



## Washington Post Infrastructure Intelligence Study

A Infrastructure Intelligence or Sanitary Sewer Evaluation Study (SSES) is a technological method of scoring piping defects within sewer infrastructure. This top down method incorporates: surveys, pipe inspections, and evaluation concepts into a turnkey, professional service delivering detailed, conditional assessments for any major collection system. Our analytical process digitally overlays pipe locations with each pipes' conditional data points to provide a concise, quantifiable survey - scored relative to the risk of the infrastructure failing. This information will prove to be an invaluable tool for assessing and planning both short and long-term infrastructure rehabilitation projects.

Defect Scoring Legend 1. Excellent: minor defects 2. Good: has not begun to deteriorate 3. Moderately poor: deterioration becoming evident with maintenance required in near future 4. Very poor: will become Grade 5 in the near future 5. Immediate attention required: structural failure is imminent or has occurred. NOTE: SOME INSPECTIONS TERMINATED DUE TO CONSTRUCTIONAL, OPERATIONAL, AND/OR MAINTENANCE DEFECTS.

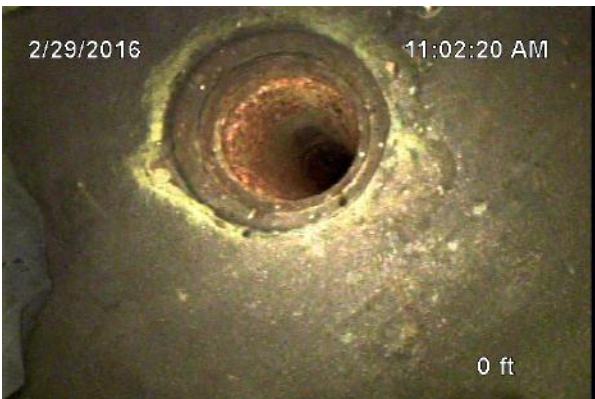
## CLEANOUT A-B

Pipe Material & Diameter: 4" Cast Iron

Length of Inspection: 46'

Direction of Inspection: Downstream

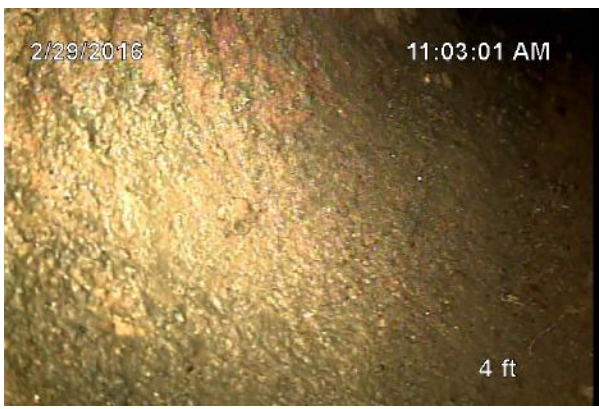
Defect Grade Score: (5) Immediate attention needed.



2/29/2016 11:02:20 AM

0 ft

Access cleanout A. Start inspection.



2/29/2016 11:03:01 AM  
90 degree bend

4 ft



2/29/2016 11:03:15 AM  
CL - Linear crack

5 ft



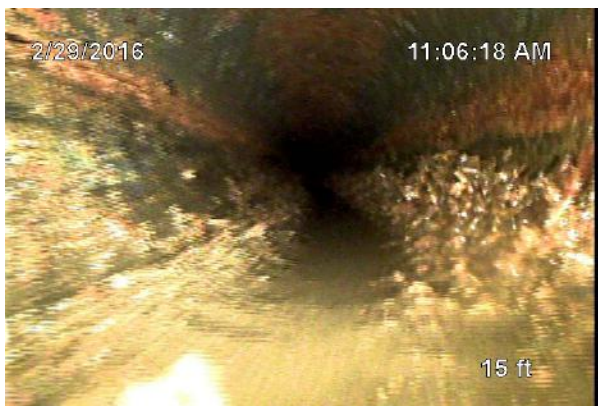
2/29/2016 11:03:29 AM  
Debris

7 ft



2/29/2016 11:05:53 AM  
CL - Linear crack

9 ft



2/29/2016 11:06:19 AM

15 ft

SCP - surface corrosion and debris present - continuous.



2/29/2016 11:06:49 AM

20 ft

4" Connection 3 oclock.



2/29/2016 11:07:09 AM

23 ft

SCP - surface corrosion and debris present - end continuous.



