## **Profile/Photo Observation Report**

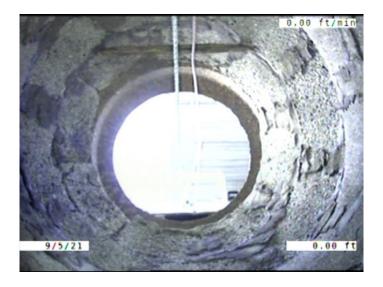
		•			ROBOTICS
Date:	09/05/2021	Weather:		Coding:	PACP 7.0
Pipe Length (ft)	212.0	Owner:	City of Hobart	Pre Clean:	Heavy Cleaning
P.O.#:	YES502259	Surveyor:	S. Bucklin	PSR:	P-504-120-119
Customer:	City of Hobart	Clean Date:	09/02/2021	Shape:	c
Street:	41st Avenue		Flow Control:	Not Controlled	
City:	Hobart, IN		Year Renewed:		
Location:	Alley		Tape/Media #:		
Purpose:	Routine Assessmer	nt	Dia/Height:	12"	
Use:	Sanitary Sewage Pi	ipe	Material:	VCP	
Drain Area:			Lining:	None	
Category:	NA				
Comment:					
Location Details	:		Direction of Surve	y: Upstream	
US MH:	M-504-119	DS MH:	M-504-120	Total Length Surveyed (ft):	148.7
O&M Index:	2.00	O&M Quick:	322G	O&M Rating:	90.00
Structural Index:	2.77	Structural Qui	ck: 5142		97.00
Overall Index:	2.34	Overall Quick:	5142	Overall Rating:	187.00
				everal katilgi	

	Position	Code	Observation	Video (sec)	Grade
M(504-	120				
${\vdash}$	0.	AMH	Manhole	1	NA
	.0	MWL	Miscellaneous Water Level	71	NA
	.0	DSF(S01)	Deposits Settled Fine	96	M 2
	1.0	FM	Fracture Multiple	153	S 4
- 11	1.0	JOM	Joint Offset Medium	173	S 3
	3.1	CM	Crack Multiple	219	S 3
	3.1	JOM	Joint Offset Medium	236	S 3
	3.1	СМ	Crack Multiple	255	S 3
	4.0	TFC	Tap Factory Capped	278	NA
5	6.1	TFC	Tap Factory Capped	309	NA
ecti	6.1	MWLS(S02)	Miscellaneous Water Level Sag	327	S 2
Dir	12.8	JOM	Joint Offset Medium	370	S 3
Camera Direction	17.1	JOM	Joint Offset Medium	407	S 3
Car	19.8	SSS	Surface Damage Surface Spalling	434	S 2
	19.8	СМ	Crack Multiple	467	S 3
	22.5	MWLS(F02)	Miscellaneous Water Level Sag	497	S 2
1	25.5	DAE	Deposits Attached Encrustation	527	M 2
	34.0	DAE	Deposits Attached Encrustation	591	M 2
	40.4	JOM	Joint Offset Medium	635	S 3

Tuesday, April 25, 2023

**RedZone**<sup>®</sup>

	41.9	СМ	Crack Multiple	722	S 3
	42.3	TBI	Tap Break-in Intruding	740	M 2
	51.2	JOM	Joint Offset Medium	822	S 3
	52.5	TFC	Tap Factory Capped	844	NA
	54.9	TFD	Tap Factory Defective	881	M 3
	66.0	JOM	Joint Offset Medium	972	S 3
	78.2	DSC	Deposits Settled Hard/Compacted	1056	M 2
	85.1	JOM	Joint Offset Medium	1107	S 3
	88.5	SSS	Surface Damage Surface Spalling	1161	S 2
	89.1	ТВІ	Tap Break-in Intruding	1182	M 2
//	93.3	DSC	Deposits Settled Hard/Compacted	1247	M 2
	95.6	FS	Fracture Spiral	1293	S 3
	95.6	HSV	Hole Soil Visible	1314	S 5
	96.0	TBI	Tap Break-in Intruding	1339	M 2
	100.1	JOM	Joint Offset Medium	1375	S 3
	100.1	СМ	Crack Multiple	1418	S 3
$\exists f$	/101.1	DSC	Deposits Settled Hard/Compacted	1453	M 2
<b>#</b> //	/103.7	TFC	Tap Factory Capped	1483	NA
	/ 106.0	TFC	Tap Factory Capped	1515	NA
+//	/ 108.3	JOM	Joint Offset Medium	1546	S 3
+'/	/110.9	JOM	Joint Offset Medium	1571	S 3
	/113.0	JOM	Joint Offset Medium	1599	S 3
$\Box/$	/ 115.0	JOM	Joint Offset Medium	1628	S 3
$\mp$	/ 117.7	DAE	Deposits Attached Encrustation	1660	M 2
+	/ 120.2	MWLS(S03)	Miscellaneous Water Level Sag	1692	S 2
+/	/ 135.9	JOM	Joint Offset Medium	1869	S 3
+/	136.0	FM	Fracture Multiple	1910	S 4
	137.6	TBI	Tap Break-in Intruding	1977	M 2
	137.6	CL	Crack Longitudinal	1994	S 2
	142.4	RFJ(SO4)	Roots Fine Joint	2060	M 1
	147.0	RFJ	Roots Fine Joint	2122	M 1
	147.6	RML	Roots Medium Lateral	2170	M 3
///	148.3	ТВІ	Tap Break-in Intruding	2218	M 2
	148.3	RFJ(F04)	Roots Fine Joint	2243	M 1
	148.7	MWLS(F03)	Miscellaneous Water Level Sag	2279	S 2
	/148.7	DSF(F01)	Deposits Settled Fine	2287	M 2
	148.7	MSA	Miscellaneous Survey Abandoned	2298	NA



