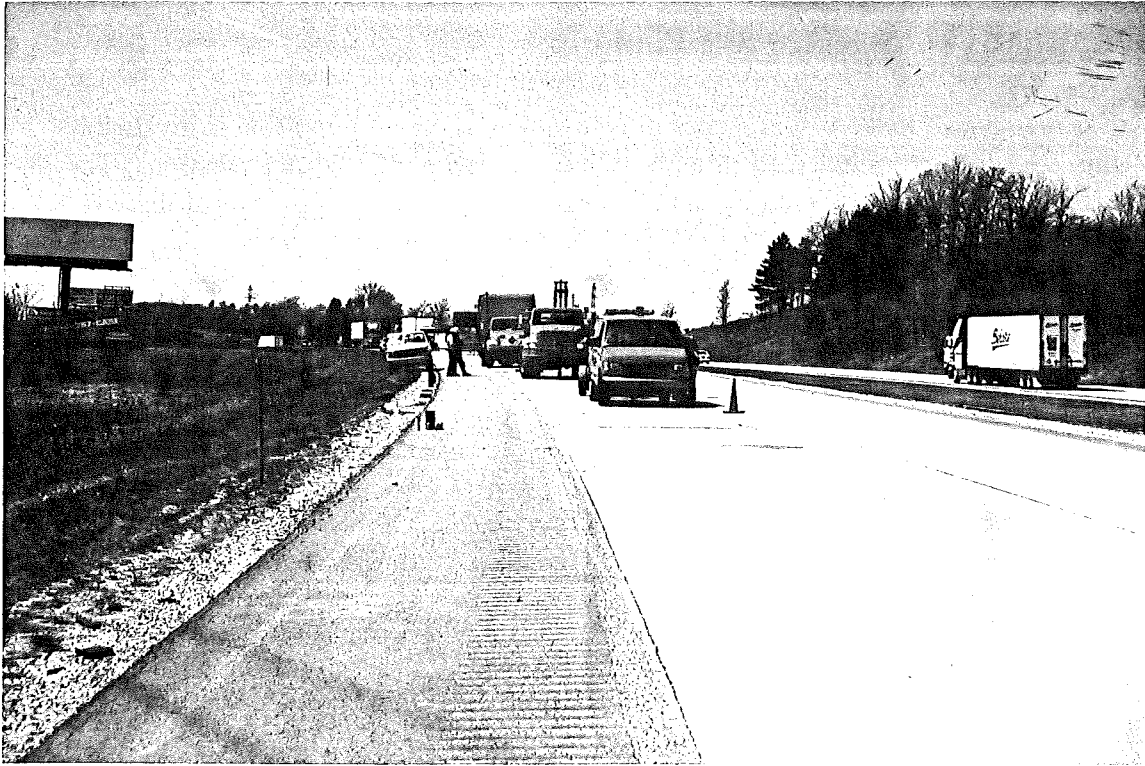


Photo C1. An overview of CSN# 11017-32516A (Section A), EB looking west. The 14 ft widened truck lane design and asphalt shoulder can be seen.



Photo C2. A typical midslab crack on CSN# 11017-32516A (Section A), EB. The beginning of some spalling can be seen at the bottom of the photo.

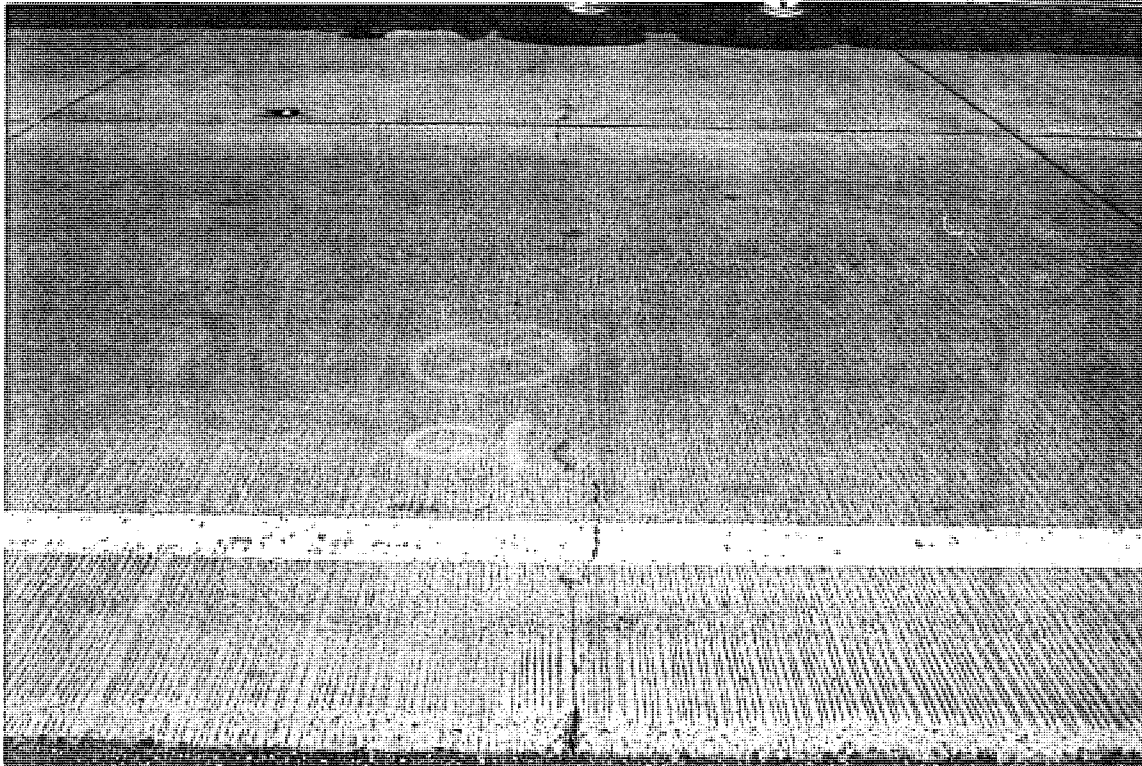


Photo C3. A midslab crack on CSN# 11017-32516A (Section A), EB. The location of core #C1 can also be seen. The crack extends through the passing lane. Transverse joints are spaced at 16 ft.



Photo C4. A typical drainage structure of CSN# 11017-32516A (Section A), EB. Water can be seen flowing freely from the drain after coring.

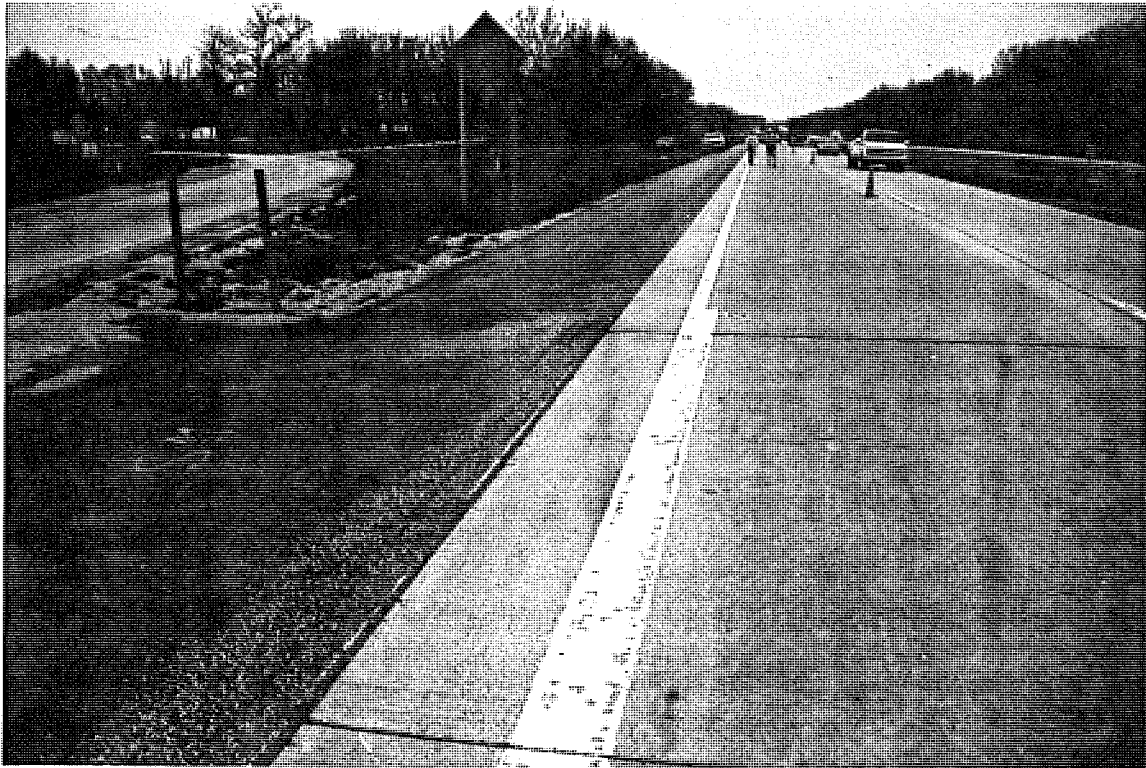


Photo C5. An overview looking west on CSN# 11017-32516A (Section C), EB. This section has a 14 ft widened truck lane and an asphalt shoulder. Transverse joint spacing varies from 15 to 17 ft.

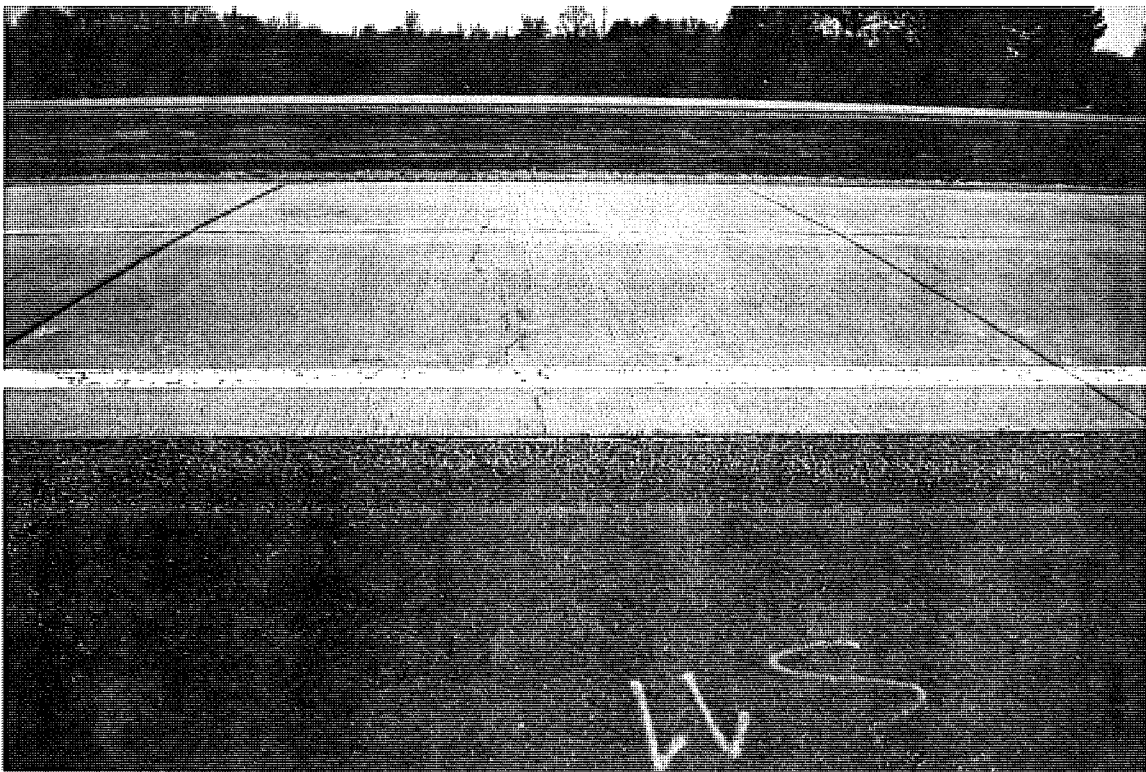


Photo C6. A full width transverse crack on CSN# 11017-32516A (Section C), EB. An expansion joint can be seen in the left side of the photo.

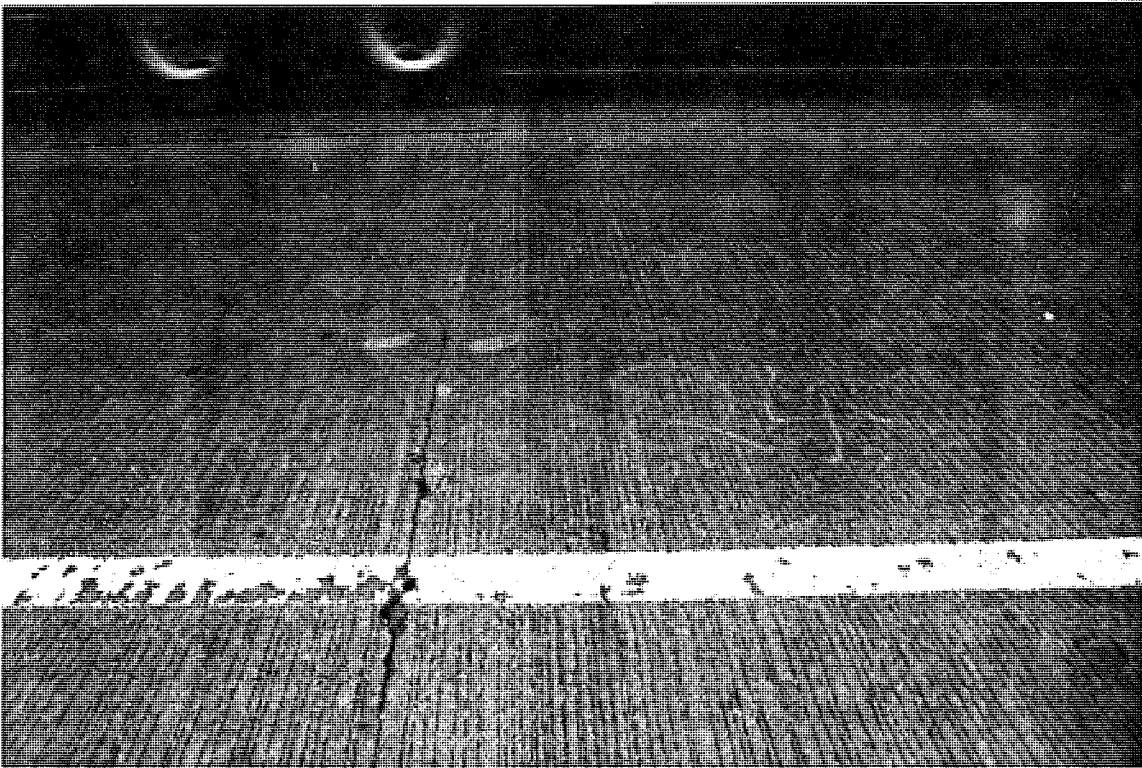


Photo C7. A close-up of a full width transverse crack in CSN# 11017-32516A (Section C), EB. The beginnings of spalling can be seen at the bottom of the photo.

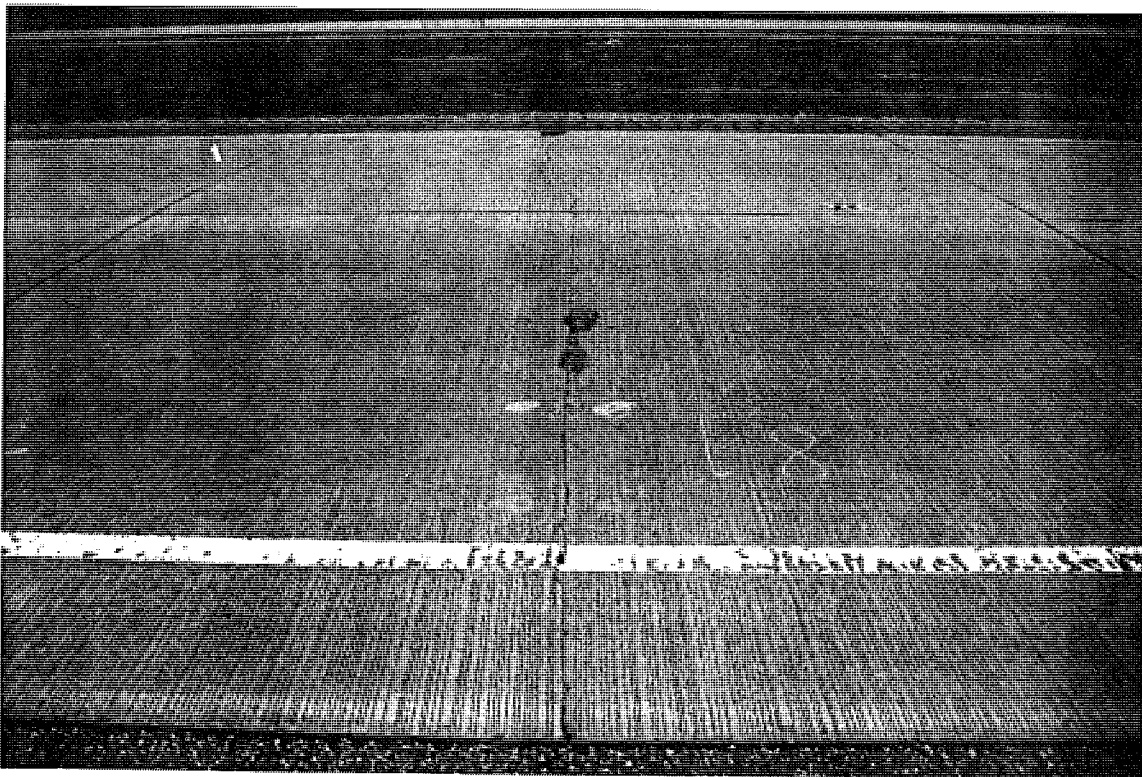
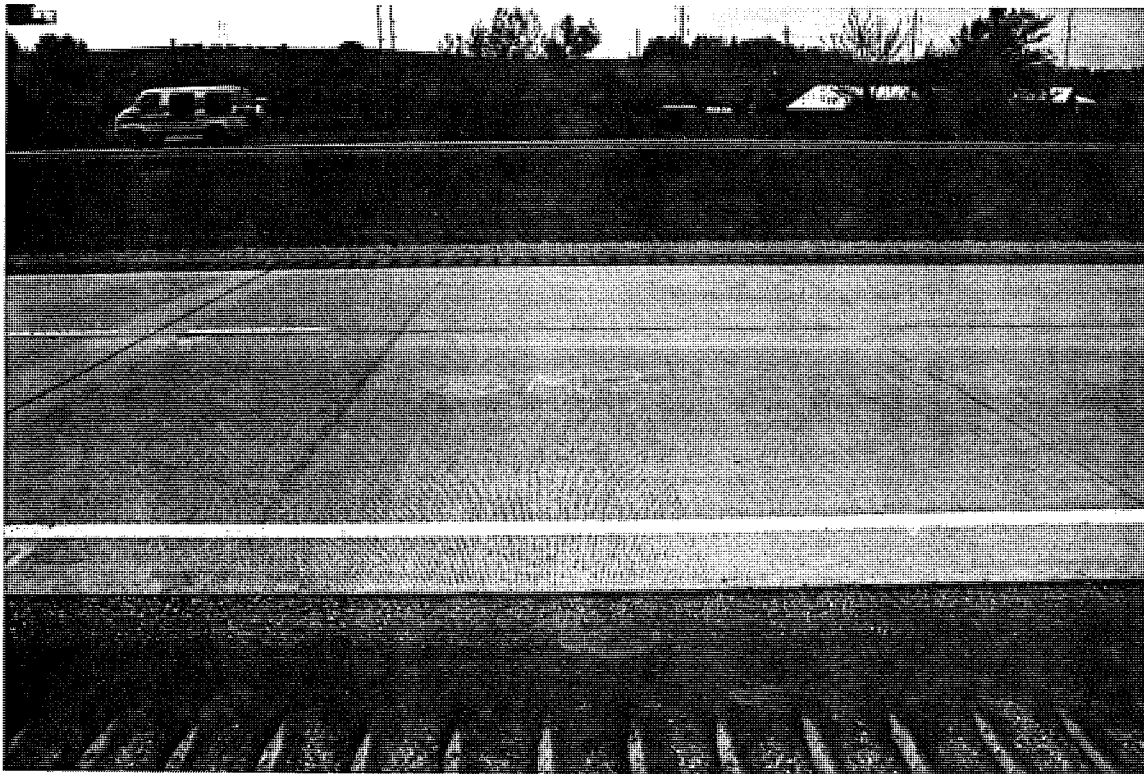


Photo C8. A transverse crack at midslab in CSN# 11017-32516A (Section C), EB. Moderate spalling is present.



Photo C9. An overview looking west on CSN# 11017-32516A (Section D), WB. A tight longitudinal crack running parallel to the longitudinal joint can be seen.

Photo C10. A view of a typical uncracked slab in CSN# 11017-32516A (Section D) WB. This section has 15 ft joint spacing, 14 ft widened truck lane, and asphalt shoulders.



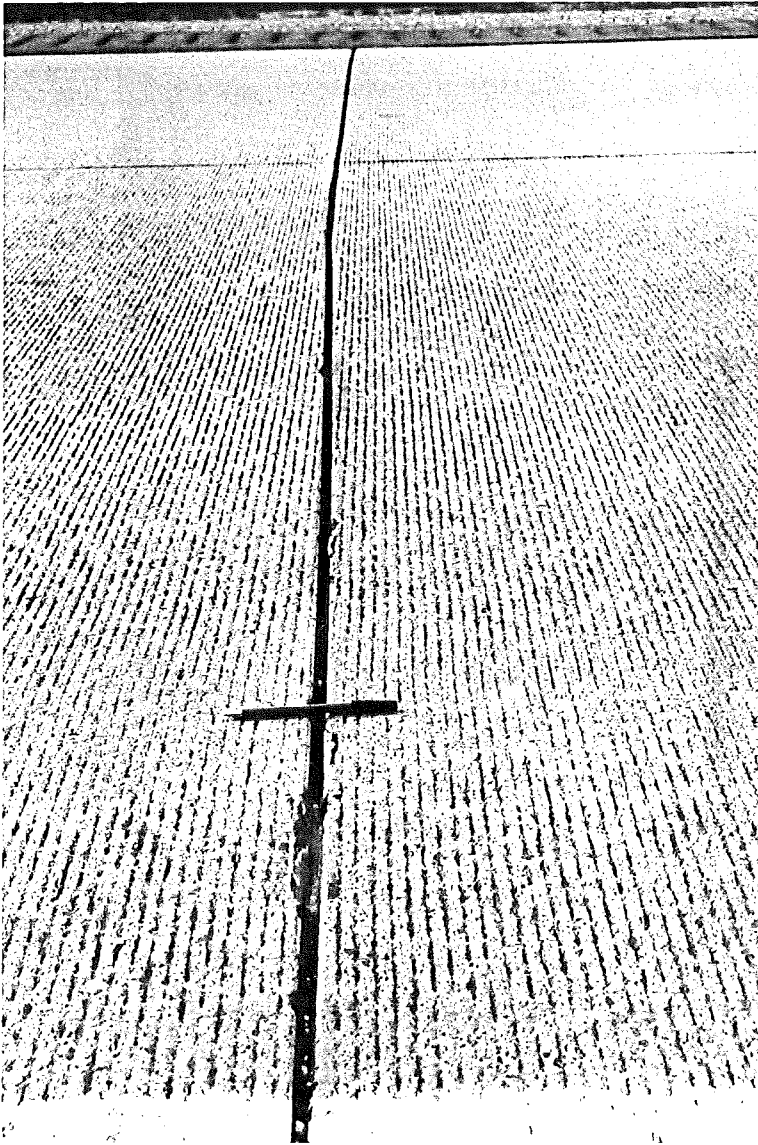


Photo C11. A typical contraction joint on CSN# 11017-32516A (Section D) WB, showing some spalling along the joint.

Photo C12. A partially clogged edge drain outlet on CSN# 11017-32516A (Section D) WB.



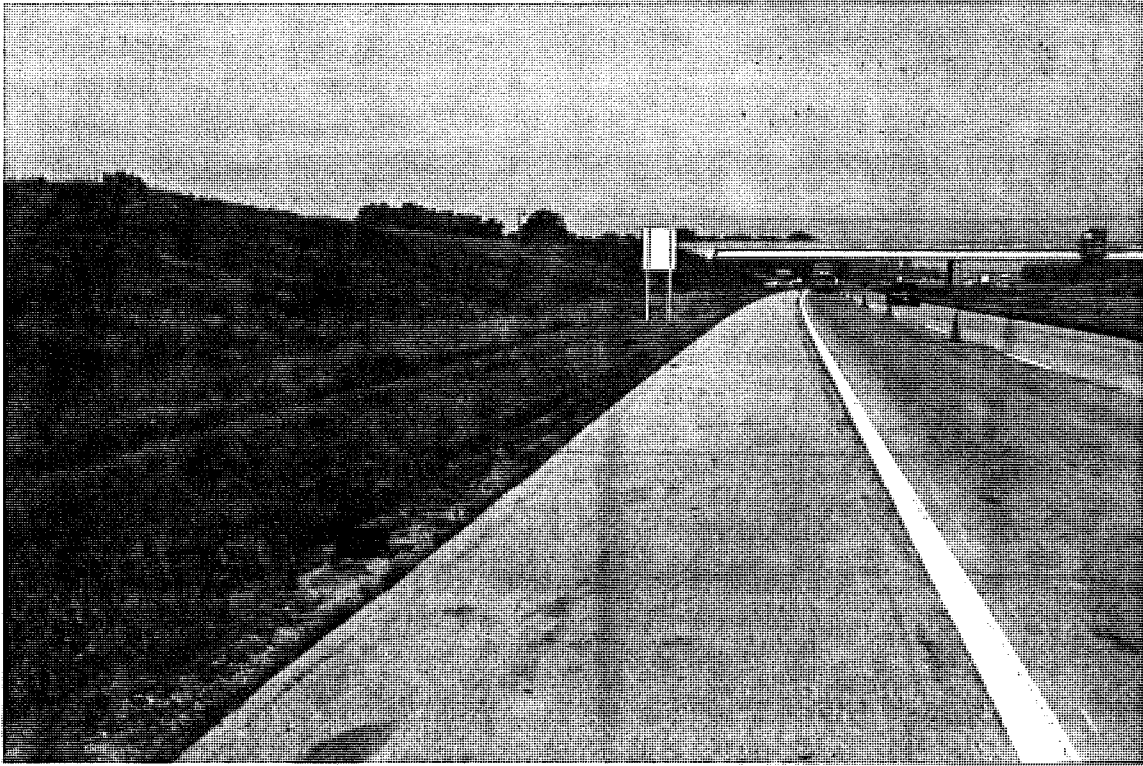


Photo C13. An overview of CSN# 19042-24680A (Section B) EB looking west. This section has 41 ft slabs and concrete shoulders with no intermediate joints.

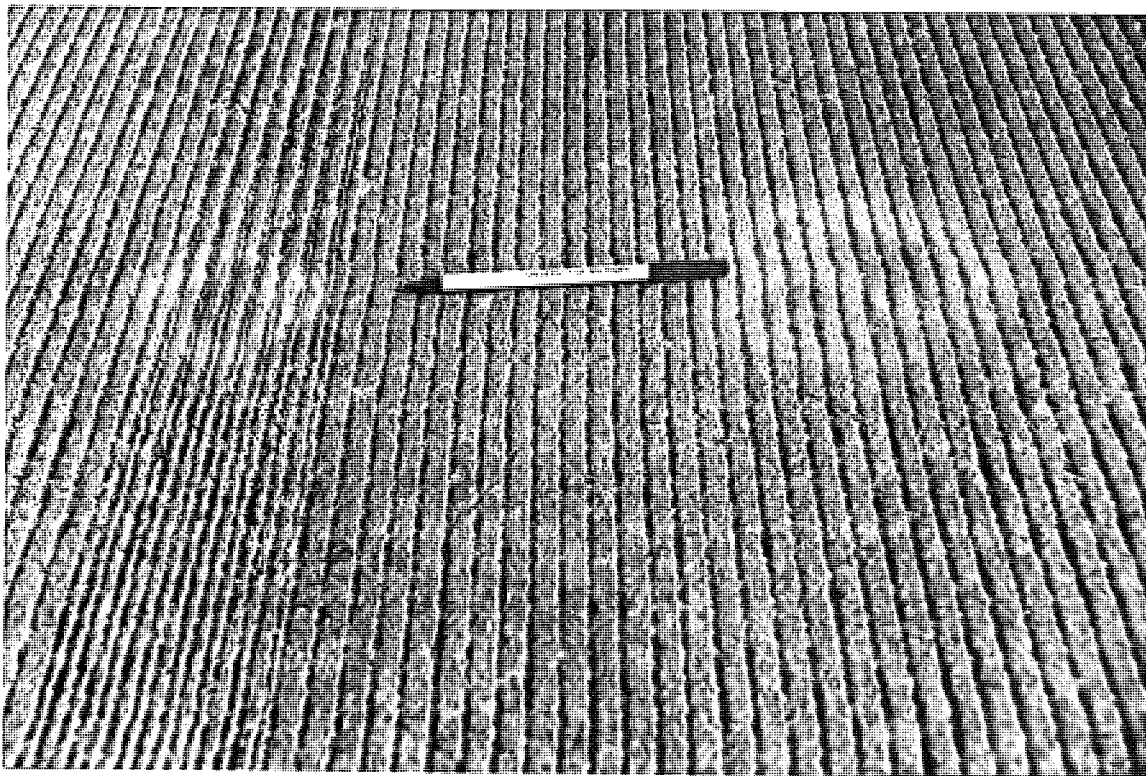


Photo C14. A tight transverse crack on CSN# 19042-24680A (Section B) EB, typical of those seen in the test section.

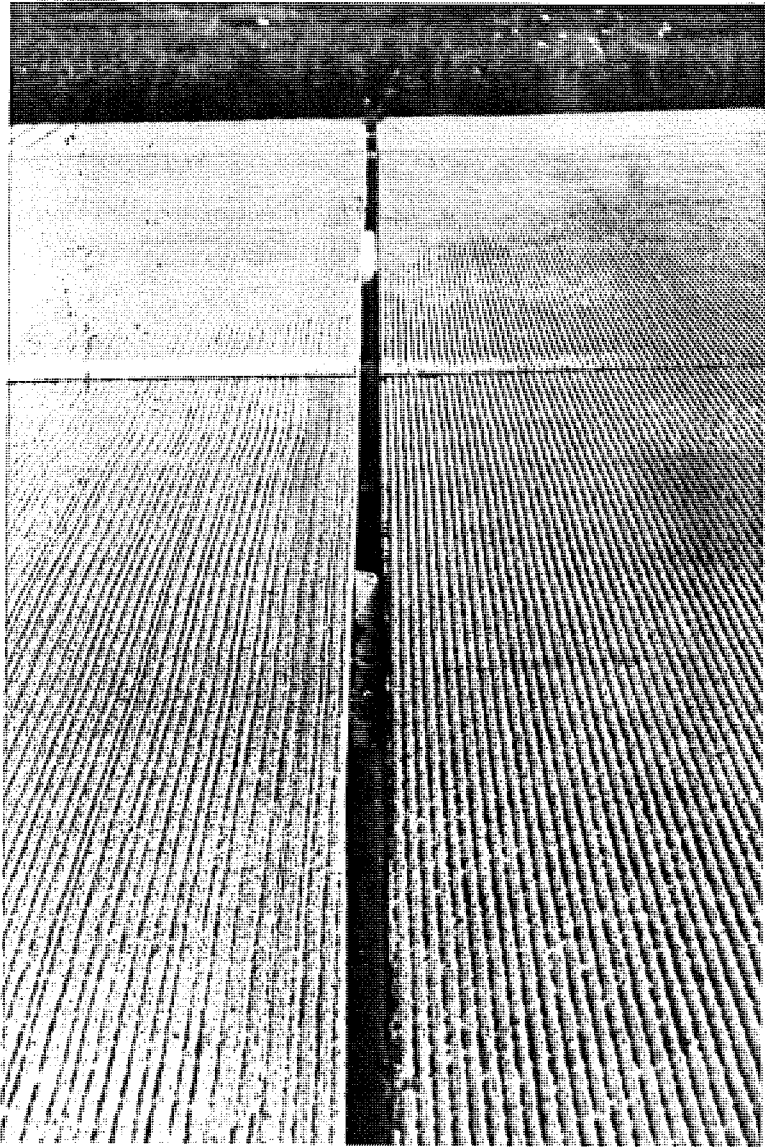
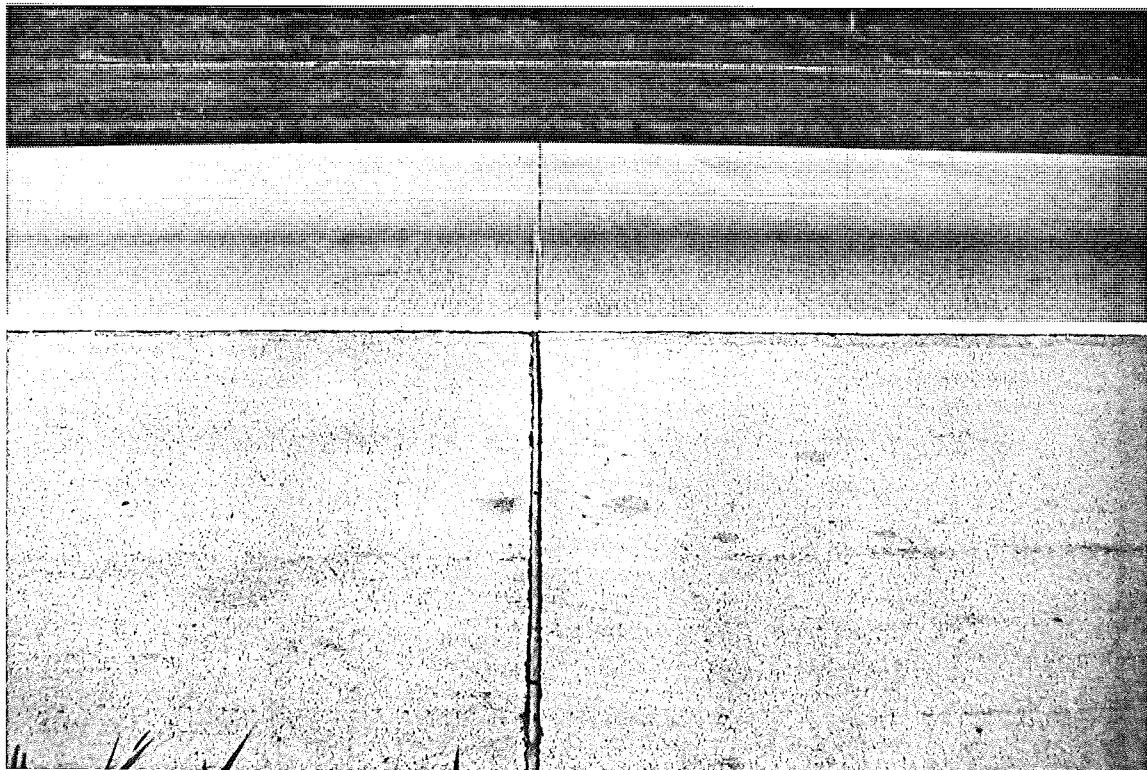


Photo C15. An expansion joint on CSN# 19042-24680A (Section B) EB showing some distress in the joint sealant. Sealant damage was present in several locations in the test section.

Photo C16. A typical contraction joint and adjoining slabs on CSN# 19042-24680A (Section B) EB, showing little to no distress.



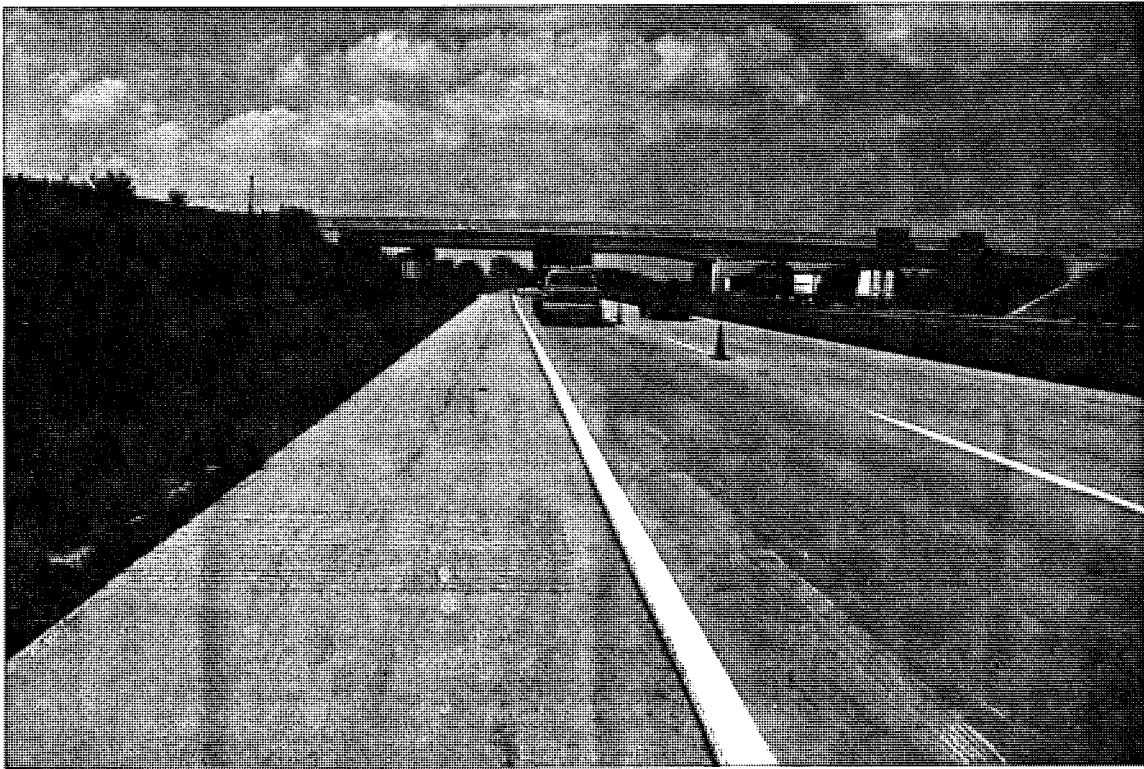


Photo C17. A overview looking west on CSN# 19042-02233A (Section C) EB. Slabs are 41 ft long. The concrete shoulder slabs have the same length.

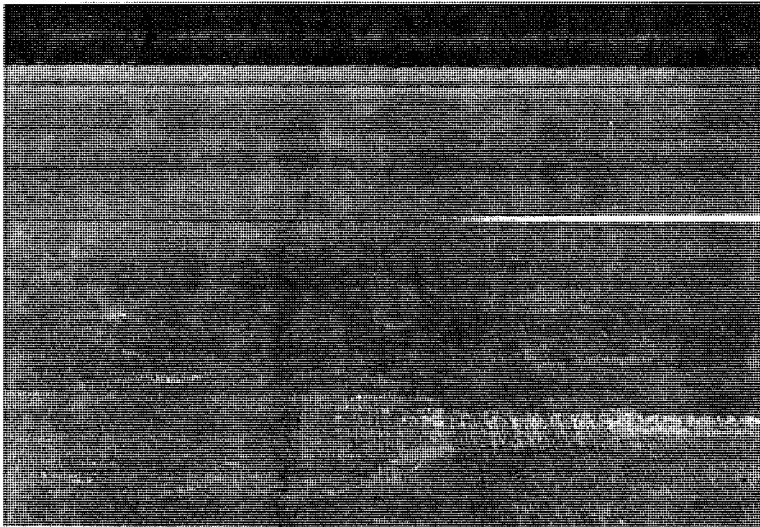
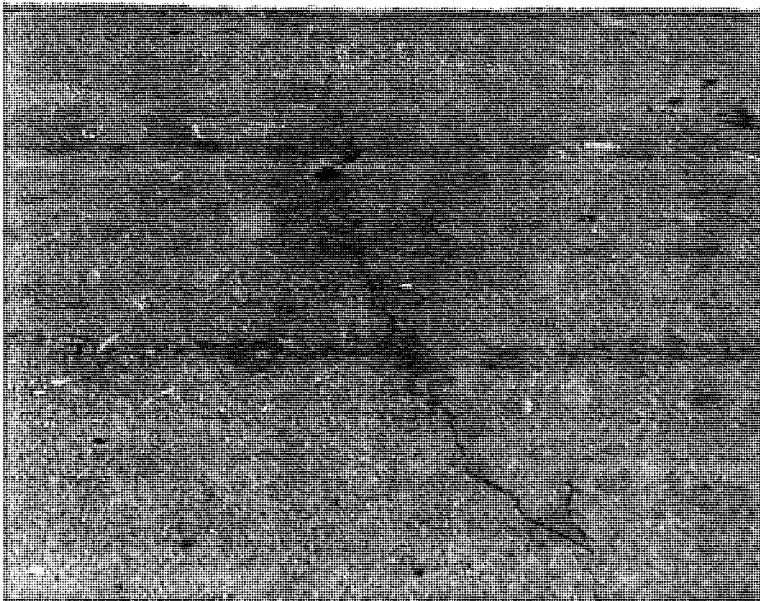


Photo C18. A typical tight mid-slab crack on CSN# 19042-02233A (Section C) EB the crack propagates from the shoulder into the truck lane.



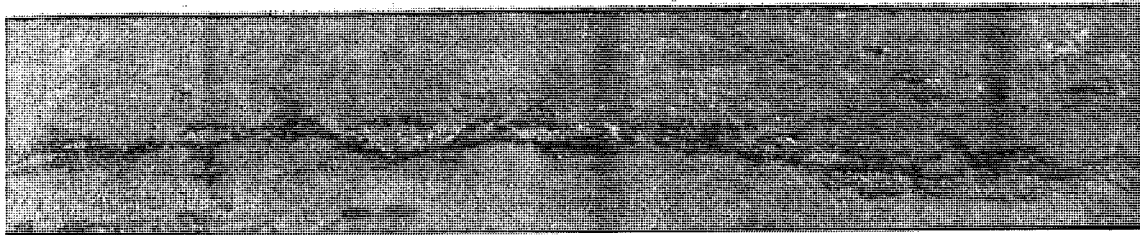
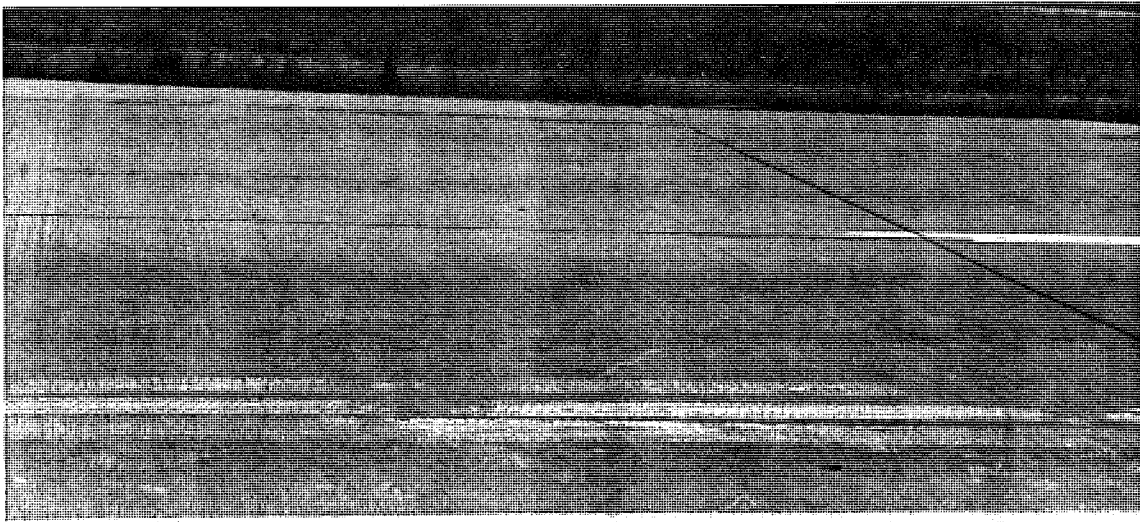


Photo C19. A tight crack on CSN# 19042-02233A (Section C) EB, joints are in good condition as can be noted here.

Photo C20. A tight midslab crack in the truck lane of CSN# 19042-02233A (Section C) EB, the crack extends into the shoulder, but is not visible in the passing lane.

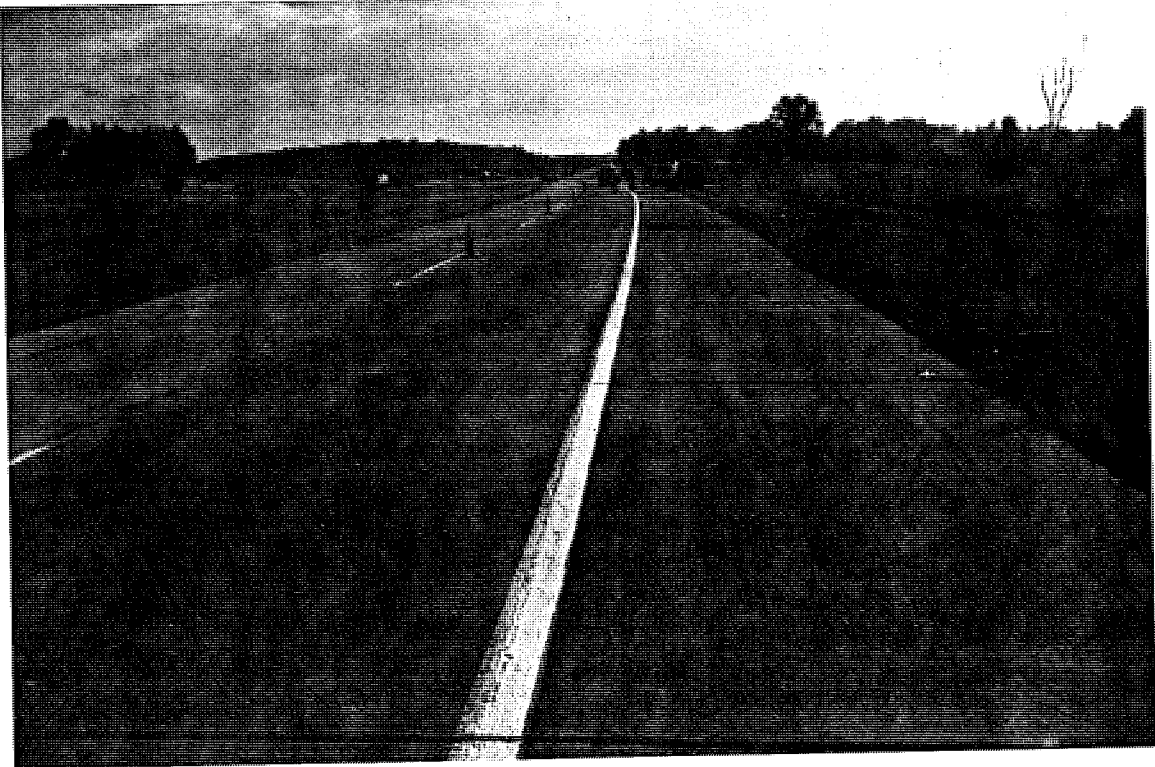


Photo C21. An overview looking east along CSN# 19043-02234A, EB, showing the third point intermediate shoulder joints. The slabs in the driving lanes are 41 ft long.

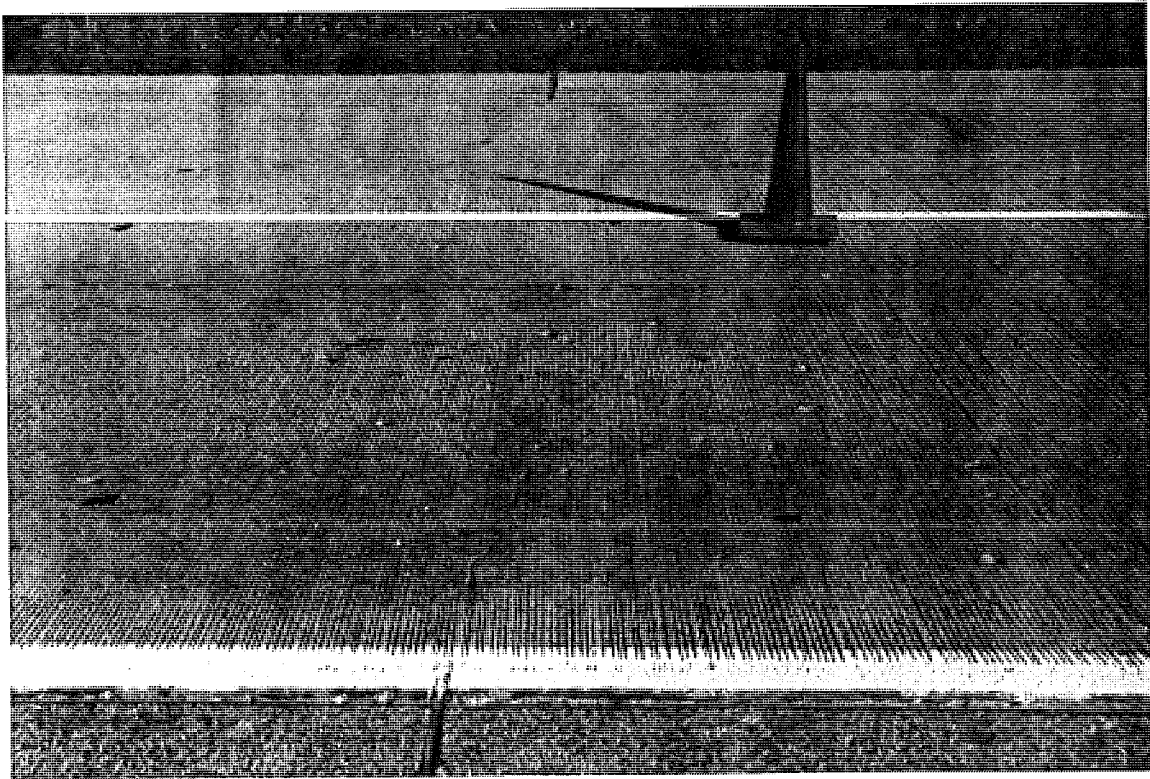


Photo C22. A typical midslab crack on CSN# 19043-02234A, EB, initiated by the third point intermediate shoulder joint.

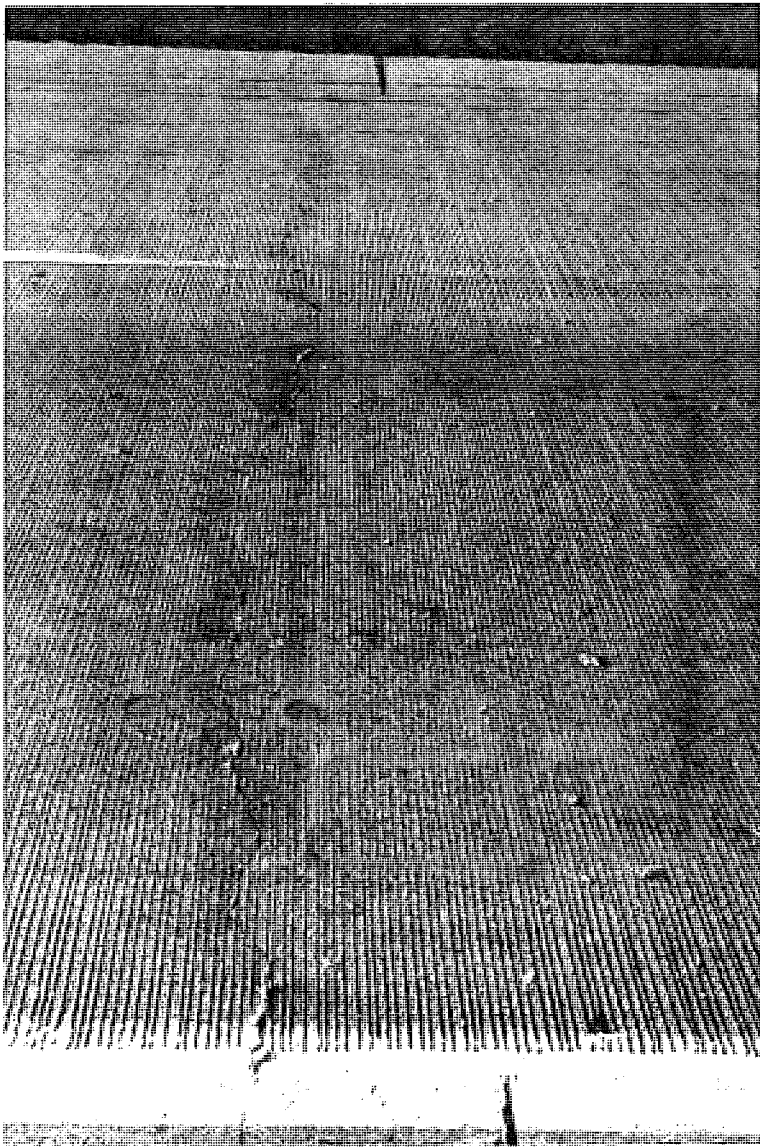
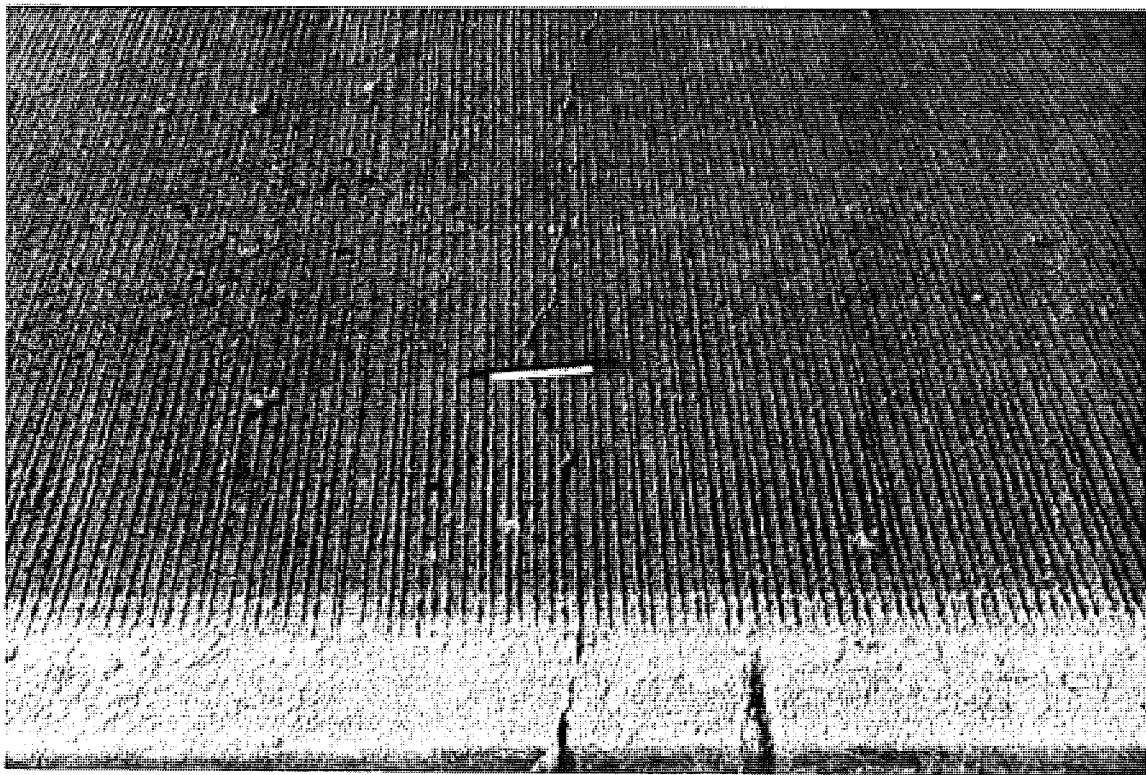


Photo C23. A full width transverse crack initiated by the third point intermediate shoulder joint along CSN# 19043-02234A EB.

Photo C24. A close-up of a typical crack on CSN# 19043-02234A EB. The beginning of spalling can be seen.



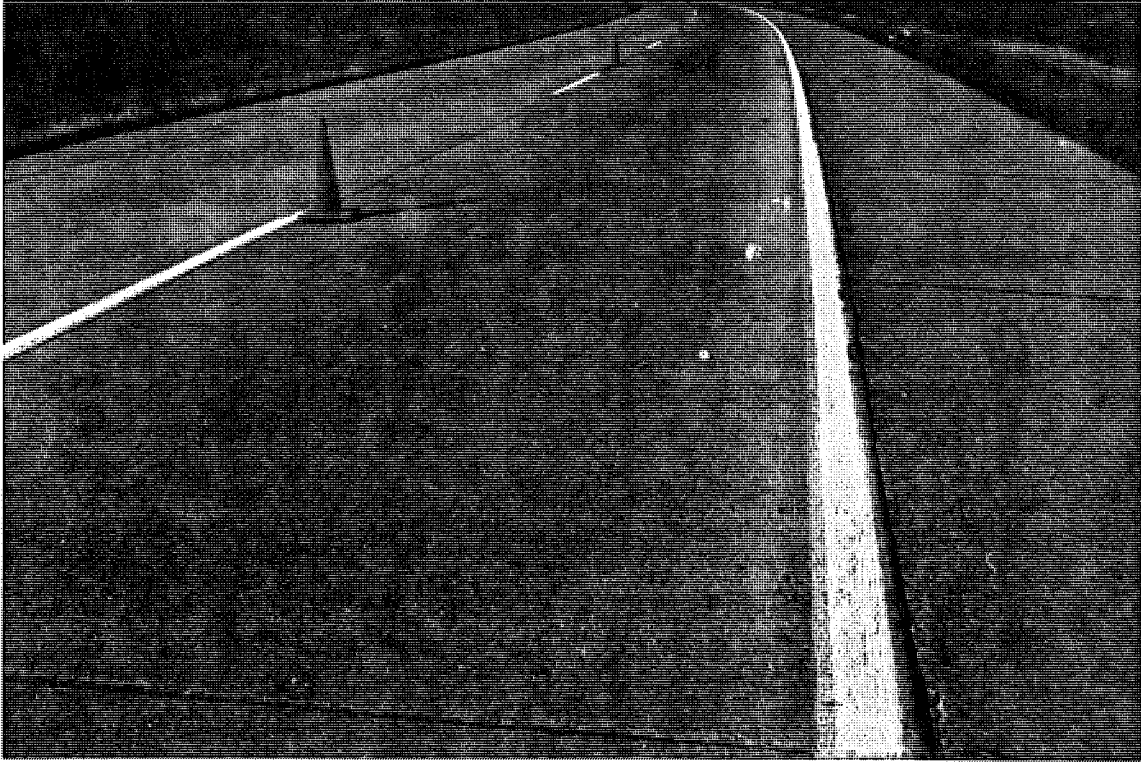


Photo C25. An overview of the end of the test section of CSN# 19043-02234A WB, looking west. This section has 41 ft joint spacings in the driving lanes, but only 14 ft joint spacing in the shoulders.

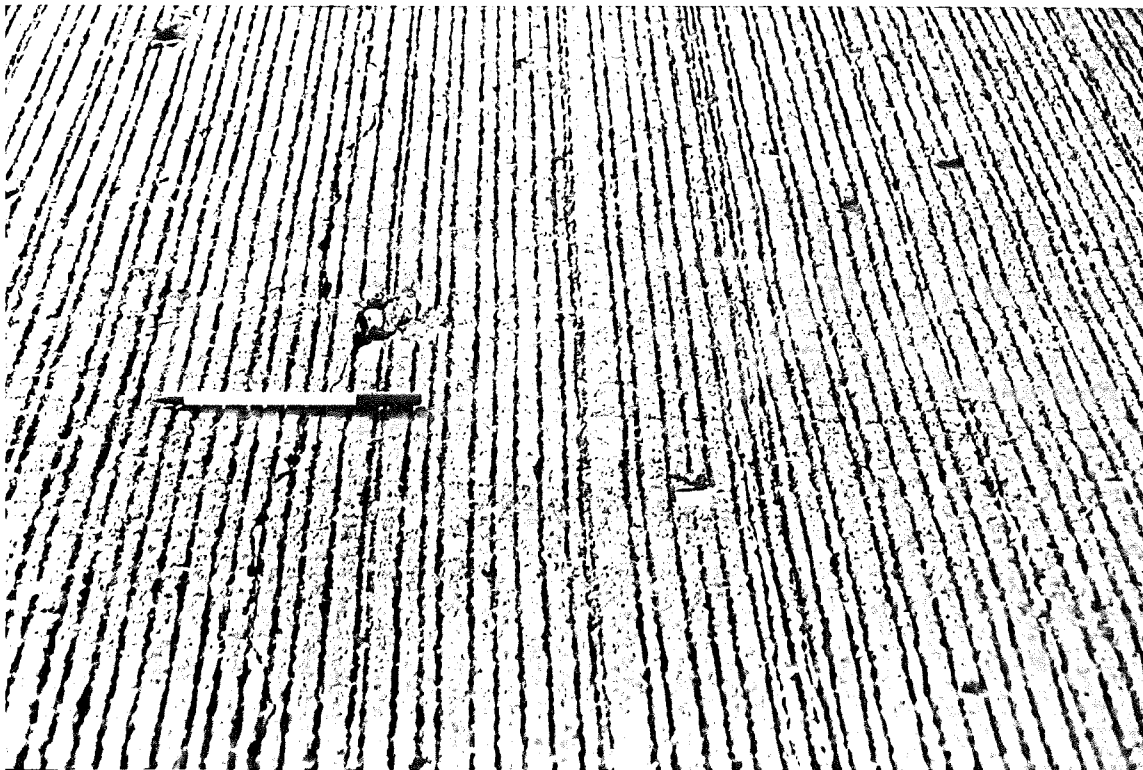


Photo C26. A closeup view of a tight crack on CSN# 19043-02234A, WB. The beginning of spalling can be seen in the center of the photo.



Photo C27. A midslab crack along CSN# 19043-02234A, WB. The crack propagates from the intermediate shoulder joint, which is typical for this section.

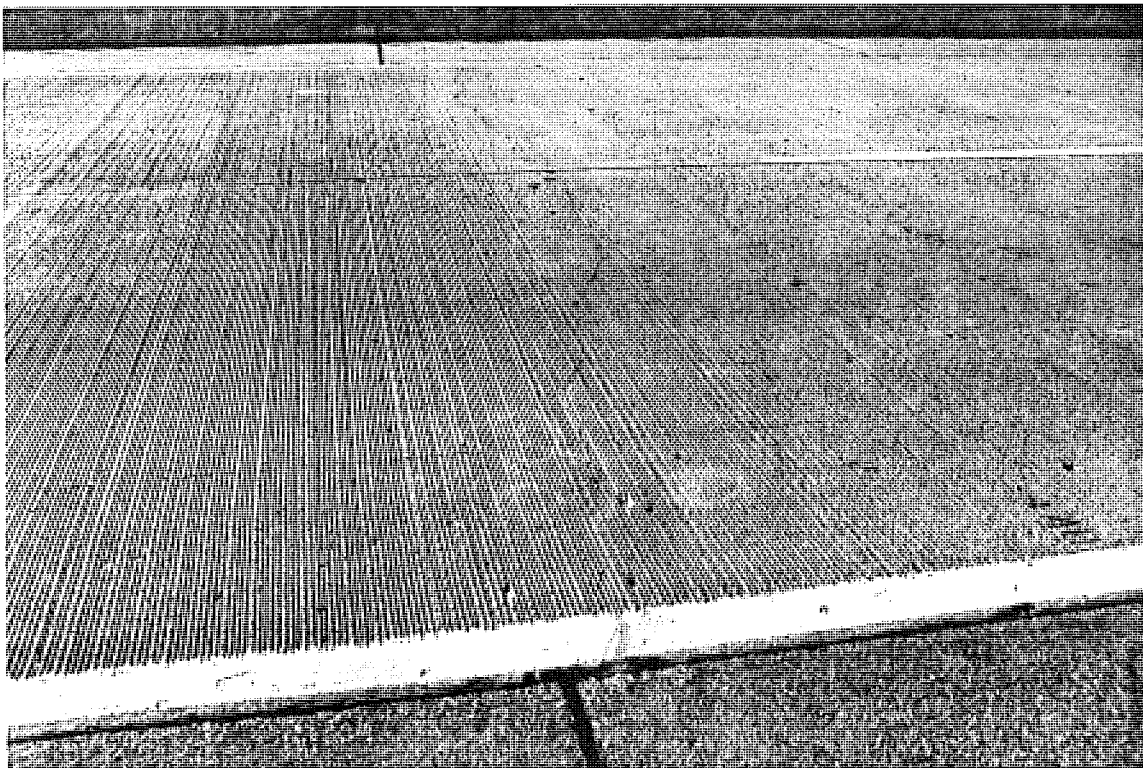


Photo C28. A typical full width mid slab crack on CSN# 19043-02234A, WB. This crack was initiated by the third point intermediate shoulder joint seen at the bottom of the photo.



Photo C29. An overview looking north on CSN# 25132-06582A SB. This photo shows the 3 lanes of traffic and the third point intermediate shoulder joints. The slab length is 44 ft in the driving lanes.

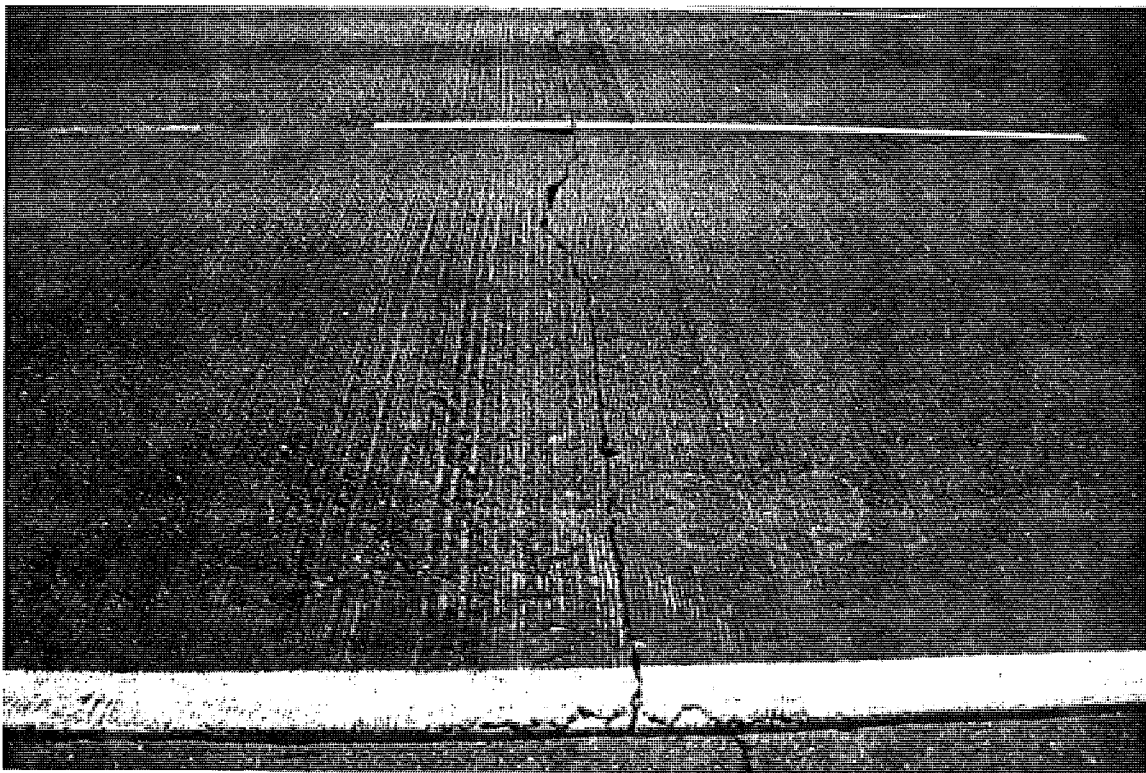


Photo C30. A typical third point full width crack showing the beginnings of spalling on CSN# 25132-06582A SB.

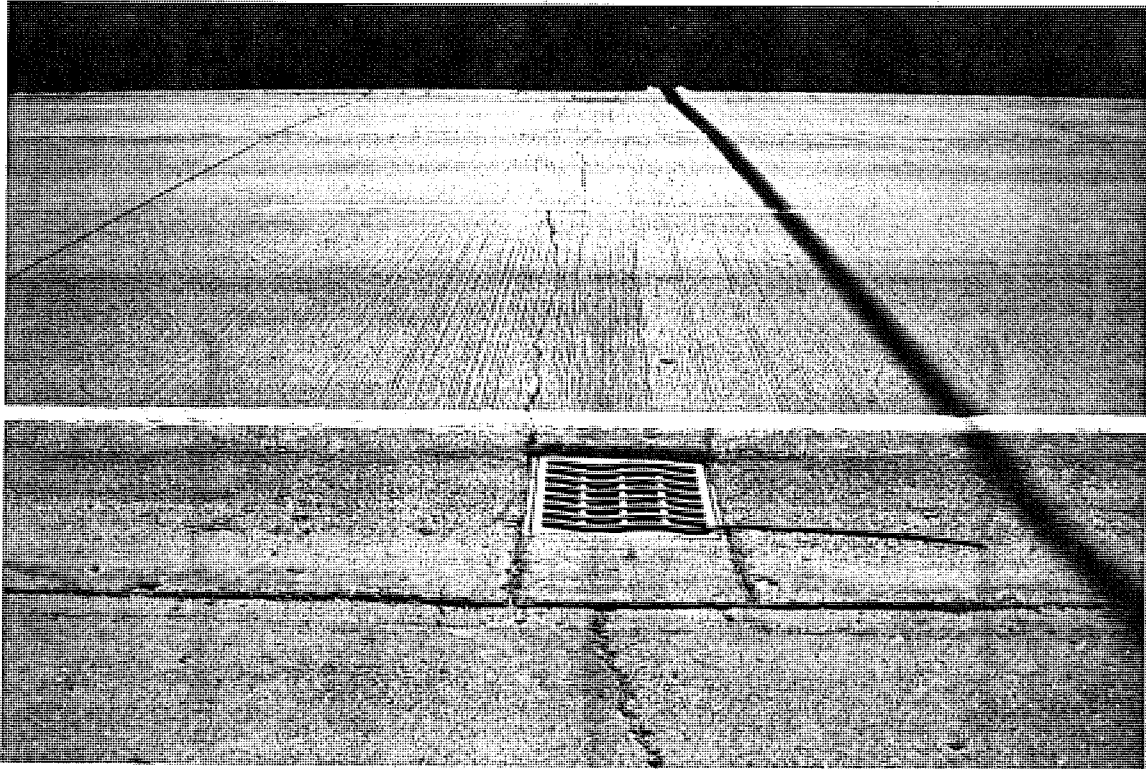


Photo C31. A drainage structure that has induced a full width transverse crack on CSN# 25132-06582A SB.

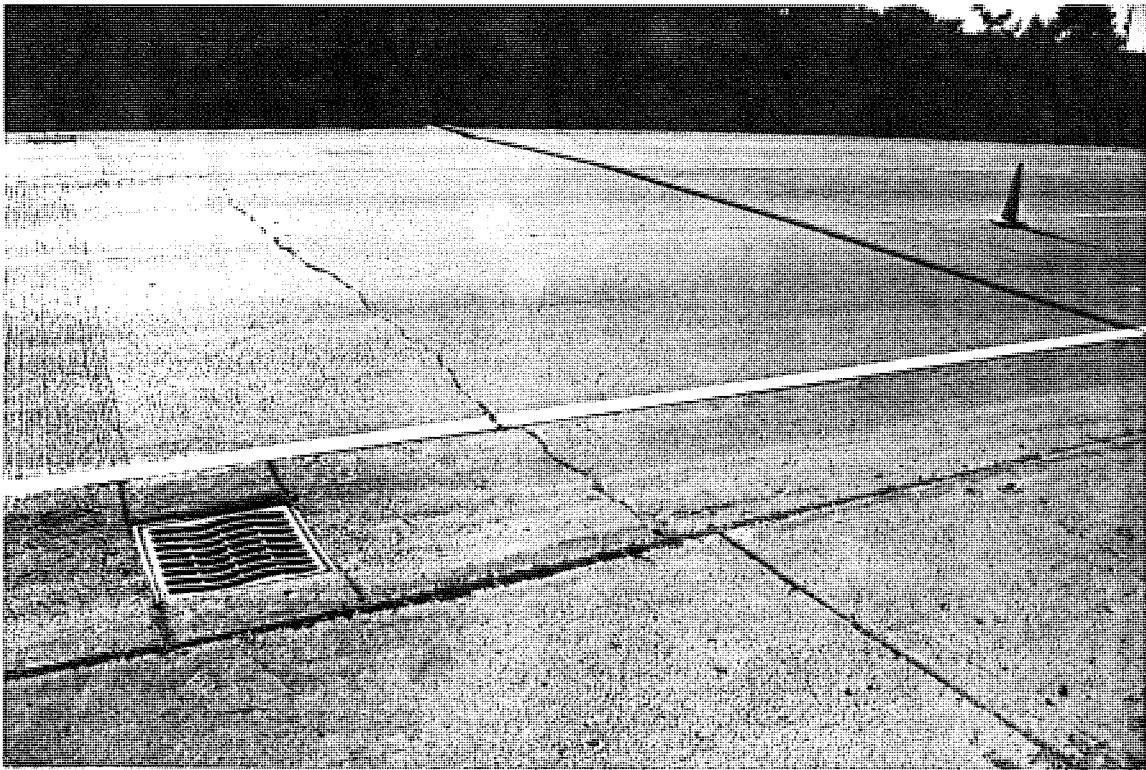


Photo C32. A full width transverse crack induced by the third point intermediate shoulder joints on CSN# 25132-06582A SB.

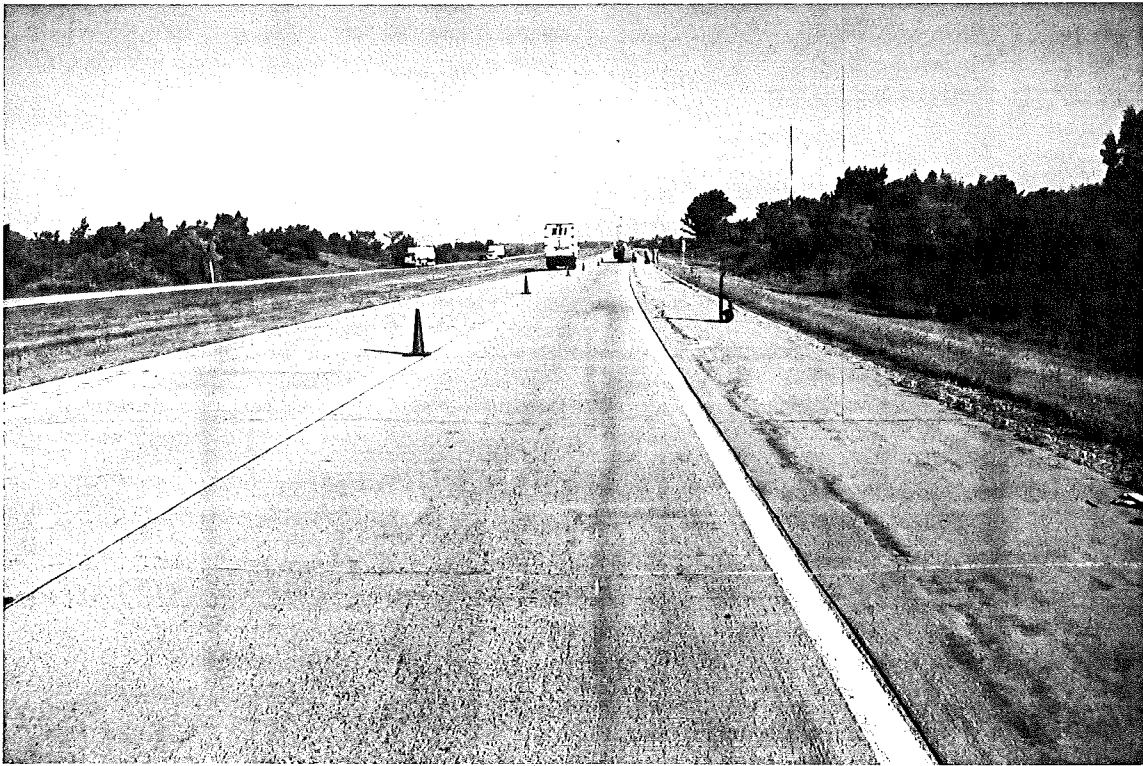


Photo C33. An overview looking west on CSN# 44044-18804 WB, showing the intermediate shoulder joints. Slabs in the driving lanes are 41 ft long. Swamp vegetation in the ditches can be seen on the right side of the photo.

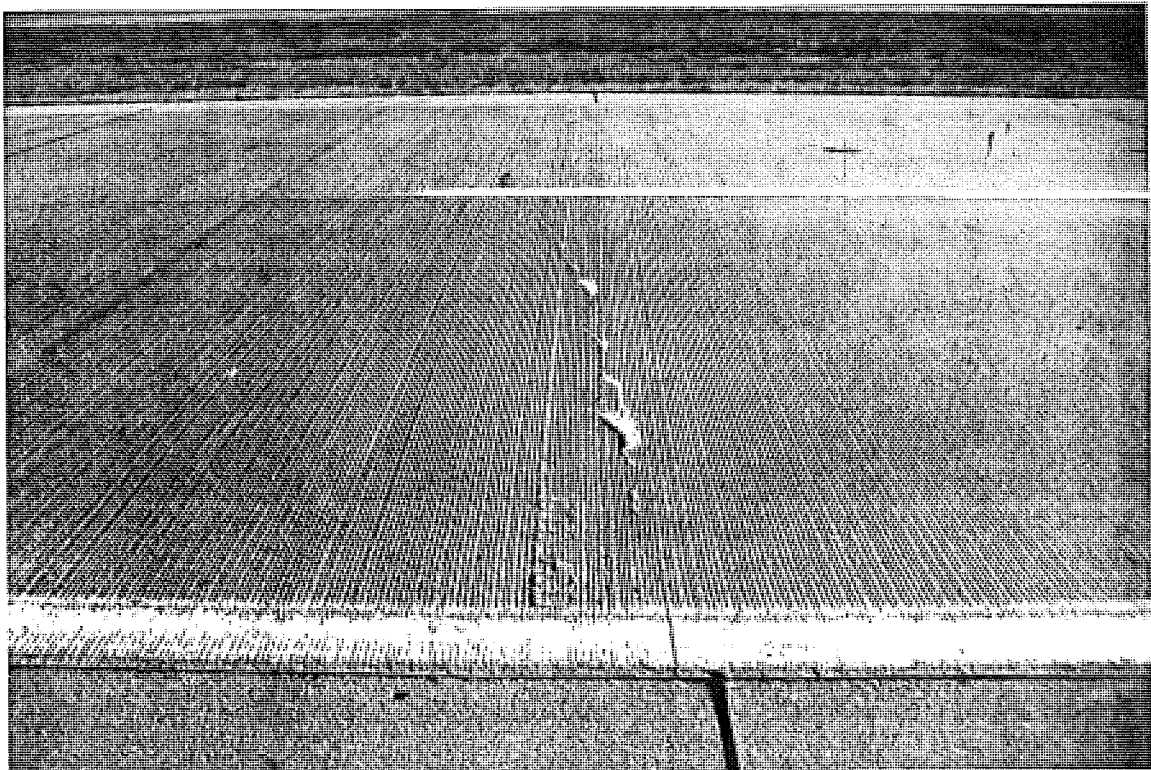


Photo C34. A third point crack that is spalling on CSN# 44044-18804A WB.

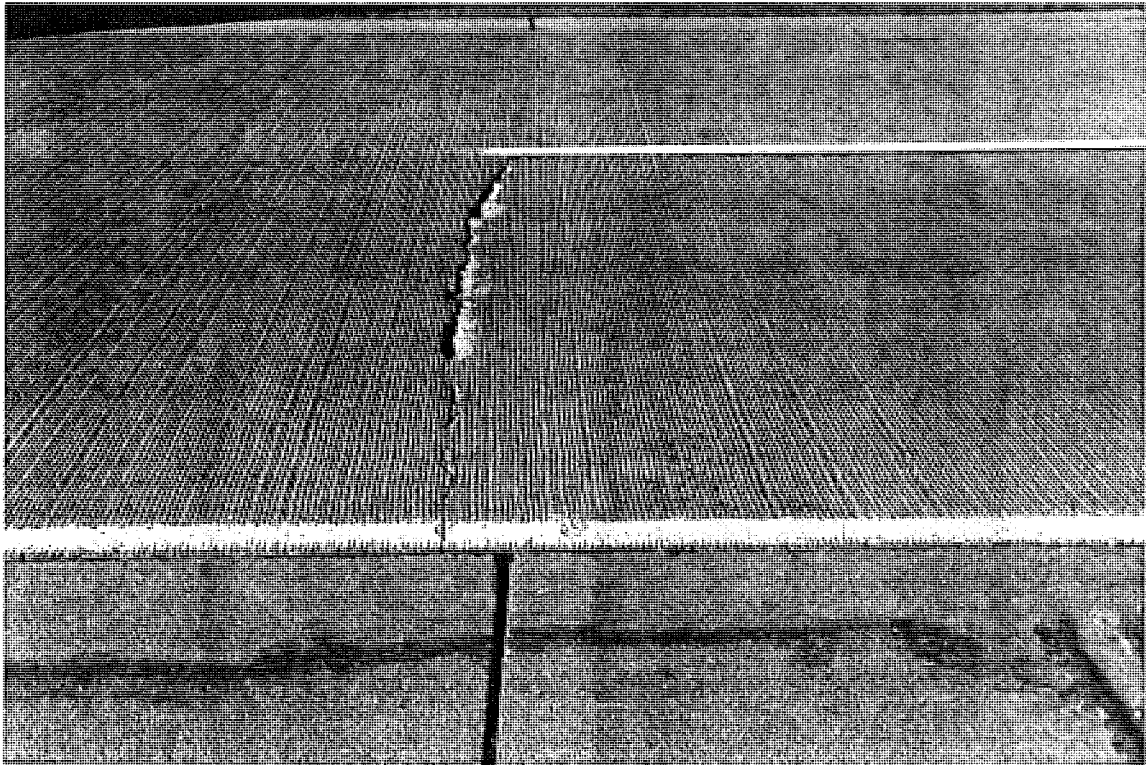


Photo C35. A full width transverse crack on CSN# 44044-18804A WB. The crack is tight in the passing lane and is spalling in the truck lane. This crack, was induced by the intermediate shoulder joint.

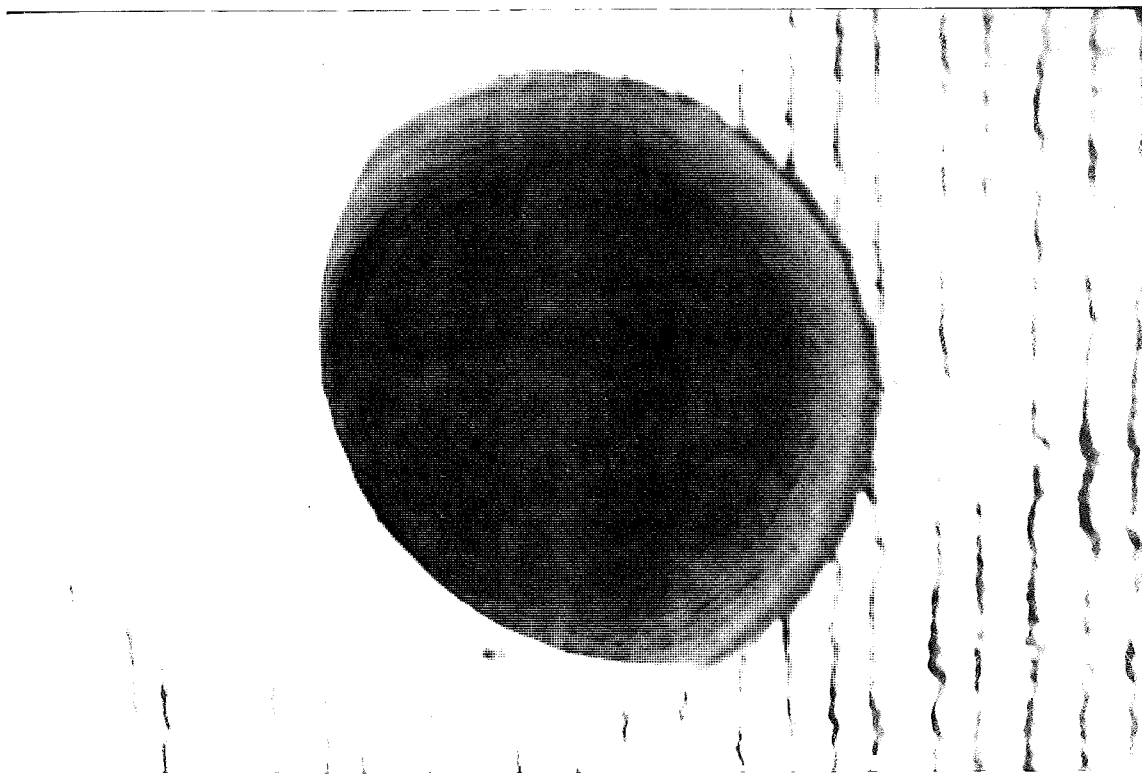


Photo C36. A close-up of a corehole on CSN# 44044-18804A WB, showing the OGDC base course.



Photo C37. An overview of CSN# 47065-28215A WB looking west, just prior to paving. The open graded drainage course and dowel cages are visible.

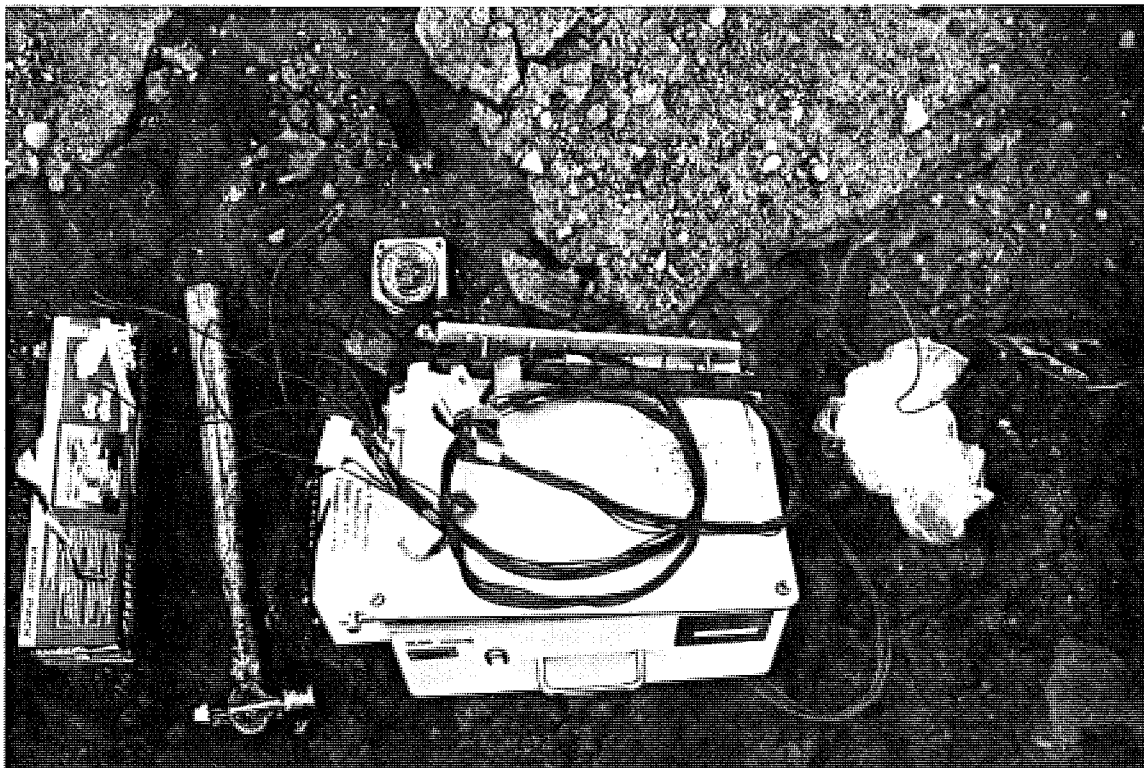


Photo C38. A view of the temperature profile instrumentation prior to installation in the slab in CSN# 47065-28215A WB. The gray box is the data-acquisition system. Lying on the box is the thermocouple rig, with thermocouples spaced in one inch increments.



Photo C39. A view of the thermocouple rig immediately after installation in CSN# 47065-28215A WB. The rig is installed between paving lifts, and the cables are buried to protect them from damage during the second paver pass.

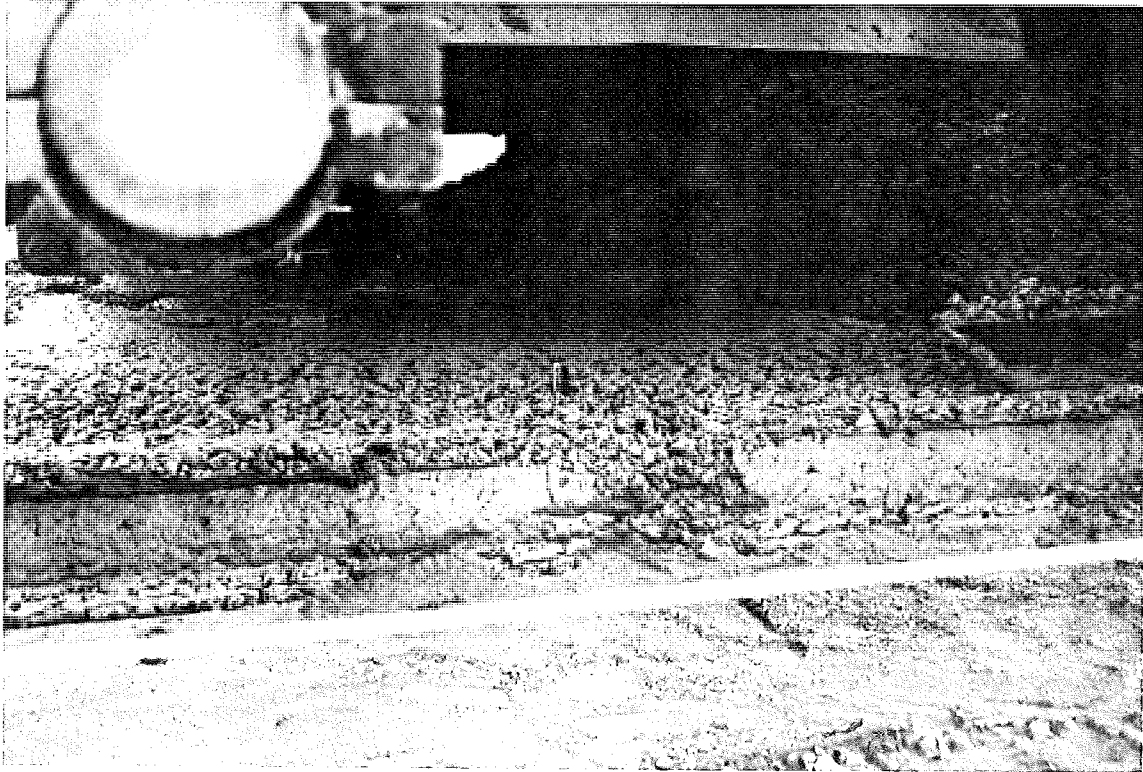


Photo C40. A view of the thermocouple rig in CSN# 47065-28215A WB as the second paving lift is being applied. After paving the position of the rig is checked prior to final finishing of the slab. Temperature data collection begins immediately thereafter.

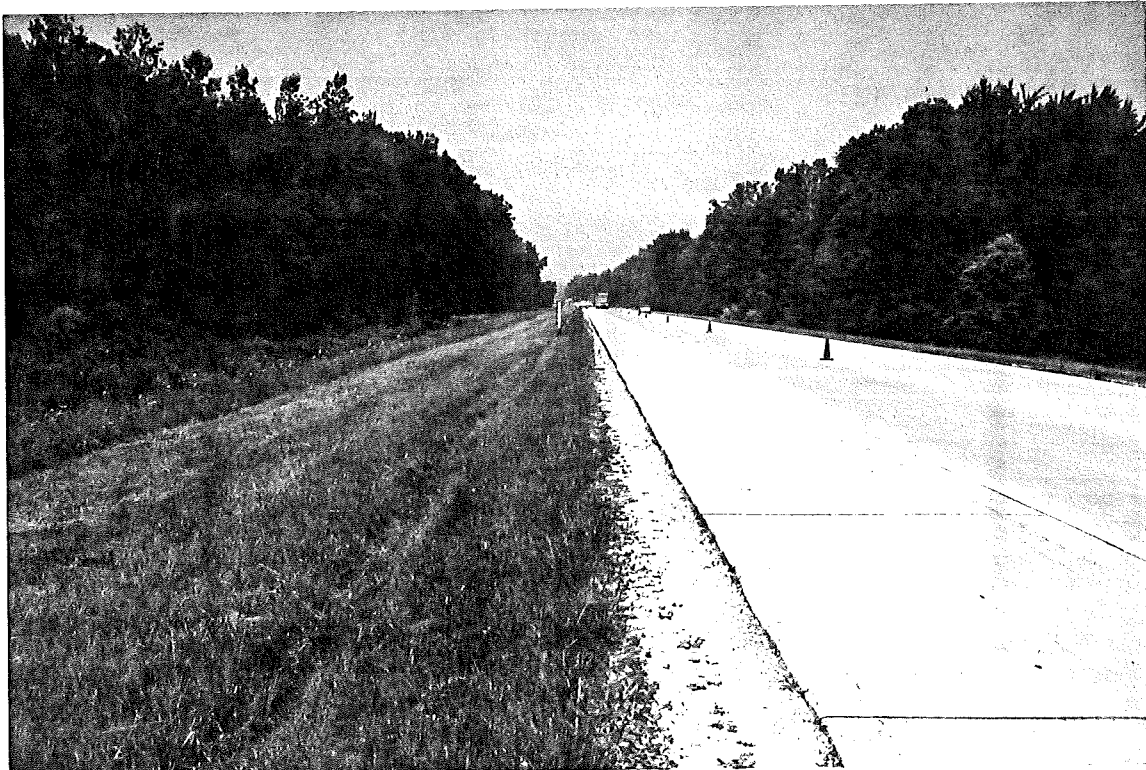


Photo C41. An overview looking west showing intermediate shoulder joints on CSN# 77023-21586A EB. The slabs in the driving lanes are 41 ft long.

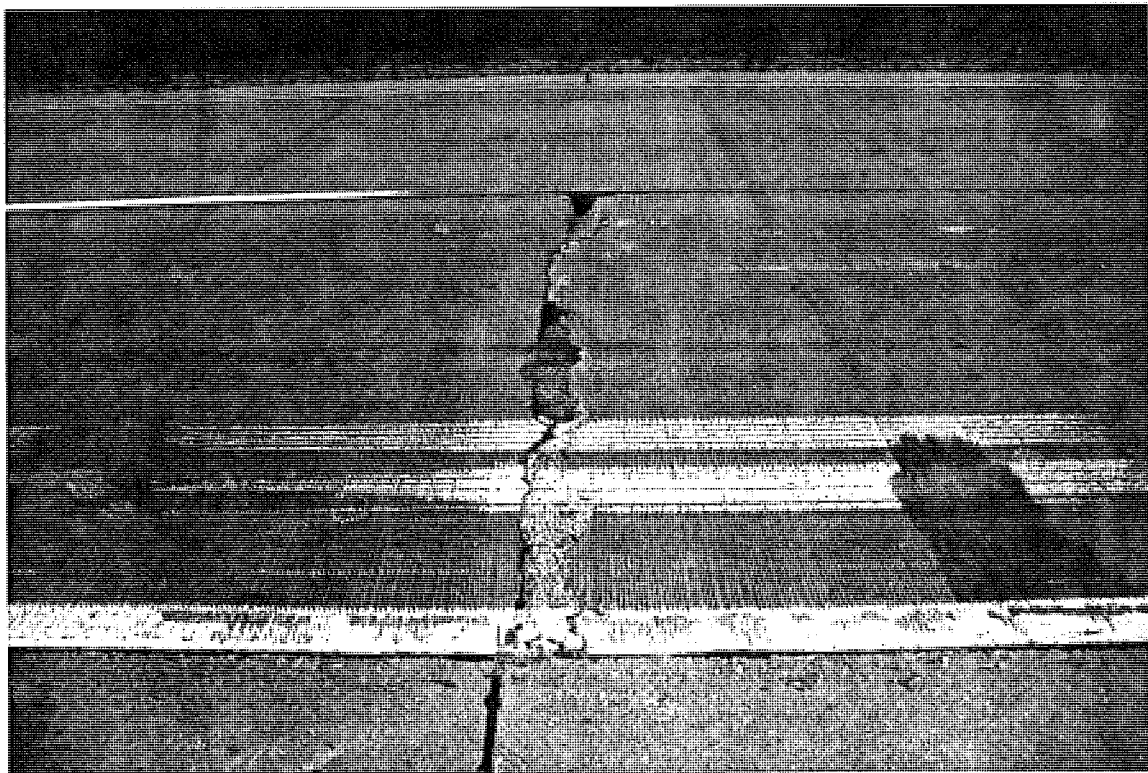


Photo C42. A transverse crack at a third point intermediate shoulder joint on CSN# 77023-21586 EB. Severe spalling is present in the truck lane and has been cold patched.



Photo C43. A core hole showing the effects of severe faulting and spalling on the crack faces of a transverse crack on CSN# 77023-21586A EB.



Photo C44. A drainage structure that is clogged with sand and debris on CSN# 77023-21586A EB.

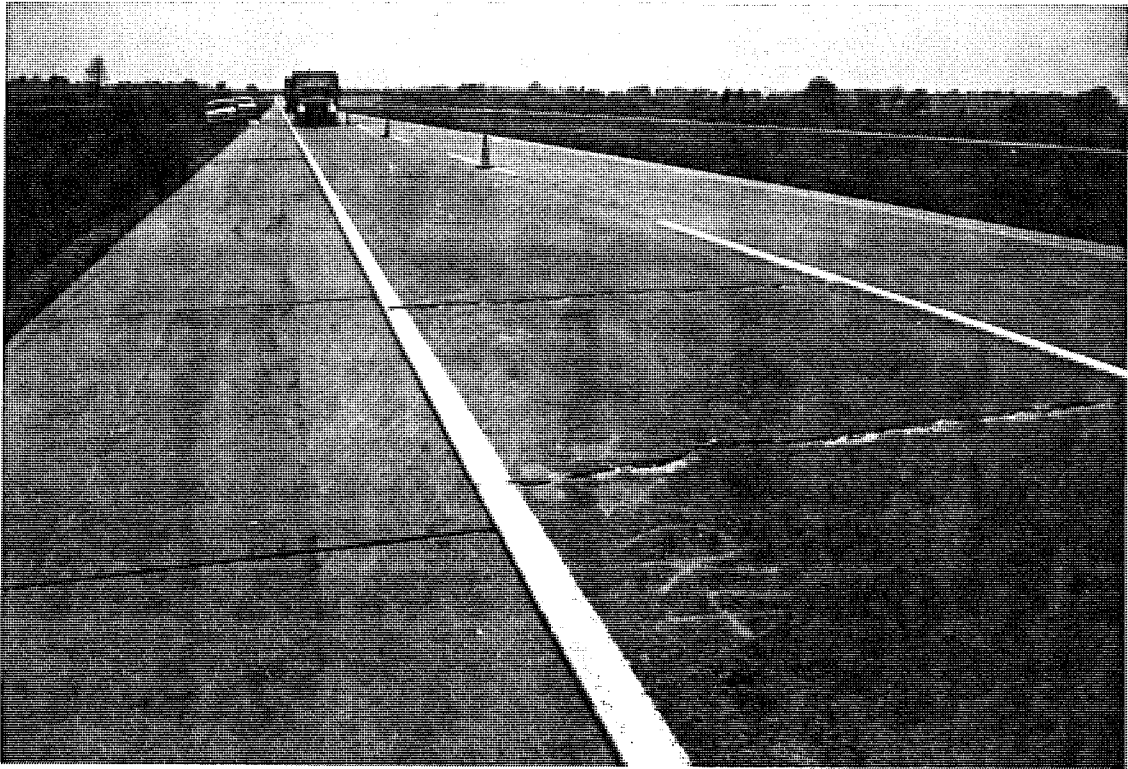


Photo C45. An overview of CSN# 77024-20821A (Section A), EB, showing severely spalled and faulted cracks at third point shoulder joints. The joint spacing in the driving lanes is 41 ft.

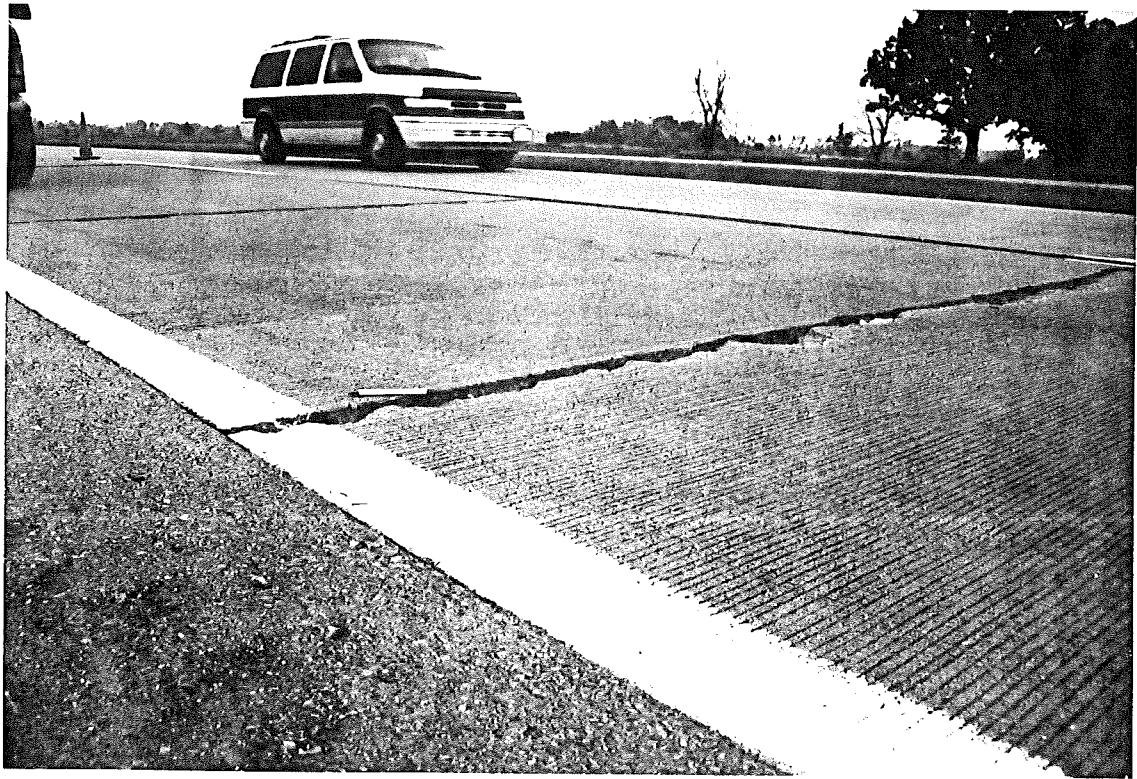


Photo C46. A severely spalled and faulted transverse crack in CSN# 77024-20821A (Section A), EB.

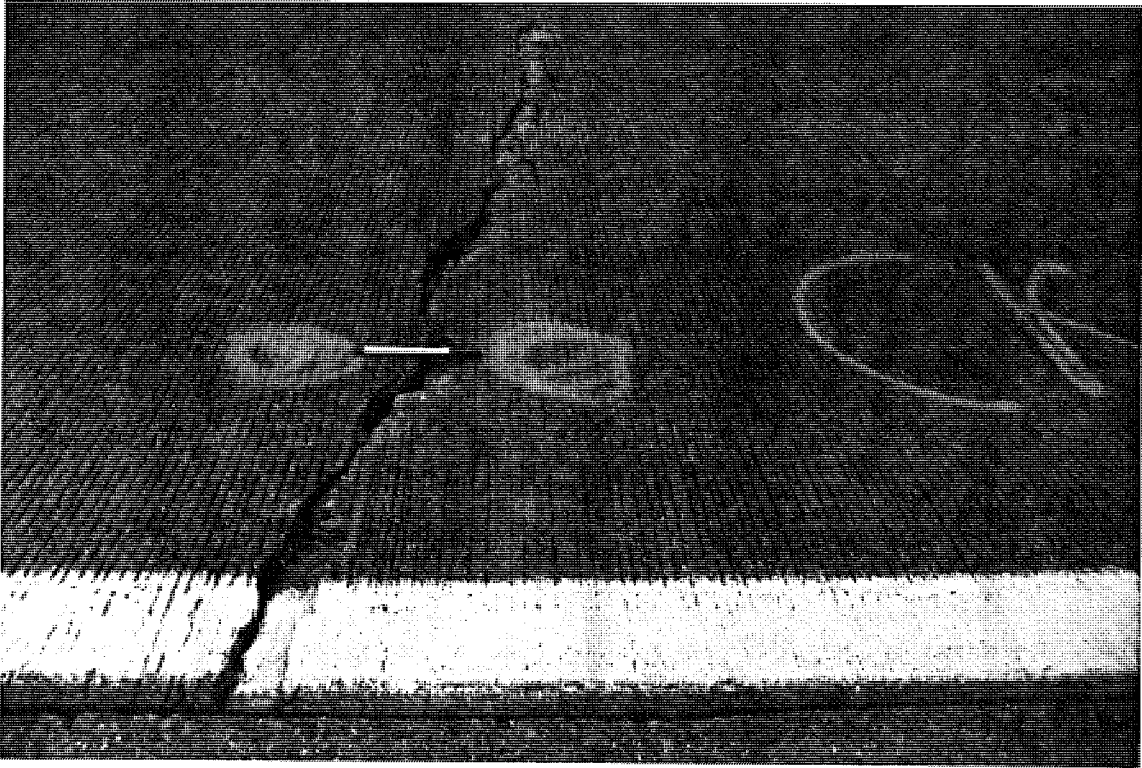


Photo C47. A typical transverse crack on CSN# 77024-20821A (Section A), EB, showing severe spalling and faulting.



Photo C48. A drainage outlet structure partially clogged with vegetation and debris on CSN# 77024-20821A Section A, EB.

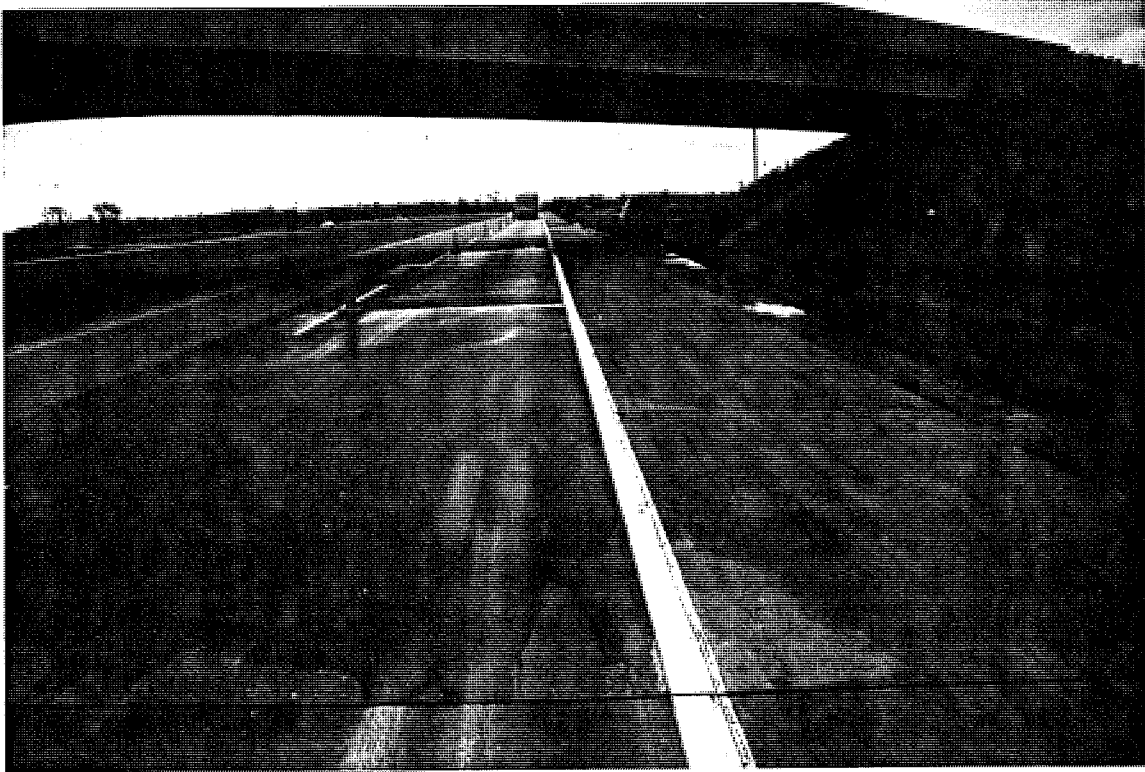


Photo C49. An overview looking east on CSN# 77024-17988A (Section B), EB. The third point intermediate shoulder joints can be seen. Slabs are 41 ft long in the driving lanes.

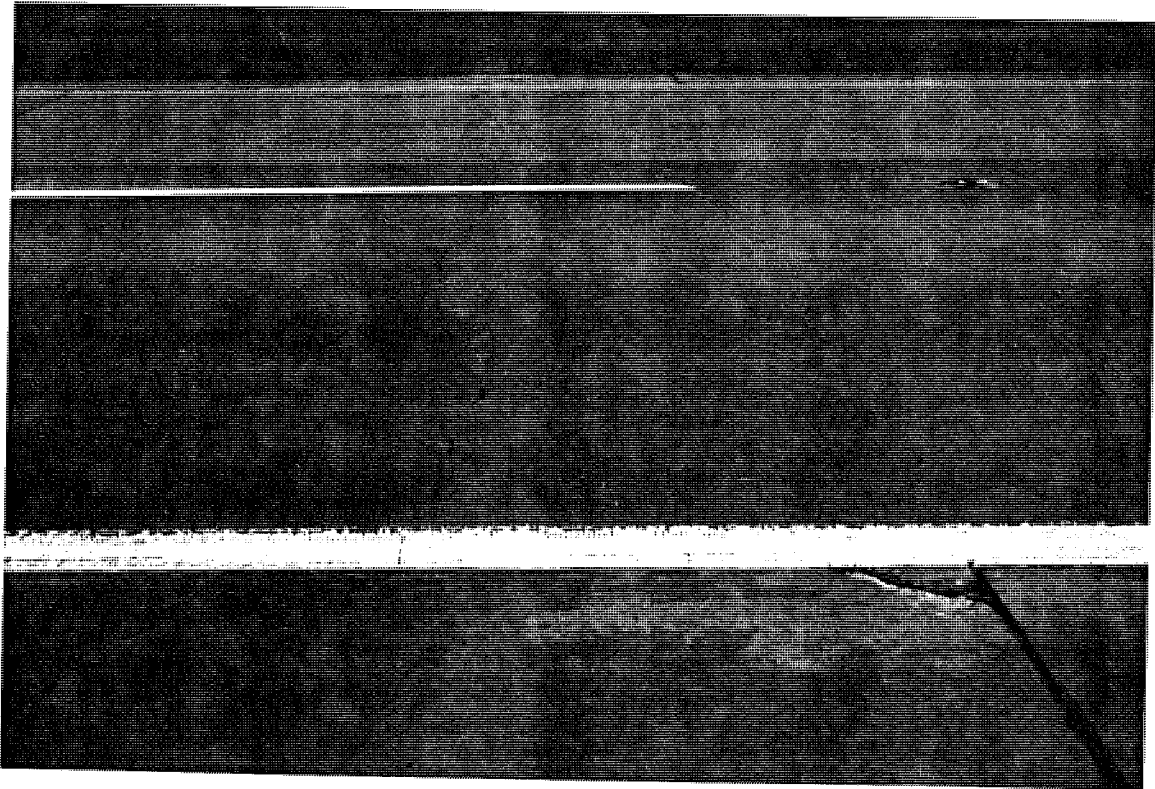


Photo C50. A typical third point transverse crack on CSN# 77024-17988A, (Section B), EB. The beginnings of spalling are visible here.



Photo C51. A tight transverse crack induced by the intermediate shoulder joint on CSN# 77024-17988A, (Section B), EB.

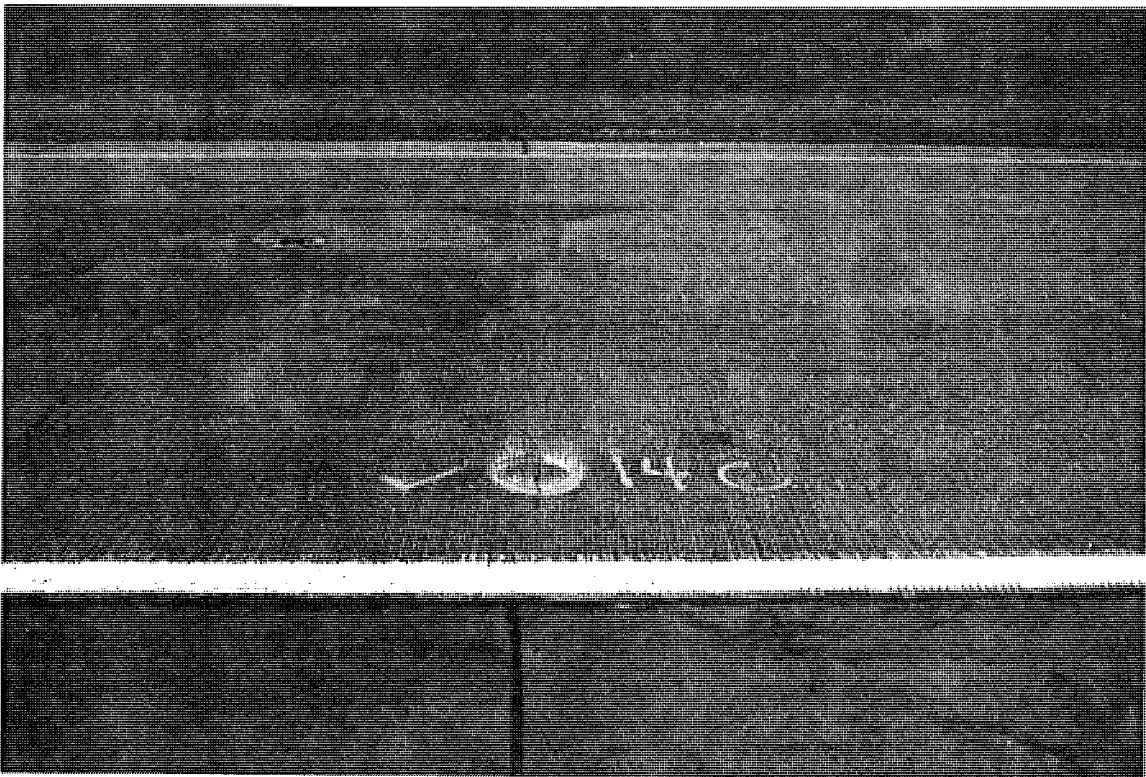


Photo C52. A typical transverse crack on CSN# 77024-17988A, (Section B), EB. Showing the location of core 14.

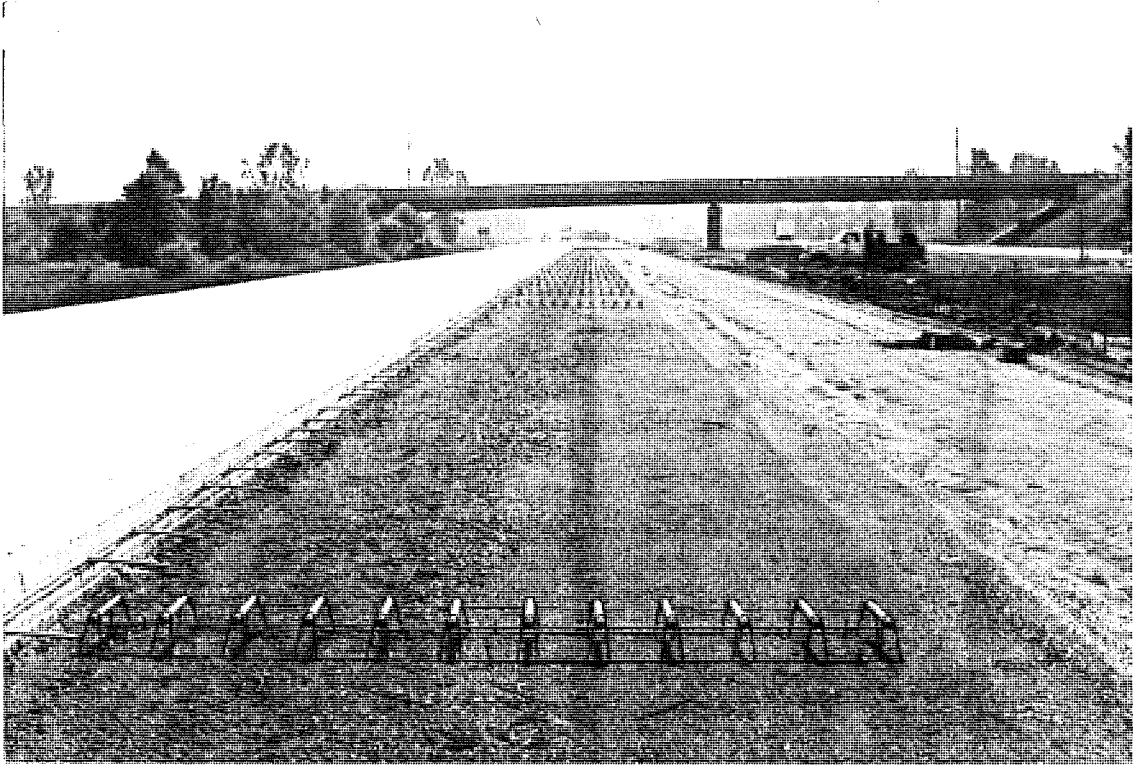


Photo C53. An overview of CSN# 82291-37305A NB looking south. Three dowel baskets have been removed to allow for study of load transfer efficiency with and without dowel baskets.

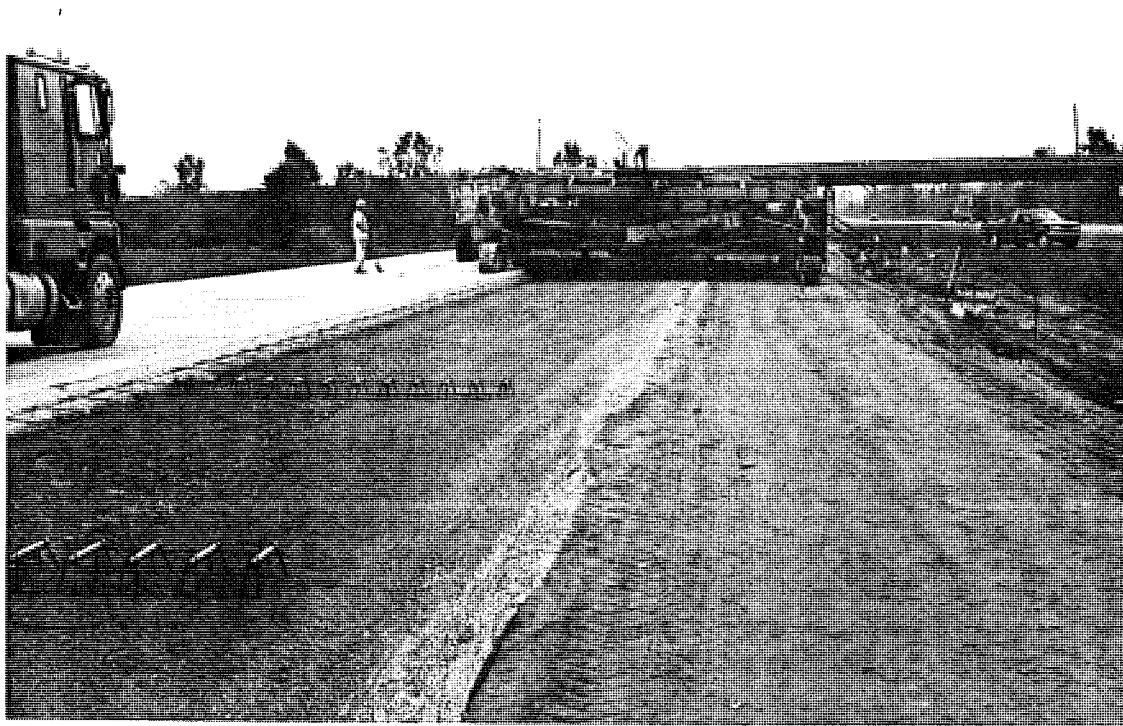


Photo C54. A view of CSN# 82291-37305A NB looking south as the paving train advances toward the removed dowel section. A thermocouple rig is to be installed in the slab near the location where yellow caution tape is seen.

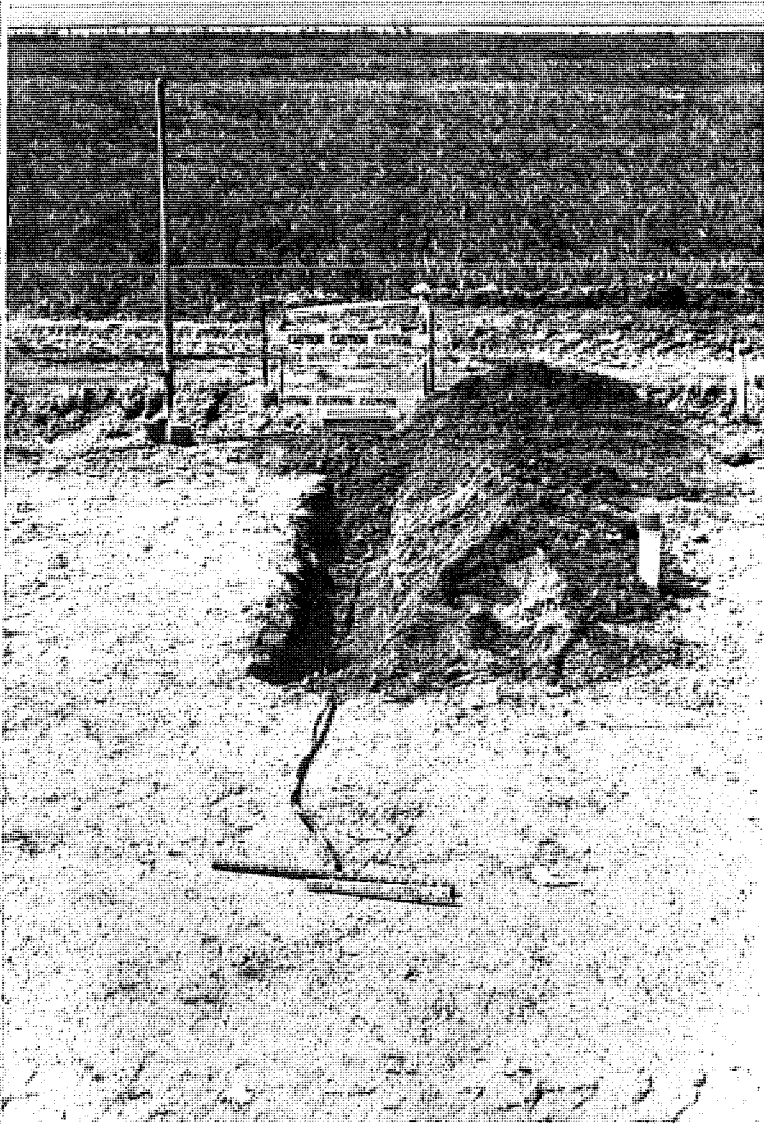


Photo C55. A view of the thermocouple rig on CSN# 82291-37305A NB prior to installation.

