

115 E Railroad Ave., Suite 203, Port Angeles, WA 98362
(360) 912-5191 www.gounitedengineering.com

February 7, 2023

Flaura's Acres POA
PO Box 1641
Sequim, WA 98382

**Subject: Engineering Evaluation of Large Onsite Sewage System
 Clallam County Parcel # 03-30-20-58-0600
 CLM039**

United Engineering, Inc. has been retained by the Flaura's Acres POA to evaluate their Large On Site Sewage System located on E Hammond St, Belfield Ave., and Blair Ave. in Sequim. This evaluation is a system specific permit condition for the latest annual operating permit. The permit requirement asks the evaluation to address the recently reported higher than allowed average daily flow rates. Reported average daily flows were reported which exceeded the Permitted Daily Flow of 12,672 gallons per day. This report explains the how the system currently operates and evaluates how and why the daily flow amounts were reported as exceeding the Permitted Daily Flow. Recommendations on how to avoid excessive flow amounts are also included.

Existing System Description

The existing system in its current form was designed as a repair system in 1982 to serve 49 single family residences with a total of 137 bedrooms. The drainfield area was limited and waivers were granted to allow each of the laterals to be spaced at 7' o.c. which gave enough drainfield area to accommodate 12,672 gallons per day of wastewater flow. Since the date of the repair there have been additional connections to the system that bring the total number of contributing homes to 54 with a total bedroom count of 152.

Each home has its own septic tank which serves as the primary treatment for the system. The effluent from these tanks flow into a shared collection system in the street right-of-way. The collection system flows into dosing chamber which houses a syphon dosing system. The syphons are set to dose at approximately 24" in depth which equates to approximately 1,436 gallons per dose.

There are three drainfield zones. Each zone contains (22) 80' laterals. The zones are rotated throughout the year such that 2 zones will be in service at a time. Every 6 months the zones are rotated giving each zone 12 month in service and 6 months of a resting period.

System Evaluation

Investigation of the site and drainfield area did not show any signs of overuse and all drainfield zones appear to be operating adequately. The dosing chamber level was within normal operating range. The annual reports for the past 4 years were analyzed, and the results show regular high flow rates during the wet months, particularly February. Recorded flows were as high as 18,655 gallons per day with several other recorded monthly flow rates above the design flow. The first area inspected was the dosing chamber to ensure the proper operation of the syphons and the dosing meter. All of the components appear to be operating normally. Given the higher than allowed flow rate data was

occurring during the rainy season each year attention was turned to infiltration and inflow. The collection and conveyance system was investigated for infiltration leaks and inflow connections. A camera system was placed in the entire collection system. The videos found multiple areas in which infiltration was occurring. The collection system is made of mostly CMP pipe which has severely corroded. There were many areas where the pipe joints had disconnected and were offset. Several of the service connections were not aligned properly and not sealed. There were numerous holes in the corroded pipes. Each of these points of entry are allowing for infiltration throughout the entire year.

The system design flow is well below the current design standards. 152 bedrooms would have a design flow of 18,240 if designed by current guidelines. The latest annual report shows the average monthly flow throughout the years as 9,819 GPD. This represents approximately 77% of the maximum permitted daily flow. Given the condition of the drainfield and the average flows being within the normal operating range of the permitted flow rate there isn't an immediate concern for having to expand the drainfield.

Recommendations

The collection and conveyance system has deteriorated beyond its serviceable life and needs replacement. The replacement should be constructed to current City of Sequim and Department of Ecology standards for sewer systems. A new collection and conveyance system would allow for all of the service connections and joints to be sealed and would keep out the infiltration which is the likely cause of the higher than allowed flow rates.

The drainfield itself is in serviceable condition, however as with any drainfield, there will come a time when the drainfield will have reached the end of its life and will show signs of failure. The City of Sequim has an operation sewer main on S. Still Rd. which intersects both Belfield and Blair Avenues. Given the extent of which the collection and conveyance system replacement project will be, and the fact the existing drainfield is undersized by current standards, now would be an ideal time to connect to the City of Sequim's sewer system. Not doing so now would effectively be delaying the inevitable once the current life of the existing drainfield is up. Though not to the point of being a requirement, it is the opinion of this office that connection to the City's sewer system should be done along with replacing the collection and conveyance system. Coordination with the City will be required.

If you have any questions please contact us.

Regards,



Digitally signed
by Zachary N.
Slota, P.E.
Date:
2023.02.14
12:28:05-08'00'

Zachary N. Slota, P.E.
Principal Engineer



LOSS Annual Maintenance and Monitoring Report

List operating problems, repairs, and replacements on the back.

System Information: Permit Number: CLM039 System Name: Flaw's Acres

System Component / Maintenance Task	Minimum Frequency	Insert date or measurement when task is completed											
		Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019	Jan 2020	Feb 2020	Mar 2020	Apr 2020	May 2020	June 2020	July 2020
Sewage Tanks													
Measure and Record Sludge Level	Semi-Annual												
Measure and Record Scum Level	Semi-Annual												
Remove Sludge from Tanks	As Needed												
Check / Clean Effluent Filters	Semi-Annual												
Check Inlets / Outlets	Semi-Annual												
Pump and Pump Chamber													
Visual Inspection	Monthly	8-28-19	9-29-19	10-25-19	11-28-19	12-30-19	1-30-20	2-28-20	3-31-20	4-27-20	5-28-20	6-26-20	7-30-20
Check / Clean Screen(s)	Semi-Annual												
Test / Run Pumps	Semi-Annual												
Check Float Switch Operation	Semi-Annual	9-29-19			11-28-19		1-30-20		3-31-20		5-28-20		7-30-20
Pump Controls and Electrical Panel													
Manually Operate Controls	Semi-Annual												
Check for Moisture & Corrosion	Semi-Annual												
Test Alarm(s)	Semi-Annual												
Drainfields													
Inspect Monitor Ports	Monthly	8-28-19	9-29-19	10-25-19	11-28-19	12-30-19	1-30-20	2-28-20	3-31-20	4-27-20	5-28-20	6-26-20	7-30-20
Inspect Drainfields for Ponding; Mow Grass & Remove Brush	Monthly	8-28-19	9-29-19	10-25-19	11-28-19	12-30-19	1-30-20	2-28-20	3-31-20	4-27-20	5-28-20	6-26-20	7-30-20
Inspect and Exercise Valves	Semi-Annual	8-28-19											
Rotate Drainfield Sectors	Semi-Annual	8-28-19											

Average Daily Flows (gpd) →	Monthly	11,667	8,795	9,693	6,821	10,411	8,526	14,000	12,924	11,308	8,975	8,077	6,641
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I hereby certify that the information on this form is true, complete, and accurate.

