## **Profile/Photo Observation Report**

					ROBOTICS
Date:	09/13/2021	Weather:		Coding:	PACP 7.0
Pipe Length (ft):	308.8	Owner:	City of Hobart	Pre Clean:	Heavy Cleaning
P.O.#:	YES502259	Surveyor:	S. Bucklin	PSR:	P-504-058-057
Customer:	City of Hobart	Clean Date:	09/08/2021	Shape:	С
Street:	North Wilson Stree	t	Flow Control:	Not Controlled	
City:	Hobart, IN		Year Renewed:		
Location:	Alley		Tape/Media #:		
Purpose:	<b>Routine Assessmen</b>	t	Dia/Height:	10"	
Use:	Sanitary Sewage Pi	pe	Material:	VCP	
Drain Area:			Lining:	None	
Category:	NA				
Comment:					
Location Details	:		Direction of Survey	: Downstream	
US MH:	W-504-057	DS MH:	M-504-058	Total Length Surveyed (ft):	308.8
D&M Index:	1.95	O&M Quick:	312N	O&M Rating:	158.00
Structural Index:	3.27	Structural Quid	ck: 564F	Structural Rating:	255.00
Overall Index:	2.60	Overall Quick:	564F	Overall Rating:	413.00

		Position	Code	Observation	Video (sec)	Grade
M(5	04-05	7				
		.0	AMH	Manhole	3	NA
- t		.0	MWL	Miscellaneous Water Level	79	NA
- 1		.0	DSF(S01)	Deposits Settled Fine	88	M 2
- 1		.2	HSV	Hole Soil Visible	152	S 5
- 1		1.6	FM	Fracture Multiple	195	S 4
- 1	l l	5.6	TBI	Tap Break-in Intruding	345	M 2
Ī		28.8	СМ	Crack Multiple	590	S 3
- 1		29.5	TBI	Tap Break-in Intruding	616	M 2
I	, i i i i i i i i i i i i i i i i i i i	43.0	MWLS(S02)	Miscellaneous Water Level Sag	681	S 2
5		52.3	В	Broken	763	S 4
Ę		53.9	FM	Fracture Multiple	819	S 4
ā t		54.5	TBI	Tap Break-in Intruding	842	M 2
Camera Direction	<u> </u>	60.3	MWLS(F02)	Miscellaneous Water Level Sag	894	S 2
Car		70.9	В	Broken	992	S 4
	$ \rightarrow $	71.3	TBI	Tap Break-in Intruding	1026	M 2
		92.4	RFJ	Roots Fine Joint	1159	M 1
<b>↓</b>	/	95.7	СМ	Crack Multiple	0	S 3
		95.7	RFJ	Roots Fine Joint	1204	M 1
		98.2	В	Broken	31	S 4

