Net Work Analysis — Distribution Main — C

Pipe No.	Node A	Node B	Length (m)	Diameter (mm)	C	Flow (cum/d)	Velocity (m/s)	Pressure Gradient (o/oo)	Loss (m)
1	139	510	800.00	225.00	120.00	37.00	0.00	0.00	0.00
2	139	304	374.00	44.00	130.00	51.00	0.40	5.70	2.10
5	51	140	228.00	150.00	120.00	22.00	0.00	0.00	0.00
6	162	163	143.00	44.00	130.00	5.00	0.00	0.10	0.00
7	51	162	20.00	150.00	120.00	33.00	0.00	0.00	0.00
9	134	135	178.00	65.00	130.00	36.00	0.10	0.40	0.10
12	134	164	84.00	44.00	130.00	3.00	0.00	0.00	0.00
13	66	135	265.00	150.00	120.00	226.00	0.10	0.30	0.10
14	50	66	530.00	100.00	120.00	256.00	0.40	2.30	1.20
15	50	67	583.00	100.00	120.00	-95.00	-0.10	-0.40	-0.20
16	67	188	165.00	100.00	120.00	-123.00	-0.20	-0.60	-0.10
20	21	54	59.00	150.00	120.00	-251.00	-0.20	-0.30	0.00
21	21	23	88.00	100.00	120.00	89.00	0.10	0.30	0.00
22	23	24	55.00	150.00	120.00	16.00	0.00	0.00	0.00
23	20	24	90.00	100.00	120.00	83.00	0.10	0.30	0.00
24	20	21	66.00	150.00	120.00	-90.00	-0.10	-0.10	0.00
26	25	52	110.00	100.00	120.00	-12.00	0.00	0.00	0.00
27	52	53	176.00	100.00	120.00	37.00	0.10	0.10	0.00
28	53	60	100.00	100.00	120.00	-34.00	-0.10	-0.10	0.00
29	18	60	134.00	100.00	120.00	149.00	0.20	0.90	0.10
30	18	19	54.00	150.00	120.00	283.00	0.20	0.40	0.00
31	19	52	151.00	100.00	120.00	121.00	0.20	0.60	0.10
32	19	55	133.00	100.00	120.00	99.00	0.10	0.40	0.10
33	54	172	100.00	100.00	120.00	58.00	0.10	0.10	0.00
34	9	18	315.00	225.00	120.00	512.00	0.10	0.20	0.10
35	9	48	47.00	100.00	120.00	-746.00	-1.10	-16.90	-0.80
36	1	48	265.00	225.00	120.00	851.00	0.30	0.40	0.10
37	48	49	201.00	100.00	120.00	30.00	0.00	0.00	0.00
38	22	49	672.00	150.00	120.00	-497.00	-0.30	-1.10	-0.70
39	22	51	596.00	150.00	120.00	91.00	0.10	0.10	0.00
40	49	148	536.00	100.00	120.00	-99.00	-0.10	-0.40	-0.20
41	148	171	372.00	50.00	120.00	14.00	0.10	0.30	0.10
42	69	148	325.00	100.00	120.00	159.00	0.20	1.00	0.30
43	46	69	90.00	150.00	120.00	217.00	0.10	0.20	0.00
44	69	149	551.00	100.00	120.00	20.00	0.00	0.00	0.00
45	1	49	264.00	100.00	120.00	105.00	0.20	0.50	0.10
46	1	46	401.00	225.00	120.00	-1,428.00	-0.40	-1.10	-0.40
47	46	47	268.00	100.00	120.00	63.00	0.10	0.20	0.10
48	47	64	268.00	100.00	120.00	-223.00	-0.30	-1.80	-0.50
49	63	64	444.00	300.00	120.00	325.00	0.10	0.00	0.00
50	46	63	268.00	225.00	120.00	-1,803.00	-0.50	-1.70	-0.50
51	63	158	47.00	300.00	120.00	-2,156.00	-0.30	-0.60	0.00
52	158	166	358.00	50.00	120.00	13.00	0.10	0.30	0.10
53	157	158	77.00	300.00	120.00	2,187.00	0.40	0.60	0.10
54	157	170	264.00	44.00	130.00	9.00	0.10	0.30	0.10
55	156	157	300.00	300.00	120.00	2,214.00	0.40	0.60	0.20
56	2	156	100.00	300.00	120.00	2,931.00	0.50	1.00	0.10
61	2	203	704.00	350.00	120.00	-4,768.00	-0.60	-1.20	-0.80
62	2	4	442.00	225.00	120.00	1,785.00	0.50	1.60	0.70
63	4	5	65.00	225.00	120.00	1,692.00	0.50	1.50	0.10
64	4	61	972.00	65.00	130.00	37.00	0.10	0.50	0.40
65	5	6	221.00	150.00	120.00	301.00	0.20	0.40	0.10
66	6	27	150.00	150.00	120.00	289.00	0.20	0.40	0.10
67	27	37	216.00	100.00	120.00	-104.00	-0.10	-0.40	-0.10
68	36	37	400.00	150.00	120.00	132.00	0.10	0.10	0.00
69	36	38	563.00	100.00	120.00	37.00	0.10	0.10	0.00
70	37	38	30.00	150.00	120.00	-6.00	0.00	0.00	0.00
72	27	181	1,106.00	150.00	120.00	299.00	0.20	0.40	0.50
74	39	173	320.00	44.00	130.00	37.00	0.30	3.10	1.00
76	102	181	92.00	150.00	120.00	-287.00	-0.20	-0.40	0.00
80	39	179	125.00	150.00	120.00	-166.00	-0.10	-0.10	0.00
82	179	208	104.00	65.00	130.00	-21.00	-0.10	-0.20	0.00
83	102	103	350.00	150.00	120.00	355.00	0.20	0.60	0.20
84	101	102	120.00	44.00	130.00	-9.00	-0.10	-0.20	0.00
86	41	100	120.00	44.00	130.00	-7.00	-0.10	-0.20	0.00
87	100	101	312.00	37.00	130.00	-6.00	-0.10	-0.30	-0.10
88	42	43	257.00	100.00	120.00	51.00	0.10	0.10	0.00
89	42	43	257.00	100.00	120.00	51.00	0.10	0.10	0.00
90	43	44	268.00	150.00	120.00	74.00	0.10	0.00	0.00
91	44	177	391.00	100.00	120.00	17.00	0.00	0.00	0.00
92	44	176	391.00	100.00	120.00	17.00	0.00	0.00	0.00
93	176	177	90.00	100.00	120.00	0.00	0.00	0.00	0.00
99	29	112	251.00	65.00	130.00	-9.00	0.00	0.00	0.00
100	109	511	400.00	100.00	120.00	71.00	0.10	0.20	0.10
101	108	109	120.00	100.00	120.00	73.00	0.10	0.20	0.00
102	108	183	228.00	44.00	130.00	8.00	0.10	0.20	0.10
103	107	108	200.00	100.00	120.00	77.00	0.10	0.30	0.10

Net Work Analysis   Distribution Main   C

Pipe No.	Node A	Node B	Length (m)	Diameter (mm)	C	Flow (cum/d)	Velocity (m/s)	Pressure Gradient (o/oo)	Loss (m)
104	107	182	253.00	44.00	130.00	9.00	0.10	0.30	0.10
105	28	107	40.00	100.00	120.00	81.00	0.10	0.30	0.00
106	28	113	66.00	150.00	120.00	448.00	0.30	0.90	0.10
107	113	114	265.00	65.00	130.00	14.00	0.10	0.10	0.00
108	114	117	500.00	65.00	130.00	9.00	0.00	0.00	0.00
109	117	118	318.00	44.00	130.00	33.00	0.30	2.60	0.80
111	118	119	248.00	75.00	120.00	122.00	0.30	2.40	0.60
113	28	106	250.00	150.00	120.00	-334.00	-0.20	-0.50	-0.10
114	103	106	400.00	150.00	120.00	343.00	0.20	0.60	0.20
116	104	105	300.00	44.00	130.00	-14.00	-0.10	-0.50	-0.10
118	30	526	210.00	100.00	120.00	75.00	0.10	0.20	0.10
119	62	132	1,500.00	150.00	120.00	249.00	0.20	0.30	0.50
120	155	500	175.00	140.00	130.00	35.00	0.00	0.00	0.00
125	132	133	363.00	44.00	120.00	13.00	0.10	0.50	0.20
127	31	64	167.00	225.00	120.00	-68.00	0.00	0.00	0.00
129	70	144	284.00	100.00	120.00	33.00	0.10	0.10	0.00
130	144	145	121.00	44.00	130.00	4.00	0.00	0.10	0.00
132	45	47	162.00	150.00	120.00	-260.00	-0.20	-0.30	-0.10
133	9	45	761.00	100.00	120.00	-210.00	-0.30	-1.60	-1.20
134	9	57	25.00	100.00	120.00	346.00	0.50	4.10	0.10
135	57	58	120.00	100.00	120.00	134.00	0.20	0.70	0.10
136	58	60	262.00	100.00	120.00	-41.00	-0.10	-0.10	0.00
138	56	59	352.00	97.00	130.00	107.00	0.20	0.50	0.20
140	58	143	168.00	100.00	120.00	88.00	0.10	0.30	0.10
141	142	143	264.00	50.00	120.00	-6.00	0.00	-0.10	0.00
142	57	142	202.00	100.00	120.00	142.00	0.20	0.80	0.20
143	141	142	99.00	100.00	120.00	-73.00	-0.10	-0.20	0.00
146	12	150	360.00	150.00	120.00	87.00	0.10	0.00	0.00
147	12	151	163.00	150.00	120.00	-136.00	-0.10	-0.10	0.00
148	13	151	35.00	150.00	120.00	48.00	0.00	0.00	0.00
149	151	186	450.00	140.00	120.00	-49.00	0.00	0.00	0.00
151	154	155	132.00	100.00	120.00	51.00	0.10	0.10	0.00
160	153	154	165.00	100.00	120.00	79.00	0.10	0.30	0.00
161	14	153	236.00	150.00	120.00	-222.00	-0.10	-0.30	-0.10
162	13	14	475.00	150.00	120.00	-127.00	-0.10	-0.10	0.00
163	13	146	35.00	150.00	120.00	112.00	0.10	0.10	0.00
164	146	147	137.00	150.00	120.00	72.00	0.10	0.00	0.00
167	11	137	663.00	150.00	120.00	196.00	0.10	0.20	0.10
168	14	152	66.00	100.00	120.00	131.00	0.20	0.70	0.00
170	33	152	150.00	100.00	120.00	-82.00	-0.10	-0.30	0.00
175	56	68	165.00	100.00	120.00	387.00	0.60	5.00	0.80
176	68	136	726.00	44.00	120.00	11.00	0.10	0.40	0.30
177	136	137	512.00	44.00	130.00	-12.00	-0.10	-0.40	-0.20
178	137	187	277.00	140.00	130.00	97.00	0.10	0.10	0.00
182	71	124	400.00	225.00	120.00	-64.00	0.00	0.00	0.00
183	15	124	441.00	225.00	120.00	114.00	0.00	0.00	0.00
184	15	16	177.00	150.00	120.00	468.00	0.30	1.00	0.20
185	16	121	286.00	100.00	120.00	164.00	0.20	1.00	0.30
186	120	121	1,210.00	75.00	120.00	-83.00	-0.20	-1.20	-1.40
187	16	125	850.00	100.00	120.00	178.00	0.30	1.20	1.00
191	122	209	120.00	225.00	120.00	-60.00	0.00	0.00	0.00
193	125	126	396.00	100.00	120.00	161.00	0.20	1.00	0.40
194	126	128	668.00	65.00	130.00	42.00	0.10	0.60	0.40
195	126	127	1,047.00	65.00	130.00	40.00	0.10	0.50	0.60
196	128	129	90.00	65.00	130.00	14.00	0.10	0.10	0.00
197	129	130	60.00	44.00	130.00	8.00	0.10	0.20	0.00
198	130	131	88.00	37.00	130.00	3.00	0.00	0.10	0.00
199	62	520	569.00	100.00	120.00	46.00	0.10	0.10	0.10
200	41	42	237.00	100.00	120.00	27.00	0.00	0.00	0.00
201	30	113	250.00	150.00	120.00	-307.00	-0.20	-0.50	-0.10
203	5	36	105.00	150.00	120.00	208.00	0.10	0.20	0.00
179	187	300	500.00	150.00	120.00	40.00	0.00	0.00	0.00
250	136	301	215.00	65.00	130.00	-28.00	-0.10	-0.30	-0.10
209	160	300	152.00	150.00	120.00	-67.00	0.00	0.00	0.00
213	62	524	334.00	97.00	130.00	-352.00	-0.60	-4.20	-1.40
214	30	503	334.00	100.00	120.00	172.00	0.30	1.10	0.40
215	112	511	132.00	75.00	120.00	-35.00	-0.10	-0.20	0.00
216	500	501	100.00	140.00	130.00	17.00	0.00	0.00	0.00
217	154	501	104.00	65.00	130.00	22.00	0.10	0.20	0.00
218	186	501	221.00	140.00	130.00	-148.00	-0.10	-0.10	0.00
110	118	503	167.00	75.00	120.00	-116.00	-0.30	-2.20	-0.40
300	215	301	554.00	100.00	120.00	84.00	0.10	0.30	0.20
208	215	300	250.00	100.00	120.00	61.00	0.10	0.20	0.00
17	205	527	250.00	100.00	120.00	37.00	0.10	0.10	0.00
172	15	153	577.00	150.00	120.00	401.00	0.30	0.70	0.40
302	10	70	480.00	150.00	120.00	-18.00	0.00	0.00	0.00
304	24	25	55.00	100.00	120.00	13.00	0.00	0.00	0.00

Net Work Analysis Distribution Main C

Pipe No.	Node A	Node B	Length (m)	Diameter (mm)	C	Flow (cum/d)	Velocity (m/s)	Pressure Gradient (o/oo)	Loss (m)
305	55	172	50.00	100.00	120.00	33.00	0.10	0.10	0.00
306	20	172	50.00	100.00	120.00	-54.00	-0.10	-0.10	0.00
307	23	25	75.00	100.00	120.00	12.00	0.00	0.00	0.00
308	40	178	150.00	150.00	120.00	40.00	0.00	0.00	0.00
77	39	40	180.00	100.00	120.00	91.00	0.10	0.30	0.10
78	40	189	60.00	100.00	120.00	21.00	0.00	0.00	0.00
79	100	101	450.00	44.00	130.00	-8.00	-0.10	-0.20	-0.10
309	41	42	150.00	150.00	120.00	103.00	0.10	0.10	0.00
310	119	521	350.00	65.00	130.00	75.00	0.30	1.70	0.60
311	521	522	350.00	65.00	130.00	37.00	0.10	0.50	0.20
313	33	35	150.00	100.00	120.00	45.00	0.10	0.10	0.00
301	11	523	120.00	150.00	120.00	-260.00	-0.20	-0.30	0.00
314	59	523	180.00	100.00	120.00	298.00	0.40	3.10	0.60
315	502	524	150.00	75.00	120.00	-59.00	-0.20	-0.60	-0.10
317	524	600	450.00	97.00	130.00	-449.00	-0.70	-6.60	-3.00
319	525	526	210.00	75.00	120.00	-37.00	-0.10	-0.30	-0.10
321	527	528	480.00	65.00	130.00	101.00	0.30	2.90	1.40
322	134	528	200.00	65.00	130.00	-79.00	-0.30	-1.90	-0.40
11	165	601	75.00	65.00	130.00	-74.00	-0.30	-1.70	-0.10
324	188	527	50.00	65.00	130.00	-129.00	-0.50	-4.60	-0.20
325	122	123	160.00	140.00	130.00	48.00	0.00	0.00	0.00
327	56	59	352.00	140.00	130.00	281.00	0.20	0.50	0.20
328	1	49	264.00	158.00	130.00	380.00	0.20	0.50	0.10
329	206	527	215.00	150.00	120.00	215.00	0.10	0.20	0.10
330	156	541	931.00	100.00	120.00	686.00	1.00	14.40	13.40
331	112	540	434.00	97.00	130.00	513.00	0.80	8.40	3.70
601	91	139	162.00	150.00	120.00	211.00	0.10	0.20	0.00
602	91	161	225.00	65.00	130.00	8.00	0.00	0.00	0.00
603	70	93	662.00	150.00	120.00	-149.00	-0.10	-0.10	-0.10
605	93	132	616.00	150.00	120.00	-198.00	-0.10	-0.20	-0.10
606	93	185	300.00	150.00	120.00	48.00	0.00	0.00	0.00
607	56	602	1,000.00	200.00	120.00	-811.00	-0.30	-0.70	-0.70
212	22	54	275.00	150.00	120.00	347.00	0.20	0.60	0.20
610	122	160	931.00	225.00	120.00	-53.00	0.00	0.00	0.00
611	91	92	228.00	150.00	120.00	-219.00	-0.10	-0.20	-0.10
612	92	135	690.00	100.00	120.00	-219.00	-0.30	-1.80	-1.20
613	604	610	200.00	97.00	130.00	26.00	0.00	0.00	0.00
614	105	612	250.00	44.00	130.00	-26.00	-0.20	-1.60	-0.40
616	174	542	569.00	97.00	130.00	-77.00	-0.10	-0.30	-0.10
701	186	606	500.00	250.00	120.00	-1,392.00	-0.30	-0.60	-0.30
702	169	603	50.00	55.00	130.00	-16.00	-0.10	-0.20	0.00
703	15	153	577.00	140.00	130.00	362.00	0.30	0.70	0.40
705	16	125	850.00	65.00	130.00	62.00	0.20	1.20	1.00
713	102	103	350.00	198.00	130.00	798.00	0.30	0.60	0.20
714	103	106	400.00	198.00	130.00	772.00	0.30	0.60	0.20
715	28	106	250.00	198.00	130.00	-750.00	-0.30	-0.50	-0.10
716	28	107	40.00	198.00	130.00	535.00	0.20	0.30	0.00
717	107	108	200.00	198.00	130.00	506.00	0.20	0.30	0.10
718	108	109	120.00	198.00	130.00	479.00	0.20	0.20	0.00
719	109	511	400.00	198.00	130.00	466.00	0.20	0.20	0.10
720	112	511	132.00	198.00	130.00	-488.00	-0.20	-0.20	0.00
731	113	114	265.00	140.00	130.00	105.00	0.10	0.10	0.00
732	114	117	500.00	140.00	130.00	68.00	0.10	0.00	0.00
741	179	208	104.00	140.00	130.00	-163.00	-0.10	-0.20	0.00
751	610	611	630.00	97.00	130.00	26.00	0.00	0.00	0.00
752	611	612	610.00	65.00	130.00	26.00	0.10	0.30	0.10
761	50	542	1,044.00	97.00	130.00	-267.00	-0.40	-2.50	-2.60
762	68	542	165.00	97.00	130.00	344.00	0.50	4.00	0.70
771	101	102	120.00	140.00	130.00	-197.00	-0.10	-0.20	0.00
772	100	101	450.00	140.00	130.00	-174.00	-0.10	-0.20	-0.10
773	41	100	120.00	140.00	130.00	-156.00	-0.10	-0.20	0.00
781	5	6	221.00	250.00	120.00	1,153.00	0.30	0.40	0.10
782	6	27	150.00	250.00	120.00	1,109.00	0.30	0.40	0.10
783	27	181	1,106.00	250.00	120.00	1,147.00	0.30	0.40	0.50
784	102	181	92.00	250.00	120.00	-1,101.00	-0.30	-0.40	0.00
791	151	186	450.00	140.00	130.00	-49.00	0.00	0.00	0.00
792	13	151	35.00	140.00	130.00	44.00	0.00	0.00	0.00
793	13	14	475.00	140.00	130.00	-115.00	-0.10	-0.10	0.00
794	14	153	236.00	140.00	130.00	-201.00	-0.10	-0.30	-0.10
795	154	501	104.00	140.00	130.00	165.00	0.10	0.20	0.00
796	153	154	165.00	140.00	130.00	208.00	0.20	0.30	0.00

Net Work Analysis   Distribution Main

File Name   Nuwara011Year2015(2)   D
Season   Dry
Network Type   Proposed

Demand   Year 2015
                Hourly Max
Reserver   Water Level Fix   Except for Follows
                Discharge Fix   No.205,206,215,209

Magnification of Demand   1.622

Reservoir Data

Node		HWL (MSL)	LWL (MSL)	Reservoir
203	1	1,927.0	1,927.0	Haddon Hill
208	1	1,930.0	1,930.0	Bonavista
600	1	1,946.0	1,946.0	Nseby
601	1	1,991.0	1,991.0	Piyatisappura
602	1	1,948.0	1,948.0	New Pedro Reserver
603	1	1,980.0	1,980.0	Unique View
604	1	1,925.0	1,925.0	Vijithapura
606	1	1,920.0	1,920.0	Low Area 2

Node Data

Node		Ground Elev (MSL)	Demand (cum/d)		
1	1	1,881.7	122.0	0	0
2	1	1,885.1	70.0	0	0
4	1	1,881.8	76.0	0	0
5	1	1,881.3	40.0	0	0
6	1	1,883.7	76.0	0	0
9	1	1,881.2	133.0	0	0
10	1	1,903.4	25.0	0	0
11	1	1,902.1	86.0	0	0
12	1	1,880.5	66.0	0	0
13	1	1,874.2	51.0	0	0
14	1	1,865.6	66.0	0	0
15	1	1,860.5	61.0	0	0
16	1	1,860.5	85.0	0	0
18	1	1,885.1	107.0	0	0
19	1	1,885.8	85.0	0	0
22	1	1,889.4	79.0	0	0
23	1	1,887.3	82.0	0	0
24	1	1,887.7	117.0	0	0
25	1	1,887.0	51.0	0	0
27	1	1,882.3	75.0	0	0
28	1	1,879.2	26.0	0	0
29	1	1,892.4	13.0	0	0
30	1	1,882.6	80.0	0	0
31	1	1,882.0	93.0	0	0
36	1	1,889.3	51.0	0	0
37	1	1,891.4	47.0	0	0
38	1	1,893.9	42.0	0	0
39	1	1,914.9	50.0	0	0
41	1	1,899.2	44.0	0	0
42	1	1,896.1	38.0	0	0
43	1	1,894.8	40.0	0	0
44	1	1,893.4	54.0	0	0
45	1	1,884.9	67.0	0	0
46	1	1,878.2	127.0	0	0
47	1	1,880.7	36.0	0	0
48	1	1,880.2	101.0	0	0
49	1	1,881.1	160.0	0	0
50	1	1,886.3	144.0	0	0
51	1	1,895.4	47.0	0	0
52	1	1,889.1	97.0	0	0
55	1	1,886.2	89.0	0	0
56	1	1,902.7	49.0	0	0
57	1	1,884.1	93.0	0	0
58	1	1,890.9	119.0	0	0
60	1	1,889.9	100.0	0	0
61	1	1,885.4	50.0	0	0

62	1	1,890.2	76.0	0	0
63	1	1,878.7	38.0	0	0
64	1	1,876.5	44.0	0	0
66	1	1,910.0	40.0	0	0
67	1	1,921.5	38.0	0	0
68	1	1,918.6	42.0	0	0
69	1	1,879.5	50.0	0	0
70	1	1,904.5	132.0	0	0
71	1	1,894.5	87.0	0	0
100	1	1,896.6	33.0	0	0
101	1	1,885.9	25.0	0	0
102	1	1,876.7	37.0	0	0
103	1	1,883.1	50.0	0	0
104	1	1,916.3	19.0	0	0
105	1	1,903.9	17.0	0	0
106	1	1,881.3	43.0	0	0
107	1	1,880.1	32.0	0	0
108	1	1,884.1	30.0	0	0
109	1	1,884.6	20.0	0	0
112	1	1,900.7	0.0	0	0
113	1	1,878.5	29.0	0	0
114	1	1,897.3	57.0	0	0
117	1	1,907.5	59.0	0	0
118	1	1,889.0	37.0	0	0
119	1	1,889.1	64.0	0	0
120	1	1,871.2	113.0	0	0
121	1	1,862.6	109.0	0	0
122	1	1,950.0	89.0	0	0
123	1	1,927.3	65.0	0	0
124	1	1,879.6	68.0	0	0
125	1	1,886.2	108.0	0	0
126	1	1,894.1	107.0	0	0
127	1	1,874.9	54.0	0	0
128	1	1,896.4	38.0	0	0
129	1	1,896.0	8.0	0	0
130	1	1,886.4	7.0	0	0
131	1	1,875.8	4.0	0	0
132	1	1,886.8	51.0	0	0
133	1	1,898.7	18.0	0	0
134	1	1,924.5	54.0	0	0
135	1	1,915.7	58.0	0	0
136	1	1,944.8	71.0	0	0
137	1	1,905.0	118.0	0	0
139	1	1,905.8	165.0	0	0
140	1	1,899.4	31.0	0	0
141	1	1,890.2	99.0	0	0
142	1	1,883.9	103.0	0	0
143	1	1,888.7	110.0	0	0
144	1	1,907.4	39.0	0	0
145	1	1,909.3	6.0	0	0
146	1	1,876.5	54.0	0	0
147	1	1,878.9	98.0	0	0
148	1	1,889.6	63.0	0	0
149	1	1,901.1	28.0	0	0
150	1	1,899.4	118.0	0	0
151	1	1,874.4	76.0	0	0
152	1	1,865.9	66.0	0	0
153	1	1,862.7	71.0	0	0
154	1	1,864.7	66.0	0	0
155	1	1,867.6	22.0	0	0
156	1	1,884.8	40.0	0	0
157	1	1,881.9	24.0	0	0
158	1	1,880.3	24.0	0	0
160	1	1,903.2	19.0	0	0
161	1	1,905.3	11.0	0	0
162	1	1,891.8	38.0	0	0
163	1	1,899.3	7.0	0	0
164	1	1,919.8	4.0	0	0
165	1	1,962.5	101.0	0	0
166	1	1,899.0	18.0	0	0
169	1	1,917.8	22.0	0	0
170	1	1,893.3	13.0	0	0
171	1	1,909.7	19.0	0	0
21	1	1,885.1	97.0	0	0
20	1	1,885.9	83.0	0	0

174	1	1,902.4	104.0	0	0
53	1	1,895.7	97.0	0	0
176	1	1,895.0	23.0	0	0
177	1	1,897.3	23.0	0	0
178	1	1,912.8	55.0	0	0
179	1	1,917.5	25.0	0	0
181	1	1,881.0	80.0	0	0
182	1	1,891.9	13.0	0	0
183	1	1,899.2	12.0	0	0
185	1	1,902.8	66.0	0	0
186	1	1,885.4	66.0	0	0
187	1	1,903.2	76.0	0	0
188	1	1,931.7	8.0	0	0
189	1	1,921.8	29.0	0	0
300	1	1,903.6	47.0	0	0
301	1	1,951.4	76.0	0	0
59	1	1,900.0	122.0	0	0
500	1	1,892.8	25.0	0	0
501	1	1,886.6	76.0	0	0
502	1	1,885.6	80.0	0	0
503	1	1,884.2	76.0	0	0
510	1	1,914.5	51.0	0	0
511	1	1,892.1	20.0	0	0
520	1	1,913.6	63.0	0	0
304	1	1,900.4	70.0	0	0
172	1	1,886.0	51.0	0	0
173	1	1,916.0	51.0	0	0
521	1	1,886.0	51.0	0	0
522	1	1,880.0	51.0	0	0
523	1	1,903.0	51.0	0	0
524	1	1,887.0	51.0	0	0
525	1	1,881.0	51.0	0	0
526	1	1,882.0	51.0	0	0
527	1	1,931.0	30.0	0	0
528	1	1,943.0	30.0	0	0
33	1	1,867.0	51.0	0	0
35	1	1,870.0	61.0	0	0
40	1	1,920.0	40.0	0	0
54	1	1,886.0	51.0	0	0
91	1	1,899.4	0.0	0	0
92	1	1,895.4	0.0	0	0
93	1	1,882.0	0.0	0	0
540	1	1,930.0	428.0	0	0
541	1	1,980.0	572.0	0	0
542	1	1,889.1	0.0	0	0
610	1	1,900.0	0.0	0	0
611	1	1,884.6	0.0	0	0
612	1	1,881.3	0.0	0	0
205	1	1,960.0	-68.0	0	0
206	1	1,955.0	-393.0	0	0
215	1	1,979.0	-266.0	0	0
209	1	1,960.0	-111.0	0	0

Booster Pump Data

No.	Type	Node A	Node B	Pipe No.	Pressure (■)
1	B	156	541	330	84.7
2	B	112	540	331	24.4

