



NATIONAL TRANSPORTATION SAFETY BOARD  
**Investigative Hearing**

Norfolk Southern Railway general merchandise freight train 32N  
derailment with subsequent hazardous material release and fires,  
in East Palestine, Ohio, on February 3, 2023

<b>GROUP</b>	<b>F</b>
<b>EXHIBIT</b>	
17	

Agency / Organization

**Oxy Vinyls, LP**

Title

**Excerpts of Tank Car Qualification File for  
OCPX80370,  
December 21, 2015.**

## Tank Qualification Stencil Report

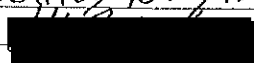
Reporting Mark and Number: OCPX 80370  
 DOT Specification: 105J300W  
 Inspection and Test Date: 12-21-15

Tank Car Facility: GBW Hockley  
 Station Stencil: MRT  
 Address: 17000 Premium Dr  
 City: Hockley  
 State: Tx  
 Zip: 77447

### Qualification Stencil Information and Associated Procedures and Forms

Marking the tank with the specification, or retaining the specification on the tank, and marking the test dates in association with the specification indicating conformance to the specification, is representation that the facility performed the inspections and tests, and the results of the inspection and tests conform to the owner's acceptance criteria. Indicate below the markings applied to the tank.

Component Group	Station Stencil	Qualified	Due	Procedure	Form	Form Accurate, Complete, and With Invoice
Tank Qualification	<u>MRT</u>	<u>2015</u>	<u>2025</u>	ES-001	ES-001-01	
Thickness Test	<u>MRT</u>	<u>2015</u>	<u>2025</u>	ES-002	TCID	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Service Equipment	<u>MRT</u>	<u>2015</u>	<u>2025</u>	ES-003	ES-003-01	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
PRD: <u>247.5</u>	<u>MRT</u>	<u>2015</u>	<u>2025</u>	ES-004	ES-004-01	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
HTR SYSTEM	<u>MRT</u>	<u>2015</u>	<u>2025</u>	ES-005	ES-005-01	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Lining				ES-006.1	ES-006-01	Yes <input type="checkbox"/> No <input type="checkbox"/>
88.D.2 Inspection	<u>MRT</u>	<u>2015</u>	<u>2025</u>	ES-007	ES-007-01	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>BB 12/21/15</i>
Stub Sill Inspection	<u>MRT</u>	<u>2015</u>	<u>2025</u>	ES-010	ES-010-01	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
				ES-002	TCID	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
				ES-010	ES-010-01	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
						Yes <input type="checkbox"/> No <input type="checkbox"/>
						Yes <input type="checkbox"/> No <input type="checkbox"/>

Inspector's Name: Jeffrey Blaylock  
 Signature: 

Service Equipment Inspection and Test Form

Car Mark and Number OCAF 80370  
 DOT Specification 105-J300  
 Inspection Date 12-9-15

Tank Car Facility CBW  
 Station Stencil MRT  
 City, ST Hockley Tx.

Component	Serial #	IM	CC	RM	Pressure Gauge ID	Calibration Due Date	Torque Wrench ID	Thread Gauge ID	P/F
Load Valve	N/A								
Load Valve	N/A								
Air Inlet	N/A								
Air Inlet	N/A								
BOV	N/A								
PRD	AJS949	VT	9	RM	MR70				P
PRD	N/A								
Liquid Valve	EW468	VT	9	RM	HRC010				P
Liquid Valve	EW411	VT	9	RM	HRC010				P
Vapor Valve	EW467	VT	9	RM	HRC010				P
Vapor Valve	N/A								
Thermowell	N/A								
VRV	N/A								
Gauge Device									P
Sample Valve	NEW	VT	9	RM					P

Inspector Name FERNANDO AVILA  
 Procedure Used \_\_\_\_\_

Level of Certification III  
 Revision Level \_\_\_\_\_

Inspection Method (IM)

Visual Inspection VT  
 Leak Testing LT

Condition Code (CC)

Bent Stem	1	Like New	9
Bright / Clean	2	Pipe Plug Worn	10
Corroded	3	Sealing Surface Corroded	11
Cracked	4	Sealing Surface Gouged	12
Dirty	5	Seat Corroded	13
Fractured	6	Seat Gouged	14
Good	7	Swelled	15
Gouged	8	Worn	16

Repair Method (RM)

