Bridge Number:	Route/County:
HU812KI	US 60/Lawrence
Yes:	g Material Present? No: t for location(s).
Structural St Yes:	eel Present? No: If No, then skip the following
Lead-Based Pain Yes:	nt (LBP) Present? No:
Trusses LBP?	Girder LBP?
Yes: No:	Yes: No:
Railing LBP?	Pile LBP?
Yes: No:	Yes: No:

MEMORANDUM



Missouri Department of Transportation Construction and Materials Central Laboratory

TO:

TMS

FROM:

Diane Roegge Dane Rogge

Environmental Chemist

DATE:

December 6, 2017

SUBJECT:

Materials

Asbestos Inspection & Heavy Metal Paint Survey

Route US 60 Bridge A-0872R1 Lawrence County

We are providing you with the results of the inspection on the above referenced bridge. The inspection report contains an asbestos and a heavy metals survey. The asbestos inspection included identifying suspect asbestos-containing material and NVLAP accredited testing to confirm the presence of asbestos.

Form T746 – This will show if samples were taken, where from, and, if the sample was found to contain asbestos, our estimated quantity of material present. Under the column "Friability Category", this is the meaning for the following:

N-ACM – No asbestos detected.

I NF – Asbestos is present. Material shall be handled carefully by a licensed abatement worker and kept wet if removing as part of a maintenance activity.

II NF – Asbestos is present. If removal is required for the maintenance activity, use an abatement contractor.

In accordance with Missouri Department of Natural Resources' Technical Bulletin "Managing Construction and Demolition Waste" dated January 31, 2003, a heavy metal paint survey has been performed on the above referenced bridge. This survey includes locating concrete which has been painted with something other than traffic paint or graffiti, and testing the painted surface(s) to determine if hazardous heavy metals are present. If the bridge is being removed completely, or the maintenance repairs include removing the painted concrete, then, non-hazardous painted concrete may be used as clean fill materials, if properly handled. You must contact the Central Office Design Division for proper handling of the reported painted surfaces.

Although our survey included observing and sampling all accessible areas, it is possible that potentially hidden asbestos-containing materials may exist within the structure. Should you have any questions regarding these reports, please contact me at (573) 526-4359.

db/fr/dr

http://sharepoint/systemdelivery/cm/chemicallab/environmental/shared documents/asbestos/districts/southwest (sw)/mt/a0872r1/dr17120606.docx Attachments

MISSOURI DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS Asbestos Survey Report All Suspect ACM

ROUTE:	US 60	SURVEYED BY:	Diane Roegge		
MODOT JOB NO.:	N/A	CERTIFICATION #:	7119101817MOIR7165		
DISTRICT:	WS	SITE ADDRESS:	Over MNA Railroad		
COUNTY:	Lawrence	UCTU	RE(S): Bridge		
DATE OF SURVEY:	December 6, 2017				
PARCEL NO.:	Bridge A-0872R1				
				Friability	Field
Sample ID	Type of Materials	Location of Material	f Material	Category	Measure
17MD1R 951 Asphalt Felt Material	halt Felt Material	Over 2-Abutments		N-ACM	

Bridge Paint is not a suspect ACM per MSDS's on file.		

MISSOURI DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS

Asbestos Survey Report
Nonfriable Asbestos-Containing Materials
(Abatement not required if not made friable during demolition.)

OUTE: 1ODOT JOB NO.: 0ISTRICT: COUNTY: NATE OF TESTS:	US 60 N/A SW Lawrence December 13, 2017	TESTED BY: CERTIFICATION #: SITE ADDRESS: TYPE(S) OF STRUCTURE(S):	Diane Roegge 7119101817MOIR7165 Over MNA Railroad Bridge	7165			
ARCEL NO.:	December 13, 2017 Bridge A-0872R1						
Sample ID	Type of Material	Location of Material	Friability Category		Field Measure	Asbestos Type	Perce
		None Located	INF				
			PRACTICAL PROCESSOR AND				
The second secon			***************************************				

MISSOURI DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS Asbestos Survey Report All materials requiring removal or special handling.