2/29/2016 11:10:08 AM

37 ft

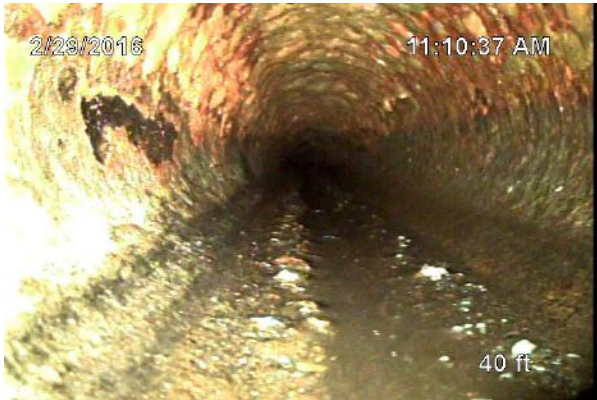
CL - Linear crack D-Debris





2/29/2016 11:10:26 AM  
D-Debris

39 ft



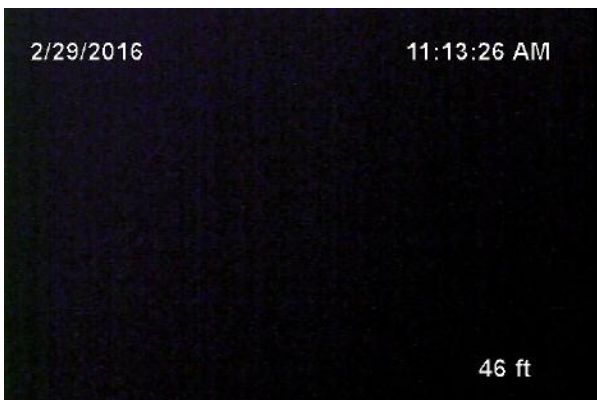
2/29/2016 11:10:37 AM  
SRI - surface roughness increasing

40 ft



2/29/2016 11:12:05 AM  
DNZ - deposits attached > 20% of pipe diameter.

41 ft



2/29/2016 11:13:26 AM  
End inspection. MSA - survey abandoned due to deposits attached and corrosion preventing further camera progress.

46 ft

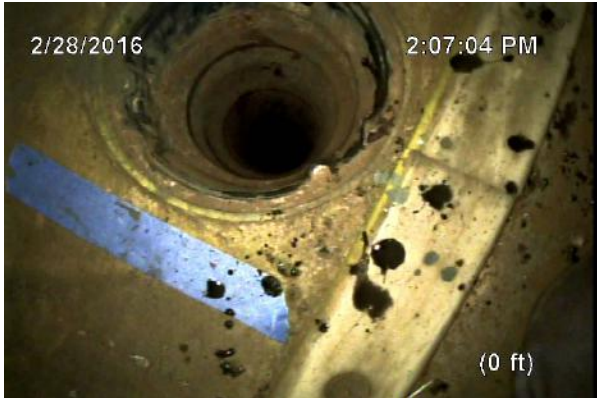
## CLEANOUT B-C

Pipe Material & Diameter: 6" Cast iron

Length of Inspection: 80'

Direction of Inspection: Downstream

Defect Grade Score: (4) Very Poor



2/28/2016 2:07:05 PM  
Access cleanout B. Start Inspection.

0 ft



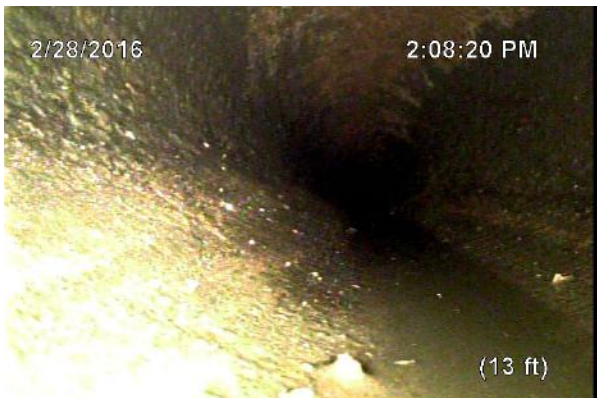
2/28/2016 2:07:42 PM  
Diameter transition from 4" to 6".

6 ft



2/28/2016 2:07:52 PM  
SCP - surface corrosion present - continuous. 4" Connection

7 ft



2/28/2016 2:08:21 PM  
SRI - surface roughness increasing

13 ft





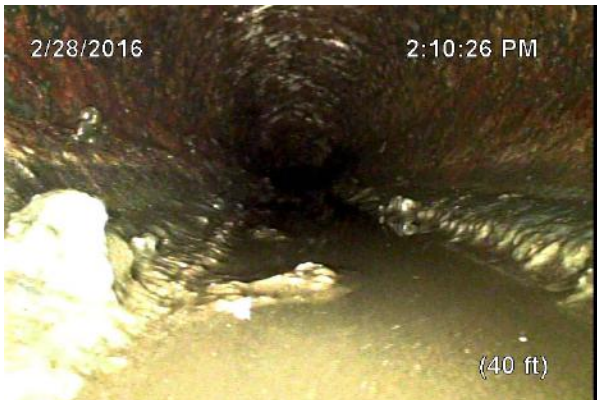
2/28/2016 2:09:06 PM  
4" Connection.