Rebuild and Bench Test	RB
Remanufacture OEM	RM
Replace	RP
Reseal and Bench Test	RS

Signature: [Redacted] Date: 12-9-15

## Pressure Relief Device Inspection and Test Report

Reporting Mark and Number: OCPK 80370  
 DOT Specification: 105J300W  
 DOT Stenciled Specification: 105J300W  
 Inspection and Test Date: 12-9-15  
 Tank Capacity in gallons: 24620 gal  
 Tank Test Pressure: \_\_\_\_\_  
 Heater System Test Pressure: \_\_\_\_\_

Tank Car Facility Performing Tear-Down and Bench Test: Yes  No   
 Tank Car Facility Applying Device to the Tank: Yes  No   
 Station Stencil: MNT  
 Address: 17000 Premium  
 City: Hockley  
 State: TX  
 Zip: 77447

### Results of Inspection and Test

Component	A End	B End	Repair Method	ID
<b>Reclosing Pressure Relief Device</b>				
Manufacturer Model	<u>MIDLAND A-34247</u>			
Serial Number	<u>ATS 949</u>			
Start-to-Discharge Pressure	<u>247.5 psi</u>			
Vapor Tight Pressure	<u>196 psi</u>			
Elastomeric Seals Replaced	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>		
Elastomeric Material	<u>VITON A</u>			
Concentricity of Valve Stem Checked	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>		
Dye Penetrant Test of Stem	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>		
Dye Penetrant Inspection of Spring	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>		
Solid Spring Compression	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>		
Measured Height Before	<u>N/A</u>			
Measured Height After	<u>N/A</u>			
<b>Combination Pressure Relief Device</b>				
Rupture Disc Pressure	<u>N/A</u>			
Breaking Pin Lower Diaphragm Tight	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>		
Tell-Tale Indicator Checked	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>		
<b>Non-Reclosing Pressure Relief Device</b>				
Manufacturer Model	<u>N/A</u>			
Serial Number				
Leakage Pressure Test	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>		

ID: 01

Inspector's Name: Jeffrey Blaylock  
 Signature: \_\_\_\_\_  
 Procedure Used: NO

Level of VT Certification: \_\_\_\_\_  
 Level of PT Certification: \_\_\_\_\_  
 Pressure Gauge ID: \_\_\_\_\_  
 Pressure Gauge Calibration Due: \_\_\_\_\_

ID: 02

Inspector's Name: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Procedure Used: \_\_\_\_\_

Level of VT Certification: \_\_\_\_\_  
 Level of PT Certification: \_\_\_\_\_  
 Pressure Gauge ID: \_\_\_\_\_  
 Pressure Gauge Calibration Due: \_\_\_\_\_

	Repair Method	
Rebuild	RB	Replace Part RP
Remanufacture (only OEM)	RM	Reseal RS
Replace Device	RD	

AAR Manual of Standards and Recommended Practices  
Specifications for Tank Cars

M-1002

APPENDIX D


Certificate of Test Form		
1.	Reporting marks and car number	OCPX 80370
2.	Tank specification	105J300W
3.	Stenciled specification	105J300W
4.	Tank capacity in gallons (liters)	24620 gal.
5.	Tank test pressure, psi (kPa)al	
6.	Interior heater system test pressure, psi (kPa)al	
7.	Pressure relief valve (PRV)	No. 1      No.2
	a. Name and location of company performing test of PRV	MIDLAND MANUFACTURING
	b. Name and location of company applying PRV	GBW RAIL CAR SERVICES
	c. Manufacturer and model/type number	MIDLAND A-34247
	d. Serial number	AJS949
	e. Start-to-discharge pressure, psi (kPa)hl	247.5
	f. Vapor-tight pressure, psi (kPa)hl	196
	g. Valve seals replaced (YIN) (only those exposed to product)	YES
	h. New seal material	VITON-A
8.	Combination device	
	a. Rupture disc pressure, psi (kPa)	
	b. Breaking pin lower diaphragm tight at psi (kPa)	
9.	Rupture disc device	
	a. Number of rupture disc devices	
	b. Rupture disc pressure, psi (kPa)	
10.	Excess flow valve seat tightness checked (YIN)	YES
11.	Test date (date stenciled on car)	2015
12.	Tank built/conversion date	3-06
13.	Test due stencil	
	a. Tank (date stenciled on car)	
	b. Pressure relief valve (date stenciled on car)	2025
	c. Interior heater system (date stenciled on car)	
14.	Name and location of company performing tank and/or heater system test	
<p><i>a</i> Tested with hydrostatic pressure shown, for the required time period, without leaks or evidence of distress.  <i>b</i> Valve has been set to start-to-discharge and is vapor-tight at pressure shown. For combination devices, the start-to-discharge and vapor-tight pressures of the valve portion is shown.</p> <p>I HEREBY CERTIFY THAT TESTS PERFORMED TO TANK CAR TANKS, PRESSURE RELIEF VALVES AND/OR HEATER SYSTEMS WERE DONE IN ACCORD WITH THE DEPARTMENT OF TRANSPORTATION REGULATIONS AND THE AAR SPECIFICATIONS FOR TANK CARS AND REPORTED CORRECTLY.</p>		
	12-9-15 Date	 (Signed) Owner/Tester

