

# Transmittal Letter



**TO**  
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Livonia, MI 48150

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**DATE**  
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**PROJECT NUMBER**  
30146655

**SUBJECT**  
Operation, Monitoring, and  
Maintenance Field Notes - 12091 Brewster

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## We are sending you:

Copies	Delivery Date	Description
1	10/6/2022	Operation, monitoring, and maintenance field notes.

## Action\*

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## Comments:

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Attached are the interim preemptive mitigation (IPM) system Operation, Monitoring, and Maintenance (OM&M) field notes. These field notes were recorded during OM&M visits at the property between June 30, 2020 and March 31, 2022. Please let me know if you have any questions.

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## 12091 Brewster, 2020-11-11, Full System Inspection

Created	2020-11-11 15:25:07 UTC by Seth Turner
Updated	2020-11-11 15:54:04 UTC by Seth Turner

### General Information

System Inspector	Seth Turner
Date	2020-11-11
Time	10:15
System Details Link	12091 Brewster
Property Address	12091 Brewster
Check Inspection(s) to be Completed	Full System Inspection
Get weather data from National Weather Service Website for your current location?	N/A
Weather	Mostly Clear
Ambient Temperature	48.02
Barometric Pressure	29.94
Indoor Temperature	70

### Design Components

Does the house have a basement?	No
Does the house have a sump?	No
Does the house have garage retrocoat?	No
Does the house have shed retrocoat?	No
Does the house have basement retrocoat?	No
Does the house have a crawlspace barrier?	Yes
Does the house have an inaccessible crawlspace?	No
Does the house have a water sensor?	No

### System Inspection

#### Fan

Fan(s) operating?	Yes
Are there any unusual fan noises?	No

#### Piping

Is any caulking required around pipe penetrations, slab cracks, expansion joints, or foundation walls?	No
Are piping, piping joints, and brackets intact and secure?	Yes
Is the insulation and insulation jacket damaged or missing in garage or exterior piping?	No

#### Valves

Upon arrival, are all valves in the same position as the prior visit (reference Power BI)?	No
List Changed Valves	1 and 2

#### Drains

Do any drain seals need to be repaired or replaced? No

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### Crawlspace Barrier

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Is water present on the vapor barrier? No

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### Labels

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Are labels present at the pipe, control panel, u-tube, and breaker? Yes

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Are labels present at the crawlspace barrier? Yes

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Barrier Label Photos



### Vacuum Monitoring

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Is the u-tube accurate (test with micromanometer/manometer, rezero/replace as needed)? Yes

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Is the vacuum switch accurate (test with micromanometer)? Yes

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Do any monitoring points (MP/SSMP) need to be repaired or replaced? No

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If multiple systems are present, were both inspected? N/A

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### Inspection Measurements

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#### Pre-Measurement Conditions

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Are vacuum readings being taken under closed building conditions? Yes

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Do any monitoring points have transmitters? No

## Measurements and Valve Positions

### MP-2, 10:30, -0.025

Vacuum ID Link	12091 Brewster, MP-2
Vacuum ID	MP-2
Date	2020-11-11
Time	10:30
Vacuum Reading (in. w.c.)	-0.025
Number Vacuum Reading	-0.025

### MP-1, 10:30, -0.023

Vacuum ID Link	12091 Brewster, MP-1
Vacuum ID	MP-1
Date	2020-11-11
Time	10:30
Vacuum Reading (in. w.c.)	-0.023
Number Vacuum Reading	-0.023

### U-Tube Manometer, 10:31, -1.1

Vacuum ID Link	12091 Brewster, U-Tube Manometer
Vacuum ID	U-Tube Manometer
Date	2020-11-11
Time	10:31
Vacuum Reading (in. w.c.)	-1.1
Number Vacuum Reading	-1.1

### BV-1, 10:32, 90

Valve ID Link	12091 Brewster, BV-1
Valve ID	BV-1
Date	2020-11-11
Time	10:32
Valve Position at Arrival (% Open)	90
Valve Position at Departure (% Open)	90

### BV-2, 10:33, 10

Valve ID Link	12091 Brewster, BV-2
Valve ID	BV-2
Date	2020-11-11
Time	10:33
Valve Position at Arrival (% Open)	10
Valve Position at Departure (% Open)	10
Were interim vacuum readings taken between initial and final vacuum readings?	No

## Inspection Reading Analysis

## Manometer

Is the system manometer steady?	Yes
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## SSMP/MPs