Tuesday, April 25, 2023

**RedZone**<sup>®</sup>

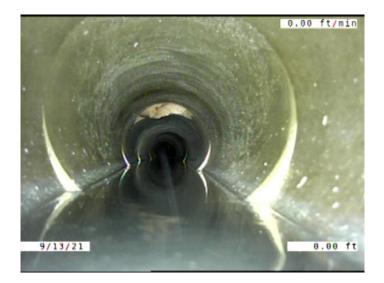
// 98.2	FM(S04)	Fracture Multiple	35	S 4
102.0	TBD	Tap Break-in/Hammer Defective	0	M 3
111.8	RFJ	Roots Fine Joint	50	M 1
/ 114.3	MWLS(S05)	Miscellaneous Water Level Sag	73	S 2
	RFJ	Roots Fine Joint	181	M 1
/ 126.1	SMW	Surface Damage Missing Wall	227	S 5
_// 136.2	TBI	Tap Break-in Intruding	334	M 2
/ 150.1	RFJ	Roots Fine Joint	459	M 1
/ 151.4	ТВ	Tap Break-in/Hammer	519	NA
//179.5	MWLS(F05)	Miscellaneous Water Level Sag	680	S 2
183.5	MWLS(S06)	Miscellaneous Water Level Sag	713	S 2
191.9	MMC	Miscellaneous Material Change	800	NA
191.9	FM(F04)	Fracture Multiple	816	S 4
194.4	TF	Tap Factory	866	NA
199.2	MMC	Miscellaneous Material Change	947	NA
200.9	В	Broken	1016	S 4
201.6	RFB	Roots Fine Barrel	1053	M 2
207.9	В	Broken	1142	S 4
213.3	CM	Crack Multiple	1239	S 3
213.3	В	Broken	1273	S 4
213.8	SMW	Surface Damage Missing Wall	1301	S 5
217.0	SMW	Surface Damage Missing Wall	1401	S 5
217.0	СМ	Crack Multiple	1431	S 3
226.6	SMW	Surface Damage Missing Wall	1500	S 5
226.6	FM(S07)	Fracture Multiple	1552	S 4
J // 241.0	ТВ	Tap Break-in/Hammer	1739	NA
241.0	MWLS(F06)	Miscellaneous Water Level Sag	1755	S 2
J 244.5	HSV	Hole Soil Visible	1877	S 5
245.8	TBI	Tap Break-in Intruding	1966	M 2
// 261.7	DAE	Deposits Attached Encrustation	2067	M 2
266.4	DAE	Deposits Attached Encrustation	2135	M 2
269.3	FM(F07)	Fracture Multiple	2170	S 4
275.2	СМ	Crack Multiple	2243	S 3
275.2	DAE	Deposits Attached Encrustation	2266	M 2
	CS	Crack Spiral	2343	S 2
287.2	DAE	Deposits Attached Encrustation	2394	M 2
296.6	FM	Fracture Multiple	2488	S 4
	DAE	Deposits Attached Encrustation	2512	M 2
302.2	FM(S08)	Fracture Multiple	2631	S 4
	DAE(S09)	Deposits Attached Encrustation	2675	M 2
// 308.1	DSF(F01)	Deposits Settled Fine	2716	M 2
/	FM(F08)	Fracture Multiple	2724	S 4

Tuesday, April 25, 2023

308.1	DAE(F09)	Deposits Attached Encrustation	2733	M 2
308.8	AMH	Manhole	2823	NA
M-504-058				



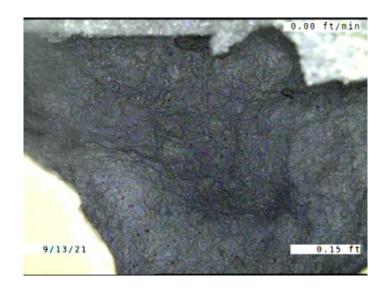
Code:	AMH
Description:	Manhole
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index:	.0 0 0
Within 8" of Joint:	NO
Remarks:	M-504-057



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:	5.000
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



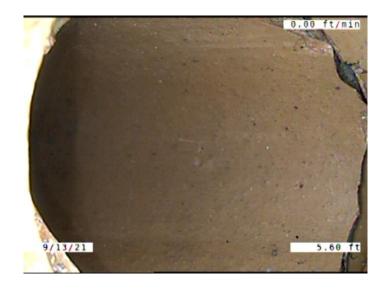
Code: Description:	DSF Deposits Settled Fine
Distance (ft):	.0
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	5
Clock To:	7
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	S01
Within 8" of Joint:	YES
Remarks:	



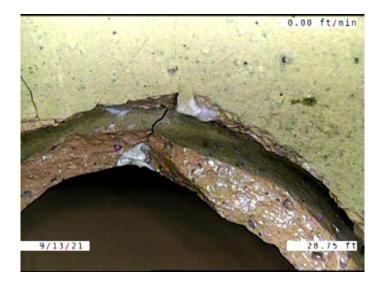
Description: He	ble Soil Visible
Distance (ft):.2Structural Grade:5O&M Grade:0Clock Start/From:11Clock To:11st Value:12nd Value:2Value Percent:Continuous Index:Within 8" of Joint:YERemarks:1	L



