

Merthyr Tydfil County Borough Council
Unit 5
Triangle Business Park
Pentrebach
Merthyr Tydfil
CF48 4TQ

Date: 29th January 2019

Dear Sirs,

Water connections at Crescent Street and Taff Street, Merthyr Vale, Merthyr Tydfil

Thank you for recently requesting that the supplies to all properties on Crescent Street and Taff Street be permanently disconnected.

We attended site on 19th December 2018 and shut off the supplies by isolating the valves at the entrance to the site.

We will be visiting again shortly in order to cap off the main and install an end fire hydrant.

Whilst we haven't abandoned that section of water main yet, there is no water supply entering the site and it is safe to commence demolition works.

If you have any questions you can contact us at BST@dwrcymru.com or call us on 0800 260 5052.

Yours faithfully,

Amy Steed
Dŵr Cymru Business Services

APPENDIX H - DRAINAGE CCTV PLAN AND REPORT



307537,199521

KEY:

- SA - Survey Abandoned
- UTL - Unable To Locate
- UTR - Unable To Raise

DRAINTECH
helping to improve the drainage network
Job / Plan ref : 10998 - 01 - 001

Scale: 1:1500

26/05/2020

Dwr Cymru
Welsh Water

LEGEND

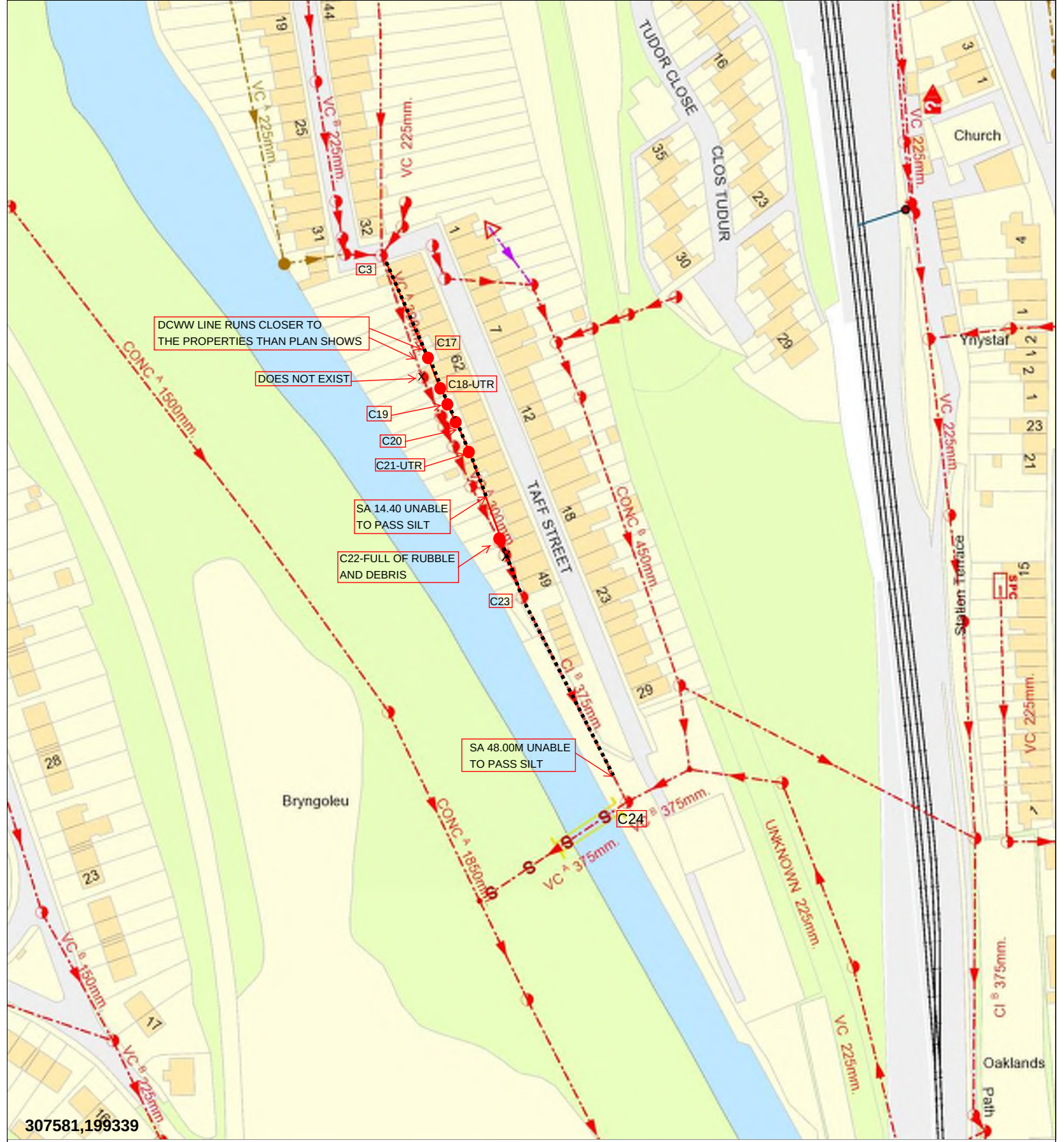
0+1	Sluice Valve	Gravity Sewer
●	Air Valve SINGLE	Rising Main
X	Tap	Outfall
△	Pressure Reducing Valve	Pumping Station
□	Meter	Lampole
■	Bulk Meter	Combined Sewer Overflow
●	Fire Hydrant	Special Purpose Chamber
○	Cap	Treatment Works
—	Non Dwr Cymru	Private Sewer Transfer
—	Existing Distribution	Lateral Drain
—	Main	Sewer symbol colour indicates the sewer type
■	Inspection Chamber	RED - Combined
		GREEN - Surface Water
		BROWN - Foul

EXACT LOCATION OF ALL APPARATUS TO BE DETERMINED ON SITE

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Whilst every reasonable effort has been taken to correctly record the pipe material of DCWW assets, there is a possibility that in some cases pipe material (other than Asbestos cement or Pitch Fibre (PF)) may be found to be asbestos cement (AC) or Pitch Fibre (PF). It is therefore advisable that the possible presence of AC or PF pipes be anticipated and considered as part of any risk assessment prior to excavation

Dwr Cymru Cyfyngedig ('the Company') gives this information as to the position of its underground apparatus by way of general guidance only and on the strict understanding that it is based on the best information available and no warranty as to its correctness is relied upon in the event of excavations or other works made in the vicinity of the company's apparatus and any onus of locating the apparatus before carrying out any excavations rests entirely on you. The information which is supplied hereby by the company, is done so in accordance with statutory requirements of sections 198 and 199 of the Water Industry Act 1991 based particular, but without prejudice to be generality of that foregoing, it should be noted that the records that are available to the company may not disclose the existence of a drain sewer or disposal main laid before 1 September 1989, or if they do, the particulars thereof including their position underground may not be accurate. It must be understood that the furnishing of this information is entirely without prejudice to the provision of the New Roads and Street Works Act 1991 and the company's right to be compensated for any damage to its apparatus.



307581,199339

KEY:
SA - SURVEY ABANDONED
UTR - UNABLE TO RAISE

DRAINTECH
helping to improve the drainage network
Job / Plan ref : 10998 - 01 - 002

Scale: 1:1500

26/05/2020

EXACT LOCATION OF ALL APPARATUS TO BE DETERMINED ON SITE

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Dwr Cymru
Welsh Water

LEGEND

Swiç Valve	Gravity Sewer
Air Valve SINGLE	Rising Main
Tap	Outfall
Pressure Reducing Valve	Pumping Station
Meter	Lampole
Bulk Meter	Combined Sewer Overflow
Fire Hydrant	Special Purpose Chamber
Cap	Treatment Works
Non Dwr Cymru	Private Sewer Transfer
Existing Distribution Main	Lateral Drain
Inspection Chamber	

Drain symbol colour indicates the sewer type:
RED - Combined
GREEN - Surface Water
BROWN - Foul



DRAINTech

helping to improve the drainage network

Drainage Survey Report

Job Number : 10998

Project Number: 1

Project Name: Taff and Crescent Streets, Merthyr Vale

Company: Merthyr Tydfil Council

Site Date: 27-05-2020

Draintech Surveys Ltd| Atlantic House| Chamwood Park| Bridgend| CF31 3PL| 01656 767001| www.draintech.co.uk



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Project Information

Project Name	Project Number	Project Date
10998 TAFF AND CRESCENT STREET MERTHYR VALE	10998 - 0001	27/05/2020

Client

Company: Merthyr Tydfil Council
Contact: Mark Evans

Site

Company: Draintech Surveys Ltd
Contact: Jamie Kennedy

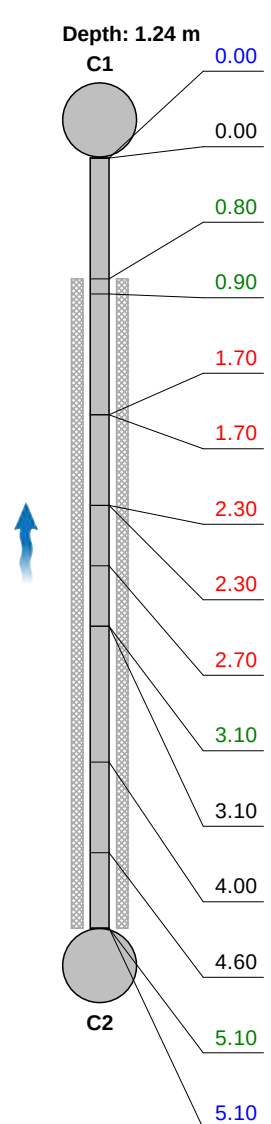
Contractor

Company: Draintech Surveys Ltd
Contact: Marc Baker
Department: Client Manager
Street: Atlantic House, Charnwood Park
County: Bridgend
Post Code: CF31 3PL
Phone: 01656 767 001
Email: marc@draintech.co.uk

Section Inspection - 27/05/2020 - C2X

Section 1	Inspection 1	Date 27/05/20	Time 8:46	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C2X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	C2
Road:	Taff Street	Inspected Length:	5.10 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	5.10 m	Downstream Node:	C1
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	1.240 m
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	225 mm		
Year Constructed:		Material:	Vitrified clay		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		
Comments:					
Recommendations: None specified					

Scale:	1:50	Position [m]	Code	Observation	Photo	Grade
						
Depth: 1.24 m		0.00	MH	Start node type, manhole, reference number : C1		
		0.00	WL	Water level, 5% of the vertical dimension		
		0.80	S01 DEG	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, Start: PATCHY		
		0.90	LL	Line deviates left		
		1.70	FC	Fracture, circumferential, from 5 to 5 o'clock	1	3 / 2
		1.70	D	Deformed sewer/drain, 15%		5 / 3
		2.30	FLJ	Fracture, longitudinal at joint, at 11 o'clock	2	3 / 2
		2.30	FMJ	Fracture, multiple at joint, from 7 to 5 o'clock	3	4 / 2
		2.70	FM	Fracture, multiple, from 7 to 5 o'clock		4 / 2
		3.10	LR	Line deviates right		
		3.10	WL	Water level, 20% of the vertical dimension		
		4.00	WL	Water level, 25% of the vertical dimension		
		4.60	WL	Water level, 30% of the vertical dimension		
		5.10	F01 DEG	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, End: PATCHY		3
		5.10	MHF	Finish node type, manhole reference number: C2: SLABBED OVER		
Depth: m						

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
5	205.0	79.4	405.0	5.0	6	7.0	5.1	26.0	5.0

Section Pictures - 27/05/2020 - C2X

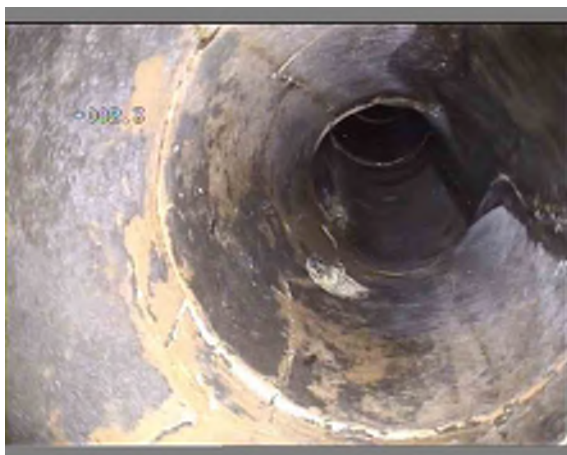
Section 1	Inspection Direction Upstream	PLR C2X	Client's Job Ref 1	Contractor's Job Ref
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1, 00:01:22, 1.70 m
Fracture, circumferential, from 5 to 5 o'clock



