

Draft
Saxman Sewer Condition Assessment

May 24th, 2024



Report Prepared by:

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CCTV Camera Truck in Operation



Typical CCTV Camera in Pipe

The overall condition of the pipe was given a numeric score based on based on observed defects of each component. This process expands on the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment and Certification Program (PACP).

Likelihood of Failure (LOF)

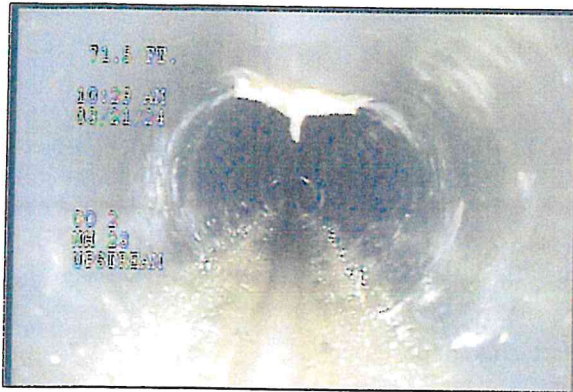
A scale of 1 to 5 was assigned to the project pipes and sewer structures, with 1 being the lowest LOF and 5 being the highest LOF. Examples of each level of LOF are shown in Table 1.

Score	Simple Description	Detailed Description/Example Defect
1	Physically sound and in operating condition	- Asset meets service needs OR asset likely to perform without work in the near-term capital planning period. - No to Minor pipe deterioration observed
2	Acceptable Condition	- Asset meets service needs but may require increased preventative maintenance work in the capital planning period. - Minor pipe deterioration
3	Deterioration Evident	- Asset meets service needs but will require corrective maintenance work in the capital planning period. - Medium pipe deterioration
4	Progressing to Failure	- Asset barely meets service needs and corrective maintenance is needed to maintain asset. - Significant deterioration
5	Pipe Failed	- Asset does not meet service needs and is failing. - Defects impeding or stopping function of pipe

Table 1 - LOF Guidelines

Consequence of Failure (COF)

In addition to LOF score a consequence of failure (COF) was assigned to each asset within the study area. The COF score is a method for a utility owner to compare and identify the risk associated with a particular asset and the consequence if it fails. A scale of 1 to 5 was utilized for this project, with 1 being the lowest COF and 5 being the highest COF. For this project, pipes located located within harder to repair areas were assigned a higher COF score. Sewer mains located in easier to repair areas will be assigned a lower COF.



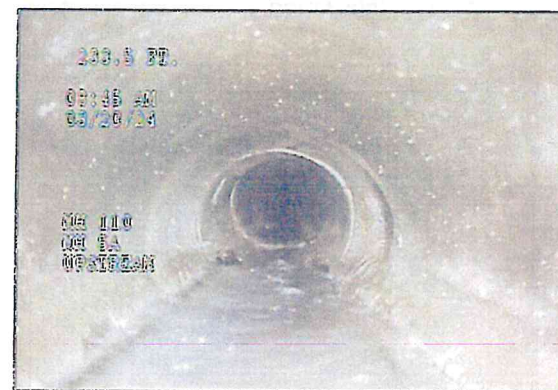
CO 2 to MH 23, 1-2" bulge in pipe with mineralization



MH 22 to MH 21, offset at joint



MH 26 to MH 25, infiltration runner



MH 110 to MH 5A, belly

Sewer Structure Inspection Procedure

Sewer structures were inspected by Stephi Engineering staff. Sewer structure characteristics, including material of construction, pipe connection condition, general condition of components, component height, and any defects, were identified and recorded in written logs. These logs are accompanied by structure photographs in this report. Structures were inspected from the surface. Defects and the overall condition of the structures were scored on a likelihood of failure (between 1 and 5) on the same grading system as the pipe defects. The scoring system for LOF is shown in Table 1.

Summary of Sewer Structures

Maps in Appendix A show the layout of the applicable sections of the sewer system. A summary of the sewer structures, including maximum rim to invert distance, and material of construction is included in Appendix B. The sewer structures in Saxman showed much more infiltration taking place than the pipes inspected.

Thirty-seven sewer structures were inspected during this project. All structures were pre-cast concrete.

- Nineteen (19) structures had significant defects to pipe connections/base.
- Four (4) structures had damage to cone.
- Thirteen (13) structures had damage to chimneys.
- Seven (7) structures could not be inspected.



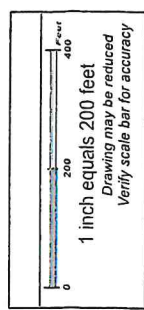
MH 101, cone damage



MH 105, exposed rebar



MH 110, infiltration



Structures inspected:

●	Grade score 4-5
●	Grade score 3
●	Grade score 0-2

Pipes inspected:

—	Grade score 4-5
—	Grade score 3
—	Grade score 0-2

**Ketchikan Gateway Borough
Public Works Department
Saxman Wastewater**

- 30 LF: 2x4" point repair with infiltration dripper at 12:00 position
 - 42 LF to 44 LF: fracture with infiltration dripper at 2:00 position
 - 178 LF: Infiltration runner at service connection at 1:00 position
 - 360 LF: Mineralization with infiltration dripper at service connection at 2:00 position
 - 15 LF: 12% ovality at joint
 - 1-2 inch bulge with mineralization at 12:00 position 74 LF from MH 23
 - 3 LF: 2" offset at joint
 - 15 LF: 12% ovality at joint
 - 1-2 inch bulge with mineralization at 12:00 position 74 LF from MH 23

Unable to inspect due to drop connect at MH-12 and belly near MH-20

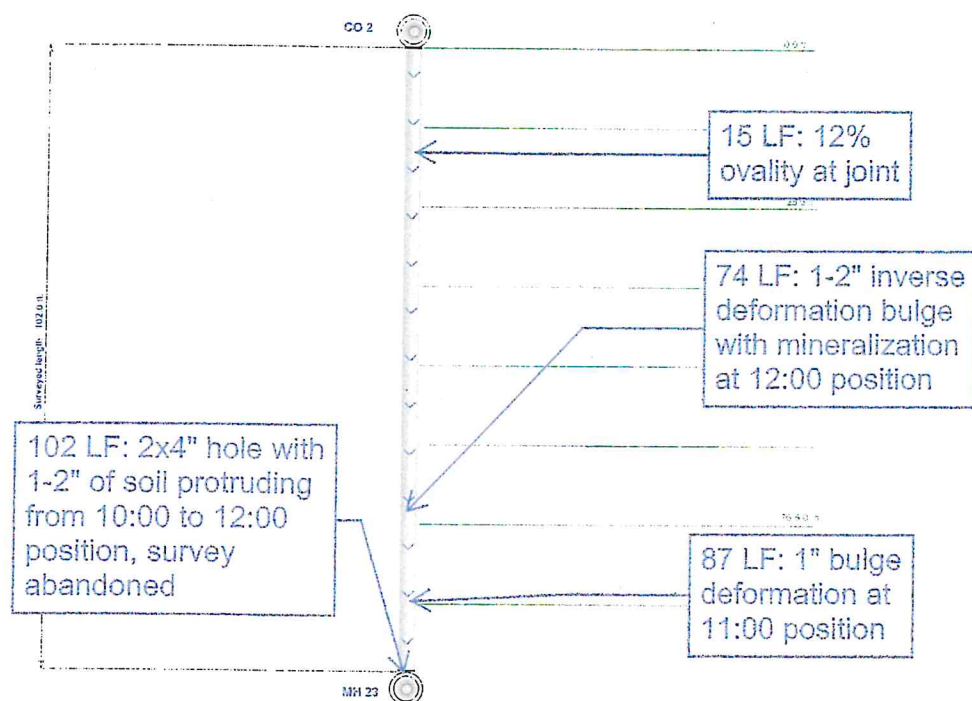
Saxman Sewer Pipe Summary Table										LOF Score: 0=No defect, 1=Minor Defect, 2=Minor to moderate Defect, 3=Moderate defect, 4=Significant defect, 5=Most significant defect									
Upstream Structure No.			Avg. Height		Material		Condition of Components			Additional Comments (see Pipe Logs for Detailed Pipe Summaries)									
Upstream Structure No.			Downstream Structure No.		Material		Location		Pipe Dia. (in.)	Map Length (ft.)	CCTV Complete	Inspection Date	Inspection Length (ft)	Inspection Direction	Flow Depth (in.)	Likelihood of Failure	Consequence of failure		
CO 2	MH 23	Wolf Ave.	8	HOPE Truss Pipe	306	No	March 2024	102	Upstream	<1	3	2	- 15 LF, 12% cavity at joint - 74 LF, 1-2" bulge with mineralization at 12:00 position - 67 LF, 1" bulge at 11:00 position - 102 LF, 2x4" hole with 1-2" of soil protruding from 10:00 to 12:00 position						
CO 4	MH 138	Halbut St.	8	DI	60	No	March 2024	85	Upstream	<1	1	2	- 66 LF to 71 LF, 1-2" of debris - 65 LF, 6" of debris, survey Abandoned						
CO 6A	MH 103	Killer Whale Ave.	8	DI	150	No	March 2024	136	Upstream	3	2	2	- 136 LF, high water and grease deposit, survey abandoned						
CO 6	MH F	Raven Ave.	8	DI	60	Yes	March 2024	79	Upstream	1	1	2	- None						
CO 7	MH 6	Raven Ave.	8	PVC	183	No	March 2024	62	Upstream	1	1	3	- None						
CO 138A	MH 138	Halbut St.	8	DI	49	Yes	March 2024	49	Upstream	0	2	2	- 7 LF to 11 LF, longitudinal crack in casing at 10:00 position - 34 LF to 36 LF, longitudinal crack in casing at 12:00 position - 43 LF to 44 LF, longitudinal crack in casing at 12:00 position - 45 LF, grease deposit at service at 2:00 and 10:00 position obstructing 40% of pipe						
MH 5A	MH 103	Raven Ave.	8	DI	250	No	March 2024	62	Downstream	2	2	2	- 31 LF to 71 LF, longitudinal crack in casing at 2:00 position - 45 LF, grease deposit at service at 2:00 and 10:00 position obstructing 40% of pipe						
MH 6A	MH 6	Tongass Ave.	8	DI	90	Yes	March 2024	90	Downstream	<1	1	3	- 87 LF to 90 LF, 1-2" of debris						
MH 6	MH 5	Tongass Hwy.	8	DI	315	No	March 2024	295	Downstream	1	1	3	- 85 LF, 4" of debris, survey Abandoned						
MH 8	MH 6A	Tongass Hwy.	8	DI	120	Yes	March 2024	114	Upstream	<1	2	3	- 47 LF to 48 LF, longitudinal crack in casing at 5:00 position - 60 LF to 61 LF, 2-3" of debris - 105 LF, 2-3" of debris, survey Abandoned						
MH 9	MH 8	Bear Clan St.	8	DI	60	No	March 2024	35	Upstream	1	1	3	- 36 LF, 2-3" of debris, survey Abandoned						
MH 10	MH 9	Bear Clan St.	8	DI	265	Yes	March 2024	224	Upstream	<1	1	3	- None						
MH 11	MH 5	Tolm St.	8	DI	45	Yes	March 2024	43	Downstream	1	1	3	- None						
MH 12	MH 11	Tolm St.	8	DI	180	Yes	March 2024	177	Upstream	1	1	3	- 146 LF to 148 LF, 1-2" of debris						
MH 21	MH 1	Tongass Hwy.	8	DI	49	Yes	March 2024	47	Upstream	<1	2	3	- 35 LF to 38 LF, 1" deep bully - 38 LF to 39 LF, 1" deep bully						
MH 22	MH 21	Tongass Hwy.	8	HOPE Truss Pipe	62	No	March 2024	44	Downstream	1	3	3	- 24 LF, 2-3" debris dam with infiltration dipper at 12:00 position - 31 LF, 1-2" offset at joint from 1:00 to 5:00 position - 42 LF, 2" offset at joint from 7:00 to 2:00 position, survey abandoned - 42 LF to 44 LF, fracture with infiltration dipper at 2:00 position						
MH 23	MH 22	Wolf Ave.	8	HOPE Truss Pipe	147	No	March 2024	3	Downstream	<1	3	3	- 3 LF, 2" offset at joint, survey abandoned						
MH 24	MH 20	Eagle St.	8	DI	124	No	March 2024	31	Upstream	<1	2	2	- 31 LF, 4" of debris dam, survey Abandoned						
MH 25	MH 24	Eagle St.	8	DI	163	Yes	March 2024	163	Downstream	<1	2	2	- 62 LF, mineralization/grease at service with infiltration dipper at 1:00 position - 40 LF, repair patch with surface corrosion from 7:00 to 9:00 position - 42 LF, repair patch with surface corrosion from 3:00 to 5:00 position						
MH 26	MH 25	Eagle St.	8	DI	380	Yes	March 2024	373	Downstream	1	2	2	- 125 LF, staining/surface corrosion from 7:00 to 9:00 position - 178 LF, infiltration runner at service connection at 1:00 position - 281 LF, mineralization with infiltration dipper at service connection at 12:00 position - 281 LF, mineralization with infiltration dipper at service connection at 12:00 position						

