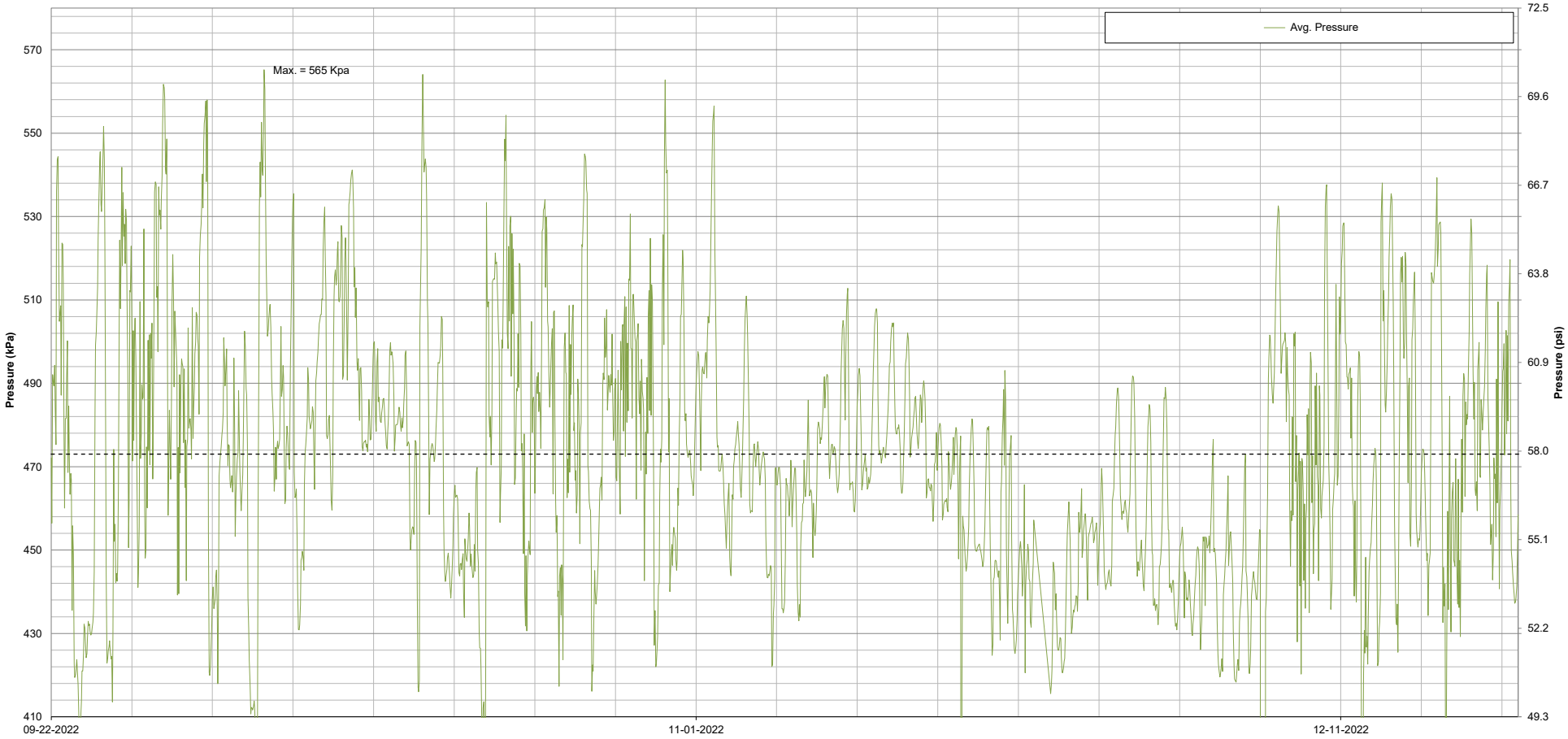
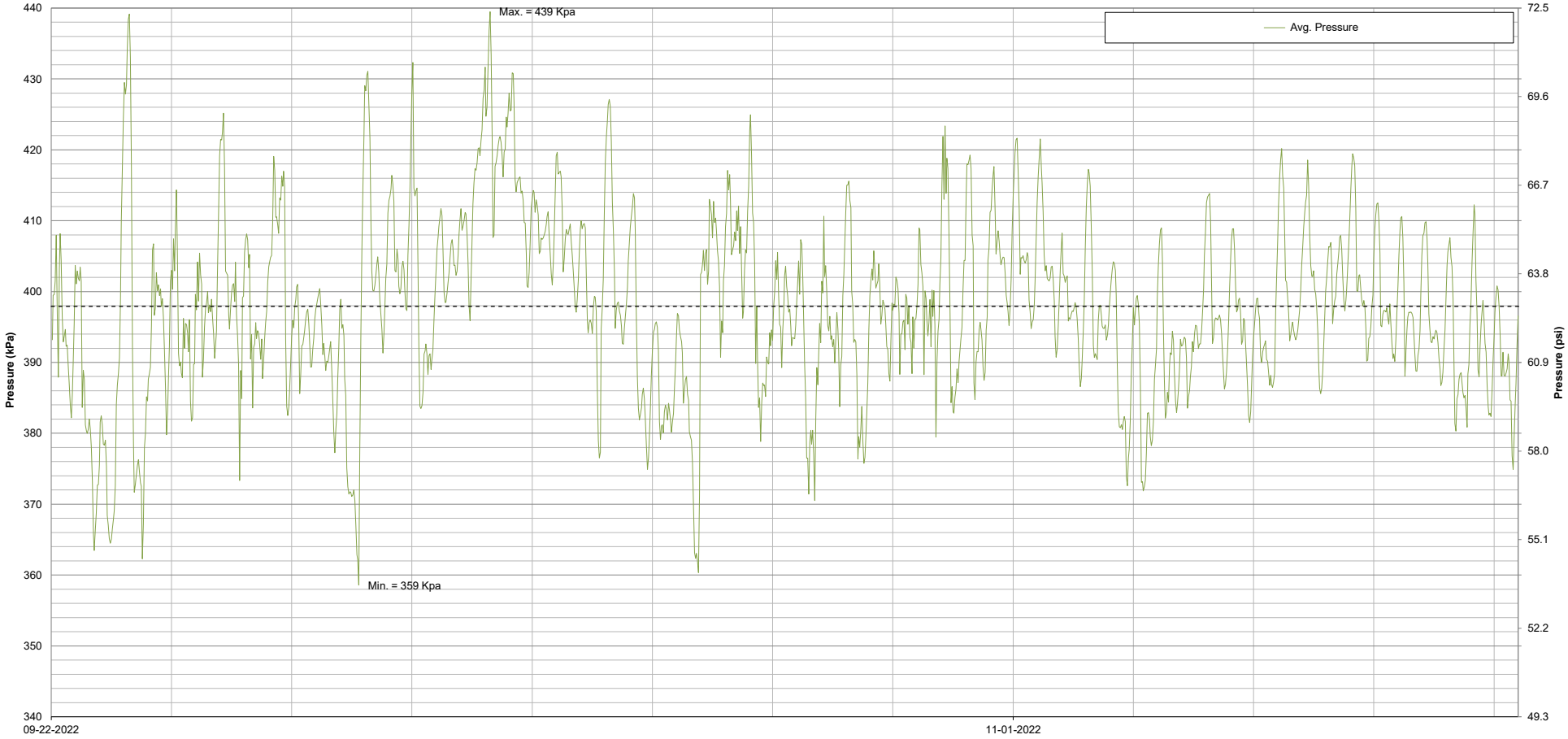
Appendix A: Field Test Results

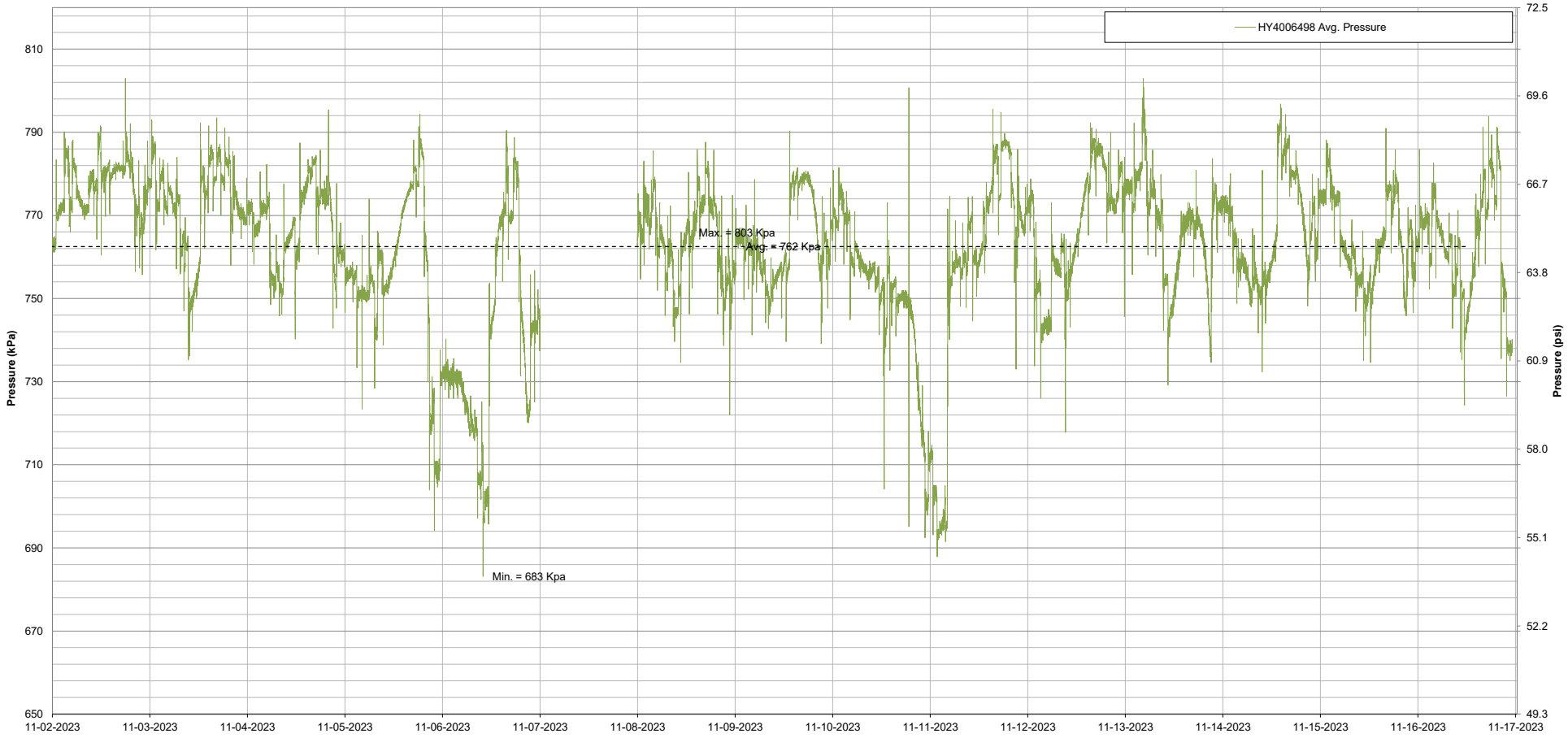
Armour Heights PS: SCADA Pressure Monitoring



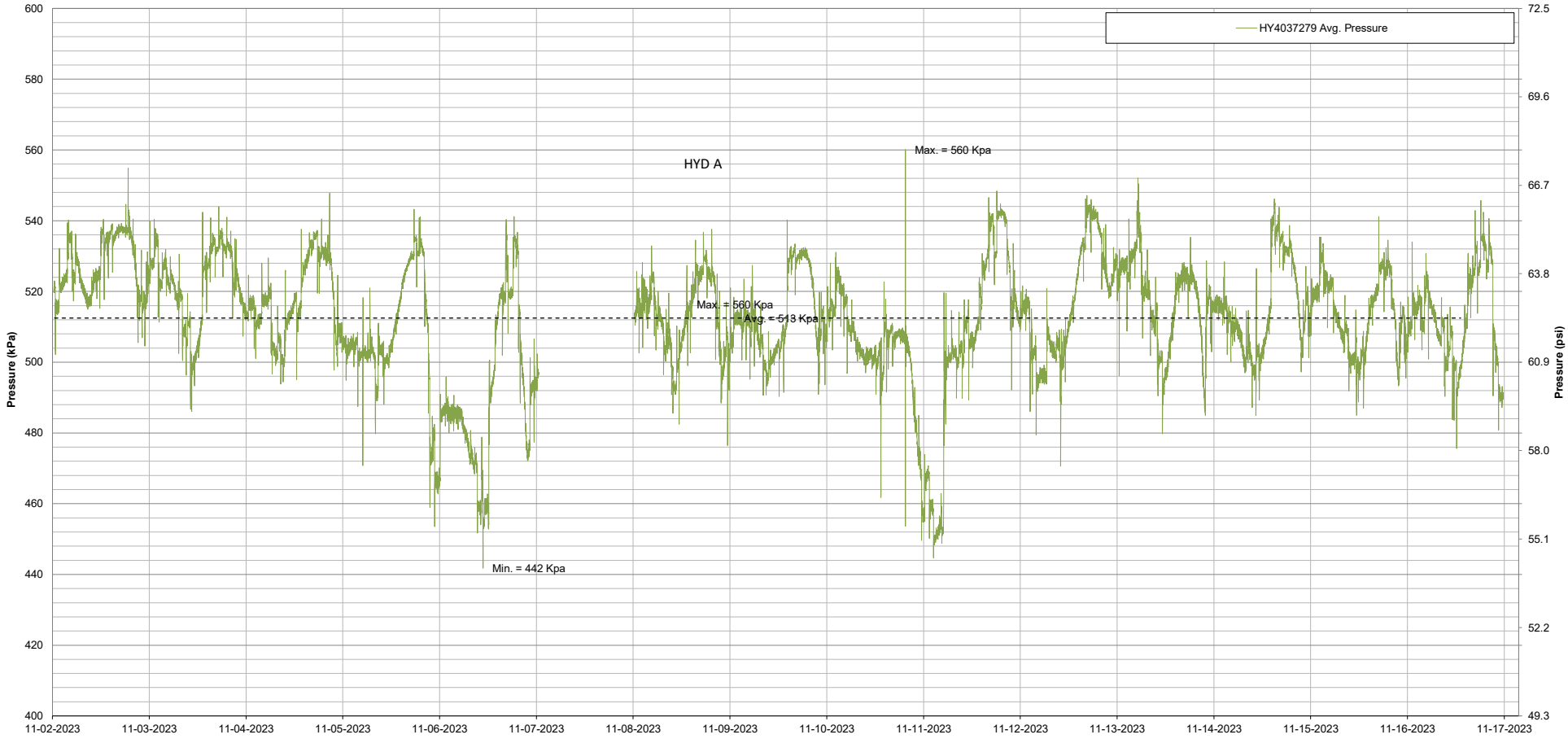
Edithvale CC Pressure Monitoring



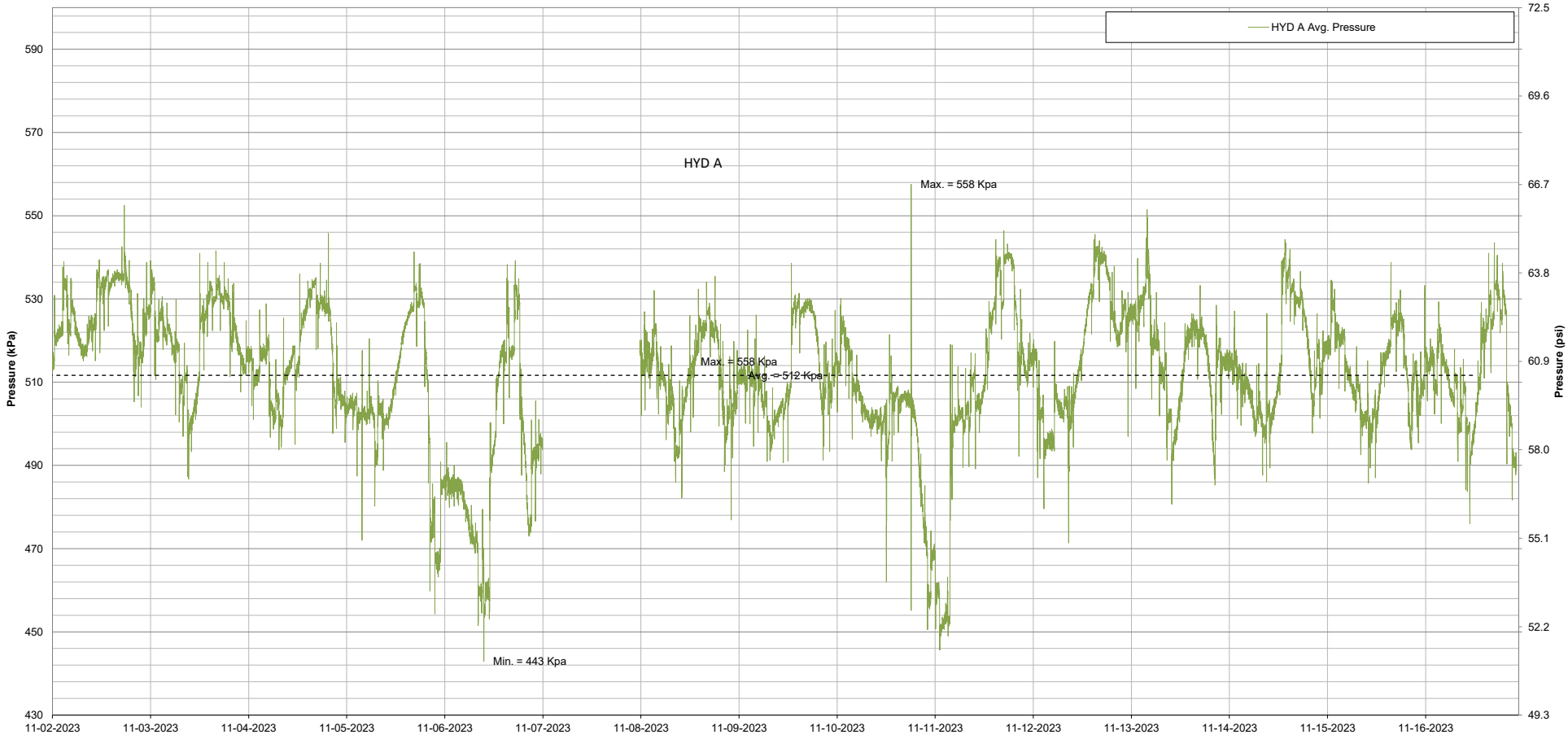
HY4006498 at Don River Ave: Pressure Monitoring (November 02 2023 to November 17 2023)



HY4037279 East of Avondale Ave. & Bales Ave. : Pressure Monitoring (November 02 2023 to November 17 2023)

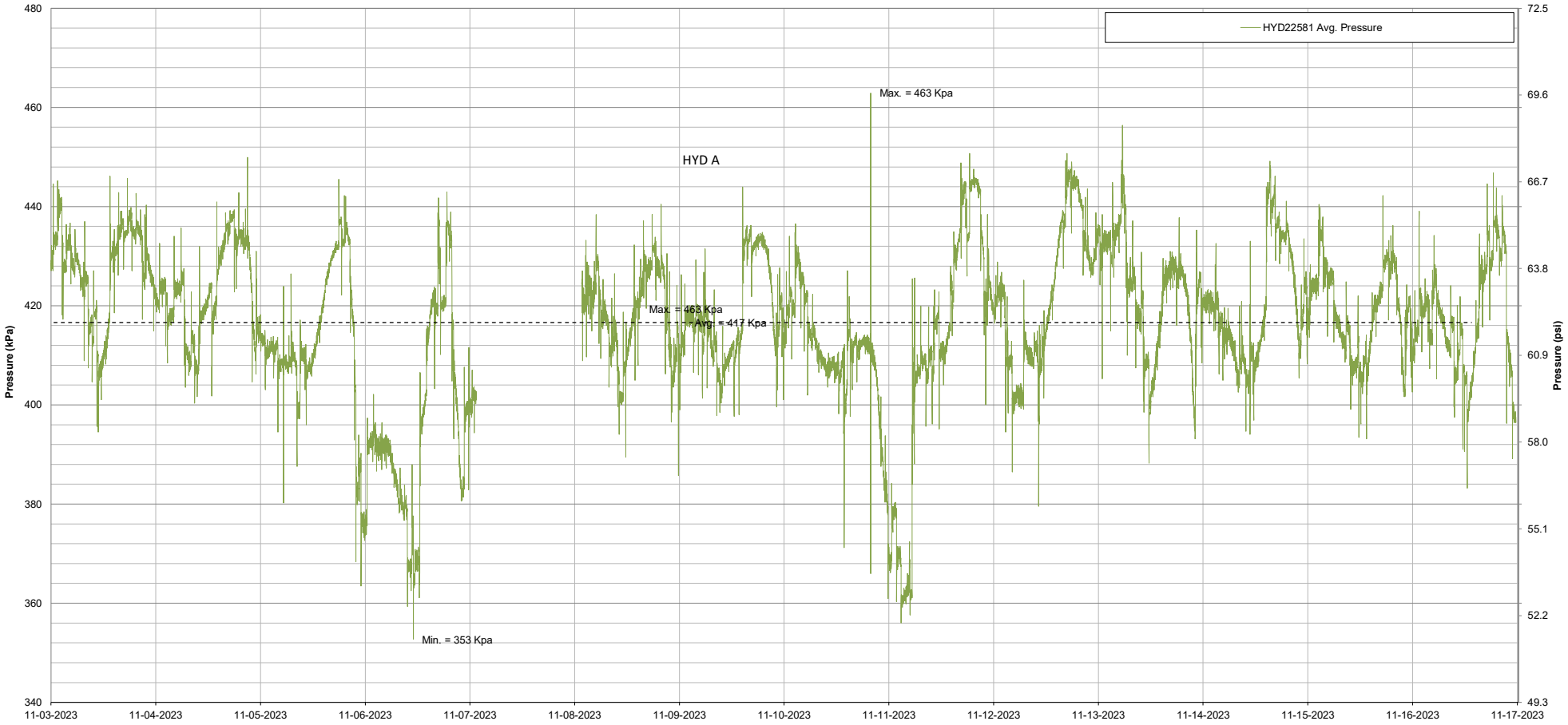


HY4032598 at Doris Ave. : Pressure Monitoring (November 02 2023 to November 17 2023)

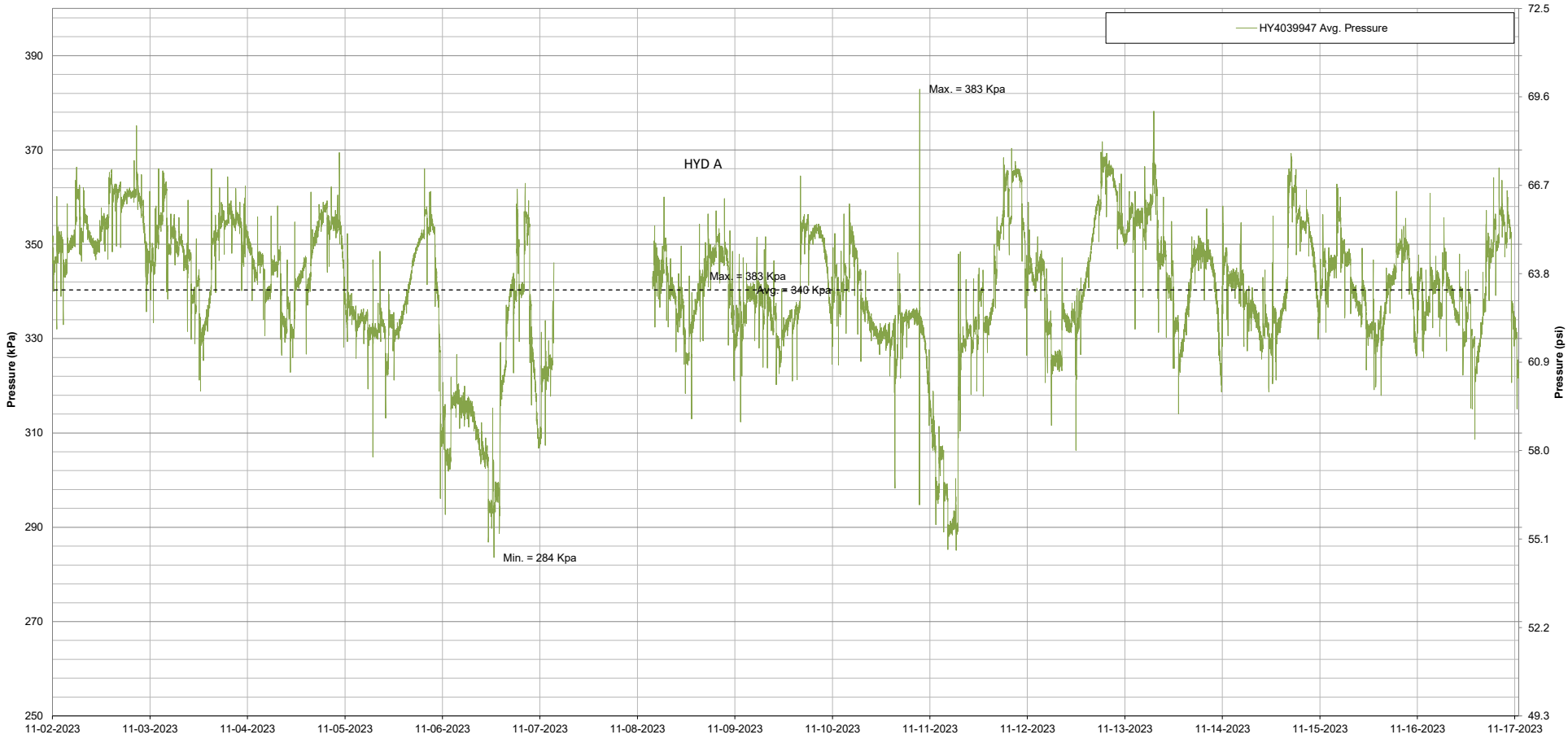


HY22581 East of Avondale Ave & Bales Ave. : Pressure Monitoring (November 03 2023 to November 17 2023)

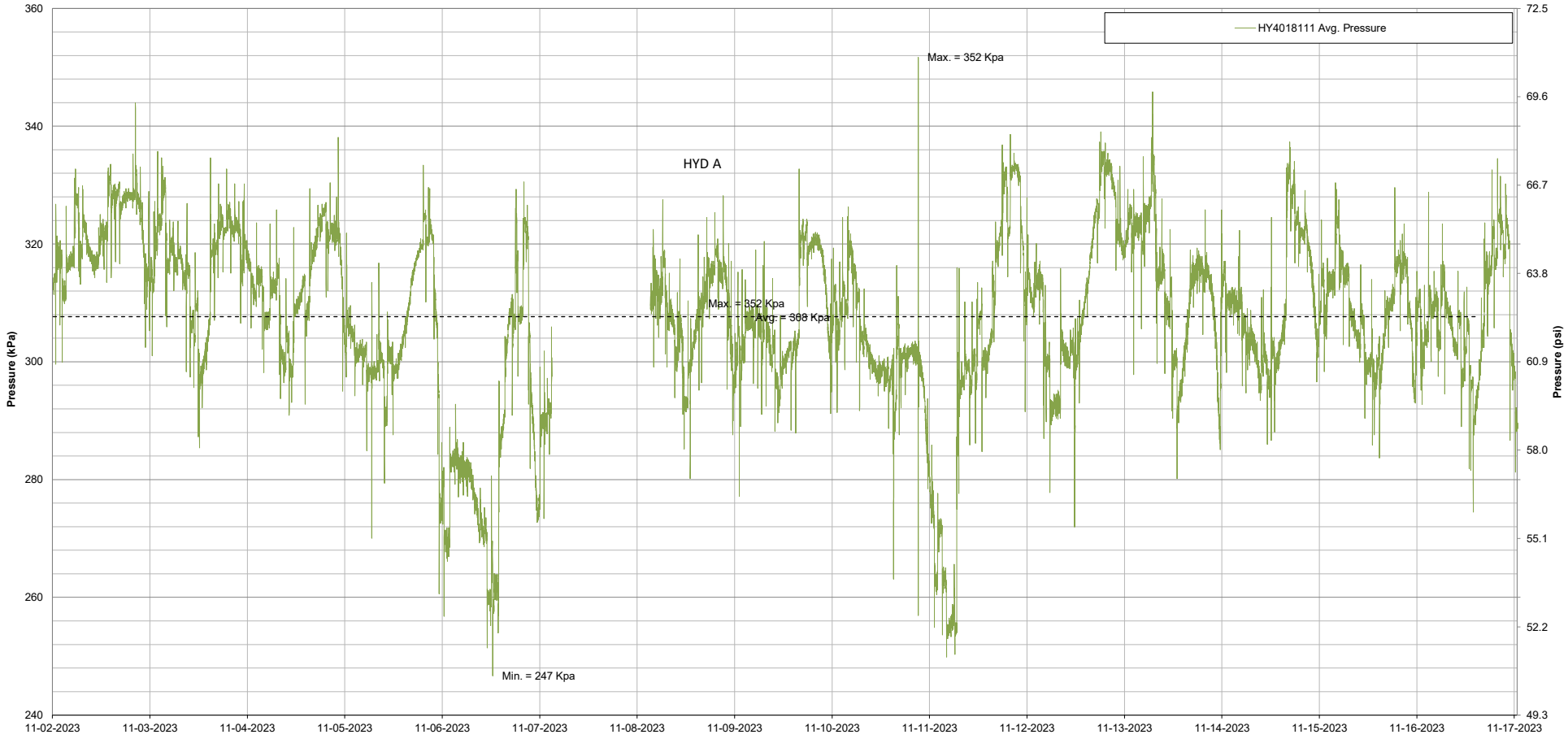
HY22581 East of Avondale Ave & Bales Ave. : Pressure Monitoring (April 09



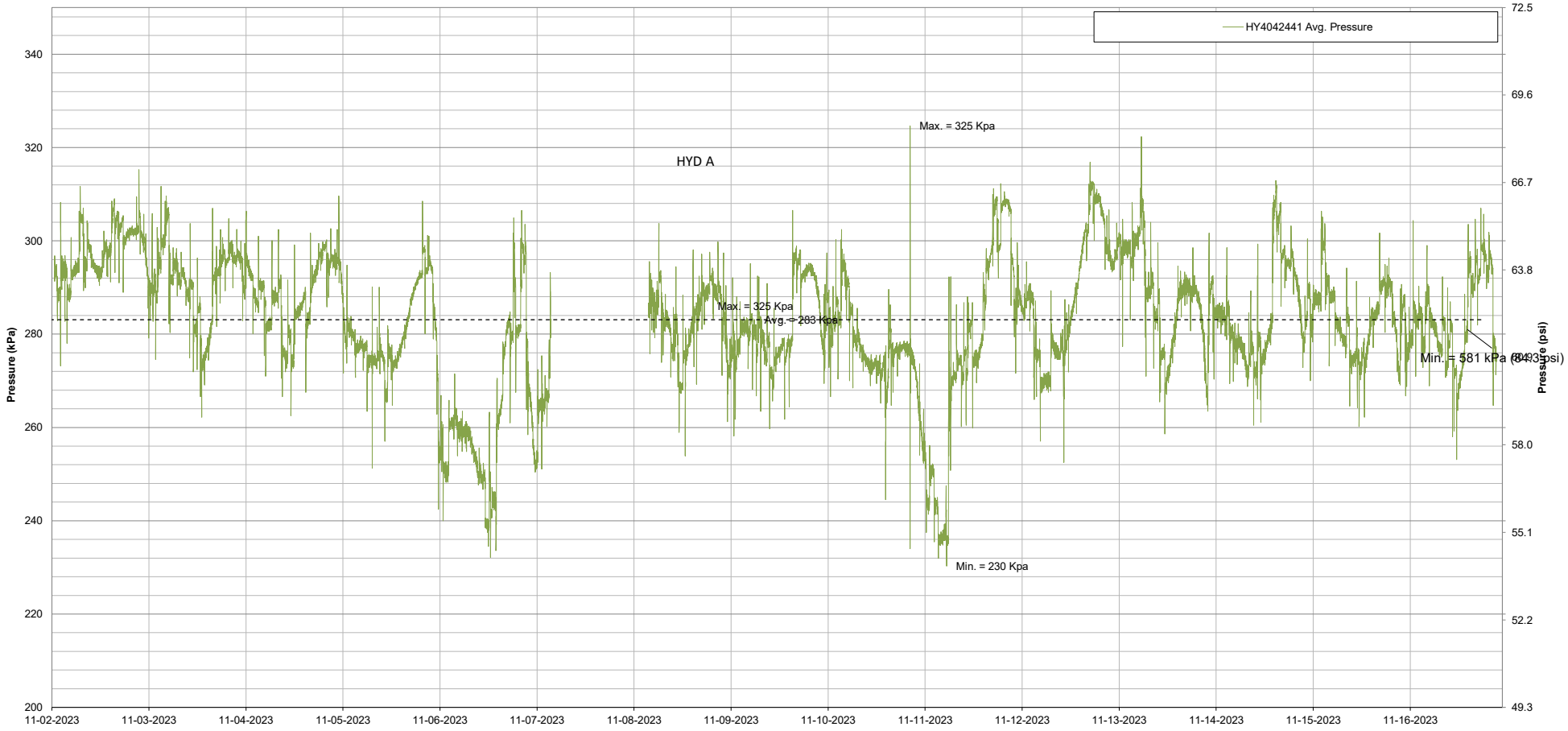
HY4039947 Northeast Corner of Yonge St. & Cummer Ave: Pressure Monitoring (November 02 2023 to November 17 2023)



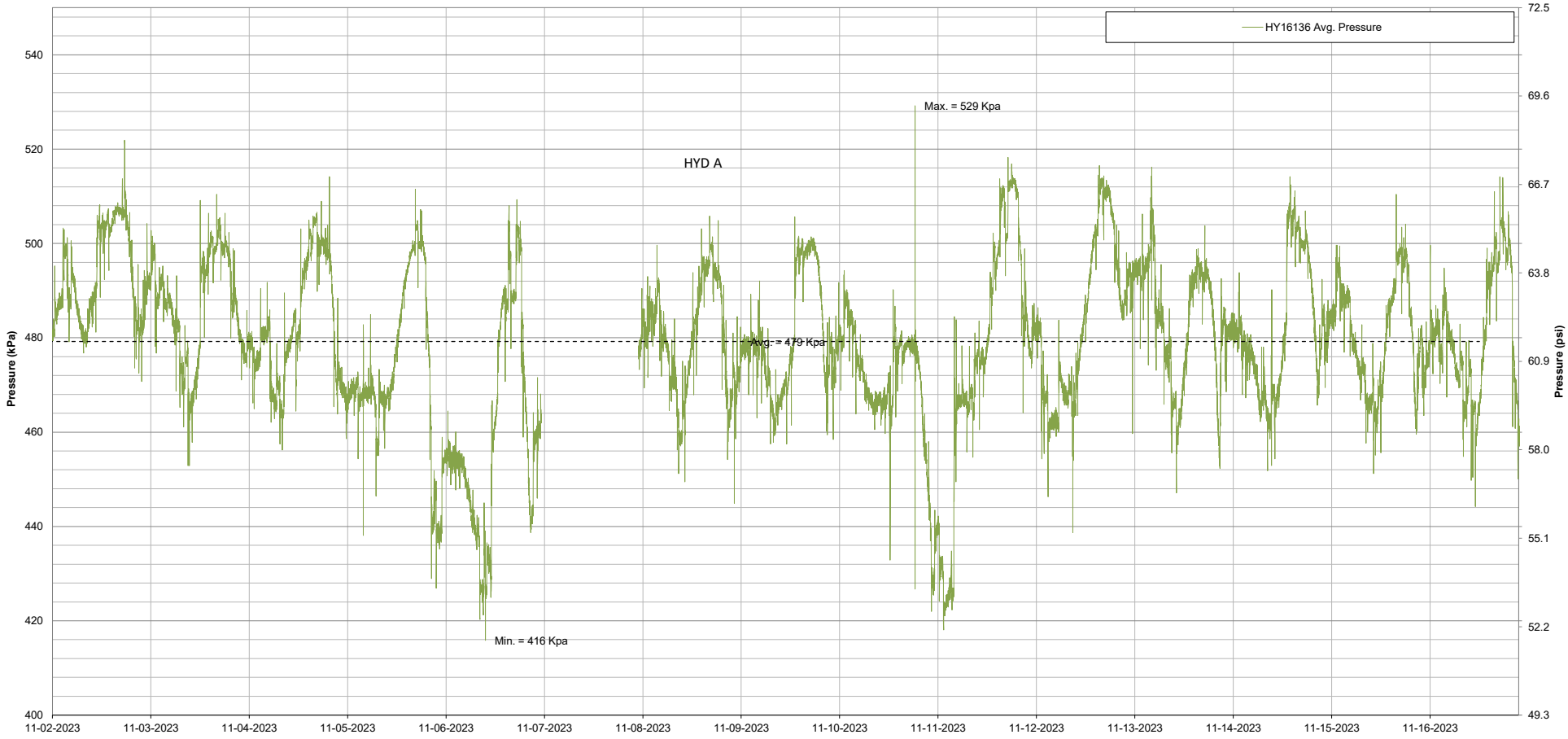
HY4018111 at Northeast Corner of Yonge St. and Finch Ave. E : Pressure Monitoring (November 02 2022 to November 17 2023)



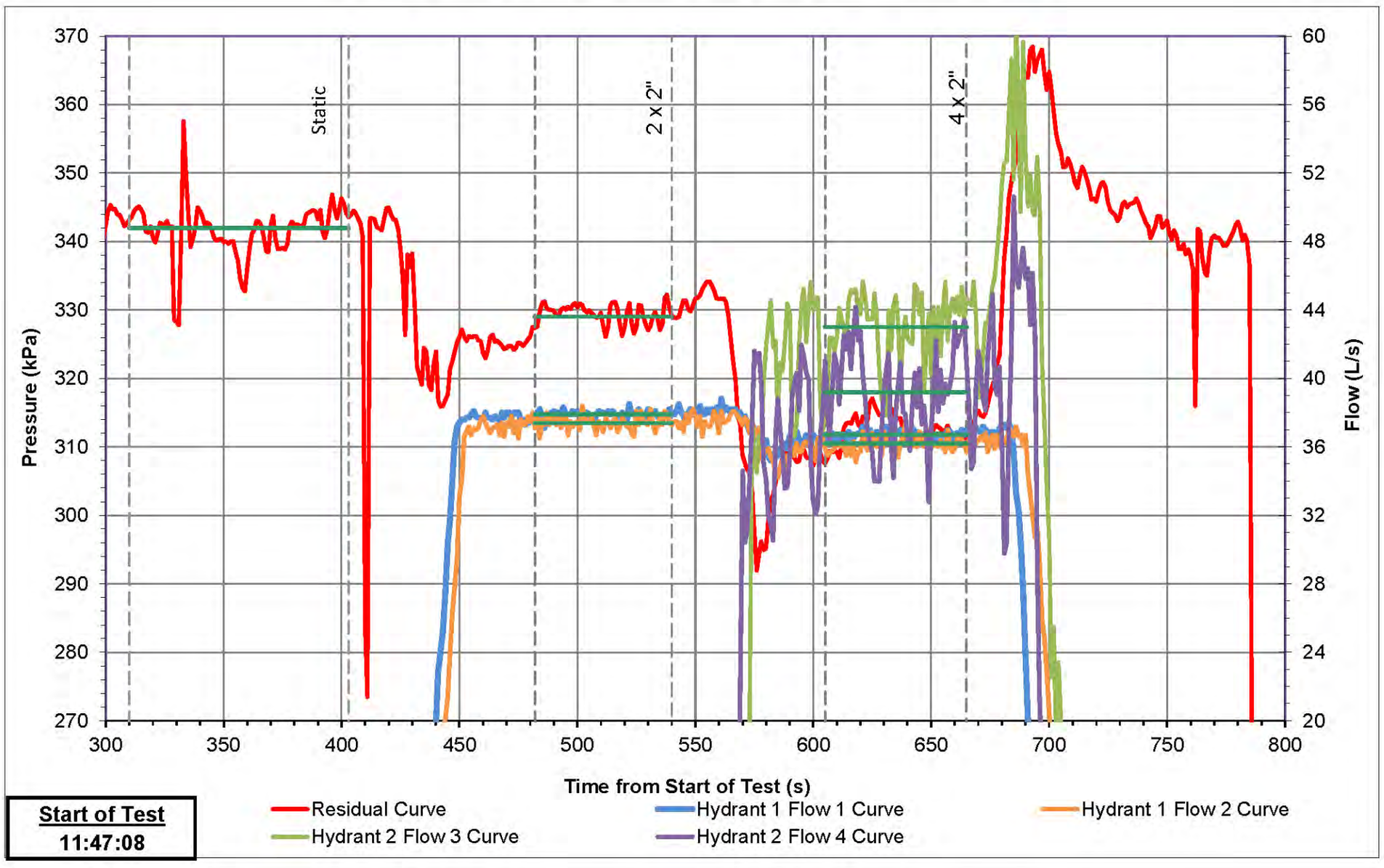
HY4042441 at 77 Steeles Ave. on Willowdale Ave. : Pressure Monitoring (November 02 2023 to November 17 2023)



HY16136 at 1 Hycrest Ave : Pressure Monitoring (November 02, 2023 to November 16, 2023)



HFT 1 - 5800 YONGE STREET (TEST 1 at HY4039949)



Subject Watermain Details

Diameter:	250 mm	**Material:**	CI
Area:	0.049 m2		

Subject Hydrant & Valve Details

Residual Hydrant:	HY4039949
Flow Hydrant 1:	HY4039954
Flow Hydrant 2:	HY4039977

TABLE A: TESTED PRESSURES AND FLOWS

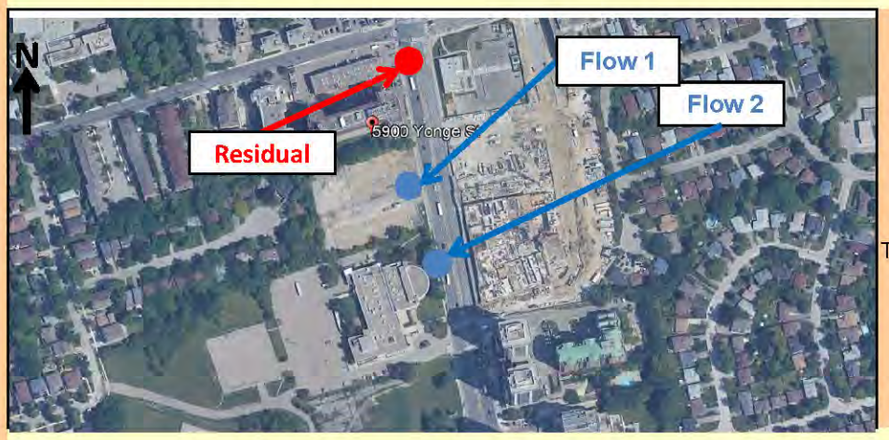
Point	Time		Residual (HY4039949)		Flow Hydrant 1 (HY4039954)				Flow Hydrant 2 (HY4039977)				Total Flow		Velocity
			Residual (S1)		Flow 1 (S2)		Flow 2 (S3)		Flow 3 (S4)		Flow 4 (S5)				
	Start	Finish	(kPa)	(psi)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(m/s)
Static	310	403	342	49.6	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1 x 2"			0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2 x 2"	482	540	329	47.7	37.9	601	37.4	593	0.0	0	0.0	0	75.3	1194	1.5
3 x 2"			0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
4 x 2"	605	665	312	45.3	36.7	582	36.2	574	43.0	682	39.2	621	155.1	2458	3.2

5800 YONGE STREET (TEST 1 at HY4039949)

HYDRANT FLOW TEST RESULTS

Date: 15-Oct-23 | Time: 11:47 (hh/mm) | Municipality: City of Toronto

Tested By: ISAAC, SEN, STEVEN | Operator: | Test No: **1**



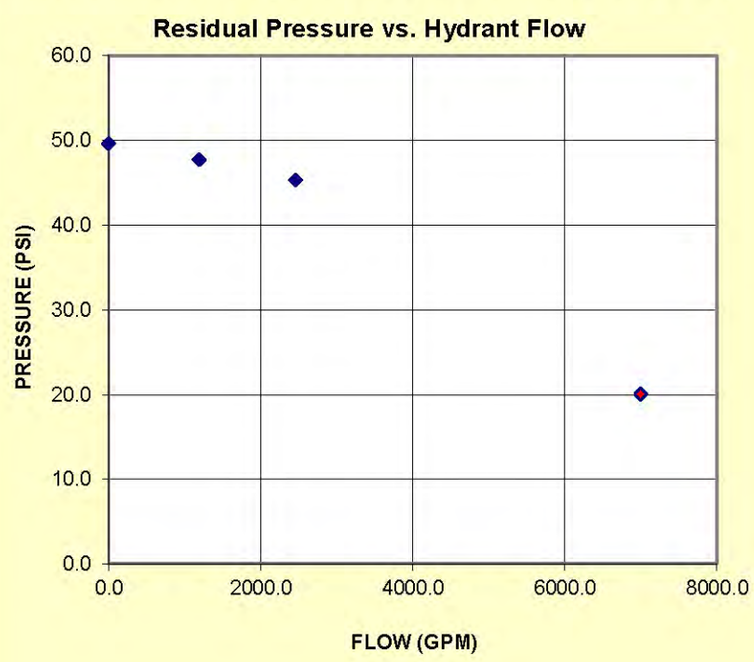
Conditions before Test (STATIC)

Residual Hydrant:	49.6 psi	342 kPa
Hydrant that will Flow:	49.6 psi	342 kPa
Δ pressure:	0.0 psi	0 kPa
Elevation Difference: (Flow El. - Residual El.)	0.0 ft	0.0 m

Test Notes:

TEST		TEST FLOW		RESIDUAL PRESSURE (psi)		Minimum Residual P_r (psi)	Fire Flow at Minimum Residual, Q_r (USGPM)	Fire Flow at Minimum Residual, Q_r (L/s)	Pressure Drop Achieved (%)
Port Size (in)	Nozzle Pressure (psi)	(USGPM)	(L/s)	Monitoring Hydrant	Flow Hydrant (Corrected) *				
STATIC	n/a	0	0	49.6	49.6				
Single Hydrant Test									
1 x 2"	0.0	0.0	0.0			20			
2 x 2"	14.6	1194.0	75.3	47.7	47.7	20	5256	332	4%
3 x 2"									
Hydrant 1	0.0	0.0	0.0			20			
Hydrant 2	0.1	0.0	0.0						
4 x 2"									
Hydrant 1	13.7	1156.0	72.9	45.3	45.3	20	6967	440	9%
Hydrant 2	15.2	1303.0	82.2						

* Pressure correction is equal to the elevation difference. Column 2 (and Table A) show the nozzle pressure while flowing.



Results			
Static Pressure		Flow at 20 psi (140kPa)*	
(psi)	(kPa)	(gpm)	(L/s)
49.6	342	7000	442

* Results carried to nearest 50 gpm or 100 gpm if over 1000 gpm
* Theoretical flow based on the highest pressure drop achieved

Hydrant Classification as per NFPA 291			
Class	AA	Color	BLUE

Water Discharged During Test:	15000 L

Rounded up to closest 100L

DISCLAIMER FOR FIRE FLOW TESTS

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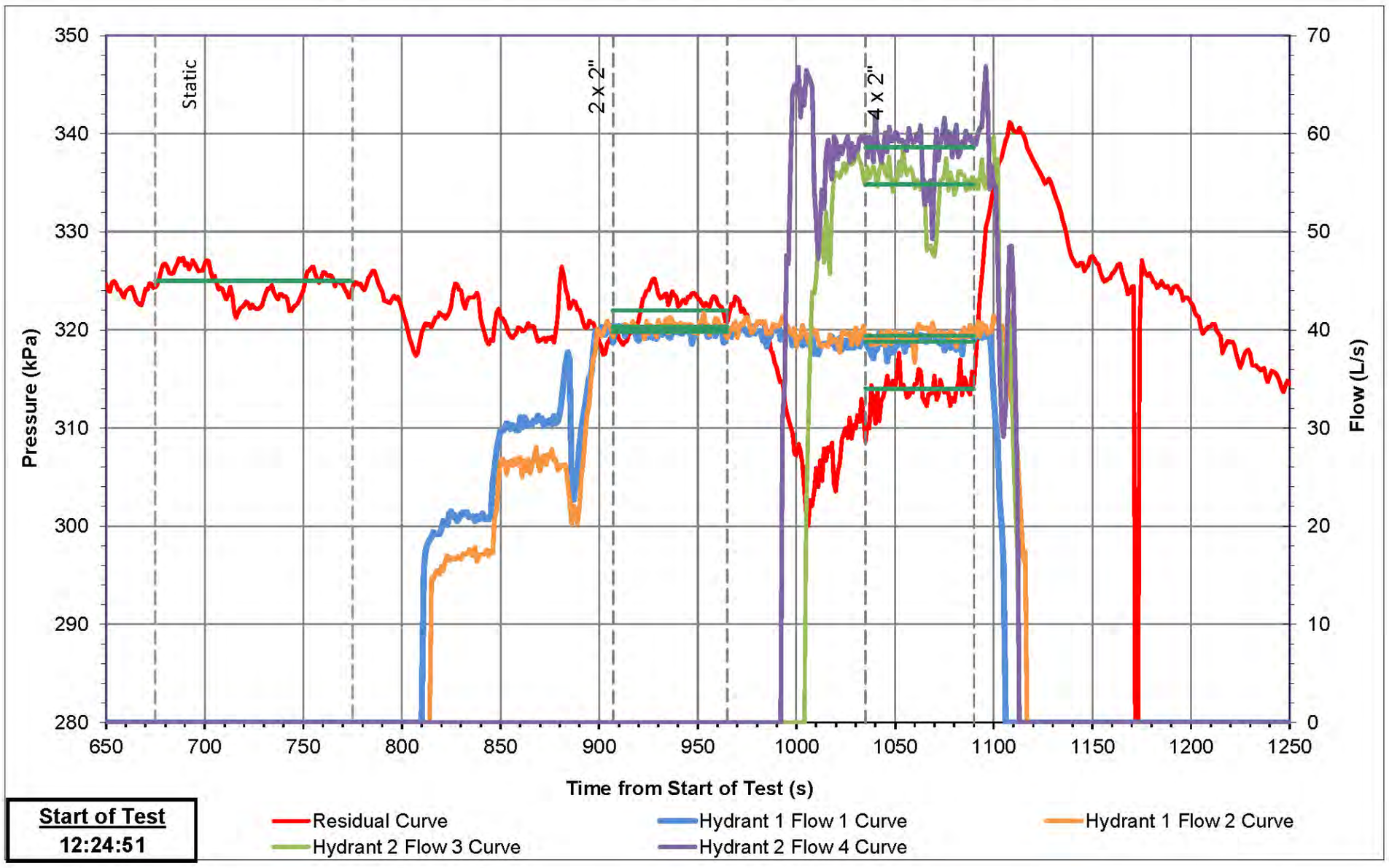
HFT 2 - 5600 YONGE STREET (TEST 2 at HY4017558)



Subject Watermain Details

Diameter: 300 mm **Material:** PVC

Area: 0.071 m2

Subject Hydrant & Valve Details

Residual Hydrant: HY4017558

Flow Hydrant 1: HY4017589

Flow Hydrant 2: HY4017594

TABLE A: TESTED PRESSURES AND FLOWS

Point	Time		Residual (HY4017558)		Flow Hydrant 1 (HY4017589)				Flow Hydrant 2 (HY4017594)				Total Flow		Velocity
			Residual (S1)		Flow 1 (S2)		Flow 2 (S3)		Flow 3 (S4)		Flow 4 (S5)				
	Start	Finish	(kPa)	(psi)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(m/s)
Static	675	775	325	47.1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1 x 2"			0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2 x 2"	907	965	322	46.7	39.8	631	40.3	639	0.0	0	0.0	0	80.1	1270	1.1
3 x 2"			0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
4 x 2"	1035	1090	314	45.5	38.8	615	39.4	625	54.8	869	58.6	929	191.6	3037	2.7

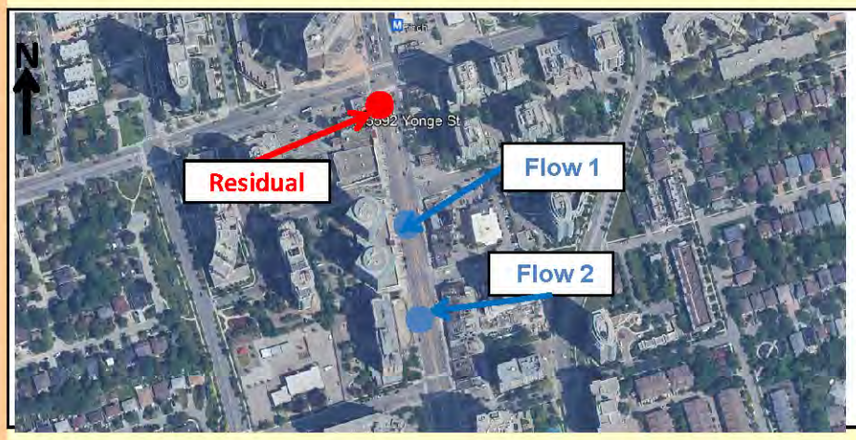
5600 YONGE STREET (TEST 2 at HY4017558)

HYDRANT FLOW TEST RESULTS

Date: 15-Oct-23 | Time: 12:24 (hh/mm) | Municipality: REGION OF YORK

Operator:

Tested By: ISAAC, SEN, STEVEN | Test No: **2**



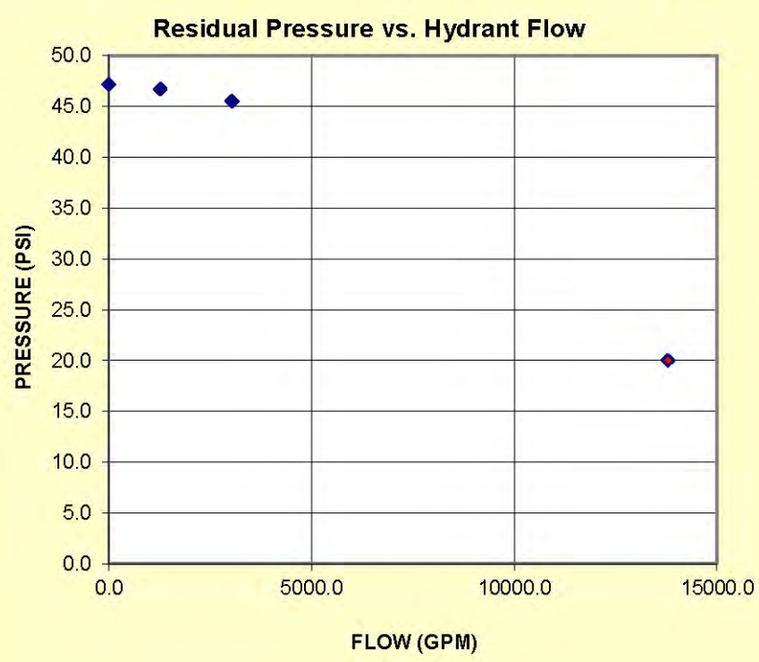
Conditions before Test (STATIC)

Residual Hydrant:	47.1 psi	325 kPa
Hydrant that will Flow:	47.1 psi	325 kPa
Δ pressure:	0.0 psi	0 kPa
Elevation Difference: (Flow El. - Residual El.)	0.0 ft	0.0 m

Test Notes:

TEST		TEST FLOW		RESIDUAL PRESSURE (psi)		Minimum Residual P_r (psi)	Fire Flow at Minimum Residual, Q_r (USGPM)	Fire Flow at Minimum Residual, Q_r (L/s)	Pressure Drop Achieved (%)
Port Size (in)	Nozzle Pressure (psi)	(USGPM)	(L/s)	Monitoring Hydrant	Flow Hydrant (Corrected) *				
STATIC	n/a	0	0	47.1	47.1				
Single Hydrant Test									
1 x 2"	0.0	0.0	0.0			20			
2 x 2"	16.6	1270.0	80.1	46.7	46.7	20	11801	745	1%
3 x 2"									
Hydrant 1	0.0	0.0	0.0			20			
Hydrant 2	0.1	0.0	0.0						
4 x 2"									
Hydrant 1	15.8	1240.0	78.2	45.5	45.5	20	13838	873	3%
Hydrant 2	28.8	1798.0	113.4						

* Pressure correction is equal to the elevation difference. Column 2 (and Table A) show the nozzle pressure while flowing.



Results			
Static Pressure		Flow at 20 psi (140kPa)*	
(psi)	(kPa)	(gpm)	(L/s)
47.1	325	13800	871

* Results carried to nearest 50 gpm or 100 gpm if over 1000 gpm
* Theoretical flow based on the highest pressure drop achieved

Hydrant Classification as per NFPA 291			
Class	AA	Color	BLUE

Water Discharged During Test:	16000 L

Rounded up to closest 100L

DISCLAIMER FOR FIRE FLOW TESTS

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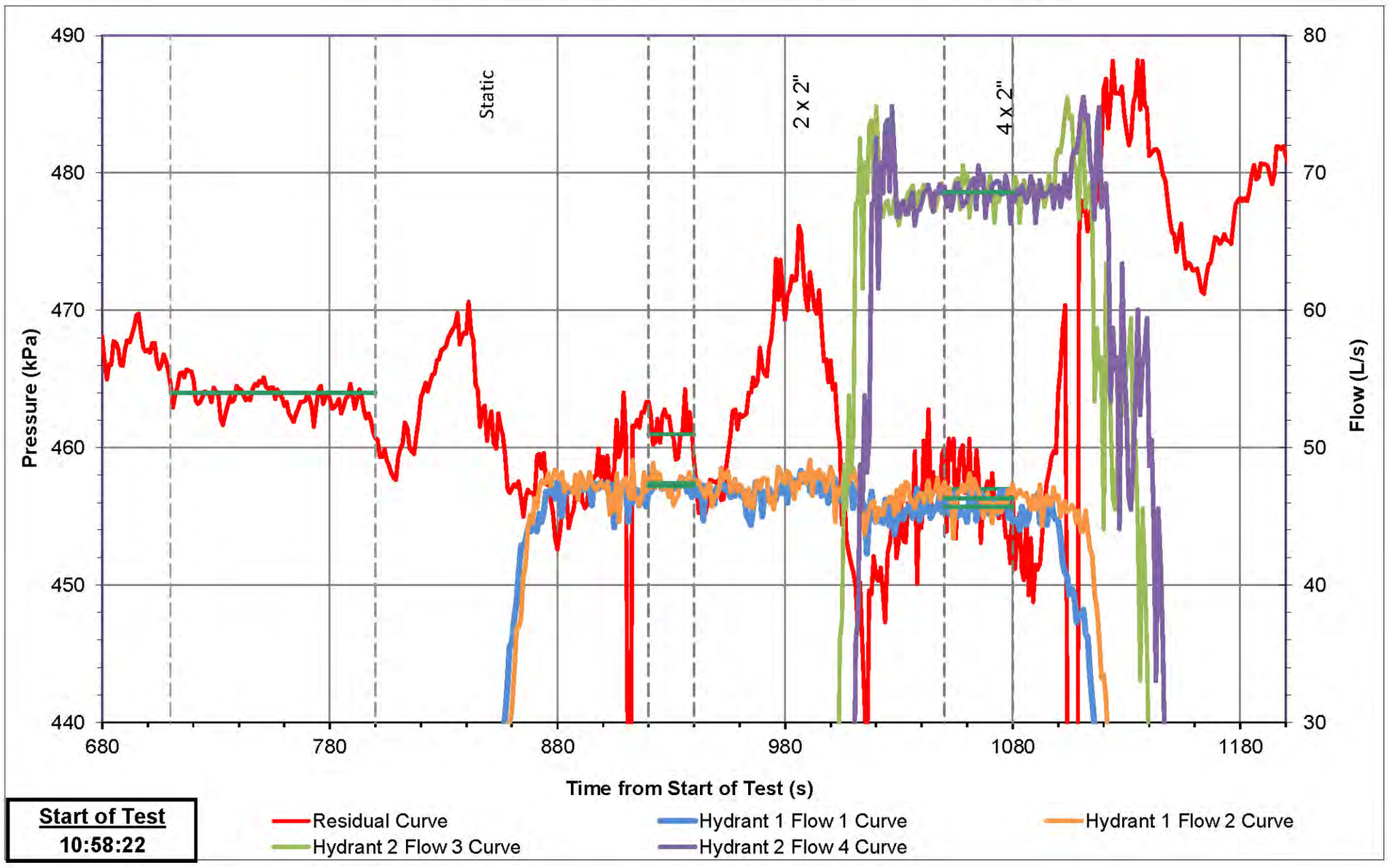
WSP Canada Inc. 100 Commerce Valley Drive West, Thornhill, Ontario L3T 0A1 Project number: CA0009921.6-03 Tel.: (905) 882-1100

HFT3 - 29 CHURCHILL AVE (TEST 3 at HY9990174)



Subject Watermain Details

Diameter:	400 mm	**Material:**	PVC
Area:	0.126 m2		

Subject Hydrant & Valve Details

Residual Hydrant:	HY9990174
Flow Hydrant 1:	HY9990175
Flow Hydrant 2:	HY9990176

TABLE A: TESTED PRESSURES AND FLOWS

Point	Time		Residual (HY9990174)		Flow Hydrant 1 (HY9990175)				Flow Hydrant 2 (HY9990176)				Total Flow		Velocity
			Residual (S1)		Flow 1 (S2)		Flow 2 (S3)		Flow 3 (S4)		Flow 4 (S5)				
	Start	Finish	(kPa)	(psi)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(m/s)
Static	710	800	464	67.3	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1 x 2"			0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2 x 2"	920	940	461	66.9	47.2	748	47.4	751	0.0	0	0.0	0	94.6	1499	0.8
3 x 2"			0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
4 x 2"	1050	1080	457	66.3	45.7	724	46.3	734	68.6	1087	68.6	1087	229.2	3633	1.8

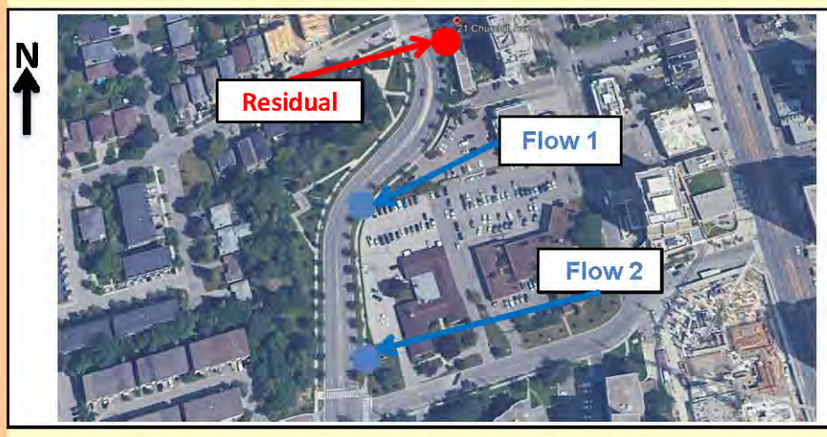
29 CHURCHILL AVE (TEST 3 at HY9990174)

HYDRANT FLOW TEST RESULTS

Date: 15-Oct-23 | Time: 10:58 (hh/mm) | Municipality: City of Hamilton

Operator:

Tested By: ISAAC, SEN, STEVEN | Test No: **3**



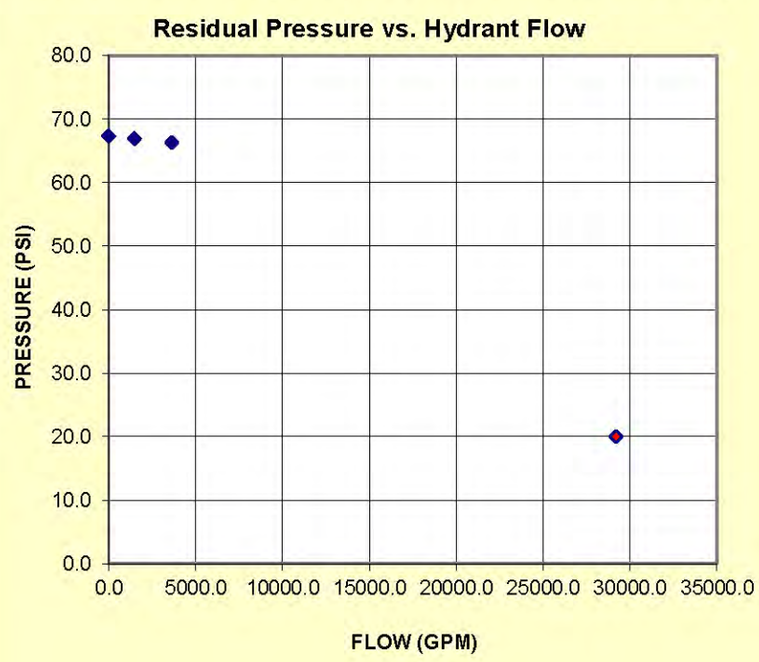
Conditions before Test (STATIC)

Residual Hydrant:	67.3 psi	464 kPa
Hydrant that will Flow:	67.3 psi	464 kPa
Δ pressure:	0.0 psi	0 kPa
Elevation Difference: (Flow El. - Residual El.)	0.0 ft	0.0 m

Test Notes:

TEST		TEST FLOW		RESIDUAL PRESSURE (psi)		Minimum Residual P_r (psi)	Fire Flow at Minimum Residual, Q_r (USGPM)	Fire Flow at Minimum Residual, Q_r (L/s)	Pressure Drop Achieved (%)
Port Size (in)	Nozzle Pressure (psi)	(USGPM)	(L/s)	Monitoring Hydrant	Flow Hydrant (Corrected) *				
STATIC	n/a	0	0	67.3	67.3				
Single Hydrant Test									
1 x 2"	0.0	0.0	0.0			20			
2 x 2"	23.1	1499.0	94.6	66.9	66.9	20	19795	1249	1%
3 x 2"									
Hydrant 1	0.0	0.0	0.0			20			
Hydrant 2	0.1	0.0	0.0						
4 x 2"									
Hydrant 1	21.8	1458.0	92.0	66.3	66.3	20	29184	1841	1%
Hydrant 2	42.2	2174.0	137.2						

* Pressure correction is equal to the elevation difference. Column 2 (and Table A) show the nozzle pressure while flowing.



Results			
Static Pressure		Flow at 20 psi (140kPa)*	
(psi)	(kPa)	(gpm)	(L/s)
67.3	464	29200	1842

* Results carried to nearest 50 gpm or 100 gpm if over 1000 gpm
* Theoretical flow based on the highest pressure drop achieved

Hydrant Classification as per NFPA 291			
Class	AA	Color	BLUE

Water Discharged During Test:	21000 L

Rounded up to closest 100L

DISCLAIMER FOR FIRE FLOW TESTS

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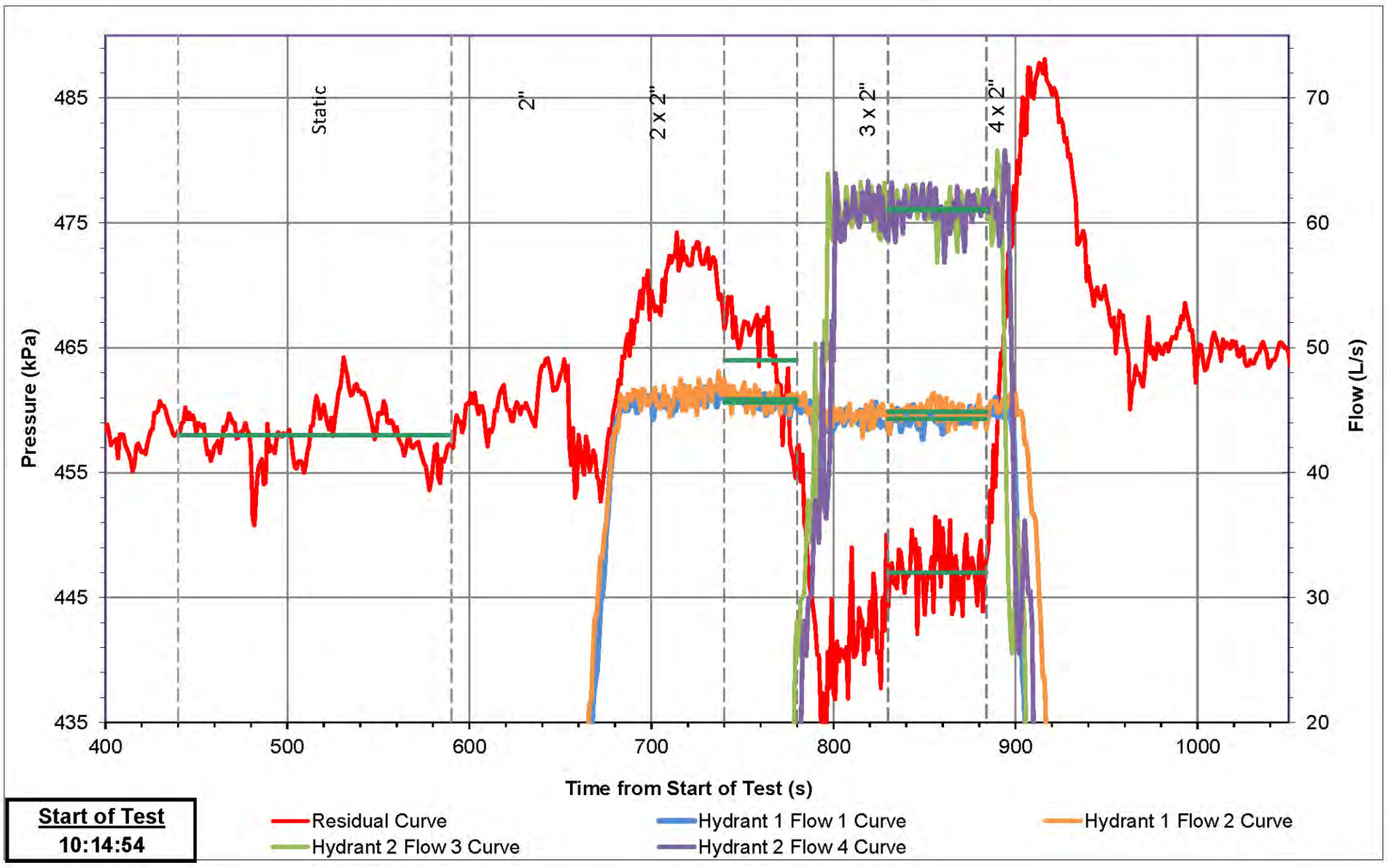
HFT 4 - 35 PARK HOME AVE. (TEST 4 at HY4008122)



Subject Watermain Details

Diameter: 400 mm **Material:** CI

Area: 0.126 m2

Subject Hydrant & Valve Details

Residual Hydrant: HY4008122

Flow Hydrant 1: HY4008120

Flow Hydrant 2: HY4008118

TABLE A: TESTED PRESSURES AND FLOWS

Point	Time		Residual (HY4008122)		Flow Hydrant 1 (HY4008120)				Flow Hydrant 2 (HY4008118)				Total Flow		Velocity
			Residual (S1)		Flow 1 (S2)		Flow 2 (S3)		Flow 3 (S4)		Flow 4 (S5)				
	Start	Finish	(kPa)	(psi)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(m/s)
Static	440	590	458	66.4	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1 x 2"			0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2 x 2"	740	780	464	67.3	45.6	723	45.9	728	2.2	35	0.0	0	93.7	1485	0.7
3 x 2"			0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
4 x 2"	830	884	447	64.8	44.3	702	44.9	712	61.1	968	61.0	967	211.3	3349	1.7

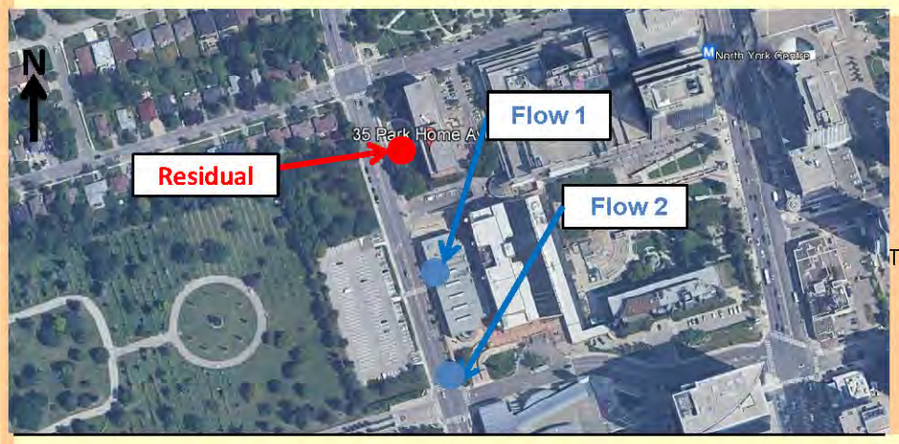
35 PARK HOME AVE. (TEST 4 at HY4008122)

HYDRANT FLOW TEST RESULTS

Date: 11-15-2023 | Time: 10:14 (hh/mm) | Municipality: YORK REGION

Operator:

Tested By: Isaac, Sen, Steven | Test No: **4**



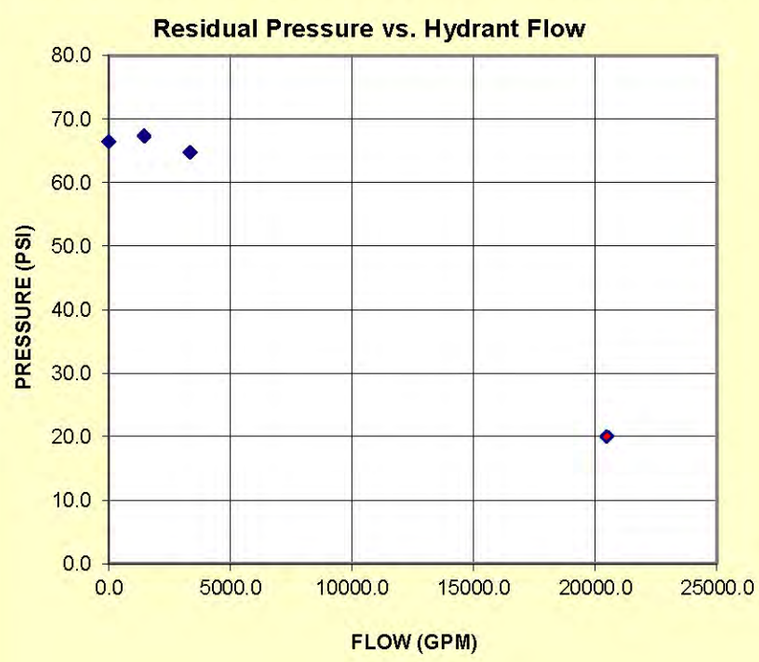
Conditions before Test (STATIC)

Residual Hydrant:	66.4 psi	458 kPa
Hydrant that will Flow:	66.4 psi	458 kPa
Δ pressure:	0.0 psi	0 kPa
Elevation Difference: (Flow El. - Residual El.)	0.0 ft	0.0 m

Test Notes:

TEST		TEST FLOW		RESIDUAL PRESSURE (psi)		Minimum Residual P_r (psi)	Fire Flow at Minimum Residual, Q_r (USGPM)	Fire Flow at Minimum Residual, Q_r (L/s)	Pressure Drop Achieved (%)
Port Size (in)	Nozzle Pressure (psi)	(USGPM)	(L/s)	Monitoring Hydrant	Flow Hydrant (Corrected) *				
STATIC	n/a	0	0	66.4	66.4				
Single Hydrant Test									
1 x 2"	0.0	0.0	0.0			20			
2 x 2"	21.6	1451.0	91.5	67.3	67.3	20	N.A.	N.A.	-1%
3 x 2"									
Hydrant 1	0.0	0.0	0.0			20			
Hydrant 2	0.1	0.0	0.0						
4 x 2"									
Hydrant 1	20.5	1414.0	89.2	64.8	64.8	20	20454	1290	2%
Hydrant 2	33.4	1935.0	122.1						

* Pressure correction is equal to the elevation difference. Column 2 (and Table A) show the nozzle pressure while flowing.



Results			
Static Pressure		Flow at 20 psi (140kPa)*	
(psi)	(kPa)	(gpm)	(L/s)
66.4	458	20500	1293

* Results carried to nearest 50 gpm or 100 gpm if over 1000 gpm
* Theoretical flow based on the highest pressure drop achieved

Hydrant Classification as per NFPA 291			
Class	AA	Color	BLUE

Water Discharged During Test:	17600 L

Rounded up to closest 100L

DISCLAIMER FOR FIRE FLOW TESTS

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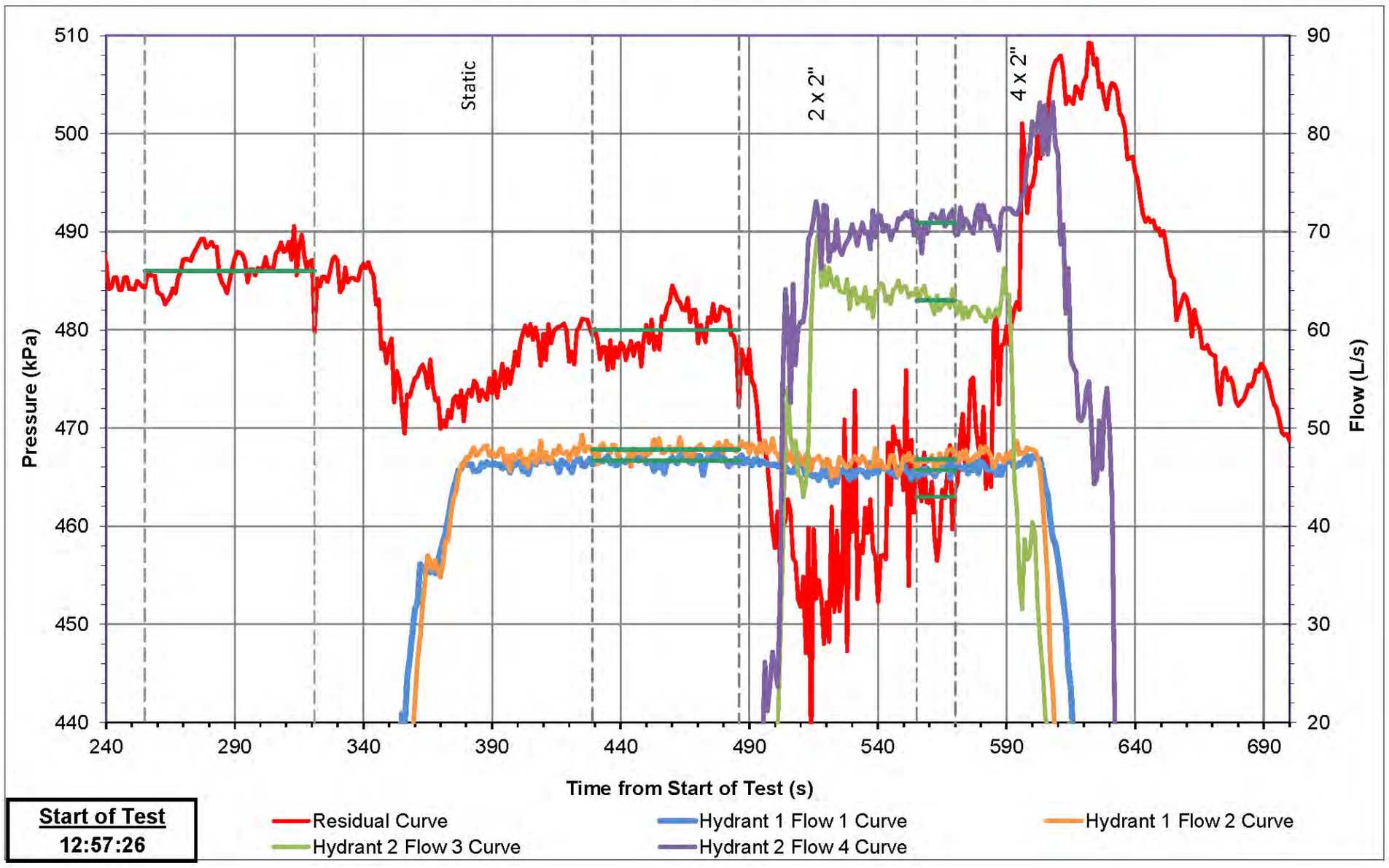
HFT 5 - 4936 YONGE STREET (TEST 5 at HY4034038)



Subject Watermain Details

Diameter:	300 mm	**Material:**	PVC
Area:	0.071 m2		

Subject Hydrant & Valve Details

Residual Hydrant:	HY4034038
Flow Hydrant 1:	HY4034050
Flow Hydrant 2:	HY4032566

TABLE A: TESTED PRESSURES AND FLOWS

Point	Time		Residual (HY4034038)		Flow Hydrant 1 (HY4034050)				Flow Hydrant 2 (HY4032566)				Total Flow		Velocity
			Residual (S1)		Flow 1 (S2)		Flow 2 (S3)		Flow 3 (S4)		Flow 4 (S5)				
	Start	Finish	(kPa)	(psi)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(m/s)
Static	255	321	486	70.5	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1 x 2"			0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2 x 2"	429	486	480	69.6	46.7	740	47.8	758	0.0	0	0.0	0	94.5	1498	1.3
3 x 2"			0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
4 x 2"	555	570	463	67.2	45.7	724	46.8	742	63.0	999	70.9	1124	226.4	3589	3.2

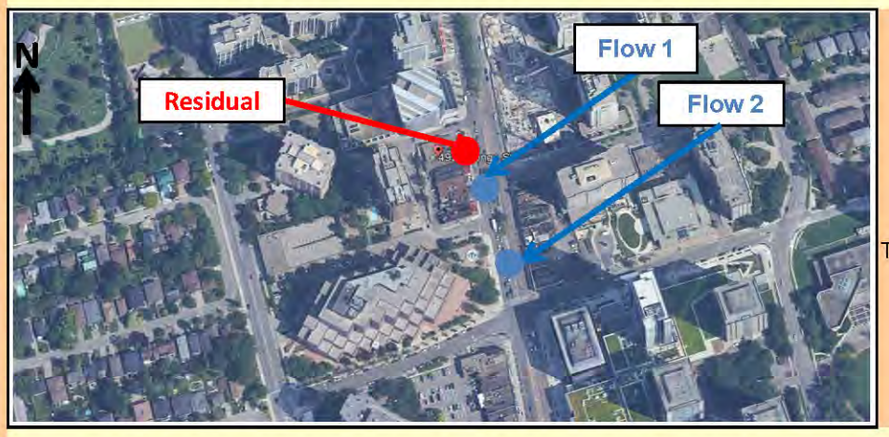
4936 YONGE STREET (TEST 5 at HY4034038)

HYDRANT FLOW TEST RESULTS

Date: 15-Oct-23 | Time: 12:57 (hh/mm) | Municipality: YORK REGION

Operator:

Tested By: ISAAC, SEN, STEVEN | Test No: **5**



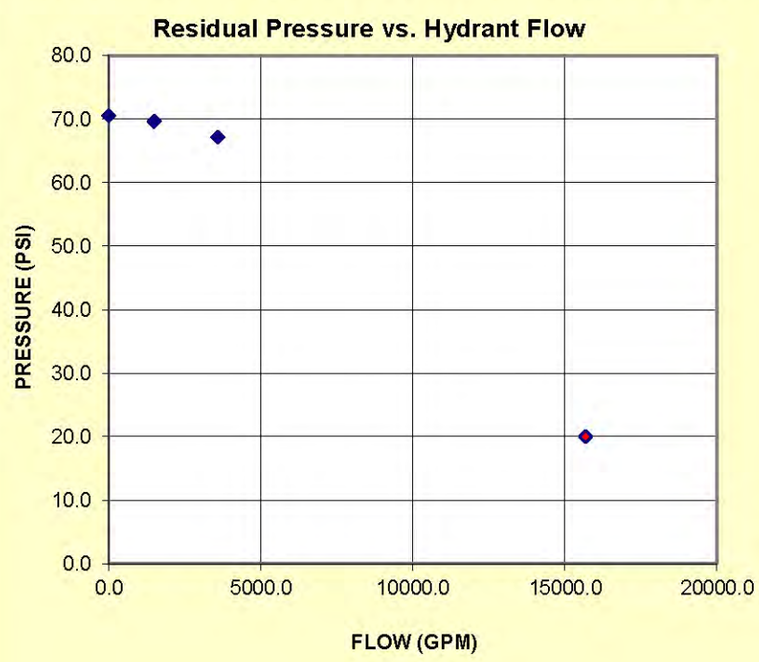
Conditions before Test (STATIC)

Residual Hydrant:	70.5 psi	486 kPa
Hydrant that will Flow:	70.5 psi	486 kPa
Δ pressure:	0.0 psi	0 kPa
Elevation Difference: (Flow El. - Residual El.)	0.0 ft	0.0 m

Test Notes:

TEST		TEST FLOW		RESIDUAL PRESSURE (psi)		Minimum Residual P_r (psi)	Fire Flow at Minimum Residual, Q_r (USGPM)	Fire Flow at Minimum Residual, Q_r (L/s)	Pressure Drop Achieved (%)
Port Size (in)	Nozzle Pressure (psi)	(USGPM)	(L/s)	Monitoring Hydrant	Flow Hydrant (Corrected) *				
STATIC	n/a	0	0	70.5	70.5				
Single Hydrant Test									
1 x 2"	0.0	0.0	0.0			20			
2 x 2"	23.1	1498.0	94.5	69.6	69.6	20	13274	837	1%
3 x 2"									
Hydrant 1	0.0	0.0	0.0			20			
Hydrant 2	0.1	0.0	0.0						
4 x 2"									
Hydrant 1	22.1	1466.0	92.5	67.2	67.2	20	15687	990	5%
Hydrant 2	40.2	2123.0	133.9						

* Pressure correction is equal to the elevation difference. Column 2 (and Table A) show the nozzle pressure while flowing.



Results			
Static Pressure		Flow at 20 psi (140kPa)*	
(psi)	(kPa)	(gpm)	(L/s)
70.5	486	15700	991

* Results carried to nearest 50 gpm or 100 gpm if over 1000 gpm
* Theoretical flow based on the highest pressure drop achieved

Hydrant Classification as per NFPA 291			
Class	AA	Color	BLUE

Water Discharged During Test:	18100 L

Rounded up to closest 100L

DISCLAIMER FOR FIRE FLOW TESTS

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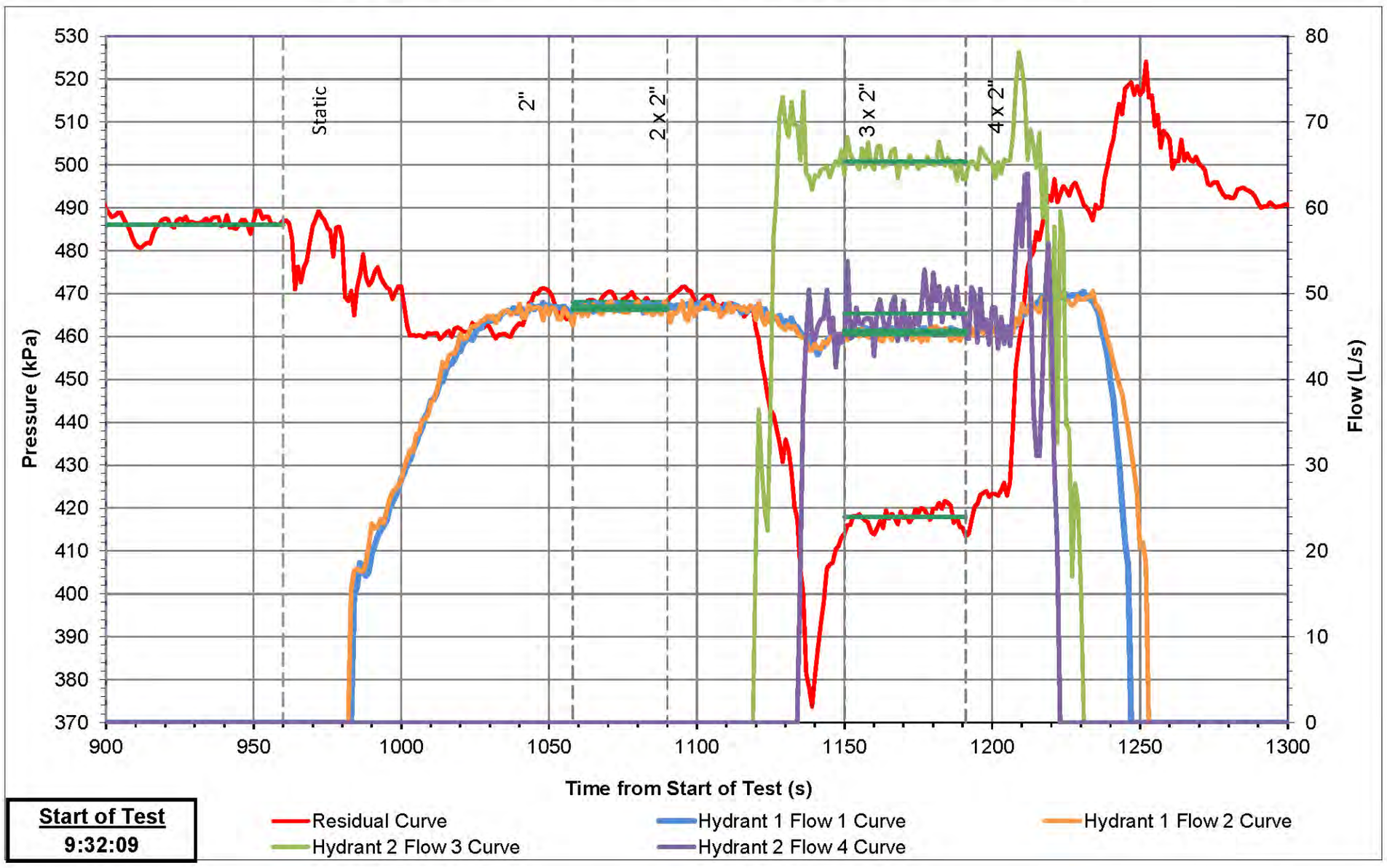
HFT 6 - 115 HARRISON GARDEN (TEST 6 at HY4035139)



Subject Watermain Details

Diameter:	300 mm	**Material:**	PVC
Area:	0.071 m2		

Subject Hydrant & Valve Details

Residual Hydrant:	HY4035139
Flow Hydrant 1:	HY4035144
Flow Hydrant 2:	**HY4035127**

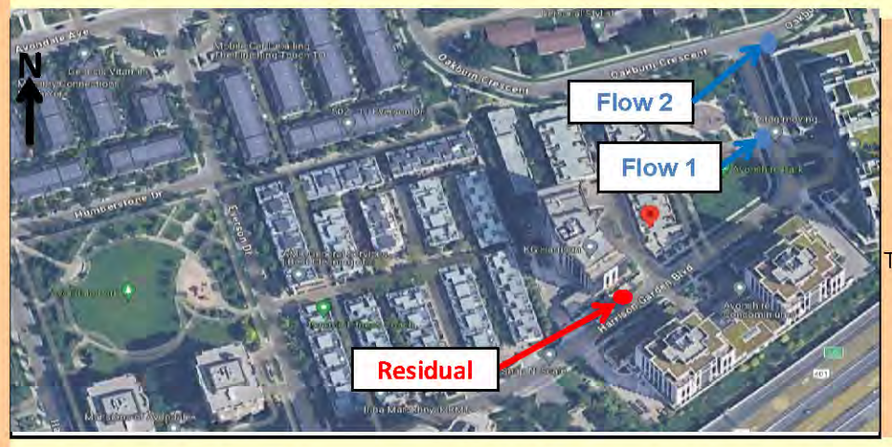
TABLE A: TESTED PRESSURES AND FLOWS

Point	Time		Residual (HY4035139)		Flow Hydrant 1 (HY4035144)				Flow Hydrant 2 (HY4035127)				Total Flow		Velocity
			Residual (S1)		Flow 1 (S2)		Flow 2 (S3)		Flow 3 (S4)		Flow 4 (S5)				
	Start	Finish	(kPa)	(psi)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(m/s)
Static	900	960	486	70.5	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
1 x 2"			0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2 x 2"	1058	1090	468	67.9	48.5	769	48.1	762	0.0	0	0.0	0	96.6	1531	1.4
3 x 2"			0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
4 x 2"	1150	1191	418	60.6	45.7	724	45.3	718	65.4	1037	47.7	756	204.1	3235	2.9

115 HARRISON GARDEN (TEST 6 at HY4035139)

HYDRANT FLOW TEST RESULTS

Date:	15-Oct-23	Time:	9:32 (hh/mm)	Municipality:	YORK REGION
				Operator:	
Tested By:	Sen, Isaac, Steven			Test No:	6



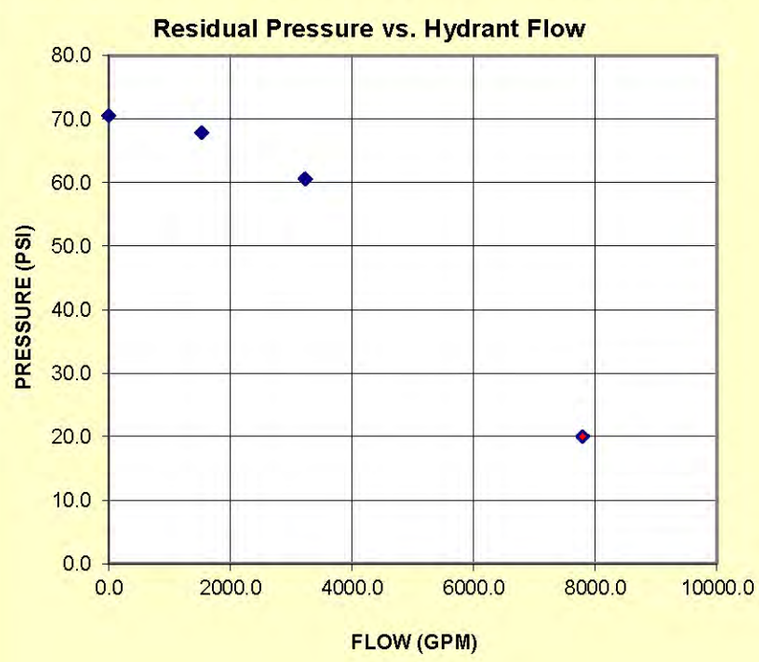
Conditions before Test (STATIC)

Residual Hydrant:	70.5 psi	486 kPa
Hydrant that will Flow:	70.5 psi	486 kPa
Δ pressure:	0.0 psi	0 kPa
Elevation Difference: (Flow El. - Residual El.)	0.0 ft	0.0 m

Test Notes:

TEST		TEST FLOW		RESIDUAL PRESSURE (psi)		Minimum Residual P_r (psi)	Fire Flow at Minimum Residual, Q_r (USGPM)	Fire Flow at Minimum Residual, Q_r (L/s)	Pressure Drop Achieved (%)
Port Size (in)	Nozzle Pressure (psi)	(USGPM)	(L/s)	Monitoring Hydrant	Flow Hydrant (Corrected) *				
STATIC	n/a	0	0	70.5	70.5				
Single Hydrant Test									
1 x 2"	0.0	0.0	0.0			20			
2 x 2"	24.1	1531.0	96.6	67.9	67.9	20	7615	480	4%
3 x 2"									
Hydrant 1	0.0	0.0	0.0			20			
Hydrant 2	0.1	0.0	0.0						
4 x 2"									
Hydrant 1	21.4	1442.0	91.0	60.6	60.6	20	7802	492	14%
Hydrant 2	28.7	1793.0	113.1						

* Pressure correction is equal to the elevation difference. Column 2 (and Table A) show the nozzle pressure while flowing.



Results			
Static Pressure		Flow at 20 psi (140kPa)*	
(psi)	(kPa)	(gpm)	(L/s)
70.5	486	7800	492

* Results carried to nearest 50 gpm or 100 gpm if over 1000 gpm
* Theoretical flow based on the highest pressure drop achieved

Hydrant Classification as per NFPA 291			
Class	AA	Color	BLUE

Water Discharged During Test:	18500 L

Rounded up to closest 100L

DISCLAIMER FOR FIRE FLOW TESTS

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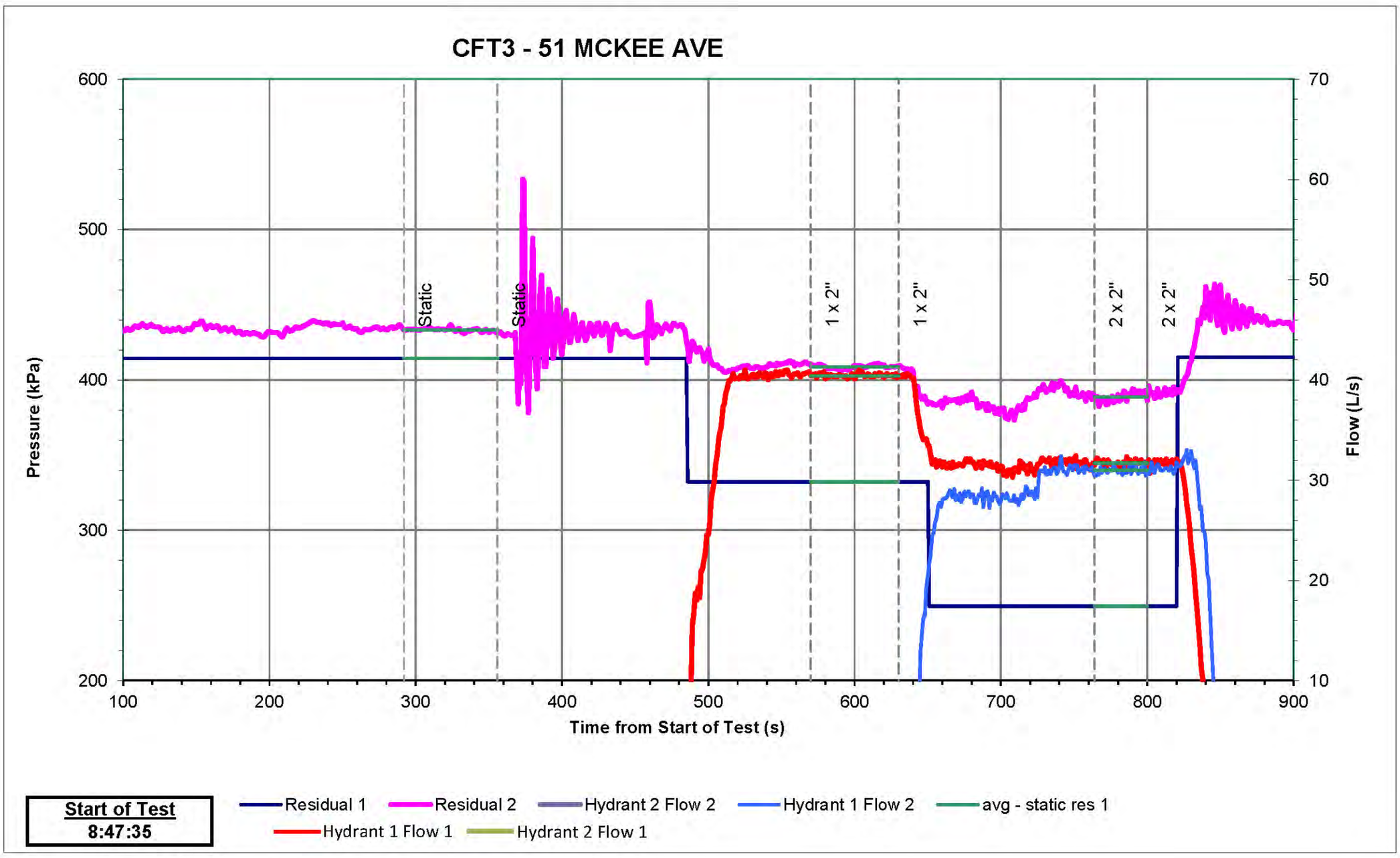


Subject Watermain Details

Diameter:	150 mm	**Length:**	124
Area:	0.018 m2	**Material:**	PVC

Point	Time		Residual 1		Residual 2		Flow Hydrant (HY4037428)				Flow Hydrant (HYD_973C_6526)				Total Flow		Velocity	Minor Losses	Reyn-olds #,
			S4 on HY4023956		S3 on HY402393		2" Port (S2)		2" Port (S2)		2" Port (S1)		2" Port (S1)						
	Start	Finish	(kPa)	(psi)	(kPa)	(psi)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(m/s)	(kPa)	Re
Static	292	356	414.38	60.10	433.25	62.84	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.00	
1 x 2"	570	630	332.33	48.20	408.77	59.29	40.4	640	0.0	0	0.0	0	0.0	0	40.4	640	2.3	0.78	263789
2 x 2"	764	800	249.59	36.20	388.77	56.39	31.7	502	31.0	491	0.0	0	0.0	0	62.7	994	3.5	1.89	409395
3 x 2"			0.00	0.00	0.00	0.00	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.00	
4 x 2"			0.00	0.00	0.00	0.00	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.00	

Residual 1	
(kPa)	**(psi)**
414.38	60.10
333.11	48.31
251.48	36.47
0.00	0.00
0.00	0.00

120	240
720	730
360	370
600	660
840	850

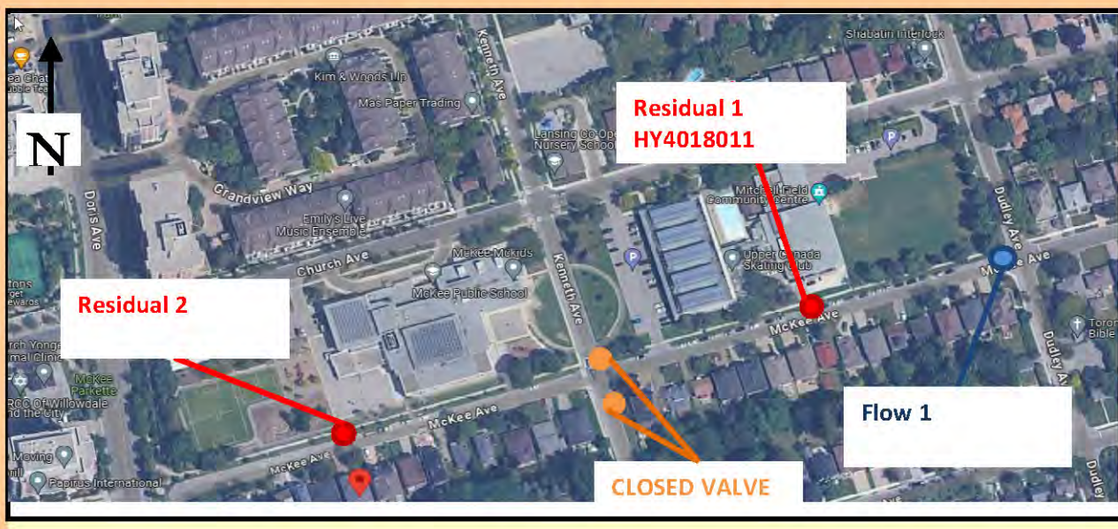
Local Losses in Subject Watermain

Element	Qty.	K Value	Total
Cross - Line Flow	1	0.30	0.30
45-Degree Bend	0	0.20	0.00
30-Degree Bend	0	0.10	0.00
15-Degree Bend	0	0.05	0.00
Gate Valve Open	0	0.39	0.00
T-Section, Run-Through	0	0.35	0.00
		Total K	**0.30**

CFT3 - 51 MCKEE AVE

C-FACTOR TEST RESULTS

Date:	31-Oct-23 (DD/MM/YYYY)	Time:	8:47 (hh/mm)
Municipality	YORK REGION	Municipal Operator:	0
Tested By:	ISAAC, SEN,STEVEN	Test No:	**CFT3**



Initial Conditions		
Pressure @ Flow (F)		
Pressure @ R1:	60.1 psi	414 kPa
Pressure @ R2:	62.8 psi	433 kPa
Δ pressure R1 - R2:	2.7 psi	19 kPa
Elevation Difference:	9.0 ft	1.9 m
Length of test pipe:	406 ft	124 m
Diameter of Test Pipe:	6 in	150 mm

Test Notes

PLEASE NOTE THAT R1 (RESIDUAL 1 LOGGER) WAS NOT RECORDING AT TIME OF

NOZZLE		FLOW				RESIDUAL PRESSURE (psi)		HEAD LOSS (Friction)		Hazen-Williams	Friction Factor
Size (in)	Pressure	(GPM)	(L/s)	Total Flow	Duration	R1	R2	(ft)	(m)		
STATIC		0	0	0	0	60.10	62.84	N/A	N/A	N/A	N/A
1 Port Test											
1 port	16.8	640	40.4	40.4	60	48.31	59.29	18.99	5.79	111	0.02637
2 Port Test						Pressure Drop:	8.23				
Port 1	10.4	502	31.7	62.7	36	36.47	56.39	39.62	12.08	116	0.02284
Port 2	9.9	491	31.0								
3 Port Test						Pressure Drop:	17.17				
Port 1	0	0	0.0	0.0	0	0.00	0.00	-	-1.93	N/A	N/A
Port 2	0	0	0.0								
Port 3	0	0	0.0								
4 Port Test						Pressure Drop:	0.00				
Port 1	0.0	0	0.0	0.0	0	0.00	0.00	-	-1.93	N/A	N/A
Port 2	0.0	0	0.0								
Port 3	0.0	0	0.0								
Port 4	0.0	0	0.0								

*Pressure drop of 2 psi (14 - 21 kPa) or more should be attempted for optimum results.

Pressure Drop: 0.00

Results	
Max Velocity (m/s)	3.5
Material	PVC
Friction Factor, f	0.0246
C-Factor	114
Year Installed	1980
Water Used by Test (L)	17868

HEADLOSS

$$h_L = C_f\left[(P_{UT} - P_{DT}) - (P_{US} - P_{DS})\right]$$

P_{UT} = pressure at upstream hydrant, flowed condition (psi, kPa)
P_{DT} = pressure at downstream hydrant, flowed condition (psi,kPa)
P_{US} = pressure at upstream hydrant, static conditions (psi, kPa)
P_{DS} = pressure at downstream hydrant, static condition (psi, kPa)
C_f = unit conversion factor (2.31 English, 0.102 SI)

C-FACTOR

$$C = \frac{Q}{k\ A\ R_H\ S^{0.54}}$$

$$R_H = \frac{D}{4}$$

$$S = \frac{h_L}{L}$$

FRICTION FACTOR

$$f = \frac{h_L D}{L} \times \frac{2g}{V^2} \quad (SI\ units)$$

C = Hazen-Williams C-factor
k = 0.849 (SI units) or 1.318 (US units)
Q = flow through test section (m3/s,cfs)
A = flow area (m2,ft2)
h_L = head loss due to friction (m,ft)
L = test length (m,ft)
D = pipe inner diameter (m,ft)

VELOCITY

$$V = \frac{4Q}{\pi D^2}$$

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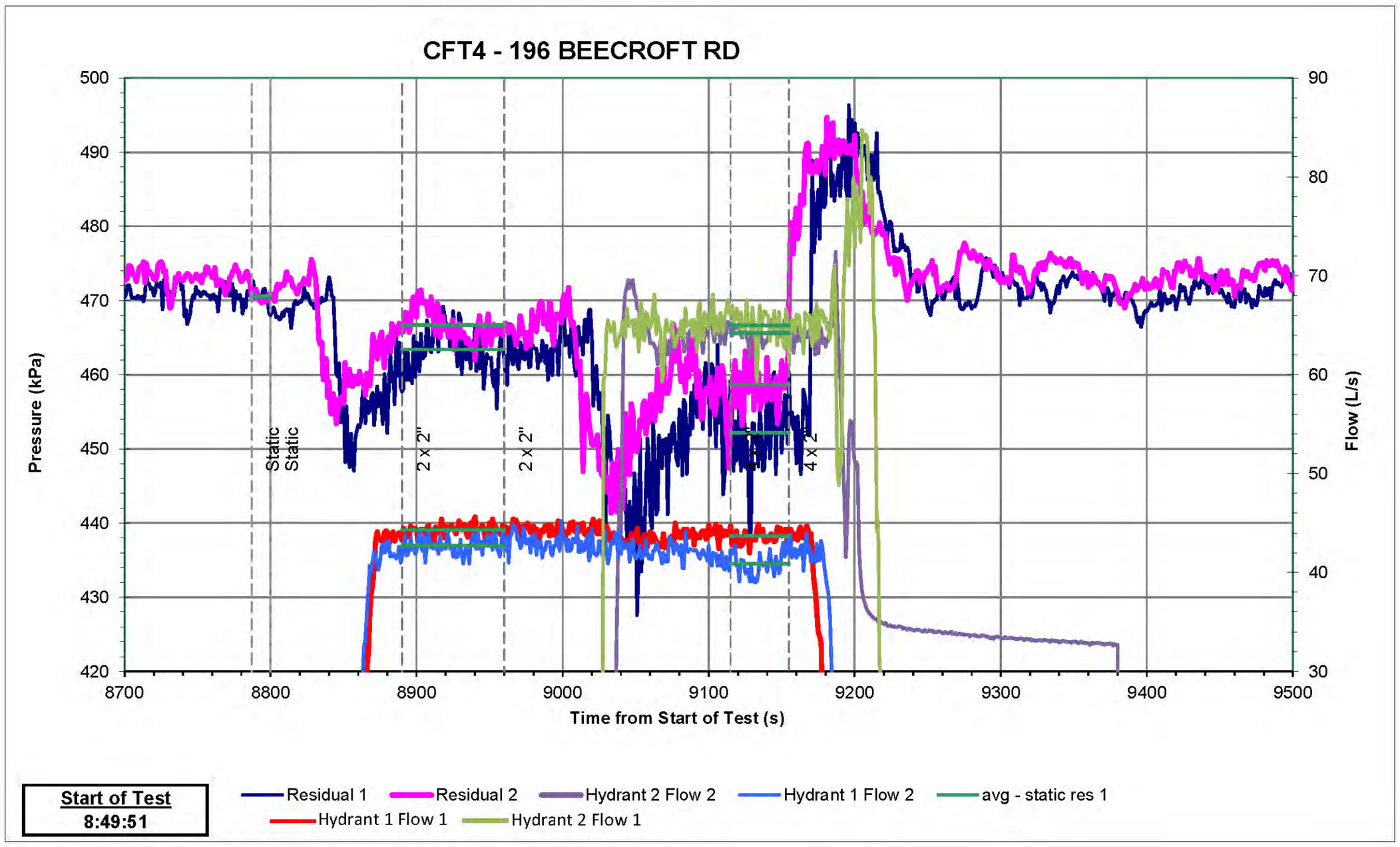


Subject Watermain Details

Diameter: 400 mm **Length:** 161
Area: 0.126 m2 **Material:** Cast Iron

Point	Time		Residual 1		Residual 2		Flow Hydrant (HY4037428)				Flow Hydrant (HYD_973C_6526)				Total Flow		Velocity	Minor Losses	Reyn-olds #, Re
			S4 on HY4023956		S3 on HY402393'		2" Port (S2)		2" Port (S2)		2" Port (S1)		2" Port (S1)						
	Start	Finish	(kPa)	(psi)	(kPa)	(psi)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(m/s)	(kPa)	
Static	8787	8800	470.63	68.26	470.46	68.23	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.00	
1 x 2"			0.00	0.00	0.00	0.00	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.00	
2 x 2"	8890	8960	463.40	67.21	466.70	67.69	44.3	702	42.7	677	0.0	0	0.0	0	87.0	1379	0.7	0.00	213023
3 x 2"			0.00	0.00	0.00	0.00	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.00	
4 x 2"	9115	9155	452.15	65.58	458.70	66.53	43.7	693	40.9	648	65.0	1030	64.2	1018	213.8	3389	1.7	0.00	523497

Residual 1	
(kPa)	(psi)
470.63	68.26
0.00	0.00
463.40	67.21
0.00	0.00
452.15	65.58

120	240
720	730
360	370
600	660
840	850

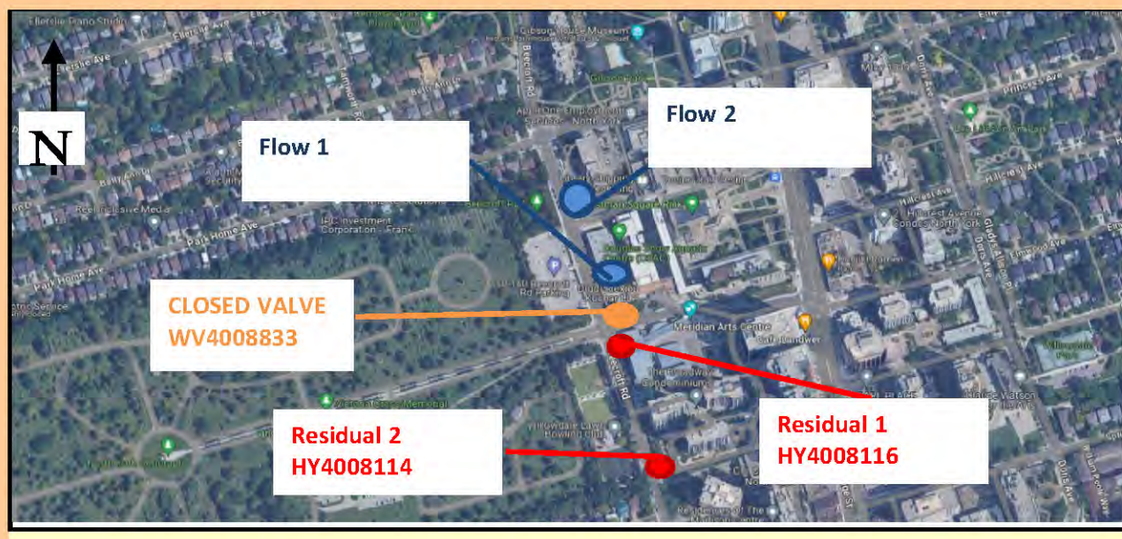
Local Losses in Subject Watermain

Element	Qty.	K Value	Total
Cross - Line Flow	0	0.30	0.00
45-Degree Bend	0	0.20	0.00
30-Degree Bend	0	0.10	0.00
15-Degree Bend	0	0.05	0.00
Gate Valve Open	0	0.39	0.00
T-Section, Run-Through	0	0.35	0.00
		Total K	**0.00**

CFT4 - 196 BEECROFT RD

C-FACTOR TEST RESULTS

Date:	31-Oct-23 (DD/MM/YYYY)	Time:	8:49 (hh/mm)	Municipality	City of Toronto
				Municipal Operator:	0
Tested By:	SY, IK, JD			Test No:	**CFT4**



Initial Conditions		
Pressure @ Flow (F)		
Pressure @ R1:	68.3 psi	471 kPa
Pressure @ R2:	68.2 psi	470 kPa
Δ pressure R1 - R2:	0.0 psi	0 kPa
Elevation Difference:	-0.1 ft	0.0 m
Length of test pipe:	527 ft	161 m
Diameter of Test Pipe:	16 in	400 mm

Test Notes

NOZZLE		FLOW				RESIDUAL PRESSURE (psi)		HEAD LOSS (Friction)		Hazen-Williams	Friction Factor
Size (in)	Pressure	(GPM)	(L/s)	Total Flow	Duration	R1	R2	(ft)	(m)		
STATIC		0	0	0	0	68.26	68.23	N/A	N/A	N/A	N/A
1 Port Test											
1 port	0.0	0	0	0	0	0.00	0.00	-	-	N/A	N/A
2 Port Test						Pressure Drop:	0.00				
Port 1	20.3	702	44.3	87.0	70	67.21	67.69	1.16	0.35	95	0.03610
Port 2	18.8	677	42.7								
3 Port Test						Pressure Drop:	0.50				
Port 1	0	0	0.0	0.0	0	0.00	0.00	-	0.02	N/A	N/A
Port 2	0	0	0.0								
Port 3	0	0	0.0								
4 Port Test						Pressure Drop:	0.00				
Port 1	19.7	693	43.7	213.8	40	65.58	66.53	2.25	0.69	163	0.01157
Port 2	17.3	648	40.9								
Port 3	43.6	1030	65.0								
Port 4	42.6	1018	64.2								
						Pressure Drop:	0.98				

*Pressure drop of 2 psi (14 - 21 kPa) or more should be attempted for optimum results.

Results	
Max Velocity (m/s)	**1.7**
Material	**Cast Iron**
Friction Factor, f	**0.0238**
C-Factor	**129**
Year Installed	**1952**
Water Used by Test (L)	**57212**

HEADLOSS

$$h_L = C_f\left[\left(P_{UT} - P_{DT}\right) - \left(P_{US} - P_{DS}\right)\right]$$

P_{UT} = pressure at upstream hydrant, flowed condition (psi, kPa)
P_{DT} = pressure at downstream hydrant, flowed condition (psi,kPa)
P_{US} = pressure at upstream hydrant, static conditions (psi, kPa)
P_{DS} = pressure at downstream hydrant, static condition (psi, kPa)
C_f = unit conversion factor (2.31 English, 0.102 SI)

C-FACTOR

$$C = \frac{Q}{k\ A\ R_H\ S^{0.54}}$$

$$R_H = \frac{D}{4}$$

$$S = \frac{h_L}{L}$$

FRICTION FACTOR

$$f = \frac{h_L D}{L} \times \frac{2g}{V^2} \quad (SI\ units)$$

C = Hazen-Williams C-factor
k = 0.849 (SI units) or 1.318 (US units)
Q = flow through test section (m3/s,cfs)
A = flow area (m2,ft2)
h_L = head loss due to friction (m,ft)
L = test length (m,ft)
D = pipe inner diameter (m,ft)

VELOCITY

$$V = \frac{4Q}{\pi D^2}$$

DISCLAIMER

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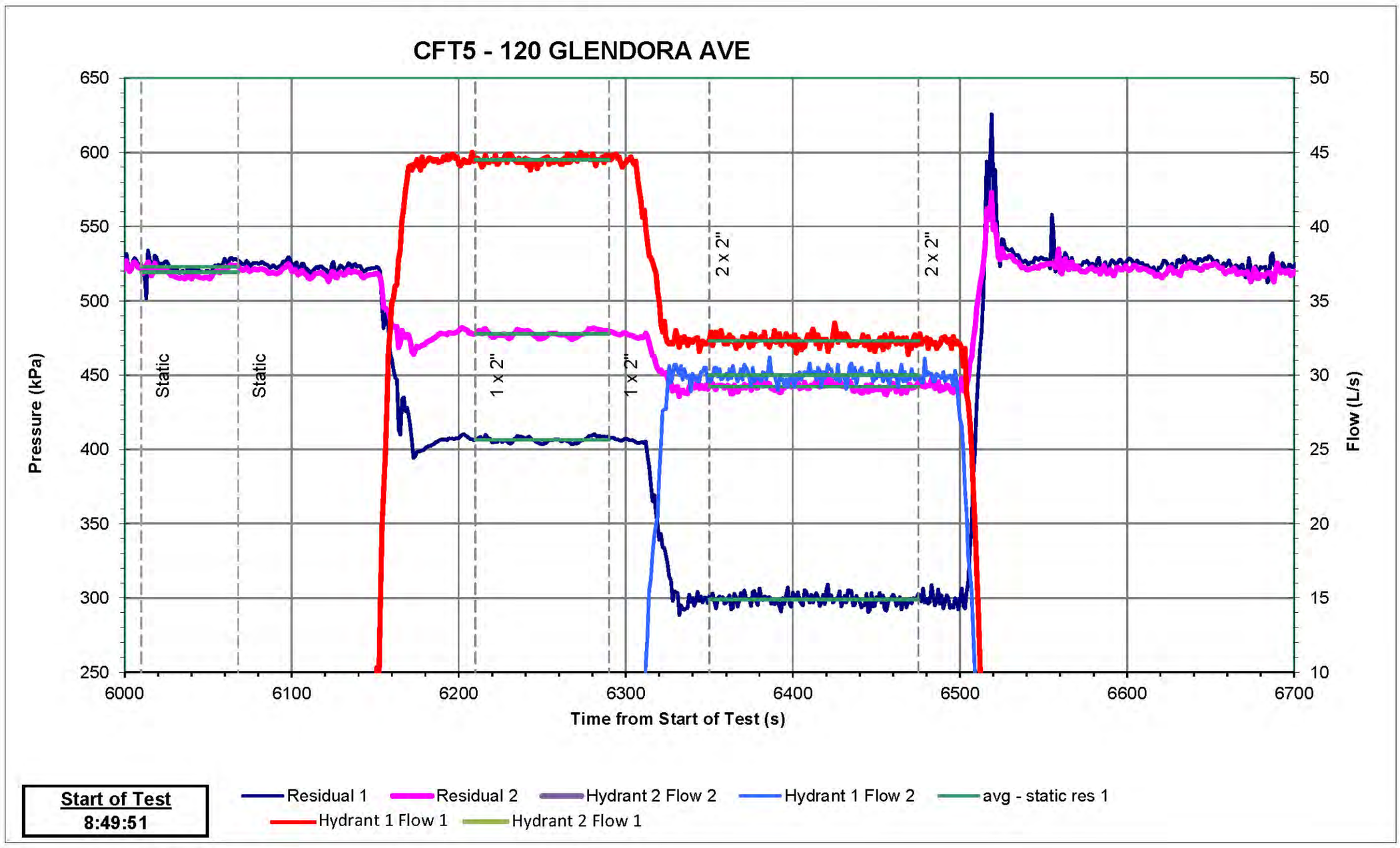

Subject Watermain Details

Diameter: 150 mm **Length:** 122
Area: 0.018 m2 **Material:** Cast Iron

Point	Time		Residual 1		Residual 2		Flow Hydrant (HY4037428)				Flow Hydrant (HYD_973C_6526)				Total Flow		Velocity	Minor Losses	Reyn-olds #, Re
			S4 on HY4023956		S3 on HY402393		2" Port (S2)		2" Port (S2)		2" Port (S1)		2" Port (S1)						
	Start	Finish	(kPa)	(psi)	(kPa)	(psi)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(m/s)	(kPa)	
Static	6010	6068	522.83	75.83	519.24	75.31	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.00	
1 x 2"	6210	6290	406.59	58.97	477.90	69.31	44.5	705	0.0	0	0.0	0	0.0	0	44.5	705	2.5	0.00	290560
2 x 2"	6350	6475	298.98	43.36	442.22	64.14	32.3	512	30.0	476	0.0	0	0.0	0	62.3	987	3.5	0.00	406784
3 x 2"			0.00	0.00	0.00	0.00	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.00	
4 x 2"			0.00	0.00	0.00	0.00	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.00	

Residual 1	
(kPa)	(psi)
522.83	75.83
406.59	58.97
298.98	43.36
0.00	0.00
0.00	0.00

120	240
720	730
360	370
600	660
840	850

Local Losses in Subject Watermain

Element	Qty.	K Value	Total
Cross - Line Flow	0	0.30	0.00
45-Degree Bend	0	0.20	0.00
30-Degree Bend	0	0.10	0.00
15-Degree Bend	0	0.05	0.00
Gate Valve Open	0	0.39	0.00
T-Section, Run-Through	0	0.35	0.00
		Total K	**0.00**

CFT5 - 120 GLENDORA AVE

C-FACTOR TEST RESULTS

Date:	31-Oct-23 (DD/MM/YYYY)	Time:	8:49 (hh/mm)	Municipality	City of Toronto
				Municipal Operator:	1
Tested By:	SY, IK, JD			Test No:	**CFT5**

Initial Conditions		
Pressure @ Flow (F)		
Pressure @ R1:	75.8 psi	523 kPa
Pressure @ R2:	75.3 psi	519 kPa
Δ pressure R1 - R2:	-0.5 psi	-4 kPa
Elevation Difference:	-1.7 ft	-0.4 m
Length of test pipe:	400 ft	122 m
Diameter of Test Pipe:	6 in	150 mm
Test Notes		

NOZZLE		FLOW				RESIDUAL PRESSURE (psi)		HEAD LOSS (Friction)		Hazen-Williams	Friction Factor
Size (in)	Pressure	(GPM)	(L/s)	Total Flow	Duration	R1	R2	(ft)	(m)		
STATIC		0	0	0	0	75.83	75.31	N/A	N/A	N/A	N/A
1 Port Test											
1 port	20.4	705	44.5	44.5	80	58.97	69.31	25.05	7.64	105	0.02904
2 Port Test						Pressure Drop:	10.86				
Port 1	10.8	512	32.3	62.3	125	43.36	64.14	49.14	14.98	102	0.02907
Port 2	9.3	476	30.0								
3 Port Test						Pressure Drop:	21.30				
Port 1	0	0	0.0	0.0	0	0.00	0.00	-	0.37	N/A	N/A
Port 2	0	0	0.0								
Port 3	0	0	0.0								
4 Port Test						Pressure Drop:	0.00				
Port 1	0.0	0	0.0	0.0	0	0.00	0.00	-	0.37	N/A	N/A
Port 2	0.0	0	0.0								
Port 3	0.0	0	0.0								
Port 4	0.0	0	0.0								
						Pressure Drop:	0.00				

*Pressure drop of 2 psi (14 - 21 kPa) or more should be attempted for optimum results.

HEADLOSS

$$h_L = C_f\left[\left(P_{UT} - P_{DT}\right) - \left(P_{US} - P_{DS}\right)\right]$$

P_{UT} = pressure at upstream hydrant, flowed condition (psi, kPa)
P_{DT} = pressure at downstream hydrant, flowed condition (psi,kPa)
P_{US} = pressure at upstream hydrant, static conditions (psi, kPa)
P_{DS} = pressure at downstream hydrant, static condition (psi, kPa)
C_f = unit conversion factor (2.31 English, 0.102 SI)

Results	
Max Velocity (m/s)	**3.5**
Material	**Cast Iron**
Friction Factor, f	**0.0291**
C-Factor	**103**
Year Installed	**1952**
Water Used by Test (L)	**0**

C-FACTOR

$$C = \frac{Q}{k\ A\ R_H\ S^{0.54}}$$

$$R_H = \frac{D}{4}$$

$$S = \frac{h_L}{L}$$

FRICTION FACTOR

$$f = \frac{h_L D}{L} \times \frac{2g}{V^2} \quad (SI\ units)$$

C = Hazen-Williams C-factor
k = 0.849 (SI units) or 1.318 (US units)
Q = flow through test section (m3/s,cfs)
A = flow area (m2,ft2)
h_L = head loss due to friction (m,ft)
L = test length (m,ft)
D = pipe inner diameter (m,ft)

VELOCITY

$$V = \frac{4Q}{\pi D^2}$$

DISCLAIMER

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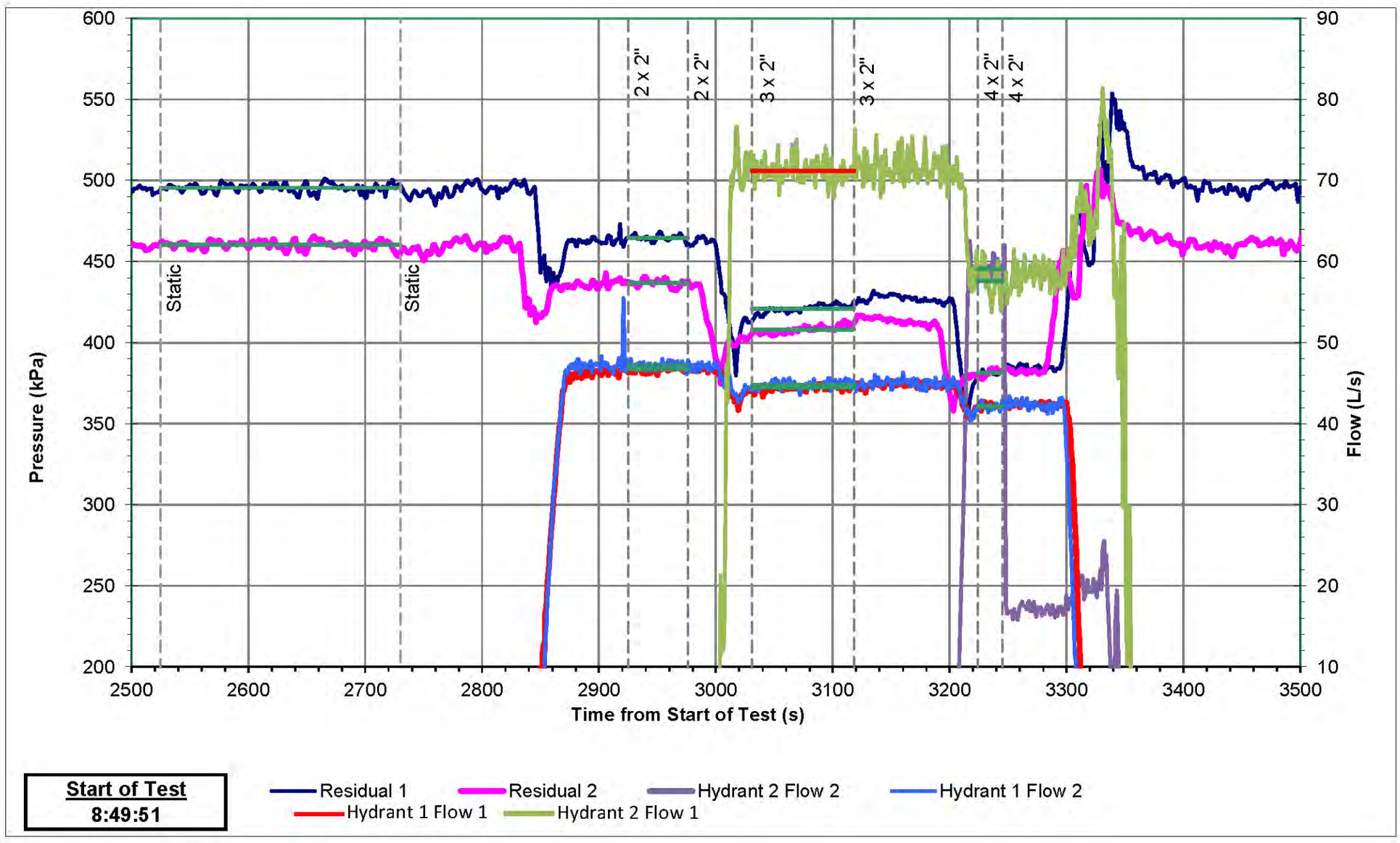
CFT6 - 80 HARISON GARDEN BLVD



Subject Watermain Details

Diameter:	300 mm	**Length:**	149
Area:	0.071 m2	**Material:**	PVC

Point	Time		Residual 1		Residual 2		Flow Hydrant ()				Flow Hydrant ()				Total Flow		Velocity	Minor Losses	Reyn-olds #, Re
			S4 on		S3 on		2" Port (S2)		2" Port (S2)		2" Port (S1)		2" Port (S1)						
	Start	Finish	(kPa)	(psi)	(kPa)	(psi)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(L/s)	(GPM)	(m/s)	(kPa)	
Static	2525	2730	495.49	71.86	460.23	66.75	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.00	
1 x 2"			0.00	0.00	0.00	0.00	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.00	
2 x 2"	2925	2976	464.59	67.38	436.66	63.33	46.7	740	47.2	748	0.0	0	0.0	0	93.9	1488	1.3	0.00	306557
3 x 2"	3031	3118	420.84	61.04	408.15	59.20	44.4	704	44.8	710	71.2	1129	2.0	32	162.4	2574	2.3	0.00	530190
4 x 2"	3224	3245	381.41	55.32	381.22	55.29	42.2	669	42.1	667	57.6	913	59.1	937	201.0	3186	2.8	0.00	656208

Residual 1	
(kPa)	(psi)
495.49	71.86
0.00	0.00
464.59	67.38
420.84	61.04
381.41	55.32

120	240
720	730
360	370
600	660
840	850

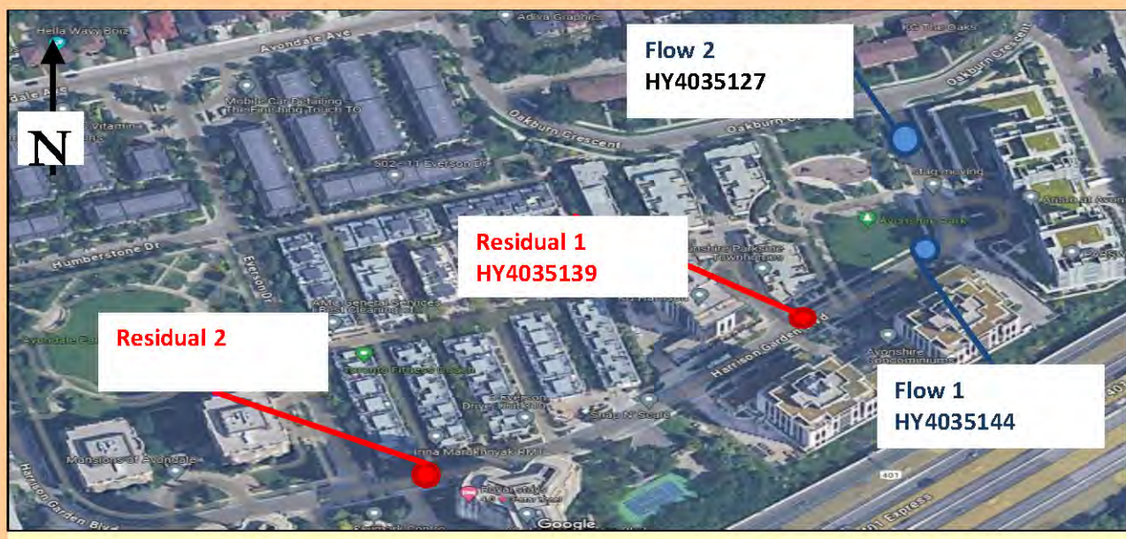
Local Losses in Subject Watermain

Element	Qty.	K Value	Total
Cross - Line Flow	0	0.30	0.00
45-Degree Bend	0	0.20	0.00
30-Degree Bend	0	0.10	0.00
15-Degree Bend	0	0.05	0.00
Gate Valve Open	0	0.39	0.00
T-Section, Run-Through	0	0.35	0.00
		Total K	**0.00**

CFT6 - 80 HARISON GARDEN BLVD

C-FACTOR TEST RESULTS

Date:	31-Oct-23 (DD/MM/YYYY)	Time:	8:49 (hh/mm)
Municipality	City of Toronto	Municipal Operator:	0
Tested By:	SY, IK, JD	Test No:	**CFT6**



Initial Conditions		
Pressure @ Flow (F)		
Pressure @ R1:	71.9 psi	495 kPa
Pressure @ R2:	66.8 psi	460 kPa
Δ pressure R1 - R2:	-5.1 psi	-35 kPa
Elevation Difference:	-16.8 ft	-3.6 m
Length of test pipe:	487 ft	149 m
Diameter of Test Pipe:	12 in	300 mm
Test Notes		

NOZZLE		FLOW				RESIDUAL PRESSURE (psi)		HEAD LOSS (Friction)		Hazen-Williams	Friction Factor
Size (in)	Pressure	(GPM)	(L/s)	Total Flow	Duration	R1	R2	(ft)	(m)		
STATIC		0	0	0	0	71.86	66.75	N/A	N/A	N/A	N/A
1 Port Test											
1 port	0.0	0	0	0	0	0.00	0.00	-	-	N/A	N/A
2 Port Test						Pressure Drop:	0.00				
Port 1	22.5	740	46.7	93.9	51	67.38	63.33	2.45	0.75	139	0.01679
Port 2	23.0	748	47.2								
3 Port Test						Pressure Drop:	1.06				
Port 1	20.4	704	44.4	160.4	87	61.04	59.20	7.55	2.30	130	0.01728
Port 2	20.7	710	44.8								
Port 3	52.4	1129	71.2								
4 Port Test						Pressure Drop:	3.27				
Port 1	18.4	669	42.2	201.0	21	55.32	55.29	11.74	3.58	128	0.01754
Port 2	18.3	667	42.1								
Port 3	34.3	913	57.6								
Port 4	36.1	937	59.1								
						Pressure Drop:	5.09				

*Pressure drop of 2 psi (14 - 21 kPa) or more should be attempted for optimum results.

Results	
Max Velocity (m/s)	**2.8**
Material	**PVC**
Friction Factor, f	**0.0172**
C-Factor	**132**
Year Installed	**2000**
Water Used by Test (L)	**68008**

HEADLOSS

$$h_L = C_f\left[(P_{UT} - P_{DT}) - (P_{US} - P_{DS})\right]$$

P_{UT} = pressure at upstream hydrant, flowed condition (psi, kPa)
P_{DT} = pressure at downstream hydrant, flowed condition (psi,kPa)
P_{US} = pressure at upstream hydrant, static conditions (psi, kPa)
P_{DS} = pressure at downstream hydrant, static condition (psi, kPa)
C_f = unit conversion factor (2.31 English, 0.102 SI)

C-FACTOR

$$C = \frac{Q}{k\ A\ R_H\ S^{0.54}}$$

$$R_H = \frac{D}{4}$$

$$S = \frac{h_L}{L}$$

FRICTION FACTOR

$$f = \frac{h_L D}{L} \times \frac{2g}{V^2} \quad (SI\ units)$$

C = Hazen-Williams C-factor
k = 0.849 (SI units) or 1.318 (US units)
Q = flow through test section (m3/s,cfs)
A = flow area (m2,ft2)
h_L = head loss due to friction (m,ft)
L = test length (m,ft)
D = pipe inner diameter (m,ft)

VELOCITY

$$V = \frac{4Q}{\pi D^2}$$

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Appendix B: Pipe and Junction Results

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ14235	0.18	185.18	224.53	385
WJ15670	0.15	183.45	226.29	419
WJ15678	0.14	185.35	225.81	396
WJ15686	0.21	187.65	225.72	372
WJ16170	0.81	177.80	224.97	461
WJ16225	2.01	172.90	224.98	509
WJ18030	0.45	173.40	225.04	505
WJ18031	0.04	173.40	225.04	505
WJ18032	0.02	173.40	225.04	505
WJ18033	0.00	173.40	225.04	505
WJ18034	0.00	172.15	225.03	517
WJ19276	0.00	169.20	225.04	546
WJ19330	1.89	170.00	225.03	538
WJ19333	0.41	175.00	225.12	490
WJ19377	0.07	180.20	224.96	438
WJ19378	2.22	180.00	224.96	440
WJ20132	0.02	175.80	225.08	482
WJ20153	0.06	177.00	225.07	470
WJ20154	0.23	176.31	225.07	477
WJ20173	3.45	174.50	225.08	495
WJ20935	0.18	190.64	224.46	331
WJ21055	0.04	175.20	225.15	489
WJ21075	1.45	179.20	225.12	449
WJ21116	0.15	186.21	225.08	380
WJ21239	1.03	169.30	225.03	545
WJ21258	0.14	169.60	225.03	542
WJ21278	0.44	170.60	225.03	532
WJ21298	0.09	172.80	225.90	519
WJ21558	0.09	174.10	225.37	501
WJ21578	0.01	175.60	225.52	488
WJ21598	0.10	176.80	225.48	476
WJ21660	0.20	192.00	224.07	314
WJ21799	0.22	186.50	225.09	377
WJ22343	0.16	174.92	225.08	490
WJ22344	0.24	174.92	225.08	491
WJ22345	0.34	177.45	225.16	467
WJ22361	0.07	175.20	225.02	487
WJ22601	0.01	186.40	224.93	377
WJ22621	0.05	190.80	224.92	334
WJ22721	0.75	178.00	224.98	459
WJ22724	0.15	174.50	224.99	494
WJ22821	0.43	188.93	225.25	355
WJ22861	3.40	190.30	225.39	343
WJ23505	0.18	185.50	226.15	398
WJ23506	0.14	189.40	225.99	358
WJ23507	0.16	189.40	225.93	357
WJ23508	0.23	189.20	225.83	358
WJ23509	0.11	189.10	225.71	358
WJ23510	0.11	189.30	225.64	355
WJ23511	0.11	189.30	225.57	355
WJ23544	0.05	190.30	225.57	345
WJ24044	0.08	186.72	224.36	368
WJ24204	4.41	188.12	225.01	361
WJ24244	0.00	186.55	225.03	376
WJ24264	1.63	186.55	225.03	376
WJ24284	1.75	188.75	225.04	355
WJ24285	0.00	184.62	225.03	395
WJ24304	0.00	184.62	225.03	395
WJ24344	2.89	188.78	225.04	355
WJ24364	0.00	184.62	225.03	395
WJ24366	0.05	184.62	225.03	395
WJ25695	0.00	180.70	225.01	433
WJ25696	0.00	179.10	225.01	449

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ25697	0.05	180.20	225.01	438
WJ25698	0.17	179.95	225.01	441
WJ26555	0.33	174.16	225.03	498
WJ26758	0.04	177.66	226.83	481
WJ26759	0.13	180.25	226.93	456
WJ26760	0.03	183.93	227.06	422
WJ27194	0.00	172.84	225.01	510
WJ27354	0.00	180.94	226.73	448
WJ27355	0.00	180.94	226.73	448
WJ27375	0.12	187.49	224.38	361
WJ27857	0.00	188.93	224.83	351
WJ27858	0.04	188.93	224.83	351
WJ27861	0.10	188.93	224.83	351
WJ27874	0.17	188.82	224.75	351
WJ27875	0.00	188.53	224.75	354
WJ27877	0.01	188.21	224.75	357
WJ27879	0.00	188.28	224.75	357
WJ27916	0.02	186.89	224.75	370
WJ27917	0.42	186.92	224.75	370
WJ27918	0.04	186.93	224.75	370
WJ27974	0.14	174.50	225.08	495
WJ27994	1.03	177.15	225.10	469
WJ28014	1.38	172.60	225.08	513
WJ28034	0.02	176.60	225.07	474
WJ28054	0.00	169.40	225.04	544
WJ28076	0.23	184.75	224.73	391
WJ28077	0.02	184.79	224.73	391
WJ28079	0.19	184.51	224.73	393
WJ28096	0.05	169.20	225.04	546
WJ28114	0.00	167.80	225.04	560
WJ28134	0.10	182.60	225.21	417
WJ28135	0.11	183.75	225.25	406
WJ28154	0.08	178.70	225.32	456
WJ28174	0.00	176.60	225.48	478
WJ28175	0.04	177.50	225.47	469
WJ28177	0.00	177.00	225.52	474
WJ28214	0.28	177.68	225.10	464
WJ28234	0.78	169.60	225.04	542
WJ38909	0.04	182.14	225.32	422
WJ4001543	1.07	190.80	225.69	341
WJ4001881	0.41	191.40	225.59	334
WJ4001888	0.10	190.29	225.54	345
WJ4001895	2.13	190.04	225.50	347
WJ4001900	0.25	189.62	225.45	350
WJ4001950	0.31	189.24	225.31	353
WJ4001964	0.14	186.67	225.32	378
WJ4001983	0.29	186.31	225.32	382
WJ4002007	0.14	188.89	226.11	364
WJ4002064	0.54	188.74	224.96	354
WJ4002079	0.56	188.39	224.93	357
WJ4002150	0.08	186.52	224.72	374
WJ4002158	0.08	186.53	224.74	374
WJ4002202	0.06	186.71	224.79	372
WJ4002204	0.08	186.60	224.79	373
WJ4002294	0.06	167.18	224.36	559
WJ4002296	0.13	172.37	224.36	508
WJ4002308	0.06	169.71	224.36	534
WJ4002319	0.11	176.04	224.36	473
WJ4002321	0.08	186.07	224.72	378
WJ4002333	0.00	186.74	224.73	372
WJ4002359	0.04	175.74	224.36	476
WJ4002365	0.03	174.73	224.36	485
WJ4002380	0.08	181.16	224.34	422

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4002430	0.04	178.83	224.37	445
WJ4002498	0.32	187.71	224.61	361
WJ4002512	4.55	190.11	224.71	338
WJ4002977	0.08	187.61	225.06	366
WJ4003146	0.28	186.52	224.98	376
WJ4003473	0.24	187.12	225.06	371
WJ4003628	0.18	186.97	224.98	372
WJ4003633	1.52	190.44	224.71	335
WJ4003830	2.34	192.23	224.43	315
WJ4003831	0.09	191.75	224.40	319
WJ4003834	0.09	191.94	224.12	315
WJ4003845	0.00	190.85	224.41	328
WJ4003907	0.04	153.96	224.12	686
WJ4003922	0.05	161.62	224.00	610
WJ4003924	0.09	156.59	223.91	658
WJ4003925	0.15	169.56	223.90	531
WJ4003927	0.12	185.95	223.87	371
WJ4003929	0.10	193.29	223.85	299
WJ4003930	0.12	194.39	223.80	288
WJ4003953	0.09	153.07	224.27	696
WJ4003958	0.16	151.64	224.27	710
WJ4003978	0.10	158.93	224.27	639
WJ4003998	0.07	159.76	224.28	631
WJ4004000	0.07	163.75	224.27	592
WJ4004013	0.04	164.54	224.27	584
WJ4004140	0.12	184.32	223.94	387
WJ4004148	0.21	155.08	224.07	675
WJ4004151	0.11	153.77	224.12	688
WJ4004177	0.11	152.83	224.29	699
WJ4004184	0.13	160.43	224.27	624
WJ4004286	0.24	170.11	224.25	529
WJ4004354	0.12	181.69	224.12	415
WJ4004368	0.18	183.85	224.16	394
WJ4004396	0.07	178.63	224.03	444
WJ4004417	0.07	189.50	224.10	338
WJ4004418	0.06	190.78	223.89	324
WJ4004476	0.06	195.42	224.06	280
WJ4004482	0.18	195.07	224.06	283
WJ4004488	0.07	189.57	224.40	341
WJ4004501	0.06	189.44	224.41	342
WJ4004537	0.13	190.40	224.12	330
WJ4004538	0.10	191.98	224.08	314
WJ4004558	0.09	185.67	224.10	376
WJ4004560	0.14	187.84	224.02	354
WJ4004563	0.17	186.52	224.01	367
WJ4004565	0.17	179.79	223.99	432
WJ4004567	0.13	179.55	223.98	435
WJ4004584	0.33	165.48	224.08	573
WJ4004621	0.08	189.52	224.43	341
WJ4004623	0.15	188.28	224.50	354
WJ4004827	0.17	155.49	224.25	672
WJ4004914	0.02	181.69	229.08	463
WJ4004963	0.12	188.09	224.50	356
WJ4005072	0.22	193.82	224.01	295
WJ4005083	0.14	193.34	224.01	300
WJ4005420	0.00	180.88	224.27	424
WJ4005428	0.05	180.20	224.19	430
WJ4005429	0.10	180.57	224.18	426
WJ4005430	0.11	182.23	224.17	410
WJ4005489	0.13	168.05	224.14	549
WJ4005613	0.19	180.10	224.18	431
WJ4005699	0.11	188.62	224.52	351
WJ4005703	0.05	186.47	224.29	370

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4005704	0.00	185.64	224.29	378
WJ4005731	0.05	181.84	224.18	414
WJ4005966	0.08	184.31	224.36	392
WJ4005967	0.09	185.90	224.36	376
WJ4005968	0.06	182.69	224.36	407
WJ4005982	0.08	189.05	224.29	345
WJ4006036	0.09	187.83	224.50	359
WJ4006038	0.10	187.81	224.50	359
WJ4006048	0.03	187.80	224.50	359
WJ4006067	0.20	187.60	224.51	361
WJ4006069	0.04	187.81	224.50	359
WJ4006075	0.26	187.05	224.52	366
WJ4006089	0.26	187.71	224.53	360
WJ4006091	0.43	188.15	224.53	356
WJ4006109	0.13	187.27	224.54	364
WJ4006148	0.07	183.63	224.17	396
WJ4006153	0.23	181.69	224.12	415
WJ4006212	0.01	185.56	224.18	378
WJ4006214	0.01	184.89	224.16	384
WJ4006217	0.09	184.89	224.15	384
WJ4006221	0.06	188.97	224.16	344
WJ4006222	0.22	188.97	224.16	344
WJ4006305	0.28	180.85	226.68	448
WJ4006350	0.08	175.08	224.22	481
WJ4006399	0.22	187.70	225.78	372
WJ4006581	0.17	187.44	225.25	370
WJ4006585	0.15	188.64	225.25	358
WJ4006591	0.46	188.40	225.22	360
WJ4006781	0.10	189.55	225.52	352
WJ4006785	0.36	190.15	225.52	346
WJ4006791	0.44	190.26	225.42	344
WJ4006801	0.28	187.85	225.29	366
WJ4006814	0.09	187.69	225.29	368
WJ4006820	0.11	187.15	225.28	373
WJ4006835	0.32	186.40	225.26	380
WJ4006925	0.10	188.20	226.20	372
WJ4006928	0.22	189.27	226.07	360
WJ4006933	0.09	187.43	225.31	370
WJ4006935	0.07	174.50	224.71	491
WJ4006937	0.00	170.70	224.71	528
WJ4006938	0.03	170.80	224.71	527
WJ4006959	0.20	178.75	224.81	450
WJ4008023	0.05	189.90	225.52	348
WJ4008156	0.20	190.55	225.53	342
WJ4008182	0.00	184.26	227.11	419
WJ4008231	0.08	188.97	226.06	363
WJ4008234	0.08	187.48	226.06	377
WJ4008236	0.69	186.87	226.13	384
WJ4008256	0.11	190.44	225.88	347
WJ4008263	0.10	188.98	225.99	362
WJ4008290	0.20	188.23	226.03	370
WJ4008317	0.00	184.58	227.12	416
WJ4008322	0.21	189.86	225.71	351
WJ4008331	0.42	190.58	225.89	345
WJ4008332	0.00	184.44	226.74	414
WJ4008389	0.49	184.60	226.73	412
WJ4008399	1.16	182.47	226.73	433
WJ4008433	3.49	180.12	226.65	455
WJ4008460	0.22	180.80	226.72	449
WJ4008473	0.05	180.84	226.74	449
WJ4008476	1.60	181.13	226.71	446
WJ4008477	0.00	181.09	226.71	446
WJ4008483	0.67	190.32	226.23	351

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4008497	0.06	181.18	226.73	445
WJ4008507	0.16	188.37	225.34	362
WJ4008551	0.05	188.23	226.03	370
WJ4008612	0.04	183.84	225.45	407
WJ4008614	0.11	183.08	225.46	415
WJ4008619	1.08	181.23	226.82	446
WJ4008623	0.11	185.00	225.49	396
WJ4008642	0.03	184.12	225.40	404
WJ4008646	0.11	185.30	225.34	392
WJ4008654	0.00	179.25	229.87	495
WJ4008657	0.00	179.12	229.88	496
WJ4008658	0.06	179.25	229.87	495
WJ4008659	0.00	179.31	229.88	495
WJ4008661	0.07	189.45	225.23	350
WJ4008662	0.13	188.02	225.23	364
WJ4008669	0.10	185.14	225.34	393
WJ4008673	0.05	183.40	225.40	411
WJ4008675	0.17	177.93	229.87	508
WJ4008677	0.82	177.92	229.87	508
WJ4008678	0.00	178.45	229.87	503
WJ4008690	0.04	178.50	229.87	502
WJ4008692	0.57	178.36	229.87	504
WJ4008712	1.00	183.60	226.96	424
WJ4008721	0.00	181.67	227.10	444
WJ4008733	0.63	181.68	227.22	445
WJ4008778	0.18	181.30	227.35	450
WJ4008815	0.28	184.75	227.46	418
WJ4008818	0.72	182.63	227.46	438
WJ4008830	0.00	182.17	227.60	444
WJ4008852	0.60	182.00	227.74	447
WJ4009045	0.03	188.84	225.19	355
WJ4009063	0.09	186.74	225.34	377
WJ4009181	0.07	174.73	229.88	539
WJ4009187	0.12	189.86	225.30	347
WJ4009276	0.16	188.75	225.22	357
WJ4009277	0.15	188.84	225.23	356
WJ4009335	0.15	190.24	225.33	343
WJ4009358	0.15	187.41	224.99	368
WJ4009359	0.09	187.32	224.99	368
WJ4009602	0.04	189.68	225.30	348
WJ4009615	0.05	187.50	225.26	369
WJ4009617	0.04	187.94	225.12	364
WJ4009674	0.08	187.99	224.83	360
WJ4009686	0.10	187.41	224.91	367
WJ4009700	0.12	188.99	225.01	352
WJ4009709	0.04	189.20	224.99	350
WJ4009713	0.15	188.32	224.97	358
WJ4009830	0.04	188.74	225.08	355
WJ4009849	0.09	188.55	225.04	357
WJ4009916	0.36	187.26	224.72	366
WJ4010217	0.09	185.43	228.06	417
WJ4010233	0.03	188.10	224.55	356
WJ4010236	0.31	183.15	228.03	439
WJ4010286	0.15	183.53	224.40	400
WJ4010295	0.21	177.41	224.42	460
WJ4010297	0.12	177.64	224.41	457
WJ4010304	0.06	176.88	224.41	465
WJ4010347	0.08	186.31	224.54	374
WJ4010352	0.04	183.83	224.47	397
WJ4010368	0.01	185.69	227.96	413
WJ4010376	0.17	185.63	224.46	380
WJ4010377	0.07	187.58	224.46	361
WJ4010389	0.12	187.58	224.45	361

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4010392	1.02	188.37	224.45	353
WJ4010410	0.00	185.89	228.01	412
WJ4010414	3.76	188.37	224.58	354
WJ4010416	0.00	187.82	224.58	360
WJ4010417	0.00	187.43	224.54	363
WJ4010421	0.64	184.20	224.46	394
WJ4010422	0.14	180.29	227.92	466
WJ4010424	0.29	187.50	224.36	361
WJ4010425	0.04	187.50	224.36	361
WJ4010429	0.92	185.13	224.43	384
WJ4010433	0.03	183.94	224.43	396
WJ4010440	0.21	185.48	224.46	381
WJ4010452	0.08	188.25	224.46	354
WJ4010467	0.10	184.76	228.09	424
WJ4010475	0.28	184.87	228.09	423
WJ4010476	0.14	188.95	224.46	347
WJ4010518	0.17	184.79	224.53	389
WJ4010521	0.28	182.81	224.44	407
WJ4010581	0.11	176.48	224.90	474
WJ4010583	0.03	176.45	224.90	474
WJ4010597	0.06	176.57	224.91	473
WJ4010614	0.00	176.54	224.91	473
WJ4010705	0.23	184.10	228.14	431
WJ4010721	1.15	183.78	228.14	434
WJ4010917	0.53	182.74	228.09	444
WJ4010931	0.06	184.57	228.13	426
WJ4010946	0.02	182.58	228.14	446
WJ4011011	0.33	182.11	228.31	452
WJ4011139	0.24	173.98	228.15	530
WJ4011189	0.12	170.62	228.15	563
WJ4011289	0.08	173.75	229.88	549
WJ4011303	0.24	175.10	229.88	536
WJ4011304	0.06	175.31	229.88	534
WJ4011305	0.12	175.44	229.88	532
WJ4011378	0.14	182.17	227.96	448
WJ4011382	0.40	182.19	228.05	448
WJ4011387	0.14	180.40	228.10	467
WJ4011390	0.16	179.62	228.13	474
WJ4011399	0.09	177.87	228.16	492
WJ4011401	0.15	176.79	228.10	502
WJ4011411	0.10	181.86	228.06	452
WJ4011449	0.55	182.90	228.05	442
WJ4011452	0.17	182.76	228.09	443
WJ4011454	0.13	182.61	228.13	445
WJ4011458	0.81	182.46	228.18	447
WJ4011476	0.77	182.30	228.24	449
WJ4011479	0.19	182.16	228.29	451
WJ4011482	0.18	182.01	228.38	453
WJ4011486	1.36	181.85	228.47	456
WJ4011579	0.18	179.34	228.20	478
WJ4011582	0.00	179.25	228.20	479
WJ4011622	0.27	179.46	228.18	476
WJ4011632	0.22	180.09	228.18	470
WJ4011634	0.08	180.15	228.18	470
WJ4011663	0.14	180.75	228.46	467
WJ4011671	0.00	179.27	228.19	478
WJ4011676	0.11	178.67	228.19	484
WJ4011677	0.04	176.00	228.17	510
WJ4011680	0.20	179.49	228.28	477
WJ4011683	0.28	179.89	228.35	474
WJ4011763	0.06	181.16	228.44	462
WJ4011782	0.01	180.23	228.40	471
WJ4011806	0.29	179.72	228.17	474

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4011815	0.26	179.50	228.17	476
WJ4011848	0.21	178.34	228.16	487
WJ4011859	0.25	177.09	228.16	499
WJ4011870	0.26	175.84	228.16	512
WJ4011876	0.26	175.39	228.16	516
WJ4011930	0.06	183.41	224.77	404
WJ4011936	0.07	181.44	224.77	424
WJ4011938	0.07	182.53	224.77	413
WJ4011947	0.21	174.49	228.16	525
WJ4011969	0.19	182.49	224.79	414
WJ4011971	0.07	182.41	224.81	415
WJ4011981	0.05	181.06	224.81	428
WJ4011989	0.22	181.16	228.09	459
WJ4012031	0.26	181.54	224.70	422
WJ4012036	0.21	180.48	224.69	432
WJ4012072	0.27	180.28	224.73	435
WJ4012074	0.19	182.18	224.74	416
WJ4012081	0.24	182.32	224.74	415
WJ4012183	0.22	182.82	224.78	410
WJ4012185	0.15	183.10	224.78	408
WJ4012257	0.17	181.27	224.67	424
WJ4012259	0.13	184.65	224.69	392
WJ4012266	0.10	181.46	224.77	424
WJ4012268	0.09	184.70	224.77	392
WJ4012384	0.14	187.93	224.71	360
WJ4012385	0.00	187.83	224.71	361
WJ4012398	0.36	180.67	224.86	432
WJ4012399	0.18	181.91	224.85	420
WJ4012402	0.09	191.56	224.99	327
WJ4012562	4.37	191.27	224.89	329
WJ4012588	0.04	188.35	224.92	358
WJ4012852	0.91	191.26	224.89	329
WJ4012992	0.09	184.91	225.18	394
WJ4012994	0.22	186.56	225.14	377
WJ4012997	0.03	187.18	225.13	371
WJ4013001	0.10	187.81	225.11	365
WJ4013049	0.35	187.62	225.12	367
WJ4013050	0.04	188.39	225.07	359
WJ4013052	0.03	173.42	225.65	511
WJ4013060	0.00	189.07	225.04	352
WJ4013089	0.06	191.37	225.00	329
WJ4013093	0.19	190.45	225.02	338
WJ4013101	0.00	190.30	225.02	339
WJ4013102	0.00	190.04	225.02	342
WJ4013109	0.11	191.19	225.01	331
WJ4013114	0.00	191.06	225.01	332
WJ4013116	0.01	190.86	225.02	334
WJ4013120	2.43	190.85	225.03	334
WJ4013138	0.26	190.42	225.13	339
WJ4013221	0.01	173.64	225.55	508
WJ4013243	0.10	173.92	225.39	503
WJ4013245	0.03	174.11	225.38	501
WJ4013246	0.17	173.98	225.36	502
WJ4013252	0.08	173.81	225.35	504
WJ4013256	0.09	171.81	225.36	524
WJ4013268	0.08	174.14	225.37	501
WJ4013271	0.09	183.94	225.23	404
WJ4013272	0.09	183.95	225.23	404
WJ4013274	0.05	173.90	225.35	503
WJ4013283	0.13	172.68	225.33	515
WJ4013287	0.13	171.70	225.33	524
WJ4013299	0.09	171.47	225.33	527
WJ4013322	0.15	171.44	225.33	527

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4013337	0.10	186.67	225.05	375
WJ4013338	0.23	170.86	225.33	533
WJ4013339	0.12	183.90	225.12	403
WJ4013340	0.24	181.86	225.18	424
WJ4013346	0.20	181.00	225.22	432
WJ4013348	0.01	170.58	225.33	535
WJ4013361	0.15	170.11	225.33	540
WJ4013362	0.01	169.77	225.33	543
WJ4013382	0.08	171.45	225.33	527
WJ4013383	0.12	171.22	225.33	529
WJ4013414	0.05	170.04	225.31	540
WJ4013416	0.04	170.07	225.25	540
WJ4013418	0.19	170.14	225.24	539
WJ4013433	0.05	179.40	225.00	446
WJ4013443	0.12	173.00	225.18	510
WJ4013444	0.16	172.19	225.20	518
WJ4013455	0.03	180.71	225.00	433
WJ4013457	0.15	171.03	225.21	530
WJ4013458	0.04	170.96	225.21	531
WJ4013468	0.05	169.77	225.21	542
WJ4013470	0.17	169.88	225.21	541
WJ4013482	0.21	175.03	225.11	490
WJ4013490	0.01	178.02	225.08	460
WJ4013511	0.20	175.41	225.07	486
WJ4013512	0.21	171.57	225.11	524
WJ4013513	0.38	182.94	225.04	412
WJ4013517	0.02	179.90	225.16	443
WJ4013519	0.08	171.58	225.33	526
WJ4013520	0.04	171.57	225.33	526
WJ4013523	0.06	170.20	225.32	539
WJ4013528	0.01	170.30	225.32	538
WJ4013530	0.24	171.04	225.26	530
WJ4013538	0.26	175.83	225.07	482
WJ4013548	0.09	175.99	225.06	480
WJ4013704	0.30	173.84	225.34	504
WJ4013756	0.08	176.79	225.09	472
WJ4013827	0.14	177.73	225.18	464
WJ4013831	0.15	177.18	225.25	470
WJ4013852	0.18	174.93	225.50	495
WJ4013861	0.19	173.95	225.57	505
WJ4014248	0.06	176.80	225.36	475
WJ4014259	0.03	175.84	225.53	486
WJ4014260	0.09	175.10	225.61	494
WJ4014458	0.00	149.65	225.97	746
WJ4014459	0.69	170.24	225.04	536
WJ4014473	0.64	168.59	225.03	552
WJ4014474	0.42	168.21	225.03	556
WJ4014475	0.03	168.15	225.03	556
WJ4014481	0.06	175.54	225.80	492
WJ4014490	0.09	176.28	225.79	484
WJ4014496	0.05	174.57	225.79	501
WJ4014580	0.06	173.63	225.81	510
WJ4014588	0.03	175.08	225.81	496
WJ4014606	0.11	175.83	225.67	487
WJ4014623	0.05	168.24	225.03	555
WJ4014624	0.06	167.77	225.03	560
WJ4014701	0.15	167.31	225.03	564
WJ4014711	0.12	167.33	225.03	564
WJ4014719	0.10	168.83	225.03	550
WJ4014721	0.14	169.75	225.03	541
WJ4014757	0.13	170.13	225.03	537
WJ4014763	0.18	168.43	225.03	554
WJ4014820	0.11	167.58	225.03	562

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4014848	0.00	165.29	225.03	584
WJ4014873	0.18	166.79	225.03	570
WJ4014985	0.11	176.77	225.61	478
WJ4015007	0.24	175.76	225.76	489
WJ4015051	0.86	175.41	225.06	486
WJ4015172	0.10	171.85	225.01	520
WJ4015177	0.00	171.48	225.02	524
WJ4015178	0.07	171.48	225.02	524
WJ4015228	0.00	170.70	225.01	531
WJ4015229	0.00	170.70	225.01	531
WJ4015238	0.00	169.87	225.01	539
WJ4015239	0.00	169.81	225.01	540
WJ4015255	0.00	169.81	225.01	540
WJ4015256	0.00	169.80	225.01	540
WJ4015259	0.10	169.00	225.01	548
WJ4015272	0.06	173.20	225.84	515
WJ4015278	0.06	167.70	225.01	560
WJ4015279	0.06	170.71	225.01	531
WJ4015284	0.24	170.44	225.01	534
WJ4015289	0.32	170.59	225.01	532
WJ4015293	0.07	173.75	225.84	509
WJ4015305	0.09	178.68	225.61	459
WJ4015317	0.29	179.54	225.83	453
WJ4015324	0.17	178.31	226.03	467
WJ4015331	0.12	179.94	226.09	451
WJ4015332	0.09	171.53	225.01	523
WJ4015339	0.56	172.38	225.01	515
WJ4015345	0.10	179.87	226.19	453
WJ4015346	0.06	179.88	226.19	453
WJ4015355	1.78	175.03	225.01	489
WJ4015383	0.23	179.01	226.38	463
WJ4015473	0.10	181.25	224.93	427
WJ4015480	0.14	186.28	225.57	384
WJ4015497	0.09	185.33	225.89	397
WJ4015499	0.09	184.38	225.89	406
WJ4015576	0.02	164.91	225.02	588
WJ4015578	0.13	179.32	224.84	445
WJ4015587	0.20	178.44	224.87	454
WJ4015621	0.71	173.10	224.98	507
WJ4015640	0.18	179.59	224.87	443
WJ4015733	0.09	176.17	224.92	477
WJ4015741	0.05	176.75	224.95	471
WJ4015745	0.05	175.73	224.96	481
WJ4015766	0.05	181.90	225.00	421
WJ4015768	0.05	180.35	224.99	437
WJ4015775	0.08	181.17	224.95	428
WJ4015778	0.09	181.52	224.93	425
WJ4015780	0.23	176.77	225.17	473
WJ4015789	0.28	183.64	225.40	408
WJ4015822	0.14	168.21	225.02	556
WJ4015851	0.31	184.16	225.43	404
WJ4015863	0.10	167.30	225.02	565
WJ4015882	0.06	179.10	225.26	451
WJ4015904	0.01	167.75	225.02	560
WJ4015943	0.00	174.80	225.02	491
WJ4016055	0.11	176.79	224.94	471
WJ4016056	0.11	176.74	224.94	471
WJ4016125	0.08	174.52	224.95	493
WJ4016135	0.16	173.42	224.96	504
WJ4016147	0.10	175.28	224.96	486
WJ4016175	0.04	175.01	224.98	489
WJ4016204	0.21	190.55	226.10	348
WJ4016211	0.56	191.26	226.07	340

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4016216	0.59	191.84	226.00	334
WJ4016244	0.19	190.36	225.83	347
WJ4016258	0.12	190.95	225.83	341
WJ4016261	0.10	190.07	225.81	350
WJ4016330	0.09	189.63	225.78	354
WJ4016341	0.02	175.20	225.08	488
WJ4016342	0.08	186.43	225.60	383
WJ4016349	0.10	186.59	225.58	381
WJ4016357	0.09	175.32	225.10	487
WJ4016358	5.99	174.84	225.04	491
WJ4016359	1.18	175.17	225.03	488
WJ4016370	0.18	186.32	225.60	384
WJ4016374	0.20	182.55	225.46	420
WJ4016387	0.07	190.39	226.03	349
WJ4016388	0.52	175.60	225.59	489
WJ4016389	0.09	176.04	225.58	484
WJ4016393	0.12	175.48	225.57	490
WJ4016398	0.10	176.77	225.57	477
WJ4016401	0.08	189.92	226.21	355
WJ4016402	0.48	176.92	225.57	476
WJ4016405	0.14	188.45	226.21	369
WJ4016413	0.19	192.12	225.90	330
WJ4016425	0.19	190.57	225.91	346
WJ4016440	1.41	172.14	225.03	517
WJ4016445	0.04	188.50	226.24	369
WJ4016519	0.23	179.73	225.24	445
WJ4016532	0.16	181.32	225.46	432
WJ4016534	0.18	184.13	225.34	403
WJ4016558	0.05	182.80	225.43	417
WJ4016582	0.00	188.53	226.26	369
WJ4016583	0.02	188.50	226.26	369
WJ4016587	0.16	187.00	226.27	384
WJ4016591	0.06	183.82	226.32	416
WJ4016597	0.05	182.22	226.36	432
WJ4016605	0.04	179.49	226.45	459
WJ4016614	0.14	176.75	224.97	472
WJ4016638	0.00	179.40	226.45	460
WJ4016683	0.12	185.37	226.17	399
WJ4016685	0.07	184.64	226.16	406
WJ4016686	0.16	184.39	226.27	410
WJ4016689	0.14	182.86	226.28	425
WJ4016701	0.05	188.56	225.64	363
WJ4016704	0.14	175.25	224.97	486
WJ4016719	0.00	172.84	225.01	510
WJ4016727	0.01	170.21	225.02	536
WJ4016730	0.17	186.01	225.57	387
WJ4016732	0.03	186.00	225.57	387
WJ4016735	0.22	181.76	225.41	427
WJ4016749	1.71	170.32	225.02	535
WJ4016750	0.04	170.07	225.02	537
WJ4016785	2.27	170.29	225.02	535
WJ4016786	0.03	170.32	225.02	535
WJ4016793	0.00	171.10	225.03	527
WJ4016803	0.19	181.19	225.34	432
WJ4016809	0.10	168.59	225.01	552
WJ4016826	0.19	188.42	225.69	365
WJ4016832	0.12	182.14	225.32	422
WJ4016834	0.14	181.82	225.32	425
WJ4016839	0.16	179.91	225.25	443
WJ4016842	0.14	182.41	225.41	421
WJ4016861	0.02	186.76	225.57	379
WJ4016912	0.00	167.98	225.02	558
WJ4017039	0.06	182.61	224.39	409

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4017077	3.04	178.51	229.87	502
WJ4017078	0.66	178.22	229.87	505
WJ4017083	0.11	170.90	225.03	529
WJ4017087	4.69	173.30	225.00	506
WJ4017092	0.54	173.10	224.99	507
WJ4017150	0.20	173.07	224.74	505
WJ4017159	0.21	185.99	225.57	387
WJ4017170	0.01	177.58	226.03	474
WJ4017178	0.15	151.64	225.97	727
WJ4017187	0.00	168.28	224.70	552
WJ4017191	0.07	172.88	224.70	507
WJ4017192	0.08	177.06	224.70	466
WJ4017198	0.17	181.87	224.75	419
WJ4017209	0.13	191.28	224.89	329
WJ4017210	0.12	190.14	224.81	339
WJ4017212	0.11	191.28	224.89	329
WJ4017220	0.02	172.60	225.84	521
WJ4017229	6.05	191.21	224.88	329
WJ4017282	0.00	187.52	224.55	362
WJ4017284	0.34	180.24	224.40	432
WJ4017287	0.05	177.23	224.41	461
WJ4017292	0.24	190.64	224.46	331
WJ4017315	0.04	190.26	225.42	344
WJ4017333	0.22	186.69	224.58	370
WJ4017357	0.15	188.51	225.48	362
WJ4017359	0.17	191.34	223.89	318
WJ4017373	0.22	157.84	224.00	647
WJ4017447	0.00	175.03	224.22	481
WJ4017479	0.07	186.35	224.29	371
WJ4017495	0.03	183.40	224.26	400
WJ4017533	0.08	187.53	226.25	379
WJ4017546	0.19	188.97	226.12	363
WJ4017555	0.16	188.77	225.62	360
WJ4017556	0.06	190.27	225.62	346
WJ4017585	0.10	189.30	225.01	349
WJ4017587	0.06	188.00	225.12	363
WJ4017590	0.08	187.68	225.12	366
WJ4017629	0.06	189.71	225.30	348
WJ4017630	0.03	179.27	228.20	479
WJ4017639	0.01	188.22	226.20	371
WJ4017666	0.25	188.60	224.45	351
WJ4017691	0.09	187.92	224.68	359
WJ4017695	0.37	185.99	224.72	379
WJ4017698	0.21	185.77	227.74	410
WJ4017702	0.17	177.59	224.89	463
WJ4017733	0.11	169.41	225.03	544
WJ4017734	0.23	184.65	224.76	392
WJ4017736	0.21	169.06	225.01	547
WJ4017738	0.20	170.11	225.01	537
WJ4017740	0.26	184.85	224.76	390
WJ4017741	0.23	186.25	224.75	377
WJ4017742	0.28	185.06	225.57	396
WJ4017743	0.29	169.11	225.01	547
WJ4017748	0.27	186.75	225.57	380
WJ4017749	0.16	169.42	225.02	544
WJ4017750	0.24	186.69	225.57	380
WJ4017751	0.24	169.41	225.02	544
WJ4017752	0.12	168.03	225.02	557
WJ4017753	0.09	167.33	225.02	564
WJ4017755	0.25	186.64	225.57	381
WJ4017756	0.19	178.81	225.26	454
WJ4017758	0.16	179.51	225.25	447
WJ4017759	0.23	185.85	225.82	391

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4017763	0.18	172.83	225.00	510
WJ4017764	0.22	172.97	225.00	509
WJ4017766	0.16	189.91	224.12	335
WJ4017768	0.04	174.39	224.97	495
WJ4017772	0.78	186.34	225.54	383
WJ4017774	0.30	186.74	225.23	376
WJ4017775	0.19	172.38	225.00	515
WJ4017777	0.29	176.25	224.99	477
WJ4017778	2.10	176.37	224.98	475
WJ4017780	0.18	180.89	224.97	431
WJ4017781	0.22	177.82	224.97	461
WJ4017782	0.18	177.14	224.96	468
WJ4017783	0.21	178.73	224.96	452
WJ4017784	0.22	179.29	224.95	447
WJ4017785	0.17	179.98	224.94	440
WJ4017786	0.10	187.24	224.89	368
WJ4017787	0.18	190.96	225.07	334
WJ4017788	0.17	180.44	224.99	436
WJ4017793	0.21	178.61	225.26	456
WJ4017794	0.55	188.18	224.57	356
WJ4017795	0.00	186.81	224.51	369
WJ4017869	0.01	176.77	224.57	468
WJ4017888	0.04	189.74	225.63	351
WJ4017890	0.00	189.47	226.49	362
WJ4017897	1.62	188.30	225.58	365
WJ4017902	1.46	190.08	225.80	349
WJ4017904	0.03	189.02	225.39	356
WJ4017905	0.17	189.23	225.41	354
WJ4017907	0.44	189.85	225.36	347
WJ4017912	0.25	188.15	225.29	363
WJ4017916	0.55	188.06	225.28	364
WJ4017917	0.19	188.36	225.26	361
WJ4017927	2.41	171.70	225.03	522
WJ4017928	3.41	173.00	225.03	509
WJ4017965	0.00	188.33	226.35	372
WJ4017972	0.05	187.65	226.32	378
WJ4017976	0.00	187.64	226.30	378
WJ4017999	0.00	172.45	225.04	514
WJ4018000	0.00	173.01	225.04	509
WJ4018001	0.00	174.15	225.04	498
WJ4018002	0.00	174.16	225.04	498
WJ4018003	0.00	187.22	226.37	383
WJ4018021	0.05	189.68	224.92	345
WJ4018024	0.14	186.66	224.65	371
WJ4018048	0.00	181.11	229.33	472
WJ4018049	0.04	175.42	225.06	485
WJ4018053	0.00	175.44	225.06	485
WJ4018054	0.00	175.41	225.06	486
WJ4018055	0.00	181.12	229.33	472
WJ4018056	0.00	192.09	224.41	316
WJ4018057	0.00	175.45	225.06	485
WJ4018067	0.09	194.66	223.75	284
WJ4018068	0.00	194.70	223.76	284
WJ4018072	0.33	174.14	225.04	498
WJ4018090	0.00	179.43	229.87	493
WJ4018098	0.74	178.50	229.87	502
WJ4018101	0.00	177.93	229.88	508
WJ4018106	0.05	176.88	229.88	518
WJ4018109	0.00	177.44	229.88	513
WJ4018110	0.00	176.94	229.88	518
WJ4018111	0.00	176.87	229.88	518
WJ4018113	0.03	176.00	229.88	527
WJ4018115	0.00	171.87	229.89	567

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4018117	0.00	172.11	229.89	565
WJ4018123	0.00	171.92	229.89	567
WJ4018131	0.11	170.50	225.04	533
WJ4018132	0.00	171.94	229.89	567
WJ4018133	0.00	171.86	229.89	568
WJ4018134	0.00	171.54	229.89	571
WJ4018141	0.55	170.89	229.88	577
WJ4018142	0.00	170.38	229.89	582
WJ4018143	0.00	169.95	229.89	586
WJ4018148	0.01	150.90	224.34	718
WJ4018159	0.15	153.62	224.34	692
WJ4018166	0.18	182.39	224.34	410
WJ4018168	0.06	173.25	225.07	507
WJ4018169	0.00	175.02	224.22	481
WJ4018170	0.08	175.06	224.22	481
WJ4018176	0.11	169.55	225.02	543
WJ4018177	0.17	169.50	225.03	543
WJ4018179	0.00	169.90	225.02	539
WJ4018180	0.00	170.28	225.02	535
WJ4018183	0.07	179.68	224.31	437
WJ4018184	0.08	169.98	225.02	538
WJ4018186	0.00	171.42	225.02	524
WJ4018188	0.00	171.41	225.02	524
WJ4018191	0.01	171.47	225.01	524
WJ4018192	0.06	171.47	225.01	524
WJ4018199	0.15	174.48	224.26	487
WJ4018209	0.12	179.19	224.86	447
WJ4018216	0.09	178.52	224.86	453
WJ4018217	0.32	182.07	224.39	414
WJ4018221	0.00	172.54	229.89	561
WJ4018229	0.00	171.89	229.89	567
WJ4018260	0.14	178.12	224.41	453
WJ4018263	0.12	180.02	224.41	434
WJ4018264	0.06	177.07	224.41	463
WJ4018269	0.09	175.20	224.41	481
WJ4018280	0.20	173.15	224.64	504
WJ4018282	0.12	181.47	224.64	422
WJ4018289	0.02	189.82	225.23	346
WJ4018306	0.00	177.20	226.67	484
WJ4018307	1.16	176.86	226.66	487
WJ4018313	1.80	176.57	224.97	473
WJ4018314	1.26	174.22	224.98	496
WJ4018315	0.00	174.13	224.98	497
WJ4018316	1.00	172.34	224.99	515
WJ4018317	0.00	172.08	224.99	517
WJ4018318	3.58	170.79	225.00	530
WJ4018321	0.00	179.26	226.69	464
WJ4018325	2.61	180.50	226.67	451
WJ4018326	0.01	173.51	224.98	503
WJ4018328	0.08	174.18	224.98	497
WJ4018341	0.01	172.70	226.58	527
WJ4018342	0.00	170.26	226.64	551
WJ4018352	0.09	172.13	224.99	517
WJ4018393	1.32	180.81	226.69	449
WJ4018400	0.00	173.01	226.58	524
WJ4018417	0.03	173.23	226.56	521
WJ4018439	0.53	186.95	225.65	378
WJ4018440	0.07	186.96	225.65	378
WJ4018443	0.01	185.21	225.58	395
WJ4018445	0.00	185.19	225.58	395
WJ4018446	0.25	185.13	225.58	396
WJ4018447	0.00	185.15	225.58	395
WJ4018448	0.01	185.25	225.58	394

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4018450	0.14	188.19	225.70	367
WJ4018451	1.91	171.31	225.03	525
WJ4018452	0.13	189.63	225.75	353
WJ4018453	0.16	190.43	225.80	346
WJ4018454	0.04	191.81	225.88	333
WJ4018455	0.03	192.20	225.92	330
WJ4018456	0.00	191.18	226.00	340
WJ4018457	0.77	190.18	226.12	351
WJ4018459	0.05	171.22	225.01	526
WJ4018460	1.06	171.72	225.01	521
WJ4018461	0.00	171.59	225.01	522
WJ4018462	0.00	171.52	225.01	523
WJ4018463	0.00	190.54	226.24	349
WJ4018464	0.00	190.57	226.23	349
WJ4018465	0.00	188.69	226.25	367
WJ4018467	1.25	190.72	226.23	347
WJ4018471	0.00	190.47	226.23	350
WJ4018472	0.00	188.99	226.23	364
WJ4018473	0.00	171.50	225.01	523
WJ4018476	0.00	171.50	225.01	523
WJ4018480	0.03	171.26	225.00	526
WJ4018482	0.09	189.75	225.44	349
WJ4018513	1.07	188.34	226.35	372
WJ4018514	0.00	188.35	226.35	372
WJ4018524	0.42	174.36	224.97	495
WJ4018532	0.00	178.62	224.97	453
WJ4018533	0.00	178.87	224.97	451
WJ4018534	0.00	178.28	224.97	457
WJ4018542	0.40	175.17	225.03	488
WJ4018575	3.81	180.19	224.96	438
WJ4018583	0.11	184.79	226.18	405
WJ4018586	1.99	187.48	224.94	366
WJ4018588	3.96	187.58	224.94	365
WJ4018604	0.00	176.64	224.78	471
WJ4018605	0.00	178.84	224.80	449
WJ4018633	0.14	182.60	225.46	419
WJ4018634	0.24	181.48	225.34	429
WJ4018635	0.04	185.09	225.58	396
WJ4018862	0.00	185.72	228.07	414
WJ4018863	0.12	185.76	228.07	414
WJ4018874	0.01	185.73	228.07	414
WJ4018876	0.02	185.71	228.07	414
WJ4019063	0.02	168.36	229.88	602
WJ4019076	0.11	178.36	224.34	450
WJ4019077	0.02	178.81	224.37	446
WJ4019082	0.00	182.58	224.39	409
WJ4019278	0.02	191.32	225.70	336
WJ4019280	1.89	191.39	225.69	335
WJ4019295	0.05	175.95	225.00	480
WJ4019296	0.16	175.37	225.00	485
WJ4019306	0.16	171.28	225.01	526
WJ4019314	0.12	168.77	225.01	550
WJ4019316	0.15	168.48	225.01	553
WJ4019318	1.52	170.83	225.03	530
WJ4019320	0.09	182.56	224.38	409
WJ4019325	0.20	169.10	225.03	547
WJ4019326	0.18	168.57	225.03	552
WJ4019328	2.23	191.58	224.89	326
WJ4019334	0.03	191.01	224.68	329
WJ4019335	0.18	191.30	224.68	326
WJ4019344	0.72	182.75	225.28	416
WJ4019371	1.34	173.61	225.22	505
WJ4019383	0.03	175.11	224.96	488

