

RedZone  
ROBOTICS

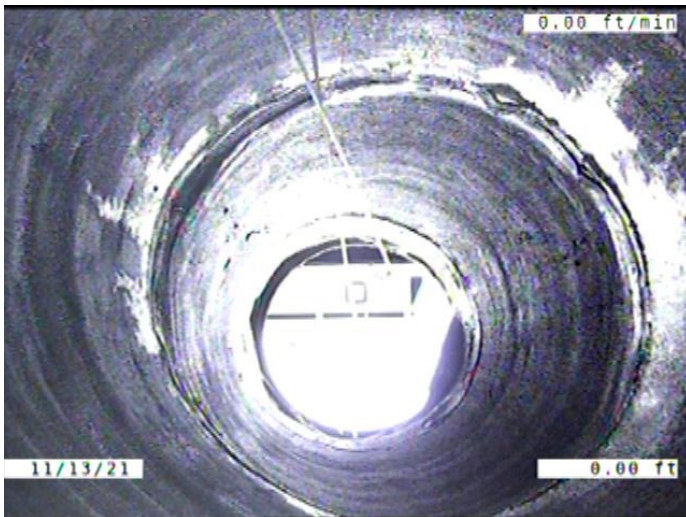
Street:	Beverly Boulevard		Flow Control:	Not Controlled	
City:	City of Hobart		Year Renewed:		
Location:	Local rural streets with light traffic, t		Tape/Media #:		
Purpose:	Routine Assessment		Dia/Height:	12"	
Use:	Sanitary Sewage Pipe		Material:	CP	
Drain Area:			Lining:	None	
Category:	NA				
Comment:					
Location Details:			Direction of Survey:	Downstream	
US MH:	M-604-006	DS MH:	M-605-067	Total Length Surveyed (ft):	238.5

O&M Index:	<b>2.06</b>	O&M Quick:	<b>4133</b>	O&M Rating:	<b>33.00</b>
Structural Index:	<b>2.75</b>	Structural Quick:	<b>4731</b>	Structural Rating:	<b>55.00</b>
Overall Index:	<b>2.44</b>	Overall Quick:	<b>4834</b>	Overall Rating:	<b>88.00</b>

Position	Code	Observation	Video (sec)	Grade
<b>M-604-006</b>				
.0	AMH	Manhole	1	NA
.0	MWL	Miscellaneous Water Level	68	NA
12.5	ISGT	Intruding Sealing Material Grout	187	M 2
39.6	MWLS(S01)	Miscellaneous Water Level Sag	281	S 2
45.0	DAE	Deposits Attached Encrustation	335	M 2
45.2	CL	Crack Longitudinal	353	S 2
47.5	TF	Tap Factory	395	NA
48.2	TB	Tap Break-in/Hammer	454	NA
57.4	MWLS(F01)	Miscellaneous Water Level Sag	498	S 2
57.9	ISGT	Intruding Sealing Material Grout	540	M 2
73.5	MWLS(S02)	Miscellaneous Water Level Sag	608	S 2
82.0	MWLS(F02)	Miscellaneous Water Level Sag	643	S 2
99.6	TFC	Tap Factory Capped	710	NA
102.6	TF	Tap Factory	746	NA
129.9	MWLS(S03)	Miscellaneous Water Level Sag	841	S 2
132.0	FM(S04)	Fracture Multiple	897	S 4
142.9	TBA	Tap Break-in Activity	1048	NA
143.7	RFJ	Roots Fine Joint	1084	M 1
144.4	RFC	Roots Fine Connection	1130	M 1

144.5	TB	Tap Break-in/Hammer	1144	NA
148.4	TFC	Tap Factory Capped	1197	NA
148.4	MWLS(F03)	Miscellaneous Water Level Sag	1212	S 2
152.9	DAE	Deposits Attached Encrustation	1282	M 2
166.7	FM(F04)	Fracture Multiple	1402	S 4
177.0	MWLS	Miscellaneous Water Level Sag	1456	S 2
183.3	RFJ	Roots Fine Joint	1841	M 1
183.8	MCU	Miscellaneous Camera Underwater	1546	M 4
183.8	MWL	Miscellaneous Water Level	1554	NA
187.0	RML	Roots Medium Lateral	1646	M 3
187.8	TFD	Tap Factory Defective	1618	M 3
187.8	MGP	Miscellaneous General Photograph	1951	NA
190.3	RTL	Roots Tap Lateral	1721	M 2
190.8	TFD	Tap Factory Defective	1758	M 3
190.8	MGP	Miscellaneous General Photograph	2037	NA
198.6	RFJ	Roots Fine Joint	2128	M 1
204.8	DAE	Deposits Attached Encrustation	2202	M 2
210.9	DAE	Deposits Attached Encrustation	2285	M 2
217.1	DAE	Deposits Attached Encrustation	2392	M 2
217.1	FL	Fracture Longitudinal	2408	S 3
226.7	MWL	Miscellaneous Water Level	2484	NA
238.5	AMH	Manhole	2636	NA

**M-605-067**



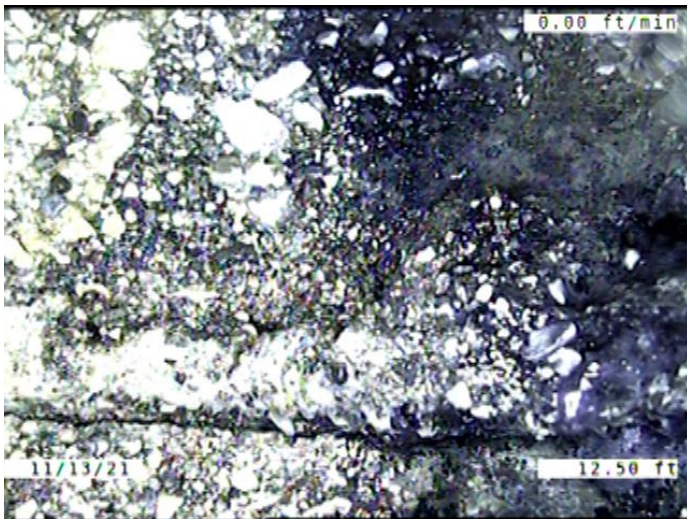
Code: **AMH**  
Description: **Manhole**

Distance (ft): **.0**  
Structural Grade: **0**  
O&M Grade: **0**  
Clock Start/From:  
Clock To:  
1st Value:  
2nd Value:  
Value Percent:  
Continuous Index:  
Within 8" of Joint: **NO**  
Remarks: **M-604-006**



Code: **MWL**  
 Description: **Miscellaneous Water Level**

Distance (ft): **.0**  
 Structural Grade: **0**  
 O&M Grade: **0**  
 Clock Start/From:  
 Clock To:  
 1st Value:  
 2nd Value:  
 Value Percent: **5.000**  
 Continuous Index:  
 Within 8" of Joint: **NO**  
 Remarks:



Code: **ISGT**  
 Description: **Intruding Sealing Material Grout**

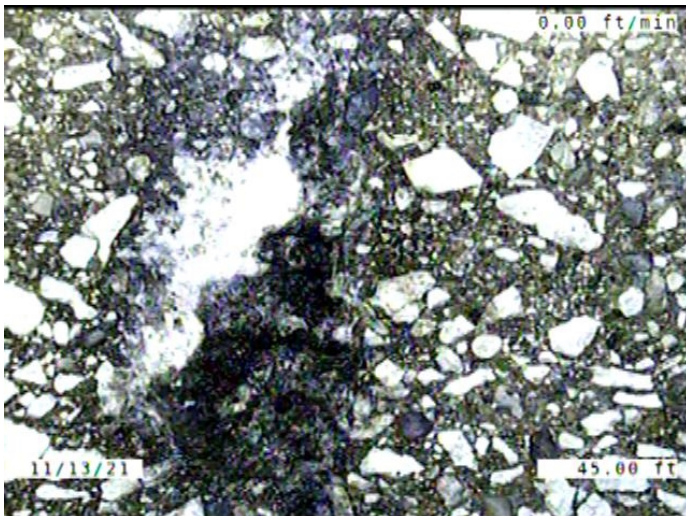
Distance (ft): **12.5**  
 Structural Grade: **0**  
 O&M Grade: **2**  
 Clock Start/From: **5**  
 Clock To: **8**  
 1st Value:  
 2nd Value:  
 Value Percent: **5.000**  
 Continuous Index:  
 Within 8" of Joint: **NO**  
 Remarks:





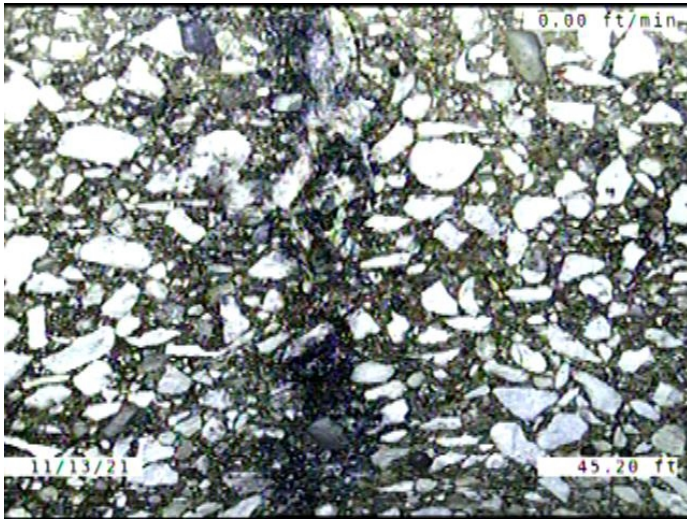
Code: **MWLS**  
 Description: **Miscellaneous Water Level Sag**

Distance (ft): **39.6**  
 Structural Grade: **2**  
 O&M Grade: **0**  
 Clock Start/From:  
 Clock To:  
 1st Value:  
 2nd Value:  
 Value Percent: **15.000**  
 Continuous Index: **S01**  
 Within 8" of Joint: **NO**  
 Remarks:



Code: **DAE**  
 Description: **Deposits Attached Encrustation**

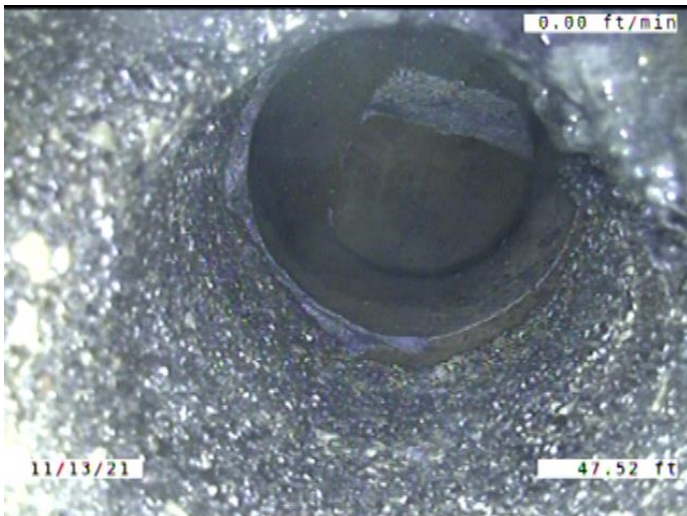
Distance (ft): **45.0**  
 Structural Grade: **0**  
 O&M Grade: **2**  
 Clock Start/From: **10**  
 Clock To:  
 1st Value:  
 2nd Value:  
 Value Percent: **5.000**  
 Continuous Index:  
 Within 8" of Joint: **NO**  
 Remarks:



Code: **CL**  
Description: **Crack Longitudinal**

Distance (ft): **45.2**  
Structural Grade: **2**  
O&M Grade: **0**  
Clock Start/From: **10**  
Clock To:  
1st Value:  
2nd Value:  
Value Percent:  
Continuous Index:  
Within 8" of Joint: **NO**  
Remarks:

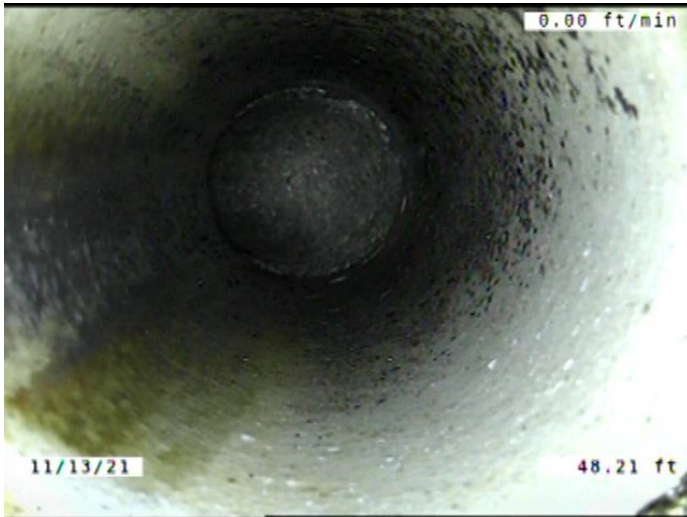
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Code: **TF**  
Description: **Tap Factory**

Distance (ft): **47.5**  
Structural Grade: **0**  
O&M Grade: **0**  
Clock Start/From: **1**  
Clock To:  
1st Value: **6.000**  
2nd Value:  
Value Percent:  
Continuous Index:  
Within 8" of Joint: **YES**  
Remarks: **CONSTANTLY RUNNING WATER.**

