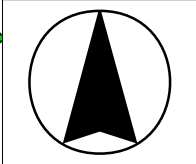


**SITE 4**





OSIE

FUNSTON

ST. FRANCIS

SKINNER

SANTA FE

MOUNT VERNON

N

4-2

# Television Inspection Master Report

11/24/2003  
12:34:44PM  
C05D

US Manhole: 5545-289  
DS Manhole: 5545-288

1715 S SANTA FE AVE  
1741 S SANTA FE AVE

Date Insp: 2/13/2002

Basin:

Dir Televised: Upstream To Downstream

## Pipe Information

Shape: Round	Length Status:	Project No.: B-103
Dia/Ht Width: 8 0	Material: VCP	Index:
Length: 223.0	Slope: 0.152	Surface:
Pipe Sec Length: Comment:		

## Inspection Information

Crew: 694	Percent Full: 15	Tape ID:
Weather: Sunny	Purpose: TV Existing Line	Counter Start: 29:31
Surface Cond: N/A	Flow: Normal Flow	Counter Stop:
Dyed Test: No		

Obs. #	VTR Counter Comment	Dist	Location	Description	Rating	Obsrvd (gpm)	Est. (gpm)	Ratings Struct	Clean	Remain (gpm)
1		0.0	US Manhole							
2		8.0	East	Pipe Seal						
3		9.0	Crown	Crack-Radial	3		0.004	5	0	0.004
4		11.0	West	Pipe Seal						0.000
5		12.0	Quad 1 / U-Rt	Crack-Radial	2		0.002	2	0	0.002
6		17.0	Quad 1 / U-Rt	Broken Pipe	2		0.008	44	0	0.008
7		28.0	Crown	Crack-Radial	3		0.004	5	0	0.004
8		34.0	East	Wye Service	3		0.000	2	0	0.000
1723 S. SANTE FE.										
9		37.0	West	Wye Service	4		0.000	60	0	0.000
1722 S. ST FRANCIS.										
10		41.0	Quad 3 / L-Lt	Crack-Radial	2		0.002	2	0	0.002
11		53.0	Crown	Crack-Radial	3		0.004	5	0	0.004
12		60.0	East	Pipe Seal						0.000
13		61.0	Quad 4 / U-Lt	Crack-Radial	1		0.001	1	0	0.001
14		62.0	West	Wye Service	3		0.000	2	0	0.000
1724 S. ST FRANCIS.										
15		63.0	Crown	Crack-Radial	3		0.004	5	0	0.004
16		71.0	Crown	Crack-Radial	2		0.002	2	0	0.002
17		74.0	Crown	Crack-Radial	3		0.004	5	0	0.004
18		79.0	Quad 3 / L-Lt	Crack-Radial	1		0.001	1	0	0.001
19		84.0	Quad 3 / L-Lt	Crack-Radial	2		0.002	2	0	0.002
20		85.0	East	Wye Service	3		0.000	2	0	0.000
1725 S. SANTE FE.										
21		88.0	West	Pipe Seal						0.000
22		89.0	Crown	Crack-Radial	3		0.004	5	0	0.004
23		92.0	Crown	Crack-Radial	3		0.004	5	0	0.004
24		95.0	East	Break-In Conn	1		0.001	0	0	0.001
1725 S. SANTE FE.										
25		97.0	Quad 1 / U-Rt	Crack-Radial	2		0.002	2	0	0.002
26		102.0	Invert	Crack-Radial	1		0.001	1	0	0.001
27		109.0	Crown	Crack-Radial	2		0.002	2	0	0.002
28		111.0	East	Pipe Seal						0.000
29		114.0	West	Pipe Seal						0.000
30		120.0	Crown	Crack-Radial	3		0.004	5	0	0.004
31		133.0	Quad 3 / L-Lt	Crack-Radial	2		0.002	2	0	0.002
32		135.0	Quad 3 / L-Lt	Broken Pipe	3		0.010	60	0	0.010

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# Television Inspection Master Report

11/24/2003  
12:34:44PM

US Manhole:	5545-289	1715 S SANTA FE AVE	Date Insp:	2/13/2002	Basin:	C05D		
DS Manhole:	5545-288	1741 S SANTA FE AVE						
33	137.0	East	Wye Service	1	0.000	0	0	0.000
	1727 S. SANTE FE. / roots inside							
34	138.0	Crown	Crack-Radial	2	0.002	2	0	0.002
35	140.0	West	Wye Service	2	0.000	0	0	0.000
	1732 S. ST FRANCIS.							
36	141.0	Quad 2 / L-Rt	Crack-Radial	2	0.002	2	0	0.002
37	143.0	Crown	Crack-Radial	2	0.002	2	0	0.002
38	146.0	Invert	Broken Pipe	3	0.010	60	0	0.010
39	148.0	Quad 3 / L-Lt	Broken Pipe	5	0.060	100	0	0.060
40	154.0	Quad 3 / L-Lt	Broken Pipe	4	0.030	78	0	0.030
41	163.0	East	Pipe Seal					0.000
42	164.0	Quad 4 / U-Lt	Crack-Radial	1	0.001	1	0	0.001
43	165.0	West	Pipe Seal					0.000
	166.0	PVC begins						
44	169.0	East	Break-In Conn	1	0.001	0	0	0.001
	1729 S. SANTE FE.							
	169.0	PVC ends						
45	179.0	Crown	Crack-Radial	3	0.004	5	0	0.004
46	188.0	East	Pipe Seal					0.000
47	189.0	Crown	Crack-Radial	2	0.002	2	0	0.002
48	191.0	West	Wye Service	1	0.000	0	0	0.000
	1734 S. ST FRANCIS.							
49	202.0	Crown	Crack-Radial	2	0.002	2	0	0.002
50	205.0	Quad 2 / L-Rt	Broken Pipe	5	0.060	100	0	0.060
51	214.0	East	Break-In Conn	2	0.002	0	0	0.002
	1741 S. SANTE FE.							
52	216.0	West	Pipe Seal					0.000
53	217.0	Quad 3 / L-Lt	Crack-Radial	2	0.002	2	0	0.002
54	225.0	DS Manhole						0.000