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Main Inspection with Pipe-Run Graph

Project Name: Saxman Sewer	Pipeline segment ref: CO 2 to MH 23	City: Saxman	Street: Wolf Ave.
Start date/time: 4/4/2002	Width: 8"	Height: 8"	Material: HDPE Truss Pipe
Direction: Upstream	Length surveyed: 102.0 LF	Location code: JZ	Weather:
Additional info:			



Notes:

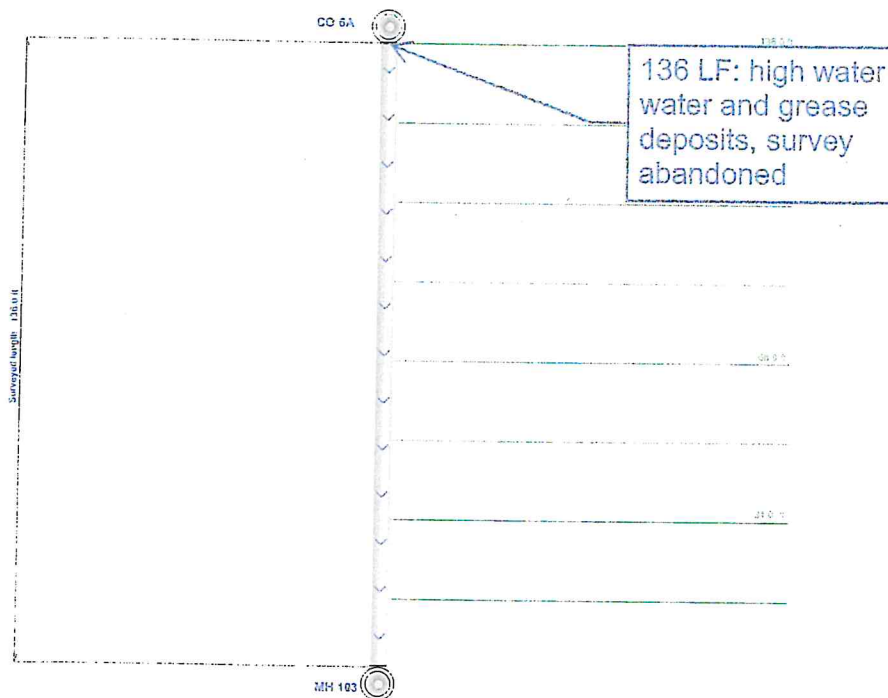
- Water level <1" from 0 LF to 102 LF
- Grade: 3

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Main Inspection with Pipe-Run Graph

Project Name:	Pipeline segment ref:	City:	Street:
Saxman Sewer	CO 6A to MH 103	Saxman	Killer Whale Ave.
Start date/time:	Width:	Height:	Material:
4/4/2002		8"	DI
	Location code:		Weather:
Direction:	Length surveyed:	Surveyed by:	Additional info:
Upstream	136.0 LF	JZ	



Notes:

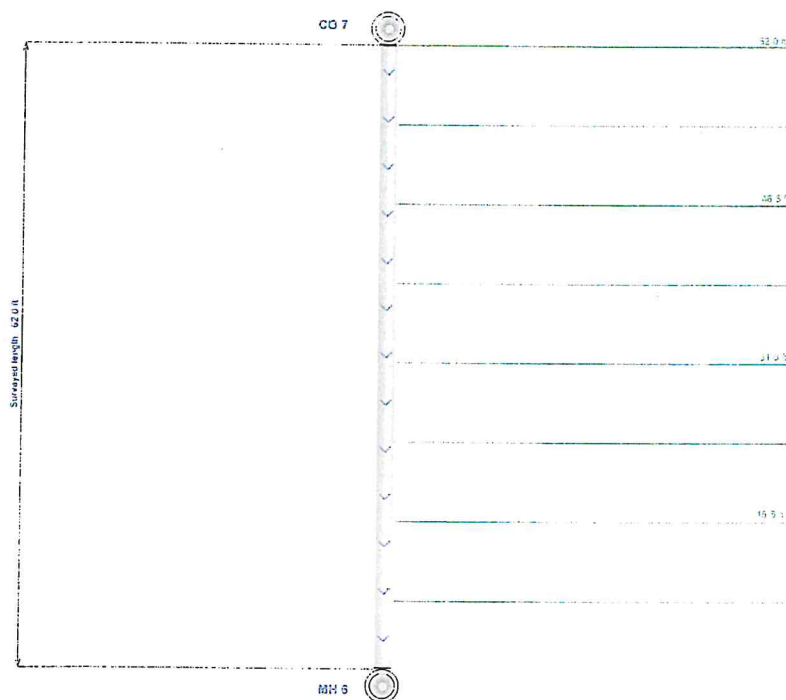
- Water level <1" from 0 LF to 37 LF, 66 LF to 91 LF, 2-3" from 37 LF to 66 LF, 4-5" from 91 LF to 136 LF
- Grease deposits at 3:00 and 9:00 position from 42 LF to 66 LF, 91 LF to 136 LF
- Grade: 2

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Main Inspection with Pipe-Run Graph

Project Name: Saxman Sewer	Pipeline segment ref: CO 7 to MH 6	City: Saxman	Street: Raven Ave.
Start date/time: 4/3/2002	Width: 6"	Height: 6"	Material: PVC
Location code:	Weather:		
Direction: Upstream	Length surveyed: 62.0 LF	Surveyed by: JZ	Additional info:



Notes:

- Water level 1" from 0 LF to 7 LF, <1" from 7 LF to 62 LF
- Grease deposits at 5:00 and 7:00 position from 0 LF to 9 LF
- Grade: 1

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Main Inspection with Pipe-Run Graph

Project Name:
Saxman Sewer

Pipeline segment ref:
MH 5A to MH 103

City:
Saxman

Street:
Raven Ave.

Start date/time:
4/3/2002

Width:

Height:
8"

Material:
DI

Location code:

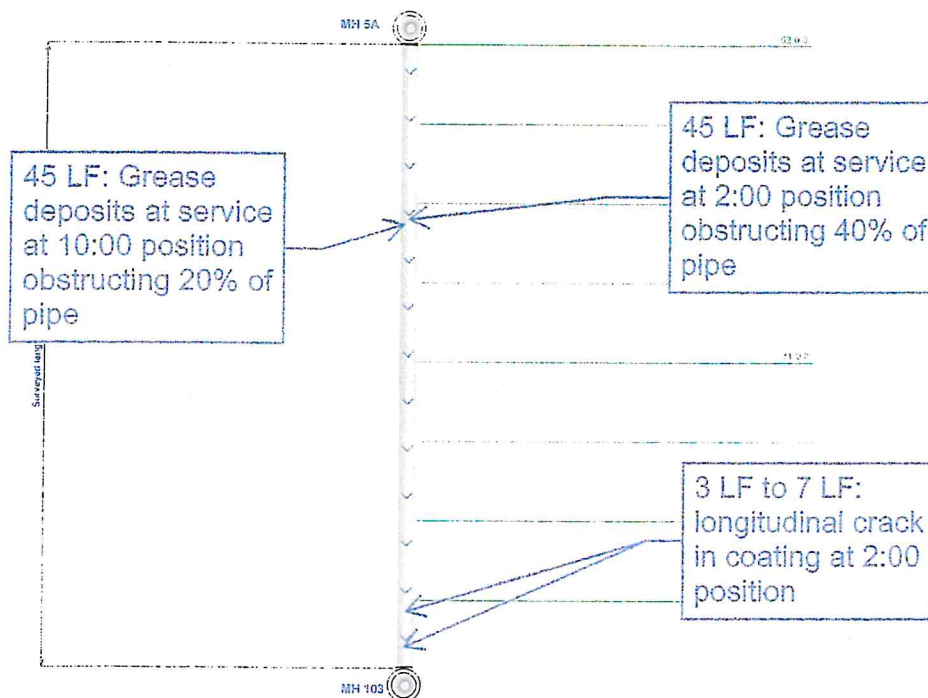
Weather:

Direction:
Downstream

Length surveyed:
62.0 LF

Surveyed by:
JZ

Additional info:



Notes:

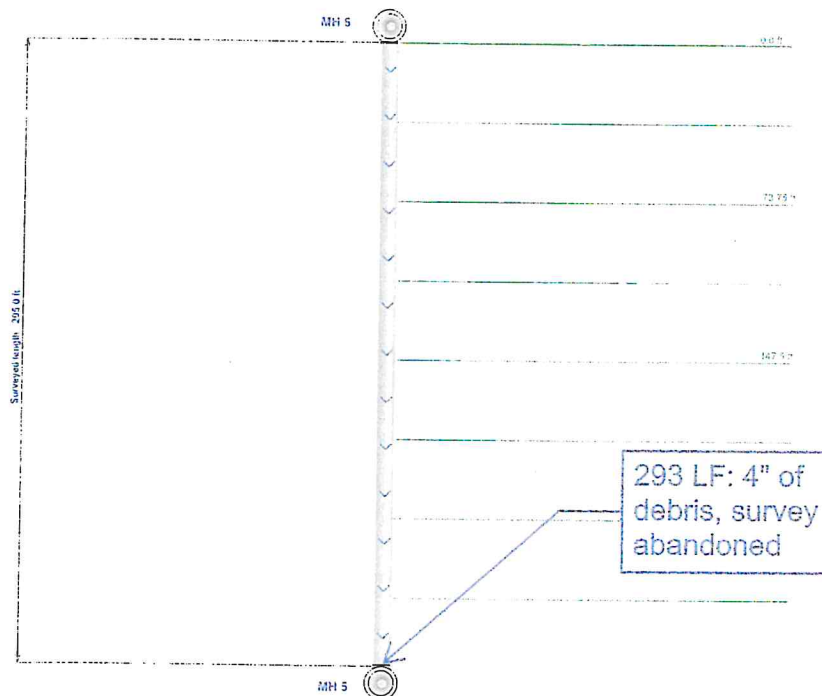
- Water level 4" from 0 LF to 13 LF, 1-2" from 13 LF to 62 LF
- Grease deposits at 5:00 and 7:00 position from 17 LF to 62 LF
- Grade: 2