Pipe Data

Pipe No.	Node A	Node B	Diameter (mm)	Length (m)	C Value
1	139	510	225.0	800.0	120.0
2	139	304	44.0	374.0	130.0
5	51	140	150.0	228.0	120.0
6	162	163	44.0	143.0	130.0
7	51	162	150.0	20.0	120.0
9	134	135	65.0	178.0	130.0
12	134	164	44.0	84.0	130.0
13	66	135	150.0	265.0	120.0
14	50	66	100.0	530.0	120.0
15	50	67	100.0	583.0	120.0
16	67	188	100.0	165.0	120.0
20	21	54	150.0	59.0	120.0
21	21	23	100.0	88.0	120.0
22	23	24	150.0	55.0	120.0
23	20	24	100.0	90.0	120.0
24	20	21	150.0	66.0	120.0
26	25	52	100.0	110.0	120.0
27	52	53	100.0	176.0	120.0
28	53	60	100.0	100.0	120.0
29	18	60	100.0	134.0	120.0
30	18	19	150.0	54.0	120.0
31	19	52	100.0	151.0	120.0
32	19	55	100.0	133.0	120.0
33	54	172	100.0	100.0	120.0
34	9	18	225.0	315.0	120.0
35	9	48	100.0	47.0	120.0
36	1	48	225.0	265.0	120.0
37	48	49	100.0	201.0	120.0
38	22	49	150.0	672.0	120.0
39	22	51	150.0	596.0	120.0
40	49	148	100.0	536.0	120.0
41	148	171	50.0	372.0	120.0
42	69	148	100.0	325.0	120.0
43	46	69	150.0	90.0	120.0
44	69	149	100.0	551.0	120.0
45	1	49	100.0	264.0	120.0
46	1	46	225.0	401.0	120.0
47	46	47	100.0	268.0	120.0
48	47	64	100.0	268.0	120.0
49	63	64	300.0	444.0	120.0
50	46	63	225.0	268.0	120.0
51	63	158	300.0	47.0	120.0
52	158	166	50.0	358.0	120.0
53	157	158	300.0	77.0	120.0
54	157	170	44.0	264.0	130.0
55	156	157	300.0	300.0	120.0
56	2	156	300.0	100.0	120.0
61	2	203	350.0	704.0	120.0
62	2	4	225.0	442.0	120.0
63	4	5	225.0	65.0	120.0
64	4	61	65.0	972.0	130.0
65	5	6	150.0	221.0	120.0
66	6	27	150.0	150.0	120.0
67	27	37	100.0	216.0	120.0
68	36	37	150.0	400.0	120.0
69	36	38	100.0	563.0	120.0
70	37	38	150.0	30.0	120.0
72	27	181	150.0	1,106.0	120.0
74	39	173	44.0	320.0	130.0
76	102	181	150.0	92.0	120.0
80	39	179	150.0	125.0	120.0
82	179	208	65.0	104.0	130.0
83	102	103	150.0	350.0	120.0
84	101	102	44.0	120.0	130.0
86	41	100	44.0	120.0	130.0
87	100	101	37.0	312.0	130.0
88	42	43	100.0	257.0	120.0
89	42	43	100.0	257.0	120.0
90	43	44	150.0	268.0	120.0
91	44	177	100.0	391.0	120.0
92	44	176	100.0	391.0	120.0
93	176	177	100.0	90.0	120.0

99	29	112	65.0	251.0	130.0
100	109	511	100.0	400.0	120.0
101	108	109	100.0	120.0	120.0
102	108	183	44.0	228.0	130.0
103	107	108	100.0	200.0	120.0
104	107	182	44.0	253.0	130.0
105	28	107	100.0	40.0	120.0
106	28	113	150.0	66.0	120.0
107	113	114	65.0	265.0	130.0
108	114	117	65.0	500.0	130.0
109	117	118	44.0	318.0	130.0
111	118	119	75.0	248.0	120.0
113	28	106	150.0	250.0	120.0
114	103	106	150.0	400.0	120.0
116	104	105	44.0	300.0	130.0
118	30	526	100.0	210.0	120.0
119	62	132	150.0	1,500.0	120.0
120	155	500	140.0	175.0	130.0
125	132	133	44.0	363.0	120.0
127	31	64	225.0	167.0	120.0
129	70	144	100.0	284.0	120.0
130	144	145	44.0	121.0	130.0
132	45	47	150.0	162.0	120.0
133	9	45	100.0	761.0	120.0
134	9	57	100.0	25.0	120.0
135	57	58	100.0	120.0	120.0
136	58	60	100.0	262.0	120.0
138	56	59	97.0	352.0	130.0
140	58	143	100.0	168.0	120.0
141	142	143	50.0	264.0	120.0
142	57	142	100.0	202.0	120.0
143	141	142	100.0	99.0	120.0
146	12	150	150.0	360.0	120.0
147	12	151	150.0	163.0	120.0
148	13	151	150.0	35.0	120.0
149	151	186	140.0	450.0	130.0
151	154	155	100.0	132.0	120.0
160	153	154	100.0	165.0	120.0
161	14	153	150.0	236.0	120.0
162	13	14	150.0	475.0	120.0
163	13	146	150.0	35.0	120.0
164	146	147	150.0	137.0	120.0
167	11	137	150.0	663.0	120.0
168	14	152	100.0	66.0	120.0
170	33	152	100.0	150.0	120.0
175	56	68	100.0	165.0	120.0
176	68	136	44.0	726.0	130.0
177	136	137	44.0	512.0	130.0
178	137	187	140.0	277.0	130.0
182	71	124	225.0	400.0	120.0
183	15	124	225.0	441.0	120.0
184	15	16	150.0	177.0	120.0
185	16	121	100.0	286.0	120.0
186	120	121	75.0	1,210.0	120.0
187	16	125	100.0	850.0	120.0
191	122	209	225.0	120.0	120.0
193	125	126	100.0	396.0	120.0
194	126	128	65.0	668.0	130.0
195	126	127	65.0	1,047.0	130.0
196	128	129	65.0	90.0	130.0
197	129	130	44.0	60.0	130.0
198	130	131	37.0	88.0	130.0
199	62	520	100.0	569.0	120.0
200	41	42	100.0	237.0	120.0
201	30	113	150.0	250.0	120.0
203	5	36	150.0	105.0	120.0
179	187	300	150.0	500.0	120.0
250	136	301	65.0	215.0	130.0
209	160	300	150.0	152.0	120.0
213	62	524	97.0	334.0	130.0
214	30	503	100.0	334.0	120.0
215	112	511	75.0	132.0	120.0
216	500	501	140.0	100.0	130.0
217	154	501	65.0	104.0	130.0
218	186	501	140.0	221.0	130.0

110	118	503	75.0	167.0	120.0
300	215	301	100.0	554.0	120.0
208	215	300	100.0	250.0	120.0
17	205	527	100.0	250.0	120.0
172	15	153	150.0	577.0	120.0
302	10	70	150.0	480.0	120.0
304	24	25	100.0	55.0	120.0
305	55	172	100.0	50.0	120.0
306	20	172	100.0	50.0	120.0
307	23	25	100.0	75.0	120.0
308	40	178	150.0	150.0	120.0
77	39	40	100.0	180.0	120.0
78	40	189	100.0	60.0	120.0
79	100	101	44.0	450.0	130.0
309	41	42	150.0	150.0	120.0
310	119	521	65.0	350.0	130.0
311	521	522	65.0	350.0	130.0
313	33	35	100.0	150.0	120.0
301	11	523	150.0	120.0	120.0
314	59	523	100.0	180.0	120.0
315	502	524	75.0	150.0	120.0
317	524	600	97.0	450.0	130.0
319	525	526	75.0	210.0	120.0
321	527	528	65.0	480.0	130.0
322	134	528	65.0	200.0	130.0
11	165	601	65.0	75.0	130.0
324	188	527	65.0	50.0	130.0
325	122	123	140.0	160.0	130.0
327	56	59	140.0	352.0	130.0
328	1	49	158.0	264.0	130.0
329	206	527	150.0	215.0	120.0
330	156	541	100.0	931.0	120.0
331	112	540	97.0	434.0	130.0
601	91	139	150.0	162.0	120.0
602	91	161	65.0	225.0	130.0
603	70	93	150.0	662.0	120.0
605	93	132	150.0	616.0	120.0
606	93	185	150.0	300.0	120.0
607	56	602	200.0	1,000.0	120.0
212	22	54	150.0	275.0	120.0
610	122	160	225.0	931.0	120.0
611	91	92	150.0	228.0	120.0
612	92	135	100.0	690.0	120.0
613	604	610	97.0	200.0	130.0
614	105	612	44.0	250.0	130.0
616	174	542	97.0	569.0	130.0
701	15	606	250.0	500.0	120.0
702	169	603	55.0	50.0	130.0
703	15	153	140.0	577.0	130.0
705	16	125	65.0	850.0	130.0
713	102	103	198.0	350.0	130.0
714	103	106	198.0	400.0	130.0
715	28	106	198.0	250.0	130.0
716	28	107	198.0	40.0	130.0
717	107	108	198.0	200.0	130.0
718	108	109	198.0	120.0	130.0
719	109	511	198.0	400.0	130.0
720	112	511	198.0	132.0	130.0
731	113	114	140.0	265.0	130.0
732	114	117	140.0	500.0	130.0
741	179	208	140.0	104.0	130.0
751	610	611	97.0	630.0	130.0
752	611	612	65.0	610.0	130.0
761	50	542	97.0	1,044.0	130.0
762	68	542	97.0	165.0	130.0
771	101	102	140.0	120.0	130.0
772	100	101	140.0	450.0	130.0
773	41	100	140.0	120.0	130.0
781	5	6	250.0	221.0	120.0
782	6	27	250.0	150.0	120.0
783	27	181	250.0	1,106.0	120.0
784	102	181	250.0	92.0	120.0
791	151	186	140.0	450.0	130.0
792	13	151	140.0	35.0	130.0
793	13	14	140.0	475.0	130.0

794	14	153	140.0	236.0	130.0
795	154	501	140.0	104.0	130.0
796	153	154	140.0	165.0	130.0

Net Work Analysis   Distribution Main   D

Node No.	Elevation of Pipe (MSL)	Demand (cum/d)	Dynamic Pressure (MSL)	Dynamic Pressure (m)	Static Pressure (m)			Leakage (cum/d)
1	1,881.7	197.6	1,918.9	37.2	109.3	0.0	0.0	
2	1,885.1	113.4	1,924.1	39.0	105.9	0.0	0.0	
4	1,881.8	123.1	1,921.6	39.8	109.2	0.0	0.0	
5	1,881.3	64.8	1,921.3	40.0	109.7	0.0	0.0	
6	1,883.7	123.1	1,921.0	37.3	107.3	0.0	0.0	
9	1,881.2	215.5	1,915.1	33.9	109.8	0.0	0.0	
10	1,903.4	40.5	1,924.6	21.1	87.6	0.0	0.0	
11	1,902.1	139.3	1,944.1	42.0	88.9	0.0	0.0	
12	1,880.5	106.9	1,916.3	35.9	110.5	0.0	0.0	
13	1,874.2	82.6	1,916.4	42.2	116.8	0.0	0.0	
14	1,865.6	106.9	1,916.6	51.0	125.4	0.0	0.0	
15	1,860.5	98.8	1,918.7	58.2	130.5	0.0	0.0	
16	1,860.5	137.7	1,917.9	57.4	130.5	0.0	0.0	
18	1,885.1	173.3	1,914.8	29.7	105.9	0.0	0.0	
19	1,885.8	137.7	1,914.7	28.9	105.2	0.0	0.0	
22	1,889.4	128.0	1,915.2	25.8	101.6	0.0	0.0	
23	1,887.3	132.8	1,914.4	27.1	103.7	0.0	0.0	
24	1,887.7	189.5	1,914.4	26.7	103.3	0.0	0.0	
25	1,887.0	82.6	1,914.4	27.4	104.0	0.0	0.0	
27	1,882.3	121.5	1,920.8	38.5	108.7	0.0	0.0	
28	1,879.2	42.1	1,917.4	38.2	111.8	0.0	0.0	
29	1,892.4	21.1	1,917.0	24.6	98.6	0.0	0.0	
30	1,882.6	129.6	1,916.7	34.1	108.4	0.0	0.0	
31	1,882.0	150.7	1,922.6	40.6	109.0	0.0	0.0	
36	1,889.3	82.6	1,921.2	31.9	101.7	0.0	0.0	
37	1,891.4	76.1	1,921.1	29.7	99.6	0.0	0.0	
38	1,893.9	68.0	1,921.1	27.2	97.1	0.0	0.0	
39	1,914.9	81.0	1,929.8	14.9	76.1	0.0	0.0	
41	1,899.2	71.3	1,918.5	19.3	91.8	0.0	0.0	
42	1,896.1	61.6	1,918.5	22.4	94.9	0.0	0.0	
43	1,894.8	64.8	1,918.3	23.6	96.2	0.0	0.0	
44	1,893.4	87.5	1,918.3	24.9	97.6	0.0	0.0	
45	1,884.9	108.5	1,920.3	35.4	106.1	0.0	0.0	
46	1,878.2	205.7	1,920.8	42.5	112.8	0.0	0.0	
47	1,880.7	58.3	1,920.6	39.9	110.3	0.0	0.0	
48	1,880.2	163.6	1,918.4	38.2	110.8	0.0	0.0	
49	1,881.1	259.2	1,918.4	37.3	109.9	0.0	0.0	
50	1,886.3	233.3	1,937.0	50.7	104.7	0.0	0.0	
51	1,895.4	76.1	1,915.1	19.7	95.6	0.0	0.0	
52	1,889.1	157.1	1,914.4	25.3	101.9	0.0	0.0	
55	1,886.2	144.2	1,914.5	28.3	104.8	0.0	0.0	
56	1,902.7	79.4	1,946.1	43.4	88.3	0.0	0.0	
57	1,884.1	150.7	1,914.6	30.5	106.9	0.0	0.0	
58	1,890.9	192.8	1,914.3	23.4	100.1	0.0	0.0	
60	1,889.9	162.0	1,914.3	24.4	101.1	0.0	0.0	
61	1,885.4	81.0	1,919.7	34.3	105.6	0.0	0.0	
62	1,890.2	123.1	1,927.4	37.2	100.8	0.0	0.0	
63	1,878.7	61.6	1,922.7	44.0	112.3	0.0	0.0	
64	1,876.5	71.3	1,922.6	46.1	114.5	0.0	0.0	
66	1,910.0	64.8	1,932.3	22.3	81.0	0.0	0.0	
67	1,921.5	61.6	1,939.6	18.1	69.5	0.0	0.0	
68	1,918.6	68.0	1,943.9	25.3	72.4	0.0	0.0	
69	1,879.5	81.0	1,920.7	41.2	111.5	0.0	0.0	
70	1,904.5	213.8	1,924.6	20.1	86.5	0.0	0.0	
71	1,894.5	140.9	1,918.7	24.2	96.5	0.0	0.0	
100	1,896.6	53.5	1,918.6	22.0	94.4	0.0	0.0	
101	1,885.9	40.5	1,919.0	33.1	105.1	0.0	0.0	
102	1,876.7	59.9	1,919.1	42.4	114.3	0.0	0.0	
103	1,883.1	81.0	1,918.5	35.4	107.9	0.0	0.0	
104	1,916.3	30.8	1,926.8	10.5	74.7	0.0	0.0	
105	1,903.9	27.5	1,927.5	23.6	87.1	0.0	0.0	
106	1,881.3	69.7	1,917.8	36.5	109.7	0.0	0.0	
107	1,880.1	51.8	1,917.4	37.3	110.9	0.0	0.0	
108	1,884.1	48.6	1,917.3	33.2	106.9	0.0	0.0	
109	1,884.6	32.4	1,917.2	32.6	106.4	0.0	0.0	
112	1,900.7	0.0	1,917.0	16.3	90.3	0.0	0.0	
113	1,878.5	47.0	1,917.2	38.6	112.5	0.0	0.0	
114	1,897.3	92.3	1,917.1	19.8	93.7	0.0	0.0	
117	1,907.5	95.6	1,917.0	9.5	83.5	0.0	0.0	
118	1,889.0	59.9	1,913.5	24.5	102.0	0.0	0.0	
119	1,889.1	103.7	1,911.0	21.9	101.9	0.0	0.0	
120	1,871.2	183.1	1,910.6	39.4	119.8	0.0	0.0	
121	1,862.6	176.6	1,916.7	54.1	128.4	0.0	0.0	
122	1,950.0	144.2	1,943.8	-6.2	41.0	0.0	0.0	
123	1,927.3	105.3	1,943.8	16.5	63.7	0.0	0.0	
124	1,879.6	110.2	1,918.7	39.1	111.4	0.0	0.0	
125	1,886.2	175.0	1,913.6	27.4	104.8	0.0	0.0	

Net Work Analysis　　　Distribution Main　　　D

Node No.	Elevation of Pipe (MSL)	Demand (cum/d)	Dynamic Pressure (MSL)	Dynamic Pressure (m)	Static Pressure (m)			Leakage (cum/d)
126	1,894.1	173.3	1,911.9	17.8	96.9	0.0	0.0	
127	1,874.9	87.5	1,909.6	34.7	116.1	0.0	0.0	
128	1,896.4	61.6	1,910.3	13.9	94.6	0.0	0.0	
129	1,896.0	13.0	1,910.3	14.3	95.0	0.0	0.0	
130	1,886.4	11.3	1,910.2	23.8	104.6	0.0	0.0	
131	1,875.8	6.5	1,910.2	34.4	115.2	0.0	0.0	
132	1,886.8	82.6	1,925.4	38.6	104.2	0.0	0.0	
133	1,898.7	29.2	1,924.7	26.0	92.3	0.0	0.0	
134	1,924.5	87.5	1,932.7	8.2	66.5	0.0	0.0	
135	1,915.7	94.0	1,932.1	16.4	75.3	0.0	0.0	
136	1,944.8	115.0	1,943.2	-1.6	46.2	0.0	0.0	
137	1,905.0	191.2	1,943.8	38.8	86.0	0.0	0.0	
139	1,905.8	267.3	1,926.5	20.7	85.2	0.0	0.0	
140	1,899.4	50.2	1,915.1	15.7	91.6	0.0	0.0	
141	1,890.2	160.4	1,913.8	23.6	100.8	0.0	0.0	
142	1,883.9	166.9	1,913.9	30.0	107.1	0.0	0.0	
143	1,888.7	178.2	1,914.0	25.3	102.3	0.0	0.0	
144	1,907.4	63.2	1,924.5	17.1	83.6	0.0	0.0	
145	1,909.3	9.7	1,924.5	15.2	81.7	0.0	0.0	
146	1,876.5	87.5	1,916.4	39.9	114.5	0.0	0.0	
147	1,878.9	158.8	1,916.4	37.5	112.1	0.0	0.0	
148	1,889.6	102.1	1,919.3	29.7	101.4	0.0	0.0	
149	1,901.1	45.4	1,920.6	19.5	89.9	0.0	0.0	
150	1,899.4	191.2	1,916.3	16.9	91.6	0.0	0.0	
151	1,874.4	123.1	1,916.4	42.0	116.6	0.0	0.0	
152	1,865.9	106.9	1,916.4	50.5	125.1	0.0	0.0	
153	1,862.7	115.0	1,916.9	54.2	128.3	0.0	0.0	
154	1,864.7	106.9	1,916.7	52.0	126.3	0.0	0.0	
155	1,867.6	35.6	1,916.6	49.0	123.4	0.0	0.0	
156	1,884.8	64.8	1,923.7	38.9	106.2	0.0	0.0	
157	1,881.9	38.9	1,923.0	41.1	109.1	0.0	0.0	
158	1,880.3	38.9	1,922.8	42.5	110.7	0.0	0.0	
160	1,903.2	30.8	1,943.8	40.6	87.8	0.0	0.0	
161	1,905.3	17.8	1,926.6	21.3	85.7	0.0	0.0	
162	1,891.8	61.6	1,915.1	23.3	99.2	0.0	0.0	
163	1,899.3	11.3	1,915.1	15.8	91.7	0.0	0.0	
164	1,919.8	6.5	1,932.7	12.9	71.2	0.0	0.0	
165	1,962.5	163.6	1,990.5	28.0	28.5	0.0	0.0	
166	1,899.0	29.2	1,922.3	23.3	92.0	0.0	0.0	
169	1,917.8	35.6	1,980.0	62.1	73.2	0.0	0.0	
170	1,893.3	21.1	1,922.7	29.4	97.7	0.0	0.0	
171	1,909.7	30.8	1,918.8	9.1	81.3	0.0	0.0	
21	1,885.1	157.1	1,914.5	29.4	105.9	0.0	0.0	
20	1,885.9	134.5	1,914.5	28.6	105.1	0.0	0.0	
174	1,902.4	168.5	1,941.7	39.3	88.6	0.0	0.0	
53	1,895.7	157.1	1,914.3	18.6	95.3	0.0	0.0	
176	1,895.0	37.3	1,918.3	23.3	96.0	0.0	0.0	
177	1,897.3	37.3	1,918.3	21.0	93.7	0.0	0.0	
178	1,912.8	89.1	1,929.6	16.8	78.2	0.0	0.0	
179	1,917.5	40.5	1,929.9	12.4	73.5	0.0	0.0	
181	1,881.0	129.6	1,919.2	38.2	110.0	0.0	0.0	
182	1,891.9	21.1	1,917.1	25.2	99.1	0.0	0.0	
183	1,899.2	19.4	1,917.1	17.9	91.8	0.0	0.0	
185	1,902.8	106.9	1,924.9	22.1	88.2	0.0	0.0	
186	1,885.4	106.9	1,916.5	31.1	105.6	0.0	0.0	
187	1,903.2	123.1	1,943.8	40.6	87.8	0.0	0.0	
188	1,931.7	13.0	1,940.6	8.9	59.3	0.0	0.0	
189	1,921.8	47.0	1,929.6	7.8	69.2	0.0	0.0	
300	1,903.6	76.1	1,943.8	40.2	87.4	0.0	0.0	
301	1,951.4	123.1	1,943.5	-7.9	39.6	0.0	0.0	
59	1,900.0	197.6	1,945.6	45.6	91.0	0.0	0.0	
500	1,892.8	40.5	1,916.6	23.8	98.2	0.0	0.0	
501	1,886.6	123.1	1,916.6	30.0	104.4	0.0	0.0	
502	1,885.6	129.6	1,933.0	47.4	105.4	0.0	0.0	
503	1,884.2	123.1	1,915.1	30.9	106.8	0.0	0.0	
510	1,914.5	82.6	1,926.5	12.0	76.5	0.0	0.0	
511	1,892.1	32.4	1,917.1	25.0	98.9	0.0	0.0	
520	1,913.6	102.1	1,927.1	13.5	77.4	0.0	0.0	
304	1,900.4	113.4	1,917.5	17.1	90.6	0.0	0.0	
172	1,886.0	82.6	1,914.5	28.5	105.0	0.0	0.0	
173	1,916.0	82.6	1,925.5	9.5	75.0	0.0	0.0	
521	1,886.0	82.6	1,908.4	22.4	105.0	0.0	0.0	
522	1,880.0	82.6	1,907.7	27.7	111.0	0.0	0.0	
523	1,903.0	82.6	1,944.2	41.2	88.0	0.0	0.0	
524	1,887.0	82.6	1,933.4	46.4	104.0	0.0	0.0	
525	1,881.0	82.6	1,916.2	35.2	110.0	0.0	0.0	
526	1,882.0	82.6	1,916.5	34.5	109.0	0.0	0.0	

A-5.4.57

Net Work Analysis

Node No.	Elevation of Pipe (MSL)	Demand (cum/d)	Dynamic Pressure (MSL)	Distribution Main Dynamic Pressure (m)	Static Pressure (m)	D		Leakage (cum/d)
527	1,931.0	48.6	1,942.8	11.8	60.0	0.0	0.0	
528	1,943.0	48.6	1,934.9	-8.1	48.0	0.0	0.0	
33	1,867.0	82.6	1,916.2	49.2	124.0	0.0	0.0	
35	1,870.0	98.8	1,916.2	46.2	121.0	0.0	0.0	
40	1,920.0	64.8	1,929.6	9.6	71.0	0.0	0.0	
54	1,886.0	82.6	1,914.6	28.6	105.0	0.0	0.0	
91	1,899.4	0.0	1,926.7	27.3	91.6	0.0	0.0	
92	1,895.4	0.0	1,926.9	31.5	95.6	0.0	0.0	
93	1,882.0	0.0	1,924.9	42.9	109.0	0.0	0.0	
540	1,930.0	693.4	1,935.0	5.0	61.0	0.0	0.0	
541	1,980.0	926.6	1,985.0	5.0	11.0	0.0	0.0	
542	1,889.1	0.0	1,942.3	53.2	101.9	0.0	0.0	
610	1,900.0	0.0	1,930.0	30.0	91.0	0.0	0.0	
611	1,884.6	0.0	1,929.9	45.3	106.4	0.0	0.0	
612	1,881.3	0.0	1,929.2	47.9	109.7	0.0	0.0	
205	1,960.0	-110.2	1,943.0	-17.1	31.0	0.0	0.0	
206	1,955.0	-636.7	1,943.2	-11.8	36.0	0.0	0.0	
215	1,979.0	-430.9	1,944.3	-34.7	12.0	0.0	0.0	
209	1,960.0	-179.8	1,943.8	-16.2	31.0	0.0	0.0	