System Operator (Print): Sound Septic Services / Brett McAllister

Company/Title: Sound Septic Services / owner

System Operator's Signature: Brett McAllister

DATE: 9-28-20

Mail signed original with renewal application, fee, and other required paperwork. Keep a copy for your records for a minimum of three (3) years.



LOSS Annual Maintenance and Monitoring Report

List operating problems, repairs, and replacements on the back.

System Information: Permit Number: CM039 System Name: Flauia's Acres

System Component / Maintenance Task	Minimum Frequency	Aug 2016	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	June 2017	July 2017
Sewage Tanks													
Measure and Record Sludge Level	Semi-Annual										5-3-17		
Measure and Record Scum Level	Semi-Annual										5-3-17		
Remove Sludge from Tanks	As Needed												
Check / Clean Effluent Filters	Semi-Annual										5-3-17		
Check Inlets / Outlets	Semi-Annual										5-3-17		
Pump and Pump Chamber													
Visual Inspection	Monthly	8-31-16	9-20-16	10-19-16	11-15-16	12-14-16	1-9-17	2-10-17	3-8-17	4-6-17	5-3-17	6-5-17	7-3-17
Check / Clean Screen(s)	Semi-Annual												
Test / Run Pumps	Semi-Annual												
Check Float Switch Operation	Semi-Annual		9-20-16		11-15-16		1-9-17		3-8-17		5-3-17		7-3-17
Pump Controls and Electrical Panel													
Manually Operate Controls	Semi-Annual												
Check for Moisture & Corrosion	Semi-Annual												
Test Alarm(s)	Semi-Annual		9-20-16		11-15-16		1-9-17		3-8-17		5-3-17		7-3-17
Drainfields													
Inspect Monitor Ports	Monthly	8-31-16	9-20-16	10-19-16	11-15-16	12-14-16	1-9-17	2-10-17	3-8-17	4-6-17	5-3-17	6-5-17	7-3-17
Inspect Drainfields for Ponding; Mow Grass & Remove Brush	Monthly												
Inspect and Exercise Valves	Semi-Annual							2-10-17					
Rotate Drainfield Sectors	Semi-Annual							2-10-17					

Average Daily Flows (gpd) → Monthly 12,565 7,898 8,569 8,436 8,695 12,565 18,655 16,220 14,958 8,917 2,991 3,300

I hereby certify that the information on this form is true, complete, and accurate.

System Operator (Print): Brett McCallister

System Operator's Signature: Brett McCallister

Mail signed original with renewal application, fee, and other required paperwork. Keep a copy for your records for a minimum of three (3) years.

Company Title: Sound Septic Services

DATE: 8-20-17

LOSS Annual Maintenance and Monitoring Report

List operating problems, repairs, and replacements on the back.

System Information: Permit Number:

CLM 034 System Name:

Flaurids Acres

System Component / Maintenance Task	Minimum Frequency	Insert date or measurement when task is completed											
		Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019	Jan 2020	Feb 2020	Mar 2020	Apr 2020	May 2020	June 2020	July 2020
Sewage Tanks													
Measure and Record Sludge Level	Semi-Annual												7-29-19
Measure and Record Scum Level	Semi-Annual												7-29-19
Remove Sludge from Tanks	As Needed												7-29-19
Check / Clean Effluent Filters	Semi-Annual												7-29-19
Check Inlets / Outlets	Semi-Annual												7-29-19
Pump and Pump Chamber													
Visual Inspection	Monthly	8-30-18	9-29-18	10-30-18	11-29-18	12-29-18	1-29-19	2-25-19	3-30-19	4-30-19	5-31-19	6-28-19	7-29-19
Check / Clean Screen(s)	Semi-Annual												
Test / Run Pumps	Semi-Annual												
Check Float Switch Operation	Semi-Annual		4-29-18		11-29-18		1-29-19		3-30-19		5-31-19		7-29-19
Pump Controls and Electrical Panel													
Manually Operate Controls	Semi-Annual												
Check for Moisture & Corrosion	Semi-Annual												
Test Alarm(s)	Semi-Annual		9-29-18		11-29-18		1-29-19		3-30-19		5-31-19		7-29-19
Drainfields													
Inspect Monitor Ports	Monthly	8-30-18	9-28-18	10-30-18	11-29-18	12-29-18	1-29-19	2-25-19	3-30-19	4-30-19	5-31-19	6-28-19	7-29-19
Inspect Drainfields for Ponding;	Monthly												
Mow Grass & Remove Brush	Semi-Annual	8-30-18											
Inspect and Exercise Valves	Semi-Annual	8-30-18											
Rotate Drainfield Sectors	Semi-Annual	8-30-18											
Average Daily Flows (gpd) →	Monthly	9,334	8,436	6,282	7,718	7,000	10,411	12,565	8,077	10,770	7,539	7,898	8,257

I hereby certify that the information on this form is true, complete, and accurate.

System Operator (Print): Brett McCallister

Company Title: Sound Septic Services

System Operator's Signature: [Signature]

DATE: 4-5-19

Mail signed original with renewal application, fee, and other required paperwork. Keep a copy for your records for a minimum of three (3) years.

Section Inspection Report

Project Name

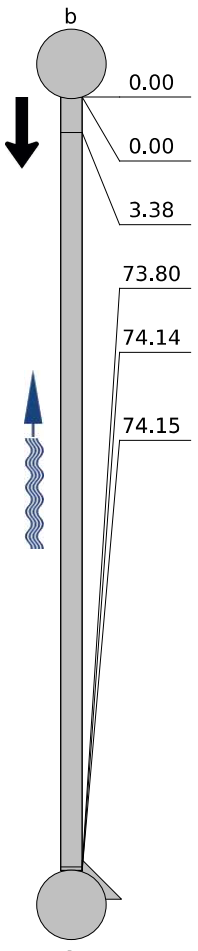
Sequim

Printed on

1/20/2022

NASSCO~PACP-7

Pipe Segment Reference	City sequim	Street E Belfield
Date 11/01/2022	Operator Logan Stanley	Pipe Use Sanitary Sewage Pipe
Upstream MH a	Downstream MH b	Height 8 inch
Total Length 74.146 ft	Length Surveyed 74.146 ft	Width
~~ a->b	Direction b->a	Material Corrugated Metal Pipe
Shape Circular		Video name _0001.mp4