# Television Inspection Master Report

11/24/2003  
12:34:44PM  
C05D

US Manhole: 5545-288  
DS Manhole: 5545-287

1741 S SANTA FE AVE  
1803 S SANTA FE AVE

Date Insp: 2/13/2002

Basin:

Dir Televised: Upstream To Downstream

## Pipe Information

Shape: Round  
Dia/Ht Width: 8  
Length: 196.8  
Pipe Sec Length:

Comment:

Length Status:  
Material: VCP  
Slope: 0.147

Project No.: B-103  
Index:  
Surface:

Obs. #	VTR Counter	Dist	Location	Description	Rating	Obsrvd (gpm)	Est. (gpm)	Ratings Struct	Clean	Remain (gpm)
1		0.0	US Manhole							
2		2.0	Crown	Crack-Horizontal	3		0.004	5	0	0.004
3		7.0	Quad 1 / U-Rt	Crack-Radial	1		0.001	1	0	0.001
4		13.0	Quad 3 / L-Lt	Broken Pipe	2		0.008	44	0	0.008
5		14.0	East	Pipe Seal						0.000
6		17.0	West	Wye Service	1		0.000	0	0	0.000
			1742 S. ST. FRANCIS.							
7		40.0	East	Wye Service	1		0.000	0	0	0.000
			1743 S. SANTE FE.							
8		42.0	West	Pipe Seal						0.000
9		51.0	Invert	Broken Pipe	2		0.008	44	0	0.008
10		59.0	Crown	Crack-Radial	2		0.002	2	0	0.002
11		65.0	East	Pipe Seal						0.000
12		67.0	Quad 3 / L-Lt	Broken Pipe	5		0.060	100	0	0.060
13		68.0	West	Break-In Conn	1		0.001	0	0	0.001
			1746 S. ST FRANCIS.							
14		72.0	Crown	Crack-Radial	3		0.004	5	0	0.004
15		82.0	Quad 3 / L-Lt	Crack-Radial	2		0.002	2	0	0.002
16		85.0	Quad 3 / L-Lt	Crack-Radial	1		0.001	1	0	0.001
17		88.0	Quad 3 / L-Lt	Broken Pipe	5		0.060	100	0	0.060
18		90.0	Crown	Crack-Radial	3		0.004	5	0	0.004
19		91.0	East	Wye Service	1		0.000	0	0	0.000
			1745 S. SANTE FE.							
20		92.0	Crown	Crack-Radial	3		0.004	5	0	0.004
21		94.0	West	Pipe Seal						0.000
22		117.0	East	Pipe Seal						0.000
23		119.0	West	Wye Service	1		0.000	0	0	0.000
			1754 S. ST FRANCIS. / roots inside							
24		120.0	Crown	Broken Pipe	3		0.010	60	0	0.010
25		124.0	Crown	Broken Pipe	3		0.010	60	0	0.010
26		128.0	Crown	Crack-Radial	3		0.004	5	0	0.004
27		130.0	Crown	Crack-Radial	3		0.004	5	0	0.004
28		136.0	Quad 3 / L-Lt	Crack-Radial	2		0.002	2	0	0.002
29		142.0	East	Break-In Conn	3		0.004	2	0	0.004
			1747 S. SANTE FE.							
30		145.0	West	Pipe Seal						0.000
31		156.0	Quad 1 / U-Rt	Crack-Radial	1		0.001	1	0	0.001
32		161.0	Quad 3 / L-Lt	Crack-Radial	2		0.002	2	0	0.002
33		167.0	Quad 3 / L-Lt	Broken Pipe	2		0.008	44	0	0.008

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# Television Inspection Master Report

11/24/2003  
12:34:44PM

US Manhole: 5545-288      1741 S SANTA FE AVE      Date Insp: 2/13/2002      Basin: C05D  
DS Manhole: 5545-287      1803 S SANTA FE AVE

34	168.0	East	Wye Service	3	0.000	2	0	0.000
	620 E. FUNSTON. / roots inside							
35	169.0	Quad 3 / L-Lt	Crack-Radial	1	0.001	1	0	0.001
36	171.0	West	Wye Service	3	0.000	2	0	0.000
	1758 S. ST. FRANCIS. / roots inside							
37	177.0	Quad 3 / L-Lt	Crack-Radial	1	0.001	1	0	0.001
38	179.0	Crown	Crack-Radial	2	0.002	2	0	0.002
39	184.0	Quad 3 / L-Lt	Crack-Radial	2	0.002	2	0	0.002
40	187.0	Quad 1 / U-Rt	Crack-Radial	3	0.004	5	0	0.004
41	189.0	Quad 1 / U-Rt	Crack-Radial	2	0.002	2	0	0.002
42	192.0	Quad 2 / L-Rt	Broken Pipe	3	0.010	60	0	0.010
43	195.0	Crown	Crack-Radial	3	0.004	5	0	0.004
44	198.0	DS Manhole						0.000