Net Work Analysis — Distribution Main — D

Pipe No.	Node A	Node B	Length (m)	Diameter (mm)	C	Flow (cum/d)	Velocity (m/s)	Pressure Gradient (o/oo)	Loss (m)
1	139	510	800.00	225.00	120.00	82.00	0.00	0.00	0.00
2	139	304	374.00	44.00	130.00	113.00	0.90	24.20	9.00
5	51	140	228.00	150.00	120.00	50.00	0.00	0.00	0.00
6	162	163	143.00	44.00	130.00	11.00	0.10	0.30	0.10
7	51	162	20.00	150.00	120.00	72.00	0.10	0.00	0.00
9	134	135	178.00	65.00	130.00	114.00	0.40	3.70	0.70
12	134	164	84.00	44.00	130.00	6.00	0.10	0.10	0.00
13	66	135	265.00	150.00	120.00	460.00	0.30	1.00	0.30
14	50	66	530.00	100.00	120.00	525.00	0.80	8.80	4.70
15	50	67	583.00	100.00	120.00	-366.00	-0.50	-4.50	-2.60
16	67	188	165.00	100.00	120.00	-428.00	-0.60	-6.00	-1.00
20	21	54	59.00	150.00	120.00	-550.00	-0.40	-1.30	-0.10
21	21	23	88.00	100.00	120.00	195.00	0.30	1.40	0.10
22	23	24	55.00	150.00	120.00	35.00	0.00	0.00	0.00
23	20	24	90.00	100.00	120.00	182.00	0.30	1.20	0.10
24	20	21	66.00	150.00	120.00	-198.00	-0.10	-0.20	0.00
26	25	52	110.00	100.00	120.00	-27.00	0.00	0.00	0.00
27	52	53	176.00	100.00	120.00	81.00	0.10	0.30	0.10
28	53	60	100.00	100.00	120.00	-75.00	-0.10	-0.20	0.00
29	18	60	134.00	100.00	120.00	327.00	0.50	3.70	0.50
30	18	19	54.00	150.00	120.00	621.00	0.40	1.70	0.10
31	19	52	151.00	100.00	120.00	266.00	0.40	2.50	0.40
32	19	55	133.00	100.00	120.00	217.00	0.30	1.70	0.20
33	54	172	100.00	100.00	120.00	127.00	0.20	0.60	0.10
34	9	18	315.00	225.00	120.00	1,122.00	0.30	0.70	0.20
35	9	48	47.00	100.00	120.00	-1,634.00	-2.40	-72.00	-3.40
36	1	48	265.00	225.00	120.00	1,864.00	0.50	1.80	0.50
37	48	49	201.00	100.00	120.00	66.00	0.10	0.20	0.00
38	22	49	672.00	150.00	120.00	-1,088.00	-0.70	-4.70	-3.20
39	22	51	596.00	150.00	120.00	199.00	0.10	0.20	0.10
40	49	148	536.00	100.00	120.00	-217.00	-0.30	-1.70	-0.90
41	148	171	372.00	50.00	120.00	30.00	0.20	1.30	0.50
42	69	148	325.00	100.00	120.00	349.00	0.50	4.10	1.40
43	46	69	90.00	150.00	120.00	476.00	0.30	1.00	0.10
44	69	149	551.00	100.00	120.00	45.00	0.10	0.10	0.10
45	1	49	264.00	100.00	120.00	231.00	0.30	1.90	0.50
46	1	46	401.00	225.00	120.00	-3,126.00	-0.90	-4.60	-1.90
47	46	47	268.00	100.00	120.00	138.00	0.20	0.80	0.20
48	47	64	268.00	100.00	120.00	-489.00	-0.70	-7.70	-2.10
49	63	64	444.00	300.00	120.00	711.00	0.10	0.10	0.00
50	46	63	268.00	225.00	120.00	-3,947.00	-1.10	-7.10	-1.90
51	63	158	47.00	300.00	120.00	-4,720.00	-0.80	-2.40	-0.10
52	158	166	358.00	50.00	120.00	29.00	0.20	1.20	0.40
53	157	158	77.00	300.00	120.00	4,788.00	0.80	2.50	0.20
54	157	170	264.00	44.00	130.00	21.00	0.20	1.10	0.30
55	156	157	300.00	300.00	120.00	4,848.00	0.80	2.60	0.80
56	2	156	100.00	300.00	120.00	5,840.00	1.00	3.60	0.40
61	2	203	704.00	350.00	120.00	-9,431.00	-1.10	-4.10	-2.90
62	2	4	442.00	225.00	120.00	3,478.00	1.00	5.60	2.50
63	4	5	65.00	225.00	120.00	3,274.00	0.90	5.00	0.30
64	4	61	972.00	65.00	130.00	81.00	0.30	1.90	1.90
65	5	6	221.00	150.00	120.00	577.00	0.40	1.50	0.30
66	6	27	150.00	150.00	120.00	551.00	0.40	1.30	0.20
67	27	37	216.00	100.00	120.00	-194.00	-0.30	-1.40	-0.30
68	36	37	400.00	150.00	120.00	263.00	0.20	0.30	0.10
69	36	38	563.00	100.00	120.00	75.00	0.10	0.20	0.10
70	37	38	30.00	150.00	120.00	-7.00	0.00	0.00	0.00
72	27	181	1,106.00	150.00	120.00	566.00	0.40	1.40	1.60
74	39	173	320.00	44.00	130.00	82.00	0.60	13.40	4.30
76	102	181	92.00	150.00	120.00	-539.00	-0.30	-1.30	-0.10
80	39	179	125.00	150.00	120.00	-364.00	-0.20	-0.60	-0.10
82	179	208	104.00	65.00	130.00	-47.00	-0.20	-0.70	-0.10
83	102	103	350.00	150.00	120.00	644.00	0.40	1.80	0.60
84	101	102	120.00	44.00	130.00	-20.00	-0.20	-1.00	-0.10
86	41	100	120.00	44.00	130.00	-16.00	-0.10	-0.70	-0.10
87	100	101	312.00	37.00	130.00	-14.00	-0.10	-1.20	-0.40
88	42	43	257.00	100.00	120.00	113.00	0.20	0.50	0.10
89	42	43	257.00	100.00	120.00	113.00	0.20	0.50	0.10
90	43	44	268.00	150.00	120.00	162.00	0.10	0.10	0.00
91	44	177	391.00	100.00	120.00	37.00	0.10	0.10	0.00
92	44	176	391.00	100.00	120.00	37.00	0.10	0.10	0.00
93	176	177	90.00	100.00	120.00	0.00	0.00	0.00	0.00
99	29	112	251.00	65.00	130.00	-21.00	-0.10	-0.20	0.00
100	109	511	400.00	100.00	120.00	99.00	0.10	0.40	0.20
101	108	109	120.00	100.00	120.00	103.00	0.10	0.40	0.10
102	108	183	228.00	44.00	130.00	19.00	0.10	0.90	0.20
103	107	108	200.00	100.00	120.00	112.00	0.20	0.50	0.10

Net Work Analysis   Distribution Main   D

Pipe No.	Node A	Node B	Length (m)	Diameter (mm)	C	Flow (cum/d)	Velocity (m/s)	Pressure Gradient (o/oo)	Loss (m)
104	107	182	253.00	44.00	130.00	21.00	0.20	1.10	0.30
105	28	107	40.00	100.00	120.00	122.00	0.20	0.60	0.00
106	28	113	66.00	150.00	120.00	981.00	0.60	3.90	0.30
107	113	114	265.00	65.00	130.00	30.00	0.10	0.30	0.10
108	114	117	500.00	65.00	130.00	19.00	0.10	0.10	0.10
109	117	118	318.00	44.00	130.00	74.00	0.60	11.00	3.50
111	118	119	248.00	75.00	120.00	268.00	0.70	10.30	2.60
113	28	106	250.00	150.00	120.00	-598.00	-0.40	-1.60	-0.40
114	103	106	400.00	150.00	120.00	619.00	0.40	1.70	0.70
116	104	105	300.00	44.00	130.00	-30.00	-0.20	-2.20	-0.70
118	30	526	210.00	100.00	120.00	165.00	0.20	1.00	0.20
119	62	132	1,500.00	150.00	120.00	545.00	0.40	1.30	2.00
120	155	590	175.00	140.00	130.00	78.00	0.10	0.00	0.00
125	132	133	363.00	44.00	130.00	29.00	0.20	2.00	0.70
127	31	64	167.00	225.00	120.00	-150.00	0.00	0.00	0.00
129	70	144	284.00	100.00	120.00	72.00	0.10	0.20	0.10
130	144	145	121.00	44.00	130.00	9.00	0.10	0.30	0.00
132	45	47	162.00	150.00	120.00	-570.00	-0.40	-1.40	-0.20
133	9	45	761.00	100.00	120.00	-461.00	-0.70	-6.90	-5.30
134	9	57	25.00	100.00	120.00	758.00	1.10	17.40	0.40
135	57	58	120.00	100.00	120.00	295.00	0.40	3.00	0.40
136	58	60	262.00	100.00	120.00	-90.00	-0.10	-0.30	-0.10
138	56	59	352.00	97.00	130.00	192.00	0.30	1.40	0.50
140	58	143	168.00	100.00	120.00	192.00	0.30	1.40	0.20
141	142	143	264.00	50.00	120.00	-14.00	-0.10	-0.30	-0.10
142	57	142	202.00	100.00	120.00	312.00	0.50	3.40	0.70
143	141	142	99.00	100.00	120.00	-160.00	-0.20	-1.00	-0.10
146	12	150	360.00	150.00	120.00	191.00	0.10	0.20	0.10
147	12	151	163.00	150.00	120.00	-298.00	-0.20	-0.40	-0.10
148	13	151	35.00	150.00	120.00	107.00	0.10	0.10	0.00
149	151	186	450.00	140.00	130.00	-108.00	-0.10	-0.10	0.00
151	154	155	132.00	100.00	120.00	113.00	0.20	0.50	0.10
160	153	154	165.00	100.00	120.00	174.00	0.30	1.10	0.20
161	14	153	236.00	150.00	120.00	-487.00	-0.30	-1.10	-0.30
162	13	14	475.00	150.00	120.00	-279.00	-0.20	-0.40	-0.20
163	13	146	35.00	150.00	120.00	246.00	0.20	0.30	0.00
164	146	147	137.00	150.00	120.00	158.00	0.10	0.10	0.00
167	11	137	663.00	150.00	120.00	277.00	0.20	0.40	0.30
168	14	152	66.00	100.00	120.00	288.00	0.40	2.90	0.20
170	33	152	150.00	100.00	120.00	-181.00	-0.30	-1.20	-0.20
175	56	68	165.00	100.00	120.00	649.00	1.00	13.00	2.10
176	68	136	726.00	44.00	130.00	20.00	0.20	1.00	0.70
177	136	137	512.00	44.00	130.00	-22.00	-0.20	-1.20	-0.60
178	137	187	277.00	140.00	130.00	64.00	0.10	0.00	0.00
182	71	124	400.00	225.00	120.00	-140.00	0.00	0.00	0.00
183	15	124	441.00	225.00	120.00	251.00	0.10	0.00	0.00
184	15	16	177.00	150.00	120.00	1,025.00	0.70	4.20	0.80
185	16	121	286.00	100.00	120.00	359.00	0.50	4.40	1.30
186	120	121	1,210.00	75.00	120.00	-183.00	-0.50	-5.10	-6.10
187	16	125	850.00	100.00	120.00	391.00	0.60	5.10	4.30
191	122	209	120.00	225.00	120.00	-179.00	-0.10	0.00	0.00
193	125	126	396.00	100.00	120.00	353.00	0.50	4.20	1.70
194	126	128	668.00	65.00	130.00	92.00	0.30	2.50	1.60
195	126	127	1,047.00	65.00	130.00	87.00	0.30	2.20	2.30
196	128	129	90.00	65.00	130.00	30.00	0.10	0.30	0.00
197	129	130	60.00	44.00	130.00	17.00	0.10	0.80	0.10
198	130	131	88.00	37.00	130.00	6.00	0.10	0.30	0.00
199	62	520	569.00	100.00	120.00	102.00	0.10	0.40	0.20
200	41	42	237.00	100.00	120.00	61.00	0.10	0.20	0.00
201	30	113	250.00	150.00	120.00	-672.00	-0.40	-1.90	-0.50
203	5	36	105.00	150.00	120.00	420.00	0.30	0.80	0.10
179	187	300	500.00	150.00	120.00	-59.00	0.00	0.00	0.00
250	136	301	215.00	65.00	130.00	-72.00	-0.30	-1.60	-0.30
209	160	300	152.00	150.00	120.00	-100.00	-0.10	-0.10	0.00
213	62	524	334.00	97.00	130.00	-771.00	-1.20	-17.90	-6.00
214	30	503	334.00	100.00	120.00	378.00	0.60	4.80	1.60
215	112	511	132.00	75.00	120.00	-47.00	-0.10	-0.40	-0.10
216	500	501	100.00	140.00	130.00	37.00	0.00	0.00	0.00
217	154	501	104.00	65.00	130.00	48.00	0.20	0.70	0.10
218	186	501	221.00	140.00	130.00	-324.00	-0.20	-0.60	-0.10
110	118	503	167.00	75.00	120.00	-254.00	-0.70	-9.40	-1.60
300	215	301	554.00	100.00	120.00	195.00	0.30	1.40	0.80
208	215	300	250.00	100.00	120.00	235.00	0.30	2.00	0.50
17	205	527	250.00	100.00	120.00	110.00	0.20	0.50	0.10
172	15	153	577.00	150.00	120.00	879.00	0.60	3.20	1.80
302	10	70	480.00	150.00	120.00	-40.00	0.00	0.00	0.00
304	24	25	55.00	100.00	120.00	28.00	0.00	0.00	0.00

Net Work Analysis   Distribution Main   D

Pipe No.	Node A	Node B	Length (m)	Diameter (mm)	C	Flow (cum/d)	Velocity (m/s)	Pressure Gradient (o/oo)	Loss (m)
305	55	172	50.00	100.00	120.00	73.00	0.10	0.20	0.00
306	20	172	50.00	100.00	120.00	-118.00	-0.20	-0.60	0.00
307	23	25	75.00	100.00	120.00	26.00	0.00	0.00	0.00
308	40	178	150.00	150.00	120.00	89.00	0.10	0.10	0.00
77	39	40	180.00	100.00	120.00	200.00	0.30	1.50	0.30
78	40	189	60.00	100.00	120.00	47.00	0.10	0.10	0.00
79	100	101	450.00	44.00	130.00	-18.00	-0.10	-0.80	-0.40
309	41	42	150.00	150.00	120.00	227.00	0.10	0.30	0.00
310	119	521	350.00	65.00	130.00	165.00	0.60	7.30	2.50
311	521	522	350.00	65.00	130.00	82.00	0.30	2.00	0.70
313	33	35	150.00	100.00	120.00	98.00	0.10	0.40	0.10
301	11	523	120.00	150.00	120.00	-416.00	-0.30	-0.80	-0.10
314	59	523	180.00	100.00	120.00	499.00	0.70	8.00	1.40
315	502	524	150.00	75.00	120.00	-129.00	-0.30	-2.70	-0.40
317	524	600	450.00	97.00	130.00	-983.00	-1.50	-28.10	-12.60
319	525	526	210.00	75.00	120.00	-82.00	-0.20	-1.20	-0.20
321	527	528	480.00	65.00	130.00	257.00	0.90	16.40	7.90
322	134	528	200.00	65.00	130.00	-208.00	-0.70	-11.20	-2.20
11	165	601	75.00	65.00	130.00	-163.00	-0.60	-7.10	-0.50
324	188	527	50.00	65.00	130.00	-441.00	-1.50	-44.70	-2.20
325	122	123	160.00	140.00	130.00	105.00	0.10	0.10	0.00
327	56	59	352.00	140.00	130.00	504.00	0.40	1.40	0.50
328	1	49	264.00	158.00	130.00	833.00	0.50	1.90	0.50
329	206	527	215.00	150.00	120.00	636.00	0.40	1.70	0.40
330	156	541	931.00	100.00	120.00	926.00	1.40	25.20	23.40
331	112	540	434.00	97.00	130.00	693.00	1.10	14.70	6.40
601	91	139	162.00	150.00	120.00	463.00	0.30	1.00	0.20
602	91	161	225.00	65.00	130.00	17.00	0.10	0.10	0.00
603	70	93	662.00	150.00	120.00	-327.00	-0.20	-0.50	-0.30
605	93	132	616.00	150.00	120.00	-434.00	-0.30	-0.90	-0.50
606	93	185	300.00	150.00	120.00	106.00	0.10	0.10	0.00
607	56	602	1,000.00	200.00	120.00	-1,425.00	-0.50	-1.90	-1.90
212	22	54	275.00	150.00	120.00	761.00	0.50	2.40	0.70
610	122	160	931.00	225.00	120.00	-69.00	0.00	0.00	0.00
611	91	92	228.00	150.00	120.00	-481.00	-0.30	-1.00	-0.20
612	92	135	690.00	100.00	120.00	-481.00	-0.70	-7.50	-5.20
613	604	610	200.00	97.00	130.00	58.00	0.10	0.10	0.00
614	105	612	250.00	44.00	130.00	-58.00	-0.40	-7.10	-1.80
616	174	542	569.00	97.00	130.00	-168.00	-0.30	-1.10	-0.60
701	186	606	500.00	250.00	120.00	-3,048.00	-0.70	-2.60	-1.30
702	169	603	50.00	55.00	130.00	-35.00	-0.20	-1.00	-0.10
703	15	153	577.00	140.00	130.00	794.00	0.60	3.20	1.80
705	16	125	850.00	65.00	130.00	136.00	0.50	5.10	4.30
713	102	103	350.00	198.00	130.00	1,449.00	0.50	1.80	0.60
714	103	106	400.00	198.00	130.00	1,393.00	0.50	1.70	0.70
715	28	106	250.00	198.00	130.00	-1,345.00	-0.50	-1.60	-0.40
716	28	107	40.00	198.00	130.00	798.00	0.30	0.60	0.00
717	107	108	200.00	198.00	130.00	734.00	0.30	0.50	0.10
718	108	109	120.00	198.00	130.00	675.00	0.30	0.40	0.10
719	109	511	400.00	198.00	130.00	647.00	0.20	0.40	0.20
720	112	511	132.00	198.00	130.00	-666.00	-0.30	-0.40	-0.10
731	113	114	265.00	140.00	130.00	231.00	0.20	0.30	0.10
732	114	117	500.00	140.00	130.00	149.00	0.10	0.10	0.10
741	179	208	104.00	140.00	130.00	-357.00	-0.30	-0.70	-0.10
751	610	611	630.00	97.00	130.00	58.00	0.10	0.10	0.10
752	611	612	610.00	65.00	130.00	58.00	0.20	1.10	0.60
761	50	542	1,044.00	97.00	130.00	-392.00	-0.60	-5.10	-5.30
762	68	542	165.00	97.00	130.00	560.00	0.90	9.90	1.60
771	101	102	120.00	140.00	130.00	-433.00	-0.30	-1.00	-0.10
772	100	101	450.00	140.00	130.00	-380.00	-0.30	-0.80	-0.40
773	41	100	120.00	140.00	130.00	-343.00	-0.30	-0.70	-0.10
781	5	6	221.00	250.00	120.00	2,211.00	0.50	1.50	0.30
782	6	27	150.00	250.00	120.00	2,113.00	0.50	1.30	0.20
783	27	181	1,106.00	250.00	120.00	2,171.00	0.50	1.40	1.60
784	102	181	92.00	250.00	120.00	-2,068.00	-0.50	-1.30	-0.10
791	151	186	450.00	140.00	130.00	-108.00	-0.10	-0.10	0.00
792	13	151	35.00	140.00	130.00	96.00	0.10	0.10	0.00
793	13	14	475.00	140.00	130.00	-252.00	-0.20	-0.40	-0.20
794	14	153	236.00	140.00	130.00	-440.00	-0.30	-1.10	-0.30
795	154	501	104.00	140.00	130.00	361.00	0.30	0.70	0.10
796	153	154	165.00	140.00	130.00	456.00	0.30	1.10	0.20

Net Work Analysis   Distribution Main

File Name   Nuwara012Year2015Mean(2) E
Season   Dry
Network Type   Proposed

Demand   Year 2015
            Day Mean
Reserver   Water Level Fix   Except for Follows
            Discharge Fix   No.205,206,215,209

Magnification of Demand   0.811

Reservoir Data

Node		HWL (MSL)	LWL (MSL)	Reservoir
203	1	1,927.0	1,927.0	Haddon Hill
208	1	1,930.0	1,930.0	Bonavista
600	1	1,946.0	1,946.0	Nseby
601	1	1,991.0	1,991.0	Piyatisappura
602	1	1,948.0	1,948.0	New Pedro Reserver
603	1	1,980.0	1,980.0	Unique View
604	1	1,925.0	1,925.0	Vijithapura
606	1	1,920.0	1,920.0	New Loe Area 2

Node Data

Node		Ground Elev (MSL)	Demand (cum/d)		
1	1	1,881.7	122.0	0	0
2	1	1,885.1	70.0	0	0
4	1	1,881.8	76.0	0	0
5	1	1,881.3	40.0	0	0
6	1	1,883.7	76.0	0	0
9	1	1,881.2	133.0	0	0
10	1	1,903.4	25.0	0	0
11	1	1,902.1	86.0	0	0
12	1	1,880.5	66.0	0	0
13	1	1,874.2	51.0	0	0
14	1	1,865.6	66.0	0	0
15	1	1,860.5	61.0	0	0
16	1	1,860.5	85.0	0	0
18	1	1,885.1	107.0	0	0
19	1	1,885.8	85.0	0	0
22	1	1,889.4	79.0	0	0
23	1	1,887.3	82.0	0	0
24	1	1,887.7	117.0	0	0
25	1	1,887.0	51.0	0	0
27	1	1,882.3	75.0	0	0
28	1	1,879.2	26.0	0	0
29	1	1,892.4	13.0	0	0
30	1	1,882.6	80.0	0	0
31	1	1,882.0	93.0	0	0
36	1	1,889.3	51.0	0	0
37	1	1,891.4	47.0	0	0
38	1	1,893.9	42.0	0	0
39	1	1,914.9	50.0	0	0
41	1	1,899.2	44.0	0	0
42	1	1,896.1	38.0	0	0
43	1	1,894.8	40.0	0	0
44	1	1,893.4	54.0	0	0
45	1	1,884.9	67.0	0	0
46	1	1,878.2	127.0	0	0
47	1	1,880.7	36.0	0	0
48	1	1,880.2	101.0	0	0
49	1	1,881.1	160.0	0	0
50	1	1,886.3	144.0	0	0
51	1	1,895.4	47.0	0	0
52	1	1,889.1	97.0	0	0
55	1	1,886.2	89.0	0	0
56	1	1,902.7	49.0	0	0
57	1	1,884.1	93.0	0	0
58	1	1,890.9	119.0	0	0
60	1	1,889.9	100.0	0	0
61	1	1,885.4	50.0	0	0

管網計算結果1.xlsDATA E

62	1	1,890.2	76.0	0	0
63	1	1,878.7	38.0	0	0
64	1	1,876.5	44.0	0	0
66	1	1,910.0	40.0	0	0
67	1	1,921.5	38.0	0	0
68	1	1,918.6	42.0	0	0
69	1	1,879.5	50.0	0	0
70	1	1,904.5	132.0	0	0
71	1	1,894.5	87.0	0	0
100	1	1,896.6	33.0	0	0
101	1	1,885.9	25.0	0	0
102	1	1,876.7	37.0	0	0
103	1	1,883.1	50.0	0	0
104	1	1,916.3	19.0	0	0
105	1	1,903.9	17.0	0	0
106	1	1,881.3	43.0	0	0
107	1	1,880.1	32.0	0	0
108	1	1,884.1	30.0	0	0
109	1	1,884.6	20.0	0	0
112	1	1,900.7	0.0	0	0
113	1	1,878.5	29.0	0	0
114	1	1,897.3	57.0	0	0
117	1	1,907.5	59.0	0	0
118	1	1,889.0	37.0	0	0
119	1	1,889.1	64.0	0	0
120	1	1,871.2	113.0	0	0
121	1	1,862.6	109.0	0	0
122	1	1,950.0	89.0	0	0
123	1	1,927.3	65.0	0	0
124	1	1,879.6	68.0	0	0
125	1	1,886.2	108.0	0	0
126	1	1,894.1	107.0	0	0
127	1	1,874.9	54.0	0	0
128	1	1,896.4	38.0	0	0
129	1	1,896.0	8.0	0	0
130	1	1,886.4	7.0	0	0
131	1	1,875.8	4.0	0	0
132	1	1,886.8	51.0	0	0
133	1	1,898.7	18.0	0	0
134	1	1,924.5	54.0	0	0
135	1	1,915.7	58.0	0	0
136	1	1,944.8	71.0	0	0
137	1	1,905.0	118.0	0	0
139	1	1,905.8	165.0	0	0
140	1	1,899.4	31.0	0	0
141	1	1,890.2	99.0	0	0
142	1	1,883.9	103.0	0	0
143	1	1,888.7	110.0	0	0
144	1	1,907.4	39.0	0	0
145	1	1,909.3	6.0	0	0
146	1	1,876.5	54.0	0	0
147	1	1,878.9	98.0	0	0
148	1	1,889.6	63.0	0	0
149	1	1,901.1	28.0	0	0
150	1	1,899.4	118.0	0	0
151	1	1,874.4	76.0	0	0
152	1	1,865.9	66.0	0	0
153	1	1,862.7	71.0	0	0
154	1	1,864.7	66.0	0	0
155	1	1,867.6	22.0	0	0
156	1	1,884.8	40.0	0	0
157	1	1,881.9	24.0	0	0
158	1	1,880.3	24.0	0	0
160	1	1,903.2	19.0	0	0
161	1	1,905.3	11.0	0	0
162	1	1,891.8	38.0	0	0
163	1	1,899.3	7.0	0	0
164	1	1,919.8	4.0	0	0
165	1	1,962.5	101.0	0	0
166	1	1,899.0	18.0	0	0
169	1	1,917.8	22.0	0	0
170	1	1,893.3	13.0	0	0
171	1	1,909.7	19.0	0	0
21	1	1,885.1	97.0	0	0
20	1	1,885.9	83.0	0	0

174	1	1,902.4	104.0	0	0
53	1	1,895.7	97.0	0	0
176	1	1,895.0	23.0	0	0
177	1	1,897.3	23.0	0	0
178	1	1,912.8	55.0	0	0
179	1	1,917.5	25.0	0	0
181	1	1,881.0	80.0	0	0
182	1	1,891.9	13.0	0	0
183	1	1,899.2	12.0	0	0
185	1	1,902.8	66.0	0	0
186	1	1,885.4	66.0	0	0
187	1	1,903.2	76.0	0	0
188	1	1,931.7	8.0	0	0
189	1	1,921.8	29.0	0	0
300	1	1,903.6	47.0	0	0
301	1	1,951.4	76.0	0	0
59	1	1,900.0	122.0	0	0
500	1	1,892.8	25.0	0	0
501	1	1,886.6	76.0	0	0
502	1	1,885.6	80.0	0	0
503	1	1,884.2	76.0	0	0
510	1	1,914.5	51.0	0	0
511	1	1,892.1	20.0	0	0
520	1	1,913.6	63.0	0	0
304	1	1,900.4	70.0	0	0
172	1	1,886.0	51.0	0	0
173	1	1,916.0	51.0	0	0
521	1	1,886.0	51.0	0	0
522	1	1,880.0	51.0	0	0
523	1	1,903.0	51.0	0	0
524	1	1,887.0	51.0	0	0
525	1	1,881.0	51.0	0	0
526	1	1,882.0	51.0	0	0
527	1	1,931.0	30.0	0	0
528	1	1,943.0	30.0	0	0
33	1	1,867.0	51.0	0	0
35	1	1,870.0	61.0	0	0
40	1	1,920.0	40.0	0	0
54	1	1,886.0	51.0	0	0
91	1	1,899.4	0.0	0	0
92	1	1,895.4	0.0	0	0
93	1	1,882.0	0.0	0	0
540	1	1,930.0	694.0	0	0
541	1	1,980.0	928.0	0	0
542	1	1,889.1	0.0	0	0
610	1	1,900.0	0.0	0	0
611	1	1,884.6	0.0	0	0
612	1	1,881.3	0.0	0	0
205	1	1,947.0	-68.0	0	0
206	1	1,947.0	-393.0	0	0
215	1	1,947.0	-266.0	0	0
209	1	1,947.0	-111.0	0	0

Booster Pump Data

No.	Type	Node A	Node B	Pipe No.	Pressure (m)
1	B	156	541	330	75.0
2	B	112	540	331	16.0

Pipe Data

Pipe No.	Node A	Node B	Diameter (mm)	Length (m)	C Value
1	139	510	225.0	800.0	120.0
2	139	304	44.0	374.0	130.0
5	51	140	150.0	228.0	120.0
6	162	163	44.0	143.0	130.0
7	51	162	150.0	20.0	120.0
9	134	135	65.0	178.0	130.0
12	134	164	44.0	84.0	130.0
13	66	135	150.0	265.0	120.0
14	50	66	100.0	530.0	120.0
15	50	67	100.0	583.0	120.0
16	67	188	100.0	165.0	120.0
20	21	54	150.0	59.0	120.0
21	21	23	100.0	88.0	120.0
22	23	24	150.0	55.0	120.0
23	20	24	100.0	90.0	120.0
24	20	21	150.0	66.0	120.0
26	25	52	100.0	110.0	120.0
27	52	53	100.0	176.0	120.0
28	53	60	100.0	100.0	120.0
29	18	60	100.0	134.0	120.0
30	18	19	150.0	54.0	120.0
31	19	52	100.0	151.0	120.0
32	19	55	100.0	133.0	120.0
33	54	172	100.0	100.0	120.0
34	9	18	225.0	315.0	120.0
35	9	48	100.0	47.0	120.0
36	1	48	225.0	265.0	120.0
37	48	49	100.0	201.0	120.0
38	22	49	150.0	672.0	120.0
39	22	51	150.0	596.0	120.0
40	49	148	100.0	536.0	120.0
41	148	171	50.0	372.0	120.0
42	69	148	100.0	325.0	120.0
43	46	69	150.0	90.0	120.0
44	69	149	100.0	551.0	120.0
45	1	49	100.0	264.0	120.0
46	1	46	225.0	401.0	120.0
47	46	47	100.0	268.0	120.0
48	47	64	100.0	268.0	120.0
49	63	64	300.0	444.0	120.0
50	46	63	225.0	268.0	120.0
51	63	158	300.0	47.0	120.0
52	158	166	50.0	358.0	120.0
53	157	158	300.0	77.0	120.0
54	157	170	44.0	264.0	130.0
55	156	157	300.0	300.0	120.0
56	2	156	300.0	100.0	120.0
61	2	203	350.0	704.0	120.0
62	2	4	225.0	442.0	120.0
63	4	5	225.0	65.0	120.0
64	4	61	65.0	972.0	130.0
65	5	6	150.0	221.0	120.0
66	6	27	150.0	150.0	120.0
67	27	37	100.0	216.0	120.0
68	36	37	150.0	400.0	120.0
69	36	38	100.0	563.0	120.0
70	37	38	150.0	30.0	120.0
72	27	181	150.0	1,106.0	120.0
74	39	173	44.0	320.0	130.0
76	102	181	150.0	92.0	120.0
80	39	179	150.0	125.0	120.0
82	179	208	65.0	104.0	130.0
83	102	103	150.0	350.0	120.0
84	101	102	44.0	120.0	130.0
86	41	100	44.0	120.0	130.0
87	100	101	37.0	312.0	130.0
88	42	43	100.0	257.0	120.0
89	42	43	100.0	257.0	120.0
90	43	44	150.0	268.0	120.0
91	44	177	100.0	391.0	120.0
92	44	176	100.0	391.0	120.0
93	176	177	100.0	90.0	120.0