21 ft



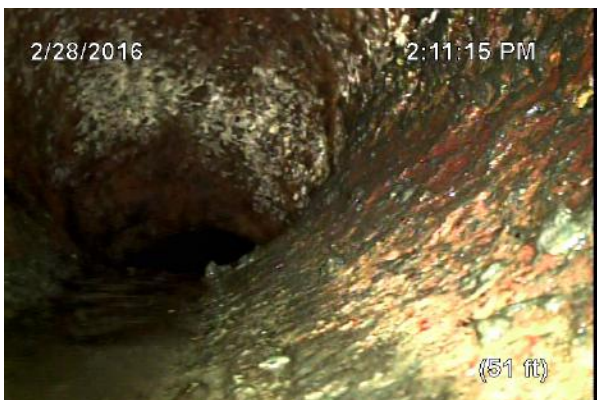
2/28/2016 2:10:07 PM  
Belly.

37 ft



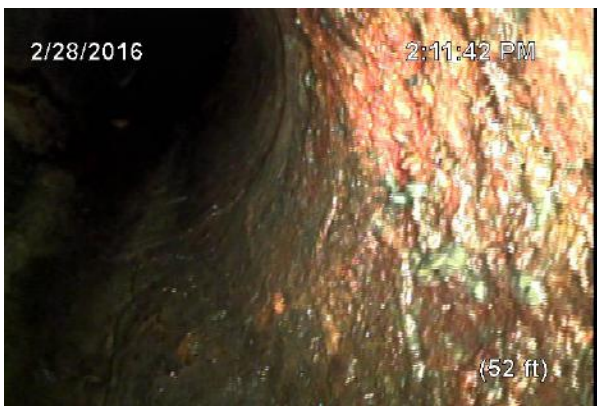
2/28/2016 2:10:26 PM  
DNZ - general observation of deposits attached.

40 ft



2/28/2016 2:11:16 PM  
45 degree bend

51 ft



2/28/2016 2:11:42 PM  
45 degree bend

52 ft



2/28/2016 2:12:05 PM  
4" connection

54 ft



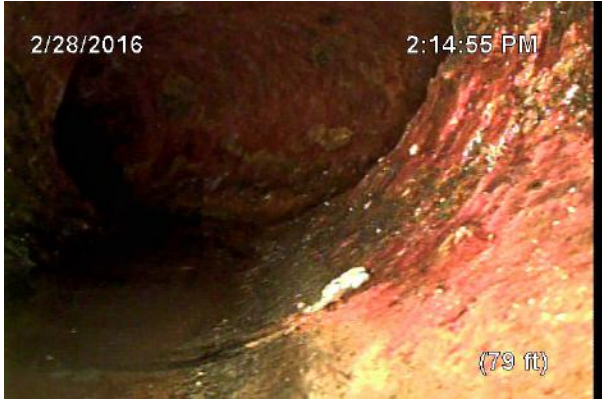
2/28/2016 2:13:38 PM  
CL - Linear crack

68 ft



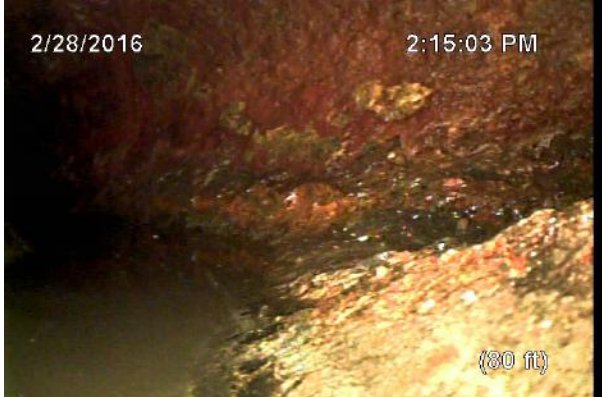
2/28/2016 2:14:26 PM  
SCP - surface corrosion present - end continuous.

74 ft



2/28/2016 2:14:56 PM  
Wye connection. Cleanout C.

