

## STS CONSULTANTS, LTD.

## Mn/DOT Bridge #9616 Asbestos & Regulated Waste Inspection Report, Minneapolis, Minnesota

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Mn/DOT Environmental Offices St. Paul, Minnesota

STS Project 30070-XA

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## ASBESTOS AND REGULATED WASTE INSPECTION REPORT

## Bridge #9616

East 42nd Street over I-35W in Minneapolis, Minnesota

## Prepared For:

Minnesota Department of Transportation (Mn/DOT) 395 John Ireland Boulevard, M.S. 620 St. Paul, MN 55155-1899

## Prepared By:

STS Consultants, Ltd.



10900 - 73rd Avenue North, Suite 150 Maple Grove, Minnesota 55369 Telephone: 763-315-6300 Fax: 763-315-1836

January 2006

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- Appendix II Chain of Custody Forms and Analytical Results

Appendix III - Licenses

#### **SECTION 1**

#### **Site Specifics and Certification**

#### **Project Overview:**

STS has completed the Asbestos and Regulated Waste Assessment of Bridge #9616 for Mn/DOT. The location of the bridge is shown on Figure 1. The specific location of this bridge in relation to other bridges along the Crosstown I-35W/TH 62 corridor is shown on Figure 2. The work was completed in general accordance with the Scope of Work and Deliverables identified in Exhibit A of State Contract No. 88629.

To document the asbestos and regulated waste assessment work, STS obtained photographs of the bridge including:

- Bridge plate number, if available,
- A general distance photograph,
- The underside and top of the bridge,
- Areas of specific interest,
- Asbestos containing material (ACM) sample locations, and
- Regulated waste locations, if identified.

Copies of the photographs are included in Appendix I. The sample locations are shown on Figure 3. The site specifics and results are presented in the remaining portion of this report.

Bridge: BR #9616 Bridge Dimensions: Length = 199', Width = 64.3', # Lanes = 2, # Spans = 4 Year Built: 1964

State Project Number: SP: 2782-281, Trunk Highway Number (TH): I-35W & 62; Asbestos and Regulated Waste Assessment – 20 Bridges
Parcel: N/A
Location: East 42nd Street over I-35W in Minneapolis, Minnesota (see copies of site map Appendix I).
Number and type of Structure/s: One (1) bridge
Current Owner: Mn/DOT
Expected Disposition of the Structure: Demolition

Licensure: MDH certified asbestos inspectors conducted the inspection (Appendix III).

**Certification:** The undersigned certifies that this asbestos inspection was performed in compliance with MN Rules 4620.3460.

Signature: William B. Te William B. Tepley Certified Asbestos Inspector License #A19763 Date: 1/20/06

**Certification:** The undersigned certifies that this asbestos and regulated waste inspection and report was performed under my direct supervision and I have reviewed its contents and find it to meet or exceed Mn/DOT's contract requirements.

Signature: Signature Mulaushi Suzanne Murawski

Certified Hazardous Materials Manager License #08967

Date:  $\frac{1/20}{06}$ 

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#### **SECTION 2**

#### Bridge #9616 Summary of Actions Required For This Demolition

**Asbestos Summary:** Asbestos Containing Materials (ACMs) were identified on Bridge #9616 at the following locations:

- Joint sealant on bridge sidewalk contained 5% asbestos = 2,150 linear feet (see Photograph #10).
- Caulk in electric junction boxes on bridge contained 5% asbestos = 20 inches<sup>3</sup> (located in 16 electrical boxes on the north side of the bridge) (see Photograph #12).
- Transite utility piping under bridge contained 15% asbestos = 12 transite pipes (4-1/2" O.D.) approximately 200 linear feet per pipe (see Photograph #16).

The ACMs, identified in the Asbestos Summary (above), are required to be removed and properly disposed of in accordance with MnDOT Specifications, prior to demolition (see documents in Section 3 for the detailed sample locations, amounts, conditions and summary inventory of suspect materials).

**Regulated Waste Summary:** (see Section 3 for the inventory of regulated wastes)

**Lead:** Lead gaskets (48% lead concentration) were identified under the bridge guard railings during the inspection (see Photograph #19). Approximately 52 lead containing gaskets (size 8" x 8" x 1/4") were identified between the concrete guard railing and the steel railings on the bridge.

**Mercury:** No mercury containing devices were noted during the inspection.

**PCBs:** No PCBs containing equipment was noted during the inspection.

**CFC's:** No CFC containing equipment was noted during the inspection.

**Treated Wood:** Green treated wood guard rail support posts were identified beneath the bridge deck during the inspection (see Photograph #21). In addition, creosote treated timber piles were identified beneath the piers and abutments during review of the detail drawings (see Figure 3).

Household Hazardous Waste: No household hazardous waste was noted during the inspection.

White Goods: No white goods were noted during the inspection.

**Solid Waste:** No solid waste was noted during the inspection.

<u>Regulated Waste is required to be removed for demolition</u> (see documents in Section 3 for the detailed sample locations, amounts, conditions and summary inventory of regulated wastes).