99	29	112	65.0	251.0	130.0
100	109	511	100.0	400.0	120.0
101	108	109	100.0	120.0	120.0
102	108	183	44.0	228.0	130.0
103	107	108	100.0	200.0	120.0
104	107	182	44.0	253.0	130.0
105	28	107	100.0	40.0	120.0
106	28	113	150.0	66.0	120.0
107	113	114	65.0	265.0	130.0
108	114	117	65.0	500.0	130.0
109	117	118	44.0	318.0	130.0
111	118	119	75.0	248.0	120.0
113	28	106	150.0	250.0	120.0
114	103	106	150.0	400.0	120.0
116	104	105	44.0	300.0	130.0
118	30	526	100.0	210.0	120.0
119	62	132	150.0	1,500.0	120.0
120	155	500	140.0	175.0	130.0
125	132	133	44.0	363.0	130.0
127	31	64	225.0	167.0	120.0
129	70	144	100.0	284.0	120.0
130	144	145	44.0	121.0	130.0
132	45	47	150.0	162.0	120.0
133	9	45	100.0	761.0	120.0
134	9	57	100.0	25.0	120.0
135	57	58	100.0	120.0	120.0
136	58	60	100.0	262.0	120.0
138	56	59	97.0	352.0	130.0
140	58	143	100.0	168.0	120.0
141	142	143	50.0	264.0	120.0
142	57	142	100.0	202.0	120.0
143	141	142	100.0	99.0	120.0
146	12	150	150.0	360.0	120.0
147	12	151	150.0	163.0	120.0
148	13	151	150.0	35.0	120.0
149	151	186	140.0	450.0	130.0
151	154	155	100.0	132.0	120.0
160	153	154	100.0	165.0	120.0
161	14	153	150.0	236.0	120.0
162	13	14	150.0	475.0	120.0
163	13	146	150.0	35.0	120.0
164	146	147	150.0	137.0	120.0
167	11	137	150.0	663.0	120.0
168	14	152	100.0	66.0	120.0
170	33	152	100.0	150.0	120.0
175	56	68	100.0	165.0	120.0
176	68	136	44.0	726.0	130.0
177	136	137	44.0	512.0	130.0
178	137	187	140.0	277.0	130.0
182	71	124	225.0	400.0	120.0
183	15	124	225.0	441.0	120.0
184	15	16	150.0	177.0	120.0
185	16	121	100.0	286.0	120.0
186	120	121	75.0	1,210.0	120.0
187	16	125	100.0	850.0	120.0
191	122	209	225.0	120.0	120.0
193	125	126	100.0	396.0	120.0
194	126	128	65.0	668.0	130.0
195	126	127	65.0	1,047.0	130.0
196	128	129	65.0	90.0	130.0
197	129	130	44.0	60.0	130.0
198	130	131	37.0	88.0	130.0
199	62	520	100.0	569.0	120.0
200	41	42	100.0	237.0	120.0
201	30	113	150.0	250.0	120.0
203	5	36	150.0	105.0	120.0
179	187	300	150.0	500.0	120.0
250	136	301	65.0	215.0	130.0
209	160	300	150.0	152.0	120.0
213	62	524	97.0	334.0	130.0
214	30	503	100.0	334.0	120.0
215	112	511	75.0	132.0	120.0
216	500	501	140.0	100.0	130.0
217	154	501	65.0	104.0	130.0
218	186	501	140.0	221.0	130.0

110	118	503	75.0	167.0	120.0
300	215	301	100.0	554.0	120.0
208	215	300	100.0	250.0	120.0
17	205	527	100.0	250.0	120.0
172	15	153	150.0	577.0	120.0
302	10	70	150.0	480.0	120.0
304	24	25	100.0	55.0	120.0
305	55	172	100.0	50.0	120.0
306	20	172	100.0	50.0	120.0
307	23	25	100.0	75.0	120.0
308	40	178	150.0	150.0	120.0
77	39	40	100.0	180.0	120.0
78	40	189	100.0	60.0	120.0
79	100	101	44.0	450.0	130.0
309	41	42	150.0	150.0	120.0
310	119	521	65.0	350.0	130.0
311	521	522	65.0	350.0	130.0
313	33	35	100.0	150.0	120.0
301	11	523	150.0	120.0	120.0
314	59	523	100.0	180.0	120.0
315	502	524	75.0	150.0	120.0
317	524	600	97.0	450.0	130.0
319	525	526	75.0	210.0	120.0
321	527	528	65.0	480.0	130.0
322	134	528	65.0	200.0	130.0
11	165	601	65.0	75.0	130.0
324	188	527	65.0	50.0	130.0
325	122	123	140.0	160.0	130.0
327	56	59	140.0	352.0	130.0
328	1	49	158.0	264.0	130.0
329	206	527	150.0	215.0	120.0
330	156	541	100.0	931.0	120.0
331	112	540	97.0	434.0	130.0
601	91	139	150.0	162.0	120.0
602	91	161	65.0	225.0	130.0
603	70	93	150.0	662.0	120.0
605	93	132	150.0	616.0	120.0
606	93	185	150.0	300.0	120.0
607	56	602	200.0	1,000.0	120.0
212	22	54	150.0	275.0	120.0
610	122	160	225.0	931.0	120.0
611	91	92	150.0	228.0	120.0
612	92	135	100.0	690.0	120.0
613	604	610	97.0	200.0	130.0
614	105	612	44.0	250.0	130.0
616	174	542	97.0	569.0	130.0
701	15	606	250.0	500.0	120.0
702	169	603	55.0	50.0	130.0
703	15	153	140.0	577.0	130.0
705	16	125	65.0	850.0	130.0
713	102	103	198.0	350.0	130.0
714	103	106	198.0	400.0	130.0
715	28	106	198.0	250.0	130.0
716	28	107	198.0	40.0	130.0
717	107	108	198.0	200.0	130.0
718	108	109	198.0	120.0	130.0
719	109	511	198.0	400.0	130.0
720	112	511	198.0	132.0	130.0
731	113	114	140.0	265.0	130.0
732	114	117	140.0	500.0	130.0
741	179	208	140.0	104.0	130.0
751	610	611	97.0	630.0	130.0
752	611	612	65.0	610.0	130.0
761	50	542	97.0	1,044.0	130.0
762	68	542	97.0	165.0	130.0
771	101	102	140.0	120.0	130.0
772	100	101	140.0	450.0	130.0
773	41	100	140.0	120.0	130.0
781	5	6	250.0	221.0	120.0
782	6	27	250.0	150.0	120.0
783	27	181	250.0	1,106.0	120.0
784	102	181	250.0	92.0	120.0
791	151	186	140.0	450.0	130.0
792	13	151	140.0	35.0	130.0
793	13	14	140.0	475.0	130.0

794	14	153	140.0	236.0	130.0
795	154	501	140.0	104.0	130.0
796	153	154	140.0	165.0	130.0

Net Work Analysis　　　　Distribution Main　　　　E

Node No.	Elevation of Pipe (MSL)	Demand (cum/d)	Dynamic Pressure (MSL)	Dynamic Pressure (m)	Static Pressure (m)			Leakage (cum/d)
1	1,881.7	98.8	1,924.6	42.9	109.3	0.0	0.0	25.0
2	1,885.1	56.7	1,926.0	40.9	105.9	0.0	0.0	23.7
4	1,881.8	61.6	1,925.2	43.4	109.2	0.0	0.0	25.3
5	1,881.3	32.4	1,925.1	43.8	109.7	0.0	0.0	25.5
6	1,883.7	61.6	1,925.0	41.3	107.3	0.0	0.0	23.9
9	1,881.2	107.7	1,923.5	42.3	109.8	0.0	0.0	24.6
10	1,903.4	20.3	1,940.1	36.7	87.6	0.0	0.0	21.0
11	1,902.1	69.7	1,946.9	44.8	88.9	0.0	0.0	26.2
12	1,880.5	53.5	1,919.0	38.5	110.5	0.0	0.0	22.2
13	1,874.2	41.3	1,919.0	44.8	116.8	0.0	0.0	26.2
14	1,865.6	53.5	1,919.1	53.5	125.4	0.0	0.0	31.8
15	1,860.5	49.4	1,919.6	59.1	130.5	0.0	0.0	35.6
16	1,860.5	68.8	1,919.4	58.9	130.5	0.0	0.0	35.4
18	1,885.1	86.7	1,923.4	38.3	105.9	0.0	0.0	22.1
19	1,885.8	68.8	1,923.4	37.6	105.2	0.0	0.0	21.6
22	1,889.4	64.0	1,923.6	34.1	101.6	0.0	0.0	19.4
23	1,887.3	66.4	1,923.3	36.0	103.7	0.0	0.0	20.6
24	1,887.7	94.8	1,923.3	35.6	103.3	0.0	0.0	20.4
25	1,887.0	41.3	1,923.3	36.3	104.0	0.0	0.0	20.8
27	1,882.3	60.8	1,924.9	42.6	108.7	0.0	0.0	24.8
28	1,879.2	21.1	1,923.6	44.4	111.8	0.0	0.0	25.9
29	1,892.4	10.5	1,923.3	30.9	98.6	0.0	0.0	17.4
30	1,882.6	64.8	1,923.4	40.8	108.4	0.0	0.0	23.6
31	1,882.0	75.3	1,925.6	43.6	109.0	0.0	0.0	25.4
36	1,889.3	41.3	1,925.0	35.7	101.7	0.0	0.0	20.4
37	1,891.4	38.1	1,925.0	33.6	99.6	0.0	0.0	19.1
38	1,893.9	34.0	1,925.0	31.1	97.1	0.0	0.0	17.5
39	1,914.9	40.5	1,930.0	15.1	76.1	0.0	0.0	7.9
41	1,899.2	35.6	1,924.1	24.9	91.8	0.0	0.0	13.7
42	1,896.1	30.8	1,924.1	28.0	94.9	0.0	0.0	15.6
43	1,894.8	32.4	1,924.1	29.3	96.2	0.0	0.0	16.4
44	1,893.4	43.7	1,924.1	30.6	97.6	0.0	0.0	17.3
45	1,884.9	54.3	1,925.0	40.1	106.1	0.0	0.0	23.2
46	1,878.2	102.9	1,925.1	46.9	112.8	0.0	0.0	27.6
47	1,880.7	29.2	1,925.0	44.3	110.3	0.0	0.0	25.9
48	1,880.2	81.8	1,924.4	44.2	110.8	0.0	0.0	25.9
49	1,881.1	129.6	1,924.4	43.3	109.9	0.0	0.0	25.3
50	1,886.3	116.6	1,944.9	58.6	104.7	0.0	0.0	35.3
51	1,895.4	38.1	1,923.5	28.1	95.6	0.0	0.0	15.7
52	1,889.1	78.6	1,923.3	34.2	101.9	0.0	0.0	19.5
55	1,886.2	72.1	1,923.4	37.2	104.8	0.0	0.0	21.3
56	1,902.7	39.7	1,947.5	44.8	88.3	0.0	0.0	26.2
57	1,884.1	75.3	1,923.4	39.3	106.9	0.0	0.0	22.7
58	1,890.9	96.4	1,923.3	32.4	100.1	0.0	0.0	18.3
60	1,889.9	81.0	1,923.3	33.4	101.1	0.0	0.0	19.0
61	1,885.4	40.5	1,924.7	39.3	105.6	0.0	0.0	22.7
62	1,890.2	61.6	1,940.8	50.6	100.8	0.0	0.0	30.0
63	1,878.7	30.8	1,925.6	46.9	112.3	0.0	0.0	27.6
64	1,876.5	35.6	1,925.6	49.1	114.5	0.0	0.0	29.0
66	1,910.0	32.4	1,943.7	33.6	81.0	0.0	0.0	19.1
67	1,921.5	30.8	1,945.7	24.2	69.5	0.0	0.0	13.3
68	1,918.6	34.0	1,946.9	28.3	72.4	0.0	0.0	15.8
69	1,879.5	40.5	1,925.1	45.6	111.5	0.0	0.0	26.7
70	1,904.5	106.9	1,940.1	35.6	86.5	0.0	0.0	20.3
71	1,894.5	70.5	1,919.6	25.1	96.5	0.0	0.0	13.9
100	1,896.6	26.7	1,924.1	27.5	94.4	0.0	0.0	15.3
101	1,885.9	20.3	1,924.2	38.3	105.1	0.0	0.0	22.1
102	1,876.7	30.0	1,924.3	47.6	114.3	0.0	0.0	28.0
103	1,883.1	40.5	1,924.0	40.9	107.9	0.0	0.0	23.7
104	1,916.3	15.4	1,929.1	12.8	74.7	0.0	0.0	6.6
105	1,903.9	13.8	1,929.3	25.4	87.1	0.0	0.0	14.0
106	1,881.3	34.8	1,923.8	42.5	109.7	0.0	0.0	24.7
107	1,880.1	25.9	1,923.6	43.5	110.9	0.0	0.0	25.4
108	1,884.1	24.3	1,923.5	39.4	106.9	0.0	0.0	22.8
109	1,884.6	16.2	1,923.5	38.9	106.4	0.0	0.0	22.4
112	1,900.7	0.0	1,923.4	22.7	90.3	0.0	0.0	12.4
113	1,878.5	23.5	1,923.5	45.0	112.5	0.0	0.0	26.4
114	1,897.3	46.2	1,923.5	26.2	93.7	0.0	0.0	14.5
117	1,907.5	47.8	1,923.5	16.0	83.5	0.0	0.0	8.4
118	1,889.0	30.0	1,922.5	33.5	102.0	0.0	0.0	19.1
119	1,889.1	51.8	1,921.8	32.7	101.9	0.0	0.0	18.6
120	1,871.2	91.5	1,917.4	46.2	119.8	0.0	0.0	27.1
121	1,862.6	88.3	1,919.1	56.5	128.4	0.0	0.0	33.8
122	1,950.0	72.1	1,946.8	-3.2	41.0	0.0	0.0	0.0
123	1,927.3	52.6	1,946.8	19.5	63.7	0.0	0.0	10.5
124	1,879.6	55.1	1,919.6	40.0	111.4	0.0	0.0	23.2
125	1,886.2	87.5	1,918.2	32.0	104.8	0.0	0.0	18.1

Net Work Analysis

Node No.	Elevation of Pipe (MSL)	Demand (cum/d)	Dynamic Pressure (MSL)	Distribution Main Dynamic Pressure (m)	Static Pressure (m)	E		Leakage (cum/d)
126	1,894.1	86.7	1,917.8	23.7	96.9	0.0	0.0	13.0
127	1,874.9	43.7	1,917.1	42.2	116.1	0.0	0.0	24.6
128	1,896.4	30.8	1,917.3	20.9	94.6	0.0	0.0	11.3
129	1,896.0	6.5	1,917.3	21.3	95.0	0.0	0.0	11.6
130	1,886.4	5.7	1,917.3	30.9	104.6	0.0	0.0	17.4
131	1,875.8	3.2	1,917.3	41.5	115.2	0.0	0.0	24.1
132	1,886.8	41.3	1,940.3	53.5	104.2	0.0	0.0	31.9
133	1,898.7	14.6	1,940.1	41.4	92.3	0.0	0.0	24.0
134	1,924.5	43.7	1,943.8	19.3	66.5	0.0	0.0	10.4
135	1,915.7	47.0	1,943.6	27.9	75.3	0.0	0.0	15.6
136	1,944.8	57.5	1,946.7	1.9	46.2	0.0	0.0	0.8
137	1,905.0	95.6	1,946.8	41.8	86.0	0.0	0.0	24.3
139	1,905.8	133.7	1,942.0	36.2	85.2	0.0	0.0	20.8
140	1,899.4	25.1	1,923.5	24.1	91.6	0.0	0.0	13.3
141	1,890.2	80.2	1,923.2	33.0	100.8	0.0	0.0	18.7
142	1,883.9	83.4	1,923.2	39.3	107.1	0.0	0.0	22.7
143	1,888.7	89.1	1,923.2	34.5	102.3	0.0	0.0	19.7
144	1,907.4	31.6	1,940.0	32.6	83.6	0.0	0.0	18.5
145	1,909.3	4.9	1,940.0	30.7	81.7	0.0	0.0	17.3
146	1,876.5	43.7	1,919.0	42.5	114.5	0.0	0.0	24.7
147	1,878.9	79.4	1,919.0	40.1	112.1	0.0	0.0	23.2
148	1,889.6	51.0	1,924.7	35.1	101.4	0.0	0.0	20.0
149	1,901.1	22.7	1,925.0	23.9	89.9	0.0	0.0	13.2
150	1,899.4	95.6	1,919.0	19.6	91.6	0.0	0.0	10.5
151	1,874.4	61.6	1,919.0	44.6	116.6	0.0	0.0	26.1
152	1,865.9	53.5	1,919.0	53.1	125.1	0.0	0.0	31.6
153	1,862.7	57.5	1,919.1	56.4	128.3	0.0	0.0	33.8
154	1,864.7	53.5	1,919.1	54.4	126.3	0.0	0.0	32.4
155	1,867.6	17.8	1,919.1	51.5	123.4	0.0	0.0	30.5
156	1,884.8	32.4	1,925.9	41.1	106.2	0.0	0.0	23.8
157	1,881.9	19.4	1,925.7	43.8	109.1	0.0	0.0	25.6
158	1,880.3	19.4	1,925.6	45.3	110.7	0.0	0.0	26.6
160	1,903.2	15.4	1,946.8	43.6	87.8	0.0	0.0	25.5
161	1,905.3	8.9	1,942.1	36.8	85.7	0.0	0.0	21.1
162	1,891.8	30.8	1,923.5	31.7	99.2	0.0	0.0	17.9
163	1,899.3	5.7	1,923.5	24.2	91.7	0.0	0.0	13.3
164	1,919.8	3.2	1,943.8	24.0	71.2	0.0	0.0	13.2
165	1,962.5	81.8	1,990.8	28.4	28.5	0.0	0.0	15.9
166	1,899.0	14.6	1,925.5	26.5	92.0	0.0	0.0	14.7
169	1,917.8	17.8	1,980.0	62.2	73.2	0.0	0.0	37.6
170	1,893.3	10.5	1,925.6	32.3	97.7	0.0	0.0	18.3
171	1,909.7	15.4	1,924.6	14.9	81.3	0.0	0.0	7.8
21	1,885.1	78.6	1,923.3	38.3	105.9	0.0	0.0	22.0
20	1,885.9	67.2	1,923.3	37.4	105.1	0.0	0.0	21.5
174	1,902.4	84.2	1,946.3	43.9	88.6	0.0	0.0	25.6
53	1,895.7	78.6	1,923.3	27.6	95.3	0.0	0.0	15.4
176	1,895.0	18.6	1,924.0	29.0	96.0	0.0	0.0	16.3
177	1,897.3	18.6	1,924.0	26.7	93.7	0.0	0.0	14.9
178	1,912.8	44.5	1,929.9	17.1	78.2	0.0	0.0	9.1
179	1,917.5	20.3	1,930.0	12.5	73.5	0.0	0.0	6.4
181	1,881.0	64.8	1,924.3	43.3	110.0	0.0	0.0	25.3
182	1,891.9	10.5	1,923.5	31.6	99.1	0.0	0.0	17.9
183	1,899.2	9.7	1,923.5	24.3	91.8	0.0	0.0	13.4
185	1,902.8	53.5	1,940.2	37.4	88.2	0.0	0.0	21.4
186	1,885.4	53.5	1,919.0	33.6	105.6	0.0	0.0	19.1
187	1,903.2	61.6	1,946.8	43.6	87.8	0.0	0.0	25.5
188	1,931.7	6.5	1,946.0	14.3	59.3	0.0	0.0	7.4
189	1,921.8	23.5	1,929.9	8.1	69.2	0.0	0.0	4.0
300	1,903.6	38.1	1,946.8	43.2	87.4	0.0	0.0	25.2
301	1,951.4	61.6	1,946.8	-4.6	39.6	0.0	0.0	0.0
59	1,900.0	98.8	1,947.3	47.3	91.0	0.0	0.0	27.9
500	1,892.8	20.3	1,919.1	26.3	98.2	0.0	0.0	14.6
501	1,886.6	61.6	1,919.1	32.5	104.4	0.0	0.0	18.4
502	1,885.6	64.8	1,942.4	56.8	105.4	0.0	0.0	34.0
503	1,884.2	61.6	1,923.0	38.8	106.8	0.0	0.0	22.4
510	1,914.5	41.3	1,942.0	27.5	76.5	0.0	0.0	15.4
511	1,892.1	16.2	1,923.4	31.3	98.9	0.0	0.0	17.7
520	1,913.6	51.0	1,940.8	27.2	77.4	0.0	0.0	15.1
304	1,900.4	56.7	1,939.5	39.1	90.6	0.0	0.0	22.6
172	1,886.0	41.3	1,923.3	37.4	105.0	0.0	0.0	21.5
173	1,916.0	41.3	1,928.8	12.8	75.0	0.0	0.0	6.6
521	1,886.0	41.3	1,921.1	35.1	105.0	0.0	0.0	20.1
522	1,880.0	41.3	1,920.9	40.9	111.0	0.0	0.0	23.7
523	1,903.0	41.3	1,946.9	43.9	88.0	0.0	0.0	25.7
524	1,887.0	41.3	1,942.5	55.5	104.0	0.0	0.0	33.2
525	1,881.0	41.3	1,923.3	42.3	110.0	0.0	0.0	24.6
526	1,882.0	41.3	1,923.3	41.3	109.0	0.0	0.0	24.0

Net Work Analysis

Node No.	Elevation of Pipe (MSL)	Demand (cum/d)	Dynamic Pressure (MSL)	Distribution Main Dynamic Pressure (m)	Static Pressure (m)	E		Leakage (cum/d)
527	1,931.0	24.3	1,946.6	15.6	60.0	0.0	0.0	8.2
528	1,943.0	24.3	1,944.4	1.4	48.0	0.0	0.0	0.6
33	1,867.0	41.3	1,919.0	52.0	124.0	0.0	0.0	30.9
35	1,870.0	49.4	1,918.9	48.9	121.0	0.0	0.0	28.9
40	1,920.0	32.4	1,929.9	9.9	71.0	0.0	0.0	5.0
54	1,886.0	41.3	1,923.4	37.4	105.0	0.0	0.0	21.5
91	1,899.4	0.0	1,942.1	42.7	91.6	0.0	0.0	24.9
92	1,895.4	0.0	1,942.2	46.8	95.6	0.0	0.0	27.5
93	1,882.0	0.0	1,940.2	58.1	109.0	0.0	0.0	34.9
540	1,930.0	562.1	1,935.0	5.0	61.0	0.0	0.0	2.4
541	1,980.0	751.7	1,985.0	5.0	11.0	0.0	0.0	2.4
542	1,889.1	0.0	1,946.4	57.3	101.9	0.0	0.0	34.4
610	1,900.0	0.0	1,930.0	30.0	91.0	0.0	0.0	16.9
611	1,884.6	0.0	1,930.0	45.4	106.4	0.0	0.0	26.6
612	1,881.3	0.0	1,929.8	48.5	109.7	0.0	0.0	28.6
205	1,947.0	-55.1	1,946.6	-0.4	44.0	0.0	0.0	0.0
206	1,947.0	-318.3	1,946.7	-0.3	44.0	0.0	0.0	0.0
215	1,947.0	-215.5	1,947.0	0.0	44.0	0.0	0.0	0.0
209	1,947.0	-89.9	1,946.8	-0.2	44.0	0.0	0.0	0.0

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Net Work Analysis   Distribution Main   E

Pipe No.	Node A	Node B	Length (m)	Diameter (mm)	C	Flow (cum/d)	Velocity (m/s)	Pressure Gradient (o/oo)	Loss (m)
1	139	510	800.00	225.00	120.00	41.00	0.00	0.00	0.00
2	139	304	374.00	44.00	130.00	56.00	0.40	6.70	2.50
5	51	140	228.00	150.00	120.00	25.00	0.00	0.00	0.00
6	162	163	143.00	44.00	130.00	5.00	0.00	0.10	0.00
7	51	162	20.00	150.00	120.00	36.00	0.00	0.00	0.00
9	134	135	178.00	65.00	130.00	57.00	0.20	1.00	0.20
12	134	164	84.00	44.00	130.00	3.00	0.00	0.00	0.00
13	66	135	265.00	150.00	120.00	230.00	0.10	0.30	0.10
14	50	66	530.00	100.00	120.00	262.00	0.40	2.40	1.30
15	50	67	583.00	100.00	120.00	-183.00	-0.30	-1.30	-0.70
16	67	188	165.00	100.00	120.00	-214.00	-0.30	-1.70	-0.30
20	21	54	59.00	150.00	120.00	-275.00	-0.20	-0.40	0.00
21	21	23	88.00	100.00	120.00	97.00	0.10	0.40	0.00
22	23	24	55.00	150.00	120.00	18.00	0.00	0.00	0.00
23	20	24	90.00	100.00	120.00	91.00	0.10	0.30	0.00
24	20	21	66.00	150.00	120.00	-99.00	-0.10	-0.10	0.00
26	25	52	110.00	100.00	120.00	-13.00	0.00	0.00	0.00
27	52	53	176.00	100.00	120.00	40.00	0.10	0.10	0.00
28	53	60	100.00	100.00	120.00	-37.00	-0.10	-0.10	0.00
29	18	60	134.00	100.00	120.00	163.00	0.20	1.00	0.10
30	18	19	54.00	150.00	120.00	310.00	0.20	0.50	0.00
31	19	52	151.00	100.00	120.00	133.00	0.20	0.70	0.10
32	19	55	133.00	100.00	120.00	108.00	0.20	0.50	0.10
33	54	172	100.00	100.00	120.00	63.00	0.10	0.20	0.00
34	9	18	315.00	225.00	120.00	561.00	0.20	0.20	0.10
35	9	48	47.00	100.00	120.00	-817.00	-1.20	-19.90	-0.90
36	1	48	265.00	225.00	120.00	932.00	0.30	0.50	0.10
37	48	49	201.00	100.00	120.00	33.00	0.10	0.10	0.00
38	22	49	672.00	150.00	120.00	-544.00	-0.40	-1.30	-0.90
39	22	51	596.00	150.00	120.00	99.00	0.10	0.10	0.00
40	49	148	536.00	100.00	120.00	-108.00	-0.20	-0.50	-0.30
41	148	171	372.00	50.00	120.00	15.00	0.10	0.40	0.10
42	69	148	325.00	100.00	120.00	174.00	0.30	1.10	0.40
43	46	69	90.00	150.00	120.00	238.00	0.20	0.30	0.00
44	69	149	551.00	100.00	120.00	22.00	0.00	0.00	0.00
45	1	49	264.00	100.00	120.00	115.00	0.20	0.50	0.10
46	1	46	401.00	225.00	120.00	-1,563.00	-0.50	-1.30	-0.50
47	46	47	268.00	100.00	120.00	69.00	0.10	0.20	0.10
48	47	64	268.00	100.00	120.00	-244.00	-0.40	-2.10	-0.60
49	63	64	444.00	300.00	120.00	355.00	0.10	0.00	0.00
50	46	63	268.00	225.00	120.00	-1,973.00	-0.60	-2.00	-0.50
51	63	158	47.00	300.00	120.00	-2,360.00	-0.40	-0.70	0.00
52	158	166	358.00	50.00	120.00	14.00	0.10	0.30	0.10
53	157	158	77.00	300.00	120.00	2,394.00	0.40	0.70	0.10
54	157	170	264.00	44.00	130.00	10.00	0.10	0.30	0.10
55	156	157	300.00	300.00	120.00	2,424.00	0.40	0.70	0.20
56	2	156	100.00	300.00	120.00	3,208.00	0.50	1.20	0.10
61	2	203	704.00	350.00	120.00	-5,219.00	-0.60	-1.40	-1.00
62	2	4	442.00	225.00	120.00	1,954.00	0.60	1.90	0.80
63	4	5	65.00	225.00	120.00	1,852.00	0.50	1.80	0.10
64	4	61	972.00	65.00	130.00	40.00	0.10	0.50	0.50
65	5	6	221.00	150.00	120.00	329.00	0.20	0.50	0.10
66	6	27	150.00	150.00	120.00	316.00	0.20	0.50	0.10
67	27	37	216.00	100.00	120.00	-114.00	-0.20	-0.50	-0.10
68	36	37	400.00	150.00	120.00	145.00	0.10	0.10	0.10
69	36	38	563.00	100.00	120.00	41.00	0.10	0.10	0.10
70	37	38	30.00	150.00	120.00	-7.00	0.00	0.00	0.00
72	27	181	1,106.00	150.00	120.00	327.00	0.20	0.50	0.60
74	39	173	320.00	44.00	130.00	41.00	0.30	3.70	1.20
76	102	181	92.00	150.00	120.00	-314.00	-0.20	-0.50	0.00
80	39	179	125.00	150.00	120.00	-182.00	-0.10	-0.20	0.00
82	179	208	104.00	65.00	130.00	-23.00	-0.10	-0.20	0.00
83	102	103	350.00	150.00	120.00	388.00	0.30	0.70	0.20
84	101	102	120.00	44.00	130.00	-10.00	-0.10	-0.30	0.00
86	41	100	120.00	44.00	130.00	-8.00	-0.10	-0.20	0.00
87	100	101	312.00	37.00	130.00	-7.00	-0.10	-0.30	-0.10
88	42	43	257.00	100.00	120.00	56.00	0.10	0.10	0.00
89	42	43	257.00	100.00	120.00	56.00	0.10	0.10	0.00
90	43	44	268.00	150.00	120.00	81.00	0.10	0.00	0.00
91	44	177	391.00	100.00	120.00	18.00	0.00	0.00	0.00
92	44	176	391.00	100.00	120.00	18.00	0.00	0.00	0.00
93	176	177	90.00	100.00	120.00	0.00	0.00	0.00	0.00
99	29	112	251.00	65.00	130.00	-10.00	0.00	0.00	0.00
100	109	511	400.00	100.00	120.00	78.00	0.10	0.30	0.10
101	108	109	120.00	100.00	120.00	80.00	0.10	0.30	0.00
102	108	183	228.00	44.00	130.00	9.00	0.10	0.30	0.10
103	107	108	200.00	100.00	120.00	84.00	0.10	0.30	0.10

