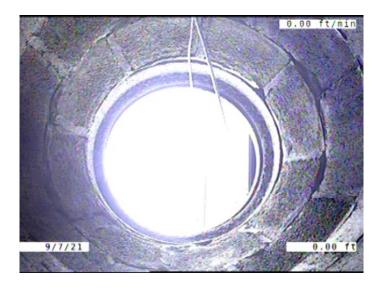
## **Profile/Photo Observation Report**

-						ROBOTICS
Date:	09/07/2021	Weather:			Coding:	PACP 7.0
Pipe Length (ft)	): <b>194.7</b>	Owner:	City of	Hobart	Pre Clean:	Light Cleaning
P.O.#:	YES502259	Surveyor:	S. Buck	lin	PSR:	P-504-110-112
Customer:	City of Hobart	Clean Date	e: 08/26/	2021	Shape:	с
Street:	41st Avenue		Flow Cor	ntrol:	Not Controlled	
City:	Hobart, IN		Year Rer	ewed:		
Location:	Alley		Tape/Me	edia #:		
Purpose:	Routine Assessme	nt	Dia/Heig	ht:	10"	
Use:	Sanitary Sewage P	ipe	Material	:	СР	
Drain Area:			Lining:		None	
Category:	NA					
Comment:						
Location Detail	S:		Direction	n of Survey:	Upstream	
US MH:	M-504-112	DS MH:	M-504-11	)	Total Length Surveyed (ft):	194.7
O&M Index:	1.87	O&M Quick	::	3121	O&M Rating:	116.00
Structural Index:	3.58	Structural (		514A	Structural Rating:	68.00
Overall Index:	2.27	Overall Qui		514A	Overall Rating:	184.00

	Position	Code	Observation	Video (sec)	Grade
M(504	4-110				
	0.	AMH	Manhole	1	NA
- 11	.0	MWL	Miscellaneous Water Level	55	NA
	0.	DSF(S01)	Deposits Settled Fine	70	M 2
- 11	2.9	ISB	Infiltration Stain Barrel	171	M 1
	2.9	ISB	Infiltration Stain Barrel	186	M 1
- 11	7.1	ISJ	Infiltration Stain Joint	256	M 1
- 11	9.7	DAE	Deposits Attached Encrustation	296	M 2
	10.7	DAE	Deposits Attached Encrustation	333	M 2
- 11	16.3	ISJ	Infiltration Stain Joint	410	M 1
<u>i</u>	27.5	В	Broken	535	S 4
- rect	-\ \27.9	TBI	Tap Break-in Intruding	552	M 2
āDi	41.2	DSZ	Deposits Settled Other	617	M 2
Camera Direction	55.0	MWLS	Miscellaneous Water Level Sag	677	S 2
ü	63.9	BVV	Broken Void Visible	778	S 5
	64.4	TBI	Tap Break-in Intruding	799	M 2
	67.8	MMC	Miscellaneous Material Change	860	NA
. ↓ ⊨	69.1	TF	Tap Factory	885	NA
	69.1	RFL	Roots Fine Lateral	914	M 1
	71.2	TF	Tap Factory	944	NA

