ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

SUBSURFACE INVESTIGATION

STATE JOB NO. 100708

FEDERAL AID PROJECT NO. NHPP-9332(13)

HWY. 412 WEST – HWY. 49 (S)

STATE HIGHWAY 412 SECTION 8

IN GREENE COUNTY

LETTING OF JANUARY 18, 2017

The information contained herein was obtained by the Department for design and estimating purposes only. It is being furnished with the express understanding that said information does not constitute a part of the Proposal or Contract and represents only the best knowledge of the Department as to the location, character and depth of the materials encountered. The information is only included and made available so that bidders may have access to subsurface information obtained by the Department and is not intended to be a substitute for personal investigation, interpretation and judgment of the bidder. The bidder should be cognizant of the possibility that conditions affecting the cost and/or quantities of work to be performed may differ from those indicated herein.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

November 8, 2010

TO: Mr. Michael D. Fugett, Engineer of Roadway Design

SUBJECT: Job No. 100708
Hwy. 412 West – Hwy. 49 (Gr. & Strs.) (F)
Route 412 Sections 8 & 9
Greene County

Transmitted herewith is the requested Soil Survey, Strength Data and Resilient Modulus test results for the above referenced job. The project consists of constructing a new four-lane divided highway, on new location, that will bypass Paragould to the southwest. The project begins on Highway 412 at the intersection with 72nd Street and continues south and east terminating at Highway 49 approximately 2 miles south of Paragould. Samples were obtained in the existing travel lanes of Highways 412 and 49 and along the proposed centerline of construction.

Based on laboratory results of samples obtained, the subgrade soils within the project limits consist primarily of low to medium plasticity sandy clays. The subgrade soils are expected to provide a stable working platform with normal compactive and drying efforts. However, if a stable working platform cannot be obtained or if soil remediation is needed to allow construction to proceed during adverse weather conditions, stabilization with lime is the most appropriate remediation technique. It is recommended that 4% lime (by dry weight of soil) mixed to a depth of sixteen inches be used for quantity estimation purposes. If the Engineer determines that soil stabilization is necessary; field trials or local experience may dictate that a stable working platform can be achieved using a lower lime content.

Based on currently available design plans and profiles, it is anticipated that the maximum embankment heights will not exceed 25 feet in height. Embankments should be constructed with locally available material utilizing no steeper than a 3H:1V slope configuration. The Geotechnical Section will be available make further recommendations when design cross-sections become available.

Plans indicate that there are locations within the project limits where the grade line closely matches the existing ground. Since these areas traverse cultivated fields and wooded areas, it is recommended that these areas be undercut to a minimum depth of two feet to remove all soft, unstable organic material. Undercut areas should be backfilled with material meeting the requirements of Selected Material Class SM-3 in Section 302 of the Standard Specifications for Highway Construction, 2003 Edition. An alternative to undercutting is to raise the grade line 3 to 5 feet to bridge across the unstable, organic material.

Based on the profiles available it is anticipated that the cut slopes proposed within the project limits will not exceed 20 feet. All cut slopes should be constructed utilizing no steeper than a 3H:1V slope configuration.

There are two ponds located within the project limits. The pond between station limits 218+00 to 221+00 is near the centerline of construction. This pond will need to be drained and

all soft, and unstable organic material will need to be undercut to the depth of firm stable material (anticipated to be no more than two feet). The undercut area should be backfilled with material meeting the requirements of Select Material Class SM-1 in Section 302 of the Standard Specifications for Highway Construction, 2003 Edition. The second pond located near Station 257+00, is outside the Right of Way limits, but may need to be drained if construction encroaches into the levee.

Listed below is the additional information requested for use in developing the plans:

1. The Qualified Products List (QPL) indicates that Aggregate Base Course (Class CL-7) is available from commercial producers located in the vicinity of Black Rock.

2. Asphalt Concrete Hot Mix

Type	Asphalt Cement %	Mineral Aggregate %
Surface Course	5.1	94.9
Binder Course	4.1	95.9
Base Course	3.8	95.2

Michael C. Benson
Materials Engineer

MCB:cww:bjj
Attachment
cc: State Constr. Eng. – Master File Copy
District 10 Engineer
Planning Div. – Jared Wiley
G. C. File

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY STRENGTH TEST REPORT ***

DATE - 10/20/2010
JOB NUMBER - 100708

SEQUENCE NO. - 1
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

JOB NAME - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)

STATION LIMITS	R-VALUE AT 240 psi
BEGIN JOB - END JOB	6
RESILIENT MODULUS	
STA.112+00	2394
STA.269+40	3292
STA.288+00	6273
STO.364+00	4814

REMARKS -
-

AASHTO TESTS : T190

JOB: **100708**

JOB NAME: HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)

COUNTY NO. 28 *DATE TESTED* 10/18/2010

Arkansas State Highway Transporation Department

Materials Division

Michael Benson, Materials Engineer

STA.#	LOC.	DEPTH	COLOR	#4	#10	#40	#80	#200	L.L.	P.I.	SOIL CLASS	LAB #:	%MOISTURE
				S	I	E	V	E S					
112+00	40'LT	0-5	RD/BR	100	99	94	87	84	29	12	A-6(8)	RV826	
269+00	40'LT	0-5	RD/BR	100	100	100	100	92	29	11	A-6(9)	RV827	
288+00	40'LT	0-5	BROWN	100	100	100	100	96	28	4	A-4(4)	RV828	
364+00	40'RT	0-5	BROWN	100				99	43	20	A-7-6(22)	RV829	
100+00	CL	0-5	RD/BR	100	99	77	40	32	25	10	A-2-4(0)	S761	11.2
108+00	40'RT	0-2.3	RD/BR	100	99	89	84	82	30	13	A-6(9)	S762	10.6
112+00	40'LT	0-5	RD/BR	100	99	95	84	81	38	21	A-6(16)	S763	17.5
116+00	40'RT	0-2.5Z	RD/BR	100	100	100	100	96	37	16	A-6(16)	S764	12.6
120+00	40'LT	0-2.0Z	RD/BR	100	100	100	100	97	35	15	A-6(15)	S765	16.8
124+00	40'RT	0-5	RD/BR	100	100	100	100	95	25	4	A-4(3)	S766	6
130+00	40'LT	0-2.0Z	RD/BR	100	100	100	100	91	26	3	A-4(2)	S767	9.4
132+00	40'RT	0-5	BROWN	100	100	98	85	75	ND	NP	A-4(0)	S768	12.5
135+00	40'RT	0-5	BROWN	100	93	79	69	62	ND	NP	A-4(0)	S769	15.9
140+00	40'LT	0-5	BROWN	100	100	100	100	94	ND	NP	A-4(0)	S770	20.8
144+00	40'RT	0-5	BROWN	100	100	100	100	95	25	6	A-4(4)	S771	10.9
148+00	40'LT	0-2.3Z	BROWN	100	100	100	100	94	28	7	A-4(6)	S772	14.1
151+50	28'RT	0-5	BROWN	100	95	88	82	79	25	7	A-4(4)	S773	19.7
156+00	40'LT	0-5	RD/BR	100	100	100	100	97	27	4	A-4(3)	S774	20
160+00	40'RT	0-5	RD/BR	100	100	100	100	97	39	20	A-6(20)	S775	12.9
164+00	40'LT	0-5	RD/BR	100	100	100	100	99	31	15	A-6(14)	S776	12.9
168+00	40'RT	0-5	RED	100	100	100	100	98	39	22	A-6(22)	S777	18.8
172+00	40'LT	0-5	BROWN	100	100	100	100	97	35	20	A-6(19)	S778	14.2
176+00	40'RT	0-5	RD/BR	100	100	100	100	97	34	16	A-6(15)	S779	12.1
180+00	40'LT	0-5	RD/BR	100	100	100	100	90	33	16	A-6(14)	S780	11.8
184+00	40'RT	0-5	BROWN	100	100	100	100	96	26	6	A-4(4)	S781	17.8
188+00	40'LT	0-5	BROWN	100	99	85	58	47	ND	NP	A-4(0)	S782	9.7

