METRO ROD

CCTV Inspection Report



Ty Avow
21 Egerton Street
Wrexham
LL11 1ND

27/06/2025

Job Number: [redacted]

Metro Rod (Deeside)

Unit 27, Drome Road, Deeside Industrial Park, Flintshire, CH5 2NY
Tel: 01244 288 809

Project Information

Metro Rod (Deeside)
Unit 27, Drome Road
Deeside Industrial Park
Flintshire
CH5 2NY

Job Number	Surveyed by (Operator)	Base Unit	Date
[redacted]	[redacted]	**X7F9YPJUOO**	**27/06/2025**

Client Details:

[redacted]

Site Details:

Ty Avow
21 Egerton Street
Wrexham
LL11 1ND

Contractor Details:

Metro Rod (Deeside)
Unit 27, Drome Road
Deeside Industrial Park
Flintshire
CH5 2NY

Office Contact Number: 01244 288 809

Purpose of Survey:

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Main Sections

Metro Rod (Deeside)
Unit 27, Drome Road
Deeside Industrial Park
Flintshire
CH5 2NY

		Base Unit	Date
[redacted]	[redacted]	**X7F9YPJUOO**	**27/06/2025**

No.	US MH	DS MH	Date	Road	Material	m
1	MH1	OUTFALL	27/06/2025	Ty Avow 21 Egerton Street Wrexham LL11 1ND	Cast iron	30.35
2	MH2	MH1	27/06/2025	Ty Avow 21 Egerton Street Wrexham LL11 1ND	Vitrified clay	1.99
3	BRA	MH2	27/06/2025	Ty Avow 21 Egerton Street Wrexham LL11 1ND	Polyvinyl chloride	1.85
4	BRB	MH2	27/06/2025	Ty Avow 21 Egerton Street Wrexham LL11 1ND	Vitrified clay	2.07
5	SOURCE	MH2	27/06/2025	Ty Avow 21 Egerton Street Wrexham LL11 1ND	Cast iron	5.38
6	BRA	MH3	27/06/2025	Ty Avow 21 Egerton Street Wrexham LL11 1ND	Vitrified clay	3.5
7	BRB	MH3	27/06/2025	Ty Avow 21 Egerton Street Wrexham LL11 1ND	Vitrified clay	0.12
8	BRC	MH3	27/06/2025	Ty Avow 21 Egerton Street Wrexham LL11 1ND	Vitrified clay	1.21
9	MH3	OUTFALL	27/06/2025	Ty Avow 21 Egerton Street Wrexham LL11 1ND	Cast iron	51.18
10	MH5	OUTFALL	27/06/2025	Ty Avow 21 Egerton Street Wrexham LL11 1ND	Vitrified clay	19.35
11	MH4	MH5	27/06/2025	Ty Avow 21 Egerton Street Wrexham LL11 1ND	Vitrified clay	0.44
12	MH6	MH5	27/06/2025	Ty Avow 21 Egerton Street Wrexham LL11 1ND	Polyvinyl chloride	3.04
13	SOURCE	MH6	27/06/2025	Ty Avow 21 Egerton Street Wrexham LL11 1ND	Cast iron	2.65

Pipe size: 100 = 82.25m
Pipe size: 150 = 51.18m

All sections = 133.43m

Metro Rod (Deeside)
Unit 27, Drome Road
Deeside Industrial Park
Flintshire
CH5 2NY

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[redacted]	[redacted]	Pipe Length Reference(PLR)	Date	Pre Cleaned
		MH1	**27/06/2025**	**Flushed through to enable survey**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**3/0**	**X7F9YPJUOO**	**1**

Road **Ty Avow 21 Egerton Street Wrexham LL11 1ND**
Place
Location

Ground Surface **Concrete**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **100mm**
Material **Cast iron**
Duty **Surface water**

Start MH **MH1**
End MH **OUTFALL**
Total length **30.35 metres**

Scale **1:1.59**
Direction **Downstream**

Start Node Ref:MH1 | I/L :mm | Depth: 770mm

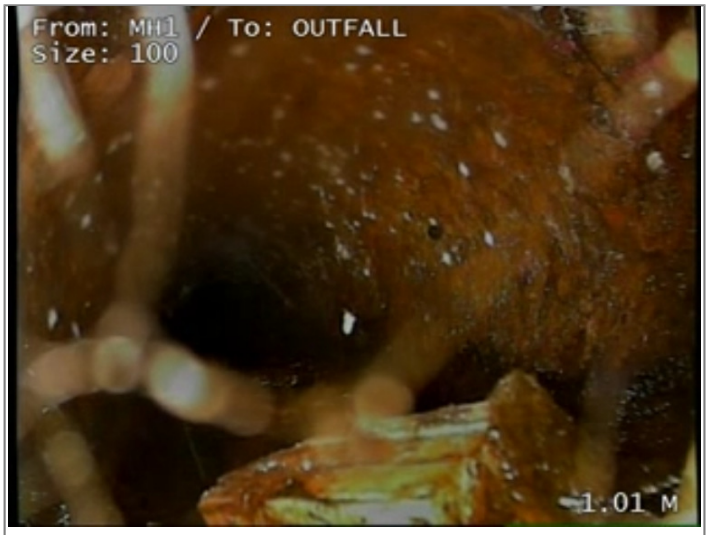
Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH1	12493871	Comment / 0
0.00	WL	Water level 0% height/diameter	12493872	Comment / 0
0.10	LR	Line of drain/sewer deviates right via junction	12616986	Comment / 0
0.10	SC	Dimensions of drain/sewer changes to 150mm	12617054	Comment / 0
1.01	DEZ (S1)	Other attached deposits from 12 to 12 o'clock 15% cross-sectional area loss, Start	12618420	Service / 3
9.74	JN	Junction at 2 o'clock, diameter 100mm	12617096	Comment / 0
30.30	DEZ (F1)	Other attached deposits from 12 to 12 o'clock 15% cross-sectional area loss, Finished	12618431	Service / 3
30.35	MHF	Finish node type, manhole, reference OUTFALL	12493929	Comment / 0

End Node Ref:OUTFALL | I/L :mm

Metro Rod (Deeside)
Unit 27, Drome Road
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Flintshire
CH5 2NY

CCTV Inspection Photos

[redacted]	[redacted]	Base Unit **X7F9YPJUOO**	Date **27/06/2025**



Other attached deposits from 12 to 12 o'clock 15% cross-sectional area loss, Start



Other attached deposits from 12 to 12 o'clock 15% cross-sectional area loss, Finished

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Metro Rod (Deeside)
Unit 27, Drome Road
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Flintshire
CH5 2NY

[redacted]	[redacted]	Pipe Length Reference(PLR) **MH2 X**	Date **27/06/2025**	Pre Cleaned **Flushed through to enable survey**
Weather **1 - Dry**	Customer Present	Service Grade/Structural Grade **2/0**	Base Unit **X7F9YPJUOO**	Section Number **2**

Road **Ty Avow 21 Egerton Street Wrexham LL11 1ND**
Place
Location

Ground Surface **Concrete**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **100mm**
Material **Vitrified clay**
Duty **Surface water**