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4019386	0.16	174.44	224.96	494
WJ4019398	0.02	171.66	225.33	525
WJ4019399	0.00	168.58	225.03	552
WJ4019415	0.10	187.23	225.47	374
WJ4019456	0.16	187.05	224.64	368
WJ4019463	0.20	186.64	224.84	374
WJ4019472	0.18	186.51	224.85	375
WJ4019556	0.00	186.36	226.29	390
WJ4019562	0.18	188.52	225.53	362
WJ4019567	0.07	189.23	225.23	352
WJ4019572	0.14	186.94	224.92	372
WJ4019575	0.22	188.39	224.73	355
WJ4019589	0.16	185.79	225.57	389
WJ4019594	0.11	182.65	225.95	423
WJ4019600	0.18	186.39	226.15	389
WJ4019603	0.21	187.39	226.15	379
WJ4019608	0.37	179.57	225.16	446
WJ4019610	0.33	178.88	225.16	453
WJ4019612	0.18	176.57	225.16	475
WJ4019614	0.20	177.23	225.16	469
WJ4019616	0.15	177.60	225.08	464
WJ4019619	0.19	176.14	225.08	479
WJ4019624	0.35	180.80	224.94	432
WJ4019626	1.54	187.07	224.92	370
WJ4019628	0.13	188.65	224.92	355
WJ4019630	3.98	190.11	224.92	340
WJ4019634	0.21	189.39	224.82	346
WJ4019636	0.34	189.06	224.84	350
WJ4019637	0.36	187.87	224.85	362
WJ4019639	0.15	185.05	224.85	389
WJ4019643	0.36	183.07	224.86	409
WJ4019644	0.17	182.15	224.89	418
WJ4019651	0.25	182.35	224.86	416
WJ4019654	0.12	181.44	224.86	425
WJ4019656	0.13	184.50	224.81	394
WJ4019658	0.19	185.39	224.80	385
WJ4019660	0.20	186.46	224.78	375
WJ4019665	0.25	189.11	224.72	348
WJ4019673	0.39	186.04	224.74	378
WJ4019675	0.40	185.60	224.75	383
WJ4019677	0.34	184.03	224.76	398
WJ4019680	0.24	182.65	224.77	412
WJ4019682	0.25	184.12	224.78	398
WJ4019684	0.11	179.78	224.81	440
WJ4019685	0.25	181.55	224.79	423
WJ4019687	0.28	182.70	224.76	411
WJ4019700	0.20	174.91	225.00	490
WJ4019709	0.23	178.30	224.99	457
WJ4019711	0.24	180.00	224.98	440
WJ4019724	0.11	173.29	225.65	512
WJ4019726	0.17	174.43	225.63	501
WJ4019733	0.18	175.36	225.51	490
WJ4019734	0.30	176.38	225.35	479
WJ4019735	0.27	179.35	225.25	449
WJ4019736	0.15	175.39	225.34	488
WJ4019737	0.09	173.57	225.55	508
WJ4019738	0.37	173.75	225.33	504
WJ4019741	0.36	176.83	225.18	473
WJ4019746	0.35	175.85	225.18	482
WJ4019760	0.18	181.40	224.95	426
WJ4019761	0.30	172.21	225.33	520
WJ4019762	0.28	173.33	225.34	509
WJ4019765	0.20	170.78	225.33	533

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4019766	0.25	180.17	224.95	438
WJ4019767	0.22	181.61	224.95	424
WJ4019768	0.24	179.30	224.96	447
WJ4019772	0.29	184.20	225.83	407
WJ4019773	0.29	181.67	225.84	432
WJ4019775	0.31	176.32	225.16	478
WJ4019777	0.28	176.77	225.17	473
WJ4019781	0.28	181.77	225.40	427
WJ4019782	0.20	179.17	225.46	453
WJ4019783	0.18	185.63	225.34	388
WJ4019786	0.25	177.52	224.96	464
WJ4019788	0.11	177.25	224.97	467
WJ4019789	0.22	180.78	225.23	435
WJ4019790	0.18	182.59	226.82	433
WJ4019792	0.00	175.60	225.12	484
WJ4019795	0.09	181.79	225.23	425
WJ4019796	0.09	186.73	225.33	378
WJ4019798	0.12	175.07	224.99	488
WJ4019803	0.18	176.09	224.98	478
WJ4019805	0.14	177.35	225.46	471
WJ4019806	0.16	176.64	225.47	478
WJ4019808	0.14	183.82	225.33	406
WJ4019809	0.20	181.48	225.22	428
WJ4019812	0.00	184.60	226.82	413
WJ4019815	0.22	176.75	224.95	471
WJ4019817	0.18	179.75	224.94	442
WJ4019818	0.24	178.33	224.96	456
WJ4019819	0.21	175.74	224.97	481
WJ4019820	0.23	176.32	224.97	476
WJ4019822	0.19	174.98	224.97	489
WJ4019826	0.17	176.26	224.96	476
WJ4019829	0.19	174.46	224.97	494
WJ4019834	0.18	173.72	224.98	501
WJ4019838	0.21	178.45	224.95	455
WJ4019841	0.15	178.70	224.94	452
WJ4019842	0.16	176.83	224.98	471
WJ4019845	0.15	178.99	224.94	449
WJ4019846	0.15	184.18	226.93	418
WJ4019848	0.10	172.38	224.99	515
WJ4019851	0.25	179.20	224.93	447
WJ4019852	0.35	171.15	225.00	527
WJ4019855	0.18	180.02	224.91	439
WJ4019856	0.25	175.80	224.99	481
WJ4019862	0.23	173.94	224.99	499
WJ4019865	0.21	177.11	224.93	468
WJ4019873	0.15	170.29	225.01	535
WJ4019876	0.15	185.68	227.35	408
WJ4019908	0.19	176.41	224.93	475
WJ4019914	0.20	177.37	224.92	465
WJ4019916	0.16	176.88	224.91	470
WJ4019918	0.19	177.11	224.90	467
WJ4019991	0.22	181.07	228.09	460
WJ4019994	0.17	180.69	228.13	464
WJ4019995	0.02	185.82	228.07	413
WJ4019996	0.23	180.31	228.16	468
WJ4020002	0.04	185.35	228.09	418
WJ4020003	0.18	180.39	228.41	470
WJ4020007	0.17	180.01	228.17	471
WJ4020013	0.04	185.00	228.11	422
WJ4020213	0.17	185.99	224.87	380
WJ4020220	0.18	175.12	223.95	477
WJ4020222	0.08	181.58	224.03	415
WJ4020225	0.21	195.00	223.85	282

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4020227	0.21	194.13	223.89	291
WJ4020229	0.41	191.07	224.41	326
WJ4020259	0.12	174.69	224.76	490
WJ4020263	0.26	180.62	224.76	432
WJ4020264	3.32	173.40	225.85	513
WJ4020265	0.00	173.28	225.84	514
WJ4020266	0.05	173.00	225.83	517
WJ4020267	0.08	174.59	225.81	501
WJ4020268	0.08	174.93	225.80	497
WJ4020269	0.09	175.11	225.79	496
WJ4020274	0.65	170.04	226.38	551
WJ4020275	0.00	148.82	226.22	757
WJ4020278	0.02	148.53	226.22	760
WJ4020423	0.02	183.97	228.15	432
WJ4020596	0.08	183.50	228.15	437
WJ4020598	0.20	183.11	228.16	441
WJ4020599	0.99	182.80	228.19	444
WJ4020703	0.24	177.03	224.79	467
WJ4020704	0.21	178.99	224.80	448
WJ4020715	0.02	182.34	228.66	453
WJ4020716	0.04	182.32	228.66	453
WJ4020717	0.19	181.97	228.63	456
WJ4020722	2.91	191.19	224.89	330
WJ4020727	0.00	177.10	224.57	464
WJ4020729	0.00	181.42	228.65	462
WJ4020730	0.00	176.87	224.57	467
WJ4020732	0.17	181.58	228.63	460
WJ4020738	0.12	182.54	228.58	450
WJ4020739	0.03	182.55	228.58	450
WJ4020740	0.06	182.85	228.58	447
WJ4020741	0.87	187.50	224.94	366
WJ4020828	1.49	187.49	224.38	361
WJ4020832	1.35	182.06	224.38	414
WJ4020853	0.07	183.64	228.60	440
WJ4020856	0.27	181.23	224.40	422
WJ4020858	0.13	183.19	228.60	444
WJ4020862	0.51	182.34	228.53	452
WJ4020863	0.07	182.87	228.62	447
WJ4020864	0.99	181.95	227.77	448
WJ4020865	0.33	178.32	227.77	484
WJ4020867	0.17	182.66	228.60	449
WJ4020882	0.05	181.94	228.42	455
WJ4020967	0.01	185.67	227.34	407
WJ4020969	0.12	184.56	226.82	413
WJ4020971	0.24	179.60	228.17	475
WJ4020978	0.20	180.30	228.17	468
WJ4020979	0.03	180.22	228.16	469
WJ4020980	0.16	185.65	227.92	413
WJ4020981	0.10	180.08	228.16	470
WJ4020984	0.21	178.98	228.16	481
WJ4020987	0.22	177.61	228.16	494
WJ4021011	0.20	176.16	228.15	509
WJ4021023	0.07	172.38	228.15	545
WJ4021044	0.14	175.87	229.88	528
WJ4021047	0.00	176.06	229.88	526
WJ4021076	0.00	172.98	225.08	509
WJ4021126	0.06	189.65	225.38	349
WJ4021144	0.06	174.17	225.01	497
WJ4021189	0.08	168.95	229.88	596
WJ4021233	0.00	178.49	229.87	502
WJ4021261	0.00	179.35	226.67	463
WJ4022762	0.00	180.31	229.59	482
WJ4022764	0.02	181.24	229.08	468

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4022778	0.12	180.57	228.17	466
WJ4022800	0.00	178.77	229.89	500
WJ4022803	0.08	175.82	225.06	482
WJ4022804	0.00	178.85	229.86	499
WJ4023042	0.18	178.85	225.77	459
WJ4023043	0.07	176.05	225.79	486
WJ4023052	0.00	189.03	226.21	364
WJ4023053	0.00	190.55	226.23	349
WJ4023055	0.00	168.39	226.59	569
WJ4023063	0.02	179.40	224.95	446
WJ4024064	0.06	164.33	224.35	587
WJ4024315	0.02	172.97	224.36	503
WJ4026374	0.47	181.93	225.43	425
WJ4037574	0.00	174.33	225.04	496
WJ4037577	3.17	174.34	225.04	496
WJ4037578	0.00	174.34	225.04	496
WJ4037579	0.00	174.15	225.04	498
WJ4037618	0.00	174.31	225.03	496
WJ4037619	0.00	174.31	225.03	496
WJ4037620	0.00	174.32	225.03	496
WJ4037625	0.00	174.15	225.03	498
WJ4037660	0.00	174.31	225.03	496
WJ4037661	0.00	174.32	225.03	496
WJ4037662	1.25	174.32	225.03	496
WJ4037669	0.00	174.15	225.03	498
WJ4037786	0.00	174.31	225.03	496
WJ4037787	0.00	174.32	225.03	496
WJ4037788	1.28	174.32	225.03	496
WJ4037793	0.00	174.11	225.03	498
WJ4037794	0.00	174.10	225.03	498
WJ4037795	0.00	174.10	225.03	498
WJ4037800	0.00	174.15	225.03	498
WJ4037829	0.00	173.29	225.03	506
WJ4037830	0.00	173.30	225.03	506
WJ4037831	0.00	173.29	225.03	506
WJ4037834	1.31	173.26	225.03	506
WJ4037836	0.00	173.24	225.03	506
WJ4037838	0.00	173.26	225.03	506
WJ4037839	2.19	173.26	225.03	506
WJ4037846	0.00	172.73	225.03	511
WJ4037847	0.00	172.75	225.03	511
WJ4037848	2.08	172.73	225.03	511
WJ4037849	0.00	172.73	225.03	511
WJ4037854	0.00	172.54	225.03	513
WJ4037855	0.00	172.55	225.03	513
WJ4037856	0.00	172.54	225.03	513
WJ4037857	0.00	172.54	225.03	513
WJ4038205	0.00	170.83	225.04	530
WJ4038206	0.00	170.86	225.04	530
WJ4038207	0.00	170.83	225.04	530
WJ4038214	0.00	170.81	225.04	530
WJ4038335	0.00	170.59	225.04	532
WJ4038346	0.00	170.52	225.04	533
WJ4038353	0.05	170.58	225.04	533
WJ4038388	0.02	170.43	225.04	534
WJ4038592	0.00	173.57	225.04	503
WJ4038593	0.00	173.55	225.04	503
WJ4038594	0.00	173.57	225.04	503
WJ4038595	0.00	173.57	225.04	503
WJ4038628	0.00	173.00	225.03	509
WJ4038631	0.00	172.97	225.03	509
WJ4038632	0.00	172.96	225.03	509
WJ4038633	0.00	172.96	225.03	509

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4038681	0.00	173.08	225.04	508
WJ4038682	0.40	173.09	225.04	508
WJ4038685	0.00	173.06	225.04	508
WJ4038686	0.57	172.75	225.04	511
WJ4040953	2.18	186.57	224.52	371
WJ4040955	0.51	187.71	224.55	360
WJ4040961	0.00	190.53	226.23	349
WJ47069	0.18	188.82	225.64	360
WJ47435	0.23	185.59	228.13	416
WJ47436	0.15	183.43	228.15	437
WJ47749	0.08	187.24	224.90	368
WJ47751	0.00	185.95	225.09	383
WJ48055	0.06	180.92	224.71	428
WJ48056	0.03	179.61	224.71	441
WJ48205	0.00	171.60	229.89	570
WJ48206	0.00	171.66	229.89	569
WJ48208	0.02	172.05	229.89	566
WJ48210	0.01	172.80	229.88	558
WJ48211	0.08	172.79	229.88	558
WJ48213	0.17	173.23	229.88	554
WJ48215	0.05	172.48	229.88	561
WJ48216	0.22	172.46	229.88	562
WJ48243	0.05	173.83	229.88	548
WJ48244	0.01	169.19	229.88	594
WJ48272	0.18	170.51	229.88	581
WJ48273	0.00	170.51	229.88	581
WJ48469	0.08	184.25	226.68	415
WJ48471	0.00	184.62	226.73	412
WJ48953	0.04	181.98	224.18	413
WJ48955	0.07	185.62	224.19	377
WJ48956	0.07	185.59	224.19	377
WJ48957	0.12	186.90	224.21	365
WJ48958	0.03	186.75	224.21	366
WJ48960	0.12	186.50	224.20	369
WJ48961	0.01	187.17	224.20	362
WJ48963	0.08	185.80	224.18	375
WJ48968	0.63	189.72	225.20	347
WJ48969	0.03	189.92	224.25	336
WJ48971	0.00	187.80	224.25	356
WJ48972	0.19	187.80	224.25	356
WJ48973	0.17	187.80	224.26	357
WJ48974	0.02	188.96	224.23	345
WJ48979	0.07	188.96	224.23	345
WJ48980	0.16	188.98	224.25	345
WJ48983	0.16	190.78	224.22	327
WJ48984	0.09	190.78	224.21	327
WJ48985	0.02	190.78	224.21	327
WJ48986	0.01	192.02	224.20	315
WJ48987	0.17	192.02	224.21	315
WJ48988	0.12	192.02	224.19	315
WJ48991	0.01	192.00	224.18	315
WJ48994	0.12	192.00	224.17	315
WJ48995	0.15	192.00	224.19	315
WJ48999	0.16	190.85	224.16	326
WJ49000	0.08	190.85	224.14	326
WJ49001	0.00	187.78	224.25	357
WJ49002	0.03	190.85	224.15	326
WJ49003	0.06	191.31	224.13	321
WJ49072	0.00	173.79	225.81	509
WJ49141	1.68	186.37	224.73	375
WJ49142	0.02	186.71	224.82	373
WJ49143	0.01	186.61	224.83	374
WJ49144	0.11	186.70	224.83	373

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ49145	0.18	186.27	224.89	378
WJ49146	0.00	186.58	224.89	375
WJ49237	0.06	187.94	225.26	365
WJ49239	0.03	187.84	225.26	366
WJ49243	0.08	188.41	225.30	361
WJ49244	0.00	189.09	225.30	354
WJ49247	0.03	194.11	225.33	305
WJ49248	0.03	191.33	225.49	334
WJ49251	0.24	191.18	225.50	336
WJ49252	0.03	191.40	225.50	333
WJ49253	0.20	193.43	225.33	312
WJ49254	0.05	187.81	225.28	366
WJ49256	0.06	187.64	225.28	368
WJ49258	0.01	193.59	225.32	310
WJ49324	0.07	186.36	225.12	379
WJ49325	0.06	186.79	225.12	375
WJ49326	0.00	181.76	225.12	424
WJ49327	0.02	182.14	225.12	420
WJ49330	0.00	186.22	225.21	381
WJ49331	0.16	186.69	225.21	377
WJ49332	0.25	187.85	225.30	366
WJ49333	0.02	187.91	225.30	366
WJ49334	0.02	187.86	225.31	366
WJ49339	0.00	189.24	225.47	354
WJ49340	0.03	189.34	225.47	353
WJ49341	0.25	189.31	225.47	354
WJ49342	0.10	189.63	225.49	351
WJ50379	0.02	184.18	226.94	418
WJ51948	0.11	184.16	225.34	403
WJ51950	0.11	184.16	225.35	403
WJ51952	0.02	184.18	225.34	403
WJ51955	0.09	184.12	225.34	403
WJ51974	0.00	174.32	225.02	496
WJ51975	0.00	174.32	225.02	496
WJ51976	0.00	174.22	225.02	497
WJ51977	0.01	173.88	225.02	500
WJ51978	0.05	175.26	225.02	487
WJ51979	0.01	177.44	225.02	465
WJ51980	0.02	178.58	225.02	454
WJ51987	0.02	178.50	225.02	455
WJ51990	0.05	178.47	225.03	455
WJ51996	0.02	177.44	225.02	465
WJ51998	0.05	177.38	225.02	466
WJ52037	0.00	174.30	225.02	496
WJ52044	0.46	174.22	225.03	497
WJ52054	0.00	173.48	225.02	504
WJ52055	1.93	173.64	225.00	502
WJ52073	0.00	191.70	224.99	326
WJ52087	0.00	191.80	224.99	325
WJ52091	0.00	191.40	224.91	328
WJ52093	0.00	191.84	224.91	323
WJ52156	0.16	180.95	224.27	424
WJ52159	0.02	181.05	224.28	423
WJ52162	0.18	186.53	224.26	369
WJ52163	0.04	186.54	224.26	369
WJ52165	0.13	188.36	224.26	351
WJ52167	0.04	186.53	224.26	369
WJ52171	0.10	187.75	224.29	357
WJ52182	0.03	186.64	224.28	368
WJ52183	0.03	186.66	224.27	368
WJ52184	0.09	186.65	224.28	368
WJ52220	0.07	187.46	224.29	360
WJ52221	0.05	187.73	224.29	357

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ52222	0.03	187.65	224.30	358
WJ52242	0.17	186.57	224.27	369
WJ52247	0.04	191.68	224.99	326
WJ52248	0.00	191.15	224.91	330
WJ52249	0.02	191.10	224.91	331
WJ52251	0.08	189.05	224.84	350
WJ52303	0.00	182.21	224.72	416
WJ52307	0.16	182.21	224.72	416
WJ52325	0.06	178.54	224.71	452
WJ52327	0.02	178.59	224.71	451
WJ52331	0.16	177.29	224.70	464
WJ52333	0.00	177.29	224.70	464
WJ52334	0.00	176.50	224.70	471
WJ52336	0.02	176.48	224.70	472
WJ52338	0.00	175.98	224.70	476
WJ52339	0.64	175.42	224.70	482
WJ52340	0.00	167.29	224.69	561
WJ52341	0.00	167.46	224.70	560
WJ52344	0.12	167.55	224.70	559
WJ52345	0.00	168.64	224.70	548
WJ52747	0.01	179.21	225.00	448
WJ52748	0.01	176.06	224.99	479
WJ52750	0.00	176.05	224.99	479
WJ52751	0.66	172.80	224.98	510
WJ52753	0.01	172.80	224.98	510
WJ52754	0.11	172.41	224.98	514
WJ52757	0.00	174.02	224.96	498
WJ52768	0.01	174.39	224.97	495
WJ52868	1.98	187.39	224.90	367
WJ52874	0.01	186.61	224.65	372
WJ52875	2.70	188.07	224.92	360
WJ52876	0.01	187.28	224.92	368
WJ52877	0.04	187.25	224.93	368
WJ52881	0.12	186.91	224.78	370
WJ52882	0.64	186.95	224.78	370
WJ53038	5.80	172.13	225.03	517
WJ53041	0.02	170.60	225.03	532
WJ53042	0.03	170.57	225.03	533
WJ53045	0.00	170.79	225.03	530
WJ53046	0.00	170.75	225.03	531
WJ53069	0.03	170.66	225.03	532
WJ53078	0.07	170.87	225.03	530
WJ53108	0.08	179.43	225.00	446
WJ53112	0.01	189.50	224.91	346
WJ53113	0.00	189.45	224.91	347
WJ53114	0.00	186.80	224.94	373
WJ53115	0.01	191.00	224.93	332
WJ53116	1.57	189.10	224.93	350
WJ53117	0.02	189.05	224.93	351
WJ53118	0.00	186.90	224.94	372
WJ53121	1.27	189.48	224.91	347
WJ53122	0.00	189.89	224.91	342
WJ53442	1.07	185.43	226.28	399
WJ53444	0.00	185.43	226.28	399
WJ53447	0.00	188.12	226.10	371
WJ53448	0.07	188.80	225.89	363
WJ53450	0.03	188.71	225.90	364
WJ53452	0.16	188.81	225.91	363
WJ53453	0.00	188.75	225.90	363
WJ53457	0.00	187.00	225.21	374
WJ53462	0.02	167.21	224.68	562
WJ53465	0.00	187.72	226.10	375
WJ53466	0.03	185.43	226.28	399

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ53494	0.09	183.04	225.99	420
WJ53495	0.06	183.04	226.01	420
WJ53498	0.04	183.62	226.00	414
WJ53506	0.10	183.87	225.98	412
WJ53512	0.00	187.05	224.73	368
WJ53513	0.03	187.48	224.73	364
WJ53514	0.04	187.30	224.73	366
WJ53517	0.10	182.72	225.99	423
WJ53518	0.09	183.87	226.00	412
WJ53523	0.02	184.69	225.97	404
WJ53524	0.11	184.69	225.98	404
WJ53525	0.08	183.05	225.97	420
WJ53553	0.03	184.60	225.95	404
WJ53555	0.01	184.80	225.95	402
WJ53556	0.15	187.41	225.92	377
WJ53557	0.05	186.15	225.93	389
WJ53558	0.08	187.41	225.93	377
WJ53559	0.19	187.10	225.88	379
WJ53562	0.00	188.50	226.24	369
WJ53563	0.06	188.50	226.24	369
WJ53564	0.03	188.20	226.12	371
WJ53566	0.03	188.40	226.03	368
WJ53567	0.02	187.00	225.93	381
WJ53570	0.05	188.18	225.64	366
WJ53571	0.03	185.00	225.57	397
WJ53572	0.02	185.00	225.57	397
WJ53574	0.08	183.90	225.54	407
WJ53576	0.06	187.00	225.93	381
WJ53577	0.08	188.30	226.03	369
WJ53578	0.07	188.10	226.12	372
WJ53584	0.33	188.18	225.63	366
WJ53585	0.14	185.00	225.57	397
WJ53586	0.04	183.70	225.56	409
WJ53610	0.30	190.70	225.68	342
WJ53661	0.16	186.85	225.29	376
WJ53664	0.21	186.45	225.18	379
WJ53665	0.07	186.90	225.29	375
WJ53671	0.01	186.73	225.29	377
WJ53672	0.00	186.29	225.29	381
WJ53717	0.06	187.60	224.74	363
WJ53722	0.03	185.92	224.57	378
WJ53724	0.01	185.75	224.57	380
WJ53727	0.14	185.92	224.57	378
WJ53844	0.28	184.50	225.57	402
WJ53848	0.32	185.50	225.57	392
WJ53883	0.42	191.20	225.62	337
WJ53893	0.08	183.66	226.91	423
WJ53988	0.11	183.11	227.19	431
WJ53989	0.00	183.13	227.18	431
WJ53992	0.01	185.63	227.20	406
WJ53993	0.00	185.63	227.22	407
WJ53994	0.07	185.63	227.20	407
WJ54013	0.15	183.42	227.13	427
WJ54014	0.01	184.18	227.09	420
WJ54018	0.01	184.21	227.12	420
WJ54019	0.10	184.18	227.10	420
WJ54277	0.45	169.89	225.04	539
WJ54278	1.97	168.40	225.03	554
WJ54288	0.19	168.31	225.03	555
WJ54289	0.00	168.31	225.03	555
WJ54290	0.00	168.31	225.03	555
WJ54291	0.07	168.31	225.03	555
WJ54414	0.14	179.78	224.84	441

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ54418	0.05	179.74	224.83	441
WJ54421	0.01	179.79	224.84	441
WJ54422	0.08	179.80	224.84	440
WJ54423	0.03	180.60	224.84	433
WJ54424	0.02	180.60	224.83	433
WJ54425	0.18	180.60	224.83	433
WJ54440	0.00	181.86	224.77	420
WJ54441	0.01	180.51	224.89	434
WJ54442	0.04	180.51	224.90	434
WJ54444	0.04	178.31	224.97	456
WJ54459	0.08	178.74	224.94	452
WJ54460	0.04	178.74	224.95	452
WJ54461	0.00	178.74	224.94	452
WJ54468	0.10	180.77	224.91	432
WJ54469	0.00	180.77	224.91	432
WJ54470	0.03	180.77	224.92	432
WJ54473	0.16	180.51	224.89	434
WJ54480	0.16	181.86	224.86	421
WJ54484	0.01	181.86	224.95	421
WJ54489	0.21	183.60	224.83	403
WJ54490	0.02	183.60	224.83	403
WJ54491	0.13	183.60	224.83	403
WJ55016	0.05	189.80	225.44	349
WJ55017	0.01	190.30	225.35	343
WJ55018	0.03	190.30	225.35	343
WJ55019	0.00	190.30	225.34	343
WJ55020	0.03	189.80	225.44	349
WJ55022	0.03	190.10	225.38	345
WJ55026	0.05	189.90	225.52	348
WJ55118	0.07	188.19	225.65	366
WJ55120	0.03	188.19	225.66	366
WJ55122	0.06	188.18	225.64	366
WJ55156	0.21	182.61	226.19	426
WJ55157	0.08	182.61	226.18	426
WJ55162	0.09	184.25	226.19	410
WJ55163	0.02	183.82	226.18	414
WJ55164	0.04	182.59	226.18	426
WJ55165	0.03	183.60	226.18	416
WJ55166	0.05	184.20	226.18	411
WJ55167	0.02	184.65	226.17	406
WJ55170	0.01	179.87	226.18	453
WJ55171	0.08	179.86	226.20	453
WJ55214	0.02	184.22	226.84	417
WJ55216	0.03	184.46	226.83	414
WJ55304	0.02	177.25	224.97	467
WJ55323	0.02	177.63	224.96	463
WJ55324	0.20	178.01	224.96	459
WJ55326	0.01	177.65	224.96	463
WJ55328	0.01	175.43	224.95	484
WJ55329	0.22	175.66	224.95	482
WJ55331	0.01	175.42	224.95	484
WJ55334	0.02	175.59	224.95	483
WJ55335	0.20	175.57	224.95	483
WJ55338	0.02	175.57	224.95	483
WJ55341	0.02	177.23	224.97	467
WJ55422	0.03	183.62	224.98	404
WJ55423	0.03	183.61	224.98	405
WJ55429	0.01	178.32	224.97	456
WJ55431	0.03	178.32	224.97	456
WJ55432	0.20	178.20	224.97	457
WJ55436	0.22	175.21	224.96	487
WJ55441	0.04	176.13	224.96	478
WJ55442	0.03	175.21	224.96	487

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ55455	0.11	184.81	224.98	393
WJ55466	0.11	177.21	224.97	467
WJ55469	0.02	176.75	224.93	471
WJ55472	0.07	176.75	224.95	471
WJ55957	0.02	186.71	225.27	377
WJ55958	0.03	186.01	225.28	384
WJ55961	0.17	185.82	225.27	386
WJ56498	0.11	186.37	225.30	381
WJ56681	0.20	181.74	228.81	460
WJ56684	0.16	181.22	228.78	465
WJ56688	0.01	181.28	228.76	464
WJ56689	0.00	181.35	229.33	469
WJ56691	0.00	181.14	229.33	471
WJ56698	0.14	182.00	228.77	457
WJ56700	0.00	182.36	228.77	454
WJ56701	0.00	181.97	228.75	458
WJ56705	0.12	181.13	228.78	466
WJ57354	0.06	188.95	224.77	350
WJ57355	0.08	188.90	224.77	351
WJ57425	0.00	172.59	225.01	513
WJ57428	0.03	172.42	225.01	514
WJ57438	0.00	179.94	225.01	441
WJ57697	0.06	167.63	225.01	561
WJ57906	1.06	174.40	225.03	495
WJ57907	0.00	172.72	225.03	512
WJ58108	0.00	173.30	225.00	506
WJ58109	0.09	173.40	225.00	505
WJ58336	0.12	188.52	225.49	362
WJ58392	0.11	179.83	224.31	435
WJ58393	0.13	181.20	224.30	422
WJ58394	0.06	181.67	224.30	417
WJ58397	0.01	187.78	224.26	357
WJ58399	0.02	187.61	224.26	358
WJ58401	0.04	187.40	224.32	361
WJ58403	0.03	187.51	224.32	360
WJ58404	0.04	185.00	224.36	385
WJ58406	0.03	184.38	224.36	391
WJ58412	0.06	187.17	224.52	365
WJ58418	0.34	187.47	224.32	360
WJ58423	0.35	184.00	224.31	394
WJ58424	0.21	182.01	224.30	414
WJ58425	0.10	184.91	224.36	386
WJ58426	0.07	184.92	224.36	386
WJ58427	2.02	186.86	224.51	368
WJ58458	0.09	173.97	225.08	500
WJ58460	0.10	172.58	225.08	513
WJ58461	0.00	172.71	225.08	512
WJ58462	0.18	172.58	225.08	513
WJ58464	0.00	172.71	225.08	512
WJ58473	0.11	173.05	225.07	509
WJ58475	2.75	173.81	225.04	501
WJ58476	4.70	173.81	225.04	501
WJ58479	2.48	173.81	225.02	501
WJ58480	5.30	173.81	225.02	501
WJ58481	0.00	173.41	225.02	505
WJ58482	0.00	173.41	225.02	505
WJ58486	2.01	173.29	225.02	506
WJ58488	0.00	173.31	225.01	506
WJ58490	0.00	173.88	225.00	500
WJ58496	2.04	173.62	225.00	503
WJ58498	1.83	173.62	225.00	503
WJ58499	0.01	173.62	225.00	503
WJ58500	0.00	173.62	225.00	503

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ58501	0.27	173.40	224.99	505
WJ58502	2.08	173.40	224.99	505
WJ58504	0.00	173.40	225.00	505
WJ58505	0.02	173.40	224.99	505
WJ58509	0.07	172.82	224.98	510
WJ58510	0.00	172.82	224.98	510
WJ58512	0.00	173.74	224.97	501
WJ58513	0.00	173.74	224.98	501
WJ58516	0.04	174.37	224.97	495
WJ58517	0.00	174.37	224.97	495
WJ58519	0.65	176.52	224.97	474
WJ58521	0.33	176.52	224.97	474
WJ58522	0.16	178.76	224.97	452
WJ58523	0.01	178.76	224.97	452
WJ58526	0.02	178.76	224.97	452
WJ58527	5.05	182.72	224.97	413
WJ58528	0.00	182.72	224.97	413
WJ58530	1.07	186.10	224.97	380
WJ58532	0.00	186.10	224.97	380
WJ58533	2.11	186.22	224.96	379
WJ58535	0.00	186.22	224.96	379
WJ58537	0.00	186.80	224.97	373
WJ58539	3.29	186.80	224.97	373
WJ58540	0.03	188.70	224.96	355
WJ58541	0.62	188.77	224.96	354
WJ58543	5.70	190.21	224.96	340
WJ58544	0.00	190.21	224.97	340
WJ58545	0.00	190.21	224.97	340
WJ58547	0.11	190.37	224.98	338
WJ58548	2.72	190.37	224.98	338
WJ58572	0.00	191.60	224.99	327
WJ58573	0.00	191.79	224.99	325
WJ58574	0.24	191.80	224.99	325
WJ58575	0.00	191.40	224.99	329
WJ58576	0.00	191.40	224.99	329
WJ58577	0.00	191.40	225.00	329
WJ58580	1.93	191.95	224.98	323
WJ58581	0.20	191.79	224.99	325
WJ58595	3.59	171.60	225.08	523
WJ58601	0.42	173.61	225.05	503
WJ58602	0.00	173.61	225.05	503
WJ58603	0.32	173.11	225.01	508
WJ58604	0.00	173.20	225.01	507
WJ58605	0.00	173.20	225.01	507
WJ58608	1.27	173.75	225.00	501
WJ58609	0.00	173.71	225.00	502
WJ58610	0.00	188.79	224.97	354
WJ58611	0.00	172.80	225.07	511
WJ58614	0.00	173.39	225.02	505
WJ58734	0.02	172.10	224.14	509
WJ58735	0.05	175.20	224.15	479
WJ58740	0.10	187.38	224.47	363
WJ58745	0.45	187.50	224.47	362
WJ58747	0.00	187.38	224.47	363
WJ58749	0.07	187.60	224.28	359
WJ58751	0.35	187.60	224.29	359
WJ58752	0.14	186.78	224.22	366
WJ58755	0.04	186.50	224.23	369
WJ58756	0.02	186.71	224.22	367
WJ58760	0.07	172.10	224.14	509
WJ58762	0.14	186.39	224.20	370
WJ58764	0.05	186.39	224.20	370
WJ58769	0.08	176.74	224.15	464

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ58936	0.14	184.03	227.60	426
WJ58937	0.00	184.03	227.58	426
WJ58940	0.01	184.03	227.62	426
WJ58946	0.61	181.39	227.60	452
WJ59062	0.09	180.68	224.26	426
WJ59065	0.02	180.41	224.26	429
WJ59072	0.04	181.18	224.39	422
WJ59074	0.23	181.18	224.38	422
WJ59078	0.09	180.19	224.34	432
WJ59147	0.42	169.15	229.88	594
WJ59194	0.00	186.60	226.26	388
WJ59195	0.93	186.00	226.28	394
WJ59196	0.00	186.05	226.28	393
WJ59198	0.00	186.20	226.27	392
WJ59201	0.00	186.20	226.28	392
WJ59207	0.00	186.20	226.28	392
WJ59422	0.04	186.20	226.26	392
WJ59712	0.11	182.22	228.49	452
WJ59726	0.01	181.65	228.44	458
WJ59732	0.09	181.46	228.43	459
WJ59734	0.07	182.10	228.62	455
WJ59735	0.09	181.97	228.49	455
WJ59742	0.03	181.52	228.44	459
WJ59743	0.17	180.91	228.43	465
WJ59822	0.15	178.60	228.40	487
WJ59864	0.07	180.30	228.42	471
WJ60020	0.73	181.49	228.62	461
WJ60783	0.00	173.16	225.00	507
WJ60862	1.51	173.00	225.01	509
WJ60926	0.03	169.08	225.01	547
WJ61124	0.11	180.87	228.63	467
WJ61125	0.28	180.96	228.63	466
WJ61457	0.13	188.71	226.24	367
WJ61510	0.04	178.46	224.92	454
WJ61511	0.10	178.69	224.91	452
WJ61514	0.03	178.87	224.91	450
WJ61515	0.01	177.96	224.92	459
WJ61519	0.12	178.32	224.92	456
WJ61520	0.00	178.45	224.92	454
WJ61529	0.13	186.17	224.78	378
WJ61627	0.11	178.72	228.24	484
WJ61693	0.04	190.35	225.89	348
WJ61694	0.00	192.00	225.89	331
WJ61779	0.07	167.22	225.22	567
WJ61826	0.11	187.10	226.13	382
WJ61827	0.00	188.09	226.13	372
WJ62335	0.04	187.57	224.06	357
WJ62359	0.14	181.38	224.34	420
WJ62422	0.03	182.84	228.47	446
WJ62423	0.50	181.78	228.14	453
WV10604	0.00	189.03	226.23	364
WV10609	0.00	190.65	226.25	348
WV15899	0.00	185.70	225.30	387
WV4001258	0.00	187.46	226.36	380
WV4001488	0.00	188.10	226.38	374
WV4004307	0.00	176.10	229.89	526
WV4004312	0.00	171.48	229.89	571
WV4004327	0.00	178.91	229.85	498
WV4004332	0.00	181.07	229.33	472
WV4004334	0.00	180.40	229.23	477
WV4004344	0.00	181.71	229.08	463
WV4004993	0.00	188.98	226.23	364
WV4004997	0.00	189.24	226.23	362

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WV4004999	0.00	189.56	226.24	359
WV4005002	0.00	188.98	226.24	364
WV4005009	0.00	188.81	226.24	366
WV4005012	0.00	188.67	226.25	367
WV4005018	0.00	188.45	226.29	370
WV4005020	0.00	187.84	226.35	377
WV4005023	0.00	178.65	226.54	468
WV4005029	0.00	169.18	226.59	561
WV4005033	0.00	178.47	226.84	473
WV4005035	0.00	151.76	226.69	733
WV4005043	0.00	183.88	227.13	423
WV4005087	0.00	183.57	227.20	427
WV4005089	0.00	183.63	227.30	427
WV4005097	0.00	182.96	227.65	437
WV4005103	0.00	185.07	227.95	419
WV4005104	0.00	184.69	227.90	423
WV4005109	0.00	185.87	228.07	413
WV4005114	0.00	186.03	228.22	413
WV4005116	0.00	186.13	228.23	412
WV4010666	0.00	193.49	223.75	296
WV4010740	0.00	193.43	223.80	297
WV4010788	0.00	191.05	223.93	322
WV4010807	0.00	190.54	223.94	327
WV4010872	0.00	189.65	223.98	336
WV4010889	0.00	189.13	223.99	341
WV4010976	0.00	185.76	224.11	375
WV4010981	0.00	185.85	224.18	375
WV4010986	0.00	185.97	224.19	374
WV4011010	0.00	186.91	224.26	365
WV4011015	0.00	186.97	224.27	365
WV4011055	0.00	191.00	225.00	332
WV4011116	0.00	187.02	225.11	373
WV4011132	0.00	186.96	224.35	366
WV4011135	0.00	180.47	225.40	439
WV4011139	0.00	180.65	225.41	438
WV4011145	0.00	186.92	224.36	366
WV4011148	0.00	183.83	225.56	408
WV4011161	0.00	182.58	224.45	409
WV4011205	0.00	184.58	225.58	401
WV4011218	0.00	184.61	225.60	401
WV4011221	0.00	186.34	225.65	384
WV4011231	0.00	189.13	224.67	348
WV4011250	0.00	188.74	226.18	366
WV4011277	0.00	191.24	225.94	339
WV4011347	0.00	188.10	224.71	358
WV4011354	0.00	188.01	224.71	359
WV4011482	0.00	179.11	229.88	496
WV4011524	0.00	191.08	224.99	332
WV4011544	0.00	190.82	224.98	334
WV4011554	0.00	190.83	224.98	334
WV4011570	0.00	190.84	224.98	334
WV4011579	0.00	190.86	224.98	334
WV4011587	0.00	191.16	224.95	330
WV4011591	0.00	190.85	224.91	333
WV4011740	0.00	190.76	224.88	334
WV4011750	0.00	190.57	224.87	335
WV4011763	0.00	190.61	224.87	335
WV4011841	0.00	187.58	224.72	363
WV4011849	0.00	187.24	224.76	367
WV4016857	0.00	185.99	226.28	394
WV4021627	0.00	174.47	225.74	501
WV4037971	0.00	183.82	227.06	423
WV50450	0.00	190.88	224.91	333

ADD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WV50459	0.00	190.85	224.91	333
WV55772	0.00	173.41	225.00	505
WV60507	0.00	168.31	225.04	555
Sum of Demands:	**425.24**		**Min**	**280**
			Max	**760**

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ14235	0.14	185.18	224.64	386
WJ15670	0.12	183.45	226.36	420
WJ15678	0.11	185.35	225.92	397
WJ15686	0.17	187.65	225.83	373
WJ16170	0.65	177.80	225.12	463
WJ16225	1.61	172.90	225.14	511
WJ18030	0.36	173.40	225.23	507
WJ18031	0.03	173.40	225.23	507
WJ18032	0.01	173.40	225.23	507
WJ18033	0.00	173.40	225.23	507
WJ18034	0.00	172.15	225.23	519
WJ19276	0.00	169.20	225.22	548
WJ19330	1.51	170.00	225.19	540
WJ19333	0.33	175.00	225.29	492
WJ19377	0.06	180.20	225.11	439
WJ19378	1.77	180.00	225.11	441
WJ20132	0.01	175.80	225.26	484
WJ20153	0.05	177.00	225.26	472
WJ20154	0.18	176.31	225.26	479
WJ20173	2.76	174.50	225.26	496
WJ20935	0.14	190.64	224.56	332
WJ21055	0.03	175.20	225.33	490
WJ21075	1.16	179.20	225.30	451
WJ21116	0.12	186.21	225.20	381
WJ21239	0.83	169.30	225.20	547
WJ21258	0.11	169.60	225.20	544
WJ21278	0.35	170.60	225.20	534
WJ21298	0.07	172.80	226.04	521
WJ21558	0.07	174.10	225.54	503
WJ21578	0.00	175.60	225.68	490
WJ21598	0.08	176.80	225.64	478
WJ21660	0.16	192.00	224.13	314
WJ21799	0.17	186.50	225.22	379
WJ22343	0.13	174.92	225.23	492
WJ22344	0.19	174.92	225.23	492
WJ22345	0.27	177.45	225.31	468
WJ22361	0.05	175.20	225.17	489
WJ22601	0.01	186.40	225.05	378
WJ22621	0.04	190.80	225.05	335
WJ22721	0.60	178.00	225.16	461
WJ22724	0.12	174.50	225.17	496
WJ22821	0.34	188.93	225.38	356
WJ22861	2.72	190.30	225.51	344
WJ23505	0.15	185.50	226.21	398
WJ23506	0.11	189.40	226.07	359
WJ23507	0.12	189.40	226.01	358
WJ23508	0.19	189.20	225.91	359
WJ23509	0.08	189.10	225.80	359
WJ23510	0.09	189.30	225.74	356
WJ23511	0.09	189.30	225.67	356
WJ23544	0.04	190.30	225.67	346
WJ24044	0.07	186.72	224.44	369
WJ24204	3.53	188.12	225.15	362
WJ24244	0.00	186.55	225.17	378
WJ24264	1.30	186.55	225.17	378
WJ24284	1.40	188.75	225.18	356
WJ24285	0.00	184.62	225.17	397
WJ24304	0.00	184.62	225.17	397
WJ24344	2.31	188.78	225.18	356
WJ24364	0.00	184.62	225.17	397
WJ24366	0.04	184.62	225.17	397
WJ25695	0.00	180.70	225.18	435
WJ25696	0.00	179.10	225.19	451

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ25697	0.04	180.20	225.19	440
WJ25698	0.14	179.95	225.19	442
WJ26555	0.26	174.16	225.20	499
WJ26758	0.03	177.66	226.90	482
WJ26759	0.10	180.25	227.00	457
WJ26760	0.02	183.93	227.13	422
WJ27194	0.00	172.84	225.18	512
WJ27354	0.00	180.94	226.82	449
WJ27355	0.00	180.94	226.82	449
WJ27375	0.10	187.49	224.46	362
WJ27857	0.00	188.93	224.97	352
WJ27858	0.03	188.93	224.97	352
WJ27861	0.08	188.93	224.97	352
WJ27874	0.14	188.82	224.89	353
WJ27875	0.00	188.53	224.89	356
WJ27877	0.01	188.21	224.89	359
WJ27879	0.00	188.28	224.89	358
WJ27916	0.02	186.89	224.89	372
WJ27917	0.33	186.92	224.89	371
WJ27918	0.03	186.93	224.89	371
WJ27974	0.11	174.50	225.26	496
WJ27994	0.83	177.15	225.28	471
WJ28014	1.10	172.60	225.25	515
WJ28034	0.01	176.60	225.26	476
WJ28054	0.00	169.40	225.22	546
WJ28076	0.19	184.75	224.87	392
WJ28077	0.02	184.79	224.88	392
WJ28079	0.15	184.51	224.88	395
WJ28096	0.04	169.20	225.22	548
WJ28114	0.00	167.80	225.22	562
WJ28134	0.08	182.60	225.39	418
WJ28135	0.09	183.75	225.42	408
WJ28154	0.07	178.70	225.49	458
WJ28174	0.00	176.60	225.63	480
WJ28175	0.03	177.50	225.63	471
WJ28177	0.00	177.00	225.67	476
WJ28214	0.22	177.68	225.28	466
WJ28234	0.62	169.60	225.22	544
WJ38909	0.03	182.14	225.45	424
WJ4001543	0.85	190.80	225.79	342
WJ4001881	0.33	191.40	225.70	335
WJ4001888	0.08	190.29	225.65	346
WJ4001895	1.70	190.04	225.61	348
WJ4001900	0.20	189.62	225.57	352
WJ4001950	0.25	189.24	225.44	354
WJ4001964	0.11	186.67	225.45	379
WJ4001983	0.23	186.31	225.44	383
WJ4002007	0.11	188.89	226.17	365
WJ4002064	0.43	188.74	225.10	356
WJ4002079	0.44	188.39	225.07	359
WJ4002150	0.07	186.52	224.84	375
WJ4002158	0.06	186.53	224.86	375
WJ4002202	0.05	186.71	224.91	374
WJ4002204	0.07	186.60	224.91	375
WJ4002294	0.05	167.18	224.45	560
WJ4002296	0.11	172.37	224.45	509
WJ4002308	0.05	169.71	224.45	535
WJ4002319	0.09	176.04	224.45	473
WJ4002321	0.06	186.07	224.84	379
WJ4002333	0.00	186.74	224.85	373
WJ4002359	0.03	175.74	224.45	476
WJ4002365	0.03	174.73	224.45	486
WJ4002380	0.07	181.16	224.42	423

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4002430	0.04	178.83	224.46	446
WJ4002498	0.25	187.71	224.72	362
WJ4002512	3.64	190.11	224.84	340
WJ4002977	0.06	187.61	225.19	367
WJ4003146	0.23	186.52	225.11	377
WJ4003473	0.19	187.12	225.19	372
WJ4003628	0.15	186.97	225.11	373
WJ4003633	1.22	190.44	224.84	336
WJ4003830	1.87	192.23	224.53	316
WJ4003831	0.08	191.75	224.50	320
WJ4003834	0.08	191.94	224.18	315
WJ4003845	0.00	190.85	224.51	329
WJ4003907	0.03	153.96	224.19	687
WJ4003922	0.04	161.62	224.05	611
WJ4003924	0.07	156.59	223.95	659
WJ4003925	0.12	169.56	223.93	532
WJ4003927	0.10	185.95	223.90	371
WJ4003929	0.08	193.29	223.86	299
WJ4003930	0.09	194.39	223.81	288
WJ4003953	0.08	153.07	224.36	697
WJ4003958	0.12	151.64	224.36	711
WJ4003978	0.08	158.93	224.35	640
WJ4003998	0.06	159.76	224.36	632
WJ4004000	0.06	163.75	224.35	593
WJ4004013	0.04	164.54	224.35	585
WJ4004140	0.10	184.32	223.99	388
WJ4004148	0.17	155.08	224.14	675
WJ4004151	0.09	153.77	224.19	689
WJ4004177	0.09	152.83	224.38	700
WJ4004184	0.11	160.43	224.36	625
WJ4004286	0.19	170.11	224.34	530
WJ4004354	0.09	181.69	224.19	416
WJ4004368	0.14	183.85	224.23	395
WJ4004396	0.06	178.63	224.08	445
WJ4004417	0.06	189.50	224.17	339
WJ4004418	0.05	190.78	223.92	324
WJ4004476	0.05	195.42	224.12	281
WJ4004482	0.14	195.07	224.12	284
WJ4004488	0.06	189.57	224.50	342
WJ4004501	0.05	189.44	224.50	343
WJ4004537	0.11	190.40	224.18	330
WJ4004538	0.08	191.98	224.13	314
WJ4004558	0.07	185.67	224.17	377
WJ4004560	0.11	187.84	224.07	354
WJ4004563	0.14	186.52	224.07	367
WJ4004565	0.14	179.79	224.04	433
WJ4004567	0.10	179.55	224.03	435
WJ4004584	0.26	165.48	224.15	574
WJ4004621	0.07	189.52	224.53	342
WJ4004623	0.12	188.28	224.60	355
WJ4004827	0.13	155.49	224.33	673
WJ4004914	0.01	181.69	229.11	464
WJ4004963	0.09	188.09	224.60	357
WJ4005072	0.18	193.82	224.05	296
WJ4005083	0.11	193.34	224.05	300
WJ4005420	0.00	180.88	224.35	425
WJ4005428	0.04	180.20	224.27	431
WJ4005429	0.08	180.57	224.26	427
WJ4005430	0.09	182.23	224.25	411
WJ4005489	0.11	168.05	224.21	549
WJ4005613	0.15	180.10	224.26	432
WJ4005699	0.09	188.62	224.62	352
WJ4005703	0.04	186.48	224.37	371

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4005704	0.00	185.64	224.37	379
WJ4005731	0.04	181.84	224.26	415
WJ4005966	0.06	184.31	224.44	392
WJ4005967	0.07	185.90	224.44	377
WJ4005968	0.05	182.69	224.44	408
WJ4005982	0.07	189.05	224.37	345
WJ4006036	0.07	187.83	224.60	360
WJ4006038	0.08	187.81	224.60	360
WJ4006048	0.03	187.80	224.60	360
WJ4006067	0.16	187.60	224.61	362
WJ4006069	0.03	187.81	224.60	360
WJ4006075	0.20	187.05	224.62	367
WJ4006089	0.21	187.71	224.64	361
WJ4006091	0.35	188.15	224.64	357
WJ4006109	0.11	187.27	224.65	366
WJ4006148	0.06	183.63	224.25	397
WJ4006153	0.18	181.69	224.19	416
WJ4006212	0.01	185.56	224.25	378
WJ4006214	0.01	184.89	224.23	385
WJ4006217	0.07	184.89	224.22	385
WJ4006221	0.05	188.97	224.23	345
WJ4006222	0.17	188.97	224.23	345
WJ4006305	0.22	180.85	226.78	449
WJ4006350	0.06	175.08	224.30	481
WJ4006399	0.18	187.70	225.87	373
WJ4006581	0.14	187.44	225.37	371
WJ4006585	0.12	188.64	225.37	359
WJ4006591	0.37	188.40	225.34	361
WJ4006781	0.08	189.55	225.63	353
WJ4006785	0.29	190.15	225.63	347
WJ4006791	0.36	190.26	225.54	345
WJ4006801	0.23	187.85	225.42	367
WJ4006814	0.08	187.69	225.41	369
WJ4006820	0.09	187.15	225.41	374
WJ4006835	0.26	186.40	225.39	381
WJ4006925	0.08	188.20	226.25	372
WJ4006928	0.17	189.27	226.13	361
WJ4006933	0.07	187.43	225.44	372
WJ4006935	0.05	174.50	224.86	493
WJ4006937	0.00	170.70	224.86	530
WJ4006938	0.03	170.80	224.86	529
WJ4006959	0.16	178.75	224.97	452
WJ4008023	0.04	189.90	225.63	349
WJ4008156	0.16	190.55	225.63	343
WJ4008182	0.00	184.26	227.19	420
WJ4008231	0.06	188.97	226.13	363
WJ4008234	0.06	187.48	226.13	378
WJ4008236	0.56	186.87	226.20	385
WJ4008256	0.09	190.44	225.97	347
WJ4008263	0.08	188.98	226.07	363
WJ4008290	0.16	188.23	226.10	370
WJ4008317	0.00	184.58	227.19	417
WJ4008322	0.17	189.86	225.81	352
WJ4008331	0.33	190.58	225.97	346
WJ4008332	0.00	184.44	226.83	415
WJ4008389	0.39	184.60	226.83	413
WJ4008399	0.93	182.47	226.83	434
WJ4008433	2.79	180.12	226.75	456
WJ4008460	0.17	180.80	226.82	450
WJ4008473	0.04	180.84	226.83	450
WJ4008476	1.28	181.13	226.81	447
WJ4008477	0.00	181.09	226.81	447
WJ4008483	0.53	190.32	226.29	352

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4008497	0.05	181.18	226.82	446
WJ4008507	0.13	188.37	225.46	363
WJ4008551	0.04	188.23	226.10	370
WJ4008612	0.03	183.84	225.57	408
WJ4008614	0.09	183.07	225.57	416
WJ4008619	0.86	181.23	226.92	447
WJ4008623	0.09	185.00	225.60	397
WJ4008642	0.03	184.12	225.52	405
WJ4008646	0.09	185.30	225.46	393
WJ4008654	0.00	179.25	229.87	495
WJ4008657	0.00	179.12	229.88	496
WJ4008658	0.05	179.25	229.87	495
WJ4008659	0.00	179.31	229.89	495
WJ4008661	0.06	189.45	225.36	351
WJ4008662	0.11	188.02	225.36	365
WJ4008669	0.08	185.14	225.46	394
WJ4008673	0.04	183.40	225.52	412
WJ4008675	0.14	177.93	229.87	508
WJ4008677	0.66	177.92	229.87	508
WJ4008678	0.00	178.45	229.88	503
WJ4008690	0.03	178.50	229.88	502
WJ4008692	0.46	178.36	229.88	504
WJ4008712	0.80	183.60	227.06	425
WJ4008721	0.00	181.68	227.20	445
WJ4008733	0.50	181.68	227.31	446
WJ4008778	0.15	181.30	227.44	451
WJ4008815	0.22	184.75	227.55	419
WJ4008818	0.57	182.63	227.55	439
WJ4008830	0.00	182.17	227.69	445
WJ4008852	0.48	182.00	227.82	448
WJ4009045	0.02	188.84	225.31	357
WJ4009063	0.07	186.74	225.46	379
WJ4009181	0.06	174.73	229.89	539
WJ4009187	0.10	189.86	225.42	348
WJ4009276	0.13	188.75	225.33	358
WJ4009277	0.12	188.84	225.35	357
WJ4009335	0.12	190.24	225.44	344
WJ4009358	0.12	187.41	225.11	369
WJ4009359	0.07	187.32	225.10	369
WJ4009602	0.03	189.68	225.42	350
WJ4009615	0.04	187.50	225.37	370
WJ4009617	0.03	187.94	225.24	365
WJ4009674	0.07	187.99	224.94	361
WJ4009686	0.08	187.41	225.03	368
WJ4009700	0.09	188.99	225.13	353
WJ4009709	0.04	189.20	225.12	351
WJ4009713	0.12	188.32	225.09	360
WJ4009814	0.00	189.44	225.09	349
WJ4009830	0.03	188.74	225.20	357
WJ4009849	0.07	188.55	225.16	358
WJ4009916	0.29	187.26	224.85	368
WJ4010217	0.07	185.43	228.12	417
WJ4010233	0.03	188.10	224.65	357
WJ4010236	0.25	183.15	228.10	440
WJ4010286	0.12	183.53	224.50	401
WJ4010295	0.16	177.41	224.52	461
WJ4010297	0.09	177.64	224.51	458
WJ4010304	0.04	176.88	224.51	466
WJ4010347	0.07	186.31	224.64	375
WJ4010352	0.03	183.83	224.57	398
WJ4010368	0.01	185.69	228.03	414
WJ4010376	0.14	185.63	224.55	381
WJ4010377	0.06	187.58	224.55	362

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4010389	0.10	187.58	224.55	362
WJ4010392	0.82	188.37	224.55	354
WJ4010410	0.00	185.89	228.08	413
WJ4010414	3.01	188.37	224.69	355
WJ4010416	0.00	187.82	224.69	361
WJ4010417	0.00	187.43	224.65	364
WJ4010421	0.51	184.20	224.56	395
WJ4010422	0.11	180.29	227.99	467
WJ4010424	0.23	187.50	224.44	361
WJ4010425	0.03	187.50	224.44	361
WJ4010429	0.74	185.13	224.52	385
WJ4010433	0.03	183.94	224.52	397
WJ4010440	0.17	185.48	224.56	382
WJ4010452	0.06	188.25	224.56	355
WJ4010467	0.08	184.76	228.16	424
WJ4010475	0.23	184.87	228.16	423
WJ4010476	0.11	188.95	224.56	348
WJ4010518	0.13	184.79	224.64	390
WJ4010521	0.22	182.81	224.53	408
WJ4010581	0.09	176.48	225.07	475
WJ4010583	0.03	176.45	225.07	475
WJ4010597	0.05	176.57	225.08	474
WJ4010614	0.00	176.54	225.08	475
WJ4010705	0.18	184.10	228.22	432
WJ4010721	0.92	183.78	228.22	435
WJ4010917	0.42	182.74	228.17	444
WJ4010931	0.05	184.57	228.21	427
WJ4010946	0.02	182.58	228.22	446
WJ4011011	0.26	182.11	228.40	453
WJ4011139	0.19	173.98	228.26	531
WJ4011189	0.09	170.62	228.26	564
WJ4011289	0.06	173.75	229.88	549
WJ4011303	0.19	175.10	229.88	536
WJ4011304	0.05	175.31	229.88	534
WJ4011305	0.09	175.44	229.88	532
WJ4011378	0.11	182.17	228.03	449
WJ4011382	0.32	182.19	228.12	449
WJ4011387	0.11	180.40	228.19	467
WJ4011390	0.13	179.62	228.21	475
WJ4011399	0.07	177.87	228.25	493
WJ4011401	0.12	176.79	228.18	503
WJ4011411	0.08	181.86	228.13	453
WJ4011449	0.44	182.90	228.12	442
WJ4011452	0.14	182.76	228.16	444
WJ4011454	0.10	182.61	228.21	446
WJ4011458	0.65	182.46	228.26	448
WJ4011476	0.62	182.30	228.32	450
WJ4011479	0.15	182.16	228.38	452
WJ4011482	0.14	182.01	228.47	454
WJ4011486	1.09	181.85	228.55	457
WJ4011579	0.15	179.34	228.29	479
WJ4011582	0.00	179.25	228.29	480
WJ4011622	0.21	179.46	228.28	477
WJ4011632	0.18	180.09	228.28	471
WJ4011634	0.06	180.15	228.28	471
WJ4011663	0.11	180.75	228.55	467
WJ4011671	0.00	179.27	228.28	479
WJ4011676	0.09	178.67	228.28	485
WJ4011677	0.03	176.00	228.26	511
WJ4011680	0.16	179.49	228.37	478
WJ4011683	0.22	179.89	228.44	475
WJ4011763	0.05	181.16	228.53	463
WJ4011782	0.01	180.23	228.49	472

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4011806	0.23	179.72	228.26	475
WJ4011815	0.21	179.50	228.26	477
WJ4011848	0.17	178.34	228.26	488
WJ4011859	0.20	177.09	228.26	500
WJ4011870	0.21	175.84	228.26	513
WJ4011876	0.21	175.39	228.26	517
WJ4011930	0.04	183.41	224.92	406
WJ4011936	0.06	181.44	224.92	425
WJ4011938	0.06	182.53	224.92	415
WJ4011947	0.17	174.49	228.26	526
WJ4011969	0.15	182.49	224.95	415
WJ4011971	0.06	182.41	224.97	416
WJ4011981	0.04	181.06	224.97	429
WJ4011989	0.17	181.16	228.17	460
WJ4012031	0.21	181.54	224.84	423
WJ4012036	0.17	180.48	224.82	434
WJ4012072	0.22	180.28	224.87	436
WJ4012074	0.15	182.18	224.89	418
WJ4012081	0.19	182.32	224.89	416
WJ4012183	0.18	182.82	224.93	412
WJ4012185	0.12	183.10	224.93	409
WJ4012257	0.13	181.27	224.80	426
WJ4012259	0.10	184.65	224.83	393
WJ4012266	0.08	181.46	224.92	425
WJ4012268	0.08	184.70	224.91	393
WJ4012384	0.11	187.93	224.82	361
WJ4012385	0.00	187.83	224.82	362
WJ4012398	0.29	180.67	225.01	434
WJ4012399	0.15	181.91	225.00	421
WJ4012402	0.07	191.56	225.12	328
WJ4012562	3.49	191.27	225.03	330
WJ4012588	0.03	188.35	225.05	359
WJ4012852	0.73	191.26	225.02	330
WJ4012992	0.07	184.91	225.31	395
WJ4012994	0.18	186.56	225.27	379
WJ4012997	0.02	187.18	225.26	372
WJ4013001	0.08	187.81	225.24	366
WJ4013049	0.28	187.62	225.25	368
WJ4013050	0.03	188.39	225.20	360
WJ4013052	0.02	173.42	225.81	512
WJ4013060	0.00	189.07	225.18	353
WJ4013089	0.05	191.37	225.13	330
WJ4013093	0.15	190.45	225.15	339
WJ4013101	0.00	190.30	225.15	341
WJ4013102	0.00	190.04	225.16	343
WJ4013109	0.09	191.19	225.15	332
WJ4013114	0.00	191.06	225.15	333
WJ4013116	0.01	190.86	225.15	335
WJ4013120	1.94	190.85	225.17	336
WJ4013138	0.20	190.42	225.26	341
WJ4013221	0.01	173.64	225.71	509
WJ4013243	0.08	173.92	225.56	505
WJ4013245	0.03	174.11	225.56	503
WJ4013246	0.13	173.98	225.53	504
WJ4013252	0.07	173.81	225.52	506
WJ4013256	0.07	171.81	225.54	525
WJ4013268	0.07	174.15	225.54	503
WJ4013271	0.07	183.94	225.35	405
WJ4013272	0.07	183.95	225.35	405
WJ4013274	0.04	173.90	225.52	505
WJ4013283	0.11	172.68	225.51	517
WJ4013287	0.10	171.70	225.51	526
WJ4013299	0.08	171.47	225.51	528

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4013322	0.12	171.44	225.50	529
WJ4013337	0.08	186.67	225.19	377
WJ4013338	0.18	170.86	225.50	534
WJ4013339	0.10	183.90	225.26	404
WJ4013340	0.19	181.86	225.30	425
WJ4013346	0.16	181.00	225.35	434
WJ4013348	0.01	170.58	225.50	537
WJ4013361	0.12	170.11	225.50	542
WJ4013362	0.01	169.77	225.50	545
WJ4013382	0.06	171.45	225.50	529
WJ4013383	0.10	171.22	225.50	531
WJ4013414	0.04	170.04	225.48	542
WJ4013416	0.03	170.07	225.43	541
WJ4013418	0.15	170.14	225.42	541
WJ4013433	0.04	179.40	225.15	447
WJ4013443	0.10	173.00	225.36	512
WJ4013444	0.13	172.19	225.38	520
WJ4013455	0.03	180.71	225.15	435
WJ4013457	0.12	171.03	225.39	532
WJ4013458	0.03	170.96	225.39	532
WJ4013468	0.04	169.77	225.39	544
WJ4013470	0.13	169.88	225.39	543
WJ4013482	0.17	175.03	225.30	492
WJ4013490	0.01	178.02	225.23	462
WJ4013511	0.16	175.41	225.26	488
WJ4013512	0.17	171.57	225.30	525
WJ4013513	0.30	182.94	225.18	413
WJ4013517	0.01	179.90	225.31	444
WJ4013519	0.07	171.58	225.51	527
WJ4013520	0.03	171.57	225.51	527
WJ4013523	0.05	170.20	225.50	541
WJ4013528	0.01	170.30	225.50	540
WJ4013530	0.19	171.04	225.43	532
WJ4013538	0.21	175.83	225.26	483
WJ4013548	0.07	175.99	225.25	482
WJ4013704	0.24	173.84	225.52	505
WJ4013756	0.07	176.79	225.27	474
WJ4013827	0.11	177.73	225.36	466
WJ4013831	0.12	177.18	225.42	472
WJ4013852	0.14	174.93	225.66	496
WJ4013861	0.15	173.95	225.72	506
WJ4014248	0.04	176.80	225.53	477
WJ4014259	0.02	175.84	225.68	487
WJ4014260	0.07	175.10	225.75	495
WJ4014458	0.00	149.65	226.11	748
WJ4014459	0.55	170.24	225.22	538
WJ4014473	0.51	168.59	225.21	554
WJ4014474	0.34	168.21	225.21	557
WJ4014475	0.03	168.15	225.21	558
WJ4014481	0.05	175.54	225.95	493
WJ4014490	0.07	176.28	225.93	486
WJ4014496	0.04	174.57	225.93	502
WJ4014580	0.04	173.63	225.95	512
WJ4014588	0.02	175.08	225.95	497
WJ4014606	0.09	175.83	225.81	489
WJ4014623	0.04	168.24	225.20	557
WJ4014624	0.05	167.77	225.20	562
WJ4014701	0.12	167.31	225.20	566
WJ4014711	0.09	167.33	225.21	566
WJ4014719	0.08	168.83	225.21	551
WJ4014721	0.11	169.75	225.22	542
WJ4014757	0.10	170.13	225.22	539
WJ4014763	0.15	168.43	225.21	555

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4014820	0.09	167.58	225.22	564
WJ4014848	0.00	165.29	225.22	586
WJ4014873	0.14	166.79	225.22	571
WJ4014985	0.09	176.77	225.75	479
WJ4015007	0.19	175.76	225.90	490
WJ4015051	0.69	175.41	225.25	487
WJ4015172	0.08	171.85	225.19	522
WJ4015177	0.00	171.48	225.19	525
WJ4015178	0.06	171.48	225.19	525
WJ4015228	0.00	170.70	225.19	533
WJ4015229	0.00	170.70	225.19	533
WJ4015238	0.00	169.87	225.19	541
WJ4015239	0.00	169.81	225.19	542
WJ4015255	0.00	169.81	225.19	542
WJ4015256	0.00	169.80	225.19	542
WJ4015259	0.08	169.00	225.19	550
WJ4015272	0.05	173.20	225.97	516
WJ4015278	0.05	167.70	225.19	562
WJ4015279	0.05	170.71	225.19	533
WJ4015284	0.19	170.44	225.19	535
WJ4015289	0.26	170.59	225.19	534
WJ4015293	0.05	173.75	225.97	511
WJ4015305	0.07	178.68	225.75	460
WJ4015317	0.23	179.54	225.94	454
WJ4015324	0.14	178.31	226.13	468
WJ4015331	0.10	179.94	226.19	452
WJ4015332	0.07	171.53	225.19	525
WJ4015339	0.45	172.38	225.19	516
WJ4015345	0.08	179.87	226.28	454
WJ4015346	0.05	179.88	226.28	454
WJ4015355	1.43	175.03	225.19	490
WJ4015383	0.18	179.01	226.46	464
WJ4015473	0.08	181.25	225.10	429
WJ4015480	0.11	186.28	225.69	385
WJ4015497	0.07	185.33	225.99	398
WJ4015499	0.07	184.38	225.99	407
WJ4015576	0.02	164.91	225.20	590
WJ4015578	0.10	179.32	225.00	447
WJ4015587	0.16	178.44	225.03	456
WJ4015621	0.57	173.10	225.14	509
WJ4015640	0.15	179.59	225.03	444
WJ4015733	0.07	176.17	225.09	478
WJ4015741	0.04	176.75	225.12	473
WJ4015745	0.04	175.73	225.13	483
WJ4015766	0.04	181.90	225.18	423
WJ4015768	0.04	180.35	225.17	438
WJ4015775	0.06	181.17	225.12	430
WJ4015778	0.07	181.52	225.10	426
WJ4015780	0.18	176.77	225.32	475
WJ4015789	0.22	183.64	225.54	410
WJ4015822	0.12	168.21	225.20	557
WJ4015851	0.25	184.16	225.56	405
WJ4015863	0.08	167.30	225.20	566
WJ4015882	0.05	179.10	225.40	453
WJ4015904	0.01	167.75	225.20	562
WJ4015943	0.00	174.80	225.18	493
WJ4016055	0.09	176.79	225.11	473
WJ4016056	0.09	176.74	225.11	473
WJ4016125	0.06	174.51	225.13	495
WJ4016135	0.13	173.42	225.14	506
WJ4016147	0.08	175.28	225.13	488
WJ4016175	0.03	175.01	225.16	490
WJ4016204	0.16	190.55	226.18	348

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4016211	0.45	191.26	226.15	341
WJ4016216	0.47	191.85	226.08	335
WJ4016244	0.15	190.36	225.92	348
WJ4016258	0.09	190.95	225.92	342
WJ4016261	0.08	190.07	225.90	350
WJ4016330	0.08	189.63	225.87	354
WJ4016341	0.02	175.20	225.23	489
WJ4016342	0.06	186.43	225.70	384
WJ4016349	0.08	186.59	225.68	382
WJ4016357	0.07	175.32	225.28	489
WJ4016358	4.79	174.84	225.21	493
WJ4016359	0.95	175.17	225.19	489
WJ4016370	0.14	186.32	225.71	385
WJ4016374	0.16	182.55	225.57	421
WJ4016387	0.06	190.39	226.11	349
WJ4016388	0.42	175.60	225.73	490
WJ4016389	0.07	176.04	225.72	486
WJ4016393	0.10	175.48	225.71	491
WJ4016398	0.08	176.77	225.71	479
WJ4016401	0.06	189.92	226.28	356
WJ4016402	0.38	176.92	225.71	477
WJ4016405	0.11	188.45	226.28	370
WJ4016413	0.15	192.13	225.98	331
WJ4016425	0.15	190.57	226.00	346
WJ4016440	1.12	172.14	225.21	519
WJ4016445	0.03	188.50	226.30	370
WJ4016519	0.18	179.73	225.42	447
WJ4016532	0.12	181.32	225.61	433
WJ4016534	0.14	184.13	225.50	405
WJ4016558	0.04	182.80	225.55	418
WJ4016582	0.00	188.53	226.32	370
WJ4016583	0.02	188.50	226.32	370
WJ4016587	0.13	187.00	226.34	385
WJ4016591	0.05	183.82	226.39	416
WJ4016597	0.04	182.22	226.43	432
WJ4016605	0.03	179.49	226.52	460
WJ4016614	0.11	176.75	225.13	473
WJ4016638	0.00	179.40	226.52	461
WJ4016683	0.10	185.37	226.25	400
WJ4016685	0.06	184.64	226.25	407
WJ4016686	0.13	184.39	226.35	410
WJ4016689	0.11	182.86	226.35	425
WJ4016701	0.04	188.56	225.75	364
WJ4016704	0.11	175.25	225.14	488
WJ4016719	0.00	172.84	225.18	512
WJ4016727	0.01	170.21	225.19	538
WJ4016730	0.14	186.01	225.68	388
WJ4016732	0.02	186.00	225.68	388
WJ4016735	0.18	181.76	225.54	428
WJ4016749	1.37	170.32	225.19	537
WJ4016750	0.03	170.07	225.19	539
WJ4016785	1.82	170.29	225.20	537
WJ4016786	0.03	170.32	225.20	537
WJ4016793	0.00	171.10	225.21	529
WJ4016803	0.16	181.19	225.47	433
WJ4016809	0.08	168.59	225.18	553
WJ4016826	0.15	188.42	225.81	366
WJ4016832	0.10	182.14	225.45	424
WJ4016834	0.11	181.82	225.45	427
WJ4016839	0.13	179.91	225.39	445
WJ4016842	0.11	182.41	225.54	422
WJ4016861	0.01	186.76	225.67	381
WJ4016912	0.00	167.98	225.20	560

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4017039	0.04	182.61	224.48	410
WJ4017077	2.43	178.51	229.87	502
WJ4017078	0.53	178.22	229.87	505
WJ4017083	0.09	170.90	225.20	531
WJ4017087	3.75	173.30	225.17	507
WJ4017092	0.43	173.10	225.16	509
WJ4017150	0.16	173.07	224.88	507
WJ4017159	0.17	185.99	225.69	388
WJ4017170	0.01	177.58	226.13	475
WJ4017178	0.12	151.64	226.11	728
WJ4017187	0.00	168.28	224.84	553
WJ4017191	0.05	172.88	224.84	508
WJ4017192	0.07	177.06	224.84	467
WJ4017198	0.14	181.87	224.91	421
WJ4017209	0.10	191.28	225.02	330
WJ4017210	0.10	190.14	224.95	340
WJ4017212	0.08	191.28	225.03	330
WJ4017220	0.01	172.60	225.97	522
WJ4017229	4.84	191.21	225.02	331
WJ4017282	0.00	187.52	224.65	363
WJ4017284	0.27	180.24	224.50	433
WJ4017287	0.04	177.23	224.51	462
WJ4017292	0.19	190.64	224.56	332
WJ4017315	0.03	190.26	225.54	345
WJ4017333	0.18	186.69	224.69	372
WJ4017357	0.12	188.51	225.59	363
WJ4017359	0.14	191.34	223.92	319
WJ4017373	0.18	157.84	224.05	648
WJ4017447	0.00	175.03	224.30	482
WJ4017479	0.05	186.35	224.37	372
WJ4017495	0.02	183.40	224.34	400
WJ4017533	0.06	187.53	226.30	379
WJ4017546	0.16	188.97	226.19	364
WJ4017555	0.13	188.77	225.72	361
WJ4017556	0.04	190.27	225.72	347
WJ4017585	0.08	189.30	225.14	350
WJ4017587	0.04	188.00	225.24	364
WJ4017590	0.06	187.68	225.24	367
WJ4017629	0.05	189.71	225.42	349
WJ4017630	0.02	179.27	228.30	479
WJ4017639	0.01	188.22	226.25	372
WJ4017666	0.20	188.60	224.55	352
WJ4017691	0.07	187.93	224.81	361
WJ4017695	0.30	185.99	224.86	380
WJ4017698	0.17	185.77	227.82	411
WJ4017702	0.13	177.59	225.06	464
WJ4017733	0.09	169.41	225.20	546
WJ4017734	0.18	184.65	224.91	394
WJ4017736	0.17	169.06	225.18	549
WJ4017738	0.16	170.11	225.19	539
WJ4017740	0.21	184.85	224.90	392
WJ4017741	0.19	186.25	224.90	378
WJ4017742	0.23	185.06	225.69	397
WJ4017743	0.23	169.11	225.19	548
WJ4017748	0.22	186.75	225.69	381
WJ4017749	0.12	169.42	225.20	546
WJ4017750	0.19	186.69	225.69	381
WJ4017751	0.20	169.41	225.20	546
WJ4017752	0.09	168.03	225.20	559
WJ4017753	0.07	167.33	225.20	566
WJ4017755	0.20	186.64	225.69	382
WJ4017756	0.15	178.81	225.40	456
WJ4017758	0.13	179.51	225.40	449

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4017759	0.19	185.85	225.93	392
WJ4017763	0.14	172.83	225.18	512
WJ4017764	0.18	172.97	225.18	511
WJ4017766	0.13	189.91	224.18	335
WJ4017768	0.04	174.39	225.14	496
WJ4017772	0.62	186.34	225.65	384
WJ4017774	0.24	186.74	225.35	378
WJ4017775	0.15	172.38	225.18	516
WJ4017777	0.24	176.25	225.17	478
WJ4017778	1.68	176.37	225.14	477
WJ4017780	0.14	180.89	225.15	433
WJ4017781	0.18	177.82	225.14	463
WJ4017782	0.14	177.14	225.13	469
WJ4017783	0.17	178.73	225.13	454
WJ4017784	0.18	179.29	225.12	448
WJ4017785	0.14	179.98	225.10	441
WJ4017786	0.08	187.24	225.01	369
WJ4017787	0.14	190.96	225.20	335
WJ4017788	0.14	180.44	225.16	437
WJ4017793	0.17	178.61	225.40	458
WJ4017794	0.44	188.18	224.68	357
WJ4017795	0.00	186.81	224.62	370
WJ4017869	0.01	176.77	224.69	469
WJ4017888	0.03	189.74	225.74	352
WJ4017890	0.00	189.47	226.49	362
WJ4017897	1.30	188.30	225.69	366
WJ4017902	1.17	190.08	225.89	350
WJ4017904	0.03	189.02	225.51	357
WJ4017905	0.14	189.23	225.53	355
WJ4017907	0.35	189.85	225.49	349
WJ4017912	0.20	188.15	225.41	364
WJ4017916	0.44	188.06	225.41	365
WJ4017917	0.15	188.36	225.38	362
WJ4017927	1.93	171.70	225.23	523
WJ4017928	2.72	173.00	225.23	511
WJ4017965	0.00	188.33	226.38	372
WJ4017972	0.04	187.65	226.36	379
WJ4017976	0.00	187.64	226.34	378
WJ4017999	0.00	172.46	225.23	516
WJ4018000	0.00	173.01	225.23	511
WJ4018001	0.00	174.15	225.23	500
WJ4018002	0.00	174.16	225.23	500
WJ4018003	0.00	187.22	226.39	383
WJ4018021	0.04	189.68	225.06	346
WJ4018024	0.11	186.66	224.77	373
WJ4018048	0.00	181.11	229.35	472
WJ4018049	0.03	175.42	225.25	487
WJ4018053	0.00	175.44	225.25	487
WJ4018054	0.00	175.41	225.25	487
WJ4018055	0.00	181.12	229.35	472
WJ4018056	0.00	192.09	224.51	317
WJ4018057	0.00	175.45	225.25	487
WJ4018067	0.07	194.66	223.75	284
WJ4018068	0.00	194.70	223.76	284
WJ4018072	0.26	174.14	225.23	500
WJ4018090	0.00	179.43	229.88	493
WJ4018098	0.59	178.50	229.88	503
WJ4018101	0.00	177.93	229.88	508
WJ4018106	0.04	176.88	229.88	518
WJ4018109	0.00	177.44	229.88	513
WJ4018110	0.00	176.94	229.88	518
WJ4018111	0.00	176.87	229.88	518
WJ4018113	0.02	176.00	229.89	527

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4018115	0.00	171.88	229.89	567
WJ4018117	0.00	172.11	229.89	565
WJ4018123	0.00	171.92	229.89	567
WJ4018131	0.09	170.50	225.23	535
WJ4018132	0.00	171.94	229.89	567
WJ4018133	0.00	171.86	229.89	568
WJ4018134	0.00	171.54	229.89	571
WJ4018141	0.44	170.89	229.89	577
WJ4018142	0.00	170.38	229.89	582
WJ4018143	0.00	169.95	229.89	586
WJ4018148	0.01	150.90	224.43	719
WJ4018159	0.12	153.62	224.43	693
WJ4018166	0.15	182.39	224.43	411
WJ4018168	0.05	173.25	225.26	509
WJ4018169	0.00	175.02	224.30	482
WJ4018170	0.06	175.06	224.30	482
WJ4018176	0.09	169.55	225.20	544
WJ4018177	0.14	169.50	225.20	545
WJ4018179	0.00	169.90	225.20	541
WJ4018180	0.00	170.28	225.20	537
WJ4018183	0.06	179.68	224.40	437
WJ4018184	0.07	169.99	225.20	540
WJ4018186	0.00	171.42	225.20	526
WJ4018188	0.00	171.41	225.20	526
WJ4018191	0.01	171.47	225.19	525
WJ4018192	0.05	171.47	225.19	525
WJ4018199	0.12	174.48	224.35	488
WJ4018209	0.09	179.19	225.03	448
WJ4018216	0.07	178.52	225.03	455
WJ4018217	0.26	182.07	224.48	415
WJ4018221	0.00	172.54	229.89	561
WJ4018229	0.00	171.89	229.89	567
WJ4018260	0.11	178.12	224.50	454
WJ4018263	0.10	180.02	224.50	435
WJ4018264	0.05	177.07	224.50	464
WJ4018269	0.07	175.20	224.50	482
WJ4018280	0.16	173.15	224.77	505
WJ4018282	0.09	181.47	224.77	423
WJ4018289	0.01	189.82	225.36	348
WJ4018306	0.00	177.20	226.76	485
WJ4018307	0.93	176.86	226.75	488
WJ4018313	1.44	176.57	225.13	475
WJ4018314	1.01	174.22	225.14	498
WJ4018315	0.00	174.13	225.14	499
WJ4018316	0.80	172.34	225.15	516
WJ4018317	0.00	172.08	225.15	519
WJ4018318	2.87	170.79	225.17	532
WJ4018321	0.00	179.26	226.79	465
WJ4018325	2.09	180.50	226.76	452
WJ4018326	0.01	173.51	225.14	505
WJ4018328	0.07	174.18	225.14	498
WJ4018341	0.01	172.70	226.66	528
WJ4018342	0.00	170.26	226.73	552
WJ4018352	0.07	172.13	225.15	519
WJ4018393	1.06	180.81	226.78	450
WJ4018400	0.00	173.01	226.65	525
WJ4018417	0.03	173.23	226.63	522
WJ4018439	0.43	186.95	225.75	379
WJ4018440	0.05	186.96	225.75	379
WJ4018443	0.01	185.21	225.68	396
WJ4018445	0.00	185.19	225.68	396
WJ4018446	0.20	185.13	225.68	397
WJ4018447	0.00	185.15	225.68	396

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4018448	0.01	185.25	225.68	395
WJ4018450	0.11	188.19	225.79	368
WJ4018451	1.53	171.31	225.21	527
WJ4018452	0.11	189.63	225.84	354
WJ4018453	0.13	190.43	225.90	347
WJ4018454	0.03	191.81	225.97	334
WJ4018455	0.02	192.20	226.00	331
WJ4018456	0.00	191.18	226.08	341
WJ4018457	0.61	190.18	226.19	352
WJ4018459	0.04	171.22	225.18	528
WJ4018460	0.85	171.72	225.18	523
WJ4018461	0.00	171.59	225.18	524
WJ4018462	0.00	171.52	225.18	525
WJ4018463	0.00	190.54	226.30	350
WJ4018464	0.00	190.57	226.29	349
WJ4018465	0.00	188.69	226.31	368
WJ4018467	1.00	190.72	226.29	348
WJ4018471	0.00	190.47	226.29	350
WJ4018472	0.00	188.99	226.29	365
WJ4018473	0.00	171.50	225.18	525
WJ4018476	0.00	171.50	225.18	525
WJ4018480	0.02	171.26	225.18	527
WJ4018482	0.07	189.75	225.55	350
WJ4018513	0.86	188.34	226.38	372
WJ4018514	0.00	188.35	226.38	372
WJ4018524	0.34	174.36	225.13	497
WJ4018532	0.00	178.62	225.12	455
WJ4018533	0.00	178.87	225.12	452
WJ4018534	0.00	178.28	225.12	458
WJ4018542	0.32	175.17	225.19	489
WJ4018575	3.05	180.19	225.11	439
WJ4018583	0.09	184.79	226.27	406
WJ4018586	1.59	187.48	225.08	368
WJ4018588	3.17	187.58	225.08	367
WJ4018604	0.00	176.64	224.94	472
WJ4018605	0.00	178.84	224.96	451
WJ4018633	0.11	182.60	225.57	420
WJ4018634	0.19	181.48	225.46	430
WJ4018635	0.03	185.09	225.68	397
WJ4018862	0.00	185.72	228.13	415
WJ4018863	0.09	185.76	228.13	414
WJ4018874	0.01	185.73	228.13	415
WJ4018876	0.01	185.71	228.13	415
WJ4019063	0.02	168.36	229.89	602
WJ4019076	0.09	178.36	224.42	451
WJ4019077	0.01	178.81	224.46	446
WJ4019082	0.00	182.58	224.48	410
WJ4019278	0.02	191.32	225.80	337
WJ4019280	1.51	191.39	225.79	336
WJ4019295	0.04	175.95	225.18	481
WJ4019296	0.13	175.37	225.18	487
WJ4019306	0.13	171.28	225.19	527
WJ4019314	0.10	168.77	225.19	552
WJ4019316	0.12	168.48	225.19	555
WJ4019318	1.21	170.83	225.22	532
WJ4019320	0.07	182.56	224.47	410
WJ4019325	0.16	169.10	225.22	549
WJ4019326	0.14	168.57	225.22	554
WJ4019328	1.78	191.58	225.03	327
WJ4019334	0.03	191.01	224.79	330
WJ4019335	0.14	191.30	224.79	328
WJ4019344	0.57	182.75	225.41	417
WJ4019371	1.08	173.61	225.40	506

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4019383	0.02	175.11	225.14	489
WJ4019386	0.13	174.44	225.14	496
WJ4019398	0.01	171.66	225.51	527
WJ4019399	0.00	168.58	225.21	554
WJ4019415	0.08	187.23	225.58	375
WJ4019456	0.13	187.05	224.76	369
WJ4019463	0.16	186.64	224.96	375
WJ4019472	0.15	186.51	224.98	376
WJ4019556	0.00	186.36	226.33	391
WJ4019562	0.15	188.52	225.64	363
WJ4019567	0.06	189.23	225.36	353
WJ4019572	0.12	186.94	225.05	373
WJ4019575	0.17	188.39	224.85	357
WJ4019589	0.13	185.79	225.68	390
WJ4019594	0.09	182.65	226.05	424
WJ4019600	0.14	186.39	226.24	390
WJ4019603	0.17	187.39	226.23	380
WJ4019608	0.30	179.57	225.31	447
WJ4019610	0.26	178.88	225.31	454
WJ4019612	0.14	176.57	225.31	477
WJ4019614	0.16	177.23	225.31	470
WJ4019616	0.12	177.60	225.23	466
WJ4019619	0.15	176.14	225.23	480
WJ4019624	0.28	180.80	225.09	433
WJ4019626	1.23	187.07	225.06	372
WJ4019628	0.11	188.65	225.05	356
WJ4019630	3.18	190.11	225.05	342
WJ4019634	0.17	189.39	224.95	348
WJ4019636	0.27	189.06	224.98	351
WJ4019637	0.28	187.87	224.99	363
WJ4019639	0.12	185.05	225.00	391
WJ4019643	0.29	183.07	225.01	410
WJ4019644	0.14	182.15	225.05	420
WJ4019651	0.20	182.35	225.01	417
WJ4019654	0.10	181.44	225.01	426
WJ4019656	0.11	184.50	224.96	396
WJ4019658	0.15	185.39	224.94	387
WJ4019660	0.16	186.46	224.92	376
WJ4019665	0.20	189.11	224.86	350
WJ4019673	0.31	186.04	224.89	380
WJ4019675	0.32	185.60	224.90	384
WJ4019677	0.28	184.03	224.91	400
WJ4019680	0.19	182.65	224.92	413
WJ4019682	0.20	184.12	224.94	399
WJ4019684	0.09	179.78	224.97	442
WJ4019685	0.20	181.55	224.95	424
WJ4019687	0.22	182.70	224.91	413
WJ4019700	0.16	174.91	225.17	492
WJ4019709	0.19	178.30	225.17	458
WJ4019711	0.19	180.00	225.16	442
WJ4019724	0.09	173.29	225.81	514
WJ4019726	0.14	174.43	225.78	502
WJ4019733	0.15	175.37	225.67	492
WJ4019734	0.24	176.38	225.52	481
WJ4019735	0.22	179.35	225.42	451
WJ4019736	0.12	175.39	225.51	490
WJ4019737	0.07	173.57	225.71	510
WJ4019738	0.30	173.75	225.50	506
WJ4019741	0.29	176.83	225.36	475
WJ4019746	0.28	175.85	225.36	484
WJ4019760	0.15	181.40	225.12	428
WJ4019761	0.24	172.21	225.50	521
WJ4019762	0.22	173.33	225.51	510

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4019765	0.16	170.78	225.50	535
WJ4019766	0.20	180.17	225.12	440
WJ4019767	0.18	181.61	225.12	426
WJ4019768	0.19	179.30	225.13	448
WJ4019772	0.23	184.20	225.94	408
WJ4019773	0.23	181.67	225.95	433
WJ4019775	0.24	176.32	225.32	479
WJ4019777	0.22	176.77	225.32	475
WJ4019781	0.23	181.77	225.54	428
WJ4019782	0.16	179.17	225.62	454
WJ4019783	0.15	185.63	225.50	390
WJ4019786	0.20	177.52	225.14	466
WJ4019788	0.09	177.25	225.14	468
WJ4019789	0.17	180.78	225.41	436
WJ4019790	0.14	182.59	226.92	433
WJ4019792	0.00	175.60	225.29	486
WJ4019795	0.07	181.79	225.40	426
WJ4019796	0.07	186.73	225.50	379
WJ4019798	0.09	175.07	225.17	490
WJ4019803	0.14	176.09	225.16	480
WJ4019805	0.11	177.35	225.62	472
WJ4019806	0.13	176.64	225.62	479
WJ4019808	0.11	183.82	225.50	408
WJ4019809	0.16	181.48	225.39	429
WJ4019812	0.00	184.60	226.92	414
WJ4019815	0.17	176.75	225.11	473
WJ4019817	0.14	179.75	225.10	444
WJ4019818	0.19	178.33	225.13	458
WJ4019819	0.17	175.74	225.13	483
WJ4019820	0.18	176.32	225.15	477
WJ4019822	0.15	174.98	225.14	491
WJ4019826	0.13	176.26	225.13	478
WJ4019829	0.16	174.46	225.14	496
WJ4019834	0.15	173.72	225.15	503
WJ4019838	0.17	178.45	225.12	456
WJ4019841	0.12	178.70	225.12	454
WJ4019842	0.13	176.83	225.15	473
WJ4019845	0.12	178.99	225.11	451
WJ4019846	0.12	184.18	227.02	419
WJ4019848	0.08	172.38	225.17	516
WJ4019851	0.20	179.20	225.10	449
WJ4019852	0.28	171.15	225.17	528
WJ4019855	0.15	180.02	225.08	441
WJ4019856	0.20	175.80	225.16	483
WJ4019862	0.18	173.94	225.17	501
WJ4019865	0.17	177.11	225.10	469
WJ4019873	0.12	170.29	225.18	537
WJ4019876	0.12	185.68	227.44	408
WJ4019908	0.15	176.41	225.10	476
WJ4019914	0.16	177.37	225.09	467
WJ4019916	0.13	176.88	225.08	471
WJ4019918	0.15	177.11	225.07	469
WJ4019991	0.18	181.07	228.17	461
WJ4019994	0.14	180.69	228.21	465
WJ4019995	0.01	185.82	228.13	414
WJ4019996	0.18	180.31	228.25	469
WJ4020002	0.03	185.35	228.16	419
WJ4020003	0.14	180.39	228.50	470
WJ4020007	0.14	180.01	228.27	472
WJ4020013	0.03	185.00	228.19	422
WJ4020213	0.14	185.99	225.00	382
WJ4020220	0.14	175.13	223.99	478
WJ4020222	0.06	181.58	224.08	416

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4020225	0.17	195.00	223.86	282
WJ4020227	0.17	194.13	223.92	291
WJ4020229	0.33	191.07	224.51	327
WJ4020259	0.09	174.69	224.91	491
WJ4020263	0.21	180.62	224.91	433
WJ4020264	2.66	173.40	225.99	514
WJ4020265	0.00	173.28	225.97	515
WJ4020266	0.04	173.00	225.97	518
WJ4020267	0.07	174.59	225.95	502
WJ4020268	0.07	174.93	225.94	499
WJ4020269	0.07	175.11	225.94	497
WJ4020274	0.52	170.04	226.49	552
WJ4020275	0.00	148.82	226.34	758
WJ4020278	0.01	148.53	226.34	761
WJ4020423	0.02	183.97	228.24	433
WJ4020596	0.06	183.50	228.24	437
WJ4020598	0.16	183.11	228.25	441
WJ4020599	0.79	182.80	228.28	445
WJ4020703	0.19	177.03	224.94	469
WJ4020704	0.17	178.99	224.95	450
WJ4020715	0.01	182.34	228.73	454
WJ4020716	0.03	182.32	228.74	454
WJ4020717	0.16	181.97	228.71	457
WJ4020722	2.33	191.19	225.02	331
WJ4020727	0.00	177.10	224.69	465
WJ4020729	0.00	181.42	228.72	463
WJ4020730	0.00	176.87	224.69	468
WJ4020732	0.14	181.58	228.71	461
WJ4020738	0.09	182.54	228.66	451
WJ4020739	0.02	182.55	228.67	451
WJ4020740	0.05	182.85	228.66	448
WJ4020741	0.69	187.50	225.08	368
WJ4020828	1.19	187.49	224.46	362
WJ4020832	1.08	182.06	224.47	415
WJ4020853	0.05	183.64	228.69	441
WJ4020856	0.22	181.23	224.50	423
WJ4020858	0.10	183.19	228.68	445
WJ4020862	0.40	182.34	228.61	453
WJ4020863	0.06	182.87	228.70	448
WJ4020864	0.79	181.95	227.85	449
WJ4020865	0.27	178.32	227.84	484
WJ4020867	0.13	182.66	228.69	450
WJ4020882	0.04	181.94	228.51	455
WJ4020967	0.01	185.67	227.43	408
WJ4020969	0.10	184.56	226.92	414
WJ4020971	0.19	179.60	228.27	476
WJ4020978	0.16	180.30	228.27	469
WJ4020979	0.03	180.22	228.27	470
WJ4020980	0.13	185.65	227.99	414
WJ4020981	0.08	180.08	228.26	471
WJ4020984	0.17	178.98	228.26	482
WJ4020987	0.17	177.61	228.26	495
WJ4021011	0.16	176.16	228.26	510
WJ4021023	0.06	172.38	228.26	546
WJ4021044	0.11	175.88	229.89	528
WJ4021047	0.00	176.07	229.89	526
WJ4021076	0.00	172.98	225.25	511
WJ4021126	0.05	189.65	225.49	351
WJ4021144	0.04	174.17	225.19	499
WJ4021189	0.07	168.95	229.89	596
WJ4021233	0.00	178.49	229.88	503
WJ4021261	0.00	179.35	226.76	464
WJ4022762	0.00	180.31	229.61	482

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4022764	0.01	181.24	229.13	468
WJ4022778	0.10	180.57	228.27	467
WJ4022800	0.00	178.77	229.89	500
WJ4022803	0.06	175.82	225.25	483
WJ4022804	0.00	178.85	229.87	499
WJ4023042	0.15	178.85	225.91	460
WJ4023043	0.06	176.05	225.94	488
WJ4023052	0.00	189.03	226.28	364
WJ4023053	0.00	190.55	226.29	350
WJ4023055	0.00	168.39	226.66	570
WJ4023063	0.02	179.40	225.12	447
WJ4024064	0.05	164.33	224.44	588
WJ4024315	0.02	172.97	224.45	504
WJ4026374	0.37	181.93	225.55	427
WJ4037574	0.00	174.33	225.23	498
WJ4037577	2.54	174.34	225.23	498
WJ4037578	0.00	174.34	225.23	498
WJ4037579	0.00	174.15	225.23	500
WJ4037618	0.00	174.31	225.23	498
WJ4037619	0.00	174.31	225.23	498
WJ4037620	0.00	174.32	225.23	498
WJ4037625	0.00	174.15	225.23	500
WJ4037660	0.00	174.31	225.23	498
WJ4037661	0.00	174.32	225.23	498
WJ4037662	1.00	174.32	225.23	498
WJ4037669	0.00	174.15	225.23	500
WJ4037786	0.00	174.31	225.23	498
WJ4037787	0.00	174.32	225.23	498
WJ4037788	1.02	174.32	225.22	498
WJ4037793	0.00	174.11	225.23	500
WJ4037794	0.00	174.10	225.23	500
WJ4037795	0.00	174.10	225.23	500
WJ4037800	0.00	174.15	225.23	500
WJ4037829	0.00	173.29	225.23	508
WJ4037830	0.00	173.30	225.23	508
WJ4037831	0.00	173.29	225.23	508
WJ4037834	1.05	173.26	225.23	508
WJ4037836	0.00	173.24	225.23	508
WJ4037838	0.00	173.26	225.23	508
WJ4037839	1.75	173.26	225.23	508
WJ4037846	0.00	172.73	225.22	513
WJ4037847	0.00	172.75	225.22	513
WJ4037848	1.66	172.73	225.22	513
WJ4037849	0.00	172.73	225.23	513
WJ4037854	0.00	172.54	225.23	515
WJ4037855	0.00	172.55	225.23	515
WJ4037856	0.00	172.54	225.23	515
WJ4037857	0.00	172.54	225.23	515
WJ4038205	0.00	170.83	225.23	532
WJ4038206	0.00	170.86	225.23	532
WJ4038207	0.00	170.83	225.23	532
WJ4038214	0.00	170.81	225.23	532
WJ4038335	0.00	170.59	225.23	534
WJ4038346	0.00	170.52	225.23	535
WJ4038353	0.04	170.58	225.23	534
WJ4038388	0.02	170.43	225.23	536
WJ4038592	0.00	173.57	225.23	505
WJ4038593	0.00	173.55	225.23	505
WJ4038594	0.00	173.57	225.23	505
WJ4038595	0.00	173.57	225.23	505
WJ4038628	0.00	173.00	225.23	511
WJ4038631	0.00	172.97	225.23	511
WJ4038632	0.00	172.96	225.23	511

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4038633	0.00	172.96	225.23	511
WJ4038681	0.00	173.08	225.23	510
WJ4038682	0.32	173.09	225.23	510
WJ4038685	0.00	173.06	225.23	510
WJ4038686	0.45	172.75	225.23	513
WJ4040953	1.74	186.57	224.62	372
WJ4040955	0.41	187.71	224.65	361
WJ4040961	0.00	190.53	226.29	350
WJ47069	0.14	188.82	225.75	361
WJ47435	0.19	185.60	228.21	417
WJ47436	0.12	183.43	228.24	438
WJ47749	0.07	187.24	225.02	370
WJ47751	0.00	185.95	225.22	384
WJ48055	0.05	180.92	224.85	430
WJ48056	0.02	179.61	224.85	442
WJ48205	0.00	171.60	229.89	570
WJ48206	0.00	171.66	229.89	569
WJ48208	0.02	172.05	229.89	566
WJ48210	0.01	172.80	229.89	558
WJ48211	0.06	172.79	229.89	558
WJ48213	0.13	173.23	229.89	554
WJ48215	0.04	172.48	229.89	561
WJ48216	0.18	172.46	229.89	562
WJ48243	0.04	173.83	229.89	548
WJ48244	0.01	169.19	229.89	594
WJ48272	0.15	170.51	229.89	581
WJ48273	0.00	170.51	229.89	581
WJ48469	0.06	184.25	226.78	416
WJ48471	0.00	184.62	226.83	413
WJ48953	0.03	181.98	224.26	413
WJ48955	0.05	185.62	224.26	378
WJ48956	0.05	185.59	224.26	378
WJ48957	0.09	186.90	224.28	366
WJ48958	0.03	186.75	224.29	367
WJ48960	0.10	186.50	224.27	369
WJ48961	0.01	187.17	224.27	363
WJ48963	0.06	185.80	224.25	376
WJ48968	0.50	189.72	225.32	348
WJ48969	0.02	189.92	224.33	337
WJ48971	0.00	187.80	224.33	357
WJ48972	0.16	187.80	224.33	357
WJ48973	0.13	187.80	224.34	357
WJ48974	0.02	188.96	224.31	346
WJ48979	0.05	188.96	224.30	346
WJ48980	0.13	188.98	224.32	346
WJ48983	0.13	190.78	224.30	328
WJ48984	0.07	190.78	224.28	328
WJ48985	0.02	190.78	224.29	328
WJ48986	0.01	192.02	224.26	315
WJ48987	0.14	192.02	224.28	315
WJ48988	0.10	192.02	224.26	315
WJ48991	0.01	192.00	224.24	315
WJ48994	0.10	192.00	224.24	315
WJ48995	0.12	192.00	224.26	315
WJ48999	0.13	190.85	224.23	326
WJ49000	0.06	190.85	224.20	326
WJ49001	0.00	187.78	224.32	357
WJ49002	0.03	190.85	224.21	326
WJ49003	0.05	191.31	224.18	322
WJ49072	0.00	173.79	225.95	510
WJ49141	1.34	186.37	224.85	376
WJ49142	0.02	186.71	224.95	374
WJ49143	0.01	186.61	224.96	375

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ49144	0.08	186.70	224.95	374
WJ49145	0.15	186.27	225.02	379
WJ49146	0.00	186.58	225.02	376
WJ49237	0.05	187.94	225.37	366
WJ49239	0.02	187.84	225.37	367
WJ49243	0.06	188.41	225.42	362
WJ49244	0.00	189.09	225.42	355
WJ49247	0.03	194.11	225.44	306
WJ49248	0.02	191.33	225.60	335
WJ49251	0.20	191.18	225.60	337
WJ49252	0.02	191.40	225.61	335
WJ49253	0.16	193.43	225.44	313
WJ49254	0.04	187.81	225.39	368
WJ49256	0.04	187.64	225.39	369
WJ49258	0.01	193.59	225.44	311
WJ49324	0.06	186.36	225.24	380
WJ49325	0.05	186.79	225.24	376
WJ49326	0.00	181.76	225.24	425
WJ49327	0.01	182.14	225.24	422
WJ49330	0.00	186.22	225.33	382
WJ49331	0.13	186.69	225.33	378
WJ49332	0.20	187.85	225.42	367
WJ49333	0.01	187.91	225.42	367
WJ49334	0.02	187.86	225.42	367
WJ49339	0.00	189.24	225.58	355
WJ49340	0.02	189.34	225.58	354
WJ49341	0.20	189.31	225.58	355
WJ49342	0.08	189.63	225.59	352
WJ50379	0.01	184.18	227.04	419
WJ51948	0.09	184.16	225.46	404
WJ51950	0.09	184.16	225.47	404
WJ51952	0.02	184.18	225.46	404
WJ51955	0.07	184.12	225.46	404
WJ51974	0.00	174.32	225.19	497
WJ51975	0.00	174.32	225.18	497
WJ51976	0.00	174.22	225.18	498
WJ51977	0.01	173.88	225.18	502
WJ51978	0.04	175.26	225.17	488
WJ51979	0.01	177.44	225.17	467
WJ51980	0.02	178.58	225.17	456
WJ51987	0.02	178.50	225.17	456
WJ51990	0.04	178.47	225.18	457
WJ51996	0.01	177.44	225.17	467
WJ51998	0.04	177.38	225.18	467
WJ52037	0.00	174.30	225.18	498
WJ52044	0.37	174.22	225.19	498
WJ52054	0.00	173.48	225.18	506
WJ52055	1.54	173.64	225.16	504
WJ52073	0.00	191.70	225.12	327
WJ52087	0.00	191.80	225.12	326
WJ52091	0.00	191.40	225.04	329
WJ52093	0.00	191.84	225.04	325
WJ52156	0.13	180.95	224.35	424
WJ52159	0.02	181.05	224.36	424
WJ52162	0.15	186.53	224.34	370
WJ52163	0.03	186.54	224.34	370
WJ52165	0.11	188.36	224.34	352
WJ52167	0.03	186.53	224.34	370
WJ52171	0.08	187.75	224.37	358
WJ52182	0.02	186.64	224.36	369
WJ52183	0.02	186.66	224.35	369
WJ52184	0.07	186.65	224.35	369
WJ52220	0.06	187.46	224.37	361

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ52221	0.04	187.74	224.37	358
WJ52222	0.03	187.65	224.38	359
WJ52242	0.13	186.57	224.35	370
WJ52247	0.03	191.68	225.12	327
WJ52248	0.00	191.15	225.04	331
WJ52249	0.02	191.10	225.04	332
WJ52251	0.06	189.05	224.97	351
WJ52303	0.00	182.21	224.86	417
WJ52307	0.13	182.21	224.86	417
WJ52325	0.05	178.54	224.85	453
WJ52327	0.01	178.59	224.85	452
WJ52331	0.13	177.29	224.84	465
WJ52333	0.00	177.29	224.84	465
WJ52334	0.00	176.50	224.84	473
WJ52336	0.02	176.48	224.84	473
WJ52338	0.00	175.98	224.84	478
WJ52339	0.51	175.42	224.84	483
WJ52340	0.00	167.29	224.83	563
WJ52341	0.00	167.46	224.84	561
WJ52344	0.10	167.55	224.84	560
WJ52345	0.00	168.64	224.84	550
WJ52747	0.01	179.21	225.18	450
WJ52748	0.01	176.06	225.17	480
WJ52750	0.00	176.05	225.17	480
WJ52751	0.52	172.80	225.16	512
WJ52753	0.01	172.80	225.16	512
WJ52754	0.09	172.41	225.16	516
WJ52757	0.00	174.02	225.14	500
WJ52768	0.01	174.39	225.14	496
WJ52868	1.59	187.39	225.04	368
WJ52874	0.00	186.61	224.77	373
WJ52875	2.16	188.07	225.06	362
WJ52876	0.01	187.28	225.06	369
WJ52877	0.03	187.25	225.06	370
WJ52881	0.09	186.91	224.91	372
WJ52882	0.51	186.95	224.91	371
WJ53038	4.64	172.13	225.22	519
WJ53041	0.01	170.60	225.22	534
WJ53042	0.03	170.57	225.22	534
WJ53045	0.00	170.79	225.22	532
WJ53046	0.00	170.75	225.22	533
WJ53069	0.02	170.66	225.22	534
WJ53078	0.06	170.87	225.22	532
WJ53108	0.06	179.43	225.18	447
WJ53112	0.01	189.50	225.04	348
WJ53113	0.00	189.45	225.04	348
WJ53114	0.00	186.80	225.08	374
WJ53115	0.01	191.00	225.07	333
WJ53116	1.26	189.10	225.08	352
WJ53117	0.02	189.05	225.07	352
WJ53118	0.00	186.90	225.08	373
WJ53121	1.02	189.48	225.04	348
WJ53122	0.00	189.89	225.04	344
WJ53442	0.85	185.43	226.32	400
WJ53444	0.00	185.43	226.32	400
WJ53447	0.00	188.12	226.16	372
WJ53448	0.06	188.80	225.97	364
WJ53450	0.03	188.71	225.98	364
WJ53452	0.13	188.81	225.98	364
WJ53453	0.00	188.75	225.98	364
WJ53457	0.00	187.00	225.33	375
WJ53462	0.02	167.21	224.81	563
WJ53465	0.00	187.72	226.16	376

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ53466	0.02	185.43	226.32	400
WJ53494	0.08	183.04	226.09	421
WJ53495	0.05	183.04	226.11	421
WJ53498	0.03	183.62	226.10	415
WJ53506	0.08	183.87	226.08	413
WJ53512	0.00	187.05	224.85	370
WJ53513	0.03	187.48	224.85	365
WJ53514	0.03	187.30	224.85	367
WJ53517	0.08	182.72	226.09	424
WJ53518	0.07	183.87	226.10	413
WJ53523	0.01	184.69	226.07	405
WJ53524	0.09	184.69	226.08	405
WJ53525	0.06	183.05	226.07	421
WJ53553	0.02	184.60	226.05	405
WJ53555	0.01	184.80	226.05	403
WJ53556	0.12	187.41	226.02	378
WJ53557	0.04	186.15	226.02	390
WJ53558	0.06	187.41	226.03	378
WJ53559	0.15	187.10	225.98	380
WJ53562	0.00	188.50	226.31	370
WJ53563	0.05	188.50	226.30	370
WJ53564	0.03	188.20	226.19	372
WJ53566	0.02	188.40	226.11	369
WJ53567	0.02	187.00	226.02	382
WJ53570	0.04	188.18	225.75	367
WJ53571	0.03	185.00	225.68	398
WJ53572	0.02	185.00	225.68	398
WJ53574	0.06	183.90	225.65	408
WJ53576	0.05	187.00	226.02	382
WJ53577	0.06	188.30	226.11	370
WJ53578	0.05	188.10	226.19	372
WJ53584	0.27	188.18	225.75	367
WJ53585	0.11	185.00	225.68	398
WJ53586	0.03	183.70	225.68	410
WJ53610	0.24	190.70	225.79	343
WJ53661	0.13	186.85	225.41	377
WJ53664	0.17	186.45	225.30	380
WJ53665	0.06	186.90	225.41	377
WJ53671	0.01	186.73	225.41	378
WJ53672	0.00	186.29	225.41	382
WJ53717	0.05	187.60	224.86	364
WJ53722	0.02	185.92	224.69	379
WJ53724	0.01	185.75	224.68	381
WJ53727	0.11	185.92	224.68	379
WJ53844	0.22	184.50	225.68	403
WJ53848	0.26	185.50	225.68	393
WJ53883	0.33	191.20	225.73	338
WJ53893	0.06	183.66	227.01	424
WJ53988	0.08	183.11	227.28	432
WJ53989	0.00	183.13	227.28	432
WJ53992	0.01	185.63	227.29	407
WJ53993	0.00	185.63	227.32	408
WJ53994	0.06	185.63	227.29	407
WJ54013	0.12	183.42	227.22	428
WJ54014	0.01	184.18	227.19	421
WJ54018	0.01	184.21	227.21	421
WJ54019	0.08	184.18	227.20	421
WJ54277	0.36	169.89	225.23	541
WJ54278	1.57	168.40	225.23	556
WJ54288	0.15	168.31	225.23	557
WJ54289	0.00	168.31	225.23	557
WJ54290	0.00	168.31	225.23	557
WJ54291	0.06	168.31	225.23	557

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ54414	0.11	179.78	225.00	442
WJ54418	0.04	179.74	225.00	443
WJ54421	0.01	179.79	225.01	442
WJ54422	0.06	179.80	225.00	442
WJ54423	0.03	180.60	225.00	434
WJ54424	0.02	180.60	224.99	434
WJ54425	0.14	180.60	225.00	434
WJ54440	0.00	181.86	224.92	421
WJ54441	0.01	180.51	225.05	436
WJ54442	0.03	180.51	225.06	436
WJ54444	0.03	178.31	225.12	458
WJ54459	0.06	178.74	225.10	453
WJ54460	0.04	178.74	225.10	453
WJ54461	0.00	178.74	225.10	453
WJ54468	0.08	180.77	225.07	433
WJ54469	0.00	180.77	225.07	433
WJ54470	0.02	180.77	225.08	433
WJ54473	0.13	180.51	225.05	436
WJ54480	0.13	181.86	225.02	422
WJ54484	0.01	181.86	225.12	423
WJ54489	0.17	183.60	224.99	405
WJ54490	0.02	183.60	224.99	405
WJ54491	0.10	183.60	224.99	405
WJ55016	0.04	189.80	225.55	350
WJ55017	0.01	190.30	225.46	344
WJ55018	0.02	190.30	225.46	344
WJ55019	0.00	190.30	225.46	344
WJ55020	0.02	189.80	225.55	350
WJ55022	0.03	190.10	225.49	346
WJ55026	0.04	189.90	225.63	349
WJ55118	0.05	188.19	225.75	367
WJ55120	0.02	188.19	225.76	367
WJ55122	0.05	188.18	225.75	367
WJ55156	0.17	182.61	226.28	427
WJ55157	0.06	182.61	226.26	427
WJ55162	0.07	184.25	226.28	411
WJ55163	0.02	183.82	226.27	415
WJ55164	0.04	182.59	226.27	427
WJ55165	0.02	183.60	226.27	417
WJ55166	0.04	184.20	226.27	411
WJ55167	0.01	184.65	226.25	407
WJ55170	0.00	179.87	226.27	454
WJ55171	0.06	179.86	226.29	454
WJ55214	0.02	184.22	226.94	418
WJ55216	0.02	184.46	226.93	415
WJ55304	0.02	177.25	225.14	468
WJ55323	0.02	177.63	225.13	465
WJ55324	0.16	178.01	225.13	461
WJ55326	0.01	177.65	225.13	464
WJ55328	0.01	175.43	225.12	486
WJ55329	0.18	175.66	225.13	484
WJ55331	0.01	175.42	225.13	486
WJ55334	0.01	175.59	225.12	484
WJ55335	0.16	175.57	225.12	485
WJ55338	0.02	175.57	225.12	485
WJ55341	0.02	177.23	225.14	469
WJ55422	0.03	183.62	225.15	406
WJ55423	0.02	183.61	225.16	406
WJ55429	0.01	178.32	225.15	458
WJ55431	0.02	178.32	225.15	458
WJ55432	0.16	178.20	225.15	459
WJ55436	0.18	175.21	225.14	488
WJ55441	0.03	176.13	225.14	479

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ55442	0.02	175.21	225.14	488
WJ55455	0.09	184.81	225.15	395
WJ55466	0.09	177.21	225.14	469
WJ55469	0.01	176.75	225.10	473
WJ55472	0.05	176.75	225.13	473
WJ55957	0.02	186.71	225.39	378
WJ55958	0.02	186.01	225.40	385
WJ55961	0.14	185.82	225.39	387
WJ56498	0.09	186.37	225.42	382
WJ56681	0.16	181.74	228.88	461
WJ56684	0.13	181.22	228.85	466
WJ56688	0.01	181.28	228.83	465
WJ56689	0.00	181.35	229.35	469
WJ56691	0.00	181.14	229.35	471
WJ56698	0.11	182.00	228.84	458
WJ56700	0.00	182.36	228.84	455
WJ56701	0.00	181.97	228.83	458
WJ56705	0.10	181.13	228.85	467
WJ57354	0.05	188.95	224.88	351
WJ57355	0.07	188.90	224.88	352
WJ57425	0.00	172.59	225.19	514
WJ57428	0.03	172.42	225.19	516
WJ57438	0.00	179.94	225.19	442
WJ57697	0.05	167.63	225.19	563
WJ57906	0.85	174.40	225.22	497
WJ57907	0.00	172.72	225.22	513
WJ58108	0.00	173.30	225.17	507
WJ58109	0.07	173.40	225.17	506
WJ58336	0.09	188.52	225.60	363
WJ58392	0.08	179.83	224.40	436
WJ58393	0.10	181.20	224.39	422
WJ58394	0.04	181.67	224.39	418
WJ58397	0.01	187.78	224.34	358
WJ58399	0.02	187.61	224.34	359
WJ58401	0.03	187.40	224.40	362
WJ58403	0.03	187.51	224.40	361
WJ58404	0.03	185.00	224.45	386
WJ58406	0.03	184.38	224.44	392
WJ58412	0.05	187.17	224.62	366
WJ58418	0.27	187.47	224.40	361
WJ58423	0.28	184.00	224.39	395
WJ58424	0.17	182.01	224.39	414
WJ58425	0.08	184.91	224.45	387
WJ58426	0.05	184.92	224.44	387
WJ58427	1.62	186.86	224.61	369
WJ58458	0.07	173.97	225.26	502
WJ58460	0.08	172.58	225.26	515
WJ58461	0.00	172.71	225.25	514
WJ58462	0.14	172.58	225.25	515
WJ58464	0.00	172.71	225.25	514
WJ58473	0.09	173.05	225.24	510
WJ58475	2.20	173.81	225.21	503
WJ58476	3.76	173.81	225.21	503
WJ58479	1.98	173.81	225.20	503
WJ58480	4.24	173.81	225.20	503
WJ58481	0.00	173.41	225.19	506
WJ58482	0.00	173.41	225.19	506
WJ58486	1.61	173.29	225.19	508
WJ58488	0.00	173.31	225.18	507
WJ58490	0.00	173.88	225.17	502
WJ58496	1.63	173.62	225.17	504
WJ58498	1.46	173.62	225.17	504
WJ58499	0.01	173.62	225.17	504

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ58500	0.00	173.62	225.17	504
WJ58501	0.22	173.40	225.16	506
WJ58502	1.67	173.40	225.16	506
WJ58504	0.00	173.40	225.16	506
WJ58505	0.01	173.40	225.16	506
WJ58509	0.05	172.82	225.14	512
WJ58510	0.00	172.82	225.14	512
WJ58512	0.00	173.74	225.13	503
WJ58513	0.00	173.74	225.13	503
WJ58516	0.03	174.37	225.13	496
WJ58517	0.00	174.37	225.13	496
WJ58519	0.52	176.52	225.13	475
WJ58521	0.26	176.52	225.13	475
WJ58522	0.13	178.76	225.12	453
WJ58523	0.01	178.76	225.12	453
WJ58526	0.02	178.76	225.13	453
WJ58527	4.04	182.72	225.12	415
WJ58528	0.00	182.72	225.12	415
WJ58530	0.86	186.10	225.12	382
WJ58532	0.00	186.10	225.12	382
WJ58533	1.69	186.22	225.11	380
WJ58535	0.00	186.22	225.11	380
WJ58537	0.00	186.80	225.12	375
WJ58539	2.63	186.80	225.12	375
WJ58540	0.02	188.70	225.11	356
WJ58541	0.50	188.77	225.11	355
WJ58543	4.56	190.21	225.11	341
WJ58544	0.00	190.21	225.12	341
WJ58545	0.00	190.21	225.11	341
WJ58547	0.09	190.37	225.12	340
WJ58548	2.18	190.37	225.12	340
WJ58572	0.00	191.60	225.12	328
WJ58573	0.00	191.79	225.12	326
WJ58574	0.19	191.80	225.13	326
WJ58575	0.00	191.40	225.13	330
WJ58576	0.00	191.40	225.13	330
WJ58577	0.00	191.40	225.13	330
WJ58580	1.54	191.95	225.12	324
WJ58581	0.16	191.79	225.12	326
WJ58595	2.87	171.60	225.25	525
WJ58601	0.34	173.61	225.23	505
WJ58602	0.00	173.61	225.23	505
WJ58603	0.26	173.11	225.18	509
WJ58604	0.00	173.20	225.18	508
WJ58605	0.00	173.20	225.18	508
WJ58608	1.02	173.75	225.17	503
WJ58609	0.00	173.71	225.17	503
WJ58610	0.00	188.79	225.12	355
WJ58611	0.00	172.80	225.25	513
WJ58614	0.00	173.39	225.19	507
WJ58734	0.01	172.10	224.21	510
WJ58735	0.04	175.20	224.22	479
WJ58740	0.08	187.38	224.57	364
WJ58745	0.36	187.50	224.57	363
WJ58747	0.00	187.38	224.58	364
WJ58749	0.06	187.60	224.36	360
WJ58751	0.28	187.60	224.37	360
WJ58752	0.11	186.78	224.29	367
WJ58755	0.03	186.50	224.30	370
WJ58756	0.02	186.71	224.29	368
WJ58760	0.06	172.10	224.21	510
WJ58762	0.11	186.39	224.27	370
WJ58764	0.04	186.39	224.27	370

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ58769	0.06	176.74	224.22	464
WJ58936	0.11	184.03	227.69	427
WJ58937	0.00	184.03	227.66	427
WJ58940	0.01	184.03	227.71	427
WJ58946	0.49	181.39	227.68	453
WJ59062	0.07	180.68	224.35	427
WJ59065	0.02	180.41	224.34	430
WJ59072	0.03	181.18	224.47	423
WJ59074	0.19	181.18	224.47	423
WJ59078	0.07	180.18	224.43	433
WJ59147	0.34	169.15	229.89	594
WJ59194	0.00	186.60	226.31	388
WJ59195	0.74	186.00	226.32	394
WJ59196	0.00	186.05	226.32	394
WJ59198	0.00	186.20	226.32	392
WJ59201	0.00	186.20	226.32	392
WJ59207	0.00	186.20	226.33	392
WJ59422	0.03	186.20	226.31	392
WJ59712	0.09	182.22	228.57	453
WJ59726	0.01	181.65	228.53	458
WJ59732	0.07	181.46	228.52	460
WJ59734	0.05	182.10	228.70	456
WJ59735	0.07	181.97	228.57	456
WJ59742	0.03	181.52	228.53	460
WJ59743	0.13	180.91	228.52	466
WJ59822	0.12	178.60	228.49	488
WJ59864	0.06	180.30	228.51	471
WJ60020	0.58	181.49	228.70	462
WJ60783	0.00	173.16	225.17	509
WJ60862	1.20	173.00	225.18	510
WJ60926	0.02	169.08	225.19	549
WJ61124	0.09	180.87	228.71	468
WJ61125	0.23	180.96	228.71	467
WJ61457	0.11	188.71	226.31	368
WJ61510	0.03	178.46	225.09	456
WJ61511	0.08	178.69	225.09	454
WJ61514	0.02	178.87	225.09	452
WJ61515	0.01	177.96	225.09	461
WJ61519	0.10	178.32	225.09	457
WJ61520	0.00	178.45	225.09	456
WJ61529	0.10	186.17	224.92	379
WJ61627	0.09	178.72	228.33	485
WJ61693	0.03	190.35	225.97	348
WJ61694	0.00	192.00	225.97	332
WJ61779	0.06	167.22	225.40	569
WJ61826	0.09	187.10	226.19	382
WJ61827	0.00	188.09	226.19	373
WJ62335	0.03	187.57	224.12	357
WJ62359	0.11	181.38	224.43	421
WJ62422	0.02	182.84	228.55	447
WJ62423	0.40	181.78	228.22	454
WV10604	0.00	189.03	226.29	364
WV10609	0.00	190.65	226.31	349
WV15899	0.00	185.70	225.46	389
WV4001258	0.00	187.46	226.39	381
WV4001488	0.00	188.10	226.40	375
WV4004307	0.00	176.10	229.89	526
WV4004312	0.00	171.48	229.89	571
WV4004327	0.00	178.91	229.86	498
WV4004332	0.00	181.07	229.35	472
WV4004334	0.00	180.40	229.25	478
WV4004344	0.00	181.71	229.11	464
WV4004993	0.00	188.98	226.29	365

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WV4004997	0.00	189.24	226.29	362
WV4004999	0.00	189.56	226.30	359
WV4005002	0.00	188.98	226.31	365
WV4005009	0.00	188.81	226.30	367
WV4005012	0.00	188.67	226.31	368
WV4005018	0.00	188.45	226.35	371
WV4005020	0.00	187.84	226.42	377
WV4005023	0.00	178.65	226.61	469
WV4005029	0.00	169.18	226.66	562
WV4005033	0.00	178.47	226.91	474
WV4005035	0.00	151.76	226.76	734
WV4005043	0.00	183.88	227.20	424
WV4005087	0.00	183.57	227.27	427
WV4005089	0.00	183.63	227.37	428
WV4005097	0.00	182.96	227.71	438
WV4005103	0.00	185.07	228.01	420
WV4005104	0.00	184.69	227.96	423
WV4005109	0.00	185.87	228.13	413
WV4005114	0.00	186.03	228.27	413
WV4005116	0.00	186.13	228.29	412
WV4010666	0.00	193.49	223.75	296
WV4010740	0.00	193.43	223.80	297
WV4010788	0.00	191.05	223.95	322
WV4010807	0.00	190.54	223.96	327
WV4010872	0.00	189.65	224.00	336
WV4010889	0.00	189.13	224.02	341
WV4010976	0.00	185.76	224.15	376
WV4010981	0.00	185.85	224.24	375
WV4010986	0.00	185.97	224.25	374
WV4011010	0.00	186.91	224.32	366
WV4011015	0.00	186.97	224.33	365
WV4011055	0.00	191.00	225.13	334
WV4011116	0.00	187.02	225.24	374
WV4011132	0.00	186.96	224.42	366
WV4011135	0.00	180.47	225.52	441
WV4011139	0.00	180.65	225.53	439
WV4011145	0.00	186.92	224.44	367
WV4011148	0.00	183.83	225.66	409
WV4011161	0.00	182.58	224.53	410
WV4011205	0.00	184.58	225.68	402
WV4011218	0.00	184.61	225.70	402
WV4011221	0.00	186.34	225.75	385
WV4011231	0.00	189.13	224.78	349
WV4011250	0.00	188.74	226.24	367
WV4011277	0.00	191.24	226.02	340
WV4011347	0.00	188.10	224.82	359
WV4011354	0.00	188.01	224.82	360
WV4011482	0.00	179.11	229.88	496
WV4011524	0.00	191.08	225.12	333
WV4011544	0.00	190.82	225.12	335
WV4011554	0.00	190.83	225.12	335
WV4011570	0.00	190.84	225.11	335
WV4011579	0.00	190.86	225.11	335
WV4011587	0.00	191.16	225.08	332
WV4011591	0.00	190.85	225.04	334
WV4011740	0.00	190.76	225.01	335
WV4011750	0.00	190.57	225.00	337
WV4011763	0.00	190.61	225.00	336
WV4011841	0.00	187.58	224.83	364
WV4011849	0.00	187.24	224.87	368
WV4016857	0.00	185.99	226.33	395
WV4021627	0.00	174.47	225.88	503
WV4037971	0.00	183.82	227.13	423

MHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WV50450	0.00	190.88	225.04	334
WV50459	0.00	190.85	225.04	334
WV55772	0.00	173.41	225.17	506
WV60507	0.00	168.31	225.23	557
Sum of Demands:	**340.19**		**Min**	**281**
			Max	**761**

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ14235	0.27	185.18	224.27	382
WJ15670	0.23	183.45	226.11	417
WJ15678	0.21	185.35	225.52	393
WJ15686	0.32	187.65	225.42	369
WJ16170	1.21	177.80	224.59	458
WJ16225	3.01	172.90	224.59	506
WJ18030	0.68	173.40	224.57	500
WJ18031	0.06	173.40	224.57	500
WJ18032	0.02	173.40	224.57	500
WJ18033	0.00	173.40	224.57	500
WJ18034	0.00	172.15	224.56	513
WJ19276	0.00	169.20	224.62	542
WJ19330	2.83	170.00	224.63	534
WJ19333	0.62	175.00	224.70	486
WJ19377	0.11	180.20	224.59	434
WJ19378	3.32	180.00	224.59	436
WJ20132	0.02	175.80	224.64	478
WJ20153	0.09	177.00	224.62	466
WJ20154	0.34	176.31	224.62	472
WJ20173	5.17	174.50	224.64	490
WJ20935	0.27	190.64	224.21	328
WJ21055	0.06	175.20	224.73	484
WJ21075	2.17	179.20	224.67	445
WJ21116	0.22	186.21	224.77	377
WJ21239	1.55	169.30	224.60	541
WJ21258	0.21	169.60	224.60	538
WJ21278	0.66	170.60	224.60	528
WJ21298	0.14	172.80	225.55	516
WJ21558	0.13	174.10	224.94	497
WJ21578	0.01	175.60	225.15	485
WJ21598	0.14	176.80	225.10	472
WJ21660	0.30	192.00	223.95	312
WJ21799	0.32	186.50	224.79	374
WJ22343	0.24	174.92	224.70	487
WJ22344	0.35	174.92	224.70	487
WJ22345	0.50	177.45	224.79	463
WJ22361	0.10	175.20	224.63	483
WJ22601	0.02	186.40	224.63	374
WJ22621	0.07	190.80	224.58	330
WJ22721	1.13	178.00	224.55	455
WJ22724	0.23	174.50	224.56	490
WJ22821	0.64	188.93	224.94	352
WJ22861	5.09	190.30	225.08	340
WJ23505	0.28	185.50	226.00	396
WJ23506	0.20	189.40	225.81	356
WJ23507	0.23	189.40	225.74	355
WJ23508	0.35	189.20	225.61	356
WJ23509	0.16	189.10	225.47	356
WJ23510	0.17	189.30	225.40	353
WJ23511	0.16	189.30	225.31	352
WJ23544	0.08	190.30	225.31	342
WJ24044	0.13	186.72	224.15	366
WJ24204	6.61	188.12	224.67	357
WJ24244	0.00	186.55	224.68	373
WJ24264	2.45	186.55	224.68	373
WJ24284	2.63	188.75	224.70	352

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ24285	0.00	184.62	224.67	392
WJ24304	0.00	184.62	224.66	392
WJ24344	4.34	188.78	224.70	351
WJ24364	0.00	184.62	224.67	392
WJ24366	0.07	184.62	224.67	392
WJ25695	0.00	180.70	224.57	429
WJ25696	0.00	179.10	224.57	445
WJ25697	0.07	180.20	224.58	434
WJ25698	0.26	179.95	224.58	436
WJ26555	0.50	174.16	224.62	493
WJ26758	0.06	177.66	226.64	479
WJ26759	0.19	180.25	226.74	455
WJ26760	0.05	183.93	226.88	420
WJ27194	0.00	172.84	224.60	506
WJ27354	0.00	180.94	226.49	445
WJ27355	0.00	180.94	226.49	445
WJ27375	0.19	187.49	224.18	359
WJ27857	0.01	188.93	224.49	348
WJ27858	0.06	188.93	224.49	348
WJ27861	0.14	188.93	224.49	348
WJ27874	0.26	188.82	224.42	348
WJ27875	0.01	188.53	224.42	351
WJ27877	0.01	188.21	224.42	354
WJ27879	0.00	188.28	224.42	353
WJ27916	0.04	186.89	224.40	367
WJ27917	0.62	186.92	224.40	367
WJ27918	0.06	186.93	224.40	366
WJ27974	0.21	174.50	224.65	490
WJ27994	1.55	177.15	224.67	465
WJ28014	2.06	172.60	224.65	509
WJ28034	0.03	176.60	224.62	470
WJ28054	0.00	169.40	224.61	540
WJ28076	0.35	184.75	224.39	388
WJ28077	0.03	184.79	224.39	387
WJ28079	0.28	184.51	224.39	390
WJ28096	0.07	169.20	224.62	542
WJ28114	0.00	167.80	224.62	556
WJ28134	0.15	182.60	224.79	413
WJ28135	0.16	183.75	224.83	402
WJ28154	0.13	178.70	224.91	452
WJ28174	0.01	176.60	225.10	474
WJ28175	0.05	177.50	225.09	465
WJ28177	0.00	177.00	225.14	471
WJ28214	0.42	177.68	224.67	460
WJ28234	1.17	169.60	224.62	538
WJ38909	0.06	182.14	224.98	419
WJ4001543	1.60	190.80	225.43	339
WJ4001881	0.61	191.40	225.31	332
WJ4001888	0.15	190.29	225.25	342
WJ4001895	3.19	190.04	225.20	344
WJ4001900	0.38	189.62	225.15	347
WJ4001950	0.46	189.24	224.99	350
WJ4001964	0.21	186.67	225.01	375
WJ4001983	0.43	186.31	225.03	379
WJ4002007	0.22	188.89	225.95	362
WJ4002064	0.81	188.74	224.63	351
WJ4002079	0.83	188.39	224.60	354
WJ4002150	0.13	186.52	224.42	371
WJ4002158	0.12	186.53	224.44	371
WJ4002202	0.09	186.71	224.48	369
WJ4002204	0.13	186.60	224.48	370
WJ4002294	0.10	167.18	224.15	557
WJ4002296	0.20	172.37	224.15	506

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4002308	0.09	169.71	224.15	532
WJ4002319	0.17	176.04	224.15	470
WJ4002321	0.12	186.07	224.42	375
WJ4002333	0.01	186.74	224.42	369
WJ4002359	0.06	175.74	224.15	473
WJ4002365	0.05	174.73	224.15	483
WJ4002380	0.13	181.16	224.13	420
WJ4002430	0.07	178.83	224.16	443
WJ4002498	0.47	187.71	224.33	358
WJ4002512	6.83	190.11	224.39	335
WJ4002977	0.12	187.61	224.75	363
WJ4003146	0.43	186.52	224.67	373
WJ4003473	0.36	187.12	224.75	368
WJ4003628	0.27	186.97	224.67	369
WJ4003633	2.28	190.44	224.39	332
WJ4003830	3.51	192.23	224.19	313
WJ4003831	0.14	191.75	224.18	317
WJ4003834	0.14	191.94	223.99	313
WJ4003845	0.00	190.85	224.18	326
WJ4003907	0.06	153.96	223.96	685
WJ4003922	0.08	161.62	223.89	609
WJ4003924	0.13	156.59	223.84	658
WJ4003925	0.23	169.56	223.83	531
WJ4003927	0.18	185.95	223.82	370
WJ4003929	0.15	193.29	223.80	298
WJ4003930	0.17	194.39	223.78	287
WJ4003953	0.14	153.07	224.07	694
WJ4003958	0.23	151.64	224.07	708
WJ4003978	0.16	158.93	224.07	637
WJ4003998	0.11	159.76	224.07	629
WJ4004000	0.11	163.75	224.06	590

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4004013	0.07	164.54	224.06	582
WJ4004140	0.18	184.32	223.85	387
WJ4004148	0.32	155.08	223.93	673
WJ4004151	0.17	153.77	223.96	686
WJ4004177	0.16	152.83	224.09	697
WJ4004184	0.20	160.43	224.07	622
WJ4004286	0.36	170.11	224.05	528
WJ4004354	0.18	181.69	223.96	413
WJ4004368	0.27	183.85	223.99	393
WJ4004396	0.10	178.63	223.90	443
WJ4004417	0.11	189.50	223.95	337
WJ4004418	0.09	190.78	223.83	323
WJ4004476	0.09	195.42	223.94	279
WJ4004482	0.27	195.07	223.94	282
WJ4004488	0.11	189.57	224.18	338
WJ4004501	0.09	189.44	224.18	340
WJ4004537	0.20	190.40	223.98	328
WJ4004538	0.15	191.98	223.95	313
WJ4004558	0.13	185.67	223.95	374
WJ4004560	0.21	187.84	223.89	353
WJ4004563	0.26	186.52	223.89	366
WJ4004565	0.26	179.79	223.88	431
WJ4004567	0.20	179.55	223.87	433
WJ4004584	0.50	165.48	223.93	572
WJ4004621	0.13	189.52	224.20	339
WJ4004623	0.22	188.28	224.25	352
WJ4004827	0.25	155.49	224.05	670
WJ4004914	0.03	181.69	229.01	463
WJ4004963	0.18	188.09	224.25	354
WJ4005072	0.33	193.82	223.90	294
WJ4005083	0.21	193.34	223.91	299
WJ4005420	0.00	180.88	224.07	422
WJ4005428	0.08	180.20	224.01	428
WJ4005429	0.14	180.57	224.01	425
WJ4005430	0.17	182.23	224.00	409
WJ4005489	0.20	168.05	223.97	547
WJ4005613	0.29	180.10	224.00	429
WJ4005699	0.17	188.62	224.26	349
WJ4005703	0.08	186.47	224.10	368
WJ4005704	0.01	185.64	224.10	376
WJ4005731	0.07	181.84	224.01	412
WJ4005966	0.12	184.31	224.15	390
WJ4005967	0.14	185.90	224.15	374
WJ4005968	0.09	182.69	224.15	405
WJ4005982	0.13	189.05	224.10	343
WJ4006036	0.13	187.83	224.24	356
WJ4006038	0.16	187.81	224.24	356
WJ4006048	0.05	187.80	224.25	356
WJ4006067	0.31	187.60	224.25	358
WJ4006069	0.06	187.81	224.25	356
WJ4006075	0.38	187.05	224.26	364
WJ4006089	0.39	187.71	224.27	358
WJ4006091	0.65	188.15	224.27	353
WJ4006109	0.20	187.27	224.28	362
WJ4006148	0.11	183.63	224.00	395
WJ4006153	0.35	181.69	223.96	413
WJ4006212	0.02	185.56	224.01	376
WJ4006214	0.01	184.89	223.99	382
WJ4006217	0.13	184.89	223.99	382
WJ4006221	0.09	188.97	224.00	343
WJ4006222	0.32	188.97	224.00	343
WJ4006305	0.42	180.85	226.45	446
WJ4006350	0.12	175.08	224.03	479

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4006399	0.34	187.70	225.56	370
WJ4006581	0.26	187.44	224.94	367
WJ4006585	0.23	188.64	224.93	355
WJ4006591	0.69	188.40	224.90	357
WJ4006781	0.15	189.55	225.22	349
WJ4006785	0.54	190.15	225.22	343
WJ4006791	0.67	190.26	225.11	341
WJ4006801	0.43	187.85	224.97	363
WJ4006814	0.14	187.69	224.97	365
WJ4006820	0.16	187.15	224.97	370
WJ4006835	0.48	186.40	224.94	377
WJ4006925	0.15	188.20	226.08	370
WJ4006928	0.33	189.27	225.91	358
WJ4006933	0.13	187.43	224.99	367
WJ4006935	0.10	174.50	224.37	488
WJ4006937	0.00	170.70	224.37	525
WJ4006938	0.05	170.80	224.37	524
WJ4006959	0.30	178.75	224.43	447
WJ4008023	0.08	189.90	225.26	346
WJ4008156	0.30	190.55	225.26	339
WJ4008182	0.00	184.26	226.93	417
WJ4008231	0.12	188.97	225.89	361
WJ4008234	0.11	187.48	225.89	376
WJ4008236	1.04	186.87	225.96	382
WJ4008256	0.16	190.44	225.67	345
WJ4008263	0.15	188.98	225.81	360
WJ4008290	0.30	188.23	225.85	368
WJ4008317	0.00	184.58	226.94	414
WJ4008322	0.31	189.86	225.48	348
WJ4008331	0.62	190.58	225.68	343
WJ4008332	0.00	184.44	226.50	411
WJ4008389	0.73	184.60	226.50	410
WJ4008399	1.74	182.47	226.50	431
WJ4008433	5.23	180.12	226.41	453
WJ4008460	0.32	180.80	226.49	447
WJ4008473	0.08	180.84	226.51	447
WJ4008476	2.41	181.13	226.48	444
WJ4008477	0.00	181.09	226.48	444
WJ4008483	1.00	190.32	226.08	350
WJ4008497	0.10	181.18	226.49	443
WJ4008507	0.24	188.37	225.06	359
WJ4008551	0.08	188.23	225.85	368
WJ4008612	0.06	183.84	225.17	404
WJ4008614	0.16	183.08	225.17	412
WJ4008619	1.62	181.23	226.58	444
WJ4008623	0.17	185.00	225.22	393
WJ4008642	0.05	184.12	225.11	401
WJ4008646	0.16	185.30	225.04	389
WJ4008654	0.00	179.25	229.85	495
WJ4008657	0.00	179.12	229.87	496
WJ4008658	0.09	179.25	229.85	495
WJ4008659	0.00	179.31	229.87	495
WJ4008661	0.11	189.45	224.92	347
WJ4008662	0.20	188.02	224.92	361
WJ4008669	0.14	185.14	225.04	390
WJ4008673	0.07	183.40	225.11	408
WJ4008675	0.26	177.93	229.85	508
WJ4008677	1.24	177.92	229.85	508
WJ4008678	0.00	178.45	229.85	503
WJ4008690	0.06	178.50	229.86	502
WJ4008692	0.85	178.36	229.86	504
WJ4008712	1.49	183.60	226.72	422
WJ4008721	0.00	181.67	226.87	442

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4008733	0.94	181.68	226.99	443
WJ4008778	0.28	181.30	227.12	448
WJ4008815	0.42	184.75	227.24	415
WJ4008818	1.08	182.63	227.24	436
WJ4008830	0.00	182.17	227.39	442
WJ4008852	0.90	182.00	227.53	445
WJ4009045	0.04	188.84	224.89	353
WJ4009063	0.14	186.74	225.04	375
WJ4009181	0.11	174.73	229.87	539
WJ4009187	0.18	189.86	225.01	344
WJ4009276	0.24	188.75	224.93	354
WJ4009277	0.23	188.84	224.95	353
WJ4009335	0.22	190.24	225.05	340
WJ4009358	0.22	187.41	224.70	365
WJ4009359	0.14	187.32	224.70	365
WJ4009602	0.06	189.68	225.01	346
WJ4009615	0.07	187.50	224.97	366
WJ4009617	0.07	187.94	224.81	361
WJ4009674	0.13	187.99	224.55	357
WJ4009686	0.15	187.41	224.63	364
WJ4009700	0.17	188.99	224.71	349
WJ4009709	0.07	189.20	224.69	347
WJ4009713	0.22	188.32	224.67	356
WJ4009830	0.06	188.74	224.78	352
WJ4009849	0.14	188.55	224.74	354
WJ4009916	0.54	187.26	224.42	363
WJ4010217	0.14	185.43	227.91	415
WJ4010233	0.05	188.10	224.29	354
WJ4010236	0.47	183.15	227.86	437
WJ4010286	0.22	183.53	224.18	398
WJ4010295	0.31	177.41	224.19	457
WJ4010297	0.18	177.64	224.18	455
WJ4010304	0.08	176.88	224.18	463
WJ4010347	0.12	186.31	224.27	371
WJ4010352	0.06	183.83	224.23	395
WJ4010368	0.02	185.69	227.79	412
WJ4010376	0.25	185.63	224.22	377
WJ4010377	0.11	187.58	224.21	358
WJ4010389	0.19	187.58	224.21	358
WJ4010392	1.53	188.37	224.20	350
WJ4010410	0.00	185.89	227.86	410
WJ4010414	5.64	188.37	224.31	352
WJ4010416	0.00	187.82	224.31	357
WJ4010417	0.00	187.43	224.29	360
WJ4010421	0.96	184.20	224.23	391
WJ4010422	0.21	180.29	227.74	464
WJ4010424	0.43	187.50	224.17	359
WJ4010425	0.06	187.50	224.17	359
WJ4010429	1.38	185.13	224.21	382
WJ4010433	0.05	183.94	224.21	394
WJ4010440	0.31	185.48	224.22	379
WJ4010452	0.12	188.25	224.21	352
WJ4010467	0.16	184.76	227.92	422
WJ4010475	0.42	184.87	227.92	421
WJ4010476	0.22	188.95	224.21	345
WJ4010518	0.25	184.79	224.27	386
WJ4010521	0.41	182.81	224.20	405
WJ4010581	0.17	176.48	224.49	470
WJ4010583	0.05	176.45	224.49	470
WJ4010597	0.09	176.57	224.50	469
WJ4010614	0.00	176.54	224.50	469
WJ4010705	0.34	184.10	227.94	429
WJ4010721	1.73	183.78	227.94	432

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4010917	0.79	182.74	227.90	442
WJ4010931	0.09	184.57	227.93	424
WJ4010946	0.04	182.58	227.94	444
WJ4011011	0.50	182.11	228.10	450
WJ4011139	0.36	173.98	227.89	527
WJ4011189	0.17	170.62	227.89	560
WJ4011289	0.12	173.75	229.86	549
WJ4011303	0.36	175.10	229.86	536
WJ4011304	0.09	175.31	229.86	533
WJ4011305	0.18	175.44	229.86	532
WJ4011378	0.22	182.17	227.78	446
WJ4011382	0.60	182.19	227.86	447
WJ4011387	0.21	180.40	227.90	465
WJ4011390	0.24	179.62	227.92	472
WJ4011399	0.13	177.87	227.93	490
WJ4011401	0.23	176.79	227.90	500
WJ4011411	0.15	181.86	227.87	450
WJ4011449	0.83	182.90	227.87	440
WJ4011452	0.26	182.76	227.90	441
WJ4011454	0.19	182.61	227.93	443
WJ4011458	1.22	182.46	227.97	445
WJ4011476	1.16	182.30	228.02	447
WJ4011479	0.28	182.16	228.08	449
WJ4011482	0.27	182.01	228.17	451
WJ4011486	2.04	181.85	228.26	454
WJ4011579	0.28	179.34	227.97	476
WJ4011582	0.00	179.25	227.97	477
WJ4011622	0.40	179.46	227.94	474
WJ4011632	0.33	180.09	227.94	468
WJ4011634	0.12	180.15	227.94	467
WJ4011663	0.21	180.75	228.25	465
WJ4011671	0.00	179.27	227.95	476
WJ4011676	0.17	178.67	227.95	482
WJ4011677	0.06	176.00	227.93	508
WJ4011680	0.30	179.49	228.05	475
WJ4011683	0.42	179.89	228.13	472
WJ4011763	0.09	181.16	228.22	460
WJ4011782	0.02	180.23	228.17	469
WJ4011806	0.43	179.72	227.92	471
WJ4011815	0.39	179.50	227.92	473
WJ4011848	0.32	178.34	227.91	485
WJ4011859	0.38	177.09	227.90	497
WJ4011870	0.39	175.84	227.90	509
WJ4011876	0.39	175.39	227.89	513
WJ4011930	0.08	183.41	224.41	401
WJ4011936	0.11	181.44	224.41	420
WJ4011938	0.11	182.53	224.41	410
WJ4011947	0.32	174.49	227.89	522
WJ4011969	0.29	182.49	224.42	410
WJ4011971	0.11	182.41	224.43	411
WJ4011981	0.08	181.06	224.43	424
WJ4011989	0.33	181.16	227.89	457
WJ4012031	0.39	181.54	224.37	419
WJ4012036	0.32	180.48	224.35	429
WJ4012072	0.40	180.28	224.38	431
WJ4012074	0.28	182.18	224.38	413
WJ4012081	0.36	182.32	224.39	411
WJ4012183	0.33	182.82	224.41	407
WJ4012185	0.22	183.10	224.41	404
WJ4012257	0.25	181.27	224.34	421
WJ4012259	0.20	184.65	224.37	388
WJ4012266	0.15	181.46	224.41	420
WJ4012268	0.14	184.70	224.41	388

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4012384	0.20	187.93	224.43	357
WJ4012385	0.00	187.83	224.43	358
WJ4012398	0.54	180.67	224.49	429
WJ4012399	0.27	181.91	224.48	416
WJ4012402	0.13	191.56	224.66	324
WJ4012562	6.55	191.27	224.54	325
WJ4012588	0.06	188.35	224.58	354
WJ4012852	1.37	191.26	224.54	325
WJ4012992	0.14	184.91	224.86	391
WJ4012994	0.33	186.56	224.82	374
WJ4012997	0.04	187.18	224.81	368
WJ4013001	0.15	187.81	224.79	362
WJ4013049	0.52	187.62	224.80	364
WJ4013050	0.05	188.39	224.73	355
WJ4013052	0.04	173.42	225.28	507
WJ4013060	0.00	189.07	224.70	348
WJ4013089	0.09	191.37	224.67	326
WJ4013093	0.29	190.45	224.68	335
WJ4013101	0.00	190.30	224.68	336
WJ4013102	0.00	190.04	224.68	339
WJ4013109	0.17	191.19	224.68	327
WJ4013114	0.00	191.06	224.67	329
WJ4013116	0.02	190.86	224.68	331
WJ4013120	3.64	190.85	224.69	331
WJ4013138	0.38	190.42	224.81	336
WJ4013221	0.02	173.64	225.16	504
WJ4013243	0.15	173.92	224.97	499
WJ4013245	0.05	174.11	224.96	497
WJ4013246	0.25	173.98	224.93	498
WJ4013252	0.13	173.81	224.92	500
WJ4013256	0.13	171.81	224.93	520
WJ4013268	0.12	174.14	224.94	497
WJ4013271	0.14	183.94	224.92	401
WJ4013272	0.13	183.95	224.92	401
WJ4013274	0.07	173.90	224.92	499
WJ4013283	0.20	172.68	224.90	511
WJ4013287	0.19	171.70	224.89	520
WJ4013299	0.14	171.47	224.89	522
WJ4013322	0.23	171.44	224.89	523
WJ4013337	0.14	186.67	224.71	372
WJ4013338	0.34	170.86	224.89	528
WJ4013339	0.19	183.90	224.80	400
WJ4013340	0.36	181.86	224.86	420
WJ4013346	0.30	181.00	224.91	429
WJ4013348	0.01	170.58	224.89	531
WJ4013361	0.22	170.11	224.89	536
WJ4013362	0.01	169.77	224.89	539
WJ4013382	0.12	171.45	224.89	523
WJ4013383	0.18	171.22	224.89	525
WJ4013414	0.07	170.04	224.88	536
WJ4013416	0.06	170.07	224.81	535
WJ4013418	0.28	170.14	224.80	535
WJ4013433	0.07	179.40	224.62	442
WJ4013443	0.18	173.00	224.73	506
WJ4013444	0.24	172.19	224.75	514
WJ4013455	0.05	180.71	224.62	429
WJ4013457	0.23	171.03	224.76	525
WJ4013458	0.06	170.96	224.76	526
WJ4013468	0.07	169.77	224.76	538
WJ4013470	0.25	169.88	224.76	537
WJ4013482	0.32	175.03	224.65	485
WJ4013490	0.02	178.02	224.70	457
WJ4013511	0.31	175.41	224.61	481

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4013512	0.31	171.57	224.65	519
WJ4013513	0.57	182.94	224.67	408
WJ4013517	0.03	179.90	224.79	439
WJ4013519	0.12	171.58	224.90	521
WJ4013520	0.06	171.57	224.90	522
WJ4013523	0.09	170.20	224.89	535
WJ4013528	0.01	170.30	224.90	534
WJ4013530	0.35	171.04	224.82	526
WJ4013538	0.40	175.83	224.61	477
WJ4013548	0.13	175.99	224.60	475
WJ4013704	0.46	173.84	224.92	499
WJ4013756	0.13	176.79	224.65	468
WJ4013827	0.21	177.73	224.74	460
WJ4013831	0.23	177.18	224.82	466
WJ4013852	0.27	174.93	225.10	491
WJ4013861	0.28	173.95	225.18	501
WJ4014248	0.08	176.80	224.95	471
WJ4014259	0.04	175.84	225.15	482
WJ4014260	0.14	175.10	225.24	490
WJ4014458	0.00	149.65	225.63	743
WJ4014459	1.04	170.24	224.61	532
WJ4014473	0.96	168.59	224.60	548
WJ4014474	0.63	168.21	224.60	551
WJ4014475	0.05	168.15	224.60	552
WJ4014481	0.10	175.54	225.44	488
WJ4014490	0.13	176.28	225.43	481
WJ4014496	0.07	174.57	225.43	497
WJ4014580	0.08	173.63	225.47	507
WJ4014588	0.04	175.08	225.47	493
WJ4014606	0.17	175.83	225.31	484
WJ4014623	0.07	168.24	224.60	551
WJ4014624	0.10	167.77	224.60	556
WJ4014701	0.23	167.31	224.59	560
WJ4014711	0.18	167.33	224.59	560
WJ4014719	0.16	168.83	224.58	545
WJ4014721	0.20	169.75	224.57	536
WJ4014757	0.19	170.13	224.59	533
WJ4014763	0.27	168.43	224.59	549
WJ4014820	0.17	167.58	224.56	557
WJ4014848	0.00	165.29	224.56	580
WJ4014873	0.27	166.79	224.57	565
WJ4014985	0.16	176.77	225.26	474
WJ4015007	0.36	175.76	225.40	485
WJ4015051	1.28	175.41	224.59	481
WJ4015172	0.15	171.85	224.58	516
WJ4015177	0.00	171.48	224.59	519
WJ4015178	0.11	171.48	224.59	519
WJ4015228	0.00	170.70	224.58	527
WJ4015229	0.00	170.70	224.58	527
WJ4015238	0.00	169.87	224.58	535
WJ4015239	0.00	169.81	224.58	536
WJ4015255	0.00	169.81	224.58	536
WJ4015256	0.00	169.80	224.58	536
WJ4015259	0.15	169.00	224.58	544
WJ4015272	0.10	173.20	225.49	511
WJ4015278	0.09	167.70	224.58	556
WJ4015279	0.09	170.71	224.58	527
WJ4015284	0.36	170.44	224.58	529
WJ4015289	0.49	170.59	224.58	528
WJ4015293	0.10	173.75	225.49	506
WJ4015305	0.13	178.68	225.26	456
WJ4015317	0.44	179.54	225.54	450
WJ4015324	0.26	178.31	225.76	464

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4015331	0.18	179.94	225.84	449
WJ4015332	0.13	171.53	224.58	519
WJ4015339	0.85	172.38	224.58	510
WJ4015345	0.16	179.87	225.95	451
WJ4015346	0.08	179.88	225.95	451
WJ4015355	2.67	175.03	224.58	485
WJ4015383	0.34	179.01	226.17	461
WJ4015473	0.15	181.25	224.52	423
WJ4015480	0.21	186.28	225.24	381
WJ4015497	0.14	185.33	225.60	394
WJ4015499	0.13	184.38	225.60	403
WJ4015576	0.03	164.91	224.59	584
WJ4015578	0.19	179.32	224.45	441
WJ4015587	0.30	178.44	224.47	450
WJ4015621	1.07	173.10	224.60	504
WJ4015640	0.28	179.59	224.47	439
WJ4015733	0.14	176.17	224.51	473
WJ4015741	0.08	176.75	224.53	467
WJ4015745	0.08	175.73	224.53	477
WJ4015766	0.07	181.90	224.57	417
WJ4015768	0.08	180.35	224.56	432
WJ4015775	0.12	181.17	224.54	424
WJ4015778	0.13	181.52	224.52	421
WJ4015780	0.34	176.77	224.79	470
WJ4015789	0.42	183.64	225.05	405
WJ4015822	0.22	168.21	224.59	551
WJ4015851	0.47	184.16	225.08	400
WJ4015863	0.16	167.30	224.59	560
WJ4015882	0.09	179.10	224.90	448
WJ4015904	0.01	167.75	224.59	556
WJ4015943	0.00	174.80	224.63	487
WJ4016055	0.17	176.79	224.52	467
WJ4016056	0.16	176.74	224.52	467
WJ4016125	0.12	174.52	224.53	489
WJ4016135	0.24	173.42	224.53	500
WJ4016147	0.15	175.28	224.53	482
WJ4016175	0.05	175.01	224.56	485
WJ4016204	0.31	190.55	225.91	346
WJ4016211	0.84	191.26	225.87	338
WJ4016216	0.89	191.84	225.79	332
WJ4016244	0.28	190.36	225.59	345
WJ4016258	0.17	190.95	225.60	339
WJ4016261	0.15	190.07	225.57	347
WJ4016330	0.14	189.63	225.54	351
WJ4016341	0.04	175.20	224.70	484
WJ4016342	0.12	186.43	225.34	380
WJ4016349	0.15	186.59	225.31	379
WJ4016357	0.13	175.32	224.68	483
WJ4016358	8.98	174.84	224.63	487
WJ4016359	1.77	175.17	224.63	484
WJ4016370	0.27	186.32	225.34	382
WJ4016374	0.31	182.55	225.17	417
WJ4016387	0.11	190.39	225.81	346
WJ4016388	0.79	175.60	225.23	485
WJ4016389	0.13	176.04	225.23	481
WJ4016393	0.19	175.48	225.22	486
WJ4016398	0.16	176.77	225.22	474
WJ4016401	0.11	189.92	226.01	353
WJ4016402	0.72	176.92	225.23	472
WJ4016405	0.21	188.45	226.01	367
WJ4016413	0.28	192.12	225.66	328
WJ4016425	0.28	190.57	225.68	343
WJ4016440	2.11	172.14	224.61	513

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4016445	0.06	188.50	226.07	367
WJ4016519	0.34	179.73	224.81	441
WJ4016532	0.23	181.32	225.08	428
WJ4016534	0.27	184.13	224.93	399
WJ4016558	0.08	182.80	225.14	414
WJ4016582	0.00	188.53	226.08	367
WJ4016583	0.03	188.50	226.08	368
WJ4016587	0.25	187.00	226.09	382
WJ4016591	0.09	183.82	226.13	414
WJ4016597	0.07	182.22	226.17	430
WJ4016605	0.06	179.49	226.26	457
WJ4016614	0.21	176.75	224.59	468
WJ4016638	0.00	179.40	226.26	458
WJ4016683	0.18	185.37	225.94	397
WJ4016685	0.11	184.64	225.93	404
WJ4016686	0.24	184.39	226.07	408
WJ4016689	0.20	182.86	226.07	423
WJ4016701	0.08	188.56	225.34	360
WJ4016704	0.21	175.25	224.56	482
WJ4016719	0.00	172.84	224.60	506
WJ4016727	0.02	170.21	224.60	532
WJ4016730	0.26	186.01	225.26	384
WJ4016732	0.04	186.00	225.26	384
WJ4016735	0.33	181.76	225.06	424
WJ4016749	2.56	170.32	224.60	531
WJ4016750	0.06	170.07	224.60	533
WJ4016785	3.41	170.29	224.60	531
WJ4016786	0.05	170.32	224.60	531
WJ4016793	0.00	171.10	224.62	523
WJ4016803	0.29	181.19	224.99	428
WJ4016809	0.15	168.59	224.58	548
WJ4016826	0.28	188.42	225.38	362
WJ4016832	0.19	182.14	224.98	419
WJ4016834	0.20	181.82	224.97	422
WJ4016839	0.24	179.91	224.89	440
WJ4016842	0.21	182.41	225.06	417
WJ4016861	0.02	186.76	225.30	377
WJ4016912	0.00	167.98	224.59	554
WJ4017039	0.08	182.61	224.18	407
WJ4017077	4.56	178.51	229.85	502
WJ4017078	0.99	178.22	229.85	505
WJ4017083	0.17	170.90	224.61	525
WJ4017087	7.03	173.30	224.60	502
WJ4017092	0.80	173.10	224.58	503
WJ4017150	0.31	173.07	224.38	502
WJ4017159	0.32	185.99	225.24	384
WJ4017170	0.02	177.58	225.76	471
WJ4017178	0.23	151.64	225.63	724
WJ4017187	0.00	168.28	224.36	548
WJ4017191	0.10	172.88	224.36	503
WJ4017192	0.13	177.06	224.36	463
WJ4017198	0.26	181.87	224.39	416
WJ4017209	0.19	191.28	224.54	325
WJ4017210	0.19	190.14	224.47	336
WJ4017212	0.16	191.28	224.54	325
WJ4017220	0.03	172.60	225.49	517
WJ4017229	9.07	191.21	224.54	326
WJ4017282	0.00	187.52	224.29	360
WJ4017284	0.51	180.24	224.18	430
WJ4017287	0.07	177.23	224.18	459
WJ4017292	0.36	190.64	224.21	328
WJ4017315	0.06	190.26	225.11	341
WJ4017333	0.34	186.69	224.31	368

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4017357	0.23	188.51	225.21	359
WJ4017359	0.26	191.34	223.83	318
WJ4017373	0.33	157.84	223.89	646
WJ4017447	0.00	175.03	224.03	479
WJ4017479	0.10	186.35	224.10	369
WJ4017495	0.04	183.40	224.07	398
WJ4017533	0.11	187.53	226.12	377
WJ4017546	0.29	188.97	225.95	362
WJ4017555	0.25	188.77	225.37	358
WJ4017556	0.08	190.27	225.37	343
WJ4017585	0.14	189.30	224.71	346
WJ4017587	0.08	188.00	224.81	360
WJ4017590	0.11	187.68	224.81	363
WJ4017629	0.09	189.71	225.01	345
WJ4017630	0.04	179.27	227.97	476
WJ4017639	0.02	188.22	226.08	370
WJ4017666	0.37	188.60	224.21	348
WJ4017691	0.14	187.92	224.37	356
WJ4017695	0.56	185.99	224.38	375
WJ4017698	0.31	185.77	227.54	408
WJ4017702	0.25	177.59	224.49	459
WJ4017733	0.16	169.41	224.60	540
WJ4017734	0.34	184.65	224.41	389
WJ4017736	0.32	169.06	224.58	543
WJ4017738	0.30	170.11	224.58	533
WJ4017740	0.39	184.85	224.41	387
WJ4017741	0.35	186.25	224.41	373
WJ4017742	0.42	185.06	225.23	393
WJ4017743	0.44	169.11	224.59	543
WJ4017748	0.41	186.75	225.24	376
WJ4017749	0.23	169.42	224.60	540
WJ4017750	0.36	186.69	225.24	377
WJ4017751	0.37	169.41	224.60	540
WJ4017752	0.18	168.03	224.59	553
WJ4017753	0.13	167.33	224.59	560
WJ4017755	0.37	186.64	225.25	378
WJ4017756	0.29	178.81	224.90	451
WJ4017758	0.24	179.51	224.89	444
WJ4017759	0.35	185.85	225.53	388
WJ4017763	0.27	172.83	224.58	506
WJ4017764	0.33	172.97	224.57	505
WJ4017766	0.24	189.91	223.98	333
WJ4017768	0.07	174.39	224.54	490
WJ4017772	1.16	186.34	225.27	381
WJ4017774	0.44	186.74	224.92	373
WJ4017775	0.29	172.38	224.57	510
WJ4017777	0.44	176.25	224.57	473
WJ4017778	3.16	176.37	224.60	472
WJ4017780	0.27	180.89	224.55	427
WJ4017781	0.33	177.82	224.55	457
WJ4017782	0.26	177.14	224.55	464
WJ4017783	0.32	178.73	224.55	448
WJ4017784	0.33	179.29	224.55	443
WJ4017785	0.26	179.98	224.53	436
WJ4017786	0.15	187.24	224.58	365
WJ4017787	0.27	190.96	224.76	331
WJ4017788	0.26	180.44	224.56	432
WJ4017793	0.31	178.61	224.90	453
WJ4017794	0.83	188.18	224.31	353
WJ4017795	0.00	186.81	224.26	366
WJ4017869	0.01	176.77	224.29	465
WJ4017888	0.06	189.74	225.36	348
WJ4017890	0.00	189.47	226.48	362

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4017897	2.44	188.30	225.30	362
WJ4017902	2.20	190.08	225.57	347
WJ4017904	0.05	189.02	225.08	353
WJ4017905	0.26	189.23	225.10	351
WJ4017907	0.66	189.85	225.05	344
WJ4017912	0.38	188.15	224.97	360
WJ4017916	0.83	188.06	224.97	361
WJ4017917	0.28	188.36	224.94	358
WJ4017927	3.62	171.70	224.55	517
WJ4017928	5.11	173.00	224.55	504
WJ4017965	0.00	188.33	226.27	371
WJ4017972	0.08	187.65	226.23	377
WJ4017976	0.00	187.64	226.20	377
WJ4017999	0.00	172.45	224.56	510
WJ4018000	0.00	173.01	224.56	504
WJ4018001	0.00	174.15	224.56	493
WJ4018002	0.00	174.16	224.57	493
WJ4018003	0.00	187.22	226.29	382
WJ4018021	0.08	189.68	224.59	341
WJ4018024	0.21	186.66	224.36	369
WJ4018048	0.00	181.11	229.28	471
WJ4018049	0.06	175.42	224.59	481
WJ4018053	0.00	175.44	224.59	481
WJ4018054	0.00	175.41	224.59	481
WJ4018055	0.00	181.12	229.28	471
WJ4018056	0.00	192.09	224.18	314
WJ4018057	0.00	175.45	224.59	481
WJ4018067	0.13	194.66	223.75	284
WJ4018068	0.00	194.70	223.76	284
WJ4018072	0.50	174.14	224.57	493
WJ4018090	0.00	179.43	229.86	493
WJ4018098	1.11	178.50	229.86	502
WJ4018101	0.00	177.93	229.86	508
WJ4018106	0.08	176.88	229.86	518
WJ4018109	0.00	177.44	229.86	513
WJ4018110	0.00	176.94	229.86	518
WJ4018111	0.00	176.87	229.86	518
WJ4018113	0.05	176.00	229.87	527
WJ4018115	0.00	171.87	229.88	567
WJ4018117	0.00	172.11	229.88	565
WJ4018123	0.00	171.92	229.88	567
WJ4018131	0.17	170.50	224.56	529
WJ4018132	0.00	171.94	229.88	567
WJ4018133	0.00	171.86	229.88	567
WJ4018134	0.00	171.54	229.88	571
WJ4018141	0.83	170.89	229.86	577
WJ4018142	0.00	170.38	229.88	582
WJ4018143	0.00	169.95	229.88	586
WJ4018148	0.01	150.90	224.13	716
WJ4018159	0.22	153.62	224.13	690
WJ4018166	0.28	182.39	224.14	408
WJ4018168	0.09	173.25	224.61	502
WJ4018169	0.00	175.02	224.03	479
WJ4018170	0.12	175.06	224.03	479
WJ4018176	0.17	169.55	224.60	538
WJ4018177	0.25	169.50	224.60	539
WJ4018179	0.00	169.90	224.59	535
WJ4018180	0.00	170.28	224.59	531
WJ4018183	0.11	179.68	224.11	435
WJ4018184	0.13	169.98	224.59	534
WJ4018186	0.00	171.42	224.59	520
WJ4018188	0.00	171.41	224.59	520
WJ4018191	0.02	171.47	224.58	519

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4018192	0.09	171.47	224.58	519
WJ4018199	0.23	174.48	224.07	485
WJ4018209	0.18	179.19	224.47	443
WJ4018216	0.13	178.52	224.47	449
WJ4018217	0.48	182.07	224.18	412
WJ4018221	0.00	172.54	229.88	561
WJ4018229	0.00	171.89	229.88	567
WJ4018260	0.21	178.12	224.18	450
WJ4018263	0.18	180.02	224.18	432
WJ4018264	0.09	177.07	224.18	461
WJ4018269	0.14	175.20	224.18	479
WJ4018280	0.30	173.15	224.32	500
WJ4018282	0.18	181.47	224.32	419
WJ4018289	0.02	189.82	224.92	343
WJ4018306	0.00	177.20	226.44	482
WJ4018307	1.73	176.86	226.44	485
WJ4018313	2.70	176.57	224.59	470
WJ4018314	1.90	174.22	224.59	493
WJ4018315	0.00	174.13	224.59	493
WJ4018316	1.50	172.34	224.59	511
WJ4018317	0.00	172.08	224.59	514
WJ4018318	5.37	170.79	224.60	526
WJ4018321	0.00	179.26	226.46	462
WJ4018325	3.92	180.50	226.44	449
WJ4018326	0.02	173.51	224.59	500
WJ4018328	0.12	174.18	224.59	493
WJ4018341	0.01	172.70	226.40	525
WJ4018342	0.00	170.26	226.43	549
WJ4018352	0.13	172.13	224.59	513
WJ4018393	1.98	180.81	226.47	447
WJ4018400	0.00	173.01	226.40	522
WJ4018417	0.05	173.23	226.37	520
WJ4018439	0.80	186.95	225.40	376
WJ4018440	0.10	186.96	225.40	376
WJ4018443	0.01	185.21	225.31	392
WJ4018445	0.00	185.19	225.31	392
WJ4018446	0.38	185.13	225.31	393
WJ4018447	0.00	185.15	225.31	393
WJ4018448	0.01	185.25	225.32	392
WJ4018450	0.21	188.19	225.45	364
WJ4018451	2.86	171.31	224.62	521
WJ4018452	0.20	189.63	225.51	351
WJ4018453	0.24	190.43	225.57	344
WJ4018454	0.05	191.81	225.65	331
WJ4018455	0.04	192.20	225.69	328
WJ4018456	0.00	191.18	225.79	338
WJ4018457	1.15	190.18	225.93	350
WJ4018459	0.08	171.22	224.60	522
WJ4018460	1.59	171.72	224.60	517
WJ4018461	0.00	171.59	224.60	518
WJ4018462	0.00	171.52	224.60	519
WJ4018463	0.00	190.54	226.07	348
WJ4018464	0.00	190.57	226.07	347
WJ4018465	0.00	188.69	226.08	366
WJ4018467	1.88	190.72	226.07	346
WJ4018471	0.00	190.47	226.07	348
WJ4018472	0.00	188.99	226.07	363
WJ4018473	0.00	171.50	224.60	519
WJ4018476	0.00	171.50	224.60	519
WJ4018480	0.05	171.26	224.59	522
WJ4018482	0.14	189.75	225.17	346
WJ4018513	1.61	188.34	226.27	371
WJ4018514	0.00	188.35	226.27	371

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4018524	0.63	174.36	224.59	491
WJ4018532	0.00	178.62	224.59	450
WJ4018533	0.00	178.87	224.59	447
WJ4018534	0.00	178.28	224.59	453
WJ4018542	0.60	175.17	224.63	484
WJ4018575	5.71	180.19	224.59	434
WJ4018583	0.16	184.79	225.95	402
WJ4018586	2.98	187.48	224.58	363
WJ4018588	5.94	187.58	224.58	362
WJ4018604	0.00	176.64	224.41	467
WJ4018605	0.00	178.84	224.42	446
WJ4018633	0.21	182.60	225.17	416
WJ4018634	0.36	181.48	225.04	426
WJ4018635	0.06	185.09	225.31	393
WJ4018862	0.00	185.72	227.93	413
WJ4018863	0.18	185.76	227.93	412
WJ4018874	0.01	185.73	227.93	413
WJ4018876	0.02	185.71	227.93	413
WJ4019063	0.03	168.36	229.86	601
WJ4019076	0.16	178.36	224.13	448
WJ4019077	0.03	178.81	224.16	443
WJ4019082	0.00	182.58	224.18	407
WJ4019278	0.04	191.32	225.44	334
WJ4019280	2.84	191.39	225.44	333
WJ4019295	0.08	175.95	224.57	476
WJ4019296	0.25	175.37	224.57	481
WJ4019306	0.24	171.28	224.59	521
WJ4019314	0.18	168.77	224.58	546
WJ4019316	0.23	168.48	224.59	549
WJ4019318	2.28	170.83	224.56	525
WJ4019320	0.14	182.56	224.18	407
WJ4019325	0.29	169.10	224.56	542
WJ4019326	0.27	168.57	224.56	548
WJ4019328	3.34	191.58	224.54	322
WJ4019334	0.05	191.01	224.41	327
WJ4019335	0.26	191.30	224.41	324
WJ4019344	1.08	182.75	224.98	413
WJ4019371	2.02	173.61	224.77	500
WJ4019383	0.04	175.11	224.53	483
WJ4019386	0.24	174.44	224.53	490
WJ4019398	0.02	171.66	224.89	521
WJ4019399	0.00	168.58	224.60	548
WJ4019415	0.15	187.23	225.20	371
WJ4019456	0.24	187.05	224.36	365
WJ4019463	0.29	186.64	224.53	371
WJ4019472	0.28	186.51	224.55	372
WJ4019556	0.00	186.36	226.16	389
WJ4019562	0.27	188.52	225.27	359
WJ4019567	0.10	189.23	224.92	349
WJ4019572	0.22	186.94	224.62	369
WJ4019575	0.33	188.39	224.42	352
WJ4019589	0.24	185.79	225.26	386
WJ4019594	0.16	182.65	225.69	421
WJ4019600	0.27	186.39	225.93	387
WJ4019603	0.31	187.39	225.93	377
WJ4019608	0.56	179.57	224.79	442
WJ4019610	0.49	178.88	224.79	449
WJ4019612	0.27	176.57	224.79	472
WJ4019614	0.29	177.23	224.79	465
WJ4019616	0.23	177.60	224.70	461
WJ4019619	0.29	176.14	224.70	475
WJ4019624	0.52	180.80	224.58	428
WJ4019626	2.31	187.07	224.58	367

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4019628	0.20	188.65	224.58	351
WJ4019630	5.97	190.11	224.58	337
WJ4019634	0.31	189.39	224.48	343
WJ4019636	0.51	189.06	224.49	347
WJ4019637	0.53	187.87	224.49	358
WJ4019639	0.23	185.05	224.50	386
WJ4019643	0.54	183.07	224.49	405
WJ4019644	0.26	182.15	224.52	414
WJ4019651	0.38	182.35	224.50	412
WJ4019654	0.19	181.44	224.49	421
WJ4019656	0.20	184.50	224.45	391
WJ4019658	0.28	185.39	224.44	382
WJ4019660	0.30	186.46	224.43	371
WJ4019665	0.38	189.11	224.40	345
WJ4019673	0.58	186.04	224.39	375
WJ4019675	0.59	185.60	224.40	379
WJ4019677	0.52	184.03	224.40	395
WJ4019680	0.35	182.65	224.41	408
WJ4019682	0.38	184.12	224.41	394
WJ4019684	0.17	179.78	224.43	437
WJ4019685	0.37	181.55	224.42	419
WJ4019687	0.42	182.70	224.39	408
WJ4019700	0.30	174.91	224.57	486
WJ4019709	0.35	178.30	224.56	452
WJ4019711	0.35	180.00	224.56	436
WJ4019724	0.16	173.29	225.28	508
WJ4019726	0.26	174.43	225.26	497
WJ4019733	0.27	175.36	225.12	487
WJ4019734	0.45	176.38	224.94	475
WJ4019735	0.41	179.35	224.83	445
WJ4019736	0.22	175.39	224.93	484
WJ4019737	0.13	173.57	225.16	505
WJ4019738	0.55	173.75	224.91	500
WJ4019741	0.54	176.83	224.74	469
WJ4019746	0.52	175.85	224.74	478
WJ4019760	0.28	181.40	224.54	422
WJ4019761	0.45	172.21	224.91	515
WJ4019762	0.41	173.33	224.91	504
WJ4019765	0.29	170.78	224.89	529
WJ4019766	0.37	180.17	224.54	434
WJ4019767	0.33	181.61	224.54	420
WJ4019768	0.36	179.30	224.54	442
WJ4019772	0.43	184.20	225.53	404
WJ4019773	0.43	181.67	225.54	429
WJ4019775	0.46	176.32	224.79	474
WJ4019777	0.42	176.77	224.79	470
WJ4019781	0.43	181.77	225.05	423
WJ4019782	0.30	179.17	225.08	449
WJ4019783	0.27	185.63	224.93	384
WJ4019786	0.38	177.52	224.54	460
WJ4019788	0.17	177.25	224.55	463
WJ4019789	0.33	180.78	224.81	431
WJ4019790	0.27	182.59	226.58	430
WJ4019792	0.01	175.60	224.70	480
WJ4019795	0.14	181.79	224.80	421
WJ4019796	0.13	186.73	224.93	374
WJ4019798	0.18	175.07	224.56	484
WJ4019803	0.27	176.09	224.56	474
WJ4019805	0.21	177.35	225.08	467
WJ4019806	0.24	176.64	225.09	474
WJ4019808	0.21	183.82	224.92	402
WJ4019809	0.29	181.48	224.80	424
WJ4019812	0.00	184.60	226.59	411

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4019815	0.33	176.75	224.57	468
WJ4019817	0.27	179.75	224.55	438
WJ4019818	0.36	178.33	224.56	452
WJ4019819	0.31	175.74	224.57	478
WJ4019820	0.35	176.32	224.55	472
WJ4019822	0.29	174.98	224.57	485
WJ4019826	0.25	176.26	224.56	472
WJ4019829	0.29	174.46	224.56	490
WJ4019834	0.27	173.72	224.58	497
WJ4019838	0.32	178.45	224.53	451
WJ4019841	0.23	178.70	224.53	448
WJ4019842	0.24	176.83	224.56	467
WJ4019845	0.22	178.99	224.53	445
WJ4019846	0.22	184.18	226.69	416
WJ4019848	0.15	172.38	224.58	511
WJ4019851	0.37	179.20	224.52	443
WJ4019852	0.53	171.15	224.58	523
WJ4019855	0.27	180.02	224.50	435
WJ4019856	0.37	175.80	224.57	477
WJ4019862	0.34	173.94	224.57	495
WJ4019865	0.32	177.11	224.51	464
WJ4019873	0.23	170.29	224.58	531
WJ4019876	0.22	185.68	227.12	405
WJ4019908	0.28	176.41	224.51	470
WJ4019914	0.30	177.37	224.50	461
WJ4019916	0.24	176.88	224.50	466
WJ4019918	0.28	177.11	224.49	463
WJ4019991	0.33	181.07	227.89	458
WJ4019994	0.26	180.69	227.92	462
WJ4019995	0.03	185.82	227.93	412
WJ4019996	0.34	180.31	227.94	466
WJ4020002	0.06	185.35	227.93	416
WJ4020003	0.27	180.39	228.18	467
WJ4020007	0.26	180.01	227.92	469
WJ4020013	0.05	185.00	227.93	420
WJ4020213	0.26	185.99	224.57	377
WJ4020220	0.26	175.12	223.85	477
WJ4020222	0.12	181.58	223.90	414
WJ4020225	0.32	195.00	223.81	282
WJ4020227	0.32	194.13	223.83	290
WJ4020229	0.61	191.07	224.18	324
WJ4020259	0.17	174.69	224.39	486
WJ4020263	0.39	180.62	224.39	428
WJ4020264	4.98	173.40	225.51	510
WJ4020265	0.01	173.28	225.50	511
WJ4020266	0.07	173.00	225.48	513
WJ4020267	0.13	174.59	225.47	498
WJ4020268	0.13	174.93	225.45	494
WJ4020269	0.13	175.11	225.45	492
WJ4020274	0.97	170.04	226.11	548
WJ4020275	0.00	148.82	225.93	754
WJ4020278	0.02	148.53	225.93	757
WJ4020423	0.03	183.97	227.94	430
WJ4020596	0.11	183.50	227.95	435
WJ4020598	0.30	183.11	227.95	439
WJ4020599	1.49	182.80	227.98	442
WJ4020703	0.35	177.03	224.41	463
WJ4020704	0.32	178.99	224.42	444
WJ4020715	0.03	182.34	228.46	451
WJ4020716	0.06	182.32	228.46	451
WJ4020717	0.29	181.97	228.43	454
WJ4020722	4.37	191.19	224.54	326
WJ4020727	0.00	177.10	224.28	461

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4020729	0.00	181.42	228.45	460
WJ4020730	0.00	176.87	224.29	464
WJ4020732	0.25	181.58	228.43	458
WJ4020738	0.17	182.54	228.38	448
WJ4020739	0.04	182.55	228.38	448
WJ4020740	0.09	182.85	228.37	445
WJ4020741	1.30	187.50	224.58	363
WJ4020828	2.24	187.49	224.18	359
WJ4020832	2.02	182.06	224.18	412
WJ4020853	0.10	183.64	228.40	438
WJ4020856	0.41	181.23	224.18	420
WJ4020858	0.19	183.19	228.39	442
WJ4020862	0.76	182.34	228.32	450
WJ4020863	0.11	182.87	228.41	445
WJ4020864	1.48	181.95	227.57	446
WJ4020865	0.50	178.32	227.57	482
WJ4020867	0.25	182.66	228.40	447
WJ4020882	0.07	181.94	228.21	452
WJ4020967	0.01	185.67	227.11	405
WJ4020969	0.18	184.56	226.58	411
WJ4020971	0.36	179.60	227.93	473
WJ4020978	0.30	180.30	227.91	466
WJ4020979	0.05	180.22	227.91	466
WJ4020980	0.24	185.65	227.74	412
WJ4020981	0.16	180.08	227.91	468
WJ4020984	0.32	178.98	227.90	478
WJ4020987	0.33	177.61	227.89	492
WJ4021011	0.30	176.16	227.89	506
WJ4021023	0.11	172.38	227.89	543
WJ4021044	0.21	175.87	229.87	528
WJ4021047	0.00	176.06	229.87	526
WJ4021076	0.00	172.98	224.66	505
WJ4021126	0.09	189.65	225.09	347
WJ4021144	0.08	174.17	224.58	493
WJ4021189	0.12	168.95	229.86	596
WJ4021233	0.00	178.49	229.86	502
WJ4021261	0.00	179.35	226.45	461
WJ4022762	0.00	180.31	229.53	481
WJ4022764	0.02	181.24	228.95	467
WJ4022778	0.19	180.57	227.92	463
WJ4022800	0.00	178.77	229.88	500
WJ4022803	0.12	175.82	224.60	477
WJ4022804	0.00	178.85	229.85	499
WJ4023042	0.27	178.85	225.40	455
WJ4023043	0.11	176.05	225.43	483
WJ4023052	0.00	189.03	226.05	362
WJ4023053	0.00	190.55	226.07	347
WJ4023055	0.00	168.39	226.41	567
WJ4023063	0.03	179.40	224.55	442
WJ4024064	0.09	164.33	224.14	585
WJ4024315	0.03	172.97	224.15	501
WJ4026374	0.70	181.93	225.14	423
WJ4037574	0.00	174.33	224.56	491
WJ4037577	4.76	174.34	224.56	491
WJ4037578	0.00	174.34	224.56	491
WJ4037579	0.00	174.15	224.56	493
WJ4037618	0.00	174.31	224.55	491
WJ4037619	0.00	174.31	224.55	491
WJ4037620	0.00	174.32	224.55	491
WJ4037625	0.00	174.15	224.55	493
WJ4037660	0.00	174.31	224.55	491
WJ4037661	0.00	174.32	224.55	491
WJ4037662	1.87	174.32	224.55	491

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4037669	0.00	174.15	224.55	493
WJ4037786	0.00	174.31	224.55	491
WJ4037787	0.00	174.32	224.55	491
WJ4037788	1.92	174.32	224.55	491
WJ4037793	0.00	174.11	224.55	493
WJ4037794	0.00	174.10	224.55	493
WJ4037795	0.00	174.10	224.55	493
WJ4037800	0.00	174.15	224.55	493
WJ4037829	0.00	173.29	224.55	501
WJ4037830	0.00	173.30	224.55	501
WJ4037831	0.00	173.29	224.55	501
WJ4037834	1.97	173.26	224.55	502
WJ4037836	0.00	173.24	224.55	502
WJ4037838	0.00	173.26	224.55	502
WJ4037839	3.29	173.26	224.55	502
WJ4037846	0.00	172.73	224.55	507
WJ4037847	0.00	172.75	224.55	507
WJ4037848	3.11	172.73	224.55	507
WJ4037849	0.00	172.73	224.55	507
WJ4037854	0.00	172.54	224.55	509
WJ4037855	0.00	172.55	224.55	508
WJ4037856	0.00	172.54	224.55	509
WJ4037857	0.00	172.54	224.55	509
WJ4038205	0.00	170.83	224.56	525
WJ4038206	0.00	170.86	224.56	525
WJ4038207	0.00	170.83	224.56	525
WJ4038214	0.00	170.81	224.56	526
WJ4038335	0.00	170.59	224.56	528
WJ4038346	0.00	170.52	224.56	528
WJ4038353	0.08	170.58	224.56	528
WJ4038388	0.03	170.43	224.56	529
WJ4038592	0.00	173.57	224.56	499
WJ4038593	0.00	173.55	224.56	499
WJ4038594	0.00	173.57	224.56	499
WJ4038595	0.00	173.57	224.56	499
WJ4038628	0.00	173.00	224.55	504
WJ4038631	0.00	172.97	224.55	504
WJ4038632	0.00	172.96	224.55	505
WJ4038633	0.00	172.96	224.55	505
WJ4038681	0.00	173.08	224.56	503
WJ4038682	0.60	173.09	224.56	503
WJ4038685	0.00	173.06	224.56	504
WJ4038686	0.85	172.75	224.56	507
WJ4040953	3.27	186.57	224.26	369
WJ4040955	0.77	187.71	224.29	358
WJ4040961	0.00	190.53	226.07	348
WJ47069	0.27	188.82	225.34	357
WJ47435	0.35	185.59	227.93	414
WJ47436	0.22	183.43	227.94	435
WJ47749	0.13	187.24	224.59	365
WJ47751	0.00	185.95	224.79	380
WJ48055	0.09	180.92	224.37	425
WJ48056	0.04	179.61	224.37	438
WJ48205	0.00	171.60	229.88	570
WJ48206	0.00	171.66	229.88	569
WJ48208	0.03	172.05	229.88	566
WJ48210	0.01	172.80	229.87	558
WJ48211	0.11	172.79	229.87	558
WJ48213	0.25	173.23	229.87	554
WJ48215	0.08	172.48	229.87	561
WJ48216	0.33	172.46	229.87	561
WJ48243	0.07	173.83	229.87	548
WJ48244	0.02	169.19	229.86	593