79 ft



2/28/2016 2:15:04 PM  
AEP- End of pipe. End inspection

80 ft

# CLEANOUT C-D

Pipe Material & Diameter: 6" Cast Iron

Length of Inspection: 120'

Direction of Inspection: Downstream

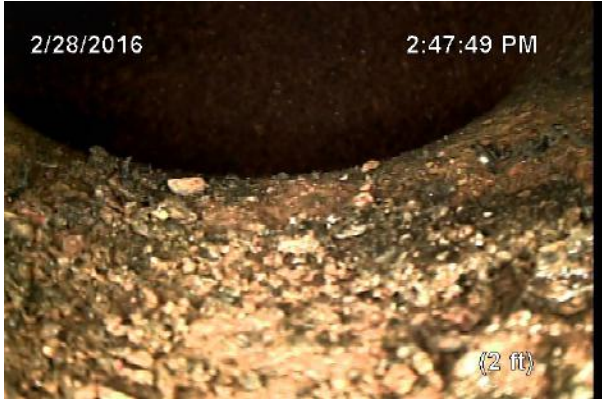
Defect Grade Score:(4) Very Poor. .



2/28/2016 2:47:37 PM  
Access Cleanout C. Start Inspection

0 ft





2/28/2016 2:47:50 PM  
90 degree bend

2 ft



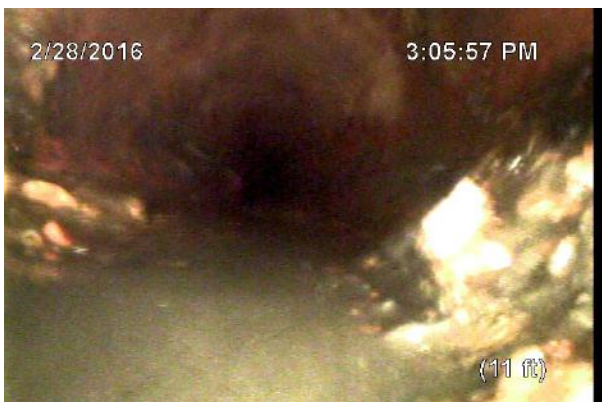
2/28/2016 2:47:58 PM  
6" Vertical.

4 ft



2/28/2016 2:49:23 PM  
90 degree bend-turns horizontal.

10 ft



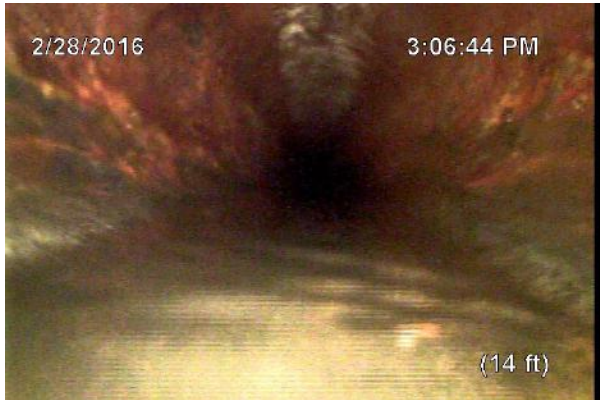
2/28/2016 3:05:57 PM  
4" connection

11 ft



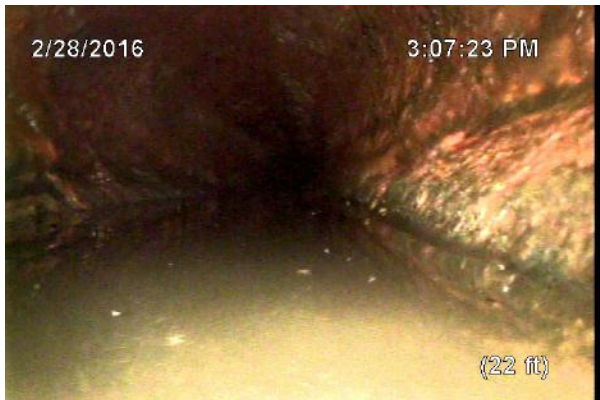
2/28/2016 3:06:08 PM  
Belly.