Were any vacuum monitoring points not accessible? Please specify.	No
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Do all vacuum monitoring points meet -0.02 in w.c. threshold?	Yes
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Were any ball valve positions changed?	No
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## Alarm Testing

Sensaphone Link	N/A
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Does the vacuum switch alarm work? Test the alarm condition and verify an alarm registers.	Yes
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Does the fan disconnect alarm work? Test the alarm condition and verify an alarm registers.	Yes
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Does the transmitter alarm work? Test the alarm condition and verify an alarm registers.	N/A
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Check the alarm history on the disconnect for the fan. Was it off for any length of time?	No
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Is the cloud logging vacuum readings properly (log in to check)?	N/A
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## Repairs

### Sample Delay

Send Sample Delay Email email body	N/A
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### Repair Completion

Were seam repairs completed during this visit?	No
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Were system repairs completed during this visit?	No
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Are there outstanding repairs to be completed?	No
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### Owner/Tenant Observations

Have there been any changes to the fan noise level or vibration?	No
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Have any structures been built or modified that require vapor mitigation?	No
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### Engineer Notification

Send Inspection Completion Email email body	N/A
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### Engineer Notification

Send Inspection Completion Email - add any repairs, repair needs, or critical communications in email text email body	N/A
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## 12091 Brewster, 2021-02-22, Full System Inspection

Created	2021-02-22 13:34:40 UTC by Seth Turner
Updated	2021-02-22 14:53:02 UTC by Andrew Banitt

### General Information

System Inspector	Seth Turner
Date	2021-02-22
Time	09:00
System Details Link	12091 Brewster
Property Address	12091 Brewster
Check Inspection(s) to be Completed	Full System Inspection
Get weather data from National Weather Service Website for your current location?	N/A
Weather	34F, cloudy
Ambient Temperature	34F
Barometric Pressure	29.92
Indoor Temperature	70

### Design Components

Does the house have a basement?	No
Does the house have a sump?	No
Does the house have garage retrocoat?	No
Does the house have shed retrocoat?	No
Does the house have basement retrocoat?	No
Does the house have a crawlspace barrier?	Yes
Does the house have an inaccessible crawlspace?	Yes
Does the house have a water sensor?	No

### System Inspection

#### Fan

Fan(s) operating?	Yes
Are there any unusual fan noises?	No

#### Piping

Is any caulking required around pipe penetrations, slab cracks, expansion joints, or foundation walls?	No
Are piping, piping joints, and brackets intact and secure?	Yes
Is the insulation and insulation jacket damaged or missing in garage or exterior piping?	No

#### Valves

Upon arrival, are all valves in the same position as the prior visit (reference Power BI)?	Yes
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#### Drains

Do any drain seals need to be repaired or replaced? No

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### Crawlspace Barrier

Is water present on the vapor barrier? No

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### Inaccessible Crawlspace

Are all entry points, vents, cracks, or other opening to crawlspaces being depressurized sealed? Yes

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### Labels

Are labels present at the pipe, control panel, u-tube, and breaker? Yes

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Common Label Photos



Are labels present at the crawlspace barrier? Yes

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Barrier Label Photos



Are labels present at the inaccessible crawlspace? Yes

Inaccessible Crawlspace Label Photos



**Vacuum Monitoring**

Is the u-tube accurate (test with micromanometer/manometer, rezero/replace as needed)? Yes

Is the vacuum switch accurate (test with micromanometer)? Yes



Do any monitoring points (MP/SSMP) need to be repaired or replaced?	No
If multiple systems are present, were both inspected?	N/A

## Inspection Measurements

### Pre-Measurement Conditions

Are vacuum readings being taken under closed building conditions?	Yes
Do any monitoring points have transmitters?	No

### Measurements and Valve Positions

#### MP-2, 09:13, -0.025

Vacuum ID Link	12091 Brewster, MP-2
Vacuum ID	MP-2
Date	2021-02-22
Time	09:13
Vacuum Reading (in. w.c.)	-0.025
Number Vacuum Reading	-0.025

#### MP-1, 09:15, -0.021

Vacuum ID Link	12091 Brewster, MP-1
Vacuum ID	MP-1
Date	2021-02-22
Time	09:15
Vacuum Reading (in. w.c.)	-0.021
Number Vacuum Reading	-0.021

#### U-Tube Manometer, 09:18, -1.1

Vacuum ID Link	12091 Brewster, U-Tube Manometer
Vacuum ID	U-Tube Manometer
Date	2021-02-22
Time	09:18
Vacuum Reading (in. w.c.)	-1.1
Number Vacuum Reading	-1.1