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ48272	0.28	170.51	229.86	580
WJ48273	0.00	170.51	229.86	580
WJ48469	0.12	184.25	226.45	413
WJ48471	0.00	184.62	226.50	410
WJ48953	0.05	181.98	224.01	411
WJ48955	0.10	185.62	224.01	375
WJ48956	0.10	185.59	224.01	376
WJ48957	0.17	186.90	224.03	363
WJ48958	0.05	186.75	224.03	365
WJ48960	0.18	186.50	224.03	367
WJ48961	0.02	187.17	224.03	360
WJ48963	0.12	185.80	224.01	374
WJ48968	0.94	189.72	224.90	344
WJ48969	0.04	189.92	224.07	334
WJ48971	0.00	187.80	224.07	355
WJ48972	0.29	187.80	224.06	355
WJ48973	0.25	187.80	224.07	355
WJ48974	0.04	188.96	224.05	343
WJ48979	0.10	188.96	224.05	343
WJ48980	0.25	188.98	224.06	343
WJ48983	0.24	190.78	224.05	325
WJ48984	0.14	190.78	224.04	325
WJ48985	0.04	190.78	224.04	325
WJ48986	0.02	192.02	224.03	313
WJ48987	0.26	192.02	224.04	313
WJ48988	0.18	192.02	224.03	313
WJ48991	0.02	192.00	224.02	313
WJ48994	0.18	192.00	224.02	313
WJ48995	0.22	192.00	224.03	313
WJ48999	0.24	190.85	224.01	324
WJ49000	0.12	190.85	224.00	324
WJ49001	0.00	187.78	224.06	355
WJ49002	0.05	190.85	224.00	324
WJ49003	0.10	191.31	223.99	320
WJ49072	0.00	173.79	225.47	505
WJ49141	2.52	186.37	224.42	372
WJ49142	0.04	186.71	224.52	370
WJ49143	0.02	186.61	224.53	371
WJ49144	0.16	186.70	224.53	370
WJ49145	0.28	186.27	224.59	375
WJ49146	0.00	186.58	224.58	372
WJ49237	0.09	187.94	224.97	362
WJ49239	0.04	187.84	224.97	363
WJ49243	0.12	188.41	225.01	358
WJ49244	0.00	189.09	225.01	351
WJ49247	0.05	194.11	225.04	302
WJ49248	0.04	191.33	225.22	331
WJ49251	0.37	191.18	225.22	333
WJ49252	0.04	191.40	225.23	331
WJ49253	0.29	193.43	225.04	309
WJ49254	0.08	187.81	224.99	364
WJ49256	0.08	187.64	224.99	365
WJ49258	0.02	193.59	225.03	308
WJ49324	0.10	186.36	224.81	376
WJ49325	0.09	186.79	224.81	372
WJ49326	0.00	181.76	224.81	421
WJ49327	0.03	182.14	224.81	417
WJ49330	0.00	186.22	224.91	378
WJ49331	0.24	186.69	224.91	374
WJ49332	0.37	187.85	225.01	363
WJ49333	0.02	187.91	225.01	363
WJ49334	0.03	187.86	225.01	363
WJ49339	0.00	189.24	225.20	352

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ49340	0.04	189.34	225.20	351
WJ49341	0.38	189.31	225.20	351
WJ49342	0.14	189.63	225.21	348
WJ50379	0.02	184.18	226.71	416
WJ51948	0.17	184.16	225.04	400
WJ51950	0.17	184.16	225.05	400
WJ51952	0.04	184.18	225.04	400
WJ51955	0.14	184.12	225.04	400
WJ51974	0.00	174.32	224.63	492
WJ51975	0.00	174.32	224.63	492
WJ51976	0.00	174.22	224.63	493
WJ51977	0.02	173.88	224.63	496
WJ51978	0.07	175.26	224.63	483
WJ51979	0.02	177.44	224.64	462
WJ51980	0.03	178.58	224.65	451
WJ51987	0.03	178.50	224.65	451
WJ51990	0.08	178.47	224.66	452
WJ51996	0.02	177.44	224.64	462
WJ51998	0.08	177.38	224.65	462
WJ52037	0.00	174.30	224.63	492
WJ52044	0.69	174.22	224.64	493
WJ52054	0.00	173.48	224.63	500
WJ52055	2.89	173.64	224.61	498
WJ52073	0.00	191.70	224.66	322
WJ52087	0.00	191.80	224.66	321
WJ52091	0.01	191.40	224.57	324
WJ52093	0.00	191.84	224.58	320
WJ52156	0.24	180.95	224.08	422
WJ52159	0.04	181.05	224.08	421
WJ52162	0.27	186.53	224.07	367
WJ52163	0.05	186.54	224.07	367
WJ52165	0.20	188.36	224.07	349
WJ52167	0.06	186.53	224.07	367
WJ52171	0.15	187.75	224.10	355
WJ52182	0.04	186.64	224.10	366
WJ52183	0.04	186.66	224.09	366
WJ52184	0.13	186.65	224.09	366
WJ52220	0.10	187.46	224.10	358
WJ52221	0.08	187.73	224.10	356
WJ52222	0.05	187.65	224.11	357
WJ52242	0.25	186.57	224.09	367
WJ52247	0.06	191.68	224.66	323
WJ52248	0.00	191.15	224.58	327
WJ52249	0.03	191.10	224.58	327
WJ52251	0.12	189.05	224.50	347
WJ52303	0.00	182.21	224.38	412
WJ52307	0.24	182.21	224.38	412
WJ52325	0.09	178.54	224.37	448
WJ52327	0.02	178.59	224.37	448
WJ52331	0.24	177.29	224.36	460
WJ52333	0.00	177.29	224.36	460
WJ52334	0.00	176.50	224.36	468
WJ52336	0.03	176.48	224.36	468
WJ52338	0.00	175.98	224.36	473
WJ52339	0.96	175.42	224.36	479
WJ52340	0.00	167.29	224.35	558
WJ52341	0.00	167.46	224.36	556
WJ52344	0.18	167.55	224.36	556
WJ52345	0.00	168.64	224.36	545
WJ52747	0.01	179.21	224.57	444
WJ52748	0.01	176.06	224.56	474
WJ52750	0.00	176.05	224.56	474
WJ52751	0.98	172.80	224.55	506

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ52753	0.01	172.80	224.55	506
WJ52754	0.16	172.41	224.55	510
WJ52757	0.00	174.02	224.54	494
WJ52768	0.01	174.39	224.54	490
WJ52868	2.97	187.39	224.56	363
WJ52874	0.01	186.61	224.37	369
WJ52875	4.05	188.07	224.59	357
WJ52876	0.01	187.28	224.59	365
WJ52877	0.06	187.25	224.59	365
WJ52881	0.18	186.91	224.47	367
WJ52882	0.95	186.95	224.46	367
WJ53038	8.69	172.13	224.56	513
WJ53041	0.03	170.60	224.56	528
WJ53042	0.05	170.57	224.56	528
WJ53045	0.00	170.79	224.56	526
WJ53046	0.00	170.75	224.56	526
WJ53069	0.04	170.66	224.56	527
WJ53078	0.11	170.87	224.56	525
WJ53108	0.12	179.43	224.57	441
WJ53112	0.01	189.50	224.58	343
WJ53113	0.00	189.45	224.58	344
WJ53114	0.00	186.80	224.58	370
WJ53115	0.02	191.00	224.58	328
WJ53116	2.36	189.10	224.58	347
WJ53117	0.03	189.05	224.58	347
WJ53118	0.00	186.90	224.58	369
WJ53121	1.91	189.48	224.58	343
WJ53122	0.00	189.89	224.58	339
WJ53442	1.60	185.43	226.16	398
WJ53444	0.00	185.43	226.16	398
WJ53447	0.00	188.12	225.95	370
WJ53448	0.11	188.80	225.69	361
WJ53450	0.05	188.71	225.70	362
WJ53452	0.25	188.81	225.71	361
WJ53453	0.00	188.75	225.70	361
WJ53457	0.00	187.00	224.91	371
WJ53462	0.03	167.21	224.35	559
WJ53465	0.00	187.72	225.95	374
WJ53466	0.04	185.43	226.16	398
WJ53494	0.14	183.04	225.72	417
WJ53495	0.09	183.04	225.74	418
WJ53498	0.06	183.62	225.72	412
WJ53506	0.15	183.87	225.71	409
WJ53512	0.00	187.05	224.42	366
WJ53513	0.05	187.48	224.42	361
WJ53514	0.05	187.30	224.42	363
WJ53517	0.15	182.72	225.72	420
WJ53518	0.13	183.87	225.73	409
WJ53523	0.03	184.69	225.70	401
WJ53524	0.17	184.69	225.72	401
WJ53525	0.12	183.05	225.70	417
WJ53553	0.04	184.60	225.69	402
WJ53555	0.02	184.80	225.68	400
WJ53556	0.22	187.41	225.66	374
WJ53557	0.07	186.15	225.67	386
WJ53558	0.11	187.41	225.67	374
WJ53559	0.28	187.10	225.62	377
WJ53562	0.00	188.50	226.07	367
WJ53563	0.10	188.50	226.07	367
WJ53564	0.05	188.20	225.93	369
WJ53566	0.04	188.40	225.81	366
WJ53567	0.03	187.00	225.70	378
WJ53570	0.08	188.18	225.34	363

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ53571	0.05	185.00	225.28	394
WJ53572	0.03	185.00	225.28	394
WJ53574	0.11	183.90	225.26	404
WJ53576	0.09	187.00	225.70	378
WJ53577	0.12	188.30	225.81	367
WJ53578	0.10	188.10	225.93	370
WJ53584	0.50	188.18	225.34	363
WJ53585	0.21	185.00	225.28	394
WJ53586	0.06	183.70	225.28	407
WJ53610	0.45	190.70	225.39	339
WJ53661	0.24	186.85	225.00	373
WJ53664	0.32	186.45	224.87	376
WJ53665	0.11	186.90	224.99	372
WJ53671	0.01	186.73	224.99	374
WJ53672	0.00	186.29	224.99	378
WJ53717	0.09	187.60	224.44	360
WJ53722	0.04	185.92	224.30	375
WJ53724	0.01	185.75	224.30	377
WJ53727	0.21	185.92	224.30	375
WJ53844	0.41	184.50	225.29	399
WJ53848	0.48	185.50	225.30	389
WJ53883	0.63	191.20	225.34	334
WJ53893	0.12	183.66	226.67	421
WJ53988	0.16	183.11	226.95	429
WJ53989	0.00	183.13	226.95	429
WJ53992	0.02	185.63	226.96	404
WJ53993	0.01	185.63	226.99	404
WJ53994	0.11	185.63	226.97	404
WJ54013	0.23	183.42	226.89	425
WJ54014	0.01	184.18	226.86	417
WJ54018	0.02	184.21	226.88	417
WJ54019	0.14	184.18	226.87	417
WJ54277	0.68	169.89	224.56	535
WJ54278	2.95	168.40	224.55	549
WJ54288	0.28	168.31	224.55	550
WJ54289	0.00	168.31	224.55	550
WJ54290	0.00	168.31	224.55	550
WJ54291	0.11	168.31	224.55	550
WJ54414	0.21	179.78	224.44	437
WJ54418	0.08	179.74	224.44	437
WJ54421	0.02	179.79	224.45	437
WJ54422	0.12	179.80	224.44	437
WJ54423	0.05	180.60	224.45	429
WJ54424	0.04	180.60	224.44	429
WJ54425	0.26	180.60	224.44	429
WJ54440	0.00	181.86	224.41	416
WJ54441	0.02	180.51	224.50	430
WJ54442	0.06	180.51	224.51	430
WJ54444	0.06	178.31	224.59	453
WJ54459	0.12	178.74	224.57	448
WJ54460	0.07	178.74	224.57	448
WJ54461	0.00	178.74	224.57	448
WJ54468	0.16	180.77	224.53	428
WJ54469	0.00	180.77	224.53	428
WJ54470	0.04	180.77	224.53	428
WJ54473	0.24	180.51	224.50	430
WJ54480	0.24	181.86	224.47	417
WJ54484	0.02	181.86	224.54	417
WJ54489	0.31	183.60	224.44	399
WJ54490	0.04	183.60	224.44	399
WJ54491	0.19	183.60	224.44	399
WJ55016	0.08	189.80	225.17	346
WJ55017	0.02	190.30	225.06	340

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ55018	0.04	190.30	225.06	340
WJ55019	0.00	190.30	225.06	340
WJ55020	0.04	189.80	225.17	346
WJ55022	0.05	190.10	225.09	342
WJ55026	0.08	189.90	225.26	346
WJ55118	0.10	188.19	225.39	364
WJ55120	0.05	188.19	225.41	364
WJ55122	0.09	188.18	225.39	364
WJ55156	0.31	182.61	225.96	424
WJ55157	0.12	182.61	225.94	424
WJ55162	0.13	184.25	225.96	408
WJ55163	0.03	183.82	225.95	412
WJ55164	0.07	182.59	225.95	424
WJ55165	0.04	183.60	225.95	414
WJ55166	0.08	184.20	225.95	408
WJ55167	0.03	184.65	225.93	404
WJ55170	0.01	179.87	225.94	451
WJ55171	0.12	179.86	225.97	451
WJ55214	0.03	184.22	226.60	414
WJ55216	0.05	184.46	226.60	412
WJ55304	0.03	177.25	224.55	463
WJ55323	0.03	177.63	224.53	459
WJ55324	0.30	178.01	224.53	455
WJ55326	0.01	177.65	224.54	459
WJ55328	0.02	175.43	224.53	480
WJ55329	0.34	175.66	224.53	478
WJ55331	0.02	175.42	224.53	480
WJ55334	0.02	175.59	224.52	479
WJ55335	0.30	175.57	224.52	479
WJ55338	0.03	175.57	224.53	479
WJ55341	0.03	177.23	224.55	463
WJ55422	0.05	183.62	224.56	400
WJ55423	0.05	183.61	224.56	400
WJ55429	0.02	178.32	224.55	452
WJ55431	0.04	178.32	224.55	452
WJ55432	0.30	178.20	224.55	453
WJ55436	0.33	175.21	224.54	482
WJ55441	0.06	176.13	224.54	473
WJ55442	0.05	175.21	224.54	482
WJ55455	0.16	184.81	224.56	389
WJ55466	0.17	177.21	224.55	463
WJ55469	0.03	176.75	224.51	467
WJ55472	0.10	176.75	224.53	467
WJ55957	0.03	186.71	224.97	374
WJ55958	0.04	186.01	224.97	381
WJ55961	0.26	185.82	224.97	383
WJ56498	0.17	186.37	225.00	378
WJ56681	0.30	181.74	228.64	459
WJ56684	0.24	181.22	228.60	463
WJ56688	0.02	181.28	228.58	463
WJ56689	0.00	181.35	229.28	469
WJ56691	0.00	181.14	229.28	471
WJ56698	0.21	182.00	228.60	456
WJ56700	0.00	182.36	228.60	452
WJ56701	0.00	181.97	228.57	456
WJ56705	0.19	181.13	228.60	464
WJ57354	0.09	188.95	224.49	348
WJ57355	0.13	188.90	224.49	348
WJ57425	0.00	172.59	224.58	508
WJ57428	0.05	172.42	224.58	510
WJ57438	0.00	179.94	224.58	437
WJ57697	0.09	167.63	224.58	557
WJ57906	1.59	174.40	224.56	491

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ57907	0.00	172.72	224.56	507
WJ58108	0.00	173.30	224.61	502
WJ58109	0.13	173.40	224.61	501
WJ58336	0.17	188.52	225.21	359
WJ58392	0.16	179.83	224.11	433
WJ58393	0.19	181.20	224.11	420
WJ58394	0.08	181.67	224.11	415
WJ58397	0.01	187.78	224.07	355
WJ58399	0.03	187.61	224.07	357
WJ58401	0.05	187.40	224.13	359
WJ58403	0.05	187.51	224.13	358
WJ58404	0.06	185.00	224.15	383
WJ58406	0.05	184.38	224.15	389
WJ58412	0.09	187.17	224.26	363
WJ58418	0.50	187.47	224.13	359
WJ58423	0.53	184.00	224.11	392
WJ58424	0.31	182.01	224.11	412
WJ58425	0.15	184.91	224.15	384
WJ58426	0.10	184.92	224.15	384
WJ58427	3.03	186.86	224.26	366
WJ58458	0.13	173.97	224.65	496
WJ58460	0.15	172.58	224.66	509
WJ58461	0.00	172.71	224.66	508
WJ58462	0.26	172.58	224.65	509
WJ58464	0.00	172.71	224.65	508
WJ58473	0.16	173.05	224.64	505
WJ58475	4.12	173.81	224.62	497
WJ58476	7.05	173.81	224.62	497
WJ58479	3.72	173.81	224.60	497
WJ58480	7.94	173.81	224.60	497
WJ58481	0.00	173.41	224.61	501
WJ58482	0.00	173.41	224.61	501
WJ58486	3.02	173.29	224.60	502
WJ58488	0.00	173.31	224.60	502
WJ58490	0.00	173.88	224.60	496
WJ58496	3.06	173.62	224.60	499
WJ58498	2.74	173.62	224.60	499
WJ58499	0.01	173.62	224.60	499
WJ58500	0.00	173.62	224.60	499
WJ58501	0.40	173.40	224.60	501
WJ58502	3.12	173.40	224.60	501
WJ58504	0.00	173.40	224.60	501
WJ58505	0.03	173.40	224.60	501
WJ58509	0.10	172.82	224.59	506
WJ58510	0.00	172.82	224.59	506
WJ58512	0.00	173.74	224.59	497
WJ58513	0.00	173.74	224.59	497
WJ58516	0.05	174.37	224.59	491
WJ58517	0.00	174.37	224.59	491
WJ58519	0.97	176.52	224.59	470
WJ58521	0.49	176.52	224.59	470
WJ58522	0.24	178.76	224.59	448
WJ58523	0.01	178.76	224.59	448
WJ58526	0.04	178.76	224.59	448
WJ58527	7.57	182.72	224.59	410
WJ58528	0.00	182.72	224.60	410
WJ58530	1.61	186.10	224.60	376
WJ58532	0.00	186.10	224.60	376
WJ58533	3.17	186.22	224.59	375
WJ58535	0.00	186.22	224.59	375
WJ58537	0.00	186.80	224.60	370
WJ58539	4.93	186.80	224.60	370
WJ58540	0.04	188.70	224.60	351

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ58541	0.93	188.77	224.60	350
WJ58543	8.54	190.21	224.61	336
WJ58544	0.00	190.21	224.62	337
WJ58545	0.00	190.21	224.62	336
WJ58547	0.17	190.37	224.62	335
WJ58548	4.08	190.37	224.63	335
WJ58572	0.00	191.60	224.66	323
WJ58573	0.00	191.79	224.66	321
WJ58574	0.36	191.80	224.66	321
WJ58575	0.00	191.40	224.66	325
WJ58576	0.00	191.40	224.66	325
WJ58577	0.00	191.40	224.67	325
WJ58580	2.90	191.95	224.65	320
WJ58581	0.31	191.79	224.66	321
WJ58595	5.39	171.60	224.65	519
WJ58601	0.63	173.61	224.63	499
WJ58602	0.00	173.61	224.63	499
WJ58603	0.48	173.11	224.60	504
WJ58604	0.00	173.20	224.60	503
WJ58605	0.00	173.20	224.60	503
WJ58608	1.91	173.75	224.60	497
WJ58609	0.00	173.71	224.60	498
WJ58610	0.00	188.79	224.61	350
WJ58611	0.00	172.80	224.65	507
WJ58614	0.00	173.39	224.60	501
WJ58734	0.03	172.10	223.97	507
WJ58735	0.08	175.20	223.98	477
WJ58740	0.15	187.38	224.23	360
WJ58745	0.67	187.50	224.23	359
WJ58747	0.00	187.38	224.23	360
WJ58749	0.10	187.60	224.09	357
WJ58751	0.52	187.60	224.09	357
WJ58752	0.20	186.78	224.05	364
WJ58755	0.06	186.50	224.05	367
WJ58756	0.03	186.71	224.05	365
WJ58760	0.10	172.10	223.97	507
WJ58762	0.21	186.39	224.03	368
WJ58764	0.08	186.39	224.03	368
WJ58769	0.12	176.74	223.98	462
WJ58936	0.20	184.03	227.39	424
WJ58937	0.00	184.03	227.36	424
WJ58940	0.01	184.03	227.41	424
WJ58946	0.91	181.39	227.39	450
WJ59062	0.13	180.68	224.07	424
WJ59065	0.03	180.41	224.06	427
WJ59072	0.06	181.18	224.18	420
WJ59074	0.35	181.18	224.18	420
WJ59078	0.13	180.19	224.14	430
WJ59147	0.63	169.15	229.86	594
WJ59194	0.00	186.60	226.14	387
WJ59195	1.39	186.00	226.15	393
WJ59196	0.00	186.05	226.15	392
WJ59198	0.00	186.20	226.14	391
WJ59201	0.00	186.20	226.15	391
WJ59207	0.00	186.20	226.16	391
WJ59422	0.06	186.20	226.14	391
WJ59712	0.16	182.22	228.27	450
WJ59726	0.02	181.65	228.22	455
WJ59732	0.14	181.46	228.21	457
WJ59734	0.10	182.10	228.43	453
WJ59735	0.14	181.97	228.27	453
WJ59742	0.05	181.52	228.22	457
WJ59743	0.25	180.91	228.21	463

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ59822	0.22	178.60	228.17	485
WJ59864	0.11	180.30	228.20	468
WJ60020	1.09	181.49	228.42	459
WJ60783	0.00	173.16	224.60	503
WJ60862	2.26	173.00	224.60	505
WJ60926	0.04	169.08	224.59	543
WJ61124	0.17	180.87	228.43	465
WJ61125	0.42	180.96	228.43	464
WJ61457	0.20	188.71	226.08	365
WJ61510	0.06	178.46	224.50	450
WJ61511	0.15	178.69	224.50	448
WJ61514	0.04	178.87	224.50	446
WJ61515	0.02	177.96	224.50	455
WJ61519	0.18	178.32	224.50	452
WJ61520	0.00	178.45	224.50	450
WJ61529	0.19	186.17	224.43	374
WJ61627	0.17	178.72	227.99	482
WJ61693	0.05	190.35	225.67	345
WJ61694	0.00	192.00	225.67	329
WJ61779	0.11	167.22	224.78	563
WJ61826	0.17	187.10	225.98	380
WJ61827	0.00	188.09	225.98	371
WJ62335	0.05	187.57	223.92	356
WJ62359	0.21	181.38	224.14	418
WJ62422	0.04	182.84	228.26	444
WJ62423	0.74	181.78	227.94	451
WV10604	0.00	189.03	226.07	362
WV10609	0.00	190.65	226.10	347
WV15899	0.00	185.70	224.90	383
WV4001258	0.00	187.46	226.29	380
WV4001488	0.00	188.10	226.31	374
WV4004307	0.00	176.10	229.88	526
WV4004312	0.00	171.48	229.88	571
WV4004327	0.00	178.91	229.84	498
WV4004332	0.00	181.07	229.28	472
WV4004334	0.00	180.40	229.17	477
WV4004344	0.00	181.71	229.01	463
WV4004993	0.00	188.98	226.07	363
WV4004997	0.00	189.24	226.07	360
WV4004999	0.00	189.56	226.08	357
WV4005002	0.00	188.98	226.08	363
WV4005009	0.00	188.81	226.08	364
WV4005012	0.00	188.67	226.08	366
WV4005018	0.00	188.45	226.13	368
WV4005020	0.00	187.84	226.18	375
WV4005023	0.00	178.65	226.36	467
WV4005029	0.00	169.18	226.41	560
WV4005033	0.00	178.47	226.65	471
WV4005035	0.00	151.76	226.51	731
WV4005043	0.00	183.88	226.95	421
WV4005087	0.00	183.57	227.02	425
WV4005089	0.00	183.63	227.12	425
WV4005097	0.00	182.96	227.49	435
WV4005103	0.00	185.07	227.80	418
WV4005104	0.00	184.69	227.75	421
WV4005109	0.00	185.87	227.93	411
WV4005114	0.00	186.03	228.09	411
WV4005116	0.00	186.13	228.10	410
WV4010666	0.00	193.49	223.75	296
WV4010740	0.00	193.43	223.78	297
WV4010788	0.00	191.05	223.87	321
WV4010807	0.00	190.54	223.88	326
WV4010872	0.00	189.65	223.91	335

MDD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WV4010889	0.00	189.13	223.91	340
WV4010976	0.00	185.76	224.00	374
WV4010981	0.00	185.85	224.05	374
WV4010986	0.00	185.97	224.05	372
WV4011010	0.00	186.91	224.10	364
WV4011015	0.00	186.97	224.11	363
WV4011055	0.00	191.00	224.67	329
WV4011116	0.00	187.02	224.80	369
WV4011132	0.00	186.96	224.16	364
WV4011135	0.00	180.47	225.12	437
WV4011139	0.00	180.65	225.13	435
WV4011145	0.00	186.92	224.17	364
WV4011148	0.00	183.83	225.29	405
WV4011161	0.00	182.58	224.23	407
WV4011205	0.00	184.58	225.31	398
WV4011218	0.00	184.61	225.34	398
WV4011221	0.00	186.34	225.40	382
WV4011231	0.00	189.13	224.40	345
WV4011250	0.00	188.74	226.01	364
WV4011277	0.00	191.24	225.74	337
WV4011347	0.00	188.10	224.43	355
WV4011354	0.00	188.01	224.43	356
WV4011482	0.00	179.11	229.86	496
WV4011524	0.00	191.08	224.66	328
WV4011544	0.00	190.82	224.66	331
WV4011554	0.00	190.83	224.66	331
WV4011570	0.00	190.84	224.65	331
WV4011579	0.00	190.86	224.65	330
WV4011587	0.00	191.16	224.62	327
WV4011591	0.00	190.85	224.58	330
WV4011740	0.00	190.76	224.56	331
WV4011750	0.00	190.57	224.55	332
WV4011763	0.00	190.61	224.55	332
WV4011841	0.00	187.58	224.44	360
WV4011849	0.00	187.24	224.47	364
WV4016857	0.00	185.99	226.16	393
WV4021627	0.00	174.47	225.39	498
WV4037971	0.00	183.82	226.87	421
WV50450	0.00	190.88	224.58	330
WV50459	0.00	190.85	224.58	330
WV55772	0.00	173.41	224.61	501
WV60507	0.00	168.31	224.56	550
Sum of Demands:	**637.86**		**Min**	**279**
			Max	**757**

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ14235	0.41	185.18	223.93	379
WJ15670	0.34	183.45	225.84	415
WJ15678	0.32	185.35	225.10	389
WJ15686	0.48	187.65	224.98	365
WJ16170	1.82	177.80	224.08	453
WJ16225	4.52	172.90	224.07	500
WJ18030	1.02	173.40	223.88	494
WJ18031	0.09	173.40	223.88	494
WJ18032	0.03	173.40	223.88	494
WJ18033	0.00	173.40	223.88	494
WJ18034	0.00	172.15	223.87	506
WJ19276	0.00	169.20	224.07	537
WJ19330	4.25	170.00	224.11	529
WJ19333	0.93	175.00	224.15	481
WJ19377	0.16	180.20	224.08	429
WJ19378	4.99	180.00	224.08	431
WJ20132	0.03	175.80	224.02	472
WJ20153	0.13	177.00	223.98	459
WJ20154	0.52	176.31	223.98	466
WJ20173	7.76	174.50	224.04	484
WJ20935	0.40	190.64	223.89	325
WJ21055	0.09	175.20	224.16	479
WJ21075	3.25	179.20	224.08	439
WJ21116	0.33	186.21	224.35	373
WJ21239	2.33	169.30	224.04	535
WJ21258	0.31	169.60	224.04	532
WJ21278	1.00	170.60	224.05	523
WJ21298	0.21	172.80	225.05	511
WJ21558	0.20	174.10	224.34	491
WJ21578	0.01	175.60	224.63	480
WJ21598	0.22	176.80	224.58	467
WJ21660	0.45	192.00	223.80	311
WJ21799	0.49	186.50	224.37	370
WJ22343	0.36	174.92	224.18	482
WJ22344	0.53	174.92	224.18	482
WJ22345	0.76	177.45	224.27	458
WJ22361	0.15	175.20	224.12	478
WJ22601	0.03	186.40	224.23	370
WJ22621	0.10	190.80	224.11	326
WJ22721	1.69	178.00	223.99	450
WJ22724	0.35	174.50	224.00	484
WJ22821	0.96	188.93	224.49	348
WJ22861	7.64	190.30	224.63	336
WJ23505	0.41	185.50	225.78	394
WJ23506	0.31	189.40	225.54	353
WJ23507	0.35	189.40	225.45	353
WJ23508	0.52	189.20	225.31	353
WJ23509	0.24	189.10	225.14	352
WJ23510	0.26	189.30	225.05	350
WJ23511	0.25	189.30	224.95	349
WJ23544	0.12	190.30	224.95	339
WJ24044	0.19	186.72	223.88	363
WJ24204	9.92	188.12	224.19	353
WJ24244	0.00	186.55	224.20	368
WJ24264	3.67	186.55	224.20	368
WJ24284	3.94	188.75	224.25	347
WJ24285	0.00	184.62	224.18	387
WJ24304	0.00	184.62	224.17	387
WJ24344	6.51	188.78	224.24	347
WJ24364	0.00	184.62	224.18	387
WJ24366	0.10	184.62	224.18	387
WJ25695	0.00	180.70	224.01	424
WJ25696	0.00	179.10	224.01	439

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ25697	0.10	180.20	224.01	428
WJ25698	0.39	179.95	224.01	431
WJ26555	0.74	174.16	224.08	488
WJ26758	0.09	177.66	226.38	476
WJ26759	0.29	180.25	226.48	452
WJ26760	0.07	183.93	226.62	417
WJ27194	0.00	172.84	224.06	501
WJ27354	0.00	180.94	226.16	442
WJ27355	0.00	180.94	226.16	442
WJ27375	0.28	187.49	223.93	356
WJ27857	0.01	188.93	224.04	343
WJ27858	0.09	188.93	224.04	343
WJ27861	0.22	188.93	224.04	343
WJ27874	0.39	188.82	223.97	344
WJ27875	0.01	188.53	223.97	347
WJ27877	0.01	188.21	223.97	350
WJ27879	0.00	188.28	223.97	349
WJ27916	0.06	186.89	223.95	362
WJ27917	0.94	186.92	223.95	362
WJ27918	0.09	186.93	223.95	362
WJ27974	0.32	174.50	224.07	485
WJ27994	2.33	177.15	224.08	459
WJ28014	3.10	172.60	224.07	503
WJ28034	0.04	176.60	223.98	463
WJ28054	0.00	169.40	224.05	534
WJ28076	0.52	184.75	223.94	383
WJ28077	0.05	184.79	223.94	383
WJ28079	0.42	184.51	223.94	386
WJ28096	0.10	169.20	224.06	537
WJ28114	0.00	167.80	224.07	550
WJ28134	0.22	182.60	224.22	407
WJ28135	0.25	183.75	224.26	396
WJ28154	0.19	178.70	224.35	446
WJ28174	0.01	176.60	224.57	469
WJ28175	0.08	177.50	224.57	460
WJ28177	0.00	177.00	224.61	466
WJ28214	0.63	177.68	224.09	454
WJ28234	1.75	169.60	224.06	533
WJ38909	0.09	182.14	224.51	414
WJ4001543	2.40	190.80	225.05	335
WJ4001881	0.92	191.40	224.90	328
WJ4001888	0.22	190.29	224.82	338
WJ4001895	4.79	190.04	224.76	340
WJ4001900	0.57	189.62	224.70	343
WJ4001950	0.69	189.24	224.55	345
WJ4001964	0.32	186.67	224.57	371
WJ4001983	0.65	186.31	224.61	375
WJ4002007	0.32	188.89	225.73	360
WJ4002064	1.21	188.74	224.17	347
WJ4002079	1.25	188.39	224.15	350
WJ4002150	0.19	186.52	224.04	367
WJ4002158	0.18	186.53	224.06	367
WJ4002202	0.14	186.71	224.09	365
WJ4002204	0.19	186.60	224.09	367
WJ4002294	0.14	167.18	223.86	554
WJ4002296	0.30	172.37	223.86	504
WJ4002308	0.13	169.71	223.86	530
WJ4002319	0.25	176.04	223.86	468
WJ4002321	0.18	186.07	224.03	371
WJ4002333	0.01	186.74	224.03	365
WJ4002359	0.09	175.74	223.86	471
WJ4002365	0.07	174.73	223.87	481
WJ4002380	0.19	181.16	223.86	418

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4002430	0.10	178.83	223.87	440
WJ4002498	0.71	187.71	223.98	355
WJ4002512	10.24	190.11	223.98	331
WJ4002977	0.18	187.61	224.31	359
WJ4003146	0.64	186.52	224.24	369
WJ4003473	0.54	187.12	224.31	364
WJ4003628	0.41	186.97	224.24	365
WJ4003633	3.43	190.44	223.98	328
WJ4003830	5.27	192.23	223.90	310
WJ4003831	0.21	191.75	223.89	314
WJ4003834	0.21	191.94	223.82	312
WJ4003845	0.00	190.85	223.89	323
WJ4003907	0.08	153.96	223.77	683
WJ4003922	0.12	161.62	223.76	608
WJ4003924	0.20	156.59	223.76	657
WJ4003925	0.34	169.56	223.76	530
WJ4003927	0.28	185.95	223.76	370
WJ4003929	0.23	193.29	223.76	298
WJ4003930	0.26	194.39	223.76	287
WJ4003953	0.21	153.07	223.81	692
WJ4003958	0.35	151.64	223.81	706
WJ4003978	0.23	158.93	223.81	635
WJ4003998	0.16	159.76	223.82	626
WJ4004000	0.17	163.75	223.81	587
WJ4004013	0.10	164.54	223.81	580
WJ4004140	0.27	184.32	223.76	386
WJ4004148	0.48	155.08	223.77	672
WJ4004151	0.26	153.77	223.77	685
WJ4004177	0.24	152.83	223.82	694
WJ4004184	0.30	160.43	223.81	620
WJ4004286	0.54	170.11	223.81	525
WJ4004354	0.27	181.69	223.77	412
WJ4004368	0.41	183.85	223.79	391
WJ4004396	0.15	178.63	223.76	441
WJ4004417	0.17	189.50	223.78	335
WJ4004418	0.14	190.78	223.76	323
WJ4004476	0.13	195.42	223.79	277
WJ4004482	0.41	195.07	223.79	281
WJ4004488	0.16	189.57	223.89	336
WJ4004501	0.14	189.44	223.89	337
WJ4004537	0.30	190.40	223.80	327
WJ4004538	0.23	191.98	223.80	311
WJ4004558	0.19	185.67	223.78	373
WJ4004560	0.32	187.84	223.76	351
WJ4004563	0.39	186.52	223.76	364
WJ4004565	0.39	179.79	223.76	430
WJ4004567	0.29	179.55	223.76	432
WJ4004584	0.74	165.48	223.77	570
WJ4004621	0.19	189.52	223.90	336
WJ4004623	0.33	188.28	223.93	349
WJ4004827	0.37	155.49	223.81	668
WJ4004914	0.04	181.69	228.91	462
WJ4004963	0.26	188.09	223.93	350
WJ4005072	0.49	193.82	223.78	293
WJ4005083	0.32	193.34	223.79	298
WJ4005420	0.00	180.88	223.83	420
WJ4005428	0.12	180.20	223.80	426
WJ4005429	0.22	180.57	223.79	423
WJ4005430	0.25	182.23	223.79	406
WJ4005489	0.30	168.05	223.78	545
WJ4005613	0.43	180.10	223.79	427
WJ4005699	0.26	188.62	223.94	345
WJ4005703	0.11	186.47	223.86	366

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4005704	0.01	185.64	223.86	374
WJ4005731	0.10	181.84	223.80	410
WJ4005966	0.18	184.31	223.88	387
WJ4005967	0.21	185.90	223.88	372
WJ4005968	0.14	182.69	223.88	403
WJ4005982	0.19	189.05	223.86	340
WJ4006036	0.20	187.83	223.93	353
WJ4006038	0.24	187.81	223.93	353
WJ4006048	0.08	187.80	223.93	353
WJ4006067	0.46	187.60	223.93	355
WJ4006069	0.08	187.81	223.93	353
WJ4006075	0.57	187.05	223.94	361
WJ4006089	0.59	187.71	223.94	354
WJ4006091	0.98	188.15	223.93	350
WJ4006109	0.30	187.27	223.94	359
WJ4006148	0.16	183.63	223.79	393
WJ4006153	0.52	181.69	223.77	412
WJ4006212	0.03	185.56	223.80	374
WJ4006214	0.01	184.89	223.79	380
WJ4006217	0.20	184.89	223.79	380
WJ4006221	0.14	188.97	223.81	341
WJ4006222	0.48	188.97	223.81	341
WJ4006305	0.62	180.85	226.13	443
WJ4006350	0.18	175.08	223.80	476
WJ4006399	0.50	187.70	225.24	367
WJ4006581	0.38	187.44	224.50	362
WJ4006585	0.34	188.64	224.49	351
WJ4006591	1.04	188.40	224.45	353
WJ4006781	0.22	189.55	224.78	345
WJ4006785	0.81	190.15	224.78	339
WJ4006791	1.00	190.26	224.66	336
WJ4006801	0.64	187.85	224.52	359
WJ4006814	0.21	187.69	224.52	360
WJ4006820	0.24	187.15	224.52	365
WJ4006835	0.72	186.40	224.50	373
WJ4006925	0.23	188.20	225.89	369
WJ4006928	0.49	189.27	225.67	356
WJ4006933	0.19	187.43	224.55	363
WJ4006935	0.15	174.50	223.92	483
WJ4006937	0.00	170.70	223.92	520
WJ4006938	0.07	170.80	223.92	520
WJ4006959	0.45	178.75	223.93	442
WJ4008023	0.12	189.90	224.89	342
WJ4008156	0.45	190.55	224.88	336
WJ4008182	0.00	184.26	226.66	415
WJ4008231	0.18	188.97	225.62	358
WJ4008234	0.17	187.48	225.62	373
WJ4008236	1.56	186.87	225.71	380
WJ4008256	0.25	190.44	225.37	342
WJ4008263	0.23	188.98	225.54	358
WJ4008290	0.45	188.23	225.59	365
WJ4008317	0.00	184.58	226.67	412
WJ4008322	0.47	189.86	225.14	345
WJ4008331	0.93	190.58	225.37	340
WJ4008332	0.00	184.44	226.17	408
WJ4008389	1.09	184.60	226.17	407
WJ4008399	2.61	182.47	226.17	427
WJ4008433	7.84	180.12	226.07	449
WJ4008460	0.49	180.80	226.16	444
WJ4008473	0.12	180.84	226.18	443
WJ4008476	3.61	181.13	226.15	440
WJ4008477	0.00	181.09	226.15	441
WJ4008483	1.50	190.32	225.86	348

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4008497	0.14	181.18	226.16	440
WJ4008507	0.36	188.37	224.66	355
WJ4008551	0.12	188.23	225.59	365
WJ4008612	0.08	183.84	224.77	400
WJ4008614	0.24	183.08	224.78	408
WJ4008619	2.43	181.23	226.25	440
WJ4008623	0.25	185.00	224.83	389
WJ4008642	0.07	184.12	224.70	397
WJ4008646	0.25	185.30	224.63	385
WJ4008654	0.00	179.25	229.83	495
WJ4008657	0.00	179.12	229.85	496
WJ4008658	0.14	179.25	229.83	495
WJ4008659	0.00	179.31	229.86	494
WJ4008661	0.16	189.45	224.50	343
WJ4008662	0.30	188.02	224.50	357
WJ4008669	0.22	185.14	224.63	386
WJ4008673	0.10	183.40	224.70	404
WJ4008675	0.38	177.93	229.83	508
WJ4008677	1.85	177.92	229.83	508
WJ4008678	0.00	178.45	229.83	502
WJ4008690	0.10	178.50	229.83	502
WJ4008692	1.28	178.36	229.83	503
WJ4008712	2.24	183.60	226.38	418
WJ4008721	0.00	181.67	226.52	439
WJ4008733	1.41	181.68	226.64	440
WJ4008778	0.41	181.30	226.78	445
WJ4008815	0.63	184.75	226.90	412
WJ4008818	1.61	182.63	226.91	433
WJ4008830	0.00	182.17	227.06	439
WJ4008852	1.35	182.00	227.22	442
WJ4009045	0.06	188.84	224.47	348
WJ4009063	0.20	186.74	224.63	370
WJ4009181	0.16	174.73	229.85	539
WJ4009187	0.28	189.86	224.61	340
WJ4009276	0.36	188.75	224.53	350
WJ4009277	0.34	188.84	224.55	349
WJ4009335	0.33	190.24	224.65	337
WJ4009358	0.34	187.41	224.31	361
WJ4009359	0.20	187.32	224.31	362
WJ4009602	0.09	189.68	224.61	342
WJ4009615	0.11	187.50	224.57	363
WJ4009617	0.10	187.94	224.40	357
WJ4009674	0.19	187.99	224.17	354
WJ4009686	0.22	187.41	224.24	360
WJ4009700	0.26	188.99	224.31	345
WJ4009709	0.10	189.20	224.28	343
WJ4009713	0.33	188.32	224.27	352
WJ4009830	0.09	188.74	224.37	348
WJ4009849	0.20	188.55	224.34	350
WJ4009916	0.81	187.26	224.03	360
WJ4010217	0.20	185.43	227.69	413
WJ4010233	0.08	188.10	223.97	351
WJ4010236	0.70	183.15	227.59	435
WJ4010286	0.33	183.53	223.88	395
WJ4010295	0.46	177.41	223.89	454
WJ4010297	0.26	177.64	223.88	452
WJ4010304	0.13	176.88	223.88	460
WJ4010347	0.18	186.31	223.94	368
WJ4010352	0.09	183.83	223.93	392
WJ4010368	0.03	185.69	227.54	409
WJ4010376	0.38	185.63	223.90	374
WJ4010377	0.17	187.58	223.90	355
WJ4010389	0.28	187.58	223.88	355

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4010392	2.29	188.37	223.86	347
WJ4010410	0.00	185.89	227.62	408
WJ4010414	8.45	188.37	223.98	348
WJ4010416	0.00	187.82	223.98	354
WJ4010417	0.00	187.43	223.97	357
WJ4010421	1.43	184.20	223.94	389
WJ4010422	0.32	180.29	227.45	461
WJ4010424	0.65	187.50	223.93	356
WJ4010425	0.08	187.50	223.93	356
WJ4010429	2.07	185.13	223.93	379
WJ4010433	0.07	183.94	223.93	391
WJ4010440	0.46	185.48	223.90	376
WJ4010452	0.18	188.25	223.90	349
WJ4010467	0.23	184.76	227.63	419
WJ4010475	0.63	184.87	227.63	418
WJ4010476	0.32	188.95	223.89	342
WJ4010518	0.38	184.79	223.94	383
WJ4010521	0.62	182.81	223.89	402
WJ4010581	0.25	176.48	223.96	464
WJ4010583	0.07	176.45	223.96	465
WJ4010597	0.14	176.57	223.96	463
WJ4010614	0.00	176.54	223.96	464
WJ4010705	0.51	184.10	227.63	426
WJ4010721	2.60	183.78	227.63	429
WJ4010917	1.18	182.74	227.61	439
WJ4010931	0.13	184.57	227.63	421
WJ4010946	0.05	182.58	227.63	441
WJ4011011	0.75	182.11	227.78	447
WJ4011139	0.54	173.98	227.45	523
WJ4011189	0.26	170.62	227.45	556
WJ4011289	0.18	173.75	229.83	548
WJ4011303	0.54	175.10	229.83	535
WJ4011304	0.13	175.31	229.83	533
WJ4011305	0.26	175.44	229.83	532
WJ4011378	0.32	182.17	227.50	443
WJ4011382	0.90	182.19	227.56	444
WJ4011387	0.32	180.40	227.58	461
WJ4011390	0.35	179.62	227.58	469
WJ4011399	0.19	177.87	227.58	486
WJ4011401	0.34	176.79	227.58	497
WJ4011411	0.22	181.86	227.58	447
WJ4011449	1.25	182.90	227.60	437
WJ4011452	0.39	182.76	227.61	439
WJ4011454	0.28	182.61	227.63	440
WJ4011458	1.83	182.46	227.66	442
WJ4011476	1.73	182.30	227.70	444
WJ4011479	0.42	182.16	227.76	446
WJ4011482	0.41	182.01	227.84	448
WJ4011486	3.07	181.85	227.94	451
WJ4011579	0.41	179.34	227.62	472
WJ4011582	0.00	179.25	227.62	473
WJ4011622	0.60	179.46	227.55	470
WJ4011632	0.50	180.09	227.54	464
WJ4011634	0.18	180.15	227.54	463
WJ4011663	0.32	180.75	227.92	461
WJ4011671	0.00	179.27	227.60	473
WJ4011676	0.25	178.67	227.60	479
WJ4011677	0.09	176.00	227.58	504
WJ4011680	0.45	179.49	227.71	472
WJ4011683	0.63	179.89	227.79	468
WJ4011763	0.13	181.16	227.88	457
WJ4011782	0.03	180.23	227.82	465
WJ4011806	0.64	179.72	227.54	468

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4011815	0.58	179.50	227.52	470
WJ4011848	0.48	178.34	227.50	481
WJ4011859	0.57	177.09	227.48	493
WJ4011870	0.58	175.84	227.47	505
WJ4011876	0.59	175.39	227.45	509
WJ4011930	0.13	183.41	223.95	396
WJ4011936	0.16	181.44	223.95	416
WJ4011938	0.16	182.53	223.95	405
WJ4011947	0.48	174.49	227.45	518
WJ4011969	0.43	182.49	223.93	405
WJ4011971	0.16	182.41	223.93	406
WJ4011981	0.11	181.06	223.93	419
WJ4011989	0.49	181.16	227.58	454
WJ4012031	0.59	181.54	223.92	414
WJ4012036	0.48	180.48	223.92	425
WJ4012072	0.60	180.28	223.92	427
WJ4012074	0.42	182.18	223.92	408
WJ4012081	0.54	182.32	223.92	407
WJ4012183	0.50	182.82	223.93	402
WJ4012185	0.33	183.10	223.93	399
WJ4012257	0.37	181.27	223.92	417
WJ4012259	0.30	184.65	223.95	384
WJ4012266	0.23	181.46	223.95	416
WJ4012268	0.21	184.70	223.95	384
WJ4012384	0.31	187.93	224.06	353
WJ4012385	0.00	187.83	224.06	354
WJ4012398	0.82	180.67	223.99	424
WJ4012399	0.41	181.91	223.98	411
WJ4012402	0.20	191.56	224.22	319
WJ4012562	9.83	191.27	224.07	321
WJ4012588	0.09	188.35	224.10	350
WJ4012852	2.06	191.26	224.07	321
WJ4012992	0.20	184.91	224.44	387
WJ4012994	0.50	186.56	224.40	370
WJ4012997	0.06	187.18	224.38	364
WJ4013001	0.23	187.81	224.36	357
WJ4013049	0.78	187.62	224.38	359
WJ4013050	0.08	188.39	224.29	351
WJ4013052	0.06	173.42	224.76	502
WJ4013060	0.00	189.07	224.24	344
WJ4013089	0.13	191.37	224.23	321
WJ4013093	0.43	190.45	224.22	330
WJ4013101	0.00	190.30	224.22	332
WJ4013102	0.00	190.04	224.23	334
WJ4013109	0.25	191.19	224.22	323
WJ4013114	0.00	191.06	224.22	324
WJ4013116	0.03	190.86	224.22	326
WJ4013120	5.46	190.85	224.23	326
WJ4013138	0.58	190.42	224.39	332
WJ4013221	0.03	173.64	224.61	498
WJ4013243	0.22	173.92	224.38	494
WJ4013245	0.08	174.11	224.37	492
WJ4013246	0.37	173.98	224.33	492
WJ4013252	0.19	173.81	224.31	494
WJ4013256	0.19	171.81	224.33	514
WJ4013268	0.18	174.14	224.34	491
WJ4013271	0.21	183.94	224.49	397
WJ4013272	0.19	183.95	224.49	397
WJ4013274	0.11	173.90	224.31	493
WJ4013283	0.30	172.68	224.29	505
WJ4013287	0.29	171.70	224.28	514
WJ4013299	0.21	171.47	224.28	516
WJ4013322	0.34	171.44	224.28	517

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4013337	0.21	186.67	224.25	367
WJ4013338	0.51	170.86	224.27	522
WJ4013339	0.28	183.90	224.36	396
WJ4013340	0.55	181.86	224.43	416
WJ4013346	0.44	181.00	224.48	425
WJ4013348	0.02	170.58	224.27	525
WJ4013361	0.33	170.11	224.27	530
WJ4013362	0.02	169.77	224.27	533
WJ4013382	0.18	171.45	224.28	517
WJ4013383	0.28	171.22	224.28	519
WJ4013414	0.11	170.04	224.27	530
WJ4013416	0.10	170.07	224.18	529
WJ4013418	0.42	170.14	224.17	528
WJ4013433	0.11	179.40	224.11	437
WJ4013443	0.27	173.00	224.10	500
WJ4013444	0.37	172.19	224.12	508
WJ4013455	0.07	180.71	224.11	424
WJ4013457	0.35	171.03	224.12	519
WJ4013458	0.09	170.96	224.12	520
WJ4013468	0.10	169.77	224.12	532
WJ4013470	0.38	169.88	224.12	530
WJ4013482	0.47	175.03	223.99	479
WJ4013490	0.02	178.02	224.19	452
WJ4013511	0.46	175.41	223.95	475
WJ4013512	0.47	171.57	223.99	513
WJ4013513	0.86	182.94	224.18	403
WJ4013517	0.04	179.90	224.29	434
WJ4013519	0.19	171.58	224.30	516
WJ4013520	0.10	171.57	224.30	516
WJ4013523	0.13	170.20	224.29	529
WJ4013528	0.02	170.30	224.31	528
WJ4013530	0.53	171.04	224.20	520
WJ4013538	0.59	175.83	223.95	471
WJ4013548	0.19	175.99	223.95	469
WJ4013704	0.69	173.84	224.33	494
WJ4013756	0.19	176.79	224.05	462
WJ4013827	0.31	177.73	224.13	454
WJ4013831	0.34	177.18	224.23	460
WJ4013852	0.41	174.93	224.55	485
WJ4013861	0.43	173.95	224.64	496
WJ4014248	0.13	176.80	224.39	465
WJ4014259	0.07	175.84	224.62	477
WJ4014260	0.21	175.10	224.74	485
WJ4014458	0.00	149.65	225.15	738
WJ4014459	1.56	170.24	224.05	526
WJ4014473	1.44	168.59	224.04	542
WJ4014474	0.95	168.21	224.04	546
WJ4014475	0.08	168.15	224.04	547
WJ4014481	0.14	175.54	224.92	483
WJ4014490	0.20	176.28	224.91	476
WJ4014496	0.11	174.57	224.91	492
WJ4014580	0.13	173.63	224.98	502
WJ4014588	0.06	175.08	224.98	488
WJ4014606	0.26	175.83	224.79	479
WJ4014623	0.11	168.24	224.03	546
WJ4014624	0.14	167.77	224.04	550
WJ4014701	0.34	167.31	224.03	555
WJ4014711	0.27	167.33	224.01	554
WJ4014719	0.23	168.83	223.97	539
WJ4014721	0.31	169.75	223.90	530
WJ4014757	0.29	170.13	223.97	527
WJ4014763	0.41	168.43	223.99	543
WJ4014820	0.26	167.58	223.90	551

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4014848	0.00	165.29	223.90	573
WJ4014873	0.40	166.79	223.90	559
WJ4014985	0.24	176.77	224.76	469
WJ4015007	0.54	175.76	224.87	480
WJ4015051	1.93	175.41	223.93	474
WJ4015172	0.22	171.85	224.02	510
WJ4015177	0.00	171.48	224.02	514
WJ4015178	0.16	171.48	224.02	514
WJ4015228	0.00	170.70	224.02	521
WJ4015229	0.00	170.70	224.02	521
WJ4015238	0.00	169.87	224.02	530
WJ4015239	0.00	169.81	224.02	530
WJ4015255	0.00	169.81	224.02	530
WJ4015256	0.00	169.80	224.02	530
WJ4015259	0.23	169.00	224.02	538
WJ4015272	0.14	173.20	225.02	507
WJ4015278	0.13	167.70	224.01	551
WJ4015279	0.14	170.71	224.02	521
WJ4015284	0.54	170.44	224.01	524
WJ4015289	0.73	170.59	224.01	522
WJ4015293	0.15	173.75	225.02	501
WJ4015305	0.19	178.68	224.75	451
WJ4015317	0.66	179.54	225.11	446
WJ4015324	0.38	178.31	225.37	460
WJ4015331	0.27	179.94	225.47	445
WJ4015332	0.19	171.53	224.02	513
WJ4015339	1.27	172.38	224.02	505
WJ4015345	0.23	179.87	225.61	447
WJ4015346	0.13	179.88	225.60	447
WJ4015355	4.01	175.03	224.01	479
WJ4015383	0.51	179.01	225.85	458
WJ4015473	0.23	181.25	223.98	418
WJ4015480	0.31	186.28	224.79	377
WJ4015497	0.21	185.33	225.19	390
WJ4015499	0.19	184.38	225.19	399
WJ4015576	0.05	164.91	224.03	578
WJ4015578	0.29	179.32	223.94	436
WJ4015587	0.45	178.44	223.94	445
WJ4015621	1.60	173.10	224.09	499
WJ4015640	0.41	179.59	223.95	434
WJ4015733	0.20	176.17	223.96	467
WJ4015741	0.12	176.75	223.97	462
WJ4015745	0.12	175.73	223.98	472
WJ4015766	0.10	181.90	224.00	412
WJ4015768	0.11	180.35	224.00	427
WJ4015775	0.18	181.17	223.99	419
WJ4015778	0.20	181.52	223.97	415
WJ4015780	0.52	176.77	224.27	465
WJ4015789	0.63	183.64	224.56	400
WJ4015822	0.33	168.21	224.03	546
WJ4015851	0.71	184.16	224.59	395
WJ4015863	0.23	167.30	224.03	555
WJ4015882	0.14	179.10	224.40	443
WJ4015904	0.02	167.75	224.03	550
WJ4015943	0.00	174.80	224.10	482
WJ4016055	0.26	176.79	223.97	461
WJ4016056	0.24	176.74	223.97	462
WJ4016125	0.17	174.52	223.98	484
WJ4016135	0.36	173.42	223.98	494
WJ4016147	0.23	175.28	223.98	476
WJ4016175	0.08	175.01	224.00	479
WJ4016204	0.46	190.55	225.62	343
WJ4016211	1.25	191.26	225.57	336

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4016216	1.33	191.84	225.48	329
WJ4016244	0.42	190.36	225.26	341
WJ4016258	0.26	190.95	225.26	336
WJ4016261	0.23	190.07	225.23	344
WJ4016330	0.21	189.63	225.20	348
WJ4016341	0.05	175.20	224.18	479
WJ4016342	0.18	186.43	224.97	377
WJ4016349	0.22	186.59	224.95	375
WJ4016357	0.20	175.32	224.13	477
WJ4016358	13.47	174.84	224.10	482
WJ4016359	2.66	175.17	224.10	478
WJ4016370	0.40	186.32	224.98	378
WJ4016374	0.46	182.55	224.78	413
WJ4016387	0.16	190.39	225.50	343
WJ4016388	1.18	175.60	224.73	480
WJ4016389	0.19	176.04	224.73	476
WJ4016393	0.28	175.48	224.73	482
WJ4016398	0.24	176.77	224.73	469
WJ4016401	0.17	189.92	225.72	350
WJ4016402	1.08	176.92	224.73	468
WJ4016405	0.32	188.45	225.72	364
WJ4016413	0.42	192.12	225.33	325
WJ4016425	0.43	190.57	225.34	340
WJ4016440	3.16	172.14	224.06	508
WJ4016445	0.09	188.50	225.83	365
WJ4016519	0.51	179.73	224.23	435
WJ4016532	0.35	181.32	224.55	423
WJ4016534	0.40	184.13	224.37	393
WJ4016558	0.12	182.80	224.73	410
WJ4016582	0.00	188.53	225.83	365
WJ4016583	0.04	188.50	225.83	365
WJ4016587	0.37	187.00	225.83	380
WJ4016591	0.13	183.82	225.86	411
WJ4016597	0.11	182.22	225.90	427
WJ4016605	0.10	179.49	225.98	455
WJ4016614	0.31	176.75	224.08	463
WJ4016638	0.00	179.40	225.98	456
WJ4016683	0.27	185.37	225.61	394
WJ4016685	0.16	184.64	225.59	400
WJ4016686	0.35	184.39	225.77	405
WJ4016689	0.31	182.86	225.77	420
WJ4016701	0.12	188.56	224.93	356
WJ4016704	0.32	175.25	224.01	477
WJ4016719	0.00	172.84	224.06	501
WJ4016727	0.03	170.21	224.06	527
WJ4016730	0.39	186.01	224.82	380
WJ4016732	0.06	186.00	224.82	380
WJ4016735	0.49	181.76	224.59	419
WJ4016749	3.84	170.32	224.07	526
WJ4016750	0.09	170.07	224.06	528
WJ4016785	5.12	170.29	224.06	526
WJ4016786	0.07	170.32	224.06	526
WJ4016793	0.00	171.10	224.07	518
WJ4016803	0.44	181.19	224.52	424
WJ4016809	0.23	168.59	224.03	542
WJ4016826	0.42	188.42	224.95	357
WJ4016832	0.28	182.14	224.51	414
WJ4016834	0.30	181.82	224.49	417
WJ4016839	0.36	179.91	224.39	435
WJ4016842	0.32	182.41	224.59	413
WJ4016861	0.03	186.76	224.93	373
WJ4016912	0.00	167.98	224.03	548
WJ4017039	0.12	182.61	223.89	404

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4017077	6.84	178.51	229.82	502
WJ4017078	1.48	178.22	229.82	505
WJ4017083	0.25	170.90	224.06	520
WJ4017087	10.54	173.30	224.05	496
WJ4017092	1.21	173.10	224.04	498
WJ4017150	0.46	173.07	223.92	497
WJ4017159	0.48	185.99	224.79	379
WJ4017170	0.02	177.58	225.37	467
WJ4017178	0.34	151.64	225.15	719
WJ4017187	0.00	168.28	223.92	544
WJ4017191	0.15	172.88	223.92	499
WJ4017192	0.19	177.06	223.92	458
WJ4017198	0.39	181.87	223.92	411
WJ4017209	0.29	191.28	224.07	321
WJ4017210	0.28	190.14	224.02	331
WJ4017212	0.24	191.28	224.07	321
WJ4017220	0.04	172.60	225.02	513
WJ4017229	13.61	191.21	224.07	321
WJ4017282	0.00	187.52	223.97	356
WJ4017284	0.76	180.24	223.89	427
WJ4017287	0.10	177.23	223.88	456
WJ4017292	0.53	190.64	223.89	325
WJ4017315	0.09	190.26	224.66	336
WJ4017333	0.50	186.69	223.96	364
WJ4017357	0.34	188.51	224.82	355
WJ4017359	0.39	191.34	223.76	317
WJ4017373	0.50	157.84	223.76	645
WJ4017447	0.00	175.03	223.80	477
WJ4017479	0.15	186.35	223.86	367
WJ4017495	0.06	183.40	223.83	395
WJ4017533	0.17	187.53	225.91	375
WJ4017546	0.44	188.97	225.70	359
WJ4017555	0.37	188.77	225.01	354
WJ4017556	0.13	190.27	225.01	340
WJ4017585	0.22	189.30	224.31	342
WJ4017587	0.13	188.00	224.40	356
WJ4017590	0.17	187.68	224.40	359
WJ4017629	0.14	189.71	224.61	341
WJ4017630	0.07	179.27	227.62	473
WJ4017639	0.02	188.22	225.89	368
WJ4017666	0.56	188.60	223.91	345
WJ4017691	0.20	187.92	223.96	352
WJ4017695	0.84	185.99	223.95	371
WJ4017698	0.47	185.77	227.23	405
WJ4017702	0.38	177.59	223.96	453
WJ4017733	0.24	169.41	224.04	534
WJ4017734	0.51	184.65	223.95	384
WJ4017736	0.48	169.06	224.02	537
WJ4017738	0.45	170.11	224.02	527
WJ4017740	0.59	184.85	223.95	382
WJ4017741	0.52	186.25	223.95	369
WJ4017742	0.64	185.06	224.76	388
WJ4017743	0.66	169.11	224.02	537
WJ4017748	0.62	186.75	224.77	372
WJ4017749	0.35	169.42	224.03	534
WJ4017750	0.54	186.69	224.78	373
WJ4017751	0.55	169.41	224.03	534
WJ4017752	0.26	168.03	224.03	548
WJ4017753	0.20	167.33	224.03	554
WJ4017755	0.56	186.64	224.80	373
WJ4017756	0.43	178.81	224.40	446
WJ4017758	0.36	179.51	224.39	439
WJ4017759	0.53	185.85	225.11	384

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4017763	0.40	172.83	224.02	501
WJ4017764	0.50	172.97	224.01	499
WJ4017766	0.36	189.91	223.81	332
WJ4017768	0.10	174.39	223.98	485
WJ4017772	1.74	186.34	224.90	377
WJ4017774	0.67	186.74	224.49	369
WJ4017775	0.43	172.38	224.01	505
WJ4017777	0.66	176.25	224.01	467
WJ4017778	4.74	176.37	224.09	467
WJ4017780	0.40	180.89	224.00	422
WJ4017781	0.50	177.82	224.00	452
WJ4017782	0.40	177.14	224.00	458
WJ4017783	0.47	178.73	224.00	443
WJ4017784	0.50	179.29	224.00	437
WJ4017785	0.39	179.98	224.00	430
WJ4017786	0.22	187.24	224.18	361
WJ4017787	0.40	190.96	224.33	326
WJ4017788	0.39	180.44	224.01	426
WJ4017793	0.47	178.61	224.40	448
WJ4017794	1.24	188.18	223.98	350
WJ4017795	0.00	186.81	223.94	363
WJ4017869	0.02	176.77	223.91	461
WJ4017888	0.09	189.74	224.96	344
WJ4017890	0.00	189.47	226.48	362
WJ4017897	3.65	188.30	224.88	358
WJ4017902	3.29	190.08	225.23	344
WJ4017904	0.08	189.02	224.63	348
WJ4017905	0.39	189.23	224.65	346
WJ4017907	0.99	189.85	224.60	340
WJ4017912	0.57	188.15	224.52	356
WJ4017916	1.25	188.06	224.52	357
WJ4017917	0.42	188.36	224.50	353
WJ4017927	5.43	171.70	223.84	510
WJ4017928	7.66	173.00	223.84	497
WJ4017965	0.00	188.33	226.15	370
WJ4017972	0.12	187.65	226.10	376
WJ4017976	0.00	187.64	226.04	376
WJ4017999	0.00	172.45	223.87	503
WJ4018000	0.00	173.01	223.86	497
WJ4018001	0.00	174.15	223.86	486
WJ4018002	0.00	174.16	223.88	486
WJ4018003	0.00	187.22	226.19	381
WJ4018021	0.12	189.68	224.14	337
WJ4018024	0.32	186.66	224.00	365
WJ4018048	0.00	181.11	229.21	470
WJ4018049	0.09	175.42	223.93	474
WJ4018053	0.00	175.44	223.93	474
WJ4018054	0.00	175.41	223.93	474
WJ4018055	0.00	181.12	229.21	470
WJ4018056	0.00	192.09	223.89	311
WJ4018057	0.00	175.45	223.93	474
WJ4018067	0.20	194.66	223.75	284
WJ4018068	0.00	194.70	223.75	284
WJ4018072	0.74	174.14	223.88	486
WJ4018090	0.00	179.43	229.83	493
WJ4018098	1.67	178.50	229.83	502
WJ4018101	0.00	177.93	229.84	508
WJ4018106	0.12	176.88	229.84	518
WJ4018109	0.00	177.44	229.84	512
WJ4018110	0.00	176.94	229.84	517
WJ4018111	0.00	176.87	229.84	518
WJ4018113	0.07	176.00	229.84	527
WJ4018115	0.00	171.87	229.86	567

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4018117	0.00	172.11	229.86	565
WJ4018123	0.00	171.92	229.86	567
WJ4018131	0.25	170.50	223.87	522
WJ4018132	0.00	171.94	229.86	567
WJ4018133	0.00	171.86	229.87	567
WJ4018134	0.00	171.54	229.86	570
WJ4018141	1.24	170.89	229.82	576
WJ4018142	0.00	170.38	229.86	582
WJ4018143	0.00	169.95	229.86	586
WJ4018148	0.02	150.90	223.85	713
WJ4018159	0.33	153.62	223.85	687
WJ4018166	0.42	182.39	223.86	406
WJ4018168	0.13	173.25	223.95	496
WJ4018169	0.00	175.02	223.80	477
WJ4018170	0.18	175.06	223.80	477
WJ4018176	0.25	169.55	224.04	533
WJ4018177	0.38	169.50	224.04	533
WJ4018179	0.00	169.90	224.03	529
WJ4018180	0.00	170.28	224.03	526
WJ4018183	0.17	179.68	223.85	432
WJ4018184	0.19	169.98	224.03	529
WJ4018186	0.00	171.42	224.02	514
WJ4018188	0.00	171.41	224.02	515
WJ4018191	0.03	171.47	224.02	514
WJ4018192	0.13	171.47	224.02	514
WJ4018199	0.34	174.48	223.83	483
WJ4018209	0.27	179.19	223.95	438
WJ4018216	0.19	178.52	223.95	444
WJ4018217	0.72	182.07	223.89	409
WJ4018221	0.00	172.54	229.86	561
WJ4018229	0.00	171.89	229.86	567
WJ4018260	0.32	178.12	223.88	447
WJ4018263	0.27	180.02	223.88	429
WJ4018264	0.14	177.07	223.88	458
WJ4018269	0.21	175.20	223.88	476
WJ4018280	0.45	173.15	223.91	496
WJ4018282	0.27	181.47	223.91	415
WJ4018289	0.04	189.82	224.50	339
WJ4018306	0.00	177.20	226.13	478
WJ4018307	2.60	176.86	226.14	482
WJ4018313	4.05	176.57	224.08	465
WJ4018314	2.84	174.22	224.07	488
WJ4018315	0.00	174.13	224.07	488
WJ4018316	2.25	172.34	224.07	506
WJ4018317	0.00	172.08	224.07	508
WJ4018318	8.06	170.79	224.07	521
WJ4018321	0.00	179.26	226.14	458
WJ4018325	5.88	180.50	226.12	446
WJ4018326	0.02	173.51	224.07	495
WJ4018328	0.19	174.18	224.07	488
WJ4018341	0.02	172.70	226.13	523
WJ4018342	0.00	170.26	226.13	546
WJ4018352	0.20	172.13	224.07	508
WJ4018393	2.97	180.81	226.15	443
WJ4018400	0.00	173.01	226.12	519
WJ4018417	0.07	173.23	226.10	517
WJ4018439	1.20	186.95	225.05	373
WJ4018440	0.15	186.96	225.05	372
WJ4018443	0.01	185.21	224.95	389
WJ4018445	0.00	185.19	224.95	389
WJ4018446	0.56	185.13	224.95	389
WJ4018447	0.00	185.15	224.95	389
WJ4018448	0.02	185.25	224.95	388

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4018450	0.32	188.19	225.10	361
WJ4018451	4.30	171.31	224.07	516
WJ4018452	0.30	189.63	225.17	348
WJ4018453	0.35	190.43	225.23	340
WJ4018454	0.08	191.81	225.33	328
WJ4018455	0.06	192.20	225.38	324
WJ4018456	0.00	191.18	225.49	335
WJ4018457	1.73	190.18	225.65	347
WJ4018459	0.12	171.22	224.06	517
WJ4018460	2.38	171.72	224.07	512
WJ4018461	0.00	171.59	224.07	513
WJ4018462	0.00	171.52	224.07	514
WJ4018463	0.00	190.54	225.83	345
WJ4018464	0.00	190.57	225.82	345
WJ4018465	0.00	188.69	225.84	363
WJ4018467	2.82	190.72	225.83	343
WJ4018471	0.00	190.47	225.83	346
WJ4018472	0.00	188.99	225.83	360
WJ4018473	0.00	171.50	224.06	514
WJ4018476	0.00	171.50	224.06	514
WJ4018480	0.07	171.26	224.06	516
WJ4018482	0.20	189.75	224.78	343
WJ4018513	2.41	188.34	226.15	370
WJ4018514	0.00	188.35	226.15	370
WJ4018524	0.95	174.36	224.08	486
WJ4018532	0.00	178.62	224.08	445
WJ4018533	0.00	178.87	224.08	442
WJ4018534	0.00	178.28	224.08	448
WJ4018542	0.90	175.17	224.10	478
WJ4018575	8.57	180.19	224.08	429
WJ4018583	0.24	184.79	225.60	399
WJ4018586	4.47	187.48	224.10	358
WJ4018588	8.92	187.58	224.08	357
WJ4018604	0.00	176.64	223.93	462
WJ4018605	0.00	178.84	223.93	441
WJ4018633	0.32	182.60	224.78	412
WJ4018634	0.53	181.48	224.63	422
WJ4018635	0.09	185.09	224.95	390
WJ4018862	0.00	185.72	227.72	411
WJ4018863	0.26	185.76	227.72	410
WJ4018874	0.02	185.73	227.72	411
WJ4018876	0.04	185.71	227.72	411
WJ4019063	0.05	168.36	229.83	601
WJ4019076	0.24	178.36	223.86	445
WJ4019077	0.04	178.81	223.87	441
WJ4019082	0.00	182.58	223.89	404
WJ4019278	0.05	191.32	225.06	330
WJ4019280	4.25	191.39	225.05	329
WJ4019295	0.12	175.95	224.00	470
WJ4019296	0.37	175.37	224.00	476
WJ4019306	0.37	171.28	224.02	516
WJ4019314	0.27	168.77	224.02	540
WJ4019316	0.34	168.48	224.02	543
WJ4019318	3.41	170.83	223.87	519
WJ4019320	0.21	182.56	223.90	404
WJ4019325	0.44	169.10	223.88	536
WJ4019326	0.40	168.57	223.87	541
WJ4019328	5.01	191.58	224.07	318
WJ4019334	0.07	191.01	224.06	323
WJ4019335	0.39	191.30	224.06	320
WJ4019344	1.61	182.75	224.56	409
WJ4019371	3.03	173.61	224.14	494
WJ4019383	0.06	175.11	223.98	478

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4019386	0.36	174.44	223.98	484
WJ4019398	0.03	171.66	224.28	515
WJ4019399	0.00	168.58	224.04	542
WJ4019415	0.22	187.23	224.81	367
WJ4019456	0.37	187.05	224.00	361
WJ4019463	0.44	186.64	224.12	367
WJ4019472	0.41	186.51	224.14	368
WJ4019556	0.00	186.36	225.99	387
WJ4019562	0.41	188.52	224.89	356
WJ4019567	0.16	189.23	224.50	345
WJ4019572	0.33	186.94	224.22	365
WJ4019575	0.49	188.39	224.03	349
WJ4019589	0.37	185.79	224.84	382
WJ4019594	0.24	182.65	225.30	417
WJ4019600	0.40	186.39	225.60	384
WJ4019603	0.47	187.39	225.61	374
WJ4019608	0.84	179.57	224.29	437
WJ4019610	0.74	178.88	224.29	444
WJ4019612	0.40	176.57	224.28	467
WJ4019614	0.44	177.23	224.28	460
WJ4019616	0.35	177.60	224.19	456
WJ4019619	0.43	176.14	224.18	470
WJ4019624	0.79	180.80	224.08	423
WJ4019626	3.46	187.07	224.09	362
WJ4019628	0.30	188.65	224.11	347
WJ4019630	8.95	190.11	224.11	333
WJ4019634	0.47	189.39	224.03	339
WJ4019636	0.77	189.06	224.03	342
WJ4019637	0.80	187.87	224.02	354
WJ4019639	0.34	185.05	224.01	381
WJ4019643	0.82	183.07	224.00	400
WJ4019644	0.39	182.15	224.01	409
WJ4019651	0.57	182.35	224.00	407
WJ4019654	0.28	181.44	223.98	416
WJ4019656	0.30	184.50	223.98	386
WJ4019658	0.42	185.39	223.98	377
WJ4019660	0.45	186.46	223.98	367
WJ4019665	0.57	189.11	223.97	341
WJ4019673	0.88	186.04	223.93	371
WJ4019675	0.89	185.60	223.93	375
WJ4019677	0.78	184.03	223.93	390
WJ4019680	0.53	182.65	223.93	404
WJ4019682	0.57	184.12	223.93	389
WJ4019684	0.25	179.78	223.93	432
WJ4019685	0.55	181.55	223.93	414
WJ4019687	0.62	182.70	223.92	403
WJ4019700	0.44	174.91	224.01	480
WJ4019709	0.53	178.30	224.00	447
WJ4019711	0.53	180.00	224.00	430
WJ4019724	0.24	173.29	224.76	503
WJ4019726	0.39	174.43	224.73	492
WJ4019733	0.41	175.36	224.57	481
WJ4019734	0.67	176.38	224.37	469
WJ4019735	0.62	179.35	224.25	439
WJ4019736	0.33	175.39	224.35	479
WJ4019737	0.20	173.57	224.61	499
WJ4019738	0.83	173.75	224.33	495
WJ4019741	0.81	176.83	224.12	462
WJ4019746	0.78	175.85	224.11	472
WJ4019760	0.41	181.40	223.99	417
WJ4019761	0.67	172.21	224.31	510
WJ4019762	0.62	173.33	224.31	499
WJ4019765	0.44	170.78	224.28	523

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4019766	0.56	180.17	223.99	429
WJ4019767	0.50	181.61	223.99	415
WJ4019768	0.54	179.30	223.99	437
WJ4019772	0.65	184.20	225.11	400
WJ4019773	0.65	181.67	225.12	425
WJ4019775	0.69	176.32	224.27	469
WJ4019777	0.63	176.77	224.27	465
WJ4019781	0.64	181.77	224.56	418
WJ4019782	0.44	179.17	224.55	444
WJ4019783	0.41	185.63	224.37	379
WJ4019786	0.56	177.52	223.99	454
WJ4019788	0.26	177.25	223.99	457
WJ4019789	0.49	180.78	224.23	425
WJ4019790	0.40	182.59	226.25	427
WJ4019792	0.01	175.60	224.14	475
WJ4019795	0.21	181.79	224.23	415
WJ4019796	0.19	186.73	224.36	368
WJ4019798	0.27	175.07	224.00	478
WJ4019803	0.40	176.09	224.00	468
WJ4019805	0.32	177.35	224.55	462
WJ4019806	0.36	176.64	224.56	469
WJ4019808	0.31	183.82	224.36	396
WJ4019809	0.44	181.48	224.22	418
WJ4019812	0.00	184.60	226.25	407
WJ4019815	0.49	176.75	224.05	463
WJ4019817	0.40	179.75	224.02	433
WJ4019818	0.54	178.33	224.02	447
WJ4019819	0.47	175.74	224.04	472
WJ4019820	0.52	176.32	223.99	466
WJ4019822	0.43	174.98	224.04	480
WJ4019826	0.38	176.26	224.02	467
WJ4019829	0.44	174.46	224.01	485
WJ4019834	0.41	173.72	224.04	492
WJ4019838	0.48	178.45	223.98	445
WJ4019841	0.35	178.70	223.98	443
WJ4019842	0.36	176.83	224.01	461
WJ4019845	0.33	178.99	223.98	440
WJ4019846	0.33	184.18	226.35	412
WJ4019848	0.22	172.38	224.03	505
WJ4019851	0.56	179.20	223.98	438
WJ4019852	0.79	171.15	224.03	517
WJ4019855	0.41	180.02	223.96	430
WJ4019856	0.56	175.80	224.01	472
WJ4019862	0.52	173.94	224.01	490
WJ4019865	0.48	177.11	223.97	458
WJ4019873	0.35	170.29	224.03	526
WJ4019876	0.33	185.68	226.78	402
WJ4019908	0.42	176.41	223.97	465
WJ4019914	0.45	177.37	223.96	456
WJ4019916	0.36	176.88	223.96	460
WJ4019918	0.42	177.11	223.96	458
WJ4019991	0.50	181.07	227.59	455
WJ4019994	0.39	180.69	227.60	459
WJ4019995	0.04	185.82	227.72	410
WJ4019996	0.51	180.31	227.61	463
WJ4020002	0.09	185.35	227.65	414
WJ4020003	0.40	180.39	227.84	464
WJ4020007	0.39	180.01	227.52	465
WJ4020013	0.08	185.00	227.64	417
WJ4020213	0.39	185.99	224.15	373
WJ4020220	0.39	175.12	223.76	476
WJ4020222	0.18	181.58	223.76	412
WJ4020225	0.48	195.00	223.76	281

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4020227	0.48	194.13	223.76	290
WJ4020229	0.92	191.07	223.89	321
WJ4020259	0.26	174.69	223.92	481
WJ4020263	0.58	180.62	223.92	423
WJ4020264	7.47	173.40	225.04	505
WJ4020265	0.01	173.28	225.02	506
WJ4020266	0.10	173.00	225.01	509
WJ4020267	0.19	174.59	224.99	493
WJ4020268	0.19	174.93	224.96	489
WJ4020269	0.19	175.11	224.96	488
WJ4020274	1.46	170.04	225.72	545
WJ4020275	0.00	148.82	225.51	750
WJ4020278	0.04	148.53	225.51	753
WJ4020423	0.05	183.97	227.64	427
WJ4020596	0.17	183.50	227.64	432
WJ4020598	0.45	183.11	227.64	436
WJ4020599	2.23	182.80	227.65	439
WJ4020703	0.53	177.03	223.93	459
WJ4020704	0.48	178.99	223.93	439
WJ4020715	0.04	182.34	228.16	448
WJ4020716	0.09	182.32	228.16	448
WJ4020717	0.44	181.97	228.12	451
WJ4020722	6.55	191.19	224.07	322
WJ4020727	0.00	177.10	223.91	458
WJ4020729	0.00	181.42	228.16	457
WJ4020730	0.00	176.87	223.91	460
WJ4020732	0.38	181.58	228.13	455
WJ4020738	0.26	182.54	228.06	445
WJ4020739	0.07	182.55	228.06	445
WJ4020740	0.13	182.85	228.06	442
WJ4020741	1.95	187.50	224.10	358
WJ4020828	3.35	187.49	223.93	356
WJ4020832	3.03	182.06	223.90	409
WJ4020853	0.15	183.64	228.09	435
WJ4020856	0.61	181.23	223.89	417
WJ4020858	0.29	183.19	228.08	439
WJ4020862	1.14	182.34	227.99	446
WJ4020863	0.16	182.87	228.10	442
WJ4020864	2.23	181.95	227.26	443
WJ4020865	0.75	178.32	227.26	479
WJ4020867	0.38	182.66	228.09	444
WJ4020882	0.11	181.94	227.89	449
WJ4020967	0.02	185.67	226.77	402
WJ4020969	0.27	184.56	226.25	408
WJ4020971	0.54	179.60	227.53	469
WJ4020978	0.45	180.30	227.50	462
WJ4020979	0.07	180.22	227.49	462
WJ4020980	0.35	185.65	227.47	409
WJ4020981	0.23	180.08	227.49	464
WJ4020984	0.48	178.98	227.47	474
WJ4020987	0.49	177.61	227.45	487
WJ4021011	0.46	176.16	227.45	502
WJ4021023	0.16	172.38	227.45	539
WJ4021044	0.31	175.87	229.84	528
WJ4021047	0.00	176.06	229.84	526
WJ4021076	0.00	172.98	224.10	500
WJ4021126	0.14	189.65	224.70	343
WJ4021144	0.13	174.17	224.02	487
WJ4021189	0.19	168.95	229.83	595
WJ4021233	0.00	178.49	229.83	502
WJ4021261	0.00	179.35	226.13	457
WJ4022762	0.00	180.31	229.45	481
WJ4022764	0.04	181.24	228.74	465

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4022778	0.28	180.57	227.51	459
WJ4022800	0.00	178.77	229.87	500
WJ4022803	0.18	175.82	223.94	471
WJ4022804	0.00	178.85	229.83	499
WJ4023042	0.41	178.85	224.88	450
WJ4023043	0.16	176.05	224.91	478
WJ4023052	0.00	189.03	225.81	360
WJ4023053	0.00	190.55	225.83	345
WJ4023055	0.00	168.39	226.14	565
WJ4023063	0.05	179.40	224.00	436
WJ4024064	0.13	164.33	223.86	582
WJ4024315	0.05	172.97	223.87	498
WJ4026374	1.05	181.93	224.74	419
WJ4037574	0.00	174.33	223.86	484
WJ4037577	7.14	174.34	223.86	484
WJ4037578	0.00	174.34	223.86	484
WJ4037579	0.00	174.15	223.87	486
WJ4037618	0.00	174.31	223.85	484
WJ4037619	0.00	174.31	223.85	484
WJ4037620	0.00	174.32	223.85	484
WJ4037625	0.00	174.15	223.85	486
WJ4037660	0.00	174.31	223.85	484
WJ4037661	0.00	174.32	223.85	484
WJ4037662	2.81	174.32	223.84	484
WJ4037669	0.00	174.15	223.85	486
WJ4037786	0.00	174.31	223.84	484
WJ4037787	0.00	174.32	223.84	484
WJ4037788	2.88	174.32	223.84	484
WJ4037793	0.00	174.11	223.84	486
WJ4037794	0.00	174.10	223.84	486
WJ4037795	0.00	174.10	223.84	486
WJ4037800	0.00	174.15	223.84	486
WJ4037829	0.00	173.29	223.84	494
WJ4037830	0.00	173.30	223.84	494
WJ4037831	0.00	173.29	223.84	494
WJ4037834	2.95	173.26	223.84	495
WJ4037836	0.00	173.24	223.84	495
WJ4037838	0.00	173.26	223.84	495
WJ4037839	4.94	173.26	223.84	495
WJ4037846	0.00	172.73	223.84	500
WJ4037847	0.00	172.75	223.84	500
WJ4037848	4.67	172.73	223.84	500
WJ4037849	0.00	172.73	223.84	500
WJ4037854	0.00	172.54	223.84	502
WJ4037855	0.00	172.55	223.84	502
WJ4037856	0.00	172.54	223.84	502
WJ4037857	0.00	172.54	223.84	502
WJ4038205	0.00	170.83	223.87	519
WJ4038206	0.00	170.86	223.87	518
WJ4038207	0.00	170.83	223.87	519
WJ4038214	0.00	170.81	223.87	519
WJ4038335	0.00	170.59	223.87	521
WJ4038346	0.00	170.52	223.87	522
WJ4038353	0.11	170.58	223.87	521
WJ4038388	0.04	170.43	223.87	523
WJ4038592	0.00	173.57	223.86	492
WJ4038593	0.00	173.55	223.86	492
WJ4038594	0.00	173.57	223.86	492
WJ4038595	0.00	173.57	223.86	492
WJ4038628	0.00	173.00	223.85	497
WJ4038631	0.00	172.97	223.85	498
WJ4038632	0.00	172.96	223.85	498
WJ4038633	0.00	172.96	223.85	498

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ4038681	0.00	173.08	223.86	497
WJ4038682	0.90	173.09	223.86	497
WJ4038685	0.00	173.06	223.86	497
WJ4038686	1.28	172.75	223.86	500
WJ4040953	4.90	186.57	223.94	365
WJ4040955	1.16	187.71	223.97	355
WJ4040961	0.00	190.53	225.82	345
WJ47069	0.41	188.82	224.93	353
WJ47435	0.52	185.59	227.64	411
WJ47436	0.33	183.43	227.64	432
WJ47749	0.19	187.24	224.19	361
WJ47751	0.00	185.95	224.37	376
WJ48055	0.13	180.92	223.92	421
WJ48056	0.06	179.61	223.92	433
WJ48205	0.00	171.60	229.86	570
WJ48206	0.00	171.66	229.86	569
WJ48208	0.05	172.05	229.86	565
WJ48210	0.02	172.80	229.84	558
WJ48211	0.17	172.79	229.84	558
WJ48213	0.38	173.23	229.84	554
WJ48215	0.12	172.48	229.85	561
WJ48216	0.49	172.46	229.85	561
WJ48243	0.11	173.83	229.84	548
WJ48244	0.03	169.19	229.83	593
WJ48272	0.42	170.51	229.84	580
WJ48273	0.00	170.51	229.84	580
WJ48469	0.18	184.25	226.13	410
WJ48471	0.00	184.62	226.17	406
WJ48953	0.08	181.98	223.80	409
WJ48955	0.15	185.62	223.80	373
WJ48956	0.15	185.59	223.80	374
WJ48957	0.26	186.90	223.81	361
WJ48958	0.07	186.75	223.81	362
WJ48960	0.27	186.50	223.81	365
WJ48961	0.02	187.17	223.81	358
WJ48963	0.18	185.80	223.80	372
WJ48968	1.42	189.72	224.48	340
WJ48969	0.07	189.92	223.84	332
WJ48971	0.00	187.80	223.84	352
WJ48972	0.44	187.80	223.84	352
WJ48973	0.37	187.80	223.84	352
WJ48974	0.05	188.96	223.84	341
WJ48979	0.15	188.96	223.84	341
WJ48980	0.37	188.98	223.84	341
WJ48983	0.36	190.78	223.84	323
WJ48984	0.21	190.78	223.83	323
WJ48985	0.05	190.78	223.83	323
WJ48986	0.03	192.02	223.83	311
WJ48987	0.38	192.02	223.83	311
WJ48988	0.27	192.02	223.83	311
WJ48991	0.03	192.00	223.83	311
WJ48994	0.27	192.00	223.83	311
WJ48995	0.33	192.00	223.83	311
WJ48999	0.36	190.85	223.83	323
WJ49000	0.18	190.85	223.82	322
WJ49001	0.00	187.78	223.84	353
WJ49002	0.08	190.85	223.83	322
WJ49003	0.14	191.31	223.83	318
WJ49072	0.01	173.79	224.98	501
WJ49141	3.77	186.37	224.03	368
WJ49142	0.05	186.71	224.12	366
WJ49143	0.03	186.61	224.13	367
WJ49144	0.24	186.70	224.12	366

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ49145	0.41	186.27	224.17	371
WJ49146	0.00	186.58	224.17	368
WJ49237	0.14	187.94	224.57	358
WJ49239	0.06	187.84	224.57	359
WJ49243	0.17	188.41	224.61	354
WJ49244	0.00	189.09	224.61	347
WJ49247	0.07	194.11	224.64	299
WJ49248	0.06	191.33	224.84	328
WJ49251	0.55	191.18	224.84	329
WJ49252	0.06	191.40	224.85	327
WJ49253	0.44	193.43	224.63	305
WJ49254	0.12	187.81	224.59	360
WJ49256	0.12	187.64	224.59	361
WJ49258	0.03	193.59	224.63	304
WJ49324	0.16	186.36	224.40	372
WJ49325	0.14	186.79	224.40	368
WJ49326	0.01	181.76	224.39	417
WJ49327	0.04	182.14	224.40	413
WJ49330	0.00	186.22	224.50	374
WJ49331	0.35	186.69	224.50	370
WJ49332	0.55	187.85	224.60	359
WJ49333	0.04	187.91	224.60	359
WJ49334	0.05	187.86	224.60	359
WJ49339	0.00	189.24	224.81	348
WJ49340	0.06	189.34	224.81	347
WJ49341	0.57	189.31	224.81	347
WJ49342	0.21	189.63	224.83	344
WJ50379	0.04	184.18	226.36	413
WJ51948	0.25	184.16	224.62	396
WJ51950	0.25	184.16	224.64	396
WJ51952	0.05	184.18	224.63	396
WJ51955	0.20	184.12	224.63	396
WJ51974	0.00	174.32	224.11	487
WJ51975	0.00	174.32	224.11	487
WJ51976	0.00	174.22	224.11	488
WJ51977	0.03	173.88	224.11	491
WJ51978	0.11	175.26	224.12	478
WJ51979	0.03	177.44	224.13	457
WJ51980	0.05	178.58	224.15	446
WJ51987	0.05	178.50	224.15	446
WJ51990	0.12	178.47	224.15	447
WJ51996	0.04	177.44	224.13	457
WJ51998	0.12	177.38	224.14	457
WJ52037	0.00	174.30	224.11	487
WJ52044	1.03	174.22	224.12	488
WJ52054	0.00	173.48	224.11	495
WJ52055	4.33	173.64	224.09	493
WJ52073	0.00	191.70	224.22	318
WJ52087	0.00	191.80	224.22	317
WJ52091	0.01	191.40	224.12	320
WJ52093	0.00	191.84	224.12	316
WJ52156	0.36	180.95	223.83	419
WJ52159	0.06	181.05	223.83	418
WJ52162	0.41	186.53	223.83	365
WJ52163	0.08	186.54	223.83	365
WJ52165	0.30	188.36	223.83	347
WJ52167	0.09	186.53	223.83	365
WJ52171	0.22	187.75	223.86	353
WJ52182	0.06	186.64	223.86	364
WJ52183	0.07	186.66	223.86	364
WJ52184	0.19	186.65	223.86	364
WJ52220	0.16	187.46	223.86	356
WJ52221	0.12	187.73	223.86	353

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ52222	0.07	187.65	223.86	354
WJ52242	0.38	186.57	223.86	365
WJ52247	0.09	191.68	224.22	318
WJ52248	0.00	191.15	224.12	322
WJ52249	0.05	191.10	224.12	323
WJ52251	0.18	189.05	224.05	342
WJ52303	0.00	182.21	223.93	408
WJ52307	0.36	182.21	223.93	408
WJ52325	0.13	178.54	223.92	444
WJ52327	0.03	178.59	223.92	443
WJ52331	0.36	177.29	223.92	456
WJ52333	0.00	177.29	223.92	456
WJ52334	0.00	176.50	223.92	464
WJ52336	0.05	176.48	223.92	464
WJ52338	0.00	175.98	223.92	469
WJ52339	1.44	175.42	223.92	474
WJ52340	0.00	167.29	223.92	554
WJ52341	0.00	167.46	223.92	552
WJ52344	0.27	167.55	223.92	551
WJ52345	0.00	168.64	223.92	541
WJ52747	0.02	179.21	224.00	438
WJ52748	0.02	176.06	224.00	469
WJ52750	0.00	176.05	224.00	469
WJ52751	1.48	172.80	223.99	501
WJ52753	0.02	172.80	223.99	501
WJ52754	0.25	172.41	223.99	504
WJ52757	0.00	174.02	223.98	489
WJ52768	0.02	174.39	223.98	485
WJ52868	4.46	187.39	224.11	359
WJ52874	0.01	186.61	224.00	366
WJ52875	6.07	188.07	224.14	353
WJ52876	0.02	187.28	224.14	360
WJ52877	0.09	187.25	224.14	361
WJ52881	0.26	186.91	224.05	363
WJ52882	1.43	186.95	224.05	363
WJ53038	13.04	172.13	223.87	506
WJ53041	0.04	170.60	223.87	521
WJ53042	0.07	170.57	223.87	521
WJ53045	0.00	170.79	223.88	519
WJ53046	0.01	170.75	223.87	520
WJ53069	0.06	170.66	223.89	521
WJ53078	0.16	170.87	223.88	518
WJ53108	0.18	179.43	224.00	436
WJ53112	0.02	189.50	224.14	339
WJ53113	0.00	189.45	224.14	339
WJ53114	0.00	186.80	224.10	365
WJ53115	0.02	191.00	224.11	324
WJ53116	3.54	189.10	224.10	342
WJ53117	0.05	189.05	224.10	343
WJ53118	0.00	186.90	224.09	364
WJ53121	2.86	189.48	224.13	339
WJ53122	0.00	189.89	224.13	335
WJ53442	2.40	185.43	225.98	397
WJ53444	0.00	185.43	225.98	397
WJ53447	0.00	188.12	225.72	368
WJ53448	0.16	188.80	225.41	358
WJ53450	0.07	188.71	225.42	359
WJ53452	0.37	188.81	225.42	358
WJ53453	0.00	188.75	225.42	359
WJ53457	0.00	187.00	224.50	367
WJ53462	0.04	167.21	223.92	555
WJ53465	0.00	187.72	225.72	372
WJ53466	0.06	185.43	225.98	397

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ53494	0.21	183.04	225.33	414
WJ53495	0.14	183.04	225.35	414
WJ53498	0.09	183.62	225.34	408
WJ53506	0.23	183.87	225.32	405
WJ53512	0.00	187.05	224.03	362
WJ53513	0.08	187.48	224.03	357
WJ53514	0.08	187.30	224.03	359
WJ53517	0.23	182.72	225.33	417
WJ53518	0.20	183.87	225.34	406
WJ53523	0.04	184.69	225.31	397
WJ53524	0.26	184.69	225.33	397
WJ53525	0.17	183.05	225.31	413
WJ53553	0.06	184.60	225.31	398
WJ53555	0.02	184.80	225.30	396
WJ53556	0.33	187.41	225.28	370
WJ53557	0.10	186.15	225.29	383
WJ53558	0.17	187.41	225.29	370
WJ53559	0.42	187.10	225.25	373
WJ53562	0.00	188.50	225.83	365
WJ53563	0.15	188.50	225.83	365
WJ53564	0.07	188.20	225.65	366
WJ53566	0.06	188.40	225.50	363
WJ53567	0.05	187.00	225.36	375
WJ53570	0.12	188.18	224.92	359
WJ53571	0.08	185.00	224.86	390
WJ53572	0.05	185.00	224.87	390
WJ53574	0.17	183.90	224.86	401
WJ53576	0.14	187.00	225.36	375
WJ53577	0.18	188.30	225.50	364
WJ53578	0.15	188.10	225.65	367
WJ53584	0.75	188.18	224.92	359
WJ53585	0.31	185.00	224.87	390
WJ53586	0.09	183.70	224.87	403
WJ53610	0.67	190.70	224.99	335
WJ53661	0.36	186.85	224.58	369
WJ53664	0.47	186.45	224.45	372
WJ53665	0.16	186.90	224.57	368
WJ53671	0.02	186.73	224.58	370
WJ53672	0.00	186.29	224.57	374
WJ53717	0.13	187.60	224.04	356
WJ53722	0.07	185.92	223.96	372
WJ53724	0.01	185.75	223.95	374
WJ53727	0.32	185.92	223.96	372
WJ53844	0.62	184.50	224.89	395
WJ53848	0.72	185.50	224.92	386
WJ53883	0.94	191.20	224.94	330
WJ53893	0.18	183.66	226.33	417
WJ53988	0.24	183.11	226.61	425
WJ53989	0.00	183.13	226.60	425
WJ53992	0.03	185.63	226.61	401
WJ53993	0.01	185.63	226.65	401
WJ53994	0.16	185.63	226.62	401
WJ54013	0.34	183.42	226.54	422
WJ54014	0.02	184.18	226.51	414
WJ54018	0.03	184.21	226.54	414
WJ54019	0.22	184.18	226.52	414
WJ54277	1.02	169.89	223.86	528
WJ54278	4.43	168.40	223.85	542
WJ54288	0.42	168.31	223.85	543
WJ54289	0.00	168.31	223.85	543
WJ54290	0.00	168.31	223.85	543
WJ54291	0.16	168.31	223.85	543
WJ54414	0.32	179.78	223.94	432

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ54418	0.12	179.74	223.94	432
WJ54421	0.03	179.79	223.94	432
WJ54422	0.18	179.80	223.94	432
WJ54423	0.07	180.60	223.94	424
WJ54424	0.05	180.60	223.94	424
WJ54425	0.40	180.60	223.94	424
WJ54440	0.00	181.86	223.95	412
WJ54441	0.03	180.51	223.99	425
WJ54442	0.09	180.51	223.99	425
WJ54444	0.09	178.31	224.08	448
WJ54459	0.18	178.74	224.06	443
WJ54460	0.10	178.74	224.05	443
WJ54461	0.00	178.74	224.06	443
WJ54468	0.23	180.77	224.01	423
WJ54469	0.00	180.77	224.01	423
WJ54470	0.06	180.77	224.01	423
WJ54473	0.36	180.51	223.99	425
WJ54480	0.36	181.86	223.96	412
WJ54484	0.03	181.86	223.99	412
WJ54489	0.47	183.60	223.94	395
WJ54490	0.05	183.60	223.94	395
WJ54491	0.28	183.60	223.94	395
WJ55016	0.12	189.80	224.78	342
WJ55017	0.03	190.30	224.67	336
WJ55018	0.06	190.30	224.66	336
WJ55019	0.00	190.30	224.66	336
WJ55020	0.06	189.80	224.78	342
WJ55022	0.08	190.10	224.70	338
WJ55026	0.12	189.90	224.89	342
WJ55118	0.15	188.19	225.04	360
WJ55120	0.07	188.19	225.05	360
WJ55122	0.13	188.18	225.03	360
WJ55156	0.47	182.61	225.61	421
WJ55157	0.18	182.61	225.59	420
WJ55162	0.19	184.25	225.62	405
WJ55163	0.05	183.82	225.60	409
WJ55164	0.10	182.59	225.60	421
WJ55165	0.06	183.60	225.60	411
WJ55166	0.11	184.20	225.61	405
WJ55167	0.04	184.65	225.59	400
WJ55170	0.01	179.87	225.59	447
WJ55171	0.18	179.86	225.62	448
WJ55214	0.05	184.22	226.26	411
WJ55216	0.07	184.46	226.26	409
WJ55304	0.04	177.25	223.99	457
WJ55323	0.05	177.63	223.98	453
WJ55324	0.45	178.01	223.98	450
WJ55326	0.02	177.65	223.98	453
WJ55328	0.03	175.43	223.97	475
WJ55329	0.51	175.66	223.97	473
WJ55331	0.03	175.42	223.97	475
WJ55334	0.04	175.59	223.97	473
WJ55335	0.45	175.57	223.97	473
WJ55338	0.05	175.57	223.97	473
WJ55341	0.05	177.23	223.99	457
WJ55422	0.08	183.62	224.00	395
WJ55423	0.07	183.61	224.00	395
WJ55429	0.02	178.32	224.00	447
WJ55431	0.06	178.32	224.00	447
WJ55432	0.46	178.20	224.00	448
WJ55436	0.50	175.21	223.98	477
WJ55441	0.09	176.13	223.98	468
WJ55442	0.07	175.21	223.98	477

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ55455	0.25	184.81	224.00	383
WJ55466	0.26	177.21	223.99	457
WJ55469	0.04	176.75	223.97	462
WJ55472	0.15	176.75	223.97	462
WJ55957	0.05	186.71	224.55	370
WJ55958	0.06	186.01	224.55	377
WJ55961	0.39	185.82	224.55	379
WJ56498	0.25	186.37	224.58	374
WJ56681	0.45	181.74	228.38	456
WJ56684	0.36	181.22	228.33	461
WJ56688	0.02	181.28	228.31	460
WJ56689	0.00	181.35	229.21	468
WJ56691	0.00	181.14	229.21	470
WJ56698	0.32	182.00	228.32	453
WJ56700	0.00	182.36	228.32	450
WJ56701	0.00	181.97	228.30	453
WJ56705	0.28	181.13	228.33	462
WJ57354	0.14	188.95	224.13	344
WJ57355	0.19	188.90	224.13	345
WJ57425	0.00	172.59	224.01	503
WJ57428	0.08	172.42	224.01	505
WJ57438	0.00	179.94	224.01	431
WJ57697	0.13	167.63	224.02	551
WJ57906	2.39	174.40	223.87	484
WJ57907	0.00	172.72	223.87	500
WJ58108	0.00	173.30	224.08	497
WJ58109	0.19	173.40	224.08	496
WJ58336	0.26	188.52	224.83	355
WJ58392	0.24	179.83	223.85	430
WJ58393	0.29	181.20	223.85	417
WJ58394	0.12	181.67	223.85	412
WJ58397	0.02	187.78	223.83	353
WJ58399	0.05	187.61	223.83	354
WJ58401	0.08	187.40	223.89	357
WJ58403	0.08	187.51	223.88	356
WJ58404	0.09	185.00	223.89	380
WJ58406	0.08	184.38	223.89	386
WJ58412	0.14	187.17	223.94	360
WJ58418	0.76	187.47	223.88	356
WJ58423	0.79	184.00	223.86	390
WJ58424	0.46	182.01	223.85	409
WJ58425	0.22	184.91	223.89	381
WJ58426	0.15	184.92	223.89	381
WJ58427	4.54	186.86	223.94	363
WJ58458	0.20	173.97	224.08	490
WJ58460	0.22	172.58	224.10	504
WJ58461	0.00	172.71	224.10	503
WJ58462	0.39	172.58	224.10	504
WJ58464	0.00	172.71	224.10	503
WJ58473	0.24	173.05	224.09	499
WJ58475	6.19	173.81	224.06	491
WJ58476	10.58	173.81	224.06	491
WJ58479	5.57	173.81	224.06	491
WJ58480	11.92	173.81	224.06	491
WJ58481	0.00	173.41	224.06	495
WJ58482	0.00	173.41	224.06	495
WJ58486	4.53	173.29	224.06	497
WJ58488	0.00	173.31	224.06	496
WJ58490	0.00	173.88	224.06	491
WJ58496	4.59	173.62	224.07	493
WJ58498	4.11	173.62	224.07	493
WJ58499	0.02	173.62	224.07	493
WJ58500	0.00	173.62	224.07	493

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ58501	0.61	173.40	224.07	496
WJ58502	4.69	173.40	224.07	496
WJ58504	0.00	173.40	224.07	496
WJ58505	0.04	173.40	224.07	496
WJ58509	0.15	172.82	224.07	501
WJ58510	0.00	172.82	224.07	501
WJ58512	0.00	173.74	224.08	492
WJ58513	0.00	173.74	224.08	492
WJ58516	0.08	174.37	224.08	486
WJ58517	0.00	174.37	224.08	486
WJ58519	1.46	176.52	224.08	465
WJ58521	0.74	176.52	224.08	465
WJ58522	0.36	178.76	224.08	443
WJ58523	0.02	178.76	224.08	443
WJ58526	0.06	178.76	224.08	443
WJ58527	11.36	182.72	224.08	405
WJ58528	0.00	182.72	224.09	405
WJ58530	2.42	186.10	224.09	372
WJ58532	0.00	186.10	224.09	372
WJ58533	4.75	186.22	224.09	370
WJ58535	0.00	186.22	224.09	370
WJ58537	0.00	186.80	224.10	365
WJ58539	7.40	186.80	224.09	365
WJ58540	0.06	188.70	224.11	346
WJ58541	1.39	188.77	224.11	346
WJ58543	12.81	190.21	224.13	332
WJ58544	0.00	190.21	224.14	332
WJ58545	0.00	190.21	224.14	332
WJ58547	0.25	190.37	224.15	330
WJ58548	6.12	190.37	224.15	330
WJ58572	0.00	191.60	224.22	319
WJ58573	0.00	191.79	224.22	317
WJ58574	0.54	191.80	224.22	317
WJ58575	0.00	191.40	224.22	321
WJ58576	0.00	191.40	224.22	321
WJ58577	0.00	191.40	224.22	321
WJ58580	4.34	191.95	224.20	315
WJ58581	0.46	191.79	224.21	317
WJ58595	8.09	171.60	224.08	513
WJ58601	0.95	173.61	224.08	494
WJ58602	0.00	173.61	224.08	494
WJ58603	0.72	173.11	224.06	498
WJ58604	0.00	173.20	224.06	497
WJ58605	0.00	173.20	224.06	497
WJ58608	2.87	173.75	224.06	492
WJ58609	0.00	173.71	224.06	492
WJ58610	0.00	188.79	224.12	345
WJ58611	0.00	172.80	224.09	502
WJ58614	0.00	173.39	224.06	496
WJ58734	0.04	172.10	223.78	505
WJ58735	0.11	175.20	223.78	475
WJ58740	0.23	187.38	223.92	357
WJ58745	1.01	187.50	223.92	356
WJ58747	0.00	187.38	223.92	357
WJ58749	0.16	187.60	223.85	355
WJ58751	0.79	187.60	223.85	355
WJ58752	0.31	186.78	223.84	362
WJ58755	0.09	186.50	223.84	365
WJ58756	0.04	186.71	223.84	363
WJ58760	0.16	172.10	223.78	505
WJ58762	0.31	186.39	223.82	366
WJ58764	0.11	186.39	223.82	366
WJ58769	0.17	176.74	223.78	460

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WJ58936	0.31	184.03	227.07	421
WJ58937	0.00	184.03	227.04	421
WJ58940	0.02	184.03	227.09	421
WJ58946	1.37	181.39	227.06	447
WJ59062	0.20	180.68	223.83	422
WJ59065	0.05	180.41	223.82	425
WJ59072	0.09	181.18	223.89	418
WJ59074	0.53	181.18	223.89	418
WJ59078	0.19	180.19	223.87	427
WJ59147	0.95	169.15	229.83	593
WJ59194	0.00	186.60	225.95	385
WJ59195	2.09	186.00	225.97	391
WJ59196	0.00	186.05	225.97	390
WJ59198	0.00	186.20	225.95	389
WJ59201	0.00	186.20	225.97	389
WJ59207	0.00	186.20	225.98	389
WJ59422	0.09	186.20	225.95	389
WJ59712	0.24	182.22	227.94	447
WJ59726	0.03	181.65	227.88	452
WJ59732	0.21	181.46	227.87	454
WJ59734	0.15	182.10	228.13	450
WJ59735	0.21	181.97	227.94	450
WJ59742	0.08	181.52	227.88	453
WJ59743	0.37	180.91	227.86	459
WJ59822	0.34	178.60	227.82	481
WJ59864	0.17	180.30	227.85	465
WJ60020	1.64	181.49	228.12	456
WJ60783	0.00	173.16	224.05	498
WJ60862	3.39	173.00	224.06	499
WJ60926	0.06	169.08	224.03	537
WJ61124	0.25	180.87	228.12	462
WJ61125	0.64	180.96	228.12	461
WJ61457	0.30	188.71	225.83	363
WJ61510	0.08	178.46	223.96	445
WJ61511	0.23	178.69	223.96	443
WJ61514	0.06	178.87	223.96	441
WJ61515	0.03	177.96	223.96	450
WJ61519	0.28	178.32	223.96	446
WJ61520	0.00	178.45	223.96	445
WJ61529	0.29	186.17	223.97	370
WJ61627	0.26	178.72	227.61	478
WJ61693	0.08	190.35	225.37	342
WJ61694	0.00	192.00	225.37	326
WJ61779	0.17	167.22	224.14	557
WJ61826	0.25	187.10	225.76	378
WJ61827	0.00	188.09	225.76	368
WJ62335	0.08	187.57	223.77	354
WJ62359	0.31	181.38	223.87	415
WJ62422	0.06	182.84	227.93	441
WJ62423	1.12	181.78	227.63	448
WV10604	0.00	189.03	225.83	360
WV10609	0.00	190.65	225.89	345
WV15899	0.00	185.70	224.36	378
WV4001258	0.00	187.46	226.18	379
WV4001488	0.00	188.10	226.21	373
WV4004307	0.00	176.10	229.87	526
WV4004312	0.00	171.48	229.87	571
WV4004327	0.00	178.91	229.82	498
WV4004332	0.00	181.07	229.21	471
WV4004334	0.00	180.40	229.08	476
WV4004344	0.00	181.71	228.91	462
WV4004993	0.00	188.98	225.83	360
WV4004997	0.00	189.24	225.83	358

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WV4004999	0.00	189.56	225.85	355
WV4005002	0.00	188.98	225.84	360
WV4005009	0.00	188.81	225.84	362
WV4005012	0.00	188.67	225.84	364
WV4005018	0.00	188.45	225.88	366
WV4005020	0.00	187.84	225.93	373
WV4005023	0.00	178.65	226.09	464
WV4005029	0.00	169.18	226.14	557
WV4005033	0.00	178.47	226.39	469
WV4005035	0.00	151.76	226.24	728
WV4005043	0.00	183.88	226.69	419
WV4005087	0.00	183.57	226.77	422
WV4005089	0.00	183.63	226.87	423
WV4005097	0.00	182.96	227.26	433
WV4005103	0.00	185.07	227.59	416
WV4005104	0.00	184.69	227.53	419
WV4005109	0.00	185.87	227.72	409
WV4005114	0.00	186.03	227.90	409
WV4005116	0.00	186.13	227.91	409
WV4010666	0.00	193.49	223.75	296
WV4010740	0.00	193.43	223.76	297
WV4010788	0.00	191.05	223.80	320
WV4010807	0.00	190.54	223.80	325
WV4010872	0.00	189.65	223.81	334
WV4010889	0.00	189.13	223.82	339
WV4010976	0.00	185.76	223.85	373
WV4010981	0.00	185.85	223.87	372
WV4010986	0.00	185.97	223.88	371
WV4011010	0.00	186.91	223.90	362
WV4011015	0.00	186.97	223.90	361
WV4011055	0.00	191.00	224.23	325
WV4011116	0.00	187.02	224.37	365
WV4011132	0.00	186.96	223.92	361
WV4011135	0.00	180.47	224.73	433
WV4011139	0.00	180.65	224.75	431
WV4011145	0.00	186.92	223.93	362
WV4011148	0.00	183.83	224.93	402
WV4011161	0.00	182.58	223.96	405
WV4011205	0.00	184.58	224.95	395
WV4011218	0.00	184.61	224.98	395
WV4011221	0.00	186.34	225.05	379
WV4011231	0.00	189.13	224.05	342
WV4011250	0.00	188.74	225.76	362
WV4011277	0.00	191.24	225.44	334
WV4011347	0.00	188.10	224.06	352
WV4011354	0.00	188.01	224.06	353
WV4011482	0.00	179.11	229.85	496
WV4011524	0.00	191.08	224.22	324
WV4011544	0.00	190.82	224.22	327
WV4011554	0.00	190.83	224.21	327
WV4011570	0.00	190.84	224.21	326
WV4011579	0.00	190.86	224.21	326
WV4011587	0.00	191.16	224.18	323
WV4011591	0.00	190.85	224.14	326
WV4011740	0.00	190.76	224.13	326
WV4011750	0.00	190.57	224.12	328
WV4011763	0.00	190.61	224.12	328
WV4011841	0.00	187.58	224.06	357
WV4011849	0.00	187.24	224.08	360
WV4016857	0.00	185.99	225.98	391
WV4021627	0.00	174.47	224.91	493
WV4037971	0.00	183.82	226.61	418
WV50450	0.00	190.88	224.14	325

PHD Junction Results				
ID	Demand (L/s)	Elevation (m)	Head (m)	Pressure (kPa)
WV50459	0.00	190.85	224.14	326
WV55772	0.00	173.41	224.08	496
WV60507	0.00	168.31	223.86	543
Sum of Demands:	**956.79**		**Min**	**277**
			Max	**753**

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN112660_A001	WJ24264	J-HY4014400	30.52	300	132	12.40	0.18	0.13
LN112660_A002	J-HY4014400	WJ24204	98.35	300	132	12.40	0.18	0.13
LN13368	WJ47069	WJ53570	90.32	150	114	1.04	0.06	0.05
LN13893	WJ47436	WJ47435	325.45	150	114	1.15	0.07	0.06
LN13898	WJ4010931	WJ47435	13.34	150	103	1.08	0.06	0.07
LN13918	WJ4017786	WJ47749	6.74	150	103	-5.26	0.30	1.24
LN13919	WJ47751	WJ21799	20.33	150	114	0.00	0.00	0.00
LN14205	WJ48056	WJ52325	61.03	300	132	7.12	0.10	0.05
LN14216	WJ4010518	WJ14235	223.51	150	103	0.09	0.00	0.00
LN14218	WJ14235	WJ4010518	241.94	150	103	-0.09	0.01	0.00
LN16124	WJ15670	WJ4016587	98.72	300	120	14.30	0.20	0.20
LN16127	WJ15670	WJ4019600	308.81	150	114	3.37	0.19	0.45
LN16131	WJ4019600	WJ4019594	217.80	150	114	4.96	0.28	0.92
LN16132	WJ4019594	WJ15678	219.74	150	114	4.06	0.23	0.64
LN16141	WJ15678	WJ15686	94.78	150	114	5.02	0.28	0.94
LN16724_A001	WJ16170	J-HY4017936	1.56	300	132	5.18	0.07	0.04
LN16724_A002	J-HY4017936	WJ4018534	15.14	300	132	5.18	0.07	0.03
LN16812	WJ58510	WJ16225	11.62	300	132	4.74	0.07	0.02
LN16813_A001	WJ16225	J-HY4033089	5.66	300	132	2.73	0.04	0.01
LN16813_A002	J-HY4033089	J-HY4033085	100.94	300	132	2.73	0.04	0.01
LN16813_A003	J-HY4033085	WJ4018326	3.52	300	132	2.73	0.04	0.01
LN16839	WJ58496	WJ58500	24.23	400	129	6.97	0.06	0.01
LN16840_A001	WJ58499	J-HY4033315	9.32	400	129	11.40	0.09	0.03
LN16840_A002	J-HY4033315	J-HY4033296	129.85	400	129	11.40	0.09	0.03
LN16840_A003	J-HY4033296	WJ4018318	14.81	400	129	11.40	0.09	0.03
LN16921	WJ4016730	WJ15686	294.33	150	103	-3.28	0.19	0.52
LN16923	WJ4016826	WJ15686	233.10	150	103	-1.52	0.09	0.12
LN16941	WJ4016591	WJ15670	100.75	300	120	17.82	0.25	0.31
LN19391_A001	WJ4019318	J-HY4034872	101.08	150	103	-0.75	0.04	0.03
LN19391_A002	J-HY4034872	WJ18031	99.62	150	103	-0.75	0.04	0.03
LN19392_A001	WJ18030	J-HY4033352	65.89	150	103	-3.03	0.17	0.45
LN19392_A002	J-HY4033352	WJ28034	8.39	150	103	-3.03	0.17	0.45
LN19393_A001	WJ4018072	J-HY4035209	73.34	300	132	5.44	0.08	0.03
LN19393_A002	J-HY4035209	WJ18032	20.13	300	132	5.44	0.08	0.03
LN19394	WJ18031	WJ18032	11.62	300	132	-0.79	0.01	0.00
LN19395	WJ18032	WJ18033	6.13	300	132	4.63	0.07	0.02
LN19396	WJ18033	WJ18030	12.19	300	132	-2.57	0.04	0.01
LN19397_A001	WJ18034	J-HY12614	1.42	300	132	-7.20	0.10	0.05
LN19397_A002	J-HY12614	WJ18033	100.24	300	132	-7.20	0.10	0.05
LN20057	WJ4018098	WJ4011303	286.65	150	103	-0.28	0.02	0.01
LN20058	WJ4011305	WJ4018098	232.57	150	103	0.50	0.03	0.02
LN20510	WJ4005966	WJ24044	130.34	150	114	0.08	0.00	0.00
LN20710_A001	WJ24204	J-HY4014840	40.05	300	132	-8.94	0.13	0.07
LN20710_A002	J-HY4014840	WJ4013102	64.32	300	132	-8.94	0.13	0.07
LN20730_A001	WJ24204	J-HY16801	70.81	300	132	16.93	0.24	0.23
LN20730_A002	J-HY16801	WJ58548	77.33	300	132	16.93	0.24	0.23
LN20750	WJ4013337	WJ24244	23.15	150	103	4.72	0.27	1.01
LN20770	WJ24244	WJ24264	9.46	300	132	4.72	0.07	0.02
LN20790	WJ4013060	WJ24284	8.95	400	129	-44.99	0.36	0.37
LN20791	WJ4013513	WJ24364	8.65	150	103	4.73	0.27	1.02
LN20810_A001	WJ24284	J-HY16821	90.72	400	129	19.03	0.15	0.07
LN20810_A002	J-HY16821	WJ24264	76.79	400	129	19.03	0.15	0.07
LN20811_A001	WJ24264	J-HY17621	69.47	400	129	9.72	0.08	0.02
LN20811_A002	J-HY17621	WJ24285	76.20	400	129	9.72	0.08	0.02
LN20812	WJ24285	WJ24304	31.28	400	129	11.71	0.09	0.03
LN20870	WJ4013060	WJ24344	16.48	400	129	3.92	0.03	0.00
LN20892	WJ24364	WJ24285	12.27	300	132	4.73	0.07	0.02
LN20893	WJ24285	WJ24366	29.17	300	132	2.74	0.04	0.01
LN21690	WJ4018318	WJ4019834	245.54	150	114	1.20	0.07	0.07
LN22922	WJ57438	WJ25698	7.22	400	129	0.41	0.00	0.00
LN22926	WJ25696	WJ25695	12.08	400	129	10.11	0.08	0.02
LN22927	WJ25698	WJ25697	12.58	400	129	8.85	0.07	0.02
LN22928	WJ25697	WJ25696	11.77	400	129	10.11	0.08	0.02
LN23823_A001	WJ58481	J-HY4007542	64.50	300	132	-9.40	0.13	0.08
LN23823_A002	J-HY4007542	WJ26555	80.39	300	132	-9.40	0.13	0.08
LN24067_A001	WJ26759	WV4037971	340.52	900	130	-391.95	0.62	0.38
LN24067_A002	WV4037971	WJ26760	18.03	900	130	-391.95	0.62	0.38
LN24068_A001	WJ4023055	WV4005035	270.90	900	130	-391.78	0.62	0.38
LN24068_A002	WV4005035	WJ26758	351.65	900	130	-391.78	0.62	0.38
LN24069_A001	WJ26758	WV4005033	25.73	900	130	-391.82	0.62	0.38
LN24069_A002	WV4005033	WJ26759	237.60	900	130	-391.82	0.62	0.38
LN24070	WJ26760	WJ4008317	153.38	900	130	-391.98	0.62	0.38
LN24643	WJ27194	WJ4016719	2.68	250	115	3.17	0.06	0.03
LN24644	WJ58488	WJ27194	18.66	250	115	3.17	0.06	0.03
LN24782	WJ27354	WJ27355	1.02	300	120	1.34	0.02	0.00
LN24783	WJ27354	WJ4008473	13.52	600	130	-195.77	0.69	0.76

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN24784	WJ4008497	WJ27355	12.56	300	120	7.79	0.11	0.07
LN24802	WJ4020828	WJ27375	8.24	400	129	2.81	0.02	0.00
LN24803	WJ4010429	WJ27375	123.44	300	120	21.37	0.30	0.43
LN25424	WJ27861	WJ27857	14.48	150	114	1.58	0.09	0.11
LN25425	WJ27858	WJ27861	22.83	150	114	1.07	0.06	0.05
LN25426	WJ27861	WJ52251	15.65	300	132	-21.48	0.30	0.36
LN25427	WJ27861	WJ27874	224.22	300	132	20.87	0.30	0.34
LN25441	WJ27874	WJ27875	3.33	400	129	17.81	0.14	0.07
LN25442	WJ27877	WJ27879	4.73	150	114	2.19	0.12	0.20
LN25443	WJ27879	WJ27874	20.08	400	129	2.19	0.02	0.00
LN25444	WJ27874	WJ27917	222.63	300	132	5.08	0.07	0.03
LN25483	WJ27918	WJ27917	18.39	300	132	6.47	0.09	0.04
LN25484	WJ27917	WJ27916	12.30	300	132	2.61	0.04	0.01
LN25485	WJ27917	WJ28079	218.63	300	132	8.53	0.12	0.07
LN25486	WJ28079	WJ28076	14.37	300	132	9.36	0.13	0.08
LN25487	WJ28077	WJ28079	18.75	150	114	1.02	0.06	0.05
LN25501_A001	WJ27974	J-HY4022181	60.39	400	129	-28.27	0.22	0.15
LN25501_A002	J-HY4022181	WJ28214	59.65	400	129	-28.27	0.22	0.15
LN25502	WJ27994	WJ28214	36.72	400	129	-17.77	0.14	0.07
LN25504	WJ28214	WJ28134	202.54	300	132	-27.00	0.38	0.55
LN25505	WJ27974	WJ28014	62.76	400	129	24.95	0.20	0.12
LN25507_A001	WJ28014	J-HY4022232	23.93	400	129	25.15	0.20	0.12
LN25507_A002	J-HY4022232	J-HY4022263	123.81	400	129	25.15	0.20	0.12
LN25507_A003	J-HY4022263	J-HY4022342	63.08	400	129	25.15	0.20	0.12
LN25507_A004	J-HY4022342	WJ28234	50.82	400	129	25.15	0.20	0.12
LN25521	WJ28034	WJ20153	28.01	300	132	-3.05	0.04	0.01
LN25522_A001	WJ28054	J-HY4022433	10.05	400	129	-9.11	0.07	0.02
LN25522_A002	J-HY4022433	WJ28234	60.46	400	129	-9.11	0.07	0.02
LN25523	WJ4014459	WJ28054	18.91	300	120	-9.11	0.13	0.09
LN25603	WJ28096	WJ28114	86.19	600	130	-27.97	0.10	0.02
LN25622	WJ28134	WJ28135	71.77	300	132	-26.10	0.37	0.52
LN25642	WJ28135	WJ28154	132.71	300	132	-26.63	0.38	0.54
LN25662	WJ28154	WJ4014248	76.44	300	132	-25.53	0.36	0.50
LN25663	WJ28175	WJ28174	7.78	150	114	-3.05	0.17	0.37
LN25665	WJ21598	WJ28175	10.03	300	132	31.69	0.45	0.74
LN25682	WJ28177	WJ4014259	10.27	150	103	-4.48	0.25	0.92
LN26782	WJ28174	WJ28177	54.20	150	114	-4.48	0.25	0.76
LN34321	WJ4019846	WJ53893	223.76	150	114	1.39	0.08	0.09
LN34322	WJ53893	WJ4008712	148.71	150	114	-2.90	0.16	0.34
LN39382	WJ4016832	WJ38909	28.48	150	103	0.81	0.05	0.04
LN4000241	WJ4013243	WJ4013245	10.47	150	103	4.26	0.24	0.84
LN4000278	WJ4013252	WJ4013274	15.61	150	103	0.12	0.01	0.00
LN4000314	WJ4013383	WJ4013382	12.12	150	103	-0.23	0.01	0.00
LN4000331	WJ4013520	WJ4013519	1.06	150	103	-0.02	0.00	0.00
LN4000480	WJ4013458	WJ4013457	6.77	150	103	1.27	0.07	0.09
LN4000487	WJ4013470	WJ4013468	11.98	150	103	0.05	0.00	0.00
LN4000497	WJ4013418	WJ4013416	6.98	150	103	-3.95	0.22	0.73
LN4000907	WJ4014719	WJ4014721	99.65	150	103	-0.49	0.03	0.01
LN4000939	WJ4014719	WJ4014763	104.39	150	103	-0.14	0.01	0.00
LN4000999	WJ4014474	WJ4014473	12.72	300	120	-6.59	0.09	0.05
LN4001207	WJ4015177	WJ4015178	2.11	300	120	-3.12	0.04	0.02
LN4001217	WJ4015339	WJ4015332	90.60	300	120	-4.92	0.07	0.03
LN4001443	WJ4015228	WJ4015229	8.78	150	103	0.00	0.00	0.00
LN4001460	WJ4015238	WJ4015239	12.61	200	115	0.00	0.00	0.00
LN4001462	WJ4015239	WJ4015255	1.39	200	115	0.00	0.00	0.00
LN4001464	WJ4015256	WJ4015239	2.67	100	100	0.00	0.00	0.00
LN4001485	WJ4015259	WJ4015279	86.12	150	103	0.25	0.01	0.00
LN4001529	WJ57428	WJ4015289	79.80	150	103	-0.44	0.03	0.01
LN4004695	WJ4016056	WJ4016055	6.80	150	103	2.21	0.13	0.25
LN4004926	WJ4008658	WJ4008654	2.68	300	120	0.00	0.00	0.00
LN4004937	WJ4008677	WJ4008675	17.58	300	120	3.27	0.05	0.01
LN4004956	WJ4008657	WJ4008659	4.77	900	130	-682.68	1.07	1.07
LN4004980	WJ4017077	WJ4008675	77.24	300	132	-3.04	0.04	0.01
LN4005470	WJ60862	WJ4017087	107.49	250	115	4.27	0.09	0.06
LN4005811	WJ4016786	WJ4016785	4.19	400	129	12.09	0.10	0.03
LN4005825	WJ4016750	WJ4016727	6.09	400	129	8.22	0.07	0.02
LN4006937	WJ4006938	WJ4006937	4.92	300	120	13.75	0.19	0.19
LN4007284	WJ4015346	WJ4015345	1.81	300	132	-35.10	0.50	0.90
LN4007660	WJ4017170	WJ4015324	52.50	150	103	-0.01	0.00	0.00
LN4008350	WJ4012266	WJ4011936	4.25	300	120	2.81	0.04	0.01
LN4008856	WJ4012402	WJ4013089	42.00	900	130	-356.84	0.56	0.32
LN4008863	WJ4017209	WJ4012852	21.59	300	120	3.07	0.04	0.01
LN4008983	WJ4017212	WJ4012562	3.28	300	132	-8.14	0.12	0.06
LN4009239	WJ58535	WJ58532	17.54	150	114	-3.54	0.20	0.49
LN4009514	WJ4013114	WJ4013116	7.28	150	103	-3.12	0.18	0.47
LN4009882_A001	WJ4013049	WV4011116	6.49	400	129	76.85	0.61	0.99

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4009882_A002	WV4011116	WJ4013001	2.87	400	129	76.85	0.61	0.98
LN4009906	WJ4013114	WJ4013109	16.33	150	103	-1.33	0.08	0.10
LN4009966	WJ4013093	WJ4013101	10.69	400	129	-30.61	0.24	0.18
LN4009967	WJ4013101	WJ4013102	19.58	400	129	-32.13	0.26	0.20
LN4009997	WJ24284	WJ4013050	31.96	400	129	-65.78	0.52	0.74
LN4010005	WJ4012997	WJ4012994	25.49	300	120	-22.36	0.32	0.46
LN4010016	WJ4013272	WJ4013271	1.47	300	132	-25.14	0.36	0.48
LN4010047	WJ51990	WJ4019616	150.10	150	103	-2.57	0.15	0.33
LN4010339	WJ4016638	WJ4016605	2.49	300	120	28.63	0.41	0.73
LN4010475	WJ4016583	WJ4016582	3.58	300	120	8.45	0.12	0.07
LN4010591	WJ4016732	WJ4016730	2.54	300	120	1.02	0.01	0.00
LN4010707	WJ4016342	WJ4016349	99.23	300	120	14.24	0.20	0.20
LN4010870	WJ4018056	WJ4003831	25.54	300	120	17.71	0.25	0.30
LN4010950	WJ4012852	WJ4017229	3.94	250	115	16.08	0.33	0.67
LN4011089	WJ4010414	WJ4010416	26.66	200	115	0.00	0.00	0.00
LN4011316_A001	WJ4010425	WV4011145	6.84	600	130	45.97	0.16	0.05
LN4011316_A002	WV4011145	WJ4010424	3.60	600	130	45.97	0.16	0.05
LN4012081	WJ4017315	WJ4006791	0.59	150	103	-0.04	0.00	0.00
LN4012956	WJ27355	WJ4008460	17.65	300	120	9.13	0.13	0.09
LN4013142	WJ4010614	WJ4010597	6.68	300	120	9.08	0.13	0.09
LN4013146	WJ4010583	WJ4010581	1.99	300	120	9.71	0.14	0.10
LN4013341	WJ4008852	WJ4008830	91.14	300	120	41.66	0.59	1.47
LN4013626	WJ4008476	WJ27354	18.13	600	130	-194.43	0.69	0.75
LN4013627	WJ4008477	WJ4008476	3.78	600	130	0.00	0.00	0.00
LN4013643	WJ4002204	WJ4002202	8.01	150	103	0.17	0.01	0.00
LN4013665	WJ4002150	WJ4002158	10.55	150	103	-6.70	0.38	1.94
LN4015175	WJ4017447	WJ4006350	2.94	150	103	0.56	0.03	0.02
LN4015243	WJ4006038	WJ4006036	2.94	200	115	-2.53	0.08	0.06
LN4015337	WJ4017479	WJ4005704	48.37	150	103	0.00	0.00	0.00
LN4015338	WJ4017479	WJ4005703	30.78	150	103	0.05	0.00	0.00
LN4015357	WJ4005967	WJ4005968	144.15	150	103	-0.09	0.01	0.00
LN4015530	WJ4006221	WJ4006222	2.00	150	103	-3.94	0.22	0.73
LN4015600	WJ4006214	WJ4006217	11.53	150	103	2.41	0.14	0.29
LN4015737	WJ4011304	WJ4011305	10.73	150	103	-0.01	0.00	0.00
LN4015767	WJ4011304	WJ4011303	94.28	150	103	0.60	0.03	0.02
LN4015797	WJ4005428	WJ4005429	26.46	150	103	2.39	0.14	0.29
LN4015913	WJ4011378	WJ4010422	25.18	300	120	43.44	0.61	1.59
LN4015929	WJ4010917	WJ4011452	13.28	300	120	20.69	0.29	0.40
LN4015938	WJ4010946	WJ4011454	18.51	300	120	22.09	0.31	0.45
LN4015948	WJ4011482	WJ4011011	67.38	300	120	33.31	0.47	0.97
LN4016088	WJ4017630	WJ4011582	3.96	150	103	3.06	0.17	0.45
LN4016090	WJ4011622	WJ4017630	143.84	150	103	-1.55	0.09	0.13
LN4016101	WJ4011634	WJ4011632	6.29	150	103	1.67	0.09	0.15
LN4016120	WJ4011582	WJ4011676	67.31	150	103	2.00	0.11	0.21
LN4016516	WJ4011677	WJ4011399	35.07	150	103	2.06	0.12	0.22
LN4016552	WJ4011870	WJ4011859	91.84	150	103	-0.78	0.04	0.04
LN4016660_A001	WJ4009713	J-HY16101	36.38	300	120	34.15	0.48	1.02
LN4016660_A002	J-HY16101	WJ4009674	102.23	300	120	34.15	0.48	1.02
LN4016692	WJ4009359	WJ4009358	10.17	300	120	-25.85	0.37	0.61
LN4017487	WJ4009830	WJ4009045	38.92	150	103	-8.24	0.47	2.84
LN4017708	WJ4017585	WJ4009700	47.43	150	114	1.29	0.07	0.08
LN4017956	WJ4003830	WJ4018056	7.25	200	115	17.71	0.56	2.36
LN4017974	WJ4004963	WJ4004623	7.33	200	115	-7.36	0.23	0.46
LN4018123	WJ4009276	WJ4009277	30.79	300	120	-26.22	0.37	0.62
LN4018609	WJ4017753	WJ4015576	91.97	300	120	0.40	0.01	0.00
LN4018612	WJ4016912	WJ4017753	13.02	150	103	0.00	0.00	0.00
LN4019106	WJ4011632	WJ4011622	264.04	150	103	0.09	0.01	0.00
LN4019245	WJ61627	WJ59822	356.92	150	103	-3.02	0.17	0.44
LN4019246	WJ4006591	WJ4006585	136.18	300	120	-15.28	0.22	0.23
LN4019256	WJ4006581	WJ4006585	311.55	300	120	2.93	0.04	0.01
LN4019257	WJ4020971	WJ4011806	240.82	150	103	0.67	0.04	0.03
LN4019265	WJ4011806	WJ4011677	96.20	150	103	0.21	0.01	0.00
LN4019267	WJ4011815	WJ4011806	87.42	150	103	-0.18	0.01	0.00
LN4019273	WJ4011848	WJ4011815	83.38	150	103	-0.54	0.03	0.02
LN4019275	WJ4011859	WJ4011848	99.57	150	103	-0.67	0.04	0.03
LN4019278	WJ4011876	WJ4011870	86.96	150	103	-0.67	0.04	0.03
LN4019287	WJ4011947	WJ4011876	90.43	150	103	-0.45	0.03	0.01
LN4019294	WJ4003473	WJ4006581	152.45	150	103	-5.26	0.30	1.24
LN4019313	WJ4006835	WJ4001964	257.47	150	103	-2.22	0.13	0.25
LN4019319	WJ4001964	WJ4006933	100.71	150	103	1.63	0.09	0.14
LN4019320	WJ4006933	WJ4001950	101.46	150	103	0.06	0.00	0.00
LN4019331	WJ4006925	WJ4017639	45.10	150	103	0.01	0.00	0.00
LN4019365	WJ4002007	WJ4006925	230.90	150	103	-2.87	0.16	0.40
LN4019403	WJ4002007	WJ4006928	240.10	150	103	1.73	0.10	0.16
LN4019407	WJ4020978	WJ4011848	245.40	150	103	0.34	0.02	0.01
LN4019447	WJ4006928	WJ4006925	260.35	150	103	-3.23	0.18	0.50

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4019492	WJ4020984	WJ4011870	246.28	150	103	0.15	0.01	0.00
LN4019493	WJ4001888	WJ4001881	95.82	300	120	-24.47	0.35	0.55
LN4019495	WJ4001895	WJ4001888	87.74	300	120	-22.77	0.32	0.48
LN4019500	WJ4020987	WJ4011876	262.91	150	103	0.04	0.00	0.00
LN4019510	WJ4001895	WJ4001900	97.79	300	120	21.79	0.31	0.44
LN4019512	WJ4002308	WJ4002296	95.48	150	103	-0.22	0.01	0.00
LN4019514	WJ4002294	WJ4002296	109.03	150	103	-0.06	0.00	0.00
LN4019526	WJ4002296	WJ4002319	190.27	150	103	-0.42	0.02	0.01
LN4019528	WJ4002319	WJ4002359	94.31	150	103	0.04	0.00	0.00
LN4019532	WJ4006791	WJ4001900	317.71	150	114	-1.48	0.08	0.10
LN4019544	WJ4020003	WJ4011663	160.03	150	103	-2.59	0.15	0.33
LN4019548	WJ4006785	WJ4001895	263.66	150	103	1.14	0.06	0.07
LN4019553	WJ4006785	WJ4006781	67.31	150	103	0.10	0.01	0.00
LN4019554	WJ4011663	WJ62422	100.25	150	103	-1.07	0.06	0.06
LN4019563	WJ4006785	WJ4001888	168.33	150	103	-1.60	0.09	0.14
LN4019575	WJ60020	WJ4011486	173.02	300	120	31.27	0.44	0.87
LN4019585	WJ4006801	WJ4001950	132.41	150	103	-1.71	0.10	0.15
LN4019591	WJ59712	WJ4011663	171.65	150	103	1.67	0.09	0.15
LN4019595	WJ4006814	WJ4006801	93.50	150	103	-0.91	0.05	0.05
LN4019598	WJ4006820	WJ4006814	96.58	150	103	-0.68	0.04	0.03
LN4019605	WJ4006820	WJ4006933	230.70	150	103	-1.49	0.08	0.12
LN4019606	WJ4011763	WJ59726	64.41	150	103	-0.06	0.00	0.00
LN4019609	WJ4002365	WJ4002319	168.05	150	103	0.57	0.03	0.02
LN4019610	WJ4006835	WJ4006820	104.58	150	103	-2.06	0.12	0.22
LN4019633	WJ53661	WJ4017357	415.53	150	103	-3.07	0.17	0.46
LN4019645	WJ4001964	WJ4019415	199.52	150	103	-3.99	0.23	0.74
LN4019653	WJ4006928	WJ4006399	285.49	150	103	4.74	0.27	1.02
LN4019793	WJ58336	WJ53448	205.27	150	103	-6.78	0.38	1.98
LN4019800	WJ53450	WJ4006399	198.56	150	103	3.58	0.20	0.61
LN4019893	WJ4011683	WJ4011482	307.01	150	103	-1.34	0.08	0.10
LN4019897	WJ4020882	WJ4011482	41.83	300	120	34.83	0.49	1.06
LN4019935	WJ4011011	WJ4011479	32.36	300	120	27.59	0.39	0.69
LN4019948	WJ4011680	WJ4011479	320.68	150	103	-0.93	0.05	0.05
LN4019952	WJ53717	WJ4017786	191.86	150	103	-4.11	0.23	0.78
LN4019968	WJ4017786	WJ49143	85.72	150	103	3.67	0.21	0.64
LN4019970	WJ4011683	WJ4011680	102.68	150	103	3.92	0.22	0.72
LN4019977	WJ4011479	WJ4011476	89.96	300	120	26.48	0.37	0.64
LN4019980	WJ53512	WJ49141	78.73	150	103	-0.52	0.03	0.02
LN4019985	WJ4002333	WJ4002321	100.10	150	103	1.31	0.07	0.09
LN4019986	WJ4011680	WJ4017630	75.80	150	103	4.64	0.26	0.98
LN4019992	WJ4011671	WJ4011676	68.39	150	103	0.00	0.00	0.00
LN4019995	WJ4018024	WJ4002498	100.51	150	103	2.96	0.17	0.43
LN4020007	WJ4011676	WJ4011677	111.33	150	103	1.89	0.11	0.19
LN4020014	WJ4011582	WJ4011579	47.46	150	103	1.05	0.06	0.06
LN4020022	WJ4011579	WJ4011476	312.65	150	103	-1.50	0.08	0.12
LN4020024	WJ4011476	WJ4011458	110.24	300	120	24.21	0.34	0.54
LN4020027	WJ4003473	WJ4002977	134.34	150	103	0.08	0.00	0.00
LN4020041	WJ4002064	WJ4002079	477.95	150	114	1.10	0.06	0.06
LN4020044	WJ52877	WJ4002079	74.88	300	120	-9.97	0.14	0.10
LN4020051	WJ4019996	WJ4011458	222.89	150	103	-1.06	0.06	0.06
LN4020071	WJ4011411	WJ4011382	41.52	150	103	1.75	0.10	0.16
LN4020079	WJ4011458	WJ4010946	79.08	300	120	22.33	0.32	0.46
LN4020086	WJ4002202	WJ4002158	100.31	150	103	3.19	0.18	0.49
LN4020089	WJ49142	WJ4002204	94.09	150	103	2.86	0.16	0.40
LN4020099	WJ4011399	WJ4011390	97.09	150	103	2.52	0.14	0.32
LN4020101	WJ4011454	WJ4010917	85.95	300	120	21.45	0.30	0.43
LN4020106	WJ4011390	WJ4011387	73.40	150	103	2.49	0.14	0.31
LN4020109	WJ4011387	WJ4011401	143.76	150	103	0.15	0.01	0.00
LN4020117	WJ4011387	WJ4011989	65.34	150	103	2.20	0.12	0.25
LN4020130	WJ4011989	WJ4011382	194.77	150	103	1.97	0.11	0.20
LN4020136	WJ4011452	WJ4011449	95.59	300	120	20.58	0.29	0.40
LN4020142	WJ4011411	WJ4011449	170.74	150	103	0.75	0.04	0.03
LN4020145	WJ4011449	WJ4010236	51.72	300	120	20.77	0.29	0.41
LN4020147	WJ4010236	WJ4011378	50.39	300	120	40.26	0.57	1.38
LN4020153	WJ4011382	WJ4011378	169.80	150	103	3.32	0.19	0.53
LN4020186	WJ4011139	WJ4011189	221.13	150	103	0.12	0.01	0.00
LN4020197	WJ4021011	WJ4011947	268.91	150	103	-0.01	0.00	0.00
LN4020328	WJ48243	WJ4011304	100.29	150	103	0.65	0.04	0.03
LN4020341	WJ4011303	WJ4011289	154.86	150	103	0.08	0.00	0.00
LN4020348	WJ48211	WJ4021044	174.38	150	103	0.47	0.03	0.01
LN4020450	WJ4002064	WJ4006591	52.10	150	103	-11.07	0.63	4.91
LN4020453	WJ4002079	WJ4002064	286.52	300	120	-9.43	0.13	0.09
LN4020467	WJ4003146	WJ4003628	101.18	150	103	-0.17	0.01	0.00
LN4020477	WJ4002321	WJ4002204	205.21	150	103	-2.60	0.15	0.34
LN4020492	WJ4003633	WJ4002512	135.88	300	120	-1.52	0.02	0.00
LN4020505	WJ4004623	WJ4004621	86.37	200	115	9.72	0.31	0.78

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4020509	WJ4004621	WJ4004501	94.33	200	115	5.73	0.18	0.29
LN4020512	WJ4004501	WJ4004488	96.62	200	115	1.40	0.04	0.02
LN4020515	WJ4004488	WJ4003845	96.74	200	115	-3.22	0.10	0.10
LN4020518	WJ4003845	WJ4003830	79.36	200	115	-4.65	0.15	0.20
LN4020527	WJ49003	WJ4003831	240.72	300	120	-36.37	0.51	1.15
LN4020541	WJ4003930	WJ4003834	220.75	300	120	-41.54	0.59	1.46
LN4020620	WJ4003924	WJ4003925	450.40	300	120	5.70	0.08	0.04
LN4020624	WJ4003925	WJ4003927	255.35	300	120	9.07	0.13	0.09
LN4020629	WJ4003927	WJ4003929	218.11	300	120	11.11	0.16	0.13
LN4020635	WJ4003929	WJ4003930	218.95	300	120	14.40	0.20	0.21
LN4020701	WJ4004140	WJ4017359	131.84	150	103	2.79	0.16	0.38
LN4020715	WJ4004565	WJ4004567	112.86	150	103	1.25	0.07	0.09
LN4020800	WJ58760	WJ4004354	273.89	150	103	1.15	0.06	0.07
LN4020807	WJ4006153	WJ4004368	365.69	150	103	-1.38	0.08	0.10
LN4020813	WJ4004558	WJ4004417	201.64	150	103	0.07	0.00	0.00
LN4020842	WJ4004563	WJ4004560	99.01	150	103	-0.60	0.03	0.02
LN4020845	WJ4004558	WJ62335	92.90	150	103	3.07	0.17	0.46
LN4020850	WJ4004560	WJ4004140	273.96	150	103	2.29	0.13	0.26
LN4020852	WJ4004418	WJ4017359	163.68	150	103	-0.06	0.00	0.00
LN4020855	WJ4017359	WJ4003927	84.19	150	103	2.17	0.12	0.24
LN4020889	WJ4005489	WJ4004584	121.96	150	103	3.13	0.18	0.47
LN4020901	WJ4004148	WJ4004584	408.67	150	103	-0.57	0.03	0.02
LN4020910	WJ4004148	WJ4017373	99.98	150	103	3.83	0.22	0.69
LN4020912	WJ4017373	WJ4003922	131.39	150	103	0.05	0.00	0.00
LN4020918	WJ4004151	WJ4004148	89.12	150	103	3.47	0.20	0.57
LN4020920	WJ4004151	WJ4003907	73.93	150	103	0.04	0.00	0.00
LN4020925	WJ4004827	WJ4004151	202.73	150	103	3.62	0.21	0.62
LN4020930	WJ4003958	WJ4004827	124.90	150	103	1.80	0.10	0.17
LN4020945	WJ4003958	WJ4004177	93.90	150	103	-2.05	0.12	0.22
LN4020972	WJ4004177	WJ4003978	124.40	150	103	1.81	0.10	0.17
LN4020977	WJ4003978	WJ4004827	97.97	150	103	1.99	0.11	0.21
LN4020983	WJ4004184	WJ4003978	88.12	150	103	0.29	0.02	0.01
LN4020999	WJ4003998	WJ4004184	77.92	150	103	1.34	0.08	0.10
LN4021033	WJ4004000	WJ4003998	93.27	150	114	-1.66	0.09	0.12
LN4021039	WJ4004013	WJ4004000	54.40	150	103	-0.04	0.00	0.00
LN4021047	WJ4004286	WJ4004000	132.78	150	114	-1.54	0.09	0.11
LN4021058	WJ4017373	WJ4003924	60.63	150	103	5.78	0.33	1.48
LN4021067	WJ4004563	WJ4004567	213.78	150	103	1.68	0.10	0.15
LN4021087	WJ4004537	WJ4017766	218.82	150	103	-0.30	0.02	0.01
LN4021103	WJ4017766	WJ48979	215.25	150	103	-3.21	0.18	0.50
LN4021107	WJ4017666	WJ4004963	24.71	150	103	-6.56	0.37	1.86
LN4021111	WJ4004623	WJ4002498	439.88	300	132	-17.23	0.24	0.24
LN4021140_A001	WJ4013756	J-HY4024238	104.32	400	129	-16.74	0.13	0.06
LN4021140_A002	J-HY4024238	WJ27994	52.47	400	129	-16.74	0.13	0.06
LN4021159_A001	WJ4013756	J-HY4023355	80.69	150	103	-3.13	0.18	0.47
LN4021159_A002	J-HY4023355	WJ4013827	118.63	150	103	-3.13	0.18	0.47
LN4021177	WJ4013827	WJ4013831	106.01	150	103	-3.55	0.20	0.60
LN4021230	WJ4005072	WJ4004482	159.65	150	103	-2.66	0.15	0.35
LN4021250	WJ4004482	WJ4004476	175.99	150	114	0.06	0.00	0.00
LN4021269	WJ4005083	WJ48988	215.89	150	103	-4.24	0.24	0.83
LN4021305	WJ21660	WJ48984	216.92	150	103	-3.64	0.21	0.63
LN4021309	WJ4004537	WJ4004538	94.88	150	103	3.15	0.18	0.48
LN4021312	WJ4004538	WJ4005072	189.69	150	103	2.74	0.16	0.37
LN4021321	WJ4013852	WJ4013861	196.60	150	103	-2.70	0.15	0.36
LN4021361	WJ4004482	WJ48994	274.97	150	103	-2.90	0.16	0.41
LN4021375	WJ4013256	WJ21558	179.36	150	114	-0.66	0.04	0.02
LN4021384	WJ4013268	WJ4013256	129.75	150	103	1.02	0.06	0.06
LN4021394	WJ4013245	WJ4013268	83.31	150	103	1.85	0.10	0.18
LN4021402	WJ4013274	WJ4013256	121.65	150	114	-1.60	0.09	0.11
LN4021404	WJ4004584	WJ4017373	306.62	150	103	2.22	0.13	0.25
LN4021406	WJ4013246	WJ4013245	99.80	150	103	-2.38	0.13	0.29
LN4021412	WJ4013252	WJ4013246	102.79	150	103	-1.17	0.07	0.08
LN4021418	WJ4013704	WJ4013243	279.08	150	103	-1.86	0.11	0.18
LN4021431	WJ4013523	WJ4013520	228.58	150	103	-0.90	0.05	0.05
LN4021434	WJ4013252	WJ4013519	283.01	150	103	0.96	0.05	0.05
LN4021461	WJ4013528	WJ4013523	79.45	150	103	0.75	0.04	0.03
LN4021468	WJ4013530	WJ4013528	82.51	150	103	-4.22	0.24	0.82
LN4021549	WJ59065	WJ4005428	119.46	150	103	3.40	0.19	0.55
LN4021571	WJ4005428	WJ4005731	136.69	150	103	0.95	0.05	0.05
LN4021626	WJ4006221	WJ4004537	95.22	150	103	2.98	0.17	0.43
LN4021631	WJ4006217	WJ4004558	94.98	150	103	3.22	0.18	0.50
LN4021633	WJ4006217	WJ4006221	218.44	150	103	-0.90	0.05	0.05
LN4021642	WJ4006212	WJ4006214	80.73	150	103	2.47	0.14	0.30
LN4021645	WJ4005430	WJ4004368	133.18	150	103	1.51	0.09	0.12
LN4021646	WJ4005430	WJ4006148	225.37	150	103	0.07	0.00	0.00
LN4021653	WJ48956	WJ48963	105.90	150	103	1.01	0.06	0.06

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4021694	WJ58764	WJ4006222	140.12	150	103	2.20	0.12	0.25
LN4021713	WJ58749	WJ48969	121.67	150	103	2.14	0.12	0.23
LN4021728	WJ48973	WJ4006038	317.03	150	103	-3.99	0.23	0.74
LN4021745	WJ4006036	WJ4004963	93.82	200	115	-0.69	0.02	0.01
LN4021749	WJ4006048	WJ4006038	98.23	200	115	1.56	0.05	0.03
LN4021758	WJ4006069	WJ4006048	53.32	200	115	-0.09	0.00	0.00
LN4021766	WJ58747	WJ4006069	30.12	150	114	-4.53	0.26	0.78
LN4021771	WJ4006067	WJ4006069	48.70	200	115	4.47	0.14	0.18
LN4021774	WJ4013538	WJ4013530	503.77	150	103	-2.75	0.16	0.37
LN4021777_A001	WJ4013511	J-HY4027373	67.61	150	103	-2.69	0.15	0.36
LN4021777_A002	J-HY4027373	WJ4013482	38.12	150	103	-2.69	0.15	0.36
LN4021780	WJ4013482	WJ4013512	260.02	150	103	0.21	0.01	0.00
LN4021783	WJ4013482	WJ4013443	158.46	150	103	-3.11	0.18	0.47
LN4021786	WJ4013443	WJ4013444	40.74	150	103	-3.12	0.18	0.47
LN4021793	WJ4013457	WJ4013444	99.17	150	103	1.18	0.07	0.08
LN4021797	WJ4013458	WJ4013470	95.13	150	103	0.28	0.02	0.01
LN4021803	WJ4013470	WJ4013457	326.23	150	103	0.06	0.00	0.00
LN4021806	WJ4013416	WJ4013530	99.17	150	103	-1.24	0.07	0.08
LN4021808	WJ4013418	WJ4013444	179.86	150	103	2.10	0.12	0.23
LN4021810	WJ4013414	WJ4013416	162.96	150	103	2.76	0.16	0.37
LN4021811	WJ61779	WJ4013418	136.36	150	103	-1.67	0.09	0.15
LN4021812	WJ4006036	WJ4006109	224.48	150	103	-1.93	0.11	0.19
LN4021813	WJ4013414	WJ4013523	94.87	150	103	-1.59	0.09	0.13
LN4021819	WJ4013361	WJ4013362	63.67	150	103	0.01	0.00	0.00
LN4021827	WJ4006091	WJ4006109	100.17	150	103	-1.28	0.07	0.09
LN4021828	WJ4013361	WJ4013338	151.75	150	103	0.05	0.00	0.00
LN4021829	WJ4013338	WJ4013348	51.33	150	103	0.01	0.00	0.00
LN4021833	WJ4006048	WJ4006091	212.10	150	103	-1.69	0.10	0.15
LN4021838	WJ4013338	WJ4013322	338.51	150	114	-0.19	0.01	0.00
LN4021846	WJ4013383	WJ4013361	229.11	150	103	0.20	0.01	0.00
LN4021849	WJ4013322	WJ4013382	99.27	150	103	-0.06	0.00	0.00
LN4021850	WJ4006067	WJ4006089	199.87	150	103	-1.60	0.09	0.14
LN4021853	WJ4006089	WJ4006091	100.50	150	103	0.85	0.05	0.04
LN4021863	WJ53724	WJ4006089	88.48	150	103	2.71	0.15	0.36
LN4021873	WJ4017333	WJ53722	80.31	150	103	1.08	0.06	0.07
LN4021876	WJ4006075	WJ4017333	174.56	150	103	-2.65	0.15	0.35
LN4021879	WJ4013283	WJ4013274	105.88	150	114	-1.67	0.09	0.12
LN4021884	WJ4013287	WJ4013283	130.56	150	114	-0.88	0.05	0.04
LN4021887	WJ4013287	WJ4013382	153.92	150	103	0.37	0.02	0.01
LN4021888	WJ4013299	WJ4013287	107.51	150	114	-0.39	0.02	0.01
LN4021890	WJ4013322	WJ4013299	112.11	150	114	-0.28	0.02	0.00
LN4021905	WJ4005699	WJ4006067	105.79	200	115	3.07	0.10	0.09
LN4021907	WJ4005699	WJ4006075	98.55	200	115	-0.53	0.02	0.00
LN4021911_A001	WJ28234	J-HY4029416	88.51	400	129	15.27	0.12	0.05
LN4021911_A002	J-HY4029416	WJ4016440	99.62	400	129	15.26	0.12	0.05
LN4021930	WJ4014459	WJ4014757	98.63	150	114	1.19	0.07	0.06
LN4021937	WJ4014763	WJ4014757	254.55	150	103	-0.56	0.03	0.02
LN4021938	WJ4005966	WJ4005968	67.68	150	103	-0.16	0.01	0.00
LN4021939_A001	WJ4014473	J-HY4032974	86.26	300	120	-7.23	0.10	0.06
LN4021939_A002	J-HY4032974	WJ4014459	106.62	300	120	-7.23	0.10	0.06
LN4021942	WJ4014475	WJ4014474	6.94	300	120	-3.42	0.05	0.01
LN4021944_A001	WJ4014474	J-HY16117	63.14	300	132	2.75	0.04	0.01
LN4021944_A002	J-HY16117	J-HY4032126	97.49	300	132	2.75	0.04	0.01
LN4021944_A003	J-HY4032126	J-HY4032075	92.10	300	132	2.75	0.04	0.01
LN4021944_A004	J-HY4032075	WJ21239	14.75	300	132	2.75	0.04	0.01
LN4021949	WJ4014763	WJ4014475	110.11	150	103	0.24	0.01	0.00
LN4021959_A001	WJ4014624	J-HY4033084	73.38	300	120	-3.62	0.05	0.02
LN4021959_A002	J-HY4033084	WJ4014475	77.72	300	120	-3.63	0.05	0.02
LN4021962	WJ4014623	WJ4014624	46.09	300	120	-3.38	0.05	0.01
LN4021963	WJ4014624	WJ4014701	115.67	150	103	0.19	0.01	0.00
LN4021972	WJ4014711	WJ4014701	104.03	150	103	0.15	0.01	0.00
LN4021975	WJ4014711	WJ4014719	165.46	150	103	-0.52	0.03	0.02
LN4021990	WJ52171	WJ4017479	202.14	150	103	0.12	0.01	0.00
LN4021996	WJ52221	WJ4005982	178.01	150	103	0.08	0.00	0.00
LN4022004	WJ4017752	WJ4014711	175.93	150	103	-0.25	0.01	0.00
LN4022007	WJ4017751	WJ4014701	232.92	150	103	-0.19	0.01	0.00
LN4022011	WJ4017749	WJ4014623	223.12	300	120	-1.82	0.03	0.00
LN4022022	WJ48953	WJ4005430	74.26	150	103	1.70	0.10	0.15
LN4022025	WJ4014848	WJ4014820	42.29	150	103	0.00	0.00	0.00
LN4022030	WJ4005613	WJ4005429	95.55	150	114	-0.12	0.01	0.00
LN4022038	WJ4014873	WJ4014820	92.61	150	103	-0.22	0.01	0.00
LN4022040	WJ4017753	WJ4014873	222.49	150	103	-0.48	0.03	0.01
LN4022098	WJ53069	WJ4014757	84.57	150	114	-0.50	0.03	0.01
LN4022101	WJ4014721	WJ53078	184.08	150	103	-0.43	0.02	0.01
LN4022156	WJ4006350	WJ4005489	239.27	150	103	2.69	0.15	0.36
LN4022180	WJ4005429	WJ4006153	271.94	150	103	2.17	0.12	0.24

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4022184	WJ4017763	WJ4017738	219.36	150	103	-0.38	0.02	0.01
LN4022190	WJ4017743	WJ4017738	93.10	200	115	2.87	0.09	0.08
LN4022206	WJ4017749	WJ4017743	88.01	200	115	3.42	0.11	0.11
LN4022300	WJ4017764	WJ4017763	218.22	150	103	-0.50	0.03	0.02
LN4022303	WJ4015172	WJ4017764	95.13	150	103	1.36	0.08	0.10
LN4022311	WJ4015178	WJ4015172	86.94	150	103	0.98	0.06	0.06
LN4022315	WJ4015332	WJ4015177	134.00	300	120	-4.14	0.06	0.02
LN4022326	WJ4015355	WJ22721	279.46	150	103	1.21	0.07	0.08
LN4022327	WJ25697	WJ4015355	154.49	300	120	-1.30	0.02	0.00
LN4022331	WJ4015355	WJ4015339	169.05	300	120	-4.30	0.06	0.02
LN4022338	WJ4015289	WJ4015284	295.30	150	103	-0.34	0.02	0.01
LN4022344	WJ4015278	WJ4015284	206.49	150	103	-0.06	0.00	0.00
LN4022346	WJ4015289	WJ4015259	420.86	150	103	-0.43	0.02	0.01
LN4022349	WJ4015284	WJ4015279	96.25	150	103	-0.64	0.04	0.02
LN4022361	WJ4015259	WJ4015238	134.05	250	115	-0.78	0.02	0.00
LN4022363	WJ4015229	WJ4015238	82.13	250	115	0.78	0.02	0.00
LN4022364	WJ4015904	WJ4015822	83.71	150	103	-0.01	0.00	0.00
LN4022368	WJ4015822	WJ4015863	115.64	150	103	-0.10	0.01	0.00
LN4022370	WJ4015576	WJ4015863	112.92	150	103	0.09	0.01	0.00
LN4022372	WJ4015863	WJ4017752	166.02	150	103	-0.11	0.01	0.00
LN4022374	WJ4015576	WJ4017752	90.27	300	120	0.29	0.00	0.00
LN4022416	WJ4015822	WJ4017751	325.35	150	103	-0.06	0.00	0.00
LN4022420	WJ4017752	WJ4017751	87.07	300	120	0.31	0.00	0.00
LN4022433	WJ4006222	WJ48972	433.29	150	103	-1.95	0.11	0.20
LN4022447	WJ4017785	WJ54442	90.53	150	103	3.07	0.17	0.46
LN4022451	WJ58427	WJ58745	295.60	400	129	25.47	0.20	0.13
LN4022490_A001	WJ4015473	WV58425	85.98	150	103	0.00	0.00	0.00
LN4022490_A002	WV58425	WJ54490	85.98	150	103	0.00	0.00	0.00
LN4022491	WJ4015473	WJ4015778	125.72	150	103	0.09	0.01	0.00
LN4022508	WJ54423	WJ4015640	86.81	150	103	-2.57	0.15	0.33
LN4022515	WJ4020864	WJ4008852	20.22	300	120	41.99	0.59	1.49
LN4022518	WJ4008852	WJ4017698	303.95	150	103	-0.28	0.02	0.01
LN4022538	WJ4008675	WJ4008658	263.18	300	120	0.06	0.00	0.00
LN4022540	WJ4008678	WJ4008677	66.63	300	120	4.09	0.06	0.02
LN4022553	WJ4008692	WJ4008690	91.40	300	120	4.80	0.07	0.03
LN4022596_A001	WJ4008778	WV58426	335.10	150	103	0.00	0.00	0.00
LN4022596_A002	WV58426	WJ4019876	335.10	150	103	0.00	0.00	0.00
LN4022600	WJ58946	WJ4008818	93.03	300	120	41.47	0.59	1.46
LN4022602	WJ4008818	WJ4008815	181.10	150	103	0.28	0.02	0.01
LN4022604	WJ4008818	WJ4008778	81.87	300	120	40.47	0.57	1.40
LN4022606	WJ4008778	WJ4008733	94.16	300	120	40.29	0.57	1.38
LN4022607	WJ4008733	WJ4008721	98.27	300	120	37.14	0.53	1.19
LN4022624	WJ53989	WJ54013	90.80	150	103	3.63	0.21	0.62
LN4022628	WJ4008721	WJ4008712	108.43	300	120	39.11	0.55	1.31
LN4022703_A001	WJ4008657	WV4011482	2.17	300	120	46.68	0.66	1.82
LN4022703_A002	WV4011482	WJ4008654	4.29	300	120	46.68	0.66	1.82
LN4022752	WJ4008712	WJ4008619	129.43	300	120	35.21	0.50	1.08
LN4022757	WJ4019790	WJ4008399	121.64	150	103	3.96	0.22	0.73
LN4022824	WJ4008619	WJ4008497	91.75	300	120	34.34	0.49	1.03
LN4022834	WJ4015733	WJ4010614	90.83	300	120	9.08	0.13	0.09
LN4022835	WJ4008433	WJ4008497	118.76	300	120	-26.49	0.37	0.64
LN4022953	WJ4008182	WJ4008473	405.39	600	130	218.29	0.77	0.93
LN4022960	WJ4017783	WJ4017784	95.65	200	115	1.81	0.06	0.03
LN4022967	WJ4017782	WJ4017783	96.86	200	115	2.01	0.06	0.04
LN4022974	WJ4017781	WJ4017782	101.64	200	115	2.13	0.07	0.05
LN4022978	WJ4017780	WJ4017781	99.56	200	115	2.44	0.08	0.06
LN4022982	WJ55422	WJ4017780	92.16	200	115	2.54	0.08	0.06
LN4022988	WJ4017788	WJ55423	80.70	200	115	2.62	0.08	0.07
LN4023093	WJ4016135	WJ4016125	103.19	150	103	0.86	0.05	0.04
LN4023100	WJ55469	WJ4015733	98.38	300	120	8.30	0.12	0.07
LN4023108	WJ4015745	WJ55472	85.47	300	120	8.84	0.13	0.08
LN4023110	WJ4015745	WJ4016125	167.11	150	103	0.42	0.02	0.01
LN4023121	WJ52757	WJ4015745	86.36	300	120	9.31	0.13	0.09
LN4023141	WJ52748	WJ4015768	80.64	150	103	0.05	0.00	0.00
LN4023147	WJ53108	WJ4015766	90.59	150	114	0.05	0.00	0.00
LN4023168	WJ4008460	WJ4008399	173.56	300	120	-6.59	0.09	0.05
LN4023170	WJ4008399	WJ48471	74.84	300	120	-3.80	0.05	0.02
LN4023171	WJ4008389	WJ4008332	141.07	300	120	-4.28	0.06	0.02
LN4023239	WJ4017777	WJ4017788	95.26	200	115	2.67	0.09	0.07
LN4023245	WJ4017775	WJ4017777	94.17	200	115	2.75	0.09	0.07
LN4023255	WJ4017738	WJ4017775	92.97	200	115	2.75	0.09	0.07
LN4023644	WJ4010425	WJ58401	166.22	300	120	15.82	0.22	0.25
LN4023674	WJ4006937	WJ4017187	72.68	300	120	13.75	0.19	0.19
LN4023684	WJ4006938	WJ4017150	107.31	300	120	-13.85	0.20	0.19
LN4023688	WJ4006935	WJ4006938	110.10	150	103	-0.07	0.00	0.00
LN4023699	WJ4020259	WJ4017150	114.01	300	120	13.67	0.19	0.19

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4023804	WJ4010352	WJ4010429	89.06	300	120	22.32	0.32	0.46
LN4023810	WJ4010347	WJ4010352	122.49	300	120	23.65	0.33	0.52
LN4023829	WJ4010352	WJ4010440	121.33	150	103	1.28	0.07	0.09
LN4023839	WJ4006959	WJ4015578	155.84	300	120	-14.73	0.21	0.21
LN4023878	WJ4010452	WJ4010440	137.23	150	103	-0.70	0.04	0.03
LN4023911	WJ4017781	WJ4016704	222.33	150	103	-0.53	0.03	0.02
LN4023930	WJ4010476	WJ4010452	94.06	150	103	-0.19	0.01	0.00
LN4023939	WJ4010476	WJ4017292	131.64	150	103	0.02	0.00	0.00
LN4023942	WJ20935	WJ4010476	238.00	150	103	-0.02	0.00	0.00
LN4023951	WJ4010440	WJ4017292	466.27	150	103	0.37	0.02	0.01
LN4024013	WJ4017777	WJ4016809	358.08	150	103	-0.81	0.05	0.04
LN4024057	WJ4010377	WJ4010389	166.37	150	103	0.62	0.04	0.02
LN4024061	WJ4016727	WJ4016749	28.43	400	129	9.28	0.07	0.02
LN4024070	WJ4010392	WJ4010389	77.84	150	103	-1.02	0.06	0.06
LN4024078	WJ4010452	WJ4010377	71.90	150	103	0.44	0.02	0.01
LN4024110	WJ4010518	WJ4010347	92.30	150	103	-0.35	0.02	0.01
LN4024170_A001	WJ4010424	WV4011161	194.00	900	130	-412.45	0.65	0.42
LN4024170_A002	WV4011161	WV4011231	533.46	900	130	-412.45	0.65	0.42
LN4024170_A003	WV4011231	WV4011354	84.53	900	130	-412.45	0.65	0.42
LN4024170_A004	WV4011354	WJ4012384	8.80	900	130	-412.45	0.65	0.42
LN4024172	WJ4017691	WJ4010347	277.23	300	120	24.07	0.34	0.53
LN4024174_A001	WJ4016785	J-HY4032598	42.42	400	129	9.50	0.08	0.02
LN4024174_A002	J-HY4032598	WJ4016750	54.59	400	129	9.50	0.08	0.02
LN4024219_A001	WJ4016727	J-HY4033486	78.80	300	132	-1.07	0.02	0.00
LN4024219_A002	J-HY4033486	J-HY4033482	105.56	300	132	-1.07	0.02	0.00
LN4024219_A003	J-HY4033482	WJ58486	35.97	300	132	-1.07	0.02	0.00
LN4024303	WJ4010414	WJ4017794	9.33	200	115	10.73	0.34	0.93
LN4024317	WJ4017282	WJ4010417	4.61	400	129	39.36	0.31	0.28
LN4024445	WJ4010376	WJ4010421	94.54	150	103	-0.95	0.05	0.05
LN4024447	WJ4010389	WJ4010376	249.68	150	103	-0.52	0.03	0.02
LN4024450	WJ4010377	WJ4010376	86.46	150	103	-0.25	0.01	0.00
LN4024459	WJ4010429	WJ4010433	122.66	150	103	0.03	0.00	0.00
LN4024640	WJ4017284	WJ4018217	123.69	150	103	1.59	0.09	0.13
LN4024650	WJ4010521	WJ4017284	256.27	150	103	1.51	0.09	0.12
LN4024669	WJ4010304	WJ4010297	57.94	150	103	-0.90	0.05	0.05
LN4024675	WJ4017287	WJ4010297	74.17	150	103	-0.05	0.00	0.00
LN4024677	WJ4010295	WJ4010297	196.94	150	103	1.06	0.06	0.06
LN4024738_A001	WJ4017229	J-HY4039988	95.33	250	115	14.49	0.30	0.55
LN4024738_A002	J-HY4039988	J-HY4039984	133.97	250	115	14.49	0.30	0.55
LN4024738_A003	J-HY4039984	J-HY4039977	128.14	250	115	14.49	0.30	0.55
LN4024738_A004	J-HY4039977	J-HY4039954	89.18	250	115	14.49	0.30	0.55
LN4024738_A005	J-HY4039954	J-HY4039949	55.25	250	115	14.49	0.30	0.55
LN4024738_A006	J-HY4039949	WJ4010414	55.25	250	115	14.49	0.30	0.55
LN4024858_A001	WJ4016786	J-HY4032614	81.70	400	129	-13.35	0.11	0.04
LN4024858_A002	J-HY4032614	WJ4017083	79.45	400	129	-13.35	0.11	0.04
LN4024908_A001	WJ4017083	J-HY4032627	94.38	400	129	-15.56	0.12	0.05
LN4024908_A002	J-HY4032627	WJ4016440	36.54	400	129	-15.56	0.12	0.05
LN4024911_A001	WJ4016440	J-HY4033936	59.90	150	103	-1.70	0.10	0.15
LN4024911_A002	J-HY4033936	J-HY4033929	80.16	150	103	-1.70	0.10	0.15
LN4024911_A003	J-HY4033929	J-HY22579	59.38	150	103	-1.70	0.10	0.15
LN4024911_A004	J-HY22579	WJ58473	15.03	150	103	-1.70	0.10	0.15
LN4024963	WJ4017736	WJ4017733	218.81	150	103	-1.27	0.07	0.09
LN4024971	WJ4017775	WJ4017736	222.58	150	103	-0.71	0.04	0.03
LN4024984	WJ4017587	WJ4017590	101.60	150	103	-0.06	0.00	0.00
LN4024990	WJ4009617	WJ4017590	71.45	150	103	-0.04	0.00	0.00
LN4024991	WJ4017159	WJ4017755	100.97	300	120	-0.93	0.01	0.00
LN4024999	WJ4017159	WJ4015480	312.45	150	103	0.14	0.01	0.00
LN4025000	WJ49239	WJ4009615	73.19	150	103	0.05	0.00	0.00
LN4025002	WJ4016842	WJ4017755	204.62	150	103	-4.13	0.23	0.79
LN4025008	WJ4017750	WJ4017159	109.06	300	120	-0.58	0.01	0.00
LN4025015	WJ4017748	WJ4017750	153.06	300	120	1.19	0.02	0.00
LN4025022	WJ4017742	WJ4017748	102.90	300	120	1.29	0.02	0.00
LN4025024	WJ4017742	WJ4015789	252.61	150	103	3.74	0.21	0.66
LN4025033	WJ4015851	WJ4017750	111.56	150	103	-5.24	0.30	1.23
LN4025077	WJ4017793	WJ4016842	203.33	150	103	-3.94	0.22	0.73
LN4025081	WJ4015882	WJ4017793	107.62	150	103	-0.06	0.00	0.00
LN4025128	WJ4015789	WJ4015780	341.26	150	103	3.84	0.22	0.69
LN4025138	WJ4016341	WJ22344	103.70	150	103	-0.02	0.00	0.00
LN4025171	WJ4015780	WJ4016359	202.30	150	103	3.84	0.22	0.69
LN4025199	WJ4009602	WJ49244	39.91	150	103	-0.04	0.00	0.00
LN4025284_A001	WJ58526	J-HY4007488	9.08	400	129	-24.92	0.20	0.12
LN4025284_A002	J-HY4007488	WJ4017778	74.64	400	129	-24.92	0.20	0.12
LN4025291_A001	WJ4015621	J-HY4008124	86.00	400	129	-0.08	0.00	0.00
LN4025291_A002	J-HY4008124	WJ4017778	118.08	400	129	-0.08	0.00	0.00
LN4025294_A001	WJ4015621	J-HY4007498	48.68	150	103	-1.74	0.10	0.16
LN4025294_A002	J-HY4007498	WJ52055	64.81	150	103	-1.74	0.10	0.16

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4025297_A001	WJ58513	J-HY4007499	2.91	150	103	-1.12	0.06	0.07
LN4025297_A002	J-HY4007499	WJ4015621	77.67	150	103	-1.12	0.06	0.07
LN4025309	WJ58504	WJ58108	41.91	300	120	-11.27	0.16	0.13
LN4025311_A001	WJ58498	J-HY4007537	131.24	400	129	-20.69	0.16	0.09
LN4025311_A002	J-HY4007537	J-HY4007535	116.27	400	129	-20.69	0.16	0.09
LN4025311_A003	J-HY4007535	WJ4018542	16.26	400	129	-20.69	0.16	0.09
LN4025318_A001	WJ4016359	J-HY4008122	80.27	400	129	-15.56	0.12	0.05
LN4025318_A002	J-HY4008122	WJ4016358	186.70	400	129	-15.56	0.12	0.05
LN4025326_A001	WJ26555	J-HY4007539	30.19	300	120	-9.73	0.14	0.10
LN4025326_A002	J-HY4007539	WJ4016358	65.38	300	120	-9.73	0.14	0.10
LN4025332	WJ4016402	WJ4017742	466.38	300	120	1.57	0.02	0.00
LN4025333	WJ4016398	WJ4016402	35.75	300	120	-0.62	0.01	0.00
LN4025395	WJ4016393	WJ4016398	90.38	300	120	3.00	0.04	0.01
LN4025407	WJ4016389	WJ4016393	100.78	300	120	6.63	0.09	0.05
LN4025412	WJ4016388	WJ4016389	93.19	300	120	10.17	0.14	0.11
LN4025419	WJ4014260	WJ4016388	95.89	300	120	14.24	0.20	0.20
LN4025422	WJ4016532	WJ4016398	186.56	150	103	-3.51	0.20	0.59
LN4025464	WJ4016534	WJ4016532	203.39	150	103	-3.62	0.20	0.62
LN4025528	WJ4016519	WJ4016534	202.80	150	103	-3.08	0.17	0.46
LN4025611	WJ4016358	WJ4016357	325.06	400	129	-31.28	0.25	0.19
LN4025705	WJ4017702	WJ4010581	91.30	300	120	-10.26	0.15	0.11
LN4025719	WJ4016597	WJ4016689	129.63	150	103	3.75	0.21	0.66
LN4025732	WJ55162	WJ4016689	188.96	150	103	-3.07	0.17	0.46
LN4025759	WJ55171	WJ4015383	191.20	300	120	-32.05	0.45	0.91
LN4025760	WJ4015331	WJ55170	88.16	300	120	-33.95	0.48	1.01
LN4025764	WJ4015383	WJ4015345	367.29	150	103	3.23	0.18	0.50
LN4025769	WJ53495	WJ4015331	104.59	300	120	-30.18	0.43	0.81
LN4025771	WJ4015324	WJ4015331	102.32	150	103	-3.65	0.21	0.63
LN4025778	WJ4016685	WJ53524	201.18	150	103	4.40	0.25	0.89
LN4025805	WJ4015497	WJ53523	112.59	150	103	-3.90	0.22	0.71
LN4025808	WJ4015499	WJ4015497	196.42	150	114	-0.09	0.00	0.00
LN4025813	WJ4017759	WJ4015497	98.21	150	103	-3.73	0.21	0.65
LN4025824	WJ4016826	WJ4017759	256.47	150	103	-3.23	0.18	0.50
LN4025828	WJ4017755	WJ4016826	128.97	150	103	-4.57	0.26	0.95
LN4025858	WJ4015324	WJ4015317	341.04	150	103	3.47	0.20	0.57
LN4025866	WJ4010597	WJ4010583	97.94	300	120	9.74	0.14	0.10
LN4025874	WJ4015317	WJ4017742	400.52	150	103	3.74	0.21	0.66
LN4025886	WJ4017178	WJ4014458	95.49	150	103	0.00	0.00	0.00
LN4025896_A001	WJ4020278	J-HY4006498	198.51	150	103	3.91	0.22	0.72
LN4025896_A002	J-HY4006498	WJ4017178	151.14	150	103	3.91	0.22	0.72
LN4025904	WJ4009686	WJ4009359	102.30	300	120	-28.01	0.40	0.71
LN4025907	WJ4014481	WJ21298	152.37	150	103	-3.67	0.21	0.64
LN4025909	WJ4014490	WJ4014481	52.68	150	103	-2.07	0.12	0.22
LN4025910	WJ4014496	WJ4014490	103.98	150	103	-0.05	0.00	0.00
LN4025918	WJ4009700	WJ4009686	205.65	150	114	3.48	0.20	0.48
LN4025919	WJ4015007	WJ4014490	166.96	150	103	-1.94	0.11	0.19
LN4025924	WJ4015272	WJ4015293	147.84	150	103	0.07	0.00	0.00
LN4025927	WJ4015272	WJ4017220	36.41	150	103	0.02	0.00	0.00
LN4025934	WJ4020265	WJ4015272	66.56	150	103	0.15	0.01	0.00
LN4025939	WJ4014985	WJ4015305	183.05	150	103	0.09	0.00	0.00
LN4025940	WJ4016402	WJ4014985	120.24	150	103	-2.67	0.15	0.35
LN4025942	WJ4014606	WJ4014985	132.72	150	103	2.86	0.16	0.40
LN4025950	WJ4014606	WJ4015007	214.73	150	103	-2.97	0.17	0.43
LN4025954	WJ4009686	WJ4009674	96.77	300	120	31.39	0.44	0.87
LN4025955	WJ4014580	WJ49072	22.67	150	103	0.00	0.00	0.00
LN4025956	WJ4014588	WJ4014580	74.44	150	103	-0.03	0.00	0.00
LN4025958	WJ4020267	WJ4014580	120.13	150	103	0.08	0.00	0.00
LN4025974_A001	WJ4009713	J-HY4019665	106.06	150	103	0.00	0.00	0.00
LN4025974_A002	J-HY4019665	WJ4009814	98.70	150	103	0.00	0.00	0.00
LN4025992	WJ4009709	WJ4017585	87.62	150	103	-2.16	0.12	0.24
LN4025996_A001	WJ4009713	J-HY4019778	57.01	400	129	-34.30	0.27	0.22
LN4025996_A002	J-HY4019778	WJ4009709	51.13	400	129	-34.30	0.27	0.22
LN4026006	WJ4017695	WJ4012259	110.15	150	103	2.09	0.12	0.22
LN4026008	WJ27916	WJ4017695	90.44	150	103	2.58	0.15	0.33
LN4026038	WJ4017741	WJ27918	101.66	300	120	6.51	0.09	0.05
LN4026054	WJ4009709	WJ4017787	390.68	400	129	-32.18	0.26	0.20
LN4026061	WJ4017774	WJ4008662	92.32	150	103	-0.47	0.03	0.01
LN4026062	WJ4008662	WJ4008661	64.96	150	114	0.07	0.00	0.00
LN4026065	WJ4012257	WJ4012259	439.89	150	103	-1.07	0.06	0.06
LN4026066	WJ4012036	WJ4012257	50.01	150	103	2.92	0.17	0.42
LN4026075	WJ4012031	WJ4012036	59.85	150	103	2.29	0.13	0.27
LN4026076	WJ4017695	WJ4012031	438.11	150	103	0.79	0.04	0.04
LN4026083	WJ52303	WJ4012031	87.32	150	103	1.76	0.10	0.16
LN4026102	WJ4008646	WJ4008642	112.71	150	103	-3.31	0.19	0.52
LN4026107	WJ4008642	WJ4008673	109.14	150	103	0.05	0.00	0.00
LN4026110	WJ52331	WJ4012036	422.19	150	103	0.84	0.05	0.04

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4026121	WJ52334	WJ4017192	16.28	100	100	0.08	0.01	0.00
LN4026124	WJ4017191	WJ52338	176.28	150	103	-0.07	0.00	0.00
LN4026138	WJ4008612	WJ4008642	92.59	150	103	3.39	0.19	0.55
LN4026158	WJ52327	WJ4012072	100.54	150	103	-1.85	0.10	0.18
LN4026160	WJ4008612	WJ4008623	149.08	150	103	-2.30	0.13	0.27
LN4026177	WJ4017740	WJ4017741	118.25	300	120	6.29	0.09	0.04
LN4026179	WJ4008623	WJ4008614	245.78	150	103	1.61	0.09	0.14
LN4026183	WJ4008614	WJ4008612	85.57	150	103	1.12	0.06	0.07
LN4026185	WJ4017734	WJ4017740	116.96	300	120	5.59	0.08	0.04
LN4026186	WJ4016374	WJ4008614	101.37	150	103	-0.38	0.02	0.01
LN4026191	WJ4012268	WJ4017734	109.53	300	120	4.28	0.06	0.02
LN4026195	WJ4011938	WJ4012268	106.30	300	120	3.77	0.05	0.02
LN4026197	WJ51952	WJ4008669	84.21	150	103	-0.30	0.02	0.01
LN4026199	WJ4008669	WJ4009063	120.58	150	103	0.09	0.01	0.00
LN4026203	WJ4008669	WJ4008646	94.48	150	103	-0.49	0.03	0.02
LN4026207	WJ4011936	WJ4011938	97.19	300	120	2.68	0.04	0.01
LN4026209	WJ4011930	WJ4011936	126.82	150	103	-0.06	0.00	0.00
LN4026223	WJ54440	WJ4012266	97.08	300	120	0.00	0.00	0.00
LN4026246	WJ4009830	WJ4009849	41.12	150	103	4.65	0.26	0.99
LN4026262	WJ4016861	WJ4008623	96.27	150	103	4.02	0.23	0.75
LN4026268	WJ4009187	WJ4017629	88.15	150	103	0.06	0.00	0.00
LN4026303	WJ4008507	WJ4009187	121.25	150	103	2.66	0.15	0.35
LN4026310	WJ4008507	WJ4009335	159.35	150	103	1.18	0.07	0.08
LN4026312	WJ4009335	WJ55019	32.59	300	120	-20.52	0.29	0.40
LN4026325	WJ4012074	WJ4012072	99.91	150	103	1.41	0.08	0.11
LN4026332	WJ4012081	WJ4012074	18.48	150	103	1.97	0.11	0.20
LN4026337	WJ4009277	WJ4009335	220.78	300	120	-21.55	0.30	0.43
LN4026350	WJ4017150	WJ4012074	335.91	150	103	-0.38	0.02	0.01
LN4026363	WJ4009358	WJ4009276	306.75	300	120	-28.53	0.40	0.73
LN4026385	WJ4009187	WJ4009276	277.49	150	103	2.48	0.14	0.31
LN4026442	WJ4009359	WJ4009849	204.48	150	103	-2.26	0.13	0.26
LN4026459	WJ4009849	WJ4009700	100.63	150	103	2.30	0.13	0.27
LN4026636	WJ4012185	WJ4012183	218.32	150	103	-0.32	0.02	0.01
LN4026650	WJ4020263	WJ4017198	315.86	150	103	0.17	0.01	0.00
LN4026671	WJ4012185	WJ4011969	103.41	150	103	-1.56	0.09	0.13
LN4026673	WJ4011969	WJ54418	189.04	150	103	-2.12	0.12	0.23
LN4026728	WJ49258	WJ49334	92.28	300	120	13.84	0.20	0.19
LN4026743	WJ55018	WJ49247	108.43	300	120	12.57	0.18	0.16
LN4026756_A001	WJ4012852	J-HY4019230	40.59	250	115	-13.93	0.28	0.51
LN4026756_A002	J-HY4019230	J-HY4017539	130.38	250	115	-13.93	0.28	0.51
LN4026756_A003	J-HY4017539	WJ58580	24.34	250	115	-13.93	0.28	0.51
LN4026759_A001	WJ4017209	J-HY4020280	64.87	150	103	-3.23	0.18	0.50
LN4026759_A002	J-HY4020280	J-HY4017538	85.45	150	103	-3.23	0.18	0.50
LN4026759_A003	J-HY4017538	WJ58581	49.99	150	103	-3.23	0.18	0.50
LN4026770_A001	WJ52087	WV4011524	0.34	400	129	5.08	0.04	0.00
LN4026770_A002	WV4011524	WJ4012402	1.45	400	129	5.08	0.04	0.00
LN4026802	WJ52091	WJ4012562	86.01	300	120	14.74	0.21	0.21
LN4026825_A001	WJ4017210	J-HY4017089	208.58	150	103	-2.61	0.15	0.34
LN4026825_A002	J-HY4017089	WJ4020722	8.50	150	103	-2.61	0.15	0.34
LN4026846	WJ4016861	WJ4017772	166.61	300	120	12.60	0.18	0.16
LN4026850	WJ4017555	WJ4008322	166.16	150	103	-3.44	0.19	0.56
LN4026855	WJ4017555	WJ4017556	144.47	150	103	0.06	0.00	0.00
LN4026858	WJ4017691	WJ4017210	223.08	150	103	-3.47	0.20	0.57
LN4026872_A001	WJ4012385	WV4011347	3.41	600	130	0.00	0.00	0.00
LN4026872_A002	WV4011347	WJ4012384	3.42	600	130	0.00	0.00	0.00
LN4026874	WJ4008322	WJ23509	169.00	150	103	0.60	0.03	0.02
LN4026896	WJ49252	WJ23510	113.75	150	103	-5.30	0.30	1.26
LN4026934	WJ4008263	WJ23506	95.01	150	103	-0.13	0.01	0.00
LN4026937	WJ4008263	WJ4008234	101.57	150	103	-3.83	0.22	0.69
LN4026940	WJ4008231	WJ4008234	154.58	150	103	-0.08	0.00	0.00
LN4026945	WJ4008234	WJ4008236	93.07	150	103	-3.99	0.23	0.74
LN4026950	WJ4008236	WJ4017533	88.87	150	103	-5.48	0.31	1.34
LN4026957	WJ4012259	WJ4017691	216.52	150	103	0.89	0.05	0.05
LN4026977	WJ4017533	WJ59194	73.77	300	120	-13.43	0.19	0.18
LN4026992	WJ4008551	WJ4008290	74.78	150	103	-0.05	0.00	0.00
LN4026996	WJ4008290	WJ23505	297.67	150	103	-2.90	0.16	0.41
LN4027000	WJ23507	WJ4008290	283.71	150	103	-2.65	0.15	0.35
LN4027013	WJ4008322	WJ4008256	204.86	150	103	-4.25	0.24	0.84
LN4027016	WJ4008263	WJ4008256	156.57	150	103	3.86	0.22	0.70
LN4027024	WJ4008331	WJ61693	142.39	150	103	0.54	0.03	0.02
LN4027035	WJ4008331	WJ4017546	248.65	150	103	-4.55	0.26	0.95
LN4027037	WJ4017546	WJ4008236	253.75	150	103	-0.80	0.05	0.04
LN4027072	WJ4017546	WJ4008483	152.50	150	103	-3.95	0.22	0.73
LN4027083	WJ4017772	WJ4008331	569.46	150	103	-3.60	0.20	0.61
LN4027136_A001	WJ58523	J-HY4018679	32.90	400	129	19.65	0.16	0.08
LN4027136_A002	J-HY4018679	WJ19377	92.34	400	129	19.65	0.16	0.08