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Main Inspection with Pipe-Run Graph

Project Name:	Pipeline segment ref:	City:	Street:
Saxman Sewer	MH 6 to MH 5	Saxman	Tongass Hwy.
Start date/time:	Width:	Height:	Material:
4/3/2002		8"	DI
Direction:	Length surveyed:	Surveyed by:	Location code:
Downstream	295.0 LF	JZ	
Weather:			
Additional info:			



Notes:

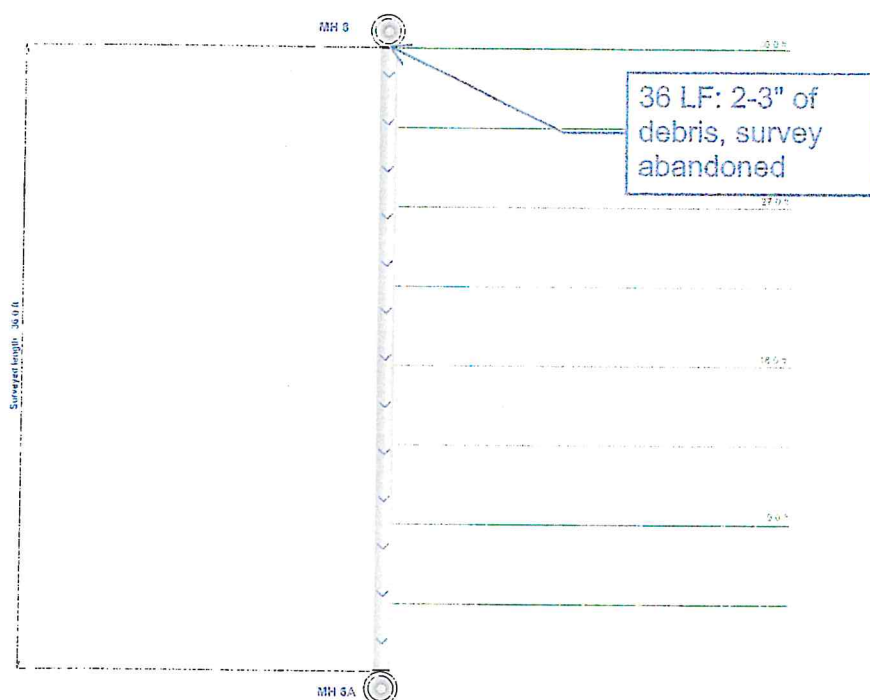
- Water level <1" from 0 LF to 272 LF, 2-3" from 272 LF to 293 LF
- Grease deposits at 5:00 and 7:00 position from 150 LF to 169 LF, 237 LF to 241 LF, 272 LF to 295 LF
- Grade: 1

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Main Inspection with Pipe-Run Graph

Project Name: Saxman Sewer	Pipeline segment ref: MH 9 to MH 8	City: Saxman	Street: Bear Clan St.
Start date/time: 4/4/2002	Width: 8"	Height: 8"	Material: DI
Direction: Upstream	Length surveyed: 36.0 LF	Location code:	Weather:
Surveyed by: JZ		Additional info:	



Notes:

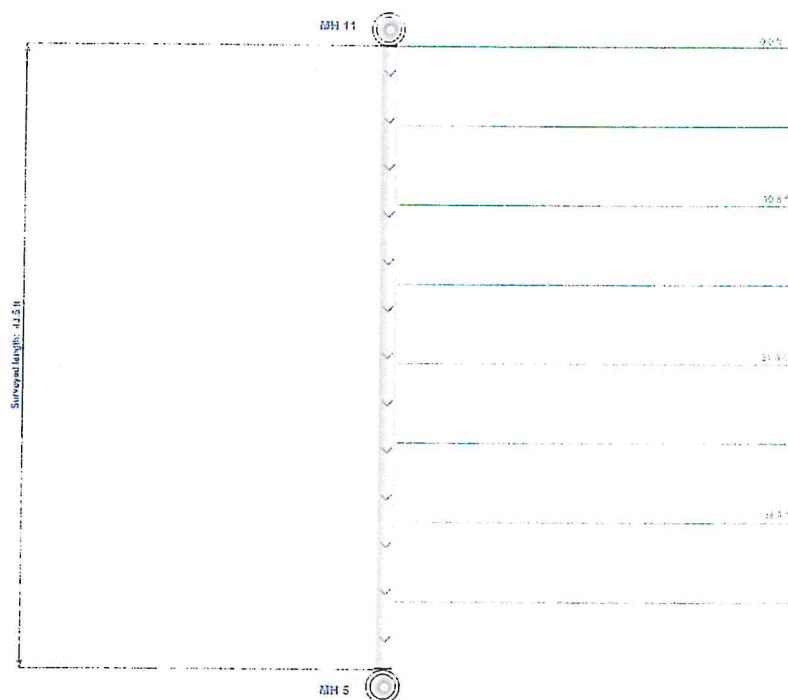
- Water level <1" from 0 LF to 28 LF, 3" from 28 LF to 36 LF
- Grease deposits at 3:00 and 9:00 position throughout pipe
- Grade: 1

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Main Inspection with Pipe-Run Graph

Project Name:	Pipeline segment ref:	City:	Street:		
Saxman Sewer	MH 11 to MH 5	Saxman	Totem St.		
Start date/time:	Width:	Height:	Material:	Location code:	Weather:
4/2/2002		8"	DI		
Direction:	Length surveyed:	Surveyed by:	Additional info:		
Downstream	43.5 LF	JZ			



Notes:

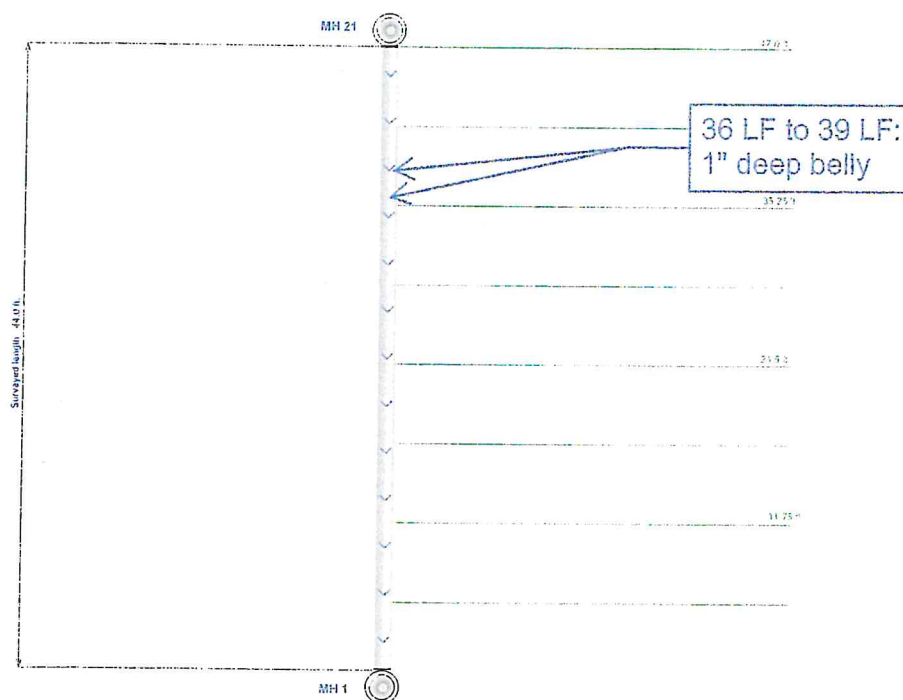
- Water level 1" from 0 LF to 43 LF
- Grease deposits at 5:00 and 7:00 position throughout pipe
- Grade: 1

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Main Inspection with Pipe-Run Graph

Project Name:	Pipeline segment ref:	City:	Street:		
Saxman Sewer	MH 21 to MH 1	Saxman	Tongass Hwy.		
Start date/time:	Width:	Height:	Material:	Location code:	Weather:
4/2/2002		6"	DI		
Direction:	Length surveyed:	Surveyed by:	Additional info:		
Upstream	47.0 LF	JZ			



Notes:

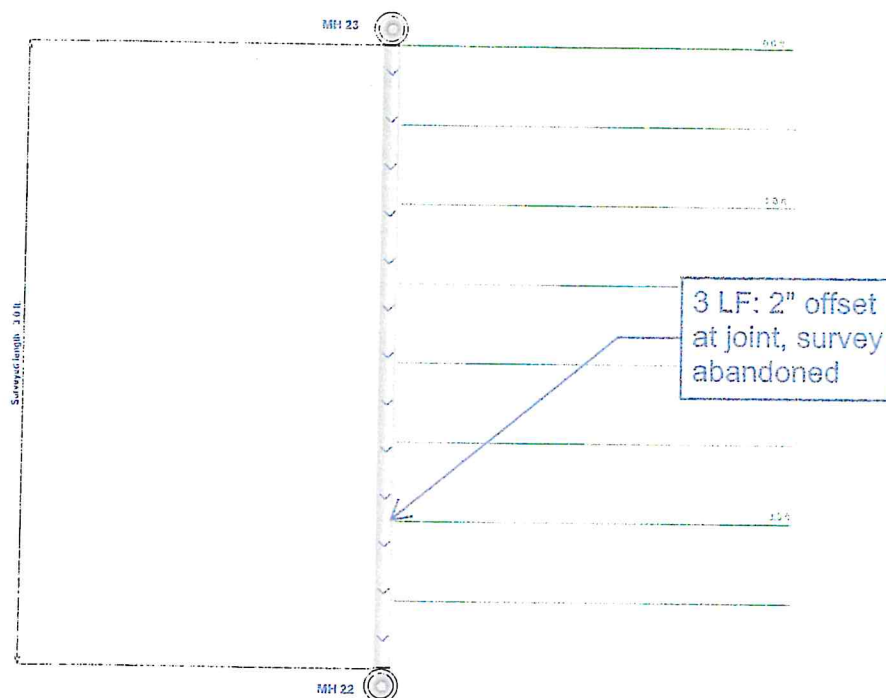
- Water level <1" from 0 LF to 47 LF
- Debris <1" throughout pipe
- Grade: 2

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Main Inspection with Pipe-Run Graph

Project Name:	Pipeline segment ref:	City:	Street:
Saxman Sewer	MH 23 to MH 22	Saxman	Wolf Ave.
Start date/time:	Width:	Height:	Material:
4/4/2002		8"	DI/HDPE
			Location code:
			Weather:
Direction:	Length surveyed:	Surveyed by:	Additional info:
Downstream	3.0 LF	JZ	



Notes:

- Water level <1" from 0 LF to 3 LF
- Grade: 3

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Main Inspection with Pipe-Run Graph

Project Name:
Saxman Sewer

Pipeline segment ref:
MH 25 to MH 24

City:
Saxman

Street:
Eagle St.