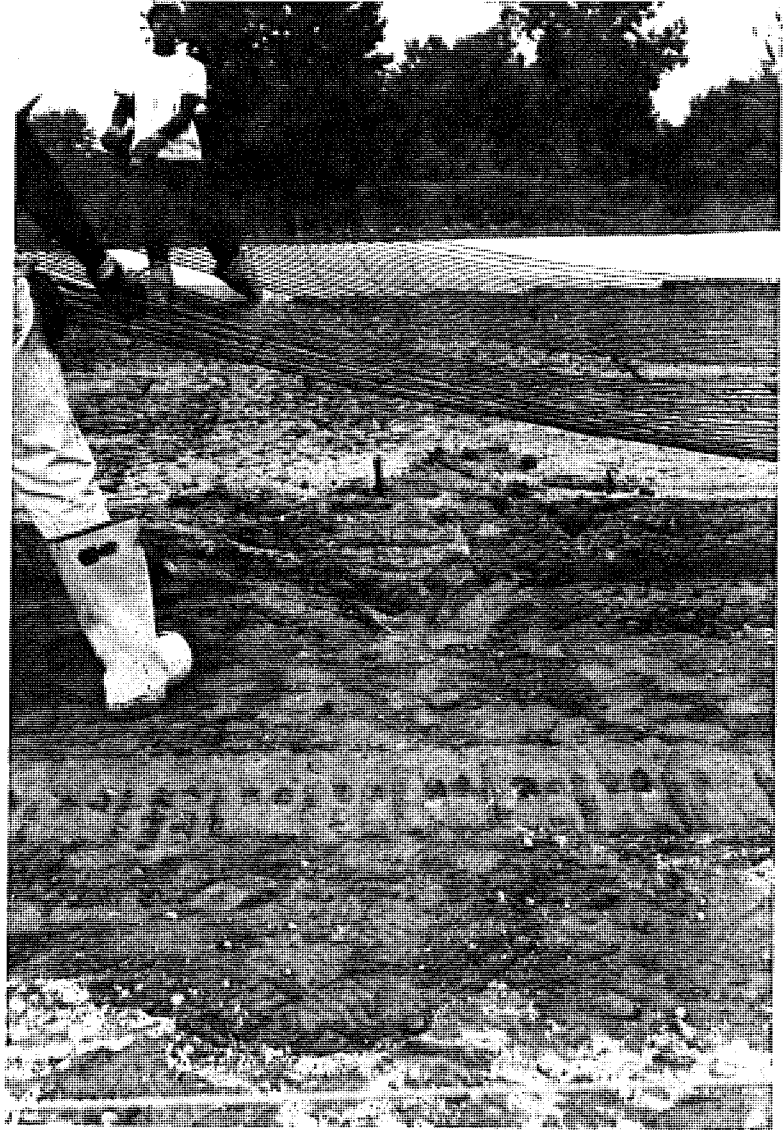


Photo C56. A view of the thermocouple rig on CSN# 82291-37305A NB after the first paver has passed.

APPENDIX E

Construction Records

Appendix E. Construction Records

This appendix highlights MDOT historical records for each selected project, including important construction information found in the inspector daily reports. This summary includes typical mix designs showing source of materials and batch weights. Additionally, the gradation type and the source of the base course materials is provided. The summaries also include information about any subgrade undercutting or swamp backfill used. Any other construction related problems that were noted are also mentioned in these summaries.

The data from the inspector's daily reports for each project combined to create spreadsheets that show the concrete placement temperatures and air temperatures during each day's pour. The concrete placement temperatures and air temperatures were then averaged. When possible a graph was made showing the variation of average concrete placement temperature vs. milepost or station.

Review of Historical Records

Control Section 11017-32516A EB and WB Sections A-D Contractor for Paving: Interstate Highway Construction Inc.

- Typical Mix Design:

Strength: 35P

Slump: 0 to 3"

Air Content: 4.5 to 8%

<u>Materials</u>	<u>Type</u>	<u>Supplier</u>	<u>Batch Weights</u>
Cement	Type I	LaFarge	451 lbs
Fine Aggregate	2NS	Garavaglia Pit No. 14-48	1349 lbs
Coarse Aggregate	6AA	Levy Burns Harbor Slag Pit No. 92-11	1419 lbs
Water			246 lbs
Air Entrainer		Master Builders, VR	9 cwt
Water Reducer		Master Builders Pozzoloth 220N	2 cwt
Fly Ash	Class F	U.S. Ash Schaeffer Station	113

- Base Course: 6A Limestone from Inland, which meets 3G specification 95% of the time. Also a 95% of Maximum Density was used for compaction testing (Michigan Cone). Base thickness was specified as 4"
- Class II Granular material used for subbase. Thickness was specified as minimum 8"
- Joint Spacing: Section A and D 16 foot, Section B Hinge Joint, Section C 15,16,17 Random
- Pavement is 12" thick non-reinforced
- Trouble with installation of edge drain on eastbound (filter fabric misplaced)
- Eastbound was opened to traffic on October 16, 1995
- Joints were observed working on eastbound 10 days after final pour
- Longitudinal cracking on section A from 1893+00 to 1880+00. Cross stitching was used to fix this problem.

Control Section# 11017-32516A

Concrete Temperature At Placment

Contractor: Interstate Highway Construction Inc.

Sections Tested: Section A 1790+10 to 1795+08

Section C 1682+62 to 1690+15

Eastbound

Date	Poured		Concrete Temperature	Average
	From	To		
8/24/95	1865+95	1877+38	82	
	1879+78	1893+00	82	
			82	
			84	
			84	83
8/28/95	1846+44	1865+95	82	
			82	82
8/29/95	1805+28	1846+44	88	
			82	85
8/30/95	1766+28	1805+28	82	
			82	
			82	
			86	
			87	
			87	
			88	85
8/31/95	1747+40	1766+28	81	
			82	
			82	
			84	
			83	
			83	
			83	83
9/5/95	1707+45	1747+40	78	
			78	
			78	
			84	
			84	
			83	
			86	82
9/6/95	1667+27	1707+45	81	
			80	
			80	
			82	
			82	
			82	
			82	
			84	
			82	82
9/7/95	1665+65	1667+27	Rain	

Average	83
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Control Section# 11017-32516A

**Concrete Temperature At Placment
Contractor: Interstate Highway Construction Inc.**

Section Tested: Section D 1793+08 to 1782+98

Westbound

Date	Poured		Concrete Temperature	Average
	From	To		
5/13/96	1629+87	1658+64	50	
			56	
			64	
			66	
			66	
			67	
			66	62
			66	
5/14/96	1658+64	1693+10	57	
			57	
			60	
			63	
			63	
			64	
			65	
5/16/97	1693+10	1733+14	63	62
			61	
			62	
			64	
			64	
			65	
			65	
			70	
5/17/95	1733+14	1771+00	70	
			70	
			70	
			71	
			74	
			75	
			75	70
			75	
5/20/96	1771+00	1792+61	80	
			73	
			74	
			75	
			74	
5/21/96	1792+61	1794+50	74	75
			65	65
			68	
			72	
			72	71
5/23/96	1794+50	1808+36	72	
			71	
			75	73
			71	
5/28/97	1810+12	1822+65	65	
			66	
			67	
			68	
			70	
			70	
			69	
			66	
5/29/97	1849+28	1824+25	68	
			68	
			70	
			70	
			68	
			70	68
			70	
			70	
5/29/97	1849+28	1877+47	64	
			63	
			66	
			67	
			70	
			72	
			72	
			70	68
6/3/97	1809+60	1795+72	73	
			72	
			74	
			73	
			73	
			73	
6/3/97	1877+45	1878+00	72	
			74	
			73	
			73	
			73	
			72	73

Average	68
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Review of Historical Records

Control Section 19042-24680A Section B EB

Contractor for Paving: Tony Angelo Cement Construction Company

- Typical Mix Design:

Strength: 35P

Slump: 0 to 3"

Air Content: 5 to 8%

<u>Materials</u>	<u>Type</u>	<u>Supplier</u>	<u>Batch Weights</u>
Cement	Type I	Medusa (Charlevoix)	526 lbs
Fine Aggregate	2NS	Hall Pit 19-24	1574 lbs
Coarse Aggregate	6AA	Michigan Lime and Chemical Pit 71-3	1649 lbs
Water			158 lbs
Air Entrainer		Daravair, WR Grace	0.35 oz/sack
Water Reducer		WRDA-79, WR Grace	5 oz/sack

- Base Course: 8G from Pit No. 71-3 Michigan Lime and Chemical.
- Subgrade undercutting 273+00 to 277+50 EB.
- Expansion joints every 328 ft.
- Majority of EB was a cut section.

Concrete Temperature At Placement

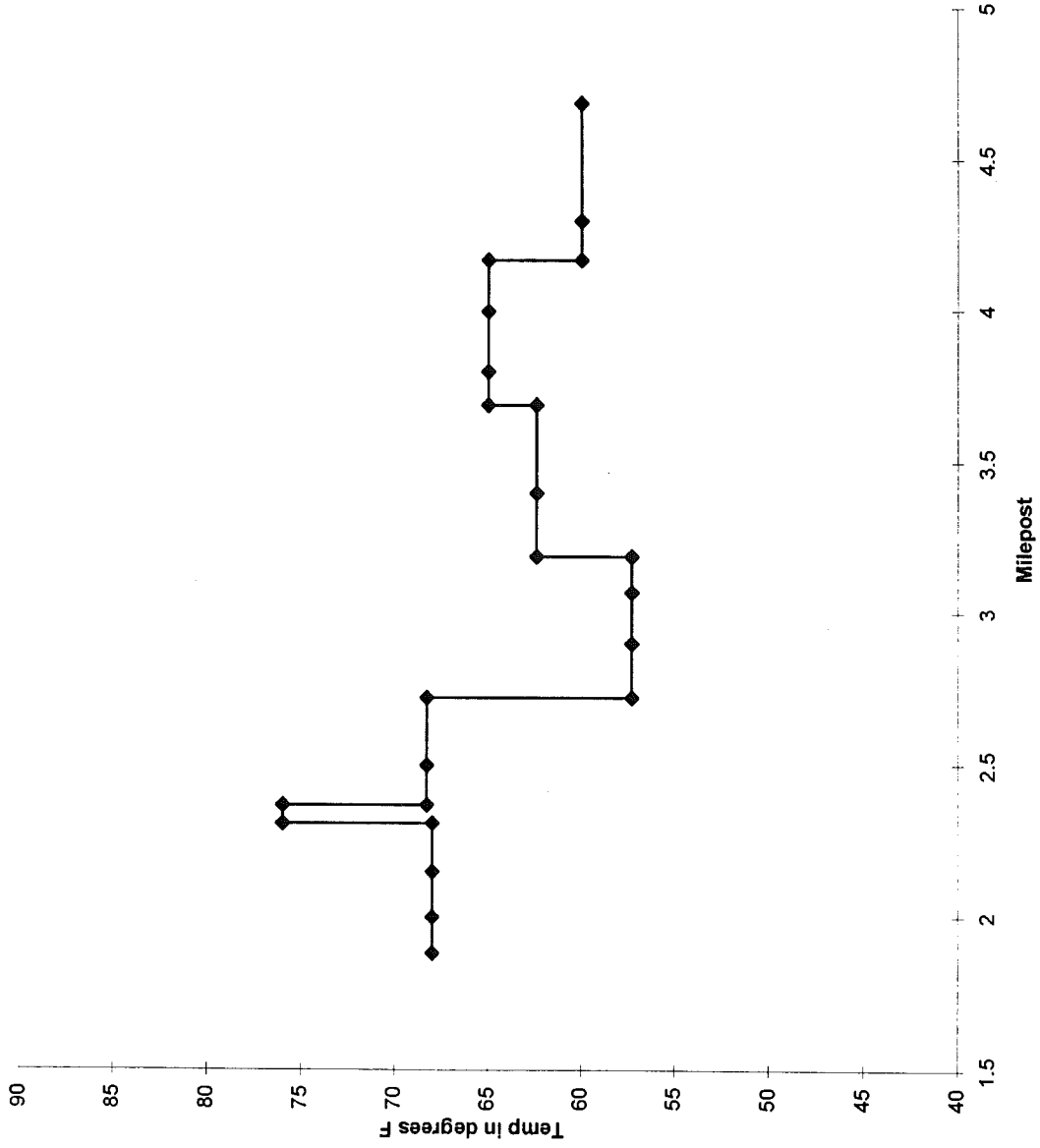
Control Section# 19042-24680A Section B EB
 Contractor: Tony Angelo Cement Construction Company

Section Tested: 275+00 to 281+72

Date	Station		Milepost		Concrete Temp	Air Temp	Average Concrete Temp	Average Air Temp
	From	To	From	To				
9/24/86	265+00	272+31	1.888	2.026	68	77		
	Gap 272+31	278+45	2.026	2.086	68	78		
	278+45	290+70	2.086	2.318	68	76	68	77
9/26/86	290+76	294+04	2.318	2.380	76	72	76	72
10/2/86	294+04	312+49	2.380	2.729	68	60		
					69	61		
					68	56	68.3	59
10/6/86	312+49	330+82.45	2.729	3.076	56	38		
	330+31.76	337+28	3.067	3.199	58	44		
					58	48	57.3	43.3
10/7/86	337+28	363+47	3.199	3.695	58	42		
					62	52		
					64	60		
					64	63		
					64	64	62.4	56.2
10/8/86	363+47	388+79	3.695	4.174	62	58		
					66	62		
					66	66		
					66	62		
					65	62	65	62.0
10/9/86	388+79	411+75	4.174	4.609	60	40		
					60	44		
					60	44		
					60	52	60	45

Average	65	59
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Average Concrete Placement Temperature vs. Milepost 19042-24680A Section B EB



Review of Historical Records

Control Section 19042-02233A Section C EB Contractor for Paving: Denton Construction

- Typical Mix Design:

Strength: 35P

Slump: 1 to 3"

Air Content: 5 to 8%

<u>Materials</u>	<u>Type</u>	<u>Supplier</u>	<u>Batch Weights</u>
Cement	Type I	Dundee	480 lbs
Fine Aggregate	2NS	Hall Pit 19-24	1493 lbs
Coarse Aggregate	6AA	Michigan Lime and Chemical Pit 71-3	1669 lbs
Water			187.1 lbs
Air Entrainer		Daravair WR Grace	0.35 oz/sack
Water Reducer		WRDA-79, WR Grace	5 oz/sack
Fly Ash			72 lbs/cyd

- Base Course: 8G from Pit No. 71-3 Michigan Lime and Chemical.
- Subgrade undercutting on both east and west bound, 518 to 530+50 WB, 530+50 to 538+50 EB, 423+50 to 426+50 WB, 527+50 to 530+50 EB, 522+50 to 527+50 EB, 399+50 to 405+50 EB.
- Peat excavation and swamp backfill 565+00 to 570+00 EB, 543+00 to 543+25 EB, 543+50 to 544+00 EB, 461+90 to 463+50 EB, 444+00 to 445+50, 442+00 to 446+00, 546+50 to 547+00 EB, 546+00 to 548 WB.

Concrete Temperature At Placement

Control Section# 19042-02233A Section C EB
 Contractor: Holloway/Denton

Section Tested: 527+20 to 533+00

Date Placed & Time	Station		Milepost		Concrete Temp	Air Temp	Average Concrete Temp	Average Air Temp
	From	To	From	To				
7/30/87 10:30	411+67	430+61	4.713	5.072	78	74		
7/30/87 12:00					80	79		
7/30/87 14:30					86	84	81	79
7/31/87 8:30	430+61	468+61	5.072	5.753	72	70		
7/31/87 10:30					87	75		
7/31/87 14:30					92	87		
7/31/87 16:00					90	88	85	80
8/1/87 8:30	468+61	487+03	5.753	6.102	80	75		
8/1/87 12:00					82	78	81	77
8/4/87 8:00	520+64	557+51	6.739	7.437	88	74		
8/4/87 10:00					86	80		
8/4/87 12:00					86	84		
8/4/87 14:00						85		
8/4/87 16:00						84	87	81
8/5/87 8:00	557+51	590+05	7.437	8.053	80	68		
8/5/87 10:30						74		
8/5/87 13:00						76		
8/5/87 15:20						80	80	75

Average	83	78
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Review of Historical Records

Control Section 19043-02234A EB and WB (metric) Contractor for Paving: Kegel Construction

- Typical Mix Design:

Strength: 35P

Slump: max 0.076 m

Air Content: 5 to 8%

<u>Materials</u>	<u>Type</u>	<u>Supplier</u>	<u>Batch Weights</u>
Cement	Type I	Dundee	526 lbs
Fine Aggregate	2NS	The Gravel Pit Pit 33-9	1515 lbs
Coarse Aggregate	6A	The Gravel Pit Pit 33-9	2040 lbs
Water			138 lbs
Air Entrainer		Darex, WR Grace	0.25 oz/sack
Water Reducer		WRDA, WR Grace	5.0 oz/sack

- Base Course: 22A from Pit No. 19-46 Smith, specified 4" thick
- Subbase: Class II granular sand subbase, specified minimum 10" thick.
- Econcrete shoulders.

Control Section# 19043-02234A EB (metric)

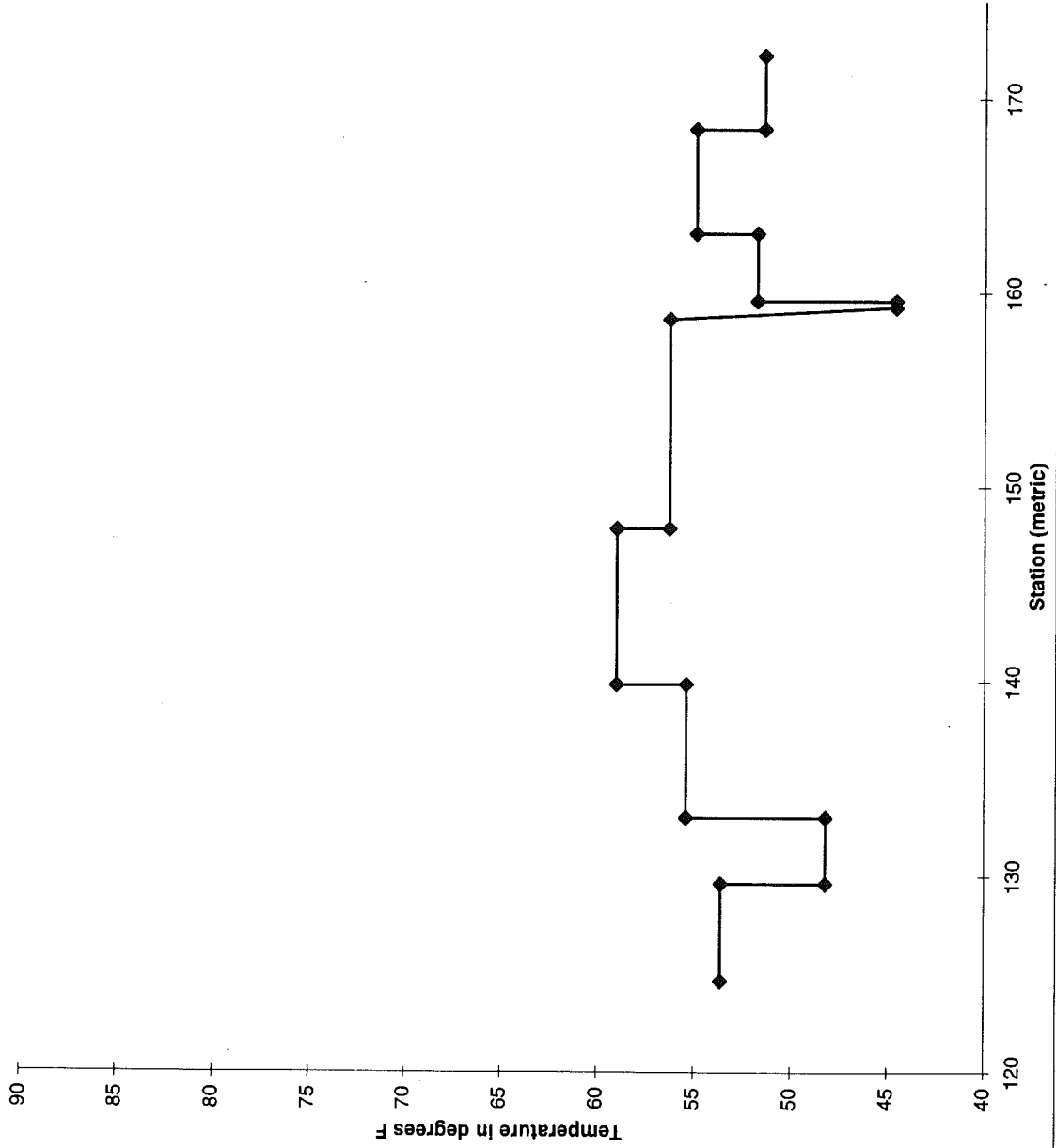
Concrete Temperature At Placement
Contractor: Kagle Construction

Section Tested: 137+00 to 138+98

Date Placed & Time	Station		Concrete Temp F	Air Temp F	Concrete Temp C	Air Temp C	Average Concrete Temp F	Average Air Temp F
	From	To						
10/9/81 8:30	172+21	168+42	45	32	7	0		
10/9/81 10:00			48	34	9	1		
10/9/81 13:30			55	52	13	11		
10/9/81 15:00			54	50	12	10		
10/9/81 17:00			55	50	13	10	51	44
10/10/81 8:00	168+42	163+05	52	41	11	5		
10/10/81 10:00			54	41	12	5		
10/10/81 12:00			57	43	14	6		
10/10/81 14:00			57	50	14	10	55	44
10/12/81 9:40	163+05	159+59	52	44	11	6.5		
10/12/81 10:30			52	45	11	7.4	52	45
10/13/81 8:00	147+85	158+63	50	37	10	3.0		
10/13/81 10:00			55	50	13	10.0		
10/13/81 12:00			57	57	14	14.0		
10/13/81 14:00			57	57	14	14.0		
10/13/81 16:00			59	57	15	14.0		
10/13/81 17:30			59	59	15	15.0	56	53
10/14/81 8:00	147+85	139+84	59	45	15	7.0		
10/14/81 10:00			59	52	15	11.0		
10/14/81 11:30			59	54	15	12.0		
10/14/81 13:30			59	54	15	12.0		
10/14/81 15:30			59	52	15	11	59	51
10/17/81 8:00	132+99	139+84	54	41	12	5		
10/17/81 10:00			54	46	12	8		
10/17/81 11:30			57	55	14	13		
10/17/81 13:30			57	54	14	12	55	49
10/19/81 9:15	129+62	132+99	46	28	8	-2		
10/19/81 10:55			48	28	9	-2		
10/19/81 13:30			50	37	10	3	48	31
10/20/81 8:55	124+65	129+62	50	39	10	4		
10/20/81 11:00			50	45	10	7		
10/20/81 13:30			55	55	13	13		
10/20/81 16:25			59	57	15	14.0	54	49
11/3/81 8:00	159+59	159+25	45	41	7	5	45	41

Average	53	45
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Average Concrete Placement Temperature vs. Station (metric) 19043-02234A EB



Control Section# 19043-02234A WB (metric)

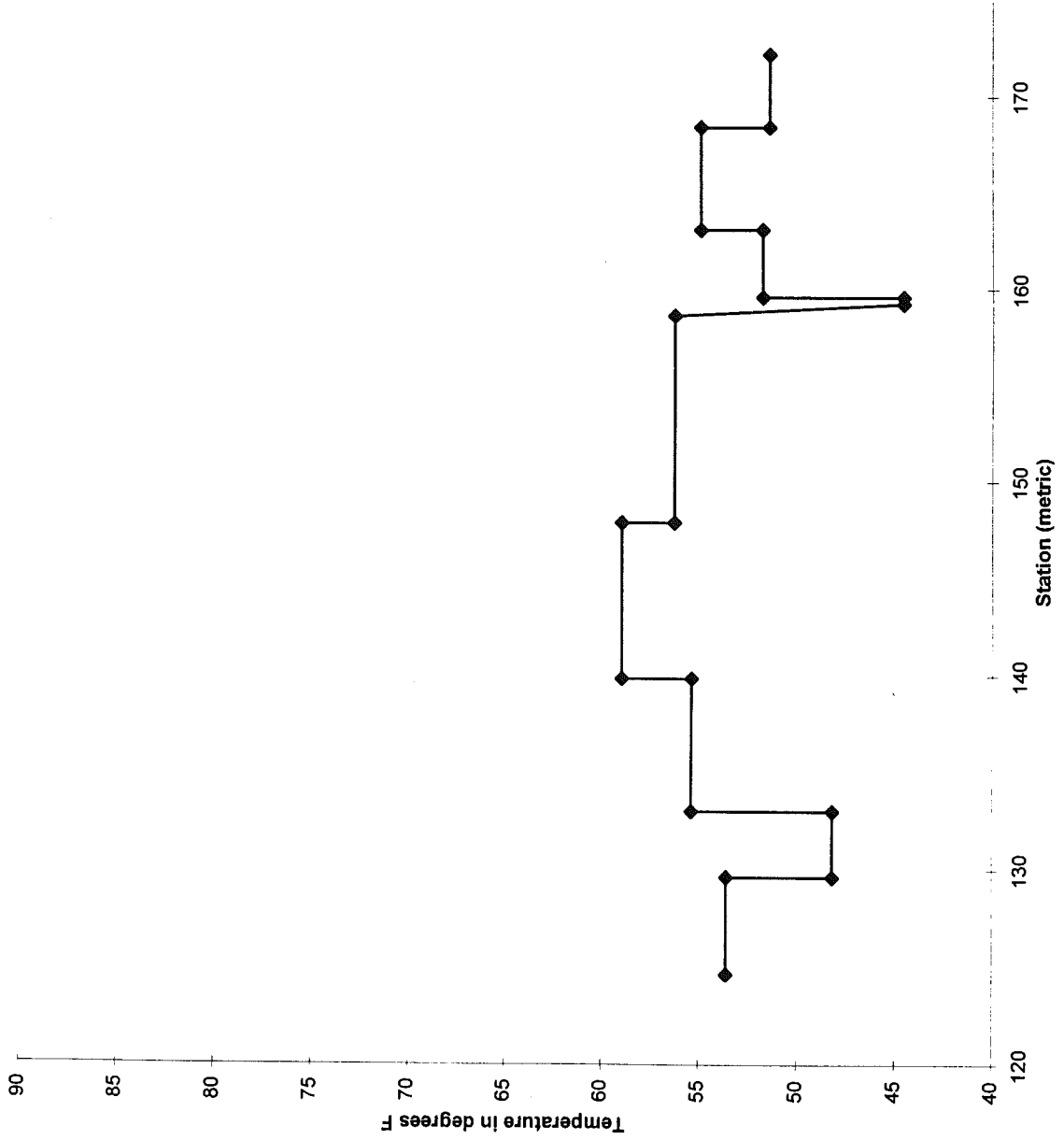
Concrete Temperature At Placement
 Contractor: Kagle Construction

Section Tested: 147+83 to 150+00

Date Placed & Time	Station		Concrete Temp F	Air Temp F	Concrete Temp C	Air Temp C	Average Concrete Temp F	Average Air Temp F
	From	To						
9/29/81 10:30	153+18	158+42	53.6	53.6	12	12		
9/29/81 11:30			53.6	59	12	15		
9/29/81 13:00			59	57.2	15	14		
9/29/81 16:00			57.2	53.6	14	12	56	56
10/7/81 8:50	159+26	164+13	51.8	41	11	5		
10/7/81 9:30			53.6	41	12	5		
10/7/81 11:30			57.2	42.8	14	6		
10/7/81 13:30			57.2	50	14	10	55	44
10/8/81 8:50	164+13	170+47	44.6	32	7	0		
10/8/81 11:00			50	41	10	5		
10/8/81 13:10			55.4	50	13	10		
10/8/81 15:20			55.4	51.8	13	11.0	51	44
10/9/81 8:30	170+47	172+49	44.6	32	7	0.0		
10/9/81 10:00			48.2	33.8	9	1.0		
10/9/81 13:30			55.4	51.8	13	11.0		
10/9/81 15:00			53.6	50	12	10.0	50	42
10/20/81 8:55	124+65	125+90	50	39.2	10	4.0		
10/20/81 11:00			50	44.6	10	7.0		
10/20/81 13:30			55.4	55.4	13	13.0		
10/20/81 16:25			59	57.2	15	14	54	49
10/21/84 8:30	125+90	128+90	50	33.8	10	1		
10/21/81 8:45			55.4	33.8	13	1		
10/21/81 10:45			44.6	32.9	7	0.5		
10/26/81 10:00	128+90	137+79	44.6	32	7	0	50	33
10/26/81 11:00			51.8	42.8	11	6		
10/26/81 14:30			53.6	46.4	12	8		
10/26/81 15:30			53.6	50	12.0	10.0	53	46
10/28/81 7:30	137+79	148+83	44.6	24.8	7	-4		
10/28/81 9:25			48.2	41	9	5		
10/28/81 10:45			51.8	42.8	11	6		
10/28/81 12:30			50	46.4	10	8		
10/28/81 14:30			53.6	51.8	12	11		
10/28/81 16:00			51.8	42.8	11	6	50	42
10/29/81 7:15	148+83	153+13	44.6	30.2	7	-1.0		
10/29/81 9:30			50	32	10	0		
10/29/81 11:30			48.2	37.4	9	3	48	33

Average	52	43
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Average Concrete Placement Temperature vs. Station (metric) 19043-02234A WB



Review of Historical Records

Control Section 44044-18804A WB

Contractor for Paving: Denton Construction

- Typical Mix Design:

Strength: 35P

Slump: 2 to 3"

Air Content: 5 to 8%

<u>Materials</u>	<u>Type</u>	<u>Supplier</u>	<u>Batch Weights</u>
Cement	Type I	SME	480 lbs
Fine Aggregate	2NS	Vannini Pit 44-63	1515 lbs
Coarse Aggregate	6AA	Michigan Lime and Chemical Pit 71-3	1649 lbs
Water			168 lbs
Air Entrainer		MBVR Master Builders	1.5 oz/sack
Water Reducer		MBL-82 Master Builders	5.5 oz/sack

- Base Course: 8G from Pit No. 44-63 Vannini, Specified 4" thick.
- Westbound undercuts 690+00 to 692+00 for non-uniform textured material, 680+75 to 684+25 high water table and frost heave material, 687+00 to 696+50 high water table.
- Eastbound undercuts 676+00 to 677+00 non-uniform textured materials, 682+00 to 684+50 frost heave material, 690+00 to 699+00 high water table and frost heave material, 704+00 to 704+50 silt and clay in sandy subbase.
- At station 675+00 EB pavement cracked less than year after construction, "There are other frost heave locations, throughout project, stationing not recorded."
- Also transverse cracks in WB at 676+92, 678+45, 676+38, 649+33.
- Surcharges were used in Muck areas 582+75 to 584+75 WB, 584+50 to 586+00 EB, 706+75 to 707+00.

Control Section# 44044-18804A WB

Concrete Temperature At Placement
 Contractor: Denton Construction

Section Tested: 666+04 to 671+07

Date Placed & Time	Station		Milepost		Concrete Temp	Air Temp	Average Concrete Temp	Average Air Temp
	From	To	From	To				
8/7/84 10:00	737+39	766+23	3.083	3.667	82	76		
8/7/84 9:00					84	84		
8/7/84 11:00					83	87		
8/7/84 13:00					85	86	84	83
8/13/84 16:30	736+37	737+79	3.064	3.091	88	86	88	86
9/7/84 7:30	575+57	580+48	0.019	0.112	60	54	60	54
9/10/84 7:30	580+48	585+48	0.112	0.206	68	62		
9/10/84 10:30	588+30	622+42	0.260	0.906	68	64		
9/10/84 13:00					73	76		
9/10/84 15:45					76	76	71	70
9/14/84 7:30	681+99	734+40	2.034	3.027	70	60		
9/14/84 9:30					70	64		
9/14/84 12:30					72	76	71	67
9/12/84 8:30	681+99	624+98	2.034	0.954	73	62		
9/12/84 10:15					75	68		
9/12/84 12:10					74	76		
9/12/84 14:45					73	70		
9/12/84 17:15					74	72	74	70
9/17/84 0:00	585+48	586+29	0.206	0.222				
	588+30	587+49	0.260	0.244				
9/18/84 0:00	734+40	735+17	3.027	3.041				
9/19/84 0:00	575+57	574+37	0.019	-0.004				
10/2/84 10:00	622+53	623+14	0.908	0.920	60	60		
	624+07	624+66	0.926	0.937	60	63		
					62	66	61	63
10/3/84 10:45	735+58	738+00	3.049	3.095	60	55		
10/3/85 13:30					60	68	60	62
10/4/84 0:00	734+85	735+28	3.035	3.043				
	737+43	737+80	3.084	3.091				
	734+56	735+13	3.030	3.041				
	733+32	734+56	3.006	3.030				
	737+80	738+32	3.091	3.101				
	733+32	734+85	3.006	3.035				

Average 71 69

Control Section# 44044-18804A EB

Concrete Temperature At Placement
 Contractor: Denton Construction

Section Tested: none

Date Placed & Time	Station		Concrete Temp	Air Temp	Average Concrete Temp	Average Air Temp
	From	To				
8/17/84 7:00	737+60	747+67	80	62		
8/17/84 9:00	747+59	768+00	76	68		
8/17/84 11:00			80	70		
8/17/84 13:15			80	84		
8/17/84 14:40			78	78		
8/17/84 16:45			80	82	79	74
8/20/84 7:15	687+63	734+66	70	44		
8/20/84 9:00			70	60		
8/20/84 10:45			76	77		
8/20/84 13:00			76	75		
8/20/84 15:00			78	76		
8/20/84 17:00			80	77	75	66
8/21/84 7:15	687+63	654+06	70	56		
8/21/84 9:10	737+60 (OL)	736+81(OL)	70	66		
8/21/84 11:00	735+49 (OL)	734+66 (OL)	73	74		
8/21/84 12:50			76	82	72	70
8/22/84 7:15	626+65	654+06	74	70		
8/22/84 9:00	736+84 (IL)	737+66 (IL)	74	70		
8/22/84 11:15	734+66 (IL)	735+45 (IL)	76	76		
8/22/84 15:00			76	82	75	75
9/6/84 7:30	621+53	588+32	60	46		
9/6/84 9:45	585+48	575+64	64	64		
9/6/84 12:15			70	72		
9/6/84 14:45			72	78	67	65
9/13/84 9:30	588+32	587+50	70	70		
9/13/84 12:00	588+48	586+30	72	80		
9/13/84 14:00	575+64	574+36	74	80	72	77
9/17/84 0:00	622+42	623+22				
	624+20	624+98				
9/19/84 0:00	575+64	574+36				
	585+48	586+29				
	588+32	587+50				
9/21/84 13:00	585+48	586+29	66	72		
9/21/84 15:00	587+92	587+53	68	79		
	583+61	584+32			67	76
10/2/84 10:00	571+48	578+52	60	60		
10/2/84 12:00	622+80	623+39	60	63		
10/2/84 15:00	624+18	624+99	62	66	61	63

Average	71	71	71
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Review of Historical Records

Control Section 47065-28215A EB and WB

Contractor for Paving: Interstate Highway Construction Inc.

- Typical Mix Design:

Strength: 35P

Air Content: 6.5%

<u>Materials</u>	<u>Type</u>	<u>Supplier</u>	<u>Batch Weights</u>
Cement	Type I	Essroc (Windsor)	480 lbs
Fine Aggregate	2NS	Houghton Pit No. 47-6	1528 lbs
Coarse Aggregate	6AA	Levy (Dix) Slag Pit No. 82-19	1419 lbs
Water			246 lbs
Air Entrainer		N/A	
Water Reducer		N/A	
Fly Ash	Class C U.S. Ash	Bayshore	72 lbs

Base Course: Westbound 680+00 to 686+00 3G Slag, Westbound 785+55 to 796+00 350AA Limestone, 820+65 to 829+84 350AA Slag, Eastbound 3G slag from West end of job to I-96 Business Loop, and from I-96 Business Loop to East end of job 3G Limestone

Review of Historical Records

Control Section 77024-20821A Section A EB Contractor for Paving: Denton Construction

- Typical Mix Design:

Strength: 35P

Slump: 1 to 3"

Air Content: 5 to 8%

<u>Materials</u>	<u>Type</u>	<u>Supplier</u>	<u>Batch Weights</u>
Cement	Type I	SME	526 lbs
Fine Aggregate	2NS	Vannini Pit 44-63	1628 lbs
Coarse Aggregate	6AA	Presque Isle Stone Pit 71-47	1649 lbs
Water			156 lbs
Air Entrainer		MBVR Master Builders	0.7 oz/sack
Water Reducer		MBL-82 Master Builders	5 oz/sack
Fly Ash			72 lb/cyd

- Base Course: 8G from Pit No. 58-8 Rockwood and Pit No. 71-3 Michigan Lime and Chemical, Specified 4" thick.
- Subbase: Class II Granular Sand , specified minimum 8" thick.
- RQI after construction: WBOL 42, WBIL 44, EBIL 39, EBOL 39.
- Some problems in adding fly ash at portable batch plant.

Concrete Temperature At Placement

Control Section# 77024-20821A Section A EB

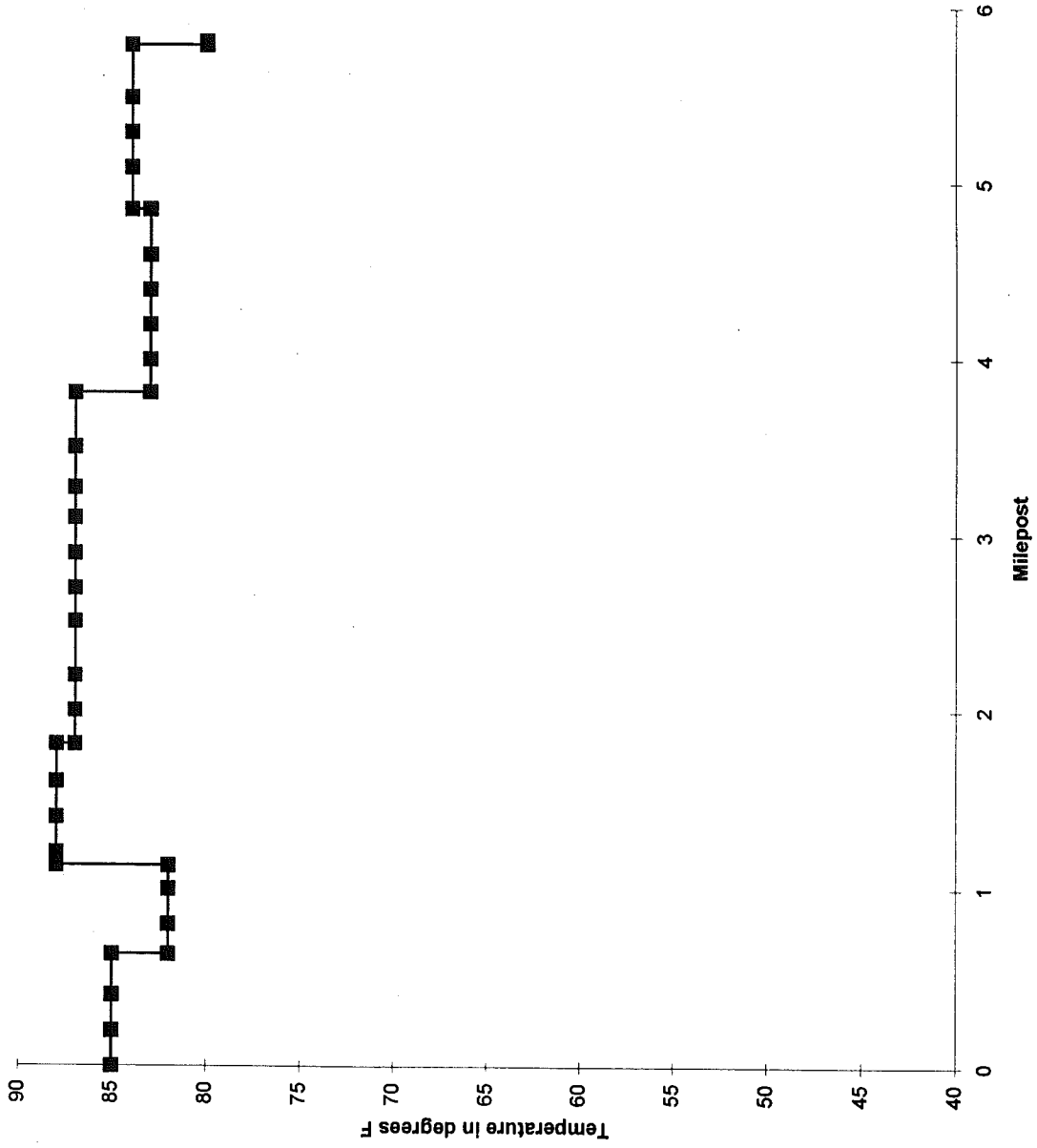
Contractor: Denton Construction

Section Tested: 83+90 to 90+12

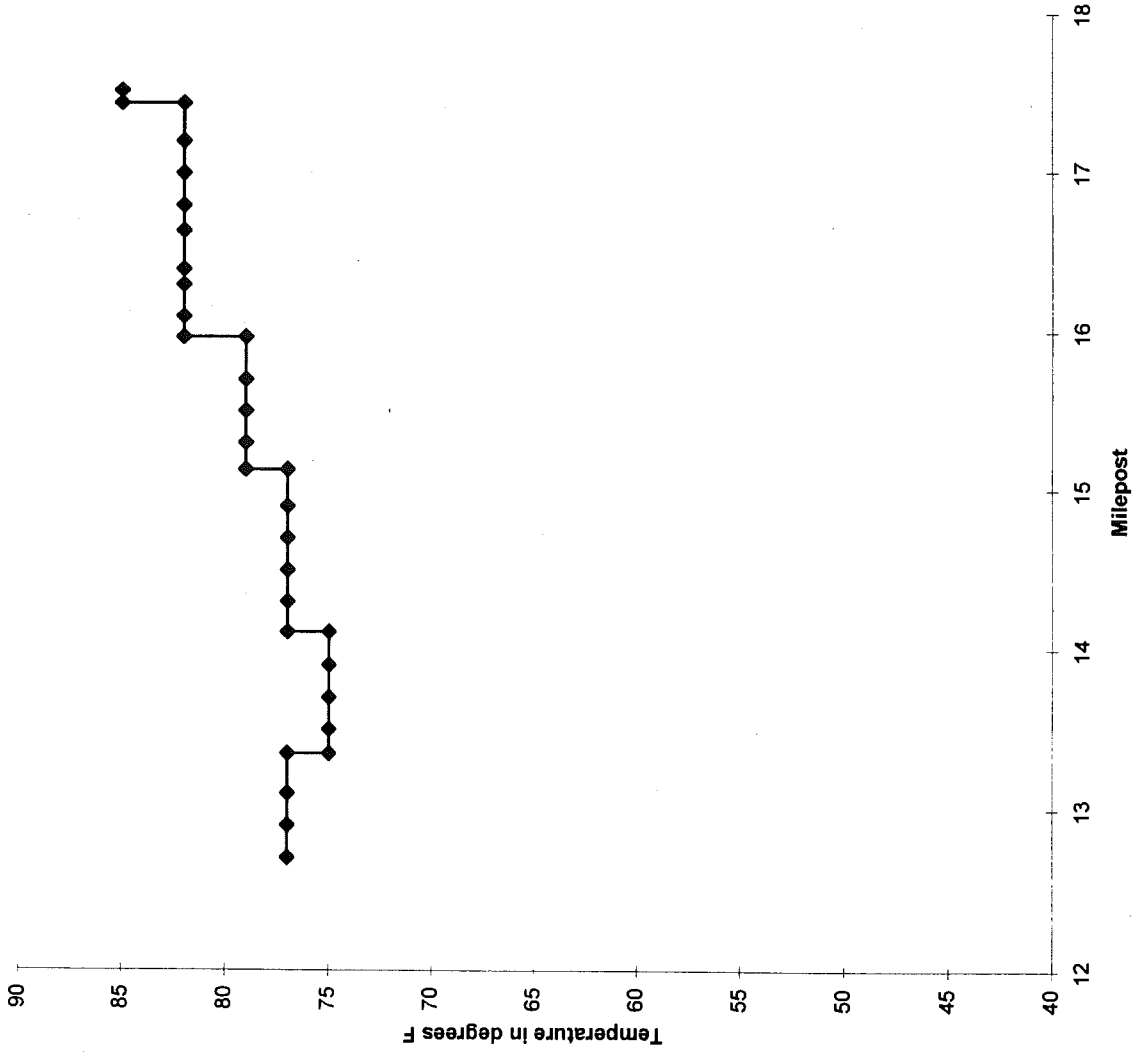
Date Placed & Time	Station		Milepost		Concrete Temp	Air Temp	Average Concrete Temp	Average Air Temp
	From	To	From	To				
8/10/83 10:00	321+27	322+10	5.808	5.824	80	65	80	65
7/26/83 7:30	271+30	321+27	4.861	5.808	80	59		
7/26/83 8:20	1452+30	1453+51	16.620	16.643				
7/26/83 8:45	1450+16	1451+36	16.580	16.603				
7/26/83 12:30					85	85		
7/26/83 15:00					85	84		
7/26/83 17:00					86	85	84	78
7/25/83 7:00	215+93	271+30	3.813	4.861	80	61		
7/25/83 8:45					81	67		
7/25/83 10:00								
7/25/83 12:20					84	76		
7/25/83 15:30					85	83		
7/25/83 17:30					85	83	83	74
7/21/83 7:00	187+65	215+93	3.277	3.813	85	73		
7/21/83 10:00					88	80		
7/21/83 12:00					87	85	87	79
7/20/83 7:30	147+55	187+65	2.518	3.277	87	73		
7/20/83 10:00	1450+16	1451+36	16.580	16.603	88	80		
7/20/83 12:00					87	83		
7/20/83 14:00					87	88	87	81
7/19/83 7:30	110+25	147+55	1.811	2.518	83	69		
7/19/83 8:00	1452+30	1453+51	16.620	16.643				
7/19/83 9:30					87	80		
7/19/83 11:30					88	80		
7/19/83 13:30					88	89		
7/19/83 15:30					88	90		
7/19/83 17:30					89	92	87	83
7/18/83 7:30	74+57	110+25	1.135	1.811	87	70		
7/18/83 10:30					88	85		
7/18/83 12:30					88	81		
7/18/83 14:30					89	86	88	81

Date Placed & Time	Station		Milepost		Concrete Temp	Air Temp	Average Concrete Temp	Average Air Temp
	From	To	From	To				
7/13/83 7:30	47+92	74+57	0.631	1.135	80	65		
7/13/83 9:30					82	75		
7/13/83 11:30					83	82		
7/13/83 13:30					84	87	82	77
7/12/83 7:30	10+00	47+92	0.000	0.631	83	75		
7/12/83 8:00								
7/12/83 8:30	1495+73	1500+00	17.443	17.524	83	78		
7/12/83 10:30	**				85	83		
7/12/83 12:30					85	87		
7/12/83 14:30					88	88		
7/12/83 16:30					87	88	85	83
7/11/83 7:30	1453+51	1495+73	16.643	17.443	79	69		
7/11/83 9:30					79	72		
7/11/83 11:30					83	80		
7/11/83 13:30					84	88		
7/11/83 15:30					87	90	82	80
7/9/83 7:30	1414+98	1450+16	15.977	16.643	79	67		
7/9/83 8:30								
7/9/83 10:30					82	75		
7/9/83 12:30					84	80		
7/9/83 15:00					84	84	82	77
7/8/83 7:30	1370+34	1414+98	15.132	15.977	77	68		
7/8/83 9:30					77	70		
7/8/83 12:00					78	72		
7/8/83 14:00					81	80		
7/8/83 17:00					83	84	79	75
7/7/83 7:30	1316+62	1370+34	14.114	15.132	70	54		
7/7/83 9:30					77	73		
7/7/83 11:30					78	73		
7/7/83 12:00								
7/7/83 14:00					79	82		
7/7/83 14:30								
7/7/83 16:30					80	80	77	72
7/6/83 7:30	1276+44	1316+62	13.353	14.114	68	52		
7/6/83 10:30					77	61		
7/6/83 13:00					76	71		
7/6/83 15:30					77	70	75	64
7/5/83 8:30	1247+10	1276+44	12.734	13.353	77	63		
7/5/83 10:30					77	62		
7/5/83 12:30					80	64		
7/5/83 15:00					75	62	77	63
Average					82	75	82	75

Average Concrete Placement Temperature vs Milepost 77024-20821A Section A EB



Average Placement Concrete Temperature vs. Milepost 77024-20821A Section A EB



Concrete Temperature At Placement

Control Section# 77024-20821A Section A WB

Contractor: Denton Construction

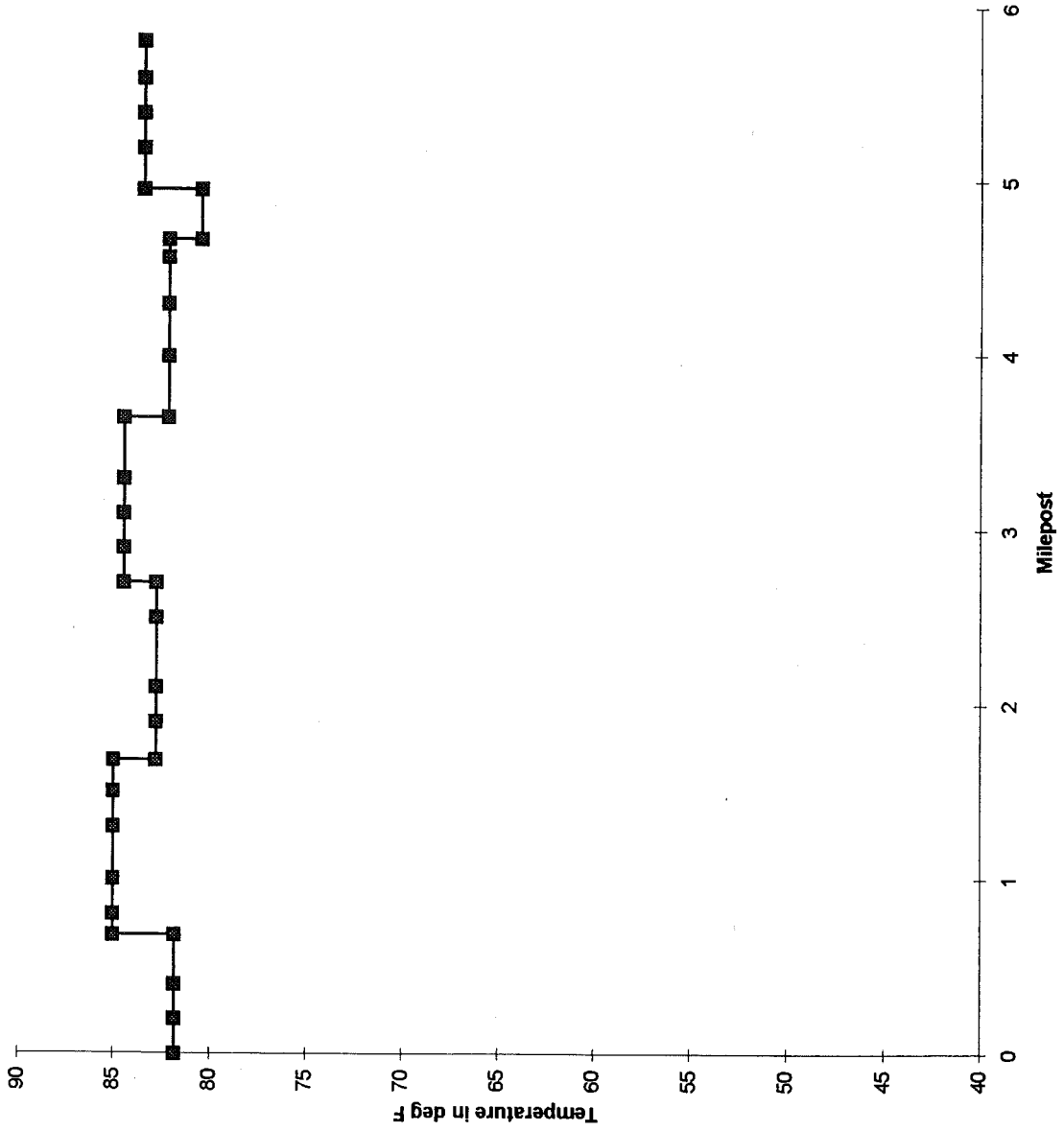
Section Tested: none

Date Placed	Station		Milepost		Concrete Temp	Air Temp	Average Concrete Temp	Average Air Temp
	From	To	From	To				
6/20/83	1247+10	1261+25	12.706	12.973992	82	75		
					82	80	82	77.5
6/21/83	1261+25	1289+11	12.97399	13.501644	80	60		
					80	76		
					81	84		
					85	90		
					86	92	82.4	80.4
6/23/83	1317+11	1355+25	14.03195	14.754295	80	65		
					85	84		
					85	88		
					87	90		
					88	90	85	83.4
6/24/83	1355+25	1390+30	14.7543	15.418121	80	64		
					79	75		
					82	83		
					81	84		
					81	84	80.6	78
6/25/83	1390+30	1421+53	15.41812	16.009598	77	64		
					80	76		
					81	80		
					81	86	79.8	76.5
6/30/83	1421+53	1450+00	16.0096	16.548803	77	68		
					79	78		
					82	85		
					82	88	80	79.8

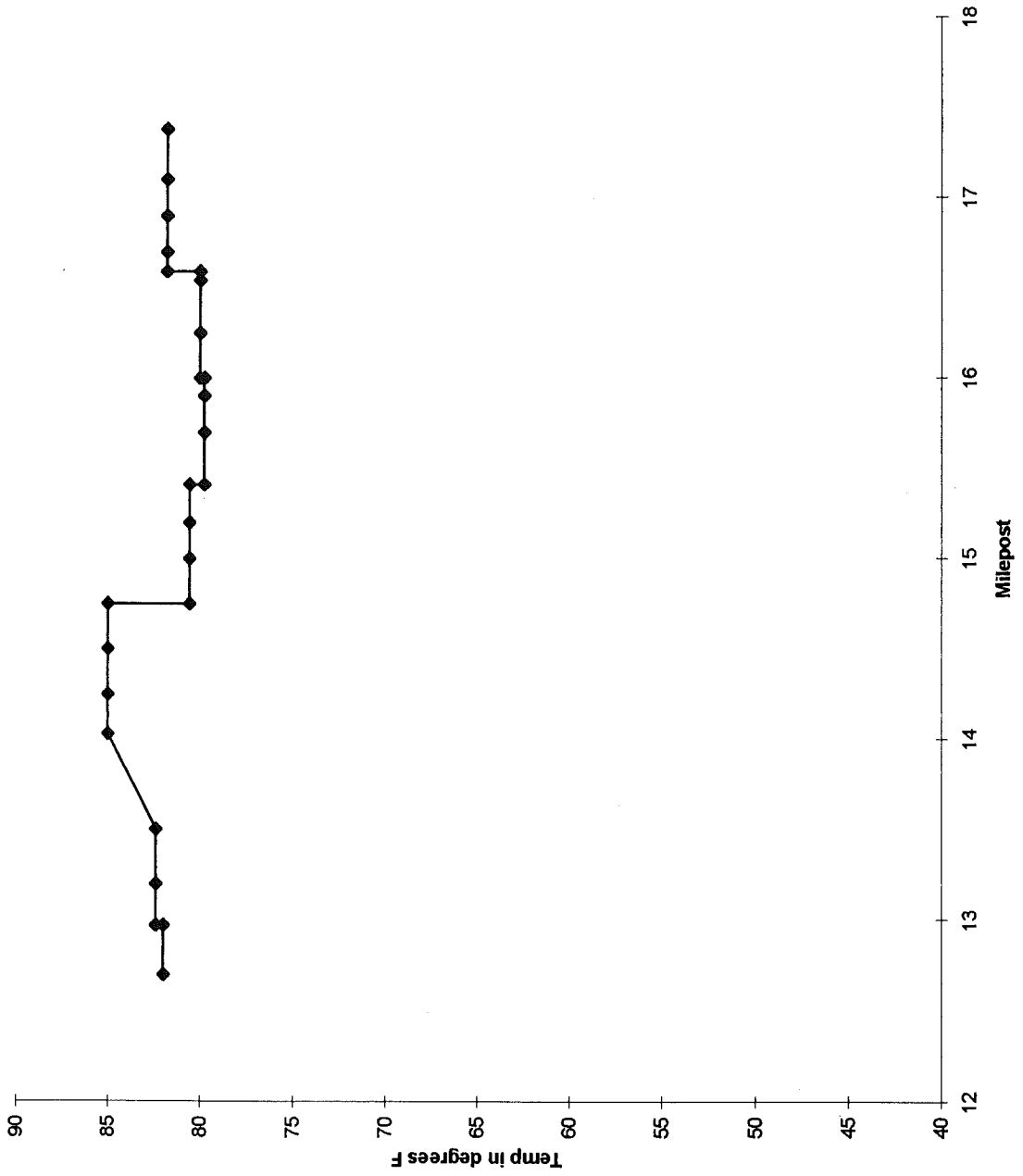
Date Placed	Station		Milepost		Concrete Temp	Air Temp	Average Concrete Temp	Average Air Temp
	From	To	From	To				
7/1/83	1452+55	1494+12	16.5971	17.384409	80	76		
					80	79		
					82	83		
					84	88		
7/7/83	1451+75	1452+55	16.58195	16.597098	83	85	81.8	82.2
	1450+00	1450+80	16.5488	16.563955	70	54		
					77	73		
					78	73		
					79	82		
					80	80	76.8	72.4
7/19/83	1451+75	1452+55	16.58195	16.597098	83	69		
	1450+00	1450+80	16.5488	16.563955	87	80		
					88	80		
					88	89		
					89	90		
7/27/83	321+81	276+70	5.817871	4.9635152	89	92	87.3	83.3
					76	64		
					83	78		
					87	88		
					88	88	83.5	79.5
7/28/83	276+70	261+54	4.963515	4.676394	80	70		
					81	73	80.5	71.5
8/2/83	261+54	207+38	4.676394	3.650636	78	67		
					80	75		
					85	80		
					85	80		
					83	80	82.2	76.4
8/3/83	207+38	157+54	3.650636	2.706697	83	70		
					83	76		
					83	80		
					86	85		
					86	86		
					86	86	84.5	80.5
8/5/83	157+54	103+80	2.706697	1.688894	81	69		
					82	71		
					82	76		
					86	84		
					83	82		
8/8/83	103+80	50+55	1.688894	0.6803712	83	78	82.8	76.7
					78	70		
					84	82		
					87	90		
					88	91		
					88	92	85	85
8/9/83	50+55	1494+12	0.680371	17.384409	77	60		
					80	72		
					83	74		
					85	77		
					84	82	81.8	73
8/10/83	321+81	322+89	5.817871	5.839	80	65	80	65

Average	82	78
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Average Concrete Placement Temperature vs. Milepost 77024-20821A Section A WB



Average Concrete Placement Temperature vs. Milepost 77024A-20821A Section A WB



Review of Historical Records

Control Section 77024-17988A Section B EB Contractor for Paving: John Carlo Inc.

- Typical Mix Design:

Strength: 35P

Slump: 1 to 3"

Air Content: 5 to 8%

<u>Materials</u>	<u>Type</u>	<u>Supplier</u>	<u>Batch Weights</u>
Cement	Type I	Dundee and SME	526 lbs
Fine Aggregate	2NS	Holloway S&G Pit 44-67	1590lbs
Coarse Aggregate	6A	Michigan Lime and Chemical Pit 71-3	1650 lbs
Water			154 lbs
Air Entrainer		Daravair WR Grace	0.5 oz/sack
Water Reducer		WRDA, WR Grace	5 oz/sack

- Base Course: 8G from Pit No. 71-3 Michigan Lime and Chemical (shipped over from 77023-21586A). Base course specified 4" thick.
- Subbase: Class II granular material, specified minimum 9" thick.
- 1450 lineal feet of subbase on 433+00 to 447+50 WB did not meet specification and was removed.
- 1100 lineal feet of subbase on (484+00 to 495+00) EB did not meet specification (high loss on wash) bad areas were removed and other areas were disked in with new good material.
- Some minor spalls needed patching on entire WB.
- Numerous drainage outlets were damaged during construction and needed repair.

Control Section# 77024-17988A Section B EB

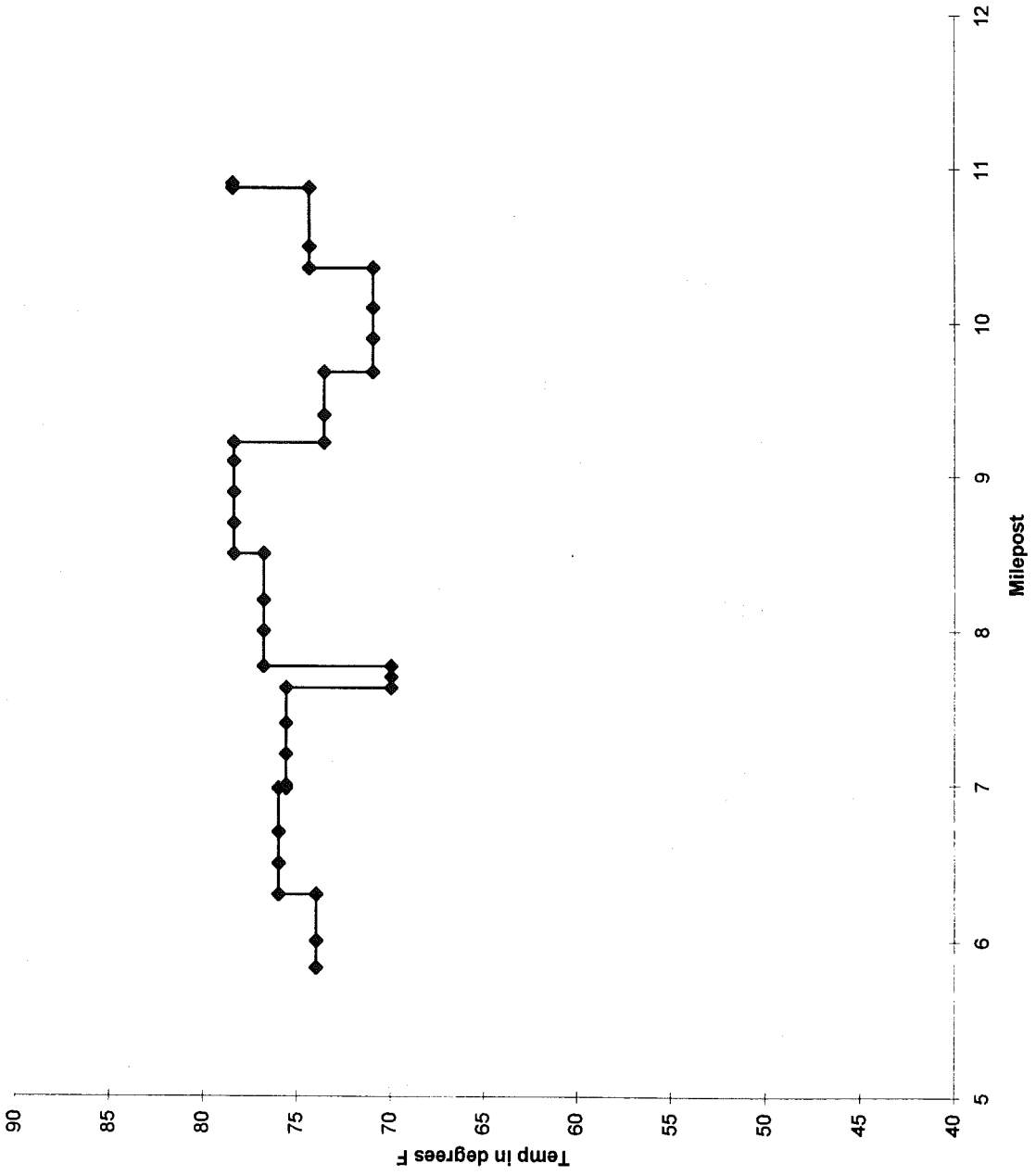
Concrete Temperature At Placement
 Contractor: John Carlo Inc.

Section Tested: 408+06 to 418+29

Date	Station		Milepost		Concrete Placement Temp	Air Temp	Average Concrete Temp	Average Air Temp
	From	To	From	To				
6/11/84	1515+00	1505+58	11.480	11.291	72	70		
					74	74	73	73
6/13/84	1505+58	1486+00	11.291	10.920	78	72		
	591+21	589+49	10.920	10.887	78	74		
					78	80		
					78	84		
					79	86		
					80	88	79	81
6/14/84	589+49	562+03	10.887	10.368	74	66		
					76	72		
					76	72		
					72	68		
					74	66	74	69
6/15/84	562+03	526+00	10.368	9.686	67	52		
					68	60		
					68	60		
					68	70		
					71	70		
					75	73		
					74	70		
					74	70		
					74	66	71	66
6/16/84	526+00	501+80	9.686	9.227	68	52		
					71	68		
					74	68		
					76	73		
					79	80	74	68

Date	Station		Milepost		Concrete Placement Temp	Air Temp	Average Concrete Temp	Average Air Temp	
	From	To	From	To					
6/20/84	501+80	465+75	9.227	8.545	75	63			
					75	70			
					75	70			
					82	75			
					82	75			
					80	78			
					80	75	78	72	
6/21/84	465+75	425+25	8.545	7.778	69	56			
					74	72			
					80	74			
					82	82			
					78	78			
					78	78	77	73	
6/22/84	425+25	417+47	7.778	7.630	70	60			
					70	62	70	61	
6/25/84	417+47	383+46	7.630	6.986	70	58			
					75	68			
					77	77			
					78	80			
					78	77	76	72	
6/26/84	383+46	347+48	6.986	6.305	68	56			
					76	70			
					76	71			
					78	74			
					78	74			
					80	78			
					76	74	76	71	
6/27/84	347+48	322+90	6.305	5.839	74	64			
					74	68			
					72	68			
					76	74	74	69	
Average							75	70	70

Average Concrete Placement Temp vs Milepost 77024-17988A Section B EB



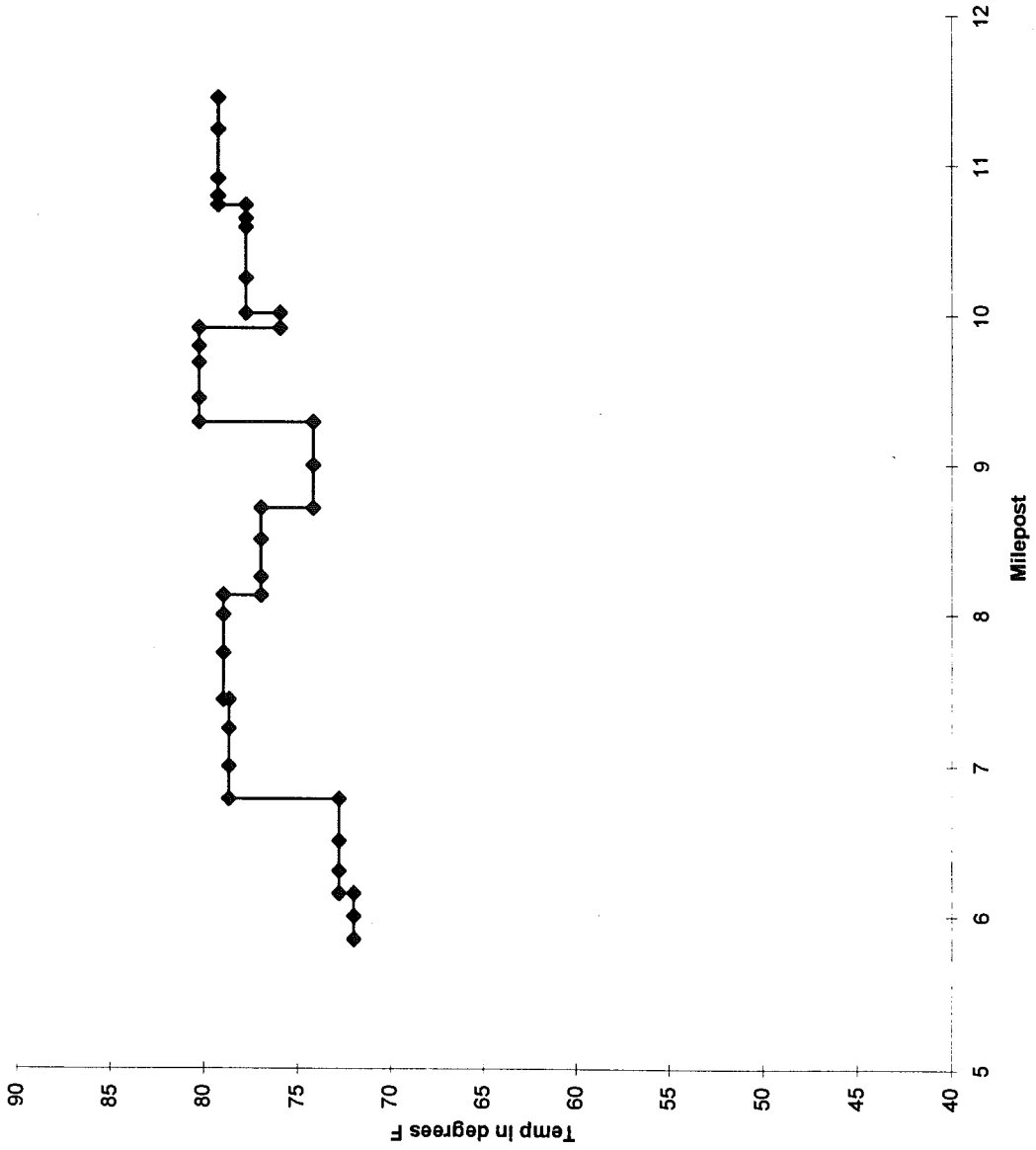
Control Section# 77024-17988A Section B WB

Concrete Temperature At Placement
 Contractor: John Carlo Inc.

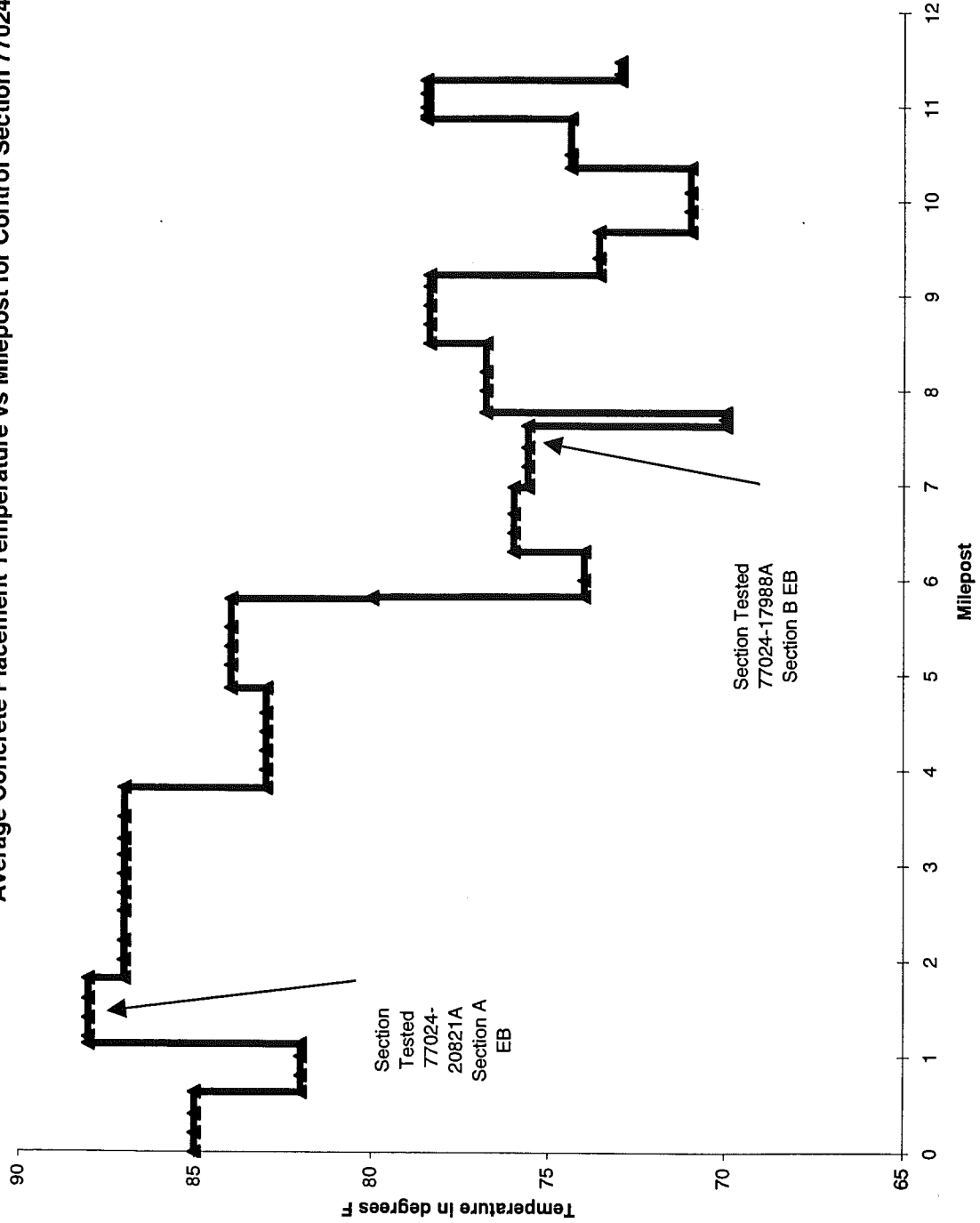
Section Tested: none

Date	Station		Milepost		Concrete Placement Temp	Air Temp	Average Concrete Temp	Average Air Temp	
	From	To	From	To					
6/28/84	323+55	339+52	5.852	6.154	66	62			
					74	70			
6/29/84	339+52	372+63	6.154	6.782	69	73	72	68	
					71	60			
					71	64			
					75	66			
					76	66			
7/2/84	372+63	407+55	6.782	7.442	75	69	73	65	
					75	66			
					75	74			
					76	75			
					81	82			
					82	85			
					82	82			
7/3/84	407+55	444+36	7.442	8.140	80	78	79	77	
					75	65			
					77	74			
					77	82			
					82	85			
					82	85			
7/5/84	444+36	474+56	8.140	8.713	81	84	79	79	
					76	70			
					80	82			
					78	75			
					75	75			
7/9/84	474+56	505+40	8.713	9.296	78	72	77	73	
					72	68			
					73	72			
					72	74			
					76	74			
					76	74			
7/10/84	505+40	526+37	9.296	9.693	76	74	74	73	
					74	67			
	527+15	538+55	9.707	9.923	76	74			
					82	76			
					82	83			
					82	91			
7/11/84	538+55	543+88	9.923	10.024	86	91	80	80	
7/12/84	543+88	574+05	10.024	10.596	76	67	76	67	
	574+17	582+10	10.598	10.748	75	71			
					78	76			
					82	80			
					80	84			
7/13/84	582+10	591+21	10.748	10.921	80	82	78	76	
	1486+00	1515+00	10.921	11.470	73	65			
					78	72			
					82	84			
					84	90	79	78	
Average							77	74	

Average Concrete Placement Temp vs. Milepost 77024-17988A Section B WB



Average Concrete Placement Temperature vs Milepost for Control Section 77024 EB



APPENDIX F

Pavement Management System (PMS) and Ride Quality Index (RQI) Data

Appendix F. Pavement Management System (PMS) and Ride Quality Index (RQI) Data

This appendix contains PMS and RQI data. A summary table using 1995 PMS data is provided for each of the control sections tested. This table gives the distress index for every tenth of a mile of the control section. Even though testing in this study was normally only conducted over one tenth of one mile, the PMS is provided for the entire control section so that comparisons can be made. Additionally, the performance of two or more jobs within one control section can be compared. A plot of distress index vs. milepost is then provided for each control section. PMS data was only available for the older sections studied. The new construction sections at CSN# 11017, 47065, and 82291 do not have PMS data.

Also in this appendix is RQI data for each year from 1992 to 1995. A summary table is provided for all of the older control sections tested. Again, the new construction sections do not have data available. The summary tables provide the 1992 through 1995 RQI distress index points for every one tenth of a mile. Also in each of these summary tables is a column showing the rate of growth of the RQI over time. Plots of RQI vs. milepost and RQI growth rate vs. Milepost were then made for each of the control sections. The variation within in a job and within a control section can be observed.

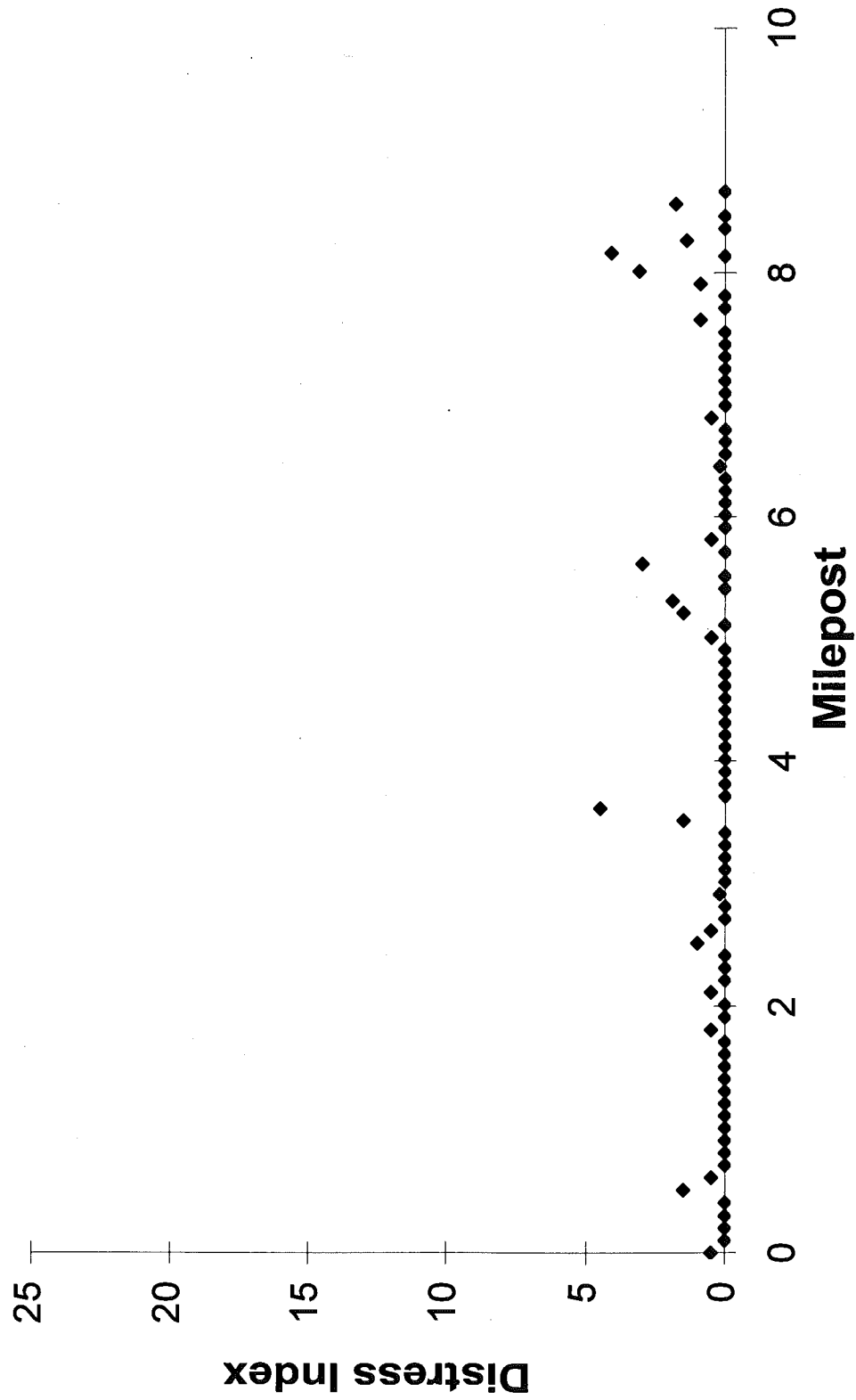
Interstate	Control Section	Direction	Distress Index
I-69	19042	EB	0.4
	19042	WB	0.4
	19043	EB	4.6
	19043	WB	3.3
I-475	25132	NB	9.6
	25132	SB	11.2
I-69	44044	EB	1.3
	44044	WB	2.6
	77023	EB	8.1
	77023	WB	7.6
	77024	EB	1.9
	77024	WB	1.4

Interstate	Control Section	Job Number	Direction	Distress Index
I-69	19042	02233A	EB	0.472
	19042	24680A	EB	0.328
	19043	02234A	EB	1.32
	19043	02234A	WB	4.22
I-475	25132	06582A	SB	3.16
I-69	44044	18804A	WB	0.883
	77023	21586A	EB	3.96
	77024	17988A	EB	3.25
	77024	20821A	EB	0.448

District 5 Control Section:	I-69 EB 19042		TAPE ID=95-35-08			BMP=00.000		DI=0.4
			Milepost:	0 to 8.797		No. of Segments:	88	
MP:	0	-	0.1	LANE	1	RIGID	DI=	0.5
MP:	0.1	-	0.2	LANE	1	RIGID	DI=	0
MP:	0.2	-	0.3	LANE	1	RIGID	DI=	0
MP:	0.3	-	0.406	LANE	1	RIGID	DI=	0
MP:	0.406	-	0.511	LANE	0	BRIDGE	DI=	0
MP:	0.511	-	0.611	LANE	1	RIGID	DI=	1.5
MP:	0.611	-	0.711	LANE	1	RIGID	DI=	0.5
MP:	0.711	-	0.811	LANE	1	RIGID	DI=	0
MP:	0.811	-	0.911	LANE	1	RIGID	DI=	0
MP:	0.911	-	1.011	LANE	1	RIGID	DI=	0
MP:	1.011	-	1.111	LANE	1	RIGID	DI=	0
MP:	1.111	-	1.211	LANE	1	RIGID	DI=	0
MP:	1.211	-	1.311	LANE	1	RIGID	DI=	0
MP:	1.311	-	1.411	LANE	1	RIGID	DI=	0
MP:	1.411	-	1.511	LANE	1	RIGID	DI=	0
MP:	1.511	-	1.611	LANE	1	RIGID	DI=	0
MP:	1.611	-	1.711	LANE	1	RIGID	DI=	0
MP:	1.711	-	1.811	LANE	1	RIGID	DI=	0
MP:	1.811	-	1.911	LANE	1	RIGID	DI=	0.5
MP:	1.911	-	2.011	LANE	1	RIGID	DI=	0
MP:	2.011	-	2.111	LANE	1	RIGID	DI=	0
MP:	2.111	-	2.211	LANE	1	RIGID	DI=	0.5
MP:	2.211	-	2.311	LANE	1	RIGID	DI=	0
MP:	2.311	-	2.411	LANE	1	RIGID	DI=	0
MP:	2.411	-	2.511	LANE	1	RIGID	DI=	0
MP:	2.511	-	2.611	LANE	1	RIGID	DI=	1
MP:	2.611	-	2.711	LANE	1	RIGID	DI=	0.5
MP:	2.711	-	2.811	LANE	1	RIGID	DI=	0
MP:	2.811	-	2.911	LANE	1	RIGID	DI=	0
MP:	2.911	-	3.011	LANE	1	RIGID	DI=	0.2
MP:	3.011	-	3.111	LANE	1	RIGID	DI=	0
MP:	3.111	-	3.211	LANE	1	RIGID	DI=	0
MP:	3.211	-	3.311	LANE	1	RIGID	DI=	0
MP:	3.311	-	3.411	LANE	1	RIGID	DI=	0
MP:	3.411	-	3.511	LANE	1	RIGID	DI=	0
MP:	3.511	-	3.611	LANE	1	RIGID	DI=	1.5
MP:	3.611	-	3.711	LANE	1	RIGID	DI=	4.5
MP:	3.711	-	3.811	LANE	1	RIGID	DI=	0
MP:	3.811	-	3.911	LANE	1	RIGID	DI=	0
MP:	3.911	-	4.011	LANE	1	RIGID	DI=	0
MP:	4.011	-	4.111	LANE	1	RIGID	DI=	0
MP:	4.111	-	4.211	LANE	1	RIGID	DI=	0
MP:	4.211	-	4.311	LANE	1	RIGID	DI=	0
MP:	4.311	-	4.411	LANE	1	RIGID	DI=	0
MP:	4.411	-	4.511	LANE	1	RIGID	DI=	0
MP:	4.511	-	4.611	LANE	1	RIGID	DI=	0
MP:	4.611	-	4.711	LANE	1	RIGID	DI=	0
MP:	4.711	-	4.811	LANE	1	RIGID	DI=	0

MP:	4.811	-	4.911	LANE	1	RIGID	DI=	0
MP:	4.911	-	5.011	LANE	1	RIGID	DI=	0
MP:	5.011	-	5.111	LANE	1	RIGID	DI=	0.5
MP:	5.111	-	5.211	LANE	1	RIGID	DI=	0
MP:	5.211	-	5.311	LANE	1	RIGID	DI=	1.5
MP:	5.311	-	5.411	LANE	1	RIGID	DI=	1.9
MP:	5.411	-	5.511	LANE	1	RIGID	DI=	0
MP:	5.511	-	5.611	LANE	1	RIGID	DI=	0
MP:	5.611	-	5.711	LANE	1	RIGID	DI=	3
MP:	5.711	-	5.811	LANE	1	RIGID	DI=	0
MP:	5.811	-	5.911	LANE	1	RIGID	DI=	0.5
MP:	5.911	-	6.011	LANE	1	RIGID	DI=	0
MP:	6.011	-	6.111	LANE	1	RIGID	DI=	0
MP:	6.111	-	6.211	LANE	1	RIGID	DI=	0
MP:	6.211	-	6.311	LANE	1	RIGID	DI=	0
MP:	6.311	-	6.411	LANE	1	RIGID	DI=	0
MP:	6.411	-	6.511	LANE	1	RIGID	DI=	0.2
MP:	6.511	-	6.611	LANE	1	RIGID	DI=	0
MP:	6.611	-	6.711	LANE	1	RIGID	DI=	0
MP:	6.711	-	6.811	LANE	1	RIGID	DI=	0
MP:	6.811	-	6.911	LANE	1	RIGID	DI=	0.5
MP:	6.911	-	7.011	LANE	1	RIGID	DI=	0
MP:	7.011	-	7.111	LANE	1	RIGID	DI=	0
MP:	7.111	-	7.211	LANE	1	RIGID	DI=	0
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MP:	7.311	-	7.411	LANE	1	RIGID	DI=	0
MP:	7.411	-	7.511	LANE	1	RIGID	DI=	0
MP:	7.511	-	7.611	LANE	1	RIGID	DI=	0
MP:	7.611	-	7.711	LANE	1	RIGID	DI=	0.9
MP:	7.711	-	7.811	LANE	1	RIGID	DI=	0
MP:	7.811	-	7.911	LANE	1	RIGID	DI=	0
MP:	7.911	-	8.011	LANE	1	RIGID	DI=	0.9
MP:	8.011	-	8.136	LANE	1	RIGID	DI=	3.1
MP:	8.136	-	8.163	LANE	0	BRIDGE	DI=	0
MP:	8.163	-	8.263	LANE	1	RIGID	DI=	4.1
MP:	8.263	-	8.363	LANE	1	RIGID	DI=	1.4
MP:	8.363	-	8.463	LANE	1	RIGID	DI=	0
MP:	8.463	-	8.563	LANE	1	RIGID	DI=	0
MP:	8.563	-	8.663	LANE	1	RIGID	DI=	1.8
MP:	8.663	-	8.797	LANE	1	RIGID	DI=	0

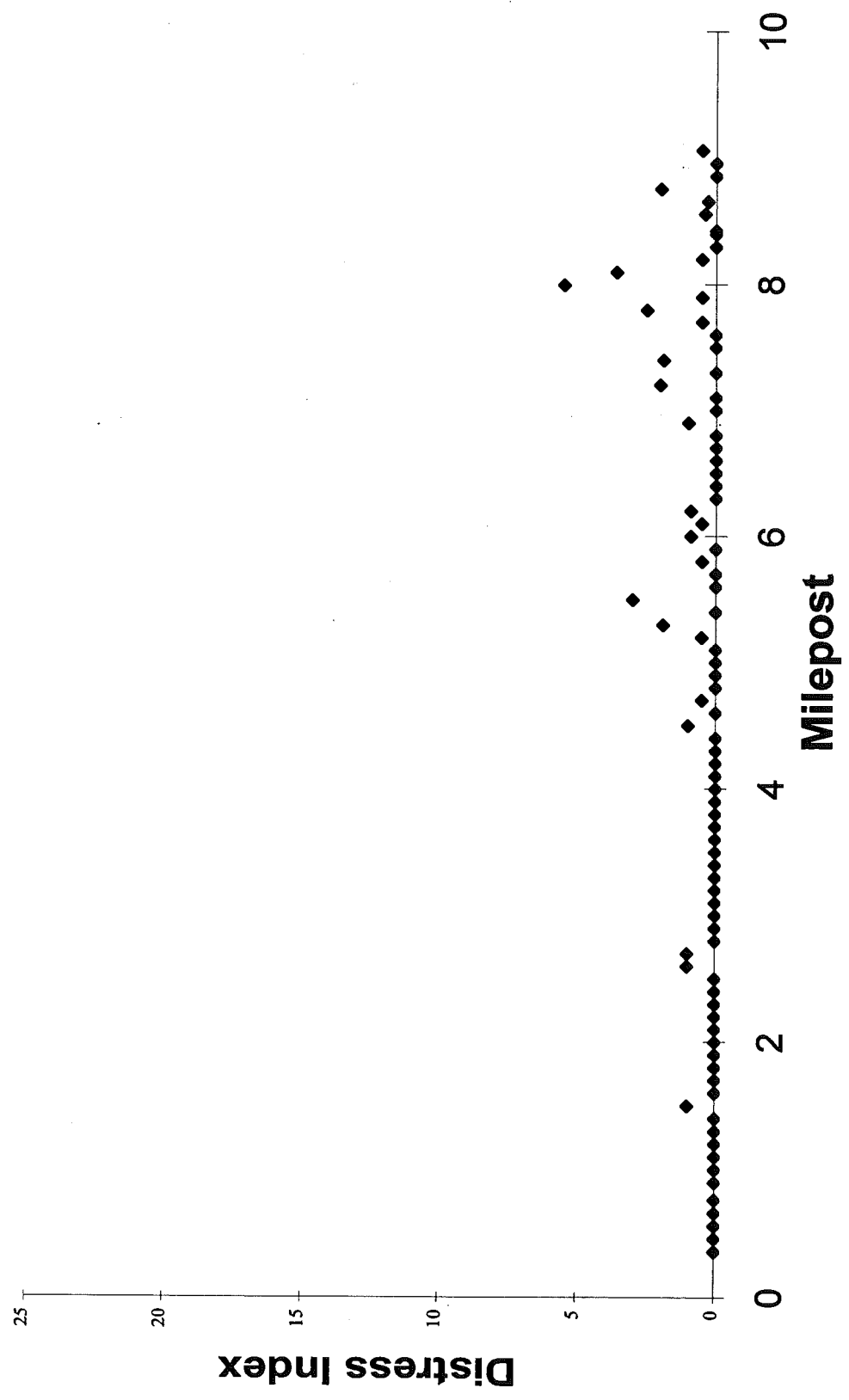
Control Section 19042 Eastbound Distress Index vs. Milepost



District 5 Control Section:	I-69 WB 19042		TAPE ID=95-37-08			BMP=00.000		DI=0.4
			Milepost:	9.056-0.189		No. of Segments:	88	
MP:	9.056	-	8.956	LANE	1	RIGID	DI=	0.5
MP:	8.956	-	8.856	LANE	1	RIGID	DI=	0
MP:	8.856	-	8.756	LANE	1	RIGID	DI=	0
MP:	8.756	-	8.656	LANE	1	RIGID	DI=	2
MP:	8.656	-	8.556	LANE	1	RIGID	DI=	0.3
MP:	8.556	-	8.426	LANE	1	RIGID	DI=	0.4
MP:	8.426	-	8.398	LANE	0	BRIDGE	DI=	0
MP:	8.398	-	8.298	LANE	1	RIGID	DI=	0
MP:	8.298	-	8.198	LANE	1	RIGID	DI=	0
MP:	8.198	-	8.098	LANE	1	RIGID	DI=	0.5
MP:	8.098	-	7.998	LANE	1	RIGID	DI=	3.6
MP:	7.998	-	7.898	LANE	1	RIGID	DI=	5.5
MP:	7.898	-	7.798	LANE	1	RIGID	DI=	0.5
MP:	7.798	-	7.698	LANE	1	RIGID	DI=	2.5
MP:	7.698	-	7.598	LANE	1	RIGID	DI=	0.5
MP:	7.598	-	7.498	LANE	1	RIGID	DI=	0
MP:	7.498	-	7.398	LANE	1	RIGID	DI=	0
MP:	7.398	-	7.298	LANE	1	RIGID	DI=	1.9
MP:	7.298	-	7.198	LANE	1	RIGID	DI=	0
MP:	7.198	-	7.098	LANE	1	RIGID	DI=	2
MP:	7.098	-	6.998	LANE	1	RIGID	DI=	0
MP:	6.998	-	6.898	LANE	1	RIGID	DI=	0
MP:	6.898	-	6.798	LANE	1	RIGID	DI=	1
MP:	6.798	-	6.698	LANE	1	RIGID	DI=	0
MP:	6.698	-	6.598	LANE	1	RIGID	DI=	0
MP:	6.598	-	6.498	LANE	1	RIGID	DI=	0
MP:	6.498	-	6.398	LANE	1	RIGID	DI=	0
MP:	6.398	-	6.298	LANE	1	RIGID	DI=	0
MP:	6.298	-	6.198	LANE	1	RIGID	DI=	0
MP:	6.198	-	6.098	LANE	1	RIGID	DI=	0.9
MP:	6.098	-	5.998	LANE	1	RIGID	DI=	0.5
MP:	5.998	-	5.898	LANE	1	RIGID	DI=	0.9
MP:	5.898	-	5.798	LANE	1	RIGID	DI=	0
MP:	5.798	-	5.698	LANE	1	RIGID	DI=	0.5
MP:	5.698	-	5.598	LANE	1	RIGID	DI=	0
MP:	5.598	-	5.498	LANE	1	RIGID	DI=	0
MP:	5.498	-	5.398	LANE	1	RIGID	DI=	3
MP:	5.398	-	5.298	LANE	1	RIGID	DI=	0
MP:	5.298	-	5.198	LANE	1	RIGID	DI=	1.9
MP:	5.198	-	5.098	LANE	1	RIGID	DI=	0.5
MP:	5.098	-	4.998	LANE	1	RIGID	DI=	0
MP:	4.998	-	4.898	LANE	1	RIGID	DI=	0
MP:	4.898	-	4.798	LANE	1	RIGID	DI=	0
MP:	4.798	-	4.698	LANE	1	RIGID	DI=	0
MP:	4.698	-	4.598	LANE	1	RIGID	DI=	0.5
MP:	4.598	-	4.498	LANE	1	RIGID	DI=	0
MP:	4.498	-	4.398	LANE	1	RIGID	DI=	1
MP:	4.398	-	4.298	LANE	1	RIGID	DI=	0

MP:	4.298	-	4.198	LANE	1	RIGID	DI=	0
MP:	4.198	-	4.098	LANE	1	RIGID	DI=	0
MP:	4.098	-	3.998	LANE	1	RIGID	DI=	0
MP:	3.998	-	3.898	LANE	1	RIGID	DI=	0
MP:	3.898	-	3.798	LANE	1	RIGID	DI=	0
MP:	3.798	-	3.698	LANE	1	RIGID	DI=	0
MP:	3.698	-	3.598	LANE	1	RIGID	DI=	0
MP:	3.598	-	3.498	LANE	1	RIGID	DI=	0
MP:	3.498	-	3.398	LANE	1	RIGID	DI=	0
MP:	3.398	-	3.298	LANE	1	RIGID	DI=	0
MP:	3.298	-	3.198	LANE	1	RIGID	DI=	0
MP:	3.198	-	3.098	LANE	1	RIGID	DI=	0
MP:	3.098	-	2.998	LANE	1	RIGID	DI=	0
MP:	2.998	-	2.898	LANE	1	RIGID	DI=	0
MP:	2.898	-	2.798	LANE	1	RIGID	DI=	0
MP:	2.798	-	2.698	LANE	1	RIGID	DI=	0
MP:	2.698	-	2.598	LANE	1	RIGID	DI=	1
MP:	2.598	-	2.498	LANE	1	RIGID	DI=	1
MP:	2.498	-	2.398	LANE	1	RIGID	DI=	0
MP:	2.398	-	2.298	LANE	1	RIGID	DI=	0
MP:	2.298	-	2.198	LANE	1	RIGID	DI=	0
MP:	2.198	-	2.098	LANE	1	RIGID	DI=	0
MP:	2.098	-	1.998	LANE	1	RIGID	DI=	0
MP:	1.998	-	1.898	LANE	1	RIGID	DI=	0
MP:	1.898	-	1.798	LANE	1	RIGID	DI=	0
MP:	1.798	-	1.698	LANE	1	RIGID	DI=	0
MP:	1.698	-	1.598	LANE	1	RIGID	DI=	0
MP:	1.598	-	1.498	LANE	1	RIGID	DI=	0
MP:	1.498	-	1.398	LANE	1	RIGID	DI=	1
MP:	1.398	-	1.298	LANE	1	RIGID	DI=	0
MP:	1.298	-	1.198	LANE	1	RIGID	DI=	0
MP:	1.198	-	1.098	LANE	1	RIGID	DI=	0
MP:	1.098	-	0.998	LANE	1	RIGID	DI=	0
MP:	0.998	-	0.898	LANE	1	RIGID	DI=	0
MP:	0.898	-	0.763	LANE	1	RIGID	DI=	0
MP:	0.763	-	0.659	LANE	0	BRIDGE	DI=	0
MP:	0.659	-	0.559	LANE	1	RIGID	DI=	0
MP:	0.559	-	0.459	LANE	1	RIGID	DI=	0
MP:	0.459	-	0.359	LANE	1	RIGID	DI=	0
MP:	0.359	-	0.189	LANE	1	RIGID	DI=	0

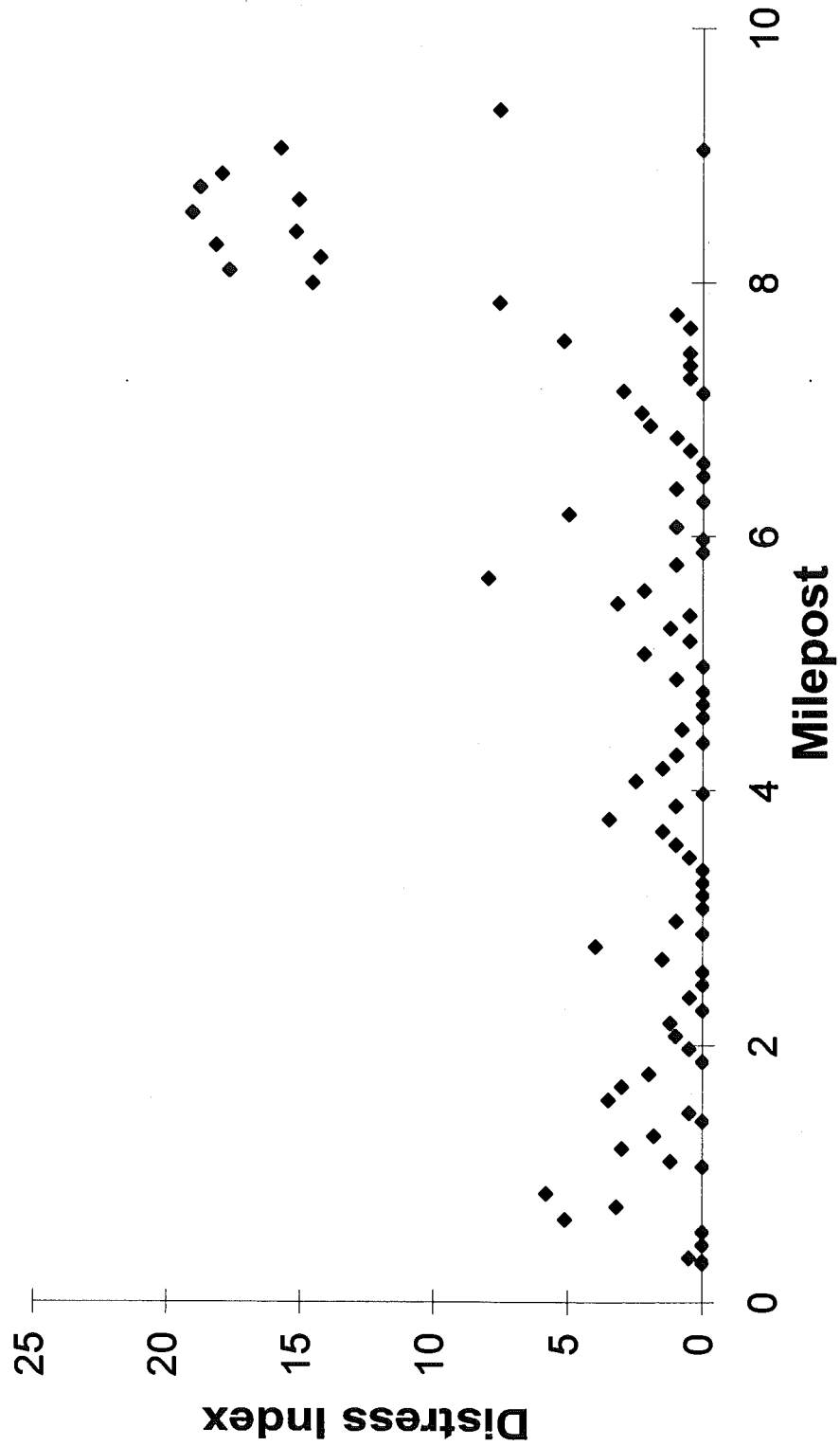
Control Section 19042 Westbound Distress Index vs. Milepost



District 5	I-69 EB		TAPE	ID=95-37-07		BMP=00.001		
Control Section:	19043		Milepost:	0.306-9.506		No. of Segments:	93	DI=4.6
MP:	0.306	-	0.32	LANE	1	RIGID	DI=	0
MP:	0.32	-	0.346	LANE	0	BRIDGE	DI=	0
MP:	0.346	-	0.446	LANE	1	RIGID	DI=	0.5
MP:	0.446	-	0.546	LANE	1	RIGID	DI=	0
MP:	0.546	-	0.646	LANE	1	RIGID	DI=	0
MP:	0.646	-	0.746	LANE	1	RIGID	DI=	5.1
MP:	0.746	-	0.846	LANE	1	RIGID	DI=	3.2
MP:	0.846	-	0.946	LANE	1	RIGID	DI=	5.8
MP:	0.946	-	1.055	LANE	1	RIGID	DI=	25.8
MP:	1.055	-	1.098	LANE	0	BRIDGE	DI=	0
MP:	1.098	-	1.198	LANE	1	RIGID	DI=	1.2
MP:	1.198	-	1.298	LANE	1	RIGID	DI=	3
MP:	1.298	-	1.41	LANE	1	RIGID	DI=	1.8
MP:	1.41	-	1.474	LANE	0	BRIDGE	DI=	0
MP:	1.474	-	1.574	LANE	1	RIGID	DI=	0.5
MP:	1.574	-	1.674	LANE	1	RIGID	DI=	3.5
MP:	1.674	-	1.774	LANE	1	RIGID	DI=	3
MP:	1.774	-	1.874	LANE	1	RIGID	DI=	2
MP:	1.874	-	1.974	LANE	1	RIGID	DI=	0
MP:	1.974	-	2.074	LANE	1	RIGID	DI=	0.5
MP:	2.074	-	2.174	LANE	1	RIGID	DI=	1
MP:	2.174	-	2.274	LANE	1	RIGID	DI=	1.2
MP:	2.274	-	2.374	LANE	1	RIGID	DI=	0
MP:	2.374	-	2.474	LANE	1	RIGID	DI=	0.5
MP:	2.474	-	2.574	LANE	1	RIGID	DI=	0
MP:	2.574	-	2.674	LANE	1	RIGID	DI=	0
MP:	2.674	-	2.774	LANE	1	RIGID	DI=	1.5
MP:	2.774	-	2.874	LANE	1	RIGID	DI=	4
MP:	2.874	-	2.974	LANE	1	RIGID	DI=	0
MP:	2.974	-	3.074	LANE	1	RIGID	DI=	1
MP:	3.074	-	3.174	LANE	1	RIGID	DI=	0
MP:	3.174	-	3.274	LANE	1	RIGID	DI=	0
MP:	3.274	-	3.374	LANE	1	RIGID	DI=	0
MP:	3.374	-	3.474	LANE	1	RIGID	DI=	0
MP:	3.474	-	3.574	LANE	1	RIGID	DI=	0.5
MP:	3.574	-	3.674	LANE	1	RIGID	DI=	1
MP:	3.674	-	3.774	LANE	1	RIGID	DI=	1.5
MP:	3.774	-	3.874	LANE	1	RIGID	DI=	3.5
MP:	3.874	-	3.974	LANE	1	RIGID	DI=	1
MP:	3.974	-	4.074	LANE	1	RIGID	DI=	0
MP:	4.074	-	4.174	LANE	1	RIGID	DI=	2.5
MP:	4.174	-	4.274	LANE	1	RIGID	DI=	1.5
MP:	4.274	-	4.374	LANE	1	RIGID	DI=	1
MP:	4.374	-	4.474	LANE	1	RIGID	DI=	0
MP:	4.474	-	4.574	LANE	1	RIGID	DI=	0.8
MP:	4.574	-	4.674	LANE	1	RIGID	DI=	0
MP:	4.674	-	4.774	LANE	1	RIGID	DI=	0
MP:	4.774	-	4.874	LANE	1	RIGID	DI=	0
MP:	4.874	-	4.974	LANE	1	RIGID	DI=	1
MP:	4.974	-	5.074	LANE	1	RIGID	DI=	0
MP:	5.074	-	5.174	LANE	1	RIGID	DI=	2.2
MP:	5.174	-	5.274	LANE	1	RIGID	DI=	0.5

MP:	5.274	-	5.374	LANE	1	RIGID	DI=	1.2
MP:	5.374	-	5.474	LANE	1	RIGID	DI=	0.5
MP:	5.474	-	5.574	LANE	1	RIGID	DI=	3.2
MP:	5.574	-	5.674	LANE	1	RIGID	DI=	2.2
MP:	5.674	-	5.774	LANE	1	RIGID	DI=	8
MP:	5.774	-	5.874	LANE	1	RIGID	DI=	1
MP:	5.874	-	5.974	LANE	1	RIGID	DI=	0
MP:	5.974	-	6.074	LANE	1	RIGID	DI=	0
MP:	6.074	-	6.174	LANE	1	RIGID	DI=	1
MP:	6.174	-	6.274	LANE	1	RIGID	DI=	5
MP:	6.274	-	6.374	LANE	1	RIGID	DI=	0
MP:	6.374	-	6.474	LANE	1	RIGID	DI=	1
MP:	6.474	-	6.574	LANE	1	RIGID	DI=	0
MP:	6.574	-	6.674	LANE	1	RIGID	DI=	0
MP:	6.674	-	6.774	LANE	1	RIGID	DI=	0.5
MP:	6.774	-	6.874	LANE	1	RIGID	DI=	1
MP:	6.874	-	6.974	LANE	1	RIGID	DI=	2
MP:	6.974	-	7.125	LANE	1	RIGID	DI=	2.3
MP:	7.125	-	7.145	LANE	0	BRIDGE	DI=	0
MP:	7.145	-	7.245	LANE	1	RIGID	DI=	3
MP:	7.245	-	7.345	LANE	1	RIGID	DI=	0.5
MP:	7.345	-	7.445	LANE	1	RIGID	DI=	0.5
MP:	7.445	-	7.545	LANE	1	RIGID	DI=	0.5
MP:	7.545	-	7.645	LANE	1	RIGID	DI=	5.2
MP:	7.645	-	7.745	LANE	1	RIGID	DI=	0.5
MP:	7.745	-	7.845	LANE	1	RIGID	DI=	1
MP:	7.845	-	8.008	LANE	1	RIGID	DI=	7.6
MP:	8.008	-	8.108	LANE	2	RIGID	DI=	14.6
MP:	8.108	-	8.208	LANE	2	RIGID	DI=	17.7
MP:	8.208	-	8.308	LANE	2	RIGID	DI=	14.3
MP:	8.308	-	8.408	LANE	2	RIGID	DI=	18.2
MP:	8.408	-	8.562	LANE	2	RIGID	DI=	15.2
MP:	8.562	-	8.662	LANE	1	RIGID	DI=	19.1
MP:	8.662	-	8.762	LANE	1	RIGID	DI=	15.1
MP:	8.762	-	8.862	LANE	1	RIGID	DI=	18.8
MP:	8.862	-	9.045	LANE	1	RIGID	DI=	18
MP:	9.045	-	9.063	LANE	0	BRIDGE	DI=	0
MP:	9.063	-	9.163	LANE	1	RIGID	DI=	15.8
MP:	9.163	-	9.263	LANE	1	RIGID	DI=	39.7
MP:	9.263	-	9.363	LANE	1	RIGID	DI=	33.1
MP:	9.363	-	9.506	LANE	1	RIGID	DI=	7.6

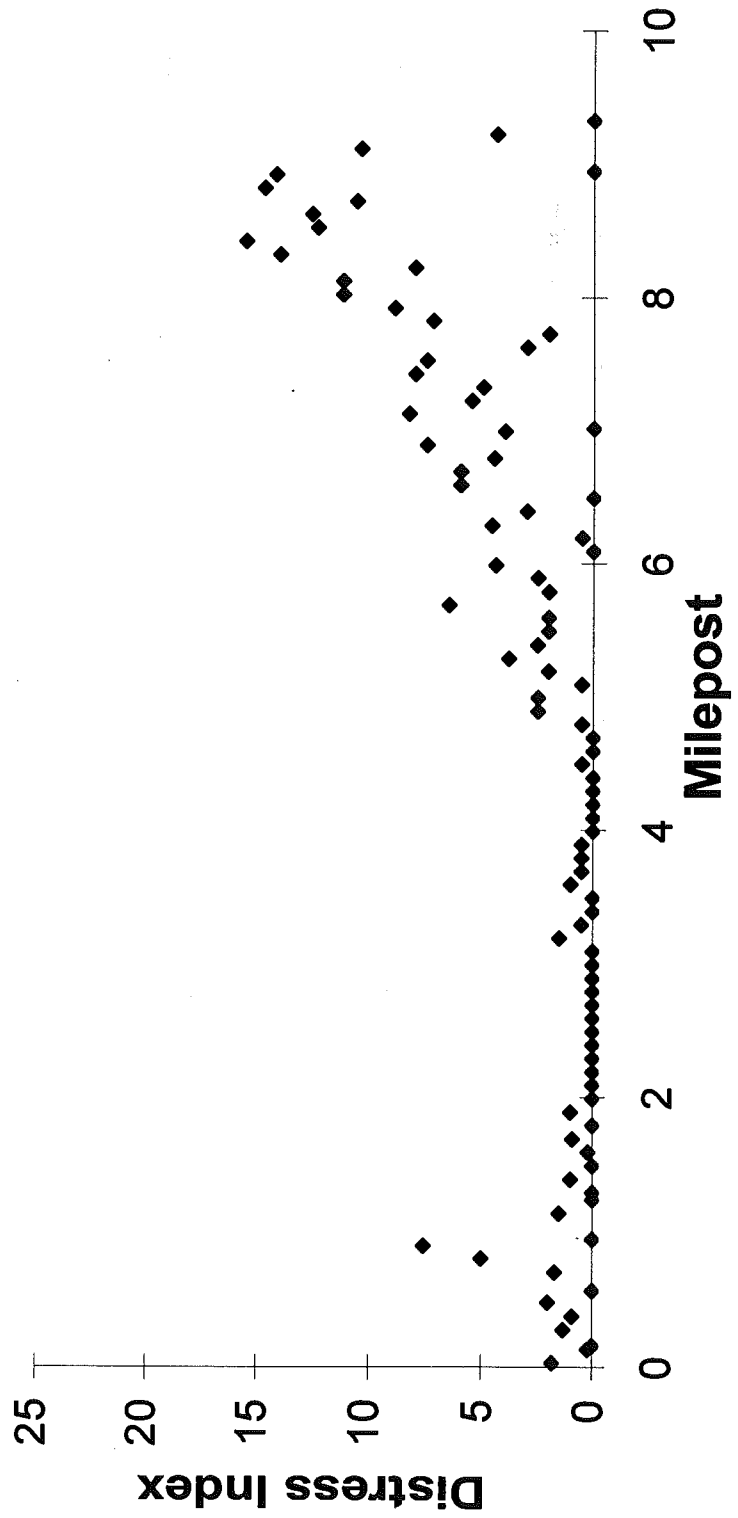
Control Section 19043 Eastbound Distress Index vs Milepost



District 5	I-69 WB		TAPE	ID=95-37-09		BMP=00.000		
Control Section:	19043		Milepost:	9.326--0.172		No. of Segments:	96	3.3
MP:	9.326	-	9.226	LANE	1	RIGID	DI=	0
MP:	9.226	-	9.126	LANE	1	RIGID	DI=	4.4
MP:	9.126	-	8.946	LANE	1	RIGID	DI=	10.4
MP:	8.946	-	8.928	LANE	0	BRIDGE	DI=	0
MP:	8.928	-	8.828	LANE	1	RIGID	DI=	14.2
MP:	8.828	-	8.728	LANE	1	RIGID	DI=	14.7
MP:	8.728	-	8.628	LANE	1	RIGID	DI=	10.6
MP:	8.628	-	8.528	LANE	1	RIGID	DI=	12.6
MP:	8.528	-	8.428	LANE	1	RIGID	DI=	12.3
MP:	8.428	-	8.328	LANE	1	RIGID	DI=	15.5
MP:	8.328	-	8.228	LANE	1	RIGID	DI=	14
MP:	8.228	-	8.128	LANE	1	RIGID	DI=	8
MP:	8.128	-	8.028	LANE	1	RIGID	DI=	11.2
MP:	8.028	-	7.928	LANE	1	RIGID	DI=	11.2
MP:	7.928	-	7.828	LANE	1	RIGID	DI=	8.9
MP:	7.828	-	7.728	LANE	1	RIGID	DI=	7.2
MP:	7.728	-	7.628	LANE	1	RIGID	DI=	2
MP:	7.628	-	7.528	LANE	1	RIGID	DI=	3
MP:	7.528	-	7.428	LANE	1	RIGID	DI=	7.5
MP:	7.428	-	7.328	LANE	1	RIGID	DI=	8
MP:	7.328	-	7.228	LANE	1	RIGID	DI=	5
MP:	7.228	-	7.128	LANE	1	RIGID	DI=	5.5
MP:	7.128	-	7.014	LANE	1	RIGID	DI=	8.3
MP:	7.014	-	6.992	LANE	0	BRIDGE	DI=	0
MP:	6.992	-	6.892	LANE	1	RIGID	DI=	4
MP:	6.892	-	6.792	LANE	1	RIGID	DI=	7.5
MP:	6.792	-	6.692	LANE	1	RIGID	DI=	4.5
MP:	6.692	-	6.592	LANE	1	RIGID	DI=	6
MP:	6.592	-	6.492	LANE	1	RIGID	DI=	6
MP:	6.492	-	6.392	LANE	1	RIGID	DI=	0
MP:	6.392	-	6.292	LANE	1	RIGID	DI=	3
MP:	6.292	-	6.192	LANE	1	RIGID	DI=	4.6
MP:	6.192	-	6.092	LANE	1	RIGID	DI=	0.5
MP:	6.092	-	5.992	LANE	1	RIGID	DI=	0
MP:	5.992	-	5.892	LANE	1	RIGID	DI=	4.4
MP:	5.892	-	5.792	LANE	1	RIGID	DI=	2.5
MP:	5.792	-	5.692	LANE	1	RIGID	DI=	2
MP:	5.692	-	5.592	LANE	1	RIGID	DI=	6.5
MP:	5.592	-	5.492	LANE	1	RIGID	DI=	2
MP:	5.492	-	5.392	LANE	1	RIGID	DI=	2
MP:	5.392	-	5.292	LANE	1	RIGID	DI=	2.5
MP:	5.292	-	5.192	LANE	1	RIGID	DI=	3.8
MP:	5.192	-	5.092	LANE	1	RIGID	DI=	2
MP:	5.092	-	4.992	LANE	1	RIGID	DI=	0.5
MP:	4.992	-	4.892	LANE	1	RIGID	DI=	2.5
MP:	4.892	-	4.792	LANE	1	RIGID	DI=	2.5
MP:	4.792	-	4.692	LANE	1	RIGID	DI=	0.5
MP:	4.692	-	4.592	LANE	1	RIGID	DI=	0
MP:	4.592	-	4.492	LANE	1	RIGID	DI=	0
MP:	4.492	-	4.392	LANE	1	RIGID	DI=	0.5
MP:	4.392	-	4.292	LANE	1	RIGID	DI=	0
MP:	4.292	-	4.192	LANE	1	RIGID	DI=	0

MP:	4.192	-	4.092	LANE	1	RIGID	DI=	0
MP:	4.092	-	3.992	LANE	1	RIGID	DI=	0
MP:	3.992	-	3.892	LANE	1	RIGID	DI=	0
MP:	3.892	-	3.792	LANE	1	RIGID	DI=	0.5
MP:	3.792	-	3.692	LANE	1	RIGID	DI=	0.5
MP:	3.692	-	3.592	LANE	1	RIGID	DI=	0.5
MP:	3.592	-	3.492	LANE	1	RIGID	DI=	1
MP:	3.492	-	3.392	LANE	1	RIGID	DI=	0
MP:	3.392	-	3.292	LANE	1	RIGID	DI=	0
MP:	3.292	-	3.192	LANE	1	RIGID	DI=	0.5
MP:	3.192	-	3.092	LANE	1	RIGID	DI=	1.5
MP:	3.092	-	2.992	LANE	1	RIGID	DI=	0
MP:	2.992	-	2.892	LANE	1	RIGID	DI=	0
MP:	2.892	-	2.792	LANE	1	RIGID	DI=	0
MP:	2.792	-	2.692	LANE	1	RIGID	DI=	0
MP:	2.692	-	2.592	LANE	1	RIGID	DI=	0
MP:	2.592	-	2.492	LANE	1	RIGID	DI=	0
MP:	2.492	-	2.392	LANE	1	RIGID	DI=	0
MP:	2.392	-	2.292	LANE	1	RIGID	DI=	0
MP:	2.292	-	2.192	LANE	1	RIGID	DI=	0
MP:	2.192	-	2.092	LANE	1	RIGID	DI=	0
MP:	2.092	-	1.992	LANE	1	RIGID	DI=	0
MP:	1.992	-	1.892	LANE	1	RIGID	DI=	0
MP:	1.892	-	1.792	LANE	1	RIGID	DI=	1
MP:	1.792	-	1.692	LANE	1	RIGID	DI=	0
MP:	1.692	-	1.592	LANE	1	RIGID	DI=	0.9
MP:	1.592	-	1.492	LANE	1	RIGID	DI=	0.2
MP:	1.492	-	1.392	LANE	1	RIGID	DI=	0
MP:	1.392	-	1.291	LANE	1	RIGID	DI=	1
MP:	1.291	-	1.238	LANE	0	BRIDGE	DI=	0
MP:	1.238	-	1.138	LANE	1	RIGID	DI=	0
MP:	1.138	-	0.945	LANE	1	RIGID	DI=	1.5
MP:	0.945	-	0.903	LANE	0	BRIDGE	DI=	0
MP:	0.903	-	0.803	LANE	1	RIGID	DI=	7.6
MP:	0.803	-	0.703	LANE	1	RIGID	DI=	5
MP:	0.703	-	0.565	LANE	1	RIGID	DI=	1.7
MP:	0.565	-	0.476	LANE	0	BRIDGE	DI=	0
MP:	0.476	-	0.376	LANE	1	RIGID	DI=	2
MP:	0.376	-	0.276	LANE	1	RIGID	DI=	0.9
MP:	0.276	-	0.158	LANE	1	RIGID	DI=	1.3
MP:	0.158	-	0.132	LANE	0	BRIDGE	DI=	0
MP:	0.132	-	0.032	LANE	1	RIGID	DI=	0.2
MP:	0.032	-	-0.068	LANE	1	RIGID	DI=	1.8

Control Section 19043 Westbound Distres Index vs Milepost

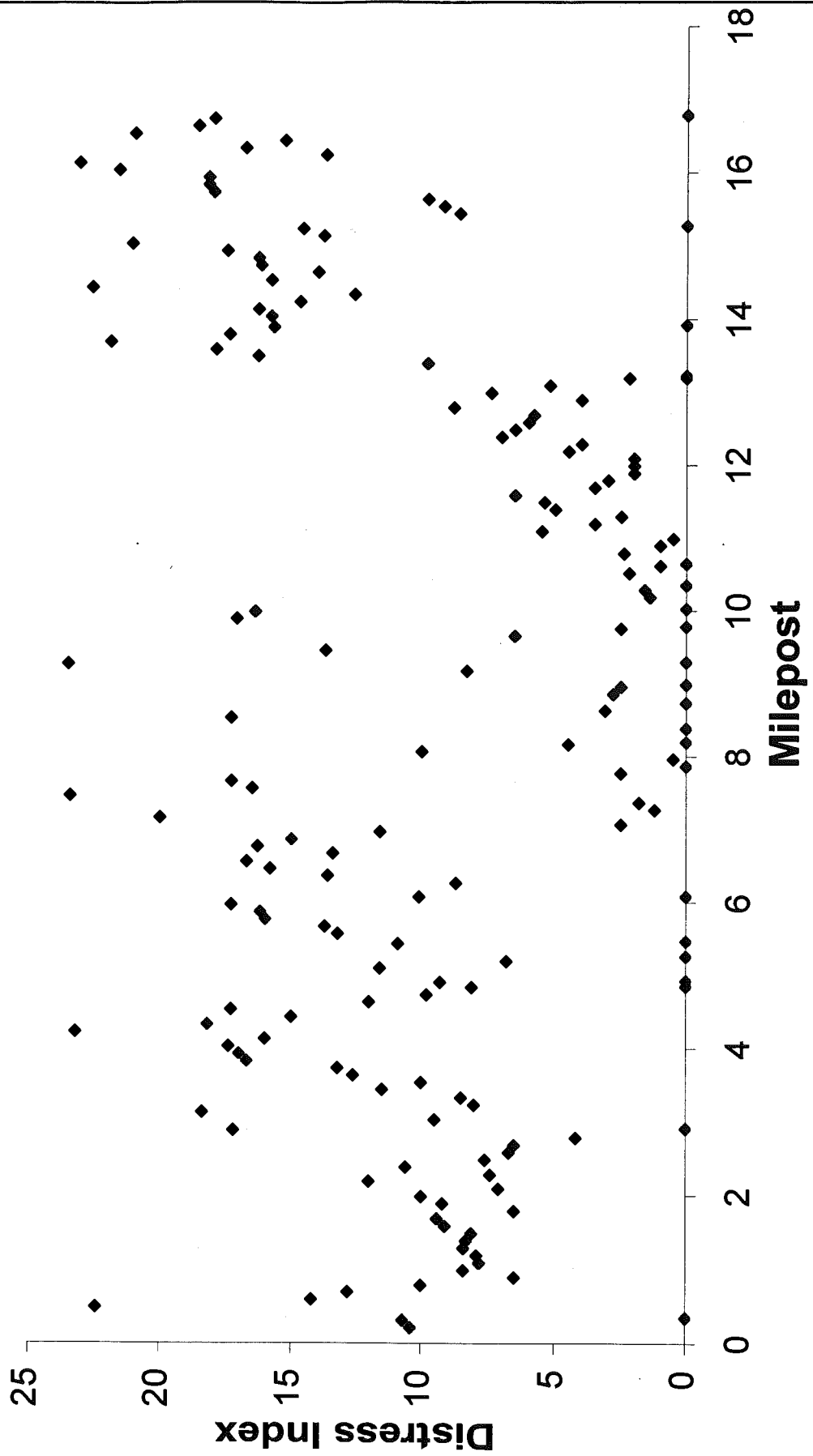


District 6	I-475 NB		TAPE ID=95-37-11			BMP=00.000		
Control Section:	25132		Milepost:	0-16.982		No. of Segments:	174	DI=9.6
MP:	0	-	0.136	LANE	1	COMP.	DI=	26.5
MP:	0.136	-	0.236	LANE	1	RIGID	DI=	6
MP:	0.236	-	0.336	LANE	1	RIGID	DI=	5
MP:	0.336	-	0.436	LANE	1	RIGID	DI=	6
MP:	0.436	-	0.536	LANE	1	RIGID	DI=	5.7
MP:	0.536	-	0.636	LANE	1	RIGID	DI=	6.9
MP:	0.636	-	0.736	LANE	1	RIGID	DI=	9.4
MP:	0.736	-	0.836	LANE	1	RIGID	DI=	8.7
MP:	0.836	-	0.936	LANE	1	RIGID	DI=	6.9
MP:	0.936	-	1.036	LANE	1	RIGID	DI=	8.6
MP:	1.036	-	1.136	LANE	1	RIGID	DI=	11.3
MP:	1.136	-	1.236	LANE	1	RIGID	DI=	8.3
MP:	1.236	-	1.336	LANE	1	RIGID	DI=	14.5
MP:	1.336	-	1.436	LANE	1	RIGID	DI=	8.7
MP:	1.436	-	1.536	LANE	1	RIGID	DI=	6.4
MP:	1.536	-	1.636	LANE	1	RIGID	DI=	6.3
MP:	1.636	-	1.736	LANE	1	RIGID	DI=	8.8
MP:	1.736	-	1.836	LANE	1	RIGID	DI=	7
MP:	1.836	-	1.936	LANE	1	RIGID	DI=	8.2
MP:	1.936	-	2.036	LANE	1	RIGID	DI=	14.1
MP:	2.036	-	2.136	LANE	1	RIGID	DI=	11.9
MP:	2.136	-	2.236	LANE	1	RIGID	DI=	9
MP:	2.236	-	2.336	LANE	1	RIGID	DI=	5
MP:	2.336	-	2.436	LANE	1	RIGID	DI=	10.9
MP:	2.436	-	2.536	LANE	1	RIGID	DI=	6
MP:	2.536	-	2.636	LANE	1	RIGID	DI=	8.1
MP:	2.636	-	2.833	LANE	1	RIGID	DI=	9.3
MP:	2.833	-	2.857	LANE	0	BRIDGE	DI=	0
MP:	2.857	-	2.957	LANE	1	RIGID	DI=	6
MP:	2.957	-	3.057	LANE	1	RIGID	DI=	16.5
MP:	3.057	-	3.157	LANE	1	RIGID	DI=	11
MP:	3.157	-	3.257	LANE	1	RIGID	DI=	10.5
MP:	3.257	-	3.357	LANE	1	RIGID	DI=	9.5
MP:	3.357	-	3.457	LANE	1	RIGID	DI=	8.5
MP:	3.457	-	3.557	LANE	1	RIGID	DI=	11.5
MP:	3.557	-	3.657	LANE	1	RIGID	DI=	10
MP:	3.757	-	3.857	LANE	1	RIGID	DI=	12.3
MP:	3.857	-	3.957	LANE	1	RIGID	DI=	13.6
MP:	3.957	-	4.057	LANE	1	RIGID	DI=	14.5
MP:	4.057	-	4.157	LANE	1	RIGID	DI=	21.2
MP:	4.157	-	4.257	LANE	1	RIGID	DI=	16
MP:	4.257	-	4.357	LANE	1	RIGID	DI=	14.6
MP:	4.357	-	4.457	LANE	1	RIGID	DI=	19.2
MP:	4.457	-	4.557	LANE	1	RIGID	DI=	12.5
MP:	4.557	-	4.74	LANE	1	RIGID	DI=	13.7
MP:	4.74	-	4.775	LANE	2	RIGID	DI=	8.6
MP:	4.775	-	4.793	LANE	0	BRIDGE	DI=	0
MP:	4.793	-	4.847	LANE	2	RIGID	DI=	8.3
MP:	4.847	-	4.869	LANE	0	BRIDGE	DI=	0
MP:	4.869	-	4.969	LANE	2	RIGID	DI=	5.6
MP:	4.969	-	5.087	LANE	2	RIGID	DI=	10.2
MP:	5.087	-	5.12	LANE	3	RIGID	DI=	11.1
MP:	5.12	-	5.191	LANE	0	BRIDGE	DI=	0
MP:	5.191	-	5.192	LANE	3	RIGID	DI=	8
MP:	5.192	-	5.356	LANE	1	RIGID	DI=	10.9
MP:	5.356	-	5.386	LANE	0	BRIDGE	DI=	0