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4027140	WJ52768	WJ4016135	146.68	150	103	0.84	0.05	0.04
LN4027146	WJ53671	WJ49333	72.69	300	120	-12.71	0.18	0.16
LN4027315	WJ4012399	WJ4012398	104.93	150	103	-0.84	0.05	0.04
LN4027362	WJ4016374	WJ51950	185.26	150	103	3.50	0.20	0.58
LN4027368	WJ51948	WJ4017774	244.15	150	103	3.03	0.17	0.45
LN4027374	WJ4017774	WJ4013138	194.63	150	103	3.25	0.18	0.51
LN4027377	WJ4017787	WJ4013138	82.08	150	103	-3.95	0.22	0.73
LN4027383	WJ4013120	WJ4017787	97.16	150	103	-3.01	0.17	0.44
LN4027395_A001	WJ4013116	J-HY4013532	74.22	150	103	-1.61	0.09	0.14
LN4027395_A002	J-HY4013532	WJ4013120	7.64	150	103	-1.61	0.09	0.14
LN4027425	WJ4016582	WJ61457	175.41	300	120	8.45	0.12	0.08
LN4027427	WJ4016583	WJ4016405	155.93	150	103	2.49	0.14	0.31
LN4027430	WJ4016401	WJ4016405	158.42	150	103	-0.08	0.00	0.00
LN4027439	WJ4016587	WJ4016583	103.75	300	120	10.96	0.16	0.12
LN4027445_A001	WJ4013114	J-HY4013800	34.27	150	103	4.45	0.25	0.91
LN4027445_A002	J-HY4013800	WJ4017229	109.32	150	103	4.45	0.25	0.91
LN4027449	WJ4017774	WJ4013271	207.18	150	103	-0.05	0.00	0.00
LN4027450	WJ4013272	WJ4012992	112.68	300	132	24.11	0.34	0.45
LN4027454	WJ4012994	WJ4012992	85.15	300	132	-23.54	0.33	0.43
LN4027461	WJ4016591	WJ4016686	114.91	150	103	2.89	0.16	0.41
LN4027462	WJ4012994	WJ4013138	209.14	150	103	0.96	0.05	0.05
LN4027484	WJ4016686	WJ4016689	99.98	150	103	-0.54	0.03	0.02
LN4027486	WJ4017787	WJ4013001	208.89	400	129	-31.42	0.25	0.19
LN4027496	WJ4016685	WJ4016683	50.61	150	103	-1.38	0.08	0.10
LN4027498	WJ4016683	WJ4016686	206.14	150	103	-3.28	0.19	0.52
LN4027575	WJ4013001	WJ4012997	53.79	300	132	-21.62	0.31	0.37
LN4027578	WJ4013050	WJ4013001	56.98	400	129	-66.96	0.53	0.76
LN4027588_A001	WJ4013049	WV4011135	545.52	900	130	-461.88	0.73	0.52
LN4027588_A002	WV4011135	WV4011139	24.38	900	130	-461.88	0.73	0.52
LN4027588_A003	WV4011139	WV4011148	274.93	900	130	-461.88	0.73	0.52
LN4027588_A004	WV4011148	WJ4018446	38.59	900	130	-461.88	0.73	0.52
LN4027594_A001	WJ24344	J-HY4014234	92.17	150	103	1.03	0.06	0.06
LN4027594_A002	J-HY4014234	WJ4013120	101.15	150	103	1.03	0.06	0.06
LN4027595_A001	WJ4013102	J-HY4014990	29.84	400	129	-41.08	0.33	0.31
LN4027595_A002	J-HY4014990	WJ4013060	30.26	400	129	-41.08	0.33	0.31
LN4027599_A001	WJ4013101	J-HY4014605	40.90	300	132	1.52	0.02	0.00
LN4027599_A002	J-HY4014605	J-HY4014155	119.12	300	132	1.52	0.02	0.00
LN4027599_A003	J-HY4014155	WJ4013116	48.86	300	132	1.52	0.02	0.00
LN4027601_A001	WJ4013109	J-HY4013538	96.15	300	132	-1.45	0.02	0.00
LN4027601_A002	J-HY4013538	WJ4013093	95.99	300	132	-1.45	0.02	0.00
LN4027605	WJ4013049	WJ4013089	323.94	900	130	384.68	0.60	0.37
LN4027607_A001	WJ4013089	WV4011055	1.97	300	120	27.78	0.39	0.69
LN4027607_A002	WV4011055	WJ58577	3.07	300	120	27.78	0.39	0.70
LN4027609_A001	WJ4013093	J-HY4015007	38.20	400	129	28.98	0.23	0.16
LN4027609_A002	J-HY4015007	WJ58576	89.80	400	129	28.98	0.23	0.16
LN4027614	WJ4013337	WJ4013050	168.51	150	103	-1.15	0.06	0.07
LN4027615	WJ4013339	WJ4013337	111.33	150	103	3.66	0.21	0.63
LN4027618	WJ4013339	WJ4012997	166.61	150	103	-0.71	0.04	0.03
LN4027621	WJ4013340	WJ4013339	111.22	150	103	3.08	0.17	0.46
LN4027624	WJ4012992	WJ4013340	169.61	150	103	0.47	0.03	0.01
LN4027626	WJ4013346	WJ4013340	111.39	150	103	2.85	0.16	0.40
LN4027630	WJ4013272	WJ4013346	169.48	150	103	0.94	0.05	0.05
LN4027751	WJ4017758	WJ4016839	100.06	150	103	0.56	0.03	0.02
LN4027778	WJ4017756	WJ4017758	99.86	150	103	0.87	0.05	0.04
LN4027787	WJ4017793	WJ4017756	152.82	150	103	0.22	0.01	0.00
LN4027805	WJ15678	WJ4017759	154.18	150	103	-1.10	0.06	0.07
LN4027821_A001	WJ24366	J-HY4015473	25.58	150	103	2.69	0.15	0.36
LN4027821_A002	J-HY4015473	J-HY4015474	130.80	150	103	2.69	0.15	0.36
LN4027821_A003	J-HY4015474	WJ58539	8.92	150	103	2.69	0.15	0.36
LN4027825_A001	WJ58528	J-HY4015132	5.78	150	103	-2.58	0.15	0.33
LN4027825_A002	J-HY4015132	J-HY4015471	50.22	150	103	-2.58	0.15	0.33
LN4027825_A003	J-HY4015471	WJ4013455	24.16	150	103	-2.58	0.15	0.33
LN4027829	WJ4013455	WJ4013433	43.18	150	103	-0.63	0.04	0.02
LN4027844	WJ4016735	WJ4016730	205.88	150	103	-4.12	0.23	0.79
LN4027850	WJ4016735	WJ4016842	152.23	150	103	-0.05	0.00	0.00
LN4027852	WJ4017756	WJ4016735	203.24	150	103	-3.95	0.22	0.73
LN4027855	WJ4017758	WJ4016803	202.24	150	103	-2.87	0.16	0.40
LN4027864	WJ4010705	WJ4010931	103.96	150	103	1.14	0.06	0.07
LN4027872	WJ4010721	WJ4010705	96.85	150	103	0.30	0.02	0.01
LN4027878	WJ62423	WJ4010721	115.50	150	103	-0.27	0.02	0.01
LN4028040	WJ4020598	WJ4010705	335.02	150	103	1.07	0.06	0.06
LN4028056	WJ4020599	WJ4010721	313.86	150	103	1.73	0.10	0.16
LN4028081	WJ4010917	WJ4010475	358.85	150	103	0.23	0.01	0.00
LN4028113	WJ4016558	WJ4016832	153.41	150	103	3.95	0.22	0.73
LN4028121	WJ4026374	WJ4016558	110.18	150	103	-0.66	0.04	0.03
LN4028161	WJ4016261	WJ4016258	93.31	150	114	-2.55	0.14	0.27

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4028170	WJ4016216	WJ4016211	108.11	150	103	-3.71	0.21	0.65
LN4028179	WJ4016211	WJ4016204	83.35	150	103	-2.94	0.17	0.42
LN4028197	WJ4016258	WJ4016244	194.02	150	103	0.61	0.03	0.02
LN4028204	WJ4016330	WJ4016244	94.78	150	114	-3.62	0.20	0.51
LN4028205	WJ4016330	WJ4016261	194.19	150	114	-1.83	0.10	0.14
LN4028213	WJ55120	WJ4016330	110.68	150	114	-5.35	0.30	1.06
LN4028220	WJ4016342	WJ55122	160.33	150	114	-2.70	0.15	0.30
LN4028224	WJ4016370	WJ4016342	53.62	300	120	11.63	0.16	0.14
LN4028229	WJ4016374	WJ4016370	290.90	150	103	-3.21	0.18	0.50
LN4028237	WJ4010475	WJ4010467	171.06	150	103	0.10	0.01	0.00
LN4028242	WJ4016244	WJ4016216	421.46	150	114	-3.19	0.18	0.41
LN4028257	WJ4016425	WJ4016413	287.63	150	103	0.96	0.05	0.05
LN4028259	WJ4016413	WJ4016425	291.38	150	103	-0.96	0.05	0.05
LN4028268	WJ4016425	WJ53567	85.73	150	103	-2.11	0.12	0.23
LN4028280	WJ4016387	WJ53566	95.45	150	103	-0.07	0.00	0.00
LN4028303	WJ61457	WJ53562	24.59	300	120	8.31	0.12	0.07
LN4028313	WJ4016597	WJ4016605	152.23	300	120	-24.57	0.35	0.55
LN4028317	WJ4016597	WJ4016591	100.18	300	120	20.77	0.29	0.41
LN4028332	WJ38909	WJ4016834	99.19	150	103	0.78	0.04	0.04
LN4028335	WJ4016803	WJ4016834	103.60	150	103	1.94	0.11	0.20
LN4028338	WJ4010236	WJ4010217	379.64	400	129	-19.80	0.16	0.08
LN4028345	WJ4016349	WJ4016861	35.74	300	120	16.64	0.24	0.27
LN4028351	WJ4010410	WJ4010368	189.92	150	103	2.33	0.13	0.27
LN4030476	WJ4006305	WJ4021261	207.96	150	103	0.95	0.05	0.05
LN4030787	WJ4017897	WJ4017888	161.96	300	120	-18.35	0.26	0.32
LN4030798	WJ4001881	WJ4017897	169.31	300	120	8.31	0.12	0.07
LN4030800	WJ4001543	WJ4001881	100.80	300	120	33.18	0.47	0.97
LN4030806	WJ4017905	WJ4017904	42.06	300	120	20.87	0.30	0.41
LN4030807	WJ4001900	WJ4017905	113.52	300	120	20.05	0.28	0.38
LN4030808	WJ4017904	WJ22861	102.34	300	120	0.04	0.00	0.00
LN4030811	WJ4017907	WJ4017904	71.43	300	120	-20.80	0.29	0.41
LN4030813	WJ4001950	WJ4017907	269.05	150	103	-1.96	0.11	0.20
LN4030818	WJ4017912	WJ4006801	279.43	150	103	-0.51	0.03	0.02
LN4030828	WJ4017916	WJ4017907	243.67	300	120	-18.41	0.26	0.32
LN4030829	WJ4017916	WJ4017912	85.12	150	103	-0.40	0.02	0.01
LN4030830	WJ4017917	WJ4017916	85.19	300	120	-18.25	0.26	0.32
LN4030831	WJ4006585	WJ4017917	63.50	300	120	-12.50	0.18	0.16
LN4030832	WJ4017917	WJ22821	136.04	300	120	5.56	0.08	0.04
LN4030835	WJ4017912	WJ4006814	148.99	150	103	-0.14	0.01	0.00
LN4030927	WJ4017976	WJ4017972	4.53	150	103	-10.44	0.59	4.41
LN4030929	WJ4006925	WJ4017972	71.46	150	103	-6.22	0.35	1.69
LN4030930	WJ4017976	WJ53444	216.11	300	120	10.44	0.15	0.11
LN4030959_A001	WJ4017999	J-HY4037279	86.35	400	129	-12.14	0.10	0.03
LN4030959_A002	J-HY4037279	WJ4018002	28.47	400	129	-12.14	0.10	0.03
LN4030963_A001	WJ4017890	WV4001488	524.98	900	130	286.23	0.45	0.21
LN4030963_A002	WV4001488	WJ4018003	56.37	900	130	286.23	0.45	0.21
LN4030964	WJ4018003	WJ4019556	647.03	900	130	212.42	0.33	0.12
LN4030969_A001	WJ4017965	WV4001258	18.53	400	129	-73.81	0.59	0.91
LN4030969_A002	WV4001258	WJ4018003	1.35	400	129	-73.81	0.59	0.92
LN4031001	WJ4018024	WJ4002150	201.64	150	103	-2.61	0.15	0.34
LN4031010	WJ4002321	WJ4018024	100.05	150	103	3.83	0.22	0.69
LN4031023	WJ4018021	WJ4002512	248.30	300	120	30.78	0.44	0.84
LN4031025	WJ4003830	WJ4002512	506.37	300	120	-24.71	0.35	0.56
LN4031048_A001	WJ4018048	WV4004334	116.17	900	130	635.99	1.00	0.94
LN4031048_A002	WV4004334	WJ4004914	153.17	900	130	635.99	1.00	0.94
LN4031057	WJ4015051	WJ4018054	10.51	150	103	-0.86	0.05	0.04
LN4031058	WJ4018054	WJ4018049	12.38	150	103	0.04	0.00	0.00
LN4031060_A001	WJ4018053	J-HY4036973	26.26	400	129	28.54	0.23	0.16
LN4031060_A002	J-HY4036973	WJ4018002	72.40	400	129	28.54	0.23	0.16
LN4031061	WJ4018055	WJ56691	4.35	300	120	0.00	0.00	0.00
LN4031062_A001	WJ4018048	WV4004332	1.59	400	129	0.00	0.00	0.00
LN4031062_A002	WV4004332	WJ4018055	3.52	400	129	0.00	0.00	0.00
LN4031064	WJ4018057	WJ4018054	3.84	150	103	0.90	0.05	0.05
LN4031065	WJ4018053	WJ4018057	1.50	400	129	0.90	0.01	0.00
LN4031079_A001	WJ4010424	WV4011132	33.89	900	130	458.13	0.72	0.51
LN4031079_A002	WV4011132	WV4011015	154.51	900	130	458.13	0.72	0.51
LN4031079_A003	WV4011015	WV4011010	23.14	900	130	458.13	0.72	0.51
LN4031079_A004	WV4011010	WV4010986	127.51	900	130	458.13	0.72	0.51
LN4031079_A005	WV4010986	WV4010981	15.30	900	130	458.13	0.72	0.51
LN4031079_A006	WV4010981	WV4010976	144.09	900	130	458.13	0.72	0.51
LN4031079_A007	WV4010976	WV4010889	240.13	900	130	458.13	0.72	0.51
LN4031079_A008	WV4010889	WV4010872	22.90	900	130	458.13	0.72	0.51
LN4031079_A009	WV4010872	WV4010807	70.40	900	130	458.13	0.72	0.51
LN4031079_A010	WV4010807	WV4010788	20.66	900	130	458.13	0.72	0.51
LN4031079_A011	WV4010788	WV4010740	255.91	900	130	458.13	0.72	0.51
LN4031079_A012	WV4010740	WJ4018067	94.14	900	130	458.13	0.72	0.51

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4031082_A001	WJ4018068	J-HY4042441	4.73	300	120	-55.83	0.79	2.53
LN4031082_A002	J-HY4042441	WJ4003930	11.25	300	120	-55.83	0.79	2.53
LN4031083_A001	WJ4018067	WV4010666	1.80	400	129	-94.38	0.75	1.45
LN4031083_A002	WV4010666	WJ4018068	5.52	400	129	-94.38	0.75	1.44
LN4031088	WJ4018002	WJ4018072	16.05	300	132	6.44	0.09	0.04
LN4031097	WJ4004184	WJ4004286	355.21	150	103	0.92	0.05	0.05
LN4031105	WJ4018090	WJ4008690	118.04	200	115	0.00	0.00	0.00
LN4031152	WJ4018148	WJ4004177	62.91	150	103	3.96	0.22	0.73
LN4031168	WJ4018159	WJ4003998	161.11	150	114	3.07	0.17	0.38
LN4031179	WJ4018159	WJ4018148	91.33	300	120	3.97	0.06	0.02
LN4031193_A001	WJ4013538	J-HY4024366	85.53	250	110	-2.43	0.05	0.02
LN4031193_A002	J-HY4024366	WJ4013511	13.93	250	110	-2.43	0.05	0.02
LN4031196	WJ4013511	WJ4018168	126.68	250	110	0.06	0.00	0.00
LN4031197	WJ4018169	WJ4017447	0.44	150	103	0.00	0.00	0.00
LN4031198	WJ4017447	WJ4018170	2.27	150	103	-0.56	0.03	0.02
LN4031199	WJ4018170	WJ4005613	235.30	150	114	2.00	0.11	0.17
LN4031204	WJ4017751	WJ4018176	86.30	300	120	0.19	0.00	0.00
LN4031205	WJ4018176	WJ4017749	18.55	300	120	5.94	0.08	0.04
LN4031206	WJ4018176	WJ4018177	9.06	300	120	-5.86	0.08	0.04
LN4031215	WJ4015178	WJ4017749	414.90	300	120	-4.18	0.06	0.02
LN4031217	WJ4018179	WJ4018177	222.98	600	130	-21.90	0.08	0.01
LN4031220	WJ4018180	WJ4018179	24.90	400	129	-10.01	0.08	0.02
LN4031221	WJ4018184	WJ4018179	9.89	600	130	-11.88	0.04	0.00
LN4031233	WJ4015229	WJ4018188	88.16	150	103	-0.78	0.04	0.04
LN4031234	WJ4018188	WJ4015177	15.57	150	103	1.02	0.06	0.06
LN4031235	WJ4018186	WJ4018184	190.56	400	129	-11.80	0.09	0.03
LN4031236	WJ4018186	WJ4018188	3.00	400	129	1.80	0.01	0.00
LN4031237	WJ4018098	WJ4008692	278.98	150	103	0.04	0.00	0.00
LN4031239	WJ4015279	WJ4018191	85.01	150	103	-0.45	0.03	0.01
LN4031240	WJ4018191	WJ4015332	14.66	150	103	0.86	0.05	0.04
LN4031241	WJ4018192	WJ4018186	134.03	400	129	-10.00	0.08	0.02
LN4031242	WJ4018192	WJ4018191	3.31	400	129	1.32	0.01	0.00
LN4031248	WJ25698	WJ4018192	410.72	400	129	-8.62	0.07	0.02
LN4031255	WJ4018177	WJ28096	650.11	600	130	-27.92	0.10	0.02
LN4031259	WJ4018170	WJ4018199	143.18	150	114	-2.63	0.15	0.28
LN4031261	WJ4018199	WJ4018183	134.34	150	114	-2.96	0.17	0.35
LN4031262	WJ58392	WJ4018166	98.40	150	114	-2.79	0.16	0.32
LN4031289	WJ4015578	WJ4018216	105.29	300	120	-15.44	0.22	0.23
LN4031290	WJ4018216	WJ4017702	112.88	300	120	-15.64	0.22	0.24
LN4031294	WJ4018216	WJ4018209	195.87	150	103	0.12	0.01	0.00
LN4031297	WJ4018101	WJ4008692	37.42	300	120	5.32	0.08	0.03
LN4031301	WJ4018106	WJ4018111	4.88	100	100	-0.05	0.01	0.00
LN4031302	WJ4018109	WJ4018101	38.40	300	120	5.32	0.08	0.03
LN4031303	WJ4018110	WJ4018109	39.32	300	120	5.32	0.08	0.03
LN4031304	WJ4018111	WJ4018110	6.10	300	120	5.32	0.08	0.03
LN4031308	WJ4009181	WJ4018113	104.61	300	120	4.97	0.07	0.03
LN4031309	WJ4009181	WJ48208	132.67	300	120	-5.05	0.07	0.03
LN4031313	WJ4018221	WJ4018117	19.45	150	103	-0.73	0.04	0.03
LN4031314	WJ4021047	WJ4018221	253.05	150	103	-0.73	0.04	0.03
LN4031317	WJ4018117	WJ4018132	8.79	150	103	-0.73	0.04	0.03
LN4031318	WJ4018134	WJ4018132	17.77	150	103	0.00	0.00	0.00
LN4031333	WJ4018123	WJ48205	3.78	300	120	7.48	0.11	0.06
LN4031334	WJ4018143	WJ4018123	80.17	300	120	-0.55	0.01	0.00
LN4031337	WJ4018142	WJ4018143	13.35	150	103	-0.55	0.03	0.02
LN4031338	WJ4018141	WJ4018142	58.28	100	100	-0.55	0.07	0.15
LN4031340	WJ4018229	WJ4018132	6.37	150	103	0.73	0.04	0.03
LN4031341	WJ4018115	WJ4018229	0.94	300	120	0.73	0.01	0.00
LN4031342	WJ4018115	WJ4018123	10.69	300	120	8.03	0.11	0.07
LN4031343_A001	WJ4018133	WV4004312	0.65	300	120	8.77	0.12	0.09
LN4031343_A002	WV4004312	WJ4018115	4.32	300	120	8.77	0.12	0.08
LN4031391	WJ4018260	WJ4017284	134.59	150	103	0.42	0.02	0.01
LN4031393	WJ4018260	WJ4018263	151.68	150	114	0.12	0.01	0.00
LN4031397	WJ4018264	WJ4018260	65.66	150	114	0.69	0.04	0.02
LN4031398	WJ4018264	WJ4010304	51.26	150	114	-0.84	0.05	0.03
LN4031399	WJ4018269	WJ4018264	82.26	150	114	-0.09	0.01	0.00
LN4031404	WJ4012257	WJ4018282	40.63	150	103	3.82	0.22	0.69
LN4031405	WJ4018282	WJ4010295	365.44	150	103	3.51	0.20	0.58
LN4031406	WJ4018280	WJ4018282	305.31	150	114	-0.20	0.01	0.00
LN4031411	WJ4009830	WJ4017585	106.92	150	103	3.55	0.20	0.60
LN4031430_A001	WJ4016785	J-HY4033792	89.62	300	132	0.32	0.00	0.00
LN4031430_A002	J-HY4033792	J-HY4033808	107.52	300	132	0.32	0.00	0.00
LN4031430_A003	J-HY4033808	WJ58479	39.89	300	132	0.32	0.00	0.00
LN4031468	WJ4018318	WJ4018316	113.97	600	130	58.47	0.21	0.08
LN4031471	WJ4018316	WJ4018314	95.52	600	130	62.12	0.22	0.09
LN4031472	WJ4018314	WJ4018313	118.96	600	130	56.98	0.20	0.08
LN4031474	WJ4018314	WJ4018315	17.88	400	129	3.88	0.03	0.00

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4031475	WJ4018317	WJ4018316	18.85	400	129	4.65	0.04	0.00
LN4031477	WJ4018321	WJ4006305	91.14	150	103	1.30	0.07	0.09
LN4031481	WJ4018306	WJ4018307	6.61	150	103	5.26	0.30	1.24
LN4031482	WJ4018325	WJ4018306	100.55	300	120	4.31	0.06	0.02
LN4031483	WJ4018321	WJ4018325	108.89	300	120	14.21	0.20	0.20
LN4031490	WJ4018315	WJ4018326	20.54	300	132	-2.72	0.04	0.01
LN4031491	WJ4018328	WJ4018315	6.03	300	132	-6.60	0.09	0.04
LN4031497	WJ4018307	WJ4018342	130.96	400	129	25.24	0.20	0.13
LN4031515_A001	WJ4018317	J-HY4035072	16.40	300	132	-5.84	0.08	0.03
LN4031515_A002	J-HY4035072	J-HY4033092	109.05	300	132	-5.84	0.08	0.03
LN4031515_A003	J-HY4033092	WJ58501	35.19	300	132	-5.84	0.08	0.03
LN4031516	WJ4018352	WJ4018317	31.56	300	132	-1.19	0.02	0.00
LN4031618	WJ4008473	WJ4018393	2.45	150	103	22.47	1.27	18.22
LN4031653	WJ4018400	WJ4018417	7.26	300	120	64.18	0.91	3.28
LN4031654	WJ4018417	WJ4016638	147.98	300	120	28.63	0.41	0.74
LN4031707	WJ4018440	WJ4016370	217.00	300	120	15.02	0.21	0.22
LN4031708_A001	WJ4018440	WV4011221	7.16	400	129	-14.32	0.11	0.04
LN4031708_A002	WV4011221	WJ4018439	1.96	400	129	-14.32	0.11	0.04
LN4031713	WJ4018443	WJ4018445	6.39	400	129	-4.22	0.03	0.00
LN4031714_A001	WJ4018445	WV4011205	4.86	400	129	-7.53	0.06	0.02
LN4031714_A002	WV4011205	WJ4018446	1.83	400	129	-7.53	0.06	0.01
LN4031715	WJ4018445	WJ4018447	12.19	400	129	3.31	0.03	0.00
LN4031716	WJ4018448	WJ4018447	6.38	400	129	24.68	0.20	0.12
LN4031717	WJ4018440	WJ4018448	132.25	300	120	24.69	0.35	0.56
LN4031720	WJ4018450	WJ4018440	75.72	300	120	25.45	0.36	0.59
LN4031723_A001	WJ58476	J-HY4033839	55.03	300	132	1.92	0.03	0.00
LN4031723_A002	J-HY4033839	J-HY16124	105.39	300	132	1.92	0.03	0.00
LN4031723_A003	J-HY16124	WJ4018451	92.74	300	132	1.92	0.03	0.00
LN4031724	WJ4018451	WJ4016793	12.41	300	132	0.00	0.00	0.00
LN4031727	WJ4018452	WJ4018450	441.01	150	114	1.62	0.09	0.12
LN4031728	WJ4018450	WJ4018452	96.55	300	120	-23.97	0.34	0.53
LN4031730	WJ4018453	WJ4016261	96.00	150	114	-0.62	0.03	0.02
LN4031731	WJ4018453	WJ4018452	93.73	300	120	25.72	0.36	0.60
LN4031732	WJ4018454	WJ4018453	126.22	300	120	25.26	0.36	0.58
LN4031735	WJ4016749	WJ4018451	272.46	600	130	-50.16	0.18	0.06
LN4031736	WJ4018455	WJ4016258	199.69	150	114	3.27	0.19	0.43
LN4031737	WJ4018455	WJ4018454	74.55	300	120	23.56	0.33	0.51
LN4031739	WJ4018456	WJ4016216	98.12	150	114	0.08	0.00	0.00
LN4031740	WJ4018456	WJ4018455	126.16	300	120	26.86	0.38	0.65
LN4031742	WJ4018457	WJ53564	143.88	150	103	0.36	0.02	0.01
LN4031743	WJ4018457	WJ4018456	180.65	300	120	26.94	0.38	0.66
LN4031751	WJ4016413	WJ4018454	111.17	150	103	1.74	0.10	0.16
LN4031756	WJ53563	WJ4018463	135.01	300	120	3.65	0.05	0.02
LN4031757_A001	WJ4018465	WV4005002	1.70	300	120	26.33	0.37	0.62
LN4031757_A002	WV4005002	WJ4018463	10.65	300	120	26.33	0.37	0.63
LN4031759	WJ4018463	WJ4018464	10.23	300	120	29.98	0.42	0.80
LN4031760	WJ4018464	WJ4018457	159.93	300	120	28.07	0.40	0.71
LN4031762	WJ4016204	WJ4018467	137.49	150	103	-4.47	0.25	0.92
LN4031769_A001	WJ4018472	WV4004997	1.89	400	129	0.55	0.00	0.00
LN4031769_A002	WV4004997	WJ4018471	10.44	400	129	0.55	0.00	0.00
LN4031770	WJ4018462	WJ4016749	85.21	600	130	-57.73	0.20	0.08
LN4031771	WJ4018471	WJ4018467	44.54	300	120	2.46	0.03	0.01
LN4031772	WJ4018459	WJ4018461	18.03	150	114	-1.15	0.07	0.06
LN4031773_A001	WJ4018461	J-HY4033474	16.00	300	132	3.66	0.05	0.01
LN4031773_A002	J-HY4033474	WJ4018460	2.00	300	132	3.66	0.05	0.01
LN4031774	WJ4018462	WJ4018461	3.00	300	132	5.88	0.08	0.03
LN4031780	WJ4018467	WJ4008483	386.38	300	120	-3.26	0.05	0.01
LN4031784	WJ4017092	WJ4018480	229.10	150	103	-1.04	0.06	0.06
LN4031789	WJ4018480	WJ4018473	17.28	150	114	-1.07	0.06	0.05
LN4031790	WJ4018473	WJ4018461	100.79	150	114	-1.07	0.06	0.05
LN4031791	WJ4018476	WJ4018473	9.40	150	114	0.00	0.00	0.00
LN4031793	WJ4018318	WJ4018462	197.50	600	130	-51.85	0.18	0.07
LN4031799	WJ59195	WJ53442	287.38	300	120	0.39	0.01	0.00
LN4031848	WJ4017965	WJ4018513	3.11	400	129	57.10	0.45	0.57
LN4031849	WJ4018513	WJ4017902	212.47	300	120	56.02	0.79	2.55
LN4031850	WJ4017972	WJ4018514	89.14	300	120	-16.71	0.24	0.27
LN4031851	WJ4018514	WJ4017965	2.77	400	129	-16.71	0.13	0.06
LN4031870	WJ4018524	WJ58517	21.47	300	132	-3.40	0.05	0.01
LN4031871_A001	WJ4018313	J-HY16140	62.04	300	132	-2.98	0.04	0.01
LN4031871_A002	J-HY16140	WJ4018524	44.60	300	132	-2.98	0.04	0.01
LN4031883_A001	WJ4016614	J-HY4032770	6.69	300	132	-8.87	0.13	0.07
LN4031883_A002	J-HY4032770	WJ4018313	7.60	300	132	-8.87	0.13	0.07
LN4031893	WJ4018534	WJ4018533	13.52	300	132	2.63	0.04	0.01
LN4031899	WJ4016614	WJ4018533	85.94	300	132	7.65	0.11	0.05
LN4031902	WJ4018313	WJ4018532	93.30	600	130	49.28	0.17	0.06
LN4031909	WJ4018542	WJ4016359	1.20	400	129	-18.22	0.14	0.06

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4031912	WJ4018532	WJ4018534	11.36	400	129	-2.55	0.02	0.00
LN4031933_A001	WJ52037	J-HY4008135	66.72	200	115	1.53	0.05	0.03
LN4031933_A002	J-HY4008135	WJ4015943	49.31	200	115	1.53	0.05	0.03
LN4031954_A001	WJ4018575	J-HY9902	72.92	300	132	-8.79	0.12	0.07
LN4031954_A002	J-HY9902	WJ4018533	27.64	300	132	-8.79	0.12	0.07
LN4031960	WJ55163	WJ4018583	105.65	150	114	0.11	0.01	0.00
LN4031970	WJ4020741	WJ4018586	13.22	400	129	-0.28	0.00	0.00
LN4031971	WJ53114	WJ4018586	9.46	600	130	-53.13	0.19	0.07
LN4031975_A001	WJ4018588	J-HY32675	49.34	300	132	-8.85	0.13	0.07
LN4031975_A002	J-HY32675	J-HY32671	104.36	300	132	-8.85	0.13	0.07
LN4031975_A003	J-HY32671	J-HY22580	106.99	300	132	-8.85	0.13	0.07
LN4031975_A004	J-HY22580	WJ4018575	59.10	300	132	-8.85	0.13	0.07
LN4031987	WJ4018604	WJ4020259	128.88	300	120	14.08	0.20	0.20
LN4031988	WJ4006959	WJ4018605	23.81	300	120	14.53	0.21	0.21
LN4031989	WJ4018605	WJ4018604	131.18	300	120	12.17	0.17	0.15
LN4032025	WJ4018393	WJ4018307	352.83	400	129	21.14	0.17	0.09
LN4032038	WJ4016374	WJ4018633	214.59	150	114	-0.11	0.01	0.00
LN4032040	WJ4018635	WJ4018447	2.92	400	129	-27.99	0.22	0.15
LN4032042	WJ4018633	WJ4018635	199.28	300	132	-27.95	0.40	0.59
LN4032070	WJ4008460	WJ4018321	136.94	300	120	15.51	0.22	0.24
LN4032317	WJ4018325	WJ4008433	389.21	300	132	7.28	0.10	0.05
LN4032520_A001	WJ4004914	WV4004344	2.46	900	130	635.98	1.00	0.94
LN4032520_A002	WV4004344	WV4005116	901.92	900	130	635.98	1.00	0.94
LN4032520_A003	WV4005116	WV4005114	17.15	900	130	635.98	1.00	0.94
LN4032520_A004	WV4005114	WJ4018863	157.88	900	130	635.98	1.00	0.94
LN4032526_A001	WJ4018863	WV4005109	2.38	600	130	25.59	0.09	0.02
LN4032526_A002	WV4005109	WJ4018862	7.22	600	130	25.59	0.09	0.02
LN4032543	WJ4018862	WJ4018874	4.07	600	130	0.58	0.00	0.00
LN4032547	WJ4010217	WJ4018876	82.37	400	129	-24.99	0.20	0.12
LN4032548	WJ4018876	WJ4018862	2.63	600	130	-25.01	0.09	0.01
LN4032911	WJ4018183	WJ4019076	140.31	150	103	-1.83	0.10	0.17
LN4032912	WJ4002430	WJ4019077	0.81	300	120	9.74	0.14	0.11
LN4032914	WJ4019076	WJ4019077	163.97	150	103	-2.02	0.11	0.21
LN4032915	WJ4002380	WJ4019076	171.04	150	103	-0.08	0.00	0.00
LN4032919	WJ4010521	WJ4017039	126.06	300	120	18.89	0.27	0.34
LN4032927	WJ4017039	WJ4019082	11.35	300	120	9.79	0.14	0.10
LN4032929	WJ4019082	WJ4002430	204.81	300	120	9.79	0.14	0.10
LN4032932	WJ4019077	WJ4002365	108.51	300	120	7.70	0.11	0.06
LN4032956	WJ4018217	WJ4017039	275.63	400	129	-9.05	0.07	0.02
LN4033116	WJ4015587	WJ4015640	217.68	150	103	-0.12	0.01	0.00
LN4033338	WJ4017078	WJ4008678	96.72	150	103	-0.66	0.04	0.03
LN4033382	WJ4017902	WJ4019278	161.90	300	120	26.67	0.38	0.64
LN4033385	WJ4001543	WJ4019280	121.74	300	120	-6.36	0.09	0.05
LN4033387	WJ4019278	WJ4019280	8.37	300	120	26.64	0.38	0.64
LN4033388	WJ4019280	WJ4017888	195.37	300	120	18.39	0.26	0.32
LN4033409	WJ4001543	WJ4017902	164.58	300	120	-27.89	0.39	0.70
LN4033410	WJ4006791	WJ4017905	257.95	150	114	0.99	0.06	0.05
LN4033413	WJ4003628	WJ4006835	384.63	150	103	-3.95	0.22	0.73
LN4033416	WJ4001983	WJ4003146	627.26	150	103	3.39	0.19	0.55
LN4033422	WJ4006109	WJ4018024	203.39	150	103	-3.35	0.19	0.54
LN4033427	WJ4006350	WJ4004286	136.29	150	114	-2.22	0.13	0.21
LN4033436	WJ4019295	WJ4019296	27.66	150	114	-0.05	0.00	0.00
LN4033439	WJ4019296	WJ4017764	247.23	150	103	-0.22	0.01	0.00
LN4033455	WJ4003953	WJ4003958	152.51	150	103	-0.09	0.01	0.00
LN4033461	WJ58756	WJ4017766	236.68	300	120	20.67	0.29	0.40
LN4033464	WJ4018180	WJ4019306	77.28	300	120	10.01	0.14	0.10
LN4033465	WJ4019306	WJ4017763	92.79	300	120	9.58	0.14	0.10
LN4033466	WJ4015172	WJ4019306	207.24	150	103	-0.47	0.03	0.01
LN4033467	WJ4019306	WJ4017743	219.06	150	103	-0.20	0.01	0.00
LN4033480	WJ4017794	WJ4040953	208.20	200	115	5.28	0.17	0.25
LN4033486	WJ4019314	WJ4017736	93.38	150	103	0.77	0.04	0.04
LN4033488	WJ4019314	WJ4017738	221.74	150	103	0.47	0.03	0.01
LN4033489	WJ4014623	WJ4019316	88.84	150	103	1.51	0.09	0.12
LN4033490	WJ4019316	WJ4019314	93.14	150	103	0.90	0.05	0.05
LN4033491	WJ4017743	WJ4019316	222.57	150	103	0.06	0.00	0.00
LN4033492	WJ57697	WJ4019316	189.67	150	103	-0.52	0.03	0.02
LN4033501	WJ4018131	WJ4019318	92.25	150	103	0.84	0.05	0.04
LN4033502	WJ4019318	WJ53041	72.26	150	103	-0.26	0.01	0.00
LN4033525	WJ4019325	WJ4014721	89.01	150	114	0.19	0.01	0.00
LN4033526	WJ4014820	WJ4019325	218.70	150	103	-0.33	0.02	0.01
LN4033527	WJ4019325	WJ4019318	228.16	150	103	-0.34	0.02	0.01
LN4033528	WJ54288	WJ4019326	72.68	150	103	0.42	0.02	0.01
LN4033529	WJ4019326	WJ4019325	92.16	150	103	0.38	0.02	0.01
LN4033530	WJ4014873	WJ4019326	217.29	150	103	-0.45	0.03	0.01
LN4033531	WJ4019326	WJ4018131	228.44	150	103	-0.58	0.03	0.02
LN4033538_A001	WJ4012562	J-HY4017295	36.83	300	120	2.23	0.03	0.01

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4033538_A002	J-HY4017295	J-HY16981	126.24	300	120	2.23	0.03	0.01
LN4033538_A003	J-HY16981	WJ4019328	3.46	300	120	2.23	0.03	0.01
LN4033547_A001	WJ4017794	J-HY4018994	76.08	400	129	-65.10	0.52	0.72
LN4033547_A002	J-HY4018994	WJ4019335	77.06	400	129	-65.10	0.52	0.72
LN4033548_A001	WJ4019335	J-HY4018945	8.62	400	129	-65.31	0.52	0.73
LN4033548_A002	J-HY4018945	J-HY4018934	88.11	400	129	-65.31	0.52	0.73
LN4033548_A003	J-HY4018934	WJ57354	24.05	400	129	-65.31	0.52	0.73
LN4033552	WJ4017533	WJ4008483	255.64	300	120	7.88	0.11	0.07
LN4033566	WJ4019344	WJ4018634	95.10	300	132	-28.09	0.40	0.59
LN4033568	WJ4013346	WJ4019344	281.29	150	103	-2.10	0.12	0.23
LN4033570	WJ4013271	WJ4019344	110.50	300	132	-25.28	0.36	0.49
LN4033571	WJ4017778	WJ4013433	115.84	150	103	-1.69	0.10	0.15
LN4033590	WJ4015383	WJ4018417	162.65	300	120	-35.51	0.50	1.10
LN4033623	WJ4019371	WJ4016519	211.26	150	103	-1.34	0.08	0.10
LN4033648	WJ4019386	WJ4016135	218.46	150	103	0.18	0.01	0.00
LN4033652	WJ4019383	WJ4019386	49.06	150	103	-0.03	0.00	0.00
LN4033653	WJ4019386	WJ4016147	96.41	150	103	0.59	0.03	0.02
LN4033662	WJ4019398	WJ4013299	54.18	150	114	-0.02	0.00	0.00
LN4033664	WJ4014473	WJ4019399	11.02	300	120	0.00	0.00	0.00
LN4033721	WJ4001983	WJ4019415	111.05	150	103	-5.51	0.31	1.35
LN4033722	WJ4019415	WJ4006399	111.62	150	103	-8.10	0.46	2.75
LN4033737	WJ4017357	WJ4019415	101.56	150	103	1.50	0.08	0.12
LN4033741	WJ53672	WJ55958	73.66	300	120	11.97	0.17	0.15
LN4033742	WJ55957	WJ4006581	295.71	300	120	8.36	0.12	0.08
LN4033755	WJ56498	WJ4001983	123.12	150	103	-1.84	0.10	0.18
LN4033823	WJ4019456	WJ4002150	100.81	150	103	-4.00	0.23	0.75
LN4033826	WJ4002498	WJ4019456	202.28	300	132	-14.59	0.21	0.18
LN4033837	WJ4019456	WJ4019463	203.28	150	103	-4.60	0.26	0.96
LN4033838	WJ4019463	WJ4003473	203.43	150	103	-4.94	0.28	1.10
LN4033840	WJ4019463	WJ52881	282.10	150	103	1.95	0.11	0.20
LN4033859	WJ4019472	WJ4019463	100.66	150	103	1.80	0.10	0.17
LN4033860	WJ4002158	WJ4019472	192.96	150	103	-3.59	0.20	0.61
LN4033861	WJ4019472	WJ4003628	203.04	150	103	-3.60	0.20	0.61
LN4033965	WJ52163	WJ48958	97.33	150	103	3.16	0.18	0.48
LN4033972	WJ4017495	WJ58397	63.72	150	103	-0.03	0.00	0.00
LN4033973	WJ58399	WJ52167	127.61	150	103	-0.06	0.00	0.00
LN4034072_A001	WJ4019556	WV4016857	1.89	400	129	53.87	0.43	0.51
LN4034072_A002	WV4016857	WJ59207	3.10	400	129	53.87	0.43	0.51
LN4034075	WJ4017772	WJ4019562	97.72	300	120	8.47	0.12	0.08
LN4034076	WJ4019562	WJ55026	141.86	300	120	7.50	0.11	0.06
LN4034078	WJ4008507	WJ4019562	252.52	150	103	-4.01	0.23	0.75
LN4034079	WJ4019562	WJ4017555	176.29	150	103	-3.22	0.18	0.50
LN4034087	WJ4018289	WJ4019567	147.36	150	103	-0.02	0.00	0.00
LN4034088	WJ4019567	WJ4008646	306.25	150	103	-2.71	0.15	0.36
LN4034090	WJ48968	WJ4019567	163.57	150	103	-1.95	0.11	0.20
LN4034091	WJ4019567	WJ4008662	101.48	150	103	0.67	0.04	0.03
LN4034097	WJ4019572	WJ4017786	101.51	150	103	2.62	0.15	0.34
LN4034104	WJ4017333	WJ4019575	202.94	150	103	-3.95	0.22	0.73
LN4034105	WJ4019575	WJ4019572	212.67	150	103	-4.50	0.25	0.93
LN4034107	WJ53513	WJ4019575	79.63	150	103	0.03	0.00	0.00
LN4034108	WJ4019575	WJ4009916	212.94	150	103	0.36	0.02	0.01
LN4034131	WJ53844	WJ53848	116.79	300	120	-2.69	0.04	0.01
LN4034136	WJ4016701	WJ4019589	200.68	150	103	2.63	0.15	0.34
LN4034137	WJ4019589	WJ4016803	206.73	150	103	5.01	0.28	1.13
LN4034139	WJ4016732	WJ4019589	101.49	300	120	-1.79	0.03	0.00
LN4034144	WJ4019589	WJ53571	94.38	300	120	-4.33	0.06	0.02
LN4034145	WJ53572	WJ53844	121.93	300	120	-2.66	0.04	0.01
LN4034158	WJ53556	WJ47069	396.90	150	103	3.90	0.22	0.71
LN4034164	WJ4019600	WJ4016683	100.57	150	103	-1.78	0.10	0.17
LN4034165	WJ4016587	WJ4019603	296.05	150	114	3.17	0.18	0.40
LN4034166	WJ4019603	WJ53558	217.41	150	114	5.25	0.30	1.02
LN4034167	WJ4016405	WJ4019603	219.80	150	103	2.28	0.13	0.26
LN4034168	WJ4019603	WJ4019600	99.26	150	103	-0.01	0.00	0.00
LN4034175	WJ4013513	WJ4019608	391.20	150	103	-2.57	0.15	0.33
LN4034176	WJ4019608	WJ4016832	355.03	150	103	-3.01	0.17	0.44
LN4034178	WJ4019608	WJ4013517	42.66	150	103	0.02	0.00	0.00
LN4034179	WJ4013513	WJ4019610	399.26	150	103	-2.54	0.14	0.32
LN4034180	WJ4019610	WJ4016839	204.10	150	103	-2.98	0.17	0.43
LN4034182	WJ4019610	WJ4019608	99.52	150	103	-0.05	0.00	0.00
LN4034184	WJ4019612	WJ4017758	203.15	150	103	-3.03	0.17	0.44
LN4034186	WJ4019612	WJ4019610	100.05	150	103	-0.16	0.01	0.00
LN4034188	WJ4019614	WJ4017756	203.04	150	103	-3.11	0.18	0.47
LN4034189	WJ22345	WJ4019614	152.49	150	103	0.03	0.00	0.00
LN4034190	WJ4019614	WJ4019612	100.05	150	103	-0.04	0.00	0.00
LN4034192	WJ4019616	WJ4019612	202.75	150	103	-2.98	0.17	0.43
LN4034193	WJ4013490	WJ4019616	8.63	150	103	-0.01	0.00	0.00

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4034197	WJ51998	WJ4019619	148.87	150	103	-2.66	0.15	0.35
LN4034198	WJ4019619	WJ4019614	203.16	150	103	-2.98	0.17	0.43
LN4034199	WJ4019616	WJ4019619	99.55	150	103	0.24	0.01	0.00
LN4034200	WJ4019619	WJ22343	144.15	150	103	0.37	0.02	0.01
LN4034211_A001	WJ4018575	J-HY22581	12.24	300	132	9.93	0.14	0.09
LN4034211_A002	J-HY22581	J-HY4018775	64.14	300	132	9.93	0.14	0.09
LN4034211_A003	J-HY4018775	J-HY4018835	116.72	300	132	9.93	0.14	0.09
LN4034211_A004	J-HY4018835	WJ4019624	23.55	300	132	9.93	0.14	0.09
LN4034217	WJ54461	WJ4019624	89.52	150	103	0.91	0.05	0.05
LN4034220_A001	WJ4019626	J-HY4018607	140.27	150	114	-1.45	0.08	0.09
LN4034220_A002	J-HY4018607	WJ4018588	34.94	150	114	-1.45	0.08	0.09
LN4034221_A001	WJ4019624	J-HY4019282	96.34	300	132	8.41	0.12	0.06
LN4034221_A002	J-HY4019282	J-HY4022788	114.88	300	132	8.41	0.12	0.06
LN4034221_A003	J-HY4022788	WJ4019626	105.43	300	132	8.41	0.12	0.06
LN4034223_A001	WJ58540	J-HY4018406	4.24	150	103	1.85	0.10	0.18
LN4034223_A002	J-HY4018406	J-HY4018424	122.42	150	103	1.85	0.10	0.18
LN4034223_A003	J-HY4018424	WJ53116	39.60	150	103	1.85	0.10	0.18
LN4034226	WJ4019628	WJ4012588	23.70	400	129	-5.82	0.05	0.01
LN4034229	WJ53122	WJ4019630	89.83	400	129	-15.58	0.12	0.05
LN4034230	WJ22621	WJ4019628	113.64	400	129	-4.54	0.04	0.01
LN4034236	WJ4019634	WJ4017212	220.07	150	103	-2.54	0.14	0.32
LN4034237	WJ27857	WJ4019634	86.65	150	103	1.58	0.09	0.13
LN4034238	WJ4019634	WJ4017210	109.66	150	103	0.98	0.06	0.06
LN4034240	WJ4019636	WJ27858	100.29	150	103	1.11	0.06	0.07
LN4034242	WJ4019636	WJ4019630	217.65	150	103	-2.67	0.15	0.35
LN4034243	WJ4019628	WJ4019637	217.76	150	103	2.53	0.14	0.32
LN4034246	WJ4019637	WJ4019636	117.88	150	103	1.10	0.06	0.07
LN4034248	WJ4019639	WJ4019626	217.21	150	103	-2.45	0.14	0.30
LN4034250	WJ4019639	WJ4019637	117.53	150	103	1.03	0.06	0.06
LN4034257	WJ4012398	WJ4019643	233.23	150	103	-0.29	0.02	0.01
LN4034261	WJ4019643	WJ4019639	105.49	150	103	0.65	0.04	0.03
LN4034262	WJ4019624	WJ4019644	218.14	150	103	2.08	0.12	0.22
LN4034264	WJ54469	WJ4019644	90.62	150	103	2.22	0.13	0.25
LN4034274	WJ4019643	WJ4019651	341.71	150	103	-0.46	0.03	0.01
LN4034275	WJ4019651	WJ4012398	122.15	150	103	0.91	0.05	0.05
LN4034276	WJ4019644	WJ4019651	98.15	150	103	2.46	0.14	0.30
LN4034277	WJ4019651	WJ4019643	111.33	150	103	0.84	0.05	0.04
LN4034282	WJ4019644	WJ4019654	223.07	150	103	1.66	0.09	0.15
LN4034283	WJ4019654	WJ4012266	218.49	150	103	2.91	0.16	0.41
LN4034284	WJ54441	WJ4019654	90.79	150	103	2.56	0.14	0.33
LN4034285	WJ4019654	WJ4012399	93.10	150	103	1.19	0.07	0.08
LN4034286	WJ4012399	WJ4019656	221.50	150	103	1.85	0.10	0.18
LN4034288	WJ4017734	WJ4019656	218.41	150	103	-2.08	0.12	0.22
LN4034289	WJ4019656	WJ4019639	222.33	150	103	-1.92	0.11	0.19
LN4034292	WJ4019637	WJ4019658	222.37	150	103	2.11	0.12	0.23
LN4034293	WJ4019658	WJ4017740	218.13	150	103	1.81	0.10	0.17
LN4034294	WJ4019656	WJ4019658	117.89	150	103	1.55	0.09	0.13
LN4034297	WJ4017741	WJ61529	207.36	150	103	-1.46	0.08	0.11
LN4034298	WJ4019660	WJ4019636	222.60	150	103	-2.31	0.13	0.27
LN4034299	WJ4019658	WJ4019660	117.98	150	103	1.67	0.09	0.15
LN4034301	WJ4019660	WJ27877	98.22	150	103	2.20	0.12	0.25
LN4034308	WJ4017695	WJ4019665	216.83	150	103	-0.68	0.04	0.03
LN4034309	WJ4019665	WJ4019634	223.36	150	103	-2.93	0.17	0.42
LN4034310	WJ27875	WJ4019665	96.54	300	120	17.80	0.25	0.30
LN4034311	WJ4019665	WJ4017691	109.58	300	120	19.80	0.28	0.37
LN4034328	WJ4019673	WJ28077	101.43	150	103	1.04	0.06	0.06
LN4034329	WJ4012072	WJ4019673	454.18	150	103	-0.71	0.04	0.03
LN4034330	WJ4019673	WJ4017741	218.99	150	103	-1.00	0.06	0.06
LN4034331	WJ4012081	WJ4019675	439.54	150	103	-0.53	0.03	0.02
LN4034332	WJ4019675	WJ4017740	218.59	150	103	-0.85	0.05	0.04
LN4034334	WJ4019675	WJ4019673	117.85	150	103	1.14	0.06	0.07
LN4034336	WJ4019677	WJ4017734	218.62	150	103	-0.54	0.03	0.02
LN4034338	WJ4019677	WJ4019675	117.80	150	103	1.21	0.07	0.08
LN4034342	WJ4012183	WJ4019680	218.93	150	103	0.80	0.05	0.04
LN4034343	WJ4019680	WJ4012268	221.55	150	103	0.60	0.03	0.02
LN4034345	WJ4019680	WJ4019677	108.97	150	103	1.38	0.08	0.10
LN4034347	WJ4019682	WJ4011938	231.69	150	114	1.17	0.07	0.06
LN4034348	WJ54491	WJ4019682	189.90	150	103	2.10	0.12	0.23
LN4034349	WJ4019682	WJ4019680	105.41	150	103	1.41	0.08	0.11
LN4034350	WJ4011981	WJ4019684	152.26	150	114	-0.05	0.00	0.00
LN4034351	WJ4019684	WJ4011971	117.67	150	114	0.07	0.00	0.00
LN4034353	WJ4019684	WJ54424	92.37	150	103	-2.18	0.12	0.24
LN4034355	WJ4012183	WJ4019685	102.71	150	103	-1.34	0.08	0.10
LN4034356	WJ4019685	WJ4019684	98.75	150	103	-1.95	0.11	0.20
LN4034357	WJ4011969	WJ4019685	218.13	150	103	0.37	0.02	0.01
LN4034358	WJ4019685	WJ4019682	219.02	150	103	0.73	0.04	0.03

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4034360	WJ4019687	WJ4019677	442.84	150	103	-0.36	0.02	0.01
LN4034361	WJ4012185	WJ4019687	138.33	150	103	1.73	0.10	0.16
LN4034362	WJ4019687	WJ4012081	89.93	150	103	1.68	0.10	0.15
LN4034390	WJ4019700	WJ4017775	219.66	150	103	-0.52	0.03	0.02
LN4034391	WJ4017763	WJ4019700	94.00	300	120	9.28	0.13	0.09
LN4034410	WJ4019709	WJ4017777	219.74	150	103	-0.59	0.03	0.02
LN4034411	WJ4019700	WJ4019709	92.97	300	120	8.97	0.13	0.09
LN4034413	WJ4017788	WJ4019711	221.97	150	103	0.63	0.04	0.02
LN4034415	WJ4019709	WJ4019711	91.47	300	120	8.73	0.12	0.08
LN4034439	WJ4013052	WJ4019724	40.53	150	103	-0.03	0.00	0.00
LN4034442	WJ4019726	WJ4013861	86.06	150	103	4.06	0.23	0.77
LN4034443	WJ4019724	WJ4019726	197.26	150	103	1.42	0.08	0.11
LN4034452	WJ4013852	WJ4019733	85.69	150	103	-1.56	0.09	0.13
LN4034453	WJ4019733	WJ4014259	91.15	150	103	-2.17	0.12	0.24
LN4034454	WJ4019726	WJ4019733	195.28	150	103	3.69	0.21	0.64
LN4034457	WJ4019734	WJ4014248	85.17	300	120	-9.11	0.13	0.09
LN4034459	WJ4019733	WJ4019734	194.39	150	103	4.12	0.23	0.79
LN4034461	WJ4013831	WJ4019735	87.51	150	103	-0.57	0.03	0.02
LN4034462	WJ4019735	WJ28135	92.54	150	103	-0.42	0.02	0.01
LN4034463	WJ4019734	WJ4019735	204.26	150	103	3.24	0.18	0.51
LN4034464_A001	WJ4019735	J-HY4022767	234.19	150	103	2.82	0.16	0.39
LN4034464_A002	J-HY4022767	J-HY4022775	146.35	150	103	2.82	0.16	0.39
LN4034464_A003	J-HY4022775	WJ20173	50.98	150	103	2.82	0.16	0.39
LN4034467	WJ4019736	WJ4019734	86.40	300	120	-9.69	0.14	0.10
LN4034468	WJ4013831	WJ4019736	203.52	150	103	-3.13	0.18	0.47
LN4034469	WJ4019736	WJ4013852	194.88	150	103	-4.08	0.23	0.77
LN4034471	WJ4013243	WJ4019737	93.30	150	103	-6.23	0.35	1.69
LN4034472	WJ4019737	WJ4019724	86.03	150	103	-5.16	0.29	1.19
LN4034473	WJ4013861	WJ4019737	196.21	150	103	1.17	0.07	0.08
LN4034474	WJ4019737	WJ4013221	46.23	150	103	0.01	0.00	0.00
LN4034476	WJ4019738	WJ4019736	93.10	300	120	-10.49	0.15	0.11
LN4034478	WJ4019738	WJ4013704	308.96	150	103	-0.67	0.04	0.03
LN4034484	WJ4019741	WJ4013827	92.93	150	103	-0.28	0.02	0.01
LN4034485	WJ20154	WJ4019741	295.91	150	103	-2.77	0.16	0.38
LN4034486	WJ4019741	WJ4019738	311.16	150	103	-3.16	0.18	0.48
LN4034502	WJ4013443	WJ4019746	198.21	150	103	-0.11	0.01	0.00
LN4034503	WJ4019746	WJ4019741	100.25	150	103	-0.30	0.02	0.01
LN4034504	WJ4013548	WJ4019746	286.28	150	103	-2.94	0.17	0.42
LN4034535	WJ4017785	WJ4019760	218.17	150	103	-0.97	0.05	0.05
LN4034536	WJ4019760	WJ4015775	127.70	150	103	0.08	0.00	0.00
LN4034537	WJ4013528	WJ4019761	100.66	300	120	-4.98	0.07	0.03
LN4034538	WJ4019761	WJ4019738	100.66	300	120	-7.63	0.11	0.06
LN4034540	WJ4019746	WJ4019761	309.98	150	103	-3.10	0.18	0.46
LN4034546	WJ4019760	WJ54484	102.13	300	120	0.01	0.00	0.00
LN4034551	WJ4013520	WJ4019762	98.77	150	103	-0.92	0.05	0.05
LN4034552	WJ4019762	WJ4013704	99.86	150	103	-0.89	0.05	0.05
LN4034553	WJ4019761	WJ4019762	309.83	150	103	-0.74	0.04	0.03
LN4034554	WJ4019762	WJ4013246	290.59	150	103	-1.04	0.06	0.06
LN4034556	WJ4019767	WJ4017784	221.00	300	120	-4.46	0.06	0.02
LN4034557	WJ4013383	WJ4019765	107.60	150	103	-0.10	0.01	0.00
LN4034558	WJ4019765	WJ4013519	97.35	150	103	-0.86	0.05	0.04
LN4034560	WJ4019766	WJ4017783	220.47	150	103	-0.76	0.04	0.02
LN4034561	WJ4013414	WJ4019765	235.12	150	103	-1.22	0.07	0.08
LN4034562	WJ4019765	WJ4013283	238.42	150	103	-0.66	0.04	0.03
LN4034564	WJ4019767	WJ4019760	114.40	300	120	1.25	0.02	0.00
LN4034566	WJ4019766	WJ4019767	91.99	300	120	5.49	0.08	0.03
LN4034570	WJ4019768	WJ4019766	100.88	300	120	5.91	0.08	0.04
LN4034574	WJ55156	WJ4016605	337.54	150	103	-4.01	0.23	0.75
LN4034578	WJ53518	WJ55157	193.02	150	103	-4.45	0.25	0.91
LN4034579	WJ4017759	WJ4019772	201.49	150	103	-0.83	0.05	0.04
LN4034581	WJ4017750	WJ4019772	401.11	150	103	-3.71	0.21	0.65
LN4034582	WJ4019772	WJ53506	210.35	150	103	-3.96	0.22	0.73
LN4034584	WJ4019772	WJ4019773	153.18	150	103	-0.88	0.05	0.04
LN4034585	WJ4019773	WJ4015317	101.79	150	103	0.57	0.03	0.02
LN4034586	WJ4017748	WJ4019773	402.07	300	120	-27.08	0.38	0.66
LN4034587	WJ4019773	WJ53494	206.55	300	120	-28.82	0.41	0.74
LN4034596	WJ4019775	WJ22345	202.81	150	103	0.23	0.01	0.00
LN4034597	WJ4015851	WJ4019775	481.67	150	103	3.41	0.19	0.56
LN4034598	WJ4019775	WJ52044	236.23	150	103	3.44	0.19	0.56
LN4034603	WJ4015780	WJ4019777	103.12	150	103	-0.23	0.01	0.00
LN4034604	WJ4019777	WJ4019775	151.85	150	103	0.56	0.03	0.02
LN4034611	WJ4015789	WJ4019781	102.49	150	103	-0.38	0.02	0.01
LN4034612	WJ4019781	WJ4015851	222.57	150	103	-1.52	0.09	0.12
LN4034613	WJ4019777	WJ4019781	341.03	300	120	-27.76	0.39	0.69
LN4034614	WJ4019781	WJ4017748	252.11	300	120	-26.90	0.38	0.66
LN4034617	WJ4019782	WJ4016532	90.91	150	103	0.26	0.01	0.00

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4034618	WJ4016393	WJ4019782	188.41	150	103	3.50	0.20	0.58
LN4034622	WJ4019783	WJ4016534	91.11	150	103	-0.36	0.02	0.01
LN4034623	WJ4019782	WJ4019783	203.42	150	103	3.64	0.21	0.63
LN4034626	WJ4019786	WJ4017781	219.72	150	103	-0.62	0.04	0.02
LN4034628	WJ4019786	WJ4019768	102.26	300	120	6.54	0.09	0.05
LN4034630	WJ55466	WJ4017780	199.40	150	103	-0.66	0.04	0.03
LN4034632	WJ55341	WJ4019786	88.91	300	120	7.15	0.10	0.06
LN4034633	WJ4016519	WJ4019789	91.90	150	103	1.51	0.09	0.12
LN4034635	WJ4008619	WJ4019790	162.99	150	114	-0.21	0.01	0.00
LN4034637	WJ4019783	WJ4019789	202.63	150	103	3.27	0.18	0.51
LN4034638	WJ4019789	WJ4016357	202.78	150	103	3.68	0.21	0.64
LN4034641	WJ28214	WJ4019792	181.61	400	129	-19.32	0.15	0.08
LN4034642	WJ4019792	WJ4016357	95.01	400	129	27.68	0.22	0.15
LN4034645	WJ4019711	WJ55429	82.78	300	120	8.28	0.12	0.07
LN4034646	WJ55431	WJ55304	65.60	300	120	7.77	0.11	0.07
LN4034647	WJ4019789	WJ4019795	91.77	150	103	0.88	0.05	0.05
LN4034652	WJ4019796	WJ4019783	92.63	150	103	-0.55	0.03	0.02
LN4034653	WJ4019795	WJ4019796	202.88	150	103	-3.31	0.19	0.52
LN4034656	WJ4019798	WJ4019700	218.35	150	103	-0.63	0.04	0.02
LN4034657	WJ4017764	WJ4019798	94.16	150	103	1.42	0.08	0.11
LN4034663	WJ4016175	WJ4019803	108.11	150	103	-0.04	0.00	0.00
LN4034664	WJ4019803	WJ4019709	218.45	150	103	-0.59	0.03	0.02
LN4034666	WJ22724	WJ4019803	91.06	150	103	1.18	0.07	0.08
LN4034668	WJ4019711	WJ4019820	218.60	150	103	0.85	0.05	0.04
LN4034669	WJ4019820	WJ4019386	217.69	150	103	0.96	0.05	0.05
LN4034671	WJ4019805	WJ4019782	92.44	150	103	0.59	0.03	0.02
LN4034672	WJ4019796	WJ4019805	203.16	150	103	-3.70	0.21	0.64
LN4034673	WJ4019805	WJ4016389	197.92	150	103	-3.46	0.20	0.57
LN4034675	WJ28174	WJ4019806	90.38	150	114	1.43	0.08	0.09
LN4034676	WJ4019806	WJ4019805	91.48	150	103	0.98	0.06	0.05
LN4034677	WJ4016388	WJ4019806	197.77	150	103	3.55	0.20	0.60
LN4034682	WJ28154	WJ4019808	90.47	150	103	-1.18	0.07	0.08
LN4034683	WJ4019808	WJ4019796	91.34	150	103	-0.85	0.05	0.04
LN4034684	WJ4019806	WJ4019808	202.66	150	103	3.84	0.22	0.69
LN4034688	WJ4019795	WJ4019809	91.70	150	103	1.27	0.07	0.09
LN4034689	WJ4019809	WJ28134	90.21	150	103	1.01	0.06	0.06
LN4034690	WJ4019808	WJ4019809	203.33	150	103	3.37	0.19	0.54
LN4034702	WJ4019815	WJ54460	86.69	150	103	1.33	0.08	0.10
LN4034704	WJ4019815	WJ4016614	240.54	150	103	-1.08	0.06	0.07
LN4034709	WJ4019817	WJ54470	86.58	150	103	2.20	0.12	0.25
LN4034710	WJ4017785	WJ4019817	222.86	150	103	-0.49	0.03	0.02
LN4034711	WJ4019817	WJ4019815	217.75	150	103	-1.06	0.06	0.06
LN4034715	WJ4019818	WJ4019817	113.37	150	103	1.81	0.10	0.17
LN4034717	WJ4019818	WJ4017784	220.12	300	120	4.68	0.07	0.03
LN4034721	WJ4019819	WJ4019815	114.24	150	103	1.52	0.09	0.12
LN4034722	WJ4018328	WJ4019819	243.04	300	120	6.52	0.09	0.05
LN4034723	WJ4019819	WJ4019818	218.12	300	120	5.88	0.08	0.04
LN4034724	WJ4019803	WJ4019820	91.50	150	103	1.56	0.09	0.13
LN4034729	WJ4019822	WJ4019819	95.21	150	103	1.09	0.06	0.07
LN4034731	WJ4019822	WJ4018352	211.28	150	103	-1.10	0.06	0.07
LN4034738	WJ4019826	WJ4019818	95.81	150	103	0.85	0.05	0.04
LN4034739	WJ4017783	WJ4019826	221.44	150	103	-0.77	0.04	0.03
LN4034740	WJ4019826	WJ4019822	217.95	150	103	-0.95	0.05	0.05
LN4034741	WJ4019820	WJ55442	83.67	150	103	1.21	0.07	0.08
LN4034743	WJ4016704	WJ4019829	98.59	150	103	0.62	0.04	0.02
LN4034744	WJ4019829	WJ4019826	98.90	150	103	0.84	0.05	0.04
LN4034749	WJ55441	WJ55326	66.94	150	103	1.15	0.06	0.07
LN4034753	WJ4017092	WJ4019834	94.34	150	103	1.29	0.07	0.09
LN4034754	WJ4019834	WJ4019822	99.41	150	103	1.13	0.06	0.07
LN4034756	WJ4019834	WJ4019829	217.79	150	114	1.18	0.07	0.06
LN4034757	WJ4016056	WJ4019838	218.17	150	103	-0.93	0.05	0.05
LN4034758	WJ4019838	WJ4019786	218.38	150	103	-0.98	0.06	0.06
LN4034759	WJ55323	WJ4019838	90.27	150	103	1.11	0.06	0.07
LN4034767	WJ4019838	WJ4019841	102.24	150	103	0.95	0.05	0.05
LN4034770	WJ4016704	WJ4019842	98.44	150	103	-1.29	0.07	0.09
LN4034773	WJ4019842	WJ4017780	223.61	150	103	0.73	0.04	0.03
LN4034775	WJ4019845	WJ4019766	218.18	150	103	-0.92	0.05	0.05
LN4034776	WJ4019841	WJ4019845	101.76	150	103	0.59	0.03	0.02
LN4034783	WJ4019848	WJ4017092	103.76	150	103	0.78	0.04	0.04
LN4034784	WJ4018459	WJ4019848	230.67	150	103	1.10	0.06	0.07
LN4034785	WJ4019848	WJ4019842	217.26	150	103	1.10	0.06	0.07
LN4034787	WJ4019851	WJ4019767	218.67	300	120	-8.48	0.12	0.08
LN4034788	WJ4019845	WJ4019851	91.04	150	103	1.37	0.08	0.10
LN4034789	WJ4019851	WJ4015473	114.89	150	103	0.19	0.01	0.00
LN4034792	WJ4019852	WJ4019848	104.87	150	103	0.89	0.05	0.05
LN4034794	WJ4019852	WJ4016750	228.13	150	103	-1.24	0.07	0.09

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4034796	WJ4019855	WJ4019851	218.45	300	120	-9.41	0.13	0.09
LN4034798	WJ4019855	WJ4015640	113.63	150	103	2.88	0.16	0.41
LN4034800	WJ4019842	WJ4019856	104.04	150	103	-1.08	0.06	0.07
LN4034803	WJ4019856	WJ4019852	217.57	150	103	-1.02	0.06	0.06
LN4034809	WJ61514	WJ4019855	77.71	150	103	0.62	0.03	0.02
LN4034813	WJ4019856	WJ4019862	101.91	150	103	-1.11	0.06	0.07
LN4034814	WJ4019862	WJ4017736	185.25	150	103	-1.12	0.06	0.07
LN4034816	WJ4019862	WJ4017788	223.80	150	103	0.75	0.04	0.03
LN4034820	WJ4016055	WJ4019865	95.46	150	103	1.35	0.08	0.10
LN4034821	WJ4019865	WJ61515	75.30	150	103	1.60	0.09	0.14
LN4034823	WJ54014	WJ50379	90.15	150	103	6.14	0.35	1.65
LN4034828	WJ4016147	WJ55331	88.80	150	103	1.24	0.07	0.08
LN4034829	WJ55328	WJ4016056	88.65	150	103	1.39	0.08	0.11
LN4034836	WJ4016125	WJ55338	79.54	150	103	1.20	0.07	0.08
LN4034841	WJ4017733	WJ60926	90.74	150	103	1.85	0.10	0.18
LN4034842	WJ4019873	WJ4019852	100.53	150	103	1.02	0.06	0.06
LN4034845	WJ4019873	WJ4019862	217.85	150	103	0.97	0.05	0.05
LN4034850	WJ53992	WJ54018	74.62	150	103	4.75	0.27	1.02
LN4034854	WJ58937	WJ4019876	165.59	150	114	6.21	0.35	1.39
LN4034931	WJ4017698	WJ58940	70.88	150	114	6.76	0.38	1.63
LN4034967	WJ4015733	WJ4019908	194.49	150	103	-0.88	0.05	0.04
LN4034968	WJ4019908	WJ4016055	218.20	150	103	-0.75	0.04	0.03
LN4034969	WJ55334	WJ4019908	96.50	150	103	1.78	0.10	0.17
LN4034981	WJ4019865	WJ4019914	216.60	150	103	0.83	0.05	0.04
LN4034982	WJ4019914	WJ4010597	209.71	150	103	0.72	0.04	0.03
LN4034983	WJ4019908	WJ4019914	92.76	150	103	1.47	0.08	0.12
LN4034985	WJ4010581	WJ4019916	220.63	150	103	-0.66	0.04	0.03
LN4034986	WJ4019916	WJ61511	215.49	150	103	-0.69	0.04	0.03
LN4034987	WJ4019914	WJ4019916	102.35	150	103	1.38	0.08	0.10
LN4034989	WJ4017702	WJ4019918	233.31	300	120	-5.55	0.08	0.04
LN4034990	WJ4019918	WJ4019855	218.22	300	120	-6.97	0.10	0.05
LN4034991	WJ4019916	WJ4019918	90.81	150	103	1.24	0.07	0.08
LN4034992	WJ4019918	WJ4015587	113.58	150	103	2.47	0.14	0.30
LN4034998	WJ54421	WJ4015587	83.82	150	103	-2.39	0.14	0.29
LN4035159	WJ4011989	WJ4019991	170.37	150	103	0.01	0.00	0.00
LN4035160	WJ4019991	WJ4011452	184.62	150	103	0.06	0.00	0.00
LN4035166	WJ4019991	WJ4011411	96.56	150	103	2.60	0.15	0.34
LN4035167	WJ4011390	WJ4019994	201.31	150	103	-0.12	0.01	0.00
LN4035168	WJ4019994	WJ4011454	197.85	150	103	-0.51	0.03	0.02
LN4035170	WJ4019994	WJ4019991	96.62	150	103	2.87	0.16	0.40
LN4035172	WJ4019995	WJ4010410	203.56	150	103	2.33	0.13	0.27
LN4035173	WJ4011579	WJ4019996	126.84	150	103	2.37	0.13	0.28
LN4035174	WJ4019996	WJ4019994	97.81	150	103	2.65	0.15	0.35
LN4035175	WJ4019996	WJ4011399	187.41	150	103	0.55	0.03	0.02
LN4035180	WJ4018874	WJ4019995	19.20	400	129	0.57	0.00	0.00
LN4035188	WJ4020002	WJ4019995	136.90	150	103	1.78	0.10	0.17
LN4035189	WJ59732	WJ4020003	156.30	150	103	1.83	0.10	0.18
LN4035190	WJ4020003	WJ4011683	141.18	150	103	2.86	0.16	0.40
LN4035195	WJ4020003	WJ4011782	104.10	150	103	1.39	0.08	0.10
LN4035198	WJ4011632	WJ4020007	121.70	150	103	1.35	0.08	0.10
LN4035199	WJ4020007	WJ4011815	242.15	150	103	0.62	0.04	0.02
LN4035212	WJ4010475	WJ4020002	107.85	150	103	-0.15	0.01	0.00
LN4035215	WJ4020013	WJ4020002	100.45	150	103	1.97	0.11	0.20
LN4035222	WJ47435	WJ4020013	85.83	150	103	2.01	0.11	0.21
LN4035437	WJ4002202	WJ4020213	192.44	150	103	-3.08	0.17	0.46
LN4035438	WJ4020213	WJ4003146	203.83	150	103	-3.27	0.18	0.51
LN4035439	WJ49146	WJ4020213	93.53	150	103	1.95	0.11	0.20
LN4035440	WJ4020213	WJ4019472	100.76	150	103	1.97	0.11	0.20
LN4035446	WJ4004565	WJ4020220	359.44	150	103	1.53	0.09	0.13
LN4035447	WJ4020220	WJ4004140	120.98	150	103	0.63	0.04	0.02
LN4035448	WJ4004567	WJ4020220	92.05	150	103	2.80	0.16	0.39
LN4035449	WJ4020220	WJ4003925	86.84	150	103	3.53	0.20	0.59
LN4035450	WJ4004396	WJ4020222	84.14	150	103	-0.07	0.00	0.00
LN4035451	WJ4020222	WJ4004563	121.07	150	103	1.25	0.07	0.09
LN4035452	WJ4004354	WJ4020222	105.41	150	103	4.35	0.25	0.87
LN4035453	WJ4020222	WJ4004565	76.92	150	103	2.95	0.17	0.42
LN4035459	WJ4020225	WJ4018068	68.03	300	120	38.55	0.55	1.28
LN4035461	WJ4017359	WJ4020227	218.39	150	103	0.39	0.02	0.01
LN4035462	WJ4020227	WJ4020225	218.51	150	103	1.98	0.11	0.20
LN4035463	WJ4005072	WJ4020227	94.47	150	103	5.18	0.29	1.21
LN4035464	WJ4020227	WJ4003929	83.63	150	103	3.38	0.19	0.55
LN4035465	WJ4020225	WJ49000	216.17	150	103	-5.52	0.31	1.35
LN4035466	WJ4020229	WJ4003845	26.46	150	103	-1.43	0.08	0.11
LN4035467	WJ4017666	WJ4020229	380.96	400	129	23.05	0.18	0.11
LN4035468	WJ4020229	WJ4003831	84.80	400	129	18.76	0.15	0.07
LN4035472	WJ4005083	WJ4020225	188.99	300	120	31.26	0.44	0.87

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4035478	WJ4018166	WJ4018217	115.84	150	114	-3.09	0.17	0.38
LN4035488	WJ4018482	WJ55020	61.72	150	103	-0.09	0.01	0.00
LN4035524	WJ4020263	WJ4020259	230.45	150	114	-0.29	0.02	0.00
LN4035527_A001	WJ4020264	WV4021627	140.15	600	130	194.77	0.69	0.75
LN4035527_A002	WV4021627	WJ4014260	179.66	600	130	194.77	0.69	0.75
LN4035528	WJ4014259	WJ4020269	138.01	150	103	-6.68	0.38	1.93
LN4035530	WJ4020268	WJ4020269	58.21	300	132	6.77	0.10	0.04
LN4035531	WJ4020267	WJ4020268	97.63	300	132	13.36	0.19	0.15
LN4035532	WJ4020266	WJ4020267	100.89	300	132	13.53	0.19	0.15
LN4035533	WJ4020265	WJ4020266	27.16	300	132	20.29	0.29	0.33
LN4035534	WJ4020264	WJ4020265	36.43	300	132	20.44	0.29	0.33
LN4035536	WJ4020268	WJ4019726	89.81	150	103	6.51	0.37	1.84
LN4035537	WJ4019724	WJ4020266	89.35	150	103	-6.71	0.38	1.94
LN4035539	WJ4008476	WJ4020274	443.08	600	130	192.82	0.68	0.74
LN4035541	WJ4020274	WJ4020275	168.59	600	130	222.47	0.79	0.97
LN4035542	WJ4020275	WJ4020264	399.60	600	130	218.54	0.77	0.93
LN4035545	WJ4008433	WJ4020274	327.32	300	120	30.29	0.43	0.82
LN4035547	WJ4020275	WJ4020278	7.12	300	120	3.93	0.06	0.02
LN4035549	WJ4013538	WJ4022803	91.62	250	110	4.91	0.10	0.08
LN4035551	WJ4016732	WJ4017755	150.57	300	120	0.75	0.01	0.00
LN4035554	WJ4016839	WJ4016834	190.64	150	103	-2.58	0.15	0.33
LN4035582	WJ4006305	WJ48469	168.44	150	103	0.08	0.00	0.00
LN4035788	WJ47436	WJ4020423	87.70	150	114	0.02	0.00	0.00
LN4035789	WJ4020598	WJ4020596	103.22	150	114	1.40	0.08	0.09
LN4035791	WJ4020599	WJ4020598	97.25	150	114	2.67	0.15	0.29
LN4035803	WJ53447	WJ4002007	91.06	150	103	-1.00	0.06	0.06
LN4035891	WJ4020703	WJ4018604	24.18	150	114	1.92	0.11	0.16
LN4035892	WJ4018605	WJ4020704	22.69	150	114	2.36	0.13	0.23
LN4035893	WJ4020704	WJ4020703	316.54	150	114	0.83	0.05	0.03
LN4035894	WJ4020703	WJ4020704	134.53	150	114	-1.32	0.07	0.08
LN4035907	WJ4020716	WJ4020715	6.36	150	114	2.98	0.17	0.36
LN4035908	WJ4020717	WJ4020716	109.70	150	114	-2.39	0.14	0.24
LN4035914_A001	WJ4017212	J-HY4019591	33.28	300	132	5.50	0.08	0.03
LN4035914_A002	J-HY4019591	WJ4020722	79.72	300	132	5.50	0.08	0.03
LN4035915_A001	WJ4020722	J-HY16261	112.96	300	132	-0.03	0.00	0.00
LN4035915_A002	J-HY16261	J-HY4017085	120.75	300	132	-0.03	0.00	0.00
LN4035915_A003	J-HY4017085	WJ4017209	22.50	300	132	-0.03	0.00	0.00
LN4035919	WJ4010521	WJ4020727	330.07	300	120	-20.67	0.29	0.40
LN4035920	WJ4020727	WJ4017869	15.95	300	132	-20.67	0.29	0.34
LN4035922	WJ53462	WJ4017869	307.12	300	132	20.68	0.29	0.34
LN4035923	WJ56688	WJ4020729	80.81	300	120	40.62	0.57	1.41
LN4035924	WJ4020729	WJ59734	16.82	300	120	38.00	0.54	1.24
LN4035926	WJ4020730	WJ4017869	9.56	300	132	0.00	0.00	0.00
LN4035929	WJ61124	WJ4020717	105.89	150	114	-0.23	0.01	0.00
LN4035930	WJ4020729	WJ4020732	49.94	150	114	2.62	0.15	0.28
LN4035934	WJ4020739	WJ4020740	76.05	150	114	0.96	0.05	0.04
LN4035935	WJ4020732	WJ4020738	226.62	150	114	2.28	0.13	0.22
LN4035936	WJ53118	WJ4020741	19.30	150	114	-1.57	0.09	0.11
LN4035937_A001	WJ4020741	J-HY4018649	53.12	150	114	-2.16	0.12	0.20
LN4035937_A002	J-HY4018649	WJ58533	54.72	150	114	-2.16	0.12	0.20
LN4035943	WJ49340	WJ49248	105.92	150	114	-2.30	0.13	0.22
LN4035992	WJ27375	WJ4010421	314.91	400	129	-37.78	0.30	0.26
LN4035999	WJ4020832	WJ4020828	501.30	400	129	4.30	0.03	0.00
LN4036014	WJ4018217	WJ59074	367.87	400	129	7.23	0.06	0.01
LN4036017	WJ4020832	WJ59074	205.63	400	129	-5.74	0.05	0.01
LN4036022	WJ4010295	WJ4020856	79.01	150	103	2.24	0.13	0.26
LN4036023	WJ4020856	WJ59072	104.63	150	103	1.83	0.10	0.18
LN4036026	WJ4020858	WJ4020853	99.75	150	114	-1.18	0.07	0.06
LN4036027	WJ4020740	WJ4020858	93.70	150	114	-2.14	0.12	0.19
LN4036029	WJ4020740	WJ4020862	144.05	150	114	3.05	0.17	0.37
LN4036031	WJ4010422	WJ4020864	96.56	300	120	43.31	0.61	1.58
LN4036032	WJ4020865	WJ4020864	617.52	250	115	-0.33	0.01	0.00
LN4036033	WJ4020867	WJ4020863	99.75	150	114	-1.64	0.09	0.12
LN4036034	WJ4020739	WJ4020867	95.28	150	114	-2.35	0.13	0.23
LN4036035	WJ4020738	WJ4020739	10.68	150	114	-1.36	0.08	0.08
LN4036036	WJ4020862	WJ4020738	115.15	150	114	-3.52	0.20	0.49
LN4036050	WJ4011486	WJ4020882	57.75	300	120	28.82	0.41	0.74
LN4036060	WJ4020882	WJ4020862	75.83	150	114	-6.06	0.34	1.33
LN4036139	WJ4019876	WJ4020967	6.53	150	114	6.06	0.34	1.33
LN4036140	WJ4020967	WJ53993	70.21	150	103	6.05	0.34	1.61
LN4036145	WJ4019790	WJ4020969	216.54	150	114	-0.17	0.01	0.00
LN4036146	WJ4020969	WJ4019812	3.19	150	114	-4.57	0.26	0.79
LN4036150	WJ4020969	WJ4008332	120.89	150	114	4.28	0.24	0.70
LN4036157	WJ4020971	WJ4011622	127.89	150	114	-1.38	0.08	0.09
LN4036159	WJ4020007	WJ4020971	96.04	150	114	-0.46	0.03	0.01
LN4036166	WJ4020007	WJ4020978	109.79	150	114	1.02	0.06	0.05

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4036169	WJ4020978	WJ4020979	112.54	150	114	0.48	0.03	0.01
LN4036173	WJ4011859	WJ4020981	242.11	150	103	-0.37	0.02	0.01
LN4036175	WJ4020979	WJ4020981	10.10	150	114	1.49	0.08	0.10
LN4036176	WJ4020980	WJ4010422	324.24	150	103	0.01	0.00	0.00
LN4036180	WJ4020981	WJ4020984	102.09	150	114	1.02	0.06	0.05
LN4036181	WJ4017698	WJ4020980	97.63	150	114	-7.25	0.41	1.86
LN4036182	WJ4010368	WJ4010217	100.39	150	114	-5.10	0.29	0.97
LN4036187	WJ4020987	WJ4020984	123.82	150	114	-0.66	0.04	0.02
LN4036190	WJ4020867	WJ4020717	160.55	150	114	-1.97	0.11	0.17
LN4036192	WJ4020867	WJ4020858	127.92	150	114	1.09	0.06	0.06
LN4036215	WJ4020987	WJ4021011	139.02	150	114	0.40	0.02	0.01
LN4036228	WJ4011139	WJ4021023	101.13	150	114	-0.15	0.01	0.00
LN4036229	WJ4021023	WJ4011947	120.37	150	103	-0.23	0.01	0.00
LN4036231	WJ4011139	WJ4021011	234.88	150	114	-0.20	0.01	0.00
LN4036254	WJ4011305	WJ4021044	98.03	150	114	-0.63	0.04	0.02
LN4036255	WJ4018111	WJ4021047	63.80	300	120	-5.37	0.08	0.03
LN4036256	WJ4021047	WJ4018113	4.80	300	120	-4.64	0.07	0.02
LN4036257	WJ4021044	WJ4018113	90.93	150	114	-0.30	0.02	0.00
LN4036287	WJ58461	WJ4021076	7.85	400	129	-23.11	0.18	0.11
LN4036297_A001	WJ19333	WV15899	390.57	600	130	-148.65	0.53	0.46
LN4036297_A002	WV15899	WJ21598	400.20	600	130	-148.65	0.53	0.46
LN4036345	WJ4021126	WJ55022	65.79	150	114	-0.06	0.00	0.00
LN4036361_A001	WJ4015339	J-HY16136	24.10	300	132	0.06	0.00	0.00
LN4036361_A002	J-HY16136	WJ4021144	102.57	300	132	0.06	0.00	0.00
LN4036400	WJ4019063	WJ4021189	35.51	150	114	-0.02	0.00	0.00
LN4036401	WJ59147	WJ48216	597.36	150	103	-0.32	0.02	0.00
LN4036461	WJ4008690	WJ4021233	14.62	300	120	4.75	0.07	0.03
LN4036462	WJ4021233	WJ4008678	89.15	300	120	4.75	0.07	0.03
LN4036467	WJ4020716	WJ56701	89.07	150	114	-5.41	0.31	1.08
LN4036477	WJ4020715	WJ4020863	109.77	150	114	2.96	0.17	0.35
LN4036484	WJ4020853	WJ4020863	173.49	150	114	-1.25	0.07	0.07
LN4036511	WJ4018306	WJ4021261	113.68	150	114	-0.95	0.05	0.04
LN4037291	WJ53848	WJ4018443	95.95	300	120	-4.21	0.06	0.02
LN4037293_A001	WJ4019626	J-HY4019478	8.22	300	132	5.86	0.08	0.03
LN4037293_A002	J-HY4019478	WJ4012588	87.33	300	132	5.86	0.08	0.03
LN4037393	WJ4008654	WJ4022762	153.92	300	120	46.68	0.66	1.82
LN4037398	WJ4022762	WJ4022764	281.31	300	120	46.68	0.66	1.82
LN4037399	WJ4022764	WJ56681	145.95	300	120	46.67	0.66	1.82
LN4037432	WJ4020979	WJ4022778	130.60	150	114	-1.04	0.06	0.05
LN4037433	WJ4022778	WJ4011634	175.78	150	103	-1.16	0.07	0.08
LN4037458	WJ4018342	WJ4018341	468.34	400	129	25.24	0.20	0.13
LN4037459	WJ4018341	WJ4018400	6.90	400	129	64.18	0.51	0.71
LN4037475	WJ4008659	WJ4022800	5.56	900	130	-682.68	1.07	1.07
LN4037476_A001	WJ4022800	WV4004307	346.15	900	130	8.77	0.01	0.00
LN4037476_A002	WV4004307	WJ4018133	647.05	900	130	8.77	0.01	0.00
LN4037479	WJ4022803	WJ4018053	26.28	400	129	29.44	0.23	0.17
LN4037480	WJ4008657	WJ4022804	20.51	900	130	635.99	1.00	0.94
LN4037481_A001	WJ4022804	WV4004327	9.55	900	130	635.99	1.00	0.94
LN4037481_A002	WV4004327	WJ4018048	551.53	900	130	635.99	1.00	0.94
LN4037543	WJ4011011	WJ4020599	117.02	150	114	5.39	0.30	1.07
LN4037651	WJ4015007	WJ4023042	102.15	150	103	-1.28	0.07	0.09
LN4037653	WJ4023042	WJ4023043	216.99	150	103	-1.46	0.08	0.11
LN4037654	WJ4023043	WJ4014481	79.71	150	103	-1.53	0.09	0.13
LN4037690_A001	WJ4018472	WV4004993	3.06	900	130	-158.56	0.25	0.07
LN4037690_A002	WV4004993	WV10604	3.66	900	130	-158.56	0.25	0.07
LN4037690_A003	WV10604	WV4004999	92.53	900	130	-158.56	0.25	0.07
LN4037690_A004	WV4004999	WV10609	197.28	900	130	-158.56	0.25	0.07
LN4037690_A005	WV10609	WJ4019556	484.19	900	130	-158.56	0.25	0.07
LN4037692	WJ4023053	WJ4018472	3.11	900	130	-158.01	0.25	0.07
LN4037695_A001	WJ4018465	WV4005009	17.02	900	130	326.51	0.51	0.27
LN4037695_A002	WV4005009	WJ4023053	43.28	900	130	326.51	0.51	0.27
LN4037696_A001	WJ4023055	WV4005023	154.27	900	130	352.84	0.55	0.31
LN4037696_A002	WV4005023	WV4005020	594.57	900	130	352.84	0.55	0.31
LN4037696_A003	WV4005020	WV4005018	189.11	900	130	352.84	0.55	0.31
LN4037696_A004	WV4005018	WV4005012	143.09	900	130	352.84	0.55	0.31
LN4037696_A005	WV4005012	WJ4018465	4.33	900	130	352.84	0.55	0.32
LN4037697_A001	WJ4018341	WV4005029	27.18	500	130	-38.94	0.20	0.09
LN4037697_A002	WV4005029	WJ4023055	1.05	500	130	-38.94	0.20	0.11
LN4037701	WJ4008317	WJ4008182	23.50	750	130	218.29	0.49	0.31
LN4037704_A001	WJ4018863	WV4005103	136.90	900	130	610.27	0.96	0.87
LN4037704_A002	WV4005103	WV4005104	57.66	900	130	610.27	0.96	0.87
LN4037704_A003	WV4005104	WV4005097	286.87	900	130	610.27	0.96	0.87
LN4037704_A004	WV4005097	WV4005089	409.75	900	130	610.27	0.96	0.87
LN4037704_A005	WV4005089	WV4005087	106.15	900	130	610.27	0.96	0.87
LN4037704_A006	WV4005087	WV4005043	83.76	900	130	610.27	0.96	0.87
LN4037704_A007	WV4005043	WJ4008317	11.06	900	130	610.27	0.96	0.87

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4037710	WJ49342	WJ4008156	114.07	150	103	-2.72	0.15	0.36
LN4037718	WJ4017784	WJ4023063	13.03	200	115	1.80	0.06	0.03
LN4037719	WJ4023063	WJ4017785	100.53	150	103	1.78	0.10	0.17
LN4038270	WJ4018159	WJ4024064	242.08	300	120	-7.18	0.10	0.06
LN4038271	WJ4024064	WJ4002308	106.55	300	120	-7.24	0.10	0.06
LN4038399	WJ4002365	WJ4024315	40.89	300	120	7.10	0.10	0.06
LN4038400	WJ4024315	WJ4002308	67.07	300	120	7.07	0.10	0.06
LN4039390_A001	WJ4018446	WV4011218	37.62	900	130	-469.66	0.74	0.53
LN4039390_A002	WV4011218	WJ4018439	102.56	900	130	-469.66	0.74	0.53
LN4039401_A001	WJ4023052	WV4011250	66.79	900	130	484.52	0.76	0.57
LN4039401_A002	WV4011250	WV4011277	410.91	900	130	484.52	0.76	0.57
LN4039401_A003	WV4011277	WJ4018439	516.40	900	130	484.52	0.76	0.57
LN4039451_A001	WJ4012384	WV4011841	23.83	900	130	-412.59	0.65	0.42
LN4039451_A002	WV4011841	WV4011849	85.63	900	130	-412.59	0.65	0.42
LN4039451_A003	WV4011849	WV4011750	269.45	900	130	-412.59	0.65	0.42
LN4039451_A004	WV4011750	WV4011763	6.49	900	130	-412.59	0.65	0.42
LN4039451_A005	WV4011763	WV4011740	30.27	900	130	-412.59	0.65	0.42
LN4039451_A006	WV4011740	WV50459	57.62	900	130	-412.59	0.65	0.42
LN4039451_A007	WV50459	WJ53112	4.08	900	130	-412.59	0.65	0.42
LN4039489	WJ4018634	WJ4026374	152.53	300	132	-27.90	0.39	0.59
LN4039490	WJ4026374	WJ4018633	50.96	300	132	-27.70	0.39	0.58
LN4039700	WJ23508	WJ4008156	146.72	150	103	6.90	0.39	2.05
LN4041184	WJ4019335	WJ4019334	20.13	100	100	0.03	0.00	0.00
LN4043556	WJ4020856	WJ4017284	368.20	150	103	-0.01	0.00	0.00
LN4044918	WJ4023053	WJ4023052	25.72	900	130	484.52	0.76	0.57
LN4045166_A001	WJ4018001	J-HY4035405	24.52	300	132	-6.78	0.10	0.04
LN4045166_A002	J-HY4035405	WJ4037579	11.49	300	132	-6.78	0.10	0.04
LN4045167	WJ4037579	WJ4018002	50.43	300	132	-9.95	0.14	0.09
LN4045171	WJ4037579	WJ4037574	18.00	200	115	3.17	0.10	0.10
LN4045172	WJ4037574	WJ4037577	1.00	200	115	3.17	0.10	0.11
LN4045173	WJ4037574	WJ4037578	2.60	100	100	0.00	0.00	0.00
LN4045192	WJ4018001	WJ4037625	44.99	300	132	5.99	0.08	0.03
LN4045195	WJ4037618	WJ4037619	1.40	100	100	0.00	0.00	0.00
LN4045196	WJ4037618	WJ4037620	1.00	200	115	0.00	0.00	0.00
LN4045197	WJ4037625	WJ4037618	16.20	200	115	0.00	0.00	0.00
LN4045215	WJ4037660	WJ4037662	2.80	100	100	1.25	0.16	0.66
LN4045216	WJ4037660	WJ4037661	1.20	200	115	0.00	0.00	0.00
LN4045219_A001	WJ4037625	J-HY4035466	31.01	300	132	5.99	0.08	0.03
LN4045219_A002	J-HY4035466	WJ4037669	1.79	300	132	5.99	0.08	0.03
LN4045224	WJ4037669	WJ4037660	15.80	200	115	1.25	0.04	0.02
LN4045284	WJ4037669	WJ4037800	49.93	300	132	4.74	0.07	0.02
LN4045289	WJ4037800	WJ4037793	4.00	200	115	0.00	0.00	0.00
LN4045290	WJ4037793	WJ4037794	1.00	200	115	0.00	0.00	0.00
LN4045291	WJ4037786	WJ4037800	15.80	200	115	-1.28	0.04	0.02
LN4045292	WJ4037787	WJ4037786	1.20	200	115	0.00	0.00	0.00
LN4045293	WJ4037793	WJ4037795	2.60	100	100	0.00	0.00	0.00
LN4045294	WJ4037786	WJ4037788	2.77	100	100	1.28	0.16	0.68
LN4045308_A001	WJ4037800	J-HY4035661	24.47	300	132	3.46	0.05	0.01
LN4045308_A002	J-HY4035661	J-HY4035718	72.24	300	132	3.46	0.05	0.01
LN4045308_A003	J-HY4035718	WJ4037839	12.13	300	132	3.46	0.05	0.01
LN4045309	WJ4037839	WJ4017928	26.50	300	132	-0.04	0.00	0.00
LN4045311	WJ4037836	WJ4037838	2.50	100	100	0.00	0.00	0.00
LN4045312	WJ4037839	WJ4037838	4.00	200	115	1.31	0.04	0.02
LN4045313	WJ4037838	WJ4037834	1.00	200	115	1.31	0.04	0.02
LN4045314	WJ4037839	WJ4037829	15.80	200	115	0.00	0.00	0.00
LN4045315	WJ4037829	WJ4037831	1.20	200	115	0.00	0.00	0.00
LN4045316	WJ4037829	WJ4037830	2.70	100	100	0.00	0.00	0.00
LN4045319	WJ4017928	WJ4037849	26.50	300	132	2.21	0.03	0.00
LN4045321	WJ4037846	WJ4037847	2.70	100	100	0.00	0.00	0.00
LN4045322	WJ4037849	WJ4037846	15.80	200	115	2.08	0.07	0.04
LN4045323	WJ4037846	WJ4037848	1.20	200	115	2.08	0.07	0.05
LN4045326	WJ4037849	WJ4037857	19.60	300	132	0.14	0.00	0.00
LN4045327_A001	WJ4037857	J-HY4035760	2.40	300	132	0.14	0.00	0.00
LN4045327_A002	J-HY4035760	J-HY4035746	67.41	300	132	0.14	0.00	0.00
LN4045327_A003	J-HY4035746	WJ4017927	5.00	300	132	0.14	0.00	0.00
LN4045328	WJ4037857	WJ4037854	4.00	200	115	0.00	0.00	0.00
LN4045329	WJ4037854	WJ4037856	1.00	200	115	0.00	0.00	0.00
LN4045330	WJ4037854	WJ4037855	2.48	100	100	0.00	0.00	0.00
LN4045511_A001	WJ4038214	J-HY4037641	37.60	400	129	-6.31	0.05	0.01
LN4045511_A002	J-HY4037641	WJ4017999	38.72	400	129	-6.31	0.05	0.01
LN4045518	WJ4038205	WJ4038206	2.60	100	100	0.00	0.00	0.00
LN4045521	WJ4038214	WJ4038205	4.00	200	115	0.00	0.00	0.00
LN4045522	WJ4038205	WJ4038207	1.00	200	115	0.00	0.00	0.00
LN4045581	WJ4038346	WJ4038214	18.40	400	129	-6.31	0.05	0.01
LN4045585	WJ4018131	WJ4038353	12.72	150	103	-1.53	0.09	0.13
LN4045586_A001	WJ4038353	J-HY4037018	58.66	150	103	-0.67	0.04	0.02

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4045586_A002	J-HY4037018	J-HY4037006	120.71	150	103	-0.67	0.04	0.02
LN4045586_A003	J-HY4037006	WJ4018072	28.36	150	103	-0.67	0.04	0.02
LN4045589	WJ4038353	WJ4038335	3.82	400	129	0.00	0.00	0.00
LN4045590	WJ4038346	WJ4038353	15.58	400	129	0.91	0.01	0.00
LN4045607	WJ4038388	WJ4038346	15.18	400	129	-5.40	0.04	0.01
LN4045711	WJ4018000	WJ4038595	56.45	300	132	-0.79	0.01	0.00
LN4045712_A001	WJ4038595	J-HY4038255	12.80	300	132	-0.79	0.01	0.00
LN4045712_A002	J-HY4038255	WJ4018001	45.83	300	132	-0.79	0.01	0.00
LN4045713	WJ4038595	WJ4038594	3.60	200	115	0.00	0.00	0.00
LN4045714	WJ4038594	WJ4038592	1.20	200	115	0.00	0.00	0.00
LN4045715	WJ4038594	WJ4038593	2.80	100	100	0.00	0.00	0.00
LN4045732_A001	WJ4017928	J-HY4035780	36.14	300	132	-5.66	0.08	0.03
LN4045732_A002	J-HY4035780	WJ4038628	59.40	300	132	-5.66	0.08	0.03
LN4045733_A001	WJ4038628	J-HY4038518	38.00	300	132	-5.66	0.08	0.03
LN4045733_A002	J-HY4038518	WJ4018000	29.92	300	132	-5.66	0.08	0.03
LN4045735	WJ4038631	WJ4038633	2.80	100	100	0.00	0.00	0.00
LN4045736	WJ4038628	WJ4038631	3.60	200	115	0.00	0.00	0.00
LN4045737	WJ4038631	WJ4038632	1.20	200	115	0.00	0.00	0.00
LN4045764	WJ4018000	WJ4038686	48.20	300	132	-4.87	0.07	0.02
LN4045765_A001	WJ4038686	J-HY4037552	25.89	300	132	-5.84	0.08	0.03
LN4045765_A002	J-HY4037552	WJ4017999	11.00	300	132	-5.84	0.08	0.03
LN4045766	WJ4038686	WJ4038685	14.20	200	115	0.40	0.01	0.00
LN4045767	WJ4038685	WJ4038682	1.20	200	115	0.40	0.01	0.00
LN4045768	WJ4038685	WJ4038681	2.80	100	100	0.00	0.00	0.00
LN4046908	WJ4004354	WJ4006153	0.29	150	103	-3.32	0.19	0.51
LN4046909	WJ4020263	WJ4019687	91.07	150	114	-0.14	0.01	0.00
LN4046912	WJ4020832	WJ4019320	115.92	150	114	0.09	0.01	0.00
LN4046913	WJ4004368	WJ4006214	62.89	150	103	-0.05	0.00	0.00
LN4046919	WJ4020980	WJ4010368	22.05	150	114	-7.42	0.42	1.94
LN4046921	WJ58412	WJ4006075	41.31	200	115	-1.87	0.06	0.04
LN4046925	WJ4017794	WJ4040955	24.36	400	129	70.00	0.56	0.83
LN4046926	WJ4040955	WJ4017282	9.94	400	129	39.36	0.31	0.29
LN4046927	WJ4010233	WJ4040955	19.15	400	129	-0.03	0.00	0.00
LN4046928	WJ4040955	WJ4017795	211.35	400	129	30.09	0.24	0.17
LN4046943	WJ4018464	WJ4040961	39.32	300	120	1.91	0.03	0.00
LN4046944	WJ4040961	WJ4018471	14.06	300	120	1.91	0.03	0.01
LN4047389	WJ4018451	WJ19276	151.50	600	130	-50.15	0.18	0.06
LN4047390	WJ19276	WJ4021076	247.86	600	130	-78.12	0.28	0.14
LN4047391	WJ28114	WJ19276	168.36	600	130	-27.97	0.10	0.02
LN4047432	WJ19330	WJ4019777	217.33	300	120	-26.68	0.38	0.65
LN4047434_A001	WJ4018542	J-HY13959	80.75	400	129	-2.87	0.02	0.00
LN4047434_A002	J-HY13959	WJ19330	24.90	400	129	-2.87	0.02	0.00
LN4047435_A001	WJ19330	J-HY13956	77.01	400	129	12.10	0.10	0.03
LN4047435_A002	J-HY13956	WJ51974	19.16	400	129	12.10	0.10	0.03
LN4047439	WJ4021076	WJ19333	187.45	600	130	-101.23	0.36	0.22
LN4047441	WJ19333	WJ4019792	12.02	400	129	47.00	0.37	0.40
LN4047467	WJ19377	WJ4018575	18.88	400	129	13.79	0.11	0.04
LN4047468	WJ4018586	WJ19378	300.21	600	130	-55.40	0.20	0.07
LN4047469	WJ19378	WJ4018532	97.61	600	130	-51.83	0.18	0.06
LN4047470	WJ19377	WJ19378	10.16	400	129	5.79	0.05	0.01
LN4048224	WJ4022803	WJ4013548	9.12	400	129	-24.61	0.20	0.12
LN4048225_A001	WJ4013548	J-HY14497	52.26	400	129	-21.75	0.17	0.10
LN4048225_A002	J-HY14497	WJ20153	42.37	400	129	-21.75	0.17	0.09
LN4048226	WJ20153	WJ20154	4.51	400	129	-24.85	0.20	0.12
LN4048227	WJ20154	WJ20132	84.74	400	129	-22.31	0.18	0.10
LN4048228	WJ20132	WJ20173	105.36	300	132	-2.54	0.04	0.01
LN4048229_A001	WJ20173	J-HY14477	50.93	300	132	-3.17	0.04	0.01
LN4048229_A002	J-HY14477	WJ27974	96.66	300	132	-3.17	0.04	0.01
LN4048230_A001	WJ4013756	J-HY14498	31.13	400	129	19.79	0.16	0.08
LN4048230_A002	J-HY14498	J-HY14499	72.65	400	129	19.79	0.16	0.08
LN4048230_A003	J-HY14499	WJ20132	12.09	400	129	19.79	0.16	0.08
LN4049025	WJ4017292	WJ20935	100.89	150	103	0.16	0.01	0.00
LN4049045	WJ4010286	WJ4020856	244.46	150	103	-0.15	0.01	0.00
LN4049165_A001	WJ58460	J-HY4007618	104.41	150	103	-2.79	0.16	0.38
LN4049165_A002	J-HY4007618	WJ21055	89.07	150	103	-2.79	0.16	0.38
LN4049166	WJ21055	WJ4019795	187.19	150	103	-2.83	0.16	0.39
LN4049167_A001	WJ21075	J-HY4007868	96.44	150	103	1.99	0.11	0.20
LN4049167_A002	J-HY4007868	WJ58458	87.49	150	103	1.99	0.11	0.20
LN4049168	WJ4019809	WJ21075	185.02	150	103	3.43	0.19	0.56
LN4049227	WJ4019572	WJ49325	191.16	150	103	-4.74	0.27	1.02
LN4049229	WJ4017590	WJ49327	80.54	150	103	-0.18	0.01	0.00
LN4049230	WJ49326	WJ21799	95.30	150	103	2.21	0.12	0.25
LN4049325	WJ21239	WJ4017733	11.22	300	132	3.23	0.05	0.01
LN4049326_A001	WJ4017083	J-HY14643	8.65	300	132	2.10	0.03	0.00
LN4049326_A002	J-HY14643	J-HY14641	82.80	300	132	2.10	0.03	0.00
LN4049326_A003	J-HY14641	WJ21278	6.59	300	132	2.10	0.03	0.01

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4049345	WJ21258	WJ21239	40.35	300	132	1.52	0.02	0.00
LN4049347_A001	WJ21278	J-HY14642	63.02	300	132	1.66	0.02	0.00
LN4049347_A002	J-HY14642	WJ21258	24.09	300	132	1.66	0.02	0.00
LN4049365	WJ21298	WJ4017178	106.25	150	103	-3.76	0.21	0.67
LN4049585	WJ21558	WJ4013268	111.11	150	103	-0.75	0.04	0.03
LN4049645	WJ4014260	WJ21578	128.07	600	130	180.44	0.64	0.66
LN4049666	WJ28175	WJ4014248	129.78	300	132	34.70	0.49	0.88
LN4049685	WJ21578	WJ21598	61.88	600	130	180.43	0.64	0.66
LN4049730	WJ4004538	WJ21660	219.07	150	103	0.30	0.02	0.01
LN4049731	WJ4017766	WJ21660	94.83	300	120	23.42	0.33	0.51
LN4049732	WJ21660	WJ4005083	95.53	300	120	27.17	0.38	0.67
LN4049847	WJ47749	WJ21799	185.94	150	114	-5.35	0.30	1.06
LN4049848	WJ21799	WJ53664	193.43	150	114	-3.36	0.19	0.45
LN4050091	WJ52222	WJ58406	127.87	150	103	-3.03	0.17	0.45
LN4050092	WJ58404	WJ4005968	71.72	150	103	0.32	0.02	0.01
LN4050315_A001	WJ51978	J-HY4007487	31.80	300	132	25.42	0.36	0.49
LN4050315_A002	J-HY4007487	WJ4017778	38.10	300	132	25.42	0.36	0.49
LN4050316	WJ22344	WJ22343	13.63	150	114	3.06	0.17	0.38
LN4050317	WJ4017793	WJ22345	203.10	150	114	3.45	0.20	0.47
LN4050318	WJ22343	WJ22361	139.15	150	114	3.27	0.18	0.43
LN4050319	WJ22345	WJ22344	191.74	150	114	3.32	0.19	0.44
LN4050491	WJ4019829	WJ4017782	221.39	150	114	0.76	0.04	0.03
LN4050492	WJ4017782	WJ4019768	218.90	150	114	0.70	0.04	0.02
LN4050493	WJ4019768	WJ4019841	223.37	150	114	1.09	0.06	0.06
LN4050494	WJ4019841	WJ4019865	218.26	150	114	1.30	0.07	0.08
LN4050531	WJ22601	WJ4019572	17.66	150	103	2.52	0.14	0.32
LN4050532	WJ4009358	WJ22601	236.02	150	114	2.54	0.14	0.27
LN4050551	WJ4019630	WJ22621	2.21	400	129	-22.23	0.18	0.10
LN4050571_A001	WJ58543	J-HY4018339	45.44	300	132	13.87	0.20	0.16
LN4050571_A002	J-HY4018339	J-HY4018331	129.07	300	132	13.87	0.20	0.16
LN4050571_A003	J-HY4018331	WJ53115	61.23	300	132	13.87	0.20	0.16
LN4050612	WJ4019798	WJ22724	2.10	150	103	1.93	0.11	0.20
LN4050631	WJ52751	WJ22721	198.01	300	132	-1.06	0.02	0.00
LN4050632	WJ22721	WJ22724	358.66	150	114	-0.60	0.03	0.02
LN4050691	WJ22821	WJ4018021	608.22	300	132	26.80	0.38	0.55
LN4050731	WJ22821	WJ22861	380.80	300	132	-21.67	0.31	0.37
LN4050771	WJ22861	WJ4017897	387.25	300	132	-25.03	0.35	0.48
LN4051119	WJ59422	WJ23505	100.78	300	132	39.07	0.55	1.10
LN4051120	WJ23505	WJ23506	168.91	300	132	35.99	0.51	0.94
LN4051121	WJ23506	WJ23507	67.20	300	132	35.73	0.51	0.93
LN4051122	WJ23507	WJ23508	98.43	300	132	38.22	0.54	1.05
LN4051123	WJ23508	WJ23509	164.57	300	132	31.09	0.44	0.72
LN4051124	WJ23509	WJ23510	90.58	300	132	31.58	0.45	0.74
LN4051125	WJ23510	WJ23511	142.23	300	132	26.17	0.37	0.52
LN4051126	WJ23511	WJ4008023	89.89	300	132	26.00	0.37	0.52
LN4051127	WJ23511	WJ23544	82.58	150	114	0.05	0.00	0.00
LN48640	WJ48206	WJ48215	76.97	200	115	2.41	0.08	0.06
LN48644	WJ48208	WJ48206	22.56	300	132	-5.07	0.07	0.02
LN48645	WJ48205	WJ48206	11.95	300	132	7.48	0.11	0.05
LN48649	WJ48210	WJ48213	93.63	200	115	1.28	0.04	0.02
LN48650	WJ48210	WJ48211	16.85	150	114	0.54	0.03	0.02
LN48651	WJ48213	WJ48272	305.83	200	115	0.41	0.01	0.00
LN48652	WJ48213	WJ48243	15.88	150	114	0.70	0.04	0.02
LN48653	WJ48215	WJ48210	21.47	200	115	1.83	0.06	0.03
LN48654	WJ48216	WJ48215	21.09	150	114	-0.54	0.03	0.01
LN48676	WJ48244	WJ59147	7.54	150	114	0.21	0.01	0.00
LN48703	WJ48272	WJ48273	10.83	150	114	0.00	0.00	0.00
LN48704	WJ48272	WJ48244	173.64	200	115	0.22	0.01	0.00
LN48878	WJ48471	WJ4008389	3.54	300	120	-3.80	0.05	0.02
LN49315	WJ48953	WJ48955	141.57	150	114	-0.83	0.05	0.03
LN49317	WJ48955	WJ48956	17.46	150	114	1.07	0.06	0.05
LN49318	WJ48955	WJ48957	109.65	150	114	-1.97	0.11	0.17
LN49319	WJ48958	WJ48957	13.15	150	114	3.12	0.18	0.39
LN49321	WJ48957	WJ48960	122.01	150	114	1.04	0.06	0.05
LN49323	WJ4005731	WJ48953	3.31	150	103	0.91	0.05	0.05
LN49324	WJ48960	WJ48963	178.10	150	114	1.55	0.09	0.11
LN49325	WJ48961	WJ48960	6.52	150	114	0.63	0.04	0.02
LN49326	WJ48963	WJ4006212	2.73	150	103	2.48	0.14	0.31
LN49327	WJ4017772	WJ48968	812.15	200	115	6.95	0.22	0.42
LN49328	WJ4009045	WJ48968	4.10	150	103	-8.27	0.47	2.86
LN49329	WJ48969	WJ48971	17.93	150	114	2.11	0.12	0.19
LN49331	WJ48971	WJ48973	17.35	150	114	-3.82	0.22	0.57
LN49333	WJ48972	WJ48971	4.81	150	114	-2.14	0.12	0.19
LN49335	WJ49001	WJ48974	87.12	200	115	3.79	0.12	0.14
LN49336	WJ48979	WJ48974	9.06	150	114	-3.28	0.19	0.43
LN49337	WJ48974	WJ48980	17.84	150	114	-4.23	0.24	0.68

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN49338	WJ48974	WJ48985	95.31	200	115	4.72	0.15	0.20
LN49340	WJ48980	WJ4017666	277.95	150	114	-4.39	0.25	0.74
LN49341	WJ48984	WJ48985	6.51	150	114	-3.74	0.21	0.55
LN49342	WJ48985	WJ48983	13.25	150	114	-3.75	0.21	0.55
LN49343	WJ48983	WJ4004621	295.90	150	103	-3.91	0.22	0.71
LN49345	WJ48985	WJ48986	94.47	200	115	4.70	0.15	0.20
LN49346	WJ48988	WJ48986	7.25	150	114	-4.36	0.25	0.72
LN49347	WJ48986	WJ48987	18.63	150	114	-4.10	0.23	0.65
LN49348	WJ48987	WJ4004501	283.73	150	114	-4.27	0.24	0.70
LN49349	WJ48986	WJ48991	95.02	200	115	4.43	0.14	0.18
LN49351	WJ48994	WJ48991	8.82	150	114	-3.02	0.17	0.37
LN49352	WJ48991	WJ48995	16.68	150	114	-4.41	0.25	0.74
LN49353	WJ48995	WJ4004488	270.83	150	114	-4.55	0.26	0.79
LN49354	WJ48991	WJ49002	94.90	200	115	5.81	0.18	0.30
LN49356	WJ49002	WJ48999	14.64	150	114	-5.15	0.29	0.99
LN49357	WJ49000	WJ49002	8.40	150	114	-5.60	0.32	1.15
LN49358	WJ48999	WJ4020229	234.95	150	114	-5.31	0.30	1.05
LN49360	WJ49002	WJ49003	85.03	200	115	5.33	0.17	0.25
LN49361	WJ4003834	WJ49003	2.37	300	120	-41.64	0.59	1.47
LN49362	WJ48971	WJ49001	8.78	150	114	3.79	0.21	0.56
LN49479	WJ49141	WJ4002333	8.58	150	103	1.31	0.07	0.09
LN49480	WJ49144	WJ49142	17.85	150	114	2.88	0.16	0.34
LN49481	WJ49141	WJ49144	211.88	150	114	-3.51	0.20	0.48
LN49482	WJ49143	WJ49144	7.98	150	114	3.66	0.21	0.52
LN49483	WJ49144	WJ49145	198.18	150	114	-2.84	0.16	0.33
LN49484	WJ49145	WJ49146	9.56	150	114	1.95	0.11	0.16
LN49485	WJ49145	WJ21116	198.82	150	114	-4.97	0.28	0.92
LN49570	WJ49251	WJ49253	436.57	200	115	6.69	0.21	0.39
LN49571	WJ49237	WJ49239	13.71	200	115	0.08	0.00	0.00
LN49572	WJ49243	WJ49254	110.76	200	115	5.06	0.16	0.23
LN49573	WJ49244	WJ49243	16.15	150	114	-0.04	0.00	0.00
LN49574	WJ49247	WJ49253	16.34	300	132	12.54	0.18	0.13
LN49575	WJ49251	WJ49252	18.49	200	115	-5.28	0.17	0.25
LN49576	WJ49248	WJ49251	8.21	200	115	-2.32	0.07	0.05
LN49577	WJ4008156	WJ49251	216.50	200	115	3.98	0.13	0.15
LN49578	WJ49253	WJ49258	10.37	300	132	13.85	0.20	0.16
LN49579	WJ49253	WJ49243	97.85	200	115	5.18	0.16	0.24
LN49580	WJ49254	WJ49256	37.80	150	114	0.06	0.00	0.00
LN49581	WJ49254	WJ49237	83.82	200	115	4.96	0.16	0.22
LN49587	WJ49237	WJ4009277	110.00	200	115	4.82	0.15	0.21
LN49663	WJ49341	WJ49342	215.49	200	115	-2.62	0.08	0.07
LN49664	WJ49332	WJ49341	443.89	200	115	-6.58	0.21	0.38
LN49665	WJ49324	WJ49331	202.32	200	115	-7.27	0.23	0.45
LN49666	WJ49324	WJ49326	10.69	150	114	2.21	0.13	0.21
LN49667	WJ49327	WJ49324	16.65	150	114	-0.19	0.01	0.00
LN49668	WJ49333	WJ49332	12.48	300	132	-12.72	0.18	0.14
LN49669	WJ49334	WJ49332	16.05	300	132	13.82	0.20	0.16
LN49670	WJ49339	WJ49341	5.70	200	115	1.95	0.06	0.04
LN49671	WJ49341	WJ49340	4.79	200	115	-2.27	0.07	0.05
LN49672	WJ49331	WJ49332	197.35	200	115	-7.43	0.24	0.47
LN49673	WJ49331	WJ49330	4.07	150	114	0.00	0.00	0.00
LN49674	WJ49325	WJ49324	5.97	200	115	-4.80	0.15	0.21
LN50451	WJ50379	WJ4019846	10.96	150	114	6.12	0.35	1.36
LN51101	WJ27375	WJ4010425	4.55	300	120	61.83	0.87	3.06
LN52202	WJ51955	WJ4018634	216.07	150	114	0.43	0.02	0.01
LN52203	WJ51950	WJ51955	20.08	150	114	3.38	0.19	0.45
LN52204	WJ51955	WJ51948	9.82	150	114	3.14	0.18	0.40
LN52205	WJ51952	WJ51955	6.19	150	114	0.28	0.02	0.01
LN52224_A001	WJ51980	J-HY4015150	12.93	400	129	-11.71	0.09	0.03
LN52224_A002	J-HY4015150	J-HY9990172	87.47	400	129	-11.71	0.09	0.03
LN52224_A003	J-HY9990172	WJ24304	25.73	400	129	-11.71	0.09	0.03
LN52226_A001	WJ51978	J-HY30049	52.46	400	129	-12.41	0.10	0.03
LN52226_A002	J-HY30049	WJ51979	48.26	400	129	-12.41	0.10	0.03
LN52227_A001	WJ51977	J-HY9990176	35.94	400	129	9.86	0.08	0.02
LN52227_A002	J-HY9990176	J-HY9990175	78.44	400	129	9.86	0.08	0.02
LN52227_A003	J-HY9990175	J-HY9990174	123.63	400	129	9.86	0.08	0.02
LN52227_A004	J-HY9990174	WJ51978	26.30	400	129	9.86	0.08	0.02
LN52228_A001	WJ51976	J-HY4007497	4.06	400	129	13.55	0.11	0.04
LN52228_A002	J-HY4007497	WJ51977	27.80	400	129	13.55	0.11	0.04
LN52229	WJ51975	WJ51976	41.59	400	129	10.56	0.08	0.03
LN52230	WJ51987	WJ51980	8.84	150	114	-2.01	0.11	0.17
LN52231	WJ51980	WJ51990	19.83	150	114	-2.52	0.14	0.26
LN52235	WJ4013455	WJ51987	114.45	150	103	-1.98	0.11	0.20
LN52236_A001	WJ51979	J-HY9990161	11.79	400	129	-12.20	0.10	0.03
LN52236_A002	J-HY9990161	J-HY9990160	65.23	400	129	-12.20	0.10	0.03
LN52236_A003	J-HY9990160	WJ51980	24.31	400	129	-12.20	0.10	0.03

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN52239	WJ51996	WJ51979	7.99	150	114	-2.38	0.13	0.24
LN52240	WJ51979	WJ51998	18.88	150	114	-2.61	0.15	0.28
LN52248_A001	WJ4013433	J-HY4015319	24.25	150	103	-2.37	0.13	0.28
LN52248_A002	J-HY4015319	WJ51996	41.40	150	103	-2.37	0.13	0.28
LN52254	WJ22361	WJ51978	34.01	300	132	3.20	0.05	0.01
LN52262	WJ51974	WJ51975	21.67	400	129	12.10	0.10	0.03
LN52266	WJ51975	WJ52037	13.52	200	115	1.53	0.05	0.02
LN52268	WJ52044	WJ51976	25.05	150	114	2.98	0.17	0.36
LN52281	WJ52054	WJ51977	15.95	300	132	-3.67	0.05	0.01
LN52282_A001	WJ52055	J-HY30564	32.53	150	114	-3.67	0.21	0.53
LN52282_A002	J-HY30564	WJ52054	9.10	150	114	-3.67	0.21	0.53
LN52360	WJ52156	WJ4005420	16.89	150	114	3.33	0.19	0.44
LN52363	WJ52156	WJ52162	395.56	200	115	1.71	0.05	0.03
LN52365	WJ52162	WJ52165	10.89	200	115	1.43	0.05	0.02
LN52368	WJ52184	WJ52220	211.10	200	115	-2.57	0.08	0.07
LN52374	WJ52182	WJ52184	23.28	300	132	17.76	0.25	0.25
LN52423	WJ52220	WJ52221	12.53	150	114	0.14	0.01	0.00
LN52424	WJ52220	WJ52222	27.30	150	114	-3.00	0.17	0.36
LN52425	WJ52220	WJ52171	20.29	200	115	0.22	0.01	0.00
LN52442	WJ58403	WJ52182	121.98	300	120	17.78	0.25	0.30
LN52444	WJ52165	WJ52242	381.27	200	115	-1.90	0.06	0.04
LN52448_A001	WJ58572	J-HY4018111	5.11	400	129	24.76	0.20	0.12
LN52448_A002	J-HY4018111	WJ52073	1.57	400	129	24.76	0.20	0.12
LN52449	WJ52073	WJ52087	6.97	400	129	5.08	0.04	0.01
LN52450	WJ52248	WJ52091	10.79	300	132	14.74	0.21	0.18
LN52451	WJ52073	WJ52247	2.14	300	132	19.68	0.28	0.31
LN52452	WJ52249	WJ52093	3.13	400	129	-16.67	0.13	0.06
LN52458_A001	WJ52247	J-HY4018126	97.57	300	132	19.64	0.28	0.31
LN52458_A002	J-HY4018126	J-HY4018128	101.24	300	132	19.64	0.28	0.31
LN52458_A003	J-HY4018128	WJ52248	49.09	300	132	19.64	0.28	0.31
LN52459	WJ52249	WJ52251	199.28	300	132	21.55	0.30	0.36
LN52460	WJ52248	WJ52249	4.43	300	132	4.90	0.07	0.03
LN52481	WJ52167	WJ52162	9.02	150	114	-0.10	0.01	0.00
LN52482	WJ52165	WJ52163	5.86	150	114	3.19	0.18	0.41
LN52483	WJ52184	WJ52183	13.13	300	132	18.18	0.26	0.26
LN52505	WJ28076	WJ52307	207.12	300	132	9.13	0.13	0.07
LN52514	WJ52307	WJ52303	9.98	150	114	1.76	0.10	0.14
LN52532	WJ52325	WJ52327	22.27	150	114	-1.83	0.10	0.15
LN52534	WJ52325	WJ52333	33.01	300	132	8.89	0.13	0.07
LN52538	WJ52331	WJ52333	10.24	150	114	-1.00	0.06	0.05
LN52540	WJ52333	WJ52336	46.54	300	132	7.89	0.11	0.06
LN52542	WJ52336	WJ52339	58.49	300	132	7.78	0.11	0.06
LN52543	WJ52336	WJ52334	19.37	100	100	0.08	0.01	0.00
LN52546	WJ52339	WJ52340	194.28	300	132	7.08	0.10	0.05
LN52547	WJ52338	WJ52339	10.15	150	114	-0.07	0.00	0.00
LN52548	WJ52340	WJ52344	38.76	300	132	-13.63	0.19	0.16
LN52549	WJ4017187	WJ52341	14.30	300	120	13.75	0.19	0.19
LN52550	WJ52344	WJ52341	13.04	300	132	-13.75	0.19	0.16
LN52551	WJ52344	WJ52345	36.25	150	114	0.00	0.00	0.00
LN52552	WJ52307	WJ48055	99.44	300	132	7.20	0.10	0.05
LN52930	WJ52747	WJ52750	73.53	300	132	9.97	0.14	0.09
LN52933	WJ52748	WJ52750	16.48	150	114	-0.06	0.00	0.00
LN52934	WJ52750	WJ52753	98.08	300	132	9.92	0.14	0.09
LN52936	WJ52751	WJ52753	11.20	300	132	0.41	0.01	0.00
LN52937	WJ52753	WJ52754	45.93	300	132	10.31	0.15	0.09
LN52938	WJ52754	WJ4017768	146.78	300	132	10.21	0.14	0.09
LN52947	WJ4017768	WJ52757	13.70	300	132	9.32	0.13	0.08
LN52949	WJ4017768	WJ52768	12.90	150	114	0.85	0.05	0.03
LN53045	WJ4006591	WJ52868	579.28	150	114	3.75	0.21	0.55
LN53046	WJ52882	WJ52868	130.40	150	114	-4.96	0.28	0.92
LN53047	WJ52868	WJ52876	62.09	150	114	-3.19	0.18	0.41
LN53048	WJ52875	WJ4018021	168.86	300	132	4.03	0.06	0.02
LN53049	WJ52874	WJ52882	89.69	150	114	-6.16	0.35	1.37
LN53050	WJ52876	WJ52875	9.36	300	132	-3.20	0.05	0.01
LN53052	WJ52875	WJ52877	21.73	300	132	-9.93	0.14	0.09
LN53054	WJ52881	WJ52882	22.96	150	114	1.84	0.10	0.15
LN53166	WJ52747	WJ53108	15.26	150	114	0.13	0.01	0.00
LN53167	WJ52874	WJ4019456	8.20	150	103	6.15	0.35	1.66
LN53196	WJ53041	WJ53042	15.39	150	114	-0.28	0.02	0.00
LN53197_A001	WJ53046	J-HY4033222	11.41	300	132	-0.03	0.00	0.00
LN53197_A002	J-HY4033222	WJ53042	18.73	300	132	-0.03	0.00	0.00
LN53198	WJ53045	WJ53046	3.99	150	114	-0.03	0.00	0.00
LN53219	WJ53078	WJ53045	10.70	150	114	-0.50	0.03	0.01
LN53221	WJ53045	WJ53069	10.21	150	114	-0.47	0.03	0.01
LN53222_A001	WJ53042	J-HY30627	83.79	300	132	-0.35	0.00	0.00
LN53222_A002	J-HY30627	J-HY30626	111.53	300	132	-0.35	0.00	0.00

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN53222_A003	J-HY30626	WJ53038	5.09	300	132	-0.35	0.00	0.00
LN53244	WJ52747	WJ25695	80.85	300	132	-10.11	0.14	0.09
LN53249_A001	WJ53112	WV4011591	9.33	900	130	-361.83	0.57	0.33
LN53249_A002	WV4011591	WV4011587	97.88	900	130	-361.83	0.57	0.33
LN53249_A003	WV4011587	WV4011579	101.87	900	130	-361.83	0.57	0.33
LN53249_A004	WV4011579	WV4011570	9.09	900	130	-361.83	0.57	0.33
LN53249_A005	WV4011570	WV4011554	4.25	900	130	-361.83	0.57	0.33
LN53249_A006	WV4011554	WV4011544	4.75	900	130	-361.83	0.57	0.33
LN53249_A007	WV4011544	WJ4012402	3.54	900	130	-361.83	0.57	0.33
LN53250	WJ53112	WJ53113	1.95	900	130	-50.77	0.08	0.01
LN53251_A001	WJ53113	WV50450	13.85	600	130	-50.77	0.18	0.06
LN53251_A002	WV50450	WJ53121	6.27	600	130	-50.77	0.18	0.06
LN53252	WJ53115	WJ22621	41.17	300	132	17.73	0.25	0.25
LN53253	WJ53116	WJ53117	2.78	150	103	5.28	0.30	1.24
LN53254_A001	WJ53117	J-HY4018442	90.03	150	103	1.38	0.08	0.10
LN53254_A002	J-HY4018442	WJ4019628	23.51	150	103	1.38	0.08	0.10
LN53255_A001	WJ53115	J-HY30660	22.13	300	132	-3.87	0.05	0.02
LN53255_A002	J-HY30660	J-HY33192	92.38	300	132	-3.87	0.05	0.02
LN53255_A003	J-HY33192	WJ53117	14.21	300	132	-3.87	0.05	0.01
LN53256	WJ4018588	WJ53118	2.38	150	114	3.43	0.19	0.46
LN53257	WJ53116	WJ53118	143.23	300	132	-5.00	0.07	0.02
LN53258	WJ53121	WJ53114	376.56	600	130	-53.13	0.19	0.07
LN53260_A001	WJ52093	J-HY4022846	28.97	400	129	-16.67	0.13	0.06
LN53260_A002	J-HY4022846	WJ53122	0.89	400	129	-16.67	0.13	0.06
LN53261	WJ53122	WJ53121	18.18	400	129	-1.09	0.01	0.00
LN53264	WJ4016204	WJ4016211	439.31	150	114	1.33	0.08	0.08
LN53414	WJ52159	WJ52156	2.75	150	114	5.20	0.29	1.01
LN53417	WJ52242	WJ52184	9.98	200	115	-2.06	0.07	0.04
LN53701	WJ53453	WJ53452	6.87	200	115	-6.85	0.22	0.41
LN53702	WJ53452	WJ53450	9.45	150	114	3.61	0.20	0.51
LN53703	WJ53448	WJ53453	4.83	150	114	-6.85	0.39	1.67
LN53704	WJ53452	WJ53465	216.69	200	115	-10.63	0.34	0.91
LN53707	WJ49330	WJ53457	15.03	150	114	0.00	0.00	0.00
LN53710	WJ53462	WJ52340	36.42	300	132	-20.70	0.29	0.34
LN53713	WJ53465	WJ53447	8.81	150	114	-1.00	0.06	0.05
LN53714	WJ61826	WJ53466	183.32	200	115	-9.74	0.31	0.78
LN53715	WJ53466	WJ53444	9.37	300	132	-10.44	0.15	0.10
LN53716	WJ53466	WJ53442	19.40	300	132	0.68	0.01	0.00
LN53750	WJ53494	WJ53498	8.51	300	132	-28.91	0.41	0.63
LN53751	WJ53498	WJ53495	20.13	300	132	-30.11	0.43	0.68
LN53758	WJ53498	WJ53517	153.35	150	114	1.16	0.07	0.06
LN53763	WJ53514	WJ53513	19.63	150	114	0.06	0.00	0.00
LN53764	WJ53514	WJ53512	18.86	150	114	-0.52	0.03	0.01
LN53769	WJ53506	WJ53517	4.27	150	114	-4.06	0.23	0.63
LN53770	WJ53517	WJ53518	18.99	150	114	-4.37	0.25	0.73
LN53776	WJ53517	WJ53525	202.17	150	114	1.37	0.08	0.08
LN53778	WJ53523	WJ53525	5.08	150	114	-3.92	0.22	0.60
LN53779	WJ53524	WJ53525	20.86	150	114	4.28	0.24	0.70
LN53804	WJ53553	WJ4019594	19.17	150	114	1.63	0.09	0.12
LN53805	WJ53525	WJ53553	132.69	150	114	1.66	0.09	0.12
LN53806	WJ4019594	WJ53555	7.94	150	114	2.42	0.14	0.24
LN53807	WJ53555	WJ53557	92.61	150	114	2.41	0.14	0.24
LN53808	WJ53557	WJ53556	5.37	150	114	4.05	0.23	0.63
LN53809	WJ53558	WJ53557	2.04	150	114	5.18	0.29	1.00
LN53810	WJ53557	WJ53559	93.87	150	114	3.49	0.20	0.48
LN53815	WJ4016445	WJ53578	158.94	150	114	4.56	0.26	0.79
LN53816	WJ53578	WJ53577	101.41	150	114	4.82	0.27	0.87
LN53818	WJ53577	WJ53576	114.80	150	114	4.64	0.26	0.81
LN53820	WJ53576	WJ53559	210.25	150	114	2.45	0.14	0.25
LN53822	WJ53585	WJ53586	221.76	150	114	0.86	0.05	0.04
LN53824	WJ53562	WJ4016445	15.11	300	132	8.31	0.12	0.06
LN53825	WJ4016445	WJ53563	8.81	300	132	3.72	0.05	0.01
LN53826	WJ53564	WJ53578	10.32	150	114	0.33	0.02	0.01
LN53827	WJ53566	WJ53577	5.95	150	114	-0.10	0.01	0.00
LN53828	WJ53584	WJ53570	20.22	150	114	-0.98	0.06	0.05
LN53829	WJ53571	WJ53585	16.57	300	132	-4.37	0.06	0.02
LN53830	WJ53585	WJ53572	5.66	300	132	-2.64	0.04	0.01
LN53832	WJ53567	WJ53576	17.26	150	114	-2.13	0.12	0.19
LN53846	WJ53584	WJ53585	204.14	150	114	2.72	0.15	0.30
LN53847	WJ53586	WJ53574	117.97	150	114	2.15	0.12	0.20
LN53852	WJ53610	WJ53584	249.55	150	114	2.07	0.12	0.18
LN53853	WJ53559	WJ53610	166.27	150	114	5.75	0.33	1.21
LN53914	WJ53664	WJ53665	216.30	150	114	-3.57	0.20	0.50
LN53915	WJ53665	WJ53661	20.13	150	114	-2.91	0.16	0.34
LN53919	WJ53665	WJ53671	18.79	300	132	-12.70	0.18	0.14
LN53920	WJ53665	WJ53672	12.04	300	132	11.97	0.17	0.12

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN53955	WJ53514	WJ53717	19.54	150	114	-4.05	0.23	0.63
LN53963	WJ53727	WJ53724	16.83	150	114	2.72	0.15	0.30
LN53964	WJ53722	WJ53727	18.97	150	114	1.05	0.06	0.05
LN53968	WJ53727	WJ53514	203.31	150	114	-4.47	0.25	0.76
LN53969	WJ4005699	WJ53727	188.91	150	114	-2.66	0.15	0.29
LN54046	WJ53883	WJ53848	540.67	150	114	1.39	0.08	0.09
LN54051	WJ53574	WJ4016558	133.41	150	114	4.66	0.26	0.82
LN54052	WJ53848	WJ53574	119.95	150	114	2.59	0.15	0.28
LN54063	WJ53586	WJ53844	112.49	150	114	-1.33	0.08	0.08
LN54064	WJ53844	WJ53883	438.16	150	114	-1.58	0.09	0.11
LN54065	WJ53610	WJ53883	128.08	150	114	3.38	0.19	0.45
LN54125	WJ53988	WJ53994	219.46	150	114	-1.21	0.07	0.07
LN54126	WJ4008733	WJ53988	128.12	150	114	2.52	0.14	0.26
LN54127	WJ53988	WJ53989	8.36	150	114	3.63	0.21	0.52
LN54129	WJ53994	WJ53992	7.53	150	114	4.76	0.27	0.85
LN54130	WJ53994	WJ53993	17.38	150	114	-6.05	0.34	1.33
LN54150	WJ4008721	WJ54013	136.28	150	114	-1.97	0.11	0.17
LN54153	WJ54018	WJ54019	18.22	150	114	4.73	0.27	0.84
LN54154	WJ54019	WJ54014	7.12	150	114	6.15	0.35	1.37
LN54155	WJ54013	WJ54019	220.60	150	114	1.51	0.09	0.10
LN54413_A001	WJ54278	J-HY4035127	47.82	300	132	2.28	0.03	0.01
LN54413_A002	J-HY4035127	J-HY4035144	45.32	300	132	2.28	0.03	0.01
LN54413_A003	J-HY4035144	J-HY4035139	57.97	300	132	2.28	0.03	0.01
LN54413_A004	J-HY4035139	WJ4017927	76.12	300	132	2.28	0.03	0.01
LN54421	WJ54288	WJ54289	9.88	150	114	-0.61	0.03	0.02
LN54422_A001	WJ54288	WV60507	1.06	150	114	0.00	0.00	0.00
LN54422_A002	WV60507	J-HY4035108	175.49	150	114	0.00	0.00	0.00
LN54422_A003	J-HY4035108	WJ54277	69.57	150	114	0.00	0.00	0.00
LN54423	WJ54277	WJ4038388	45.34	300	132	-5.38	0.08	0.03
LN54424_A001	WJ54278	J-HY16723	69.63	300	132	-4.92	0.07	0.02
LN54424_A002	J-HY16723	J-HY16722	80.88	300	132	-4.92	0.07	0.02
LN54424_A003	J-HY16722	WJ54277	14.06	300	132	-4.92	0.07	0.02
LN54425_A001	WJ54290	J-HY9990263	63.96	300	132	-0.68	0.01	0.00
LN54425_A002	J-HY9990263	WJ54278	24.58	300	132	-0.68	0.01	0.00
LN54426	WJ54290	WJ54291	3.77	300	132	0.07	0.00	0.00
LN54429	WJ54289	WJ54290	3.18	300	132	-0.61	0.01	0.00
LN54550	WJ4015578	WJ54414	258.54	150	114	0.58	0.03	0.02
LN54551	WJ54422	WJ54425	215.08	150	114	0.56	0.03	0.02
LN54554	WJ54422	WJ54421	24.37	150	114	-2.38	0.13	0.24
LN54557	WJ54418	WJ54422	5.44	150	114	-2.18	0.12	0.20
LN54558	WJ54414	WJ54422	7.34	150	114	0.44	0.02	0.01
LN54561	WJ54425	WJ54423	19.10	150	114	-2.54	0.14	0.27
LN54562	WJ54424	WJ54425	6.53	150	114	-2.20	0.12	0.21
LN54570	WJ54425	WJ54489	222.14	150	114	0.72	0.04	0.03
LN54571	WJ54489	WJ54480	216.27	150	114	-1.74	0.10	0.13
LN54572	WJ54480	WJ54473	217.99	150	114	-1.90	0.11	0.16
LN54580	WJ54442	WJ54473	17.34	150	114	3.03	0.17	0.37
LN54581	WJ54473	WJ54441	4.33	150	114	2.57	0.15	0.27
LN54582	WJ54473	WJ54468	224.84	150	114	-1.60	0.09	0.11
LN54592	WJ54468	WJ54459	222.02	150	114	-1.75	0.10	0.13
LN54593	WJ54459	WJ54444	221.20	150	114	-1.46	0.08	0.10
LN54594	WJ54444	WJ4018533	14.07	300	132	-1.50	0.02	0.00
LN54595	WJ54460	WJ54459	18.58	150	114	1.29	0.07	0.08
LN54596	WJ54459	WJ54461	7.28	150	114	0.91	0.05	0.04
LN54597	WJ54470	WJ54468	22.32	150	114	2.17	0.12	0.20
LN54598	WJ54468	WJ54469	4.01	150	114	2.22	0.13	0.21
LN54603	WJ54489	WJ54491	6.37	150	114	2.23	0.13	0.21
LN54604	WJ54490	WJ54489	18.12	150	114	-0.02	0.00	0.00
LN54715_A001	WJ58521	J-HY16138	31.08	300	132	5.99	0.08	0.03
LN54715_A002	J-HY16138	WJ16170	72.45	300	132	5.99	0.08	0.03
LN55117	WJ4008023	WJ55016	97.80	300	132	33.40	0.47	0.82
LN55118	WJ55016	WJ55022	81.19	300	132	33.23	0.47	0.81
LN55119	WJ55017	WJ55018	9.26	300	132	12.60	0.18	0.13
LN55120	WJ55019	WJ55017	9.50	300	132	-20.52	0.29	0.33
LN55121	WJ55020	WJ55016	6.03	150	114	-0.12	0.01	0.00
LN55122	WJ55026	WJ4008023	12.27	300	132	7.45	0.11	0.05
LN55242	WJ4016349	WJ55118	284.55	150	114	-2.50	0.14	0.26
LN55243	WJ55118	WJ55120	10.83	150	114	-5.32	0.30	1.05
LN55244	WJ55122	WJ55118	18.21	150	114	-2.76	0.16	0.31
LN55268	WJ4015346	WJ55164	154.20	150	114	1.09	0.06	0.06
LN55269	WJ55164	WJ55165	85.38	150	114	0.32	0.02	0.01
LN55270	WJ55165	WJ55166	64.74	150	114	0.17	0.01	0.00
LN55271	WJ55166	WJ55162	18.31	150	114	-2.99	0.17	0.36
LN55272	WJ55166	WJ55167	41.72	150	114	3.11	0.18	0.39
LN55273	WJ55167	WJ4016685	8.96	150	103	3.09	0.17	0.46
LN55274	WJ55165	WJ55163	3.24	150	114	0.13	0.01	0.01

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN55275	WJ55164	WJ55157	10.16	150	114	4.53	0.26	0.78
LN55276	WJ55164	WJ55156	16.75	150	114	-3.81	0.22	0.56
LN55279	WJ55170	WJ4015346	10.74	300	132	-33.95	0.48	0.85
LN55280	WJ4015345	WJ55171	15.32	300	132	-31.97	0.45	0.76
LN55319	WJ55214	WJ4019812	16.23	150	103	4.57	0.26	0.95
LN55321	WJ55214	WJ4019846	112.39	150	114	-4.59	0.26	0.80
LN55323	WJ53893	WJ55216	112.13	150	114	4.21	0.24	0.68
LN55324	WJ55216	WJ4019790	15.42	150	103	4.18	0.24	0.81
LN55404	WJ55304	WJ4019788	21.26	300	132	7.75	0.11	0.06
LN55405	WJ4019788	WJ55324	225.41	150	114	1.01	0.06	0.05
LN55420	WJ55323	WJ55324	9.79	150	114	-1.13	0.06	0.06
LN55421	WJ55326	WJ55324	23.76	150	114	1.14	0.06	0.06
LN55422	WJ55324	WJ55329	219.84	150	114	0.82	0.05	0.03
LN55423	WJ55328	WJ55329	14.85	150	114	-1.40	0.08	0.09
LN55425	WJ55331	WJ55329	17.71	150	114	1.23	0.07	0.07
LN55427	WJ55329	WJ55335	220.69	150	114	0.41	0.02	0.01
LN55429	WJ55334	WJ55335	11.25	150	114	-1.80	0.10	0.14
LN55430	WJ55338	WJ55335	23.91	150	114	1.18	0.07	0.06
LN55433	WJ55335	WJ4015741	177.42	150	114	-0.40	0.02	0.01
LN55434	WJ55341	WJ4019788	14.19	300	132	-7.17	0.10	0.05
LN55493	WJ4019856	WJ55455	225.90	150	114	0.81	0.05	0.03
LN55498	WJ55455	WJ55432	218.22	150	114	0.71	0.04	0.03
LN55500	WJ55422	WJ55455	11.20	200	115	-2.58	0.08	0.07
LN55501	WJ55423	WJ55455	19.90	200	115	2.59	0.08	0.07
LN55504	WJ55429	WJ55432	14.03	300	132	8.26	0.12	0.06
LN55505	WJ55431	WJ55432	22.11	300	132	-7.80	0.11	0.06
LN55506	WJ55432	WJ55436	218.44	150	114	0.98	0.06	0.05
LN55507	WJ55436	WJ4016147	219.20	150	114	0.75	0.04	0.03
LN55510	WJ55442	WJ55436	13.42	150	114	1.18	0.07	0.06
LN55511	WJ55441	WJ55436	19.32	150	114	-1.19	0.07	0.07
LN55541	WJ55466	WJ4019788	15.81	150	114	0.54	0.03	0.02
LN55544	WJ55469	WJ4015741	8.61	150	114	-8.32	0.47	2.40
LN55546	WJ55472	WJ4015741	17.53	300	132	8.77	0.12	0.07
LN55637	WJ55022	WJ55017	36.74	300	132	33.13	0.47	0.81
LN56071	WJ55961	WJ55957	6.72	300	132	8.38	0.12	0.06
LN56072	WJ55958	WJ55961	21.12	300	132	11.95	0.17	0.12
LN56075	WJ21116	WJ55961	199.67	150	114	-5.12	0.29	0.97
LN56076	WJ55961	WJ56498	212.59	150	114	-1.72	0.10	0.13
LN56808	WJ56681	WJ56684	20.84	300	132	46.46	0.66	1.51
LN56811	WJ56684	WJ56688	17.71	300	132	40.63	0.57	1.18
LN56812	WJ56689	WJ56691	6.25	300	132	0.00	0.00	0.00
LN56813	WJ56684	WJ56705	100.03	300	132	5.68	0.08	0.03
LN56820	WJ56701	WJ56700	16.80	150	114	-5.41	0.31	1.08
LN56823	WJ56705	WJ56698	126.91	300	132	5.55	0.08	0.03
LN56839	WJ56698	WJ56700	27.84	300	132	5.41	0.08	0.03
LN57409	WJ57354	WJ4009674	82.98	400	129	-65.45	0.52	0.73
LN57420_A001	WJ57354	J-HY16102	85.21	150	114	0.08	0.00	0.00
LN57420_A002	J-HY16102	WJ57355	0.10	150	114	0.08	0.00	0.00
LN57492	WJ57425	WJ57428	24.89	150	114	-0.41	0.02	0.01
LN57495	WJ57425	WJ57438	180.35	300	132	0.41	0.01	0.00
LN57743	WJ4019314	WJ57697	84.77	150	103	-0.46	0.03	0.01
LN57962_A001	WJ57906	J-HY31330	0.42	300	132	-1.06	0.02	0.00
LN57962_A002	J-HY31330	WJ57907	58.97	300	132	-1.06	0.02	0.00
LN57963	WJ57907	WJ53038	15.00	300	132	6.14	0.09	0.04
LN57964	WJ57907	WJ18034	16.53	300	132	-7.20	0.10	0.05
LN58137_A001	WJ58108	WV55772	5.98	300	132	-11.27	0.16	0.11
LN58137_A002	WV55772	WJ58109	22.73	300	132	-11.27	0.16	0.11
LN58150	WJ4015943	WJ19330	69.68	300	120	-9.82	0.14	0.10
LN58158(1)	WJ58109	J-HY4007525	57.23	300	120	-11.36	0.16	0.13
LN58158(2)	J-HY4007525	WJ4015943	63.21	300	120	-11.36	0.16	0.13
LN58168	WJ4021189	WJ59147	120.96	150	103	-0.10	0.01	0.00
LN58350	WJ4017357	WJ58336	2.71	150	103	-4.72	0.27	1.01
LN58352	WJ58336	WJ49339	97.01	150	114	1.95	0.11	0.16
LN58386	WJ4018183	WJ58392	2.14	150	114	-1.21	0.07	0.07
LN58387	WJ58393	WJ58392	331.27	200	115	-1.48	0.05	0.02
LN58388	WJ58394	WJ58393	7.40	200	115	-1.35	0.04	0.02
LN58400	WJ4040953	WJ58412	10.28	200	115	3.10	0.10	0.09
LN58405	WJ58412	WJ58427	24.95	200	115	4.91	0.16	0.22
LN58406	WJ4017795	WJ58427	9.80	400	129	30.09	0.24	0.17
LN58407	WJ58427	WJ58425	315.47	200	115	7.51	0.24	0.48
LN58408	WJ58425	WJ58404	20.68	150	114	0.36	0.02	0.01
LN58409	WJ58425	WJ58426	0.64	200	115	7.06	0.22	0.43
LN58410	WJ58406	WJ58426	4.73	150	114	-3.07	0.17	0.38
LN58411	WJ58426	WJ58418	264.53	200	115	3.93	0.13	0.14
LN58412	WJ58401	WJ58418	20.04	300	132	15.78	0.22	0.20
LN58413	WJ58418	WJ58403	5.29	300	132	17.82	0.25	0.26

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN58414	WJ58418	WJ58423	383.48	200	115	1.56	0.05	0.03
LN58416	WJ58399	WJ58397	25.74	150	114	0.03	0.00	0.00
LN58417	WJ58423	WJ58424	368.41	200	115	1.20	0.04	0.02
LN58418	WJ58424	WJ58394	15.51	200	115	1.00	0.03	0.01
LN58457	WJ4017087	WJ58490	5.23	150	103	-0.42	0.02	0.01
LN58473	WJ58545	WJ58543	16.96	300	132	20.20	0.29	0.32
LN58507_A001	WJ28014	J-HY4008126	48.71	300	132	-1.57	0.02	0.00
LN58507_A002	J-HY4008126	WJ58595	24.49	300	132	-1.57	0.02	0.00
LN58508	WJ58458	WJ58595	10.96	150	114	1.90	0.11	0.16
LN58509_A001	WJ58595	J-HY31487	24.32	300	132	-3.27	0.05	0.01
LN58509_A002	J-HY31487	J-HY4008128	40.25	300	132	-3.27	0.05	0.01
LN58509_A003	J-HY4008128	WJ58462	26.91	300	132	-3.27	0.05	0.01
LN58510	WJ58460	WJ58462	10.51	150	114	2.69	0.15	0.30
LN58511	WJ58462	WJ58464	14.33	300	132	-0.76	0.01	0.00
LN58512	WJ58461	WJ58464	6.93	400	129	23.11	0.18	0.11
LN58513	WJ58464	WJ58611	14.46	300	132	22.36	0.32	0.39
LN58514	WJ58611	WJ58473	33.39	150	114	1.81	0.10	0.14
LN58515_A001	WJ58611	J-HY4032566	25.98	300	132	20.55	0.29	0.33
LN58515_A002	J-HY4032566	WJ58601	36.69	300	132	20.55	0.29	0.33
LN58516	WJ58602	WJ58601	8.10	150	114	0.00	0.00	0.00
LN58517_A001	WJ58601	J-HY4034050	22.33	300	132	20.13	0.28	0.32
LN58517_A002	J-HY4034050	WJ58475	22.02	300	132	20.13	0.28	0.32
LN58518	WJ58475	WJ58476	7.90	300	132	6.62	0.09	0.04
LN58519_A001	WJ58475	J-HY4034038	28.54	300	132	10.76	0.15	0.10
LN58519_A002	J-HY4034038	J-HY4032578	60.82	300	132	10.76	0.15	0.10
LN58519_A003	J-HY4032578	J-HY4032558	25.67	300	132	10.76	0.15	0.10
LN58519_A004	J-HY4032558	WJ58480	38.23	300	132	10.76	0.15	0.10
LN58520	WJ58479	WJ58480	4.52	300	132	-2.16	0.03	0.00
LN58524_A001	WJ58480	J-HY17891	60.12	300	132	3.30	0.05	0.01
LN58524_A002	J-HY17891	WJ58482	37.00	300	132	3.30	0.05	0.01
LN58525	WJ58481	WJ58482	7.04	300	132	9.40	0.13	0.08
LN58526	WJ58482	WJ58614	4.48	300	132	12.70	0.18	0.14
LN58527	WJ58614	WJ58486	6.25	300	132	3.08	0.04	0.01
LN58528_A001	WJ58614	J-HY4032554	85.08	300	132	9.62	0.14	0.08
LN58528_A002	J-HY4032554	WJ58603	15.76	300	132	9.62	0.14	0.08
LN58529	WJ58603	WJ58488	5.71	250	115	3.17	0.06	0.03
LN58530	WJ58603	WJ58604	36.95	300	132	6.13	0.09	0.04
LN58531	WJ58605	WJ58604	2.40	150	114	0.00	0.00	0.00
LN58532_A001	WJ58604	J-HY4032548	33.26	300	132	6.13	0.09	0.04
LN58532_A002	J-HY4032548	WJ58608	126.23	300	132	6.13	0.09	0.04
LN58533	WJ58496	WJ58498	4.23	300	132	-18.86	0.27	0.28
LN58534	WJ58500	WJ58499	3.21	400	129	6.97	0.06	0.01
LN58535_A001	WJ58496	J-HY4032525	21.31	300	132	9.85	0.14	0.09
LN58535_A002	J-HY4032525	WJ58502	78.43	300	132	9.85	0.14	0.09
LN58536	WJ58501	WJ58502	5.39	300	132	-6.10	0.09	0.03
LN58537	WJ58502	WJ58505	6.69	300	132	1.66	0.02	0.00
LN58538	WJ58505	WJ58504	10.92	300	132	-11.27	0.16	0.11
LN58539_A001	WJ58505	J-HY4032503	9.90	300	132	12.92	0.18	0.14
LN58539_A002	J-HY4032503	WJ58509	80.94	300	132	12.92	0.18	0.14
LN58540	WJ58509	WJ58510	5.35	300	132	4.74	0.07	0.02
LN58541_A001	WJ58509	J-HY4032493	14.51	300	132	8.11	0.11	0.06
LN58541_A002	J-HY4032493	J-HY31488	66.13	300	132	8.11	0.11	0.06
LN58541_A003	J-HY31488	WJ58512	34.24	300	132	8.11	0.11	0.06
LN58542	WJ58512	WJ58513	7.24	150	114	-1.12	0.06	0.06
LN58543	WJ58512	WJ58516	31.63	300	132	9.22	0.13	0.08
LN58544	WJ58517	WJ58516	6.53	300	132	-3.40	0.05	0.01
LN58545_A001	WJ58516	J-HY4032454	76.37	300	132	5.79	0.08	0.03
LN58545_A002	J-HY4032454	WJ58519	6.11	300	132	5.79	0.08	0.03
LN58546	WJ58519	WJ58521	6.49	300	132	6.32	0.09	0.04
LN58547	WJ58519	WJ58522	93.07	300	132	-1.18	0.02	0.00
LN58548	WJ58522	WJ58523	9.58	400	129	19.66	0.16	0.08
LN58549	WJ58526	WJ58522	5.60	400	129	24.90	0.20	0.12
LN58550_A001	WJ58522	J-HY31490	72.43	300	132	3.91	0.06	0.02
LN58550_A002	J-HY31490	J-HY4019204	16.93	300	132	3.91	0.06	0.02
LN58550_A003	J-HY4019204	WJ58527	65.66	300	132	3.91	0.06	0.02
LN58551	WJ58527	WJ58528	12.20	150	114	-2.58	0.15	0.27
LN58552_A001	WJ58527	J-HY4017635	49.14	300	132	1.43	0.02	0.00
LN58552_A002	J-HY4017635	J-HY31491	27.02	300	132	1.43	0.02	0.00
LN58552_A003	J-HY31491	J-HY4017600	42.38	300	132	1.43	0.02	0.00
LN58552_A004	J-HY4017600	WJ58530	43.74	300	132	1.43	0.02	0.00
LN58553	WJ58532	WJ58530	6.51	300	132	-3.54	0.05	0.01
LN58554	WJ58530	WJ58537	43.71	300	132	-3.18	0.05	0.01
LN58555	WJ58539	WJ58537	12.50	150	114	-0.59	0.03	0.02
LN58556_A001	WJ58537	J-HY4017594	60.54	300	132	-3.78	0.05	0.01
LN58556_A002	J-HY4017594	WJ58610	46.26	300	132	-3.78	0.05	0.01
LN58557	WJ58610	WJ58541	25.17	150	114	2.59	0.15	0.28

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN58558	WJ58541	WJ58540	7.21	150	114	1.87	0.11	0.15
LN58559_A001	WJ58610	J-HY4017589	27.60	300	132	-6.36	0.09	0.04
LN58559_A002	J-HY4017589	WJ58544	62.97	300	132	-6.36	0.09	0.04
LN58560	WJ58544	WJ58545	9.45	300	132	20.20	0.29	0.32
LN58561	WJ58544	WJ58547	7.16	300	132	-26.56	0.38	0.54
LN58562_A001	WJ58548	J-HY4017572	1.11	300	132	14.21	0.20	0.17
LN58562_A002	J-HY4017572	WJ58547	11.99	300	132	14.21	0.20	0.17
LN58563_A001	WJ58547	J-HY4017558	78.96	300	132	-12.47	0.18	0.13
LN58563_A002	J-HY4017558	WJ58574	34.83	300	132	-12.47	0.18	0.13
LN58564	WJ58577	WJ58575	4.68	300	132	27.78	0.39	0.58
LN58565	WJ58576	WJ58575	7.41	400	129	28.98	0.23	0.16
LN58566	WJ58575	WJ58574	2.57	400	129	56.75	0.45	0.56
LN58567	WJ58574	WJ58573	22.68	400	129	28.19	0.22	0.15
LN58568	WJ58580	WJ58574	11.18	250	115	-15.86	0.32	0.65
LN58569	WJ58573	WJ58572	12.14	400	129	24.76	0.20	0.12
LN58570	WJ58581	WJ58573	5.40	150	114	-3.43	0.19	0.46
LN58571_A001	WJ58490	J-HY4032536	0.83	250	115	-0.42	0.01	0.00
LN58571_A002	J-HY4032536	WJ58609	46.62	250	115	-0.42	0.01	0.00
LN58572	WJ58609	WJ58608	3.93	300	132	-0.42	0.01	0.00
LN58573	WJ58608	WJ58499	45.37	300	132	4.44	0.06	0.02
LN58574	WJ58533	WJ58535	2.73	300	132	-3.54	0.05	0.01
LN58575_A001	WJ58533	J-HY31492	76.13	150	114	-0.73	0.04	0.03
LN58575_A002	J-HY31492	WJ58541	70.09	150	114	-0.73	0.04	0.03
LN58576_A001	WJ58541	J-HY16154	60.76	150	114	-0.64	0.04	0.02
LN58576_A002	J-HY16154	WJ58543	29.21	150	114	-0.64	0.04	0.02
LN58677	WJ4005489	WJ58734	100.65	150	114	-0.57	0.03	0.02
LN58678	WJ58734	WJ58735	65.32	150	114	-1.80	0.10	0.14
LN58683	WJ58745	WJ58740	7.14	200	115	3.89	0.12	0.14
LN58684	WJ58740	WJ58751	321.14	200	115	8.31	0.26	0.58
LN58688	WJ58747	WJ58740	4.15	150	114	4.53	0.26	0.78
LN58689	WJ58745	WJ4017666	247.02	400	129	21.13	0.17	0.09
LN58692	WJ58751	WJ58752	220.75	200	115	5.75	0.18	0.29
LN58694	WJ58751	WJ58749	14.36	150	114	2.21	0.12	0.21
LN58696	WJ52183	WJ58755	146.55	300	120	18.15	0.26	0.32
LN58697	WJ58752	WJ58756	7.34	300	132	20.69	0.29	0.34
LN58698	WJ58755	WJ58752	19.76	300	132	18.11	0.26	0.26
LN58699	WJ58752	WJ58762	219.83	200	115	3.04	0.10	0.09
LN58702	WJ58760	WJ58734	18.45	150	114	-1.22	0.07	0.07
LN58703	WJ58762	WJ58764	9.34	150	114	2.25	0.13	0.21
LN58705	WJ58735	WJ4005613	217.51	150	114	-1.93	0.11	0.16
LN58707	WJ58762	WJ48961	85.61	200	115	0.64	0.02	0.01
LN58708	WJ58735	WJ58769	96.04	150	114	0.08	0.00	0.00
LN58838	WJ58936	WJ58937	19.16	150	114	6.21	0.35	1.39
LN58840	WJ58936	WJ58940	11.69	150	114	-6.75	0.38	1.63
LN58841	WJ58936	WJ58946	325.10	150	114	0.41	0.02	0.01
LN58845	WJ4008830	WJ58946	1.36	300	120	41.66	0.59	1.47
LN58929	WJ4018199	WJ59062	328.79	200	115	0.17	0.01	0.00
LN58941	WJ59065	WJ59062	16.07	150	114	-3.42	0.19	0.46
LN58942	WJ59062	WJ4005420	4.24	150	114	-3.33	0.19	0.44
LN58949	WJ58394	WJ52159	112.84	200	115	5.23	0.17	0.25
LN58954	WJ59078	WJ58394	112.04	150	114	2.93	0.17	0.35
LN58956	WJ59074	WJ59078	107.03	150	114	3.05	0.17	0.37
LN58958	WJ62359	WJ59078	8.35	150	114	-0.03	0.00	0.00
LN58960	WJ59072	WJ59074	20.29	150	114	1.79	0.10	0.14
LN59066	WJ59194	WJ59198	15.43	300	132	-13.43	0.19	0.15
LN59067	WJ59198	WJ59201	5.24	300	132	-52.55	0.74	1.90
LN59068	WJ59196	WJ59195	14.75	300	132	1.32	0.02	0.00
LN59072	WJ59207	WJ59201	11.23	400	129	53.87	0.43	0.51
LN59073	WJ59201	WJ59196	2.54	300	132	1.32	0.02	0.00
LN59295	WJ59198	WJ59422	3.55	300	132	39.12	0.55	1.10
LN59490	WJ47069	WJ4016701	2.15	150	103	2.69	0.15	0.36
LN59605	WJ59734	WJ59735	106.76	150	114	5.93	0.34	1.28
LN59608	WJ59735	WJ59712	16.09	150	114	1.77	0.10	0.14
LN59612	WJ59735	WJ59742	75.94	150	114	4.07	0.23	0.64
LN59613	WJ59742	WJ59732	32.44	150	114	1.92	0.11	0.16
LN59615	WJ59742	WJ59726	14.35	150	114	0.07	0.00	0.00
LN59616	WJ59742	WJ59743	48.30	150	114	2.04	0.12	0.18
LN59617	WJ59743	WJ59864	77.41	150	114	1.87	0.11	0.15
LN59707	WJ59822	WJ4011782	3.22	150	103	-1.38	0.08	0.10
LN59756	WJ59864	WJ59822	168.25	150	114	1.80	0.10	0.14
LN59874	WJ59734	WJ60020	7.91	300	120	32.00	0.45	0.90
LN60622	WJ60783	WJ4017087	4.00	150	103	0.00	0.00	0.00
LN60647	WJ60926	WJ4019873	94.81	150	103	0.92	0.05	0.05
LN60666	WJ4016809	WJ60926	83.29	150	114	-0.91	0.05	0.04
LN60687	WJ4016786	WJ4019873	227.54	150	114	1.22	0.07	0.07
LN60719_A001	WJ4018460	J-HY4033475	138.44	300	132	2.60	0.04	0.01

ADD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN60719_A002	J-HY4033475	WJ60862	22.46	300	132	2.60	0.04	0.01
LN60720	WJ4016719	WJ60862	1.79	250	115	3.17	0.06	0.03
LN60993	WJ4020732	WJ61124	12.49	150	114	0.17	0.01	0.00
LN60994	WJ61125	WJ61124	49.30	100	100	-0.28	0.04	0.04
LN61318	WJ61515	WJ61510	15.20	150	114	1.59	0.09	0.11
LN61319	WJ61510	WJ61511	12.22	150	114	1.43	0.08	0.09
LN61320	WJ61511	WJ61514	14.32	150	114	0.64	0.04	0.02
LN61324	WJ61510	WJ61520	1.18	150	114	0.00	0.00	0.00
LN61325	WJ61510	WJ61519	119.52	150	114	0.12	0.01	0.00
LN61332	WJ61529	WJ4019660	10.36	150	103	-1.58	0.09	0.13
LN61435	WJ4011634	WJ61627	126.58	150	103	-2.91	0.16	0.41
LN61490	WJ61693	WJ4008256	31.28	150	103	0.51	0.03	0.02
LN61491	WJ61693	WJ61694	117.73	150	114	0.00	0.00	0.00
LN61598	WJ4020596	WJ47436	13.04	150	114	1.32	0.07	0.08
LN61605	WJ4013458	WJ61779	90.36	150	103	-1.59	0.09	0.14
LN61658	WJ53465	WJ61826	40.98	200	115	-9.63	0.31	0.76
LN61659	WJ61826	WJ61827	164.51	200	115	0.00	0.00	0.00
LN61788	WJ48056	WJ48055	213.35	150	114	-0.57	0.03	0.02
LN61790	WJ48055	WJ48056	87.98	300	132	6.58	0.09	0.04
LN62205	WJ62335	WJ4004560	101.21	150	103	3.03	0.17	0.45
LN62230	WJ4018166	WJ62359	347.46	150	114	0.11	0.01	0.00
LN62307	WJ62422	WJ4011486	14.28	150	103	-1.09	0.06	0.07
LN62309	WJ4010946	WJ62423	36.61	150	103	0.22	0.01	0.00
LN62500_A001	WJ4010417	J-HY4039947	4.13	400	129	39.36	0.31	0.29
LN62500_A002	J-HY4039947	WJ4010421	284.88	400	129	39.36	0.31	0.29

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN112660_A001	WJ24264	J-HY4014400	30.52	300	132	13.25	0.19	0.15
LN112660_A002	J-HY4014400	WJ24204	98.35	300	132	13.25	0.19	0.15
LN16724_A001	WJ16170	J-HY4017936	1.56	300	132	4.90	0.07	0.02
LN16724_A002	J-HY4017936	WJ4018534	15.14	300	132	4.90	0.07	0.02
LN16812	WJ58510	WJ16225	11.62	300	132	4.39	0.06	0.02
LN16813_A001	WJ16225	J-HY4033089	5.66	300	132	2.78	0.04	0.01
LN16813_A002	J-HY4033089	J-HY4033085	100.94	300	132	2.78	0.04	0.01
LN16813_A003	J-HY4033085	WJ4018326	3.52	300	132	2.78	0.04	0.01
LN16839	WJ58496	WJ58500	24.23	400	129	4.63	0.04	0.01
LN16840_A001	WJ58499	J-HY4033315	9.32	400	129	11.87	0.09	0.03
LN16840_A002	J-HY4033315	J-HY4033296	129.85	400	129	11.87	0.09	0.03
LN19391_A001	WJ4019318	J-HY4034872	101.08	150	103	-0.75	0.04	0.03
LN19391_A002	J-HY4034872	WJ18031	99.62	150	103	-0.75	0.04	0.03
LN19392_A001	WJ18030	J-HY4033352	65.89	150	103	-2.67	0.15	0.35
LN19392_A002	J-HY4033352	WJ28034	8.39	150	103	-2.67	0.15	0.35
LN19393_A001	WJ4018072	J-HY4035209	73.34	300	132	5.58	0.08	0.03
LN19393_A002	J-HY4035209	WJ18032	20.13	300	132	5.58	0.08	0.03
LN19394	WJ18031	WJ18032	11.62	300	132	-0.79	0.01	0.00
LN19395	WJ18032	WJ18033	6.13	300	132	4.78	0.07	0.02
LN19396	WJ18033	WJ18030	12.19	300	132	-2.30	0.03	0.01
LN19397_A001	WJ18034	J-HY12614	1.42	300	132	-7.09	0.10	0.04
LN19397_A002	J-HY12614	WJ18033	100.24	300	132	-7.09	0.10	0.05
LN20710_A001	WJ24204	J-HY4014840	40.05	300	132	-6.82	0.10	0.04
LN20710_A002	J-HY4014840	WJ4013102	64.32	300	132	-6.82	0.10	0.04
LN20730_A001	WJ24204	J-HY16801	70.81	300	132	16.54	0.23	0.22
LN20730_A002	J-HY16801	WJ58548	77.33	300	132	16.54	0.23	0.22
LN20750	WJ4013337	WJ24244	23.15	150	103	4.26	0.24	0.84
LN20770	WJ24244	WJ24264	9.46	300	132	4.26	0.06	0.02
LN20810_A001	WJ24284	J-HY16821	90.72	400	129	14.47	0.12	0.04
LN20810_A002	J-HY16821	WJ24264	76.79	400	129	14.47	0.12	0.04
LN20811_A001	WJ24264	J-HY17621	69.47	400	129	4.18	0.03	0.00
LN20811_A002	J-HY17621	WJ24285	76.20	400	129	4.18	0.03	0.00
LN20812	WJ24285	WJ24304	31.28	400	129	6.34	0.05	0.01
LN20892	WJ24364	WJ24285	12.27	300	132	4.84	0.07	0.02
LN20893	WJ24285	WJ24366	29.17	300	132	2.67	0.04	0.01
LN23823_A001	WJ58481	J-HY4007542	64.50	300	132	-8.54	0.12	0.07
LN23823_A002	J-HY4007542	WJ26555	80.39	300	132	-8.54	0.12	0.07
LN24643	WJ27194	WJ4016719	2.68	250	115	3.42	0.07	0.04
LN24644	WJ58488	WJ27194	18.66	250	115	3.42	0.07	0.04
LN25501_A001	WJ27974	J-HY4022181	60.39	400	129	-27.13	0.22	0.14
LN25501_A002	J-HY4022181	WJ28214	59.65	400	129	-27.13	0.22	0.14
LN25502	WJ27994	WJ28214	36.72	400	129	-15.82	0.13	0.05
LN25505	WJ27974	WJ28014	62.76	400	129	26.73	0.21	0.14
LN25507_A001	WJ28014	J-HY4022232	23.93	400	129	24.83	0.20	0.12
LN25507_A002	J-HY4022232	J-HY4022263	123.81	400	129	24.83	0.20	0.12
LN25507_A003	J-HY4022263	J-HY4022342	63.08	400	129	24.83	0.20	0.12
LN25507_A004	J-HY4022342	WJ28234	50.82	400	129	24.83	0.20	0.12
LN25521	WJ28034	WJ20153	28.01	300	132	-2.68	0.04	0.01
LN25522_A001	WJ28054	J-HY4022433	10.05	400	129	-8.01	0.06	0.01
LN25522_A002	J-HY4022433	WJ28234	60.46	400	129	-8.01	0.06	0.01
LN25523	WJ4014459	WJ28054	18.91	300	120	-8.01	0.11	0.07
LN25603	WJ28096	WJ28114	86.19	600	130	-26.12	0.09	0.02
LN4000999	WJ4014474	WJ4014473	12.72	300	120	-6.92	0.10	0.05
LN4005470	WJ60862	WJ4017087	107.49	250	115	4.83	0.10	0.07
LN4008856	WJ4012402	WJ4013089	42.00	900	130	-354.00	0.56	0.32
LN4008863	WJ4017209	WJ4012852	21.59	300	120	2.84	0.04	0.01
LN4008983	WJ4017212	WJ4012562	3.28	300	132	-7.47	0.11	0.05
LN4009239	WJ58535	WJ58532	17.54	150	114	-3.60	0.20	0.51
LN4009514	WJ4013114	WJ4013116	7.28	150	103	-3.16	0.18	0.48
LN4009906	WJ4013114	WJ4013109	16.33	150	103	-1.26	0.07	0.09
LN4009966	WJ4013093	WJ4013101	10.69	400	129	-33.04	0.26	0.21
LN4009967	WJ4013101	WJ4013102	19.58	400	129	-34.54	0.27	0.22
LN4010950	WJ4012852	WJ4017229	3.94	250	115	15.67	0.32	0.63
LN4011089	WJ4010414	WJ4010416	26.66	200	115	0.00	0.00	0.00
LN4016660_A001	WJ4009713	J-HY16101	36.38	300	120	35.04	0.50	1.07
LN4016660_A002	J-HY16101	WJ4009674	102.23	300	120	35.04	0.50	1.07
LN4021140_A001	WJ4013756	J-HY4024238	104.32	400	129	-14.99	0.12	0.05
LN4021140_A002	J-HY4024238	WJ27994	52.47	400	129	-14.99	0.12	0.05
LN4021159_A001	WJ4013756	J-HY4023355	80.69	150	103	-3.13	0.18	0.47
LN4021774	WJ4013538	WJ4013530	503.77	150	103	-2.67	0.15	0.35
LN4021777_A001	WJ4013511	J-HY4027373	67.61	150	103	-2.66	0.15	0.35
LN4021911_A001	WJ28234	J-HY4029416	88.51	400	129	16.19	0.13	0.06
LN4021911_A002	J-HY4029416	WJ4016440	99.62	400	129	16.19	0.13	0.06
LN4021930	WJ4014459	WJ4014757	98.63	150	114	0.03	0.00	0.00
LN4021939_A001	WJ4014473	J-HY4032974	86.26	300	120	-7.43	0.11	0.06
LN4021939_A002	J-HY4032974	WJ4014459	106.62	300	120	-7.43	0.11	0.06

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4021942	WJ4014475	WJ4014474	6.94	300	120	-3.01	0.04	0.01
LN4021944_A001	WJ4014474	J-HY16117	63.14	300	132	3.58	0.05	0.01
LN4021944_A002	J-HY16117	J-HY4032126	97.49	300	132	3.58	0.05	0.01
LN4021944_A003	J-HY4032126	J-HY4032075	92.10	300	132	3.58	0.05	0.01
LN4021944_A004	J-HY4032075	WJ21239	14.75	300	132	3.58	0.05	0.01
LN4021949	WJ4014763	WJ4014475	110.11	150	103	0.79	0.04	0.04
LN4021959_A002	J-HY4033084	WJ4014475	77.72	300	120	-3.77	0.05	0.02
LN4024219_A001	WJ4016727	J-HY4033486	78.80	300	132	-1.20	0.02	0.00
LN4024219_A002	J-HY4033486	J-HY4033482	105.56	300	132	-1.20	0.02	0.00
LN4024219_A003	J-HY4033482	WJ58486	35.97	300	132	-1.20	0.02	0.00
LN4024303	WJ4010414	WJ4017794	9.33	200	115	12.25	0.39	1.19
LN4024738_A001	WJ4017229	J-HY4039988	95.33	250	115	15.25	0.31	0.60
LN4024738_A002	J-HY4039988	J-HY4039984	133.97	250	115	15.25	0.31	0.60
LN4024738_A003	J-HY4039984	J-HY4039977	128.14	250	115	15.25	0.31	0.60
LN4024738_A004	J-HY4039977	J-HY4039954	89.18	250	115	15.25	0.31	0.60
LN4024738_A005	J-HY4039954	J-HY4039949	55.25	250	115	15.25	0.31	0.60
LN4024738_A006	J-HY4039949	WJ4010414	55.25	250	115	15.25	0.31	0.60
LN4024858_A001	WJ4016786	J-HY4032614	81.70	400	129	-15.70	0.12	0.05
LN4024858_A002	J-HY4032614	WJ4017083	79.45	400	129	-15.70	0.12	0.05
LN4024908_A001	WJ4017083	J-HY4032627	94.38	400	129	-16.74	0.13	0.06
LN4024908_A002	J-HY4032627	WJ4016440	36.54	400	129	-16.74	0.13	0.06
LN4024911_A001	WJ4016440	J-HY4033936	59.90	150	103	-1.67	0.09	0.15
LN4024911_A002	J-HY4033936	J-HY4033929	80.16	150	103	-1.67	0.09	0.15
LN4024911_A003	J-HY4033929	J-HY22579	59.38	150	103	-1.67	0.09	0.15
LN4024911_A004	J-HY22579	WJ58473	15.03	150	103	-1.67	0.09	0.15
LN4024963	WJ4017736	WJ4017733	218.81	150	103	-1.25	0.07	0.09
LN4025171	WJ4015780	WJ4016359	202.30	150	103	3.67	0.21	0.64
LN4025284_A001	WJ58526	J-HY4007488	9.08	400	129	-25.32	0.20	0.12
LN4025284_A002	J-HY4007488	WJ4017778	74.64	400	129	-25.32	0.20	0.13
LN4025291_A001	WJ4015621	J-HY4008124	86.00	400	129	0.69	0.01	0.00
LN4025291_A002	J-HY4008124	WJ4017778	118.08	400	129	0.69	0.01	0.00
LN4025294_A001	WJ4015621	J-HY4007498	48.68	150	103	-2.01	0.11	0.21
LN4025294_A002	J-HY4007498	WJ52055	64.81	150	103	-2.01	0.11	0.21
LN4025297_A001	WJ58513	J-HY4007499	2.91	150	103	-0.76	0.04	0.03
LN4025297_A002	J-HY4007499	WJ4015621	77.67	150	103	-0.76	0.04	0.03
LN4025309	WJ58504	WJ58108	41.91	300	120	-10.98	0.16	0.12
LN4025311_A001	WJ58498	J-HY4007537	131.24	400	129	-19.14	0.15	0.08
LN4025311_A002	J-HY4007537	J-HY4007535	116.27	400	129	-19.14	0.15	0.08
LN4025311_A003	J-HY4007535	WJ4018542	16.26	400	129	-19.14	0.15	0.08
LN4025318_A001	WJ4016359	J-HY4008122	80.27	400	129	-18.74	0.15	0.07
LN4025326_A001	WJ26555	J-HY4007539	30.19	300	120	-8.80	0.12	0.08
LN4025326_A002	J-HY4007539	WJ4016358	65.38	300	120	-8.80	0.12	0.08
LN4025974_A001	WJ4009713	J-HY4019665	106.06	150	103	0.00	0.00	0.00
LN4025974_A002	J-HY4019665	WJ4009814	98.70	150	103	0.00	0.00	0.00
LN4025996_A001	WJ4009713	J-HY4019778	57.01	400	129	-35.16	0.28	0.23
LN4025996_A002	J-HY4019778	WJ4009709	51.13	400	129	-35.16	0.28	0.23
LN4026756_A001	WJ4012852	J-HY4019230	40.59	250	115	-13.56	0.28	0.48
LN4026756_A002	J-HY4019230	J-HY4017539	130.38	250	115	-13.56	0.28	0.48
LN4026756_A003	J-HY4017539	WJ58580	24.34	250	115	-13.56	0.28	0.48
LN4026759_A001	WJ4017209	J-HY4020280	64.87	150	103	-3.12	0.18	0.47
LN4026759_A002	J-HY4020280	J-HY4017538	85.45	150	103	-3.12	0.18	0.47
LN4026759_A003	J-HY4017538	WJ58581	49.99	150	103	-3.12	0.18	0.47
LN4026770_A001	WJ52087	WV4011524	0.34	400	129	8.99	0.07	0.06
LN4026770_A002	WV4011524	WJ4012402	1.45	400	129	8.99	0.07	0.01
LN4026802	WJ52091	WJ4012562	86.01	300	120	12.75	0.18	0.16
LN4026825_A001	WJ4017210	J-HY4017089	208.58	150	103	-2.66	0.15	0.35
LN4026825_A002	J-HY4017089	WJ4020722	8.50	150	103	-2.66	0.15	0.35
LN4027136_A001	WJ58523	J-HY4018679	32.90	400	129	20.82	0.17	0.09
LN4027136_A002	J-HY4018679	WJ19377	92.34	400	129	20.82	0.17	0.09
LN4027383	WJ4013120	WJ4017787	97.16	150	103	-2.58	0.15	0.33
LN4027395_A001	WJ4013116	J-HY4013532	74.22	150	103	-1.67	0.09	0.15
LN4027395_A002	J-HY4013532	WJ4013120	7.64	150	103	-1.67	0.09	0.15
LN4027445_A001	WJ4013114	J-HY4013800	34.27	150	103	4.42	0.25	0.90
LN4027445_A002	J-HY4013800	WJ4017229	109.32	150	103	4.42	0.25	0.90
LN4027594_A001	WJ24344	J-HY4014234	92.17	150	103	1.03	0.06	0.06
LN4027594_A002	J-HY4014234	WJ4013120	101.15	150	103	1.03	0.06	0.06
LN4027595_A001	WJ4013102	J-HY4014990	29.84	400	129	-41.36	0.33	0.31
LN4027595_A002	J-HY4014990	WJ4013060	30.26	400	129	-41.36	0.33	0.31
LN4027599_A001	WJ4013101	J-HY4014605	40.90	300	132	1.50	0.02	0.00
LN4027599_A002	J-HY4014605	J-HY4014155	119.12	300	132	1.50	0.02	0.00
LN4027599_A003	J-HY4014155	WJ4013116	48.86	300	132	1.50	0.02	0.00
LN4027601_A001	WJ4013109	J-HY4013538	96.15	300	132	-1.35	0.02	0.00
LN4027601_A002	J-HY4013538	WJ4013093	95.99	300	132	-1.35	0.02	0.00
LN4027605	WJ4013049	WJ4013089	323.94	900	130	377.30	0.59	0.36
LN4027607_A001	WJ4013089	WV4011055	1.97	300	120	23.25	0.33	0.50
LN4027607_A002	WV4011055	WJ58577	3.07	300	120	23.25	0.33	0.50