Start date/time:
4/2/2002

Width:

Height:
8"

Material:
DI

Location code:

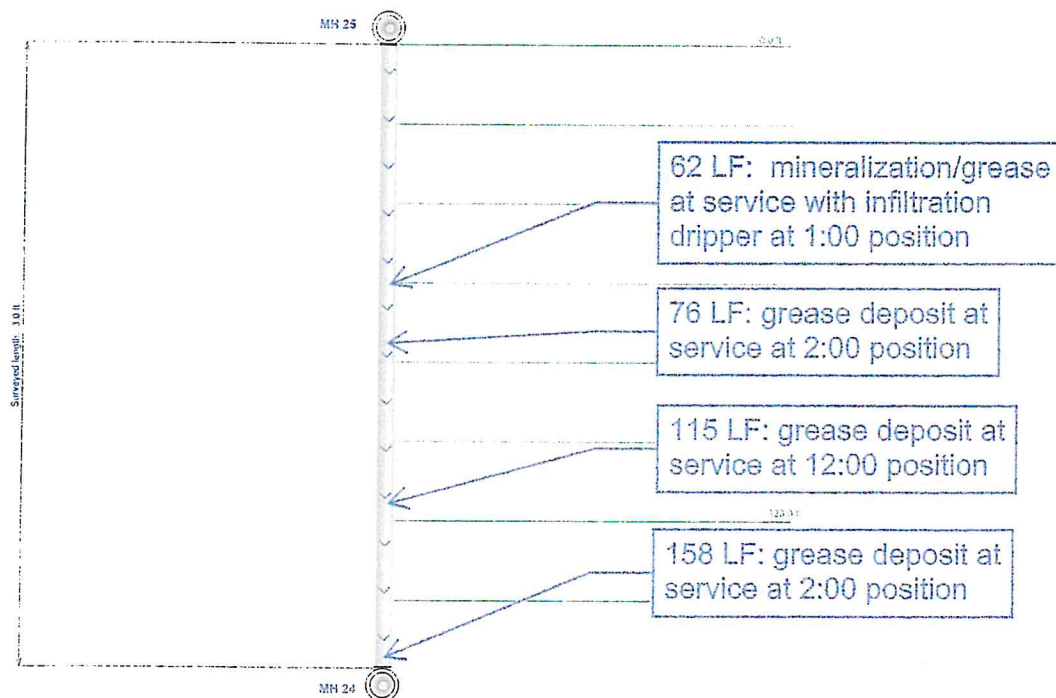
Weather:

Direction:
Downstream

Length surveyed:
163.0 LF

Surveyed by:
JZ

Additional info:



Notes:

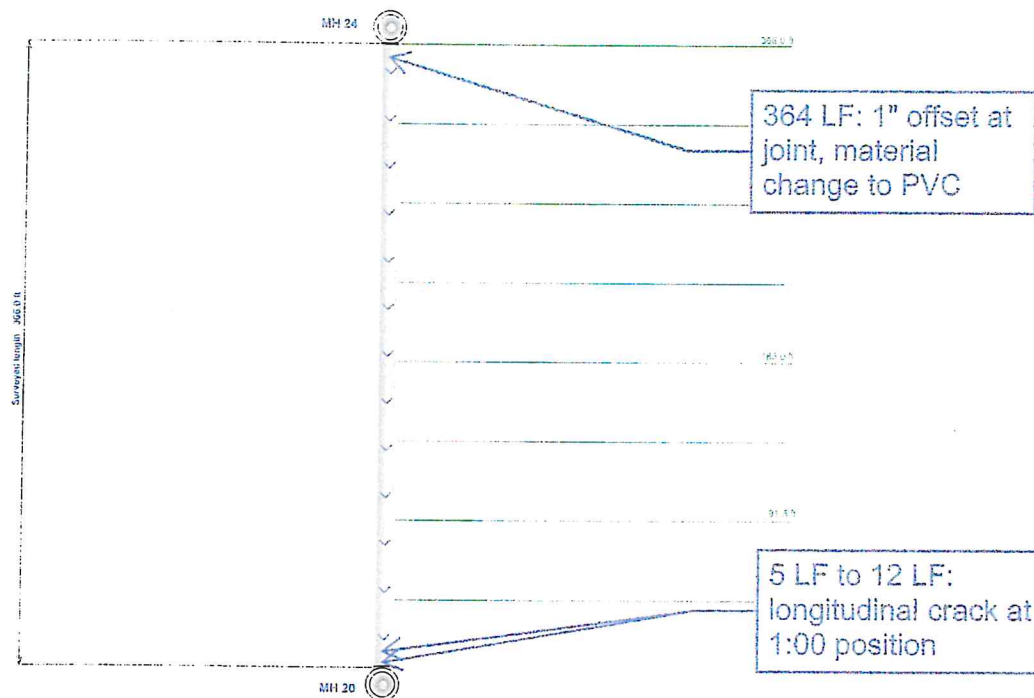
- Water level <1" from 0 LF to 160 LF, 4" from 160 LF to 163 LF
- Grease deposits at 5:00 and 7:00 position
- Grade: 2

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Main Inspection with Pipe-Run Graph

Project Name:	Pipeline segment ref:	City:	Street:		
Saxman Sewer	MH 100A to MH 100	Saxman	Killer Whale Ave.		
Start date/time:	Width:	Height:	Material:	Location code:	Weather:
4/3/2002		8"	DI		
Direction:	Length surveyed:	Surveyed by:	Additional info:		
Upstream	366.0 LF	JZ			



Notes:

- Water level <1" from 0 LF to 96 LF, 103 LF to 366 LF, 2" from 96 LF to 103 LF
- Grade: 2

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Main Inspection with Pipe-Run Graph

Project Name:
Saxman Sewer

Pipeline segment ref:
MH 101 to MH 102

City:
Saxman

Street:
Killer Whale Ave.

Start date/time:
4/3/2002

Width:

Height:
8"

Material:
DI

Location code:

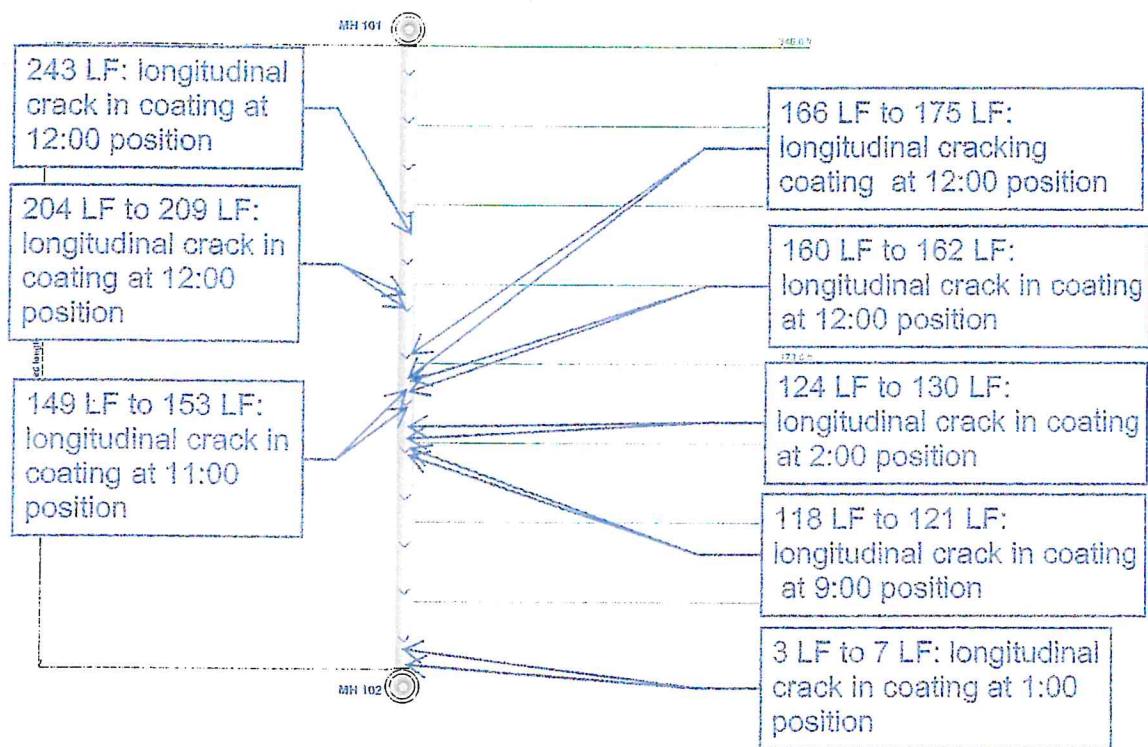
Weather:

Direction:
Upstream

Length surveyed:
346.0 LF

Surveyed by:
JZ

Additional info:



Notes:

- Water level <1" from 0 LF to 346 LF
- Pipe wall spalling at various locations throughout pipe
- Grade: 2

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Main Inspection with Pipe-Run Graph

Project Name:
Saxman Sewer

Pipeline segment ref:
MH 103 to MH 12

City:
Saxman

Street:
Totem St.

Start date/time:
3/19/2024

Width:

Height:
8"

Material:
DI

Location code:

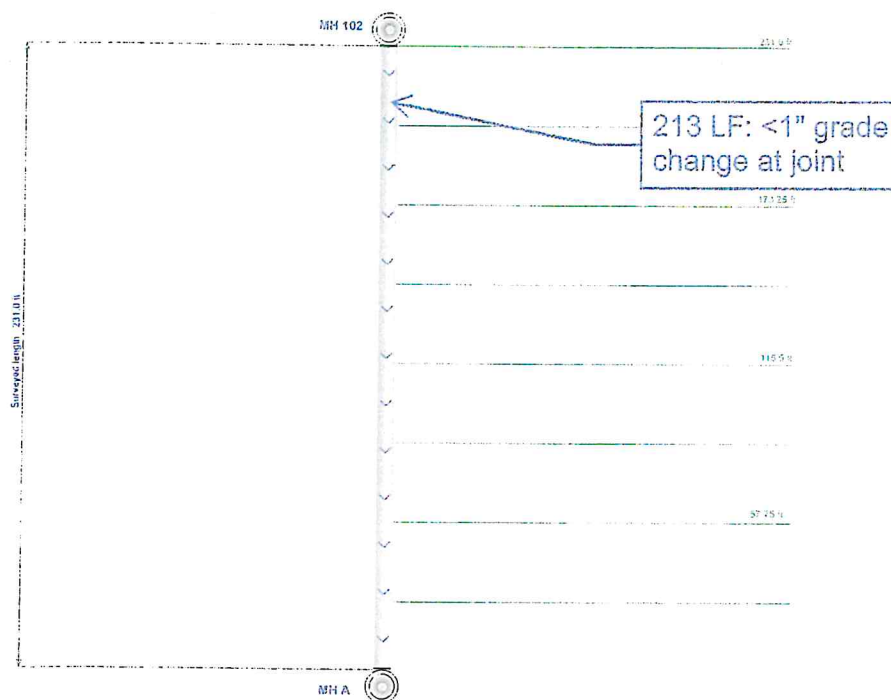
Weather:

Direction:
Upstream

Length surveyed:
231.0 LF

Surveyed by:
JZ

Additional info:



Notes:

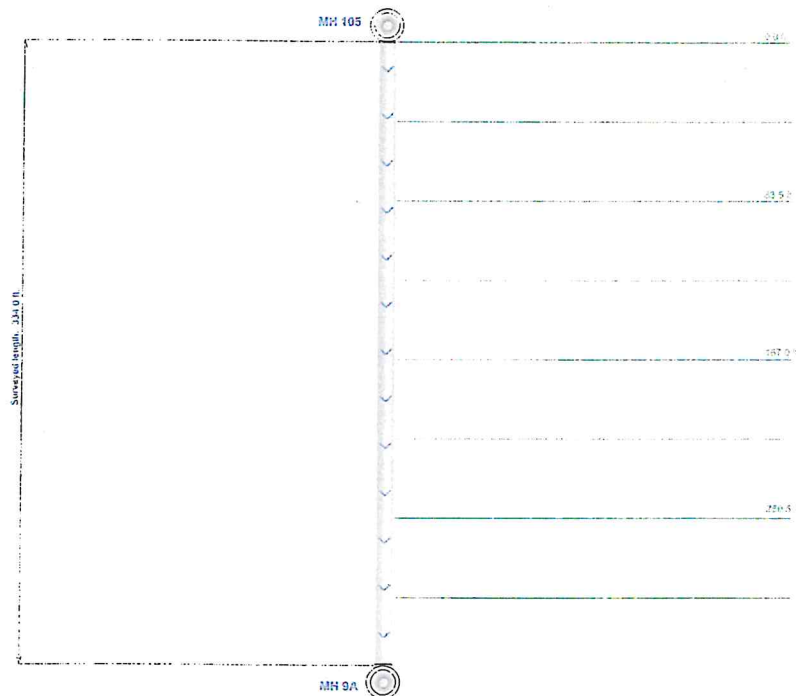
- Water level <1" from 0 LF to 231 LF
- Grease at 5:00 and 7:00 position throughout pipe
- Grade: 1