2, 00:01:59, 2.30 m
Fracture, longitudinal at joint, at 11 o'clock

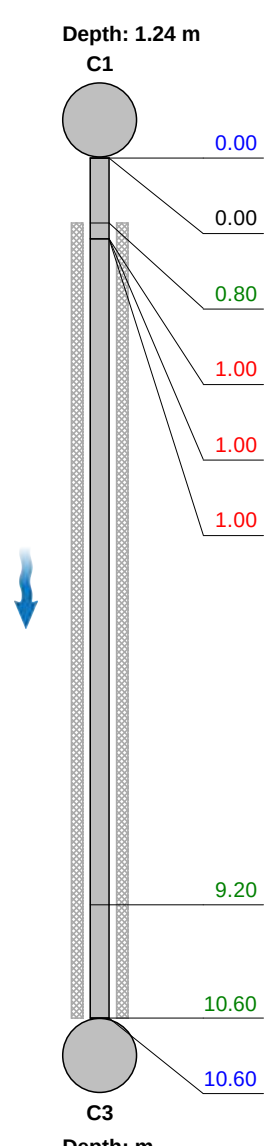


3, 00:02:19, 2.30 m
Fracture, multiple at joint, from 7 to 5 o'clock

Section Inspection - 27/05/2020 - C1X

Section 2	Inspection 1	Date 27/05/20	Time 9:15	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C1X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Downstream	Upstream Node:	C1
Road:	Taff Street	Inspected Length:	10.60 m	Upstream Pipe Depth:	1.240 m
Location:	Road	Total Length:	10.60 m	Downstream Node:	C3
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	225 mm		
Year Constructed:		Material:	Vitrified clay		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		
Comments:					
Recommendations: None specified					

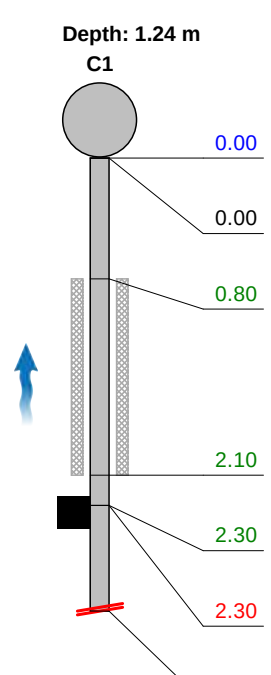
Scale: 1:93	Position [m]	Code	Observation	Photo	Grade
					
	0.00	MH	Start node type, manhole, reference number : C1		
	0.00	WL	Water level, 5% of the vertical dimension		
	0.80	S01	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, Start: PATCHY		
	1.00	HJ	Hole in drain/sewer at joint, from 3 to 4 o'clock		4
	1.00	BJ	Broken pipe at joint, from 3 to 5 o'clock		4
	1.00	FMJ	Fracture, multiple at joint, from 7 to 5 o'clock		4 / 2
	9.20	DEEJ	Attached deposits, encrustation at joint, from 7 to 10 o'clock, 10% cross-sectional area loss		3
	10.60	F01	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, End: PATCHY		3
	10.60	MHF	Finish node type, manhole reference number: C3		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
3	240.0	22.6	240.0	4.0	3	6.0	4.1	43.0	4.0

Section Inspection - 27/05/2020 - F1X

Section 3	Inspection 1	Date 27/05/20	Time 9:24	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR F1X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	F1
Road:	Taff Street	Inspected Length:	3.00 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	3.00 m	Downstream Node:	C1
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	1.240 m
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	225 mm		
Year Constructed:		Material:	Vitrified clay		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		
Comments:					
Recommendations: None specified					

Scale:	1:50	Position [m]	Code	Observation	Photo	Grade
						
		0.00	MH	Start node type, manhole, reference number : C1		
		0.00	WL	Water level, 5% of the vertical dimension		
		0.80	S01	DES	Settled deposits, fine, 10% cross-sectional area loss, Start	
		2.10	F01	DES	Settled deposits, fine, 10% cross-sectional area loss, End	3
		2.30	CXI	Connection intruding, at 2 o'clock, diameter 150mm, intrusion 5%	1	5
		2.30	FLJ	Fracture, longitudinal at joint, at 3 o'clock		3 / 2
		3.00	SA	Survey abandoned: UNABLE TO PASS CXI		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
1	40.0	13.3	40.0	3.0	3	13.0	5.0	15.0	5.0

Section Pictures - 27/05/2020 - F1X

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
3	Upstream	F1X	1	

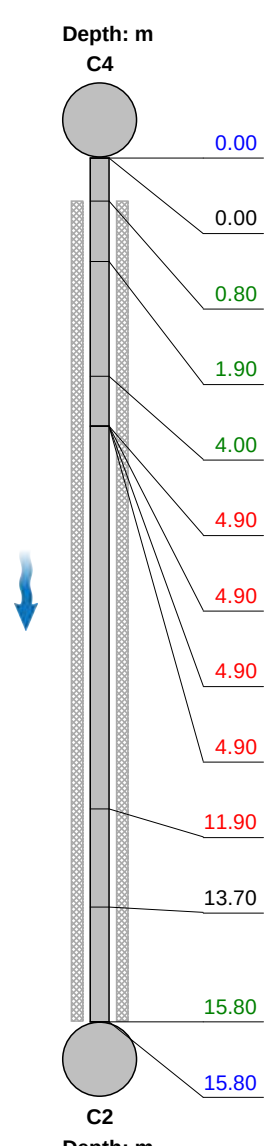


1, 00:00:33, 2.30 m
Connection intruding, at 2 o'clock, diameter 150mm, intrusion
5%

Section Inspection - 27/05/2020 - C4X

Section 4	Inspection 1	Date 27/05/20	Time 9:41	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C4X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

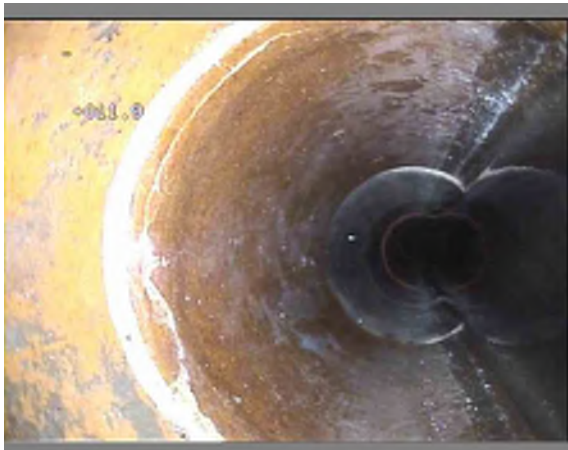
Town or Village:	Merthyr Vale	Inspection Direction:	Downstream	Upstream Node:	C4
Road:	Taff Street	Inspected Length:	15.80 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	15.80 m	Downstream Node:	C2
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	
Use:	Combined		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	225 mm	
Year Constructed:			Material:	Vitrified clay	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:					
Recommendations:	None specified				

Scale: 1:138	Position [m]	Code	Observation	Photo	Grade
					
	0.00	MH	Start node type, manhole, reference number : C4		
	0.00	WL	Water level, 20% of the vertical dimension		
	0.80	S01 DEG	Attached deposits, grease, from 8 to 4 o'clock, 5% cross-sectional area loss, Start: PATCHY		
	1.90	OBP	Other obstacles, external pipe or cable, from 10 to 2 o'clock, 20% cross-sectional area loss: UTILITY PIPE		5
	4.00	LL	Line deviates left: VERY SLIGHT		
	4.90	FLJ	Fracture, longitudinal at joint, at 9 o'clock		3 / 2
	4.90	FLJ	Fracture, longitudinal at joint, at 3 o'clock		3 / 2
	4.90	FLJ	Fracture, longitudinal at joint, at 10 o'clock		3 / 2
	4.90	FCJ	Fracture, circumferential at joint, from 7 to 5 o'clock		3 / 2
	11.90	FCJ	Fracture, circumferential at joint, from 10 to 2 o'clock	1	3 / 2
	13.70	WL	Water level, 30% of the vertical dimension		
	15.80	F01 DEG	Attached deposits, grease, from 8 to 4 o'clock, 5% cross-sectional area loss, End: PATCHY		3
	15.80	MHF	Finish node type, manhole reference number: C2: SLABBED OVER		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
5	160.0	12.7	200.0	3.0	7	14.0	4.7	75.0	5.0

Section Pictures - 27/05/2020 - C4X

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
4	Downstream	C4X	1	

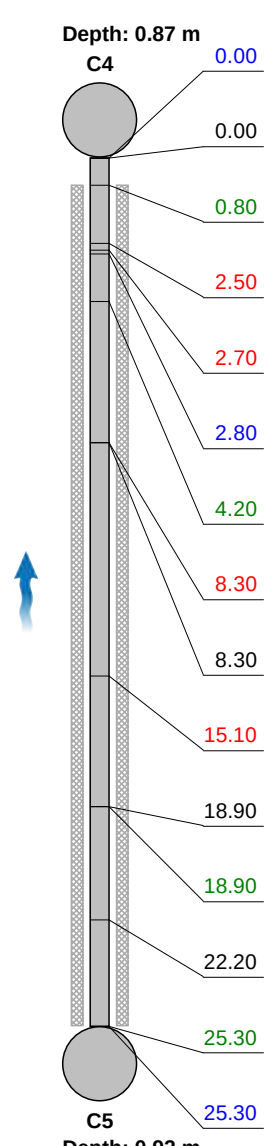


1, 00:03:05, 11.90 m
Fracture, circumferential at joint, from 10 to 2 o'clock

Section Inspection - 27/05/2020 - C5X

Section 5	Inspection 1	Date 27/05/20	Time 9:51	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C5X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	C5
Road:	Crescent Street	Inspected Length:	25.30 m	Upstream Pipe Depth:	0.920 m
Location:	Road	Total Length:	25.30 m	Downstream Node:	C4
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	0.870 m
Use:	Combined		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	225 mm	
Year Constructed:			Material:	Vitrified clay	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:					
Recommendations:	None specified				

Scale: 1:220	Position [m]	Code	Observation	Photo	Grade
					
Depth: 0.87 m	0.00	MH	Start node type, manhole, reference number : C4		
	0.00	WL	Water level, 25% of the vertical dimension		
	0.80	S01	Attached deposits, grease, from 8 to 4 o'clock, 5% cross-sectional area loss, Start: PATCHY		
	2.50	HJ	Hole in drain/sewer at joint, from 3 to 4 o'clock	1	4
	2.70	HJ	Hole in drain/sewer at joint, from 8 to 9 o'clock	2	4
	2.80	VV	Void visible beyond defect		
	4.20	DES	Settled deposits, fine, 40% cross-sectional area loss		4
	8.30	FCJ	Fracture, circumferential at joint, from 8 to 3 o'clock		3 / 2
	8.30	WL	Water level, 15% of the vertical dimension		
	15.10	CL	Crack, longitudinal, at 4 o'clock		2 / 2
	18.90	WL	Water level, 20% of the vertical dimension		
	18.90	DES	Settled deposits, fine, 20% cross-sectional area loss: UNDER FLOW		4
	22.20	WL	Water level, 25% of the vertical dimension		
	25.30	F01	Attached deposits, grease, from 8 to 4 o'clock, 5% cross-sectional area loss, End: PATCHY		3
Depth: 0.92 m	25.30	MHF	Finish node type, manhole reference number: C5		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
4	80.0	8.3	210.0	4.0	5	9.0	4.4	112.0	4.0