Net Work Analysis   Distribution Main   E

Pipe No.	Node A	Node B	Length (m)	Diameter (mm)	C	Flow (cum/d)	Velocity (m/s)	Pressure Gradient (o/oo)	Loss (m)
104	107	182	253.00	44.00	130.00	10.00	0.10	0.30	0.10
105	28	107	40.00	100.00	120.00	89.00	0.10	0.30	0.00
106	28	113	66.00	150.00	120.00	490.00	0.30	1.10	0.10
107	113	114	265.00	65.00	130.00	15.00	0.10	0.10	0.00
108	114	117	500.00	65.00	130.00	9.00	0.00	0.00	0.00
109	117	118	318.00	44.00	130.00	37.00	0.30	3.00	1.00
111	118	119	248.00	75.00	120.00	134.00	0.30	2.90	0.70
113	28	106	250.00	150.00	120.00	-365.00	-0.20	-0.60	-0.20
114	103	106	400.00	150.00	120.00	376.00	0.30	0.70	0.30
116	104	105	300.00	44.00	130.00	-15.00	-0.10	-0.60	-0.20
118	30	526	210.00	100.00	120.00	82.00	0.10	0.30	0.10
119	62	132	1,500.00	150.00	120.00	273.00	0.20	0.40	0.50
120	155	500	175.00	140.00	130.00	39.00	0.00	0.00	0.00
125	132	133	363.00	44.00	130.00	14.00	0.10	0.50	0.20
127	31	64	167.00	225.00	120.00	-75.00	0.00	0.00	0.00
129	70	144	284.00	100.00	120.00	36.00	0.10	0.10	0.00
130	144	145	121.00	44.00	130.00	4.00	0.00	0.10	0.00
132	45	47	162.00	150.00	120.00	-285.00	-0.20	-0.40	-0.10
133	9	45	761.00	100.00	120.00	-230.00	-0.30	-1.90	-1.50
134	9	57	25.00	100.00	120.00	379.00	0.60	4.80	0.10
135	57	58	120.00	100.00	120.00	147.00	0.20	0.80	0.10
136	58	60	262.00	100.00	120.00	-45.00	-0.10	-0.10	0.00
138	56	59	352.00	97.00	130.00	96.00	0.10	0.40	0.10
140	58	143	168.00	100.00	120.00	96.00	0.10	0.40	0.10
141	142	143	264.00	50.00	120.00	-7.00	0.00	-0.10	0.00
142	57	142	202.00	100.00	120.00	156.00	0.20	0.90	0.20
143	141	142	99.00	100.00	120.00	-80.00	-0.10	-0.30	0.00
146	12	150	360.00	150.00	120.00	95.00	0.10	0.10	0.00
147	12	151	163.00	150.00	120.00	-149.00	-0.10	-0.10	0.00
148	13	151	35.00	150.00	120.00	53.00	0.00	0.00	0.00
149	151	186	450.00	140.00	130.00	-54.00	0.00	0.00	0.00
151	154	155	132.00	100.00	120.00	56.00	0.10	0.10	0.00
160	153	154	165.00	100.00	120.00	87.00	0.10	0.30	0.10
161	14	153	236.00	150.00	120.00	-243.00	-0.20	-0.30	-0.10
162	13	14	475.00	150.00	120.00	-139.00	-0.10	-0.10	-0.10
163	13	146	35.00	150.00	120.00	123.00	0.10	0.10	0.00
164	146	147	137.00	150.00	120.00	79.00	0.10	0.00	0.00
167	11	137	663.00	150.00	120.00	138.00	0.10	0.10	0.10
168	14	152	66.00	100.00	120.00	144.00	0.20	0.80	0.10
170	33	152	150.00	100.00	120.00	-90.00	-0.10	-0.30	-0.10
175	56	68	165.00	100.00	120.00	324.00	0.50	3.60	0.60
176	68	136	726.00	44.00	130.00	10.00	0.10	0.30	0.20
177	136	137	512.00	44.00	130.00	-11.00	-0.10	-0.30	-0.20
178	137	187	277.00	140.00	130.00	32.00	0.00	0.00	0.00
182	71	124	400.00	225.00	120.00	-70.00	0.00	0.00	0.00
183	15	124	441.00	225.00	120.00	125.00	0.00	0.00	0.00
184	15	16	177.00	150.00	120.00	512.00	0.30	1.20	0.20
185	16	121	286.00	100.00	120.00	179.00	0.30	1.20	0.30
186	120	121	1,210.00	75.00	120.00	-91.00	-0.20	-1.40	-1.70
187	16	125	850.00	100.00	120.00	195.00	0.30	1.40	1.20
191	122	209	120.00	225.00	120.00	-89.00	0.00	0.00	0.00
193	125	126	396.00	100.00	120.00	176.00	0.30	1.20	0.50
194	126	128	668.00	65.00	130.00	46.00	0.20	0.70	0.50
195	126	127	1,047.00	65.00	130.00	43.00	0.10	0.60	0.70
196	128	129	90.00	65.00	130.00	15.00	0.10	0.10	0.00
197	129	130	60.00	44.00	130.00	8.00	0.10	0.20	0.00
198	130	131	88.00	37.00	130.00	3.00	0.00	0.10	0.00
199	62	520	569.00	100.00	120.00	51.00	0.10	0.10	0.10
200	41	42	237.00	100.00	120.00	30.00	0.10	0.10	0.00
201	30	113	250.00	150.00	120.00	-336.00	-0.20	-0.50	-0.10
203	5	36	105.00	150.00	120.00	227.00	0.10	0.30	0.00
179	187	300	500.00	150.00	120.00	-29.00	0.00	0.00	0.00
250	136	301	215.00	65.00	130.00	-36.00	-0.10	-0.40	-0.10
209	160	300	152.00	150.00	120.00	-50.00	0.00	0.00	0.00
213	62	524	334.00	97.00	130.00	-385.00	-0.60	-5.00	-1.70
214	30	503	334.00	100.00	120.00	189.00	0.30	1.30	0.40
215	112	511	132.00	75.00	120.00	-38.00	-0.10	-0.30	0.00
216	500	501	100.00	140.00	130.00	18.00	0.00	0.00	0.00
217	154	501	104.00	65.00	130.00	24.00	0.10	0.20	0.00
218	186	501	221.00	140.00	130.00	-162.00	-0.10	-0.20	0.00
110	118	503	167.00	75.00	120.00	-127.00	-0.30	-2.60	-0.40
300	215	301	554.00	100.00	120.00	97.00	0.10	0.40	0.20
208	215	300	250.00	100.00	120.00	117.00	0.20	0.60	0.10
17	205	527	250.00	100.00	120.00	55.00	0.10	0.10	0.00
172	15	153	577.00	150.00	120.00	439.00	0.30	0.90	0.50
302	10	70	480.00	150.00	120.00	-20.00	0.00	0.00	0.00
304	24	25	55.00	100.00	120.00	14.00	0.00	0.00	0.00

Net Work Analysis   Distribution Main   E

Pipe No.	Node A	Node B	Length (m)	Diameter (mm)	C	Flow (cum/d)	Velocity (m/s)	Pressure Gradient (o/oo)	Loss (m)
305	55	172	50.00	100.00	120.00	36.00	0.10	0.10	0.00
306	20	172	50.00	100.00	120.00	-59.00	-0.10	-0.10	0.00
307	23	25	75.00	100.00	120.00	13.00	0.00	0.00	0.00
308	40	178	150.00	150.00	120.00	44.00	0.00	0.00	0.00
77	39	40	180.00	100.00	120.00	100.00	0.10	0.40	0.10
78	40	189	60.00	100.00	120.00	23.00	0.00	0.00	0.00
79	100	101	450.00	44.00	130.00	-9.00	-0.10	-0.20	-0.10
309	41	42	150.00	150.00	120.00	113.00	0.10	0.10	0.00
310	119	521	350.00	65.00	130.00	82.00	0.30	2.00	0.70
311	521	522	350.00	65.00	130.00	41.00	0.10	0.60	0.20
313	33	35	150.00	100.00	120.00	49.00	0.10	0.10	0.00
301	11	523	120.00	150.00	120.00	-208.00	-0.10	-0.20	0.00
314	59	523	180.00	100.00	120.00	249.00	0.40	2.20	0.40
315	502	524	150.00	75.00	120.00	-64.00	-0.20	-0.70	-0.10
317	524	600	450.00	97.00	130.00	-491.00	-0.80	-7.80	-3.50
319	525	526	210.00	75.00	120.00	-41.00	-0.10	-0.30	-0.10
321	527	528	480.00	65.00	130.00	128.00	0.50	4.60	2.20
322	134	528	200.00	65.00	130.00	-104.00	-0.40	-3.10	-0.60
11	165	601	75.00	65.00	130.00	-81.00	-0.30	-2.00	-0.10
324	188	527	50.00	65.00	130.00	-220.00	-0.80	-12.40	-0.60
325	122	123	160.00	140.00	130.00	52.00	0.00	0.00	0.00
327	56	59	352.00	140.00	130.00	252.00	0.20	0.40	0.10
328	1	49	264.00	158.00	130.00	416.00	0.30	0.50	0.10
329	206	527	215.00	150.00	120.00	318.00	0.20	0.50	0.10
330	156	541	931.00	100.00	120.00	751.00	1.10	17.10	15.90
331	112	540	434.00	97.00	130.00	562.00	0.90	10.00	4.30
601	91	139	162.00	150.00	120.00	231.00	0.10	0.30	0.00
602	91	161	225.00	65.00	130.00	8.00	0.00	0.00	0.00
603	70	93	662.00	150.00	120.00	-163.00	-0.10	-0.10	-0.10
605	93	132	616.00	150.00	120.00	-217.00	-0.10	-0.20	-0.10
606	93	185	300.00	150.00	120.00	53.00	0.00	0.00	0.00
607	56	602	1,000.00	200.00	120.00	-712.00	-0.30	-0.50	-0.50
212	22	54	275.00	150.00	120.00	380.00	0.30	0.70	0.20
610	122	160	931.00	225.00	120.00	-34.00	0.00	0.00	0.00
611	91	92	228.00	150.00	120.00	-240.00	-0.20	-0.30	-0.10
612	92	135	690.00	100.00	120.00	-240.00	-0.30	-2.10	-1.40
613	604	610	200.00	97.00	130.00	29.00	0.10	0.00	0.00
614	105	612	250.00	44.00	130.00	-29.00	-0.20	-2.00	-0.50
616	174	542	569.00	97.00	130.00	-84.00	-0.10	-0.30	-0.20
701	186	606	500.00	250.00	120.00	-1,524.00	-0.40	-0.70	-0.40
702	169	603	50.00	55.00	130.00	-17.00	-0.10	-0.30	0.00
703	15	153	577.00	140.00	130.00	397.00	0.30	0.90	0.50
705	16	125	850.00	65.00	130.00	68.00	0.20	1.40	1.20
713	102	103	350.00	198.00	130.00	874.00	0.30	0.70	0.20
714	103	106	400.00	198.00	130.00	846.00	0.30	0.70	0.30
715	28	106	250.00	198.00	130.00	-821.00	-0.30	-0.60	-0.20
716	28	107	40.00	198.00	130.00	585.00	0.20	0.30	0.00
717	107	108	200.00	198.00	130.00	554.00	0.20	0.30	0.10
718	108	109	120.00	198.00	130.00	524.00	0.20	0.30	0.00
719	109	511	400.00	198.00	130.00	510.00	0.20	0.30	0.10
720	112	511	132.00	198.00	130.00	-534.00	-0.20	-0.30	0.00
731	113	114	265.00	140.00	130.00	115.00	0.10	0.10	0.00
732	114	117	500.00	140.00	130.00	74.00	0.10	0.00	0.00
741	179	208	104.00	140.00	130.00	-178.00	-0.10	-0.20	0.00
751	610	611	630.00	97.00	130.00	29.00	0.10	0.00	0.00
752	611	612	610.00	65.00	130.00	29.00	0.10	0.30	0.20
761	50	542	1,044.00	97.00	130.00	-196.00	-0.30	-1.40	-1.50
762	68	542	165.00	97.00	130.00	280.00	0.40	2.80	0.50
771	101	102	120.00	140.00	130.00	-216.00	-0.20	-0.30	0.00
772	100	101	450.00	140.00	130.00	-190.00	-0.10	-0.20	-0.10
773	41	100	120.00	140.00	130.00	-171.00	-0.10	-0.20	0.00
781	5	6	221.00	250.00	120.00	1,262.00	0.30	0.50	0.10
782	6	27	150.00	250.00	120.00	1,213.00	0.30	0.50	0.10
783	27	181	1,106.00	250.00	120.00	1,256.00	0.30	0.50	0.60
784	102	181	92.00	250.00	120.00	-1,205.00	-0.30	-0.50	0.00
791	151	186	450.00	140.00	130.00	-54.00	0.00	0.00	0.00
792	13	151	35.00	140.00	130.00	48.00	0.00	0.00	0.00
793	13	14	475.00	140.00	130.00	-126.00	-0.10	-0.10	-0.10
794	14	153	236.00	140.00	130.00	-220.00	-0.20	-0.30	-0.10
795	154	501	104.00	140.00	130.00	181.00	0.10	0.20	0.00
796	153	154	165.00	140.00	130.00	228.00	0.20	0.30	0.10

Net Work Analysis   Distribution Main

File Name	Nuwara012Year1995Mean(3) F
Season	Wet
Network Type	Proposed

Demand	Year 1995
	Day Mean
Reserver	Water Level Fix All
	Discharge Fix None

Magnification of Demand   0.739

Reservoir Data

Node		HWL (MSL)	LWL (MSL)	Reservoir
203	1	1,927.0	1,927.0	Haddon Hill
205	1	1,955.0	1,955.0	New Water Field
206	1	1,955.0	1,955.0	Old Water Field
208	1	1,930.0	1,930.0	Bonavista
209	1	1,960.0	1,960.0	Lovers Leap
215	1	1,965.0	1,965.0	Gamunu/Brewery
600	1	1,946.0	1,946.0	Nseby
601	1	1,991.0	1,991.0	Piyatisappura
603	1	1,980.0	1,980.0	Unique View
604	1	1,925.0	1,925.0	Vijithapura
606	1	1,920.0	1,920.0	Low Area 2

Node Data

Node		Ground Elev (MSL)	Demand (cum/d)		
1	1	1,881.7	122.0	0	0
2	1	1,885.1	70.0	0	0
4	1	1,881.8	76.0	0	0
5	1	1,881.3	40.0	0	0
6	1	1,883.7	76.0	0	0
9	1	1,881.2	133.0	0	0
10	1	1,903.4	25.0	0	0
11	1	1,902.1	86.0	0	0
12	1	1,880.5	66.0	0	0
13	1	1,874.2	51.0	0	0
14	1	1,865.6	66.0	0	0
15	1	1,860.5	61.0	0	0
16	1	1,860.5	85.0	0	0
18	1	1,885.1	107.0	0	0
19	1	1,885.8	85.0	0	0
22	1	1,889.4	79.0	0	0
23	1	1,887.3	82.0	0	0
24	1	1,887.7	117.0	0	0
25	1	1,887.0	51.0	0	0
27	1	1,882.3	75.0	0	0
28	1	1,879.2	26.0	0	0
29	1	1,892.4	13.0	0	0
30	1	1,882.6	80.0	0	0
31	1	1,882.0	93.0	0	0
36	1	1,889.3	51.0	0	0
37	1	1,891.4	47.0	0	0
38	1	1,893.9	42.0	0	0
39	1	1,914.9	50.0	0	0
41	1	1,899.2	44.0	0	0
42	1	1,896.1	38.0	0	0
43	1	1,894.8	40.0	0	0
44	1	1,893.4	54.0	0	0
45	1	1,884.9	67.0	0	0
46	1	1,878.2	127.0	0	0
47	1	1,880.7	36.0	0	0
48	1	1,880.2	101.0	0	0
49	1	1,881.1	160.0	0	0
50	1	1,886.3	144.0	0	0
51	1	1,895.4	47.0	0	0
52	1	1,889.1	97.0	0	0
55	1	1,886.2	89.0	0	0
56	1	1,902.7	49.0	0	0
57	1	1,884.1	93.0	0	0

58	1	1,890.9	119.0	0	0
60	1	1,889.9	100.0	0	0
61	1	1,885.4	50.0	0	0
62	1	1,890.2	76.0	0	0
63	1	1,878.7	38.0	0	0
64	1	1,876.5	44.0	0	0
66	1	1,910.0	40.0	0	0
67	1	1,921.5	38.0	0	0
68	1	1,918.6	42.0	0	0
69	1	1,879.5	50.0	0	0
70	1	1,904.5	132.0	0	0
71	1	1,894.5	87.0	0	0
100	1	1,896.6	33.0	0	0
101	1	1,885.9	25.0	0	0
102	1	1,876.7	37.0	0	0
103	1	1,883.1	50.0	0	0
104	1	1,916.3	19.0	0	0
105	1	1,903.9	17.0	0	0
106	1	1,881.3	43.0	0	0
107	1	1,880.1	32.0	0	0
108	1	1,884.1	30.0	0	0
109	1	1,884.6	20.0	0	0
112	1	1,900.7	0.0	0	0
113	1	1,878.5	29.0	0	0
114	1	1,897.3	57.0	0	0
117	1	1,907.5	59.0	0	0
118	1	1,889.0	37.0	0	0
119	1	1,889.1	64.0	0	0
120	1	1,871.2	113.0	0	0
121	1	1,862.6	109.0	0	0
122	1	1,950.0	89.0	0	0
123	1	1,927.3	65.0	0	0
124	1	1,879.6	68.0	0	0
125	1	1,886.2	108.0	0	0
126	1	1,894.1	107.0	0	0
127	1	1,874.9	54.0	0	0
128	1	1,896.4	38.0	0	0
129	1	1,896.0	8.0	0	0
130	1	1,886.4	7.0	0	0
131	1	1,875.8	4.0	0	0
132	1	1,886.8	51.0	0	0
133	1	1,898.7	18.0	0	0
134	1	1,924.5	54.0	0	0
135	1	1,915.7	58.0	0	0
136	1	1,944.8	71.0	0	0
137	1	1,905.0	118.0	0	0
139	1	1,905.8	165.0	0	0
140	1	1,899.4	31.0	0	0
141	1	1,890.2	99.0	0	0
142	1	1,883.9	103.0	0	0
143	1	1,888.7	110.0	0	0
144	1	1,907.4	39.0	0	0
145	1	1,909.3	6.0	0	0
146	1	1,876.5	54.0	0	0
147	1	1,878.9	98.0	0	0
148	1	1,889.6	63.0	0	0
149	1	1,901.1	28.0	0	0
150	1	1,899.4	118.0	0	0
151	1	1,874.4	76.0	0	0
152	1	1,865.9	66.0	0	0
153	1	1,862.7	71.0	0	0
154	1	1,864.7	66.0	0	0
155	1	1,867.6	22.0	0	0
156	1	1,884.8	40.0	0	0
157	1	1,881.9	24.0	0	0
158	1	1,880.3	24.0	0	0
160	1	1,903.2	19.0	0	0
161	1	1,905.3	11.0	0	0
162	1	1,891.8	38.0	0	0
163	1	1,899.3	7.0	0	0
164	1	1,919.8	4.0	0	0
165	1	1,962.5	101.0	0	0
166	1	1,899.0	18.0	0	0
169	1	1,917.8	22.0	0	0
170	1	1,893.3	13.0	0	0

171	1	1,909.7	19.0	0	0
21	1	1,885.1	97.0	0	0
20	1	1,885.9	83.0	0	0
174	1	1,902.4	104.0	0	0
53	1	1,895.7	97.0	0	0
176	1	1,895.0	23.0	0	0
177	1	1,897.3	23.0	0	0
178	1	1,912.8	55.0	0	0
179	1	1,917.5	25.0	0	0
181	1	1,881.0	80.0	0	0
182	1	1,891.9	13.0	0	0
183	1	1,899.2	12.0	0	0
185	1	1,902.8	66.0	0	0
186	1	1,885.4	66.0	0	0
187	1	1,903.2	76.0	0	0
188	1	1,931.7	8.0	0	0
189	1	1,921.8	29.0	0	0
300	1	1,903.6	47.0	0	0
301	1	1,951.4	76.0	0	0
59	1	1,900.0	122.0	0	0
500	1	1,892.8	25.0	0	0
501	1	1,886.6	76.0	0	0
502	1	1,885.6	80.0	0	0
503	1	1,884.2	76.0	0	0
510	1	1,914.5	51.0	0	0
511	1	1,892.1	20.0	0	0
520	1	1,913.6	63.0	0	0
304	1	1,900.4	70.0	0	0
172	1	1,886.0	51.0	0	0
173	1	1,916.0	51.0	0	0
521	1	1,886.0	51.0	0	0
522	1	1,880.0	51.0	0	0
523	1	1,903.0	51.0	0	0
524	1	1,887.0	51.0	0	0
525	1	1,881.0	51.0	0	0
526	1	1,882.0	51.0	0	0
527	1	1,931.0	30.0	0	0
528	1	1,943.0	30.0	0	0
33	1	1,867.0	51.0	0	0
35	1	1,870.0	61.0	0	0
40	1	1,920.0	40.0	0	0
54	1	1,886.0	51.0	0	0
91	1	1,899.4	0.0	0	0
92	1	1,895.4	0.0	0	0
93	1	1,882.0	0.0	0	0
540	1	1,930.0	694.0	0	0
541	1	1,980.0	928.0	0	0
542	1	1,889.1	0.0	0	0
610	1	1,900.0	0.0	0	0
611	1	1,884.6	0.0	0	0
612	1	1,881.3	0.0	0	0

Booster Pump Data

No.	Type	Node A	Node B	Pipe No.	Pressure (■)
1	B	156	541	330	72.4
2	B	112	540	331	14.7

Pipe Data

Pipe No.	Node A	Node B	Diameter (mm)	Length (m)	C Value
1	139	510	225.0	800.0	120.0
2	139	304	44.0	374.0	130.0
5	51	140	150.0	228.0	120.0
6	162	163	44.0	143.0	130.0
7	51	162	150.0	20.0	120.0
9	134	135	65.0	178.0	130.0
12	134	164	44.0	84.0	130.0
13	66	135	150.0	265.0	120.0
14	50	66	100.0	530.0	120.0
15	50	67	100.0	583.0	120.0
16	67	188	100.0	165.0	120.0
20	21	54	150.0	59.0	120.0
21	21	23	100.0	88.0	120.0
22	23	24	150.0	55.0	120.0
23	20	24	100.0	90.0	120.0
24	20	21	150.0	66.0	120.0
26	25	52	100.0	110.0	120.0
27	52	53	100.0	176.0	120.0
28	53	60	100.0	100.0	120.0
29	18	60	100.0	134.0	120.0
30	18	19	150.0	54.0	120.0
31	19	52	100.0	151.0	120.0
32	19	55	100.0	133.0	120.0
33	54	172	100.0	100.0	120.0
34	9	18	225.0	315.0	120.0
35	9	48	100.0	47.0	120.0
36	1	48	225.0	265.0	120.0
37	48	49	100.0	201.0	120.0
38	22	49	150.0	672.0	120.0
39	22	51	150.0	596.0	120.0
40	49	148	100.0	536.0	120.0
41	148	171	50.0	372.0	120.0
42	69	148	100.0	325.0	120.0
43	46	69	150.0	90.0	120.0
44	69	149	100.0	551.0	120.0
45	1	49	100.0	264.0	120.0
46	1	46	225.0	401.0	120.0
47	46	47	100.0	268.0	120.0
48	47	64	100.0	268.0	120.0
49	63	64	300.0	444.0	120.0
50	46	63	225.0	268.0	120.0
51	63	158	300.0	47.0	120.0
52	158	166	50.0	358.0	120.0
53	157	158	300.0	77.0	120.0
54	157	170	44.0	264.0	130.0
55	156	157	300.0	300.0	120.0
56	2	156	300.0	100.0	120.0
61	2	203	350.0	704.0	120.0
62	2	4	225.0	442.0	120.0
63	4	5	225.0	65.0	120.0
64	4	61	65.0	972.0	130.0
65	5	6	150.0	221.0	120.0
66	6	27	150.0	150.0	120.0
67	27	37	100.0	216.0	120.0
68	36	37	150.0	400.0	120.0
69	36	38	100.0	563.0	120.0
70	37	38	150.0	30.0	120.0
72	27	181	150.0	1,106.0	120.0
74	39	173	44.0	320.0	130.0
76	102	181	150.0	92.0	120.0
80	39	179	150.0	125.0	120.0
82	179	208	65.0	104.0	130.0
83	102	103	150.0	350.0	120.0
84	101	102	44.0	120.0	130.0
86	41	100	44.0	120.0	130.0
87	100	101	37.0	312.0	130.0
88	42	43	100.0	257.0	120.0
89	42	43	100.0	257.0	120.0
90	43	44	150.0	268.0	120.0
91	44	177	100.0	391.0	120.0
92	44	176	100.0	391.0	120.0
93	176	177	100.0	90.0	120.0