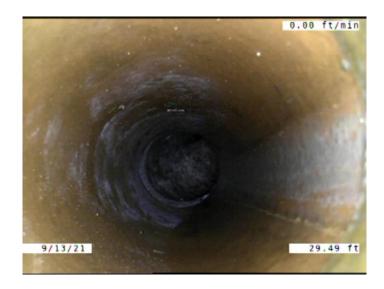
Code:	FM
Description:	Fracture Multiple
Distance (ft):	1.6
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	11
Clock To:	2
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



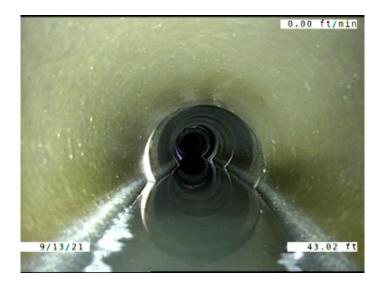
Code: Description:	TBI Tap Break-in Intruding
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	5.6 0 2 12 4.000 1.000 YES



СМ
Crack Multiple
28.8
3
0
12
3
YES



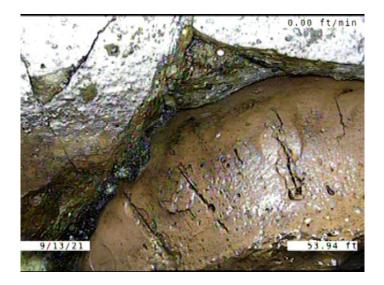
Code: Description:	TBI Tap Break-in Intruding
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	29.5 0 2 1 4.000 1.000 YES



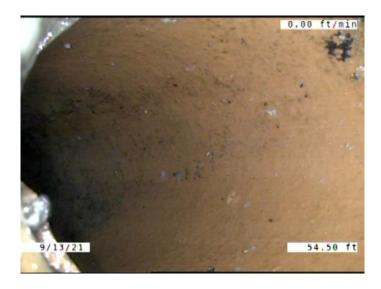
Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	43.0
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	10.000
Continuous Index:	S02
Within 8" of Joint:	NO



Code: Description:	B Broken	
Distance (ft):	52.3	
Structural Grade:	4	
O&M Grade:	0	
Clock Start/From:	1	
Clock To:	6	
1st Value:		
2nd Value:		
Value Percent:		
Continuous Index:		
Within 8" of Joint:	YES	
Remarks:		



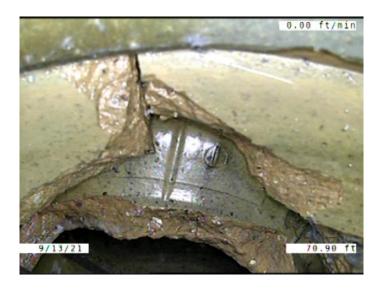
Code:	FM
Description:	Fracture Multiple
Distance (ft):	53.9
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	10
Clock To:	1
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



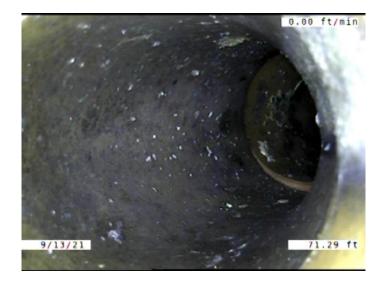
Code: TI	BI
Description: Ta	ap Break-in Intruding
Structural Grade:OO&M Grade:2Clock Start/From:1:Clock To:1:1st Value:4.2nd Value:1.Value Percent:Continuous Index:	4.5 1 000 000 ES



Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	60.3
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



Code:	B
Description:	Broken
Distance (ft):	70.9
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	12
Clock To: 1st Value: 2nd Value: Value Percent:	12
Continuous Index: Within 8" of Joint: Remarks:	YES



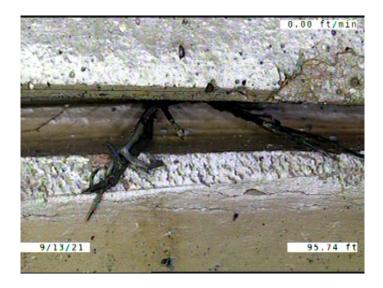
Code:	ТВІ
Description:	Tap Break-in Intruding
Distance (ft):	71.3
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	1
Clock To:	
1st Value:	4.000
2nd Value:	1.000
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