**RedZone**<sup>®</sup>

11	72.1	MMC	Miscellaneous Material Change	995	NA
- 11	86.0	FM	Fracture Multiple	1086	S 4
- 84	87.8	MWLS(S02)	Miscellaneous Water Level Sag	1116	S 2
	95.3	MWLS(F02)	Miscellaneous Water Level Sag	1150	S 2
- 11	98.2	FM	Fracture Multiple	1215	S 4
	105.5	CM	Crack Multiple	1315	S 3
- 11	106.0	FM	Fracture Multiple	1353	S 4
- 84	106.1	В	Broken	1383	S 4
- 11	118.1	CM	Crack Multiple	1545	S 3
- 11	118.1	ISB	Infiltration Stain Barrel	1566	M 1
- 11	120.3	CM	Crack Multiple	1633	S 3
- 11	120.3	ISB	Infiltration Stain Barrel	1657	M 1
	124.9	ТВІ	Tap Break-in Intruding	1729	M 2
- 11	125.4	FM(S04)	Fracture Multiple	1801	S 4
- 11	138.7	ISB	Infiltration Stain Barrel	1907	M 1
	147.7	ISB	Infiltration Stain Barrel	1982	M 1
- 11	150.4	MMC	Miscellaneous Material Change	2046	NA
- 11	150.4	DAE	Deposits Attached Encrustation	2090	M 2
	151.6	TFD	Tap Factory Defective	2120	M 3
	153.6	TF	Tap Factory	2151	NA
- 11	154.1	DAE	Deposits Attached Encrustation	2193	M 2
	154.1	FM(F04)	Fracture Multiple	2206	S 4
	163.0	DAE	Deposits Attached Encrustation	2288	M 2
- 11	-\\\164.1	DAE	Deposits Attached Encrustation	2334	M 2
	166.4	DAE(S05)	Deposits Attached Encrustation	2372	M 2
	168.5	DAE	Deposits Attached Encrustation	2422	M 2
	174.5	DAE(F05)	Deposits Attached Encrustation	2460	M 2
	192.8	FM	Fracture Multiple	2562	S 4
	194.7	DSF(F01)	Deposits Settled Fine	2596	M 2
	194.7	AMH	Manhole	2665	NA
M.504	1 504 112				



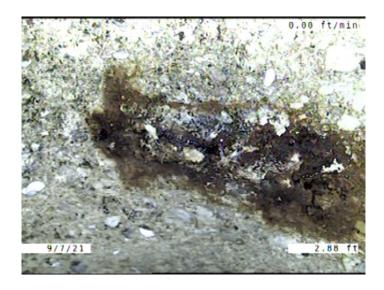
Code:	АМН
Description:	Manhole
Distance (ft):	.0
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	M-504-110



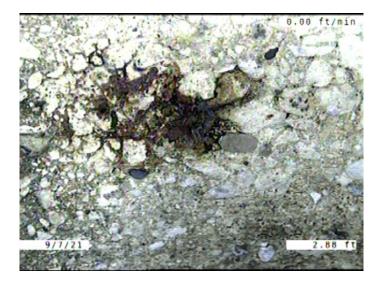
Code: Description:	MWL Miscellaneous Water Level
Distance (ft):	.0
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	10.000
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



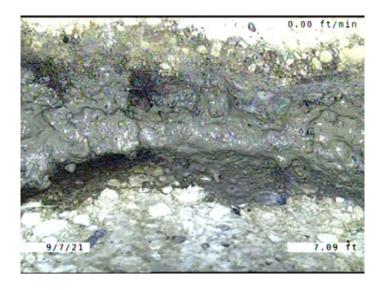
Code: Description:	DSF Deposits Settled Fine
Distance (ft):	.0
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	5
Clock To:	7
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	S01
Within 8" of Joint:	YES
Remarks:	



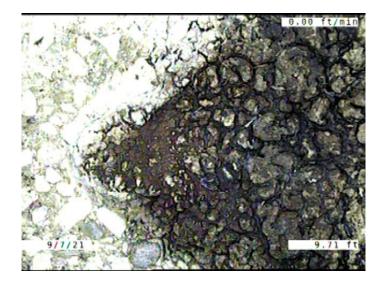
Code: Description:	ISB Infiltration Stain Barrel
Distance (ft): Structural Grade:	2.9 0
O&M Grade:	1
Clock Start/From: Clock To:	12 3
1st Value: 2nd Value:	
Value Percent:	
Continuous Index:	NO
Within 8" of Joint: Remarks:	NO



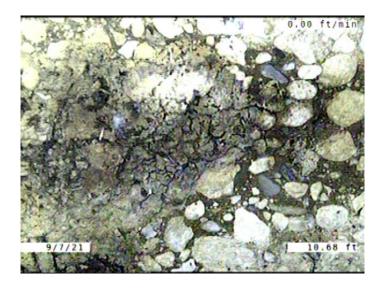
Code: Description:	ISB Infiltration Stain Barrel
Distance (ft):	2.9
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	9
Clock To:	10
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