# Television Inspection Master Report

11/24/2003  
12:34:44PM  
C05D

US Manhole: 5545-287  
DS Manhole: 5545-286

1803 S SANTA FE AVE  
1821 S SANTA FE AVE

Date Insp: 2/14/2002

Basin:

Dir Televised: Upstream To Downstream

## Pipe Information

Shape:	Round	Length Status:		Project No.:	B-103
Dia/Ht Width:	8	Material:	VCP	Index:	
Length:	240.2	Slope:	0.150	Surface:	
Pipe Sec Length:		Comment:			

Obs. #	VTR Counter	Dist	Location	Description	Rating	Obsrvd (gpm)	Est. (gpm)	Ratings Struct	Clean	Remain (gpm)
1		0.0	US Manhole							
2		3.0	Quad 1 / U-Rt	Crack-Horizontal	3		0.004	5	0	0.004
3		8.0	Quad 2 / L-Rt	Broken Pipe	5		0.060	100	0	0.060
4		10.0	Quad 3 / L-Lt	Crack-Radial	2		0.002	2	0	0.002
5		12.0	Crown	Crack-Radial	3		0.004	5	0	0.004
6		18.0	Quad 2 / L-Rt	Crack-Radial	2		0.002	2	0	0.002
7		18.0	Crown	Crack-Radial	2		0.002	2	0	0.002
8		23.0	Crown	Crack-Radial	3		0.004	5	0	0.004
9		25.0	Quad 3 / L-Lt	Crack-Radial	2		0.002	2	0	0.002
10		38.0	Quad 1 / U-Rt	Crack-Radial	2		0.002	2	0	0.002
11		45.0	East	Wye Service	1		0.000	0	0	0.000
621 E. FUNSTON.										
12		47.0	West	Pipe Seal (means wye is sealed off)						0.000
13		48.0	Quad 3 / L-Lt	Crack-Radial	2		0.002	2	0	0.002
14		53.0	Quad 3 / L-Lt	Crack-Radial	2		0.002	2	0	0.002
15		56.0	Quad 2 / L-Rt	Crack-Radial	2		0.002	2	0	0.002
16		69.0	Crown	Crack-Radial	2		0.002	2	0	0.002
17		70.0	East	Wye Service	1		0.000	0	0	0.000
1803 S. SANTE FE.										
18		73.0	West	Wye Service	3		0.000	2	0	0.000
1802 S. ST. FRANCIS.										
19		74.0	East	Wye Service	3		0.000	2	0	0.000
1803 S. SANTE FE.										
20		82.0	Crown	Crack-Radial	3		0.004	5	0	0.004
21		87.0	Crown	Crack-Radial	2		0.002	2	0	0.002
22		95.0	West	Break-In Conn	4		0.008	60	0	0.008
1806 S. ST. FRANCIS.										
23		96.0	East	Pipe Seal						0.000
24		98.0	West	Pipe Seal						0.000
25		100.0	Crown	Crack-Radial	3		0.004	5	0	0.004
26		110.0	Quad 4 / U-Lt	Crack-Radial	2		0.002	2	0	0.002
27		112.0	Crown	Crack-Radial	3		0.004	5	0	0.004
28		117.0	Quad 1 / U-Rt	Crack-Radial	2		0.002	2	0	0.002
29		120.0	Crown	Crack-Radial	2		0.002	2	0	0.002
30		122.0	East	Pipe Seal						0.000
31		124.0	West	Pipe Seal						0.000
32		141.0	Quad 2 / L-Rt	Crack-Radial	2		0.002	2	0	0.002
33		147.0	East	Pipe Seal						0.000
34		150.0	West	Pipe Seal						0.000
35		163.0	Crown	Crack-Radial	3		0.004	5	0	0.004
36		173.0	East	Wye Service	3		0.000	2	0	0.000
1813 S. SANTE FE.										

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# Television Inspection Master Report

11/24/2003  
12:34:44PM  
C05D

US Manhole: 5545-287  
DS Manhole: 5545-286

1803 S SANTA FE AVE  
1821 S SANTA FE AVE

Date Insp: 2/14/2002

Basin:

37	175.0	West	Break-In Conn	1	0.001	0	0	0.001
	1810 S. ST FRANCIS.							
38	184.0	Quad 1 / U-Rt	Crack-Radial	1	0.001	1	0	0.001
39	198.0	East	Pipe Seal					0.000
40	199.0	Crown	Crack-Radial	2	0.002	2	0	0.002
41	201.0	West	Pipe Seal					0.000
42	205.0	Quad 3 / L-Lt	Crack-Radial	2	0.002	2	0	0.002
43	207.0	Quad 3 / L-Lt	Broken Pipe	5	0.060	100	0	0.060
44	222.0	Quad 3 / L-Lt	Crack-Radial	2	0.002	2	0	0.002
45	224.0	East	Break-In Conn	1	0.001	0	0	0.001
	1817 S. SANTE FE.							
46	226.0	West	Break-In Conn	1	0.001	0	0	0.001
	1814 S. ST FRANCIS.							
47	238.0	Quad 3 / L-Lt	Broken Pipe	5	0.060	100	0	0.060
48	241.0	DS Manhole						0.000

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# Television Inspection Master Report

