

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT



**SUBSURFACE INVESTIGATION**

STATE JOB NO. 080439

FEDERAL AID PROJECT NO. NHPP-0053(29)

BEAR CREEK & SO. FOURCHE LA FAVE RIVER STRS. & APPRS. (S)

STATE HIGHWAY 7 SECTION 11

IN PERRY COUNTY

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.

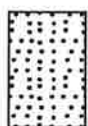
# LEGEND

## SOIL TYPES

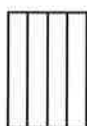
(SHOWN IN SYMBOL COLUMN)  
(PREDOMINANT TYPE SHOWN HEAVY)



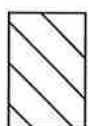
GRAVEL



SAND



SILT



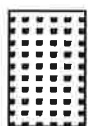
CLAY



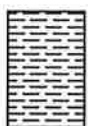
ORGANIC  
MATTER

## ROCK TYPES

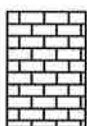
(SHOWN IN SYMBOL COLUMN)



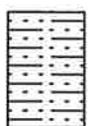
SANDSTONE



SHALE  
or  
SILTSTONE



LIMESTONE  
or  
DOLOMITE



ALTERNATING  
LAYERS of  
SHALE and  
SANDSTONE



OTHER

## SAMPLER TYPES

(SHOWN IN SAMPLE COLUMN)

### SHELBY TUBE



UNDISTURBED  
SAMPLE  
RECOVERY

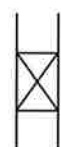


DISTURBED  
SAMPLE  
RECOVERY



NO  
RECOVERY

### SPLIT SPOON

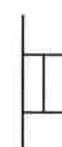


SAMPLE  
RECOVERY



NO  
RECOVERY

### ROCK CORING



% RECOVERY  
INDICATED ON LOGS

## TERMS DESCRIBING CONSISTENCY OR CONDITION

GRANULAR SOIL		CLAY		CLAY-SHALE		SHALE	
*N <sup>o</sup> Value	Density	*N <sup>o</sup> Value	Consistency	*N <sup>o</sup> Value	Consistency	*N <sup>o</sup> Value	Consistency
0-4	Very Loose	0-1	Very Soft	0-1	Very Soft		
5-10	Loose	2-4	Soft	2-4	Soft	31-60	Soft
11-30	Medium Dense	5-8	Medium Stiff	5-8	Medium Stiff	Over 60	
31-50	Dense	9-15	Stiff	9-15	Stiff	More than 2'	
Over 50	Very Dense	16-30	Very Stiff	16-30	Very Stiff	Penetration	
		31-60	Hard	31-60	Hard	in 60 Blows	Medium Hard
		Over 60	Very Hard	Over 60	Very Hard	Less than 2'	
						Penetration	
						in 60 Blows	Hard

1. Ground water elevations indicated on boring logs represent ground water elevations at date or time shown on boring log. Absence of water surface implies that no ground water data is available but does not necessarily mean that ground water will not be encountered at locations or within the vertical reaches of these borings.
2. Borings represent subsurface conditions at their respective locations for their respective depths. Variations in conditions between or adjacent to boring locations may be encountered.
3. Terms used for describing soils according to their texture or grain size distribution are in accordance with the Unified Soil Classification System.

Standard Penetration Test – Driving a 2.0" O.D., 1-3/8" I.D. sampler a distance of 1.0 foot into undisturbed soil with a 140 pound hammer free falling a distance of 30 inches. It is customary to drive the spoon 6.0 inches to seat into undisturbed soil, then perform the test. The number of hammer blows for seating the spoon and performing the test are recorded for each 6 inches of penetration on the drill log. The field "N" Value ( $N_f$ ) can be obtained by

adding the bottom two numbers for example:  $\frac{6}{8-9} \Rightarrow 8+9 = 17 \text{ blows/ft}$ . The "N" Value corrected to 60% efficiency ( $N_{60}$ ) can be obtained by multiplying  $N_f$  by the hammer correction factor published on the boring log.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

July 22, 2014

TO: Mr. Trinity Smith, Engineer of Roadway Design

SUBJECT: Job No. 080439  
Bear Creek and So. Fourche La Fave River Strs. & Apprs. (S)  
Route 7 Section 11  
Perry County

Transmitted herewith is the requested Soil Survey, Strength Data and Resilient Modulus test results for the above referenced job. The project consists of replacing the existing bridges crossing Bear Creek and Fourche La Fave on Highway 7. Samples were taken in the existing travel lanes, ditch line and along the new location. There were no paved shoulders within the project limits.

