



October 16, 2020

Jennifer Schkirkie  
105 Warren Street  
Portage, WI 53901

**Subject: Vapor Intrusion Sampling Results – 105 Warren Street, Portage, Wisconsin  
BRRTS: 02-11-512824**

Dear Ms. Schkirkie:

In accordance with the executed Agreement to Provide Access for Sampling Activities, and in accordance with Wisconsin Department of Natural Resources (WDNR) regulation NR 716.14, EnviroForensics, LLC. (EnviroForensics) is providing the results of environmental samples collected from your property located at 105 Warren Street in Portage, Wisconsin. The samples were collected on September 29-30, 2020. The sampling activities are part of an environmental investigation being performed for the Portage Cleaners facility located at 104 West Wisconsin Street in Portage at the direction of the WDNR pursuant to the authority granted to it under State and Federal law. The chemicals of concern for the investigation are the dry cleaning solvent tetrachloroethene (PCE) and its associated breakdown products.

The Responsible Party is:

Portage Cleaners  
104 West Wisconsin Street  
Portage, WI

### **Sampling Results**

Two indoor air samples designated 6493-105 Warren-IA-B and 6493-105 Warren-IA-1 were collected from within the basement and first floor, respectively. For quality control purposes a sample of outdoor ambient air designated 6493-105 Warren-OA-1 was collected. Additionally, one (1) sub-slab vapor sample designated 6493-105 Warren-SSV-1 was collected from beneath the basement floor of your building. The sampling locations are depicted on the attached **Figure 1**. The results of the vapor samples are summarized and compared to WDNR standards on the attached **Table 1** with the previous results. A copy of the laboratory report that relates to the vapor samples is also attached.

PCE was detected in the sub-slab vapor sample, but at a concentration below the Vapor Risk Screening Level (VRSL). No other compounds were detected in the sub-slab sample. The indoor air results did not contain any compounds of concern.

We recommend at least one additional sampling event to confirm vapor intrusion is not occurring. If you have any questions or concerns, please contact us at 262-510-0612 or by email at [rhoverman@enviroforensics.com](mailto:rhoverman@enviroforensics.com). The WDNR project manager, Larry Lester, can be reached at 608-275-3465. We greatly appreciate your help and patience with this matter.