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Code: **TB**  
Description: **Tap Break-in/Hammer**

Distance (ft): **48.2**  
Structural Grade: **0**  
O&M Grade: **0**  
Clock Start/From: **11**  
Clock To:  
1st Value: **6.000**  
2nd Value:  
Value Percent:  
Continuous Index:  
Within 8" of Joint: **YES**  
Remarks:

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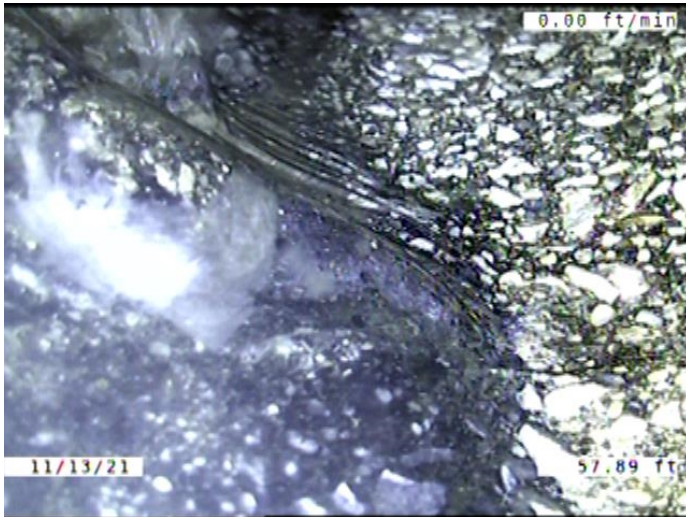


Code: **MWLS**  
Description: **Miscellaneous Water Level Sag**

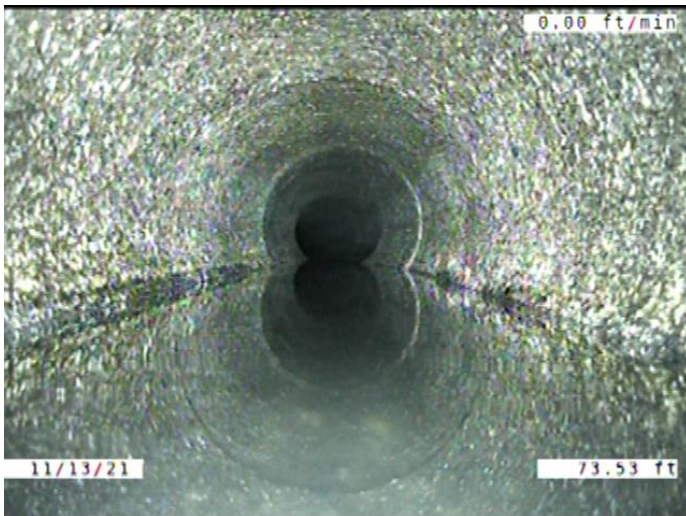
Distance (ft): **57.4**  
Structural Grade: **2**  
O&M Grade: **0**  
Clock Start/From:  
Clock To:  
1st Value:  
2nd Value:  
Value Percent: **15.000**  
Continuous Index: **F01**  
Within 8" of Joint: **NO**  
Remarks:

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Code:	<b>ISGT</b>
Description:	<b>Intruding Sealing Material Grout</b>
Distance (ft):	<b>57.9</b>
Structural Grade:	<b>0</b>
O&M Grade:	<b>2</b>
Clock Start/From:	<b>5</b>
Clock To:	<b>7</b>
1st Value:	
2nd Value:	
Value Percent:	<b>10.000</b>
Continuous Index:	
Within 8" of Joint:	<b>NO</b>
Remarks:	



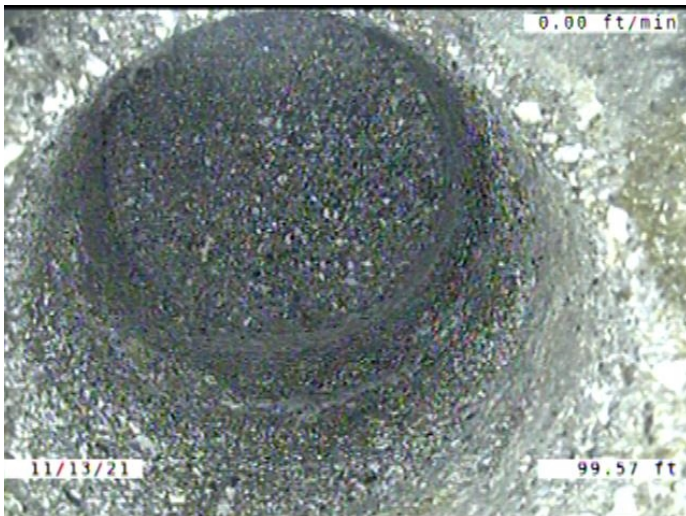
Code:	<b>MWLS</b>
Description:	<b>Miscellaneous Water Level Sag</b>
Distance (ft):	<b>73.5</b>
Structural Grade:	<b>2</b>
O&M Grade:	<b>0</b>
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	<b>10.000</b>
Continuous Index:	<b>S02</b>
Within 8" of Joint:	<b>NO</b>
Remarks:	



Code: **MWLS**  
Description: **Miscellaneous Water Level Sag**

Distance (ft): **82.0**  
Structural Grade: **2**  
O&M Grade: **0**  
Clock Start/From:  
Clock To:  
1st Value:  
2nd Value:  
Value Percent: **10.000**  
Continuous Index: **F02**  
Within 8" of Joint: **NO**  
Remarks:

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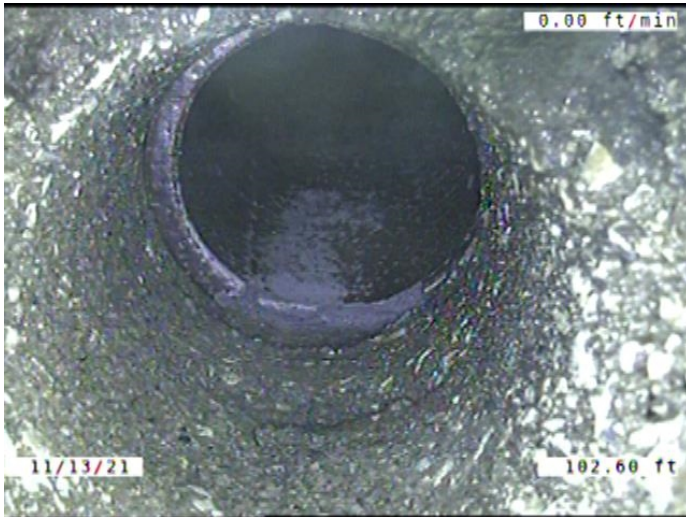