Start MH **MH2**
End MH **MH1**
Total length **1.99 metres**

Scale **1:0.10**
Direction **Downstream**

Start Node Ref:MH2 | I/L :mm | Depth: 600mm

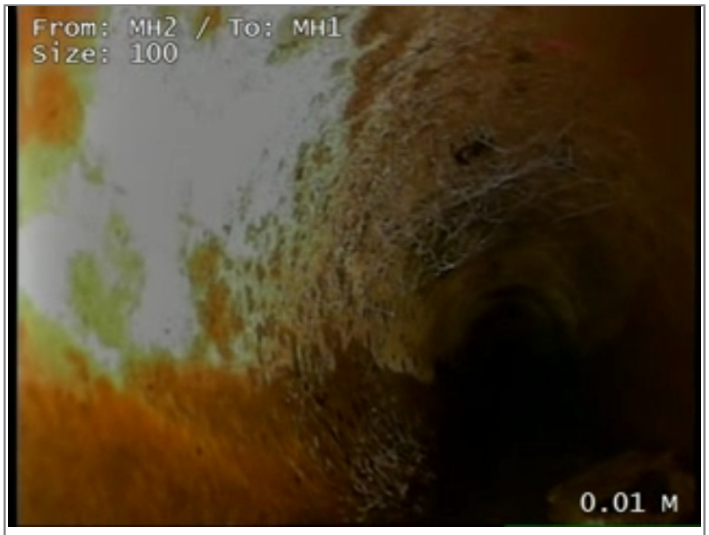


Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH2	12495257	Comment / 0
0.00	WL	Water level 0% height/diameter	12495258	Comment / 0
0.10	DEZ (S1)	Other attached deposits at 6 o'clock 5% cross-sectional area loss, Start	12616977	Service / 2
1.31	DEZ (F1)	Other attached deposits at 6 o'clock 5% cross-sectional area loss, Finished	12616980	Service / 2
1.99	MHF	Finish node type, manhole, reference MH1	12495264	Comment / 0

End Node Ref:MH1 | I/L :mm | Depth: 770mm

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[redacted]	[redacted]	Base Unit **X7F9YPJUOO**	Date **27/06/2025**



Other attached deposits at 6 o'clock 5% cross-sectional area loss, Start



Other attached deposits at 6 o'clock 5% cross-sectional area loss, Finished

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Metro Rod (Deeside)
Unit 27, Drome Road
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CH5 2NY

[redacted]	[redacted]	Pipe Length Reference(PLR) **BRA**	Date **27/06/2025**	Pre Cleaned **Flushed through to enable survey**
Weather **1 - Dry**	Customer Present	Service Grade/Structural Grade **0/0**	Base Unit **X7F9YPJUOO**	Section Number **3**

Road **Ty Avow 21 Egerton Street Wrexham LL11 1ND**
Place
Location

Ground Surface **Concrete**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **100mm**
Material **Polyvinyl chloride**
Duty **Surface water**

Start MH **MH2**
End MH **BRA**
Total length **5 metres**

Scale **1:0.26**
Direction **Upstream**

Start Node Ref:MH2 | I/L :mm | Depth: 600mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH2	12495292	Comment / 0
0.00	WL	Water level 0% height/diameter	12495295	Comment / 0
0.99	LL	Line of drain/sewer deviates left	12618373	Comment / 0
1.20	MCVC	Material of drain/sewer changes to vitrified clay at this point	12618381	Comment / 0
1.20	SC	Dimensions of drain/sewer changes to 75mm	12618385	Comment / 0
1.85	SA	Survey abandoned - Remark: Unable to pass due to material/possible diameter change	12495310	Comment / 0

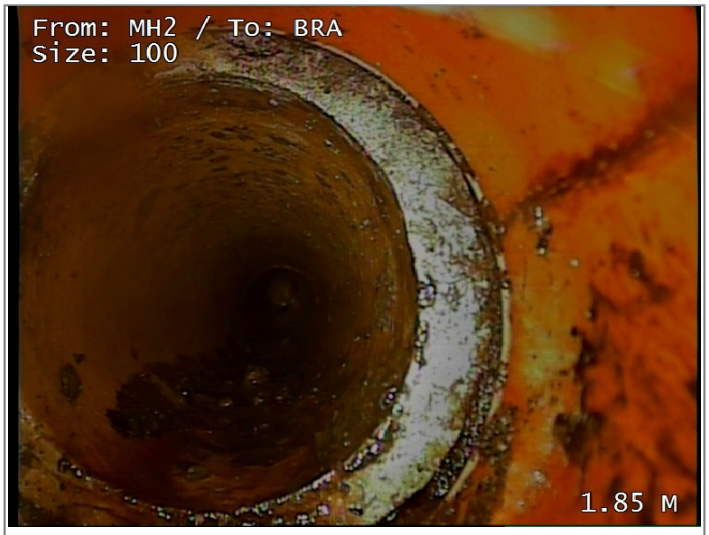


End Node Ref:BRA | I/L :mm

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CCTV Inspection Photos

[redacted]	[redacted]	Base Unit **X7F9YPJUOO**	Date **27/06/2025**



Survey abandoned - Remark: Unable to pass due to material/possible diameter change

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Metro Rod (Deeside)
Unit 27, Drome Road
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CH5 2NY

		Pipe Length Reference(PLR)	Date	Pre Cleaned
[redacted]	[redacted]	**BRB X**	**27/06/2025**	**Flushed through to enable survey**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**3/0**	**X7F9YPJUOO**	**4**

Road **Ty Avow 21 Egerton Street Wrexham LL11 1ND**
Place
Location

Ground Surface **Concrete**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **100mm**
Material **Vitrified clay**
Duty **Surface water**

Start MH **MH2**
End MH **BRB**
Total length **2.07 metres**

Scale **1:0.11**
Direction **Upstream**

Start Node Ref:MH2 | I/L :mm | Depth: 600mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH2	12495407	Comment / 0
0.00	WL	Water level 0% height/diameter	12495408	Comment / 0
1.42	LU	Line of drain/sewer deviates up	12618362	Comment / 0
1.45	DEX	Other settled deposits 10% cross-sectional area loss	12618358	Service / 3
2.07	OCF	Finish node type, other special chamber, reference BRB	12495430	Comment / 0

End Node Ref:BRB | I/L :mm

Metro Rod (Deeside)
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[redacted]	[redacted]	Base Unit **X7F9YPJUOO**	Date **27/06/2025**



Other settled deposits 10% cross-sectional area loss

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[redacted]	[redacted]	Pipe Length Reference(PLR) **SOURCE**	Date **27/06/2025**	Pre Cleaned **Flushed through to enable survey**
Weather **1 - Dry**	Customer Present	Service Grade/Structural Grade **3/0**	Base Unit **X7F9YPJUOO**	Section Number **5**

Road **Ty Avow 21 Egerton Street Wrexham LL11 1ND**
Place
Location

Ground Surface
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **100mm**
Material **Cast iron**
Duty **Surface water**