Sincerely,  
**EnviroForensics, LLC**

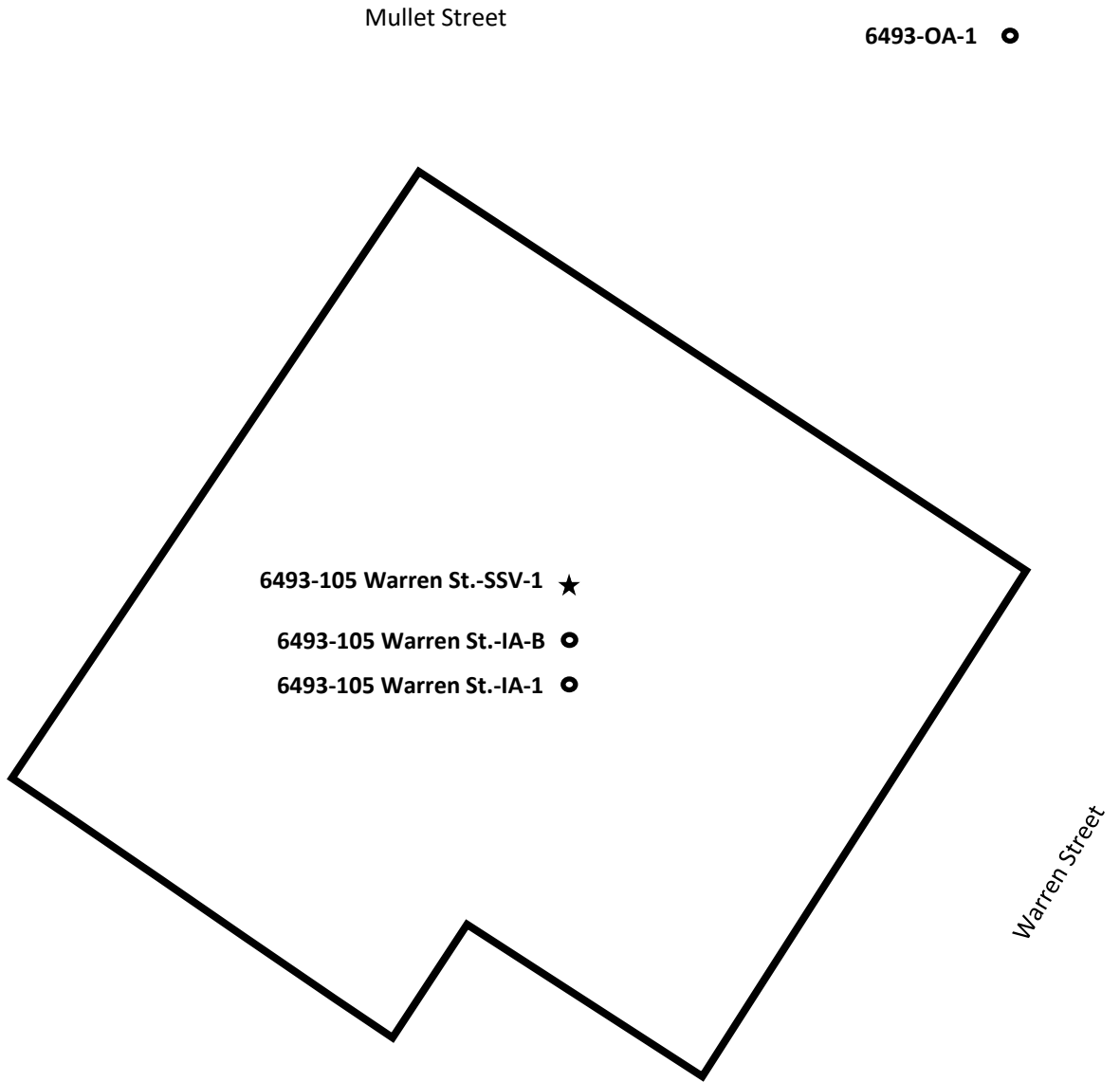
A handwritten signature in blue ink, appearing to read "Rob Hoverman".

Rob Hoverman, LPG  
*Senior Project Manager*

Attachments: Figure 1 – Vapor Intrusion Sampling Locations  
Table 1 – Vapor Intrusion Assessment Results Summary  
Laboratory Analytical Report

Copy: Larry Lester, Wisconsin Department of Natural Resources

**FIGURE 1**  
**VAPOR INTRUSION SAMPLE LOCATIONS**  
**105 Warren Street, Portage Wisconsin**



**Legend**

- = Indoor/Outdoor Air Sample
- IA-B = Basement
- IA-1 = 1<sup>st</sup> Floor
- SSV-1 = Sub-Slab Vapor
- ★ = Sub-Slab Vapor Sampling Port Location