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4027609_A001	WJ4013093	J-HY4015007	38.20	400	129	31.53	0.25	0.19
LN4027609_A002	J-HY4015007	WJ58576	89.80	400	129	31.53	0.25	0.19
LN4027821_A001	WJ24366	J-HY4015473	25.58	150	103	2.63	0.15	0.34
LN4027821_A002	J-HY4015473	J-HY4015474	130.80	150	103	2.63	0.15	0.34
LN4027821_A003	J-HY4015474	WJ58539	8.92	150	103	2.63	0.15	0.34
LN4027825_A001	WJ58528	J-HY4015132	5.78	150	103	-2.58	0.15	0.33
LN4027825_A002	J-HY4015132	J-HY4015471	50.22	150	103	-2.58	0.15	0.33
LN4027825_A003	J-HY4015471	WJ4013455	24.16	150	103	-2.58	0.15	0.33
LN4027829	WJ4013455	WJ4013433	43.18	150	103	-0.74	0.04	0.03
LN4030959_A001	WJ4017999	J-HY4037279	86.35	400	129	-10.44	0.08	0.02
LN4030959_A002	J-HY4037279	WJ4018002	28.47	400	129	-10.44	0.08	0.02
LN4031057	WJ4015051	WJ4018054	10.51	150	103	-0.69	0.04	0.03
LN4031058	WJ4018054	WJ4018049	12.38	150	103	0.03	0.00	0.00
LN4031060_A001	WJ4018053	J-HY4036973	26.26	400	129	25.06	0.20	0.12
LN4031060_A002	J-HY4036973	WJ4018002	72.40	400	129	25.06	0.20	0.12
LN4031064	WJ4018057	WJ4018054	3.84	150	103	0.72	0.04	0.03
LN4031065	WJ4018053	WJ4018057	1.50	400	129	0.72	0.01	0.00
LN4031088	WJ4018002	WJ4018072	16.05	300	132	6.34	0.09	0.04
LN4031193_A001	WJ4013538	J-HY4024366	85.53	250	110	-2.45	0.05	0.02
LN4031193_A002	J-HY4024366	WJ4013511	13.93	250	110	-2.45	0.05	0.02
LN4031196	WJ4013511	WJ4018168	126.68	250	110	0.05	0.00	0.00
LN4031255	WJ4018177	WJ28096	650.11	600	130	-26.08	0.09	0.02
LN4031430_A001	WJ4016785	J-HY4033792	89.62	300	132	-0.03	0.00	0.00
LN4031430_A002	J-HY4033792	J-HY4033808	107.52	300	132	-0.03	0.00	0.00
LN4031430_A003	J-HY4033808	WJ58479	39.89	300	132	-0.03	0.00	0.00
LN4031471	WJ4018316	WJ4018314	95.52	600	130	71.81	0.25	0.12
LN4031472	WJ4018314	WJ4018313	118.96	600	130	68.07	0.24	0.11
LN4031474	WJ4018314	WJ4018315	17.88	400	129	2.74	0.02	0.00
LN4031490	WJ4018315	WJ4018326	20.54	300	132	-2.77	0.04	0.01
LN4031491	WJ4018328	WJ4018315	6.03	300	132	-5.51	0.08	0.03
LN4031515_A002	J-HY4035072	J-HY4033092	109.05	300	132	-6.04	0.09	0.03
LN4031515_A003	J-HY4033092	WJ58501	35.19	300	132	-6.04	0.09	0.03
LN4031723_A001	WJ58476	J-HY4033839	55.03	300	132	2.95	0.04	0.01
LN4031723_A002	J-HY4033839	J-HY16124	105.39	300	132	2.95	0.04	0.01
LN4031723_A003	J-HY16124	WJ4018451	92.74	300	132	2.95	0.04	0.01
LN4031724	WJ4018451	WJ4016793	12.41	300	132	0.00	0.00	0.00
LN4031735	WJ4016749	WJ4018451	272.46	600	130	-53.94	0.19	0.07
LN4031870	WJ4018524	WJ58517	21.47	300	132	-2.70	0.04	0.01
LN4031871_A001	WJ4018313	J-HY16140	62.04	300	132	-2.36	0.03	0.01
LN4031871_A002	J-HY16140	WJ4018524	44.60	300	132	-2.36	0.03	0.01
LN4031883_A001	WJ4016614	J-HY4032770	6.69	300	132	-10.24	0.14	0.09
LN4031883_A002	J-HY4032770	WJ4018313	7.60	300	132	-10.24	0.14	0.09
LN4031893	WJ4018534	WJ4018533	13.52	300	132	2.57	0.04	0.01
LN4031899	WJ4016614	WJ4018533	85.94	300	132	9.16	0.13	0.07
LN4031902	WJ4018313	WJ4018532	93.30	600	130	58.75	0.21	0.08
LN4031909	WJ4018542	WJ4016359	1.20	400	129	-21.47	0.17	0.09
LN4031912	WJ4018532	WJ4018534	11.36	400	129	-2.33	0.02	0.00
LN4031933_A001	WJ52037	J-HY4008135	66.72	200	115	0.90	0.03	0.01
LN4031933_A002	J-HY4008135	WJ4015943	49.31	200	115	0.90	0.03	0.01
LN4031954_A001	WJ4018575	J-HY9902	72.92	300	132	-10.22	0.14	0.09
LN4031954_A002	J-HY9902	WJ4018533	27.64	300	132	-10.22	0.14	0.09
LN4031970	WJ4020741	WJ4018586	13.22	400	129	0.53	0.00	0.00
LN4031971	WJ53114	WJ4018586	9.46	600	130	-65.07	0.23	0.10
LN4031975_A001	WJ4018588	J-HY32675	49.34	300	132	-10.11	0.14	0.09
LN4031975_A002	J-HY32675	J-HY32671	104.36	300	132	-10.11	0.14	0.09
LN4031975_A003	J-HY32671	J-HY22580	106.99	300	132	-10.11	0.14	0.09
LN4031975_A004	J-HY22580	WJ4018575	59.10	300	132	-10.11	0.14	0.09
LN4033480	WJ4017794	WJ4040953	208.20	200	115	5.31	0.17	0.25
LN4033501	WJ4018131	WJ4019318	92.25	150	103	0.94	0.05	0.05
LN4033502	WJ4019318	WJ53041	72.26	150	103	-0.04	0.00	0.00
LN4033527	WJ4019325	WJ4019318	228.16	150	103	-0.51	0.03	0.02
LN4033531	WJ4019326	WJ4018131	228.44	150	103	-0.65	0.04	0.03
LN4033538_A001	WJ4012562	J-HY4017295	36.83	300	120	1.78	0.03	0.00
LN4033538_A002	J-HY4017295	J-HY16981	126.24	300	120	1.78	0.03	0.00
LN4033538_A003	J-HY16981	WJ4019328	3.46	300	120	1.78	0.03	0.01
LN4033547_A001	WJ4017794	J-HY4018994	76.08	400	129	-66.32	0.53	0.75
LN4033547_A002	J-HY4018994	WJ4019335	77.06	400	129	-66.32	0.53	0.75
LN4033548_A001	WJ4019335	J-HY4018945	8.62	400	129	-66.49	0.53	0.75
LN4033548_A002	J-HY4018945	J-HY4018934	88.11	400	129	-66.49	0.53	0.75
LN4033548_A003	J-HY4018934	WJ57354	24.05	400	129	-66.49	0.53	0.75
LN4033571	WJ4017778	WJ4013433	115.84	150	103	-1.54	0.09	0.13
LN4033664	WJ4014473	WJ4019399	11.02	300	120	0.00	0.00	0.00
LN4034211_A001	WJ4018575	J-HY22581	12.24	300	132	11.00	0.16	0.10
LN4034211_A002	J-HY22581	J-HY4018775	64.14	300	132	11.00	0.16	0.10
LN4034211_A003	J-HY4018775	J-HY4018835	116.72	300	132	11.00	0.16	0.10
LN4034211_A004	J-HY4018835	WJ4019624	23.55	300	132	11.00	0.16	0.10

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4034217	WJ54461	WJ4019624	89.52	150	103	1.41	0.08	0.11
LN4034220_A001	WJ4019626	J-HY4018607	140.27	150	114	-1.72	0.10	0.13
LN4034220_A002	J-HY4018607	WJ4018588	34.94	150	114	-1.72	0.10	0.13
LN4034221_A001	WJ4019624	J-HY4019282	96.34	300	132	10.16	0.14	0.09
LN4034221_A002	J-HY4019282	J-HY4022788	114.88	300	132	10.16	0.14	0.09
LN4034221_A003	J-HY4022788	WJ4019626	105.43	300	132	10.16	0.14	0.09
LN4034223_A001	WJ58540	J-HY4018406	4.24	150	103	1.91	0.11	0.19
LN4034223_A002	J-HY4018406	J-HY4018424	122.42	150	103	1.91	0.11	0.19
LN4034223_A003	J-HY4018424	WJ53116	39.60	150	103	1.91	0.11	0.19
LN4034226	WJ4019628	WJ4012588	23.70	400	129	-8.30	0.07	0.02
LN4034229	WJ53122	WJ4019630	89.83	400	129	-21.69	0.17	0.09
LN4034230	WJ22621	WJ4019628	113.64	400	129	-7.38	0.06	0.01
LN4034236	WJ4019634	WJ4017212	220.07	150	103	-2.57	0.15	0.33
LN4034242	WJ4019636	WJ4019630	217.65	150	103	-2.59	0.15	0.33
LN4034243	WJ4019628	WJ4019637	217.76	150	103	2.40	0.14	0.29
LN4034248	WJ4019639	WJ4019626	217.21	150	103	-2.32	0.13	0.27
LN4034262	WJ4019624	WJ4019644	218.14	150	103	1.96	0.11	0.20
LN4034464_A002	J-HY4022767	J-HY4022775	146.35	150	103	2.75	0.16	0.37
LN4034464_A003	J-HY4022775	WJ20173	50.98	150	103	2.75	0.16	0.37
LN4034485	WJ20154	WJ4019741	295.91	150	103	-2.72	0.15	0.37
LN4034504	WJ4013548	WJ4019746	286.28	150	103	-2.86	0.16	0.40
LN4034598	WJ4019775	WJ52044	236.23	150	103	3.31	0.19	0.53
LN4034704	WJ4019815	WJ4016614	240.54	150	103	-0.97	0.05	0.05
LN4034841	WJ4017733	WJ60926	90.74	150	103	1.90	0.11	0.19
LN4035549	WJ4013538	WJ4022803	91.62	250	110	4.91	0.10	0.08
LN4035914_A001	WJ4017212	J-HY4019591	33.28	300	132	4.82	0.07	0.02
LN4035914_A002	J-HY4019591	WJ4020722	79.72	300	132	4.82	0.07	0.02
LN4035915_A001	WJ4020722	J-HY16261	112.96	300	132	-0.17	0.00	0.00
LN4035915_A002	J-HY16261	J-HY4017085	120.75	300	132	-0.17	0.00	0.00
LN4035915_A003	J-HY4017085	WJ4017209	22.50	300	132	-0.17	0.00	0.00
LN4035936	WJ53118	WJ4020741	19.30	150	114	-1.12	0.06	0.06
LN4035937_A001	WJ4020741	J-HY4018649	53.12	150	114	-2.34	0.13	0.23
LN4035937_A002	J-HY4018649	WJ58533	54.72	150	114	-2.34	0.13	0.23
LN4036287	WJ58461	WJ4021076	7.85	400	129	-19.88	0.16	0.08
LN4037293_A001	WJ4019626	J-HY4019478	8.22	300	132	8.33	0.12	0.06
LN4037293_A002	J-HY4019478	WJ4012588	87.33	300	132	8.33	0.12	0.06
LN4037479	WJ4022803	WJ4018053	26.28	400	129	25.78	0.21	0.13
LN4039451_A006	WV4011740	WV50459	57.62	900	130	-434.32	0.68	0.46
LN4039451_A007	WV50459	WJ53112	4.08	900	130	-434.32	0.68	0.46
LN4041184	WJ4019335	WJ4019334	20.13	100	100	0.03	0.00	0.00
LN4045166_A001	WJ4018001	J-HY4035405	24.52	300	132	-5.74	0.08	0.03
LN4045166_A002	J-HY4035405	WJ4037579	11.49	300	132	-5.74	0.08	0.03
LN4045167	WJ4037579	WJ4018002	50.43	300	132	-8.28	0.12	0.06
LN4045171	WJ4037579	WJ4037574	18.00	200	115	2.54	0.08	0.06
LN4045172	WJ4037574	WJ4037577	1.00	200	115	2.54	0.08	0.07
LN4045173	WJ4037574	WJ4037578	2.60	100	100	0.00	0.00	0.00
LN4045192	WJ4018001	WJ4037625	44.99	300	132	4.95	0.07	0.02
LN4045195	WJ4037618	WJ4037619	1.40	100	100	0.00	0.00	0.00
LN4045196	WJ4037618	WJ4037620	1.00	200	115	0.00	0.00	0.00
LN4045197	WJ4037625	WJ4037618	16.20	200	115	0.00	0.00	0.00
LN4045215	WJ4037660	WJ4037662	2.80	100	100	1.00	0.13	0.43
LN4045216	WJ4037660	WJ4037661	1.20	200	115	0.00	0.00	0.00
LN4045219_A001	WJ4037625	J-HY4035466	31.01	300	132	4.95	0.07	0.02
LN4045219_A002	J-HY4035466	WJ4037669	1.79	300	132	4.95	0.07	0.02
LN4045224	WJ4037669	WJ4037660	15.80	200	115	1.00	0.03	0.01
LN4045284	WJ4037669	WJ4037800	49.93	300	132	3.95	0.06	0.02
LN4045289	WJ4037800	WJ4037793	4.00	200	115	0.00	0.00	0.00
LN4045290	WJ4037793	WJ4037794	1.00	200	115	0.00	0.00	0.00
LN4045291	WJ4037786	WJ4037800	15.80	200	115	-1.02	0.03	0.01
LN4045292	WJ4037787	WJ4037786	1.20	200	115	0.00	0.00	0.00
LN4045293	WJ4037793	WJ4037795	2.60	100	100	0.00	0.00	0.00
LN4045294	WJ4037786	WJ4037788	2.77	100	100	1.02	0.13	0.45
LN4045308_A001	WJ4037800	J-HY4035661	24.47	300	132	2.93	0.04	0.01
LN4045308_A002	J-HY4035661	J-HY4035718	72.24	300	132	2.93	0.04	0.01
LN4045308_A003	J-HY4035718	WJ4037839	12.13	300	132	2.93	0.04	0.01
LN4045309	WJ4037839	WJ4017928	26.50	300	132	0.12	0.00	0.00
LN4045311	WJ4037836	WJ4037838	2.50	100	100	0.00	0.00	0.00
LN4045312	WJ4037839	WJ4037838	4.00	200	115	1.05	0.03	0.01
LN4045313	WJ4037838	WJ4037834	1.00	200	115	1.05	0.03	0.02
LN4045314	WJ4037839	WJ4037829	15.80	200	115	0.00	0.00	0.00
LN4045315	WJ4037829	WJ4037831	1.20	200	115	0.00	0.00	0.00
LN4045316	WJ4037829	WJ4037830	2.70	100	100	0.00	0.00	0.00
LN4045319	WJ4017928	WJ4037849	26.50	300	132	2.09	0.03	0.00
LN4045321	WJ4037846	WJ4037847	2.70	100	100	0.00	0.00	0.00
LN4045322	WJ4037849	WJ4037846	15.80	200	115	1.66	0.05	0.03
LN4045323	WJ4037846	WJ4037848	1.20	200	115	1.66	0.05	0.03

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4045326	WJ4037849	WJ4037857	19.60	300	132	0.43	0.01	0.00
LN4045327_A001	WJ4037857	J-HY4035760	2.40	300	132	0.43	0.01	0.00
LN4045327_A002	J-HY4035760	J-HY4035746	67.41	300	132	0.43	0.01	0.00
LN4045327_A003	J-HY4035746	WJ4017927	5.00	300	132	0.43	0.01	0.00
LN4045328	WJ4037857	WJ4037854	4.00	200	115	0.00	0.00	0.00
LN4045329	WJ4037854	WJ4037856	1.00	200	115	0.00	0.00	0.00
LN4045330	WJ4037854	WJ4037855	2.48	100	100	0.00	0.00	0.00
LN4045511_A001	WJ4038214	J-HY4037641	37.60	400	129	-5.77	0.05	0.01
LN4045511_A002	J-HY4037641	WJ4017999	38.72	400	129	-5.77	0.05	0.01
LN4045518	WJ4038205	WJ4038206	2.60	100	100	0.00	0.00	0.00
LN4045521	WJ4038214	WJ4038205	4.00	200	115	0.00	0.00	0.00
LN4045522	WJ4038205	WJ4038207	1.00	200	115	0.00	0.00	0.00
LN4045581	WJ4038346	WJ4038214	18.40	400	129	-5.77	0.05	0.01
LN4045585	WJ4018131	WJ4038353	12.72	150	103	-1.68	0.09	0.15
LN4045586_A001	WJ4038353	J-HY4037018	58.66	150	103	-0.49	0.03	0.01
LN4045586_A002	J-HY4037018	J-HY4037006	120.71	150	103	-0.49	0.03	0.01
LN4045586_A003	J-HY4037006	WJ4018072	28.36	150	103	-0.49	0.03	0.01
LN4045589	WJ4038353	WJ4038335	3.82	400	129	0.00	0.00	0.00
LN4045590	WJ4038346	WJ4038353	15.58	400	129	1.22	0.01	0.00
LN4045607	WJ4038388	WJ4038346	15.18	400	129	-4.54	0.04	0.01
LN4045711	WJ4018000	WJ4038595	56.45	300	132	-0.79	0.01	0.00
LN4045712_A001	WJ4038595	J-HY4038255	12.80	300	132	-0.79	0.01	0.00
LN4045712_A002	J-HY4038255	WJ4018001	45.83	300	132	-0.79	0.01	0.00
LN4045713	WJ4038595	WJ4038594	3.60	200	115	0.00	0.00	0.00
LN4045714	WJ4038594	WJ4038592	1.20	200	115	0.00	0.00	0.00
LN4045715	WJ4038594	WJ4038593	2.80	100	100	0.00	0.00	0.00
LN4045732_A001	WJ4017928	J-HY4035780	36.14	300	132	-4.69	0.07	0.02
LN4045732_A002	J-HY4035780	WJ4038628	59.40	300	132	-4.69	0.07	0.02
LN4045733_A001	WJ4038628	J-HY4038518	38.00	300	132	-4.69	0.07	0.02
LN4045733_A002	J-HY4038518	WJ4018000	29.92	300	132	-4.69	0.07	0.02
LN4045735	WJ4038631	WJ4038633	2.80	100	100	0.00	0.00	0.00
LN4045736	WJ4038628	WJ4038631	3.60	200	115	0.00	0.00	0.00
LN4045737	WJ4038631	WJ4038632	1.20	200	115	0.00	0.00	0.00
LN4045764	WJ4018000	WJ4038686	48.20	300	132	-3.90	0.06	0.02
LN4045765_A001	WJ4038686	J-HY4037552	25.89	300	132	-4.68	0.07	0.02
LN4045765_A002	J-HY4037552	WJ4017999	11.00	300	132	-4.68	0.07	0.02
LN4045766	WJ4038686	WJ4038685	14.20	200	115	0.32	0.01	0.00
LN4045767	WJ4038685	WJ4038682	1.20	200	115	0.32	0.01	0.00
LN4045768	WJ4038685	WJ4038681	2.80	100	100	0.00	0.00	0.00
LN4046925	WJ4017794	WJ4040955	24.36	400	129	72.82	0.58	0.89
LN4046927	WJ4010233	WJ4040955	19.15	400	129	-0.03	0.00	0.00
LN4047389	WJ4018451	WJ19276	151.50	600	130	-52.52	0.19	0.07
LN4047390	WJ19276	WJ4021076	247.86	600	130	-78.64	0.28	0.14
LN4047391	WJ28114	WJ19276	168.36	600	130	-26.12	0.09	0.02
LN4047432	WJ19330	WJ4019777	217.33	300	120	-25.54	0.36	0.60
LN4047434_A001	WJ4018542	J-HY13959	80.75	400	129	2.01	0.02	0.00
LN4047434_A002	J-HY13959	WJ19330	24.90	400	129	2.01	0.02	0.00
LN4047435_A001	WJ19330	J-HY13956	77.01	400	129	15.89	0.13	0.05
LN4047435_A002	J-HY13956	WJ51974	19.16	400	129	15.89	0.13	0.05
LN4047439	WJ4021076	WJ19333	187.45	600	130	-98.52	0.35	0.21
LN4047467	WJ19377	WJ4018575	18.88	400	129	13.94	0.11	0.04
LN4047468	WJ4018586	WJ19378	300.21	600	130	-66.13	0.23	0.10
LN4047469	WJ19378	WJ4018532	97.61	600	130	-61.07	0.22	0.09
LN4047470	WJ19377	WJ19378	10.16	400	129	6.83	0.05	0.01
LN4048224	WJ4022803	WJ4013548	9.12	400	129	-20.93	0.17	0.09
LN4048225_A001	WJ4013548	J-HY14497	52.26	400	129	-18.13	0.14	0.07
LN4048225_A002	J-HY14497	WJ20153	42.37	400	129	-18.13	0.14	0.07
LN4048226	WJ20153	WJ20154	4.51	400	129	-20.86	0.17	0.09
LN4048227	WJ20154	WJ20132	84.74	400	129	-18.32	0.15	0.07
LN4048228	WJ20132	WJ20173	105.36	300	132	-0.28	0.00	0.00
LN4048229_A001	WJ20173	J-HY14477	50.93	300	132	-0.29	0.00	0.00
LN4048229_A002	J-HY14477	WJ27974	96.66	300	132	-0.29	0.00	0.00
LN4048230_A001	WJ4013756	J-HY14498	31.13	400	129	18.06	0.14	0.07
LN4048230_A002	J-HY14498	J-HY14499	72.65	400	129	18.06	0.14	0.07
LN4048230_A003	J-HY14499	WJ20132	12.09	400	129	18.06	0.14	0.07
LN4049165_A001	WJ58460	J-HY4007618	104.41	150	103	-2.76	0.16	0.37
LN4049165_A002	J-HY4007618	WJ21055	89.07	150	103	-2.76	0.16	0.37
LN4049167_A001	WJ21075	J-HY4007868	96.44	150	103	2.12	0.12	0.23
LN4049167_A002	J-HY4007868	WJ58458	87.49	150	103	2.12	0.12	0.23
LN4049325	WJ21239	WJ4017733	11.22	300	132	3.24	0.05	0.01
LN4049326_A001	WJ4017083	J-HY14643	8.65	300	132	0.96	0.01	0.00
LN4049326_A002	J-HY14643	J-HY14641	82.80	300	132	0.96	0.01	0.00
LN4049326_A003	J-HY14641	WJ21278	6.59	300	132	0.96	0.01	0.00
LN4049345	WJ21258	WJ21239	40.35	300	132	0.49	0.01	0.00
LN4049347_A001	WJ21278	J-HY14642	63.02	300	132	0.60	0.01	0.00
LN4049347_A002	J-HY14642	WJ21258	24.09	300	132	0.60	0.01	0.00

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4050315_A001	WJ51978	J-HY4007487	31.80	300	132	24.78	0.35	0.47
LN4050315_A002	J-HY4007487	WJ4017778	38.10	300	132	24.78	0.35	0.47
LN4050551	WJ4019630	WJ22621	2.21	400	129	-27.46	0.22	0.14
LN4050571_A001	WJ58543	J-HY4018339	45.44	300	132	14.73	0.21	0.18
LN4050571_A002	J-HY4018339	J-HY4018331	129.07	300	132	14.73	0.21	0.18
LN4050571_A003	J-HY4018331	WJ53115	61.23	300	132	14.73	0.21	0.18
LN52224_A001	WJ51980	J-HY4015150	12.93	400	129	-6.34	0.05	0.01
LN52224_A002	J-HY4015150	J-HY9990172	87.47	400	129	-6.34	0.05	0.01
LN52224_A003	J-HY9990172	WJ24304	25.73	400	129	-6.34	0.05	0.01
LN52226_A001	WJ51978	J-HY30049	52.46	400	129	-7.29	0.06	0.01
LN52226_A002	J-HY30049	WJ51979	48.26	400	129	-7.29	0.06	0.01
LN52227_A001	WJ51977	J-HY9990176	35.94	400	129	14.37	0.11	0.04
LN52227_A002	J-HY9990176	J-HY9990175	78.44	400	129	14.37	0.11	0.04
LN52227_A003	J-HY9990175	J-HY9990174	123.63	400	129	14.37	0.11	0.04
LN52227_A004	J-HY9990174	WJ51978	26.30	400	129	14.37	0.11	0.04
LN52228_A001	WJ51976	J-HY4007497	4.06	400	129	17.94	0.14	0.06
LN52228_A002	J-HY4007497	WJ51977	27.80	400	129	17.94	0.14	0.07
LN52229	WJ51975	WJ51976	41.59	400	129	14.99	0.12	0.05
LN52230	WJ51987	WJ51980	8.84	150	114	-1.89	0.11	0.15
LN52231	WJ51980	WJ51990	19.83	150	114	-2.57	0.15	0.27
LN52235	WJ4013455	WJ51987	114.45	150	103	-1.87	0.11	0.18
LN52236_A001	WJ51979	J-HY9990161	11.79	400	129	-7.01	0.06	0.01
LN52236_A002	J-HY9990161	J-HY9990160	65.23	400	129	-7.01	0.06	0.01
LN52236_A003	J-HY9990160	WJ51980	24.31	400	129	-7.01	0.06	0.01
LN52239	WJ51996	WJ51979	7.99	150	114	-2.33	0.13	0.23
LN52240	WJ51979	WJ51998	18.88	150	114	-2.61	0.15	0.28
LN52248_A001	WJ4013433	J-HY4015319	24.25	150	103	-2.31	0.13	0.27
LN52248_A002	J-HY4015319	WJ51996	41.40	150	103	-2.31	0.13	0.27
LN52254	WJ22361	WJ51978	34.01	300	132	3.16	0.04	0.01
LN52262	WJ51974	WJ51975	21.67	400	129	15.89	0.13	0.05
LN52266	WJ51975	WJ52037	13.52	200	115	0.90	0.03	0.01
LN52268	WJ52044	WJ51976	25.05	150	114	2.94	0.17	0.35
LN52281	WJ52054	WJ51977	15.95	300	132	-3.55	0.05	0.01
LN52282_A001	WJ52055	J-HY30564	32.53	150	114	-3.55	0.20	0.50
LN52282_A002	J-HY30564	WJ52054	9.10	150	114	-3.55	0.20	0.50
LN52448_A001	WJ58572	J-HY4018111	5.11	400	129	28.48	0.23	0.16
LN52448_A002	J-HY4018111	WJ52073	1.57	400	129	28.48	0.23	0.15
LN52449	WJ52073	WJ52087	6.97	400	129	8.99	0.07	0.02
LN52450	WJ52248	WJ52091	10.79	300	132	12.75	0.18	0.14
LN52451	WJ52073	WJ52247	2.14	300	132	19.48	0.28	0.30
LN52452	WJ52249	WJ52093	3.13	400	129	-14.33	0.11	0.04
LN52458_A001	WJ52247	J-HY4018126	97.57	300	132	19.45	0.28	0.30
LN52458_A002	J-HY4018126	J-HY4018128	101.24	300	132	19.45	0.28	0.30
LN52458_A003	J-HY4018128	WJ52248	49.09	300	132	19.45	0.28	0.30
LN52459	WJ52249	WJ52251	199.28	300	132	21.02	0.30	0.35
LN52460	WJ52248	WJ52249	4.43	300	132	6.70	0.09	0.04
LN53196	WJ53041	WJ53042	15.39	150	114	-0.05	0.00	0.00
LN53197_A001	WJ53046	J-HY4033222	11.41	300	132	-1.53	0.02	0.00
LN53197_A002	J-HY4033222	WJ53042	18.73	300	132	-1.53	0.02	0.00
LN53222_A001	WJ53042	J-HY30627	83.79	300	132	-1.60	0.02	0.00
LN53222_A002	J-HY30627	J-HY30626	111.53	300	132	-1.60	0.02	0.00
LN53222_A003	J-HY30626	WJ53038	5.09	300	132	-1.60	0.02	0.00
LN53249_A001	WJ53112	WV4011591	9.33	900	130	-362.92	0.57	0.33
LN53249_A002	WV4011591	WV4011587	97.88	900	130	-362.92	0.57	0.33
LN53249_A003	WV4011587	WV4011579	101.87	900	130	-362.92	0.57	0.33
LN53249_A004	WV4011579	WV4011570	9.09	900	130	-362.92	0.57	0.33
LN53249_A005	WV4011570	WV4011554	4.25	900	130	-362.92	0.57	0.33
LN53249_A006	WV4011554	WV4011544	4.75	900	130	-362.92	0.57	0.33
LN53249_A007	WV4011544	WJ4012402	3.54	900	130	-362.92	0.57	0.33
LN53250	WJ53112	WJ53113	1.95	900	130	-71.40	0.11	0.02
LN53251_A001	WJ53113	WV50450	13.85	600	130	-71.40	0.25	0.12
LN53251_A002	WV50450	WJ53121	6.27	600	130	-71.40	0.25	0.12
LN53252	WJ53115	WJ22621	41.17	300	132	20.12	0.28	0.32
LN53253	WJ53116	WJ53117	2.78	150	103	7.00	0.40	2.10
LN53254_A001	WJ53117	J-HY4018442	90.03	150	103	1.59	0.09	0.13
LN53254_A002	J-HY4018442	WJ4019628	23.51	150	103	1.59	0.09	0.14
LN53255_A001	WJ53115	J-HY30660	22.13	300	132	-5.39	0.08	0.03
LN53255_A002	J-HY30660	J-HY33192	92.38	300	132	-5.39	0.08	0.03
LN53255_A003	J-HY33192	WJ53117	14.21	300	132	-5.39	0.08	0.03
LN53256	WJ4018588	WJ53118	2.38	150	114	5.22	0.30	1.01
LN53257	WJ53116	WJ53118	143.23	300	132	-6.34	0.09	0.04
LN53258	WJ53121	WJ53114	376.56	600	130	-65.07	0.23	0.10
LN53260_A001	WJ52093	J-HY4022846	28.97	400	129	-14.33	0.11	0.04
LN53260_A002	J-HY4022846	WJ53122	0.89	400	129	-14.33	0.11	0.04
LN53261	WJ53122	WJ53121	18.18	400	129	7.35	0.06	0.01
LN54413_A001	WJ54278	J-HY4035127	47.82	300	132	1.50	0.02	0.00

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN54413_A002	J-HY4035127	J-HY4035144	45.32	300	132	1.50	0.02	0.00
LN54413_A003	J-HY4035144	J-HY4035139	57.97	300	132	1.50	0.02	0.00
LN54413_A004	J-HY4035139	WJ4017927	76.12	300	132	1.50	0.02	0.00
LN54422_A002	WV60507	J-HY4035108	175.49	150	114	0.00	0.00	0.00
LN54422_A003	J-HY4035108	WJ54277	69.57	150	114	0.00	0.00	0.00
LN54423	WJ54277	WJ4038388	45.34	300	132	-4.53	0.06	0.02
LN54424_A001	WJ54278	J-HY16723	69.63	300	132	-4.17	0.06	0.02
LN54424_A002	J-HY16723	J-HY16722	80.88	300	132	-4.17	0.06	0.02
LN54424_A003	J-HY16722	WJ54277	14.06	300	132	-4.17	0.06	0.02
LN54425_A001	WJ54290	J-HY9990263	63.96	300	132	-1.09	0.02	0.00
LN54425_A002	J-HY9990263	WJ54278	24.58	300	132	-1.09	0.02	0.00
LN54593	WJ54459	WJ54444	221.20	150	114	-1.48	0.08	0.10
LN54594	WJ54444	WJ4018533	14.07	300	132	-1.51	0.02	0.00
LN54715_A001	WJ58521	J-HY16138	31.08	300	132	5.54	0.08	0.03
LN54715_A002	J-HY16138	WJ16170	72.45	300	132	5.54	0.08	0.03
LN57409	WJ57354	WJ4009674	82.98	400	129	-66.61	0.53	0.76
LN57420_A001	WJ57354	J-HY16102	85.21	150	114	0.07	0.00	0.00
LN57420_A002	J-HY16102	WJ57355	0.10	150	114	0.07	0.00	0.00
LN57962_A001	WJ57906	J-HY31330	0.42	300	132	-0.85	0.01	0.00
LN57962_A002	J-HY31330	WJ57907	58.97	300	132	-0.85	0.01	0.00
LN57963	WJ57907	WJ53038	15.00	300	132	6.24	0.09	0.04
LN57964	WJ57907	WJ18034	16.53	300	132	-7.09	0.10	0.05
LN58137_A001	WJ58108	WV55772	5.98	300	132	-10.98	0.16	0.11
LN58137_A002	WV55772	WJ58109	22.73	300	132	-10.98	0.16	0.10
LN58150	WJ4015943	WJ19330	69.68	300	120	-10.15	0.14	0.11
LN58158(1)	WJ58109	J-HY4007525	57.23	300	120	-11.05	0.16	0.13
LN58158(2)	J-HY4007525	WJ4015943	63.21	300	120	-11.05	0.16	0.13
LN58457	WJ4017087	WJ58490	5.23	150	103	1.08	0.06	0.06
LN58473	WJ58545	WJ58543	16.96	300	132	19.46	0.28	0.30
LN58507_A001	WJ28014	J-HY4008126	48.71	300	132	0.80	0.01	0.00
LN58507_A002	J-HY4008126	WJ58595	24.49	300	132	0.80	0.01	0.00
LN58508	WJ58458	WJ58595	10.96	150	114	2.05	0.12	0.18
LN58509_A001	WJ58595	J-HY31487	24.32	300	132	-0.02	0.00	0.00
LN58509_A002	J-HY31487	J-HY4008128	40.25	300	132	-0.02	0.00	0.00
LN58509_A003	J-HY4008128	WJ58462	26.91	300	132	-0.02	0.00	0.00
LN58510	WJ58460	WJ58462	10.51	150	114	2.68	0.15	0.29
LN58511	WJ58462	WJ58464	14.33	300	132	2.51	0.04	0.01
LN58512	WJ58461	WJ58464	6.93	400	129	19.88	0.16	0.08
LN58513	WJ58464	WJ58611	14.46	300	132	22.39	0.32	0.39
LN58514	WJ58611	WJ58473	33.39	150	114	1.76	0.10	0.13
LN58515_A001	WJ58611	J-HY4032566	25.98	300	132	20.63	0.29	0.34
LN58515_A002	J-HY4032566	WJ58601	36.69	300	132	20.63	0.29	0.34
LN58516	WJ58602	WJ58601	8.10	150	114	0.00	0.00	0.00
LN58517_A001	WJ58601	J-HY4034050	22.33	300	132	20.29	0.29	0.33
LN58517_A002	J-HY4034050	WJ58475	22.02	300	132	20.29	0.29	0.33
LN58518	WJ58475	WJ58476	7.90	300	132	6.71	0.09	0.04
LN58519_A001	WJ58475	J-HY4034038	28.54	300	132	11.38	0.16	0.11
LN58519_A002	J-HY4034038	J-HY4032578	60.82	300	132	11.38	0.16	0.11
LN58519_A003	J-HY4032578	J-HY4032558	25.67	300	132	11.38	0.16	0.11
LN58519_A004	J-HY4032558	WJ58480	38.23	300	132	11.38	0.16	0.11
LN58520	WJ58479	WJ58480	4.52	300	132	-2.01	0.03	0.00
LN58524_A001	WJ58480	J-HY17891	60.12	300	132	5.13	0.07	0.03
LN58524_A002	J-HY17891	WJ58482	37.00	300	132	5.13	0.07	0.03
LN58525	WJ58481	WJ58482	7.04	300	132	8.54	0.12	0.07
LN58526	WJ58482	WJ58614	4.48	300	132	13.67	0.19	0.16
LN58527	WJ58614	WJ58486	6.25	300	132	2.81	0.04	0.01
LN58528_A001	WJ58614	J-HY4032554	85.08	300	132	10.86	0.15	0.10
LN58528_A002	J-HY4032554	WJ58603	15.76	300	132	10.86	0.15	0.10
LN58529	WJ58603	WJ58488	5.71	250	115	3.42	0.07	0.04
LN58530	WJ58603	WJ58604	36.95	300	132	7.18	0.10	0.05
LN58531	WJ58605	WJ58604	2.40	150	114	0.00	0.00	0.00
LN58532_A001	WJ58604	J-HY4032548	33.26	300	132	7.18	0.10	0.05
LN58532_A002	J-HY4032548	WJ58608	126.23	300	132	7.18	0.10	0.05
LN58533	WJ58496	WJ58498	4.23	300	132	-17.68	0.25	0.26
LN58534	WJ58500	WJ58499	3.21	400	129	4.63	0.04	0.01
LN58535_A001	WJ58496	J-HY4032525	21.31	300	132	11.41	0.16	0.11
LN58535_A002	J-HY4032525	WJ58502	78.43	300	132	11.41	0.16	0.11
LN58536	WJ58501	WJ58502	5.39	300	132	-6.26	0.09	0.04
LN58537	WJ58502	WJ58505	6.69	300	132	3.49	0.05	0.01
LN58538	WJ58505	WJ58504	10.92	300	132	-10.98	0.16	0.11
LN58539_A001	WJ58505	J-HY4032503	9.90	300	132	14.45	0.20	0.17
LN58539_A002	J-HY4032503	WJ58509	80.94	300	132	14.45	0.20	0.17
LN58540	WJ58509	WJ58510	5.35	300	132	4.39	0.06	0.02
LN58541_A001	WJ58509	J-HY4032493	14.51	300	132	10.02	0.14	0.09
LN58541_A002	J-HY4032493	J-HY31488	66.13	300	132	10.02	0.14	0.09
LN58541_A003	J-HY31488	WJ58512	34.24	300	132	10.02	0.14	0.09

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN58542	WJ58512	WJ58513	7.24	150	114	-0.76	0.04	0.03
LN58543	WJ58512	WJ58516	31.63	300	132	10.77	0.15	0.10
LN58544	WJ58517	WJ58516	6.53	300	132	-2.70	0.04	0.01
LN58545_A001	WJ58516	J-HY4032454	76.37	300	132	8.05	0.11	0.06
LN58545_A002	J-HY4032454	WJ58519	6.11	300	132	8.05	0.11	0.06
LN58546	WJ58519	WJ58521	6.49	300	132	5.80	0.08	0.03
LN58547	WJ58519	WJ58522	93.07	300	132	1.73	0.02	0.00
LN58548	WJ58522	WJ58523	9.58	400	129	20.83	0.17	0.09
LN58549	WJ58526	WJ58522	5.60	400	129	25.30	0.20	0.13
LN58550_A001	WJ58522	J-HY31490	72.43	300	132	6.07	0.09	0.03
LN58550_A002	J-HY31490	J-HY4019204	16.93	300	132	6.07	0.09	0.03
LN58550_A003	J-HY4019204	WJ58527	65.66	300	132	6.07	0.09	0.03
LN58551	WJ58527	WJ58528	12.20	150	114	-2.58	0.15	0.27
LN58552_A001	WJ58527	J-HY4017635	49.14	300	132	4.61	0.07	0.02
LN58552_A002	J-HY4017635	J-HY31491	27.02	300	132	4.61	0.07	0.02
LN58552_A003	J-HY31491	J-HY4017600	42.38	300	132	4.61	0.07	0.02
LN58552_A004	J-HY4017600	WJ58530	43.74	300	132	4.61	0.07	0.02
LN58553	WJ58532	WJ58530	6.51	300	132	-3.60	0.05	0.01
LN58554	WJ58530	WJ58537	43.71	300	132	0.16	0.00	0.00
LN58555	WJ58539	WJ58537	12.50	150	114	0.00	0.00	0.00
LN58556_A001	WJ58537	J-HY4017594	60.54	300	132	0.16	0.00	0.00
LN58556_A002	J-HY4017594	WJ58610	46.26	300	132	0.16	0.00	0.00
LN58557	WJ58610	WJ58541	25.17	150	114	2.70	0.15	0.30
LN58558	WJ58541	WJ58540	7.21	150	114	1.94	0.11	0.16
LN58559_A001	WJ58610	J-HY4017589	27.60	300	132	-2.54	0.04	0.01
LN58559_A002	J-HY4017589	WJ58544	62.97	300	132	-2.54	0.04	0.01
LN58560	WJ58544	WJ58545	9.45	300	132	19.46	0.28	0.30
LN58561	WJ58544	WJ58547	7.16	300	132	-22.00	0.31	0.38
LN58562_A001	WJ58548	J-HY4017572	1.11	300	132	14.36	0.20	0.17
LN58562_A002	J-HY4017572	WJ58547	11.99	300	132	14.36	0.20	0.17
LN58563_A001	WJ58547	J-HY4017558	78.96	300	132	-7.73	0.11	0.05
LN58563_A002	J-HY4017558	WJ58574	34.83	300	132	-7.73	0.11	0.05
LN58564	WJ58577	WJ58575	4.68	300	132	23.25	0.33	0.42
LN58565	WJ58576	WJ58575	7.41	400	129	31.53	0.25	0.19
LN58566	WJ58575	WJ58574	2.57	400	129	54.78	0.44	0.53
LN58567	WJ58574	WJ58573	22.68	400	129	31.76	0.25	0.19
LN58568	WJ58580	WJ58574	11.18	250	115	-15.10	0.31	0.59
LN58569	WJ58573	WJ58572	12.14	400	129	28.48	0.23	0.16
LN58570	WJ58581	WJ58573	5.40	150	114	-3.28	0.19	0.43
LN58571_A001	WJ58490	J-HY4032536	0.83	250	115	1.08	0.02	0.00
LN58571_A002	J-HY4032536	WJ58609	46.62	250	115	1.08	0.02	0.00
LN58572	WJ58609	WJ58608	3.93	300	132	1.08	0.02	0.00
LN58573	WJ58608	WJ58499	45.37	300	132	7.24	0.10	0.05
LN58574	WJ58533	WJ58535	2.73	300	132	-3.60	0.05	0.01
LN58575_A001	WJ58533	J-HY31492	76.13	150	114	-0.44	0.02	0.01
LN58575_A002	J-HY31492	WJ58541	70.09	150	114	-0.44	0.02	0.01
LN58576_A001	WJ58541	J-HY16154	60.76	150	114	-0.17	0.01	0.00
LN58576_A002	J-HY16154	WJ58543	29.21	150	114	-0.17	0.01	0.00
LN60622	WJ60783	WJ4017087	4.00	150	103	0.00	0.00	0.00
LN60719_A001	WJ4018460	J-HY4033475	138.44	300	132	2.61	0.04	0.01
LN60719_A002	J-HY4033475	WJ60862	22.46	300	132	2.61	0.04	0.01
LN60720	WJ4016719	WJ60862	1.79	250	115	3.42	0.07	0.03
LN4024971	WJ4017775	WJ4017736	222.58	150	103	-0.72	0.04	0.03
LN4024984	WJ4017587	WJ4017590	101.60	150	103	-0.04	0.00	0.00
LN4024990	WJ4009617	WJ4017590	71.45	150	103	-0.03	0.00	0.00
LN4024991	WJ4017159	WJ4017755	100.97	300	120	2.86	0.04	0.01
LN4024999	WJ4017159	WJ4015480	312.45	150	103	0.11	0.01	0.00
LN4025000	WJ49239	WJ4009615	73.19	150	103	0.04	0.00	0.00
LN4025002	WJ4016842	WJ4017755	204.62	150	103	-3.94	0.22	0.73
LN4025008	WJ4017750	WJ4017159	109.06	300	120	3.14	0.04	0.01
LN4025015	WJ4017748	WJ4017750	153.06	300	120	4.66	0.07	0.03
LN4025022	WJ4017742	WJ4017748	102.90	300	120	4.28	0.06	0.02
LN4025024	WJ4017742	WJ4015789	252.61	150	103	3.61	0.20	0.62
LN4025033	WJ4015851	WJ4017750	111.56	150	103	-4.96	0.28	1.11
LN4025077	WJ4017793	WJ4016842	203.33	150	103	-3.77	0.21	0.67
LN4025081	WJ4015882	WJ4017793	107.62	150	103	-0.05	0.00	0.00
LN4025128	WJ4015789	WJ4015780	341.26	150	103	3.69	0.21	0.64
LN4025138	WJ4016341	WJ22344	103.70	150	103	-0.02	0.00	0.00
LN4025171	WJ4015780	WJ4016359	202.30	150	103	3.67	0.21	0.64
LN4025199	WJ4009602	WJ49244	39.91	150	103	-0.03	0.00	0.00
LN4025284_A001	WJ58526	J-HY4007488	9.08	400	129	-25.32	0.20	0.12
LN4025284_A002	J-HY4007488	WJ4017778	74.64	400	129	-25.32	0.20	0.13
LN4025291_A001	WJ4015621	J-HY4008124	86.00	400	129	0.69	0.01	0.00
LN4025291_A002	J-HY4008124	WJ4017778	118.08	400	129	0.69	0.01	0.00
LN4025294_A001	WJ4015621	J-HY4007498	48.68	150	103	-2.01	0.11	0.21
LN4025294_A002	J-HY4007498	WJ52055	64.81	150	103	-2.01	0.11	0.21

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4025297_A001	WJ58513	J-HY4007499	2.91	150	103	-0.76	0.04	0.03
LN4025297_A002	J-HY4007499	WJ4015621	77.67	150	103	-0.76	0.04	0.03
LN4025309	WJ58504	WJ58108	41.91	300	120	-10.98	0.16	0.12
LN4025311_A001	WJ58498	J-HY4007537	131.24	400	129	-19.14	0.15	0.08
LN4025311_A002	J-HY4007537	J-HY4007535	116.27	400	129	-19.14	0.15	0.08
LN4025311_A003	J-HY4007535	WJ4018542	16.26	400	129	-19.14	0.15	0.08
LN4025318_A001	WJ4016359	J-HY4008122	80.27	400	129	-18.74	0.15	0.07
LN4025318_A002	J-HY4008122	WJ4016358	186.70	400	129	-18.74	0.15	0.07
LN4025326_A001	WJ26555	J-HY4007539	30.19	300	120	-8.80	0.12	0.08
LN4025326_A002	J-HY4007539	WJ4016358	65.38	300	120	-8.80	0.12	0.08
LN4025332	WJ4016402	WJ4017742	466.38	300	120	4.48	0.06	0.02
LN4025333	WJ4016398	WJ4016402	35.75	300	120	2.09	0.03	0.01
LN4025395	WJ4016393	WJ4016398	90.38	300	120	5.37	0.08	0.03
LN4025407	WJ4016389	WJ4016393	100.78	300	120	8.68	0.12	0.08
LN4025412	WJ4016388	WJ4016389	93.19	300	120	11.98	0.17	0.15
LN4025419	WJ4014260	WJ4016388	95.89	300	120	15.76	0.22	0.24
LN4025422	WJ4016532	WJ4016398	186.56	150	103	-3.19	0.18	0.49
LN4025464	WJ4016534	WJ4016532	203.39	150	103	-3.41	0.19	0.55
LN4025528	WJ4016519	WJ4016534	202.80	150	103	-2.90	0.16	0.41
LN4025611	WJ4016358	WJ4016357	325.06	400	129	-32.33	0.26	0.20
LN4025705	WJ4017702	WJ4010581	91.30	300	120	-10.95	0.15	0.12
LN4025719	WJ4016597	WJ4016689	129.63	150	103	3.60	0.20	0.61
LN4025732	WJ55162	WJ4016689	188.96	150	103	-2.90	0.16	0.41
LN4025759	WJ55171	WJ4015383	191.20	300	120	-31.14	0.44	0.86
LN4025760	WJ4015331	WJ55170	88.16	300	120	-32.91	0.47	0.95
LN4025764	WJ4015383	WJ4015345	367.29	150	103	3.14	0.18	0.48
LN4025769	WJ53495	WJ4015331	104.59	300	120	-29.30	0.41	0.77
LN4025771	WJ4015324	WJ4015331	102.32	150	103	-3.51	0.20	0.59
LN4025778	WJ4016685	WJ53524	201.18	150	103	4.24	0.24	0.83
LN4025805	WJ4015497	WJ53523	112.59	150	103	-3.76	0.21	0.67
LN4025808	WJ4015499	WJ4015497	196.42	150	114	-0.07	0.00	0.00
LN4025813	WJ4017759	WJ4015497	98.21	150	103	-3.62	0.20	0.62
LN4025824	WJ4016826	WJ4017759	256.47	150	103	-3.17	0.18	0.48
LN4025828	WJ4017755	WJ4016826	128.97	150	103	-4.51	0.26	0.93
LN4025858	WJ4015324	WJ4015317	341.04	150	103	3.37	0.19	0.54
LN4025866	WJ4010597	WJ4010583	97.94	300	120	10.37	0.15	0.11
LN4025874	WJ4015317	WJ4017742	400.52	150	103	3.63	0.21	0.62
LN4025886	WJ4017178	WJ4014458	95.49	150	103	0.00	0.00	0.00
LN4025896_A001	WJ4020278	J-HY4006498	198.51	150	103	3.78	0.21	0.67
LN4025896_A002	J-HY4006498	WJ4017178	151.14	150	103	3.78	0.21	0.67
LN4025904	WJ4009686	WJ4009359	102.30	300	120	-28.15	0.40	0.71
LN4025907	WJ4014481	WJ21298	152.37	150	103	-3.58	0.20	0.61
LN4025909	WJ4014490	WJ4014481	52.68	150	103	-2.03	0.12	0.21
LN4025910	WJ4014496	WJ4014490	103.98	150	103	-0.04	0.00	0.00
LN4025918	WJ4009700	WJ4009686	205.65	150	114	3.57	0.20	0.50
LN4025919	WJ4015007	WJ4014490	166.96	150	103	-1.92	0.11	0.19
LN4025924	WJ4015272	WJ4015293	147.84	150	103	0.05	0.00	0.00
LN4025927	WJ4015272	WJ4017220	36.41	150	103	0.01	0.00	0.00
LN4025934	WJ4020265	WJ4015272	66.56	150	103	0.12	0.01	0.00
LN4025939	WJ4014985	WJ4015305	183.05	150	103	0.07	0.00	0.00
LN4025940	WJ4016402	WJ4014985	120.24	150	103	-2.78	0.16	0.38
LN4025942	WJ4014606	WJ4014985	132.72	150	103	2.93	0.17	0.42
LN4025950	WJ4014606	WJ4015007	214.73	150	103	-3.02	0.17	0.44
LN4025954	WJ4009686	WJ4009674	96.77	300	120	31.64	0.45	0.88
LN4025955	WJ4014580	WJ49072	22.67	150	103	0.00	0.00	0.00
LN4025956	WJ4014588	WJ4014580	74.44	150	103	-0.02	0.00	0.00
LN4025958	WJ4020267	WJ4014580	120.13	150	103	0.07	0.00	0.00
LN4025974_A001	WJ4009713	J-HY4019665	106.06	150	103	0.00	0.00	0.00
LN4025974_A002	J-HY4019665	WJ4009814	98.70	150	103	0.00	0.00	0.00
LN4025992	WJ4009709	WJ4017585	87.62	150	103	-2.08	0.12	0.22
LN4025996_A001	WJ4009713	J-HY4019778	57.01	400	129	-35.16	0.28	0.23
LN4025996_A002	J-HY4019778	WJ4009709	51.13	400	129	-35.16	0.28	0.23
LN4026006	WJ4017695	WJ4012259	110.15	150	103	2.24	0.13	0.26
LN4026008	WJ27916	WJ4017695	90.44	150	103	2.76	0.16	0.37
LN4026038	WJ4017741	WJ27918	101.66	300	120	7.71	0.11	0.06
LN4026054	WJ4009709	WJ4017787	390.68	400	129	-33.12	0.26	0.21
LN4026061	WJ4017774	WJ4008662	92.32	150	103	-0.40	0.02	0.01
LN4026062	WJ4008662	WJ4008661	64.96	150	114	0.06	0.00	0.00
LN4026065	WJ4012257	WJ4012259	439.89	150	103	-1.04	0.06	0.06
LN4026066	WJ4012036	WJ4012257	50.01	150	103	3.13	0.18	0.47
LN4026075	WJ4012031	WJ4012036	59.85	150	103	2.40	0.14	0.29
LN4026076	WJ4017695	WJ4012031	438.11	150	103	0.74	0.04	0.03
LN4026083	WJ52303	WJ4012031	87.32	150	103	1.87	0.11	0.18
LN4026102	WJ4008646	WJ4008642	112.71	150	103	-3.20	0.18	0.49
LN4026107	WJ4008642	WJ4008673	109.14	150	103	0.04	0.00	0.00
LN4026110	WJ52331	WJ4012036	422.19	150	103	0.91	0.05	0.05

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4026121	WJ52334	WJ4017192	16.28	100	100	0.07	0.01	0.00
LN4026124	WJ4017191	WJ52338	176.28	150	103	-0.05	0.00	0.00
LN4026138	WJ4008612	WJ4008642	92.59	150	103	3.27	0.18	0.51
LN4026158	WJ52327	WJ4012072	100.54	150	103	-2.05	0.12	0.22
LN4026160	WJ4008612	WJ4008623	149.08	150	103	-2.21	0.12	0.25
LN4026177	WJ4017740	WJ4017741	118.25	300	120	7.40	0.10	0.06
LN4026179	WJ4008623	WJ4008614	245.78	150	103	1.54	0.09	0.13
LN4026183	WJ4008614	WJ4008612	85.57	150	103	1.09	0.06	0.07
LN4026185	WJ4017734	WJ4017740	116.96	300	120	6.55	0.09	0.05
LN4026186	WJ4016374	WJ4008614	101.37	150	103	-0.36	0.02	0.01
LN4026191	WJ4012268	WJ4017734	109.53	300	120	4.94	0.07	0.03
LN4026195	WJ4011938	WJ4012268	106.30	300	120	4.19	0.06	0.02
LN4026197	WJ51952	WJ4008669	84.21	150	103	-0.31	0.02	0.01
LN4026199	WJ4008669	WJ4009063	120.58	150	103	0.07	0.00	0.00
LN4026203	WJ4008669	WJ4008646	94.48	150	103	-0.46	0.03	0.01
LN4026207	WJ4011936	WJ4011938	97.19	300	120	2.84	0.04	0.01
LN4026209	WJ4011930	WJ4011936	126.82	150	103	-0.04	0.00	0.00
LN4026223	WJ54440	WJ4012266	97.08	300	120	0.00	0.00	0.00
LN4026246	WJ4009830	WJ4009849	41.12	150	103	4.69	0.27	1.00
LN4026262	WJ4016861	WJ4008623	96.27	150	103	3.83	0.22	0.69
LN4026268	WJ4009187	WJ4017629	88.15	150	103	0.05	0.00	0.00
LN4026303	WJ4008507	WJ4009187	121.25	150	103	2.61	0.15	0.34
LN4026310	WJ4008507	WJ4009335	159.35	150	103	1.17	0.07	0.08
LN4026312	WJ4009335	WJ55019	32.59	300	120	-20.32	0.29	0.39
LN4026325	WJ4012074	WJ4012072	99.91	150	103	1.58	0.09	0.13
LN4026332	WJ4012081	WJ4012074	18.48	150	103	2.13	0.12	0.23
LN4026337	WJ4009277	WJ4009335	220.78	300	120	-21.36	0.30	0.43
LN4026350	WJ4017150	WJ4012074	335.91	150	103	-0.40	0.02	0.01
LN4026363	WJ4009358	WJ4009276	306.75	300	120	-28.43	0.40	0.73
LN4026385	WJ4009187	WJ4009276	277.49	150	103	2.47	0.14	0.30
LN4026442	WJ4009359	WJ4009849	204.48	150	103	-2.34	0.13	0.28
LN4026459	WJ4009849	WJ4009700	100.63	150	103	2.28	0.13	0.26
LN4026636	WJ4012185	WJ4012183	218.32	150	103	-0.31	0.02	0.01
LN4026650	WJ4020263	WJ4017198	315.86	150	103	0.14	0.01	0.00
LN4026671	WJ4012185	WJ4011969	103.41	150	103	-1.70	0.10	0.15
LN4026673	WJ4011969	WJ54418	189.04	150	103	-2.28	0.13	0.26
LN4026728	WJ49258	WJ49334	92.28	300	120	13.12	0.19	0.17
LN4026743	WJ55018	WJ49247	108.43	300	120	11.95	0.17	0.15
LN4026756_A001	WJ4012852	J-HY4019230	40.59	250	115	-13.56	0.28	0.48
LN4026756_A002	J-HY4019230	J-HY4017539	130.38	250	115	-13.56	0.28	0.48
LN4026756_A003	J-HY4017539	WJ58580	24.34	250	115	-13.56	0.28	0.48
LN4026759_A001	WJ4017209	J-HY4020280	64.87	150	103	-3.12	0.18	0.47
LN4026759_A002	J-HY4020280	J-HY4017538	85.45	150	103	-3.12	0.18	0.47
LN4026759_A003	J-HY4017538	WJ58581	49.99	150	103	-3.12	0.18	0.47
LN4026770_A001	WJ52087	WV4011524	0.34	400	129	8.99	0.07	0.06
LN4026770_A002	WV4011524	WJ4012402	1.45	400	129	8.99	0.07	0.01
LN4026802	WJ52091	WJ4012562	86.01	300	120	12.75	0.18	0.16
LN4026825_A001	WJ4017210	J-HY4017089	208.58	150	103	-2.66	0.15	0.35
LN4026825_A002	J-HY4017089	WJ4020722	8.50	150	103	-2.66	0.15	0.35
LN4026846	WJ4016861	WJ4017772	166.61	300	120	12.40	0.18	0.16
LN4026850	WJ4017555	WJ4008322	166.16	150	103	-3.30	0.19	0.52
LN4026855	WJ4017555	WJ4017556	144.47	150	103	0.04	0.00	0.00
LN4026858	WJ4017691	WJ4017210	223.08	150	103	-3.58	0.20	0.61
LN4026872_A001	WJ4012385	WV4011347	3.41	600	130	0.00	0.00	0.00
LN4026872_A002	WV4011347	WJ4012384	3.42	600	130	0.00	0.00	0.00
LN4026874	WJ4008322	WJ23509	169.00	150	103	0.64	0.04	0.03
LN4026896	WJ49252	WJ23510	113.75	150	103	-5.10	0.29	1.17
LN4026934	WJ4008263	WJ23506	95.01	150	103	0.01	0.00	0.00
LN4026937	WJ4008263	WJ4008234	101.57	150	103	-3.74	0.21	0.66
LN4026940	WJ4008231	WJ4008234	154.58	150	103	-0.06	0.00	0.00
LN4026945	WJ4008234	WJ4008236	93.07	150	103	-3.87	0.22	0.70
LN4026950	WJ4008236	WJ4017533	88.87	150	103	-5.16	0.29	1.19
LN4026957	WJ4012259	WJ4017691	216.52	150	103	1.10	0.06	0.07
LN4026977	WJ4017533	WJ59194	73.77	300	120	-11.53	0.16	0.14
LN4026992	WJ4008551	WJ4008290	74.78	150	103	-0.04	0.00	0.00
LN4026996	WJ4008290	WJ23505	297.67	150	103	-2.75	0.16	0.37
LN4027000	WJ23507	WJ4008290	283.71	150	103	-2.55	0.14	0.32
LN4027013	WJ4008322	WJ4008256	204.86	150	103	-4.10	0.23	0.78
LN4027016	WJ4008263	WJ4008256	156.57	150	103	3.65	0.21	0.63
LN4027024	WJ4008331	WJ61693	142.39	150	103	0.57	0.03	0.02
LN4027035	WJ4008331	WJ4017546	248.65	150	103	-4.37	0.25	0.88
LN4027037	WJ4017546	WJ4008236	253.75	150	103	-0.74	0.04	0.03
LN4027072	WJ4017546	WJ4008483	152.50	150	103	-3.79	0.21	0.67
LN4027083	WJ4017772	WJ4008331	569.46	150	103	-3.47	0.20	0.57
LN4027136_A001	WJ58523	J-HY4018679	32.90	400	129	20.82	0.17	0.09
LN4027136_A002	J-HY4018679	WJ19377	92.34	400	129	20.82	0.17	0.09

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4027140	WJ52768	WJ4016135	146.68	150	103	0.86	0.05	0.04
LN4027146	WJ53671	WJ49333	72.69	300	120	-11.99	0.17	0.15
LN4027315	WJ4012399	WJ4012398	104.93	150	103	-0.78	0.04	0.04
LN4027362	WJ4016374	WJ51950	185.26	150	103	3.38	0.19	0.55
LN4027368	WJ51948	WJ4017774	244.15	150	103	2.97	0.17	0.43
LN4027374	WJ4017774	WJ4013138	194.63	150	103	3.20	0.18	0.49
LN4027377	WJ4017787	WJ4013138	82.08	150	103	-3.96	0.22	0.73
LN4027383	WJ4013120	WJ4017787	97.16	150	103	-2.58	0.15	0.33
LN4027395_A001	WJ4013116	J-HY4013532	74.22	150	103	-1.67	0.09	0.15
LN4027395_A002	J-HY4013532	WJ4013120	7.64	150	103	-1.67	0.09	0.15
LN4027425	WJ4016582	WJ61457	175.41	300	120	9.50	0.13	0.10
LN4027427	WJ4016583	WJ4016405	155.93	150	103	2.26	0.13	0.26
LN4027430	WJ4016401	WJ4016405	158.42	150	103	-0.06	0.00	0.00
LN4027439	WJ4016587	WJ4016583	103.75	300	120	11.78	0.17	0.14
LN4027445_A001	WJ4013114	J-HY4013800	34.27	150	103	4.42	0.25	0.90
LN4027445_A002	J-HY4013800	WJ4017229	109.32	150	103	4.42	0.25	0.90
LN4027449	WJ4017774	WJ4013271	207.18	150	103	-0.07	0.00	0.00
LN4027450	WJ4013272	WJ4012992	112.68	300	132	23.64	0.33	0.43
LN4027454	WJ4012994	WJ4012992	85.15	300	132	-23.18	0.33	0.42
LN4027461	WJ4016591	WJ4016686	114.91	150	103	2.68	0.15	0.35
LN4027462	WJ4012994	WJ4013138	209.14	150	103	0.97	0.05	0.05
LN4027484	WJ4016686	WJ4016689	99.98	150	103	-0.60	0.03	0.02
LN4027486	WJ4017787	WJ4013001	208.89	400	129	-31.88	0.25	0.19
LN4027496	WJ4016685	WJ4016683	50.61	150	103	-1.16	0.07	0.08
LN4027498	WJ4016683	WJ4016686	206.14	150	103	-3.15	0.18	0.48
LN4027575	WJ4013001	WJ4012997	53.79	300	132	-21.48	0.30	0.36
LN4027578	WJ4013050	WJ4013001	56.98	400	129	-61.52	0.49	0.65
LN4027588_A001	WJ4013049	WV4011135	545.52	900	130	-449.58	0.71	0.49
LN4027588_A002	WV4011135	WV4011139	24.38	900	130	-449.58	0.71	0.49
LN4027588_A003	WV4011139	WV4011148	274.93	900	130	-449.58	0.71	0.49
LN4027588_A004	WV4011148	WJ4018446	38.59	900	130	-449.58	0.71	0.49
LN4027594_A001	WJ24344	J-HY4014234	92.17	150	103	1.03	0.06	0.06
LN4027594_A002	J-HY4014234	WJ4013120	101.15	150	103	1.03	0.06	0.06
LN4027595_A001	WJ4013102	J-HY4014990	29.84	400	129	-41.36	0.33	0.31
LN4027595_A002	J-HY4014990	WJ4013060	30.26	400	129	-41.36	0.33	0.31
LN4027599_A001	WJ4013101	J-HY4014605	40.90	300	132	1.50	0.02	0.00
LN4027599_A002	J-HY4014605	J-HY4014155	119.12	300	132	1.50	0.02	0.00
LN4027599_A003	J-HY4014155	WJ4013116	48.86	300	132	1.50	0.02	0.00
LN4027601_A001	WJ4013109	J-HY4013538	96.15	300	132	-1.35	0.02	0.00
LN4027601_A002	J-HY4013538	WJ4013093	95.99	300	132	-1.35	0.02	0.00
LN4027605	WJ4013049	WJ4013089	323.94	900	130	377.30	0.59	0.36
LN4027607_A001	WJ4013089	WV4011055	1.97	300	120	23.25	0.33	0.50
LN4027607_A002	WV4011055	WJ58577	3.07	300	120	23.25	0.33	0.50
LN4027609_A001	WJ4013093	J-HY4015007	38.20	400	129	31.53	0.25	0.19
LN4027609_A002	J-HY4015007	WJ58576	89.80	400	129	31.53	0.25	0.19
LN4027614	WJ4013337	WJ4013050	168.51	150	103	-0.92	0.05	0.05
LN4027615	WJ4013339	WJ4013337	111.33	150	103	3.42	0.19	0.56
LN4027618	WJ4013339	WJ4012997	166.61	150	103	-0.53	0.03	0.02
LN4027621	WJ4013340	WJ4013339	111.22	150	103	2.98	0.17	0.43
LN4027624	WJ4012992	WJ4013340	169.61	150	103	0.39	0.02	0.01
LN4027626	WJ4013346	WJ4013340	111.39	150	103	2.79	0.16	0.38
LN4027630	WJ4013272	WJ4013346	169.48	150	103	0.90	0.05	0.05
LN4027751	WJ4017758	WJ4016839	100.06	150	103	0.56	0.03	0.02
LN4027778	WJ4017756	WJ4017758	99.86	150	103	0.88	0.05	0.05
LN4027787	WJ4017793	WJ4017756	152.82	150	103	0.24	0.01	0.00
LN4027805	WJ15678	WJ4017759	154.18	150	103	-1.12	0.06	0.07
LN4027821_A001	WJ24366	J-HY4015473	25.58	150	103	2.63	0.15	0.34
LN4027821_A002	J-HY4015473	J-HY4015474	130.80	150	103	2.63	0.15	0.34
LN4027821_A003	J-HY4015474	WJ58539	8.92	150	103	2.63	0.15	0.34
LN4027825_A001	WJ58528	J-HY4015132	5.78	150	103	-2.58	0.15	0.33
LN4027825_A002	J-HY4015132	J-HY4015471	50.22	150	103	-2.58	0.15	0.33
LN4027825_A003	J-HY4015471	WJ4013455	24.16	150	103	-2.58	0.15	0.33
LN4027829	WJ4013455	WJ4013433	43.18	150	103	-0.74	0.04	0.03
LN4027844	WJ4016735	WJ4016730	205.88	150	103	-3.90	0.22	0.71
LN4027850	WJ4016735	WJ4016842	152.23	150	103	-0.06	0.00	0.00
LN4027852	WJ4017756	WJ4016735	203.24	150	103	-3.78	0.21	0.67
LN4027855	WJ4017758	WJ4016803	202.24	150	103	-2.72	0.15	0.36
LN4027864	WJ4010705	WJ4010931	103.96	150	103	1.25	0.07	0.09
LN4027872	WJ4010721	WJ4010705	96.85	150	103	0.30	0.02	0.01
LN4027878	WJ62423	WJ4010721	115.50	150	103	-0.59	0.03	0.02
LN4028040	WJ4020598	WJ4010705	335.02	150	103	1.14	0.06	0.07
LN4028056	WJ4020599	WJ4010721	313.86	150	103	1.81	0.10	0.17
LN4028081	WJ4010917	WJ4010475	358.85	150	103	0.48	0.03	0.01
LN4028113	WJ4016558	WJ4016832	153.41	150	103	3.63	0.21	0.62
LN4028121	WJ4026374	WJ4016558	110.18	150	103	-0.83	0.05	0.04
LN4028161	WJ4016261	WJ4016258	93.31	150	114	-2.48	0.14	0.25

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4028170	WJ4016216	WJ4016211	108.11	150	103	-3.60	0.20	0.62
LN4028179	WJ4016211	WJ4016204	83.35	150	103	-2.79	0.16	0.38
LN4028197	WJ4016258	WJ4016244	194.02	150	103	0.58	0.03	0.02
LN4028204	WJ4016330	WJ4016244	94.78	150	114	-3.51	0.20	0.49
LN4028205	WJ4016330	WJ4016261	194.19	150	114	-1.76	0.10	0.14
LN4028213	WJ55120	WJ4016330	110.68	150	114	-5.20	0.29	1.00
LN4028220	WJ4016342	WJ55122	160.33	150	114	-2.64	0.15	0.29
LN4028224	WJ4016370	WJ4016342	53.62	300	120	11.32	0.16	0.13
LN4028229	WJ4016374	WJ4016370	290.90	150	103	-3.08	0.17	0.46
LN4028237	WJ4010475	WJ4010467	171.06	150	103	0.08	0.00	0.00
LN4028242	WJ4016244	WJ4016216	421.46	150	114	-3.08	0.17	0.38
LN4028257	WJ4016425	WJ4016413	287.63	150	103	0.98	0.06	0.06
LN4028259	WJ4016413	WJ4016425	291.38	150	103	-0.97	0.06	0.05
LN4028268	WJ4016425	WJ53567	85.73	150	103	-2.10	0.12	0.23
LN4028280	WJ4016387	WJ53566	95.45	150	103	-0.06	0.00	0.00
LN4028303	WJ61457	WJ53562	24.59	300	120	9.40	0.13	0.09
LN4028313	WJ4016597	WJ4016605	152.23	300	120	-24.55	0.35	0.55
LN4028317	WJ4016597	WJ4016591	100.18	300	120	20.91	0.30	0.41
LN4028332	WJ38909	WJ4016834	99.19	150	103	0.65	0.04	0.03
LN4028335	WJ4016803	WJ4016834	103.60	150	103	1.89	0.11	0.19
LN4028338	WJ4010236	WJ4010217	379.64	400	129	-16.72	0.13	0.06
LN4028345	WJ4016349	WJ4016861	35.74	300	120	16.25	0.23	0.26
LN4028351	WJ4010410	WJ4010368	189.92	150	103	2.19	0.12	0.25
LN4030476	WJ4006305	WJ4021261	207.96	150	103	1.00	0.06	0.06
LN4030787	WJ4017897	WJ4017888	161.96	300	120	-17.48	0.25	0.29
LN4030798	WJ4001881	WJ4017897	169.31	300	120	7.95	0.11	0.07
LN4030800	WJ4001543	WJ4001881	100.80	300	120	31.57	0.45	0.88
LN4030806	WJ4017905	WJ4017904	42.06	300	120	20.42	0.29	0.39
LN4030807	WJ4001900	WJ4017905	113.52	300	120	19.54	0.28	0.36
LN4030808	WJ4017904	WJ22861	102.34	300	120	-0.03	0.00	0.00
LN4030811	WJ4017907	WJ4017904	71.43	300	120	-20.43	0.29	0.39
LN4030813	WJ4001950	WJ4017907	269.05	150	103	-1.92	0.11	0.19
LN4030818	WJ4017912	WJ4006801	279.43	150	103	-0.52	0.03	0.02
LN4030828	WJ4017916	WJ4017907	243.67	300	120	-18.15	0.26	0.32
LN4030829	WJ4017916	WJ4017912	85.12	150	103	-0.48	0.03	0.01
LN4030830	WJ4017917	WJ4017916	85.19	300	120	-18.19	0.26	0.32
LN4030831	WJ4006585	WJ4017917	63.50	300	120	-12.68	0.18	0.16
LN4030832	WJ4017917	WJ22821	136.04	300	120	5.36	0.08	0.03
LN4030835	WJ4017912	WJ4006814	148.99	150	103	-0.16	0.01	0.00
LN4030927	WJ4017976	WJ4017972	4.53	150	103	-8.96	0.51	3.32
LN4030929	WJ4006925	WJ4017972	71.46	150	103	-5.82	0.33	1.50
LN4030930	WJ4017976	WJ53444	216.11	300	120	8.96	0.13	0.09
LN4030959_A001	WJ4017999	J-HY4037279	86.35	400	129	-10.44	0.08	0.02
LN4030959_A002	J-HY4037279	WJ4018002	28.47	400	129	-10.44	0.08	0.02
LN4030963_A001	WJ4017890	WV4001488	524.98	900	130	252.87	0.40	0.17
LN4030963_A002	WV4001488	WJ4018003	56.37	900	130	252.87	0.40	0.17
LN4030964	WJ4018003	WJ4019556	647.03	900	130	184.55	0.29	0.09
LN4030969_A001	WJ4017965	WV4001258	18.53	400	129	-68.33	0.54	0.79
LN4030969_A002	WV4001258	WJ4018003	1.35	400	129	-68.33	0.54	0.80
LN4031001	WJ4018024	WJ4002150	201.64	150	103	-2.67	0.15	0.35
LN4031010	WJ4002321	WJ4018024	100.05	150	103	4.00	0.23	0.75
LN4031023	WJ4018021	WJ4002512	248.30	300	120	31.07	0.44	0.86
LN4031025	WJ4003830	WJ4002512	506.37	300	120	-26.21	0.37	0.62
LN4031048_A001	WJ4018048	WV4004334	116.17	900	130	626.20	0.98	0.91
LN4031048_A002	WV4004334	WJ4004914	153.17	900	130	626.20	0.98	0.91
LN4031057	WJ4015051	WJ4018054	10.51	150	103	-0.69	0.04	0.03
LN4031058	WJ4018054	WJ4018049	12.38	150	103	0.03	0.00	0.00
LN4031060_A001	WJ4018053	J-HY4036973	26.26	400	129	25.06	0.20	0.12
LN4031060_A002	J-HY4036973	WJ4018002	72.40	400	129	25.06	0.20	0.12
LN4031061	WJ4018055	WJ56691	4.35	300	120	0.00	0.00	0.00
LN4031062_A001	WJ4018048	WV4004332	1.59	400	129	0.00	0.00	0.00
LN4031062_A002	WV4004332	WJ4018055	3.52	400	129	0.00	0.00	0.00
LN4031064	WJ4018057	WJ4018054	3.84	150	103	0.72	0.04	0.03
LN4031065	WJ4018053	WJ4018057	1.50	400	129	0.72	0.01	0.00
LN4031079_A001	WJ4010424	WV4011132	33.89	900	130	488.47	0.77	0.57
LN4031079_A002	WV4011132	WV4011015	154.51	900	130	488.47	0.77	0.57
LN4031079_A003	WV4011015	WV4011010	23.14	900	130	488.47	0.77	0.57
LN4031079_A004	WV4011010	WV4010986	127.51	900	130	488.47	0.77	0.57
LN4031079_A005	WV4010986	WV4010981	15.30	900	130	488.47	0.77	0.58
LN4031079_A006	WV4010981	WV4010976	144.09	900	130	488.47	0.77	0.57
LN4031079_A007	WV4010976	WV4010889	240.13	900	130	488.47	0.77	0.58
LN4031079_A008	WV4010889	WV4010872	22.90	900	130	488.47	0.77	0.57
LN4031079_A009	WV4010872	WV4010807	70.40	900	130	488.47	0.77	0.58
LN4031079_A010	WV4010807	WV4010788	20.66	900	130	488.47	0.77	0.58
LN4031079_A011	WV4010788	WV4010740	255.91	900	130	488.47	0.77	0.57
LN4031079_A012	WV4010740	WJ4018067	94.14	900	130	488.47	0.77	0.58

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4031082_A001	WJ4018068	J-HY4042441	4.73	300	120	-60.75	0.86	2.96
LN4031082_A002	J-HY4042441	WJ4003930	11.25	300	120	-60.75	0.86	2.96
LN4031083_A001	WJ4018067	WV4010666	1.80	400	129	-102.64	0.82	1.69
LN4031083_A002	WV4010666	WJ4018068	5.52	400	129	-102.64	0.82	1.69
LN4031088	WJ4018002	WJ4018072	16.05	300	132	6.34	0.09	0.04
LN4031097	WJ4004184	WJ4004286	355.21	150	103	0.97	0.05	0.05
LN4031105	WJ4018090	WJ4008690	118.04	200	115	0.00	0.00	0.00
LN4031152	WJ4018148	WJ4004177	62.91	150	103	4.04	0.23	0.76
LN4031168	WJ4018159	WJ4003998	161.11	150	114	3.14	0.18	0.39
LN4031179	WJ4018159	WJ4018148	91.33	300	120	4.05	0.06	0.02
LN4031193_A001	WJ4013538	J-HY4024366	85.53	250	110	-2.45	0.05	0.02
LN4031193_A002	J-HY4024366	WJ4013511	13.93	250	110	-2.45	0.05	0.02
LN4031196	WJ4013511	WJ4018168	126.68	250	110	0.05	0.00	0.00
LN4031197	WJ4018169	WJ4017447	0.44	150	103	0.00	0.00	0.00
LN4031198	WJ4017447	WJ4018170	2.27	150	103	-0.50	0.03	0.02
LN4031199	WJ4018170	WJ4005613	235.30	150	114	2.11	0.12	0.19
LN4031204	WJ4017751	WJ4018176	86.30	300	120	1.03	0.01	0.00
LN4031205	WJ4018176	WJ4017749	18.55	300	120	5.51	0.08	0.04
LN4031206	WJ4018176	WJ4018177	9.06	300	120	-4.57	0.06	0.02
LN4031215	WJ4015178	WJ4017749	414.90	300	120	-4.06	0.06	0.02
LN4031217	WJ4018179	WJ4018177	222.98	600	130	-21.38	0.08	0.01
LN4031220	WJ4018180	WJ4018179	24.90	400	129	-10.01	0.08	0.02
LN4031221	WJ4018184	WJ4018179	9.89	600	130	-11.37	0.04	0.00
LN4031233	WJ4015229	WJ4018188	88.16	150	103	-0.73	0.04	0.03
LN4031234	WJ4018188	WJ4015177	15.57	150	103	0.96	0.05	0.05
LN4031235	WJ4018186	WJ4018184	190.56	400	129	-11.30	0.09	0.03
LN4031236	WJ4018186	WJ4018188	3.00	400	129	1.69	0.01	0.00
LN4031237	WJ4018098	WJ4008692	278.98	150	103	0.17	0.01	0.00
LN4031239	WJ4015279	WJ4018191	85.01	150	103	-0.39	0.02	0.01
LN4031240	WJ4018191	WJ4015332	14.66	150	103	0.79	0.04	0.04
LN4031241	WJ4018192	WJ4018186	134.03	400	129	-9.61	0.08	0.02
LN4031242	WJ4018192	WJ4018191	3.31	400	129	1.19	0.01	0.00
LN4031248	WJ25698	WJ4018192	410.72	400	129	-8.38	0.07	0.02
LN4031255	WJ4018177	WJ28096	650.11	600	130	-26.08	0.09	0.02
LN4031259	WJ4018170	WJ4018199	143.18	150	114	-2.67	0.15	0.29
LN4031261	WJ4018199	WJ4018183	134.34	150	114	-3.06	0.17	0.38
LN4031262	WJ58392	WJ4018166	98.40	150	114	-2.87	0.16	0.33
LN4031289	WJ4015578	WJ4018216	105.29	300	120	-16.43	0.23	0.26
LN4031290	WJ4018216	WJ4017702	112.88	300	120	-16.59	0.23	0.27
LN4031294	WJ4018216	WJ4018209	195.87	150	103	0.09	0.01	0.00
LN4031297	WJ4018101	WJ4008692	37.42	300	120	5.05	0.07	0.03
LN4031301	WJ4018106	WJ4018111	4.88	100	100	-0.04	0.01	0.00
LN4031302	WJ4018109	WJ4018101	38.40	300	120	5.05	0.07	0.03
LN4031303	WJ4018110	WJ4018109	39.32	300	120	5.05	0.07	0.03
LN4031304	WJ4018111	WJ4018110	6.10	300	120	5.05	0.07	0.03
LN4031308	WJ4009181	WJ4018113	104.61	300	120	4.63	0.07	0.03
LN4031309	WJ4009181	WJ48208	132.67	300	120	-4.69	0.07	0.03
LN4031313	WJ4018221	WJ4018117	19.45	150	103	-0.68	0.04	0.03
LN4031314	WJ4021047	WJ4018221	253.05	150	103	-0.68	0.04	0.03
LN4031317	WJ4018117	WJ4018132	8.79	150	103	-0.68	0.04	0.03
LN4031318	WJ4018134	WJ4018132	17.77	150	103	0.00	0.00	0.00
LN4031333	WJ4018123	WJ48205	3.78	300	120	6.82	0.10	0.05
LN4031334	WJ4018143	WJ4018123	80.17	300	120	-0.44	0.01	0.00
LN4031337	WJ4018142	WJ4018143	13.35	150	103	-0.44	0.02	0.01
LN4031338	WJ4018141	WJ4018142	58.28	100	100	-0.44	0.06	0.10
LN4031340	WJ4018229	WJ4018132	6.37	150	103	0.68	0.04	0.03
LN4031341	WJ4018115	WJ4018229	0.94	300	120	0.68	0.01	0.00
LN4031342	WJ4018115	WJ4018123	10.69	300	120	7.26	0.10	0.06
LN4031343_A001	WJ4018133	WV4004312	0.65	300	120	7.94	0.11	0.09
LN4031343_A002	WV4004312	WJ4018115	4.32	300	120	7.94	0.11	0.06
LN4031391	WJ4018260	WJ4017284	134.59	150	103	0.61	0.03	0.02
LN4031393	WJ4018260	WJ4018263	151.68	150	114	0.10	0.01	0.00
LN4031397	WJ4018264	WJ4018260	65.66	150	114	0.82	0.05	0.03
LN4031398	WJ4018264	WJ4010304	51.26	150	114	-0.95	0.05	0.04
LN4031399	WJ4018269	WJ4018264	82.26	150	114	-0.07	0.00	0.00
LN4031404	WJ4012257	WJ4018282	40.63	150	103	4.04	0.23	0.76
LN4031405	WJ4018282	WJ4010295	365.44	150	103	3.79	0.21	0.67
LN4031406	WJ4018280	WJ4018282	305.31	150	114	-0.16	0.01	0.00
LN4031411	WJ4009830	WJ4017585	106.92	150	103	3.54	0.20	0.59
LN4031430_A001	WJ4016785	J-HY4033792	89.62	300	132	-0.03	0.00	0.00
LN4031430_A002	J-HY4033792	J-HY4033808	107.52	300	132	-0.03	0.00	0.00
LN4031430_A003	J-HY4033808	WJ58479	39.89	300	132	-0.03	0.00	0.00
LN4031468	WJ4018318	WJ4018316	113.97	600	130	67.65	0.24	0.11
LN4031471	WJ4018316	WJ4018314	95.52	600	130	71.81	0.25	0.12
LN4031472	WJ4018314	WJ4018313	118.96	600	130	68.07	0.24	0.11
LN4031474	WJ4018314	WJ4018315	17.88	400	129	2.74	0.02	0.00

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4031475	WJ4018317	WJ4018316	18.85	400	129	4.97	0.04	0.01
LN4031477	WJ4018321	WJ4006305	91.14	150	103	1.29	0.07	0.09
LN4031481	WJ4018306	WJ4018307	6.61	150	103	6.74	0.38	1.96
LN4031482	WJ4018325	WJ4018306	100.55	300	120	5.74	0.08	0.04
LN4031483	WJ4018321	WJ4018325	108.89	300	120	14.25	0.20	0.20
LN4031490	WJ4018315	WJ4018326	20.54	300	132	-2.77	0.04	0.01
LN4031491	WJ4018328	WJ4018315	6.03	300	132	-5.51	0.08	0.03
LN4031497	WJ4018307	WJ4018342	130.96	400	129	27.99	0.22	0.15
LN4031515_A001	WJ4018317	J-HY4035072	16.40	300	132	-6.04	0.09	0.03
LN4031515_A002	J-HY4035072	J-HY4033092	109.05	300	132	-6.04	0.09	0.03
LN4031515_A003	J-HY4033092	WJ58501	35.19	300	132	-6.04	0.09	0.03
LN4031516	WJ4018352	WJ4018317	31.56	300	132	-1.08	0.02	0.00
LN4031618	WJ4008473	WJ4018393	2.45	150	103	23.23	1.31	19.38
LN4031653	WJ4018400	WJ4018417	7.26	300	120	62.96	0.89	3.16
LN4031654	WJ4018417	WJ4016638	147.98	300	120	28.46	0.40	0.73
LN4031707	WJ4018440	WJ4016370	217.00	300	120	14.55	0.21	0.21
LN4031708_A001	WJ4018440	WV4011221	7.16	400	129	-13.60	0.11	0.04
LN4031708_A002	WV4011221	WJ4018439	1.96	400	129	-13.60	0.11	0.04
LN4031713	WJ4018443	WJ4018445	6.39	400	129	0.61	0.00	0.00
LN4031714_A001	WJ4018445	WV4011205	4.86	400	129	-2.53	0.02	0.00
LN4031714_A002	WV4011205	WJ4018446	1.83	400	129	-2.53	0.02	0.00
LN4031715	WJ4018445	WJ4018447	12.19	400	129	3.14	0.02	0.00
LN4031716	WJ4018448	WJ4018447	6.38	400	129	23.76	0.19	0.11
LN4031717	WJ4018440	WJ4018448	132.25	300	120	23.76	0.34	0.52
LN4031720	WJ4018450	WJ4018440	75.72	300	120	24.77	0.35	0.56
LN4031723_A001	WJ58476	J-HY4033839	55.03	300	132	2.95	0.04	0.01
LN4031723_A002	J-HY4033839	J-HY16124	105.39	300	132	2.95	0.04	0.01
LN4031723_A003	J-HY16124	WJ4018451	92.74	300	132	2.95	0.04	0.01
LN4031724	WJ4018451	WJ4016793	12.41	300	132	0.00	0.00	0.00
LN4031727	WJ4018452	WJ4018450	441.01	150	114	1.57	0.09	0.11
LN4031728	WJ4018450	WJ4018452	96.55	300	120	-23.31	0.33	0.50
LN4031730	WJ4018453	WJ4016261	96.00	150	114	-0.64	0.04	0.02
LN4031731	WJ4018453	WJ4018452	93.73	300	120	24.99	0.35	0.57
LN4031732	WJ4018454	WJ4018453	126.22	300	120	24.48	0.35	0.55
LN4031735	WJ4016749	WJ4018451	272.46	600	130	-53.94	0.19	0.07
LN4031736	WJ4018455	WJ4016258	199.69	150	114	3.15	0.18	0.40
LN4031737	WJ4018455	WJ4018454	74.55	300	120	22.71	0.32	0.48
LN4031739	WJ4018456	WJ4016216	98.12	150	114	-0.05	0.00	0.00
LN4031740	WJ4018456	WJ4018455	126.16	300	120	25.88	0.37	0.61
LN4031742	WJ4018457	WJ53564	143.88	150	103	0.24	0.01	0.00
LN4031743	WJ4018457	WJ4018456	180.65	300	120	25.83	0.37	0.61
LN4031751	WJ4016413	WJ4018454	111.17	150	103	1.80	0.10	0.17
LN4031756	WJ53563	WJ4018463	135.01	300	120	4.93	0.07	0.03
LN4031757_A001	WJ4018465	WV4005002	1.70	300	120	25.59	0.36	0.59
LN4031757_A002	WV4005002	WJ4018463	10.65	300	120	25.59	0.36	0.60
LN4031759	WJ4018463	WJ4018464	10.23	300	120	30.52	0.43	0.83
LN4031760	WJ4018464	WJ4018457	159.93	300	120	26.69	0.38	0.65
LN4031762	WJ4016204	WJ4018467	137.49	150	103	-4.22	0.24	0.82
LN4031769_A001	WJ4018472	WV4004997	1.89	400	129	-0.61	0.00	0.00
LN4031769_A002	WV4004997	WJ4018471	10.44	400	129	-0.61	0.00	0.00
LN4031770	WJ4018462	WJ4016749	85.21	600	130	-65.27	0.23	0.10
LN4031771	WJ4018471	WJ4018467	44.54	300	120	3.23	0.05	0.01
LN4031772	WJ4018459	WJ4018461	18.03	150	114	-1.05	0.06	0.05
LN4031773_A001	WJ4018461	J-HY4033474	16.00	300	132	3.46	0.05	0.01
LN4031773_A002	J-HY4033474	WJ4018460	2.00	300	132	3.46	0.05	0.01
LN4031774	WJ4018462	WJ4018461	3.00	300	132	5.54	0.08	0.03
LN4031780	WJ4018467	WJ4008483	386.38	300	120	-1.99	0.03	0.01
LN4031784	WJ4017092	WJ4018480	229.10	150	103	-1.01	0.06	0.06
LN4031789	WJ4018480	WJ4018473	17.28	150	114	-1.03	0.06	0.05
LN4031790	WJ4018473	WJ4018461	100.79	150	114	-1.03	0.06	0.05
LN4031791	WJ4018476	WJ4018473	9.40	150	114	0.00	0.00	0.00
LN4031793	WJ4018318	WJ4018462	197.50	600	130	-59.73	0.21	0.08
LN4031799	WJ59195	WJ53442	287.38	300	120	1.22	0.02	0.00
LN4031848	WJ4017965	WJ4018513	3.11	400	129	53.50	0.43	0.50
LN4031849	WJ4018513	WJ4017902	212.47	300	120	52.64	0.74	2.27
LN4031850	WJ4017972	WJ4018514	89.14	300	120	-14.82	0.21	0.22
LN4031851	WJ4018514	WJ4017965	2.77	400	129	-14.82	0.12	0.05
LN4031870	WJ4018524	WJ58517	21.47	300	132	-2.70	0.04	0.01
LN4031871_A001	WJ4018313	J-HY16140	62.04	300	132	-2.36	0.03	0.01
LN4031871_A002	J-HY16140	WJ4018524	44.60	300	132	-2.36	0.03	0.01
LN4031883_A001	WJ4016614	J-HY4032770	6.69	300	132	-10.24	0.14	0.09
LN4031883_A002	J-HY4032770	WJ4018313	7.60	300	132	-10.24	0.14	0.09
LN4031893	WJ4018534	WJ4018533	13.52	300	132	2.57	0.04	0.01
LN4031899	WJ4016614	WJ4018533	85.94	300	132	9.16	0.13	0.07
LN4031902	WJ4018313	WJ4018532	93.30	600	130	58.75	0.21	0.08
LN4031909	WJ4018542	WJ4016359	1.20	400	129	-21.47	0.17	0.09

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4031912	WJ4018532	WJ4018534	11.36	400	129	-2.33	0.02	0.00
LN4031933_A001	WJ52037	J-HY4008135	66.72	200	115	0.90	0.03	0.01
LN4031933_A002	J-HY4008135	WJ4015943	49.31	200	115	0.90	0.03	0.01
LN4031954_A001	WJ4018575	J-HY9902	72.92	300	132	-10.22	0.14	0.09
LN4031954_A002	J-HY9902	WJ4018533	27.64	300	132	-10.22	0.14	0.09
LN4031960	WJ55163	WJ4018583	105.65	150	114	0.09	0.00	0.00
LN4031970	WJ4020741	WJ4018586	13.22	400	129	0.53	0.00	0.00
LN4031971	WJ53114	WJ4018586	9.46	600	130	-65.07	0.23	0.10
LN4031975_A001	WJ4018588	J-HY32675	49.34	300	132	-10.11	0.14	0.09
LN4031975_A002	J-HY32675	J-HY32671	104.36	300	132	-10.11	0.14	0.09
LN4031975_A003	J-HY32671	J-HY22580	106.99	300	132	-10.11	0.14	0.09
LN4031975_A004	J-HY22580	WJ4018575	59.10	300	132	-10.11	0.14	0.09
LN4031987	WJ4018604	WJ4020259	128.88	300	120	15.25	0.22	0.23
LN4031988	WJ4006959	WJ4018605	23.81	300	120	15.60	0.22	0.24
LN4031989	WJ4018605	WJ4018604	131.18	300	120	13.12	0.19	0.17
LN4032025	WJ4018393	WJ4018307	352.83	400	129	22.17	0.18	0.10
LN4032038	WJ4016374	WJ4018633	214.59	150	114	-0.11	0.01	0.00
LN4032040	WJ4018635	WJ4018447	2.92	400	129	-26.89	0.21	0.14
LN4032042	WJ4018633	WJ4018635	199.28	300	132	-26.86	0.38	0.55
LN4032070	WJ4008460	WJ4018321	136.94	300	120	15.54	0.22	0.24
LN4032317	WJ4018325	WJ4008433	389.21	300	132	6.42	0.09	0.04
LN4032520_A001	WJ4004914	WV4004344	2.46	900	130	626.18	0.98	0.92
LN4032520_A002	WV4004344	WV4005116	901.92	900	130	626.18	0.98	0.91
LN4032520_A003	WV4005116	WV4005114	17.15	900	130	626.18	0.98	0.91
LN4032520_A004	WV4005114	WJ4018863	157.88	900	130	626.18	0.98	0.91
LN4032526_A001	WJ4018863	WV4005109	2.38	600	130	21.49	0.08	0.01
LN4032526_A002	WV4005109	WJ4018862	7.22	600	130	21.49	0.08	0.01
LN4032543	WJ4018862	WJ4018874	4.07	600	130	-0.17	0.00	0.00
LN4032547	WJ4010217	WJ4018876	82.37	400	129	-21.64	0.17	0.09
LN4032548	WJ4018876	WJ4018862	2.63	600	130	-21.65	0.08	0.01
LN4032911	WJ4018183	WJ4019076	140.31	150	103	-1.94	0.11	0.20
LN4032912	WJ4002430	WJ4019077	0.81	300	120	9.83	0.14	0.11
LN4032914	WJ4019076	WJ4019077	163.97	150	103	-2.10	0.12	0.23
LN4032915	WJ4002380	WJ4019076	171.04	150	103	-0.07	0.00	0.00
LN4032919	WJ4010521	WJ4017039	126.06	300	120	20.62	0.29	0.40
LN4032927	WJ4017039	WJ4019082	11.35	300	120	9.87	0.14	0.10
LN4032929	WJ4019082	WJ4002430	204.81	300	120	9.87	0.14	0.10
LN4032932	WJ4019077	WJ4002365	108.51	300	120	7.72	0.11	0.06
LN4032956	WJ4018217	WJ4017039	275.63	400	129	-10.70	0.09	0.03
LN4033116	WJ4015587	WJ4015640	217.68	150	103	-0.12	0.01	0.00
LN4033338	WJ4017078	WJ4008678	96.72	150	103	-0.53	0.03	0.02
LN4033382	WJ4017902	WJ4019278	161.90	300	120	25.15	0.36	0.58
LN4033385	WJ4001543	WJ4019280	121.74	300	120	-6.10	0.09	0.04
LN4033387	WJ4019278	WJ4019280	8.37	300	120	25.13	0.36	0.58
LN4033388	WJ4019280	WJ4017888	195.37	300	120	17.51	0.25	0.30
LN4033409	WJ4001543	WJ4017902	164.58	300	120	-26.32	0.37	0.63
LN4033410	WJ4006791	WJ4017905	257.95	150	114	1.02	0.06	0.05
LN4033413	WJ4003628	WJ4006835	384.63	150	103	-3.95	0.22	0.73
LN4033416	WJ4001983	WJ4003146	627.26	150	103	3.34	0.19	0.53
LN4033422	WJ4006109	WJ4018024	203.39	150	103	-3.47	0.20	0.57
LN4033427	WJ4006350	WJ4004286	136.29	150	114	-2.39	0.14	0.24
LN4033436	WJ4019295	WJ4019296	27.66	150	114	-0.04	0.00	0.00
LN4033439	WJ4019296	WJ4017764	247.23	150	103	-0.17	0.01	0.00
LN4033455	WJ4003953	WJ4003958	152.51	150	103	-0.08	0.00	0.00
LN4033461	WJ58756	WJ4017766	236.68	300	120	22.09	0.31	0.45
LN4033464	WJ4018180	WJ4019306	77.28	300	120	10.01	0.14	0.11
LN4033465	WJ4019306	WJ4017763	92.79	300	120	9.68	0.14	0.10
LN4033466	WJ4015172	WJ4019306	207.24	150	103	-0.43	0.02	0.01
LN4033467	WJ4019306	WJ4017743	219.06	150	103	-0.23	0.01	0.00
LN4033480	WJ4017794	WJ4040953	208.20	200	115	5.31	0.17	0.25
LN4033486	WJ4019314	WJ4017736	93.38	150	103	0.82	0.05	0.04
LN4033488	WJ4019314	WJ4017738	221.74	150	103	0.48	0.03	0.01
LN4033489	WJ4014623	WJ4019316	88.84	150	103	1.52	0.09	0.12
LN4033490	WJ4019316	WJ4019314	93.14	150	103	0.91	0.05	0.05
LN4033491	WJ4017743	WJ4019316	222.57	150	103	0.03	0.00	0.00
LN4033492	WJ57697	WJ4019316	189.67	150	103	-0.52	0.03	0.02
LN4033501	WJ4018131	WJ4019318	92.25	150	103	0.94	0.05	0.05
LN4033502	WJ4019318	WJ53041	72.26	150	103	-0.04	0.00	0.00
LN4033525	WJ4019325	WJ4014721	89.01	150	114	0.56	0.03	0.02
LN4033526	WJ4014820	WJ4019325	218.70	150	103	-0.48	0.03	0.01
LN4033527	WJ4019325	WJ4019318	228.16	150	103	-0.51	0.03	0.02
LN4033528	WJ54288	WJ4019326	72.68	150	103	0.88	0.05	0.05
LN4033529	WJ4019326	WJ4019325	92.16	150	103	0.68	0.04	0.03
LN4033530	WJ4014873	WJ4019326	217.29	150	103	-0.71	0.04	0.03
LN4033531	WJ4019326	WJ4018131	228.44	150	103	-0.65	0.04	0.03
LN4033538_A001	WJ4012562	J-HY4017295	36.83	300	120	1.78	0.03	0.00

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4033538_A002	J-HY4017295	J-HY16981	126.24	300	120	1.78	0.03	0.00
LN4033538_A003	J-HY16981	WJ4019328	3.46	300	120	1.78	0.03	0.01
LN4033547_A001	WJ4017794	J-HY4018994	76.08	400	129	-66.32	0.53	0.75
LN4033547_A002	J-HY4018994	WJ4019335	77.06	400	129	-66.32	0.53	0.75
LN4033548_A001	WJ4019335	J-HY4018945	8.62	400	129	-66.49	0.53	0.75
LN4033548_A002	J-HY4018945	J-HY4018934	88.11	400	129	-66.49	0.53	0.75
LN4033548_A003	J-HY4018934	WJ57354	24.05	400	129	-66.49	0.53	0.75
LN4033552	WJ4017533	WJ4008483	255.64	300	120	6.31	0.09	0.04
LN4033566	WJ4019344	WJ4018634	95.10	300	132	-27.37	0.39	0.57
LN4033568	WJ4013346	WJ4019344	281.29	150	103	-2.05	0.12	0.22
LN4033570	WJ4013271	WJ4019344	110.50	300	132	-24.75	0.35	0.47
LN4033571	WJ4017778	WJ4013433	115.84	150	103	-1.54	0.09	0.13
LN4033590	WJ4015383	WJ4018417	162.65	300	120	-34.47	0.49	1.04
LN4033623	WJ4019371	WJ4016519	211.26	150	103	-1.08	0.06	0.07
LN4033648	WJ4019386	WJ4016135	218.46	150	103	0.18	0.01	0.00
LN4033652	WJ4019383	WJ4019386	49.06	150	103	-0.02	0.00	0.00
LN4033653	WJ4019386	WJ4016147	96.41	150	103	0.64	0.04	0.03
LN4033662	WJ4019398	WJ4013299	54.18	150	114	-0.01	0.00	0.00
LN4033664	WJ4014473	WJ4019399	11.02	300	120	0.00	0.00	0.00
LN4033721	WJ4001983	WJ4019415	111.05	150	103	-5.34	0.30	1.27
LN4033722	WJ4019415	WJ4006399	111.62	150	103	-7.77	0.44	2.55
LN4033737	WJ4017357	WJ4019415	101.56	150	103	1.43	0.08	0.11
LN4033741	WJ53672	WJ55958	73.66	300	120	11.27	0.16	0.13
LN4033742	WJ55957	WJ4006581	295.71	300	120	7.70	0.11	0.06
LN4033755	WJ56498	WJ4001983	123.12	150	103	-1.77	0.10	0.16
LN4033823	WJ4019456	WJ4002150	100.81	150	103	-4.12	0.23	0.79
LN4033826	WJ4002498	WJ4019456	202.28	300	132	-15.16	0.21	0.19
LN4033837	WJ4019456	WJ4019463	203.28	150	103	-4.71	0.27	1.01
LN4033838	WJ4019463	WJ4003473	203.43	150	103	-4.96	0.28	1.11
LN4033840	WJ4019463	WJ52881	282.10	150	103	1.90	0.11	0.19
LN4033859	WJ4019472	WJ4019463	100.66	150	103	1.80	0.10	0.17
LN4033860	WJ4002158	WJ4019472	192.96	150	103	-3.65	0.21	0.63
LN4033861	WJ4019472	WJ4003628	203.04	150	103	-3.63	0.21	0.62
LN4033965	WJ52163	WJ48958	97.33	150	103	3.28	0.19	0.52
LN4033972	WJ4017495	WJ58397	63.72	150	103	-0.02	0.00	0.00
LN4033973	WJ58399	WJ52167	127.61	150	103	-0.04	0.00	0.00
LN4034072_A001	WJ4019556	WV4016857	1.89	400	129	50.74	0.40	0.45
LN4034072_A002	WV4016857	WJ59207	3.10	400	129	50.74	0.40	0.46
LN4034075	WJ4017772	WJ4019562	97.72	300	120	8.48	0.12	0.08
LN4034076	WJ4019562	WJ55026	141.86	300	120	7.55	0.11	0.06
LN4034078	WJ4008507	WJ4019562	252.52	150	103	-3.91	0.22	0.71
LN4034079	WJ4019562	WJ4017555	176.29	150	103	-3.12	0.18	0.47
LN4034087	WJ4018289	WJ4019567	147.36	150	103	-0.01	0.00	0.00
LN4034088	WJ4019567	WJ4008646	306.25	150	103	-2.66	0.15	0.35
LN4034090	WJ48968	WJ4019567	163.57	150	103	-2.02	0.11	0.21
LN4034091	WJ4019567	WJ4008662	101.48	150	103	0.57	0.03	0.02
LN4034097	WJ4019572	WJ4017786	101.51	150	103	2.56	0.14	0.33
LN4034104	WJ4017333	WJ4019575	202.94	150	103	-4.10	0.23	0.78
LN4034105	WJ4019575	WJ4019572	212.67	150	103	-4.49	0.25	0.92
LN4034107	WJ53513	WJ4019575	79.63	150	103	0.08	0.00	0.00
LN4034108	WJ4019575	WJ4009916	212.94	150	103	0.29	0.02	0.01
LN4034131	WJ53844	WJ53848	116.79	300	120	1.90	0.03	0.00
LN4034136	WJ4016701	WJ4019589	200.68	150	103	2.59	0.15	0.33
LN4034137	WJ4019589	WJ4016803	206.73	150	103	4.77	0.27	1.03
LN4034139	WJ4016732	WJ4019589	101.49	300	120	2.41	0.03	0.01
LN4034144	WJ4019589	WJ53571	94.38	300	120	0.10	0.00	0.00
LN4034145	WJ53572	WJ53844	121.93	300	120	1.78	0.03	0.00
LN4034158	WJ53556	WJ47069	396.90	150	103	3.81	0.22	0.68
LN4034164	WJ4019600	WJ4016683	100.57	150	103	-1.89	0.11	0.19
LN4034165	WJ4016587	WJ4019603	296.05	150	114	2.96	0.17	0.35
LN4034166	WJ4019603	WJ53558	217.41	150	114	5.07	0.29	0.96
LN4034167	WJ4016405	WJ4019603	219.80	150	103	2.09	0.12	0.22
LN4034168	WJ4019603	WJ4019600	99.26	150	103	-0.19	0.01	0.00
LN4034175	WJ4013513	WJ4019608	391.20	150	103	-2.58	0.15	0.33
LN4034176	WJ4019608	WJ4016832	355.03	150	103	-2.86	0.16	0.40
LN4034178	WJ4019608	WJ4013517	42.66	150	103	0.01	0.00	0.00
LN4034179	WJ4013513	WJ4019610	399.26	150	103	-2.56	0.14	0.33
LN4034180	WJ4019610	WJ4016839	204.10	150	103	-2.87	0.16	0.40
LN4034182	WJ4019610	WJ4019608	99.52	150	103	0.04	0.00	0.00
LN4034184	WJ4019612	WJ4017758	203.15	150	103	-2.91	0.16	0.41
LN4034186	WJ4019612	WJ4019610	100.05	150	103	-0.01	0.00	0.00
LN4034188	WJ4019614	WJ4017756	203.04	150	103	-2.99	0.17	0.44
LN4034189	WJ22345	WJ4019614	152.49	150	103	0.24	0.01	0.00
LN4034190	WJ4019614	WJ4019612	100.05	150	103	0.15	0.01	0.00
LN4034192	WJ4019616	WJ4019612	202.75	150	103	-2.92	0.17	0.42
LN4034193	WJ4013490	WJ4019616	8.63	150	103	-0.01	0.00	0.00

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4034197	WJ51998	WJ4019619	148.87	150	103	-2.66	0.15	0.35
LN4034198	WJ4019619	WJ4019614	203.16	150	103	-2.92	0.17	0.42
LN4034199	WJ4019616	WJ4019619	99.55	150	103	0.17	0.01	0.00
LN4034200	WJ4019619	WJ22343	144.15	150	103	0.29	0.02	0.01
LN4034211_A001	WJ4018575	J-HY22581	12.24	300	132	11.00	0.16	0.10
LN4034211_A002	J-HY22581	J-HY4018775	64.14	300	132	11.00	0.16	0.10
LN4034211_A003	J-HY4018775	J-HY4018835	116.72	300	132	11.00	0.16	0.10
LN4034211_A004	J-HY4018835	WJ4019624	23.55	300	132	11.00	0.16	0.10
LN4034217	WJ54461	WJ4019624	89.52	150	103	1.41	0.08	0.11
LN4034220_A001	WJ4019626	J-HY4018607	140.27	150	114	-1.72	0.10	0.13
LN4034220_A002	J-HY4018607	WJ4018588	34.94	150	114	-1.72	0.10	0.13
LN4034221_A001	WJ4019624	J-HY4019282	96.34	300	132	10.16	0.14	0.09
LN4034221_A002	J-HY4019282	J-HY4022788	114.88	300	132	10.16	0.14	0.09
LN4034221_A003	J-HY4022788	WJ4019626	105.43	300	132	10.16	0.14	0.09
LN4034223_A001	WJ58540	J-HY4018406	4.24	150	103	1.91	0.11	0.19
LN4034223_A002	J-HY4018406	J-HY4018424	122.42	150	103	1.91	0.11	0.19
LN4034223_A003	J-HY4018424	WJ53116	39.60	150	103	1.91	0.11	0.19
LN4034226	WJ4019628	WJ4012588	23.70	400	129	-8.30	0.07	0.02
LN4034229	WJ53122	WJ4019630	89.83	400	129	-21.69	0.17	0.09
LN4034230	WJ22621	WJ4019628	113.64	400	129	-7.38	0.06	0.01
LN4034236	WJ4019634	WJ4017212	220.07	150	103	-2.57	0.15	0.33
LN4034237	WJ27857	WJ4019634	86.65	150	103	1.58	0.09	0.13
LN4034238	WJ4019634	WJ4017210	109.66	150	103	1.02	0.06	0.06
LN4034240	WJ4019636	WJ27858	100.29	150	103	1.36	0.08	0.10
LN4034242	WJ4019636	WJ4019630	217.65	150	103	-2.59	0.15	0.33
LN4034243	WJ4019628	WJ4019637	217.76	150	103	2.40	0.14	0.29
LN4034246	WJ4019637	WJ4019636	117.88	150	103	1.32	0.07	0.10
LN4034248	WJ4019639	WJ4019626	217.21	150	103	-2.32	0.13	0.27
LN4034250	WJ4019639	WJ4019637	117.53	150	103	1.28	0.07	0.09
LN4034257	WJ4012398	WJ4019643	233.23	150	103	-0.15	0.01	0.00
LN4034261	WJ4019643	WJ4019639	105.49	150	103	1.01	0.06	0.06
LN4034262	WJ4019624	WJ4019644	218.14	150	103	1.96	0.11	0.20
LN4034264	WJ54469	WJ4019644	90.62	150	103	2.41	0.14	0.29
LN4034274	WJ4019643	WJ4019651	341.71	150	103	-0.51	0.03	0.02
LN4034275	WJ4019651	WJ4012398	122.15	150	103	0.92	0.05	0.05
LN4034276	WJ4019644	WJ4019651	98.15	150	103	2.57	0.15	0.33
LN4034277	WJ4019651	WJ4019643	111.33	150	103	0.94	0.05	0.05
LN4034282	WJ4019644	WJ4019654	223.07	150	103	1.67	0.09	0.15
LN4034283	WJ4019654	WJ4012266	218.49	150	103	3.02	0.17	0.44
LN4034284	WJ54441	WJ4019654	90.79	150	103	2.79	0.16	0.38
LN4034285	WJ4019654	WJ4012399	93.10	150	103	1.34	0.08	0.10
LN4034286	WJ4012399	WJ4019656	221.50	150	103	1.97	0.11	0.20
LN4034288	WJ4017734	WJ4019656	218.41	150	103	-2.11	0.12	0.23
LN4034289	WJ4019656	WJ4019639	222.33	150	103	-1.92	0.11	0.19
LN4034292	WJ4019637	WJ4019658	222.37	150	103	2.08	0.12	0.22
LN4034293	WJ4019658	WJ4017740	218.13	150	103	1.81	0.10	0.17
LN4034294	WJ4019656	WJ4019658	117.89	150	103	1.68	0.10	0.15
LN4034297	WJ4017741	WJ61529	207.36	150	103	-1.44	0.08	0.11
LN4034298	WJ4019660	WJ4019636	222.60	150	103	-2.27	0.13	0.26
LN4034299	WJ4019658	WJ4019660	117.98	150	103	1.80	0.10	0.17
LN4034301	WJ4019660	WJ27877	98.22	150	103	2.37	0.13	0.28
LN4034308	WJ4017695	WJ4019665	216.83	150	103	-0.52	0.03	0.02
LN4034309	WJ4019665	WJ4019634	223.36	150	103	-2.97	0.17	0.43
LN4034310	WJ27875	WJ4019665	96.54	300	120	19.04	0.27	0.35
LN4034311	WJ4019665	WJ4017691	109.58	300	120	21.28	0.30	0.42
LN4034328	WJ4019673	WJ28077	101.43	150	103	1.25	0.07	0.09
LN4034329	WJ4012072	WJ4019673	454.18	150	103	-0.68	0.04	0.03
LN4034330	WJ4019673	WJ4017741	218.99	150	103	-0.95	0.05	0.05
LN4034331	WJ4012081	WJ4019675	439.54	150	103	-0.47	0.03	0.01
LN4034332	WJ4019675	WJ4017740	218.59	150	103	-0.75	0.04	0.03
LN4034334	WJ4019675	WJ4019673	117.85	150	103	1.30	0.07	0.09
LN4034336	WJ4019677	WJ4017734	218.62	150	103	-0.32	0.02	0.01
LN4034338	WJ4019677	WJ4019675	117.80	150	103	1.33	0.08	0.10
LN4034342	WJ4012183	WJ4019680	218.93	150	103	0.98	0.06	0.05
LN4034343	WJ4019680	WJ4012268	221.55	150	103	0.83	0.05	0.04
LN4034345	WJ4019680	WJ4019677	108.97	150	103	1.52	0.09	0.12
LN4034347	WJ4019682	WJ4011938	231.69	150	114	1.41	0.08	0.09
LN4034348	WJ54491	WJ4019682	189.90	150	103	2.29	0.13	0.27
LN4034349	WJ4019682	WJ4019680	105.41	150	103	1.57	0.09	0.13
LN4034350	WJ4011981	WJ4019684	152.26	150	114	-0.04	0.00	0.00
LN4034351	WJ4019684	WJ4011971	117.67	150	114	0.06	0.00	0.00
LN4034353	WJ4019684	WJ54424	92.37	150	103	-2.31	0.13	0.27
LN4034355	WJ4012183	WJ4019685	102.71	150	103	-1.46	0.08	0.12
LN4034356	WJ4019685	WJ4019684	98.75	150	103	-2.13	0.12	0.23
LN4034357	WJ4011969	WJ4019685	218.13	150	103	0.42	0.02	0.01
LN4034358	WJ4019685	WJ4019682	219.02	150	103	0.89	0.05	0.05

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4034360	WJ4019687	WJ4019677	442.84	150	103	-0.23	0.01	0.00
LN4034361	WJ4012185	WJ4019687	138.33	150	103	1.90	0.11	0.19
LN4034362	WJ4019687	WJ4012081	89.93	150	103	1.85	0.10	0.18
LN4034390	WJ4019700	WJ4017775	219.66	150	103	-0.53	0.03	0.02
LN4034391	WJ4017763	WJ4019700	94.00	300	120	9.49	0.13	0.10
LN4034410	WJ4019709	WJ4017777	219.74	150	103	-0.59	0.03	0.02
LN4034411	WJ4019700	WJ4019709	92.97	300	120	9.28	0.13	0.09
LN4034413	WJ4017788	WJ4019711	221.97	150	103	0.63	0.04	0.02
LN4034415	WJ4019709	WJ4019711	91.47	300	120	9.14	0.13	0.09
LN4034439	WJ4013052	WJ4019724	40.53	150	103	-0.02	0.00	0.00
LN4034442	WJ4019726	WJ4013861	86.06	150	103	3.90	0.22	0.71
LN4034443	WJ4019724	WJ4019726	197.26	150	103	1.38	0.08	0.10
LN4034452	WJ4013852	WJ4019733	85.69	150	103	-1.45	0.08	0.11
LN4034453	WJ4019733	WJ4014259	91.15	150	103	-1.99	0.11	0.21
LN4034454	WJ4019726	WJ4019733	195.28	150	103	3.60	0.20	0.61
LN4034457	WJ4019734	WJ4014248	85.17	300	120	-8.14	0.12	0.07
LN4034459	WJ4019733	WJ4019734	194.39	150	103	3.99	0.23	0.74
LN4034461	WJ4013831	WJ4019735	87.51	150	103	-0.42	0.02	0.01
LN4034462	WJ4019735	WJ28135	92.54	150	103	-0.23	0.01	0.00
LN4034463	WJ4019734	WJ4019735	204.26	150	103	3.15	0.18	0.48
LN4034464_A001	WJ4019735	J-HY4022767	234.19	150	103	2.75	0.16	0.37
LN4034464_A002	J-HY4022767	J-HY4022775	146.35	150	103	2.75	0.16	0.37
LN4034464_A003	J-HY4022775	WJ20173	50.98	150	103	2.75	0.16	0.37
LN4034467	WJ4019736	WJ4019734	86.40	300	120	-8.75	0.12	0.08
LN4034468	WJ4013831	WJ4019736	203.52	150	103	-3.05	0.17	0.45
LN4034469	WJ4019736	WJ4013852	194.88	150	103	-3.95	0.22	0.73
LN4034471	WJ4013243	WJ4019737	93.30	150	103	-5.97	0.34	1.57
LN4034472	WJ4019737	WJ4019724	86.03	150	103	-4.95	0.28	1.11
LN4034473	WJ4013861	WJ4019737	196.21	150	103	1.10	0.06	0.07
LN4034474	WJ4019737	WJ4013221	46.23	150	103	0.01	0.00	0.00
LN4034476	WJ4019738	WJ4019736	93.10	300	120	-9.53	0.13	0.10
LN4034478	WJ4019738	WJ4013704	308.96	150	103	-0.77	0.04	0.04
LN4034484	WJ4019741	WJ4013827	92.93	150	103	-0.10	0.01	0.00
LN4034485	WJ20154	WJ4019741	295.91	150	103	-2.72	0.15	0.37
LN4034486	WJ4019741	WJ4019738	311.16	150	103	-3.04	0.17	0.45
LN4034502	WJ4013443	WJ4019746	198.21	150	103	0.03	0.00	0.00
LN4034503	WJ4019746	WJ4019741	100.25	150	103	-0.13	0.01	0.00
LN4034504	WJ4013548	WJ4019746	286.28	150	103	-2.86	0.16	0.40
LN4034535	WJ4017785	WJ4019760	218.17	150	103	-1.16	0.07	0.08
LN4034536	WJ4019760	WJ4015775	127.70	150	103	0.06	0.00	0.00
LN4034537	WJ4013528	WJ4019761	100.66	300	120	-4.56	0.06	0.02
LN4034538	WJ4019761	WJ4019738	100.66	300	120	-6.96	0.10	0.05
LN4034540	WJ4019746	WJ4019761	309.98	150	103	-2.98	0.17	0.43
LN4034546	WJ4019760	WJ54484	102.13	300	120	0.01	0.00	0.00
LN4034551	WJ4013520	WJ4019762	98.77	150	103	-0.82	0.05	0.04
LN4034552	WJ4019762	WJ4013704	99.86	150	103	-0.81	0.05	0.04
LN4034553	WJ4019761	WJ4019762	309.83	150	103	-0.82	0.05	0.04
LN4034554	WJ4019762	WJ4013246	290.59	150	103	-1.05	0.06	0.06
LN4034556	WJ4019767	WJ4017784	221.00	300	120	-3.77	0.05	0.02
LN4034557	WJ4013383	WJ4019765	107.60	150	103	0.06	0.00	0.00
LN4034558	WJ4019765	WJ4013519	97.35	150	103	-0.71	0.04	0.03
LN4034560	WJ4019766	WJ4017783	220.47	150	103	-0.60	0.03	0.02
LN4034561	WJ4013414	WJ4019765	235.12	150	103	-1.25	0.07	0.09
LN4034562	WJ4019765	WJ4013283	238.42	150	103	-0.64	0.04	0.03
LN4034564	WJ4019767	WJ4019760	114.40	300	120	1.38	0.02	0.00
LN4034566	WJ4019766	WJ4019767	91.99	300	120	6.20	0.09	0.04
LN4034570	WJ4019768	WJ4019766	100.88	300	120	6.68	0.09	0.05
LN4034574	WJ55156	WJ4016605	337.54	150	103	-3.87	0.22	0.70
LN4034578	WJ53518	WJ55157	193.02	150	103	-4.30	0.24	0.85
LN4034579	WJ4017759	WJ4019772	201.49	150	103	-0.86	0.05	0.04
LN4034581	WJ4017750	WJ4019772	401.11	150	103	-3.63	0.21	0.62
LN4034582	WJ4019772	WJ53506	210.35	150	103	-3.84	0.22	0.69
LN4034584	WJ4019772	WJ4019773	153.18	150	103	-0.89	0.05	0.05
LN4034585	WJ4019773	WJ4015317	101.79	150	103	0.50	0.03	0.02
LN4034586	WJ4017748	WJ4019773	402.07	300	120	-26.36	0.37	0.63
LN4034587	WJ4019773	WJ53494	206.55	300	120	-27.97	0.40	0.70
LN4034596	WJ4019775	WJ22345	202.81	150	103	0.45	0.03	0.01
LN4034597	WJ4015851	WJ4019775	481.67	150	103	3.28	0.19	0.52
LN4034598	WJ4019775	WJ52044	236.23	150	103	3.31	0.19	0.53
LN4034603	WJ4015780	WJ4019777	103.12	150	103	-0.17	0.01	0.00
LN4034604	WJ4019777	WJ4019775	151.85	150	103	0.72	0.04	0.03
LN4034611	WJ4015789	WJ4019781	102.49	150	103	-0.31	0.02	0.01
LN4034612	WJ4019781	WJ4015851	222.57	150	103	-1.43	0.08	0.11
LN4034613	WJ4019777	WJ4019781	341.03	300	120	-26.66	0.38	0.64
LN4034614	WJ4019781	WJ4017748	252.11	300	120	-25.76	0.36	0.60
LN4034617	WJ4019782	WJ4016532	90.91	150	103	0.34	0.02	0.01

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4034618	WJ4016393	WJ4019782	188.41	150	103	3.22	0.18	0.50
LN4034622	WJ4019783	WJ4016534	91.11	150	103	-0.36	0.02	0.01
LN4034623	WJ4019782	WJ4019783	203.42	150	103	3.43	0.19	0.56
LN4034626	WJ4019786	WJ4017781	219.72	150	103	-0.60	0.03	0.02
LN4034628	WJ4019786	WJ4019768	102.26	300	120	7.27	0.10	0.06
LN4034630	WJ55466	WJ4017780	199.40	150	103	-0.64	0.04	0.03
LN4034632	WJ55341	WJ4019786	88.91	300	120	7.82	0.11	0.07
LN4034633	WJ4016519	WJ4019789	91.90	150	103	1.65	0.09	0.14
LN4034635	WJ4008619	WJ4019790	162.99	150	114	-0.25	0.01	0.00
LN4034637	WJ4019783	WJ4019789	202.63	150	103	3.13	0.18	0.47
LN4034638	WJ4019789	WJ4016357	202.78	150	103	3.69	0.21	0.64
LN4034641	WJ28214	WJ4019792	181.61	400	129	-16.73	0.13	0.06
LN4034642	WJ4019792	WJ4016357	95.01	400	129	28.72	0.23	0.16
LN4034645	WJ4019711	WJ55429	82.78	300	120	8.77	0.12	0.08
LN4034646	WJ55431	WJ55304	65.60	300	120	8.35	0.12	0.08
LN4034647	WJ4019789	WJ4019795	91.77	150	103	0.91	0.05	0.05
LN4034652	WJ4019796	WJ4019783	92.63	150	103	-0.51	0.03	0.02
LN4034653	WJ4019795	WJ4019796	202.88	150	103	-3.18	0.18	0.49
LN4034656	WJ4019798	WJ4019700	218.35	150	103	-0.58	0.03	0.02
LN4034657	WJ4017764	WJ4019798	94.16	150	103	1.45	0.08	0.11
LN4034663	WJ4016175	WJ4019803	108.11	150	103	-0.03	0.00	0.00
LN4034664	WJ4019803	WJ4019709	218.45	150	103	-0.55	0.03	0.02
LN4034666	WJ22724	WJ4019803	91.06	150	103	1.23	0.07	0.08
LN4034668	WJ4019711	WJ4019820	218.60	150	103	0.81	0.05	0.04
LN4034669	WJ4019820	WJ4019386	217.69	150	103	0.97	0.05	0.05
LN4034671	WJ4019805	WJ4019782	92.44	150	103	0.71	0.04	0.03
LN4034672	WJ4019796	WJ4019805	203.16	150	103	-3.50	0.20	0.58
LN4034673	WJ4019805	WJ4016389	197.92	150	103	-3.23	0.18	0.50
LN4034675	WJ28174	WJ4019806	90.38	150	114	1.51	0.09	0.10
LN4034676	WJ4019806	WJ4019805	91.48	150	103	1.09	0.06	0.07
LN4034677	WJ4016388	WJ4019806	197.77	150	103	3.36	0.19	0.54
LN4034682	WJ28154	WJ4019808	90.47	150	103	-1.06	0.06	0.06
LN4034683	WJ4019808	WJ4019796	91.34	150	103	-0.77	0.04	0.04
LN4034684	WJ4019806	WJ4019808	202.66	150	103	3.65	0.21	0.63
LN4034688	WJ4019795	WJ4019809	91.70	150	103	1.23	0.07	0.08
LN4034689	WJ4019809	WJ28134	90.21	150	103	1.05	0.06	0.06
LN4034690	WJ4019808	WJ4019809	203.33	150	103	3.25	0.18	0.51
LN4034702	WJ4019815	WJ54460	86.69	150	103	1.67	0.09	0.15
LN4034704	WJ4019815	WJ4016614	240.54	150	103	-0.97	0.05	0.05
LN4034709	WJ4019817	WJ54470	86.58	150	103	2.44	0.14	0.30
LN4034710	WJ4017785	WJ4019817	222.86	150	103	-0.29	0.02	0.01
LN4034711	WJ4019817	WJ4019815	217.75	150	103	-0.89	0.05	0.05
LN4034715	WJ4019818	WJ4019817	113.37	150	103	1.98	0.11	0.20
LN4034717	WJ4019818	WJ4017784	220.12	300	120	3.72	0.05	0.02
LN4034721	WJ4019819	WJ4019815	114.24	150	103	1.76	0.10	0.16
LN4034722	WJ4018328	WJ4019819	243.04	300	120	5.44	0.08	0.03
LN4034723	WJ4019819	WJ4019818	218.12	300	120	4.81	0.07	0.03
LN4034724	WJ4019803	WJ4019820	91.50	150	103	1.60	0.09	0.14
LN4034729	WJ4019822	WJ4019819	95.21	150	103	1.30	0.07	0.09
LN4034731	WJ4019822	WJ4018352	211.28	150	103	-1.00	0.06	0.05
LN4034738	WJ4019826	WJ4019818	95.81	150	103	1.08	0.06	0.07
LN4034739	WJ4017783	WJ4019826	221.44	150	103	-0.66	0.04	0.02
LN4034740	WJ4019826	WJ4019822	217.95	150	103	-0.87	0.05	0.04
LN4034741	WJ4019820	WJ55442	83.67	150	103	1.26	0.07	0.09
LN4034743	WJ4016704	WJ4019829	98.59	150	103	0.79	0.04	0.04
LN4034744	WJ4019829	WJ4019826	98.90	150	103	1.01	0.06	0.06
LN4034749	WJ55441	WJ55326	66.94	150	103	1.22	0.07	0.08
LN4034753	WJ4017092	WJ4019834	94.34	150	103	1.47	0.08	0.12
LN4034754	WJ4019834	WJ4019822	99.41	150	103	1.32	0.07	0.10
LN4034756	WJ4019834	WJ4019829	217.79	150	114	1.09	0.06	0.06
LN4034757	WJ4016056	WJ4019838	218.17	150	103	-0.92	0.05	0.05
LN4034758	WJ4019838	WJ4019786	218.38	150	103	-0.95	0.05	0.05
LN4034759	WJ55323	WJ4019838	90.27	150	103	1.21	0.07	0.08
LN4034767	WJ4019838	WJ4019841	102.24	150	103	1.06	0.06	0.06
LN4034770	WJ4016704	WJ4019842	98.44	150	103	-1.40	0.08	0.11
LN4034773	WJ4019842	WJ4017780	223.61	150	103	0.71	0.04	0.03
LN4034775	WJ4019845	WJ4019766	218.18	150	103	-0.88	0.05	0.05
LN4034776	WJ4019841	WJ4019845	101.76	150	103	0.71	0.04	0.03
LN4034783	WJ4019848	WJ4017092	103.76	150	103	0.89	0.05	0.05
LN4034784	WJ4018459	WJ4019848	230.67	150	103	1.01	0.06	0.06
LN4034785	WJ4019848	WJ4019842	217.26	150	103	1.06	0.06	0.06
LN4034787	WJ4019851	WJ4019767	218.67	300	120	-8.41	0.12	0.08
LN4034788	WJ4019845	WJ4019851	91.04	150	103	1.47	0.08	0.12
LN4034789	WJ4019851	WJ4015473	114.89	150	103	0.15	0.01	0.00
LN4034792	WJ4019852	WJ4019848	104.87	150	103	1.03	0.06	0.06
LN4034794	WJ4019852	WJ4016750	228.13	150	103	-1.18	0.07	0.08

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4034796	WJ4019855	WJ4019851	218.45	300	120	-9.54	0.13	0.10
LN4034798	WJ4019855	WJ4015640	113.63	150	103	3.00	0.17	0.44
LN4034800	WJ4019842	WJ4019856	104.04	150	103	-1.18	0.07	0.08
LN4034803	WJ4019856	WJ4019852	217.57	150	103	-0.99	0.06	0.06
LN4034809	WJ61514	WJ4019855	77.71	150	103	0.77	0.04	0.03
LN4034813	WJ4019856	WJ4019862	101.91	150	103	-1.19	0.07	0.08
LN4034814	WJ4019862	WJ4017736	185.25	150	103	-1.18	0.07	0.08
LN4034816	WJ4019862	WJ4017788	223.80	150	103	0.75	0.04	0.03
LN4034820	WJ4016055	WJ4019865	95.46	150	103	1.44	0.08	0.11
LN4034821	WJ4019865	WJ61515	75.30	150	103	1.71	0.10	0.15
LN4034823	WJ54014	WJ50379	90.15	150	103	6.12	0.35	1.64
LN4034828	WJ4016147	WJ55331	88.80	150	103	1.30	0.07	0.09
LN4034829	WJ55328	WJ4016056	88.65	150	103	1.47	0.08	0.12
LN4034836	WJ4016125	WJ55338	79.54	150	103	1.26	0.07	0.09
LN4034841	WJ4017733	WJ60926	90.74	150	103	1.90	0.11	0.19
LN4034842	WJ4019873	WJ4019852	100.53	150	103	1.11	0.06	0.07
LN4034845	WJ4019873	WJ4019862	217.85	150	103	0.94	0.05	0.05
LN4034850	WJ53992	WJ54018	74.62	150	103	4.71	0.27	1.01
LN4034854	WJ58937	WJ4019876	165.59	150	114	6.12	0.35	1.36
LN4034931	WJ4017698	WJ58940	70.88	150	114	6.64	0.38	1.58
LN4034967	WJ4015733	WJ4019908	194.49	150	103	-0.94	0.05	0.05
LN4034968	WJ4019908	WJ4016055	218.20	150	103	-0.78	0.04	0.04
LN4034969	WJ55334	WJ4019908	96.50	150	103	1.88	0.11	0.18
LN4034981	WJ4019865	WJ4019914	216.60	150	103	0.85	0.05	0.04
LN4034982	WJ4019914	WJ4010597	209.71	150	103	0.77	0.04	0.04
LN4034983	WJ4019908	WJ4019914	92.76	150	103	1.56	0.09	0.13
LN4034985	WJ4010581	WJ4019916	220.63	150	103	-0.70	0.04	0.03
LN4034986	WJ4019916	WJ61511	215.49	150	103	-0.70	0.04	0.03
LN4034987	WJ4019914	WJ4019916	102.35	150	103	1.48	0.08	0.12
LN4034989	WJ4017702	WJ4019918	233.31	300	120	-5.78	0.08	0.04
LN4034990	WJ4019918	WJ4019855	218.22	300	120	-7.16	0.10	0.06
LN4034991	WJ4019916	WJ4019918	90.81	150	103	1.35	0.08	0.10
LN4034992	WJ4019918	WJ4015587	113.58	150	103	2.58	0.15	0.33
LN4034998	WJ54421	WJ4015587	83.82	150	103	-2.54	0.14	0.32
LN4035159	WJ4011989	WJ4019991	170.37	150	103	0.18	0.01	0.00
LN4035160	WJ4019991	WJ4011452	184.62	150	103	0.35	0.02	0.01
LN4035166	WJ4019991	WJ4011411	96.56	150	103	2.74	0.16	0.37
LN4035167	WJ4011390	WJ4019994	201.31	150	103	0.06	0.00	0.00
LN4035168	WJ4019994	WJ4011454	197.85	150	103	-0.30	0.02	0.01
LN4035170	WJ4019994	WJ4019991	96.62	150	103	3.10	0.18	0.46
LN4035172	WJ4019995	WJ4010410	203.56	150	103	2.19	0.12	0.25
LN4035173	WJ4011579	WJ4019996	126.84	150	103	2.49	0.14	0.31
LN4035174	WJ4019996	WJ4019994	97.81	150	103	2.87	0.16	0.40
LN4035175	WJ4019996	WJ4011399	187.41	150	103	0.31	0.02	0.01
LN4035180	WJ4018874	WJ4019995	19.20	400	129	-0.17	0.00	0.00
LN4035188	WJ4020002	WJ4019995	136.90	150	103	2.38	0.13	0.29
LN4035189	WJ59732	WJ4020003	156.30	150	103	1.81	0.10	0.17
LN4035190	WJ4020003	WJ4011683	141.18	150	103	2.86	0.16	0.40
LN4035195	WJ4020003	WJ4011782	104.10	150	103	1.31	0.07	0.09
LN4035198	WJ4011632	WJ4020007	121.70	150	103	1.32	0.07	0.10
LN4035199	WJ4020007	WJ4011815	242.15	150	103	0.67	0.04	0.03
LN4035212	WJ4010475	WJ4020002	107.85	150	103	0.17	0.01	0.00
LN4035215	WJ4020013	WJ4020002	100.45	150	103	2.25	0.13	0.26
LN4035222	WJ47435	WJ4020013	85.83	150	103	2.27	0.13	0.26
LN4035437	WJ4002202	WJ4020213	192.44	150	103	-3.12	0.18	0.47
LN4035438	WJ4020213	WJ4003146	203.83	150	103	-3.29	0.19	0.52
LN4035439	WJ49146	WJ4020213	93.53	150	103	1.95	0.11	0.20
LN4035440	WJ4020213	WJ4019472	100.76	150	103	1.98	0.11	0.20
LN4035446	WJ4004565	WJ4020220	359.44	150	103	1.69	0.10	0.15
LN4035447	WJ4020220	WJ4004140	120.98	150	103	0.71	0.04	0.03
LN4035448	WJ4004567	WJ4020220	92.05	150	103	3.10	0.18	0.46
LN4035449	WJ4020220	WJ4003925	86.84	150	103	3.94	0.22	0.72
LN4035450	WJ4004396	WJ4020222	84.14	150	103	-0.06	0.00	0.00
LN4035451	WJ4020222	WJ4004563	121.07	150	103	1.35	0.08	0.10
LN4035452	WJ4004354	WJ4020222	105.41	150	103	4.67	0.26	0.99
LN4035453	WJ4020222	WJ4004565	76.92	150	103	3.20	0.18	0.49
LN4035459	WJ4020225	WJ4018068	68.03	300	120	41.89	0.59	1.49
LN4035461	WJ4017359	WJ4020227	218.39	150	103	0.54	0.03	0.02
LN4035462	WJ4020227	WJ4020225	218.51	150	103	2.25	0.13	0.26
LN4035463	WJ4005072	WJ4020227	94.47	150	103	5.60	0.32	1.39
LN4035464	WJ4020227	WJ4003929	83.63	150	103	3.72	0.21	0.65
LN4035465	WJ4020225	WJ49000	216.17	150	103	-5.95	0.34	1.56
LN4035466	WJ4020229	WJ4003845	26.46	150	103	-1.61	0.09	0.14
LN4035467	WJ4017666	WJ4020229	380.96	400	129	24.21	0.19	0.12
LN4035468	WJ4020229	WJ4003831	84.80	400	129	19.82	0.16	0.08
LN4035472	WJ4005083	WJ4020225	188.99	300	120	33.87	0.48	1.00

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4035478	WJ4018166	WJ4018217	115.84	150	114	-3.18	0.18	0.40
LN4035488	WJ4018482	WJ55020	61.72	150	103	-0.07	0.00	0.00
LN4035524	WJ4020263	WJ4020259	230.45	150	114	-0.28	0.02	0.00
LN4035527_A001	WJ4020264	WV4021627	140.15	600	130	190.29	0.67	0.72
LN4035527_A002	WV4021627	WJ4014260	179.66	600	130	190.29	0.67	0.72
LN4035528	WJ4014259	WJ4020269	138.01	150	103	-6.49	0.37	1.82
LN4035530	WJ4020268	WJ4020269	58.21	300	132	6.55	0.09	0.04
LN4035531	WJ4020267	WJ4020268	97.63	300	132	12.88	0.18	0.14
LN4035532	WJ4020266	WJ4020267	100.89	300	132	13.01	0.18	0.14
LN4035533	WJ4020265	WJ4020266	27.16	300	132	19.49	0.28	0.30
LN4035534	WJ4020264	WJ4020265	36.43	300	132	19.61	0.28	0.31
LN4035536	WJ4020268	WJ4019726	89.81	150	103	6.26	0.35	1.71
LN4035537	WJ4019724	WJ4020266	89.35	150	103	-6.44	0.36	1.80
LN4035539	WJ4008476	WJ4020274	443.08	600	130	187.42	0.66	0.70
LN4035541	WJ4020274	WJ4020275	168.59	600	130	216.34	0.77	0.92
LN4035542	WJ4020275	WJ4020264	399.60	600	130	212.55	0.75	0.89
LN4035545	WJ4008433	WJ4020274	327.32	300	120	29.44	0.42	0.77
LN4035547	WJ4020275	WJ4020278	7.12	300	120	3.79	0.05	0.02
LN4035549	WJ4013538	WJ4022803	91.62	250	110	4.91	0.10	0.08
LN4035551	WJ4016732	WJ4017755	150.57	300	120	-3.22	0.05	0.01
LN4035554	WJ4016839	WJ4016834	190.64	150	103	-2.43	0.14	0.30
LN4035582	WJ4006305	WJ48469	168.44	150	103	0.06	0.00	0.00
LN4035788	WJ47436	WJ4020423	87.70	150	114	0.02	0.00	0.00
LN4035789	WJ4020598	WJ4020596	103.22	150	114	1.45	0.08	0.09
LN4035791	WJ4020599	WJ4020598	97.25	150	114	2.75	0.16	0.31
LN4035803	WJ53447	WJ4002007	91.06	150	103	-0.92	0.05	0.05
LN4035891	WJ4020703	WJ4018604	24.18	150	114	2.13	0.12	0.19
LN4035892	WJ4018605	WJ4020704	22.69	150	114	2.49	0.14	0.26
LN4035893	WJ4020704	WJ4020703	316.54	150	114	0.90	0.05	0.04
LN4035894	WJ4020703	WJ4020704	134.53	150	114	-1.42	0.08	0.09
LN4035907	WJ4020716	WJ4020715	6.36	150	114	2.87	0.16	0.33
LN4035908	WJ4020717	WJ4020716	109.70	150	114	-2.32	0.13	0.22
LN4035914_A001	WJ4017212	J-HY4019591	33.28	300	132	4.82	0.07	0.02
LN4035914_A002	J-HY4019591	WJ4020722	79.72	300	132	4.82	0.07	0.02
LN4035915_A001	WJ4020722	J-HY16261	112.96	300	132	-0.17	0.00	0.00
LN4035915_A002	J-HY16261	J-HY4017085	120.75	300	132	-0.17	0.00	0.00
LN4035915_A003	J-HY4017085	WJ4017209	22.50	300	132	-0.17	0.00	0.00
LN4035919	WJ4010521	WJ4020727	330.07	300	120	-22.42	0.32	0.47
LN4035920	WJ4020727	WJ4017869	15.95	300	132	-22.42	0.32	0.39
LN4035922	WJ53462	WJ4017869	307.12	300	132	22.43	0.32	0.39
LN4035923	WJ56688	WJ4020729	80.81	300	120	39.42	0.56	1.33
LN4035924	WJ4020729	WJ59734	16.82	300	120	37.03	0.52	1.18
LN4035926	WJ4020730	WJ4017869	9.56	300	132	0.00	0.00	0.00
LN4035929	WJ61124	WJ4020717	105.89	150	114	-0.26	0.01	0.00
LN4035930	WJ4020729	WJ4020732	49.94	150	114	2.39	0.14	0.24
LN4035934	WJ4020739	WJ4020740	76.05	150	114	0.93	0.05	0.04
LN4035935	WJ4020732	WJ4020738	226.62	150	114	2.21	0.12	0.21
LN4035936	WJ53118	WJ4020741	19.30	150	114	-1.12	0.06	0.06
LN4035937_A001	WJ4020741	J-HY4018649	53.12	150	114	-2.34	0.13	0.23
LN4035937_A002	J-HY4018649	WJ58533	54.72	150	114	-2.34	0.13	0.23
LN4035943	WJ49340	WJ49248	105.92	150	114	-2.20	0.12	0.20
LN4035992	WJ27375	WJ4010421	314.91	400	129	-40.89	0.33	0.31
LN4035999	WJ4020832	WJ4020828	501.30	400	129	6.94	0.06	0.01
LN4036014	WJ4018217	WJ59074	367.87	400	129	9.16	0.07	0.02
LN4036017	WJ4020832	WJ59074	205.63	400	129	-8.09	0.06	0.02
LN4036022	WJ4010295	WJ4020856	79.01	150	103	2.50	0.14	0.31
LN4036023	WJ4020856	WJ59072	104.63	150	103	2.21	0.12	0.25
LN4036026	WJ4020858	WJ4020853	99.75	150	114	-1.15	0.07	0.06
LN4036027	WJ4020740	WJ4020858	93.70	150	114	-2.10	0.12	0.19
LN4036029	WJ4020740	WJ4020862	144.05	150	114	2.99	0.17	0.36
LN4036031	WJ4010422	WJ4020864	96.56	300	120	42.21	0.60	1.51
LN4036032	WJ4020865	WJ4020864	617.52	250	115	-0.27	0.01	0.00
LN4036033	WJ4020867	WJ4020863	99.75	150	114	-1.59	0.09	0.11
LN4036034	WJ4020739	WJ4020867	95.28	150	114	-2.30	0.13	0.22
LN4036035	WJ4020738	WJ4020739	10.68	150	114	-1.34	0.08	0.08
LN4036036	WJ4020862	WJ4020738	115.15	150	114	-3.45	0.20	0.47
LN4036050	WJ4011486	WJ4020882	57.75	300	120	28.57	0.40	0.73
LN4036060	WJ4020882	WJ4020862	75.83	150	114	-6.04	0.34	1.33
LN4036139	WJ4019876	WJ4020967	6.53	150	114	6.00	0.34	1.31
LN4036140	WJ4020967	WJ53993	70.21	150	103	6.00	0.34	1.58
LN4036145	WJ4019790	WJ4020969	216.54	150	114	-0.18	0.01	0.00
LN4036146	WJ4020969	WJ4019812	3.19	150	114	-4.58	0.26	0.79
LN4036150	WJ4020969	WJ4008332	120.89	150	114	4.30	0.24	0.71
LN4036157	WJ4020971	WJ4011622	127.89	150	114	-1.31	0.07	0.08
LN4036159	WJ4020007	WJ4020971	96.04	150	114	-0.39	0.02	0.01
LN4036166	WJ4020007	WJ4020978	109.79	150	114	0.90	0.05	0.04

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4036169	WJ4020978	WJ4020979	112.54	150	114	0.35	0.02	0.01
LN4036173	WJ4011859	WJ4020981	242.11	150	103	-0.36	0.02	0.01
LN4036175	WJ4020979	WJ4020981	10.10	150	114	1.30	0.07	0.08
LN4036176	WJ4020980	WJ4010422	324.24	150	103	-0.15	0.01	0.00
LN4036180	WJ4020981	WJ4020984	102.09	150	114	0.86	0.05	0.04
LN4036181	WJ4017698	WJ4020980	97.63	150	114	-7.06	0.40	1.77
LN4036182	WJ4010368	WJ4010217	100.39	150	114	-4.85	0.27	0.88
LN4036187	WJ4020987	WJ4020984	123.82	150	114	-0.54	0.03	0.02
LN4036190	WJ4020867	WJ4020717	160.55	150	114	-1.90	0.11	0.16
LN4036192	WJ4020867	WJ4020858	127.92	150	114	1.05	0.06	0.05
LN4036215	WJ4020987	WJ4021011	139.02	150	114	0.32	0.02	0.01
LN4036228	WJ4011139	WJ4021023	101.13	150	114	-0.12	0.01	0.00
LN4036229	WJ4021023	WJ4011947	120.37	150	103	-0.18	0.01	0.00
LN4036231	WJ4011139	WJ4021011	234.88	150	114	-0.16	0.01	0.00
LN4036254	WJ4011305	WJ4021044	98.03	150	114	-0.54	0.03	0.01
LN4036255	WJ4018111	WJ4021047	63.80	300	120	-5.09	0.07	0.03
LN4036256	WJ4021047	WJ4018113	4.80	300	120	-4.42	0.06	0.02
LN4036257	WJ4021044	WJ4018113	90.93	150	114	-0.19	0.01	0.00
LN4036287	WJ58461	WJ4021076	7.85	400	129	-19.88	0.16	0.08
LN4036297_A001	WJ19333	WV15899	390.57	600	130	-144.31	0.51	0.43
LN4036297_A002	WV15899	WJ21598	400.20	600	130	-144.31	0.51	0.43
LN4036345	WJ4021126	WJ55022	65.79	150	114	-0.05	0.00	0.00
LN4036361_A001	WJ4015339	J-HY16136	24.10	300	132	0.04	0.00	0.00
LN4036361_A002	J-HY16136	WJ4021144	102.57	300	132	0.04	0.00	0.00
LN4036400	WJ4019063	WJ4021189	35.51	150	114	-0.02	0.00	0.00
LN4036401	WJ59147	WJ48216	597.36	150	103	-0.24	0.01	0.00
LN4036461	WJ4008690	WJ4021233	14.62	300	120	4.73	0.07	0.03
LN4036462	WJ4021233	WJ4008678	89.15	300	120	4.73	0.07	0.03
LN4036467	WJ4020716	WJ56701	89.07	150	114	-5.22	0.30	1.01
LN4036477	WJ4020715	WJ4020863	109.77	150	114	2.85	0.16	0.33
LN4036484	WJ4020853	WJ4020863	173.49	150	114	-1.21	0.07	0.07
LN4036511	WJ4018306	WJ4021261	113.68	150	114	-1.00	0.06	0.05
LN4037291	WJ53848	WJ4018443	95.95	300	120	0.61	0.01	0.00
LN4037293_A001	WJ4019626	J-HY4019478	8.22	300	132	8.33	0.12	0.06
LN4037293_A002	J-HY4019478	WJ4012588	87.33	300	132	8.33	0.12	0.06
LN4037393	WJ4008654	WJ4022762	153.92	300	120	45.16	0.64	1.71
LN4037398	WJ4022762	WJ4022764	281.31	300	120	45.16	0.64	1.71
LN4037399	WJ4022764	WJ56681	145.95	300	120	45.15	0.64	1.71
LN4037432	WJ4020979	WJ4022778	130.60	150	114	-0.98	0.06	0.05
LN4037433	WJ4022778	WJ4011634	175.78	150	103	-1.08	0.06	0.07
LN4037458	WJ4018342	WJ4018341	468.34	400	129	27.99	0.22	0.15
LN4037459	WJ4018341	WJ4018400	6.90	400	129	62.96	0.50	0.68
LN4037475	WJ4008659	WJ4022800	5.56	900	130	-670.43	1.05	1.03
LN4037476_A001	WJ4022800	WV4004307	346.15	900	130	7.94	0.01	0.00
LN4037476_A002	WV4004307	WJ4018133	647.05	900	130	7.94	0.01	0.00
LN4037479	WJ4022803	WJ4018053	26.28	400	129	25.78	0.21	0.13
LN4037480	WJ4008657	WJ4022804	20.51	900	130	626.20	0.98	0.91
LN4037481_A001	WJ4022804	WV4004327	9.55	900	130	626.20	0.98	0.91
LN4037481_A002	WV4004327	WJ4018048	551.53	900	130	626.20	0.98	0.91
LN4037543	WJ4011011	WJ4020599	117.02	150	114	5.35	0.30	1.06
LN4037651	WJ4015007	WJ4023042	102.15	150	103	-1.29	0.07	0.09
LN4037653	WJ4023042	WJ4023043	216.99	150	103	-1.44	0.08	0.11
LN4037654	WJ4023043	WJ4014481	79.71	150	103	-1.49	0.08	0.12
LN4037690_A001	WJ4018472	WV4004993	3.06	900	130	-133.81	0.21	0.05
LN4037690_A002	WV4004993	WV10604	3.66	900	130	-133.81	0.21	0.05
LN4037690_A003	WV10604	WV4004999	92.53	900	130	-133.81	0.21	0.05
LN4037690_A004	WV4004999	WV10609	197.28	900	130	-133.81	0.21	0.05
LN4037690_A005	WV10609	WJ4019556	484.19	900	130	-133.81	0.21	0.05
LN4037692	WJ4023053	WJ4018472	3.11	900	130	-134.42	0.21	0.05
LN4037695_A001	WJ4018465	WV4005009	17.02	900	130	331.91	0.52	0.28
LN4037695_A002	WV4005009	WJ4023053	43.28	900	130	331.91	0.52	0.28
LN4037696_A001	WJ4023055	WV4005023	154.27	900	130	357.50	0.56	0.32
LN4037696_A002	WV4005023	WV4005020	594.57	900	130	357.50	0.56	0.32
LN4037696_A003	WV4005020	WV4005018	189.11	900	130	357.50	0.56	0.32
LN4037696_A004	WV4005018	WV4005012	143.09	900	130	357.50	0.56	0.32
LN4037696_A005	WV4005012	WJ4018465	4.33	900	130	357.50	0.56	0.33
LN4037697_A001	WJ4018341	WV4005029	27.18	500	130	-34.97	0.18	0.08
LN4037697_A002	WV4005029	WJ4023055	1.05	500	130	-34.97	0.18	0.09
LN4037701	WJ4008317	WJ4008182	23.50	750	130	211.97	0.48	0.30
LN4037704_A001	WJ4018863	WV4005103	136.90	900	130	604.60	0.95	0.85
LN4037704_A002	WV4005103	WV4005104	57.66	900	130	604.60	0.95	0.85
LN4037704_A003	WV4005104	WV4005097	286.87	900	130	604.60	0.95	0.85
LN4037704_A004	WV4005097	WV4005089	409.75	900	130	604.60	0.95	0.85
LN4037704_A005	WV4005089	WV4005087	106.15	900	130	604.60	0.95	0.85
LN4037704_A006	WV4005087	WV4005043	83.76	900	130	604.60	0.95	0.85
LN4037704_A007	WV4005043	WJ4008317	11.06	900	130	604.60	0.95	0.85

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4037710	WJ49342	WJ4008156	114.07	150	103	-2.61	0.15	0.34
LN4037718	WJ4017784	WJ4023063	13.03	200	115	1.98	0.06	0.04
LN4037719	WJ4023063	WJ4017785	100.53	150	103	1.96	0.11	0.20
LN4038270	WJ4018159	WJ4024064	242.08	300	120	-7.30	0.10	0.06
LN4038271	WJ4024064	WJ4002308	106.55	300	120	-7.35	0.10	0.06
LN4038399	WJ4002365	WJ4024315	40.89	300	120	7.14	0.10	0.06
LN4038400	WJ4024315	WJ4002308	67.07	300	120	7.12	0.10	0.06
LN4039390_A001	WJ4018446	WV4011218	37.62	900	130	-452.31	0.71	0.50
LN4039390_A002	WV4011218	WJ4018439	102.56	900	130	-452.31	0.71	0.50
LN4039401_A001	WJ4023052	WV4011250	66.79	900	130	466.33	0.73	0.53
LN4039401_A002	WV4011250	WV4011277	410.91	900	130	466.33	0.73	0.53
LN4039401_A003	WV4011277	WJ4018439	516.40	900	130	466.33	0.73	0.53
LN4039451_A001	WJ4012384	WV4011841	23.83	900	130	-434.32	0.68	0.46
LN4039451_A002	WV4011841	WV4011849	85.63	900	130	-434.32	0.68	0.46
LN4039451_A003	WV4011849	WV4011750	269.45	900	130	-434.32	0.68	0.46
LN4039451_A004	WV4011750	WV4011763	6.49	900	130	-434.32	0.68	0.46
LN4039451_A005	WV4011763	WV4011740	30.27	900	130	-434.32	0.68	0.46
LN4039451_A006	WV4011740	WV50459	57.62	900	130	-434.32	0.68	0.46
LN4039451_A007	WV50459	WJ53112	4.08	900	130	-434.32	0.68	0.46
LN4039489	WJ4018634	WJ4026374	152.53	300	132	-27.10	0.38	0.56
LN4039490	WJ4026374	WJ4018633	50.96	300	132	-26.64	0.38	0.54
LN4039700	WJ23508	WJ4008156	146.72	150	103	6.63	0.38	1.90
LN4041184	WJ4019335	WJ4019334	20.13	100	100	0.03	0.00	0.00
LN4043556	WJ4020856	WJ4017284	368.20	150	103	-0.04	0.00	0.00
LN4044918	WJ4023053	WJ4023052	25.72	900	130	466.33	0.73	0.53
LN4045166_A001	WJ4018001	J-HY4035405	24.52	300	132	-5.74	0.08	0.03
LN4045166_A002	J-HY4035405	WJ4037579	11.49	300	132	-5.74	0.08	0.03
LN4045167	WJ4037579	WJ4018002	50.43	300	132	-8.28	0.12	0.06
LN4045171	WJ4037579	WJ4037574	18.00	200	115	2.54	0.08	0.06
LN4045172	WJ4037574	WJ4037577	1.00	200	115	2.54	0.08	0.07
LN4045173	WJ4037574	WJ4037578	2.60	100	100	0.00	0.00	0.00
LN4045192	WJ4018001	WJ4037625	44.99	300	132	4.95	0.07	0.02
LN4045195	WJ4037618	WJ4037619	1.40	100	100	0.00	0.00	0.00
LN4045196	WJ4037618	WJ4037620	1.00	200	115	0.00	0.00	0.00
LN4045197	WJ4037625	WJ4037618	16.20	200	115	0.00	0.00	0.00
LN4045215	WJ4037660	WJ4037662	2.80	100	100	1.00	0.13	0.43
LN4045216	WJ4037660	WJ4037661	1.20	200	115	0.00	0.00	0.00
LN4045219_A001	WJ4037625	J-HY4035466	31.01	300	132	4.95	0.07	0.02
LN4045219_A002	J-HY4035466	WJ4037669	1.79	300	132	4.95	0.07	0.02
LN4045224	WJ4037669	WJ4037660	15.80	200	115	1.00	0.03	0.01
LN4045284	WJ4037669	WJ4037800	49.93	300	132	3.95	0.06	0.02
LN4045289	WJ4037800	WJ4037793	4.00	200	115	0.00	0.00	0.00
LN4045290	WJ4037793	WJ4037794	1.00	200	115	0.00	0.00	0.00
LN4045291	WJ4037786	WJ4037800	15.80	200	115	-1.02	0.03	0.01
LN4045292	WJ4037787	WJ4037786	1.20	200	115	0.00	0.00	0.00
LN4045293	WJ4037793	WJ4037795	2.60	100	100	0.00	0.00	0.00
LN4045294	WJ4037786	WJ4037788	2.77	100	100	1.02	0.13	0.45
LN4045308_A001	WJ4037800	J-HY4035661	24.47	300	132	2.93	0.04	0.01
LN4045308_A002	J-HY4035661	J-HY4035718	72.24	300	132	2.93	0.04	0.01
LN4045308_A003	J-HY4035718	WJ4037839	12.13	300	132	2.93	0.04	0.01
LN4045309	WJ4037839	WJ4017928	26.50	300	132	0.12	0.00	0.00
LN4045311	WJ4037836	WJ4037838	2.50	100	100	0.00	0.00	0.00
LN4045312	WJ4037839	WJ4037838	4.00	200	115	1.05	0.03	0.01
LN4045313	WJ4037838	WJ4037834	1.00	200	115	1.05	0.03	0.02
LN4045314	WJ4037839	WJ4037829	15.80	200	115	0.00	0.00	0.00
LN4045315	WJ4037829	WJ4037831	1.20	200	115	0.00	0.00	0.00
LN4045316	WJ4037829	WJ4037830	2.70	100	100	0.00	0.00	0.00
LN4045319	WJ4017928	WJ4037849	26.50	300	132	2.09	0.03	0.00
LN4045321	WJ4037846	WJ4037847	2.70	100	100	0.00	0.00	0.00
LN4045322	WJ4037849	WJ4037846	15.80	200	115	1.66	0.05	0.03
LN4045323	WJ4037846	WJ4037848	1.20	200	115	1.66	0.05	0.03
LN4045326	WJ4037849	WJ4037857	19.60	300	132	0.43	0.01	0.00
LN4045327_A001	WJ4037857	J-HY4035760	2.40	300	132	0.43	0.01	0.00
LN4045327_A002	J-HY4035760	J-HY4035746	67.41	300	132	0.43	0.01	0.00
LN4045327_A003	J-HY4035746	WJ4017927	5.00	300	132	0.43	0.01	0.00
LN4045328	WJ4037857	WJ4037854	4.00	200	115	0.00	0.00	0.00
LN4045329	WJ4037854	WJ4037856	1.00	200	115	0.00	0.00	0.00
LN4045330	WJ4037854	WJ4037855	2.48	100	100	0.00	0.00	0.00
LN4045511_A001	WJ4038214	J-HY4037641	37.60	400	129	-5.77	0.05	0.01
LN4045511_A002	J-HY4037641	WJ4017999	38.72	400	129	-5.77	0.05	0.01
LN4045518	WJ4038205	WJ4038206	2.60	100	100	0.00	0.00	0.00
LN4045521	WJ4038214	WJ4038205	4.00	200	115	0.00	0.00	0.00
LN4045522	WJ4038205	WJ4038207	1.00	200	115	0.00	0.00	0.00
LN4045581	WJ4038346	WJ4038214	18.40	400	129	-5.77	0.05	0.01
LN4045585	WJ4018131	WJ4038353	12.72	150	103	-1.68	0.09	0.15
LN4045586_A001	WJ4038353	J-HY4037018	58.66	150	103	-0.49	0.03	0.01

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4045586_A002	J-HY4037018	J-HY4037006	120.71	150	103	-0.49	0.03	0.01
LN4045586_A003	J-HY4037006	WJ4018072	28.36	150	103	-0.49	0.03	0.01
LN4045589	WJ4038353	WJ4038335	3.82	400	129	0.00	0.00	0.00
LN4045590	WJ4038346	WJ4038353	15.58	400	129	1.22	0.01	0.00
LN4045607	WJ4038388	WJ4038346	15.18	400	129	-4.54	0.04	0.01
LN4045711	WJ4018000	WJ4038595	56.45	300	132	-0.79	0.01	0.00
LN4045712_A001	WJ4038595	J-HY4038255	12.80	300	132	-0.79	0.01	0.00
LN4045712_A002	J-HY4038255	WJ4018001	45.83	300	132	-0.79	0.01	0.00
LN4045713	WJ4038595	WJ4038594	3.60	200	115	0.00	0.00	0.00
LN4045714	WJ4038594	WJ4038592	1.20	200	115	0.00	0.00	0.00
LN4045715	WJ4038594	WJ4038593	2.80	100	100	0.00	0.00	0.00
LN4045732_A001	WJ4017928	J-HY4035780	36.14	300	132	-4.69	0.07	0.02
LN4045732_A002	J-HY4035780	WJ4038628	59.40	300	132	-4.69	0.07	0.02
LN4045733_A001	WJ4038628	J-HY4038518	38.00	300	132	-4.69	0.07	0.02
LN4045733_A002	J-HY4038518	WJ4018000	29.92	300	132	-4.69	0.07	0.02
LN4045735	WJ4038631	WJ4038633	2.80	100	100	0.00	0.00	0.00
LN4045736	WJ4038628	WJ4038631	3.60	200	115	0.00	0.00	0.00
LN4045737	WJ4038631	WJ4038632	1.20	200	115	0.00	0.00	0.00
LN4045764	WJ4018000	WJ4038686	48.20	300	132	-3.90	0.06	0.02
LN4045765_A001	WJ4038686	J-HY4037552	25.89	300	132	-4.68	0.07	0.02
LN4045765_A002	J-HY4037552	WJ4017999	11.00	300	132	-4.68	0.07	0.02
LN4045766	WJ4038686	WJ4038685	14.20	200	115	0.32	0.01	0.00
LN4045767	WJ4038685	WJ4038682	1.20	200	115	0.32	0.01	0.00
LN4045768	WJ4038685	WJ4038681	2.80	100	100	0.00	0.00	0.00
LN4046908	WJ4004354	WJ4006153	0.29	150	103	-3.53	0.20	0.57
LN4046909	WJ4020263	WJ4019687	91.07	150	114	-0.06	0.00	0.00
LN4046912	WJ4020832	WJ4019320	115.92	150	114	0.07	0.00	0.00
LN4046913	WJ4004368	WJ4006214	62.89	150	103	0.07	0.00	0.00
LN4046919	WJ4020980	WJ4010368	22.05	150	114	-7.04	0.40	1.76
LN4046921	WJ58412	WJ4006075	41.31	200	115	-2.13	0.07	0.05
LN4046925	WJ4017794	WJ4040955	24.36	400	129	72.82	0.58	0.89
LN4046926	WJ4040955	WJ4017282	9.94	400	129	41.94	0.33	0.32
LN4046927	WJ4010233	WJ4040955	19.15	400	129	-0.03	0.00	0.00
LN4046928	WJ4040955	WJ4017795	211.35	400	129	30.44	0.24	0.18
LN4046943	WJ4018464	WJ4040961	39.32	300	120	3.83	0.05	0.02
LN4046944	WJ4040961	WJ4018471	14.06	300	120	3.83	0.05	0.02
LN4047389	WJ4018451	WJ19276	151.50	600	130	-52.52	0.19	0.07
LN4047390	WJ19276	WJ4021076	247.86	600	130	-78.64	0.28	0.14
LN4047391	WJ28114	WJ19276	168.36	600	130	-26.12	0.09	0.02
LN4047432	WJ19330	WJ4019777	217.33	300	120	-25.54	0.36	0.60
LN4047434_A001	WJ4018542	J-HY13959	80.75	400	129	2.01	0.02	0.00
LN4047434_A002	J-HY13959	WJ19330	24.90	400	129	2.01	0.02	0.00
LN4047435_A001	WJ19330	J-HY13956	77.01	400	129	15.89	0.13	0.05
LN4047435_A002	J-HY13956	WJ51974	19.16	400	129	15.89	0.13	0.05
LN4047439	WJ4021076	WJ19333	187.45	600	130	-98.52	0.35	0.21
LN4047441	WJ19333	WJ4019792	12.02	400	129	45.45	0.36	0.37
LN4047467	WJ19377	WJ4018575	18.88	400	129	13.94	0.11	0.04
LN4047468	WJ4018586	WJ19378	300.21	600	130	-66.13	0.23	0.10
LN4047469	WJ19378	WJ4018532	97.61	600	130	-61.07	0.22	0.09
LN4047470	WJ19377	WJ19378	10.16	400	129	6.83	0.05	0.01
LN4048224	WJ4022803	WJ4013548	9.12	400	129	-20.93	0.17	0.09
LN4048225_A001	WJ4013548	J-HY14497	52.26	400	129	-18.13	0.14	0.07
LN4048225_A002	J-HY14497	WJ20153	42.37	400	129	-18.13	0.14	0.07
LN4048226	WJ20153	WJ20154	4.51	400	129	-20.86	0.17	0.09
LN4048227	WJ20154	WJ20132	84.74	400	129	-18.32	0.15	0.07
LN4048228	WJ20132	WJ20173	105.36	300	132	-0.28	0.00	0.00
LN4048229_A001	WJ20173	J-HY14477	50.93	300	132	-0.29	0.00	0.00
LN4048229_A002	J-HY14477	WJ27974	96.66	300	132	-0.29	0.00	0.00
LN4048230_A001	WJ4013756	J-HY14498	31.13	400	129	18.06	0.14	0.07
LN4048230_A002	J-HY14498	J-HY14499	72.65	400	129	18.06	0.14	0.07
LN4048230_A003	J-HY14499	WJ20132	12.09	400	129	18.06	0.14	0.07
LN4049025	WJ4017292	WJ20935	100.89	150	103	0.15	0.01	0.00
LN4049045	WJ4010286	WJ4020856	244.46	150	103	-0.12	0.01	0.00
LN4049165_A001	WJ58460	J-HY4007618	104.41	150	103	-2.76	0.16	0.37
LN4049165_A002	J-HY4007618	WJ21055	89.07	150	103	-2.76	0.16	0.37
LN4049166	WJ21055	WJ4019795	187.19	150	103	-2.79	0.16	0.38
LN4049167_A001	WJ21075	J-HY4007868	96.44	150	103	2.12	0.12	0.23
LN4049167_A002	J-HY4007868	WJ58458	87.49	150	103	2.12	0.12	0.23
LN4049168	WJ4019809	WJ21075	185.02	150	103	3.27	0.19	0.51
LN4049227	WJ4019572	WJ49325	191.16	150	103	-4.74	0.27	1.02
LN4049229	WJ4017590	WJ49327	80.54	150	103	-0.14	0.01	0.00
LN4049230	WJ49326	WJ21799	95.30	150	103	2.18	0.12	0.24
LN4049325	WJ21239	WJ4017733	11.22	300	132	3.24	0.05	0.01
LN4049326_A001	WJ4017083	J-HY14643	8.65	300	132	0.96	0.01	0.00
LN4049326_A002	J-HY14643	J-HY14641	82.80	300	132	0.96	0.01	0.00
LN4049326_A003	J-HY14641	WJ21278	6.59	300	132	0.96	0.01	0.00

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4049345	WJ21258	WJ21239	40.35	300	132	0.49	0.01	0.00
LN4049347_A001	WJ21278	J-HY14642	63.02	300	132	0.60	0.01	0.00
LN4049347_A002	J-HY14642	WJ21258	24.09	300	132	0.60	0.01	0.00
LN4049365	WJ21298	WJ4017178	106.25	150	103	-3.65	0.21	0.63
LN4049585	WJ21558	WJ4013268	111.11	150	103	-0.71	0.04	0.03
LN4049645	WJ4014260	WJ21578	128.07	600	130	174.45	0.62	0.62
LN4049666	WJ28175	WJ4014248	129.78	300	132	32.99	0.47	0.80
LN4049685	WJ21578	WJ21598	61.88	600	130	174.45	0.62	0.62
LN4049730	WJ4004538	WJ21660	219.07	150	103	0.41	0.02	0.01
LN4049731	WJ4017766	WJ21660	94.83	300	120	25.24	0.36	0.58
LN4049732	WJ21660	WJ4005083	95.53	300	120	29.41	0.42	0.77
LN4049847	WJ47749	WJ21799	185.94	150	114	-5.34	0.30	1.06
LN4049848	WJ21799	WJ53664	193.43	150	114	-3.34	0.19	0.44
LN4050091	WJ52222	WJ58406	127.87	150	103	-3.19	0.18	0.49
LN4050092	WJ58404	WJ4005968	71.72	150	103	0.25	0.01	0.00
LN4050315_A001	WJ51978	J-HY4007487	31.80	300	132	24.78	0.35	0.47
LN4050315_A002	J-HY4007487	WJ4017778	38.10	300	132	24.78	0.35	0.47
LN4050316	WJ22344	WJ22343	13.63	150	114	3.05	0.17	0.37
LN4050317	WJ4017793	WJ22345	203.10	150	114	3.31	0.19	0.44
LN4050318	WJ22343	WJ22361	139.15	150	114	3.22	0.18	0.41
LN4050319	WJ22345	WJ22344	191.74	150	114	3.26	0.18	0.42
LN4050491	WJ4019829	WJ4017782	221.39	150	114	0.72	0.04	0.03
LN4050492	WJ4017782	WJ4019768	218.90	150	114	0.67	0.04	0.02
LN4050493	WJ4019768	WJ4019841	223.37	150	114	1.06	0.06	0.05
LN4050494	WJ4019841	WJ4019865	218.26	150	114	1.29	0.07	0.08
LN4050531	WJ22601	WJ4019572	17.66	150	103	2.42	0.14	0.29
LN4050532	WJ4009358	WJ22601	236.02	150	114	2.43	0.14	0.25
LN4050551	WJ4019630	WJ22621	2.21	400	129	-27.46	0.22	0.14
LN4050571_A001	WJ58543	J-HY4018339	45.44	300	132	14.73	0.21	0.18
LN4050571_A002	J-HY4018339	J-HY4018331	129.07	300	132	14.73	0.21	0.18
LN4050571_A003	J-HY4018331	WJ53115	61.23	300	132	14.73	0.21	0.18
LN4050612	WJ4019798	WJ22724	2.10	150	103	1.93	0.11	0.20
LN4050631	WJ52751	WJ22721	198.01	300	132	-1.21	0.02	0.00
LN4050632	WJ22721	WJ22724	358.66	150	114	-0.58	0.03	0.02
LN4050691	WJ22821	WJ4018021	608.22	300	132	26.40	0.37	0.53
LN4050731	WJ22821	WJ22861	380.80	300	132	-21.38	0.30	0.36
LN4050771	WJ22861	WJ4017897	387.25	300	132	-24.13	0.34	0.45
LN4051119	WJ59422	WJ23505	100.78	300	132	37.21	0.53	1.00
LN4051120	WJ23505	WJ23506	168.91	300	132	34.31	0.49	0.86
LN4051121	WJ23506	WJ23507	67.20	300	132	34.21	0.48	0.86
LN4051122	WJ23507	WJ23508	98.43	300	132	36.64	0.52	0.97
LN4051123	WJ23508	WJ23509	164.57	300	132	29.82	0.42	0.66
LN4051124	WJ23509	WJ23510	90.58	300	132	30.38	0.43	0.69
LN4051125	WJ23510	WJ23511	142.23	300	132	25.18	0.36	0.49
LN4051126	WJ23511	WJ4008023	89.89	300	132	25.05	0.35	0.48
LN4051127	WJ23511	WJ23544	82.58	150	114	0.04	0.00	0.00
LN48640	WJ48206	WJ48215	76.97	200	115	2.11	0.07	0.05
LN48644	WJ48208	WJ48206	22.56	300	132	-4.71	0.07	0.02
LN48645	WJ48205	WJ48206	11.95	300	132	6.82	0.10	0.04
LN48649	WJ48210	WJ48213	93.63	200	115	1.13	0.04	0.01
LN48650	WJ48210	WJ48211	16.85	150	114	0.52	0.03	0.01
LN48651	WJ48213	WJ48272	305.83	200	115	0.34	0.01	0.00
LN48652	WJ48213	WJ48243	15.88	150	114	0.66	0.04	0.02
LN48653	WJ48215	WJ48210	21.47	200	115	1.66	0.05	0.03
LN48654	WJ48216	WJ48215	21.09	150	114	-0.41	0.02	0.01
LN48676	WJ48244	WJ59147	7.54	150	114	0.18	0.01	0.00
LN48703	WJ48272	WJ48273	10.83	150	114	0.00	0.00	0.00
LN48704	WJ48272	WJ48244	173.64	200	115	0.19	0.01	0.00
LN48878	WJ48471	WJ4008389	3.54	300	120	-3.91	0.06	0.02
LN49315	WJ48953	WJ48955	141.57	150	114	-0.79	0.04	0.03
LN49317	WJ48955	WJ48956	17.46	150	114	1.14	0.06	0.06
LN49318	WJ48955	WJ48957	109.65	150	114	-1.99	0.11	0.17
LN49319	WJ48958	WJ48957	13.15	150	114	3.26	0.18	0.42
LN49321	WJ48957	WJ48960	122.01	150	114	1.17	0.07	0.06
LN49323	WJ4005731	WJ48953	3.31	150	103	1.02	0.06	0.06
LN49324	WJ48960	WJ48963	178.10	150	114	1.55	0.09	0.11
LN49325	WJ48961	WJ48960	6.52	150	114	0.48	0.03	0.01
LN49326	WJ48963	WJ4006212	2.73	150	103	2.58	0.15	0.33
LN49327	WJ4017772	WJ48968	812.15	200	115	6.77	0.22	0.40
LN49328	WJ4009045	WJ48968	4.10	150	103	-8.28	0.47	2.87
LN49329	WJ48969	WJ48971	17.93	150	114	2.23	0.13	0.21
LN49331	WJ48971	WJ48973	17.35	150	114	-4.08	0.23	0.64
LN49333	WJ48972	WJ48971	4.81	150	114	-2.21	0.12	0.21
LN49335	WJ49001	WJ48974	87.12	200	115	4.10	0.13	0.16
LN49336	WJ48979	WJ48974	9.06	150	114	-3.51	0.20	0.48
LN49337	WJ48974	WJ48980	17.84	150	114	-4.51	0.26	0.77

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN49338	WJ48974	WJ48985	95.31	200	115	5.09	0.16	0.23
LN49340	WJ48980	WJ4017666	277.95	150	114	-4.65	0.26	0.82
LN49341	WJ48984	WJ48985	6.51	150	114	-4.00	0.23	0.61
LN49342	WJ48985	WJ48983	13.25	150	114	-4.01	0.23	0.62
LN49343	WJ48983	WJ4004621	295.90	150	103	-4.14	0.23	0.80
LN49345	WJ48985	WJ48986	94.47	200	115	5.09	0.16	0.23
LN49346	WJ48988	WJ48986	7.25	150	114	-4.66	0.26	0.82
LN49347	WJ48986	WJ48987	18.63	150	114	-4.40	0.25	0.74
LN49348	WJ48987	WJ4004501	283.73	150	114	-4.54	0.26	0.78
LN49349	WJ48986	WJ48991	95.02	200	115	4.82	0.15	0.21
LN49351	WJ48994	WJ48991	8.82	150	114	-3.16	0.18	0.40
LN49352	WJ48991	WJ48995	16.68	150	114	-4.73	0.27	0.84
LN49353	WJ48995	WJ4004488	270.83	150	114	-4.85	0.27	0.88
LN49354	WJ48991	WJ49002	94.90	200	115	6.38	0.20	0.36
LN49356	WJ49002	WJ48999	14.64	150	114	-5.55	0.31	1.13
LN49357	WJ49000	WJ49002	8.40	150	114	-6.01	0.34	1.32
LN49358	WJ48999	WJ4020229	234.95	150	114	-5.68	0.32	1.18
LN49360	WJ49002	WJ49003	85.03	200	115	5.89	0.19	0.31
LN49361	WJ4003834	WJ49003	2.37	300	120	-44.83	0.63	1.69
LN49362	WJ48971	WJ49001	8.78	150	114	4.10	0.23	0.65
LN49479	WJ49141	WJ4002333	8.58	150	103	1.45	0.08	0.11
LN49480	WJ49144	WJ49142	17.85	150	114	2.91	0.16	0.34
LN49481	WJ49141	WJ49144	211.88	150	114	-3.50	0.20	0.48
LN49482	WJ49143	WJ49144	7.98	150	114	3.64	0.21	0.52
LN49483	WJ49144	WJ49145	198.18	150	114	-2.86	0.16	0.33
LN49484	WJ49145	WJ49146	9.56	150	114	1.95	0.11	0.16
LN49485	WJ49145	WJ21116	198.82	150	114	-4.95	0.28	0.92
LN49570	WJ49251	WJ49253	436.57	200	115	6.51	0.21	0.37
LN49571	WJ49237	WJ49239	13.71	200	115	0.06	0.00	0.00
LN49572	WJ49243	WJ49254	110.76	200	115	5.05	0.16	0.23
LN49573	WJ49244	WJ49243	16.15	150	114	-0.03	0.00	0.00
LN49574	WJ49247	WJ49253	16.34	300	132	11.93	0.17	0.12
LN49575	WJ49251	WJ49252	18.49	200	115	-5.08	0.16	0.23
LN49576	WJ49248	WJ49251	8.21	200	115	-2.23	0.07	0.05
LN49577	WJ4008156	WJ49251	216.50	200	115	3.85	0.12	0.14
LN49578	WJ49253	WJ49258	10.37	300	132	13.14	0.19	0.15
LN49579	WJ49253	WJ49243	97.85	200	115	5.15	0.16	0.24
LN49580	WJ49254	WJ49256	37.80	150	114	0.04	0.00	0.00
LN49581	WJ49254	WJ49237	83.82	200	115	4.97	0.16	0.22
LN49587	WJ49237	WJ4009277	110.00	200	115	4.85	0.15	0.21
LN49663	WJ49341	WJ49342	215.49	200	115	-2.54	0.08	0.06
LN49664	WJ49332	WJ49341	443.89	200	115	-6.40	0.20	0.36
LN49665	WJ49324	WJ49331	202.32	200	115	-7.18	0.23	0.44
LN49666	WJ49324	WJ49326	10.69	150	114	2.18	0.12	0.20
LN49667	WJ49327	WJ49324	16.65	150	114	-0.15	0.01	0.00
LN49668	WJ49333	WJ49332	12.48	300	132	-12.00	0.17	0.12
LN49669	WJ49334	WJ49332	16.05	300	132	13.11	0.19	0.14
LN49670	WJ49339	WJ49341	5.70	200	115	1.88	0.06	0.04
LN49671	WJ49341	WJ49340	4.79	200	115	-2.18	0.07	0.05
LN49672	WJ49331	WJ49332	197.35	200	115	-7.31	0.23	0.46
LN49673	WJ49331	WJ49330	4.07	150	114	0.00	0.00	0.00
LN49674	WJ49325	WJ49324	5.97	200	115	-4.79	0.15	0.21
LN50451	WJ50379	WJ4019846	10.96	150	114	6.11	0.35	1.35
LN51101	WJ27375	WJ4010425	4.55	300	120	70.04	0.99	3.85
LN52202	WJ51955	WJ4018634	216.07	150	114	0.45	0.03	0.01
LN52203	WJ51950	WJ51955	20.08	150	114	3.29	0.19	0.43
LN52204	WJ51955	WJ51948	9.82	150	114	3.05	0.17	0.38
LN52205	WJ51952	WJ51955	6.19	150	114	0.29	0.02	0.00
LN52224_A001	WJ51980	J-HY4015150	12.93	400	129	-6.34	0.05	0.01
LN52224_A002	J-HY4015150	J-HY9990172	87.47	400	129	-6.34	0.05	0.01
LN52224_A003	J-HY9990172	WJ24304	25.73	400	129	-6.34	0.05	0.01
LN52226_A001	WJ51978	J-HY30049	52.46	400	129	-7.29	0.06	0.01
LN52226_A002	J-HY30049	WJ51979	48.26	400	129	-7.29	0.06	0.01
LN52227_A001	WJ51977	J-HY9990176	35.94	400	129	14.37	0.11	0.04
LN52227_A002	J-HY9990176	J-HY9990175	78.44	400	129	14.37	0.11	0.04
LN52227_A003	J-HY9990175	J-HY9990174	123.63	400	129	14.37	0.11	0.04
LN52227_A004	J-HY9990174	WJ51978	26.30	400	129	14.37	0.11	0.04
LN52228_A001	WJ51976	J-HY4007497	4.06	400	129	17.94	0.14	0.06
LN52228_A002	J-HY4007497	WJ51977	27.80	400	129	17.94	0.14	0.07
LN52229	WJ51975	WJ51976	41.59	400	129	14.99	0.12	0.05
LN52230	WJ51987	WJ51980	8.84	150	114	-1.89	0.11	0.15
LN52231	WJ51980	WJ51990	19.83	150	114	-2.57	0.15	0.27
LN52235	WJ4013455	WJ51987	114.45	150	103	-1.87	0.11	0.18
LN52236_A001	WJ51979	J-HY9990161	11.79	400	129	-7.01	0.06	0.01
LN52236_A002	J-HY9990161	J-HY9990160	65.23	400	129	-7.01	0.06	0.01
LN52236_A003	J-HY9990160	WJ51980	24.31	400	129	-7.01	0.06	0.01

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN52239	WJ51996	WJ51979	7.99	150	114	-2.33	0.13	0.23
LN52240	WJ51979	WJ51998	18.88	150	114	-2.61	0.15	0.28
LN52248_A001	WJ4013433	J-HY4015319	24.25	150	103	-2.31	0.13	0.27
LN52248_A002	J-HY4015319	WJ51996	41.40	150	103	-2.31	0.13	0.27
LN52254	WJ22361	WJ51978	34.01	300	132	3.16	0.04	0.01
LN52262	WJ51974	WJ51975	21.67	400	129	15.89	0.13	0.05
LN52266	WJ51975	WJ52037	13.52	200	115	0.90	0.03	0.01
LN52268	WJ52044	WJ51976	25.05	150	114	2.94	0.17	0.35
LN52281	WJ52054	WJ51977	15.95	300	132	-3.55	0.05	0.01
LN52282_A001	WJ52055	J-HY30564	32.53	150	114	-3.55	0.20	0.50
LN52282_A002	J-HY30564	WJ52054	9.10	150	114	-3.55	0.20	0.50
LN52360	WJ52156	WJ4005420	16.89	150	114	3.35	0.19	0.44
LN52363	WJ52156	WJ52162	395.56	200	115	1.88	0.06	0.04
LN52365	WJ52162	WJ52165	10.89	200	115	1.66	0.05	0.03
LN52368	WJ52184	WJ52220	211.10	200	115	-2.82	0.09	0.08
LN52374	WJ52182	WJ52184	23.28	300	132	18.18	0.26	0.27
LN52423	WJ52220	WJ52221	12.53	150	114	0.11	0.01	0.00
LN52424	WJ52220	WJ52222	27.30	150	114	-3.17	0.18	0.40
LN52425	WJ52220	WJ52171	20.29	200	115	0.18	0.01	0.00
LN52442	WJ58403	WJ52182	121.98	300	120	18.20	0.26	0.32
LN52444	WJ52165	WJ52242	381.27	200	115	-1.76	0.06	0.03
LN52448_A001	WJ58572	J-HY4018111	5.11	400	129	28.48	0.23	0.16
LN52448_A002	J-HY4018111	WJ52073	1.57	400	129	28.48	0.23	0.15
LN52449	WJ52073	WJ52087	6.97	400	129	8.99	0.07	0.02
LN52450	WJ52248	WJ52091	10.79	300	132	12.75	0.18	0.14
LN52451	WJ52073	WJ52247	2.14	300	132	19.48	0.28	0.30
LN52452	WJ52249	WJ52093	3.13	400	129	-14.33	0.11	0.04
LN52458_A001	WJ52247	J-HY4018126	97.57	300	132	19.45	0.28	0.30
LN52458_A002	J-HY4018126	J-HY4018128	101.24	300	132	19.45	0.28	0.30
LN52458_A003	J-HY4018128	WJ52248	49.09	300	132	19.45	0.28	0.30
LN52459	WJ52249	WJ52251	199.28	300	132	21.02	0.30	0.35
LN52460	WJ52248	WJ52249	4.43	300	132	6.70	0.09	0.04
LN52481	WJ52167	WJ52162	9.02	150	114	-0.08	0.00	0.00
LN52482	WJ52165	WJ52163	5.86	150	114	3.31	0.19	0.44
LN52483	WJ52184	WJ52183	13.13	300	132	19.04	0.27	0.29
LN52505	WJ28076	WJ52307	207.12	300	132	9.28	0.13	0.08
LN52514	WJ52307	WJ52303	9.98	150	114	1.87	0.11	0.15
LN52532	WJ52325	WJ52327	22.27	150	114	-2.04	0.12	0.18
LN52534	WJ52325	WJ52333	33.01	300	132	9.20	0.13	0.07
LN52538	WJ52331	WJ52333	10.24	150	114	-1.04	0.06	0.05
LN52540	WJ52333	WJ52336	46.54	300	132	8.17	0.12	0.06
LN52542	WJ52336	WJ52339	58.49	300	132	8.08	0.11	0.06
LN52543	WJ52336	WJ52334	19.37	100	100	0.07	0.01	0.00
LN52546	WJ52339	WJ52340	194.28	300	132	7.51	0.11	0.05
LN52547	WJ52338	WJ52339	10.15	150	114	-0.05	0.00	0.00
LN52548	WJ52340	WJ52344	38.76	300	132	-14.93	0.21	0.18
LN52549	WJ4017187	WJ52341	14.30	300	120	15.03	0.21	0.22
LN52550	WJ52344	WJ52341	13.04	300	132	-15.03	0.21	0.19
LN52551	WJ52344	WJ52345	36.25	150	114	0.00	0.00	0.00
LN52552	WJ52307	WJ48055	99.44	300	132	7.28	0.10	0.05
LN52930	WJ52747	WJ52750	73.53	300	132	10.09	0.14	0.09
LN52933	WJ52748	WJ52750	16.48	150	114	-0.05	0.00	0.00
LN52934	WJ52750	WJ52753	98.08	300	132	10.04	0.14	0.09
LN52936	WJ52751	WJ52753	11.20	300	132	0.68	0.01	0.00
LN52937	WJ52753	WJ52754	45.93	300	132	10.72	0.15	0.10
LN52938	WJ52754	WJ4017768	146.78	300	132	10.63	0.15	0.10
LN52947	WJ4017768	WJ52757	13.70	300	132	9.73	0.14	0.08
LN52949	WJ4017768	WJ52768	12.90	150	114	0.86	0.05	0.04
LN53045	WJ4006591	WJ52868	579.28	150	114	3.68	0.21	0.53
LN53046	WJ52882	WJ52868	130.40	150	114	-5.16	0.29	0.99
LN53047	WJ52868	WJ52876	62.09	150	114	-3.07	0.17	0.38
LN53048	WJ52875	WJ4018021	168.86	300	132	4.71	0.07	0.02
LN53049	WJ52874	WJ52882	89.69	150	114	-6.46	0.37	1.50
LN53050	WJ52876	WJ52875	9.36	300	132	-3.08	0.04	0.01
LN53052	WJ52875	WJ52877	21.73	300	132	-9.95	0.14	0.09
LN53054	WJ52881	WJ52882	22.96	150	114	1.80	0.10	0.14
LN53166	WJ52747	WJ53108	15.26	150	114	0.10	0.01	0.00
LN53167	WJ52874	WJ4019456	8.20	150	103	6.45	0.37	1.81
LN53196	WJ53041	WJ53042	15.39	150	114	-0.05	0.00	0.00
LN53197_A001	WJ53046	J-HY4033222	11.41	300	132	-1.53	0.02	0.00
LN53197_A002	J-HY4033222	WJ53042	18.73	300	132	-1.53	0.02	0.00
LN53198	WJ53045	WJ53046	3.99	150	114	-1.52	0.09	0.11
LN53219	WJ53078	WJ53045	10.70	150	114	-0.68	0.04	0.02
LN53221	WJ53045	WJ53069	10.21	150	114	0.84	0.05	0.03
LN53222_A001	WJ53042	J-HY30627	83.79	300	132	-1.60	0.02	0.00
LN53222_A002	J-HY30627	J-HY30626	111.53	300	132	-1.60	0.02	0.00