Section Pictures - 27/05/2020 - C5X

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
5	Upstream	C5X	1	



1, 00:00:40, 2.50 m
Hole in drain/sewer at joint, from 3 to 4 o'clock

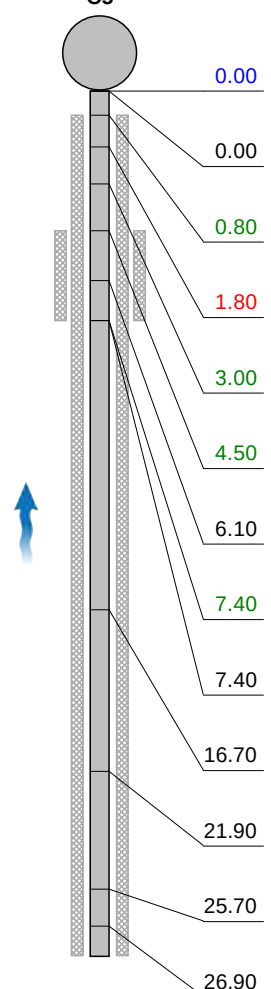


2, 00:00:54, 2.70 m
Hole in drain/sewer at joint, from 8 to 9 o'clock

Section Inspection - 27/05/2020 - C6X

Section 6	Inspection 1	Date 27/05/20	Time 10:07	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C6X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	C6
Road:	Crescent Street	Inspected Length:	34.00 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	34.00 m	Downstream Node:	C5
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	0.920 m
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	225 mm		
Year Constructed:		Material:	Vitrified clay		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		
Comments:					
Recommendations: None specified					

Scale: 1:243	Position [m]	Code	Observation	Photo	Grade
Depth: 0.92 m C5 					
	0.00	MH	Start node type, manhole, reference number : C5		
	0.00	WL	Water level, 20% of the vertical dimension		
	0.80	S01	DEG Attached deposits, grease, from 8 to 4 o'clock, 5% cross-sectional area loss, Start: PATCHY		
	1.80	FCJ	Fracture, circumferential at joint, from 8 to 11 o'clock	1	3 / 2
	3.00	DEX	Settled deposits, other, 20% cross-sectional area loss: UNDER FLOW		4
	4.50	S02	DEX Settled deposits, other, 20% cross-sectional area loss, Start: UNDER FLOW		
	6.10	WL	Water level, 40% of the vertical dimension		
	7.40	F02	DEX Settled deposits, other, 20% cross-sectional area loss, End: UNDER FLOW		4
	7.40	WL	Water level, 25% of the vertical dimension		
	16.70	WL	Water level, 40% of the vertical dimension		
	21.90	WL	Water level, 15% of the vertical dimension		
	25.70	WL	Water level, 5% of the vertical dimension		
	26.90	WL	Water level, 25% of the vertical dimension		

Section Inspection - 27/05/2020 - C6X

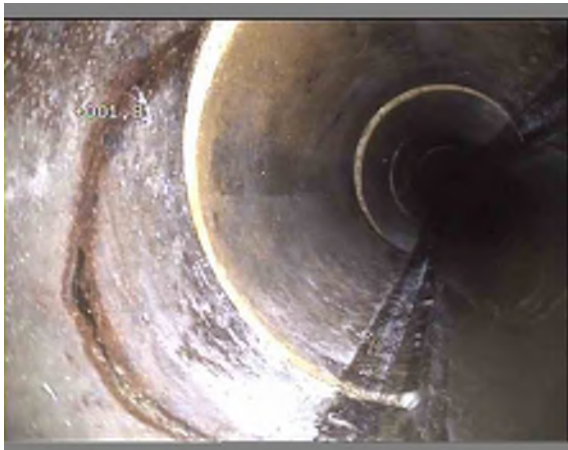
Section 6	Inspection 1	Date 27/05/20	Time 10:07	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C6X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Scale: 1:243 Position [m] 28.80 28.80 28.80 31.40 31.40 33.50 34.00 34.00 F01 Diagram of a vertical pipe section with a scale bar and a blue arrow pointing upwards. The diagram shows various defects labeled with codes and positions: H (Hole in drain/sewer, from 10 to 2 o'clock), CN (Connection other than junction, at 3 o'clock, diameter 150mm), CN (Connection other than junction, at 9 o'clock, diameter 150mm), FCJ (Fracture, circumferential at joint, from 8 to 2 o'clock), DEE (Attached deposits, encrustation, from 2 to 5 o'clock, 10% cross-sectional area loss), DES (Settled deposits, fine, 40% cross-sectional area loss), DEG (Attached deposits, grease, from 8 to 4 o'clock, 5% cross-sectional area loss, End: PATCHY), and SA (Survey abandoned: UNABLE TO PASS SILT).	Code	Observation	Photo	Grade
	H	Hole in drain/sewer, from 10 to 2 o'clock	2	5
	CN	Connection other than junction, at 3 o'clock, diameter 150mm		
	CN	Connection other than junction, at 9 o'clock, diameter 150mm		
	FCJ	Fracture, circumferential at joint, from 8 to 2 o'clock		3 / 2
	DEE	Attached deposits, encrustation, from 2 to 5 o'clock, 10% cross-sectional area loss		3
	DES	Settled deposits, fine, 40% cross-sectional area loss		4
	DEG	Attached deposits, grease, from 8 to 4 o'clock, 5% cross-sectional area loss, End: PATCHY		3
SA	Survey abandoned: UNABLE TO PASS SILT			

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
3	165.0	7.2	245.0	5.0	7	9.0	4.9	165.0	4.0

Section Pictures - 27/05/2020 - C6X

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
6	Upstream	C6X	1	



1, 00:00:27, 1.80 m
Fracture, circumferential at joint, from 8 to 11 o'clock

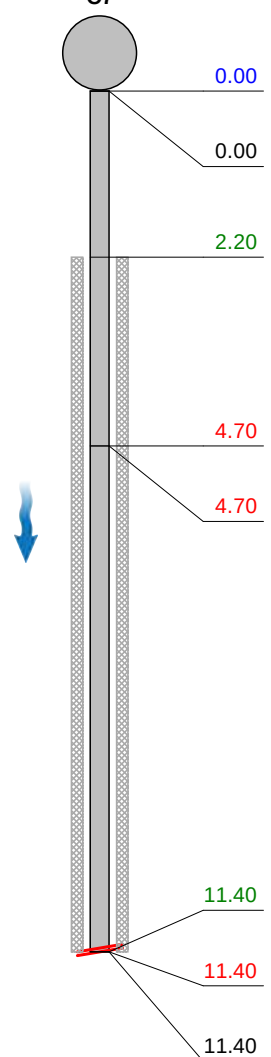


2, 00:05:05, 28.80 m
Hole in drain/sewer, from 10 to 2 o'clock

Section Inspection - 27/05/2020 - C7X

Section 7	Inspection 1	Date 27/05/20	Time 11:19	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C7X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Downstream	Upstream Node:	C7
Road:	Crescent Street	Inspected Length:	11.40 m	Upstream Pipe Depth:	1.300 m
Location:	Road	Total Length:	11.40 m	Downstream Node:	C6
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	
Use:	Combined		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	225 mm	
Year Constructed:			Material:	Vitrified clay	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:					
Recommendations:	None specified				

Scale: 1:100	Position [m]	Code	Observation	Photo	Grade
Depth: 1.30 m C7 					
0.00		MH	Start node type, manhole, reference number : C7		
0.00		WL	Water level, 20% of the vertical dimension		
2.20	S01	DEG	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, Start: PATCHY		
4.70		FCJ	Fracture, circumferential at joint, from 10 to 2 o'clock		3 / 2
4.70		FLJ	Fracture, longitudinal at joint, at 11 o'clock		3 / 2
11.40	F01	DEG	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, End: PATCHY		3
11.40		XP	Collapsed drain/sewer		5
11.40		SA	Survey abandoned: UNABLE TO PASS COLLAPSE IN LINE		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
3	165.0	21.5	245.0	5.0	3	6.0	3.7	42.0	4.0

Section Inspection - 27/05/2020 - C8X

Section 8	Inspection 1	Date 27/05/20	Time 11:29	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C8X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	C8
Road:	Crescent Street	Inspected Length:	29.60 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	29.60 m	Downstream Node:	C7
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	1.300 m
Use:	Combined		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	225 mm	
Year Constructed:			Material:	Vitrified clay	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:					
Recommendations:	None specified				

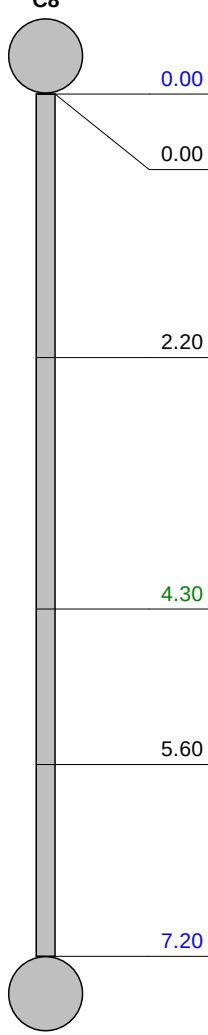
Scale: 1:258	Position [m]	Code	Observation	Photo	Grade
	0.00	MH	Start node type, manhole, reference number : C7		
	0.00	WL	Water level, 15% of the vertical dimension		
	2.70	S01	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, Start: PATCHY		
	12.60	WL	Water level, 30% of the vertical dimension		
	15.90	WL	Water level, 40% of the vertical dimension		
	15.90	DEX	Settled deposits, other, 20% cross-sectional area loss: UNDER FLOW		4
	16.90	FLJ	Fracture, longitudinal at joint, at 12 o'clock		3 / 2
	16.90	FCJ	Fracture, circumferential at joint, from 11 to 12 o'clock		3 / 2
	28.70	DEEJ	Attached deposits, encrustation at joint, from 8 to 4 o'clock, 10% cross-sectional area loss		3
	29.60	F01	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, End: PATCHY		3
	29.60	MHF	Finish node type, manhole reference number: C8		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
2	80.0	2.7	80.0	3.0	5	9.0	4.0	117.0	4.0

Section Inspection - 27/05/2020 - C9X

Section 9	Inspection 1	Date 27/05/20	Time 11:43	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C9X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	C9
Road:	Crescent Street	Inspected Length:	7.20 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	7.20 m	Downstream Node:	C8
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	
Use:	Combined		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	225 mm	
Year Constructed:			Material:	Vitrified clay	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:					
Recommendations:	None specified				

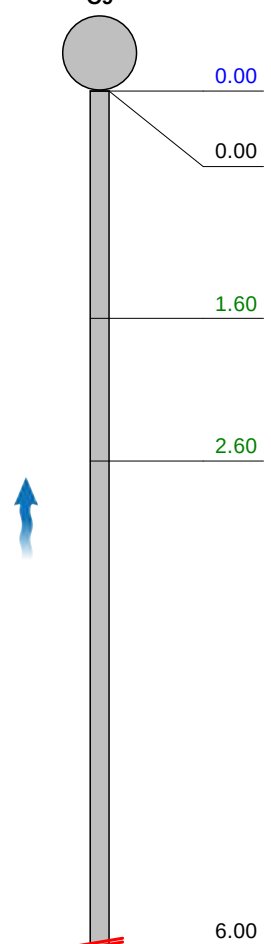
Scale:	1:63	Position [m]	Code	Observation	Photo	Grade																																			
Depth: m C8  C9 Depth: m <table><tr><th>Position [m]</th><th>Code</th><th>Observation</th><th>Photo</th><th>Grade</th></tr><tr><td>0.00</td><td>MH</td><td>Start node type, manhole, reference number : C8</td><td></td><td></td></tr><tr><td>0.00</td><td>WL</td><td>Water level, 5% of the vertical dimension</td><td></td><td></td></tr><tr><td>2.20</td><td>WL</td><td>Water level, 25% of the vertical dimension</td><td></td><td></td></tr><tr><td>4.30</td><td>DES</td><td>Settled deposits, fine, 30% cross-sectional area loss</td><td></td><td>4</td></tr><tr><td>5.60</td><td>WL</td><td>Water level, 30% of the vertical dimension</td><td></td><td></td></tr><tr><td>7.20</td><td>MHF</td><td>Finish node type, manhole reference number: C9</td><td></td><td></td></tr></table>							Position [m]	Code	Observation	Photo	Grade	0.00	MH	Start node type, manhole, reference number : C8			0.00	WL	Water level, 5% of the vertical dimension			2.20	WL	Water level, 25% of the vertical dimension			4.30	DES	Settled deposits, fine, 30% cross-sectional area loss		4	5.60	WL	Water level, 30% of the vertical dimension			7.20	MHF	Finish node type, manhole reference number: C9		
Position [m]	Code	Observation	Photo	Grade																																					
0.00	MH	Start node type, manhole, reference number : C8																																							
0.00	WL	Water level, 5% of the vertical dimension																																							
2.20	WL	Water level, 25% of the vertical dimension																																							
4.30	DES	Settled deposits, fine, 30% cross-sectional area loss		4																																					
5.60	WL	Water level, 30% of the vertical dimension																																							
7.20	MHF	Finish node type, manhole reference number: C9																																							