A-5.4.78

99	29	112	65.0	251.0	130.0
100	109	511	100.0	400.0	120.0
101	108	109	100.0	120.0	120.0
102	108	183	44.0	228.0	130.0
103	107	108	100.0	200.0	120.0
104	107	182	44.0	253.0	130.0
105	28	107	100.0	40.0	120.0
106	28	113	150.0	66.0	120.0
107	113	114	65.0	265.0	130.0
108	114	117	65.0	500.0	130.0
109	117	118	44.0	318.0	130.0
111	118	119	75.0	248.0	120.0
113	28	106	150.0	250.0	120.0
114	103	106	150.0	400.0	120.0
116	104	105	44.0	300.0	130.0
118	30	526	100.0	210.0	120.0
119	62	132	150.0	1,500.0	120.0
120	155	500	140.0	175.0	130.0
125	132	133	44.0	363.0	130.0
127	31	64	225.0	167.0	120.0
129	70	144	100.0	284.0	120.0
130	144	145	44.0	121.0	130.0
132	45	47	150.0	162.0	120.0
133	9	45	100.0	761.0	120.0
134	9	57	100.0	25.0	120.0
135	57	58	100.0	120.0	120.0
136	58	60	100.0	262.0	120.0
138	56	59	97.0	352.0	130.0
140	58	143	100.0	168.0	120.0
141	142	143	50.0	264.0	120.0
142	57	142	100.0	202.0	120.0
143	141	142	100.0	99.0	120.0
146	12	150	150.0	360.0	120.0
147	12	151	150.0	163.0	120.0
148	13	151	150.0	35.0	120.0
149	151	186	140.0	450.0	130.0
151	154	155	100.0	132.0	120.0
160	153	154	100.0	165.0	120.0
161	14	153	150.0	236.0	120.0
162	13	14	150.0	475.0	120.0
163	13	146	150.0	35.0	120.0
164	146	147	150.0	137.0	120.0
167	11	137	150.0	663.0	120.0
168	14	152	100.0	66.0	120.0
170	33	152	100.0	150.0	120.0
175	56	68	100.0	165.0	120.0
176	68	136	44.0	726.0	130.0
177	136	137	44.0	512.0	130.0
178	137	187	140.0	277.0	130.0
182	71	124	225.0	400.0	120.0
183	15	124	225.0	441.0	120.0
184	15	16	150.0	177.0	120.0
185	16	121	100.0	286.0	120.0
186	120	121	75.0	1,210.0	120.0
187	16	125	100.0	850.0	120.0
191	122	209	225.0	120.0	120.0
193	125	126	100.0	396.0	120.0
194	126	128	65.0	668.0	130.0
195	126	127	65.0	1,047.0	130.0
196	128	129	65.0	90.0	130.0
197	129	130	44.0	60.0	130.0
198	130	131	37.0	88.0	130.0
199	62	520	100.0	569.0	120.0
200	41	42	100.0	237.0	120.0
201	30	113	150.0	250.0	120.0
203	5	36	150.0	105.0	120.0
179	187	300	150.0	500.0	120.0
250	136	301	65.0	215.0	130.0
209	160	300	150.0	152.0	120.0
213	62	524	97.0	334.0	130.0
214	30	503	100.0	334.0	120.0
215	112	511	75.0	132.0	120.0
216	500	501	140.0	100.0	130.0
217	154	501	65.0	104.0	130.0
218	186	501	140.0	221.0	130.0

110	118	503	75.0	167.0	120.0
300	215	301	100.0	554.0	120.0
208	215	300	100.0	250.0	120.0
17	205	527	100.0	250.0	120.0
172	15	153	150.0	577.0	120.0
302	10	70	150.0	480.0	120.0
304	24	25	100.0	55.0	120.0
305	55	172	100.0	50.0	120.0
306	20	172	100.0	50.0	120.0
307	23	25	100.0	75.0	120.0
308	40	178	150.0	150.0	120.0
77	39	40	100.0	180.0	120.0
78	40	189	100.0	60.0	120.0
79	100	101	44.0	450.0	130.0
309	41	42	150.0	150.0	120.0
310	119	521	65.0	350.0	130.0
311	521	522	65.0	350.0	130.0
313	33	35	100.0	150.0	120.0
301	11	523	150.0	120.0	120.0
314	59	523	100.0	180.0	120.0
315	502	524	75.0	150.0	120.0
317	524	600	97.0	450.0	130.0
319	525	526	75.0	210.0	120.0
321	527	528	65.0	480.0	130.0
322	134	528	65.0	200.0	130.0
11	165	601	65.0	75.0	130.0
324	188	527	65.0	50.0	130.0
325	122	123	140.0	160.0	130.0
327	56	59	140.0	352.0	130.0
328	1	49	158.0	264.0	130.0
329	206	527	150.0	215.0	120.0
330	156	541	100.0	931.0	120.0
331	112	540	97.0	434.0	130.0
601	91	139	150.0	162.0	120.0
602	91	161	65.0	225.0	130.0
603	70	93	150.0	662.0	120.0
605	93	132	150.0	616.0	120.0
606	93	185	150.0	300.0	120.0
212	22	54	150.0	275.0	120.0
610	122	160	225.0	931.0	120.0
611	91	92	150.0	228.0	120.0
612	92	135	100.0	690.0	120.0
613	604	610	97.0	200.0	130.0
614	105	612	44.0	250.0	130.0
616	174	542	97.0	569.0	130.0
701	15	606	250.0	500.0	120.0
702	169	603	55.0	50.0	130.0
703	15	153	140.0	577.0	130.0
705	16	125	65.0	850.0	130.0
713	102	103	198.0	350.0	130.0
714	103	106	198.0	400.0	130.0
715	28	106	198.0	250.0	130.0
716	28	107	198.0	40.0	130.0
717	107	108	198.0	200.0	130.0
718	108	109	198.0	120.0	130.0
719	109	511	198.0	400.0	130.0
720	112	511	198.0	132.0	130.0
731	113	114	140.0	265.0	130.0
732	114	117	140.0	500.0	130.0
741	179	208	140.0	104.0	130.0
751	610	611	97.0	630.0	130.0
752	611	612	65.0	610.0	130.0
761	50	542	97.0	1,044.0	130.0
762	68	542	97.0	165.0	130.0
771	101	102	140.0	120.0	130.0
772	100	101	140.0	450.0	130.0
773	41	100	140.0	120.0	130.0
781	5	6	250.0	221.0	120.0
782	6	27	250.0	150.0	120.0
783	27	181	250.0	1,106.0	120.0
784	102	181	250.0	92.0	120.0
791	151	186	140.0	450.0	130.0
792	13	151	140.0	35.0	130.0
793	13	14	140.0	475.0	130.0
794	14	153	140.0	236.0	130.0

| 795 | 154 | 501 | 140.0 | 104.0 | 130.0 |
| 796 | 153 | 154 | 140.0 | 165.0 | 130.0 |

Net Work Analysis　　Distribution Main　　　　F

Node No.	Elevation of Pipe (MSL)	Demand (cum/d)	Dynamic Pressure (MSL)	Dynamic Pressure (m)	Static Pressure (m)			Leakage (cum/d)
1	1,881.7	90.3	1,924.9	43.2	109.3	0.0	0.0	25.2
2	1,885.1	51.8	1,926.2	41.1	105.9	0.0	0.0	23.8
4	1,881.8	56.2	1,925.5	43.6	109.2	0.0	0.0	25.5
5	1,881.3	29.6	1,925.4	44.1	109.7	0.0	0.0	25.7
6	1,883.7	56.2	1,925.3	41.6	107.3	0.0	0.0	24.1
9	1,881.2	98.4	1,924.0	42.8	109.8	0.0	0.0	24.9
10	1,903.4	18.5	1,941.0	37.6	87.6	0.0	0.0	21.6
11	1,902.1	63.6	1,958.1	56.0	88.9	0.0	0.0	33.5
12	1,880.5	48.8	1,919.2	38.6	110.5	0.0	0.0	22.3
13	1,874.2	37.7	1,919.2	45.0	116.8	0.0	0.0	26.3
14	1,865.6	48.8	1,919.2	53.6	125.4	0.0	0.0	31.9
15	1,860.5	45.1	1,919.7	59.2	130.5	0.0	0.0	35.6
16	1,860.5	62.9	1,919.5	59.0	130.5	0.0	0.0	35.5
18	1,885.1	79.2	1,924.0	38.9	105.9	0.0	0.0	22.4
19	1,885.8	62.9	1,924.0	38.2	105.2	0.0	0.0	22.0
22	1,889.4	58.5	1,924.1	34.7	101.6	0.0	0.0	19.8
23	1,887.3	60.7	1,923.9	36.6	103.7	0.0	0.0	21.0
24	1,887.7	86.6	1,923.9	36.2	103.3	0.0	0.0	20.7
25	1,887.0	37.7	1,923.9	36.9	104.0	0.0	0.0	21.2
27	1,882.3	55.5	1,925.2	42.9	108.7	0.0	0.0	25.0
28	1,879.2	19.2	1,924.1	44.9	111.8	0.0	0.0	26.3
29	1,892.4	9.6	1,923.9	31.5	98.6	0.0	0.0	17.8
30	1,882.6	59.2	1,924.0	41.4	108.4	0.0	0.0	24.0
31	1,882.0	68.8	1,925.8	43.8	109.0	0.0	0.0	25.6
36	1,889.3	37.7	1,925.3	36.0	101.7	0.0	0.0	20.6
37	1,891.4	34.8	1,925.3	33.9	99.6	0.0	0.0	19.3
38	1,893.9	31.1	1,925.3	31.4	97.1	0.0	0.0	17.7
39	1,914.9	37.0	1,930.0	15.1	76.1	0.0	0.0	7.9
41	1,899.2	32.6	1,924.6	25.4	91.8	0.0	0.0	14.0
42	1,896.1	28.1	1,924.6	28.4	94.9	0.0	0.0	15.9
43	1,894.8	29.6	1,924.5	29.7	96.2	0.0	0.0	16.7
44	1,893.4	40.0	1,924.5	31.1	97.6	0.0	0.0	17.6
45	1,884.9	49.6	1,925.3	40.4	106.1	0.0	0.0	23.4
46	1,878.2	94.0	1,925.4	47.2	112.8	0.0	0.0	27.7
47	1,880.7	26.6	1,925.3	44.6	110.3	0.0	0.0	26.1
48	1,880.2	74.7	1,924.8	44.6	110.8	0.0	0.0	26.1
49	1,881.1	118.4	1,924.8	43.7	109.9	0.0	0.0	25.5
50	1,886.3	106.6	1,954.1	67.8	104.7	0.0	0.0	41.3
51	1,895.4	34.8	1,924.1	28.7	95.6	0.0	0.0	16.0
52	1,889.1	71.8	1,923.9	34.8	101.9	0.0	0.0	19.8
55	1,886.2	65.9	1,923.9	37.7	104.8	0.0	0.0	21.7
56	1,902.7	36.3	1,957.0	54.3	88.3	0.0	0.0	32.4
57	1,884.1	68.8	1,923.9	39.8	106.9	0.0	0.0	23.0
58	1,890.9	88.1	1,923.9	33.0	100.1	0.0	0.0	18.7
60	1,889.9	74.0	1,923.9	34.0	101.1	0.0	0.0	19.3
61	1,885.4	37.0	1,925.0	39.6	105.6	0.0	0.0	22.9
62	1,890.2	56.2	1,941.6	51.4	100.8	0.0	0.0	30.5
63	1,878.7	28.1	1,925.8	47.1	112.3	0.0	0.0	27.7
64	1,876.5	32.6	1,925.8	49.3	114.5	0.0	0.0	29.1
66	1,910.0	29.6	1,952.9	42.9	81.0	0.0	0.0	25.0
67	1,921.5	28.1	1,954.4	32.9	69.5	0.0	0.0	18.7
68	1,918.6	31.1	1,956.5	37.9	72.4	0.0	0.0	21.8
69	1,879.5	37.0	1,925.4	45.9	111.5	0.0	0.0	26.9
70	1,904.5	97.7	1,941.0	36.5	86.5	0.0	0.0	20.9
71	1,894.5	64.4	1,919.7	25.2	96.5	0.0	0.0	13.9
100	1,896.6	24.4	1,924.6	28.0	94.4	0.0	0.0	15.6
101	1,885.9	18.5	1,924.7	38.8	105.1	0.0	0.0	22.4
102	1,876.7	27.4	1,924.7	48.0	114.3	0.0	0.0	28.3
103	1,883.1	37.0	1,924.5	41.4	107.9	0.0	0.0	24.0
104	1,916.4	14.1	1,929.3	12.9	74.7	0.0	0.0	6.7
105	1,903.9	12.6	1,929.4	25.5	87.1	0.0	0.0	14.1
106	1,881.3	31.8	1,924.3	43.0	109.7	0.0	0.0	25.0
107	1,880.1	23.7	1,924.1	44.0	110.9	0.0	0.0	25.7
108	1,884.1	22.2	1,924.1	40.0	106.9	0.0	0.0	23.1
109	1,884.6	14.8	1,924.0	39.4	106.4	0.0	0.0	22.8
112	1,900.7	0.0	1,923.9	23.2	90.3	0.0	0.0	12.7
113	1,878.5	21.5	1,924.1	45.6	112.5	0.0	0.0	26.7
114	1,897.3	42.2	1,924.1	26.8	93.7	0.0	0.0	14.9
117	1,907.5	43.7	1,924.0	16.5	83.5	0.0	0.0	8.8
118	1,889.0	27.4	1,923.2	34.2	102.0	0.0	0.0	19.5
119	1,889.1	47.4	1,922.6	33.5	101.9	0.0	0.0	19.1
120	1,871.2	83.6	1,917.8	46.6	119.8	0.0	0.0	27.4
121	1,862.6	80.7	1,919.2	56.6	128.4	0.0	0.0	33.9
122	1,950.0	65.9	1,960.0	10.0	41.0	0.0	0.0	5.0
123	1,927.3	48.1	1,960.0	32.7	63.7	0.0	0.0	18.5
124	1,879.6	50.3	1,919.7	40.1	111.4	0.0	0.0	23.2
125	1,886.2	79.9	1,918.5	32.3	104.8	0.0	0.0	18.3

Net Work Analysis

Node No.	Elevation of Pipe (MSL)	Demand (cum/d)	Dynamic Pressure (MSL)	Dynamic Pressure (m)	Static Pressure (m)	F		Leakage (cum/d)
126	1,894.1	79.2	1,918.1	24.0	96.9	0.0	0.0	13.2
127	1,874.9	40.0	1,917.6	42.7	116.1	0.0	0.0	24.8
128	1,896.4	28.1	1,917.7	21.3	94.6	0.0	0.0	11.6
129	1,896.0	5.9	1,917.7	21.7	95.0	0.0	0.0	11.8
130	1,886.4	5.2	1,917.7	31.3	104.6	0.0	0.0	17.7
131	1,875.8	3.0	1,917.7	41.9	115.2	0.0	0.0	24.4
132	1,886.8	37.7	1,941.2	54.4	104.2	0.0	0.0	32.4
133	1,898.7	13.3	1,941.0	42.3	92.3	0.0	0.0	24.6
134	1,924.5	40.0	1,952.9	28.4	66.5	0.0	0.0	15.9
135	1,915.7	42.9	1,952.8	37.1	75.3	0.0	0.0	21.3
136	1,944.8	52.5	1,962.3	17.5	46.2	0.0	0.0	9.3
137	1,905.0	87.3	1,958.9	53.9	86.0	0.0	0.0	32.1
139	1,905.8	122.1	1,951.5	45.7	85.2	0.0	0.0	26.8
140	1,899.4	22.9	1,924.1	24.7	91.6	0.0	0.0	13.6
141	1,890.2	73.3	1,923.8	33.6	100.8	0.0	0.0	19.1
142	1,883.9	76.2	1,923.8	39.9	107.1	0.0	0.0	23.1
143	1,888.7	81.4	1,923.8	35.1	102.3	0.0	0.0	20.0
144	1,907.4	28.9	1,941.0	33.6	83.6	0.0	0.0	19.1
145	1,909.3	4.4	1,941.0	31.6	81.7	0.0	0.0	17.9
146	1,876.5	40.0	1,919.2	42.7	114.5	0.0	0.0	24.8
147	1,878.9	72.5	1,919.2	40.3	112.1	0.0	0.0	23.3
148	1,889.6	46.6	1,925.0	35.4	101.4	0.0	0.0	20.3
149	1,901.1	20.7	1,925.3	24.2	89.9	0.0	0.0	13.3
150	1,899.4	87.3	1,919.1	19.7	91.6	0.0	0.0	10.6
151	1,874.4	56.2	1,919.2	44.8	116.6	0.0	0.0	26.2
152	1,865.9	48.8	1,919.2	53.3	125.1	0.0	0.0	31.7
153	1,862.7	52.5	1,919.3	56.6	128.3	0.0	0.0	33.9
154	1,864.7	48.8	1,919.2	54.5	126.3	0.0	0.0	32.5
155	1,867.6	16.3	1,919.2	51.6	123.4	0.0	0.0	30.6
156	1,884.8	29.6	1,926.1	41.3	106.2	0.0	0.0	23.9
157	1,881.9	17.8	1,925.9	44.0	109.1	0.0	0.0	25.7
158	1,880.3	17.8	1,925.8	45.5	110.7	0.0	0.0	26.7
160	1,903.2	14.1	1,960.0	56.8	87.8	0.0	0.0	34.0
161	1,905.3	8.1	1,951.6	46.3	85.7	0.0	0.0	27.1
162	1,891.8	28.1	1,924.1	32.3	99.2	0.0	0.0	18.3
163	1,899.3	5.2	1,924.1	24.8	91.7	0.0	0.0	13.6
164	1,919.8	3.0	1,952.9	33.1	71.2	0.0	0.0	18.8
165	1,962.5	74.7	1,990.9	28.4	28.5	0.0	0.0	15.9
166	1,899.0	13.3	1,925.8	26.8	92.0	0.0	0.0	14.9
169	1,917.8	16.3	1,980.0	62.2	73.2	0.0	0.0	37.6
170	1,893.3	9.6	1,925.8	32.5	97.7	0.0	0.0	18.4
171	1,909.7	14.1	1,924.9	15.2	81.3	0.0	0.0	8.0
21	1,885.1	71.8	1,923.9	38.8	105.9	0.0	0.0	22.4
20	1,885.9	61.4	1,923.9	38.0	105.1	0.0	0.0	21.9
174	1,902.4	77.0	1,955.9	53.5	88.6	0.0	0.0	31.8
53	1,895.7	71.8	1,923.9	28.2	95.3	0.0	0.0	15.7
176	1,895.0	17.0	1,924.5	29.5	96.0	0.0	0.0	16.6
177	1,897.3	17.0	1,924.5	27.2	93.7	0.0	0.0	15.1
178	1,912.8	40.7	1,929.9	17.1	78.2	0.0	0.0	9.1
179	1,917.5	18.5	1,930.0	12.5	73.5	0.0	0.0	6.4
181	1,881.0	59.2	1,924.7	43.7	110.0	0.0	0.0	25.5
182	1,891.9	9.6	1,924.1	32.1	99.1	0.0	0.0	18.2
183	1,899.2	8.9	1,924.0	24.8	91.8	0.0	0.0	13.7
185	1,902.8	48.8	1,941.1	38.3	88.2	0.0	0.0	22.0
186	1,885.4	48.8	1,919.2	33.8	105.6	0.0	0.0	19.2
187	1,903.2	56.2	1,959.3	56.1	87.8	0.0	0.0	33.6
188	1,931.7	5.9	1,954.6	22.9	59.3	0.0	0.0	12.5
189	1,921.8	21.5	1,929.9	8.1	69.2	0.0	0.0	4.0
300	1,903.6	34.8	1,960.1	56.5	87.4	0.0	0.0	33.8
301	1,951.4	56.2	1,964.0	12.6	39.6	0.0	0.0	6.5
59	1,900.0	90.3	1,957.1	57.1	91.0	0.0	0.0	34.2
500	1,892.8	18.5	1,919.2	26.4	98.2	0.0	0.0	14.7
501	1,886.6	56.2	1,919.2	32.6	104.4	0.0	0.0	18.5
502	1,885.6	59.2	1,942.9	57.3	105.4	0.0	0.0	34.4
503	1,884.2	56.2	1,923.6	39.4	106.8	0.0	0.0	22.7
510	1,914.5	37.7	1,951.5	37.0	76.5	0.0	0.0	21.3
511	1,892.1	14.8	1,924.0	31.9	98.9	0.0	0.0	18.0
520	1,913.6	46.6	1,941.6	28.0	77.4	0.0	0.0	15.6
304	1,900.4	51.8	1,949.4	49.0	90.6	0.0	0.0	28.9
172	1,886.0	37.7	1,923.9	37.9	105.0	0.0	0.0	21.8
173	1,916.0	37.7	1,929.0	13.0	75.0	0.0	0.0	6.7
521	1,886.0	37.7	1,922.0	36.0	105.0	0.0	0.0	20.6
522	1,880.0	37.7	1,921.8	41.9	111.0	0.0	0.0	24.3
523	1,903.0	37.7	1,958.0	55.0	88.0	0.0	0.0	32.9
524	1,887.0	37.7	1,943.0	56.0	104.0	0.0	0.0	33.5
525	1,881.0	37.7	1,923.8	42.9	110.0	0.0	0.0	24.9
526	1,882.0	37.7	1,923.9	41.9	109.0	0.0	0.0	24.4

Net Work Analysis

Node No.	Elevation of Pipe (MSL)	Demand (cum/d)	Dynamic Pressure (MSL)	Distribution Main Dynamic Pressure (m)	Static Pressure (m)	F		Leakage (cum/d)
527	1,931.0	22.2	1,955.0	23.9	60.0	0.0	0.0	13.2
528	1,943.0	22.2	1,953.4	10.4	48.0	0.0	0.0	5.2
33	1,867.0	37.7	1,919.1	52.1	124.0	0.0	0.0	31.0
35	1,870.0	45.1	1,919.1	49.1	121.0	0.0	0.0	29.0
40	1,920.0	29.6	1,929.9	9.9	71.0	0.0	0.0	5.0
54	1,886.0	37.7	1,923.9	37.9	105.0	0.0	0.0	21.8
91	1,899.4	0.0	1,951.6	52.2	91.6	0.0	0.0	31.0
92	1,895.4	0.0	1,951.6	56.2	95.6	0.0	0.0	33.6
93	1,882.0	0.0	1,941.1	59.0	109.0	0.0	0.0	35.5
540	1,930.0	513.6	1,935.0	5.0	61.0	0.0	0.0	2.3
541	1,980.0	686.7	1,985.0	5.0	11.0	0.0	0.0	2.4
542	1,889.1	0.0	1,956.0	66.9	101.9	0.0	0.0	40.8
610	1,900.0	0.0	1,930.0	30.0	91.0	0.0	0.0	16.9
611	1,884.6	0.0	1,930.0	45.4	106.4	0.0	0.0	26.6
612	1,881.3	0.0	1,929.8	48.5	109.7	0.0	0.0	28.6

Net Work Analysis   Distribution Main   F

Pipe No.	Node A	Node B	Length (m)	Diameter (mm)	C	Flow (cum/d)	Velocity (m/s)	Pressure Gradient (o/oo)	Loss (m)
1	139	510	800.00	225.00	120.00	37.00	0.00	0.00	0.00
2	139	304	374.00	44.00	130.00	51.00	0.40	5.70	2.10
5	51	140	228.00	150.00	120.00	22.00	0.00	0.00	0.00
6	162	163	143.00	44.00	130.00	5.00	0.00	0.10	0.00
7	51	162	20.00	150.00	120.00	33.00	0.00	0.00	0.00
9	134	135	178.00	65.00	130.00	42.00	0.10	0.60	0.10
12	134	164	84.00	44.00	130.00	3.00	0.00	0.00	0.00
13	66	135	265.00	150.00	120.00	219.00	0.10	0.20	0.10
14	50	66	530.00	100.00	120.00	249.00	0.40	2.20	1.20
15	50	67	583.00	100.00	120.00	-128.00	-0.20	-0.70	-0.40
16	67	188	165.00	100.00	120.00	-156.00	-0.20	-0.90	-0.10
20	21	54	59.00	150.00	120.00	-251.00	-0.20	-0.30	0.00
21	21	23	88.00	100.00	120.00	89.00	0.10	0.30	0.00
22	23	24	55.00	150.00	120.00	16.00	0.00	0.00	0.00
23	20	24	90.00	100.00	120.00	83.00	0.10	0.30	0.00
24	20	21	66.00	150.00	120.00	-90.00	-0.10	-0.10	0.00
26	25	52	110.00	100.00	120.00	-12.00	0.00	0.00	0.00
27	52	53	176.00	100.00	120.00	37.00	0.10	0.10	0.00
28	53	60	100.00	100.00	120.00	-34.00	-0.10	-0.10	0.00
29	18	60	134.00	100.00	120.00	149.00	0.20	0.90	0.10
30	18	19	54.00	150.00	120.00	283.00	0.20	0.40	0.00
31	19	52	151.00	100.00	120.00	121.00	0.20	0.60	0.10
32	19	55	133.00	100.00	120.00	99.00	0.10	0.40	0.10
33	54	172	100.00	100.00	120.00	58.00	0.10	0.10	0.00
34	9	18	315.00	225.00	120.00	512.00	0.10	0.20	0.10
35	9	48	47.00	100.00	120.00	-746.00	-1.10	-16.90	-0.80
36	1	48	265.00	225.00	120.00	851.00	0.30	0.40	0.10
37	48	49	201.00	100.00	120.00	30.00	0.00	0.00	0.00
38	22	49	672.00	150.00	120.00	-497.00	-0.30	-1.10	-0.70
39	22	51	596.00	150.00	120.00	91.00	0.10	0.10	0.00
40	49	148	536.00	100.00	120.00	-99.00	-0.10	-0.40	-0.20
41	148	171	372.00	50.00	120.00	14.00	0.10	0.30	0.10
42	69	148	325.00	100.00	120.00	159.00	0.20	1.00	0.30
43	46	69	90.00	150.00	120.00	217.00	0.10	0.20	0.00
44	69	149	551.00	100.00	120.00	20.00	0.00	0.00	0.00
45	1	49	264.00	100.00	120.00	105.00	0.20	0.50	0.10
46	1	46	401.00	225.00	120.00	-1,428.00	-0.40	-1.10	-0.40
47	46	47	268.00	100.00	120.00	63.00	0.10	0.20	0.10
48	47	64	268.00	100.00	120.00	-223.00	-0.30	-1.80	-0.50
49	63	64	444.00	300.00	120.00	325.00	0.10	0.00	0.00
50	46	63	268.00	225.00	120.00	-1,803.00	-0.50	-1.70	-0.50
51	63	158	47.00	300.00	120.00	-2,156.00	-0.30	-0.60	0.00
52	158	166	358.00	50.00	120.00	13.00	0.10	0.30	0.10
53	157	158	77.00	300.00	120.00	2,187.00	0.40	0.60	0.10
54	157	170	264.00	44.00	130.00	9.00	0.10	0.30	0.10
55	156	157	300.00	300.00	120.00	2,214.00	0.40	0.60	0.20
56	2	156	100.00	300.00	120.00	2,931.00	0.50	1.00	0.10
61	2	203	704.00	350.00	120.00	-4,768.00	-0.60	-1.20	-0.80
62	2	4	442.00	225.00	120.00	1,785.00	0.50	1.60	0.70
63	4	5	65.00	225.00	120.00	1,692.00	0.50	1.50	0.10
64	4	61	972.00	65.00	130.00	37.00	0.10	0.50	0.40
65	5	6	221.00	150.00	120.00	301.00	0.20	0.40	0.10
66	6	27	150.00	150.00	120.00	289.00	0.20	0.40	0.10
67	27	37	216.00	100.00	120.00	-104.00	-0.10	-0.40	-0.10
68	36	37	400.00	150.00	120.00	132.00	0.10	0.10	0.00
69	36	38	563.00	100.00	120.00	37.00	0.10	0.10	0.00
70	37	38	30.00	150.00	120.00	-6.00	0.00	0.00	0.00
72	27	181	1,106.00	150.00	120.00	299.00	0.20	0.40	0.50
74	39	173	320.00	44.00	130.00	37.00	0.30	3.10	1.00
76	102	181	92.00	150.00	120.00	-287.00	-0.20	-0.40	0.00
80	39	179	125.00	150.00	120.00	-166.00	-0.10	-0.10	0.00
82	179	208	104.00	65.00	130.00	-21.00	-0.10	-0.20	0.00
83	102	103	350.00	150.00	120.00	355.00	0.20	0.60	0.20
84	101	102	120.00	44.00	130.00	-9.00	-0.10	-0.20	0.00
86	41	100	120.00	44.00	130.00	-7.00	-0.10	-0.20	0.00
87	100	101	312.00	37.00	130.00	-6.00	-0.10	-0.30	-0.10
88	42	43	257.00	100.00	120.00	51.00	0.10	0.10	0.00
89	42	43	257.00	100.00	120.00	51.00	0.10	0.10	0.00
90	43	44	268.00	150.00	120.00	74.00	0.10	0.00	0.00
91	44	177	391.00	100.00	120.00	17.00	0.00	0.00	0.00
92	44	176	391.00	100.00	120.00	17.00	0.00	0.00	0.00
93	176	177	90.00	100.00	120.00	0.00	0.00	0.00	0.00
99	29	112	251.00	65.00	130.00	-9.00	0.00	0.00	0.00
100	109	511	400.00	100.00	120.00	71.00	0.10	0.20	0.10
101	108	109	120.00	100.00	120.00	73.00	0.10	0.20	0.00
102	108	183	228.00	44.00	130.00	8.00	0.10	0.20	0.10
103	107	108	200.00	100.00	120.00	77.00	0.10	0.30	0.10