Based on laboratory results of samples obtained, the subgrade soils consist primarily of low to moderately plastic clay with some sand containing varying amounts of sandstone and shale fragments. The subgrade soils are expected to provide a stable working platform with conventional processing if the weather is favorable during construction. Rock was encountered at several locations within the project limits. Table 1 below shows the location and depth to rock.

Table 1 Depth to Rock

Station	Location from centerline (ft.)	Depth (ft.)
101+00	20 Rt	5.0
113+00	20 Rt	4.0
116+00	26 Lt	4.0
305+00	CL	2.0
315+00	CL	1.0


Embankment and cut slope recommendations will be made when plans are further developed and cross-sections become available.

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 in the vicinity of Russellville.

2. Asphalt Concrete Hot Mix

Type	Asphalt Cement %	Mineral Aggregate %
Surface Course	5.2	94.8
Binder Course	4.5	95.5
Base Course	3.9	96.1

  
Michael C. Benson  
Materials Engineer

MCB:pt:bjj

Attachment

cc: State Constr. Eng. – Master File Copy  
District 8 Engineer  
Transportation Planning and Policy Div.  
G. C. File

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

DATE - 07/17/2014  
JOB NUMBER - 080439

SEQUENCE NO. - 1  
MATERIAL CODE - SSRVPS  
SPEC. YEAR - 2014  
SUPPLIER ID. - 1  
COUNTY/STATE - 24  
DISTRICT NO. - 04

JOB NAME - BEAR CREEK & SO.FOUCHE LA FAVE RIVER

\*\*\*\*\*  
\* STATION LIMITS R-VALUE AT 240 psi \*  
\*\*\*\*\*

BEGIN JOB - END JOB 14

RESILIENT MODULUS  
STA.113+00 14501  
STA.208+00 9974

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REMARKS -

AASHTO TESTS : T190

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
MATERIALS DIVISION**

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

<b>Job No.</b>	080439	<b>Material Code</b>	SSRVPS
<b>Date Sampled:</b>	7/16/14	<b>Station No.:</b>	113+00
<b>Date Tested:</b>	July 16, 2014	<b>Location:</b>	20'RT
<b>Name of Project:</b>	BEAR CREEK & S.FOURCHE LA FAVE RIVER STRS.&APPRS.		
<b>County:</b>	<b>Code:</b> 53	<b>Name:</b> PERRY	
<b>Sampled By:</b>	FAULKNER	<b>Depth:</b>	0-5
<b>Lab No.:</b>	20142431	<b>AASHTO Class:</b>	A-6(8)
<b>Sample ID:</b>	RV766	<b>Material Type (1 or 2):</b>	2
<b>LATITUDE:</b>		<b>LONGITUDE:</b>	

**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	3.92
Middle	3.92
Bottom	3.93
Average	3.92
Membrane Thickness (in):	0.11
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):	11.42
Initial Volume, AoLo (cu. in):	91.82

**3. Soil Specimen Weight:**

Weight of Wet Soil Used (g):	3134.20
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**4. Soil Properties:**

Optimum Moisture Content (%):	14.2
Maximum Dry Density (pcf):	112
95% of MDD (pcf):	106.4
In-Situ Moisture Content (%):	N/A

**5. Specimen Properties:**

Wet Weight (g):	3134.20
Compaction Moisture content (%):	13.8
Compaction Wet Density (pcf):	130.05
Compaction Dry Density (pcf):	114.28
Moisture Content After Mr Test (%):	13.8

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

#VALUE!

**7. Resilient Modulus, Mr:**

19248(S<sub>c</sub>)<sup>-0.18146</sup>(S<sub>3</sub>)<sup>0.18077</sup>

**8. Comments**

\_\_\_\_\_

\_\_\_\_\_

**9. Tested By:**

DT/MW \_\_\_\_\_

**Date:** July 16, 2014 \_\_\_\_\_

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
MATERIALS DIVISION**

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

**Job No.** 080439      **Material Code** SSRVPS  
**Date Sampled:** 7/16/14      **Station No.:** 113+00  
**Date Tested:** July 16, 2014      **Location:** 20'RT  
**Name of Project:** BEAR CREEK & S.FOURCHE LA FAVE RIVER STRS.&APPRS.  
**County:** Code: 53      **Name:** PERRY  
**Sampled By:** FAULKNER      **Depth:** 0-5  
**Lab No.:** 20142431      **AASHTO Class:** A-6(8)  
**Sample ID:** RV766      **Material Type (1 or 2):** 2  
**LATITUDE:**      **LONGITUDE:**

