Transmittal Letter



TO Dennis Gusmano 34682 Beacon Livonia, MI 48150

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

PROJECT NUMBER 30146655 FROM Kristoffer Hinskey 248-994-2240 <u>kristoffer.hinskey@arcadis.com</u>

DATE October 5, 2022

SUBJECT Operation, Monitoring, and Maintenance Field Notes - 34682 Beacon

We are sending you:

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

Action*

 A Approved AN Approved as Noted AS As Requested Other:	☐ CR ☐ F ☐ FA	Correct and Resubmit File For Approval		ubmit Copies urn Copies iew and Comment
Mailing Method				
 □ U.S. Postal Service 1st Class □ Certified/Registered Mail ☑ Other: Email 		livery	, 0	 FedEx 2-Day Delivery FedEx Economy

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

34682 Beacon, 2020-11-10, Full System Inspection

Created	2020-11-10 22:21:58 UTC by Seth Turner
Updated	2020-11-10 23:18:59 UTC by Seth Turner

General Information

Seth Turner
2020-11-10
17:21
34682 Beacon
34682 Beacon
Full System Inspection
N/A
Mostly Cloudy
73.94
29.81
70

Design Components

V I	
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 Bl)?	Yes

Drains

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

No

Crawlspace Barrier

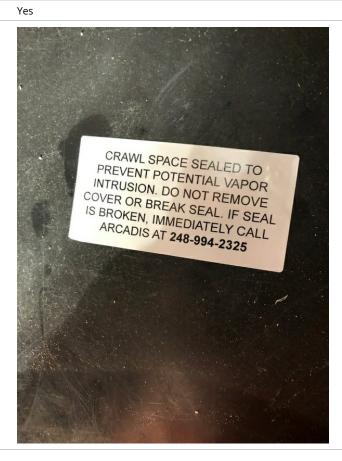
ls water present on the vapor barrier?

Labels

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

Are labels present at the crawlspace barrier?

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 Yes building conditions?

Measurements and Valve Positions

MP-5, 17:32, -0.004

Vacuum ID Link	34682 Beacon, MP-5
Vacuum ID	MP-5
Date	2020-11-10
Time	17:32
Vacuum Reading (in. w.c.)	-0.004
Number Vacuum Reading	-0.004

MP-4, 17:33, -0.009

Vacuum ID Link	34682 Beacon, MP-4
Vacuum ID	MP-4
Date	2020-11-10
Time	17:33
Vacuum Reading (in. w.c.)	-0.009
Number Vacuum Reading	-0.009

MP-4, 17:38, -0.031

Vacuum ID Link	34682 Beacon, MP-4
Vacuum ID	MP-4
Date	2020-11-10
Time	17:38
Vacuum Reading (in. w.c.)	-0.031
Number Vacuum Reading	-0.031

MP-5, 17:39, -0.031

Vacuum ID Link	34682 Beacon, MP-5
Vacuum ID	MP-5
Date	2020-11-10
Time	17:39
Vacuum Reading (in. w.c.)	-0.031
Number Vacuum Reading	-0.031

SSMP-2, 17:49, -0.009

34682 Beacon, SSMP-2
SSMP-2
2020-11-10
17:49
-0.009
-0.009

SSMP-4, 17:50, -0.002

Vacuum ID Link	34682 Beacon, SSMP-4
Vacuum ID	SSMP-4

Date	2020-11-10
Time	17:50
Vacuum Reading (in. w.c.)	-0.002
Number Vacuum Reading	-0.002

MP-4, 18:05, -0.012

Vacuum ID Link	34682 Beacon, MP-4
Vacuum ID	MP-4
Date	2020-11-10
Time	18:05
Vacuum Reading (in. w.c.)	-0.012
Number Vacuum Reading	-0.012

MP-5, 18:06, -0.004

Vacuum ID Link	34682 Beacon, MP-5
Vacuum ID	MP-5
Date	2020-11-10
Time	18:06
Vacuum Reading (in. w.c.)	-0.004
Number Vacuum Reading	-0.004

SSMP-2, 18:11, -0.010

Vacuum ID Link	34682 Beacon, SSMP-2
Vacuum ID	SSMP-2
Date	2020-11-10
Time	18:11
Vacuum Reading (in. w.c.)	-0.010
Number Vacuum Reading	-0.01

SSMP-4, 18:12, -0.004

Vacuum ID Link	34682 Beacon, SSMP-4
Vacuum ID	SSMP-4
Date	2020-11-10
Time	18:12
Vacuum Reading (in. w.c.)	-0.004
Number Vacuum Reading	-0.004

U-Tube Manometer, 18:15, -3.2

Vacuum ID Link	34682 Beacon, U-Tube Manometer
Vacuum ID	U-Tube Manometer
Date	2020-11-10
Time	18:15
Vacuum Reading (in. w.c.)	-3.2
Number Vacuum Reading	-3.2