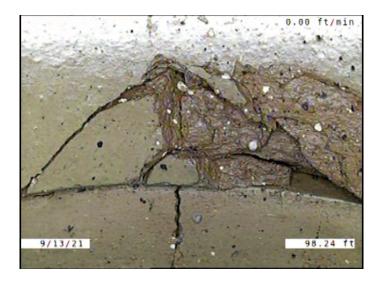
Code: Description:	RFJ Roots Fine Joint
Distance (ft):	92.4
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	10
Clock To:	2
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



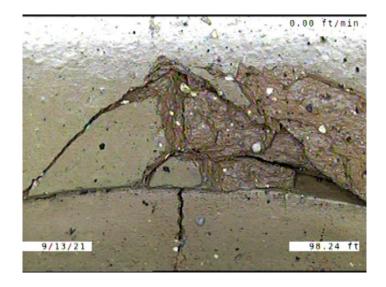
Code:	СМ
Description:	Crack Multiple
Distance (ft):	95.7
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	8
Clock To:	11
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



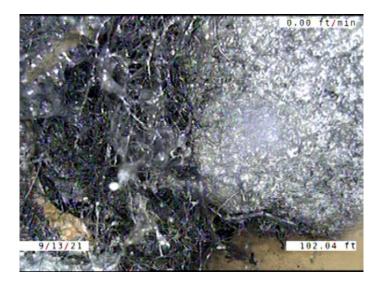
Code: Description:	RFJ Roots Fine Joint
Distance (ft):	95.7
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	11
Clock To:	12
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



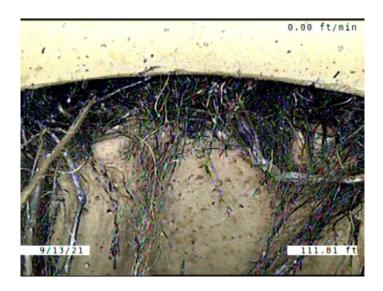
Code:	В
Description:	Broken
Distance (ft):	98.2
Distance (It).	90.2
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	12
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	FM Fracture Multiple
Distance (ft):	98.2
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	8
Clock To:	4
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	S04
Within 8" of Joint:	YES
Remarks:	



Code:	TBD
Description:	Tap Break-in/Hammer Defective
Distance (ft):	102.0
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	12
Clock To:	
1st Value:	4.000
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	100% PLUGGED



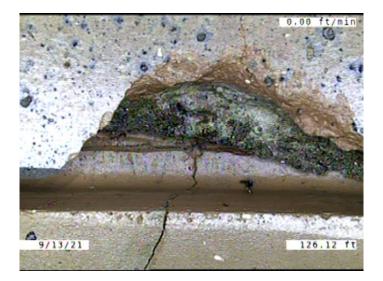
Code:	RFJ
Description:	Roots Fine Joint
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	111.8 0 1 10 1 YES



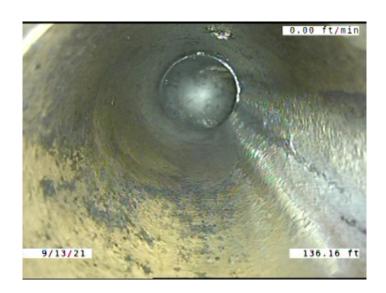
MWLS Miscellaneous Water Level Sag
114.3
2
0
10.000
S05
NO



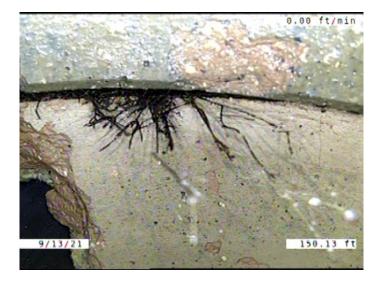
Code: Description:	RFJ Roots Fine Joint
Distance (ft):	125.2
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	1
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