MP:	5.386	-	5.486	LANE	1	RIGID	DI=	7.4
MP:	5.486	-	5.586	LANE	1	RIGID	DI=	8.3
MP:	5.586	-	5.686	LANE	1	RIGID	DI=	5.9
MP:	5.686	-	5.786	LANE	1	RIGID	DI=	10.9
MP:	5.786	-	5.886	LANE	1	RIGID	DI=	8.1
MP:	5.886	-	6.014	LANE	1	RIGID	DI=	15.6
MP:	6.014	-	6.021	LANE	0	BRIDGE	DI=	0
MP:	6.021	-	6.121	LANE	1	RIGID	DI=	8.9
MP:	6.121	-	6.229	LANE	1	RIGID	DI=	11.1
MP:	6.229	-	6.329	LANE	2	RIGID	DI=	15.3
MP:	6.329	-	6.429	LANE	2	RIGID	DI=	19.7
MP:	6.429	-	6.529	LANE	2	RIGID	DI=	15.6
MP:	6.529	-	6.629	LANE	2	RIGID	DI=	10.6
MP:	6.629	-	6.729	LANE	2	RIGID	DI=	15.5
MP:	6.729	-	6.909	LANE	2	RIGID	DI=	11.2
MP:	6.909	-	6.915	LANE	3	RIGID	DI=	16.7
MP:	6.915	-	7.015	LANE	2	RIGID	DI=	7.1
MP:	7.015	-	7.163	LANE	2	RIGID	DI=	3.2
MP:	7.163	-	7.29	LANE	1	RIGID	DI=	6
MP:	7.29	-	7.426	LANE	2	RIGID	DI=	4.6
MP:	7.426	-	7.526	LANE	1	RIGID	DI=	1.5
MP:	7.526	-	7.626	LANE	1	RIGID	DI=	1
MP:	7.626	-	7.726	LANE	1	RIGID	DI=	4.5
MP:	7.726	-	7.826	LANE	1	RIGID	DI=	9.2
MP:	7.826	-	7.926	LANE	1	RIGID	DI=	5
MP:	7.926	-	8.111	LANE	1	RIGID	DI=	3.6
MP:	8.143	-	8.237	LANE	1	RIGID	DI=	2.7
MP:	8.237	-	8.319	LANE	0	BRIDGE	DI=	0
MP:	8.319	-	8.461	LANE	1	RIGID	DI=	8
MP:	8.461	-	8.531	LANE	2	RIGID	DI=	11.2
MP:	8.531	-	8.595	LANE	1	RIGID	DI=	9.7
MP:	8.595	-	8.695	LANE	0	BRIDGE	DI=	0
MP:	8.695	-	8.795	LANE	1	RIGID	DI=	4.7
MP:	8.795	-	8.895	LANE	1	RIGID	DI=	5
MP:	8.895	-	8.925	LANE	0	BRIDGE	DI=	0
MP:	8.925	-	9.025	LANE	1	RIGID	DI=	4
MP:	9.025	-	9.212	LANE	1	RIGID	DI=	6.7
MP:	9.212	-	9.234	LANE	0	BRIDGE	DI=	0
MP:	9.234	-	9.334	LANE	1	RIGID	DI=	3.9
MP:	9.334	-	9.434	LANE	1	RIGID	DI=	0
MP:	9.434	-	9.534	LANE	1	RIGID	DI=	2.7
MP:	9.534	-	9.695	LANE	1	RIGID	DI=	6
MP:	9.695	-	9.725	LANE	0	BRIDGE	DI=	0
MP:	9.725	-	9.825	LANE	1	RIGID	DI=	2.8
MP:	9.825	-	9.959	LANE	1	RIGID	DI=	19.1
MP:	9.959	-	9.987	LANE	0	BRIDGE	DI=	0
MP:	9.987	-	10.087	LANE	1	RIGID	DI=	1
MP:	10.087	-	10.235	LANE	1	RIGID	DI=	1
MP:	10.235	-	10.311	LANE	0	BRIDGE	DI=	0
MP:	10.311	-	10.411	LANE	1	RIGID	DI=	4.5
MP:	10.411	-	10.574	LANE	1	RIGID	DI=	2.6
MP:	10.574	-	10.598	LANE	0	BRIDGE	DI=	0
MP:	10.598	-	10.698	LANE	1	RIGID	DI=	4.9
MP:	10.698	-	10.798	LANE	1	RIGID	DI=	1
MP:	10.798	-	10.898	LANE	1	RIGID	DI=	1.5
MP:	10.898	-	10.998	LANE	1	RIGID	DI=	4.5
MP:	10.998	-	11.098	LANE	1	RIGID	DI=	5.2
MP:	11.098	-	11.198	LANE	1	RIGID	DI=	6

MP:	11.198	-	11.298	LANE	1	RIGID	DI=	5
MP:	11.298	-	11.398	LANE	1	RIGID	DI=	2
MP:	11.398	-	11.498	LANE	1	RIGID	DI=	5.5
MP:	11.498	-	11.598	LANE	1	RIGID	DI=	3.1
MP:	11.598	-	11.698	LANE	1	RIGID	DI=	4.4
MP:	11.698	-	11.798	LANE	1	RIGID	DI=	0
MP:	11.798	-	11.898	LANE	1	RIGID	DI=	3.4
MP:	11.898	-	11.998	LANE	1	RIGID	DI=	10.7
MP:	11.998	-	12.098	LANE	1	RIGID	DI=	9.5
MP:	12.098	-	12.198	LANE	1	RIGID	DI=	2
MP:	12.198	-	12.298	LANE	1	RIGID	DI=	5.8
MP:	12.298	-	12.398	LANE	1	RIGID	DI=	6.9
MP:	12.398	-	12.498	LANE	1	RIGID	DI=	6.5
MP:	12.498	-	12.598	LANE	1	RIGID	DI=	5.2
MP:	12.598	-	12.698	LANE	1	RIGID	DI=	3.5
MP:	12.698	-	12.798	LANE	1	RIGID	DI=	1.5
MP:	12.798	-	12.898	LANE	1	RIGID	DI=	8.6
MP:	12.898	-	12.998	LANE	1	RIGID	DI=	6.8
MP:	12.998	-	13.151	LANE	1	RIGID	DI=	3.1
MP:	13.151	-	13.183	LANE	0	BRIDGE	DI=	0
MP:	13.183	-	13.283	LANE	1	RIGID	DI=	7.5
MP:	13.283	-	13.383	LANE	1	RIGID	DI=	15
MP:	13.383	-	13.483	LANE	1	RIGID	DI=	17.7
MP:	13.483	-	13.583	LANE	1	RIGID	DI=	14.8
MP:	13.583	-	13.683	LANE	1	RIGID	DI=	18.4
MP:	13.683	-	13.854	LANE	1	RIGID	DI=	14.8
MP:	13.854	-	13.875	LANE	0	BRIDGE	DI=	0
MP:	13.875	-	13.975	LANE	1	RIGID	DI=	16.7
MP:	13.975	-	14.075	LANE	1	RIGID	DI=	16.2
MP:	14.075	-	14.175	LANE	1	RIGID	DI=	17.4
MP:	14.175	-	14.275	LANE	1	RIGID	DI=	22.2
MP:	14.275	-	14.375	LANE	1	RIGID	DI=	17.9
MP:	14.375	-	14.475	LANE	1	RIGID	DI=	13.9
MP:	14.475	-	14.575	LANE	1	RIGID	DI=	15.2
MP:	14.575	-	14.675	LANE	1	RIGID	DI=	12.5
MP:	14.675	-	14.775	LANE	1	RIGID	DI=	15.3
MP:	14.775	-	14.875	LANE	1	RIGID	DI=	23.4
MP:	14.875	-	14.975	LANE	1	RIGID	DI=	10.2
MP:	14.975	-	15.075	LANE	1	RIGID	DI=	11.2
MP:	15.075	-	15.194	LANE	1	RIGID	DI=	12.2
MP:	15.194	-	15.225	LANE	0	BRIDGE	DI=	0
MP:	15.225	-	15.325	LANE	1	RIGID	DI=	7
MP:	15.325	-	15.425	LANE	1	RIGID	DI=	2.2
MP:	15.425	-	15.525	LANE	1	RIGID	DI=	7.5
MP:	15.525	-	15.625	LANE	1	RIGID	DI=	6.7
MP:	15.625	-	15.725	LANE	1	RIGID	DI=	6.4
MP:	15.725	-	15.825	LANE	1	RIGID	DI=	12.4
MP:	15.825	-	15.925	LANE	1	RIGID	DI=	13.5
MP:	15.925	-	16.025	LANE	1	RIGID	DI=	18.8
MP:	16.025	-	16.125	LANE	1	RIGID	DI=	20.7
MP:	16.125	-	16.225	LANE	1	RIGID	DI=	21
MP:	16.225	-	16.325	LANE	1	RIGID	DI=	16.4
MP:	16.325	-	16.425	LANE	1	RIGID	DI=	13.9
MP:	16.425	-	16.525	LANE	1	RIGID	DI=	17.9
MP:	16.525	-	16.625	LANE	1	RIGID	DI=	13.8
MP:	16.625	-	16.725	LANE	1	RIGID	DI=	16
MP:	16.725	-	16.911	LANE	1	RIGID	DI=	14.2
MP:	16.911	-	16.982	LANE	1	COMP.	DI=	23.1

**Control Section 25132 Southbound Distress Index vs.
Milepost**

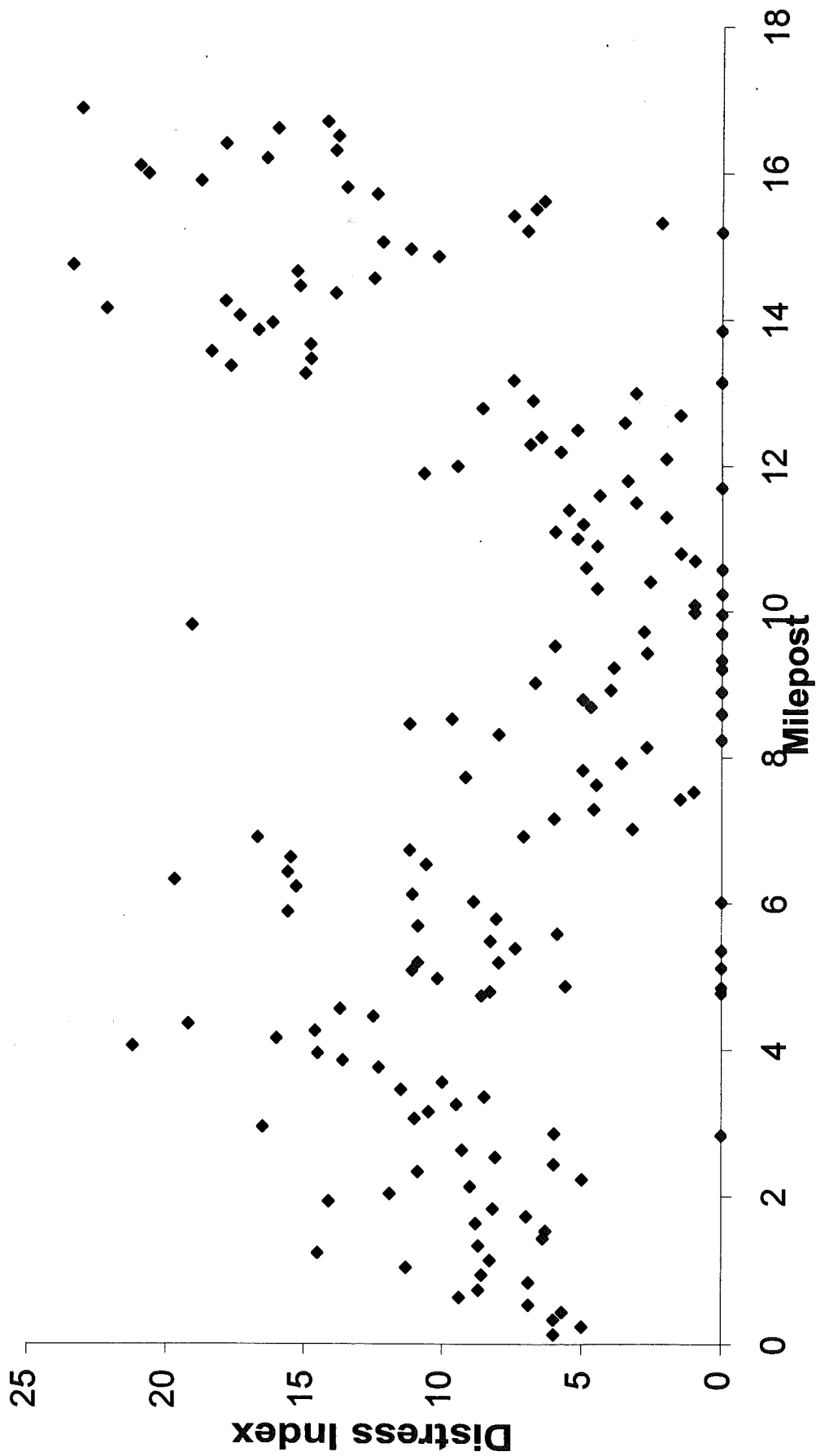


District 6 Control Section :	I-475 SB 25132		TAPE ID=95-37-14			BMP=00.000		DI=11.2
			Milepost:	16.78- -0.033		No. of Segments:	173	
MP:	16.78	-	16.743	LANE	0	BRIDGE	DI=	0
MP:	16.743	-	16.643	LANE	1	RIGID	DI=	18
MP:	16.643	-	16.543	LANE	1	RIGID	DI=	18.6
MP:	16.543	-	16.443	LANE	1	RIGID	DI=	21
MP:	16.443	-	16.343	LANE	1	RIGID	DI=	15.3
MP:	16.343	-	16.243	LANE	1	RIGID	DI=	16.8
MP:	16.243	-	16.143	LANE	1	RIGID	DI=	13.7
MP:	16.143	-	16.043	LANE	1	RIGID	DI=	23.1
MP:	16.043	-	15.943	LANE	1	RIGID	DI=	21.6
MP:	15.943	-	15.843	LANE	1	RIGID	DI=	18.2
MP:	15.843	-	15.743	LANE	1	RIGID	DI=	18.2
MP:	15.743	-	15.643	LANE	1	RIGID	DI=	18
MP:	15.643	-	15.543	LANE	1	RIGID	DI=	9.8
MP:	15.543	-	15.443	LANE	1	RIGID	DI=	9.2
MP:	15.443	-	15.272	LANE	1	RIGID	DI=	8.6
MP:	15.272	-	15.241	LANE	0	BRIDGE	DI=	0
MP:	15.241	-	15.141	LANE	1	RIGID	DI=	14.6
MP:	15.141	-	15.041	LANE	1	RIGID	DI=	13.8
MP:	15.041	-	14.941	LANE	1	RIGID	DI=	21.1
MP:	14.941	-	14.841	LANE	1	RIGID	DI=	17.5
MP:	14.841	-	14.741	LANE	1	RIGID	DI=	16.3
MP:	14.741	-	14.641	LANE	1	RIGID	DI=	16.2
MP:	14.641	-	14.541	LANE	1	RIGID	DI=	14
MP:	14.541	-	14.441	LANE	1	RIGID	DI=	15.8
MP:	14.441	-	14.341	LANE	1	RIGID	DI=	22.6
MP:	14.341	-	14.241	LANE	1	RIGID	DI=	12.6
MP:	14.241	-	14.141	LANE	1	RIGID	DI=	14.7
MP:	14.141	-	14.041	LANE	1	RIGID	DI=	16.3
MP:	14.041	-	13.916	LANE	1	RIGID	DI=	15.8
MP:	13.916	-	13.896	LANE	0	BRIDGE	DI=	0
MP:	13.896	-	13.796	LANE	1	RIGID	DI=	15.7
MP:	13.796	-	13.696	LANE	1	RIGID	DI=	17.4
MP:	13.696	-	13.596	LANE	1	RIGID	DI=	21.9
MP:	13.596	-	13.496	LANE	1	RIGID	DI=	17.9
MP:	13.496	-	13.396	LANE	1	RIGID	DI=	16.3
MP:	13.396	-	13.225	LANE	1	RIGID	DI=	9.8
MP:	13.225	-	13.193	LANE	0	BRIDGE	DI=	0
MP:	13.193	-	13.191	LANE	1	RIGID	DI=	0
MP:	13.191	-	13.091	LANE	2	RIGID	DI=	2.2
MP:	13.091	-	12.991	LANE	2	RIGID	DI=	5.2
MP:	12.991	-	12.891	LANE	2	RIGID	DI=	7.4
MP:	12.891	-	12.789	LANE	2	RIGID	DI=	4
MP:	12.789	-	12.689	LANE	1	RIGID	DI=	8.8
MP:	12.689	-	12.589	LANE	1	RIGID	DI=	5.8
MP:	12.589	-	12.489	LANE	1	RIGID	DI=	6
MP:	12.489	-	12.389	LANE	1	RIGID	DI=	6.5
MP:	12.389	-	12.289	LANE	1	RIGID	DI=	7
MP:	12.289	-	12.189	LANE	1	RIGID	DI=	4
MP:	12.189	-	12.089	LANE	1	RIGID	DI=	4.5
MP:	12.089	-	11.989	LANE	1	RIGID	DI=	2
MP:	11.989	-	11.889	LANE	1	RIGID	DI=	2
MP:	11.889	-	11.789	LANE	1	RIGID	DI=	2
MP:	11.789	-	11.689	LANE	1	RIGID	DI=	3
MP:	11.689	-	11.589	LANE	1	RIGID	DI=	3.5
MP:	11.589	-	11.489	LANE	1	RIGID	DI=	6.5
MP:	11.489	-	11.389	LANE	1	RIGID	DI=	5.4
MP:	11.389	-	11.289	LANE	1	RIGID	DI=	5

MP:	11.289	-	11.189	LANE	1	RIGID	DI=	2.5
MP:	11.189	-	11.089	LANE	1	RIGID	DI=	3.5
MP:	11.089	-	10.989	LANE	1	RIGID	DI=	5.5
MP:	10.989	-	10.889	LANE	1	RIGID	DI=	0.5
MP:	10.889	-	10.789	LANE	1	RIGID	DI=	1
MP:	10.789	-	10.643	LANE	1	RIGID	DI=	2.4
MP:	10.643	-	10.618	LANE	0	BRIDGE	DI=	0
MP:	10.618	-	10.518	LANE	1	RIGID	DI=	1
MP:	10.518	-	10.351	LANE	1	RIGID	DI=	2.2
MP:	10.351	-	10.285	LANE	0	BRIDGE	DI=	0
MP:	10.285	-	10.185	LANE	1	RIGID	DI=	1.6
MP:	10.185	-	10.024	LANE	1	RIGID	DI=	1.4
MP:	10.024	-	9.995	LANE	0	BRIDGE	DI=	0
MP:	9.995	-	9.895	LANE	1	RIGID	DI=	16.4
MP:	9.895	-	9.783	LANE	1	RIGID	DI=	17.1
MP:	9.783	-	9.755	LANE	0	BRIDGE	DI=	0
MP:	9.755	-	9.655	LANE	1	RIGID	DI=	2.5
MP:	9.655	-	9.555	LANE	1	RIGID	DI=	6.5
MP:	9.555	-	9.455	LANE	1	RIGID	DI=	25.6
MP:	9.455	-	9.294	LANE	1	RIGID	DI=	13.7
MP:	9.294	-	9.273	LANE	0	BRIDGE	DI=	0
MP:	9.273	-	9.173	LANE	1	RIGID	DI=	23.5
MP:	9.173	-	8.986	LANE	1	RIGID	DI=	8.3
MP:	8.986	-	8.956	LANE	0	BRIDGE	DI=	0
MP:	8.956	-	8.856	LANE	1	RIGID	DI=	2.5
MP:	8.856	-	8.733	LANE	1	RIGID	DI=	2.8
MP:	8.733	-	8.634	LANE	0	BRIDGE	DI=	0
MP:	8.634	-	8.534	LANE	1	RIGID	DI=	3.1
MP:	8.534	-	8.379	LANE	1	RIGID	DI=	17.3
MP:	8.379	-	8.297	LANE	0	BRIDGE	DI=	0
MP:	8.297	-	8.195	LANE	1	RIGID	DI=	41.8
MP:	8.195	-	8.163	LANE	0	BRIDGE	DI=	0
MP:	8.163	-	8.063	LANE	1	RIGID	DI=	4.5
MP:	8.063	-	7.963	LANE	1	RIGID	DI=	10
MP:	7.963	-	7.863	LANE	1	RIGID	DI=	0.5
MP:	7.863	-	7.763	LANE	1	RIGID	DI=	0
MP:	7.763	-	7.663	LANE	1	RIGID	DI=	2.5
MP:	7.663	-	7.563	LANE	1	RIGID	DI=	17.3
MP:	7.563	-	7.463	LANE	1	RIGID	DI=	16.5
MP:	7.463	-	7.363	LANE	1	RIGID	DI=	23.4
MP:	7.363	-	7.263	LANE	1	RIGID	DI=	1.8
MP:	7.263	-	7.163	LANE	1	RIGID	DI=	1.2
MP:	7.163	-	7.063	LANE	1	RIGID	DI=	20
MP:	7.063	-	6.963	LANE	1	RIGID	DI=	2.5
MP:	6.963	-	6.863	LANE	1	RIGID	DI=	11.6
MP:	6.863	-	6.763	LANE	1	RIGID	DI=	15
MP:	6.763	-	6.663	LANE	1	RIGID	DI=	16.3
MP:	6.663	-	6.563	LANE	1	RIGID	DI=	13.4
MP:	6.563	-	6.463	LANE	1	RIGID	DI=	16.7
MP:	6.463	-	6.363	LANE	1	RIGID	DI=	15.8
MP:	6.363	-	6.263	LANE	1	RIGID	DI=	13.6
MP:	6.263	-	6.079	LANE	1	RIGID	DI=	8.7
MP:	6.079	-	6.072	LANE	0	BRIDGE	DI=	0
MP:	6.072	-	5.972	LANE	1	RIGID	DI=	10.1
MP:	5.972	-	5.872	LANE	1	RIGID	DI=	17.3
MP:	5.872	-	5.772	LANE	1	RIGID	DI=	16.2
MP:	5.772	-	5.672	LANE	1	RIGID	DI=	16
MP:	5.672	-	5.572	LANE	1	RIGID	DI=	13.7
MP:	5.572	-	5.468	LANE	1	RIGID	DI=	13.2

MP:	5.468	-	5.437	LANE	0	BRIDGE	DI=	0
MP:	5.437	-	5.261	LANE	1	RIGID	DI=	10.9
MP:	5.261	-	5.193	LANE	0	BRIDGE	DI=	0
MP:	5.193	-	5.093	LANE	1	RIGID	DI=	6.8
MP:	5.093	-	4.928	LANE	1	RIGID	DI=	11.6
MP:	4.928	-	4.906	LANE	0	BRIDGE	DI=	0
MP:	4.906	-	4.852	LANE	1	RIGID	DI=	9.3
MP:	4.852	-	4.834	LANE	0	BRIDGE	DI=	0
MP:	4.834	-	4.734	LANE	1	RIGID	DI=	8.1
MP:	4.734	-	4.634	LANE	1	RIGID	DI=	9.8
MP:	4.634	-	4.534	LANE	1	RIGID	DI=	12
MP:	4.534	-	4.434	LANE	1	RIGID	DI=	17.3
MP:	4.434	-	4.334	LANE	1	RIGID	DI=	15
MP:	4.334	-	4.234	LANE	1	RIGID	DI=	18.2
MP:	4.234	-	4.134	LANE	1	RIGID	DI=	23.2
MP:	4.134	-	4.034	LANE	1	RIGID	DI=	16
MP:	4.034	-	3.934	LANE	1	RIGID	DI=	17.4
MP:	3.934	-	3.834	LANE	1	RIGID	DI=	17
MP:	3.834	-	3.734	LANE	1	RIGID	DI=	16.7
MP:	3.734	-	3.634	LANE	1	RIGID	DI=	13.2
MP:	3.634	-	3.534	LANE	1	RIGID	DI=	12.6
MP:	3.534	-	3.434	LANE	1	RIGID	DI=	10
MP:	3.434	-	3.334	LANE	1	RIGID	DI=	11.5
MP:	3.334	-	3.234	LANE	1	RIGID	DI=	8.5
MP:	3.234	-	3.134	LANE	1	RIGID	DI=	8
MP:	3.134	-	3.034	LANE	1	RIGID	DI=	18.4
MP:	3.034	-	2.912	LANE	1	RIGID	DI=	9.5
MP:	2.912	-	2.889	LANE	0	BRIDGE	DI=	0
MP:	2.889	-	2.789	LANE	1	RIGID	DI=	17.2
MP:	2.789	-	2.689	LANE	1	RIGID	DI=	4.2
MP:	2.689	-	2.589	LANE	1	RIGID	DI=	6.5
MP:	2.589	-	2.489	LANE	1	RIGID	DI=	6.7
MP:	2.489	-	2.389	LANE	1	RIGID	DI=	7.6
MP:	2.389	-	2.289	LANE	1	RIGID	DI=	10.6
MP:	2.289	-	2.189	LANE	1	RIGID	DI=	7.4
MP:	2.189	-	2.089	LANE	1	RIGID	DI=	12
MP:	2.089	-	1.989	LANE	1	RIGID	DI=	7.1
MP:	1.989	-	1.889	LANE	1	RIGID	DI=	10
MP:	1.889	-	1.789	LANE	1	RIGID	DI=	9.2
MP:	1.789	-	1.689	LANE	1	RIGID	DI=	6.5
MP:	1.689	-	1.589	LANE	1	RIGID	DI=	9.4
MP:	1.589	-	1.489	LANE	1	RIGID	DI=	9.1
MP:	1.489	-	1.389	LANE	1	RIGID	DI=	8.1
MP:	1.389	-	1.289	LANE	1	RIGID	DI=	8.3
MP:	1.289	-	1.189	LANE	1	RIGID	DI=	8.4
MP:	1.189	-	1.089	LANE	1	RIGID	DI=	7.9
MP:	1.089	-	0.989	LANE	1	RIGID	DI=	7.8
MP:	0.989	-	0.889	LANE	1	RIGID	DI=	8.4
MP:	0.889	-	0.789	LANE	1	RIGID	DI=	6.5
MP:	0.789	-	0.689	LANE	1	RIGID	DI=	10
MP:	0.689	-	0.589	LANE	1	RIGID	DI=	12.8
MP:	0.589	-	0.489	LANE	1	RIGID	DI=	14.2
MP:	0.489	-	0.349	LANE	1	RIGID	DI=	22.4
MP:	0.349	-	0.314	LANE	0	BRIDGE	DI=	0
MP:	0.314	-	0.214	LANE	1	RIGID	DI=	10.7
MP:	0.214	-	0.033	LANE	1	RIGID	DI=	10.4
MP:	0.033	-	-0.033	LANE	1	COMP.	DI=	34

Control Section 25132 Northbound Distress Index vs. Milepost



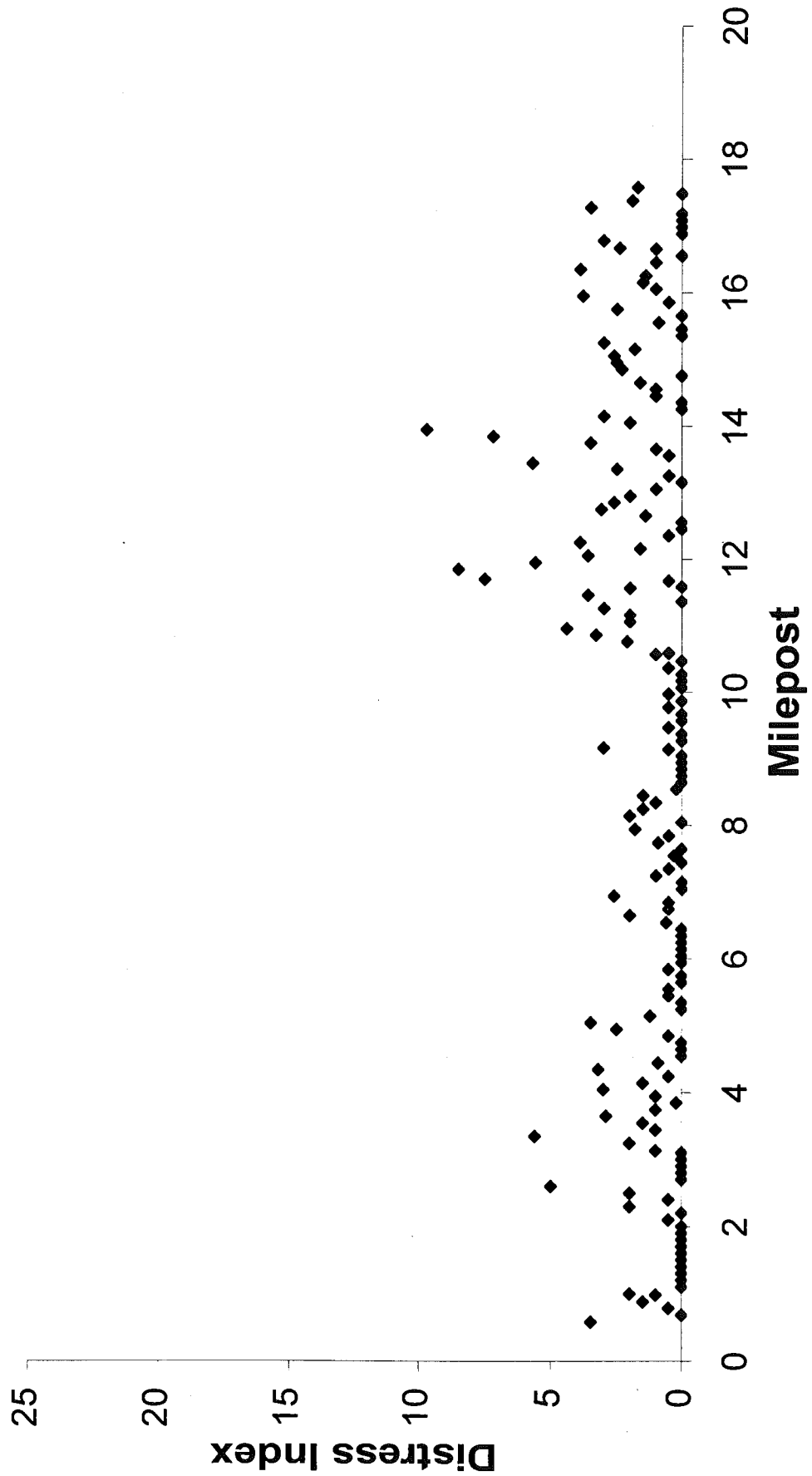
District 6 Control Section:	I-69 EB 44044		TAPE ID=95-36-02		BMP=00.000			
			Milepost:	0-17.349	No of Segments:		176	DI=1.3
MP:	0	-	0.029	LANE	1	RIGID	DI=	1.7
MP:	0.029	-	0.052	LANE	0	BRIDGE	DI=	0
MP:	0.052	-	0.152	LANE	1	RIGID	DI=	1.9
MP:	0.152	-	0.252	LANE	1	RIGID	DI=	3.5
MP:	0.252	-	0.352	LANE	1	RIGID	DI=	0
MP:	0.352	-	0.452	LANE	1	RIGID	DI=	0
MP:	0.452	-	0.552	LANE	1	RIGID	DI=	0
MP:	0.73	-	0.747	LANE	0	BRIDGE	DI=	0
MP:	0.747	-	0.847	LANE	1	RIGID	DI=	3
MP:	0.847	-	0.947	LANE	1	RIGID	DI=	2.4
MP:	0.947	-	1.047	LANE	1	RIGID	DI=	1
MP:	1.047	-	1.147	LANE	1	RIGID	DI=	0
MP:	1.147	-	1.247	LANE	1	RIGID	DI=	1
MP:	1.247	-	1.347	LANE	1	RIGID	DI=	3.9
MP:	1.347	-	1.447	LANE	1	RIGID	DI=	1.4
MP:	1.447	-	1.547	LANE	1	RIGID	DI=	1.5
MP:	1.547	-	1.647	LANE	1	RIGID	DI=	1
MP:	1.647	-	1.747	LANE	1	RIGID	DI=	3.8
MP:	1.747	-	1.847	LANE	1	RIGID	DI=	0.5
MP:	1.847	-	1.947	LANE	1	RIGID	DI=	2.5
MP:	1.947	-	2.047	LANE	1	RIGID	DI=	0
MP:	2.047	-	2.147	LANE	1	RIGID	DI=	0.9
MP:	2.147	-	2.247	LANE	1	RIGID	DI=	0
MP:	2.247	-	2.347	LANE	1	RIGID	DI=	0
MP:	2.347	-	2.447	LANE	1	RIGID	DI=	3
MP:	2.447	-	2.547	LANE	1	RIGID	DI=	1.8
MP:	2.547	-	2.647	LANE	1	RIGID	DI=	2.6
MP:	2.647	-	2.747	LANE	1	RIGID	DI=	2.5
MP:	2.747	-	2.858	LANE	1	RIGID	DI=	2.3
MP:	2.858	-	2.882	LANE	0	BRIDGE	DI=	0
MP:	2.882	-	2.982	LANE	1	RIGID	DI=	1.6
MP:	2.982	-	3.082	LANE	1	RIGID	DI=	1
MP:	3.082	-	3.182	LANE	1	RIGID	DI=	1
MP:	3.182	-	3.282	LANE	1	RIGID	DI=	0
MP:	3.282	-	3.382	LANE	1	RIGID	DI=	0
MP:	3.382	-	3.482	LANE	1	RIGID	DI=	3
MP:	3.482	-	3.582	LANE	1	RIGID	DI=	2
MP:	3.582	-	3.682	LANE	1	RIGID	DI=	9.7
MP:	3.682	-	3.782	LANE	1	RIGID	DI=	7.2
MP:	3.782	-	3.882	LANE	1	RIGID	DI=	3.5
MP:	3.882	-	3.982	LANE	1	RIGID	DI=	1
MP:	3.982	-	4.082	LANE	1	RIGID	DI=	0.5
MP:	4.082	-	4.182	LANE	1	RIGID	DI=	5.7
MP:	4.182	-	4.282	LANE	1	RIGID	DI=	2.5
MP:	4.282	-	4.382	LANE	1	RIGID	DI=	0.5
MP:	4.382	-	4.482	LANE	1	RIGID	DI=	0
MP:	4.482	-	4.582	LANE	1	RIGID	DI=	1
MP:	4.582	-	4.682	LANE	1	RIGID	DI=	2
MP:	4.682	-	4.782	LANE	1	RIGID	DI=	2.6
MP:	4.782	-	4.882	LANE	1	RIGID	DI=	3.1
MP:	4.882	-	4.982	LANE	1	RIGID	DI=	1.4

MP:	4.982	-	5.082	LANE	1	RIGID	DI=	0
MP:	5.082	-	5.182	LANE	1	RIGID	DI=	0
MP:	5.182	-	5.282	LANE	1	RIGID	DI=	0.5
MP:	5.282	-	5.382	LANE	1	RIGID	DI=	3.9
MP:	5.382	-	5.482	LANE	1	RIGID	DI=	1.6
MP:	5.482	-	5.582	LANE	1	RIGID	DI=	3.6
MP:	5.582	-	5.682	LANE	1	RIGID	DI=	5.6
MP:	5.682	-	5.782	LANE	1	RIGID	DI=	8.5
MP:	5.782	-	5.882	LANE	1	RIGID	DI=	7.5
MP:	5.882	-	5.982	LANE	1	RIGID	DI=	0.5
MP:	5.982	-	6.082	LANE	1	RIGID	DI=	0
MP:	6.082	-	6.182	LANE	1	RIGID	DI=	2
MP:	6.182	-	6.282	LANE	1	RIGID	DI=	3.6
MP:	6.282	-	6.382	LANE	1	RIGID	DI=	0
MP:	6.382	-	6.482	LANE	1	RIGID	DI=	3
MP:	6.482	-	6.582	LANE	1	RIGID	DI=	2
MP:	6.582	-	6.682	LANE	1	RIGID	DI=	2
MP:	6.682	-	6.782	LANE	1	RIGID	DI=	4.4
MP:	6.782	-	6.882	LANE	1	RIGID	DI=	3.3
MP:	6.882	-	6.982	LANE	1	RIGID	DI=	2.1
MP:	6.982	-	7.082	LANE	1	RIGID	DI=	0.5
MP:	7.082	-	7.182	LANE	1	RIGID	DI=	1
MP:	7.182	-	7.282	LANE	1	RIGID	DI=	0
MP:	7.282	-	7.382	LANE	1	RIGID	DI=	0.5
MP:	7.382	-	7.482	LANE	1	RIGID	DI=	0
MP:	7.482	-	7.582	LANE	1	RIGID	DI=	0
MP:	7.582	-	7.682	LANE	1	RIGID	DI=	0
MP:	7.682	-	7.782	LANE	1	RIGID	DI=	0.5
MP:	7.782	-	7.882	LANE	1	RIGID	DI=	0
MP:	7.882	-	7.982	LANE	1	RIGID	DI=	0.5
MP:	7.982	-	8.082	LANE	1	RIGID	DI=	0
MP:	8.082	-	8.182	LANE	1	RIGID	DI=	0
MP:	8.182	-	8.282	LANE	1	RIGID	DI=	0.5
MP:	8.282	-	8.382	LANE	1	RIGID	DI=	0
MP:	8.382	-	8.482	LANE	1	RIGID	DI=	0
MP:	8.482	-	8.582	LANE	1	RIGID	DI=	3
MP:	8.582	-	8.682	LANE	1	RIGID	DI=	0.5
MP:	8.682	-	8.856	LANE	1	RIGID	DI=	0
MP:	8.856	-	8.879	LANE	0	BRIDGE	DI=	0
MP:	8.879	-	8.979	LANE	1	RIGID	DI=	0
MP:	8.979	-	9.079	LANE	1	RIGID	DI=	0
MP:	9.079	-	9.179	LANE	1	RIGID	DI=	0
MP:	9.179	-	9.279	LANE	1	RIGID	DI=	0.2
MP:	9.279	-	9.379	LANE	1	RIGID	DI=	1.5
MP:	9.379	-	9.479	LANE	1	RIGID	DI=	1
MP:	9.479	-	9.579	LANE	1	RIGID	DI=	1.5
MP:	9.579	-	9.679	LANE	1	RIGID	DI=	2
MP:	9.679	-	9.779	LANE	1	RIGID	DI=	0
MP:	9.779	-	9.879	LANE	1	RIGID	DI=	1.8
MP:	9.879	-	9.979	LANE	1	RIGID	DI=	0.5
MP:	9.979	-	10.079	LANE	1	RIGID	DI=	0.9
MP:	10.079	-	10.179	LANE	1	RIGID	DI=	0
MP:	10.179	-	10.349	LANE	1	RIGID	DI=	0.3

MP:	10.349	-	10.366	LANE	0	BRIDGE	DI=	0
MP:	10.366	-	10.466	LANE	1	RIGID	DI=	0.5
MP:	10.466	-	10.566	LANE	1	RIGID	DI=	1
MP:	10.566	-	10.666	LANE	1	RIGID	DI=	0
MP:	10.666	-	10.766	LANE	1	RIGID	DI=	0
MP:	10.766	-	10.866	LANE	1	RIGID	DI=	2.6
MP:	10.866	-	10.966	LANE	1	RIGID	DI=	0.5
MP:	10.966	-	11.066	LANE	1	RIGID	DI=	0.5
MP:	11.066	-	11.166	LANE	1	RIGID	DI=	2
MP:	11.166	-	11.343	LANE	1	RIGID	DI=	0.6
MP:	11.343	-	11.361	LANE	0	BRIDGE	DI=	0
MP:	11.361	-	11.439	LANE	1	RIGID	DI=	0
MP:	11.439	-	11.471	LANE	0	BRIDGE	DI=	0
MP:	11.471	-	11.571	LANE	1	RIGID	DI=	0
MP:	11.571	-	11.671	LANE	1	RIGID	DI=	0
MP:	11.671	-	11.771	LANE	1	RIGID	DI=	0
MP:	11.771	-	11.871	LANE	1	RIGID	DI=	0.5
MP:	11.871	-	11.971	LANE	1	RIGID	DI=	0
MP:	11.971	-	12.071	LANE	1	RIGID	DI=	0
MP:	12.071	-	12.171	LANE	1	RIGID	DI=	0.5
MP:	12.171	-	12.271	LANE	1	RIGID	DI=	0.5
MP:	12.271	-	12.371	LANE	1	RIGID	DI=	0
MP:	12.371	-	12.471	LANE	1	RIGID	DI=	0
MP:	12.471	-	12.571	LANE	1	RIGID	DI=	1.2
MP:	12.571	-	12.671	LANE	1	RIGID	DI=	3.5
MP:	12.671	-	12.771	LANE	1	RIGID	DI=	2.5
MP:	12.771	-	12.871	LANE	1	RIGID	DI=	0.5
MP:	12.871	-	12.971	LANE	1	RIGID	DI=	0
MP:	12.971	-	13.071	LANE	1	RIGID	DI=	0
MP:	13.071	-	13.171	LANE	1	RIGID	DI=	0
MP:	13.171	-	13.271	LANE	1	RIGID	DI=	0.9
MP:	13.271	-	13.371	LANE	1	RIGID	DI=	3.2
MP:	13.371	-	13.471	LANE	1	RIGID	DI=	0.5
MP:	13.471	-	13.571	LANE	1	RIGID	DI=	1.5
MP:	13.571	-	13.671	LANE	1	RIGID	DI=	3
MP:	13.671	-	13.771	LANE	1	RIGID	DI=	1
MP:	13.771	-	13.871	LANE	1	RIGID	DI=	0.2
MP:	13.871	-	13.971	LANE	1	RIGID	DI=	1
MP:	13.971	-	14.071	LANE	1	RIGID	DI=	2.9
MP:	14.071	-	14.171	LANE	1	RIGID	DI=	1.5
MP:	14.171	-	14.271	LANE	1	RIGID	DI=	1
MP:	14.271	-	14.371	LANE	1	RIGID	DI=	5.6
MP:	14.371	-	14.471	LANE	1	RIGID	DI=	2
MP:	14.471	-	14.571	LANE	1	RIGID	DI=	1
MP:	14.571	-	14.671	LANE	1	RIGID	DI=	0
MP:	14.671	-	14.771	LANE	1	RIGID	DI=	0
MP:	14.771	-	14.871	LANE	1	RIGID	DI=	0
MP:	14.871	-	14.971	LANE	1	RIGID	DI=	0
MP:	14.971	-	15.071	LANE	1	RIGID	DI=	0
MP:	15.071	-	15.171	LANE	1	RIGID	DI=	5
MP:	15.171	-	15.271	LANE	1	RIGID	DI=	2
MP:	15.271	-	15.371	LANE	1	RIGID	DI=	0.5
MP:	15.371	-	15.471	LANE	1	RIGID	DI=	2

MP:	15.471	-	15.571	LANE	1	RIGID	DI=	0
MP:	15.571	-	15.671	LANE	1	RIGID	DI=	0.5
MP:	15.671	-	15.771	LANE	1	RIGID	DI=	0
MP:	15.771	-	15.871	LANE	1	RIGID	DI=	0
MP:	15.871	-	15.971	LANE	1	RIGID	DI=	0
MP:	15.971	-	16.071	LANE	1	RIGID	DI=	0
MP:	16.071	-	16.171	LANE	1	RIGID	DI=	0
MP:	16.171	-	16.271	LANE	1	RIGID	DI=	0
MP:	16.271	-	16.432	LANE	1	RIGID	DI=	0
MP:	16.432	-	16.449	LANE	0	BRIDGE	DI=	0
MP:	16.449	-	16.549	LANE	1	RIGID	DI=	0
MP:	16.549	-	16.649	LANE	1	RIGID	DI=	0
MP:	16.649	-	16.749	LANE	1	RIGID	DI=	2
MP:	16.749	-	16.849	LANE	1	RIGID	DI=	1
MP:	16.849	-	16.949	LANE	1	RIGID	DI=	1.5
MP:	16.949	-	17.049	LANE	1	RIGID	DI=	0.5
MP:	17.049	-	17.149	LANE	1	RIGID	DI=	0
MP:	17.149	-	17.349	LANE	1	RIGID	DI=	3.5

**Contol Section 44044 Eastbound Distress Index vs.
Milepost**



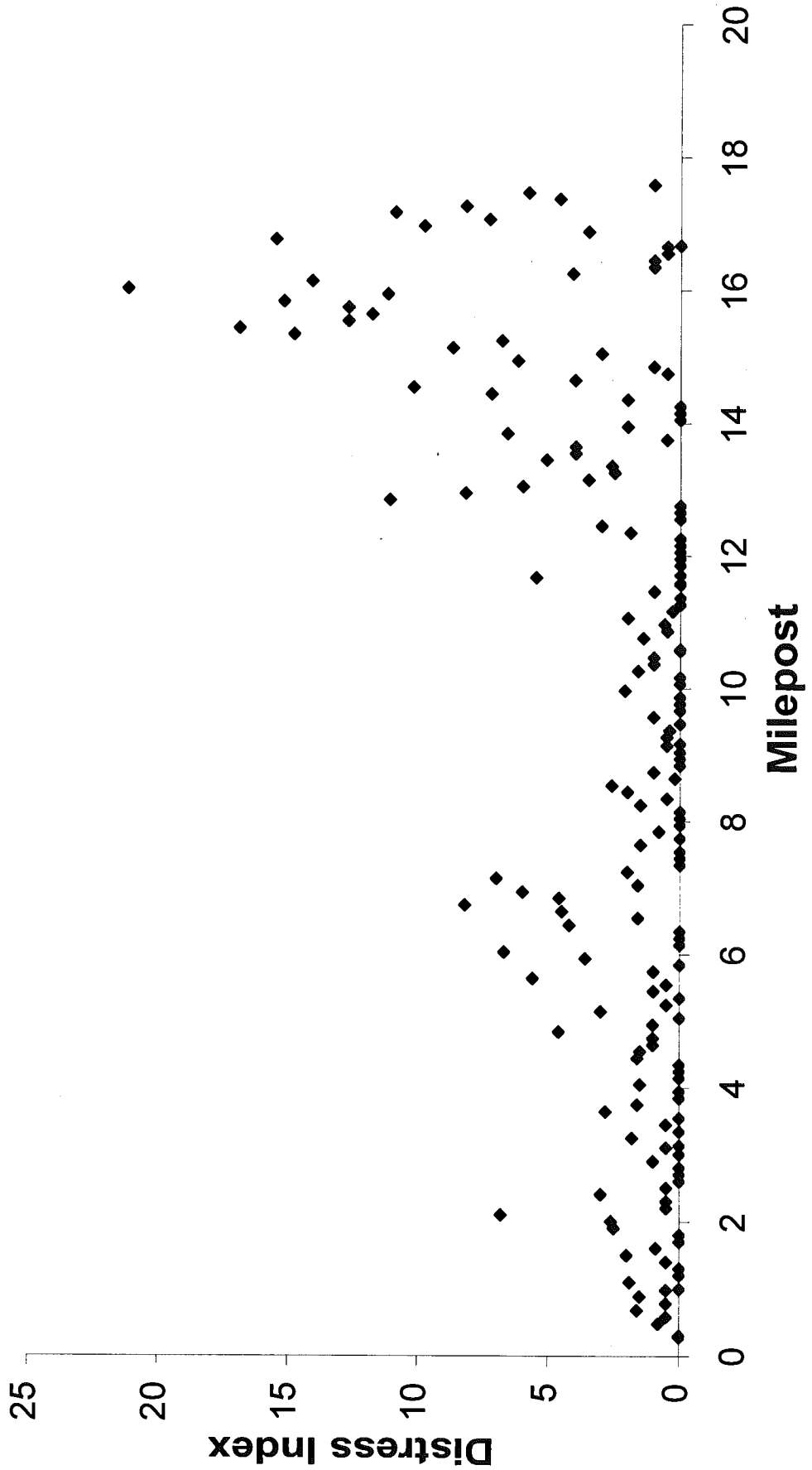
District 6 Control Section:	I-69 WB 44044		TAPE ID=95-36-09			BMP=00.001		DI=2.6
			Milepost:	17.583- -0.017		No. of Segments:	180	
MP:	17.583	-	17.483	LANE	1	RIGID	DI=	1
MP:	17.483	-	17.383	LANE	1	RIGID	DI=	5.8
MP:	17.383	-	17.283	LANE	1	RIGID	DI=	4.6
MP:	17.283	-	17.183	LANE	1	RIGID	DI=	8.2
MP:	17.183	-	17.083	LANE	1	RIGID	DI=	10.9
MP:	17.083	-	16.983	LANE	1	RIGID	DI=	7.3
MP:	16.983	-	16.883	LANE	1	RIGID	DI=	9.8
MP:	16.883	-	16.783	LANE	1	RIGID	DI=	3.5
MP:	16.783	-	16.673	LANE	1	RIGID	DI=	15.5
MP:	16.673	-	16.656	LANE	0	BRIDGE	DI=	0
MP:	16.656	-	16.556	LANE	1	RIGID	DI=	0.5
MP:	16.556	-	16.456	LANE	1	RIGID	DI=	0.5
MP:	16.456	-	16.356	LANE	1	RIGID	DI=	1
MP:	16.356	-	16.256	LANE	1	RIGID	DI=	1
MP:	16.256	-	16.156	LANE	1	RIGID	DI=	4.1
MP:	16.156	-	16.056	LANE	1	RIGID	DI=	14.1
MP:	16.056	-	15.956	LANE	1	RIGID	DI=	21.2
MP:	15.956	-	15.856	LANE	1	RIGID	DI=	11.2
MP:	15.856	-	15.756	LANE	1	RIGID	DI=	15.2
MP:	15.756	-	15.656	LANE	1	RIGID	DI=	12.7
MP:	15.656	-	15.556	LANE	1	RIGID	DI=	11.8
MP:	15.556	-	15.456	LANE	1	RIGID	DI=	12.7
MP:	15.456	-	15.356	LANE	1	RIGID	DI=	16.9
MP:	15.356	-	15.256	LANE	1	RIGID	DI=	14.8
MP:	15.256	-	15.156	LANE	1	RIGID	DI=	6.8
MP:	15.156	-	15.056	LANE	1	RIGID	DI=	8.7
MP:	15.056	-	14.956	LANE	1	RIGID	DI=	3
MP:	14.956	-	14.856	LANE	1	RIGID	DI=	6.2
MP:	14.856	-	14.756	LANE	1	RIGID	DI=	1
MP:	14.756	-	14.656	LANE	1	RIGID	DI=	0.5
MP:	14.656	-	14.556	LANE	1	RIGID	DI=	4
MP:	14.556	-	14.456	LANE	1	RIGID	DI=	10.2
MP:	14.456	-	14.356	LANE	1	RIGID	DI=	7.2
MP:	14.356	-	14.256	LANE	1	RIGID	DI=	2
MP:	14.256	-	14.156	LANE	1	RIGID	DI=	0
MP:	14.156	-	14.056	LANE	1	RIGID	DI=	0
MP:	14.056	-	13.956	LANE	1	RIGID	DI=	0
MP:	13.956	-	13.856	LANE	1	RIGID	DI=	2
MP:	13.856	-	13.756	LANE	1	RIGID	DI=	6.6
MP:	13.756	-	13.656	LANE	1	RIGID	DI=	0.5
MP:	13.656	-	13.556	LANE	1	RIGID	DI=	4
MP:	13.556	-	13.456	LANE	1	RIGID	DI=	4
MP:	13.456	-	13.356	LANE	1	RIGID	DI=	5.1
MP:	13.356	-	13.256	LANE	1	RIGID	DI=	2.6
MP:	13.256	-	13.156	LANE	1	RIGID	DI=	2.5
MP:	13.156	-	13.056	LANE	1	RIGID	DI=	3.5
MP:	13.056	-	12.956	LANE	1	RIGID	DI=	6
MP:	12.956	-	12.856	LANE	1	RIGID	DI=	8.2
MP:	12.856	-	12.756	LANE	1	RIGID	DI=	11.1
MP:	12.756	-	12.656	LANE	1	RIGID	DI=	0
MP:	12.656	-	12.556	LANE	1	RIGID	DI=	0

MP:	12.556	-	12.456	LANE	1	RIGID	DI=	0
MP:	12.456	-	12.356	LANE	1	RIGID	DI=	3
MP:	12.356	-	12.256	LANE	1	RIGID	DI=	1.9
MP:	12.256	-	12.156	LANE	1	RIGID	DI=	0
MP:	12.156	-	12.056	LANE	1	RIGID	DI=	0
MP:	12.056	-	11.956	LANE	1	RIGID	DI=	0
MP:	11.956	-	11.856	LANE	1	RIGID	DI=	0
MP:	11.856	-	11.711	LANE	1	RIGID	DI=	0
MP:	11.711	-	11.679	LANE	0	BRIDGE	DI=	0
MP:	11.679	-	11.584	LANE	1	RIGID	DI=	5.5
MP:	11.584	-	11.567	LANE	0	BRIDGE	DI=	0
MP:	11.567	-	11.467	LANE	1	RIGID	DI=	0
MP:	11.467	-	11.367	LANE	1	RIGID	DI=	1
MP:	11.367	-	11.267	LANE	1	RIGID	DI=	0
MP:	11.267	-	11.167	LANE	1	RIGID	DI=	0
MP:	11.167	-	11.067	LANE	1	RIGID	DI=	0.3
MP:	11.067	-	10.967	LANE	1	RIGID	DI=	2
MP:	10.967	-	10.867	LANE	1	RIGID	DI=	0.6
MP:	10.867	-	10.767	LANE	1	RIGID	DI=	0.5
MP:	10.767	-	10.59	LANE	1	RIGID	DI=	1.4
MP:	10.59	-	10.571	LANE	0	BRIDGE	DI=	0
MP:	10.571	-	10.471	LANE	1	RIGID	DI=	0
MP:	10.471	-	10.371	LANE	1	RIGID	DI=	1
MP:	10.371	-	10.271	LANE	1	RIGID	DI=	1
MP:	10.271	-	10.171	LANE	1	RIGID	DI=	1.6
MP:	10.171	-	10.071	LANE	1	RIGID	DI=	0
MP:	10.071	-	9.971	LANE	1	RIGID	DI=	0
MP:	9.971	-	9.871	LANE	1	RIGID	DI=	2.1
MP:	9.871	-	9.771	LANE	1	RIGID	DI=	0
MP:	9.771	-	9.671	LANE	1	RIGID	DI=	0
MP:	9.671	-	9.571	LANE	1	RIGID	DI=	0
MP:	9.571	-	9.471	LANE	1	RIGID	DI=	1
MP:	9.471	-	9.371	LANE	1	RIGID	DI=	0
MP:	9.371	-	9.271	LANE	1	RIGID	DI=	0.4
MP:	9.271	-	9.165	LANE	1	RIGID	DI=	0.5
MP:	9.165	-	9.143	LANE	0	BRIDGE	DI=	0
MP:	9.143	-	9.043	LANE	1	RIGID	DI=	0.5
MP:	9.043	-	8.943	LANE	1	RIGID	DI=	0
MP:	8.943	-	8.843	LANE	1	RIGID	DI=	0
MP:	8.843	-	8.743	LANE	1	RIGID	DI=	0
MP:	8.743	-	8.643	LANE	1	RIGID	DI=	1
MP:	8.643	-	8.543	LANE	1	RIGID	DI=	0.2
MP:	8.543	-	8.443	LANE	1	RIGID	DI=	2.6
MP:	8.443	-	8.343	LANE	1	RIGID	DI=	2
MP:	8.343	-	8.243	LANE	1	RIGID	DI=	0.5
MP:	8.243	-	8.143	LANE	1	RIGID	DI=	1.5
MP:	8.143	-	8.043	LANE	1	RIGID	DI=	0
MP:	8.043	-	7.943	LANE	1	RIGID	DI=	0
MP:	7.943	-	7.843	LANE	1	RIGID	DI=	0
MP:	7.843	-	7.743	LANE	1	RIGID	DI=	0.8
MP:	7.743	-	7.643	LANE	1	RIGID	DI=	0
MP:	7.643	-	7.543	LANE	1	RIGID	DI=	1.5
MP:	7.543	-	7.443	LANE	1	RIGID	DI=	0

MP:	7.443	-	7.343	LANE	1	RIGID	DI=	0
MP:	7.343	-	7.243	LANE	1	RIGID	DI=	0
MP:	7.243	-	7.143	LANE	1	RIGID	DI=	2
MP:	7.143	-	7.043	LANE	1	RIGID	DI=	7
MP:	7.043	-	6.943	LANE	1	RIGID	DI=	1.6
MP:	6.943	-	6.843	LANE	1	RIGID	DI=	6
MP:	6.843	-	6.743	LANE	1	RIGID	DI=	4.6
MP:	6.743	-	6.643	LANE	1	RIGID	DI=	8.2
MP:	6.643	-	6.543	LANE	1	RIGID	DI=	4.5
MP:	6.543	-	6.443	LANE	1	RIGID	DI=	1.6
MP:	6.443	-	6.343	LANE	1	RIGID	DI=	4.2
MP:	6.343	-	6.243	LANE	1	RIGID	DI=	0
MP:	6.243	-	6.143	LANE	1	RIGID	DI=	0
MP:	6.143	-	6.043	LANE	1	RIGID	DI=	0
MP:	6.043	-	5.943	LANE	1	RIGID	DI=	6.7
MP:	5.943	-	5.843	LANE	1	RIGID	DI=	3.6
MP:	5.843	-	5.743	LANE	1	RIGID	DI=	0
MP:	5.743	-	5.643	LANE	1	RIGID	DI=	1
MP:	5.643	-	5.543	LANE	1	RIGID	DI=	5.6
MP:	5.543	-	5.443	LANE	1	RIGID	DI=	0.5
MP:	5.443	-	5.343	LANE	1	RIGID	DI=	1
MP:	5.343	-	5.243	LANE	1	RIGID	DI=	0
MP:	5.243	-	5.143	LANE	1	RIGID	DI=	0.5
MP:	5.143	-	5.043	LANE	1	RIGID	DI=	3
MP:	5.043	-	4.943	LANE	1	RIGID	DI=	0
MP:	4.943	-	4.843	LANE	1	RIGID	DI=	1
MP:	4.843	-	4.743	LANE	1	RIGID	DI=	4.6
MP:	4.743	-	4.643	LANE	1	RIGID	DI=	1
MP:	4.643	-	4.543	LANE	1	RIGID	DI=	1
MP:	4.543	-	4.443	LANE	1	RIGID	DI=	1.5
MP:	4.443	-	4.343	LANE	1	RIGID	DI=	1.6
MP:	4.343	-	4.243	LANE	1	RIGID	DI=	0
MP:	4.243	-	4.143	LANE	1	RIGID	DI=	0
MP:	4.143	-	4.043	LANE	1	RIGID	DI=	0
MP:	4.043	-	3.943	LANE	1	RIGID	DI=	1.5
MP:	3.943	-	3.843	LANE	1	RIGID	DI=	0
MP:	3.843	-	3.743	LANE	1	RIGID	DI=	0
MP:	3.743	-	3.643	LANE	1	RIGID	DI=	1.6
MP:	3.643	-	3.543	LANE	1	RIGID	DI=	2.8
MP:	3.543	-	3.443	LANE	1	RIGID	DI=	0
MP:	3.443	-	3.343	LANE	1	RIGID	DI=	0.5
MP:	3.343	-	3.243	LANE	1	RIGID	DI=	0
MP:	3.243	-	3.131	LANE	1	RIGID	DI=	1.8
MP:	3.131	-	3.105	LANE	0	BRIDGE	DI=	0
MP:	3.105	-	3.005	LANE	1	RIGID	DI=	0.5
MP:	3.005	-	2.905	LANE	1	RIGID	DI=	0
MP:	2.905	-	2.805	LANE	1	RIGID	DI=	1
MP:	2.805	-	2.705	LANE	1	RIGID	DI=	0
MP:	2.705	-	2.605	LANE	1	RIGID	DI=	0
MP:	2.605	-	2.505	LANE	1	RIGID	DI=	0
MP:	2.505	-	2.405	LANE	1	RIGID	DI=	0.5
MP:	2.405	-	2.305	LANE	1	RIGID	DI=	3
MP:	2.305	-	2.205	LANE	1	RIGID	DI=	0.5

MP:	2.205	-	2.105	LANE	1	RIGID	DI=	0.5
MP:	2.105	-	2.005	LANE	1	RIGID	DI=	6.8
MP:	2.005	-	1.905	LANE	1	RIGID	DI=	2.6
MP:	1.905	-	1.805	LANE	1	RIGID	DI=	2.5
MP:	1.805	-	1.705	LANE	1	RIGID	DI=	0
MP:	1.705	-	1.605	LANE	1	RIGID	DI=	0
MP:	1.605	-	1.505	LANE	1	RIGID	DI=	0.9
MP:	1.505	-	1.405	LANE	1	RIGID	DI=	2
MP:	1.405	-	1.305	LANE	1	RIGID	DI=	0.5
MP:	1.305	-	1.205	LANE	1	RIGID	DI=	0
MP:	1.205	-	1.105	LANE	1	RIGID	DI=	0
MP:	1.105	-	0.999	LANE	1	RIGID	DI=	1.9
MP:	0.999	-	0.982	LANE	0	BRIDGE	DI=	0
MP:	0.982	-	0.882	LANE	1	RIGID	DI=	0.5
MP:	0.882	-	0.782	LANE	1	RIGID	DI=	1.5
MP:	0.782	-	0.682	LANE	1	RIGID	DI=	0.5
MP:	0.682	-	0.582	LANE	1	RIGID	DI=	1.6
MP:	0.582	-	0.482	LANE	1	RIGID	DI=	0.5
MP:	0.482	-	0.304	LANE	1	RIGID	DI=	0.8
MP:	0.304	-	0.282	LANE	0	BRIDGE	DI=	0
MP:	0.282	-	0.182	LANE	1	RIGID	DI=	0

**Contol Section 44044 Westbound Distress Index vs.
Milepost**

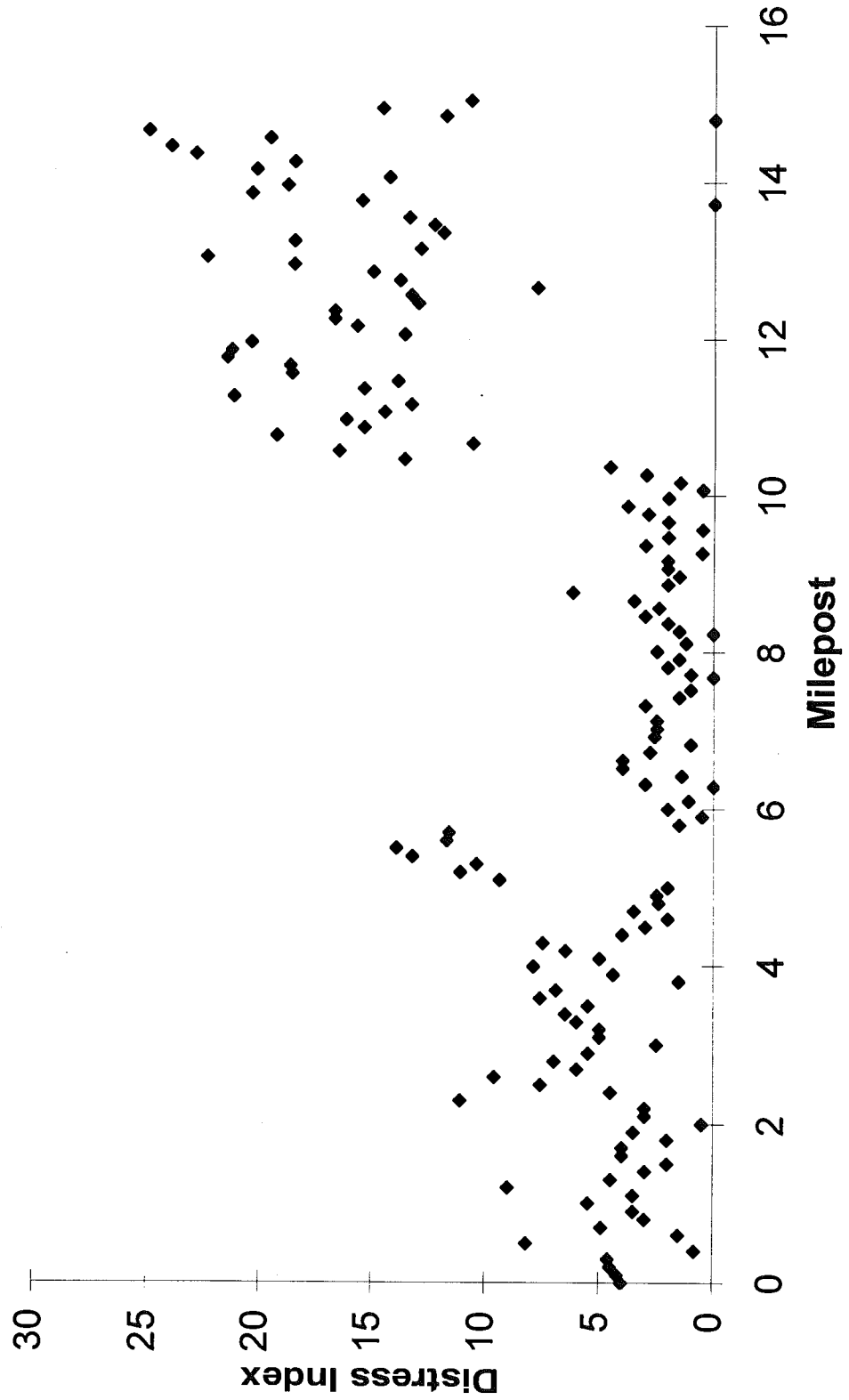


District 9	I-69 EB		TAPE	ID=95-36-04		BMP=00.000		
Control Section:	77023		Milepost:	0-15.283		No. of Segments:	153	DI=8.1
MP:	0	-	0.1	LANE	1	RIGID	DI=	4
MP:	0.1	-	0.2	LANE	1	RIGID	DI=	4.2
MP:	0.2	-	0.3	LANE	1	RIGID	DI=	4.5
MP:	0.3	-	0.4	LANE	1	RIGID	DI=	4.6
MP:	0.4	-	0.5	LANE	1	RIGID	DI=	0.8
MP:	0.5	-	0.6	LANE	1	RIGID	DI=	8.2
MP:	0.6	-	0.7	LANE	1	RIGID	DI=	1.5
MP:	0.7	-	0.8	LANE	1	RIGID	DI=	4.9
MP:	0.8	-	0.9	LANE	1	RIGID	DI=	3
MP:	0.9	-	1	LANE	1	RIGID	DI=	3.5
MP:	1	-	1.1	LANE	1	RIGID	DI=	5.5
MP:	1.1	-	1.2	LANE	1	RIGID	DI=	3.5
MP:	1.2	-	1.3	LANE	1	RIGID	DI=	9
MP:	1.3	-	1.4	LANE	1	RIGID	DI=	4.5
MP:	1.4	-	1.5	LANE	1	RIGID	DI=	3
MP:	1.5	-	1.6	LANE	1	RIGID	DI=	2
MP:	1.6	-	1.7	LANE	1	RIGID	DI=	4
MP:	1.7	-	1.8	LANE	1	RIGID	DI=	4
MP:	1.8	-	1.9	LANE	1	RIGID	DI=	2
MP:	1.9	-	2	LANE	1	RIGID	DI=	3.5
MP:	2	-	2.1	LANE	1	RIGID	DI=	0.5
MP:	2.1	-	2.2	LANE	1	RIGID	DI=	3
MP:	2.2	-	2.3	LANE	1	RIGID	DI=	3
MP:	2.3	-	2.4	LANE	1	RIGID	DI=	11.1
MP:	2.4	-	2.5	LANE	1	RIGID	DI=	4.5
MP:	2.5	-	2.6	LANE	1	RIGID	DI=	7.6
MP:	2.6	-	2.7	LANE	1	RIGID	DI=	9.6
MP:	2.7	-	2.8	LANE	1	RIGID	DI=	6
MP:	2.8	-	2.9	LANE	1	RIGID	DI=	7
MP:	2.9	-	3	LANE	1	RIGID	DI=	5.5
MP:	3	-	3.1	LANE	1	RIGID	DI=	2.5
MP:	3.1	-	3.2	LANE	1	RIGID	DI=	5
MP:	3.2	-	3.3	LANE	1	RIGID	DI=	5
MP:	3.3	-	3.4	LANE	1	RIGID	DI=	6
MP:	3.4	-	3.5	LANE	1	RIGID	DI=	6.5
MP:	3.5	-	3.6	LANE	1	RIGID	DI=	5.5
MP:	3.6	-	3.7	LANE	1	RIGID	DI=	7.6
MP:	3.7	-	3.8	LANE	1	RIGID	DI=	6.9
MP:	3.8	-	3.9	LANE	1	RIGID	DI=	1.5
MP:	3.9	-	4	LANE	1	RIGID	DI=	4.4
MP:	4	-	4.1	LANE	1	RIGID	DI=	7.9
MP:	4.1	-	4.2	LANE	1	RIGID	DI=	5
MP:	4.2	-	4.3	LANE	1	RIGID	DI=	6.5
MP:	4.3	-	4.4	LANE	1	RIGID	DI=	7.5
MP:	4.4	-	4.5	LANE	1	RIGID	DI=	4
MP:	4.5	-	4.6	LANE	1	RIGID	DI=	3
MP:	4.6	-	4.7	LANE	1	RIGID	DI=	2
MP:	4.7	-	4.8	LANE	1	RIGID	DI=	3.5
MP:	4.8	-	4.9	LANE	1	RIGID	DI=	2.4
MP:	4.9	-	5	LANE	1	RIGID	DI=	2.5
MP:	5	-	5.1	LANE	1	RIGID	DI=	2

MP:	5.1	-	5.2	LANE	1	RIGID	DI=	9.4
MP:	5.2	-	5.3	LANE	1	RIGID	DI=	11.1
MP:	5.3	-	5.4	LANE	1	RIGID	DI=	10.4
MP:	5.4	-	5.5	LANE	1	RIGID	DI=	13.2
MP:	5.5	-	5.6	LANE	1	RIGID	DI=	13.9
MP:	5.6	-	5.7	LANE	1	RIGID	DI=	11.7
MP:	5.7	-	5.8	LANE	1	RIGID	DI=	11.6
MP:	5.8	-	5.9	LANE	1	RIGID	DI=	1.5
MP:	5.9	-	6	LANE	1	RIGID	DI=	0.5
MP:	6	-	6.1	LANE	1	RIGID	DI=	2
MP:	6.1	-	6.285	LANE	1	RIGID	DI=	1.1
MP:	6.285	-	6.323	LANE	0	BRIDGE	DI=	0
MP:	6.323	-	6.423	LANE	1	RIGID	DI=	3
MP:	6.423	-	6.523	LANE	1	RIGID	DI=	1.4
MP:	6.523	-	6.623	LANE	1	RIGID	DI=	4
MP:	6.623	-	6.723	LANE	1	RIGID	DI=	4
MP:	6.723	-	6.823	LANE	1	RIGID	DI=	2.8
MP:	6.823	-	6.923	LANE	1	RIGID	DI=	1
MP:	6.923	-	7.023	LANE	1	RIGID	DI=	2.6
MP:	7.023	-	7.123	LANE	1	RIGID	DI=	2.5
MP:	7.123	-	7.223	LANE	1	RIGID	DI=	2.5
MP:	7.223	-	7.323	LANE	1	RIGID	DI=	3
MP:	7.323	-	7.423	LANE	1	RIGID	DI=	1.5
MP:	7.423	-	7.523	LANE	1	RIGID	DI=	1
MP:	7.523	-	7.676	LANE	1	RIGID	DI=	1
MP:	7.676	-	7.714	LANE	0	BRIDGE	DI=	0
MP:	7.714	-	7.814	LANE	1	RIGID	DI=	1
MP:	7.814	-	7.914	LANE	1	RIGID	DI=	2
MP:	7.914	-	8.014	LANE	1	RIGID	DI=	1.5
MP:	8.014	-	8.114	LANE	1	RIGID	DI=	2.5
MP:	8.114	-	8.234	LANE	1	RIGID	DI=	1.2
MP:	8.234	-	8.269	LANE	0	BRIDGE	DI=	0
MP:	8.269	-	8.369	LANE	1	RIGID	DI=	1.5
MP:	8.369	-	8.469	LANE	1	RIGID	DI=	2
MP:	8.469	-	8.569	LANE	1	RIGID	DI=	3
MP:	8.569	-	8.669	LANE	1	RIGID	DI=	2.4
MP:	8.669	-	8.769	LANE	1	RIGID	DI=	3.5
MP:	8.769	-	8.869	LANE	1	RIGID	DI=	6.2
MP:	8.869	-	8.969	LANE	1	RIGID	DI=	2
MP:	8.969	-	9.069	LANE	1	RIGID	DI=	1.5
MP:	9.069	-	9.169	LANE	1	RIGID	DI=	2
MP:	9.169	-	9.269	LANE	1	RIGID	DI=	2
MP:	9.269	-	9.369	LANE	1	RIGID	DI=	0.5
MP:	9.369	-	9.469	LANE	1	RIGID	DI=	3
MP:	9.469	-	9.569	LANE	1	RIGID	DI=	2
MP:	9.569	-	9.669	LANE	1	RIGID	DI=	0.5
MP:	9.669	-	9.769	LANE	1	RIGID	DI=	2
MP:	9.769	-	9.869	LANE	1	RIGID	DI=	2.9
MP:	9.869	-	9.969	LANE	1	RIGID	DI=	3.8
MP:	9.969	-	10.069	LANE	1	RIGID	DI=	2
MP:	10.069	-	10.169	LANE	1	RIGID	DI=	0.5
MP:	10.169	-	10.269	LANE	1	RIGID	DI=	1.5
MP:	10.269	-	10.369	LANE	1	RIGID	DI=	3
MP:	10.369	-	10.469	LANE	1	RIGID	DI=	4.6

MP:	10.469	-	10.569	LANE	1	RIGID	DI=	13.6
MP:	10.569	-	10.669	LANE	1	RIGID	DI=	16.5
MP:	10.669	-	10.769	LANE	1	RIGID	DI=	10.6
MP:	10.769	-	10.869	LANE	1	RIGID	DI=	19.3
MP:	10.869	-	10.969	LANE	1	RIGID	DI=	15.4
MP:	10.969	-	11.069	LANE	1	RIGID	DI=	16.2
MP:	11.069	-	11.169	LANE	1	RIGID	DI=	14.5
MP:	11.169	-	11.269	LANE	1	RIGID	DI=	13.3
MP:	11.269	-	11.369	LANE	1	RIGID	DI=	21.2
MP:	11.369	-	11.469	LANE	1	RIGID	DI=	15.4
MP:	11.469	-	11.569	LANE	1	RIGID	DI=	13.9
MP:	11.569	-	11.669	LANE	1	RIGID	DI=	18.6
MP:	11.669	-	11.769	LANE	1	RIGID	DI=	18.7
MP:	11.769	-	11.869	LANE	1	RIGID	DI=	21.5
MP:	11.869	-	11.969	LANE	1	RIGID	DI=	21.3
MP:	11.969	-	12.069	LANE	1	RIGID	DI=	20.4
MP:	12.069	-	12.169	LANE	1	RIGID	DI=	13.6
MP:	12.169	-	12.269	LANE	1	RIGID	DI=	15.7
MP:	12.269	-	12.369	LANE	1	RIGID	DI=	16.7
MP:	12.369	-	12.469	LANE	1	RIGID	DI=	16.7
MP:	12.469	-	12.569	LANE	1	RIGID	DI=	13
MP:	12.569	-	12.669	LANE	1	RIGID	DI=	13.3
MP:	12.669	-	12.769	LANE	1	RIGID	DI=	7.8
MP:	12.769	-	12.869	LANE	1	RIGID	DI=	13.8
MP:	12.869	-	12.969	LANE	1	RIGID	DI=	15
MP:	12.969	-	13.069	LANE	1	RIGID	DI=	18.5
MP:	13.069	-	13.169	LANE	1	RIGID	DI=	22.4
MP:	13.169	-	13.269	LANE	1	RIGID	DI=	12.9
MP:	13.269	-	13.369	LANE	1	RIGID	DI=	18.5
MP:	13.369	-	13.469	LANE	1	RIGID	DI=	11.9
MP:	13.469	-	13.569	LANE	1	RIGID	DI=	12.3
MP:	13.569	-	13.73	LANE	1	RIGID	DI=	13.4
MP:	13.73	-	13.775	LANE	0	BRIDGE	DI=	0
MP:	13.775	-	13.875	LANE	1	RIGID	DI=	15.5
MP:	13.875	-	13.975	LANE	1	RIGID	DI=	20.4
MP:	13.975	-	14.075	LANE	1	RIGID	DI=	18.8
MP:	14.075	-	14.175	LANE	1	RIGID	DI=	14.3
MP:	14.175	-	14.275	LANE	1	RIGID	DI=	20.2
MP:	14.275	-	14.375	LANE	1	RIGID	DI=	18.5
MP:	14.375	-	14.475	LANE	1	RIGID	DI=	22.9
MP:	14.475	-	14.575	LANE	1	RIGID	DI=	24
MP:	14.575	-	14.675	LANE	1	RIGID	DI=	19.6
MP:	14.675	-	14.796	LANE	1	RIGID	DI=	25
MP:	14.796	-	14.856	LANE	0	BRIDGE	DI=	0
MP:	14.856	-	14.956	LANE	1	RIGID	DI=	11.8
MP:	14.956	-	15.056	LANE	1	RIGID	DI=	14.6
MP:	15.056	-	15.156	LANE	1	RIGID	DI=	10.7
MP:	15.156	-	15.283	LANE	1	RIGID	DI=	34

Control Section 77023 Eastbound Distress Index vs. Milepost



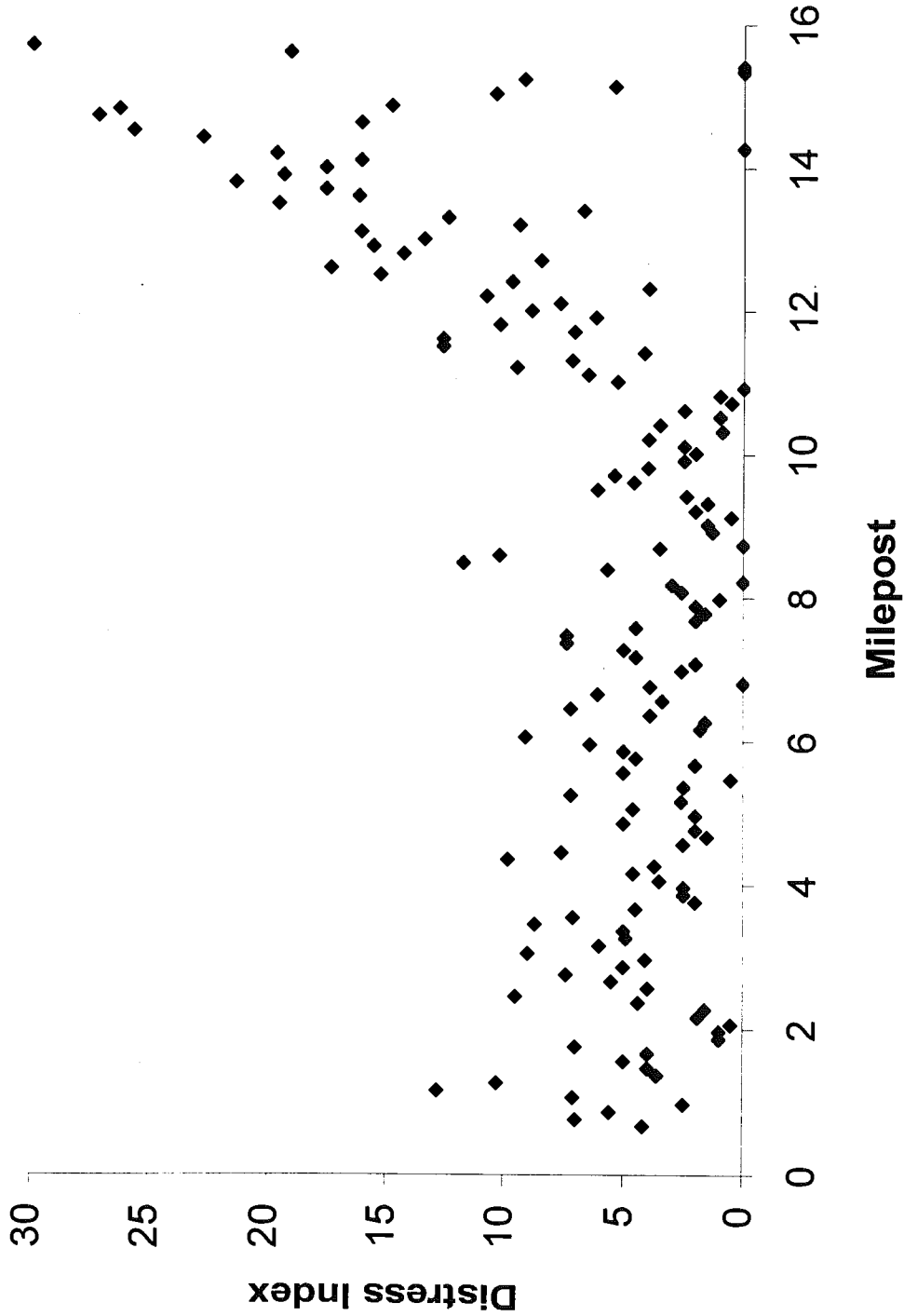
District 9	I-69 WB		TAPE	ID=95-36-07		BMP=00.000		
Control Section:	77023		Milepost:	15.744-0.515		No. of Segments:	152	DI=7.6
MP:	15.744	-	15.644	LANE	1	RIGID	DI=	30
MP:	15.644	-	15.544	LANE	1	RIGID	DI=	19.1
MP:	15.544	-	15.408	LANE	1	RIGID	DI=	66.8
MP:	15.408	-	15.357	LANE	0	BRIDGE	DI=	0
MP:	15.357	-	15.337	LANE	1	RIGID	DI=	0
MP:	15.337	-	15.253	LANE	0	BRIDGE	DI=	0
MP:	15.253	-	15.153	LANE	1	RIGID	DI=	9.2
MP:	15.153	-	15.053	LANE	1	RIGID	DI=	5.4
MP:	15.053	-	14.887	LANE	1	RIGID	DI=	10.4
MP:	14.887	-	14.851	LANE	2	RIGID	DI=	14.8
MP:	14.851	-	14.751	LANE	1	RIGID	DI=	26.3
MP:	14.751	-	14.651	LANE	1	RIGID	DI=	27.2
MP:	14.651	-	14.551	LANE	1	RIGID	DI=	16.1
MP:	14.551	-	14.451	LANE	1	RIGID	DI=	25.7
MP:	14.451	-	14.268	LANE	1	RIGID	DI=	22.8
MP:	14.268	-	14.222	LANE	0	BRIDGE	DI=	0
MP:	14.222	-	14.122	LANE	1	RIGID	DI=	19.7
MP:	14.122	-	14.022	LANE	1	RIGID	DI=	16.1
MP:	14.022	-	13.922	LANE	1	RIGID	DI=	17.6
MP:	13.922	-	13.822	LANE	1	RIGID	DI=	19.4
MP:	13.822	-	13.722	LANE	1	RIGID	DI=	21.4
MP:	13.722	-	13.622	LANE	1	RIGID	DI=	17.6
MP:	13.622	-	13.522	LANE	1	RIGID	DI=	16.2
MP:	13.522	-	13.422	LANE	1	RIGID	DI=	19.6
MP:	13.422	-	13.322	LANE	1	RIGID	DI=	6.7
MP:	13.322	-	13.222	LANE	1	RIGID	DI=	12.4
MP:	13.222	-	13.122	LANE	1	RIGID	DI=	9.4
MP:	13.122	-	13.022	LANE	1	RIGID	DI=	16.1
MP:	13.022	-	12.922	LANE	1	RIGID	DI=	13.4
MP:	12.922	-	12.822	LANE	1	RIGID	DI=	15.6
MP:	12.822	-	12.722	LANE	1	RIGID	DI=	14.3
MP:	12.722	-	12.622	LANE	1	RIGID	DI=	8.5
MP:	12.622	-	12.522	LANE	1	RIGID	DI=	17.4
MP:	12.522	-	12.422	LANE	1	RIGID	DI=	15.3
MP:	12.422	-	12.322	LANE	1	RIGID	DI=	9.7
MP:	12.322	-	12.222	LANE	1	RIGID	DI=	4
MP:	12.222	-	12.122	LANE	1	RIGID	DI=	10.8
MP:	12.122	-	12.022	LANE	1	RIGID	DI=	7.7
MP:	12.022	-	11.922	LANE	1	RIGID	DI=	8.9
MP:	11.922	-	11.822	LANE	1	RIGID	DI=	6.2
MP:	11.822	-	11.722	LANE	1	RIGID	DI=	10.2
MP:	11.722	-	11.622	LANE	1	RIGID	DI=	7.1
MP:	11.622	-	11.522	LANE	1	RIGID	DI=	12.6
MP:	11.522	-	11.422	LANE	1	RIGID	DI=	12.6
MP:	11.422	-	11.322	LANE	1	RIGID	DI=	4.2
MP:	11.322	-	11.222	LANE	1	RIGID	DI=	7.2
MP:	11.222	-	11.122	LANE	1	RIGID	DI=	9.5
MP:	11.122	-	11.022	LANE	1	RIGID	DI=	6.5
MP:	11.022	-	10.922	LANE	1	RIGID	DI=	5.3
MP:	10.922	-	10.822	LANE	1	RIGID	DI=	0

MP:	10.822	-	10.722	LANE	1	RIGID	DI=	1
MP:	10.722	-	10.622	LANE	1	RIGID	DI=	0.5
MP:	10.622	-	10.522	LANE	1	RIGID	DI=	2.5
MP:	10.522	-	10.422	LANE	1	RIGID	DI=	1
MP:	10.422	-	10.322	LANE	1	RIGID	DI=	3.5
MP:	10.322	-	10.222	LANE	1	RIGID	DI=	0.9
MP:	10.222	-	10.122	LANE	1	RIGID	DI=	4
MP:	10.122	-	10.022	LANE	1	RIGID	DI=	2.5
MP:	10.022	-	9.922	LANE	1	RIGID	DI=	2
MP:	9.922	-	9.822	LANE	1	RIGID	DI=	2.5
MP:	9.822	-	9.722	LANE	1	RIGID	DI=	4
MP:	9.722	-	9.622	LANE	1	RIGID	DI=	5.4
MP:	9.622	-	9.522	LANE	1	RIGID	DI=	4.6
MP:	9.522	-	9.422	LANE	1	RIGID	DI=	6.1
MP:	9.422	-	9.322	LANE	1	RIGID	DI=	2.4
MP:	9.322	-	9.222	LANE	1	RIGID	DI=	1.5
MP:	9.222	-	9.122	LANE	1	RIGID	DI=	2
MP:	9.122	-	9.022	LANE	1	RIGID	DI=	0.5
MP:	9.022	-	8.922	LANE	1	RIGID	DI=	1.5
MP:	8.922	-	8.733	LANE	1	RIGID	DI=	1.3
MP:	8.733	-	8.701	LANE	0	BRIDGE	DI=	0
MP:	8.701	-	8.601	LANE	1	RIGID	DI=	3.5
MP:	8.601	-	8.501	LANE	1	RIGID	DI=	10.2
MP:	8.501	-	8.401	LANE	1	RIGID	DI=	11.7
MP:	8.401	-	8.223	LANE	1	RIGID	DI=	5.7
MP:	8.223	-	8.184	LANE	0	BRIDGE	DI=	0
MP:	8.184	-	8.084	LANE	1	RIGID	DI=	3
MP:	8.084	-	7.984	LANE	1	RIGID	DI=	2.6
MP:	7.984	-	7.884	LANE	1	RIGID	DI=	1
MP:	7.884	-	7.784	LANE	1	RIGID	DI=	2
MP:	7.784	-	7.684	LANE	1	RIGID	DI=	1.6
MP:	7.684	-	7.584	LANE	1	RIGID	DI=	2
MP:	7.584	-	7.484	LANE	1	RIGID	DI=	4.5
MP:	7.484	-	7.384	LANE	1	RIGID	DI=	7.4
MP:	7.384	-	7.284	LANE	1	RIGID	DI=	7.4
MP:	7.284	-	7.184	LANE	1	RIGID	DI=	5
MP:	7.184	-	7.084	LANE	1	RIGID	DI=	4.5
MP:	7.084	-	6.984	LANE	1	RIGID	DI=	2
MP:	6.984	-	6.804	LANE	1	RIGID	DI=	2.6
MP:	6.804	-	6.77	LANE	0	BRIDGE	DI=	0
MP:	6.77	-	6.67	LANE	1	RIGID	DI=	3.9
MP:	6.67	-	6.57	LANE	1	RIGID	DI=	6.1
MP:	6.57	-	6.47	LANE	1	RIGID	DI=	3.4
MP:	6.47	-	6.37	LANE	1	RIGID	DI=	7.2
MP:	6.37	-	6.27	LANE	1	RIGID	DI=	3.9
MP:	6.27	-	6.17	LANE	1	RIGID	DI=	1.6
MP:	6.17	-	6.07	LANE	1	RIGID	DI=	1.8
MP:	6.07	-	5.97	LANE	1	RIGID	DI=	9.1
MP:	5.97	-	5.87	LANE	1	RIGID	DI=	6.4
MP:	5.87	-	5.77	LANE	1	RIGID	DI=	5
MP:	5.77	-	5.67	LANE	1	RIGID	DI=	4.5
MP:	5.67	-	5.57	LANE	1	RIGID	DI=	2
MP:	5.57	-	5.47	LANE	1	RIGID	DI=	5

MP:	5.47	-	5.37	LANE	1	RIGID	DI=	0.5
MP:	5.37	-	5.27	LANE	1	RIGID	DI=	2.5
MP:	5.27	-	5.17	LANE	1	RIGID	DI=	7.2
MP:	5.17	-	5.07	LANE	1	RIGID	DI=	2.6
MP:	5.07	-	4.97	LANE	1	RIGID	DI=	4.6
MP:	4.97	-	4.87	LANE	1	RIGID	DI=	2
MP:	4.87	-	4.77	LANE	1	RIGID	DI=	5
MP:	4.77	-	4.67	LANE	1	RIGID	DI=	2
MP:	4.67	-	4.57	LANE	1	RIGID	DI=	1.5
MP:	4.57	-	4.47	LANE	1	RIGID	DI=	2.5
MP:	4.47	-	4.37	LANE	1	RIGID	DI=	7.6
MP:	4.37	-	4.27	LANE	1	RIGID	DI=	9.8
MP:	4.27	-	4.17	LANE	1	RIGID	DI=	3.7
MP:	4.17	-	4.07	LANE	1	RIGID	DI=	4.6
MP:	4.07	-	3.97	LANE	1	RIGID	DI=	3.5
MP:	3.97	-	3.87	LANE	1	RIGID	DI=	2.5
MP:	3.87	-	3.77	LANE	1	RIGID	DI=	2.5
MP:	3.77	-	3.67	LANE	1	RIGID	DI=	2
MP:	3.67	-	3.57	LANE	1	RIGID	DI=	4.5
MP:	3.57	-	3.47	LANE	1	RIGID	DI=	7.1
MP:	3.47	-	3.37	LANE	1	RIGID	DI=	8.7
MP:	3.37	-	3.27	LANE	1	RIGID	DI=	5
MP:	3.27	-	3.17	LANE	1	RIGID	DI=	4.9
MP:	3.17	-	3.07	LANE	1	RIGID	DI=	6
MP:	3.07	-	2.97	LANE	1	RIGID	DI=	9
MP:	2.97	-	2.87	LANE	1	RIGID	DI=	4.1
MP:	2.87	-	2.77	LANE	1	RIGID	DI=	5
MP:	2.77	-	2.67	LANE	1	RIGID	DI=	7.4
MP:	2.67	-	2.57	LANE	1	RIGID	DI=	5.5
MP:	2.57	-	2.47	LANE	1	RIGID	DI=	4
MP:	2.47	-	2.37	LANE	1	RIGID	DI=	9.5
MP:	2.37	-	2.27	LANE	1	RIGID	DI=	4.4
MP:	2.27	-	2.17	LANE	1	RIGID	DI=	1.6
MP:	2.17	-	2.07	LANE	1	RIGID	DI=	1.9
MP:	2.07	-	1.97	LANE	1	RIGID	DI=	0.5
MP:	1.97	-	1.87	LANE	1	RIGID	DI=	1
MP:	1.87	-	1.77	LANE	1	RIGID	DI=	1
MP:	1.77	-	1.67	LANE	1	RIGID	DI=	7
MP:	1.67	-	1.57	LANE	1	RIGID	DI=	4
MP:	1.57	-	1.47	LANE	1	RIGID	DI=	5
MP:	1.47	-	1.37	LANE	1	RIGID	DI=	4
MP:	1.37	-	1.27	LANE	1	RIGID	DI=	3.6
MP:	1.27	-	1.17	LANE	1	RIGID	DI=	10.3
MP:	1.17	-	1.07	LANE	1	RIGID	DI=	12.8
MP:	1.07	-	0.97	LANE	1	RIGID	DI=	7.1
MP:	0.97	-	0.87	LANE	1	RIGID	DI=	2.5
MP:	0.87	-	0.77	LANE	1	RIGID	DI=	5.6
MP:	0.77	-	0.67	LANE	1	RIGID	DI=	7
MP:	0.67	-	0.515	LANE	1	RIGID	DI=	4.2

Control Section 77023 Westbound Distress Index vs.

Milepost

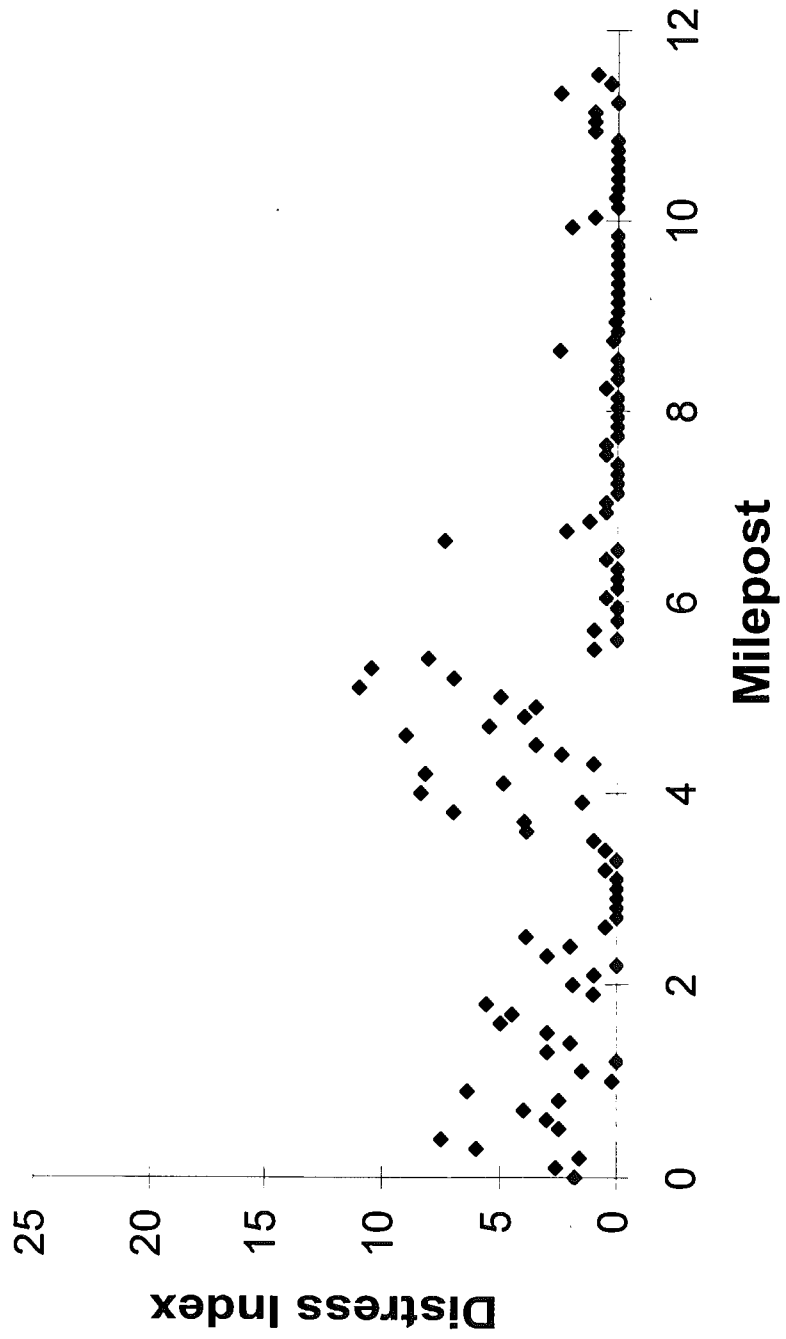


District 9	I-69 EB		TAPE	ID=95-36-03		BMP=00.000		
Control Section:	77024		Milepost:	0-11.657		No. of Segments:	117	DI=1.9
MP:	0	-	0.1	LANE	1	RIGID	DI=	1.8
MP:	0.1	-	0.2	LANE	1	RIGID	DI=	2.6
MP:	0.2	-	0.3	LANE	1	RIGID	DI=	1.6
MP:	0.3	-	0.4	LANE	1	RIGID	DI=	6
MP:	0.4	-	0.5	LANE	1	RIGID	DI=	7.5
MP:	0.5	-	0.6	LANE	1	RIGID	DI=	2.5
MP:	0.6	-	0.7	LANE	1	RIGID	DI=	3
MP:	0.7	-	0.8	LANE	1	RIGID	DI=	4
MP:	0.8	-	0.9	LANE	1	RIGID	DI=	2.5
MP:	0.9	-	1	LANE	1	RIGID	DI=	6.4
MP:	1	-	1.1	LANE	1	RIGID	DI=	0.2
MP:	1.1	-	1.2	LANE	1	RIGID	DI=	1.5
MP:	1.2	-	1.3	LANE	1	RIGID	DI=	0
MP:	1.3	-	1.4	LANE	1	RIGID	DI=	3
MP:	1.4	-	1.5	LANE	1	RIGID	DI=	2
MP:	1.5	-	1.6	LANE	1	RIGID	DI=	3
MP:	1.6	-	1.7	LANE	1	RIGID	DI=	5
MP:	1.7	-	1.8	LANE	1	RIGID	DI=	4.5
MP:	1.8	-	1.9	LANE	1	RIGID	DI=	5.6
MP:	1.9	-	2	LANE	1	RIGID	DI=	1
MP:	2	-	2.1	LANE	1	RIGID	DI=	1.9
MP:	2.1	-	2.2	LANE	1	RIGID	DI=	1
MP:	2.2	-	2.3	LANE	1	RIGID	DI=	0
MP:	2.3	-	2.4	LANE	1	RIGID	DI=	3
MP:	2.4	-	2.5	LANE	1	RIGID	DI=	2
MP:	2.5	-	2.6	LANE	1	RIGID	DI=	3.9
MP:	2.6	-	2.7	LANE	1	RIGID	DI=	0.5
MP:	2.7	-	2.8	LANE	1	RIGID	DI=	0
MP:	2.8	-	2.9	LANE	1	RIGID	DI=	0
MP:	2.9	-	3	LANE	1	RIGID	DI=	0
MP:	3	-	3.1	LANE	1	RIGID	DI=	0
MP:	3.1	-	3.2	LANE	1	RIGID	DI=	0
MP:	3.2	-	3.3	LANE	1	RIGID	DI=	0.5
MP:	3.3	-	3.4	LANE	1	RIGID	DI=	0
MP:	3.4	-	3.5	LANE	1	RIGID	DI=	0.5
MP:	3.5	-	3.6	LANE	1	RIGID	DI=	1
MP:	3.6	-	3.7	LANE	1	RIGID	DI=	3.9
MP:	3.7	-	3.8	LANE	1	RIGID	DI=	4
MP:	3.8	-	3.9	LANE	1	RIGID	DI=	7
MP:	3.9	-	4	LANE	1	RIGID	DI=	1.5
MP:	4	-	4.1	LANE	1	RIGID	DI=	8.4
MP:	4.1	-	4.2	LANE	1	RIGID	DI=	4.9
MP:	4.2	-	4.3	LANE	1	RIGID	DI=	8.2
MP:	4.3	-	4.4	LANE	1	RIGID	DI=	1
MP:	4.4	-	4.5	LANE	1	RIGID	DI=	2.4
MP:	4.5	-	4.6	LANE	1	RIGID	DI=	3.5
MP:	4.6	-	4.7	LANE	1	RIGID	DI=	9
MP:	4.7	-	4.8	LANE	1	RIGID	DI=	5.5
MP:	4.8	-	4.9	LANE	1	RIGID	DI=	4
MP:	4.9	-	5	LANE	1	RIGID	DI=	3.5
MP:	5	-	5.1	LANE	1	RIGID	DI=	5
MP:	5.1	-	5.2	LANE	1	RIGID	DI=	11
MP:	5.2	-	5.3	LANE	1	RIGID	DI=	7
MP:	5.3	-	5.4	LANE	1	RIGID	DI=	10.5

MP:	5.4	-	5.5	LANE	1	RIGID	DI=	8.1
MP:	5.5	-	5.6	LANE	1	RIGID	DI=	1
MP:	5.6	-	5.7	LANE	1	RIGID	DI=	0
MP:	5.7	-	5.8	LANE	1	RIGID	DI=	1
MP:	5.8	-	5.926	LANE	1	RIGID	DI=	0
MP:	5.926	-	5.94	LANE	0	BRIDGE	DI=	0
MP:	5.94	-	6.04	LANE	1	RIGID	DI=	0
MP:	6.04	-	6.14	LANE	1	RIGID	DI=	0.5
MP:	6.14	-	6.24	LANE	1	RIGID	DI=	0
MP:	6.24	-	6.34	LANE	1	RIGID	DI=	0
MP:	6.34	-	6.44	LANE	1	RIGID	DI=	0
MP:	6.44	-	6.54	LANE	1	RIGID	DI=	0.5
MP:	6.54	-	6.64	LANE	1	RIGID	DI=	0
MP:	6.64	-	6.74	LANE	1	RIGID	DI=	7.4
MP:	6.74	-	6.84	LANE	1	RIGID	DI=	2.2
MP:	6.84	-	6.94	LANE	1	RIGID	DI=	1.2
MP:	6.94	-	7.04	LANE	1	RIGID	DI=	0.5
MP:	7.04	-	7.14	LANE	1	RIGID	DI=	0.5
MP:	7.14	-	7.24	LANE	1	RIGID	DI=	0
MP:	7.24	-	7.34	LANE	1	RIGID	DI=	0
MP:	7.34	-	7.44	LANE	1	RIGID	DI=	0
MP:	7.44	-	7.54	LANE	1	RIGID	DI=	0
MP:	7.54	-	7.64	LANE	1	RIGID	DI=	0.5
MP:	7.64	-	7.74	LANE	1	RIGID	DI=	0.5
MP:	7.74	-	7.84	LANE	1	RIGID	DI=	0
MP:	7.84	-	7.94	LANE	1	RIGID	DI=	0
MP:	7.94	-	8.04	LANE	1	RIGID	DI=	0
MP:	8.04	-	8.14	LANE	1	RIGID	DI=	0
MP:	8.14	-	8.24	LANE	1	RIGID	DI=	0
MP:	8.24	-	8.34	LANE	1	RIGID	DI=	0.5
MP:	8.34	-	8.44	LANE	1	RIGID	DI=	0
MP:	8.44	-	8.54	LANE	1	RIGID	DI=	0
MP:	8.54	-	8.64	LANE	1	RIGID	DI=	0
MP:	8.64	-	8.74	LANE	1	RIGID	DI=	2.5
MP:	8.74	-	8.84	LANE	1	RIGID	DI=	0.2
MP:	8.84	-	8.94	LANE	1	RIGID	DI=	0
MP:	8.94	-	9.04	LANE	1	RIGID	DI=	0.1
MP:	9.04	-	9.14	LANE	1	RIGID	DI=	0
MP:	9.14	-	9.24	LANE	1	RIGID	DI=	0
MP:	9.24	-	9.34	LANE	1	RIGID	DI=	0
MP:	9.34	-	9.44	LANE	1	RIGID	DI=	0
MP:	9.44	-	9.54	LANE	1	RIGID	DI=	0
MP:	9.54	-	9.64	LANE	1	RIGID	DI=	0
MP:	9.64	-	9.74	LANE	1	RIGID	DI=	0
MP:	9.74	-	9.84	LANE	1	RIGID	DI=	0
MP:	9.84	-	9.94	LANE	1	RIGID	DI=	0
MP:	9.94	-	10.04	LANE	1	RIGID	DI=	2
MP:	10.04	-	10.14	LANE	1	RIGID	DI=	1
MP:	10.14	-	10.24	LANE	1	RIGID	DI=	0
MP:	10.24	-	10.34	LANE	1	RIGID	DI=	0.1
MP:	10.34	-	10.44	LANE	1	RIGID	DI=	0
MP:	10.44	-	10.54	LANE	1	RIGID	DI=	0
MP:	10.54	-	10.64	LANE	1	RIGID	DI=	0
MP:	10.64	-	10.74	LANE	1	RIGID	DI=	0
MP:	10.74	-	10.84	LANE	1	RIGID	DI=	0
MP:	10.84	-	10.94	LANE	1	RIGID	DI=	0

MP:	10.94	-	11.04	LANE	1	RIGID	DI=	1
MP:	11.04	-	11.14	LANE	1	RIGID	DI=	1
MP:	11.14	-	11.24	LANE	1	RIGID	DI=	1
MP:	11.24	-	11.34	LANE	1	RIGID	DI=	0
MP:	11.34	-	11.44	LANE	1	RIGID	DI=	2.5
MP:	11.44	-	11.54	LANE	1	RIGID	DI=	0.3
MP:	11.54	-	11.657	LANE	1	RIGID	DI=	0.9

Control Section 77024 Eastbound Distress Index vs. Milepost

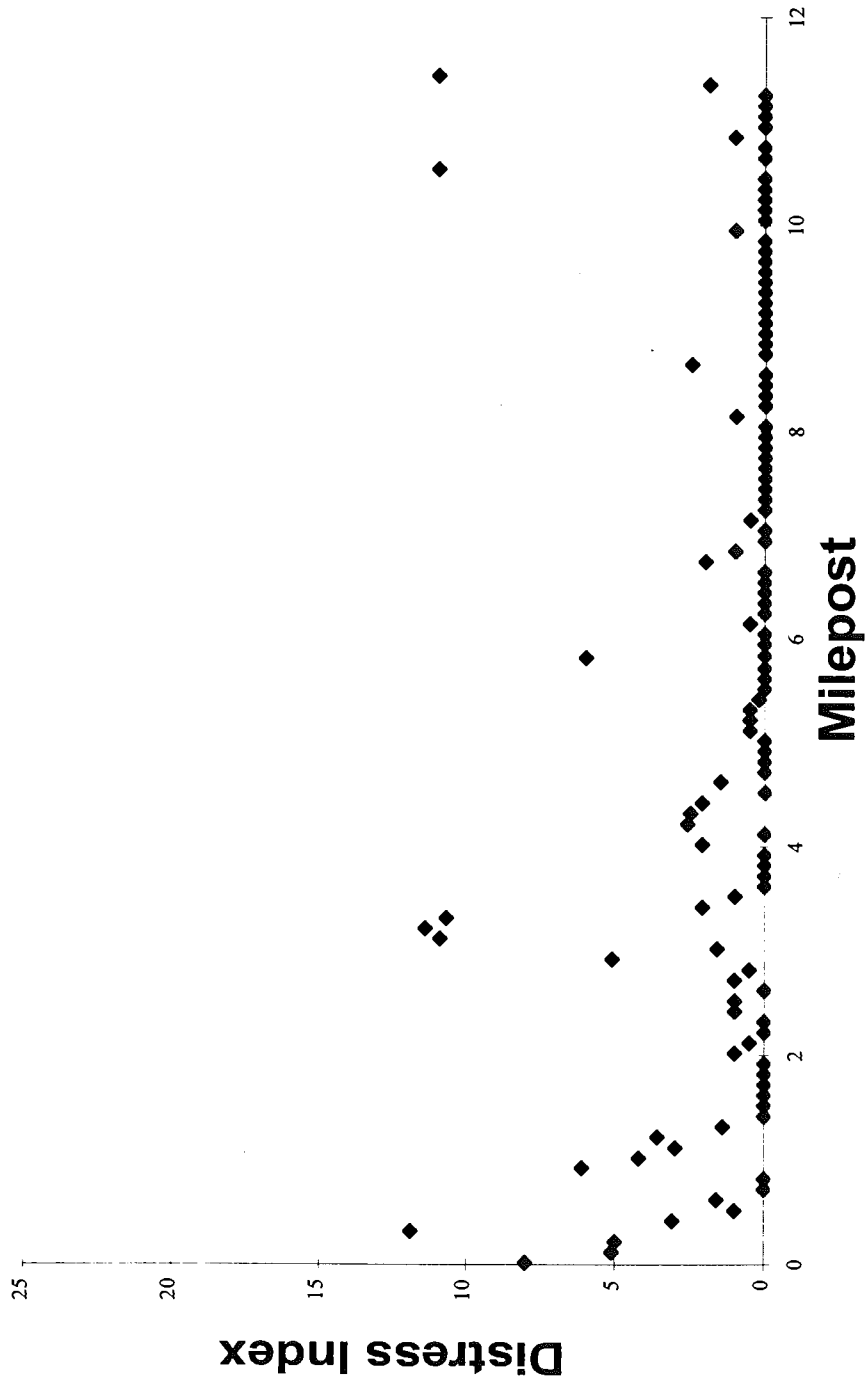


District 9	I-69 WB		TAPE	ID=95-36-08		BMP=00.000		
Control Section:	77024		Milepost:	11.55--0.109		No. of Segments:	117	DI=1.4
MP:	11.55	-	11.45	LANE	1	RIGID	DI=	3
MP:	11.45	-	11.35	LANE	1	RIGID	DI=	11
MP:	11.35	-	11.25	LANE	1	RIGID	DI=	1.9
MP:	11.25	-	11.15	LANE	1	RIGID	DI=	0
MP:	11.15	-	11.05	LANE	1	RIGID	DI=	0
MP:	11.05	-	10.95	LANE	1	RIGID	DI=	0
MP:	10.95	-	10.85	LANE	1	RIGID	DI=	0
MP:	10.85	-	10.75	LANE	1	RIGID	DI=	1
MP:	10.75	-	10.65	LANE	1	RIGID	DI=	0
MP:	10.65	-	10.55	LANE	1	RIGID	DI=	0
MP:	10.55	-	10.45	LANE	1	RIGID	DI=	11
MP:	10.45	-	10.35	LANE	1	RIGID	DI=	0
MP:	10.35	-	10.25	LANE	1	RIGID	DI=	0
MP:	10.25	-	10.15	LANE	1	RIGID	DI=	0
MP:	10.15	-	10.05	LANE	1	RIGID	DI=	0
MP:	10.05	-	9.95	LANE	1	RIGID	DI=	0
MP:	9.95	-	9.85	LANE	1	RIGID	DI=	1
MP:	9.85	-	9.75	LANE	1	RIGID	DI=	0
MP:	9.75	-	9.65	LANE	1	RIGID	DI=	0
MP:	9.65	-	9.55	LANE	1	RIGID	DI=	0
MP:	9.55	-	9.45	LANE	1	RIGID	DI=	0
MP:	9.45	-	9.35	LANE	1	RIGID	DI=	0
MP:	9.35	-	9.25	LANE	1	RIGID	DI=	0
MP:	9.25	-	9.15	LANE	1	RIGID	DI=	0
MP:	9.15	-	9.05	LANE	1	RIGID	DI=	0
MP:	9.05	-	8.95	LANE	1	RIGID	DI=	0
MP:	8.95	-	8.85	LANE	1	RIGID	DI=	0
MP:	8.85	-	8.75	LANE	1	RIGID	DI=	0
MP:	8.75	-	8.65	LANE	1	RIGID	DI=	0
MP:	8.65	-	8.55	LANE	1	RIGID	DI=	2.5
MP:	8.55	-	8.45	LANE	1	RIGID	DI=	0
MP:	8.45	-	8.35	LANE	1	RIGID	DI=	0
MP:	8.35	-	8.25	LANE	1	RIGID	DI=	0
MP:	8.25	-	8.15	LANE	1	RIGID	DI=	0
MP:	8.15	-	8.05	LANE	1	RIGID	DI=	1
MP:	8.05	-	7.95	LANE	1	RIGID	DI=	0
MP:	7.95	-	7.85	LANE	1	RIGID	DI=	0
MP:	7.85	-	7.75	LANE	1	RIGID	DI=	0
MP:	7.75	-	7.65	LANE	1	RIGID	DI=	0
MP:	7.65	-	7.55	LANE	1	RIGID	DI=	0
MP:	7.55	-	7.45	LANE	1	RIGID	DI=	0
MP:	7.45	-	7.35	LANE	1	RIGID	DI=	0
MP:	7.35	-	7.25	LANE	1	RIGID	DI=	0
MP:	7.25	-	7.15	LANE	1	RIGID	DI=	0
MP:	7.15	-	7.05	LANE	1	RIGID	DI=	0.5
MP:	7.05	-	6.95	LANE	1	RIGID	DI=	0
MP:	6.95	-	6.85	LANE	1	RIGID	DI=	0
MP:	6.85	-	6.75	LANE	1	RIGID	DI=	1
MP:	6.75	-	6.65	LANE	1	RIGID	DI=	2
MP:	6.65	-	6.55	LANE	1	RIGID	DI=	0
MP:	6.55	-	6.45	LANE	1	RIGID	DI=	0
MP:	6.45	-	6.35	LANE	1	RIGID	DI=	0
MP:	6.35	-	6.25	LANE	1	RIGID	DI=	0

MP:	6.25	-	6.15	LANE	1	RIGID	DI=	0
MP:	6.15	-	6.05	LANE	1	RIGID	DI=	0.5
MP:	6.05	-	5.95	LANE	1	RIGID	DI=	0
MP:	5.95	-	5.838	LANE	1	RIGID	DI=	0
MP:	5.838	-	5.82	LANE	0	BRIDGE	DI=	0
MP:	5.82	-	5.72	LANE	1	RIGID	DI=	6
MP:	5.72	-	5.62	LANE	1	RIGID	DI=	0
MP:	5.62	-	5.52	LANE	1	RIGID	DI=	0
MP:	5.52	-	5.42	LANE	1	RIGID	DI=	0
MP:	5.42	-	5.32	LANE	1	RIGID	DI=	0.2
MP:	5.32	-	5.22	LANE	1	RIGID	DI=	0.5
MP:	5.22	-	5.12	LANE	1	RIGID	DI=	0.5
MP:	5.12	-	5.02	LANE	1	RIGID	DI=	0.5
MP:	5.02	-	4.92	LANE	1	RIGID	DI=	0
MP:	4.92	-	4.82	LANE	1	RIGID	DI=	0
MP:	4.82	-	4.72	LANE	1	RIGID	DI=	0
MP:	4.72	-	4.62	LANE	1	RIGID	DI=	0
MP:	4.62	-	4.52	LANE	1	RIGID	DI=	1.5
MP:	4.52	-	4.42	LANE	1	RIGID	DI=	0
MP:	4.42	-	4.32	LANE	1	RIGID	DI=	2.1
MP:	4.32	-	4.22	LANE	1	RIGID	DI=	2.5
MP:	4.22	-	4.12	LANE	1	RIGID	DI=	2.6
MP:	4.12	-	4.02	LANE	1	RIGID	DI=	0
MP:	4.02	-	3.92	LANE	1	RIGID	DI=	2.1
MP:	3.92	-	3.82	LANE	1	RIGID	DI=	0
MP:	3.82	-	3.72	LANE	1	RIGID	DI=	0
MP:	3.72	-	3.62	LANE	1	RIGID	DI=	0
MP:	3.62	-	3.52	LANE	1	RIGID	DI=	0
MP:	3.52	-	3.42	LANE	1	RIGID	DI=	1
MP:	3.42	-	3.32	LANE	1	RIGID	DI=	2.1
MP:	3.32	-	3.22	LANE	1	RIGID	DI=	10.7
MP:	3.22	-	3.12	LANE	1	RIGID	DI=	11.4
MP:	3.12	-	3.02	LANE	1	RIGID	DI=	10.9
MP:	3.02	-	2.92	LANE	1	RIGID	DI=	1.6
MP:	2.92	-	2.82	LANE	1	RIGID	DI=	5.1
MP:	2.82	-	2.72	LANE	1	RIGID	DI=	0.5
MP:	2.72	-	2.62	LANE	1	RIGID	DI=	1
MP:	2.62	-	2.52	LANE	1	RIGID	DI=	0
MP:	2.52	-	2.42	LANE	1	RIGID	DI=	1
MP:	2.42	-	2.32	LANE	1	RIGID	DI=	1
MP:	2.32	-	2.22	LANE	1	RIGID	DI=	0
MP:	2.22	-	2.12	LANE	1	RIGID	DI=	0
MP:	2.12	-	2.02	LANE	1	RIGID	DI=	0.5
MP:	2.02	-	1.92	LANE	1	RIGID	DI=	1
MP:	1.92	-	1.82	LANE	1	RIGID	DI=	0
MP:	1.82	-	1.72	LANE	1	RIGID	DI=	0
MP:	1.72	-	1.62	LANE	1	RIGID	DI=	0
MP:	1.62	-	1.52	LANE	1	RIGID	DI=	0
MP:	1.52	-	1.42	LANE	1	RIGID	DI=	0
MP:	1.42	-	1.32	LANE	1	RIGID	DI=	0
MP:	1.32	-	1.22	LANE	1	RIGID	DI=	1.4
MP:	1.22	-	1.12	LANE	1	RIGID	DI=	3.6
MP:	1.12	-	1.02	LANE	1	RIGID	DI=	3
MP:	1.02	-	0.92	LANE	1	RIGID	DI=	4.2
MP:	0.92	-	0.82	LANE	1	RIGID	DI=	6.1
MP:	0.82	-	0.72	LANE	1	RIGID	DI=	0

MP:	0.72	-	0.62	LANE	1	RIGID	DI=	0
MP:	0.62	-	0.52	LANE	1	RIGID	DI=	1.6
MP:	0.52	-	0.42	LANE	1	RIGID	DI=	1
MP:	0.42	-	0.32	LANE	1	RIGID	DI=	3.1
MP:	0.32	-	0.22	LANE	1	RIGID	DI=	11.9
MP:	0.22	-	0.12	LANE	1	RIGID	DI=	5
MP:	0.12	-	0.02	LANE	1	RIGID	DI=	5.1
MP:	0.02	-	-0.109	LANE	1	RIGID	DI=	8