**TABLE 1  
VAPOR INTRUSION ASSESSMENT ANALYTICAL RESULTS**

Portage Cleaners  
104 E. Wisconsin St  
Portage, WI 53901

Sample Address	Sample Identification	Sample Date	Applicable Criteria	Mitigation	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl chloride
<b>INDOOR/OUTDOOR AIR</b>									
<b>Residential Vapor Action Limit<sup>2</sup></b>					<b>42</b>	<b>2.1</b>	<b>NE</b>	<b>NE</b>	<b>1.7</b>
<b>Small Commercial Vapor Action Limit<sup>1</sup></b>					<b>180</b>	<b>8.8</b>	<b>NE</b>	<b>NE</b>	<b>28</b>
105 Warren St.	6493-105 Warren St-IA-B	09/07/17	Residential	No	<3.19	<b>55.3</b>	<19.8	<39.6	<1.28
		12/06/17			<3.19	<1.07	<19.8	<39.6	<1.28
		09/30/20			<3.19	<1.07	<19.8	<39.6	<1.28
	6493-105 Warren St-IA-1	09/07/17	Residential	No	<3.19	<b>76.4</b>	<19.8	<39.6	<1.28
		12/06/17			<3.19	<1.07	<19.8	<39.6	<1.28
		09/30/20			<3.19	<1.07	<19.8	<39.6	<1.28
	6493-OA-1	09/07/17	Residential	No	<3.19	<1.07	<19.8	<39.6	<1.28
		12/06/17			<3.19	<1.07	<19.8	<39.6	<1.28
		09/30/20			<3.19	<1.07	<19.8	<39.6	<1.28
<b>SUB-SLAB VAPOR</b>									
<b>Residential Vapor Risk Screening Level<sup>2</sup></b>					<b>1,400</b>	<b>70</b>	<b>NE</b>	<b>NE</b>	<b>57</b>
<b>Small Commercial Vapor Risk Screening Level<sup>1</sup></b>					<b>6,000</b>	<b>290</b>	<b>NE</b>	<b>NE</b>	<b>930</b>
105 Warren St.	6493-105 Warren St-SSV-1	9/7/2017	Residential	No	<b>10.9</b>	<b>3.28</b>	<19.8	<39.6	<1.28
		12/6/2017			<b>50.9</b>	<10.7	<198	<396	<12.8
		9/30/2020			<b>25.2</b>	<10.7	<198	<396	<12.8

**Notes:**

<sup>1</sup> The vapor risk screening levels for small commercial structures are calculated in accordance with the procedures described in WDNR Publication RR-800 and subsequent guidance

<sup>2</sup> The vapor risk screening levels for residential structures are calculated in accordance with the procedures described in WDNR Publication RR-800 and subsequent guidance

Samples analyzed according to EPA Method TO-15

All concentrations reported in units in micrograms per cubic meter = µg/m<sup>3</sup>

Only detected compounds are listed

**Bolded** values are above method detection limits

**Bolded and blue shaded** values exceed the residential Vapor Risk Screening Level

**Bolded and orange shaded** values exceed the small commercial Vapor Risk Screening Level

NE = Not Established

IA = Indoor Air

OA = Outdoor Air





**EnvisionAir**  
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Mr. Rob Hoverman  
Enviroforensics  
N16 W. 23390 Stone Ridge Dr  
Suite G  
Waukesha, WI 53188

October 9, 2020

EnvisionAir Project Number: 2020-563  
Client Project Name: Portage 6493

Dear Mr. Hoverman,

Please find the attached analytical report for the samples received October 2, 2020. All test methods performed were fully compliant with local, state, and federal EPA methods unless otherwise noted. The project was analyzed as requested on the enclosed chain of custody record. Please review the comments section for additional information about your results or Quality Control data.

Feel free to contact me if you have any questions or comments regarding your analytical report or service.

Thank you for your business. EnvisionAir looks forward to working with you on your next project.

Yours Sincerely,

A handwritten signature in black ink that reads "Stanley A. Hunnicutt".

Stanley A Hunnicutt

Project Manager  
EnvisionAir, LLC



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**Client Name:** ENVIROFORENSICS  
**Project ID:** PORTAGE 6493  
**Client Project Manager:** ROB HOVERMAN  
**EnvisionAir Project Number:** 2020-563