PARAMETER	Chamber Confining Pressure	Nominal Maximum Axial Stress	Actual Applied Max. Axial Load		Actual Applied Contact Load		Actual Applied Max. Axial Stress		Actual Applied Cyclic Stress		Average Recov Def. LVD1 and 2		Resilient Strain		Resilient Modulus	
			$S_3$ psi	$P_{max}$ lbs	$P_{cyclic}$ lbs	$P_{contact}$ lbs	$P_{cyclic}$ lbs	$P_{contact}$ lbs	$S_{max}$ psi	$S_{cyclic}$ psi	$S_{cyclic}$ psi	$S_{contact}$ psi	$H_{avg}$ in	$\epsilon_r$ in/in	$M_r$ psi	
Sequence 1	6.0	2.0	23.7	21.0	2.7	2.1	1.8	0.2	0.00064	0.00008	23,065					
Sequence 2	6.0	4.0	44.4	41.6	2.8	3.9	3.6	0.2	0.00132	0.00016	22,151					
Sequence 3	6.0	6.0	65.1	62.0	3.1	5.7	5.4	0.3	0.00210	0.00026	20,773					
Sequence 4	6.0	8.0	86.8	81.4	5.4	7.6	7.1	0.5	0.00309	0.00038	18,516					
Sequence 5	6.0	10.0	107.5	99.8	7.7	9.4	8.7	0.7	0.00420	0.00052	16,722					
Sequence 6	4.0	2.0	23.7	21.1	2.6	2.1	1.8	0.2	0.00069	0.00009	21,423					
Sequence 7	4.0	4.0	44.1	41.5	2.6	3.9	3.6	0.2	0.00143	0.00018	20,355					
Sequence 8	4.0	6.0	64.1	61.5	2.6	5.6	5.4	0.2	0.00230	0.00029	18,785					
Sequence 9	4.0	8.0	85.2	80.8	4.5	7.5	7.1	0.4	0.00327	0.00041	17,399					
Sequence 10	4.0	10.0	106.1	99.5	6.7	9.3	8.7	0.6	0.00437	0.00054	16,014					
Sequence 11	2.0	2.0	23.5	21.0	2.6	2.1	1.8	0.2	0.00078	0.00010	18,872					
Sequence 12	2.0	4.0	43.7	41.1	2.7	3.8	3.6	0.2	0.00163	0.00020	17,703					
Sequence 13	2.0	6.0	63.4	60.8	2.7	5.6	5.3	0.2	0.00259	0.00032	16,537					
Sequence 14	2.0	8.0	83.3	79.7	3.6	7.3	7.0	0.3	0.00364	0.00045	15,392					
Sequence 15	2.0	10.0	104.1	98.2	5.9	9.1	8.6	0.5	0.00477	0.00059	14,501					

TESTED BY \_\_\_\_\_ DATE July 16, 2014  
 REVIEWED BY \_\_\_\_\_ DATE \_\_\_\_\_

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
MATERIALS DIVISION**

**AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS  
RECOMPACTED / THINWALL TUBE SAMPLES**

<b>Job No.</b>	080439	<b>Material Code</b>	SSRVPS
<b>Date Sampled:</b>	7/16/14	<b>Station No.:</b>	113+00
<b>Date Tested:</b>	July 16, 2014	<b>Location:</b>	20'RT
<b>Name of Project:</b>	BEAR CREEK & S.FOURCHE LA FAVE RIVER STRS.&APPRS.		
<b>County:</b>	<b>Code:</b> 53	<b>Name:</b>	PERRY
<b>Sampled By:</b>	FAULKNER	<b>Depth:</b>	0-5
<b>Lab No.:</b>	20142431	<b>AASHTO Class:</b>	A-6(8)
<b>Sample ID:</b>	RV766	<b>Material Type (1 or 2):</b>	2
<b>LATITUDE:</b>		<b>LONGITUDE:</b>	