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	5.0	0.7	5.0	4.0

Section Inspection - 27/05/2020 - C10X

Section 10	Inspection 1	Date 27/05/20	Time 11:59	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C10X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	C10
Road:	Crescent Street	Inspected Length:	6.00 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	6.00 m	Downstream Node:	C9
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	225 mm		
Year Constructed:		Material:	Vitrified clay		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		
Comments:					
Recommendations: None specified					

Scale:	1:53	Position [m]	Code	Observation	Photo	Grade
Depth: m C9 						
		0.00	MH	Start node type, manhole, reference number : C9		
		0.00	WL	Water level, 20% of the vertical dimension		
		1.60	DEG	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss		3
		2.60	DES	Settled deposits, fine, 50% cross-sectional area loss	1	4
		6.00	SA	Survey abandoned: UNABLE TO PASS DEBRIS		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	2	8.0	2.0	12.0	4.0

Section Pictures - 27/05/2020 - C10X

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
10	Upstream	C10X	1	



1, 00:00:34, 2.60 m

Settled deposits, fine, 50% cross-sectional area loss

Section Inspection - 27/05/2020 - C11AX

Section 11	Inspection 1	Date 27/05/20	Time 12:29	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C11AX
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	C11A
Road:	Crescent Street	Inspected Length:	14.30 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	14.30 m	Downstream Node:	C10
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	1.880 m
Use:	Combined		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	225 mm	
Year Constructed:			Material:	Vitrified clay	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:					
Recommendations:	None specified				

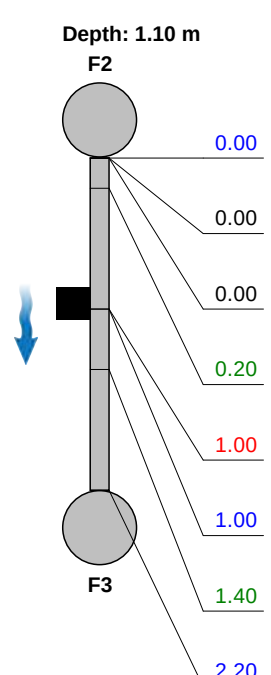
Scale: 1:125	Position [m]	Code	Observation	Photo	Grade
Depth: 1.88 m C10					
0.00		MH	Start node type, manhole, reference number : C10		
0.00		WL	Water level, 40% of the vertical dimension		
0.00		REM	General remark: VIDEO HEADER INCORRECT, PLEASE SEE REPORT		
4.40		FL	Fracture, longitudinal, at 2 o'clock		3 / 2
4.50		FC	Fracture, circumferential, from 2 to 5 o'clock		3 / 2
14.30		SA	Survey abandoned: WATER LEVEL TOO HIGH		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
2	80.0	5.6	80.0	3.0	2	2.0	0.1	2.0	3.0

Section Inspection - 27/05/2020 - F2X

Section 12	Inspection 1	Date 27/05/20	Time 13:35	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR F2X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Downstream	Upstream Node:	F2
Road:	Cresnet Street	Inspected Length:	2.20 m	Upstream Pipe Depth:	1.100 m
Location:	Road	Total Length:	2.20 m	Downstream Node:	F3
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	0.900 m
Use:	Foul		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	150 mm	
Year Constructed:			Material:	Vitrified clay	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:					
Recommendations:	None specified				

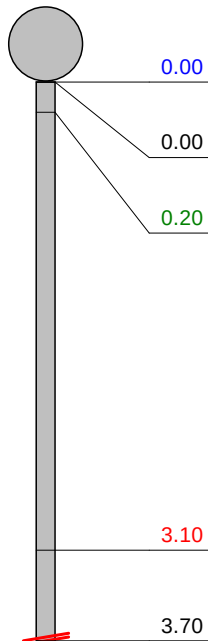
Scale:	1:50	Position [m]	Code	Observation	Photo	Grade
 Depth: 1.10 m F2 0.00 0.00 0.00 0.20 1.00 1.00 1.40 2.20 Depth: 0.90 m F3						
			MH	Start node type, manhole, reference number : F2		
			WL	Water level, 5% of the vertical dimension		
			REM	General remark: VIDEO HEADER INCORRECT, PLEASE SEE REPORT		
			DES	Settled deposits, fine, 5% cross-sectional area loss		3
			H	Hole in drain/sewer, from 10 to 2 o'clock		5
			JN	Junction, at 3 o'clock, diameter 100mm		
			RF	Roots, fine		2
			MHF	Finish node type, manhole reference number: F3		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
1	165.0	75.0	165.0	5.0	2	2.0	1.4	3.0	3.0

Section Inspection - 27/05/2020 - F3X

Section 13	Inspection 1	Date 27/05/20	Time 13:44	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR F3X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Downstream	Upstream Node:	F3
Road:	Cresnet Street	Inspected Length:	3.70 m	Upstream Pipe Depth:	1.100 m
Location:	Road	Total Length:	3.70 m	Downstream Node:	F4
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	0.900 m
Use:	Foul		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	225 mm	
Year Constructed:			Material:	Vitrified clay	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:					
Recommendations:	None specified				

Scale:	1:50	Position [m]	Code	Observation	Photo	Grade																								
Depth: 1.10 m F3  <table><tr><th>Position [m]</th><th>Code</th><th>Observation</th><th>Grade</th></tr><tr><td>0.00</td><td>MH</td><td>Start node type, manhole, reference number : F3</td><td></td></tr><tr><td>0.00</td><td>WL</td><td>Water level, 5% of the vertical dimension</td><td></td></tr><tr><td>0.20</td><td>DES</td><td>Settled deposits, fine, 30% cross-sectional area loss</td><td>4</td></tr><tr><td>3.10</td><td>FC</td><td>Fracture, circumferential, from 10 to 2 o'clock</td><td>3 / 2</td></tr><tr><td>3.70</td><td>SA</td><td>Survey abandoned: LINE HAS BEEN EXCAVATED</td><td></td></tr></table>							Position [m]	Code	Observation	Grade	0.00	MH	Start node type, manhole, reference number : F3		0.00	WL	Water level, 5% of the vertical dimension		0.20	DES	Settled deposits, fine, 30% cross-sectional area loss	4	3.10	FC	Fracture, circumferential, from 10 to 2 o'clock	3 / 2	3.70	SA	Survey abandoned: LINE HAS BEEN EXCAVATED	
Position [m]	Code	Observation	Grade																											
0.00	MH	Start node type, manhole, reference number : F3																												
0.00	WL	Water level, 5% of the vertical dimension																												
0.20	DES	Settled deposits, fine, 30% cross-sectional area loss	4																											
3.10	FC	Fracture, circumferential, from 10 to 2 o'clock	3 / 2																											
3.70	SA	Survey abandoned: LINE HAS BEEN EXCAVATED																												

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
1	40.0	10.8	40.0	3.0	2	5.0	1.6	6.0	4.0

Section Inspection - 27/05/2020 - F2AX

Section 14	Inspection 1	Date 27/05/20	Time 14:00	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR F2AX
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	F2A
Road:	Crescent Street	Inspected Length:	8.50 m	Upstream Pipe Depth:	0.840 m
Location:	Road	Total Length:	8.50 m	Downstream Node:	F2
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	1.100 m
Use:	Foul	Pipe Shape: Circular Dia/Height: 150 mm Material: Vitrified clay Lining Type: No Lining Lining Material: No Lining			
Type of Pipe:	Gravity drain/sewer				
Year Constructed:					
Flow Control:	No flow control				
Inspection Purpose:	Routine inspection				
Comments:					
Recommendations:	None specified				

Scale: 1:74	Position [m]	Code	Observation	Photo	Grade
	0.00	MH	Start node type, manhole, reference number : F2		
	0.00	WL	Water level, 5% of the vertical dimension		
	0.20	S01	DES Settled deposits, fine, 5% cross-sectional area loss, Start		
	3.60	H	Hole in drain/sewer, from 10 to 2 o'clock		5
	5.60	H	Hole in drain/sewer, from 10 to 2 o'clock	1	5
	8.50	F01	DES Settled deposits, fine, 5% cross-sectional area loss, End		3
	8.50	MHF	Finish node type, manhole reference number: F2A		
F2A Depth: 0.84 m					

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
2	165.0	38.8	330.0	5.0	1	2.0	2.1	18.0	3.0

Section Pictures - 27/05/2020 - F2AX

Section 14	Inspection Direction Upstream	PLR F2AX	Client's Job Ref 1	Contractor's Job Ref
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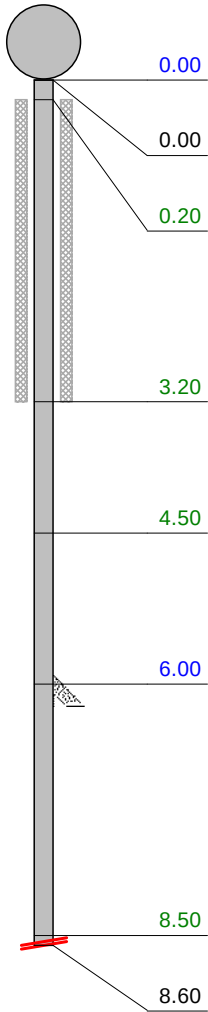


1, 00:01:17, 5.60 m
Hole in drain/sewer, from 10 to 2 o'clock

Section Inspection - 27/05/2020 - F2BX

Section 15	Inspection 1	Date 27/05/20	Time 14:09	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR F2BX
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	F2B
Road:	Crescent Street	Inspected Length:	8.60 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	8.60 m	Downstream Node:	F2A
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	0.840 m
Use:	Foul		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	150 mm	
Year Constructed:			Material:	Vitrified clay	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:					
Recommendations:	None specified				

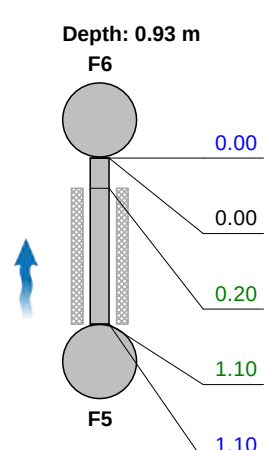
Scale:	1:75	Position [m]	Code	Observation	Photo	Grade
						
		0.00	MH	Start node type, manhole, reference number : F2A		
		0.00	WL	Water level, 5% of the vertical dimension		
		0.20	S01	DES	Settled deposits, fine, 40% cross-sectional area loss, Start	
		3.20	F01	DES	Settled deposits, fine, 40% cross-sectional area loss, End	4
		4.50	DES	Settled deposits, fine, 30% cross-sectional area loss		4
		6.00	JN	Junction, at 11 o'clock, diameter 100mm		
		8.50	DER	Settled deposits, coarse, 30% cross-sectional area loss		4
		8.60	SA	Survey abandoned: UNABLE TO PASS DEBRIS		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	3	5.0	2.9	25.0	4.0

Section Inspection - 27/05/2020 - F5X

Section 16	Inspection 1	Date 27/05/20	Time 14:58	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR F5X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	F5
Road:	Crescent Street	Inspected Length:	1.10 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	1.10 m	Downstream Node:	F6
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	0.930 m
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	225 mm		
Year Constructed:		Material:	Vitrified clay		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		
Comments:					
Recommendations: None specified					

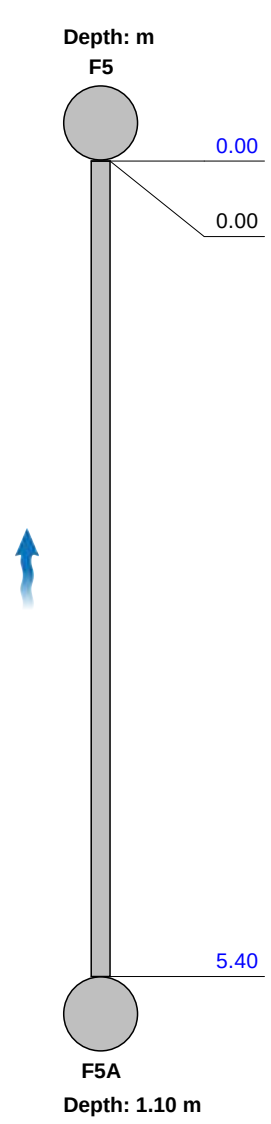
Scale:	1:50	Position [m]	Code	Observation	Photo	Grade
						