Code: **TFC**  
Description: **Tap Factory Capped**

Distance (ft): **99.6**  
Structural Grade: **0**  
O&M Grade: **0**  
Clock Start/From: **11**  
Clock To:  
1st Value: **6.000**  
2nd Value:  
Value Percent:  
Continuous Index:  
Within 8" of Joint: **YES**  
Remarks: **TAP CRACKED**

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Code: **TF**  
Description: **Tap Factory**

Distance (ft): **102.6**  
Structural Grade: **0**  
O&M Grade: **0**  
Clock Start/From: **1**  
Clock To:  
1st Value: **6.000**  
2nd Value:  
Value Percent:  
Continuous Index:  
Within 8" of Joint: **YES**  
Remarks:

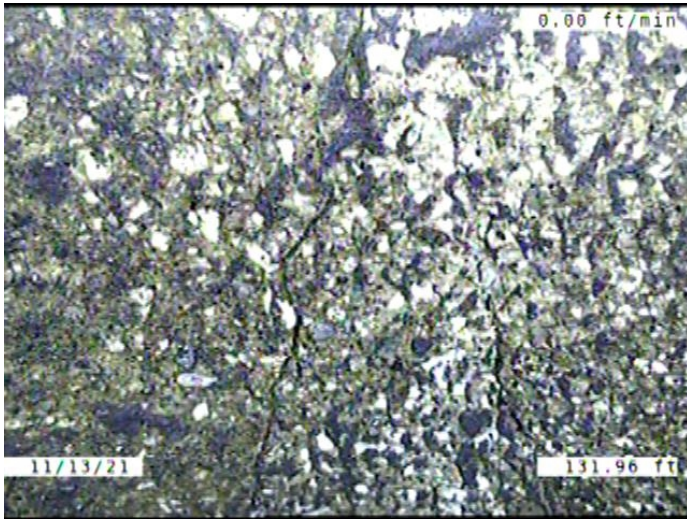
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Code: **MWLS**  
Description: **Miscellaneous Water Level Sag**

Distance (ft): **129.9**  
Structural Grade: **2**  
O&M Grade: **0**  
Clock Start/From:  
Clock To:  
1st Value:  
2nd Value:  
Value Percent: **15.000**  
Continuous Index: **S03**  
Within 8" of Joint: **NO**  
Remarks:

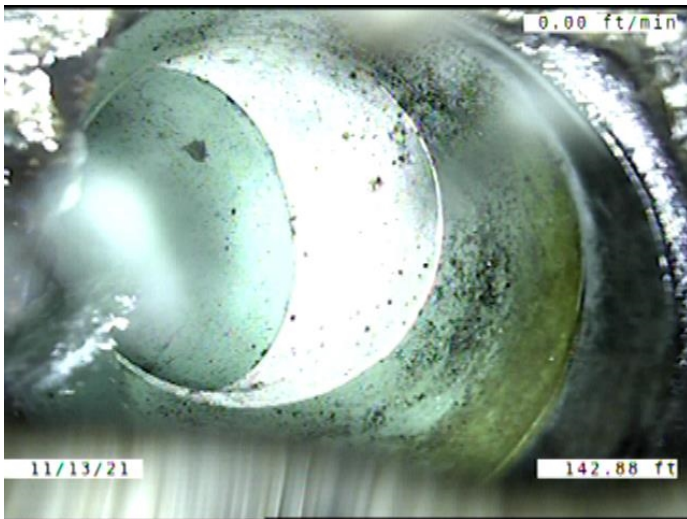
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Code: **FM**  
Description: **Fracture Multiple**

Distance (ft): **132.0**  
Structural Grade: **4**  
O&M Grade: **0**  
Clock Start/From: **10**  
Clock To: **3**  
1st Value:  
2nd Value:  
Value Percent:  
Continuous Index: **S04**  
Within 8" of Joint: **YES**  
Remarks:

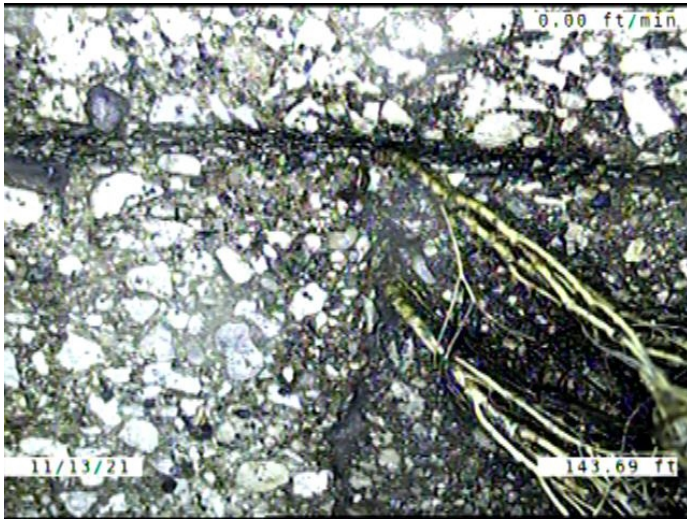
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Code: **TBA**  
Description: **Tap Break-in Activity**

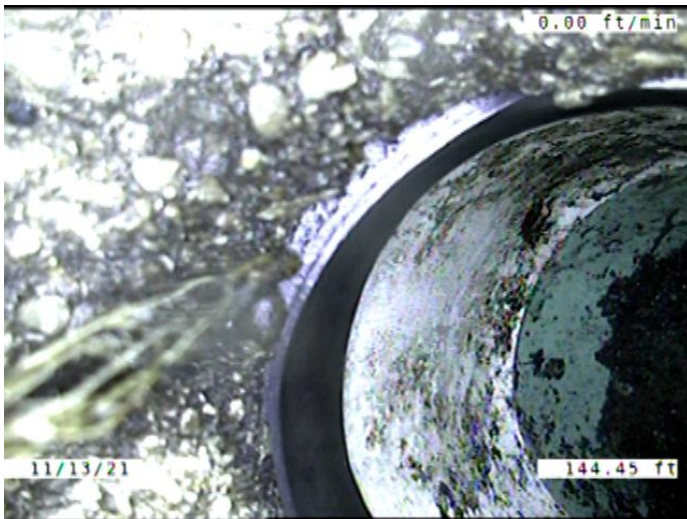
Distance (ft): **142.9**  
Structural Grade: **0**  
O&M Grade: **0**  
Clock Start/From: **12**  
Clock To:  
1st Value: **4.000**  
2nd Value:  
Value Percent:  
Continuous Index:  
Within 8" of Joint: **NO**  
Remarks: **CONSTANTLY RUNNING WATER.**

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Code: **RFJ**  
 Description: **Roots Fine Joint**