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN53222_A003	J-HY30626	WJ53038	5.09	300	132	-1.60	0.02	0.00
LN53244	WJ52747	WJ25695	80.85	300	132	-10.20	0.14	0.09
LN53249_A001	WJ53112	WV4011591	9.33	900	130	-362.92	0.57	0.33
LN53249_A002	WV4011591	WV4011587	97.88	900	130	-362.92	0.57	0.33
LN53249_A003	WV4011587	WV4011579	101.87	900	130	-362.92	0.57	0.33
LN53249_A004	WV4011579	WV4011570	9.09	900	130	-362.92	0.57	0.33
LN53249_A005	WV4011570	WV4011554	4.25	900	130	-362.92	0.57	0.33
LN53249_A006	WV4011554	WV4011544	4.75	900	130	-362.92	0.57	0.33
LN53249_A007	WV4011544	WJ4012402	3.54	900	130	-362.92	0.57	0.33
LN53250	WJ53112	WJ53113	1.95	900	130	-71.40	0.11	0.02
LN53251_A001	WJ53113	WV50450	13.85	600	130	-71.40	0.25	0.12
LN53251_A002	WV50450	WJ53121	6.27	600	130	-71.40	0.25	0.12
LN53252	WJ53115	WJ22621	41.17	300	132	20.12	0.28	0.32
LN53253	WJ53116	WJ53117	2.78	150	103	7.00	0.40	2.10
LN53254_A001	WJ53117	J-HY4018442	90.03	150	103	1.59	0.09	0.13
LN53254_A002	J-HY4018442	WJ4019628	23.51	150	103	1.59	0.09	0.14
LN53255_A001	WJ53115	J-HY30660	22.13	300	132	-5.39	0.08	0.03
LN53255_A002	J-HY30660	J-HY33192	92.38	300	132	-5.39	0.08	0.03
LN53255_A003	J-HY33192	WJ53117	14.21	300	132	-5.39	0.08	0.03
LN53256	WJ4018588	WJ53118	2.38	150	114	5.22	0.30	1.01
LN53257	WJ53116	WJ53118	143.23	300	132	-6.34	0.09	0.04
LN53258	WJ53121	WJ53114	376.56	600	130	-65.07	0.23	0.10
LN53260_A001	WJ52093	J-HY4022846	28.97	400	129	-14.33	0.11	0.04
LN53260_A002	J-HY4022846	WJ53122	0.89	400	129	-14.33	0.11	0.04
LN53261	WJ53122	WJ53121	18.18	400	129	7.35	0.06	0.01
LN53264	WJ4016204	WJ4016211	439.31	150	114	1.26	0.07	0.07
LN53414	WJ52159	WJ52156	2.75	150	114	5.36	0.30	1.06
LN53417	WJ52242	WJ52184	9.98	200	115	-1.89	0.06	0.04
LN53701	WJ53453	WJ53452	6.87	200	115	-6.56	0.21	0.37
LN53702	WJ53452	WJ53450	9.45	150	114	3.45	0.20	0.47
LN53703	WJ53448	WJ53453	4.83	150	114	-6.56	0.37	1.54
LN53704	WJ53452	WJ53465	216.69	200	115	-10.14	0.32	0.84
LN53707	WJ49330	WJ53457	15.03	150	114	0.00	0.00	0.00
LN53710	WJ53462	WJ52340	36.42	300	132	-22.45	0.32	0.39
LN53713	WJ53465	WJ53447	8.81	150	114	-0.92	0.05	0.04
LN53714	WJ61826	WJ53466	183.32	200	115	-9.31	0.30	0.72
LN53715	WJ53466	WJ53444	9.37	300	132	-8.96	0.13	0.07
LN53716	WJ53466	WJ53442	19.40	300	132	-0.37	0.01	0.00
LN53750	WJ53494	WJ53498	8.51	300	132	-28.05	0.40	0.59
LN53751	WJ53498	WJ53495	20.13	300	132	-29.25	0.41	0.64
LN53758	WJ53498	WJ53517	153.35	150	114	1.17	0.07	0.06
LN53763	WJ53514	WJ53513	19.63	150	114	0.11	0.01	0.00
LN53764	WJ53514	WJ53512	18.86	150	114	-0.71	0.04	0.02
LN53769	WJ53506	WJ53517	4.27	150	114	-3.92	0.22	0.60
LN53770	WJ53517	WJ53518	18.99	150	114	-4.23	0.24	0.69
LN53776	WJ53517	WJ53525	202.17	150	114	1.40	0.08	0.09
LN53778	WJ53523	WJ53525	5.08	150	114	-3.77	0.21	0.56
LN53779	WJ53524	WJ53525	20.86	150	114	4.15	0.23	0.66
LN53804	WJ53553	WJ4019594	19.17	150	114	1.69	0.10	0.13
LN53805	WJ53525	WJ53553	132.69	150	114	1.72	0.10	0.13
LN53806	WJ4019594	WJ53555	7.94	150	114	2.46	0.14	0.25
LN53807	WJ53555	WJ53557	92.61	150	114	2.45	0.14	0.25
LN53808	WJ53557	WJ53556	5.37	150	114	3.92	0.22	0.60
LN53809	WJ53558	WJ53557	2.04	150	114	5.01	0.28	0.94
LN53810	WJ53557	WJ53559	93.87	150	114	3.50	0.20	0.48
LN53815	WJ4016445	WJ53578	158.94	150	114	4.38	0.25	0.73
LN53816	WJ53578	WJ53577	101.41	150	114	4.55	0.26	0.78
LN53818	WJ53577	WJ53576	114.80	150	114	4.40	0.25	0.74
LN53820	WJ53576	WJ53559	210.25	150	114	2.24	0.13	0.21
LN53822	WJ53585	WJ53586	221.76	150	114	0.90	0.05	0.04
LN53824	WJ53562	WJ4016445	15.11	300	132	9.40	0.13	0.08
LN53825	WJ4016445	WJ53563	8.81	300	132	4.98	0.07	0.03
LN53826	WJ53564	WJ53578	10.32	150	114	0.22	0.01	0.00
LN53827	WJ53566	WJ53577	5.95	150	114	-0.08	0.00	0.00
LN53828	WJ53584	WJ53570	20.22	150	114	-0.99	0.06	0.05
LN53829	WJ53571	WJ53585	16.57	300	132	0.08	0.00	0.00
LN53830	WJ53585	WJ53572	5.66	300	132	1.80	0.03	0.00
LN53832	WJ53567	WJ53576	17.26	150	114	-2.12	0.12	0.19
LN53846	WJ53584	WJ53585	204.14	150	114	2.73	0.15	0.30
LN53847	WJ53586	WJ53574	117.97	150	114	2.11	0.12	0.19
LN53852	WJ53610	WJ53584	249.55	150	114	2.00	0.11	0.17
LN53853	WJ53559	WJ53610	166.27	150	114	5.58	0.32	1.15
LN53914	WJ53664	WJ53665	216.30	150	114	-3.51	0.20	0.48
LN53915	WJ53665	WJ53661	20.13	150	114	-2.85	0.16	0.33
LN53919	WJ53665	WJ53671	18.79	300	132	-11.98	0.17	0.12
LN53920	WJ53665	WJ53672	12.04	300	132	11.27	0.16	0.11

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN53955	WJ53514	WJ53717	19.54	150	114	-4.07	0.23	0.64
LN53963	WJ53727	WJ53724	16.83	150	114	2.81	0.16	0.32
LN53964	WJ53722	WJ53727	18.97	150	114	1.10	0.06	0.06
LN53968	WJ53727	WJ53514	203.31	150	114	-4.64	0.26	0.81
LN53969	WJ4005699	WJ53727	188.91	150	114	-2.81	0.16	0.32
LN54046	WJ53883	WJ53848	540.67	150	114	1.42	0.08	0.09
LN54051	WJ53574	WJ4016558	133.41	150	114	4.50	0.25	0.77
LN54052	WJ53848	WJ53574	119.95	150	114	2.45	0.14	0.25
LN54063	WJ53586	WJ53844	112.49	150	114	-1.25	0.07	0.07
LN54064	WJ53844	WJ53883	438.16	150	114	-1.59	0.09	0.11
LN54065	WJ53610	WJ53883	128.08	150	114	3.34	0.19	0.44
LN54125	WJ53988	WJ53994	219.46	150	114	-1.21	0.07	0.07
LN54126	WJ4008733	WJ53988	128.12	150	114	2.48	0.14	0.25
LN54127	WJ53988	WJ53989	8.36	150	114	3.60	0.20	0.51
LN54129	WJ53994	WJ53992	7.53	150	114	4.73	0.27	0.84
LN54130	WJ53994	WJ53993	17.38	150	114	-5.99	0.34	1.31
LN54150	WJ4008721	WJ54013	136.28	150	114	-1.98	0.11	0.17
LN54153	WJ54018	WJ54019	18.22	150	114	4.70	0.27	0.84
LN54154	WJ54019	WJ54014	7.12	150	114	6.12	0.35	1.36
LN54155	WJ54013	WJ54019	220.60	150	114	1.50	0.08	0.10
LN54413_A001	WJ54278	J-HY4035127	47.82	300	132	1.50	0.02	0.00
LN54413_A002	J-HY4035127	J-HY4035144	45.32	300	132	1.50	0.02	0.00
LN54413_A003	J-HY4035144	J-HY4035139	57.97	300	132	1.50	0.02	0.00
LN54413_A004	J-HY4035139	WJ4017927	76.12	300	132	1.50	0.02	0.00
LN54421	WJ54288	WJ54289	9.88	150	114	-1.03	0.06	0.05
LN54422_A001	WJ54288	WV60507	1.06	150	114	0.00	0.00	0.00
LN54422_A002	WV60507	J-HY4035108	175.49	150	114	0.00	0.00	0.00
LN54422_A003	J-HY4035108	WJ54277	69.57	150	114	0.00	0.00	0.00
LN54423	WJ54277	WJ4038388	45.34	300	132	-4.53	0.06	0.02
LN54424_A001	WJ54278	J-HY16723	69.63	300	132	-4.17	0.06	0.02
LN54424_A002	J-HY16723	J-HY16722	80.88	300	132	-4.17	0.06	0.02
LN54424_A003	J-HY16722	WJ54277	14.06	300	132	-4.17	0.06	0.02
LN54425_A001	WJ54290	J-HY9990263	63.96	300	132	-1.09	0.02	0.00
LN54425_A002	J-HY9990263	WJ54278	24.58	300	132	-1.09	0.02	0.00
LN54426	WJ54290	WJ54291	3.77	300	132	0.06	0.00	0.00
LN54429	WJ54289	WJ54290	3.18	300	132	-1.03	0.01	0.01
LN54550	WJ4015578	WJ54414	258.54	150	114	0.57	0.03	0.02
LN54551	WJ54422	WJ54425	215.08	150	114	0.60	0.03	0.02
LN54554	WJ54422	WJ54421	24.37	150	114	-2.53	0.14	0.26
LN54557	WJ54418	WJ54422	5.44	150	114	-2.32	0.13	0.23
LN54558	WJ54414	WJ54422	7.34	150	114	0.45	0.03	0.01
LN54561	WJ54425	WJ54423	19.10	150	114	-2.71	0.15	0.30
LN54562	WJ54424	WJ54425	6.53	150	114	-2.33	0.13	0.23
LN54570	WJ54425	WJ54489	222.14	150	114	0.83	0.05	0.03
LN54571	WJ54489	WJ54480	216.27	150	114	-1.74	0.10	0.13
LN54572	WJ54480	WJ54473	217.99	150	114	-1.87	0.11	0.15
LN54580	WJ54442	WJ54473	17.34	150	114	3.25	0.18	0.42
LN54581	WJ54473	WJ54441	4.33	150	114	2.80	0.16	0.32
LN54582	WJ54473	WJ54468	224.84	150	114	-1.56	0.09	0.11
LN54592	WJ54468	WJ54459	222.02	150	114	-1.64	0.09	0.12
LN54593	WJ54459	WJ54444	221.20	150	114	-1.48	0.08	0.10
LN54594	WJ54444	WJ4018533	14.07	300	132	-1.51	0.02	0.00
LN54595	WJ54460	WJ54459	18.58	150	114	1.63	0.09	0.12
LN54596	WJ54459	WJ54461	7.28	150	114	1.41	0.08	0.09
LN54597	WJ54470	WJ54468	22.32	150	114	2.41	0.14	0.24
LN54598	WJ54468	WJ54469	4.01	150	114	2.41	0.14	0.24
LN54603	WJ54489	WJ54491	6.37	150	114	2.39	0.14	0.24
LN54604	WJ54490	WJ54489	18.12	150	114	-0.02	0.00	0.00
LN54715_A001	WJ58521	J-HY16138	31.08	300	132	5.54	0.08	0.03
LN54715_A002	J-HY16138	WJ16170	72.45	300	132	5.54	0.08	0.03
LN55117	WJ4008023	WJ55016	97.80	300	132	32.51	0.46	0.78
LN55118	WJ55016	WJ55022	81.19	300	132	32.38	0.46	0.77
LN55119	WJ55017	WJ55018	9.26	300	132	11.97	0.17	0.12
LN55120	WJ55019	WJ55017	9.50	300	132	-20.32	0.29	0.33
LN55121	WJ55020	WJ55016	6.03	150	114	-0.09	0.01	0.00
LN55122	WJ55026	WJ4008023	12.27	300	132	7.50	0.11	0.05
LN55242	WJ4016349	WJ55118	284.55	150	114	-2.44	0.14	0.25
LN55243	WJ55118	WJ55120	10.83	150	114	-5.17	0.29	1.00
LN55244	WJ55122	WJ55118	18.21	150	114	-2.68	0.15	0.29
LN55268	WJ4015346	WJ55164	154.20	150	114	1.18	0.07	0.06
LN55269	WJ55164	WJ55165	85.38	150	114	0.48	0.03	0.01
LN55270	WJ55165	WJ55166	64.74	150	114	0.36	0.02	0.01
LN55271	WJ55166	WJ55162	18.31	150	114	-2.83	0.16	0.33
LN55272	WJ55166	WJ55167	41.72	150	114	3.15	0.18	0.40
LN55273	WJ55167	WJ4016685	8.96	150	103	3.14	0.18	0.48
LN55274	WJ55165	WJ55163	3.24	150	114	0.10	0.01	0.00

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN55275	WJ55164	WJ55157	10.16	150	114	4.37	0.25	0.73
LN55276	WJ55164	WJ55156	16.75	150	114	-3.71	0.21	0.54
LN55279	WJ55170	WJ4015346	10.74	300	132	-32.91	0.47	0.80
LN55280	WJ4015345	WJ55171	15.32	300	132	-31.08	0.44	0.72
LN55319	WJ55214	WJ4019812	16.23	150	103	4.58	0.26	0.96
LN55321	WJ55214	WJ4019846	112.39	150	114	-4.60	0.26	0.80
LN55323	WJ53893	WJ55216	112.13	150	114	4.22	0.24	0.68
LN55324	WJ55216	WJ4019790	15.42	150	103	4.19	0.24	0.81
LN55404	WJ55304	WJ4019788	21.26	300	132	8.33	0.12	0.06
LN55405	WJ4019788	WJ55324	225.41	150	114	0.96	0.05	0.04
LN55420	WJ55323	WJ55324	9.79	150	114	-1.22	0.07	0.07
LN55421	WJ55326	WJ55324	23.76	150	114	1.22	0.07	0.07
LN55422	WJ55324	WJ55329	219.84	150	114	0.80	0.05	0.03
LN55423	WJ55328	WJ55329	14.85	150	114	-1.48	0.08	0.10
LN55425	WJ55331	WJ55329	17.71	150	114	1.29	0.07	0.08
LN55427	WJ55329	WJ55335	220.69	150	114	0.42	0.02	0.01
LN55429	WJ55334	WJ55335	11.25	150	114	-1.89	0.11	0.15
LN55430	WJ55338	WJ55335	23.91	150	114	1.24	0.07	0.07
LN55433	WJ55335	WJ4015741	177.42	150	114	-0.39	0.02	0.01
LN55434	WJ55341	WJ4019788	14.19	300	132	-7.83	0.11	0.06
LN55493	WJ4019856	WJ55455	225.90	150	114	0.80	0.05	0.03
LN55498	WJ55455	WJ55432	218.22	150	114	0.71	0.04	0.02
LN55500	WJ55422	WJ55455	11.20	200	115	-2.78	0.09	0.08
LN55501	WJ55423	WJ55455	19.90	200	115	2.78	0.09	0.08
LN55504	WJ55429	WJ55432	14.03	300	132	8.76	0.12	0.07
LN55505	WJ55431	WJ55432	22.11	300	132	-8.37	0.12	0.06
LN55506	WJ55432	WJ55436	218.44	150	114	0.93	0.05	0.04
LN55507	WJ55436	WJ4016147	219.20	150	114	0.73	0.04	0.03
LN55510	WJ55442	WJ55436	13.42	150	114	1.24	0.07	0.07
LN55511	WJ55441	WJ55436	19.32	150	114	-1.25	0.07	0.07
LN55541	WJ55466	WJ4019788	15.81	150	114	0.55	0.03	0.02
LN55544	WJ55469	WJ4015741	8.61	150	114	-8.78	0.50	2.65
LN55546	WJ55472	WJ4015741	17.53	300	132	9.22	0.13	0.08
LN55637	WJ55022	WJ55017	36.74	300	132	32.30	0.46	0.77
LN56071	WJ55961	WJ55957	6.72	300	132	7.71	0.11	0.06
LN56072	WJ55958	WJ55961	21.12	300	132	11.25	0.16	0.11
LN56075	WJ21116	WJ55961	199.67	150	114	-5.07	0.29	0.96
LN56076	WJ55961	WJ56498	212.59	150	114	-1.68	0.09	0.12
LN56808	WJ56681	WJ56684	20.84	300	132	44.98	0.64	1.42
LN56811	WJ56684	WJ56688	17.71	300	132	39.43	0.56	1.11
LN56812	WJ56689	WJ56691	6.25	300	132	0.00	0.00	0.00
LN56813	WJ56684	WJ56705	100.03	300	132	5.43	0.08	0.03
LN56820	WJ56701	WJ56700	16.80	150	114	-5.22	0.30	1.01
LN56823	WJ56705	WJ56698	126.91	300	132	5.33	0.08	0.03
LN56839	WJ56698	WJ56700	27.84	300	132	5.22	0.07	0.03
LN57409	WJ57354	WJ4009674	82.98	400	129	-66.61	0.53	0.76
LN57420_A001	WJ57354	J-HY16102	85.21	150	114	0.07	0.00	0.00
LN57420_A002	J-HY16102	WJ57355	0.10	150	114	0.07	0.00	0.00
LN57492	WJ57425	WJ57428	24.89	150	114	-0.46	0.03	0.01
LN57495	WJ57425	WJ57438	180.35	300	132	0.46	0.01	0.00
LN57743	WJ4019314	WJ57697	84.77	150	103	-0.48	0.03	0.01
LN57962_A001	WJ57906	J-HY31330	0.42	300	132	-0.85	0.01	0.00
LN57962_A002	J-HY31330	WJ57907	58.97	300	132	-0.85	0.01	0.00
LN57963	WJ57907	WJ53038	15.00	300	132	6.24	0.09	0.04
LN57964	WJ57907	WJ18034	16.53	300	132	-7.09	0.10	0.05
LN58137_A001	WJ58108	WV55772	5.98	300	132	-10.98	0.16	0.11
LN58137_A002	WV55772	WJ58109	22.73	300	132	-10.98	0.16	0.10
LN58150	WJ4015943	WJ19330	69.68	300	120	-10.15	0.14	0.11
LN58158(1)	WJ58109	J-HY4007525	57.23	300	120	-11.05	0.16	0.13
LN58158(2)	J-HY4007525	WJ4015943	63.21	300	120	-11.05	0.16	0.13
LN58168	WJ4021189	WJ59147	120.96	150	103	-0.08	0.00	0.00
LN58350	WJ4017357	WJ58336	2.71	150	103	-4.53	0.26	0.94
LN58352	WJ58336	WJ49339	97.01	150	114	1.88	0.11	0.15
LN58386	WJ4018183	WJ58392	2.14	150	114	-1.17	0.07	0.07
LN58387	WJ58393	WJ58392	331.27	200	115	-1.61	0.05	0.03
LN58388	WJ58394	WJ58393	7.40	200	115	-1.51	0.05	0.03
LN58400	WJ4040953	WJ58412	10.28	200	115	3.57	0.11	0.12
LN58405	WJ58412	WJ58427	24.95	200	115	5.65	0.18	0.28
LN58406	WJ4017795	WJ58427	9.80	400	129	30.44	0.24	0.18
LN58407	WJ58427	WJ58425	315.47	200	115	7.97	0.25	0.54
LN58408	WJ58425	WJ58404	20.68	150	114	0.28	0.02	0.00
LN58409	WJ58425	WJ58426	0.64	200	115	7.61	0.24	0.49
LN58410	WJ58406	WJ58426	4.73	150	114	-3.22	0.18	0.41
LN58411	WJ58426	WJ58418	264.53	200	115	4.33	0.14	0.17
LN58412	WJ58401	WJ58418	20.04	300	132	15.49	0.22	0.20
LN58413	WJ58418	WJ58403	5.29	300	132	18.23	0.26	0.27

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN58414	WJ58418	WJ58423	383.48	200	115	1.32	0.04	0.02
LN58416	WJ58399	WJ58397	25.74	150	114	0.03	0.00	0.00
LN58417	WJ58423	WJ58424	368.41	200	115	1.04	0.03	0.01
LN58418	WJ58424	WJ58394	15.51	200	115	0.88	0.03	0.01
LN58457	WJ4017087	WJ58490	5.23	150	103	1.08	0.06	0.06
LN58473	WJ58545	WJ58543	16.96	300	132	19.46	0.28	0.30
LN58507_A001	WJ28014	J-HY4008126	48.71	300	132	0.80	0.01	0.00
LN58507_A002	J-HY4008126	WJ58595	24.49	300	132	0.80	0.01	0.00
LN58508	WJ58458	WJ58595	10.96	150	114	2.05	0.12	0.18
LN58509_A001	WJ58595	J-HY31487	24.32	300	132	-0.02	0.00	0.00
LN58509_A002	J-HY31487	J-HY4008128	40.25	300	132	-0.02	0.00	0.00
LN58509_A003	J-HY4008128	WJ58462	26.91	300	132	-0.02	0.00	0.00
LN58510	WJ58460	WJ58462	10.51	150	114	2.68	0.15	0.29
LN58511	WJ58462	WJ58464	14.33	300	132	2.51	0.04	0.01
LN58512	WJ58461	WJ58464	6.93	400	129	19.88	0.16	0.08
LN58513	WJ58464	WJ58611	14.46	300	132	22.39	0.32	0.39
LN58514	WJ58611	WJ58473	33.39	150	114	1.76	0.10	0.13
LN58515_A001	WJ58611	J-HY4032566	25.98	300	132	20.63	0.29	0.34
LN58515_A002	J-HY4032566	WJ58601	36.69	300	132	20.63	0.29	0.34
LN58516	WJ58602	WJ58601	8.10	150	114	0.00	0.00	0.00
LN58517_A001	WJ58601	J-HY4034050	22.33	300	132	20.29	0.29	0.33
LN58517_A002	J-HY4034050	WJ58475	22.02	300	132	20.29	0.29	0.33
LN58518	WJ58475	WJ58476	7.90	300	132	6.71	0.09	0.04
LN58519_A001	WJ58475	J-HY4034038	28.54	300	132	11.38	0.16	0.11
LN58519_A002	J-HY4034038	J-HY4032578	60.82	300	132	11.38	0.16	0.11
LN58519_A003	J-HY4032578	J-HY4032558	25.67	300	132	11.38	0.16	0.11
LN58519_A004	J-HY4032558	WJ58480	38.23	300	132	11.38	0.16	0.11
LN58520	WJ58479	WJ58480	4.52	300	132	-2.01	0.03	0.00
LN58524_A001	WJ58480	J-HY17891	60.12	300	132	5.13	0.07	0.03
LN58524_A002	J-HY17891	WJ58482	37.00	300	132	5.13	0.07	0.03
LN58525	WJ58481	WJ58482	7.04	300	132	8.54	0.12	0.07
LN58526	WJ58482	WJ58614	4.48	300	132	13.67	0.19	0.16
LN58527	WJ58614	WJ58486	6.25	300	132	2.81	0.04	0.01
LN58528_A001	WJ58614	J-HY4032554	85.08	300	132	10.86	0.15	0.10
LN58528_A002	J-HY4032554	WJ58603	15.76	300	132	10.86	0.15	0.10
LN58529	WJ58603	WJ58488	5.71	250	115	3.42	0.07	0.04
LN58530	WJ58603	WJ58604	36.95	300	132	7.18	0.10	0.05
LN58531	WJ58605	WJ58604	2.40	150	114	0.00	0.00	0.00
LN58532_A001	WJ58604	J-HY4032548	33.26	300	132	7.18	0.10	0.05
LN58532_A002	J-HY4032548	WJ58608	126.23	300	132	7.18	0.10	0.05
LN58533	WJ58496	WJ58498	4.23	300	132	-17.68	0.25	0.26
LN58534	WJ58500	WJ58499	3.21	400	129	4.63	0.04	0.01
LN58535_A001	WJ58496	J-HY4032525	21.31	300	132	11.41	0.16	0.11
LN58535_A002	J-HY4032525	WJ58502	78.43	300	132	11.41	0.16	0.11
LN58536	WJ58501	WJ58502	5.39	300	132	-6.26	0.09	0.04
LN58537	WJ58502	WJ58505	6.69	300	132	3.49	0.05	0.01
LN58538	WJ58505	WJ58504	10.92	300	132	-10.98	0.16	0.11
LN58539_A001	WJ58505	J-HY4032503	9.90	300	132	14.45	0.20	0.17
LN58539_A002	J-HY4032503	WJ58509	80.94	300	132	14.45	0.20	0.17
LN58540	WJ58509	WJ58510	5.35	300	132	4.39	0.06	0.02
LN58541_A001	WJ58509	J-HY4032493	14.51	300	132	10.02	0.14	0.09
LN58541_A002	J-HY4032493	J-HY31488	66.13	300	132	10.02	0.14	0.09
LN58541_A003	J-HY31488	WJ58512	34.24	300	132	10.02	0.14	0.09
LN58542	WJ58512	WJ58513	7.24	150	114	-0.76	0.04	0.03
LN58543	WJ58512	WJ58516	31.63	300	132	10.77	0.15	0.10
LN58544	WJ58517	WJ58516	6.53	300	132	-2.70	0.04	0.01
LN58545_A001	WJ58516	J-HY4032454	76.37	300	132	8.05	0.11	0.06
LN58545_A002	J-HY4032454	WJ58519	6.11	300	132	8.05	0.11	0.06
LN58546	WJ58519	WJ58521	6.49	300	132	5.80	0.08	0.03
LN58547	WJ58519	WJ58522	93.07	300	132	1.73	0.02	0.00
LN58548	WJ58522	WJ58523	9.58	400	129	20.83	0.17	0.09
LN58549	WJ58526	WJ58522	5.60	400	129	25.30	0.20	0.13
LN58550_A001	WJ58522	J-HY31490	72.43	300	132	6.07	0.09	0.03
LN58550_A002	J-HY31490	J-HY4019204	16.93	300	132	6.07	0.09	0.03
LN58550_A003	J-HY4019204	WJ58527	65.66	300	132	6.07	0.09	0.03
LN58551	WJ58527	WJ58528	12.20	150	114	-2.58	0.15	0.27
LN58552_A001	WJ58527	J-HY4017635	49.14	300	132	4.61	0.07	0.02
LN58552_A002	J-HY4017635	J-HY31491	27.02	300	132	4.61	0.07	0.02
LN58552_A003	J-HY31491	J-HY4017600	42.38	300	132	4.61	0.07	0.02
LN58552_A004	J-HY4017600	WJ58530	43.74	300	132	4.61	0.07	0.02
LN58553	WJ58532	WJ58530	6.51	300	132	-3.60	0.05	0.01
LN58554	WJ58530	WJ58537	43.71	300	132	0.16	0.00	0.00
LN58555	WJ58539	WJ58537	12.50	150	114	0.00	0.00	0.00
LN58556_A001	WJ58537	J-HY4017594	60.54	300	132	0.16	0.00	0.00
LN58556_A002	J-HY4017594	WJ58610	46.26	300	132	0.16	0.00	0.00
LN58557	WJ58610	WJ58541	25.17	150	114	2.70	0.15	0.30

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN58558	WJ58541	WJ58540	7.21	150	114	1.94	0.11	0.16
LN58559_A001	WJ58610	J-HY4017589	27.60	300	132	-2.54	0.04	0.01
LN58559_A002	J-HY4017589	WJ58544	62.97	300	132	-2.54	0.04	0.01
LN58560	WJ58544	WJ58545	9.45	300	132	19.46	0.28	0.30
LN58561	WJ58544	WJ58547	7.16	300	132	-22.00	0.31	0.38
LN58562_A001	WJ58548	J-HY4017572	1.11	300	132	14.36	0.20	0.17
LN58562_A002	J-HY4017572	WJ58547	11.99	300	132	14.36	0.20	0.17
LN58563_A001	WJ58547	J-HY4017558	78.96	300	132	-7.73	0.11	0.05
LN58563_A002	J-HY4017558	WJ58574	34.83	300	132	-7.73	0.11	0.05
LN58564	WJ58577	WJ58575	4.68	300	132	23.25	0.33	0.42
LN58565	WJ58576	WJ58575	7.41	400	129	31.53	0.25	0.19
LN58566	WJ58575	WJ58574	2.57	400	129	54.78	0.44	0.53
LN58567	WJ58574	WJ58573	22.68	400	129	31.76	0.25	0.19
LN58568	WJ58580	WJ58574	11.18	250	115	-15.10	0.31	0.59
LN58569	WJ58573	WJ58572	12.14	400	129	28.48	0.23	0.16
LN58570	WJ58581	WJ58573	5.40	150	114	-3.28	0.19	0.43
LN58571_A001	WJ58490	J-HY4032536	0.83	250	115	1.08	0.02	0.00
LN58571_A002	J-HY4032536	WJ58609	46.62	250	115	1.08	0.02	0.00
LN58572	WJ58609	WJ58608	3.93	300	132	1.08	0.02	0.00
LN58573	WJ58608	WJ58499	45.37	300	132	7.24	0.10	0.05
LN58574	WJ58533	WJ58535	2.73	300	132	-3.60	0.05	0.01
LN58575_A001	WJ58533	J-HY31492	76.13	150	114	-0.44	0.02	0.01
LN58575_A002	J-HY31492	WJ58541	70.09	150	114	-0.44	0.02	0.01
LN58576_A001	WJ58541	J-HY16154	60.76	150	114	-0.17	0.01	0.00
LN58576_A002	J-HY16154	WJ58543	29.21	150	114	-0.17	0.01	0.00
LN58677	WJ4005489	WJ58734	100.65	150	114	-0.60	0.03	0.02
LN58678	WJ58734	WJ58735	65.32	150	114	-1.91	0.11	0.16
LN58683	WJ58745	WJ58740	7.14	200	115	4.03	0.13	0.15
LN58684	WJ58740	WJ58751	321.14	200	115	8.77	0.28	0.64
LN58688	WJ58747	WJ58740	4.15	150	114	4.83	0.27	0.88
LN58689	WJ58745	WJ4017666	247.02	400	129	22.13	0.18	0.10
LN58692	WJ58751	WJ58752	220.75	200	115	6.19	0.20	0.34
LN58694	WJ58751	WJ58749	14.36	150	114	2.31	0.13	0.22
LN58696	WJ52183	WJ58755	146.55	300	120	19.01	0.27	0.34
LN58697	WJ58752	WJ58756	7.34	300	132	22.10	0.31	0.38
LN58698	WJ58755	WJ58752	19.76	300	132	18.98	0.27	0.29
LN58699	WJ58752	WJ58762	219.83	200	115	2.96	0.09	0.09
LN58702	WJ58760	WJ58734	18.45	150	114	-1.29	0.07	0.08
LN58703	WJ58762	WJ58764	9.34	150	114	2.36	0.13	0.23
LN58705	WJ58735	WJ4005613	217.51	150	114	-2.01	0.11	0.17
LN58707	WJ58762	WJ48961	85.61	200	115	0.48	0.02	0.00
LN58708	WJ58735	WJ58769	96.04	150	114	0.06	0.00	0.00
LN58838	WJ58936	WJ58937	19.16	150	114	6.12	0.35	1.36
LN58840	WJ58936	WJ58940	11.69	150	114	-6.63	0.38	1.58
LN58841	WJ58936	WJ58946	325.10	150	114	0.40	0.02	0.01
LN58845	WJ4008830	WJ58946	1.36	300	120	40.93	0.58	1.42
LN58929	WJ4018199	WJ59062	328.79	200	115	0.26	0.01	0.00
LN58941	WJ59065	WJ59062	16.07	150	114	-3.54	0.20	0.49
LN58942	WJ59062	WJ4005420	4.24	150	114	-3.35	0.19	0.44
LN58949	WJ58394	WJ52159	112.84	200	115	5.38	0.17	0.26
LN58954	WJ59078	WJ58394	112.04	150	114	3.04	0.17	0.37
LN58956	WJ59074	WJ59078	107.03	150	114	3.06	0.17	0.38
LN58958	WJ62359	WJ59078	8.35	150	114	0.05	0.00	0.00
LN58960	WJ59072	WJ59074	20.29	150	114	2.18	0.12	0.20
LN59066	WJ59194	WJ59198	15.43	300	132	-11.53	0.16	0.11
LN59067	WJ59198	WJ59201	5.24	300	132	-48.77	0.69	1.65
LN59068	WJ59196	WJ59195	14.75	300	132	1.97	0.03	0.00
LN59072	WJ59207	WJ59201	11.23	400	129	50.74	0.40	0.46
LN59073	WJ59201	WJ59196	2.54	300	132	1.97	0.03	0.01
LN59295	WJ59198	WJ59422	3.55	300	132	37.24	0.53	1.00
LN59490	WJ47069	WJ4016701	2.15	150	103	2.63	0.15	0.35
LN59605	WJ59734	WJ59735	106.76	150	114	5.76	0.33	1.21
LN59608	WJ59735	WJ59712	16.09	150	114	1.75	0.10	0.13
LN59612	WJ59735	WJ59742	75.94	150	114	3.93	0.22	0.60
LN59613	WJ59742	WJ59732	32.44	150	114	1.89	0.11	0.15
LN59615	WJ59742	WJ59726	14.35	150	114	0.06	0.00	0.00
LN59616	WJ59742	WJ59743	48.30	150	114	1.96	0.11	0.17
LN59617	WJ59743	WJ59864	77.41	150	114	1.83	0.10	0.14
LN59707	WJ59822	WJ4011782	3.22	150	103	-1.30	0.07	0.10
LN59756	WJ59864	WJ59822	168.25	150	114	1.77	0.10	0.14
LN59874	WJ59734	WJ60020	7.91	300	120	31.21	0.44	0.86
LN60622	WJ60783	WJ4017087	4.00	150	103	0.00	0.00	0.00
LN60647	WJ60926	WJ4019873	94.81	150	103	1.00	0.06	0.06
LN60666	WJ4016809	WJ60926	83.29	150	114	-0.87	0.05	0.04
LN60687	WJ4016786	WJ4019873	227.54	150	114	1.17	0.07	0.06
LN60719_A001	WJ4018460	J-HY4033475	138.44	300	132	2.61	0.04	0.01

MHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN60719_A002	J-HY4033475	WJ60862	22.46	300	132	2.61	0.04	0.01
LN60720	WJ4016719	WJ60862	1.79	250	115	3.42	0.07	0.03
LN60993	WJ4020732	WJ61124	12.49	150	114	0.05	0.00	0.00
LN60994	WJ61125	WJ61124	49.30	100	100	-0.23	0.03	0.03
LN61318	WJ61515	WJ61510	15.20	150	114	1.70	0.10	0.13
LN61319	WJ61510	WJ61511	12.22	150	114	1.57	0.09	0.11
LN61320	WJ61511	WJ61514	14.32	150	114	0.79	0.04	0.03
LN61324	WJ61510	WJ61520	1.18	150	114	0.00	0.00	0.00
LN61325	WJ61510	WJ61519	119.52	150	114	0.10	0.01	0.00
LN61332	WJ61529	WJ4019660	10.36	150	103	-1.54	0.09	0.13
LN61435	WJ4011634	WJ61627	126.58	150	103	-2.86	0.16	0.40
LN61490	WJ61693	WJ4008256	31.28	150	103	0.55	0.03	0.02
LN61491	WJ61693	WJ61694	117.73	150	114	0.00	0.00	0.00
LN61598	WJ4020596	WJ47436	13.04	150	114	1.39	0.08	0.09
LN61605	WJ4013458	WJ61779	90.36	150	103	-1.53	0.09	0.13
LN61658	WJ53465	WJ61826	40.98	200	115	-9.22	0.29	0.70
LN61659	WJ61826	WJ61827	164.51	200	115	0.00	0.00	0.00
LN61788	WJ48056	WJ48055	213.35	150	114	-0.58	0.03	0.02
LN61790	WJ48055	WJ48056	87.98	300	132	6.66	0.09	0.04
LN62205	WJ62335	WJ4004560	101.21	150	103	3.24	0.18	0.50
LN62230	WJ4018166	WJ62359	347.46	150	114	0.16	0.01	0.00
LN62307	WJ62422	WJ4011486	14.28	150	103	-0.97	0.06	0.05
LN62309	WJ4010946	WJ62423	36.61	150	103	-0.19	0.01	0.00
LN62500_A001	WJ4010417	J-HY4039947	4.13	400	129	41.94	0.33	0.32
LN62500_A002	J-HY4039947	WJ4010421	284.88	400	129	41.94	0.33	0.32

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN112660_A001	WJ24264	J-HY4014400	30.52	300	132	9.54	0.13	0.08
LN112660_A002	J-HY4014400	WJ24204	98.35	300	132	9.54	0.13	0.08
LN13368	WJ47069	WJ53570	90.32	150	114	0.88	0.05	0.04
LN13893	WJ47436	WJ47435	325.45	150	114	0.22	0.01	0.00
LN13898	WJ4010931	WJ47435	13.34	150	103	-0.90	0.05	0.05
LN13918	WJ4017786	WJ47749	6.74	150	103	-4.93	0.28	1.10
LN13919	WJ47751	WJ21799	20.33	150	114	0.00	0.00	0.00
LN14205	WJ48056	WJ52325	61.03	300	132	5.06	0.07	0.02
LN14216	WJ4010518	WJ14235	223.51	150	103	0.21	0.01	0.00
LN14218	WJ14235	WJ4010518	241.94	150	103	-0.20	0.01	0.00
LN16124	WJ15670	WJ4016587	98.72	300	120	10.22	0.14	0.11
LN16127	WJ15670	WJ4019600	308.81	150	114	4.51	0.26	0.77
LN16131	WJ4019600	WJ4019594	217.80	150	114	6.13	0.35	1.36
LN16132	WJ4019594	WJ15678	219.74	150	114	5.04	0.28	0.95
LN16141	WJ15678	WJ15686	94.78	150	114	5.68	0.32	1.18
LN16724_A001	WJ16170	J-HY4017936	1.56	300	132	-2.00	0.03	0.00
LN16724_A002	J-HY4017936	WJ4018534	15.14	300	132	-2.00	0.03	0.00
LN16812	WJ58510	WJ16225	11.62	300	132	5.98	0.08	0.03
LN16813_A001	WJ16225	J-HY4033089	5.66	300	132	1.46	0.02	0.00
LN16813_A002	J-HY4033089	J-HY4033085	100.94	300	132	1.46	0.02	0.00
LN16813_A003	J-HY4033085	WJ4018326	3.52	300	132	1.46	0.02	0.00
LN16839	WJ58496	WJ58500	24.23	400	129	15.31	0.12	0.05
LN16840_A001	WJ58499	J-HY4033315	9.32	400	129	4.10	0.03	0.01
LN16840_A002	J-HY4033315	J-HY4033296	129.85	400	129	4.10	0.03	0.00
LN16840_A003	J-HY4033296	WJ4018318	14.81	400	129	4.10	0.03	0.00
LN16921	WJ4016730	WJ15686	294.33	150	103	-3.42	0.19	0.56
LN16923	WJ4016826	WJ15686	233.10	150	103	-1.78	0.10	0.17
LN16941	WJ4016591	WJ15670	100.75	300	120	15.07	0.21	0.22
LN19391_A001	WJ4019318	J-HY4034872	101.08	150	103	-0.94	0.05	0.05
LN19391_A002	J-HY4034872	WJ18031	99.62	150	103	-0.94	0.05	0.05
LN19392_A001	WJ18030	J-HY4033352	65.89	150	103	-5.63	0.32	1.40
LN19392_A002	J-HY4033352	WJ28034	8.39	150	103	-5.63	0.32	1.40
LN19393_A001	WJ4018072	J-HY4035209	73.34	300	132	6.54	0.09	0.04
LN19393_A002	J-HY4035209	WJ18032	20.13	300	132	6.54	0.09	0.04
LN19394	WJ18031	WJ18032	11.62	300	132	-1.04	0.01	0.00
LN19395	WJ18032	WJ18033	6.13	300	132	5.46	0.08	0.03
LN19396	WJ18033	WJ18030	12.19	300	132	-4.61	0.07	0.02
LN19397_A001	WJ18034	J-HY12614	1.42	300	132	-10.07	0.14	0.09
LN19397_A002	J-HY12614	WJ18033	100.24	300	132	-10.07	0.14	0.09
LN20057	WJ4018098	WJ4011303	286.65	150	103	-0.30	0.02	0.01
LN20058	WJ4011305	WJ4018098	232.57	150	103	0.73	0.04	0.03
LN20510	WJ4005966	WJ24044	130.34	150	114	0.19	0.01	0.00
LN20710_A001	WJ24204	J-HY4014840	40.05	300	132	-19.75	0.28	0.31
LN20710_A002	J-HY4014840	WJ4013102	64.32	300	132	-19.75	0.28	0.31
LN20730_A001	WJ24204	J-HY16801	70.81	300	132	19.36	0.27	0.30
LN20730_A002	J-HY16801	WJ58548	77.33	300	132	19.36	0.27	0.30
LN20750	WJ4013337	WJ24244	23.15	150	103	6.63	0.38	1.90
LN20770	WJ24244	WJ24264	9.46	300	132	6.63	0.09	0.04
LN20790	WJ4013060	WJ24284	8.95	400	129	-47.00	0.37	0.39
LN20791	WJ4013513	WJ24364	8.65	150	103	3.67	0.21	0.63
LN20810_A001	WJ24284	J-HY16821	90.72	400	129	36.96	0.29	0.25
LN20810_A002	J-HY16821	WJ24264	76.79	400	129	36.96	0.29	0.25
LN20811_A001	WJ24264	J-HY17621	69.47	400	129	30.39	0.24	0.18
LN20811_A002	J-HY17621	WJ24285	76.20	400	129	30.39	0.24	0.18
LN20812	WJ24285	WJ24304	31.28	400	129	30.58	0.24	0.18
LN20870	WJ4013060	WJ24344	16.48	400	129	7.77	0.06	0.01
LN20892	WJ24364	WJ24285	12.27	300	132	3.67	0.05	0.01
LN20893	WJ24285	WJ24366	29.17	300	132	3.48	0.05	0.01
LN21690	WJ4018318	WJ4019834	245.54	150	114	1.74	0.10	0.13
LN22922	WJ57438	WJ25698	7.22	400	129	-0.02	0.00	0.00
LN22926	WJ25696	WJ25695	12.08	400	129	9.29	0.07	0.02
LN22927	WJ25698	WJ25697	12.58	400	129	9.70	0.08	0.02
LN22928	WJ25697	WJ25696	11.77	400	129	9.29	0.07	0.02
LN23823_A001	WJ58481	J-HY4007542	64.50	300	132	-11.61	0.16	0.12
LN23823_A002	J-HY4007542	WJ26555	80.39	300	132	-11.61	0.16	0.12
LN24067_A001	WJ26759	WV4037971	340.52	900	130	-393.33	0.62	0.38
LN24067_A002	WV4037971	WJ26760	18.03	900	130	-393.33	0.62	0.38
LN24068_A001	WJ4023055	WV4005035	270.90	900	130	-392.95	0.62	0.38
LN24068_A002	WV4005035	WJ26758	351.65	900	130	-392.95	0.62	0.38
LN24069_A001	WJ26758	WV4005033	25.73	900	130	-393.04	0.62	0.38
LN24069_A002	WV4005033	WJ26759	237.60	900	130	-393.04	0.62	0.38
LN24070	WJ26760	WJ4008317	153.38	900	130	-393.40	0.62	0.39
LN24643	WJ27194	WJ4016719	2.68	250	115	3.28	0.07	0.03
LN24644	WJ58488	WJ27194	18.66	250	115	3.28	0.07	0.03
LN24782	WJ27354	WJ27355	1.02	300	120	8.16	0.12	0.07
LN24783	WJ27354	WJ4008473	13.52	600	130	-232.87	0.82	1.05

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN24784	WJ4008497	WJ27355	12.56	300	120	1.66	0.02	0.00
LN24802	WJ4020828	WJ27375	8.24	400	129	-18.43	0.15	0.07
LN24803	WJ4010429	WJ27375	123.44	300	120	3.47	0.05	0.01
LN25424	WJ27861	WJ27857	14.48	150	114	1.47	0.08	0.10
LN25425	WJ27858	WJ27861	22.83	150	114	-1.31	0.07	0.08
LN25426	WJ27861	WJ52251	15.65	300	132	-21.99	0.31	0.38
LN25427	WJ27861	WJ27874	224.22	300	132	19.00	0.27	0.29
LN25441	WJ27874	WJ27875	3.33	400	129	7.40	0.06	0.01
LN25442	WJ27877	WJ27879	4.73	150	114	0.36	0.02	0.01
LN25443	WJ27879	WJ27874	20.08	400	129	0.36	0.00	0.00
LN25444	WJ27874	WJ27917	222.63	300	132	11.56	0.16	0.11
LN25483	WJ27918	WJ27917	18.39	300	132	-1.74	0.02	0.00
LN25484	WJ27917	WJ27916	12.30	300	132	0.75	0.01	0.00
LN25485	WJ27917	WJ28079	218.63	300	132	8.13	0.12	0.06
LN25486	WJ28079	WJ28076	14.37	300	132	7.00	0.10	0.05
LN25487	WJ28077	WJ28079	18.75	150	114	-0.71	0.04	0.03
LN25501_A001	WJ27974	J-HY4022181	60.39	400	129	-29.22	0.23	0.16
LN25501_A002	J-HY4022181	WJ28214	59.65	400	129	-29.22	0.23	0.16
LN25502	WJ27994	WJ28214	36.72	400	129	-36.06	0.29	0.24
LN25504	WJ28214	WJ28134	202.54	300	132	-28.48	0.40	0.61
LN25505	WJ27974	WJ28014	62.76	400	129	11.40	0.09	0.03
LN25507_A001	WJ28014	J-HY4022232	23.93	400	129	17.02	0.14	0.06
LN25507_A002	J-HY4022232	J-HY4022263	123.81	400	129	17.02	0.14	0.06
LN25507_A003	J-HY4022263	J-HY4022342	63.08	400	129	17.02	0.14	0.06
LN25507_A004	J-HY4022342	WJ28234	50.82	400	129	17.01	0.14	0.06
LN25521	WJ28034	WJ20153	28.01	300	132	-5.67	0.08	0.03
LN25522_A001	WJ28054	J-HY4022433	10.05	400	129	-13.08	0.10	0.04
LN25522_A002	J-HY4022433	WJ28234	60.46	400	129	-13.08	0.10	0.04
LN25523	WJ4014459	WJ28054	18.91	300	120	-13.08	0.19	0.17
LN25603	WJ28096	WJ28114	86.19	600	130	-40.07	0.14	0.04
LN25622	WJ28134	WJ28135	71.77	300	132	-27.98	0.40	0.59
LN25642	WJ28135	WJ28154	132.71	300	132	-29.86	0.42	0.67
LN25662	WJ28154	WJ4014248	76.44	300	132	-28.50	0.40	0.61
LN25663	WJ28175	WJ28174	7.78	150	114	-2.52	0.14	0.27
LN25665	WJ21598	WJ28175	10.03	300	132	41.45	0.59	1.22
LN25682	WJ28177	WJ4014259	10.27	150	103	-4.34	0.25	0.87
LN26782	WJ28174	WJ28177	54.20	150	114	-4.34	0.25	0.72
LN34321	WJ4019846	WJ53893	223.76	150	114	1.33	0.08	0.08
LN34322	WJ53893	WJ4008712	148.71	150	114	-2.90	0.16	0.34
LN39382	WJ4016832	WJ38909	28.48	150	103	1.75	0.10	0.16
LN4000241	WJ4013243	WJ4013245	10.47	150	103	5.42	0.31	1.31
LN4000278	WJ4013252	WJ4013274	15.61	150	103	0.51	0.03	0.02
LN4000314	WJ4013383	WJ4013382	12.12	150	103	0.14	0.01	0.00
LN4000331	WJ4013520	WJ4013519	1.06	150	103	1.01	0.06	0.05
LN4000480	WJ4013458	WJ4013457	6.77	150	103	1.46	0.08	0.12
LN4000487	WJ4013470	WJ4013468	11.98	150	103	0.10	0.01	0.00
LN4000497	WJ4013418	WJ4013416	6.98	150	103	-5.00	0.28	1.13
LN4000907	WJ4014719	WJ4014721	99.65	150	103	3.85	0.22	0.70
LN4000939	WJ4014719	WJ4014763	104.39	150	103	-1.76	0.10	0.16
LN4000999	WJ4014474	WJ4014473	12.72	300	120	-5.55	0.08	0.04
LN4001207	WJ4015177	WJ4015178	2.11	300	120	-3.72	0.05	0.02
LN4001217	WJ4015339	WJ4015332	90.60	300	120	-6.19	0.09	0.04
LN4001443	WJ4015228	WJ4015229	8.78	150	103	0.00	0.00	0.00
LN4001460	WJ4015238	WJ4015239	12.61	200	115	0.00	0.00	0.00
LN4001462	WJ4015239	WJ4015255	1.39	200	115	0.00	0.00	0.00
LN4001464	WJ4015256	WJ4015239	2.67	100	100	0.00	0.00	0.00
LN4001485	WJ4015259	WJ4015279	86.12	150	103	0.33	0.02	0.01
LN4001529	WJ57428	WJ4015289	79.80	150	103	-0.06	0.00	0.00
LN4004695	WJ4016056	WJ4016055	6.80	150	103	1.41	0.08	0.11
LN4004926	WJ4008658	WJ4008654	2.68	300	120	-5.35	0.08	0.03
LN4004937	WJ4008677	WJ4008675	17.58	300	120	2.02	0.03	0.01
LN4004956	WJ4008657	WJ4008659	4.77	900	130	-755.77	1.19	1.29
LN4004980	WJ4017077	WJ4008675	77.24	300	132	-6.84	0.10	0.04
LN4005470	WJ60862	WJ4017087	107.49	250	115	5.10	0.10	0.08
LN4005811	WJ4016786	WJ4016785	4.19	400	129	-10.23	0.08	0.03
LN4005825	WJ4016750	WJ4016727	6.09	400	129	-19.20	0.15	0.08
LN4006937	WJ4006938	WJ4006937	4.92	300	120	3.72	0.05	0.02
LN4007284	WJ4015346	WJ4015345	1.81	300	132	-40.96	0.58	1.19
LN4007660	WJ4017170	WJ4015324	52.50	150	103	-0.02	0.00	0.00
LN4008350	WJ4012266	WJ4011936	4.25	300	120	1.55	0.02	0.00
LN4008856	WJ4012402	WJ4013089	42.00	900	130	-382.76	0.60	0.37
LN4008863	WJ4017209	WJ4012852	21.59	300	120	1.68	0.02	0.00
LN4008983	WJ4017212	WJ4012562	3.28	300	132	-8.78	0.12	0.07
LN4009239	WJ58535	WJ58532	17.54	150	114	-1.46	0.08	0.10
LN4009514	WJ4013114	WJ4013116	7.28	150	103	-3.03	0.17	0.45
LN4009882_A001	WJ4013049	WV4011116	6.49	400	129	95.67	0.76	1.48

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4009882_A002	WV4011116	WJ4013001	2.87	400	129	95.67	0.76	1.48
LN4009906	WJ4013114	WJ4013109	16.33	150	103	-1.84	0.10	0.18
LN4009966	WJ4013093	WJ4013101	10.69	400	129	-17.16	0.14	0.06
LN4009967	WJ4013101	WJ4013102	19.58	400	129	-19.49	0.16	0.08
LN4009997	WJ24284	WJ4013050	31.96	400	129	-87.90	0.70	1.26
LN4010005	WJ4012997	WJ4012994	25.49	300	120	-23.26	0.33	0.50
LN4010016	WJ4013272	WJ4013271	1.47	300	132	-27.18	0.38	0.56
LN4010047	WJ51990	WJ4019616	150.10	150	103	-2.07	0.12	0.22
LN4010339	WJ4016638	WJ4016605	2.49	300	120	29.22	0.41	0.76
LN4010475	WJ4016583	WJ4016582	3.58	300	120	1.58	0.02	0.01
LN4010591	WJ4016732	WJ4016730	2.54	300	120	1.99	0.03	0.01
LN4010707	WJ4016342	WJ4016349	99.23	300	120	16.45	0.23	0.26
LN4010870	WJ4018056	WJ4003831	25.54	300	120	6.34	0.09	0.05
LN4010950	WJ4012852	WJ4017229	3.94	250	115	16.09	0.33	0.67
LN4011089	WJ4010414	WJ4010416	26.66	200	115	0.00	0.00	0.00
LN4011316_A001	WJ4010425	WV4011145	6.84	600	130	-14.56	0.05	0.01
LN4011316_A002	WV4011145	WJ4010424	3.60	600	130	-14.56	0.05	0.01
LN4012081	WJ4017315	WJ4006791	0.59	150	103	-0.09	0.01	0.00
LN4012956	WJ27355	WJ4008460	17.65	300	120	9.82	0.14	0.10
LN4013142	WJ4010614	WJ4010597	6.68	300	120	5.03	0.07	0.03
LN4013146	WJ4010583	WJ4010581	1.99	300	120	5.06	0.07	0.03
LN4013341	WJ4008852	WJ4008830	91.14	300	120	45.37	0.64	1.72
LN4013626	WJ4008476	WJ27354	18.13	600	130	-224.71	0.79	0.98
LN4013627	WJ4008477	WJ4008476	3.78	600	130	0.00	0.00	0.00
LN4013643	WJ4002204	WJ4002202	8.01	150	103	-0.01	0.00	0.00
LN4013665	WJ4002150	WJ4002158	10.55	150	103	-5.31	0.30	1.26
LN4015175	WJ4017447	WJ4006350	2.94	150	103	0.76	0.04	0.03
LN4015243	WJ4006038	WJ4006036	2.94	200	115	-1.76	0.06	0.03
LN4015337	WJ4017479	WJ4005704	48.37	150	103	0.01	0.00	0.00
LN4015338	WJ4017479	WJ4005703	30.78	150	103	0.11	0.01	0.00
LN4015357	WJ4005967	WJ4005968	144.15	150	103	-0.21	0.01	0.00
LN4015530	WJ4006221	WJ4006222	2.00	150	103	-1.77	0.10	0.16
LN4015600	WJ4006214	WJ4006217	11.53	150	103	0.69	0.04	0.03
LN4015737	WJ4011304	WJ4011305	10.73	150	103	-0.25	0.01	0.01
LN4015767	WJ4011304	WJ4011303	94.28	150	103	1.02	0.06	0.06
LN4015797	WJ4005428	WJ4005429	26.46	150	103	1.76	0.10	0.16
LN4015913	WJ4011378	WJ4010422	25.18	300	120	48.62	0.69	1.96
LN4015929	WJ4010917	WJ4011452	13.28	300	120	13.73	0.19	0.19
LN4015938	WJ4010946	WJ4011454	18.51	300	120	15.90	0.22	0.25
LN4015948	WJ4011482	WJ4011011	67.38	300	120	33.51	0.47	0.98
LN4016088	WJ4017630	WJ4011582	3.96	150	103	1.86	0.11	0.18
LN4016090	WJ4011622	WJ4017630	143.84	150	103	-3.21	0.18	0.50
LN4016101	WJ4011634	WJ4011632	6.29	150	103	1.20	0.07	0.08
LN4016120	WJ4011582	WJ4011676	67.31	150	103	2.29	0.13	0.26
LN4016516	WJ4011677	WJ4011399	35.07	150	103	-1.12	0.06	0.07
LN4016552	WJ4011870	WJ4011859	91.84	150	103	-1.86	0.11	0.18
LN4016660_A001	WJ4009713	J-HY16101	36.38	300	120	27.49	0.39	0.68
LN4016660_A002	J-HY16101	WJ4009674	102.23	300	120	27.49	0.39	0.68
LN4016692	WJ4009359	WJ4009358	10.17	300	120	-24.69	0.35	0.56
LN4017487	WJ4009830	WJ4009045	38.92	150	103	-7.81	0.44	2.58
LN4017708	WJ4017585	WJ4009700	47.43	150	114	0.71	0.04	0.03
LN4017956	WJ4003830	WJ4018056	7.25	200	115	6.34	0.20	0.35
LN4017974	WJ4004963	WJ4004623	7.33	200	115	-5.11	0.16	0.24
LN4018123	WJ4009276	WJ4009277	30.79	300	120	-25.97	0.37	0.61
LN4018609	WJ4017753	WJ4015576	91.97	300	120	-3.57	0.05	0.02
LN4018612	WJ4016912	WJ4017753	13.02	150	103	0.00	0.00	0.00
LN4019106	WJ4011632	WJ4011622	264.04	150	103	-0.87	0.05	0.04
LN4019245	WJ61627	WJ59822	356.92	150	103	-3.55	0.20	0.60
LN4019246	WJ4006591	WJ4006585	136.18	300	120	-16.54	0.23	0.27
LN4019256	WJ4006581	WJ4006585	311.55	300	120	6.45	0.09	0.05
LN4019257	WJ4020971	WJ4011806	240.82	150	103	-0.39	0.02	0.01
LN4019265	WJ4011806	WJ4011677	96.20	150	103	-3.07	0.17	0.46
LN4019267	WJ4011815	WJ4011806	87.42	150	103	-2.03	0.11	0.21
LN4019273	WJ4011848	WJ4011815	83.38	150	103	-2.04	0.12	0.22
LN4019275	WJ4011859	WJ4011848	99.57	150	103	-1.85	0.10	0.18
LN4019278	WJ4011876	WJ4011870	86.96	150	103	-1.52	0.09	0.12
LN4019287	WJ4011947	WJ4011876	90.43	150	103	-1.01	0.06	0.06
LN4019294	WJ4003473	WJ4006581	152.45	150	103	-5.26	0.30	1.24
LN4019313	WJ4006835	WJ4001964	257.47	150	103	-2.47	0.14	0.31
LN4019319	WJ4001964	WJ4006933	100.71	150	103	2.28	0.13	0.26
LN4019320	WJ4006933	WJ4001950	101.46	150	103	0.51	0.03	0.02
LN4019331	WJ4006925	WJ4017639	45.10	150	103	0.02	0.00	0.00
LN4019365	WJ4002007	WJ4006925	230.90	150	103	-3.84	0.22	0.69
LN4019403	WJ4002007	WJ4006928	240.10	150	103	2.13	0.12	0.23
LN4019407	WJ4020978	WJ4011848	245.40	150	103	0.28	0.02	0.01
LN4019447	WJ4006928	WJ4006925	260.35	150	103	-4.23	0.24	0.83

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4019492	WJ4020984	WJ4011870	246.28	150	103	0.25	0.01	0.00
LN4019493	WJ4001888	WJ4001881	95.82	300	120	-30.46	0.43	0.82
LN4019495	WJ4001895	WJ4001888	87.74	300	120	-28.03	0.40	0.71
LN4019500	WJ4020987	WJ4011876	262.91	150	103	0.07	0.00	0.00
LN4019510	WJ4001895	WJ4001900	97.79	300	120	24.42	0.35	0.55
LN4019512	WJ4002308	WJ4002296	95.48	150	103	0.19	0.01	0.00
LN4019514	WJ4002294	WJ4002296	109.03	150	103	-0.14	0.01	0.00
LN4019526	WJ4002296	WJ4002319	190.27	150	103	-0.26	0.01	0.00
LN4019528	WJ4002319	WJ4002359	94.31	150	103	0.09	0.01	0.00
LN4019532	WJ4006791	WJ4001900	317.71	150	114	-1.80	0.10	0.14
LN4019544	WJ4020003	WJ4011663	160.03	150	103	-3.15	0.18	0.48
LN4019548	WJ4006785	WJ4001895	263.66	150	103	1.17	0.07	0.08
LN4019553	WJ4006785	WJ4006781	67.31	150	103	0.22	0.01	0.00
LN4019554	WJ4011663	WJ62422	100.25	150	103	-1.83	0.10	0.17
LN4019563	WJ4006785	WJ4001888	168.33	150	103	-2.21	0.12	0.25
LN4019575	WJ60020	WJ4011486	173.02	300	120	34.80	0.49	1.06
LN4019585	WJ4006801	WJ4001950	132.41	150	103	-1.83	0.10	0.18
LN4019591	WJ59712	WJ4011663	171.65	150	103	1.64	0.09	0.14
LN4019595	WJ4006814	WJ4006801	93.50	150	103	-0.77	0.04	0.04
LN4019598	WJ4006820	WJ4006814	96.58	150	103	-0.66	0.04	0.03
LN4019605	WJ4006820	WJ4006933	230.70	150	103	-1.58	0.09	0.13
LN4019606	WJ4011763	WJ59726	64.41	150	103	-0.13	0.01	0.00
LN4019609	WJ4002365	WJ4002319	168.05	150	103	0.60	0.03	0.02
LN4019610	WJ4006835	WJ4006820	104.58	150	103	-1.99	0.11	0.21
LN4019633	WJ53661	WJ4017357	415.53	150	103	-3.51	0.20	0.59
LN4019645	WJ4001964	WJ4019415	199.52	150	103	-5.07	0.29	1.16
LN4019653	WJ4006928	WJ4006399	285.49	150	103	5.87	0.33	1.52
LN4019793	WJ58336	WJ53448	205.27	150	103	-8.20	0.46	2.82
LN4019800	WJ53450	WJ4006399	198.56	150	103	4.39	0.25	0.89
LN4019893	WJ4011683	WJ4011482	307.01	150	103	-1.88	0.11	0.18
LN4019897	WJ4020882	WJ4011482	41.83	300	120	35.79	0.51	1.11
LN4019935	WJ4011011	WJ4011479	32.36	300	120	27.41	0.39	0.68
LN4019948	WJ4011680	WJ4011479	320.68	150	103	-1.61	0.09	0.14
LN4019952	WJ53717	WJ4017786	191.86	150	103	-3.88	0.22	0.71
LN4019968	WJ4017786	WJ49143	85.72	150	103	3.64	0.21	0.63
LN4019970	WJ4011683	WJ4011680	102.68	150	103	3.98	0.23	0.74
LN4019977	WJ4011479	WJ4011476	89.96	300	120	25.38	0.36	0.59
LN4019980	WJ53512	WJ49141	78.73	150	103	0.82	0.05	0.04
LN4019985	WJ4002333	WJ4002321	100.10	150	103	0.34	0.02	0.01
LN4019986	WJ4011680	WJ4017630	75.80	150	103	5.14	0.29	1.19
LN4019992	WJ4011671	WJ4011676	68.39	150	103	0.00	0.00	0.00
LN4019995	WJ4018024	WJ4002498	100.51	150	103	1.92	0.11	0.19
LN4020007	WJ4011676	WJ4011677	111.33	150	103	2.03	0.11	0.21
LN4020014	WJ4011582	WJ4011579	47.46	150	103	-0.43	0.02	0.01
LN4020022	WJ4011579	WJ4011476	312.65	150	103	-2.26	0.13	0.26
LN4020024	WJ4011476	WJ4011458	110.24	300	120	21.38	0.30	0.43
LN4020027	WJ4003473	WJ4002977	134.34	150	103	0.18	0.01	0.00
LN4020041	WJ4002064	WJ4002079	477.95	150	114	1.08	0.06	0.05
LN4020044	WJ52877	WJ4002079	74.88	300	120	-9.11	0.13	0.09
LN4020051	WJ4019996	WJ4011458	222.89	150	103	-2.05	0.12	0.22
LN4020071	WJ4011411	WJ4011382	41.52	150	103	2.57	0.15	0.33
LN4020079	WJ4011458	WJ4010946	79.08	300	120	17.50	0.25	0.30
LN4020086	WJ4002202	WJ4002158	100.31	150	103	2.53	0.14	0.32
LN4020089	WJ49142	WJ4002204	94.09	150	103	2.54	0.14	0.32
LN4020099	WJ4011399	WJ4011390	97.09	150	103	0.28	0.02	0.01
LN4020101	WJ4011454	WJ4010917	85.95	300	120	13.92	0.20	0.19
LN4020106	WJ4011390	WJ4011387	73.40	150	103	1.13	0.06	0.07
LN4020109	WJ4011387	WJ4011401	143.76	150	103	0.34	0.02	0.01
LN4020117	WJ4011387	WJ4011989	65.34	150	103	0.47	0.03	0.01
LN4020130	WJ4011989	WJ4011382	194.77	150	103	1.06	0.06	0.06
LN4020136	WJ4011452	WJ4011449	95.59	300	120	11.85	0.17	0.14
LN4020142	WJ4011411	WJ4011449	170.74	150	103	-1.41	0.08	0.11
LN4020145	WJ4011449	WJ4010236	51.72	300	120	9.19	0.13	0.09
LN4020147	WJ4010236	WJ4011378	50.39	300	120	46.21	0.65	1.78
LN4020153	WJ4011382	WJ4011378	169.80	150	103	2.73	0.15	0.37
LN4020186	WJ4011139	WJ4011189	221.13	150	103	0.26	0.01	0.00
LN4020197	WJ4021011	WJ4011947	268.91	150	103	-0.02	0.00	0.00
LN4020328	WJ48243	WJ4011304	100.29	150	103	0.90	0.05	0.05
LN4020341	WJ4011303	WJ4011289	154.86	150	103	0.18	0.01	0.00
LN4020348	WJ48211	WJ4021044	174.38	150	103	0.58	0.03	0.02
LN4020450	WJ4002064	WJ4006591	52.10	150	103	-11.57	0.65	5.33
LN4020453	WJ4002079	WJ4002064	286.52	300	120	-9.28	0.13	0.09
LN4020467	WJ4003146	WJ4003628	101.18	150	103	-0.07	0.00	0.00
LN4020477	WJ4002321	WJ4002204	205.21	150	103	-2.36	0.13	0.28
LN4020492	WJ4003633	WJ4002512	135.88	300	120	-3.43	0.05	0.01
LN4020505	WJ4004623	WJ4004621	86.37	200	115	5.80	0.18	0.30

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4020509	WJ4004621	WJ4004501	94.33	200	115	3.49	0.11	0.12
LN4020512	WJ4004501	WJ4004488	96.62	200	115	1.12	0.04	0.01
LN4020515	WJ4004488	WJ4003845	96.74	200	115	-1.35	0.04	0.02
LN4020518	WJ4003845	WJ4003830	79.36	200	115	-1.30	0.04	0.02
LN4020527	WJ49003	WJ4003831	240.72	300	120	-16.95	0.24	0.28
LN4020541	WJ4003930	WJ4003834	220.75	300	120	-17.81	0.25	0.31
LN4020620	WJ4003924	WJ4003925	450.40	300	120	0.63	0.01	0.00
LN4020624	WJ4003925	WJ4003927	255.35	300	120	0.48	0.01	0.00
LN4020629	WJ4003927	WJ4003929	218.11	300	120	0.41	0.01	0.00
LN4020635	WJ4003929	WJ4003930	218.95	300	120	1.27	0.02	0.00
LN4020701	WJ4004140	WJ4017359	131.84	150	103	0.11	0.01	0.00
LN4020715	WJ4004565	WJ4004567	112.86	150	103	0.21	0.01	0.00
LN4020800	WJ58760	WJ4004354	273.89	150	103	0.37	0.02	0.01
LN4020807	WJ4006153	WJ4004368	365.69	150	103	-0.84	0.05	0.04
LN4020813	WJ4004558	WJ4004417	201.64	150	103	0.17	0.01	0.00
LN4020842	WJ4004563	WJ4004560	99.01	150	103	-0.40	0.02	0.01
LN4020845	WJ4004558	WJ62335	92.90	150	103	1.26	0.07	0.09
LN4020850	WJ4004560	WJ4004140	273.96	150	103	0.46	0.03	0.01
LN4020852	WJ4004418	WJ4017359	163.68	150	103	-0.14	0.01	0.00
LN4020855	WJ4017359	WJ4003927	84.19	150	103	0.21	0.01	0.00
LN4020889	WJ4005489	WJ4004584	121.96	150	103	1.31	0.07	0.09
LN4020901	WJ4004148	WJ4004584	408.67	150	103	-0.05	0.00	0.00
LN4020910	WJ4004148	WJ4017373	99.98	150	103	0.93	0.05	0.05
LN4020912	WJ4017373	WJ4003922	131.39	150	103	0.12	0.01	0.00
LN4020918	WJ4004151	WJ4004148	89.12	150	103	1.36	0.08	0.10
LN4020920	WJ4004151	WJ4003907	73.93	150	103	0.08	0.00	0.00
LN4020925	WJ4004827	WJ4004151	202.73	150	103	1.70	0.10	0.15
LN4020930	WJ4003958	WJ4004827	124.90	150	103	0.93	0.05	0.05
LN4020945	WJ4003958	WJ4004177	93.90	150	103	-1.49	0.08	0.12
LN4020972	WJ4004177	WJ4003978	124.40	150	103	1.23	0.07	0.08
LN4020977	WJ4003978	WJ4004827	97.97	150	103	1.14	0.06	0.07
LN4020983	WJ4004184	WJ4003978	88.12	150	103	0.15	0.01	0.00
LN4020999	WJ4003998	WJ4004184	77.92	150	103	0.96	0.05	0.05
LN4021033	WJ4004000	WJ4003998	93.27	150	114	-1.12	0.06	0.06
LN4021039	WJ4004013	WJ4004000	54.40	150	103	-0.10	0.01	0.00
LN4021047	WJ4004286	WJ4004000	132.78	150	114	-0.85	0.05	0.04
LN4021058	WJ4017373	WJ4003924	60.63	150	103	0.83	0.05	0.04
LN4021067	WJ4004563	WJ4004567	213.78	150	103	0.39	0.02	0.01
LN4021087	WJ4004537	WJ4017766	218.82	150	103	-0.81	0.05	0.04
LN4021103	WJ4017766	WJ48979	215.25	150	103	-1.43	0.08	0.11
LN4021107	WJ4017666	WJ4004963	24.71	150	103	-3.90	0.22	0.71
LN4021111	WJ4004623	WJ4002498	439.88	300	132	-11.24	0.16	0.11
LN4021140_A001	WJ4013756	J-HY4024238	104.32	400	129	-33.73	0.27	0.21
LN4021140_A002	J-HY4024238	WJ27994	52.47	400	129	-33.73	0.27	0.21
LN4021159_A001	WJ4013756	J-HY4023355	80.69	150	103	-2.86	0.16	0.40
LN4021159_A002	J-HY4023355	WJ4013827	118.63	150	103	-2.86	0.16	0.40
LN4021177	WJ4013827	WJ4013831	106.01	150	103	-4.66	0.26	0.99
LN4021230	WJ4005072	WJ4004482	159.65	150	103	-1.05	0.06	0.06
LN4021250	WJ4004482	WJ4004476	175.99	150	114	0.13	0.01	0.00
LN4021269	WJ4005083	WJ48988	215.89	150	103	-1.83	0.10	0.17
LN4021305	WJ21660	WJ48984	216.92	150	103	-1.61	0.09	0.14
LN4021309	WJ4004537	WJ4004538	94.88	150	103	1.02	0.06	0.06
LN4021312	WJ4004538	WJ4005072	189.69	150	103	1.34	0.08	0.10
LN4021321	WJ4013852	WJ4013861	196.60	150	103	-2.94	0.17	0.42
LN4021361	WJ4004482	WJ48994	274.97	150	103	-1.59	0.09	0.13
LN4021375	WJ4013256	WJ21558	179.36	150	114	-0.79	0.04	0.03
LN4021384	WJ4013268	WJ4013256	129.75	150	103	1.28	0.07	0.09
LN4021394	WJ4013245	WJ4013268	83.31	150	103	2.45	0.14	0.30
LN4021402	WJ4013274	WJ4013256	121.65	150	114	-1.88	0.11	0.15
LN4021404	WJ4004584	WJ4017373	306.62	150	103	0.51	0.03	0.02
LN4021406	WJ4013246	WJ4013245	99.80	150	103	-2.89	0.16	0.41
LN4021412	WJ4013252	WJ4013246	102.79	150	103	-1.63	0.09	0.14
LN4021418	WJ4013704	WJ4013243	279.08	150	103	-1.95	0.11	0.20
LN4021431	WJ4013523	WJ4013520	228.58	150	103	-0.61	0.03	0.02
LN4021434	WJ4013252	WJ4013519	283.01	150	103	0.93	0.05	0.05
LN4021461	WJ4013528	WJ4013523	79.45	150	103	1.87	0.11	0.18
LN4021468	WJ4013530	WJ4013528	82.51	150	103	-5.49	0.31	1.34
LN4021549	WJ59065	WJ4005428	119.46	150	103	2.11	0.12	0.23
LN4021571	WJ4005428	WJ4005731	136.69	150	103	0.23	0.01	0.00
LN4021626	WJ4006221	WJ4004537	95.22	150	103	0.50	0.03	0.02
LN4021631	WJ4006217	WJ4004558	94.98	150	103	1.62	0.09	0.14
LN4021633	WJ4006217	WJ4006221	218.44	150	103	-1.13	0.06	0.07
LN4021642	WJ4006212	WJ4006214	80.73	150	103	1.41	0.08	0.11
LN4021645	WJ4005430	WJ4004368	133.18	150	103	0.54	0.03	0.02
LN4021646	WJ4005430	WJ4006148	225.37	150	103	0.16	0.01	0.00
LN4021653	WJ48956	WJ48963	105.90	150	103	0.35	0.02	0.01

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4021694	WJ58764	WJ4006222	140.12	150	103	1.07	0.06	0.07
LN4021713	WJ58749	WJ48969	121.67	150	103	1.20	0.07	0.08
LN4021728	WJ48973	WJ4006038	317.03	150	103	-2.29	0.13	0.26
LN4021745	WJ4006036	WJ4004963	93.82	200	115	-0.95	0.03	0.01
LN4021749	WJ4006048	WJ4006038	98.23	200	115	0.76	0.02	0.01
LN4021758	WJ4006069	WJ4006048	53.32	200	115	0.13	0.00	0.00
LN4021766	WJ58747	WJ4006069	30.12	150	114	-2.36	0.13	0.23
LN4021771	WJ4006067	WJ4006069	48.70	200	115	2.58	0.08	0.07
LN4021774	WJ4013538	WJ4013530	503.77	150	103	-3.19	0.18	0.49
LN4021777_A001	WJ4013511	J-HY4027373	67.61	150	103	-2.83	0.16	0.39
LN4021777_A002	J-HY4027373	WJ4013482	38.12	150	103	-2.83	0.16	0.39
LN4021780	WJ4013482	WJ4013512	260.02	150	103	0.47	0.03	0.01
LN4021783	WJ4013482	WJ4013443	158.46	150	103	-3.77	0.21	0.67
LN4021786	WJ4013443	WJ4013444	40.74	150	103	-3.12	0.18	0.47
LN4021793	WJ4013457	WJ4013444	99.17	150	103	1.01	0.06	0.06
LN4021797	WJ4013458	WJ4013470	95.13	150	103	0.38	0.02	0.01
LN4021803	WJ4013470	WJ4013457	326.23	150	103	-0.09	0.01	0.00
LN4021806	WJ4013416	WJ4013530	99.17	150	103	-1.77	0.10	0.16
LN4021808	WJ4013418	WJ4013444	179.86	150	103	2.47	0.14	0.31
LN4021810	WJ4013414	WJ4013416	162.96	150	103	3.32	0.19	0.53
LN4021811	WJ61779	WJ4013418	136.36	150	103	-2.10	0.12	0.23
LN4021812	WJ4006036	WJ4006109	224.48	150	103	-1.01	0.06	0.06
LN4021813	WJ4013414	WJ4013523	94.87	150	103	-2.35	0.13	0.28
LN4021819	WJ4013361	WJ4013362	63.67	150	103	0.02	0.00	0.00
LN4021827	WJ4006091	WJ4006109	100.17	150	103	-1.04	0.06	0.06
LN4021828	WJ4013361	WJ4013338	151.75	150	103	0.14	0.01	0.00
LN4021829	WJ4013338	WJ4013348	51.33	150	103	0.02	0.00	0.00
LN4021833	WJ4006048	WJ4006091	212.10	150	103	-0.71	0.04	0.03
LN4021838	WJ4013338	WJ4013322	338.51	150	114	-0.39	0.02	0.01
LN4021846	WJ4013383	WJ4013361	229.11	150	103	0.49	0.03	0.02
LN4021849	WJ4013322	WJ4013382	99.27	150	103	-0.38	0.02	0.01
LN4021850	WJ4006067	WJ4006089	199.87	150	103	-0.68	0.04	0.03
LN4021853	WJ4006089	WJ4006091	100.50	150	103	0.64	0.04	0.03
LN4021863	WJ53724	WJ4006089	88.48	150	103	1.91	0.11	0.19
LN4021873	WJ4017333	WJ53722	80.31	150	103	0.74	0.04	0.03
LN4021876	WJ4006075	WJ4017333	174.56	150	103	-1.49	0.08	0.12
LN4021879	WJ4013283	WJ4013274	105.88	150	114	-2.28	0.13	0.22
LN4021884	WJ4013287	WJ4013283	130.56	150	114	-1.30	0.07	0.08
LN4021887	WJ4013287	WJ4013382	153.92	150	103	0.42	0.02	0.01
LN4021888	WJ4013299	WJ4013287	107.51	150	114	-0.60	0.03	0.02
LN4021890	WJ4013322	WJ4013299	112.11	150	114	-0.35	0.02	0.01
LN4021905	WJ4005699	WJ4006067	105.79	200	115	2.36	0.08	0.06
LN4021907	WJ4005699	WJ4006075	98.55	200	115	-1.10	0.04	0.01
LN4021911_A001	WJ28234	J-HY4029416	88.51	400	129	2.19	0.02	0.00
LN4021911_A002	J-HY4029416	WJ4016440	99.62	400	129	2.19	0.02	0.00
LN4021930	WJ4014459	WJ4014757	98.63	150	114	4.52	0.26	0.78
LN4021937	WJ4014763	WJ4014757	254.55	150	103	0.96	0.05	0.05
LN4021938	WJ4005966	WJ4005968	67.68	150	103	-0.37	0.02	0.01
LN4021939_A001	WJ4014473	J-HY4032974	86.26	300	120	-7.00	0.10	0.05
LN4021939_A002	J-HY4032974	WJ4014459	106.62	300	120	-7.00	0.10	0.05
LN4021942	WJ4014475	WJ4014474	6.94	300	120	-7.22	0.10	0.06
LN4021944_A001	WJ4014474	J-HY16117	63.14	300	132	-2.62	0.04	0.01
LN4021944_A002	J-HY16117	J-HY4032126	97.49	300	132	-2.62	0.04	0.01
LN4021944_A003	J-HY4032126	J-HY4032075	92.10	300	132	-2.62	0.04	0.01
LN4021944_A004	J-HY4032075	WJ21239	14.75	300	132	-2.62	0.04	0.01
LN4021949	WJ4014763	WJ4014475	110.11	150	103	-3.12	0.18	0.47
LN4021959_A001	WJ4014624	J-HY4033084	73.38	300	120	-4.03	0.06	0.02
LN4021959_A002	J-HY4033084	WJ4014475	77.72	300	120	-4.03	0.06	0.02
LN4021962	WJ4014623	WJ4014624	46.09	300	120	-2.70	0.04	0.01
LN4021963	WJ4014624	WJ4014701	115.67	150	103	1.18	0.07	0.08
LN4021972	WJ4014711	WJ4014701	104.03	150	103	-1.42	0.08	0.11
LN4021975	WJ4014711	WJ4014719	165.46	150	103	2.33	0.13	0.27
LN4021990	WJ52171	WJ4017479	202.14	150	103	0.27	0.02	0.01
LN4021996	WJ52221	WJ4005982	178.01	150	103	0.19	0.01	0.00
LN4022004	WJ4017752	WJ4014711	175.93	150	103	1.18	0.07	0.08
LN4022007	WJ4017751	WJ4014701	232.92	150	103	0.58	0.03	0.02
LN4022011	WJ4017749	WJ4014623	223.12	300	120	-1.12	0.02	0.00
LN4022022	WJ48953	WJ4005430	74.26	150	103	0.95	0.05	0.05
LN4022025	WJ4014848	WJ4014820	42.29	150	103	0.00	0.00	0.00
LN4022030	WJ4005613	WJ4005429	95.55	150	114	-0.48	0.03	0.01
LN4022038	WJ4014873	WJ4014820	92.61	150	103	1.28	0.07	0.09
LN4022040	WJ4017753	WJ4014873	222.49	150	103	3.37	0.19	0.54
LN4022098	WJ53069	WJ4014757	84.57	150	114	-5.19	0.29	1.00
LN4022101	WJ4014721	WJ53078	184.08	150	103	1.45	0.08	0.11
LN4022156	WJ4006350	WJ4005489	239.27	150	103	1.40	0.08	0.11
LN4022180	WJ4005429	WJ4006153	271.94	150	103	1.07	0.06	0.06

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4022184	WJ4017763	WJ4017738	219.36	150	103	-0.32	0.02	0.01
LN4022190	WJ4017743	WJ4017738	93.10	200	115	2.64	0.08	0.07
LN4022206	WJ4017749	WJ4017743	88.01	200	115	3.39	0.11	0.11
LN4022300	WJ4017764	WJ4017763	218.22	150	103	-0.82	0.05	0.04
LN4022303	WJ4015172	WJ4017764	95.13	150	103	1.43	0.08	0.11
LN4022311	WJ4015178	WJ4015172	86.94	150	103	0.95	0.05	0.05
LN4022315	WJ4015332	WJ4015177	134.00	300	120	-5.12	0.07	0.03
LN4022326	WJ4015355	WJ22721	279.46	150	103	1.09	0.06	0.07
LN4022327	WJ25697	WJ4015355	154.49	300	120	0.30	0.00	0.00
LN4022331	WJ4015355	WJ4015339	169.05	300	120	-4.80	0.07	0.03
LN4022338	WJ4015289	WJ4015284	295.30	150	103	-0.27	0.02	0.01
LN4022344	WJ4015278	WJ4015284	206.49	150	103	-0.13	0.01	0.00
LN4022346	WJ4015289	WJ4015259	420.86	150	103	-0.52	0.03	0.02
LN4022349	WJ4015284	WJ4015279	96.25	150	103	-0.95	0.05	0.05
LN4022361	WJ4015259	WJ4015238	134.05	250	115	-1.08	0.02	0.00
LN4022363	WJ4015229	WJ4015238	82.13	250	115	1.08	0.02	0.00
LN4022364	WJ4015904	WJ4015822	83.71	150	103	-0.02	0.00	0.00
LN4022368	WJ4015822	WJ4015863	115.64	150	103	0.08	0.00	0.00
LN4022370	WJ4015576	WJ4015863	112.92	150	103	-0.22	0.01	0.00
LN4022372	WJ4015863	WJ4017752	166.02	150	103	-0.38	0.02	0.01
LN4022374	WJ4015576	WJ4017752	90.27	300	120	-3.40	0.05	0.01
LN4022416	WJ4015822	WJ4017751	325.35	150	103	-0.43	0.02	0.01
LN4022420	WJ4017752	WJ4017751	87.07	300	120	-5.21	0.07	0.03
LN4022433	WJ4006222	WJ48972	433.29	150	103	-1.18	0.07	0.08
LN4022447	WJ4017785	WJ54442	90.53	150	103	1.26	0.07	0.09
LN4022451	WJ58427	WJ58745	295.60	400	129	17.16	0.14	0.06
LN4022490_A001	WJ4015473	WV58425	85.98	150	103	0.00	0.00	0.00
LN4022490_A002	WV58425	WJ54490	85.98	150	103	0.00	0.00	0.00
LN4022491	WJ4015473	WJ4015778	125.72	150	103	0.20	0.01	0.00
LN4022508	WJ54423	WJ4015640	86.81	150	103	-1.22	0.07	0.08
LN4022515	WJ4020864	WJ4008852	20.22	300	120	46.20	0.65	1.78
LN4022518	WJ4008852	WJ4017698	303.95	150	103	-0.51	0.03	0.02
LN4022538	WJ4008675	WJ4008658	263.18	300	120	-5.21	0.07	0.03
LN4022540	WJ4008678	WJ4008677	66.63	300	120	3.87	0.05	0.02
LN4022553	WJ4008692	WJ4008690	91.40	300	120	5.45	0.08	0.03
LN4022596_A001	WJ4008778	WV58426	335.10	150	103	0.00	0.00	0.00
LN4022596_A002	WV58426	WJ4019876	335.10	150	103	0.00	0.00	0.00
LN4022600	WJ58946	WJ4008818	93.03	300	120	44.48	0.63	1.66
LN4022602	WJ4008818	WJ4008815	181.10	150	103	0.63	0.04	0.02
LN4022604	WJ4008818	WJ4008778	81.87	300	120	42.24	0.60	1.51
LN4022606	WJ4008778	WJ4008733	94.16	300	120	41.83	0.59	1.48
LN4022607	WJ4008733	WJ4008721	98.27	300	120	37.72	0.53	1.22
LN4022624	WJ53989	WJ54013	90.80	150	103	3.70	0.21	0.64
LN4022628	WJ4008721	WJ4008712	108.43	300	120	39.51	0.56	1.34
LN4022703_A001	WJ4008657	WV4011482	2.17	300	120	60.86	0.86	2.97
LN4022703_A002	WV4011482	WJ4008654	4.29	300	120	60.86	0.86	2.97
LN4022752	WJ4008712	WJ4008619	129.43	300	120	34.37	0.49	1.03
LN4022757	WJ4019790	WJ4008399	121.64	150	103	3.75	0.21	0.66
LN4022824	WJ4008619	WJ4008497	91.75	300	120	31.85	0.45	0.90
LN4022834	WJ4015733	WJ4010614	90.83	300	120	5.03	0.07	0.03
LN4022835	WJ4008433	WJ4008497	118.76	300	120	-30.04	0.43	0.80
LN4022953	WJ4008182	WJ4008473	405.39	600	130	250.28	0.89	1.20
LN4022960	WJ4017783	WJ4017784	95.65	200	115	-0.24	0.01	0.00
LN4022967	WJ4017782	WJ4017783	96.86	200	115	0.07	0.00	0.00
LN4022974	WJ4017781	WJ4017782	101.64	200	115	0.36	0.01	0.00
LN4022978	WJ4017780	WJ4017781	99.56	200	115	0.85	0.03	0.01
LN4022982	WJ55422	WJ4017780	92.16	200	115	1.19	0.04	0.02
LN4022988	WJ4017788	WJ55423	80.70	200	115	1.48	0.05	0.02
LN4023093	WJ4016135	WJ4016125	103.19	150	103	0.51	0.03	0.02
LN4023100	WJ55469	WJ4015733	98.38	300	120	4.90	0.07	0.03
LN4023108	WJ4015745	WJ55472	85.47	300	120	5.72	0.08	0.04
LN4023110	WJ4015745	WJ4016125	167.11	150	103	0.47	0.03	0.01
LN4023121	WJ52757	WJ4015745	86.36	300	120	6.32	0.09	0.04
LN4023141	WJ52748	WJ4015768	80.64	150	103	0.11	0.01	0.00
LN4023147	WJ53108	WJ4015766	90.59	150	114	0.10	0.01	0.00
LN4023168	WJ4008460	WJ4008399	173.56	300	120	-4.10	0.06	0.02
LN4023170	WJ4008399	WJ48471	74.84	300	120	-2.97	0.04	0.01
LN4023171	WJ4008389	WJ4008332	141.07	300	120	-4.06	0.06	0.02
LN4023239	WJ4017777	WJ4017788	95.26	200	115	1.73	0.05	0.03
LN4023245	WJ4017775	WJ4017777	94.17	200	115	2.03	0.06	0.04
LN4023255	WJ4017738	WJ4017775	92.97	200	115	2.28	0.07	0.05
LN4023644	WJ4010425	WJ58401	166.22	300	120	15.41	0.22	0.23
LN4023674	WJ4006937	WJ4017187	72.68	300	120	3.72	0.05	0.02
LN4023684	WJ4006938	WJ4017150	107.31	300	120	-3.94	0.06	0.02
LN4023688	WJ4006935	WJ4006938	110.10	150	103	-0.15	0.01	0.00
LN4023699	WJ4020259	WJ4017150	114.01	300	120	4.49	0.06	0.02

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4023804	WJ4010352	WJ4010429	89.06	300	120	5.61	0.08	0.04
LN4023810	WJ4010347	WJ4010352	122.49	300	120	7.78	0.11	0.07
LN4023829	WJ4010352	WJ4010440	121.33	150	103	2.08	0.12	0.22
LN4023839	WJ4006959	WJ4015578	155.84	300	120	-6.72	0.10	0.05
LN4023878	WJ4010452	WJ4010440	137.23	150	103	-1.01	0.06	0.06
LN4023911	WJ4017781	WJ4016704	222.33	150	103	-0.84	0.05	0.04
LN4023930	WJ4010476	WJ4010452	94.06	150	103	-0.65	0.04	0.03
LN4023939	WJ4010476	WJ4017292	131.64	150	103	0.15	0.01	0.00
LN4023942	WJ20935	WJ4010476	238.00	150	103	-0.18	0.01	0.00
LN4023951	WJ4010440	WJ4017292	466.27	150	103	0.61	0.03	0.02
LN4024013	WJ4017777	WJ4016809	358.08	150	103	-0.94	0.05	0.05
LN4024057	WJ4010377	WJ4010389	166.37	150	103	1.28	0.07	0.09
LN4024061	WJ4016727	WJ4016749	28.43	400	129	-21.78	0.17	0.09
LN4024070	WJ4010392	WJ4010389	77.84	150	103	-2.29	0.13	0.27
LN4024078	WJ4010452	WJ4010377	71.90	150	103	0.18	0.01	0.00
LN4024110	WJ4010518	WJ4010347	92.30	150	103	-0.78	0.04	0.04
LN4024170_A001	WJ4010424	WV4011161	194.00	900	130	-248.55	0.39	0.16
LN4024170_A002	WV4011161	WV4011231	533.46	900	130	-248.55	0.39	0.16
LN4024170_A003	WV4011231	WV4011354	84.53	900	130	-248.55	0.39	0.16
LN4024170_A004	WV4011354	WJ4012384	8.80	900	130	-248.55	0.39	0.16
LN4024172	WJ4017691	WJ4010347	277.23	300	120	8.75	0.12	0.08
LN4024174_A001	WJ4016785	J-HY4032598	42.42	400	129	-17.51	0.14	0.06
LN4024174_A002	J-HY4032598	WJ4016750	54.59	400	129	-17.51	0.14	0.06
LN4024219_A001	WJ4016727	J-HY4033486	78.80	300	132	2.55	0.04	0.01
LN4024219_A002	J-HY4033486	J-HY4033482	105.56	300	132	2.55	0.04	0.01
LN4024219_A003	J-HY4033482	WJ58486	35.97	300	132	2.55	0.04	0.01
LN4024303	WJ4010414	WJ4017794	9.33	200	115	-1.10	0.03	0.01
LN4024317	WJ4017282	WJ4010417	4.61	400	129	20.55	0.16	0.08
LN4024445	WJ4010376	WJ4010421	94.54	150	103	-2.94	0.17	0.42
LN4024447	WJ4010389	WJ4010376	249.68	150	103	-1.29	0.07	0.09
LN4024450	WJ4010377	WJ4010376	86.46	150	103	-1.27	0.07	0.09
LN4024459	WJ4010429	WJ4010433	122.66	150	103	0.07	0.00	0.00
LN4024640	WJ4017284	WJ4018217	123.69	150	103	-0.77	0.04	0.04
LN4024650	WJ4010521	WJ4017284	256.27	150	103	0.65	0.04	0.03
LN4024669	WJ4010304	WJ4010297	57.94	150	103	-0.28	0.02	0.01
LN4024675	WJ4017287	WJ4010297	74.17	150	103	-0.10	0.01	0.00
LN4024677	WJ4010295	WJ4010297	196.94	150	103	0.65	0.04	0.03
LN4024738_A001	WJ4017229	J-HY4039988	95.33	250	115	7.36	0.15	0.16
LN4024738_A002	J-HY4039988	J-HY4039984	133.97	250	115	7.36	0.15	0.16
LN4024738_A003	J-HY4039984	J-HY4039977	128.14	250	115	7.36	0.15	0.16
LN4024738_A004	J-HY4039977	J-HY4039954	89.18	250	115	7.36	0.15	0.16
LN4024738_A005	J-HY4039954	J-HY4039949	55.25	250	115	7.36	0.15	0.16
LN4024738_A006	J-HY4039949	WJ4010414	55.25	250	115	7.36	0.15	0.16
LN4024858_A001	WJ4016786	J-HY4032614	81.70	400	129	8.58	0.07	0.02
LN4024858_A002	J-HY4032614	WJ4017083	79.45	400	129	8.58	0.07	0.02
LN4024908_A001	WJ4017083	J-HY4032627	94.38	400	129	-0.73	0.01	0.00
LN4024908_A002	J-HY4032627	WJ4016440	36.54	400	129	-0.73	0.01	0.00
LN4024911_A001	WJ4016440	J-HY4033936	59.90	150	103	-1.70	0.10	0.15
LN4024911_A002	J-HY4033936	J-HY4033929	80.16	150	103	-1.70	0.10	0.15
LN4024911_A003	J-HY4033929	J-HY22579	59.38	150	103	-1.70	0.10	0.15
LN4024911_A004	J-HY22579	WJ58473	15.03	150	103	-1.70	0.10	0.15
LN4024963	WJ4017736	WJ4017733	218.81	150	103	-1.32	0.07	0.10
LN4024971	WJ4017775	WJ4017736	222.58	150	103	-0.67	0.04	0.03
LN4024984	WJ4017587	WJ4017590	101.60	150	103	-0.13	0.01	0.00
LN4024990	WJ4009617	WJ4017590	71.45	150	103	-0.10	0.01	0.00
LN4024991	WJ4017159	WJ4017755	100.97	300	120	-10.87	0.15	0.12
LN4024999	WJ4017159	WJ4015480	312.45	150	103	0.31	0.02	0.01
LN4025000	WJ49239	WJ4009615	73.19	150	103	0.11	0.01	0.00
LN4025002	WJ4016842	WJ4017755	204.62	150	103	-4.81	0.27	1.05
LN4025008	WJ4017750	WJ4017159	109.06	300	120	-10.08	0.14	0.11
LN4025015	WJ4017748	WJ4017750	153.06	300	120	-7.65	0.11	0.06
LN4025022	WJ4017742	WJ4017748	102.90	300	120	-8.05	0.11	0.07
LN4025024	WJ4017742	WJ4015789	252.61	150	103	4.17	0.24	0.81
LN4025033	WJ4015851	WJ4017750	111.56	150	103	-6.14	0.35	1.65
LN4025077	WJ4017793	WJ4016842	203.33	150	103	-4.51	0.26	0.93
LN4025081	WJ4015882	WJ4017793	107.62	150	103	-0.14	0.01	0.00
LN4025128	WJ4015789	WJ4015780	341.26	150	103	4.26	0.24	0.84
LN4025138	WJ4016341	WJ22344	103.70	150	103	-0.05	0.00	0.00
LN4025171	WJ4015780	WJ4016359	202.30	150	103	4.33	0.25	0.86
LN4025199	WJ4009602	WJ49244	39.91	150	103	-0.09	0.01	0.00
LN4025284_A001	WJ58526	J-HY4007488	9.08	400	129	-16.03	0.13	0.06
LN4025284_A002	J-HY4007488	WJ4017778	74.64	400	129	-16.03	0.13	0.05
LN4025291_A001	WJ4015621	J-HY4008124	86.00	400	129	-3.75	0.03	0.00
LN4025291_A002	J-HY4008124	WJ4017778	118.08	400	129	-3.75	0.03	0.00
LN4025294_A001	WJ4015621	J-HY4007498	48.68	150	103	0.53	0.03	0.02
LN4025294_A002	J-HY4007498	WJ52055	64.81	150	103	0.53	0.03	0.02

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4025297_A001	WJ58513	J-HY4007499	2.91	150	103	-1.62	0.09	0.14
LN4025297_A002	J-HY4007499	WJ4015621	77.67	150	103	-1.62	0.09	0.14
LN4025309	WJ58504	WJ58108	41.91	300	120	-11.66	0.16	0.14
LN4025311_A001	WJ58498	J-HY4007537	131.24	400	129	-21.21	0.17	0.09
LN4025311_A002	J-HY4007537	J-HY4007535	116.27	400	129	-21.21	0.17	0.09
LN4025311_A003	J-HY4007535	WJ4018542	16.26	400	129	-21.21	0.17	0.09
LN4025318_A001	WJ4016359	J-HY4008122	80.27	400	129	2.16	0.02	0.00
LN4025318_A002	J-HY4008122	WJ4016358	186.70	400	129	2.16	0.02	0.00
LN4025326_A001	WJ26555	J-HY4007539	30.19	300	120	-12.36	0.17	0.15
LN4025326_A002	J-HY4007539	WJ4016358	65.38	300	120	-12.36	0.17	0.16
LN4025332	WJ4016402	WJ4017742	466.38	300	120	-7.63	0.11	0.06
LN4025333	WJ4016398	WJ4016402	35.75	300	120	-8.55	0.12	0.08
LN4025395	WJ4016393	WJ4016398	90.38	300	120	-3.76	0.05	0.02
LN4025407	WJ4016389	WJ4016393	100.78	300	120	1.02	0.01	0.00
LN4025412	WJ4016388	WJ4016389	93.19	300	120	5.57	0.08	0.04
LN4025419	WJ4014260	WJ4016388	95.89	300	120	11.06	0.16	0.13
LN4025422	WJ4016532	WJ4016398	186.56	150	103	-4.55	0.26	0.95
LN4025464	WJ4016534	WJ4016532	203.39	150	103	-4.44	0.25	0.91
LN4025528	WJ4016519	WJ4016534	202.80	150	103	-3.79	0.21	0.67
LN4025611	WJ4016358	WJ4016357	325.06	400	129	-23.67	0.19	0.11
LN4025705	WJ4017702	WJ4010581	91.30	300	120	-5.13	0.07	0.03
LN4025719	WJ4016597	WJ4016689	129.63	150	103	4.69	0.27	1.00
LN4025732	WJ55162	WJ4016689	188.96	150	103	-4.15	0.23	0.80
LN4025759	WJ55171	WJ4015383	191.20	300	120	-37.57	0.53	1.22
LN4025760	WJ4015331	WJ55170	88.16	300	120	-40.33	0.57	1.39
LN4025764	WJ4015383	WJ4015345	367.29	150	103	3.79	0.21	0.68
LN4025769	WJ53495	WJ4015331	104.59	300	120	-35.59	0.50	1.10
LN4025771	WJ4015324	WJ4015331	102.32	150	103	-4.47	0.25	0.92
LN4025778	WJ4016685	WJ53524	201.18	150	103	5.33	0.30	1.27
LN4025805	WJ4015497	WJ53523	112.59	150	103	-4.80	0.27	1.04
LN4025808	WJ4015499	WJ4015497	196.42	150	114	-0.19	0.01	0.00
LN4025813	WJ4017759	WJ4015497	98.21	150	103	-4.40	0.25	0.89
LN4025824	WJ4016826	WJ4017759	256.47	150	103	-3.63	0.21	0.62
LN4025828	WJ4017755	WJ4016826	128.97	150	103	-4.99	0.28	1.12
LN4025858	WJ4015324	WJ4015317	341.04	150	103	4.06	0.23	0.77
LN4025866	WJ4010597	WJ4010583	97.94	300	120	5.14	0.07	0.03
LN4025874	WJ4015317	WJ4017742	400.52	150	103	4.38	0.25	0.88
LN4025886	WJ4017178	WJ4014458	95.49	150	103	0.00	0.00	0.00
LN4025896_A001	WJ4020278	J-HY4006498	198.51	150	103	4.81	0.27	1.05
LN4025896_A002	J-HY4006498	WJ4017178	151.14	150	103	4.81	0.27	1.05
LN4025904	WJ4009686	WJ4009359	102.30	300	120	-26.17	0.37	0.62
LN4025907	WJ4014481	WJ21298	152.37	150	103	-4.26	0.24	0.84
LN4025909	WJ4014490	WJ4014481	52.68	150	103	-2.35	0.13	0.28
LN4025910	WJ4014496	WJ4014490	103.98	150	103	-0.11	0.01	0.00
LN4025918	WJ4009700	WJ4009686	205.65	150	114	2.81	0.16	0.32
LN4025919	WJ4015007	WJ4014490	166.96	150	103	-2.04	0.12	0.22
LN4025924	WJ4015272	WJ4015293	147.84	150	103	0.15	0.01	0.00
LN4025927	WJ4015272	WJ4017220	36.41	150	103	0.04	0.00	0.00
LN4025934	WJ4020265	WJ4015272	66.56	150	103	0.34	0.02	0.01
LN4025939	WJ4014985	WJ4015305	183.05	150	103	0.19	0.01	0.00
LN4025940	WJ4016402	WJ4014985	120.24	150	103	-2.00	0.11	0.21
LN4025942	WJ4014606	WJ4014985	132.72	150	103	2.44	0.14	0.30
LN4025950	WJ4014606	WJ4015007	214.73	150	103	-2.70	0.15	0.36
LN4025954	WJ4009686	WJ4009674	96.77	300	120	28.76	0.41	0.74
LN4025955	WJ4014580	WJ49072	22.67	150	103	0.01	0.00	0.00
LN4025956	WJ4014588	WJ4014580	74.44	150	103	-0.06	0.00	0.00
LN4025958	WJ4020267	WJ4014580	120.13	150	103	0.19	0.01	0.00
LN4025974_A001	WJ4009713	J-HY4019665	106.06	150	103	0.01	0.00	0.00
LN4025974_A002	J-HY4019665	WJ4009814	98.70	150	103	0.01	0.00	0.00
LN4025992	WJ4009709	WJ4017585	87.62	150	103	-2.55	0.14	0.32
LN4025996_A001	WJ4009713	J-HY4019778	57.01	400	129	-27.84	0.22	0.15
LN4025996_A002	J-HY4019778	WJ4009709	51.13	400	129	-27.84	0.22	0.15
LN4026006	WJ4017695	WJ4012259	110.15	150	103	0.27	0.02	0.01
LN4026008	WJ27916	WJ4017695	90.44	150	103	0.70	0.04	0.03
LN4026038	WJ4017741	WJ27918	101.66	300	120	-1.65	0.02	0.00
LN4026054	WJ4009709	WJ4017787	390.68	400	129	-25.39	0.20	0.13
LN4026061	WJ4017774	WJ4008662	92.32	150	103	-0.73	0.04	0.03
LN4026062	WJ4008662	WJ4008661	64.96	150	114	0.16	0.01	0.00
LN4026065	WJ4012257	WJ4012259	439.89	150	103	-1.11	0.06	0.07
LN4026066	WJ4012036	WJ4012257	50.01	150	103	1.02	0.06	0.06
LN4026075	WJ4012031	WJ4012036	59.85	150	103	1.23	0.07	0.08
LN4026076	WJ4017695	WJ4012031	438.11	150	103	0.96	0.05	0.05
LN4026083	WJ52303	WJ4012031	87.32	150	103	0.86	0.05	0.04
LN4026102	WJ4008646	WJ4008642	112.71	150	103	-3.79	0.21	0.67
LN4026107	WJ4008642	WJ4008673	109.14	150	103	0.10	0.01	0.00
LN4026110	WJ52331	WJ4012036	422.19	150	103	0.26	0.01	0.00

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4026121	WJ52334	WJ4017192	16.28	100	100	0.19	0.02	0.02
LN4026124	WJ4017191	WJ52338	176.28	150	103	-0.15	0.01	0.00
LN4026138	WJ4008612	WJ4008642	92.59	150	103	3.97	0.22	0.73
LN4026158	WJ52327	WJ4012072	100.54	150	103	-0.08	0.00	0.00
LN4026160	WJ4008612	WJ4008623	149.08	150	103	-2.75	0.16	0.37
LN4026177	WJ4017740	WJ4017741	118.25	300	120	-1.49	0.02	0.00
LN4026179	WJ4008623	WJ4008614	245.78	150	103	1.94	0.11	0.19
LN4026183	WJ4008614	WJ4008612	85.57	150	103	1.30	0.07	0.09
LN4026185	WJ4017734	WJ4017740	116.96	300	120	-1.33	0.02	0.00
LN4026186	WJ4016374	WJ4008614	101.37	150	103	-0.39	0.02	0.01
LN4026191	WJ4012268	WJ4017734	109.53	300	120	-1.31	0.02	0.00
LN4026195	WJ4011938	WJ4012268	106.30	300	120	-0.02	0.00	0.00
LN4026197	WJ51952	WJ4008669	84.21	150	103	-0.24	0.01	0.00
LN4026199	WJ4008669	WJ4009063	120.58	150	103	0.20	0.01	0.00
LN4026203	WJ4008669	WJ4008646	94.48	150	103	-0.66	0.04	0.03
LN4026207	WJ4011936	WJ4011938	97.19	300	120	1.26	0.02	0.00
LN4026209	WJ4011930	WJ4011936	126.82	150	103	-0.13	0.01	0.00
LN4026223	WJ54440	WJ4012266	97.08	300	120	0.00	0.00	0.00
LN4026246	WJ4009830	WJ4009849	41.12	150	103	4.25	0.24	0.83
LN4026262	WJ4016861	WJ4008623	96.27	150	103	4.95	0.28	1.10
LN4026268	WJ4009187	WJ4017629	88.15	150	103	0.14	0.01	0.00
LN4026303	WJ4008507	WJ4009187	121.25	150	103	2.86	0.16	0.40
LN4026310	WJ4008507	WJ4009335	159.35	150	103	1.24	0.07	0.09
LN4026312	WJ4009335	WJ55019	32.59	300	120	-21.05	0.30	0.42
LN4026325	WJ4012074	WJ4012072	99.91	150	103	0.04	0.00	0.00
LN4026332	WJ4012081	WJ4012074	18.48	150	103	0.37	0.02	0.01
LN4026337	WJ4009277	WJ4009335	220.78	300	120	-21.96	0.31	0.45
LN4026350	WJ4017150	WJ4012074	335.91	150	103	0.08	0.00	0.00
LN4026363	WJ4009358	WJ4009276	306.75	300	120	-28.05	0.40	0.71
LN4026385	WJ4009187	WJ4009276	277.49	150	103	2.45	0.14	0.30
LN4026442	WJ4009359	WJ4009849	204.48	150	103	-1.68	0.10	0.15
LN4026459	WJ4009849	WJ4009700	100.63	150	103	2.36	0.13	0.28
LN4026636	WJ4012185	WJ4012183	218.32	150	103	-0.42	0.02	0.01
LN4026650	WJ4020263	WJ4017198	315.86	150	103	0.39	0.02	0.01
LN4026671	WJ4012185	WJ4011969	103.41	150	103	-0.64	0.04	0.02
LN4026673	WJ4011969	WJ54418	189.04	150	103	-0.86	0.05	0.04
LN4026728	WJ49258	WJ49334	92.28	300	120	17.75	0.25	0.30
LN4026743	WJ55018	WJ49247	108.43	300	120	16.00	0.23	0.25
LN4026756_A001	WJ4012852	J-HY4019230	40.59	250	115	-16.47	0.34	0.69
LN4026756_A002	J-HY4019230	J-HY4017539	130.38	250	115	-16.47	0.34	0.69
LN4026756_A003	J-HY4017539	WJ58580	24.34	250	115	-16.47	0.34	0.69
LN4026759_A001	WJ4017209	J-HY4020280	64.87	150	103	-3.91	0.22	0.72
LN4026759_A002	J-HY4020280	J-HY4017538	85.45	150	103	-3.91	0.22	0.72
LN4026759_A003	J-HY4017538	WJ58581	49.99	150	103	-3.91	0.22	0.72
LN4026770_A001	WJ52087	WV4011524	0.34	400	129	-18.35	0.15	0.06
LN4026770_A002	WV4011524	WJ4012402	1.45	400	129	-18.35	0.15	0.06
LN4026802	WJ52091	WJ4012562	86.01	300	120	23.61	0.33	0.51
LN4026825_A001	WJ4017210	J-HY4017089	208.58	150	103	-1.96	0.11	0.20
LN4026825_A002	J-HY4017089	WJ4020722	8.50	150	103	-1.96	0.11	0.20
LN4026846	WJ4016861	WJ4017772	166.61	300	120	14.00	0.20	0.20
LN4026850	WJ4017555	WJ4008322	166.16	150	103	-4.18	0.24	0.81
LN4026855	WJ4017555	WJ4017556	144.47	150	103	0.13	0.01	0.00
LN4026858	WJ4017691	WJ4017210	223.08	150	103	-2.37	0.13	0.28
LN4026872_A001	WJ4012385	WV4011347	3.41	600	130	0.00	0.00	0.00
LN4026872_A002	WV4011347	WJ4012384	3.42	600	130	0.00	0.00	0.00
LN4026874	WJ4008322	WJ23509	169.00	150	103	0.29	0.02	0.01
LN4026896	WJ49252	WJ23510	113.75	150	103	-6.35	0.36	1.76
LN4026934	WJ4008263	WJ23506	95.01	150	103	-0.92	0.05	0.05
LN4026937	WJ4008263	WJ4008234	101.57	150	103	-4.25	0.24	0.83
LN4026940	WJ4008231	WJ4008234	154.58	150	103	-0.18	0.01	0.00
LN4026945	WJ4008234	WJ4008236	93.07	150	103	-4.60	0.26	0.97
LN4026950	WJ4008236	WJ4017533	88.87	150	103	-7.25	0.41	2.24
LN4026957	WJ4012259	WJ4017691	216.52	150	103	-1.14	0.06	0.07
LN4026977	WJ4017533	WJ59194	73.77	300	120	-22.42	0.32	0.47
LN4026992	WJ4008551	WJ4008290	74.78	150	103	-0.12	0.01	0.00
LN4026996	WJ4008290	WJ23505	297.67	150	103	-3.70	0.21	0.65
LN4027000	WJ23507	WJ4008290	283.71	150	103	-3.14	0.18	0.48
LN4027013	WJ4008322	WJ4008256	204.86	150	103	-4.93	0.28	1.10
LN4027016	WJ4008263	WJ4008256	156.57	150	103	4.94	0.28	1.10
LN4027024	WJ4008331	WJ61693	142.39	150	103	0.32	0.02	0.01
LN4027035	WJ4008331	WJ4017546	248.65	150	103	-5.46	0.31	1.33
LN4027037	WJ4017546	WJ4008236	253.75	150	103	-1.09	0.06	0.07
LN4027072	WJ4017546	WJ4008483	152.50	150	103	-4.81	0.27	1.05
LN4027083	WJ4017772	WJ4008331	569.46	150	103	-4.20	0.24	0.82
LN4027136_A001	WJ58523	J-HY4018679	32.90	400	129	6.47	0.05	0.01
LN4027136_A002	J-HY4018679	WJ19377	92.34	400	129	6.47	0.05	0.01

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4027140	WJ52768	WJ4016135	146.68	150	103	0.73	0.04	0.03
LN4027146	WJ53671	WJ49333	72.69	300	120	-16.64	0.24	0.27
LN4027315	WJ4012399	WJ4012398	104.93	150	103	-1.00	0.06	0.06
LN4027362	WJ4016374	WJ51950	185.26	150	103	4.07	0.23	0.77
LN4027368	WJ51948	WJ4017774	244.15	150	103	3.31	0.19	0.52
LN4027374	WJ4017774	WJ4013138	194.63	150	103	3.39	0.19	0.55
LN4027377	WJ4017787	WJ4013138	82.08	150	103	-3.70	0.21	0.64
LN4027383	WJ4013120	WJ4017787	97.16	150	103	-4.93	0.28	1.10
LN4027395_A001	WJ4013116	J-HY4013532	74.22	150	103	-0.73	0.04	0.03
LN4027395_A002	J-HY4013532	WJ4013120	7.64	150	103	-0.73	0.04	0.03
LN4027425	WJ4016582	WJ61457	175.41	300	120	1.58	0.02	0.00
LN4027427	WJ4016583	WJ4016405	155.93	150	103	3.78	0.21	0.67
LN4027430	WJ4016401	WJ4016405	158.42	150	103	-0.17	0.01	0.00
LN4027439	WJ4016587	WJ4016583	103.75	300	120	5.41	0.08	0.03
LN4027445_A001	WJ4013114	J-HY4013800	34.27	150	103	4.87	0.28	1.07
LN4027445_A002	J-HY4013800	WJ4017229	109.32	150	103	4.87	0.28	1.07
LN4027449	WJ4017774	WJ4013271	207.18	150	103	-0.03	0.00	0.00
LN4027450	WJ4013272	WJ4012992	112.68	300	132	25.77	0.36	0.51
LN4027454	WJ4012994	WJ4012992	85.15	300	132	-24.63	0.35	0.47
LN4027461	WJ4016591	WJ4016686	114.91	150	103	4.21	0.24	0.82
LN4027462	WJ4012994	WJ4013138	209.14	150	103	0.88	0.05	0.05
LN4027484	WJ4016686	WJ4016689	99.98	150	103	-0.23	0.01	0.00
LN4027486	WJ4017787	WJ4013001	208.89	400	129	-27.03	0.22	0.14
LN4027496	WJ4016685	WJ4016683	50.61	150	103	-2.72	0.15	0.37
LN4027498	WJ4016683	WJ4016686	206.14	150	103	-4.09	0.23	0.78
LN4027575	WJ4013001	WJ4012997	53.79	300	132	-21.68	0.31	0.37
LN4027578	WJ4013050	WJ4013001	56.98	400	129	-90.10	0.72	1.32
LN4027588_A001	WJ4013049	WV4011135	545.52	900	130	-522.48	0.82	0.65
LN4027588_A002	WV4011135	WV4011139	24.38	900	130	-522.48	0.82	0.65
LN4027588_A003	WV4011139	WV4011148	274.93	900	130	-522.48	0.82	0.65
LN4027588_A004	WV4011148	WJ4018446	38.59	900	130	-522.48	0.82	0.65
LN4027594_A001	WJ24344	J-HY4014234	92.17	150	103	1.26	0.07	0.09
LN4027594_A002	J-HY4014234	WJ4013120	101.15	150	103	1.26	0.07	0.09
LN4027595_A001	WJ4013102	J-HY4014990	29.84	400	129	-39.23	0.31	0.28
LN4027595_A002	J-HY4014990	WJ4013060	30.26	400	129	-39.23	0.31	0.28
LN4027599_A001	WJ4013101	J-HY4014605	40.90	300	132	2.32	0.03	0.01
LN4027599_A002	J-HY4014605	J-HY4014155	119.12	300	132	2.32	0.03	0.01
LN4027599_A003	J-HY4014155	WJ4013116	48.86	300	132	2.32	0.03	0.01
LN4027601_A001	WJ4013109	J-HY4013538	96.15	300	132	-2.09	0.03	0.00
LN4027601_A002	J-HY4013538	WJ4013093	95.99	300	132	-2.09	0.03	0.00
LN4027605	WJ4013049	WJ4013089	323.94	900	130	426.02	0.67	0.45
LN4027607_A001	WJ4013089	WV4011055	1.97	300	120	43.13	0.61	1.58
LN4027607_A002	WV4011055	WJ58577	3.07	300	120	43.13	0.61	1.57
LN4027609_A001	WJ4013093	J-HY4015007	38.20	400	129	14.64	0.12	0.05
LN4027609_A002	J-HY4015007	WJ58576	89.80	400	129	14.64	0.12	0.05
LN4027614	WJ4013337	WJ4013050	168.51	150	103	-2.11	0.12	0.23
LN4027615	WJ4013339	WJ4013337	111.33	150	103	4.73	0.27	1.02
LN4027618	WJ4013339	WJ4012997	166.61	150	103	-1.52	0.09	0.12
LN4027621	WJ4013340	WJ4013339	111.22	150	103	3.49	0.20	0.58
LN4027624	WJ4012992	WJ4013340	169.61	150	103	0.94	0.05	0.05
LN4027626	WJ4013346	WJ4013340	111.39	150	103	3.10	0.18	0.47
LN4027630	WJ4013272	WJ4013346	169.48	150	103	1.21	0.07	0.08
LN4027751	WJ4017758	WJ4016839	100.06	150	103	0.35	0.02	0.01
LN4027778	WJ4017756	WJ4017758	99.86	150	103	0.56	0.03	0.02
LN4027787	WJ4017793	WJ4017756	152.82	150	103	-0.04	0.00	0.00
LN4027805	WJ15678	WJ4017759	154.18	150	103	-0.97	0.05	0.05
LN4027821_A001	WJ24366	J-HY4015473	25.58	150	103	3.38	0.19	0.55
LN4027821_A002	J-HY4015473	J-HY4015474	130.80	150	103	3.38	0.19	0.55
LN4027821_A003	J-HY4015474	WJ58539	8.92	150	103	3.38	0.19	0.55
LN4027825_A001	WJ58528	J-HY4015132	5.78	150	103	-2.58	0.15	0.33
LN4027825_A002	J-HY4015132	J-HY4015471	50.22	150	103	-2.58	0.15	0.33
LN4027825_A003	J-HY4015471	WJ4013455	24.16	150	103	-2.58	0.15	0.33
LN4027829	WJ4013455	WJ4013433	43.18	150	103	-0.18	0.01	0.00
LN4027844	WJ4016735	WJ4016730	205.88	150	103	-5.03	0.28	1.14
LN4027850	WJ4016735	WJ4016842	152.23	150	103	0.02	0.00	0.00
LN4027852	WJ4017756	WJ4016735	203.24	150	103	-4.51	0.26	0.93
LN4027855	WJ4017758	WJ4016803	202.24	150	103	-3.55	0.20	0.60
LN4027864	WJ4010705	WJ4010931	103.96	150	103	-0.77	0.04	0.04
LN4027872	WJ4010721	WJ4010705	96.85	150	103	-0.90	0.05	0.05
LN4027878	WJ62423	WJ4010721	115.50	150	103	0.44	0.02	0.01
LN4028040	WJ4020598	WJ4010705	335.02	150	103	0.64	0.04	0.03
LN4028056	WJ4020599	WJ4010721	313.86	150	103	1.26	0.07	0.09
LN4028081	WJ4010917	WJ4010475	358.85	150	103	-1.00	0.06	0.06
LN4028113	WJ4016558	WJ4016832	153.41	150	103	5.70	0.32	1.44
LN4028121	WJ4026374	WJ4016558	110.18	150	103	0.83	0.05	0.04
LN4028161	WJ4016261	WJ4016258	93.31	150	114	-2.76	0.16	0.31

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4028170	WJ4016216	WJ4016211	108.11	150	103	-4.11	0.23	0.78
LN4028179	WJ4016211	WJ4016204	83.35	150	103	-3.69	0.21	0.64
LN4028197	WJ4016258	WJ4016244	194.02	150	103	0.79	0.04	0.04
LN4028204	WJ4016330	WJ4016244	94.78	150	114	-4.07	0.23	0.64
LN4028205	WJ4016330	WJ4016261	194.19	150	114	-2.17	0.12	0.20
LN4028213	WJ55120	WJ4016330	110.68	150	114	-6.03	0.34	1.32
LN4028220	WJ4016342	WJ55122	160.33	150	114	-2.92	0.17	0.35
LN4028224	WJ4016370	WJ4016342	53.62	300	120	13.71	0.19	0.19
LN4028229	WJ4016374	WJ4016370	290.90	150	103	-3.87	0.22	0.70
LN4028237	WJ4010475	WJ4010467	171.06	150	103	0.23	0.01	0.00
LN4028242	WJ4016244	WJ4016216	421.46	150	114	-3.70	0.21	0.54
LN4028257	WJ4016425	WJ4016413	287.63	150	103	0.75	0.04	0.03
LN4028259	WJ4016413	WJ4016425	291.38	150	103	-0.75	0.04	0.03
LN4028268	WJ4016425	WJ53567	85.73	150	103	-1.92	0.11	0.19
LN4028280	WJ4016387	WJ53566	95.45	150	103	-0.16	0.01	0.00
LN4028303	WJ61457	WJ53562	24.59	300	120	1.28	0.02	0.00
LN4028313	WJ4016597	WJ4016605	152.23	300	120	-24.21	0.34	0.54
LN4028317	WJ4016597	WJ4016591	100.18	300	120	19.42	0.27	0.36
LN4028332	WJ38909	WJ4016834	99.19	150	103	1.66	0.09	0.15
LN4028335	WJ4016803	WJ4016834	103.60	150	103	1.97	0.11	0.20
LN4028338	WJ4010236	WJ4010217	379.64	400	129	-37.72	0.30	0.26
LN4028345	WJ4016349	WJ4016861	35.74	300	120	18.98	0.27	0.34
LN4028351	WJ4010410	WJ4010368	189.92	150	103	3.11	0.18	0.47
LN4030476	WJ4006305	WJ4021261	207.96	150	103	0.46	0.03	0.01
LN4030787	WJ4017897	WJ4017888	161.96	300	120	-22.78	0.32	0.48
LN4030798	WJ4001881	WJ4017897	169.31	300	120	10.08	0.14	0.11
LN4030800	WJ4001543	WJ4001881	100.80	300	120	41.46	0.59	1.46
LN4030806	WJ4017905	WJ4017904	42.06	300	120	22.37	0.32	0.47
LN4030807	WJ4001900	WJ4017905	113.52	300	120	22.05	0.31	0.45
LN4030808	WJ4017904	WJ22861	102.34	300	120	0.49	0.01	0.00
LN4030811	WJ4017907	WJ4017904	71.43	300	120	-21.80	0.31	0.44
LN4030813	WJ4001950	WJ4017907	269.05	150	103	-2.01	0.11	0.21
LN4030818	WJ4017912	WJ4006801	279.43	150	103	-0.42	0.02	0.01
LN4030828	WJ4017916	WJ4017907	243.67	300	120	-18.80	0.27	0.34
LN4030829	WJ4017916	WJ4017912	85.12	150	103	0.25	0.01	0.00
LN4030830	WJ4017917	WJ4017916	85.19	300	120	-17.30	0.24	0.29
LN4030831	WJ4006585	WJ4017917	63.50	300	120	-10.43	0.15	0.11
LN4030832	WJ4017917	WJ22821	136.04	300	120	6.45	0.09	0.05
LN4030835	WJ4017912	WJ4006814	148.99	150	103	0.10	0.01	0.00
LN4030927	WJ4017976	WJ4017972	4.53	150	103	-17.66	1.00	11.67
LN4030929	WJ4006925	WJ4017972	71.46	150	103	-8.33	0.47	2.90
LN4030930	WJ4017976	WJ53444	216.11	300	120	17.66	0.25	0.30
LN4030959_A001	WJ4017999	J-HY4037279	86.35	400	129	-22.97	0.18	0.11
LN4030959_A002	J-HY4037279	WJ4018002	28.47	400	129	-22.97	0.18	0.11
LN4030963_A001	WJ4017890	WV4001488	524.98	900	130	452.29	0.71	0.50
LN4030963_A002	WV4001488	WJ4018003	56.37	900	130	452.29	0.71	0.50
LN4030964	WJ4018003	WJ4019556	647.03	900	130	349.42	0.55	0.31
LN4030969_A001	WJ4017965	WV4001258	18.53	400	129	-102.87	0.82	1.69
LN4030969_A002	WV4001258	WJ4018003	1.35	400	129	-102.87	0.82	1.69
LN4031001	WJ4018024	WJ4002150	201.64	150	103	-2.07	0.12	0.22
LN4031010	WJ4002321	WJ4018024	100.05	150	103	2.52	0.14	0.32
LN4031023	WJ4018021	WJ4002512	248.30	300	120	26.58	0.38	0.64
LN4031025	WJ4003830	WJ4002512	506.37	300	120	-12.91	0.18	0.17
LN4031048_A001	WJ4018048	WV4004334	116.17	900	130	694.91	1.09	1.10
LN4031048_A002	WV4004334	WJ4004914	153.17	900	130	694.91	1.09	1.10
LN4031057	WJ4015051	WJ4018054	10.51	150	103	-1.93	0.11	0.19
LN4031058	WJ4018054	WJ4018049	12.38	150	103	0.09	0.01	0.00
LN4031060_A001	WJ4018053	J-HY4036973	26.26	400	129	51.92	0.41	0.48
LN4031060_A002	J-HY4036973	WJ4018002	72.40	400	129	51.92	0.41	0.48
LN4031061	WJ4018055	WJ56691	4.35	300	120	0.00	0.00	0.00
LN4031062_A001	WJ4018048	WV4004332	1.59	400	129	0.00	0.00	0.00
LN4031062_A002	WV4004332	WJ4018055	3.52	400	129	0.00	0.00	0.00
LN4031064	WJ4018057	WJ4018054	3.84	150	103	2.02	0.11	0.21
LN4031065	WJ4018053	WJ4018057	1.50	400	129	2.02	0.02	0.00
LN4031079_A001	WJ4010424	WV4011132	33.89	900	130	233.34	0.37	0.15
LN4031079_A002	WV4011132	WV4011015	154.51	900	130	233.34	0.37	0.15
LN4031079_A003	WV4011015	WV4011010	23.14	900	130	233.34	0.37	0.15
LN4031079_A004	WV4011010	WV4010986	127.51	900	130	233.34	0.37	0.15
LN4031079_A005	WV4010986	WV4010981	15.30	900	130	233.34	0.37	0.15
LN4031079_A006	WV4010981	WV4010976	144.09	900	130	233.34	0.37	0.15
LN4031079_A007	WV4010976	WV4010889	240.13	900	130	233.34	0.37	0.15
LN4031079_A008	WV4010889	WV4010872	22.90	900	130	233.34	0.37	0.15
LN4031079_A009	WV4010872	WV4010807	70.40	900	130	233.34	0.37	0.15
LN4031079_A010	WV4010807	WV4010788	20.66	900	130	233.34	0.37	0.15
LN4031079_A011	WV4010788	WV4010740	255.91	900	130	233.34	0.37	0.15
LN4031079_A012	WV4010740	WJ4018067	94.14	900	130	233.34	0.37	0.15

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4031082_A001	WJ4018068	J-HY4042441	4.73	300	120	-18.82	0.27	0.34
LN4031082_A002	J-HY4042441	WJ4003930	11.25	300	120	-18.82	0.27	0.34
LN4031083_A001	WJ4018067	WV4010666	1.80	400	129	-32.50	0.26	0.20
LN4031083_A002	WV4010666	WJ4018068	5.52	400	129	-32.50	0.26	0.20
LN4031088	WJ4018002	WJ4018072	16.05	300	132	8.34	0.12	0.06
LN4031097	WJ4004184	WJ4004286	355.21	150	103	0.51	0.03	0.02
LN4031105	WJ4018090	WJ4008690	118.04	200	115	0.00	0.00	0.00
LN4031152	WJ4018148	WJ4004177	62.91	150	103	2.96	0.17	0.43
LN4031168	WJ4018159	WJ4003998	161.11	150	114	2.24	0.13	0.21
LN4031179	WJ4018159	WJ4018148	91.33	300	120	2.98	0.04	0.01
LN4031193_A001	WJ4013538	J-HY4024366	85.53	250	110	-2.24	0.05	0.02
LN4031193_A002	J-HY4024366	WJ4013511	13.93	250	110	-2.24	0.05	0.02
LN4031196	WJ4013511	WJ4018168	126.68	250	110	0.13	0.00	0.00
LN4031197	WJ4018169	WJ4017447	0.44	150	103	0.00	0.00	0.00
LN4031198	WJ4017447	WJ4018170	2.27	150	103	-0.76	0.04	0.03
LN4031199	WJ4018170	WJ4005613	235.30	150	114	1.03	0.06	0.05
LN4031204	WJ4017751	WJ4018176	86.30	300	120	-6.77	0.10	0.05
LN4031205	WJ4018176	WJ4017749	18.55	300	120	7.46	0.11	0.06
LN4031206	WJ4018176	WJ4018177	9.06	300	120	-14.48	0.20	0.21
LN4031215	WJ4015178	WJ4017749	414.90	300	120	-4.83	0.07	0.03
LN4031217	WJ4018179	WJ4018177	222.98	600	130	-25.10	0.09	0.02
LN4031220	WJ4018180	WJ4018179	24.90	400	129	-10.15	0.08	0.02
LN4031221	WJ4018184	WJ4018179	9.89	600	130	-14.95	0.05	0.01
LN4031233	WJ4015229	WJ4018188	88.16	150	103	-1.08	0.06	0.07
LN4031234	WJ4018188	WJ4015177	15.57	150	103	1.40	0.08	0.11
LN4031235	WJ4018186	WJ4018184	190.56	400	129	-14.76	0.12	0.05
LN4031236	WJ4018186	WJ4018188	3.00	400	129	2.47	0.02	0.00
LN4031237	WJ4018098	WJ4008692	278.98	150	103	-0.64	0.04	0.03
LN4031239	WJ4015279	WJ4018191	85.01	150	103	-0.76	0.04	0.03
LN4031240	WJ4018191	WJ4015332	14.66	150	103	1.26	0.07	0.09
LN4031241	WJ4018192	WJ4018186	134.03	400	129	-12.29	0.10	0.03
LN4031242	WJ4018192	WJ4018191	3.31	400	129	2.05	0.02	0.00
LN4031248	WJ25698	WJ4018192	410.72	400	129	-10.10	0.08	0.02
LN4031255	WJ4018177	WJ28096	650.11	600	130	-39.96	0.14	0.04
LN4031259	WJ4018170	WJ4018199	143.18	150	114	-1.96	0.11	0.17
LN4031261	WJ4018199	WJ4018183	134.34	150	114	-1.95	0.11	0.16
LN4031262	WJ58392	WJ4018166	98.40	150	114	-1.98	0.11	0.17
LN4031289	WJ4015578	WJ4018216	105.29	300	120	-7.53	0.11	0.06
LN4031290	WJ4018216	WJ4017702	112.88	300	120	-7.99	0.11	0.07
LN4031294	WJ4018216	WJ4018209	195.87	150	103	0.27	0.02	0.00
LN4031297	WJ4018101	WJ4008692	37.42	300	120	7.38	0.10	0.06
LN4031301	WJ4018106	WJ4018111	4.88	100	100	-0.12	0.01	0.01
LN4031302	WJ4018109	WJ4018101	38.40	300	120	7.38	0.10	0.06
LN4031303	WJ4018110	WJ4018109	39.32	300	120	7.38	0.10	0.06
LN4031304	WJ4018111	WJ4018110	6.10	300	120	7.38	0.10	0.06
LN4031308	WJ4009181	WJ4018113	104.61	300	120	7.42	0.11	0.06
LN4031309	WJ4009181	WJ48208	132.67	300	120	-7.59	0.11	0.06
LN4031313	WJ4018221	WJ4018117	19.45	150	103	-1.11	0.06	0.07
LN4031314	WJ4021047	WJ4018221	253.05	150	103	-1.11	0.06	0.07
LN4031317	WJ4018117	WJ4018132	8.79	150	103	-1.11	0.06	0.07
LN4031318	WJ4018134	WJ4018132	17.77	150	103	0.00	0.00	0.00
LN4031333	WJ4018123	WJ48205	3.78	300	120	12.03	0.17	0.15
LN4031334	WJ4018143	WJ4018123	80.17	300	120	-1.24	0.02	0.00
LN4031337	WJ4018142	WJ4018143	13.35	150	103	-1.24	0.07	0.09
LN4031338	WJ4018141	WJ4018142	58.28	100	100	-1.24	0.16	0.65
LN4031340	WJ4018229	WJ4018132	6.37	150	103	1.11	0.06	0.07
LN4031341	WJ4018115	WJ4018229	0.94	300	120	1.11	0.02	0.00
LN4031342	WJ4018115	WJ4018123	10.69	300	120	13.27	0.19	0.18
LN4031343_A001	WJ4018133	WV4004312	0.65	300	120	14.38	0.20	0.20
LN4031343_A002	WV4004312	WJ4018115	4.32	300	120	14.38	0.20	0.21
LN4031391	WJ4018260	WJ4017284	134.59	150	103	-0.78	0.04	0.04
LN4031393	WJ4018260	WJ4018263	151.68	150	114	0.27	0.02	0.00
LN4031397	WJ4018264	WJ4018260	65.66	150	114	-0.19	0.01	0.00
LN4031398	WJ4018264	WJ4010304	51.26	150	114	-0.15	0.01	0.00
LN4031399	WJ4018269	WJ4018264	82.26	150	114	-0.21	0.01	0.00
LN4031404	WJ4012257	WJ4018282	40.63	150	103	1.76	0.10	0.16
LN4031405	WJ4018282	WJ4010295	365.44	150	103	1.04	0.06	0.06
LN4031406	WJ4018280	WJ4018282	305.31	150	114	-0.45	0.03	0.01
LN4031411	WJ4009830	WJ4017585	106.92	150	103	3.47	0.20	0.57
LN4031430_A001	WJ4016785	J-HY4033792	89.62	300	132	2.16	0.03	0.01
LN4031430_A002	J-HY4033792	J-HY4033808	107.52	300	132	2.16	0.03	0.01
LN4031430_A003	J-HY4033808	WJ58479	39.89	300	132	2.16	0.03	0.01
LN4031468	WJ4018318	WJ4018316	113.97	600	130	-21.94	0.08	0.01
LN4031471	WJ4018316	WJ4018314	95.52	600	130	-23.33	0.08	0.01
LN4031472	WJ4018314	WJ4018313	118.96	600	130	-35.62	0.13	0.03
LN4031474	WJ4018314	WJ4018315	17.88	400	129	9.45	0.08	0.02

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4031475	WJ4018317	WJ4018316	18.85	400	129	0.86	0.01	0.00
LN4031477	WJ4018321	WJ4006305	91.14	150	103	1.26	0.07	0.09
LN4031481	WJ4018306	WJ4018307	6.61	150	103	-5.84	0.33	1.50
LN4031482	WJ4018325	WJ4018306	100.55	300	120	-6.29	0.09	0.04
LN4031483	WJ4018321	WJ4018325	108.89	300	120	12.18	0.17	0.15
LN4031490	WJ4018315	WJ4018326	20.54	300	132	-1.43	0.02	0.00
LN4031491	WJ4018328	WJ4018315	6.03	300	132	-10.88	0.15	0.10
LN4031497	WJ4018307	WJ4018342	130.96	400	129	5.88	0.05	0.01
LN4031515_A001	WJ4018317	J-HY4035072	16.40	300	132	-2.74	0.04	0.01
LN4031515_A002	J-HY4035072	J-HY4033092	109.05	300	132	-2.74	0.04	0.01
LN4031515_A003	J-HY4033092	WJ58501	35.19	300	132	-2.74	0.04	0.01
LN4031516	WJ4018352	WJ4018317	31.56	300	132	-1.88	0.03	0.00
LN4031618	WJ4008473	WJ4018393	2.45	150	103	17.29	0.98	11.22
LN4031653	WJ4018400	WJ4018417	7.26	300	120	71.17	1.01	3.97
LN4031654	WJ4018417	WJ4016638	147.98	300	120	29.22	0.41	0.76
LN4031707	WJ4018440	WJ4016370	217.00	300	120	17.98	0.25	0.31
LN4031708_A001	WJ4018440	WV4011221	7.16	400	129	-19.09	0.15	0.08
LN4031708_A002	WV4011221	WJ4018439	1.96	400	129	-19.09	0.15	0.08
LN4031713	WJ4018443	WJ4018445	6.39	400	129	-18.70	0.15	0.07
LN4031714_A001	WJ4018445	WV4011205	4.86	400	129	-24.08	0.19	0.11
LN4031714_A002	WV4011205	WJ4018446	1.83	400	129	-24.08	0.19	0.11
LN4031715	WJ4018445	WJ4018447	12.19	400	129	5.38	0.04	0.01
LN4031716	WJ4018448	WJ4018447	6.38	400	129	28.83	0.23	0.16
LN4031717	WJ4018440	WJ4018448	132.25	300	120	28.85	0.41	0.75
LN4031720	WJ4018450	WJ4018440	75.72	300	120	27.89	0.39	0.70
LN4031723_A001	WJ58476	J-HY4033839	55.03	300	132	-5.43	0.08	0.03
LN4031723_A002	J-HY4033839	J-HY16124	105.39	300	132	-5.43	0.08	0.03
LN4031723_A003	J-HY16124	WJ4018451	92.74	300	132	-5.43	0.08	0.03
LN4031724	WJ4018451	WJ4016793	12.41	300	132	0.00	0.00	0.00
LN4031727	WJ4018452	WJ4018450	441.01	150	114	1.79	0.10	0.14
LN4031728	WJ4018450	WJ4018452	96.55	300	120	-26.42	0.37	0.63
LN4031730	WJ4018453	WJ4016261	96.00	150	114	-0.37	0.02	0.01
LN4031731	WJ4018453	WJ4018452	93.73	300	120	28.51	0.40	0.73
LN4031732	WJ4018454	WJ4018453	126.22	300	120	28.49	0.40	0.73
LN4031735	WJ4016749	WJ4018451	272.46	600	130	-20.04	0.07	0.01
LN4031736	WJ4018455	WJ4016258	199.69	150	114	3.81	0.22	0.57
LN4031737	WJ4018455	WJ4018454	74.55	300	120	27.50	0.39	0.68
LN4031739	WJ4018456	WJ4016216	98.12	150	114	0.93	0.05	0.04
LN4031740	WJ4018456	WJ4018455	126.16	300	120	31.37	0.44	0.87
LN4031742	WJ4018457	WJ53564	143.88	150	103	0.89	0.05	0.05
LN4031743	WJ4018457	WJ4018456	180.65	300	120	32.30	0.46	0.92
LN4031751	WJ4016413	WJ4018454	111.17	150	103	1.08	0.06	0.07
LN4031756	WJ53563	WJ4018463	135.01	300	120	-4.50	0.06	0.02
LN4031757_A001	WJ4018465	WV4005002	1.70	300	120	31.19	0.44	0.86
LN4031757_A002	WV4005002	WJ4018463	10.65	300	120	31.19	0.44	0.86
LN4031759	WJ4018463	WJ4018464	10.23	300	120	26.69	0.38	0.65
LN4031760	WJ4018464	WJ4018457	159.93	300	120	34.92	0.49	1.06
LN4031762	WJ4016204	WJ4018467	137.49	150	103	-5.82	0.33	1.50
LN4031769_A001	WJ4018472	WV4004997	1.89	400	129	8.19	0.07	0.02
LN4031769_A002	WV4004997	WJ4018471	10.44	400	129	8.19	0.07	0.01
LN4031770	WJ4018462	WJ4016749	85.21	600	130	5.58	0.02	0.00
LN4031771	WJ4018471	WJ4018467	44.54	300	120	-0.04	0.00	0.00
LN4031772	WJ4018459	WJ4018461	18.03	150	114	-1.70	0.10	0.13
LN4031773_A001	WJ4018461	J-HY4033474	16.00	300	132	7.60	0.11	0.05
LN4031773_A002	J-HY4033474	WJ4018460	2.00	300	132	7.60	0.11	0.06
LN4031774	WJ4018462	WJ4018461	3.00	300	132	10.66	0.15	0.10
LN4031780	WJ4018467	WJ4008483	386.38	300	120	-8.68	0.12	0.08
LN4031784	WJ4017092	WJ4018480	229.10	150	103	-1.30	0.07	0.09
LN4031789	WJ4018480	WJ4018473	17.28	150	114	-1.37	0.08	0.09
LN4031790	WJ4018473	WJ4018461	100.79	150	114	-1.37	0.08	0.08
LN4031791	WJ4018476	WJ4018473	9.40	150	114	0.00	0.00	0.00
LN4031793	WJ4018318	WJ4018462	197.50	600	130	16.24	0.06	0.01
LN4031799	WJ59195	WJ53442	287.38	300	120	-3.14	0.04	0.01
LN4031848	WJ4017965	WJ4018513	3.11	400	129	76.76	0.61	0.98
LN4031849	WJ4018513	WJ4017902	212.47	300	120	74.35	1.05	4.30
LN4031850	WJ4017972	WJ4018514	89.14	300	120	-26.11	0.37	0.62
LN4031851	WJ4018514	WJ4017965	2.77	400	129	-26.11	0.21	0.13
LN4031870	WJ4018524	WJ58517	21.47	300	132	-1.92	0.03	0.00
LN4031871_A001	WJ4018313	J-HY16140	62.04	300	132	-0.97	0.01	0.00
LN4031871_A002	J-HY16140	WJ4018524	44.60	300	132	-0.97	0.01	0.00
LN4031883_A001	WJ4016614	J-HY4032770	6.69	300	132	3.82	0.05	0.02
LN4031883_A002	J-HY4032770	WJ4018313	7.60	300	132	3.82	0.05	0.01
LN4031893	WJ4018534	WJ4018533	13.52	300	132	1.62	0.02	0.00
LN4031899	WJ4016614	WJ4018533	85.94	300	132	-5.65	0.08	0.03
LN4031902	WJ4018313	WJ4018532	93.30	600	130	-34.88	0.12	0.03
LN4031909	WJ4018542	WJ4016359	1.20	400	129	0.48	0.00	0.00

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4031912	WJ4018532	WJ4018534	11.36	400	129	3.63	0.03	0.00
LN4031933_A001	WJ52037	J-HY4008135	66.72	200	115	2.46	0.08	0.06
LN4031933_A002	J-HY4008135	WJ4015943	49.31	200	115	2.46	0.08	0.06
LN4031954_A001	WJ4018575	J-HY9902	72.92	300	132	5.61	0.08	0.03
LN4031954_A002	J-HY9902	WJ4018533	27.64	300	132	5.61	0.08	0.03
LN4031960	WJ55163	WJ4018583	105.65	150	114	0.24	0.01	0.00
LN4031970	WJ4020741	WJ4018586	13.22	400	129	-6.96	0.06	0.01
LN4031971	WJ53114	WJ4018586	9.46	600	130	60.89	0.22	0.09
LN4031975_A001	WJ4018588	J-HY32675	49.34	300	132	1.86	0.03	0.00
LN4031975_A002	J-HY32675	J-HY32671	104.36	300	132	1.86	0.03	0.00
LN4031975_A003	J-HY32671	J-HY22580	106.99	300	132	1.86	0.03	0.00
LN4031975_A004	J-HY22580	WJ4018575	59.10	300	132	1.86	0.03	0.00
LN4031987	WJ4018604	WJ4020259	128.88	300	120	5.27	0.07	0.03
LN4031988	WJ4006959	WJ4018605	23.81	300	120	6.27	0.09	0.04
LN4031989	WJ4018605	WJ4018604	131.18	300	120	4.96	0.07	0.03
LN4032025	WJ4018393	WJ4018307	352.83	400	129	14.31	0.11	0.04
LN4032038	WJ4016374	WJ4018633	214.59	150	114	-0.27	0.02	0.00
LN4032040	WJ4018635	WJ4018447	2.92	400	129	-34.21	0.27	0.22
LN4032042	WJ4018633	WJ4018635	199.28	300	132	-34.12	0.48	0.85
LN4032070	WJ4008460	WJ4018321	136.94	300	120	13.44	0.19	0.18
LN4032317	WJ4018325	WJ4008433	389.21	300	132	12.59	0.18	0.13
LN4032520_A001	WJ4004914	WV4004344	2.46	900	130	694.87	1.09	1.10
LN4032520_A002	WV4004344	WV4005116	901.92	900	130	694.87	1.09	1.10
LN4032520_A003	WV4005116	WV4005114	17.15	900	130	694.87	1.09	1.10
LN4032520_A004	WV4005114	WJ4018863	157.88	900	130	694.87	1.09	1.10
LN4032526_A001	WJ4018863	WV4005109	2.38	600	130	50.94	0.18	0.06
LN4032526_A002	WV4005109	WJ4018862	7.22	600	130	50.94	0.18	0.06
LN4032543	WJ4018862	WJ4018874	4.07	600	130	6.41	0.02	0.00
LN4032547	WJ4010217	WJ4018876	82.37	400	129	-44.49	0.35	0.36
LN4032548	WJ4018876	WJ4018862	2.63	600	130	-44.52	0.16	0.05
LN4032911	WJ4018183	WJ4019076	140.31	150	103	-0.97	0.05	0.05
LN4032912	WJ4002430	WJ4019077	0.81	300	120	8.15	0.12	0.07
LN4032914	WJ4019076	WJ4019077	163.97	150	103	-1.40	0.08	0.11
LN4032915	WJ4002380	WJ4019076	171.04	150	103	-0.19	0.01	0.00
LN4032919	WJ4010521	WJ4017039	126.06	300	120	4.63	0.07	0.03
LN4032927	WJ4017039	WJ4019082	11.35	300	120	8.25	0.12	0.07
LN4032929	WJ4019082	WJ4002430	204.81	300	120	8.25	0.12	0.07
LN4032932	WJ4019077	WJ4002365	108.51	300	120	6.71	0.09	0.05
LN4032956	WJ4018217	WJ4017039	275.63	400	129	3.74	0.03	0.00
LN4033116	WJ4015587	WJ4015640	217.68	150	103	-0.13	0.01	0.00
LN4033338	WJ4017078	WJ4008678	96.72	150	103	-1.48	0.08	0.12
LN4033382	WJ4017902	WJ4019278	161.90	300	120	34.80	0.49	1.06
LN4033385	WJ4001543	WJ4019280	121.74	300	120	-7.61	0.11	0.06
LN4033387	WJ4019278	WJ4019280	8.37	300	120	34.74	0.49	1.05
LN4033388	WJ4019280	WJ4017888	195.37	300	120	22.88	0.32	0.49
LN4033409	WJ4001543	WJ4017902	164.58	300	120	-36.25	0.51	1.14
LN4033410	WJ4006791	WJ4017905	257.95	150	114	0.71	0.04	0.03
LN4033413	WJ4003628	WJ4006835	384.63	150	103	-3.75	0.21	0.66
LN4033416	WJ4001983	WJ4003146	627.26	150	103	3.52	0.20	0.59
LN4033422	WJ4006109	WJ4018024	203.39	150	103	-2.35	0.13	0.28
LN4033427	WJ4006350	WJ4004286	136.29	150	114	-0.82	0.05	0.03
LN4033436	WJ4019295	WJ4019296	27.66	150	114	-0.12	0.01	0.00
LN4033439	WJ4019296	WJ4017764	247.23	150	103	-0.48	0.03	0.01
LN4033455	WJ4003953	WJ4003958	152.51	150	103	-0.21	0.01	0.00
LN4033461	WJ58756	WJ4017766	236.68	300	120	9.72	0.14	0.10
LN4033464	WJ4018180	WJ4019306	77.28	300	120	10.15	0.14	0.11
LN4033465	WJ4019306	WJ4017763	92.79	300	120	9.02	0.13	0.09
LN4033466	WJ4015172	WJ4019306	207.24	150	103	-0.70	0.04	0.03
LN4033467	WJ4019306	WJ4017743	219.06	150	103	0.06	0.00	0.00
LN4033480	WJ4017794	WJ4040953	208.20	200	115	4.62	0.15	0.20
LN4033486	WJ4019314	WJ4017736	93.38	150	103	0.47	0.03	0.01
LN4033488	WJ4019314	WJ4017738	221.74	150	103	0.42	0.02	0.01
LN4033489	WJ4014623	WJ4019316	88.84	150	103	1.48	0.08	0.12
LN4033490	WJ4019316	WJ4019314	93.14	150	103	0.80	0.05	0.04
LN4033491	WJ4017743	WJ4019316	222.57	150	103	0.15	0.01	0.00
LN4033492	WJ57697	WJ4019316	189.67	150	103	-0.49	0.03	0.02
LN4033501	WJ4018131	WJ4019318	92.25	150	103	0.39	0.02	0.01
LN4033502	WJ4019318	WJ53041	72.26	150	103	-0.94	0.05	0.05
LN4033525	WJ4019325	WJ4014721	89.01	150	114	-2.10	0.12	0.19
LN4033526	WJ4014820	WJ4019325	218.70	150	103	1.02	0.06	0.06
LN4033527	WJ4019325	WJ4019318	228.16	150	103	1.13	0.06	0.07
LN4033528	WJ54288	WJ4019326	72.68	150	103	-2.33	0.13	0.27
LN4033529	WJ4019326	WJ4019325	92.16	150	103	-1.54	0.09	0.13
LN4033530	WJ4014873	WJ4019326	217.29	150	103	1.69	0.10	0.15
LN4033531	WJ4019326	WJ4018131	228.44	150	103	0.51	0.03	0.02
LN4033538_A001	WJ4012562	J-HY4017295	36.83	300	120	5.01	0.07	0.03

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4033538_A002	J-HY4017295	J-HY16981	126.24	300	120	5.01	0.07	0.03
LN4033538_A003	J-HY16981	WJ4019328	3.46	300	120	5.01	0.07	0.03
LN4033547_A001	WJ4017794	J-HY4018994	76.08	400	129	-55.27	0.44	0.54
LN4033547_A002	J-HY4018994	WJ4019335	77.06	400	129	-55.27	0.44	0.54
LN4033548_A001	WJ4019335	J-HY4018945	8.62	400	129	-55.74	0.44	0.54
LN4033548_A002	J-HY4018945	J-HY4018934	88.11	400	129	-55.74	0.44	0.54
LN4033548_A003	J-HY4018934	WJ57354	24.05	400	129	-55.74	0.44	0.54
LN4033552	WJ4017533	WJ4008483	255.64	300	120	14.99	0.21	0.22
LN4033566	WJ4019344	WJ4018634	95.10	300	132	-31.36	0.44	0.73
LN4033568	WJ4013346	WJ4019344	281.29	150	103	-2.34	0.13	0.28
LN4033570	WJ4013271	WJ4019344	110.50	300	132	-27.41	0.39	0.57
LN4033571	WJ4017778	WJ4013433	115.84	150	103	-2.04	0.12	0.21
LN4033590	WJ4015383	WJ4018417	162.65	300	120	-41.88	0.59	1.49
LN4033623	WJ4019371	WJ4016519	211.26	150	103	-3.03	0.17	0.44
LN4033648	WJ4019386	WJ4016135	218.46	150	103	0.14	0.01	0.00
LN4033652	WJ4019383	WJ4019386	49.06	150	103	-0.06	0.00	0.00
LN4033653	WJ4019386	WJ4016147	96.41	150	103	0.31	0.02	0.01
LN4033662	WJ4019398	WJ4013299	54.18	150	114	-0.03	0.00	0.00
LN4033664	WJ4014473	WJ4019399	11.02	300	120	0.00	0.00	0.00
LN4033721	WJ4001983	WJ4019415	111.05	150	103	-6.34	0.36	1.75
LN4033722	WJ4019415	WJ4006399	111.62	150	103	-9.76	0.55	3.89
LN4033737	WJ4017357	WJ4019415	101.56	150	103	1.88	0.11	0.18
LN4033741	WJ53672	WJ55958	73.66	300	120	15.84	0.22	0.25
LN4033742	WJ55957	WJ4006581	295.71	300	120	12.09	0.17	0.15
LN4033755	WJ56498	WJ4001983	123.12	150	103	-2.17	0.12	0.24
LN4033823	WJ4019456	WJ4002150	100.81	150	103	-3.05	0.17	0.45
LN4033826	WJ4002498	WJ4019456	202.28	300	132	-10.03	0.14	0.09
LN4033837	WJ4019456	WJ4019463	203.28	150	103	-3.62	0.20	0.62
LN4033838	WJ4019463	WJ4003473	203.43	150	103	-4.54	0.26	0.94
LN4033840	WJ4019463	WJ52881	282.10	150	103	2.18	0.12	0.24
LN4033859	WJ4019472	WJ4019463	100.66	150	103	1.70	0.10	0.15
LN4033860	WJ4002158	WJ4019472	192.96	150	103	-2.96	0.17	0.43
LN4033861	WJ4019472	WJ4003628	203.04	150	103	-3.27	0.18	0.51
LN4033965	WJ52163	WJ48958	97.33	150	103	1.81	0.10	0.17
LN4033972	WJ4017495	WJ58397	63.72	150	103	-0.06	0.00	0.00
LN4033973	WJ58399	WJ52167	127.61	150	103	-0.13	0.01	0.00
LN4034072_A001	WJ4019556	WV4016857	1.89	400	129	70.27	0.56	0.84
LN4034072_A002	WV4016857	WJ59207	3.10	400	129	70.27	0.56	0.83
LN4034075	WJ4017772	WJ4019562	97.72	300	120	8.67	0.12	0.08
LN4034076	WJ4019562	WJ55026	141.86	300	120	7.47	0.11	0.06
LN4034078	WJ4008507	WJ4019562	252.52	150	103	-4.47	0.25	0.92
LN4034079	WJ4019562	WJ4017555	176.29	150	103	-3.68	0.21	0.64
LN4034087	WJ4018289	WJ4019567	147.36	150	103	-0.04	0.00	0.00
LN4034088	WJ4019567	WJ4008646	306.25	150	103	-2.89	0.16	0.41
LN4034090	WJ48968	WJ4019567	163.57	150	103	-1.50	0.08	0.12
LN4034091	WJ4019567	WJ4008662	101.48	150	103	1.19	0.07	0.08
LN4034097	WJ4019572	WJ4017786	101.51	150	103	2.81	0.16	0.39
LN4034104	WJ4017333	WJ4019575	202.94	150	103	-2.73	0.15	0.37
LN4034105	WJ4019575	WJ4019572	212.67	150	103	-4.35	0.25	0.87
LN4034107	WJ53513	WJ4019575	79.63	150	103	-0.31	0.02	0.01
LN4034108	WJ4019575	WJ4009916	212.94	150	103	0.81	0.05	0.04
LN4034131	WJ53844	WJ53848	116.79	300	120	-15.20	0.22	0.23
LN4034136	WJ4016701	WJ4019589	200.68	150	103	3.01	0.17	0.44
LN4034137	WJ4019589	WJ4016803	206.73	150	103	5.96	0.34	1.56
LN4034139	WJ4016732	WJ4019589	101.49	300	120	-13.31	0.19	0.18
LN4034144	WJ4019589	WJ53571	94.38	300	120	-16.62	0.24	0.27
LN4034145	WJ53572	WJ53844	121.93	300	120	-13.97	0.20	0.19
LN4034158	WJ53556	WJ47069	396.90	150	103	4.42	0.25	0.90
LN4034164	WJ4019600	WJ4016683	100.57	150	103	-1.09	0.06	0.07
LN4034165	WJ4016587	WJ4019603	296.05	150	114	4.45	0.25	0.75
LN4034166	WJ4019603	WJ53558	217.41	150	114	6.34	0.36	1.45
LN4034167	WJ4016405	WJ4019603	219.80	150	103	3.29	0.19	0.52
LN4034168	WJ4019603	WJ4019600	99.26	150	103	0.93	0.05	0.05
LN4034175	WJ4013513	WJ4019608	391.20	150	103	-2.28	0.13	0.26
LN4034176	WJ4019608	WJ4016832	355.03	150	103	-3.67	0.21	0.64
LN4034178	WJ4019608	WJ4013517	42.66	150	103	0.04	0.00	0.00
LN4034179	WJ4013513	WJ4019610	399.26	150	103	-2.24	0.13	0.25
LN4034180	WJ4019610	WJ4016839	204.10	150	103	-3.31	0.19	0.53
LN4034182	WJ4019610	WJ4019608	99.52	150	103	-0.51	0.03	0.02
LN4034184	WJ4019612	WJ4017758	203.15	150	103	-3.40	0.19	0.55
LN4034186	WJ4019612	WJ4019610	100.05	150	103	-0.84	0.05	0.04
LN4034188	WJ4019614	WJ4017756	203.04	150	103	-3.49	0.20	0.58
LN4034189	WJ22345	WJ4019614	152.49	150	103	-0.69	0.04	0.03
LN4034190	WJ4019614	WJ4019612	100.05	150	103	-0.74	0.04	0.03
LN4034192	WJ4019616	WJ4019612	202.75	150	103	-3.11	0.18	0.47
LN4034193	WJ4013490	WJ4019616	8.63	150	103	-0.02	0.00	0.00

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4034197	WJ51998	WJ4019619	148.87	150	103	-2.51	0.14	0.31
LN4034198	WJ4019619	WJ4019614	203.16	150	103	-3.10	0.18	0.46
LN4034199	WJ4019616	WJ4019619	99.55	150	103	0.67	0.04	0.03
LN4034200	WJ4019619	WJ22343	144.15	150	103	0.83	0.05	0.04
LN4034211_A001	WJ4018575	J-HY22581	12.24	300	132	-0.04	0.00	0.00
LN4034211_A002	J-HY22581	J-HY4018775	64.14	300	132	-0.04	0.00	0.00
LN4034211_A003	J-HY4018775	J-HY4018835	116.72	300	132	-0.04	0.00	0.00
LN4034211_A004	J-HY4018835	WJ4019624	23.55	300	132	-0.04	0.00	0.00
LN4034217	WJ54461	WJ4019624	89.52	150	103	-2.28	0.13	0.26
LN4034220_A001	WJ4019626	J-HY4018607	140.27	150	114	1.01	0.06	0.05
LN4034220_A002	J-HY4018607	WJ4018588	34.94	150	114	1.01	0.06	0.05
LN4034221_A001	WJ4019624	J-HY4019282	96.34	300	132	-5.67	0.08	0.03
LN4034221_A002	J-HY4019282	J-HY4022788	114.88	300	132	-5.67	0.08	0.03
LN4034221_A003	J-HY4022788	WJ4019626	105.43	300	132	-5.67	0.08	0.03
LN4034223_A001	WJ58540	J-HY4018406	4.24	150	103	1.24	0.07	0.09
LN4034223_A002	J-HY4018406	J-HY4018424	122.42	150	103	1.24	0.07	0.09
LN4034223_A003	J-HY4018424	WJ53116	39.60	150	103	1.24	0.07	0.09
LN4034226	WJ4019628	WJ4012588	23.70	400	129	12.91	0.10	0.04
LN4034229	WJ53122	WJ4019630	89.83	400	129	27.75	0.22	0.15
LN4034230	WJ22621	WJ4019628	113.64	400	129	16.44	0.13	0.06
LN4034236	WJ4019634	WJ4017212	220.07	150	103	-1.98	0.11	0.20
LN4034237	WJ27857	WJ4019634	86.65	150	103	1.46	0.08	0.12
LN4034238	WJ4019634	WJ4017210	109.66	150	103	0.69	0.04	0.03
LN4034240	WJ4019636	WJ27858	100.29	150	103	-1.22	0.07	0.08
LN4034242	WJ4019636	WJ4019630	217.65	150	103	-2.78	0.16	0.38
LN4034243	WJ4019628	WJ4019637	217.76	150	103	2.80	0.16	0.38
LN4034246	WJ4019637	WJ4019636	117.88	150	103	-1.06	0.06	0.06
LN4034248	WJ4019639	WJ4019626	217.21	150	103	-2.68	0.15	0.36
LN4034250	WJ4019639	WJ4019637	117.53	150	103	-1.09	0.06	0.07
LN4034257	WJ4012398	WJ4019643	233.23	150	103	-0.75	0.04	0.03
LN4034261	WJ4019643	WJ4019639	105.49	150	103	-1.69	0.10	0.15
LN4034262	WJ4019624	WJ4019644	218.14	150	103	2.57	0.15	0.33
LN4034264	WJ54469	WJ4019644	90.62	150	103	0.78	0.04	0.04
LN4034274	WJ4019643	WJ4019651	341.71	150	103	0.07	0.00	0.00
LN4034275	WJ4019651	WJ4012398	122.15	150	103	1.06	0.06	0.06
LN4034276	WJ4019644	WJ4019651	98.15	150	103	1.50	0.09	0.12
LN4034277	WJ4019651	WJ4019643	111.33	150	103	-0.05	0.00	0.00
LN4034282	WJ4019644	WJ4019654	223.07	150	103	1.46	0.08	0.12
LN4034283	WJ4019654	WJ4012266	218.49	150	103	1.77	0.10	0.17
LN4034284	WJ54441	WJ4019654	90.79	150	103	0.64	0.04	0.03
LN4034285	WJ4019654	WJ4012399	93.10	150	103	0.05	0.00	0.00
LN4034286	WJ4012399	WJ4019656	221.50	150	103	0.64	0.04	0.02
LN4034288	WJ4017734	WJ4019656	218.41	150	103	-1.62	0.09	0.14
LN4034289	WJ4019656	WJ4019639	222.33	150	103	-1.73	0.10	0.16
LN4034292	WJ4019637	WJ4019658	222.37	150	103	1.97	0.11	0.20
LN4034293	WJ4019658	WJ4017740	218.13	150	103	1.57	0.09	0.13
LN4034294	WJ4019656	WJ4019658	117.89	150	103	0.45	0.03	0.01
LN4034297	WJ4017741	WJ61529	207.36	150	103	-1.50	0.09	0.12
LN4034298	WJ4019660	WJ4019636	222.60	150	103	-2.17	0.12	0.24
LN4034299	WJ4019658	WJ4019660	117.98	150	103	0.43	0.02	0.01
LN4034301	WJ4019660	WJ27877	98.22	150	103	0.37	0.02	0.01
LN4034308	WJ4017695	WJ4019665	216.83	150	103	-1.38	0.08	0.10
LN4034309	WJ4019665	WJ4019634	223.36	150	103	-2.29	0.13	0.26
LN4034310	WJ27875	WJ4019665	96.54	300	120	7.39	0.10	0.06
LN4034311	WJ4019665	WJ4017691	109.58	300	120	7.73	0.11	0.07
LN4034328	WJ4019673	WJ28077	101.43	150	103	-0.67	0.04	0.03
LN4034329	WJ4012072	WJ4019673	454.18	150	103	-0.65	0.04	0.03
LN4034330	WJ4019673	WJ4017741	218.99	150	103	-1.14	0.06	0.07
LN4034331	WJ4012081	WJ4019675	439.54	150	103	-0.64	0.04	0.02
LN4034332	WJ4019675	WJ4017740	218.59	150	103	-1.15	0.06	0.07
LN4034334	WJ4019675	WJ4019673	117.85	150	103	-0.28	0.02	0.01
LN4034336	WJ4019677	WJ4017734	218.62	150	103	-1.13	0.06	0.07
LN4034338	WJ4019677	WJ4019675	117.80	150	103	0.10	0.01	0.00
LN4034342	WJ4012183	WJ4019680	218.93	150	103	-0.58	0.03	0.02
LN4034343	WJ4019680	WJ4012268	221.55	150	103	-1.08	0.06	0.07
LN4034345	WJ4019680	WJ4019677	108.97	150	103	0.37	0.02	0.01
LN4034347	WJ4019682	WJ4011938	231.69	150	114	-1.12	0.06	0.06
LN4034348	WJ54491	WJ4019682	189.90	150	103	0.46	0.03	0.01
LN4034349	WJ4019682	WJ4019680	105.41	150	103	0.40	0.02	0.01
LN4034350	WJ4011981	WJ4019684	152.26	150	114	-0.11	0.01	0.00
LN4034351	WJ4019684	WJ4011971	117.67	150	114	0.16	0.01	0.00
LN4034353	WJ4019684	WJ54424	92.37	150	103	-1.02	0.06	0.06
LN4034355	WJ4012183	WJ4019685	102.71	150	103	-0.33	0.02	0.01
LN4034356	WJ4019685	WJ4019684	98.75	150	103	-0.49	0.03	0.02
LN4034357	WJ4011969	WJ4019685	218.13	150	103	-0.21	0.01	0.00
LN4034358	WJ4019685	WJ4019682	219.02	150	103	-0.60	0.03	0.02

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4034360	WJ4019687	WJ4019677	442.84	150	103	-0.62	0.04	0.02
LN4034361	WJ4012185	WJ4019687	138.33	150	103	0.73	0.04	0.03
LN4034362	WJ4019687	WJ4012081	89.93	150	103	0.28	0.02	0.01
LN4034390	WJ4019700	WJ4017775	219.66	150	103	-0.49	0.03	0.01
LN4034391	WJ4017763	WJ4019700	94.00	300	120	8.13	0.11	0.07
LN4034410	WJ4019709	WJ4017777	219.74	150	103	-0.59	0.03	0.02
LN4034411	WJ4019700	WJ4019709	92.97	300	120	7.27	0.10	0.06
LN4034413	WJ4017788	WJ4019711	221.97	150	103	0.66	0.04	0.03
LN4034415	WJ4019709	WJ4019711	91.47	300	120	6.48	0.09	0.05
LN4034439	WJ4013052	WJ4019724	40.53	150	103	-0.06	0.00	0.00
LN4034442	WJ4019726	WJ4013861	86.06	150	103	4.93	0.28	1.10
LN4034443	WJ4019724	WJ4019726	197.26	150	103	1.60	0.09	0.14
LN4034452	WJ4013852	WJ4019733	85.69	150	103	-2.22	0.13	0.25
LN4034453	WJ4019733	WJ4014259	91.15	150	103	-3.24	0.18	0.50
LN4034454	WJ4019726	WJ4019733	195.28	150	103	4.15	0.23	0.80
LN4034457	WJ4019734	WJ4014248	85.17	300	120	-15.27	0.22	0.23
LN4034459	WJ4019733	WJ4019734	194.39	150	103	4.76	0.27	1.03
LN4034461	WJ4013831	WJ4019735	87.51	150	103	-1.50	0.08	0.12
LN4034462	WJ4019735	WJ28135	92.54	150	103	-1.63	0.09	0.14
LN4034463	WJ4019734	WJ4019735	204.26	150	103	3.65	0.21	0.63
LN4034464_A001	WJ4019735	J-HY4022767	234.19	150	103	3.17	0.18	0.48
LN4034464_A002	J-HY4022767	J-HY4022775	146.35	150	103	3.17	0.18	0.48
LN4034464_A003	J-HY4022775	WJ20173	50.98	150	103	3.17	0.18	0.48
LN4034467	WJ4019736	WJ4019734	86.40	300	120	-15.70	0.22	0.24
LN4034468	WJ4013831	WJ4019736	203.52	150	103	-3.50	0.20	0.58
LN4034469	WJ4019736	WJ4013852	194.88	150	103	-4.75	0.27	1.02
LN4034471	WJ4013243	WJ4019737	93.30	150	103	-7.59	0.43	2.44
LN4034472	WJ4019737	WJ4019724	86.03	150	103	-6.26	0.35	1.71
LN4034473	WJ4013861	WJ4019737	196.21	150	103	1.56	0.09	0.13
LN4034474	WJ4019737	WJ4013221	46.23	150	103	0.03	0.00	0.00
LN4034476	WJ4019738	WJ4019736	93.10	300	120	-16.62	0.24	0.27
LN4034478	WJ4019738	WJ4013704	308.96	150	103	0.26	0.01	0.00
LN4034484	WJ4019741	WJ4013827	92.93	150	103	-1.48	0.08	0.12
LN4034485	WJ20154	WJ4019741	295.91	150	103	-3.06	0.17	0.45
LN4034486	WJ4019741	WJ4019738	311.16	150	103	-3.78	0.21	0.67
LN4034502	WJ4013443	WJ4019746	198.21	150	103	-0.92	0.05	0.05
LN4034503	WJ4019746	WJ4019741	100.25	150	103	-1.39	0.08	0.11
LN4034504	WJ4013548	WJ4019746	286.28	150	103	-3.45	0.20	0.57
LN4034535	WJ4017785	WJ4019760	218.17	150	103	0.61	0.03	0.02
LN4034536	WJ4019760	WJ4015775	127.70	150	103	0.18	0.01	0.00
LN4034537	WJ4013528	WJ4019761	100.66	300	120	-7.38	0.10	0.06
LN4034538	WJ4019761	WJ4019738	100.66	300	120	-11.74	0.17	0.14
LN4034540	WJ4019746	WJ4019761	309.98	150	103	-3.75	0.21	0.66
LN4034546	WJ4019760	WJ54484	102.13	300	120	0.03	0.00	0.00
LN4034551	WJ4013520	WJ4019762	98.77	150	103	-1.72	0.10	0.16
LN4034552	WJ4019762	WJ4013704	99.86	150	103	-1.53	0.09	0.13
LN4034553	WJ4019761	WJ4019762	309.83	150	103	-0.07	0.00	0.00
LN4034554	WJ4019762	WJ4013246	290.59	150	103	-0.88	0.05	0.05
LN4034556	WJ4019767	WJ4017784	221.00	300	120	-6.63	0.09	0.05
LN4034557	WJ4013383	WJ4019765	107.60	150	103	-0.91	0.05	0.05
LN4034558	WJ4019765	WJ4013519	97.35	150	103	-1.76	0.10	0.16
LN4034560	WJ4019766	WJ4017783	220.47	150	103	-0.90	0.05	0.05
LN4034561	WJ4013414	WJ4019765	235.12	150	103	-1.09	0.06	0.07
LN4034562	WJ4019765	WJ4013283	238.42	150	103	-0.68	0.04	0.03
LN4034564	WJ4019767	WJ4019760	114.40	300	120	0.01	0.00	0.00
LN4034566	WJ4019766	WJ4019767	91.99	300	120	1.57	0.02	0.00
LN4034570	WJ4019768	WJ4019766	100.88	300	120	2.23	0.03	0.01
LN4034574	WJ55156	WJ4016605	337.54	150	103	-4.90	0.28	1.09
LN4034578	WJ53518	WJ55157	193.02	150	103	-5.34	0.30	1.27
LN4034579	WJ4017759	WJ4019772	201.49	150	103	-0.72	0.04	0.03
LN4034581	WJ4017750	WJ4019772	401.11	150	103	-4.25	0.24	0.83
LN4034582	WJ4019772	WJ53506	210.35	150	103	-4.69	0.27	1.00
LN4034584	WJ4019772	WJ4019773	153.18	150	103	-0.93	0.05	0.05
LN4034585	WJ4019773	WJ4015317	101.79	150	103	0.98	0.06	0.06
LN4034586	WJ4017748	WJ4019773	402.07	300	120	-31.46	0.45	0.88
LN4034587	WJ4019773	WJ53494	206.55	300	120	-34.01	0.48	1.01
LN4034596	WJ4019775	WJ22345	202.81	150	103	-0.40	0.02	0.01
LN4034597	WJ4015851	WJ4019775	481.67	150	103	3.76	0.21	0.67
LN4034598	WJ4019775	WJ52044	236.23	150	103	3.74	0.21	0.66
LN4034603	WJ4015780	WJ4019777	103.12	150	103	-0.59	0.03	0.02
LN4034604	WJ4019777	WJ4019775	151.85	150	103	0.28	0.02	0.01
LN4034611	WJ4015789	WJ4019781	102.49	150	103	-0.72	0.04	0.03
LN4034612	WJ4019781	WJ4015851	222.57	150	103	-1.68	0.09	0.15
LN4034613	WJ4019777	WJ4019781	341.03	300	120	-30.76	0.44	0.84
LN4034614	WJ4019781	WJ4017748	252.11	300	120	-30.44	0.43	0.82
LN4034617	WJ4019782	WJ4016532	90.91	150	103	0.24	0.01	0.00

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4034618	WJ4016393	WJ4019782	188.41	150	103	4.50	0.25	0.93
LN4034622	WJ4019783	WJ4016534	91.11	150	103	-0.25	0.01	0.00
LN4034623	WJ4019782	WJ4019783	203.42	150	103	4.45	0.25	0.91
LN4034626	WJ4019786	WJ4017781	219.72	150	103	-0.83	0.05	0.04
LN4034628	WJ4019786	WJ4019768	102.26	300	120	2.93	0.04	0.01
LN4034630	WJ55466	WJ4017780	199.40	150	103	-0.81	0.05	0.04
LN4034632	WJ55341	WJ4019786	88.91	300	120	3.73	0.05	0.02
LN4034633	WJ4016519	WJ4019789	91.90	150	103	0.26	0.01	0.00
LN4034635	WJ4008619	WJ4019790	162.99	150	114	0.10	0.01	0.00
LN4034637	WJ4019783	WJ4019789	202.63	150	103	3.79	0.21	0.68
LN4034638	WJ4019789	WJ4016357	202.78	150	103	3.15	0.18	0.48
LN4034641	WJ28214	WJ4019792	181.61	400	129	-37.43	0.30	0.26
LN4034642	WJ4019792	WJ4016357	95.01	400	129	20.72	0.16	0.09
LN4034645	WJ4019711	WJ55429	82.78	300	120	5.59	0.08	0.04
LN4034646	WJ55431	WJ55304	65.60	300	120	4.69	0.07	0.03
LN4034647	WJ4019789	WJ4019795	91.77	150	103	0.41	0.02	0.01
LN4034652	WJ4019796	WJ4019783	92.63	150	103	-0.50	0.03	0.02
LN4034653	WJ4019795	WJ4019796	202.88	150	103	-3.78	0.21	0.67
LN4034656	WJ4019798	WJ4019700	218.35	150	103	-0.89	0.05	0.05
LN4034657	WJ4017764	WJ4019798	94.16	150	103	1.26	0.07	0.09
LN4034663	WJ4016175	WJ4019803	108.11	150	103	-0.08	0.00	0.00
LN4034664	WJ4019803	WJ4019709	218.45	150	103	-0.85	0.05	0.04
LN4034666	WJ22724	WJ4019803	91.06	150	103	0.89	0.05	0.05
LN4034668	WJ4019711	WJ4019820	218.60	150	103	1.02	0.06	0.06
LN4034669	WJ4019820	WJ4019386	217.69	150	103	0.87	0.05	0.04
LN4034671	WJ4019805	WJ4019782	92.44	150	103	0.63	0.04	0.02
LN4034672	WJ4019796	WJ4019805	203.16	150	103	-4.51	0.25	0.93
LN4034673	WJ4019805	WJ4016389	197.92	150	103	-4.36	0.25	0.87
LN4034675	WJ28174	WJ4019806	90.38	150	114	1.81	0.10	0.14
LN4034676	WJ4019806	WJ4019805	91.48	150	103	1.10	0.06	0.07
LN4034677	WJ4016388	WJ4019806	197.77	150	103	4.32	0.24	0.86
LN4034682	WJ28154	WJ4019808	90.47	150	103	-1.55	0.09	0.13
LN4034683	WJ4019808	WJ4019796	91.34	150	103	-1.03	0.06	0.06
LN4034684	WJ4019806	WJ4019808	202.66	150	103	4.66	0.26	0.99
LN4034688	WJ4019795	WJ4019809	91.70	150	103	1.32	0.07	0.10
LN4034689	WJ4019809	WJ28134	90.21	150	103	0.72	0.04	0.03
LN4034690	WJ4019808	WJ4019809	203.33	150	103	3.83	0.22	0.69
LN4034702	WJ4019815	WJ54460	86.69	150	103	-1.35	0.08	0.10
LN4034704	WJ4019815	WJ4016614	240.54	150	103	-1.52	0.09	0.12
LN4034709	WJ4019817	WJ54470	86.58	150	103	0.58	0.03	0.02
LN4034710	WJ4017785	WJ4019817	222.86	150	103	-1.27	0.07	0.09
LN4034711	WJ4019817	WJ4019815	217.75	150	103	-1.62	0.09	0.14
LN4034715	WJ4019818	WJ4019817	113.37	150	103	0.63	0.04	0.02
LN4034717	WJ4019818	WJ4017784	220.12	300	120	8.41	0.12	0.08
LN4034721	WJ4019819	WJ4019815	114.24	150	103	-0.76	0.04	0.03
LN4034722	WJ4018328	WJ4019819	243.04	300	120	10.69	0.15	0.12
LN4034723	WJ4019819	WJ4019818	218.12	300	120	10.24	0.14	0.11
LN4034724	WJ4019803	WJ4019820	91.50	150	103	1.26	0.07	0.09
LN4034729	WJ4019822	WJ4019819	95.21	150	103	-0.75	0.04	0.03
LN4034731	WJ4019822	WJ4018352	211.28	150	103	-1.68	0.09	0.15
LN4034738	WJ4019826	WJ4019818	95.81	150	103	-0.66	0.04	0.03
LN4034739	WJ4017783	WJ4019826	221.44	150	103	-1.07	0.06	0.06
LN4034740	WJ4019826	WJ4019822	217.95	150	103	-1.40	0.08	0.11
LN4034741	WJ4019820	WJ55442	83.67	150	103	0.89	0.05	0.05
LN4034743	WJ4016704	WJ4019829	98.59	150	103	-0.66	0.04	0.03
LN4034744	WJ4019829	WJ4019826	98.90	150	103	-0.62	0.04	0.02
LN4034749	WJ55441	WJ55326	66.94	150	103	0.67	0.04	0.03
LN4034753	WJ4017092	WJ4019834	94.34	150	103	-0.37	0.02	0.01
LN4034754	WJ4019834	WJ4019822	99.41	150	103	-0.60	0.03	0.02
LN4034756	WJ4019834	WJ4019829	217.79	150	114	1.55	0.09	0.11
LN4034757	WJ4016056	WJ4019838	218.17	150	103	-0.86	0.05	0.04
LN4034758	WJ4019838	WJ4019786	218.38	150	103	-1.06	0.06	0.06
LN4034759	WJ55323	WJ4019838	90.27	150	103	0.50	0.03	0.02
LN4034767	WJ4019838	WJ4019841	102.24	150	103	0.23	0.01	0.00
LN4034770	WJ4016704	WJ4019842	98.44	150	103	-0.49	0.03	0.02
LN4034773	WJ4019842	WJ4017780	223.61	150	103	0.87	0.05	0.04
LN4034775	WJ4019845	WJ4019766	218.18	150	103	-1.00	0.06	0.06
LN4034776	WJ4019841	WJ4019845	101.76	150	103	-0.10	0.01	0.00
LN4034783	WJ4019848	WJ4017092	103.76	150	103	-0.47	0.03	0.01
LN4034784	WJ4018459	WJ4019848	230.67	150	103	1.57	0.09	0.13
LN4034785	WJ4019848	WJ4019842	217.26	150	103	1.36	0.08	0.10
LN4034787	WJ4019851	WJ4019767	218.67	300	120	-7.69	0.11	0.06
LN4034788	WJ4019845	WJ4019851	91.04	150	103	0.58	0.03	0.02
LN4034789	WJ4019851	WJ4015473	114.89	150	103	0.43	0.02	0.01
LN4034792	WJ4019852	WJ4019848	104.87	150	103	-0.46	0.03	0.01
LN4034794	WJ4019852	WJ4016750	228.13	150	103	-1.60	0.09	0.14

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4034796	WJ4019855	WJ4019851	218.45	300	120	-7.28	0.10	0.06
LN4034798	WJ4019855	WJ4015640	113.63	150	103	1.77	0.10	0.16
LN4034800	WJ4019842	WJ4019856	104.04	150	103	-0.35	0.02	0.01
LN4034803	WJ4019856	WJ4019852	217.57	150	103	-1.29	0.07	0.09
LN4034809	WJ61514	WJ4019855	77.71	150	103	-0.42	0.02	0.01
LN4034813	WJ4019856	WJ4019862	101.91	150	103	-0.54	0.03	0.02
LN4034814	WJ4019862	WJ4017736	185.25	150	103	-0.64	0.04	0.03
LN4034816	WJ4019862	WJ4017788	223.80	150	103	0.80	0.05	0.04
LN4034820	WJ4016055	WJ4019865	95.46	150	103	0.68	0.04	0.03
LN4034821	WJ4019865	WJ61515	75.30	150	103	0.76	0.04	0.03
LN4034823	WJ54014	WJ50379	90.15	150	103	6.13	0.35	1.65
LN4034828	WJ4016147	WJ55331	88.80	150	103	0.82	0.05	0.04
LN4034829	WJ55328	WJ4016056	88.65	150	103	0.80	0.04	0.04
LN4034836	WJ4016125	WJ55338	79.54	150	103	0.80	0.05	0.04
LN4034841	WJ4017733	WJ60926	90.74	150	103	1.24	0.07	0.08
LN4034842	WJ4019873	WJ4019852	100.53	150	103	0.01	0.00	0.00
LN4034845	WJ4019873	WJ4019862	217.85	150	103	1.22	0.07	0.08
LN4034850	WJ53992	WJ54018	74.62	150	103	4.84	0.27	1.06
LN4034854	WJ58937	WJ4019876	165.59	150	114	6.62	0.37	1.57
LN4034931	WJ4017698	WJ58940	70.88	150	114	7.43	0.42	1.95
LN4034967	WJ4015733	WJ4019908	194.49	150	103	-0.33	0.02	0.01
LN4034968	WJ4019908	WJ4016055	218.20	150	103	-0.48	0.03	0.01
LN4034969	WJ55334	WJ4019908	96.50	150	103	1.06	0.06	0.06
LN4034981	WJ4019865	WJ4019914	216.60	150	103	0.54	0.03	0.02
LN4034982	WJ4019914	WJ4010597	209.71	150	103	0.25	0.01	0.00
LN4034983	WJ4019908	WJ4019914	92.76	150	103	0.79	0.04	0.04
LN4034985	WJ4010581	WJ4019916	220.63	150	103	-0.31	0.02	0.01
LN4034986	WJ4019916	WJ61511	215.49	150	103	-0.50	0.03	0.02
LN4034987	WJ4019914	WJ4019916	102.35	150	103	0.63	0.04	0.02
LN4034989	WJ4017702	WJ4019918	233.31	300	120	-3.24	0.05	0.01
LN4034990	WJ4019918	WJ4019855	218.22	300	120	-4.68	0.07	0.03
LN4034991	WJ4019916	WJ4019918	90.81	150	103	0.45	0.03	0.01
LN4034992	WJ4019918	WJ4015587	113.58	150	103	1.47	0.08	0.12
LN4034998	WJ54421	WJ4015587	83.82	150	103	-1.16	0.07	0.07
LN4035159	WJ4011989	WJ4019991	170.37	150	103	-1.08	0.06	0.07
LN4035160	WJ4019991	WJ4011452	184.62	150	103	-1.49	0.08	0.12
LN4035166	WJ4019991	WJ4011411	96.56	150	103	1.38	0.08	0.10
LN4035167	WJ4011390	WJ4019994	201.31	150	103	-1.20	0.07	0.08
LN4035168	WJ4019994	WJ4011454	197.85	150	103	-1.69	0.10	0.15
LN4035170	WJ4019994	WJ4019991	96.62	150	103	1.47	0.08	0.12
LN4035172	WJ4019995	WJ4010410	203.56	150	103	3.11	0.18	0.47
LN4035173	WJ4011579	WJ4019996	126.84	150	103	1.42	0.08	0.11
LN4035174	WJ4019996	WJ4019994	97.81	150	103	1.36	0.08	0.10
LN4035175	WJ4019996	WJ4011399	187.41	150	103	1.60	0.09	0.14
LN4035180	WJ4018874	WJ4019995	19.20	400	129	6.39	0.05	0.01
LN4035188	WJ4020002	WJ4019995	136.90	150	103	-3.24	0.18	0.50
LN4035189	WJ59732	WJ4020003	156.30	150	103	1.91	0.11	0.19
LN4035190	WJ4020003	WJ4011683	141.18	150	103	2.73	0.15	0.37
LN4035195	WJ4020003	WJ4011782	104.10	150	103	1.93	0.11	0.19
LN4035198	WJ4011632	WJ4020007	121.70	150	103	1.57	0.09	0.13
LN4035199	WJ4020007	WJ4011815	242.15	150	103	0.60	0.03	0.02
LN4035212	WJ4010475	WJ4020002	107.85	150	103	-1.86	0.11	0.18
LN4035215	WJ4020013	WJ4020002	100.45	150	103	-1.28	0.07	0.09
LN4035222	WJ47435	WJ4020013	85.83	150	103	-1.20	0.07	0.08
LN4035437	WJ4002202	WJ4020213	192.44	150	103	-2.67	0.15	0.35
LN4035438	WJ4020213	WJ4003146	203.83	150	103	-2.95	0.17	0.42
LN4035439	WJ49146	WJ4020213	93.53	150	103	1.91	0.11	0.19
LN4035440	WJ4020213	WJ4019472	100.76	150	103	1.81	0.10	0.17
LN4035446	WJ4004565	WJ4020220	359.44	150	103	0.19	0.01	0.00
LN4035447	WJ4020220	WJ4004140	120.98	150	103	-0.08	0.00	0.00
LN4035448	WJ4004567	WJ4020220	92.05	150	103	0.31	0.02	0.01
LN4035449	WJ4020220	WJ4003925	86.84	150	103	0.19	0.01	0.00
LN4035450	WJ4004396	WJ4020222	84.14	150	103	-0.15	0.01	0.00
LN4035451	WJ4020222	WJ4004563	121.07	150	103	0.37	0.02	0.01
LN4035452	WJ4004354	WJ4020222	105.41	150	103	1.50	0.08	0.12
LN4035453	WJ4020222	WJ4004565	76.92	150	103	0.79	0.04	0.04
LN4035459	WJ4020225	WJ4018068	68.03	300	120	13.67	0.19	0.19
LN4035461	WJ4017359	WJ4020227	218.39	150	103	-0.63	0.04	0.02
LN4035462	WJ4020227	WJ4020225	218.51	150	103	-0.29	0.02	0.01
LN4035463	WJ4005072	WJ4020227	94.47	150	103	1.90	0.11	0.19
LN4035464	WJ4020227	WJ4003929	83.63	150	103	1.08	0.06	0.07
LN4035465	WJ4020225	WJ49000	216.17	150	103	-2.35	0.13	0.28
LN4035466	WJ4020229	WJ4003845	26.46	150	103	0.05	0.00	0.00
LN4035467	WJ4017666	WJ4020229	380.96	400	129	14.37	0.11	0.04
LN4035468	WJ4020229	WJ4003831	84.80	400	129	10.82	0.09	0.03
LN4035472	WJ4005083	WJ4020225	188.99	300	120	12.10	0.17	0.15