POSITION [ft]	DC	CODE	OBSERVATION	VIDEO	FOTO
					
0.00		AMH	Manhole / Downstream	00:00:10	_0001.jpeg
0.00		MWL	Water Level, 10% of the vertical dimension	00:00:18	_0002.jpeg
3.38		SCP	Surface Damage Corrosion, at 12 o'clock	00:00:31	_0003.jpeg
73.80		HVV	Hole Void Visible, at 12 o'clock	00:05:46	_0004.jpeg
74.14		TFA	Tap Factory Activity, at 10 o'clock , dia/ height: 4 inch	00:05:53	_0005.jpeg
74.15		DSF	Deposits Settled Fine, 100% of cross sectional area, at 12 o'clock	00:06:01	_0006.jpeg
a					

Scale 1:681

Photos

Project Name
Sequim

Printed on
1/20/2022

NASSCO~PACP-7

Pipe Segment Reference

City
sequim

Street
E Belfield



File name: **_0001.jpeg**
 Inspection date and time: **11/01/2022 18:49**
 Position: **0 ft**
 Code: **AMH**
Manhole



File name: **_0002.jpeg**
 Inspection date and time: **11/01/2022 18:49**
 Position: **0 ft**
 Code: **MWL**
Water Level, 10% of the vertical dimension



File name: **_0003.jpeg**
 Inspection date and time: **11/01/2022 18:49**
 Position: **3.38 ft**
 Code: **SCP**
Surface Damage Corrosion, at 12 o'clock

Photos

Project Name
Sequim

Printed on
1/20/2022

NASSCO~PACP-7

Pipe Segment Reference

City
sequim

Street
E Belfield



File name: **_0004.jpeg**
 Inspection date and time: **11/01/2022 18:49**
 Position: **73.80 ft**
 Code: **HVV**
Hole Void Visible, at 12 o'clock



File name: **_0005.jpeg**
 Inspection date and time: **11/01/2022 18:49**
 Position: **74.14 ft**
 Code: **TFA**
Tap Factory Activity, at 10 o'clock , dia/height: 4 inch



File name: **_0006.jpeg**
 Inspection date and time: **11/01/2022 18:49**
 Position: **74.15 ft**
 Code: **DSF**
Deposits Settled Fine, 100% of cross sectional area, at 12 o'clock

Section Inspection Report

Project Name

Sequim

Printed on

1/20/2022

NASSCO~PACP-7

Pipe Segment Reference

2

City

sequim

Street

E Belfield

Date

18/01/2022

Operator

Logan Stanley

Pipe Use

Sanitary Sewage Pipe

Upstream MH

Downstream MH

Height

8 inch

Total Length

0.000 ft

Length Surveyed

0.000 ft

Width

~~

Direction

Material

Concrete Pipe (non-reinforced)

Shape

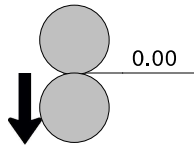
Circular

Video name

2_0003.mp4

POSITION [ft] DC CODE OBSERVATION

VIDEO FOTO



00:00:00



Section Inspection Report

Project Name
Sequim

Printed on
1/20/2022

NASSCO~PACP-7

Pipe Segment Reference	City sequim	Street E Belfield
Date 12/01/2022	Operator Logan Stanley	Pipe Use Sanitary Sewage Pipe
Upstream MH a	Downstream MH b	Height 8 inch
Total Length 40.905 ft	Length Surveyed 40.905 ft	Width
~~ a->b	Direction b->a	Material Concrete Pipe (non-reinforced)
Shape Circular		Video name _0002.mp4

	POSITION [ft]	DC	CODE	OBSERVATION	VIDEO	FOTO
<p>Scale 1:376</p>	0.00		AMH	Manhole / Upstream	00:00:12	_0007.jpeg
	0.01		MWL	Water Level, 5% of the vertical dimension	00:00:24	_0008.jpeg
	10.24		DSGV	Deposits Settled Gravel, 5% of cross sectional area, at 6 o'clock	00:01:15	_0009.jpeg
	26.95		TBA	Tap Break-in Activity, at 3 o'clock , dia/ height: 4 inch	00:02:15	_0010.jpeg
	26.95		BSV	Broken Soil Visible, at 3 o'clock	00:02:25	_0011.jpeg
	26.95		IDL	Infiltration Dripper Lateral, at 3 o'clock	00:02:30	_0012.jpeg
	29.18		JSS	Joint Separated Small	00:03:13	_0013.jpeg
	30.03		MMC	Miscellaneous Material Change / PVC	00:03:44	_0014.jpeg
	36.31		JOM	Joint Offset Medium	00:04:29	_0015.jpeg
	40.91		MWL	Water Level, 40% of the vertical dimension	00:05:19	_0016.jpeg

Photos

Project Name
Sequim

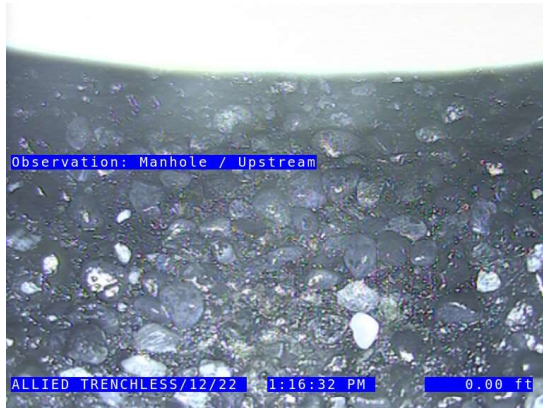
Printed on
1/20/2022

NASSCO~PACP-7

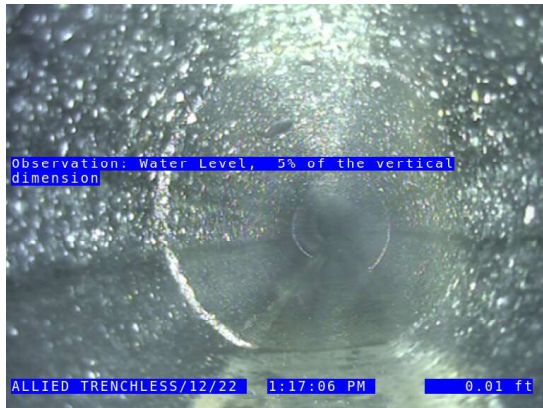
Pipe Segment Reference

City
sequim

Street
E Belfield



File name: **_0007.jpeg**
Inspection date and time: **12/01/2022 11:03**
Position: **0 ft**
Code: **AMH
Manhole**