#### MP-1, 09:26, -0.023

Vacuum ID Link	12091 Brewster, MP-1
Vacuum ID	MP-1
Date	2021-02-22
Time	09:26
Vacuum Reading (in. w.c.)	-0.023
Number Vacuum Reading	-0.023

#### MP-2, 09:26, -0.025

Vacuum ID Link	12091 Brewster, MP-2
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Vacuum ID	MP-2
Date	2021-02-22
Time	09:26
Vacuum Reading (in. w.c.)	-0.025
Number Vacuum Reading	-0.025

### U-Tube Manometer, 09:26, -1.1

Vacuum ID Link	12091 Brewster, U-Tube Manometer
Vacuum ID	U-Tube Manometer
Date	2021-02-22
Time	09:26
Vacuum Reading (in. w.c.)	-1.1
Number Vacuum Reading	-1.1

### BV-1, 09:07, 100

Valve ID Link	12091 Brewster, BV-1
Valve ID	BV-1
Date	2021-02-22
Time	09:07
Valve Position at Arrival (% Open)	90
Valve Position at Departure (% Open)	100

### BV-2, 09:19, 10

Valve ID Link	12091 Brewster, BV-2
Valve ID	BV-2
Date	2021-02-22
Time	09:19
Valve Position at Arrival (% Open)	10
Valve Position at Departure (% Open)	10
Were interim vacuum readings taken between initial and final vacuum readings?	No

## Inspection Reading Analysis

### Manometer

Is the system manometer steady?	Yes
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### SSMP/MPs

Were any vacuum monitoring points not accessible? Please specify.	No
Do all vacuum monitoring points meet -0.02 in w.c. threshold?	Yes
Were any ball valve positions changed?	Yes
Did you take final readings?	Yes

### Alarm Testing

Sensaphone Link	N/A
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Does the vacuum switch alarm work? Test the alarm condition and verify an alarm registers.	Yes
Does the fan disconnect alarm work? Test the alarm condition and verify an alarm registers.	Yes
Does the transmitter alarm work? Test the alarm condition and verify an alarm registers.	N/A
Check the alarm history on the disconnect for the fan. Was it off for any length of time?	No
Is the cloud logging vacuum readings properly (log in to check)?	N/A

## Repairs

### Sample Delay

Send Sample Delay Email email body	N/A
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### Repair Completion

Were seam repairs completed during this visit?	Yes
Were system repairs completed during this visit?	No
Additional sealing completed:	Sealing done near geovent on west side of crawlspace near entrance.
Sealing Completion Date	2021-02-22

Sealing Repair Photos





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Are there outstanding repairs to be completed?      No

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**Owner/Tenant Observations**

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Have there been any changes to the fan noise level or vibration?      No

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Have any structures been built or modified that require vapor mitigation?      No

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**Engineer Notification**

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Send Inspection Completion Email      N/A

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email body

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**Engineer Notification**

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Send Inspection Completion Email - add any repairs, repair needs, or critical communications in email text      N/A

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email body

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## 12091 Brewster, 2022-01-25, Full System Inspection

Created	2022-01-25 12:55:08 UTC by Seth Turner
Updated	2022-01-25 13:40:46 UTC by Seth Turner

### General Information

System Inspector	Seth Turner
Date	2022-01-25
Time	07:55
System Details Link	12091 Brewster
Property Address	12091 Brewster
Check Inspection(s) to be Completed	Full System Inspection
Get weather data from National Weather Service Website for your current location?	N/A
Weather	10F, clear
Ambient Temperature	10F
Barometric Pressure	30.12
Indoor Temperature	70

### Design Components

Does the house have a basement?	No
Does the house have a sump?	No
Does the house have garage retrocoat?	No
Does the house have shed retrocoat?	No
Does the house have basement retrocoat?	No
Does the house have a crawlspace barrier?	Yes
Does the house have an inaccessible crawlspace?	No
Does the house have a water sensor?	No

### System Inspection

#### Fan

Fan(s) operating?	Yes
Are there any unusual fan noises?	No

#### Piping

Is any caulking required around pipe penetrations, slab cracks, expansion joints, or foundation walls?	No
Are piping, piping joints, and brackets intact and secure?	Yes
Is the insulation and insulation jacket damaged or missing in garage or exterior piping?	No

#### Valves

Upon arrival, are all valves in the same position as the prior visit (reference Power BI)?	Yes
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#### Drains