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4035478	WJ4018166	WJ4018217	115.84	150	114	-2.27	0.13	0.22
LN4035488	WJ4018482	WJ55020	61.72	150	103	-0.20	0.01	0.00
LN4035524	WJ4020263	WJ4020259	230.45	150	114	-0.52	0.03	0.01
LN4035527_A001	WJ4020264	WV4021627	140.15	600	130	217.22	0.77	0.92
LN4035527_A002	WV4021627	WJ4014260	179.66	600	130	217.22	0.77	0.92
LN4035528	WJ4014259	WJ4020269	138.01	150	103	-7.64	0.43	2.47
LN4035530	WJ4020268	WJ4020269	58.21	300	132	7.84	0.11	0.06
LN4035531	WJ4020267	WJ4020268	97.63	300	132	15.90	0.22	0.21
LN4035532	WJ4020266	WJ4020267	100.89	300	132	16.28	0.23	0.22
LN4035533	WJ4020265	WJ4020266	27.16	300	132	24.55	0.35	0.46
LN4035534	WJ4020264	WJ4020265	36.43	300	132	24.89	0.35	0.48
LN4035536	WJ4020268	WJ4019726	89.81	150	103	7.87	0.45	2.61
LN4035537	WJ4019724	WJ4020266	89.35	150	103	-8.17	0.46	2.80
LN4035539	WJ4008476	WJ4020274	443.08	600	130	221.10	0.78	0.95
LN4035541	WJ4020274	WJ4020275	168.59	600	130	254.44	0.90	1.24
LN4035542	WJ4020275	WJ4020264	399.60	600	130	249.59	0.88	1.19
LN4035545	WJ4008433	WJ4020274	327.32	300	120	34.79	0.49	1.05
LN4035547	WJ4020275	WJ4020278	7.12	300	120	4.85	0.07	0.03
LN4035549	WJ4013538	WJ4022803	91.62	250	110	4.84	0.10	0.08
LN4035551	WJ4016732	WJ4017755	150.57	300	120	11.25	0.16	0.13
LN4035554	WJ4016839	WJ4016834	190.64	150	103	-3.33	0.19	0.53
LN4035582	WJ4006305	WJ48469	168.44	150	103	0.18	0.01	0.00
LN4035788	WJ47436	WJ4020423	87.70	150	114	0.05	0.00	0.00
LN4035789	WJ4020598	WJ4020596	103.22	150	114	0.77	0.04	0.03
LN4035791	WJ4020599	WJ4020598	97.25	150	114	1.86	0.11	0.15
LN4035803	WJ53447	WJ4002007	91.06	150	103	-1.39	0.08	0.11
LN4035891	WJ4020703	WJ4018604	24.18	150	114	0.31	0.02	0.01
LN4035892	WJ4018605	WJ4020704	22.69	150	114	1.31	0.07	0.08
LN4035893	WJ4020704	WJ4020703	316.54	150	114	0.32	0.02	0.01
LN4035894	WJ4020703	WJ4020704	134.53	150	114	-0.51	0.03	0.01
LN4035907	WJ4020716	WJ4020715	6.36	150	114	3.61	0.20	0.51
LN4035908	WJ4020717	WJ4020716	109.70	150	114	-2.84	0.16	0.33
LN4035914_A001	WJ4017212	J-HY4019591	33.28	300	132	6.56	0.09	0.04
LN4035914_A002	J-HY4019591	WJ4020722	79.72	300	132	6.56	0.09	0.04
LN4035915_A001	WJ4020722	J-HY16261	112.96	300	132	-1.95	0.03	0.00
LN4035915_A002	J-HY16261	J-HY4017085	120.75	300	132	-1.95	0.03	0.00
LN4035915_A003	J-HY4017085	WJ4017209	22.50	300	132	-1.95	0.03	0.00
LN4035919	WJ4010521	WJ4020727	330.07	300	120	-5.90	0.08	0.04
LN4035920	WJ4020727	WJ4017869	15.95	300	132	-5.90	0.08	0.03
LN4035922	WJ53462	WJ4017869	307.12	300	132	5.92	0.08	0.03
LN4035923	WJ56688	WJ4020729	80.81	300	120	47.50	0.67	1.88
LN4035924	WJ4020729	WJ59734	16.82	300	120	43.57	0.62	1.60
LN4035926	WJ4020730	WJ4017869	9.56	300	132	0.00	0.00	0.00
LN4035929	WJ61124	WJ4020717	105.89	150	114	-0.01	0.00	0.00
LN4035930	WJ4020729	WJ4020732	49.94	150	114	3.93	0.22	0.60
LN4035934	WJ4020739	WJ4020740	76.05	150	114	1.11	0.06	0.06
LN4035935	WJ4020732	WJ4020738	226.62	150	114	2.68	0.15	0.29
LN4035936	WJ53118	WJ4020741	19.30	150	114	-3.54	0.20	0.49
LN4035937_A001	WJ4020741	J-HY4018649	53.12	150	114	1.47	0.08	0.10
LN4035937_A002	J-HY4018649	WJ58533	54.72	150	114	1.47	0.08	0.10
LN4035943	WJ49340	WJ49248	105.92	150	114	-2.80	0.16	0.32
LN4035992	WJ27375	WJ4010421	314.91	400	129	-16.18	0.13	0.06
LN4035999	WJ4020832	WJ4020828	501.30	400	129	-15.08	0.12	0.05
LN4036014	WJ4018217	WJ59074	367.87	400	129	-7.51	0.06	0.01
LN4036017	WJ4020832	WJ59074	205.63	400	129	11.84	0.09	0.03
LN4036022	WJ4010295	WJ4020856	79.01	150	103	-0.07	0.00	0.00
LN4036023	WJ4020856	WJ59072	104.63	150	103	-1.13	0.06	0.07
LN4036026	WJ4020858	WJ4020853	99.75	150	114	-1.34	0.08	0.08
LN4036027	WJ4020740	WJ4020858	93.70	150	114	-2.35	0.13	0.23
LN4036029	WJ4020740	WJ4020862	144.05	150	114	3.33	0.19	0.44
LN4036031	WJ4010422	WJ4020864	96.56	300	120	49.18	0.70	2.00
LN4036032	WJ4020865	WJ4020864	617.52	250	115	-0.75	0.02	0.00
LN4036033	WJ4020867	WJ4020863	99.75	150	114	-1.91	0.11	0.16
LN4036034	WJ4020739	WJ4020867	95.28	150	114	-2.63	0.15	0.28
LN4036035	WJ4020738	WJ4020739	10.68	150	114	-1.45	0.08	0.09
LN4036036	WJ4020862	WJ4020738	115.15	150	114	-3.87	0.22	0.58
LN4036050	WJ4011486	WJ4020882	57.75	300	120	29.84	0.42	0.79
LN4036060	WJ4020882	WJ4020862	75.83	150	114	-6.06	0.34	1.33
LN4036139	WJ4019876	WJ4020967	6.53	150	114	6.29	0.36	1.43
LN4036140	WJ4020967	WJ53993	70.21	150	103	6.28	0.36	1.72
LN4036145	WJ4019790	WJ4020969	216.54	150	114	-0.06	0.00	0.00
LN4036146	WJ4020969	WJ4019812	3.19	150	114	-4.39	0.25	0.73
LN4036150	WJ4020969	WJ4008332	120.89	150	114	4.06	0.23	0.64
LN4036157	WJ4020971	WJ4011622	127.89	150	114	-1.74	0.10	0.13
LN4036159	WJ4020007	WJ4020971	96.04	150	114	-1.59	0.09	0.11
LN4036166	WJ4020007	WJ4020978	109.79	150	114	2.17	0.12	0.20

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4036169	WJ4020978	WJ4020979	112.54	150	114	1.44	0.08	0.09
LN4036173	WJ4011859	WJ4020981	242.11	150	103	-0.58	0.03	0.02
LN4036175	WJ4020979	WJ4020981	10.10	150	114	3.00	0.17	0.36
LN4036176	WJ4020980	WJ4010422	324.24	150	103	0.88	0.05	0.05
LN4036180	WJ4020981	WJ4020984	102.09	150	114	2.18	0.12	0.20
LN4036181	WJ4017698	WJ4020980	97.63	150	114	-8.41	0.48	2.45
LN4036182	WJ4010368	WJ4010217	100.39	150	114	-6.56	0.37	1.55
LN4036187	WJ4020987	WJ4020984	123.82	150	114	-1.46	0.08	0.10
LN4036190	WJ4020867	WJ4020717	160.55	150	114	-2.39	0.14	0.24
LN4036192	WJ4020867	WJ4020858	127.92	150	114	1.30	0.07	0.08
LN4036215	WJ4020987	WJ4021011	139.02	150	114	0.89	0.05	0.04
LN4036228	WJ4011139	WJ4021023	101.13	150	114	-0.34	0.02	0.01
LN4036229	WJ4021023	WJ4011947	120.37	150	103	-0.51	0.03	0.02
LN4036231	WJ4011139	WJ4021011	234.88	150	114	-0.46	0.03	0.01
LN4036254	WJ4011305	WJ4021044	98.03	150	114	-1.24	0.07	0.07
LN4036255	WJ4018111	WJ4021047	63.80	300	120	-7.49	0.11	0.06
LN4036256	WJ4021047	WJ4018113	4.80	300	120	-6.38	0.09	0.04
LN4036257	WJ4021044	WJ4018113	90.93	150	114	-0.97	0.06	0.05
LN4036287	WJ58461	WJ4021076	7.85	400	129	-35.35	0.28	0.23
LN4036297_A001	WJ19333	WV15899	390.57	600	130	-164.27	0.58	0.55
LN4036297_A002	WV15899	WJ21598	400.20	600	130	-164.27	0.58	0.55
LN4036345	WJ4021126	WJ55022	65.79	150	114	-0.14	0.01	0.00
LN4036361_A001	WJ4015339	J-HY16136	24.10	300	132	0.13	0.00	0.00
LN4036361_A002	J-HY16136	WJ4021144	102.57	300	132	0.13	0.00	0.00
LN4036400	WJ4019063	WJ4021189	35.51	150	114	-0.05	0.00	0.00
LN4036401	WJ59147	WJ48216	597.36	150	103	-0.56	0.03	0.02
LN4036461	WJ4008690	WJ4021233	14.62	300	120	5.35	0.08	0.03
LN4036462	WJ4021233	WJ4008678	89.15	300	120	5.35	0.08	0.03
LN4036467	WJ4020716	WJ56701	89.07	150	114	-6.54	0.37	1.54
LN4036477	WJ4020715	WJ4020863	109.77	150	114	3.57	0.20	0.50
LN4036484	WJ4020853	WJ4020863	173.49	150	114	-1.50	0.08	0.10
LN4036511	WJ4018306	WJ4021261	113.68	150	114	-0.46	0.03	0.01
LN4037291	WJ53848	WJ4018443	95.95	300	120	-18.69	0.26	0.33
LN4037293_A001	WJ4019626	J-HY4019478	8.22	300	132	-12.82	0.18	0.14
LN4037293_A002	J-HY4019478	WJ4012588	87.33	300	132	-12.82	0.18	0.14
LN4037393	WJ4008654	WJ4022762	153.92	300	120	55.51	0.79	2.51
LN4037398	WJ4022762	WJ4022764	281.31	300	120	55.51	0.79	2.51
LN4037399	WJ4022764	WJ56681	145.95	300	120	55.48	0.78	2.50
LN4037432	WJ4020979	WJ4022778	130.60	150	114	-1.63	0.09	0.12
LN4037433	WJ4022778	WJ4011634	175.78	150	103	-1.92	0.11	0.19
LN4037458	WJ4018342	WJ4018341	468.34	400	129	5.88	0.05	0.01
LN4037459	WJ4018341	WJ4018400	6.90	400	129	71.17	0.57	0.85
LN4037475	WJ4008659	WJ4022800	5.56	900	130	-755.77	1.19	1.29
LN4037476_A001	WJ4022800	WV4004307	346.15	900	130	14.38	0.02	0.00
LN4037476_A002	WV4004307	WJ4018133	647.05	900	130	14.38	0.02	0.00
LN4037479	WJ4022803	WJ4018053	26.28	400	129	53.94	0.43	0.51
LN4037480	WJ4008657	WJ4022804	20.51	900	130	694.91	1.09	1.10
LN4037481_A001	WJ4022804	WV4004327	9.55	900	130	694.91	1.09	1.10
LN4037481_A002	WV4004327	WJ4018048	551.53	900	130	694.91	1.09	1.10
LN4037543	WJ4011011	WJ4020599	117.02	150	114	5.35	0.30	1.06
LN4037651	WJ4015007	WJ4023042	102.15	150	103	-1.19	0.07	0.08
LN4037653	WJ4023042	WJ4023043	216.99	150	103	-1.60	0.09	0.14
LN4037654	WJ4023043	WJ4014481	79.71	150	103	-1.76	0.10	0.16
LN4037690_A001	WJ4018472	WV4004993	3.06	900	130	-279.15	0.44	0.21
LN4037690_A002	WV4004993	WV10604	3.66	900	130	-279.15	0.44	0.20
LN4037690_A003	WV10604	WV4004999	92.53	900	130	-279.15	0.44	0.20
LN4037690_A004	WV4004999	WV10609	197.28	900	130	-279.15	0.44	0.20
LN4037690_A005	WV10609	WJ4019556	484.19	900	130	-279.15	0.44	0.20
LN4037692	WJ4023053	WJ4018472	3.11	900	130	-270.97	0.43	0.19
LN4037695_A001	WJ4018465	WV4005009	17.02	900	130	296.45	0.47	0.23
LN4037695_A002	WV4005009	WJ4023053	43.28	900	130	296.45	0.47	0.23
LN4037696_A001	WJ4023055	WV4005023	154.27	900	130	327.64	0.52	0.27
LN4037696_A002	WV4005023	WV4005020	594.57	900	130	327.64	0.52	0.27
LN4037696_A003	WV4005020	WV4005018	189.11	900	130	327.64	0.52	0.27
LN4037696_A004	WV4005018	WV4005012	143.09	900	130	327.64	0.52	0.27
LN4037696_A005	WV4005012	WJ4018465	4.33	900	130	327.64	0.52	0.27
LN4037697_A001	WJ4018341	WV4005029	27.18	500	130	-65.31	0.33	0.24
LN4037697_A002	WV4005029	WJ4023055	1.05	500	130	-65.31	0.33	0.25
LN4037701	WJ4008317	WJ4008182	23.50	750	130	250.28	0.57	0.41
LN4037704_A001	WJ4018863	WV4005103	136.90	900	130	643.68	1.01	0.96
LN4037704_A002	WV4005103	WV4005104	57.66	900	130	643.68	1.01	0.96
LN4037704_A003	WV4005104	WV4005097	286.87	900	130	643.68	1.01	0.96
LN4037704_A004	WV4005097	WV4005089	409.75	900	130	643.68	1.01	0.96
LN4037704_A005	WV4005089	WV4005087	106.15	900	130	643.68	1.01	0.96
LN4037704_A006	WV4005087	WV4005043	83.76	900	130	643.68	1.01	0.96
LN4037704_A007	WV4005043	WJ4008317	11.06	900	130	643.68	1.01	0.96

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4037710	WJ49342	WJ4008156	114.07	150	103	-3.24	0.18	0.51
LN4037718	WJ4017784	WJ4023063	13.03	200	115	1.03	0.03	0.01
LN4037719	WJ4023063	WJ4017785	100.53	150	103	0.99	0.06	0.06
LN4038270	WJ4018159	WJ4024064	242.08	300	120	-5.54	0.08	0.04
LN4038271	WJ4024064	WJ4002308	106.55	300	120	-5.67	0.08	0.04
LN4038399	WJ4002365	WJ4024315	40.89	300	120	6.03	0.09	0.04
LN4038400	WJ4024315	WJ4002308	67.07	300	120	5.98	0.08	0.04
LN4039390_A001	WJ4018446	WV4011218	37.62	900	130	-547.13	0.86	0.71
LN4039390_A002	WV4011218	WJ4018439	102.56	900	130	-547.13	0.86	0.71
LN4039401_A001	WJ4023052	WV4011250	66.79	900	130	567.42	0.89	0.76
LN4039401_A002	WV4011250	WV4011277	410.91	900	130	567.42	0.89	0.76
LN4039401_A003	WV4011277	WJ4018439	516.40	900	130	567.42	0.89	0.76
LN4039451_A001	WJ4012384	WV4011841	23.83	900	130	-248.86	0.39	0.16
LN4039451_A002	WV4011841	WV4011849	85.63	900	130	-248.86	0.39	0.16
LN4039451_A003	WV4011849	WV4011750	269.45	900	130	-248.86	0.39	0.16
LN4039451_A004	WV4011750	WV4011763	6.49	900	130	-248.86	0.39	0.16
LN4039451_A005	WV4011763	WV4011740	30.27	900	130	-248.86	0.39	0.17
LN4039451_A006	WV4011740	WV50459	57.62	900	130	-248.86	0.39	0.16
LN4039451_A007	WV50459	WJ53112	4.08	900	130	-248.86	0.39	0.16
LN4039489	WJ4018634	WJ4026374	152.53	300	132	-31.66	0.45	0.74
LN4039490	WJ4026374	WJ4018633	50.96	300	132	-33.54	0.47	0.83
LN4039700	WJ23508	WJ4008156	146.72	150	103	8.30	0.47	2.88
LN4041184	WJ4019335	WJ4019334	20.13	100	100	0.07	0.01	0.00
LN4043556	WJ4020856	WJ4017284	368.20	150	103	0.12	0.01	0.00
LN4044918	WJ4023053	WJ4023052	25.72	900	130	567.42	0.89	0.76
LN4045166_A001	WJ4018001	J-HY4035405	24.52	300	132	-13.48	0.19	0.15
LN4045166_A002	J-HY4035405	WJ4037579	11.49	300	132	-13.48	0.19	0.15
LN4045167	WJ4037579	WJ4018002	50.43	300	132	-20.62	0.29	0.34
LN4045171	WJ4037579	WJ4037574	18.00	200	115	7.14	0.23	0.44
LN4045172	WJ4037574	WJ4037577	1.00	200	115	7.14	0.23	0.43
LN4045173	WJ4037574	WJ4037578	2.60	100	100	0.00	0.00	0.00
LN4045192	WJ4018001	WJ4037625	44.99	300	132	12.65	0.18	0.14
LN4045195	WJ4037618	WJ4037619	1.40	100	100	0.00	0.00	0.00
LN4045196	WJ4037618	WJ4037620	1.00	200	115	0.00	0.00	0.00
LN4045197	WJ4037625	WJ4037618	16.20	200	115	0.00	0.00	0.00
LN4045215	WJ4037660	WJ4037662	2.80	100	100	2.81	0.36	2.95
LN4045216	WJ4037660	WJ4037661	1.20	200	115	0.00	0.00	0.00
LN4045219_A001	WJ4037625	J-HY4035466	31.01	300	132	12.65	0.18	0.14
LN4045219_A002	J-HY4035466	WJ4037669	1.79	300	132	12.65	0.18	0.13
LN4045224	WJ4037669	WJ4037660	15.80	200	115	2.81	0.09	0.08
LN4045284	WJ4037669	WJ4037800	49.93	300	132	9.84	0.14	0.09
LN4045289	WJ4037800	WJ4037793	4.00	200	115	0.00	0.00	0.00
LN4045290	WJ4037793	WJ4037794	1.00	200	115	0.00	0.00	0.00
LN4045291	WJ4037786	WJ4037800	15.80	200	115	-2.88	0.09	0.08
LN4045292	WJ4037787	WJ4037786	1.20	200	115	0.00	0.00	0.00
LN4045293	WJ4037793	WJ4037795	2.60	100	100	0.00	0.00	0.00
LN4045294	WJ4037786	WJ4037788	2.77	100	100	2.88	0.37	3.09
LN4045308_A001	WJ4037800	J-HY4035661	24.47	300	132	6.96	0.10	0.04
LN4045308_A002	J-HY4035661	J-HY4035718	72.24	300	132	6.96	0.10	0.04
LN4045308_A003	J-HY4035718	WJ4037839	12.13	300	132	6.96	0.10	0.05
LN4045309	WJ4037839	WJ4017928	26.50	300	132	-0.92	0.01	0.00
LN4045311	WJ4037836	WJ4037838	2.50	100	100	0.00	0.00	0.00
LN4045312	WJ4037839	WJ4037838	4.00	200	115	2.95	0.09	0.08
LN4045313	WJ4037838	WJ4037834	1.00	200	115	2.95	0.09	0.07
LN4045314	WJ4037839	WJ4037829	15.80	200	115	0.00	0.00	0.00
LN4045315	WJ4037829	WJ4037831	1.20	200	115	0.00	0.00	0.00
LN4045316	WJ4037829	WJ4037830	2.70	100	100	0.00	0.00	0.00
LN4045319	WJ4017928	WJ4037849	26.50	300	132	3.23	0.05	0.01
LN4045321	WJ4037846	WJ4037847	2.70	100	100	0.00	0.00	0.00
LN4045322	WJ4037849	WJ4037846	15.80	200	115	4.67	0.15	0.20
LN4045323	WJ4037846	WJ4037848	1.20	200	115	4.67	0.15	0.20
LN4045326	WJ4037849	WJ4037857	19.60	300	132	-1.43	0.02	0.00
LN4045327_A001	WJ4037857	J-HY4035760	2.40	300	132	-1.43	0.02	0.00
LN4045327_A002	J-HY4035760	J-HY4035746	67.41	300	132	-1.43	0.02	0.00
LN4045327_A003	J-HY4035746	WJ4017927	5.00	300	132	-1.43	0.02	0.00
LN4045328	WJ4037857	WJ4037854	4.00	200	115	0.00	0.00	0.00
LN4045329	WJ4037854	WJ4037856	1.00	200	115	0.00	0.00	0.00
LN4045330	WJ4037854	WJ4037855	2.48	100	100	0.00	0.00	0.00
LN4045511_A001	WJ4038214	J-HY4037641	37.60	400	129	-9.80	0.08	0.02
LN4045511_A002	J-HY4037641	WJ4017999	38.72	400	129	-9.80	0.08	0.02
LN4045518	WJ4038205	WJ4038206	2.60	100	100	0.00	0.00	0.00
LN4045521	WJ4038214	WJ4038205	4.00	200	115	0.00	0.00	0.00
LN4045522	WJ4038205	WJ4038207	1.00	200	115	0.00	0.00	0.00
LN4045581	WJ4038346	WJ4038214	18.40	400	129	-9.80	0.08	0.02
LN4045585	WJ4018131	WJ4038353	12.72	150	103	-0.13	0.01	0.00
LN4045586_A001	WJ4038353	J-HY4037018	58.66	150	103	-1.06	0.06	0.06

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4045586_A002	J-HY4037018	J-HY4037006	120.71	150	103	-1.06	0.06	0.06
LN4045586_A003	J-HY4037006	WJ4018072	28.36	150	103	-1.06	0.06	0.06
LN4045589	WJ4038353	WJ4038335	3.82	400	129	0.00	0.00	0.00
LN4045590	WJ4038346	WJ4038353	15.58	400	129	-0.81	0.01	0.00
LN4045607	WJ4038388	WJ4038346	15.18	400	129	-10.61	0.08	0.03
LN4045711	WJ4018000	WJ4038595	56.45	300	132	-0.83	0.01	0.00
LN4045712_A001	WJ4038595	J-HY4038255	12.80	300	132	-0.83	0.01	0.00
LN4045712_A002	J-HY4038255	WJ4018001	45.83	300	132	-0.83	0.01	0.00
LN4045713	WJ4038595	WJ4038594	3.60	200	115	0.00	0.00	0.00
LN4045714	WJ4038594	WJ4038592	1.20	200	115	0.00	0.00	0.00
LN4045715	WJ4038594	WJ4038593	2.80	100	100	0.00	0.00	0.00
LN4045732_A001	WJ4017928	J-HY4035780	36.14	300	132	-11.82	0.17	0.12
LN4045732_A002	J-HY4035780	WJ4038628	59.40	300	132	-11.82	0.17	0.12
LN4045733_A001	WJ4038628	J-HY4038518	38.00	300	132	-11.82	0.17	0.12
LN4045733_A002	J-HY4038518	WJ4018000	29.92	300	132	-11.82	0.17	0.12
LN4045735	WJ4038631	WJ4038633	2.80	100	100	0.00	0.00	0.00
LN4045736	WJ4038628	WJ4038631	3.60	200	115	0.00	0.00	0.00
LN4045737	WJ4038631	WJ4038632	1.20	200	115	0.00	0.00	0.00
LN4045764	WJ4018000	WJ4038686	48.20	300	132	-10.99	0.16	0.10
LN4045765_A001	WJ4038686	J-HY4037552	25.89	300	132	-13.16	0.19	0.15
LN4045765_A002	J-HY4037552	WJ4017999	11.00	300	132	-13.16	0.19	0.15
LN4045766	WJ4038686	WJ4038685	14.20	200	115	0.90	0.03	0.01
LN4045767	WJ4038685	WJ4038682	1.20	200	115	0.90	0.03	0.02
LN4045768	WJ4038685	WJ4038681	2.80	100	100	0.00	0.00	0.00
LN4046908	WJ4004354	WJ4006153	0.29	150	103	-1.39	0.08	0.13
LN4046909	WJ4020263	WJ4019687	91.07	150	114	-0.45	0.03	0.01
LN4046912	WJ4020832	WJ4019320	115.92	150	114	0.21	0.01	0.00
LN4046913	WJ4004368	WJ4006214	62.89	150	103	-0.70	0.04	0.03
LN4046919	WJ4020980	WJ4010368	22.05	150	114	-9.65	0.55	3.16
LN4046921	WJ58412	WJ4006075	41.31	200	115	0.19	0.01	0.00
LN4046925	WJ4017794	WJ4040955	24.36	400	129	48.32	0.38	0.42
LN4046926	WJ4040955	WJ4017282	9.94	400	129	20.56	0.16	0.09
LN4046927	WJ4010233	WJ4040955	19.15	400	129	-0.08	0.00	0.00
LN4046928	WJ4040955	WJ4017795	211.35	400	129	26.52	0.21	0.14
LN4046943	WJ4018464	WJ4040961	39.32	300	120	-8.23	0.12	0.07
LN4046944	WJ4040961	WJ4018471	14.06	300	120	-8.23	0.12	0.07
LN4047389	WJ4018451	WJ19276	151.50	600	130	-29.76	0.11	0.02
LN4047390	WJ19276	WJ4021076	247.86	600	130	-69.83	0.25	0.11
LN4047391	WJ28114	WJ19276	168.36	600	130	-40.07	0.14	0.04
LN4047432	WJ19330	WJ4019777	217.33	300	120	-29.27	0.41	0.77
LN4047434_A001	WJ4018542	J-HY13959	80.75	400	129	-22.60	0.18	0.10
LN4047434_A002	J-HY13959	WJ19330	24.90	400	129	-22.60	0.18	0.10
LN4047435_A001	WJ19330	J-HY13956	77.01	400	129	-6.98	0.06	0.01
LN4047435_A002	J-HY13956	WJ51974	19.16	400	129	-6.98	0.06	0.01
LN4047439	WJ4021076	WJ19333	187.45	600	130	-105.18	0.37	0.24
LN4047441	WJ19333	WJ4019792	12.02	400	129	58.16	0.46	0.59
LN4047467	WJ19377	WJ4018575	18.88	400	129	12.28	0.10	0.03
LN4047468	WJ4018586	WJ19378	300.21	600	130	49.46	0.17	0.06
LN4047469	WJ19378	WJ4018532	97.61	600	130	38.50	0.14	0.04
LN4047470	WJ19377	WJ19378	10.16	400	129	-5.97	0.05	0.01
LN4048224	WJ4022803	WJ4013548	9.12	400	129	-49.28	0.39	0.43
LN4048225_A001	WJ4013548	J-HY14497	52.26	400	129	-46.03	0.37	0.38
LN4048225_A002	J-HY14497	WJ20153	42.37	400	129	-46.03	0.37	0.38
LN4048226	WJ20153	WJ20154	4.51	400	129	-51.83	0.41	0.47
LN4048227	WJ20154	WJ20132	84.74	400	129	-49.29	0.39	0.43
LN4048228	WJ20132	WJ20173	105.36	300	132	-12.92	0.18	0.14
LN4048229_A001	WJ20173	J-HY14477	50.93	300	132	-17.51	0.25	0.25
LN4048229_A002	J-HY14477	WJ27974	96.66	300	132	-17.51	0.25	0.25
LN4048230_A001	WJ4013756	J-HY14498	31.13	400	129	36.41	0.29	0.25
LN4048230_A002	J-HY14498	J-HY14499	72.65	400	129	36.41	0.29	0.25
LN4048230_A003	J-HY14499	WJ20132	12.09	400	129	36.41	0.29	0.25
LN4049025	WJ4017292	WJ20935	100.89	150	103	0.22	0.01	0.00
LN4049045	WJ4010286	WJ4020856	244.46	150	103	-0.33	0.02	0.01
LN4049165_A001	WJ58460	J-HY4007618	104.41	150	103	-2.57	0.15	0.33
LN4049165_A002	J-HY4007618	WJ21055	89.07	150	103	-2.57	0.15	0.33
LN4049166	WJ21055	WJ4019795	187.19	150	103	-2.66	0.15	0.35
LN4049167_A001	WJ21075	J-HY4007868	96.44	150	103	0.73	0.04	0.03
LN4049167_A002	J-HY4007868	WJ58458	87.49	150	103	0.73	0.04	0.03
LN4049168	WJ4019809	WJ21075	185.02	150	103	3.98	0.23	0.74
LN4049227	WJ4019572	WJ49325	191.16	150	103	-4.49	0.25	0.92
LN4049229	WJ4017590	WJ49327	80.54	150	103	-0.40	0.02	0.01
LN4049230	WJ49326	WJ21799	95.30	150	103	2.31	0.13	0.27
LN4049325	WJ21239	WJ4017733	11.22	300	132	2.80	0.04	0.01
LN4049326_A001	WJ4017083	J-HY14643	8.65	300	132	9.06	0.13	0.07
LN4049326_A002	J-HY14643	J-HY14641	82.80	300	132	9.06	0.13	0.07
LN4049326_A003	J-HY14641	WJ21278	6.59	300	132	9.06	0.13	0.07

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4049345	WJ21258	WJ21239	40.35	300	132	7.75	0.11	0.05
LN4049347_A001	WJ21278	J-HY14642	63.02	300	132	8.06	0.11	0.06
LN4049347_A002	J-HY14642	WJ21258	24.09	300	132	8.06	0.11	0.06
LN4049365	WJ21298	WJ4017178	106.25	150	103	-4.47	0.25	0.91
LN4049585	WJ21558	WJ4013268	111.11	150	103	-0.99	0.06	0.06
LN4049645	WJ4014260	WJ21578	128.07	600	130	205.95	0.73	0.84
LN4049666	WJ28175	WJ4014248	129.78	300	132	43.89	0.62	1.36
LN4049685	WJ21578	WJ21598	61.88	600	130	205.94	0.73	0.84
LN4049730	WJ4004538	WJ21660	219.07	150	103	-0.55	0.03	0.02
LN4049731	WJ4017766	WJ21660	94.83	300	120	9.98	0.14	0.10
LN4049732	WJ21660	WJ4005083	95.53	300	120	10.59	0.15	0.12
LN4049847	WJ47749	WJ21799	185.94	150	114	-5.12	0.29	0.98
LN4049848	WJ21799	WJ53664	193.43	150	114	-3.30	0.19	0.43
LN4050091	WJ52222	WJ58406	127.87	150	103	-1.85	0.10	0.18
LN4050092	WJ58404	WJ4005968	71.72	150	103	0.71	0.04	0.03
LN4050315_A001	WJ51978	J-HY4007487	31.80	300	132	22.47	0.32	0.39
LN4050315_A002	J-HY4007487	WJ4017778	38.10	300	132	22.47	0.32	0.39
LN4050316	WJ22344	WJ22343	13.63	150	114	2.89	0.16	0.34
LN4050317	WJ4017793	WJ22345	203.10	150	114	3.94	0.22	0.60
LN4050318	WJ22343	WJ22361	139.15	150	114	3.36	0.19	0.45
LN4050319	WJ22345	WJ22344	191.74	150	114	3.47	0.20	0.48
LN4050491	WJ4019829	WJ4017782	221.39	150	114	1.07	0.06	0.05
LN4050492	WJ4017782	WJ4019768	218.90	150	114	0.97	0.05	0.04
LN4050493	WJ4019768	WJ4019841	223.37	150	114	1.13	0.06	0.06
LN4050494	WJ4019841	WJ4019865	218.26	150	114	1.10	0.06	0.06
LN4050531	WJ22601	WJ4019572	17.66	150	103	2.99	0.17	0.43
LN4050532	WJ4009358	WJ22601	236.02	150	114	3.02	0.17	0.37
LN4050551	WJ4019630	WJ22621	2.21	400	129	16.01	0.13	0.06
LN4050571_A001	WJ58543	J-HY4018339	45.44	300	132	8.70	0.12	0.07
LN4050571_A002	J-HY4018339	J-HY4018331	129.07	300	132	8.70	0.12	0.07
LN4050571_A003	J-HY4018331	WJ53115	61.23	300	132	8.70	0.12	0.07
LN4050612	WJ4019798	WJ22724	2.10	150	103	1.89	0.11	0.18
LN4050631	WJ52751	WJ22721	198.01	300	132	-0.06	0.00	0.00
LN4050632	WJ22721	WJ22724	358.66	150	114	-0.65	0.04	0.02
LN4050691	WJ22821	WJ4018021	608.22	300	132	27.55	0.39	0.57
LN4050731	WJ22821	WJ22861	380.80	300	132	-22.07	0.31	0.38
LN4050771	WJ22861	WJ4017897	387.25	300	132	-29.21	0.41	0.64
LN4051119	WJ59422	WJ23505	100.78	300	132	48.81	0.69	1.65
LN4051120	WJ23505	WJ23506	168.91	300	132	44.69	0.63	1.41
LN4051121	WJ23506	WJ23507	67.20	300	132	43.47	0.61	1.34
LN4051122	WJ23507	WJ23508	98.43	300	132	46.25	0.65	1.50
LN4051123	WJ23508	WJ23509	164.57	300	132	37.43	0.53	1.01
LN4051124	WJ23509	WJ23510	90.58	300	132	37.49	0.53	1.02
LN4051125	WJ23510	WJ23511	142.23	300	132	30.88	0.44	0.71
LN4051126	WJ23511	WJ4008023	89.89	300	132	30.51	0.43	0.69
LN4051127	WJ23511	WJ23544	82.58	150	114	0.12	0.01	0.00
LN48640	WJ48206	WJ48215	76.97	200	115	4.39	0.14	0.18
LN48644	WJ48208	WJ48206	22.56	300	132	-7.64	0.11	0.05
LN48645	WJ48205	WJ48206	11.95	300	132	12.03	0.17	0.12
LN48649	WJ48210	WJ48213	93.63	200	115	2.45	0.08	0.06
LN48650	WJ48210	WJ48211	16.85	150	114	0.75	0.04	0.03
LN48651	WJ48213	WJ48272	305.83	200	115	1.06	0.03	0.01
LN48652	WJ48213	WJ48243	15.88	150	114	1.01	0.06	0.05
LN48653	WJ48215	WJ48210	21.47	200	115	3.22	0.10	0.10
LN48654	WJ48216	WJ48215	21.09	150	114	-1.05	0.06	0.05
LN48676	WJ48244	WJ59147	7.54	150	114	0.62	0.04	0.02
LN48703	WJ48272	WJ48273	10.83	150	114	0.00	0.00	0.00
LN48704	WJ48272	WJ48244	173.64	200	115	0.65	0.02	0.01
LN48878	WJ48471	WJ4008389	3.54	300	120	-2.97	0.04	0.01
LN49315	WJ48953	WJ48955	141.57	150	114	-0.91	0.05	0.04
LN49317	WJ48955	WJ48956	17.46	150	114	0.50	0.03	0.01
LN49318	WJ48955	WJ48957	109.65	150	114	-1.56	0.09	0.11
LN49319	WJ48958	WJ48957	13.15	150	114	1.74	0.10	0.13
LN49321	WJ48957	WJ48960	122.01	150	114	-0.09	0.00	0.00
LN49323	WJ4005731	WJ48953	3.31	150	103	0.13	0.01	0.00
LN49324	WJ48960	WJ48963	178.10	150	114	1.26	0.07	0.07
LN49325	WJ48961	WJ48960	6.52	150	114	1.62	0.09	0.12
LN49326	WJ48963	WJ4006212	2.73	150	103	1.43	0.08	0.11
LN49327	WJ4017772	WJ48968	812.15	200	115	7.79	0.25	0.51
LN49328	WJ4009045	WJ48968	4.10	150	103	-7.88	0.45	2.62
LN49329	WJ48969	WJ48971	17.93	150	114	1.14	0.06	0.06
LN49331	WJ48971	WJ48973	17.35	150	114	-1.91	0.11	0.16
LN49333	WJ48972	WJ48971	4.81	150	114	-1.61	0.09	0.12
LN49335	WJ49001	WJ48974	87.12	200	115	1.44	0.05	0.02
LN49336	WJ48979	WJ48974	9.06	150	114	-1.57	0.09	0.11
LN49337	WJ48974	WJ48980	17.84	150	114	-2.09	0.12	0.18

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN49338	WJ48974	WJ48985	95.31	200	115	1.90	0.06	0.04
LN49340	WJ48980	WJ4017666	277.95	150	114	-2.46	0.14	0.25
LN49341	WJ48984	WJ48985	6.51	150	114	-1.82	0.10	0.15
LN49342	WJ48985	WJ48983	13.25	150	114	-1.76	0.10	0.13
LN49343	WJ48983	WJ4004621	295.90	150	103	-2.12	0.12	0.23
LN49345	WJ48985	WJ48986	94.47	200	115	1.79	0.06	0.03
LN49346	WJ48988	WJ48986	7.25	150	114	-2.09	0.12	0.18
LN49347	WJ48986	WJ48987	18.63	150	114	-1.85	0.10	0.15
LN49348	WJ48987	WJ4004501	283.73	150	114	-2.23	0.13	0.21
LN49349	WJ48986	WJ48991	95.02	200	115	1.51	0.05	0.02
LN49351	WJ48994	WJ48991	8.82	150	114	-1.86	0.11	0.15
LN49352	WJ48991	WJ48995	16.68	150	114	-1.98	0.11	0.17
LN49353	WJ48995	WJ4004488	270.83	150	114	-2.31	0.13	0.22
LN49354	WJ48991	WJ49002	94.90	200	115	1.60	0.05	0.03
LN49356	WJ49002	WJ48999	14.64	150	114	-2.23	0.13	0.21
LN49357	WJ49000	WJ49002	8.40	150	114	-2.52	0.14	0.26
LN49358	WJ48999	WJ4020229	234.95	150	114	-2.59	0.15	0.28
LN49360	WJ49002	WJ49003	85.03	200	115	1.22	0.04	0.02
LN49361	WJ4003834	WJ49003	2.37	300	120	-18.03	0.26	0.31
LN49362	WJ48971	WJ49001	8.78	150	114	1.44	0.08	0.09
LN49479	WJ49141	WJ4002333	8.58	150	103	0.35	0.02	0.01
LN49480	WJ49144	WJ49142	17.85	150	114	2.59	0.15	0.28
LN49481	WJ49141	WJ49144	211.88	150	114	-3.31	0.19	0.43
LN49482	WJ49143	WJ49144	7.98	150	114	3.62	0.20	0.51
LN49483	WJ49144	WJ49145	198.18	150	114	-2.52	0.14	0.26
LN49484	WJ49145	WJ49146	9.56	150	114	1.91	0.11	0.16
LN49485	WJ49145	WJ21116	198.82	150	114	-4.84	0.27	0.88
LN49570	WJ49251	WJ49253	436.57	200	115	7.48	0.24	0.48
LN49571	WJ49237	WJ49239	13.71	200	115	0.17	0.01	0.00
LN49572	WJ49243	WJ49254	110.76	200	115	4.91	0.16	0.22
LN49573	WJ49244	WJ49243	16.15	150	114	-0.09	0.01	0.00
LN49574	WJ49247	WJ49253	16.34	300	132	15.92	0.23	0.21
LN49575	WJ49251	WJ49252	18.49	200	115	-6.29	0.20	0.35
LN49576	WJ49248	WJ49251	8.21	200	115	-2.86	0.09	0.08
LN49577	WJ4008156	WJ49251	216.50	200	115	4.60	0.15	0.19
LN49578	WJ49253	WJ49258	10.37	300	132	17.79	0.25	0.25
LN49579	WJ49253	WJ49243	97.85	200	115	5.18	0.16	0.24
LN49580	WJ49254	WJ49256	37.80	150	114	0.12	0.01	0.00
LN49581	WJ49254	WJ49237	83.82	200	115	4.66	0.15	0.20
LN49587	WJ49237	WJ4009277	110.00	200	115	4.35	0.14	0.17
LN49663	WJ49341	WJ49342	215.49	200	115	-3.03	0.10	0.09
LN49664	WJ49332	WJ49341	443.89	200	115	-7.41	0.24	0.47
LN49665	WJ49324	WJ49331	202.32	200	115	-7.54	0.24	0.48
LN49666	WJ49324	WJ49326	10.69	150	114	2.32	0.13	0.23
LN49667	WJ49327	WJ49324	16.65	150	114	-0.43	0.02	0.01
LN49668	WJ49333	WJ49332	12.48	300	132	-16.67	0.24	0.23
LN49669	WJ49334	WJ49332	16.05	300	132	17.70	0.25	0.25
LN49670	WJ49339	WJ49341	5.70	200	115	2.22	0.07	0.05
LN49671	WJ49341	WJ49340	4.79	200	115	-2.74	0.09	0.07
LN49672	WJ49331	WJ49332	197.35	200	115	-7.89	0.25	0.53
LN49673	WJ49331	WJ49330	4.07	150	114	0.00	0.00	0.00
LN49674	WJ49325	WJ49324	5.97	200	115	-4.63	0.15	0.20
LN50451	WJ50379	WJ4019846	10.96	150	114	6.10	0.35	1.35
LN51101	WJ27375	WJ4010425	4.55	300	120	0.94	0.01	0.00
LN52202	WJ51955	WJ4018634	216.07	150	114	0.24	0.01	0.00
LN52203	WJ51950	WJ51955	20.08	150	114	3.81	0.22	0.57
LN52204	WJ51955	WJ51948	9.82	150	114	3.56	0.20	0.50
LN52205	WJ51952	WJ51955	6.19	150	114	0.18	0.01	0.00
LN52224_A001	WJ51980	J-HY4015150	12.93	400	129	-30.58	0.24	0.18
LN52224_A002	J-HY4015150	J-HY9990172	87.47	400	129	-30.58	0.24	0.18
LN52224_A003	J-HY9990172	WJ24304	25.73	400	129	-30.58	0.24	0.18
LN52226_A001	WJ51978	J-HY30049	52.46	400	129	-29.93	0.24	0.17
LN52226_A002	J-HY30049	WJ51979	48.26	400	129	-29.93	0.24	0.17
LN52227_A001	WJ51977	J-HY9990176	35.94	400	129	-10.56	0.08	0.02
LN52227_A002	J-HY9990176	J-HY9990175	78.44	400	129	-10.56	0.08	0.03
LN52227_A003	J-HY9990175	J-HY9990174	123.63	400	129	-10.56	0.08	0.02
LN52227_A004	J-HY9990174	WJ51978	26.30	400	129	-10.56	0.08	0.03
LN52228_A001	WJ51976	J-HY4007497	4.06	400	129	-6.73	0.05	0.01
LN52228_A002	J-HY4007497	WJ51977	27.80	400	129	-6.73	0.05	0.01
LN52229	WJ51975	WJ51976	41.59	400	129	-9.44	0.08	0.02
LN52230	WJ51987	WJ51980	8.84	150	114	-2.53	0.14	0.26
LN52231	WJ51980	WJ51990	19.83	150	114	-1.95	0.11	0.16
LN52235	WJ4013455	WJ51987	114.45	150	103	-2.48	0.14	0.31
LN52236_A001	WJ51979	J-HY9990161	11.79	400	129	-29.95	0.24	0.17
LN52236_A002	J-HY9990161	J-HY9990160	65.23	400	129	-29.95	0.24	0.17
LN52236_A003	J-HY9990160	WJ51980	24.31	400	129	-29.95	0.24	0.17

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN52239	WJ51996	WJ51979	7.99	150	114	-2.37	0.13	0.24
LN52240	WJ51979	WJ51998	18.88	150	114	-2.39	0.14	0.24
LN52248_A001	WJ4013433	J-HY4015319	24.25	150	103	-2.33	0.13	0.28
LN52248_A002	J-HY4015319	WJ51996	41.40	150	103	-2.33	0.13	0.28
LN52254	WJ22361	WJ51978	34.01	300	132	3.21	0.05	0.01
LN52262	WJ51974	WJ51975	21.67	400	129	-6.98	0.06	0.01
LN52266	WJ51975	WJ52037	13.52	200	115	2.46	0.08	0.06
LN52268	WJ52044	WJ51976	25.05	150	114	2.71	0.15	0.30
LN52281	WJ52054	WJ51977	15.95	300	132	-3.80	0.05	0.01
LN52282_A001	WJ52055	J-HY30564	32.53	150	114	-3.80	0.22	0.56
LN52282_A002	J-HY30564	WJ52054	9.10	150	114	-3.80	0.22	0.56
LN52360	WJ52156	WJ4005420	16.89	150	114	2.71	0.15	0.30
LN52363	WJ52156	WJ52162	395.56	200	115	0.28	0.01	0.00
LN52365	WJ52162	WJ52165	10.89	200	115	-0.35	0.01	0.00
LN52368	WJ52184	WJ52220	211.10	200	115	-0.81	0.03	0.01
LN52374	WJ52182	WJ52184	23.28	300	132	13.03	0.18	0.14
LN52423	WJ52220	WJ52221	12.53	150	114	0.31	0.02	0.01
LN52424	WJ52220	WJ52222	27.30	150	114	-1.77	0.10	0.14
LN52425	WJ52220	WJ52171	20.29	200	115	0.50	0.02	0.00
LN52442	WJ58403	WJ52182	121.98	300	120	13.09	0.19	0.17
LN52444	WJ52165	WJ52242	381.27	200	115	-2.54	0.08	0.06
LN52448_A001	WJ58572	J-HY4018111	5.11	400	129	3.73	0.03	0.00
LN52448_A002	J-HY4018111	WJ52073	1.57	400	129	3.73	0.03	0.00
LN52449	WJ52073	WJ52087	6.97	400	129	-18.35	0.15	0.07
LN52450	WJ52248	WJ52091	10.79	300	132	23.62	0.33	0.43
LN52451	WJ52073	WJ52247	2.14	300	132	22.09	0.31	0.38
LN52452	WJ52249	WJ52093	3.13	400	129	-23.84	0.19	0.11
LN52458_A001	WJ52247	J-HY4018126	97.57	300	132	21.99	0.31	0.38
LN52458_A002	J-HY4018126	J-HY4018128	101.24	300	132	21.99	0.31	0.38
LN52458_A003	J-HY4018128	WJ52248	49.09	300	132	21.99	0.31	0.38
LN52459	WJ52249	WJ52251	199.28	300	132	22.16	0.31	0.38
LN52460	WJ52248	WJ52249	4.43	300	132	-1.63	0.02	0.00
LN52481	WJ52167	WJ52162	9.02	150	114	-0.22	0.01	0.00
LN52482	WJ52165	WJ52163	5.86	150	114	1.89	0.11	0.15
LN52483	WJ52184	WJ52183	13.13	300	132	10.72	0.15	0.10
LN52505	WJ28076	WJ52307	207.12	300	132	6.48	0.09	0.04
LN52514	WJ52307	WJ52303	9.98	150	114	0.86	0.05	0.04
LN52532	WJ52325	WJ52327	22.27	150	114	-0.05	0.00	0.00
LN52534	WJ52325	WJ52333	33.01	300	132	4.98	0.07	0.02
LN52538	WJ52331	WJ52333	10.24	150	114	-0.62	0.04	0.02
LN52540	WJ52333	WJ52336	46.54	300	132	4.35	0.06	0.02
LN52542	WJ52336	WJ52339	58.49	300	132	4.11	0.06	0.02
LN52543	WJ52336	WJ52334	19.37	100	100	0.19	0.02	0.02
LN52546	WJ52339	WJ52340	194.28	300	132	2.52	0.04	0.01
LN52547	WJ52338	WJ52339	10.15	150	114	-0.15	0.01	0.00
LN52548	WJ52340	WJ52344	38.76	300	132	-3.45	0.05	0.01
LN52549	WJ4017187	WJ52341	14.30	300	120	3.72	0.05	0.02
LN52550	WJ52344	WJ52341	13.04	300	132	-3.72	0.05	0.01
LN52551	WJ52344	WJ52345	36.25	150	114	0.00	0.00	0.00
LN52552	WJ52307	WJ48055	99.44	300	132	5.25	0.07	0.03
LN52930	WJ52747	WJ52750	73.53	300	132	8.99	0.13	0.07
LN52933	WJ52748	WJ52750	16.48	150	114	-0.13	0.01	0.00
LN52934	WJ52750	WJ52753	98.08	300	132	8.85	0.13	0.07
LN52936	WJ52751	WJ52753	11.20	300	132	-1.42	0.02	0.00
LN52937	WJ52753	WJ52754	45.93	300	132	7.42	0.10	0.05
LN52938	WJ52754	WJ4017768	146.78	300	132	7.17	0.10	0.05
LN52947	WJ4017768	WJ52757	13.70	300	132	6.32	0.09	0.04
LN52949	WJ4017768	WJ52768	12.90	150	114	0.75	0.04	0.03
LN53045	WJ4006591	WJ52868	579.28	150	114	3.93	0.22	0.60
LN53046	WJ52882	WJ52868	130.40	150	114	-3.25	0.18	0.42
LN53047	WJ52868	WJ52876	62.09	150	114	-3.78	0.21	0.56
LN53048	WJ52875	WJ4018021	168.86	300	132	-0.85	0.01	0.00
LN53049	WJ52874	WJ52882	89.69	150	114	-3.73	0.21	0.54
LN53050	WJ52876	WJ52875	9.36	300	132	-3.80	0.05	0.01
LN53052	WJ52875	WJ52877	21.73	300	132	-9.02	0.13	0.07
LN53054	WJ52881	WJ52882	22.96	150	114	1.92	0.11	0.16
LN53166	WJ52747	WJ53108	15.26	150	114	0.28	0.02	0.00
LN53167	WJ52874	WJ4019456	8.20	150	103	3.72	0.21	0.65
LN53196	WJ53041	WJ53042	15.39	150	114	-0.98	0.06	0.04
LN53197_A001	WJ53046	J-HY4033222	11.41	300	132	6.41	0.09	0.04
LN53197_A002	J-HY4033222	WJ53042	18.73	300	132	6.41	0.09	0.04
LN53198	WJ53045	WJ53046	3.99	150	114	6.42	0.36	1.48
LN53219	WJ53078	WJ53045	10.70	150	114	1.29	0.07	0.07
LN53221	WJ53045	WJ53069	10.21	150	114	-5.13	0.29	0.98
LN53222_A001	WJ53042	J-HY30627	83.79	300	132	5.36	0.08	0.03
LN53222_A002	J-HY30627	J-HY30626	111.53	300	132	5.36	0.08	0.03

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN53222_A003	J-HY30626	WJ53038	5.09	300	132	5.36	0.08	0.03
LN53244	WJ52747	WJ25695	80.85	300	132	-9.29	0.13	0.08
LN53249_A001	WJ53112	WV4011591	9.33	900	130	-364.22	0.57	0.33
LN53249_A002	WV4011591	WV4011587	97.88	900	130	-364.22	0.57	0.33
LN53249_A003	WV4011587	WV4011579	101.87	900	130	-364.22	0.57	0.33
LN53249_A004	WV4011579	WV4011570	9.09	900	130	-364.22	0.57	0.33
LN53249_A005	WV4011570	WV4011554	4.25	900	130	-364.22	0.57	0.33
LN53249_A006	WV4011554	WV4011544	4.75	900	130	-364.22	0.57	0.34
LN53249_A007	WV4011544	WJ4012402	3.54	900	130	-364.22	0.57	0.33
LN53250	WJ53112	WJ53113	1.95	900	130	115.34	0.18	0.04
LN53251_A001	WJ53113	WV50450	13.85	600	130	115.34	0.41	0.29
LN53251_A002	WV50450	WJ53121	6.27	600	130	115.34	0.41	0.28
LN53252	WJ53115	WJ22621	41.17	300	132	0.53	0.01	0.00
LN53253	WJ53116	WJ53117	2.78	150	103	-8.53	0.48	3.02
LN53254_A001	WJ53117	J-HY4018442	90.03	150	103	-0.43	0.02	0.01
LN53254_A002	J-HY4018442	WJ4019628	23.51	150	103	-0.43	0.02	0.01
LN53255_A001	WJ53115	J-HY30660	22.13	300	132	8.15	0.12	0.06
LN53255_A002	J-HY30660	J-HY33192	92.38	300	132	8.15	0.12	0.06
LN53255_A003	J-HY33192	WJ53117	14.21	300	132	8.15	0.12	0.06
LN53256	WJ4018588	WJ53118	2.38	150	114	-9.77	0.55	3.23
LN53257	WJ53116	WJ53118	143.23	300	132	6.23	0.09	0.04
LN53258	WJ53121	WJ53114	376.56	600	130	60.89	0.22	0.09
LN53260_A001	WJ52093	J-HY4022846	28.97	400	129	-23.84	0.19	0.11
LN53260_A002	J-HY4022846	WJ53122	0.89	400	129	-23.84	0.19	0.10
LN53261	WJ53122	WJ53121	18.18	400	129	-51.59	0.41	0.47
LN53264	WJ4016204	WJ4016211	439.31	150	114	1.67	0.09	0.12
LN53414	WJ52159	WJ52156	2.75	150	114	3.35	0.19	0.45
LN53417	WJ52242	WJ52184	9.98	200	115	-2.92	0.09	0.08
LN53701	WJ53453	WJ53452	6.87	200	115	-8.36	0.27	0.59
LN53702	WJ53452	WJ53450	9.45	150	114	4.46	0.25	0.76
LN53703	WJ53448	WJ53453	4.83	150	114	-8.36	0.47	2.42
LN53704	WJ53452	WJ53465	216.69	200	115	-13.19	0.42	1.37
LN53707	WJ49330	WJ53457	15.03	150	114	0.00	0.00	0.00
LN53710	WJ53462	WJ52340	36.42	300	132	-5.97	0.08	0.03
LN53713	WJ53465	WJ53447	8.81	150	114	-1.39	0.08	0.09
LN53714	WJ61826	WJ53466	183.32	200	115	-12.06	0.38	1.16
LN53715	WJ53466	WJ53444	9.37	300	132	-17.66	0.25	0.25
LN53716	WJ53466	WJ53442	19.40	300	132	5.54	0.08	0.03
LN53750	WJ53494	WJ53498	8.51	300	132	-34.23	0.48	0.86
LN53751	WJ53498	WJ53495	20.13	300	132	-35.45	0.50	0.92
LN53758	WJ53498	WJ53517	153.35	150	114	1.13	0.06	0.06
LN53763	WJ53514	WJ53513	19.63	150	114	-0.23	0.01	0.00
LN53764	WJ53514	WJ53512	18.86	150	114	0.82	0.05	0.03
LN53769	WJ53506	WJ53517	4.27	150	114	-4.93	0.28	0.91
LN53770	WJ53517	WJ53518	18.99	150	114	-5.14	0.29	0.98
LN53776	WJ53517	WJ53525	202.17	150	114	1.11	0.06	0.06
LN53778	WJ53523	WJ53525	5.08	150	114	-4.84	0.27	0.88
LN53779	WJ53524	WJ53525	20.86	150	114	5.08	0.29	0.96
LN53804	WJ53553	WJ4019594	19.17	150	114	1.12	0.06	0.06
LN53805	WJ53525	WJ53553	132.69	150	114	1.18	0.07	0.06
LN53806	WJ4019594	WJ53555	7.94	150	114	1.97	0.11	0.16
LN53807	WJ53555	WJ53557	92.61	150	114	1.95	0.11	0.16
LN53808	WJ53557	WJ53556	5.37	150	114	4.75	0.27	0.85
LN53809	WJ53558	WJ53557	2.04	150	114	6.17	0.35	1.38
LN53810	WJ53557	WJ53559	93.87	150	114	3.26	0.18	0.42
LN53815	WJ4016445	WJ53578	158.94	150	114	5.55	0.31	1.13
LN53816	WJ53578	WJ53577	101.41	150	114	6.22	0.35	1.40
LN53818	WJ53577	WJ53576	114.80	150	114	5.81	0.33	1.23
LN53820	WJ53576	WJ53559	210.25	150	114	3.71	0.21	0.54
LN53822	WJ53585	WJ53586	221.76	150	114	-0.49	0.03	0.01
LN53824	WJ53562	WJ4016445	15.11	300	132	1.28	0.02	0.00
LN53825	WJ4016445	WJ53563	8.81	300	132	-4.35	0.06	0.02
LN53826	WJ53564	WJ53578	10.32	150	114	0.82	0.05	0.03
LN53827	WJ53566	WJ53577	5.95	150	114	-0.22	0.01	0.00
LN53828	WJ53584	WJ53570	20.22	150	114	-0.76	0.04	0.03
LN53829	WJ53571	WJ53585	16.57	300	132	-16.70	0.24	0.23
LN53830	WJ53585	WJ53572	5.66	300	132	-13.92	0.20	0.16
LN53832	WJ53567	WJ53576	17.26	150	114	-1.97	0.11	0.17
LN53846	WJ53584	WJ53585	204.14	150	114	2.59	0.15	0.28
LN53847	WJ53586	WJ53574	117.97	150	114	1.55	0.09	0.11
LN53852	WJ53610	WJ53584	249.55	150	114	2.58	0.15	0.27
LN53853	WJ53559	WJ53610	166.27	150	114	6.55	0.37	1.54
LN53914	WJ53664	WJ53665	216.30	150	114	-3.77	0.21	0.55
LN53915	WJ53665	WJ53661	20.13	150	114	-3.16	0.18	0.40
LN53919	WJ53665	WJ53671	18.79	300	132	-16.62	0.24	0.23
LN53920	WJ53665	WJ53672	12.04	300	132	15.84	0.22	0.21

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN53955	WJ53514	WJ53717	19.54	150	114	-3.75	0.21	0.55
LN53963	WJ53727	WJ53724	16.83	150	114	1.92	0.11	0.16
LN53964	WJ53722	WJ53727	18.97	150	114	0.68	0.04	0.02
LN53968	WJ53727	WJ53514	203.31	150	114	-3.08	0.17	0.38
LN53969	WJ4005699	WJ53727	188.91	150	114	-1.51	0.09	0.10
LN54046	WJ53883	WJ53848	540.67	150	114	0.84	0.05	0.03
LN54051	WJ53574	WJ4016558	133.41	150	114	4.98	0.28	0.93
LN54052	WJ53848	WJ53574	119.95	150	114	3.60	0.20	0.51
LN54063	WJ53586	WJ53844	112.49	150	114	-2.14	0.12	0.19
LN54064	WJ53844	WJ53883	438.16	150	114	-1.52	0.09	0.10
LN54065	WJ53610	WJ53883	128.08	150	114	3.30	0.19	0.43
LN54125	WJ53988	WJ53994	219.46	150	114	-1.23	0.07	0.07
LN54126	WJ4008733	WJ53988	128.12	150	114	2.70	0.15	0.30
LN54127	WJ53988	WJ53989	8.36	150	114	3.70	0.21	0.53
LN54129	WJ53994	WJ53992	7.53	150	114	4.87	0.28	0.89
LN54130	WJ53994	WJ53993	17.38	150	114	-6.27	0.35	1.42
LN54150	WJ4008721	WJ54013	136.28	150	114	-1.80	0.10	0.14
LN54153	WJ54018	WJ54019	18.22	150	114	4.81	0.27	0.87
LN54154	WJ54019	WJ54014	7.12	150	114	6.15	0.35	1.37
LN54155	WJ54013	WJ54019	220.60	150	114	1.55	0.09	0.11
LN54413_A001	WJ54278	J-HY4035127	47.82	300	132	6.87	0.10	0.04
LN54413_A002	J-HY4035127	J-HY4035144	45.32	300	132	6.87	0.10	0.04
LN54413_A003	J-HY4035144	J-HY4035139	57.97	300	132	6.87	0.10	0.04
LN54413_A004	J-HY4035139	WJ4017927	76.12	300	132	6.87	0.10	0.04
LN54421	WJ54288	WJ54289	9.88	150	114	1.91	0.11	0.16
LN54422_A001	WJ54288	WV60507	1.06	150	114	0.00	0.00	0.00
LN54422_A002	WV60507	J-HY4035108	175.49	150	114	0.00	0.00	0.00
LN54422_A003	J-HY4035108	WJ54277	69.57	150	114	0.00	0.00	0.00
LN54423	WJ54277	WJ4038388	45.34	300	132	-10.57	0.15	0.10
LN54424_A001	WJ54278	J-HY16723	69.63	300	132	-9.55	0.14	0.08
LN54424_A002	J-HY16723	J-HY16722	80.88	300	132	-9.55	0.14	0.08
LN54424_A003	J-HY16722	WJ54277	14.06	300	132	-9.55	0.14	0.08
LN54425_A001	WJ54290	J-HY9990263	63.96	300	132	1.75	0.02	0.00
LN54425_A002	J-HY9990263	WJ54278	24.58	300	132	1.75	0.02	0.00
LN54426	WJ54290	WJ54291	3.77	300	132	0.16	0.00	0.00
LN54429	WJ54289	WJ54290	3.18	300	132	1.91	0.03	0.01
LN54550	WJ4015578	WJ54414	258.54	150	114	0.52	0.03	0.01
LN54551	WJ54422	WJ54425	215.08	150	114	0.17	0.01	0.00
LN54554	WJ54422	WJ54421	24.37	150	114	-1.13	0.06	0.06
LN54557	WJ54418	WJ54422	5.44	150	114	-0.98	0.06	0.04
LN54558	WJ54414	WJ54422	7.34	150	114	0.20	0.01	0.00
LN54561	WJ54425	WJ54423	19.10	150	114	-1.15	0.07	0.06
LN54562	WJ54424	WJ54425	6.53	150	114	-1.07	0.06	0.05
LN54570	WJ54425	WJ54489	222.14	150	114	-0.15	0.01	0.00
LN54571	WJ54489	WJ54480	216.27	150	114	-1.42	0.08	0.09
LN54572	WJ54480	WJ54473	217.99	150	114	-1.78	0.10	0.14
LN54580	WJ54442	WJ54473	17.34	150	114	1.17	0.07	0.06
LN54581	WJ54473	WJ54441	4.33	150	114	0.67	0.04	0.02
LN54582	WJ54473	WJ54468	224.84	150	114	-1.64	0.09	0.12
LN54592	WJ54468	WJ54459	222.02	150	114	-2.14	0.12	0.19
LN54593	WJ54459	WJ54444	221.20	150	114	-1.49	0.08	0.10
LN54594	WJ54444	WJ4018533	14.07	300	132	-1.58	0.02	0.00
LN54595	WJ54460	WJ54459	18.58	150	114	-1.46	0.08	0.10
LN54596	WJ54459	WJ54461	7.28	150	114	-2.28	0.13	0.22
LN54597	WJ54470	WJ54468	22.32	150	114	0.52	0.03	0.01
LN54598	WJ54468	WJ54469	4.01	150	114	0.79	0.04	0.03
LN54603	WJ54489	WJ54491	6.37	150	114	0.74	0.04	0.03
LN54604	WJ54490	WJ54489	18.12	150	114	-0.05	0.00	0.00
LN54715_A001	WJ58521	J-HY16138	31.08	300	132	-0.19	0.00	0.00
LN54715_A002	J-HY16138	WJ16170	72.45	300	132	-0.19	0.00	0.00
LN55117	WJ4008023	WJ55016	97.80	300	132	37.73	0.53	1.03
LN55118	WJ55016	WJ55022	81.19	300	132	37.35	0.53	1.01
LN55119	WJ55017	WJ55018	9.26	300	132	16.05	0.23	0.21
LN55120	WJ55019	WJ55017	9.50	300	132	-21.05	0.30	0.35
LN55121	WJ55020	WJ55016	6.03	150	114	-0.26	0.01	0.00
LN55122	WJ55026	WJ4008023	12.27	300	132	7.34	0.10	0.05
LN55242	WJ4016349	WJ55118	284.55	150	114	-2.76	0.16	0.31
LN55243	WJ55118	WJ55120	10.83	150	114	-5.96	0.34	1.29
LN55244	WJ55122	WJ55118	18.21	150	114	-3.05	0.17	0.37
LN55268	WJ4015346	WJ55164	154.20	150	114	0.49	0.03	0.01
LN55269	WJ55164	WJ55165	85.38	150	114	-0.69	0.04	0.02
LN55270	WJ55165	WJ55166	64.74	150	114	-1.04	0.06	0.05
LN55271	WJ55166	WJ55162	18.31	150	114	-3.96	0.22	0.61
LN55272	WJ55166	WJ55167	41.72	150	114	2.81	0.16	0.32
LN55273	WJ55167	WJ4016685	8.96	150	103	2.77	0.16	0.38
LN55274	WJ55165	WJ55163	3.24	150	114	0.29	0.02	0.01

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN55275	WJ55164	WJ55157	10.16	150	114	5.52	0.31	1.12
LN55276	WJ55164	WJ55156	16.75	150	114	-4.44	0.25	0.75
LN55279	WJ55170	WJ4015346	10.74	300	132	-40.34	0.57	1.16
LN55280	WJ4015345	WJ55171	15.32	300	132	-37.40	0.53	1.01
LN55319	WJ55214	WJ4019812	16.23	150	103	4.39	0.25	0.89
LN55321	WJ55214	WJ4019846	112.39	150	114	-4.44	0.25	0.75
LN55323	WJ53893	WJ55216	112.13	150	114	4.06	0.23	0.64
LN55324	WJ55216	WJ4019790	15.42	150	103	3.99	0.23	0.74
LN55404	WJ55304	WJ4019788	21.26	300	132	4.64	0.07	0.02
LN55405	WJ4019788	WJ55324	225.41	150	114	1.16	0.07	0.06
LN55420	WJ55323	WJ55324	9.79	150	114	-0.55	0.03	0.02
LN55421	WJ55326	WJ55324	23.76	150	114	0.65	0.04	0.02
LN55422	WJ55324	WJ55329	219.84	150	114	0.82	0.05	0.03
LN55423	WJ55328	WJ55329	14.85	150	114	-0.83	0.05	0.03
LN55425	WJ55331	WJ55329	17.71	150	114	0.80	0.04	0.03
LN55427	WJ55329	WJ55335	220.69	150	114	0.28	0.02	0.00
LN55429	WJ55334	WJ55335	11.25	150	114	-1.10	0.06	0.06
LN55430	WJ55338	WJ55335	23.91	150	114	0.76	0.04	0.03
LN55433	WJ55335	WJ4015741	177.42	150	114	-0.51	0.03	0.01
LN55434	WJ55341	WJ4019788	14.19	300	132	-3.78	0.05	0.01
LN55493	WJ4019856	WJ55455	225.90	150	114	0.91	0.05	0.04
LN55498	WJ55455	WJ55432	218.22	150	114	0.81	0.05	0.03
LN55500	WJ55422	WJ55455	11.20	200	115	-1.26	0.04	0.02
LN55501	WJ55423	WJ55455	19.90	200	115	1.41	0.04	0.02
LN55504	WJ55429	WJ55432	14.03	300	132	5.57	0.08	0.03
LN55505	WJ55431	WJ55432	22.11	300	132	-4.75	0.07	0.02
LN55506	WJ55432	WJ55436	218.44	150	114	1.17	0.07	0.06
LN55507	WJ55436	WJ4016147	219.20	150	114	0.74	0.04	0.03
LN55510	WJ55442	WJ55436	13.42	150	114	0.82	0.05	0.03
LN55511	WJ55441	WJ55436	19.32	150	114	-0.75	0.04	0.03
LN55541	WJ55466	WJ4019788	15.81	150	114	0.55	0.03	0.02
LN55544	WJ55469	WJ4015741	8.61	150	114	-4.94	0.28	0.91
LN55546	WJ55472	WJ4015741	17.53	300	132	5.57	0.08	0.03
LN55637	WJ55022	WJ55017	36.74	300	132	37.14	0.53	1.00
LN56071	WJ55961	WJ55957	6.72	300	132	12.14	0.17	0.12
LN56072	WJ55958	WJ55961	21.12	300	132	15.78	0.22	0.20
LN56075	WJ21116	WJ55961	199.67	150	114	-5.17	0.29	0.99
LN56076	WJ55961	WJ56498	212.59	150	114	-1.92	0.11	0.16
LN56808	WJ56681	WJ56684	20.84	300	132	55.02	0.78	2.07
LN56811	WJ56684	WJ56688	17.71	300	132	47.52	0.67	1.57
LN56812	WJ56689	WJ56691	6.25	300	132	0.00	0.00	0.00
LN56813	WJ56684	WJ56705	100.03	300	132	7.14	0.10	0.05
LN56820	WJ56701	WJ56700	16.80	150	114	-6.54	0.37	1.54
LN56823	WJ56705	WJ56698	126.91	300	132	6.86	0.10	0.04
LN56839	WJ56698	WJ56700	27.84	300	132	6.54	0.09	0.04
LN57409	WJ57354	WJ4009674	82.98	400	129	-56.07	0.45	0.55
LN57420_A001	WJ57354	J-HY16102	85.21	150	114	0.19	0.01	0.00
LN57420_A002	J-HY16102	WJ57355	0.10	150	114	0.19	0.01	0.00
LN57492	WJ57425	WJ57428	24.89	150	114	0.02	0.00	0.00
LN57495	WJ57425	WJ57438	180.35	300	132	-0.02	0.00	0.00
LN57743	WJ4019314	WJ57697	84.77	150	103	-0.35	0.02	0.01
LN57962_A001	WJ57906	J-HY31330	0.42	300	132	-2.39	0.03	0.00
LN57962_A002	J-HY31330	WJ57907	58.97	300	132	-2.39	0.03	0.01
LN57963	WJ57907	WJ53038	15.00	300	132	7.68	0.11	0.05
LN57964	WJ57907	WJ18034	16.53	300	132	-10.07	0.14	0.09
LN58137_A001	WJ58108	WV55772	5.98	300	132	-11.66	0.16	0.12
LN58137_A002	WV55772	WJ58109	22.73	300	132	-11.66	0.16	0.12
LN58150	WJ4015943	WJ19330	69.68	300	120	-9.40	0.13	0.09
LN58158(1)	WJ58109	J-HY4007525	57.23	300	120	-11.85	0.17	0.14
LN58158(2)	J-HY4007525	WJ4015943	63.21	300	120	-11.85	0.17	0.14
LN58168	WJ4021189	WJ59147	120.96	150	103	-0.23	0.01	0.00
LN58350	WJ4017357	WJ58336	2.71	150	103	-5.73	0.32	1.45
LN58352	WJ58336	WJ49339	97.01	150	114	2.22	0.13	0.21
LN58386	WJ4018183	WJ58392	2.14	150	114	-1.15	0.07	0.06
LN58387	WJ58393	WJ58392	331.27	200	115	-0.59	0.02	0.00
LN58388	WJ58394	WJ58393	7.40	200	115	-0.30	0.01	0.00
LN58400	WJ4040953	WJ58412	10.28	200	115	-0.28	0.01	0.00
LN58405	WJ58412	WJ58427	24.95	200	115	-0.61	0.02	0.00
LN58406	WJ4017795	WJ58427	9.80	400	129	26.52	0.21	0.14
LN58407	WJ58427	WJ58425	315.47	200	115	4.21	0.13	0.16
LN58408	WJ58425	WJ58404	20.68	150	114	0.80	0.05	0.03
LN58409	WJ58425	WJ58426	0.64	200	115	3.19	0.10	0.09
LN58410	WJ58406	WJ58426	4.73	150	114	-1.92	0.11	0.16
LN58411	WJ58426	WJ58418	264.53	200	115	1.12	0.04	0.01
LN58412	WJ58401	WJ58418	20.04	300	132	15.33	0.22	0.19
LN58413	WJ58418	WJ58403	5.29	300	132	13.17	0.19	0.14

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN58414	WJ58418	WJ58423	383.48	200	115	2.53	0.08	0.06
LN58416	WJ58399	WJ58397	25.74	150	114	0.08	0.00	0.00
LN58417	WJ58423	WJ58424	368.41	200	115	1.73	0.06	0.03
LN58418	WJ58424	WJ58394	15.51	200	115	1.27	0.04	0.02
LN58457	WJ4017087	WJ58490	5.23	150	103	-5.44	0.31	1.32
LN58473	WJ58545	WJ58543	16.96	300	132	23.65	0.33	0.43
LN58507_A001	WJ28014	J-HY4008126	48.71	300	132	-8.71	0.12	0.07
LN58507_A002	J-HY4008126	WJ58595	24.49	300	132	-8.71	0.12	0.07
LN58508	WJ58458	WJ58595	10.96	150	114	0.53	0.03	0.01
LN58509_A001	WJ58595	J-HY31487	24.32	300	132	-16.27	0.23	0.22
LN58509_A002	J-HY31487	J-HY4008128	40.25	300	132	-16.27	0.23	0.22
LN58509_A003	J-HY4008128	WJ58462	26.91	300	132	-16.27	0.23	0.22
LN58510	WJ58460	WJ58462	10.51	150	114	2.35	0.13	0.23
LN58511	WJ58462	WJ58464	14.33	300	132	-14.31	0.20	0.17
LN58512	WJ58461	WJ58464	6.93	400	129	35.35	0.28	0.23
LN58513	WJ58464	WJ58611	14.46	300	132	21.04	0.30	0.35
LN58514	WJ58611	WJ58473	33.39	150	114	1.94	0.11	0.16
LN58515_A001	WJ58611	J-HY4032566	25.98	300	132	19.10	0.27	0.29
LN58515_A002	J-HY4032566	WJ58601	36.69	300	132	19.10	0.27	0.29
LN58516	WJ58602	WJ58601	8.10	150	114	0.00	0.00	0.00
LN58517_A001	WJ58601	J-HY4034050	22.33	300	132	18.15	0.26	0.26
LN58517_A002	J-HY4034050	WJ58475	22.02	300	132	18.15	0.26	0.26
LN58518	WJ58475	WJ58476	7.90	300	132	5.15	0.07	0.03
LN58519_A001	WJ58475	J-HY4034038	28.54	300	132	6.81	0.10	0.04
LN58519_A002	J-HY4034038	J-HY4032578	60.82	300	132	6.81	0.10	0.04
LN58519_A003	J-HY4032578	J-HY4032558	25.67	300	132	6.81	0.10	0.04
LN58519_A004	J-HY4032558	WJ58480	38.23	300	132	6.81	0.10	0.04
LN58520	WJ58479	WJ58480	4.52	300	132	-3.41	0.05	0.01
LN58524_A001	WJ58480	J-HY17891	60.12	300	132	-8.52	0.12	0.07
LN58524_A002	J-HY17891	WJ58482	37.00	300	132	-8.52	0.12	0.07
LN58525	WJ58481	WJ58482	7.04	300	132	11.61	0.16	0.11
LN58526	WJ58482	WJ58614	4.48	300	132	3.09	0.04	0.01
LN58527	WJ58614	WJ58486	6.25	300	132	1.98	0.03	0.00
LN58528_A001	WJ58614	J-HY4032554	85.08	300	132	1.12	0.02	0.00
LN58528_A002	J-HY4032554	WJ58603	15.76	300	132	1.12	0.02	0.00
LN58529	WJ58603	WJ58488	5.71	250	115	3.28	0.07	0.04
LN58530	WJ58603	WJ58604	36.95	300	132	-2.88	0.04	0.01
LN58531	WJ58605	WJ58604	2.40	150	114	0.00	0.00	0.00
LN58532_A001	WJ58604	J-HY4032548	33.26	300	132	-2.88	0.04	0.01
LN58532_A002	J-HY4032548	WJ58608	126.23	300	132	-2.88	0.04	0.01
LN58533	WJ58496	WJ58498	4.23	300	132	-17.11	0.24	0.24
LN58534	WJ58500	WJ58499	3.21	400	129	15.31	0.12	0.05
LN58535_A001	WJ58496	J-HY4032525	21.31	300	132	-2.79	0.04	0.01
LN58535_A002	J-HY4032525	WJ58502	78.43	300	132	-2.79	0.04	0.01
LN58536	WJ58501	WJ58502	5.39	300	132	-3.34	0.05	0.01
LN58537	WJ58502	WJ58505	6.69	300	132	-10.82	0.15	0.10
LN58538	WJ58505	WJ58504	10.92	300	132	-11.66	0.16	0.12
LN58539_A001	WJ58505	J-HY4032503	9.90	300	132	0.81	0.01	0.00
LN58539_A002	J-HY4032503	WJ58509	80.94	300	132	0.81	0.01	0.00
LN58540	WJ58509	WJ58510	5.35	300	132	5.98	0.08	0.03
LN58541_A001	WJ58509	J-HY4032493	14.51	300	132	-5.31	0.08	0.03
LN58541_A002	J-HY4032493	J-HY31488	66.13	300	132	-5.31	0.08	0.03
LN58541_A003	J-HY31488	WJ58512	34.24	300	132	-5.31	0.08	0.03
LN58542	WJ58512	WJ58513	7.24	150	114	-1.62	0.09	0.12
LN58543	WJ58512	WJ58516	31.63	300	132	-3.69	0.05	0.01
LN58544	WJ58517	WJ58516	6.53	300	132	-1.92	0.03	0.00
LN58545_A001	WJ58516	J-HY4032454	76.37	300	132	-5.70	0.08	0.03
LN58545_A002	J-HY4032454	WJ58519	6.11	300	132	-5.70	0.08	0.03
LN58546	WJ58519	WJ58521	6.49	300	132	0.55	0.01	0.00
LN58547	WJ58519	WJ58522	93.07	300	132	-7.71	0.11	0.05
LN58548	WJ58522	WJ58523	9.58	400	129	6.49	0.05	0.01
LN58549	WJ58526	WJ58522	5.60	400	129	15.97	0.13	0.05
LN58550_A001	WJ58522	J-HY31490	72.43	300	132	1.41	0.02	0.00
LN58550_A002	J-HY31490	J-HY4019204	16.93	300	132	1.41	0.02	0.00
LN58550_A003	J-HY4019204	WJ58527	65.66	300	132	1.41	0.02	0.00
LN58551	WJ58527	WJ58528	12.20	150	114	-2.58	0.15	0.28
LN58552_A001	WJ58527	J-HY4017635	49.14	300	132	-7.36	0.10	0.05
LN58552_A002	J-HY4017635	J-HY31491	27.02	300	132	-7.36	0.10	0.05
LN58552_A003	J-HY31491	J-HY4017600	42.38	300	132	-7.36	0.10	0.05
LN58552_A004	J-HY4017600	WJ58530	43.74	300	132	-7.36	0.10	0.05
LN58553	WJ58532	WJ58530	6.51	300	132	-1.46	0.02	0.00
LN58554	WJ58530	WJ58537	43.71	300	132	-11.24	0.16	0.11
LN58555	WJ58539	WJ58537	12.50	150	114	-4.02	0.23	0.62
LN58556_A001	WJ58537	J-HY4017594	60.54	300	132	-15.26	0.22	0.19
LN58556_A002	J-HY4017594	WJ58610	46.26	300	132	-15.26	0.22	0.19
LN58557	WJ58610	WJ58541	25.17	150	114	2.39	0.14	0.24

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN58558	WJ58541	WJ58540	7.21	150	114	1.31	0.07	0.08
LN58559_A001	WJ58610	J-HY4017589	27.60	300	132	-17.65	0.25	0.25
LN58559_A002	J-HY4017589	WJ58544	62.97	300	132	-17.65	0.25	0.25
LN58560	WJ58544	WJ58545	9.45	300	132	23.65	0.33	0.43
LN58561	WJ58544	WJ58547	7.16	300	132	-41.29	0.58	1.21
LN58562_A001	WJ58548	J-HY4017572	1.11	300	132	13.24	0.19	0.13
LN58562_A002	J-HY4017572	WJ58547	11.99	300	132	13.24	0.19	0.15
LN58563_A001	WJ58547	J-HY4017558	78.96	300	132	-28.30	0.40	0.60
LN58563_A002	J-HY4017558	WJ58574	34.83	300	132	-28.30	0.40	0.60
LN58564	WJ58577	WJ58575	4.68	300	132	43.13	0.61	1.32
LN58565	WJ58576	WJ58575	7.41	400	129	14.64	0.12	0.05
LN58566	WJ58575	WJ58574	2.57	400	129	57.77	0.46	0.58
LN58567	WJ58574	WJ58573	22.68	400	129	8.10	0.06	0.02
LN58568	WJ58580	WJ58574	11.18	250	115	-20.82	0.42	1.07
LN58569	WJ58573	WJ58572	12.14	400	129	3.73	0.03	0.00
LN58570	WJ58581	WJ58573	5.40	150	114	-4.37	0.25	0.73
LN58571_A001	WJ58490	J-HY4032536	0.83	250	115	-5.44	0.11	0.09
LN58571_A002	J-HY4032536	WJ58609	46.62	250	115	-5.44	0.11	0.09
LN58572	WJ58609	WJ58608	3.93	300	132	-5.44	0.08	0.03
LN58573	WJ58608	WJ58499	45.37	300	132	-11.19	0.16	0.11
LN58574	WJ58533	WJ58535	2.73	300	132	-1.46	0.02	0.00
LN58575_A001	WJ58533	J-HY31492	76.13	150	114	-1.82	0.10	0.14
LN58575_A002	J-HY31492	WJ58541	70.09	150	114	-1.82	0.10	0.14
LN58576_A001	WJ58541	J-HY16154	60.76	150	114	-2.13	0.12	0.19
LN58576_A002	J-HY16154	WJ58543	29.21	150	114	-2.13	0.12	0.19
LN58677	WJ4005489	WJ58734	100.65	150	114	-0.21	0.01	0.00
LN58678	WJ58734	WJ58735	65.32	150	114	-0.78	0.04	0.03
LN58683	WJ58745	WJ58740	7.14	200	115	2.67	0.08	0.07
LN58684	WJ58740	WJ58751	321.14	200	115	4.79	0.15	0.21
LN58688	WJ58747	WJ58740	4.15	150	114	2.36	0.13	0.23
LN58689	WJ58745	WJ4017666	247.02	400	129	13.49	0.11	0.04
LN58692	WJ58751	WJ58752	220.75	200	115	2.65	0.08	0.07
LN58694	WJ58751	WJ58749	14.36	150	114	1.36	0.08	0.08
LN58696	WJ52183	WJ58755	146.55	300	120	10.66	0.15	0.12
LN58697	WJ58752	WJ58756	7.34	300	132	9.77	0.14	0.08
LN58698	WJ58755	WJ58752	19.76	300	132	10.57	0.15	0.10
LN58699	WJ58752	WJ58762	219.83	200	115	3.14	0.10	0.10
LN58702	WJ58760	WJ58734	18.45	150	114	-0.53	0.03	0.02
LN58703	WJ58762	WJ58764	9.34	150	114	1.18	0.07	0.06
LN58705	WJ58735	WJ4005613	217.51	150	114	-1.07	0.06	0.05
LN58707	WJ58762	WJ48961	85.61	200	115	1.65	0.05	0.03
LN58708	WJ58735	WJ58769	96.04	150	114	0.17	0.01	0.00
LN58838	WJ58936	WJ58937	19.16	150	114	6.62	0.37	1.57
LN58840	WJ58936	WJ58940	11.69	150	114	-7.41	0.42	1.94
LN58841	WJ58936	WJ58946	325.10	150	114	0.48	0.03	0.01
LN58845	WJ4008830	WJ58946	1.36	300	120	45.37	0.64	1.71
LN58929	WJ4018199	WJ59062	328.79	200	115	-0.35	0.01	0.00
LN58941	WJ59065	WJ59062	16.07	150	114	-2.16	0.12	0.20
LN58942	WJ59062	WJ4005420	4.24	150	114	-2.71	0.15	0.30
LN58949	WJ58394	WJ52159	112.84	200	115	3.40	0.11	0.11
LN58954	WJ59078	WJ58394	112.04	150	114	1.96	0.11	0.16
LN58956	WJ59074	WJ59078	107.03	150	114	2.59	0.15	0.28
LN58958	WJ62359	WJ59078	8.35	150	114	-0.44	0.02	0.01
LN58960	WJ59072	WJ59074	20.29	150	114	-1.22	0.07	0.07
LN59066	WJ59194	WJ59198	15.43	300	132	-22.42	0.32	0.39
LN59067	WJ59198	WJ59201	5.24	300	132	-71.32	1.01	3.34
LN59068	WJ59196	WJ59195	14.75	300	132	-1.05	0.01	0.00
LN59072	WJ59207	WJ59201	11.23	400	129	70.27	0.56	0.84
LN59073	WJ59201	WJ59196	2.54	300	132	-1.05	0.01	0.01
LN59295	WJ59198	WJ59422	3.55	300	132	48.90	0.69	1.66
LN59490	WJ47069	WJ4016701	2.15	150	103	3.13	0.18	0.47
LN59605	WJ59734	WJ59735	106.76	150	114	6.98	0.39	1.73
LN59608	WJ59735	WJ59712	16.09	150	114	1.88	0.11	0.15
LN59612	WJ59735	WJ59742	75.94	150	114	4.89	0.28	0.89
LN59613	WJ59742	WJ59732	32.44	150	114	2.12	0.12	0.19
LN59615	WJ59742	WJ59726	14.35	150	114	0.16	0.01	0.00
LN59616	WJ59742	WJ59743	48.30	150	114	2.53	0.14	0.26
LN59617	WJ59743	WJ59864	77.41	150	114	2.16	0.12	0.20
LN59707	WJ59822	WJ4011782	3.22	150	103	-1.90	0.11	0.19
LN59756	WJ59864	WJ59822	168.25	150	114	1.99	0.11	0.17
LN59874	WJ59734	WJ60020	7.91	300	120	36.44	0.52	1.15
LN60622	WJ60783	WJ4017087	4.00	150	103	0.00	0.00	0.00
LN60647	WJ60926	WJ4019873	94.81	150	103	0.01	0.00	0.00
LN60666	WJ4016809	WJ60926	83.29	150	114	-1.17	0.07	0.06
LN60687	WJ4016786	WJ4019873	227.54	150	114	1.58	0.09	0.11
LN60719_A001	WJ4018460	J-HY4033475	138.44	300	132	5.21	0.07	0.03

PHD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN60719_A002	J-HY4033475	WJ60862	22.46	300	132	5.21	0.07	0.03
LN60720	WJ4016719	WJ60862	1.79	250	115	3.28	0.07	0.03
LN60993	WJ4020732	WJ61124	12.49	150	114	0.87	0.05	0.04
LN60994	WJ61125	WJ61124	49.30	100	100	-0.64	0.08	0.19
LN61318	WJ61515	WJ61510	15.20	150	114	0.73	0.04	0.03
LN61319	WJ61510	WJ61511	12.22	150	114	0.37	0.02	0.01
LN61320	WJ61511	WJ61514	14.32	150	114	-0.36	0.02	0.01
LN61324	WJ61510	WJ61520	1.18	150	114	0.00	0.00	0.00
LN61325	WJ61510	WJ61519	119.52	150	114	0.28	0.02	0.00
LN61332	WJ61529	WJ4019660	10.36	150	103	-1.79	0.10	0.17
LN61435	WJ4011634	WJ61627	126.58	150	103	-3.30	0.19	0.52
LN61490	WJ61693	WJ4008256	31.28	150	103	0.24	0.01	0.00
LN61491	WJ61693	WJ61694	117.73	150	114	0.00	0.00	0.00
LN61598	WJ4020596	WJ47436	13.04	150	114	0.60	0.03	0.02
LN61605	WJ4013458	WJ61779	90.36	150	103	-1.94	0.11	0.19
LN61658	WJ53465	WJ61826	40.98	200	115	-11.81	0.38	1.11
LN61659	WJ61826	WJ61827	164.51	200	115	0.00	0.00	0.00
LN61788	WJ48056	WJ48055	213.35	150	114	-0.41	0.02	0.01
LN61790	WJ48055	WJ48056	87.98	300	132	4.71	0.07	0.02
LN62205	WJ62335	WJ4004560	101.21	150	103	1.18	0.07	0.08
LN62230	WJ4018166	WJ62359	347.46	150	114	-0.13	0.01	0.00
LN62307	WJ62422	WJ4011486	14.28	150	103	-1.89	0.11	0.19
LN62309	WJ4010946	WJ62423	36.61	150	103	1.56	0.09	0.13
LN62500_A001	WJ4010417	J-HY4039947	4.13	400	129	20.55	0.16	0.09
LN62500_A002	J-HY4039947	WJ4010421	284.88	400	129	20.55	0.16	0.09

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN112660_A001	WJ24264	J-HY4014400	30.52	300	132	10.84	0.15	0.10
LN112660_A002	J-HY4014400	WJ24204	98.35	300	132	10.84	0.15	0.10
LN13368	WJ47069	WJ53570	90.32	150	114	0.97	0.06	0.05
LN13893	WJ47436	WJ47435	325.45	150	114	0.82	0.05	0.03
LN13898	WJ4010931	WJ47435	13.34	150	103	0.44	0.02	0.01
LN13918	WJ4017786	WJ47749	6.74	150	103	-5.19	0.29	1.21
LN13919	WJ47751	WJ21799	20.33	150	114	0.00	0.00	0.00
LN14205	WJ48056	WJ52325	61.03	300	132	6.50	0.09	0.04
LN14216	WJ4010518	WJ14235	223.51	150	103	0.14	0.01	0.00
LN14218	WJ14235	WJ4010518	241.94	150	103	-0.13	0.01	0.00
LN16124	WJ15670	WJ4016587	98.72	300	120	12.67	0.18	0.16
LN16127	WJ15670	WJ4019600	308.81	150	114	3.86	0.22	0.58
LN16131	WJ4019600	WJ4019594	217.80	150	114	5.49	0.31	1.11
LN16132	WJ4019594	WJ15678	219.74	150	114	4.50	0.25	0.77
LN16141	WJ15678	WJ15686	94.78	150	114	5.34	0.30	1.05
LN16724_A001	WJ16170	J-HY4017936	1.56	300	132	3.26	0.05	0.01
LN16724_A002	J-HY4017936	WJ4018534	15.14	300	132	3.26	0.05	0.01
LN16812	WJ58510	WJ16225	11.62	300	132	5.31	0.08	0.03
LN16813_A001	WJ16225	J-HY4033089	5.66	300	132	2.30	0.03	0.00
LN16813_A002	J-HY4033089	J-HY4033085	100.94	300	132	2.30	0.03	0.01
LN16813_A003	J-HY4033085	WJ4018326	3.52	300	132	2.30	0.03	0.01
LN16839	WJ58496	WJ58500	24.23	400	129	11.76	0.09	0.03
LN16840_A001	WJ58499	J-HY4033315	9.32	400	129	8.93	0.07	0.02
LN16840_A002	J-HY4033315	J-HY4033296	129.85	400	129	8.93	0.07	0.02
LN16840_A003	J-HY4033296	WJ4018318	14.81	400	129	8.93	0.07	0.02
LN16921	WJ4016730	WJ15686	294.33	150	103	-3.37	0.19	0.54
LN16923	WJ4016826	WJ15686	233.10	150	103	-1.65	0.09	0.14
LN16941	WJ4016591	WJ15670	100.75	300	120	16.75	0.24	0.27
LN19391_A001	WJ4019318	J-HY4034872	101.08	150	103	-0.77	0.04	0.03
LN19391_A002	J-HY4034872	WJ18031	99.62	150	103	-0.77	0.04	0.03
LN19392_A001	WJ18030	J-HY4033352	65.89	150	103	-3.93	0.22	0.72
LN19392_A002	J-HY4033352	WJ28034	8.39	150	103	-3.93	0.22	0.72
LN19393_A001	WJ4018072	J-HY4035209	73.34	300	132	5.40	0.08	0.03
LN19393_A002	J-HY4035209	WJ18032	20.13	300	132	5.40	0.08	0.03
LN19394	WJ18031	WJ18032	11.62	300	132	-0.83	0.01	0.00
LN19395	WJ18032	WJ18033	6.13	300	132	4.55	0.06	0.02
LN19396	WJ18033	WJ18030	12.19	300	132	-3.25	0.05	0.01
LN19397_A001	WJ18034	J-HY12614	1.42	300	132	-7.80	0.11	0.05
LN19397_A002	J-HY12614	WJ18033	100.24	300	132	-7.80	0.11	0.06
LN20057	WJ4018098	WJ4011303	286.65	150	103	-0.26	0.01	0.00
LN20058	WJ4011305	WJ4018098	232.57	150	103	0.56	0.03	0.02
LN20510	WJ4005966	WJ24044	130.34	150	114	0.13	0.01	0.00
LN20710_A001	WJ24204	J-HY4014840	40.05	300	132	-13.68	0.19	0.16
LN20710_A002	J-HY4014840	WJ4013102	64.32	300	132	-13.68	0.19	0.16
LN20730_A001	WJ24204	J-HY16801	70.81	300	132	17.91	0.25	0.26
LN20730_A002	J-HY16801	WJ58548	77.33	300	132	17.91	0.25	0.26
LN20750	WJ4013337	WJ24244	23.15	150	103	5.64	0.32	1.41
LN20770	WJ24244	WJ24264	9.46	300	132	5.64	0.08	0.03
LN20790	WJ4013060	WJ24284	8.95	400	129	-46.05	0.37	0.38
LN20791	WJ4013513	WJ24364	8.65	150	103	4.33	0.25	0.86
LN20810_A001	WJ24284	J-HY16821	90.72	400	129	27.64	0.22	0.15
LN20810_A002	J-HY16821	WJ24264	76.79	400	129	27.64	0.22	0.15
LN20811_A001	WJ24264	J-HY17621	69.47	400	129	19.99	0.16	0.08
LN20811_A002	J-HY17621	WJ24285	76.20	400	129	19.99	0.16	0.08
LN20812	WJ24285	WJ24304	31.28	400	129	21.30	0.17	0.09
LN20870	WJ4013060	WJ24344	16.48	400	129	5.44	0.04	0.01
LN20892	WJ24364	WJ24285	12.27	300	132	4.33	0.06	0.02
LN20893	WJ24285	WJ24366	29.17	300	132	3.03	0.04	0.01
LN21690	WJ4018318	WJ4019834	245.54	150	114	1.42	0.08	0.09
LN22922	WJ57438	WJ25698	7.22	400	129	0.26	0.00	0.00
LN22926	WJ25696	WJ25695	12.08	400	129	9.82	0.08	0.02
LN22927	WJ25698	WJ25697	12.58	400	129	9.20	0.07	0.02
LN22928	WJ25697	WJ25696	11.77	400	129	9.82	0.08	0.02
LN23823_A001	WJ58481	J-HY4007542	64.50	300	132	-10.94	0.15	0.10
LN23823_A002	J-HY4007542	WJ26555	80.39	300	132	-10.94	0.15	0.10
LN24067_A001	WJ26759	WV4037971	340.52	900	130	-391.72	0.62	0.38
LN24067_A002	WV4037971	WJ26760	18.03	900	130	-391.72	0.62	0.38
LN24068_A001	WJ4023055	WV4005035	270.90	900	130	-391.47	0.62	0.38
LN24068_A002	WV4005035	WJ26758	351.65	900	130	-391.47	0.62	0.38
LN24069_A001	WJ26758	WV4005033	25.73	900	130	-391.53	0.62	0.38
LN24069_A002	WV4005033	WJ26759	237.60	900	130	-391.53	0.62	0.38
LN24070	WJ26760	WJ4008317	153.38	900	130	-391.77	0.62	0.38
LN24643	WJ27194	WJ4016719	2.68	250	115	3.25	0.07	0.03
LN24644	WJ58488	WJ27194	18.66	250	115	3.25	0.07	0.03
LN24782	WJ27354	WJ27355	1.02	300	120	4.12	0.06	0.02
LN24783	WJ27354	WJ4008473	13.52	600	130	-211.78	0.75	0.88

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN24784	WJ4008497	WJ27355	12.56	300	120	5.47	0.08	0.04
LN24802	WJ4020828	WJ27375	8.24	400	129	-5.50	0.04	0.01
LN24803	WJ4010429	WJ27375	123.44	300	120	15.44	0.22	0.23
LN25424	WJ27861	WJ27857	14.48	150	114	1.57	0.09	0.11
LN25425	WJ27858	WJ27861	22.83	150	114	0.29	0.02	0.00
LN25426	WJ27861	WJ52251	15.65	300	132	-22.20	0.31	0.38
LN25427	WJ27861	WJ27874	224.22	300	132	20.78	0.29	0.34
LN25441	WJ27874	WJ27875	3.33	400	129	14.43	0.11	0.04
LN25442	WJ27877	WJ27879	4.73	150	114	1.69	0.10	0.13
LN25443	WJ27879	WJ27874	20.08	400	129	1.69	0.01	0.00
LN25444	WJ27874	WJ27917	222.63	300	132	7.78	0.11	0.06
LN25483	WJ27918	WJ27917	18.39	300	132	3.44	0.05	0.01
LN25484	WJ27917	WJ27916	12.30	300	132	2.07	0.03	0.00
LN25485	WJ27917	WJ28079	218.63	300	132	8.52	0.12	0.07
LN25486	WJ28079	WJ28076	14.37	300	132	8.68	0.12	0.07
LN25487	WJ28077	WJ28079	18.75	150	114	0.44	0.02	0.01
LN25501_A001	WJ27974	J-HY4022181	60.39	400	129	-29.87	0.24	0.17
LN25501_A002	J-HY4022181	WJ28214	59.65	400	129	-29.87	0.24	0.17
LN25502	WJ27994	WJ28214	36.72	400	129	-24.04	0.19	0.12
LN25504	WJ28214	WJ28134	202.54	300	132	-27.99	0.40	0.59
LN25505	WJ27974	WJ28014	62.76	400	129	20.93	0.17	0.09
LN25507_A001	WJ28014	J-HY4022232	23.93	400	129	23.82	0.19	0.11
LN25507_A002	J-HY4022232	J-HY4022263	123.81	400	129	23.82	0.19	0.11
LN25507_A003	J-HY4022263	J-HY4022342	63.08	400	129	23.82	0.19	0.11
LN25507_A004	J-HY4022342	WJ28234	50.82	400	129	23.82	0.19	0.11
LN25521	WJ28034	WJ20153	28.01	300	132	-3.96	0.06	0.02
LN25522_A001	WJ28054	J-HY4022433	10.05	400	129	-10.73	0.09	0.03
LN25522_A002	J-HY4022433	WJ28234	60.46	400	129	-10.73	0.09	0.03
LN25523	WJ4014459	WJ28054	18.91	300	120	-10.73	0.15	0.12
LN25603	WJ28096	WJ28114	86.19	600	130	-33.23	0.12	0.03
LN25622	WJ28134	WJ28135	71.77	300	132	-27.26	0.39	0.56
LN25642	WJ28135	WJ28154	132.71	300	132	-28.31	0.40	0.60
LN25662	WJ28154	WJ4014248	76.44	300	132	-27.08	0.38	0.56
LN25663	WJ28175	WJ28174	7.78	150	114	-3.01	0.17	0.37
LN25665	WJ21598	WJ28175	10.03	300	132	35.73	0.51	0.93
LN25682	WJ28177	WJ4014259	10.27	150	103	-4.47	0.25	0.91
LN26782	WJ28174	WJ28177	54.20	150	114	-4.47	0.25	0.76
LN34321	WJ4019846	WJ53893	223.76	150	114	1.37	0.08	0.09
LN34322	WJ53893	WJ4008712	148.71	150	114	-2.92	0.17	0.34
LN39382	WJ4016832	WJ38909	28.48	150	103	1.24	0.07	0.08
LN4000241	WJ4013243	WJ4013245	10.47	150	103	4.74	0.27	1.02
LN4000278	WJ4013252	WJ4013274	15.61	150	103	0.26	0.01	0.00
LN4000314	WJ4013383	WJ4013382	12.12	150	103	-0.05	0.00	0.00
LN4000331	WJ4013520	WJ4013519	1.06	150	103	0.39	0.02	0.02
LN4000480	WJ4013458	WJ4013457	6.77	150	103	1.33	0.08	0.10
LN4000487	WJ4013470	WJ4013468	11.98	150	103	0.07	0.00	0.00
LN4000497	WJ4013418	WJ4013416	6.98	150	103	-4.36	0.25	0.88
LN4000907	WJ4014719	WJ4014721	99.65	150	103	1.78	0.10	0.17
LN4000939	WJ4014719	WJ4014763	104.39	150	103	-0.94	0.05	0.05
LN4000999	WJ4014474	WJ4014473	12.72	300	120	-6.22	0.09	0.04
LN4001207	WJ4015177	WJ4015178	2.11	300	120	-3.39	0.05	0.02
LN4001217	WJ4015339	WJ4015332	90.60	300	120	-5.46	0.08	0.03
LN4001443	WJ4015228	WJ4015229	8.78	150	103	0.00	0.00	0.00
LN4001460	WJ4015238	WJ4015239	12.61	200	115	0.00	0.00	0.00
LN4001462	WJ4015239	WJ4015255	1.39	200	115	0.00	0.00	0.00
LN4001464	WJ4015256	WJ4015239	2.67	100	100	0.00	0.00	0.00
LN4001485	WJ4015259	WJ4015279	86.12	150	103	0.28	0.02	0.01
LN4001529	WJ57428	WJ4015289	79.80	150	103	-0.31	0.02	0.01
LN4004695	WJ4016056	WJ4016055	6.80	150	103	1.95	0.11	0.19
LN4004926	WJ4008658	WJ4008654	2.68	300	120	-2.29	0.03	0.01
LN4004937	WJ4008677	WJ4008675	17.58	300	120	2.62	0.04	0.01
LN4004956	WJ4008657	WJ4008659	4.77	900	130	-713.08	1.12	1.16
LN4004980	WJ4017077	WJ4008675	77.24	300	132	-4.56	0.06	0.02
LN4005470	WJ60862	WJ4017087	107.49	250	115	3.71	0.08	0.04
LN4005811	WJ4016786	WJ4016785	4.19	400	129	4.33	0.03	0.00
LN4005825	WJ4016750	WJ4016727	6.09	400	129	-1.16	0.01	0.00
LN4006937	WJ4006938	WJ4006937	4.92	300	120	10.21	0.14	0.11
LN4007284	WJ4015346	WJ4015345	1.81	300	132	-37.68	0.53	1.02
LN4007660	WJ4017170	WJ4015324	52.50	150	103	-0.02	0.00	0.00
LN4008350	WJ4012266	WJ4011936	4.25	300	120	2.46	0.03	0.00
LN4008856	WJ4012402	WJ4013089	42.00	900	130	-367.89	0.58	0.34
LN4008863	WJ4017209	WJ4012852	21.59	300	120	3.07	0.04	0.01
LN4008983	WJ4017212	WJ4012562	3.28	300	132	-9.08	0.13	0.07
LN4009239	WJ58535	WJ58532	17.54	150	114	-2.85	0.16	0.33
LN4009514	WJ4013114	WJ4013116	7.28	150	103	-3.07	0.17	0.46
LN4009882_A001	WJ4013049	WV4011116	6.49	400	129	86.23	0.69	1.22

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4009882_A002	WV4011116	WJ4013001	2.87	400	129	86.23	0.69	1.22
LN4009906	WJ4013114	WJ4013109	16.33	150	103	-1.53	0.09	0.13
LN4009966	WJ4013093	WJ4013101	10.69	400	129	-25.22	0.20	0.13
LN4009967	WJ4013101	WJ4013102	19.58	400	129	-26.93	0.21	0.14
LN4009997	WJ24284	WJ4013050	31.96	400	129	-76.32	0.61	0.97
LN4010005	WJ4012997	WJ4012994	25.49	300	120	-22.96	0.32	0.49
LN4010016	WJ4013272	WJ4013271	1.47	300	132	-26.22	0.37	0.53
LN4010047	WJ51990	WJ4019616	150.10	150	103	-2.38	0.13	0.29
LN4010339	WJ4016638	WJ4016605	2.49	300	120	28.99	0.41	0.76
LN4010475	WJ4016583	WJ4016582	3.58	300	120	5.59	0.08	0.04
LN4010591	WJ4016732	WJ4016730	2.54	300	120	1.42	0.02	0.00
LN4010707	WJ4016342	WJ4016349	99.23	300	120	15.15	0.21	0.23
LN4010870	WJ4018056	WJ4003831	25.54	300	120	13.53	0.19	0.18
LN4010950	WJ4012852	WJ4017229	3.94	250	115	16.66	0.34	0.71
LN4011089	WJ4010414	WJ4010416	26.66	200	115	0.00	0.00	0.00
LN4011316_A001	WJ4010425	WV4011145	6.84	600	130	23.37	0.08	0.01
LN4011316_A002	WV4011145	WJ4010424	3.60	600	130	23.37	0.08	0.02
LN4012081	WJ4017315	WJ4006791	0.59	150	103	-0.06	0.00	0.00
LN4012956	WJ27355	WJ4008460	17.65	300	120	9.59	0.14	0.10
LN4013142	WJ4010614	WJ4010597	6.68	300	120	7.60	0.11	0.06
LN4013146	WJ4010583	WJ4010581	1.99	300	120	8.02	0.11	0.07
LN4013341	WJ4008852	WJ4008830	91.14	300	120	43.37	0.61	1.59
LN4013626	WJ4008476	WJ27354	18.13	600	130	-207.66	0.73	0.85
LN4013627	WJ4008477	WJ4008476	3.78	600	130	0.00	0.00	0.00
LN4013643	WJ4002204	WJ4002202	8.01	150	103	0.10	0.01	0.00
LN4013665	WJ4002150	WJ4002158	10.55	150	103	-6.21	0.35	1.69
LN4015175	WJ4017447	WJ4006350	2.94	150	103	0.64	0.04	0.03
LN4015243	WJ4006038	WJ4006036	2.94	200	115	-2.29	0.07	0.05
LN4015337	WJ4017479	WJ4005704	48.37	150	103	0.01	0.00	0.00
LN4015338	WJ4017479	WJ4005703	30.78	150	103	0.08	0.00	0.00
LN4015357	WJ4005967	WJ4005968	144.15	150	103	-0.14	0.01	0.00
LN4015530	WJ4006221	WJ4006222	2.00	150	103	-3.20	0.18	0.49
LN4015600	WJ4006214	WJ4006217	11.53	150	103	1.83	0.10	0.18
LN4015737	WJ4011304	WJ4011305	10.73	150	103	-0.12	0.01	0.00
LN4015767	WJ4011304	WJ4011303	94.28	150	103	0.74	0.04	0.03
LN4015797	WJ4005428	WJ4005429	26.46	150	103	2.23	0.13	0.25
LN4015913	WJ4011378	WJ4010422	25.18	300	120	45.75	0.65	1.75
LN4015929	WJ4010917	WJ4011452	13.28	300	120	18.26	0.26	0.32
LN4015938	WJ4010946	WJ4011454	18.51	300	120	19.49	0.28	0.36
LN4015948	WJ4011482	WJ4011011	67.38	300	120	33.50	0.47	0.98
LN4016088	WJ4017630	WJ4011582	3.96	150	103	2.67	0.15	0.35
LN4016090	WJ4011622	WJ4017630	143.84	150	103	-2.16	0.12	0.24
LN4016101	WJ4011634	WJ4011632	6.29	150	103	1.48	0.08	0.12
LN4016120	WJ4011582	WJ4011676	67.31	150	103	2.16	0.12	0.24
LN4016516	WJ4011677	WJ4011399	35.07	150	103	0.74	0.04	0.03
LN4016552	WJ4011870	WJ4011859	91.84	150	103	-1.22	0.07	0.08
LN4016660_A001	WJ4009713	J-HY16101	36.38	300	120	31.70	0.45	0.89
LN4016660_A002	J-HY16101	WJ4009674	102.23	300	120	31.70	0.45	0.89
LN4016692	WJ4009359	WJ4009358	10.17	300	120	-25.59	0.36	0.60
LN4017487	WJ4009830	WJ4009045	38.92	150	103	-8.14	0.46	2.78
LN4017708	WJ4017585	WJ4009700	47.43	150	114	1.06	0.06	0.05
LN4017956	WJ4003830	WJ4018056	7.25	200	115	13.53	0.43	1.43
LN4017974	WJ4004963	WJ4004623	7.33	200	115	-6.58	0.21	0.38
LN4018123	WJ4009276	WJ4009277	30.79	300	120	-26.34	0.37	0.63
LN4018609	WJ4017753	WJ4015576	91.97	300	120	-1.67	0.02	0.00
LN4018612	WJ4016912	WJ4017753	13.02	150	103	0.00	0.00	0.00
LN4019106	WJ4011632	WJ4011622	264.04	150	103	-0.29	0.02	0.01
LN4019245	WJ61627	WJ59822	356.92	150	103	-3.20	0.18	0.49
LN4019246	WJ4006591	WJ4006585	136.18	300	120	-16.02	0.23	0.25
LN4019256	WJ4006581	WJ4006585	311.55	300	120	4.37	0.06	0.02
LN4019257	WJ4020971	WJ4011806	240.82	150	103	0.31	0.02	0.01
LN4019265	WJ4011806	WJ4011677	96.20	150	103	-1.20	0.07	0.08
LN4019267	WJ4011815	WJ4011806	87.42	150	103	-1.08	0.06	0.07
LN4019273	WJ4011848	WJ4011815	83.38	150	103	-1.23	0.07	0.08
LN4019275	WJ4011859	WJ4011848	99.57	150	103	-1.17	0.07	0.08
LN4019278	WJ4011876	WJ4011870	86.96	150	103	-1.01	0.06	0.06
LN4019287	WJ4011947	WJ4011876	90.43	150	103	-0.67	0.04	0.03
LN4019294	WJ4003473	WJ4006581	152.45	150	103	-5.32	0.30	1.26
LN4019313	WJ4006835	WJ4001964	257.47	150	103	-2.34	0.13	0.28
LN4019319	WJ4001964	WJ4006933	100.71	150	103	1.91	0.11	0.19
LN4019320	WJ4006933	WJ4001950	101.46	150	103	0.24	0.01	0.00
LN4019331	WJ4006925	WJ4017639	45.10	150	103	0.02	0.00	0.00
LN4019365	WJ4002007	WJ4006925	230.90	150	103	-3.30	0.19	0.52
LN4019403	WJ4002007	WJ4006928	240.10	150	103	1.90	0.11	0.19
LN4019407	WJ4020978	WJ4011848	245.40	150	103	0.26	0.01	0.00
LN4019447	WJ4006928	WJ4006925	260.35	150	103	-3.67	0.21	0.64

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4019492	WJ4020984	WJ4011870	246.28	150	103	0.18	0.01	0.00
LN4019493	WJ4001888	WJ4001881	95.82	300	120	-27.16	0.38	0.67
LN4019495	WJ4001895	WJ4001888	87.74	300	120	-25.16	0.36	0.58
LN4019500	WJ4020987	WJ4011876	262.91	150	103	0.05	0.00	0.00
LN4019510	WJ4001895	WJ4001900	97.79	300	120	23.14	0.33	0.50
LN4019512	WJ4002308	WJ4002296	95.48	150	103	-0.09	0.00	0.00
LN4019514	WJ4002294	WJ4002296	109.03	150	103	-0.10	0.01	0.00
LN4019526	WJ4002296	WJ4002319	190.27	150	103	-0.38	0.02	0.01
LN4019528	WJ4002319	WJ4002359	94.31	150	103	0.06	0.00	0.00
LN4019532	WJ4006791	WJ4001900	317.71	150	114	-1.63	0.09	0.12
LN4019544	WJ4020003	WJ4011663	160.03	150	103	-2.81	0.16	0.39
LN4019548	WJ4006785	WJ4001895	263.66	150	103	1.17	0.07	0.08
LN4019553	WJ4006785	WJ4006781	67.31	150	103	0.15	0.01	0.00
LN4019554	WJ4011663	WJ62422	100.25	150	103	-1.36	0.08	0.10
LN4019563	WJ4006785	WJ4001888	168.33	150	103	-1.86	0.11	0.18
LN4019575	WJ60020	WJ4011486	173.02	300	120	32.76	0.46	0.94
LN4019585	WJ4006801	WJ4001950	132.41	150	103	-1.78	0.10	0.17
LN4019591	WJ59712	WJ4011663	171.65	150	103	1.66	0.09	0.15
LN4019595	WJ4006814	WJ4006801	93.50	150	103	-0.87	0.05	0.04
LN4019598	WJ4006820	WJ4006814	96.58	150	103	-0.68	0.04	0.03
LN4019605	WJ4006820	WJ4006933	230.70	150	103	-1.54	0.09	0.13
LN4019606	WJ4011763	WJ59726	64.41	150	103	-0.09	0.01	0.00
LN4019609	WJ4002365	WJ4002319	168.05	150	103	0.61	0.03	0.02
LN4019610	WJ4006835	WJ4006820	104.58	150	103	-2.06	0.12	0.22
LN4019633	WJ53661	WJ4017357	415.53	150	103	-3.28	0.19	0.52
LN4019645	WJ4001964	WJ4019415	199.52	150	103	-4.46	0.25	0.91
LN4019653	WJ4006928	WJ4006399	285.49	150	103	5.24	0.30	1.23
LN4019793	WJ58336	WJ53448	205.27	150	103	-7.42	0.42	2.34
LN4019800	WJ53450	WJ4006399	198.56	150	103	3.94	0.22	0.73
LN4019893	WJ4011683	WJ4011482	307.01	150	103	-1.55	0.09	0.13
LN4019897	WJ4020882	WJ4011482	41.83	300	120	35.32	0.50	1.08
LN4019935	WJ4011011	WJ4011479	32.36	300	120	27.60	0.39	0.69
LN4019948	WJ4011680	WJ4011479	320.68	150	103	-1.21	0.07	0.08
LN4019952	WJ53717	WJ4017786	191.86	150	103	-4.07	0.23	0.77
LN4019968	WJ4017786	WJ49143	85.72	150	103	3.69	0.21	0.64
LN4019970	WJ4011683	WJ4011680	102.68	150	103	3.96	0.22	0.73
LN4019977	WJ4011479	WJ4011476	89.96	300	120	26.11	0.37	0.62
LN4019980	WJ53512	WJ49141	78.73	150	103	0.01	0.00	0.00
LN4019985	WJ4002333	WJ4002321	100.10	150	103	0.96	0.05	0.05
LN4019986	WJ4011680	WJ4017630	75.80	150	103	4.87	0.28	1.07
LN4019992	WJ4011671	WJ4011676	68.39	150	103	0.00	0.00	0.00
LN4019995	WJ4018024	WJ4002498	100.51	150	103	2.58	0.15	0.33
LN4020007	WJ4011676	WJ4011677	111.33	150	103	1.99	0.11	0.21
LN4020014	WJ4011582	WJ4011579	47.46	150	103	0.50	0.03	0.02
LN4020022	WJ4011579	WJ4011476	312.65	150	103	-1.81	0.10	0.17
LN4020024	WJ4011476	WJ4011458	110.24	300	120	23.14	0.33	0.50
LN4020027	WJ4003473	WJ4002977	134.34	150	103	0.12	0.01	0.00
LN4020041	WJ4002064	WJ4002079	477.95	150	114	1.11	0.06	0.06
LN4020044	WJ52877	WJ4002079	74.88	300	120	-9.81	0.14	0.10
LN4020051	WJ4019996	WJ4011458	222.89	150	103	-1.48	0.08	0.12
LN4020071	WJ4011411	WJ4011382	41.52	150	103	2.07	0.12	0.22
LN4020079	WJ4011458	WJ4010946	79.08	300	120	20.44	0.29	0.39
LN4020086	WJ4002202	WJ4002158	100.31	150	103	2.96	0.17	0.43
LN4020089	WJ49142	WJ4002204	94.09	150	103	2.76	0.16	0.37
LN4020099	WJ4011399	WJ4011390	97.09	150	103	1.68	0.09	0.15
LN4020101	WJ4011454	WJ4010917	85.95	300	120	18.31	0.26	0.32
LN4020106	WJ4011390	WJ4011387	73.40	150	103	2.01	0.11	0.21
LN4020109	WJ4011387	WJ4011401	143.76	150	103	0.23	0.01	0.00
LN4020117	WJ4011387	WJ4011989	65.34	150	103	1.57	0.09	0.13
LN4020130	WJ4011989	WJ4011382	194.77	150	103	1.70	0.10	0.15
LN4020136	WJ4011452	WJ4011449	95.59	300	120	17.34	0.25	0.29
LN4020142	WJ4011411	WJ4011449	170.74	150	103	-0.06	0.00	0.00
LN4020145	WJ4011449	WJ4010236	51.72	300	120	16.44	0.23	0.26
LN4020147	WJ4010236	WJ4011378	50.39	300	120	42.79	0.61	1.55
LN4020153	WJ4011382	WJ4011378	169.80	150	103	3.17	0.18	0.49
LN4020186	WJ4011139	WJ4011189	221.13	150	103	0.17	0.01	0.00
LN4020197	WJ4021011	WJ4011947	268.91	150	103	-0.01	0.00	0.00
LN4020328	WJ48243	WJ4011304	100.29	150	103	0.71	0.04	0.03
LN4020341	WJ4011303	WJ4011289	154.86	150	103	0.12	0.01	0.00
LN4020348	WJ48211	WJ4021044	174.38	150	103	0.50	0.03	0.02
LN4020450	WJ4002064	WJ4006591	52.10	150	103	-11.45	0.65	5.23
LN4020453	WJ4002079	WJ4002064	286.52	300	120	-9.53	0.13	0.10
LN4020467	WJ4003146	WJ4003628	101.18	150	103	-0.13	0.01	0.00
LN4020477	WJ4002321	WJ4002204	205.21	150	103	-2.53	0.14	0.32
LN4020492	WJ4003633	WJ4002512	135.88	300	120	-2.28	0.03	0.01
LN4020505	WJ4004623	WJ4004621	86.37	200	115	8.30	0.26	0.58

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4020509	WJ4004621	WJ4004501	94.33	200	115	4.91	0.16	0.22
LN4020512	WJ4004501	WJ4004488	96.62	200	115	1.29	0.04	0.02
LN4020515	WJ4004488	WJ4003845	96.74	200	115	-2.56	0.08	0.07
LN4020518	WJ4003845	WJ4003830	79.36	200	115	-3.49	0.11	0.12
LN4020527	WJ49003	WJ4003831	240.72	300	120	-29.25	0.41	0.76
LN4020541	WJ4003930	WJ4003834	220.75	300	120	-32.84	0.46	0.95
LN4020620	WJ4003924	WJ4003925	450.40	300	120	4.02	0.06	0.02
LN4020624	WJ4003925	WJ4003927	255.35	300	120	6.20	0.09	0.04
LN4020629	WJ4003927	WJ4003929	218.11	300	120	7.59	0.11	0.06
LN4020635	WJ4003929	WJ4003930	218.95	300	120	9.88	0.14	0.10
LN4020701	WJ4004140	WJ4017359	131.84	150	103	1.88	0.11	0.18
LN4020715	WJ4004565	WJ4004567	112.86	150	103	0.91	0.05	0.05
LN4020800	WJ58760	WJ4004354	273.89	150	103	0.91	0.05	0.05
LN4020807	WJ4006153	WJ4004368	365.69	150	103	-1.23	0.07	0.08
LN4020813	WJ4004558	WJ4004417	201.64	150	103	0.11	0.01	0.00
LN4020842	WJ4004563	WJ4004560	99.01	150	103	-0.55	0.03	0.02
LN4020845	WJ4004558	WJ62335	92.90	150	103	2.49	0.14	0.31
LN4020850	WJ4004560	WJ4004140	273.96	150	103	1.67	0.09	0.15
LN4020852	WJ4004418	WJ4017359	163.68	150	103	-0.09	0.01	0.00
LN4020855	WJ4017359	WJ4003927	84.19	150	103	1.57	0.09	0.13
LN4020889	WJ4005489	WJ4004584	121.96	150	103	2.56	0.14	0.33
LN4020901	WJ4004148	WJ4004584	408.67	150	103	-0.40	0.02	0.01
LN4020910	WJ4004148	WJ4017373	99.98	150	103	2.89	0.16	0.41
LN4020912	WJ4017373	WJ4003922	131.39	150	103	0.08	0.00	0.00
LN4020918	WJ4004151	WJ4004148	89.12	150	103	2.81	0.16	0.39
LN4020920	WJ4004151	WJ4003907	73.93	150	103	0.06	0.00	0.00
LN4020925	WJ4004827	WJ4004151	202.73	150	103	3.04	0.17	0.45
LN4020930	WJ4003958	WJ4004827	124.90	150	103	1.54	0.09	0.13
LN4020945	WJ4003958	WJ4004177	93.90	150	103	-1.92	0.11	0.19
LN4020972	WJ4004177	WJ4003978	124.40	150	103	1.66	0.09	0.15
LN4020977	WJ4003978	WJ4004827	97.97	150	103	1.74	0.10	0.16
LN4020983	WJ4004184	WJ4003978	88.12	150	103	0.24	0.01	0.00
LN4020999	WJ4003998	WJ4004184	77.92	150	103	1.25	0.07	0.09
LN4021033	WJ4004000	WJ4003998	93.27	150	114	-1.52	0.09	0.10
LN4021039	WJ4004013	WJ4004000	54.40	150	103	-0.07	0.00	0.00
LN4021047	WJ4004286	WJ4004000	132.78	150	114	-1.35	0.08	0.08
LN4021058	WJ4017373	WJ4003924	60.63	150	103	4.15	0.23	0.80
LN4021067	WJ4004563	WJ4004567	213.78	150	103	1.26	0.07	0.09
LN4021087	WJ4004537	WJ4017766	218.82	150	103	-0.52	0.03	0.02
LN4021103	WJ4017766	WJ48979	215.25	150	103	-2.55	0.14	0.32
LN4021107	WJ4017666	WJ4004963	24.71	150	103	-5.57	0.32	1.38
LN4021111	WJ4004623	WJ4002498	439.88	300	132	-15.10	0.21	0.19
LN4021140_A001	WJ4013756	J-HY4024238	104.32	400	129	-22.49	0.18	0.10
LN4021140_A002	J-HY4024238	WJ27994	52.47	400	129	-22.49	0.18	0.10
LN4021159_A001	WJ4013756	J-HY4023355	80.69	150	103	-3.09	0.17	0.46
LN4021159_A002	J-HY4023355	WJ4013827	118.63	150	103	-3.09	0.17	0.46
LN4021177	WJ4013827	WJ4013831	106.01	150	103	-4.02	0.23	0.75
LN4021230	WJ4005072	WJ4004482	159.65	150	103	-2.08	0.12	0.22
LN4021250	WJ4004482	WJ4004476	175.99	150	114	0.09	0.01	0.00
LN4021269	WJ4005083	WJ48988	215.89	150	103	-3.35	0.19	0.54
LN4021305	WJ21660	WJ48984	216.92	150	103	-2.90	0.16	0.41
LN4021309	WJ4004537	WJ4004538	94.88	150	103	2.40	0.14	0.29
LN4021312	WJ4004538	WJ4005072	189.69	150	103	2.30	0.13	0.27
LN4021321	WJ4013852	WJ4013861	196.60	150	103	-2.81	0.16	0.39
LN4021361	WJ4004482	WJ48994	274.97	150	103	-2.44	0.14	0.30
LN4021375	WJ4013256	WJ21558	179.36	150	114	-0.72	0.04	0.03
LN4021384	WJ4013268	WJ4013256	129.75	150	103	1.13	0.06	0.07
LN4021394	WJ4013245	WJ4013268	83.31	150	103	2.10	0.12	0.23
LN4021402	WJ4013274	WJ4013256	121.65	150	114	-1.71	0.10	0.13
LN4021404	WJ4004584	WJ4017373	306.62	150	103	1.67	0.09	0.15
LN4021406	WJ4013246	WJ4013245	99.80	150	103	-2.60	0.15	0.34
LN4021412	WJ4013252	WJ4013246	102.79	150	103	-1.34	0.08	0.10
LN4021418	WJ4013704	WJ4013243	279.08	150	103	-1.93	0.11	0.19
LN4021431	WJ4013523	WJ4013520	228.58	150	103	-0.75	0.04	0.03
LN4021434	WJ4013252	WJ4013519	283.01	150	103	0.96	0.05	0.05
LN4021461	WJ4013528	WJ4013523	79.45	150	103	1.24	0.07	0.08
LN4021468	WJ4013530	WJ4013528	82.51	150	103	-4.72	0.27	1.01
LN4021549	WJ59065	WJ4005428	119.46	150	103	3.03	0.17	0.44
LN4021571	WJ4005428	WJ4005731	136.69	150	103	0.71	0.04	0.03
LN4021626	WJ4006221	WJ4004537	95.22	150	103	2.08	0.12	0.22
LN4021631	WJ4006217	WJ4004558	94.98	150	103	2.73	0.15	0.37
LN4021633	WJ4006217	WJ4006221	218.44	150	103	-1.03	0.06	0.06
LN4021642	WJ4006212	WJ4006214	80.73	150	103	2.15	0.12	0.24
LN4021645	WJ4005430	WJ4004368	133.18	150	103	1.19	0.07	0.08
LN4021646	WJ4005430	WJ4006148	225.37	150	103	0.11	0.01	0.00
LN4021653	WJ48956	WJ48963	105.90	150	103	0.78	0.04	0.04

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4021694	WJ58764	WJ4006222	140.12	150	103	1.86	0.11	0.18
LN4021713	WJ58749	WJ48969	121.67	150	103	1.82	0.10	0.17
LN4021728	WJ48973	WJ4006038	317.03	150	103	-3.37	0.19	0.54
LN4021745	WJ4006036	WJ4004963	93.82	200	115	-0.83	0.03	0.01
LN4021749	WJ4006048	WJ4006038	98.23	200	115	1.24	0.04	0.02
LN4021758	WJ4006069	WJ4006048	53.32	200	115	-0.03	0.00	0.00
LN4021766	WJ58747	WJ4006069	30.12	150	114	-3.71	0.21	0.54
LN4021771	WJ4006067	WJ4006069	48.70	200	115	3.73	0.12	0.13
LN4021774	WJ4013538	WJ4013530	503.77	150	103	-2.92	0.17	0.42
LN4021777_A001	WJ4013511	J-HY4027373	67.61	150	103	-2.74	0.16	0.37
LN4021777_A002	J-HY4027373	WJ4013482	38.12	150	103	-2.74	0.16	0.37
LN4021780	WJ4013482	WJ4013512	260.02	150	103	0.31	0.02	0.01
LN4021783	WJ4013482	WJ4013443	158.46	150	103	-3.37	0.19	0.54
LN4021786	WJ4013443	WJ4013444	40.74	150	103	-3.11	0.18	0.47
LN4021793	WJ4013457	WJ4013444	99.17	150	103	1.11	0.06	0.07
LN4021797	WJ4013458	WJ4013470	95.13	150	103	0.33	0.02	0.01
LN4021803	WJ4013470	WJ4013457	326.23	150	103	0.01	0.00	0.00
LN4021806	WJ4013416	WJ4013530	99.17	150	103	-1.45	0.08	0.11
LN4021808	WJ4013418	WJ4013444	179.86	150	103	2.24	0.13	0.26
LN4021810	WJ4013414	WJ4013416	162.96	150	103	2.98	0.17	0.43
LN4021811	WJ61779	WJ4013418	136.36	150	103	-1.84	0.10	0.18
LN4021812	WJ4006036	WJ4006109	224.48	150	103	-1.59	0.09	0.14
LN4021813	WJ4013414	WJ4013523	94.87	150	103	-1.90	0.11	0.19
LN4021819	WJ4013361	WJ4013362	63.67	150	103	0.01	0.00	0.00
LN4021827	WJ4006091	WJ4006109	100.17	150	103	-1.21	0.07	0.08
LN4021828	WJ4013361	WJ4013338	151.75	150	103	0.09	0.00	0.00
LN4021829	WJ4013338	WJ4013348	51.33	150	103	0.01	0.00	0.00
LN4021833	WJ4006048	WJ4006091	212.10	150	103	-1.33	0.08	0.10
LN4021838	WJ4013338	WJ4013322	338.51	150	114	-0.27	0.02	0.00
LN4021846	WJ4013383	WJ4013361	229.11	150	103	0.32	0.02	0.01
LN4021849	WJ4013322	WJ4013382	99.27	150	103	-0.20	0.01	0.00
LN4021850	WJ4006067	WJ4006089	199.87	150	103	-1.26	0.07	0.09
LN4021853	WJ4006089	WJ4006091	100.50	150	103	0.77	0.04	0.03
LN4021863	WJ53724	WJ4006089	88.48	150	103	2.42	0.14	0.29
LN4021873	WJ4017333	WJ53722	80.31	150	103	0.95	0.05	0.05
LN4021876	WJ4006075	WJ4017333	174.56	150	103	-2.23	0.13	0.25
LN4021879	WJ4013283	WJ4013274	105.88	150	114	-1.89	0.11	0.15
LN4021884	WJ4013287	WJ4013283	130.56	150	114	-1.02	0.06	0.05
LN4021887	WJ4013287	WJ4013382	153.92	150	103	0.38	0.02	0.01
LN4021888	WJ4013299	WJ4013287	107.51	150	114	-0.46	0.03	0.01
LN4021890	WJ4013322	WJ4013299	112.11	150	114	-0.29	0.02	0.00
LN4021905	WJ4005699	WJ4006067	105.79	200	115	2.77	0.09	0.08
LN4021907	WJ4005699	WJ4006075	98.55	200	115	-0.71	0.02	0.01
LN4021911_A001	WJ28234	J-HY4029416	88.51	400	129	11.93	0.09	0.03
LN4021911_A002	J-HY4029416	WJ4016440	99.62	400	129	11.93	0.09	0.03
LN4021930	WJ4014459	WJ4014757	98.63	150	114	2.50	0.14	0.26
LN4021937	WJ4014763	WJ4014757	254.55	150	103	0.24	0.01	0.00
LN4021938	WJ4005966	WJ4005968	67.68	150	103	-0.25	0.01	0.00
LN4021939_A001	WJ4014473	J-HY4032974	86.26	300	120	-7.19	0.10	0.06
LN4021939_A002	J-HY4032974	WJ4014459	106.62	300	120	-7.19	0.10	0.06
LN4021942	WJ4014475	WJ4014474	6.94	300	120	-5.59	0.08	0.04
LN4021944_A001	WJ4014474	J-HY16117	63.14	300	132	0.00	0.00	0.00
LN4021944_A002	J-HY16117	J-HY4032126	97.49	300	132	0.00	0.00	0.00
LN4021944_A003	J-HY4032126	J-HY4032075	92.10	300	132	0.00	0.00	0.00
LN4021944_A004	J-HY4032075	WJ21239	14.75	300	132	0.00	0.00	0.00
LN4021949	WJ4014763	WJ4014475	110.11	150	103	-1.46	0.08	0.12
LN4021959_A001	WJ4014624	J-HY4033084	73.38	300	120	-4.08	0.06	0.02
LN4021959_A002	J-HY4033084	WJ4014475	77.72	300	120	-4.08	0.06	0.02
LN4021962	WJ4014623	WJ4014624	46.09	300	120	-3.34	0.05	0.01
LN4021963	WJ4014624	WJ4014701	115.67	150	103	0.64	0.04	0.03
LN4021972	WJ4014711	WJ4014701	104.03	150	103	-0.66	0.04	0.03
LN4021975	WJ4014711	WJ4014719	165.46	150	103	1.00	0.06	0.06
LN4021990	WJ52171	WJ4017479	202.14	150	103	0.18	0.01	0.00
LN4021996	WJ52221	WJ4005982	178.01	150	103	0.13	0.01	0.00
LN4022004	WJ4017752	WJ4014711	175.93	150	103	0.52	0.03	0.02
LN4022007	WJ4017751	WJ4014701	232.92	150	103	0.24	0.01	0.00
LN4022011	WJ4017749	WJ4014623	223.12	300	120	-1.77	0.03	0.00
LN4022022	WJ48953	WJ4005430	74.26	150	103	1.47	0.08	0.12
LN4022025	WJ4014848	WJ4014820	42.29	150	103	0.00	0.00	0.00
LN4022030	WJ4005613	WJ4005429	95.55	150	114	-0.26	0.01	0.00
LN4022038	WJ4014873	WJ4014820	92.61	150	103	0.57	0.03	0.02
LN4022040	WJ4017753	WJ4014873	222.49	150	103	1.53	0.09	0.13
LN4022098	WJ53069	WJ4014757	84.57	150	114	-2.55	0.14	0.27
LN4022101	WJ4014721	WJ53078	184.08	150	103	0.61	0.03	0.02
LN4022156	WJ4006350	WJ4005489	239.27	150	103	2.31	0.13	0.27
LN4022180	WJ4005429	WJ4006153	271.94	150	103	1.83	0.10	0.18

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4022184	WJ4017763	WJ4017738	219.36	150	103	-0.36	0.02	0.01
LN4022190	WJ4017743	WJ4017738	93.10	200	115	2.74	0.09	0.07
LN4022206	WJ4017749	WJ4017743	88.01	200	115	3.39	0.11	0.11
LN4022300	WJ4017764	WJ4017763	218.22	150	103	-0.64	0.04	0.03
LN4022303	WJ4015172	WJ4017764	95.13	150	103	1.37	0.08	0.10
LN4022311	WJ4015178	WJ4015172	86.94	150	103	0.95	0.05	0.05
LN4022315	WJ4015332	WJ4015177	134.00	300	120	-4.55	0.06	0.02
LN4022326	WJ4015355	WJ22721	279.46	150	103	1.17	0.07	0.08
LN4022327	WJ25697	WJ4015355	154.49	300	120	-0.69	0.01	0.00
LN4022331	WJ4015355	WJ4015339	169.05	300	120	-4.53	0.06	0.02
LN4022338	WJ4015289	WJ4015284	295.30	150	103	-0.32	0.02	0.01
LN4022344	WJ4015278	WJ4015284	206.49	150	103	-0.09	0.01	0.00
LN4022346	WJ4015289	WJ4015259	420.86	150	103	-0.47	0.03	0.01
LN4022349	WJ4015284	WJ4015279	96.25	150	103	-0.78	0.04	0.04
LN4022361	WJ4015259	WJ4015238	134.05	250	115	-0.91	0.02	0.00
LN4022363	WJ4015229	WJ4015238	82.13	250	115	0.91	0.02	0.00
LN4022364	WJ4015904	WJ4015822	83.71	150	103	-0.01	0.00	0.00
LN4022368	WJ4015822	WJ4015863	115.64	150	103	-0.02	0.00	0.00
LN4022370	WJ4015576	WJ4015863	112.92	150	103	0.00	0.00	0.00
LN4022372	WJ4015863	WJ4017752	166.02	150	103	-0.17	0.01	0.00
LN4022374	WJ4015576	WJ4017752	90.27	300	120	-1.70	0.02	0.00
LN4022416	WJ4015822	WJ4017751	325.35	150	103	-0.21	0.01	0.00
LN4022420	WJ4017752	WJ4017751	87.07	300	120	-2.57	0.04	0.01
LN4022433	WJ4006222	WJ48972	433.29	150	103	-1.67	0.09	0.15
LN4022447	WJ4017785	WJ54442	90.53	150	103	2.45	0.14	0.30
LN4022451	WJ58427	WJ58745	295.60	400	129	22.51	0.18	0.10
LN4022490_A001	WJ4015473	WV58425	85.98	150	103	0.00	0.00	0.00
LN4022490_A002	WV58425	WJ54490	85.98	150	103	0.00	0.00	0.00
LN4022491	WJ4015473	WJ4015778	125.72	150	103	0.13	0.01	0.00
LN4022508	WJ54423	WJ4015640	86.81	150	103	-2.11	0.12	0.23
LN4022515	WJ4020864	WJ4008852	20.22	300	120	43.92	0.62	1.62
LN4022518	WJ4008852	WJ4017698	303.95	150	103	-0.35	0.02	0.01
LN4022538	WJ4008675	WJ4008658	263.18	300	120	-2.20	0.03	0.01
LN4022540	WJ4008678	WJ4008677	66.63	300	120	3.86	0.05	0.02
LN4022553	WJ4008692	WJ4008690	91.40	300	120	4.91	0.07	0.03
LN4022596_A001	WJ4008778	WV58426	335.10	150	103	0.00	0.00	0.00
LN4022596_A002	WV58426	WJ4019876	335.10	150	103	0.00	0.00	0.00
LN4022600	WJ58946	WJ4008818	93.03	300	120	42.89	0.61	1.55
LN4022602	WJ4008818	WJ4008815	181.10	150	103	0.42	0.02	0.01
LN4022604	WJ4008818	WJ4008778	81.87	300	120	41.40	0.59	1.46
LN4022606	WJ4008778	WJ4008733	94.16	300	120	41.12	0.58	1.44
LN4022607	WJ4008733	WJ4008721	98.27	300	120	37.58	0.53	1.22
LN4022624	WJ53989	WJ54013	90.80	150	103	3.68	0.21	0.64
LN4022628	WJ4008721	WJ4008712	108.43	300	120	39.49	0.56	1.33
LN4022703_A001	WJ4008657	WV4011482	2.17	300	120	52.60	0.74	2.27
LN4022703_A002	WV4011482	WJ4008654	4.29	300	120	52.60	0.74	2.27
LN4022752	WJ4008712	WJ4008619	129.43	300	120	35.07	0.50	1.07
LN4022757	WJ4019790	WJ4008399	121.64	150	103	3.90	0.22	0.71
LN4022824	WJ4008619	WJ4008497	91.75	300	120	33.55	0.47	0.99
LN4022834	WJ4015733	WJ4010614	90.83	300	120	7.60	0.11	0.06
LN4022835	WJ4008433	WJ4008497	118.76	300	120	-27.98	0.40	0.70
LN4022953	WJ4008182	WJ4008473	405.39	600	130	232.63	0.82	1.05
LN4022960	WJ4017783	WJ4017784	95.65	200	115	0.97	0.03	0.01
LN4022967	WJ4017782	WJ4017783	96.86	200	115	1.19	0.04	0.02
LN4022974	WJ4017781	WJ4017782	101.64	200	115	1.39	0.04	0.02
LN4022978	WJ4017780	WJ4017781	99.56	200	115	1.75	0.06	0.03
LN4022982	WJ55422	WJ4017780	92.16	200	115	1.95	0.06	0.04
LN4022988	WJ4017788	WJ55423	80.70	200	115	2.12	0.07	0.05
LN4023093	WJ4016135	WJ4016125	103.19	150	103	0.74	0.04	0.03
LN4023100	WJ55469	WJ4015733	98.38	300	120	7.04	0.10	0.05
LN4023108	WJ4015745	WJ55472	85.47	300	120	7.68	0.11	0.06
LN4023110	WJ4015745	WJ4016125	167.11	150	103	0.43	0.02	0.01
LN4023121	WJ52757	WJ4015745	86.36	300	120	8.19	0.12	0.07
LN4023141	WJ52748	WJ4015768	80.64	150	103	0.08	0.00	0.00
LN4023147	WJ53108	WJ4015766	90.59	150	114	0.07	0.00	0.00
LN4023168	WJ4008460	WJ4008399	173.56	300	120	-5.64	0.08	0.04
LN4023170	WJ4008399	WJ48471	74.84	300	120	-3.49	0.05	0.01
LN4023171	WJ4008389	WJ4008332	141.07	300	120	-4.22	0.06	0.02
LN4023239	WJ4017777	WJ4017788	95.26	200	115	2.25	0.07	0.05
LN4023245	WJ4017775	WJ4017777	94.17	200	115	2.43	0.08	0.06
LN4023255	WJ4017738	WJ4017775	92.97	200	115	2.52	0.08	0.06
LN4023644	WJ4010425	WJ58401	166.22	300	120	16.02	0.23	0.25
LN4023674	WJ4006937	WJ4017187	72.68	300	120	10.21	0.14	0.11
LN4023684	WJ4006938	WJ4017150	107.31	300	120	-10.36	0.15	0.11
LN4023688	WJ4006935	WJ4006938	110.10	150	103	-0.10	0.01	0.00
LN4023699	WJ4020259	WJ4017150	114.01	300	120	10.42	0.15	0.11

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4023804	WJ4010352	WJ4010429	89.06	300	120	16.87	0.24	0.28
LN4023810	WJ4010347	WJ4010352	122.49	300	120	18.43	0.26	0.33
LN4023829	WJ4010352	WJ4010440	121.33	150	103	1.50	0.09	0.12
LN4023839	WJ4006959	WJ4015578	155.84	300	120	-11.94	0.17	0.15
LN4023878	WJ4010452	WJ4010440	137.23	150	103	-0.76	0.04	0.03
LN4023911	WJ4017781	WJ4016704	222.33	150	103	-0.71	0.04	0.03
LN4023930	WJ4010476	WJ4010452	94.06	150	103	-0.40	0.02	0.01
LN4023939	WJ4010476	WJ4017292	131.64	150	103	0.07	0.00	0.00
LN4023942	WJ20935	WJ4010476	238.00	150	103	-0.12	0.01	0.00
LN4023951	WJ4010440	WJ4017292	466.27	150	103	0.43	0.02	0.01
LN4024013	WJ4017777	WJ4016809	358.08	150	103	-0.85	0.05	0.04
LN4024057	WJ4010377	WJ4010389	166.37	150	103	0.88	0.05	0.04
LN4024061	WJ4016727	WJ4016749	28.43	400	129	-1.41	0.01	0.00
LN4024070	WJ4010392	WJ4010389	77.84	150	103	-1.53	0.09	0.13
LN4024078	WJ4010452	WJ4010377	71.90	150	103	0.24	0.01	0.00
LN4024110	WJ4010518	WJ4010347	92.30	150	103	-0.52	0.03	0.02
LN4024170_A001	WJ4010424	WV4011161	194.00	900	130	-352.21	0.55	0.31
LN4024170_A002	WV4011161	WV4011231	533.46	900	130	-352.21	0.55	0.31
LN4024170_A003	WV4011231	WV4011354	84.53	900	130	-352.21	0.55	0.31
LN4024170_A004	WV4011354	WJ4012384	8.80	900	130	-352.21	0.55	0.31
LN4024172	WJ4017691	WJ4010347	277.23	300	120	19.07	0.27	0.35
LN4024174_A001	WJ4016785	J-HY4032598	42.42	400	129	0.28	0.00	0.00
LN4024174_A002	J-HY4032598	WJ4016750	54.59	400	129	0.28	0.00	0.00
LN4024219_A001	WJ4016727	J-HY4033486	78.80	300	132	0.23	0.00	0.00
LN4024219_A002	J-HY4033486	J-HY4033482	105.56	300	132	0.23	0.00	0.00
LN4024219_A003	J-HY4033482	WJ58486	35.97	300	132	0.23	0.00	0.00
LN4024303	WJ4010414	WJ4017794	9.33	200	115	6.56	0.21	0.37
LN4024317	WJ4017282	WJ4010417	4.61	400	129	32.50	0.26	0.20
LN4024445	WJ4010376	WJ4010421	94.54	150	103	-1.84	0.10	0.18
LN4024447	WJ4010389	WJ4010376	249.68	150	103	-0.84	0.05	0.04
LN4024450	WJ4010377	WJ4010376	86.46	150	103	-0.75	0.04	0.03
LN4024459	WJ4010429	WJ4010433	122.66	150	103	0.05	0.00	0.00
LN4024640	WJ4017284	WJ4018217	123.69	150	103	0.72	0.04	0.03
LN4024650	WJ4010521	WJ4017284	256.27	150	103	1.24	0.07	0.09
LN4024669	WJ4010304	WJ4010297	57.94	150	103	-0.59	0.03	0.02
LN4024675	WJ4017287	WJ4010297	74.17	150	103	-0.07	0.00	0.00
LN4024677	WJ4010295	WJ4010297	196.94	150	103	0.83	0.05	0.04
LN4024738_A001	WJ4017229	J-HY4039988	95.33	250	115	12.20	0.25	0.40
LN4024738_A002	J-HY4039988	J-HY4039984	133.97	250	115	12.20	0.25	0.40
LN4024738_A003	J-HY4039984	J-HY4039977	128.14	250	115	12.20	0.25	0.40
LN4024738_A004	J-HY4039977	J-HY4039954	89.18	250	115	12.20	0.25	0.40
LN4024738_A005	J-HY4039954	J-HY4039949	55.25	250	115	12.20	0.25	0.40
LN4024738_A006	J-HY4039949	WJ4010414	55.25	250	115	12.20	0.25	0.40
LN4024858_A001	WJ4016786	J-HY4032614	81.70	400	129	-5.80	0.05	0.01
LN4024858_A002	J-HY4032614	WJ4017083	79.45	400	129	-5.80	0.05	0.01
LN4024908_A001	WJ4017083	J-HY4032627	94.38	400	129	-11.54	0.09	0.03
LN4024908_A002	J-HY4032627	WJ4016440	36.54	400	129	-11.54	0.09	0.03
LN4024911_A001	WJ4016440	J-HY4033936	59.90	150	103	-1.72	0.10	0.16
LN4024911_A002	J-HY4033936	J-HY4033929	80.16	150	103	-1.72	0.10	0.16
LN4024911_A003	J-HY4033929	J-HY22579	59.38	150	103	-1.72	0.10	0.16
LN4024911_A004	J-HY22579	WJ58473	15.03	150	103	-1.72	0.10	0.16
LN4024963	WJ4017736	WJ4017733	218.81	150	103	-1.31	0.07	0.09
LN4024971	WJ4017775	WJ4017736	222.58	150	103	-0.70	0.04	0.03
LN4024984	WJ4017587	WJ4017590	101.60	150	103	-0.08	0.00	0.00
LN4024990	WJ4009617	WJ4017590	71.45	150	103	-0.07	0.00	0.00
LN4024991	WJ4017159	WJ4017755	100.97	300	120	-6.72	0.10	0.05
LN4024999	WJ4017159	WJ4015480	312.45	150	103	0.21	0.01	0.00
LN4025000	WJ49239	WJ4009615	73.19	150	103	0.07	0.00	0.00
LN4025002	WJ4016842	WJ4017755	204.62	150	103	-4.45	0.25	0.91
LN4025008	WJ4017750	WJ4017159	109.06	300	120	-6.19	0.09	0.04
LN4025015	WJ4017748	WJ4017750	153.06	300	120	-4.14	0.06	0.02
LN4025022	WJ4017742	WJ4017748	102.90	300	120	-4.17	0.06	0.02
LN4025024	WJ4017742	WJ4015789	252.61	150	103	3.96	0.22	0.73
LN4025033	WJ4015851	WJ4017750	111.56	150	103	-5.66	0.32	1.42
LN4025077	WJ4017793	WJ4016842	203.33	150	103	-4.22	0.24	0.82
LN4025081	WJ4015882	WJ4017793	107.62	150	103	-0.09	0.01	0.00
LN4025128	WJ4015789	WJ4015780	341.26	150	103	4.06	0.23	0.77
LN4025138	WJ4016341	WJ22344	103.70	150	103	-0.04	0.00	0.00
LN4025171	WJ4015780	WJ4016359	202.30	150	103	4.10	0.23	0.78
LN4025199	WJ4009602	WJ49244	39.91	150	103	-0.06	0.00	0.00
LN4025284_A001	WJ58526	J-HY4007488	9.08	400	129	-21.38	0.17	0.09
LN4025284_A002	J-HY4007488	WJ4017778	74.64	400	129	-21.38	0.17	0.09
LN4025291_A001	WJ4015621	J-HY4008124	86.00	400	129	-1.49	0.01	0.00
LN4025291_A002	J-HY4008124	WJ4017778	118.08	400	129	-1.49	0.01	0.00
LN4025294_A001	WJ4015621	J-HY4007498	48.68	150	103	-1.02	0.06	0.06
LN4025294_A002	J-HY4007498	WJ52055	64.81	150	103	-1.02	0.06	0.06

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4025297_A001	WJ58513	J-HY4007499	2.91	150	103	-1.44	0.08	0.12
LN4025297_A002	J-HY4007499	WJ4015621	77.67	150	103	-1.44	0.08	0.11
LN4025309	WJ58504	WJ58108	41.91	300	120	-11.76	0.17	0.14
LN4025311_A001	WJ58498	J-HY4007537	131.24	400	129	-22.70	0.18	0.10
LN4025311_A002	J-HY4007537	J-HY4007535	116.27	400	129	-22.70	0.18	0.10
LN4025311_A003	J-HY4007535	WJ4018542	16.26	400	129	-22.70	0.18	0.10
LN4025318_A001	WJ4016359	J-HY4008122	80.27	400	129	-7.99	0.06	0.02
LN4025318_A002	J-HY4008122	WJ4016358	186.70	400	129	-7.99	0.06	0.01
LN4025326_A001	WJ26555	J-HY4007539	30.19	300	120	-11.43	0.16	0.13
LN4025326_A002	J-HY4007539	WJ4016358	65.38	300	120	-11.43	0.16	0.13
LN4025332	WJ4016402	WJ4017742	466.38	300	120	-3.82	0.05	0.02
LN4025333	WJ4016398	WJ4016402	35.75	300	120	-5.50	0.08	0.03
LN4025395	WJ4016393	WJ4016398	90.38	300	120	-1.29	0.02	0.00
LN4025407	WJ4016389	WJ4016393	100.78	300	120	2.93	0.04	0.01
LN4025412	WJ4016388	WJ4016389	93.19	300	120	6.97	0.10	0.05
LN4025419	WJ4014260	WJ4016388	95.89	300	120	11.69	0.17	0.14
LN4025422	WJ4016532	WJ4016398	186.56	150	103	-4.06	0.23	0.77
LN4025464	WJ4016534	WJ4016532	203.39	150	103	-4.03	0.23	0.76
LN4025528	WJ4016519	WJ4016534	202.80	150	103	-3.45	0.20	0.57
LN4025611	WJ4016358	WJ4016357	325.06	400	129	-28.40	0.23	0.16
LN4025705	WJ4017702	WJ4010581	91.30	300	120	-8.41	0.12	0.08
LN4025719	WJ4016597	WJ4016689	129.63	150	103	4.15	0.24	0.80
LN4025732	WJ55162	WJ4016689	188.96	150	103	-3.55	0.20	0.60
LN4025759	WJ55171	WJ4015383	191.20	300	120	-34.47	0.49	1.04
LN4025760	WJ4015331	WJ55170	88.16	300	120	-36.78	0.52	1.17
LN4025764	WJ4015383	WJ4015345	367.29	150	103	3.48	0.20	0.58
LN4025769	WJ53495	WJ4015331	104.59	300	120	-32.59	0.46	0.93
LN4025771	WJ4015324	WJ4015331	102.32	150	103	-4.01	0.23	0.75
LN4025778	WJ4016685	WJ53524	201.18	150	103	4.81	0.27	1.05
LN4025805	WJ4015497	WJ53523	112.59	150	103	-4.30	0.24	0.85
LN4025808	WJ4015499	WJ4015497	196.42	150	114	-0.13	0.01	0.00
LN4025813	WJ4017759	WJ4015497	98.21	150	103	-4.04	0.23	0.76
LN4025824	WJ4016826	WJ4017759	256.47	150	103	-3.42	0.19	0.56
LN4025828	WJ4017755	WJ4016826	128.97	150	103	-4.79	0.27	1.04
LN4025858	WJ4015324	WJ4015317	341.04	150	103	3.74	0.21	0.66
LN4025866	WJ4010597	WJ4010583	97.94	300	120	8.07	0.11	0.07
LN4025874	WJ4015317	WJ4017742	400.52	150	103	4.03	0.23	0.76
LN4025886	WJ4017178	WJ4014458	95.49	150	103	0.00	0.00	0.00
LN4025896_A001	WJ4020278	J-HY4006498	198.51	150	103	4.28	0.24	0.84
LN4025896_A002	J-HY4006498	WJ4017178	151.14	150	103	4.28	0.24	0.84
LN4025904	WJ4009686	WJ4009359	102.30	300	120	-27.49	0.39	0.68
LN4025907	WJ4014481	WJ21298	152.37	150	103	-3.91	0.22	0.71
LN4025909	WJ4014490	WJ4014481	52.68	150	103	-2.19	0.12	0.24
LN4025910	WJ4014496	WJ4014490	103.98	150	103	-0.07	0.00	0.00
LN4025918	WJ4009700	WJ4009686	205.65	150	114	3.23	0.18	0.42
LN4025919	WJ4015007	WJ4014490	166.96	150	103	-1.98	0.11	0.20
LN4025924	WJ4015272	WJ4015293	147.84	150	103	0.10	0.01	0.00
LN4025927	WJ4015272	WJ4017220	36.41	150	103	0.03	0.00	0.00
LN4025934	WJ4020265	WJ4015272	66.56	150	103	0.23	0.01	0.00
LN4025939	WJ4014985	WJ4015305	183.05	150	103	0.13	0.01	0.00
LN4025940	WJ4016402	WJ4014985	120.24	150	103	-2.41	0.14	0.29
LN4025942	WJ4014606	WJ4014985	132.72	150	103	2.70	0.15	0.36
LN4025950	WJ4014606	WJ4015007	214.73	150	103	-2.87	0.16	0.40
LN4025954	WJ4009686	WJ4009674	96.77	300	120	30.58	0.43	0.83
LN4025955	WJ4014580	WJ49072	22.67	150	103	0.00	0.00	0.00
LN4025956	WJ4014588	WJ4014580	74.44	150	103	-0.04	0.00	0.00
LN4025958	WJ4020267	WJ4014580	120.13	150	103	0.13	0.01	0.00
LN4025974_A001	WJ4009713	J-HY4019665	106.06	150	103	0.01	0.00	0.00
LN4025974_A002	J-HY4019665	WJ4009814	98.70	150	103	0.01	0.00	0.00
LN4025992	WJ4009709	WJ4017585	87.62	150	103	-2.35	0.13	0.28
LN4025996_A001	WJ4009713	J-HY4019778	57.01	400	129	-31.93	0.25	0.19
LN4025996_A002	J-HY4019778	WJ4009709	51.13	400	129	-31.93	0.25	0.19
LN4026006	WJ4017695	WJ4012259	110.15	150	103	1.56	0.09	0.13
LN4026008	WJ27916	WJ4017695	90.44	150	103	2.04	0.12	0.21
LN4026038	WJ4017741	WJ27918	101.66	300	120	3.50	0.05	0.02
LN4026054	WJ4009709	WJ4017787	390.68	400	129	-29.65	0.24	0.17
LN4026061	WJ4017774	WJ4008662	92.32	150	103	-0.60	0.03	0.02
LN4026062	WJ4008662	WJ4008661	64.96	150	114	0.11	0.01	0.00
LN4026065	WJ4012257	WJ4012259	439.89	150	103	-1.11	0.06	0.07
LN4026066	WJ4012036	WJ4012257	50.01	150	103	2.28	0.13	0.26
LN4026075	WJ4012031	WJ4012036	59.85	150	103	1.95	0.11	0.20
LN4026076	WJ4017695	WJ4012031	438.11	150	103	0.88	0.05	0.05
LN4026083	WJ52303	WJ4012031	87.32	150	103	1.46	0.08	0.11
LN4026102	WJ4008646	WJ4008642	112.71	150	103	-3.53	0.20	0.59
LN4026107	WJ4008642	WJ4008673	109.14	150	103	0.07	0.00	0.00
LN4026110	WJ52331	WJ4012036	422.19	150	103	0.65	0.04	0.03

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4026121	WJ52334	WJ4017192	16.28	100	100	0.13	0.02	0.01
LN4026124	WJ4017191	WJ52338	176.28	150	103	-0.10	0.01	0.00
LN4026138	WJ4008612	WJ4008642	92.59	150	103	3.65	0.21	0.63
LN4026158	WJ52327	WJ4012072	100.54	150	103	-1.29	0.07	0.09
LN4026160	WJ4008612	WJ4008623	149.08	150	103	-2.52	0.14	0.32
LN4026177	WJ4017740	WJ4017741	118.25	300	120	3.45	0.05	0.01
LN4026179	WJ4008623	WJ4008614	245.78	150	103	1.77	0.10	0.16
LN4026183	WJ4008614	WJ4008612	85.57	150	103	1.19	0.07	0.08
LN4026185	WJ4017734	WJ4017740	116.96	300	120	3.08	0.04	0.01
LN4026186	WJ4016374	WJ4008614	101.37	150	103	-0.41	0.02	0.01
LN4026191	WJ4012268	WJ4017734	109.53	300	120	2.24	0.03	0.01
LN4026195	WJ4011938	WJ4012268	106.30	300	120	2.68	0.04	0.01
LN4026197	WJ51952	WJ4008669	84.21	150	103	-0.29	0.02	0.01
LN4026199	WJ4008669	WJ4009063	120.58	150	103	0.14	0.01	0.00
LN4026203	WJ4008669	WJ4008646	94.48	150	103	-0.57	0.03	0.02
LN4026207	WJ4011936	WJ4011938	97.19	300	120	2.27	0.03	0.01
LN4026209	WJ4011930	WJ4011936	126.82	150	103	-0.08	0.00	0.00
LN4026223	WJ54440	WJ4012266	97.08	300	120	0.00	0.00	0.00
LN4026246	WJ4009830	WJ4009849	41.12	150	103	4.52	0.26	0.94
LN4026262	WJ4016861	WJ4008623	96.27	150	103	4.45	0.25	0.91
LN4026268	WJ4009187	WJ4017629	88.15	150	103	0.09	0.01	0.00
LN4026303	WJ4008507	WJ4009187	121.25	150	103	2.76	0.16	0.38
LN4026310	WJ4008507	WJ4009335	159.35	150	103	1.22	0.07	0.08
LN4026312	WJ4009335	WJ55019	32.59	300	120	-20.90	0.30	0.41
LN4026325	WJ4012074	WJ4012072	99.91	150	103	0.97	0.05	0.05
LN4026332	WJ4012081	WJ4012074	18.48	150	103	1.50	0.08	0.12
LN4026337	WJ4009277	WJ4009335	220.78	300	120	-21.89	0.31	0.45
LN4026350	WJ4017150	WJ4012074	335.91	150	103	-0.25	0.01	0.00
LN4026363	WJ4009358	WJ4009276	306.75	300	120	-28.58	0.40	0.73
LN4026385	WJ4009187	WJ4009276	277.49	150	103	2.49	0.14	0.31
LN4026442	WJ4009359	WJ4009849	204.48	150	103	-2.04	0.12	0.21
LN4026459	WJ4009849	WJ4009700	100.63	150	103	2.35	0.13	0.28
LN4026636	WJ4012185	WJ4012183	218.32	150	103	-0.40	0.02	0.01
LN4026650	WJ4020263	WJ4017198	315.86	150	103	0.26	0.01	0.00
LN4026671	WJ4012185	WJ4011969	103.41	150	103	-1.21	0.07	0.08
LN4026673	WJ4011969	WJ54418	189.04	150	103	-1.68	0.09	0.15
LN4026728	WJ49258	WJ49334	92.28	300	120	15.53	0.22	0.24
LN4026743	WJ55018	WJ49247	108.43	300	120	14.05	0.20	0.20
LN4026756_A001	WJ4012852	J-HY4019230	40.59	250	115	-14.97	0.30	0.58
LN4026756_A002	J-HY4019230	J-HY4017539	130.38	250	115	-14.97	0.30	0.58
LN4026756_A003	J-HY4017539	WJ58580	24.34	250	115	-14.97	0.30	0.58
LN4026759_A001	WJ4017209	J-HY4020280	64.87	150	103	-3.51	0.20	0.59
LN4026759_A002	J-HY4020280	J-HY4017538	85.45	150	103	-3.51	0.20	0.59
LN4026759_A003	J-HY4017538	WJ58581	49.99	150	103	-3.51	0.20	0.59
LN4026770_A001	WJ52087	WV4011524	0.34	400	129	-3.92	0.03	0.00
LN4026770_A002	WV4011524	WJ4012402	1.45	400	129	-3.92	0.03	0.00
LN4026802	WJ52091	WJ4012562	86.01	300	120	18.98	0.27	0.34
LN4026825_A001	WJ4017210	J-HY4017089	208.58	150	103	-2.42	0.14	0.29
LN4026825_A002	J-HY4017089	WJ4020722	8.50	150	103	-2.42	0.14	0.29
LN4026846	WJ4016861	WJ4017772	166.61	300	120	13.15	0.19	0.17
LN4026850	WJ4017555	WJ4008322	166.16	150	103	-3.77	0.21	0.67
LN4026855	WJ4017555	WJ4017556	144.47	150	103	0.08	0.00	0.00
LN4026858	WJ4017691	WJ4017210	223.08	150	103	-3.13	0.18	0.47
LN4026872_A001	WJ4012385	WV4011347	3.41	600	130	0.00	0.00	0.00
LN4026872_A002	WV4011347	WJ4012384	3.42	600	130	0.00	0.00	0.00
LN4026874	WJ4008322	WJ23509	169.00	150	103	0.49	0.03	0.02
LN4026896	WJ49252	WJ23510	113.75	150	103	-5.77	0.33	1.47
LN4026934	WJ4008263	WJ23506	95.01	150	103	-0.46	0.03	0.01
LN4026937	WJ4008263	WJ4008234	101.57	150	103	-4.04	0.23	0.76
LN4026940	WJ4008231	WJ4008234	154.58	150	103	-0.12	0.01	0.00
LN4026945	WJ4008234	WJ4008236	93.07	150	103	-4.27	0.24	0.84
LN4026950	WJ4008236	WJ4017533	88.87	150	103	-6.24	0.35	1.70
LN4026957	WJ4012259	WJ4017691	216.52	150	103	0.25	0.01	0.00
LN4026977	WJ4017533	WJ59194	73.77	300	120	-17.52	0.25	0.30
LN4026992	WJ4008551	WJ4008290	74.78	150	103	-0.08	0.00	0.00
LN4026996	WJ4008290	WJ23505	297.67	150	103	-3.25	0.18	0.51
LN4027000	WJ23507	WJ4008290	283.71	150	103	-2.88	0.16	0.40
LN4027013	WJ4008322	WJ4008256	204.86	150	103	-4.58	0.26	0.96
LN4027016	WJ4008263	WJ4008256	156.57	150	103	4.34	0.25	0.87
LN4027024	WJ4008331	WJ61693	142.39	150	103	0.46	0.03	0.01
LN4027035	WJ4008331	WJ4017546	248.65	150	103	-4.96	0.28	1.11
LN4027037	WJ4017546	WJ4008236	253.75	150	103	-0.93	0.05	0.05
LN4027072	WJ4017546	WJ4008483	152.50	150	103	-4.32	0.24	0.86
LN4027083	WJ4017772	WJ4008331	569.46	150	103	-3.88	0.22	0.71
LN4027136_A001	WJ58523	J-HY4018679	32.90	400	129	14.43	0.11	0.04
LN4027136_A002	J-HY4018679	WJ19377	92.34	400	129	14.43	0.11	0.04

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4027140	WJ52768	WJ4016135	146.68	150	103	0.78	0.04	0.04
LN4027146	WJ53671	WJ49333	72.69	300	120	-14.41	0.20	0.21
LN4027315	WJ4012399	WJ4012398	104.93	150	103	-1.05	0.06	0.06
LN4027362	WJ4016374	WJ51950	185.26	150	103	3.76	0.21	0.66
LN4027368	WJ51948	WJ4017774	244.15	150	103	3.17	0.18	0.48
LN4027374	WJ4017774	WJ4013138	194.63	150	103	3.34	0.19	0.53
LN4027377	WJ4017787	WJ4013138	82.08	150	103	-3.89	0.22	0.71
LN4027383	WJ4013120	WJ4017787	97.16	150	103	-3.91	0.22	0.72
LN4027395_A001	WJ4013116	J-HY4013532	74.22	150	103	-1.37	0.08	0.10
LN4027395_A002	J-HY4013532	WJ4013120	7.64	150	103	-1.37	0.08	0.10
LN4027425	WJ4016582	WJ61457	175.41	300	120	5.59	0.08	0.04
LN4027427	WJ4016583	WJ4016405	155.93	150	103	3.07	0.17	0.46
LN4027430	WJ4016401	WJ4016405	158.42	150	103	-0.11	0.01	0.00
LN4027439	WJ4016587	WJ4016583	103.75	300	120	8.69	0.12	0.08
LN4027445_A001	WJ4013114	J-HY4013800	34.27	150	103	4.60	0.26	0.97
LN4027445_A002	J-HY4013800	WJ4017229	109.32	150	103	4.60	0.26	0.97
LN4027449	WJ4017774	WJ4013271	207.18	150	103	-0.02	0.00	0.00
LN4027450	WJ4013272	WJ4012992	112.68	300	132	25.03	0.35	0.48
LN4027454	WJ4012994	WJ4012992	85.15	300	132	-24.23	0.34	0.45
LN4027461	WJ4016591	WJ4016686	114.91	150	103	3.47	0.20	0.57
LN4027462	WJ4012994	WJ4013138	209.14	150	103	0.93	0.05	0.05
LN4027484	WJ4016686	WJ4016689	99.98	150	103	-0.40	0.02	0.01
LN4027486	WJ4017787	WJ4013001	208.89	400	129	-29.94	0.24	0.17
LN4027496	WJ4016685	WJ4016683	50.61	150	103	-1.99	0.11	0.20
LN4027498	WJ4016683	WJ4016686	206.14	150	103	-3.63	0.21	0.62
LN4027575	WJ4013001	WJ4012997	53.79	300	132	-21.84	0.31	0.37
LN4027578	WJ4013050	WJ4013001	56.98	400	129	-77.98	0.62	1.01
LN4027588_A001	WJ4013049	WV4011135	545.52	900	130	-490.20	0.77	0.58
LN4027588_A002	WV4011135	WV4011139	24.38	900	130	-490.20	0.77	0.58
LN4027588_A003	WV4011139	WV4011148	274.93	900	130	-490.20	0.77	0.58
LN4027588_A004	WV4011148	WJ4018446	38.59	900	130	-490.20	0.77	0.58
LN4027594_A001	WJ24344	J-HY4014234	92.17	150	103	1.10	0.06	0.07
LN4027594_A002	J-HY4014234	WJ4013120	101.15	150	103	1.10	0.06	0.07
LN4027595_A001	WJ4013102	J-HY4014990	29.84	400	129	-40.62	0.32	0.30
LN4027595_A002	J-HY4014990	WJ4013060	30.26	400	129	-40.62	0.32	0.30
LN4027599_A001	WJ4013101	J-HY4014605	40.90	300	132	1.72	0.02	0.00
LN4027599_A002	J-HY4014605	J-HY4014155	119.12	300	132	1.72	0.02	0.00
LN4027599_A003	J-HY4014155	WJ4013116	48.86	300	132	1.72	0.02	0.00
LN4027601_A001	WJ4013109	J-HY4013538	96.15	300	132	-1.70	0.02	0.00
LN4027601_A002	J-HY4013538	WJ4013093	95.99	300	132	-1.70	0.02	0.00
LN4027605	WJ4013049	WJ4013089	323.94	900	130	403.45	0.63	0.40
LN4027607_A001	WJ4013089	WV4011055	1.97	300	120	35.47	0.50	1.09
LN4027607_A002	WV4011055	WJ58577	3.07	300	120	35.47	0.50	1.09
LN4027609_A001	WJ4013093	J-HY4015007	38.20	400	129	23.23	0.18	0.11
LN4027609_A002	J-HY4015007	WJ58576	89.80	400	129	23.23	0.18	0.11
LN4027614	WJ4013337	WJ4013050	168.51	150	103	-1.60	0.09	0.14
LN4027615	WJ4013339	WJ4013337	111.33	150	103	4.17	0.24	0.81
LN4027618	WJ4013339	WJ4012997	166.61	150	103	-1.08	0.06	0.07
LN4027621	WJ4013340	WJ4013339	111.22	150	103	3.28	0.19	0.52
LN4027624	WJ4012992	WJ4013340	169.61	150	103	0.67	0.04	0.03
LN4027626	WJ4013346	WJ4013340	111.39	150	103	2.97	0.17	0.43
LN4027630	WJ4013272	WJ4013346	169.48	150	103	1.06	0.06	0.06
LN4027751	WJ4017758	WJ4016839	100.06	150	103	0.48	0.03	0.01
LN4027778	WJ4017756	WJ4017758	99.86	150	103	0.77	0.04	0.04
LN4027787	WJ4017793	WJ4017756	152.82	150	103	0.13	0.01	0.00
LN4027805	WJ15678	WJ4017759	154.18	150	103	-1.05	0.06	0.06
LN4027821_A001	WJ24366	J-HY4015473	25.58	150	103	2.96	0.17	0.43
LN4027821_A002	J-HY4015473	J-HY4015474	130.80	150	103	2.96	0.17	0.43
LN4027821_A003	J-HY4015474	WJ58539	8.92	150	103	2.96	0.17	0.43
LN4027825_A001	WJ58528	J-HY4015132	5.78	150	103	-2.54	0.14	0.32
LN4027825_A002	J-HY4015132	J-HY4015471	50.22	150	103	-2.54	0.14	0.32
LN4027825_A003	J-HY4015471	WJ4013455	24.16	150	103	-2.54	0.14	0.32
LN4027829	WJ4013455	WJ4013433	43.18	150	103	-0.40	0.02	0.01
LN4027844	WJ4016735	WJ4016730	205.88	150	103	-4.53	0.26	0.94
LN4027850	WJ4016735	WJ4016842	152.23	150	103	-0.02	0.00	0.00
LN4027852	WJ4017756	WJ4016735	203.24	150	103	-4.22	0.24	0.82
LN4027855	WJ4017758	WJ4016803	202.24	150	103	-3.19	0.18	0.49
LN4027864	WJ4010705	WJ4010931	103.96	150	103	0.53	0.03	0.02
LN4027872	WJ4010721	WJ4010705	96.85	150	103	-0.04	0.00	0.00
LN4027878	WJ62423	WJ4010721	115.50	150	103	0.16	0.01	0.00
LN4028040	WJ4020598	WJ4010705	335.02	150	103	0.91	0.05	0.05
LN4028056	WJ4020599	WJ4010721	313.86	150	103	1.53	0.09	0.13
LN4028081	WJ4010917	WJ4010475	358.85	150	103	-0.74	0.04	0.03
LN4028113	WJ4016558	WJ4016832	153.41	150	103	4.76	0.27	1.03
LN4028121	WJ4026374	WJ4016558	110.18	150	103	-0.01	0.00	0.00
LN4028161	WJ4016261	WJ4016258	93.31	150	114	-2.67	0.15	0.29

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4028170	WJ4016216	WJ4016211	108.11	150	103	-3.92	0.22	0.72
LN4028179	WJ4016211	WJ4016204	83.35	150	103	-3.27	0.19	0.51
LN4028197	WJ4016258	WJ4016244	194.02	150	103	0.68	0.04	0.03
LN4028204	WJ4016330	WJ4016244	94.78	150	114	-3.84	0.22	0.57
LN4028205	WJ4016330	WJ4016261	194.19	150	114	-1.97	0.11	0.17
LN4028213	WJ55120	WJ4016330	110.68	150	114	-5.67	0.32	1.18
LN4028220	WJ4016342	WJ55122	160.33	150	114	-2.82	0.16	0.32
LN4028224	WJ4016370	WJ4016342	53.62	300	120	12.45	0.18	0.16
LN4028229	WJ4016374	WJ4016370	290.90	150	103	-3.51	0.20	0.59
LN4028237	WJ4010475	WJ4010467	171.06	150	103	0.16	0.01	0.00
LN4028242	WJ4016244	WJ4016216	421.46	150	114	-3.44	0.19	0.47
LN4028257	WJ4016425	WJ4016413	287.63	150	103	0.89	0.05	0.05
LN4028259	WJ4016413	WJ4016425	291.38	150	103	-0.88	0.05	0.05
LN4028268	WJ4016425	WJ53567	85.73	150	103	-2.05	0.12	0.22
LN4028280	WJ4016387	WJ53566	95.45	150	103	-0.11	0.01	0.00
LN4028303	WJ61457	WJ53562	24.59	300	120	5.39	0.08	0.03
LN4028313	WJ4016597	WJ4016605	152.23	300	120	-24.54	0.35	0.55
LN4028317	WJ4016597	WJ4016591	100.18	300	120	20.31	0.29	0.39
LN4028332	WJ38909	WJ4016834	99.19	150	103	1.18	0.07	0.08
LN4028335	WJ4016803	WJ4016834	103.60	150	103	1.96	0.11	0.20
LN4028338	WJ4010236	WJ4010217	379.64	400	129	-26.82	0.21	0.14
LN4028345	WJ4016349	WJ4016861	35.74	300	120	17.62	0.25	0.30
LN4028351	WJ4010410	WJ4010368	189.92	150	103	2.64	0.15	0.35
LN4030476	WJ4006305	WJ4021261	207.96	150	103	0.79	0.04	0.04
LN4030787	WJ4017897	WJ4017888	161.96	300	120	-20.34	0.29	0.39
LN4030798	WJ4001881	WJ4017897	169.31	300	120	9.11	0.13	0.09
LN4030800	WJ4001543	WJ4001881	100.80	300	120	36.89	0.52	1.18
LN4030806	WJ4017905	WJ4017904	42.06	300	120	21.77	0.31	0.44
LN4030807	WJ4001900	WJ4017905	113.52	300	120	21.13	0.30	0.42
LN4030808	WJ4017904	WJ22861	102.34	300	120	0.22	0.00	0.00
LN4030811	WJ4017907	WJ4017904	71.43	300	120	-21.50	0.30	0.43
LN4030813	WJ4001950	WJ4017907	269.05	150	103	-2.01	0.11	0.21
LN4030818	WJ4017912	WJ4006801	279.43	150	103	-0.48	0.03	0.01
LN4030828	WJ4017916	WJ4017907	243.67	300	120	-18.83	0.27	0.34
LN4030829	WJ4017916	WJ4017912	85.12	150	103	-0.16	0.01	0.00
LN4030830	WJ4017917	WJ4017916	85.19	300	120	-18.16	0.26	0.32
LN4030831	WJ4006585	WJ4017917	63.50	300	120	-11.88	0.17	0.14
LN4030832	WJ4017917	WJ22821	136.04	300	120	6.00	0.08	0.04
LN4030835	WJ4017912	WJ4006814	148.99	150	103	-0.05	0.00	0.00
LN4030927	WJ4017976	WJ4017972	4.53	150	103	-13.77	0.78	7.36
LN4030929	WJ4006925	WJ4017972	71.46	150	103	-7.14	0.40	2.18
LN4030930	WJ4017976	WJ53444	216.11	300	120	13.77	0.19	0.19
LN4030959_A001	WJ4017999	J-HY4037279	86.35	400	129	-16.17	0.13	0.05
LN4030959_A002	J-HY4037279	WJ4018002	28.47	400	129	-16.17	0.13	0.05
LN4030963_A001	WJ4017890	WV4001488	524.98	900	130	361.01	0.57	0.33
LN4030963_A002	WV4001488	WJ4018003	56.37	900	130	361.01	0.57	0.33
LN4030964	WJ4018003	WJ4019556	647.03	900	130	274.45	0.43	0.20
LN4030969_A001	WJ4017965	WV4001258	18.53	400	129	-86.57	0.69	1.23
LN4030969_A002	WV4001258	WJ4018003	1.35	400	129	-86.57	0.69	1.24
LN4031001	WJ4018024	WJ4002150	201.64	150	103	-2.42	0.14	0.29
LN4031010	WJ4002321	WJ4018024	100.05	150	103	3.37	0.19	0.54
LN4031023	WJ4018021	WJ4002512	248.30	300	120	29.65	0.42	0.78
LN4031025	WJ4003830	WJ4002512	506.37	300	120	-20.53	0.29	0.40
LN4031048_A001	WJ4018048	WV4004334	116.17	900	130	660.48	1.04	1.01
LN4031048_A002	WV4004334	WJ4004914	153.17	900	130	660.48	1.04	1.01
LN4031057	WJ4015051	WJ4018054	10.51	150	103	-1.28	0.07	0.09
LN4031058	WJ4018054	WJ4018049	12.38	150	103	0.06	0.00	0.00
LN4031060_A001	WJ4018053	J-HY4036973	26.26	400	129	36.85	0.29	0.25
LN4031060_A002	J-HY4036973	WJ4018002	72.40	400	129	36.85	0.29	0.25
LN4031061	WJ4018055	WJ56691	4.35	300	120	0.00	0.00	0.00
LN4031062_A001	WJ4018048	WV4004332	1.59	400	129	0.00	0.00	0.00
LN4031062_A002	WV4004332	WJ4018055	3.52	400	129	0.00	0.00	0.00
LN4031064	WJ4018057	WJ4018054	3.84	150	103	1.34	0.08	0.10
LN4031065	WJ4018053	WJ4018057	1.50	400	129	1.34	0.01	0.00
LN4031079_A001	WJ4010424	WV4011132	33.89	900	130	375.15	0.59	0.35
LN4031079_A002	WV4011132	WV4011015	154.51	900	130	375.15	0.59	0.35
LN4031079_A003	WV4011015	WV4011010	23.14	900	130	375.15	0.59	0.35
LN4031079_A004	WV4011010	WV4010986	127.51	900	130	375.15	0.59	0.35
LN4031079_A005	WV4010986	WV4010981	15.30	900	130	375.15	0.59	0.35
LN4031079_A006	WV4010981	WV4010976	144.09	900	130	375.15	0.59	0.35
LN4031079_A007	WV4010976	WV4010889	240.13	900	130	375.15	0.59	0.35
LN4031079_A008	WV4010889	WV4010872	22.90	900	130	375.15	0.59	0.35
LN4031079_A009	WV4010872	WV4010807	70.40	900	130	375.15	0.59	0.35
LN4031079_A010	WV4010807	WV4010788	20.66	900	130	375.15	0.59	0.35
LN4031079_A011	WV4010788	WV4010740	255.91	900	130	375.15	0.59	0.35
LN4031079_A012	WV4010740	WJ4018067	94.14	900	130	375.15	0.59	0.35