Start MH **MH2**
End MH **SOURCE**
Total length **5.38 metres**

Scale **1:0.28**
Direction **Upstream**

Start Node Ref:MH2 | I/L :mm | Depth: 600mm

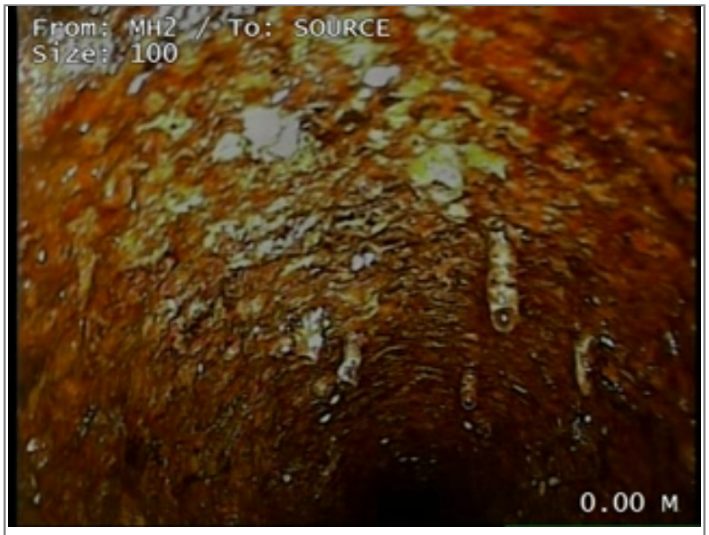


Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH2	12495543	Comment / 0
0.00	WL	Water level 0% height/diameter	12495544	Comment / 0
0.10	DEE (S1)	Attached deposits, encrustation from 12 to 12 o'clock 10% cross-sectional area loss, Start	12618286	Service / 3
3.30	DEE (F1)	Attached deposits, encrustation from 12 to 12 o'clock 10% cross-sectional area loss, Finished	12618298	Service / 3
3.40	MCVC	Material of drain/sewer changes to vitrified clay at this point	12618291	Comment / 0
3.66	LL	Line of drain/sewer deviates left	12618302	Comment / 0
4.21	JN	Junction at 12 o'clock, diameter 100mm	12618305	Comment / 0
4.55	LL	Line of drain/sewer deviates left	12618307	Comment / 0
5.38	GYF	Finish node type, gully, reference SOURCE	12495545	Comment / 0

End Node Ref:SOURCE | I/L :mm

Metro Rod (Deeside)
Unit 27, Drome Road
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Flintshire
CH5 2NY

[redacted]	[redacted]	Base Unit **X7F9YPJUOO**	Date **27/06/2025**



Attached deposits, encrustation from 12 to 12 o'clock 10% cross-sectional area loss, Start



Attached deposits, encrustation from 12 to 12 o'clock 10% cross-sectional area loss, Finished

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Metro Rod (Deeside)
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Flintshire
CH5 2NY

[redacted]	[redacted]	Pipe Length Reference(PLR)	Date	Pre Cleaned
		BRA	**27/06/2025**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**5/5**	**X7F9YPJUOO**	**6**

Road **Ty Avow 21 Egerton Street Wrexham LL11 1ND**
Place
Location

Ground Surface **Concrete**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **100mm**
Material **Vitrified clay**
Duty **Surface water**

Start MH **MH3**
End MH **BRA**
Total length **5 metres**

Scale **1:0.26**
Direction **Upstream**

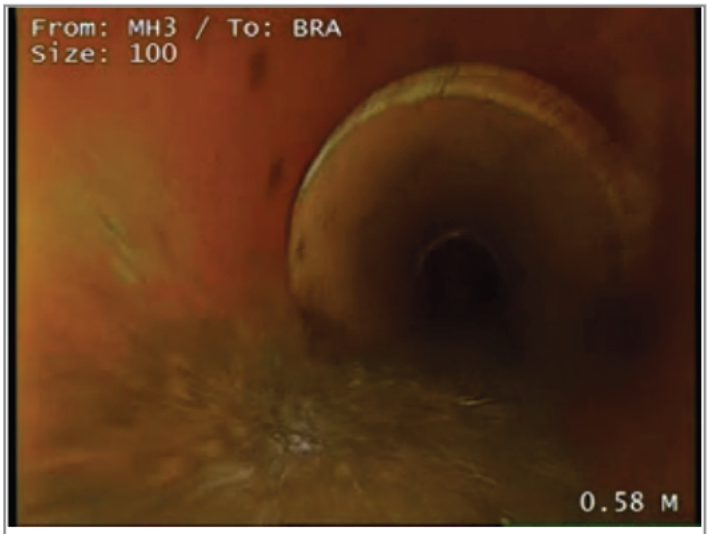
Start Node Ref:MH3 | I/L :mm | Depth: 450mm



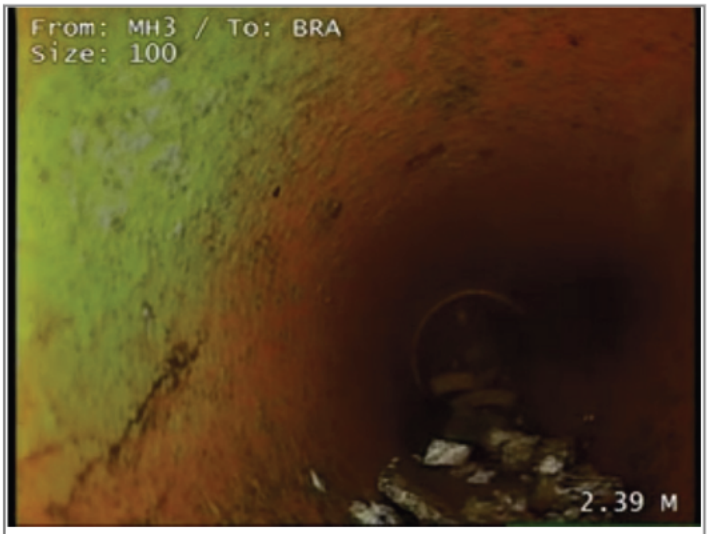
Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH3	12496032	Comment / 0
0.00	WL	Water level 0% height/diameter	12496033	Comment / 0
0.58	DEX	Other settled deposits 10% cross-sectional area loss	12618219	Service / 3
2.39	DER	Settled deposits coarse 10% cross-sectional area loss	12618224	Service / 3
3.13	OBM	Other obstacles, pipe material in invert at 6 o'clock 20% cross-sectional area loss	12618228	Service / 5
3.23	CC	Crack circumferential from 8 to 4 o'clock	12618229	Structural / 2
3.24	XP	Collapsed drain/sewer 100%	12618231	Structural / 5
3.50	SA	Survey abandoned - Remark: UNABLE TO PASS DUE TO COLLAPSE	12496093	Comment / 0