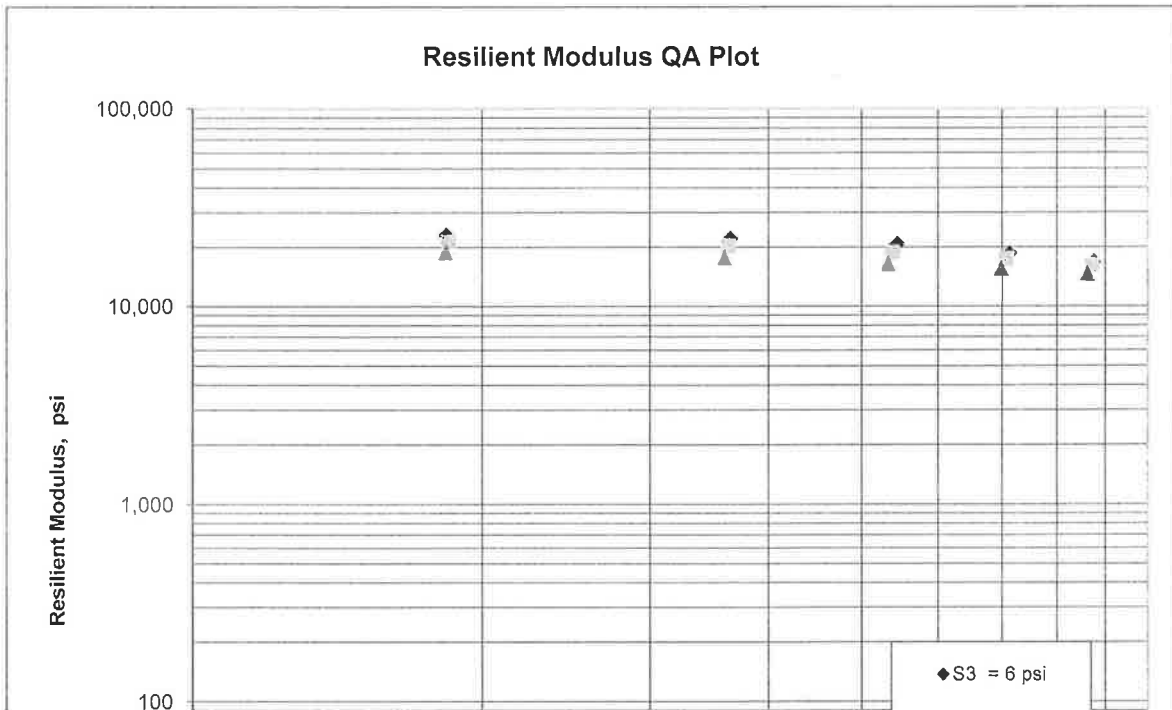
$$M_R = K_1 (S_C)^{K_2} (S_3)^{K_5}$$

$$K_1 = \underline{19,248}$$

$$K_2 = \underline{-0.18146}$$

$$K_5 = \underline{0.18077}$$

$$R^2 = \underline{0.92}$$



**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
MATERIALS DIVISION**

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

<b>Job No.</b>	080439	<b>Material Code</b>	SSRVPS
<b>Date Sampled:</b>	7/16/14	<b>Station No.:</b>	208+00
<b>Date Tested:</b>	July 16, 2014	<b>Location:</b>	24'LT
<b>Name of Project:</b>	BEAR CREEK & S.FOURCHE LA FAVE RIVER STRS.&APPRS.		
<b>County:</b>	<b>Code:</b> 53	<b>Name:</b> PERRY	
<b>Sampled By:</b>	FAULKNER	<b>Depth:</b>	0-5
<b>Lab No.:</b>	20142432	<b>AASHTO Class:</b>	A-6(6)
<b>Sample ID:</b>	RV767	<b>Material Type (1 or 2):</b>	2
<b>LATITUDE:</b>		<b>LONGITUDE:</b>	

**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	3.97
Average	3.97
Membrane Thickness (in):	0.11
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):	11.70
Initial Volume, AoLo (cu. in):	94.09

**3. Soil Specimen Weight:**

Weight of Wet Soil Used (g):	3243.90
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**4. Soil Properties:**

Optimum Moisture Content (%):	13.8
Maximum Dry Density (pcf):	112.9
95% of MDD (pcf):	107.3
In-Situ Moisture Content (%):	N/A

**5. Specimen Properties:**

Wet Weight (g):	3243.90
Compaction Moisture content (%):	14.2
Compaction Wet Density (pcf):	131.37
Compaction Dry Density (pcf):	115.04
Moisture Content After Mr Test (%):	14.1

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

#VALUE!