The lead gaskets are required to be removed/disposed prior to demolition. The portion of creosote treated timber piles and green treated crash barrier posts required to be removed for bridge demolition shall be managed and disposed in accordance with Mn/DOT specifications.

#### **SECTION 3**

#### Summary of Asbestos and Regulated Wastes at Bridge #9616

## If the structure becomes scheduled for demolition rather than a move, the following asbestos and regulated materials/wastes must be removed prior to demolition.

Parcel Number	NA
Building Name	Bridge #9616
Address of Structure	East 42nd Street over I-35W in Minneapolis, Minnesota
Inspection Date	October 10 and November 14, 2005

#### Category I and II

Location	Sample Description	% Asbestos	Quantity	ltem	Condition	Sample #'s/ Photo #
Sidewalk Joint Compound	Sealant	ND	NA	NA	NA	A-1 / #5
Sidewalk/Bridge Walk Joint Compound	Sealant	ND	NA	NA	NA	A-2 / #6
Gasket Expansion Joint	Gasket	ND	NA	NA	NA	A-3 / #7
Bridge Deck/Railing Joint Compound	Sealant	ND	NA	NA	NA	A-4 / #8
Mid-Span Bridge Deck Joint Sealant	Sealant	ND	NA	NA	NA	A-5 / #9
Bridge Sidewalk Sealant Mid- Span (approx. 1/2" width)	Sealant	5%	2,150 lin./ft.	Chrysotile	Good	A-6 White Layer / #10
Bridge Sidewalk Sealant Mid- Span	Sealant	ND	NA	NA	NA	A-6 Black Rubber / #10
Bridge Sidewalk Sealant Mid- Span	Sealant	ND	NA	NA	NA	A-6 Black Hard Layer / #10
Brown Material Below Electric Box	Grout	ND	NA	NA	NA	A-7 / #11
Electric Caulk on Junction Box	Caulk	5%	20 inches <sup>3</sup> (16 boxes)	Chrysotile	Good	A-8 White Layer / #12
Electric Caulk on Junction Box	Caulk	ND	NA	NA	NA	A-8 Black Layer / #12
SW Wing Wall Joint Compound	Membrane	ND	NA	NA	NA	A-9 / #13
Joint Compound BTW Footing & Base of Deck	Membrane	ND	NA	NA	NA	A-10 / #14
Joint Compound BTW Footing & Slope Concrete	Membrane	ND	NA	NA	NA	A-11 / #15
Transite Piping (4-1/2" O.D.)	Piping	15%	2400 ft.	Chrysotile	Good	A-12 / #16
Joint at Base of Pier	Membrane	ND	NA	NA	NA	A-13 / #17
Electric Box Gasket	Gasket	ND	NA	NA	NA	A-14 / #18

ND = None Detected

NA = Not Applicable

P-# = Photograph (Photo) Number (see Appendix I)

Lab Analysis/Chain of Custody records are enclosed for all samples.

#### Friable

Location		Sample Description	% Asbestos	Quantity (ft. <sup>2</sup> )	ltem	Condition	Sample #'s
Total Square Feet		NÁ	NA	NA	NA	NA	NA
Definitions			-				<u>.</u>
Sample Description	T	ype of Homogen	neous materia	al i.e. shee	etrock,	siding	
Condition	E	xcellent				U	
	G	ood					
	Р	oor					
Quantity	O	nly if contains >1	1% asbestos	otherwise	NA		
ND = None Detected							

NA = Not Applicable

Lab Analysis/Chain of Custody records are enclosed for all samples.

#### Mn/DOT Building Regulated Waste Inspection Form One Form Per Bridge

STS Consultants, Ltd.
Contract #: 88629
10900 - 73rd Avenue North, Suite 150, Maple Grove, MN 55369
763-315-6300
William B. Tepley/Suzanne Murawski
SP Number: 2782-281
NA
Bridge #9616

Address of Structure Inspection Date

East 42nd Street over I-35W in Minneapolis, MN October 10 and November 14, 2005

Inspected Items	ltem	Quantity (if none found, state "none")	Location
CFC's	NA	None	NA
Heat pumps	NA	None	NA
Air Conditioners (central)	NA	None	NA
Air Conditioners (window)	NA	None	NA
Fire Extinguishers	NA	None	NA
Freezers	NA	None	NA
Other (name)	NA	None	NA
РСВ	NA	None	NA
Ballasts	NA	None	NA
Transformers	NA	None	NA
HID Capacitors	NA	None	NA
Mercury	NA	None	NA
Fluorescent Bulbs	NA	None	NA
HID Lamps	NA	None	NA
Mercury Vapor	NA	None	NA
Thermostats	NA	None	NA
Switches	NA	None	NA
Lead	See below	See below	See below
Lead Plumbing	NA	None	NA
Flaking lead based paint*	NA	None	NA
Bridge railing gasket	Gasket (Pb-1 = 48% lead)	52 gaskets 500 inches <sup>3</sup> (8"x8"x1/4")/ea.	Bridge railing gasket (see Photograph #19)
Treated Wood	See below	See below	See below
Creosote	Treated timber piles	Unknown	Located under piers and abutments (see Figure 3)
Green treated wood	Guard rail support posts	Unknown	Located under bridge deck (see Photograph #21)
Other (name if possible)	NA	None	NA

\* Lead based paint is paint which contains lead in a concentration of at least 0.5%.