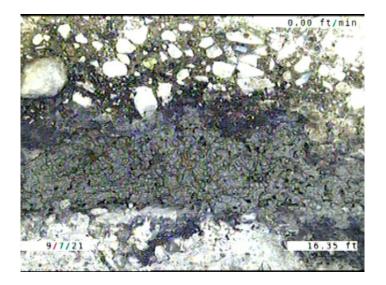
Code: Description:	ISJ Infiltration Stain Joint
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index:	7.1 0 1 8 4
Within 8" of Joint: Remarks:	YES



Code: Description:	DAE Deposits Attached Encrustation
Distance (ft):	9.7
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	2
Clock To:	3
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	DAE Deposits Attached Encrustation
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value:	10.7 0 2 9 10
Value Percent: Continuous Index: Within 8" of Joint: Remarks:	5.000 YES



Code: Description:	ISJ Infiltration Stain Joint
Distance (ft):	16.3
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	7
Clock To:	5
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



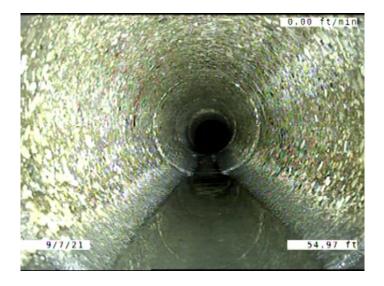
Code: Description:	B Broken
Distance (ft):	27.5
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	12
Clock To:	12
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	TBI Tap Break-in Intruding
Distance (ft):	27.9
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	10
Clock To:	
1st Value:	4.000
2nd Value:	1.000
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



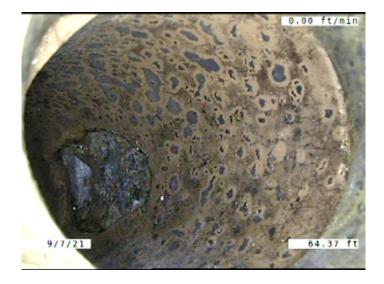
Code:	DSZ
Description:	Deposits Settled Other
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index:	41.2 0 2 5 7 5.000
Within 8" of Joint:	YES
Remarks:	RAGS AND TP



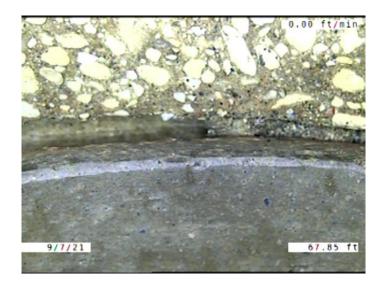
Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	55.0
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



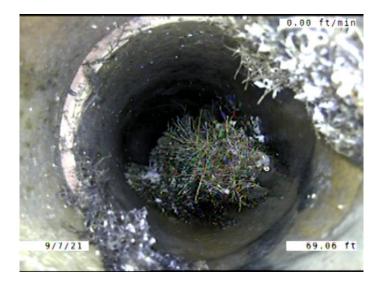
Code: Description:	BVV Broken Void Visible
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint:	63.9 5 0 7 5 YES
Remarks:	



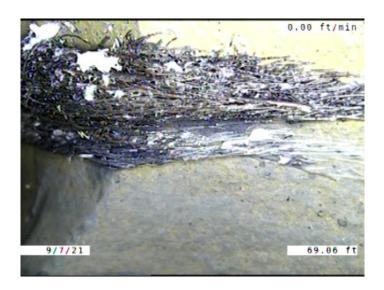
Code: Description:	TBI Tap Break-in Intruding
Distance (ft):	64.4
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	11
Clock To:	
1st Value:	4.000
2nd Value:	1.000
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



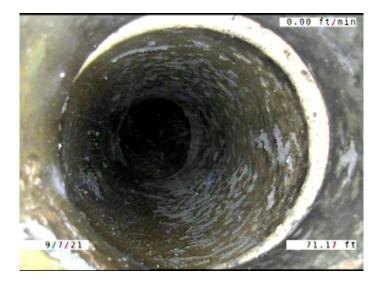
Code: Description:	MMC Miscellaneous Material Change
Distance (ft):	67.8
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	CONCRETE TO VCP