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-504-120



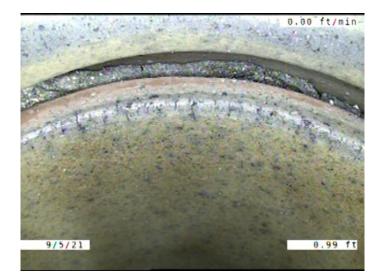
Code: Description:	MWL Miscellaneous Water Level
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent:	.0 0 0 5.000
Continuous Index: Within 8" of Joint: Remarks:	ΝΟ



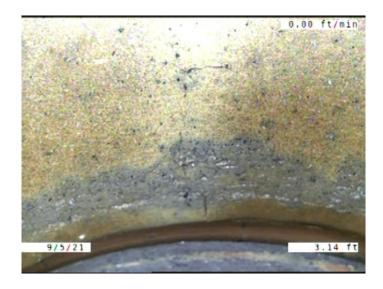
Code: Description:	DSF Deposits Settled Fine
Distance (ft):	.0
Structural Grade: O&M Grade:	0 2
Clock Start/From: Clock To:	5 7
1st Value: 2nd Value:	
Value Percent:	5.000
Continuous Index:	S01
Within 8" of Joint: Remarks:	YES



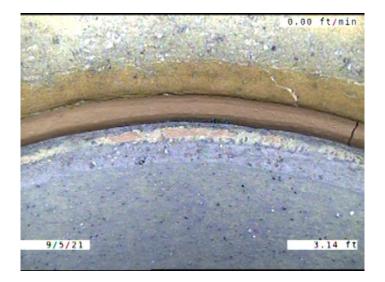
Code: Description:	FM Fracture Multiple
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint:	1.0 4 0 4 8
Remarks:	125



Code: Description:	JOM Joint Offset Medium
Distance (ft):	1.0
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	
Clock To:	
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: Continuous Index: Within 8" of Joint: Remarks:	3.1 3 0 9 11 YES



Code: Description:	JOM Joint Offset Medium
Distance (ft):	3.1
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



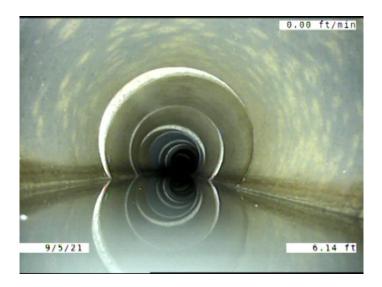
Code: Description:	CM Crack Multiple
Distance (ft):	3.1
Structural Grade: O&M Grade:	3 0
Clock Start/From:	12
Clock To:	1
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code:	TFC
Description:	Tap Factory Capped
Distance (ft):	4.0
Distance (ft):	4.0
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:	

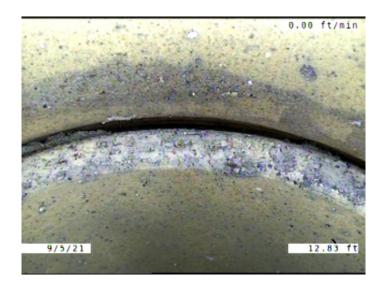


Code: Description:	TFC Tap Factory Capped
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent:	6.1 0 0 1 6.000
Continuous Index: Within 8" of Joint: Remarks:	YES