ROUTE: MODOT JOB NO.: DISTRICT: COUNTY: DATE OF TESTS:		US 60 N/A SW Lawrence December 13, 2017	TESTED BY: CERTIFICATION #: SITE ADDRESS: TYPE(S) OF STRUCTURE(S):	Diane Roegge 7119101817MOIR7165 Over MNA Railroad Bridge	R7165			
PARCEL NO.:	Bri	Bridge A-0872R1						
Bid Item No.	Sample ID	Type of Material	Location of Material	Frial Cate	Friability Category	Field Measure	Asbestos Type	Percent
			None Located		II NF			
			None Located	I	Ŧ			
							distribution of the comments of the first incomments of the desiration of the comments of the	
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	Transplate Andrews							
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	Market According to the control of t					The state of the s		
	Personal Control of the Control of t						Andrews	
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	And the state of t							
	And the second s							

MISSOURI DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS

Metals Survey Report of Painted Concrete, Block, Brick Surfaces for Clean Fill Purposes

ROUTE: MODOT JOB NO.: DISTRICT: COUNTY: SURVEYED BY: DATE OF SURVEY:	US 60 N/A SW Lawrence Diane Roegge December 6, 2017	TESTED BY: DATE OF TESTS: PARCEL NO.: SITE ADDRESS: TYPE(S) OF STRU	TESTED BY: N/A DATE OF TESTS: N/A PARCEL NO.: Bridge SITE ADDRESS: Over M TYPE(S) OF STRUCTURE(S): Bridge	N/A <u>N/A</u> <u>Brida</u> Over URE(S): Brida	N/A N/A Bridge A-0872R1 Over MNA Railroad Bridge	R1 Iroad			
					Metals (ppm)	tals			
Sample ID	No samples taken. No painted surfaces located.	As	Cr	Рb	Cd	Se	Ва	Hg	Ag

MEMORANDUM



Missouri Department of Transportation Construction and Materials Central Laboratory

TO:

TMS

CC:

FROM:

Diane Roegge

Environmental Chemist, Lead License #110506-300003365

DATE:

December 11, 2017

SUBJECT:

Materials

Job No. N/A

US 60/Lawrence County

Bridge A-0872R1

On December 6, 2017, a field check of the paint system was performed on the subject bridge. A paint screening for regulated heavy metals was also performed on the subject bridge. The following results were obtained:

	17MD1R949	17MD1R950
LOCATION:	Railing	Girder
Arsenic (As)	57,336 ppm**	62,324 ppm**
	(5.7%)	(6.2%)
Chromium (Cr)	50 ppm	56 ppm
Lead (Pb)	573,029 ppm	612,087 ppm
	(57.3%)	(61.2%)
Cadmium (Cd)	836 ppm	1,256 ppm
		(0.1%)
Selenium (Se)	LOD*	LOD*
Barium (Ba)	105 ppm	108 ppm
Mercury (Hg)	LOD	LOD
Silver (Ag)	LOD	LOD

^{*}LOD = below the detection limit of the instrument

TMS paint data shows System A paint, applied in 1962. The field check and results verify the information found in TMS.

The existing paint system is lead-based paint (LBP). Therefore any painting project will be subject to DHSS notification and regulation.

Should further screenings be required, please contact Todd Bennett, Chemical Laboratory Director, at (573) 751-1045. Should you have any questions, feel free to call me at (573) 526-4359.

fr/dr

http://sharepoint/systemdelivery/cm/chemicallab/environmental/shared documents/asbestos/districts/southwest (sw)/mt/a0872r1/lbp a0872r1.docx

^{**}ppm = parts per million

CERTIFICATION NUMBER:

7119101817MOIR7165

THIS CERTIFIES

Diane R Roegge

HAS COMPLETED THE CERTIFICATION

REQUIREMENTS FOR

Inspector

APPROVED: 10/23/2017

EXPIRES: 10/23/2018

TRAINING DATE: 10/18/2017

Kyra L Moore

Director of Air Pollution Control Program

Bridge Number: <u>K0947R</u>	Route/County: H/Lawrence
Yes:	g Material Present? No: \(\sum \) t for location(s).
Structural St Yes:	eel Present? No: If No, then skip the following.
Lead-Based Pair Yes:	nt (LBP) Present? No:
Trusses LBP? Yes: No:	Girder LBP? Yes: No:
Railing LBP? Yes: No:	Pile LBP? Yes: No:

MEMORANDUM



Missouri Department of Transportation Construction and Materials Central Laboratory

TO:

TMS

FROM:

Diane Roegge

Environmental Chemist

DATE:

December 1, 2015

SUBJECT:

Materials

Asbestos Inspection & Heavy Metal Paint Survey

Route H

Bridge K-0497R Lawrence County

We are providing you with the results of the inspection on the above referenced bridge. The inspection report contains an asbestos and a heavy metals survey. The asbestos inspection included identifying suspect asbestos-containing material and NVLAP accredited testing to confirm the presence of asbestos.

Form T746 – This will show if samples were taken, where from, and, if the sample was found to contain asbestos, our estimated quantity of material present. Under the column "Friability Category", this is the meaning for the following:

N-ACM - No asbestos detected.