11 ft



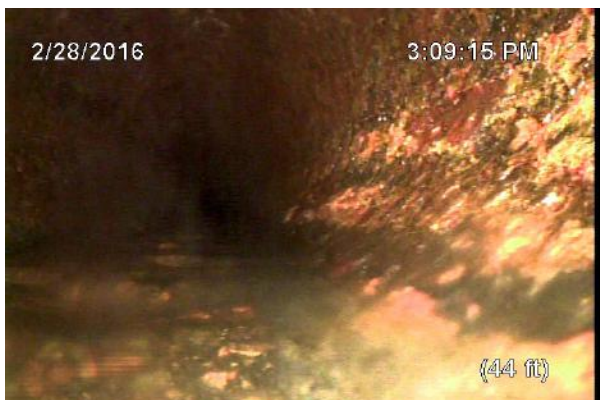
2/28/2016 3:06:44 PM  
4" connection

14 ft



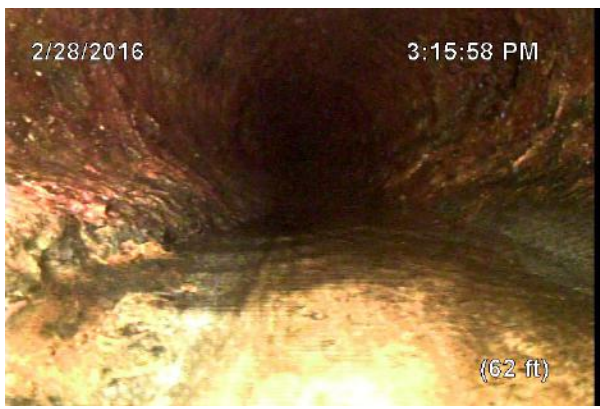
2/28/2016 3:07:24 PM  
4" connection

22 ft



2/28/2016 3:09:15 PM  
D-Debris

44 ft



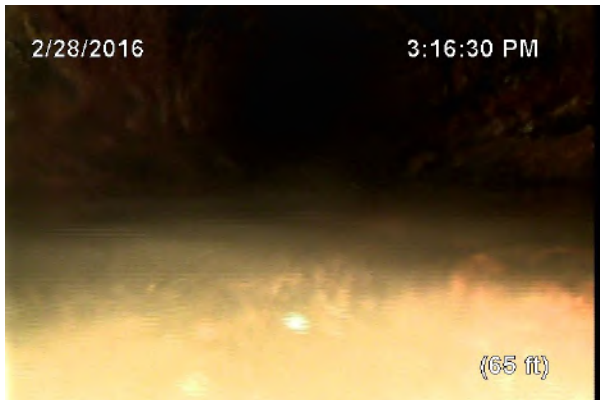
2/28/2016 3:15:59 PM  
4" connection

62 ft



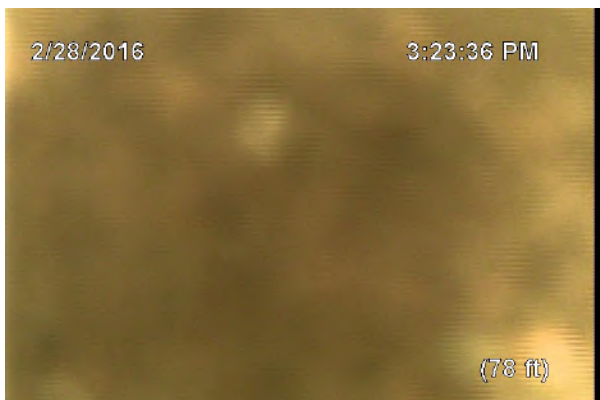
2/28/2016 3:16:06 PM  
4" connection

62 ft



2/28/2016 3:16:31 PM  
Belly.

65 ft



2/28/2016 3:23:36 PM  
Belly

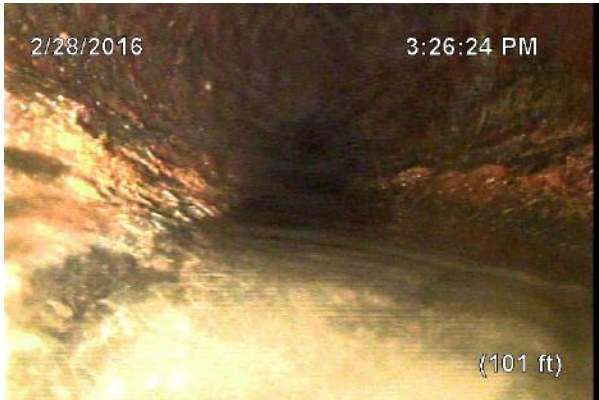
78 ft





2/28/2016 3:25:40 PM  
Belly

94 ft



2/28/2016 3:26:25 PM  
SCPD - surface corrosion and debris present

101 ft



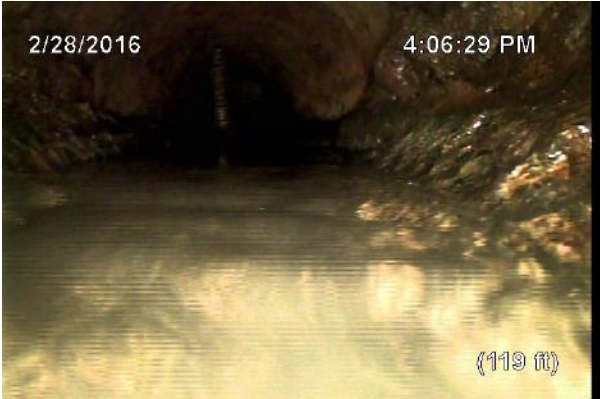
2/28/2016 3:27:27 PM  
4" connection @ 12 o'clock

104 ft



2/28/2016 3:34:00 PM  
Belly.