Net Work Analysis Distribution Main F

Pipe No.	Node A	Node B	Length (m)	Diameter (mm)	C	Flow (cum/d)	Velocity (m/s)	Pressure Gradient (o/oo)	Loss (m)
104	107	182	253.00	44.00	130.00	9.00	0.10	0.30	0.10
105	28	107	40.00	100.00	120.00	81.00	0.10	0.30	0.00
106	28	113	66.00	150.00	120.00	448.00	0.30	0.90	0.10
107	113	114	265.00	65.00	130.00	14.00	0.10	0.10	0.00
108	114	117	500.00	65.00	130.00	9.00	0.00	0.00	0.00
109	117	118	318.00	44.00	130.00	33.00	0.30	2.60	0.80
111	118	119	248.00	75.00	120.00	122.00	0.30	2.40	0.60
113	28	106	250.00	150.00	120.00	-334.00	-0.20	-0.50	-0.10
114	103	106	400.00	150.00	120.00	343.00	0.20	0.60	0.20
116	104	105	300.00	44.00	130.00	-14.00	-0.10	-0.50	-0.10
118	30	526	210.00	100.00	120.00	75.00	0.10	0.20	0.10
119	62	132	1,500.00	150.00	120.00	249.00	0.20	0.30	0.50
120	155	500	175.00	140.00	130.00	35.00	0.00	0.00	0.00
125	132	133	363.00	44.00	130.00	13.00	0.10	0.50	0.20
127	31	64	167.00	225.00	120.00	-68.00	0.00	0.00	0.00
129	70	144	284.00	100.00	120.00	33.00	0.10	0.10	0.00
130	144	145	121.00	44.00	130.00	4.00	0.00	0.10	0.00
132	45	47	162.00	150.00	120.00	-260.00	-0.20	-0.30	-0.10
133	9	45	761.00	100.00	120.00	-210.00	-0.30	-1.60	-1.20
134	9	57	25.00	100.00	120.00	346.00	0.50	4.10	0.10
135	57	58	120.00	100.00	120.00	134.00	0.20	0.70	0.10
136	58	60	262.00	100.00	120.00	-41.00	-0.10	-0.10	0.00
138	56	59	352.00	97.00	130.00	-85.00	-0.10	-0.30	-0.10
140	58	143	168.00	100.00	120.00	88.00	0.10	0.30	0.10
141	142	143	264.00	50.00	120.00	-6.00	0.00	-0.10	0.00
142	57	142	202.00	100.00	120.00	142.00	0.20	0.80	0.20
143	141	142	99.00	100.00	120.00	-73.00	-0.10	-0.20	0.00
146	12	150	360.00	150.00	120.00	87.00	0.10	0.00	0.00
147	12	151	163.00	150.00	120.00	-136.00	-0.10	-0.10	0.00
148	13	151	35.00	150.00	120.00	48.00	0.00	0.00	0.00
149	151	186	450.00	140.00	130.00	-49.00	0.00	0.00	0.00
151	154	155	132.00	100.00	120.00	51.00	0.10	0.10	0.00
160	153	154	165.00	100.00	120.00	79.00	0.10	0.30	0.00
161	14	153	236.00	150.00	120.00	-222.00	-0.10	-0.30	-0.10
162	13	14	475.00	150.00	120.00	-127.00	-0.10	-0.10	0.00
163	13	146	35.00	150.00	120.00	112.00	0.10	0.10	0.00
164	146	147	137.00	150.00	120.00	72.00	0.10	0.00	0.00
167	11	137	663.00	150.00	120.00	-501.00	-0.30	-1.10	-0.70
168	14	152	66.00	100.00	120.00	131.00	0.20	0.70	0.00
170	33	152	150.00	100.00	120.00	-82.00	-0.10	-0.30	0.00
175	56	68	165.00	100.00	120.00	273.00	0.40	2.60	0.40
176	68	136	726.00	44.00	130.00	-62.00	-0.50	-7.90	-5.80
177	136	137	512.00	44.00	130.00	56.00	0.40	6.70	3.40
178	137	187	277.00	140.00	130.00	-532.00	-0.40	-1.50	-0.40
182	71	124	400.00	225.00	120.00	-64.00	0.00	0.00	0.00
183	15	124	441.00	225.00	120.00	114.00	0.00	0.00	0.00
184	15	16	177.00	150.00	120.00	468.00	0.30	1.00	0.20
185	16	121	286.00	100.00	120.00	164.00	0.20	1.00	0.30
186	120	121	1,210.00	75.00	120.00	-83.00	-0.20	-1.20	-1.40
187	16	125	850.00	100.00	120.00	178.00	0.30	1.20	1.00
191	122	209	120.00	225.00	120.00	63.00	0.00	0.00	0.00
193	125	126	396.00	100.00	120.00	161.00	0.20	1.00	0.40
194	126	128	668.00	65.00	130.00	42.00	0.10	0.60	0.40
195	126	127	1,047.00	65.00	130.00	40.00	0.10	0.50	0.60
196	128	129	90.00	65.00	130.00	14.00	0.10	0.10	0.00
197	129	130	60.00	44.00	130.00	8.00	0.10	0.20	0.00
198	130	131	88.00	37.00	130.00	3.00	0.00	0.10	0.00
199	62	520	569.00	100.00	120.00	46.00	0.10	0.10	0.10
200	41	42	237.00	100.00	120.00	27.00	0.00	0.00	0.00
201	30	113	250.00	150.00	120.00	-307.00	-0.20	-0.50	-0.10
203	5	36	105.00	150.00	120.00	208.00	0.10	0.20	0.00
179	187	300	500.00	150.00	120.00	-588.00	-0.40	-1.50	-0.80
250	136	301	215.00	65.00	130.00	-171.00	-0.60	-7.80	-1.70
209	160	300	152.00	150.00	120.00	-191.00	-0.10	-0.20	0.00
213	62	524	334.00	97.00	130.00	-352.00	-0.60	-4.20	-1.40
214	30	503	334.00	100.00	120.00	172.00	0.30	1.10	0.40
215	112	511	132.00	75.00	120.00	-35.00	-0.10	-0.20	0.00
216	500	501	100.00	140.00	130.00	17.00	0.00	0.00	0.00
217	154	501	104.00	65.00	130.00	22.00	0.10	0.20	0.00
218	186	501	221.00	140.00	130.00	-148.00	-0.10	-0.10	0.00
110	118	503	167.00	75.00	120.00	-116.00	-0.30	-2.20	-0.40
300	215	301	554.00	100.00	120.00	227.00	0.30	1.90	1.00
208	215	300	250.00	100.00	120.00	814.00	1.20	19.80	5.00
17	205	527	250.00	100.00	120.00	70.00	0.10	0.20	0.10
172	15	153	577.00	150.00	120.00	401.00	0.30	0.70	0.40
302	10	70	480.00	150.00	120.00	-18.00	0.00	0.00	0.00
304	24	25	55.00	100.00	120.00	13.00	0.00	0.00	0.00

Net Work Analysis   Distribution Main   F

Pipe No.	Node A	Node B	Length (m)	Diameter (mm)	C	Flow (cum/d)	Velocity (m/s)	Pressure Gradient (o/oo)	Loss (m)
305	55	172	50.00	100.00	120.00	33.00	0.10	0.10	0.00
306	20	172	50.00	100.00	120.00	-54.00	-0.10	-0.10	0.00
307	23	25	75.00	100.00	120.00	12.00	0.00	0.00	0.00
308	40	178	150.00	150.00	120.00	40.00	0.00	0.00	0.00
77	39	40	180.00	100.00	120.00	91.00	0.10	0.30	0.10
78	40	189	60.00	100.00	120.00	21.00	0.00	0.00	0.00
79	100	101	450.00	44.00	130.00	-8.00	-0.10	-0.20	-0.10
309	41	42	150.00	150.00	120.00	103.00	0.10	0.10	0.00
310	119	521	350.00	65.00	130.00	75.00	0.30	1.70	0.60
311	521	522	350.00	65.00	130.00	37.00	0.10	0.50	0.20
313	33	35	150.00	100.00	120.00	45.00	0.10	0.10	0.00
301	11	523	120.00	150.00	120.00	437.00	0.30	0.90	0.10
314	59	523	180.00	100.00	120.00	-399.00	-0.60	-5.30	-1.00
315	502	524	150.00	75.00	120.00	-59.00	-0.20	-0.60	-0.10
317	524	600	450.00	97.00	130.00	-449.00	-0.70	-6.60	-3.00
319	525	526	210.00	75.00	120.00	-37.00	-0.10	-0.30	-0.10
321	527	528	480.00	65.00	130.00	108.00	0.40	3.30	1.60
322	134	528	200.00	65.00	130.00	-85.00	-0.30	-2.20	-0.40
11	165	601	75.00	65.00	130.00	-74.00	-0.30	-1.70	-0.10
324	188	527	50.00	65.00	130.00	-162.00	-0.60	-7.00	-0.30
325	122	123	160.00	140.00	130.00	48.00	0.00	0.00	0.00
327	56	59	352.00	140.00	130.00	-224.00	-0.20	-0.30	-0.10
328	1	49	264.00	158.00	130.00	380.00	0.20	0.50	0.10
329	206	527	215.00	150.00	120.00	222.00	0.10	0.30	0.10
330	156	541	931.00	100.00	120.00	686.00	1.00	14.40	13.40
331	112	540	434.00	97.00	130.00	513.00	0.80	8.40	3.70
601	91	139	162.00	150.00	120.00	211.00	0.10	0.20	0.00
602	91	161	225.00	65.00	130.00	8.00	0.00	0.00	0.00
603	70	93	662.00	150.00	120.00	-149.00	-0.10	-0.10	-0.10
605	93	132	616.00	150.00	120.00	-198.00	-0.10	-0.20	-0.10
606	93	185	300.00	150.00	120.00	48.00	0.00	0.00	0.00
212	22	54	275.00	150.00	120.00	347.00	0.20	0.60	0.20
610	122	160	931.00	225.00	120.00	-177.00	-0.10	0.00	0.00
611	91	92	228.00	150.00	120.00	-219.00	-0.10	-0.20	-0.10
612	92	135	690.00	100.00	120.00	-219.00	-0.30	-1.80	-1.20
613	604	610	200.00	97.00	130.00	26.00	0.00	0.00	0.00
614	105	612	250.00	44.00	130.00	-26.00	-0.20	-1.60	-0.40
616	174	542	569.00	97.00	130.00	-77.00	-0.10	-0.30	-0.10
701	186	606	500.00	250.00	120.00	-1,392.00	-0.30	-0.60	-0.30
702	169	603	50.00	55.00	130.00	-16.00	-0.10	-0.20	0.00
703	15	153	577.00	140.00	130.00	362.00	0.30	0.70	0.40
705	16	125	850.00	65.00	130.00	62.00	0.20	1.20	1.00
713	102	103	350.00	198.00	130.00	798.00	0.30	0.60	0.20
714	103	106	400.00	198.00	130.00	772.00	0.30	0.60	0.20
715	28	106	250.00	198.00	130.00	-750.00	-0.30	-0.50	-0.10
716	28	107	40.00	198.00	130.00	535.00	0.20	0.30	0.00
717	107	108	200.00	198.00	130.00	506.00	0.20	0.30	0.10
718	108	109	120.00	198.00	130.00	479.00	0.20	0.20	0.00
719	109	511	400.00	198.00	130.00	466.00	0.20	0.20	0.10
720	112	511	132.00	198.00	130.00	-488.00	-0.20	-0.20	0.00
731	113	114	265.00	140.00	130.00	105.00	0.10	0.10	0.00
732	114	117	500.00	140.00	130.00	68.00	0.10	0.00	0.00
741	179	208	104.00	140.00	130.00	-163.00	-0.10	-0.20	0.00
751	610	611	630.00	97.00	130.00	26.00	0.00	0.00	0.00
752	611	612	610.00	65.00	130.00	26.00	0.10	0.30	0.10
761	50	542	1,044.00	97.00	130.00	-227.00	-0.40	-1.90	-2.00
762	68	542	165.00	97.00	130.00	304.00	0.50	3.20	0.50
771	101	102	120.00	140.00	130.00	-197.00	-0.10	-0.20	0.00
772	100	101	450.00	140.00	130.00	-174.00	-0.10	-0.20	-0.10
773	41	100	120.00	140.00	130.00	-156.00	-0.10	-0.20	0.00
781	5	6	221.00	250.00	120.00	1,153.00	0.30	0.40	0.10
782	6	27	150.00	250.00	120.00	1,109.00	0.30	0.40	0.10
783	27	181	1,106.00	250.00	120.00	1,147.00	0.30	0.40	0.50
784	102	181	92.00	250.00	120.00	-1,101.00	-0.30	-0.40	0.00
791	151	186	450.00	140.00	130.00	-49.00	0.00	0.00	0.00
792	13	151	35.00	140.00	130.00	44.00	0.00	0.00	0.00
793	13	14	475.00	140.00	130.00	-115.00	-0.10	-0.10	0.00
794	14	153	236.00	140.00	130.00	-201.00	-0.10	-0.30	-0.10
795	154	501	104.00	140.00	130.00	165.00	0.10	0.20	0.00
796	153	154	165.00	140.00	130.00	208.00	0.20	0.30	0.00

Net Work Analysis   Distribution Main

File Name   Nuwara011Year2015(3)   G
Season   Wet
Network Type   Proposed

Demand   Year 2015
               Hourly Max
Reserver   Water Level Fix   All
               Discharge Fix   None

Magnification of Demand   1.622

Reservoir Data

Node		HWL (MSL)	LWL (MSL)	Reservoir
203	1	1,927.0	1,927.0	Haddon Hill
205	1	1,955.0	1,955.0	New Water Field
206	1	1,955.0	1,955.0	Old Water Field
208	1	1,930.0	1,930.0	Bonavista
209	1	1,960.0	1,960.0	Lovers Leap
215	1	1,965.0	1,965.0	Gamunu/Brewery
600	1	1,946.0	1,946.0	Nseby
601	1	1,991.0	1,991.0	Piyatisappura
603	1	1,980.0	1,980.0	Unique View
604	1	1,925.0	1,925.0	Vijithapura
606	1	1,920.0	1,920.0	Low Area 2

Node Data

Node		Ground Elev (MSL)	Demand (cum/d)		
1	1	1,881.7	122.0	0	0
2	1	1,885.1	70.0	0	0
4	1	1,881.8	76.0	0	0
5	1	1,881.3	40.0	0	0
6	1	1,883.7	76.0	0	0
9	1	1,881.2	133.0	0	0
10	1	1,903.4	25.0	0	0
11	1	1,902.1	86.0	0	0
12	1	1,880.5	66.0	0	0
13	1	1,874.2	51.0	0	0
14	1	1,865.6	66.0	0	0
15	1	1,860.5	61.0	0	0
16	1	1,860.5	85.0	0	0
18	1	1,885.1	107.0	0	0
19	1	1,885.8	85.0	0	0
22	1	1,889.4	79.0	0	0
23	1	1,887.3	82.0	0	0
24	1	1,887.7	117.0	0	0
25	1	1,887.0	51.0	0	0
27	1	1,882.3	75.0	0	0
28	1	1,879.2	26.0	0	0
29	1	1,892.4	13.0	0	0
30	1	1,882.6	80.0	0	0
31	1	1,882.0	93.0	0	0
36	1	1,889.3	51.0	0	0
37	1	1,891.4	47.0	0	0
38	1	1,893.9	42.0	0	0
39	1	1,914.9	50.0	0	0
41	1	1,899.2	44.0	0	0
42	1	1,896.1	38.0	0	0
43	1	1,894.8	40.0	0	0
44	1	1,893.4	54.0	0	0
45	1	1,884.9	67.0	0	0
46	1	1,878.2	127.0	0	0
47	1	1,880.7	36.0	0	0
48	1	1,880.2	101.0	0	0
49	1	1,881.1	160.0	0	0
50	1	1,886.3	144.0	0	0
51	1	1,895.4	47.0	0	0
52	1	1,889.1	97.0	0	0
55	1	1,886.2	89.0	0	0
56	1	1,902.7	49.0	0	0
57	1	1,884.1	93.0	0	0

58	1	1,890.9	119.0	0	0
60	1	1,889.9	100.0	0	0
61	1	1,885.4	50.0	0	0
62	1	1,890.2	76.0	0	0
63	1	1,878.7	38.0	0	0
64	1	1,876.5	44.0	0	0
66	1	1,910.0	40.0	0	0
67	1	1,921.5	38.0	0	0
68	1	1,918.6	42.0	0	0
69	1	1,879.5	50.0	0	0
70	1	1,904.5	132.0	0	0
71	1	1,894.5	87.0	0	0
100	1	1,896.6	33.0	0	0
101	1	1,885.9	25.0	0	0
102	1	1,876.7	37.0	0	0
103	1	1,883.1	50.0	0	0
104	1	1,916.3	19.0	0	0
105	1	1,903.9	17.0	0	0
106	1	1,881.3	43.0	0	0
107	1	1,880.1	32.0	0	0
108	1	1,884.1	30.0	0	0
109	1	1,884.6	20.0	0	0
112	1	1,900.7	0.0	0	0
113	1	1,878.5	29.0	0	0
114	1	1,897.3	57.0	0	0
117	1	1,907.5	59.0	0	0
118	1	1,889.0	37.0	0	0
119	1	1,889.1	64.0	0	0
120	1	1,871.2	113.0	0	0
121	1	1,862.6	109.0	0	0
122	1	1,950.0	89.0	0	0
123	1	1,927.3	65.0	0	0
124	1	1,879.6	68.0	0	0
125	1	1,886.2	108.0	0	0
126	1	1,894.1	107.0	0	0
127	1	1,874.9	54.0	0	0
128	1	1,896.4	38.0	0	0
129	1	1,896.0	8.0	0	0
130	1	1,886.4	7.0	0	0
131	1	1,875.8	4.0	0	0
132	1	1,886.8	51.0	0	0
133	1	1,898.7	18.0	0	0
134	1	1,924.5	54.0	0	0
135	1	1,915.7	58.0	0	0
136	1	1,944.8	71.0	0	0
137	1	1,905.0	118.0	0	0
139	1	1,905.8	165.0	0	0
140	1	1,899.4	31.0	0	0
141	1	1,890.2	99.0	0	0
142	1	1,883.9	103.0	0	0
143	1	1,888.7	110.0	0	0
144	1	1,907.4	39.0	0	0
145	1	1,909.3	6.0	0	0
146	1	1,876.5	54.0	0	0
147	1	1,878.9	98.0	0	0
148	1	1,889.6	63.0	0	0
149	1	1,901.1	28.0	0	0
150	1	1,899.4	118.0	0	0
151	1	1,874.4	76.0	0	0
152	1	1,865.9	66.0	0	0
153	1	1,862.7	71.0	0	0
154	1	1,864.7	66.0	0	0
155	1	1,867.6	22.0	0	0
156	1	1,884.8	40.0	0	0
157	1	1,881.9	24.0	0	0
158	1	1,880.3	24.0	0	0
160	1	1,903.2	19.0	0	0
161	1	1,905.3	11.0	0	0
162	1	1,891.8	38.0	0	0
163	1	1,899.3	7.0	0	0
164	1	1,919.8	4.0	0	0
165	1	1,962.5	101.0	0	0
166	1	1,899.0	18.0	0	0
169	1	1,917.8	22.0	0	0
170	1	1,893.3	13.0	0	0

171	1	1,909.7	19.0	0	0
21	1	1,885.1	97.0	0	0
20	1	1,885.9	83.0	0	0
174	1	1,902.4	104.0	0	0
53	1	1,895.7	97.0	0	0
176	1	1,895.0	23.0	0	0
177	1	1,897.3	23.0	0	0
178	1	1,912.8	55.0	0	0
179	1	1,917.5	25.0	0	0
181	1	1,881.0	80.0	0	0
182	1	1,891.9	13.0	0	0
183	1	1,899.2	12.0	0	0
185	1	1,902.8	66.0	0	0
186	1	1,885.4	66.0	0	0
187	1	1,903.2	76.0	0	0
188	1	1,931.7	8.0	0	0
189	1	1,921.8	29.0	0	0
300	1	1,903.6	47.0	0	0
301	1	1,951.4	76.0	0	0
59	1	1,900.0	122.0	0	0
500	1	1,892.8	25.0	0	0
501	1	1,886.6	76.0	0	0
502	1	1,885.6	80.0	0	0
503	1	1,884.2	76.0	0	0
510	1	1,914.5	51.0	0	0
511	1	1,892.1	20.0	0	0
520	1	1,913.6	63.0	0	0
304	1	1,900.4	70.0	0	0
172	1	1,886.0	51.0	0	0
173	1	1,916.0	51.0	0	0
521	1	1,886.0	51.0	0	0
522	1	1,880.0	51.0	0	0
523	1	1,903.0	51.0	0	0
524	1	1,887.0	51.0	0	0
525	1	1,881.0	51.0	0	0
526	1	1,882.0	51.0	0	0
527	1	1,931.0	30.0	0	0
528	1	1,943.0	30.0	0	0
33	1	1,867.0	51.0	0	0
35	1	1,870.0	61.0	0	0
40	1	1,920.0	40.0	0	0
54	1	1,886.0	51.0	0	0
91	1	1,899.4	0.0	0	0
92	1	1,895.4	0.0	0	0
93	1	1,882.0	0.0	0	0
540	1	1,930.0	428.0	0	0
541	1	1,980.0	572.0	0	0
542	1	1,889.1	0.0	0	0
610	1	1,900.0	0.0	0	0
611	1	1,884.6	0.0	0	0
612	1	1,881.3	0.0	0	0

Booster Pump Data

No.	Type	Node A	Node B	Pipe No.	Pressure (m)
1	B	156	541	330	84.7
2	B	112	540	331	24.4

Pipe Data

Pipe No.	Node A	Node B	Diameter (mm)	Length (m)	C Value
1	139	510	225.0	800.0	120.0
2	139	304	44.0	374.0	130.0
5	51	140	150.0	228.0	120.0
6	162	163	44.0	143.0	130.0
7	51	162	150.0	20.0	120.0
9	134	135	65.0	178.0	130.0
12	134	164	44.0	84.0	130.0
13	66	135	150.0	265.0	120.0
14	50	66	100.0	530.0	120.0
15	50	67	100.0	583.0	120.0
16	67	188	100.0	165.0	120.0
20	21	54	150.0	59.0	120.0
21	21	23	100.0	88.0	120.0
22	23	24	150.0	55.0	120.0
23	20	24	100.0	90.0	120.0
24	20	21	150.0	66.0	120.0
26	25	52	100.0	110.0	120.0
27	52	53	100.0	176.0	120.0
28	53	60	100.0	100.0	120.0
29	18	60	100.0	134.0	120.0
30	18	19	150.0	54.0	120.0
31	19	52	100.0	151.0	120.0
32	19	55	100.0	133.0	120.0
33	54	172	100.0	100.0	120.0
34	9	18	225.0	315.0	120.0
35	9	48	100.0	47.0	120.0
36	1	48	225.0	265.0	120.0
37	48	49	100.0	201.0	120.0
38	22	49	150.0	672.0	120.0
39	22	51	150.0	596.0	120.0
40	49	148	100.0	536.0	120.0
41	148	171	50.0	372.0	120.0
42	69	148	100.0	325.0	120.0
43	46	69	150.0	90.0	120.0
44	69	149	100.0	551.0	120.0
45	1	49	100.0	264.0	120.0
46	1	46	225.0	401.0	120.0
47	46	47	100.0	268.0	120.0
48	47	64	100.0	268.0	120.0
49	63	64	300.0	444.0	120.0
50	46	63	225.0	268.0	120.0
51	63	158	300.0	47.0	120.0
52	158	166	50.0	358.0	120.0
53	157	158	300.0	77.0	120.0
54	157	170	44.0	264.0	130.0
55	156	157	300.0	300.0	120.0
56	2	156	300.0	100.0	120.0
61	2	203	350.0	704.0	120.0
62	2	4	225.0	442.0	120.0
63	4	5	225.0	65.0	120.0
64	4	61	65.0	972.0	130.0
65	5	6	150.0	221.0	120.0
66	6	27	150.0	150.0	120.0
67	27	37	100.0	216.0	120.0
68	36	37	150.0	400.0	120.0
69	36	38	100.0	563.0	120.0
70	37	38	150.0	30.0	120.0
72	27	181	150.0	1,106.0	120.0
74	39	173	44.0	320.0	130.0
76	102	181	150.0	92.0	120.0
80	39	179	150.0	125.0	120.0
82	179	208	65.0	104.0	130.0
83	102	103	150.0	350.0	120.0
84	101	102	44.0	120.0	130.0
86	41	100	44.0	120.0	130.0
87	100	101	37.0	312.0	130.0
88	42	43	100.0	257.0	120.0
89	42	43	100.0	257.0	120.0
90	43	44	150.0	268.0	120.0
91	44	177	100.0	391.0	120.0
92	44	176	100.0	391.0	120.0
93	176	177	100.0	90.0	120.0

99	29	112	65.0	251.0	130.0
100	109	511	100.0	400.0	120.0
101	108	109	100.0	120.0	120.0
102	108	183	44.0	228.0	130.0
103	107	108	100.0	200.0	120.0
104	107	182	44.0	253.0	130.0
105	28	107	100.0	40.0	120.0
106	28	113	150.0	66.0	120.0
107	113	114	65.0	265.0	130.0
108	114	117	65.0	500.0	130.0
109	117	118	44.0	318.0	130.0
111	118	119	75.0	248.0	120.0
113	28	106	150.0	250.0	120.0
114	103	106	150.0	400.0	120.0
116	104	105	44.0	300.0	130.0
118	30	526	100.0	210.0	120.0
119	62	132	150.0	1,500.0	120.0
120	155	500	140.0	175.0	120.0
125	132	133	44.0	363.0	130.0
127	31	64	225.0	167.0	120.0
129	70	144	100.0	284.0	120.0
130	144	145	44.0	121.0	130.0
132	45	47	150.0	162.0	120.0
133	9	45	100.0	761.0	120.0
134	9	57	100.0	25.0	120.0
135	57	58	100.0	120.0	120.0
136	58	60	100.0	262.0	120.0
138	56	59	97.0	352.0	130.0
140	58	143	100.0	168.0	120.0
141	142	143	50.0	264.0	120.0
142	57	142	100.0	202.0	120.0
143	141	142	100.0	99.0	120.0
146	12	150	150.0	360.0	120.0
147	12	151	150.0	163.0	120.0
148	13	151	150.0	35.0	120.0
149	151	186	140.0	450.0	130.0
151	154	155	100.0	132.0	120.0
160	153	154	100.0	165.0	120.0
161	14	153	150.0	236.0	120.0
162	13	14	150.0	475.0	120.0
163	13	146	150.0	35.0	120.0
164	146	147	150.0	137.0	120.0
167	11	137	150.0	663.0	120.0
168	14	152	100.0	66.0	120.0
170	33	152	100.0	150.0	120.0
175	56	68	100.0	165.0	120.0
176	68	136	44.0	726.0	130.0
177	136	137	44.0	512.0	130.0
178	137	187	140.0	277.0	130.0
182	71	124	225.0	400.0	120.0
183	15	124	225.0	441.0	120.0
184	15	16	150.0	177.0	120.0
185	16	121	100.0	286.0	120.0
186	120	121	75.0	1,210.0	120.0
187	16	125	100.0	850.0	120.0
191	122	209	225.0	120.0	120.0
193	125	126	100.0	396.0	120.0
194	126	128	65.0	668.0	130.0
195	126	127	65.0	1,047.0	130.0
196	128	129	65.0	90.0	130.0
197	129	130	44.0	60.0	130.0
198	130	131	37.0	88.0	130.0
199	62	520	100.0	569.0	120.0
200	41	42	100.0	237.0	120.0
201	30	113	150.0	250.0	120.0
203	5	36	150.0	105.0	120.0
179	187	300	150.0	500.0	120.0
250	136	301	65.0	215.0	130.0
209	160	300	150.0	152.0	120.0
213	62	524	97.0	334.0	130.0
214	30	503	100.0	334.0	120.0
215	112	511	75.0	132.0	120.0
216	500	501	140.0	100.0	130.0
217	154	501	65.0	104.0	130.0
218	186	501	140.0	221.0	130.0