Fig. D.4 Certificate of Test Form

VCM TANK CAR VALVE DATA FORM

CAR NUMBER OCPX 80370 DATE 12-9-15

A-LIQUID MFG. AND MODEL Midland A 720 SER. NO. EW 468-RA

B-LIQUID MFG. AND MODEL Midland A 720 SER. NO. EW 411-RA

VAPOR MFG. AND MODEL Midland A 720 SER. NO. EW 467-RA

APPLIED BY: GBW Rail Services AT Hockley TX  
(REPAIR FACILITY) (LOCATION)

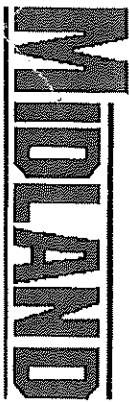
SIGNED: [REDACTED]

This form must be completed at time of valve application and a copy supplied to Bourque Data Systems at time of invoicing.

Forward this document to:

Bourque Data Systems  
1610 Woodstead Court  
Suite 220  
The Woodlands, TX 77380

Ph. [REDACTED]  
Fax: [REDACTED]



P.O. BOX 226 \* Skokie, IL 60076 - 0226 \* Phone(847)677 - 0333 \* FAX(847)677-0138

# Certificate of Pressure Relief Valve Test

OCPX 80370

Customer PO # 4501950276

Midland Order No 51107494

This is to certify that 4 Pressure Relief Valve, Midland Manufacturing Corp.

Valve Model No. A-34247-VA

Serial No AJS949-AJS952

were tested OCT-15 by Midland Manufacturing Corp., Skokie, Illinois. The valves

were set at 247.5 PSIG, opened at 247.5 PSIG with +/- 2% tolerance, and were tight at pressure above 80% of set pressure.



Quality Manager

\*\* Optional Information Below \*\*

To be completed by Mfr/Repair Facility

1. Car Initial and Mark OCPX 80370

2. Valve Serial Number AJS949

3. Date Installed 12-9-15

Packing Slip Copy

### REVISION RECORD

Date	Nature of Change	Approved By:	Approved	Effective
2/25/2015	Added revision block to existing form	DL	2/25/2015	

OCPX  
80370

**Midland Remanufacturing**  
11951 N. Spectrum Blvd., Houston, TX 77047

**A-720-OX-VA - Certificate of Test and Bench Test**

Sales Order:	55001254	Repair Date:	10/6/2015
Customer PO:	4501950276	Original Mfg Date:	2/2006
Valve Model:	A-720-OX-VA	Serial Number:	EW468-RA

**INCOMING TEST INFORMATION**

Incoming Temp:	73	Seat Leak Test (PSI):	Pass
Inspector:	Terry Benson	Pressure Seat Leaked At (PSI):	
Inspection Date:	10/6/2015	Mounting Tongue Test:	Pass
Pressure Gauge Calibration Due Date:	1/14/2016	Pressure Mounting Tongue Failed At:	
Pressure Gauge Serial Number:	M1928	Packing Area Leak Test (PSI):	Pass
		Pressure Packing Leaked At (PSI):	
		Outlet Flange Gasket Leak Test (PSI):	Pass
		Pressure Outlet Flange Gasket Leaked At (PSI):	

**COMPONENT INSPECTION INFORMATION**

	<b>Reusable</b>
OUTLET O-RING, VITON A	No - Compression Set
STEM, STAINLESS STEEL	Yes
2" ANGLE VALVE BODY, CARBON STEEL	Yes
OUTLET FLANGE, CARBON STEEL	Yes - New Zinc plating applied