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4031082_A001	WJ4018068	J-HY4042441	4.73	300	120	-42.55	0.60	1.53
LN4031082_A002	J-HY4042441	WJ4003930	11.25	300	120	-42.55	0.60	1.53
LN4031083_A001	WJ4018067	WV4010666	1.80	400	129	-72.06	0.57	0.88
LN4031083_A002	WV4010666	WJ4018068	5.52	400	129	-72.06	0.57	0.87
LN4031088	WJ4018002	WJ4018072	16.05	300	132	6.65	0.09	0.04
LN4031097	WJ4004184	WJ4004286	355.21	150	103	0.81	0.05	0.04
LN4031105	WJ4018090	WJ4008690	118.04	200	115	0.00	0.00	0.00
LN4031152	WJ4018148	WJ4004177	62.91	150	103	3.74	0.21	0.66
LN4031168	WJ4018159	WJ4003998	161.11	150	114	2.88	0.16	0.34
LN4031179	WJ4018159	WJ4018148	91.33	300	120	3.75	0.05	0.02
LN4031193_A001	WJ4013538	J-HY4024366	85.53	250	110	-2.35	0.05	0.02
LN4031193_A002	J-HY4024366	WJ4013511	13.93	250	110	-2.35	0.05	0.02
LN4031196	WJ4013511	WJ4018168	126.68	250	110	0.09	0.00	0.00
LN4031197	WJ4018169	WJ4017447	0.44	150	103	0.00	0.00	0.00
LN4031198	WJ4017447	WJ4018170	2.27	150	103	-0.64	0.04	0.02
LN4031199	WJ4018170	WJ4005613	235.30	150	114	1.71	0.10	0.13
LN4031204	WJ4017751	WJ4018176	86.30	300	120	-3.38	0.05	0.01
LN4031205	WJ4018176	WJ4017749	18.55	300	120	6.30	0.09	0.05
LN4031206	WJ4018176	WJ4018177	9.06	300	120	-9.85	0.14	0.10
LN4031215	WJ4015178	WJ4017749	414.90	300	120	-4.44	0.06	0.02
LN4031217	WJ4018179	WJ4018177	222.98	600	130	-23.06	0.08	0.01
LN4031220	WJ4018180	WJ4018179	24.90	400	129	-9.93	0.08	0.02
LN4031221	WJ4018184	WJ4018179	9.89	600	130	-13.13	0.05	0.00
LN4031233	WJ4015229	WJ4018188	88.16	150	103	-0.91	0.05	0.05
LN4031234	WJ4018188	WJ4015177	15.57	150	103	1.17	0.07	0.08
LN4031235	WJ4018186	WJ4018184	190.56	400	129	-13.00	0.10	0.04
LN4031236	WJ4018186	WJ4018188	3.00	400	129	2.07	0.02	0.00
LN4031237	WJ4018098	WJ4008692	278.98	150	103	-0.29	0.02	0.01
LN4031239	WJ4015279	WJ4018191	85.01	150	103	-0.59	0.03	0.02
LN4031240	WJ4018191	WJ4015332	14.66	150	103	1.03	0.06	0.06
LN4031241	WJ4018192	WJ4018186	134.03	400	129	-10.93	0.09	0.03
LN4031242	WJ4018192	WJ4018191	3.31	400	129	1.64	0.01	0.00
LN4031248	WJ25698	WJ4018192	410.72	400	129	-9.20	0.07	0.02
LN4031255	WJ4018177	WJ28096	650.11	600	130	-33.16	0.12	0.03
LN4031259	WJ4018170	WJ4018199	143.18	150	114	-2.47	0.14	0.25
LN4031261	WJ4018199	WJ4018183	134.34	150	114	-2.70	0.15	0.30
LN4031262	WJ58392	WJ4018166	98.40	150	114	-2.63	0.15	0.28
LN4031289	WJ4015578	WJ4018216	105.29	300	120	-12.71	0.18	0.16
LN4031290	WJ4018216	WJ4017702	112.88	300	120	-13.01	0.18	0.17
LN4031294	WJ4018216	WJ4018209	195.87	150	103	0.18	0.01	0.00
LN4031297	WJ4018101	WJ4008692	37.42	300	120	6.05	0.09	0.04
LN4031301	WJ4018106	WJ4018111	4.88	100	100	-0.08	0.01	0.00
LN4031302	WJ4018109	WJ4018101	38.40	300	120	6.05	0.09	0.04
LN4031303	WJ4018110	WJ4018109	39.32	300	120	6.05	0.09	0.04
LN4031304	WJ4018111	WJ4018110	6.10	300	120	6.05	0.09	0.04
LN4031308	WJ4009181	WJ4018113	104.61	300	120	5.87	0.08	0.04
LN4031309	WJ4009181	WJ48208	132.67	300	120	-5.98	0.08	0.04
LN4031313	WJ4018221	WJ4018117	19.45	150	103	-0.87	0.05	0.04
LN4031314	WJ4021047	WJ4018221	253.05	150	103	-0.87	0.05	0.04
LN4031317	WJ4018117	WJ4018132	8.79	150	103	-0.87	0.05	0.04
LN4031318	WJ4018134	WJ4018132	17.77	150	103	0.00	0.00	0.00
LN4031333	WJ4018123	WJ48205	3.78	300	120	9.16	0.13	0.09
LN4031334	WJ4018143	WJ4018123	80.17	300	120	-0.83	0.01	0.00
LN4031337	WJ4018142	WJ4018143	13.35	150	103	-0.83	0.05	0.04
LN4031338	WJ4018141	WJ4018142	58.28	100	100	-0.83	0.11	0.31
LN4031340	WJ4018229	WJ4018132	6.37	150	103	0.87	0.05	0.04
LN4031341	WJ4018115	WJ4018229	0.94	300	120	0.87	0.01	0.00
LN4031342	WJ4018115	WJ4018123	10.69	300	120	9.99	0.14	0.10
LN4031343_A001	WJ4018133	WV4004312	0.65	300	120	10.86	0.15	0.14
LN4031343_A002	WV4004312	WJ4018115	4.32	300	120	10.86	0.15	0.12
LN4031391	WJ4018260	WJ4017284	134.59	150	103	-0.12	0.01	0.00
LN4031393	WJ4018260	WJ4018263	151.68	150	114	0.18	0.01	0.00
LN4031397	WJ4018264	WJ4018260	65.66	150	114	0.27	0.02	0.00
LN4031398	WJ4018264	WJ4010304	51.26	150	114	-0.51	0.03	0.01
LN4031399	WJ4018269	WJ4018264	82.26	150	114	-0.14	0.01	0.00
LN4031404	WJ4012257	WJ4018282	40.63	150	103	3.14	0.18	0.48
LN4031405	WJ4018282	WJ4010295	365.44	150	103	2.66	0.15	0.35
LN4031406	WJ4018280	WJ4018282	305.31	150	114	-0.30	0.02	0.01
LN4031411	WJ4009830	WJ4017585	106.92	150	103	3.55	0.20	0.60
LN4031430_A001	WJ4016785	J-HY4033792	89.62	300	132	0.64	0.01	0.00
LN4031430_A002	J-HY4033792	J-HY4033808	107.52	300	132	0.64	0.01	0.00
LN4031430_A003	J-HY4033808	WJ58479	39.89	300	132	0.64	0.01	0.00
LN4031468	WJ4018318	WJ4018316	113.97	600	130	31.29	0.11	0.03
LN4031471	WJ4018316	WJ4018314	95.52	600	130	33.25	0.12	0.03
LN4031472	WJ4018314	WJ4018313	118.96	600	130	25.02	0.09	0.02
LN4031474	WJ4018314	WJ4018315	17.88	400	129	6.33	0.05	0.01

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4031475	WJ4018317	WJ4018316	18.85	400	129	3.45	0.03	0.00
LN4031477	WJ4018321	WJ4006305	91.14	150	103	1.33	0.08	0.10
LN4031481	WJ4018306	WJ4018307	6.61	150	103	0.92	0.05	0.05
LN4031482	WJ4018325	WJ4018306	100.55	300	120	0.12	0.00	0.00
LN4031483	WJ4018321	WJ4018325	108.89	300	120	13.58	0.19	0.18
LN4031490	WJ4018315	WJ4018326	20.54	300	132	-2.28	0.03	0.01
LN4031491	WJ4018328	WJ4018315	6.03	300	132	-8.61	0.12	0.07
LN4031497	WJ4018307	WJ4018342	130.96	400	129	17.97	0.14	0.07
LN4031515_A001	WJ4018317	J-HY4035072	16.40	300	132	-4.93	0.07	0.02
LN4031515_A002	J-HY4035072	J-HY4033092	109.05	300	132	-4.93	0.07	0.02
LN4031515_A003	J-HY4033092	WJ58501	35.19	300	132	-4.93	0.07	0.02
LN4031516	WJ4018352	WJ4018317	31.56	300	132	-1.48	0.02	0.00
LN4031618	WJ4008473	WJ4018393	2.45	150	103	20.77	1.18	15.75
LN4031653	WJ4018400	WJ4018417	7.26	300	120	67.33	0.95	3.58
LN4031654	WJ4018417	WJ4016638	147.98	300	120	28.99	0.41	0.75
LN4031707	WJ4018440	WJ4016370	217.00	300	120	16.24	0.23	0.26
LN4031708_A001	WJ4018440	WV4011221	7.16	400	129	-16.23	0.13	0.05
LN4031708_A002	WV4011221	WJ4018439	1.96	400	129	-16.23	0.13	0.06
LN4031713	WJ4018443	WJ4018445	6.39	400	129	-11.82	0.09	0.03
LN4031714_A001	WJ4018445	WV4011205	4.86	400	129	-15.91	0.13	0.05
LN4031714_A002	WV4011205	WJ4018446	1.83	400	129	-15.91	0.13	0.05
LN4031715	WJ4018445	WJ4018447	12.19	400	129	4.09	0.03	0.00
LN4031716	WJ4018448	WJ4018447	6.38	400	129	26.65	0.21	0.14
LN4031717	WJ4018440	WJ4018448	132.25	300	120	26.66	0.38	0.64
LN4031720	WJ4018450	WJ4018440	75.72	300	120	26.77	0.38	0.65
LN4031723_A001	WJ58476	J-HY4033839	55.03	300	132	-0.87	0.01	0.00
LN4031723_A002	J-HY4033839	J-HY16124	105.39	300	132	-0.87	0.01	0.00
LN4031723_A003	J-HY16124	WJ4018451	92.74	300	132	-0.87	0.01	0.00
LN4031724	WJ4018451	WJ4016793	12.41	300	132	0.00	0.00	0.00
LN4031727	WJ4018452	WJ4018450	441.01	150	114	1.71	0.10	0.13
LN4031728	WJ4018450	WJ4018452	96.55	300	120	-25.27	0.36	0.58
LN4031730	WJ4018453	WJ4016261	96.00	150	114	-0.55	0.03	0.02
LN4031731	WJ4018453	WJ4018452	93.73	300	120	27.18	0.38	0.67
LN4031732	WJ4018454	WJ4018453	126.22	300	120	26.87	0.38	0.65
LN4031735	WJ4016749	WJ4018451	272.46	600	130	-39.96	0.14	0.04
LN4031736	WJ4018455	WJ4016258	199.69	150	114	3.53	0.20	0.49
LN4031737	WJ4018455	WJ4018454	74.55	300	120	25.43	0.36	0.59
LN4031739	WJ4018456	WJ4016216	98.12	150	114	0.42	0.02	0.01
LN4031740	WJ4018456	WJ4018455	126.16	300	120	29.00	0.41	0.75
LN4031742	WJ4018457	WJ53564	143.88	150	103	0.61	0.03	0.02
LN4031743	WJ4018457	WJ4018456	180.65	300	120	29.41	0.42	0.77
LN4031751	WJ4016413	WJ4018454	111.17	150	103	1.49	0.08	0.12
LN4031756	WJ53563	WJ4018463	135.01	300	120	0.23	0.00	0.00
LN4031757_A001	WJ4018465	WV4005002	1.70	300	120	27.69	0.39	0.69
LN4031757_A002	WV4005002	WJ4018463	10.65	300	120	27.69	0.39	0.69
LN4031759	WJ4018463	WJ4018464	10.23	300	120	27.93	0.40	0.70
LN4031760	WJ4018464	WJ4018457	159.93	300	120	31.18	0.44	0.86
LN4031762	WJ4016204	WJ4018467	137.49	150	103	-5.06	0.29	1.15
LN4031769_A001	WJ4018472	WV4004997	1.89	400	129	4.34	0.03	0.00
LN4031769_A002	WV4004997	WJ4018471	10.44	400	129	4.34	0.03	0.01
LN4031770	WJ4018462	WJ4016749	85.21	600	130	-35.99	0.13	0.03
LN4031771	WJ4018471	WJ4018467	44.54	300	120	1.09	0.02	0.00
LN4031772	WJ4018459	WJ4018461	18.03	150	114	-1.36	0.08	0.08
LN4031773_A001	WJ4018461	J-HY4033474	16.00	300	132	4.32	0.06	0.02
LN4031773_A002	J-HY4033474	WJ4018460	2.00	300	132	4.32	0.06	0.02
LN4031774	WJ4018462	WJ4018461	3.00	300	132	6.84	0.10	0.04
LN4031780	WJ4018467	WJ4008483	386.38	300	120	-5.85	0.08	0.04
LN4031784	WJ4017092	WJ4018480	229.10	150	103	-1.12	0.06	0.07
LN4031789	WJ4018480	WJ4018473	17.28	150	114	-1.16	0.07	0.06
LN4031790	WJ4018473	WJ4018461	100.79	150	114	-1.16	0.07	0.06
LN4031791	WJ4018476	WJ4018473	9.40	150	114	0.00	0.00	0.00
LN4031793	WJ4018318	WJ4018462	197.50	600	130	-29.15	0.10	0.02
LN4031799	WJ59195	WJ53442	287.38	300	120	-1.38	0.02	0.00
LN4031848	WJ4017965	WJ4018513	3.11	400	129	65.58	0.52	0.74
LN4031849	WJ4018513	WJ4017902	212.47	300	120	63.97	0.90	3.26
LN4031850	WJ4017972	WJ4018514	89.14	300	120	-20.99	0.30	0.41
LN4031851	WJ4018514	WJ4017965	2.77	400	129	-20.99	0.17	0.09
LN4031870	WJ4018524	WJ58517	21.47	300	132	-3.59	0.05	0.01
LN4031871_A001	WJ4018313	J-HY16140	62.04	300	132	-2.95	0.04	0.01
LN4031871_A002	J-HY16140	WJ4018524	44.60	300	132	-2.95	0.04	0.01
LN4031883_A001	WJ4016614	J-HY4032770	6.69	300	132	-4.55	0.06	0.02
LN4031883_A002	J-HY4032770	WJ4018313	7.60	300	132	-4.55	0.06	0.02
LN4031893	WJ4018534	WJ4018533	13.52	300	132	2.38	0.03	0.01
LN4031899	WJ4016614	WJ4018533	85.94	300	132	3.17	0.04	0.01
LN4031902	WJ4018313	WJ4018532	93.30	600	130	20.73	0.07	0.01
LN4031909	WJ4018542	WJ4016359	1.20	400	129	-10.32	0.08	0.02

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4031912	WJ4018532	WJ4018534	11.36	400	129	-0.88	0.01	0.00
LN4031933_A001	WJ52037	J-HY4008135	66.72	200	115	2.23	0.07	0.05
LN4031933_A002	J-HY4008135	WJ4015943	49.31	200	115	2.23	0.07	0.05
LN4031954_A001	WJ4018575	J-HY9902	72.92	300	132	-4.20	0.06	0.02
LN4031954_A002	J-HY9902	WJ4018533	27.64	300	132	-4.20	0.06	0.02
LN4031960	WJ55163	WJ4018583	105.65	150	114	0.16	0.01	0.00
LN4031970	WJ4020741	WJ4018586	13.22	400	129	-2.09	0.02	0.00
LN4031971	WJ53114	WJ4018586	9.46	600	130	-15.44	0.05	0.01
LN4031975_A001	WJ4018588	J-HY32675	49.34	300	132	-4.40	0.06	0.02
LN4031975_A002	J-HY32675	J-HY32671	104.36	300	132	-4.40	0.06	0.02
LN4031975_A003	J-HY32671	J-HY22580	106.99	300	132	-4.40	0.06	0.02
LN4031975_A004	J-HY22580	WJ4018575	59.10	300	132	-4.40	0.06	0.02
LN4031987	WJ4018604	WJ4020259	128.88	300	120	10.97	0.16	0.12
LN4031988	WJ4006959	WJ4018605	23.81	300	120	11.64	0.16	0.14
LN4031989	WJ4018605	WJ4018604	131.18	300	120	9.63	0.14	0.10
LN4032025	WJ4018393	WJ4018307	352.83	400	129	18.79	0.15	0.07
LN4032038	WJ4016374	WJ4018633	214.59	150	114	-0.14	0.01	0.00
LN4032040	WJ4018635	WJ4018447	2.92	400	129	-30.74	0.24	0.18
LN4032042	WJ4018633	WJ4018635	199.28	300	132	-30.68	0.43	0.70
LN4032070	WJ4008460	WJ4018321	136.94	300	120	14.91	0.21	0.22
LN4032317	WJ4018325	WJ4008433	389.21	300	132	9.54	0.13	0.08
LN4032520_A001	WJ4004914	WV4004344	2.46	900	130	660.45	1.04	1.01
LN4032520_A002	WV4004344	WV4005116	901.92	900	130	660.45	1.04	1.01
LN4032520_A003	WV4005116	WV4005114	17.15	900	130	660.45	1.04	1.01
LN4032520_A004	WV4005114	WJ4018863	157.88	900	130	660.45	1.04	1.01
LN4032526_A001	WJ4018863	WV4005109	2.38	600	130	35.88	0.13	0.03
LN4032526_A002	WV4005109	WJ4018862	7.22	600	130	35.88	0.13	0.03
LN4032543	WJ4018862	WJ4018874	4.07	600	130	3.21	0.01	0.00
LN4032547	WJ4010217	WJ4018876	82.37	400	129	-32.65	0.26	0.20
LN4032548	WJ4018876	WJ4018862	2.63	600	130	-32.67	0.12	0.02
LN4032911	WJ4018183	WJ4019076	140.31	150	103	-1.58	0.09	0.13
LN4032912	WJ4002430	WJ4019077	0.81	300	120	9.51	0.13	0.09
LN4032914	WJ4019076	WJ4019077	163.97	150	103	-1.86	0.11	0.18
LN4032915	WJ4002380	WJ4019076	171.04	150	103	-0.13	0.01	0.00
LN4032919	WJ4010521	WJ4017039	126.06	300	120	13.90	0.20	0.19
LN4032927	WJ4017039	WJ4019082	11.35	300	120	9.58	0.14	0.10
LN4032929	WJ4019082	WJ4002430	204.81	300	120	9.58	0.14	0.10
LN4032932	WJ4019077	WJ4002365	108.51	300	120	7.62	0.11	0.06
LN4032956	WJ4018217	WJ4017039	275.63	400	129	-4.24	0.03	0.00
LN4033116	WJ4015587	WJ4015640	217.68	150	103	-0.13	0.01	0.00
LN4033338	WJ4017078	WJ4008678	96.72	150	103	-0.99	0.06	0.06
LN4033382	WJ4017902	WJ4019278	161.90	300	120	30.22	0.43	0.81
LN4033385	WJ4001543	WJ4019280	121.74	300	120	-6.94	0.10	0.05
LN4033387	WJ4019278	WJ4019280	8.37	300	120	30.18	0.43	0.81
LN4033388	WJ4019280	WJ4017888	195.37	300	120	20.40	0.29	0.39
LN4033409	WJ4001543	WJ4017902	164.58	300	120	-31.55	0.45	0.88
LN4033410	WJ4006791	WJ4017905	257.95	150	114	0.91	0.05	0.04
LN4033413	WJ4003628	WJ4006835	384.63	150	103	-3.92	0.22	0.72
LN4033416	WJ4001983	WJ4003146	627.26	150	103	3.47	0.20	0.57
LN4033422	WJ4006109	WJ4018024	203.39	150	103	-3.01	0.17	0.44
LN4033427	WJ4006350	WJ4004286	136.29	150	114	-1.80	0.10	0.14
LN4033436	WJ4019295	WJ4019296	27.66	150	114	-0.08	0.00	0.00
LN4033439	WJ4019296	WJ4017764	247.23	150	103	-0.32	0.02	0.01
LN4033455	WJ4003953	WJ4003958	152.51	150	103	-0.14	0.01	0.00
LN4033461	WJ58756	WJ4017766	236.68	300	120	16.76	0.24	0.27
LN4033464	WJ4018180	WJ4019306	77.28	300	120	9.93	0.14	0.10
LN4033465	WJ4019306	WJ4017763	92.79	300	120	9.26	0.13	0.09
LN4033466	WJ4015172	WJ4019306	207.24	150	103	-0.57	0.03	0.02
LN4033467	WJ4019306	WJ4017743	219.06	150	103	-0.14	0.01	0.00
LN4033480	WJ4017794	WJ4040953	208.20	200	115	5.13	0.16	0.24
LN4033486	WJ4019314	WJ4017736	93.38	150	103	0.63	0.04	0.02
LN4033488	WJ4019314	WJ4017738	221.74	150	103	0.45	0.03	0.01
LN4033489	WJ4014623	WJ4019316	88.84	150	103	1.50	0.08	0.12
LN4033490	WJ4019316	WJ4019314	93.14	150	103	0.85	0.05	0.04
LN4033491	WJ4017743	WJ4019316	222.57	150	103	0.08	0.00	0.00
LN4033492	WJ57697	WJ4019316	189.67	150	103	-0.50	0.03	0.02
LN4033501	WJ4018131	WJ4019318	92.25	150	103	0.59	0.03	0.02
LN4033502	WJ4019318	WJ53041	72.26	150	103	-0.45	0.03	0.01
LN4033525	WJ4019325	WJ4014721	89.01	150	114	-0.97	0.05	0.04
LN4033526	WJ4014820	WJ4019325	218.70	150	103	0.40	0.02	0.01
LN4033527	WJ4019325	WJ4019318	228.16	150	103	0.47	0.03	0.01
LN4033528	WJ54288	WJ4019326	72.68	150	103	-1.28	0.07	0.09
LN4033529	WJ4019326	WJ4019325	92.16	150	103	-0.61	0.03	0.02
LN4033530	WJ4014873	WJ4019326	217.29	150	103	0.69	0.04	0.03
LN4033531	WJ4019326	WJ4018131	228.44	150	103	-0.25	0.01	0.00
LN4033538_A001	WJ4012562	J-HY4017295	36.83	300	120	3.34	0.05	0.01

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4033538_A002	J-HY4017295	J-HY16981	126.24	300	120	3.34	0.05	0.01
LN4033538_A003	J-HY16981	WJ4019328	3.46	300	120	3.34	0.05	0.01
LN4033547_A001	WJ4017794	J-HY4018994	76.08	400	129	-61.62	0.49	0.65
LN4033547_A002	J-HY4018994	WJ4019335	77.06	400	129	-61.62	0.49	0.65
LN4033548_A001	WJ4019335	J-HY4018945	8.62	400	129	-61.93	0.49	0.66
LN4033548_A002	J-HY4018945	J-HY4018934	88.11	400	129	-61.93	0.49	0.66
LN4033548_A003	J-HY4018934	WJ57354	24.05	400	129	-61.93	0.49	0.66
LN4033552	WJ4017533	WJ4008483	255.64	300	120	11.17	0.16	0.13
LN4033566	WJ4019344	WJ4018634	95.10	300	132	-29.66	0.42	0.66
LN4033568	WJ4013346	WJ4019344	281.29	150	103	-2.21	0.13	0.25
LN4033570	WJ4013271	WJ4019344	110.50	300	132	-26.37	0.37	0.53
LN4033571	WJ4017778	WJ4013433	115.84	150	103	-1.86	0.11	0.18
LN4033590	WJ4015383	WJ4018417	162.65	300	120	-38.29	0.54	1.26
LN4033623	WJ4019371	WJ4016519	211.26	150	103	-2.02	0.11	0.21
LN4033648	WJ4019386	WJ4016135	218.46	150	103	0.19	0.01	0.00
LN4033652	WJ4019383	WJ4019386	49.06	150	103	-0.04	0.00	0.00
LN4033653	WJ4019386	WJ4016147	96.41	150	103	0.47	0.03	0.01
LN4033662	WJ4019398	WJ4013299	54.18	150	114	-0.02	0.00	0.00
LN4033664	WJ4014473	WJ4019399	11.02	300	120	0.00	0.00	0.00
LN4033721	WJ4001983	WJ4019415	111.05	150	103	-5.90	0.33	1.53
LN4033722	WJ4019415	WJ4006399	111.62	150	103	-8.85	0.50	3.24
LN4033737	WJ4017357	WJ4019415	101.56	150	103	1.66	0.09	0.15
LN4033741	WJ53672	WJ55958	73.66	300	120	13.64	0.19	0.19
LN4033742	WJ55957	WJ4006581	295.71	300	120	9.95	0.14	0.10
LN4033755	WJ56498	WJ4001983	123.12	150	103	-1.99	0.11	0.21
LN4033823	WJ4019456	WJ4002150	100.81	150	103	-3.67	0.21	0.63
LN4033826	WJ4002498	WJ4019456	202.28	300	132	-12.99	0.18	0.14
LN4033837	WJ4019456	WJ4019463	203.28	150	103	-4.26	0.24	0.84
LN4033838	WJ4019463	WJ4003473	203.43	150	103	-4.84	0.27	1.06
LN4033840	WJ4019463	WJ52881	282.10	150	103	2.08	0.12	0.22
LN4033859	WJ4019472	WJ4019463	100.66	150	103	1.79	0.10	0.17
LN4033860	WJ4002158	WJ4019472	192.96	150	103	-3.38	0.19	0.54
LN4033861	WJ4019472	WJ4003628	203.04	150	103	-3.51	0.20	0.59
LN4033965	WJ52163	WJ48958	97.33	150	103	2.77	0.16	0.38
LN4033972	WJ4017495	WJ58397	63.72	150	103	-0.04	0.00	0.00
LN4033973	WJ58399	WJ52167	127.61	150	103	-0.08	0.00	0.00
LN4034072_A001	WJ4019556	WV4016857	1.89	400	129	60.98	0.49	0.64
LN4034072_A002	WV4016857	WJ59207	3.10	400	129	60.98	0.49	0.64
LN4034075	WJ4017772	WJ4019562	97.72	300	120	8.51	0.12	0.08
LN4034076	WJ4019562	WJ55026	141.86	300	120	7.46	0.11	0.06
LN4034078	WJ4008507	WJ4019562	252.52	150	103	-4.22	0.24	0.82
LN4034079	WJ4019562	WJ4017555	176.29	150	103	-3.44	0.19	0.57
LN4034087	WJ4018289	WJ4019567	147.36	150	103	-0.02	0.00	0.00
LN4034088	WJ4019567	WJ4008646	306.25	150	103	-2.80	0.16	0.39
LN4034090	WJ48968	WJ4019567	163.57	150	103	-1.77	0.10	0.16
LN4034091	WJ4019567	WJ4008662	101.48	150	103	0.91	0.05	0.05
LN4034097	WJ4019572	WJ4017786	101.51	150	103	2.72	0.15	0.37
LN4034104	WJ4017333	WJ4019575	202.94	150	103	-3.52	0.20	0.59
LN4034105	WJ4019575	WJ4019572	212.67	150	103	-4.50	0.25	0.93
LN4034107	WJ53513	WJ4019575	79.63	150	103	-0.11	0.01	0.00
LN4034108	WJ4019575	WJ4009916	212.94	150	103	0.54	0.03	0.02
LN4034131	WJ53844	WJ53848	116.79	300	120	-9.53	0.13	0.10
LN4034136	WJ4016701	WJ4019589	200.68	150	103	2.83	0.16	0.39
LN4034137	WJ4019589	WJ4016803	206.73	150	103	5.44	0.31	1.32
LN4034139	WJ4016732	WJ4019589	101.49	300	120	-8.21	0.12	0.07
LN4034144	WJ4019589	WJ53571	94.38	300	120	-11.07	0.16	0.13
LN4034145	WJ53572	WJ53844	121.93	300	120	-9.06	0.13	0.09
LN4034158	WJ53556	WJ47069	396.90	150	103	4.15	0.23	0.80
LN4034164	WJ4019600	WJ4016683	100.57	150	103	-1.46	0.08	0.12
LN4034165	WJ4016587	WJ4019603	296.05	150	114	3.74	0.21	0.54
LN4034166	WJ4019603	WJ53558	217.41	150	114	5.73	0.32	1.20
LN4034167	WJ4016405	WJ4019603	219.80	150	103	2.74	0.16	0.37
LN4034168	WJ4019603	WJ4019600	99.26	150	103	0.44	0.02	0.01
LN4034175	WJ4013513	WJ4019608	391.20	150	103	-2.48	0.14	0.30
LN4034176	WJ4019608	WJ4016832	355.03	150	103	-3.34	0.19	0.53
LN4034178	WJ4019608	WJ4013517	42.66	150	103	0.03	0.00	0.00
LN4034179	WJ4013513	WJ4019610	399.26	150	103	-2.42	0.14	0.29
LN4034180	WJ4019610	WJ4016839	204.10	150	103	-3.18	0.18	0.49
LN4034182	WJ4019610	WJ4019608	99.52	150	103	-0.27	0.02	0.00
LN4034184	WJ4019612	WJ4017758	203.15	150	103	-3.23	0.18	0.50
LN4034186	WJ4019612	WJ4019610	100.05	150	103	-0.54	0.03	0.01
LN4034188	WJ4019614	WJ4017756	203.04	150	103	-3.30	0.19	0.52
LN4034189	WJ22345	WJ4019614	152.49	150	103	-0.42	0.02	0.01
LN4034190	WJ4019614	WJ4019612	100.05	150	103	-0.46	0.03	0.01
LN4034192	WJ4019616	WJ4019612	202.75	150	103	-3.04	0.17	0.45
LN4034193	WJ4013490	WJ4019616	8.63	150	103	-0.02	0.00	0.00

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4034197	WJ51998	WJ4019619	148.87	150	103	-2.62	0.15	0.34
LN4034198	WJ4019619	WJ4019614	203.16	150	103	-3.05	0.17	0.45
LN4034199	WJ4019616	WJ4019619	99.55	150	103	0.41	0.02	0.01
LN4034200	WJ4019619	WJ22343	144.15	150	103	0.56	0.03	0.02
LN4034211_A001	WJ4018575	J-HY22581	12.24	300	132	6.18	0.09	0.03
LN4034211_A002	J-HY22581	J-HY4018775	64.14	300	132	6.18	0.09	0.04
LN4034211_A003	J-HY4018775	J-HY4018835	116.72	300	132	6.18	0.09	0.04
LN4034211_A004	J-HY4018835	WJ4019624	23.55	300	132	6.18	0.09	0.04
LN4034217	WJ54461	WJ4019624	89.52	150	103	-1.17	0.07	0.08
LN4034220_A001	WJ4019626	J-HY4018607	140.27	150	114	-0.61	0.03	0.02
LN4034220_A002	J-HY4018607	WJ4018588	34.94	150	114	-0.61	0.03	0.02
LN4034221_A001	WJ4019624	J-HY4019282	96.34	300	132	2.14	0.03	0.01
LN4034221_A002	J-HY4019282	J-HY4022788	114.88	300	132	2.14	0.03	0.01
LN4034221_A003	J-HY4022788	WJ4019626	105.43	300	132	2.14	0.03	0.00
LN4034223_A001	WJ58540	J-HY4018406	4.24	150	103	1.46	0.08	0.11
LN4034223_A002	J-HY4018406	J-HY4018424	122.42	150	103	1.46	0.08	0.12
LN4034223_A003	J-HY4018424	WJ53116	39.60	150	103	1.46	0.08	0.12
LN4034226	WJ4019628	WJ4012588	23.70	400	129	2.40	0.02	0.00
LN4034229	WJ53122	WJ4019630	89.83	400	129	3.99	0.03	0.00
LN4034230	WJ22621	WJ4019628	113.64	400	129	4.68	0.04	0.01
LN4034236	WJ4019634	WJ4017212	220.07	150	103	-2.39	0.14	0.29
LN4034237	WJ27857	WJ4019634	86.65	150	103	1.56	0.09	0.13
LN4034238	WJ4019634	WJ4017210	109.66	150	103	0.89	0.05	0.05
LN4034240	WJ4019636	WJ27858	100.29	150	103	0.35	0.02	0.01
LN4034242	WJ4019636	WJ4019630	217.65	150	103	-2.82	0.16	0.39
LN4034243	WJ4019628	WJ4019637	217.76	150	103	2.79	0.16	0.38
LN4034246	WJ4019637	WJ4019636	117.88	150	103	0.38	0.02	0.01
LN4034248	WJ4019639	WJ4019626	217.21	150	103	-2.77	0.16	0.38
LN4034250	WJ4019639	WJ4019637	117.53	150	103	0.25	0.01	0.00
LN4034257	WJ4012398	WJ4019643	233.23	150	103	-0.61	0.03	0.02
LN4034261	WJ4019643	WJ4019639	105.49	150	103	-0.41	0.02	0.01
LN4034262	WJ4019624	WJ4019644	218.14	150	103	2.35	0.13	0.28
LN4034264	WJ54469	WJ4019644	90.62	150	103	1.68	0.10	0.15
LN4034274	WJ4019643	WJ4019651	341.71	150	103	-0.27	0.02	0.00
LN4034275	WJ4019651	WJ4012398	122.15	150	103	0.99	0.06	0.06
LN4034276	WJ4019644	WJ4019651	98.15	150	103	2.12	0.12	0.23
LN4034277	WJ4019651	WJ4019643	111.33	150	103	0.48	0.03	0.01
LN4034282	WJ4019644	WJ4019654	223.07	150	103	1.66	0.09	0.15
LN4034283	WJ4019654	WJ4012266	218.49	150	103	2.61	0.15	0.34
LN4034284	WJ54441	WJ4019654	90.79	150	103	1.90	0.11	0.19
LN4034285	WJ4019654	WJ4012399	93.10	150	103	0.77	0.04	0.03
LN4034286	WJ4012399	WJ4019656	221.50	150	103	1.55	0.09	0.13
LN4034288	WJ4017734	WJ4019656	218.41	150	103	-1.99	0.11	0.20
LN4034289	WJ4019656	WJ4019639	222.33	150	103	-1.89	0.11	0.19
LN4034292	WJ4019637	WJ4019658	222.37	150	103	2.12	0.12	0.23
LN4034293	WJ4019658	WJ4017740	218.13	150	103	1.77	0.10	0.16
LN4034294	WJ4019656	WJ4019658	117.89	150	103	1.25	0.07	0.09
LN4034297	WJ4017741	WJ61529	207.36	150	103	-1.48	0.08	0.12
LN4034298	WJ4019660	WJ4019636	222.60	150	103	-2.34	0.13	0.28
LN4034299	WJ4019658	WJ4019660	117.98	150	103	1.33	0.08	0.10
LN4034301	WJ4019660	WJ27877	98.22	150	103	1.70	0.10	0.15
LN4034308	WJ4017695	WJ4019665	216.83	150	103	-0.96	0.05	0.05
LN4034309	WJ4019665	WJ4019634	223.36	150	103	-2.75	0.16	0.37
LN4034310	WJ27875	WJ4019665	96.54	300	120	14.42	0.20	0.21
LN4034311	WJ4019665	WJ4017691	109.58	300	120	15.83	0.22	0.25
LN4034328	WJ4019673	WJ28077	101.43	150	103	0.47	0.03	0.01
LN4034329	WJ4012072	WJ4019673	454.18	150	103	-0.72	0.04	0.03
LN4034330	WJ4019673	WJ4017741	218.99	150	103	-1.08	0.06	0.07
LN4034331	WJ4012081	WJ4019675	439.54	150	103	-0.61	0.03	0.02
LN4034332	WJ4019675	WJ4017740	218.59	150	103	-1.01	0.06	0.06
LN4034334	WJ4019675	WJ4019673	117.85	150	103	0.70	0.04	0.03
LN4034336	WJ4019677	WJ4017734	218.62	150	103	-0.81	0.05	0.04
LN4034338	WJ4019677	WJ4019675	117.80	150	103	0.90	0.05	0.05
LN4034342	WJ4012183	WJ4019680	218.93	150	103	0.25	0.01	0.00
LN4034343	WJ4019680	WJ4012268	221.55	150	103	-0.29	0.02	0.01
LN4034345	WJ4019680	WJ4019677	108.97	150	103	1.14	0.06	0.07
LN4034347	WJ4019682	WJ4011938	231.69	150	114	0.51	0.03	0.01
LN4034348	WJ54491	WJ4019682	189.90	150	103	1.58	0.09	0.13
LN4034349	WJ4019682	WJ4019680	105.41	150	103	0.95	0.05	0.05
LN4034350	WJ4011981	WJ4019684	152.26	150	114	-0.08	0.00	0.00
LN4034351	WJ4019684	WJ4011971	117.67	150	114	0.11	0.01	0.00
LN4034353	WJ4019684	WJ54424	92.37	150	103	-1.78	0.10	0.17
LN4034355	WJ4012183	WJ4019685	102.71	150	103	-0.98	0.06	0.05
LN4034356	WJ4019685	WJ4019684	98.75	150	103	-1.43	0.08	0.11
LN4034357	WJ4011969	WJ4019685	218.13	150	103	0.18	0.01	0.00
LN4034358	WJ4019685	WJ4019682	219.02	150	103	0.26	0.01	0.00

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4034360	WJ4019687	WJ4019677	442.84	150	103	-0.53	0.03	0.02
LN4034361	WJ4012185	WJ4019687	138.33	150	103	1.39	0.08	0.11
LN4034362	WJ4019687	WJ4012081	89.93	150	103	1.25	0.07	0.09
LN4034390	WJ4019700	WJ4017775	219.66	150	103	-0.51	0.03	0.02
LN4034391	WJ4017763	WJ4019700	94.00	300	120	8.71	0.12	0.08
LN4034410	WJ4019709	WJ4017777	219.74	150	103	-0.59	0.03	0.02
LN4034411	WJ4019700	WJ4019709	92.97	300	120	8.17	0.12	0.07
LN4034413	WJ4017788	WJ4019711	221.97	150	103	0.64	0.04	0.03
LN4034415	WJ4019709	WJ4019711	91.47	300	120	7.69	0.11	0.06
LN4034439	WJ4013052	WJ4019724	40.53	150	103	-0.04	0.00	0.00
LN4034442	WJ4019726	WJ4013861	86.06	150	103	4.44	0.25	0.90
LN4034443	WJ4019724	WJ4019726	197.26	150	103	1.50	0.08	0.12
LN4034452	WJ4013852	WJ4019733	85.69	150	103	-1.83	0.10	0.18
LN4034453	WJ4019733	WJ4014259	91.15	150	103	-2.61	0.15	0.34
LN4034454	WJ4019726	WJ4019733	195.28	150	103	3.90	0.22	0.71
LN4034457	WJ4019734	WJ4014248	85.17	300	120	-11.53	0.16	0.14
LN4034459	WJ4019733	WJ4019734	194.39	150	103	4.41	0.25	0.89
LN4034461	WJ4013831	WJ4019735	87.51	150	103	-0.93	0.05	0.05
LN4034462	WJ4019735	WJ28135	92.54	150	103	-0.88	0.05	0.05
LN4034463	WJ4019734	WJ4019735	204.26	150	103	3.44	0.19	0.56
LN4034464_A001	WJ4019735	J-HY4022767	234.19	150	103	2.98	0.17	0.43
LN4034464_A002	J-HY4022767	J-HY4022775	146.35	150	103	2.98	0.17	0.43
LN4034464_A003	J-HY4022775	WJ20173	50.98	150	103	2.98	0.17	0.43
LN4034467	WJ4019736	WJ4019734	86.40	300	120	-12.05	0.17	0.15
LN4034468	WJ4013831	WJ4019736	203.52	150	103	-3.31	0.19	0.52
LN4034469	WJ4019736	WJ4013852	194.88	150	103	-4.37	0.25	0.88
LN4034471	WJ4013243	WJ4019737	93.30	150	103	-6.83	0.39	2.01
LN4034472	WJ4019737	WJ4019724	86.03	150	103	-5.64	0.32	1.41
LN4034473	WJ4013861	WJ4019737	196.21	150	103	1.34	0.08	0.10
LN4034474	WJ4019737	WJ4013221	46.23	150	103	0.02	0.00	0.00
LN4034476	WJ4019738	WJ4019736	93.10	300	120	-12.89	0.18	0.17
LN4034478	WJ4019738	WJ4013704	308.96	150	103	-0.36	0.02	0.01
LN4034484	WJ4019741	WJ4013827	92.93	150	103	-0.72	0.04	0.03
LN4034485	WJ20154	WJ4019741	295.91	150	103	-2.88	0.16	0.41
LN4034486	WJ4019741	WJ4019738	311.16	150	103	-3.42	0.19	0.56
LN4034502	WJ4013443	WJ4019746	198.21	150	103	-0.44	0.02	0.01
LN4034503	WJ4019746	WJ4019741	100.25	150	103	-0.72	0.04	0.03
LN4034504	WJ4013548	WJ4019746	286.28	150	103	-3.12	0.18	0.47
LN4034535	WJ4017785	WJ4019760	218.17	150	103	-0.38	0.02	0.01
LN4034536	WJ4019760	WJ4015775	127.70	150	103	0.12	0.01	0.00
LN4034537	WJ4013528	WJ4019761	100.66	300	120	-5.97	0.08	0.04
LN4034538	WJ4019761	WJ4019738	100.66	300	120	-9.28	0.13	0.09
LN4034540	WJ4019746	WJ4019761	309.98	150	103	-3.36	0.19	0.54
LN4034546	WJ4019760	WJ54484	102.13	300	120	0.02	0.00	0.00
LN4034551	WJ4013520	WJ4019762	98.77	150	103	-1.21	0.07	0.08
LN4034552	WJ4019762	WJ4013704	99.86	150	103	-1.11	0.06	0.07
LN4034553	WJ4019761	WJ4019762	309.83	150	103	-0.50	0.03	0.02
LN4034554	WJ4019762	WJ4013246	290.59	150	103	-1.01	0.06	0.06
LN4034556	WJ4019767	WJ4017784	221.00	300	120	-5.93	0.08	0.04
LN4034557	WJ4013383	WJ4019765	107.60	150	103	-0.45	0.03	0.01
LN4034558	WJ4019765	WJ4013519	97.35	150	103	-1.22	0.07	0.08
LN4034560	WJ4019766	WJ4017783	220.47	150	103	-0.80	0.05	0.04
LN4034561	WJ4013414	WJ4019765	235.12	150	103	-1.15	0.07	0.07
LN4034562	WJ4019765	WJ4013283	238.42	150	103	-0.67	0.04	0.03
LN4034564	WJ4019767	WJ4019760	114.40	300	120	0.80	0.01	0.00
LN4034566	WJ4019766	WJ4019767	91.99	300	120	3.67	0.05	0.02
LN4034570	WJ4019768	WJ4019766	100.88	300	120	4.23	0.06	0.02
LN4034574	WJ55156	WJ4016605	337.54	150	103	-4.39	0.25	0.89
LN4034578	WJ53518	WJ55157	193.02	150	103	-4.85	0.27	1.07
LN4034579	WJ4017759	WJ4019772	201.49	150	103	-0.78	0.04	0.04
LN4034581	WJ4017750	WJ4019772	401.11	150	103	-3.97	0.22	0.73
LN4034582	WJ4019772	WJ53506	210.35	150	103	-4.29	0.24	0.85
LN4034584	WJ4019772	WJ4019773	153.18	150	103	-0.89	0.05	0.05
LN4034585	WJ4019773	WJ4015317	101.79	150	103	0.74	0.04	0.03
LN4034586	WJ4017748	WJ4019773	402.07	300	120	-29.09	0.41	0.76
LN4034587	WJ4019773	WJ53494	206.55	300	120	-31.16	0.44	0.86
LN4034596	WJ4019775	WJ22345	202.81	150	103	-0.18	0.01	0.00
LN4034597	WJ4015851	WJ4019775	481.67	150	103	3.58	0.20	0.61
LN4034598	WJ4019775	WJ52044	236.23	150	103	3.62	0.20	0.62
LN4034603	WJ4015780	WJ4019777	103.12	150	103	-0.39	0.02	0.01
LN4034604	WJ4019777	WJ4019775	151.85	150	103	0.31	0.02	0.00
LN4034611	WJ4015789	WJ4019781	102.49	150	103	-0.51	0.03	0.02
LN4034612	WJ4019781	WJ4015851	222.57	150	103	-1.60	0.09	0.14
LN4034613	WJ4019777	WJ4019781	341.03	300	120	-29.32	0.41	0.77
LN4034614	WJ4019781	WJ4017748	252.11	300	120	-28.65	0.41	0.74
LN4034617	WJ4019782	WJ4016532	90.91	150	103	0.21	0.01	0.00

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4034618	WJ4016393	WJ4019782	188.41	150	103	4.03	0.23	0.76
LN4034622	WJ4019783	WJ4016534	91.11	150	103	-0.31	0.02	0.01
LN4034623	WJ4019782	WJ4019783	203.42	150	103	4.04	0.23	0.76
LN4034626	WJ4019786	WJ4017781	219.72	150	103	-0.74	0.04	0.03
LN4034628	WJ4019786	WJ4019768	102.26	300	120	4.89	0.07	0.03
LN4034630	WJ55466	WJ4017780	199.40	150	103	-0.73	0.04	0.03
LN4034632	WJ55341	WJ4019786	88.91	300	120	5.58	0.08	0.04
LN4034633	WJ4016519	WJ4019789	91.90	150	103	1.09	0.06	0.07
LN4034635	WJ4008619	WJ4019790	162.99	150	114	-0.09	0.01	0.00
LN4034637	WJ4019783	WJ4019789	202.63	150	103	3.54	0.20	0.59
LN4034638	WJ4019789	WJ4016357	202.78	150	103	3.57	0.20	0.60
LN4034641	WJ28214	WJ4019792	181.61	400	129	-26.34	0.21	0.14
LN4034642	WJ4019792	WJ4016357	95.01	400	129	24.96	0.20	0.12
LN4034645	WJ4019711	WJ55429	82.78	300	120	7.04	0.10	0.05
LN4034646	WJ55431	WJ55304	65.60	300	120	6.36	0.09	0.05
LN4034647	WJ4019789	WJ4019795	91.77	150	103	0.73	0.04	0.03
LN4034652	WJ4019796	WJ4019783	92.63	150	103	-0.55	0.03	0.02
LN4034653	WJ4019795	WJ4019796	202.88	150	103	-3.56	0.20	0.60
LN4034656	WJ4019798	WJ4019700	218.35	150	103	-0.75	0.04	0.03
LN4034657	WJ4017764	WJ4019798	94.16	150	103	1.35	0.08	0.10
LN4034663	WJ4016175	WJ4019803	108.11	150	103	-0.05	0.00	0.00
LN4034664	WJ4019803	WJ4019709	218.45	150	103	-0.71	0.04	0.03
LN4034666	WJ22724	WJ4019803	91.06	150	103	1.05	0.06	0.06
LN4034668	WJ4019711	WJ4019820	218.60	150	103	0.93	0.05	0.05
LN4034669	WJ4019820	WJ4019386	217.69	150	103	0.94	0.05	0.05
LN4034671	WJ4019805	WJ4019782	92.44	150	103	0.52	0.03	0.02
LN4034672	WJ4019796	WJ4019805	203.16	150	103	-4.09	0.23	0.78
LN4034673	WJ4019805	WJ4016389	197.92	150	103	-3.92	0.22	0.72
LN4034675	WJ28174	WJ4019806	90.38	150	114	1.45	0.08	0.09
LN4034676	WJ4019806	WJ4019805	91.48	150	103	0.91	0.05	0.05
LN4034677	WJ4016388	WJ4019806	197.77	150	103	3.93	0.22	0.72
LN4034682	WJ28154	WJ4019808	90.47	150	103	-1.36	0.08	0.10
LN4034683	WJ4019808	WJ4019796	91.34	150	103	-0.95	0.05	0.05
LN4034684	WJ4019806	WJ4019808	202.66	150	103	4.23	0.24	0.83
LN4034688	WJ4019795	WJ4019809	91.70	150	103	1.31	0.07	0.09
LN4034689	WJ4019809	WJ28134	90.21	150	103	0.88	0.05	0.05
LN4034690	WJ4019808	WJ4019809	203.33	150	103	3.61	0.20	0.62
LN4034702	WJ4019815	WJ54460	86.69	150	103	-0.24	0.01	0.00
LN4034704	WJ4019815	WJ4016614	240.54	150	103	-1.17	0.07	0.08
LN4034709	WJ4019817	WJ54470	86.58	150	103	1.56	0.09	0.13
LN4034710	WJ4017785	WJ4019817	222.86	150	103	-0.94	0.05	0.05
LN4034711	WJ4019817	WJ4019815	217.75	150	103	-1.47	0.08	0.12
LN4034715	WJ4019818	WJ4019817	113.37	150	103	1.30	0.07	0.09
LN4034717	WJ4019818	WJ4017784	220.12	300	120	6.72	0.10	0.05
LN4034721	WJ4019819	WJ4019815	114.24	150	103	0.39	0.02	0.01
LN4034722	WJ4018328	WJ4019819	243.04	300	120	8.49	0.12	0.08
LN4034723	WJ4019819	WJ4019818	218.12	300	120	8.20	0.12	0.07
LN4034724	WJ4019803	WJ4019820	91.50	150	103	1.44	0.08	0.11
LN4034729	WJ4019822	WJ4019819	95.21	150	103	0.41	0.02	0.01
LN4034731	WJ4019822	WJ4018352	211.28	150	103	-1.35	0.08	0.10
LN4034738	WJ4019826	WJ4019818	95.81	150	103	0.18	0.01	0.00
LN4034739	WJ4017783	WJ4019826	221.44	150	103	-0.89	0.05	0.05
LN4034740	WJ4019826	WJ4019822	217.95	150	103	-1.17	0.07	0.08
LN4034741	WJ4019820	WJ55442	83.67	150	103	1.08	0.06	0.07
LN4034743	WJ4016704	WJ4019829	98.59	150	103	0.01	0.00	0.00
LN4034744	WJ4019829	WJ4019826	98.90	150	103	0.16	0.01	0.00
LN4034749	WJ55441	WJ55326	66.94	150	103	0.96	0.05	0.05
LN4034753	WJ4017092	WJ4019834	94.34	150	103	0.73	0.04	0.03
LN4034754	WJ4019834	WJ4019822	99.41	150	103	0.52	0.03	0.02
LN4034756	WJ4019834	WJ4019829	217.79	150	114	1.36	0.08	0.08
LN4034757	WJ4016056	WJ4019838	218.17	150	103	-0.94	0.05	0.05
LN4034758	WJ4019838	WJ4019786	218.38	150	103	-1.05	0.06	0.06
LN4034759	WJ55323	WJ4019838	90.27	150	103	0.87	0.05	0.04
LN4034767	WJ4019838	WJ4019841	102.24	150	103	0.67	0.04	0.03
LN4034770	WJ4016704	WJ4019842	98.44	150	103	-0.93	0.05	0.05
LN4034773	WJ4019842	WJ4017780	223.61	150	103	0.80	0.05	0.04
LN4034775	WJ4019845	WJ4019766	218.18	150	103	-0.99	0.06	0.06
LN4034776	WJ4019841	WJ4019845	101.76	150	103	0.32	0.02	0.01
LN4034783	WJ4019848	WJ4017092	103.76	150	103	0.42	0.02	0.01
LN4034784	WJ4018459	WJ4019848	230.67	150	103	1.28	0.07	0.09
LN4034785	WJ4019848	WJ4019842	217.26	150	103	1.20	0.07	0.08
LN4034787	WJ4019851	WJ4019767	218.67	300	120	-8.47	0.12	0.08
LN4034788	WJ4019845	WJ4019851	91.04	150	103	1.09	0.06	0.07
LN4034789	WJ4019851	WJ4015473	114.89	150	103	0.29	0.02	0.01
LN4034792	WJ4019852	WJ4019848	104.87	150	103	0.48	0.03	0.01
LN4034794	WJ4019852	WJ4016750	228.13	150	103	-1.38	0.08	0.10

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4034796	WJ4019855	WJ4019851	218.45	300	120	-8.90	0.13	0.08
LN4034798	WJ4019855	WJ4015640	113.63	150	103	2.52	0.14	0.32
LN4034800	WJ4019842	WJ4019856	104.04	150	103	-0.77	0.04	0.04
LN4034803	WJ4019856	WJ4019852	217.57	150	103	-1.12	0.06	0.07
LN4034809	WJ61514	WJ4019855	77.71	150	103	0.21	0.01	0.00
LN4034813	WJ4019856	WJ4019862	101.91	150	103	-0.88	0.05	0.04
LN4034814	WJ4019862	WJ4017736	185.25	150	103	-0.92	0.05	0.05
LN4034816	WJ4019862	WJ4017788	223.80	150	103	0.77	0.04	0.04
LN4034820	WJ4016055	WJ4019865	95.46	150	103	1.10	0.06	0.07
LN4034821	WJ4019865	WJ61515	75.30	150	103	1.31	0.07	0.09
LN4034823	WJ54014	WJ50379	90.15	150	103	6.17	0.35	1.67
LN4034828	WJ4016147	WJ55331	88.80	150	103	1.09	0.06	0.07
LN4034829	WJ55328	WJ4016056	88.65	150	103	1.17	0.07	0.08
LN4034836	WJ4016125	WJ55338	79.54	150	103	1.05	0.06	0.06
LN4034841	WJ4017733	WJ60926	90.74	150	103	1.68	0.09	0.15
LN4034842	WJ4019873	WJ4019852	100.53	150	103	0.74	0.04	0.03
LN4034845	WJ4019873	WJ4019862	217.85	150	103	1.07	0.06	0.06
LN4034850	WJ53992	WJ54018	74.62	150	103	4.81	0.27	1.05
LN4034854	WJ58937	WJ4019876	165.59	150	114	6.41	0.36	1.48
LN4034931	WJ4017698	WJ58940	70.88	150	114	7.06	0.40	1.77
LN4034967	WJ4015733	WJ4019908	194.49	150	103	-0.70	0.04	0.03
LN4034968	WJ4019908	WJ4016055	218.20	150	103	-0.68	0.04	0.03
LN4034969	WJ55334	WJ4019908	96.50	150	103	1.52	0.09	0.12
LN4034981	WJ4019865	WJ4019914	216.60	150	103	0.75	0.04	0.03
LN4034982	WJ4019914	WJ4010597	209.71	150	103	0.56	0.03	0.02
LN4034983	WJ4019908	WJ4019914	92.76	150	103	1.22	0.07	0.08
LN4034985	WJ4010581	WJ4019916	220.63	150	103	-0.55	0.03	0.02
LN4034986	WJ4019916	WJ61511	215.49	150	103	-0.64	0.04	0.03
LN4034987	WJ4019914	WJ4019916	102.35	150	103	1.10	0.06	0.07
LN4034989	WJ4017702	WJ4019918	233.31	300	120	-4.85	0.07	0.03
LN4034990	WJ4019918	WJ4019855	218.22	300	120	-6.32	0.09	0.04
LN4034991	WJ4019916	WJ4019918	90.81	150	103	0.95	0.05	0.05
LN4034992	WJ4019918	WJ4015587	113.58	150	103	2.13	0.12	0.23
LN4034998	WJ54421	WJ4015587	83.82	150	103	-1.97	0.11	0.20
LN4035159	WJ4011989	WJ4019991	170.37	150	103	-0.46	0.03	0.01
LN4035160	WJ4019991	WJ4011452	184.62	150	103	-0.66	0.04	0.03
LN4035166	WJ4019991	WJ4011411	96.56	150	103	2.16	0.12	0.24
LN4035167	WJ4011390	WJ4019994	201.31	150	103	-0.57	0.03	0.02
LN4035168	WJ4019994	WJ4011454	197.85	150	103	-0.99	0.06	0.06
LN4035170	WJ4019994	WJ4019991	96.62	150	103	2.29	0.13	0.26
LN4035172	WJ4019995	WJ4010410	203.56	150	103	2.64	0.15	0.35
LN4035173	WJ4011579	WJ4019996	126.84	150	103	2.04	0.12	0.21
LN4035174	WJ4019996	WJ4019994	97.81	150	103	2.12	0.12	0.23
LN4035175	WJ4019996	WJ4011399	187.41	150	103	1.07	0.06	0.06
LN4035180	WJ4018874	WJ4019995	19.20	400	129	3.19	0.03	0.00
LN4035188	WJ4020002	WJ4019995	136.90	150	103	-0.52	0.03	0.02
LN4035189	WJ59732	WJ4020003	156.30	150	103	1.87	0.11	0.18
LN4035190	WJ4020003	WJ4011683	141.18	150	103	2.83	0.16	0.39
LN4035195	WJ4020003	WJ4011782	104.10	150	103	1.58	0.09	0.13
LN4035198	WJ4011632	WJ4020007	121.70	150	103	1.44	0.08	0.11
LN4035199	WJ4020007	WJ4011815	242.15	150	103	0.54	0.03	0.02
LN4035212	WJ4010475	WJ4020002	107.85	150	103	-1.32	0.07	0.10
LN4035215	WJ4020013	WJ4020002	100.45	150	103	0.85	0.05	0.04
LN4035222	WJ47435	WJ4020013	85.83	150	103	0.91	0.05	0.05
LN4035437	WJ4002202	WJ4020213	192.44	150	103	-2.95	0.17	0.42
LN4035438	WJ4020213	WJ4003146	203.83	150	103	-3.18	0.18	0.49
LN4035439	WJ49146	WJ4020213	93.53	150	103	1.95	0.11	0.20
LN4035440	WJ4020213	WJ4019472	100.76	150	103	1.93	0.11	0.19
LN4035446	WJ4004565	WJ4020220	359.44	150	103	1.09	0.06	0.07
LN4035447	WJ4020220	WJ4004140	120.98	150	103	0.39	0.02	0.01
LN4035448	WJ4004567	WJ4020220	92.05	150	103	1.98	0.11	0.20
LN4035449	WJ4020220	WJ4003925	86.84	150	103	2.42	0.14	0.29
LN4035450	WJ4004396	WJ4020222	84.14	150	103	-0.10	0.01	0.00
LN4035451	WJ4020222	WJ4004563	121.07	150	103	0.97	0.05	0.05
LN4035452	WJ4004354	WJ4020222	105.41	150	103	3.45	0.20	0.57
LN4035453	WJ4020222	WJ4004565	76.92	150	103	2.26	0.13	0.26
LN4035459	WJ4020225	WJ4018068	68.03	300	120	29.52	0.42	0.78
LN4035461	WJ4017359	WJ4020227	218.39	150	103	-0.05	0.00	0.00
LN4035462	WJ4020227	WJ4020225	218.51	150	103	1.25	0.07	0.09
LN4035463	WJ4005072	WJ4020227	94.47	150	103	4.05	0.23	0.76
LN4035464	WJ4020227	WJ4003929	83.63	150	103	2.44	0.14	0.30
LN4035465	WJ4020225	WJ49000	216.17	150	103	-4.35	0.25	0.87
LN4035466	WJ4020229	WJ4003845	26.46	150	103	-0.93	0.05	0.05
LN4035467	WJ4017666	WJ4020229	380.96	400	129	19.86	0.16	0.08
LN4035468	WJ4020229	WJ4003831	84.80	400	129	15.86	0.13	0.05
LN4035472	WJ4005083	WJ4020225	188.99	300	120	24.23	0.34	0.54

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4035478	WJ4018166	WJ4018217	115.84	150	114	-2.92	0.17	0.35
LN4035488	WJ4018482	WJ55020	61.72	150	103	-0.14	0.01	0.00
LN4035524	WJ4020263	WJ4020259	230.45	150	114	-0.38	0.02	0.01
LN4035527_A001	WJ4020264	WV4021627	140.15	600	130	204.91	0.72	0.83
LN4035527_A002	WV4021627	WJ4014260	179.66	600	130	204.91	0.72	0.83
LN4035528	WJ4014259	WJ4020269	138.01	150	103	-7.12	0.40	2.17
LN4035530	WJ4020268	WJ4020269	58.21	300	132	7.25	0.10	0.05
LN4035531	WJ4020267	WJ4020268	97.63	300	132	14.48	0.20	0.17
LN4035532	WJ4020266	WJ4020267	100.89	300	132	14.74	0.21	0.18
LN4035533	WJ4020265	WJ4020266	27.16	300	132	22.15	0.31	0.38
LN4035534	WJ4020264	WJ4020265	36.43	300	132	22.38	0.32	0.39
LN4035536	WJ4020268	WJ4019726	89.81	150	103	7.11	0.40	2.16
LN4035537	WJ4019724	WJ4020266	89.35	150	103	-7.34	0.42	2.30
LN4035539	WJ4008476	WJ4020274	443.08	600	130	205.25	0.73	0.83
LN4035541	WJ4020274	WJ4020275	168.59	600	130	236.57	0.84	1.08
LN4035542	WJ4020275	WJ4020264	399.60	600	130	232.27	0.82	1.05
LN4035545	WJ4008433	WJ4020274	327.32	300	120	32.29	0.46	0.92
LN4035547	WJ4020275	WJ4020278	7.12	300	120	4.30	0.06	0.02
LN4035549	WJ4013538	WJ4022803	91.62	250	110	4.87	0.10	0.08
LN4035551	WJ4016732	WJ4017755	150.57	300	120	6.76	0.10	0.05
LN4035554	WJ4016839	WJ4016834	190.64	150	103	-2.94	0.17	0.42
LN4035582	WJ4006305	WJ48469	168.44	150	103	0.12	0.01	0.00
LN4035788	WJ47436	WJ4020423	87.70	150	114	0.03	0.00	0.00
LN4035789	WJ4020598	WJ4020596	103.22	150	114	1.19	0.07	0.07
LN4035791	WJ4020599	WJ4020598	97.25	150	114	2.39	0.14	0.24
LN4035803	WJ53447	WJ4002007	91.06	150	103	-1.18	0.07	0.08
LN4035891	WJ4020703	WJ4018604	24.18	150	114	1.35	0.08	0.08
LN4035892	WJ4018605	WJ4020704	22.69	150	114	2.02	0.11	0.17
LN4035893	WJ4020704	WJ4020703	316.54	150	114	0.66	0.04	0.02
LN4035894	WJ4020703	WJ4020704	134.53	150	114	-1.04	0.06	0.05
LN4035907	WJ4020716	WJ4020715	6.36	150	114	3.24	0.18	0.42
LN4035908	WJ4020717	WJ4020716	109.70	150	114	-2.57	0.15	0.27
LN4035914_A001	WJ4017212	J-HY4019591	33.28	300	132	6.53	0.09	0.04
LN4035914_A002	J-HY4019591	WJ4020722	79.72	300	132	6.53	0.09	0.04
LN4035915_A001	WJ4020722	J-HY16261	112.96	300	132	-0.26	0.00	0.00
LN4035915_A002	J-HY16261	J-HY4017085	120.75	300	132	-0.26	0.00	0.00
LN4035915_A003	J-HY4017085	WJ4017209	22.50	300	132	-0.26	0.00	0.00
LN4035919	WJ4010521	WJ4020727	330.07	300	120	-15.55	0.22	0.24
LN4035920	WJ4020727	WJ4017869	15.95	300	132	-15.55	0.22	0.20
LN4035922	WJ53462	WJ4017869	307.12	300	132	15.57	0.22	0.20
LN4035923	WJ56688	WJ4020729	80.81	300	120	43.46	0.61	1.59
LN4035924	WJ4020729	WJ59734	16.82	300	120	40.30	0.57	1.39
LN4035926	WJ4020730	WJ4017869	9.56	300	132	0.00	0.00	0.00
LN4035929	WJ61124	WJ4020717	105.89	150	114	-0.14	0.01	0.00
LN4035930	WJ4020729	WJ4020732	49.94	150	114	3.16	0.18	0.40
LN4035934	WJ4020739	WJ4020740	76.05	150	114	1.02	0.06	0.05
LN4035935	WJ4020732	WJ4020738	226.62	150	114	2.45	0.14	0.25
LN4035936	WJ53118	WJ4020741	19.30	150	114	-1.81	0.10	0.14
LN4035937_A001	WJ4020741	J-HY4018649	53.12	150	114	-1.02	0.06	0.05
LN4035937_A002	J-HY4018649	WJ58533	54.72	150	114	-1.02	0.06	0.05
LN4035943	WJ49340	WJ49248	105.92	150	114	-2.51	0.14	0.26
LN4035992	WJ27375	WJ4010421	314.91	400	129	-29.70	0.24	0.17
LN4035999	WJ4020832	WJ4020828	501.30	400	129	-3.27	0.03	0.00
LN4036014	WJ4018217	WJ59074	367.87	400	129	1.55	0.01	0.00
LN4036017	WJ4020832	WJ59074	205.63	400	129	1.11	0.01	0.00
LN4036022	WJ4010295	WJ4020856	79.01	150	103	1.52	0.09	0.12
LN4036023	WJ4020856	WJ59072	104.63	150	103	0.79	0.04	0.04
LN4036026	WJ4020858	WJ4020853	99.75	150	114	-1.25	0.07	0.07
LN4036027	WJ4020740	WJ4020858	93.70	150	114	-2.23	0.13	0.21
LN4036029	WJ4020740	WJ4020862	144.05	150	114	3.17	0.18	0.40
LN4036031	WJ4010422	WJ4020864	96.56	300	120	45.91	0.65	1.76
LN4036032	WJ4020865	WJ4020864	617.52	250	115	-0.50	0.01	0.00
LN4036033	WJ4020867	WJ4020863	99.75	150	114	-1.75	0.10	0.13
LN4036034	WJ4020739	WJ4020867	95.28	150	114	-2.47	0.14	0.25
LN4036035	WJ4020738	WJ4020739	10.68	150	114	-1.40	0.08	0.09
LN4036036	WJ4020862	WJ4020738	115.15	150	114	-3.67	0.21	0.53
LN4036050	WJ4011486	WJ4020882	57.75	300	120	29.31	0.41	0.77
LN4036060	WJ4020882	WJ4020862	75.83	150	114	-6.08	0.34	1.34
LN4036139	WJ4019876	WJ4020967	6.53	150	114	6.18	0.35	1.39
LN4036140	WJ4020967	WJ53993	70.21	150	103	6.17	0.35	1.67
LN4036145	WJ4019790	WJ4020969	216.54	150	114	-0.13	0.01	0.00
LN4036146	WJ4020969	WJ4019812	3.19	150	114	-4.53	0.26	0.77
LN4036150	WJ4020969	WJ4008332	120.89	150	114	4.22	0.24	0.68
LN4036157	WJ4020971	WJ4011622	127.89	150	114	-1.46	0.08	0.10
LN4036159	WJ4020007	WJ4020971	96.04	150	114	-0.79	0.04	0.03
LN4036166	WJ4020007	WJ4020978	109.79	150	114	1.43	0.08	0.09

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4036169	WJ4020978	WJ4020979	112.54	150	114	0.87	0.05	0.04
LN4036173	WJ4011859	WJ4020981	242.11	150	103	-0.43	0.02	0.01
LN4036175	WJ4020979	WJ4020981	10.10	150	114	2.06	0.12	0.18
LN4036176	WJ4020980	WJ4010422	324.24	150	103	0.37	0.02	0.01
LN4036180	WJ4020981	WJ4020984	102.09	150	114	1.47	0.08	0.10
LN4036181	WJ4017698	WJ4020980	97.63	150	114	-7.71	0.44	2.09
LN4036182	WJ4010368	WJ4010217	100.39	150	114	-5.70	0.32	1.19
LN4036187	WJ4020987	WJ4020984	123.82	150	114	-0.98	0.06	0.05
LN4036190	WJ4020867	WJ4020717	160.55	150	114	-2.15	0.12	0.19
LN4036192	WJ4020867	WJ4020858	127.92	150	114	1.18	0.07	0.06
LN4036215	WJ4020987	WJ4021011	139.02	150	114	0.60	0.03	0.02
LN4036228	WJ4011139	WJ4021023	101.13	150	114	-0.23	0.01	0.00
LN4036229	WJ4021023	WJ4011947	120.37	150	103	-0.34	0.02	0.01
LN4036231	WJ4011139	WJ4021011	234.88	150	114	-0.30	0.02	0.01
LN4036254	WJ4011305	WJ4021044	98.03	150	114	-0.85	0.05	0.04
LN4036255	WJ4018111	WJ4021047	63.80	300	120	-6.13	0.09	0.04
LN4036256	WJ4021047	WJ4018113	4.80	300	120	-5.26	0.07	0.03
LN4036257	WJ4021044	WJ4018113	90.93	150	114	-0.56	0.03	0.02
LN4036287	WJ58461	WJ4021076	7.85	400	129	-28.35	0.23	0.15
LN4036297_A001	WJ19333	WV15899	390.57	600	130	-157.21	0.56	0.51
LN4036297_A002	WV15899	WJ21598	400.20	600	130	-157.21	0.56	0.51
LN4036345	WJ4021126	WJ55022	65.79	150	114	-0.09	0.01	0.00
LN4036361_A001	WJ4015339	J-HY16136	24.10	300	132	0.08	0.00	0.00
LN4036361_A002	J-HY16136	WJ4021144	102.57	300	132	0.08	0.00	0.00
LN4036400	WJ4019063	WJ4021189	35.51	150	114	-0.03	0.00	0.00
LN4036401	WJ59147	WJ48216	597.36	150	103	-0.39	0.02	0.01
LN4036461	WJ4008690	WJ4021233	14.62	300	120	4.84	0.07	0.03
LN4036462	WJ4021233	WJ4008678	89.15	300	120	4.84	0.07	0.03
LN4036467	WJ4020716	WJ56701	89.07	150	114	-5.87	0.33	1.26
LN4036477	WJ4020715	WJ4020863	109.77	150	114	3.21	0.18	0.41
LN4036484	WJ4020853	WJ4020863	173.49	150	114	-1.35	0.08	0.08
LN4036511	WJ4018306	WJ4021261	113.68	150	114	-0.79	0.04	0.03
LN4037291	WJ53848	WJ4018443	95.95	300	120	-11.81	0.17	0.14
LN4037293_A001	WJ4019626	J-HY4019478	8.22	300	132	-2.34	0.03	0.00
LN4037293_A002	J-HY4019478	WJ4012588	87.33	300	132	-2.34	0.03	0.01
LN4037393	WJ4008654	WJ4022762	153.92	300	120	50.31	0.71	2.09
LN4037398	WJ4022762	WJ4022764	281.31	300	120	50.31	0.71	2.09
LN4037399	WJ4022764	WJ56681	145.95	300	120	50.29	0.71	2.09
LN4037432	WJ4020979	WJ4022778	130.60	150	114	-1.24	0.07	0.07
LN4037433	WJ4022778	WJ4011634	175.78	150	103	-1.43	0.08	0.11
LN4037458	WJ4018342	WJ4018341	468.34	400	129	17.97	0.14	0.07
LN4037459	WJ4018341	WJ4018400	6.90	400	129	67.33	0.54	0.77
LN4037475	WJ4008659	WJ4022800	5.56	900	130	-713.08	1.12	1.16
LN4037476_A001	WJ4022800	WV4004307	346.15	900	130	10.86	0.02	0.00
LN4037476_A002	WV4004307	WJ4018133	647.05	900	130	10.86	0.02	0.00
LN4037479	WJ4022803	WJ4018053	26.28	400	129	38.20	0.30	0.27
LN4037480	WJ4008657	WJ4022804	20.51	900	130	660.48	1.04	1.01
LN4037481_A001	WJ4022804	WV4004327	9.55	900	130	660.48	1.04	1.00
LN4037481_A002	WV4004327	WJ4018048	551.53	900	130	660.48	1.04	1.01
LN4037543	WJ4011011	WJ4020599	117.02	150	114	5.41	0.31	1.08
LN4037651	WJ4015007	WJ4023042	102.15	150	103	-1.24	0.07	0.09
LN4037653	WJ4023042	WJ4023043	216.99	150	103	-1.52	0.09	0.12
LN4037654	WJ4023043	WJ4014481	79.71	150	103	-1.62	0.09	0.14
LN4037690_A001	WJ4018472	WV4004993	3.06	900	130	-213.47	0.34	0.13
LN4037690_A002	WV4004993	WV10604	3.66	900	130	-213.47	0.34	0.12
LN4037690_A003	WV10604	WV4004999	92.53	900	130	-213.47	0.34	0.12
LN4037690_A004	WV4004999	WV10609	197.28	900	130	-213.47	0.34	0.12
LN4037690_A005	WV10609	WJ4019556	484.19	900	130	-213.47	0.34	0.12
LN4037692	WJ4023053	WJ4018472	3.11	900	130	-209.12	0.33	0.12
LN4037695_A001	WJ4018465	WV4005009	17.02	900	130	314.40	0.49	0.25
LN4037695_A002	WV4005009	WJ4023053	43.28	900	130	314.40	0.49	0.25
LN4037696_A001	WJ4023055	WV4005023	154.27	900	130	342.09	0.54	0.30
LN4037696_A002	WV4005023	WV4005020	594.57	900	130	342.09	0.54	0.30
LN4037696_A003	WV4005020	WV4005018	189.11	900	130	342.09	0.54	0.30
LN4037696_A004	WV4005018	WV4005012	143.09	900	130	342.09	0.54	0.30
LN4037696_A005	WV4005012	WJ4018465	4.33	900	130	342.09	0.54	0.30
LN4037697_A001	WJ4018341	WV4005029	27.18	500	130	-49.37	0.25	0.14
LN4037697_A002	WV4005029	WJ4023055	1.05	500	130	-49.37	0.25	0.14
LN4037701	WJ4008317	WJ4008182	23.50	750	130	232.63	0.53	0.35
LN4037704_A001	WJ4018863	WV4005103	136.90	900	130	624.39	0.98	0.91
LN4037704_A002	WV4005103	WV4005104	57.66	900	130	624.39	0.98	0.91
LN4037704_A003	WV4005104	WV4005097	286.87	900	130	624.39	0.98	0.91
LN4037704_A004	WV4005097	WV4005089	409.75	900	130	624.39	0.98	0.91
LN4037704_A005	WV4005089	WV4005087	106.15	900	130	624.39	0.98	0.91
LN4037704_A006	WV4005087	WV4005043	83.76	900	130	624.39	0.98	0.91
LN4037704_A007	WV4005043	WJ4008317	11.06	900	130	624.39	0.98	0.91

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4037710	WJ49342	WJ4008156	114.07	150	103	-2.95	0.17	0.42
LN4037718	WJ4017784	WJ4023063	13.03	200	115	1.42	0.05	0.02
LN4037719	WJ4023063	WJ4017785	100.53	150	103	1.39	0.08	0.10
LN4038270	WJ4018159	WJ4024064	242.08	300	120	-6.84	0.10	0.05
LN4038271	WJ4024064	WJ4002308	106.55	300	120	-6.93	0.10	0.05
LN4038399	WJ4002365	WJ4024315	40.89	300	120	6.96	0.10	0.05
LN4038400	WJ4024315	WJ4002308	67.07	300	120	6.93	0.10	0.05
LN4039390_A001	WJ4018446	WV4011218	37.62	900	130	-506.49	0.80	0.61
LN4039390_A002	WV4011218	WJ4018439	102.56	900	130	-506.49	0.80	0.61
LN4039401_A001	WJ4023052	WV4011250	66.79	900	130	523.52	0.82	0.65
LN4039401_A002	WV4011250	WV4011277	410.91	900	130	523.52	0.82	0.65
LN4039401_A003	WV4011277	WJ4018439	516.40	900	130	523.52	0.82	0.65
LN4039451_A001	WJ4012384	WV4011841	23.83	900	130	-352.42	0.55	0.31
LN4039451_A002	WV4011841	WV4011849	85.63	900	130	-352.42	0.55	0.31
LN4039451_A003	WV4011849	WV4011750	269.45	900	130	-352.42	0.55	0.31
LN4039451_A004	WV4011750	WV4011763	6.49	900	130	-352.42	0.55	0.32
LN4039451_A005	WV4011763	WV4011740	30.27	900	130	-352.42	0.55	0.31
LN4039451_A006	WV4011740	WV50459	57.62	900	130	-352.42	0.55	0.31
LN4039451_A007	WV50459	WJ53112	4.08	900	130	-352.42	0.55	0.31
LN4039489	WJ4018634	WJ4026374	152.53	300	132	-29.64	0.42	0.66
LN4039490	WJ4026374	WJ4018633	50.96	300	132	-30.33	0.43	0.69
LN4039700	WJ23508	WJ4008156	146.72	150	103	7.53	0.43	2.40
LN4041184	WJ4019335	WJ4019334	20.13	100	100	0.05	0.01	0.00
LN4043556	WJ4020856	WJ4017284	368.20	150	103	0.10	0.01	0.00
LN4044918	WJ4023053	WJ4023052	25.72	900	130	523.52	0.82	0.65
LN4045166_A001	WJ4018001	J-HY4035405	24.52	300	132	-9.27	0.13	0.08
LN4045166_A002	J-HY4035405	WJ4037579	11.49	300	132	-9.27	0.13	0.08
LN4045167	WJ4037579	WJ4018002	50.43	300	132	-14.03	0.20	0.16
LN4045171	WJ4037579	WJ4037574	18.00	200	115	4.76	0.15	0.21
LN4045172	WJ4037574	WJ4037577	1.00	200	115	4.76	0.15	0.20
LN4045173	WJ4037574	WJ4037578	2.60	100	100	0.00	0.00	0.00
LN4045192	WJ4018001	WJ4037625	44.99	300	132	8.52	0.12	0.07
LN4045195	WJ4037618	WJ4037619	1.40	100	100	0.00	0.00	0.00
LN4045196	WJ4037618	WJ4037620	1.00	200	115	0.00	0.00	0.00
LN4045197	WJ4037625	WJ4037618	16.20	200	115	0.00	0.00	0.00
LN4045215	WJ4037660	WJ4037662	2.80	100	100	1.87	0.24	1.40
LN4045216	WJ4037660	WJ4037661	1.20	200	115	0.00	0.00	0.00
LN4045219_A001	WJ4037625	J-HY4035466	31.01	300	132	8.52	0.12	0.07
LN4045219_A002	J-HY4035466	WJ4037669	1.79	300	132	8.52	0.12	0.06
LN4045224	WJ4037669	WJ4037660	15.80	200	115	1.87	0.06	0.04
LN4045284	WJ4037669	WJ4037800	49.93	300	132	6.65	0.09	0.04
LN4045289	WJ4037800	WJ4037793	4.00	200	115	0.00	0.00	0.00
LN4045290	WJ4037793	WJ4037794	1.00	200	115	0.00	0.00	0.00
LN4045291	WJ4037786	WJ4037800	15.80	200	115	-1.92	0.06	0.04
LN4045292	WJ4037787	WJ4037786	1.20	200	115	0.00	0.00	0.00
LN4045293	WJ4037793	WJ4037795	2.60	100	100	0.00	0.00	0.00
LN4045294	WJ4037786	WJ4037788	2.77	100	100	1.92	0.24	1.46
LN4045308_A001	WJ4037800	J-HY4035661	24.47	300	132	4.73	0.07	0.02
LN4045308_A002	J-HY4035661	J-HY4035718	72.24	300	132	4.73	0.07	0.02
LN4045308_A003	J-HY4035718	WJ4037839	12.13	300	132	4.73	0.07	0.02
LN4045309	WJ4037839	WJ4017928	26.50	300	132	-0.53	0.01	0.00
LN4045311	WJ4037836	WJ4037838	2.50	100	100	0.00	0.00	0.00
LN4045312	WJ4037839	WJ4037838	4.00	200	115	1.97	0.06	0.04
LN4045313	WJ4037838	WJ4037834	1.00	200	115	1.97	0.06	0.04
LN4045314	WJ4037839	WJ4037829	15.80	200	115	0.00	0.00	0.00
LN4045315	WJ4037829	WJ4037831	1.20	200	115	0.00	0.00	0.00
LN4045316	WJ4037829	WJ4037830	2.70	100	100	0.00	0.00	0.00
LN4045319	WJ4017928	WJ4037849	26.50	300	132	2.34	0.03	0.01
LN4045321	WJ4037846	WJ4037847	2.70	100	100	0.00	0.00	0.00
LN4045322	WJ4037849	WJ4037846	15.80	200	115	3.11	0.10	0.09
LN4045323	WJ4037846	WJ4037848	1.20	200	115	3.11	0.10	0.11
LN4045326	WJ4037849	WJ4037857	19.60	300	132	-0.77	0.01	0.00
LN4045327_A001	WJ4037857	J-HY4035760	2.40	300	132	-0.77	0.01	0.00
LN4045327_A002	J-HY4035760	J-HY4035746	67.41	300	132	-0.77	0.01	0.00
LN4045327_A003	J-HY4035746	WJ4017927	5.00	300	132	-0.77	0.01	0.00
LN4045328	WJ4037857	WJ4037854	4.00	200	115	0.00	0.00	0.00
LN4045329	WJ4037854	WJ4037856	1.00	200	115	0.00	0.00	0.00
LN4045330	WJ4037854	WJ4037855	2.48	100	100	0.00	0.00	0.00
LN4045511_A001	WJ4038214	J-HY4037641	37.60	400	129	-7.50	0.06	0.01
LN4045511_A002	J-HY4037641	WJ4017999	38.72	400	129	-7.50	0.06	0.01
LN4045518	WJ4038205	WJ4038206	2.60	100	100	0.00	0.00	0.00
LN4045521	WJ4038214	WJ4038205	4.00	200	115	0.00	0.00	0.00
LN4045522	WJ4038205	WJ4038207	1.00	200	115	0.00	0.00	0.00
LN4045581	WJ4038346	WJ4038214	18.40	400	129	-7.50	0.06	0.01
LN4045585	WJ4018131	WJ4038353	12.72	150	103	-1.01	0.06	0.06
LN4045586_A001	WJ4038353	J-HY4037018	58.66	150	103	-0.75	0.04	0.03

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4045586_A002	J-HY4037018	J-HY4037006	120.71	150	103	-0.75	0.04	0.03
LN4045586_A003	J-HY4037006	WJ4018072	28.36	150	103	-0.75	0.04	0.03
LN4045589	WJ4038353	WJ4038335	3.82	400	129	0.00	0.00	0.00
LN4045590	WJ4038346	WJ4038353	15.58	400	129	0.34	0.00	0.00
LN4045607	WJ4038388	WJ4038346	15.18	400	129	-7.16	0.06	0.01
LN4045711	WJ4018000	WJ4038595	56.45	300	132	-0.75	0.01	0.00
LN4045712_A001	WJ4038595	J-HY4038255	12.80	300	132	-0.75	0.01	0.00
LN4045712_A002	J-HY4038255	WJ4018001	45.83	300	132	-0.75	0.01	0.00
LN4045713	WJ4038595	WJ4038594	3.60	200	115	0.00	0.00	0.00
LN4045714	WJ4038594	WJ4038592	1.20	200	115	0.00	0.00	0.00
LN4045715	WJ4038594	WJ4038593	2.80	100	100	0.00	0.00	0.00
LN4045732_A001	WJ4017928	J-HY4035780	36.14	300	132	-7.97	0.11	0.06
LN4045732_A002	J-HY4035780	WJ4038628	59.40	300	132	-7.97	0.11	0.06
LN4045733_A001	WJ4038628	J-HY4038518	38.00	300	132	-7.97	0.11	0.06
LN4045733_A002	J-HY4038518	WJ4018000	29.92	300	132	-7.97	0.11	0.06
LN4045735	WJ4038631	WJ4038633	2.80	100	100	0.00	0.00	0.00
LN4045736	WJ4038628	WJ4038631	3.60	200	115	0.00	0.00	0.00
LN4045737	WJ4038631	WJ4038632	1.20	200	115	0.00	0.00	0.00
LN4045764	WJ4018000	WJ4038686	48.20	300	132	-7.23	0.10	0.05
LN4045765_A001	WJ4038686	J-HY4037552	25.89	300	132	-8.68	0.12	0.07
LN4045765_A002	J-HY4037552	WJ4017999	11.00	300	132	-8.68	0.12	0.07
LN4045766	WJ4038686	WJ4038685	14.20	200	115	0.60	0.02	0.00
LN4045767	WJ4038685	WJ4038682	1.20	200	115	0.60	0.02	0.02
LN4045768	WJ4038685	WJ4038681	2.80	100	100	0.00	0.00	0.00
LN4046908	WJ4004354	WJ4006153	0.29	150	103	-2.72	0.15	0.38
LN4046909	WJ4020263	WJ4019687	91.07	150	114	-0.26	0.01	0.00
LN4046912	WJ4020832	WJ4019320	115.92	150	114	0.14	0.01	0.00
LN4046913	WJ4004368	WJ4006214	62.89	150	103	-0.31	0.02	0.01
LN4046919	WJ4020980	WJ4010368	22.05	150	114	-8.32	0.47	2.40
LN4046921	WJ58412	WJ4006075	41.31	200	115	-1.14	0.04	0.01
LN4046925	WJ4017794	WJ4040955	24.36	400	129	62.22	0.50	0.67
LN4046926	WJ4040955	WJ4017282	9.94	400	129	32.50	0.26	0.20
LN4046927	WJ4010233	WJ4040955	19.15	400	129	-0.05	0.00	0.00
LN4046928	WJ4040955	WJ4017795	211.35	400	129	28.90	0.23	0.16
LN4046943	WJ4018464	WJ4040961	39.32	300	120	-3.25	0.05	0.01
LN4046944	WJ4040961	WJ4018471	14.06	300	120	-3.25	0.05	0.01
LN4047389	WJ4018451	WJ19276	151.50	600	130	-43.70	0.15	0.05
LN4047390	WJ19276	WJ4021076	247.86	600	130	-76.93	0.27	0.14
LN4047391	WJ28114	WJ19276	168.36	600	130	-33.23	0.12	0.03
LN4047432	WJ19330	WJ4019777	217.33	300	120	-28.19	0.40	0.71
LN4047434_A001	WJ4018542	J-HY13959	80.75	400	129	-12.98	0.10	0.04
LN4047434_A002	J-HY13959	WJ19330	24.90	400	129	-12.98	0.10	0.04
LN4047435_A001	WJ19330	J-HY13956	77.01	400	129	2.73	0.02	0.00
LN4047435_A002	J-HY13956	WJ51974	19.16	400	129	2.73	0.02	0.00
LN4047439	WJ4021076	WJ19333	187.45	600	130	-105.28	0.37	0.24
LN4047441	WJ19333	WJ4019792	12.02	400	129	51.30	0.41	0.47
LN4047467	WJ19377	WJ4018575	18.88	400	129	12.10	0.10	0.03
LN4047468	WJ4018586	WJ19378	300.21	600	130	-20.51	0.07	0.01
LN4047469	WJ19378	WJ4018532	97.61	600	130	-21.61	0.08	0.01
LN4047470	WJ19377	WJ19378	10.16	400	129	2.23	0.02	0.00
LN4048224	WJ4022803	WJ4013548	9.12	400	129	-33.45	0.27	0.21
LN4048225_A001	WJ4013548	J-HY14497	52.26	400	129	-30.45	0.24	0.18
LN4048225_A002	J-HY14497	WJ20153	42.37	400	129	-30.45	0.24	0.18
LN4048226	WJ20153	WJ20154	4.51	400	129	-34.49	0.27	0.22
LN4048227	WJ20154	WJ20132	84.74	400	129	-31.96	0.25	0.19
LN4048228	WJ20132	WJ20173	105.36	300	132	-6.53	0.09	0.04
LN4048229_A001	WJ20173	J-HY14477	50.93	300	132	-8.73	0.12	0.07
LN4048229_A002	J-HY14477	WJ27974	96.66	300	132	-8.73	0.12	0.07
LN4048230_A001	WJ4013756	J-HY14498	31.13	400	129	25.45	0.20	0.13
LN4048230_A002	J-HY14498	J-HY14499	72.65	400	129	25.45	0.20	0.13
LN4048230_A003	J-HY14499	WJ20132	12.09	400	129	25.45	0.20	0.13
LN4049025	WJ4017292	WJ20935	100.89	150	103	0.15	0.01	0.00
LN4049045	WJ4010286	WJ4020856	244.46	150	103	-0.22	0.01	0.00
LN4049165_A001	WJ58460	J-HY4007618	104.41	150	103	-2.78	0.16	0.38
LN4049165_A002	J-HY4007618	WJ21055	89.07	150	103	-2.78	0.16	0.38
LN4049166	WJ21055	WJ4019795	187.19	150	103	-2.84	0.16	0.39
LN4049167_A001	WJ21075	J-HY4007868	96.44	150	103	1.58	0.09	0.13
LN4049167_A002	J-HY4007868	WJ58458	87.49	150	103	1.58	0.09	0.13
LN4049168	WJ4019809	WJ21075	185.02	150	103	3.75	0.21	0.66
LN4049227	WJ4019572	WJ49325	191.16	150	103	-4.69	0.27	1.00
LN4049229	WJ4017590	WJ49327	80.54	150	103	-0.26	0.01	0.00
LN4049230	WJ49326	WJ21799	95.30	150	103	2.27	0.13	0.26
LN4049325	WJ21239	WJ4017733	11.22	300	132	3.15	0.04	0.01
LN4049326_A001	WJ4017083	J-HY14643	8.65	300	132	5.58	0.08	0.03
LN4049326_A002	J-HY14643	J-HY14641	82.80	300	132	5.58	0.08	0.03
LN4049326_A003	J-HY14641	WJ21278	6.59	300	132	5.58	0.08	0.03

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN4049345	WJ21258	WJ21239	40.35	300	132	4.71	0.07	0.02
LN4049347_A001	WJ21278	J-HY14642	63.02	300	132	4.91	0.07	0.02
LN4049347_A002	J-HY14642	WJ21258	24.09	300	132	4.91	0.07	0.02
LN4049365	WJ21298	WJ4017178	106.25	150	103	-4.05	0.23	0.76
LN4049585	WJ21558	WJ4013268	111.11	150	103	-0.85	0.05	0.04
LN4049645	WJ4014260	WJ21578	128.07	600	130	193.08	0.68	0.74
LN4049666	WJ28175	WJ4014248	129.78	300	132	38.69	0.55	1.08
LN4049685	WJ21578	WJ21598	61.88	600	130	193.08	0.68	0.74
LN4049730	WJ4004538	WJ21660	219.07	150	103	-0.05	0.00	0.00
LN4049731	WJ4017766	WJ21660	94.83	300	120	18.56	0.26	0.33
LN4049732	WJ21660	WJ4005083	95.53	300	120	21.10	0.30	0.42
LN4049847	WJ47749	WJ21799	185.94	150	114	-5.31	0.30	1.05
LN4049848	WJ21799	WJ53664	193.43	150	114	-3.37	0.19	0.45
LN4050091	WJ52222	WJ58406	127.87	150	103	-2.59	0.15	0.33
LN4050092	WJ58404	WJ4005968	71.72	150	103	0.48	0.03	0.01
LN4050315_A001	WJ51978	J-HY4007487	31.80	300	132	24.17	0.34	0.45
LN4050315_A002	J-HY4007487	WJ4017778	38.10	300	132	24.17	0.34	0.45
LN4050316	WJ22344	WJ22343	13.63	150	114	3.02	0.17	0.37
LN4050317	WJ4017793	WJ22345	203.10	150	114	3.68	0.21	0.53
LN4050318	WJ22343	WJ22361	139.15	150	114	3.35	0.19	0.44
LN4050319	WJ22345	WJ22344	191.74	150	114	3.42	0.19	0.46
LN4050491	WJ4019829	WJ4017782	221.39	150	114	0.91	0.05	0.04
LN4050492	WJ4017782	WJ4019768	218.90	150	114	0.85	0.05	0.04
LN4050493	WJ4019768	WJ4019841	223.37	150	114	1.15	0.07	0.06
LN4050494	WJ4019841	WJ4019865	218.26	150	114	1.27	0.07	0.07
LN4050531	WJ22601	WJ4019572	17.66	150	103	2.75	0.16	0.37
LN4050532	WJ4009358	WJ22601	236.02	150	114	2.77	0.16	0.31
LN4050551	WJ4019630	WJ22621	2.21	400	129	-4.80	0.04	0.01
LN4050571_A001	WJ58543	J-HY4018339	45.44	300	132	11.55	0.16	0.12
LN4050571_A002	J-HY4018339	J-HY4018331	129.07	300	132	11.55	0.16	0.11
LN4050571_A003	J-HY4018331	WJ53115	61.23	300	132	11.55	0.16	0.11
LN4050612	WJ4019798	WJ22724	2.10	150	103	1.93	0.11	0.20
LN4050631	WJ52751	WJ22721	198.01	300	132	-0.69	0.01	0.00
LN4050632	WJ22721	WJ22724	358.66	150	114	-0.65	0.04	0.02
LN4050691	WJ22821	WJ4018021	608.22	300	132	27.50	0.39	0.57
LN4050731	WJ22821	WJ22861	380.80	300	132	-22.15	0.31	0.38
LN4050771	WJ22861	WJ4017897	387.25	300	132	-27.02	0.38	0.55
LN4051119	WJ59422	WJ23505	100.78	300	132	43.38	0.61	1.33
LN4051120	WJ23505	WJ23506	168.91	300	132	39.86	0.56	1.14
LN4051121	WJ23506	WJ23507	67.20	300	132	39.20	0.55	1.10
LN4051122	WJ23507	WJ23508	98.43	300	132	41.84	0.59	1.24
LN4051123	WJ23508	WJ23509	164.57	300	132	33.96	0.48	0.85
LN4051124	WJ23509	WJ23510	90.58	300	132	34.29	0.49	0.86
LN4051125	WJ23510	WJ23511	142.23	300	132	28.35	0.40	0.61
LN4051126	WJ23511	WJ4008023	89.89	300	132	28.11	0.40	0.60
LN4051127	WJ23511	WJ23544	82.58	150	114	0.08	0.00	0.00
LN48640	WJ48206	WJ48215	76.97	200	115	3.15	0.10	0.10
LN48644	WJ48208	WJ48206	22.56	300	132	-6.01	0.09	0.03
LN48645	WJ48205	WJ48206	11.95	300	132	9.16	0.13	0.07
LN48649	WJ48210	WJ48213	93.63	200	115	1.74	0.06	0.03
LN48650	WJ48210	WJ48211	16.85	150	114	0.61	0.03	0.02
LN48651	WJ48213	WJ48272	305.83	200	115	0.69	0.02	0.01
LN48652	WJ48213	WJ48243	15.88	150	114	0.79	0.04	0.03
LN48653	WJ48215	WJ48210	21.47	200	115	2.36	0.08	0.06
LN48654	WJ48216	WJ48215	21.09	150	114	-0.72	0.04	0.03
LN48676	WJ48244	WJ59147	7.54	150	114	0.40	0.02	0.01
LN48703	WJ48272	WJ48273	10.83	150	114	0.00	0.00	0.00
LN48704	WJ48272	WJ48244	173.64	200	115	0.42	0.01	0.00
LN48878	WJ48471	WJ4008389	3.54	300	120	-3.49	0.05	0.02
LN49315	WJ48953	WJ48955	141.57	150	114	-0.88	0.05	0.04
LN49317	WJ48955	WJ48956	17.46	150	114	0.88	0.05	0.04
LN49318	WJ48955	WJ48957	109.65	150	114	-1.86	0.11	0.15
LN49319	WJ48958	WJ48957	13.15	150	114	2.73	0.15	0.30
LN49321	WJ48957	WJ48960	122.01	150	114	0.69	0.04	0.02
LN49323	WJ4005731	WJ48953	3.31	150	103	0.64	0.04	0.03
LN49324	WJ48960	WJ48963	178.10	150	114	1.50	0.09	0.10
LN49325	WJ48961	WJ48960	6.52	150	114	1.00	0.06	0.05
LN49326	WJ48963	WJ4006212	2.73	150	103	2.16	0.12	0.24
LN49327	WJ4017772	WJ48968	812.15	200	115	7.36	0.23	0.46
LN49328	WJ4009045	WJ48968	4.10	150	103	-8.18	0.46	2.80
LN49329	WJ48969	WJ48971	17.93	150	114	1.78	0.10	0.14
LN49331	WJ48971	WJ48973	17.35	150	114	-3.13	0.18	0.39
LN49333	WJ48972	WJ48971	4.81	150	114	-1.96	0.11	0.17
LN49335	WJ49001	WJ48974	87.12	200	115	2.94	0.09	0.08
LN49336	WJ48979	WJ48974	9.06	150	114	-2.65	0.15	0.29
LN49337	WJ48974	WJ48980	17.84	150	114	-3.45	0.20	0.47

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN49338	WJ48974	WJ48985	95.31	200	115	3.71	0.12	0.13
LN49340	WJ48980	WJ4017666	277.95	150	114	-3.70	0.21	0.53
LN49341	WJ48984	WJ48985	6.51	150	114	-3.03	0.17	0.37
LN49342	WJ48985	WJ48983	13.25	150	114	-3.02	0.17	0.37
LN49343	WJ48983	WJ4004621	295.90	150	103	-3.26	0.18	0.51
LN49345	WJ48985	WJ48986	94.47	200	115	3.66	0.12	0.13
LN49346	WJ48988	WJ48986	7.25	150	114	-3.53	0.20	0.49
LN49347	WJ48986	WJ48987	18.63	150	114	-3.28	0.19	0.43
LN49348	WJ48987	WJ4004501	283.73	150	114	-3.53	0.20	0.49
LN49349	WJ48986	WJ48991	95.02	200	115	3.39	0.11	0.11
LN49351	WJ48994	WJ48991	8.82	150	114	-2.62	0.15	0.28
LN49352	WJ48991	WJ48995	16.68	150	114	-3.52	0.20	0.49
LN49353	WJ48995	WJ4004488	270.83	150	114	-3.74	0.21	0.55
LN49354	WJ48991	WJ49002	94.90	200	115	4.27	0.14	0.17
LN49356	WJ49002	WJ48999	14.64	150	114	-4.08	0.23	0.64
LN49357	WJ49000	WJ49002	8.40	150	114	-4.47	0.25	0.76
LN49358	WJ48999	WJ4020229	234.95	150	114	-4.32	0.24	0.71
LN49360	WJ49002	WJ49003	85.03	200	115	3.83	0.12	0.14
LN49361	WJ4003834	WJ49003	2.37	300	120	-32.98	0.47	0.96
LN49362	WJ48971	WJ49001	8.78	150	114	2.94	0.17	0.35
LN49479	WJ49141	WJ4002333	8.58	150	103	0.97	0.05	0.05
LN49480	WJ49144	WJ49142	17.85	150	114	2.79	0.16	0.32
LN49481	WJ49141	WJ49144	211.88	150	114	-3.47	0.20	0.47
LN49482	WJ49143	WJ49144	7.98	150	114	3.67	0.21	0.53
LN49483	WJ49144	WJ49145	198.18	150	114	-2.74	0.16	0.31
LN49484	WJ49145	WJ49146	9.56	150	114	1.95	0.11	0.16
LN49485	WJ49145	WJ21116	198.82	150	114	-4.97	0.28	0.92
LN49570	WJ49251	WJ49253	436.57	200	115	7.08	0.23	0.43
LN49571	WJ49237	WJ49239	13.71	200	115	0.11	0.00	0.00
LN49572	WJ49243	WJ49254	110.76	200	115	5.05	0.16	0.23
LN49573	WJ49244	WJ49243	16.15	150	114	-0.06	0.00	0.00
LN49574	WJ49247	WJ49253	16.34	300	132	14.00	0.20	0.16
LN49575	WJ49251	WJ49252	18.49	200	115	-5.73	0.18	0.29
LN49576	WJ49248	WJ49251	8.21	200	115	-2.56	0.08	0.07
LN49577	WJ4008156	WJ49251	216.50	200	115	4.27	0.14	0.17
LN49578	WJ49253	WJ49258	10.37	300	132	15.55	0.22	0.20
LN49579	WJ49253	WJ49243	97.85	200	115	5.23	0.17	0.25
LN49580	WJ49254	WJ49256	37.80	150	114	0.08	0.00	0.00
LN49581	WJ49254	WJ49237	83.82	200	115	4.89	0.16	0.22
LN49587	WJ49237	WJ4009277	110.00	200	115	4.68	0.15	0.20
LN49663	WJ49341	WJ49342	215.49	200	115	-2.81	0.09	0.08
LN49664	WJ49332	WJ49341	443.89	200	115	-6.99	0.22	0.42
LN49665	WJ49324	WJ49331	202.32	200	115	-7.45	0.24	0.47
LN49666	WJ49324	WJ49326	10.69	150	114	2.27	0.13	0.22
LN49667	WJ49327	WJ49324	16.65	150	114	-0.29	0.02	0.00
LN49668	WJ49333	WJ49332	12.48	300	132	-14.43	0.20	0.17
LN49669	WJ49334	WJ49332	16.05	300	132	15.50	0.22	0.20
LN49670	WJ49339	WJ49341	5.70	200	115	2.08	0.07	0.04
LN49671	WJ49341	WJ49340	4.79	200	115	-2.48	0.08	0.06
LN49672	WJ49331	WJ49332	197.35	200	115	-7.68	0.24	0.50
LN49673	WJ49331	WJ49330	4.07	150	114	0.00	0.00	0.00
LN49674	WJ49325	WJ49324	5.97	200	115	-4.78	0.15	0.21
LN50451	WJ50379	WJ4019846	10.96	150	114	6.15	0.35	1.37
LN51101	WJ27375	WJ4010425	4.55	300	120	39.44	0.56	1.33
LN52202	WJ51955	WJ4018634	216.07	150	114	0.37	0.02	0.01
LN52203	WJ51950	WJ51955	20.08	150	114	3.59	0.20	0.51
LN52204	WJ51955	WJ51948	9.82	150	114	3.34	0.19	0.44
LN52205	WJ51952	WJ51955	6.19	150	114	0.25	0.01	0.00
LN52224_A001	WJ51980	J-HY4015150	12.93	400	129	-21.30	0.17	0.09
LN52224_A002	J-HY4015150	J-HY9990172	87.47	400	129	-21.30	0.17	0.09
LN52224_A003	J-HY9990172	WJ24304	25.73	400	129	-21.30	0.17	0.09
LN52226_A001	WJ51978	J-HY30049	52.46	400	129	-21.50	0.17	0.09
LN52226_A002	J-HY30049	WJ51979	48.26	400	129	-21.50	0.17	0.09
LN52227_A001	WJ51977	J-HY9990176	35.94	400	129	-0.50	0.00	0.00
LN52227_A002	J-HY9990176	J-HY9990175	78.44	400	129	-0.50	0.00	0.00
LN52227_A003	J-HY9990175	J-HY9990174	123.63	400	129	-0.50	0.00	0.00
LN52227_A004	J-HY9990174	WJ51978	26.30	400	129	-0.50	0.00	0.00
LN52228_A001	WJ51976	J-HY4007497	4.06	400	129	3.43	0.03	0.00
LN52228_A002	J-HY4007497	WJ51977	27.80	400	129	3.43	0.03	0.00
LN52229	WJ51975	WJ51976	41.59	400	129	0.50	0.00	0.00
LN52230	WJ51987	WJ51980	8.84	150	114	-2.22	0.13	0.21
LN52231	WJ51980	WJ51990	19.83	150	114	-2.30	0.13	0.22
LN52235	WJ4013455	WJ51987	114.45	150	103	-2.19	0.12	0.24
LN52236_A001	WJ51979	J-HY9990161	11.79	400	129	-21.35	0.17	0.09
LN52236_A002	J-HY9990161	J-HY9990160	65.23	400	129	-21.35	0.17	0.09
LN52236_A003	J-HY9990160	WJ51980	24.31	400	129	-21.35	0.17	0.09

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN52239	WJ51996	WJ51979	7.99	150	114	-2.36	0.13	0.23
LN52240	WJ51979	WJ51998	18.88	150	114	-2.54	0.14	0.27
LN52248_A001	WJ4013433	J-HY4015319	24.25	150	103	-2.34	0.13	0.28
LN52248_A002	J-HY4015319	WJ51996	41.40	150	103	-2.34	0.13	0.28
LN52254	WJ22361	WJ51978	34.01	300	132	3.24	0.05	0.01
LN52262	WJ51974	WJ51975	21.67	400	129	2.73	0.02	0.00
LN52266	WJ51975	WJ52037	13.52	200	115	2.23	0.07	0.05
LN52268	WJ52044	WJ51976	25.05	150	114	2.93	0.17	0.35
LN52281	WJ52054	WJ51977	15.95	300	132	-3.91	0.06	0.02
LN52282_A001	WJ52055	J-HY30564	32.53	150	114	-3.91	0.22	0.59
LN52282_A002	J-HY30564	WJ52054	9.10	150	114	-3.91	0.22	0.59
LN52360	WJ52156	WJ4005420	16.89	150	114	3.19	0.18	0.41
LN52363	WJ52156	WJ52162	395.56	200	115	1.31	0.04	0.02
LN52365	WJ52162	WJ52165	10.89	200	115	0.89	0.03	0.01
LN52368	WJ52184	WJ52220	211.10	200	115	-1.90	0.06	0.04
LN52374	WJ52182	WJ52184	23.28	300	132	16.29	0.23	0.22
LN52423	WJ52220	WJ52221	12.53	150	114	0.20	0.01	0.00
LN52424	WJ52220	WJ52222	27.30	150	114	-2.54	0.14	0.27
LN52425	WJ52220	WJ52171	20.29	200	115	0.33	0.01	0.00
LN52442	WJ58403	WJ52182	121.98	300	120	16.34	0.23	0.26
LN52444	WJ52165	WJ52242	381.27	200	115	-2.14	0.07	0.05
LN52448_A001	WJ58572	J-HY4018111	5.11	400	129	16.51	0.13	0.06
LN52448_A002	J-HY4018111	WJ52073	1.57	400	129	16.51	0.13	0.05
LN52449	WJ52073	WJ52087	6.97	400	129	-3.92	0.03	0.00
LN52450	WJ52248	WJ52091	10.79	300	132	18.98	0.27	0.29
LN52451	WJ52073	WJ52247	2.14	300	132	20.44	0.29	0.33
LN52452	WJ52249	WJ52093	3.13	400	129	-20.95	0.17	0.09
LN52458_A001	WJ52247	J-HY4018126	97.57	300	132	20.38	0.29	0.33
LN52458_A002	J-HY4018126	J-HY4018128	101.24	300	132	20.38	0.29	0.33
LN52458_A003	J-HY4018128	WJ52248	49.09	300	132	20.38	0.29	0.33
LN52459	WJ52249	WJ52251	199.28	300	132	22.31	0.32	0.39
LN52460	WJ52248	WJ52249	4.43	300	132	1.39	0.02	0.00
LN52481	WJ52167	WJ52162	9.02	150	114	-0.14	0.01	0.00
LN52482	WJ52165	WJ52163	5.86	150	114	2.83	0.16	0.33
LN52483	WJ52184	WJ52183	13.13	300	132	15.67	0.22	0.20
LN52505	WJ28076	WJ52307	207.12	300	132	8.33	0.12	0.06
LN52514	WJ52307	WJ52303	9.98	150	114	1.46	0.08	0.10
LN52532	WJ52325	WJ52327	22.27	150	114	-1.26	0.07	0.07
LN52534	WJ52325	WJ52333	33.01	300	132	7.68	0.11	0.05
LN52538	WJ52331	WJ52333	10.24	150	114	-0.89	0.05	0.04
LN52540	WJ52333	WJ52336	46.54	300	132	6.79	0.10	0.04
LN52542	WJ52336	WJ52339	58.49	300	132	6.62	0.09	0.04
LN52543	WJ52336	WJ52334	19.37	100	100	0.13	0.02	0.01
LN52546	WJ52339	WJ52340	194.28	300	132	5.57	0.08	0.03
LN52547	WJ52338	WJ52339	10.15	150	114	-0.10	0.01	0.00
LN52548	WJ52340	WJ52344	38.76	300	132	-10.03	0.14	0.09
LN52549	WJ4017187	WJ52341	14.30	300	120	10.21	0.14	0.11
LN52550	WJ52344	WJ52341	13.04	300	132	-10.21	0.14	0.09
LN52551	WJ52344	WJ52345	36.25	150	114	0.00	0.00	0.00
LN52552	WJ52307	WJ48055	99.44	300	132	6.63	0.09	0.04
LN52930	WJ52747	WJ52750	73.53	300	132	9.62	0.14	0.08
LN52933	WJ52748	WJ52750	16.48	150	114	-0.09	0.00	0.00
LN52934	WJ52750	WJ52753	98.08	300	132	9.53	0.13	0.08
LN52936	WJ52751	WJ52753	11.20	300	132	-0.29	0.00	0.00
LN52937	WJ52753	WJ52754	45.93	300	132	9.23	0.13	0.08
LN52938	WJ52754	WJ4017768	146.78	300	132	9.06	0.13	0.07
LN52947	WJ4017768	WJ52757	13.70	300	132	8.20	0.12	0.06
LN52949	WJ4017768	WJ52768	12.90	150	114	0.80	0.05	0.03
LN53045	WJ4006591	WJ52868	579.28	150	114	3.88	0.22	0.58
LN53046	WJ52882	WJ52868	130.40	150	114	-4.37	0.25	0.73
LN53047	WJ52868	WJ52876	62.09	150	114	-3.46	0.20	0.47
LN53048	WJ52875	WJ4018021	168.86	300	132	2.23	0.03	0.01
LN53049	WJ52874	WJ52882	89.69	150	114	-5.31	0.30	1.05
LN53050	WJ52876	WJ52875	9.36	300	132	-3.47	0.05	0.01
LN53052	WJ52875	WJ52877	21.73	300	132	-9.74	0.14	0.08
LN53054	WJ52881	WJ52882	22.96	150	114	1.90	0.11	0.16
LN53166	WJ52747	WJ53108	15.26	150	114	0.19	0.01	0.00
LN53167	WJ52874	WJ4019456	8.20	150	103	5.30	0.30	1.26
LN53196	WJ53041	WJ53042	15.39	150	114	-0.47	0.03	0.01
LN53197_A001	WJ53046	J-HY4033222	11.41	300	132	3.01	0.04	0.01
LN53197_A002	J-HY4033222	WJ53042	18.73	300	132	3.01	0.04	0.01
LN53198	WJ53045	WJ53046	3.99	150	114	3.01	0.17	0.36
LN53219	WJ53078	WJ53045	10.70	150	114	0.50	0.03	0.01
LN53221	WJ53045	WJ53069	10.21	150	114	-2.51	0.14	0.26
LN53222_A001	WJ53042	J-HY30627	83.79	300	132	2.49	0.04	0.01
LN53222_A002	J-HY30627	J-HY30626	111.53	300	132	2.49	0.04	0.01

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN53222_A003	J-HY30626	WJ53038	5.09	300	132	2.49	0.04	0.01
LN53244	WJ52747	WJ25695	80.85	300	132	-9.82	0.14	0.08
LN53249_A001	WJ53112	WV4011591	9.33	900	130	-363.84	0.57	0.33
LN53249_A002	WV4011591	WV4011587	97.88	900	130	-363.84	0.57	0.33
LN53249_A003	WV4011587	WV4011579	101.87	900	130	-363.84	0.57	0.33
LN53249_A004	WV4011579	WV4011570	9.09	900	130	-363.84	0.57	0.33
LN53249_A005	WV4011570	WV4011554	4.25	900	130	-363.84	0.57	0.33
LN53249_A006	WV4011554	WV4011544	4.75	900	130	-363.84	0.57	0.33
LN53249_A007	WV4011544	WJ4012402	3.54	900	130	-363.84	0.57	0.33
LN53250	WJ53112	WJ53113	1.95	900	130	11.41	0.02	0.01
LN53251_A001	WJ53113	WV50450	13.85	600	130	11.41	0.04	0.00
LN53251_A002	WV50450	WJ53121	6.27	600	130	11.41	0.04	0.01
LN53252	WJ53115	WJ22621	41.17	300	132	9.55	0.14	0.08
LN53253	WJ53116	WJ53117	2.78	150	103	-1.24	0.07	0.09
LN53254_A001	WJ53117	J-HY4018442	90.03	150	103	0.70	0.04	0.03
LN53254_A002	J-HY4018442	WJ4019628	23.51	150	103	0.70	0.04	0.03
LN53255_A001	WJ53115	J-HY30660	22.13	300	132	1.98	0.03	0.01
LN53255_A002	J-HY30660	J-HY33192	92.38	300	132	1.98	0.03	0.00
LN53255_A003	J-HY33192	WJ53117	14.21	300	132	1.98	0.03	0.01
LN53256	WJ4018588	WJ53118	2.38	150	114	-2.15	0.12	0.20
LN53257	WJ53116	WJ53118	143.23	300	132	0.34	0.00	0.00
LN53258	WJ53121	WJ53114	376.56	600	130	-15.44	0.05	0.01
LN53260_A001	WJ52093	J-HY4022846	28.97	400	129	-20.95	0.17	0.09
LN53260_A002	J-HY4022846	WJ53122	0.89	400	129	-20.95	0.17	0.08
LN53261	WJ53122	WJ53121	18.18	400	129	-24.94	0.20	0.12
LN53264	WJ4016204	WJ4016211	439.31	150	114	1.48	0.08	0.10
LN53414	WJ52159	WJ52156	2.75	150	114	4.74	0.27	0.85
LN53417	WJ52242	WJ52184	9.98	200	115	-2.39	0.08	0.06
LN53701	WJ53453	WJ53452	6.87	200	115	-7.53	0.24	0.48
LN53702	WJ53452	WJ53450	9.45	150	114	3.99	0.23	0.61
LN53703	WJ53448	WJ53453	4.83	150	114	-7.53	0.43	1.99
LN53704	WJ53452	WJ53465	216.69	200	115	-11.76	0.37	1.10
LN53707	WJ49330	WJ53457	15.03	150	114	0.00	0.00	0.00
LN53710	WJ53462	WJ52340	36.42	300	132	-15.60	0.22	0.20
LN53713	WJ53465	WJ53447	8.81	150	114	-1.18	0.07	0.07
LN53714	WJ61826	WJ53466	183.32	200	115	-10.75	0.34	0.93
LN53715	WJ53466	WJ53444	9.37	300	132	-13.77	0.19	0.16
LN53716	WJ53466	WJ53442	19.40	300	132	2.98	0.04	0.01
LN53750	WJ53494	WJ53498	8.51	300	132	-31.30	0.44	0.73
LN53751	WJ53498	WJ53495	20.13	300	132	-32.50	0.46	0.78
LN53758	WJ53498	WJ53517	153.35	150	114	1.14	0.06	0.06
LN53763	WJ53514	WJ53513	19.63	150	114	-0.06	0.00	0.00
LN53764	WJ53514	WJ53512	18.86	150	114	0.01	0.00	0.00
LN53769	WJ53506	WJ53517	4.27	150	114	-4.44	0.25	0.75
LN53770	WJ53517	WJ53518	18.99	150	114	-4.72	0.27	0.84
LN53776	WJ53517	WJ53525	202.17	150	114	1.27	0.07	0.07
LN53778	WJ53523	WJ53525	5.08	150	114	-4.33	0.24	0.71
LN53779	WJ53524	WJ53525	20.86	150	114	4.64	0.26	0.82
LN53804	WJ53553	WJ4019594	19.17	150	114	1.43	0.08	0.09
LN53805	WJ53525	WJ53553	132.69	150	114	1.47	0.08	0.10
LN53806	WJ4019594	WJ53555	7.94	150	114	2.24	0.13	0.21
LN53807	WJ53555	WJ53557	92.61	150	114	2.23	0.13	0.21
LN53808	WJ53557	WJ53556	5.37	150	114	4.37	0.25	0.73
LN53809	WJ53558	WJ53557	2.04	150	114	5.62	0.32	1.16
LN53810	WJ53557	WJ53559	93.87	150	114	3.41	0.19	0.46
LN53815	WJ4016445	WJ53578	158.94	150	114	5.00	0.28	0.93
LN53816	WJ53578	WJ53577	101.41	150	114	5.46	0.31	1.10
LN53818	WJ53577	WJ53576	114.80	150	114	5.19	0.29	1.00
LN53820	WJ53576	WJ53559	210.25	150	114	3.02	0.17	0.37
LN53822	WJ53585	WJ53586	221.76	150	114	0.40	0.02	0.01
LN53824	WJ53562	WJ4016445	15.11	300	132	5.39	0.08	0.03
LN53825	WJ4016445	WJ53563	8.81	300	132	0.33	0.00	0.00
LN53826	WJ53564	WJ53578	10.32	150	114	0.57	0.03	0.02
LN53827	WJ53566	WJ53577	5.95	150	114	-0.15	0.01	0.00
LN53828	WJ53584	WJ53570	20.22	150	114	-0.89	0.05	0.04
LN53829	WJ53571	WJ53585	16.57	300	132	-11.12	0.16	0.11
LN53830	WJ53585	WJ53572	5.66	300	132	-9.03	0.13	0.07
LN53832	WJ53567	WJ53576	17.26	150	114	-2.09	0.12	0.18
LN53846	WJ53584	WJ53585	204.14	150	114	2.70	0.15	0.30
LN53847	WJ53586	WJ53574	117.97	150	114	1.96	0.11	0.16
LN53852	WJ53610	WJ53584	249.55	150	114	2.31	0.13	0.22
LN53853	WJ53559	WJ53610	166.27	150	114	6.14	0.35	1.37
LN53914	WJ53664	WJ53665	216.30	150	114	-3.68	0.21	0.53
LN53915	WJ53665	WJ53661	20.13	150	114	-3.04	0.17	0.37
LN53919	WJ53665	WJ53671	18.79	300	132	-14.39	0.20	0.17
LN53920	WJ53665	WJ53672	12.04	300	132	13.64	0.19	0.16

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN53955	WJ53514	WJ53717	19.54	150	114	-3.99	0.23	0.61
LN53963	WJ53727	WJ53724	16.83	150	114	2.43	0.14	0.25
LN53964	WJ53722	WJ53727	18.97	150	114	0.91	0.05	0.04
LN53968	WJ53727	WJ53514	203.31	150	114	-3.97	0.22	0.61
LN53969	WJ4005699	WJ53727	188.91	150	114	-2.24	0.13	0.21
LN54046	WJ53883	WJ53848	540.67	150	114	1.20	0.07	0.07
LN54051	WJ53574	WJ4016558	133.41	150	114	4.85	0.27	0.88
LN54052	WJ53848	WJ53574	119.95	150	114	3.00	0.17	0.36
LN54063	WJ53586	WJ53844	112.49	150	114	-1.62	0.09	0.12
LN54064	WJ53844	WJ53883	438.16	150	114	-1.56	0.09	0.11
LN54065	WJ53610	WJ53883	128.08	150	114	3.39	0.19	0.45
LN54125	WJ53988	WJ53994	219.46	150	114	-1.23	0.07	0.07
LN54126	WJ4008733	WJ53988	128.12	150	114	2.61	0.15	0.28
LN54127	WJ53988	WJ53989	8.36	150	114	3.68	0.21	0.53
LN54129	WJ53994	WJ53992	7.53	150	114	4.83	0.27	0.88
LN54130	WJ53994	WJ53993	17.38	150	114	-6.17	0.35	1.38
LN54150	WJ4008721	WJ54013	136.28	150	114	-1.91	0.11	0.16
LN54153	WJ54018	WJ54019	18.22	150	114	4.79	0.27	0.86
LN54154	WJ54019	WJ54014	7.12	150	114	6.18	0.35	1.38
LN54155	WJ54013	WJ54019	220.60	150	114	1.54	0.09	0.10
LN54413_A001	WJ54278	J-HY4035127	47.82	300	132	4.39	0.06	0.02
LN54413_A002	J-HY4035127	J-HY4035144	45.32	300	132	4.39	0.06	0.02
LN54413_A003	J-HY4035144	J-HY4035139	57.97	300	132	4.39	0.06	0.02
LN54413_A004	J-HY4035139	WJ4017927	76.12	300	132	4.39	0.06	0.02
LN54421	WJ54288	WJ54289	9.88	150	114	1.00	0.06	0.05
LN54422_A001	WJ54288	WV60507	1.06	150	114	0.00	0.00	0.00
LN54422_A002	WV60507	J-HY4035108	175.49	150	114	0.00	0.00	0.00
LN54422_A003	J-HY4035108	WJ54277	69.57	150	114	0.00	0.00	0.00
LN54423	WJ54277	WJ4038388	45.34	300	132	-7.13	0.10	0.05
LN54424_A001	WJ54278	J-HY16723	69.63	300	132	-6.45	0.09	0.04
LN54424_A002	J-HY16723	J-HY16722	80.88	300	132	-6.45	0.09	0.04
LN54424_A003	J-HY16722	WJ54277	14.06	300	132	-6.45	0.09	0.04
LN54425_A001	WJ54290	J-HY9990263	63.96	300	132	0.89	0.01	0.00
LN54425_A002	J-HY9990263	WJ54278	24.58	300	132	0.89	0.01	0.00
LN54426	WJ54290	WJ54291	3.77	300	132	0.11	0.00	0.00
LN54429	WJ54289	WJ54290	3.18	300	132	1.00	0.01	0.00
LN54550	WJ4015578	WJ54414	258.54	150	114	0.57	0.03	0.02
LN54551	WJ54422	WJ54425	215.08	150	114	0.43	0.02	0.01
LN54554	WJ54422	WJ54421	24.37	150	114	-1.95	0.11	0.16
LN54557	WJ54418	WJ54422	5.44	150	114	-1.76	0.10	0.13
LN54558	WJ54414	WJ54422	7.34	150	114	0.36	0.02	0.01
LN54561	WJ54425	WJ54423	19.10	150	114	-2.06	0.12	0.18
LN54562	WJ54424	WJ54425	6.53	150	114	-1.82	0.10	0.14
LN54570	WJ54425	WJ54489	222.14	150	114	0.41	0.02	0.01
LN54571	WJ54489	WJ54480	216.27	150	114	-1.71	0.10	0.13
LN54572	WJ54480	WJ54473	217.99	150	114	-1.95	0.11	0.16
LN54580	WJ54442	WJ54473	17.34	150	114	2.39	0.14	0.24
LN54581	WJ54473	WJ54441	4.33	150	114	1.92	0.11	0.16
LN54582	WJ54473	WJ54468	224.84	150	114	-1.72	0.10	0.13
LN54592	WJ54468	WJ54459	222.02	150	114	-2.04	0.12	0.18
LN54593	WJ54459	WJ54444	221.20	150	114	-1.29	0.07	0.08
LN54594	WJ54444	WJ4018533	14.07	300	132	-1.35	0.02	0.00
LN54595	WJ54460	WJ54459	18.58	150	114	-0.31	0.02	0.01
LN54596	WJ54459	WJ54461	7.28	150	114	-1.17	0.07	0.06
LN54597	WJ54470	WJ54468	22.32	150	114	1.52	0.09	0.10
LN54598	WJ54468	WJ54469	4.01	150	114	1.69	0.10	0.13
LN54603	WJ54489	WJ54491	6.37	150	114	1.77	0.10	0.14
LN54604	WJ54490	WJ54489	18.12	150	114	-0.04	0.00	0.00
LN54715_A001	WJ58521	J-HY16138	31.08	300	132	4.47	0.06	0.02
LN54715_A002	J-HY16138	WJ16170	72.45	300	132	4.47	0.06	0.02
LN55117	WJ4008023	WJ55016	97.80	300	132	35.40	0.50	0.91
LN55118	WJ55016	WJ55022	81.19	300	132	35.15	0.50	0.90
LN55119	WJ55017	WJ55018	9.26	300	132	14.09	0.20	0.17
LN55120	WJ55019	WJ55017	9.50	300	132	-20.90	0.30	0.34
LN55121	WJ55020	WJ55016	6.03	150	114	-0.18	0.01	0.00
LN55122	WJ55026	WJ4008023	12.27	300	132	7.37	0.10	0.05
LN55242	WJ4016349	WJ55118	284.55	150	114	-2.62	0.15	0.28
LN55243	WJ55118	WJ55120	10.83	150	114	-5.63	0.32	1.16
LN55244	WJ55122	WJ55118	18.21	150	114	-2.91	0.16	0.34
LN55268	WJ4015346	WJ55164	154.20	150	114	0.80	0.05	0.03
LN55269	WJ55164	WJ55165	85.38	150	114	-0.16	0.01	0.00
LN55270	WJ55165	WJ55166	64.74	150	114	-0.39	0.02	0.01
LN55271	WJ55166	WJ55162	18.31	150	114	-3.42	0.19	0.46
LN55272	WJ55166	WJ55167	41.72	150	114	2.96	0.17	0.35
LN55273	WJ55167	WJ4016685	8.96	150	103	2.93	0.17	0.42
LN55274	WJ55165	WJ55163	3.24	150	114	0.19	0.01	0.00

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN55275	WJ55164	WJ55157	10.16	150	114	4.98	0.28	0.93
LN55276	WJ55164	WJ55156	16.75	150	114	-4.08	0.23	0.64
LN55279	WJ55170	WJ4015346	10.74	300	132	-36.79	0.52	0.98
LN55280	WJ4015345	WJ55171	15.32	300	132	-34.35	0.49	0.86
LN55319	WJ55214	WJ4019812	16.23	150	103	4.53	0.26	0.94
LN55321	WJ55214	WJ4019846	112.39	150	114	-4.56	0.26	0.79
LN55323	WJ53893	WJ55216	112.13	150	114	4.18	0.24	0.67
LN55324	WJ55216	WJ4019790	15.42	150	103	4.13	0.23	0.79
LN55404	WJ55304	WJ4019788	21.26	300	132	6.33	0.09	0.04
LN55405	WJ4019788	WJ55324	225.41	150	114	1.11	0.06	0.06
LN55420	WJ55323	WJ55324	9.79	150	114	-0.91	0.05	0.04
LN55421	WJ55326	WJ55324	23.76	150	114	0.95	0.05	0.04
LN55422	WJ55324	WJ55329	219.84	150	114	0.85	0.05	0.04
LN55423	WJ55328	WJ55329	14.85	150	114	-1.19	0.07	0.07
LN55425	WJ55331	WJ55329	17.71	150	114	1.07	0.06	0.05
LN55427	WJ55329	WJ55335	220.69	150	114	0.40	0.02	0.01
LN55429	WJ55334	WJ55335	11.25	150	114	-1.55	0.09	0.11
LN55430	WJ55338	WJ55335	23.91	150	114	1.02	0.06	0.05
LN55433	WJ55335	WJ4015741	177.42	150	114	-0.43	0.02	0.01
LN55434	WJ55341	WJ4019788	14.19	300	132	-5.61	0.08	0.03
LN55493	WJ4019856	WJ55455	225.90	150	114	0.85	0.05	0.04
LN55498	WJ55455	WJ55432	218.22	150	114	0.76	0.04	0.03
LN55500	WJ55422	WJ55455	11.20	200	115	-2.01	0.06	0.04
LN55501	WJ55423	WJ55455	19.90	200	115	2.08	0.07	0.04
LN55504	WJ55429	WJ55432	14.03	300	132	7.03	0.10	0.05
LN55505	WJ55431	WJ55432	22.11	300	132	-6.40	0.09	0.04
LN55506	WJ55432	WJ55436	218.44	150	114	1.09	0.06	0.06
LN55507	WJ55436	WJ4016147	219.20	150	114	0.77	0.04	0.03
LN55510	WJ55442	WJ55436	13.42	150	114	1.03	0.06	0.05
LN55511	WJ55441	WJ55436	19.32	150	114	-1.02	0.06	0.05
LN55541	WJ55466	WJ4019788	15.81	150	114	0.56	0.03	0.02
LN55544	WJ55469	WJ4015741	8.61	150	114	-7.07	0.40	1.77
LN55546	WJ55472	WJ4015741	17.53	300	132	7.58	0.11	0.05
LN55637	WJ55022	WJ55017	36.74	300	132	35.01	0.50	0.89
LN56071	WJ55961	WJ55957	6.72	300	132	9.98	0.14	0.09
LN56072	WJ55958	WJ55961	21.12	300	132	13.60	0.19	0.16
LN56075	WJ21116	WJ55961	199.67	150	114	-5.19	0.29	1.00
LN56076	WJ55961	WJ56498	212.59	150	114	-1.82	0.10	0.14
LN56808	WJ56681	WJ56684	20.84	300	132	49.99	0.71	1.73
LN56811	WJ56684	WJ56688	17.71	300	132	43.48	0.62	1.34
LN56812	WJ56689	WJ56691	6.25	300	132	0.00	0.00	0.00
LN56813	WJ56684	WJ56705	100.03	300	132	6.27	0.09	0.04
LN56820	WJ56701	WJ56700	16.80	150	114	-5.87	0.33	1.26
LN56823	WJ56705	WJ56698	126.91	300	132	6.09	0.09	0.04
LN56839	WJ56698	WJ56700	27.84	300	132	5.87	0.08	0.03
LN57409	WJ57354	WJ4009674	82.98	400	129	-62.15	0.49	0.67
LN57420_A001	WJ57354	J-HY16102	85.21	150	114	0.13	0.01	0.00
LN57420_A002	J-HY16102	WJ57355	0.10	150	114	0.13	0.01	0.00
LN57492	WJ57425	WJ57428	24.89	150	114	-0.26	0.01	0.00
LN57495	WJ57425	WJ57438	180.35	300	132	0.26	0.00	0.00
LN57743	WJ4019314	WJ57697	84.77	150	103	-0.41	0.02	0.01
LN57962_A001	WJ57906	J-HY31330	0.42	300	132	-1.59	0.02	0.04
LN57962_A002	J-HY31330	WJ57907	58.97	300	132	-1.59	0.02	0.00
LN57963	WJ57907	WJ53038	15.00	300	132	6.21	0.09	0.04
LN57964	WJ57907	WJ18034	16.53	300	132	-7.80	0.11	0.06
LN58137_A001	WJ58108	WV55772	5.98	300	132	-11.76	0.17	0.12
LN58137_A002	WV55772	WJ58109	22.73	300	132	-11.76	0.17	0.12
LN58150	WJ4015943	WJ19330	69.68	300	120	-9.65	0.14	0.10
LN58158(1)	WJ58109	J-HY4007525	57.23	300	120	-11.88	0.17	0.14
LN58158(2)	J-HY4007525	WJ4015943	63.21	300	120	-11.88	0.17	0.14
LN58168	WJ4021189	WJ59147	120.96	150	103	-0.15	0.01	0.00
LN58350	WJ4017357	WJ58336	2.71	150	103	-5.17	0.29	1.19
LN58352	WJ58336	WJ49339	97.01	150	114	2.08	0.12	0.18
LN58386	WJ4018183	WJ58392	2.14	150	114	-1.23	0.07	0.07
LN58387	WJ58393	WJ58392	331.27	200	115	-1.24	0.04	0.02
LN58388	WJ58394	WJ58393	7.40	200	115	-1.05	0.03	0.01
LN58400	WJ4040953	WJ58412	10.28	200	115	1.86	0.06	0.04
LN58405	WJ58412	WJ58427	24.95	200	115	2.91	0.09	0.08
LN58406	WJ4017795	WJ58427	9.80	400	129	28.90	0.23	0.16
LN58407	WJ58427	WJ58425	315.47	200	115	6.28	0.20	0.35
LN58408	WJ58425	WJ58404	20.68	150	114	0.53	0.03	0.02
LN58409	WJ58425	WJ58426	0.64	200	115	5.60	0.18	0.29
LN58410	WJ58406	WJ58426	4.73	150	114	-2.64	0.15	0.29
LN58411	WJ58426	WJ58418	264.53	200	115	2.86	0.09	0.08
LN58412	WJ58401	WJ58418	20.04	300	132	15.96	0.23	0.21
LN58413	WJ58418	WJ58403	5.29	300	132	16.39	0.23	0.22

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN58414	WJ58418	WJ58423	383.48	200	115	1.93	0.06	0.04
LN58416	WJ58399	WJ58397	25.74	150	114	0.05	0.00	0.00
LN58417	WJ58423	WJ58424	368.41	200	115	1.41	0.04	0.02
LN58418	WJ58424	WJ58394	15.51	200	115	1.10	0.03	0.01
LN58457	WJ4017087	WJ58490	5.23	150	103	-3.31	0.19	0.53
LN58473	WJ58545	WJ58543	16.96	300	132	21.49	0.30	0.36
LN58507_A001	WJ28014	J-HY4008126	48.71	300	132	-4.95	0.07	0.02
LN58507_A002	J-HY4008126	WJ58595	24.49	300	132	-4.95	0.07	0.02
LN58508	WJ58458	WJ58595	10.96	150	114	1.45	0.08	0.09
LN58509_A001	WJ58595	J-HY31487	24.32	300	132	-8.89	0.13	0.07
LN58509_A002	J-HY31487	J-HY4008128	40.25	300	132	-8.89	0.13	0.07
LN58509_A003	J-HY4008128	WJ58462	26.91	300	132	-8.89	0.13	0.07
LN58510	WJ58460	WJ58462	10.51	150	114	2.63	0.15	0.29
LN58511	WJ58462	WJ58464	14.33	300	132	-6.52	0.09	0.04
LN58512	WJ58461	WJ58464	6.93	400	129	28.35	0.23	0.16
LN58513	WJ58464	WJ58611	14.46	300	132	21.83	0.31	0.37
LN58514	WJ58611	WJ58473	33.39	150	114	1.88	0.11	0.15
LN58515_A001	WJ58611	J-HY4032566	25.98	300	132	19.94	0.28	0.32
LN58515_A002	J-HY4032566	WJ58601	36.69	300	132	19.94	0.28	0.32
LN58516	WJ58602	WJ58601	8.10	150	114	0.00	0.00	0.00
LN58517_A001	WJ58601	J-HY4034050	22.33	300	132	19.31	0.27	0.30
LN58517_A002	J-HY4034050	WJ58475	22.02	300	132	19.31	0.27	0.30
LN58518	WJ58475	WJ58476	7.90	300	132	6.18	0.09	0.04
LN58519_A001	WJ58475	J-HY4034038	28.54	300	132	9.01	0.13	0.07
LN58519_A002	J-HY4034038	J-HY4032578	60.82	300	132	9.01	0.13	0.07
LN58519_A003	J-HY4032578	J-HY4032558	25.67	300	132	9.01	0.13	0.07
LN58519_A004	J-HY4032558	WJ58480	38.23	300	132	9.01	0.13	0.07
LN58520	WJ58479	WJ58480	4.52	300	132	-3.07	0.04	0.01
LN58524_A001	WJ58480	J-HY17891	60.12	300	132	-2.01	0.03	0.00
LN58524_A002	J-HY17891	WJ58482	37.00	300	132	-2.01	0.03	0.00
LN58525	WJ58481	WJ58482	7.04	300	132	10.94	0.15	0.10
LN58526	WJ58482	WJ58614	4.48	300	132	8.93	0.13	0.07
LN58527	WJ58614	WJ58486	6.25	300	132	2.79	0.04	0.01
LN58528_A001	WJ58614	J-HY4032554	85.08	300	132	6.14	0.09	0.04
LN58528_A002	J-HY4032554	WJ58603	15.76	300	132	6.14	0.09	0.04
LN58529	WJ58603	WJ58488	5.71	250	115	3.25	0.07	0.04
LN58530	WJ58603	WJ58604	36.95	300	132	2.41	0.03	0.01
LN58531	WJ58605	WJ58604	2.40	150	114	0.00	0.00	0.00
LN58532_A001	WJ58604	J-HY4032548	33.26	300	132	2.41	0.03	0.01
LN58532_A002	J-HY4032548	WJ58608	126.23	300	132	2.41	0.03	0.01
LN58533	WJ58496	WJ58498	4.23	300	132	-19.96	0.28	0.32
LN58534	WJ58500	WJ58499	3.21	400	129	11.76	0.09	0.03
LN58535_A001	WJ58496	J-HY4032525	21.31	300	132	5.13	0.07	0.03
LN58535_A002	J-HY4032525	WJ58502	78.43	300	132	5.13	0.07	0.03
LN58536	WJ58501	WJ58502	5.39	300	132	-5.34	0.08	0.03
LN58537	WJ58502	WJ58505	6.69	300	132	-3.33	0.05	0.01
LN58538	WJ58505	WJ58504	10.92	300	132	-11.76	0.17	0.12
LN58539_A001	WJ58505	J-HY4032503	9.90	300	132	8.41	0.12	0.06
LN58539_A002	J-HY4032503	WJ58509	80.94	300	132	8.41	0.12	0.06
LN58540	WJ58509	WJ58510	5.35	300	132	5.31	0.08	0.03
LN58541_A001	WJ58509	J-HY4032493	14.51	300	132	3.00	0.04	0.01
LN58541_A002	J-HY4032493	J-HY31488	66.13	300	132	3.00	0.04	0.01
LN58541_A003	J-HY31488	WJ58512	34.24	300	132	3.00	0.04	0.01
LN58542	WJ58512	WJ58513	7.24	150	114	-1.44	0.08	0.09
LN58543	WJ58512	WJ58516	31.63	300	132	4.44	0.06	0.02
LN58544	WJ58517	WJ58516	6.53	300	132	-3.59	0.05	0.01
LN58545_A001	WJ58516	J-HY4032454	76.37	300	132	0.80	0.01	0.00
LN58545_A002	J-HY4032454	WJ58519	6.11	300	132	0.80	0.01	0.00
LN58546	WJ58519	WJ58521	6.49	300	132	4.96	0.07	0.02
LN58547	WJ58519	WJ58522	93.07	300	132	-5.13	0.07	0.03
LN58548	WJ58522	WJ58523	9.58	400	129	14.44	0.11	0.04
LN58549	WJ58526	WJ58522	5.60	400	129	21.34	0.17	0.09
LN58550_A001	WJ58522	J-HY31490	72.43	300	132	1.52	0.02	0.00
LN58550_A002	J-HY31490	J-HY4019204	16.93	300	132	1.52	0.02	0.00
LN58550_A003	J-HY4019204	WJ58527	65.66	300	132	1.52	0.02	0.00
LN58551	WJ58527	WJ58528	12.20	150	114	-2.54	0.14	0.27
LN58552_A001	WJ58527	J-HY4017635	49.14	300	132	-3.51	0.05	0.01
LN58552_A002	J-HY4017635	J-HY31491	27.02	300	132	-3.51	0.05	0.01
LN58552_A003	J-HY31491	J-HY4017600	42.38	300	132	-3.51	0.05	0.01
LN58552_A004	J-HY4017600	WJ58530	43.74	300	132	-3.51	0.05	0.01
LN58553	WJ58532	WJ58530	6.51	300	132	-2.85	0.04	0.01
LN58554	WJ58530	WJ58537	43.71	300	132	-7.97	0.11	0.06
LN58555	WJ58539	WJ58537	12.50	150	114	-1.97	0.11	0.17
LN58556_A001	WJ58537	J-HY4017594	60.54	300	132	-9.95	0.14	0.09
LN58556_A002	J-HY4017594	WJ58610	46.26	300	132	-9.95	0.14	0.09
LN58557	WJ58610	WJ58541	25.17	150	114	2.36	0.13	0.23

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN58558	WJ58541	WJ58540	7.21	150	114	1.50	0.08	0.10
LN58559_A001	WJ58610	J-HY4017589	27.60	300	132	-12.31	0.17	0.13
LN58559_A002	J-HY4017589	WJ58544	62.97	300	132	-12.31	0.17	0.13
LN58560	WJ58544	WJ58545	9.45	300	132	21.49	0.30	0.36
LN58561	WJ58544	WJ58547	7.16	300	132	-33.80	0.48	0.84
LN58562_A001	WJ58548	J-HY4017572	1.11	300	132	13.83	0.20	0.15
LN58562_A002	J-HY4017572	WJ58547	11.99	300	132	13.83	0.20	0.16
LN58563_A001	WJ58547	J-HY4017558	78.96	300	132	-20.14	0.28	0.32
LN58563_A002	J-HY4017558	WJ58574	34.83	300	132	-20.14	0.28	0.32
LN58564	WJ58577	WJ58575	4.68	300	132	35.47	0.50	0.92
LN58565	WJ58576	WJ58575	7.41	400	129	23.23	0.18	0.11
LN58566	WJ58575	WJ58574	2.57	400	129	58.70	0.47	0.59
LN58567	WJ58574	WJ58573	22.68	400	129	20.33	0.16	0.08
LN58568	WJ58580	WJ58574	11.18	250	115	-17.87	0.36	0.81
LN58569	WJ58573	WJ58572	12.14	400	129	16.51	0.13	0.06
LN58570	WJ58581	WJ58573	5.40	150	114	-3.82	0.22	0.56
LN58571_A001	WJ58490	J-HY4032536	0.83	250	115	-3.31	0.07	0.05
LN58571_A002	J-HY4032536	WJ58609	46.62	250	115	-3.31	0.07	0.04
LN58572	WJ58609	WJ58608	3.93	300	132	-3.31	0.05	0.01
LN58573	WJ58608	WJ58499	45.37	300	132	-2.82	0.04	0.01
LN58574	WJ58533	WJ58535	2.73	300	132	-2.85	0.04	0.01
LN58575_A001	WJ58533	J-HY31492	76.13	150	114	-1.33	0.08	0.08
LN58575_A002	J-HY31492	WJ58541	70.09	150	114	-1.33	0.08	0.08
LN58576_A001	WJ58541	J-HY16154	60.76	150	114	-1.40	0.08	0.09
LN58576_A002	J-HY16154	WJ58543	29.21	150	114	-1.40	0.08	0.09
LN58677	WJ4005489	WJ58734	100.65	150	114	-0.45	0.03	0.01
LN58678	WJ58734	WJ58735	65.32	150	114	-1.49	0.08	0.10
LN58683	WJ58745	WJ58740	7.14	200	115	3.48	0.11	0.12
LN58684	WJ58740	WJ58751	321.14	200	115	7.03	0.22	0.43
LN58688	WJ58747	WJ58740	4.15	150	114	3.71	0.21	0.54
LN58689	WJ58745	WJ4017666	247.02	400	129	18.36	0.15	0.07
LN58692	WJ58751	WJ58752	220.75	200	115	4.58	0.15	0.19
LN58694	WJ58751	WJ58749	14.36	150	114	1.92	0.11	0.16
LN58696	WJ52183	WJ58755	146.55	300	120	15.63	0.22	0.24
LN58697	WJ58752	WJ58756	7.34	300	132	16.79	0.24	0.23
LN58698	WJ58755	WJ58752	19.76	300	132	15.57	0.22	0.20
LN58699	WJ58752	WJ58762	219.83	200	115	3.15	0.10	0.10
LN58702	WJ58760	WJ58734	18.45	150	114	-1.01	0.06	0.05
LN58703	WJ58762	WJ58764	9.34	150	114	1.93	0.11	0.16
LN58705	WJ58735	WJ4005613	217.51	150	114	-1.68	0.10	0.12
LN58707	WJ58762	WJ48961	85.61	200	115	1.01	0.03	0.01
LN58708	WJ58735	WJ58769	96.04	150	114	0.12	0.01	0.00
LN58838	WJ58936	WJ58937	19.16	150	114	6.41	0.36	1.48
LN58840	WJ58936	WJ58940	11.69	150	114	-7.04	0.40	1.76
LN58841	WJ58936	WJ58946	325.10	150	114	0.43	0.02	0.01
LN58845	WJ4008830	WJ58946	1.36	300	120	43.37	0.61	1.59
LN58929	WJ4018199	WJ59062	328.79	200	115	0.00	0.00	0.00
LN58941	WJ59065	WJ59062	16.07	150	114	-3.06	0.17	0.38
LN58942	WJ59062	WJ4005420	4.24	150	114	-3.19	0.18	0.41
LN58949	WJ58394	WJ52159	112.84	200	115	4.77	0.15	0.21
LN58954	WJ59078	WJ58394	112.04	150	114	2.71	0.15	0.30
LN58956	WJ59074	WJ59078	107.03	150	114	3.04	0.17	0.37
LN58958	WJ62359	WJ59078	8.35	150	114	-0.19	0.01	0.00
LN58960	WJ59072	WJ59074	20.29	150	114	0.73	0.04	0.03
LN59066	WJ59194	WJ59198	15.43	300	132	-17.52	0.25	0.25
LN59067	WJ59198	WJ59201	5.24	300	132	-60.97	0.86	2.50
LN59068	WJ59196	WJ59195	14.75	300	132	0.01	0.00	0.00
LN59072	WJ59207	WJ59201	11.23	400	129	60.98	0.49	0.64
LN59073	WJ59201	WJ59196	2.54	300	132	0.01	0.00	0.00
LN59295	WJ59198	WJ59422	3.55	300	132	43.45	0.61	1.33
LN59490	WJ47069	WJ4016701	2.15	150	103	2.91	0.16	0.42
LN59605	WJ59734	WJ59735	106.76	150	114	6.35	0.36	1.45
LN59608	WJ59735	WJ59712	16.09	150	114	1.82	0.10	0.14
LN59612	WJ59735	WJ59742	75.94	150	114	4.39	0.25	0.73
LN59613	WJ59742	WJ59732	32.44	150	114	2.00	0.11	0.17
LN59615	WJ59742	WJ59726	14.35	150	114	0.11	0.01	0.00
LN59616	WJ59742	WJ59743	48.30	150	114	2.22	0.13	0.21
LN59617	WJ59743	WJ59864	77.41	150	114	1.97	0.11	0.17
LN59707	WJ59822	WJ4011782	3.22	150	103	-1.56	0.09	0.13
LN59756	WJ59864	WJ59822	168.25	150	114	1.86	0.11	0.15
LN59874	WJ59734	WJ60020	7.91	300	120	33.85	0.48	1.00
LN60622	WJ60783	WJ4017087	4.00	150	103	0.00	0.00	0.00
LN60647	WJ60926	WJ4019873	94.81	150	103	0.63	0.04	0.02
LN60666	WJ4016809	WJ60926	83.29	150	114	-1.01	0.06	0.05
LN60687	WJ4016786	WJ4019873	227.54	150	114	1.41	0.08	0.09
LN60719_A001	WJ4018460	J-HY4033475	138.44	300	132	2.73	0.04	0.01

MDD Pipe Results								
Label	Start Node	Stop Node	Length (m)	Diameter (mm)	Hazen-Williams C	Flow (L/s)	Velocity (m/s)	Headloss Gradient (m/km)
LN60719_A002	J-HY4033475	WJ60862	22.46	300	132	2.73	0.04	0.01
LN60720	WJ4016719	WJ60862	1.79	250	115	3.25	0.07	0.03
LN60993	WJ4020732	WJ61124	12.49	150	114	0.46	0.03	0.01
LN60994	WJ61125	WJ61124	49.30	100	100	-0.42	0.05	0.09
LN61318	WJ61515	WJ61510	15.20	150	114	1.29	0.07	0.07
LN61319	WJ61510	WJ61511	12.22	150	114	1.05	0.06	0.05
LN61320	WJ61511	WJ61514	14.32	150	114	0.25	0.01	0.00
LN61324	WJ61510	WJ61520	1.18	150	114	0.00	0.00	0.00
LN61325	WJ61510	WJ61519	119.52	150	114	0.18	0.01	0.00
LN61332	WJ61529	WJ4019660	10.36	150	103	-1.67	0.09	0.15
LN61435	WJ4011634	WJ61627	126.58	150	103	-3.03	0.17	0.45
LN61490	WJ61693	WJ4008256	31.28	150	103	0.40	0.02	0.01
LN61491	WJ61693	WJ61694	117.73	150	114	0.00	0.00	0.00
LN61598	WJ4020596	WJ47436	13.04	150	114	1.07	0.06	0.05
LN61605	WJ4013458	WJ61779	90.36	150	103	-1.73	0.10	0.16
LN61658	WJ53465	WJ61826	40.98	200	115	-10.58	0.34	0.91
LN61659	WJ61826	WJ61827	164.51	200	115	0.00	0.00	0.00
LN61788	WJ48056	WJ48055	213.35	150	114	-0.52	0.03	0.01
LN61790	WJ48055	WJ48056	87.98	300	132	6.02	0.09	0.03
LN62205	WJ62335	WJ4004560	101.21	150	103	2.43	0.14	0.30
LN62230	WJ4018166	WJ62359	347.46	150	114	0.01	0.00	0.00
LN62307	WJ62422	WJ4011486	14.28	150	103	-1.40	0.08	0.11
LN62309	WJ4010946	WJ62423	36.61	150	103	0.91	0.05	0.05
LN62500_A001	WJ4010417	J-HY4039947	4.13	400	129	32.50	0.26	0.20
LN62500_A002	J-HY4039947	WJ4010421	284.88	400	129	32.49	0.26	0.20

2021 MDD + FF							
Label	Elevation (m)	Static Pressure (kPa)	Static Head (m)	Residual Pressure (kPa)	Hydrant Pressure at Available Flow (kPA)	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
HY12614	175.31	482	225	456	196	100	413
HY13956	176.27	473	225	455	196	100	468
HY13959	176.36	472	225	457	196	100	504
HY14477	175.51	481	225	456	196	100	394
HY14497	178.32	453	225	443	196	100	775
HY14498	178.94	447	225	436	196	100	644
HY14499	177.79	458	225	448	196	100	728
HY14641	171.86	516	225	504	196	100	645
HY14642	171.48	520	225	508	196	100	670
HY14643	172.67	508	225	498	196	100	746
HY16101	189.72	342	225	323	196	100	326
HY16102	190.18	336	224	127	196	100	80
HY16117	169.91	535	225	522	196	100	640
HY16124	174.00	495	225	487	196	100	845
HY16138	177.91	457	225	448	196	100	735
HY16140	176.56	470	225	459	196	100	630
HY16154	191.15	327	225	293	196	100	212
HY16261	193.31	305	225	252	196	100	149
HY16722	172.01	514	225	497	196	100	598
HY16723	171.44	519	225	503	196	100	599
HY16801	190.68	332	225	319	196	100	387
HY16821	188.38	355	225	333	196	100	302
HY16981	193.62	302	225	282	196	100	258
HY17621	186.84	370	225	355	196	100	400

2021 MDD + FF							
Label	Elevation (m)	Static Pressure (kPa)	Static Head (m)	Residual Pressure (kPa)	Hydrant Pressure at Available Flow (kPA)	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
HY17891	175.46	481	225	466	196	100	544
HY22579	174.13	494	225	414	196	100	205
HY22580	182.70	410	225	402	196	100	716
HY22581	182.09	416	225	404	196	100	532
HY30049	178.32	453	225	446	196	100	808
HY30564	175.64	479	225	457	196	100	425
HY30626	174.56	489	225	466	196	100	448
HY30627	173.06	504	225	480	196	100	448
HY30660	192.62	313	225	301	196	100	382
HY31330	176.59	469	225	446	196	100	428
HY31487	173.96	496	225	432	196	100	234
HY31488	175.06	484	225	421	196	100	228
HY31490	181.66	420	225	402	196	100	414
HY31491	185.76	380	225	315	196	100	177
HY31492	189.28	345	225	288	196	100	169
HY32671	185.95	378	225	366	196	100	481
HY32675	188.49	353	225	329	196	100	286
HY33192	191.03	328	225	314	196	100	365
HY4007487	177.63	460	225	452	196	100	801
HY4007488	178.79	448	225	437	196	100	601
HY4007497	176.27	473	225	465	196	100	780
HY4007498	175.63	479	225	418	196	100	232
HY4007499	174.98	485	225	460	196	100	388
HY4007525	176.07	475	225	467	196	100	795
HY4007535	176.63	469	225	450	196	100	445
HY4007537	176.26	473	225	455	196	100	466
HY4007539	176.32	472	225	422	196	100	255
HY4007542	175.58	480	225	467	196	100	580
HY4007618	176.29	473	225	321	196	100	139
HY4007868	176.52	471	225	332	196	100	146
HY4008124	175.37	481	225	469	196	100	587
HY4008126	174.12	494	225	486	196	100	806
HY4008128	174.14	494	225	483	196	100	651
HY4008135	175.96	476	225	460	196	100	510
HY4013532	193.00	310	225	257	196	100	154
HY4013538	193.01	310	225	298	196	100	377
HY4013800	192.47	315	225	254	196	100	145
HY4014155	193.21	308	225	297	196	100	384
HY4014234	191.85	321	225	229	196	100	118
HY4014400	188.48	354	225	345	196	100	557
HY4014605	191.98	320	225	312	196	100	505
HY4014840	190.07	338	225	326	196	100	404
HY4014990	190.93	330	225	310	196	100	289
HY4015007	191.87	321	225	292	196	100	227
HY4015132	183.15	405	225	372	196	100	278
HY4015150	182.11	416	225	404	196	100	517
HY4015319	180.11	435	225	388	196	100	244
HY4015471	182.18	415	225	349	196	100	193
HY4015473	185.93	379	225	330	196	100	208
HY4015474	188.47	353	225	310	196	100	205
HY4017085	192.69	311	225	299	196	100	372
HY4017089	192.99	309	225	275	196	100	197
HY4017295	193.23	306	225	283	196	100	242
HY4017538	194.02	299	225	209	196	100	107
HY4017539	192.88	311	225	293	196	100	294
HY4017558	192.85	311	225	297	196	100	338
HY4017572	191.31	326	225	318	196	100	507
HY4017589	190.37	335	225	321	196	100	367
HY4017594	189.07	347	225	333	196	100	388
HY4017600	185.17	386	225	370	196	100	421
HY4017635	184.67	390	225	377	196	100	470
HY4017936	179.30	443	225	435	196	100	727
HY4018111	193.44	305	225	286	196	100	261
HY4018126	193.66	303	225	292	196	100	385
HY4018128	193.59	303	225	283	196	100	259
HY4018331	192.76	311	225	301	196	100	412
HY4018339	191.92	320	225	308	196	100	389
HY4018406	190.18	337	225	295	196	100	195

2021 MDD + FF							
Label	Elevation (m)	Static Pressure (kPa)	Static Head (m)	Residual Pressure (kPa)	Hydrant Pressure at Available Flow (kPA)	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
HY4018424	191.04	328	225	269	196	100	155
HY4018442	191.32	325	225	284	196	100	189
HY4018607	189.19	346	225	297	196	100	186
HY4018649	188.31	355	225	305	196	100	190
HY4018679	180.08	435	225	429	196	100	833
HY4018775	181.79	419	225	409	196	100	615
HY4018835	182.01	416	225	400	196	100	439
HY4018934	190.87	329	224	312	196	100	331
HY4018945	190.78	329	224	314	196	100	353
HY4018994	190.70	329	224	313	196	100	334
HY4019204	182.30	414	225	349	196	100	195
HY4019230	192.27	316	225	296	196	100	277
HY4019282	184.26	394	225	383	196	100	513
HY4019478	188.59	352	225	344	196	100	590
HY4019591	192.93	309	225	298	196	100	388
HY4019665	190.45	335	225	25	196	100	64
HY4019693	191.26	327	225	-62	196	80	44
HY4019778	190.58	333	225	319	196	100	383
HY4020280	191.56	323	225	226	196	100	116
HY4022181	178.86	448	225	427	196	100	403
HY4022232	174.32	492	225	467	196	100	397
HY4022263	171.83	516	225	504	196	100	646
HY4022342	171.34	521	225	505	196	100	544
HY4022433	171.19	522	225	509	196	100	603
HY4022767	180.69	431	225	247	196	100	114
HY4022775	177.43	462	225	366	196	100	175
HY4022788	186.78	370	225	358	196	100	479
HY4022846	193.24	306	225	294	196	100	343
HY4023355	181.25	425	225	330	196	100	162
HY4024238	179.41	443	225	434	196	100	788
HY4024366	177.02	465	225	425	196	100	289
HY4027373	176.09	475	225	357	196	100	160
HY4029416	172.97	505	225	496	196	100	788
HY4032075	170.73	527	225	510	196	100	537
HY4032126	169.98	534	225	521	196	100	645
HY4032454	177.02	465	225	450	196	100	501
HY4032493	174.20	493	225	466	196	100	381
HY4032503	175.08	484	225	463	196	100	429
HY4032525	175.23	483	225	462	196	100	434
HY4032536	175.23	483	225	471	196	100	624
HY4032548	173.91	496	225	488	196	100	883
HY4032554	175.62	479	225	454	196	100	383
HY4032558	176.23	473	225	460	196	100	555
HY4032566	175.13	484	225	465	196	100	457
HY4032578	175.81	477	225	410	196	100	220
HY4032614	172.42	510	225	495	196	100	554
HY4032627	173.18	503	225	492	196	100	684
HY4032770	177.69	459	225	451	196	100	751
HY4032974	172.41	510	225	493	196	100	511
HY4033084	169.01	544	225	519	196	100	439
HY4033085	174.35	491	225	470	196	100	428
HY4033089	174.07	494	225	484	196	100	712
HY4033092	174.69	488	225	470	196	100	467
HY4033222	172.50	509	225	481	196	100	406
HY4033296	173.12	503	225	493	196	100	697
HY4033315	174.95	486	225	474	196	100	611
HY4033352	178.05	455	225	424	196	100	328
HY4033474	173.39	501	225	493	196	100	844
HY4033475	174.89	486	225	462	196	100	404
HY4033482	174.99	485	225	475	196	100	665
HY4033486	173.26	502	225	491	196	100	650
HY4033792	173.49	500	225	489	196	100	658
HY4033808	175.36	482	225	465	196	100	504
HY4033839	175.54	480	225	467	196	100	574
HY4033929	174.22	493	225	385	196	100	174
HY4033936	173.90	496	225	406	196	100	193
HY4034038	175.50	480	225	467	196	100	575
HY4034050	175.35	482	225	470	196	100	627

2021 MDD + FF							
Label	Elevation (m)	Static Pressure (kPa)	Static Head (m)	Residual Pressure (kPa)	Hydrant Pressure at Available Flow (kPA)	Fire Flow (Needed) (L/s)	Fire Flow (Available) (L/s)
HY4034872	173.12	503	225	402	196	100	185
HY4035072	173.33	501	225	489	196	100	617
HY4035108	171.23	521	225	339	196	100	137
HY4035127	170.13	532	225	513	196	100	553
HY4035139	173.42	500	225	480	196	100	515
HY4035144	171.68	517	225	496	196	100	514
HY4035209	176.27	472	225	453	196	100	482
HY4035405	177.31	462	225	446	196	100	557
HY4035466	177.06	464	225	446	196	100	512
HY4035661	176.81	467	225	448	196	100	503
HY4035718	177.19	463	225	445	196	100	512
HY4035746	174.91	485	225	466	196	100	500
HY4035760	176.38	471	225	452	196	100	504
HY4035780	176.31	472	225	454	196	100	539
HY4036973	177.88	457	225	426	196	100	341
HY4037006	176.03	475	225	416	196	100	238
HY4037018	172.96	505	225	419	196	100	204
HY4037279	176.01	475	225	461	196	100	640
HY4037552	173.98	495	225	480	196	100	634
HY4037641	173.04	504	225	489	196	100	645
HY4038255	176.27	472	225	456	196	100	568
HY4038518	174.86	486	225	470	196	100	577
HY4039949	190.89	327	224	306	196	100	280
HY4039954	191.38	322	224	305	196	100	309
HY4039977	191.26	324	224	302	196	100	270
HY4039984	191.18	325	224	295	196	100	224
HY4039988	191.58	322	224	304	196	100	307
HY9902	180.18	434	225	418	196	100	459
HY9990160	180.84	428	225	416	196	100	533
HY9990161	179.38	443	225	431	196	100	570
HY9990172	184.32	394	225	384	196	100	531
HY9990174	177.03	466	225	458	196	100	852
HY9990175	175.44	481	225	473	196	100	833
HY9990176	175.80	478	225	470	196	100	873
HY9990263	170.01	533	225	514	196	100	545

Minimum	**44**
Maximum	**883**

Appendix C: Water Model Verification

Table C1: Hydrant Flow Test vs. Simulated Flow Test Results @ Hydrant HY4039949

Source	Static Pressure (kPa)	Residual Pressure (kPa)	Test Flow (L/s)	Residual Pressure (kPa)	Test Flow (L/s)	Theoretical Flow Available at 140 kPa Residual (L/s)
Hydrant Test	342	329	75	312	155	442
Model Curve	330	316	80	284	152	343

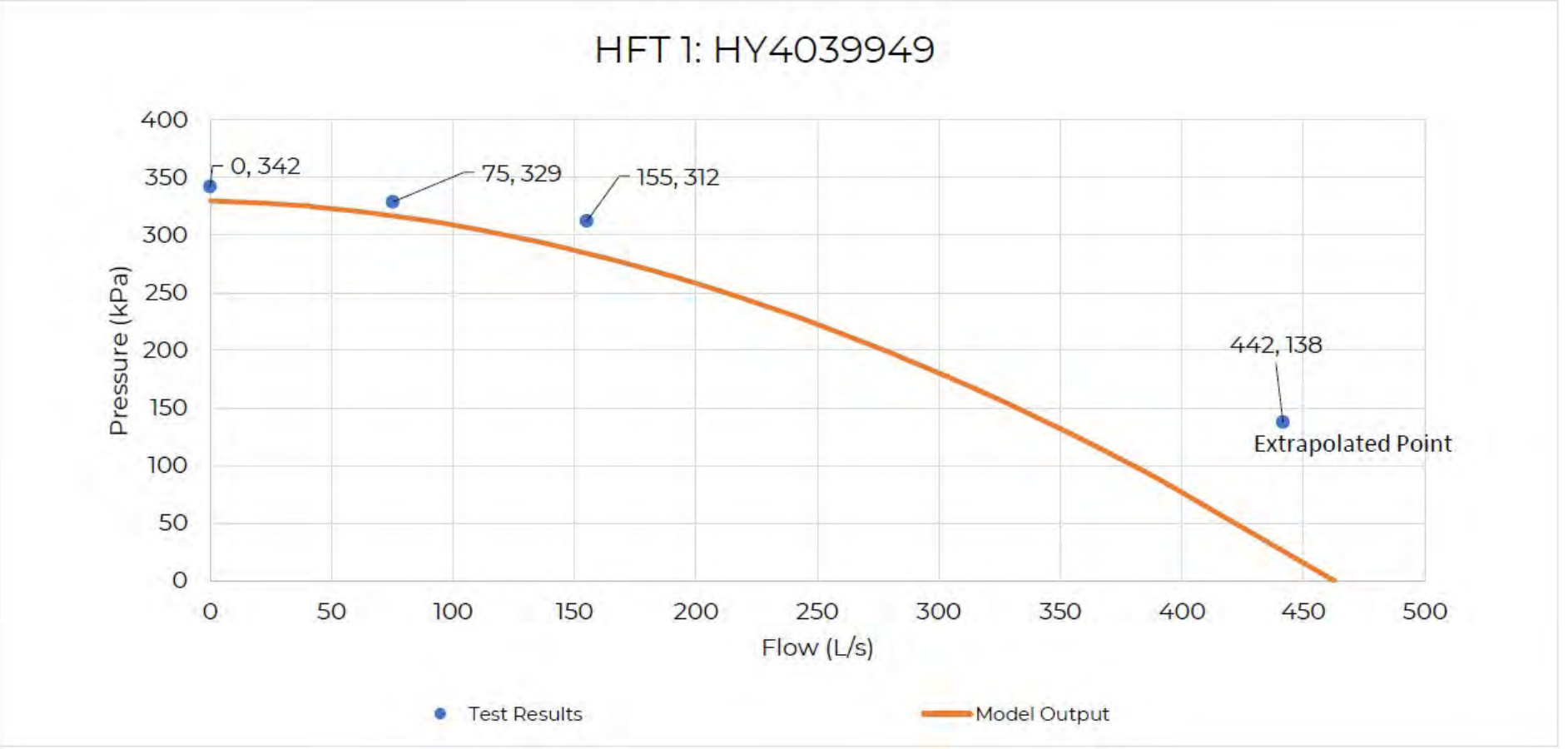

Figure C1: Hydrant Flow Test vs. Simulated Flow Test Results @ HY4039949

Table C2: Hydrant Flow Test vs. Simulated Flow Test Results @ Hydrant HY4017558

Source	Static Pressure (kPa)	Residual Pressure (kPa)	Test Flow (L/s)	Residual Pressure (kPa)	Test Flow (L/s)	Theoretical Flow Available at 140 kPa Residual (L/s)
Hydrant Test	325	322	80	314	192	870
Model Curve	314	305	80	272	235	420

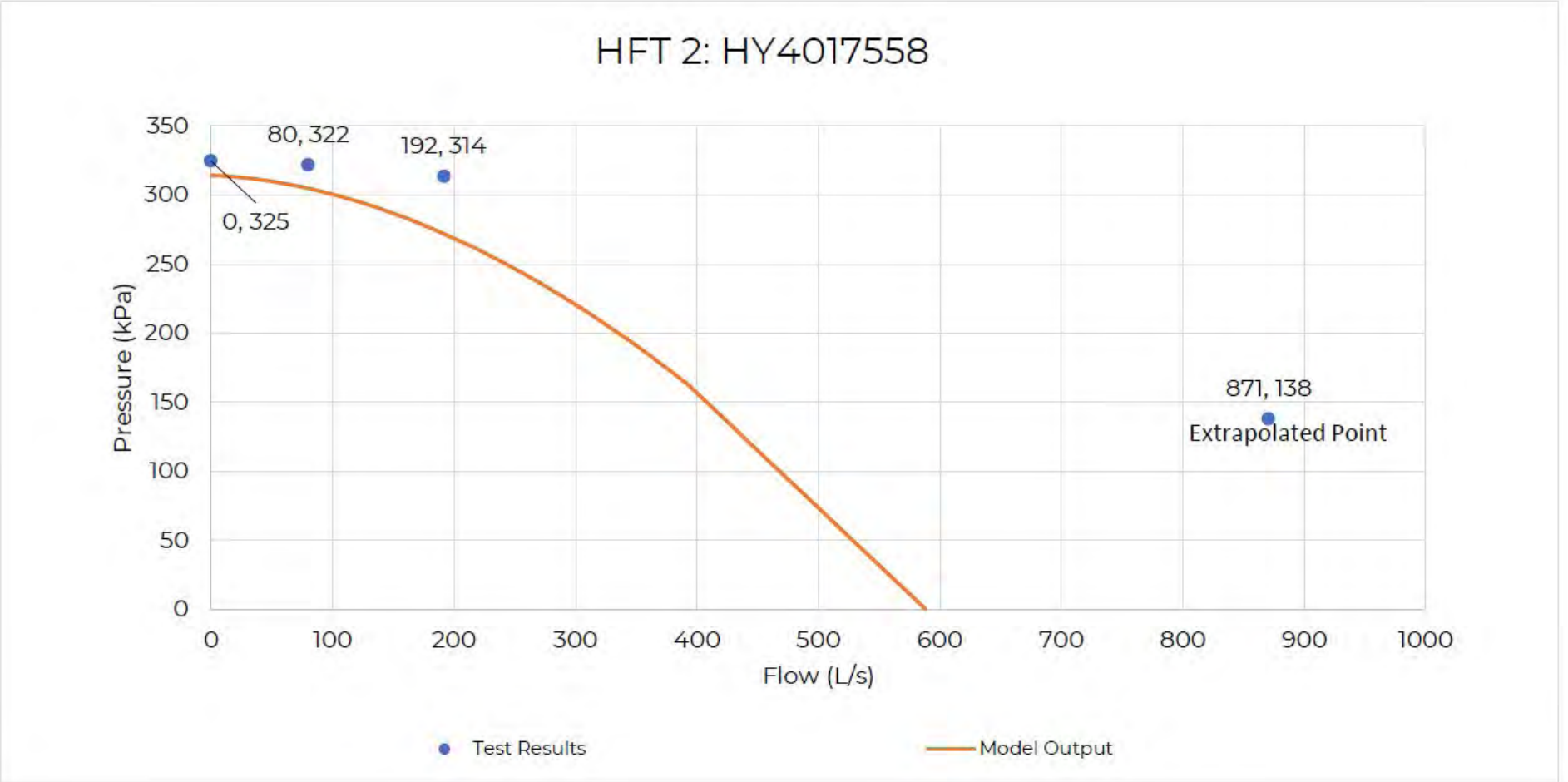

Figure C2: Hydrant Flow Test vs. Simulated Flow Test Results @ HY4017558

Table C3: Hydrant Flow Test vs. Simulated Flow Test Results @ Hydrant HY9990174

Source	Static Pressure (kPa)	Residual Pressure (kPa)	Test Flow (L/s)	Residual Pressure (kPa)	Test Flow (L/s)	Theoretical Flow Available at 140 kPa Residual (L/s)
Hydrant Test	464	461	95	457	229	1842
Model Curve	469	463	88	442	224	800

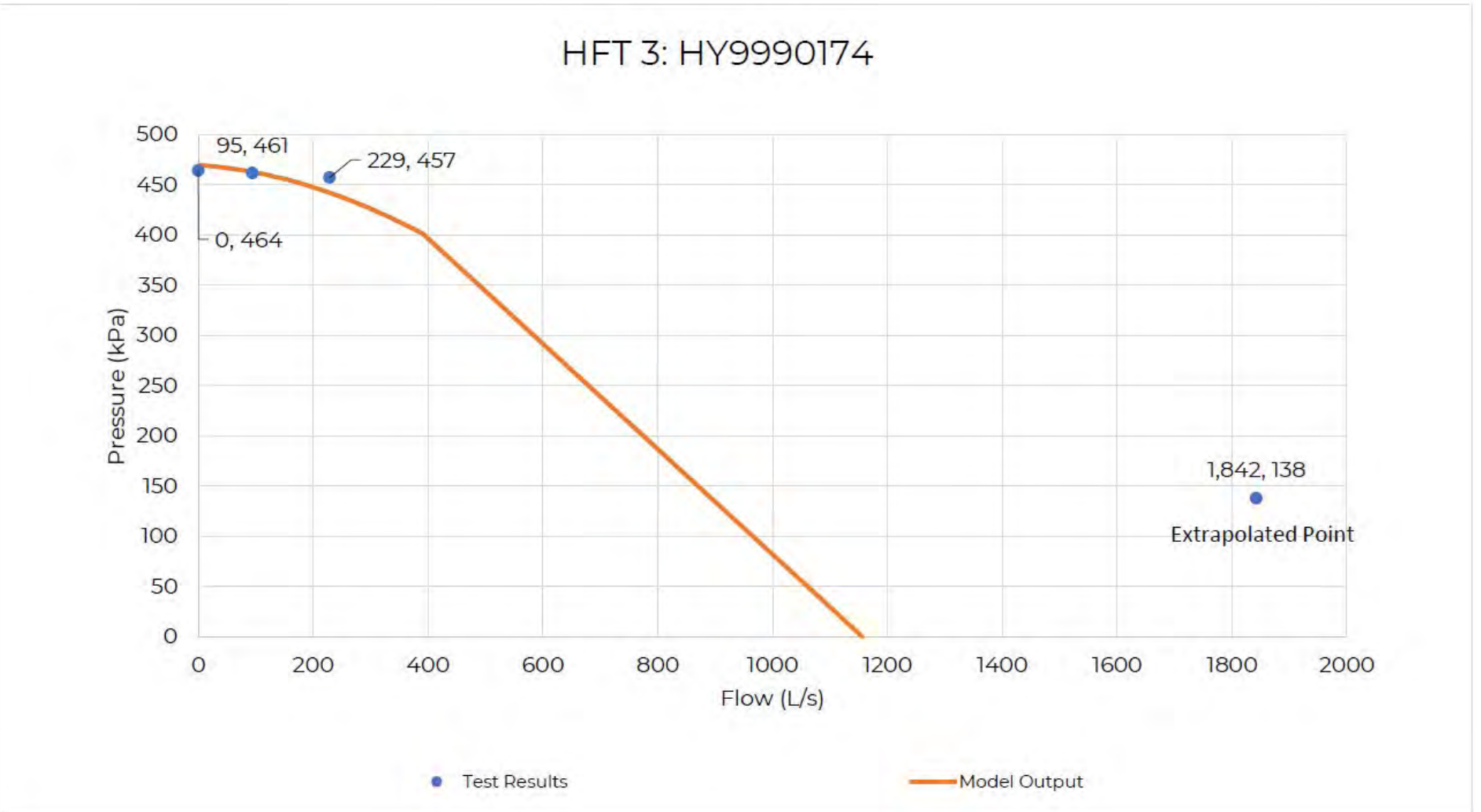

Figure C3: Hydrant Flow Test vs. Simulated Flow Test Results @ HY9990174

Table C4: Hydrant Flow Test vs. Simulated Flow Test Results @ Hydrant HY4008122

Source	Static Pressure (kPa)	Residual Pressure (kPa)	Test Flow (L/s)	Residual Pressure (kPa)	Test Flow (L/s)	Theoretical Flow Available at 140 kPa Residual (L/s)
Hydrant Test	464	464	92	447	211	1293
Model Curve	474	463	96	430	208	792

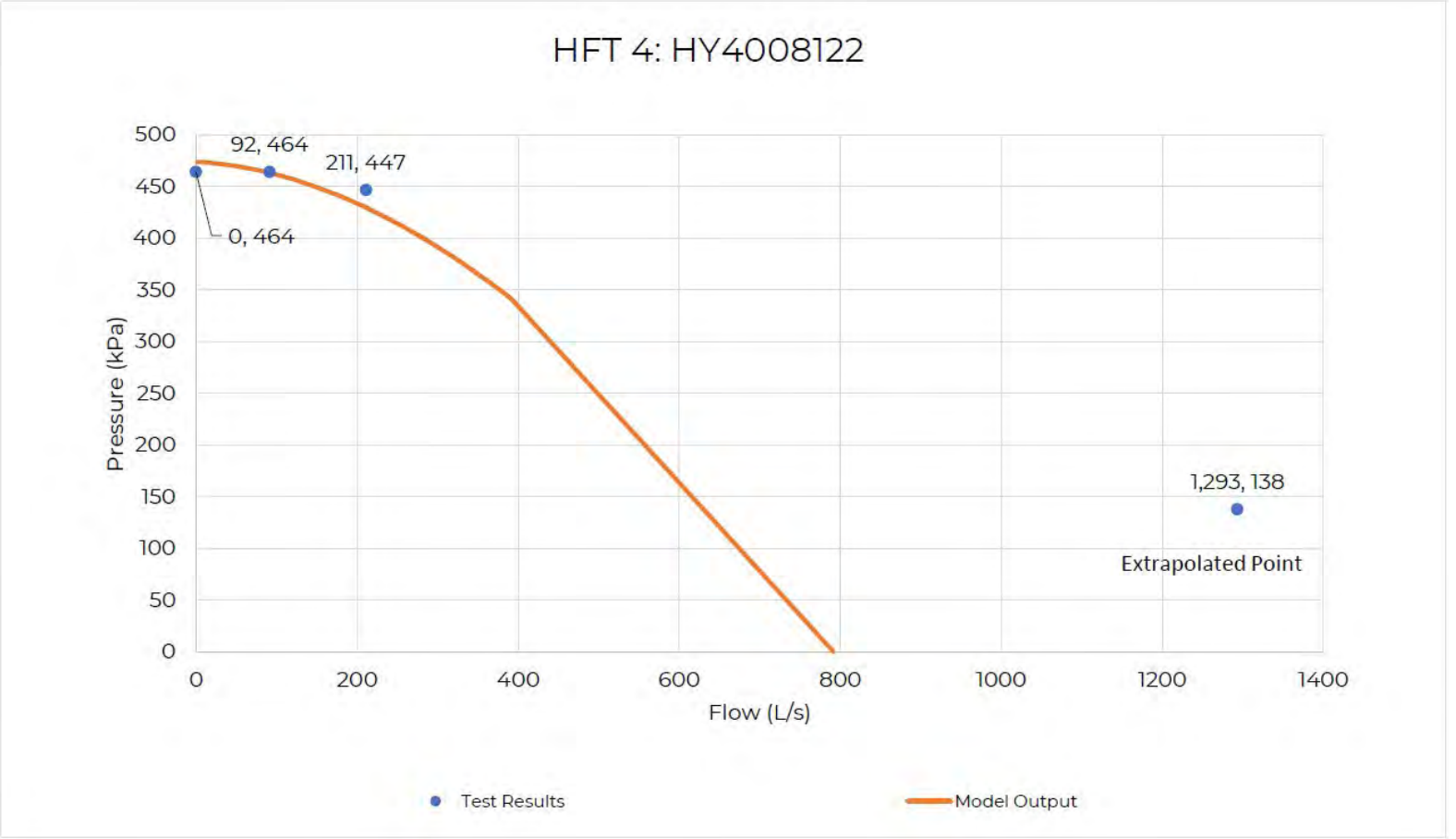

Figure C4: Hydrant Flow Test vs. Simulated Flow Test Results @ HY4008122

Table C5: Hydrant Flow Test vs. Simulated Flow Test Results @ Hydrant HY4034038

Source	Static Pressure (kPa)	Residual Pressure (kPa)	Test Flow (L/s)	Residual Pressure (kPa)	Test Flow (L/s)	Theoretical Flow Available at 140 kPa Residual (L/s)
Hydrant Test	486	480	95	463	226	990
Model Curve	484	473	88	431	224	772

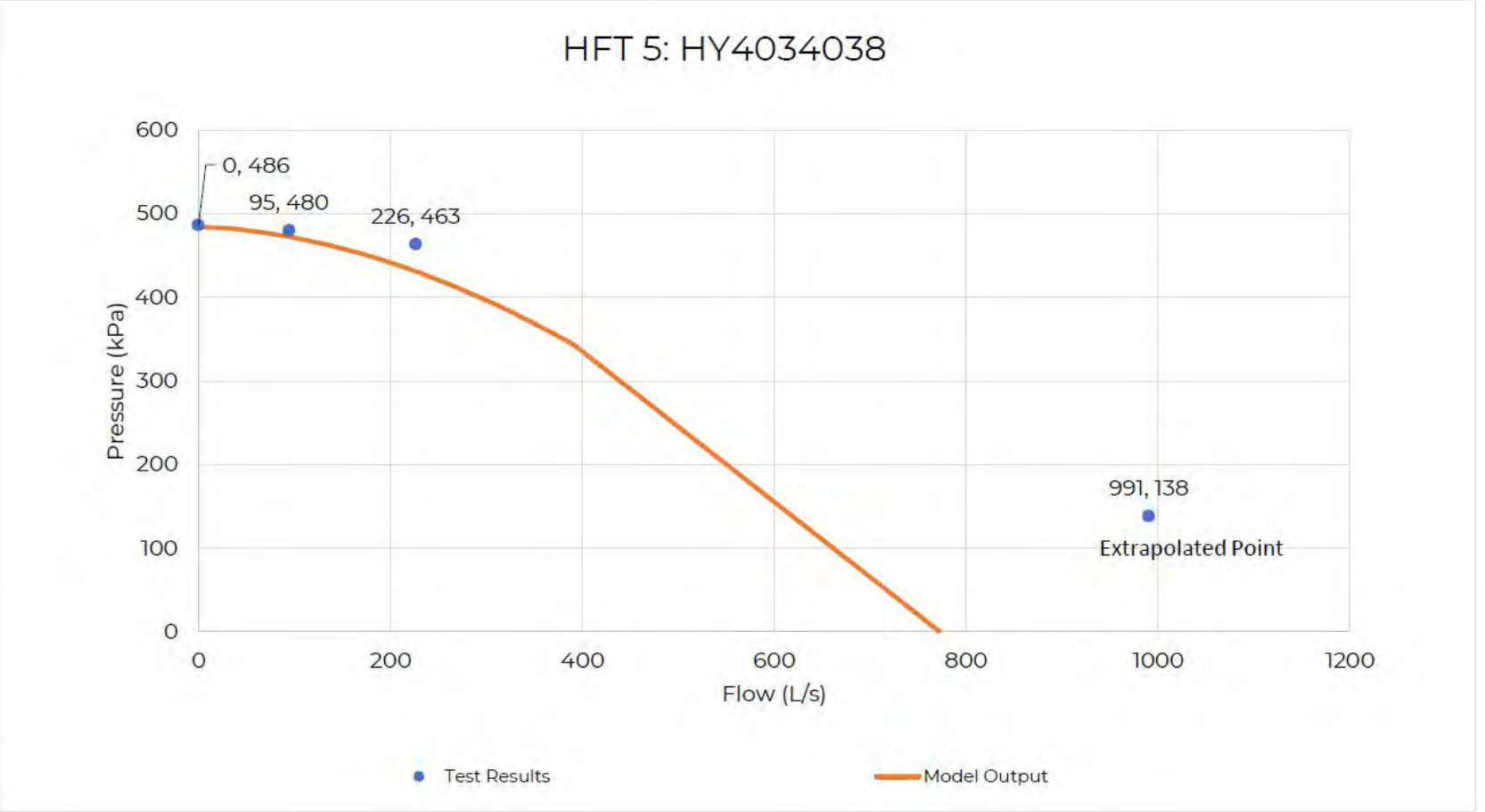

Figure C5: Hydrant Flow Test vs. Simulated Flow Test Results @ HY4034038

Table C6: Hydrant Flow Test vs. Simulated Flow Test Results @ Hydrant HY4035139

Source	Static Pressure (kPa)	Residual Pressure (kPa)	Test Flow (L/s)	Residual Pressure (kPa)	Test Flow (L/s)	Theoretical Flow Available at 140 kPa Residual (L/s)
Hydrant Test	486	468	97	418	204	492
Model Curve	505	487	96	447	200	693

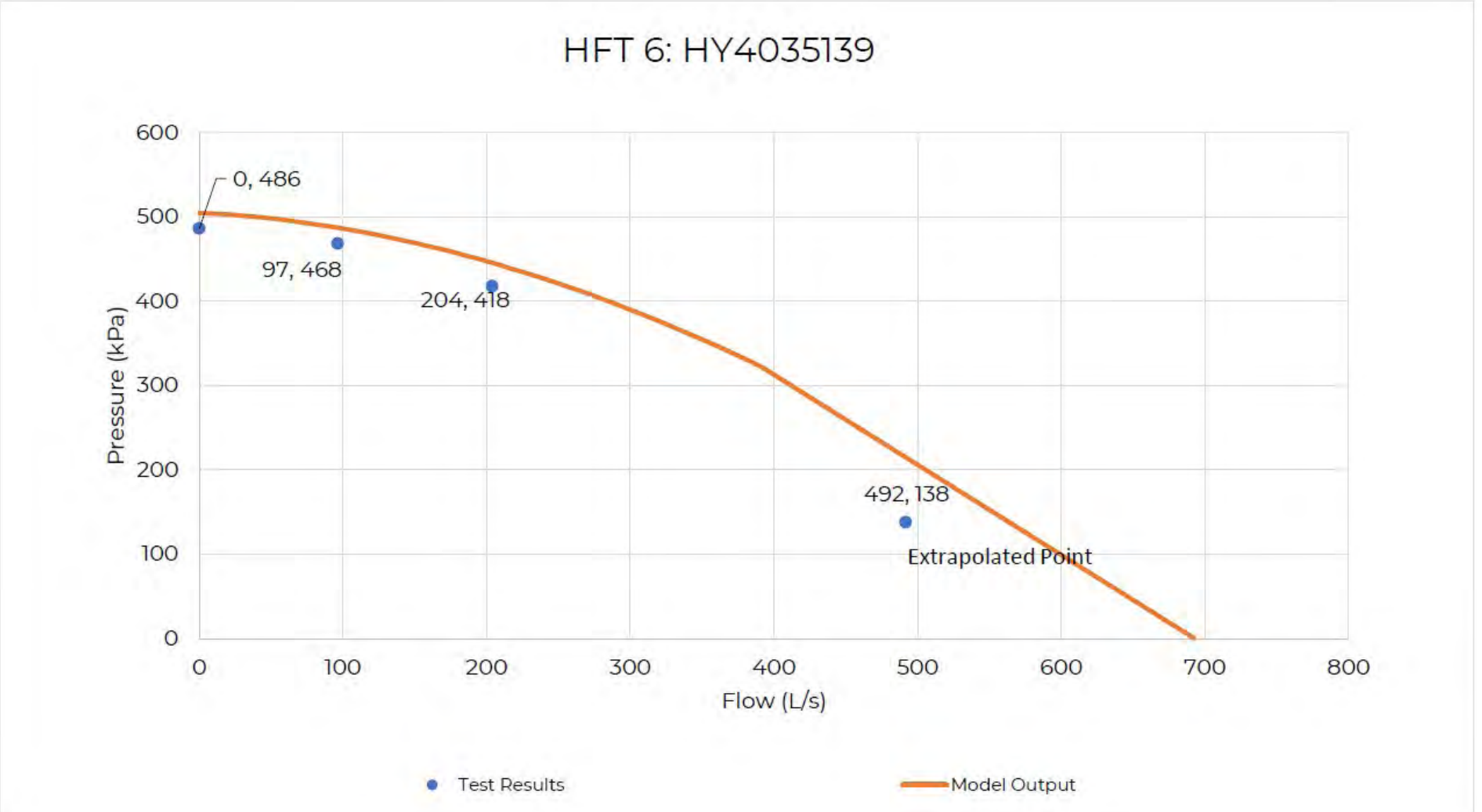

Figure C6: Hydrant Flow Test vs. Simulated Flow Test Results @ HY4035139