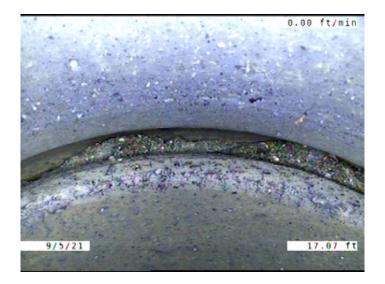


Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	6.1
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	10.000
Continuous Index:	S02
Within 8" of Joint:	NO

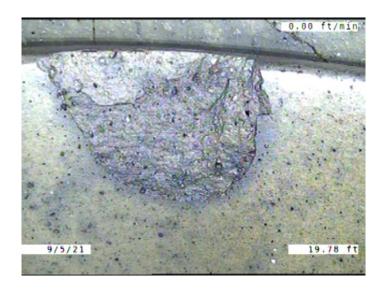
Remarks:



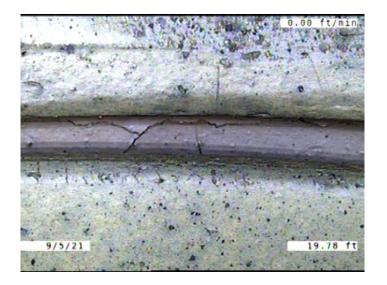
Code: Description:	JOM Joint Offset Medium
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value:	12.8 3 0
Value Percent: Continuous Index: Within 8" of Joint: Remarks:	NO



Code: Description:	JOM Joint Offset Medium
Distance (ft):	17.1
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



Code: Description:	SSS Surface Damage Surface Spalling
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint:	19.8 2 0 3 YES
Remarks:	



Code:	СМ
Description:	Crack Multiple
Distance (ft):	19.8
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	11
Clock To:	4
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



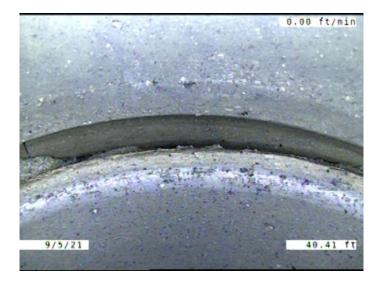
Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	22.5
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	10.000
Continuous Index:	F02
Within 8" of Joint:	NO
Remarks:	



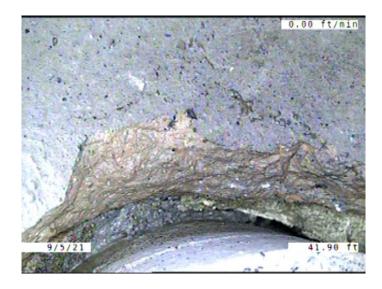
Code: Description:	DAE Deposits Attached Encrustation
Distance (ft):	25.5
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	5
Clock To:	7
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



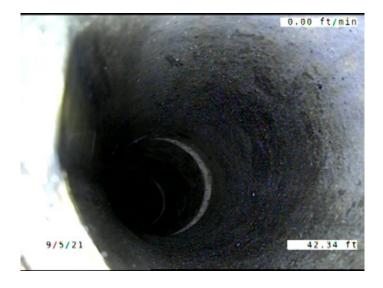
Code: Description:	DAE Deposits Attached Encrustation
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint:	34.0 0 2 4 8 5.000 YES
Remarks:	YES



Code: Description:	JOM Joint Offset Medium
Distance (ft):	40.4
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



Code: Description:	CM Crack Multiple
Distance (ft):	41.9
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	8
Clock To:	1
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



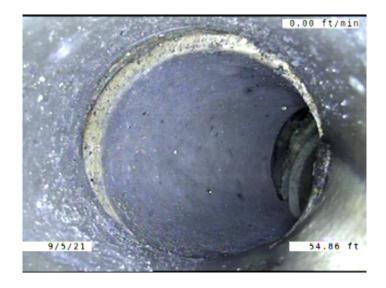
Code: Description:	TBI Tap Break-in Intruding
Distance (ft):	42.3
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	9
Clock To:	
1st Value:	6.000
2nd Value:	2.000
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	JOM Joint Offset Medium
Distance (ft):	51.2
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



Code: Description:	TFC Tap Factory Capped
Distance (ft):	52.5
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:	



Code:	TFD
Description:	Tap Factory Defective
Distance (ft):	54.9
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	2
Clock To: 1st Value: 2nd Value: Value Percent:	6.000
Continuous Index: Within 8" of Joint: Remarks:	YES Defective



Code: Description:	JOM Joint Offset Medium
Distance (ft):	66.0
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