11/24/2003  
12:34:44PM

US Manhole: 5545-286  
DS Manhole: 5545-285

1821 S SANTA FE AVE  
1845 S SANTA FE AVE

Date Insp: 2/14/2002

Basin: C05D

Dir Televised: Upstream To Downstream

## Pipe Information

Shape:	Round	Length Status:	Project No.:	B-103
Dia/Ht Width:	8 0	Material:	VCP	Index:
Length:	221.0	Slope:	0.149	Surface:
Pipe Sec Length:	Comment:			

Obs. #	VTR Counter	Dist	Location	Description	Rating	Obsrvd (gpm)	Est. (gpm)	Ratings Struct	Clean	Remain (gpm)
1		0.0	US Manhole							
2		9.0	East	Pipe Seal						
3		12.0	West	Pipe Seal						
4		35.0	East	Break-In Conn	1		0.001	0	0	0.001
1821 S. SANTE FE.										
5		37.0	West	Break-In Conn	1		0.001	0	0	0.001
1818 S. ST. FRANCIS.										
6		44.0	Quad 3 / L-Lt	Crack-Radial	2		0.002	2	0	0.002
7		46.0	Quad 3 / L-Lt	Crack-Radial	1		0.001	1	0	0.001
8		60.0	East	Pipe Seal						0.000
9		62.0	Quad 2 / L-Rt	Broken Pipe	5		0.060	100	0	0.060
10		63.0	West	Pipe Seal						0.000
11		81.0	Quad 1 / U-Rt	Crack-Radial	1		0.001	1	0	0.001
12		85.0	Quad 3 / L-Lt	Broken Pipe	3		0.010	60	0	0.010
13		87.0	East	Wye Service	1		0.000	0	0	0.000
1823 S. SANTE FE.										
14		88.0	Crown	Broken Pipe	3		0.010	60	0	0.010
15		90.0	West	Wye Service	1		0.000	0	0	0.000
1822 S, ST.FRANCIS.										
16		98.0	Crown	Crack-Radial	2		0.002	2	0	0.002
17		113.0	East	Pipe Seal						0.000
18		115.0	West	Pipe Seal						0.000
19		132.0	Quad 1 / U-Rt	Crack-Radial	1		0.001	1	0	0.001
20		138.0	East	Pipe Seal						0.000
21		139.0	Crown	Crack-Radial	2		0.002	2	0	0.002
22		141.0	West	Break-In Conn	4					0.000
1826 S.ST.FRANCIS.										
23		142.0	Quad 2 / L-Rt	Crack-Radial	1		0.001	1	0	0.001
24		145.0	Quad 2 / L-Rt	Crack-Radial	1		0.001	1	0	0.001
25		155.0	Quad 4 / U-Lt	Crack-Radial	1		0.001	1	0	0.001
26		160.0	Quad 3 / L-Lt	Crack-Radial	1		0.001	1	0	0.001
27		163.0	Crown	Crack-Radial	2		0.002	2	0	0.002
28		164.0	East	Pipe Seal						0.000
29		167.0	West	Pipe Seal						0.000
30		168.0	Quad 1 / U-Rt	Crack-Radial	2		0.002	2	0	0.002
31		170.0	East	Wye Service	1		0.000	0	0	0.000
1835 S. SANTE FE.										
32		170.0	Quad 3 / L-Lt	Crack-Radial	1		0.001	1	0	0.001
33		178.0	Crown	Crack-Radial	3		0.004	5	0	0.004
34		183.0	Quad 3 / L-Lt	Crack-Radial	1		0.001	1	0	0.001
35		186.0	Quad 2 / L-Rt	Crack-Radial	1		0.001	1	0	0.001

# Television Inspection Master Report

11/24/2003  
12:34:44PM

US Manhole:	5545-286	1821 S SANTA FE AVE	Date Insp:	2/14/2002	Basin:	C05D		
DS Manhole:	5545-285	1845 S SANTA FE AVE						
36	190.0	East	Wye Service	3	0.000	2	0	0.000
	1837 S. SANTE FE. / full of roots							
37	191.0	Crown	Broken Pipe	5	0.060	100	0	0.060
38	192.0	West	Break-In Conn	5				
	1830 S. ST. FRANCIS. / roots around the tap							
39	196.0	Quad 1 / U-Rt	Crack-Radial	1	0.001	1	0	0.001
40	199.0	Quad 3 / L-Lt	Crack-Radial	1	0.001	1	0	0.001
41	204.0	Quad 1 / U-Rt	Crack-Radial	1	0.001	1	0	0.001
42	211.0	Quad 3 / L-Lt	Crack-Radial	2	0.002	2	0	0.002
43	215.0	East	Wye Service	2	0.000	0	0	0.000
	1845 S. SANTE FE.							
44	217.0	Quad 1 / U-Rt	Crack-Radial	1	0.001	1	0	0.001
45	218.0	West	Wye Service	3	0.000	2	0	0.000
	1842 S. ST. FRANCIS.							
46	219.0	Quad 1 / U-Rt	Crack-Radial	1	0.001	1	0	0.001
47	222.0	Quad 3 / L-Lt	Crack-Radial	1	0.001	1	0	0.001
48	225.0	DS Manhole						0.000

4-10

# Television Inspection Master Report

11/24/2003  
12:34:44PM  
C05D

US Manhole: 5545-285      1845 S SANTA FE AVE  
DS Manhole: 5545-284      1903 S SANTA FE AVE

Date Insp: 2/14/2002      Basin:

Dir Televised: Upstream To Downstream

## Pipe Information

Shape: Round      Length Status:      Project No.: B-103  
Dia/Ht Width: 8      Material: VCP      Index:  
Length: 201.5      Slope: 0.153      Surface:  
Pipe Sec Length:      Comment:

Obs. #	VTR Counter Comment	Dist	Location	Description	Rating	Obsrvd (gpm)	Est. (gpm)	Ratings		
								Struct	Clean	Remain (gpm)
1		0.0	US Manhole 5545-285							
2		6.0	Crown	Broken Pipe	3		0.010	60	0	0.010
3		10.0	Crown	Broken Pipe	3		0.010	60	0	0.010
4		13.0	Quad 2 / L-Rt	Broken Pipe	5		0.060	100	0	0.060
5		15.0	Quad 1 / U-Rt	Broken Pipe	2		0.008	44	0	0.008
6		15.0	Quad 3 / L-Lt	Broken Pipe	5		0.060	100	0	0.060
7		16.0	East	Pipe Seal						0.000
8		18.0	Quad 3 / L-Lt	Crack-Radial	2		0.002	2	0	0.002
9		19.0	West	Pipe Seal						0.000
10		20.0	Crown	Broken Pipe	5		0.060	100	0	0.060
11		23.0	Quad 1 / U-Rt	Broken Pipe	5		0.060	100	0	0.060
12		25.0	Quad 3 / L-Lt	Broken Pipe	3		0.010	60	0	0.010
13		28.0	Quad 1 / U-Rt	Broken Pipe	5		0.060	100	0	0.060
14		31.0	Quad 3 / L-Lt	Broken Pipe	3		0.010	60	0	0.010
15		36.0	Quad 1 / U-Rt	Broken Pipe	5		0.060	100	0	0.060
16		39.0	Quad 2 / L-Rt	Broken Pipe	5		0.060	100	0	0.060
17		42.0	East	Pipe Seal						0.000
18		43.0	Quad 4 / U-Lt	Crack-Radial	1		0.001	1	0	0.001
19		44.0	West	Pipe Seal						0.000
20		45.0	West (extended tap)	Break-In Conn	5		0.010	400	0	0.010

WE ARE NOT ABLE TO GET THE CAMERA PAST THE EXTENED TAP AT THIS POINT. WE WILL REVERSE OUR SET-UP.

**NOTE:** Contractor shall blade down the extended tap prior to liner installation (or have the tap replaced). Cost incidental.

4-11

# Television Inspection Master Report

11/24/2003  
12:34:44PM

US Manhole: 5545-285  
DS Manhole: 5545-284

1845 S SANTA FE AVE  
1903 S SANTA FE AVE

Date Insp: 2/14/2002

Basin: C05D

Dir Televised: Downstream To Upstream

## REVERSE SETUP:

Obs. #	VTR Counter Comment	Dist	Location	Description	Rating	Obsrvd (gpm)	Est. (gpm)	Ratings Struct	Clean	Remain (gpm)	
1		0.0	DS Manhole	5545-284 / TV AGAINST THE FLOW (WE ARE TELEVISIONING FROM THE DOWNSTREAM M.H. 5545-284. TO APPROX 157 FT NORTH )							
2		10.0	Quad 3 / L-Lt	Broken Pipe	5		0.060	100	0	0.060	
3		15.0	Quad 2 / L-Rt	Broken Pipe	5		0.060	100	0	0.060	
4		19.0	Quad 3 / L-Lt	Crack-Radial	1		0.001	1	0	0.001	
5		22.0	Crown	Crack-Radial	3		0.004	5	0	0.004	
6		24.0	Crown	Crack-Radial	2		0.002	2	0	0.002	
7		32.0	West	Pipe Seal							
8		35.0	East	Break-In Conn	3		0.004	2	0	0.004	
	620 E. SKINNER										
9		40.0	Quad 4 / U-Lt	Crack-Radial	1		0.001	1	0	0.001	
10		50.0	Quad 3 / L-Lt	Crack-Radial	2		0.002	2	0	0.002	
11		53.0	Quad 1 / U-Rt	Crack-Radial	2		0.002	2	0	0.002	
12		58.0	Quad 2 / L-Rt	Crack-Radial	1		0.001	1	0	0.001	
13		58.0	West	Break-In Conn	1		0.001	0	0	0.001	
	1858 S. SANTE FE.										
14		60.0	East	Wye Service	1		0.000	0	0	0.000	
	620 E. SKINNER.										
15		68.0	Quad 2 / L-Rt	Crack-Radial	2		0.002	2	0	0.002	
16		84.0	West	Break-In Conn	1		0.001	0	0	0.001	
	1852 S. ST. FRANCIS.										
17		86.0	East	Break-In Conn	1		0.001	0	0	0.001	
	1852 S. ST. FRANCIS.										
18		89.0	Quad 2 / L-Rt	Broken Pipe	5		0.060	100	0	0.060	
19		94.0	Quad 2 / L-Rt	Crack-Radial	1		0.001	1	0	0.001	
20		107.0	Quad 3 / L-Lt	Crack-Radial	1		0.001	1	0	0.001	
21		109.0	West	Pipe Seal						0.000	
22		109.0	Quad 1 / U-Rt	Broken Pipe	3		0.010	60	0	0.010	
23		112.0	East	Pipe Seal						0.000	
24		112.0	Crown	Broken Pipe	2		0.008	44	0	0.008	
25		125.0	Quad 2 / L-Rt	Crack-Radial	1		0.001	1	0	0.001	
26		135.0	West	Pipe Seal						0.000	
27		138.0	East	Wye Service	3		0.000	2	0	0.000	
	1847 S. SANTE FE.										
28		140.0	Crown	Crack-Radial	2		0.002	2	0	0.002	
29		145.0	Crown	Crack-Horizontal	3		0.004	5	0	0.004	
30		150.0	Crown	Crack-Radial	3		0.004	5	0	0.004	
31		159.0	West	Break-In Conn	5		0.010	400	0	0.010	