I NF – Asbestos is present. Material shall be handled carefully by a licensed abatement worker and kept wet if removing as part of a maintenance activity.

II NF – Asbestos is present. If removal is required for the maintenance activity, use an abatement contractor.

In accordance with Missouri Department of Natural Resources' Technical Bulletin "Managing Construction and Demolition Waste" dated January 31, 2003, a heavy metal paint survey has been performed on the above referenced bridge. This survey includes locating concrete which has been painted with something other than traffic paint or graffiti, and testing the painted surface(s) to determine if hazardous heavy metals are present. If the bridge is being removed completely, or the maintenance repairs include removing the painted concrete, then, non-hazardous painted concrete may be used as clean fill materials, if properly handled. You must contact the Central Office Design Division for proper handling of the reported painted surfaces.

Although our survey included observing and sampling all accessible areas, it is possible that potentially hidden asbestos-containing materials may exist within the structure. Should you have any questions regarding these reports, please contact me at (573) 526-4359.

db/fr/dr

http://sharepoint/systemdelivery/cm/chemicallab/environmental/shared documents/asbestos/districts/southwest (sw)/mt/k0947r/dr15120120.docx Attachments

Form T746 Rev. 08/2012

MISSOURI DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS

Asbestos Survey Report All Suspect ACM

PARCEL NO.: MODOT JOB NO .: DATE OF SURVEY: COUNTY: DISTRICT: ROUTE: WS N/A December 1, 2015 Bridge K-0947R Lawrence SURVEYED BY: SITE ADDRESS: CERTIFICATION #:

Frank Reichart and Diane Roegge

7118110514MOIR7165, D.R. 7118110514MOIR11239, F.R.

Over MNA Railroad

TYPE(S) OF STRUCTURE(S): Bridge

												15MD1R 326	Sample ID	
									on file.	Bridge Paint is not a suspect ACM per MSDS's			Type of Materials	
												2-Deck Joints	Location of Material	
												N-ACM	Category	Friahility
													Measure	Field
										on file.	Bridge Paint is not a suspect ACM per MSDS's on file.	Bridge Paint is not a suspect ACM per MSDS's on file.	Asphalt Joint Material 2-Deck Joints N-ACM Bridge Paint is not a suspect ACM per MSDS's on file.	Type of Materials I Joint Material Paint is not a suspect ACM per MSDS's

MISSOURI DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS

Asbestos Survey Report
Nonfriable Asbestos-Containing Materials
(Abatement not required if not made friable during demolition.)

ROUTE:	H	TESTED BY:	Frank Reichart and Diane Roegge	Roegge		
MODOT JOB NO.:	N/A	CERTIFICATION #:	7118110514MOIR11239, F.R.	F.R.		
DISTRICT:	WS	CERTIFICATION #:	7118110514MOIR7165, D.R.	D.R.		
COUNTY:	Lawrence	SITE ADDRESS:	Over MNA Railroad			
DATE OF TESTS:	December 8, 2015	TYPE(S) OF STRUCTURE(S):	Bridge			
PARCEL NO.:	Bridge K-094/R					
Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
		None Located	INF			

All necessary work to handle this material is the contractor's responsibility.

F = Friable

MISSOURI DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS

All materials requiring removal or special handling. **Asbestos Survey Report**

PARCEL NO.: DATE OF TESTS: COUNTY: DISTRICT: MODOT JOB NO .: ROUTE: Item No. Bid Sample ID WS Bridge K-0947R December 8, 2015 Lawrence Type of Material None Located None Located SITE ADDRESS: CERTIFICATION #: CERTIFICATION #: TYPE(S) OF STRUCTURE(S): TESTED BY: Location of Material Bridge Over MNA Railroad 7118110514MOIR7165, D.R. 7118110514MOIR11239, F.R. Frank Reichart and Diane Roegge Category Friability IINF Measure Field Asbestos Type Percent

MISSOURI DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS Metals Survey Report of Painted Concrete, Block, Brick Surfaces for Clean Fill Purposes

December 1, 2015	Frank Reichart V	Lawrence (h)	SW	N/A	
	TYPE(S) OF STRUCTURE(S):	SITE ADDRESS:	PARCEL NO.:	DATE OF TESTS:	TESTED BY:
	S): 1	Ove	Bridge	N/A	N/A

										Sample ID	
									No samples taken. No painted surfaces located.	Color/Location of Material/Substrate	
										As	
										Cr	
										Pb	
										Cd	(p _I
	N									Se	Metals (ppm)
										Ва	
										$_{ m Hg}$	
										Ag	