

Transmittal Letter



TO
Jay Marchione
12141 Boston Post
Livonia, MI 48150

FROM
Kristoffer Hinskey
248-994-2240
kristoffer.hinskey@arcadis.com

ELECTRONIC COPIES TO
Jeanne Schlaufman (EGLE)
Todd Walton (Ford)
Chuck Pinter (Ford)

DATE
October 4, 2022

PROJECT NUMBER
30146655

SUBJECT
Operation, Monitoring, and
Maintenance Field Notes - 12141 Boston Post

We are sending you:

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

Action*

- | | | |
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Comments:

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 September 30, 2020 and March 31, 2022. Please let me know if you have any questions.

12141 Boston Post, 2021-02-19, Full System Inspection

Created	2021-02-19 16:07:22 UTC by Seth Turner
Updated	2021-02-19 19:33:32 UTC by Seth Turner

General Information

System Inspector	Seth Turner
Date	2021-02-19
Time	12:00
System Details Link	12141 Boston Post
Property Address	12141 Boston Post
Check Inspection(s) to be Completed	Full System Inspection
Get weather data from National Weather Service Website for your current location?	N/A
Weather	21F cloudy
Ambient Temperature	21F
Barometric Pressure	30.14
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?	Yes
Does the house have shed retrocoat?	Yes
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

Garage Retrocoat

Is retrocoat damaged or missing? No

Shed Retrocoat

Is retrocoat damaged or missing? No

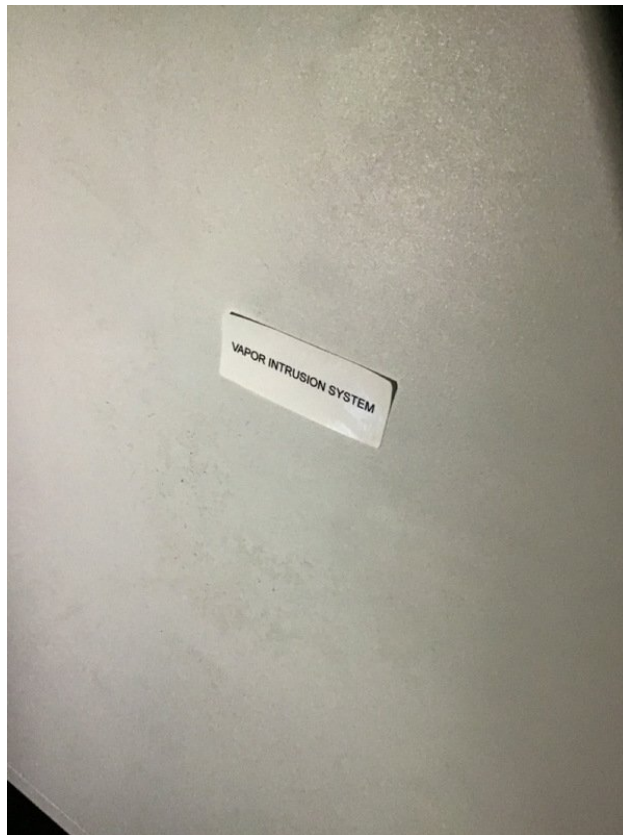
Crawlspace Barrier

Is water present on the vapor barrier? No

Labels

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

Common Label Photos



Are labels present at the garage retrocoat? Yes

Garage Retrocoat Label Photos

Are labels present at the shed retrocoat?

Yes

Shed Retrocoat Label Photos



Are labels present at the crawlspace barrier?