**Control Section 77024 Westbound Distress Index vs.
Milepost**



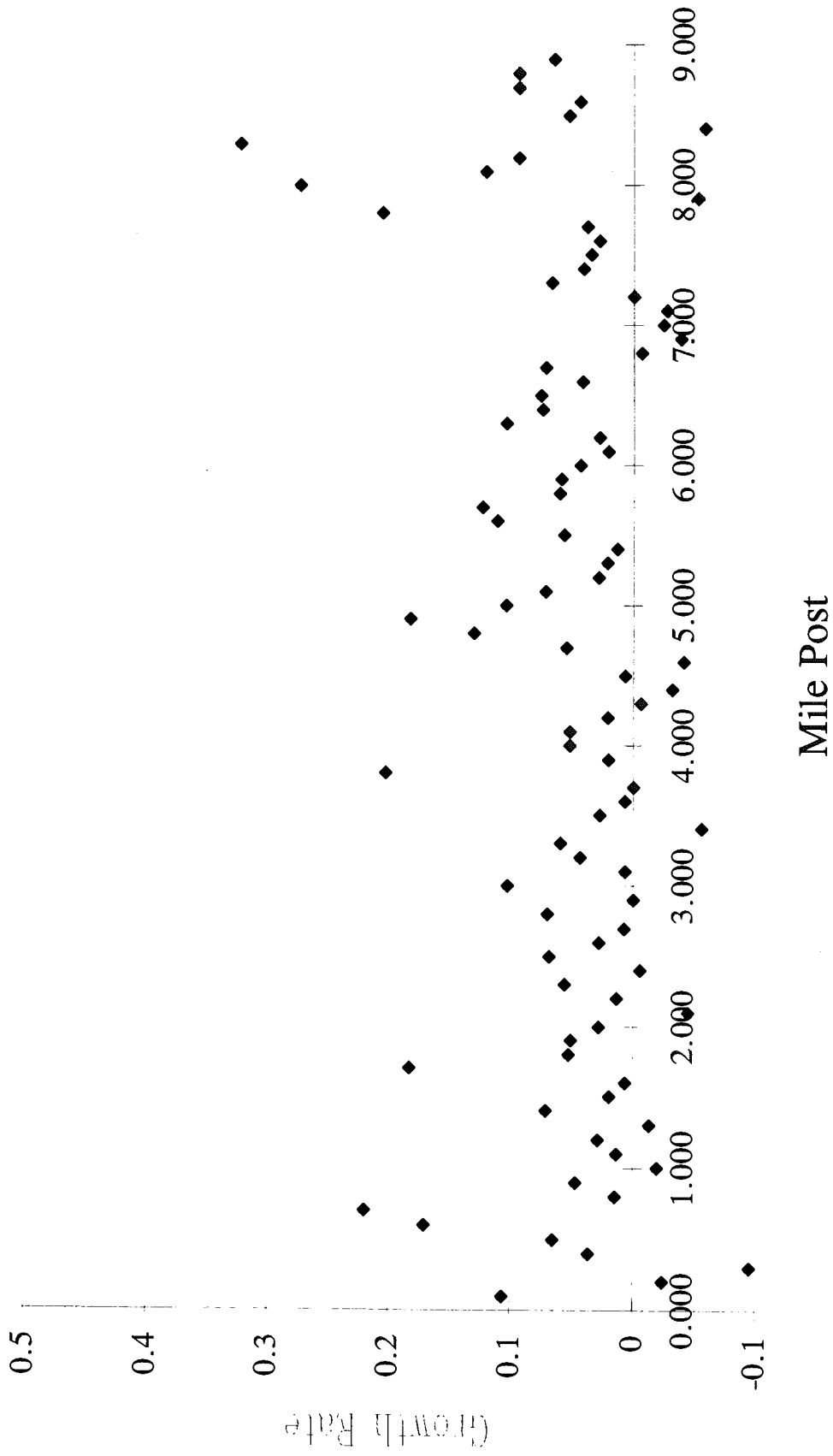
Control Section 19042 EB

RQI										
Section	Date	92avg	93avg	94avg	95avg	grthAvg	92std	93std	94std	95std
24861n	6/1/87	49.7368	51.4211	52.73684	55.947	0.04894	7.48956	8.105662	7.90107	7.735012
24680n	11/1/86	48.8889	47.1481	50.03704	52.074	0.02536	5.1838	4.912337	4.85546	5.121042
2233n	8/1/87	46.5429	47.7714	49.51429	53.429	0.05636	5.39795	3.308507	3.10001	4.603616

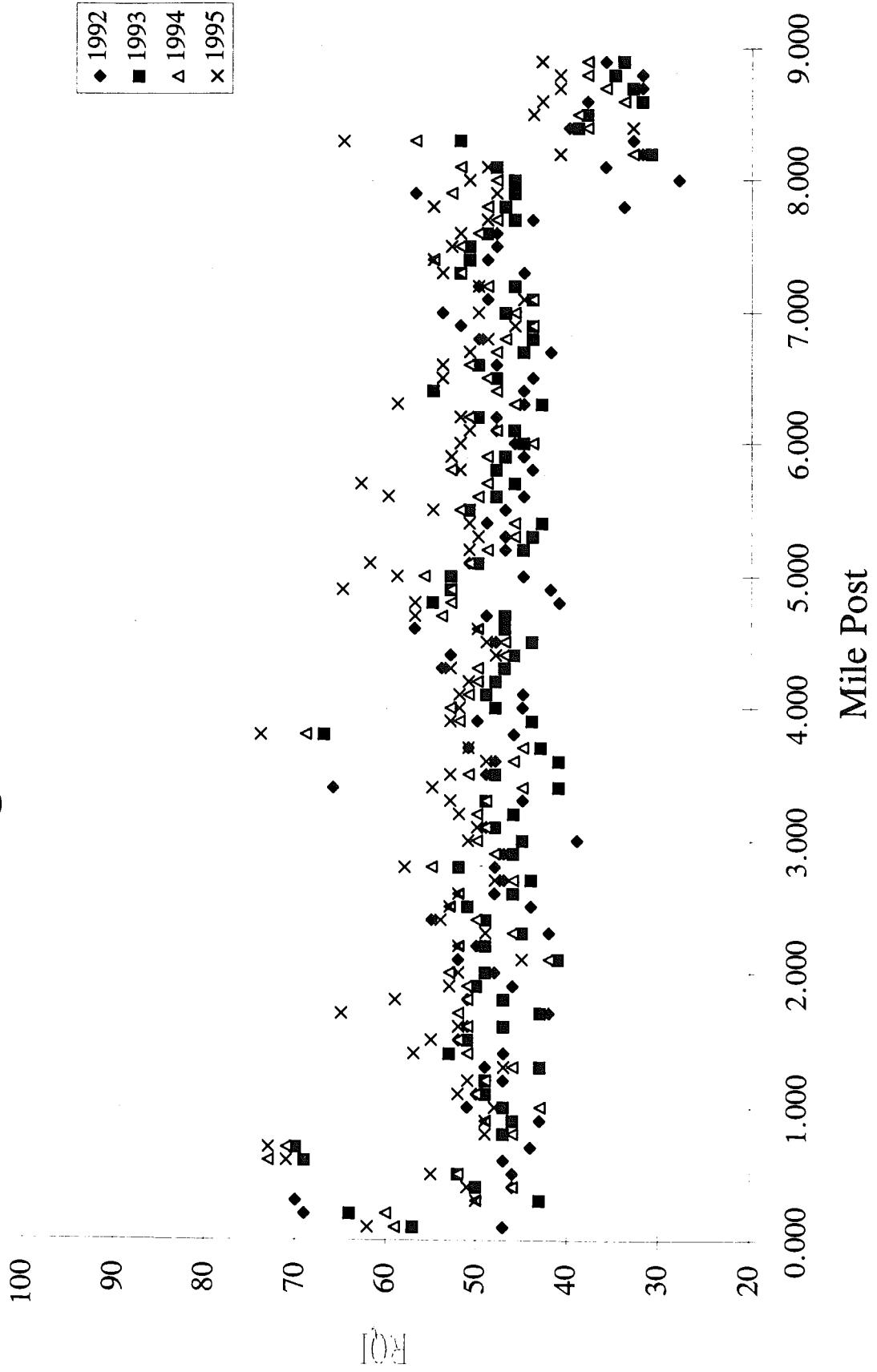
	19042 EB		BMP	EMP	1992	1993	1994	1995	Growth
5	169 NB	19042N	0.000	0.100	47	57	59	62	0.106383
5	169 NB	19042N	0.100	0.200	69	64	60	64	-0.024155
5	169 NB	19042N	0.200	0.300	70	43	50	50	-0.095238
5	169 NB	19042N	0.300	0.400	46	50	46	51	0.036232
5	169 NB	19042N	0.400	0.500	46	52	52	55	0.065217
5	169 NB	19042N	0.500	0.600	47	69	73	71	0.170213
5	169 NB	19042N	0.600	0.700	44	70	71	73	0.219697
5	169 NB	19042N	0.700	0.800	47	47	46	49	0.014184
5	169 NB	19042N	0.800	0.900	43	46	49	49	0.046512
5	169 NB	19042N	0.900	1.000	51	47	43	48	-0.019608
5	169 NB	19042N	1.000	1.100	50	49	50	52	0.013333
5	169 NB	19042N	1.100	1.200	47	49	49	51	0.028369
5	169 NB	19042N	1.200	1.300	49	43	46	47	-0.013605
5	169 NB	19042N	1.300	1.400	47	53	51	57	0.070922
5	169 NB	19042N	1.400	1.500	52	51	52	55	0.019231
5	169 NB	19042N	1.500	1.600	51	47	51	52	0.006536
5	169 NB	19042N	1.600	1.700	42	43	52	65	0.18254
5	169 NB	19042N	1.700	1.800	51	47	51	59	0.052288
5	169 NB	19042N	1.800	1.900	46	50	51	53	0.050725
5	169 NB	19042N	1.900	2.000	48	49	53	52	0.027778
5	169 NB	19042N	2.000	2.100	52	41	42	45	-0.044872
5	169 NB	19042N	2.100	2.200	50	49	52	52	0.013333
5	169 NB	19042N	2.200	2.300	42	45	46	49	0.055556
5	169 NB	19042N	2.300	2.400	55	49	50	54	-0.006061
5	169 NB	19042N	2.400	2.500	44	51	53	53	0.068182
5	169 NB	19042N	2.500	2.600	48	46	52	52	0.027778
5	169 NB	19042N	2.600	2.700	47	44	46	48	0.007092
5	169 NB	19042N	2.700	2.800	48	52	55	58	0.069444
5	169 NB	19042N	2.800	2.900	47	46	48	47	0
5	169 NB	19042N	2.900	3.000	39	45	50	51	0.102564
5	169 NB	19042N	3.000	3.100	49	48	49	50	0.006803
5	169 NB	19042N	3.100	3.200	46	46	50	52	0.043478
5	169 NB	19042N	3.200	3.300	45	49	49	53	0.059259
5	169 NB	19042N	3.300	3.400	66	41	45	55	-0.055556
5	169 NB	19042N	3.400	3.500	49	48	51	53	0.027211
5	169 NB	19042N	3.500	3.600	48	41	46	49	0.006944
5	169 NB	19042N	3.600	3.700	51	43	45	51	0
5	169 NB	19042N	3.700	3.800	46	67	69	74	0.202899
5	169 NB	19042N	3.800	3.900	50	44	52	53	0.02
5	169 NB	19042N	3.900	4.000	45	48	53	52	0.051852
5	169 NB	19042N	4.000	4.100	45	49	51	52	0.051852
5	169 NB	19042N	4.100	4.200	48	48	50	51	0.020833
5	169 NB	19042N	4.200	4.300	54	47	50	53	-0.006173
5	169 NB	19042N	4.300	4.400	53	46	47	48	-0.031447
5	169 NB	19042N	4.400	4.500	48	44	47	49	0.006944
5	169 NB	19042N	4.500	4.600	57	47	50	50	-0.040936
5	169 NB	19042N	4.600	4.700	49	47	54	57	0.054422
5	169 NB	19042N	4.700	4.800	41	55	53	57	0.130081
5	169 NB	19042N	4.800	4.900	42	53	53	65	0.18254

5	169 NB	19042N	4.900	5.000	45	53	56	59	0.103704
5	169 NB	19042N	5.000	5.100	51	50	51	62	0.071895
5	169 NB	19042N	5.100	5.200	47	45	49	51	0.028369
5	169 NB	19042N	5.200	5.300	47	44	46	50	0.021277
5	169 NB	19042N	5.300	5.400	49	43	46	51	0.013605
5	169 NB	19042N	5.400	5.500	47	51	52	55	0.056738
5	169 NB	19042N	5.500	5.600	45	48	50	60	0.111111
5	169 NB	19042N	5.600	5.700	46	46	49	63	0.123188
5	169 NB	19042N	5.700	5.800	44	48	53	52	0.060606
5	169 NB	19042N	5.800	5.900	45	47	49	53	0.059259
5	169 NB	19042N	5.900	6.000	46	45	44	52	0.043478
5	169 NB	19042N	6.000	6.100	48	46	48	51	0.020833
5	169 NB	19042N	6.100	6.200	48	50	51	52	0.027778
5	169 NB	19042N	6.200	6.300	45	43	46	59	0.103704
5	169 NB	19042N	6.300	6.400	45	55	48	55	0.074074
5	169 NB	19042N	6.400	6.500	44	48	49	54	0.075758
5	169 NB	19042N	6.500	6.600	48	50	51	54	0.041667
5	169 NB	19042N	6.600	6.700	42	45	48	51	0.071429
5	169 NB	19042N	6.700	6.800	50	44	47	49	-0.006667
5	169 NB	19042N	6.800	6.900	52	44	44	46	-0.038462
5	169 NB	19042N	6.900	7.000	54	47	46	50	-0.024691
5	169 NB	19042N	7.000	7.100	49	44	44	45	-0.027211
5	169 NB	19042N	7.100	7.200	50	46	49	50	0
5	169 NB	19042N	7.200	7.300	45	52	52	54	0.066667
5	169 NB	19042N	7.300	7.400	49	51	55	55	0.040816
5	169 NB	19042N	7.400	7.500	48	51	52	53	0.034722
5	169 NB	19042N	7.500	7.600	48	49	50	52	0.027778
5	169 NB	19042N	7.600	7.700	44	46	48	49	0.037879
5	169 NB	19042N	7.700	7.800	34	47	49	55	0.205882
5	169 NB	19042N	7.800	7.900	57	46	53	48	-0.052632
5	169 NB	19042N	7.900	8.000	28	46	48	51	0.27381
5	169 NB	19042N	8.000	8.100	36	48	52	49	0.12037
5	169 NB	19042N	8.100	8.200	32	31	33	41	0.09375
5	169 NB	19042N	8.200	8.300	33	52	57	65	0.323232
5	169 NB	19042N	8.300	8.400	40	39	38	33	-0.058333
5	169 NB	19042N	8.400	8.500	38	38	39	44	0.052632
5	169 NB	19042N	8.500	8.600	38	32	34	43	0.04386
5	169 NB	19042N	8.600	8.700	32	33	36	41	0.09375
5	169 NB	19042N	8.700	8.800	32	35	38	41	0.09375
5	169 NB	19042N	8.800	8.900	36	34	38	43	0.064815

RQI Growth Rate, annual % per year



RQI Data:19042 EB



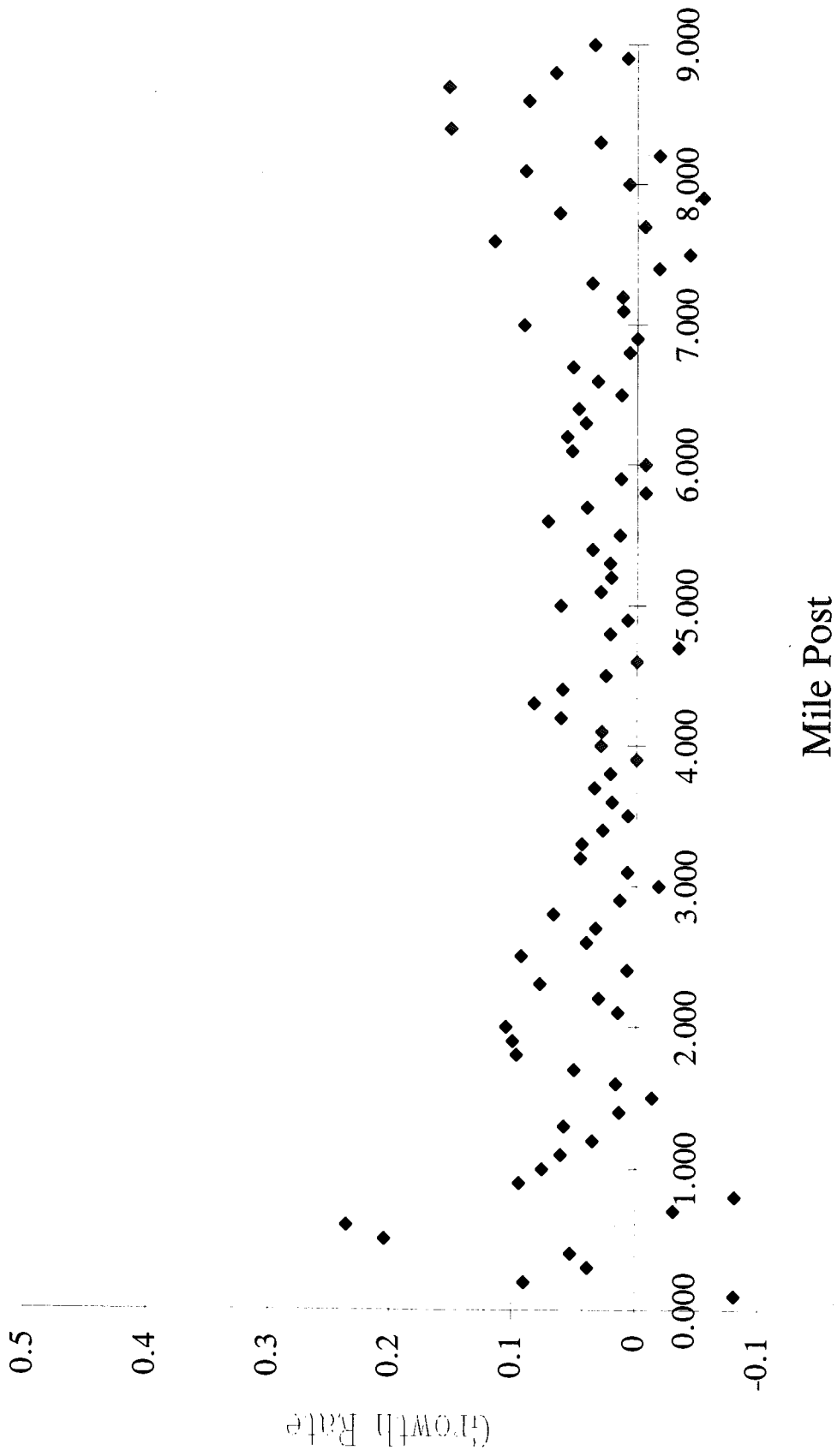
Control Section 19042 WB

RQI										
Section	Date	92avg	93avg	94avg	95avg	grthAv	92std	93std	94std	95std
24861s	31929	46.15789	46.36842	48.3158	52.1053	0.053	9.155	8.39451	7.70319	7.607706
24680s	31717	47.85185	47.03704	49.0741	52.7407	0.035	3.549	4.21062	4.12241	3.737467
2233s	31990	49.48571	49.14286	51.0857	52.7143	0.023	4.032	4.42681	4.33435	4.560517

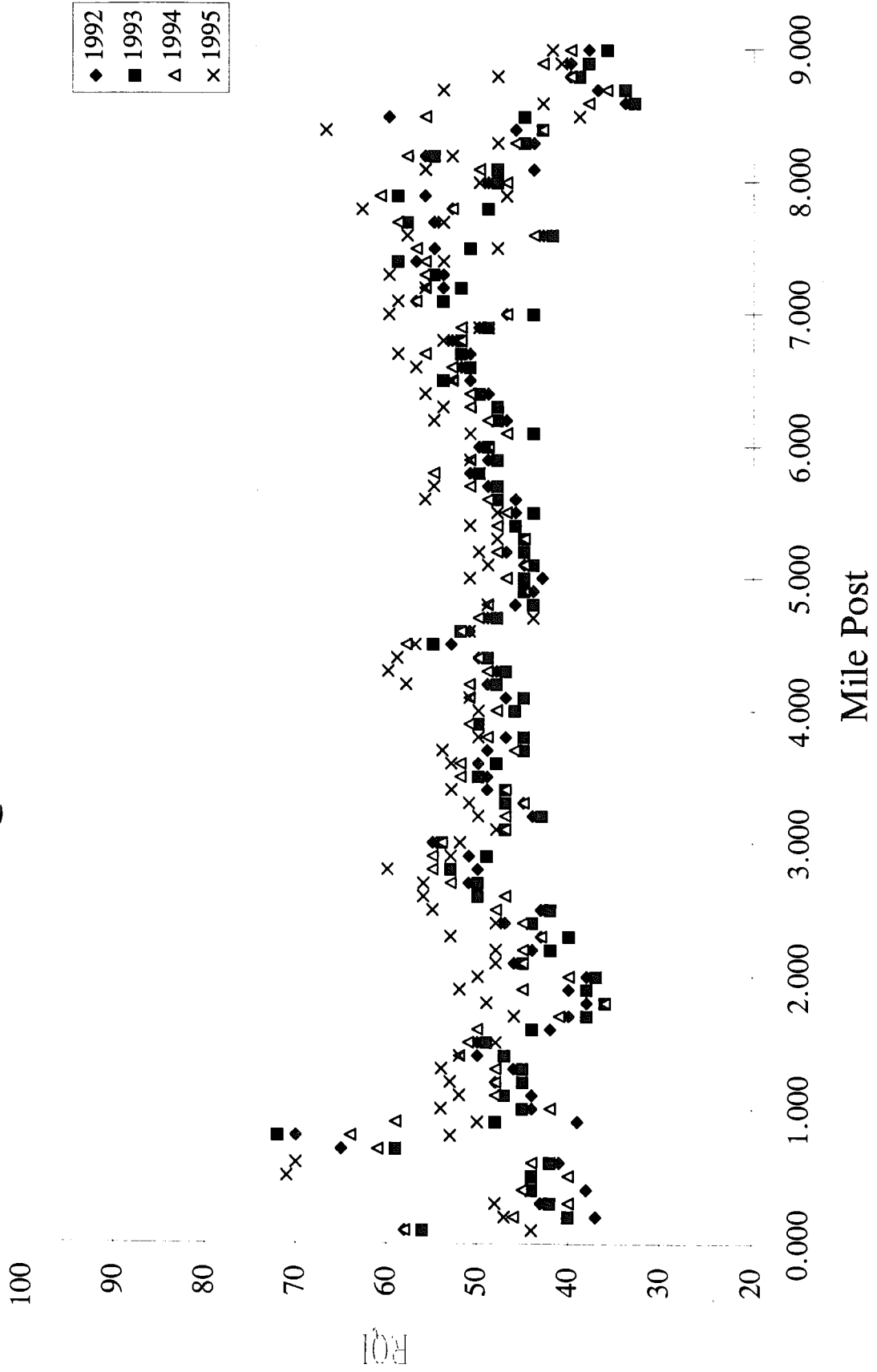
RQI										
19042 WB			BMP	EMP	1992	1993	1994	1995	Growth	
5	I69 SB	19042S	0.000	0.100	58	56	58	44	-0.08046	
5	I69 SB	19042S	0.100	0.200	37	40	46	47	0.09009	
5	I69 SB	19042S	0.200	0.300	43	42	40	48	0.03876	
5	I69 SB	19042S	0.300	0.400	38	44	45	44	0.052632	
5	I69 SB	19042S	0.400	0.500	44	44	40	71	0.204545	
5	I69 SB	19042S	0.500	0.600	41	42	44	70	0.235772	
5	I69 SB	19042S	0.600	0.700	65	59	61	59	-0.03077	
5	I69 SB	19042S	0.700	0.800	70	72	64	53	-0.08095	
5	I69 SB	19042S	0.800	0.900	39	48	59	50	0.094017	
5	I69 SB	19042S	0.900	1.000	44	45	42	54	0.075758	
5	I69 SB	19042S	1.000	1.100	44	47	48	52	0.060606	
5	I69 SB	19042S	1.100	1.200	48	45	48	53	0.034722	
5	I69 SB	19042S	1.200	1.300	46	45	48	54	0.057971	
5	I69 SB	19042S	1.300	1.400	50	47	52	52	0.013333	
5	I69 SB	19042S	1.400	1.500	50	49	51	48	-0.01333	
5	I69 SB	19042S	1.500	1.600	42	44	50	44	0.015873	
5	I69 SB	19042S	1.600	1.700	40	38	41	46	0.05	
5	I69 SB	19042S	1.700	1.800	38	36	36	49	0.096491	
5	I69 SB	19042S	1.800	1.900	40	38	45	52	0.1	
5	I69 SB	19042S	1.900	2.000	38	37	40	50	0.105263	
5	I69 SB	19042S	2.000	2.100	46	45	45	48	0.014493	
5	I69 SB	19042S	2.100	2.200	44	42	45	48	0.030303	
5	I69 SB	19042S	2.200	2.300	43	40	43	53	0.077519	
5	I69 SB	19042S	2.300	2.400	47	44	45	48	0.007092	
5	I69 SB	19042S	2.400	2.500	43	42	48	55	0.093023	
5	I69 SB	19042S	2.500	2.600	50	50	47	56	0.04	
5	I69 SB	19042S	2.600	2.700	51	50	53	56	0.03268	
5	I69 SB	19042S	2.700	2.800	50	53	55	60	0.066667	
5	I69 SB	19042S	2.800	2.900	51	49	55	53	0.013072	
5	I69 SB	19042S	2.900	3.000	55	54	54	52	-0.01818	
5	I69 SB	19042S	3.000	3.100	47	47	47	48	0.007092	
5	I69 SB	19042S	3.100	3.200	44	43	47	50	0.045455	
5	I69 SB	19042S	3.200	3.300	45	47	45	51	0.044444	
5	I69 SB	19042S	3.300	3.400	49	47	47	53	0.027211	
5	I69 SB	19042S	3.400	3.500	49	50	52	50	0.006803	
5	I69 SB	19042S	3.500	3.600	50	48	52	53	0.02	
5	I69 SB	19042S	3.600	3.700	49	45	46	54	0.034014	
5	I69 SB	19042S	3.700	3.800	47	45	49	50	0.021277	
5	I69 SB	19042S	3.800	3.900	50	50	51	50	0	
5	I69 SB	19042S	3.900	4.000	46	46	48	50	0.028986	
5	I69 SB	19042S	4.000	4.100	47	45	51	51	0.028369	
5	I69 SB	19042S	4.100	4.200	49	48	51	58	0.061224	

5	I69 SB	19042S	4.200	4.300	48	47	49	60	0.083333
5	I69 SB	19042S	4.300	4.400	50	49	50	59	0.06
5	I69 SB	19042S	4.400	4.500	53	55	58	57	0.025157
5	I69 SB	19042S	4.500	4.600	51	52	52	51	0
5	I69 SB	19042S	4.600	4.700	49	48	50	44	-0.03401
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5	I69 SB	19042S	4.800	4.900	44	45	45	45	0.007576
5	I69 SB	19042S	4.900	5.000	43	45	47	51	0.062016
5	I69 SB	19042S	5.000	5.100	45	44	45	49	0.02963
5	I69 SB	19042S	5.100	5.200	47	45	48	50	0.021277
5	I69 SB	19042S	5.200	5.300	45	45	45	48	0.022222
5	I69 SB	19042S	5.300	5.400	46	46	48	51	0.036232
5	I69 SB	19042S	5.400	5.500	46	44	47	48	0.014493
5	I69 SB	19042S	5.500	5.600	46	48	49	56	0.072464
5	I69 SB	19042S	5.600	5.700	49	48	51	55	0.040816
5	I69 SB	19042S	5.700	5.800	51	50	55	50	-0.00654
5	I69 SB	19042S	5.800	5.900	49	48	51	51	0.013605
5	I69 SB	19042S	5.900	6.000	50	49	49	49	-0.00667
5	I69 SB	19042S	6.000	6.100	44	44	47	51	0.05303
5	I69 SB	19042S	6.100	6.200	47	48	49	55	0.056738
5	I69 SB	19042S	6.200	6.300	48	48	51	54	0.041667
5	I69 SB	19042S	6.300	6.400	49	50	51	56	0.047619
5	I69 SB	19042S	6.400	6.500	51	54	53	53	0.013072
5	I69 SB	19042S	6.500	6.600	52	51	53	57	0.032051
5	I69 SB	19042S	6.600	6.700	51	52	56	59	0.052288
5	I69 SB	19042S	6.700	6.800	53	52	52	54	0.006289
5	I69 SB	19042S	6.800	6.900	50	49	52	50	0
5	I69 SB	19042S	6.900	7.000	47	44	47	60	0.092199
5	I69 SB	19042S	7.000	7.100	57	54	57	59	0.011696
5	I69 SB	19042S	7.100	7.200	54	52	56	56	0.012346
5	I69 SB	19042S	7.200	7.300	54	55	56	60	0.037037
5	I69 SB	19042S	7.300	7.400	57	59	56	54	-0.01754
5	I69 SB	19042S	7.400	7.500	55	51	57	48	-0.04242
5	I69 SB	19042S	7.500	7.600	43	42	44	58	0.116279
5	I69 SB	19042S	7.600	7.700	55	58	59	54	-0.00606
5	I69 SB	19042S	7.700	7.800	53	49	53	63	0.062893
5	I69 SB	19042S	7.800	7.900	56	59	61	47	-0.05357
5	I69 SB	19042S	7.900	8.000	49	48	47	50	0.006803
5	I69 SB	19042S	8.000	8.100	44	48	50	56	0.090909
5	I69 SB	19042S	8.100	8.200	56	55	58	53	-0.01786
5	I69 SB	19042S	8.200	8.300	44	45	46	48	0.030303
5	I69 SB	19042S	8.300	8.400	46	43	43	67	0.152174
5	I69 SB	19042S	8.400	8.500	60	45	56	39	-0.11667
5	I69 SB	19042S	8.500	8.600	34	33	38	43	0.088235
5	I69 SB	19042S	8.600	8.700	37	34	36	54	0.153153
5	I69 SB	19042S	8.700	8.800	40	39	40	48	0.066667
5	I69 SB	19042S	8.800	8.900	40	38	43	41	0.008333
5	I69 SB	19042S	8.900	9.000	38	36	40	42	0.035088

RQI Growth Rate, annual % per year



RQI Data:19042 WB



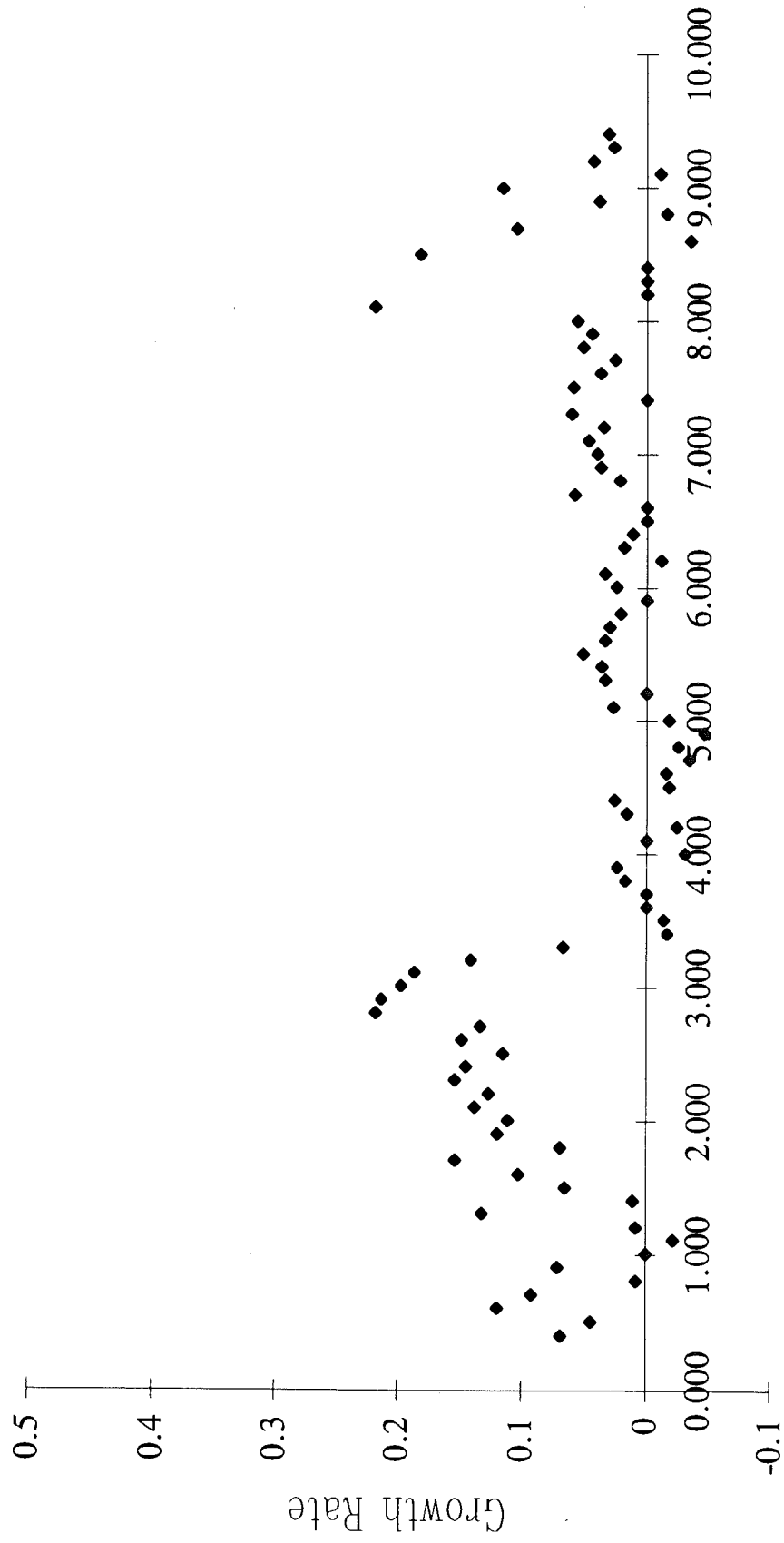
Control Section 19043 EB

RQI										
Section	Date	92avg	93avg	94avg	95avg	grthAvg	92std	93std	94std	95std
18355n	6/1/83	38.33333		38.8333	46	0.06707	2.80476		5.3821	5.215362
18632n	7/1/85	36.20513		32.0769	41.7692	0.06753	9.86002		9.7316	6.795748
02234n	6/1/82	50.83333		49.7667	54.4	0.02379	5.13999		5.9694	6.12288
01930n	6/1/79	45.66667		49	52	0.05017	7.85281		9.8489	10.39918

19043 EB		BMP	EMP	1992	1993	1994	1995	Growth	
5	I69 NB		0.306	0.406	39		42	47	0.068376
5	I69 NB	19043N	0.406	0.506	38		38	43	0.04386
5	I69 NB	19043N	0.506	0.606	39		44	53	0.119658
5	I69 NB	19043N	0.606	0.706	40		42	51	0.091667
5	I69 NB	19043N	0.706	0.806	41		38	42	0.00813
5	I69 NB	19043N	0.806	0.906	33		29	40	0.070707
5	I69 NB	19043N	0.906	1.006	49		53	49	0
5	I69 NB	19043N	1.006	1.106	62		57	58	-0.02151
5	I69 NB	19043N	1.106	1.206	42		42	43	0.007937
5	I69 NB	19043N	1.206	1.306	38		40	53	0.131579
5	I69 NB	19043N	1.306	1.406	65		68	67	0.010256
5	I69 NB	19043N	1.406	1.506	46		47	55	0.065217
5	I69 NB	19043N	1.506	1.606	26		25	34	0.102564
5	I69 NB	19043N	1.606	1.706	26		27	38	0.153846
5	I69 NB	19043N	1.706	1.806	29		24	35	0.068966
5	I69 NB	19043N	1.806	1.906	28		29	38	0.119048
5	I69 NB	19043N	1.906	2.006	30		32	40	0.111111
5	I69 NB	19043N	2.006	2.106	29		32	41	0.137931
5	I69 NB	19043N	2.106	2.206	29		30	40	0.126437
5	I69 NB	19043N	2.206	2.306	26		24	38	0.153846
5	I69 NB	19043N	2.306	2.406	23		21	33	0.144928
5	I69 NB	19043N	2.406	2.506	29		30	39	0.114943
5	I69 NB	19043N	2.506	2.606	27		28	39	0.148148
5	I69 NB	19043N	2.606	2.706	30		34	42	0.133333
5	I69 NB	19043N	2.706	2.806	26		31	43	0.217949
5	I69 NB	19043N	2.806	2.906	25		30	41	0.213333
5	I69 NB	19043N	2.906	3.006	27		27	43	0.197531
5	I69 NB	19043N	3.006	3.106	25		26	39	0.186667
5	I69 NB	19043N	3.106	3.206	26		28	37	0.141026
5	I69 NB	19043N	3.206	3.306	35		24	42	0.066667
5	I69 NB	19043N	3.306	3.406	40		31	38	-0.01667
5	I69 NB	19043N	3.406	3.506	48		39	46	-0.01389
5	I69 NB	19043N	3.506	3.606	42		30	42	0
5	I69 NB	19043N	3.606	3.706	42		31	42	0
5	I69 NB	19043N	3.706	3.806	39		29	41	0.017094
5	I69 NB	19043N	3.806	3.906	42		33	45	0.02381
5	I69 NB	19043N	3.906	4.006	43		29	39	-0.03101
5	I69 NB	19043N	4.006	4.106	41		33	41	0
5	I69 NB	19043N	4.106	4.206	41		32	38	-0.02439
5	I69 NB	19043N	4.206	4.306	42		29	44	0.015873
5	I69 NB	19043N	4.306	4.406	39		22	42	0.025641
5	I69 NB	19043N	4.406	4.506	36		23	34	-0.01852

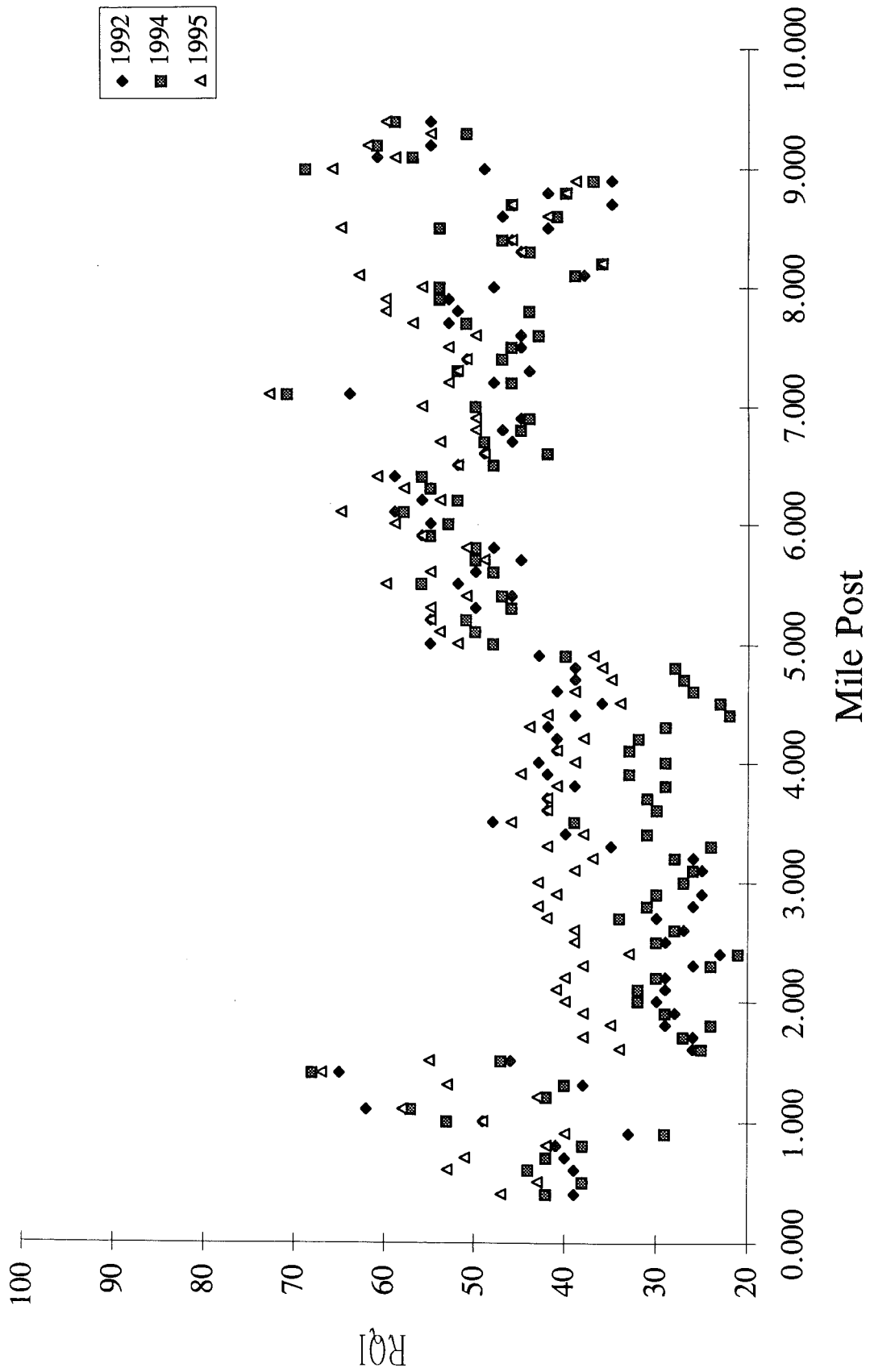
5	I69 NB	19043N	4.506	4.606	41		26	39	-0.01626
5	I69 NB	19043N	4.606	4.706	39		27	35	-0.03419
5	I69 NB	19043N	4.706	4.806	39		28	36	-0.02564
5	I69 NB	19043N	4.806	4.906	43		40	37	-0.04651
5	I69 NB	19043N	4.906	5.006	55		48	52	-0.01818
5	I69 NB	19043N	5.006	5.106	50		50	54	0.026667
5	I69 NB	19043N	5.106	5.206	55		51	55	0
5	I69 NB	19043N	5.206	5.306	50		46	55	0.033333
5	I69 NB	19043N	5.306	5.406	46		47	51	0.036232
5	I69 NB	19043N	5.406	5.506	52		56	60	0.051282
5	I69 NB	19043N	5.506	5.606	50		48	55	0.033333
5	I69 NB	19043N	5.606	5.706	45		50	49	0.02963
5	I69 NB	19043N	5.706	5.806	48		50	51	0.020833
5	I69 NB	19043N	5.806	5.906	56		55	56	0
5	I69 NB	19043N	5.906	6.006	55		53	59	0.024242
5	I69 NB	19043N	6.006	6.106	59		58	65	0.033898
5	I69 NB	19043N	6.106	6.206	56		52	54	-0.0119
5	I69 NB	19043N	6.206	6.306	55		55	58	0.018182
5	I69 NB	19043N	6.306	6.406	59		56	61	0.011299
5	I69 NB	19043N	6.406	6.506	52		48	52	0
5	I69 NB	19043N	6.506	6.606	49		42	49	0
5	I69 NB	19043N	6.606	6.706	46		49	54	0.057971
5	I69 NB	19043N	6.706	6.806	47		45	50	0.021277
5	I69 NB	19043N	6.806	6.906	45		44	50	0.037037
5	I69 NB	19043N	6.906	7.006	50		50	56	0.04
5	I69 NB	19043N	7.006	7.106	64		71	73	0.046875
5	I69 NB	19043N	7.106	7.206	48		46	53	0.034722
5	I69 NB	19043N	7.206	7.306	44		52	52	0.060606
5	I69 NB	19043N	7.306	7.406	51		47	51	0
5	I69 NB	19043N	7.406	7.506	45		46	53	0.059259
5	I69 NB	19043N	7.506	7.606	45		43	50	0.037037
5	I69 NB	19043N	7.606	7.706	53		51	57	0.025157
5	I69 NB	19043N	7.706	7.806	52		44	60	0.051282
5	I69 NB	19043N	7.806	7.906	53		54	60	0.044025
5	I69 NB	19043N	7.906	8.006	48		54	56	0.055556
5	I69 NB	19043N	8.006	8.106	38		39	63	0.219298
5	I69 NB	19043N	8.106	8.206	36		36	36	0
5	I69 NB	19043N	8.206	8.306	45		44	45	0
5	I69 NB	19043N	8.306	8.406	46		47	46	0
5	I69 NB	19043N	8.406	8.506	42		54	65	0.18254
5	I69 NB	19043N	8.506	8.606	47		41	42	-0.03546
5	I69 NB	19043N	8.606	8.706	35		46	46	0.104762
5	I69 NB	19043N	8.706	8.806	42		40	40	-0.01587
5	I69 NB	19043N	8.806	8.906	35		37	39	0.038095
5	I69 NB	19043N	8.906	9.006	49		69	66	0.115646
5	I69 NB	19043N	9.006	9.106	61		57	59	-0.01093
5	I69 NB	19043N	9.106	9.206	55		61	62	0.042424
5	I69 NB	19043N	9.206	9.306	51		51	55	0.026144
5	I69 NB	19043N	9.306	9.406	55		59	60	0.030303
5	I69 NB	19043N	9.406	9.506	68				
5	I69 NB	19043N	9.506	9.606	37				
5	I69 NB	19043N	9.606	9.706	44				
5	I69 NB	19043N	9.706	9.744	44				

RQI Growth Rate, annual % per year



Mile Post

RQI Data:19043 EB



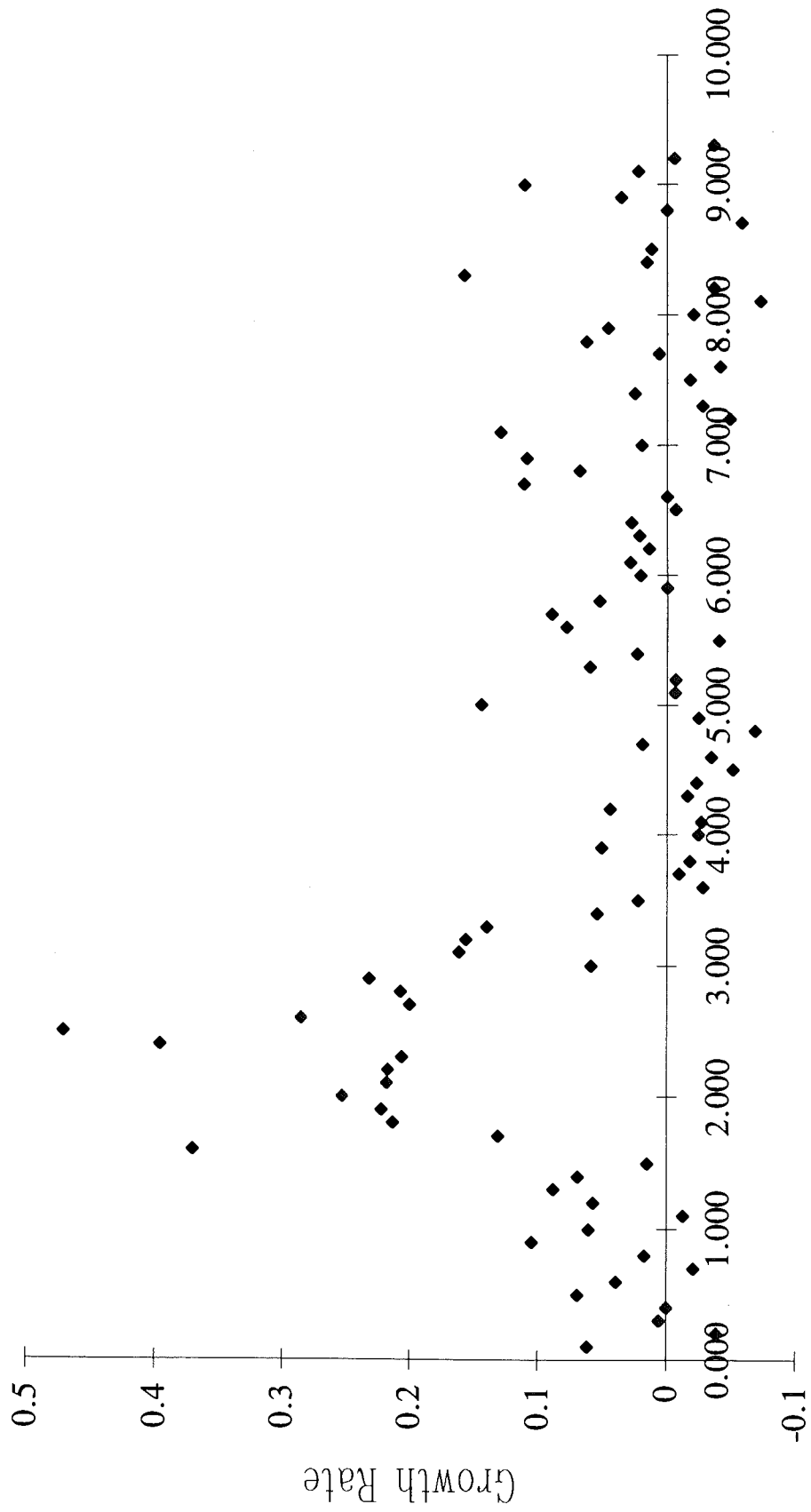
Control Section 19043 WB

RQI										
Section	Date	92avg	93avg	94avg	95avg	grthAvg	92std	93std	94std	95std
18355s	30468		48.33333	49.8333	50.5	0.02277		16.232	15.065	13.80942
18632s	31229		34.25641	34.1795	42.5385	0.11516		11.88	11.693	7.823198
02234s	30103		49.63333	47.2	53.1667	0.02542		6.7081	11.306	9.139091
01930s	29007		44.86667	47.7333	50.6	0.02019		13.426	5.2572	6.674044

19043 WB			BMP	EMP	1993	1994	1995	Growth
5	I69 SB	19043S	0.000	0.100	38	40	45	0.061404
5	I69 SB	19043S	0.100	0.200	52	52	46	-0.03846
5	I69 SB	19043S	0.200	0.300	57	64	58	0.005848
5	I69 SB	19043S	0.300	0.400	75	71	75	0
5	I69 SB	19043S	0.400	0.500	34	35	41	0.068627
5	I69 SB	19043S	0.500	0.600	34	37	38	0.039216
5	I69 SB	19043S	0.600	0.700	64	69	60	-0.02083
5	I69 SB	19043S	0.700	0.800	59	58	62	0.016949
5	I69 SB	19043S	0.800	0.900	32	33	42	0.104167
5	I69 SB	19043S	0.900	1.000	33	33	39	0.060606
5	I69 SB	19043S	1.000	1.100	53	57	51	-0.01258
5	I69 SB	19043S	1.100	1.200	47	48	55	0.056738
5	I69 SB	19043S	1.200	1.300	38	40	48	0.087719
5	I69 SB	19043S	1.300	1.400	34	41	41	0.068627
5	I69 SB	19043S	1.400	1.500	65	70	68	0.015385
5	I69 SB	19043S	1.500	1.600	18	22	38	0.37037
5	I69 SB	19043S	1.600	1.700	28	31	39	0.130952
5	I69 SB	19043S	1.700	1.800	25	24	41	0.213333
5	I69 SB	19043S	1.800	1.900	24	32	40	0.222222
5	I69 SB	19043S	1.900	2.000	25	34	44	0.253333
5	I69 SB	19043S	2.000	2.100	26	31	43	0.217949
5	I69 SB	19043S	2.100	2.200	23	25	38	0.217391
5	I69 SB	19043S	2.200	2.300	21	20	34	0.206349
5	I69 SB	19043S	2.300	2.400	16	19	35	0.395833
5	I69 SB	19043S	2.400	2.500	17	25	41	0.470588
5	I69 SB	19043S	2.500	2.600	21	26	39	0.285714
5	I69 SB	19043S	2.600	2.700	30	32	48	0.2
5	I69 SB	19043S	2.700	2.800	29	34	47	0.206897
5	I69 SB	19043S	2.800	2.900	23	31	39	0.231884
5	I69 SB	19043S	2.900	3.000	34	33	40	0.058824
5	I69 SB	19043S	3.000	3.100	29	32	43	0.16092
5	I69 SB	19043S	3.100	3.200	32	38	47	0.15625
5	I69 SB	19043S	3.200	3.300	31	34	44	0.139785
5	I69 SB	19043S	3.300	3.400	37	35	43	0.054054
5	I69 SB	19043S	3.400	3.500	30	29	32	0.022222
5	I69 SB	19043S	3.500	3.600	36	25	33	-0.02778
5	I69 SB	19043S	3.600	3.700	36	21	35	-0.00926
5	I69 SB	19043S	3.700	3.800	38	33	36	-0.01754
5	I69 SB	19043S	3.800	3.900	33	31	38	0.050505
5	I69 SB	19043S	3.900	4.000	41	31	38	-0.02439
5	I69 SB	19043S	4.000	4.100	38	30	35	-0.02632
5	I69 SB	19043S	4.100	4.200	38	32	43	0.04386

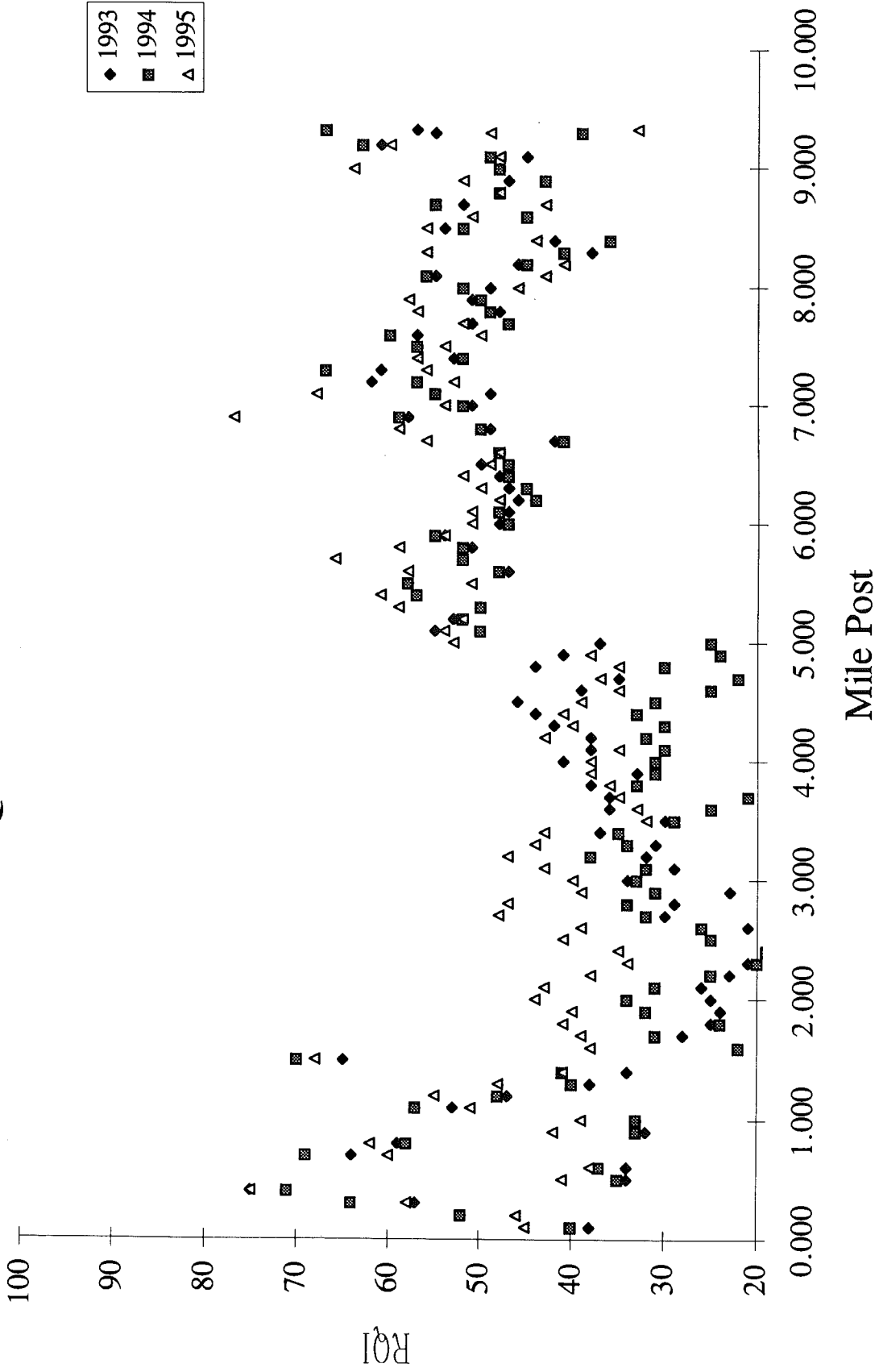
5	I69 SB	19043S	4.200	4.300		42	30	40	-0.01587
5	I69 SB	19043S	4.300	4.400		44	33	41	-0.02273
5	I69 SB	19043S	4.400	4.500		46	31	39	-0.05072
5	I69 SB	19043S	4.500	4.600		39	25	35	-0.03419
5	I69 SB	19043S	4.600	4.700		35	22	37	0.019048
5	I69 SB	19043S	4.700	4.800		44	30	35	-0.06818
5	I69 SB	19043S	4.800	4.900		41	24	38	-0.02439
5	I69 SB	19043S	4.900	5.000		37	25	53	0.144144
5	I69 SB	19043S	5.000	5.100		55	50	54	-0.00606
5	I69 SB	19043S	5.100	5.200		53	52	52	-0.00629
5	I69 SB	19043S	5.200	5.300		50	50	59	0.06
5	I69 SB	19043S	5.300	5.400		57	57	61	0.023392
5	I69 SB	19043S	5.400	5.500		58	58	51	-0.04023
5	I69 SB	19043S	5.500	5.600		47	48	58	0.078014
5	I69 SB	19043S	5.600	5.700		52	52	66	0.089744
5	I69 SB	19043S	5.700	5.800		51	52	59	0.052288
5	I69 SB	19043S	5.800	5.900		54	55	54	0
5	I69 SB	19043S	5.900	6.000		48	47	51	0.020833
5	I69 SB	19043S	6.000	6.100		47	48	51	0.028369
5	I69 SB	19043S	6.100	6.200		46	44	48	0.014493
5	I69 SB	19043S	6.200	6.300		47	45	50	0.021277
5	I69 SB	19043S	6.300	6.400		48	47	52	0.027778
5	I69 SB	19043S	6.400	6.500		50	47	49	-0.00667
5	I69 SB	19043S	6.500	6.600		48	48	48	0
5	I69 SB	19043S	6.600	6.700		42	41	56	0.111111
5	I69 SB	19043S	6.700	6.800		49	50	59	0.068027
5	I69 SB	19043S	6.800	6.900		58	59	77	0.109195
5	I69 SB	19043S	6.900	7.000		51	52	54	0.019608
5	I69 SB	19043S	7.000	7.100		49	55	68	0.129252
5	I69 SB	19043S	7.100	7.200		62	57	53	-0.04839
5	I69 SB	19043S	7.200	7.300		61	67	56	-0.02732
5	I69 SB	19043S	7.300	7.400		53	52	57	0.025157
5	I69 SB	19043S	7.400	7.500		57	57	54	-0.01754
5	I69 SB	19043S	7.500	7.600		57	60	50	-0.04094
5	I69 SB	19043S	7.600	7.700		51	47	52	0.006536
5	I69 SB	19043S	7.700	7.800		48	49	57	0.0625
5	I69 SB	19043S	7.800	7.900		51	50	58	0.045752
5	I69 SB	19043S	7.900	8.000		49	52	46	-0.02041
5	I69 SB	19043S	8.000	8.100		55	56	43	-0.07273
5	I69 SB	19043S	8.100	8.200		46	45	41	-0.03623
5	I69 SB	19043S	8.200	8.300		38	41	56	0.157895
5	I69 SB	19043S	8.300	8.400		42	36	44	0.015873
5	I69 SB	19043S	8.400	8.500		54	52	56	0.012346
5	I69 SB	19043S	8.500	8.600		-1	45	51	
5	I69 SB	19043S	8.600	8.700		52	55	43	-0.05769
5	I69 SB	19043S	8.700	8.800		48	48	48	0
5	I69 SB	19043S	8.800	8.900		47	43	52	0.035461
5	I69 SB	19043S	8.900	9.000		48	48	64	0.111111
5	I69 SB	19043S	9.000	9.100		45	49	48	0.022222
5	I69 SB	19043S	9.100	9.200		61	63	60	-0.00546
5	I69 SB	19043S	9.200	9.300		55	39	49	-0.03636
5	I69 SB	19043S	9.300	9.326		57	67	33	-0.14035

RQI Growth Rate, annual % per year



Mile Post

RQI Data:19043 WB



Control Section 25132 NB

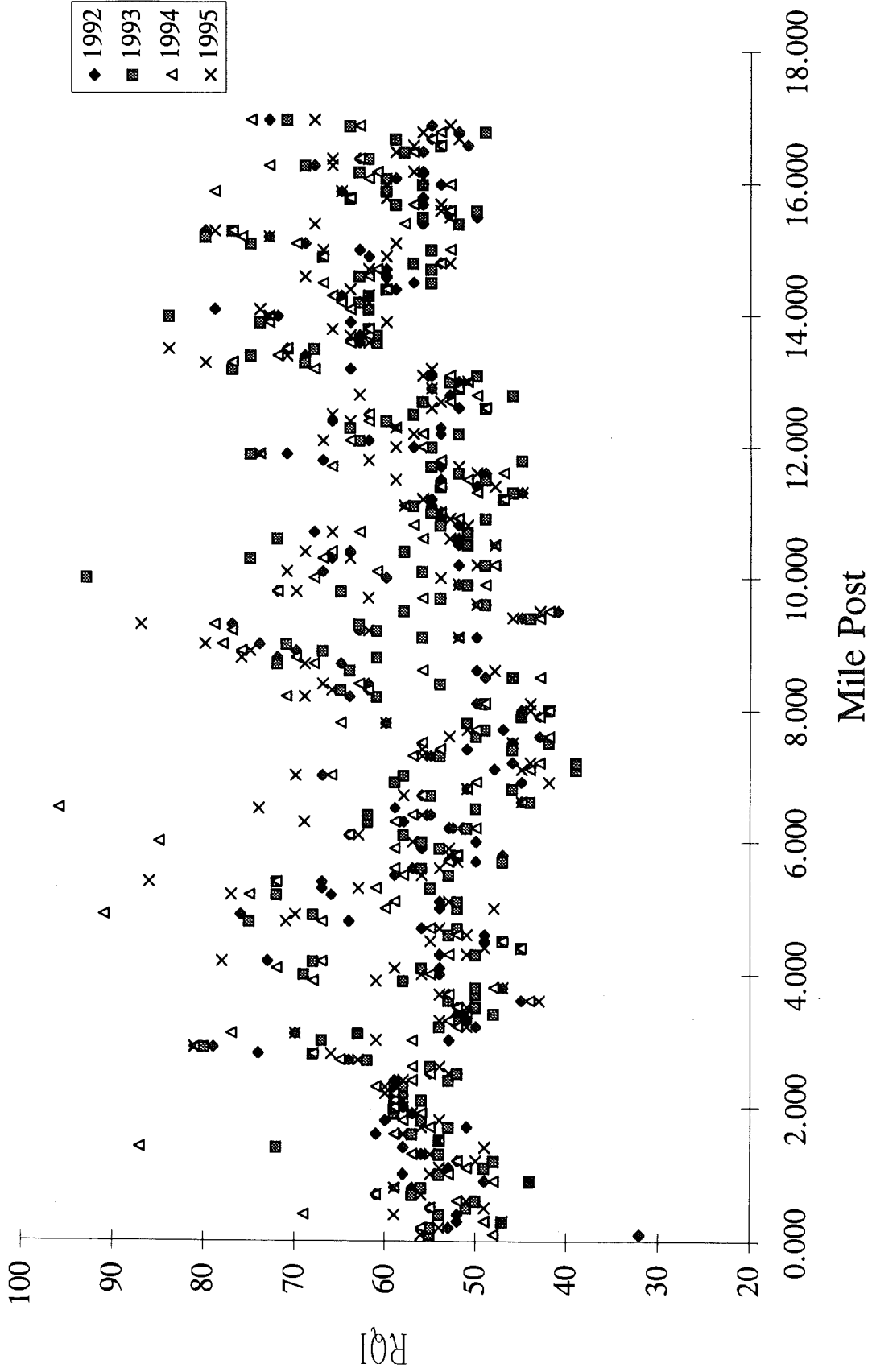
RQI										
Section	Date	92avg	93avg	94avg	95avg	grthAvg	92std	93std	94std	95std
06573n	6/1/80	52.5263	51.8421	53.895	53.737	0.0069106	8.15386	9.335	9.775	10.1151
06577n	6/1/80	60.4286	60.6429	62.357	62.857	0.0127035	11.8822	11.83	13.52	13.7944
06582n	6/1/80	57.44	56.04	57.28	58.2	0.0042483	7.04793	8.304	7.092	7.90042
06581n	6/1/78	63	59.5	59.6	62.4	0.0147087	15.7056	11.56	10.96	11.8152

	25132 NB		BMP	EMP	1992	1993	1994	1995	growth
6	I475 NB	25132N	0.000	0.100	32	55	48	56	0.25
6	I475 NB	25132N	0.100	0.200	53	55	56	54	0.00629
6	I475 NB	25132N	0.200	0.300	52	47	49	47	-0.03205
6	I475 NB	25132N	0.300	0.400	52	54	69	59	0.04487
6	I475 NB	25132N	0.400	0.500	55	51	55	49	-0.03636
6	I475 NB	25132N	0.500	0.600	50	50	52	51	0.00667
6	I475 NB	25132N	0.600	0.700	61	57	61	56	-0.02732
6	I475 NB	25132N	0.700	0.800	57	56	59	59	0.0117
6	I475 NB	25132N	0.800	0.900	49	44	48	44	-0.03401
6	I475 NB	25132N	0.900	1.000	58	54	53	55	-0.01724
6	I475 NB	25132N	1.000	1.100	53	49	51	54	0.00629
6	I475 NB	25132N	1.100	1.200	52	48	52	50	-0.01282
6	I475 NB	25132N	1.200	1.300	56	54	57	55	-0.00595
6	I475 NB	25132N	1.300	1.400	58	72	87	49	-0.05172
6	I475 NB	25132N	1.400	1.500	54	54	54	54	0
6	I475 NB	25132N	1.500	1.600	61	57	59	58	-0.01639
6	I475 NB	25132N	1.600	1.700	51	53	55	56	0.03268
6	I475 NB	25132N	1.700	1.800	60	56	58	54	-0.03333
6	I475 NB	25132N	1.800	1.900	57	59	56	57	0
6	I475 NB	25132N	1.900	2.000	58	59	59	58	0
6	I475 NB	25132N	2.000	2.100	59	56	59	58	-0.00565
6	I475 NB	25132N	2.100	2.200	59	58	59	60	0.00565
6	I475 NB	25132N	2.200	2.300	59	58	61	60	0.00565
6	I475 NB	25132N	2.300	2.400	59	53	57	58	-0.00565
6	I475 NB	25132N	2.400	2.500	55	52	55	53	-0.01212
6	I475 NB	25132N	2.500	2.600	55	55	57	54	-0.00606
6	I475 NB	25132N	2.600	2.700	64	62	65	63	-0.00521
6	I475 NB	25132N	2.700	2.800	74	68	68	66	-0.03604
6	I475 NB	25132N	2.800	2.900	79	80	81	81	0.00844
6	I475 NB	25132N	2.900	3.000	53	67	57	61	0.05031
6	I475 NB	25132N	3.000	3.100	70	63	77	70	0
6	I475 NB	25132N	3.100	3.200	50	54	52	51	0.00667
6	I475 NB	25132N	3.200	3.300	51	52	53	54	0.01961
6	I475 NB	25132N	3.300	3.400	52	48	51	51	-0.00641
6	I475 NB	25132N	3.400	3.500	52	50	52	51	-0.00641
6	I475 NB	25132N	3.500	3.600	45	53	44	43	-0.01481
6	I475 NB	25132N	3.600	3.700	53	50	53	54	0.00629
6	I475 NB	25132N	3.700	3.800	47	50	48	47	0
6	I475 NB	25132N	3.800	3.900	58	58	68	61	0.01724
6	I475 NB	25132N	3.900	4.000	54	69	55	56	0.01235
6	I475 NB	25132N	4.000	4.100	54	56	72	59	0.03086
6	I475 NB	25132N	4.100	4.200	73	68	67	78	0.02283
6	I475 NB	25132N	4.200	4.300	54	50	53	51	-0.01852
6	I475 NB	25132N	4.300	4.400	45	45	45	49	0.02963
6	I475 NB	25132N	4.400	4.500	49	47	47	55	0.04082
6	I475 NB	25132N	4.500	4.600	49	53	52	51	0.01361
6	I475 NB	25132N	4.600	4.700	56	52	55	54	-0.0119
6	I475 NB	25132N	4.700	4.800	64	75	67	71	0.03646
6	I475 NB	25132N	4.800	4.900	76	68	91	70	-0.02632

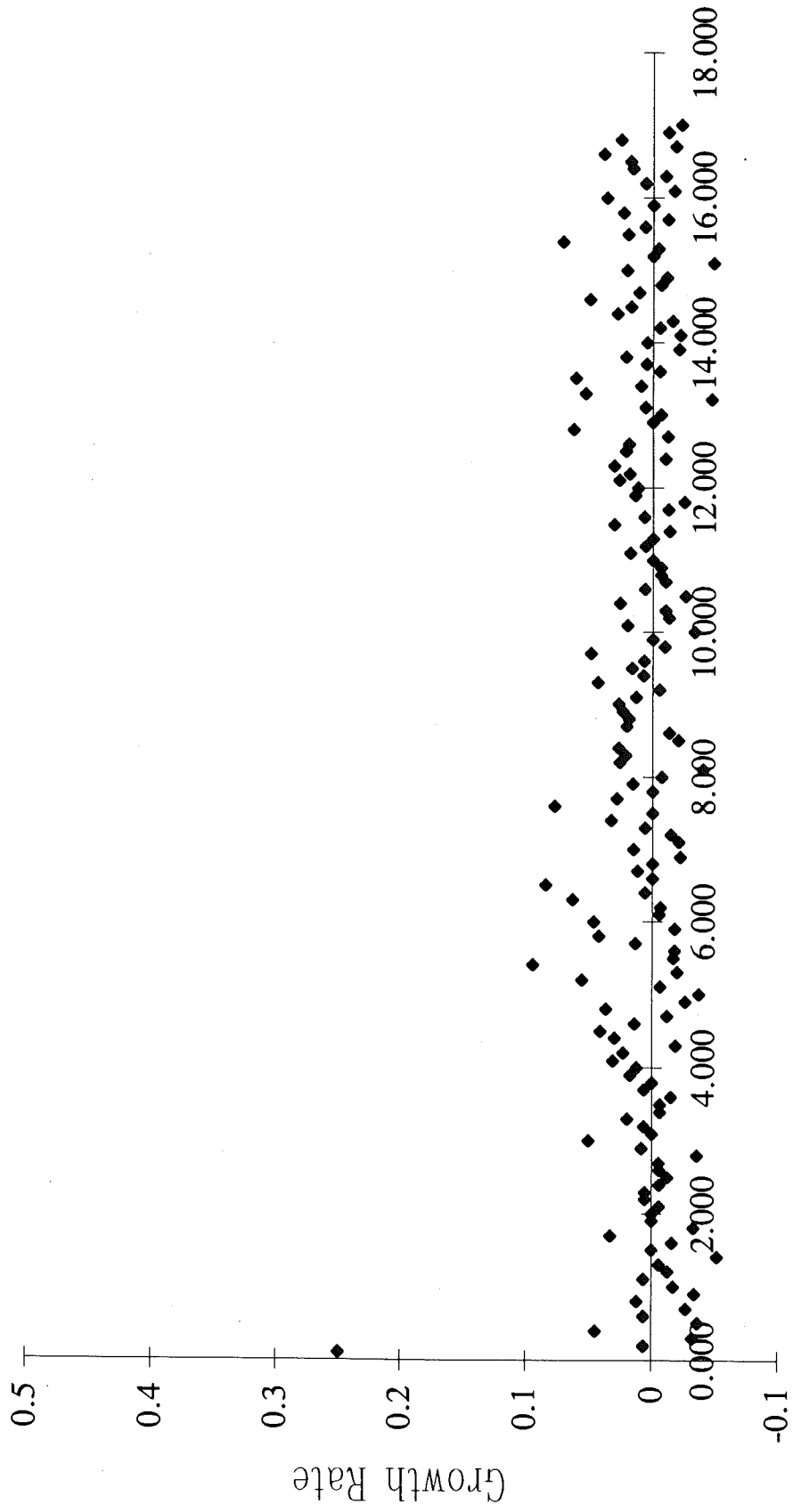
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6	I475 NB	25132N	5.100	5.200	66	72	75	77	0.05556
6	I475 NB	25132N	5.200	5.300	67	55	61	63	-0.0199
6	I475 NB	25132N	5.300	5.400	67	72	72	86	0.09453
6	I475 NB	25132N	5.400	5.500	59	53	58	56	-0.01695
6	I475 NB	25132N	5.500	5.600	57	56	59	54	-0.01754
6	I475 NB	25132N	5.600	5.700	50	47	53	52	0.01333
6	I475 NB	25132N	5.700	5.800	47	52	52	53	0.04255
6	I475 NB	25132N	5.800	5.900	56	54	59	53	-0.01786
6	I475 NB	25132N	5.900	6.000	50	56	85	57	0.04667
6	I475 NB	25132N	6.000	6.100	64	58	64	63	-0.00521
6	I475 NB	25132N	6.100	6.200	53	51	50	52	-0.00629
6	I475 NB	25132N	6.200	6.300	58	62	59	69	0.06322
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6	I475 NB	25132N	6.700	6.800	51	46	51	51	0
6	I475 NB	25132N	6.800	6.900	45	59	50	42	-0.02222
6	I475 NB	25132N	6.900	7.000	67	58	66	70	0.01493
6	I475 NB	25132N	7.000	7.100	48	39	44	45	-0.02083
6	I475 NB	25132N	7.100	7.200	46	39	43	44	-0.01449
6	I475 NB	25132N	7.200	7.300	55	54	57	56	0.00606
6	I475 NB	25132N	7.300	7.400	51	46	54	56	0.03268
6	I475 NB	25132N	7.400	7.500	46	42	56	46	0
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6	I475 NB	25132N	7.900	8.000	45	42	42	44	-0.00741
6	I475 NB	25132N	8.000	8.100	50	49	49	44	-0.04
6	I475 NB	25132N	8.100	8.200	64	61	71	69	0.02604
6	I475 NB	25132N	8.200	8.300	62	65	62	66	0.02151
6	I475 NB	25132N	8.300	8.400	62	54	63	67	0.02688
6	I475 NB	25132N	8.400	8.500	49	46	43	46	-0.02041
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6	I475 NB	25132N	8.600	8.700	65	72	68	69	0.02051
6	I475 NB	25132N	8.700	8.800	72	61	70	76	0.01852
6	I475 NB	25132N	8.800	8.900	70	67	76	75	0.02381
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6	I475 NB	25132N	9.000	9.100	50	56	52	52	0.01333
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6	I475 NB	25132N	9.300	9.400	45	44	43	46	0.00741
6	I475 NB	25132N	9.400	9.500	41	58	42	43	0.01626
6	I475 NB	25132N	9.500	9.600	49	49	50	50	0.0068
6	I475 NB	25132N	9.600	9.700	54	54	56	62	0.04938
6	I475 NB	25132N	9.700	9.800	72	65	72	70	-0.00926
6	I475 NB	25132N	9.800	9.900	52	51	49	52	0
6	I475 NB	25132N	9.900	10.000	60	93	68	54	-0.03333
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6	I475 NB	25132N	10.100	10.200	52	49	48	50	-0.01282
6	I475 NB	25132N	10.200	10.300	66	75	67	64	-0.0101
6	I475 NB	25132N	10.300	10.400	64	58	66	69	0.02604
6	I475 NB	25132N	10.400	10.500	52	51	48	48	-0.02564
6	I475 NB	25132N	10.500	10.600	52	72	56	53	0.00641
6	I475 NB	25132N	10.600	10.700	68	51	63	66	-0.0098
6	I475 NB	25132N	10.700	10.800	52	54	57	51	-0.00641
6	I475 NB	25132N	10.800	10.900	54	49	52	53	-0.00617
6	I475 NB	25132N	10.900	11.000	54	55	54	54	0

6	I475 NB	25132N	11.000	11.100	55	57	58	58	0.01818
6	I475 NB	25132N	11.100	11.200	55	47	47	56	0.00606
6	I475 NB	25132N	11.200	11.300	45	46	50	45	0
6	I475 NB	25132N	11.300	11.400	50	54	54	48	-0.01333
6	I475 NB	25132N	11.400	11.500	54	49	51	59	0.03086
6	I475 NB	25132N	11.500	11.600	49	52	47	50	0.0068
6	I475 NB	25132N	11.600	11.700	54	55	66	52	-0.01235
6	I475 NB	25132N	11.700	11.800	67	45	54	62	-0.02488
6	I475 NB	25132N	11.800	11.900	71	75	74	74	0.01408
6	I475 NB	25132N	11.900	12.000	57	55	56	59	0.0117
6	I475 NB	25132N	12.000	12.100	62	63	64	67	0.02688
6	I475 NB	25132N	12.100	12.200	54	52	56	57	0.01852
6	I475 NB	25132N	12.200	12.300	54	64	59	59	0.03086
6	I475 NB	25132N	12.300	12.400	66	60	62	64	-0.0101
6	I475 NB	25132N	12.400	12.500	62	57	62	66	0.02151
6	I475 NB	25132N	12.500	12.600	52	49	49	55	0.01923
6	I475 NB	25132N	12.600	12.700	56	56	53	54	-0.0119
6	I475 NB	25132N	12.700	12.800	53	46	50	63	0.06289
6	I475 NB	25132N	12.800	12.900	55	52	52	55	0
6	I475 NB	25132N	12.900	13.000	52	53	51	51	-0.00641
6	I475 NB	25132N	13.000	13.100	55	50	53	56	0.00606
6	I475 NB	25132N	13.100	13.200	64	77	68	55	-0.04688
6	I475 NB	25132N	13.200	13.300	103	69	77	80	0.0534
6	I475 NB	25132N	13.300	13.400	69	75	72	71	0.00966
6	I475 NB	25132N	13.400	13.500	71	68	71	84	0.06103
6	I475 NB	25132N	13.500	13.600	63	61	64	62	-0.00529
6	I475 NB	25132N	13.600	13.700	63	61	62	64	0.00529
6	I475 NB	25132N	13.700	13.800	62	62	62	66	0.02151
6	I475 NB	25132N	13.800	13.900	64	74	73	60	-0.02083
6	I475 NB	25132N	13.900	14.000	72	84	73	73	0.00463
6	I475 NB	25132N	14.000	14.100	79	62	64	74	-0.0211
6	I475 NB	25132N	14.100	14.200	63	63	65	62	-0.00529
6	I475 NB	25132N	14.200	14.300	65	62	66	62	-0.01538
6	I475 NB	25132N	14.300	14.400	59	60	60	64	0.02825
6	I475 NB	25132N	14.400	14.500	57	55	67	60	0.01754
6	I475 NB	25132N	14.500	14.600	60	63	62	69	0.05
6	I475 NB	25132N	14.600	14.700	60	55	61	62	0.01111
6	I475 NB	25132N	14.700	14.800	54	57	54	53	-0.00617
6	I475 NB	25132N	14.800	14.900	62	67	67	60	-0.01075
6	I475 NB	25132N	14.900	15.000	63	55	53	67	0.02116
6	I475 NB	25132N	15.000	15.100	69	75	70	59	-0.04831
6	I475 NB	25132N	15.100	15.200	73	80	76	73	0
6	I475 NB	25132N	15.200	15.300	80	77	77	79	-0.00417
6	I475 NB	25132N	15.300	15.400	56	52	58	68	0.07143
6	I475 NB	25132N	15.400	15.500	50	56	53	53	0.02
6	I475 NB	25132N	15.500	15.600	53	50	53	54	0.00629
6	I475 NB	25132N	15.600	15.700	56	59	57	54	-0.0119
6	I475 NB	25132N	15.700	15.800	56	64	64	60	0.02381
6	I475 NB	25132N	15.800	15.900	65	60	79	65	0
6	I475 NB	25132N	15.900	16.000	54	56	53	60	0.03704
6	I475 NB	25132N	16.000	16.100	59	60	62	56	-0.01695
6	I475 NB	25132N	16.100	16.200	56	63	61	57	0.00595
6	I475 NB	25132N	16.200	16.300	68	69	73	66	-0.0098
6	I475 NB	25132N	16.300	16.400	63	62	63	66	0.01587
6	I475 NB	25132N	16.400	16.500	56	58	57	59	0.01786
6	I475 NB	25132N	16.500	16.600	51	54	54	57	0.03922
6	I475 NB	25132N	16.600	16.700	55	59	55	52	-0.01818
6	I475 NB	25132N	16.700	16.800	52	49	54	56	0.02564
6	I475 NB	25132N	16.800	16.900	55	64	63	53	-0.01212
6	I475 NB	25132N	16.900	16.994	73	71	75	68	-0.02283

RQI Data: 25132 NB



RQI Growth Rate, annual % per year



Mile Post

Control Section 25132 SB

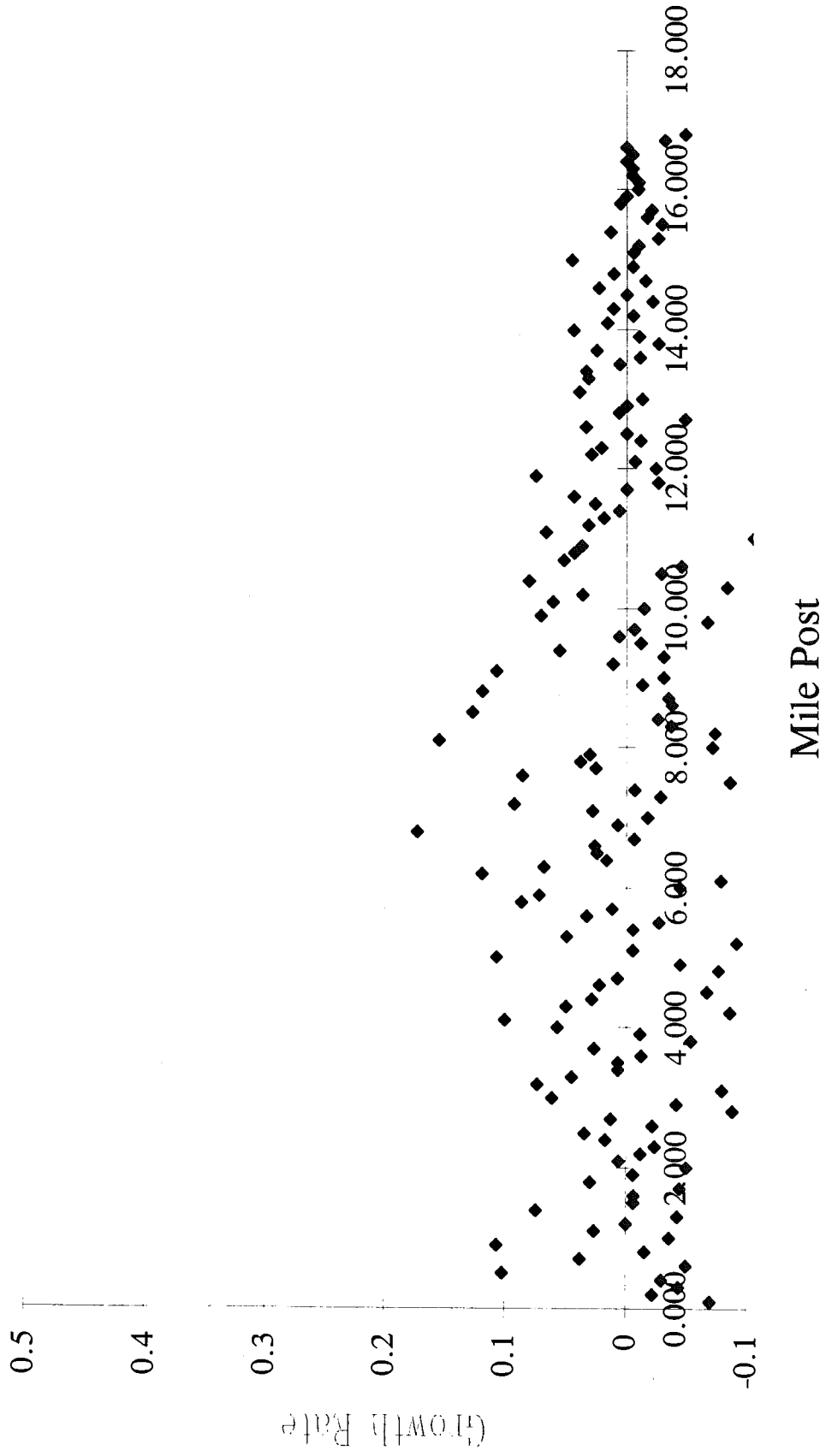
RQI										
Section	Date	92avg	93avg	94avg	95avg	grthAvg	92std	93std	94std	95std
06573s	29373	58.7368	54.8947	60.105	58.789	0.0090013	13.999	12.4092	13.42	11.8864
06577s	29373	61.2857	59.4286	66.286	64	0.0183736	8.9823	10.0897	10.666	9.4054
06582s	29373	54.36	53.36	54.72	55.88	0.0118063	6.2241	7.85748	7.3797	7.59561
06581s	28642	55.4	54.6	55.8	54.1	-0.003817	7.7917	7.30601	8.3772	8.04777

25132 NB		BMP	EMP	1992	1993	1994	1995	growth
6	I475 SB 25132S	0.000	0.100	72	59	61	57	-0.06944
6	I475 SB 25132S	0.100	0.200	60	57	57	56	-0.02222
6	I475 SB 25132S	0.200	0.300	69	62	62	60	-0.04348
6	I475 SB 25132S	0.300	0.400	79	75	70	72	-0.02954
6	I475 SB 25132S	0.400	0.500	62	65	78	81	0.10215
6	I475 SB 25132S	0.500	0.600	67	72	59	57	-0.04975
6	I475 SB 25132S	0.600	0.700	62	58	69	69	0.03763
6	I475 SB 25132S	0.700	0.800	64	61	62	61	-0.01563
6	I475 SB 25132S	0.800	0.900	47	56	64	62	0.10638
6	I475 SB 25132S	0.900	1.000	56	54	50	50	-0.03571
6	I475 SB 25132S	1.000	1.100	51	47	55	55	0.02614
6	I475 SB 25132S	1.100	1.200	55	56	57	55	0
6	I475 SB 25132S	1.200	1.300	63	59	58	55	-0.04233
6	I475 SB 25132S	1.300	1.400	54	54	68	66	0.07407
6	I475 SB 25132S	1.400	1.500	54	52	54	53	-0.00617
6	I475 SB 25132S	1.500	1.600	52	54	54	51	-0.00641
6	I475 SB 25132S	1.600	1.700	60	57	58	52	-0.04444
6	I475 SB 25132S	1.700	1.800	56	55	63	61	0.02976
6	I475 SB 25132S	1.800	1.900	55	56	57	54	-0.00606
6	I475 SB 25132S	1.900	2.000	60	53	58	51	-0.05
6	I475 SB 25132S	2.000	2.100	55	53	57	56	0.00606
6	I475 SB 25132S	2.100	2.200	55	51	54	53	-0.01212
6	I475 SB 25132S	2.200	2.300	56	55	54	52	-0.02381
6	I475 SB 25132S	2.300	2.400	59	61	61	62	0.01695
6	I475 SB 25132S	2.400	2.500	58	54	62	64	0.03448
6	I475 SB 25132S	2.500	2.600	62	56	57	58	-0.02151
6	I475 SB 25132S	2.600	2.700	53	50	55	55	0.01258
6	I475 SB 25132S	2.700	2.800	72	53	52	53	-0.08796
6	I475 SB 25132S	2.800	2.900	72	75	67	63	-0.04167
6	I475 SB 25132S	2.900	3.000	60	63	71	71	0.06111
6	I475 SB 25132S	3.000	3.100	76	82	62	58	-0.07895
6	I475 SB 25132S	3.100	3.200	59	64	73	72	0.07345
6	I475 SB 25132S	3.200	3.300	52	57	60	59	0.04487
6	I475 SB 25132S	3.300	3.400	49	51	50	50	0.0068
6	I475 SB 25132S	3.400	3.500	49	52	51	50	0.0068
6	I475 SB 25132S	3.500	3.600	53	55	53	51	-0.01258
6	I475 SB 25132S	3.600	3.700	50	52	54	54	0.02667
6	I475 SB 25132S	3.700	3.800	56	54	47	47	-0.05357
6	I475 SB 25132S	3.800	3.900	58	53	56	56	-0.01149
6	I475 SB 25132S	3.900	4.000	53	63	62	62	0.0566
6	I475 SB 25132S	4.000	4.100	40	41	51	52	0.1
6	I475 SB 25132S	4.100	4.200	62	61	46	46	-0.08602
6	I475 SB 25132S	4.200	4.300	54	50	60	62	0.04938
6	I475 SB 25132S	4.300	4.400	47	47	51	51	0.02837
6	I475 SB 25132S	4.400	4.500	65	63	50	52	-0.06667
6	I475 SB 25132S	4.500	4.600	61	55	66	65	0.02186
6	I475 SB 25132S	4.600	4.700	48	62	71	49	0.00694
6	I475 SB 25132S	4.700	4.800	61	54	48	47	-0.0765
6	I475 SB 25132S	4.800	4.900	82	69	71	71	-0.04472

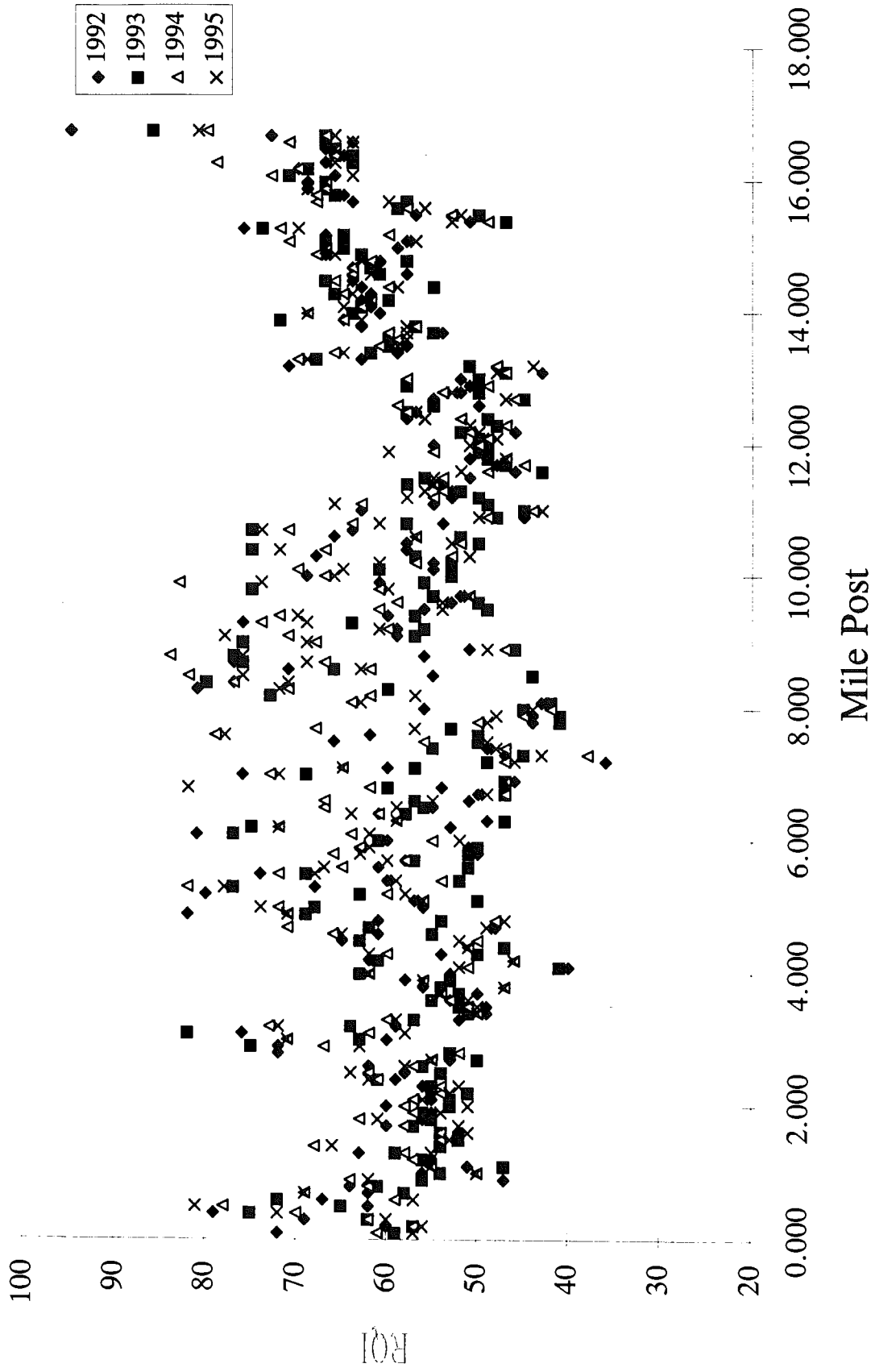
6	I475 SB	25132S	4.900	5.000	56	68	72	74	0.10714
6	I475 SB	25132S	5.000	5.100	57	50	56	56	-0.00585
6	I475 SB	25132S	5.100	5.200	80	63	60	58	-0.09167
6	I475 SB	25132S	5.200	5.300	68	77	82	78	0.04902
6	I475 SB	25132S	5.300	5.400	60	52	54	59	-0.00556
6	I475 SB	25132S	5.400	5.500	74	69	72	68	-0.02703
6	I475 SB	25132S	5.500	5.600	61	51	65	67	0.03279
6	I475 SB	25132S	5.600	5.700	58	57	58	60	0.01149
6	I475 SB	25132S	5.700	5.800	50	51	66	63	0.08667
6	I475 SB	25132S	5.800	5.900	51	50	63	62	0.0719
6	I475 SB	25132S	5.900	6.000	60	61	55	52	-0.04444
6	I475 SB	25132S	6.000	6.100	81	77	64	62	-0.07819
6	I475 SB	25132S	6.100	6.200	53	75	72	72	0.1195
6	I475 SB	25132S	6.200	6.300	49	47	59	59	0.06803
6	I475 SB	25132S	6.300	6.400	61	58	61	64	0.01639
6	I475 SB	25132S	6.400	6.500	55	56	67	59	0.02424
6	I475 SB	25132S	6.500	6.600	51	57	67	55	0.02614
6	I475 SB	25132S	6.600	6.700	50	47	47	49	-0.00667
6	I475 SB	25132S	6.700	6.800	54	60	62	82	0.17284
6	I475 SB	25132S	6.800	6.900	46	47	47	47	0.00725
6	I475 SB	25132S	6.900	7.000	76	69	73	72	-0.01754
6	I475 SB	25132S	7.000	7.100	60	57	65	65	0.02778
6	I475 SB	25132S	7.100	7.200	36	49	47	46	0.09259
6	I475 SB	25132S	7.200	7.300	47	45	38	43	-0.02837
6	I475 SB	25132S	7.300	7.400	49	55	47	48	-0.0068
6	I475 SB	25132S	7.400	7.500	66	50	56	49	-0.08586
6	I475 SB	25132S	7.500	7.600	62	50	79	78	0.08602
6	I475 SB	25132S	7.600	7.700	53	53	68	57	0.02516
6	I475 SB	25132S	7.700	7.800	44	41	50	49	0.03788
6	I475 SB	25132S	7.800	7.900	44	41	45	48	0.0303
6	I475 SB	25132S	7.900	8.000	56	45	42	44	-0.07143
6	I475 SB	25132S	8.000	8.100	43	42	64	63	0.15504
6	I475 SB	25132S	8.100	8.200	73	73	62	57	-0.07306
6	I475 SB	25132S	8.200	8.300	81	60	71	72	-0.03704
6	I475 SB	25132S	8.300	8.400	77	80	77	71	-0.02597
6	I475 SB	25132S	8.400	8.500	55	44	82	76	0.12727
6	I475 SB	25132S	8.500	8.600	71	66	62	63	-0.03756
6	I475 SB	25132S	8.600	8.700	77	76	67	69	-0.03463
6	I475 SB	25132S	8.700	8.800	56	77	84	76	0.11905
6	I475 SB	25132S	8.800	8.900	51	46	47	49	-0.01307
6	I475 SB	25132S	8.900	9.000	76	76	68	69	-0.0307
6	I475 SB	25132S	9.000	9.100	59	57	71	78	0.10734
6	I475 SB	25132S	9.100	9.200	59	56	60	61	0.0113
6	I475 SB	25132S	9.200	9.300	76	64	74	69	-0.0307
6	I475 SB	25132S	9.300	9.400	60	57	72	70	0.05556
6	I475 SB	25132S	9.400	9.500	56	49	61	54	-0.0119
6	I475 SB	25132S	9.500	9.600	53	50	59	54	0.00629
6	I475 SB	25132S	9.600	9.700	52	55	51	51	-0.00641
6	I475 SB	25132S	9.700	9.800	75	75	61	60	-0.06667
6	I475 SB	25132S	9.800	9.900	61	56	83	74	0.07104
6	I475 SB	25132S	9.900	10.000	69	53	67	66	-0.01449
6	I475 SB	25132S	10.000	10.100	55	61	70	65	0.06061
6	I475 SB	25132S	10.100	10.200	55	53	57	61	0.03636
6	I475 SB	25132S	10.200	10.300	68	57	53	51	-0.08333
6	I475 SB	25132S	10.300	10.400	58	75	67	72	0.08046
6	I475 SB	25132S	10.400	10.500	58	50	52	53	-0.02874
6	I475 SB	25132S	10.500	10.600	66	52	57	57	-0.04545
6	I475 SB	25132S	10.600	10.700	64	75	71	74	0.05208
6	I475 SB	25132S	10.700	10.800	54	58	64	61	0.04321
6	I475 SB	25132S	10.800	10.900	45	48	49	50	0.03704
6	I475 SB	25132S	10.900	11.000	63	45	44	43	-0.10582

6	I475 SB	25132S	11.000	11.100	55	49	63	66	0.06667
6	I475 SB	25132S	11.100	11.200	53	50	55	58	0.03145
6	I475 SB	25132S	11.200	11.300	53	52	54	56	0.01887
6	I475 SB	25132S	11.300	11.400	54	58	55	55	0.00617
6	I475 SB	25132S	11.400	11.500	51	56	54	55	0.02614
6	I475 SB	25132S	11.500	11.600	46	43	49	52	0.04348
6	I475 SB	25132S	11.600	11.700	48	47	45	48	0
6	I475 SB	25132S	11.700	11.800	51	49	47	47	-0.02614
6	I475 SB	25132S	11.800	11.900	49	50	55	60	0.07483
6	I475 SB	25132S	11.900	12.000	55	49	50	51	-0.02424
6	I475 SB	25132S	12.000	12.100	49	50	49	48	-0.0068
6	I475 SB	25132S	12.100	12.200	46	52	51	50	0.02899
6	I475 SB	25132S	12.200	12.300	48	48	47	51	0.02083
6	I475 SB	25132S	12.300	12.400	58	49	52	56	-0.01149
6	I475 SB	25132S	12.400	12.500	57	58	58	57	0
6	I475 SB	25132S	12.500	12.600	50	55	59	55	0.03333
6	I475 SB	25132S	12.600	12.700	55	45	46	47	-0.04848
6	I475 SB	25132S	12.700	12.800	52	50	54	53	0.00641
6	I475 SB	25132S	12.800	12.900	51	58	49	51	0
6	I475 SB	25132S	12.900	13.000	52	50	58	50	-0.01282
6	I475 SB	25132S	13.000	13.100	43	47	47	48	0.03876
6	I475 SB	25132S	13.100	13.200	71	51	48	44	-0.12676
6	I475 SB	25132S	13.200	13.300	63	68	70	69	0.03175
6	I475 SB	25132S	13.300	13.400	59	62	66	65	0.0339
6	I475 SB	25132S	13.400	13.500	58	60	61	59	0.00575
6	I475 SB	25132S	13.500	13.600	60	60	59	58	-0.01111
6	I475 SB	25132S	13.600	13.700	54	55	60	58	0.02469
6	I475 SB	25132S	13.700	13.800	63	57	57	58	-0.02646
6	I475 SB	25132S	13.800	13.900	65	72	65	63	-0.01026
6	I475 SB	25132S	13.900	14.000	61	64	69	69	0.04372
6	I475 SB	25132S	14.000	14.100	62	63	63	65	0.01613
6	I475 SB	25132S	14.100	14.200	63	60	62	62	-0.00529
6	I475 SB	25132S	14.200	14.300	62	66	65	64	0.01075
6	I475 SB	25132S	14.300	14.400	63	55	60	59	-0.02116
6	I475 SB	25132S	14.400	14.500	64	67	66	64	0
6	I475 SB	25132S	14.500	14.600	58	61	64	62	0.02299
6	I475 SB	25132S	14.600	14.700	64	62	64	61	-0.01563
6	I475 SB	25132S	14.700	14.800	61	58	62	63	0.01093
6	I475 SB	25132S	14.800	14.900	67	63	68	66	-0.00498
6	I475 SB	25132S	14.900	15.000	59	65	67	67	0.0452
6	I475 SB	25132S	15.000	15.100	58	67	71	57	-0.00575
6	I475 SB	25132S	15.100	15.200	67	65	60	65	-0.00995
6	I475 SB	25132S	15.200	15.300	76	74	72	70	-0.02632
6	I475 SB	25132S	15.300	15.400	51	47	49	53	0.01307
6	I475 SB	25132S	15.400	15.500	57	50	53	52	-0.02924
6	I475 SB	25132S	15.500	15.600	59	59	58	56	-0.01695
6	I475 SB	25132S	15.600	15.700	64	58	68	60	-0.02083
6	I475 SB	25132S	15.700	15.800	65	66	68	66	0.00513
6	I475 SB	25132S	15.800	15.900	69	67	67	69	0
6	I475 SB	25132S	15.900	16.000	69	67	67	67	-0.00966
6	I475 SB	25132S	16.000	16.100	66	71	73	64	-0.0101
6	I475 SB	25132S	16.100	16.200	70	69	70	69	-0.00476
6	I475 SB	25132S	16.200	16.300	67	64	79	66	-0.00498
6	I475 SB	25132S	16.300	16.400	65	64	66	65	0
6	I475 SB	25132S	16.400	16.500	67	66	66	66	-0.00498
6	I475 SB	25132S	16.500	16.600	64	67	71	64	0
6	I475 SB	25132S	16.600	16.700	73	67	67	66	-0.03196
6	I475 SB	25132S	16.700	16.780	95	86	80	81	-0.04912

RQI Growth Rate, annual % per year



RQI Data: 25132 SB



Control Section 44044 WB

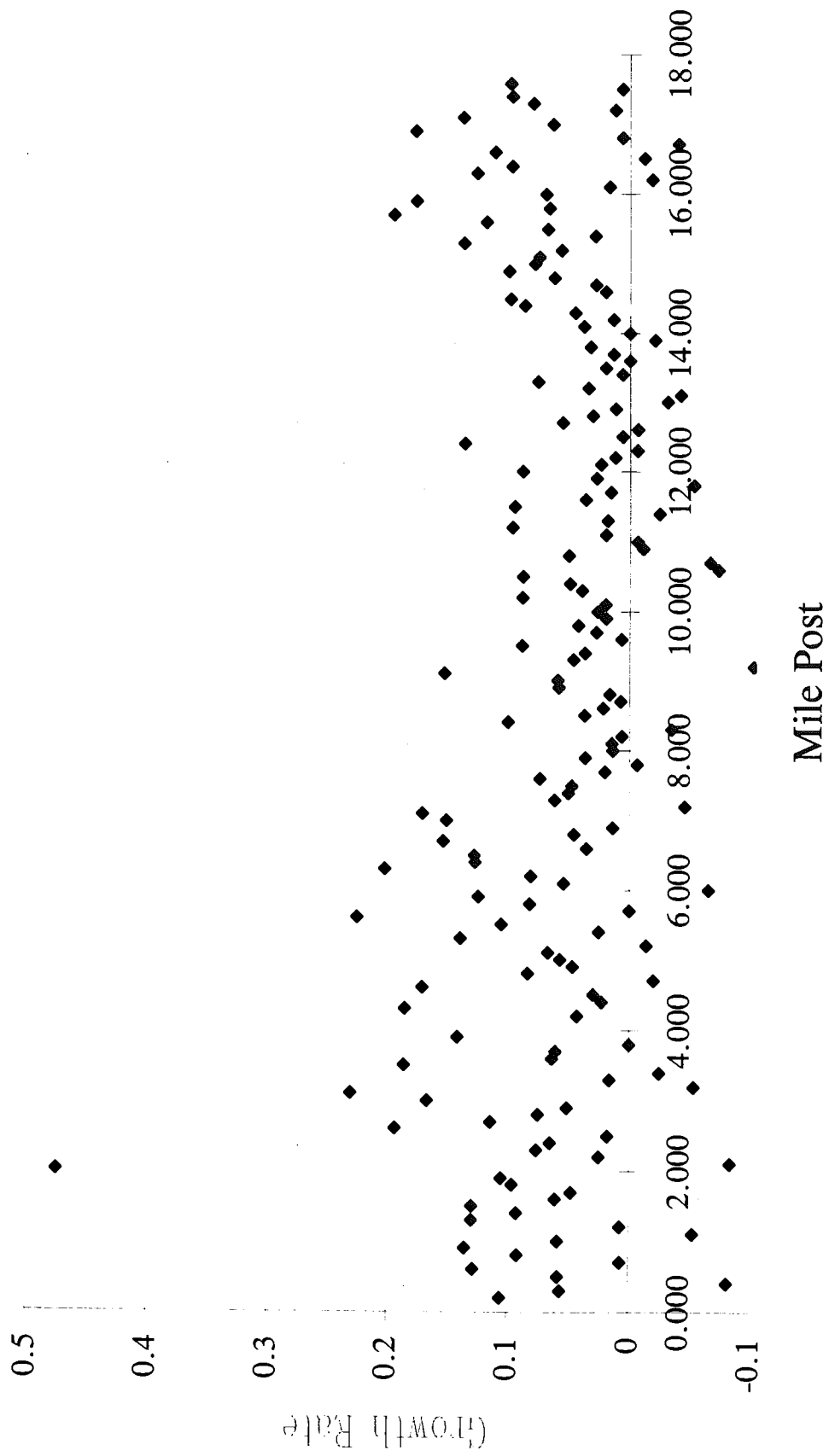
RQI										
Section	Date	92avg	93avg	94avg	95avg	grthAvg	92std	93std	94std	95std
18804w	30834	43.86111	43.44444	49.4167	50.8333	0.0730718	5.867	6.357	7.45	7.79962
18805w	30834	43.78788	45.34286	50.5429	53.2	0.0808401	6.2887	8.721	7.95	7.790643
18807w	30834	45.81818	46.72727	50.4545	49.7273	0.0325962	6.076	6.197	6.588	5.496162
18802w	30834	53.63636	54.5	56.364	57.515	0.0283193	7.2492	4.833	6.244	5.717961
20821w	30536	50.06122	52.85714	54.449	57.816	0.054231	5.7641	6.819	7.528	8.398099

44044 WB			BMP	EMP	1992	1993	1994	1995	Growth
6	I69 WB	44044W	0.000	0.100	89	68	80	51	-0.14232
6	I69 WB	44044W	0.100	0.200	44	45	52	58	0.106061
6	I69 WB	44044W	0.200	0.300	53	61	53	62	0.056604
6	I69 WB	44044W	0.300	0.400	66	55	67	50	-0.08081
6	I69 WB	44044W	0.400	0.500	40	41	47	47	0.058333
6	I69 WB	44044W	0.500	0.600	39	42	48	54	0.128205
6	I69 WB	44044W	0.600	0.700	47	48	52	48	0.007092
6	I69 WB	44044W	0.700	0.800	40	41	47	51	0.091667
6	I69 WB	44044W	0.800	0.900	42	44	53	59	0.134921
6	I69 WB	44044W	0.900	1.000	51	55	58	60	0.058824
6	I69 WB	44044W	1.000	1.100	57	54	60	48	-0.05263
6	I69 WB	44044W	1.100	1.200	44	38	51	45	0.007576
6	I69 WB	44044W	1.200	1.300	36	34	40	50	0.12963
6	I69 WB	44044W	1.300	1.400	36	34	42	46	0.092593
6	I69 WB	44044W	1.400	1.500	36	38	44	50	0.12963
6	I69 WB	44044W	1.500	1.600	44	44	50	52	0.060606
6	I69 WB	44044W	1.600	1.700	42	41	50	48	0.047619
6	I69 WB	44044W	1.700	1.800	38	38	46	49	0.096491
6	I69 WB	44044W	1.800	1.900	38	38	42	50	0.105263
6	I69 WB	44044W	1.900	2.000	33	34	45	80	0.474747
6	I69 WB	44044W	2.000	2.100	68	67	71	51	-0.08333
6	I69 WB	44044W	2.100	2.200	40	39	43	43	0.025
6	I69 WB	44044W	2.200	2.300	35	34	40	43	0.07619
6	I69 WB	44044W	2.300	2.400	36	39	47	43	0.064815
6	I69 WB	44044W	2.400	2.500	37	33	45	39	0.018018
6	I69 WB	44044W	2.500	2.600	31	30	41	49	0.193548
6	I69 WB	44044W	2.600	2.700	38	39	50	51	0.114035
6	I69 WB	44044W	2.700	2.800	40	39	46	49	0.075
6	I69 WB	44044W	2.800	2.900	39	40	41	45	0.051282
6	I69 WB	44044W	2.900	3.000	34	35	38	51	0.166667
6	I69 WB	44044W	3.000	3.100	39	44	46	66	0.230769
6	I69 WB	44044W	3.100	3.200	69	64	65	58	-0.05314
6	I69 WB	44044W	3.200	3.300	41	43	55	43	0.01626
6	I69 WB	44044W	3.300	3.400	41	42	42	38	-0.02439
6	I69 WB	44044W	3.400	3.500	34	40	34	53	0.186275
6	I69 WB	44044W	3.500	3.600	42	43	48	50	0.063492
6	I69 WB	44044W	3.600	3.700	44	46	47	52	0.060606
6	I69 WB	44044W	3.700	3.800	46	46	52	46	0
6	I69 WB	44044W	3.800	3.900	40	49	49	57	0.141667
6	I69 WB	44044W	3.900	4.000		52	60	48	
6	I69 WB	44044W	4.000	4.100		41	51	44	
6	I69 WB	44044W	4.100	4.200	39	38	45	44	0.042735
6	I69 WB	44044W	4.200	4.300	36	38	42	56	0.185185
6	I69 WB	44044W	4.300	4.400	44	43	49	47	0.022727
6	I69 WB	44044W	4.400	4.500	45	35	43	49	0.02963
6	I69 WB	44044W	4.500	4.600	41	40	46	62	0.170732
6	I69 WB	44044W	4.600	4.700	50	49	55	47	-0.02
6	I69 WB	44044W	4.700	4.800	44	41	50	55	0.083333
6	I69 WB	44044W	4.800	4.900	43	45	52	49	0.046512
6	I69 WB	44044W	4.900	5.000	41	38	43	48	0.056911
6	I69 WB	44044W	5.000	5.100	45	43	47	54	0.066667
6	I69 WB	44044W	5.100	5.200	47	44	49	45	-0.01418

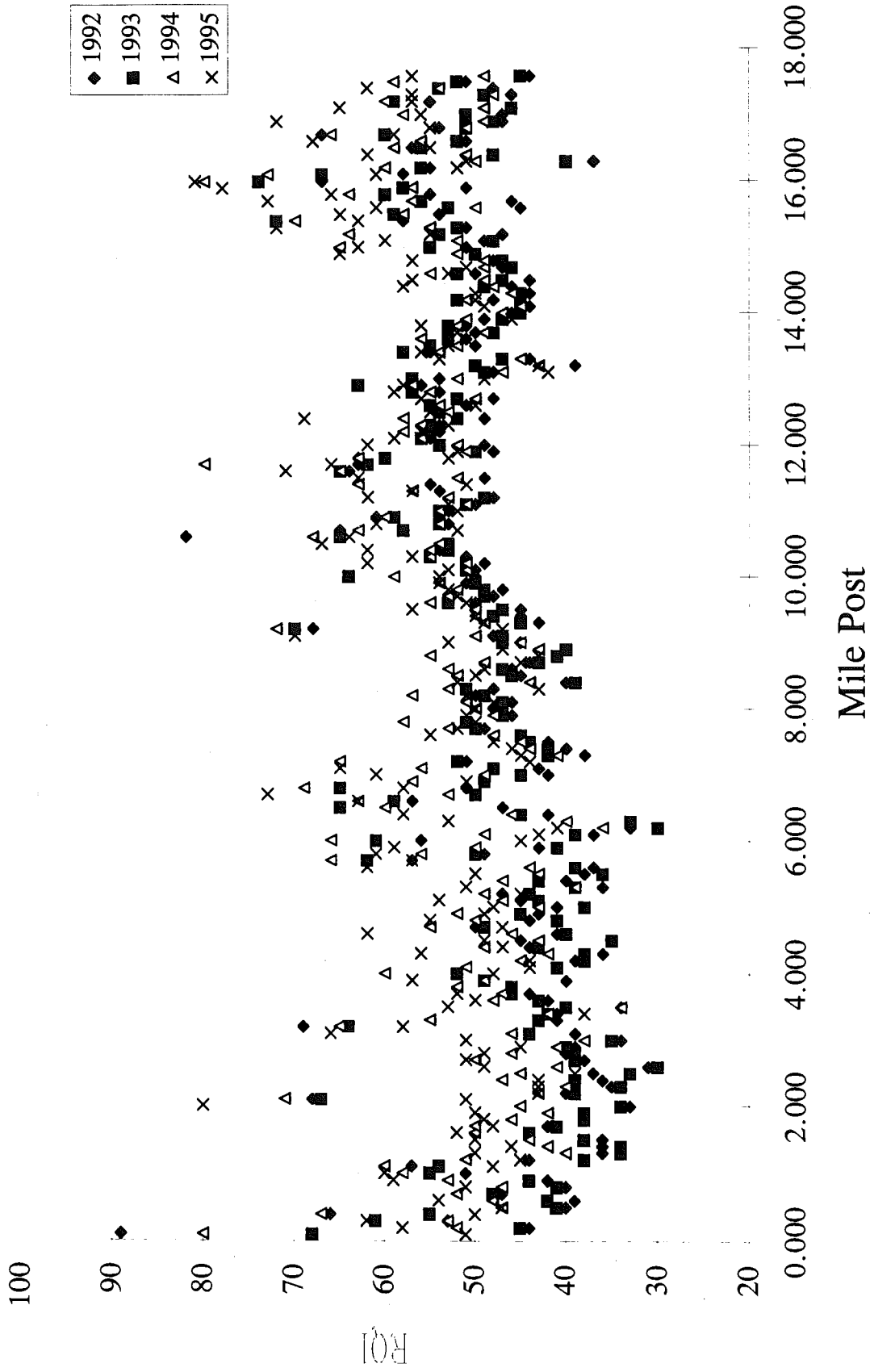
6	I69 WB	44044W	5.200	5.300	36	39	39	51	0.138889
6	I69 WB	44044W	5.300	5.400	40	43	47	43	0.025
6	I69 WB	44044W	5.400	5.500	38	36	43	50	0.105263
6	I69 WB	44044W	5.500	5.600	37	39	44	62	0.225225
6	I69 WB	44044W	5.600	5.700	57	62	66	57	0
6	I69 WB	44044W	5.700	5.800	49	50	56	61	0.081633
6	I69 WB	44044W	5.800	5.900	43	41	50	59	0.124031
6	I69 WB	44044W	5.900	6.000	56	61	66	45	-0.06548
6	I69 WB	44044W	6.000	6.100	37	39	49	43	0.054054
6	I69 WB	44044W	6.100	6.200	33	30	36	41	0.080808
6	I69 WB	44044W	6.200	6.300	33	33	40	53	0.20202
6	I69 WB	44044W	6.300	6.400	42	45	46	58	0.126984
6	I69 WB	44044W	6.400	6.500	47	65	60	65	0.12766
6	I69 WB	44044W	6.500	6.600	57	59	63	63	0.035088
6	I69 WB	44044W	6.600	6.700	50	50	53	73	0.153333
6	I69 WB	44044W	6.700	6.800	51	65	69	58	0.045752
6	I69 WB	44044W	6.800	6.900	49	49	57	51	0.013605
6	I69 WB	44044W	6.900	7.000	42	45	49	61	0.150794
6	I69 WB	44044W	7.000	7.100	43	48	56	65	0.170543
6	I69 WB	44044W	7.100	7.200	51	52	65	44	-0.04575
6	I69 WB	44044W	7.200	7.300	38	42	41	45	0.061404
6	I69 WB	44044W	7.300	7.400	40	42	44	46	0.05
6	I69 WB	44044W	7.400	7.500	42	44	45	48	0.047619
6	I69 WB	44044W	7.500	7.600	45	45	48	55	0.074074
6	I69 WB	44044W	7.600	7.700	49	50	53	52	0.020408
6	I69 WB	44044W	7.700	7.800	51	51	58	50	-0.00654
6	I69 WB	44044W	7.800	7.900	46	47	48	51	0.036232
6	I69 WB	44044W	7.900	8.000	48	47	50	50	0.013889
6	I69 WB	44044W	8.000	8.100	46	47	51	48	0.014493
6	I69 WB	44044W	8.100	8.200	50	49	57	51	0.006667
6	I69 WB	44044W	8.200	8.300	48	51	53	43	-0.03472
6	I69 WB	44044W	8.300	8.400	40	39	44	52	0.1
6	I69 WB	44044W	8.400	8.500	45	46	52	50	0.037037
6	I69 WB	44044W	8.500	8.600	46	47	53	49	0.021739
6	I69 WB	44044W	8.600	8.700	44	43	49	45	0.007576
6	I69 WB	44044W	8.700	8.800	41	41	55	43	0.01626
6	I69 WB	44044W	8.800	8.900	40	40	43	47	0.058333
6	I69 WB	44044W	8.900	9.000	45	47	45	53	0.059259
6	I69 WB	44044W	9.000	9.100	48	47	50	70	0.152778
6	I69 WB	44044W	9.100	9.200	68	70	72	47	-0.10294
6	I69 WB	44044W	9.200	9.300	43	45	49	49	0.046512
6	I69 WB	44044W	9.300	9.400	45	48	50	50	0.037037
6	I69 WB	44044W	9.400	9.500	45	47	50	57	0.088889
6	I69 WB	44044W	9.500	9.600	50	53	55	51	0.006667
6	I69 WB	44044W	9.600	9.700	48	49	53	52	0.027778
6	I69 WB	44044W	9.700	9.800	47	49	52	53	0.042553
6	I69 WB	44044W	9.800	9.900	51	50	54	54	0.019608
6	I69 WB	44044W	9.900	10.000	50	64	59	54	0.026667
6	I69 WB	44044W	10.000	10.100	50	51	51	53	0.02
6	I69 WB	44044W	10.100	10.200	49	51	51	62	0.088435
6	I69 WB	44044W	10.200	10.300	51	55	55	57	0.039216
6	I69 WB	44044W	10.300	10.400	54	53	55	62	0.049383
6	I69 WB	44044W	10.400	10.500	53	53	54	67	0.08805
6	I69 WB	44044W	10.500	10.600	82	65	68	64	-0.07317
6	I69 WB	44044W	10.600	10.700	65	58	63	52	-0.06667
6	I69 WB	44044W	10.700	10.800	53	54	54	61	0.050314
6	I69 WB	44044W	10.800	10.900	61	59	60	59	-0.01093
6	I69 WB	44044W	10.900	11.000	53	54	54	52	-0.00629
6	I69 WB	44044W	11.000	11.100	50	51	51	53	0.02
6	I69 WB	44044W	11.100	11.200	48	49	53	62	0.097222
6	I69 WB	44044W	11.200	11.300	54		57	57	0.018519
6	I69 WB	44044W	11.300	11.400	55		63	51	-0.02424
6	I69 WB	44044W	11.400	11.500	49		52	63	0.095238
6	I69 WB	44044W	11.500	11.600	64	65	65	71	0.036458
6	I69 WB	44044W	11.600	11.700	63	62	80	66	0.015873

6	I69 WB	44044W	11.700	11.800	63	60	63	53	-0.05291
6	I69 WB	44044W	11.800	11.900	48	50	51	52	0.027778
6	I69 WB	44044W	11.900	12.000	49	54	52	62	0.088435
6	I69 WB	44044W	12.000	12.100	55	56	56	59	0.024242
6	I69 WB	44044W	12.100	12.200	54	55	58	56	0.012346
6	I69 WB	44044W	12.200	12.300	54	55	56	53	-0.00617
6	I69 WB	44044W	12.300	12.400	49	52	58	69	0.136054
6	I69 WB	44044W	12.400	12.500	54	54	53	55	0.006173
6	I69 WB	44044W	12.500	12.600	51	55	54	50	-0.00654
6	I69 WB	44044W	12.600	12.700	48	52	50	56	0.055556
6	I69 WB	44044W	12.700	12.800	54	57	55	59	0.030864
6	I69 WB	44044W	12.800	12.900	56	63	57	58	0.011905
6	I69 WB	44044W	12.900	13.000	54	57	52	49	-0.03086
6	I69 WB	44044W	13.000	13.100	48	49	47	42	-0.04167
6	I69 WB	44044W	13.100	13.200	39	50	43	43	0.034188
6	I69 WB	44044W	13.200	13.300	44	47	45	54	0.075758
6	I69 WB	44044W	13.300	13.400	55	58	54	56	0.006061
6	I69 WB	44044W	13.400	13.500	50	55	52	53	0.02
6	I69 WB	44044W	13.500	13.600	51	53	56	51	0
6	I69 WB	44044W	13.600	13.700	50	48	49	52	0.013333
6	I69 WB	44044W	13.700	13.800	51	53	52	56	0.03268
6	I69 WB	44044W	13.800	13.900	49	47	51	46	-0.02041
6	I69 WB	44044W	13.900	14.000	46	45	47	46	0
6	I69 WB	44044W	14.000	14.100	44	45	45	49	0.037879
6	I69 WB	44044W	14.100	14.200	48	52	51	50	0.013889
6	I69 WB	44044W	14.200	14.300	44	45	46	50	0.045455
6	I69 WB	44044W	14.300	14.400	46	49	48	58	0.086957
6	I69 WB	44044W	14.400	14.500	44	47	49	57	0.098485
6	I69 WB	44044W	14.500	14.600	50	52	55	53	0.02
6	I69 WB	44044W	14.600	14.700	47	46	49	51	0.028369
6	I69 WB	44044W	14.700	14.800	48	47	49	57	0.0625
6	I69 WB	44044W	14.800	14.900	50	50	52	65	0.1
6	I69 WB	44044W	14.900	15.000	51	55	65	63	0.078431
6	I69 WB	44044W	15.000	15.100	49	48	52	60	0.07483
6	I69 WB	44044W	15.100	15.200	47	54	64	55	0.056738
6	I69 WB	44044W	15.200	15.300	51	52	55	72	0.137255
6	I69 WB	44044W	15.300	15.400	58	72	70	63	0.028736
6	I69 WB	44044W	15.400	15.500	54	59	58	65	0.067901
6	I69 WB	44044W	15.500	15.600	45	53	50	61	0.118519
6	I69 WB	44044W	15.600	15.700	46	56	57	73	0.195652
6	I69 WB	44044W	15.700	15.800	55	60	64	66	0.066667
6	I69 WB	44044W	15.800	15.900	51	58	57	78	0.176471
6	I69 WB	44044W	15.900	16.000	67	74	80	81	0.069652
6	I69 WB	44044W	16.000	16.100	58	67	73	61	0.017241
6	I69 WB	44044W	16.100	16.200	55	56	60	52	-0.01818
6	I69 WB	44044W	16.200	16.300	37	40	50	51	0.126126
6	I69 WB	44044W	16.300	16.400	48	48	51	62	0.097222
6	I69 WB	44044W	16.400	16.500	57	56	59	55	-0.0117
6	I69 WB	44044W	16.500	16.600	51	52	56	68	0.111111
6	I69 WB	44044W	16.600	16.700	67	60	66	59	-0.0398
6	I69 WB	44044W	16.700	16.800	54	51	51	55	0.006173
6	I69 WB	44044W	16.800	16.900	47	48	49	72	0.177305
6	I69 WB	44044W	16.900	17.000	47	51	58	56	0.06383
6	I69 WB	44044W	17.000	17.100	46	46	49	65	0.137681
6	I69 WB	44044W	17.100	17.200	55	59	60	57	0.012121
6	I69 WB	44044W	17.200	17.300	46	49	48	57	0.07971
6	I69 WB	44044W	17.300	17.400	48	54	54	62	0.097222
6	I69 WB	44044W	17.400	17.500	51	52	59	52	0.006536
6	I69 WB	44044W	17.500	17.583	44	45	49	57	0.098485