Inspector: Terry Benson  
Inspection Date: 10/6/2015



**Midland Remanufacturing**  
11951 N. Spectrum Blvd., Houston, TX 77047

**A-720-OX-VA - Certificate of Test and Bench Test**

Sales Order: 55001254 Repair Date: 10/6/2015  
Customer PO: 4501950276 Original Mfg Date: 2/2006  
Valve Model: A-720-OX-VA Serial Number: EW468-RA

**FINAL TEST INFORMATION**

Final Temp: 73 Seat Test: Pass  
Inspection Date: 10/6/2015 Body Leak Test: Pass  
Pressure Gauge Calibration Due Date: 1/14/2016  
Pressure Gauge Serial Number: M2442  
Station Stencil: MMST

\*\* Optional Information Below \*\* \_\_\_\_\_

To be completed by Mfr/Repair facility

1. Car Initial & Mark OCPX 80370
2. Valve Serial Number EW468-RA
3. Date Installed 12-9-15

Inspected By: Terry Benson



\* All valves are repaired/remanufactured per Midland Procedures and/or per the Manufacturer's Specifications.

Date	Nature of Change	Approved By	Approved	Effective
3/10/2014	Added Header information on 2nd page. Added page Numbers	Steve Wells	3/10/2014	3/10/2014
2/8/2014	Changed Name at top to Certificate of Test & Bench Test	Steve Wells	2/8/2014	2/7/2014

# Tank Qualification Stencil Report

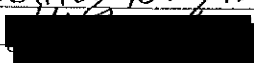
Reporting Mark and Number: OCPX 80370  
 DOT Specification: 105J300W  
 Inspection and Test Date: 12-21-15

Tank Car Facility: GBW Hockley  
 Station Stencil: MRT  
 Address: 17000 Premium Dr  
 City: Hockley  
 State: Tx  
 Zip: 77447

**Qualification Stencil Information and Associated Procedures and Forms**

Marking the tank with the specification, or retaining the specification on the tank, and marking the test dates in association with the specification indicating conformance to the specification, is representation that the facility performed the inspections and tests, and the results of the inspection and tests conform to the owner's acceptance criteria. Indicate below the markings applied to the tank.

Component Group	Station Stencil	Qualified	Due	Procedure	Form	Form Accurate, Complete, and With Invoice
Tank Qualification	<u>MRT</u>	<u>2015</u>	<u>2025</u>	ES-001	ES-001-01	
Thickness Test	<u>MRT</u>	<u>2015</u>	<u>2025</u>	ES-002	TCID	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Service Equipment	<u>MRT</u>	<u>2015</u>	<u>2025</u>	ES-003	ES-003-01	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
PRD: <u>247.5</u>	<u>MRT</u>	<u>2015</u>	<u>2025</u>	ES-004	ES-004-01	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
HTR SYSTEM				ES-005	ES-005-01	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Lining				ES-006.1	ES-006-01	Yes <input type="checkbox"/> No <input type="checkbox"/>
88.D.2 Inspection	<u>MRT</u>	<u>2015</u>	<u>2025</u>	ES-007	ES-007-01	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>BB 12/21/15</i>
Stub Sill Inspection	<u>MRT</u>	<u>2015</u>	<u>2025</u>	ES-010	ES-010-01	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
				ES-002	TCID	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
				ES-010	ES-010-01	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
						Yes <input type="checkbox"/> No <input type="checkbox"/>
						Yes <input type="checkbox"/> No <input type="checkbox"/>

Inspector's Name: Jeffrey Blaylock  
 Signature: 

Service Equipment Inspection and Test Form

Car Mark and Number OCAF 80370  
 DOT Specification 105-J300  
 Inspection Date 12-9-15

Tank Car Facility CBW  
 Station Stencil MRT  
 City, ST Hockley Tx.