Yes

Barrier 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?	Yes

Mp-4

Monitoring Point with Transmitter?	Mp-4
Transmitter Ambient Reading (iwc, transmitter inlet tubing disconnected)	0
Transmitter Reading (iwc, with fan operating)	-0.006
Micromanometer Ambient Reading (iwc, transmitter inlet tubing disconnected)	0

Micromanometer Fan Reading (iwc, with fan operating)	-0.006
Calibration Calc	0
Transmitter off by >0.0003, recalibrate/fix transmitter	

Measurements and Valve Positions

MP-2, 12:18, -0.010

Vacuum ID Link	12141 Boston Post, MP-2
Vacuum ID	MP-2
Date	2021-02-19
Time	12:18
Vacuum Reading (in. w.c.)	-0.010
Number Vacuum Reading	-0.01

MP-4, 12:19, -0.002

Vacuum ID Link	12141 Boston Post, MP-4
Vacuum ID	MP-4
Date	2021-02-19
Time	12:19
Vacuum Reading (in. w.c.)	-0.002
Number Vacuum Reading	-0.002

MP-3, 12:19, -0.008

Vacuum ID Link	12141 Boston Post, MP-3
Vacuum ID	MP-3
Date	2021-02-19
Time	12:19
Vacuum Reading (in. w.c.)	-0.008
Number Vacuum Reading	-0.008

MP-1, 12:20, -0.011

Vacuum ID Link	12141 Boston Post, MP-1
Vacuum ID	MP-1
Date	2021-02-19
Time	12:20
Vacuum Reading (in. w.c.)	-0.011
Number Vacuum Reading	-0.011

MP-4, 13:10, -0.015

Vacuum ID Link	12141 Boston Post, MP-4
Vacuum ID	MP-4
Date	2021-02-19
Time	13:10
Vacuum Reading (in. w.c.)	-0.015
Number Vacuum Reading	-0.015

MP-2, 13:10, -0.008

Vacuum ID Link	12141 Boston Post, MP-2
Vacuum ID	MP-2
Date	2021-02-19
Time	13:10
Vacuum Reading (in. w.c.)	-0.008
Number Vacuum Reading	-0.008

MP-3, 13:10, -0.028

Vacuum ID Link	12141 Boston Post, MP-3
Vacuum ID	MP-3
Date	2021-02-19
Time	13:10
Vacuum Reading (in. w.c.)	-0.028
Number Vacuum Reading	-0.028

MP-1, 13:10, -0.009

Vacuum ID Link	12141 Boston Post, MP-1
Vacuum ID	MP-1
Date	2021-02-19
Time	13:10
Vacuum Reading (in. w.c.)	-0.009
Number Vacuum Reading	-0.009

MP-4, 13:28, -0.011

Vacuum ID Link	12141 Boston Post, MP-4
Vacuum ID	MP-4
Date	2021-02-19
Time	13:28
Vacuum Reading (in. w.c.)	-0.011
Number Vacuum Reading	-0.011

MP-2, 13:28, -0.007

Vacuum ID Link	12141 Boston Post, MP-2
Vacuum ID	MP-2
Date	2021-02-19
Time	13:28
Vacuum Reading (in. w.c.)	-0.007
Number Vacuum Reading	-0.007

MP-3, 13:28, -0.024

Vacuum ID Link	12141 Boston Post, MP-3
Vacuum ID	MP-3
Date	2021-02-19
Time	13:28
Vacuum Reading (in. w.c.)	-0.024

Number Vacuum Reading	-0.024
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MP-1, 13:28, -0.007

Vacuum ID Link	12141 Boston Post, MP-1
Vacuum ID	MP-1
Date	2021-02-19
Time	13:28
Vacuum Reading (in. w.c.)	-0.007
Number Vacuum Reading	-0.007

MP-1, 13:45, -0.020

Vacuum ID Link	12141 Boston Post, MP-1
Vacuum ID	MP-1
Date	2021-02-19
Time	13:45
Vacuum Reading (in. w.c.)	-0.020
Number Vacuum Reading	-0.02

MP-3, 13:45, -0.072

Vacuum ID Link	12141 Boston Post, MP-3
Vacuum ID	MP-3
Date	2021-02-19
Time	13:45
Vacuum Reading (in. w.c.)	-0.072
Number Vacuum Reading	-0.072

MP-2, 13:45, -0.016

Vacuum ID Link	12141 Boston Post, MP-2
Vacuum ID	MP-2
Date	2021-02-19
Time	13:45
Vacuum Reading (in. w.c.)	-0.016
Number Vacuum Reading	-0.016