RQI Growth Rate, annual % per year



RQI Data: 44044 WB



Control Section 44044 EB

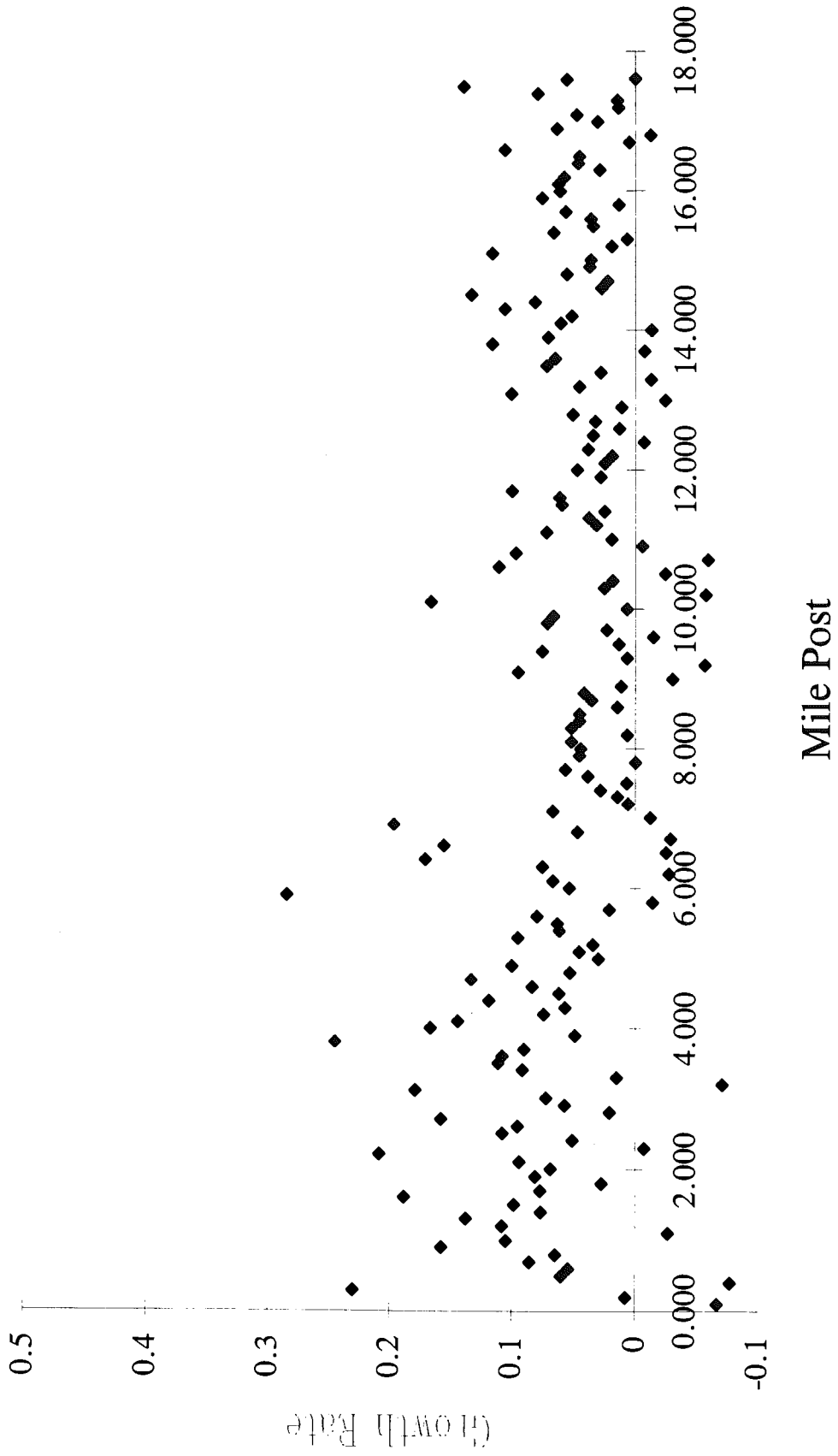
RQI										
Section	Date	92avg	93avg	94avg	95avg	grthAvg	92std	93std	94std	95std
18804e	30834	40.66667	41.97222	43.33333	48.44444	0.0762	5.772	5.746788	6.1393	5.467216
18805e	30834	43.14286	45.2	46.8857	52.6571	0.080352	6.558	7.115848	7.8619	7.112304
18807e	30834	47.95455	49.68182	49.7273	51.7273	0.028681	5.085	4.663806	4.5164	3.666863
18802e	30834	51.9697	52.45455	53.6364	55.8788	0.029115	6.64	6.703968	7.4575	7.043426
20821e	30536	46.79592	48.531	49.122	53.3265	0.048803	4.33	4.12867	4.4424	4.099735

44044 EB		BMP	EMP	1992	1993	1994	1995	Growth
6	I69 EB 44044E	0.000	0.100	70	69	73	56	-0.06667
6	I69 EB 44044E	0.100	0.200	43	50	44	44	0.007752
6	I69 EB 44044E	0.200	0.300	42	38	44	71	0.230159
6	I69 EB 44044E	0.300	0.400	69	70	71	53	-0.07729
6	I69 EB 44044E	0.400	0.500	39	44	47	46	0.059829
6	I69 EB 44044E	0.500	0.600	37	41	42	43	0.054054
6	I69 EB 44044E	0.600	0.700	35	39	38	44	0.085714
6	I69 EB 44044E	0.700	0.800	36	37	38	43	0.064815
6	I69 EB 44044E	0.800	0.900	36	38	38	53	0.157407
6	I69 EB 44044E	0.900	1.000	51	48	59	67	0.104575
6	I69 EB 44044E	1.000	1.100	62	63	59	57	-0.02688
6	I69 EB 44044E	1.100	1.200	34	41	40	45	0.107843
6	I69 EB 44044E	1.200	1.300	34	36	38	48	0.137255
6	I69 EB 44044E	1.300	1.400	35	41	39	43	0.07619
6	I69 EB 44044E	1.400	1.500	34	38	37	44	0.098039
6	I69 EB 44044E	1.500	1.600	39	45	42	61	0.188034
6	I69 EB 44044E	1.600	1.700	39	48	47	48	0.076923
6	I69 EB 44044E	1.700	1.800	37	37	39	40	0.027027
6	I69 EB 44044E	1.800	1.900	33	34	37	41	0.080808
6	I69 EB 44044E	1.900	2.000	34	33	38	41	0.068627
6	I69 EB 44044E	2.000	2.100	32	30	29	41	0.09375
6	I69 EB 44044E	2.100	2.200	32	33	33	52	0.208333
6	I69 EB 44044E	2.200	2.300	44	41	47	43	-0.00758
6	I69 EB 44044E	2.300	2.400	33	30	32	38	0.050505
6	I69 EB 44044E	2.400	2.500	34	34	35	45	0.107843
6	I69 EB 44044E	2.500	2.600	35	34	36	45	0.095238
6	I69 EB 44044E	2.600	2.700	38	37	39	56	0.157895
6	I69 EB 44044E	2.700	2.800	48	49	50	51	0.020833
6	I69 EB 44044E	2.800	2.900	41	43	42	48	0.056911
6	I69 EB 44044E	2.900	3.000	37	39	37	45	0.072072
6	I69 EB 44044E	3.000	3.100	41	42	43	63	0.178862
6	I69 EB 44044E	3.100	3.200	66	61	67	52	-0.07071
6	I69 EB 44044E	3.200	3.300	44	41	44	46	0.015152
6	I69 EB 44044E	3.300	3.400	33	38	41	42	0.090909
6	I69 EB 44044E	3.400	3.500	33	32	34	44	0.111111
6	I69 EB 44044E	3.500	3.600	34	37	41	45	0.107843
6	I69 EB 44044E	3.600	3.700	37	39	37	47	0.09009
6	I69 EB 44044E	3.700	3.800	34	37	35	59	0.245098
6	I69 EB 44044E	3.800	3.900	48	49	57	55	0.048611
6	I69 EB 44044E	3.900	4.000	36	42	52	54	0.166667
6	I69 EB 44044E	4.000	4.100	37	40	42	53	0.144144
6	I69 EB 44044E	4.100	4.200	45	45	46	55	0.074074
6	I69 EB 44044E	4.200	4.300	47	47	49	55	0.056738
6	I69 EB 44044E	4.300	4.400	45	45	46	61	0.118519
6	I69 EB 44044E	4.400	4.500	38	43	38	45	0.061404
6	I69 EB 44044E	4.500	4.600	36	41	42	45	0.083333
6	I69 EB 44044E	4.600	4.700	35	39	38	49	0.133333
6	I69 EB 44044E	4.700	4.800	38	40	43	44	0.052632
6	I69 EB 44044E	4.800	4.900	40	45	45	52	0.1
6	I69 EB 44044E	4.900	5.000	45	43	46	49	0.02963
6	I69 EB 44044E	5.000	5.100	44	45	45	50	0.045455
6	I69 EB 44044E	5.100	5.200	39	38	43	43	0.034188

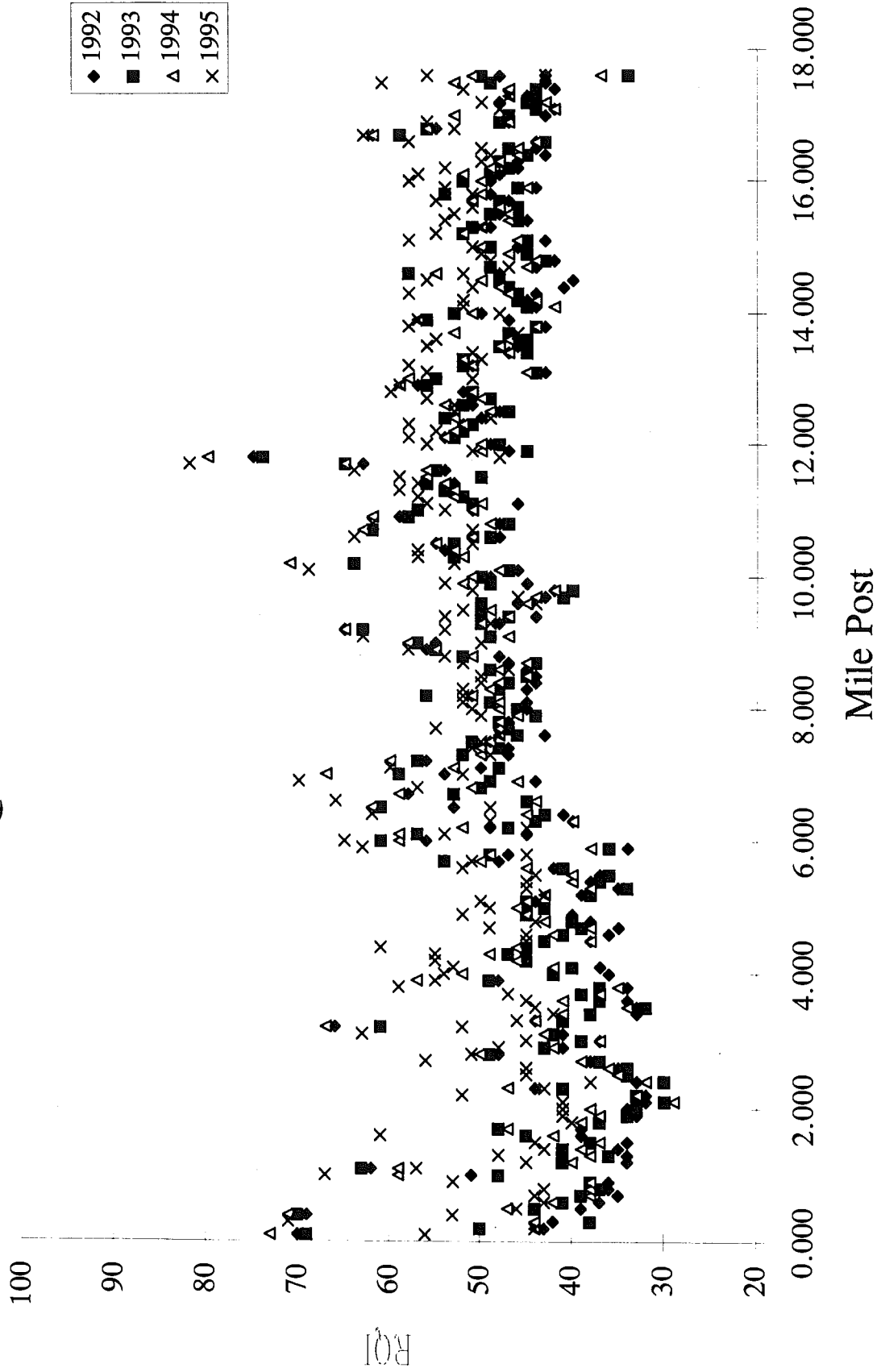
6	169 EB	44044E	5.200	5.300	35	34	38	45	0.095238
6	169 EB	44044E	5.300	5.400	38	37	40	45	0.061404
6	169 EB	44044E	5.400	5.500	37	36	40	44	0.063063
6	169 EB	44044E	5.500	5.600	42	41	45	52	0.079365
6	169 EB	44044E	5.600	5.700	48	54	50	51	0.020833
6	169 EB	44044E	5.700	5.800	47	49	49	45	-0.01418
6	169 EB	44044E	5.800	5.900	34	36	38	63	0.284314
6	169 EB	44044E	5.900	6.000	56	61	59	65	0.053571
6	169 EB	44044E	6.000	6.100	45	57	59	54	0.066667
6	169 EB	44044E	6.100	6.200	49	47	52	45	-0.02721
6	169 EB	44044E	6.200	6.300	40	44	40	49	0.075
6	169 EB	44044E	6.300	6.400	41	43	45	62	0.170732
6	169 EB	44044E	6.400	6.500	53	61	62	49	-0.02516
6	169 EB	44044E	6.500	6.600	45	45	44	66	0.155566
6	169 EB	44044E	6.600	6.700	58	53	59	53	-0.02874
6	169 EB	44044E	6.700	6.800	50	50	51	57	0.046667
6	169 EB	44044E	6.800	6.900	44	49	46	70	0.19697
6	169 EB	44044E	6.900	7.000	54	59	67	52	-0.01235
6	169 EB	44044E	7.000	7.100	50	48	53	60	0.066667
6	169 EB	44044E	7.100	7.200	56	57	60	57	0.005952
6	169 EB	44044E	7.200	7.300	47	52	50	49	0.014184
6	169 EB	44044E	7.300	7.400	47	48	50	51	0.028369
6	169 EB	44044E	7.400	7.500	49	51	49	50	0.006803
6	169 EB	44044E	7.500	7.600	43	46	48	48	0.03876
6	169 EB	44044E	7.600	7.700	47	47	48	55	0.056738
6	169 EB	44044E	7.700	7.800	47	48	48	47	0
6	169 EB	44044E	7.800	7.900	44	44	46	50	0.045455
6	169 EB	44044E	7.900	8.000	45	46	48	51	0.044444
6	169 EB	44044E	8.000	8.100	45	49	48	52	0.051852
6	169 EB	44044E	8.100	8.200	51	56	51	52	0.006536
6	169 EB	44044E	8.200	8.300	45	48	49	52	0.051852
6	169 EB	44044E	8.300	8.400	44	47	48	50	0.045455
6	169 EB	44044E	8.400	8.500	44	45	45	50	0.045455
6	169 EB	44044E	8.500	8.600	45	49	48	47	0.014815
6	169 EB	44044E	8.600	8.700	47	44	45	52	0.035461
6	169 EB	44044E	8.700	8.800	48	52	51	54	0.041667
6	169 EB	44044E	8.800	8.900	56	55	55	58	0.011905
6	169 EB	44044E	8.900	9.000	55	57	58	50	-0.0303
6	169 EB	44044E	9.000	9.100	49	49	47	63	0.095238
6	169 EB	44044E	9.100	9.200	65	63	65	54	-0.05641
6	169 EB	44044E	9.200	9.300	48	50	50	49	0.006944
6	169 EB	44044E	9.300	9.400	44	47	47	54	0.075758
6	169 EB	44044E	9.400	9.500	50	50	49	52	0.013333
6	169 EB	44044E	9.500	9.600	46	50	45	44	-0.01449
6	169 EB	44044E	9.600	9.700	43	41	44	46	0.023256
6	169 EB	44044E	9.700	9.800	42	40	42	51	0.071429
6	169 EB	44044E	9.800	9.900	45	49	52	54	0.066667
6	169 EB	44044E	9.900	10.000	49	50	51	50	0.006803
6	169 EB	44044E	10.000	10.100	46	47	48	69	0.166667
6	169 EB	44044E	10.100	10.200	64	64	71	53	-0.05729
6	169 EB	44044E	10.200	10.300	53	53	52	57	0.025157
6	169 EB	44044E	10.300	10.400	54	53	53	57	0.018519
6	169 EB	44044E	10.400	10.500	55	53	55	51	-0.02424
6	169 EB	44044E	10.500	10.600	48	49	51	64	0.111111
6	169 EB	44044E	10.600	10.700	62	62	63	51	-0.05914
6	169 EB	44044E	10.700	10.800	48	47	49	62	0.097222
6	169 EB	44044E	10.800	10.900	59	58	62	58	-0.005665
6	169 EB	44044E	10.900	11.000	51	57	51	54	0.019608
6	169 EB	44044E	11.000	11.100	46	51	50	56	0.072464
6	169 EB	44044E	11.100	11.200	52	52	53	57	0.032051
6	169 EB	44044E	11.200	11.300	53	54	53	59	0.037736
6	169 EB	44044E	11.300	11.400	53	56	54	57	0.025157
6	169 EB	44044E	11.400	11.500	50	50	56	59	0.06
6	169 EB	44044E	11.500	11.600	54	55	56	64	0.061728
6	169 EB	44044E	11.600	11.700	63	65	65	82	0.100529

6	I69 EB	44044E	11.700	11.800	75	74	80	48	-0.12
6	I69 EB	44044E	11.800	11.900	47	45	50	51	0.028369
6	I69 EB	44044E	11.900	12.000	49	48	50	56	0.047619
6	I69 EB	44044E	12.000	12.100	54	53	54	58	0.024691
6	I69 EB	44044E	12.100	12.200	52	52	53	55	0.019231
6	I69 EB	44044E	12.200	12.300	52	51	52	58	0.038462
6	I69 EB	44044E	12.300	12.400	50	54	53	49	-0.00667
6	I69 EB	44044E	12.400	12.500	48	47	49	53	0.034722
6	I69 EB	44044E	12.500	12.600	51	52	54	53	0.013072
6	I69 EB	44044E	12.600	12.700	51	49	50	56	0.03268
6	I69 EB	44044E	12.700	12.800	52	51	51	60	0.051282
6	I69 EB	44044E	12.800	12.900	57	56	59	59	0.011696
6	I69 EB	44044E	12.900	13.000	55	55	58	51	-0.02424
6	I69 EB	44044E	13.000	13.100	43	44	45	56	0.100775
6	I69 EB	44044E	13.100	13.200	51	52	51	58	0.045752
6	I69 EB	44044E	13.200	13.300	52	52	52	50	-0.01282
6	I69 EB	44044E	13.300	13.400	47	45	47	51	0.028369
6	I69 EB	44044E	13.400	13.500	46	48	48	56	0.072464
6	I69 EB	44044E	13.500	13.600	46	45	47	55	0.065217
6	I69 EB	44044E	13.600	13.700	47	47	53	46	-0.00709
6	I69 EB	44044E	13.700	13.800	43	44	44	58	0.116279
6	I69 EB	44044E	13.800	13.900	47	56	57	57	0.070922
6	I69 EB	44044E	13.900	14.000	50	53	51	48	-0.01333
6	I69 EB	44044E	14.000	14.100	44	45	42	52	0.060606
6	I69 EB	44044E	14.100	14.200	45	46	44	52	0.051852
6	I69 EB	44044E	14.200	14.300	44	46	47	58	0.106061
6	I69 EB	44044E	14.300	14.400	41	47	48	51	0.081301
6	I69 EB	44044E	14.400	14.500	40	48	50	56	0.133333
6	I69 EB	44044E	14.500	14.600	48	58	55	52	0.027778
6	I69 EB	44044E	14.600	14.700	44	49	45	47	0.022727
6	I69 EB	44044E	14.700	14.800	42	43	44	49	0.055556
6	I69 EB	44044E	14.800	14.900	45	45	47	50	0.037037
6	I69 EB	44044E	14.900	15.000	46	49	50	51	0.036232
6	I69 EB	44044E	15.000	15.100	43	45	46	58	0.116279
6	I69 EB	44044E	15.100	15.200	52	52	52	55	0.019231
6	I69 EB	44044E	15.200	15.300	49	51	50	50	0.006803
6	I69 EB	44044E	15.300	15.400	45	46	47	54	0.066667
6	I69 EB	44044E	15.400	15.500	48	49	47	53	0.034722
6	I69 EB	44044E	15.500	15.600	46	46	48	51	0.036232
6	I69 EB	44044E	15.600	15.700	47	48	51	55	0.056738
6	I69 EB	44044E	15.700	15.800	49	54	50	51	0.013605
6	I69 EB	44044E	15.800	15.900	44	46	45	54	0.075758
6	I69 EB	44044E	15.900	16.000	49	52	50	58	0.061224
6	I69 EB	44044E	16.000	16.100	48	49	52	57	0.0625
6	I69 EB	44044E	16.100	16.200	46	47	49	54	0.057971
6	I69 EB	44044E	16.200	16.300	46	48	48	50	0.028986
6	I69 EB	44044E	16.300	16.400	43	45	46	49	0.046512
6	I69 EB	44044E	16.400	16.500	44	47	46	50	0.045455
6	I69 EB	44044E	16.500	16.600	44	43	44	58	0.106061
6	I69 EB	44044E	16.600	16.700	62	59	62	63	0.005376
6	I69 EB	44044E	16.700	16.800	55	56	56	53	-0.01212
6	I69 EB	44044E	16.800	16.900	47	48	47	56	0.06383
6	I69 EB	44044E	16.900	17.000	43	47	53	47	0.031008
6	I69 EB	44044E	17.000	17.100	42	44	42	48	0.047619
6	I69 EB	44044E	17.100	17.200	48	45	43	50	0.013889
6	I69 EB	44044E	17.200	17.300	45	44	47	47	0.014815
6	I69 EB	44044E	17.300	17.400	42	44	47	52	0.079365
6	I69 EB	44044E	17.400	17.500	43	49	53	61	0.139535
6	I69 EB	44044E	17.500	17.600	48	50	51	56	0.055556
6	I69 EB	44044E	17.600	17.612	43	34	37	43	0

RQI Growth Rate, annual % per year



RQI Data: 44044 EB



Control Section 77024 EB

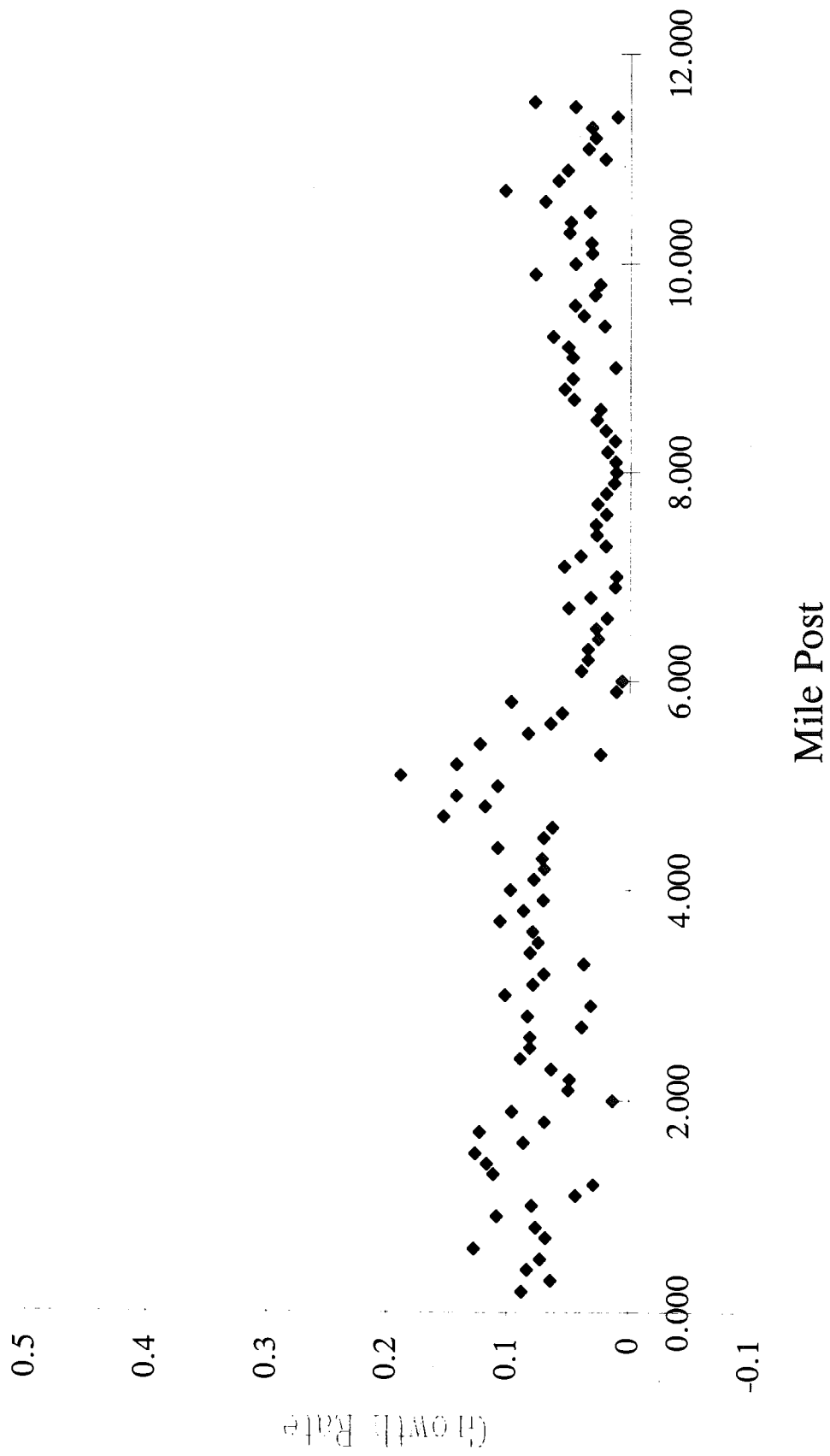
ROI										
Section	Date	92avg	93avg	94avg	95avg	grthAvg	92std	93std	94std	95std
17988e	30895	50.6552	52.224	52.397	55.897	0.035068	3.9495	4.80147	4.626	4.26199

	77024 EB		BMP	EMP	1992	1993	1994	1995	Growth
9	169 EB		0.000	0.100	49	54	50		
9	169 EB	77024E	0.100	0.200	57	60	60	72	0.08772
9	169 EB	77024E	0.200	0.300	47	48	50	56	0.06383
9	169 EB	77024E	0.300	0.400	52	55	59	65	0.08333
9	169 EB	77024E	0.400	0.500	55	56	60	67	0.07273
9	169 EB	77024E	0.500	0.600	42	45	47	58	0.12698
9	169 EB	77024E	0.600	0.700	44	45	45	53	0.06818
9	169 EB	77024E	0.700	0.800	48	50	55	59	0.07639
9	169 EB	77024E	0.800	0.900	43	50	45	57	0.10853
9	169 EB	77024E	0.900	1.000	46	45	65	57	0.07971
9	169 EB	77024E	1.000	1.100	46	46	48	52	0.04348
9	169 EB	77024E	1.100	1.200	46	48	47	50	0.02899
9	169 EB	77024E	1.200	1.300	42	44	50	56	0.11111
9	169 EB	77024E	1.300	1.400	40	42	49	54	0.11667
9	169 EB	77024E	1.400	1.500	45	48	56	62	0.12593
9	169 EB	77024E	1.500	1.600	50	50	57	63	0.08667
9	169 EB	77024E	1.600	1.700	49	53	62	67	0.12245
9	169 EB	77024E	1.700	1.800	53	57	66	64	0.06918
9	169 EB	77024E	1.800	1.900	52	56	63	67	0.09615
9	169 EB	77024E	1.900	2.000	50	45	48	52	0.01333
9	169 EB	77024E	2.000	2.100	40	41	42	46	0.05
9	169 EB	77024E	2.100	2.200	41	43	44	47	0.04878
9	169 EB	77024E	2.200	2.300	42	42	46	50	0.06349
9	169 EB	77024E	2.300	2.400	41	42	45	52	0.08943
9	169 EB	77024E	2.400	2.500	45	46	53	56	0.08148
9	169 EB	77024E	2.500	2.600	45	44	49	56	0.08148
9	169 EB	77024E	2.600	2.700	43	43	47	48	0.03876
9	169 EB	77024E	2.700	2.800	36	37	37	45	0.08333
9	169 EB	77024E	2.800	2.900	42	41	41	46	0.03175
9	169 EB	77024E	2.900	3.000	36	38	39	47	0.10185
9	169 EB	77024E	3.000	3.100	38	39	41	47	0.07895
9	169 EB	77024E	3.100	3.200	38	37	40	46	0.07018
9	169 EB	77024E	3.200	3.300	45	44	47	50	0.03704
9	169 EB	77024E	3.300	3.400	45	48	44	56	0.08148
9	169 EB	77024E	3.400	3.500	40	42	44	49	0.075
9	169 EB	77024E	3.500	3.600	42	49	47	52	0.07937
9	169 EB	77024E	3.600	3.700	47	53	64	62	0.10638
9	169 EB	77024E	3.700	3.800	46	49	49	58	0.08696
9	169 EB	77024E	3.800	3.900	52	58	60	63	0.07051
9	169 EB	77024E	3.900	4.000	51	54	57	66	0.09804
9	169 EB	77024E	4.000	4.100	51	54	54	63	0.07843
9	169 EB	77024E	4.100	4.200	57	62	68	69	0.07018
9	169 EB	77024E	4.200	4.300	51	58	62	62	0.0719
9	169 EB	77024E	4.300	4.400	43	49	47	57	0.10853
9	169 EB	77024E	4.400	4.500	47	48	51	57	0.07092
9	169 EB	77024E	4.500	4.600	58	60	63	69	0.06322

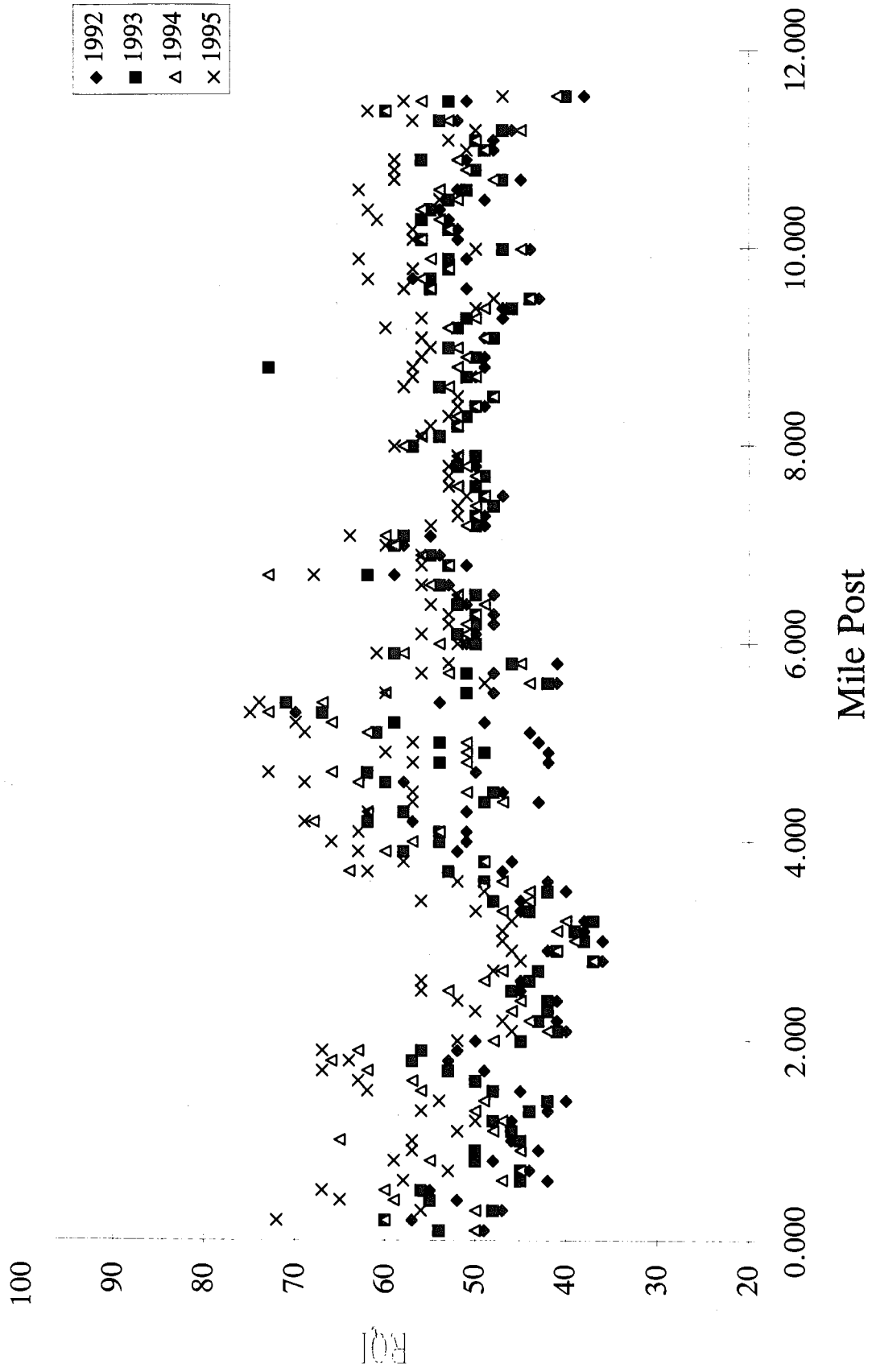
9	169 EB	77024E	4.600	4.700	50	62	66	73	0.15333
9	169 EB	77024E	4.700	4.800	42	42	49	51	0.14286
9	169 EB	77024E	4.800	4.900	43	43	54	57	0.10853
9	169 EB	77024E	4.900	5.000	44	44	61	62	0.18939
9	169 EB	77024E	5.000	5.100	49	49	59	66	0.14286
9	169 EB	77024E	5.100	5.200	49	49	59	70	0.14286
9	169 EB	77024E	5.200	5.300	70	70	67	75	0.02381
9	169 EB	77024E	5.300	5.400	54	54	71	74	0.12346
9	169 EB	77024E	5.400	5.500	48	48	51	60	0.08333
9	169 EB	77024E	5.500	5.600	41	41	42	49	0.06504
9	169 EB	77024E	5.600	5.700	48	48	51	56	0.05556
9	169 EB	77024E	5.700	5.800	41	41	46	53	0.09756
9	169 EB	77024E	5.800	5.900	59	59	59	61	0.0113
9	169 EB	77024E	5.900	6.000	51	51	50	52	0.00654
9	169 EB	77024E	6.000	6.100	50	50	52	56	0.04
9	169 EB	77024E	6.100	6.200	48	48	50	53	0.03472
9	169 EB	77024E	6.200	6.300	48	48	50	53	0.03472
9	169 EB	77024E	6.300	6.400	51	51	49	55	0.02614
9	169 EB	77024E	6.400	6.500	48	48	50	52	0.02778
9	169 EB	77024E	6.500	6.600	53	53	54	56	0.01887
9	169 EB	77024E	6.600	6.700	59	59	62	68	0.05085
9	169 EB	77024E	6.700	6.800	51	51	53	56	0.03268
9	169 EB	77024E	6.800	6.900	54	54	55	56	0.01235
9	169 EB	77024E	6.900	7.000	58	58	59	60	0.01149
9	169 EB	77024E	7.000	7.100	55	55	58	64	0.05455
9	169 EB	77024E	7.100	7.200	49	49	50	55	0.04082
9	169 EB	77024E	7.200	7.300	49	49	50	52	0.02041
9	169 EB	77024E	7.300	7.400	48	48	48	52	0.02778
9	169 EB	77024E	7.400	7.500	47	47	49	51	0.02837
9	169 EB	77024E	7.500	7.600	50	50	52	53	0.02
9	169 EB	77024E	7.600	7.700	49	49	49	53	0.02721
9	169 EB	77024E	7.700	7.800	50	50	52	53	0.02
9	169 EB	77024E	7.800	7.900	50	50	50	52	0.01333
9	169 EB	77024E	7.900	8.000	57	57	57	59	0.0117
9	169 EB	77024E	8.000	8.100	54	54	54	56	0.01235
9	169 EB	77024E	8.100	8.200	52	52	52	55	0.01923
9	169 EB	77024E	8.200	8.300	51	51	51	53	0.01307
9	169 EB	77024E	8.300	8.400	49	49	50	52	0.02041
9	169 EB	77024E	8.400	8.500	48	48	48	52	0.02778
9	169 EB	77024E	8.500	8.600	54	54	54	58	0.02469
9	169 EB	77024E	8.600	8.700	50	50	51	57	0.04667
9	169 EB	77024E	8.700	8.800	49	49	73	57	0.05442
9	169 EB	77024E	8.800	8.900	49	49	50	56	0.04762
9	169 EB	77024E	8.900	9.000	53	53	53	55	0.01258
9	169 EB	77024E	9.000	9.100	49	49	48	56	0.04762
9	169 EB	77024E	9.100	9.200	52	52	52	60	0.05128
9	169 EB	77024E	9.200	9.300	47	47	51	56	0.06383
9	169 EB	77024E	9.300	9.400	47	47	46	50	0.02128
9	169 EB	77024E	9.400	9.500	43	43	44	48	0.03876
9	169 EB	77024E	9.500	9.600	51	51	55	58	0.04575
9	169 EB	77024E	9.600	9.700	57	57	55	62	0.02924
9	169 EB	77024E	9.700	9.800	53	53	53	57	0.02516
9	169 EB	77024E	9.800	9.900	51	51	53	63	0.07843
9	169 EB	77024E	9.900	10.000	44	44	47	50	0.04545
9	169 EB	77024E	10.000	10.100	52	52	56	57	0.03205

9	I69 EB	77024E	10.100	10.200	52	53	53	57	0.03205
9	I69 EB	77024E	10.200	10.300	53	56	54	61	0.05031
9	I69 EB	77024E	10.300	10.400	54	55	56	62	0.04938
9	I69 EB	77024E	10.400	10.500	49	53	52	54	0.03401
9	I69 EB	77024E	10.500	10.600	52	51	54	63	0.07051
9	I69 EB	77024E	10.600	10.700	45	47	48	59	0.1037
9	I69 EB	77024E	10.700	10.800	50	50	51	59	0.06
9	I69 EB	77024E	10.800	10.900	51	56	52	59	0.05229
9	I69 EB	77024E	10.900	11.000	48	49	49	51	0.02083
9	I69 EB	77024E	11.000	11.100	48	50	50	53	0.03472
9	I69 EB	77024E	11.100	11.200	46	47	45	50	0.02899
9	I69 EB	77024E	11.200	11.300	52	54	53	57	0.03205
9	I69 EB	77024E	11.300	11.400	60	60	60	62	0.01111
9	I69 EB	77024E	11.400	11.500	51	53	56	58	0.04575
9	I69 EB	77024E	11.500	11.550	38	40	41	47	0.07895

RQI Growth Rate, annual % per year



RQI Data: 77024 EB



Control Section 77024 WB

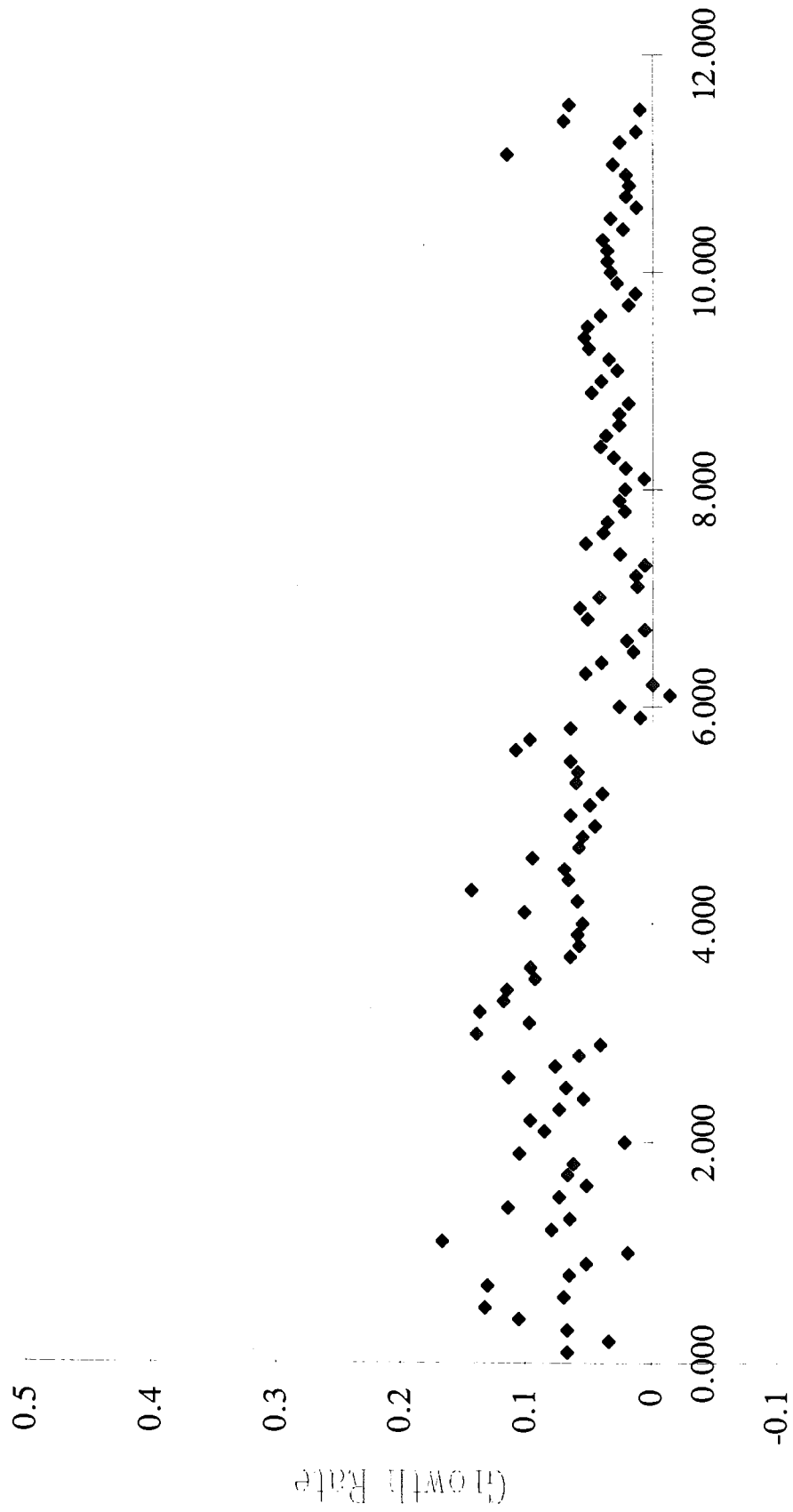
RQI										
Section	Date	92avg	93avg	94avg	95avg	grthAvg	92std	93std	94std	95std
17988w	30895	48.6724	50.3103	51.224	53.121	0.0311229	4.688	5.51937	6.1389	4.80525

77024 WB		BMP	EMP	1992	1993	1994	1995	Growth	
9	169 WB		0.000	0.100	50	55	56	60	0.06667
9	169 WB	77024W	0.100	0.200	50	46	54	55	0.03333
9	169 WB	77024W	0.200	0.300	45	47	54	54	0.06667
9	169 WB	77024W	0.300	0.400	54	62	66	71	0.10494
9	169 WB	77024W	0.400	0.500	48	53	60	67	0.13194
9	169 WB	77024W	0.500	0.600	48	49	52	58	0.06944
9	169 WB	77024W	0.600	0.700	41	43	48	57	0.13008
9	169 WB	77024W	0.700	0.800	46	45	49	55	0.06522
9	169 WB	77024W	0.800	0.900	45	43	47	52	0.05185
9	169 WB	77024W	0.900	1.000	71	77	71	75	0.01878
9	169 WB	77024W	1.000	1.100	38	40	49	57	0.16667
9	169 WB	77024W	1.100	1.200	42	45	49	52	0.07937
9	169 WB	77024W	1.200	1.300	41	41	46	49	0.06504
9	169 WB	77024W	1.300	1.400	38	45	49	51	0.11404
9	169 WB	77024W	1.400	1.500	41	45	47	50	0.07317
9	169 WB	77024W	1.500	1.600	45	43	44	52	0.05185
9	169 WB	77024W	1.600	1.700	40	39	41	48	0.06667
9	169 WB	77024W	1.700	1.800	43	41	48	51	0.06202
9	169 WB	77024W	1.800	1.900	38	44	45	50	0.10526
9	169 WB	77024W	1.900	2.000	47	51	47	50	0.02128
9	169 WB	77024W	2.000	2.100	43	50	45	54	0.08527
9	169 WB	77024W	2.100	2.200	38	47	41	49	0.09649
9	169 WB	77024W	2.200	2.300	41	43	44	50	0.07317
9	169 WB	77024W	2.300	2.400	43	42	45	50	0.05426
9	169 WB	77024W	2.400	2.500	44	43	47	53	0.06818
9	169 WB	77024W	2.500	2.600	44	45	47	59	0.11364
9	169 WB	77024W	2.600	2.700	39	43	42	48	0.07692
9	169 WB	77024W	2.700	2.800	46	46	49	54	0.05797
9	169 WB	77024W	2.800	2.900	49	52	51	55	0.04082
9	169 WB	77024W	2.900	3.000	43	48	55	61	0.13953
9	169 WB	77024W	3.000	3.100	41	48	46	53	0.09756
9	169 WB	77024W	3.100	3.200	51	66	67	72	0.13725
9	169 WB	77024W	3.200	3.300	48	48	53	65	0.11806
9	169 WB	77024W	3.300	3.400	55	62	67	74	0.11515
9	169 WB	77024W	3.400	3.500	43	46	46	55	0.09302
9	169 WB	77024W	3.500	3.600	38	40	43	49	0.09649
9	169 WB	77024W	3.600	3.700	41	44	44	49	0.06504
9	169 WB	77024W	3.700	3.800	46	48	48	54	0.05797
9	169 WB	77024W	3.800	3.900	45	44	47	53	0.05926
9	169 WB	77024W	3.900	4.000	48	47	49	56	0.05556
9	169 WB	77024W	4.000	4.100	46	45	56	60	0.10145
9	169 WB	77024W	4.100	4.200	45	50	46	53	0.05926
9	169 WB	77024W	4.200	4.300	44	49	51	63	0.14394
9	169 WB	77024W	4.300	4.400	50	62	53	60	0.06667
9	169 WB	77024W	4.400	4.500	43	49	45	52	0.06977
9	169 WB	77024W	4.500	4.600	42	52	44	54	0.09524

9	I69 WB	77024W	4.600	4.700	40	45	41	47	0.05833
9	I69 WB	77024W	4.700	4.800	42	43	44	49	0.05556
9	I69 WB	77024W	4.800	4.900	44	44	44	50	0.04545
9	I69 WB	77024W	4.900	5.000	41	43	44	49	0.06504
9	I69 WB	77024W	5.000	5.100	47	46	49	54	0.04965
9	I69 WB	77024W	5.100	5.200	42	42	43	47	0.03968
9	I69 WB	77024W	5.200	5.300	44	44	46	52	0.06061
9	I69 WB	77024W	5.300	5.400	45	43	48	53	0.05926
9	I69 WB	77024W	5.400	5.500	46	46	50	55	0.06522
9	I69 WB	77024W	5.500	5.600	40	42	45	53	0.10833
9	I69 WB	77024W	5.600	5.700	41	41	44	53	0.09756
9	I69 WB	77024W	5.700	5.800	41	41	43	49	0.06504
9	I69 WB	77024W	5.800	5.900	67	66	68	69	0.00995
9	I69 WB	77024W	5.900	6.000	51	50	53	55	0.02614
9	I69 WB	77024W	6.000	6.100	49	45	48	47	-0.01361
9	I69 WB	77024W	6.100	6.200	50	49	48	50	0
9	I69 WB	77024W	6.200	6.300	50	50	55	58	0.05333
9	I69 WB	77024W	6.300	6.400	41	40	41	46	0.04065
9	I69 WB	77024W	6.400	6.500	43	44	45	45	0.0155
9	I69 WB	77024W	6.500	6.600	49	49	51	52	0.02041
9	I69 WB	77024W	6.600	6.700	52	53	51	53	0.00641
9	I69 WB	77024W	6.700	6.800	45	48	46	52	0.05185
9	I69 WB	77024W	6.800	6.900	46	47	47	54	0.05797
9	I69 WB	77024W	6.900	7.000	47	46	47	53	0.04255
9	I69 WB	77024W	7.000	7.100	54	54	55	56	0.01235
9	I69 WB	77024W	7.100	7.200	50	49	51	52	0.01333
9	I69 WB	77024W	7.200	7.300	53	51	52	54	0.00629
9	I69 WB	77024W	7.300	7.400	51	51	50	55	0.02614
9	I69 WB	77024W	7.400	7.500	50	50	51	58	0.05333
9	I69 WB	77024W	7.500	7.600	51	51	52	57	0.03922
9	I69 WB	77024W	7.600	7.700	46	48	50	51	0.03623
9	I69 WB	77024W	7.700	7.800	45	47	47	48	0.02222
9	I69 WB	77024W	7.800	7.900	50	50	50	54	0.02667
9	I69 WB	77024W	7.900	8.000	46	46	47	49	0.02174
9	I69 WB	77024W	8.000	8.100	47	47	51	48	0.00709
9	I69 WB	77024W	8.100	8.200	47	49	50	50	0.02128
9	I69 WB	77024W	8.200	8.300	43	45	45	47	0.03101
9	I69 WB	77024W	8.300	8.400	48	52	50	54	0.04167
9	I69 WB	77024W	8.400	8.500	45	49	45	50	0.03704
9	I69 WB	77024W	8.500	8.600	50	54	53	54	0.02667
9	I69 WB	77024W	8.600	8.700	50	54	53	54	0.02667
9	I69 WB	77024W	8.700	8.800	52	54	55	55	0.01923
9	I69 WB	77024W	8.800	8.900	48	53	50	55	0.04861
9	I69 WB	77024W	8.900	9.000	49	51	50	55	0.04082
9	I69 WB	77024W	9.000	9.100	47	51	48	51	0.02837
9	I69 WB	77024W	9.100	9.200	48	51	51	53	0.03472
9	I69 WB	77024W	9.200	9.300	46	49	52	53	0.05072
9	I69 WB	77024W	9.300	9.400	49	53	55	57	0.05442
9	I69 WB	77024W	9.400	9.500	45	46	50	52	0.05185
9	I69 WB	77024W	9.500	9.600	48	53	52	54	0.04167
9	I69 WB	77024W	9.600	9.700	53	56	55	56	0.01887
9	I69 WB	77024W	9.700	9.800	48	52	50	50	0.01389
9	I69 WB	77024W	9.800	9.900	47	50	61	51	0.02837
9	I69 WB	77024W	9.900	10.000	50	55	54	55	0.03333
9	I69 WB	77024W	10.000	10.100	46	51	48	51	0.03623

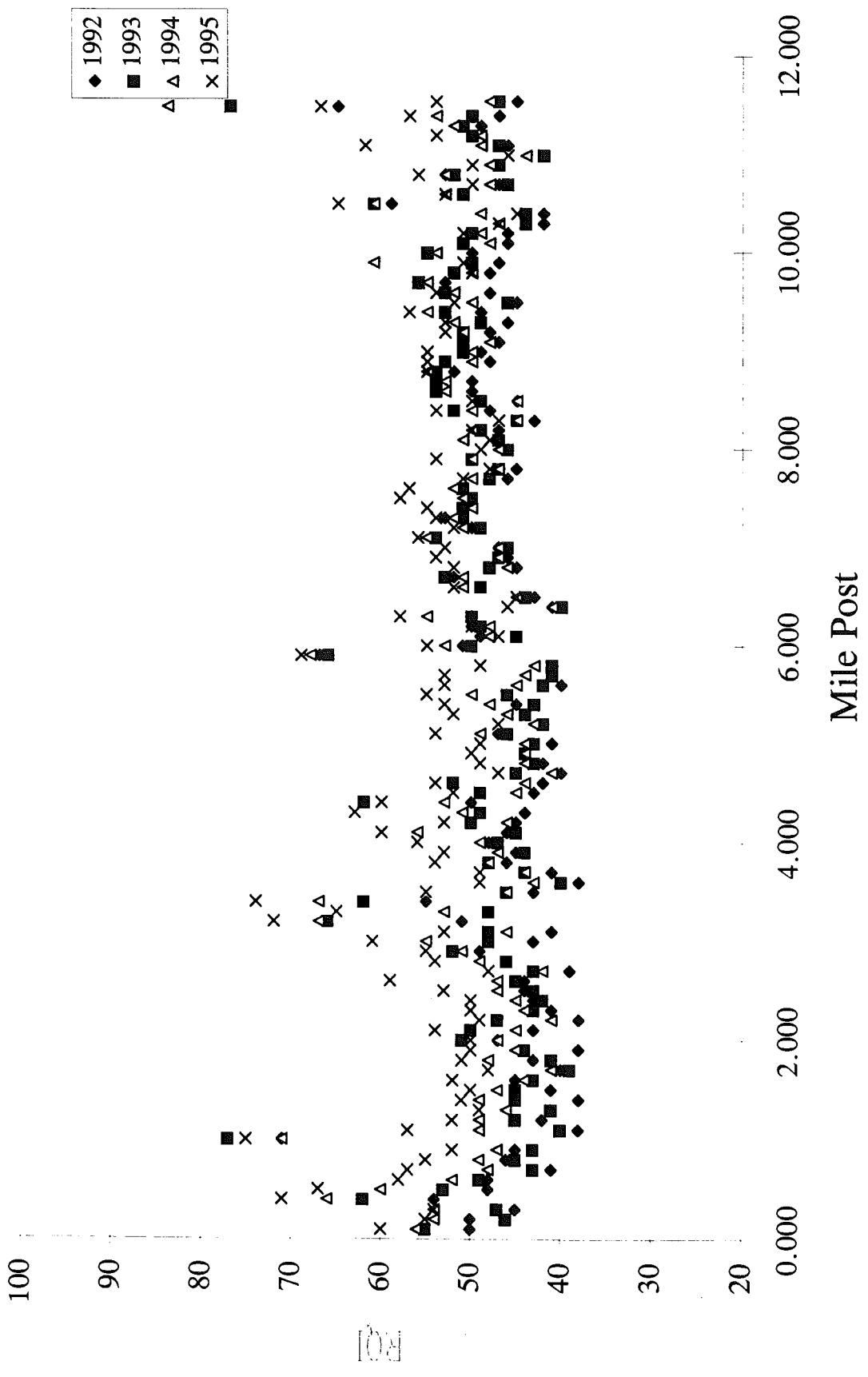
9	I69 WB	77024W	10.100	10.200	46	50	49	51	0.03623
9	I69 WB	77024W	10.200	10.300	42	44	47	47	0.03968
9	I69 WB	77024W	10.300	10.400	42	44	49	45	0.02381
9	I69 WB	77024W	10.400	10.500	59	61	61	65	0.0339
9	I69 WB	77024W	10.500	10.600	51	51	53	53	0.01307
9	I69 WB	77024W	10.600	10.700	47	46	48	50	0.02128
9	I69 WB	77024W	10.700	10.800	53	52	53	56	0.01887
9	I69 WB	77024W	10.800	10.900	47	47	48	50	0.02128
9	I69 WB	77024W	10.900	11.000	42	42	44	46	0.03175
9	I69 WB	77024W	11.000	11.100	46	47	49	62	0.11594
9	I69 WB	77024W	11.100	11.200	50	50	49	54	0.02667
9	I69 WB	77024W	11.200	11.300	49	51	52	51	0.01361
9	I69 WB	77024W	11.300	11.400	47	50	54	57	0.07092
9	I69 WB	77024W	11.400	11.500	65	77	84	67	0.01026
9	I69 WB	77024W	11.500	11.550	45	47	48	54	0.06667

RQI Growth Rate, annual % per year



Mile Post

RQI Data: 77024 WB



APPENDIX G

Concrete Properties

Appendix G. Concrete Properties

This appendix includes laboratory data for the concrete core specimens obtained in the field.

Core sampling in the field was performed by MDOT personnel in accordance with ASTM C 42-94. In the laboratory, specimens were tested for compressive strength, split tensile strength, and elastic modulus. Prior to testing, the ends of the core samples had to be cut using a diamond blade saw to ensure plane and perpendicular surfaces. The compression cylinders were then capped with a sulfur compound in accordance with ASTM C 617-94. ASTM procedures followed were C 39-94 for compressive strength, C 496-94 for splitting tensile strength, and C 469-94 for elastic modulus.

It should be noted, though, that the procedure used for elastic modulus determination varied from the ASTM procedure as follows:

- 3 independent extensometers spaced at 120° intervals around the specimen perimeter were used to measure axial deformation. An average of the three values was reported.
- A chain gage extensometer was used to measure lateral expansion.
- The specimen was not repeatedly loaded. Instead, the specimen was preloaded to approximately 100 psi, followed by a regular compressive loading regime. Because the extensometers were applied directly to the specimen, and the specimen was subsequently preloaded, it was found that seating of the gages was not a factor in the measurements.

Three specimens from each site were tested for compressive strength and elastic modulus. Three other specimens were tested for splitting tensile strength. Specimens containing reinforcing steel and defects were avoided.

Compressive Strength & Elastic Modulus										
Test Section	Cylinder ID#	Station Location	Specimen Length (in)	Specimen Diameter (in)	L/D Ratio	L/D Correction Factor	Ultimate Load (kips)	Compressive Strength (psi)	Corrected Compressive Strength (psi)	Elastic Modulus (psi)
11017-32516A EB Section A	M2	1790+49	11.5	5.9	1.95	0.99	176.7	6200	6140	4.52E+06
	M4	1793+52	11.5	5.9	1.95	0.99	186.6	6600	6530	4.63E+06
	M6	1794+83	11.75	5.9	1.99	1	195.1	6900	6900	4.77E+06
	Average									6520
11017-32516A EB Section C	M2	1683+48	11.5	5.9	1.95	0.99	197.9	7239	7170	4.08E+06
	M3	1684+35	11.5	5.9	1.95	0.99	185.2	6774	6710	4.51E+06
	M5	1687+01	11	5.9	1.86	0.985	206.5	7315	7210	
	Average									7030
11017-32516A WB Section D	M1	1783+39	11.25	5.9	1.91	0.99	154.1	5640	5580	4.12E+06
	M7	1788+11	11.75	5.9	1.99	1	155.6	5694	5690	4.02E+06
	M13	1784+98	11.75	5.9	1.99	1	158.4	5795	5800	6.37E+06
	Average									5690
19042-24680A EB Section B	6M	279+10	9.5	6	1.58	0.97	157.6	5574	5410	4.10E+06
	8M	279+87	9.6	6	1.60	0.97	201.2	7116	6900	4.68E+06
	9M	280+30	9.6	6	1.60	0.97	197.5	6985	6780	5.01E+06
	Average									6360
19042-02233A EB Section C	1M	527+68	8.9	6.1	1.46	0.95	195.6	6693	6360	4.62E+06
	9M	530+95	9	6	1.50	0.9605735	197.2	6975	6700	4.59E+06
	11M	531+23	9.2	6.1	1.51	0.96	205.1	7018	6740	4.98E+06
	Average									6600
19043-02234A EB	3M	137+42	8.8	6	1.47	0.95	234.9	8308	7890	4.98E+06
	7M	138+26	8.8	6	1.47	0.95	203.1	7183	6820	4.58E+06
	10M	138+62	8.9	6	1.48	0.96	194.6	6883	6610	6.12E+06
	Average									7110
19043-02234A WB	1M	149+68	8.2	6.1	1.34	0.95	224	7665	7280	6.00E+06
	8M	148+60	8.25	6.125	1.35	0.95	214.9	7353	6990	5.71E+06
	13M	147+85	8.2	6.1	1.34	0.95	180.8	6187	5880	4.77E+06
	Average									6720
25132-06582A SB	M1	660+19	8	5.9	1.36	0.955	169.7	6207	5930	5.66E+06
	M2	659+19	8.5	5.9	1.44	0.96	138.5	5068	4870	5.83E+06
	M4	655+56	8.75	5.9	1.48	0.97	175.3	6413	6220	5.57E+06
	Average									5670
44044-18804A WB	3M	671+01	8.9	6.1	1.46	0.95	257.8	8821	8380	5.10E+06
	7M	669+35	9.1	6.125	1.49	0.96	196.1	6710	6440	4.04E+06
	9M	668+56	9	6	1.50	0.96	221.8	7845	7530	5.01E+06
	Average									7450
47065-28215A EB	C3	700+00	10	5.9	1.69	0.98	139.9	4951	4850	3.65E+06
	C5	1-96 Bus.Lp.	10.75	5.9	1.82	0.985	123	4851	4780	3.36E+06
	C7	810+63	10.25	6	1.71	0.98	137.1	4351	4260	3.61E+06
	Average									4630
47065-28215A WB	107		9.5	5.9	1.61	0.97	125.83	4605	4470	3.79E+06
	113		10	5.9	1.69	0.98	100.39	3674	3580	3.00E+06
	122		10	5.9	1.69	0.98	141.4	5175	5050	3.74E+06
	Average									4370
77023-21586A EB	M1	1820+74	9	5.9	1.53	0.97	197.9	7239	7020	5.69E+06
	M8	1827+70	9.25	5.9	1.57	0.98	207.8	7602	7450	5.22E+06
	M10	1827+97	8.75	5.9	1.48	0.97	189.4	6930	6720	5.11E+06
	Average									7060
77024-20821A EB Section A	M0	83+64	9.1	6	1.52	0.96	199.5	7056	6770	5.49E+06
	M6	88+58	9	6	1.50	0.96	191.7	6780	6510	5.37E+06
	M10	89+64	9.05	6	1.51	0.96	195.3	6907	6630	6.03E+06
	Average									6640
77024-17988A EB Section B	1M	408+14	9.1	6.1	1.49	0.96	196.5	6724	6460	4.34E+06
	6M	414+67	9.56	6.125	1.56	0.97	166.7	5658	5490	4.30E+06
	9M	416+18	8.8	6	1.47	0.96	174.4	6168	5920	4.74E+06
	Average									5960

Split Tensile Strength							
Test Section	Cylinder ID	Station Location	Specimen Length (in)	Specimen Diameter (in)	Ultimate Load (kips)	Split Tensile Strength (psi)	Comments
11017-32516A EB Section A	M1	1790+17	12	5.9	65.61	635	
	M3	1790+80	11	5.9	68.6	655	
	M5	1794+53	11	5.9	64.43	635	
	Average						640
11017-32516A EB Section C	M1	1682+90	11.25	5.9	67	645	
	M4	1685+41	11	5.9	59.02	580	
	M6	1689+10	11	5.9	56.02	525	
	Average						585
11017-32516A WB Section D	M5	1786+53	11	5.9	57.03	560	
	M9	1789+70	11.25	5.9	60.02	575	
	M11	1791+27	11.75	5.9	58.02	535	
	Average						550
19042-24680A EB Section B	2M	276+59	8.2	5.9	48.89	645	
	4M	277+82	8.8	5.9	48.52	595	
	10M	280+71	9.4	5.9	49.3	565	
	Average						600
19042-02233A EB Section C	3M	527+96	8.5	5.9	51.56	655	
	6M	528+93	8.4	5.9	55.67	715	
	7M	529+14	8.4	5.9	47.7	615	
	Average						660
19043-02234A EB	6M	137+91.5	8.8	5.8	38.36	480	
	12M	138+75.5	8.5	5.9	45.99	585	
	13M	138+82.5	8.9	6	49.2	580	Tested Dry
	Average						550
19043-02234A WB	4M	149+17.6	7.8	5.9	42.89	595	
	6M	148+68.7	8.3	5.9	43.12	560	
	10M	148+22.4	8.1	5.9	46.18	615	
	Average						590
25132-06582A SB	M3	657+20	8	5.9	53.03	720	
	M5	653+71	8.625	5.9	55.5	695	
	M7	650+10	9.125	5.9	52.5	620	
	Average						680
44044-18804A WB	2M	671+21	8.8	6	46.08	555	Tested Dry
	12M	666+92	9.1	5.9	44.23	525	
	13M	666+23	8.6	5.8	45.32	580	
	Average						555
47065-28215A EB	C2	670+00	9.25	6	47.5	545	
	C4	720+00	10.5	6	59.5	600	
	C6	788+24	10.5	6	62.5	630	
	Average						590
47065-28215A WB	110		9.5	5.9	41.03	490	
	116		10	5.9	53.99	570	
	118		10	5.9	60.55	655	
	Average						570
77023-21586A EB	M4	1822+93	8.75	5.9	55.5	685	
	M7	1825+10	9	5.9	60	720	
	M14	1834+50	9	5.9	63	770	
	Average						725
77024-20821A Section A	M3	85+43	8.6	5.9	52.1	655	
	M4	87+05	8.8	5.9	61.72	755	
	M7	88+85	9	5.9	63.09	755	
	Average						720
77024-17988A Section B	3M	409+47	8.9	5.9	53.25	645	
	8M	415+93	8.65	5.9	49.62	620	
	13M	418+17	8.7	5.9	45.7	565	
	Average						610

APPENDIX H

Foundation Properties

Appendix H. Foundation Properties

This section is dedicated to the properties of the materials beneath the concrete slab. Included here is all of the laboratory testing that was performed on base, subbase, and subgrade soil samples. This laboratory testing included loss on wash (ASTM C117-95) and sieve analysis (ASTM C136-95) for gradation.

For each DGBC section tested, a table showing the amount of material lost when washed on a #200 sieve is provided for the base, subbase and subgrade materials. In addition, tables showing the weight retained and percent passing the various sieves are provided for the sieve analysis. Plotted grain size distribution curves are found for each base, subbase and subgrade.

For OGDC sections, the same tables and plots are presented. Loss on wash was not conducted on the OGDC materials, though, because very small quantities of material finer than the #200 sieve were present.

Once gradation analyses were completed, filter criteria of the foundation layers and Hazen permeability values of the bases were determined. Tables summarizing these analyses for each test section are found at the end of this appendix.

Sieve Analysis - Base																		
Section	Core	Total Wt. Before	Weight Retained (g)												Total Wt. After		% Error	
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200	Pan				
11017-32516A Section A EB	M2	885.91	0.00	101.38	301.57	304.58	148.80	13.09								16.16	885.58	0.04
	M3	1023.92	0.00	40.05	359.97	324.08	228.07	44.37								26.77	1023.31	0.06
	M4	927.85	0.00	154.08	449.07	258.00	57.72	1.79								6.46	927.12	0.08
	M5	1018.49	0.00	53.39	411.86	302.89	191.20	39.48								19.20	1018.02	0.05
	M6	1015.25	0.00	93.69	396.01	299.47	184.85	29.12								11.71	1014.85	0.04
	J3	1021.00	0.00	87.20	422.58	316.77	162.51	16.04								15.93	1021.03	0.00
C3	867.34	0.00	151.37	414.17	208.67	64.87	4.23								23.72	867.03	0.04	

Sieve Analysis - Base																		
Section	Core	25.4	% Passing															
			19.1	12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178	0.075						
11017-32516A Section A EB	M2	100.00	88.56	54.52	20.14	3.34	1.86											
	M3	100.00	96.09	60.93	29.28	7.01	2.67											
	M4	100.00	83.39	34.99	7.19	0.97	0.77											
	M5	100.00	94.76	54.32	24.58	5.81	1.93											
	M6	100.00	90.77	51.77	22.27	4.06	1.19											
	J3	100.00	91.46	50.07	19.05	3.13	1.56											
C3	100.00	82.55	34.80	10.74	3.26	2.77												

Section	Core	Loss on Wash - Subbase										Comments		
		Before Washing (g)					After Washing (g)						Weight Loss (g)	Loss%
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand				
11017-32516A Section A EB	M2	73.72	1098.41	1024.69	73.72	1015.56	941.84	82.85	8.09					
	M3	73.72	1083.10	1009.38	73.72	1013.05	939.33	70.05	6.94					
	M4	73.72	1141.32	1067.60	73.72	1091.63	1017.91	49.69	4.65					
	M5	73.72	1096.27	1022.55	73.72	1042.12	968.40	54.15	5.30					
	M6	73.72	1093.94	1020.22	73.72	1058.92	985.20	35.02	3.43					
	J3	73.72	1092.47	1018.75	73.72	997.32	923.60	95.15	9.34					
	C3	73.72	1079.16	1005.44	73.72	1021.70	947.98	57.46	5.71					

Section	Core	Total Wt. Before	Sieve Analysis - Subbase											Total Wt. After		% Error									
			Weight Retained (g)											Pan	#200		#100	#50	#30	#16	#8	#4	#3/8	1/2	3/4
			1	#1	#2	#4	#8	#16	#30	#50	#100	#200													
11017-32516A Section A EB	M2	1024.69	0.00	9.34	24.82	26.27	64.73	198.70	501.05	82.40	17.90	86.92	1021.62	0.30											
	M3	1009.38	0.00	0.00	11.88	9.16	36.83	34.58	64.34	224.02	458.81	75.81	1008.10	0.13											
	M4	1067.6	0.00	0.00	0.00	6.93	15.25	17.70	57.06	153.18	641.58	109.48	1067.15	0.04											
	M5	1022.55	0.00	0.00	0.00	1.96	23.73	28.86	80.55	133.89	586.49	95.85	1020.82	0.17											
	M6	1020.22	0.00	0.00	7.88	17.20	13.22	8.73	17.23	51.88	670.96	171.39	1017.94	0.22											
	J3	1018.75	0.00	0.00	0.00	21.20	21.23	16.11	31.47	159.25	537.66	107.13	1016.89	0.18											
	C3	1005.44	0.00	0.00	12.78	8.76	16.22	21.34	35.95	169.26	552.59	108.90	1003.78	0.17											

Section	Core	25.4	1	Sieve Analysis - Subbase											0.075	
				% Passing												#200
				19.1	12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178				
11017-32516A Section A EB	M2	100.00	99.09	99.09	98.16	95.74	93.18	86.86	67.47	18.57	10.53	8.78				
	M3	100.00	100.00	98.82	97.92	94.27	90.84	84.47	62.27	16.82	9.31	7.57				
	M4	100.00	100.00	100.00	99.35	97.92	96.26	90.92	76.57	16.48	6.22	4.83				
	M5	100.00	100.00	100.00	99.81	97.49	94.67	86.79	73.69	16.34	6.96	5.58				
	M6	100.00	100.00	99.23	97.54	96.25	95.39	93.70	88.62	22.85	6.05	3.82				
	J3	100.00	100.00	100.00	97.92	95.84	94.25	91.16	75.53	22.76	12.24	9.86				
	C3	100.00	100.00	98.73	97.86	96.24	94.12	90.55	73.71	18.75	7.92	6.21				

Section		Total Wt.		Sieve Analysis - Base													Total Wt.		% Error
		Before	After	Weight Retained (g)													After		
Core		1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200	Pan						
M1	11017-32516A	0.00	223.27	533.66	309.65	128.65	0.04	0.02	0.05	0.25	0.31		4.12	1200.02	0.04				
M2	Section C	0.00	157.05	327.77	350.47	111.52	1.64						18.36	966.81	0.01				
M3	EB	0.00	192.53	451.09	254.95	103.00	1.97						28.07	1031.61	-0.05				
M4		0.00	138.60	335.34	393.04	201.75	13.13						31.53	1113.39	-0.03				
M5		0.00	167.70	262.95	226.15	270.03	102.71						63.26	1092.8	0.00				
M6		0.00	151.50	377.48	305.04	225.03	14.23						30.66	1103.94	-0.03				

Section		Total Wt.		Sieve Analysis - Base													Total Wt.		% Error
		Before	After	% Passing													After		
Core		1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200							
M1	11017-32516A	100.00	81.40	36.95	11.16	0.44	0.44												
M2	Section C	100.00	83.76	49.86	13.61	2.08	1.91												
M3	EB	100.00	81.33	37.58	12.85	2.86	2.67												
M4		100.00	87.55	57.42	22.11	3.99	2.81												
M5		100.00	84.65	60.59	39.90	15.19	5.79												
M6		100.00	86.27	52.07	24.43	4.04	2.75												

Section	Core	Loss on Wash - Subbase										Weight Loss (g)	Loss %	Comments
		Before Washing (g)					After Washing (g)							
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand	Loss (g)	Loss %					
11017-32516A Section C EB	M1	73.72	984.3	910.58	73.72	881.31	807.59	102.99	11.31					
	M2	73.72	1093.25	1019.53	73.72	988.64	914.92	104.61	10.26					
	M3	73.72	987.63	913.91	73.72	897.05	823.33	90.58	9.91					
	M4	73.72	1097.06	1023.34	73.72	991.72	918	105.34	10.29					
	M5	73.72	1084.14	1010.42	73.72	932.95	859.23	151.19	14.96					
	M6	73.72	1242.11	1168.39	73.72	1187.06	1113.3	55.05	4.71					
	Natural Soil	73.72	1208.87	1135.15	73.72	915.19	841.47	293.68	25.87					

Section	Core	Total Wt. Before	Sieve Analysis - Subbase												Total Wt. After	% Error	
			Weight Retained (g)														
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200	Pan			
11017-32516A Section C EB	M1	807.59	0.00	0.00	0.00	5.17	3.95	3.13	6.67	23.39	235.44	363.68	154.22	11.93	807.58	0.00	
	M2	914.92	0.00	0.00	0.00	1.43	8.17	4.26	6.35	27.48	418.95	321.24	120.01	6.95	914.84	0.01	
	M3	823.33	0.00	0.00	0.00	11.14	3.62	7.60	5.05	8.10	30.25	371.80	279.78	99.06	6.30	822.70	0.08
	M4	918.00	0.00	0.00	2.91	1.00	4.09	2.70	4.45	13.43	438.61	317.38	118.00	14.55	917.12	0.10	
	M5	859.23	0.00	0.00	6.47	6.13	6.51	2.68	4.72	15.29	192.90	455.13	153.51	15.32	858.66	0.07	
	M6	1113.34	0.00	13.00	15.10	11.85	8.58	5.44	6.96	23.94	670.57	294.51	58.12	4.41	1112.48	0.08	
	Natural Soil	1135.15	0.00	0.00	0.00	0.91	1.64	3.76	9.42	139.72	487.68	178.52	310.46	1132.11	0.27		

Section	Core	25.4	1	Sieve Analysis - Subbase												200	0.075
				% Passing													
				19.1	3/4	1/2	3/8	9.5	4.75	#4	#8	1.148	#16	0.6	0.3		
11017-32516A Section C EB	M1	100.00	100.00	100.00	99.43	99.00	98.65	97.92	95.35	69.50	29.56	12.62					
	M2	100.00	100.00	100.00	99.86	99.06	98.64	98.02	95.32	54.23	22.72	10.95					
	M3	100.00	100.00	98.78	98.38	97.55	97.00	96.11	92.80	52.12	21.51	10.67					
	M4	100.00	100.00	99.72	99.62	99.22	98.95	98.52	97.21	66.19	23.33	11.80					
	M5	100.00	100.00	99.36	98.75	98.11	97.84	97.38	95.86	76.77	31.73	16.54					
	M6	100.00	98.89	97.59	96.58	95.85	95.38	94.79	92.74	35.34	10.14	5.16					
	Natural Soil	100.00	100.00	100.00	100.00	99.92	99.78	99.44	98.61	86.31	43.34	27.62					

Sieve Analysis - Base																		
Section	Core	Total Wt.		Weight Retained (g)											Total Wt.		% Error	
		Before	After	1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200	Pan	After		
11017-32516A Section D WB	M1	1157.30	1157.30	0.00	201.45	603.20	283.85	43.28	0.38							25.17	1157.33	0.00
	M3	1125.51	1125.51	0.00	76.40	524.40	427.31	72.00	0.42							26.07	1126.60	-0.10
	M5	1154.68	1154.68	0.00	34.70	546.60	434.05	115.62	0.81							22.80	1154.58	0.01
	M7	1180.60	1180.60	0.00	179.21	698.63	249.87	32.04	0.29							20.47	1180.51	0.01
	M9	1169.20	1169.20	0.00	146.53	579.36	376.74	43.21	0.33							22.72	1168.89	0.03
	M11	1146.78	1146.78	0.00	128.07	613.61	322.93	50.78	2.02							29.18	1146.59	0.02
	M13	1181.07	1181.07	0.00	123.55	625.93	337.8	67.86	0.47							25.17	1180.78	0.02

Sieve Analysis - Base															
Section	Core	Total Wt.		% Passing											
		1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200			
11017-32516A Section D WB	M1	25.4	19.1	12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178	0.075			
	M3	100.00	82.59	30.47	5.94	2.21	2.17								
	M5	100.00	93.21	46.62	8.65	2.26	2.22								
	M7	100.00	96.99	49.66	12.07	2.05	1.98								
	M9	100.00	84.82	25.64	4.48	1.77	1.74								
	M11	100.00	87.47	37.92	5.69	2.00	1.97								
	M13	100.00	88.83	35.32	7.17	2.74	2.56								
			100.00	89.54	36.54	7.94	2.20	2.16							

Loss on Wash - Subbase												
Section	Core	Before Washing (g)			After Washing (g)			Weight Loss (g)	Loss%	Comments		
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand					
11017-32516A Section D WB	M1	73.72	1187.20	1113.48	73.72	1103.34	1029.62	83.86	7.53			
	M3	73.72	1261.86	1188.14	73.72	1209.93	1136.21	51.93	4.37			
	M5	73.72	1168.75	1095.03	73.72	1098.25	1024.53	70.50	6.44			
	M7	73.72	1097.09	1023.37	73.72	1026.91	953.19	70.18	6.86			
	M9	73.72	1110.12	1036.40	73.72	1033.72	960.00	76.40	7.37			
	M11	73.72	1175.72	1102.00	73.72	1086.06	1012.34	89.66	8.14			
	M13	73.72	1108.36	1034.64	73.72	1060.04	986.32	48.32	4.67			

Sieve Analysis - Subbase																	
Section	Core	Total Wt. Before	Weight Retained (g)													Total Wt. After	% Error
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200	Pan			
11017-32516A Section D WB	M1	1113.48	0.00	0.00	4.31	9.82	19.85	24.00	40.20	211.81	495.98	172.57	46.64	87.11	1112.29	0.11	
	M3	1188.14	0.00	0.00	15.88	16.37	31.24	32.05	53.96	319.44	555.92	93.38	16.76	53.55	1188.55	-0.03	
	M5	1095.03	0.00	0.00	43.03	33.88	27.56	25.36	49.39	165.09	539.26	117.32	26.92	72.77	1100.58	-0.51	
	M7	1023.37	0.00	0.00	8.38	0.88	17.98	23.21	56.02	165.71	553.02	103.24	20.25	72.46	1021.15	0.22	
	M9	1036.40	0.00	0.00	7.20	2.56	16.11	24.30	55.70	154.44	548.01	121.87	24.71	79.27	1034.17	0.22	
	M11	1102.00	0.00	0.00	11.75	9.13	28.87	23.08	39.17	191.39	545.17	123.88	37.33	91.41	1101.18	0.07	
	M13	1034.64	0.00	0.00	21.78	3.30	19.16	17.08	37.42	227.93	546.55	96.21	14.88	49.60	1033.91	0.07	

% Passing														
Section	Core	25.4	1	19.1	3/4	12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178	0.075
11017-32516A Section D WB	M1	100.00	100.00	100.00	99.61	98.73	98.73	96.95	94.79	91.18	72.16	27.62	12.12	7.93
	M3	100.00	100.00	100.00	98.66	97.29	94.66	94.66	91.96	87.42	60.53	13.74	5.88	4.47
	M5	100.00	100.00	100.00	96.07	92.98	90.46	90.46	88.14	83.63	68.56	19.31	8.60	6.14
	M7	100.00	100.00	100.00	99.18	99.10	97.34	95.07	95.07	89.60	73.40	19.36	9.28	7.30
	M9	100.00	100.00	100.00	99.31	99.06	97.50	95.16	89.78	89.78	74.88	22.01	10.25	7.86
	M11	100.00	100.00	100.00	98.93	98.11	95.49	93.39	89.84	89.84	72.47	23.00	11.76	8.37
	M13	100.00	100.00	100.00	97.89	97.58	95.72	94.07	90.46	90.46	68.43	15.60	6.30	4.86

Section	Core	Loss on Wash - Subgrade										Comments		
		Before Washing (g)					After Washing (g)						Weight Loss (g)	Loss%
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand	Loss (g)						
11017-32516A Section D WB	M1	73.72	375.95	302.23	73.72	330.43	256.71	45.52	15.06					
	M3	73.72	1154.22	1080.5	73.72	1142.53	1068.8	11.69	1.08					
	M5	73.72	874.01	800.29	73.72	615.85	542.13	258.16	32.26					
	M7	73.72	833.85	760.13	73.72	637.42	563.7	196.43	25.84					
	M9	73.72	1229.94	1156.22	73.72	823.25	749.53	406.69	35.17					
	M11	73.72	413.03	339.31	73.72	364.43	290.71	48.6	14.32					
	M13	73.72	1146.57	1072.85	73.72	894.07	820.35	252.5	23.54					

Section	Core	Total Wt. Before	Sieve Analysis - Subgrade													Total Wt. After	% Error
			Weight Retained (g)														
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200	Pan			
11017-32516A Section D WB	M1	302.23	0.00	0.00	0.00	3.20	17.26	13.31	15.66	22.98	61.80	71.31	38.10	57.78	301.40	0.27	
	M3	1080.50	0.00	0.00	3.32	3.92	2.65	5.90	71.98	683.75	276.35	17.00	12.58	1080.38	0.01		
	M5	800.29	0.00	0.00	19.54	34.70	22.19	28.17	49.87	160.03	137.82	55.54	261.27	797.87	0.30		
	M7	760.13	56.55	20.99	18.86	27.33	26.19	27.55	36.26	158.01	128.99	51.13	199.45	760.59	-0.06		
	M9	1156.22	0.00	0.00	13.51	30.03	34.21	47.78	56.43	209.88	219.51	119.14	415.05	1154.92	0.11		
	M11	339.31	0.00	0.00	4.00	5.87	7.20	9.24	15.07	59.93	132.82	47.72	52.83	339.81	-0.15		
	M13	820.35	0.00	0.00	11.96	27.75	23.79	35.05	67.29	55.75	214.96	90.56	256.99	820.17	0.02		

Section	Core	25.4	1	Sieve Analysis - Subgrade													0.075
				% Passing													
				19.1	12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178	#100	#200			
11017-32516A Section D WB	M1	100.00	100.00	98.94	93.23	88.83	83.64	76.04	55.59	32.00	19.39						
	M3	100.00	100.00	99.73	99.06	98.81	98.27	91.61	28.32	2.75	1.18						
	M5	100.00	100.00	96.41	93.97	89.63	86.86	83.34	77.11	39.89	32.95						
	M7	92.56	89.80	88.58	86.10	82.50	79.06	75.43	49.87	32.90	26.18						
	M9	100.00	100.00	99.19	98.02	95.42	92.46	88.33	83.45	65.30	36.01						
	M11	100.00	100.00	98.49	97.31	95.58	93.46	90.73	86.29	68.63	29.49						
	M13	100.00	100.00	96.64	92.94	90.72	87.45	81.18	75.98	55.95	47.51						

Sieve Analysis - Base																
Section	Core	Total Wt. Before	Weight Retained (g)												Total Wt. After	% Error
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200	Pan		
19042-24680A Section B EB	1M	1004.20	115.23	72.97	35.48	65.14	373.51	213.26	47.72	12.50	8.83	47.45	8.59	1.15	1001.83	0.24
	2M	996.89	141.57	133.44	37.33	57.40	316.12	168.28	51.72	21.93	17.47	31.55	15.44	2.06	994.31	0.26
	3M	998.88	51.43	106.76	18.21	70.75	427.78	189.56	52.10	14.57				66.50	997.66	0.12
	4M	1115.56	164.47	111.03	21.51	54.68	362.59	254.63	62.72	12.26				68.14	1112.03	0.32
	5M	962.41	160.32	183.77	11.05	41.44	279.11	144.03	35.77	7.83				97.55	960.87	0.16
	6M	601.87	175.07	185.05	73.51	24.31	64.50	29.45	9.01	3.49				37.08	601.47	0.07
	7M	408.32	93.03	186.00	58.27	6.37	7.44	5.29	4.63	5.06				41.54	407.63	0.17
	8M	825.43	254.31	265.05	211.02	22.82	11.48	6.38	9.18	4.23				40.27	824.74	0.08
	9M	646.88	26.28	284.87	222.24	35.14	18.88	5.98	3.92	1.88				47.43	646.62	0.04
	10M	401.16	64.27	185.57	94.27	6.88	2.40	2.72	1.57					35.64	399.98	0.29

Sieve Analysis - Base																
Section	Core	25.4	19.1	12.7	9.5	4.75	2.36	% Passing							0.075	
								1	3/4	1/2	3/8	#4	#8	#16		#30
19042-24680A Section B EB	1M	88.53	81.26	77.73	71.24	34.04	12.81	8.06	6.81	5.93	1.21	0.35				
	2M	85.80	72.41	68.67	62.91	31.20	14.32	9.13	6.93	5.18	2.01	0.47				
	3M	94.80	84.00	82.16	75.01	31.75	12.58	7.31	5.84							
	4M	85.26	75.30	73.38	68.47	35.97	13.15	7.52	6.42							
	5M	83.34	64.25	63.10	58.79	29.79	14.83	11.11	10.30							
	6M	70.91	40.17	27.95	23.91	13.20	8.30	6.81	6.23							
	7M	77.22	31.66	17.39	15.83	14.01	12.72	11.58	10.34							
	8M	69.19	37.08	11.52	8.75	7.36	6.59	5.47	4.96							
	9M	95.94	51.90	17.54	12.11	9.19	8.27	7.66	7.37							
	10M	83.98	37.72	14.22	12.51	10.85	10.25	9.57	9.18							

Loss on Wash - Subbase												
Section	Core	Before Washing				After Washing				Weight Loss (g)	Loss%	Comments
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand	Pan				
19042-24680A Section B EB	1M	73.16	1077.19	1004.03	73.16	1004.23	931.07	72.96	7.27			
	2M	73.16	1073.85	1000.69	73.16	1000.07	926.91	73.78	7.37	trace organic		
	3M	73.16	1077.85	1004.69	73.16	1010.83	937.67	67.02	6.67	trace organic		
	4M	73.16	1075.58	1002.42	73.16	1022.95	949.79	52.63	5.25			
	5M	73.16	993.99	920.83	73.16	937.4	864.24	56.59	6.15			
	6M	73.16	1078.92	1005.76	73.16	998.42	925.26	80.5	8.00			
	7M	73.16	1077.3	1004.14	73.16	1024.28	951.12	53.02	5.28			
	8M	73.16	1073.31	1000.15	73.16	1028.3	955.14	45.01	4.50			
	9M	73.16	1081.46	1008.3	73.16	993.19	860.03	148.27	14.70			
	10M	73.16	1075.32	1002.16	73.16	1033.18	960.02	42.14	4.20			

Sieve Analysis - Subbase																
Section	Core	Total Wt. Before	Weight Retained (g)										Total Wt. After	% Error		
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100			#200	Pan
19042-24680A Section B EB	1M	1004.03	110.01	0.00	23.54	24.25	52.25	41.87	36.39	44.46	294.51	252.38	44.98	76.98	1001.62	0.24
	2M	1000.69	0.00	12.13	25.73	23.63	68.13	56.44	68.13	73.60	293.69	242.45	56.80	79.42	1000.15	0.05
	3M	1004.69	0.00	0.00	3.19	3.01	7.07	8.66	9.61	22.40	377.16	423.42	79.33	71.54	1005.39	-0.07
	4M	1002.42	0.00	16.82	8.95	2.66	6.55	7.44	8.33	17.31	243.18	527.13	102.48	61.44	1002.29	0.01
	5M	920.83	0.00	0.00	0.00	5.62	23.24	18.48	20.91	41.93	372.79	258.85	118.80	64.66	925.28	-0.48
	6M	1005.76	0.00	0.00	2.66	10.38	17.23	16.05	24.23	63.58	532.49	215.81	37.52	83.82	1003.77	0.20
	7M	1004.14	0.00	0.00	2.74	13.70	18.80	23.36	33.84	92.24	567.67	170.38	26.74	55.85	1005.32	-0.12
	8M	1000.15	0.00	0.00	0.00	10.50	13.19	12.71	19.31	89.67	630.23	157.33	19.52	47.12	999.58	0.06
	9M	1008.30	0.00	13.20	0.00	9.12	20.30	20.74	32.55	82.41	469.10	165.99	38.66	156.29	1008.36	-0.01
	10M	1002.16	0.00	13.64	23.53	10.54	23.12	25.22	41.86	53.70	342.73	367.56	53.71	44.35	999.96	0.22

% Passing																
Section	Core	25.4	19.1	12.7	9.5	4.75	2.36	1.18	0.6	0.3	0.178	0.075				
													#1	#2	#4	#8
19042-24680A Section B EB	1M	89.04	89.04	86.70	84.28	79.08	74.91	71.28	66.86	37.52	12.39	7.91				
	2M	100.00	98.79	96.22	93.86	87.05	81.41	74.60	67.24	37.89	13.67	7.99				
	3M	100.00	100.00	99.68	99.38	98.68	97.82	96.86	94.63	57.09	14.95	7.05				
	4M	100.00	98.32	97.43	97.16	96.51	95.77	94.94	93.21	68.95	16.37	6.14				
	5M	100.00	100.00	100.00	99.39	96.87	94.86	92.59	88.03	47.55	19.44	6.54				
	6M	100.00	100.00	99.74	98.70	96.99	95.39	92.99	86.66	33.72	12.26	8.53				
	7M	100.00	100.00	99.73	98.36	96.49	94.16	90.79	81.61	25.08	8.11	5.44				
	8M	100.00	100.00	100.00	98.95	97.63	96.36	94.43	85.46	22.45	6.72	4.77				
	9M	100.00	98.69	98.69	97.79	95.77	93.72	90.49	82.31	35.79	19.33	15.49				
	10M	100.00	98.64	96.29	95.24	92.93	90.42	86.24	80.88	46.68	10.00	4.64				

Loss on Wash - Subgrade										
Section	Core	Before Washing			After washing			Weight Loss (g)	Loss%	Comments
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand			
19042-24680A Section B EB	1M	73.16	1076.59	1003.43	73.16	987.00	913.84	89.59	8.93	trace organic
	2M	73.16	1077.00	1003.84	73.16	1017.31	944.15	59.69	5.95	
	3M	73.16	1070.07	996.91	73.16	1032.37	959.21	37.70	3.78	
	4M	73.16	1074.10	1000.94	73.16	994.03	920.87	80.07	8.00	dark brown color
	5M	73.16	1073.96	1000.80	73.16	1037.49	964.33	36.47	3.64	
	6M	73.16	1086.71	1013.55	73.16	965.86	892.70	120.85	11.92	
	7M	73.16	1074.21	1001.05	73.16	1044.71	971.55	29.50	2.95	
	8M	73.16	1075.17	1002.01	73.16	1037.88	964.72	37.29	3.72	
	9M #1	73.16	1074.81	1001.65	73.16	642.41	569.25	432.40	43.17	
	9M #2	73.16	1073.00	999.84	73.16	1014.66	941.50	58.34	5.83	
10M	73.16	1073.51	1000.35	73.16	1017.99	944.83	55.52	5.55		

Sieve Analysis - Subgrade																
Section	Core	Total Wt. Before	Weight Retained (g)										Total Wt. After	% Error		
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100			#200	Pan
19042-24680A Section B EB	1M	1003.43	0.00	27.55	28.46	24.19	85.00	82.48	94.30	92.91	216.61	197.98	56.67	95.00	1001.15	0.23
	2M	1003.84	0.00	58.34	36.84	28.71	93.45	86.04	106.23	107.59	211.42	163.34	45.18	63.86	1001.00	0.28
	3M	996.91	0.00	0.00	0.00	0.00	1.13	1.84	2.09	3.60	212.03	615.18	116.19	45.75	997.81	-0.09
	4M	1000.94	0.00	8.99	0.00	8.62	29.42	23.57	38.18	80.35	459.01	227.26	39.83	84.35	999.58	0.14
	5M	1000.80	0.00	0.00	0.00	0.00	10.37	9.01	9.47	29.09	448.77	391.63	63.70	39.09	1001.13	-0.03
	6M	1013.55	0.00	0.00	7.46	15.51	18.21	22.34	38.33	83.16	487.80	182.19	33.45	123.85	1012.30	0.12
	7M	1001.05	0.00	16.45	10.33	6.77	30.60	25.22	39.02	104.65	563.35	147.32	25.21	31.56	1000.48	0.06
	8M	1002.01	0.00	0.00	0.00	7.56	26.73	21.02	42.98	131.98	508.87	179.00	42.89	39.80	1000.83	0.12
	9M #1	1001.65	0.00	0.00	0.00	0.00	2.24	6.64	10.74	37.86	291.87	164.98	48.52	439.24	1002.09	-0.04
	9M #2	999.84	0.00	0.00	14.72	7.83	29.83	29.79	48.16	117.88	517.94	142.15	28.19	61.49	997.98	0.19
10M	1000.35	28.04	0.00	12.68	2.63	36.17	45.60	67.42	98.07	324.51	261.90	63.69	57.78	998.49	0.19	

Sieve Analysis - Subgrade																				
Section	Core	25.4	% Passing										97.20							
			1	3/4	19.1	12.7	9.5	4.75	2.36	1.148	0.6	0.3		0.178	0.075					
19042-24680A Section B EB	1M	100.00	97.25	94.42	92.01	83.54	75.32	65.92	56.66	35.07	15.34	9.69	6.64	5.56	4.50	3.87	3.21	4.09	43.81	
	2M	100.00	94.19	90.52	87.66	78.35	69.78	59.20	48.48	27.42	11.15	6.64	6.64	6.64	6.64	6.64	6.64	6.64	6.64	6.64
	3M	100.00	100.00	100.00	100.00	99.89	99.70	99.49	99.29	99.13	77.86	16.15	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
	4M	100.00	99.10	99.10	98.24	95.30	92.95	89.13	81.10	35.25	12.54	8.56	8.56	8.56	8.56	8.56	8.56	8.56	8.56	8.56
	5M	100.00	100.00	100.00	100.00	98.96	98.06	97.12	94.21	49.37	10.24	3.87	3.87	3.87	3.87	3.87	3.87	3.87	3.87	3.87
	6M	100.00	100.00	99.26	97.73	95.94	93.73	89.95	81.75	33.62	15.64	12.34	12.34	12.34	12.34	12.34	12.34	12.34	12.34	12.34
	7M	100.00	98.36	97.32	96.65	93.59	91.07	87.17	76.72	20.44	5.73	3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21	3.21
	8M	100.00	100.00	100.00	100.00	99.25	96.58	90.19	77.02	26.23	8.37	4.09	4.09	4.09	4.09	4.09	4.09	4.09	4.09	4.09
	9M	100.00	100.00	100.00	100.00	99.78	99.11	98.04	94.26	65.12	48.65	43.81	43.81	43.81	43.81	43.81	43.81	43.81	43.81	43.81
	10M	97.20	97.20	95.93	95.67	92.05	87.49	80.75	70.95	38.51	12.33	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96	5.96

Sieve Analysis - Base																		
Section	Core	Total Wt. Before	Weight Retained (g)												Total Wt. After		% Error	
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200	Pan	After			
19042-02233A Section C EB	1M	1226.88	83.13	298.62	313.02	171.95	174.71	61.23	34.91	11.80						73.27	1222.64	0.35
	5M	1049.19	0.00	70.18	120.70	126.70	328.96	196.62	82.57	19.88						102.38	1047.99	0.11
	7M	577.28	69.88	74.73	56.08	42.02	153.05	86.52	24.86	5.31						63.49	575.94	0.23
	11M	1007.54	68.74	151.32	85.12	63.29	262.76	198.74	72.10	18.25						86.17	1006.49	0.10
	13M	737.36	114.58	48.16	56.76	58.98	199.34	137.83	55.00	15.61						47.14	733.40	0.54

Sieve Analysis - Base																		
Section	Core	25.4	% Passing												#200			
			1	3/4	1/2	3/8	#4	#8	1.148	0.6	#30	#50	0.178	#100				
19042-02233A Section C EB	1M	93.22	82.44	43.37	29.36	15.12	10.12	7.28	6.32									
	5M	100.00	93.31	81.81	69.73	38.38	19.64	11.77	9.87									
	7M	87.89	74.95	65.24	57.96	31.44	16.46	12.15	11.23									
	11M	93.18	78.16	69.71	63.43	37.35	17.62	10.47	8.66									
	13M	84.46	77.93	70.23	62.23	35.20	16.51	9.05	6.93									

Loss on Wash - Subbase										
Section	Core	Before Washing			After Washing			Weight		Comments
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand	Loss (g)	Loss%	
19042-02233A Section C EB	1M	73.16	1081.59	1008.43	73.16	1010.98	937.82	70.61	7.00	
	5M	73.16	1072.88	999.72	73.16	1004.71	931.55	68.17	6.82	
	7M	73.16	1078.74	1005.58	73.16	1015.13	941.97	63.61	6.33	
	11M	73.16	1076.17	1003.01	73.16	1014.66	941.50	61.51	6.13	
	13M	73.16	1078.72	1005.56	73.16	1024.58	951.42	54.14	5.38	

Sieve Analysis - Subbase																
Section	Core	Total Wt. Before	Weight Retained (g)											Total Wt. After	% Error	
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200			Pan
19042-02233A Section C EB	1M	1008.43	0.00	0.00	9.38	18.46	32.30	28.37	38.34	53.64	270.08	362.69	113.67	80.66	1007.59	0.08
	5M	999.72	0.00	0.00	10.24	17.42	45.76	35.53	38.43	53.03	250.49	354.43	113.10	80.68	999.11	0.06
	7M	1005.58	0.00	30.73	20.46	13.24	30.42	29.84	33.94	39.34	223.31	428.44	88.38	67.77	1005.87	-0.03
	11M	1003.01	48.58	31.67	3.58	5.25	38.89	43.26	48.82	52.23	201.48	373.70	84.00	70.43	1001.89	0.11
	13M	1005.56	26.20	9.42	26.32	23.23	61.16	52.48	60.08	57.34	213.54	343.64	73.05	61.01	1007.47	-0.19

Sieve Analysis - Subbase														
Section	Core	25.4	% Passing											0.075
			19.1	12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178	0.075		
19042-02233A Section C EB	1M	100.00	100.00	99.07	97.24	94.04	91.22	87.42	82.10	55.32	19.35	8.08		
	5M	100.00	100.00	98.98	97.23	92.66	89.10	85.26	79.95	54.90	19.44	8.13		
	7M	100.00	96.94	94.91	93.59	90.57	87.60	84.23	80.31	58.11	15.50	6.71		
	11M	95.16	92.00	91.64	91.12	87.24	82.93	78.06	72.85	52.77	15.51	7.13		
	13M	97.39	96.46	93.84	91.53	85.45	80.23	74.25	68.55	47.32	13.14	5.88		

Loss on Wash - Subgrade										
Section	Core	Before Washing			After Washing			Weight Loss (g)	Loss%	Comments
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand			
19042-02233A Section C EB	1M	73.16	1076.85	1003.69	73.16	1026.07	952.91	50.78	5.06	
	5M	73.16	1077.84	1004.68	73.16	1020.33	947.17	57.51	5.72	
	7M	73.16	361.88	288.72	73.16	237.73	164.57	124.15	43.00	
	11M	73.16	1072.48	999.32	73.16	991.37	918.21	81.11	8.12	
	13M	73.16	1071.92	998.76	73.16	1008.85	935.69	63.07	6.31	

Sieve Analysis - Subgrade																
Section	Core	Total Wt. Before	Weight Retained (g)											Total Wt. After	% Error	
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200			Pan
19042-02233A Section C EB	1M	1003.69	0.00	7.60	20.38	24.06	53.75	46.86	58.49	86.07	366.16	212.95	71.95	55.62	1003.89	-0.02
	5M	1004.68	0.00	0.00	6.09	22.84	61.65	59.62	57.65	74.37	285.33	281.34	87.23	66.94	1003.06	0.16
	7M	288.72	0.00	0.00	0.00	0.00	4.46	5.56	8.91	10.17	30.55	61.86	38.46	129.36	289.33	-0.21
	11M	999.32	0.00	0.00	28.42	13.29	23.84	23.21	30.53	40.33	256.05	377.29	115.59	90.38	998.93	0.04
	13M	998.76	0.00	0.00	17.11	0.00	14.19	17.72	21.58	34.09	392.02	324.70	102.21	73.87	997.49	0.13

Sieve Analysis - Subgrade														
Section	Core	25.4	% Passing											0.075
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200	
19042-02233A Section C EB	1M	100.00	99.24	97.21	94.82	89.46	84.79	78.96	70.39	33.91	12.69	5.52	6.82	44.59
	5M	100.00	100.00	99.39	97.12	90.98	85.05	79.31	71.91	43.51	15.51	6.82	6.82	44.59
	7M	100.00	100.00	100.00	100.00	98.46	96.53	93.44	89.92	79.34	57.91	20.65	9.08	7.52
	11M	100.00	100.00	97.16	95.83	93.44	91.12	88.06	84.03	58.40	20.65	9.08	7.52	7.52
	13M	100.00	100.00	98.29	96.87	96.87	95.09	92.93	89.52	50.27	17.76	7.52	7.52	7.52

Section	Loss on Wash - Base													Comments
	Core	Before Washing (g)			After Washing (g)			Weight Loss (g)	Loss%					
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand							
19043-02234A EB	1M	73.16	1071.99	998.83	73.16	1005.19	932.03	66.80	6.69					
	3M	73.16	1086.30	1013.14	73.16	1008.63	935.47	77.67	7.67					
	4M	73.16	1068.85	995.69	73.16	991.05	917.89	77.80	7.81					
	6M	73.16	1080.51	1007.35	73.16	1011.45	938.29	69.06	6.86					
	7M	73.16	1071.32	998.16	73.16	990.88	917.72	80.44	8.06					
	8M	73.16	1072.82	999.66	73.16	1000.54	927.38	72.28	7.23					
	9M	73.16	1071.74	998.58	73.16	1010.04	936.88	61.70	6.18					
	10M	73.16	1075.14	1001.98	73.16	1010.85	937.69	64.29	6.42					
	12M	73.16	1069.61	996.45	73.16	995.12	921.96	74.49	7.48					
	13M	73.16	1074.07	1000.91	73.16	1000.04	926.88	74.03	7.40					

Section	Sieve Analysis - Base																	Total Wt. After	% Error
	Core	Total Wt. Before	Weight Retained (g)													Pan			
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200						
19043-02234A EB	1M	998.83	0	63.39	107.98	74.38	138.26	124.33	133.07	108.45	103.25	51.48	21.45	72.05	998.09	0.07			
	3M	1013.14	0	62.73	139.08	58.4	155.76	119.54	122.98	102.33	95.4	44.38	22.61	85.7	1008.91	0.42			
	4M	995.69	0	56.94	121.29	65.32	134.15	128.98	128.84	106.91	96.86	50.47	22.49	82.28	994.53	0.12			
	6M	1007.35	0	0	175.64	101.64	182.61	117.15	106.15	90.75	87.42	45.34	21.55	78.99	1007.24	0.01			
	7M	998.16	0	40.01	59.45	72.04	155.72	112	107.83	92.99	113.92	113.39	42.19	87.73	997.27	0.09			
	8M	999.66	0	39.29	102.54	101.93	158.67	126.54	121.04	104.32	99.11	48.13	21.44	76.37	999.38	0.03			
	9M	998.58	0	36.02	96.84	53.91	157.61	136.76	139.71	121.35	115.11	50.56	21.07	68.82	997.76	0.08			
	10M	1001.98	0	29.54	89.24	77.28	171.84	143.89	139.53	116.74	100.71	44.14	18.49	70.93	1002.33	-0.03			
	12M	996.45	0	11.02	99.17	75.07	164.7	134.67	135.18	111.09	104.64	55.75	24.58	81.33	997.2	-0.08			
	13M	1000.91	0	15.24	136.92	83.44	140.48	126.6	125.36	106.02	101.25	61.01	24.44	78.96	999.72	0.12			

Section	Core	% Passing												
		25.4	19.1	12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178	0.075		
		1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200		
19043-02234A EB	1M	100.00	93.65	82.84	75.40	61.55	49.11	35.78	24.93	14.59	9.44	7.29		
	3M	100.00	93.81	80.08	74.32	58.94	47.14	35.01	24.90	15.49	11.11	8.88		
	4M	100.00	94.28	82.10	75.54	62.07	49.11	36.17	25.44	15.71	10.64	8.38		
	6M	100.00	100.00	82.56	72.47	54.35	42.72	32.18	23.17	14.49	9.99	7.85		
	7M	100.00	95.99	90.04	82.82	67.22	56.00	45.19	35.88	24.47	13.11	8.88		
	8M	100.00	96.07	85.81	75.62	59.74	47.09	34.98	24.54	14.63	9.81	7.67		
	9M	100.00	96.39	86.70	81.30	65.51	51.82	37.83	25.67	14.15	9.08	6.97		
	10M	100.00	97.05	88.15	80.43	63.28	48.92	35.00	23.35	13.29	8.89	7.04		
	12M	100.00	98.89	88.94	81.41	64.88	51.36	37.80	26.65	16.15	10.55	8.09		
	13M	100.00	98.48	84.80	76.46	62.43	49.78	37.25	26.66	16.54	10.45	8.01		

Loss on Wash - Subbase												
Section	Core	Before Washing			After Washing			Weight		Loss%	Comments	
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand	Loss (g)	Loss (g)			
19043-02234A EB	1M	73.16	1084.26	1011.10	73.16	984.06	910.90	100.20	9.91			
	3M	73.16	1076.90	1003.74	73.16	989.16	916.00	87.74	8.74			
	4M	73.16	1072.19	999.03	73.16	886.78	813.62	185.41	18.56			
	6M	73.16	1073.98	1000.82	73.16	906.11	832.95	167.87	16.77			
	7M	73.16	1073.06	999.90	73.16	1028.00	954.84	45.06	4.51			
	8M	73.16	1074.54	1001.38	73.16	1023.39	950.23	51.15	5.11			
	9M	73.16	1072.34	999.18	73.16	1037.22	964.06	35.12	3.51			
	10M	73.16	1076.37	1003.21	73.16	1020.77	947.61	55.60	5.54			
	12M	73.16	1076.42	1003.26	73.16	1016.32	943.16	60.10	5.99			
	13M	73.16	1067.98	994.82	73.16	1002.47	929.31	65.51	6.59			

Sieve Analysis - Subbase																	
Section	Core	Total Wt. Before	Weight Retained (g)													Total Wt. After	% Error
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200	Pan			
19043-02234A EB	1M	1011.10	93.62	16.44	13.91	3.94	36.77	34.33	50.31	87.51	288.80	208.85	67.06	108.40	1009.94	0.11	
	3M	1003.74	0.00	0.00	0.00	12.24	6.25	9.86	15.48	302.15	438.71	105.16	102.50	992.35	1.13		
	4M	999.03	73.66	0.00	25.78	9.53	21.27	22.90	27.20	29.40	136.17	315.35	130.02	207.10	998.38	0.07	
	6M	1000.82	0.00	65.71	7.68	16.31	35.85	37.05	39.90	37.01	152.39	262.91	156.98	188.86	1000.65	0.02	
	7M	999.90	0.00	12.68	6.11	14.94	50.80	67.03	100.25	172.30	373.54	127.15	26.89	1000.05	-0.02		
	8M	1001.38	0.00	0.00	38.79	5.79	53.39	64.68	98.21	184.34	329.71	137.24	32.07	53.07	997.29	0.41	
	9M	999.18	65.58	26.37	16.34	24.34	56.61	64.56	110.89	192.76	304.83	85.08	14.70	36.93	998.99	0.02	
	10M	1003.21	0.00	0.00	7.53	23.38	38.58	40.92	57.70	101.89	250.59	320.31	93.10	69.25	1003.25	0.00	
	12M	1003.26	0.00	29.05	4.22	10.86	40.66	41.40	58.19	95.85	255.06	311.78	92.66	65.85	1005.58	-0.23	
	13M	994.82	0.00	0.00	8.52	11.51	30.49	38.37	52.64	65.12	260.74	340.72	108.56	77.55	994.22	0.06	

Sieve Analysis - Subbase																
Section	Core	25.4	% Passing													
			19.1	12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178	0.075				
19043-02234A EB	1M	90.74	89.11	87.74	87.35	83.71	80.32	75.34	66.69	38.12	17.47	10.84				
	3M	100.00	100.00	100.00	100.00	98.78	98.16	97.18	95.63	65.53	21.82	11.35				
	4M	92.63	92.63	90.05	89.09	86.96	84.67	81.95	79.01	65.38	33.81	20.80				
	6M	100.00	93.43	92.67	91.04	87.46	83.75	79.77	76.07	60.84	34.57	18.89				
	7M	100.00	98.73	98.12	96.63	91.55	84.84	74.82	57.58	20.23	7.51	4.82				
	8M	100.00	100.00	96.13	95.55	90.22	83.76	73.95	55.54	22.62	8.91	5.71				
	9M	93.44	90.80	89.16	86.73	81.06	74.60	63.50	44.21	13.70	5.19	3.72				
	10M	100.00	100.00	99.25	96.92	93.07	88.99	83.24	73.09	48.11	16.18	6.90				
	12M	100.00	97.10	96.68	95.60	91.55	87.42	81.62	72.07	46.64	15.57	6.33				
	13M	100.00	100.00	99.14	97.99	94.92	91.06	85.77	79.23	53.02	18.77	7.86				

Loss on Wash - Subgrade											
Section	Core	Before Washing			After Washing			Weight Loss (g)	Loss%	Comments	
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand				
19043-02234A EB	1M	73.16	1074.64	1001.48	73.16	741.85	668.69	332.79	33.23		
	3M	73.16	1075.78	1002.62	73.16	1027.45	954.29	48.33	4.82		
	4M	73.16	1078.00	1004.84	73.16	914.50	841.34	163.50	16.27		
	6M	73.16	1086.45	1013.29	73.16	1001.72	928.56	84.73	8.36		
	7M	73.16	1071.22	998.06	73.16	1044.23	971.07	26.99	2.70		
	8M	73.16	1068.91	995.75	73.16	1030.93	957.77	37.98	3.81		
	9M	73.16	1075.90	1002.74	73.16	1008.46	935.30	67.44	6.73		
	10M	73.16	1075.40	1002.24	73.16	1038.11	964.95	37.29	3.72		
	12M	73.16	1070.92	997.76	73.16	1037.40	964.24	33.52	3.36		

Sieve Analysis - Subgrade																
Section	Core	Total Wt. Before	Weight Retained (g)										Total Wt. After	% Error		
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100			#200	Pan
19043-02234A EB	1M	1001.48	0.00	18.55	6.04	10.91	20.77	17.29	26.03	28.94	97.97	280.84	147.48	346.01	1000.83	0.06
	3M	1002.62	0.00	30.33	20.60	10.04	45.54	33.91	33.96	39.59	216.80	380.32	102.46	67.40	980.95	2.16
	4M	1004.84	0.00	0.00	3.58	6.91	36.31	38.41	53.29	53.40	266.03	228.67	142.24	174.81	1003.65	0.12
	6M	1013.29	0.00	0.00	15.91	17.69	41.98	43.92	56.01	60.96	298.41	264.65	125.02	95.90	1020.45	-0.71
	7M	998.06	40.90	9.85	33.73	22.63	55.59	55.74	92.57	158.86	382.21	103.79	12.97	28.45	997.29	0.08
	8M	995.75	0.00	0.00	9.24	22.67	54.52	70.31	105.40	180.01	386.93	101.43	15.62	39.31	985.44	1.04
	9M	1002.74	48.68	0.00	24.73	24.10	59.72	65.02	94.10	163.01	310.40	105.61	31.42	74.27	1001.06	0.17
	10M	1002.24	0.00	9.87	20.01	19.39	48.49	61.66	90.66	168.58	298.36	195.08	49.11	41.11	1002.32	-0.01
	12M	997.76	0.00	28.02	0.00	8.99	24.15	23.02	31.91	48.91	357.47	333.87	101.64	38.51	996.49	0.13

Sieve Analysis - Subgrade																	
Section	Core	25.4	% Passing														
			1	3/4	1/2	3/8	9.5	4.75	#4	#8	2.36	1.148	0.6	0.3	0.178	0.075	
19043-02234A EB	1M	100.00	98.15	97.54	96.46	94.38	92.65	90.06	87.17	77.38	49.34	34.61	8.88	19.10	54.43	31.67	17.52
	3M	100.00	96.97	94.92	93.92	89.38	85.99	82.61	78.66	57.04	19.10	8.88	19.10	54.43	31.67	17.52	8.76
	4M	100.00	100.00	99.64	98.96	95.34	91.52	86.22	80.90	76.66	47.21	21.10	8.76	19.10	54.43	31.67	17.52
	6M	100.00	100.00	98.43	96.68	92.54	88.21	82.68	76.66	70.31	47.21	21.10	8.76	19.10	54.43	31.67	17.52
	7M	95.90	94.92	91.54	89.27	83.70	78.11	68.84	52.92	44.63	21.10	8.76	19.10	54.43	31.67	17.52	8.76
	8M	100.00	100.00	99.07	96.80	91.32	84.26	73.67	55.60	44.63	21.10	8.76	19.10	54.43	31.67	17.52	8.76
	9M	95.15	95.15	92.68	90.28	84.32	77.84	68.45	52.19	44.63	21.10	8.76	19.10	54.43	31.67	17.52	8.76
	10M	100.00	99.02	97.02	95.08	90.25	84.09	75.05	58.23	44.63	21.10	8.76	19.10	54.43	31.67	17.52	8.76
	12M	100.00	97.19	97.19	96.29	93.87	91.56	88.36	83.46	77.38	49.34	34.61	8.88	19.10	54.43	31.67	17.52

Loss on Wash - Base											
Section	Core	Before Washing (g)			After Washing (g)			Weight Loss (g)	Loss%	Comments	
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand				
19043-02234A WB	1M	73.16	1074.61	1001.45	73.16	992.75	919.59	81.86	8.17		
	2M	73.16	1073.38	1000.22	73.16	1001.05	927.89	72.33	7.23		
	4M	73.16	1079.07	1005.91	73.16	1012.53	939.37	66.54	6.61		
	5M	73.16	1083.42	1010.26	73.16	1009.47	936.31	73.95	7.32		
	6M	73.16	1080.64	1007.48	73.16	995.85	922.69	84.79	8.42		
	8M	73.16	1076.88	1003.72	73.16	1003.49	930.33	73.39	7.31		
	9M	73.16	1082.57	1009.41	73.16	999.47	926.31	83.10	8.23		
	10M	73.16	1082.16	1009.00	73.16	1004.95	931.79	77.21	7.65		
	11M	73.16	1074.44	1001.28	73.16	998.18	925.02	76.26	7.62	trace veg.	
	13M	73.16	1079.24	1006.08	73.16	1009.96	936.80	69.28	6.89		

Sieve Analysis - Base																
Section	Core	Total Wt. Before	Weight Retained (g)											Total Wt. After	% Error	
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200			Pan
19043-02234A WB	1M	1001.45	0.00	14.65	112.19	107.10	145.23	135.91	126.61	103.55	99.12	50.24	21.47	84.25	1000.32	0.11
	2M	1000.22	0.00	22.92	133.71	91.78	164.23	127.89	124.64	104.70	91.60	44.11	18.99	75.17	999.74	0.05
	4M	1005.91	0.00	36.41	104.59	84.56	161.58	130.21	132.68	113.96	103.84	47.54	18.75	70.19	1004.31	0.16
	5M	1010.26	0.00	9.28	102.24	91.20	191.48	141.36	125.93	99.42	96.64	53.70	22.05	76.61	1009.81	0.04
	6M	1007.48	0.00	0.00	102.12	61.93	183.03	138.86	132.02	111.95	107.85	57.33	23.36	86.69	1005.14	0.23
	8M	1003.72	0.00	31.12	82.29	77.37	172.93	141.33	137.77	109.62	105.09	51.02	18.99	75.27	1002.80	0.09
	9M	1009.41	0.00	20.49	104.84	88.70	194.09	139.99	117.53	87.98	91.63	54.52	23.54	86.16	1009.47	-0.01
	10M	1009.00	0.00	9.94	62.85	103.01	174.84	140.34	128.91	111.17	111.55	60.47	23.42	80.79	1007.29	0.17
	11M	1001.28	0.00	60.49	93.75	87.23	182.95	126.68	115.68	83.81	87.89	58.83	24.58	83.77	1005.66	-0.44
	13M	1006.08	0.00	36.00	179.23	115.58	185.53	111.03	92.86	72.30	78.69	45.36	16.74	72.44	1005.76	0.03

Sieve Analysis - Base															
Section	Core	25.4	% Passing												
			1	3/4	1/2	3/8	4.75	2.36	#8	#16	#30	0.6	0.3	0.178	0.075
19043-02234A WB	1M	100.00	98.54	87.33	76.64	62.14	48.57	35.92	25.58	15.69	10.67	8.53	7.56	7.14	6.63
	3M	100.00	97.71	84.34	75.16	58.75	45.96	33.50	23.03	13.87	9.46	7.56	7.14	6.63	6.14
	4M	100.00	96.38	85.98	77.58	61.51	48.57	35.38	24.05	13.73	9.00	7.14	6.63	6.14	5.65
	6M	100.00	99.08	88.96	79.93	60.98	46.99	34.53	24.69	15.13	9.81	7.63	6.63	6.14	5.65
	7M	100.00	100.00	89.86	83.72	65.55	51.77	38.66	27.55	16.85	11.16	8.84	7.56	7.14	6.63
	8M	100.00	96.90	88.70	80.99	63.76	49.68	35.96	25.04	14.57	9.48	7.59	6.63	6.14	5.65
	9M	100.00	97.97	87.58	78.80	59.57	45.70	34.06	25.34	16.26	10.86	8.53	7.56	7.14	6.63
	10M	100.00	99.01	92.79	82.58	65.25	51.34	38.56	27.55	16.49	10.50	8.18	7.56	7.14	6.63
	12M	100.00	93.96	84.60	75.88	57.61	44.96	33.41	25.04	16.26	10.38	7.93	7.14	6.63	6.14
	13M	100.00	96.42	78.61	67.12	48.68	37.64	28.41	21.23	13.40	8.90	7.23	6.63	6.14	5.65

Loss on Wash - Subgrade										
Section	Core	Before Washing (g)			After Washing (g)			Weight Loss (g)	Loss%	Comments
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand			
19043-02234A WB	1M	73.16	1077.55	1004.39	73.16	995.05	921.89	82.50	8.21	
	2M	73.16	1079.15	1005.99	73.16	1036.81	963.65	42.34	4.21	
	4M	73.16	1074.17	1001.01	73.16	898.62	825.46	175.55	17.54	
	5M	73.16	1076.60	1003.44	73.16	997.05	923.89	79.55	7.93	
	6M	73.16	1078.75	1005.59	73.16	1010.48	937.32	68.27	6.79	
	8M	73.16	1079.38	1006.22	73.16	993.34	920.18	86.04	8.55	trace veg.
	9M	73.16	1085.14	1011.98	73.16	938.61	865.45	146.53	14.48	
	10M	73.16	1074.53	1001.37	73.16	1010.34	937.18	64.19	6.41	
	11M	73.16	1085.08	1011.92	73.16	1024.00	950.84	61.08	6.04	
	13M	73.16	1072.60	999.44	73.16	1006.58	933.42	66.02	6.61	

Sieve Analysis - Subgrade																
Section	Core	Total Wt. Before	Weight Retained (g)											Total Wt. After	% Error	
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200			Pan
19043-02234A WB	1M	1004.39	0.00	0.00	0.00	1.13	1.44	6.43	13.35	35.05	251.43	444.04	141.86	108.81	1003.54	0.08
	2M	1005.99	0.00	0.00	0.00	4.99	16.72	17.99	41.39	129.50	476.39	192.43	78.50	47.18	1005.09	0.09
	4M	1001.01	0.00	15.14	0.00	9.30	10.82	14.74	25.98	47.73	236.51	352.66	100.41	185.72	999.01	0.20
	5M	1003.44	0.00	0.00	0.00	1.17	11.87	16.06	30.72	49.91	381.82	344.79	81.45	83.42	1001.21	0.22
	6M	1005.59	0.00	0.00	7.13	7.72	33.01	33.34	53.76	105.55	493.72	174.94	36.90	70.98	1017.05	-1.14
	8M	1006.22	0.00	0.00	0.00	6.42	11.53	14.92	20.92	48.86	523.54	236.55	52.62	90.20	1005.56	0.07
	9M	1011.98	0.00	0.00	0.00	11.67	15.27	11.44	19.97	43.97	414.14	263.41	78.18	153.48	1011.53	0.04
	10M	1001.37	0.00	0.00	0.00	1.13	13.96	11.24	20.65	72.66	519.83	249.07	44.46	67.46	1000.46	0.09
	11M	1011.92	0.00	0.00	0.00	12.71	32.96	24.11	20.06	32.91	499.39	266.64	45.24	64.76	998.78	1.30
	13M	999.44	0.00	0.00	11.32	11.17	19.08	17.50	30.25	71.71	537.74	192.26	40.54	68.38	999.95	-0.05

Sieve Analysis - Subgrade																	
Section	Core	25.4	1	19.1	3/4	% Passing											0.075
						12.7	9.5	4.75	#4	#8	1.148	0.6	0.3	#100	0.178	#200	
19043-02234A WB	1M	100.00	100.00	100.00	100.00	100.00	100.00	99.89	99.74	99.10	97.77	94.29	69.25	25.04	10.92		
	3M	100.00	100.00	100.00	98.49	97.84	96.05	91.94	97.07	31.71	12.58	4.78					
	4M	100.00	98.49	97.56	96.48	95.01	92.41	87.64	64.01	28.78	18.75						
	6M	100.00	100.00	99.88	98.70	97.10	94.04	89.06	51.01	16.65	8.54						
	7M	100.00	100.00	99.29	98.52	95.24	91.93	86.58	76.08	26.99	5.92						
	8M	100.00	100.00	99.36	98.22	96.73	94.65	89.80	37.77	14.26	9.03						
	9M	100.00	100.00	98.85	97.34	96.21	94.23	89.89	48.97	22.94	15.21						
	10M	100.00	100.00	99.89	98.49	97.37	95.31	88.05	36.14	11.27	6.83						
	12M	100.00	100.00	98.74	95.49	93.10	91.12	87.87	38.52	12.17	7.70						
	13M	100.00	100.00	98.87	97.75	95.84	94.09	91.06	83.89	30.08	10.85	6.79					

Loss on Wash - Base											
Section	Core	Before Washing (g)			After Washing (g)			Weight Loss (g)		Loss%	Comments
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand	Loss (g)	Loss (g)		
25132-06582A SB	M1	73.72	1233.42	1159.70	73.72	1151.64	1077.92	81.78	7.05		
	M3	73.72	1240.34	1166.62	73.72	1170.33	1096.61	70.01	6.00		
	M4	73.72	1112.48	1038.76	73.72	1032.28	958.56	80.20	7.72		
	M5	73.72	1217.35	1143.63	73.72	1123.85	1050.13	93.50	8.18		
	M7	73.72	1232.51	1158.79	73.72	1153.62	1079.90	78.89	6.81		

Sieve Analysis - Base																
Section	Core	Total Wt.		Weight Retained (g)											Total Wt. After	% Error
		Before	1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200	Pan		
25132-06582A SB	M1	1159.70	0.00	61.82	197.03	105.21	167.94	99.22	97.17	85.49	123.56	99.62	35.88	85.13	1158.07	0.14
	M3	1166.62	33.26	45.73	212.88	77.43	113.18	68.08	69.83	79.44	189.06	162.32	41.42	72.50	1165.13	0.13
	M4	1038.76	0.00	13.93	150.84	84.68	117.71	77.76	81.63	95.07	160.65	131.08	40.65	83.85	1037.85	0.09
	M5	1143.63	0.00	67.91	108.35	95.88	143.82	74.58	73.30	74.08	166.58	174.72	64.63	97.80	1141.65	0.17
	M7	1158.79	0.00	89.62	183.21	115.87	189.63	88.52	83.83	66.15	99.49	112.63	46.11	82.17	1157.23	0.13

Sieve Analysis - Base																					
Section	Core	Total Wt.		% Passing																	
		1	3/4	1/2	3/8	9.5	4.75	#4	#8	2.36	1.148	#16	#30	0.6	0.3	#50	0.178	#100	0.075	#200	
25132-06582A SB	M1	100.00	94.67	77.68	68.61	54.13	45.57	37.19	29.82	19.17	10.58	7.48									
	M3	97.15	93.23	74.98	68.34	58.64	52.81	46.82	40.01	23.81	9.89	6.34									
	M4	100.00	98.66	84.14	75.99	64.65	57.17	49.31	40.16	24.69	12.07	8.16									
	M5	100.00	94.06	84.59	76.20	63.63	57.11	50.70	44.22	29.65	14.38	8.72									
	M7	100.00	92.27	76.46	66.46	50.09	42.45	35.22	29.51	20.92	11.20	7.23									

Loss on Wash - Subbase										
Section	Core	Before Washing (g)			After Washing (g)			Weight Loss (g)	Loss%	Comments
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand			
25132-06582A SB	M1	73.72	1255.51	1181.79	73.72	1181.66	1107.94	73.85	6.25	
	M3	73.72	1120.98	1047.26	73.72	1055.53	981.81	65.45	6.25	
	M4	73.72	1242.39	1168.67	73.72	1143.28	1069.56	99.11	8.48	
	M5	73.72	1172.42	1098.70	73.72	1077.57	1003.85	94.85	8.63	
	M7	73.72	1113.05	1039.33	73.72	1037.36	963.64	75.69	7.28	

Sieve Analysis - Subbase																
Section	Core	Total Wt. Before	Weight Retained (g)												Total Wt. After	% Error
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200	Pan		
25132-06582A SB	M1	1181.79	0.00	0.00	20.52	9.79	35.81	31.98	42.62	106.73	507.47	266.89	79.24	79.16	1180.21	0.13
	M3	1047.26	0.00	20.51	10.93	6.05	21.46	28.85	53.00	118.96	383.90	257.70	73.51	71.57	1046.44	0.08
	M4	1168.67	0.00	0.00	16.72	19.58	27.56	30.67	55.20	132.85	463.13	238.05	76.21	105.32	1165.29	0.29
	M5	1098.70	0.00	0.00	8.49	21.35	30.11	19.77	29.09	104.53	374.44	299.70	105.32	103.74	1096.54	0.20
	M7	1039.33	0.00	11.89	40.43	24.33	39.57	30.75	56.76	122.88	347.80	212.58	70.18	80.37	1037.54	0.17

Sieve Analysis - Subbase															
Section	Core	25.4	% Passing												
			19.1	12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178	0.075			
25132-06582A SB	M1	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	M3	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	M4	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	M5	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	M7	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Loss on Wash - Subgrade											
Section	Core	Before Washing (g)			After Washing (g)			Weight Loss (g)	Loss%	Comments	
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand				
25132-06582A SB	M3	73.72	1260.25	1186.53	73.72	666.88	593.37	593.37	50.01		
	M4	73.72	902.86	829.14	73.72	605.49	297.37	297.37	35.86		
	M5	73.72	1043.83	970.11	73.72	495.75	422.03	548.08	56.50		
	M7	73.72	1138.75	1065.03	73.72	577.21	503.49	561.54	52.73		

Sieve Analysis - Subgrade																
Section	Core	Total Wt. Before	Weight Retained (g)										Total Wt. After		% Error	
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200	Pan		
25132-06582A SB	M3	1186.53	51.79	18.87	0.00	1.00	5.68	6.97	11.84	23.36	84.45	235.22	114.12	629.99	1183.29	0.27
	M4	829.14	0.00	0.00	0.00	19.00	18.41	31.17	45.45	130.20	166.61	92.03	305.67	826.54	0.31	
	M5	970.11	0.00	18.01	14.79	14.35	26.00	22.28	26.85	31.06	67.96	118.82	77.73	552.03	969.88	0.02
	M7	1065.03	0.00	0.00	3.39	9.88	15.18	15.73	20.73	43.40	141.13	191.71	63.25	563.74	1068.14	-0.29

Sieve Analysis - Subgrade												
Section	Core	25.4	% Passing						0.075			
			19.1	12.7	9.5	4.75	2.36	0.6				
25132-06582A SB	M3	95.64	94.04	94.04	93.96	93.48	92.89	91.90	89.93	82.81	62.99	53.37
	M4	100.00	100.00	100.00	97.83	95.54	93.32	89.56	84.08	68.37	48.28	37.18
	M5	98.14	96.62	95.14	92.46	90.16	87.40	84.19	77.19	64.94	56.93	56.93
	M7	100.00	100.00	99.68	98.75	97.33	95.85	93.91	89.83	76.58	58.58	52.64

Section		Sieve Analysis - Base															Total Wt.	
		Core	Before	Weight Retained (g)												After	% Error	
				1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200	Pan			
44044-18804A WB	C2	1001.23	20.51	99.71	388.74	179.60	156.79	36.59	16.54	6.83	18.50	35.62	34.93	2.71	997.07	0.42		
	C5	995.11	0.00	40.86	158.92	158.62	132.45	35.68	31.60	33.69	161.21	167.19	61.58	8.79	990.59	0.45		
	C7	1004.18	0.00	63.61	237.18	235.53	185.13	32.94	22.11	20.90	65.14	85.74	46.04	6.95	1001.27	0.29		
	C10	1002.80	0.00	90.93	429.87	245.65	117.30	18.70	11.45	8.34	14.88	27.68	35.46	2.31	1002.57	0.02		
	C12	982.73	0.00	98.14	287.37	217.64	170.24	35.84	21.92	15.84	43.54	56.53	31.83	3.05	981.94	0.08		

Section		Sieve Analysis - Base															
		Core	% Passing														
			25.4	19.1	12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178	0.075				
44044-18804A WB	C2	97.95	87.99	49.17	31.23	15.57	11.91	10.26	9.58	7.73	4.17	0.69	1.34	0.98	0.25	0.39	
	C5	100.00	95.89	79.92	63.98	50.67	47.09	43.91	40.53	24.33	7.53	1.34	0.98	0.25	0.39		
	C7	100.00	93.67	70.05	46.59	28.16	24.88	22.67	20.59	14.11	5.57	0.98	0.25	0.39			
	C10	100.00	90.93	48.07	23.57	11.87	10.01	8.87	8.03	6.55	3.79	0.25	0.39				
	C12	100.00	90.01	60.77	38.63	21.30	17.65	15.42	13.81	9.38	3.63	0.39					

Section	Core	Loss on Wash - Subbase										Comments		
		Before Washing					After Washing						Weight Loss (g)	Loss%
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand				
40444-18804A WB	C2	73.16	1077.81	1004.65	73.16	1022.07	948.91	55.74	5.55					
	C5	73.16	1079.24	1006.08	73.16	1007.84	934.68	71.4	7.10					
	C7	73.16	1078.22	1005.06	73.16	971.08	897.92	107.14	10.66					
	C10	73.16	1081.27	1008.11	73.16	979.95	906.79	101.32	10.05					
	C12	73.16	1078.87	1005.71	73.16	991.44	918.28	87.43	8.69					small pieces of veg.