		0.00	MH	Start node type, manhole, reference number : F6		
		0.00	WL	Water level, 5% of the vertical dimension		
		0.20	S01	DES Settled deposits, fine, 40% cross-sectional area loss, Start		
		1.10	F01	DES Settled deposits, fine, 40% cross-sectional area loss, End		4
		1.10	MHF	Finish node type, manhole reference number: F5		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	5.0	4.5	5.0	4.0

Section Inspection - 27/05/2020 - F5AX

Section 17	Inspection 1	Date 27/05/20	Time 15:01	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR F5AX
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	F5A
Road:	Crescent Street	Inspected Length:	5.40 m	Upstream Pipe Depth:	1.100 m
Location:	Road	Total Length:	5.40 m	Downstream Node:	F5
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	
Use:	Foul		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	225 mm	
Year Constructed:			Material:	Vitrified clay	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:					
Recommendations:	None specified				

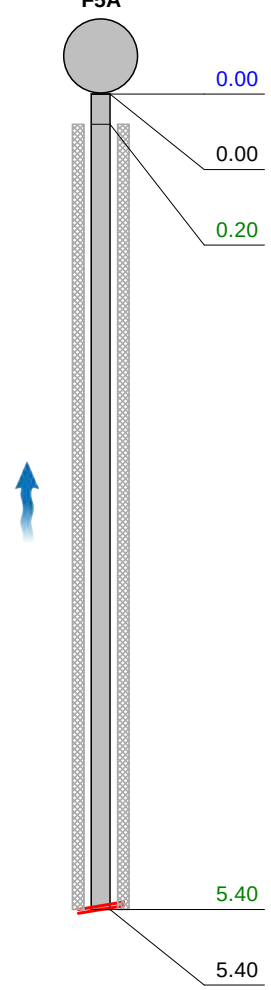
Scale:	1:50	Position [m]	Code	Observation	Photo	Grade
Depth: m F5  0.00 MH Start node type, manhole, reference number : F5 0.00 WL Water level, 5% of the vertical dimension 5.40 MHF Finish node type, manhole reference number: F5A F5A Depth: 1.10 m						

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 27/05/2020 - F4X

Section 18	Inspection 1	Date 27/05/20	Time 15:14	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR F4X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	F4
Road:	Crescent Street	Inspected Length:	5.40 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	5.40 m	Downstream Node:	F5A
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	1.100 m
Use:	Foul		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	225 mm	
Year Constructed:			Material:	Vitrified clay	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:					
Recommendations:	None specified				

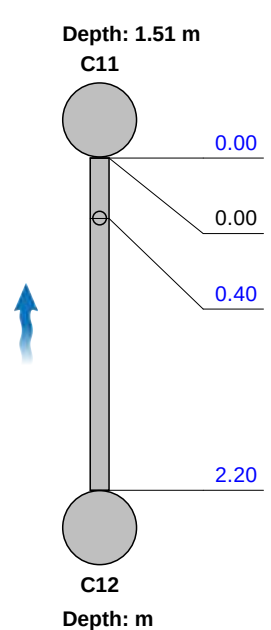
Scale:	1:50	Position [m]	Code	Observation	Photo	Grade																		
Depth: 1.10 m F5A  <table><tr><th>Position [m]</th><th>Code</th><th>Observation</th></tr><tr><td>0.00</td><td>MH</td><td>Start node type, manhole, reference number : F5A</td></tr><tr><td>0.00</td><td>WL</td><td>Water level, 5% of the vertical dimension</td></tr><tr><td>0.20</td><td>S01 DES</td><td>Settled deposits, fine, 40% cross-sectional area loss, Start</td></tr><tr><td>5.40</td><td>F01 DES</td><td>Settled deposits, fine, 40% cross-sectional area loss, End</td></tr><tr><td>5.40</td><td>SA</td><td>Survey abandoned: LINE HAS BEEN EXCAVATED</td></tr></table>							Position [m]	Code	Observation	0.00	MH	Start node type, manhole, reference number : F5A	0.00	WL	Water level, 5% of the vertical dimension	0.20	S01 DES	Settled deposits, fine, 40% cross-sectional area loss, Start	5.40	F01 DES	Settled deposits, fine, 40% cross-sectional area loss, End	5.40	SA	Survey abandoned: LINE HAS BEEN EXCAVATED
Position [m]	Code	Observation																						
0.00	MH	Start node type, manhole, reference number : F5A																						
0.00	WL	Water level, 5% of the vertical dimension																						
0.20	S01 DES	Settled deposits, fine, 40% cross-sectional area loss, Start																						
5.40	F01 DES	Settled deposits, fine, 40% cross-sectional area loss, End																						
5.40	SA	Survey abandoned: LINE HAS BEEN EXCAVATED																						

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	5.0	5.6	30.0	5.0

Section Inspection - 29/05/2020 - C12X

Section 19	Inspection 1	Date 29/05/20	Time 10:19	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C12X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	C12
Road:	Crescent Street	Inspected Length:	2.20 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	2.20 m	Downstream Node:	C11
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	1.510 m
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	150 mm		
Year Constructed:		Material:	Vitrified clay		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		
Comments:					
Recommendations: None specified					

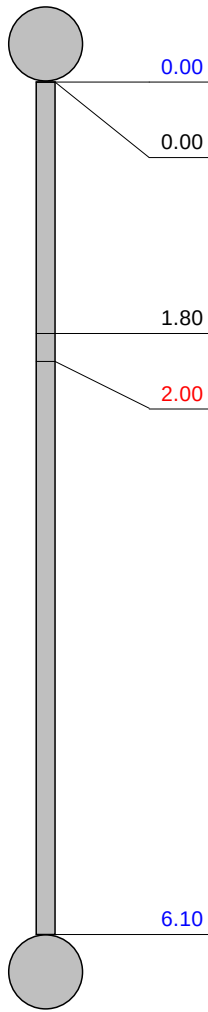
Scale:	1:50	Position [m]	Code	Observation	Photo	Grade
						
		0.00	MH	Start node type, manhole, reference number : C11		
		0.00	WL	Water level, 5% of the vertical dimension		
		0.40	CN	Connection other than junction, at 12 o'clock, diameter 100mm		
		2.20	MHF	Finish node type, manhole reference number: C12		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 29/05/2020 - C13X

Section 20	Inspection 1	Date 29/05/20	Time 10:23	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C13X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	C13
Road:	Crescent Street	Inspected Length:	6.10 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	6.10 m	Downstream Node:	C12
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	
Use:	Foul		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	150 mm	
Year Constructed:			Material:	Vitrified clay	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:					
Recommendations:	None specified				

Scale:	1:54	Position [m]	Code	Observation	Photo	Grade																									
Depth: m C12  C13 Depth: m <table><tr><td>0.00</td><td>MH</td><td>Start node type, manhole, reference number : C12</td><td></td><td></td></tr><tr><td>0.00</td><td>WL</td><td>Water level, 5% of the vertical dimension</td><td></td><td></td></tr><tr><td>1.80</td><td>WL</td><td>Water level, 10% of the vertical dimension</td><td></td><td></td></tr><tr><td>2.00</td><td>HJ</td><td>Hole in drain/sewer at joint, from 10 to 3 o'clock</td><td>1</td><td>5</td></tr><tr><td>6.10</td><td>MHF</td><td>Finish node type, manhole reference number: C13</td><td></td><td></td></tr></table>							0.00	MH	Start node type, manhole, reference number : C12			0.00	WL	Water level, 5% of the vertical dimension			1.80	WL	Water level, 10% of the vertical dimension			2.00	HJ	Hole in drain/sewer at joint, from 10 to 3 o'clock	1	5	6.10	MHF	Finish node type, manhole reference number: C13		
0.00	MH	Start node type, manhole, reference number : C12																													
0.00	WL	Water level, 5% of the vertical dimension																													
1.80	WL	Water level, 10% of the vertical dimension																													
2.00	HJ	Hole in drain/sewer at joint, from 10 to 3 o'clock	1	5																											
6.10	MHF	Finish node type, manhole reference number: C13																													

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
1	165.0	27.0	165.0	5.0	0	0.0	0.0	0.0	1.0

Section Pictures - 29/05/2020 - C13X

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
20	Upstream	C13X	1	

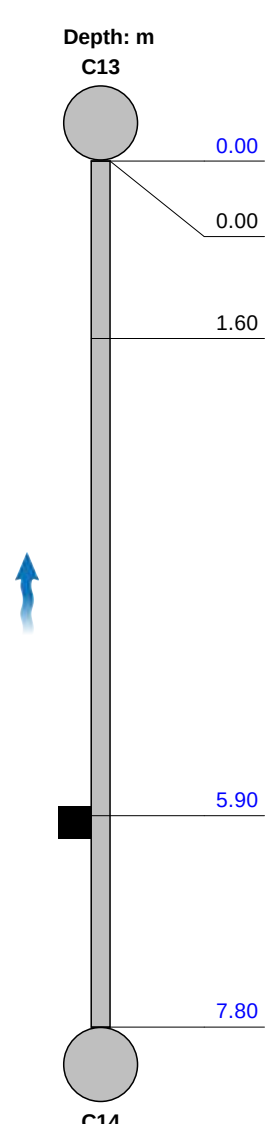


1, 00:00:49, 2.00 m
Hole in drain/sewer at joint, from 10 to 3 o'clock

Section Inspection - 29/05/2020 - C14X

Section 21	Inspection 1	Date 29/05/20	Time 10:29	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C14X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	C14
Road:	Crescent Street	Inspected Length:	7.80 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	7.80 m	Downstream Node:	C13
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	150 mm		
Year Constructed:		Material:	Vitrified clay		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		
Comments:					
Recommendations: None specified					

Scale:	1:68	Position [m]	Code	Observation	Photo	Grade																		
Depth: m C13  <table><tr><th>Position [m]</th><th>Code</th><th>Observation</th></tr><tr><td>0.00</td><td>MH</td><td>Start node type, manhole, reference number : C13</td></tr><tr><td>0.00</td><td>WL</td><td>Water level, 5% of the vertical dimension</td></tr><tr><td>1.60</td><td>WL</td><td>Water level, 30% of the vertical dimension</td></tr><tr><td>5.90</td><td>JN</td><td>Junction, at 3 o'clock, diameter 100mm</td></tr><tr><td>7.80</td><td>MHF</td><td>Finish node type, manhole reference number: C14</td></tr></table>							Position [m]	Code	Observation	0.00	MH	Start node type, manhole, reference number : C13	0.00	WL	Water level, 5% of the vertical dimension	1.60	WL	Water level, 30% of the vertical dimension	5.90	JN	Junction, at 3 o'clock, diameter 100mm	7.80	MHF	Finish node type, manhole reference number: C14
Position [m]	Code	Observation																						
0.00	MH	Start node type, manhole, reference number : C13																						
0.00	WL	Water level, 5% of the vertical dimension																						
1.60	WL	Water level, 30% of the vertical dimension																						
5.90	JN	Junction, at 3 o'clock, diameter 100mm																						
7.80	MHF	Finish node type, manhole reference number: C14																						

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 29/05/2020 - C15X

Section 22	Inspection 1	Date 29/05/20	Time 11:00	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C15X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	C15
Road:	Crescent Street	Inspected Length:	9.90 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	9.90 m	Downstream Node:	C11
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	1.510 m
Use:	Foul		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	225 mm	
Year Constructed:			Material:	Vitrified clay	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:					
Recommendations:	None specified				

Scale: 1:87	Position [m]	Code	Observation	Photo	Grade
Depth: 1.51 m C11					
0.00		MH	Start node type, manhole, reference number : C11		
0.00		WL	Water level, 5% of the vertical dimension		
1.40		FLJ	Fracture, longitudinal at joint, at 5 o'clock		3 / 2
1.40		LL	Line deviates left		
2.00		JN	Junction, at 2 o'clock, diameter 100mm		
5.40		WL	Water level, 15% of the vertical dimension		
9.90		MHF	Finish node type, manhole reference number: C15		
C15 Depth: m					