Distance (ft): **143.7**  
 Structural Grade: **0**  
 O&M Grade: **1**  
 Clock Start/From: **1**  
 Clock To: **2**  
 1st Value:  
 2nd Value:  
 Value Percent:  
 Continuous Index:  
 Within 8" of Joint: **YES**  
 Remarks:



Code: **RFC**  
 Description: **Roots Fine Connection**

Distance (ft): **144.4**  
 Structural Grade: **0**  
 O&M Grade: **1**  
 Clock Start/From: **11**  
 Clock To: **12**  
 1st Value:  
 2nd Value:  
 Value Percent:  
 Continuous Index:  
 Within 8" of Joint: **NO**  
 Remarks:

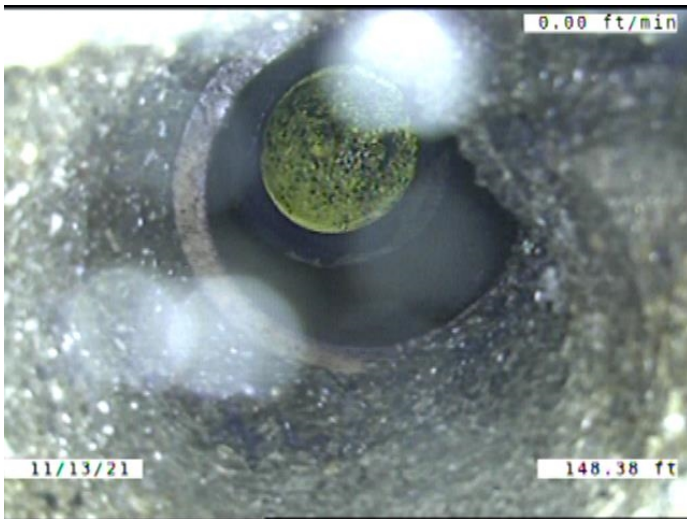




Code: **TB**  
Description: **Tap Break-in/Hammer**

Distance (ft): **144.5**  
Structural Grade: **0**  
O&M Grade: **0**  
Clock Start/From: **12**  
Clock To:  
1st Value: **4.000**  
2nd Value:  
Value Percent:  
Continuous Index:  
Within 8" of Joint: **NO**  
Remarks:

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Code: **TFC**  
Description: **Tap Factory Capped**

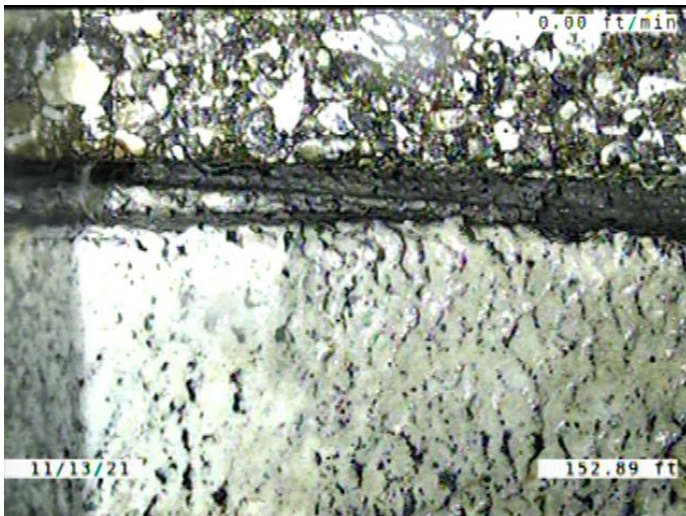
Distance (ft): **148.4**  
Structural Grade: **0**  
O&M Grade: **0**  
Clock Start/From: **1**  
Clock To:  
1st Value: **6.000**  
2nd Value:  
Value Percent:  
Continuous Index:  
Within 8" of Joint: **YES**  
Remarks:

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Code: **MWLS**  
 Description: **Miscellaneous Water Level Sag**

Distance (ft): **148.4**  
 Structural Grade: **2**  
 O&M Grade: **0**  
 Clock Start/From:  
 Clock To:  
 1st Value:  
 2nd Value:  
 Value Percent: **15.000**  
 Continuous Index: **F03**  
 Within 8" of Joint: **NO**  
 Remarks:



Code: **DAE**  
 Description: **Deposits Attached Encrustation**

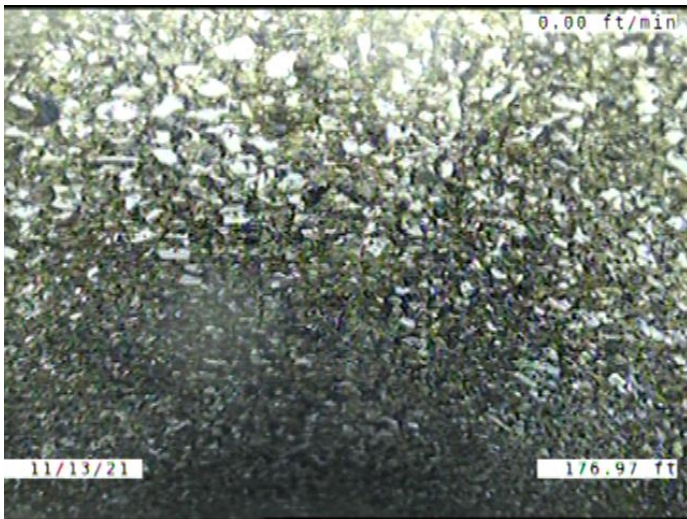
Distance (ft): **152.9**  
 Structural Grade: **0**  
 O&M Grade: **2**  
 Clock Start/From: **9**  
 Clock To: **3**  
 1st Value:  
 2nd Value:  
 Value Percent: **5.000**  
 Continuous Index:  
 Within 8" of Joint: **YES**  
 Remarks:



Code: **FM**  
Description: **Fracture Multiple**

Distance (ft): **166.7**  
Structural Grade: **4**  
O&M Grade: **0**  
Clock Start/From: **10**  
Clock To: **3**  
1st Value:  
2nd Value:  
Value Percent:  
Continuous Index: **F04**  
Within 8" of Joint: **YES**  
Remarks:

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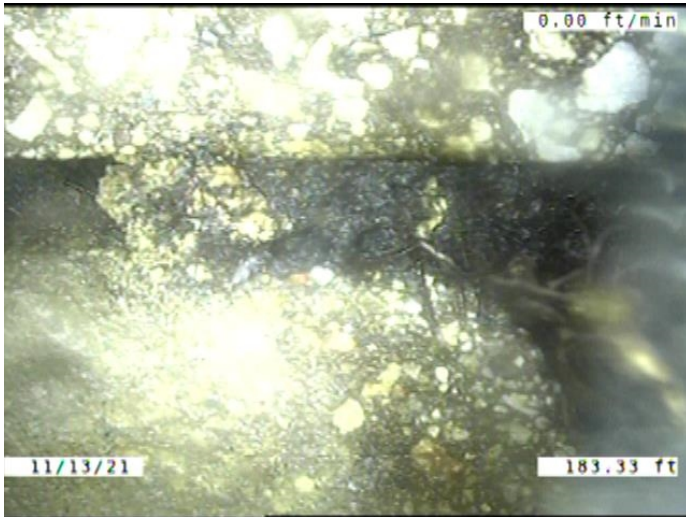