Section	Core	Total Wt. Before	Sieve Analysis - Subbase										Total Wt. After	% Error		
			Weight Retained (g)													
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100			#200	Pan
40444-18804A WB	C2	1004.65	0.00	38.62	64.12	56.68	84.36	42.26	60.00	59.67	180.40	251.22	87.94	75.93	1001.20	0.34
	C5	1006.08	0.00	0.00	50.73	49.09	55.42	34.31	37.95	42.37	255.98	307.59	92.80	79.17	1005.41	0.07
	C7	1005.06	0.00	0.00	13.91	28.49	54.87	57.90	78.67	83.37	235.34	231.23	100.88	118.46	1003.12	0.19
	C10	1008.11	0.00	0.00	35.75	32.00	64.41	60.97	78.73	70.46	213.84	235.54	96.71	118.50	1006.91	0.12
	C12	1005.71	0.00	32.20	12.12	16.73	42.15	30.92	32.33	48.24	375.66	240.12	73.85	99.36	1003.68	0.20

Section	Core	25.4	1	Sieve Analysis - Subbase										200
				% Passing										
				19.1	12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178	0.075	
40444-18804A WB	C2	100.00	96.16	89.77	84.13	75.73	71.53	65.56	59.62	41.66	16.65	7.90		
	C5	100.00	100.00	94.96	90.08	84.57	81.16	77.39	73.18	47.73	17.16	7.94		
	C7	100.00	100.00	98.62	95.78	90.32	84.56	76.73	68.44	45.02	22.02	11.98		
	C10	100.00	100.00	96.45	93.28	86.89	80.84	73.03	66.04	44.83	21.47	11.87		
	C12	100.00	96.80	95.59	93.93	89.74	86.66	83.45	78.65	41.30	17.42	10.08		

Loss on Wash - Subgrade										
Section	Core	Before Washing			After Washing			Weight		Comments
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand	Loss (g)	Loss%	
40444-18804A WB	C2	73.16	1073.86	1000.70	73.16	1017.71	944.55	56.15	5.61	
	C7	73.16	756.55	683.39	73.16	671.10	597.94	85.45	12.50	
	C10	73.16	786.77	713.61	73.16	610.76	537.60	176.01	24.66	
	C12	73.16	1073.85	1000.69	73.16	860.57	787.41	213.28	21.31	vegetation

Sieve Analysis - Subgrade																
Section	Core	Total Wt. Before	Weight Retained (g)											Total Wt. After	% Error	
			1	#4	#8	#16	#30	#50	#100	#200	Pan					
40444-18804A WB	C2	1000.70	0.00	35.40	116.21	71.11	192.11	151.36	129.65	70.36	60.89	59.03	24.45	58.41	968.98	3.17
	C7	683.39	0.00	21.30	8.09	15.12	19.49	15.45	21.77	28.75	111.92	262.22	86.61	93.72	684.44	-0.15
	C10	713.61	0.00	0.00	33.13	14.68	41.81	32.34	42.18	41.49	109.32	142.89	71.11	185.25	714.20	-0.08
	C12	1000.69	0.00	36.51	10.83	42.39	52.58	36.56	38.44	39.97	174.10	240.69	89.40	236.60	998.07	0.26

Sieve Analysis - Subgrade														
Section	Core	25.4	% Passing											
			1	3/4	1/2	3/8	4.75	#4	#8	#16	#30	#50	#100	#200
40444-18804A WB	C2	100.00	96.46	84.85	77.74	58.55	43.42	30.46	23.43	17.35	11.45	9.01	0.075	
	C7	100.00	96.88	95.70	93.49	90.63	88.37	85.19	80.98	64.60	26.23	13.56		
	C10	100.00	100.00	95.36	93.30	87.44	82.91	77.00	71.18	55.87	35.84	25.88		
	C12	100.00	96.35	95.27	91.03	85.78	82.13	78.28	74.29	56.89	32.84	23.91		

Section		Sieve Analysis - Base																	Total Wt.		% Error
		Core	Before	Weight Retained (g)														After			
				1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200	Pan						
47065-28215A	EB	C1	1063.79	0.00	243.66	279.80	268.28	217.09	4.99										1062.87	0.09	
		C2	1197.02	0.00	175.66	415.82	306.47	177.55	19.09										1197.23	-0.02	
		C3	1022.96	38.85	338.02	492.64	59.48	45.88	2.57										1023.27	-0.03	
		C4	1198.33	0.00	168.36	400.50	249.98	286.99	24.47										1198.66	-0.03	
		C5	1176.28	0.00	84.40	255.83	286.91	364.99	87.54										1176.22	0.01	
		C6	1144.67	0.00	91.31	375.89	327.00	231.70	28.17										1144.46	0.02	
		C7	1140.33	24.33	245.31	529.31	200.51	92.62	2.31										1139.44	0.08	
		DL#3	1122.67	0.00	324.70	640.41	146.60	5.38	0.24										1123.01	-0.03	

Section		Sieve Analysis - Base																		
		Core	25.4	1	% Passing															
					19.1	12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178	0.075						
47065-28215A	EB	C1	100.00	77.10	50.79	25.57	5.17	4.70												
		C2	100.00	85.33	50.59	24.98	10.15	8.56												
		C3	96.20	63.16	15.00	9.19	4.70	4.45												
		C4	100.00	85.95	52.53	31.67	7.72	5.68												
		C5	100.00	92.82	71.08	46.68	15.66	8.21												
		C6	100.00	92.02	59.18	30.62	10.38	7.91												
		C7	97.87	76.35	29.94	12.35	4.23	4.03												
		DL#3	100.00	71.08	14.03	0.98	0.50	0.48												

Loss on Wash - Subbase											
Section	Core	Before Washing (g)			After Washing (g)			Weight Loss (g)		Loss%	Comments
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand	Loss (g)	Loss (g)		
47065-28215A EB	C1	73.72	1194.30	1120.58	73.72	1054.61	980.89	139.69	12.47		
	C2	73.72	1255.97	1182.25	73.72	1106.72	1033.00	149.25	12.62		
	C3	73.72	1229.34	1155.62	73.72	1071.04	997.32	158.30	13.70		
	C4	73.72	1235.02	1161.30	73.72	1069.57	995.85	165.45	14.25		
	C5	73.72	1270.99	1197.27	73.72	1191.34	1117.62	79.65	6.65		
	C6	73.72	1190.75	1117.03	73.72	1113.32	1039.60	77.43	6.93		
	C7	73.72	1180.72	1107.00	73.72	1114.12	1040.40	66.60	6.02		

Sieve Analysis - Subbase																
Section	Core	Total Wt. Before	Weight Retained (g)										Total Wt. After	% Error		
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100			#200	Pan
47065-28215A EB	C1	1120.58	0.00	8.01	3.76	18.50	53.70	85.52	102.17	155.28	363.61	153.49	29.51	140.40	1113.95	0.59
	C2	1182.25	0.00	0.00	44.74	31.55	68.75	115.86	108.42	143.42	359.45	124.35	18.65	164.37	1179.56	0.23
	C3	1155.62	0.00	10.37	39.57	42.85	134.34	203.59	163.63	126.99	166.87	80.86	25.30	158.80	1153.17	0.21
	C4	1161.30	0.00	0.00	0.00	10.26	107.45	204.44	173.78	137.14	208.48	108.10	45.32	167.26	1162.23	-0.08
	C5	1197.27	0.00	0.00	41.49	45.91	78.49	102.52	107.93	157.50	381.71	160.25	12.20	106.27	1194.27	0.25
	C6	1117.03	0.00	0.00	31.38	43.19	70.57	98.92	101.77	153.67	367.45	131.51	21.89	94.16	1114.51	0.23
	C7	1107.00	0.00	0.00	17.59	35.60	73.63	66.00	71.00	119.53	452.46	166.27	27.86	74.28	1104.22	0.25

Sieve Analysis - Subbase														
Section	Core	25.4	% Passing										0.178	0.075
			1	3/4	1/2	3/8	4.75	#4	#8	#16	#30	#50		
47065-28215A EB	C1	100.00	99.29	98.95	97.30	92.51	84.87	75.76	61.90	29.45	15.75	13.12	13.12	13.12
	C2	100.00	100.00	96.22	93.55	87.73	77.93	68.76	56.63	26.23	15.71	14.13	14.13	14.13
	C3	100.00	99.10	95.68	91.97	80.35	62.73	48.57	37.58	23.14	16.14	13.95	13.95	13.95
	C4	100.00	100.00	100.00	99.12	89.86	72.26	57.30	45.49	27.53	18.23	14.32	14.32	14.32
	C5	100.00	100.00	96.53	92.70	86.14	77.58	68.57	55.41	23.53	10.15	9.13	9.13	9.13
	C6	100.00	100.00	97.19	93.32	87.01	78.15	69.04	55.28	22.39	10.61	8.66	8.66	8.66
	C7	100.00	100.00	98.41	95.20	88.54	82.58	76.17	65.37	24.50	9.48	6.96	6.96	6.96

Loss on Wash - Subgrade										
Section	Core	Before Washing (g)			After Washing (g)			Weight Loss (g)	Loss%	Comments
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand			
47065-28215A	C1	73.72	1078.80	1005.08	73.72	796.01	722.29	282.79	28.14	
EB	C4	73.72	1162.60	1088.88	73.72	684.02	610.30	478.58	43.95	

Sieve Analysis - Subgrade																
Section	Core	Total Wt. Before	Weight Retained (g)										Total Wt. After	% Error		
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100			#200	Pan
47065-28215A	C1	1005.08	0.00	40.83	20.88	21.99	45.63	44.57	38.21	46.73	202.99	178.56	64.97	298.61	1003.97	0.11
EB	C4	1088.88	0.00	0.00	5.06	8.95	23.23	35.00	37.21	41.34	157.15	188.55	107.68	482.79	1086.96	0.18

Sieve Analysis - Subgrade														
Section	Core	25.4	19.1	% Passing										
				12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178	0.075		
47065-28215A	C1	100.00	95.94	93.86	91.67	87.13	82.70	78.90	74.25	54.05	36.28	29.82	29.82	29.82
EB	C4	100.00	100.00	99.54	98.71	96.58	93.37	89.95	86.15	71.72	54.40	44.51	44.51	44.51

Section		Core	Total Wt Before	Weight Retained (g)													Total Wt After		% Error
				1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200	Pan	After	%		
77023-21586A		M1	1070.43	0.00	69.94	345.59	141.80	269.80	148.72	36.30	11.20	6.06	17.98	15.09	5.69	1068.17	0.21		
EB		M4	1094.29	0.00	12.30	197.00	165.50	447.65	190.01	33.82	8.64	4.81	7.96	19.62	5.84	1093.15	0.10		
		M6	1024.64	0.00	0.00	137.56	165.24	403.78	210.46	45.41	9.80	5.50	25.51	17.17	3.28	1023.71	0.09		
		M8	1172.55	0.00	19.69	155.43	203.58	434.16	255.00	49.61	11.80	6.30	24.30	9.09	2.50	1171.46	0.09		
		M11	1150.63	0.00	56.62	182.70	231.67	478.55	145.89	0.00	0.00	0.00	0.00	0.00	54.69	1150.12	0.04		
		M13	1120.02	0.00	25.34	261.79	193.99	337.60	174.36	41.32	12.92	9.83	22.60	31.17	9.41	1120.33	-0.03		

Section		Core	25.4	% Passing													0.075			
				1	3/4	1/2	3/8	9.5	4.75	#4	2.36	#8	1.148	0.6	#30	0.3		#50	0.178	#100
77023-21586A		M1	100.00	93.47	61.18	47.93	22.73	8.84	5.44	4.40	3.83	2.15	0.74							
EB		M4	100.00	98.88	80.87	65.75	24.84	7.48	4.39	3.60	3.16	2.43	0.64							
		M6	100.00	100.00	86.57	70.45	31.04	10.50	6.07	5.11	4.58	2.09	0.41							
		M8	100.00	98.32	85.07	67.70	30.68	8.93												
		M11	100.00	95.08	79.20	59.07	17.48	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80
		M13	100.00	97.74	74.36	57.04	26.90	11.33	7.64	6.49	5.61	3.60	0.81							

Loss on Wash - Subbase										
Section	Core	Before Washing (g)			After Washing (g)			Weight Loss (g)		Comments
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand	Loss (g)	Loss%	
77023-21586A EB	M1	73.72	1123.44	1049.72	73.72	968.66	894.94	154.78	14.74	
	M4	73.72	1089.66	1015.94	73.72	967.45	893.73	122.21	12.03	
	M6	73.72	1091.50	1017.78	73.72	987.52	913.80	103.98	10.22	
	M8	73.72	1095.22	1021.50	73.72	941.32	867.60	153.90	15.07	
	M11	73.72	1095.20	1021.48	73.72	889.88	816.16	205.32	20.10	
	M13	73.72	1110.34	1036.62	74.72	1037.17	962.45	74.17	7.15	

Sieve Analysis - Subbase																
Section	Core	Total Wt. Before	Weight Retained (g)											Total Wt. After	% Error	
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200			Pan
77023-21586A EB	M1	1049.72	0.00	0.00	0.00	2.30	3.85	9.26	8.89	13.25	50.13	359.80	415.40	185.76	1048.64	0.10
	M4	1015.94	0.00	0.00	0.00	6.35	4.50	5.20	5.06	6.54	67.55	494.91	287.51	137.37	1014.99	0.09
	M6	1017.78	0.00	0.00	0.00	4.26	9.67	12.57	12.87	18.80	149.28	449.55	231.64	127.69	1016.33	0.14
	M8	1021.50	0.00	0.00	0.00	11.49	13.52	12.91	9.59	13.17	60.53	439.47	291.45	168.85	1020.98	0.05
	M11	1021.48	0.00	0.00	0.00	7.54	13.72	11.32	11.46	5.09	77.91	411.43	261.83	220.47	1020.77	0.07
	M13	1036.62	0.00	0.00	10.60	11.36	14.38	9.69	20.00	36.01	319.68	380.57	148.82	84.25	1035.36	0.12

Sieve Analysis - Subbase														
Section	Core	25.4	% Passing											
			19.1	12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178	0.075		
77023-21586A EB	M1	100.00	100.00	100.00	99.78	99.41	98.53	97.69	96.42	91.65	57.37	17.80		
	M4	100.00	100.00	100.00	99.37	98.93	98.42	97.92	97.28	90.63	41.91	13.61		
	M6	100.00	100.00	100.00	99.58	98.63	97.40	96.13	94.28	79.62	35.45	12.69		
	M8	100.00	100.00	100.00	98.88	97.55	96.29	95.35	94.06	88.13	45.11	16.58		
	M11	100.00	100.00	100.00	99.26	97.92	96.81	95.69	95.19	87.56	47.29	21.65		
	M13	100.00	100.00	98.98	97.88	96.49	95.56	93.63	90.16	59.32	22.61	8.25		

Loss on Wash - Subgrade											
Section	Core	Before Washing (g)			After Washing (g)			Weight Loss (g)	Loss%	Comments	
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand				
77023-21586A EB	M1	73.72	1126.72	1053	73.72	537.82	464.1	588.9	55.93		
	M4	73.72	1089.43	1015.7	73.72	415.1	341.38	674.33	66.39		
	M6	73.72	1100.2	1026.5	73.72	666.72	593	433.48	42.23		
	M8	73.72	1106.92	1033.2	73.72	601.48	527.76	505.44	48.92		
	M11	73.72	889.12	815.4	73.72	445.99	372.27	443.13	54.35		
	M13	73.72	1089.72	1016	74.72	593.72	519	497	48.92		

Sieve Analysis - Subgrade																
Section	Core	Total Wt. Before	Weight Retained (g)											Total Wt. After	% Error	
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200			Pan
77023-21586A EB	M1	1053.00	36.87	19.11	3.68	4.4.15	17.58	21.83	20.21	13.72	43.80	182.99	96.07	590.96	1046.82	0.59
	M4	1015.71	0.00	10.65	5.71	3.71	24.71	25.41	22.00	18.54	54.72	121.25	51.39	675.63	1013.72	0.20
	M6	1026.50	0.00	5.28	18.05	19.65	52.13	55.06	70.49	70.49	49.68	53.09	88.59	437.48	1020.84	0.55
	M8	1033.20	0.00	0.00	3.50	2.87	12.62	10.49	13.79	13.16	45.92	287.24	131.43	511.06	1032.08	0.11
	M11	815.40	0.00	0.00	6.30	6.00	12.73	19.05	15.05	5.93	47.79	167.65	57.23	476.83	814.56	0.10
	M13	1016.00	0.00	15.43	4.30	16.29	25.28	19.00	24.45	20.23	50.51	193.77	139.92	505.94	1015.12	0.09

Sieve Analysis - Subgrade														
Section	Core	25.4	% Passing											
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200	
77023-21586A EB	M1	96.50	19.1	12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178	0.075		
	M4	100.00	94.68	94.33	94.33	92.66	90.59	88.67	87.37	83.21	65.83	56.71		
	M6	100.00	98.95	98.39	98.02	95.59	93.09	90.92	89.10	83.71	71.77	66.71		
	M8	100.00	99.49	97.73	95.81	90.73	85.37	78.50	73.66	68.49	51.80	43.17		
	M11	100.00	100.00	99.66	99.38	98.16	97.15	95.81	94.54	90.09	62.29	49.57		
	M13	100.00	100.00	99.23	98.49	96.93	94.59	92.75	92.02	86.16	65.60	58.58		

Loss on Wash - Base										
Section	Core	Before Washing (g)			After Washing (g)			Weight Loss (g)	Loss%	Comments
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand			
77024-20821A Section A EB	M0	73.16	1074.84	1001.68	73.16	1034.11	960.95	40.73	4.07	
	M1	73.16	1087.94	1014.78	73.16	1048.36	975.20	39.58	3.90	
	M2	73.16	1078.13	1004.97	73.16	1041.67	968.51	36.46	3.63	
	M3	73.16	1076.96	1003.80	73.16	1046.97	973.81	29.99	2.99	
	M4	73.16	1085.05	1011.89	73.16	1065.55	992.39	19.50	1.93	
	M5	73.16	1077.86	1004.70	73.16	1044.89	971.73	32.97	3.28	possible error
	M6	73.16	1089.56	1016.40	73.16	1075.89	1002.73	13.67	1.34	
	M7	73.16	1088.43	1015.27	73.16	1070.67	997.51	17.76	1.75	
	M9	73.16	1074.89	1001.73	73.16	1052.80	979.64	22.09	2.21	
	M10	73.16	1079.56	1006.40	73.16	1068.66	995.50	10.90	1.08	

Sieve Analysis - Base																
Section	Core	Total Wt. Before	Weight Retained (g)										Total Wt. After	% Error		
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100			#200	Pan
77024-20821A Section A EB	M0	1001.68	0.00	12.84	306.25	240.86	262.46	29.58	22.14	15.63	25.22	28.21	12.84	43.46	999.49	0.22
	M1	1014.78	0.00	0.00	334.86	276.56	219.16	38.12	23.74	16.95	25.51	25.26	12.08	42.33	1014.57	0.02
	M2	1004.97	0.00	5.94	261.68	267.39	299.87	29.17	19.69	16.16	26.83	26.38	11.55	38.44	1003.10	0.19
	M3	1003.80	0.00	14.44	292.84	318.05	234.52	19.24	16.61	14.57	25.00	25.55	10.62	32.04	1003.48	0.03
	M4	1011.89	0.00	77.02	552.84	221.09	104.72	5.29	3.70	3.35	6.89	10.22	5.84	20.45	1011.41	0.05
	M5	1004.70	0.00	14.10	326.37	259.32	236.96	25.94	16.22	15.55	30.39	31.67	10.83	35.08	1002.43	0.23
	M6	1016.40	0.00	51.86	634.56	220.44	76.40	2.15	1.23	1.44	3.44	6.11	4.05	14.55	1016.23	0.02
	M7	1015.27	0.00	61.77	508.25	241.61	125.46	17.72	6.25	5.59	10.84	12.17	6.28	19.05	1014.99	0.03
	M9	1001.73	0.00	34.50	397.28	290.09	190.70	15.83	8.77	7.17	12.06	13.55	7.99	23.56	1001.50	0.02
	M10	1006.40	0.00	63.55	556.89	289.80	70.07	0.54	0.55	0.52	2.36	5.44	3.84	12.03	1005.59	0.08

Sieve Analysis - Base																	
Section	Core	25.4	% Passing										25.4	0.075			
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100			#200		
77024-20821A Section A EB	M0	100.00	98.72	68.14	44.10	17.90	14.94	12.73	11.17	8.66	5.84	4.56	3.22	2.07	1.45	1.90	
	M1	100.00	100.00	67.00	39.75	18.15	14.40	12.06	10.39	7.87	5.38	4.19	3.22	2.07	1.45	1.90	
	M2	100.00	99.41	73.37	46.76	16.92	14.02	12.06	10.46	7.79	5.16	4.01	3.22	2.07	1.45	1.90	
	M3	100.00	98.56	69.39	37.70	14.34	12.42	10.77	9.32	6.83	4.28	3.22	2.07	1.45	1.90	1.90	
	M4	100.00	92.39	37.75	15.90	5.56	5.03	4.67	4.34	3.66	2.65	2.07	1.45	1.90	1.90	1.90	
	M5	100.00	98.60	66.11	40.30	16.72	14.13	12.52	10.97	7.95	4.80	3.72	2.07	1.45	1.90	1.90	
	M6	100.00	94.90	32.47	10.78	3.26	3.05	2.93	2.79	2.45	1.85	1.45	1.90	1.90	1.90	1.90	
	M7	100.00	93.92	43.86	20.06	7.70	5.96	5.34	4.79	3.72	2.52	1.90	1.90	1.90	1.90	1.90	
	M9	100.00	96.56	56.90	27.94	8.90	7.32	6.44	5.73	4.53	3.17	2.37	1.90	1.90	1.90	1.90	1.90
	M10	100.00	93.69	38.35	9.55	2.59	2.54	2.48	2.43	2.20	1.66	1.28	1.90	1.90	1.90	1.90	1.90

Loss on Wash - Subbase											
Section	Core	Before Washing (g)			After Washing (g)			Weight Loss (g)	Loss%	Comments	
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand				
77024-20821A	M0	73.16	1070.85	997.69	73.16	1030.35	957.19	40.50	4.06		
Section A	M1	73.16	1084.12	1010.96	73.16	1040.14	966.98	43.98	4.35		
EB	M2	73.16	1081.81	1008.65	73.16	1038.73	965.57	43.08	4.27		
	M3	73.16	1078.92	1005.76	73.16	1035.44	962.28	43.48	4.32		
	M4	73.16	1076.34	1003.18	73.16	1032.91	959.75	43.43	4.32		
	M5	73.16	1078.21	1005.05	73.16	1039.24	966.08	43.11	3.88		
	M6	73.16	1078.91	1005.75	73.16	1035.46	962.30	43.45	4.32		
	M7	73.16	1084.71	1011.55	73.16	1044.91	971.75	39.80	3.93		
	M9	73.16	1076.54	1003.38	73.16	1029.93	956.77	46.61	4.65		
	M10	73.16	1079.75	1006.59	73.16	1044.90	971.74	34.85	3.46		

Sieve Analysis - Subbase																
Section	Core	Total Wt. Before	Weight Retained (g)										Total Wt. After		% Error	
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200	Pan		
77024-20821A	M0	997.69	0.00	30.23	94.21	76.60	147.23	118.42	113.98	100.21	142.45	104.94	26.32	42.45	997.04	0.07
Section A	M1	1010.96	0.00	80.44	118.66	81.34	180.15	103.59	97.74	77.76	111.01	88.29	25.07	46.52	1010.57	0.04
EB	M2	1008.65	0.00	13.98	109.64	102.07	157.62	119.00	98.45	81.34	132.92	124.15	31.13	46.08	1009.38	-0.07
	M3	1005.76	0.00	33.44	54.94	73.86	189.97	119.03	112.58	90.16	138.84	116.54	30.10	46.67	1006.13	-0.04
	M4	1003.18	0.00	26.40	62.63	73.66	151.78	114.35	107.99	80.73	130.50	127.99	36.00	91.07	1003.10	0.01
	M5	1005.05	69.09	63.00	88.03	40.34	141.11	117.22	100.44	76.05	119.41	115.81	30.69	42.70	1003.89	0.12
	M6	1005.75	107.68	32.07	81.80	64.26	138.54	97.39	96.19	72.06	123.87	112.67	30.76	46.98	1004.27	0.15
	M7	1011.55	0.00	52.50	112.54	91.96	156.11	120.34	104.33	78.33	122.11	102.51	27.11	42.61	1010.45	0.11
	M9	1003.38	0.00	31.63	53.83	86.34	179.26	124.84	110.57	82.86	132.91	114.13	34.67	49.36	1000.40	0.30
	M10	1006.59	0.00	13.96	40.91	93.50	198.48	135.97	125.50	95.18	136.39	103.40	26.91	37.22	1007.42	-0.08

Sieve Analysis - Subbase																
Section	Core	25.4	% Passing										200			
			19.1	12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178	0.075				
77024-20821A	M0	100.00	96.97	87.53	79.85	65.09	53.22	41.80	31.75	17.48	6.96	4.32				
Section A	M1	100.00	92.04	80.31	72.26	54.44	44.19	34.53	26.83	15.85	7.12	4.64				
EB	M2	100.00	98.61	87.74	77.62	62.00	50.89	41.13	33.07	19.89	7.58	4.50				
	M3	100.00	96.68	91.21	83.87	64.98	53.15	41.95	32.99	19.18	7.60	4.60				
	M4	100.00	97.37	91.13	83.78	68.65	57.25	46.49	38.44	25.43	12.67	9.09				
	M5	93.13	86.86	78.10	74.08	60.04	48.38	38.39	30.82	18.94	7.42	4.36				
	M6	89.29	86.10	77.97	71.58	57.81	48.12	38.56	31.40	19.08	7.88	4.82				
	M7	100.00	94.81	83.68	74.59	59.16	47.26	36.95	29.21	17.14	7.00	4.32				
	M9	100.00	96.85	91.48	82.88	65.01	52.57	41.55	33.29	20.05	8.67	5.22				
	M10	100.00	98.61	94.55	85.26	65.54	52.03	39.57	30.11	16.56	6.29	3.62				

Loss on Wash - Subgrade											
Section	Core	Before Washing (g)			After Washing (g)			Weight Loss (g)	Loss%	Comments	
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand				
77024-20821A	M0	73.16	1074.85	1001.69	73.16	219.1	145.94	855.75	85.43		
Section A EB	M1	73.16	1071.36	998.2	73.16	222.73	149.57	848.63	85.02	roots	
	M2	73.16	1077.42	1004.26	73.16	370.63	297.47	706.79	70.38		
	M3	73.16	1073.28	1000.12	73.16	280.3	207.14	792.98	79.29		
	M4	73.16	1079.2	1006.04	73.16	282.53	209.37	796.67	79.19		
	M5	73.16	1077.25	1004.09	73.16	240.43	167.27	836.82	83.34		
	M6	73.16	1079.1	1005.94	73.16	255.34	182.18	823.76	81.89		
	M7	73.16	1086.14	1012.98	73.16	298.57	225.41	787.57	77.75		
	M9	73.16	1082.03	1008.87	73.16	521.85	448.69	560.18	55.53		
	M10	73.16	1074.52	1001.36	73.16	475.03	401.87	599.49	59.87	roots	

Sieve Analysis - Subgrade																
Section	Core	Total Wt. Before	Weight Retained (g)										Total Wt. After	% Error		
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100			#200	Pan
77024-20821A	M0	1001.69	0.00	0.00	4.87	0.99	7.85	9.86	14.61	13.27	22.95	37.21	26.97	861.25	999.83	0.19
Section A EB	M1	998.20	0.00	0.00	13.21	1.22	11.84	11.61	14.01	13.68	25.12	34.32	21.31	850.23	996.55	0.17
	M2	1004.26	0.00	15.47	10.51	2.71	11.62	10.60	15.78	16.83	37.88	95.73	70.50	716.03	1003.66	0.06
	M3	1000.12	0.00	0.00	8.40	8.43	18.84	12.24	18.54	16.54	30.86	53.22	37.79	795.34	1000.16	0.00
	M4	1006.04	0.00	0.00	13.90	12.94	18.76	10.78	12.59	11.83	24.28	56.98	43.16	800.24	1005.46	0.06
	M5	1004.09	0.00	0.00	0.00	5.91	19.23	15.15	16.32	14.89	25.74	41.11	26.46	838.35	1003.16	0.09
	M6	1005.94	0.00	0.00	14.41	6.15	15.36	9.94	16.41	16.59	28.20	43.60	31.26	826.96	1008.88	-0.29
	M7	1012.98	0.00	0.00	15.84	3.37	16.57	10.54	16.16	18.39	34.78	66.26	40.61	788.47	1010.99	0.20
	M9	1008.87	0.00	0.00	7.27	7.90	22.53	15.02	22.02	22.00	57.64	210.50	80.42	561.80	1007.10	0.18
	M10	1001.36	0.00	0.00	0.00	5.84	7.63	5.89	6.06	7.38	23.19	213.37	123.73	606.66	999.75	0.16

Sieve Analysis - Subgrade														
Section	Core	% Passing												
		25.4	19.1	12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178	0.075		
77024-20821A	M0	100.00	100.00	99.51	99.41	98.63	97.65	96.19	94.86	92.57	88.86	86.17		
Section A EB	M1	100.00	100.00	98.68	98.55	97.37	96.21	94.80	93.43	90.91	87.48	85.34		
	M2	100.00	98.46	97.41	97.14	95.99	94.93	93.36	91.68	87.91	78.38	71.36		
	M3	100.00	100.00	99.16	98.32	96.43	95.21	93.36	91.71	88.62	83.30	79.52		
	M4	100.00	100.00	98.62	97.33	95.47	94.40	93.14	91.97	89.56	83.89	79.60		
	M5	100.00	100.00	100.00	99.41	97.50	95.99	94.36	92.88	90.32	86.22	83.59		
	M6	100.00	100.00	98.57	97.96	96.43	95.44	93.81	92.16	89.36	85.02	81.92		
	M7	100.00	100.00	98.44	98.10	96.47	95.43	93.83	92.02	88.58	82.04	78.03		
	M9	100.00	100.00	99.28	98.50	96.26	94.77	92.59	90.41	84.70	63.83	55.86		
	M10	100.00	100.00	100.00	99.42	98.65	98.07	97.46	96.72	94.41	73.10	60.74		

Loss on Wash - Base										
Section	Core	Before Washing (g)			After Washing (g)			Weight Loss (g)	Loss%	Comments
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand			
77024-17988A Section B EB	M1	73.16	1078.65	1005.49	73.16	1046.90	973.74	31.75	3.16	
	M3	73.16	1074.06	1000.90	73.16	1036.65	963.49	37.41	3.74	
	M4	73.16	1074.55	1001.39	73.16	1046.48	973.32	28.07	2.80	
	M6	73.16	1076.04	1002.88	73.16	1049.06	975.90	26.98	2.69	
	M7	73.16	1071.41	998.25	73.16	1049.67	976.51	21.74	2.18	
	M8	73.16	1075.25	1002.09	73.16	1038.80	965.64	36.45	3.64	
	M9	73.16	1074.36	1001.20	73.16	1049.14	975.98	25.22	2.52	
	M11	73.16	1075.74	1002.58	73.16	1050.32	977.16	25.42	2.54	
	M12	73.16	1077.06	1003.90	73.16	1056.35	983.19	20.71	2.06	
	M13	73.16	1075.95	1002.79	73.16	1049.15	975.99	26.80	2.67	

Sieve Analysis - Base																	
Section	Core	Total Wt. Before	Weight Retained (g)											Total Wt. After	% Error		
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200			Pan	
77024-17988A Section B EB	M1	1005.49	0.00	79.78	272.84	165.85	317.95	87.99	7.43	23.54	28.47	7.11	5.43	32.82	1005.29	0.02	
	M3	1000.90	0.00	21.43	226.30	221.94	318.74	116.87	8.17	28.47	21.44	8.74	6.96	38.10	1000.39	0.05	
	M4	1001.39	0.00	12.64	346.28	238.49	266.58	66.82	6.48	21.44	23.66	6.09	3.84	28.92	1001.34	0.00	
	M6	1002.88	0.00	24.76	349.06	204.63	273.00	79.31	7.41	23.66	15.46	3.55	2.77	28.40	1000.24	0.26	
	M7	998.25	0.00	124.61	340.53	202.43	231.15	47.07	5.85	15.46	30.00	2.43	2.00	22.79	997.47	0.08	
	M8	1002.09	0.00	12.24	92.89	121.48	388.62	258.50	70.00	13.39	34.02	5.03	3.60	2.41	36.89	1005.05	-0.30
	M9	1001.20	0.00	7.04	218.97	179.10	342.93	167.67	8.19	30.00	17.74	6.17	3.47	26.93	1000.72	0.05	
	M11	1002.58	0.00	69.66	297.02	215.77	288.63	66.62	8.05	17.74	2.95	4.27	3.90	2.94	26.94	1001.54	0.10
	M12	1003.90	0.00	153.48	541.08	227.84	44.21	1.84	2.71	2.06	2.71	2.06	3.24	3.13	1004.25	-0.03	
	M13	1002.79	0.00	26.43	320.94	253.11	283.37	59.54	6.21	15.35	6.21	3.12	2.45	2.32	28.51	1001.35	0.14

Sieve Analysis - Base																	
Section	Core	25.4	% Passing											0.075			
			1	3/4	1/2	3/8	9.5	4.75	#4	#8	2.36	1.148	0.6		0.3	0.178	#100
77024 -17988A Section B EB	M1	100.00	92.07	64.93	48.44	16.81	8.06	5.72	4.98	4.53	3.82	3.86	3.86	3.86	3.86	3.86	3.86
	M3	100.00	97.86	75.25	53.08	21.23	9.55	6.71	5.89	5.43	4.55	3.88	3.28	2.89	2.89	2.89	2.89
	M4	100.00	98.74	64.16	40.34	13.72	7.05	4.91	4.26	3.88	3.73	3.37	3.10	3.10	3.10	3.10	3.10
	M6	100.00	97.53	62.73	42.32	15.10	7.19	4.83	4.09	3.73	3.12	2.80	2.56	2.36	2.36	2.36	2.36
	M7	100.00	87.52	53.40	33.13	9.97	5.26	3.71	3.12	2.80	2.56	2.36	2.36	2.36	2.36	2.36	2.36
	M8	100.00	98.78	89.51	77.39	38.61	12.81	5.82	4.49	3.99	3.63	3.39	3.39	3.39	3.39	3.39	3.39
	M9	100.00	99.30	77.43	59.54	25.29	8.54	5.14	4.32	3.70	3.08	2.74	2.74	2.74	2.74	2.74	2.74
	M11	100.00	93.05	63.43	41.90	13.12	6.47	4.70	3.90	3.47	3.08	2.79	2.79	2.79	2.79	2.79	2.79
	M12	100.00	84.71	30.81	8.12	3.71	3.53	3.24	2.97	2.76	2.44	2.13	2.13	2.13	2.13	2.13	2.13
	M13	100.00	97.36	65.36	40.12	11.86	5.92	4.39	3.77	3.46	3.22	2.99	2.99	2.99	2.99	2.99	2.99

Loss on Wash - Subbase											
Section	Core	Before Washing (g)			After Washing (g)			Weight Loss (g)	Loss%	Comments	
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand				
77024-17988A Section B EB	M1	73.16	1082.03	1008.87	73.16	938.25	865.09	143.78	14.252		
	M3	73.16	1071.09	997.93	73.16	764.08	690.92	307.01	30.765		
	M6	73.16	1078.71	1005.55	73.16	1006.34	933.18	72.37	7.1971		
	M7	73.16	1074.09	1000.93	73.16	1014.62	941.46	59.47	5.9415		
	M8	73.16	1073.78	1000.62	73.16	991.97	918.81	81.81	8.1759		
	M9	73.16	1077.4	1004.24	73.16	1004.6	931.44	72.8	7.2493		
	M11	73.16	1071.61	998.45	73.16	1024.11	950.95	47.5	4.7574		
	M12	73.16	1083.12	1009.96	73.16	1030.86	957.7	52.26	5.1745		
	M13	73.16	1079.9	1006.74	73.16	995.24	922.08	84.66	8.4093		

Sieve Analysis - Subbase														
Section	Core	Total Wt. Before	Weight Retained (g)										Total Wt. After	% Error
			1	#4	#8	#16	#30	#50	#100	#200	Pan			
77024-17988A Section B EB	M1	1008.87	0.00	1.54	2.21	3.57	6.13	44.61	609.92	176.29	165.55	1009.82	-0.09	
	M3	997.93	0.00	3.17	3.08	3.39	5.27	30.32	449.39	165.17	335.38	997.41	0.05	
	M6	1005.55	0.00	5.58	4.77	5.76	10.57	97.76	656.50	137.95	84.85	1006.13	-0.06	
	M7	1000.93	0.00	3.63	4.91	3.47	15.56	89.78	686.28	122.84	68.50	996.87	0.41	
	M8	1000.62	0.00	2.82	6.41	9.45	14.96	96.98	636.84	133.41	99.41	1000.28	0.03	
	M9	1004.24	0.00	2.75	5.57	6.43	10.95	68.16	688.07	125.84	89.57	1003.34	0.09	
	M11	998.45	0.00	3.30	3.57	3.76	6.49	42.99	724.29	146.12	65.82	997.13	0.13	
	M12	1009.96	0.00	11.96	4.40	4.95	8.63	49.93	724.29	126.14	63.79	1008.92	0.10	
	M13	1006.74	0.00	4.86	4.54	4.78	8.63	80.32	699.58	134.49	96.93	1036.32	-2.94	

Sieve Analysis - Subbase														
Section	Core	% Passing												
		25.4	19.1	12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178	0.075		
77024-17988A Section B EB	M1	100.00	100.00	100.00	100.00	99.85	99.63	99.27	98.67	94.25	33.79	16.32		
	M3	100.00	100.00	100.00	99.78	99.46	99.15	98.81	98.28	95.24	50.21	33.66		
	M6	100.00	100.00	100.00	99.76	99.21	98.73	98.16	97.11	87.39	22.10	8.38		
	M7	100.00	100.00	100.00	99.81	99.45	98.96	98.61	97.06	88.09	19.52	7.25		
	M8	100.00	100.00	100.00	100.00	99.72	99.08	98.13	96.64	86.95	23.30	9.97		
	M9	100.00	100.00	100.00	99.40	99.13	98.57	97.93	96.84	90.06	21.54	9.01		
	M11	100.00	100.00	100.00	99.92	99.59	99.23	98.86	98.21	93.90	21.36	6.72		
	M12	100.00	100.00	99.55	98.53	97.35	96.91	96.42	95.57	90.62	18.91	6.42		
	M13	100.00	100.00	100.00	99.78	99.30	98.85	98.37	97.52	89.54	20.05	6.69		

Section	Loss on Wash - Subgrade												Comments	
	Before Washing (g)			After Washing (g)			Weight Loss (g)	Loss%						
	Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand								
77024-17988A Section B EB	M3	73.16	1071.14	997.98	73.16	986.29	913.13	84.85					8.50	Subgrade
	M4	73.16	1075.79	1002.63	73.16	860.63	787.47	215.16	21.46	Subgrade				
	M6	73.16	1078.60	1005.44	73.16	402.29	329.13	676.31	67.27	Subgrade				
	M8	73.16	535.30	462.14	73.16	230.52	157.36	304.78	65.95	Subgrade				
	M9	73.16	1046.39	973.23	73.16	417.29	344.13	629.10	64.64	Subgrade				
	M11	73.16	1029.15	955.99	73.16	361.69	288.53	667.46	69.82	Subgrade				
	M12	73.16	810.44	737.28	73.16	345.52	272.36	464.92	63.06	Subgrade				
	M13	73.16	604.50	531.34	73.16	269.13	195.97	335.37	63.12	Subgrade				
	M6	73.16	753.20	680.04	73.16	327.35	254.19	425.85	62.62	Embankment				
	M8	73.16	1070.12	996.96	73.16	654.10	580.94	416.02	41.73	Embankment				
	M9	73.16	965.11	891.95	73.16	469.45	396.29	495.66	55.57	Embankment				
	A	73.16	1075.23	1002.07	73.16	402.29	329.13	672.94	67.15	Embankment				
	B	73.16	1075.55	1002.39	73.16	405.26	332.10	670.29	66.87	Embankment				

Section	Core	Sieve Analysis - Subgrade												Total Wt. After	% Error
		Weight Retained (g)													
		1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200	Pan		
77024-17988A Section B EB	M3	997.98	0.00	14.75	21.97	50.46	50.37	58.71	38.36	222.24	388.36	60.16	90.00	995.38	0.26
	M4	1002.63	0.00	0.00	2.10	5.74	8.19	10.07	13.06	65.08	541.46	129.38	226.38	1001.46	0.12
	M6	1005.44	0.00	0.00	5.61	18.60	18.99	24.08	21.53	40.22	114.38	68.78	680.80	992.99	1.24
	M8	462.14	0.00	0.00	2.03	9.21	10.90	9.78	8.40	15.34	53.17	43.83	309.56	462.22	-0.02
	M9	973.23	0.00	14.80	12.62	28.81	28.11	22.55	17.49	33.16	119.26	63.16	632.09	972.05	0.12
	M11	955.99	0.00	7.04	11.78	24.59	18.13	17.18	16.69	32.12	119.23	68.35	631.47	946.58	0.98
	M12	737.28	0.00	6.59	6.25	13.08	13.43	17.08	16.75	28.16	96.92	69.63	469.12	737.01	0.04
	M13	531.34	0.00	19.02	11.39	18.00	11.78	11.23	8.74	16.23	61.74	35.94	336.50	530.57	0.14
	M6	680.04	0.00	13.90	1.53	9.12	9.47	11.55	11.74	29.52	101.47	59.77	431.24	679.31	0.11
	M8	996.96	0.00	0.00	17.80	18.94	19.46	20.80	19.99	66.61	304.56	99.61	428.42	996.19	0.08
	M9	891.95	0.00	22.90	18.77	17.06	21.00	17.92	14.77	35.72	157.61	77.69	502.24	891.53	0.05
	A	1002.07	0.00	0.00	0.00	7.81	5.92	11.50	25.37	87.39	154.79	32.89	673.89	999.56	0.25
	B	1002.39	0.00	0.00	7.93	23.90	16.33	14.19	15.35	36.88	126.18	85.17	676.04	1001.97	0.04

Section	Core	Sieve Analysis - Subgrade											
		% Passing											
		25.4	19.1	12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178	0.075	
77024-17988A Section B EB	M3	100.00	100.00	98.52	96.32	91.26	86.22	80.33	76.49	54.22	15.31	9.28	
	M4	100.00	100.00	100.00	99.79	99.22	98.40	97.40	96.09	89.60	35.60	22.70	
	M6	100.00	100.00	100.00	99.44	97.59	95.70	93.31	91.17	87.17	75.79	68.95	
	M8	100.00	100.00	100.00	99.56	97.57	95.21	93.09	91.28	87.96	76.45	66.97	
	M9	100.00	100.00	98.48	97.18	94.22	91.33	89.02	87.22	83.81	71.56	65.07	
	M11	100.00	100.00	99.26	98.03	95.46	93.56	91.77	90.02	86.66	74.19	67.04	
	M12	100.00	100.00	99.11	98.26	96.48	94.66	92.35	90.07	86.25	73.11	63.67	
	M13	100.00	100.00	96.42	94.28	90.89	88.67	86.56	84.91	81.86	70.24	63.48	
	M6 EMB	100.00	100.00	97.96	97.73	96.39	95.00	93.30	91.57	87.23	72.31	63.52	
	M8 EMB	100.00	100.00	100.00	98.21	96.31	94.36	92.28	90.27	83.59	53.04	43.05	
	M9 EMB	100.00	97.43	96.78	94.67	92.76	90.41	88.40	86.74	82.74	65.07	56.36	
	A EMB	100.00	100.00	100.00	100.00	99.22	98.63	97.48	94.95	86.23	70.78	67.50	
	B EMB	100.00	100.00	100.00	99.21	96.82	95.20	93.78	92.25	88.57	75.98	67.48	

Section	Core	Loss on Wash - Base						Weight Loss (g)	Loss%	Comments
		Before Washing (g)			After Washing (g)					
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand			
82291-37305A NB	350AA #1	73.16	1268.68	1195.5	73.16	1207.07	1133.9	61.61	5.15	
	350AA #2	73.16	1248.72	1175.6	73.16	1124.19	1051	124.53	10.59	High
	DL #2 350AA	73.16	1220.83	1147.7	73.16	1072.03	998.87	148.8	12.97	High

Section	Core	Total Wt. Before	Sieve Analysis - Base											Total Wt. After		% Error	
			Weight Retained (g)											Pan	Total Wt. After		
			1 1/2	1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100				#200
82291-37305A NB	350AA #1	1195.52	0.00	239.21	230.30	201.12	108.90	118.73	108.39	65.41	26.32	21.54	8.79	4.41	61.92	1195.04	0.04
	350AA #2	1175.56	0.00	107.20	103.44	128.19	90.61	183.88	232.91	119.61	39.79	32.08	9.36	3.00	125.80	1175.87	-0.03
	DL #2 350 AA	1147.67	0.00	67.03	105.07	188.42	102.87	154.77	166.65	98.14	54.41	36.18	17.00	5.63	149.47	1145.64	0.18

Section	Core	Total Wt. Before	Sieve Analysis - Base											Total Wt. After		% Error	
			% Passing											Pan	Total Wt. After		
			37.5	1 1/2	1	3/4	1/2	3/8	#4	#8	#16	#30	#50				#100
82291-37305A NB	350AA #1	100.00	25.4	19.1	12.7	9.5	4.75	2.36	1.148	0.6	0.3	0.178	0.075	0.075	61.92	1195.04	0.04
	350AA #2	100.00	79.99	60.73	43.90	34.80	24.86	15.80	10.33	8.13	6.32	5.59	5.22	5.22	125.80	1175.87	-0.03
	DL #2 350 AA	100.00	94.16	85.00	68.59	59.62	46.14	31.62	23.07	18.32	15.17	13.69	13.20	13.20	149.47	1145.64	0.18

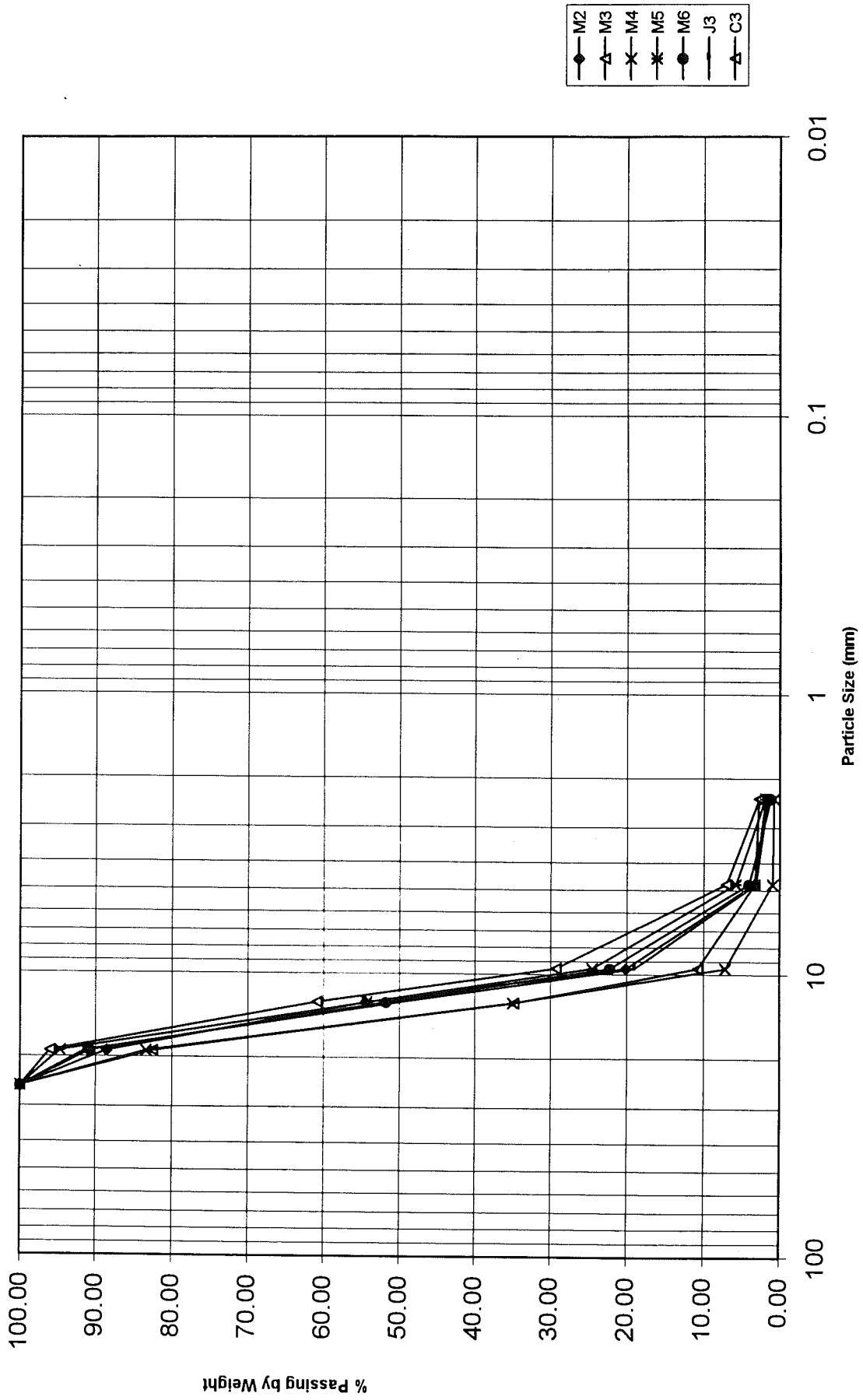
Loss on Wash - Subgrade										
Section	Core #	Before Washing (g)			After Washing (g)			Weight Loss (g)	Loss%	Comments
		Pan	Pan + Sand	Sand	Pan	Pan + Sand	Sand			
82291-37305 NB	#1	73.72	1091.78	1018.06	73.72	362.38	288.66	729.4	71.65	

Sieve Analysis - Subgrade																
Section	Core #	Total Wt. Before	Weight Retained (g)								Total Wt. After	% Error				
			1	3/4	1/2	3/8	#4	#8	#16	#30			#50	#100	#200	Pan
82291-37305 NB	#1	1018.06	0.00	0.00	0.00	0.00	31.05	23.72	25.10	17.94	55.99	64.54	66.64	731.61	1016.59	0.14

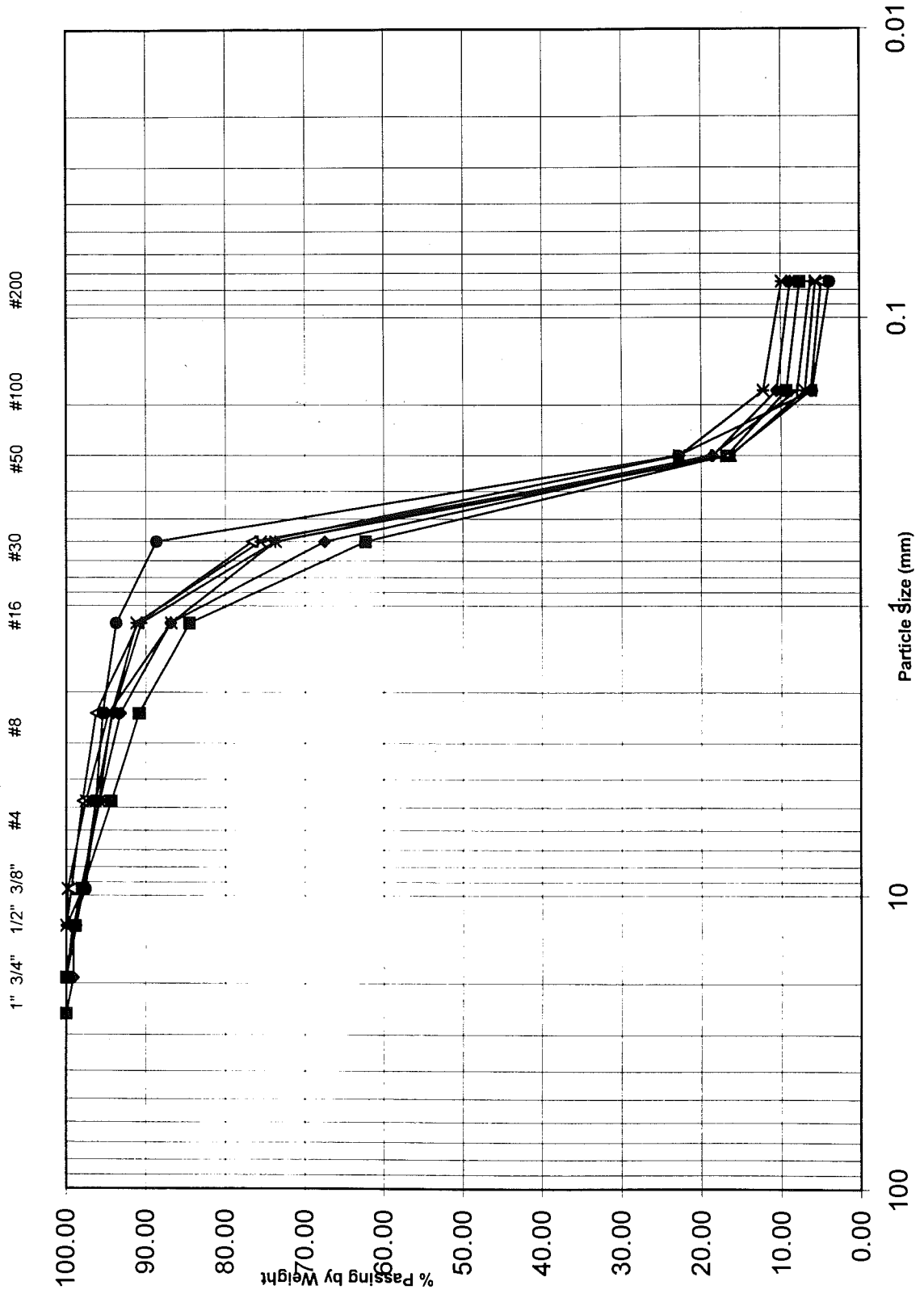
Sieve Analysis - Subgrade													
Section	Core #	Total Wt. Before	% Passing										
			1	3/4	1/2	3/8	#4	#8	#16	#30	#50	#100	#200
82291-37305 NB	#1	100.00	100.00	100.00	100.00	96.95	94.62	92.15	90.39	84.89	78.55	72.01	0.075

11017-32516A EB Section A Base Gradations

1" 3/4" 1/2" 3/8" #4 #8 #16 #30 #50 #100 #200



11017-32516A Section A EB Subbase Material



- ◆ M2
- M3
- ▲ M4
- × M5
- M6
- * J3
- C3

11017-32516A Section D WB Base Material

#200

#100

#50

#30

#16

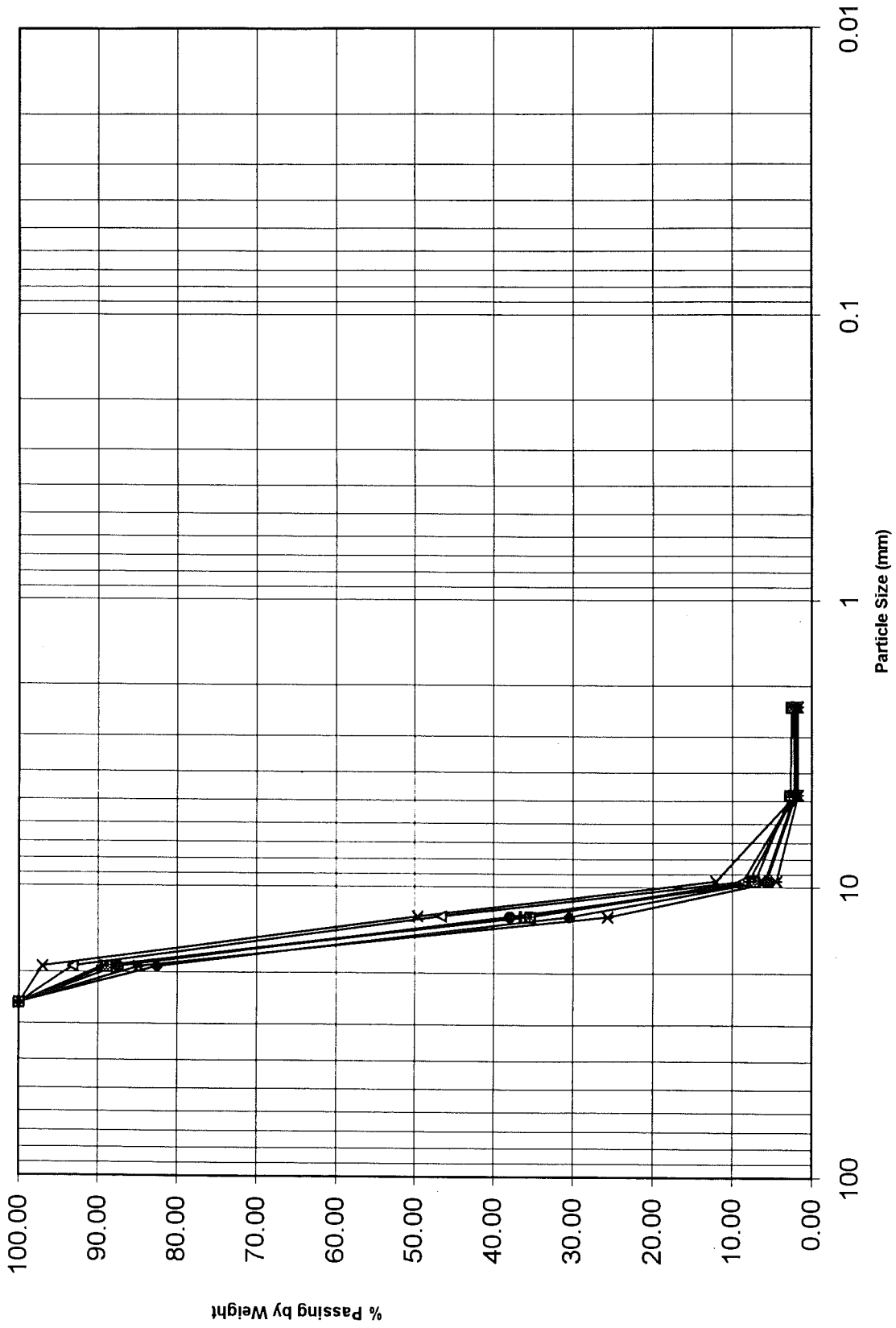
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#4

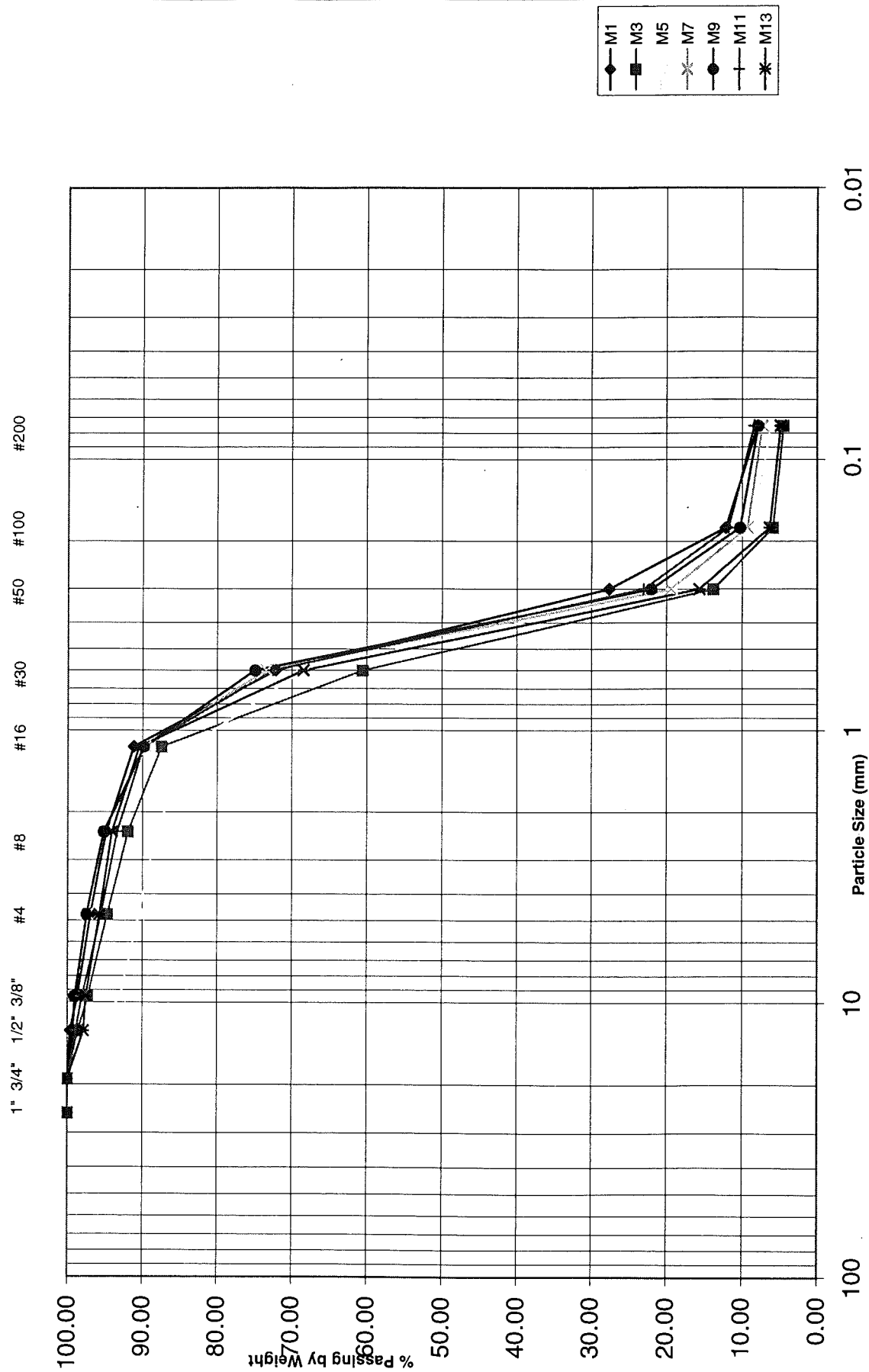
1" 3/4"

1/2"

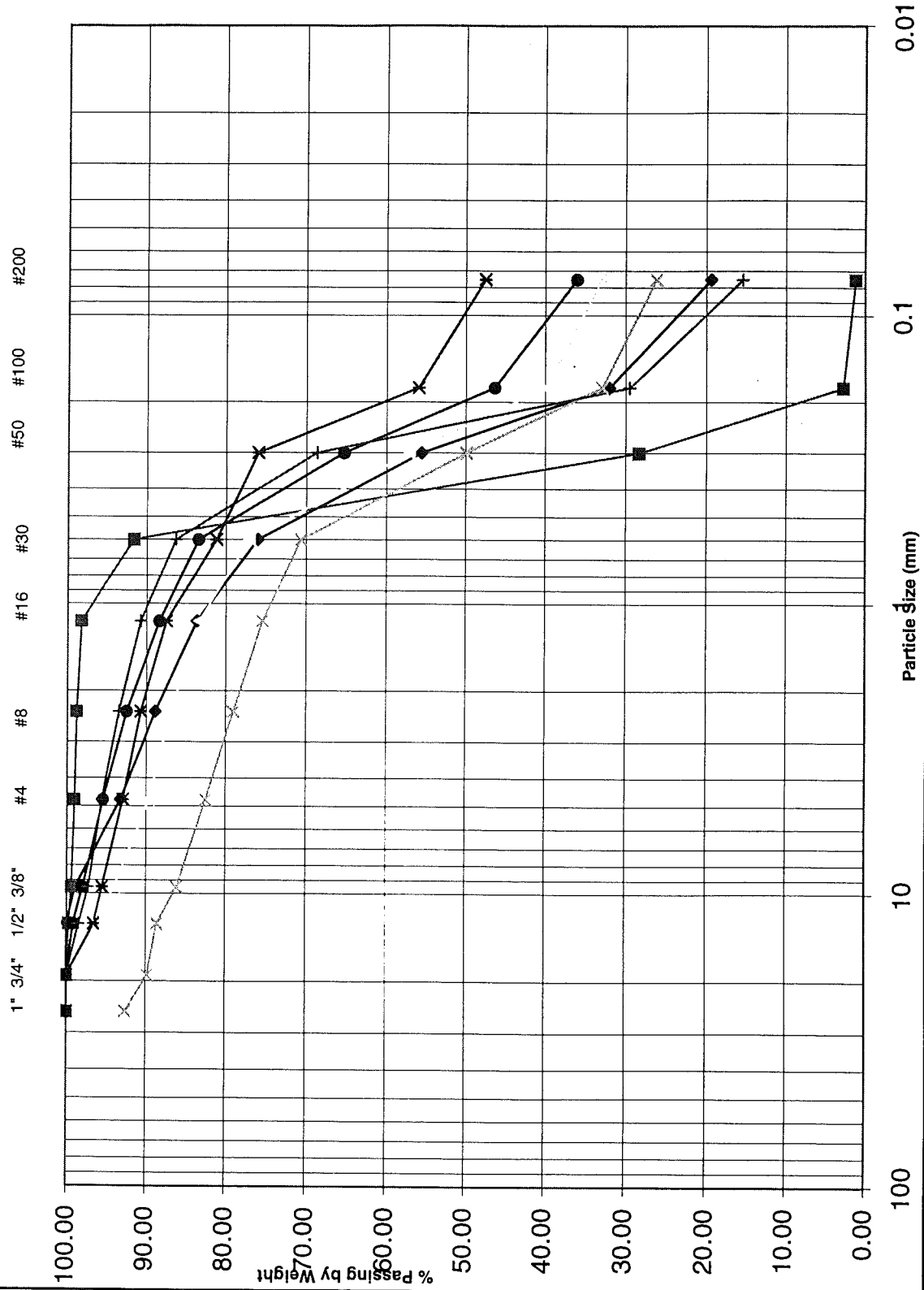
3/8"



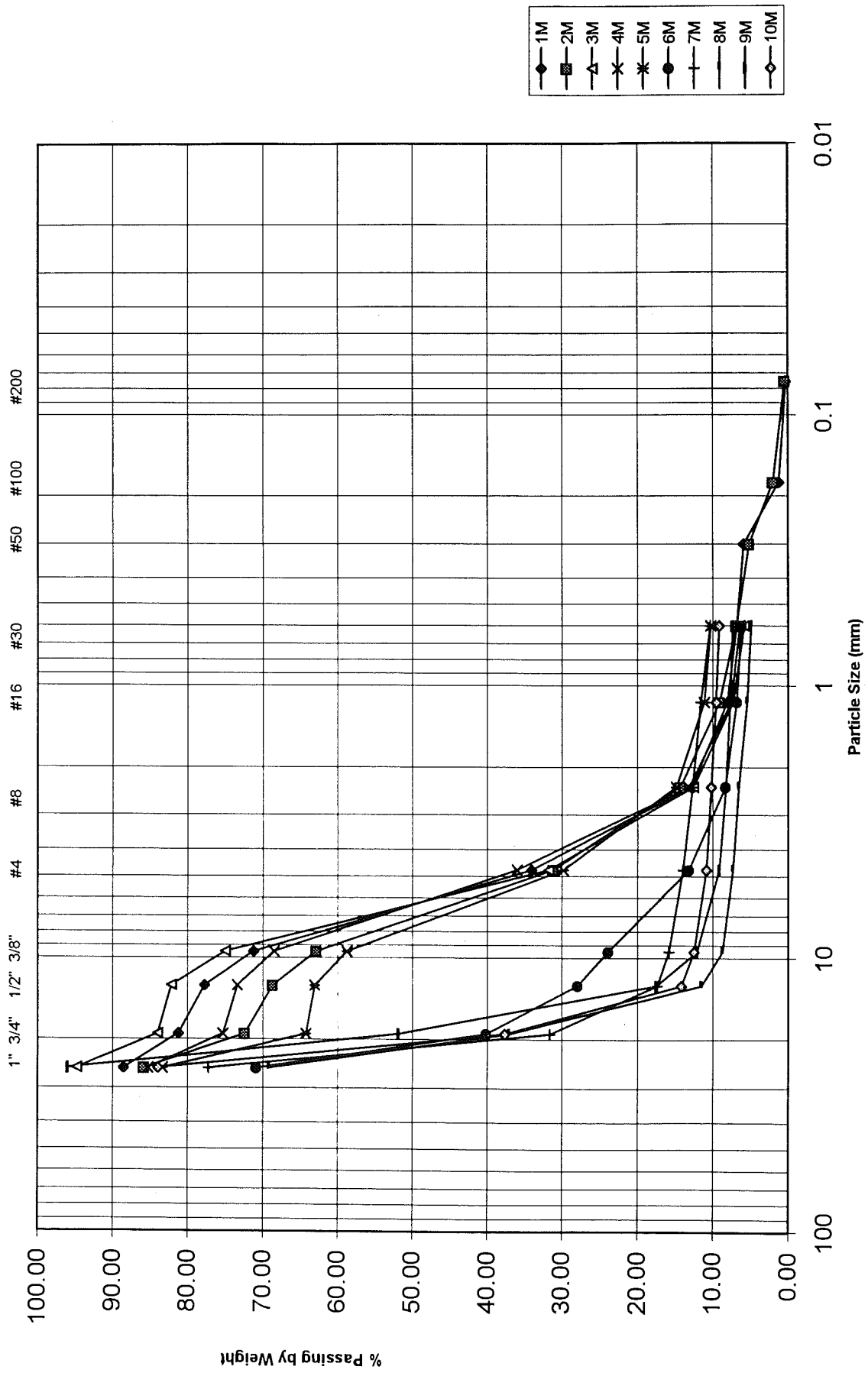
11017-32516A Section D WB Subbase Material



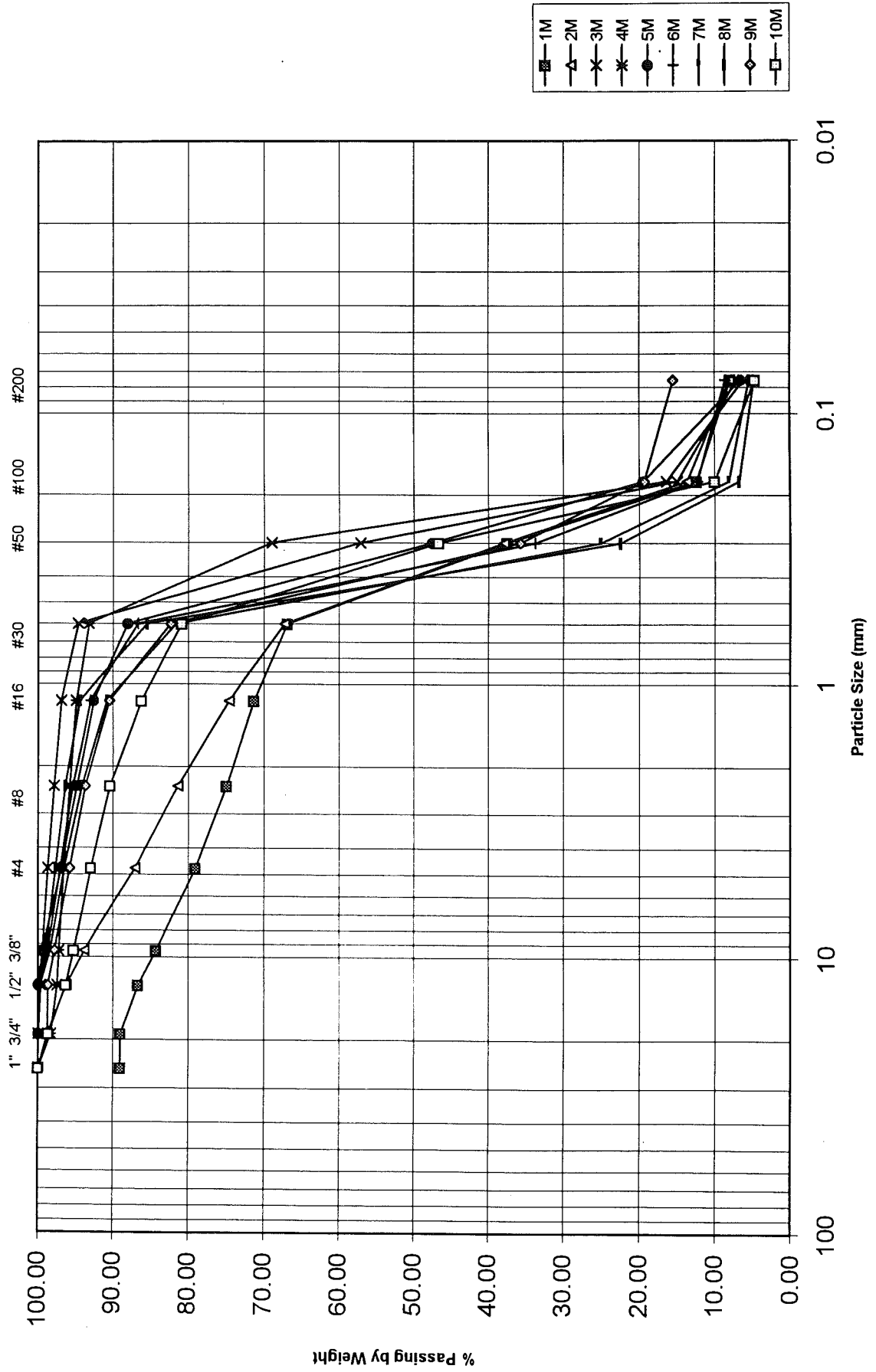
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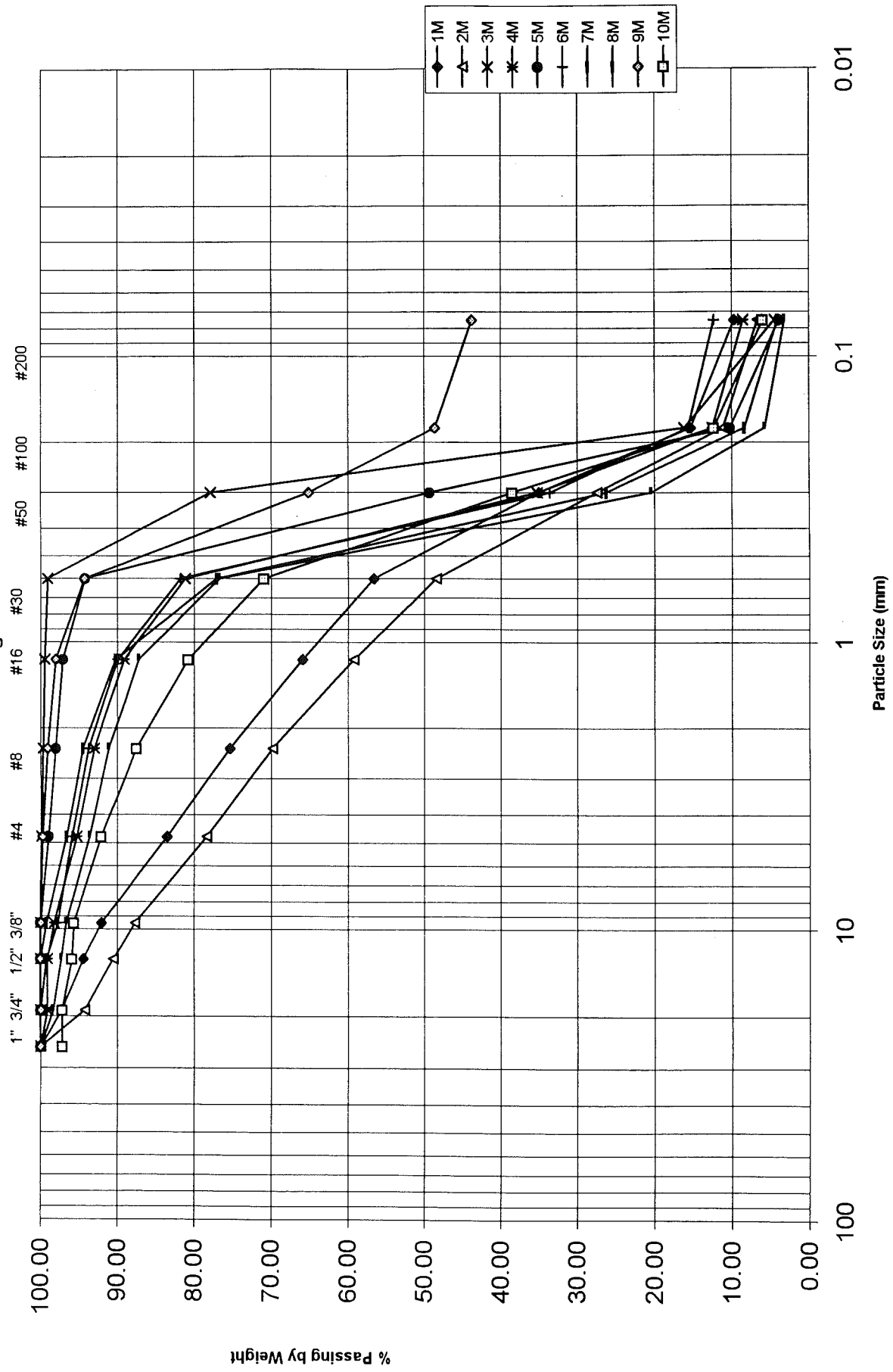
19042-24680A EB Base Material



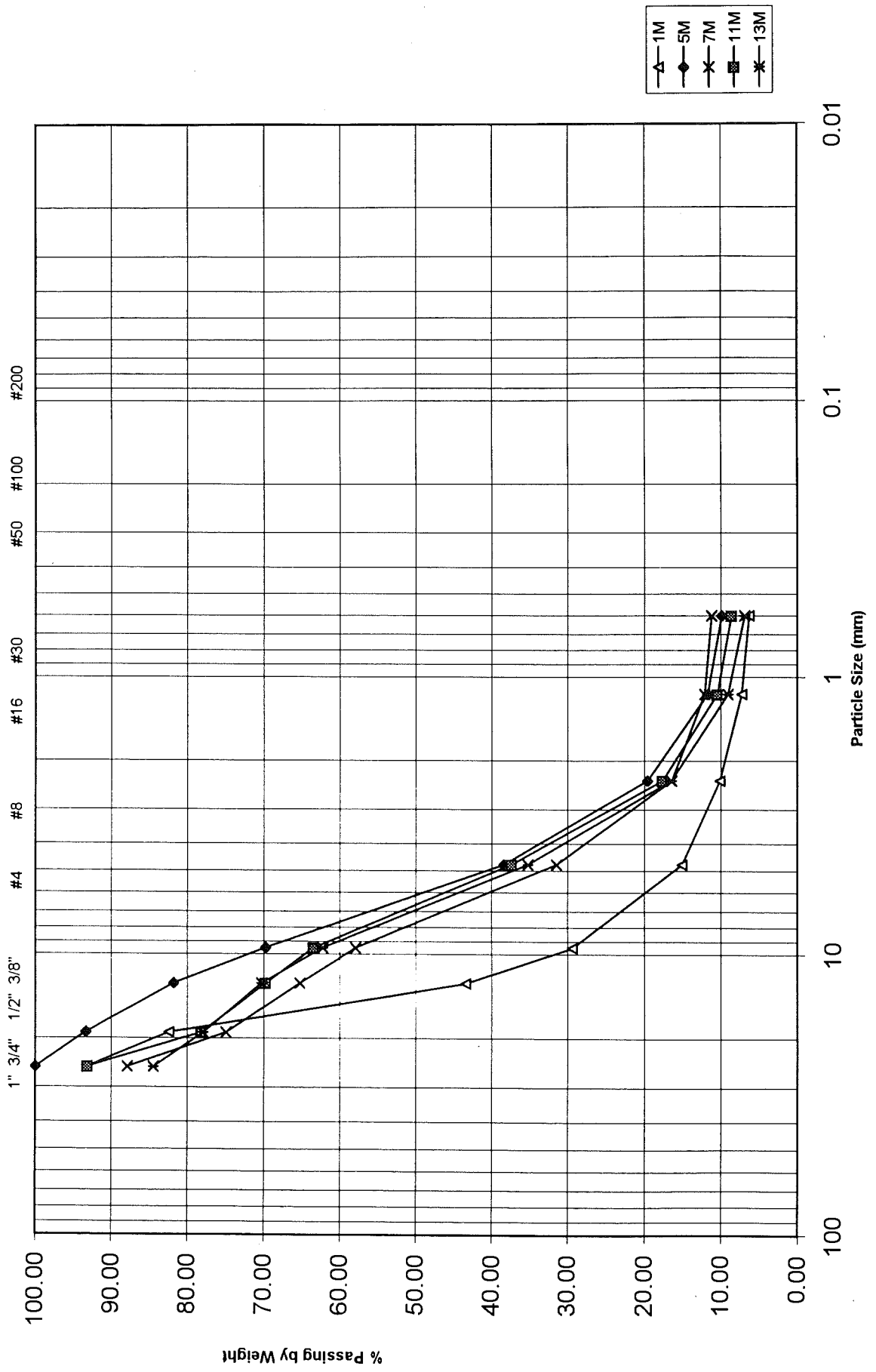
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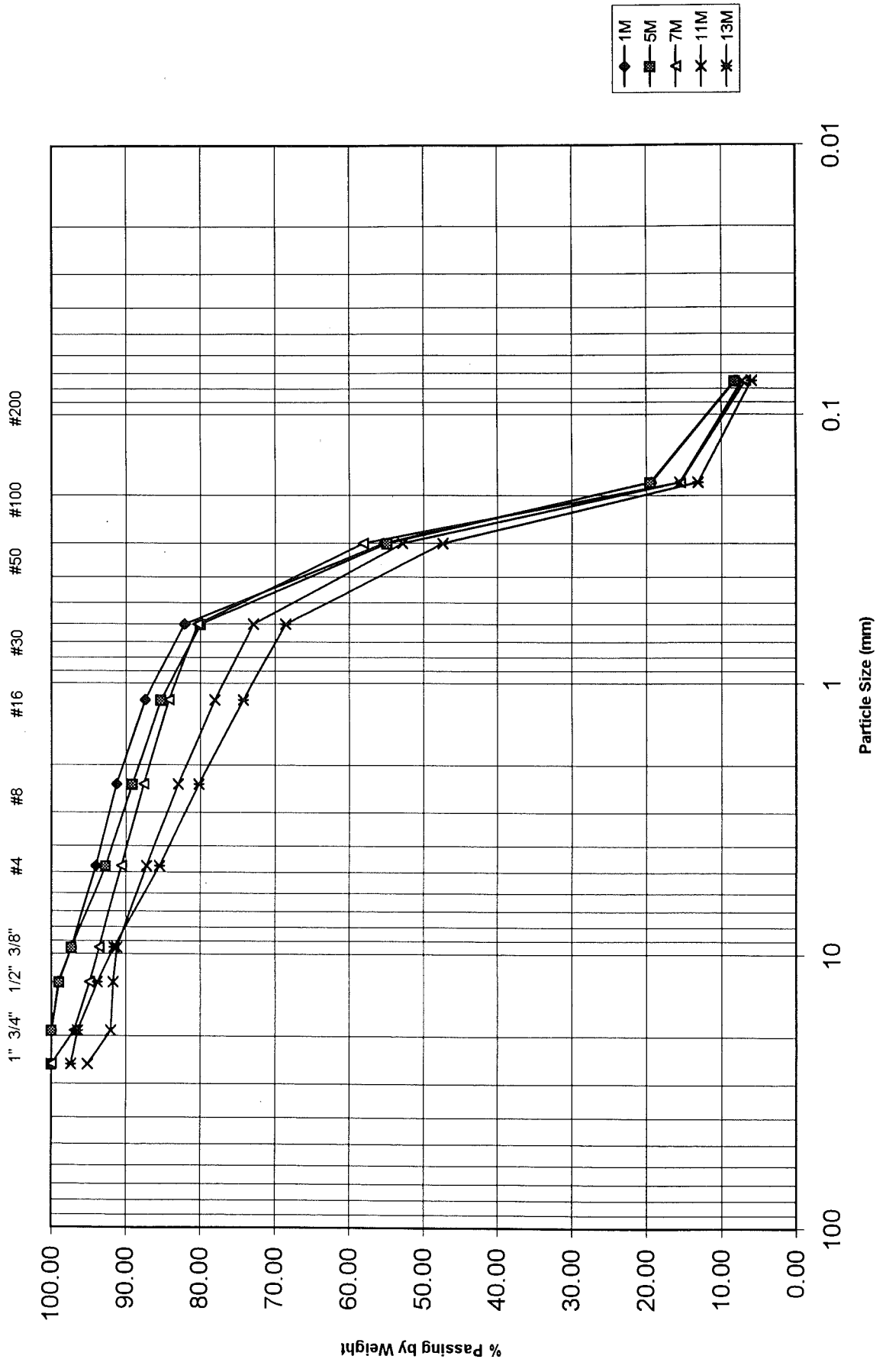
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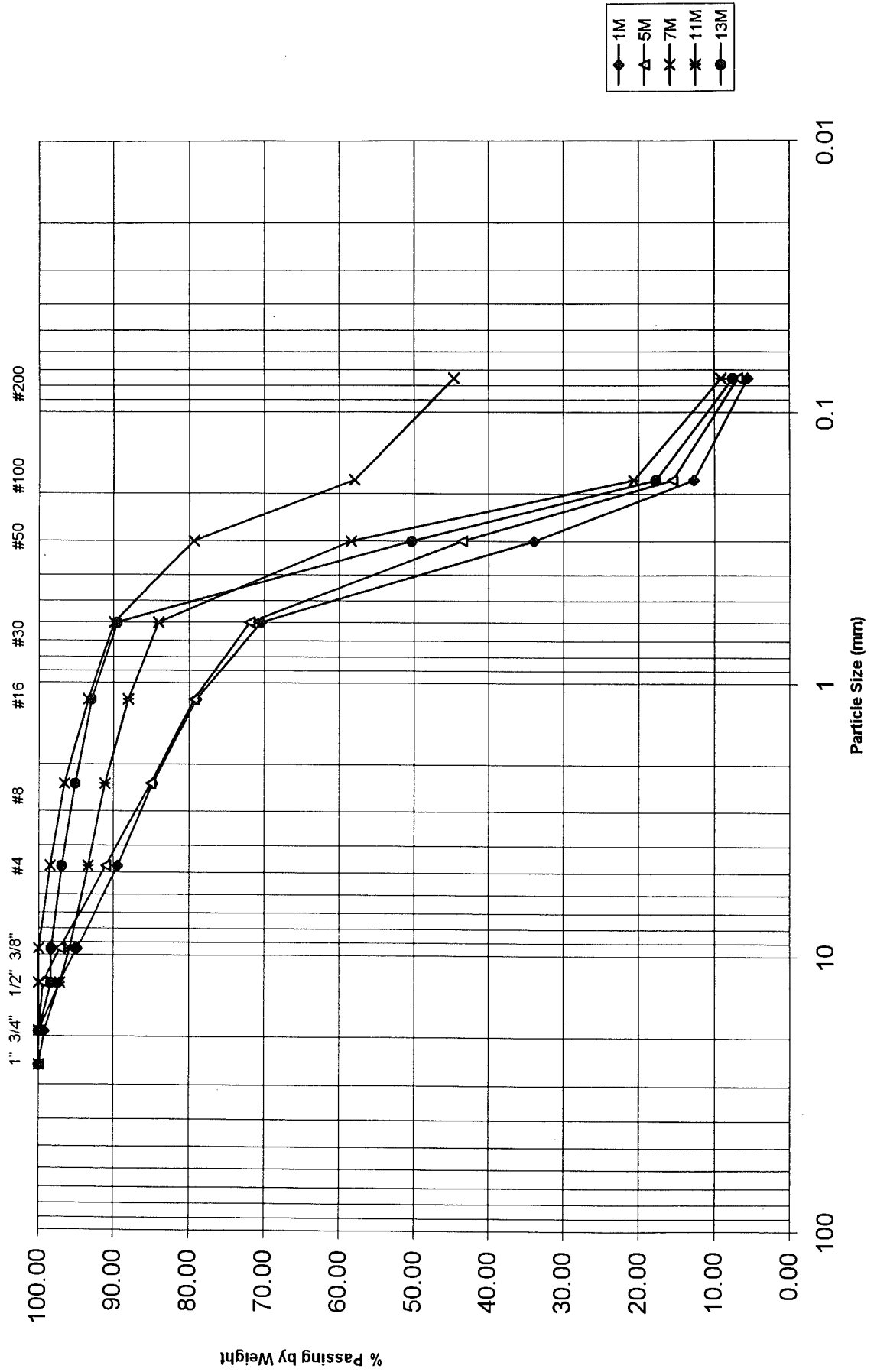
19042-02233A EB Base Material

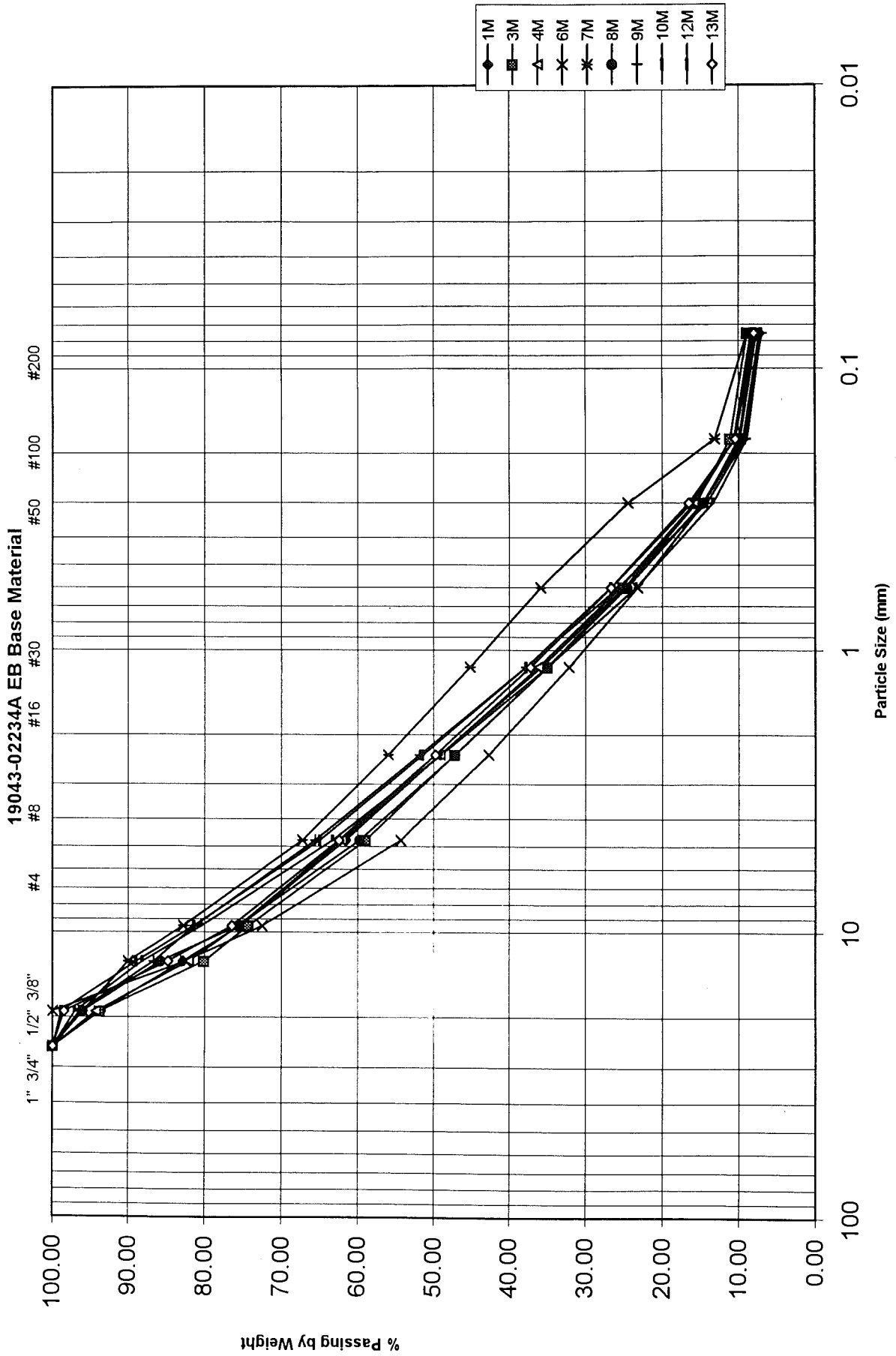


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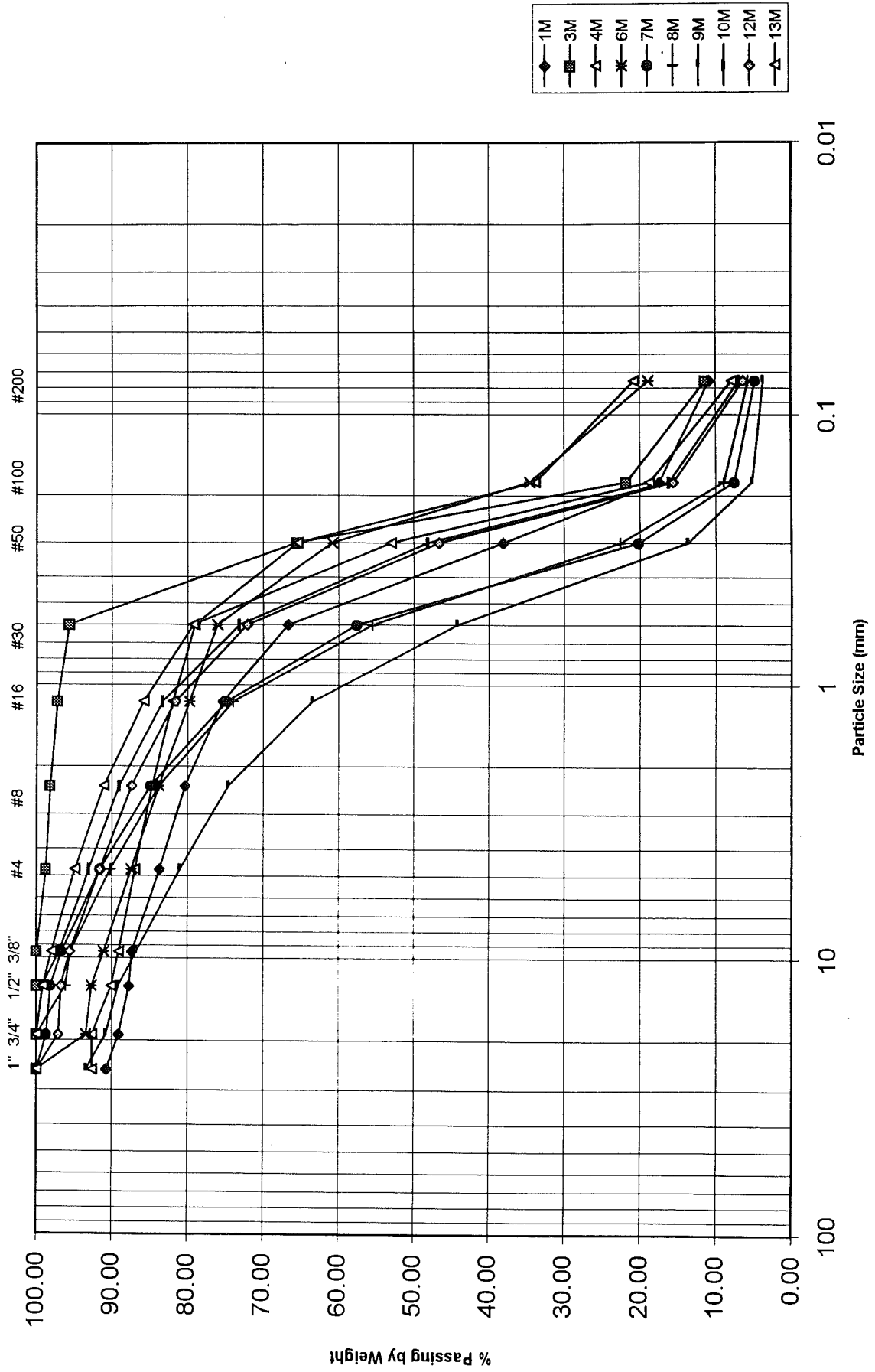


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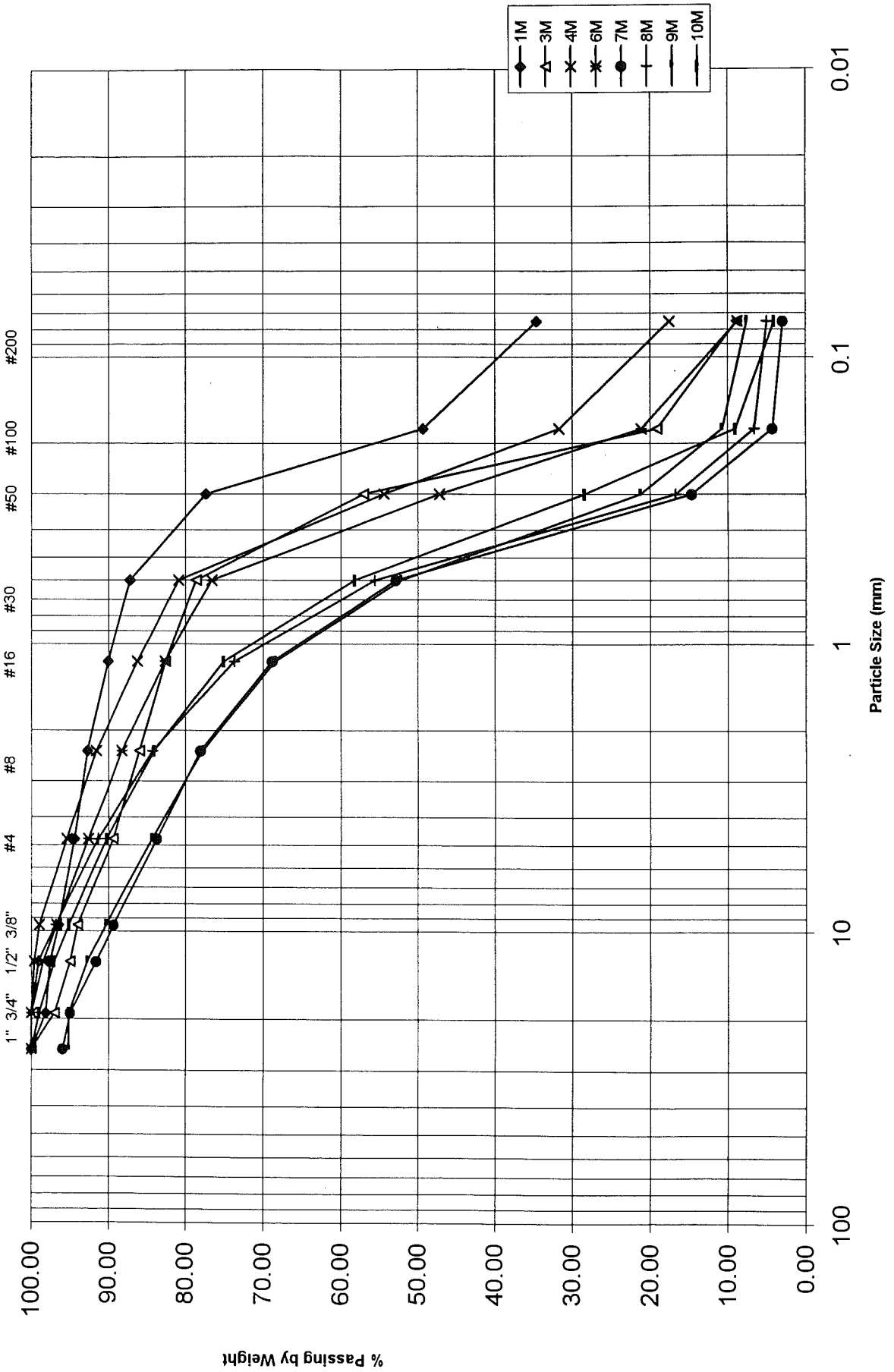




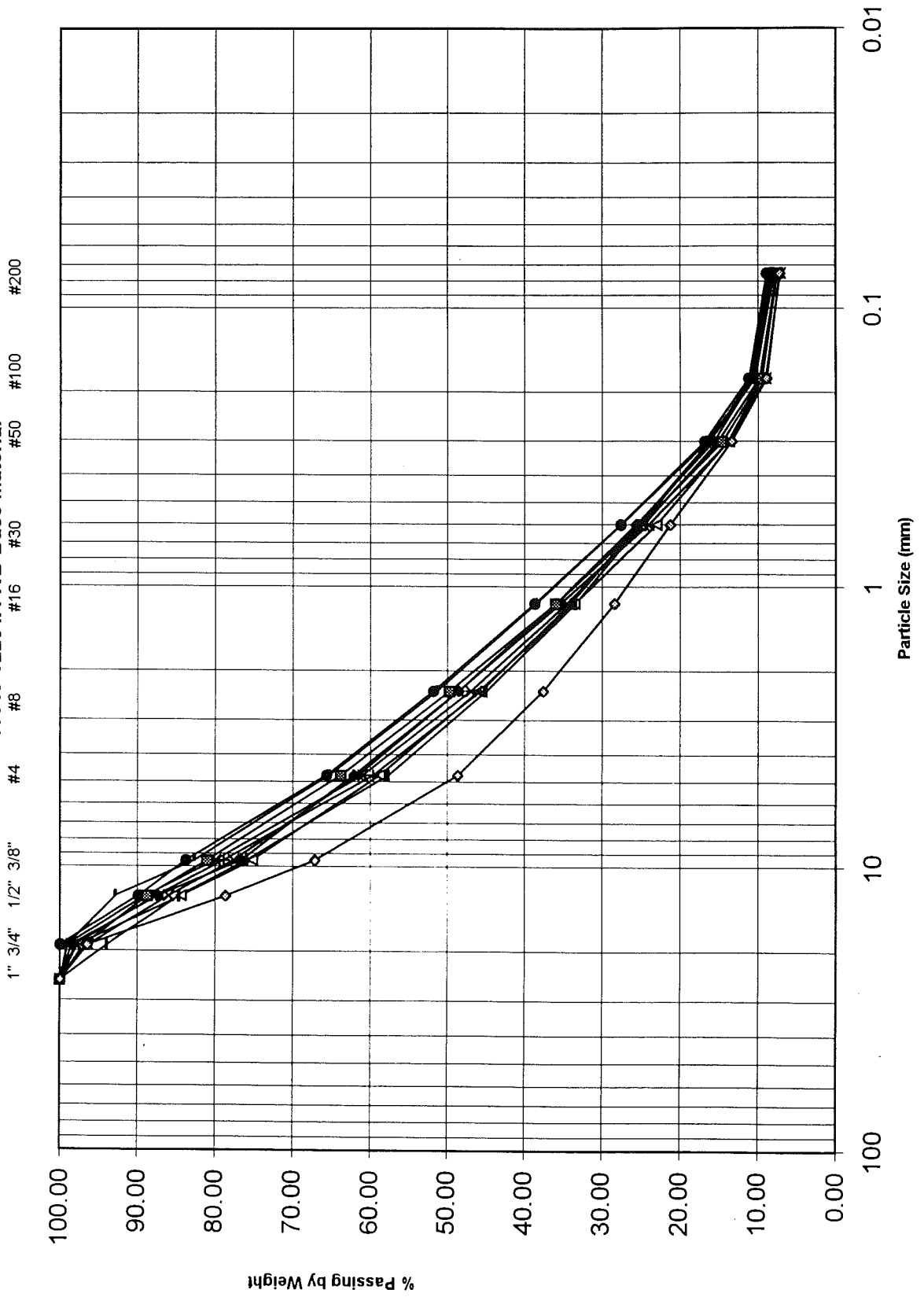
19043-02234A EB Subbase Material



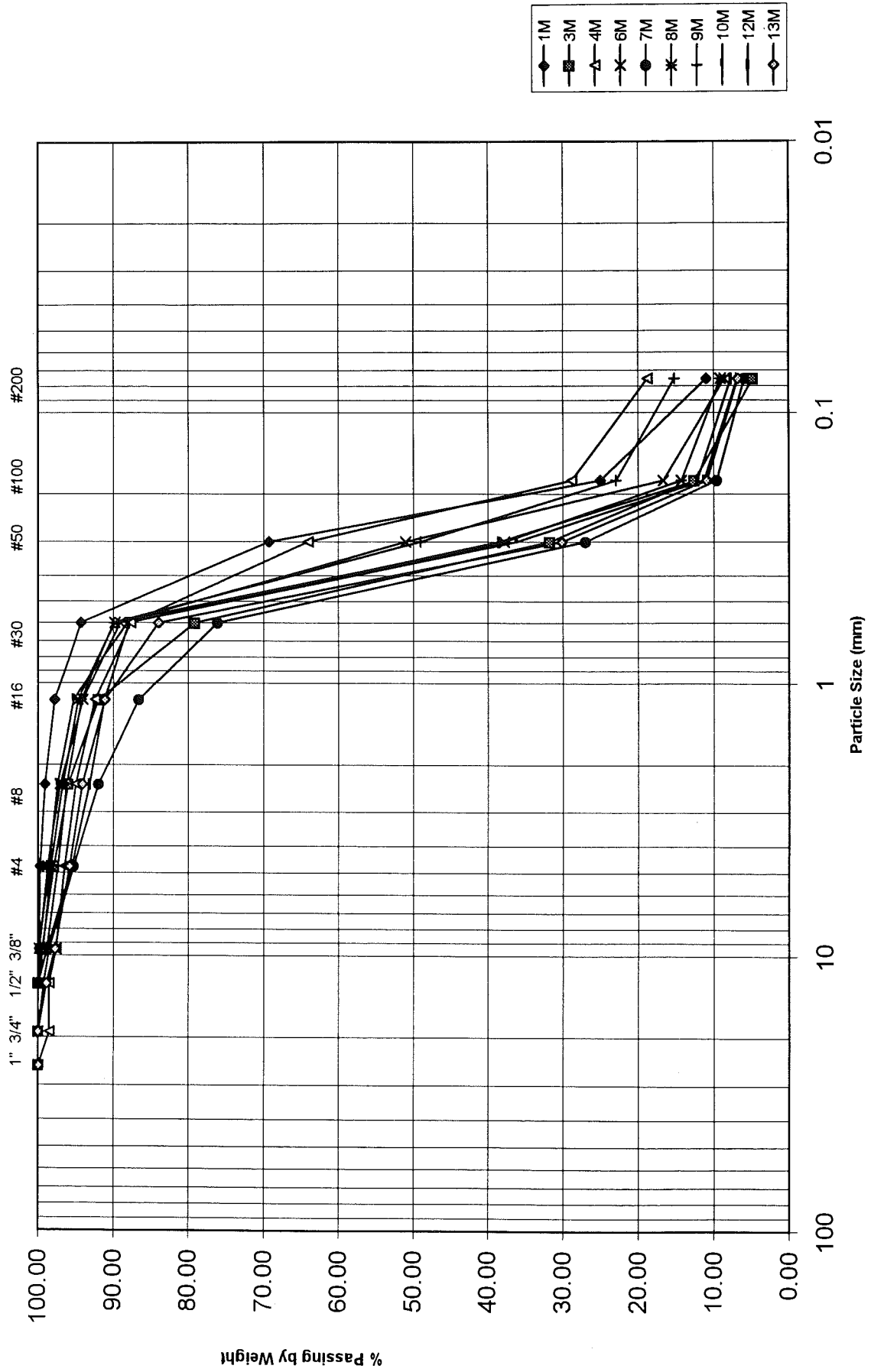
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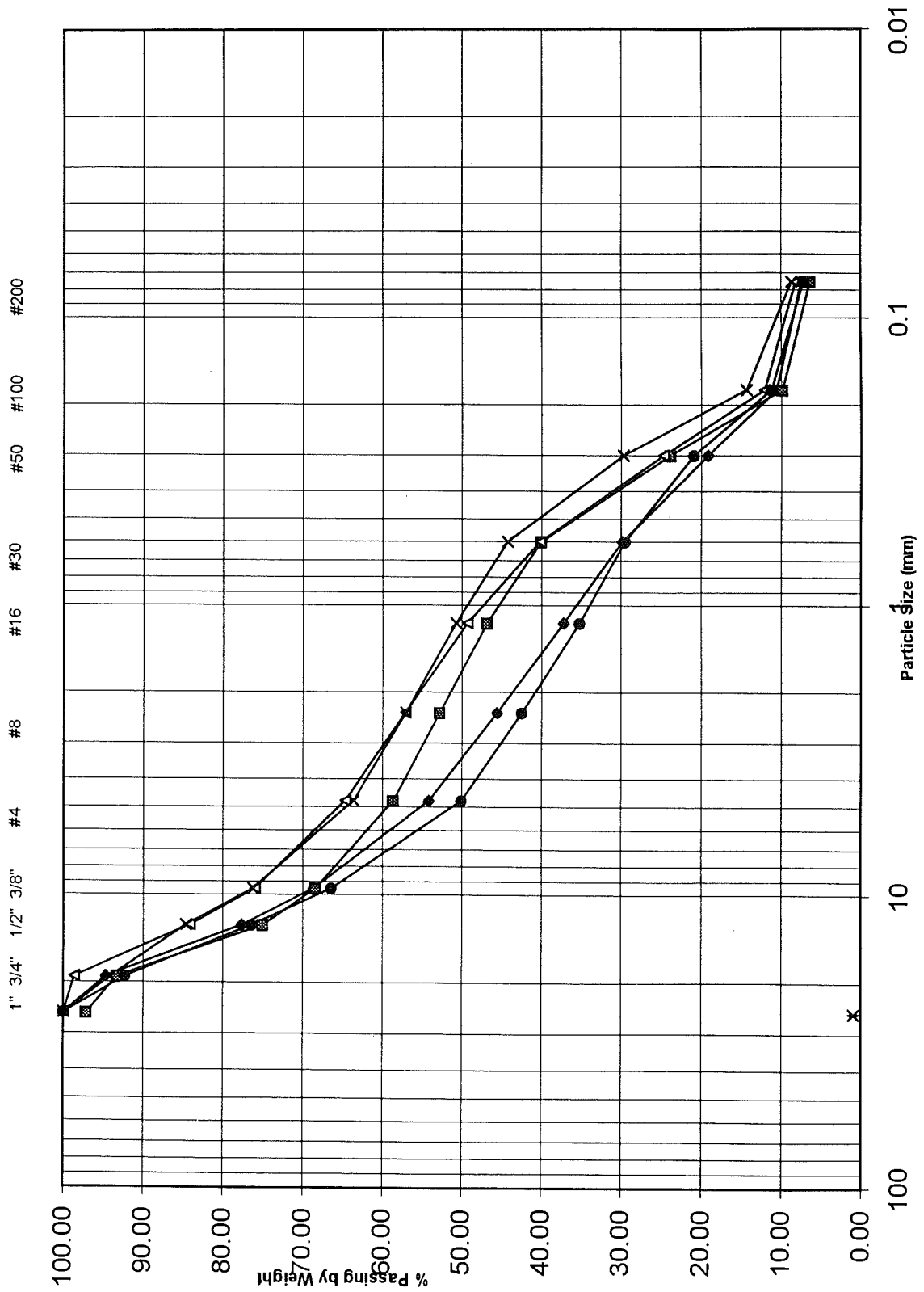
19043-02234A WB Base Material