File name: **_0008.jpeg**
Inspection date and time: **12/01/2022 11:03**
Position: **0.01 ft**
Code: **MWL
Water Level, 5% of the vertical dimension**



File name: **_0009.jpeg**
Inspection date and time: **12/01/2022 11:03**
Position: **10.24 ft**
Code: **DSGV
Deposits Settled Gravel, 5% of cross sectional area, at 6 o'clock**

Photos

Project Name
Sequim

Printed on
1/20/2022

NASSCO~PACP-7

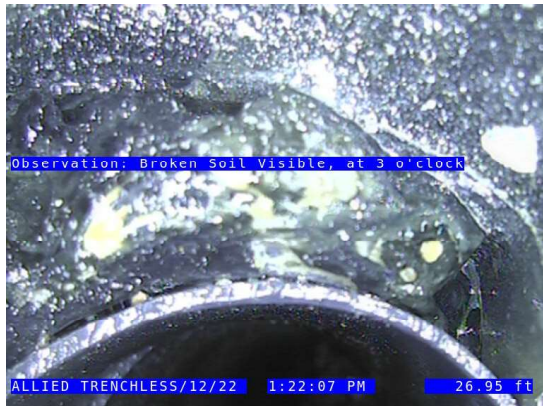
Pipe Segment Reference

City
sequim

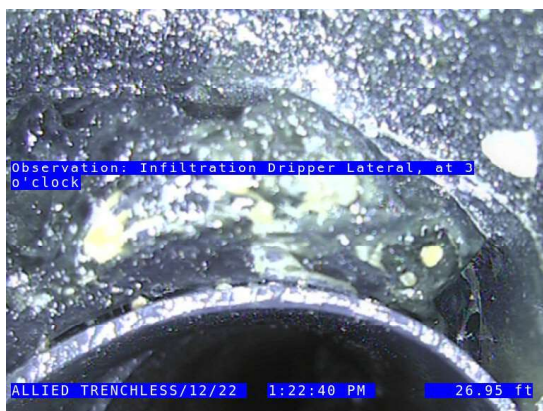
Street
E Belfield



File name: **_0010.jpeg**
 Inspection date and time: **12/01/2022 11:03**
 Position: **26.95 ft**
 Code: **TBA**
**Tap Break-in Activity, at 3 o'clock ,
dia/height: 4 inch**



File name: **_0011.jpeg**
 Inspection date and time: **12/01/2022 11:03**
 Position: **26.95 ft**
 Code: **BSV**
Broken Soil Visible, at 3 o'clock



File name: **_0012.jpeg**
 Inspection date and time: **12/01/2022 11:03**
 Position: **26.95 ft**
 Code: **IDL**
Infiltration Dripper Lateral, at 3 o'clock

Photos

Project Name
Sequim

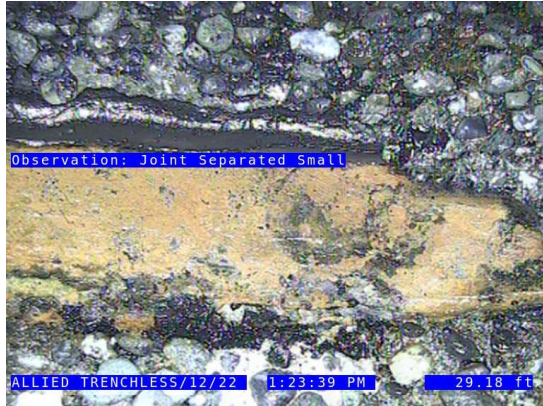
Printed on
1/20/2022

NASSCO~PACP-7

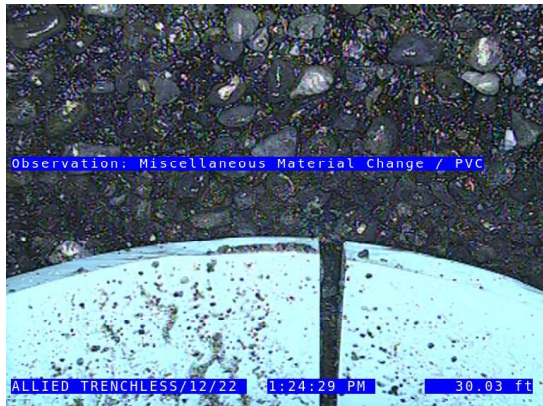
Pipe Segment Reference

City
sequim

Street
E Belfield



File name: **_0013.jpeg**
 Inspection date and time: **12/01/2022 11:03**
 Position: **29.18 ft**
 Code: **JSS**
Joint Separated Small



File name: **_0014.jpeg**
 Inspection date and time: **12/01/2022 11:03**
 Position: **30.03 ft**
 Code: **MMC**
Miscellaneous Material Change



File name: **_0015.jpeg**
 Inspection date and time: **12/01/2022 11:03**
 Position: **36.31 ft**
 Code: **JOM**
Joint Offset Medium

Photos

Project Name
Sequim

Printed on
1/20/2022

NASSCO~PACP-7

Pipe Segment Reference

City
sequim

Street
E Belfield



File name: **_0016.jpeg**
Inspection date and time: **12/01/2022 11:03**
Position: **40.91 ft**
Code: **MWL**
Water Level, 40% of the vertical dimension

Section Inspection Report

Project Name

Sequim

Printed on

1/20/2022

NASSCO~PACP-7

Pipe Segment Reference

1

City

sequim

Street

E Belfield

Date

13/01/2022

Operator

Logan Stanley

Pipe Use

Sanitary Sewage Pipe

Upstream MH

Downstream MH

Height

8 inch

Total Length

138.279 ft

Length Surveyed

138.279 ft

Width

~~

Direction

Material

Corrugated Metal Pipe

Shape

Circular

Video name

1_0001.mp4

POSITION [ft]