Inspected Items	ltem	Quantity (if none found, state "none")	Location
Hazardous/Regulated Wastes	NA	None	NA
Paint (oil/latex)	NA	None	NA
Oil	NA	None	NA
Antifreeze	NA	None	NA
Fuels (name if possible)	NA	None	NA
Lead Acid batteries	NA	None	NA
Pesticides	NA	None	NA
Fertilizers	NA	None	NA
Unlabeled Wastes	NA	None	NA
Televisions	NA	None	NA
Radios	NA	None	NA
Computers	NA	None	NA
Refractory Brick/Mold (cadmium)	NA	None	NA
Other	NA	None	NA
Solid Wastes	NA	None	NA
Furniture	NA	None	NA
White Goods (refrigerators, stoves, dishwashers etc)	NA	None	NA
General Trash (estimate yards)	NA	None	NA
Other	NA	None	NA
Other	NA	None	NA
Septic System	NA	None	NA
Flammable Waste Trap	NA	None	NA
Sediment Trap	NA	None	NA
Other	NA	None	NA
White Goods	NA	None	NA

#### **SECTION 4**

#### Qualifications

Accessible areas of the bridge were observed for suspected ACMs and regulated wastes. Inaccessible areas such as spaces within the concrete structure or buried utilities associated with the bridge, were not observed. Additionally, any electrical wires and/or utility conduits associated with the bridge were not sampled for safety reasons. If unobserved ACMs and/or regulated wastes are discovered during demolition activities, the ACMs and regulated wastes should be documented, handled and disposed of according to appropriate Minnesota State Rules regulating these activities.

The analysis and recommendations in this report are based on the data included herein. The report was prepared in accordance with generally accepted practices exercised by members of the profession currently practicing in this area under similar conditions. No other warranty, expressed or implied, is made. The scope of the report is limited to the specific project and location described herein and a description of the project represents an understanding of significant aspects in reference to the site.

#### Appendix I

#### Bridge #9616

Figure 1 - Bridge Location Diagram Figure 2 - I-35W/TH 62 Crosstown Bridge Corridor Diagram Figure 3 - Sampling Location Diagram Site Photographs





























## PHOTOGRAPHIC LOG

Client Nam	e:	Site Location:	Project No.
	Mn/DOT	Bridge #9616	30070-XA
Photo No. 21	<b>Date:</b> 1/12/06		
Direction P Taken:	hoto	site .	2006
Looking sou I-35W	uth along		NN 12
Description	n:		3
Green treat guard rail su posts were under the b	ed wood upport observed ridge.		