CAMERA BLOCKED / THIS IS WHERE WE WERE NO LONGER ABLE TO TELEVISION / SAME TAP AS LISTED ABOVE

# 4-12

# Television Inspection Master Report

11/24/2003  
12:34:44PM

US Manhole: 5545-284 1903 S SANTA FE AVE Date Insp: 2/14/2002 Basin: C05D  
DS Manhole: 5545-283 1919 S SANTA FE AVE

Dir Televised: Upstream To Downstream

## Pipe Information

Shape: Round Length Status: Project No.: B-103  
Dia/Ht Width: 8 Material: VCP Index:  
Length: 242.2 Slope: 0.149 Surface:  
Pipe Sec Length: Comment:

Obs. #	VTR Counter	Dist	Location	Description	Rating	Obsrvd (gpm)	Est. (gpm)	Ratings Struct	Clean	Remain (gpm)
1		0.0	US Manhole							
2		8.0	Quad 3 / L-Lt	Broken Pipe	3		0.010	60	0	0.010
3		8.0	Quad 1 / U-Rt	Crack-Horizontal	3		0.004	5	0	0.004
4		10.0	Quad 1 / U-Rt	Crack-Radial	2		0.002	2	0	0.002
5		13.0	Quad 3 / L-Lt	Crack-Radial	2		0.002	2	0	0.002
6		15.0	Crown	Broken Pipe	3		0.010	60	0	0.010
7		23.0	Quad 3 / L-Lt	Crack-Radial	2		0.002	2	0	0.002
8		25.0	Quad 3 / L-Lt	Broken Pipe	5		0.060	100	0	0.060
9		38.0	Quad 2 / L-Rt	Broken Pipe	4		0.030	78	0	0.030
10		43.0	Crown	Crack-Radial	2		0.002	2	0	0.002
11		45.0	Quad 3 / L-Lt	Crack-Radial	2		0.002	2	0	0.002
12		48.0	Quad 3 / L-Lt	Broken Pipe	3		0.010	60	0	0.010
13		51.0	Crown	Crack-Radial	3		0.004	5	0	0.004
14		52.0	East	Pipe Seal						0.000
15		53.0	Crown	Broken Pipe	3		0.010	60	0	0.010
16		54.0	West	Wye Service	1		0.000	0	0	0.000
1902 S. ST.FRANCIS.										
17		56.0	Quad 3 / L-Lt	Broken Pipe	3		0.010	60	0	0.010
18		58.0	Quad 1 / U-Rt	Crack-Radial	2		0.002	2	0	0.002
19		63.0	Crown	Crack-Radial	3		0.004	5	0	0.004
20		66.0	Crown	Crack-Radial	3		0.004	5	0	0.004
21		77.0	East	Wye Service	3		0.000	2	0	0.000
1903 S. SANTE FE. / full of roots										
22		80.0	West	Pipe Seal						0.000
23		84.0	Quad 3 / L-Lt	Broken Pipe	3		0.010	60	0	0.010
24		103.0	East	Wye Service	1		0.000	0	0	0.000
1907 S. SANTE FE.										
25		106.0	West	Pipe Seal						0.000
26		107.0	Quad 3 / L-Lt	Broken Pipe	3		0.010	60	0	0.010
27		120.0	Quad 3 / L-Lt	Broken Pipe	3		0.010	60	0	0.010
28		122.0	Quad 3 / L-Lt	Broken Pipe	3		0.010	60	0	0.010
29		128.0	Quad 1 / U-Rt	Crack-Radial						0.000
30		129.0	East	Pipe Seal						
31		130.0	Quad 2 / L-Rt	Crack-Radial	1		0.001	1	0	0.001
32		132.0	West	Break-In Conn	1		0.001	0	0	0.001
1908 S. ST. FRANCIS.										
33		135.0	Quad 3 / L-Lt	Crack-Radial	2		0.002	2	0	0.002
34		138.0	Crown	Crack-Radial	3		0.004	5	0	0.004
35		153.0	Crown	Crack-Radial	2		0.002	2	0	0.002
36		155.0	East	Wye Service	1		0.000	0	0	0.000
1913 S. SANTE FE.										
37		156.0	West	Break-In Conn	4		0.008	60	0	0.008
1910 S. ST. FRANCIS.										

4-13

# Television Inspection Master Report

11/24/2003  
12:34:44PM

US Manhole: 5545-284 1903 S SANTA FE AVE Date Insp: 2/14/2002 Basin: C05D  
DS Manhole: 5545-283 1919 S SANTA FE AVE