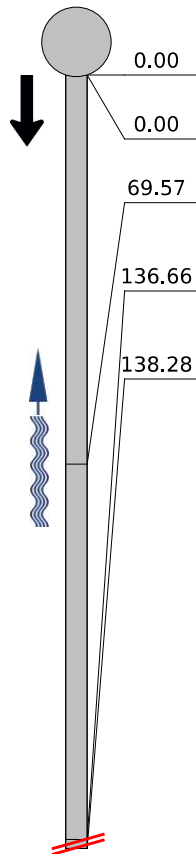
DC

CODE

OBSERVATION

VIDEO

FOTO



AMH

Manhole / Downstream

00:00:07

1_0001.jpeg

MWL

Water Level, 5% of the vertical dimension

00:00:13

1_0002.jpeg

MWLS

Miscellaneous Water Level, Sag, 50% of the vertical dimension

00:04:19

1_0003.jpeg

DSC

Deposits Settled Compacted, 15% of cross sectional area, at 6 o'clock

00:08:31

1_0004.jpeg

MSA

Miscellaneous Survey Abandoned / Survey abandoned

00:08:48

1_0005.jpeg

Scale 1:1271

Photos

Project Name
Sequim

Printed on
1/20/2022

NASSCO~PACP-7

Pipe Segment Reference
1

City
sequim

Street
E Belfield



File name: **1_0001.jpeg**
 Inspection date and time: **13/01/2022 17:51**
 Position: **0 ft**
 Code: **AMH**
Manhole



File name: **1_0002.jpeg**
 Inspection date and time: **13/01/2022 17:51**
 Position: **0 ft**
 Code: **MWL**
Water Level, 5% of the vertical dimension



File name: **1_0003.jpeg**
 Inspection date and time: **13/01/2022 17:51**
 Position: **69.57 ft**
 Code: **MWLS**
Miscellaneous Water Level, Sag, 50% of the vertical dimension

Photos

Project Name

Sequim

Printed on

1/20/2022

NASSCO~PACP-7

Pipe Segment Reference

1

City

sequim

Street

E Belfield



File name:

1_0004.jpeg

Inspection
date and time:

13/01/2022 17:51

Position:

136.66 ft

Code:

DSC

**Deposits Settled Compacted, 15% of
cross sectional area, at 6 o'clock**



File name:

1_0005.jpeg

Inspection
date and time:

13/01/2022 17:51

Position:

138.28 ft

Code:

MSA

Miscellaneous Survey Abandoned

Section Inspection Report

Project Name

Sequim

Printed on

1/20/2022

NASSCO~PACP-7

Pipe Segment Reference

1

City

sequim

Street

E Belfield

Date

13/01/2022

Operator

Logan Stanley

Pipe Use

Sanitary Sewage Pipe

Upstream MH

Downstream MH

Height

8 inch

Total Length

235.178 ft

Length Surveyed

235.178 ft

Width

~~

Direction

Material

Corrugated Metal Pipe

Shape

Circular

Video name

1_0002.mp4

POSITION [ft]

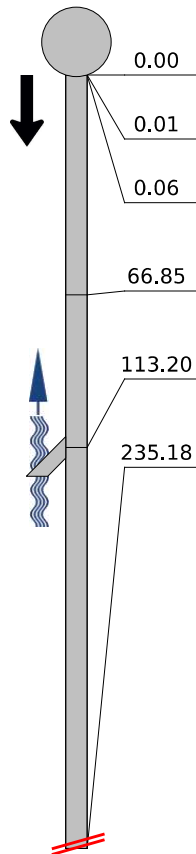
DC

CODE

OBSERVATION

VIDEO

FOTO



AMH

Manhole / Downstream

00:00:01

1_0006.jpeg

MWL

Water Level, 5% of the vertical dimension

00:00:09

1_0007.jpeg

DSC

Deposits Settled Compacted, 5% of cross sectional area, at 4 o'clock

00:00:14

1_0008.jpeg

MWLS

Miscellaneous Water Level, Sag, 40% of the vertical dimension

00:04:55

1_0009.jpeg

TBA

Tap Break-in Activity, at 3 o'clock , dia/ height: 4 inch

00:07:48

1_0010.jpeg

MSA

Miscellaneous Survey Abandoned / Cant get past deposits

00:17:51

1_0011.jpeg

Scale 1:2161

Photos

Project Name
Sequim

Printed on
1/20/2022

NASSCO~PACP-7

Pipe Segment Reference
1

City
sequim

Street
E Belfield



File name: **1_0006.jpeg**
 Inspection date and time: **13/01/2022 18:13**
 Position: **0.00 ft**
 Code: **AMH**
Manhole



File name: **1_0007.jpeg**
 Inspection date and time: **13/01/2022 18:13**
 Position: **0.01 ft**
 Code: **MWL**
Water Level, 5% of the vertical dimension



File name: **1_0008.jpeg**
 Inspection date and time: **13/01/2022 18:13**
 Position: **0.06 ft**
 Code: **DSC**
Deposits Settled Compacted, 5% of cross sectional area, at 4 o'clock

Photos

Project Name
Sequim

Printed on
1/20/2022

NASSCO~PACP-7

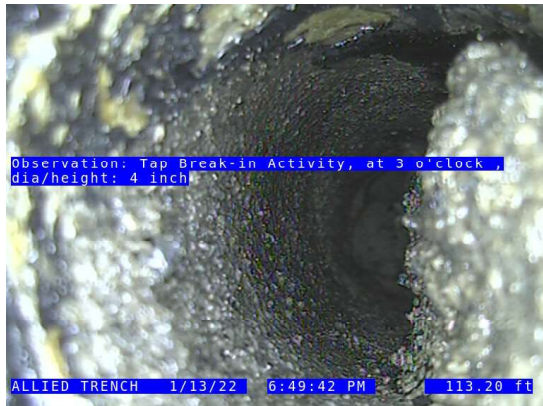
Pipe Segment Reference
1

City
sequim

Street
E Belfield



File name: **1_0009.jpeg**
 Inspection date and time: **13/01/2022 18:13**
 Position: **66.85 ft**
 Code: **MWLS**
Miscellaneous Water Level, Sag, 40% of the vertical dimension



File name: **1_0010.jpeg**
 Inspection date and time: **13/01/2022 18:13**
 Position: **113.20 ft**
 Code: **TBA**
Tap Break-in Activity, at 3 o'clock , dia/height: 4 inch



File name: **1_0011.jpeg**
 Inspection date and time: **13/01/2022 18:13**
 Position: **235.18 ft**
 Code: **MSA**
Miscellaneous Survey Abandoned