BV-2, 17:29, 10

Valve ID Link	34682 Beacon, BV-2
Valve ID	BV-2
Date	2020-11-10
Time	17:29
Valve Position at Arrival (% Open)	10
Valve Position at Departure (% Open)	10

BV-4, 17:30, 100

Valve ID Link	34682 Beacon, BV-4
Valve ID	BV-4
Date	2020-11-10
Time	17:30
Valve Position at Arrival (% Open)	100
Valve Position at Departure (% Open)	100

BV-3, 17:31, 5

Valve ID Link	34682 Beacon, BV-3
Valve ID	BV-3
Date	2020-11-10
Time	17:31
Valve Position at Arrival (% Open)	10
Valve Position at Departure (% Open)	5

BV-1, 18:15, 75

Valve ID Link	34682 Beacon, BV-1
Valve ID	BV-1
Date	2020-11-10
Time	18:15
Valve Position at Arrival (% Open)	75
Valve Position at Departure (% Open)	75
Were interim vacuum readings taken between initial and final vacuum readings?	No

Inspection Reading Analysis

Manometer

Is the system manometer steady?	Yes
SSMP/MPs	
Were any vacuum monitoring points not accessible? Please specify.	Ssmp-1, 3, 5
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

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)?	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
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	N/A
email text	

34682 Beacon, 2021-01-07, System Check

Created	2021-01-08 15:09:51 UTC by Andrew Banitt
Updated	2021-01-08 15:17:57 UTC by Andrew Banitt

General Information

Andrew Banitt
2021-01-07
17:32
34682 Beacon
34682 Beacon
System Check
N/A
Cloudy
30.02
30.21
70

Inspection Measurements

Pre-Measurement Conditions

Are vacuum readings being taken under closed Yes building conditions?

Measurements and Valve Positions

MP-4, 17:55, -0.009

Vacuum ID Link	34682 Beacon, MP-4
Vacuum ID	MP-4
Date	2021-01-07
Time	17:55
Vacuum Reading (in. w.c.)	-0.009
Number Vacuum Reading	-0.009

MP-5, 17:55, -0.004

Vacuum ID Link	34682 Beacon, MP-5
Vacuum ID	MP-5
Date	2021-01-08
Time	17:55
Vacuum Reading (in. w.c.)	-0.004
Number Vacuum Reading	-0.004

SSMP-2, 17:56, -0.016

Vacuum ID Link	34682 Beacon, SSMP-2
Vacuum ID	SSMP-2
Date	2021-01-07
Time	17:56

Vacuum Reading (in. w.c.)	-0.016
Number Vacuum Reading	-0.016

SSMP-4, 17:58, 0.003

Vacuum ID Link	34682 Beacon, SSMP-4
Vacuum ID	SSMP-4
Date	2021-01-07
Time	17:58
Vacuum Reading (in. w.c.)	0.003
Number Vacuum Reading	0.003

SSMP-1, 18:01, -0.004

Vacuum ID Link	34682 Beacon, SSMP-1
Vacuum ID	SSMP-1
Date	2021-01-07
Time	18:01
Vacuum Reading (in. w.c.)	-0.004
Number Vacuum Reading	-0.004

SSMP-3, 18:02, -0.001

Vacuum ID Link	34682 Beacon, SSMP-3
Vacuum ID	SSMP-3
Date	2021-01-07
Time	18:02
Vacuum Reading (in. w.c.)	-0.001
Number Vacuum Reading	-0.001

SSMP-5, 18:04, 0

34682 Beacon, SSMP-5
SSMP-5
2021-01-07
18:04
0
0

U-Tube Manometer, 18:05, -4

Vacuum ID Link	34682 Beacon, U-Tube Manometer
Vacuum ID	U-Tube Manometer
Date	2021-01-07
Time	18:05
Vacuum Reading (in. w.c.)	-4
Number Vacuum Reading	-4
B	

BV-1, 17:34, 75

Valve ID Link	34682 Beacon, BV-1
Valve ID	BV-1

Date	2021-01-07
Time	17:34
Valve Position at Departure (% Open)	75

BV-2, 17:34, 10

Valve ID Link	34682 Beacon, BV-2
Valve ID	BV-2
Date	2021-01-07
Time	17:34
Valve Position at Departure (% Open)	10

BV-3, 17:35, 5

Valve ID Link	34682 Beacon, BV-3
Valve ID	BV-3
Date	2021-01-07
Time	17:35
Valve Position at Departure (% Open)	5

BV-4, 17:34, 100

Valve ID Link	34682 Beacon, BV-4
Valve ID	BV-4
Date	2021-01-07
Time	17:34
Valve Position at Departure (% Open)	100
Were interim vacuum readings taken between initial and final vacuum readings?	No

