Profile/Ph	oto Observatio	n Report			RedZor ROBOTICS
Date: Pipe Length (ft P.O.#: Customer:	03/20/2018 :): 237.2	Weather: Owner: Surveyor: Clean Date:	NA John Kuglmaie 01/01/1900	Coding: Pre Clean: rr PSR: Shape:	PACP 6.0 No Pre-Cleaning P-209-012-013 C
Street:	FOXCROFT STREE	т	Flow Control:	Not Controll	ed
City:	Hobart, IN		Year Renewed:		
Location:	Light Highway		Tape/Media #:		
Purpose:	Routine Assessme	ent	Dia/Height:	8"	
Use:	Sanitary		Material:	VCP	
Drain Area:	NA		Lining:		
Category:	NA				
Comment:	O_C at 76 ft can se	ee last image and	cant find MH . Flo	w wrong	
Location Detai	ls:		Direction of Surv	vey: Upstream	
US MH:	M-209-013	DS MH:	M-209-012	Total Length Surveyed (ft): 78.0
O&M Index:	2.18	O&M Quick:	443	O&M Rating:	61.00
Structural Index:	2.00	Structural Qu	ick: 210	00 Structural Ratin	g: 2.00
Overall Index:	2.17	Overall Quick	. 443	Overall Rating:	63.00

	Position	Code	Observation	Video (sec)	Grade
N(209-)0	12				
	.0	AMH	Manhole	10	NA
	\ <u>.</u> 0	MWL	Water Level	21	NA
	12.6	RFC	Roots Fine Connection	58	M 1
	/12.7	TFD	Tap Factory Defective	70	M 2
	/ 12.7	DAR	Deposits Attached Ragging	81	M 2
	14.0	RFJ	Roots Fine Joint	96	M 1
	14.8	TF	Tap Factory	109	NA
	15.3	DAZ(S01)	Deposits Attached Other	121	M 2
	28.5	RFJ	Roots Fine Joint	159	M 1
5	32.1	MWL	Water Level	178	NA
Camera Direction	36.3	RFJ	Roots Fine Joint	198	M 1
	43.9	MWL	Water Level	224	NA
	44.5	RMJ	Roots Medium Joint	237	M 3
<u>ل</u> ق	45.3	TFD	Tap Factory Defective	250	M 2
	45.3	RBC	Roots Ball Connection	262	M 4
∎	46.7	CL	Crack Longitudinal	276	S 2
	46.7	DAR	Deposits Attached Ragging	288	M 2
	46.8	RFJ	Roots Fine Joint	300	M 1
	/ 50.6	DAZ(F01)	Deposits Attached Other	319	M 2
	/50.6	MGO	General Observation	333	NA
	50.6	DAZ(S02)	Deposits Attached Other	344	M 2
	52.1	TFD	Tap Factory Defective	359	M 2
	52.1	RML	Roots Medium Lateral	370	M 3
	53.4	RFJ	Roots Fine Joint	384	M 1
	58.7	DAZ(F02)	Deposits Attached Other	407	M 2
	58.7	MCU	Camera Underwater	418	M 4
	61.4	DAZ(S03)	Deposits Attached Other	436	M 2
	61.7	RMJ	Roots Medium Joint	448	M 3
	65.6	DAZ(F03)	Deposits Attached Other	468	M 2
	65.6	MCU(S04)	Camera Underwater	479	M 4
	75.8	MCU(F04)	Camera Underwater	514	M 4
	75.8	MGO	General Observation	525	NA
	78.0	MSA	Abandoned Survey	545	NA



Code:	AMH
Description:	Manhole
Distance (ft):	.0
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	

100 00000	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	M-209-012

Code: Description:	MWL 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:RFCDescription:Roots Fine Connection

Distance (ft):	12.6
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	11
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	

2nd Value: Value Percent:

Remarks:

Continuous Index: Within 8" of Joint:

	Maria
This	
TAKA S	

Code:	TFD
Description:	Tap Factory Defective
Distance (ft):	12.7
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	11
Clock To:	
1st Value:	4.000

Roots



Code:DARDescription:Deposits Attached Ragging

RFJ

Roots Fine Joint

Distance (ft):	12.7
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	7
Clock To:	10
1st Value:	
2nd Value:	
Value Percent:	10.000
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	

Code:

Description:



Distance (ft):	14.0	
Structural Grade:	0	
O&M Grade:	1	
Clock Start/From:	11	
Clock To:		
1st Value:		
2nd Value:		
Value Percent:		
Continuous Index:		
Within 8" of Joint:	YES	
Remarks:		



Code:	TF
Description:	Tap Factory

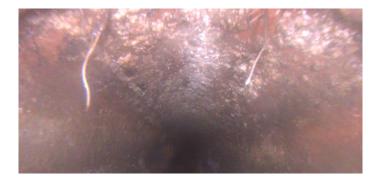
Distance (ft):	14.8
Structural Grade:	0
O&M Grade:	0
Clock Start/From:	2
Clock To:	
1st Value:	4.000
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	
Remarks:	

Remarks:



Code:	DAZ
Description:	Deposits Attached Other
Distance (ft):	15.3
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	7
Clock To:	5
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	S01
Within 8" of Joint:	NO

Mixed materials



Code:	RFJ
Description:	Roots Fine Joint

Distance (ft):	28.5
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	11
Clock To:	1
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code: Description:	MWL Water Level
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:	32.1 0 0 15.000 NO
Nethanko.	



Code:	RFJ
Description:	Roots Fine Joint

Distance (ft):	36.3
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:	MWL Water Level
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:	43.9 0 0 35.000 NO



Code:RMJDescription:Roots Medium Joint

Distance (ft):	44.5
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	8
Clock To:	2
1st Value:	
2nd Value:	
Value Percent:	25.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	

Code:

Description:



Distance (ft):	45.3
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	11
Clock To:	
1st Value:	4.000
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	
Remarks:	Roots

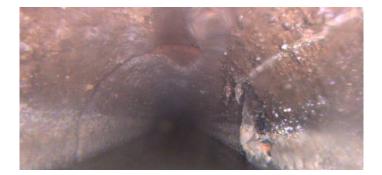
TFD

Tap Factory Defective



Code:**RBC**Description:**Roots Ball Connection**

Distance (ft):	45.3
Structural Grade:	0
O&M Grade:	4
Clock Start/From:	11
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	100.000
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



Code:	CL
Description:	Crack Longitudinal
·	-
Distance (ft):	46.7
Structural Crada	2

Distance (It).	40.7	
Structural Grade:	2	
O&M Grade:	0	
Clock Start/From:	2	
Clock To:		
1st Value:		
2nd Value:		
Value Percent:		
Continuous Index:		
Within 8" of Joint:	YES	
Remarks:		



Code:DARDescription:Deposits Attached Ragging

Distance (ft):	46.7
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	3
Clock To:	4
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Code:	RFJ
Description:	Roots Fine Joint
//	
Distance (ft):	46.8
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	2

4

YES

Clock To:

1st Value: 2nd Value: Value Percent: Continuous Index: Within 8" of Joint:

Remarks:



Distance (ft):	50.6
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	7
Clock To:	5
1st Value:	
2nd Value:	
Value Percent:	5.000
Continuous Index:	F01
Within 8" of Joint:	NO
Remarks:	Mixed materials / Clock positions
	vary



Distance (ft):	50.6
Distance (It).	50.0
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:	Switching to rear camera

MGO

General Observation

Code:

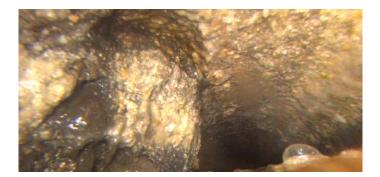
Description:



Distance (ft):	50.6
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	9
Clock To:	3
1st Value:	
2nd Value:	
Value Percent:	10.000
Continuous Index:	S02
Within 8" of Joint:	NO
Remarks:	Mixed materials

Code:

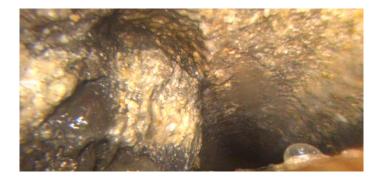
Description:



Distance (ft):	52.1
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	2
Clock To:	
1st Value:	4.000
	neee
2nd Value:	
2nd Value: Value Percent:	
Value Percent:	

TFD

Tap Factory Defective

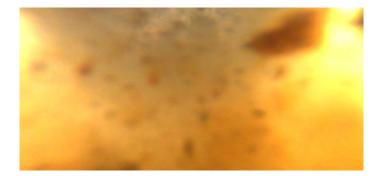


Code:RMLDescription:Roots Medium Lateral

Distance (ft):	52.1
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	1
Clock To:	3
1st Value:	
2nd Value:	
Value Percent:	20.000
Continuous Index:	
Within 8" of Joint:	NO
Remarks:	



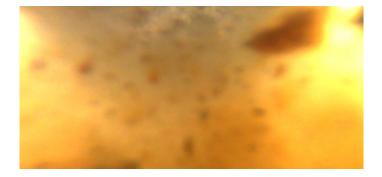
Code:	RFJ
Description:	Roots Fine Joint
Distance (ft):	53.4
Structural Grade:	0
O&M Grade:	1
Clock Start/From:	12
Clock To:	1
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	



Distance (ft):	58.7
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	9
Clock To:	3
1st Value:	
2nd Value:	
Value Percent:	10.000
Continuous Index:	F02
Within 8" of Joint:	NO
Remarks:	Mixed materials / Clock positions
	vary

MCU

Camera Underwater



Distance (ft):	58.7	
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:		

Code:

Description:



Distance (ft):	61.4
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	9
Clock To:	3
1st Value:	
2nd Value:	
Value Percent:	10.000
Continuous Index:	S03
Within 8" of Joint:	NO
Remarks:	Mixed materials

Code:

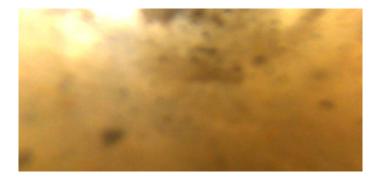
Description:



Distance (ft):	61.7
Structural Grade:	0
O&M Grade:	3
Clock Start/From:	9
Clock To:	3
1st Value:	
2nd Value:	
Value Percent:	20.000
Continuous Index:	
Within 8" of Joint:	YES
Remarks:	

RMJ

Roots Medium Joint



Distance (ft):	65.6
Structural Grade:	0
O&M Grade:	2
Clock Start/From:	9
Clock To:	3
1st Value:	
2nd Value:	
Value Percent:	10.000
Continuous Index:	F03
Within 8" of Joint:	NO
Remarks:	Mixed materials / Clock positions
	vary



Code:	
Description	:

MCU Camera Underwater

Distance (ft):	65.6
Structural Grade:	0
O&M Grade:	4
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	S04
Within 8" of Joint:	NO
Remarks:	



Code: MCU Description: **Camera Underwater**

Distance (ft):	75.8
Structural Grade:	0
O&M Grade:	4
Clock Start/From:	
Clock To:	
1st Value:	
2nd Value:	
Value Percent:	
Continuous Index:	F04
Within 8" of Joint:	NO
Remarks:	

2nd Value: Value Percent:

Code: Description:	MGO General Observation
Distance (ft): Structural Grade:	75.8 0
O&M Grade:	0
Clock Start/From:	
Clock To:	
1st Value:	

Remarks:	Switching to front camera
Within 8" of Joint:	NO
Continuous Index:	
Value Percent:	



MSA Abandoned Survey



Distance (ft):	78.0
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:	Unknown