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Main Inspection with Pipe-Run Graph

Project Name:	Pipeline segment ref:	City:	Street:		
Saxman Sewer	MH 105 to MH 9A	Saxman	Tongass Hwy.		
Start date/time:	Width:	Height:	Material:	Location code:	Weather:
3/19/2024		8"	DI		
Direction:	Length surveyed:	Surveyed by:	Additional info:		
Downstream	334.0 LF	JZ			



Notes:

- Water level 1-2" from 0 LF to 106 LF, 119 LF to 334 LF, <1" from 106 LF to 119 LF,
- Grease deposits at 5:00 and 7:00 throughout pipe, significant build up from 328 LF to 334 LF
- Varying amounts of debris and grease joints throughout pipe
- Grade: 1

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Main Inspection with Pipe-Run Graph

Project Name:
Saxman Sewer

Pipeline segment ref:
MH 107 to MH 6

City:
Saxman

Street:
Tongass Hwy.

Start date/time:
3/19/2024

Width:

Height:
6"

Material:
DI

Location code:

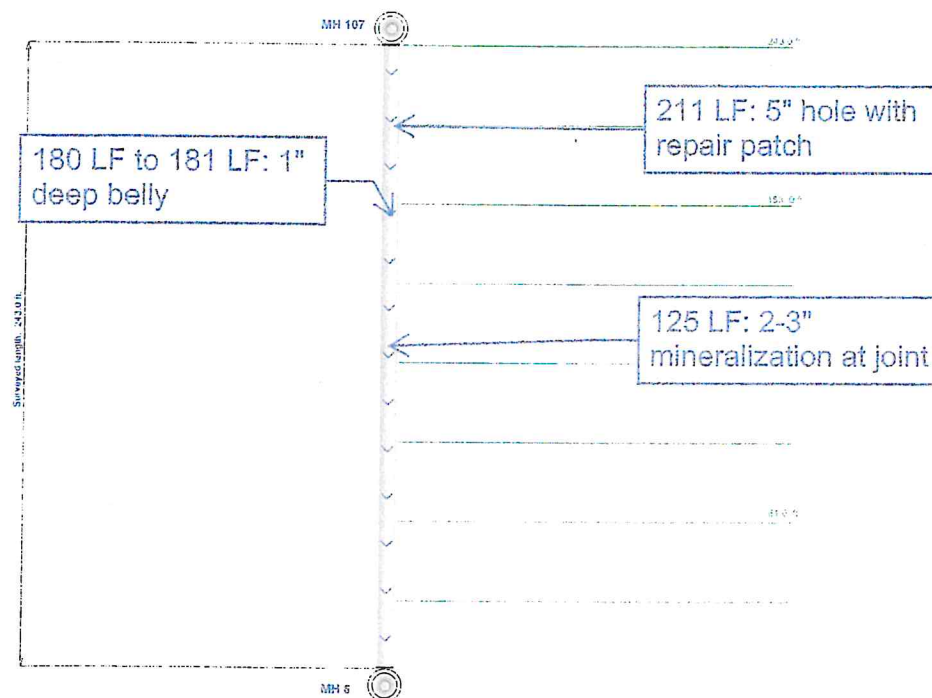
Weather:

Direction:
Upstream

Length surveyed:
243.0 LF

Surveyed by:
JZ

Additional info:



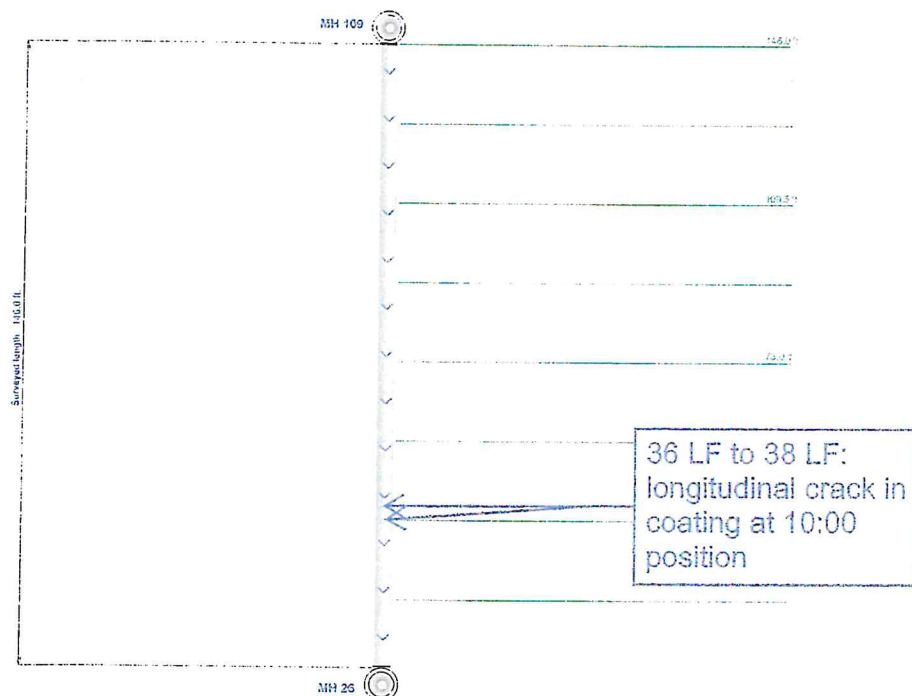
Notes:
- Water level 1" from 0 LF to 6 LF,
<1" from 6 LF to 243 LF
- Grade: 2

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Main Inspection with Pipe-Run Graph

Project Name:	Pipeline segment ref:	City:	Street:
Saxman Sewer	MH 109 to MH 26	Saxman	Eagle St.
Start date/time:	Width:	Height:	Material:
3/19/2024		8"	DI
Location code:	Weather:		
Direction:	Length surveyed:	Surveyed by:	Additional info:
Upstream	146.0 LF	JZ	



Notes:

- Water level <1" from 0 LF to 146 LF
- 1-2" of grease at invert of pipe from 0 LF to 135 LF
- Grade: 2

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Main Inspection with Pipe-Run Graph

Project Name:
Saxman Sewer

Pipeline segment ref:
MH 138 to MH 6A

City:
Saxman

Street:
Halibut St.

Start date/time:
3/19/2024

Width:

Height:
8"

Material:
DI

Location code:

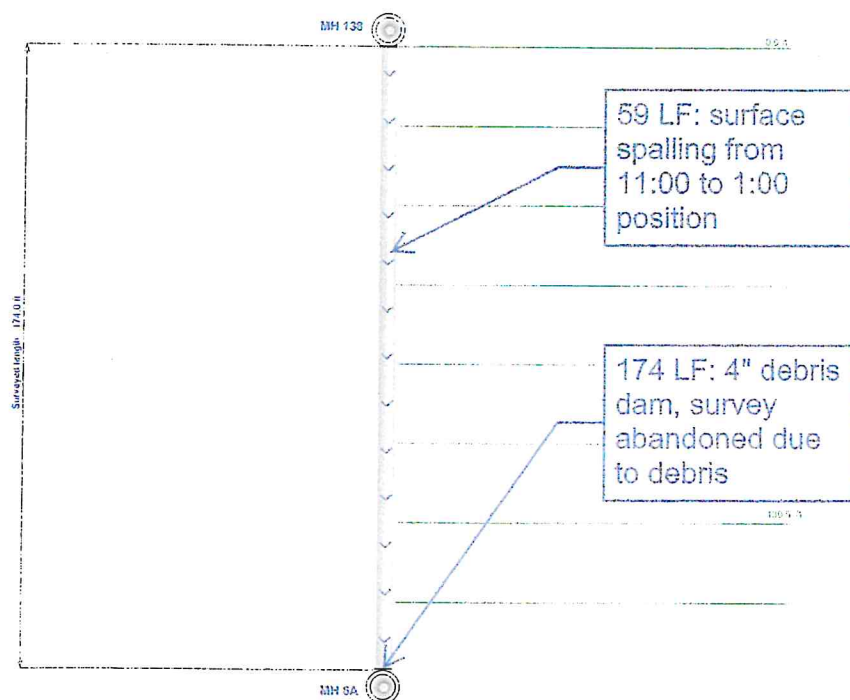
Weather:

Direction:
Downstream

Length surveyed:
174.0 LF

Surveyed by:
JZ

Additional info:



Notes:

- Water level <1" from 0 LF to 174 LF
- 1" of debris from 0 LF to 6 LF
- Grade: 1

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Main Inspection with Pipe-Run Graph

Project Name:
Saxman Sewer

Pipeline segment ref:
MH D to MH A

City:
Saxman

Street:
Beaver Ave.

Start date/time:
3/19/2024

Width:

Height:
8"

Material:
DI

Location code:

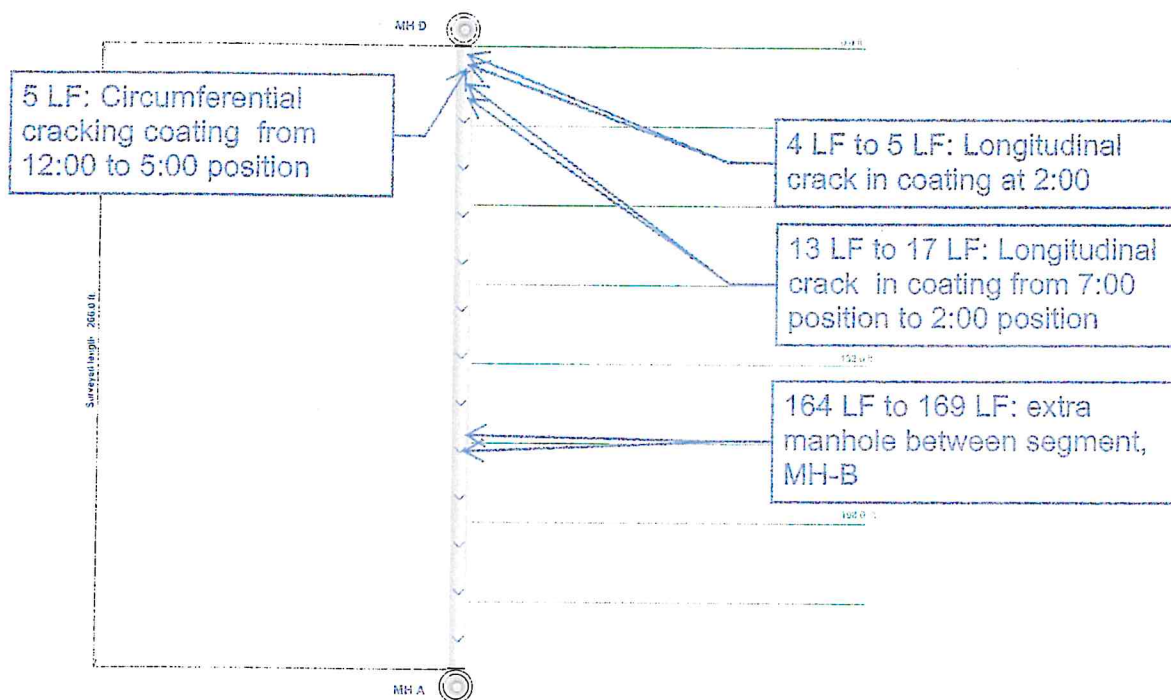
Weather:

Direction:
Downstream

Length surveyed:
266.0 LF

Surveyed by:
JZ

Additional info:



Notes:

- Water level <1" from 0 LF to 160 LF, 169 LF to 262 LF, 3-4" from 160 LF to 164 LF, 2-3" from 262 LF to 266 LF
- 3-4" of debris at 163 LF
- grease deposits at 5:00 and 7:00 position throughout pipe
- Grade: 2

Frawner Corp.
8123 Hartzell Rd
Anchorage, Ak 99507
907-561-4044



Main Inspection with Pipe-Run Graph

Project Name:
Saxman Sewer

Pipeline segment ref:
MH F to MH E

City:
Saxman

Street:
Raven Ave.

