

RedZone
ROBOTICS

Shape: **C**

Total Length Surveyed (ft): **207.1**

O&M Index:	<u>2.11</u>	O&M Quick:	412B	O&M Rating:	<u>38.00</u>
Structural Index:	<u>3.09</u>	Structural Quick:	5342	Structural Rating:	<u>176.00</u>
Overall Index:	<u>2.85</u>	Overall Quick:	5343	Overall Rating:	<u>214.00</u>

M-504-072

99.4	B	Broken	430	S 3
99.4	TF	Tap Factory	441	NA
99.6	IW	Infil Weeper	454	M 2
99.6	CM	Crack Multiple	465	S 3
101.8	FS	Fracture Spiral	481	S 3
102.6	TFD	Tap Factory Defective	495	M 2
102.6	FL	Fracture Longitudinal	506	S 3
104.8	MMC	Material Change	522	NA
113.3	CM	Crack Multiple	551	S 3
140.0	CC	Crack Circumferential	616	S 1
142.3	IS	Infil Stain	632	NA
144.8	MMC	Material Change	649	NA
145.0	FM	Fracture Multiple	661	S 4
145.1	FM	Fracture Multiple	673	S 4
146.0	TF	Tap Factory	688	NA
146.0	CM	Crack Multiple	699	S 3
148.8	TF	Tap Factory	717	NA
149.7	FS	Fracture Spiral	731	S 3
151.4	MMC	Material Change	746	NA
153.8	IW	Infil Weeper	762	M 2
159.6	DAE(S03)	Deposits Attached Encrustation	785	M 2
177.6	MMC	Material Change	833	NA
178.3	DAGS	Deposits Attached Grease	846	M 2
178.3	TF	Tap Factory	857	NA
180.8	MMC	Material Change	874	NA
197.1	MWL	Water Level	918	NA
205.2	HSV	Hole Soil Visible	946	S 5
205.2	MMC	Material Change	958	NA
205.3	HVV	Hole Void Visible	970	S 5
206.0	B	Broken	983	S 5
206.0	DSC	Deposits Settled Compacted	995	M 2
207.1	SAP(F01)	Surface Aggregate Projecting	1008	S 3
207.1	MSA	Abandoned Survey	1019	NA
207.1	DAE(F03)	Deposits Attached Encrustation	1031	M 2

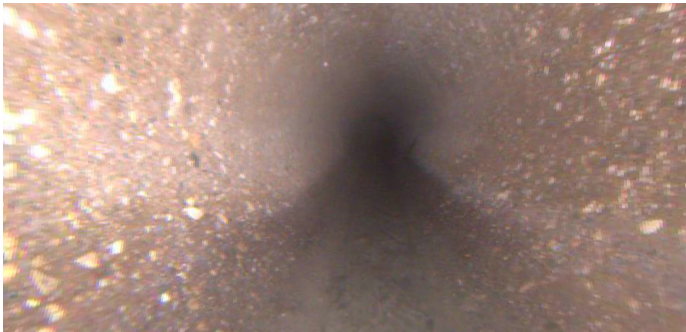
M-504-101

Code: **SAP**
Description: **Surface Aggregate Projecting**



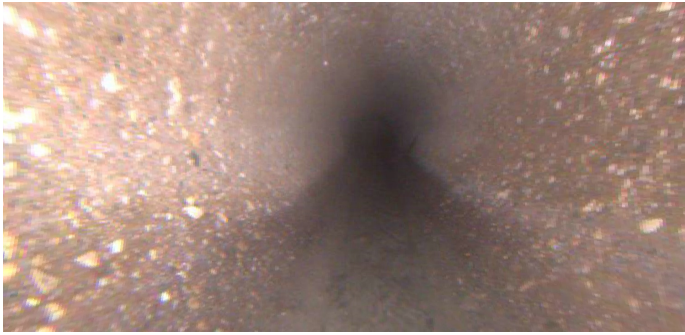
Distance (ft): **.0**
Structural Grade: **3**
O&M Grade: **0**
Clock Start/From: **7**
Clock To: **5**
1st Value:
2nd Value:
Value Percent:
Continuous Index: **S01**
Within 8" of Joint: **YES**
Remarks: **WANDER**