Inspection Reading Analysis

Ma	non	neter
IVId	mon	neter

Is the system manometer steady? Yes		
	is the system manometer steady:	Yes

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?	All
Proposed modifications to address vacuum?	NA
Were any ball valve positions changed?	No

Alarm Testing

Sensaphone Link

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
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	

34682 Beacon, 2022-01-27, Full System Inspection

Created	2022-01-27 22:20:20 UTC by Seth Turner
Updated	2022-01-28 00:41:49 UTC by Seth Turner

General Information

System Inspector	Seth Turner
Date	2022-01-27
Time	17:20
System Details Link	34682 Beacon
Property Address	34682 Beacon
Check Inspection(s) to be Completed	Full System Inspection
Get weather data from National Weather Service Website for your current location?	N/A
Weather	30F, clear
Ambient Temperature	30F
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)?	Yes

Drains

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

Crawlspace Barrier

Is water present on the vapor barrier?

Labels

Are labels present at the pipe, control panel, utube, and breaker?

Common Label Photos



Are labels present at the crawlspace barrier?

Yes

No

Yes



Vacuum Monitoring

vacuum wonitoring	
ls the u-tube accurate (test with micromanometer/manometer, rezero/replace as needed)?	Yes
ls 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-4, 17:45, -0.010

Vacuum ID Link	34682 Beacon, MP-4
Vacuum ID	MP-4
Date	2022-01-27
Time	17:45
Vacuum Reading (in. w.c.)	-0.010

Number Vacuum Reading

-0.01

MP-5, 17:45, -0.004

34682 Beacon, MP-5
MP-5
2022-01-27
17:45
-0.004
-0.004

SSMP-4, 17:55, -0.014

Vacuum ID Link	34682 Beacon, SSMP-4
Vacuum ID	SSMP-4
Date	2022-01-27
Time	17:55
Vacuum Reading (in. w.c.)	-0.014
Number Vacuum Reading	-0.014

SSMP-2, 17:55, -0.006

Vacuum ID Link	34682 Beacon, SSMP-2
Vacuum ID	SSMP-2
Date	2022-01-27
Time	17:55
Vacuum Reading (in. w.c.)	-0.006
Number Vacuum Reading	-0.006

MP-4, 18:17, -0.009

Vacuum ID Link	34682 Beacon, MP-4
Vacuum ID	MP-4
Date	2022-01-27
Time	18:17
Vacuum Reading (in. w.c.)	-0.009
Number Vacuum Reading	-0.009

MP-5, 18:17, -0.004

Vacuum ID Link	34682 Beacon, MP-5
Vacuum ID	MP-5
Date	2022-01-27
Time	18:17
Vacuum Reading (in. w.c.)	-0.004
Number Vacuum Reading	-0.004

SSMP-4, 18:18, -0.014

Vacuum ID Link	34682 Beacon, SSMP-4	
Vacuum ID	SSMP-4	
Date	2022-01-27	

Time	18:18
Vacuum Reading (in. w.c.)	-0.014
Number Vacuum Reading	-0.014

SSMP-2, 18:12, -0.006

Vacuum ID Link	34682 Beacon, SSMP-2
Vacuum ID	SSMP-2
Date	2022-01-27
Time	18:12
Vacuum Reading (in. w.c.)	-0.006
Number Vacuum Reading	-0.006

BV-2, 18:14, 5

Valve ID Link	34682 Beacon, BV-2
Valve ID	BV-2
Date	2022-01-27
Time	18:14
Valve Position at Arrival (% Open)	10
Valve Position at Departure (% Open)	5

BV-3, 18:14, 5

Valve ID Link	34682 Beacon, BV-3
Valve ID	BV-3
Date	2022-01-27
Time	18:14
Valve Position at Arrival (% Open)	5
Valve Position at Departure (% Open)	5

BV-4, 18:15, 100

Valve ID Link	34682 Beacon, BV-4
Valve ID	BV-4
Date	2022-01-27
Time	18:15
Valve Position at Arrival (% Open)	100
Valve Position at Departure (% Open)	100
Were interim vacuum readings taken between initial and final vacuum readings?	No

Inspection Reading Analysis

Manometer	
Is the system manometer steady?	Yes
SSMP/MPs	
Were any vacuum monitoring points not accessible? Please specify.	Yes, ssmp-1, ssmp-3, ssmp-5
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
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

Repair Completion

Were seam repairs completed during this visit?	Yes
Were system repairs completed during this visit?	Yes
Additional sealing completed:	Seams repaired where coming up.
Sealing Completion Date	2022-01-27

Sealing Repair Photos



System Repair Completion Date

System repairs completed:

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A	outstanding			1-+12
Are mere	niitstannino	renairs to	ne comn	ieren /
	outstanding	repuil 5 to	be comp	icicu.

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	