Appendix II

#### Bridge #9616

Chain of Custody Forms and Analytical Results

- AI	VALYTICAL	CHAIN O	F CUSTO	DY	ASBEST	05
MSI Representa	tive:		EMSL Ref	erence Number	MN03	the second second
our Company Na	ame: STS Consultant	s	EMSL-Bill	to: Same		
treet:	10900 73rd Ave	South	Street:			
lox #:	Suite 150		Box #:			
ity/State:	Maple Grove, M	N Zip: 553	69 Çity/State	com		Zip:
/erbal Results to elephone #:	e mail to t 763-315-6300	sepley@sts u	Fax Resul	ts to: B 763-3	15-1836 Tepl	ey
Project Name/Nur	mber: Cross Town	J - 30070	XA Purchase	Order #		Contraction of the local division of the loc
	MATRIX BA	LIDGE 961	6	TURN	AROUND TIME	-
	or Tile Dist	Wipe Waste water	Contact Lab	D 6 Hours	5 Days	48 Hours
			Contact Lab	L 5 Days	Law Days	- to days
		P-03/116	Commente:		ist	
MN Dept of He	alth D NOB	11-33/110	Li commenta.			
□ Other:	D Point Co	unt (400 point)				
	Test Unt	il Positive				
	Other:					
				2		
TEM AIR	TEM BUL	<u>K</u>	TEM WATER		TEM WIR	PE
AHERA	Chatfield	1	EPA 100.1 (a	all fibers)	Quantil	tative
EPA Level II		o Ouentitativo	L EPA 100.2 (L	ong fibers >100	im) 🗆 Qualita	tive
MN Dept of He	alth D Micro Va	c-Quantitative	LI NT 196.2			
a min bept of he		unt-Qualitative			TEM DU	ST
BRIDGE	QL.V.					D-5755-95
DEIVGE	- 1010	-1	0-17	Tel		tive
Client Sample # (			Data	10/12/0	Time:	7:00 40
vennuuisneu.				1-11510		1,45 100
Received:	a Jack		Date:	10/12/00	Time:	TISTAN
Received: Received:	ap-mk	Swell	Date:	10/13/0	Time:	FISOAM
Received: Received: SAMPLE DATE	SAMPLENUMBER	Sult	Date: Date: LOCATION	10/13/07	Time: Time: VOLU	7:50 Am
Received: Received: SAMPLE DATE	SAMPLE NUMBER	SIDEWA	Date: Date: LOCATION	JO ISON		7:50 Ann
Received: Received: SAMPLE DATE	SAMPLE NUMBER	SIDEWA	Date: Date: LOCATION	JO ISON	Time: Time: VOLU	TISO AM
Received: Received: SAMPLE DATE	SAMPLE NUMBER A-1 A-2 A-3	SIDE WAL	Date: Date: LOCATION K/BRIDG EXPAN	JT COMF	JOINT	7:50 Am
Received: Received: SAMPLE DATE	A-1 A-2 A-3 A-4	SIDE WAL SIDE WAL GASKET BRIDGE	Date: Date: LOCATION K/BRIDG EXPAN DECK. R	JT COMF DE WAIK JSION J AILING	JOINT CO	TISO AM
Received: Received: SAMPLE DATE	A-1 A-2 A-3 A-4 A-5	SIDEWAL SIDEWAL GASKET BRIDGE MIDSPA	Date: Date: LOCATION K/BRIDG EXPAN DECK R	JO ISONF DE WAIK JSION J AILING GE DECH	Time: Time: VOLU	TISO AM IME (If Applicable) OMPOUND SEALANT
Received: Received: SAMPLE DATE	A-1 A-2 A-3 A-4 A-5 A-4	SIDEWAL SIDEWAL GASKET BRIDGE MIDSPA BRIDGE	Date: Date: LOCATION K/BRIDG EXPAN DECK R N BRIDG	INT COMP TE WAIK IS ION J AILING GE DECH LK SEAL	Time: Time: VOLU	TISO AM IME (If Applicable) OMPOUND SEALANT OSPAN
Received: Received: SAMPLE DATE	SAMPLE NUMBER A-1 A-2 A-3 A-4 A-5 A-4 A-5 A-4 A-5 A-4 A-7	SIDEWA SIDEWAL GASKET BRIDGE MIDSPA BRIDGE BROWN	Date: Date: LOCATION K/BRIDG EXPAN DECK R SIDEWAL	INT COMP DE WAIK ISION J AILING GE DECH IK SEAL	Time: Time: Time: VOLU VOL	TISO AM IME (If Applicable) OMPOUND SEALANT OSPAN LU BOX
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Received: Received: SAMPLE DATE	SAMPLE NUMBER A-1 A-2 A-3 A-4 A-5 A-4 A-5 A-6 A-7 A-8 A-9	SIDEWAL SIDEWAL GASKET BRIDGE MIDSPA BRIDGE BROWN ELECTRIC SW WIN	Date: Date: Date: LOCATION K / BRIDIN K / BRIDIN EXPAN DECK R SIDEWAN SIDEWAN MATERIA C CAULK	IOUSON JT COMP DE WAIK JSION J AILING GE DECH LK SEAL LK SEAL L BELOU L ON JUN	Time: Time: Time: VOLU VOL	TISO AM IME (If Applicable) OMPOUND SEALANT OSPAN CUE BOXO OX
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Received: Received: SAMPLE DATE	SAMPLE NUMBER A-1 A-2 A-3 A-4 A-5 A-4 A-5 A-4 A-7 A-8 A-9 A-10 A-11 A-12 A-13	SIDEWAL SIDEWAL GASKET BRIDGE MIDSPA BRIDGE BROWN ELECTRIN SW WIN JOINT CO TRANS JOINT	Date: Date: Date: LOCATION K/BRIDG EXPAN DECK R DECK R SIDEWAN MATERIA C CAULK IG WALL OMP BTW MP BTW ITE PIP AT BASE	ING, 4	Time: Time: Time: VOLU	TISO AM IME (IF Applicable) OMPOUND SEALANT OSPAN SEALANT OSPAN CUL BOX OX ND E BRIDGE F DECK RETE
Received: Received: SAMPLE DATE	SAMPLE NUMBER A-1 A-2 A-3 A-4 A-5 A-4 A-5 A-4 A-5 A-9 A-10 A-10 A-11 A-12 A-13	SIDEWA SIDEWA GASKET BRIDGE MIDSPA BRIDGE BROWN ELECTRIN SW WIN JOINT CO TRANS JOINT	Date: Date: Date: LOCATION K / BRIDG EXPAN DECK R SIDEWAN MATERIA MATERIA C CAULK IG WALL OMP BTW MP BTW ITE PIP AT BASE	ING 4 ING 4	Time: Time: Time: VOLU	TISO AM IME (IF Applicable) OMPOUND SEALANT D SPAN 200 BOX OX ND E BRIDGE F DECK RETE