MP-4, 13:46, -0.004

Vacuum ID Link	12141 Boston Post, MP-4
Vacuum ID	MP-4
Date	2021-02-19
Time	13:46
Vacuum Reading (in. w.c.)	-0.004
Number Vacuum Reading	-0.004

MP-4, 13:55, -0.006

Vacuum ID Link	12141 Boston Post, MP-4
Vacuum ID	MP-4
Date	2021-02-19

Time	13:55
Vacuum Reading (in. w.c.)	-0.006
Number Vacuum Reading	-0.006

MP-2, 13:55, -0.012

Vacuum ID Link	12141 Boston Post, MP-2
Vacuum ID	MP-2
Date	2021-02-19
Time	13:55
Vacuum Reading (in. w.c.)	-0.012
Number Vacuum Reading	-0.012

MP-3, 13:55, -0.029

Vacuum ID Link	12141 Boston Post, MP-3
Vacuum ID	MP-3
Date	2021-02-19
Time	13:55
Vacuum Reading (in. w.c.)	-0.029
Number Vacuum Reading	-0.029

MP-1, 13:55, -0.021

Vacuum ID Link	12141 Boston Post, MP-1
Vacuum ID	MP-1
Date	2021-02-19
Time	13:55
Vacuum Reading (in. w.c.)	-0.021
Number Vacuum Reading	-0.021

U-Tube Manometer, 14:12, -1.5

Vacuum ID Link	12141 Boston Post, U-Tube Manometer
Vacuum ID	U-Tube Manometer
Date	2021-02-19
Time	14:12
Vacuum Reading (in. w.c.)	-1.5
Number Vacuum Reading	-1.5

BV-1, 12:08, 50

Valve ID Link	12141 Boston Post, BV-1
Valve ID	BV-1
Date	2021-02-19
Time	12:08
Valve Position at Arrival (% Open)	10
Valve Position at Departure (% Open)	50

BV-2, 12:09, 50

Valve ID Link	12141 Boston Post, BV-2
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Valve ID	BV-2
Date	2021-02-19
Time	12:09
Valve Position at Arrival (% Open)	10
Valve Position at Departure (% Open)	50

BV-3, 12:10, 25

Valve ID Link	12141 Boston Post, BV-3
Valve ID	BV-3
Date	2021-02-19
Time	12:10
Valve Position at Arrival (% Open)	10
Valve Position at Departure (% Open)	25

BV-4, 12:10, 100

Valve ID Link	12141 Boston Post, BV-4
Valve ID	BV-4
Date	2021-02-19
Time	12:10
Valve Position at Arrival (% Open)	50
Valve Position at Departure (% Open)	100

BV-5, 12:12, 100

Valve ID Link	12141 Boston Post, BV-5
Valve ID	BV-5
Date	2021-02-19
Time	12:12
Valve Position at Arrival (% Open)	75
Valve Position at Departure (% Open)	100

BV-6, 12:12, 5

Valve ID Link	12141 Boston Post, BV-6
Valve ID	BV-6
Date	2021-02-19
Time	12:12
Valve Position at Arrival (% Open)	50
Valve Position at Departure (% Open)	5

BV-7, 12:13, 100

Valve ID Link	12141 Boston Post, BV-7
Valve ID	BV-7
Date	2021-02-19
Time	12:13
Valve Position at Arrival (% Open)	100
Valve Position at Departure (% Open)	100

BV-8, 12:13, 5

Valve ID Link	12141 Boston Post, BV-8
Valve ID	BV-8
Date	2021-02-19
Time	12:13
Valve Position at Arrival (% Open)	5
Valve Position at Departure (% Open)	5
Were interim vacuum readings taken between initial and final vacuum readings?	Yes
Upload photo/screenshot of vacuum/valve position adjustments	

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.	Yes, SSMP-1
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Do all vacuum monitoring points meet -0.02 in w.c. threshold?	No
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Which ones don't and why?	Ssmp-2, mp-1, mp-2, mp-3, mp-4
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Proposed modifications to address vacuum?	Transmitter installed, ballvalve adjustments
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Were any ball valve positions changed?	Yes
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Did you take final readings?	Yes
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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
---	-----