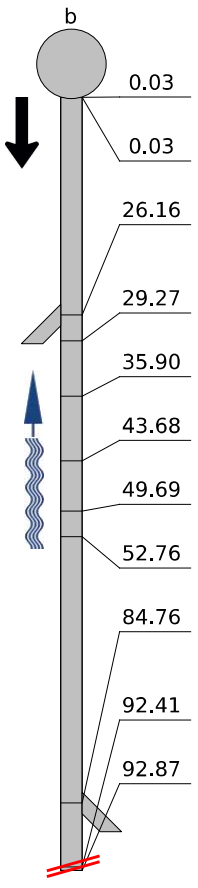
Section Inspection Report

Project Name
Sequim

Printed on
1/20/2022

NASSCO~PACP-7

Pipe Segment Reference	City sequim	Street E Belfield
Date 12/01/2022	Operator Logan Stanley	Pipe Use Sanitary Sewage Pipe
Upstream MH a	Downstream MH b	Height 8 inch
Total Length 92.866 ft	Length Surveyed 92.866 ft	Width
~~ a->b	Direction b->a	Material Concrete Pipe (non-reinforced)
Shape Circular		Video name _0003.mp4

POSITION [ft]	DC	CODE	OBSERVATION	VIDEO	FOTO
					
0.03		AMH	Manhole / Upstream	00:00:06	_0017.jpeg
0.03		MWL	Water Level, 5% of the vertical dimension	00:00:15	_0018.jpeg
26.16		TBA	Tap Break-in Activity, at 3 o'clock , dia/ height: 4 inch	00:01:16	_0019.jpeg
29.27		MMC	Miscellaneous Material Change / PVC	00:01:30	_0020.jpeg
35.90		JOM	Joint Offset Medium	00:01:56	_0021.jpeg
43.68		CC	Crack Circumferential, from 3 o'clock to 12 o'clock	00:03:23	_0022.jpeg
49.69		JSS	Joint Separated Small	00:04:09	_0023.jpeg
52.76		JSL	Joint Separated Large	00:04:42	_0024.jpeg
84.76		TBA	Tap Break-in Activity, at 9 o'clock , dia/ height: 4 inch	00:06:28	_0025.jpeg
92.41		BVV	Broken Void Visible, at 12 o'clock	00:07:20	_0026.jpeg
92.87		MSA	Miscellaneous Survey Abandoned / Survey Abandoned	00:10:16	_0027.jpeg

Scale 1:853

Photos

Project Name
Sequim

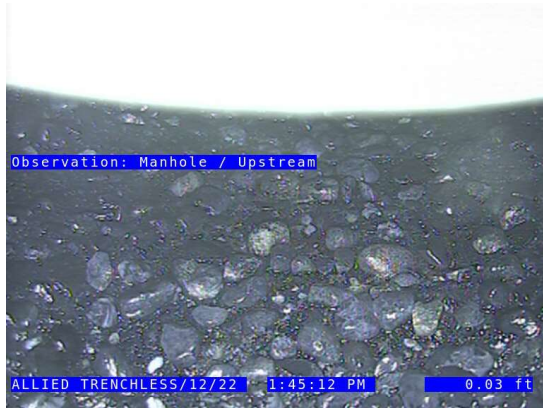
Printed on
1/20/2022

NASSCO~PACP-7

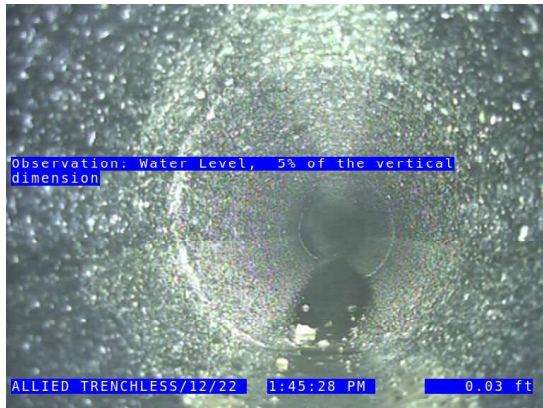
Pipe Segment Reference

City
sequim

Street
E Belfield



File name: **_0017.jpeg**
Inspection date and time: **12/01/2022 13:29**
Position: **0.03 ft**
Code: **AMH**
Manhole



File name: **_0018.jpeg**
Inspection date and time: **12/01/2022 13:29**
Position: **0.03 ft**
Code: **MWL**
Water Level, 5% of the vertical dimension



File name: **_0019.jpeg**
Inspection date and time: **12/01/2022 13:29**
Position: **26.16 ft**
Code: **TBA**
Tap Break-in Activity, at 3 o'clock , dia/height: 4 inch

Photos

Project Name
Sequim

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Pipe Segment Reference

City
sequim

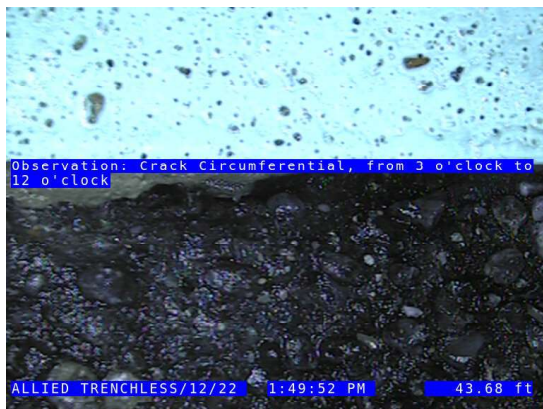
Street
E Belfield



File name: **_0020.jpeg**
 Inspection date and time: **12/01/2022 13:29**
 Position: **29.27 ft**
 Code: **MMC**
Miscellaneous Material Change



File name: **_0021.jpeg**
 Inspection date and time: **12/01/2022 13:29**
 Position: **35.90 ft**
 Code: **JOM**
Joint Offset Medium



File name: **_0022.jpeg**
 Inspection date and time: **12/01/2022 13:29**
 Position: **43.68 ft**
 Code: **CC**
Crack Circumferential, from 3 o'clock to 12 o'clock