Do any drain seals need to be repaired or replaced? No

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### Crawlspace Barrier

Is water present on the vapor barrier? No

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### Labels

Are labels present at the pipe, control panel, u-tube, and breaker? Yes

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Common Label Photos



Are labels present at the crawlspace barrier? Yes

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Barrier Label Photos



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**Vacuum Monitoring**

Is the u-tube accurate (test with micromanometer/manometer, rezero/replace as needed)?	Yes
Is the vacuum switch accurate (test with micromanometer)?	Yes
Do any monitoring points (MP/SSMP) need to be repaired or replaced?	No
If multiple systems are present, were both inspected?	N/A

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**Inspection Measurements**

**Pre-Measurement Conditions**

Are vacuum readings being taken under closed building conditions?	Yes
Do any monitoring points have transmitters?	No

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**Measurements and Valve Positions**

**MP-2, 08:05, -0.034**

Vacuum ID Link	12091 Brewster, MP-2
Vacuum ID	MP-2
Date	2022-01-25
Time	08:05
Vacuum Reading (in. w.c.)	-0.034

Number Vacuum Reading	-0.034
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### **MP-1, 08:05, -0.031**

Vacuum ID Link	12091 Brewster, MP-1
Vacuum ID	MP-1
Date	2022-01-25
Time	08:05
Vacuum Reading (in. w.c.)	-0.031
Number Vacuum Reading	-0.031

### **U-Tube Manometer, 08:05, -1.1**

Vacuum ID Link	12091 Brewster, U-Tube Manometer
Vacuum ID	U-Tube Manometer
Date	2022-01-25
Time	08:05
Vacuum Reading (in. w.c.)	-1.1
Number Vacuum Reading	-1.1

### **MP-2, 08:25, -0.035**

Vacuum ID Link	12091 Brewster, MP-2
Vacuum ID	MP-2
Date	2022-01-25
Time	08:25
Vacuum Reading (in. w.c.)	-0.035
Number Vacuum Reading	-0.035

### **MP-1, 08:26, -0.031**

Vacuum ID Link	12091 Brewster, MP-1
Vacuum ID	MP-1
Date	2022-01-25
Time	08:26
Vacuum Reading (in. w.c.)	-0.031
Number Vacuum Reading	-0.031

### **U-Tube Manometer, 08:26, -1.1**

Vacuum ID Link	12091 Brewster, U-Tube Manometer
Vacuum ID	U-Tube Manometer
Date	2022-01-25
Time	08:26
Vacuum Reading (in. w.c.)	-1.1
Number Vacuum Reading	-1.1

### **BV-1, 08:22, 100**

Valve ID Link	12091 Brewster, BV-1
Valve ID	BV-1
Date	2022-01-25



Time	08:22
Valve Position at Arrival (% Open)	100
Valve Position at Departure (% Open)	100

### **BV-2, 08:22, 10**

Valve ID Link	12091 Brewster, BV-2
Valve ID	BV-2
Date	2022-01-25
Time	08:22
Valve Position at Arrival (% Open)	10
Valve Position at Departure (% Open)	10
Were interim vacuum readings taken between initial and final vacuum readings?	No

### **Inspection Reading Analysis**

#### **Manometer**

Is the system manometer steady?	Yes
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#### **SSMP/MPs**

Were any vacuum monitoring points not accessible? Please specify.	No
Do all vacuum monitoring points meet -0.02 in w.c. threshold?	Yes
Were any ball valve positions changed?	No

#### **Alarm Testing**

Sensaphone Link	N/A
Does the vacuum switch alarm work? Test the alarm condition and verify an alarm registers.	Yes
Does the fan disconnect alarm work? Test the alarm condition and verify an alarm registers.	Yes
Does the transmitter alarm work? Test the alarm condition and verify an alarm registers.	N/A
Check the alarm history on the disconnect for the fan. Was it off for any length of time?	No
Is the cloud logging vacuum readings properly (log in to check)?	N/A

#### **Repairs**

##### **Sample Delay**

Send Sample Delay Email	N/A
email body	

##### **Repair Completion**

Were seam repairs completed during this visit?	No
Were system repairs completed during this visit?	No

Are there outstanding repairs to be completed? No

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### Owner/Tenant Observations

Have there been any changes to the fan noise level or vibration? No

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Have any structures been built or modified that require vapor mitigation? No

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### Engineer Notification

Send Inspection Completion Email N/A  
email body

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### Engineer Notification

Send Inspection Completion Email - add any repairs, repair needs, or critical communications in email text N/A  
email body

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### Additional Notes and Photos

Notes Inaccessible crawlspace cover intact

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Photos