Phone: (763) 449-4922 Fax: (763) 449-4924 Email: minneapolislab@emsl.com

Attn: Bill Tepley STS Consultants LTD 10900 73rd Avenue North				Customer ID: Customer PO: Received:	STSC50
S	Suite 150 Maple Grove, MN 55	369		EMSL Order:	350504738
Fax: Project:	(763) 315-1836 CROSS TOWN-30070 XA	Phone: 9616 BRID	(763) 315-6335 D <b>GE #9616</b>	EMSL Proj: Analysis Date: Report Date:	10/18/2005 10/20/2005

#### Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

		Non-Asbestos			Asbestos	
Sample	Location	Appearance	%	Fibrous	% Non-Fibrous	% Туре
A-1 350504738-0001	SIDEWALK JOINT COMPOUND	Gray/Black Non-Fibrous Heterogeneous			100% Non-fibrous (other)	None Detected
A-2 350504738-0002	SIDEWALK/BRID GE WALK JOINT COMPOUND	Black/Brown Non-Fibrous Homogeneous			100% Non-fibrous (other)	None Detected
A-3 350504738-0003	GASKET EXPANSION JOINT	Brown Fibrous Homogeneous	60%	Cellulose	40% Non-fibrous (other)	None Detected
A-4 350504738-0004	Bridge Deck Railing Joint Compound	Black/Brown Fibrous Homogeneous	<1%	Cellulose	100% Non-fibrous (other)	None Detected
A-5 350504738-0005	MIDSPAN BRIDGE DECK JOINT SEALANT	Black Non-Fibrous Homogeneous			100% Non-fibrous (other)	None Detected
A-6 WHITE LAYER 350504738-0006	BRIDGE SIDWALK SEALANT MID SPAN	White Fibrous layers: 3			95% Non-fibrous (other)	5% Chrysotile
A-6 BLACK RUBBER 350504738-0014	BRIDGE SIDWALK SEALANT MID SPAN	Black/Brown Non-Fibrous layers: 3			100% Non-fibrous (other)	None Detected

Analyst(s)

Paul Senne (16)

Rahl

or other approved signatory

Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. Samples reported as <1% or none detected may require additional testing by TEM to confirm asbestos quantities. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL's liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client.

Analysis performed by EMSL Minneapolis (NVLAP #200019-0)

Phone: (763) 449-4922 Fax: (763) 449-4924 Email: minneapolislab@emsl.com

Attn: E S 1 S	Bill Tepley STS Consultants LT 0900 73rd Avenue Suite 150 Naple Grove, MN 55	Customer ID: Customer PO: Received: EMSL Order:	STSC50 10/13/05 7:50 AM 350504738		
Fax: Project:	(763) 315-1836 CROSS TOWN-30070 XA	Phone: 9616 BRID	(763) 315-6335 <b>GE #9616</b>	EMSL Proj: Analysis Date: Report Date:	10/18/2005

#### Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Asbestos			
Sample	Location	Appearance	%	Fibrous	% Non-Fibrous	% Туре
A-6 BLACK HARD LAYER 350504738-0015	BRIDGE SIDWALK SEALANT MID	Black/Gray Non-Fibrous			100% Non-fibrous (other)	None Detected
SPAN	SPAN	layers: 3				
A-7 350504738-0007	BROWN MATERIAL BELOW ELECTRIC BOX	Tan Non-Fibrous Homogeneous			100% Non-fibrous (other)	None Detected
A-8 WHTE LAYER 350504738-0008	ELECTRIC CAULK O N JUNCTION BOX	White Non-Fibrous layers: 2			95% Non-fibrous (other)	5% Chrysotile
A-8 BLACK LAYER 350504738-0016	ELECTRIC CAULK O N JUNCTION BOX	Black Non-Fibrous layers: 2			100% Non-fibrous (other)	None Detected
A-9 350504738-0009	SW WING WALL JOINT COMPOUND	Black Fibrous Homogeneous	10%	Cellulose	90% Non-fibrous (other)	None Detected
A-10 350504738-0010	JOINT COMP BTW FOOTING & BASE OF BRIDGE DECK	Black Fibrous Homogeneous	10%	Cellulose	90% Non-fibrous (other)	None Detected

Analyst(s)

Paul Senne (16)

Rachel

or other approved signatory

Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. Samples reported as <1% or none detected may require additional testing by TEM to confirm asbestos quantities. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL's liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client.