End Node Ref:BRA | I/L :mm

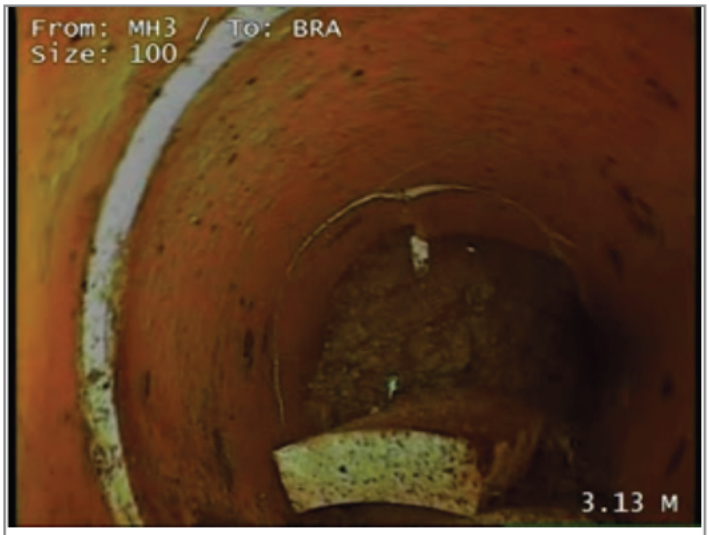
[redacted]	[redacted]	Base Unit X7F9YPJUOO	Date 27/06/2025



Other settled deposits 10% cross-sectional area loss



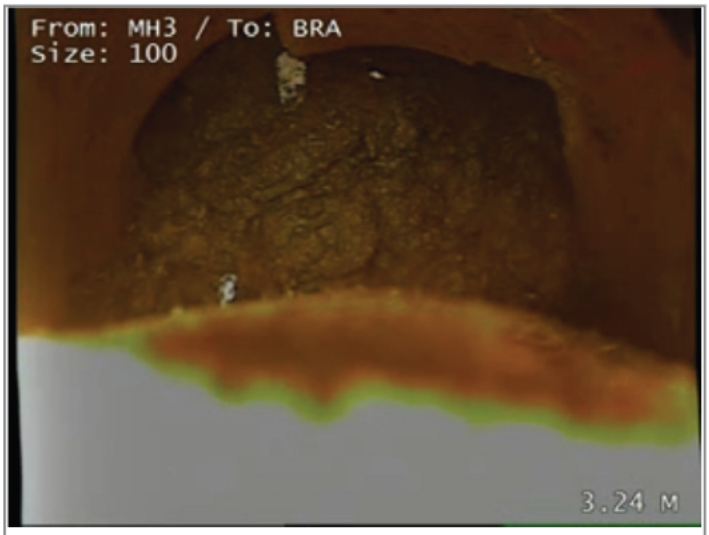
Settled deposits coarse 10% cross-sectional area loss



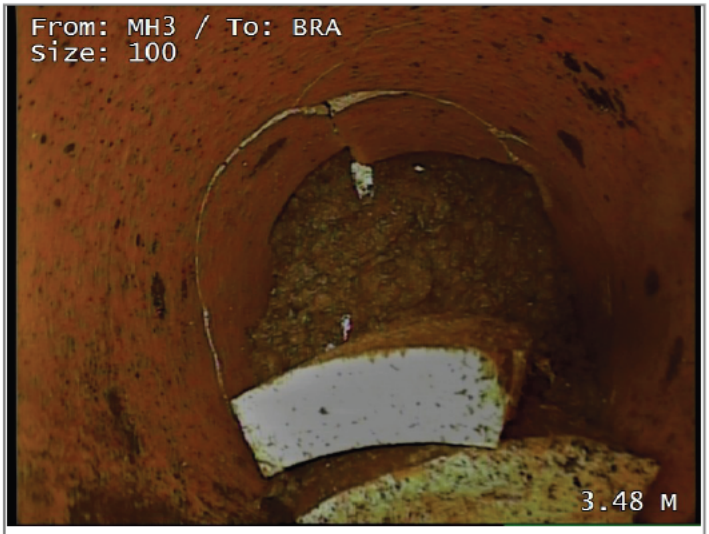
Other obstacles, pipe material in invert at 6 o'clock 20% cross-sectional area loss



Crack circumferential from 8 to 4 o'clock



Collapsed drain/sewer 100%



Survey abandoned - Remark: UNABLE TO PASS DUE TO COLLAPSE

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Unit 27, Drome Road
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Flintshire
CH5 2NY

[redacted]tor)	[redacted]	Pipe Length Reference(PLR)	Date	Pre Cleaned
Gabe Purvor		**BRB X**	**27/06/2025**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**X7F9YPJUOO**	**7**

Road **Ty Avow 21 Egerton Street Wrexham LL11 1ND**
Place
Location

Ground Surface **Concrete**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **100mm**
Material **Vitrified clay**
Duty **Surface water**

Start MH **MH3**
End MH **BRB**
Total length **0.12 metres**

Scale **1:0.01**
Direction **Upstream**

Start Node Ref:MH3 | I/L :mm | Depth: 450mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH3	12496114	Comment / 0
0.00	WL	Water level 0% height/diameter	12496118	Comment / 0
0.12	GYF	Finish node type, gully, reference BRB	12496153	Comment / 0

End Node Ref:BRB | I/L :mm

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Unit 27, Drome Road
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[redacted]	[redacted]	Pipe Length Reference(PLR)	Date	Pre Cleaned
		BRC X	**27/06/2025**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**3/0**	**X7F9YPJUOO**	**8**

Road **Ty Avow 21 Egerton Street Wrexham LL11 1ND**
Place
Location

Ground Surface **Concrete**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **100mm**
Material **Vitrified clay**
Duty **Surface water**

Start MH **MH3**
End MH **BRC**
Total length **1.21 metres**

Scale **1:0.06**
Direction **Upstream**

Start Node Ref:MH3 | I/L :mm | Depth: 450mm



Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH3	12496235	Comment / 0
0.00	WL	Water level 0% height/diameter	12496236	Comment / 0
0.93	DES	Settled deposits fine 15% cross-sectional area loss	12618214	Service / 3
1.01	LU	Line of drain/sewer deviates up	12617896	Comment / 0
1.21	OCF	Finish node type, other special chamber, reference BRC	12496245	Comment / 0

End Node Ref:BRC | I/L :mm

[redacted]	[redacted]	Base Unit **X7F9YPJUOO**	Date **27/06/2025**



Settled deposits fine 15% cross-sectional area loss

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[redacted]	[redacted]	Pipe Length Reference(PLR)	Date	Pre Cleaned
		MH3	**27/06/2025**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**4/0**	**X7F9YPJUOO**	**9**

Road **Ty Avow 21 Egerton Street Wrexham LL11 1ND**
Place
Location

Ground Surface **Concrete**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **150mm**
Material **Cast iron**
Duty **Surface water**

Start MH **MH3**
End MH **OUTFALL**
Total length **51.18 metres**

Scale **1:2.69**
Direction **Downstream**

Start Node Ref:MH3 | I/L :mm | Depth: 450mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH3	12496264	Comment / 0
0.00	WL	Water level 0% height/diameter	12496266	Comment / 0
0.10	DEZ (S1)	Other attached deposits from 12 to 12 o'clock 15% cross-sectional area loss, Start	12618157	Service / 3
4.93	DEX	Other settled deposits 50% cross-sectional area loss	12618165	Service / 4
8.28	JN	Junction at 3 o'clock, diameter 100mm	12617919	Comment / 0
15.47	JN	Junction at 9 o'clock, diameter 100mm	12617931	Comment / 0
17.45	DEX	Other settled deposits 25% cross-sectional area loss	12618170	Service / 4
20.54	DER	Settled deposits coarse 25% cross-sectional area loss	12618200	Service / 4
26.50	JN	Junction at 3 o'clock, diameter 100mm	12617963	Comment / 0
27.61	LR	Line of drain/sewer deviates right	12617965	Comment / 0
30.30	JN	Junction at 3 o'clock, diameter 100mm	12617970	Comment / 0
50.96	DEZ (F1)	Other attached deposits from 12 to 12 o'clock 15% cross-sectional area loss, Finished	12618191	Service / 3
51.18	MHF	Finish node type, manhole, reference OUTFALL	12496609	Comment / 0