**7. Resilient Modulus, Mr:**

16386(Sc)<sup>-0.29383</sup>(S3)<sup>0.22551</sup>

**8. Comments**

\_\_\_\_\_

\_\_\_\_\_

**9. Tested By:**

DT/MW

**Date:** July 16, 2014



**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
MATERIALS DIVISION**

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

**Job No.** 080439      **Material Code** SSRVPS  
**Date Sampled:** 7/16/14      **Station No.:** 208+00  
**Date Tested:** July 16, 2014      **Location:** 24LT  
**Name of Project:** BEAR CREEK & S.FOURCHE LA FAVE RIVER STRS.&APPRS.  
**County:** Code: 53      **Name:** PERRY  
**Sampled By:** FAULKNER      **Depth:** 0-5  
**Lab No.:** 20142432      **AASHTO Class:** A-6(6)  
**Sample ID:** RV767      **Material Type (1 or 2):** 2  
**LATITUDE:**      **LONGITUDE:**

PARAMETER	Chamber Confining Pressure	Nominal Maximum Axial Stress	Actual Applied		Actual Applied Max. Axial Stress	Actual Applied Cyclic Load	Actual Applied Contact Load	Actual Applied Cyclic Stress	Actual Applied Contact Stress	Average Recov Def. LVDT 1 and 2	Resilient Strain	Resilient Modulus
			$S_{cyclic}$	$P_{max}$								
DESIGNATION	$S_3$	psi	lbs	lbs	psi	lbs	lbs	psi	psi	in	in/in	psi
Sequence 1	6.0	2.0	24.2	21.6	2.1	2.6	1.8	0.2	0.00075	0.00009	19,697	
Sequence 2	6.0	4.0	45.2	42.5	3.9	2.7	3.6	0.2	0.00163	0.00020	17,878	
Sequence 3	6.0	6.0	66.4	63.2	5.7	3.1	5.4	0.3	0.00268	0.00033	16,186	
Sequence 4	6.0	8.0	87.7	82.2	7.5	5.6	7.0	0.5	0.00415	0.00052	13,611	
Sequence 5	6.0	10.0	108.5	100.6	9.3	7.9	8.6	0.7	0.00571	0.00071	12,103	
Sequence 6	4.0	2.0	24.0	21.4	2.1	2.6	1.8	0.2	0.00082	0.00010	17,937	
Sequence 7	4.0	4.0	44.8	42.2	3.8	2.7	3.6	0.2	0.00179	0.00022	16,191	
Sequence 8	4.0	6.0	65.0	62.3	5.6	2.7	5.3	0.2	0.00299	0.00037	14,305	
Sequence 9	4.0	8.0	86.0	81.3	7.3	4.7	6.9	0.4	0.00444	0.00055	12,585	
Sequence 10	4.0	10.0	106.7	99.6	9.1	7.1	8.5	0.6	0.00608	0.00076	11,249	
Sequence 11	2.0	2.0	24.1	21.4	2.1	2.7	1.8	0.2	0.00096	0.00012	15,278	
Sequence 12	2.0	4.0	44.4	41.7	3.8	2.7	3.6	0.2	0.00208	0.00026	13,739	
Sequence 13	2.0	6.0	64.2	61.5	5.5	2.7	5.3	0.2	0.00345	0.00043	12,247	
Sequence 14	2.0	8.0	83.8	79.9	7.2	3.9	6.8	0.3	0.00503	0.00063	10,914	
Sequence 15	2.0	10.0	104.5	98.2	8.9	6.3	8.4	0.5	0.00677	0.00084	9,974	