38	157.0	West	Pipe Seal						0.000
39	166.0	Quad 2 / L-Rt	Crack-Radial	2	0.002	2	0	0.002	
40	169.0	Crown	Crack-Radial	3	0.004	5	0	0.004	
41	171.0	Crown	Crack-Radial	3	0.004	5	0	0.004	
42	177.0	Quad 3 / L-Lt	Broken Pipe					0.000	
43	179.0	Quad 1 / U-Rt	Crack-Radial	2	0.002	2	0	0.002	
44	181.0	East	Pipe Seal					0.000	
45	183.0	West	Pipe Seal					0.000	
46	184.0	Crown	Crack-Radial	1	0.001	1	0	0.001	
47	203.0	Quad 3 / L-Lt	Broken Pipe	5	0.060	100	0	0.060	
48	205.0	Crown	Broken Pipe	2	0.008	44	0	0.008	
49	206.0	East	Wye Service	3	0.000	2	0	0.000	
	1915 S. SANTE FE.								
50	209.0	West	Wye Service	1	0.000	0	0	0.000	
	1918 S. ST. FRANCIS.								
51	213.0	Quad 4 / U-Lt	Crack-Radial	1	0.001	1	0	0.001	
52	215.0	Quad 4 / U-Lt	Crack-Radial	1	0.001	1	0	0.001	
53	230.0	Crown	Crack-Radial	1	0.001	1	0	0.001	
54	232.0	East	Pipe Seal					0.000	
55	234.0	West	Pipe Seal					0.000	
56	236.0	Quad 3 / L-Lt	Broken Pipe	5	0.060	100	0	0.060	
57	238.0	Crown	Crack-Radial	3	0.004	5	0	0.004	
58	244.0	DS Manhole						0.000	

4-14

# Television Inspection Master Report

11/24/2003  
12:34:44PM

US Manhole: 5545-283 1919 S SANTA FE AVE  
DS Manhole: 5545-282 2333 S SANTA FE AVE

Dir Televised: Downstream To Upstream

## Pipe Information

Shape: Round Length Status: Project No.: B-103  
Dia/Ht Width: 8 Material: VCP Index:  
Length: 208.2 Slope: 0.149 Surface:  
Pipe Sec Length: Comment:

Obs. #	VTR Counter	Dist	Location	Description	Rating	Obsrvd (gpm)	Est. (gpm)	Ratings Struct	Clean	Remain (gpm)
1		0.0	DS Manhole	5545-282 / TV AGAINST THE FLOW						
2		7.0	Quad 2 / L-Rt	Broken Pipe	5		0.060	100	0	0.060
3		9.0	Quad 3 / L-Lt	Broken Pipe	3		0.010	60	0	0.010
4		14.0	Crown	Crack-Horizontal	2		0.002	2	0	0.002
5		17.0	West	Pipe Seal						0.000
6		19.0	East	Wye Service	1		0.000	0	0	0.000
1939 S. SANTE FE.										
7		19.0	Quad 3 / L-Lt	Crack-Radial	1		0.001	1	0	0.001
8		22.0	Quad 2 / L-Rt	Broken Pipe	5		0.060	100	0	0.060
9		24.0	Quad 3 / L-Lt	Crack-Radial	3		0.004	5	0	0.004
10		32.0	Crown	Crack-Radial	2		0.002	2	0	0.002
11		43.0	West	Pipe Seal						0.000
12		45.0	East	Pipe Seal						
13		45.0	Quad 3 / L-Lt	Crack-Radial	1		0.001	1	0	0.001
14		48.0	Quad 3 / L-Lt	Broken Pipe	5		0.060	100	0	0.060
15		53.0	Quad 3 / L-Lt	Crack-Radial	1		0.001	1	0	0.001
16		66.0	Quad 2 / L-Rt	Broken Pipe	3		0.010	60	0	0.010
17		68.0	West	Wye Service	3		0.000	2	0	0.000
1934 S..ST. FRANCIS.										
18		71.0	East	Pipe Seal						0.000
19		73.0	Quad 2 / L-Rt	Broken Pipe	3		0.010	60	0	0.010
20		89.0	Quad 2 / L-Rt	Broken Pipe	5		0.060	100	0	0.060
21		94.0	West	Pipe Seal						0.000
22		94.0	East	Break-In Conn	1		0.001	0	0	0.001
1925. S. SANTE FE.										
23		96.0	East	Pipe Seal						0.000
24		102.0	Quad 3 / L-Lt	Broken Pipe	5		0.060	100	0	0.060
25		117.0	Quad 2 / L-Rt	Broken Pipe	5		0.060	100	0	0.060
26		119.0	West	Pipe Seal						0.000
27		122.0	East	Wye Service	1		0.000	0	0	0.000
1921 S. SANTE FE.										
28		122.0	Quad 2 / L-Rt	Broken Pipe	3		0.010	60	0	0.010
29		135.0	Quad 3 / L-Lt	Broken Pipe	3		0.010	60	0	0.010
30		140.0	Quad 3 / L-Lt	Broken Pipe	5		0.060	100	0	0.060
31		144.0	West	Wye Service	3		0.000	2	0	0.000
1930 S. ST. FRANCIS.										
32		145.0	Crown	Crack-Radial	2		0.002	2	0	0.002
33		147.0	East	Pipe Seal						0.000
34		147.0	Quad 3 / L-Lt	Broken Pipe	3		0.010	60	0	0.010
35		153.0	Quad 2 / L-Rt	Broken Pipe	3		0.010	60	0	0.010
36		158.0	Quad 3 / L-Lt	Broken Pipe	5		0.060	100	0	0.060
37		163.0	Crown	Broken Pipe	3		0.010	60	0	0.010

4-15

# Television Inspection Master Report

11/24/2003  
12:34:44PM

US Manhole: 5545-283 1919 S SANTA FE AVE Date Insp: 2/15/2002 Basin: C05D  
DS Manhole: 5545-282 2333 S SANTA FE AVE

38	165.0	Invert	Sag						0.000
	40% FLOW								
39	170.0	West	Pipe Seal						
40	173.0	East	Break-In Conn	3	0.004	2	0	0.004	
	1919 S. SANTE FE.								
41	173.0	Invert	Sag						0.000
	OUT OF SAG								
42	196.0	West	Wye Service	1	0.000	0	0	0.000	
	1926 S. ST. FRANCIS.								
43	196.0	Crown	Crack-Radial	2	0.002	2	0	0.002	
	198.0	East	Wye						
44	206.0	Crown	Broken Pipe	3	0.010	60	0	0.010	
45	210.0	US Manhole							0.000

NOTE: At the east wye at 198 ft, the camera did not turn to look at it.