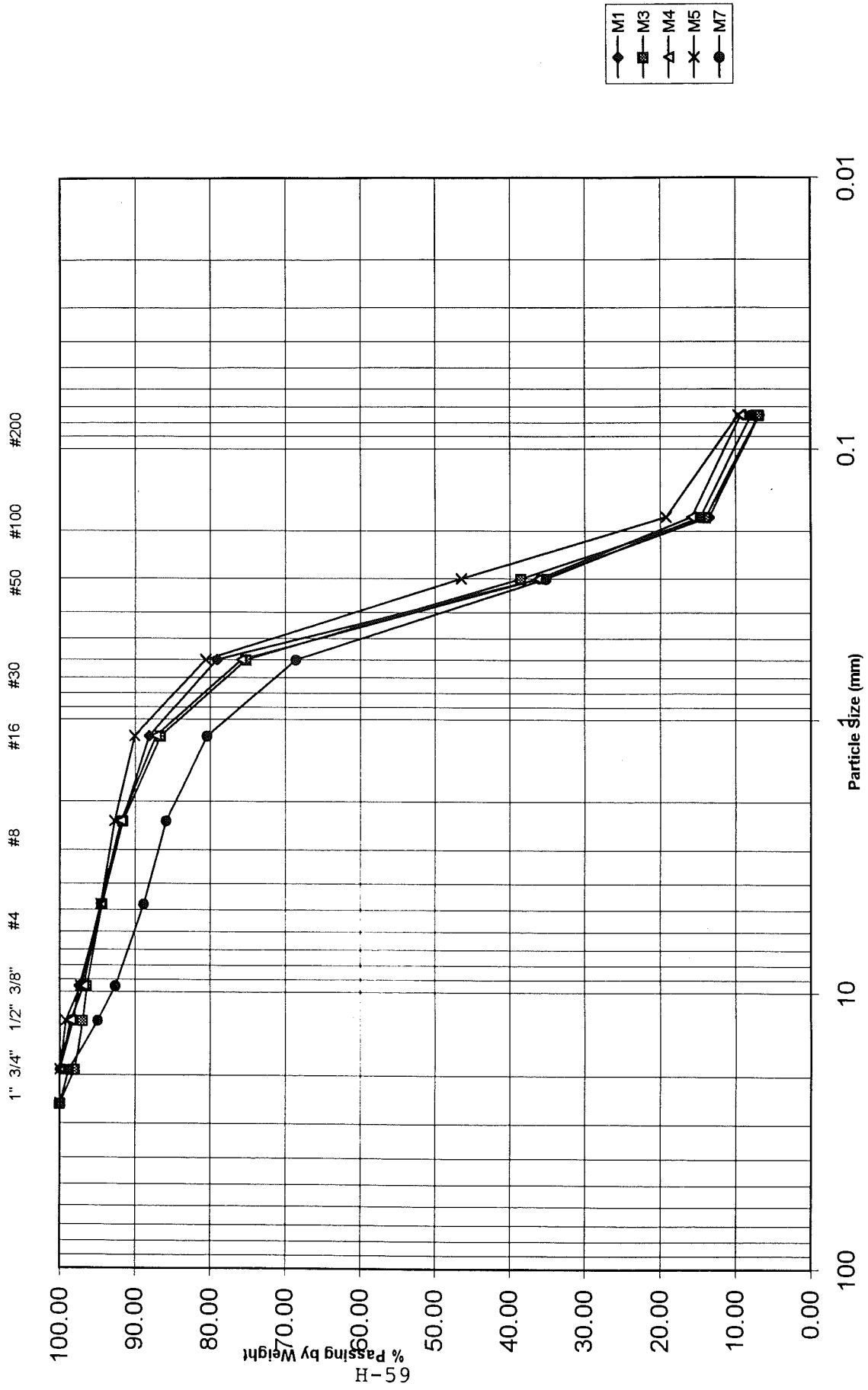
19043-02234A WB Subgrade Material



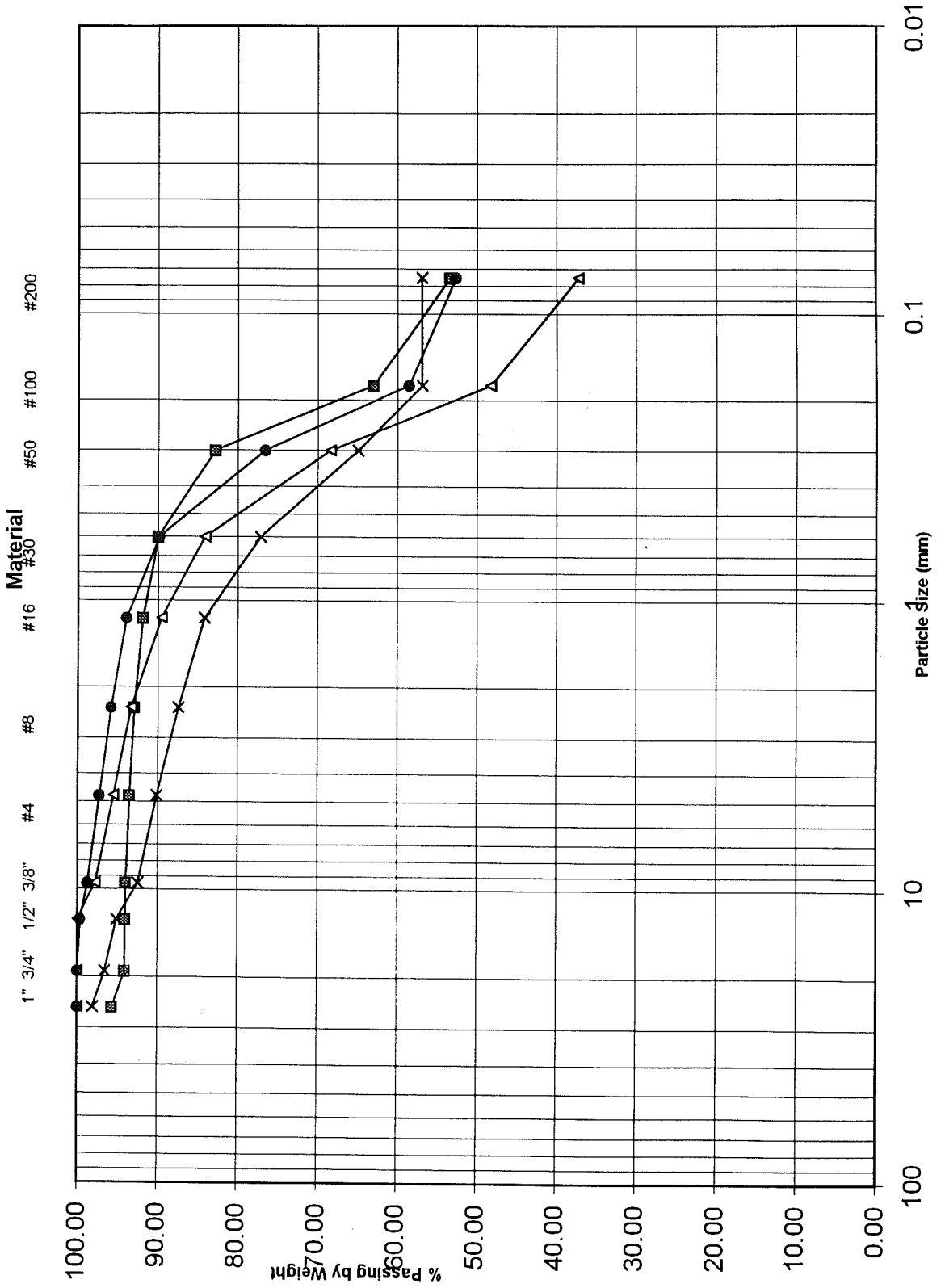
25132-06582A SB Base Material



25132-06582A SB Subbase Material

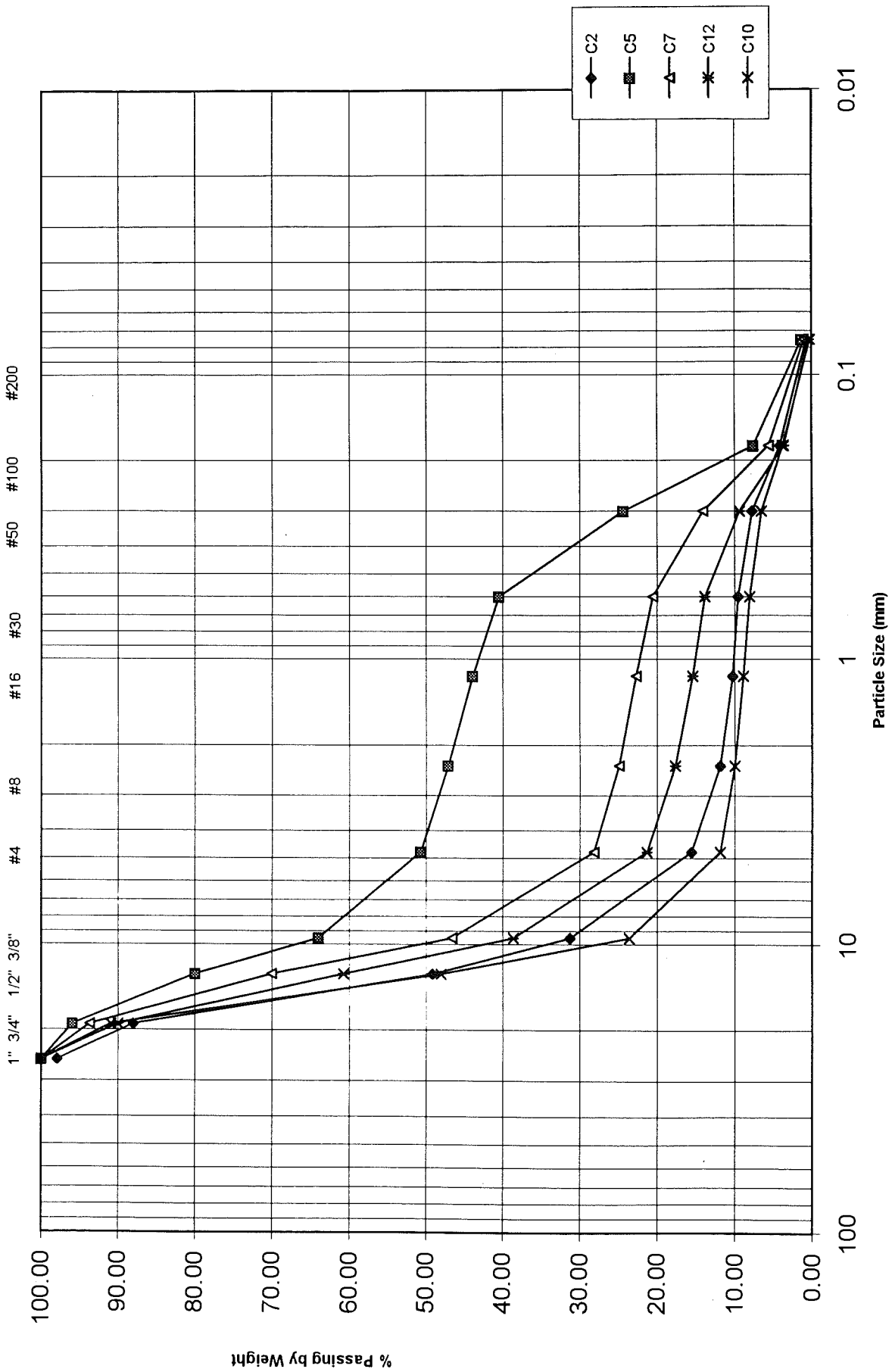


25132-06582A SB Subgrade

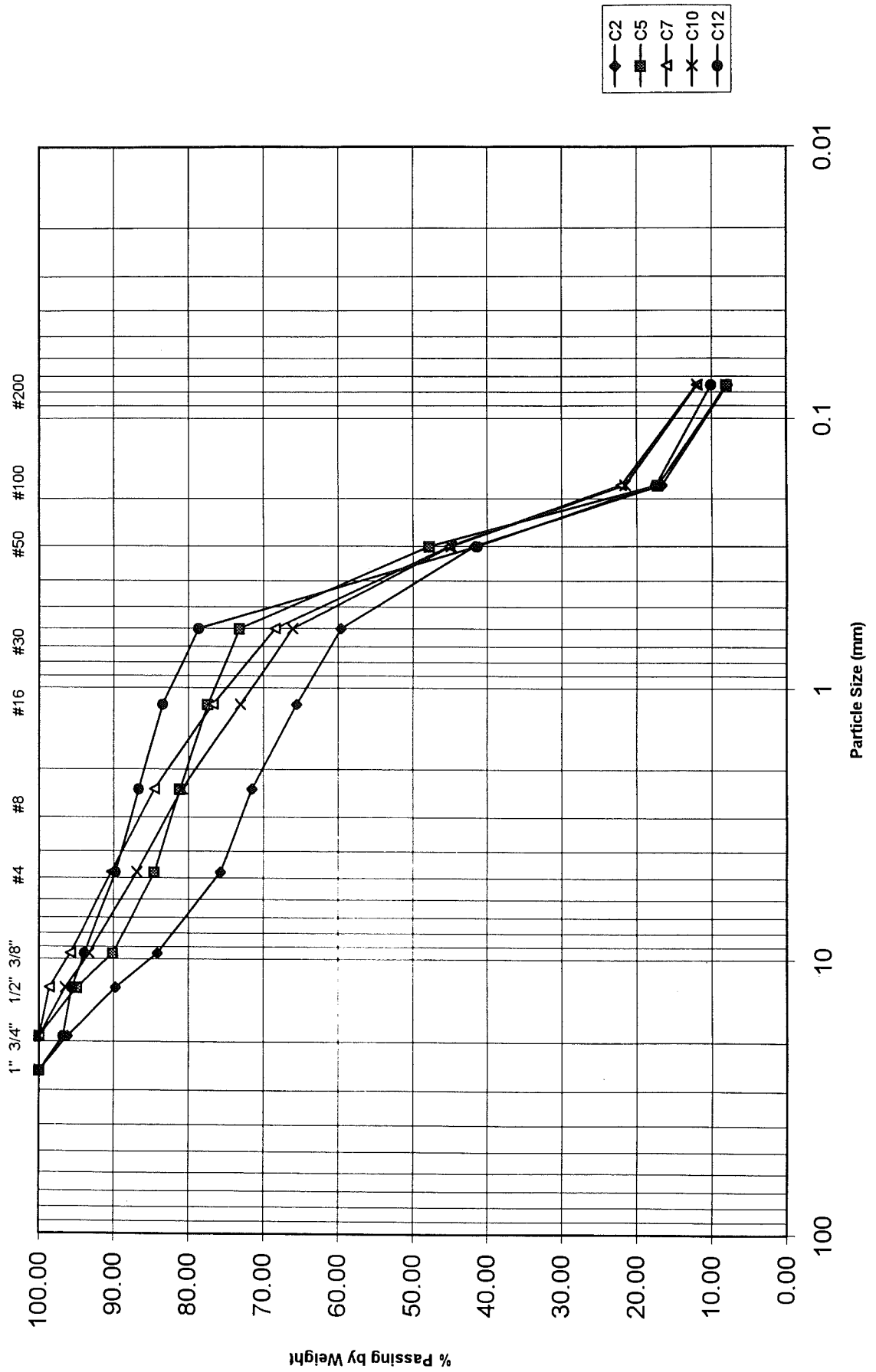


M3
 M4
 M5
 M7

40444-18804A WB Base Material

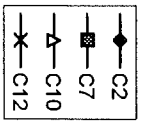
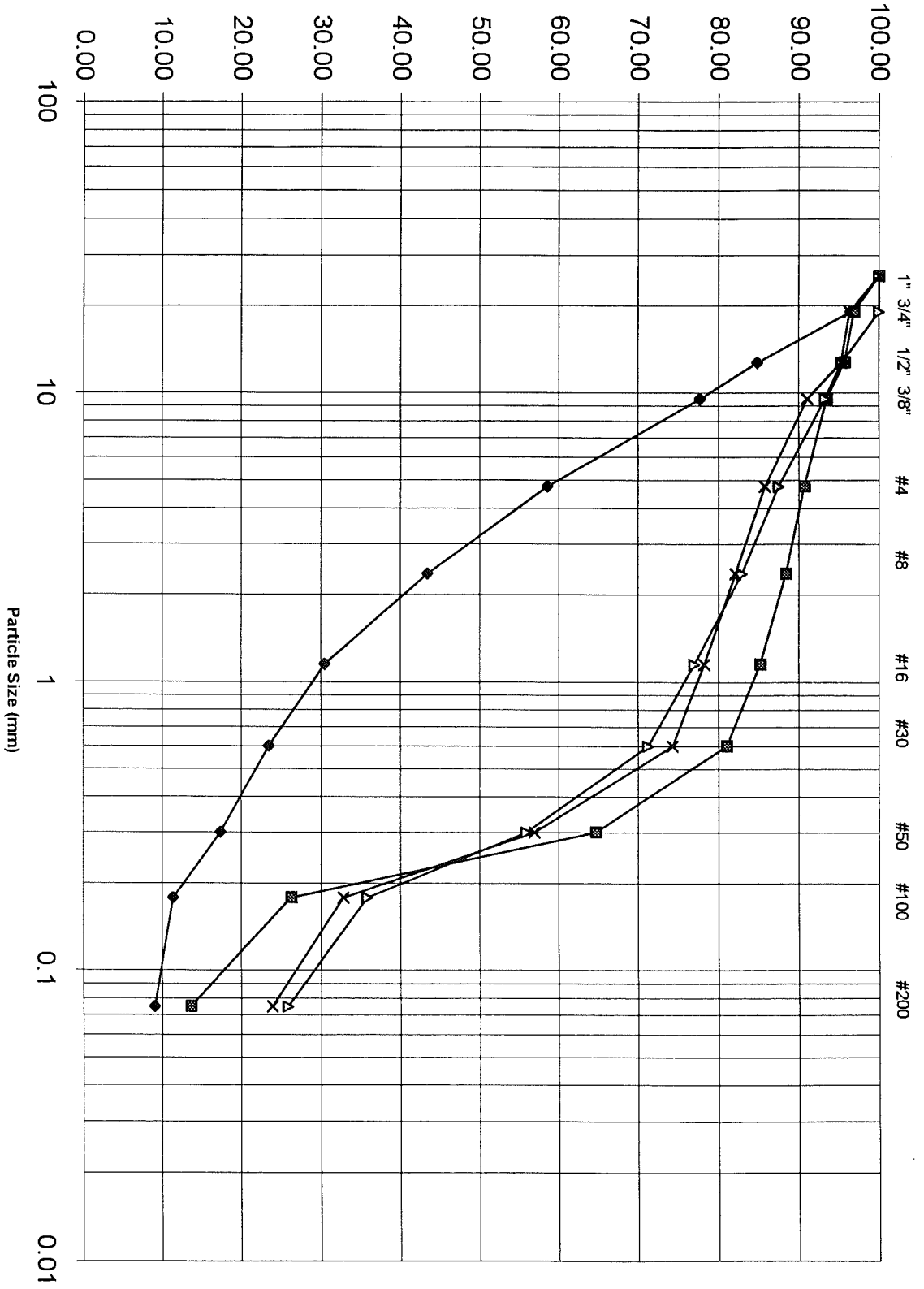


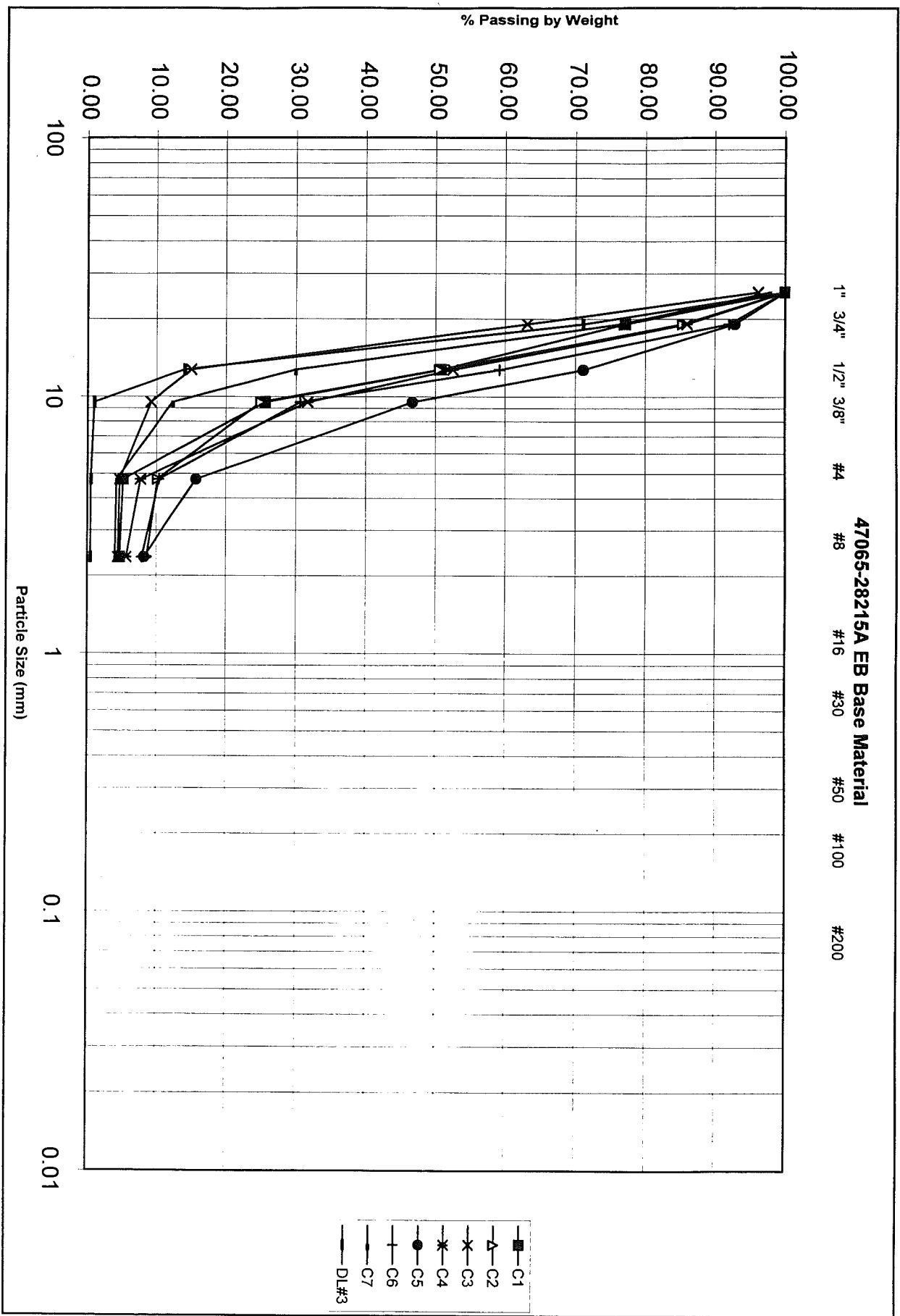
40444-18804A WB Subbase Material



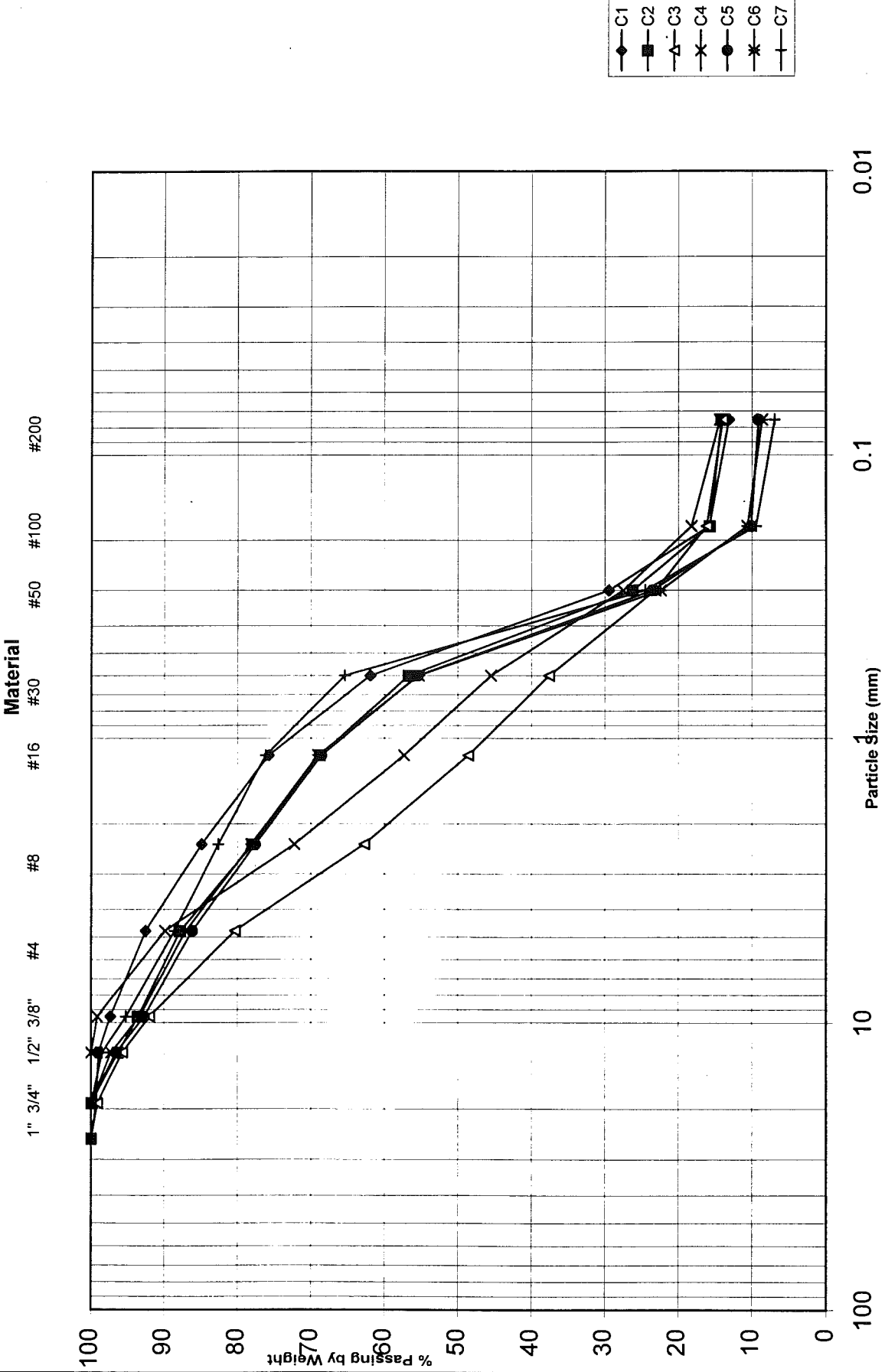
% Passing by Weight

40444-18804A WB Subgrade Material

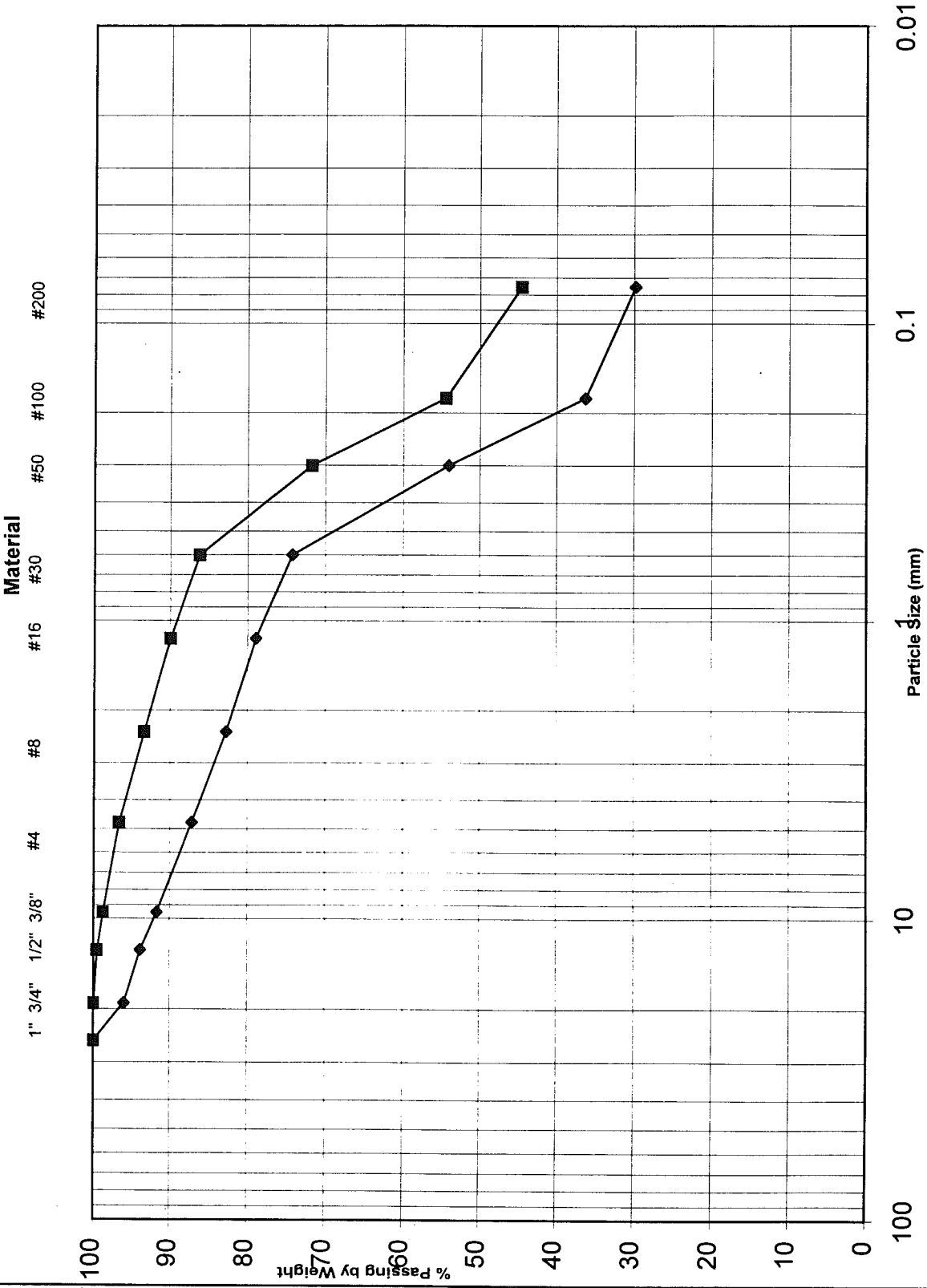




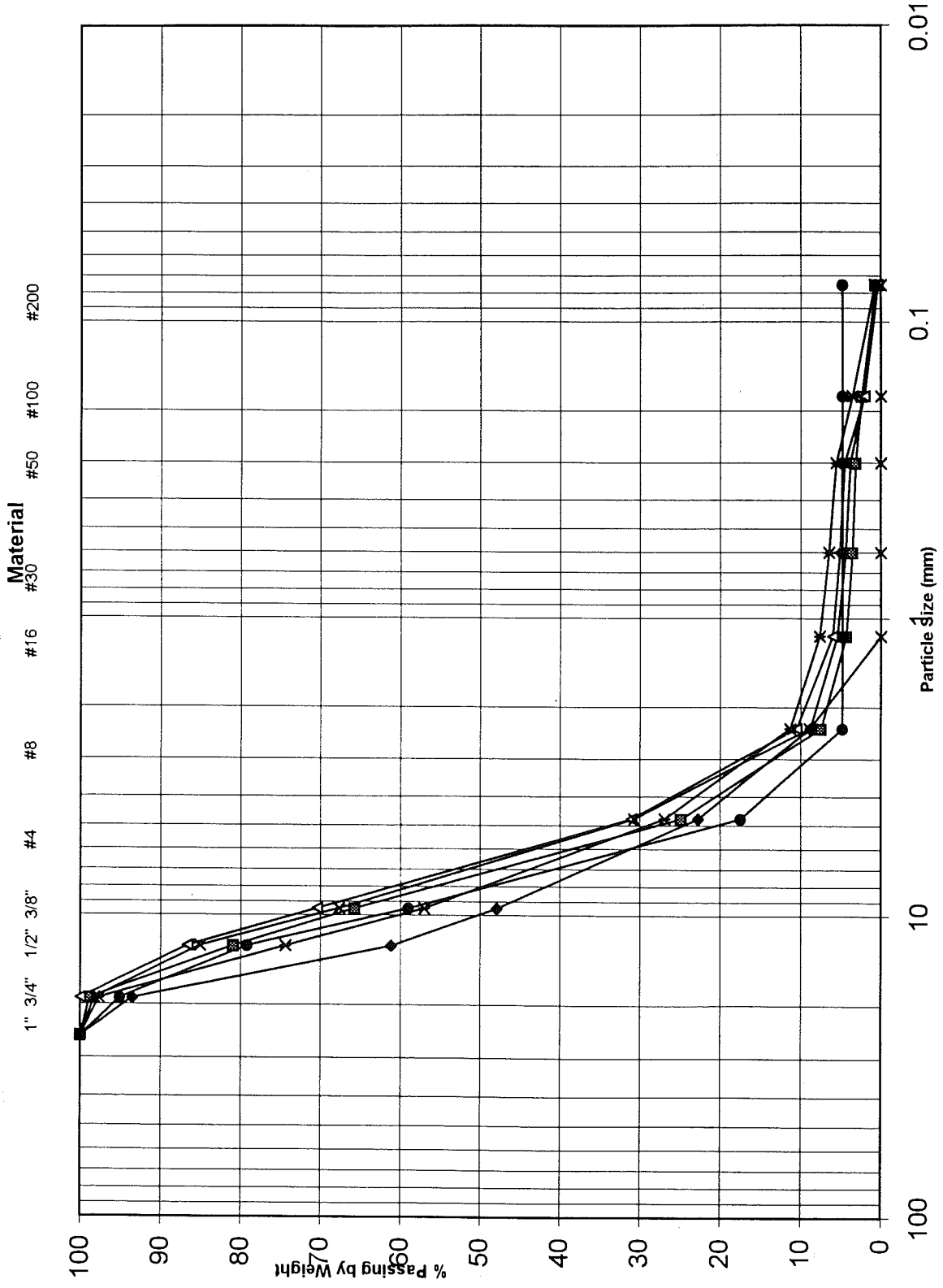
47065-28215A EB Subbase



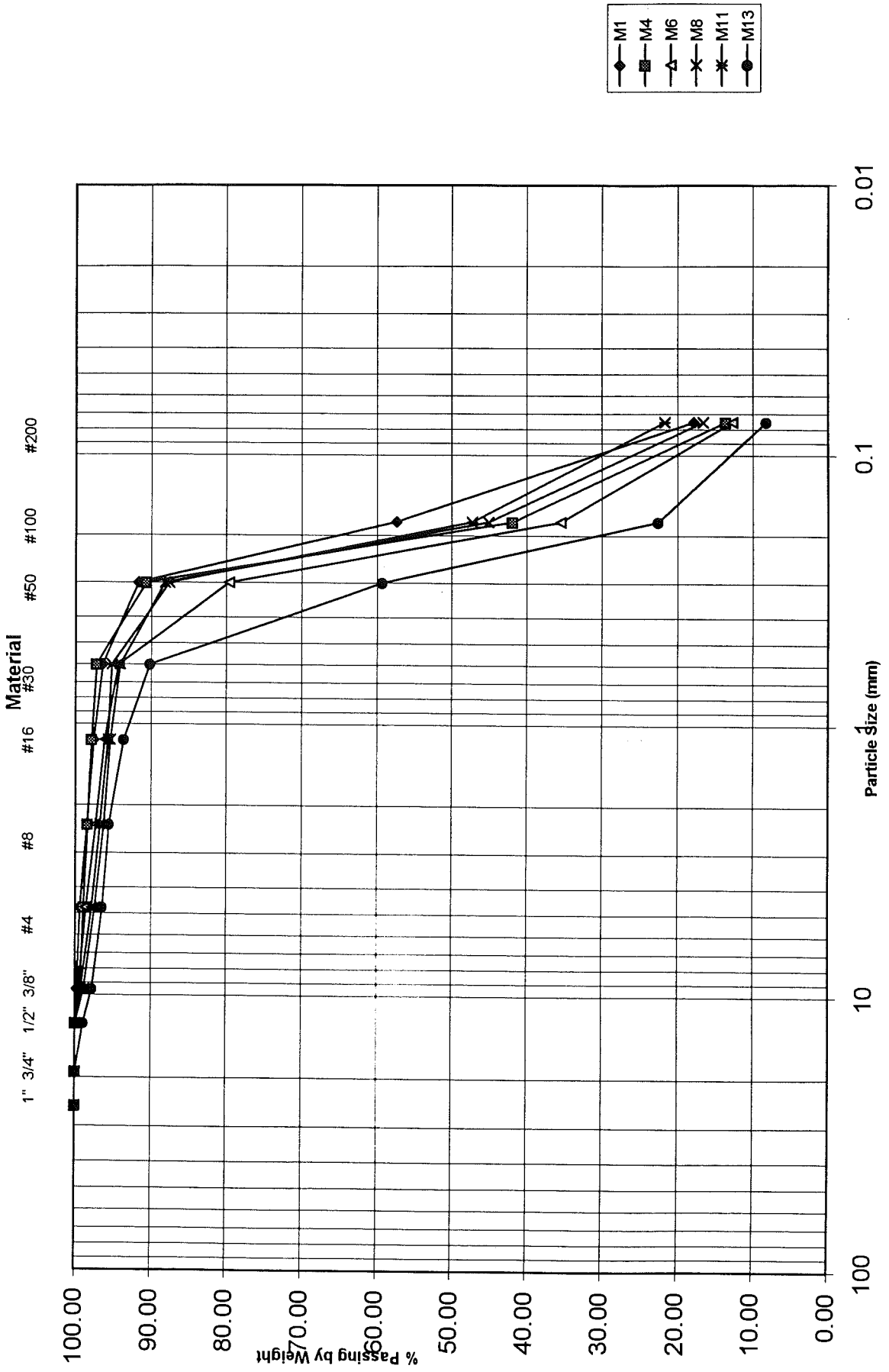
47065-28215A EB Subgrade



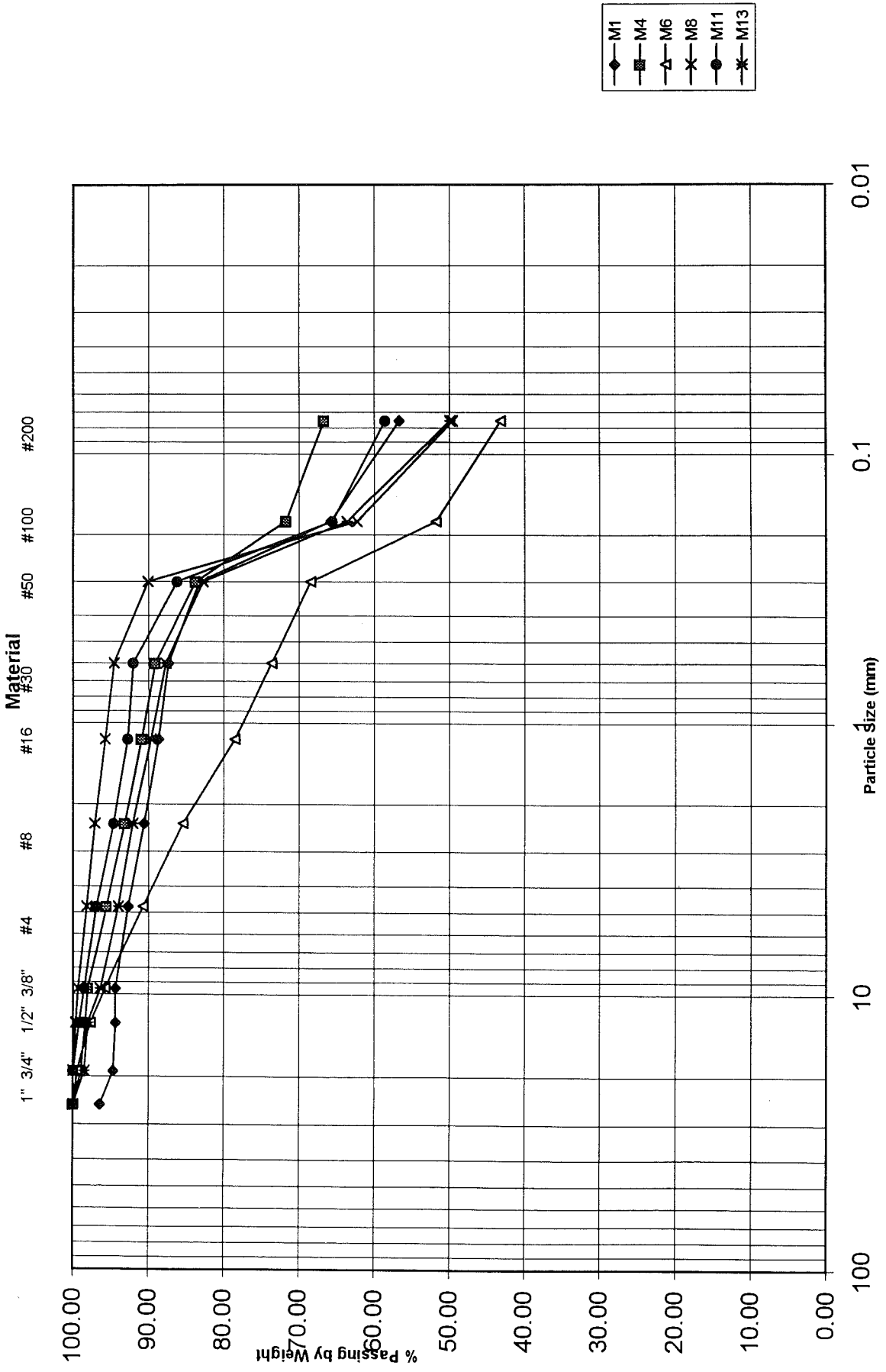
77023-21586A EB Base



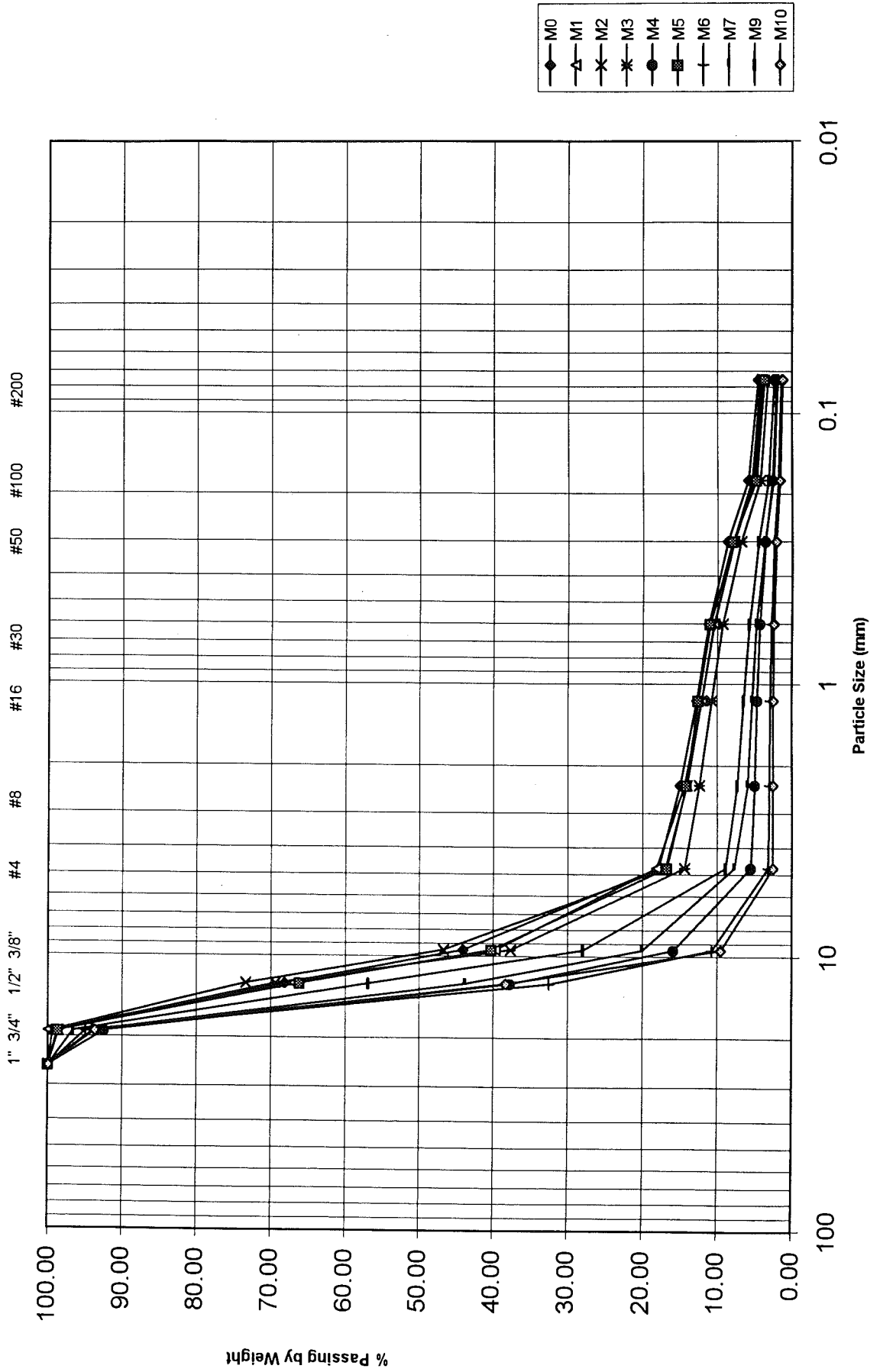
77023-21586A EB Subbase



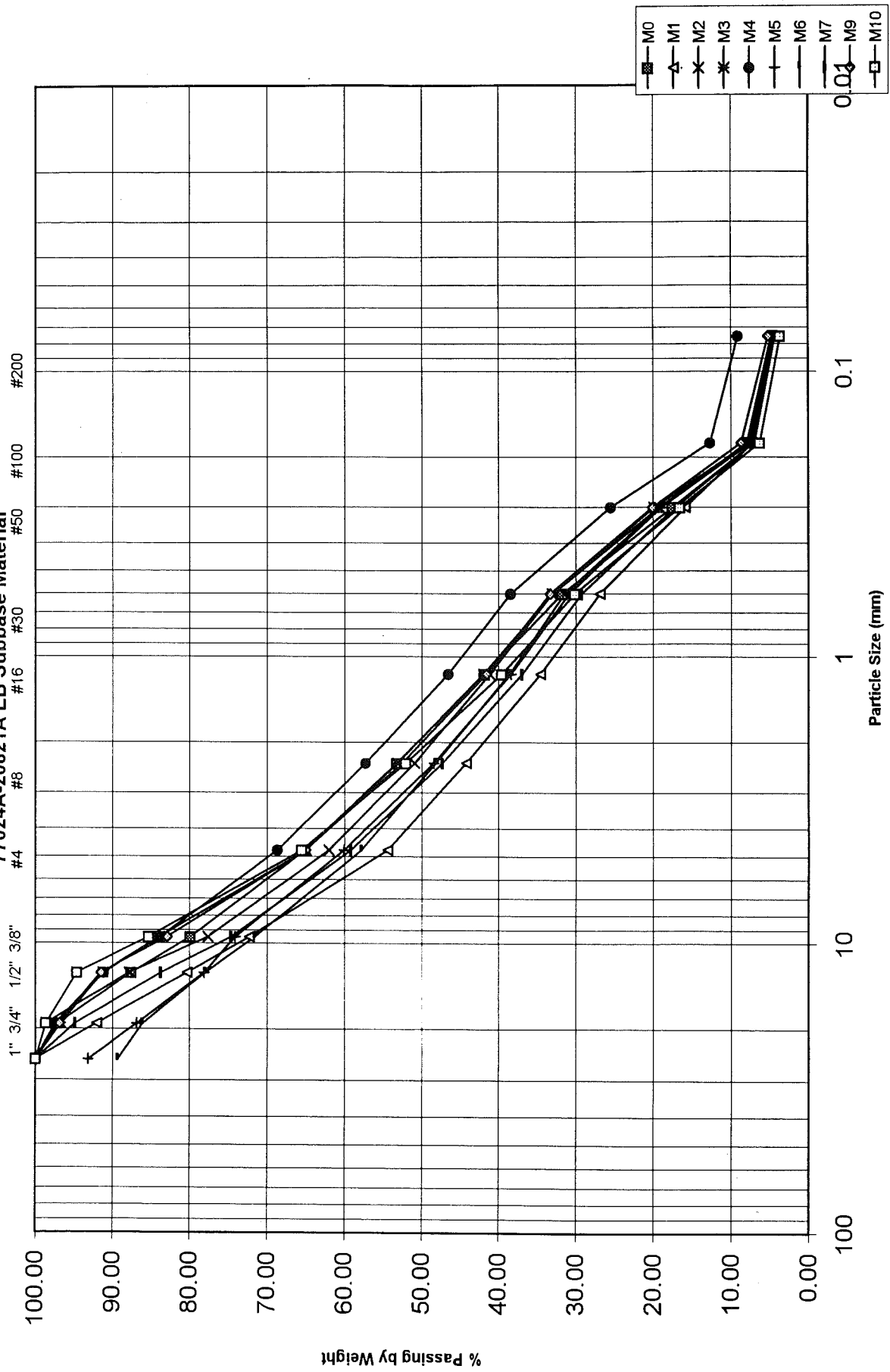
77023-21586A EB Subgrade



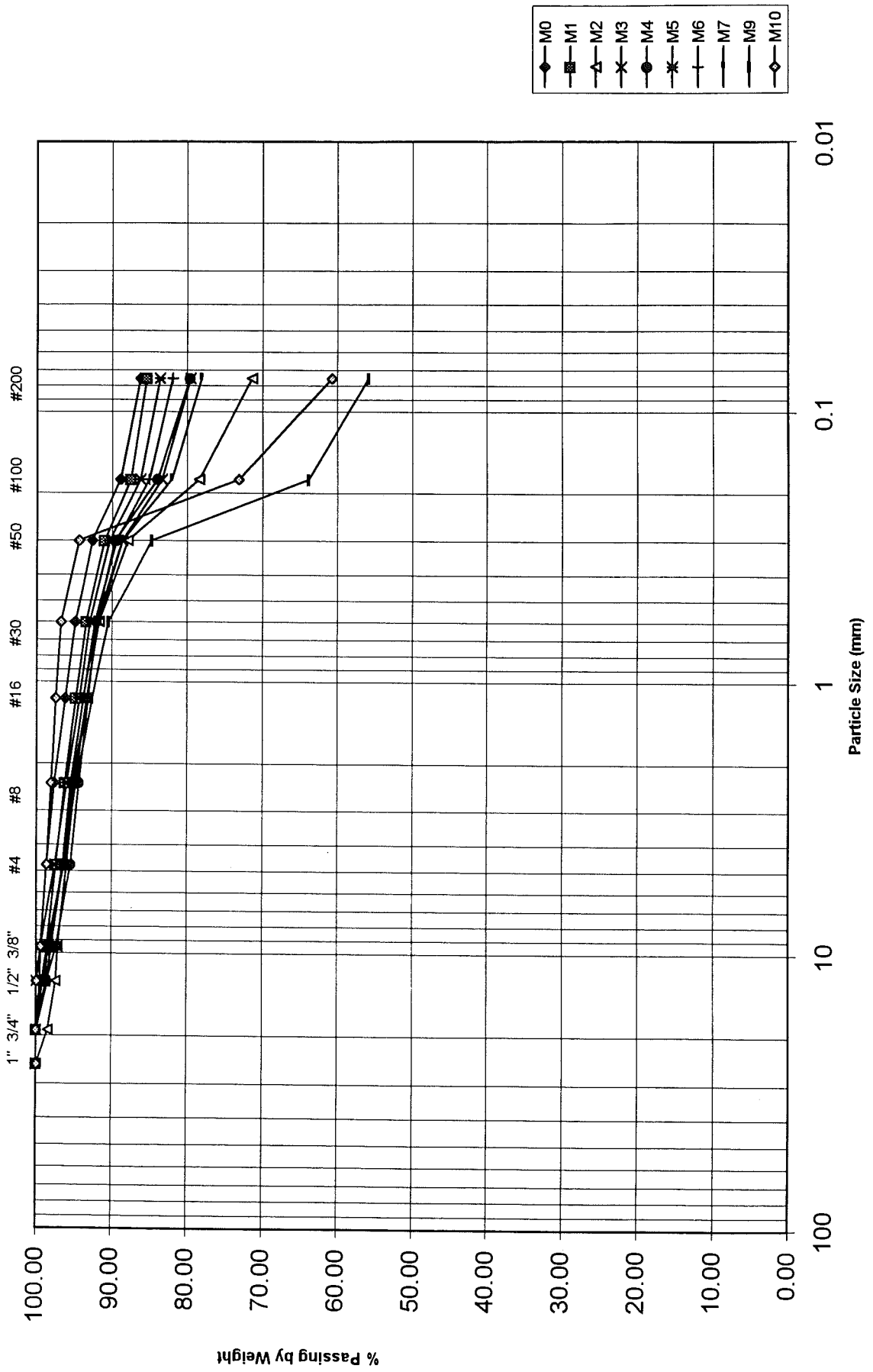
77024-20821A EB Base Material

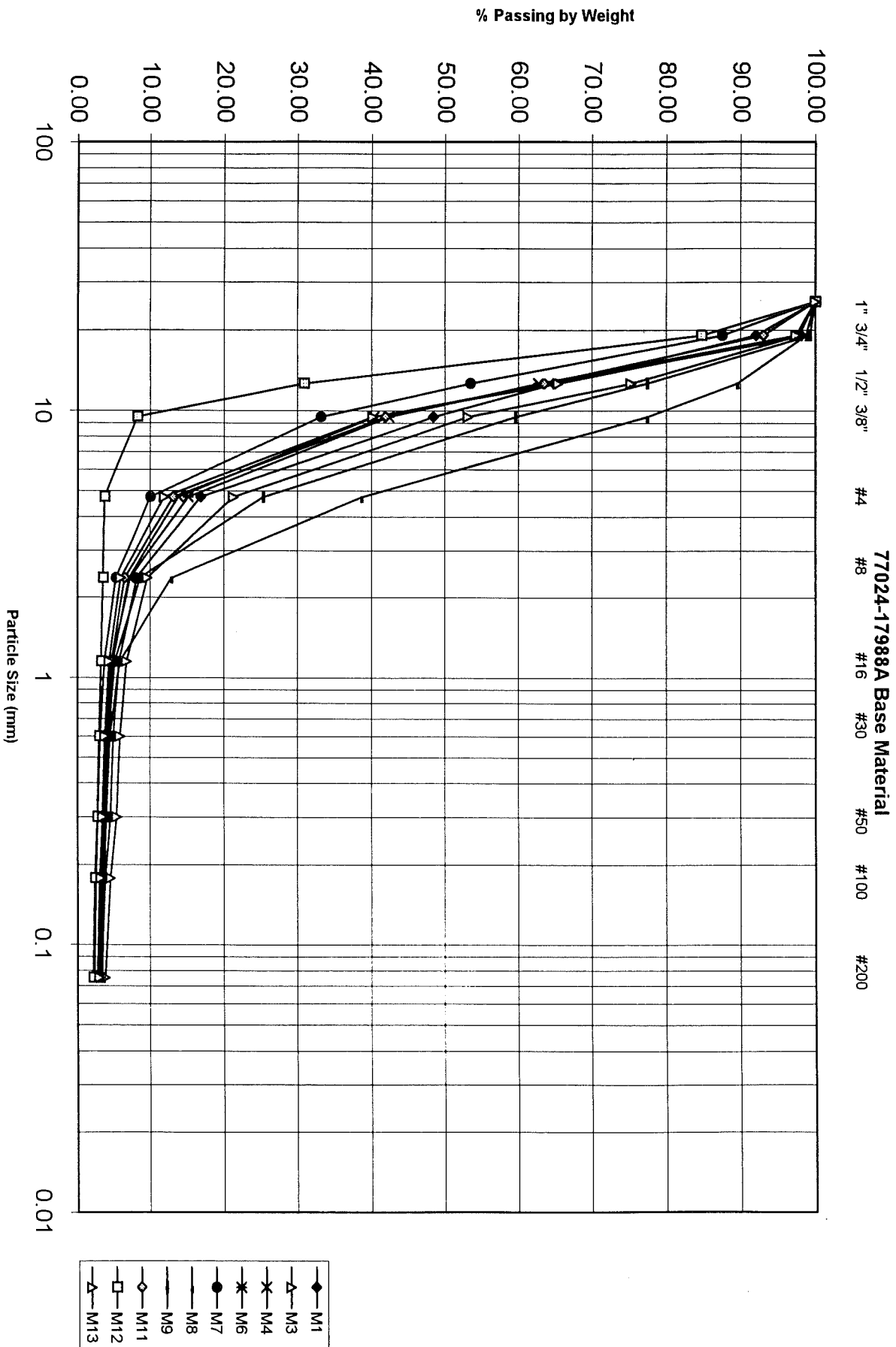


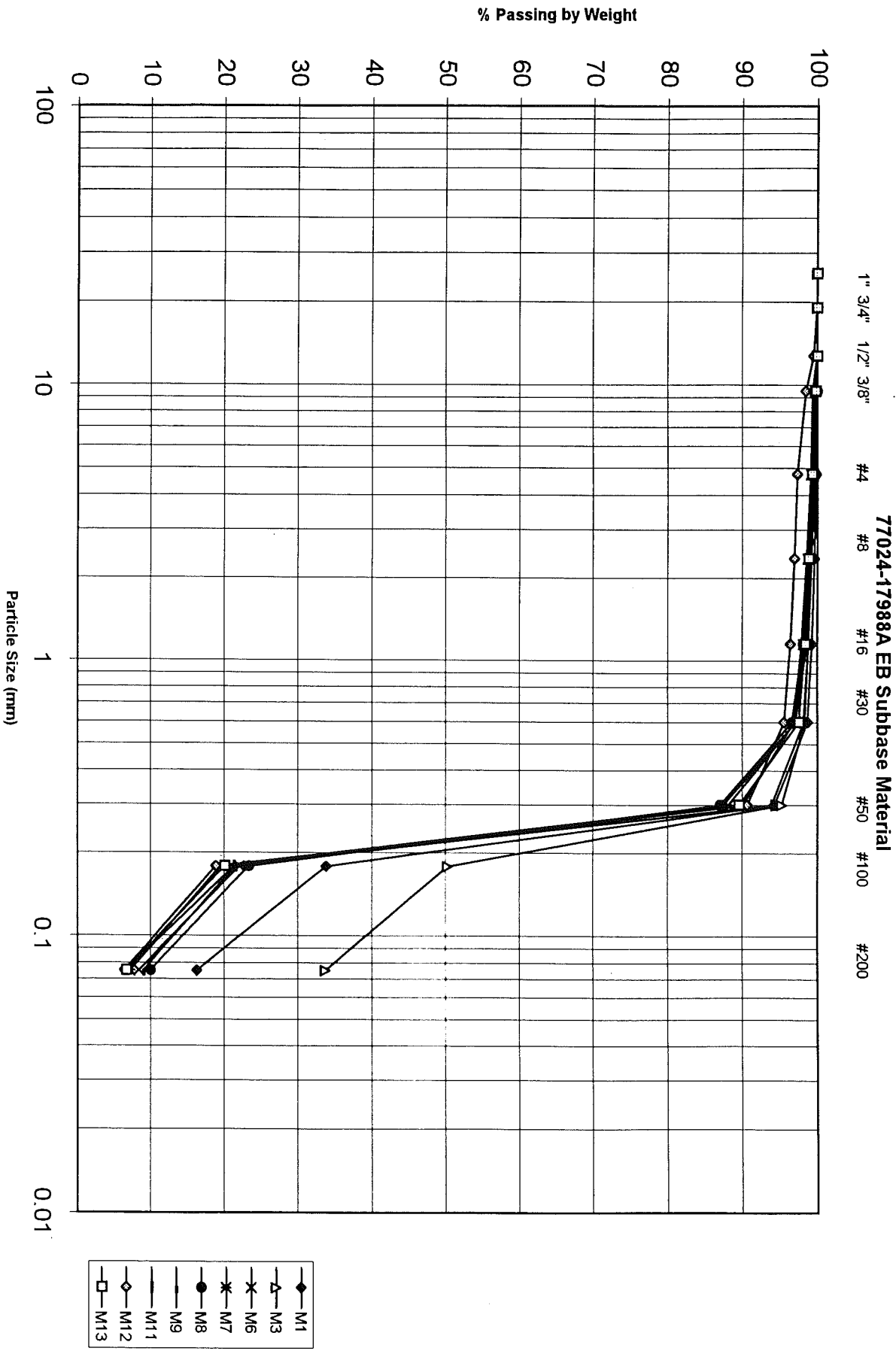
77024A-20821A EB Subbase Material



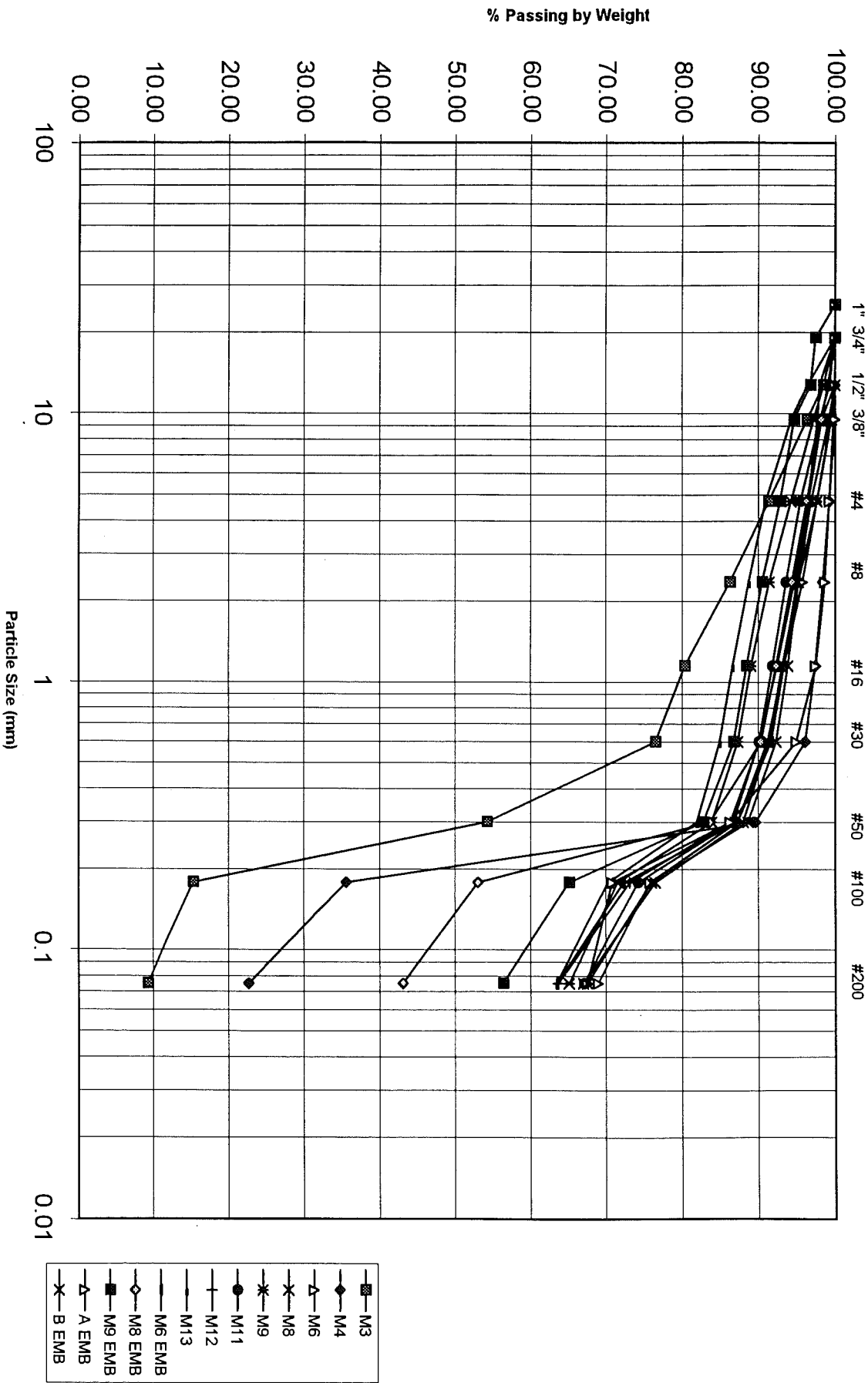
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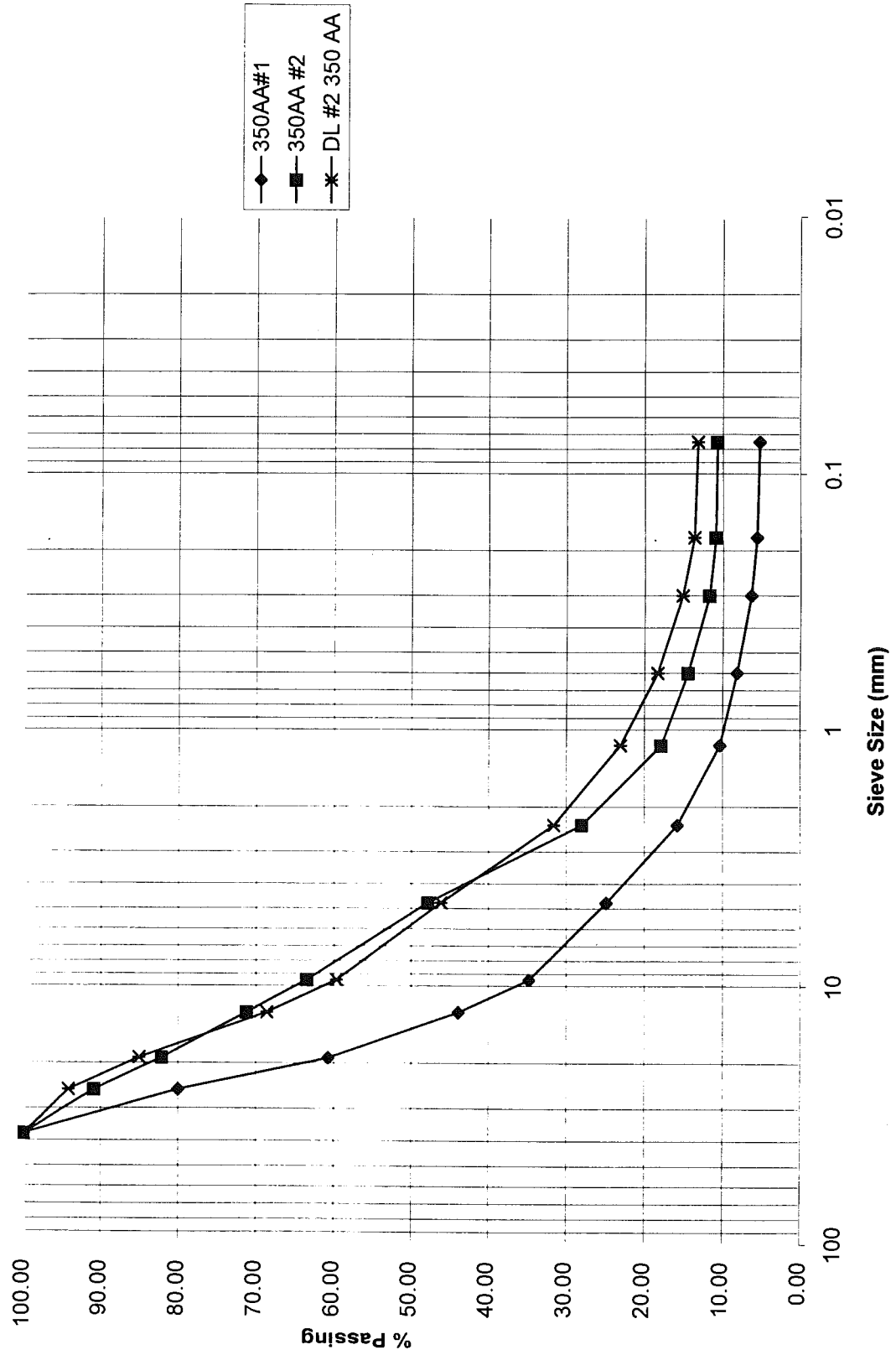




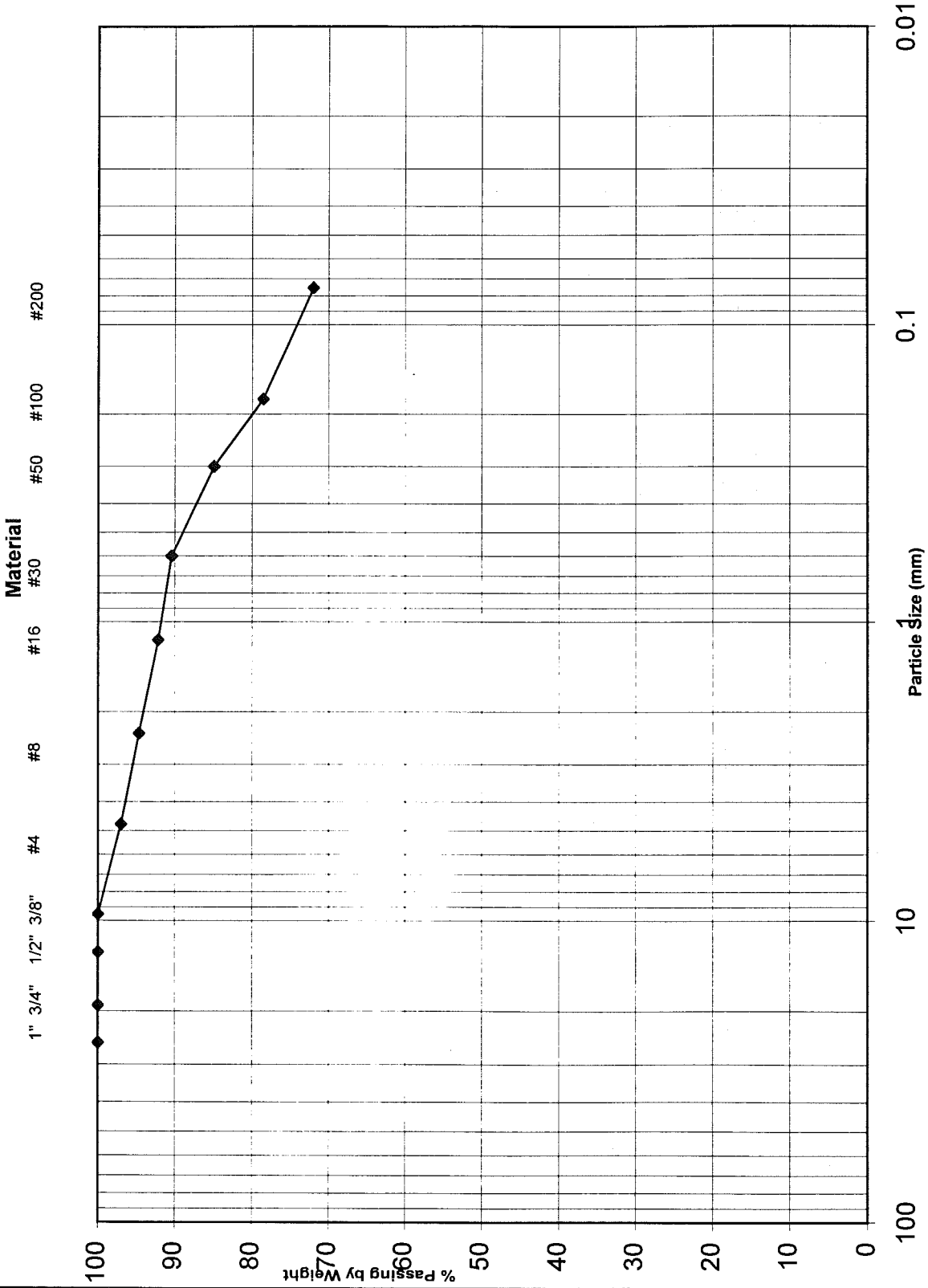
77024-17988A EB Subgrade Material



I-275 82291-37305A NB 350 AA Base Material
 1 1/2" 1" 3/4" 1/2" 3/8" #4 #8 #16 #30 #50 #100 #200



82291-37305 NB Subgrade



#1

Job	Sample #	Uniformity (D60/D10) Base	Uniformity (D60/D10) Subbase	% Passing #200 Subbase	Infiltration D15(base)/D85(Subbase) D15(Subbase) D50(base)/D50(Subbase) <=>5	Compatibility D50(Subbase)/D50 (subgrade) <=>25	Infiltration D85(Subbase)/D85(Subbase) D15(Subbase) D50(Subbase) <=>5	Compatibility D50(Subbase)/D50 (subgrade) <=>25	Drainage D15(base)/D15(Subbase) >=>5	Drainage D15(subbase)/D15(subgrade) >=>5
77023-21586A	M1	4.2		17.8	12.96	62.50		47.30		
	M4	3.3		13.6	12.50	37.89	0.28	41.18		
	M6	3.2		12.7	10.74	29.55	1.3	76.47	no D15 on subgrade	
	M8	3.3		16.6	11.11	37.22		40.54	no fine	
	M11	3.0		21.7	16.00	44.44				
	M13	5.6	3.7	8.3	6.36	30.77	0.46			
25132-06582A	M1	34.4	3.6	6.8	0.22	8.97		28.0		
	M3	28.9	3.6	6.9	0.15	4.74	0.45	1.06		
	M4	24.0	6.0	9.3	0.18	3.68	0.23	1.11		
	M5	33.3	5.3	9.6	0.24	3.79	0.12	1.29	no D15 on subgrade	
	M7	40.0	5.0	7.9	0.14	13.16	0.4	1.20	too fine	
	M2	2.4	7.3	8.8	6.67	27.66		1.3		
	M3	2.7	3.2	7.6	5.00	24.00		80.00		
11017-32516A Sec A	M4	1.7	2.4	4.8	12.94	33.33	No Subgrade Samples	54.55		
	M5	2.3	2.3	5.6	5.83	28.89				
	M6	2.3	2.1	3.8	1.36	32.50		94.59	No subgrade samples	
	J3	2.3	6.7	9.9	9.38	28.89		37.50		
	C3	1.6	2.4	6.2	12.50	35.56				

Job	Sample #	Uniformity (D60/D10) Base	Uniformity (D60/D10) Subbase	% Passing #200 Subbase	Infiltration D15(base)/D85(Subbase) <=5	Compatibility D50(base)/D50(Subbase) <=25	Infiltration D15(Subbase)/D85(Subgrade) <=5	Compatibility D50(Subbase)/D50 (subgrade) <=25	Drainage D15(Base)/D15(Subbase) >=5	Drainage D15(subbase)/D15(subgrade) >=5
11017-32516A Sec C	M1	1.8		12.6	22.2	50.0			100.00	
	M2	1.9		11.0	25.0	50.0			83.33	
	M3	2.3		10.7	13.6	50.0	No Subgrade Samples	No Subgrade Samples	68.18	No Subgrade Samples
	M4	1.9		11.8	22.2	52.0			no d15 on subbase	
	M5	4.5		16.5	12.5	50.0			67.57	
	M6	2.2	2.1	5.16	12.7	41.7			35.00	
11017-32516A Sec D	M1	1.5	5.0	7.93	11	33.3	0.17	1.5	55.00	to fine
	M3	1.6	4.0	4.47	8.3	28.0	0.55	1.4	33.33	1.30
	M5	1.75	3.1	6.14	9.2	31.1	2.0	2.0	44.00	to fine
	M7	1.6	4.0	7.3	11.1	35.6	0.42	1.5	40.00	to fine
	M9	1.5	2.8	7.86	12.2	33.3	0.29	2.3	55.00	to fine
	M11	1.5	2.8	8.37	12.2	32.6	0.42	2.0	44.00	to fine
44044-18804A	M13	1.5	2.3	4.86	13.3	34.1	0.50	4.5	40.00	to fine
	C2	12.5	6.7	5.54	0.45	37.5	0.01	0.13	33.33	0.60
	C5	42.1	4.7	7.09	0.04	16.1				to fine
	C7	44		10.66	0.12	28.6			3.00	1.35
	C10	6.0		10.05	1.20	40.0	0.08	1.4	60.00	to fine
	C12	46.7	5.6	8.69	0.60	31.4	0.03	1.4	8.00	to fine

Job	Sample #	Uniformity (D60/D10) Base	Uniformity (D60/D10) Subbase	% Passing #200 Subbase	Infiltration (D15/base)/D85(Subbase) <=5	Compatibility (D50/base)/D50(Subbase) <=25	Infiltration (D15/Subbase)/D85(Subgrade) <=5	Compatibility (D50/Subbase)/D50 (subgrade) <=25	Drainage D15(Base)/D15(Subbase) >=5	Drainage D15(subbase)/D15(subgrade) >=5
77024-20821A	M0	16.7	17.5	4.05	0.21	5.0	3.33		10.00	
	M1	21.7	27.3	4.35	0.17	4.0	4.00		8.33	
	M2	18.3	20.5	4.27	0.18	6.5	1.00		10.00	
	M3	13.3	15.9	4.32	0.80	5.0	1.39		20.00	no D15 on subgrade
	M4	16.7	28.0	8.81	1.00	10.0	1.05		45.24	
	M5	20.0	22.7	3.87	0.13	5.0	3.33		10.00	
	M6	1.8	22.7	4.32	0.53	5.0	1.67		40.00	
	M7	2.7	22.7	3.93	0.78	5.0	0.83		28.00	
	M9	2.8	19.4	4.64	0.55	5.0	0.80		25.00	
	M10	1.6	16.7	3.46	1.00	5.0	1.04		38.46	
77024-17988A	M1	4.3		14.25	14.3	50.0			54.05	1
	M3	4.2		30.76	13.0	50.0		0.64	to fine subbase	
	M6	4.3	3.1	7.19	17.1	47.8	0.5		27.50	
	M7	4.3	2.6	5.94	17.1	56.5			86.67	
	M8	3.9	3.3	8.17	9.6	25.7	0.40		20.83	no D15 on subgrade
	M9	3.8	2.6	7.24	9.3	34.8	0.43		16.67	
	M11	3.4	2.8	4.75	10.7	47.8	0.60		20.00	
	M12	1.6	2.8	5.17	39.3	88.9	0.60		73.33	
	M13	3.3	2.6	8.4	18.6	47.8	0.02		34.67	
	M1	4.7	4	7.26	0.26	15.8	0.03		13.89	
19042-24680A Sec B	M2	6	4.2	7.37	0.71	17.5	0.02		13.89	
	M3	5	3.2	6.67	30.00	23.2	0.45		83.33	
	M4	5.7	2.5	5.25	5.56	26.0	0.23		13.89	
	M5	16.7	4.2	6.14	4.21	25.0	1.07		16.00	
	M6	11.4	3.8	8	9.17	55.3	0.23		30.56	
	M7	15	2.5	5.28	7.50	52.5	0.24		25.00	
	M8	2.3	2.5	4.5	25.00	52.5	0.31		60.00	
	M9	3.3	10	14.7	15.00	48.6	0.15		160.00	
	M10	10	3.1	4.2	11.67	62.5	0.10		70.00	

Job	Sample #	Uniformity (D60/D10) Base	Uniformity (D60/D10) Subbase	% Passing #200 Subbase	Infiltration D15(base)/D85(Subbase) <=5	Compatibility D50(base)/D50(Subbase) <=25	Infiltration D15(Subbase)/D85(Subgrade) <=5	Compatibility D50(Subbase)/D50 (subgrade) <=25	Drainage D15(Base)/D15(Subbase) >=5	Drainage D15(subbase)/D15(subgrade) >=5
19042-02233A Sec C	M1	6.4	3.8	7	6.13	83.3	0.06	0.70	32.67	
	M5	12.8	3.9	6.81	1.33	33.3	0.19	0.80	10.67	
	M7	16.7	1.7	6.32	1.67	43.3	0.30	2.80	11.11	
	M11	8.8	4.0	6.13	0.67	34.7	0.30	1.04	11.11	
19043-02234A WB	M13	6.9	3.2	5.38	0.42	21.9	0.33	1.10	11.11	
	M1	25.0		8.21	0.67	8.8	8.8		no subbase	3.33
	M4	22.2		17.54	0.55	10.0				
	M6	23.0	3.9	6.79	0.55	9.0				2.00
19043-02234A EB	M9	27.8		14.48	0.55	8.3				1.50
	M10	20.6	2.5	6.41	0.45	6.3				1.25
	M13	38.9	2.6	6.61	0.50	12.5				1.36
	M1	25.0		10.84	0.06	6.3	0.33	2.11	2.00	
	M3	22.2		11.35	0.64	12.5	0.04	0.89	2.40	0.89
	M4	23.0		20.8	0.12	8.9		1.04		
	M6	33.3		18.89	0.12	14.8		0.78		
	M7	33.3	3.3	4.82	0.08	3.2	0.04	0.91	0.80	0.83
	M8	27.8	3.9	5.71	0.12	5.0	0.10	0.95	1.20	1.00
	M9	23.9	4.0	3.72	0.04	3.6	0.06	1.33	0.94	1.45
	M10	20.0	3.8	6.9	0.25	7.8	0.06	0.64	2.00	0.68
	M12	21.1	4.2	6.33	0.15	7.8			1.88	
	M13	27.2	4.1	7.86	0.25	8.9			2.31	

APPENDIX I

Dynamic Cone Penetrometer (DCP) Data

Appendix I. Dynamic Cone Penetrometer (DCP) Data

The Dynamic Cone Penetrometer (DCP) Test is used in pavement evaluation for determination of the California Bearing Ratio (CBR) and relative stiffnesses of the foundation layers. Even though several correlations were found in the literature, it appears that each correlation is accurate only for the kind of soil for which they were established. Many factors influence the interpretation of the test, producing some level of uncertainty when these relationships are used in other soil types and field conditions.

In this study, DCP values are related to CBR using the correlation recommended by the U.S. Army Corps of Engineers. For the reasons described above, this correlation should be viewed only as provisional. The correlation is:

$$\text{CBR} = 292 \text{ DCP}^{1.2}$$

In this study, the DCP blowcount was used directly as a qualitative representation of the stiffnesses of the base and subbase layers of the foundation. The number of millimeters of travel of the DCP shaft per blow on the DCP anvil by a 10.1 lb. weight dropped from a height of 22.6 in were recorded.

Because the base layer was 4 inches thick in each test section, base mm/blow values were taken as an average of the values from 0 to 75 mm below the bottom of the concrete. The subbase typically extended an additional 8-12 inches below the base, so values at 150 to 250 mm below the concrete were averaged to give the subbase results. Using these ranges ensured that interfaces between layers were not encountered during averaging.

At each test section, DCP tests were performed on a minimum of 5 midpanel core locations. This appendix contains the raw data from each test location, as well as figures showing base and subbase DCP values vs. distance along the test section.

DCP DATA

Control Section: 11017-32516A Section A
 Direction: Eastbound
 Date Tested: 4/23/97

Core # M2
 Station # 1790+49

DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
10	100	100	10	22.2
10	50	150	5	48.1
10	40	190	4	61.8
10	35	225	4	71.8
10	35	260	4	71.8
10	30	290	3	85.3
10	30	320	3	85.3
20	65	385	3	78.0
20	65	450	3	78.0
20	70	520	4	71.8
10	40	560	4	61.8

Comments: Refusal at 482 mm depth
 Core 225 mm

Core # M3
 Station # 1790+80

DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	70	70	23	8.6
10	80	150	8	28.4
10	50	200	5	48.1
10	30	230	3	85.3
20	65	295	3	78.0
20	65	360	3	78.0
20	60	420	3	85.3
10	30	450	3	85.3

Comments: Core 229 mm

Core # J3
 Station # 1792+36

DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	60	60	20	10.2
3	40	100	13	16.0
3	20	120	7	34.9
10	70	180	7	33.0
10	40	230	4	61.8
10	40	270	4	61.8
10	35	305	4	71.8
10	35	340	4	71.8
10	35	375	4	71.8
10	40	415	4	61.8

Comments: Base 102 mm, 686 mm to subgrade
 Core 254 mm

Core # C3
 Station # 1793+08

DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
5	85	85	17	12.2
10	100	185	10	22.2
20	120	305	6	39.3
20	100	405	5	48.1
20	120	525	6	39.3
10	60	585	6	39.3

Comments: Core 248 mm

Core # M4
 Station # 1793+52

DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	60	60	20	10.2
3	40	100	13	16.0
3	35	135	12	18.6
3	20	155	7	34.9
10	65	220	7	35.9
10	60	270	5	48.1
10	50	320	5	48.1
10	50	370	5	48.1
10	50	420	5	48.1
10	70	490	7	33.0

Comments: Base 95.25 mm
 Subbase starts @ 1016 mm
 Core 229 mm

Core # M5
 Station # 1794+53

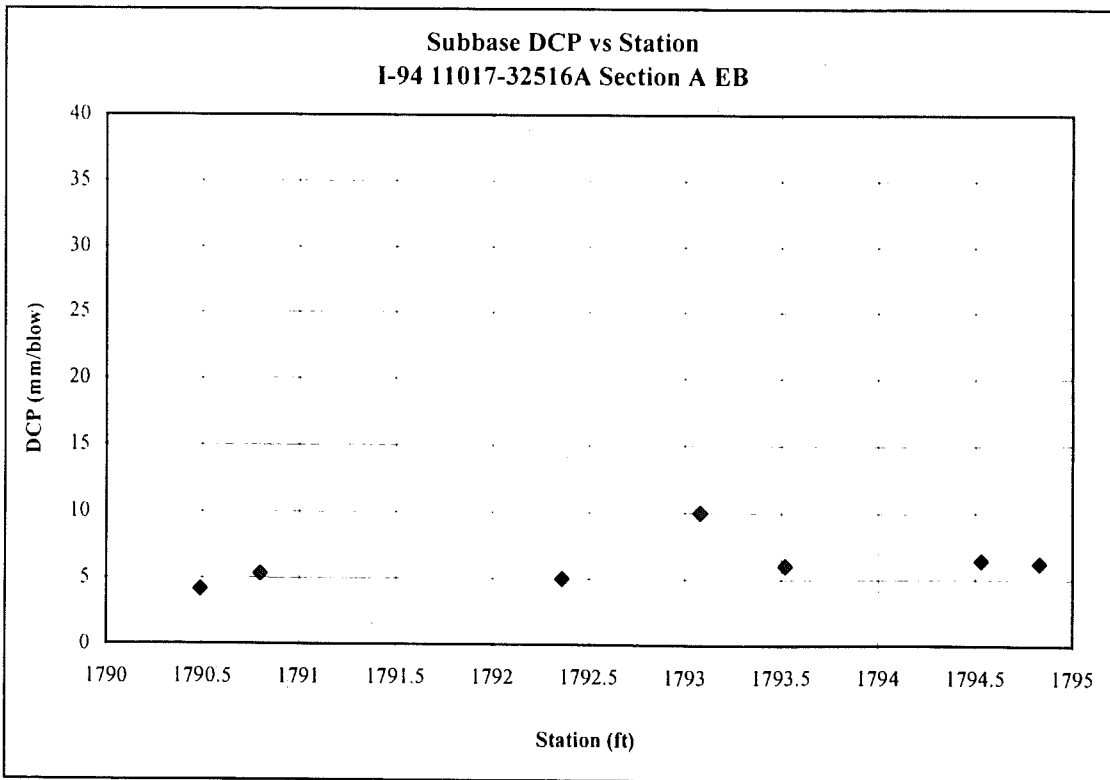
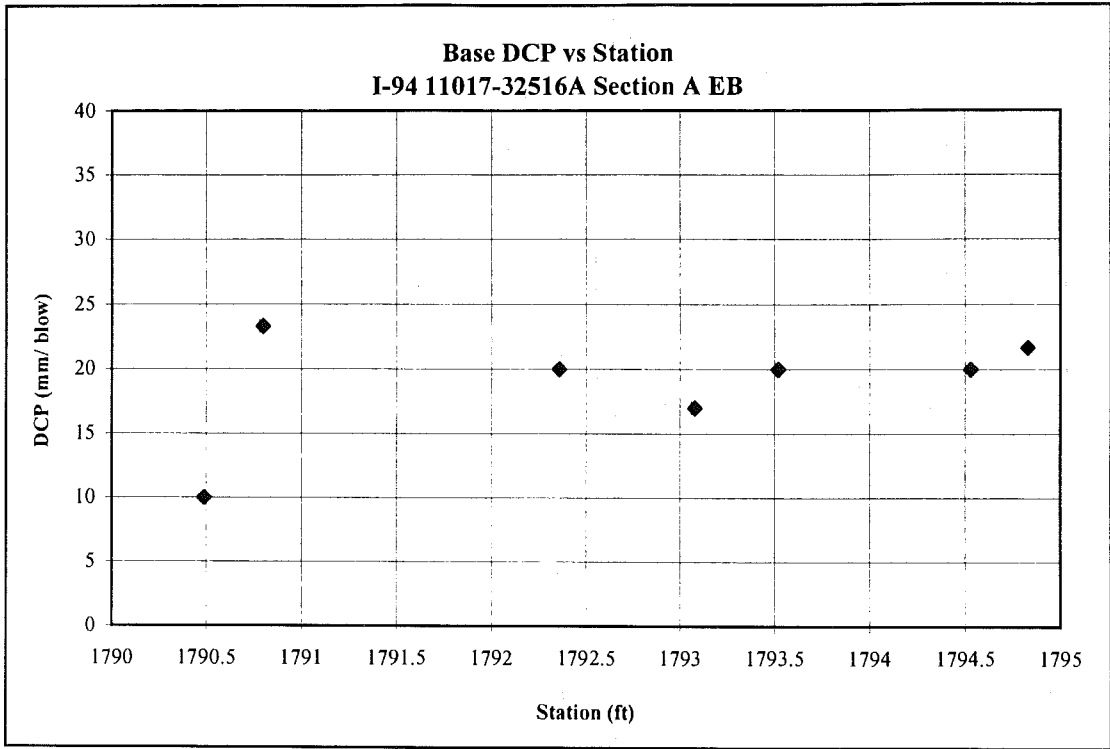
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	60	60	20	10.2
3	50	110	17	12.5
3	25	135	8	27.2
3	160	160	8	27.2
10	65	215	6	43.3
10	55	270	6	43.3
10	50	320	5	48.1
10	45	365	5	54.2
10	45	410	5	54.2
10	45	455	5	54.2

Comments: Refusal at 787mm depth
 Base 102 mm
 Subgrade starts @ 737 mm
 Core 241 mm

Core # M6
 Station # 1794+83

DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	65	65	22	9.3
3	35	100	12	18.6
3	35	135	12	18.6
3	20	155	7	34.9
10	70	225	7	33.0
10	50	275	5	48.1
10	50	325	5	48.1
10	35	360	4	71.8
10	45	405	5	54.2

Comments: Base 102 mm
 Subgrade starts @ 610 mm
 Core 229 mm



DCP DATA

Control Section: 11017-32516A Section C
 Direction: Eastbound
 Date Tested: 4/30/97

Core # M1
 Station # 1682+90

DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	68	68	23	8.9
3	37	105	12	17.5
3	25	130	8	27.2
10	50	180	5	48.1
20	80	260	4	61.8
20	65	325	3	78.0
20	65	390	3	78.0

Comments:

Core # M2
 Station # 1683+48

DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	60	60	20	10.2
3	30	90	10	22.2
3	30	120	10	22.2
3	20	140	7	34.9
10	50	190	5	48.1
20	40	230	4	61.8
20	70	300	4	71.8
20	60	360	3	85.3

Comments:

Core # M4
 Station # 1685+41

DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	50	50	17	12.5
3	30	80	10	22.2
3	25	105	8	27.2
10	50	155	5	48.1
20	75	230	4	66.4
20	65	295	3	78.0
10	30	325	3	85.3

Comments:

Core # M6
 Station # 1689+10

DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	60	60	20	10.2
3	40	100	13	16.0
3	25	125	8	27.2
10	58	183	6	40.8
10	47	230	5	51.6
20	80	310	4	61.8

Comments:

Core # M3
 Station # 1684+35

DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	50	50	17	12.5
3	35	85	12	18.6
3	35	120	12	18.6
3	5	125	2	164.8
10	55	180	6	43.3
20	85	265	4	57.8
20	80	345	4	61.8
20	65	410	3	78.0
10	30	440	3	85.3

Comments:

Core # J1
 Station # 1687+42

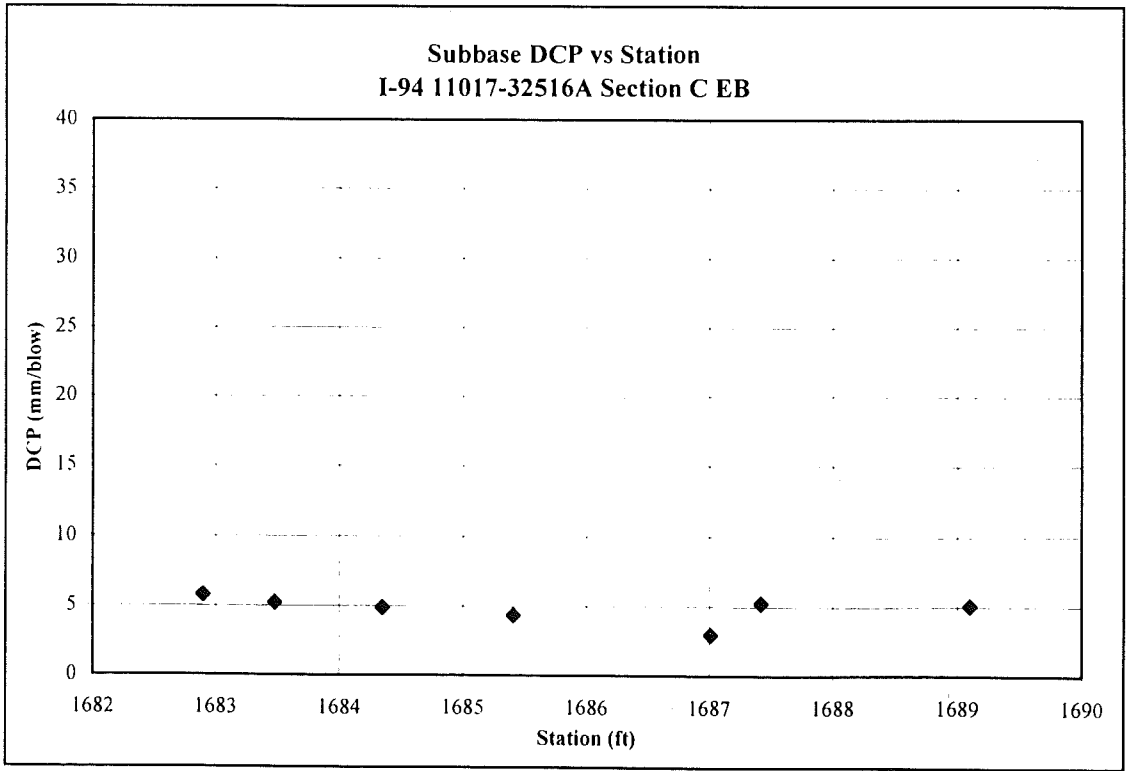
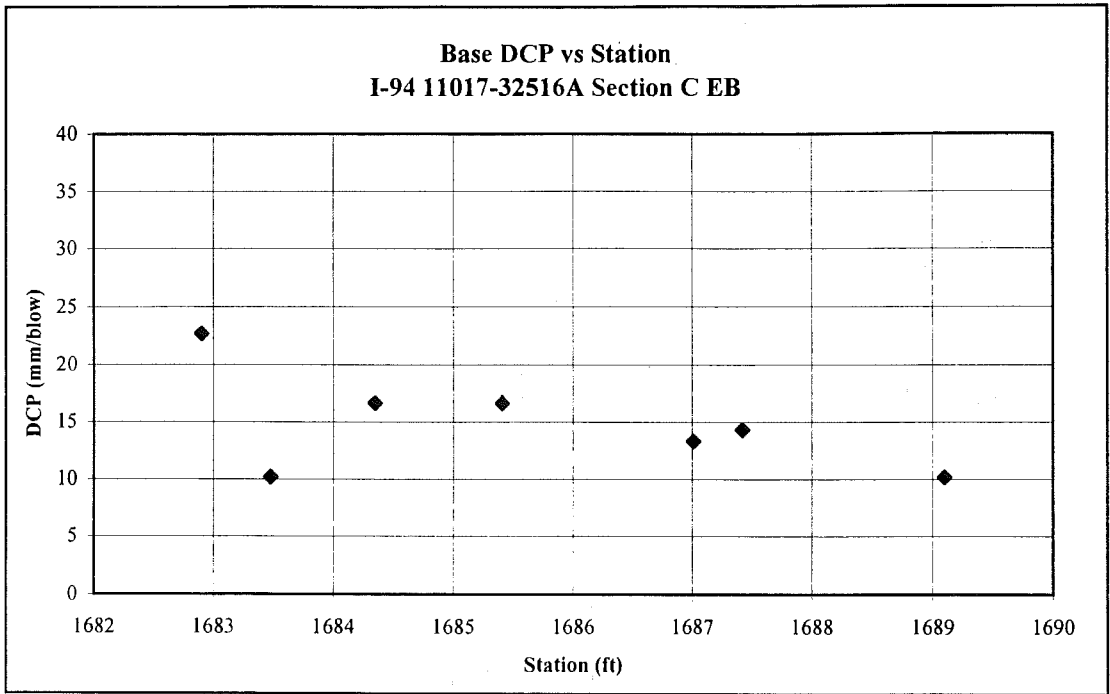
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	43	43	14	14.8
3	18	61	6	39.3
3	17	78	6	41.8
3	31	109	10	21.4
10	64	173	6	36.5
20	75	248	4	66.4
20	65	313	3	78.0

Comments:

Core # M5
 Station # 1687+01

DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	40	40	13	16.0
3	28	68	9	23.9
3	22	90	7	31.4
10	41	131	4	60.1
20	54	185	3	96.0
20	43	228	2	123.9

Comments:



DCP DATA

Control Section: 11017-32516A Section D
 Direction: Westbound
 Date Tested: 5/29/97

Core # M1
 Station # 1783+39

DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	75	75	25	7.9
5	55	130	11	19.9
3	20	150	7	34.9
3	15	165	5	48.1
10	45	210	5	54.2
3	30	240	3	85.3
10	25	265	3	100.0
10	30	295	3	85.3
10	20	315	2	100.0
10	30	345	3	85.3

Comments: Core 311 mm

Core # M3
 Station # 1784+98

DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	55	55	18	11.2
3	55	110	18	11.2
3	30	140	10	22.2
3	25	165	6	27.2
3	20	185	7	34.9
3	15	200	5	48.1
10	50	250	5	48.1
10	45	295	5	54.2
10	45	340	5	54.2
10	40	380	4	61.8

Comments: 1016 mm dry sand, 1524 mm no subgrade
 Core 311 mm

Core # M7
 Station # 1788+11

DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	60	60	20	10.2
3	40	100	13	16.0
3	30	130	10	22.2
3	10	140	3	75.8
10	50	190	5	48.1
10	35	225	4	71.8
10	35	260	4	71.8
10	30	290	3	85.3
10	30	320	3	85.3

Comments: Subgrade 889 mm below surface
 Refusal at 1041 mm
 Core 318 mm

Core # M13
 Station # 1792+87

DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	72	72	24	8.3
3	38	110	13	17.0
3	35	145	12	18.6
3	20	165	7	34.9
3	15	180	5	48.1
3	20	200	7	34.9
10	15	215	2	100.0
10	30	245	3	85.3
10	30	275	3	85.3
10	30	305	3	85.3
10	25	330	3	100.0

Comments: Subgrade 1448 mm below surface
 Core 330 mm

Core # M5
 Station # 1786+53

DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	70	70	23	8.6
3	50	120	17	12.5
3	25	145	8	27.2
3	25	170	8	27.2
3	20	190	7	34.9
3	20	210	7	34.9
10	50	280	5	48.1
10	45	305	5	54.2
10	50	355	5	48.1
10	50	405	5	48.1

Comments: Subgrade 762 mm below surface
 Core 311 mm

Core # M11
 Station # 1791+27

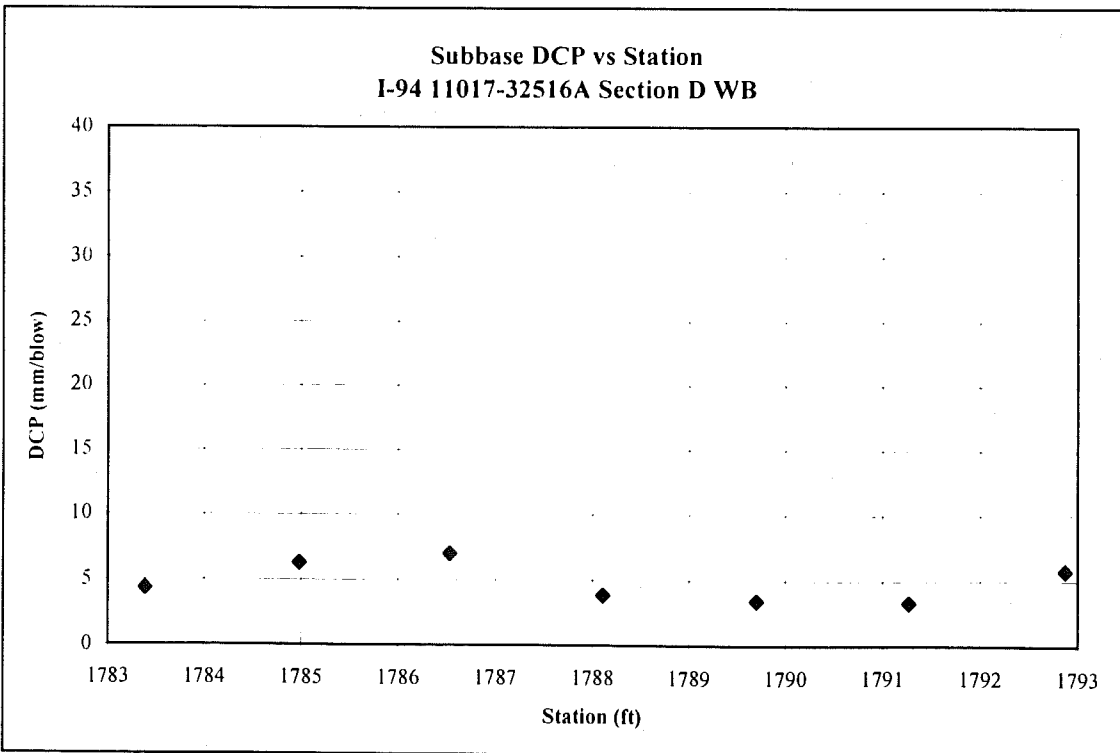
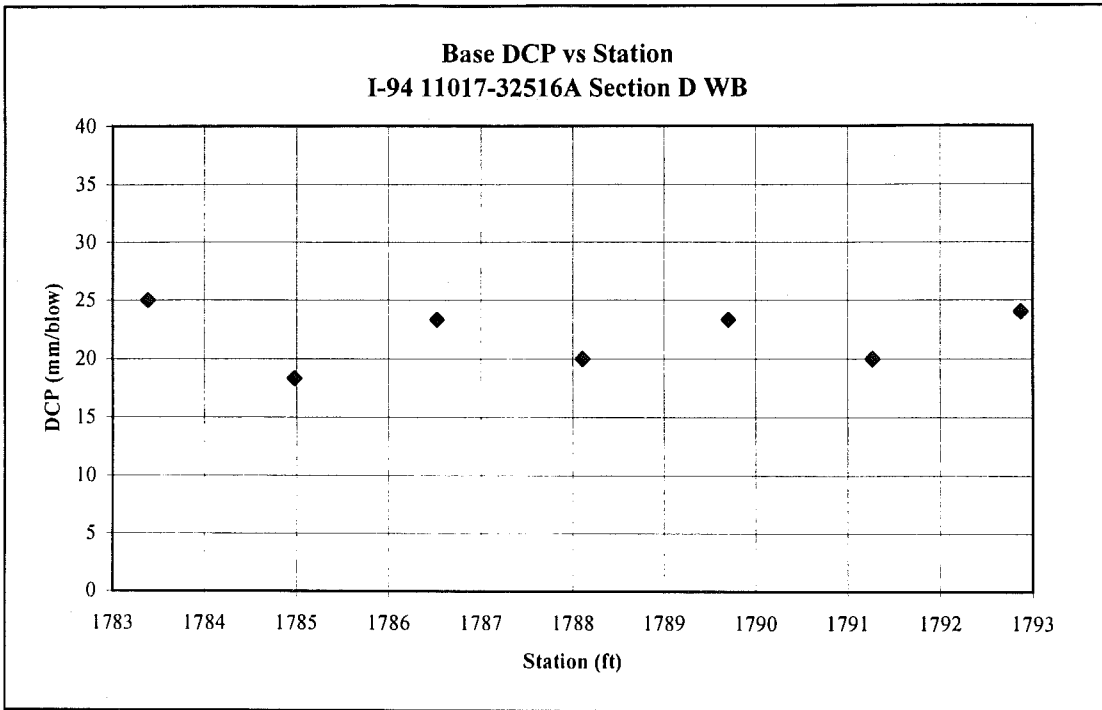
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	60	60	20	10.2
3	20	80	7	34.9
3	22	102	7	31.4
3	16	118	5	44.8
3	13	131	4	56.5
3	14	145	5	52.0
10	32	177	3	79.4
10	27	237	3	96.0
10	28	265	3	92.2
10	30	295	3	85.3

Comments: Subgrade 737 mm below surface
 Refusal at 762 mm
 Core 318 mm

Core # M9
 Station # 1789+70

DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	65	65	22	9.3
3	30	95	10	22.2
3	25	120	8	27.2
3	15	135	5	48.1
3	10	145	3	75.8
10	40	185	4	61.8
10	40	225	4	61.8
10	25	250	3	100.0
10	25	275	3	100.0
10	30	305	3	85.3
10	20	325	2	100.0

Comments: Subgrade 1092 mm
 Core 305 mm



DCP DATA

Control Section: 77023-21586A
 Direction: Eastbound
 Date Tested: 7/2/96

Core # M1 Station # 1820+74				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	50	75	17	12.5
3	25	75	8	27.2
3	35	110	12	18.6
3	20	130	7	34.9
3	30	160	10	22.2
3	20	180	7	34.9
10	70	250	7	33.0
10	75	325	8	30.6
10	50	375	5	48.1
Comments: Base 102 mm, 787 mm to subgrade Core 248 mm				

Core # M4 Station # 1822+93				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	65	65	22	9.3
3	30	95	10	22.2
3	30	130	12	18.6
3	25	155	8	27.2
3	25	180	7	35.9
10	65	310	7	35.9
10	75	385	8	30.6
Comments: Base 102 mm, 864 mm to subgrade Core 254 mm				

Core # M6 Station # 1824+29				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	55	55	18	11.2
3	25	80	8	27.2
3	35	115	12	18.6
3	25	140	8	27.2
3	25	165	8	27.2
10	85	250	9	26.6
10	75	325	8	30.6
10	65	390	7	35.9
Comments: Base 95 mm Subbase starts @ 737 mm Core 229 mm				

Core # M8 Station # 1827+70				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	65	65	22	9.3
3	110	110	37	5.2
3	140	140	47	3.9
3	170	170	57	3.2
3	205	205	68	2.6
10	305	305	31	6.4
10	365	365	37	5.2
10	415	415	42	4.5
Comments: Refusal at 787 mm Base 102 mm Subgrade starts @ 597 mm Core 1254 mm				

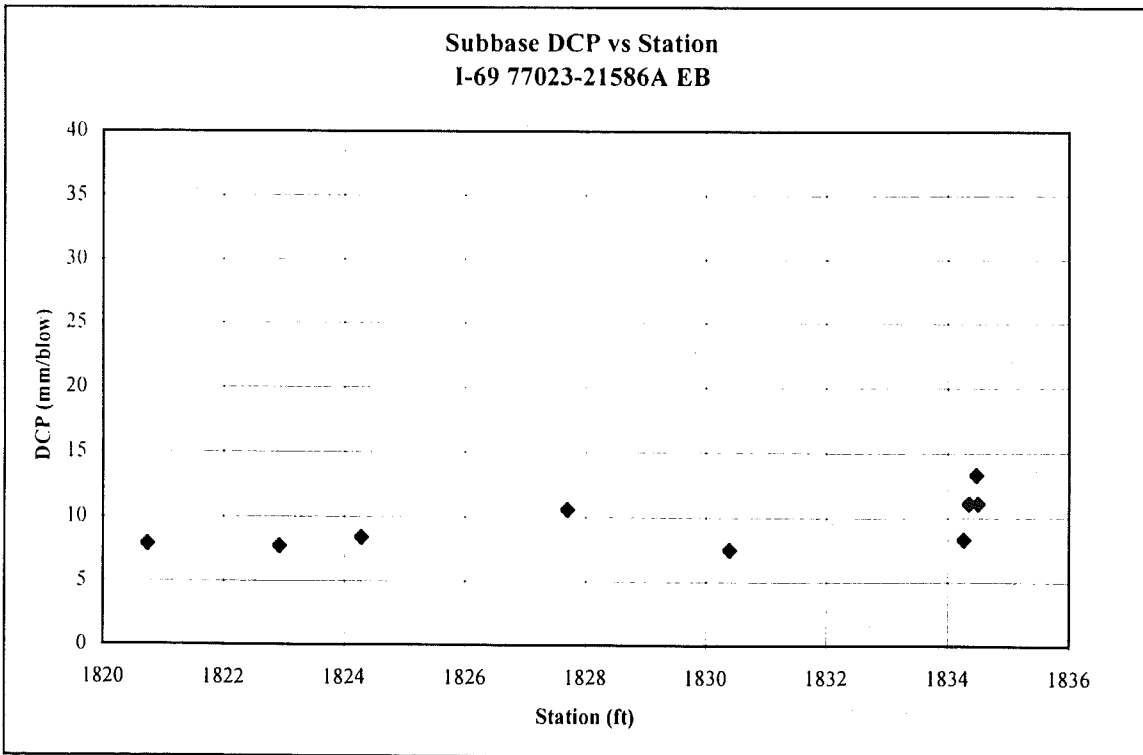
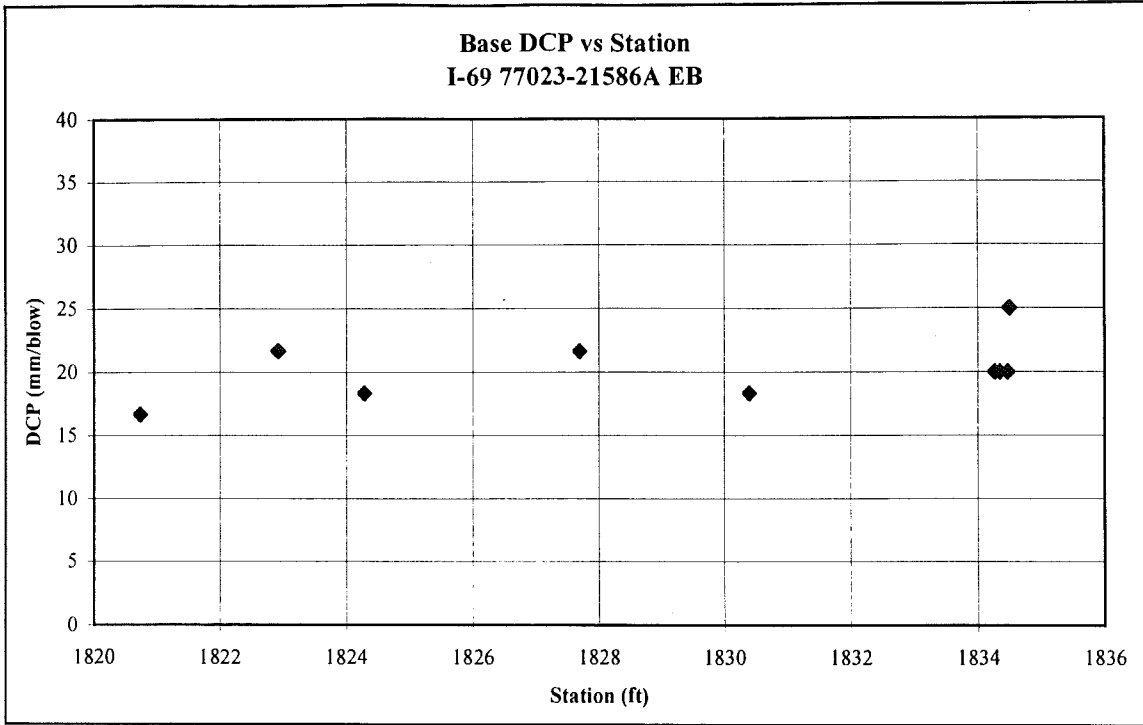
Core # M11 Station # 1830+40				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	55	55	18	11.2
3	35	90	12	18.6
3	25	115	8	27.2
3	25	140	8	27.2
3	20	160	7	34.9
10	75	235	8	30.6
10	60	295	6	39.3
10	65	360	7	35.9
10	20	380	2	134.3
10	25	405	3	104.6
Comments: Base 89 mm Subgrade starts @ 622 mm Core 254 mm				

Core # M12 Station # 1834+27				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	60	60	20	10.2
3	40	100	13	16.0
3	25	130	10	22.2
3	25	155	8	27.2
3	25	180	8	27.2
3	25	205	8	27.2
10	80	285	8	28.4
10	60	345	6	39.3
10	30	375	3	85.3
Comments: No donut				

Core # M13 Station # 1834+47				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	60	60	20	10.2
3	40	100	13	16.0
3	45	145	15	14.1
3	35	185	12	18.6
10	110	290	11	19.9
10	60	350	6	39.3
10	40	390	4	61.8
Comments: Base 95 mm Subgrade starts @ 559 mm Core 254 mm				

Core # M14 Station # 1834+56				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	75	75	25	7.9
3	45	120	15	14.1
3	35	155	12	18.6
3	30	185	10	22.2
3	35	220	12	18.6
10	110	330	11	19.9
10	55	385	6	43.3
Comments: No donut				

Core # C2 Station # 1834+35				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	60	60	20	10.2
3	40	100	13	16.0
3	35	135	12	18.6
3	35	170	12	18.6
3	30	200	10	22.2
3	35	235	12	18.6
10	95	330	10	23.5
10	75	405	8	30.6
Comments: No donut				



DCP DATA*

Control Section: 19042-24680A SECTION B
 Direction: Eastbound
 Date Tested: 8/14/96

Core #1M					
Station # 275+77					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
29	76	76	2.6	99.3	
58	76	152	1.3	100.0	
80	76	228	1.0	100.0	
100	38	266	0.4	100.0	
Comments: Refusal at 266 mm depth					

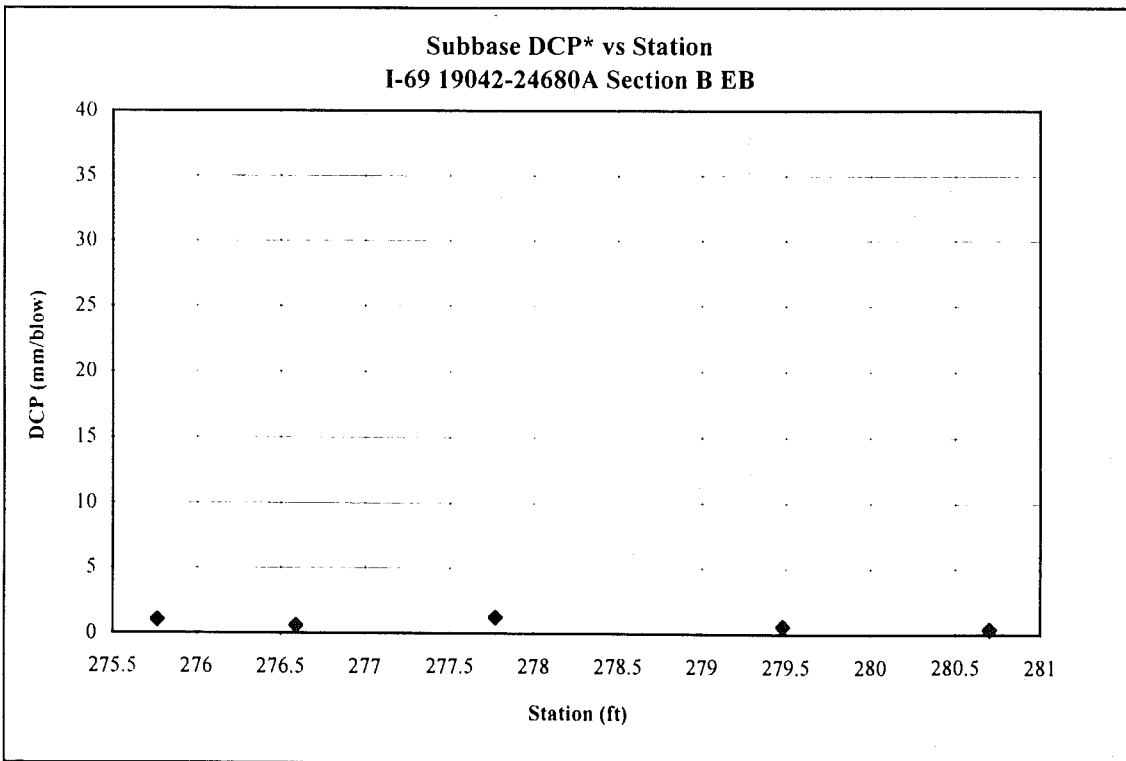
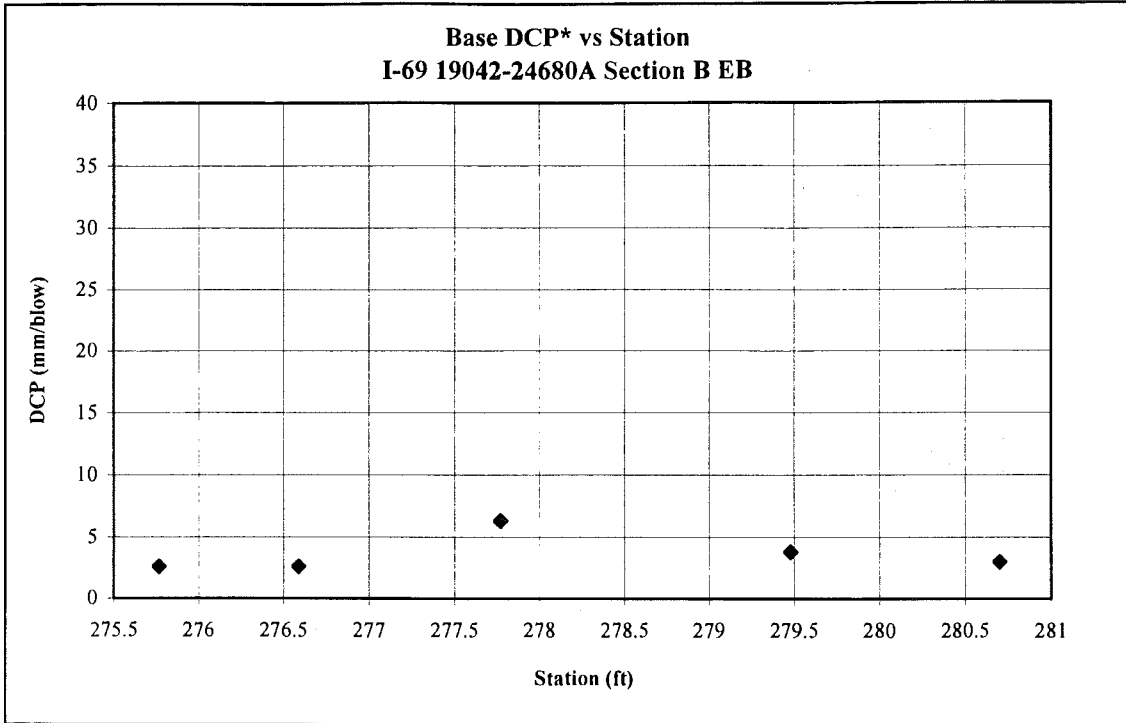
Core # 2M					
Station # 276+59					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
29	76	76	2.6	99.3	
70	76	152	1.1	100.0	
125	76	228	0.6	100.0	
100	19	247	0.2	100.0	
Comments: Refusal at 247 mm depth					

Core # 4M					
Station # 277+77					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
12	76	76	6.3	36.9	
27	76	152	2.8	91.6	
65	76	228	1.2	100.0	
100	51	279	0.5	100.0	
Comments: Refusal at 279 mm depth					

Core # 7M					
Station # 279+48					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
20	76	76	3.8	65.5	
59	76	152	1.3	100.0	
130	76	228	0.6	100.0	
100	51	279	0.5	100.0	
Comments: Refusal at 279 mm depth					

Core # 10M					
Station # 280+70					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
25	76	76	3.0	84.1	
65	76	152	1.2	100.0	
100	38	190	0.4	100.0	
Comments: Refusal at 190 mm depth					

*Large diameter DCP used in this section



*Larger diameter DCP used in this section

DCP DATA

Control Section: 19042-02233A SECTION C
 Direction: Eastbound
 Date Tested: 8/7/96

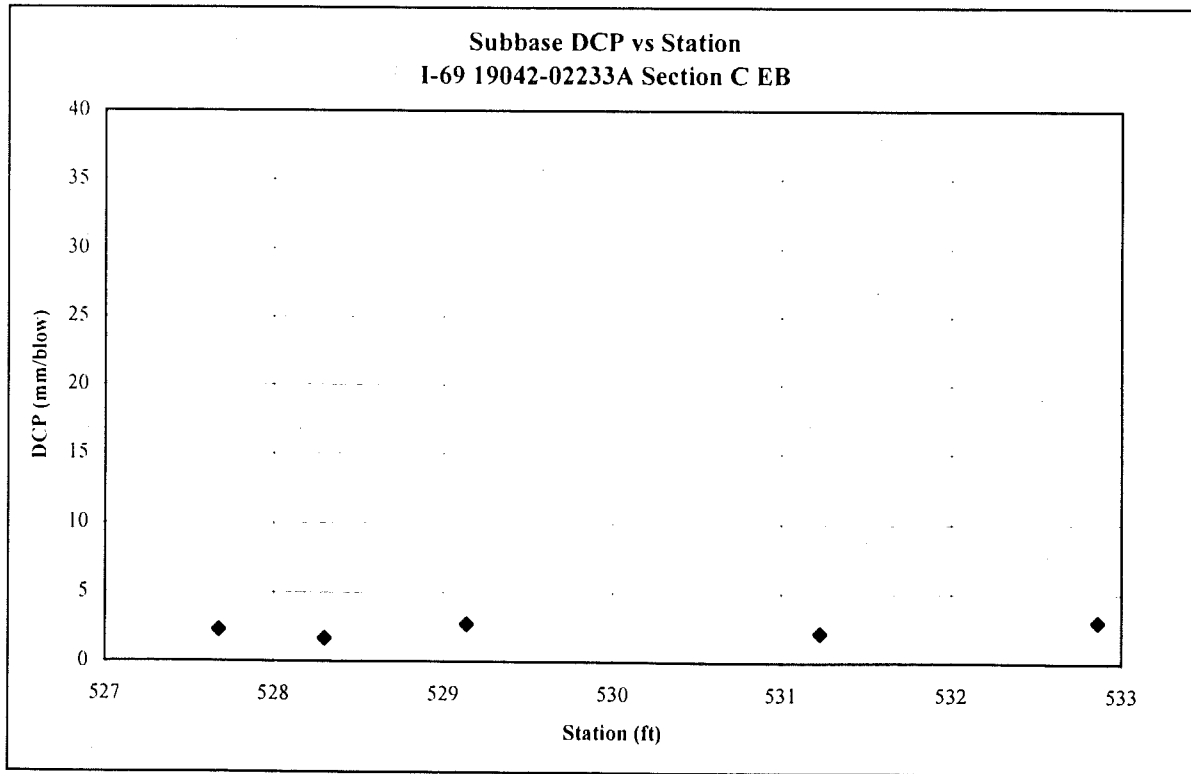
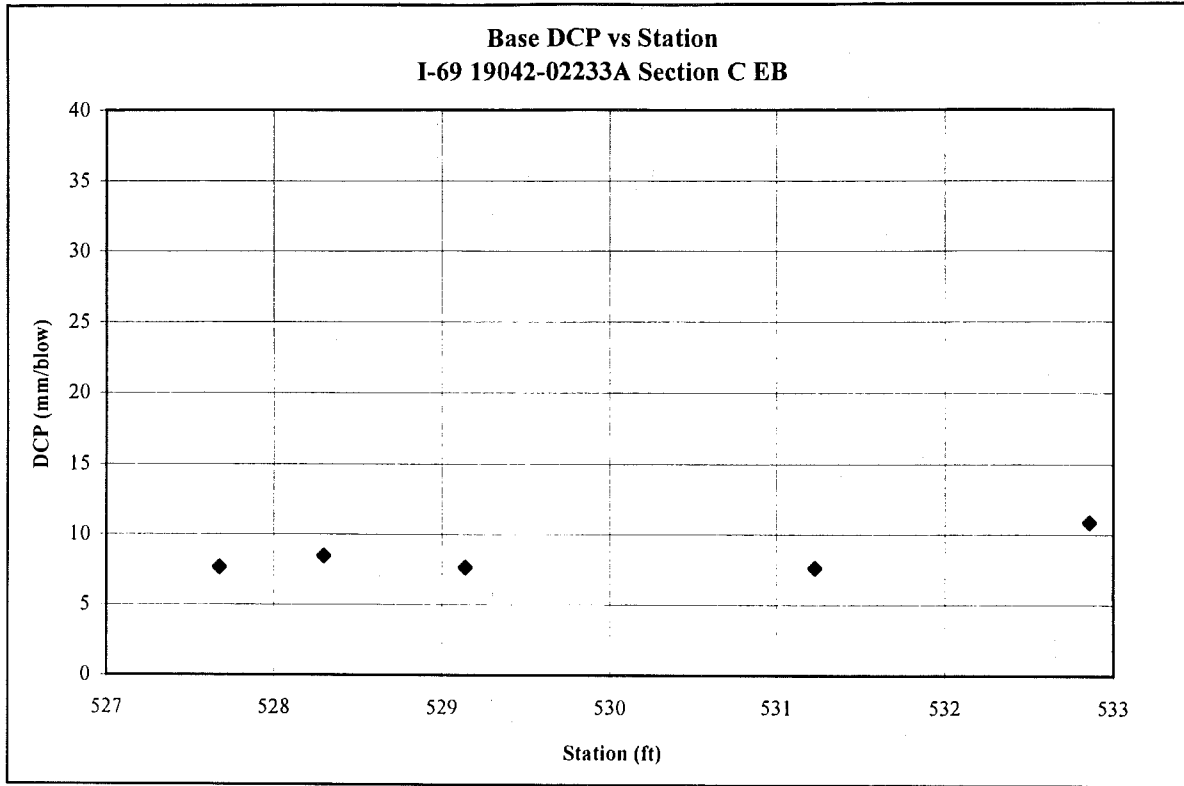
Core # 1M Station # 527+68					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
10	76	76	7.6	30.1	
17	76	152	4.5	54.6	
33	76	228	2.3	100.0	
60	76	304	1.3	100.0	
65	76	380	1.2	100.0	
77	76	456	1.0	100.0	
60	76	532	1.3	100.0	
59	76	608	1.3	100.0	
Comments:					

Core # 5M Station # 528+30					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
9	76	76	8.4	26.8	
20	76	152	3.8	65.5	
45	76	228	1.7	100.0	
65	76	304	1.2	100.0	
55	76	380	1.4	100.0	
65	76	456	1.2	100.0	
65	76	532	1.2	100.0	
65	76	608	1.2	100.0	
Comments:					

Core # 7M Station # 529+14					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
10	76	76	7.6	30.1	
20	76	152	3.8	65.5	
28	76	228	2.7	95.4	
23	76	304	3.3	76.6	
27	76	380	2.8	91.6	
35	76	456	2.2	100.0	
41	76	532	1.9	100.0	
26	76	608	2.9	87.8	
Comments:					

Core # 11M Station # 531+23					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
10	76	76	7.6	30.1	
15	76	152	5.1	47.4	
35	76	228	2.2	100.0	
33	76	304	2.3	100.0	
57	76	380	1.3	100.0	
46	76	456	1.7	100.0	
50	76	532	1.5	100.0	
60	76	608	1.3	100.0	
Comments:					

Core # 13M Station # 532+86					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
7	76	76	10.9	20.2	
14	76	152	5.4	43.9	
25	76	228	3.0	84.1	
28	76	304	2.7	95.4	
34	76	380	2.2	100.0	
40	76	456	1.9	100.0	
70	76	532	1.1	100.0	
50	76	608	1.5	100.0	
Comments:					



DCP DATA

Control Section: 77024-20821A SECTION A
 Direction: East Bound
 Date Tested: 10/17/96

Core # M0 Station # 83+65				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	76	76	25.3	7.8
6	76	152	12.7	17.0
6	76	228	12.7	17.0
4	76	304	19.0	10.8
2	76	380	38.0	5.0
3	76	456	25.3	7.8
2	76	532	38.0	5.0
3	76	608	25.3	7.8
3	76	684	25.3	7.8

Comments:

Core # M1 Station # 83+80				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	76	76	25.3	7.8
6	76	152	12.7	17.0
8	76	228	9.5	23.5
5	76	304	15.2	13.9
2	76	380	38.0	5.0
2	76	456	38.0	5.0
2	76	532	38.0	5.0
2	76	608	38.0	5.0
1	76	684	76.0	2.3

Comments:

Core # M2 Station # 85+30				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
4	76	76	19.0	10.8
8	76	152	9.5	23.5
5	76	228	15.2	13.9
5	76	304	15.2	13.9
2	76	380	38.0	5.0
3	76	456	25.3	7.8
3	76	532	25.3	7.8
4	76	608	19.0	10.8

Comments:

Core # M3 Station # 85+45				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
4	76	76	19.0	10.8
8	76	152	9.5	23.5
8	76	228	9.5	23.5
5	76	304	15.2	13.9
2	76	380	38.0	5.0
2	76	456	38.0	5.0
3	76	532	25.3	7.8
3	76	608	25.3	7.8
4	76	684	19.0	10.8

Comments:

Core # M4 Station # 87+04				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	76	76	25.3	7.8
4	76	152	19.0	10.8
3	76	228	25.3	7.8
3	76	304	25.3	7.8
2	76	380	38.0	5.0
3	76	456	25.3	7.8
2	76	532	38.0	5.0
3	76	608	25.3	7.8
4	76	684	19.0	10.8

Comments:

Core # M5 Station # 87+25				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	76	76	25.3	7.8
5	76	152	15.2	13.9
2	76	228	38.0	5.0
2	76	304	38.0	5.0
3	76	380	25.3	7.8
3	76	456	25.3	7.8
3	76	532	25.3	7.8
4	76	608	19.0	10.8
5	76	684	15.2	13.9

Comments:

Core # M6 Station # 88+55				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	76	76	25.3	7.8
5	76	152	15.2	13.9
5	76	228	15.2	13.9
2	76	304	38.0	5.0
2	76	380	38.0	5.0
3	76	456	25.3	7.8
5	76	532	15.2	13.9
4	76	608	19.0	10.8

Comments:

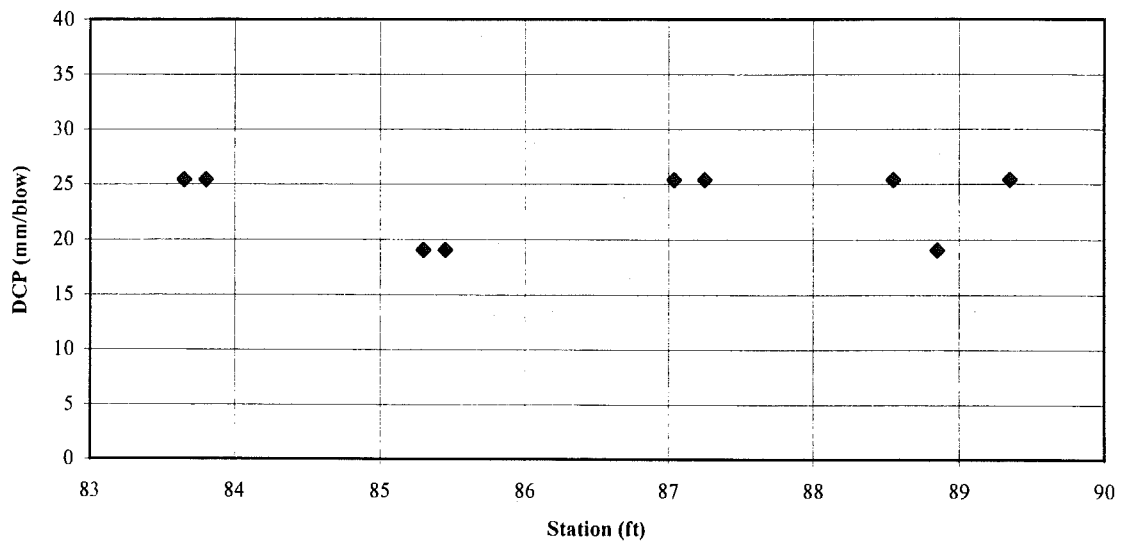
Core # M7 Station # 88+65				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
4	76	76	19.0	10.8
7	76	152	10.9	20.2
7	76	228	10.9	20.2
3	76	304	25.3	7.8
2	76	380	38.0	5.0
2	76	456	38.0	5.0
4	76	532	19.0	10.8
4	76	608	19.0	10.8
4	76	684	19.0	10.8

Comments:

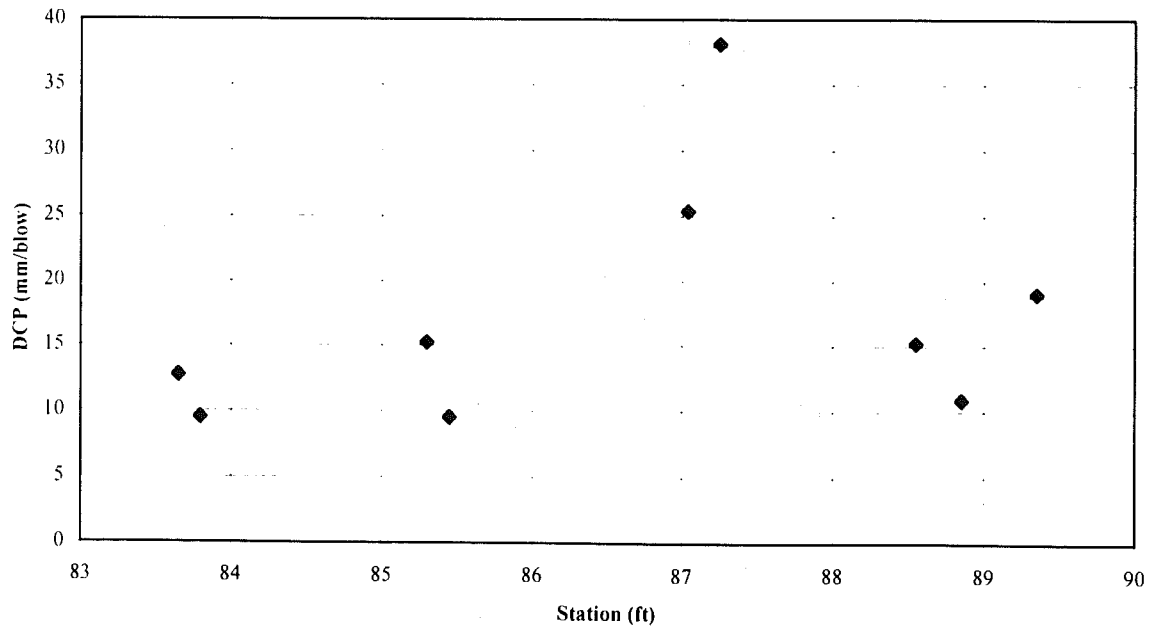
Core # M9 Station # 89+35				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
3	76	76	25.3	7.8
7	76	152	10.9	20.2
4	76	228	19.0	10.8
2	76	304	38.0	5.0
2	76	380	38.0	5.0
3	76	456	38.0	5.0
3	76	532	25.3	7.8
3	76	608	25.3	7.8
4	76	684	25.3	7.8

Comments:

Base DCP vs Station
I-69 77024-20821A Section A EB



Subbase DCP vs Station
I-69 77024-20821A Section A EB



DCP DATA

Control Section: 77024-17988A SECTION B
 Direction: East Bound
 Date Tested: 10/29/96

Core # M1 Station # 408+15					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
3	76	76	25.3	7.8	
12	76	152	6.3	96.9	
22	76	228	3.5	72.8	
25	76	304	3.0	84.1	
23	76	380	3.3	76.6	
28	76	456	2.7	95.4	
30	76	532	2.5	100.0	
30	76	608	2.5	100.0	
Comments:					

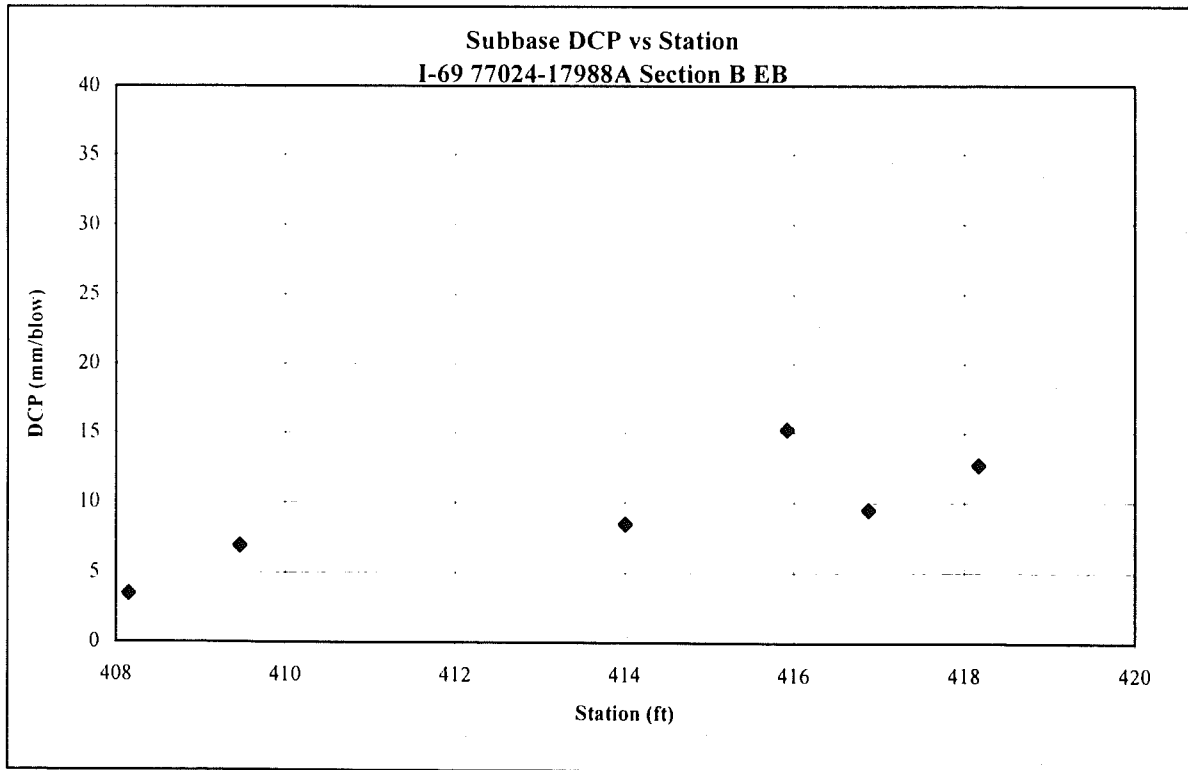
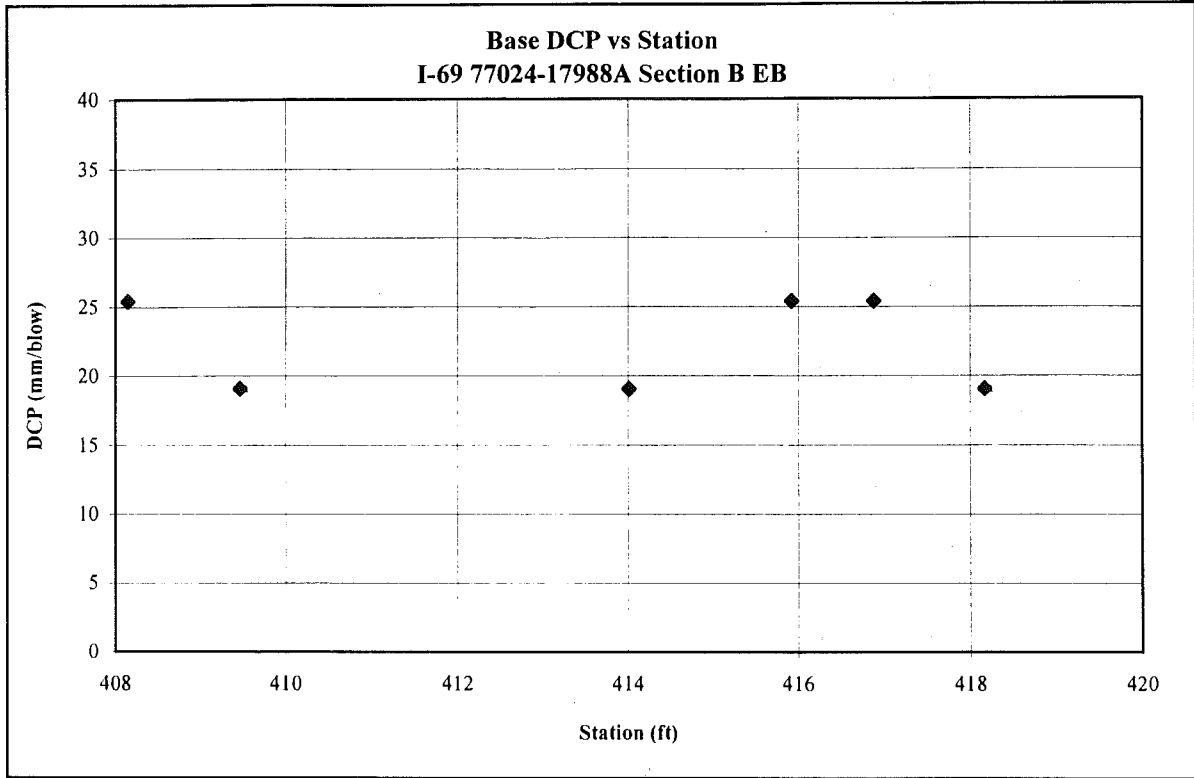
Core # M3 Station # 409+47					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
4	76	76	19.0	10.8	
9	76	152	8.4	26.8	
11	76	228	6.9	33.5	
15	76	304	5.1	47.4	
20	76	380	3.8	65.5	
25	76	456	3.0	84.1	
25	76	532	3.0	84.1	
35	76	608	2.2	100.0	
Comments:					

Core # M4 Station # 414+01					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
4	76	76	19.0	10.8	
6	76	152	12.7	17.0	
9	76	228	8.4	26.8	
5	76	304	15.2	13.9	
6	76	380	12.7	17.0	
10	76	456	7.6	30.1	
8	76	532	9.5	23.5	
10	76	608	7.8	30.1	
Comments:					

Core # M8 Station # 415+92					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
3	76	76	25.3	7.8	
5	76	152	15.2	13.9	
5	76	228	15.2	13.9	
8	76	304	9.5	23.5	
7	76	380	10.9	20.2	
9	76	456	8.4	26.8	
9	76	532	8.4	26.8	
13	76	608	5.8	40.4	
Comments:					

Core # M11 Station # 416+88					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
3	76	76	25.3	7.8	
6	76	152	12.7	17.0	
8	76	228	9.5	23.5	
5	76	304	15.2	13.9	
3	76	380	25.3	7.8	
11	76	456	6.9	33.5	
11	76	532	6.9	33.5	
9	76	608	8.4	26.8	
Comments:					

Core # M13 Station # 418+17					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
4	76	76	19.0	10.8	
4	76	152	19.0	10.8	
6	76	228	12.7	17.0	
8	76	304	9.5	23.5	
5	76	380	15.2	13.9	
3	76	456	25.3	7.8	
9	76	532	8.4	26.8	
7	76	608	10.9	20.2	
Comments:					



DCP DATA*

Control Section: 19043-02234A
 Direction: Eastbound
 Date Tested: 8/15/96

Core #1M Station # 137+04				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
23	76	76	3.3	76.6
37	76	152	2.1	100.0
48	76	228	1.6	100.0
52	76	304	1.5	100.0
50	76	380	1.5	100.0
31	76	456	2.5	100.0
33	76	532	2.3	100.0
Comments:				

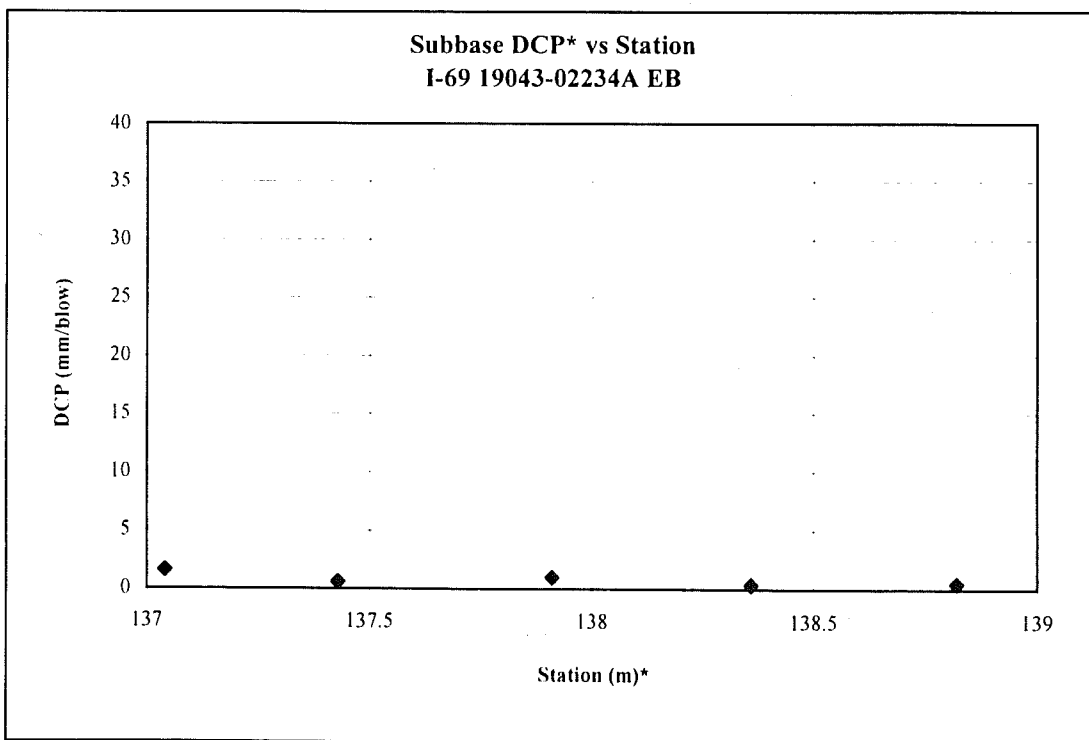
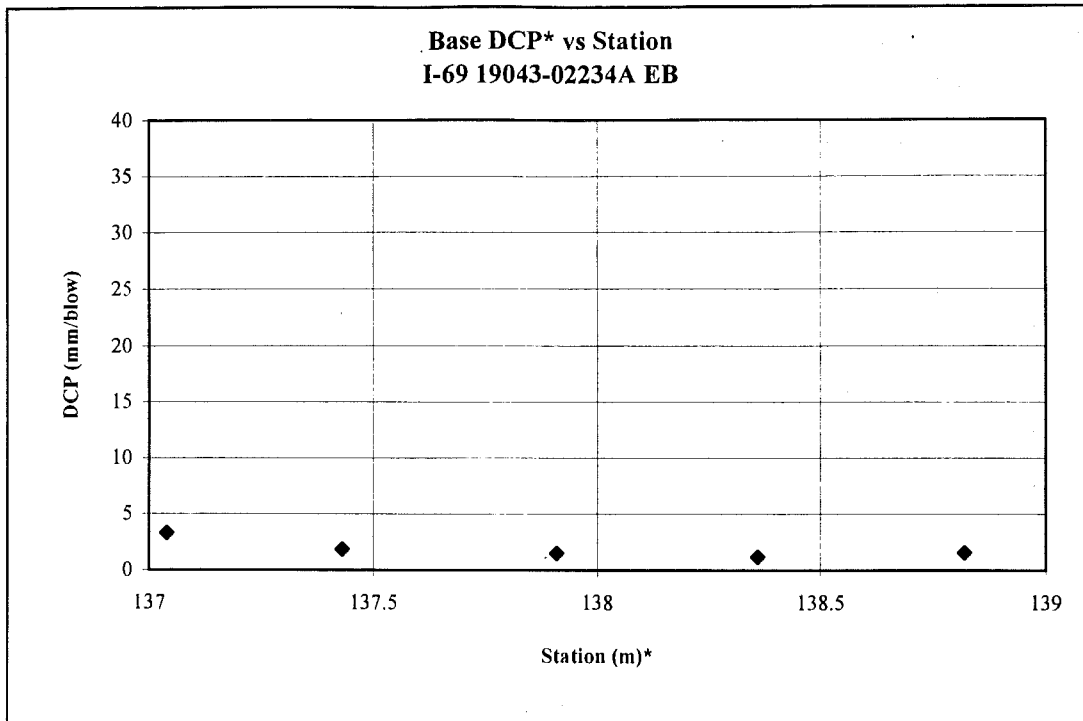
Core # 3M Station # 137+43				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
40	76	76	1.9	100.0
120	76	152	0.6	100.0
130	76	228	0.6	100.0
100	44	272	0.4	100.0
Comments: Refusal at 272 mm depth				

Core # 6M Station # 137+91				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
50	76	76	1.5	100.0
82	76	152	0.9	100.0
79	76	228	1.0	100.0
106	76	304	0.7	100.0
105	76	380	0.7	100.0
115	76	456	0.7	100.0
Comments:				

Core # 8M Station # 138+36				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
62	76	76	1.2	100.0
100	38	114	0.4	100.0
Comments: Refusal at 114 mm depth				

Core # 13M Station # 138+82				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
49	76	76	1.6	100.0
102	76	152	0.7	100.0
100	51	203	0.5	100.0
Comments: Refusal at 203 mm depth				

*Larger diameter DCP used in this section
 *Station in Metric system



*Larger diameter DCP used in this section

*Station in Metric system

DCP DATA

Control Section: 19043-02234A
 Direction: West/Bound
 Date Tested: 10/3/96

Core # 1M Station # 149+68				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
23	76	76	3.3	76.6
26	76	152	2.9	87.8
25	76	228	3.0	84.1
30	76	304	2.5	100.0
26	76	380	2.9	87.8
25	76	456	3.0	84.1
24	76	532	3.2	80.3
Comments:				

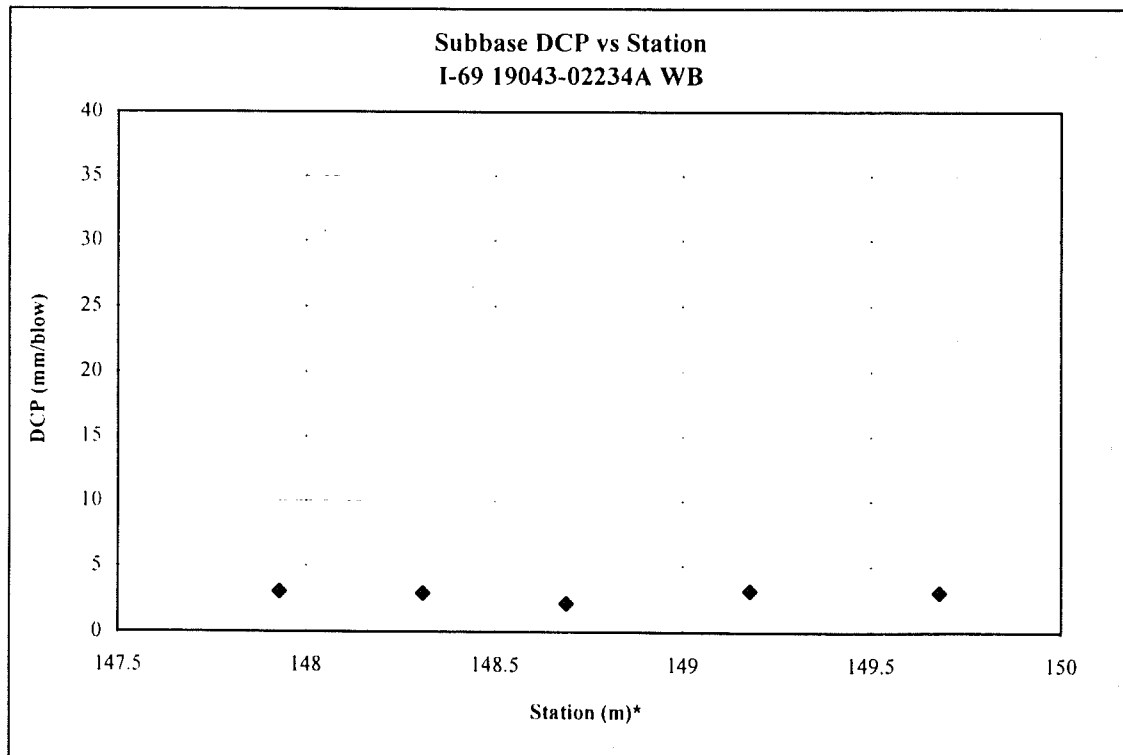
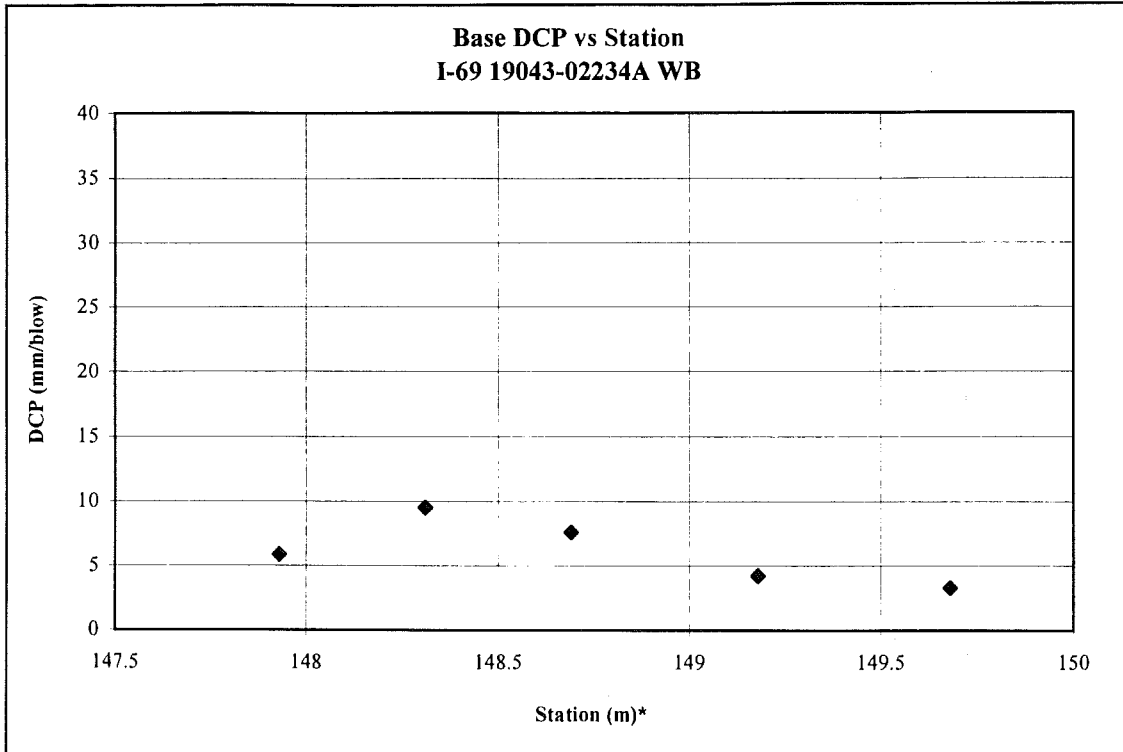
Core # 4M Station # 149+18				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
18	76	76	4.2	58.2
23	76	152	3.3	76.6
24	76	228	3.2	80.3
23	76	304	3.3	76.6
32	76	380	2.4	100.0
33	76	456	2.3	100.0
37	76	532	2.1	100.0
Comments:				

Core # 6M Station # 148+69				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
10	76	76	7.6	30.1
25	76	152	3.0	84.1
35	76	228	2.2	100.0
28	76	304	2.7	95.4
47	76	380	1.6	100.0
44	76	456	1.7	100.0
40	76	532	1.9	100.0
Comments:				

Core # 9M Station # 148+31				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
8	76	76	9.5	23.5
17	76	152	4.5	54.6
26	76	228	2.9	87.8
27	76	304	2.8	91.6
43	76	380	1.8	100.0
47	76	456	1.6	100.0
73	76	532	1.0	100.0
Comments:				

Core # 11M Station # 147+93				
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%
13	76	76	5.8	40.4
26	76	152	2.9	87.8
25	76	228	3.0	84.1
27	76	304	2.8	91.6
35	76	380	2.2	100.0
55	76	456	1.4	100.0
50	76	532	1.5	100.0
Comments:				

*Station in Metric system



*Station in Metric system

DCP DATA

Control Section: 44044 -18804A
 Direction: Westbound
 Date Tested: 7/23/96

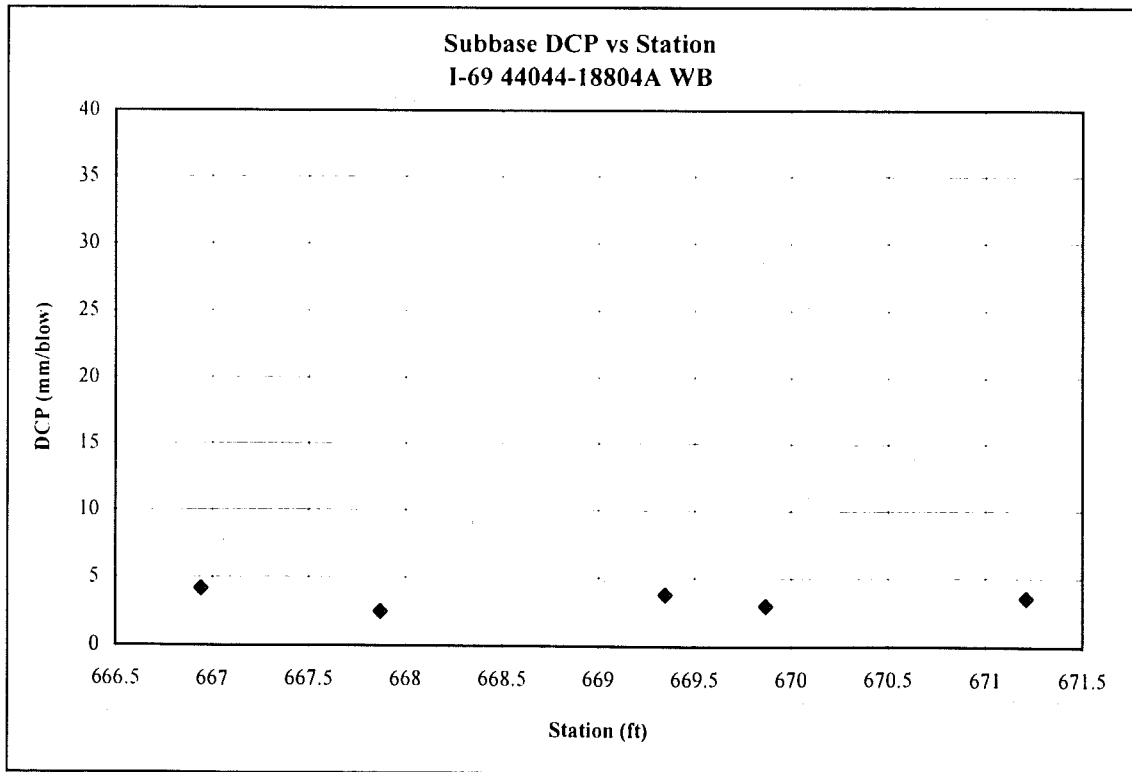
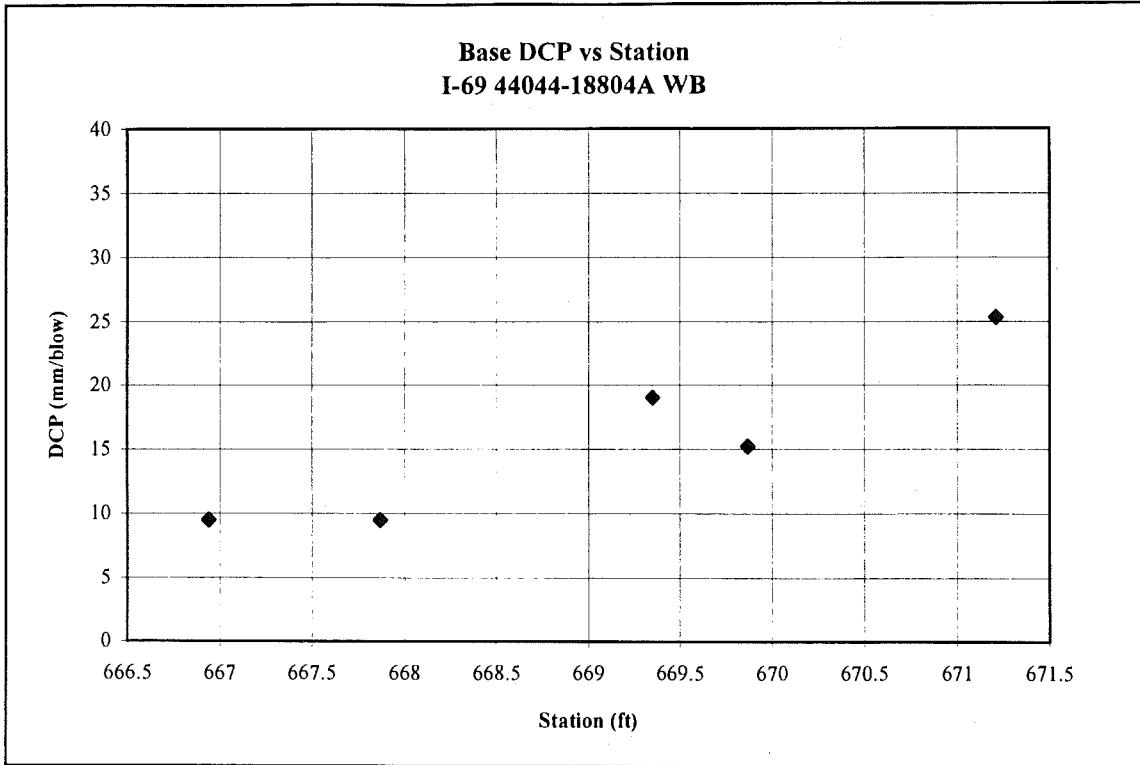
Core # 2M					
Station # 671+21					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
3	76	76	25.3	7.8	
18	76	152	4.2	58.2	
21	76	228	3.6	69.1	
27	76	304	2.8	91.6	
34	76	380	2.2	100.0	
Comments:					

Core # 5M					
Station # 669+87					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
5	76	76	15.2	13.9	
17	76	152	4.5	54.6	
25	76	228	3.0	84.1	
35	76	304	2.2	100.0	
42	76	380	1.8	100.0	
Comments:					

Core # 7M					
Station # 669+35					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
4	76	76	19.0	10.8	
15	76	152	5.1	47.4	
20	76	228	3.8	65.5	
30	76	304	2.5	100.0	
36	76	380	2.1	100.0	
Comments:					

Core # 10M					
Station # 667+87					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
8	76	76	9.5	23.5	
15	76	152	5.1	47.4	
30	76	228	2.5	100.0	
21	76	304	3.6	69.1	
24	76	380	3.2	80.3	
22	76	456	3.5	72.8	
22	76	532	3.5	72.8	
23	76	608	3.3	76.6	
Comments:					

Core # 12M					
Station # 666+94					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
8	76	76	9.5	23.5	
11	76	152	6.9	33.5	
18	76	228	4.2	58.2	
25	76	304	3.0	84.1	
25	76	380	3.0	84.1	
22	76	456	3.5	72.8	
20	76	532	3.8	65.5	
26	76	608	2.9	87.8	
Comments:					



DCP DATA

Control Section: 25132-06582
 Direction: Southbound
 Date Tested: 6/26/97

Core # M1 Station # 660+19					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
3	30	30	10	22.2	
3	15	45	5	48.1	
3	15	60	5	48.1	
3	15	75	5	48.1	
3	10	85	3	75.8	
10	40	125	4	61.8	
10	45	170	5	54.2	
10	35	250	4	71.8	
10	50	300	5	48.1	
10	50	350	5	48.1	
10	75	425	8	30.6	
Comments: Refusal at 482 mm depth Core 225 mm					

Core # M2 Station # 659+19					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
3	35	35	12	18.6	
3	25	60	8	27.2	
3	20	80	7	34.9	
3	15	95	5	48.1	
3	20	115	7	34.9	
10	45	160	5	54.2	
10	40	205	4	61.8	
10	50	295	5	48.1	
10	50	345	5	48.1	
10	55	400	6	43.3	
Comments: Core 229 mm					

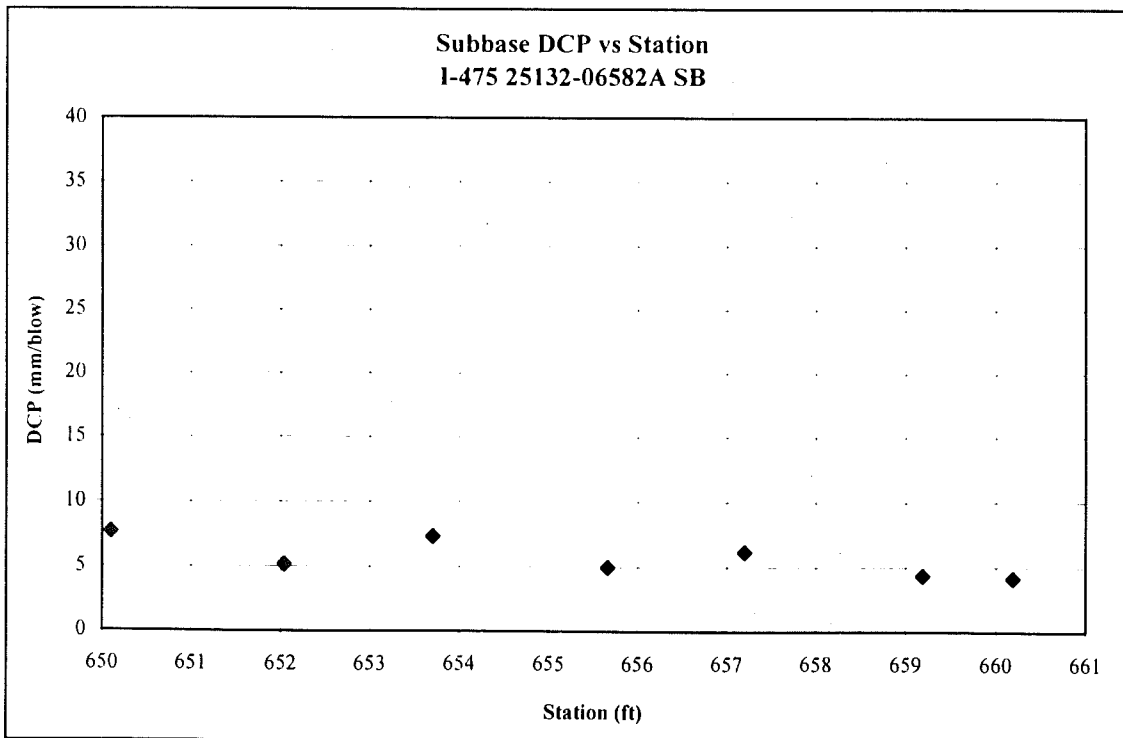
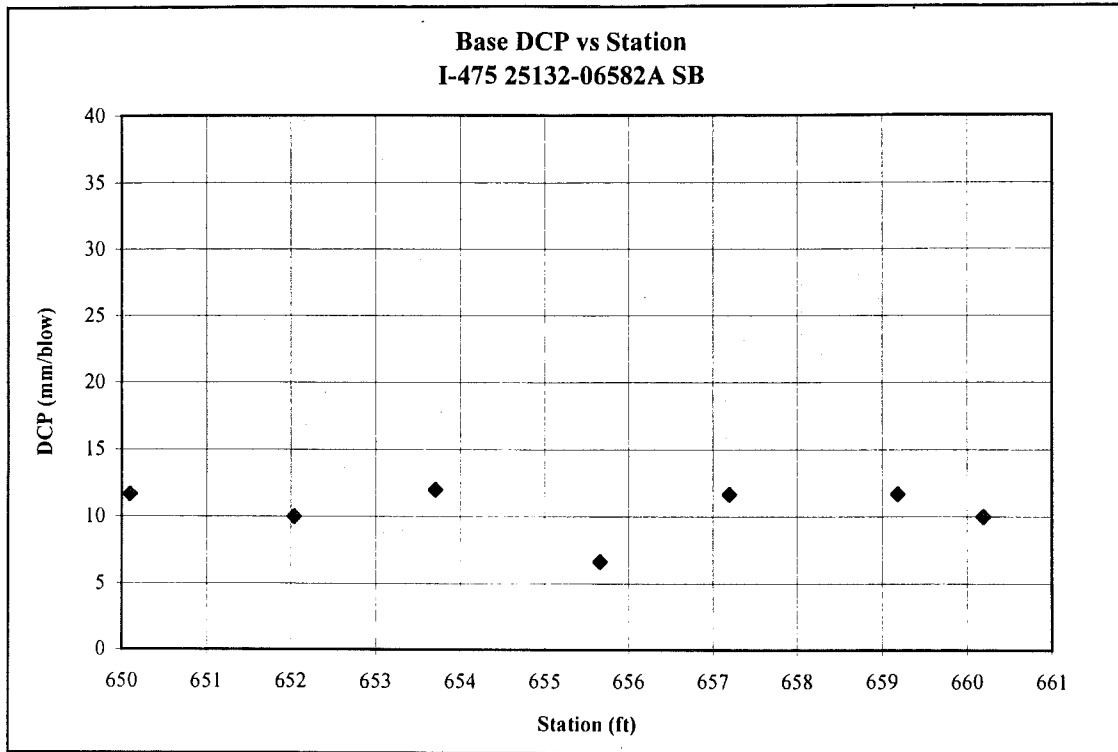
Core # M4 Station # 655+66					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
3	20	20	7	34.9	
3	20	40	7	34.9	
3	20	60	7	34.9	
3	10	70	3	75.8	
3	20	90	7	34.9	
10	60	150	6	39.3	
10	40	190	4	61.8	
10	50	240	5	48.1	
10	50	290	5	48.1	
10	40	330	4	61.8	
Comments: Refusal at 787 mm depth Base 102 mm Subgrade starts @ 737 mm					

Core # M5 Station # 653+71					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
3	36	36	12	18.1	
3	29	65	10	23.0	
3	24	89	8	28.4	
3	26	115	9	26.0	
3	20	135	7	34.9	
10	80	215	8	28.4	
10	78	293	8	29.3	
10	82	375	8	27.7	
10	73	448	7	31.5	
Comments: Base 102 mm Subgrade starts @ 610 mm Core 229 mm					

Core # M7 Station # 650+10					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
3	35	35	12	18.6	
3	25	60	8	27.2	
3	30	90	10	22.2	
3	25	115	8	27.2	
3	25	140	8	27.2	
10	70	210	7	33.0	
10	65	275	7	35.9	
10	65	340	7	35.9	
10	60	400	6	39.3	
Comments: Base 102 mm, 686 mm to subgrade Core 254 mm					

Core # M3 Station # 657+20					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
3	35	35	12	18.6	
3	25	60	8	27.2	
3	20	80	7	34.9	
3	25	105	8	27.2	
3	20	130	8	27.2	
10	20	150	7	34.9	
10	60	210	6	39.3	
10	60	270	6	39.3	
10	85	335	7	35.9	
10	55	390	6	43.3	
Comments: Base 95.25 mm Subbase starts @ 1016 mm Core 229 mm No donut					

Core # M6 Station # 652+74					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
3	30	30	10	22.2	
3	30	60	10	22.2	
3	15	75	5	48.1	
3	15	90	5	48.1	
3	25	115	8	27.2	
3	15	130	5	48.1	
3	15	145	5	48.1	
10	60	205	6	39.3	
10	45	250	5	54.2	
10	55	305	6	43.3	
10	60	365	6	39.3	
Comments: No Donut Core 248 mm					



DCP DATA

Control Section: 47065-28215A
 Direction: Eastbound
 Date Tested: 7/31/97

Core # C1					
Station # 650+02					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
3	45	45	15	14.1	
3	25	70	8	27.2	
3	20	90	7	34.9	
3	10	100	3	75.8	
10	40	140	4	61.8	
10	40	180	4	61.8	
10	50	230	5	48.1	
10	45	275	5	54.2	
Comments: Base 102 mm, 711 mm to subgrade Core 267 mm					

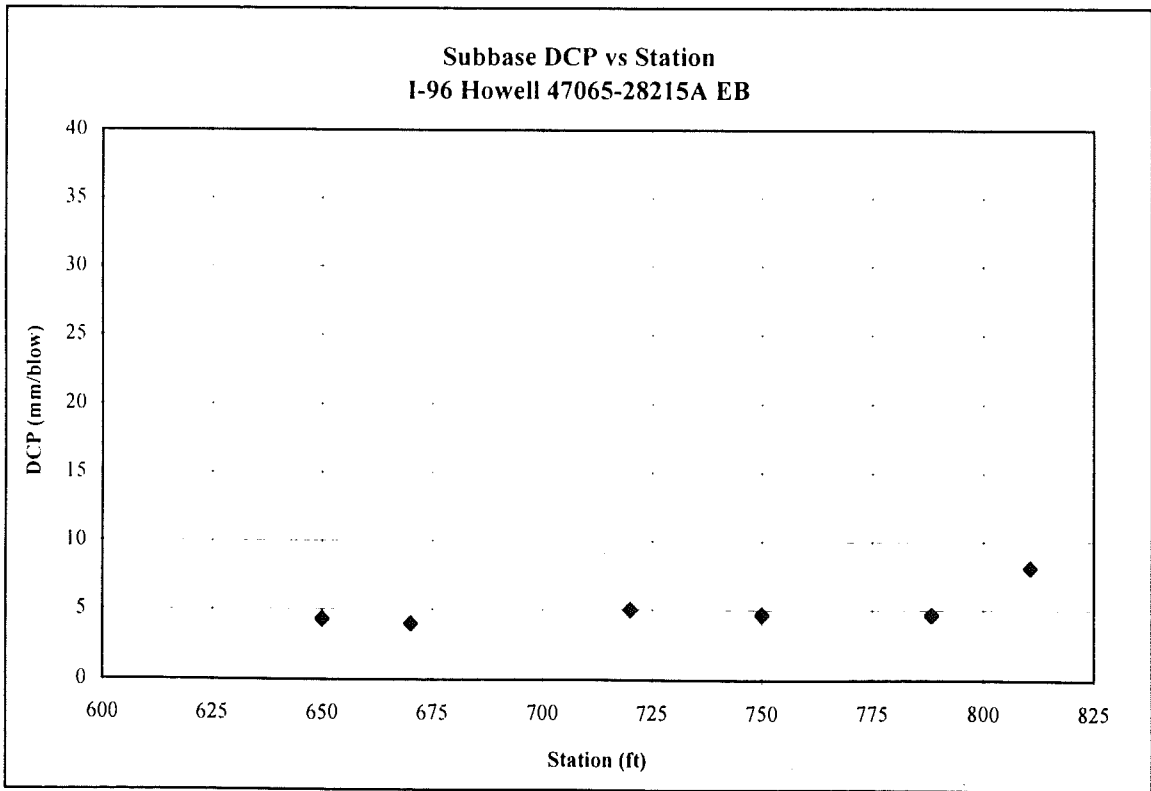
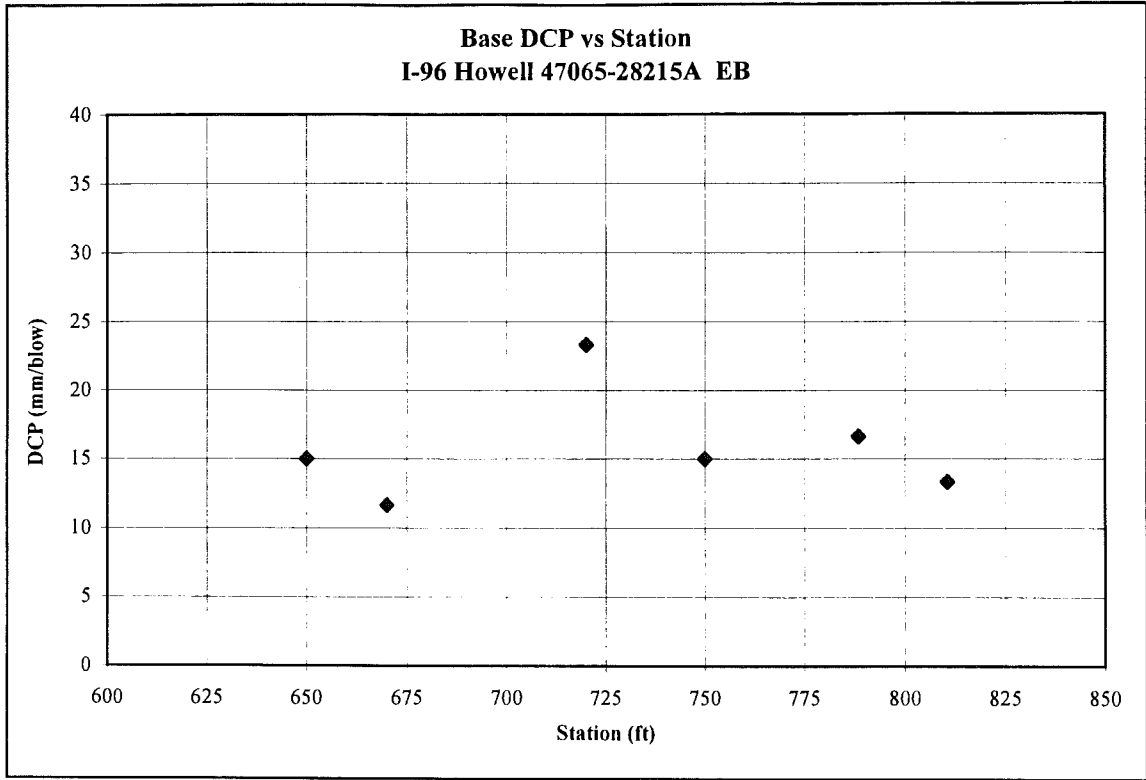
Core # C2					
Station # 670+00					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
3	35	35	12	18.6	
3	20	55	7	34.9	
3	20	75	7	34.9	
3	15	90	5	48.1	
10	40	130	4	61.8	
10	40	170	4	61.8	
10	40	210	4	61.8	
10	40	250	4	61.8	
Comments: Base 102 mm, 864 mm to subgrade Core 279 mm					

Core # C4					
Station # 720+00					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
3	70	70	23	8.6	
3	35	105	12	18.6	
3	20	125	7	34.9	
3	15	140	5	48.1	
10	50	190	5	48.1	
10	50	240	5	48.1	
10	45	285	5	54.2	
10	50	335	5	48.1	
Comments: Base 102 mm Subgrade starts at 813 mm Core 254 mm					

Core # C5					
Station # L-96 BL					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
3	45	45	15	14.1	
3	20	65	7	34.9	
3	25	90	8	27.2	
3	20	110	7	34.9	
10	50	160	5	48.1	
10	45	205	5	54.2	
10	45	250	5	54.2	
10	45	295	5	54.2	
Comments: Base 102 mm Core 279 mm					

Core # C6					
Station # 788+24					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
3	50	50	17	12.5	
3	25	75	8	27.2	
3	20	95	7	34.9	
3	10	105	3	75.8	
10	40	145	4	61.8	
10	50	195	5	48.1	
10	50	245	5	48.1	
10	40	285	4	61.8	
Comments: Base 102 mm Core 279 mm					

Core # C7					
Station # 810+63					
DCP Blows	Distance (mm)	Depth (mm)	mm/blow	CBR%	
3	40	40	13	16.0	
3	30	70	10	22.2	
3	30	100	10	22.2	
3	25	125	8	27.2	
10	85	210	9	26.6	
10	75	285	8	30.6	
10	70	355	7	33.0	
10	55	410	6	43.3	
Comments:					



APPENDIX J

Falling Weight Deflectometer (FWD) Data

Appendix J. Falling Weight Deflectometer (FWD) Data

This Appendix will be added for the final report

APPENDIX K

Resilient Modulus Data

Appendix K: Results of Resilient Modulus Testing

Table 1. Summary of resilient modulus testing specimen characteristics.

Aggregate Type	Gradation	Sample Number	Sample Height (mm)	Dry Density (Mg/m ³)	Percent of Optimum Density	Moisture Content (%)
Glacially Derived	21AA	2	304	2.2	95.5	3
		6	305	2.2	95	3
		3	304	2.21	96	3
	350AA	13	302	2.14	96	2
		12	289	2.15	101	2
		11	294	2.12	99	2
	3G	17	295	2.07	99	2
		18	297	2.07	98	2
		16	300	2.04	97	2
Quarried Limestone	21AA	22	302	2.18	96	3
		24	308	2.15	95	3
		23	310	2.15	95	3
	350AA	29	302	2.13	99	2
		32	295	2.16	100	2
		28	302	2.12	98	2
	3G	36	265	2.11	98	2
		35	298	2.1	98	2
		34	299	2.1	98	2

Table 2. Summary of analysis of resilient modulus testing data.

Aggregate Type	Gradation	Sample Number	Moisture Condition	Resilient Modulus MPa	R squared	K1	K2
Glacially Derived	21AA	2	Dry	440.111	0.9851	12979	0.5786
			Drained	442.843	0.9962	6522	0.689
			Undrained	131.342	0.3644	25976	0.2848
		6	Dry	395.575	0.9904	13773	0.5579
			Drained	386.419	0.9918	7323.4	0.6544
			Undrained	147.837	0.6516	17450	0.3901
		3	Dry	444.803	0.9869	13719	0.5721
			Drained	423.925	0.9654	12295	0.5791
			Undrained	131.685	0.1583	42092	0.1929
	350AA	13	Dry	412.513	0.9857	9389.9	0.6246
			Drained	395.209	0.9937	6726.8	0.6774
			Undrained	181.3	0.5291	21928	0.3224
		12	Dry	420.042	0.9913	9336.5	0.6254
			Drained	378.050	0.9969	7127.5	0.6575
			Undrained	125.791	0.4068	18614	0.3451
		11	Dry	403.878	0.9849	14518	0.5524
			Drained	336.259	0.9769	5949.3	0.6618
			Undrained	*			
	3G	17	Dry	386.409	0.9929	15726	0.5328
			Drained	363.412	0.9975	8472.7	0.6221
			Undrained	144.88	0.7114	10625	0.4169
		18	Dry	420.212	0.987	14090	0.5579
			Drained	400.160	0.9925	10178	0.6027
			Undrained	229.649	0.2412	64378	0.2365
16		Dry	362.416	0.9914	14330	0.5391	
		Drained	362.600	0.996	9435	0.609	
		Undrained	*				
Quarried Limestone	21AA	22	Dry	431.643	0.9926	11111	0.6011
			Drained	376.853	0.9948	6040.5	0.6787
			Undrained	108.078	0.4568	10188	0.4205
		24	Dry	407.050	0.9846	12194	0.5729
			Drained	335.071	0.9929	7905	0.6151
			Undrained	*			
		23	Dry	455.812	0.9481	24051	0.4777
			Drained	341.062	0.9865	14367	0.5331
			Undrained	*			
	350AA	29	Dry	336.658	0.9919	12796	0.5416
			Drained	303.882	0.9944	10141	0.5622
			Undrained	*			
		32	Dry	358.867	0.9818	11548	0.56988
			Drained	329.643	0.9868	10290	0.5724
			Undrained	*			
		28	Dry	352.243	0.9824	12026	0.5555
			Drained	307.549	0.9886	8943.5	0.5861
			Undrained	*			
	3G	36	Dry	363.428	0.991	13503	0.5412
			Drained	317.224	0.9888	8365.4	0.6063
			Undrained	174.827	0.0013	167456	-0.0431
		35	Dry	389.226	0.9893	13792	0.5477
			Drained	349.152	0.9919	13767	0.5296
			Undrained	111.172	0.4545	14981	0.3575
34		Dry	353.088	0.986	19432	0.4822	
		Drained	315.683	0.9911	10657	0.5641	
		Undrained	101.953	0.5621	16434	0.3427	

Note: All MR values are for step 11 with a confining pressure of 15 psi and a deviator stress of 15 psi.

* indicates that the sample has suffered excessive deformation prior to step 11.

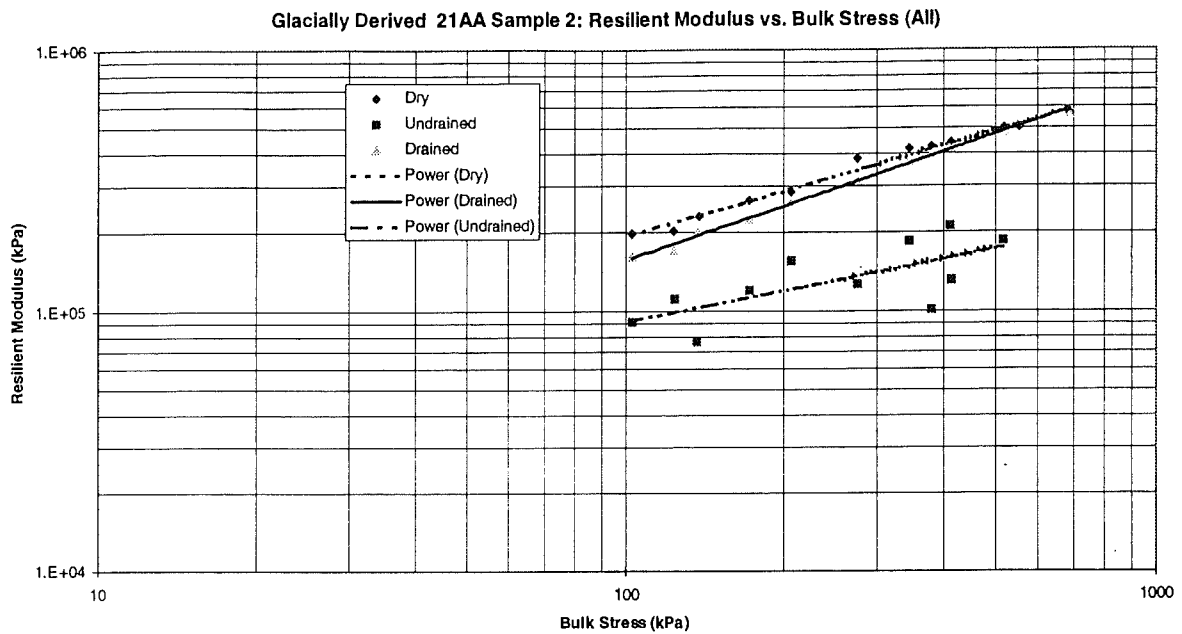


Figure 1. Resilient modulus versus bulk stress for glacially derived 21AA sample 2.

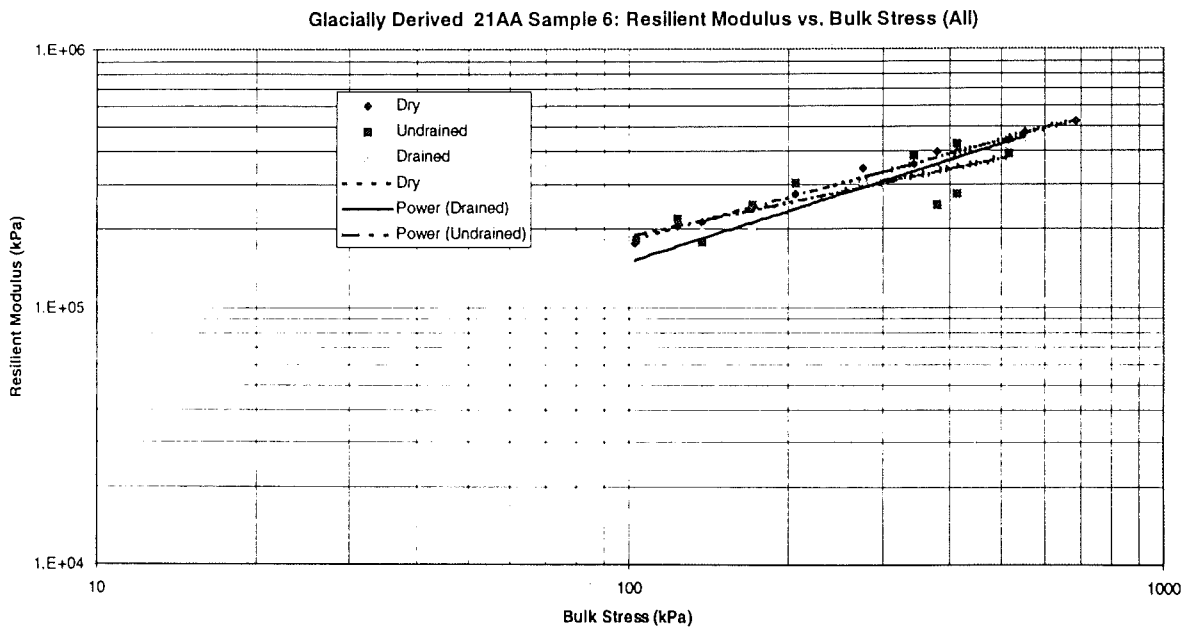


Figure 2. Resilient modulus versus bulk stress for glacially derived 21AA sample 6.

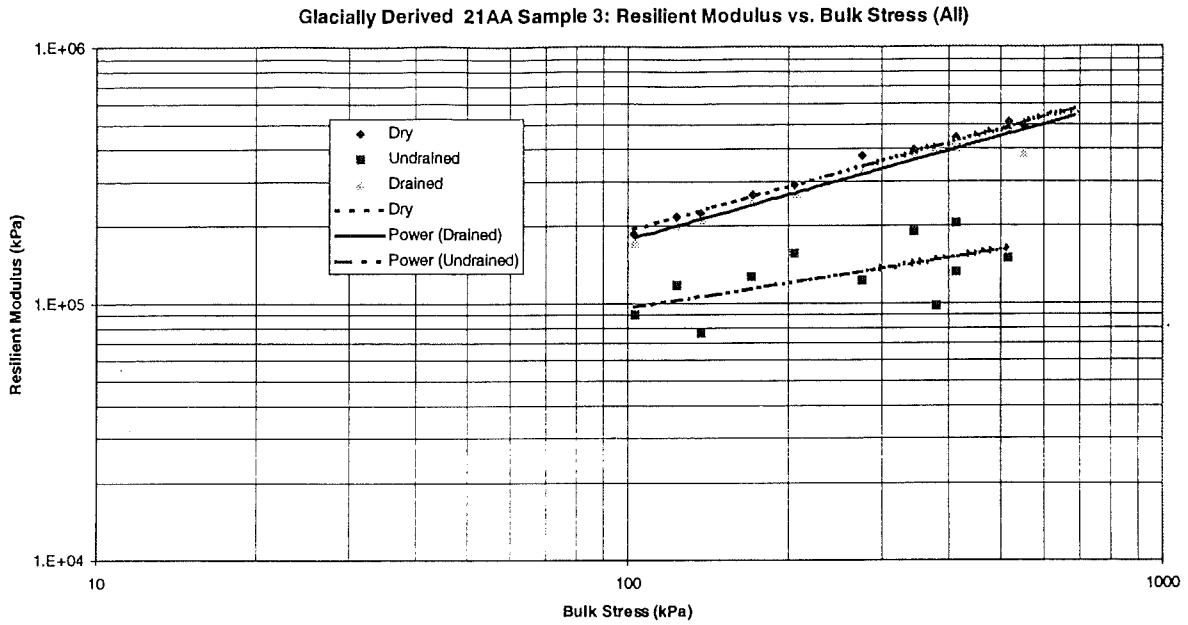


Figure 3. Resilient modulus versus bulk stress for glacially derived 21AA sample 3.

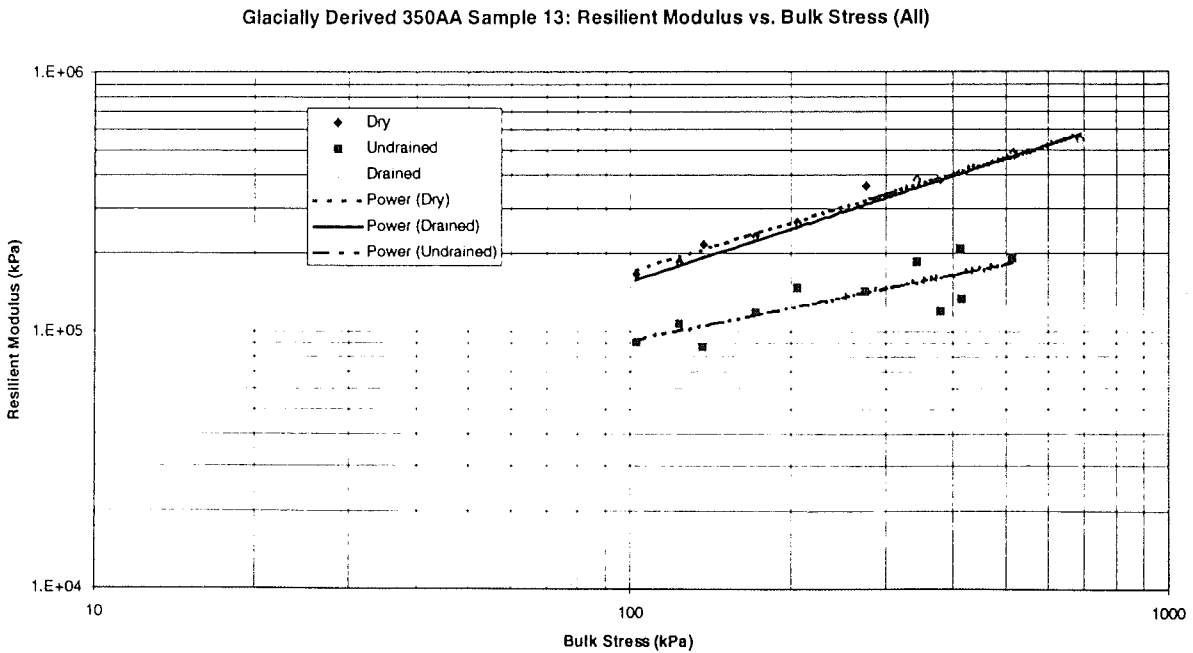


Figure 4. Resilient modulus versus bulk stress for glacially derived 350AA sample 13.

Glacially Derived 350AA Sample 12: Resilient Modulus vs. Bulk Stress (All)

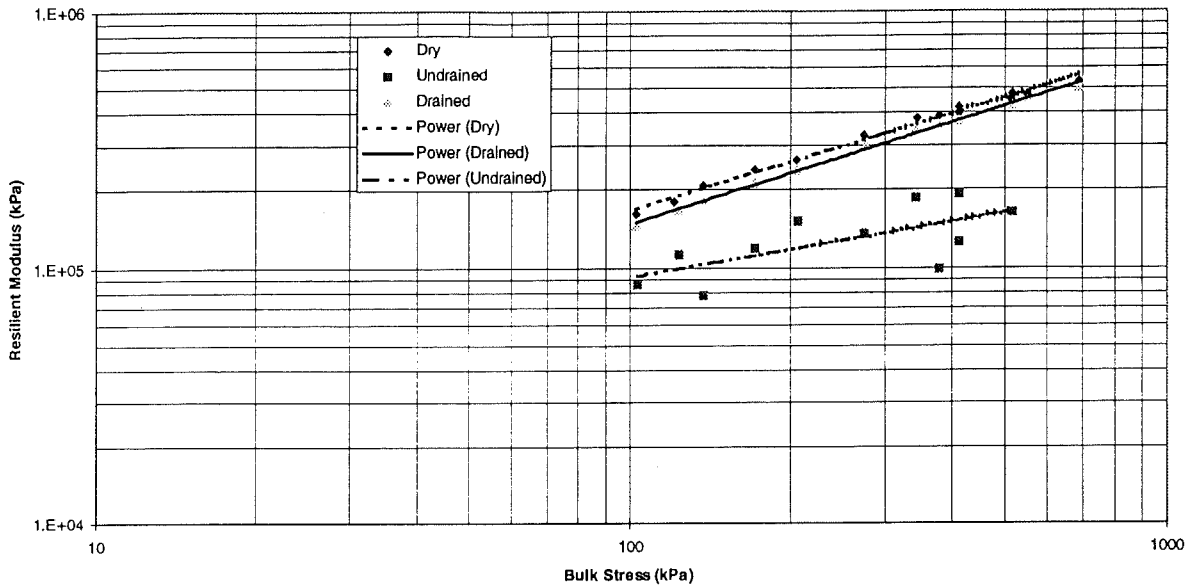


Figure 5. Resilient modulus versus bulk stress for glacially derived 350AA sample 12.

Glacially Derived 350AA Sample 11: Resilient Modulus vs. Bulk Stress (All)

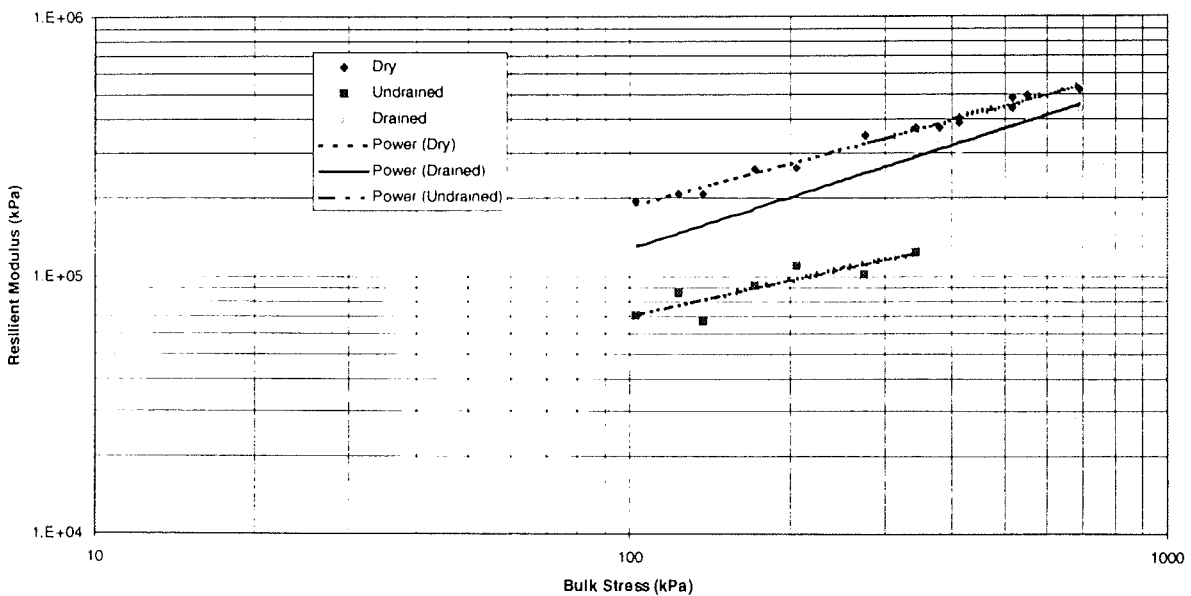


Figure 6. Resilient modulus versus bulk stress for glacially derived 350AA sample 11.

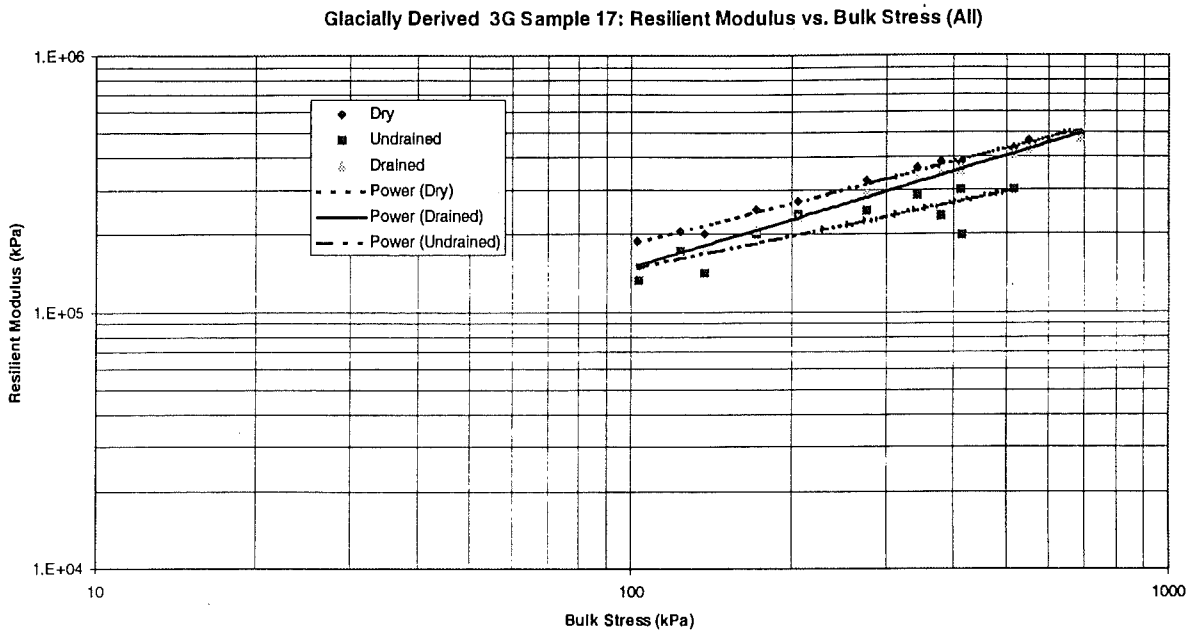


Figure 7. Resilient modulus versus bulk stress for glacially derived 3G sample 17.

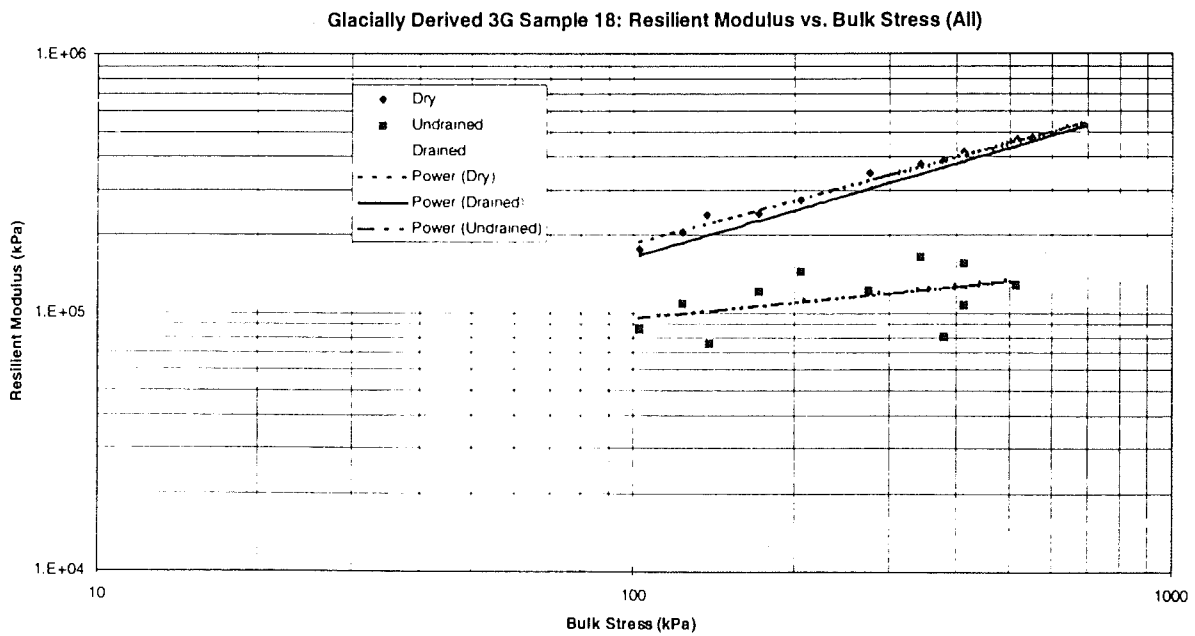


Figure 8. Resilient modulus versus bulk stress for glacially derived 3G sample 18.

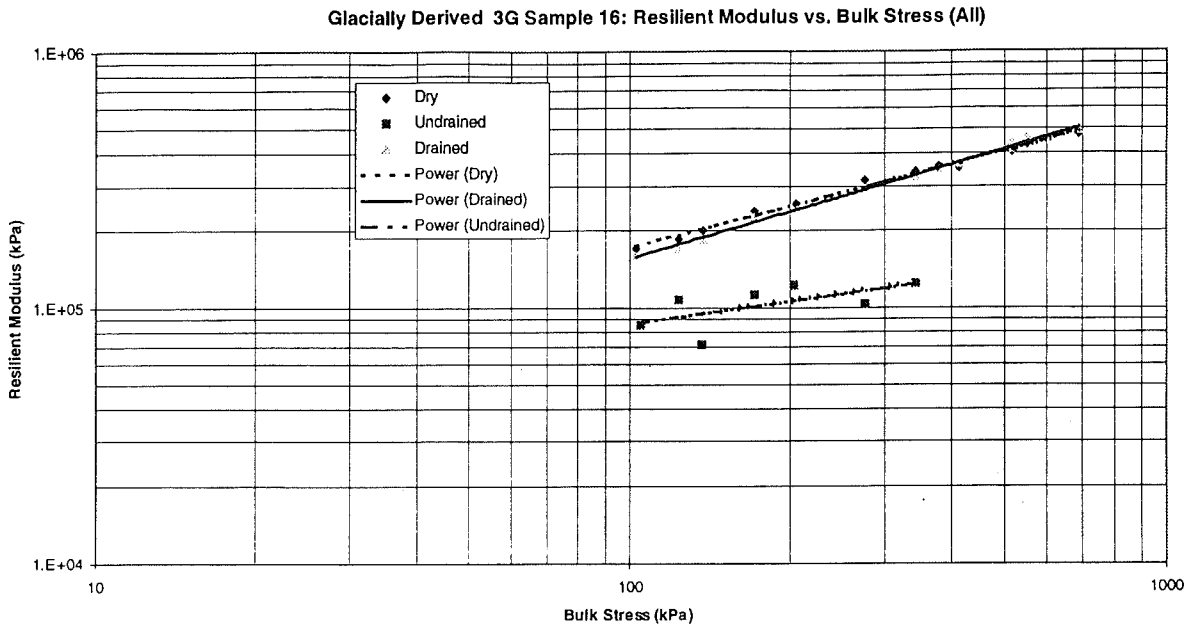


Figure 9. Resilient modulus versus bulk stress for glacially derived 3G sample 16.

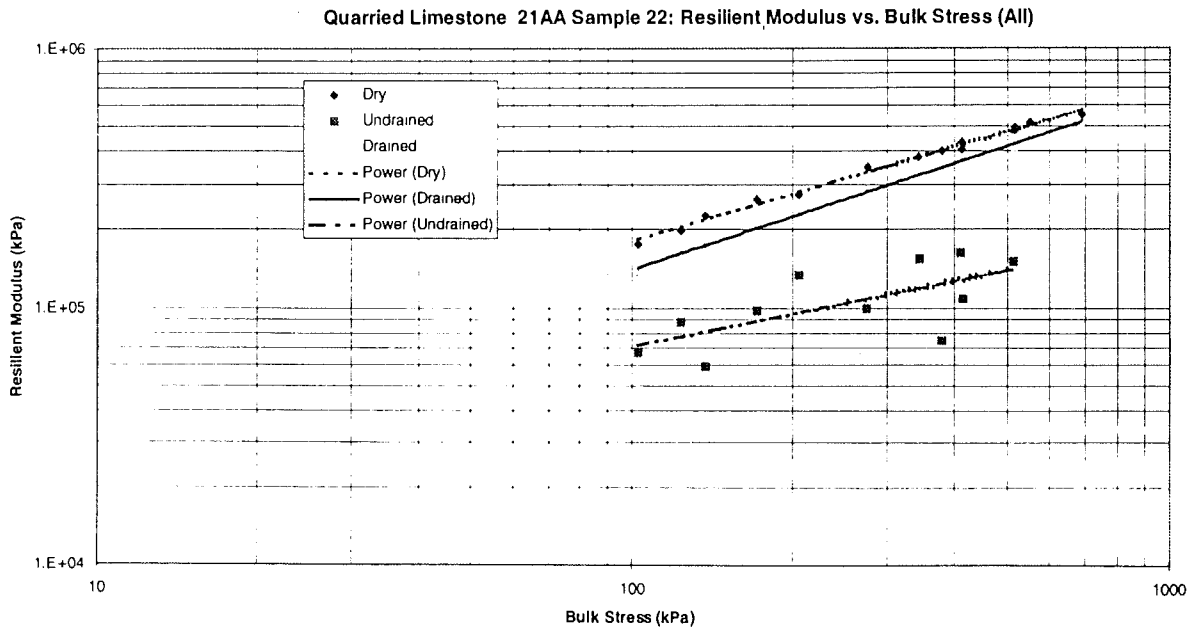


Figure 10. Resilient modulus versus bulk stress for quarried limestone 21AA sample 22.

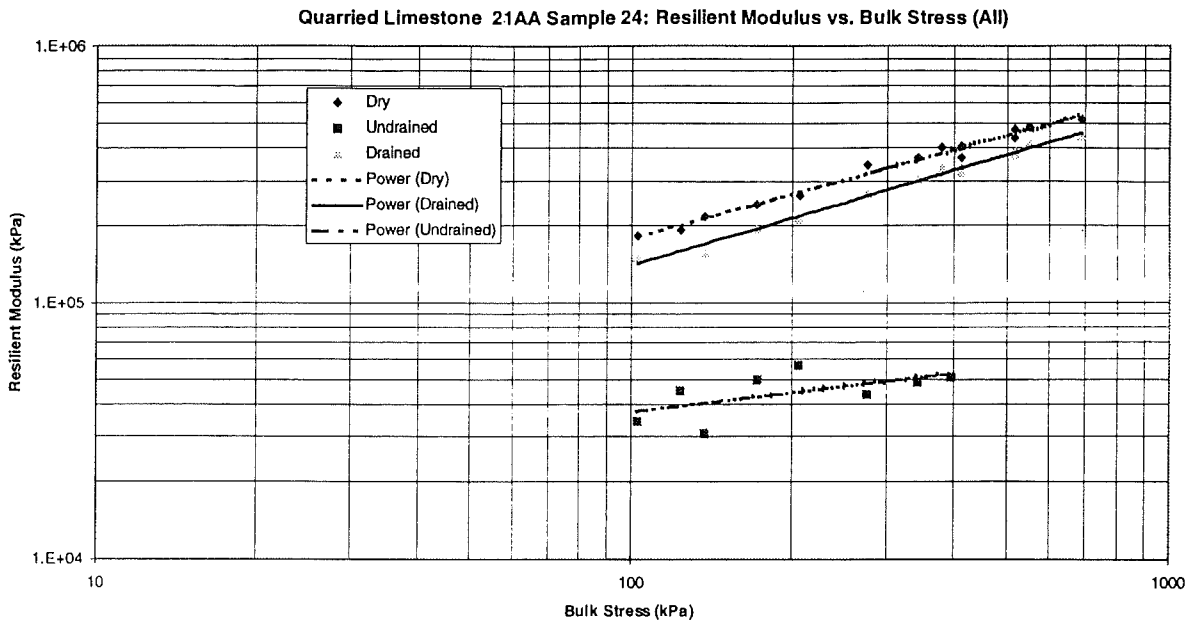


Figure 11. Resilient modulus versus bulk stress for quarried limestone 21AA sample 24.

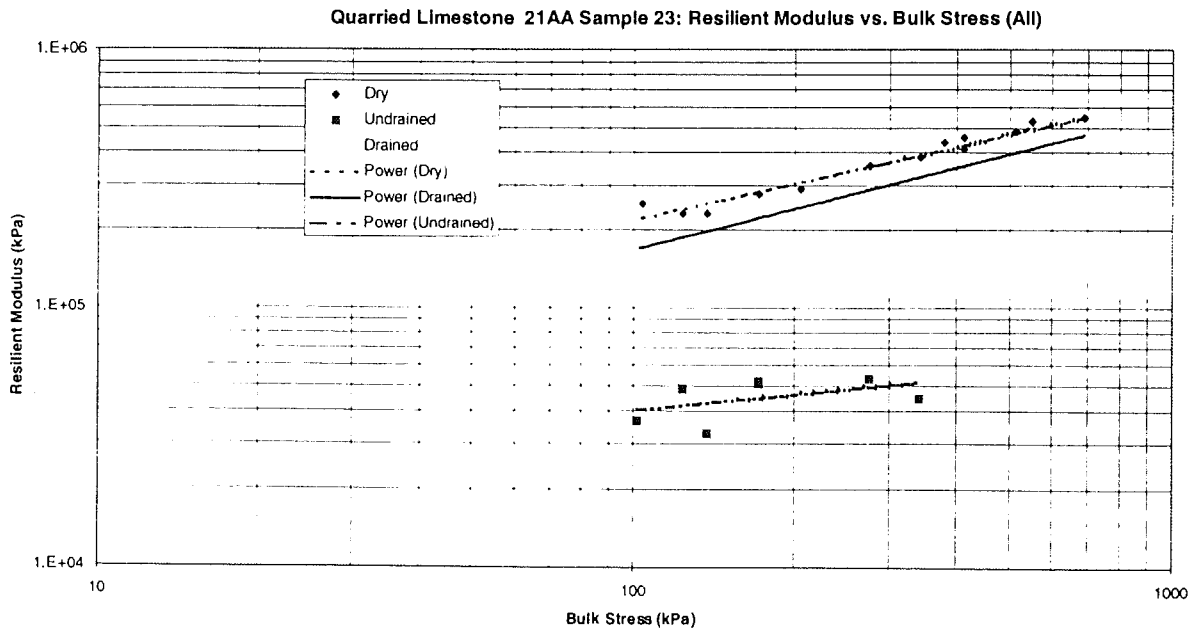


Figure 12. Resilient modulus versus bulk stress for quarried limestone 21AA sample 23.

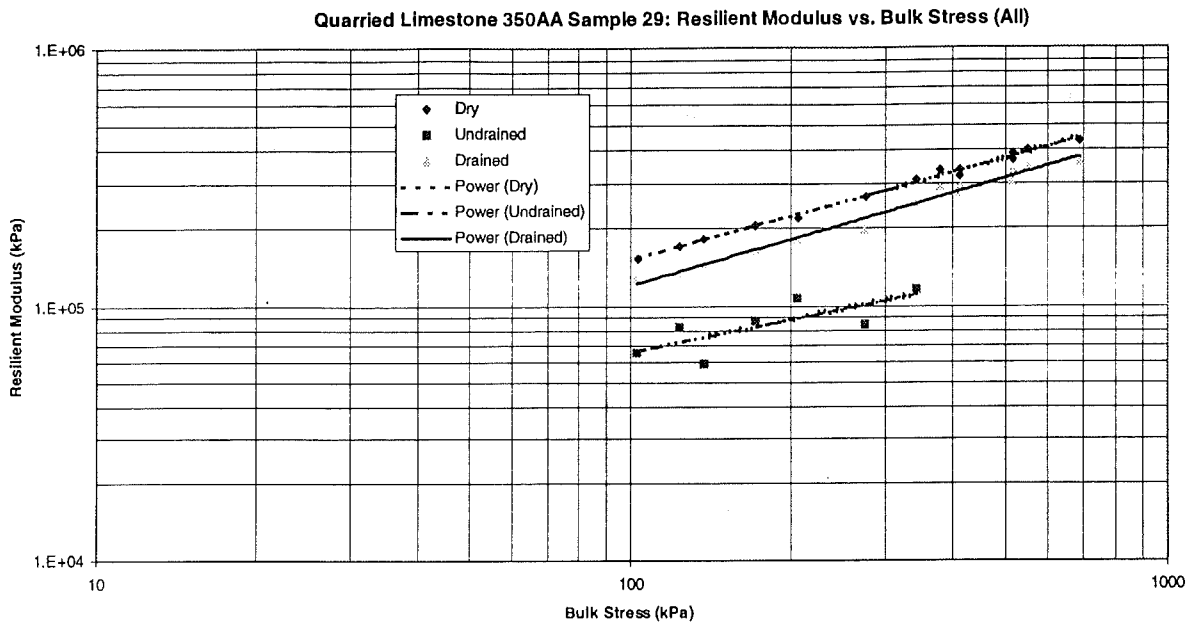


Figure 13. Resilient modulus versus bulk stress for quarried limestone 350AA sample 29.

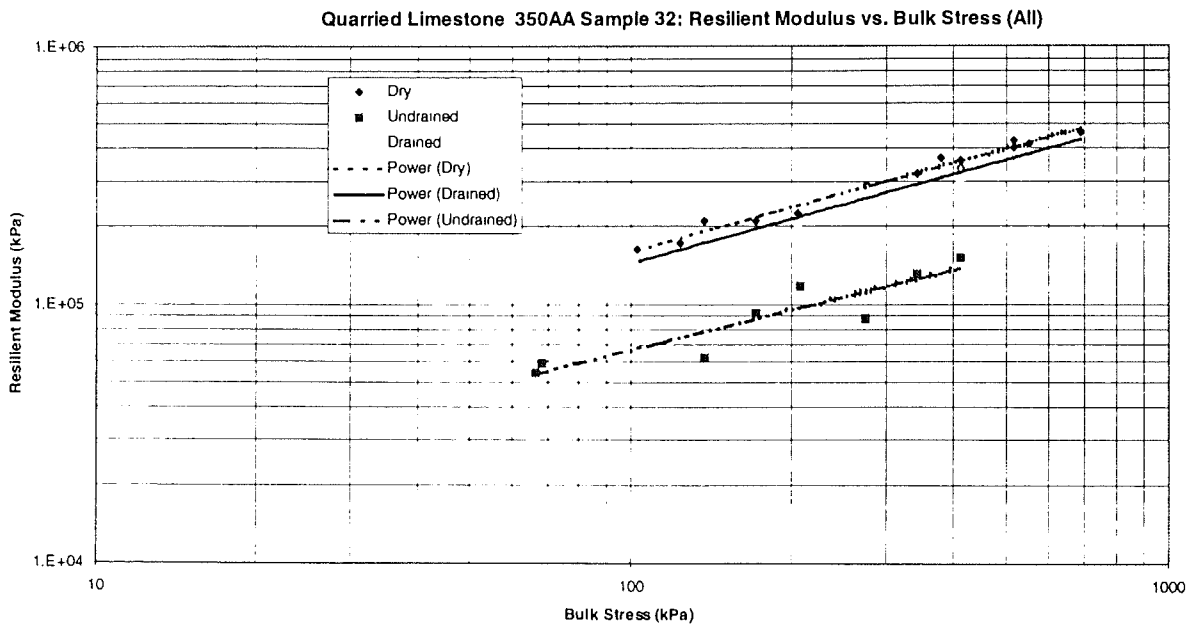


Figure 14. Resilient modulus versus bulk stress for quarried limestone 350AA sample 32.

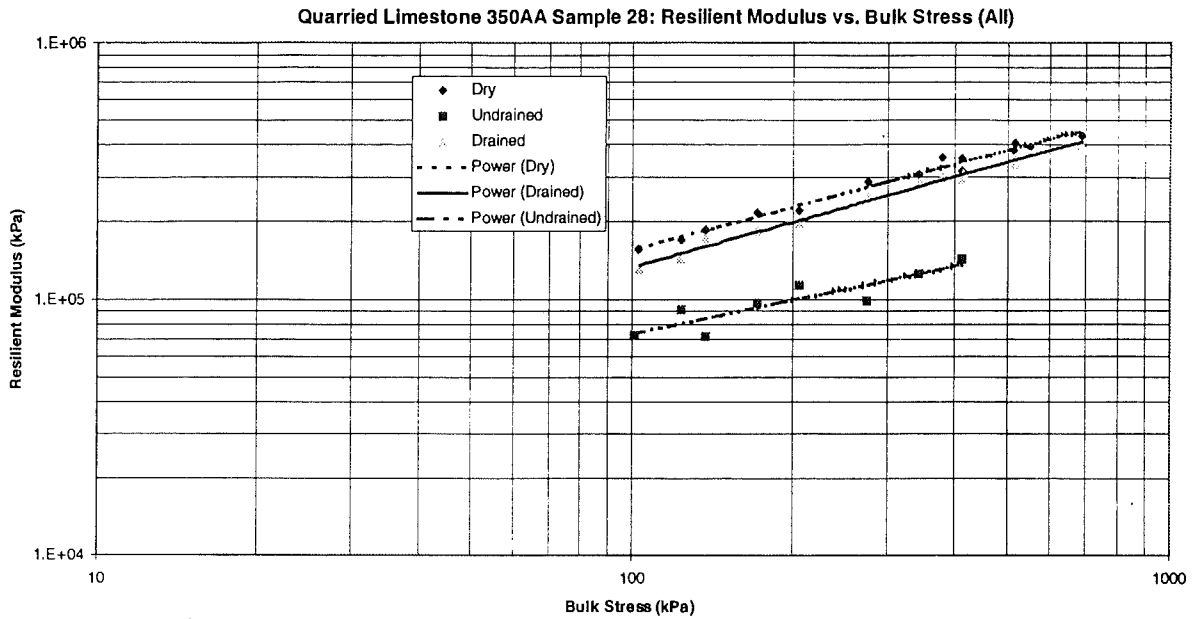


Figure 15. Resilient modulus versus bulk stress for quarried limestone 350AA sample 28.

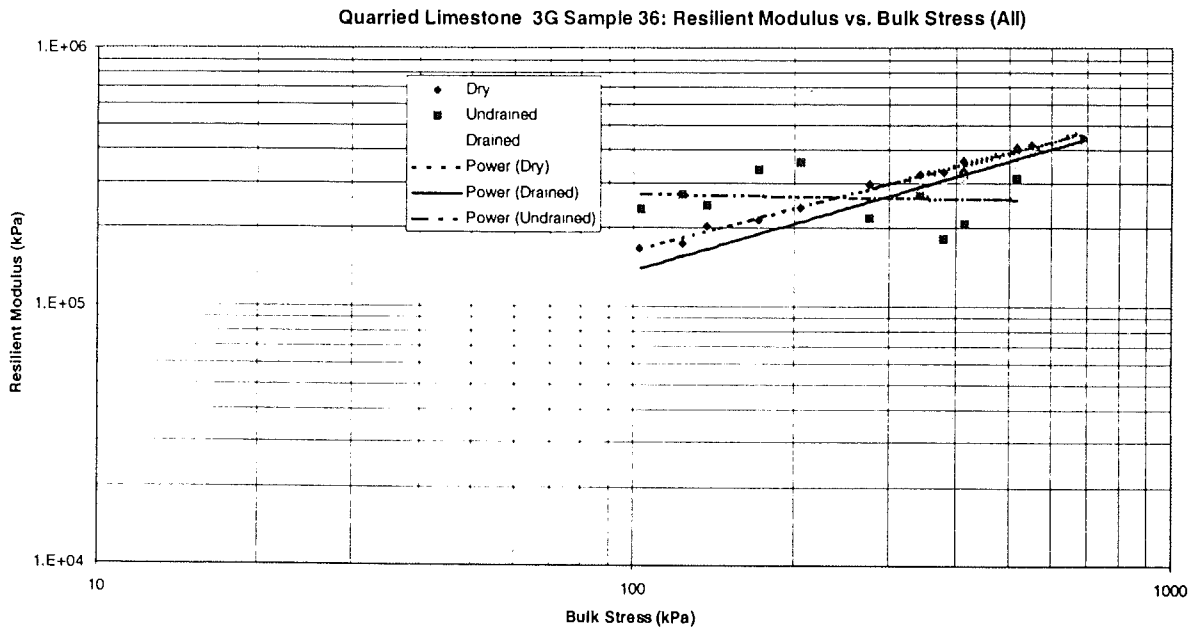


Figure 16. Resilient modulus versus bulk stress for quarried limestone 3G sample 36.

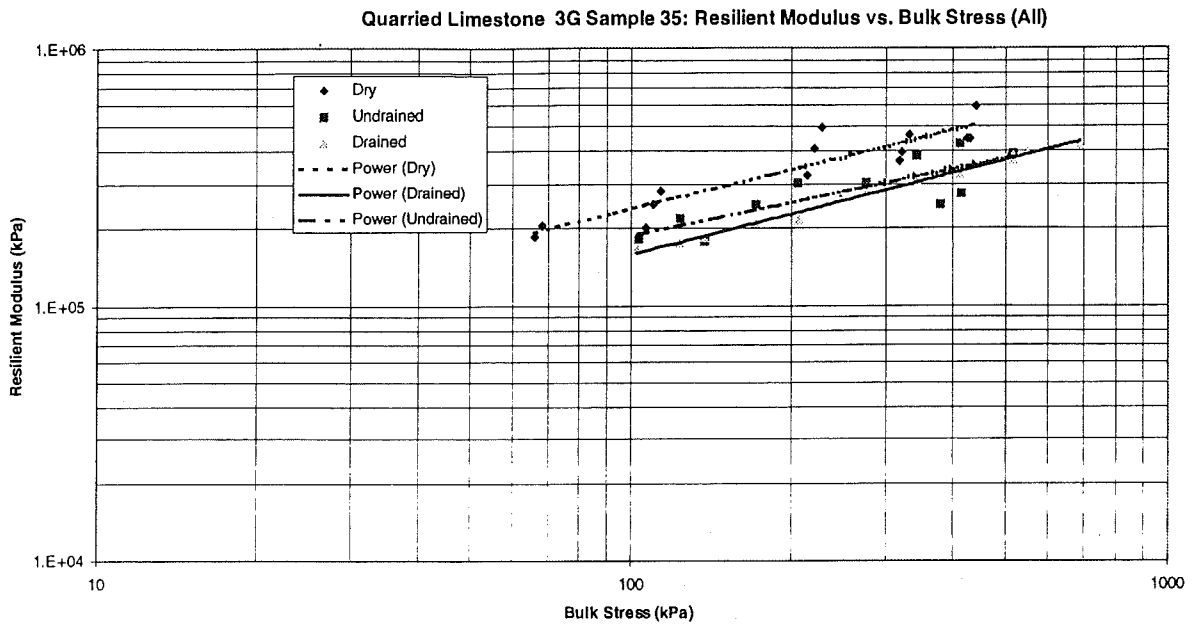


Figure 17. Resilient modulus versus bulk stress for quarried limestone 3G sample 35.

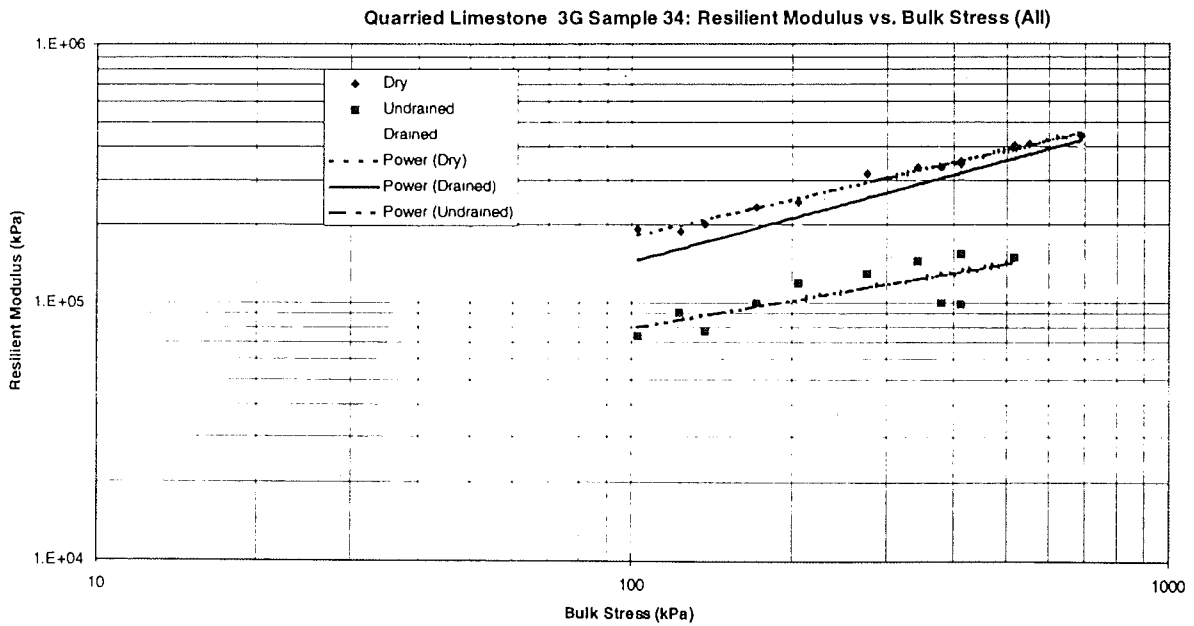


Figure 18. Resilient modulus versus bulk stress for quarried limestone 3G sample 34.

Table 3: Permanent deformation data for glacially derived materials.

Step Number	Deformation (mm)								
	21AA			350AA			3G		
	Sample2	Sample6	Sample3	Sample13	Sample12	Sample11	Sample17	Sample18	Sample16
1	0	0	0	0	0	0	0	0	0
2	0.03353798	0.02054553	0.2244922	0.3699433	0.53431659	0.1361	0.04131659	0.13120168	0.0187
3	0.04755116	0.04789268	0.2585	0.40032513	0.55845331	0.1586	0.07004109	0.16007616	0.0490
4	0.06059463	0.0599597	0.2303	0.41308581	0.32193862	0.1542	0.08041524	0.17056202	0.0645
5	0.07264267	0.0747519	0.2880	0.42984512	0.59415025	0.1840	0.10837328	0.18235406	0.0812
6	0.10014372	0.11612626	0.3210	0.46837065	0.63169636	0.2113	0.16604845	0.21701626	0.1237
7	0.12725415	0.14616082	0.3502	0.50371935	0.66295388	0.2421	0.22183929	0.24241737	0.1551
8	0.15571095	0.18227094	0.3786	0.53380478	0.7022737	0.2706	0.27069221	0.2727586	0.1993
9	0.21547798	0.27963697	0.4548	0.61824601	0.80409848	0.3378	0.42433411	0.34202917	0.3226
10	0.22072798	0.28658402	0.4549	0.62410147	0.80892922	0.3404	0.43528871	0.34643102	0.3313
11	0.2264353	0.29304442	0.4626	0.63188192	0.81748733	0.3470	0.44518786	0.35096731	0.3394
12	0.25448807	0.33046181	0.4956	0.66468662	0.8599611	0.3764	0.50741969	0.38405463	0.3875
13	0.2647588	0.34300502	0.5050	0.67579181	0.87121523	0.3884	0.53044836	0.39256203	0.4016
14	0.2686086	0.34698728	0.5088	0.68105505	0.87874687	0.3936	0.54014028	0.39864657	0.4085
15	0.31531866	0.4103602	0.5602	0.7328263	0.95274085	0.4413	0.63821901	0.44543705	0.4999
16	0.31531866	0.4103602	0.5602	0.7328263	0.95274085	0.4413	0.63821901	0.44543705	0.4999
17	0.3291786	0.43952438	0.7504	0.88741595	1.03131497	0.5436	0.65781138	0.46472166	0.5138
18	0.3389515	0.45268014	0.7605	0.90457912	1.05111265	0.5757	0.68512727	0.47851952	0.5303
19	0.3510525	0.46733623	0.7318	0.91320735	1.05228144	0.5716	0.70225318	0.4898802	0.5450
20	0.36567155	0.48023497	0.7822	0.92942818	1.07906986	0.5892	0.72662857	0.50085151	0.5607
21	0.38811147	0.50311762	0.7981	0.94756058	1.10148926	0.6317	0.76715662	0.52111035	0.5843
22	0.41775255	0.53599145	0.8241	0.9806207	1.13192779	0.6468	0.81892975	0.55251509	0.6132
23	0.4409865	0.55963832	0.8451	1.00040844	1.15919085	0.6823	0.8575733	0.57175069	0.6433
24	0.47354894	0.59974123	0.8795	1.03457253	1.20290493	0.7439	0.93744925	0.60748997	0.6500
25	0.47582341	0.60694842	0.8811	1.03952604	1.20694888	0.7346	0.94912933	0.61136675	0.6999
26	0.4827831	0.61213064	0.8883	1.04485658	1.21375352	0.7412	0.95720587	0.61687238	0.7094
27	0.50374167	0.6370843	0.9112	1.06932901	1.24290739	0.7749	1.00224871	0.63866571	0.7363
28	0.51469897	0.64841144	0.9196	1.07771498	1.25316571	0.7769	1.02086622	0.65076724	0.7499
29	0.52011043	0.65478152	0.8969	1.08285707	1.25882721	0.7836	1.02871498	0.65452274	0.7570
30	0.55160923	0.65468384	0.9662	1.11769423	1.30351888	0.8330	1.10094907	0.68631784	0.7962
31	0.55160923	0.65468384	0.9662	1.11769423	1.30351888	0.8330	1.10094907	0.68631784	0.7962
32	0.57274024	0.76312133	1.0613	1.14532637	1.49129831	0.9339	1.5107248	0.77501943	0.9703
33	0.66284853	0.83054871	1.1638	1.26906078	1.64725444	1.1927	2.0643049	0.8242684	1.1576
34	0.63178016	0.81311942	1.1437	1.24808803	1.62080943	1.1326	1.96589404	0.79856874	1.1251
35	0.70508959	0.85088546	1.2423	1.33154709	1.71773852	1.3560	2.25669425	0.83490229	1.2707
36	0.83702125	0.94581568	1.4104	1.56968624	1.93196153	1.9911	3.01510936	0.93580002	1.6933
37	0.8047011	0.93984466	1.4104	1.53972187	1.90344761	1.9061	2.91121105	0.8938662	1.7216
38	0.97288344	0.99766169	1.6642	1.72980544	2.1338322	2.7034	3.474048	1.05930797	2.8971
39	1.55365968	1.2283445	2.5098	2.737405	3.14330456	7.1644	7.39315402	2.31701305	8.4563
40	1.4722745	1.15873948	2.5210	2.60578263	3.05818939		7.07170516	2.29295041	
41	1.61279411	1.18039476	2.7422	2.81846725	3.31854473		7.42183723	2.59577795	
42	2.58058813	1.46203502	5.1447	4.18705089	5.25771153			4.21431604	
43	2.57091002	1.40296567	5.6689	4.14323499	5.3613827			4.74418166	
44	3.13821201	1.4802741	7.0567	4.55815812	4.30351888			3.68631784	
45	7.4673465	2.42910813	7.0056	7.36864627	8.57234109			7.95514005	

Table 4: Permanent deformation data for quarried limestone materials.

Step Number	Deformation (mm)								
	21AA			350AA			3G		
	Sample22	Sample24	Sample23	Sample29	Sample32	Sample28	Sample36	Sample35	Sample34
1	0	0	0	0	0	0	0	0	0
2	0.18056967	0.13547148	0.0209	0.02714184	0.05	0.0492	0.01551362	0.13498808	-0.0002
3	0.21714353	0.16654017	0.0545	0.05184307	0.08898244	0.0798	0.0407803	0.15784898	0.0334
4	0.23115599	0.16562393	0.0598	0.06414609	0.09921487	0.0934	0.05613894	0.16708958	0.0437
5	0.25075559	0.19505076	0.0773	0.08460726	0.12319947	0.1149	0.07175419	0.18331664	0.0645
6	0.29305032	0.23774925	0.1110	0.13415733	0.17189448	0.1705	0.10721082	0.2154025	0.1024
7	0.32269093	0.26744416	0.1370	0.17024629	0.21026881	0.2060	0.14214216	0.24690051	0.1367
8	0.36545695	0.31474634	0.1701	0.23203278	0.2568988	0.2570	0.17915999	0.28093756	0.1875
9	0.4602227	0.41426363	0.2387	0.43160602	0.36768355	0.3933	0.26560705	0.35960333	0.3527
10	0.4592397	0.41341571	0.2408	0.4400731	0.37315585	0.4027	0.26912013	0.36214632	0.3484
11	0.46890489	0.4246423	0.2442	0.44820339	0.38060641	0.4108	0.27699497	0.37192657	0.3680
12	0.51105122	0.4733444	0.2785	0.51405482	0.42735538	0.4585	0.31622047	0.40827994	0.4351
13	0.52089135	0.48103053	0.2628	0.52708515	0.43842106	0.4732	0.32833533	0.41875616	0.4508
14	0.52801219	0.48883788	0.2914	0.53668279	0.44584413	0.4788	0.33458128	0.42549178	0.4586
15	0.59784795	0.57586377	0.3453	0.65771118	0.52097227	0.5647	0.39818457	0.48415408	0.5795
16	0.59784795	0.57586377	0.3453	0.65771118	0.52097227	0.5647	0.39818457	0.48415408	0.5795
17	0.60636183	0.79784795	0.4753	0.66768605	0.56397262	0.6836	0.42336649	0.509336	0.6047
18	0.62734806	0.7970117	0.4921	0.69778506	0.59174977	0.7075	0.44591428	0.53188378	0.6273
19	0.63710653	0.78474766	0.4977	0.71329199	0.60357884	0.7237	0.45845939	0.54442889	0.6398
20	0.65751423	0.82433762	0.5099	0.73418383	0.62720267	0.7434	0.47836896	0.56433846	0.6597
21	0.6810305	0.85399248	0.5340	0.77374583	0.66196926	0.7835	0.50465851	0.59062802	0.6860
22	0.71497872	0.88597537	0.5576	0.81430397	0.70349198	0.8240	0.54275311	0.62872262	0.7241
23	0.74303173	0.92486451	0.5864	0.85592568	0.73974775	0.8655	0.57426546	0.66023497	0.7556
24	0.79692938	0.99589834	0.6333	0.97614623	0.83150586	0.9522	0.63628045	0.72224995	0.8176
25	0.79571784	0.99183297	0.6272	0.98305171	0.83518435	0.9586	0.64263394	0.72860345	0.8240
26	0.80400984	1.0028711	0.6314	0.99180137	0.84410112	0.9656	0.6491356	0.73510511	0.8305
27	0.83708338	1.04787156	0.6674	1.05226842	0.89297278	1.0136	0.68716326	0.77313277	0.8685
28	0.8497371	1.05549026	0.6730	1.06591789	0.90418009	1.0264	0.69980303	0.78577254	0.8812
29	0.85224058	1.06358036	0.6733	1.07629634	0.9107764	1.0361	0.70929334	0.79526285	0.8906
30	0.91039235	1.13279693	0.7308	1.19285573	0.99401198	1.1179	0.77027179	0.85624129	0.9516
31	0.91039235	1.13279693	0.7308	1.19285573	0.99401198	1.1179	0.77027179	0.85624129	0.9516
32	1.00134605	1.31279693	0.9108	1.34959773	1.21401198	1.3621	0.80035372	0.88632322	0.9817
33	1.10521173	1.44278385	1.0230	1.82474562	1.60143868	1.6095	0.81685713	0.90282664	0.9982
34	1.06525908	1.40096847	0.9852	1.79445826	1.45678924	1.5762	0.82401759	0.9099871	1.0054
35	1.17084796	1.56647454	1.1213	2.17292879	1.7844268	1.7539	0.85240787	0.93837738	1.0338
36	1.3585352	2.26889443	1.1926	3.52148224	2.5742041	2.4542	0.8744841	0.96045361	1.0558
37	1.33548988	2.34496748	1.2674	3.61920931	2.57675162	2.4120	0.83103182	0.91700133	1.0124
38	1.64677636	6.09893959	4.8940	6.01186754	3.80413852	3.4133	1.50882193	1.59479143	1.6902
39	3.43060671	7.72227313	8.2349		7.25699843	8.0037	3.5854962	3.6714657	3.7668
	3.46018058						3.47534451	3.56131402	3.6567
	4.09558186						3.76783922	3.85380872	3.9492
	7.60235534						5.41603529	5.50200479	5.5974
							5.38869584	5.47466535	5.5700
							5.83671936	5.92268887	6.0181
							6.80964159	6.8956111	6.9910

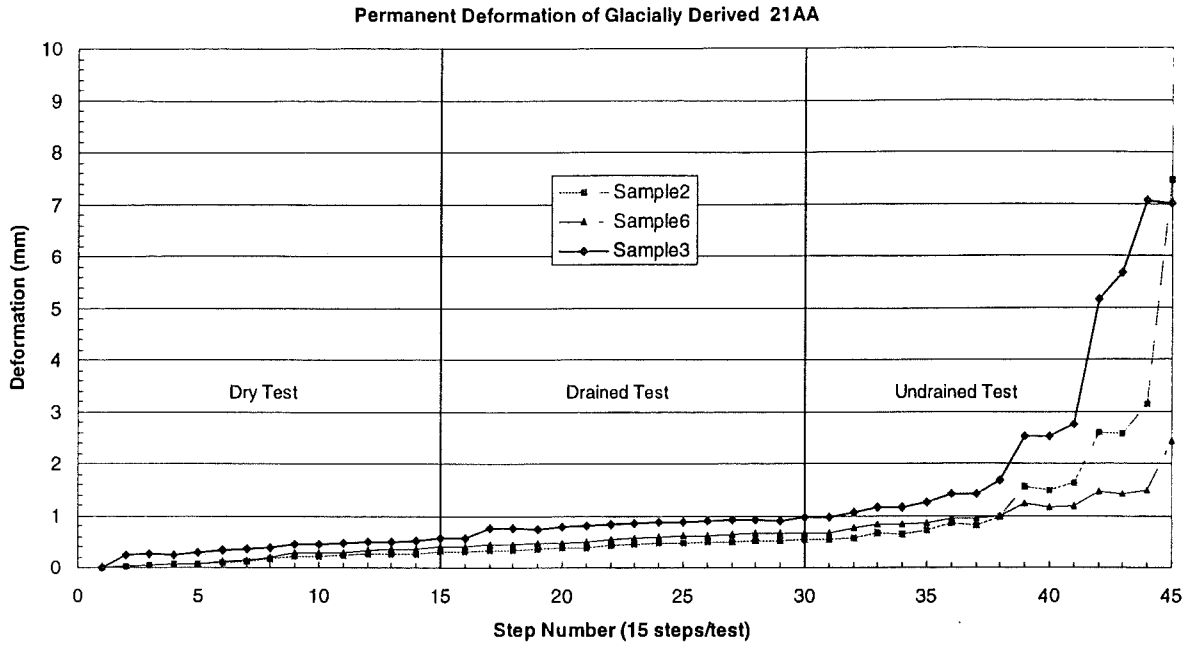


Figure 19. Permanent deformation recorded for glacially derived 21AA.

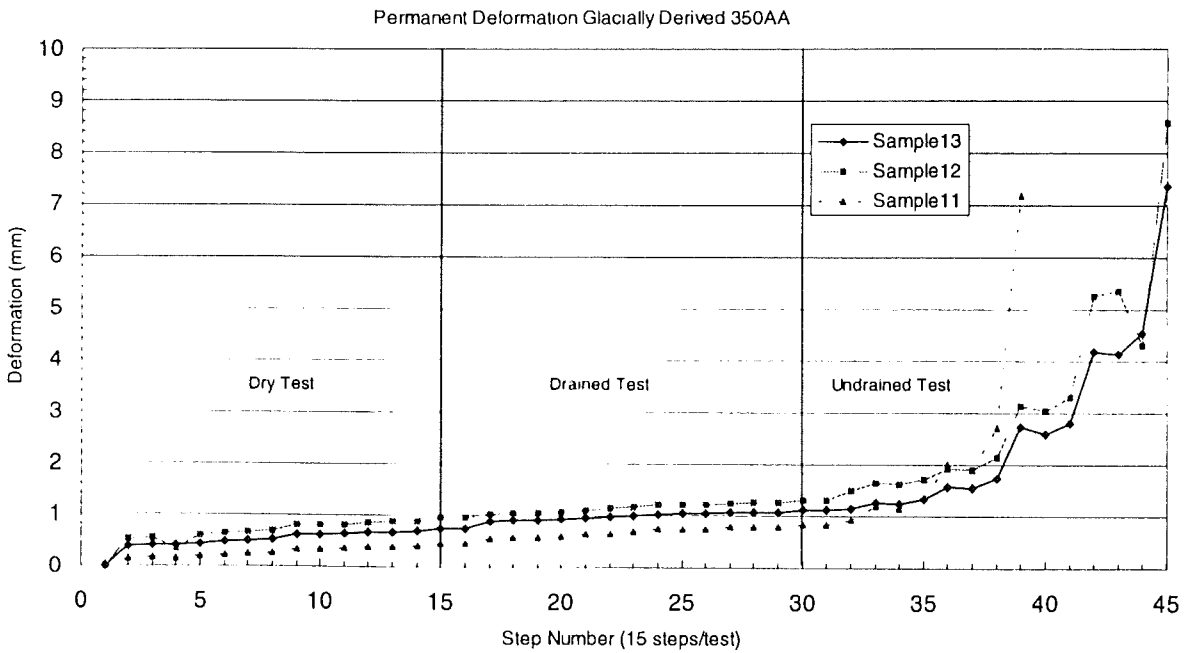


Figure 20. Permanent deformation recorded for glacially derived 350AA.

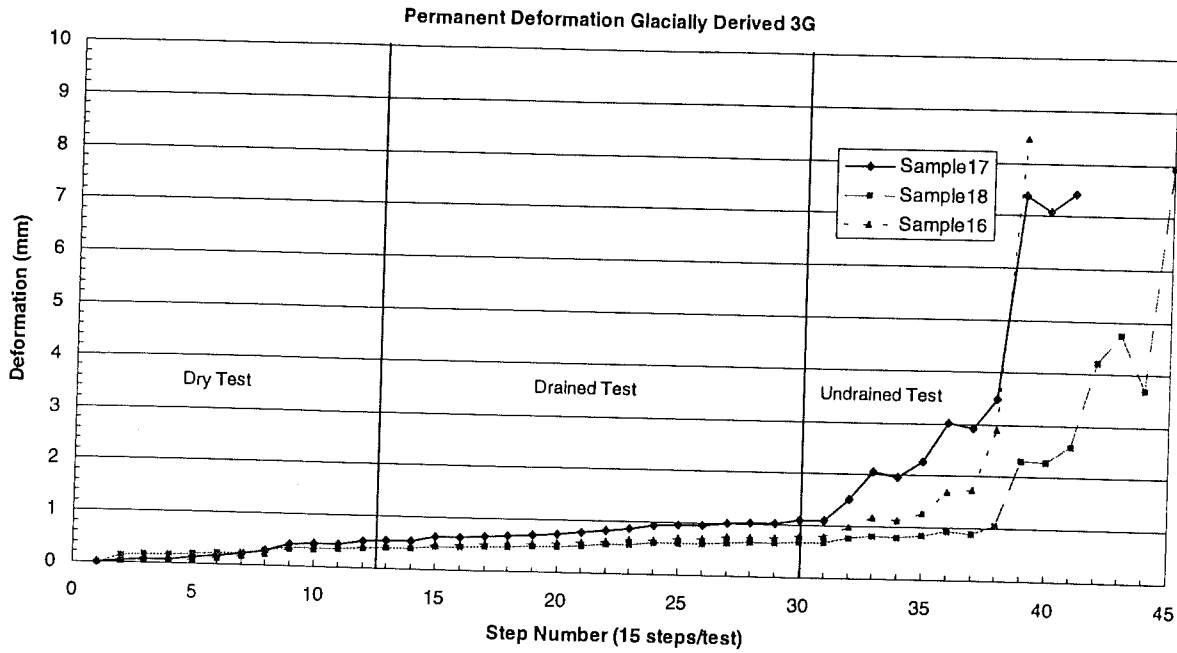


Figure 21. Permanent deformation recorded for glacially derived 3G.

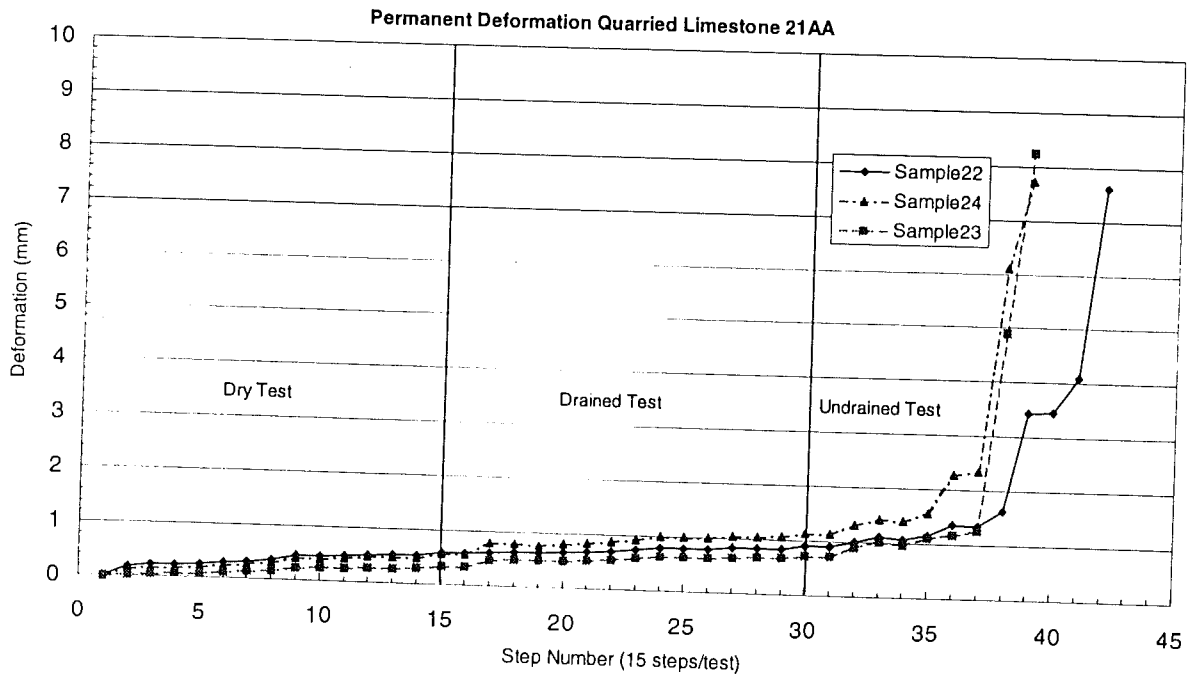


Figure 22. Permanent deformation recorded for quarried limestone 21AA.

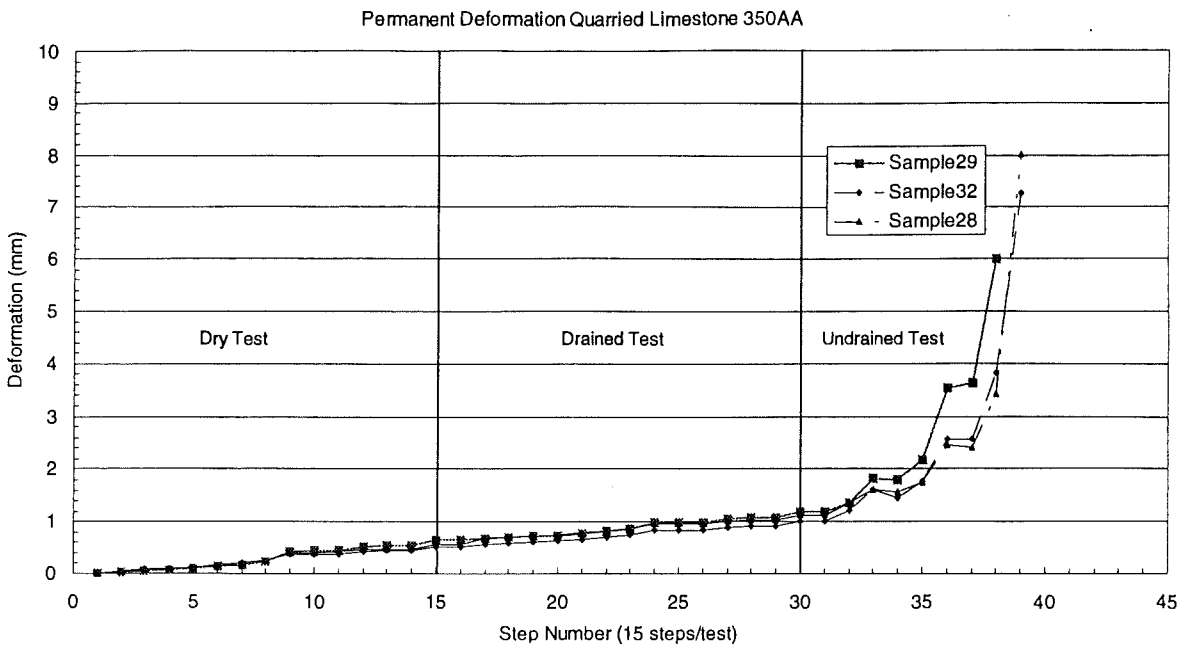


Figure 23. Permanent deformation recorded for quarried limestone 350AA.

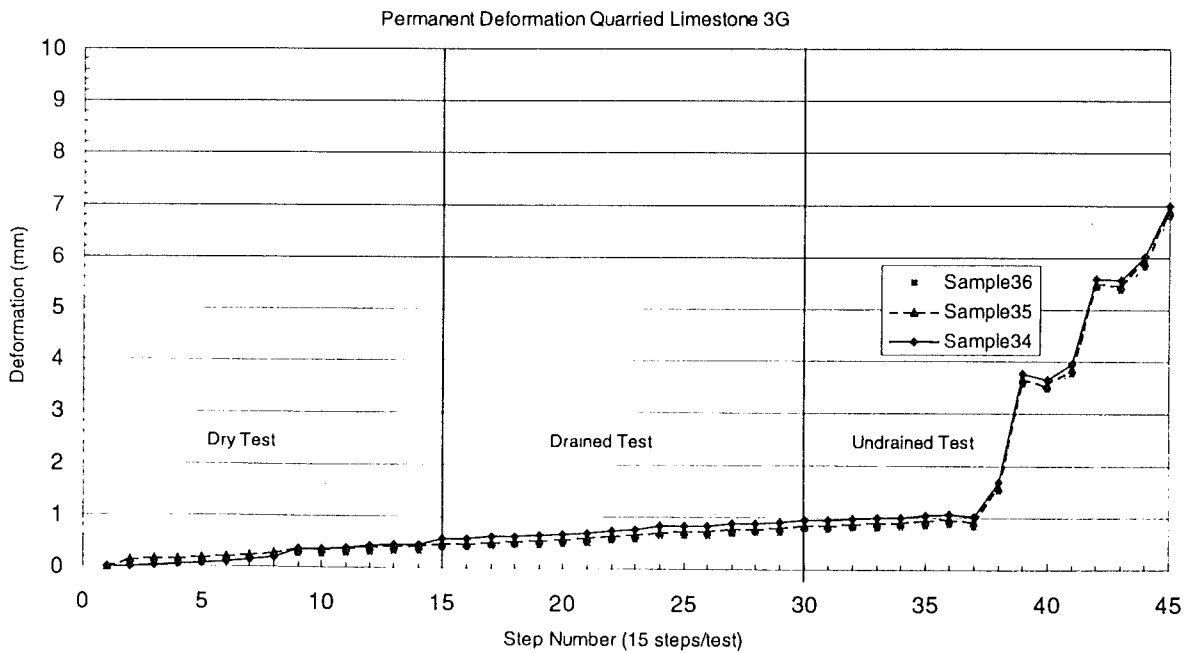


Figure 24. Permanent deformation recorded for quarried limestone 3G.