Analysis performed by EMSL Minneapolis (NVLAP #200019-0)

Phone: (763) 449-4922 Fax: (763) 449-4924 Email: minneapolislab@emsl.com

Attn: E S 1 S	Bill Tepley STS Consultants LT 0900 73rd Avenue Suite 150 Naple Grove, MN 55	D North		Customer ID: Customer PO: Received: EMSL Order:	STSC50 10/13/05 7:50 AM 350504738
Fax: Project:	(763) 315-1836 CROSS TOWN-30070 XA	Phone: . 9616 BRID	(763) 315-6335 I <b>GE #9616</b>	EMSL Proj: Analysis Date: Report Date:	10/18/2005 10/20/2005

#### Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

				Non-A	sbestos	<u>Asbestos</u>
Sample	Location	Appearance	%	Fibrous	% Non-Fibrous	% Туре
A-11 350504738-0011	JOINT COMP BTW FTG & SLOPE CONCRETE	Brown/Black Fibrous Homogeneous	5%	Cellulose	95% Non-fibrous (other)	None Detected
A-12 350504738-0012	TRANSITE PIPING, 4 1/2" OD	Cream Fibrous Homogeneous			85% Non-fibrous (other)	15% Chrysotile
A-13 350504738-0013	JOINT AT BASE OF PIER	Brown/Black Fibrous Homogeneous	30%	Cellulose	70% Non-fibrous (other)	None Detected

Analyst(s)

Paul Senne (16)

Rachel

or other approved signatory

Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. Samples reported as <1% or none detected may require additional testing by TEM to confirm asbestos quantities. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL's liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Analysis performed by EMSL Minneapolis (NVLAP #200019-0)

EMSL Representative: Your Company Name: Street: Box #: City/State: Verbal Results to: Telephone #:		STS Consulta 10900 73rd Av Suite 150	e South	EMSL Ref EMSL-Bill Street: Box #:	EMSL Reference Number: EMSL-Bill to: Same Street: Box #: City/State: Fax Results to: teoleo Fax #: 763-315		MN03	(5396)
		Maple Grove,	MN Zip: 55	369 City/State:			y @ stscer	Zip:
Project Name/Nu	mber:	03-315-0300	30070-2	Purchase	Order #	/63-31:	-1836	
	MA	ATRIX	5001075		order #	TURNAR	ROUND TIME	
□ Air □ Fic □ Bulk □ Dri	oor Tile inking Wat	er Dust	Wipe Waste water	Contact Lab		ours	24 Hours	48 Hours
NIOSH 7400 NN Dept of H Other:	ealth	EPA 60 NOB Point C Test Un Other:	0/R-93/116 count (400 point) ntil Positive	Comments:				
TEM AIR AHERA EPA Level II NIOSH 7402 MN Dept of He	ealth	TEM BUI Chatfiel NOB	LK Id	TEM WATER EPA 100.1 (al EPA 100.2 (Lo NY 198.2	ll fibers) ong fibers	s >10um)	TEM WII	PE tative tive
I win Debroi H	eann	L MICLO A	ac-Quantitative				TEM DU	ST
#96	16	Drop M	ount-Qualitative			_		D-5755-95 tive
#96 Client Sample # ( Relinquished: Received: Received:	16 s) 24	Drop M	14 (AC)	Date: Date: Date:	1/30	Total S	ASTM I Qualita Samples: Time: Time: Time:	1610 410 pm
#96 Client Sample # (s Relinquished: Received: Received: SAMPLE DATE	s) SAMPLE	Drop M	ount-Qualitative	Date: Date: Date: LOCATION	1/30	Total S	ASTM I Qualita Samples: Time: Time: Time: VOLU	D-5755-95 tive ////////////////////////////////////
#96 Client Sample # (s Relinquished: Received: Received: SAMPLE DATE ////14/05	SAMPLE	Drop M A- ITeper Bean ENUMBER -14	Electric Box	Date: Date: Date: LOCATION	1/30	Total S	ASTM I Qualita Samples: Time: Time: Time: VOLU	D-5755-95 tive ///// //////////////////////////////
#96 Client Sample # (s Received: Received: SAMPLE DATE ////14/05	SAMPLE	Drop M	Electric Box	Date: Date: Date: LOCATION	1/30	Total S	ASTM I Qualita Samples: Time: Time: Time: VOLU	D-5755-95 tive //// ///////////////////////////////
#96 Client Sample # (s Received: Received: SAMPLE DATE 71/14/05	SAMPLE	Drop M	Ekectric Box	Date: Date: Date: LOCATION	1/30	Total S	ASTM I Qualita Samples: Time: Time: Time: VOLU	D-5755-95 tive //// ///////////////////////////////
#96 Client Sample # (s Received: Received: SAMPLE DATE 7//14/05	SAMPLE	Drop M	Electric Box	Date: Date: Date: LOCATION Gosket	1/30		ASTM I Qualita Samples: Time: Time: VOLU	D-5755-95 tive ////////////////////////////////////
#96 Client Sample # (s Received: Received: SAMPLE DATE 71/14/05	SAMPLE	Drop M	eunt-Qualitative	Date: Date: Date: LOCATION Gasket	M/30 11/30		ASTM I Qualita Samples: Time: Time: Time: VOLU	D-5755-95 tive ///// //////////////////////////////
#96 Client Sample # (s Received: Received: AMPLE DATE ////14/05	SAMPLE	Drop M	eunt-Qualitative	Date: Date: Date: LOCATION	1/30		ASTM I Qualita Samples: Time: Time: VOLU	D-5755-95 tive //// ///////////////////////////////