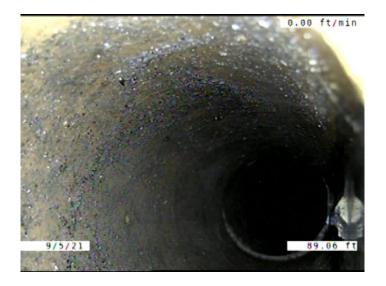
Code: Description:	DSC Deposits Settled Hard/Compacted
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value:	78.2 0 2 6
Value Percent: Continuous Index:	5.000
Within 8" of Joint: Remarks:	YES



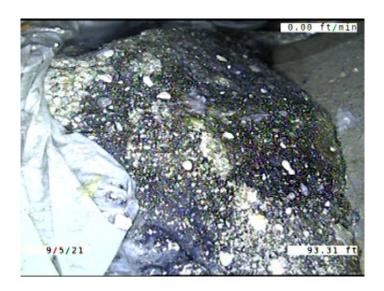
Code: Description:	JOM Joint Offset Medium
Distance (ft):	85.1
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



Code:	SSS
Description:	Surface Damage Surface Spalling
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:	88.5 2 0 1 3 YES



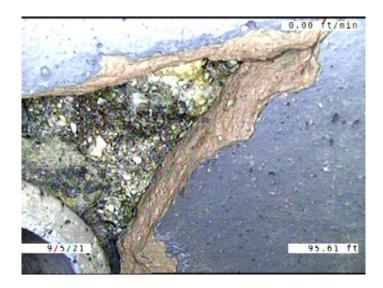
TBI Tap Break-in Intruding
89.1
0
2
3
6.000
2.000
YES



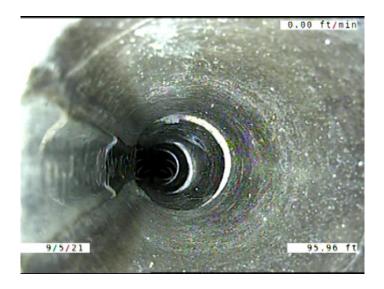
Code: Description:	DSC Deposits Settled Hard/Compacted
Distance (ft):	93.3
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	5
Clock To:	6
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



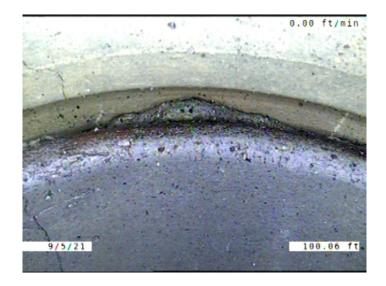
Code:	FS
Description:	Fracture Spiral
Distance (ft):	95.6
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	11
Clock To:	1
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



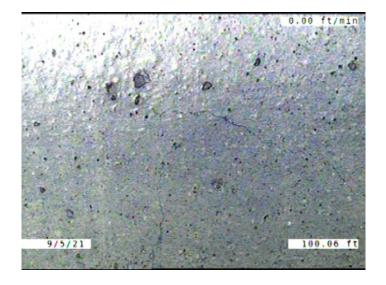
Code: Description:	HSV Hole Soil Visible
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint:	95.6 5 0 10 11
Remarks:	15



Code: Description:	TBI Tap Break-in Intruding
Distance (ft):	96.0
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	9
Clock To:	
1st Value:	6.000
2nd Value:	1.000
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	JOM Joint Offset Medium
Distance (ft):	100.1
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



Code:	СМ
Description:	Crack Multiple
Distance (ft):	100.1
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:	YES
Remarks:	



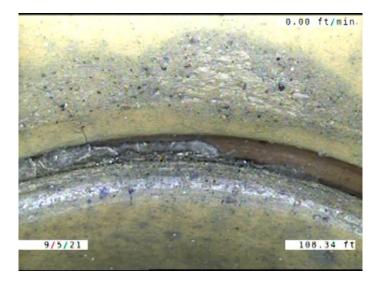
Code: Description:	DSC Deposits Settled Hard/Compacted
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value:	101.1 0 2 5 7
Value Percent: Continuous Index:	5.000
Within 8" of Joint: Remarks:	YES



Code:	TFC
Description:	Tap Factory Capped
Distance (ft):	103.7
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:	



Code: Description:	TFC Tap Factory Capped
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:	106.0 0 1 6.000 YES



Code: Description:	JOM Joint Offset Medium
Distance (ft):	108.3
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



Code: Description:	JOM Joint Offset Medium
Distance (ft):	110.9
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



Code: Description:	JOM Joint Offset Medium
Distance (ft):	113.0
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	