comments: W=MULTIPLE LAYERS Z=AUGER REFUSAL

Wednesday, October 20, 2010

STA.#	LOC.	DEPTH	COLOR	#4	#10	#40	#80	#200	L.L.	P.I.	SOIL CLASS	LAB #:	%MOISTURE
				S	I	E	V	E S					
192+00	40'RT	0-5	BROWN	100	100	95	51	40	ND	NP	A-4(0)	S783	5.7
198+00	40'LT	0-5	RD/BR	100	99	91	88	87	26	7	A-4(5)	S784	10.3
200+00	40'RT	0-5	RD/BR	100	100	100	100	95	37	18	A-6(18)	S785	15.3
204+00	40'LT	0-5	RD/BR	100	100	71	60	57	36	18	A-6(7)	S786	10.8
209+40	40'RT	0-5	RD/BR	100	100	100	100	98	40	21	A-6(22)	S787	19.9
221+50	40'LT	0-5	RD/BR	100	100	100	100	99	33	15	A-6(15)	S788	10.3
224+00	40'RT	0-5	RD/BR	100	100	100	100	98	34	16	A-6(16)	S789	17.2
228+00	40'LT	0-5	RD/BR	100	100	100	100	96	31	13	A-6(12)	S790	19.2
232+00	40'RT	0-5	BROWN	100	100	100	100	99	33	12	A-6(12)	S791	18.9
236+00	40'LT	0-5	BROWN	100	100	100	100	99	27	6	A-4(5)	S792	11.9
240+00	40'RT	0-5	RD/BR	100	100	100	100	95	26	5	A-4(4)	S793	6.9
244+00	40'LT	0-5	RD/BR	100	100	100	100	96	25	4	A-4(3)	S794	9
248+00	CL	0-5	BROWN	100	100	100	100	95	25	7	A-4(5)	S795	18.7
252+00	40'LT	0-5	BROWN	100	100	100	100	99	28	7	A-4(6)	S796	21.4
256+00	40'RT	0-5	BROWN	100	100	100	100	99	31	9	A-4(9)	S797	18.7
260+00	40'LT	0-5	BROWN	100	100	100	100	99	36	13	A-6(14)	S798	19.8
264+00	40'RT	0-5	RD/BR	100	100	100	100	99	34	9	A-4(10)	S799	22.4
269+40	40'LT	0-5	RD/BR	100	99	96	93	91	31	12	A-6(10)	S800	14.8
272+00	40'RT	0-5	RD/BR	100	100	100	100	90	29	12	A-6(9)	S801	17
276+00	40'RT	0-5	BROWN	100	100	96	77	74	ND	NP	A-4(0)	S802	20.8
280+00	40'LT	0-5	BROWN	100	100	98	85	81	28	13	A-6(8)	S803	13.1
284+00	40'RT	0-5	RD/BR	100	100	100	100	98	35	18	A-6(18)	S804	17.4
288+00	40'LT	0-5	BROWN	100	100	100	100	94	25	6	A-4(4)	S804	15.6
296+00	40'LT	0-5	BROWN	100	100	100	100	98	34	17	A-6(17)	S806	12.6
300+00	40'RT	0-5	BROWN	100	100	100	93	88	ND	NP	A-4(0)	S807	4.9
304+00	40'LT	0-5	BROWN	100	100	99	80	70	ND	NP	A-4(0)	S808	5.1
308+00	40'RT	0-5	BROWN	100	100	100	100	97	30	5	A-4(5)	S809	10.1
312+00	40'LT	0-5	BROWN	100	99	9	92	88	28	3	A-4(2)	S810	5.5

comments: W=MULTIPLE LAYERS Z=AUGER REFUSAL

Wednesday, October 20, 2010

STA.#	LOC.	DEPTH	COLOR	#4	#10	#40	#80	#200	L.L.	P.I.	SOIL CLASS	LAB #:	%MOISTURE
				S	I	E	V	E S					
316+00	40'RT	0-5	BROWN	100	100	100	100	99	32	14	A-6(14)	S811	14.3
320+00	40'LT	0-5	BROWN	100	100	100	100	95	30	6	A-4(6)	S812	8.7
324+00	40'RT	0-5	BROWN	100	100	100	100	97	32	8	A-4(8)	S813	9.6
328+00	40'LT	0-5	RD/BR	100	100	100	100	98	34	10	A-4(11)	S814	15.3
332+00	40'RT	0-5	RD/BR	100	100	100	100	97	31	14	A-6(13)	S815	18.1
336+50	40'LT	0-5	BROWN	100	99	95	90	86	26	7	A-4(5)	S816	21.4
340+00	40'RT	0-5	BROWN	100	100	100	100	96	36	19	A-6(18)	S817	20
344+00	40'LT	0-5	BROWN	100	100	100	100	98	32	9	A-4(9)	S818	19.9
348+00	40'RT	0-5	BROWN	100	100	100	100	98	37	13	A-6(14)	S819	14.5
352+00	40'LT	0-5	BROWN	100	100	100	100	99	33	11	A-6(11)	S820	10.6
356+00	40'RT	0-5	BROWN	100	100	100	100	99	30	14	A-6(13)	S821	13.4
360+00	40'LT	0-5	RD/BR	100	89	73	66	63	34	17	A-6(8)	S822	20
364+00	40'RT	0-5	BROWN	100	100	100	100	99	44	27	A-7-6(28)	S823	18.7
368+00	40'LT	0-5	BROWN	100	100	100	100	98	35	18	A-6(18)	S824	17.7
374+00	40'RT	0-5	BROWN	100	97	89	84	82	34	19	A-6(14)	S825	19.3

comments: W=MULTIPLE LAYERS Z=AUGER REFUSAL

Wednesday, October 20, 2010

JOB: 100708

JOB NAME: HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)

COUNTY NO. 28

Arkansas State Highway Transporation Department
Materials Division
Michael Benson, Materials Engineer

DATE TESTED
10/18/2010

PAVEMENT SOUNDINGS

STA.#	LOC.		
100+00	CL	ACHM SURFACE	ACHM BINDER
		3.5	**9.5**
108+00	40'RT	ACHM SURFACE	ACHM BINDER
		—	—
112+00	40'LT	ACHM SURFACE	ACHM BINDER
		—	—
130+00	40'LT	ACHM SURFACE	AGG BASE CRS CL5
		—	—
132+00	40'RT	ACHM SURFACE	AGG BASE CRS CL5
		—	—
135+00	40'RT	ACHM SURFACE	AGG BASE CRS CL5
		3.50W	**15.0**
151+50	28'RT	ACHM SURFACE	AGG BASE CRS CL5
		5.0W	**10.0**
156+00	40'LT	ACHM SURFACE	AGG BASE CRS CL5
		—	—
160+00	40'RT	ACHM SURFACE	AGG BASE CRS CL5
		—	—
269+40	40'LT	ACHM SURFACE	AGG BASE CRS CL5
		2.5	**15.0**
272+00	40'RT	ACHM SURFACE	AGG BASE CRS CL5
		—	—
276+00	40'RT	ACHM SURFACE	AGG BASE CRS CL5
		—	—
332+00	40'RT	ACHM SURFACE	AGG BASE CRS CL5
		—	—
336+50	40'LT	ACHM SURFACE	AGG BASE CRS CL5
		1.50	**15.0**
340+00	40'RT	ACHM SURFACE	AGG BASE CRS CL5
		—	—

comments: W=MULTIPLE LAYERS Z=AUGER REFUSAL

Wednesday, October 20, 2010

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
MATERIALS DIVISION

AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS
RECOMPACTED SAMPLES

Job No.	100708	**Material Code**	SSRVPS
Date Sampled:	10/15/2010	**Station No.:**	112+00
Date Tested:	October 15, 2010	**Location:**	40'LT
Name of Project:	HWY 412 WEST - HWY 49		
County:	**Code:** 28 **Name:** GREENE		
Sampled By:		**Depth:**	0-5
Lab No.:	20102694	**AASHTO Class:**	A-6(8)
Sample ID:	RV826	**Material Type (1 or 2):**	2
LATITUDE:		**LONGITUDE:**	

1. Testing Information:

Preconditioning - Permanent Strain > 5% (Y=Yes or N= No)	N
Testing - Permanent Strain > 5% (Y=Yes or N=No)	N
Number of Load Sequences Completed (0-15)	15

2. Specimen Information:

Specimen Diameter (in):	
Top	3.97
Middle	3.97
Bottom	3.98
Average	3.97
Membrane Thickness (in):	0.00
Height of Specimen, Cap and Base (in):	8
Height of Cap and Base (in):	0.00
Initial Length, Lo (in):	8
Initial Area, Ao (sq. in):	12.40
Initial Volume, AoLo (cu. in):	99.20

3. Soil Specimen Weight:

Weight of Wet Soil Used (g):	3288.40

4. Soil Properties:

Optimum Moisture Content (%):	17.4
Maximum Dry Density (pcf):	107.6
95% of MDD (pcf):	102.2
In-Situ Moisture Content (%):	N/A

5. Specimen Properties:

Wet Weight (g):	3288.40
Compaction Moisture content (%):	17.3
Compaction Wet Density (pcf):	126.31
Compaction Dry Density (pcf):	107.68
Moisture Content After Mr Test (%):	18.0

6. Quick Shear Test (Y=Yes, N=No, N/A=Not Applicable): #VALUE!

7. Resilient Modulus, Mr: 3271(Sc)^-0.30220(S3)^0.32123

8. Comments _____

9. Tested By: DEB **Date:** October 15, 2010

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
MATERIALS DIVISION

AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS
RECOMPACTED SAMPLES

Job No. 100708
Date Sampled: 10/15/2010
Date Tested: October 15, 2010
Name of Project: HWY 412 WEST - HWY 49
County: **Code:** 28 **Name:** GREENE
Sampled By:
Lab No.: 20102694
Sample ID: RV826
LATITUDE:

Material Code SSRVPS
Station No.: 112+00
Location: 40'LT

Depth: 0-5
AASHTO Class: A-6(8)
Material Type (1 or 2): 2
LONGITUDE:

PARAMETER	*Chamber Confining Pressure*	*Nominal Maximum Axial Stress*	*Actual Applied Max. Axial Load*	*Actual Applied Cyclic Load*	*Actual Applied Contact Load*	*Actual Applied Max. Axial Stress*	*Actual Applied Cyclic Stress*	*Actual Applied Contact Stress*	*Average Recov Def. LVDT 1 and 2*	*Resilient Strain*	*Resilient Modulus*
DESIGNATION	S_3	S_{cyclic}	P_{max}	P_{cyclic}	$P_{contact}$	S_{max}	S_{cyclic}	$S_{contact}$	H_{avg}	ε_r	M_r
UNIT	psi	psi	lbs	lbs	lbs	psi	psi	psi	in	in/in	psi
Sequence 1	6.0	2.0	25.2	22.4	2.8	2.0	1.8	0.2	0.00258	0.00032	5,585
Sequence 2	6.0	4.0	46.8	43.9	2.8	3.8	3.5	0.2	0.00623	0.00078	4,551
Sequence 3	6.0	6.0	68.2	64.4	3.8	5.5	5.2	0.3	0.01099	0.00137	3,783
Sequence 4	6.0	8.0	87.9	81.5	6.5	7.1	6.6	0.5	0.01830	0.00229	2,873
Sequence 5	6.0	10.0	116.2	107.2	9.0	9.4	8.6	0.7	0.02051	0.00256	3,373
Sequence 6	4.0	2.0	24.4	21.5	2.9	2.0	1.7	0.2	0.00351	0.00044	3,952
Sequence 7	4.0	4.0	43.6	40.7	2.9	3.5	3.3	0.2	0.00900	0.00112	2,918
Sequence 8	4.0	6.0	63.0	59.9	3.1	5.1	4.8	0.2	0.01523	0.00190	2,540
Sequence 9	4.0	8.0	90.0	84.5	5.6	7.3	6.8	0.4	0.01920	0.00240	2,839
Sequence 10	4.0	10.0	110.1	102.2	8.0	8.9	8.2	0.6	0.02388	0.00298	2,761
Sequence 11	2.0	2.0	24.3	21.5	2.8	2.0	1.7	0.2	0.00368	0.00046	3,775
Sequence 12	2.0	4.0	43.4	40.6	2.8	3.5	3.3	0.2	0.00921	0.00115	2,843
Sequence 13	2.0	6.0	62.5	59.6	3.0	5.0	4.8	0.2	0.01558	0.00195	2,466
Sequence 14	2.0	8.0	85.0	80.5	4.5	6.9	6.5	0.4	0.02169	0.00271	2,394
Sequence 15	2.0	10.0	107.5	100.4	7.1	8.7	8.1	0.6	0.02698	0.00337	2,402

TESTED BY DEB DATE October 15, 2010
REVIEWED BY _____ DATE _____

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

MATERIALS DIVISION

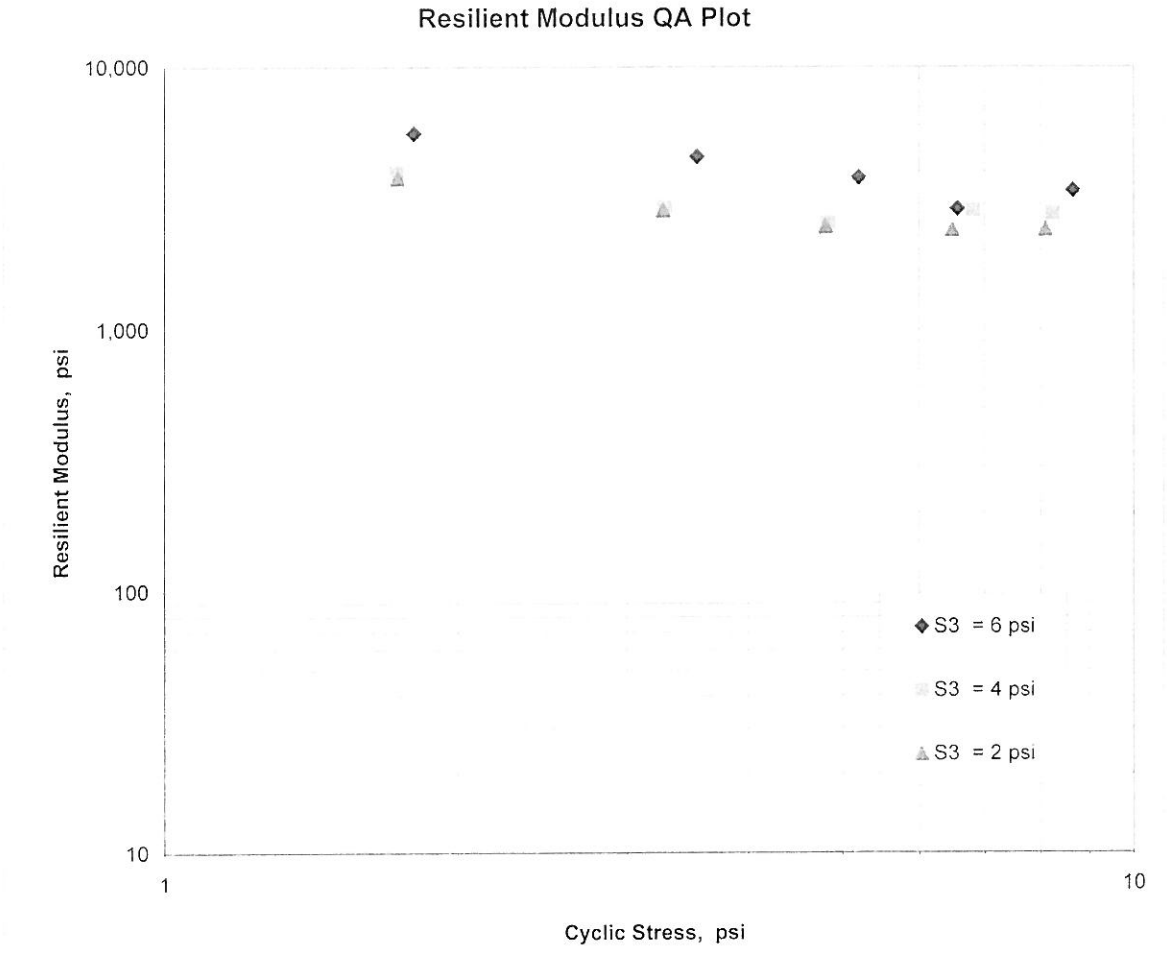
AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS

RECOMPACTED / THINWALL TUBE SAMPLES

Job No.	100708	**Material Code**	SSRVPS
Date Sampled:	10/15/2010	**Station No.:**	112+00
Date Tested:	October 15, 2010	**Location:**	40'LT
Name of Project:	HWY 412 WEST - HWY 49		
County:	**Code:** 28 **Name:** GREENE		
Sampled By:		**Depth:**	0-5
Lab No.:	20102694	**AASHTO Class:**	A-6(8)
Sample ID:	RV826	**Material Type (1 or 2):**	2
LATITUDE:		**LONGITUDE:**	

$$M_R = K1\ (S_C)^{K2}\ (S_3)^{K5}$$

K1 =	3,271
K2 =	-0.30220
K5 =	0.32123
R^2 =	0.79



ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
MATERIALS DIVISION

AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS
RECOMPACTED SAMPLES

Job No.	100708	**Material Code**	SSRVPS
Date Sampled:	10/15/2010	**Station No.:**	269+40
Date Tested:	October 15, 2010	**Location:**	40'LT
Name of Project:	HWY 412 WEST - HWY 49		
County:	**Code:** 28 **Name:** GREENE		
Sampled By:		**Depth:**	0-5
Lab No.:	20102695	**AASHTO Class:**	A-6(9)
Sample ID:	RV827	**Material Type (1 or 2):**	2
LATITUDE:		**LONGITUDE:**	

1. Testing Information:

Preconditioning - Permanent Strain > 5% (Y=Yes or N= No)	N
Testing - Permanent Strain > 5% (Y=Yes or N=No)	N
Number of Load Sequences Completed (0-15)	15

2. Specimen Information:

Specimen Diameter (in):	
Top	3.99
Middle	3.98
Bottom	3.98
Average	3.98
Membrane Thickness (in):	0.00
Height of Specimen, Cap and Base (in):	8.02
Height of Cap and Base (in):	0.00
Initial Length, Lo (in):	8.02
Initial Area, Ao (sq. in):	12.46
Initial Volume, AoLo (cu. in):	99.94

3. Soil Specimen Weight:

Weight of Wet Soil Used (g):	3082.70

4. Soil Properties:

Optimum Moisture Content (%):	17.4
Maximum Dry Density (pcf):	105.3
95% of MDD (pcf):	100.0
In-Situ Moisture Content (%):	N/A

5. Specimen Properties:

Wet Weight (g):	3082.70
Compaction Moisture content (%):	17.4
Compaction Wet Density (pcf):	117.52
Compaction Dry Density (pcf):	100.11
Moisture Content After Mr Test (%):	17.8

6. Quick Shear Test (Y=Yes, N=No, N/A=Not Applicable): #VALUE!

7. Resilient Modulus, Mr: 5463(Sc)^-0.35544(S3)^0.33388

8. Comments _____

_____

9. Tested By: DEB **Date:** October 15, 2010

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
MATERIALS DIVISION

AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS
RECOMPACTED SAMPLES

Job No.	100708	**Material Code**	SSRVPS
Date Sampled:	10/15/2010	**Station No.:**	269+40
Date Tested:	October 15, 2010	**Location:**	40'LT
Name of Project:	HWY 412 WEST - HWY 49		
County:	**Code:** 28 **Name:** GREENE		
Sampled By:		**Depth:**	0-5
Lab No.:	20102695	**AASHTO Class:**	A-6(9)
Sample ID:	RV827	**Material Type (1 or 2):**	2
LATITUDE:		**LONGITUDE:**	