Code: **MWLS**  
Description: **Miscellaneous Water Level Sag**

Distance (ft): **177.0**  
Structural Grade: **2**  
O&M Grade: **0**  
Clock Start/From:  
Clock To:  
1st Value:  
2nd Value:  
Value Percent: **15.000**  
Continuous Index:  
Within 8" of Joint: **NO**  
Remarks:

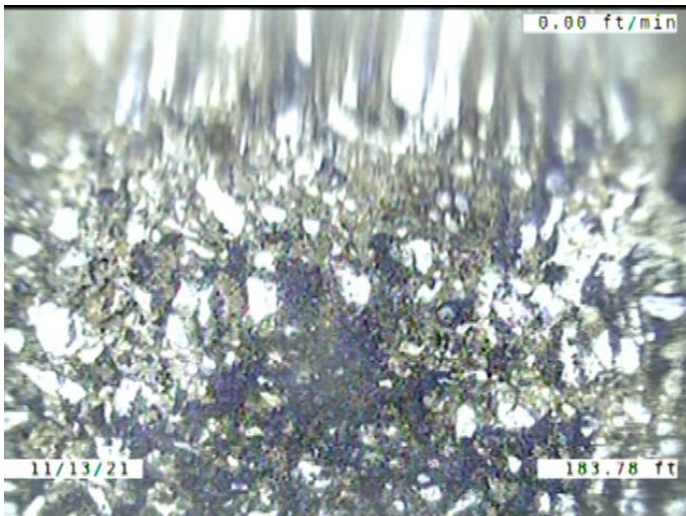
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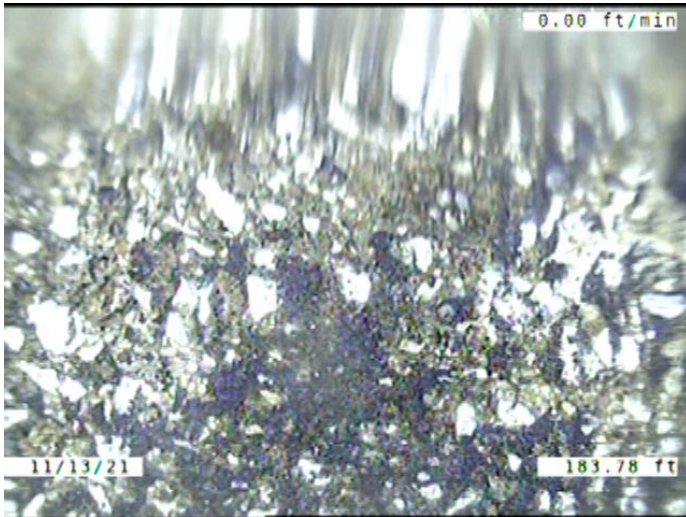
Code: **RFJ**  
Description: **Roots Fine Joint**

Distance (ft): **183.3**  
Structural Grade: **0**  
O&M Grade: **1**  
Clock Start/From: **9**  
Clock To: **3**  
1st Value:  
2nd Value:  
Value Percent:  
Continuous Index:  
Within 8" of Joint: **YES**  
Remarks:



Code: **MCU**  
Description: **Miscellaneous Camera Underwater**

Distance (ft): **183.8**  
Structural Grade: **0**  
O&M Grade: **4**  
Clock Start/From:  
Clock To:  
1st Value:  
2nd Value:  
Value Percent:  
Continuous Index:  
Within 8" of Joint: **NO**  
Remarks: **Out at 186.7**



Code: **MWL**  
 Description: **Miscellaneous Water Level**

Distance (ft): **183.8**  
 Structural Grade: **0**  
 O&M Grade: **0**  
 Clock Start/From:  
 Clock To:  
 1st Value:  
 2nd Value:  
 Value Percent: **35.000**  
 Continuous Index:  
 Within 8" of Joint: **NO**  
 Remarks:



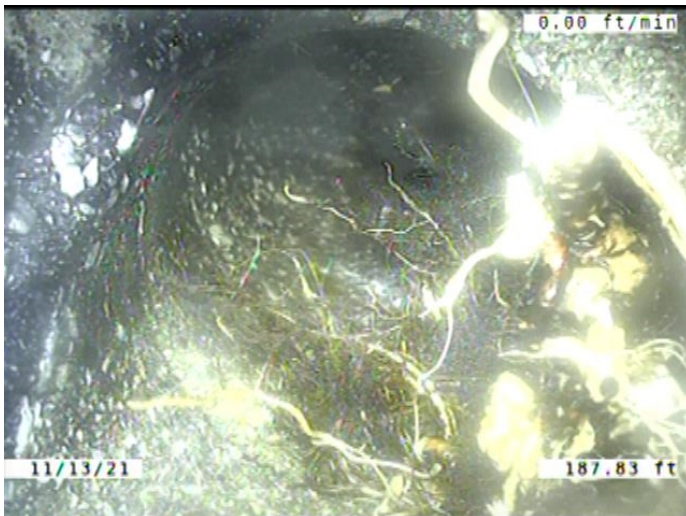
Code: **RML**  
 Description: **Roots Medium Lateral**

Distance (ft): **187.0**  
 Structural Grade: **0**  
 O&M Grade: **3**  
 Clock Start/From: **10**  
 Clock To: **3**  
 1st Value:  
 2nd Value:  
 Value Percent: **40.000**  
 Continuous Index:  
 Within 8" of Joint: **NO**  
 Remarks:



Code: **TFD**  
 Description: **Tap Factory Defective**

Distance (ft): **187.8**  
 Structural Grade: **0**  
 O&M Grade: **3**  
 Clock Start/From: **11**  
 Clock To:  
 1st Value: **6.000**  
 2nd Value:  
 Value Percent:  
 Continuous Index:  
 Within 8" of Joint: **YES**  
 Remarks: **ROOTS GROWING OUT OF THE TAP INTO THE MAIN.**