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-504-072**

Code: **MWL**
Description: **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: **MMC**
Description: **Material Change**



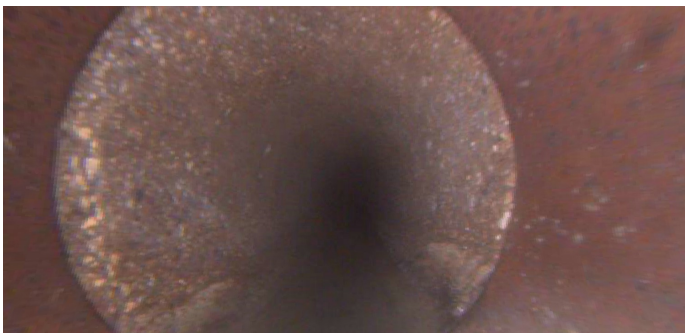
Distance (ft): **15.9**
Structural Grade: **0**
O&M Grade: **0**
Clock Start/From:
Clock To:
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **NO**
Remarks: **CP TP VCP**

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



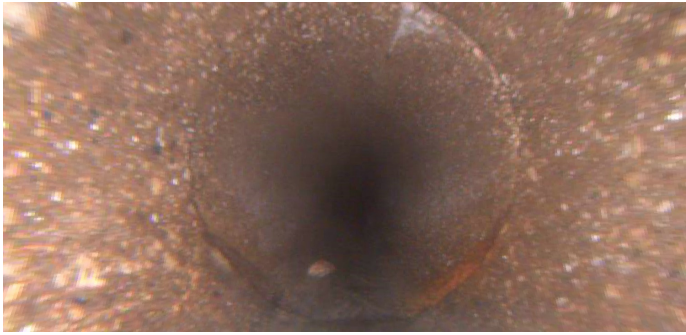
Distance (ft): **16.3**
Structural Grade: **0**
O&M Grade: **0**
Clock Start/From: **11**
Clock To:
1st Value: **4.000**
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint:
Remarks:

Code: **MMC**
Description: **Material Change**



Distance (ft): **18.7**
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: **VCP TO CP**

Code: **IS**
Description: **Infil Stain**



Distance (ft): **24.4**
Structural Grade: **0**
O&M Grade: **0**
Clock Start/From: **4**
Clock To: **5**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:

Code: **IS**
Description: **Infil Stain**



Distance (ft): **27.6**
Structural Grade: **0**
O&M Grade: **0**
Clock Start/From: **4**
Clock To: **5**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:

Code: **MMC**
Description: **Material Change**



Distance (ft): **48.3**
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: **CP TO VCP**

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



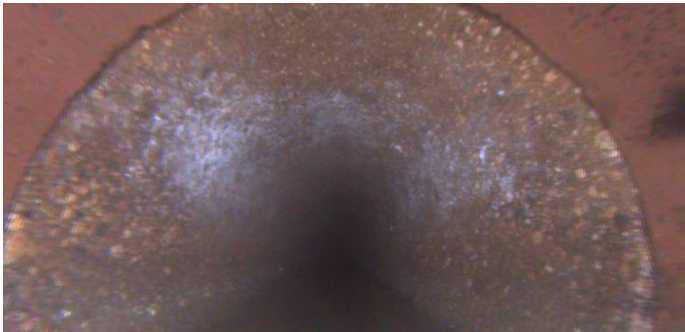
Distance (ft): **49.0**
Structural Grade: **0**
O&M Grade: **0**
Clock Start/From: **1**
Clock To:
1st Value: **4.000**
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint:
Remarks:

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



Distance (ft): **51.6**
Structural Grade: **0**
O&M Grade: **0**
Clock Start/From: **11**
Clock To:
1st Value: **4.000**
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint:
Remarks:

Code: **MMC**
Description: **Material Change**



Distance (ft): **54.4**
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: **CP TO VCP**

Code: **IS**
Description: **Infil Stain**



Distance (ft): **63.2**
Structural Grade: **0**
O&M Grade: **0**
Clock Start/From: **8**
Clock To: **4**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:

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



Distance (ft): **63.2**
Structural Grade: **0**
O&M Grade: **2**
Clock Start/From: **3**
Clock To: **5**
1st Value:
2nd Value:
Value Percent: **5.000**
Continuous Index:
Within 8" of Joint: **YES**
Remarks:

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



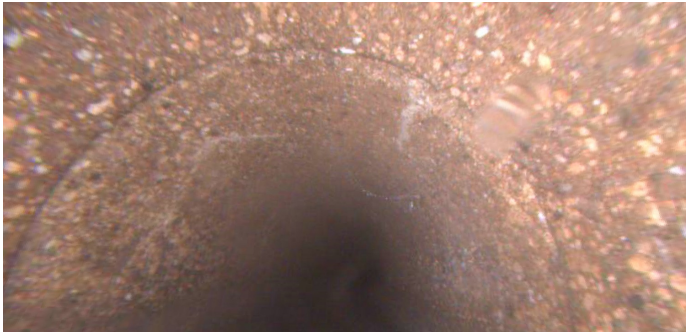
Distance (ft): **66.2**
Structural Grade: **0**
O&M Grade: **2**
Clock Start/From: **7**
Clock To: **9**
1st Value:
2nd Value:
Value Percent: **5.000**
Continuous Index:
Within 8" of Joint: **YES**
Remarks:

Code: **CS**
Description: **Crack Spiral**



Distance (ft): **69.2**
Structural Grade: **2**
O&M Grade: **0**
Clock Start/From: **10**
Clock To: **12**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:

Code: **CM**
Description: **Crack Multiple**



Distance (ft): **84.1**
Structural Grade: **3**
O&M Grade: **0**
Clock Start/From: **9**
Clock To: **2**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:

Code: **IR**
Description: **Infil Runner**



Distance (ft): **99.4**
Structural Grade: **0**
O&M Grade: **4**
Clock Start/From: **11**
Clock To:
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint:
Remarks:

Code: **FS**
Description: **Fracture Spiral**



Distance (ft): **99.4**
Structural Grade: **3**
O&M Grade: **0**
Clock Start/From: **10**
Clock To: **12**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:

Code: **B**
Description: **Broken**



Distance (ft): **99.4**
Structural Grade: **3**
O&M Grade: **0**
Clock Start/From: **10**
Clock To:
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint:
Remarks:

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



Distance (ft): **99.4**
Structural Grade: **0**
O&M Grade: **0**
Clock Start/From: **11**
Clock To:
1st Value: **4.000**
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint:
Remarks:

Code: **IW**
Description: **Infil Weeper**



Distance (ft): **99.6**
Structural Grade: **0**
O&M Grade: **2**
Clock Start/From: **8**
Clock To: **12**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint:
Remarks:

Code: **CM**
Description: **Crack Multiple**



Distance (ft): **99.6**
Structural Grade: **3**
O&M Grade: **0**
Clock Start/From: **9**
Clock To: **12**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint:
Remarks:

Code: **FS**
Description: **Fracture Spiral**



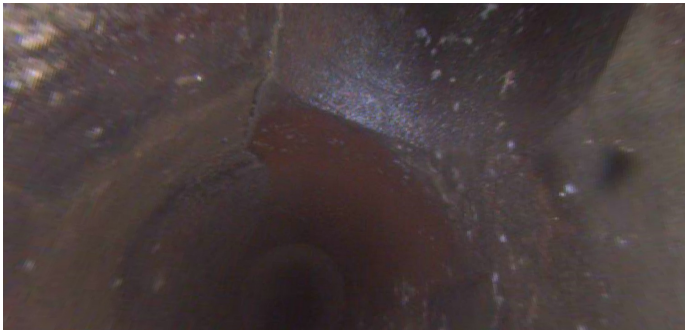
Distance (ft): **101.8**
Structural Grade: **3**
O&M Grade: **0**
Clock Start/From: **12**
Clock To: **2**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:

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



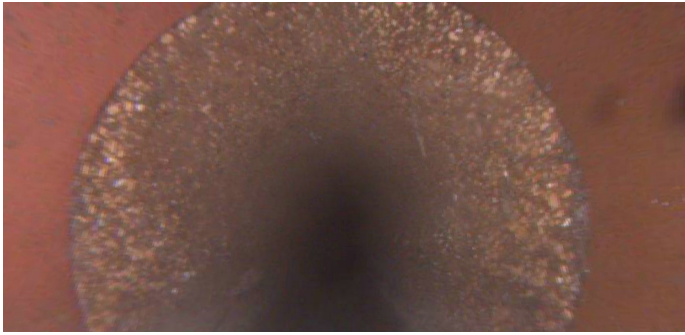
Distance (ft): **102.6**
Structural Grade: **0**
O&M Grade: **2**
Clock Start/From: **1**
Clock To:
1st Value: **4.000**
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint:
Remarks: **fractured**

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



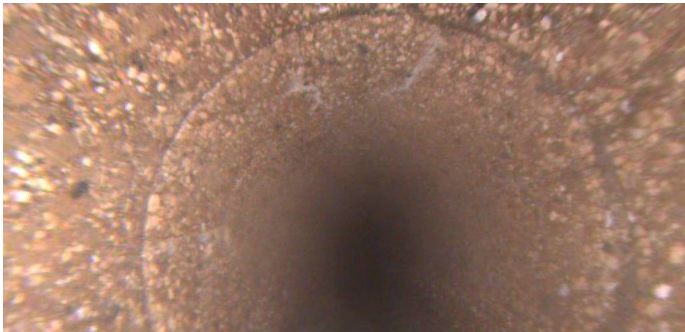
Distance (ft): **102.6**
Structural Grade: **3**
O&M Grade: **0**
Clock Start/From: **12**
Clock To:
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint:
Remarks:

Code: **MMC**
Description: **Material Change**



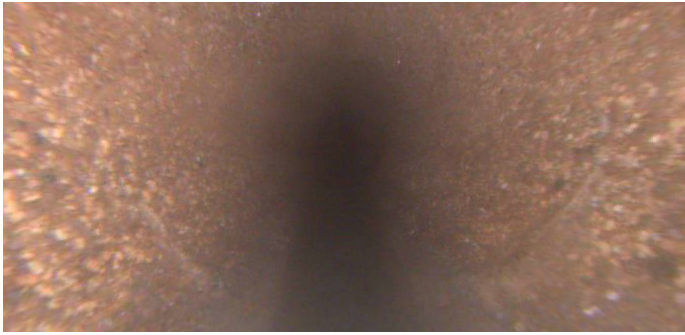
Distance (ft): **104.8**
Structural Grade: **0**
O&M Grade: **0**
Clock Start/From:
Clock To:
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **NO**
Remarks: **VCP**

Code: **CM**
Description: **Crack Multiple**



Distance (ft): **113.3**
Structural Grade: **3**
O&M Grade: **0**
Clock Start/From: **11**
Clock To: **12**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:

Code: **CC**
Description: **Crack Circumferential**



Distance (ft): **140.0**
Structural Grade: **1**
O&M Grade: **0**
Clock Start/From: **3**
Clock To: **9**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint:
Remarks:

Code: **IS**
Description: **Infil Stain**



Distance (ft): **142.3**
Structural Grade: **0**
O&M Grade: **0**
Clock Start/From: **4**
Clock To: **5**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:

Code: **MMC**
Description: **Material Change**



Distance (ft): **144.8**
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: **CP TO VCP**

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



Distance (ft): **145.0**
Structural Grade: **4**
O&M Grade: **0**
Clock Start/From: **10**
Clock To: **2**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:

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



Distance (ft): **145.1**
Structural Grade: **4**
O&M Grade: **0**
Clock Start/From: **11**
Clock To: **1**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:

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



Distance (ft): **146.0**
Structural Grade: **0**
O&M Grade: **0**
Clock Start/From: **10**
Clock To:
1st Value: **4.000**
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint:
Remarks:

Code: **CM**
Description: **Crack Multiple**



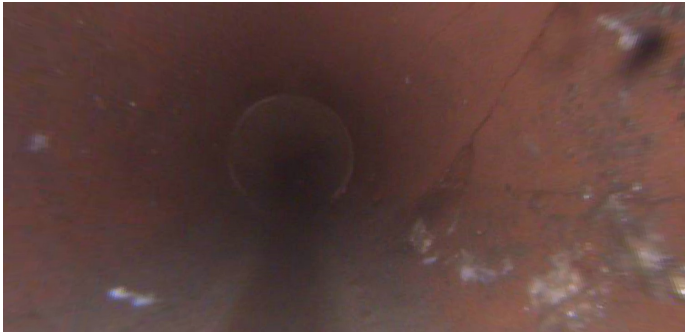
Distance (ft): **146.0**
Structural Grade: **3**
O&M Grade: **0**
Clock Start/From: **12**
Clock To: **2**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint:
Remarks:

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



Distance (ft): **148.8**
Structural Grade: **0**
O&M Grade: **0**
Clock Start/From: **1**
Clock To:
1st Value: **4.000**
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint:
Remarks:

Code: **FS**
Description: **Fracture Spiral**



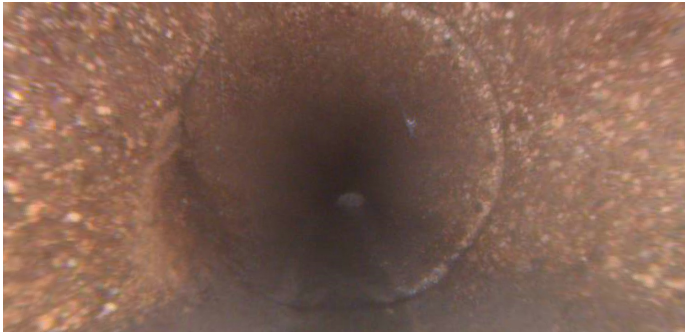
Distance (ft): **149.7**
Structural Grade: **3**
O&M Grade: **0**
Clock Start/From: **1**
Clock To: **4**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:

Code: **MMC**
Description: **Material Change**



Distance (ft): **151.4**
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: **VCP TO CP**

Code: **IW**
Description: **Infil Weeper**



Distance (ft): **153.8**
Structural Grade: **0**
O&M Grade: **2**
Clock Start/From: **7**
Clock To: **9**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:

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



Distance (ft): **159.6**
Structural Grade: **0**
O&M Grade: **2**
Clock Start/From: **7**
Clock To: **5**
1st Value:
2nd Value:
Value Percent: **5.000**
Continuous Index: **S03**
Within 8" of Joint: **YES**
Remarks: **WANDER**

Code: **MMC**
Description: **Material Change**



Distance (ft): **177.6**
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: **VCP TO CP**

Code: **DAGS**
Description: **Deposits Attached Grease**



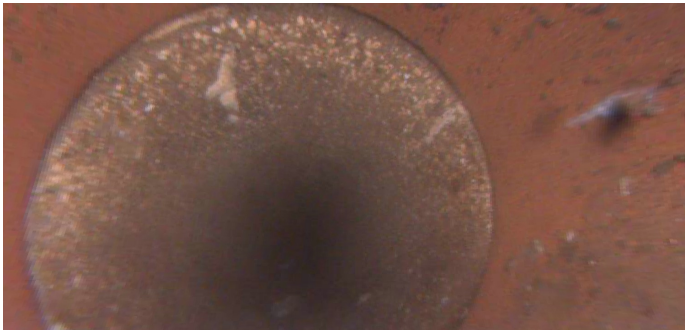
Distance (ft): **178.3**
Structural Grade: **0**
O&M Grade: **2**
Clock Start/From: **7**
Clock To: **11**
1st Value:
2nd Value:
Value Percent: **5.000**
Continuous Index:
Within 8" of Joint: **NO**
Remarks:

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



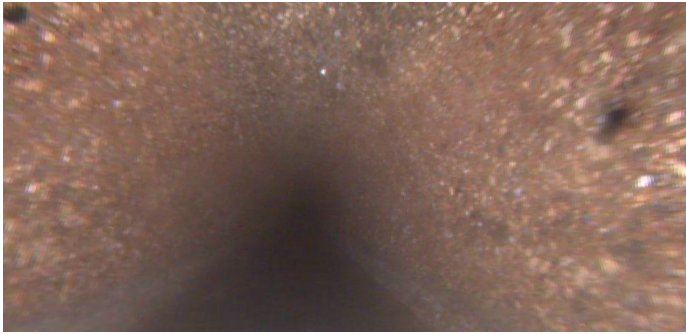
Distance (ft): **178.3**
Structural Grade: **0**
O&M Grade: **0**
Clock Start/From: **11**
Clock To:
1st Value: **4.000**
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint:
Remarks:

Code: **MMC**
Description: **Material Change**



Distance (ft): **180.8**
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: **VCP TO CP**

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



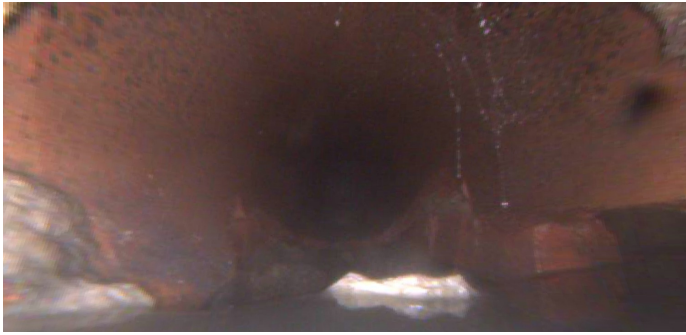
Distance (ft): **197.1**
Structural Grade: **0**
O&M Grade: **0**
Clock Start/From:
Clock To:
1st Value:
2nd Value:
Value Percent: **10.000**
Continuous Index:
Within 8" of Joint: **NO**
Remarks:

Code: **HSV**
Description: **Hole Soil Visible**



Distance (ft): **205.2**
Structural Grade: **5**
O&M Grade: **0**
Clock Start/From: **5**
Clock To:
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:

Code: **MMC**
Description: **Material Change**



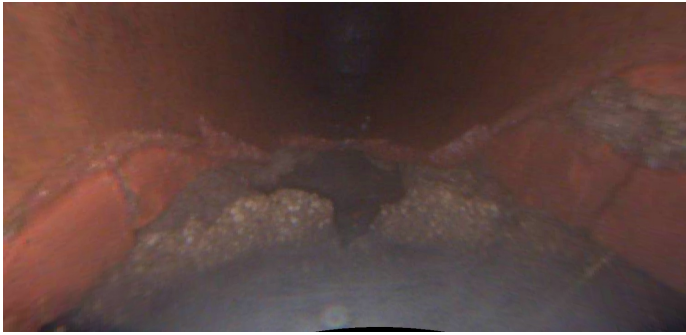
Distance (ft): **205.2**
Structural Grade: **0**
O&M Grade: **0**
Clock Start/From:
Clock To:
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **NO**
Remarks: **CP TO VCP**

Code: **HVV**
Description: **Hole Void Visible**



Distance (ft): **205.3**
Structural Grade: **5**
O&M Grade: **0**
Clock Start/From: **3**
Clock To: **4**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint: **YES**
Remarks:

Code: **B**
Description: **Broken**



Distance (ft): **206.0**
Structural Grade: **5**
O&M Grade: **0**
Clock Start/From: **3**
Clock To: **7**
1st Value:
2nd Value:
Value Percent:
Continuous Index:
Within 8" of Joint:
Remarks:

Code: **DSC**
Description: **Deposits Settled Compacted**



Distance (ft): **206.0**
Structural Grade: **0**
O&M Grade: **2**
Clock Start/From: **6**
Clock To:
1st Value:
2nd Value:
Value Percent: **5.000**
Continuous Index:
Within 8" of Joint: **NO**
Remarks:

Code: **SAP**
Description: **Surface Aggregate Projecting**



Distance (ft): **207.1**
Structural Grade: **3**
O&M Grade: **0**
Clock Start/From: **7**
Clock To: **5**
1st Value:
2nd Value:
Value Percent:
Continuous Index: **F01**
Within 8" of Joint: **YES**
Remarks: **WANDER**

Code: **MSA**
Description: **Abandoned Survey**



Distance (ft): **207.1**
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: **Robot stopped at external drop connection**



Code:	DAE
Description:	Deposits Attached Encrustation
Distance (ft):	207.1
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	7
Clock To:	5
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	F03
Within 8" of Joint:	YES
Remarks:	WANDER