Photos

Project Name
Sequim

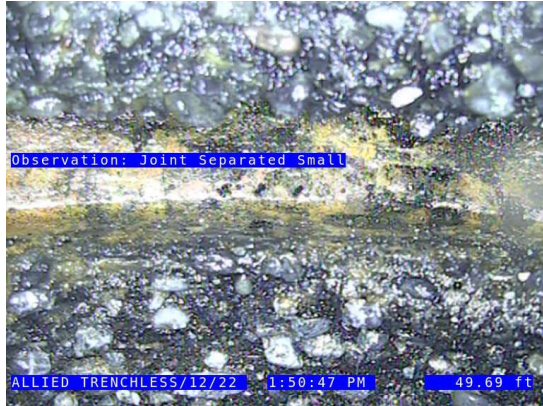
Printed on
1/20/2022

NASSCO~PACP-7

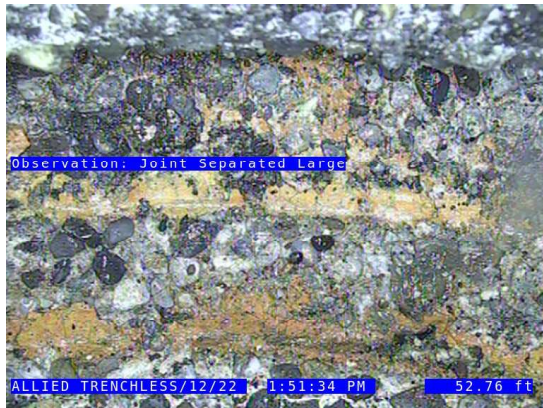
Pipe Segment Reference

City
sequim

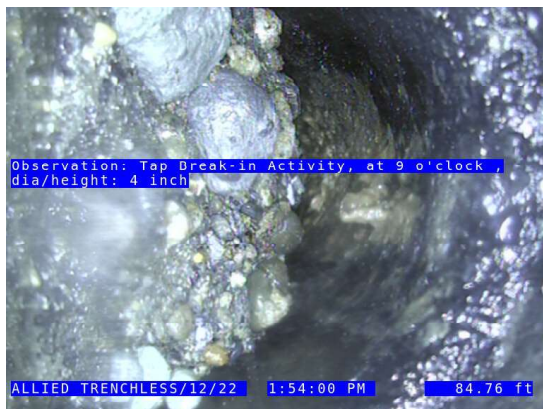
Street
E Belfield



File name: **_0023.jpeg**
 Inspection date and time: **12/01/2022 13:29**
 Position: **49.69 ft**
 Code: **JSS**
Joint Separated Small



File name: **_0024.jpeg**
 Inspection date and time: **12/01/2022 13:29**
 Position: **52.76 ft**
 Code: **JSL**
Joint Separated Large



File name: **_0025.jpeg**
 Inspection date and time: **12/01/2022 13:29**
 Position: **84.76 ft**
 Code: **TBA**
Tap Break-in Activity, at 9 o'clock , dia/height: 4 inch

Photos

Project Name
Sequim

Printed on
1/20/2022

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Pipe Segment Reference

City
sequim

Street
E Belfield



File name: **_0026.jpeg**
 Inspection date and time: **12/01/2022 13:29**
 Position: **92.41 ft**
 Code: **BVV**
Broken Void Visible, at 12 o'clock



File name: **_0027.jpeg**
 Inspection date and time: **12/01/2022 13:29**
 Position: **92.87 ft**
 Code: **MSA**
Miscellaneous Survey Abandoned

Section Inspection Report

Project Name

Sequim

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Pipe Segment Reference

2

City

sequim

Street

E Belfield

Date

14/01/2022

Operator

Logan Stanley

Pipe Use

Sanitary Sewage Pipe

Upstream MH

Downstream MH

Height

8 inch

Total Length

0.000 ft

Length Surveyed

0.000 ft

Width

~~

Direction

Material

Corrugated Metal Pipe

Shape

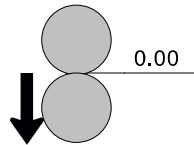
Circular

Video name

2_0001.mp4

POSITION [ft] DC CODE OBSERVATION

VIDEO FOTO



00:00:00



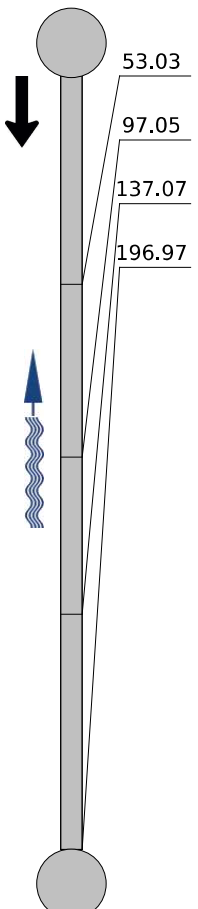
Section Inspection Report

Project Name
Sequim

Printed on
1/20/2022

NASSCO~PACP-7

Pipe Segment Reference 2	City sequim	Street E Belfield
Date 18/01/2022	Operator Logan Stanley	Pipe Use Sanitary Sewage Pipe
Upstream MH	Downstream MH	Height 8 inch
Total Length 196.966 ft	Length Surveyed 196.966 ft	Width
~~	Direction	Material Corrugated Metal Pipe
Shape Circular		Video name 2_0002.mp4

POSITION [ft]	DC	CODE	OBSERVATION	VIDEO	FOTO
					
53.03		HVV	Hole Void Visible, at 11 o'clock	00:01:59	2_0001.jpeg
97.05		HVV	Hole Void Visible, at 2 o'clock	00:03:33	2_0002.jpeg
137.07		HVV	Hole Void Visible, at 2 o'clock	00:04:56	2_0003.jpeg
196.97		BVV	Broken Void Visible, at 12 o'clock	00:07:03	2_0004.jpeg