PARAMETER	*Chamber Confining Pressure*	*Nominal Maximum Axial Stress*	*Actual Applied Max. Axial Load*	*Actual Applied Cyclic Load*	*Actual Applied Contact Load*	*Actual Applied Max. Axial Stress*	*Actual Applied Cyclic Stress*	*Actual Applied Contact Stress*	*Average Recov Def. LVDT 1 and 2*	*Resilient Strain*	*Resilient Modulus*
DESIGNATION	S_3	S_{cyclic}	P_{max}	P_{cyclic}	$P_{contact}$	S_{max}	S_{cyclic}	$S_{contact}$	H_{avg}	ε_r	M_r
UNIT	psi	psi	lbs	lbs	lbs	psi	psi	psi	in	in/in	psi
Sequence 1	6.0	2.0	25.6	22.8	2.8	2.1	1.8	0.2	0.00187	0.00023	7,859
Sequence 2	6.0	4.0	48.0	45.3	2.7	3.9	3.6	0.2	0.00421	0.00053	6,927
Sequence 3	6.0	6.0	70.4	66.5	3.9	5.6	5.3	0.3	0.00735	0.00092	5,826
Sequence 4	6.0	8.0	93.2	86.9	6.4	7.5	7.0	0.5	0.01139	0.00142	4,908
Sequence 5	6.0	10.0	116.1	107.2	8.9	9.3	8.6	0.7	0.01562	0.00195	4,416
Sequence 6	4.0	2.0	25.4	22.6	2.8	2.0	1.8	0.2	0.00218	0.00027	6,654
Sequence 7	4.0	4.0	47.1	44.2	2.9	3.8	3.5	0.2	0.00514	0.00064	5,533
Sequence 8	4.0	6.0	67.9	64.9	3.0	5.4	5.2	0.2	0.00882	0.00110	4,740
Sequence 9	4.0	8.0	91.5	86.0	5.5	7.3	6.9	0.4	0.01302	0.00162	4,252
Sequence 10	4.0	10.0	114.7	106.5	8.1	9.2	8.5	0.7	0.01736	0.00216	3,948
Sequence 11	2.0	2.0	25.2	22.3	2.9	2.0	1.8	0.2	0.00258	0.00032	5,567
Sequence 12	2.0	4.0	46.2	43.3	2.9	3.7	3.5	0.2	0.00614	0.00077	4,536
Sequence 13	2.0	6.0	66.2	63.3	3.0	5.3	5.1	0.2	0.01044	0.00130	3,899
Sequence 14	2.0	8.0	88.2	83.5	4.7	7.1	6.7	0.4	0.01531	0.00191	3,510
Sequence 15	2.0	10.0	111.0	103.7	7.3	8.9	8.3	0.6	0.02028	0.00253	3,292

TESTED BY DEB DATE October 15, 2010

REVIEWED BY _____ DATE _____

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

MATERIALS DIVISION

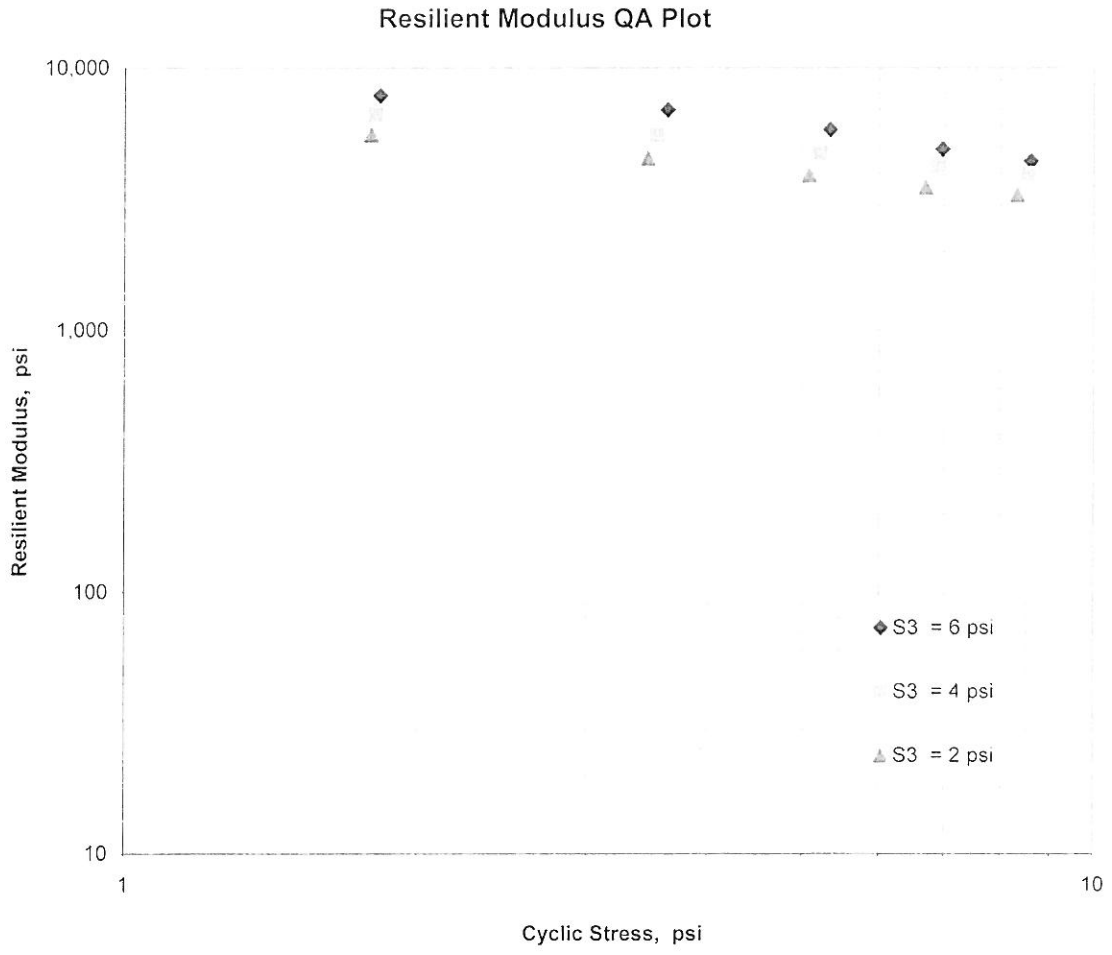
AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS

RECOMPACTED / THINWALL TUBE SAMPLES

Job No.	100708	**Material Code**	SSRVPS
Date Sampled:	10/15/2010	**Station No.:**	269+40
Date Tested:	October 15, 2010	**Location:**	40'LT
Name of Project:	HWY 412 WEST - HWY 49		
County:	**Code:** 28 **Name:** GREENE		
Sampled By:		**Depth:**	0-5
Lab No.:	20102695	**AASHTO Class:**	A-6(9)
Sample ID:	RV827	**Material Type (1 or 2):**	2
LATITUDE:		**LONGITUDE:**	

$$M_R = K1\,(S_C)^{K2}\,(S_3)^{K5}$$

K1 =	5,463
K2 =	-0.35544
K5 =	0.33388
R^2 =	0.98



ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
MATERIALS DIVISION

AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS
RECOMPACTED SAMPLES

Job No.	100708	**Material Code**	SSRVPS
Date Sampled:	10/19/2010	**Station No.:**	288+00
Date Tested:	October 19, 2010	**Location:**	40'LT
Name of Project:	HWY 412 WEST - HWY 49		
County:	**Code:** 28 **Name:** GREENE		
Sampled By:		**Depth:**	0-5
Lab No.:	20102696	**AASHTO Class:**	A-4(4)
Sample ID:	RV828	**Material Type (1 or 2):**	2
LATITUDE:		**LONGITUDE:**	

1. Testing Information:

Preconditioning - Permanent Strain > 5% (Y=Yes or N= No)	N
Testing - Permanent Strain > 5% (Y=Yes or N=No)	N
Number of Load Sequences Completed (0-15)	15

2. Specimen Information:

Specimen Diameter (in):	
Top	3.99
Middle	3.99
Bottom	3.98
Average	3.99
Membrane Thickness (in):	0.00
Height of Specimen, Cap and Base (in):	8.03
Height of Cap and Base (in):	0.00
Initial Length, Lo (in):	8.03
Initial Area, Ao (sq. in):	12.48
Initial Volume, AoLo (cu. in):	100.24

3. Soil Specimen Weight:

Weight of Wet Soil Used (g):	3033.70

4. Soil Properties:

Optimum Moisture Content (%):	17.5
Maximum Dry Density (pcf):	104.4
95% of MDD (pcf):	99.2
In-Situ Moisture Content (%):	N/A

5. Specimen Properties:

Wet Weight (g):	3033.70
Compaction Moisture content (%):	17.5
Compaction Wet Density (pcf):	115.32
Compaction Dry Density (pcf):	98.14
Moisture Content After Mr Test (%):	17.4

6. Quick Shear Test (Y=Yes, N=No, N/A=Not Applicable): #VALUE!

7. Resilient Modulus, Mr: 6416(Sc)^-0.13001(S3)^0.35138

8. Comments _____

_____

9. Tested By: DEB **Date:** October 19, 2010

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
MATERIALS DIVISION

AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS
RECOMPACTED SAMPLES

Job No. 100708
Date Sampled: 10/19/2010
Date Tested: October 19, 2010
Name of Project: HWY 412 WEST - HWY 49
County: **Code:** 28 **Name:** GREENE
Sampled By:
Lab No.: 20102696
Sample ID: RV828
LATITUDE:

Material Code SSRVPS
Station No.: 288+00
Location: 40'LT

Depth: 0-5
AASHTO Class: A-4(4)
Material Type (1 or 2): 2
LONGITUDE:

PARAMETER	*Chamber Confining Pressure*	*Nominal Maximum Axial Stress*	*Actual Applied Max. Axial Load*	*Actual Applied Cyclic Load*	*Actual Applied Contact Load*	*Actual Applied Max. Axial Stress*	*Actual Applied Cyclic Stress*	*Actual Applied Contact Stress*	*Average Recov Def. LVDT 1 and 2*	*Resilient Strain*	*Resilient Modulus*
DESIGNATION	S_3	S_{cyclic}	P_{max}	P_{cyclic}	$P_{contact}$	S_{max}	S_{cyclic}	$S_{contact}$	H_{avg}	ε_r	M_r
UNIT	psi	psi	lbs	lbs	lbs	psi	psi	psi	in	in/in	psi
Sequence 1	6.0	2.0	25.7	23.1	2.7	2.1	1.8	0.2	0.00135	0.00017	10,959
Sequence 2	6.0	4.0	48.3	45.5	2.8	3.9	3.6	0.2	0.00279	0.00035	10,482
Sequence 3	6.0	6.0	71.4	67.6	3.8	5.7	5.4	0.3	0.00436	0.00054	9,974
Sequence 4	6.0	8.0	95.7	89.3	6.4	7.7	7.2	0.5	0.00611	0.00076	9,412
Sequence 5	6.0	10.0	119.9	111.0	8.9	9.6	8.9	0.7	0.00787	0.00098	9,077
Sequence 6	4.0	2.0	25.4	22.6	2.8	2.0	1.8	0.2	0.00152	0.00019	9,525
Sequence 7	4.0	4.0	47.5	44.6	2.9	3.8	3.6	0.2	0.00329	0.00041	8,712
Sequence 8	4.0	6.0	69.3	66.4	3.0	5.6	5.3	0.2	0.00519	0.00065	8,229
Sequence 9	4.0	8.0	93.6	88.1	5.5	7.5	7.1	0.4	0.00717	0.00089	7,903
Sequence 10	4.0	10.0	117.7	109.6	8.1	9.4	8.8	0.6	0.00909	0.00113	7,761
Sequence 11	2.0	2.0	25.1	22.3	2.8	2.0	1.8	0.2	0.00186	0.00023	7,716
Sequence 12	2.0	4.0	46.5	43.6	2.9	3.7	3.5	0.2	0.00399	0.00050	7,038
Sequence 13	2.0	6.0	67.3	64.3	3.0	5.4	5.2	0.2	0.00630	0.00079	6,565
Sequence 14	2.0	8.0	90.3	85.6	4.7	7.2	6.9	0.4	0.00864	0.00108	6,372
Sequence 15	2.0	10.0	114.0	106.9	7.2	9.1	8.6	0.6	0.01096	0.00136	6,273

TESTED BY DEB DATE October 19, 2010
REVIEWED BY _____ DATE _____

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

MATERIALS DIVISION

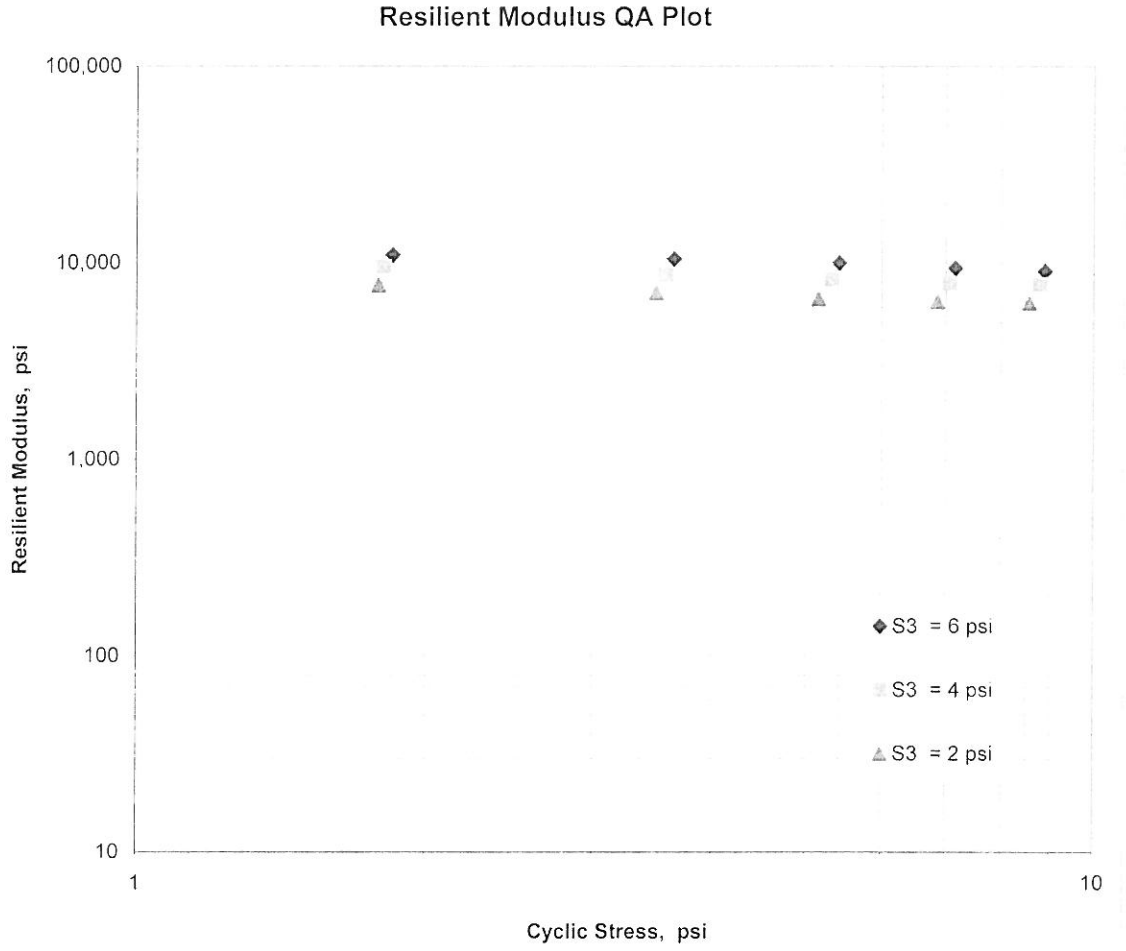
AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS

RECOMPACTED / THINWALL TUBE SAMPLES

Job No.	100708	**Material Code**	SSRVPS
Date Sampled:	10/19/2010	**Station No.:**	288+00
Date Tested:	October 19, 2010	**Location:**	40'LT
Name of Project:	HWY 412 WEST - HWY 49		
County:	**Code:** 28 **Name:** GREENE		
Sampled By:		**Depth:**	0-5
Lab No.:	20102696	**AASHTO Class:**	A-4(4)
Sample ID:	RV828	**Material Type (1 or 2):**	2
LATITUDE:		**LONGITUDE:**	

$$M_R = K1\,(S_C)^{K2}\,(S_3)^{K5}$$

K1 =	6,416
K2 =	-0.13001
K5 =	0.35138
R^2 =	0.99



ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
MATERIALS DIVISION

AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS
RECOMPACTED SAMPLES

Job No.	100708	**Material Code**	SSRVPS
Date Sampled:	10/19/2010	**Station No.:**	364+00
Date Tested:	October 19, 2010	**Location:**	40RLT
Name of Project:	HWY 412 WEST - HWY 49		
County:	**Code:** 28 **Name:** GREENE		
Sampled By:		**Depth:**	0-5
Lab No.:	20102697	**AASHTO Class:**	A-7-6(22)
Sample ID:	RV829	**Material Type (1 or 2):**	2
LATITUDE:		**LONGITUDE:**	

1. Testing Information:

Preconditioning - Permanent Strain > 5% (Y=Yes or N= No)	N
Testing - Permanent Strain > 5% (Y=Yes or N=No)	N
Number of Load Sequences Completed (0-15)	15

2. Specimen Information:

Specimen Diameter (in):	
Top	3.97
Middle	3.96
Bottom	3.96
Average	3.96
Membrane Thickness (in):	0.00
Height of Specimen, Cap and Base (in):	8.04
Height of Cap and Base (in):	0.00
Initial Length, Lo (in):	8.04
Initial Area, Ao (sq. in):	12.34
Initial Volume, AoLo (cu. in):	99.19

3. Soil Specimen Weight:

Weight of Wet Soil Used (g):	3016.60

4. Soil Properties:

Optimum Moisture Content (%):	21.5
Maximum Dry Density (pcf):	100.5
95% of MDD (pcf):	95.5
In-Situ Moisture Content (%):	N/A

5. Specimen Properties:

Wet Weight (g):	3016.60
Compaction Moisture content (%):	21.7
Compaction Wet Density (pcf):	115.88
Compaction Dry Density (pcf):	95.22
Moisture Content After Mr Test (%):	21.8

6. Quick Shear Test (Y=Yes, N=No, N/A=Not Applicable): #VALUE!

7. Resilient Modulus, Mr: 7456(Sc)^-0.27771(S3)^0.24541

8. Comments _____

_____

9. Tested By: DEB **Date:** October 19, 2010

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
MATERIALS DIVISION

AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS
RECOMPACTED SAMPLES

Job No.	100708	**Material Code**	SSRVPS
Date Sampled:	10/19/2010	**Station No.:**	364+00
Date Tested:	October 19, 2010	**Location:**	40RLT
Name of Project:	HWY 412 WEST - HWY 49		
County:	**Code:** 28 **Name:** GREENE		
Sampled By:		**Depth:**	0-5
Lab No.:	20102697	**AASHTO Class:**	A-7-6(22)
Sample ID:	RV829	**Material Type (1 or 2):**	2
LATITUDE:		**LONGITUDE:**	