119 ft



2/28/2016 4:06:30 PM  
Connection 4" @12 o'clock. Clean out D

119 ft



2/28/2016 4:06:51 PM  
End Inspection at cleanout D.

120 ft

# Cleanout D-E

Pipe Material & Diameter: 6"-8" Cast Iron

Length of Inspection

Direction of Inspection: Downstream

Defect Grade Score: (4) Very Poor.



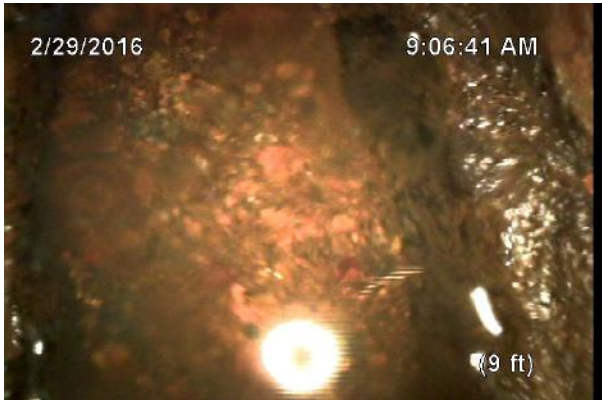
2/28/2016 4:48:20 PM  
Access Cleanout D. Start inspection.

0 ft



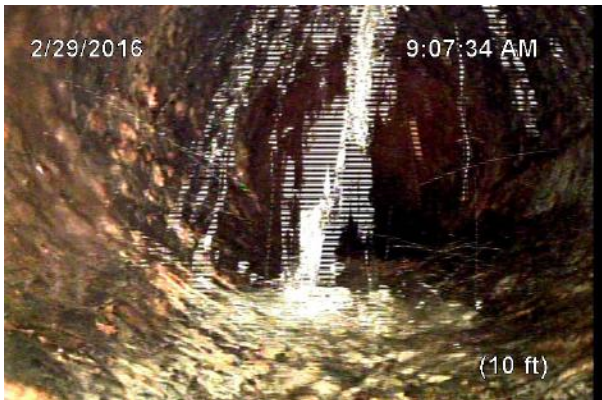
2/28/2016 4:48:37 PM  
Obstruction-Wood 1"x3' long.

5 ft



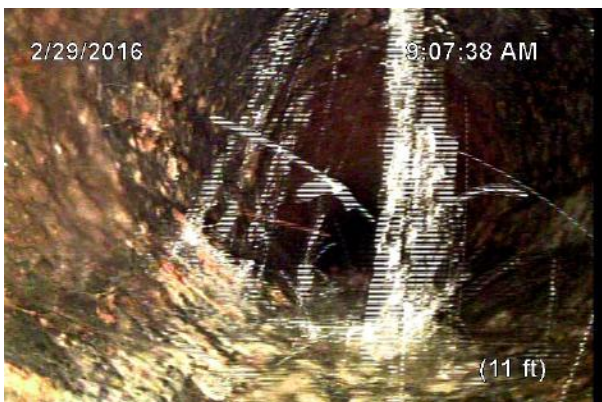
2/29/2016 9:06:42 AM  
Wye connection

9 ft



2/29/2016 9:07:35 AM  
Diameter transition from 6" to 8".