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
1	40.0	4.0	40.0	3.0	1	1.0	0.1	1.0	2.0

Section Inspection - 29/05/2020 - C16X

Section 23	Inspection 1	Date 29/05/20	Time 11:11	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C16X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	C16
Road:	Crescent Street	Inspected Length:	11.60 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	11.60 m	Downstream Node:	C15
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	225 mm		
Year Constructed:		Material:	Vitrified clay		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		
Comments:					
Recommendations: None specified					

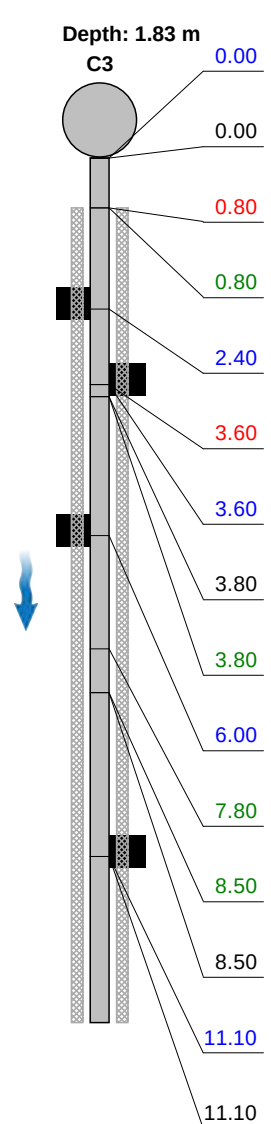
Scale: 1:101	Position [m]	Code	Observation	Photo	Grade
Depth: m C15					
0.00		MH	Start node type, manhole, reference number : C15		
0.00		WL	Water level, 10% of the vertical dimension		
0.30		JN	Junction, at 10 o'clock, diameter 100mm		
11.60		DES	Settled deposits, fine, 20% cross-sectional area loss		4
11.60		SA	Survey abandoned: REQUIRES CLEANING		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	5.0	0.4	5.0	4.0

Section Inspection - 02/06/2020 - C3X

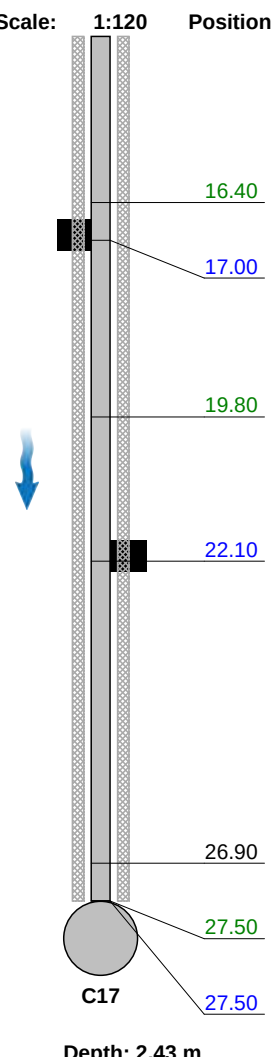
Section 24	Inspection 1	Date 02/06/20	Time 9:31	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C3X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Downstream	Upstream Node:	C3
Road:	Taff Street	Inspected Length:	27.50 m	Upstream Pipe Depth:	1.830 m
Location:	Road	Total Length:	27.50 m	Downstream Node:	C17
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	2.430 m
Use:	Combined	Pipe Shape: Circular Dia/Height: 300 mm Material: Vitrified clay Lining Type: No Lining Lining Material: No Lining			
Type of Pipe:	Gravity drain/sewer				
Year Constructed:					
Flow Control:	No flow control				
Inspection Purpose:	Routine inspection				
Comments:					
Recommendations:	None specified				

Scale: 1:120	Position [m]	Code	Observation	Photo	Grade
					
Depth: 1.83 m C3	0.00	MH	Start node type, manhole, reference number : C3		
	0.00	WL	Water level, 5% of the vertical dimension		
	0.80	FCJ	Fracture, circumferential at joint, from 7 to 5 o'clock		3 / 2
	0.80	S01	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, Start: PATCHY		
	2.40	CN	Connection other than junction, at 2 o'clock, diameter 150mm		
	3.60	BJ	Broken pipe at joint, from 10 to 2 o'clock		4
	3.60	JN	Junction, at 10 o'clock, diameter 100mm		
	3.80	WL	Water level, 25% of the vertical dimension		
	3.80	DES	Settled deposits, fine, 10% cross-sectional area loss		3
	6.00	JN	Junction, at 2 o'clock, diameter 100mm		
	7.80	DEEJ	Attached deposits, encrustation at joint, from 2 to 5 o'clock, 5% cross-sectional area loss		3
	8.50	DEEJ	Attached deposits, encrustation at joint, from 3 to 5 o'clock, 5% cross-sectional area loss		3
	8.50	WL	Water level, 10% of the vertical dimension		
	11.10	JN	Junction, at 10 o'clock, diameter 100mm		
	11.10	WL	Water level, 30% of the vertical dimension		

Section Inspection - 02/06/2020 - C3X

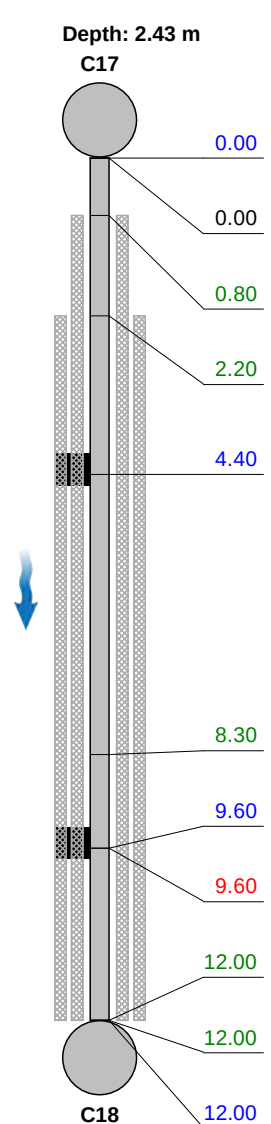
Section 24	Inspection 1	Date 02/06/20	Time 9:31	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C3X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Scale:	1:120	Position [m]	Code	Observation	Photo	Grade			
	16.40	LL	Line deviates left: SLIGHT						
	17.00	JN	Junction, at 2 o'clock, diameter 100mm						
	19.80	DEX	Settled deposits, other, 20% cross-sectional area loss: UNDER FLOW			4			
	22.10	JN	Junction, at 10 o'clock, diameter 100mm						
	26.90	CUW	Loss of vision, camera under water						
	27.50	F01	DEG	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, End: PATCHY		3			
C17	27.50	MHF	Finish node type, manhole reference number: C17						
Depth: 2.43 m									
Construction Features				Miscellaneous Features					
Structural Defects				Service & Operational Observations					
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
2	80.0	4.4	120.0	4.0	6	9.0	4.4	120.0	4.0

Section Inspection - 02/06/2020 - C17X

Section 25	Inspection 1	Date 02/06/20	Time 10:07	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C17X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Downstream	Upstream Node:	C17
Road:	Taff Street	Inspected Length:	12.00 m	Upstream Pipe Depth:	2.430 m
Location:	Road	Total Length:	12.00 m	Downstream Node:	C18
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	
Use:	Combined		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	300 mm	
Year Constructed:			Material:	Vitrified clay	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:	C18 - Unable To Raise				
Recommendations:	None specified				

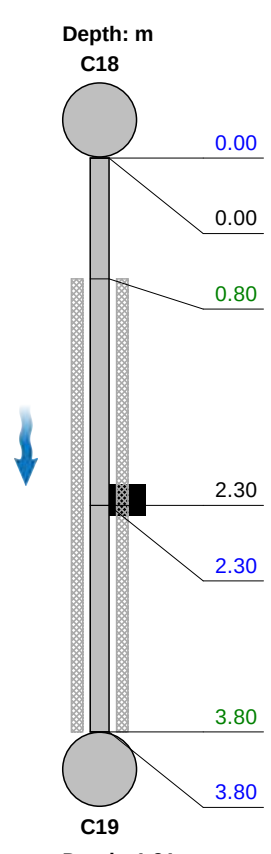
Scale: 1:105	Position [m]	Code	Observation	Photo	Grade
					
	0.00	MH	Start node type, manhole, reference number : C17		
	0.00	WL	Water level, 30% of the vertical dimension		
	0.80	S01	Attached deposits, grease, from 9 to 3 o'clock, 5% cross-sectional area loss, Start: PATCHY		
	2.20	S02	Settled deposits, other, 20% cross-sectional area loss, Start: UNDER FLOW		
	4.40	JN	Junction, at 2 o'clock, diameter 100mm		
	8.30	DEX	Settled deposits, other, 10% cross-sectional area loss: BROKEN PIECE OF PIPE		3
	9.60	JN	Junction, at 2 o'clock, diameter 100mm		
	9.60	FCJ	Fracture, circumferential at joint, from 7 to 5 o'clock		3 / 2
	12.00	F01	Attached deposits, grease, from 9 to 3 o'clock, 5% cross-sectional area loss, End: PATCHY		3
	12.00	F02	Settled deposits, other, 20% cross-sectional area loss, End: UNDER FLOW		4
	12.00	MHF	Finish node type, manhole reference number: C18		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
1	40.0	3.3	40.0	3.0	4	11.0	8.4	101.0	5.0

Section Inspection - 02/06/2020 - C18X

Section 26	Inspection 1	Date 02/06/20	Time 10:30	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C18X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Downstream	Upstream Node:	C18
Road:	Taff Street	Inspected Length:	3.80 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	3.80 m	Downstream Node:	C19
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	1.910 m
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	300 mm		
Year Constructed:		Material:	Vitrified clay		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		
Comments:	C18 - Unable To Raise				
Recommendations:	None specified				

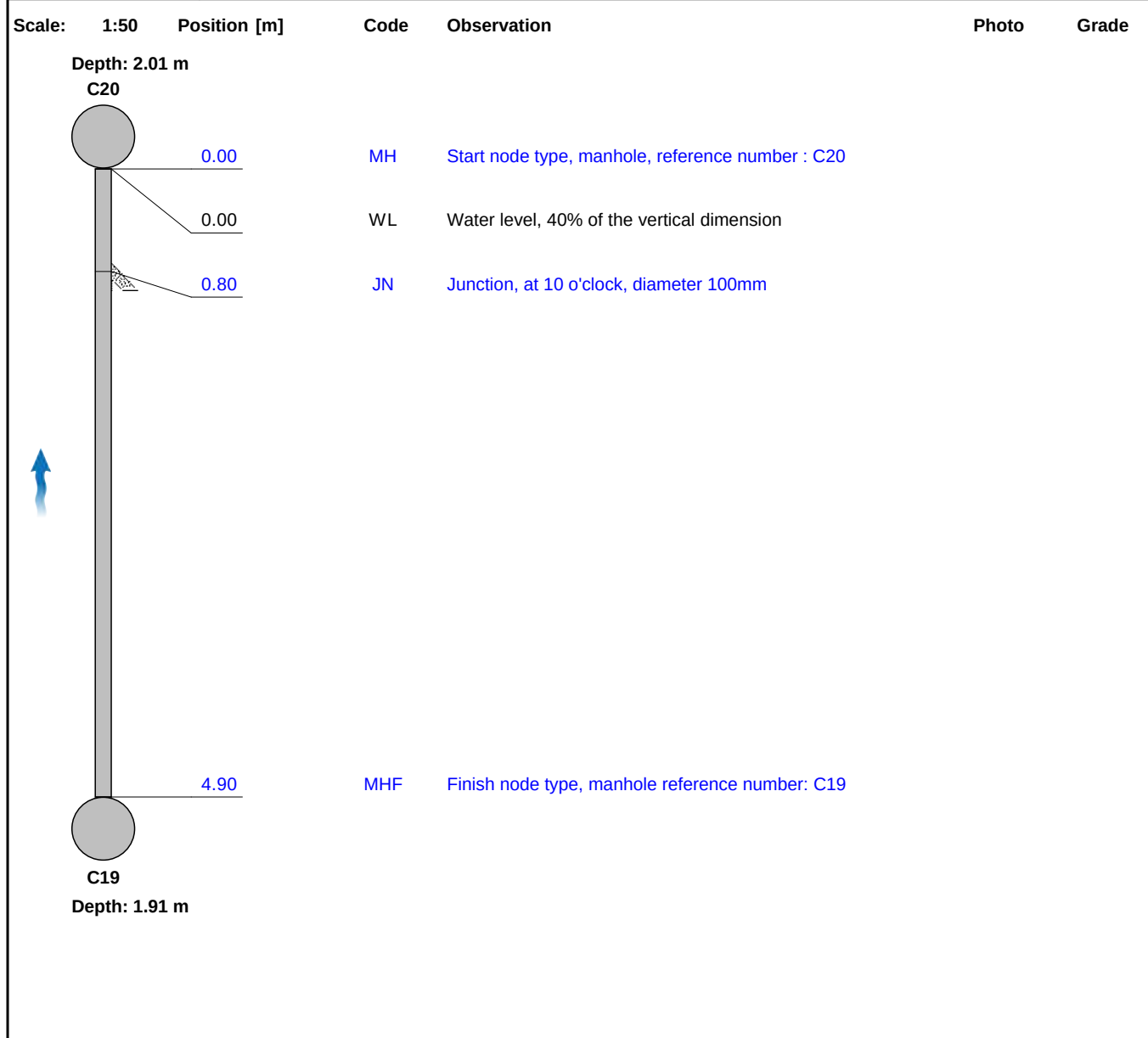
Scale:	1:50	Position [m]	Code	Observation	Photo	Grade
						