**Sample Summary**

*Canister Pressure / Vacuum*

<u>Laboratory Sample Number:</u>	<u>Sample Description:</u>	<u>Matrix:</u>	<u>START</u>	<u>START</u>	<u>End Date</u>	<u>End Time</u>	<u>Date</u>	<u>Time</u>	<u>Canister Pressure / Vacuum</u>		<u>Lab</u>
			<u>Date</u>	<u>Time</u>					<u>Initial Field</u>	<u>Final Field</u>	
			<u>Collected:</u>	<u>Collected:</u>	<u>Collected:</u>	<u>Collected:</u>	<u>Received:</u>	<u>Received:</u>	<u>(in. Hg)</u>	<u>(in. Hg)</u>	<u>(in. Hg)</u>
20-2617	6493-105 WARREN-IA-1	A	9/29/20	9:35	9/30/20	9:35	10/2/20	12:15	-30	0	0
20-2618	6493-105 WARREN-IA-B	A	9/29/20	9:30	9/30/20	9:34	10/2/20	12:15	-29	-2	-2
20-2619	6493-105 WARREN-OA-1	A	9/29/20	9:50	9/30/20	9:50	10/2/20	12:15	-30	-1	-1
20-2620	6493-105 WARREN-SSV-1	A	9/30/20	10:15	9/30/20	10:20	10/2/20	12:15	-28	-4	-4



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**Client Name:** ENVIROFORENSICS

**Project ID:** PORTAGE 6493

**Client Project Manager:** ROB HOVERMAN

**EnvisionAir Project Number:** 2020-563

**Analytical Method:** TO-15  
**Analytical Batch:** 100220AIR

**Client Sample ID:** 6493-105 WARREN-IA-1  
**EnvisionAir Sample Number:** 20-2617  
**Sample Matrix:** AIR

**Sample Collection START Date/Time:** 9/29/20 9:35  
**Sample Collection END Date/Time:** 9/30/20 9:35  
**Sample Received Date/Time:** 10/2/20 12:15

<u>Compounds</u>	<u>Sample Results ug/m<sup>3</sup></u>	<u>Reporting Limit ug/m<sup>3</sup></u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 19.8	19.8	
Tetrachloroethene	< 3.19	3.19	
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichloroethene	< 1.07	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	110%		
Analysis Date/Time:	10-3-20/07:47		
Analyst Initials	tjg		



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**Client Name:** ENVIROFORENSICS

**Project ID:** PORTAGE 6493

**Client Project Manager:** ROB HOVERMAN

**EnvisionAir Project Number:** 2020-563

**Analytical Method:** TO-15  
**Analytical Batch:** 100220AIR

**Client Sample ID:** 6493-105 WARREN-IA-B  
**EnvisionAir Sample Number:** 20-2618  
**Sample Matrix:** AIR

**Sample Collection START Date/Time:** 9/29/20 9:30  
**Sample Collection END Date/Time:** 9/30/20 9:34  
**Sample Received Date/Time:** 10/2/20 12:15

<u>Compounds</u>	<u>Sample Results ug/m<sup>3</sup></u>	<u>Reporting Limit ug/m<sup>3</sup></u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 19.8	19.8	
Tetrachloroethene	< 3.19	3.19	
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichloroethene	< 1.07	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	108%		
Analysis Date/Time:	10-3-20/08:29		
Analyst Initials	tjg		





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**Project ID:** PORTAGE 6493

**Client Project Manager:** ROB HOVERMAN

**EnvisionAir Project Number:** 2020-563

**Analytical Method:** TO-15  
**Analytical Batch:** 100220AIR

**Client Sample ID:** 6493-105 WARREN-OA-1  
**EnvisionAir Sample Number:** 20-2619  
**Sample Matrix:** AIR

**Sample Collection START Date/Time:** 9/29/20 9:50  
**Sample Collection END Date/Time:** 9/30/20 9:50  
**Sample Received Date/Time:** 10/2/20 12:15

<u>Compounds</u>	<u>Sample Results ug/m<sup>3</sup></u>	<u>Reporting Limit ug/m<sup>3</sup></u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 19.8	19.8	
Tetrachloroethene	< 3.19	3.19	
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichloroethene	< 1.07	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	91%		
Analysis Date/Time:	10-3-20/09:07		
Analyst Initials	tjg		



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**Client Name:** ENVIROFORENSICS