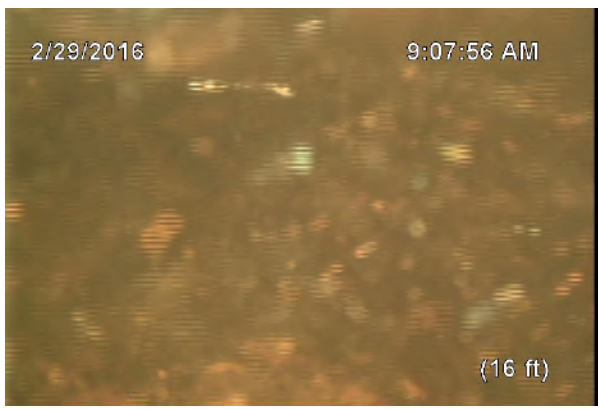
10 ft



2/29/2016 9:07:39 AM  
6" Connection 12 o'clock

11 ft





2/29/2016 9:07:57 AM  
B-belly continuous start

16 ft



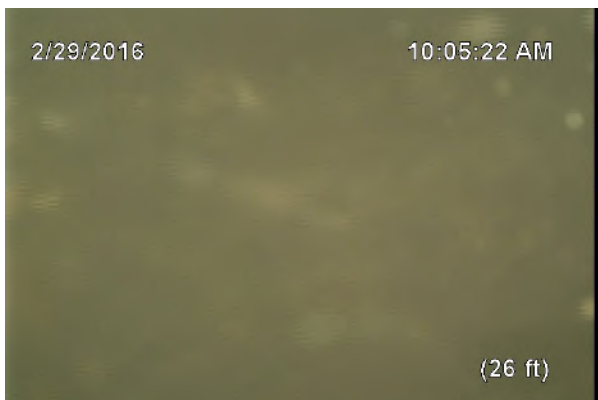
2/29/2016 9:08:07 AM  
B-belly continuous end

22 ft



2/29/2016 9:08:16 AM  
SRI - surface roughness increasing

23 ft



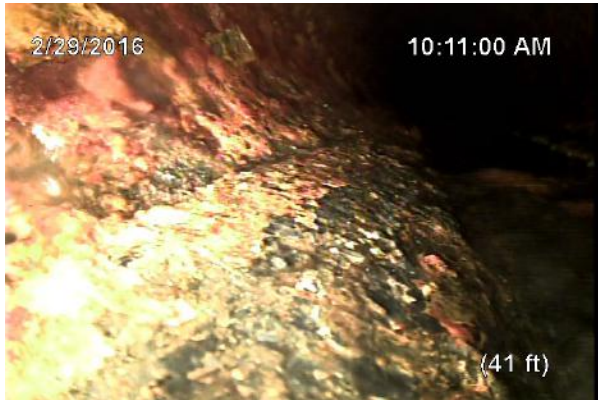
2/29/2016 10:05:23 AM  
Camera underwater.

26 ft



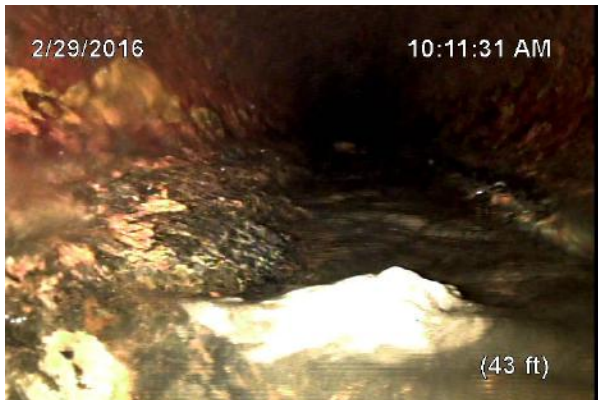
2/29/2016 10:06:27 AM  
DAR - attached ragging

35 ft



2/29/2016 10:11:00 AM  
BC- bottom channeling

41 ft



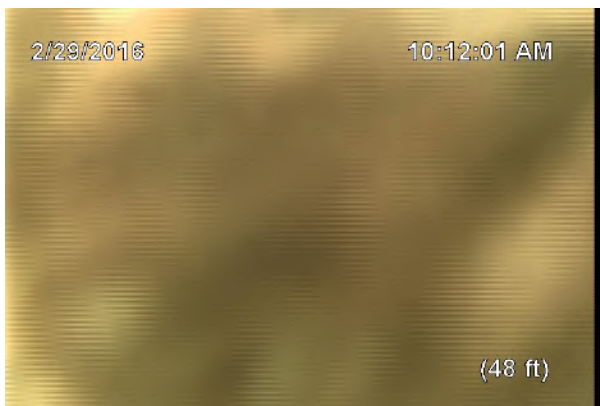
2/29/2016 10:11:31 AM  
DAR - attached ragging