Code: **MGP**  
 Description: **Miscellaneous General Photograph**

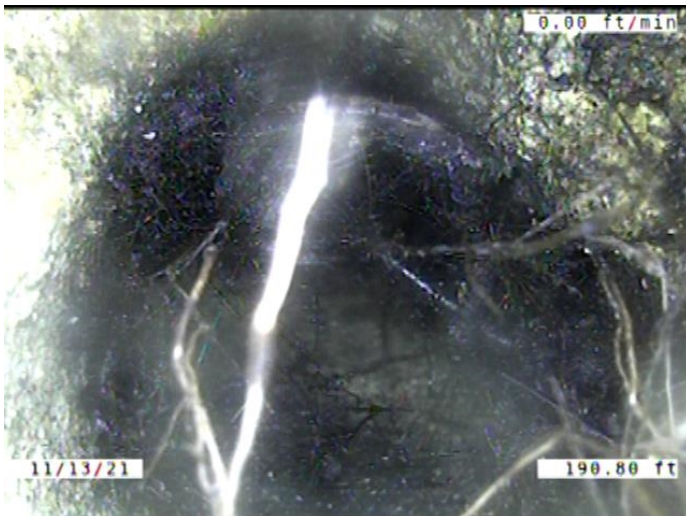
Distance (ft): **187.8**  
 Structural Grade: **0**  
 O&M Grade: **0**  
 Clock Start/From: **11**  
 Clock To:  
 1st Value:  
 2nd Value:  
 Value Percent:  
 Continuous Index:  
 Within 8" of Joint: **NO**  
 Remarks: **TAP AFTER ROOT CUTTING**





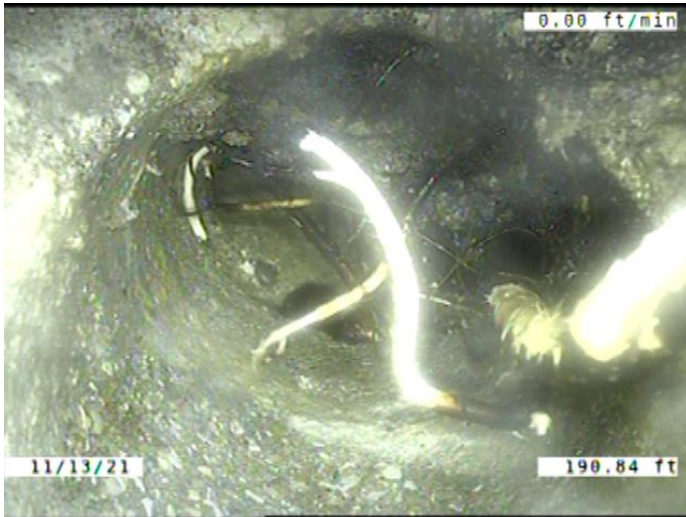
Code: **RTL**  
 Description: **Roots Tap Lateral**

Distance (ft): **190.3**  
 Structural Grade: **0**  
 O&M Grade: **2**  
 Clock Start/From: **2**  
 Clock To: **7**  
 1st Value:  
 2nd Value:  
 Value Percent: **40.000**  
 Continuous Index:  
 Within 8" of Joint: **NO**  
 Remarks:



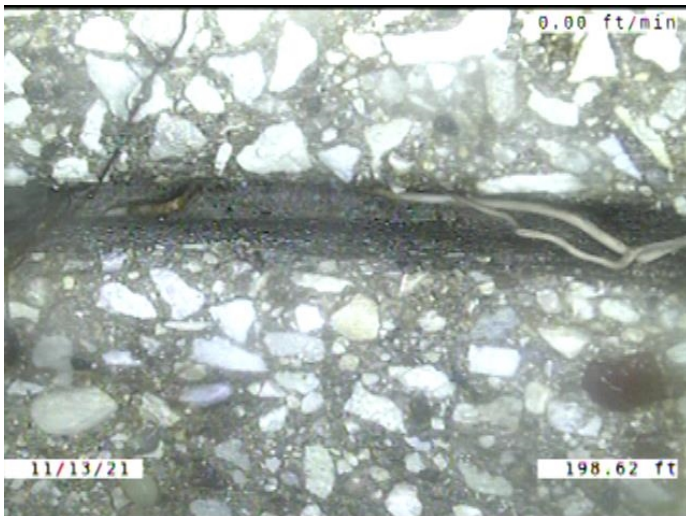
Code: **TFD**  
 Description: **Tap Factory Defective**

Distance (ft): **190.8**  
 Structural Grade: **0**  
 O&M Grade: **3**  
 Clock Start/From: **1**  
 Clock To:  
 1st Value: **6.000**  
 2nd Value:  
 Value Percent:  
 Continuous Index:  
 Within 8" of Joint: **YES**  
 Remarks: **ROOTS GROWING OUT OF THE TAP INTO THE MAIN.**



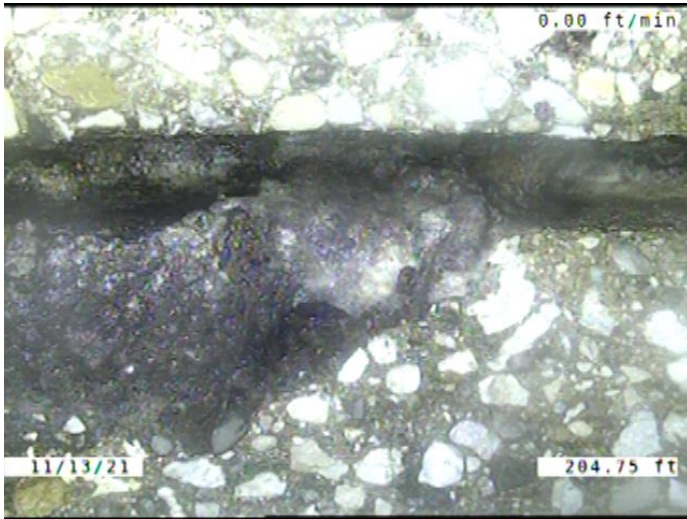
Code: **MGP**  
 Description: **Miscellaneous General Photograph**

Distance (ft): **190.8**  
 Structural Grade: **0**  
 O&M Grade: **0**  
 Clock Start/From: **1**  
 Clock To:  
 1st Value:  
 2nd Value:  
 Value Percent:  
 Continuous Index:  
 Within 8" of Joint: **NO**  
 Remarks: **TAP AFTER ROOT CUTTING**