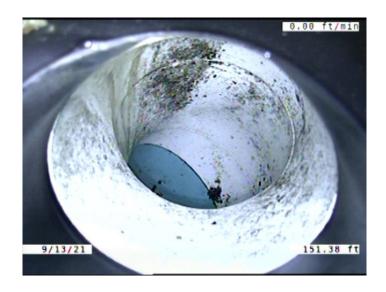
Code: Description:	SMW Surface Damage Missing Wall
Distance (ft):	126.1
Structural Grade:	5
O&M Grade:	0
Clock Start/From:	11
Clock To:	1
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Descriptio	n:	TBI Tap Break-in Intruding
Distance ( Structural O&M Grad Clock Star Clock To: 1st Value: 2nd Value Value Pero Continuou Within 8" Remarks:	Grade: de: t/From: : : cent: us Index:	136.2 0 2 1 4.000 1.000 YES



RFJ
<b>Roots Fine Joint</b>
150.1
0
1
10
1
YES



Code: Description:	TB Tap Break-in/Hammer
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:	151.4 0 0 11 4.000 YES



Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	179.5
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	10.000
Continuous Index:	F05
Within 8" of Joint:	NO



Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	183.5
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	20.000
Continuous Index:	S06
Within 8" of Joint:	NO
Remarks:	



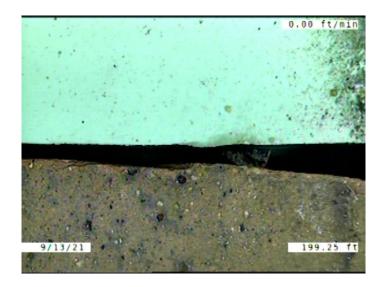
Code: MMC Description: **Miscellaneous Material Change** Distance (ft): 191.9 Structural Grade: 0 0 O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: NO Remarks: VCP TO PVC



Code:	FM
Description:	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: Remarks:	191.9 4 0 8 4 704 YES



Code:	TF
Description:	Tap Factory
Distance (ft):	194.4
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:	YES
Remarks:	



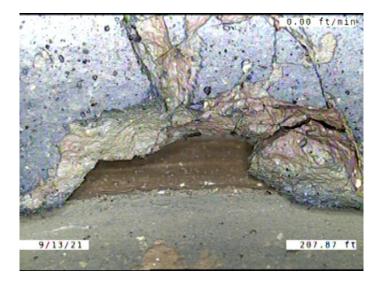
Code: Description:	MMC Miscellaneous Material Change
Distance (ft):	199.2
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	ΡVC ΤΟ VCP



Description: E	Broken
Distance (ft): 2	200.9
Structural Grade: 4	1
O&M Grade: C	)
Clock Start/From: 1	L <b>O</b>
Clock To: 2	2
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	/ES
Remarks:	



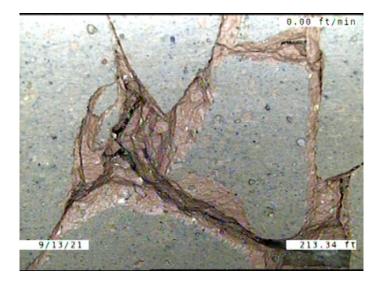
Distance (ft):201.6Structural Grade:0O&M Grade:2Clock Start/From:10Clock To:11st Value:-2nd Value:-Value Percent:-Continuous Index:NORemarks:-	



Code:	В
Description:	Broken
Distance (ft):	207.9
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:	



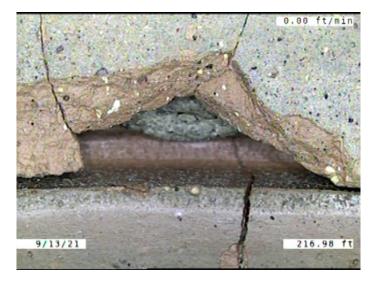
Code: Description:	CM Crack Multiple
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index:	213.3 3 0 2 4
Within 8" of Joint: Remarks:	ΝΟ