TESTED BY \_\_\_\_\_ DATE July 16, 2014  
 REVIEWED BY \_\_\_\_\_ DATE \_\_\_\_\_

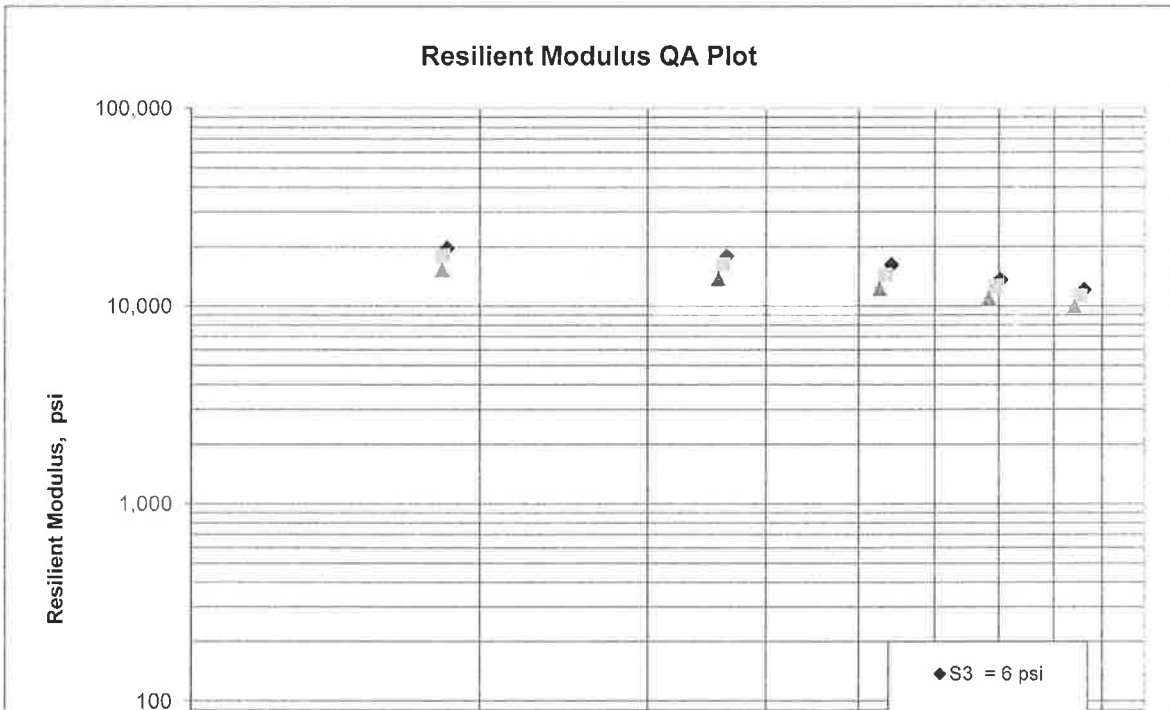
**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
MATERIALS DIVISION**

**AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS  
RECOMPACTED / THINWALL TUBE SAMPLES**

<b>Job No.</b>	080439	<b>Material Code</b>	SSRVPS
<b>Date Sampled:</b>	7/16/14	<b>Station No.:</b>	208+00
<b>Date Tested:</b>	July 16, 2014	<b>Location:</b>	24'LT
<b>Name of Project:</b>	BEAR CREEK & S.FOURCHE LA FAVE RIVER STRS.&APPRS.		
<b>County:</b>	<b>Code:</b> 53	<b>Name:</b>	PERRY
<b>Sampled By:</b>	FAULKNER	<b>Depth:</b>	0-5
<b>Lab No.:</b>	20142432	<b>AASHTO Class:</b>	A-6(6)
<b>Sample ID:</b>	RV767	<b>Material Type (1 or 2):</b>	2
<b>LATITUDE:</b>		<b>LONGITUDE:</b>	

$$M_R = K_1 (S_C)^{K_2} (S_3)^{K_5}$$

$K_1 =$	<u>16,386</u>
$K_2 =$	<u>-0.29383</u>
$K_5 =$	<u>0.22551</u>
$R^2 =$	<u>0.94</u>



JOB: 080439

Arkansas State Highway Transportation Department

JOB NAME: BEAR CREEK & SO.FOUCHE LA FAVE RIVER

Materials Division

COUNTY NO. 53 DATE TESTED 7/15/2014

Michael Benson, Materials Engineer

STA.#	LOC.	DEPTH	COLOR						L.L.	P.I.	SOIL CLASS	LAB #:	%MOISTURE
				#4	#10	#40	#80	#200					
				S	I	E	V	E	S				
113+00	20RT	0-5	BROWN	100	94	86	80	67	29	17	A-6(8)	RV766	
208+00	24LT	0-5	RD/BR	100	91	72	64	56	34	15	A-6(6)	RV767	
101+00	05RT	0-5	BROWN	93	87	82	74	60	26	09	A-4(3)	S753	15
101+00	20RT	0-5	BR/RD	93	86	80	74	60	31	11	A-6(4)	S754	17.6
113+00	20RT	0-4Z	BROWN	87	80	72	66	56	29	11	A-6(3)	S755	8.3
116+00	06LT	0-5	GRAY	92	84	72	65	53	32	17	A-6(3)	S756	10.7
116+00	26LT	0-4Z	GRAY	94	85	75	68	55	32	17	A-6(6)	S757	9.1
202+00	06RT	0-5	BROWN	99	97	90	88	85	48	26	A-7-6(23)	S758	18.1
202+00	23RT	0-5	BROWN	99	94	89	74	65	44	24	A-7-6(14)	S759	16.4
208+00	05LT	0-5	GRAY	91	84	68	61	55	34	15	A-6(5)	S760	10.1
208+00	24LT	0-5	RD/BR	97	92	80	74	69	38	17	A-6(10)	S761	13.1
217+00	05RT	0-5	BROWN	96	95	91	84	63	30	15	A-6(7)	S762	13.6
217+00	18RT	0-5	BROWN	96	93	87	80	65	28	12	A-6(5)	S763	15.8
305+00	CL	0-2Z	BROWN	87	75	60	55	52	34	13	A-6(4)	S764	12.9
315+00	CL	0-1Z	BROWN	98	89	78	48	42	34	14	A-6(2)	S765	11.1