Does the transmitter alarm work? Test the alarm condition and verify an alarm registers.	Yes
--	-----

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)?	Yes
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Repairs

Sample Delay

Send Sample Delay Email	N/A
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email body

Repair Completion

Were seam repairs completed during this visit?	Yes
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Were system repairs completed during this visit?	Yes
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Additional sealing completed:	Sealing by support beams in south crawlspace.
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Sealing Completion Date	2021-02-19
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Sealing Repair Photos



System repairs completed:	Fan cleaned out.
System Repair Completion Date	2021-02-19

System Repair Photos

Are there outstanding repairs to be completed? No

Owner/Tenant Observations

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

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

Engineer Notification

Send Inspection Completion Email N/A
email body

Engineer Notification

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

Additional Notes and Photos

Notes SSMP-2, 12:38, 0.011,
SSMP-2, 2:11, 0.006
Denied access to garage.

12141 Boston Post, 2022-02-04, Full System Inspection

Created	2022-02-04 17:05:05 UTC by Seth Turner
Updated	2022-02-05 00:14:57 UTC by Seth Turner

General Information

System Inspector	Seth Turner
Date	2022-02-04
Time	12:05
System Details Link	12141 Boston Post
Property Address	12141 Boston Post
Check Inspection(s) to be Completed	Full System Inspection
Get weather data from National Weather Service Website for your current location?	N/A
Weather	20F. Windy
Ambient Temperature	20F
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?	Yes
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

Garage Retrocoat

Is retrocoat damaged or missing? No

Crawlspace Barrier

Is water present on the vapor barrier? No

Labels

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

Common Label Photos



Are labels present at the garage retrocoat? Yes

Garage Retrocoat Label Photos



Are labels present at the crawlspace barrier?

Yes

Barrier 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?	Yes

Mp-4

Monitoring Point with Transmitter?	Mp-4
Transmitter Ambient Reading (iwc, transmitter inlet tubing disconnected)	0
Transmitter Reading (iwc, with fan operating)	-0.009
Micromanometer Ambient Reading (iwc, transmitter inlet tubing disconnected)	0
Micromanometer Fan Reading (iwc, with fan operating)	-0.009
Calibration Calc	0
Transmitter off by >0.0003, recalibrate/fix transmitter	

Measurements and Valve Positions

MP-3, 12:09, -0.028

Vacuum ID Link	12141 Boston Post, MP-3
Vacuum ID	MP-3
Date	2022-02-04
Time	12:09
Vacuum Reading (in. w.c.)	-0.028
Number Vacuum Reading	-0.028

MP-1, 12:10, -0.021

Vacuum ID Link	12141 Boston Post, MP-1
Vacuum ID	MP-1
Date	2022-02-04
Time	12:10
Vacuum Reading (in. w.c.)	-0.021
Number Vacuum Reading	-0.021

MP-2, 12:10, -0.018

Vacuum ID Link	12141 Boston Post, MP-2
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Vacuum ID	MP-2
Date	2022-02-04
Time	12:10
Vacuum Reading (in. w.c.)	-0.018
Number Vacuum Reading	-0.018

MP-4, 12:21, -0.009

Vacuum ID Link	12141 Boston Post, MP-4
Vacuum ID	MP-4
Date	2022-02-04
Time	12:21
Vacuum Reading (in. w.c.)	-0.009
Number Vacuum Reading	-0.009

SSMP-1, 12:21, -0.013

Vacuum ID Link	12141 Boston Post, SSMP-1
Vacuum ID	SSMP-1
Date	2022-02-04
Time	12:21
Vacuum Reading (in. w.c.)	-0.013
Number Vacuum Reading	-0.013

U-Tube Manometer, 12:12, -1.4

Vacuum ID Link	12141 Boston Post, U-Tube Manometer
Vacuum ID	U-Tube Manometer
Date	2022-02-04
Time	12:12
Vacuum Reading (in. w.c.)	-1.4
Number Vacuum Reading	-1.4