PARAMETER	*Chamber Confining Pressure*	*Nominal Maximum Axial Stress*	*Actual Applied Max. Axial Load*	*Actual Applied Cyclic Load*	*Actual Applied Contact Load*	*Actual Applied Max. Axial Stress*	*Actual Applied Cyclic Stress*	*Actual Applied Contact Stress*	*Average Recov Def. LVDT 1 and 2*	*Resilient Strain*	*Resilient Modulus*
DESIGNATION	S_3	S_{cyclic}	P_{max}	P_{cyclic}	$P_{contact}$	S_{max}	S_{cyclic}	$S_{contact}$	H_{avg}	ε_r	M_r
UNIT	psi	psi	lbs	lbs	lbs	psi	psi	psi	in	in/in	psi
Sequence 1	6.0	2.0	25.5	22.7	2.8	2.1	1.8	0.2	0.00157	0.00020	9,395
Sequence 2	6.0	4.0	47.9	45.1	2.7	3.9	3.7	0.2	0.00341	0.00042	8,636
Sequence 3	6.0	6.0	70.5	66.8	3.7	5.7	5.4	0.3	0.00574	0.00071	7,586
Sequence 4	6.0	8.0	94.0	87.8	6.3	7.6	7.1	0.5	0.00868	0.00108	6,592
Sequence 5	6.0	10.0	117.4	108.6	8.7	9.5	8.8	0.7	0.01158	0.00144	6,114
Sequence 6	4.0	2.0	25.4	22.6	2.8	2.1	1.8	0.2	0.00170	0.00021	8,658
Sequence 7	4.0	4.0	47.4	44.7	2.8	3.8	3.6	0.2	0.00389	0.00048	7,491
Sequence 8	4.0	6.0	68.9	66.0	2.8	5.6	5.4	0.2	0.00648	0.00081	6,644
Sequence 9	4.0	8.0	92.2	86.9	5.3	7.5	7.0	0.4	0.00946	0.00118	5,982
Sequence 10	4.0	10.0	115.9	108.0	7.9	9.4	8.8	0.6	0.01262	0.00157	5,577
Sequence 11	2.0	2.0	25.3	22.6	2.7	2.1	1.8	0.2	0.00202	0.00025	7,301
Sequence 12	2.0	4.0	47.0	44.2	2.8	3.8	3.6	0.2	0.00452	0.00056	6,374
Sequence 13	2.0	6.0	67.9	65.0	2.9	5.5	5.3	0.2	0.00747	0.00093	5,672
Sequence 14	2.0	8.0	90.2	85.6	4.5	7.3	6.9	0.4	0.01080	0.00134	5,164
Sequence 15	2.0	10.0	113.2	106.1	7.1	9.2	8.6	0.6	0.01436	0.00179	4,814

TESTED BY DEB DATE October 19, 2010

REVIEWED BY _____ DATE _____

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

MATERIALS DIVISION

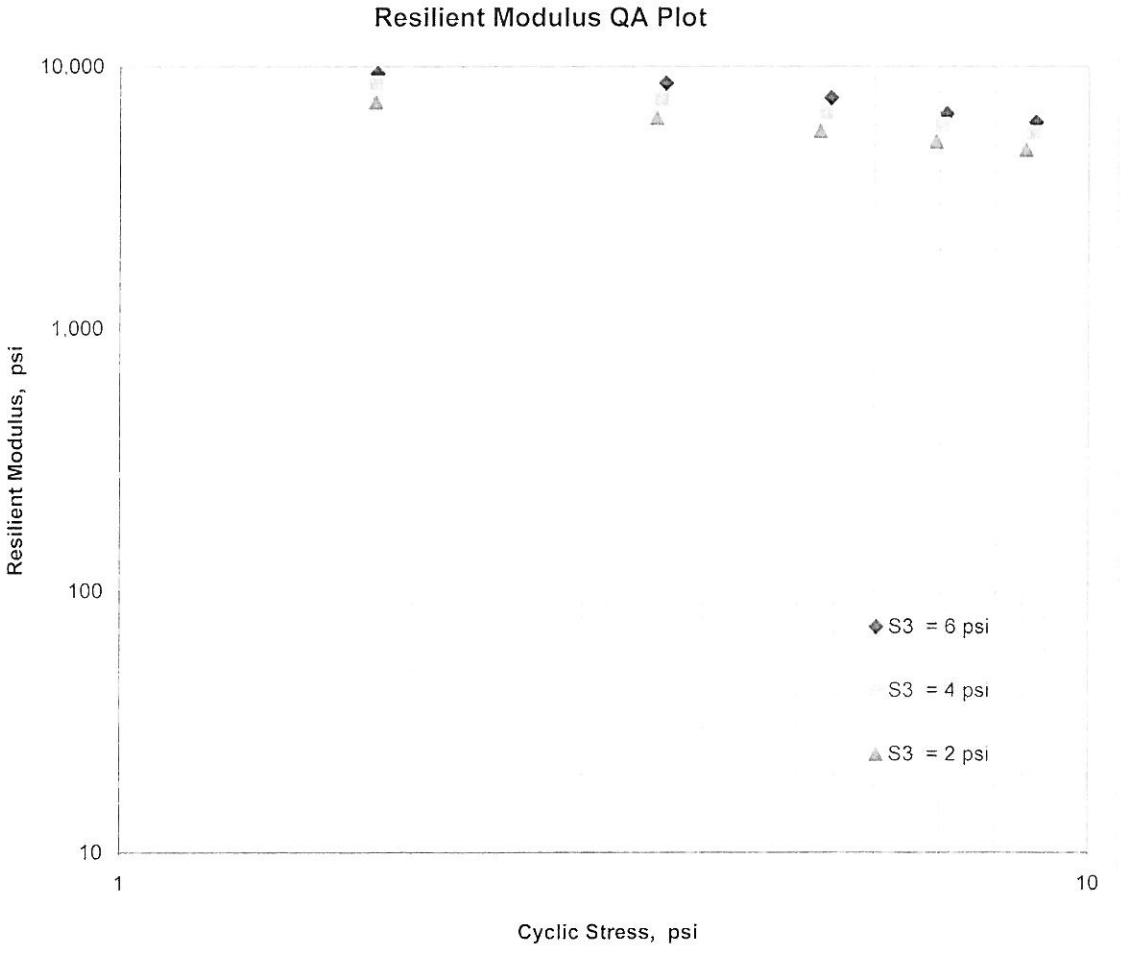
AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS

RECOMPACTED / THINWALL TUBE SAMPLES

Job No.	100708	**Material Code**	SSRVPS
Date Sampled:	10/19/2010	**Station No.:**	364+00
Date Tested:	October 19, 2010	**Location:**	40RLT
Name of Project:	HWY 412 WEST - HWY 49		
County:	**Code:** 28 **Name:** GREENE		
Sampled By:		**Depth:**	0-5
Lab No.:	20102697	**AASHTO Class:**	A-7-6(22)
Sample ID:	RV829	**Material Type (1 or 2):**	2
LATITUDE:		**LONGITUDE:**	

$$M_R = K1\ (S_C)^{K2}\ (S_3)^{K5}$$

K1 =	7,456
K2 =	-0.27771
K5 =	0.24541
R^2 =	0.97



ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/18/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
SEQUENCE NO. - 1
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	20102629	20102630	20102631
SAMPLE ID	S761	S762	S763
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	100+00	108+00	112+00
LOCATION	CL	40'RT	40'LT
DEPTH IN FEET	0-5	0-2.3	0-5
MAT'L COLOR	RD/BR	RD/BR	RD/BR
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 4 3.00	36 03 55.10	36 3 51.90
LONGITUDE DEG-MIN-SEC	90 34 50.70	90 34 50.70	90 34 47.60
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	99	99	99
NO. 40	77	89	95
NO. 80	40	84	84
NO. 200	32	82	81
LIQUID LIMIT	25	30	38
PLASTICITY INDEX	10	13	21
AASHTO SOIL	A-2-4(0)	A-6(9)	A-6(16)
UNIFIED SOIL			
% MOISTURE CONTENT	11.2	10.6	17.5
ACHM SURFACE (IN)	3.5	—	—
ACHM BINDER (IN)	9.5	—	—

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/18/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 2
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102632	20102633	20102634
SAMPLE ID	S764	S765	S766
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	116+00	120+00	124+00
LOCATION	40'RT	40'LT	40'RT
DEPTH IN FEET	0-2.5Z	0-2.0Z	0-5
MAT'L COLOR	RD/BR	RD/BR	RD/BR
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 3 48.70	36 03 46.80	36 3 43.70
LONGITUDE DEG-MIN-SEC	90 34 44.70	90 34 40.30	90 34 37.10
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	100	100	100
NO. 40	100	100	100
NO. 80	100	100	100
NO. 200	96	97	95
LIQUID LIMIT	37	35	25
PLASTICITY INDEX	16	15	4
AASHTO SOIL	A-6(16)	A-6(15)	A-4(3)
UNIFIED SOIL			
% MOISTURE CONTENT	12.6	16.8	6.0

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/18/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 3
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102635	20102636	20102637
SAMPLE ID	S767	S768	S769
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	130+00	132+00	135+00
LOCATION	40'LT	40'RT	40'RT
DEPTH IN FEET	0-2.0Z	0-5	0-5
MAT'L COLOR	RD/BR	BROWN	BROWN
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 3 41.80	36 03 38.60	36 3 36.50
LONGITUDE DEG-MIN-SEC	90 34 32.80	90 34 29.80	90 34 27.30
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	100	100	93
NO. 40	100	98	79
NO. 80	100	85	69
NO. 200	91	75	62
LIQUID LIMIT	26	ND	ND
PLASTICITY INDEX	3	NP	NP
AASHTO SOIL	A-4(2)	A-4(0)	A-4(0)
UNIFIED SOIL			
% MOISTURE CONTENT	9.4	12.5	15.9
ACHM SURFACE (IN)	__	__	3.50W
AGG BASE CRS CL5 (IN)	__	__	15.0