End Node Ref:OUTFALL | I/L :mm

[redacted]	[redacted]	Base Unit **X7F9YPJUOO**	Date **27/06/2025**



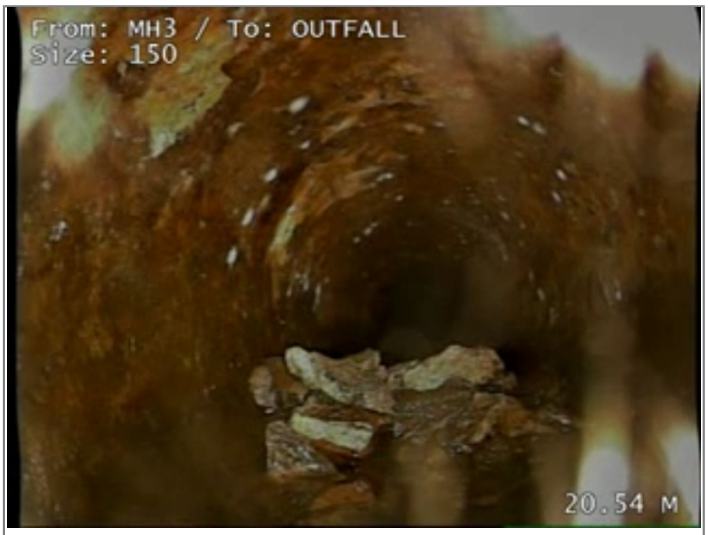
Other attached deposits from 12 to 12 o'clock 15% cross-sectional area loss, Start



Other settled deposits 50% cross-sectional area loss



Other settled deposits 25% cross-sectional area loss



Settled deposits coarse 25% cross-sectional area loss



Other attached deposits from 12 to 12 o'clock 15% cross-sectional area loss, Finished

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Metro Rod (Deeside)
Unit 27, Drome Road
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CH5 2NY

[redacted]	[redacted]	Pipe Length Reference(PLR)	Date	Pre Cleaned
		MH5 X	**27/06/2025**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**2/4**	**X7F9YPJUOO**	**10**

Road **Ty Avow 21 Egerton Street Wrexham LL11 1ND**
Place
Location

Ground Surface **Concrete**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **100mm**
Material **Vitrified clay**
Duty **Foul**

Start MH **MH5**
End MH **OUTFALL**
Total length **25 metres**

Scale **1:1.31**
Direction **Downstream**

Start Node Ref:MH5 | I/L :mm | Depth: 950mm



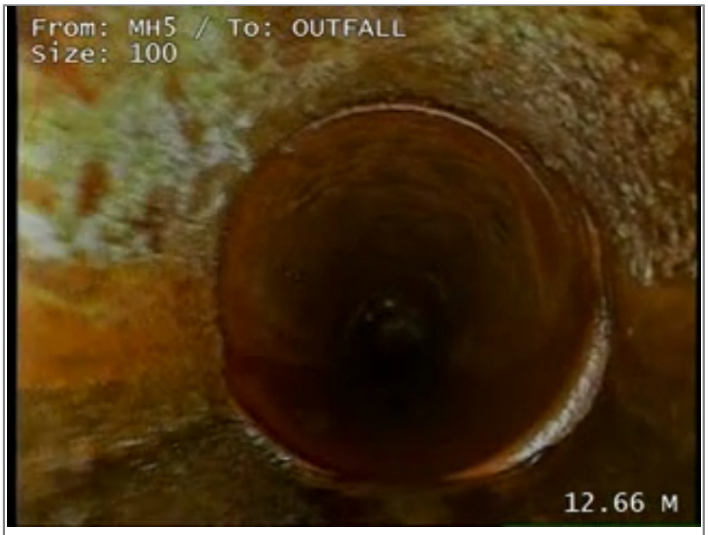
Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH5	12498663	Comment / 0
0.00	WL	Water level 0% height/diameter	12498666	Comment / 0
0.10	LCPS (S2)	Lining of drain/sewer changes to polyester at this point, Start	12618121	Comment / 0
0.46	DEZ (S1)	Other attached deposits from 5 to 7 o'clock 5% cross-sectional area loss, Start	12618030	Service / 2
12.66	DEZ (F1)	Other attached deposits from 5 to 7 o'clock 5% cross-sectional area loss, Finished	12618134	Service / 2
12.66	LCPS (F2)	Lining of drain/sewer changes to polyester at this point, Finished	12618137	Comment / 0
12.66	CC	Crack circumferential from 8 to 1 o'clock	12617645	Structural / 2
15.27	LD	Line of drain/sewer deviates down	12617646	Comment / 0
18.80	JDL	Joint displaced large	12617655	Structural / 1
18.94	B	Broken pipe from 3 to 6 o'clock	12617665	Structural / 4
19.30	JDL	Joint displaced large	12617672	Structural / 1
19.35	SA	Survey abandoned - Remark: UNABLE TO PASS DUE TO LARGE DISPLACEMENT	12498669	Comment / 0

End Node Ref:OUTFALL | I/L :mm

[redacted]	[redacted]	Base Unit **X7F9YPJUOO**	Date **27/06/2025**



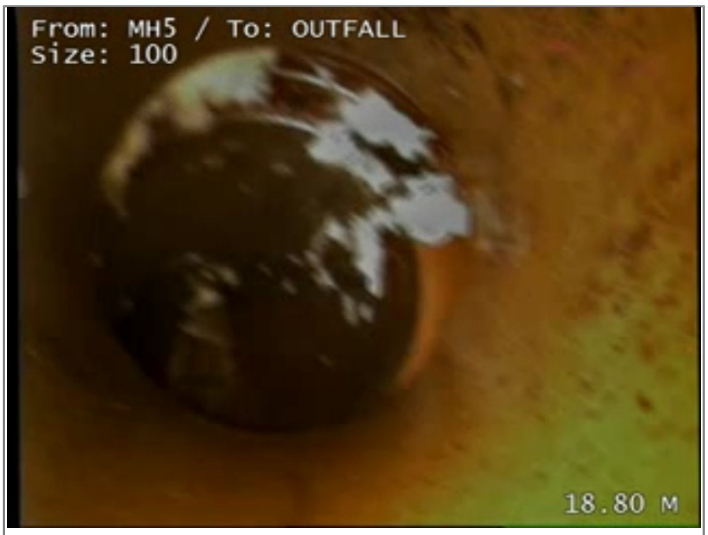
Other attached deposits from 5 to 7 o'clock 5% cross-sectional area loss, Start



Other attached deposits from 5 to 7 o'clock 5% cross-sectional area loss, Finished