Start date/time:
3/19/2024

Width:

Height:
8"

Material:
DI

Location code:

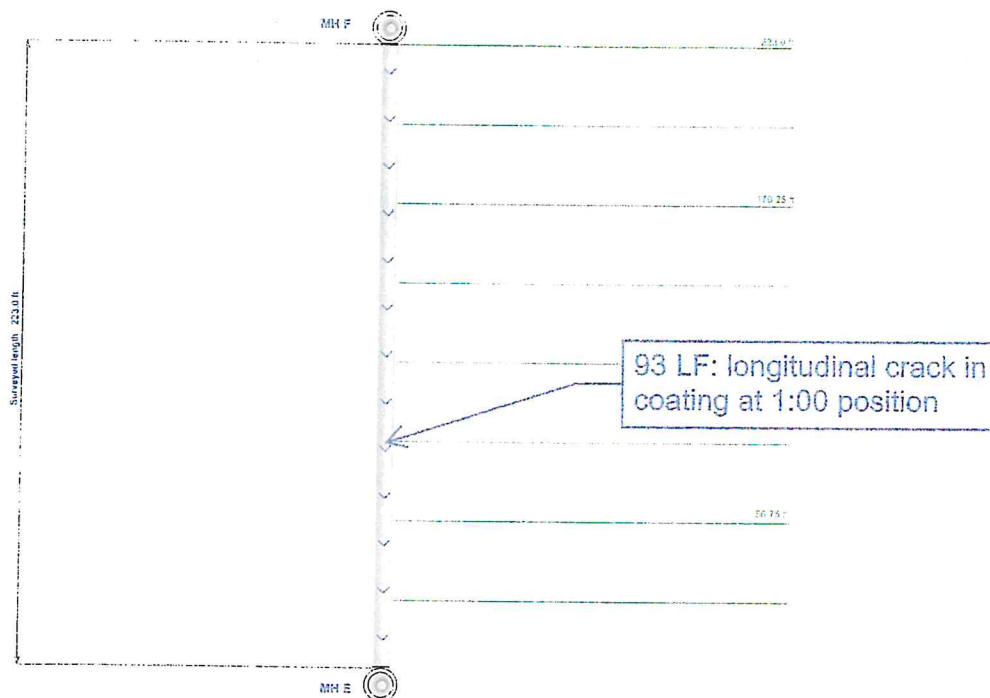
Weather:

Direction:
Upstream

Length surveyed:
223.0 LF

Surveyed by:
JZ

Additional info:



Notes:

- Water level 1" from 0 LF to 30 LF, 39 LF to 65 LF, 119 LF to 130 LF, 187 LF to 196 LF, <1" from 30 LF to 39 LF, 65 LF to 119 LF, 130 LF to 187 LF, 196 LF to 223 LF
- 2-3" of debris from 42 LF to 53 LF
- Varying levels of grease deposits at 5:00 and 7:00 position throughout pipe
- Grade: 2

Saxman Sewer Structure Summary Table										LOF Grades: 0=No Defect, 1=Minor Defect, 2=Minor to Moderate Defect, 3=Moderate Defect, 4=Significant Defect, 5=Most Significant Defect									
Structure No.	Max Rim-Invert (ft.)	Material	LOF	COF	Cover	Frame	Chimney	Cone	Reducing Slab	Barrel	Base	Steps	Shelf	Connections (Influent)	Connections (Effluent)	Sewer Drain Structure Observations			
MH 1	62	Pre-cast Concrete	2	3	2	2	N/A	2	N/A	1	1	1	1	1	1	- Surface corrosion on frame and lid - Infiltration at barrel section and base joint			
MH 5	69	Pre-cast Concrete	3	3	2	2	1	2	N/A	2	3	2	3	2	2	- Surface corrosion on frame and lid - Significant infiltration at barrel section and cone joint			
MH 5A	99	Pre-cast Concrete	3	2	2	2	3	2	N/A	3	3	2	2	2	2	- Surface corrosion on frame and lid - Infiltration at barrel section and base joint - Infiltration with rebar at pipe 2 connection			
MH 6	84	Pre-cast Concrete	3	3	2	2	3	N/A	2	3	2	2	2	3	2	- Surface corrosion on frame and lid - Infiltration at barrel section and base joint - Infiltration with rebar at pipe 2 connection			
MH 6A	78	Pre-cast Concrete	3	3	2	2	2	2	N/A	2	3	2	2	3	3	- Surface corrosion on frame and lid - Infiltration around all pipe connections, and at barrel and base joint			
MH 7	34	Pre-cast Concrete	2	2	2	2	N/A	N/A	1	N/A	2	N/A	1	3	2	- Surface corrosion on frame and lid - Frame 3-4" offset			
MH 8	79	Pre-cast Concrete	2	3	2	2	N/A	2	N/A	2	3	2	2	3	2	- Surface corrosion on frame and lid - Infiltration at barrel section and base joint - Evidence of infiltration at connection 1			
MH 9	69	Pre-cast Concrete	3	3	2	2	3	N/A	2	3	3	2	2	2	2	- Surface corrosion on frame and lid - Infiltration at barrel section joints with attached deposits			
MH 9A	71	Pre-cast Concrete	3	3	2	3	N/A	2	N/A	2	2	2	2	3	3	- Surface corrosion on frame and lid - Infiltration at barrel section and base joint - Rim of frame broken at NE end			
MH 10	73	Pre-cast Concrete	3	2	2	2	2	2	N/A	2	3	2	3	2	2	- Surface corrosion on frame and lid - Infiltration at barrel section and base joint			
MH 11	62	Pre-cast Concrete	3	3	2	2	3	2	N/A	3	3	2	2	2	2	- Surface corrosion on frame and lid - Infiltration at barrel section and base joint - Crack in chimney at N. end			
MH 12	90	Pre-cast Concrete	3	2	2	2	3	1	N/A	1	2	2	2	3	2	- Surface corrosion on frame and lid - Exposed rebar around pipe 4 connection			
MH 20	78	Pre-cast Concrete	2	2	2	2	3	1	N/A	1	2	2	2	2	2	- Surface corrosion on frame and lid - Chimney crumbling			
MH 21	36	Pre-cast Concrete	3	3	3	3	3	3	2	N/A	2	N/A	2	2	2	- Surface corrosion on frame and lid - Infiltration and roots through cover and all through shaft manhole			
MH 22	69	Pre-cast Concrete	3	3	2	2	N/A	2	N/A	N/A	3	2	2	3	2	- Surface corrosion on frame and lid			
MH 23	103	Pre-cast Concrete	3	2	2	2	N/A	3	N/A	3	3	2	2	2	2	- Surface corrosion on frame and lid - Infiltration at barrel section and base joint			

Saxman Sewer Structure Summary Table										LOF Grades: 0=No Defect, 1=Minor Defect, 2=Minor to Moderate Defect, 3=Moderate Defect, 4=Significant Defect, 5=Most Significant Defect									
Structure No.	Max Rim-Invert (ft.)	Material	Type	LOF	COF	Cover	Frame	Chimney	Cone	Condition of Components				Connections (Influent)		Connections (Effluent)		Sewer Drain Structure Observations	
										Reducing	Slab	Barrel	Base	Steps	Shelf				
CO 6A	N/A		Clean out	2	2	2	2		N/A	N/A	N/A	N/A	N/A	N/A		3		- Surface corrosion on frame and lid - Concrete cracking around pipe 1 - Needs to be cleaned and plug installed in pipe	