MP-3, 13:07, -0.028

Vacuum ID Link	12141 Boston Post, MP-3
Vacuum ID	MP-3
Date	2022-02-04
Time	13:07
Vacuum Reading (in. w.c.)	-0.028
Number Vacuum Reading	-0.028

MP-1, 13:07, -0.022

Vacuum ID Link	12141 Boston Post, MP-1
Vacuum ID	MP-1
Date	2022-02-04
Time	13:07
Vacuum Reading (in. w.c.)	-0.022
Number Vacuum Reading	-0.022

MP-2, 13:08, -0.018

Vacuum ID Link	12141 Boston Post, MP-2
Vacuum ID	MP-2
Date	2022-02-04
Time	13:08
Vacuum Reading (in. w.c.)	-0.018
Number Vacuum Reading	-0.018

MP-4, 13:08, -0.009

Vacuum ID Link	12141 Boston Post, MP-4
Vacuum ID	MP-4
Date	2022-02-04
Time	13:08
Vacuum Reading (in. w.c.)	-0.009
Number Vacuum Reading	-0.009

SSMP-1, 13:08, -0.014

Vacuum ID Link	12141 Boston Post, SSMP-1
Vacuum ID	SSMP-1
Date	2022-02-04
Time	13:08
Vacuum Reading (in. w.c.)	-0.014
Number Vacuum Reading	-0.014

U-Tube Manometer, 13:08, -1.4

Vacuum ID Link	12141 Boston Post, U-Tube Manometer
Vacuum ID	U-Tube Manometer
Date	2022-02-04
Time	13:08
Vacuum Reading (in. w.c.)	-1.4
Number Vacuum Reading	-1.4

BV-1, 13:04, 50

Valve ID Link	12141 Boston Post, BV-1
Valve ID	BV-1
Date	2022-02-04
Time	13:04
Valve Position at Arrival (% Open)	50
Valve Position at Departure (% Open)	50

BV-2, 13:04, 50

Valve ID Link	12141 Boston Post, BV-2
Valve ID	BV-2
Date	2022-02-04
Time	13:04
Valve Position at Arrival (% Open)	50

Valve Position at Departure (% Open)	50
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BV-3, 13:05, 25

Valve ID Link	12141 Boston Post, BV-3
Valve ID	BV-3
Date	2022-02-04
Time	13:05
Valve Position at Arrival (% Open)	25
Valve Position at Departure (% Open)	25

BV-4, 13:05, 100

Valve ID Link	12141 Boston Post, BV-4
Valve ID	BV-4
Date	2022-02-04
Time	13:05
Valve Position at Arrival (% Open)	100
Valve Position at Departure (% Open)	100

BV-5, 13:05, 100

Valve ID Link	12141 Boston Post, BV-5
Valve ID	BV-5
Date	2022-02-04
Time	13:05
Valve Position at Arrival (% Open)	100
Valve Position at Departure (% Open)	100

BV-6, 13:05, 5

Valve ID Link	12141 Boston Post, BV-6
Valve ID	BV-6
Date	2022-02-04
Time	13:05
Valve Position at Arrival (% Open)	5
Valve Position at Departure (% Open)	5

BV-7, 13:05, 100

Valve ID Link	12141 Boston Post, BV-7
Valve ID	BV-7
Date	2022-02-04
Time	13:05
Valve Position at Arrival (% Open)	100
Valve Position at Departure (% Open)	100

BV-8, 13:05, 5

Valve ID Link	12141 Boston Post, BV-8
Valve ID	BV-8
Date	2022-02-04

Time	13:05
Valve Position at Arrival (% Open)	5
Valve Position at Departure (% Open)	5
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?	No
Which ones don't and why?	MP-2, MP-4, SSMP-1, SSMP-2, MP-4 has a transmitter.
Proposed modifications to address vacuum?	Transmitter installed
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.	Yes
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)?	Yes

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
Were system repairs completed during this visit?	Yes
System repairs completed:	Fan cleaned
System Repair Completion Date	2022-02-04

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
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email body

Engineer Notification

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

Additional Notes and Photos

Notes	SSMP-2: -0.011
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