43 ft



2/29/2016 10:11:44 AM  
D-Debris

45 ft



2/29/2016 10:12:02 AM  
Camera underwater

48 ft



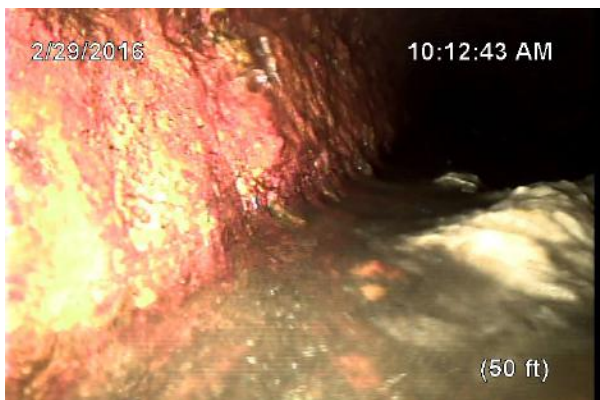
2/29/2016 10:12:17 AM  
D-Debris

48 ft



2/29/2016 10:12:36 AM  
DAR - attached ragging

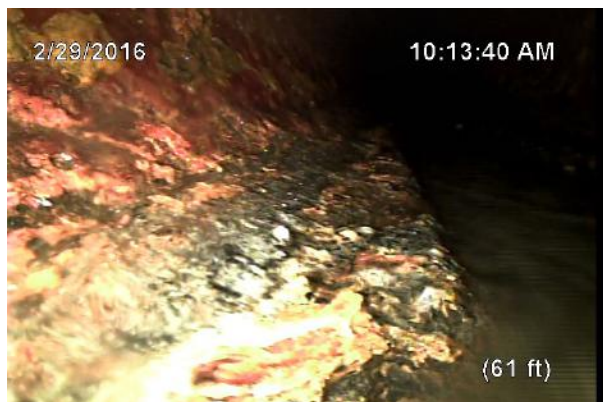
51 ft



2/29/2016 10:12:44 AM  
DAR - attached ragging

50 ft





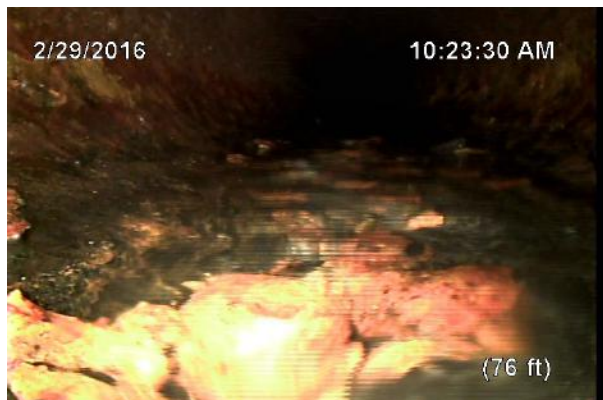
2/29/2016 10:13:40 AM  
BC- bottom channeling

61 ft



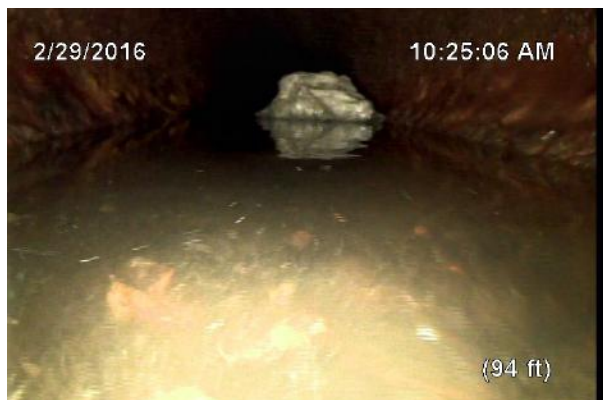
2/29/2016 10:23:07 AM  
BC- bottom channeling

71 ft



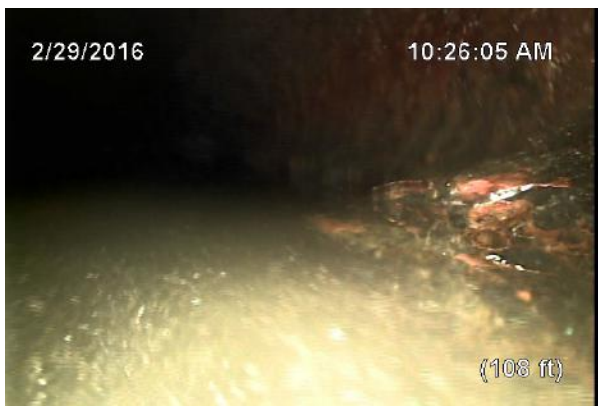
2/29/2016 10:23:31 AM  
D-Debris

76 ft



2/29/2016 10:25:07 AM  
DAR - attached ragging

94 ft



2/29/2016 10:26:06 AM  
BC- bottom channeling

108 ft



2/29/2016 10:26:13 AM  
Belly Camera underwater

110 ft



2/29/2016 10:27:02 AM  
Connection-Cleanout E. 12 o'clock. End continuous surface roughness.  
End inspection.

111 ft