Crack circumferential from 8 to 1 o'clock



Joint displaced large



Broken pipe from 3 to 6 o'clock



Joint displaced large

Metro Rod (Deeside)
Unit 27, Drome Road
Deeside Industrial Park
Flintshire
CH5 2NY

[redacted]	[redacted]	Base Unit **X7F9YPJUOO**	Date **27/06/2025**



Survey abandoned - Remark: UNABLE TO PASS DUE TO LARGE DISPLACEMENT

CCTV Inspection Report

Metro Rod (Deeside)
Unit 27, Drome Road
Deeside Industrial Park
Flintshire
CH5 2NY

[redacted]	[redacted]	Pipe Length Reference(PLR)	Date	Pre Cleaned
		MH4 X	**27/06/2025**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**X7F9YPJUOO**	**11**

Road **Ty Avow 21 Egerton Street Wrexham LL11 1ND**
Place
Location

Ground Surface **Concrete**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **100mm**
Material **Vitrified clay**
Duty **Foul**

Start MH **MH5**
End MH **MH4**
Total length **0.44 metres**

Scale **1:0.02**
Direction **Upstream**

Start Node Ref:MH5 | I/L :mm | Depth: 950mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH5	12499316	Comment / 0
0.00	WL	Water level 0% height/diameter	12499318	Comment / 0
0.44	MHF	Finish node type, manhole, reference MH4	12499333	Comment / 0

End Node Ref:MH4 | I/L :mm

CCTV Inspection Report

Metro Rod (Deeside)
Unit 27, Drome Road
Deeside Industrial Park
Flintshire
CH5 2NY

[redacted]	[redacted]	Pipe Length Reference(PLR)	Date	Pre Cleaned
		MH6	**27/06/2025**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**2/0**	**X7F9YPJUOO**	**12**

Road **Ty Avow 21 Egerton Street Wrexham LL11 1ND**
Place
Location

Ground Surface **Concrete**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **100mm**
Material **Polyvinyl chloride**
Duty **Foul**

Start MH **MH6**
End MH **MH5**
Total length **3.04 metres**

Scale **1:0.16**
Direction **Downstream**

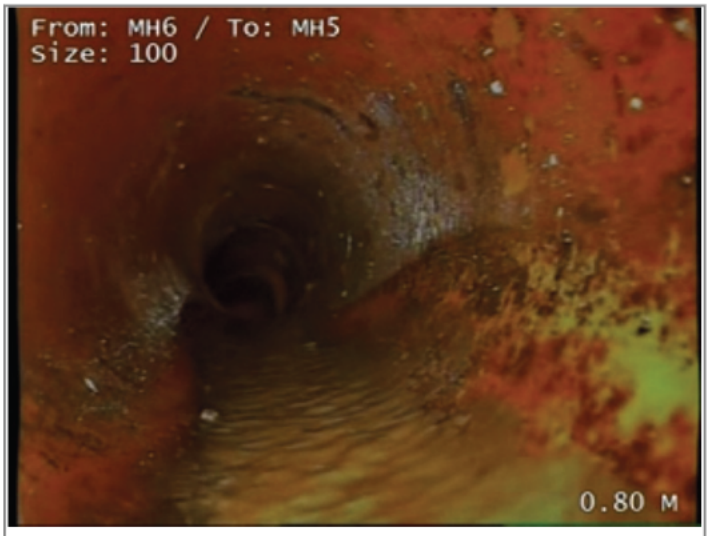
Start Node Ref:MH6 | I/L :mm | Depth: 400mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH6	12499468	Comment / 0
0.00	WL	Water level 0% height/diameter	12499472	Comment / 0
0.44	LR	Line of drain/sewer deviates right	12617299	Comment / 0
0.55	JN	Junction at 3 o'clock, diameter 100mm	12617325	Comment / 0
0.80	DEG	Attached deposits, grease at 6 o'clock 5% cross-sectional area loss	12618007	Service / 2
1.87	JN	Junction at 3 o'clock, diameter 100mm	12617337	Comment / 0
2.34	LL	Line of drain/sewer deviates left	12617342	Comment / 0
3.04	MHF	Finish node type, manhole, reference MH5	12499486	Comment / 0

End Node Ref:MH5 | I/L :mm | Depth: 950mm

Metro Rod (Deeside)
Unit 27, Drome Road
Deeside Industrial Park
Flintshire
CH5 2NY

[redacted]	[redacted]	Base Unit **X7F9YPJUOO**	Date **27/06/2025**



Attached deposits, grease at 6 o'clock 5% cross-sectional area loss

Metro Rod (Deeside)
Unit 27, Drome Road
Deeside Industrial Park
Flintshire
CH5 2NY

METRO ROD CCTV Inspection Report

[redacted]	[redacted]	Pipe Length Reference(PLR)	Date	Pre Cleaned
		SOURCE	**27/06/2025**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**4/0**	**X7F9YPJUOO**	**13**

Road **Ty Avow 21 Egerton Street Wrexham LL11 1ND**
Place
Location

Ground Surface **Concrete**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **100mm**
Material **Cast iron**
Duty **Foul**

Start MH **MH6**
End MH **SOURCE**
Total length **2.65 metres**

Scale **1:0.14**
Direction **Upstream**

Start Node Ref:MH6 | I/L :mm | Depth: 400mm



Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH6	12499895	Comment / 0
0.00	WL	Water level 0% height/diameter	12499896	Comment / 0
0.10	DEX	Other settled deposits 50% cross-sectional area loss	12617355	Service / 4
0.70	DEZ (S1)	Other attached deposits from 12 to 12 o'clock 5% cross-sectional area loss, Start	12617397	Service / 2
0.70	DEX (S2)	Other settled deposits 5% cross-sectional area loss, Start	12617452	Service / 2
2.54	DEX (F2)	Other settled deposits 5% cross-sectional area loss, Finished	12617464	Service / 2
2.54	DEZ (F1)	Other attached deposits from 12 to 12 o'clock 5% cross-sectional area loss, Finished	12617474	Service / 2
2.54	LU	Line of drain/sewer deviates up	12617272	Comment / 0
2.65	OCF	Finish node type, other special chamber, reference SOURCE	12499897	Comment / 0

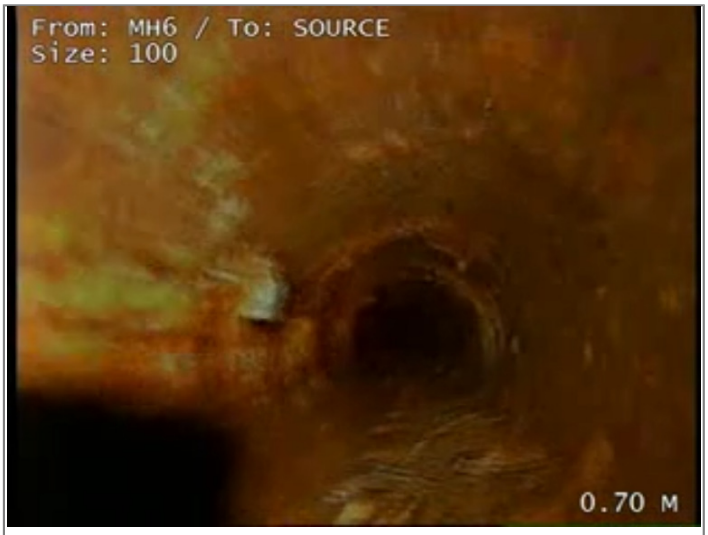
End Node Ref:SOURCE | I/L :mm

Metro Rod (Deeside)
Unit 27, Drome Road
Deeside Industrial Park
Flintshire
CH5 2NY