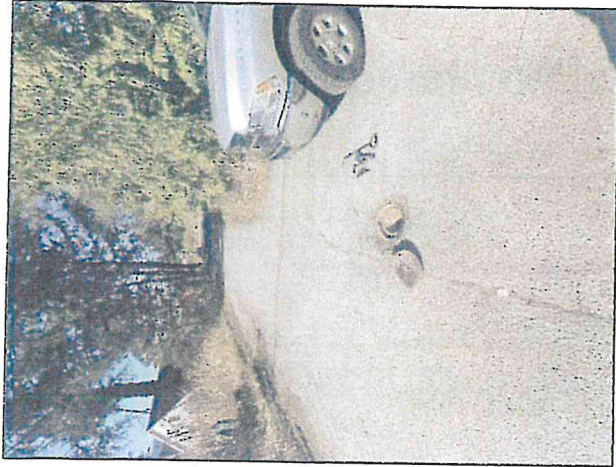


Image 1 – CO 3, facing NW



Image 2 – Frame



Image 1 – CO 5, facing SE



Image 2 – Frame



Image 1 – CO 6A, facing SE



Image 2 – Frame



Image 1 – MH 1, facing NE



Image 2 – Frame



Image 3 – Connection 2

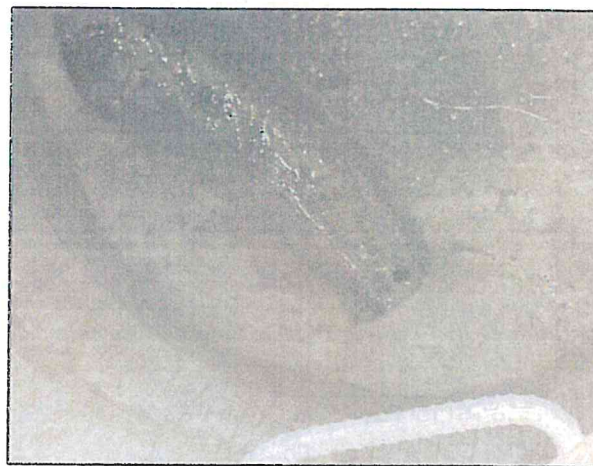


Image 4 – Connection 1



Image 1 – MH 6, facing SE



Image 2 – Frame



Image 3 – Connection 2

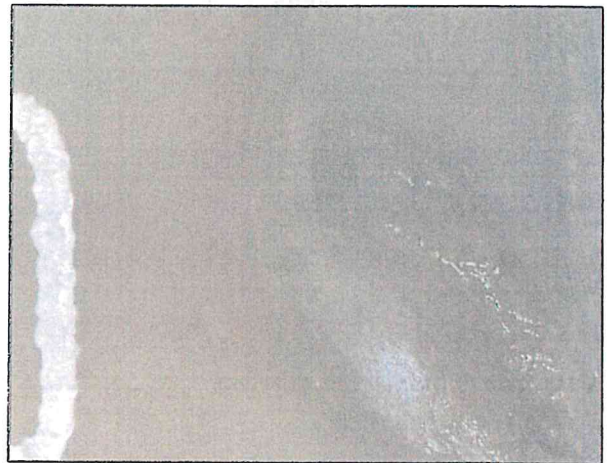


Image 4 – Connection 3



Image 5 – Connection 1



Image 6 – Connection 4



Image 1 – MH 5, facing NE



Image 2 – Frame



Image 3 – Connection 2



Image 4 – Connection 1



Image 5 – Connection 3



Image 1 – MH 5A, facing NE



Image 2 – Frame

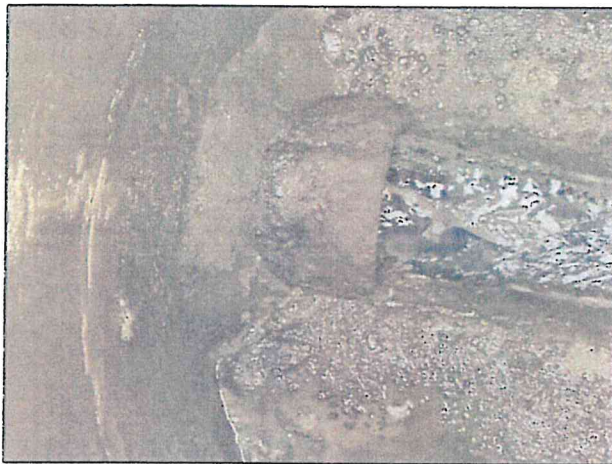


Image 3 – Connection 1



Image 4 – Connection 2

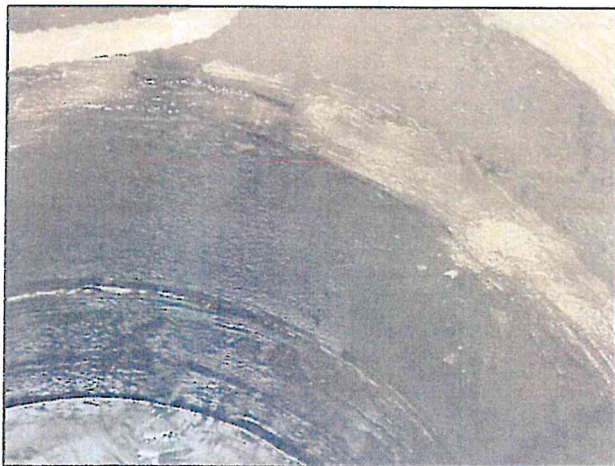


Image 5 – Barrel section infiltration



ge 1 – MH 6A, facing NE

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Image 2 – Frame

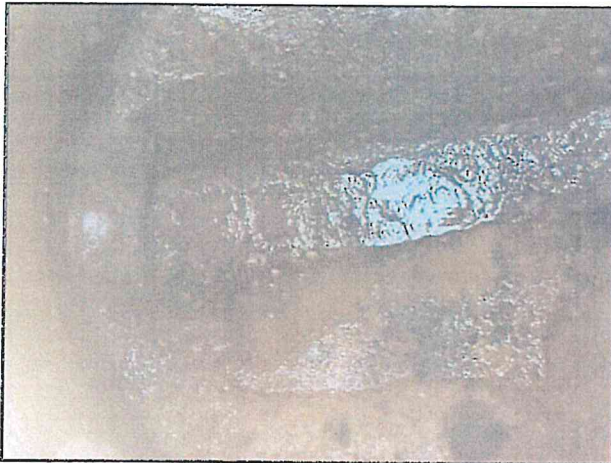


Image 3 – Connection 2



Ima

ge 4 – Connection 1



Image 1 – MH E, facing SW

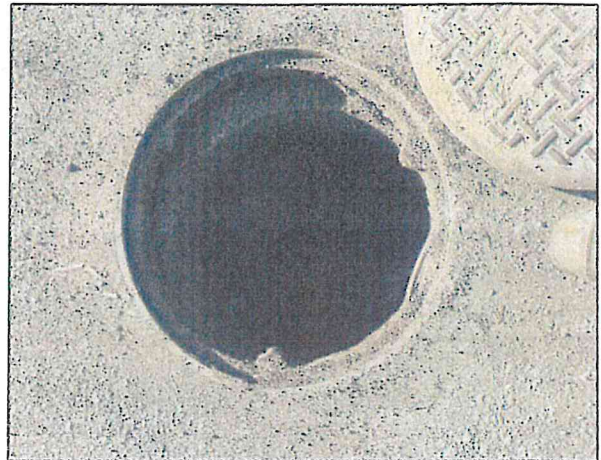


Image 2 – Frame

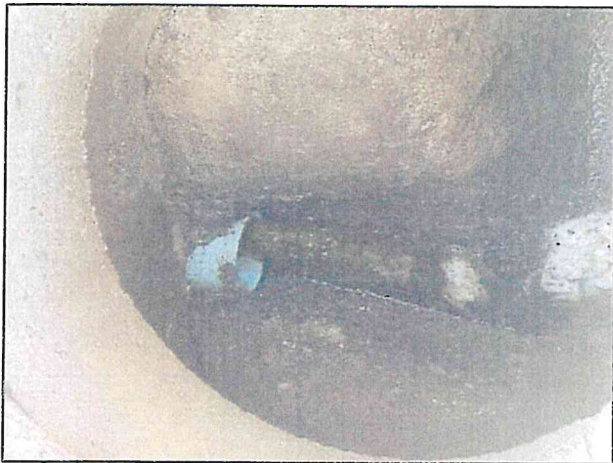


Image 3 – Connection 1



Image 4 – Connection 3



Image 5 – Connection 2



Image 1 – MH 8, facing E



Image 2 – Frame



Image 3 – Connection 1



Image 4 – Connection 2



Image 1 – MH 9, facing SW



Image 2 – Frame

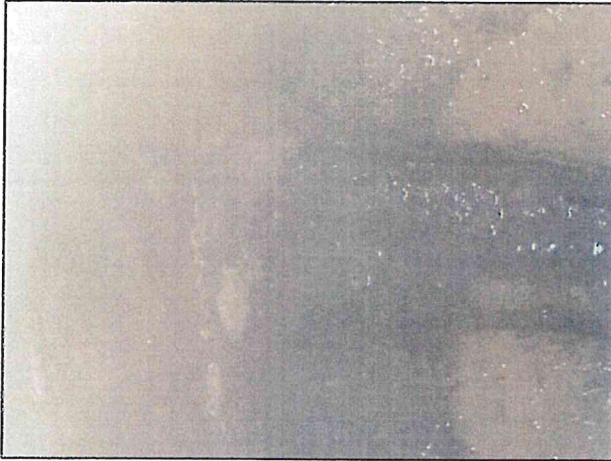


Image 3 – Connection 3



Image 4 – Connection 1



Image 5 – Connection 2



Image 6 – Infiltration deposits



Image 1 – MH 9A, facing NW

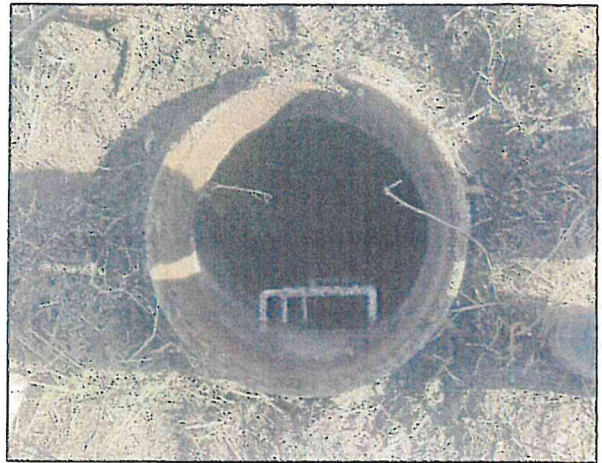


Image 2 – Frame



Image 3 – Connection 1



Image 4 – Connection 2, joint infiltration

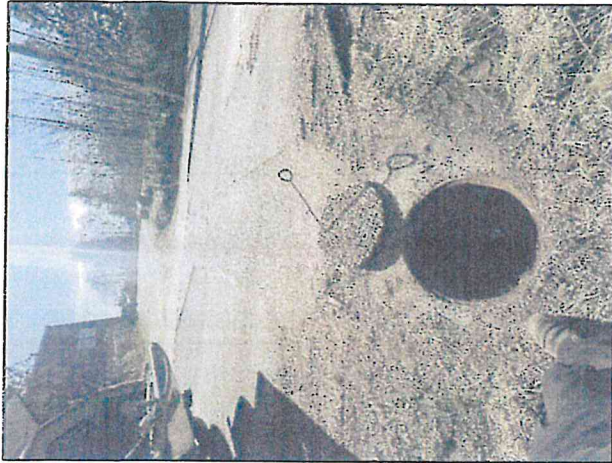


Image 1 – MH 10, facing SE



Image 2 – Frame



Image 3 – Connection 1



Image 4 – Connection 2



Image 1 – MH 11, facing SE

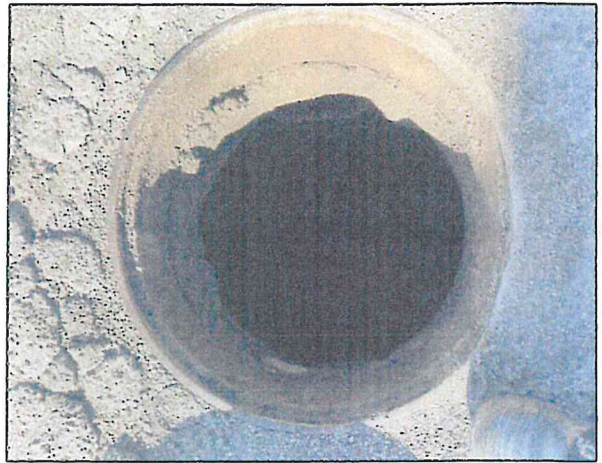


Image 2 – Frame



Image 3 – Connection 4



Image 4 – Connection 3



Image 5 – Connection 1 and 2



Image 1 – MH 12, facing North



Image 2 – Frame



Image 3 – Connection 1 and 3



Image 4 – Connection 2



Image 1 – MH 20, facing NW



Image 2 – Frame

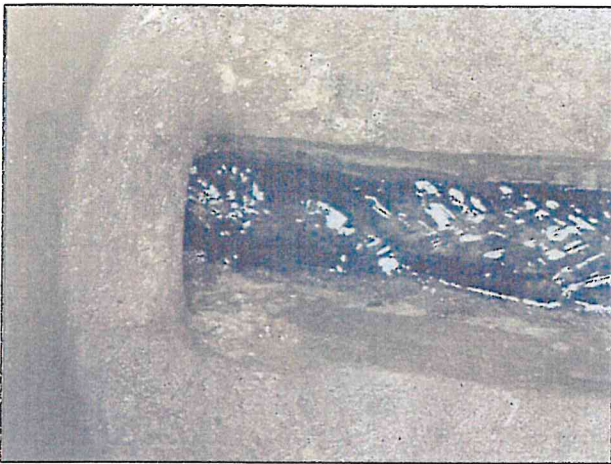


Image 3 – Connection 1



Image 4 – Connection 2



Image 1 – MH 21, facing NW



Image 2 – Frame



Image 3 – Connection 1



Image 4 – Connection 2



Image 1 – MH 22, facing S



Image 2 – Frame



Image 3 – Connection 2



Image 4 – Connection 1 and 3



Image 1 – MH 23, facing NW