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/27/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 4
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102638	20102639	20102640
SAMPLE ID	S770	S771	S772
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	140+00	144+00	148+00
LOCATION	40'LT	40'RT	40'LT
DEPTH IN FEET	0-5	0-5	0-2.3Z
MAT'L COLOR	BROWN	BROWN	BROWN
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 3 32.90	36 03 29.00	36 3 25.70
LONGITUDE DEG-MIN-SEC	90 34 23.00	90 34 21.60	90 34 18.90
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	100	100	100
NO. 40	100	100	100
NO. 80	100	100	100
NO. 200	94	95	94
LIQUID LIMIT	ND	25	28
PLASTICITY INDEX	NP	6	7
AASHTO SOIL	A-4(0)	A-4(4)	A-4(6)
UNIFIED SOIL			
% MOISTURE CONTENT	20.8	10.9	14.1

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/18/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 5
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102641	20102642	20102643
SAMPLE ID	S773	S774	S775
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	151+50	156+00	160+00
LOCATION	28'RT	40'LT	40'RT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	BROWN	RD/BR	RD/BR
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 3 22.10	36 03 18.30	36 3 14.30
LONGITUDE DEG-MIN-SEC	90 34 18.30	90 34 15.40	90 34 14.50
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	95	100	100
NO. 40	88	100	100
NO. 80	82	100	100
NO. 200	79	97	97
LIQUID LIMIT	25	27	39
PLASTICITY INDEX	7	4	20
AASHTO SOIL	A-4(4)	A-4(3)	A-6(20)
UNIFIED SOIL			
% MOISTURE CONTENT	19.7	20.0	12.9
ACHM SURFACE (IN)	5.0W	—	—
AGG BASE CRS CL5 (IN)	10.0	—	—

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/18/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 6
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102644	20102645	20102646
SAMPLE ID	S776	S777	S778
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	164+00	168+00	172+00
LOCATION	40'LT	40'RT	40'LT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	RD/BR	RED	BROWN
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 3 10.90	36 03 6.90	36 3 3.50
LONGITUDE DEG-MIN-SEC	90 34 11.90	90 34 11.00	90 34 8.40
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	100	100	100
NO. 40	100	100	100
NO. 80	100	100	100
NO. 200	99	98	97
LIQUID LIMIT	31	39	35
PLASTICITY INDEX	15	22	20
AASHTO SOIL	A-6(14)	A-6(22)	A-6(19)
UNIFIED SOIL			
% MOISTURE CONTENT	12.9	18.8	14.2

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/18/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 7
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102647	20102648	20102649
SAMPLE ID	S779	S780	S781
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	176+00	180+00	184+00
LOCATION	40'RT	40'LT	40'RT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	RD/BR	RD/BR	BROWN
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 2 59.50	36 02 56.10	36 2 52.20
LONGITUDE DEG-MIN-SEC	90 34 7.50	90 34 4.90	90 34 4.00
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	100	100	100
NO. 40	100	100	100
NO. 80	100	100	100
NO. 200	97	90	96
LIQUID LIMIT	34	33	26
PLASTICITY INDEX	16	16	6
AASHTO SOIL	A-6(15)	A-6(14)	A-4(4)
UNIFIED SOIL			
% MOISTURE CONTENT	12.1	11.8	17.8

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/18/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 8
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102650	20102651	20102652
SAMPLE ID	S782	S783	S784
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	188+00	192+00	198+00
LOCATION	40'LT	40'RT	40'LT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	BROWN	BROWN	RD/BR
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 2 48.80	36 02 44.80	36 2 41.40
LONGITUDE DEG-MIN-SEC	90 34 1.40	90 34 .50	90 33 57.80
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	99	100	99
NO. 40	85	95	91
NO. 80	58	51	88
NO. 200	47	40	87
LIQUID LIMIT	ND	ND	26
PLASTICITY INDEX	NP	NP	7
AASHTO SOIL	A-4(0)	A-4(0)	A-4(5)
UNIFIED SOIL			
% MOISTURE CONTENT	9.7	5.7	10.3

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/18/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 9
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102653	20102654	20102655
SAMPLE ID	S785	S786	S787
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	200+00	204+00	209+40
LOCATION	40'RT	40'LT	40'RT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	RD/BR	RD/BR	RD/BR
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 2 37.40	36 02 34.60	36 2 28.70
LONGITUDE DEG-MIN-SEC	90 33 57.00	90 33 54.30	90 33 52.80
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	100	100	100
NO. 40	100	71	100
NO. 80	100	60	100
NO. 200	95	57	98
LIQUID LIMIT	37	36	40
PLASTICITY INDEX	18	18	21
AASHTO SOIL	A-6(18)	A-6(7)	A-6(22)
UNIFIED SOIL			
% MOISTURE CONTENT	15.3	10.8	19.9

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/18/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 10
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102656	20102657	20102658
SAMPLE ID	S788	S789	S790
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	221+50	224+00	228+00
LOCATION	40'LT	40'RT	40'LT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	RD/BR	RD/BR	RD/BR
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 2 19.90	36 02 16.20	36 2 13.60
LONGITUDE DEG-MIN-SEC	90 33 45.80	90 33 43.80	90 33 40.10
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	100	100	100
NO. 40	100	100	100
NO. 80	100	100	100
NO. 200	99	98	96
LIQUID LIMIT	33	34	31
PLASTICITY INDEX	15	16	13
AASHTO SOIL	A-6(15)	A-6(16)	A-6(12)
UNIFIED SOIL			
% MOISTURE CONTENT	10.3	17.2	19.2

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/18/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 11
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102659	20102660	20102661
SAMPLE ID	S791	S792	S793
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	232+00	236+00	240+00
LOCATION	40'RT	40'LT	40'RT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	BROWN	BROWN	RD/BR
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 2 9.90	36 02 7.20	36 2 3.60
LONGITUDE DEG-MIN-SEC	90 33 37.90	90 33 34.20	90 33 32.00
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	100	100	100
NO. 40	100	100	100
NO. 80	100	100	100
NO. 200	99	99	95
LIQUID LIMIT	33	27	26
PLASTICITY INDEX	12	6	5
AASHTO SOIL	A-6(12)	A-4(5)	A-4(4)
UNIFIED SOIL			
% MOISTURE CONTENT	18.9	11.9	6.9

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/18/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 12
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102662	20102663	20102664
SAMPLE ID	S794	S795	S796
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	244+00	248+00	252+00
LOCATION	40'LT	CL	40'LT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	RD/BR	BROWN	BROWN
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 2 .90	36 01 57.00	36 1 53.40
LONGITUDE DEG-MIN-SEC	90 33 28.40	90 33 27.00	90 33 24.90
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	100	100	100
NO. 40	100	100	100
NO. 80	100	100	100
NO. 200	96	95	99
LIQUID LIMIT	25	25	28
PLASTICITY INDEX	4	7	7
AASHTO SOIL	A-4(3)	A-4(5)	A-4(6)
UNIFIED SOIL			
% MOISTURE CONTENT	9.0	18.7	21.4

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/18/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 13
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102665	20102666	20102667
SAMPLE ID	S797	S798	S799
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	256+00	260+00	264+00
LOCATION	40'RT	40'LT	40'RT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	BROWN	BROWN	RD/BR
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 1 49.40	36 01 45.40	36 1 41.50
LONGITUDE DEG-MIN-SEC	90 33 25.60	90 33 24.70	90 33 25.70
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	100	100	100
NO. 40	100	100	100
NO. 80	100	100	100
NO. 200	99	99	99
LIQUID LIMIT	31	36	34
PLASTICITY INDEX	9	13	9
AASHTO SOIL	A-4(9)	A-6(14)	A-4(10)
UNIFIED SOIL			
% MOISTURE CONTENT	18.7	19.8	22.4

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/27/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 14
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102668	20102669	20102670
SAMPLE ID	S800	S801	S802
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	269+40	272+00	276+00
LOCATION	40'LT	40'RT	40'RT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	RD/BR	RD/BR	BROWN
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 1 36.10	36 01 33.50	36 1 29.60
LONGITUDE DEG-MIN-SEC	90 33 24.90	90 33 28.00	90 33 25.80
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	99	100	100
NO. 40	96	100	96
NO. 80	93	100	77
NO. 200	91	90	74
LIQUID LIMIT	31	29	ND
PLASTICITY INDEX	12	12	NP
AASHTO SOIL	A-6(10)	A-6(9)	A-4(0)
UNIFIED SOIL			
% MOISTURE CONTENT	14.8	17.0	20.8
ACHM SURFACE (IN)	2.5	—	—
AGG BASE CRS CL5 (IN)	15.0	—	—

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/27/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 15
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102671	20102672	20102673
SAMPLE ID	S803	S804	S805
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	280+00	284+00	288+00
LOCATION	40'LT	40'RT	40'LT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	BROWN	RD/BR	BROWN
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 1 25.80	36 01 21.90	36 1 19.20
LONGITUDE DEG-MIN-SEC	90 33 23.90	90 33 22.80	90 33 19.20
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	100	100	100
NO. 40	98	100	100
NO. 80	85	100	100
NO. 200	81	98	94
LIQUID LIMIT	28	35	25
PLASTICITY INDEX	13	18	6
AASHTO SOIL	A-6(8)	A-6(18)	A-4(4)
UNIFIED SOIL			
% MOISTURE CONTENT	13.1	17.4	15.6