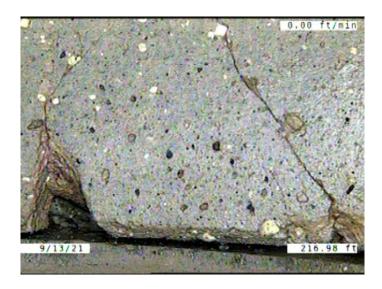
Code:	В
Description:	Broken
Distance (ft):	213.3
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	10
Clock To:	2
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



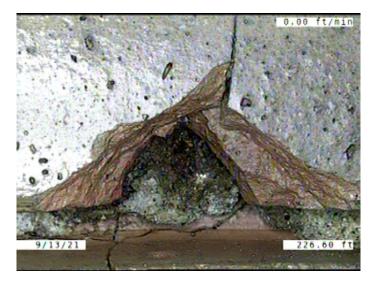
Code: Description:	SMW Surface Damage Missing Wall
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index:	213.8 5 0 10 11
Within 8" of Joint: Remarks:	YES



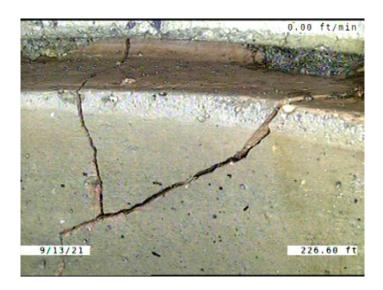
Code: Description:	SMW Surface Damage Missing Wall
Distance (ft):	217.0
Structural Grade:	5
O&M Grade:	0
Clock Start/From:	12
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	CM Crack Multiple
Distance (ft):	217.0
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	10
Clock To:	3
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: SMW Description: Surface Damage Missing Wall Distance (ft): 226.6 Structural Grade: 5 O&M Grade: 0 Clock Start/From: 10 Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: YES Remarks:



Code: Description:	FM Fracture Multiple
Distance (ft):	226.6
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	12
Clock To:	12
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	S07
Within 8" of Joint:	YES
Remarks:	



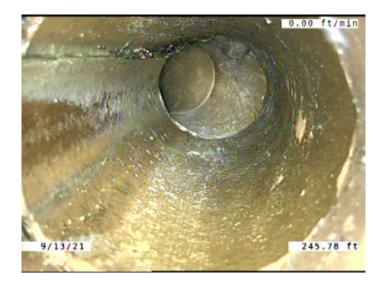
Code: Description:	TB Tap Break-in/Hammer
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index:	241.0 0 12 4.000
Within 8" of Joint: Remarks:	YES



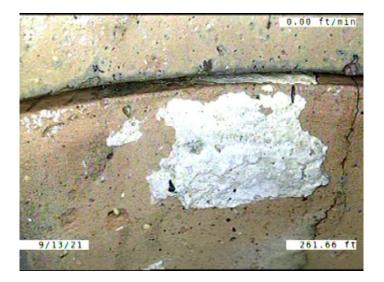
Code: Description:	MWLS Miscellaneous Water Level Sag
Distance (ft):	241.0
Structural Grade:	2
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	20.000
Continuous Index:	F06
Within 8" of Joint:	NO
Remarks:	



HSV
Hole Soil Visible
244.5
5
0
4
5
YES



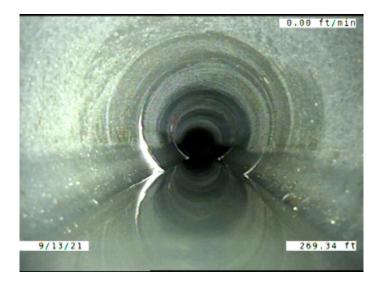
Code: Description:	TBI Tap Break-in Intruding
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	245.8 0 2 11 4.000 1.000 YES



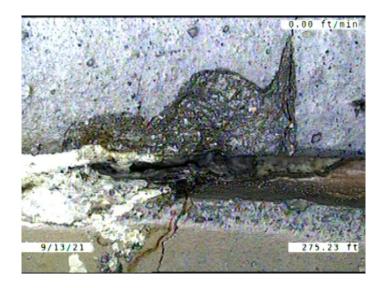
Code: Description:	DAE Deposits Attached Encrustation
Distance (ft):	261.7
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	9
Clock To:	10
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	DAE Deposits Attached Encrustation
Distance (ft):	266.4
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	2
Clock To:	4
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