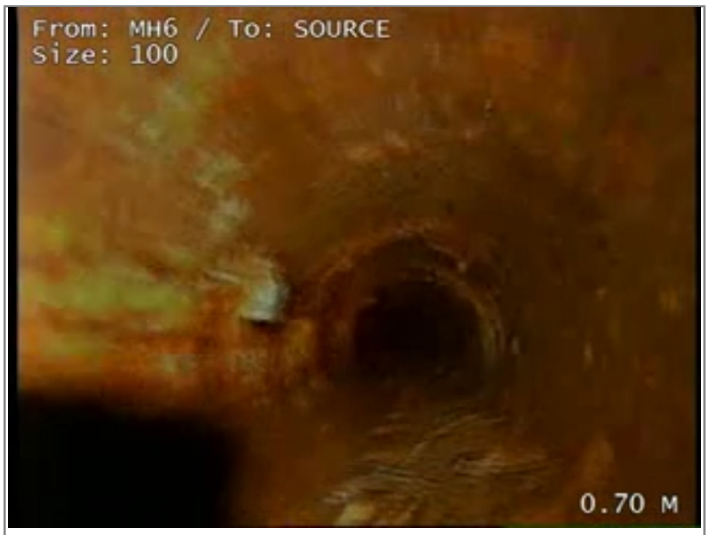
[redacted]	[redacted]	Base Unit **X7F9YPJUOO**	Date **27/06/2025**



Other settled deposits 50% cross-sectional area loss



Other attached deposits from 12 to 12 o'clock 5% cross-sectional area loss, Start



Other settled deposits 5% cross-sectional area loss, Start



Other settled deposits 5% cross-sectional area loss, Finished



Other attached deposits from 12 to 12 o'clock 5% cross-sectional area loss, Finished

Structural Defects (SRM 4)

Metro Rod (Deeside)
Unit 27, Drome Road
Deeside Industrial Park
Flintshire
CH5 2NY

[redacted]	[redacted]	Base Unit **X7F9YPJUOO**	Date **27/06/2025**

No.	PLR	Dir.	Use	Shape/Size	Date	Mat.	Total Length	Inspection Length	Cat.	Peak Score	Grade	Mean Score	Total Score
1	MH1	D	S	100	27/06/2025	Cast iron	30.35 metres	30.35		0	1	0	0
2	MH2 X	D	S	100	27/06/2025	Vitrified clay	1.99 metres	1.99		0	1	0	0
3	BRA	U	S	100	27/06/2025	Polyvinyl chloride	5 metres	1.85		0	1	0	0
4	BRB X	U	S	100	27/06/2025	Vitrified clay	2.07 metres	2.07		0	1	0	0
5	SOURCE	U	S	100	27/06/2025	Cast iron	5.38 metres	5.38		0	1	0	0
6	BRA	U	S	100	27/06/2025	Vitrified clay	5 metres	3.5		165	5	50.00	175
7	BRB X	U	S	100	27/06/2025	Vitrified clay	0.12 metres	0.12		0	1	0	0
8	BRC X	U	S	100	27/06/2025	Vitrified clay	1.21 metres	1.21		0	1	0	0
9	MH3	D	S	150	27/06/2025	Cast iron	51.18 metres	51.18		0	1	0	0
10	MH5 X	D	F	100	27/06/2025	Vitrified clay	25 metres	19.35		80	4	4.86	94
11	MH4 X	U	F	100	27/06/2025	Vitrified clay	0.44 metres	0.44		0	1	0	0
12	MH6	D	F	100	27/06/2025	Polyvinyl chloride	3.04 metres	3.04		0	1	0	0
13	SOURCE	U	F	100	27/06/2025	Cast iron	2.65 metres	2.65		0	1	0	0

Service Defects (SRM 4)

Metro Rod (Deeside)
Unit 27, Drome Road
Deeside Industrial Park
Flintshire
CH5 2NY

[redacted]	[redacted]	Base Unit **X7F9YPJUOO**	Date **27/06/2025**

No.	PLR	Dir.	Use	Shape/Size	Date	Mat.	Total Length	Inspection Length	Cat.	Peak Score	Grade	Mean Score	Total Score
1	MH1	D	S	100	27/06/2025	Cast iron	30.35 metres	30.35		2	3	0.13	4
2	MH2 X	D	S	100	27/06/2025	Vitrified clay	1.99 metres	1.99		1	2	1.01	2
3	BRA	U	S	100	27/06/2025	Polyvinyl chloride	5 metres	1.85		0	1	0	0
4	BRB X	U	S	100	27/06/2025	Vitrified clay	2.07 metres	2.07		2	3	0.97	2
5	SOURCE	U	S	100	27/06/2025	Cast iron	5.38 metres	5.38		2	3	0.74	4
6	BRA	U	S	100	27/06/2025	Vitrified clay	5 metres	3.5		10	5	4.00	14
7	BRB X	U	S	100	27/06/2025	Vitrified clay	0.12 metres	0.12		0	1	0	0
8	BRC X	U	S	100	27/06/2025	Vitrified clay	1.21 metres	1.21		2	3	1.65	2
9	MH3	D	S	150	27/06/2025	Cast iron	51.18 metres	51.18		5	4	0.37	19
10	MH5 X	D	F	100	27/06/2025	Vitrified clay	25 metres	19.35		1	2	0.10	2
11	MH4 X	U	F	100	27/06/2025	Vitrified clay	0.44 metres	0.44		0	1	0	0
12	MH6	D	F	100	27/06/2025	Polyvinyl chloride	3.04 metres	3.04		1	2	0.33	1
13	SOURCE	U	F	100	27/06/2025	Cast iron	2.65 metres	2.65		5	4	3.40	9

Report Summary

Metro Rod (Deeside)
Unit 27, Drome Road
Deeside Industrial Park
Flintshire
CH5 2NY

[redacted]	[redacted]	Base Unit	Date
		X7F9YPJUOO	**27/06/2025**

Job Information

Total Distance Surveyed: **133.43 meters**
Engineer: **Gabe Purvor**
Number of Surveys: **13**
Number of Surveys grade 4 or above: **2**

Section 1 Overview (27/06/2025)

Manholes: **MH1 to OUTFALL**
Pipe Length: **30.35 metres**
Structural Grade: **0**
Service Grade: **3**
Material: **Cast iron**
Pipe Size: **100mm**
Use: **Surface water**

Section 2 Overview (27/06/2025)

Manholes: **MH2 to MH1**
Pipe Length: **1.99 metres**
Structural Grade: **0**
Service Grade: **2**
Material: **Vitrified clay**
Pipe Size: **100mm**
Use: **Surface water**

Section 3 Overview (27/06/2025)