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE	- 10/18/10	SEQUENCE NO.	- 16
JOB NUMBER	- 100708	MATERIAL CODE	- SSRVPS
FEDERAL AID NO.	- TO BE ASSIGNED	SPEC. YEAR	- 2003
PURPOSE	- SOIL SURVEY SAMPLE	SUPPLIER ID.	- 1
SPEC. REMARKS	- NO SPECIFICATION CHECK	COUNTY/STATE	- 28
SUPPLIER NAME	- STATE	DISTRICT NO.	- 10

NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS

LOCATION	- GREENE, COUNTY	DATE SAMPLED	- 10/01/10
SAMPLED BY	- D KRAFT,D ALLEN	DATE RECEIVED	- 10/04/10
SAMPLE FROM	- TESTHOLE	DATE TESTED	- 10/18/10

MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	20102674	20102675	20102676
SAMPLE ID	S806	S807	S808
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	296+00	300+00	304+00
LOCATION	40'LT	40'RT	40'LT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	BROWN	BROWN	BROWN
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 1 14.60	36 01 12.60	36 1 12.80
LONGITUDE DEG-MIN-SEC	90 33 11.50	90 33 7.20	90 33 2.20
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	100	100	100
NO. 40	100	100	99
NO. 80	100	93	80
NO. 200	98	88	70
LIQUID LIMIT	34	ND	ND
PLASTICITY INDEX	17	NP	NP
AASHTO SOIL	A-6(17)	A-4(0)	A-4(0)
UNIFIED SOIL			
% MOISTURE CONTENT	12.6	4.9	5.1

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/27/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 17
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102677	20102678	20102679
SAMPLE ID	S809	S810	S811
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	308+00	312+00	316+00
LOCATION	40'RT	40'LT	40'RT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	BROWN	BROWN	BROWN
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 1 11.30	36 01 11.50	36 1 10.10
LONGITUDE DEG-MIN-SEC	90 32 57.60	90 32 52.60	90 32 47.80
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	100	99	100
NO. 40	100	96	100
NO. 80	100	92	100
NO. 200	97	88	99
LIQUID LIMIT	30	28	32
PLASTICITY INDEX	5	3	14
AASHTO SOIL	A-4(5)	A-4(2)	A-6(14)
UNIFIED SOIL			
% MOISTURE CONTENT	10.1	5.5	14.3

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/18/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 18
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102680	20102681	20102682
SAMPLE ID	S812	S813	S814
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	320+00	324+00	328+00
LOCATION	40'LT	40'RT	40'LT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	BROWN	BROWN	RD/BR
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 1 10.20	36 01 8.80	36 1 9.00
LONGITUDE DEG-MIN-SEC	90 32 43.00	90 32 38.40	90 32 33.40
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	100	100	100
NO. 40	100	100	100
NO. 80	100	100	100
NO. 200	95	97	98
LIQUID LIMIT	30	32	34
PLASTICITY INDEX	6	8	10
AASHTO SOIL	A-4(6)	A-4(8)	A-4(11)
UNIFIED SOIL			
% MOISTURE CONTENT	8.7	9.6	15.3

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/18/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 19
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102683	20102684	20102685
SAMPLE ID	S815	S816	S817
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	332+00	336+50	340+00
LOCATION	40'RT	40'LT	40'RT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	RD/BR	BROWN	BROWN
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 1 7.60	36 01 7.70	36 1 6.30
LONGITUDE DEG-MIN-SEC	90 32 28.70	90 32 23.20	90 32 19.10
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	100	99	100
NO. 40	100	95	100
NO. 80	100	90	100
NO. 200	97	86	96
LIQUID LIMIT	31	26	36
PLASTICITY INDEX	14	7	19
AASHTO SOIL	A-6(13)	A-4(5)	A-6(18)
UNIFIED SOIL			
% MOISTURE CONTENT	18.1	21.4	20.0
ACHM SURFACE (IN)	__	1.50	__
AGG BASE CRS CL5 (IN)	__	15.0	__

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/18/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 20
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102686	20102687	20102688
SAMPLE ID	S818	S819	S820
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	344+00	348+00	352+00
LOCATION	40'LT	40'RT	40'LT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	BROWN	BROWN	BROWN
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 1 6.50	36 01 5.10	36 1 5.20
LONGITUDE DEG-MIN-SEC	90 32 14.20	90 32 9.50	90 32 4.60
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	100	100	100
NO. 40	100	100	100
NO. 80	100	100	100
NO. 200	98	98	99
LIQUID LIMIT	32	37	33
PLASTICITY INDEX	9	13	11
AASHTO SOIL	A-4(9)	A-6(14)	A-6(11)
UNIFIED SOIL			
% MOISTURE CONTENT	19.9	14.5	10.6

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/18/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

SEQUENCE NO. - 22
MATERIAL CODE - SSRVPS
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102692	20102693
SAMPLE ID	S824	S825
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY
STATION	368+00	374+00
LOCATION	40'LT	40'RT
DEPTH IN FEET	0-5	0-5
MAT'L COLOR	BROWN	BROWN
MAT'L TYPE		
LATITUDE DEG-MIN-SEC	36 1 2.70	36 01 1.00
LONGITUDE DEG-MIN-SEC	90 31 45.30	90 31 38.30
% PASSING 2 IN.		
1 1/2 IN.		
3/4 IN.		
3/8 IN.		
NO. 4	100	100
NO. 10	100	97
NO. 40	100	89
NO. 80	100	84
NO. 200	98	82
LIQUID LIMIT	35	34
PLASTICITY INDEX	18	19
AASHTO SOIL	A-6(18)	A-6(14)
UNIFIED SOIL		
% MOISTURE CONTENT	17.7	19.3

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE - 10/20/10
JOB NUMBER - 100708
FEDERAL AID NO.- TO BE ASSIGNED
PURPOSE - SOIL SURVEY SAMPLE
SPEC. REMARKS - NO SPECIFICATION CHECK
SUPPLIER NAME - STATE
NAME OF PROJECT - HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - GREENE, COUNTY
SAMPLED BY - D KRAFT,D ALLEN
SAMPLE FROM - TESTHOLE
MATERIAL DESC. - SOIL SURVEY - RESISTANCE R-VALUE ACTUAL RESULTS

SEQUENCE NO. - 1
MATERIAL CODE - RV
SPEC. YEAR - 2003
SUPPLIER ID. - 1
COUNTY/STATE - 28
DISTRICT NO. - 10

DATE SAMPLED - 10/01/10
DATE RECEIVED - 10/04/10
DATE TESTED - 10/18/10

LAB NUMBER	20102694	20102695	20102696
SAMPLE ID	RV826	RV827	RV828
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	112+00	269+00	288+00
LOCATION	40'LT	40'LT	40'LT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	RD/BR	RD/BR	BROWN
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	36 3 51.90	36 01 36.10	36 1 19.20
LONGITUDE DEG-MIN-SEC	90 34 47.60	90 33 24.90	90 33 19.20
% PASSING 2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.			
NO. 4	100	100	100
NO. 10	99	100	100
NO. 40	94	100	100
NO. 80	87	100	100
NO. 200	84	92	96
LIQUID LIMIT	29	29	28
PLASTICITY INDEX	12	11	4
AASHTO SOIL	A-6(8)	A-6(9)	A-4(4)
UNIFIED SOIL			
% MOISTURE CONTENT			

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION
MICHAEL BENSON, MATERIALS ENGINEER
*** SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT ***

DATE	- 10/20/10	SEQUENCE NO.	- 2
JOB NUMBER	- 100708	MATERIAL CODE	- RV
FEDERAL AID NO.	- TO BE ASSIGNED	SPEC. YEAR	- 2003
PURPOSE	- SOIL SURVEY SAMPLE	SUPPLIER ID.	- 1
SPEC. REMARKS	- NO SPECIFICATION CHECK	COUNTY/STATE	- 28
SUPPLIER NAME	- STATE	DISTRICT NO.	- 10
NAME OF PROJECT	- HWY. 412 WEST-HWY. 49 (GR. & STRS.) (F)		
PROJECT ENGINEER	- NOT APPLICABLE		
PIT/QUARRY	- ARKANSAS		
LOCATION	- GREENE, COUNTY	DATE SAMPLED	- 10/01/10
SAMPLED BY	- D KRAFT,D ALLEN	DATE RECEIVED	- 10/04/10
SAMPLE FROM	- TESTHOLE	DATE TESTED	- 10/18/10

MATERIAL DESC. - SOIL SURVEY - RESISTANCE R-VALUE ACTUAL RESULTS

LAB NUMBER	20102697	
SAMPLE ID	RV829	
TEST STATUS	INFORMATION ONLY	
STATION	364+00	
LOCATION	40'RT	
DEPTH IN FEET	0-5	
MAT'L COLOR	BROWN	
MAT'L TYPE		
LATITUDE DEG-MIN-SEC	36 1 2.60	
LONGITUDE DEG-MIN-SEC	90 31 50.30	
% PASSING 2 IN.		
1 1/2 IN.		
3/4 IN.		
3/8 IN.		
NO. 4	100	
NO. 10		
NO. 40		
NO. 80		
NO. 200	99	
LIQUID LIMIT	43	
PLASTICITY INDEX	20	
AASHTO SOIL	A-7-6(22)	
UNIFIED SOIL		
% MOISTURE CONTENT		

REMARKS - W=MULTIPLE LAYERS Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265