Phone: (763) 449-4922 Fax: (763) 449-4924 Email: minneapolislab@emsl.com

Attn:	Bill Tepley STS Consultants L1 10900 73rd Avenue Suite 150 Maple Grove, MN 55	D North		Customer ID: Customer PO: Received: EMSL Order:	STSC50 11/30/05 4:10 PM 350505396
Fax: Project:	(763) 315-1836 Crosstown 30070-XA	Phone:	(763) 315-6335	EMSL Proj: Analysis Date: Report Date:	12/6/05 12/7/05

#### Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

				Non-As	<u>bestos</u>	<u>Asbestos</u>
Sample	Location	Appearance	%	Fibrous	% Non-Fibrous	% Туре
A-14 350505396-0001	Electric Box Gasket	Gray/Tan Fibrous Heterogeneous	5% 80%	Synthetic Cellulose	15% Non-fibrous (other)	None Detected

Analyst(s)

Rachel Travis (1)

Rahl

or other approved signatory

Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. Samples reported as <1% or none detected may require additional testing by TEM to confirm asbestos quantities. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL's liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client.

Analysis performed by EMSL Minneapolis (NVLAP #200019-0)

THIS IS THE LAST PAGE OF THE REPORT.

EMSL Represen Your Company I Street: Box #:	tative: Name: <u>STS Cons</u> 10900 73	N LTAN	EMSL Reference EMSL-Bill to: 1. Suite 150 Street: Box #:	BILL Teple	m/sts	
City/State: Verbal Results t Telephone #: Project/Name/Nu	MAPLE GROVE/ to: BILL TEL 163-315 umber: CrossTown	MN Zip -6339 # 300	City/State: Results to: 5 5 5 70 XA Purchase Order #	BILL Te epley@sts 30070x	Zip: pley consulta	nts-ce
D RUSH	9616 TURNA	ROUND T	TME Hours 3 Days 150	lays the to Days		-
Contact Lab				UUT		Charl
	Instrum	ant	Method	Detection Lin	nite	One
Paint Chips	FAA	ent	SW846-7420 or	0.01%	ints	Une
			AOAC 5.009 (974.02)	-		
	FAA		SW-846-7420	0.4 mg/L wate	r	-
Wastewater	ICP		SW-846-6010	0.1 mg/L wate	er	
	Graphite Fun	nace	SW-846-7421	0.0003 mg/L v	vater	
Drinking Water	Graphite Fun	nace	EPA 239.2	0.003 mg/L wa	ater	
	FAA		Sw-846-7420	50 mg/kg (ppn	n) soil	
Soil	ICP		SW-846-6010	10 mg/kg (ppn	n) soil	
	Graphite Fun	nace	SW-846-7421	0.3 mg/kg (pp	m) soil	
	FAA		NIOSH 7082	10 ug/filter		
Air	ICP		NIOSH 7300	3.0 ug/filter	1	and and
production of the	Graphite Fun	nace	NIOSH 7105	0.03 ug/filter	Autor 13	1
Vipes	FAA		SW-846-7420	10 ug/wipe		
	ICP	4.1.5.1.1	SW-846-6010	3.0 ug/wipe	-	-
otal Dust	Gravimetric F	AA	NIOSH 0500/0600	0.0001 g		
CLP	FAA	2.5	SW-846-1311/7420	0.4 mg/L	0	
Client Sample # (	s) Pb-	1	Date:	Total Samples:	7:450	M
leceived:	Ram	m	Date: 10/1	NOS Time:	7.50	-
Received:	mel. m. (1)	. Q.m	Date: (D-1	4:05 Time:	10:10	-
AMPLE DATE	SAMPLE NUMBER	reach	LOCATION	VOLU	ME (If Applica	ble)
		-				and the second
0-10-05	Pb-1	RAIL	ING GASKET		1000	
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		-	100 million (100 million)		E.	
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						the second se
					4	

Attn:	Bill Tepley STS Consultants I	.TD		Customer ID: Customer PO:	STSC50
	10900 73rd Avenu	e North		Received:	10/14/05 10:10 AM
	Suite 150			EMSL Order:	160511920
	Maple Grove, MN \$	55369			
Fax:	(763) 315-1836	Phone:	(763) 315-6335	EMSL Proi	
Project:	CrossTown 30070XA E	Bridge 9616		EMOETTOJ.	
				Report Date:	10/19/2005

#### Lead in Paint Chips by Flame AAS (SW 846 3050B and 7420\*)

Lab ID:	Analyzed	RDL	Lead Concentration	Notes	
0001	10/19/2005	0.01	48.00 % wt		
Client Se	ample Pb-1			Collected:	10/13/2005

or other approved signatory

Reporting limit is 0.01 % wt. The QC data associated with these sample results included in this report meet the method quality control requirements, unless specifically indicated otherwise. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities.