**Project ID:** PORTAGE 6493

**Client Project Manager:** ROB HOVERMAN

**EnvisionAir Project Number:** 2020-563

**Analytical Method:** TO-15  
**Analytical Batch:** 100620CAIR

**Client Sample ID:** 6493-105 WARREN-SSV-1  
**EnvisionAir Sample Number:** 20-2620  
**Sample Matrix:** AIR

**Sample Collection START Date/Time:** 9/30/20 10:15  
**Sample Collection END Date/Time:** 9/30/20 10:20  
**Sample Received Date/Time:** 10/2/20 12:15

<u>Compounds</u>	<u>Sample Results ug/m<sup>3</sup></u>	<u>Reporting Limit ug/m<sup>3</sup></u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 19.8	19.8	
Tetrachloroethene	<b>25.2</b>	3.19	
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichloroethene	< 1.07	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	103%		
Analysis Date/Time:	10-8-20/13:34		
Analyst Initials	tjg		



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Analytical Report

**TO-15 Quality Control Data**

**EnvisionAir Batch Number:** 100220AIR

<u>Method Blank (MB):</u>	<u>MB Results (ppbv)</u>	<u>Reporting Limit (ppbv)</u>	<u>Flags</u>
cis-1,2-Dichloroethene	< 5	5	
Tetrachloroethene	< 0.47	0.47	
trans-1,2-Dichloroethene	< 10	10	
Trichloroethene	< 0.2	0.2	
Vinyl Chloride	< 0.5	0.5	
4-bromofluorobenzene (surrogate)	102%		
Analysis Date/Time:	10-2-20/20:22		
Analyst Initials	tjg		

<u>LCS/LCSD</u>	<u>LCS Results (ppbv)</u>	<u>LCSD Results (ppbv)</u>	<u>LCS/D Conc(ppbv)</u>	<u>LCS Rec.</u>	<u>LCSD Rec.</u>	<u>RPD</u>	<u>Flag</u>
Vinyl Chloride	11.1	10.7	10	111%	107%	3.7%	
trans-1,2-Dichloroethene	8.06	9.31	10	81%	93%	14.4%	
cis-1,2-Dichloroethene	9.65	8.92	10	97%	89%	7.9%	
Trichloroethene	10.5	10.6	10	105%	106%	0.9%	
Tetrachloroethene	9.18	9.77	10	92%	98%	6.2%	
4-bromofluorobenzene (surrogate)	91%	99%					
Analysis Date/Time:	10-2-20/18:24	10-2-20/19:11					
Analyst Initials	tjg	tjg					

**TO-15 Quality Control Data**

**EnvisionAir Batch Number:** 100620CAIR

<u>Method Blank (MB):</u>	<u>MB Results (ppbv)</u>	<u>Reporting Limit (ppbv)</u>	<u>Flags</u>
cis-1,2-Dichloroethene	< 5	5	
Tetrachloroethene	< 0.47	0.47	
trans-1,2-Dichloroethene	< 10	10	
Trichloroethene	< 0.2	0.2	
Vinyl Chloride	< 0.5	0.5	
4-bromofluorobenzene (surrogate)	103%		
Analysis Date/Time:	10-8-20/00:44		
Analyst Initials	tjg		

<u>LCS/LCSD</u>	<u>LCS Results (ppbv)</u>	<u>LCSD Results (ppbv)</u>	<u>LCS/D Conc(ppbv)</u>	<u>LCS Rec.</u>	<u>LCSD Rec.</u>	<u>RPD</u>	<u>Flag</u>
Vinyl Chloride	9.65	11.2	10	97%	112%	14.9%	
trans-1,2-Dichloroethene	9.96	9.3	10	100%	93%	6.9%	
cis-1,2-Dichloroethene	9.9	8.99	10	99%	90%	9.6%	
Trichloroethene	9.76	10.3	10	98%	103%	5.4%	
Tetrachloroethene	10.3	10.6	10	103%	106%	2.9%	
4-bromofluorobenzene (surrogate)	108%	114%					
Analysis Date/Time:	10-7-20/23:33	10-8-20/01:29					
Analyst Initials	tjg	tjg					