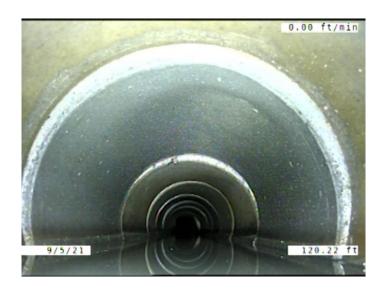


Code: Description:	JOM Joint Offset Medium
Distance (ft):	115.0
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	

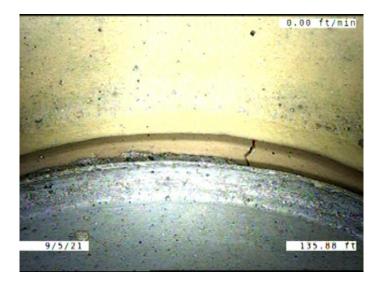


Code: Description:	DAE Deposits Attached Encrustation
Distance (ft):	117.7
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	4
Clock To:	5
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES

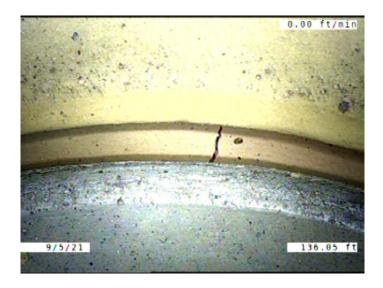
Remarks:



Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	120.2
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:	



Code: Description:	JOM Joint Offset Medium
Distance (ft):	135.9
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



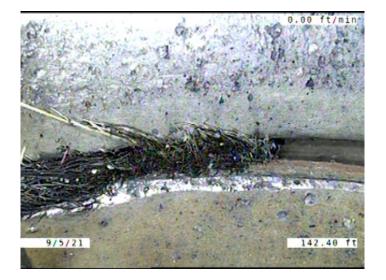
Code: Description:	FM Fracture Multiple
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index:	136.0 4 0 11 2
Within 8" of Joint: Remarks:	YES



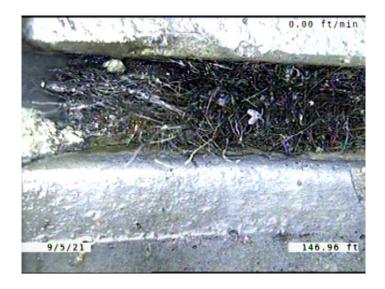
Code:	ТВІ
Description:	Tap Break-in Intruding
Distance (ft):	137.6
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	2
Clock To:	
1st Value:	6.000
2nd Value:	1.000
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



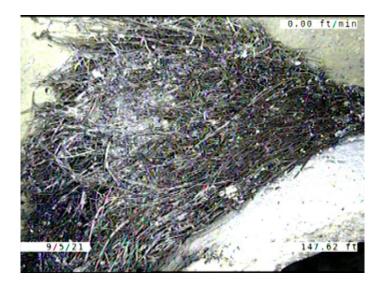
Code: Description:	CL Crack Longitudinal
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	137.6 2 0 1 YES



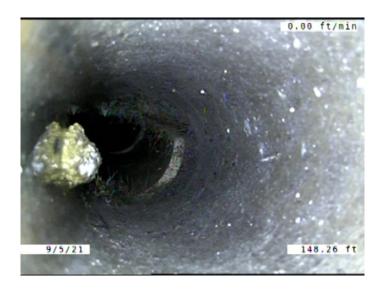
Code:	RFJ
Description:	<b>Roots Fine Joint</b>
Distance (ft):	142.4
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	9
Clock To:	10
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	S04
Within 8" of Joint:	YES
Remarks:	



Code: Description:	RFJ Roots Fine Joint
Distance (ft):	147.0
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	3
Clock To:	4
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	RML Roots Medium Lateral
Distance (ft):	147.6
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	8
Clock To:	11
1st Value:	
2nd Value:	
Value Percent:	10.000
Continuous Index:	
Within 8" of Joint:	NO
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:	148.3 0 2 9 6.000 3.000 YES



Code:	RFJ
Description:	Roots Fine Joint
Distance (ft):	148.3
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	9
Clock To:	10
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	F04
Within 8" of Joint:	YES
Remarks:	



Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	148.7
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:	DSF
Description:	<b>Deposits Settled Fine</b>
Distance (ft):	148.7
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	5
Clock To:	7
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	F01
Within 8" of Joint:	YES
Remarks:	



Code: Description:	MSA Miscellaneous Survey Abandoned
Distance (ft):	148.7
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:	CAMERA CANT MAKE IT PAST PROTRUDING TAP.

Tuesday, April 25, 2023