Manholes: **MH2 to BRA**
Pipe Length: **5 metres**
Structural Grade: **0**
Service Grade: **0**
Material: **Polyvinyl chloride**
Pipe Size: **100mm**
Use: **Surface water**

Section 4 Overview (27/06/2025)

Manholes: **MH2 to BRB**
Pipe Length: **2.07 metres**
Structural Grade: **0**
Service Grade: **3**
Material: **Vitrified clay**
Pipe Size: **100mm**
Use: **Surface water**

Section 5 Overview (27/06/2025)

Manholes: **MH2 to SOURCE**
Pipe Length: **5.38 metres**
Structural Grade: **0**
Service Grade: **3**
Material: **Cast iron**
Pipe Size: **100mm**
Use: **Surface water**

[redacted]	[redacted]	Base Unit **X7F9YPJUOO**	Date **27/06/2025**

Section 6 Overview (27/06/2025)

Manholes: **MH3 to BRA**
Pipe Length: **5 metres**
Structural Grade: **5**
Service Grade: **5**
Material: **Vitrified clay**
Pipe Size: **100mm**
Use: **Surface water**

Section 7 Overview (27/06/2025)

Manholes: **MH3 to BRB**
Pipe Length: **0.12 metres**
Structural Grade: **0**
Service Grade: **0**
Material: **Vitrified clay**
Pipe Size: **100mm**
Use: **Surface water**

Section 8 Overview (27/06/2025)

Manholes: **MH3 to BRC**
Pipe Length: **1.21 metres**
Structural Grade: **0**
Service Grade: **3**
Material: **Vitrified clay**
Pipe Size: **100mm**
Use: **Surface water**

Section 9 Overview (27/06/2025)

Manholes: **MH3 to OUTFALL**
Pipe Length: **51.18 metres**
Structural Grade: **0**
Service Grade: **4**
Material: **Cast iron**
Pipe Size: **150mm**
Use: **Surface water**

Section 10 Overview (27/06/2025)

Manholes: **MH5 to OUTFALL**
Pipe Length: **25 metres**
Structural Grade: **4**
Service Grade: **2**
Material: **Vitrified clay**
Pipe Size: **100mm**
Use: **Foul**

Section 11 Overview (27/06/2025)

Manholes: **MH5 to MH4**
Pipe Length: **0.44 metres**
Structural Grade: **0**
Service Grade: **0**
Material: **Vitrified clay**
Pipe Size: **100mm**
Use: **Foul**

[redacted]	[redacted]	Base Unit **X7F9YPJUOO**	Date **27/06/2025**

Section 12 Overview (27/06/2025)

Manholes: **MH6 to MH5**
Pipe Length: **3.04 metres**
Structural Grade: **0**
Service Grade: **2**
Material: **Polyvinyl chloride**
Pipe Size: **100mm**
Use: **Foul**

Section 13 Overview (27/06/2025)

Manholes: **MH6 to SOURCE**
Pipe Length: **2.65 metres**
Structural Grade: **0**
Service Grade: **4**
Material: **Cast iron**
Pipe Size: **100mm**
Use: **Foul**

STRUCTURAL DEFECTS

Grade 3; Best practice suggests consideration to be given to repair in the medium term.
Grade 4; Best practice suggests consideration to be given to repair to avoid potential collapse.
Grade 5; Best practice suggests this pipe is at risk of collapse at any time; urgent consideration should be given to repair to avoid collapse.

Structural Defects			
Section	PLR	Grade	Fault Description
6	BRA	5	Collapsed drain/sewer 100%
10	MH5 X	4	Broken pipe from 3 to 6 o'clock

SERVICE / OPERATIONAL DEFECTS

Grade 3; Best practice suggests consideration to be given to maintenance activities in the medium term.
Grade 4; Best practice suggests consideration to be given to maintenance to avoid potential blockage.
Grade 5; Best practice suggests this pipe is at risk of backing up / causing flooding.

Service Defects			
Section	PLR	Grade	Fault Description
1	MH1	3	Other attached deposits from 12 to 12 o'clock 15% cross-sectional area loss, Start
			Other attached deposits from 12 to 12 o'clock 15% cross-sectional area loss, Finished
4	BRB X	3	Other settled deposits 10% cross-sectional area loss
5	SOURCE	3	Attached deposits, encrustation from 12 to 12 o'clock 10% cross-sectional area loss, Start
			Attached deposits, encrustation from 12 to 12 o'clock 10% cross-sectional area loss, Finished
6	BRA	5	Other obstacles, pipe material in invert at 6 o'clock 20% cross-sectional area loss
8	BRC X	3	Settled deposits fine 15% cross-sectional area loss
9	MH3	4	Other settled deposits 50% cross-sectional area loss
			Other settled deposits 25% cross-sectional area loss
			Settled deposits coarse 25% cross-sectional area loss
13	SOURCE	4	Other settled deposits 50% cross-sectional area loss

ABANDONED SURVEYS

Camera no access		
Section	PLR	Fault Description
3	BRA	Survey abandoned - Remark: Unable to pass due to material/possible diameter change
6	BRA	Survey abandoned - Remark: UNABLE TO PASS DUE TO COLLAPSE
10	MH5 X	Survey abandoned - Remark: UNABLE TO PASS DUE TO LARGE DISPLACEMENT

INFORMATION

These summaries are based on the SRM grading from the WRC

Defect Grade Descriptions

Metro Rod (Deeside)
Unit 27, Drome Road
Deeside Industrial Park
Flintshire
CH5 2NY

[redacted]	[redacted]	Base Unit **X7F9YPJUOO**	Date **27/06/2025**

1: Occurences without damage. For example, laterals, joints,etc.

NO DEFECTS WERE DETECTED.

2: Constructional deficiencies or occurences with insignificant influence to tightness, hydraulic or static pressure or pipe: Eg. wide joints, badly torched intakes, minor deformation of plastic pipes, minor erosions etc.

REHABILITATION CAN BE SCHEDULED LONG-TERM.

3: Constructional deficiencies diminishing static, hydraulic and tightness: Eg. untorched intakes, cracks, minor drainage obstructions such as calcite build ups, protruding laterals, minor damages to pipe wall, individual root penetrations, corroded pipe walls etc.

REHABILITATION IS NECESSARY MEDIUM-TERM WITHIN 3 TO 5 YEARS.

4: Constructional damages with insufficent static safety, hydraulic or tightness: Eg. axial/radial pipe bursts, pipe deformations, visually noticeable infiltration/exfiltration, cavities, in pipe-wall, severe protruding, laterals severe root penetrations, severe corrosion of pipe wall etc.

REHABILITATION PROCEDURE IS URGENT AND HAS TO BE COMPLETED WITHIN 1 TO 2 YEARS. NECESSITY FOR EMERGENCY OPERATIONS HAS TO BE EXAMINED.

5: Pipe is already or will shortly be impermeable: Eg. collapsed pipe, deeply rooted pipe or other drainage obstructions. Pipe loses water or danger of backwater in basements etc.

REHABILITATION IS URGENT AND SHORT-TERM. IN ORDER TO PREVENT FURTHER DAMAGE, NECESSARY TEMPORARY SPOT REPAIR HAS TO BE CONDUCTED ON EMERGENCY LEVEL.