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Flag Number

Comments

# CHAIN OF CUSTODY RECORD

EnvisionAir | 1441 Sadlier Circle West Drive | Indianapolis, IN 46239 | Phone: (317) 351-0885 | Fax: (317) 351-0882

Client: <i>ENVIZIO FORENSICS</i>	P.O. Number: <i>2020-1954</i>
Report <i>116 W0390 STONE RIDGE</i>	Project Name or Number: <i>PORTAGE 6493</i>
Address: <i>WAUKESHA, WI 53186</i>	Sampled by: <i>R. Hoyerman</i>
Report To: <i>R. HOYERMAN</i>	QA/QC Required: (circle if applicable) Level III <input type="checkbox"/> Level IV <input checked="" type="checkbox"/>
Phone: <i>414.630.0060</i>	Reporting Units needed: (circle) ug/m <sup>3</sup> <input checked="" type="checkbox"/> mg/m <sup>3</sup> <input type="checkbox"/> PPBV <input type="checkbox"/> PPMV <input type="checkbox"/>
Invoice Address:	Media type: 1LC = 1 Liter Canister 6LC = 6 Liter Canister TB = Tedlar Bag TD = Thermal Desorption Tube
Desired TAT: (Please Circle One) <b>1 day</b> <input type="checkbox"/> <b>2 days</b> <input checked="" type="checkbox"/> <b>3 days</b> <input type="checkbox"/> <b>Std</b> <input type="checkbox"/> ( <b>5 bus.-days</b> )	



Sampling Type:  
 Soil-Gas:   
 Sub-Slab:   
 Indoor-Air:

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REQUESTED PARAMETERS

TO-15 Full List

TO-15 Short List (Specify in notes)

Air Sample ID	Media Type <small>(see code above)</small>	Coll. Date <small>(Grab/Comp Start)</small>	Coll. Time <small>(Grab/Comp Start)</small>	Coll. Date <small>(Comp. End)</small>	Coll. Time <small>(Comp. End)</small>	Canister Serial #	Flow Controller Serial #	Canister Pressure / Vacuum			EnvisionAir Sample Number
								Initial Field <small>(in. Hg)</small>	Final Field <small>(in. Hg)</small>	Lab Received <small>(in. Hg)</small>	
<i>6493-105 WARREN-1A-1</i>	<i>6LC</i>	<i>9/30/20</i>	<i>935</i>	<i>9/30/20</i>	<i>935</i>	<i>91578</i>	<i>08010</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>20-2617</i>
<i>6493-105 WARREN-1A-B</i>	<i>6LC</i>	<i>9/30/20</i>	<i>930</i>	<i>9/30/20</i>	<i>934</i>	<i>20494</i>	<i>08014</i>	<i>-2</i>	<i>-2</i>	<i>-2</i>	<i>20-2618</i>
<i>6493-105 WARREN-6A-1</i>	<i>6LC</i>	<i>9/30/20</i>	<i>950</i>	<i>9/30/20</i>	<i>950</i>	<i>11074</i>	<i>07693</i>	<i>-1</i>	<i>-1</i>	<i>-1</i>	<i>20-2619</i>
<i>6493-105 WARREN-55N-1</i>	<i>1LC</i>	<i>9/30/20</i>	<i>1015</i>	<i>9/30/20</i>	<i>1020</i>	<i>84044</i>	<i>0013</i>	<i>-4</i>	<i>-4</i>	<i>-4</i>	<i>20-2620</i>

Comments: *UVC SHORT LIST PCE, TCE, EDCE, TDC, VC*

Reinquired by: <i>Robert R...</i>	Date: <i>10/1/2020</i>	Time: <i>859</i>	Received by: <i>Bob Hoyerman</i>	Date: <i>10/2/20</i>	Time: <i>1215</i>
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