Scale 1:1810

Photos

Project Name
Sequim

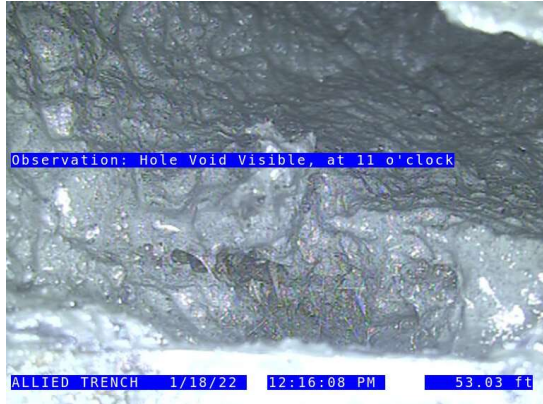
Printed on
1/20/2022

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Pipe Segment Reference
2

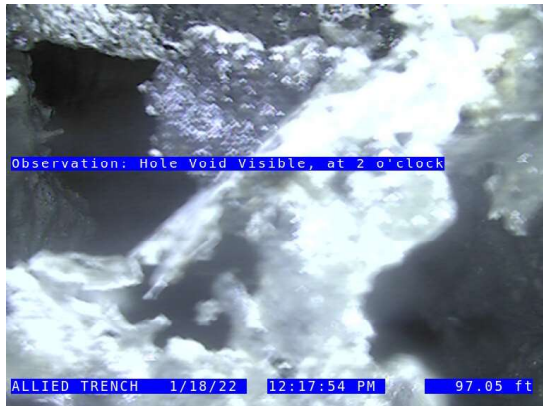
City
sequim

Street
E Belfield



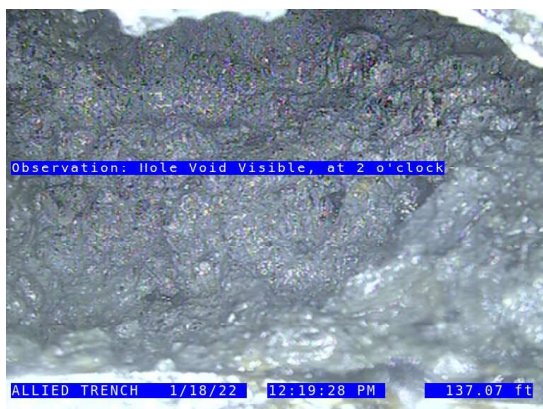
Observation: Hole Void Visible, at 11 o'clock

File name: **2_0001.jpeg**
Inspection date and time: **18/01/2022 10:48**
Position: **53.03 ft**
Code: **HVV**
Hole Void Visible, at 11 o'clock



Observation: Hole Void Visible, at 2 o'clock

File name: **2_0002.jpeg**
Inspection date and time: **18/01/2022 10:48**
Position: **97.05 ft**
Code: **HVV**
Hole Void Visible, at 2 o'clock



Observation: Hole Void Visible, at 2 o'clock

File name: **2_0003.jpeg**
Inspection date and time: **18/01/2022 10:48**
Position: **137.07 ft**
Code: **HVV**
Hole Void Visible, at 2 o'clock

Photos

Project Name
Sequim

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Pipe Segment Reference
2

City
sequim

Street
E Belfield



Observation: Broken Void Visible, at 12 o'clock

File name:

2_0004.jpeg

Inspection
date and time:

18/01/2022 10:48

Position:

196.97 ft

Code:

BVV

Broken Void Visible, at 12 o'clock

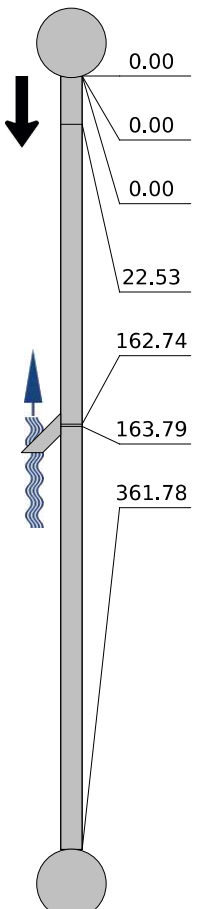
Section Inspection Report

Project Name
Sequim

Printed on
1/20/2022

NASSCO~PACP-7

Pipe Segment Reference 1	City sequim	Street E Belfield
Date 14/01/2022	Operator Logan Stanley	Pipe Use Sanitary Sewage Pipe
Upstream MH	Downstream MH	Height 8 inch
Total Length 361.784 ft	Length Surveyed 361.784 ft	Width
~~	Direction	Material Corrugated Metal Pipe
Shape Circular		Video name 1_0003.mp4

POSITION [ft]	DC	CODE	OBSERVATION	VIDEO	FOTO
		AMH	Manhole / Upstream	00:00:08	
		MWL	Water Level, 5% of the vertical dimension	00:00:15	1_0012.jpeg
		DSC	Deposits Settled Compacted, 5% of cross sectional area, at 5 o'clock	00:00:21	1_0013.jpeg
		HVV	Hole Void Visible, at 12 o'clock	00:02:11	1_0014.jpeg
		TBA	Tap Break-in Activity, at 3 o'clock , dia/ height: 4 inch	00:13:54	1_0015.jpeg
		HSV	Hole Soil Visible, at 12 o'clock	00:14:49	1_0016.jpeg
		AMH	Manhole / Downstream	00:29:28	1_0017.jpeg

Scale 1:3325

Photos

Project Name
Sequim

Printed on
1/20/2022

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Pipe Segment Reference
1

City
sequim

Street
E Belfield



File name: **1_0012.jpeg**
 Inspection date and time: **14/01/2022 10:54**
 Position: **0 ft**
 Code: **MWL**
Water Level, 5% of the vertical dimension



File name: **1_0013.jpeg**
 Inspection date and time: **14/01/2022 10:54**
 Position: **0 ft**
 Code: **DSC**
Deposits Settled Compacted, 5% of cross sectional area, at 5 o'clock



File name: **1_0014.jpeg**
 Inspection date and time: **14/01/2022 10:54**
 Position: **22.53 ft**
 Code: **HVV**
Hole Void Visible, at 12 o'clock

Photos

Project Name
Sequim

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1/20/2022

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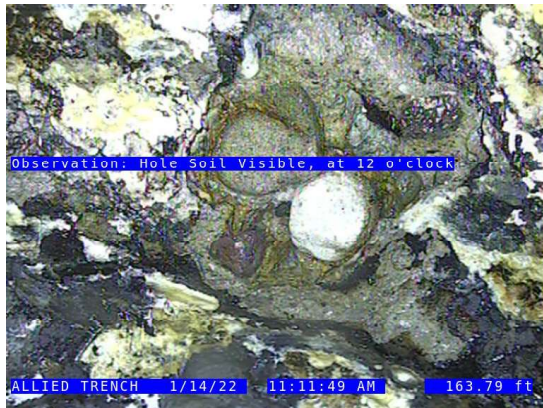
Pipe Segment Reference
1

City
sequim

Street
E Belfield



File name: **1_0015.jpeg**
 Inspection date and time: **14/01/2022 10:54**
 Position: **162.74 ft**
 Code: **TBA**
**Tap Break-in Activity, at 3 o'clock ,
dia/height: 4 inch**



File name: **1_0016.jpeg**
 Inspection date and time: **14/01/2022 10:54**
 Position: **163.79 ft**
 Code: **HSV**
Hole Soil Visible, at 12 o'clock



File name: **1_0017.jpeg**
 Inspection date and time: **14/01/2022 10:54**
 Position: **361.78 ft**
 Code: **AMH**
Manhole