comments: W=MULTIPLE LAYERS

Thursday, July 17, 2014

**JOB:** 080439

Arkansas State Highway Transportation Department

DATE TESTED

**JOB NAME:** BEAR CREEK & SO. FOUICHE LA FAVE RIVER

Materials Division

7/15/2014

**COUNTY NO.** 53

Michael Benson, Materials Engineer

**STA.# LOC.**

PAVEMENT SOUNDINGS

101+00	05RT	ACHMSC	ACHMBC	ACHMBC	AGG.BASE CRS CL-7	3.0	
		6.0	2.0				
101+00	20RT	ACHMSC	ACHMBC	ACHMBC	AGG.BASE CRS CL-7		
113+00	20RT	ACHMSC	ACHMBC	ACHMBC	AGG.BASE CRS CL-7		
116+00	06LT	ACHMSC	CHIP SEAL	ACHMBC	AGG.BASE CRS CL-7	4.0	
		4.5					
116+00	26LT	ACHMSC	CHIP SEAL	ACHMBC	AGG.BASE CRS CL-7		
202+00	06RT	ACHMSC	CHIP SEAL	ACHMBC	AGG.BASE CRS CL-7	6.0	
		5.0	.25				
202+00	23RT	ACHMSC	CHIP SEAL	ACHMBC	AGG.BASE CRS CL-7		
208+00	05LT	ACHMSC	CHIP SEAL	ACHMBC	AGG.BASE CRS CL-7	4.0	
		6.25W	.25				
208+00	24LT	ACHMSC	CHIP SEAL	ACHMBC	AGG.BASE CRS CL-7		
217+00	05RT	ACHMSC	ACHMBC	ACHMBC	AGG.BASE CRS CL-7	4.0	
		9.0W	2.0				
217+00	18RT	ACHMSC	ACHMBC	ACHMBC	AGG.BASE CRS CL-7		
305+00	CL	ACHMSC	ACHMBC	ACHMBC	AGG.BASE CRS CL-7		

**comments:** W=MULTIPLE LAYERS

Thursday, July 17, 2014

Page 1 of 1



ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS  
MATERIALS DIVISION

MICHAEL BENSON, MATERIALS ENGINEER

\*\*\* SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT \*\*\*

DATE	- 07/17/14	SEQUENCE NO.	- 2
JOB NUMBER	- 080439	MATERIAL CODE	- SSRVPS
FEDERAL AID NO.	- TO BE ASSIGNED	SPEC. YEAR	- 2014
PURPOSE	- SOIL SURVEY SAMPLE	SUPPLIER ID.	- 1
SPEC. REMARKS	- NO SPECIFICATION CHECK	COUNTY/STATE	- 53
SUPPLIER NAME	- STATE	DISTRICT NO.	- 08
NAME OF PROJECT	- BEAR CREEK & SO.FOUCHE LA FAVE RIVER		
PROJECT ENGINEER	- NOT APPLICABLE		
PIT/QUARRY	- ARKANSAS		
LOCATION	- PERRY, COUNTY	DATE SAMPLED	- 07/01/14
SAMPLED BY	- S.FAULKNER	DATE RECEIVED	- 07/07/14
SAMPLE FROM	- TEST HOLE	DATE TESTED	- 07/15/14
MATERIAL DESC.	- SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS		