\* slight modifications to methods applied

ACCREDITATIONS: AIHA Environmental Lead Laboratory Approval Program #157245

Appendix III

#### Bridge #9616

Licenses <u>MDH inspector/s license/s</u> <u>CHMM License</u> <u>Copies of Analytical Laboratory Accreditation/s</u> Certificate No: 5LM10190510IR

Expiration Date: October 19, 2006

This is to certify that William Tepley has attended and successfully completed an

## ASBESTOS INSPECTOR REFRESHER TRAINING COURSE

permitted by the State of Minnesota under Minnesota Rules 4620.3702 to 4620.3722 and meets the requirements of Section 206 of Title II of the Toxic Substances Control Act (TSCA) conducted by

# Lake States Environmental, Ltd.

White Bear Lake, MN on October 19, 2005 nation Date: October 19, 2005



Certified by:

ASBESTOS

State of Minnesota Department of Health Expires: 10/19/2006 William B Tepley 3253 Webster Ave S St. Louis Park, MN 55416

Director, Env. Health Drv No. Al9763 Issued: 10/28/2005

KORS JM. Training Instructor

(໑)







ISO/IEC 17025:1 ISO 9002:1994	<sup>999</sup> Scope of A	ccreditation	an atony Accordination The
			The of Ane
BULK ASBEST	FOS FIBER ANALYSIS	NVLAP	Page: 1 of 1 LAB CODE 200019-0
	EMSL ANAL 14375 23rd A Minneapolis Ms. Rach Phone: 763-449-4922 E-Mail: minneapo URL: http://w	YTICAL, INC. Avenue North , MN 55447 nel Travis Fax: 763-449-4924 olislab@emsl.com	
NVLAP Code	Designation		
18/A01	EPA-600/M4-82-020: Interim M	lethod for the Determinati	on of Asbestos in Bulk
18/A01	EPA-600/M4-82-020: Interim M Insulation Samples	lethod for the Determinati	on of Asbestos in Bulk
18/A01	EPA-600/M4-82-020: Interim M Insulation Samples	ethod for the Determinati	on of Asbestos in Bulk



AIHA

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2700 Prosperity Ave., Suite 250, Fairfax, VA 22031 U.S.A. (703) 849-8888; Fax (703) 207-3561; www.aiha.org

## AIHA Laboratory Quality Assurance Programs SCOPE OF ACCREDITATION

EMSL Analytical, Inc. 2001 East 52<sup>nd</sup> Street, Indianapolis, IN 46205

Laboratory ID: 157245 Issue Date: 08/11/2005

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or revocation. A complete listing of currently accredited Industrial Hygiene laboratories is available on the AIHA website at: http://www.aiha.org/LaboratoryServices/html/lists.htm

The EPA recognizes the AIHA ELLAP program as meeting the requirements of the National Lead Laboratory Accreditation Program (NLLAP) established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil and dust wipe analysis. Air analysis is not included as part of the NLLAP.

## Environmental Lead Laboratory Accreditation Program (ELLAP)

Field of Testing (FoT)	Method	Method Description (for internal methods only)
Airborne Dust	NIOSH 7082	
Dolat	EPA SW-846 3050B	
Paint	EPA SW-846 7420	
Cottlad Duct by Mino	EPA SW-846 3050B	
Sected prociny wipe	EPA SW-846 7420	
Coil	EPA SW-846 3050B	
501	EPA SW-846 7420	

## Initial Accreditation Date: 09/01/2002

The laboratory participates in the following AIHA testing programs:

✓ Paint

🗸 Soll

- ✓ Airborne Dust
- ✓ Settled Dust by Wipe

Effective: April 11, 2005 157245 Scope\_ELLAP\_2005\_08\_11 Author: Kris Heinbaugh Page 1 of 1



## The American Industrial Hygiene Association

acknowledges that

CELEBRATING Thirty Years of AIHA Accrediting Labs OUNO DATA SMART DECISIONS 1974 - 2004



has fulfilled the requirements of the AIHA Laboratory Quality Assurance Programs (LQAP), thereby, conforming to the ISO/IEC 17025:1999 international standard, General Requirements for the Competence of Testing and Calibration Laboratories: The above named laboratory, along with all premises from which key activities are performed, as listed above, have been accredited by AIHA in the following:

### **ACCREDITATION PROGRAMS**

- **INDUSTRIAL HYGIENE**
- $\checkmark$ ENVIRONMENTAL LEAD
- $\checkmark$ ENVIRONMENTAL MICROBIOLOGY
- FOOD

Accreditation Expires: Accreditation Expires: 09/01/2007 Accreditation Expires: 12/01/2007 Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached Scope of Accreditation. Continued accreditation is contingent upon successful on-going compliance with LQAP requirements. This certificate is not valid without the attached Scope of Accreditation.

Larry S. Pierce, PhD, CIH Chairperson, Analytical Accreditation Board

REM Bud

Roy M. Buchan, DrPH, CIH President, AIHA

Date Issued: 08/11/2005