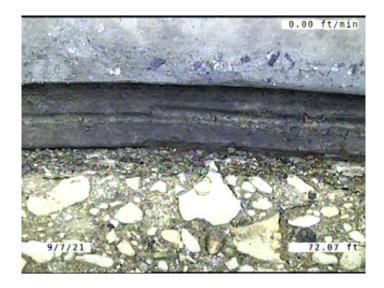
Code:	TF
Description:	Tap Factory
Distance (ft):	<b>CO 1</b>
Distance (ft):	69.1
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	1
Clock To:	
1st Value:	4.000
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	ROOTS GROWING IN THE TAP



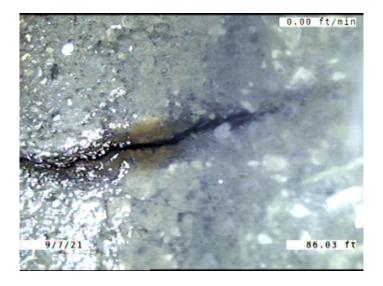
Code:	RFL
Description:	Roots Fine Lateral
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	69.1 0 1 2 4



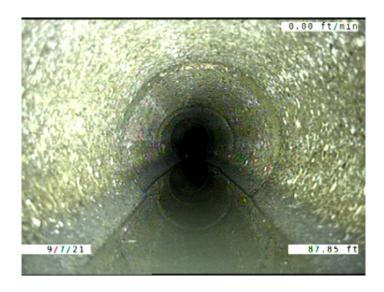
Code:	TF
Description:	Tap Factory
Distance (ft):	71.2
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	10
Clock To:	
1st Value:	4.000
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	MMC Miscellaneous Material Change
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To:	72.1 0 0
1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	NO VCP TO CONCRETE



FM Fracture Multiple
86.0
4
0
4
8
YES



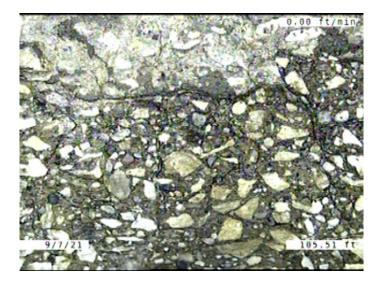
Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	87.8
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	S02
Within 8" of Joint:	NO
Remarks:	



Code:	MWLS
Description:	Miscellaneous Water Level Sag
Distance (ft):	95.3
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	F02
Within 8" of Joint:	NO
Remarks:	



Code: Description:	FM Fracture Multiple
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent:	98.2 4 0 3 9
Continuous Index: Within 8" of Joint: Remarks:	YES



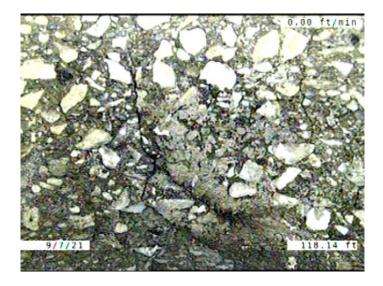
Code:	СМ
Description:	Crack Multiple
Distance (ft):	105.5
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	12
Clock To:	4
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



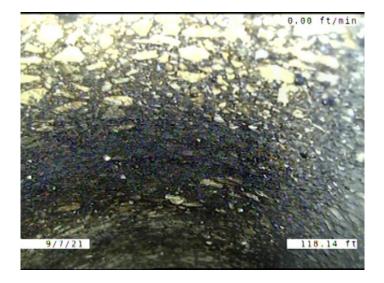
Code: Description:	FM Fracture Multiple
Distance (ft):	106.0
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	12
Clock To:	12
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



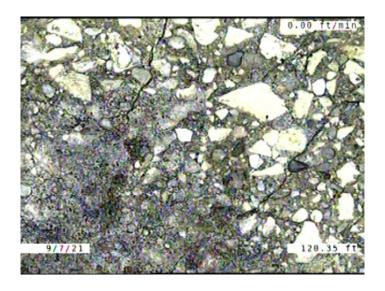
Code:	В
Description:	Broken
Distance (ft):	106 1
Distance (ft):	106.1
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	7
Clock To:	8
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