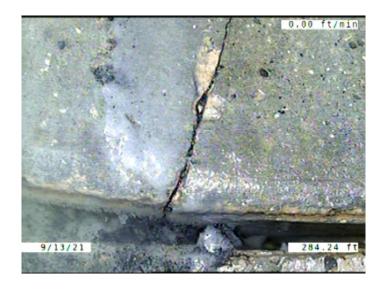
Code: Description:	FM Fracture Multiple
Distance (ft):	269.3
Structural Grade: O&M Grade:	4 0
Clock Start/From: Clock To:	12 12
1st Value: 2nd Value:	
Value Percent: Continuous Index:	F07
Within 8" of Joint: Remarks:	YES



Code: Description:	CM Crack Multiple
Distance (ft):	275.2
Structural Grade:	3
O&M Grade:	0
Clock Start/From:	9
Clock To:	10
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code:	DAE
Description:	Deposits Attached Encrustation
Distance (ft):	275.2
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	8
Clock To:	10
1st Value: 2nd Value:	
Value Percent: Continuous Index: Within 8" of Joint:	5.000 YES
Remarks:	ies.



Code: Description:	CS Crack Spiral
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index:	284.2 2 0 2 4
Within 8" of Joint: Remarks:	YES



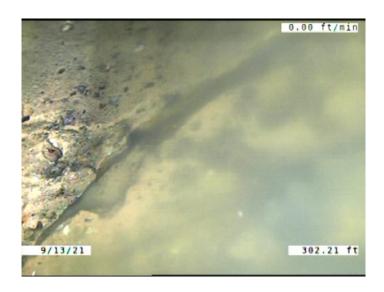
Code: Description:	DAE Deposits Attached Encrustation
Distance (ft):	287.2
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	8
Clock To:	11
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES



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: Remarks:	296.6 4 0 4 7 YES



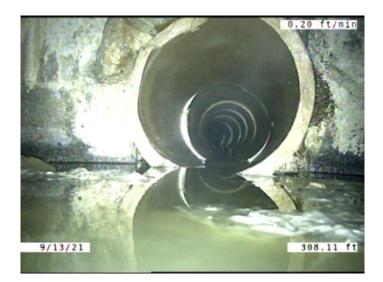
DAE Deposits Attached Encrustation
296.6
0
2
1
4
5.000
YES



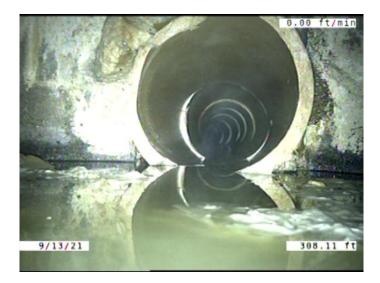
Code:	FM
Description:	Fracture Multiple
Distance (ft): Structural Grade: O&M Grade: Clock Start/From: Clock To: 1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint: Remarks:	302.2 4 0 12 12 508 YES



Code: Description:	DAE Deposits Attached Encrustation
Distance (ft):	302.2
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	8
Clock To:	4
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	S09
Within 8" of Joint:	YES



Description: Deposi	
Distance (ft): <b>308.1</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: <b>7</b> 2nd Value: <b>5.000</b> Value Percent: <b>5.000</b> Continuous Index: <b>F01</b> Within 8" of Joint: <b>YES</b> Remarks:	



Code:	FM
Description:	Fracture Multiple
Distance (ft):	308.1
Structural Grade:	4
O&M Grade:	0
Clock Start/From:	12
Clock To:	12
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	F08
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: Remarks:	308.1 0 2 8 4 5.000 F09 YES



	nole
Distance (ft):308.8Structural Grade:0O&M Grade:0Clock Start/From:0Clock To:11st Value:22nd Value:Value Percent:Value Percent:Continuous Index:Within 8" of Joint:NORemarks:M-50	4-058