Code: **RFJ**  
 Description: **Roots Fine Joint**

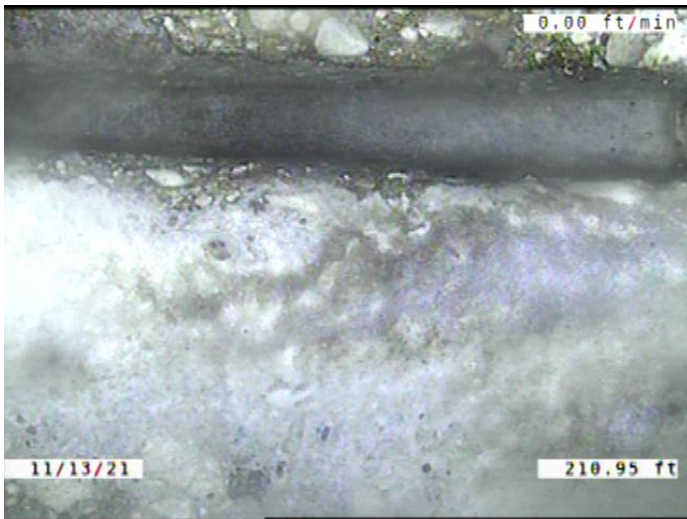
Distance (ft): **198.6**  
 Structural Grade: **0**  
 O&M Grade: **1**  
 Clock Start/From: **1**  
 Clock To: **3**  
 1st Value:  
 2nd Value:  
 Value Percent:  
 Continuous Index:  
 Within 8" of Joint: **YES**  
 Remarks:



Code: **DAE**  
Description: **Deposits Attached Encrustation**

Distance (ft): **204.8**  
Structural Grade: **0**  
O&M Grade: **2**  
Clock Start/From: **9**  
Clock To: **10**  
1st Value:  
2nd Value:  
Value Percent: **5.000**  
Continuous Index:  
Within 8" of Joint: **YES**  
Remarks:

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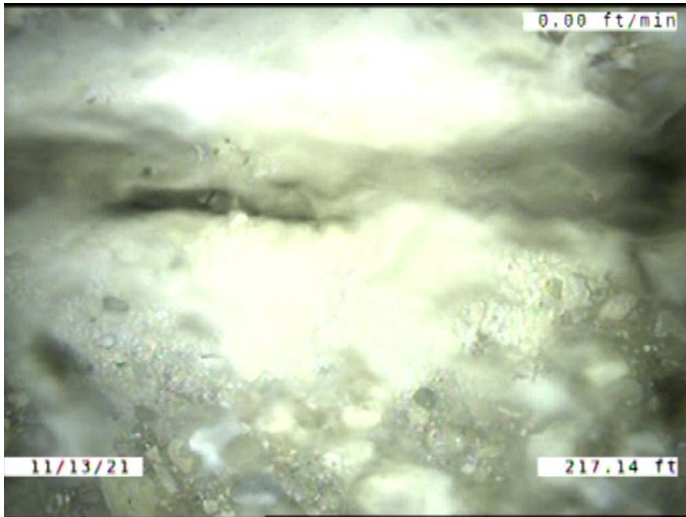


Code: **DAE**  
Description: **Deposits Attached Encrustation**

Distance (ft): **210.9**  
Structural Grade: **0**  
O&M Grade: **2**  
Clock Start/From: **10**  
Clock To: **12**  
1st Value:  
2nd Value:  
Value Percent: **5.000**  
Continuous Index:  
Within 8" of Joint: **YES**  
Remarks:

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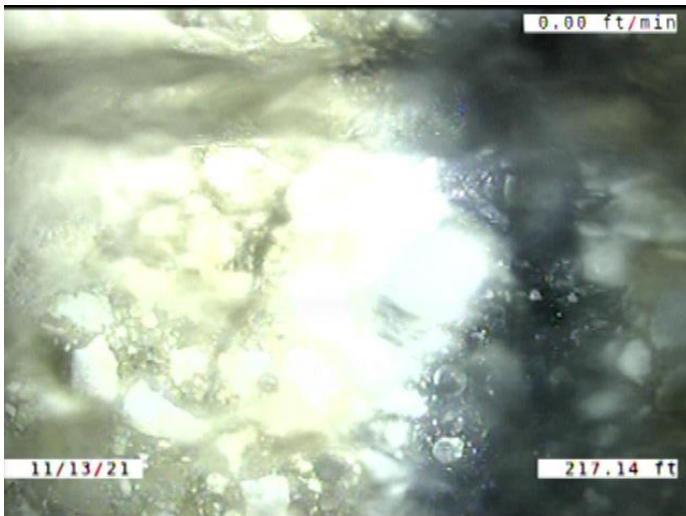




Code: **DAE**  
Description: **Deposits Attached Encrustation**

Distance (ft): **217.1**  
Structural Grade: **0**  
O&M Grade: **2**  
Clock Start/From: **9**  
Clock To: **2**  
1st Value:  
2nd Value:  
Value Percent: **5.000**  
Continuous Index:  
Within 8" of Joint: **YES**  
Remarks:

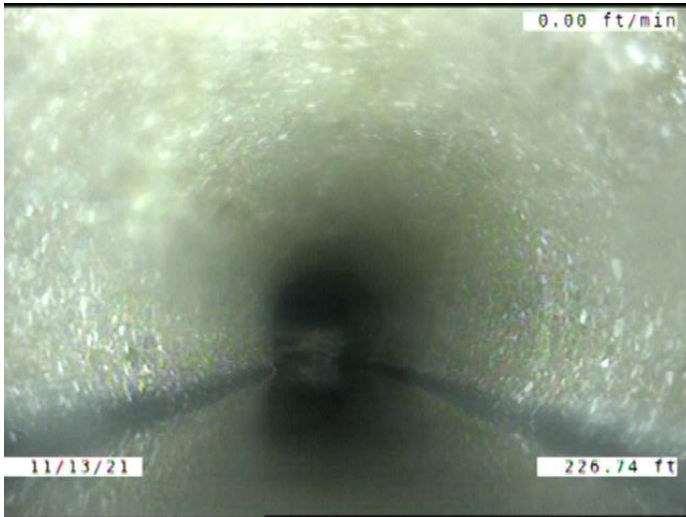
---



Code: **FL**  
Description: **Fracture Longitudinal**

Distance (ft): **217.1**  
Structural Grade: **3**  
O&M Grade: **0**  
Clock Start/From: **3**  
Clock To:  
1st Value:  
2nd Value:  
Value Percent:  
Continuous Index:  
Within 8" of Joint: **YES**  
Remarks:

---



Code: **MWL**  
 Description: **Miscellaneous Water Level**

Distance (ft): **226.7**  
 Structural Grade: **0**  
 O&M Grade: **0**  
 Clock Start/From:  
 Clock To:  
 1st Value:  
 2nd Value:  
 Value Percent: **5.000**  
 Continuous Index:  
 Within 8" of Joint: **NO**  
 Remarks:



Code: **AMH**  
 Description: **Manhole**

Distance (ft): **238.5**  
 Structural Grade: **0**  
 O&M Grade: **0**  
 Clock Start/From:  
 Clock To:  
 1st Value:  
 2nd Value:  
 Value Percent:  
 Continuous Index:  
 Within 8" of Joint: **NO**  
 Remarks: **M-605-067**