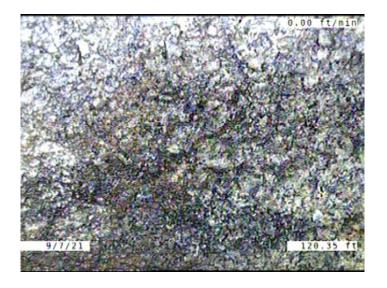
Code: Description:	CM Crack Multiple
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent:	118.1 3 0 12 4
Continuous Index: Within 8" of Joint: Remarks:	YES



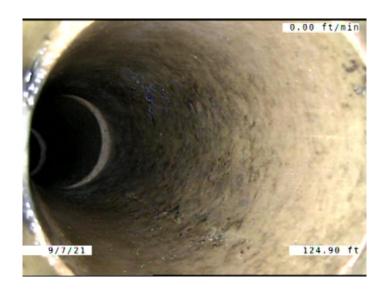
Code: Description:	ISB Infiltration Stain Barrel
Distance (ft):	118.1
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	12
Clock To:	5
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



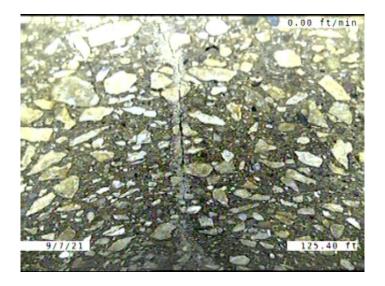
Code: Description:	CM Crack Multiple
Distance (ft):	120.3
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	10
Clock To:	11
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



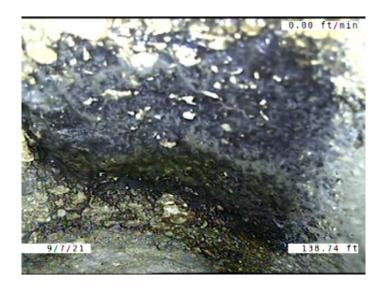
Code: Description:	ISB Infiltration Stain Barrel
Distance (ft):	120.3
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	7
Clock To:	11
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



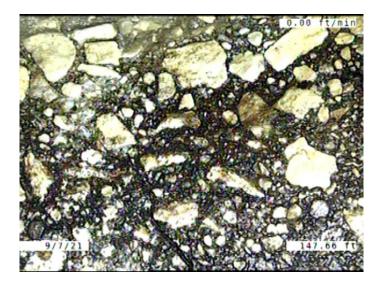
Code: Description:	TBI Tap Break-in Intruding
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	124.9 0 2 10 4.000 2.000



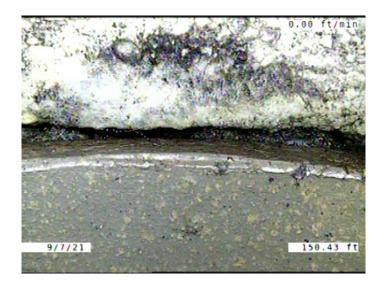
Code:	FM
Description:	Fracture Multiple
Distance (ft):	125.4
Distance (ft):	125.4
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	12
Clock To:	12
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	S04
Within 8" of Joint:	YES
Remarks:	



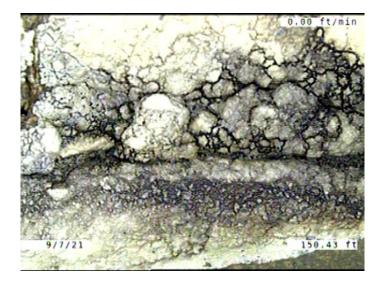
Code: Description:	ISB Infiltration Stain Barrel
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	138.7 0 1 2 4 YES



Code: Description:	ISB Infiltration Stain Barrel
Distance (ft):	147.7
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	12
Clock To:	5
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	MMC Miscellaneous Material Change
Distance (ft):	150.4
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:	CONCRETE TO VCP



Code: Description:	DAE Deposits Attached Encrustation
Distance (ft):	150.4
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	7
Clock To:	5
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES

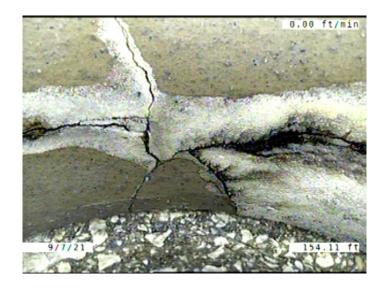
Remarks:



Code: Description:	TFD Tap Factory Defective
Distance (ft): Structural Grade: O&M Grade:	151.6 0 3
Clock Start/From: Clock To:	1
1st Value: 2nd Value: Value Percent:	4.000
Continuous Index: Within 8" of Joint: Remarks:	YES Defective



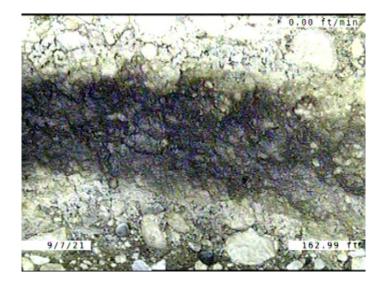
Code:	TF
Description:	Tap Factory
Distance (ft):	153.6
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	11
Clock To:	
1st Value:	4.000
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



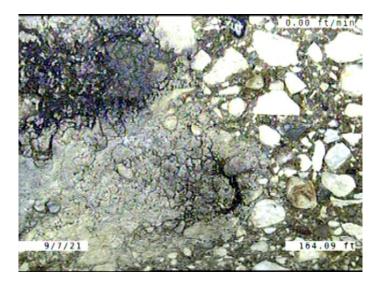
Code: Description:	DAE Deposits Attached Encrustation
Distance (ft):	154.1
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	7
Clock To:	5
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code:	FM
Description:	Fracture Multiple
Distance (ft):	154.1
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	12
Clock To:	12
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	F04
Within 8" of Joint:	YES
Remarks:	

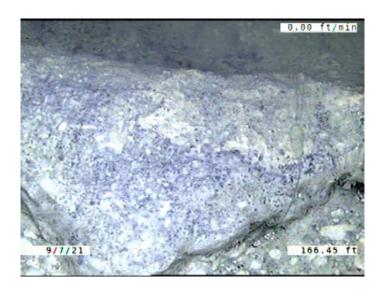


DAE Deposits Attached Encrustation
163.0
0
2
12
3
5.000
YES

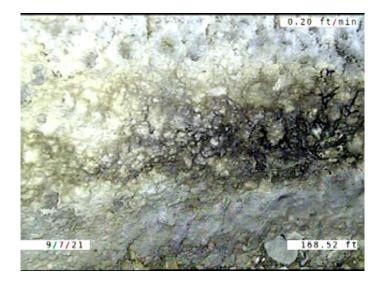


Code: Description:	DAE Deposits Attached Encrustation
Distance (ft):	164.1
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	7
Clock To:	11
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	NO

Remarks:



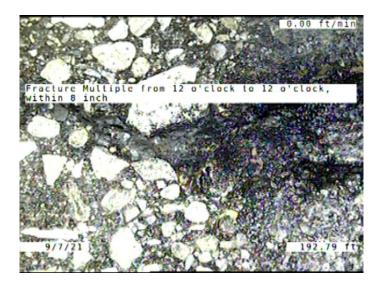
Code: Description:	DAE Deposits Attached Encrustation
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	166.4 0 2 5 7 5.000 \$05 YES



Code: Description:	DAE Deposits Attached Encrustation
Distance (ft):	168.5
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	7
Clock To:	5
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



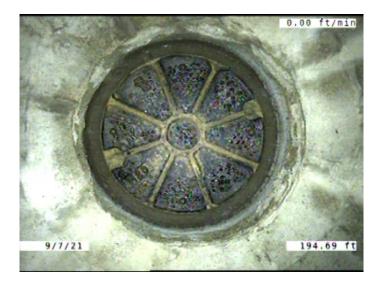
Code: Description:	DAE Deposits Attached Encrustation
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint:	174.5 0 2 5 7 5.000 F05 YES
Remarks:	



Code: Description:	FM Fracture Multiple
Distance (ft):	192.8
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	12
Clock To:	12
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	DSF Deposits Settled Fine
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent:	194.7 0 2 5 7 5.000
Continuous Index: Within 8" of Joint: Remarks:	F01 YES



Code: Description:	AMH Manhole
Distance (ft):	194.7
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:	M-504-112