LAB NUMBER	- 20142421	- 20142422	- 20142423
SAMPLE ID	- S756	- S757	- S758
TEST STATUS	- INFORMATION ONLY	- INFORMATION ONLY	- INFORMATION ONLY
STATION	- 116+00	- 116+00	- 202+00
LOCATION	- 06LT	- 26LT	- 06RT
DEPTH IN FEET	- 0-5	- 0-4Z	- 0-5
MAT'L COLOR	- GRAY	- GRAY	- BROWN
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	- 34 51 6.80	- 34 51 6.90	- 34 52 8.40
LONGITUDE DEG-MIN-SEC	- 93 05 59.80	- 93 05 59.90	- 93 06 33.80
% PASSING	2 IN. -	-	-
	1 1/2 IN. -	-	-
	3/4 IN. - 100	- 100	-
	3/8 IN. - 99	- 99	- 100
	NO. 4 - 92	- 94	- 99
	NO. 10 - 84	- 85	- 97
	NO. 40 - 72	- 75	- 90
	NO. 80 - 65	- 68	- 88
	NO. 200 - 53	- 55	- 85
LIQUID LIMIT	- 32	- 32	- 48
PLASTICITY INDEX	- 17	- 17	- 26
AASHTO SOIL	- A-6(3)	- A-6(6)	- A-7-6(23)
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	- 10.7	- 9.1	- 18.1
ACHMSC (IN)	- 4.5	- --	- 5.0
CHIP SEAL (IN)	- --	- --	- .25
ACHMBC (IN)	- 6.0	- --	- 1.50
AGG.BASE CRS CL-7 (IN)	- 4.0	- --	- 6.0
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

REMARKS - W=MULTIPLE LAYERS

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS  
MATERIALS DIVISION

MICHAEL BENSON, MATERIALS ENGINEER

\*\*\* SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT \*\*\*

DATE	- 07/17/14	SEQUENCE NO.	- 3
JOB NUMBER	- 080439	MATERIAL CODE	- SSRVPS
FEDERAL AID NO.	- TO BE ASSIGNED	SPEC. YEAR	- 2014
PURPOSE	- SOIL SURVEY SAMPLE	SUPPLIER ID.	- 1
SPEC. REMARKS	- NO SPECIFICATION CHECK	COUNTY/STATE	- 53
SUPPLIER NAME	- STATE	DISTRICT NO.	- 08
NAME OF PROJECT - BEAR CREEK & SO.FOUCHE LA FAVE RIVER			
PROJECT ENGINEER - NOT APPLICABLE			
PIT/QUARRY	- ARKANSAS		
LOCATION	- PERRY, COUNTY	DATE SAMPLED	- 07/01/14
SAMPLED BY	- S.FAULKNER	DATE RECEIVED	- 07/07/14
SAMPLE FROM	- TEST HOLE	DATE TESTED	- 07/15/14
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS			

LAB NUMBER	- 20142424	- 20142425	- 20142426
SAMPLE ID	- S759	- S760	- S761
TEST STATUS	- INFORMATION ONLY	- INFORMATION ONLY	- INFORMATION ONLY
STATION	- 202+00	- 208+00	- 208+00
LOCATION	- 23RT	- 05LT	- 24LT
DEPTH IN FEET	- 0-5	- 0-5	- 0-5
MAT'L COLOR	- BROWN	- GRAY	- RD/BR
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	- 34 52 8.60	- 34 52 13.10	- 34 52 13.10
LONGITUDE DEG-MIN-SEC	- 93 06 33.70	- 93 06 38.00	- 93 06 38.10
% PASSING	2 IN. -	-	-
	1 1/2 IN. -	-	-
	3/4 IN. -	- 100	- 100
	3/8 IN. - 100	- 94	- 99
	NO. 4 - 99	- 91	- 97
	NO. 10 - 94	- 84	- 92
	NO. 40 - 89	- 68	- 80
	NO. 80 - 74	- 61	- 74
	NO. 200 - 65	- 55	- 69
LIQUID LIMIT	- 44	- 34	- 38
PLASTICITY INDEX	- 24	- 15	- 17
AASHTO SOIL	- A-7-6(14)	- A-6(5)	- A-6(10)
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	- 16.4	- 10.1	- 13.1
ACHMSC (IN)	- --	- 6.25W	- --
CHIP SEAL (IN)	- --	- .25	- --
ACHMBC (IN)	- --	- 1.50	- --
AGG.BASE CRS CL-7 (IN)	- --	- 4.0	- --
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

REMARKS - W=MULTIPLE LAYERS

AASHTO TESTS : T24 T88 T89 T90 T265