Image 2 – Frame

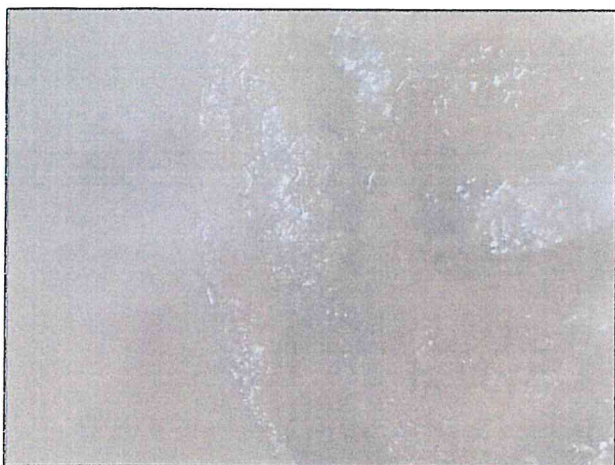


Image 3 – Connection 2



Image 4 – Connection 1



Image 1 – MH 24, facing NW



Image 2 – Frame



Image 3 – Connection 1

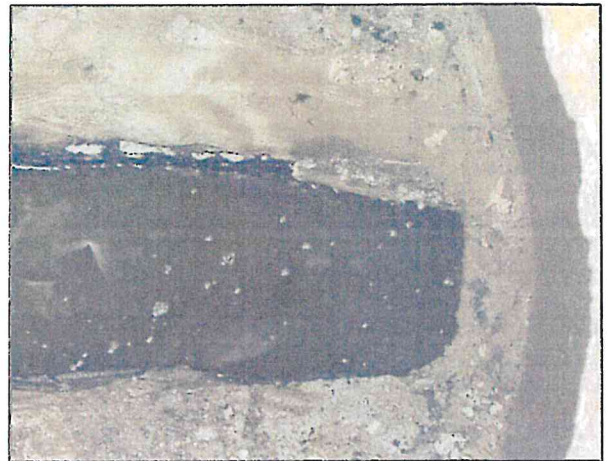


Image 4 – Connection 2



Image 1 – MH 25, facing SE



Image 2 – Frame



Image 3 – Connection 1 and 2

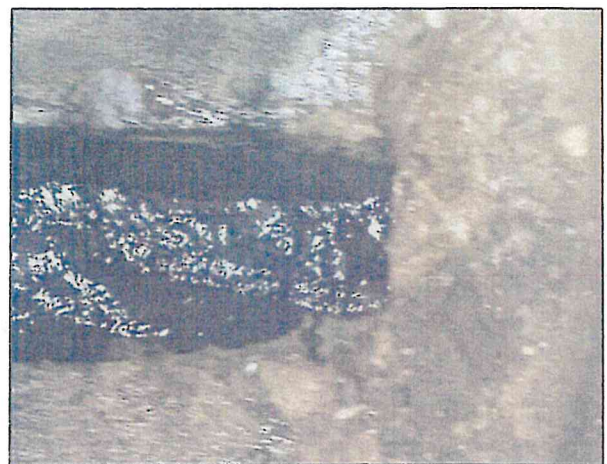


Image 4 – Connection 1 and 2



Image 1 – MH 26, facing NW



Image 2 – Frame



Image 3 – Connection 2



Image 4 – Connection 1

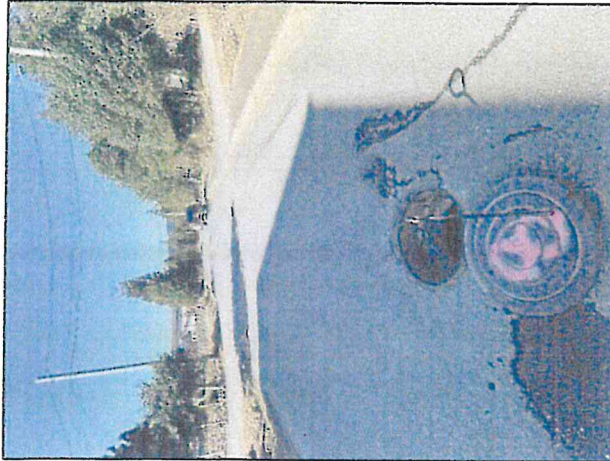


Image 1 – MH 100, facing NW



Image 2 – Frame



Image 3 – Connection 1



Image 4 – Connection 3



Image 5 – Chimney



Image 1 – MH 7, facing NW



Image 2 – Frame



Image 3 – Connection 2



Image 4 – Connection 1



Image 5 – Connection Chimney and cone

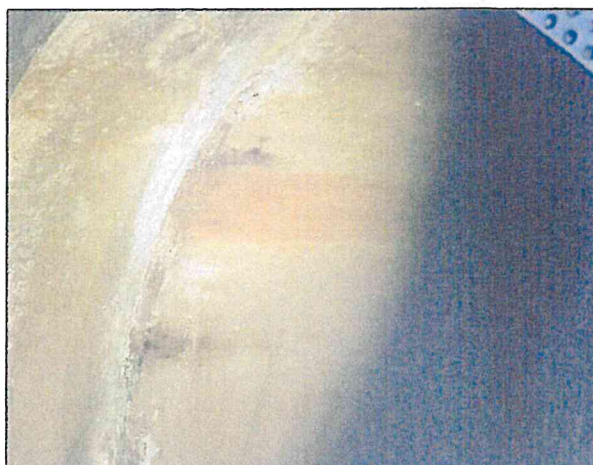


Image 6 – Cone and barrel section infiltration



Image 1 – MH 102, facing NW



Image 2 – Frame



Image 3 – Connection 1



Image 4 – Connection 2



Image 5 – Base infiltration



Image 1 – MH 103, facing W



Image 2 – Shelf and connections



Image 3 – Connection 2



Image 4 – Connection 3



Image 5 – Connection 1



Image 1 – MH 105, facing S



Image 2 – Frame



Image 3 – Connection 4



Image 4 – Connection 1,2 and 3



Image 1 – MH 7, facing NW

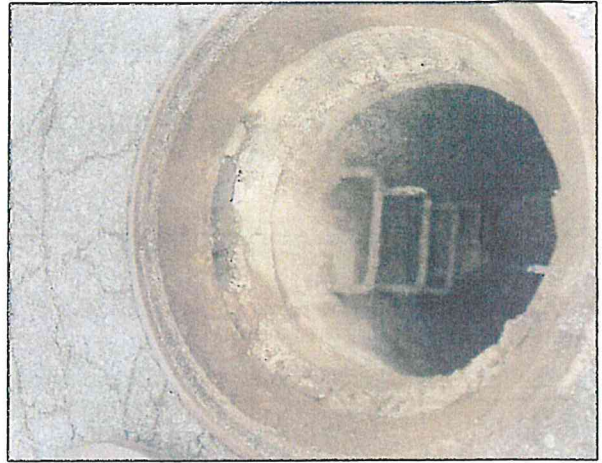


Image 2 – Frame

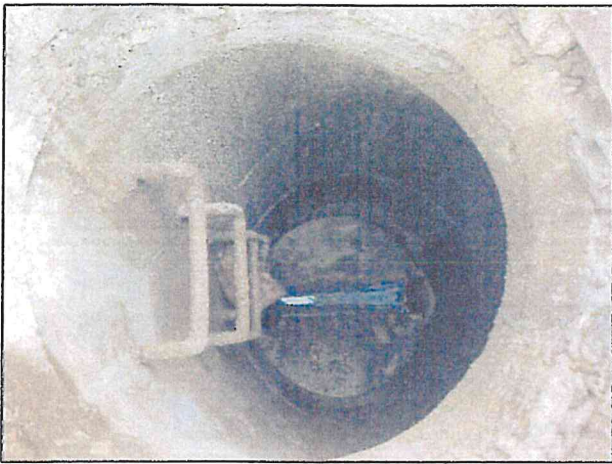


Image 3 – Connection 1 and 2



Image 1 – MH 109A, facing W



Image 2 – Frame



Image 3 – Connection 1,2 and 3



Image 1 – MH 102, facing NW

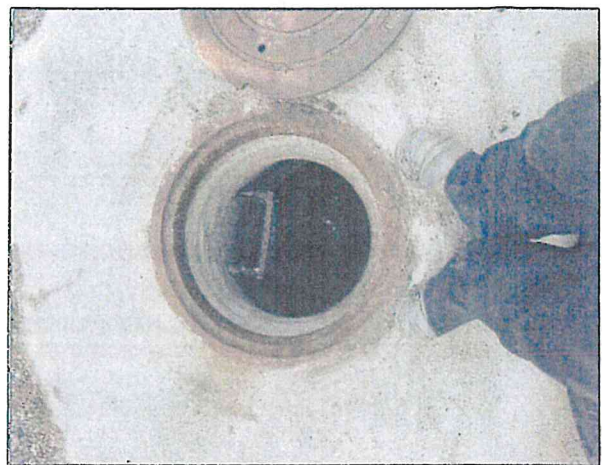


Image 2 – Frame



Image 3 – Connection 1



Image 4 – Connection 2



Image 5 – Base infiltration



Image 1 – MH 138, facing NW



Image 2 – Frame



Image 3 – Connection 3



Image 4 – Connection 1



Image 5 – Connection 2



Image 1 – MH 138A, facing SW



Image 2 – Frame



Image 1 – MH A, facing SE



Image 2 – Frame



Image 3 – Connection 1



Image 4 – Connection 2

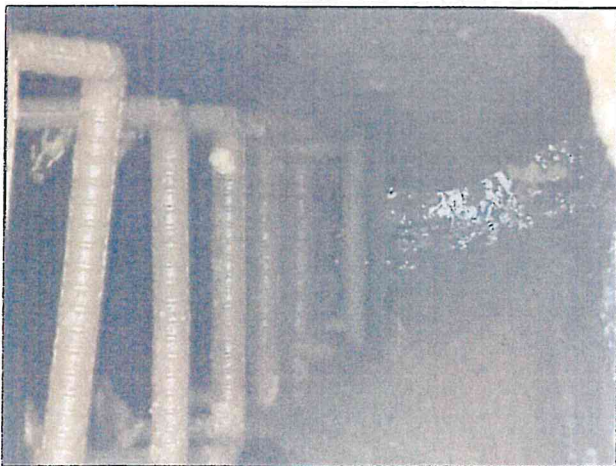


Image 5 – Connection 3



Image 1 – MH B, facing NW



Image 2 – Frame



Image 3 – Connection 2



Image 4 – Connection 1



Image 1 – MH D, facing SE



Image 2 – Frame



Image 3 – Connection 1



Image 4 – Chimney and Frame offset



Image 1 – MH E, facing NW



Image 2 – Shelf and connections



Image 3 – Connection 1



Image 4 – Connection 2



Image 1 – MH F, facing SW



Image 2 – Shelf and connections

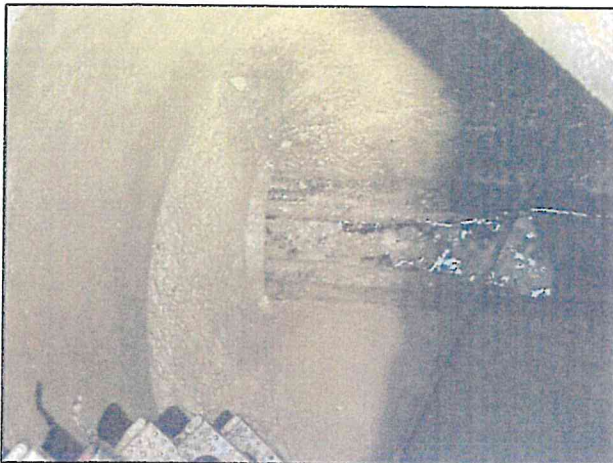


Image 3 – Connection 3



Image 4 – Connection 1 and 2