		0.00	MH	Start node type, manhole, reference number : C18		
		0.00	WL	Water level, 15% of the vertical dimension		
		0.80	S01 DEG	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, Start: PATCHY		
		2.30	WL	Water level, 30% of the vertical dimension		
		2.30	JN	Junction, at 10 o'clock, diameter 100mm		
		3.80	F01 DEG	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, End: PATCHY		3
		3.80	MHF	Finish node type, manhole reference number: C19		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	4.0	3.2	12.0	4.0

Section Inspection - 02/06/2020 - C19X

Section 27	Inspection 1	Date 02/06/20	Time 11:08	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C19X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	C19
Road:	Taff Street	Inspected Length:	4.90 m	Upstream Pipe Depth:	1.910 m
Location:	Road	Total Length:	4.90 m	Downstream Node:	C20
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	2.010 m
Use:	Combined	Pipe Shape: Circular Dia/Height: 300 mm Material: Vitrified clay Lining Type: No Lining Lining Material: No Lining			
Type of Pipe:	Gravity drain/sewer				
Year Constructed:					
Flow Control:	No flow control				
Inspection Purpose:	Routine inspection				
Comments:					
Recommendations:	None specified				

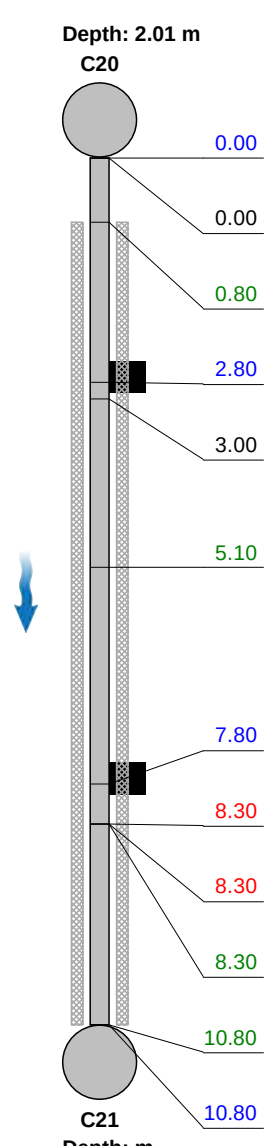


Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 02/06/2020 - C20X

Section 28	Inspection 1	Date 02/06/20	Time 11:12	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C20X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Downstream	Upstream Node:	C20
Road:	Taff Street	Inspected Length:	10.80 m	Upstream Pipe Depth:	2.010 m
Location:	Road	Total Length:	10.80 m	Downstream Node:	C21
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	
Use:	Combined		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	300 mm	
Year Constructed:			Material:	Vitrified clay	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:	C21 - Unable To Raise				
Recommendations:	None specified				

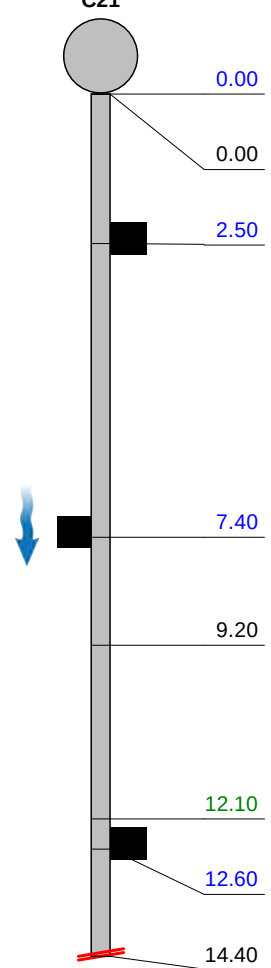
Scale: 1:94	Position [m]	Code	Observation	Photo	Grade
					
	0.00	MH	Start node type, manhole, reference number : C20		
	0.00	WL	Water level, 5% of the vertical dimension		
	0.80	S01	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, Start: PATCHY		
	2.80	JN	Junction, at 10 o'clock, diameter 150mm		
	3.00	WL	Water level, 25% of the vertical dimension		
	5.10	DEEJ	Attached deposits, encrustation at joint, from 8 to 10 o'clock, 5% cross-sectional area loss		3
	7.80	CN	Connection other than junction, at 10 o'clock, diameter 100mm		
	8.30	FCJ	Fracture, circumferential at joint, from 12 to 2 o'clock		3 / 2
	8.30	FLJ	Fracture, longitudinal at joint, at 12 o'clock: WANDERS TO 8		3 / 2
	8.30	DEX	Settled deposits, other, 15% cross-sectional area loss: UNDER FLOW		3
	10.80	F01	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, End: PATCHY		3
	10.80	MHF	Finish node type, manhole reference number: C21		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
2	80.0	7.4	80.0	3.0	5	8.0	4.3	46.0	4.0

Section Inspection - 02/06/2020 - C21X

Section 29	Inspection 1	Date 02/06/20	Time 11:29	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C21X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Downstream	Upstream Node:	C21
Road:	Taff Street	Inspected Length:	14.40 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	14.40 m	Downstream Node:	C22
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	300 mm		
Year Constructed:		Material:	Vitrified clay		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		
Comments:	C21 - Unable To Raise, C22 Full of debris				
Recommendations:	None specified				

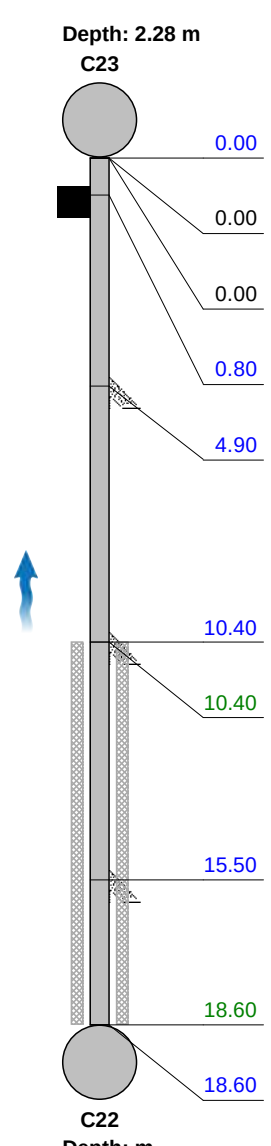
Scale:	1:126	Position [m]	Code	Observation	Photo	Grade																																								
Depth: m C21  <table><tr><td>0.00</td><td>MH</td><td>Start node type, manhole, reference number : C21</td><td></td><td></td></tr><tr><td>0.00</td><td>WL</td><td>Water level, 10% of the vertical dimension</td><td></td><td></td></tr><tr><td>2.50</td><td>JN</td><td>Junction, at 10 o'clock, diameter 100mm</td><td></td><td></td></tr><tr><td>7.40</td><td>JN</td><td>Junction, at 2 o'clock, diameter 150mm</td><td></td><td></td></tr><tr><td>9.20</td><td>WL</td><td>Water level, 25% of the vertical dimension</td><td></td><td></td></tr><tr><td>12.10</td><td>DES</td><td>Settled deposits, fine, 25% cross-sectional area loss: UNDER FLOW</td><td></td><td>4</td></tr><tr><td>12.60</td><td>JN</td><td>Junction, at 10 o'clock, diameter 100mm</td><td></td><td></td></tr><tr><td>14.40</td><td>SA</td><td>Survey abandoned: UNABLE TO PASS SILT IN LINE</td><td></td><td></td></tr></table>							0.00	MH	Start node type, manhole, reference number : C21			0.00	WL	Water level, 10% of the vertical dimension			2.50	JN	Junction, at 10 o'clock, diameter 100mm			7.40	JN	Junction, at 2 o'clock, diameter 150mm			9.20	WL	Water level, 25% of the vertical dimension			12.10	DES	Settled deposits, fine, 25% cross-sectional area loss: UNDER FLOW		4	12.60	JN	Junction, at 10 o'clock, diameter 100mm			14.40	SA	Survey abandoned: UNABLE TO PASS SILT IN LINE		
0.00	MH	Start node type, manhole, reference number : C21																																												
0.00	WL	Water level, 10% of the vertical dimension																																												
2.50	JN	Junction, at 10 o'clock, diameter 100mm																																												
7.40	JN	Junction, at 2 o'clock, diameter 150mm																																												
9.20	WL	Water level, 25% of the vertical dimension																																												
12.10	DES	Settled deposits, fine, 25% cross-sectional area loss: UNDER FLOW		4																																										
12.60	JN	Junction, at 10 o'clock, diameter 100mm																																												
14.40	SA	Survey abandoned: UNABLE TO PASS SILT IN LINE																																												

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	5.0	0.3	5.0	4.0

Section Inspection - 02/06/2020 - C22X

Section 30	Inspection 1	Date 02/06/20	Time 13:37	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C22X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Upstream	Upstream Node:	C22
Road:	Taff Street	Inspected Length:	18.60 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	18.60 m	Downstream Node:	C23
Surface Type:	Unknown	Joint Length:	1.00 m	Downstream Pipe Depth:	2.280 m
Use:	Combined		Pipe Shape:	Circular	
Type of Pipe:	Gravity drain/sewer		Dia/Height:	300 mm	
Year Constructed:			Material:	Vitrified clay	
Flow Control:	No flow control		Lining Type:	No Lining	
Inspection Purpose:	Routine inspection		Lining Material:	No Lining	
Comments:	C22 Full of debris				
Recommendations:	None specified				

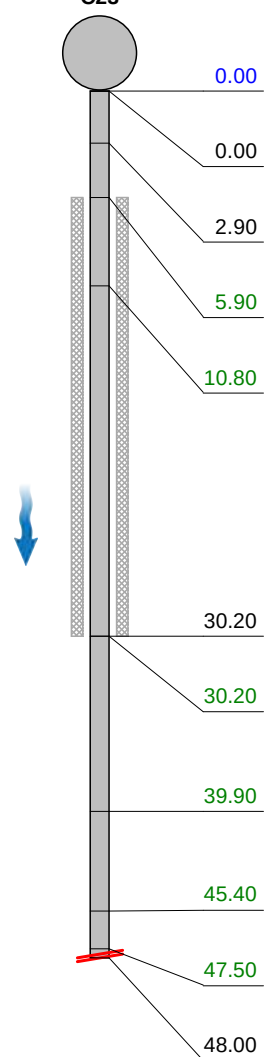
Scale: 1:162	Position [m]	Code	Observation	Photo	Grade
					
	0.00	MH	Start node type, manhole, reference number : C23		
	0.00	WL	Water level, 5% of the vertical dimension		
	0.00	REM	General remark: VIDEO HEADER INCORRECT, PLEASE SEE REPORT		
	0.80	JN	Junction, at 2 o'clock, diameter 100mm		
	4.90	JN	Junction, at 10 o'clock, diameter 100mm		
	10.40	JN	Junction, at 10 o'clock, diameter 150mm		
	10.40	S01 DEG	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, Start: PATCHY		
	15.50	JN	Junction, at 10 o'clock, diameter 100mm		
	18.60	F01 DEG	Attached deposits, grease, from 7 to 5 o'clock, 5% cross-sectional area loss, End: PATCHY		3
	18.60	MHF	Finish node type, manhole reference number: C22		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	4.0	1.9	36.0	3.0