Component	Serial #	IM	CC	RM	Pressure Gauge ID	Calibration Due Date	Torque Wrench ID	Thread Gauge ID	P/F
Load Valve	N/A								
Load Valve	N/A								
Air Inlet	N/A								
Air Inlet	N/A								
BOV	N/A								
PRD	A15949	VT	9	RM	MR70				P
PRD	N/A								
Liquid Valve	EW468	VT	9	RM	HRC010				P
Liquid Valve	EW411	VT	9	RM	HRC010				P
Vapor Valve	EW467	VT	9	RM	HRC010				P
Vapor Valve	N/A								
Thermowell	N/A								
VRV	N/A								
Gauge Device									P
Sample Valve	NEW	VT	9	RM					P

Inspector Name FERNANDO AVILA  
 Procedure Used \_\_\_\_\_

Level of Certification III  
 Revision Level \_\_\_\_\_

**Inspection Method (IM)**

Visual Inspection VT  
 Leak Testing LT

**Condition Code (CC)**

Bent Stem	1	Like New	9
Bright / Clean	2	Pipe Plug Worn	10
Corroded	3	Sealing Surface Corroded	11
Cracked	4	Sealing Surface Gouged	12
Dirty	5	Seat Corroded	13
Fractured	6	Seat Gouged	14
Good	7	Swelled	15
Gouged	8	Worn	16

**Repair Method (RM)**

Rebuild and Bench Test	RB
Remanufacture OEM	RM
Replace	RP
Reseal and Bench Test	RS

Signature: [Redacted] Date: 12-9-15

## Pressure Relief Device Inspection and Test Report

Reporting Mark and Number: OCPK 80370  
 DOT Specification: 105J300W  
 DOT Stenciled Specification: 105J300W  
 Inspection and Test Date: 12-9-15  
 Tank Capacity in gallons: 24620 gal  
 Tank Test Pressure: \_\_\_\_\_  
 Heater System Test Pressure: \_\_\_\_\_

Tank Car Facility Performing Tear-Down and Bench Test: Yes  No   
 Tank Car Facility Applying Device to the Tank: Yes  No   
 Station Stencil: MNT  
 Address: 17000 Premium  
 City: Hockley  
 State: TX  
 Zip: 77447

### Results of Inspection and Test

Component	A End	B End	Repair Method	ID
<b>Reclosing Pressure Relief Device</b>				
Manufacturer Model	<u>MIDLAND A-34247</u>			
Serial Number	<u>ATS 949</u>			
Start-to-Discharge Pressure	<u>247.5 psi</u>			
Vapor Tight Pressure	<u>196 psi</u>			
Elastomeric Seals Replaced	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>		
Elastomeric Material	<u>VITON A</u>			
Concentricity of Valve Stem Checked	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>		
Dye Penetrant Test of Stem	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>		
Dye Penetrant Inspection of Spring	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>		
Solid Spring Compression	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>		
Measured Height Before	<u>N/A</u>			
Measured Height After	<u>N/A</u>			
<b>Combination Pressure Relief Device</b>				
Rupture Disc Pressure	<u>N/A</u>			
Breaking Pin Lower Diaphragm Tight	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>		
Tell-Tale Indicator Checked	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>		
<b>Non-Reclosing Pressure Relief Device</b>				
Manufacturer Model	<u>N/A</u>			
Serial Number	_____			
Leakage Pressure Test	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>		

ID: 01

Inspector's Name: Jeffrey Blaylock  
 Signature: \_\_\_\_\_  
 Procedure Used: NO

Level of VT Certification: \_\_\_\_\_  
 Level of PT Certification: \_\_\_\_\_  
 Pressure Gauge ID: \_\_\_\_\_  
 Pressure Gauge Calibration Due: \_\_\_\_\_

ID: 02

Inspector's Name: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Procedure Used: \_\_\_\_\_

Level of VT Certification: \_\_\_\_\_  
 Level of PT Certification: \_\_\_\_\_  
 Pressure Gauge ID: \_\_\_\_\_  
 Pressure Gauge Calibration Due: \_\_\_\_\_

	Repair Method	
Rebuild	RB	Replace Part RP
Remanufacture (only OEM)	RM	Reseal RS
Replace Device	RD	

Inspection Area	1 <sup>st</sup> Inspection			2 <sup>nd</sup> Inspection (post repair)		
	Date & Inspector's Initials	NDE Method	Pass/Fail	Date Inspector's Initials	NDE Method	Pass/Fail
Safety System Inspection						
Thermal Protection				B 12/10	VT	P
Head Puncture Resistance				B 12/10	VT	P
Coupler Vertical Restraint				B 12/10	VT	P
Bottom Outlet Valve (BOV) Protection				N/A	N/A	N/A
Top Fittings Protection (Housing)				B 12/10	VT	P
Location & Description of Defects Found (if applicable)						

Supervisor [Redacted] Date 12-10-15  
 Signature

Jeffrey Blaylock  
 Print Name

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