# 4-16

# Television Inspection Master Report

11/24/2003  
12:34:44PM  
C05D

US Manhole: 5545-282  
DS Manhole: 5545-206

2333 S SANTA FE AVE  
606 E MT VERNON RD

Date Insp: 2/15/2002

Basin:

Dir Televised: Upstream To Downstream

## Pipe Information

Shape:	Round	Length Status:		Project No.:	B-103
Dia/Ht Width:	8	Material:	VCP	Index:	
Length:	211.6	Slope:	0.151	Surface:	
Pipe Sec Length:		Comment:			

Obs. #	VTR Counter	Dist	Location	Description	Rating	Obsrvd (gpm)	Est. (gpm)	Ratings Struct	Clean	Remain (gpm)
1		0.0	US Manhole							
2		5.0	Quad 3 / L-Lt	Crack-Radial	1		0.001	1	0	0.001
3		7.0	Quad 3 / L-Lt	Broken Pipe	3		0.010	60	0	0.010
4		8.0	Crown	Broken Pipe	5		0.060	100	0	0.060
5		9.0	East	Pipe Seal						0.000
6		10.0	East	Break-In Conn	4		0.008	60	0	0.008
1943 S. SANTE FE.										
7		10.0	Quad 1 / U-Rt	Broken Pipe	2		0.008	44	0	0.008
8		12.0	West	Wye Service	1		0.000	0	0	0.000
1942 S. SANTE FE.										
9		13.0	Quad 3 / L-Lt	Broken Pipe	3		0.010	60	0	0.010
10		28.0	Crown	Crack-Radial	3		0.004	5	0	0.004
11		35.0	East	Pipe Seal						0.000
12		36.0	Quad 3 / L-Lt	Broken Pipe	5		0.060	100	0	0.060
13		37.0	West	Pipe Seal						0.000
14		39.0	Quad 2 / L-Rt	Crack-Radial	2		0.002	2	0	0.002
15		53.0	Quad 3 / L-Lt	Crack-Radial	2		0.002	2	0	0.002
16		60.0	East	Wye Service	1		0.000	0	0	0.000
1949 S. SANTE FE.										
17		63.0	West	Wye Service	3		0.000	2	0	0.000
1948 S. ST. FRANCIS.										
18		74.0	East	Break-In Conn	1		0.001	0	0	0.001
1949 S. SANTE FE.										
19		77.0	Quad 2 / L-Rt	Broken Pipe	5		0.060	100	0	0.060
20		86.0	East	Pipe Seal						0.000
21		87.0	Joint	Offset	3		0.010	20	0	0.010
22		87.0	Quad 2 / L-Rt	Broken Pipe	5		0.060	100	0	0.060
23		89.0	West	Pipe Seal						0.000
24		93.0	Quad 2 / L-Rt	Crack-Radial	1		0.001	1	0	0.001
25		110.0	Quad 4 / U-Lt	Broken Pipe	3		0.010	60	0	0.010
26		112.0	East	Pipe Seal						0.000
27		114.0	West	Wye Service	3		0.000	2	0	0.000
604 E. MT VERNON.										
28		118.0	West	Break-In Conn	3		0.004	2	0	0.004
602 E. MT. VERNON.										
29		137.0	East	Pipe Seal						0.000
30		140.0	West	Pipe Seal						0.000
31		146.0	Quad 3 / L-Lt	Broken Pipe	2		0.008	44	0	0.008
32		153.0	East	Wye Service	3		0.000	2	0	0.000
1953 S. SANTE FE.										
33		153.0	Crown	Crack-Radial	3		0.004	5	0	0.004
34		154.0	Quad 2 / L-Rt	Broken Pipe	5		0.060	100	0	0.060
35		161.0	East	Break-In Conn	1		0.001	0	0	0.001
1953 S. SANTE FE.										

4-17

# Television Inspection Master Report

11/24/2003  
12:34:44PM  
C05D

US Manhole: 5545-282  
DS Manhole: 5545-206

2333 S SANTA FE AVE  
606 E MT VERNON RD

Date Insp: 2/15/2002

Basin:

36	163.0	East	Pipe Seal						0.000
37	166.0	West	Wye Service	3	0.000	2	0	0.000	0.000
606 E. MT.VERNON.									
38	177.0	Quad 1 / U-Rt	Crack-Radial	2	0.002	2	0	0.002	0.002
39	180.0	Quad 4 / U-Lt	Broken Pipe	3	0.010	60	0	0.010	0.010
40	185.0	Crown	Crack-Radial	3	0.004	5	0	0.004	0.004
41	189.0	East	Pipe Seal						
42	191.0	West	Pipe Seal						
43	205.0	Crown	Crack-Radial	3	0.004	5	0	0.004	0.004
44	210.0	Crown	Broken Pipe	3	0.010	60	0	0.010	0.010
45	212.0	DS Manhole							0.000

4-18