Section Inspection - 02/06/2020 - C23X

Section 31	Inspection 1	Date 02/06/20	Time 13:59	Client's Job Ref 1	Weather No Rain Or Snow	Pre Cleaned No	PLR C23X
Operator DRAINTECH JK		Vehicle GJ66 OTR		Camera Ibos	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Merthyr Vale	Inspection Direction:	Downstream	Upstream Node:	C23
Road:	Taff Street	Inspected Length:	48.00 m	Upstream Pipe Depth:	2.280 m
Location:	Road	Total Length:	48.00 m	Downstream Node:	C24
Surface Type:	Unknown	Joint Length:	3.00 m	Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	375 mm		
Year Constructed:		Material:	Cast iron		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		
Comments:	C24 - Unable To Locate				
Recommendations:	None specified				

Scale: 1:418	Position [m]	Code	Observation	Photo	Grade
Depth: 2.28 m C23 					
0.00		MH	Start node type, manhole, reference number : C23		
0.00		WL	Water level, 5% of the vertical dimension		
2.90		WL	Water level, 30% of the vertical dimension		
5.90	S01	DEX	Settled deposits, other, 30% cross-sectional area loss, Start: UNDER FLOW		
10.80		DEX	Settled deposits, other, 5% cross-sectional area loss: CAN		3
30.20		WL	Water level, 5% of the vertical dimension		
30.20	F01	DEX	Settled deposits, other, 30% cross-sectional area loss, End: UNDER FLOW		4
39.90		RMJ	Roots, mass at joint, 25% cross-sectional area loss		5
45.40		DEX	Settled deposits, other, 20% cross-sectional area loss: LARGE STONE		4
47.50		DES	Settled deposits, fine, 40% cross-sectional area loss		4
48.00		SA	Survey abandoned: UNABLE TO PASS SILT		

Construction Features

Structural Defects

Miscellaneous Features

Service & Operational Observations

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	5	10.0	3.1	147.0	5.0

APPENDIX I – Taff Crescent Bat Tower Pre-Demolition Structural Survey Report



Merthyr Tydfil County Borough Council

TAFF CRESCENT BAT TOWER

Pre-Demolition Inspection Report





TYPE OF DOCUMENT (VERSION) CONFIDENTIAL

PROJECT NO. ED/000376

DATE: JULY 2022

WSP
St David's House
Pascal Close, St Mellons
Cardiff
CF3 0LW
Phone: +44 2920 803500

WSP.com

DOCUMENT CONTROL

Project No: ED/000376

Doc Ref: xxxx xxxxx xxxx

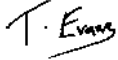
Rev: P01

Client: Merthyr Tydfil Country Borough Council

Issue Date: July 2022

Taff Crescent Bat Tower

Pre-Demolition Inspection Report

	Name	Signature	Date
Author	Ting Pong Gabriel Wong		28 th September 2022
Checker	Tomos Evans		28 th September 2022
Approver	Andrew Barugh		28 th September 2022

Issue Record

Revision	Date	Description	Author	Approved By
P01	28 th September 2022	First Issue	TPG. Wong	A. Barugh



CONTENTS

1	THE COMMISSION	1
2	LIMITATIONS	3
3	GENERAL DESCRIPTION	5
4	FINDINGS AND OBSERVATIONS	7
5	CONCLUSIONS / RECOMMENDATIONS	9

APPENDICES

APPENDIX A

1

THE COMMISSION



1 THE COMMISSION

1.1 WSP UK Ltd inspected;

**Former Apartment Building,
5-7 Crescent Street,
Merthyr Vale,
CF48 4RW**

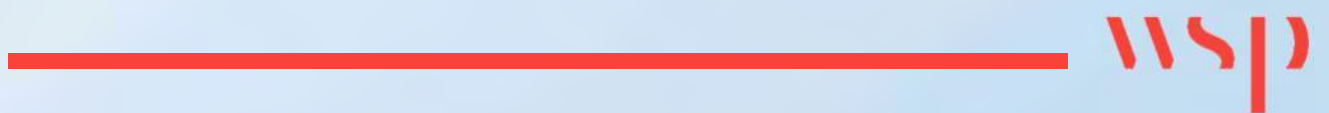
in accordance with instructions received from Merthyr Tydfil County Borough Council. The purpose of the inspection was to assess the existing structure and gain an understanding of how the building is likely to perform during the proposed demolition activities. The survey will inform preferred methods of demolition, together with anticipated effects on the adjacent structures, both during and after the demolition works. This survey does not constitute a Refurbishment and Demolition Asbestos Survey, which has been undertaken separately by others.

1.2 A site visit was undertaken on the Tuesday 2nd of August, 2022. In attendance were Tomos Evans (WSP) and Ting Pong Gabriel Wong (WSP). The weather was raining and wet.

1.3 A non-intrusive visual inspection of the building structure was carried out internally from ground floor level, and externally from ground level.

2

LIMITATIONS



2 LIMITATIONS

- 2.1. During the inspection the premises were unoccupied.
- 2.2. No attempt was made to view those parts of the premises that were covered up or unexposed at the time of inspection. Hidden elements of the fabric, including underground drainage and foundations, have thus not been inspected or recorded.
- 2.3. No testing, non-destructive or otherwise, of the fabric was undertaken as part of this commission. It should be noted that intrusive investigation may reveal additional or differing problems to any visible at present.
- 2.4. No electric, gas, plumbing or other service installations have been tested. These are all outside the scope of this commission.
- 2.5. The primary purpose of this schedule is to undertake a visual inspection of the existing structure and gain an understanding of how the building is likely to perform during the proposed demolition activities. We have not been appointed to comment upon or advise on either compliance with current statutory legislation or potential matters of health and safety. Should, however, we notice what, in our opinion, is a significant risk to health and/ or safety we are obliged to advise accordingly.

3

GENERAL DESCRIPTION

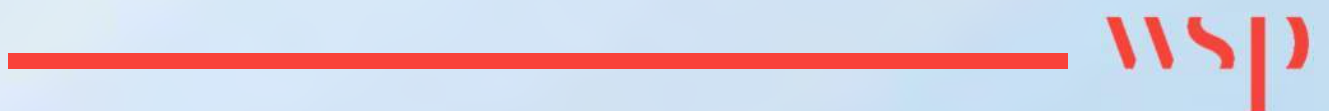


3 GENERAL DESCRIPTION

- 3.1. The premises at Crescent Street, also known as Rechabite Hall, comprised a four-storey former apartment building.
- 3.2. The building accommodated a lobby area and staircase to the centre providing access to apartment accommodation on either side on all four levels.
- 3.3. The building external walls comprised brick / block masonry cavity walls. Internal walls were a combination of block masonry and timber stud walls.
- 3.4. All external windows had been previously blocked up with block masonry. A metal security door was found to the front elevation.
- 3.5. All upper floors were precast concrete plank construction supported from the block masonry external walls and a central internal blockwork wall. The precast planks span from front to back of the building.
- 3.6. The ground floor slab is believed to be suspended, as the external ground levels vary across the length of the building.
- 3.7. The building had a duo-pitch roof comprised timber trusses supported off the external walls. The roof had a slated finish. All fascia's, bargeboards and soffits were timber, and gutters and downpipes were UPVC.
- 3.8. The building was surrounded by a palisade security fence.
- 3.9. Survey record photographs are contained in Appendix A.

4

FINDINGS AND OBSERVATIONS



4 FINDINGS AND OBSERVATIONS

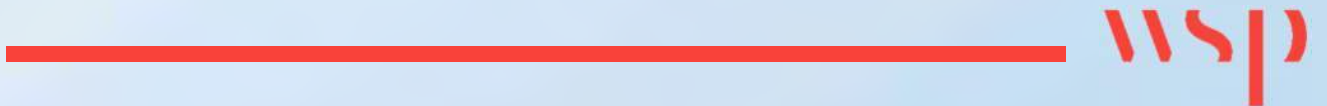
REFERENCED PHOTOGRAPHS ARE CONTAINED IN APPENDIX A.

ALL PHOTOGRAPHS CONTAINED IN THIS SCHEDULE WERE TAKEN USING A DIGITAL CAMERA. THE PRINTS ARE A TRUE AND ACCURATE RECORD OF THE CONDITION AT THE TIME THE PHOTOGRAPH WAS TAKEN. THE DETAIL IN THE IMAGES HAS NOT BEEN RETOUCHEDED OR ALTERED IN ANY WAY.

- 4.1. The building is believed to have been empty for circa 4 years and as such it is generally in a poor condition.
- 4.2. Large openings / holes and damage were noted to the roof covering, with a large number of missing slates.
- 4.3. The large holes in the roof had resulted in significant water ingress to the top floor of the building.
- 4.4. Timber fascia and bargeboards were noted to be rotten throughout.
- 4.5. Evidence of historic flooding was noted to the ground floor of the building.
- 4.6. The building was noted to be damp throughout, with evidence of significant mold throughout.
- 4.7. Where large openings in the load-bearing walls, steel beams / lintels were noted to support the precast concrete plank floor above.
- 4.8. All stairs up to the upper floors were of concrete construction.

5

CONCLUSIONS / RECOMMENDATIONS



5 CONCLUSIONS / RECOMMENDATIONS

- 5.1. The safe removal of the building will need to be considered to ensure the existing river-wall is left safe and secure. Care must also be taken whilst demolishing the building to ensure that no demolition debris enters the watercourse.
- 5.2. The demolition contractor is to submit a full method statement prior to the demolition of the building and is to be followed during the controlled demolition process for the building.
- 5.3. Confirmation of incoming services disconnection and isolation from within the site is required prior to commencement of demolition
- 5.4. A full demolition / refurbishment asbestos survey has been completed prior to the demolition of the building by Shield On-Site Service, issue dated the 5th of August, 2019 and is included in the tender works information.
- 5.5. No unusual issues were noted with the form of construction of the building.

Appendix A

APPENDIX A

Appendix A Photographic Schedule:



Referenced Photographs

Note: The photographic reference numbering adopted for this report is as follows:

e.g.: (DSCF1234):

Where

(DSCF1234)= Digital camera photo reference number.

1234= Report Reference Number.



Figure 1 (DSCF4920)



Figure 2 (DSCF4922)



Figure 3 (DSCF4932)



Figure 4 (DSCF4928)



Figure 5 (DSCF4930)



Figure 6 (DSCF4935)



Figure 7 (DSCF4936)



Figure 8 (DSCF4948)



Figure 9 (DSCF4951)



Figure 10 (DSCF4954)



Figure 11 (DSCF4956)



Figure 12 (DSCF4957)



Figure 13 (DSCF4958)



Figure 14 (DSCF4959)



Figure 15 (DSCF4962)



Figure 16 (DSCF4963)



Figure 17 (DSCF4968)

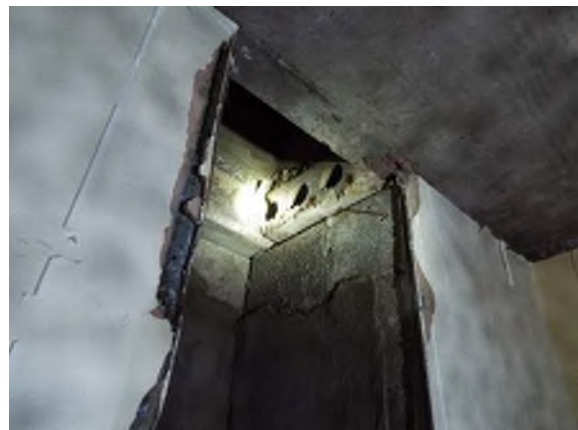


Figure 18 (DSCF4969)



Figure 19 (DSCF4970)



Figure 20 (DSCF4971)



Figure 21 (DSCF4972)



Figure 22 (DSCF4973)



Figure 24 (DSCF4974)



Figure 25 (DSCF4975)



Figure 26 (DSCF4976)



Figure 27 (DSCF4977)



Figure 28 (DSCF4978)



Figure 29 (DSCF4979)



Figure 30 (DSCF4980)



Figure 31 (DSCF4981)



St David's House
Pascal Close, St Mellons
Cardiff
CF3 0LW

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