110	118	503	75.0	167.0	120.0
300	215	301	100.0	554.0	120.0
208	215	300	100.0	250.0	120.0
17	205	527	100.0	250.0	120.0
172	15	153	150.0	577.0	120.0
302	10	70	150.0	480.0	120.0
304	24	25	100.0	55.0	120.0
305	55	172	100.0	50.0	120.0
306	20	172	100.0	50.0	120.0
307	23	25	100.0	75.0	120.0
308	40	178	150.0	150.0	120.0
77	39	40	100.0	180.0	120.0
78	40	189	100.0	60.0	120.0
79	100	101	44.0	450.0	130.0
309	41	42	150.0	150.0	120.0
310	119	521	65.0	350.0	130.0
311	521	522	65.0	350.0	130.0
313	33	35	100.0	150.0	120.0
301	11	523	150.0	120.0	120.0
314	59	523	100.0	180.0	120.0
315	502	524	75.0	150.0	120.0
317	524	600	97.0	450.0	130.0
319	525	526	75.0	210.0	120.0
321	527	528	65.0	480.0	130.0
322	134	528	65.0	200.0	130.0
11	165	601	65.0	75.0	130.0
324	188	527	65.0	50.0	130.0
325	122	123	140.0	160.0	130.0
327	56	59	140.0	352.0	130.0
328	1	49	158.0	264.0	130.0
329	206	527	150.0	215.0	120.0
330	156	541	100.0	931.0	120.0
331	112	540	97.0	434.0	130.0
601	91	139	150.0	162.0	120.0
602	91	161	65.0	225.0	130.0
603	70	93	150.0	662.0	120.0
605	93	132	150.0	616.0	120.0
606	93	185	150.0	300.0	120.0
212	22	54	150.0	275.0	120.0
610	122	160	225.0	931.0	120.0
611	91	92	150.0	228.0	120.0
612	92	135	100.0	690.0	120.0
613	604	610	97.0	200.0	130.0
614	105	612	44.0	250.0	130.0
616	174	542	97.0	569.0	130.0
701	15	606	250.0	500.0	120.0
702	169	603	55.0	50.0	130.0
703	15	153	140.0	577.0	130.0
705	16	125	65.0	850.0	130.0
713	102	103	198.0	350.0	130.0
714	103	106	198.0	400.0	130.0
715	28	106	198.0	250.0	130.0
716	28	107	198.0	40.0	130.0
717	107	108	198.0	200.0	130.0
718	108	109	198.0	120.0	130.0
719	109	511	198.0	400.0	130.0
720	112	511	198.0	132.0	130.0
731	113	114	140.0	265.0	130.0
732	114	117	140.0	500.0	130.0
741	179	208	140.0	104.0	130.0
751	610	611	97.0	630.0	130.0
752	611	612	65.0	610.0	130.0
761	50	542	97.0	1,044.0	130.0
762	68	542	97.0	165.0	130.0
771	101	102	140.0	120.0	130.0
772	100	101	140.0	450.0	130.0
773	41	100	140.0	120.0	130.0
781	5	6	250.0	221.0	120.0
782	6	27	250.0	150.0	120.0
783	27	181	250.0	1,106.0	120.0
784	102	181	250.0	92.0	120.0
791	151	186	140.0	450.0	130.0
792	13	151	140.0	35.0	130.0
793	13	14	140.0	475.0	130.0
794	14	153	140.0	236.0	130.0

| 795 | 154 | 501 | 140.0 | 104.0 | 130.0 |
| 796 | 153 | 154 | 140.0 | 165.0 | 130.0 |

Net Work Analysis   Distribution Main   G

Node No.	Elevation of Pipe (MSL)	Demand (cum/d)	Dynamic Pressure (MSL)	Dynamic Pressure (m)	Static Pressure (m)			Leakage (cum/d)
1	1,881.7	197.6	1,918.9	37.2	109.3	0.0	0.0	
2	1,885.1	113.4	1,924.1	39.0	105.9	0.0	0.0	
4	1,881.8	123.1	1,921.6	39.8	109.2	0.0	0.0	
5	1,881.3	64.8	1,921.3	40.0	109.7	0.0	0.0	
6	1,883.7	123.1	1,921.0	37.3	107.3	0.0	0.0	
9	1,881.2	215.5	1,915.1	33.9	109.8	0.0	0.0	
10	1,903.4	40.5	1,924.6	21.1	87.6	0.0	0.0	
11	1,902.1	139.3	1,953.3	51.2	88.9	0.0	0.0	
12	1,880.5	106.9	1,916.3	35.9	110.5	0.0	0.0	
13	1,874.2	82.6	1,916.4	42.2	116.8	0.0	0.0	
14	1,865.6	106.9	1,916.6	51.0	125.4	0.0	0.0	
15	1,860.5	98.8	1,918.7	58.2	130.5	0.0	0.0	
16	1,860.5	137.7	1,917.9	57.4	130.5	0.0	0.0	
18	1,885.1	173.3	1,914.8	29.7	105.9	0.0	0.0	
19	1,885.8	137.7	1,914.7	28.9	105.2	0.0	0.0	
22	1,889.4	128.0	1,915.2	25.8	101.6	0.0	0.0	
23	1,887.3	132.8	1,914.4	27.1	103.7	0.0	0.0	
24	1,887.7	189.5	1,914.4	26.7	103.3	0.0	0.0	
25	1,887.0	82.6	1,914.4	27.4	104.0	0.0	0.0	
27	1,882.3	121.5	1,920.8	38.5	108.7	0.0	0.0	
28	1,879.2	42.1	1,917.4	38.2	111.8	0.0	0.0	
29	1,892.4	21.1	1,917.0	24.6	98.6	0.0	0.0	
30	1,882.6	129.6	1,916.7	34.1	108.4	0.0	0.0	
31	1,882.0	150.7	1,922.6	40.6	109.0	0.0	0.0	
36	1,889.3	82.6	1,921.2	31.9	101.7	0.0	0.0	
37	1,891.4	76.1	1,921.1	29.7	99.6	0.0	0.0	
38	1,893.9	68.0	1,921.1	27.2	97.1	0.0	0.0	
39	1,914.9	81.0	1,929.8	14.9	76.1	0.0	0.0	
41	1,899.2	71.3	1,918.5	19.3	91.8	0.0	0.0	
42	1,896.1	61.6	1,918.5	22.4	94.9	0.0	0.0	
43	1,894.8	64.8	1,918.3	23.6	96.2	0.0	0.0	
44	1,893.4	87.5	1,918.3	24.9	97.6	0.0	0.0	
45	1,884.9	108.5	1,920.3	35.4	106.1	0.0	0.0	
46	1,878.2	205.7	1,920.8	42.5	112.8	0.0	0.0	
47	1,880.7	58.3	1,920.6	39.9	110.3	0.0	0.0	
48	1,880.2	163.6	1,918.4	38.2	110.8	0.0	0.0	
49	1,881.1	259.2	1,918.4	37.3	109.9	0.0	0.0	
50	1,886.3	233.3	1,945.7	59.4	104.7	0.0	0.0	
51	1,895.4	76.1	1,915.1	19.7	95.6	0.0	0.0	
52	1,889.1	157.1	1,914.4	25.3	101.9	0.0	0.0	
55	1,886.2	144.2	1,914.5	28.3	104.8	0.0	0.0	
56	1,902.7	79.4	1,950.1	47.4	88.3	0.0	0.0	
57	1,884.1	150.7	1,914.6	30.5	106.9	0.0	0.0	
58	1,890.9	192.8	1,914.3	23.4	100.1	0.0	0.0	
60	1,889.9	162.0	1,914.3	24.4	101.1	0.0	0.0	
61	1,885.4	81.0	1,919.7	34.3	105.6	0.0	0.0	
62	1,890.2	123.1	1,927.4	37.2	100.8	0.0	0.0	
63	1,878.7	61.6	1,922.7	44.0	112.3	0.0	0.0	
64	1,876.5	71.3	1,922.6	46.1	114.5	0.0	0.0	
66	1,910.0	64.8	1,941.5	31.4	81.0	0.0	0.0	
67	1,921.5	61.6	1,949.8	28.3	69.5	0.0	0.0	
68	1,918.6	68.0	1,949.2	30.6	72.4	0.0	0.0	
69	1,879.5	81.0	1,920.7	41.2	111.5	0.0	0.0	
70	1,904.5	213.8	1,924.6	20.1	86.5	0.0	0.0	
71	1,894.5	140.9	1,918.7	24.2	96.5	0.0	0.0	
100	1,896.6	53.5	1,918.6	22.0	94.4	0.0	0.0	
101	1,885.9	40.5	1,919.0	33.1	105.1	0.0	0.0	
102	1,876.7	59.9	1,919.1	42.4	114.3	0.0	0.0	
103	1,883.1	81.0	1,918.5	35.4	107.9	0.0	0.0	
104	1,916.3	30.8	1,926.8	10.5	74.7	0.0	0.0	
105	1,903.9	27.5	1,927.5	23.6	87.1	0.0	0.0	
106	1,881.3	69.7	1,917.8	36.5	109.7	0.0	0.0	
107	1,880.1	51.8	1,917.4	37.3	110.9	0.0	0.0	
108	1,884.1	48.6	1,917.3	33.2	106.9	0.0	0.0	
109	1,884.6	32.4	1,917.2	32.6	106.4	0.0	0.0	
112	1,900.7	0.0	1,917.0	16.3	90.3	0.0	0.0	
113	1,878.5	47.0	1,917.2	38.6	112.5	0.0	0.0	
114	1,897.3	92.3	1,917.1	19.8	93.7	0.0	0.0	
117	1,907.5	95.6	1,917.0	9.5	83.5	0.0	0.0	
118	1,889.0	59.9	1,913.5	24.5	102.0	0.0	0.0	
119	1,889.1	103.7	1,911.0	21.9	101.9	0.0	0.0	
120	1,871.2	183.1	1,910.6	39.4	119.8	0.0	0.0	
121	1,862.6	176.6	1,916.7	54.1	128.4	0.0	0.0	
122	1,950.0	144.2	1,960.0	10.0	41.0	0.0	0.0	
123	1,927.3	105.3	1,960.0	32.6	63.7	0.0	0.0	
124	1,879.6	110.2	1,918.7	39.1	111.4	0.0	0.0	
125	1,886.2	175.0	1,913.6	27.4	104.8	0.0	0.0	

A-5.4.95

Net Work Analysis   Distribution Main   G

Node No.	Elevation of Pipe (MSL)	Demand (cum/d)	Dynamic Pressure (MSL)	Dynamic Pressure (m)	Static Pressure (m)			Leakage (cum/d)
126	1,894.1	173.3	1,911.9	17.8	96.9	0.0	0.0	
127	1,874.9	87.5	1,909.6	34.7	116.1	0.0	0.0	
128	1,896.4	61.6	1,910.3	13.9	94.6	0.0	0.0	
129	1,896.0	13.0	1,910.3	14.3	95.0	0.0	0.0	
130	1,886.4	11.3	1,910.2	23.8	104.6	0.0	0.0	
131	1,875.8	6.5	1,910.2	34.4	115.2	0.0	0.0	
132	1,886.8	82.6	1,925.4	38.6	104.2	0.0	0.0	
133	1,898.7	29.2	1,924.7	26.0	92.3	0.0	0.0	
134	1,924.5	87.5	1,942.2	17.7	66.5	0.0	0.0	
135	1,915.7	94.0	1,941.2	25.5	75.3	0.0	0.0	
136	1,944.8	115.0	1,958.9	14.1	46.2	0.0	0.0	
137	1,905.0	191.2	1,955.6	50.6	86.0	0.0	0.0	
139	1,905.8	267.3	1,935.7	29.9	85.2	0.0	0.0	
140	1,899.4	50.2	1,915.1	15.7	91.6	0.0	0.0	
141	1,890.2	160.4	1,913.8	23.6	100.8	0.0	0.0	
142	1,883.9	166.9	1,913.9	30.0	107.1	0.0	0.0	
143	1,888.7	178.2	1,914.0	25.3	102.3	0.0	0.0	
144	1,907.4	63.2	1,924.5	17.1	83.6	0.0	0.0	
145	1,909.3	9.7	1,924.5	15.2	81.7	0.0	0.0	
146	1,876.5	87.5	1,916.4	39.9	114.5	0.0	0.0	
147	1,878.9	158.8	1,916.4	37.5	112.1	0.0	0.0	
148	1,889.6	102.1	1,919.3	29.7	101.4	0.0	0.0	
149	1,901.1	45.4	1,920.6	19.5	89.9	0.0	0.0	
150	1,899.4	191.2	1,916.3	16.9	91.6	0.0	0.0	
151	1,874.4	123.1	1,916.4	42.0	116.6	0.0	0.0	
152	1,865.9	106.9	1,916.4	50.5	125.1	0.0	0.0	
153	1,862.7	115.0	1,916.9	54.2	128.3	0.0	0.0	
154	1,864.7	106.9	1,916.7	52.0	126.3	0.0	0.0	
155	1,867.6	35.6	1,916.6	49.0	123.4	0.0	0.0	
156	1,884.8	64.8	1,923.7	38.9	106.2	0.0	0.0	
157	1,881.9	38.9	1,923.0	41.1	109.1	0.0	0.0	
158	1,880.3	38.9	1,922.8	42.5	110.7	0.0	0.0	
160	1,903.2	30.8	1,959.8	56.6	87.8	0.0	0.0	
161	1,905.3	17.8	1,935.8	30.5	85.7	0.0	0.0	
162	1,891.8	61.6	1,915.1	23.3	99.2	0.0	0.0	
163	1,899.3	11.3	1,915.1	15.8	91.7	0.0	0.0	
164	1,919.8	6.5	1,942.2	22.4	71.2	0.0	0.0	
165	1,962.5	163.6	1,990.5	28.0	28.5	0.0	0.0	
166	1,899.0	29.2	1,922.3	23.3	92.0	0.0	0.0	
169	1,917.8	35.6	1,980.0	62.1	73.2	0.0	0.0	
170	1,893.3	21.1	1,922.7	29.4	97.7	0.0	0.0	
171	1,909.7	30.8	1,918.8	9.1	81.3	0.0	0.0	
21	1,885.1	157.1	1,914.5	29.4	105.9	0.0	0.0	
20	1,885.9	134.5	1,914.5	28.6	105.1	0.0	0.0	
174	1,902.4	168.5	1,947.6	45.2	88.6	0.0	0.0	
53	1,895.7	157.1	1,914.3	18.6	95.3	0.0	0.0	
176	1,895.0	37.3	1,918.3	23.3	96.0	0.0	0.0	
177	1,897.3	37.3	1,918.3	21.0	93.7	0.0	0.0	
178	1,912.8	89.1	1,929.6	16.8	78.2	0.0	0.0	
179	1,917.5	40.5	1,929.9	12.4	73.5	0.0	0.0	
181	1,881.0	129.6	1,919.2	38.2	110.0	0.0	0.0	
182	1,891.9	21.1	1,917.1	25.2	99.1	0.0	0.0	
183	1,899.2	19.4	1,917.1	17.9	91.8	0.0	0.0	
185	1,902.8	106.9	1,924.9	22.1	88.2	0.0	0.0	
186	1,885.4	106.9	1,916.5	31.1	105.6	0.0	0.0	
187	1,903.2	123.1	1,957.0	53.8	87.8	0.0	0.0	
188	1,931.7	13.0	1,951.3	19.6	59.3	0.0	0.0	
189	1,921.8	47.0	1,929.6	7.8	69.2	0.0	0.0	
300	1,903.6	76.1	1,959.7	56.1	87.4	0.0	0.0	
301	1,951.4	123.1	1,962.4	11.0	39.6	0.0	0.0	
59	1,900.0	197.6	1,950.4	50.4	91.0	0.0	0.0	
500	1,892.8	40.5	1,916.6	23.8	98.2	0.0	0.0	
501	1,886.6	123.1	1,916.6	30.0	104.4	0.0	0.0	
502	1,885.6	129.6	1,933.0	47.4	105.4	0.0	0.0	
503	1,884.2	123.1	1,915.1	30.9	106.8	0.0	0.0	
510	1,914.5	82.6	1,935.7	21.2	76.5	0.0	0.0	
511	1,892.1	32.4	1,917.1	25.0	98.9	0.0	0.0	
520	1,913.6	102.1	1,927.1	13.5	77.4	0.0	0.0	
304	1,900.4	113.4	1,926.6	26.2	90.6	0.0	0.0	
172	1,886.0	82.6	1,914.5	28.5	105.0	0.0	0.0	
173	1,916.0	82.6	1,925.5	9.5	75.0	0.0	0.0	
521	1,886.0	82.6	1,908.4	22.4	105.0	0.0	0.0	
522	1,880.0	82.6	1,907.7	27.7	111.0	0.0	0.0	
523	1,903.0	82.6	1,953.0	50.0	88.0	0.0	0.0	
524	1,887.0	82.6	1,933.4	46.4	104.0	0.0	0.0	
525	1,881.0	82.6	1,916.2	35.2	110.0	0.0	0.0	
526	1,882.0	82.6	1,916.5	34.5	109.0	0.0	0.0	

Net Work Analysis

Node No.	Elevation of Pipe (MSL)	Demand (cum/d)	Dynamic Pressure (MSL)	Distribution Main Dynamic Pressure (m)	Static Pressure (m)	G		Leakage (cum/d)
527	1,931.0	48.6	1,954.6	23.6	60.0	0.0	0.0	
528	1,943.0	48.6	1,945.0	2.0	48.0	0.0	0.0	
33	1,867.0	82.6	1,916.2	49.2	124.0	0.0	0.0	
35	1,870.0	98.8	1,916.2	46.2	121.0	0.0	0.0	
40	1,920.0	64.8	1,929.6	9.6	71.0	0.0	0.0	
54	1,886.0	82.6	1,914.6	28.6	105.0	0.0	0.0	
91	1,899.4	0.0	1,935.8	36.4	91.6	0.0	0.0	
92	1,895.4	0.0	1,936.1	40.7	95.6	0.0	0.0	
93	1,882.0	0.0	1,924.9	42.9	109.0	0.0	0.0	
540	1,930.0	693.4	1,935.0	5.0	61.0	0.0	0.0	
541	1,980.0	926.6	1,985.0	5.0	11.0	0.0	0.0	
542	1,889.1	0.0	1,948.2	59.1	101.9	0.0	0.0	
610	1,900.0	0.0	1,930.0	30.0	91.0	0.0	0.0	
611	1,884.6	0.0	1,929.9	45.3	106.4	0.0	0.0	
612	1,881.3	0.0	1,929.2	47.9	109.7	0.0	0.0	

Net Work Analysis   Distribution Main   G

Pipe No.	Node A	Node B	Length (m)	Diameter (mm)	C	Flow (cum/d)	Velocity (m/s)	Pressure Gradient (o/oo)	Loss (m)
1	139	510	800.00	225.00	120.00	82.00	0.00	0.00	0.00
2	139	304	374.00	44.00	130.00	113.00	0.90	24.20	9.00
5	51	140	228.00	150.00	120.00	50.00	0.00	0.00	0.00
6	162	163	143.00	44.00	130.00	11.00	0.10	0.30	0.10
7	51	162	20.00	150.00	120.00	72.00	0.10	0.00	0.00
9	134	135	178.00	65.00	130.00	142.00	0.50	5.50	1.00
12	134	164	84.00	44.00	130.00	6.00	0.10	0.10	0.00
13	66	135	265.00	150.00	120.00	432.00	0.30	0.80	0.20
14	50	66	530.00	100.00	120.00	497.00	0.70	8.00	4.20
15	50	67	583.00	100.00	120.00	-469.00	-0.70	-7.10	-4.20
16	67	188	165.00	100.00	120.00	-530.00	-0.80	-9.00	-1.50
20	21	54	59.00	150.00	120.00	-550.00	-0.40	-1.30	-0.10
21	21	23	88.00	100.00	120.00	195.00	0.30	1.40	0.10
22	23	24	55.00	150.00	120.00	35.00	0.00	0.00	0.00
23	20	24	90.00	100.00	120.00	182.00	0.30	1.20	0.10
24	20	21	66.00	150.00	120.00	-198.00	-0.10	-0.20	0.00
26	25	52	110.00	100.00	120.00	-27.00	0.00	0.00	0.00
27	52	53	176.00	100.00	120.00	81.00	0.10	0.30	0.10
28	53	60	100.00	100.00	120.00	-75.00	-0.10	-0.20	0.00
29	18	60	134.00	100.00	120.00	327.00	0.50	3.70	0.50
30	18	19	54.00	150.00	120.00	621.00	0.40	1.70	0.10
31	19	52	151.00	100.00	120.00	266.00	0.40	2.50	0.40
32	19	55	133.00	100.00	120.00	217.00	0.30	1.70	0.20
33	54	172	100.00	100.00	120.00	127.00	0.20	0.60	0.10
34	9	18	315.00	225.00	120.00	1,122.00	0.30	0.70	0.20
35	9	48	47.00	100.00	120.00	-1,634.00	-2.40	-72.00	-3.40
36	1	48	265.00	225.00	120.00	1,864.00	0.50	1.80	0.50
37	48	49	201.00	100.00	120.00	66.00	0.10	0.20	0.00
38	22	49	672.00	150.00	120.00	-1,088.00	-0.70	-4.70	-3.20
39	22	51	596.00	150.00	120.00	199.00	0.10	0.20	0.10
40	49	148	536.00	100.00	120.00	-217.00	-0.30	-1.70	-0.90
41	148	171	372.00	50.00	120.00	30.00	0.20	1.30	0.50
42	69	148	325.00	100.00	120.00	349.00	0.50	4.10	1.40
43	46	69	90.00	150.00	120.00	476.00	0.30	1.00	0.10
44	69	149	551.00	100.00	120.00	45.00	0.10	0.10	0.10
45	1	49	264.00	100.00	120.00	231.00	0.30	1.90	0.50
46	1	46	401.00	225.00	120.00	-3,126.00	-0.90	-4.60	-1.90
47	46	47	268.00	100.00	120.00	138.00	0.20	0.80	0.20
48	47	64	268.00	100.00	120.00	-489.00	-0.70	-7.70	-2.10
49	63	64	444.00	300.00	120.00	711.00	0.10	0.10	0.00
50	46	63	268.00	225.00	120.00	-3,947.00	-1.10	-7.10	-1.90
51	63	158	47.00	300.00	120.00	-4,720.00	-0.80	-2.40	-0.10
52	158	166	358.00	50.00	120.00	29.00	0.20	1.20	0.40
53	157	158	77.00	300.00	120.00	4,788.00	0.80	2.50	0.20
54	157	170	264.00	44.00	130.00	21.00	0.20	1.10	0.30
55	156	157	300.00	300.00	120.00	4,848.00	0.80	2.60	0.80
56	2	156	100.00	300.00	120.00	5,840.00	1.00	3.60	0.40
61	2	203	704.00	350.00	120.00	-9,431.00	-1.10	-4.10	-2.90
62	2	4	442.00	225.00	120.00	3,478.00	1.00	5.60	2.50
63	4	5	65.00	225.00	120.00	3,274.00	0.90	5.00	0.30
64	4	61	972.00	65.00	130.00	81.00	0.30	1.90	1.90
65	5	6	221.00	150.00	120.00	577.00	0.40	1.50	0.30
66	6	27	150.00	150.00	120.00	551.00	0.40	1.30	0.20
67	27	37	216.00	100.00	120.00	-194.00	-0.30	-1.40	-0.30
68	36	37	400.00	150.00	120.00	263.00	0.20	0.30	0.10
69	36	38	563.00	100.00	120.00	75.00	0.10	0.20	0.10
70	37	38	30.00	150.00	120.00	-7.00	0.00	0.00	0.00
72	27	181	1,106.00	150.00	120.00	566.00	0.40	1.40	1.60
74	39	173	320.00	44.00	130.00	82.00	0.60	13.40	4.30
76	102	181	92.00	150.00	120.00	-539.00	-0.30	-1.30	-0.10
80	39	179	125.00	150.00	120.00	-364.00	-0.20	-0.60	-0.10
82	179	208	104.00	65.00	130.00	-47.00	-0.20	-0.70	-0.10
83	102	103	350.00	150.00	120.00	644.00	0.40	1.80	0.60
84	101	102	120.00	44.00	130.00	-20.00	-0.20	-1.00	-0.10
86	41	100	120.00	44.00	130.00	-16.00	-0.10	-0.70	-0.10
87	100	101	312.00	37.00	130.00	-14.00	-0.10	-1.20	-0.40
88	42	43	257.00	100.00	120.00	113.00	0.20	0.50	0.10
89	42	43	257.00	100.00	120.00	113.00	0.20	0.50	0.10
90	43	44	268.00	150.00	120.00	162.00	0.10	0.10	0.00
91	44	177	391.00	100.00	120.00	37.00	0.10	0.10	0.00
92	44	176	391.00	100.00	120.00	37.00	0.10	0.10	0.00
93	176	177	90.00	100.00	120.00	0.00	0.00	0.00	0.00
99	29	112	251.00	65.00	130.00	-21.00	-0.10	-0.20	0.00
100	109	511	400.00	100.00	120.00	99.00	0.10	0.40	0.20
101	108	109	120.00	100.00	120.00	103.00	0.10	0.40	0.10
102	108	183	228.00	44.00	130.00	19.00	0.10	0.90	0.20
103	107	108	200.00	100.00	120.00	112.00	0.20	0.50	0.10

Net Work Analysis   Distribution Main   G

Pipe No.	Node A	Node B	Length (m)	Diameter (mm)	C	Flow (cum/d)	Velocity (m/s)	Pressure Gradient (o/oo)	Loss (m)
104	107	182	253.00	44.00	130.00	21.00	0.20	1.10	0.30
105	28	107	40.00	100.00	120.00	122.00	0.20	0.60	0.00
106	28	113	66.00	150.00	120.00	981.00	0.60	3.90	0.30
107	113	114	265.00	65.00	130.00	30.00	0.10	0.30	0.10
108	114	117	500.00	65.00	130.00	19.00	0.10	0.10	0.10
109	117	118	318.00	44.00	130.00	74.00	0.60	11.00	3.50
111	118	119	248.00	75.00	120.00	268.00	0.70	10.30	2.60
113	28	106	250.00	150.00	120.00	-598.00	-0.40	-1.60	-0.40
114	103	106	400.00	150.00	120.00	619.00	0.40	1.70	0.70
116	104	105	300.00	44.00	130.00	-30.00	-0.20	-2.20	-0.70
118	30	526	210.00	100.00	120.00	165.00	0.20	1.00	0.20
119	62	132	1,500.00	150.00	120.00	545.00	0.40	1.30	2.00
120	155	500	175.00	140.00	130.00	78.00	0.10	0.00	0.00
125	132	133	363.00	44.00	130.00	29.00	0.20	2.00	0.70
127	31	64	167.00	225.00	120.00	-150.00	0.00	0.00	0.00
129	70	144	284.00	100.00	120.00	72.00	0.10	0.20	0.10
130	144	145	121.00	44.00	130.00	9.00	0.10	0.30	0.00
132	45	47	162.00	150.00	120.00	-570.00	-0.40	-1.40	-0.20
133	9	45	761.00	100.00	120.00	-461.00	-0.70	-6.90	-5.30
134	9	57	25.00	100.00	120.00	758.00	1.10	17.40	0.40
135	57	58	120.00	100.00	120.00	295.00	0.40	3.00	0.40
136	58	60	262.00	100.00	120.00	-90.00	-0.10	-0.30	-0.10
138	56	59	352.00	97.00	130.00	-136.00	-0.20	-0.70	-0.30
140	58	143	168.00	100.00	120.00	192.00	0.30	1.40	0.20
141	142	143	264.00	50.00	120.00	-14.00	-0.10	-0.30	-0.10
142	57	142	202.00	100.00	120.00	312.00	0.50	3.40	0.70
143	141	142	99.00	100.00	120.00	-160.00	-0.20	-1.00	-0.10
146	12	150	360.00	150.00	120.00	191.00	0.10	0.20	0.10
147	12	151	163.00	150.00	120.00	-298.00	-0.20	-0.40	-0.10
148	13	151	35.00	150.00	120.00	107.00	0.10	0.10	0.00
149	151	186	450.00	140.00	130.00	-108.00	-0.10	-0.10	0.00
151	154	155	132.00	100.00	120.00	113.00	0.20	0.50	0.10
160	153	154	165.00	100.00	120.00	174.00	0.30	1.10	0.20
161	14	153	236.00	150.00	120.00	-487.00	-0.30	-1.10	-0.30
162	13	14	475.00	150.00	120.00	-279.00	-0.20	-0.40	-0.20
163	13	146	35.00	150.00	120.00	246.00	0.20	0.30	0.00
164	146	147	137.00	150.00	120.00	158.00	0.10	0.10	0.00
167	11	137	663.00	150.00	120.00	-914.00	-0.60	-3.40	-2.30
168	14	152	66.00	100.00	120.00	288.00	0.40	2.90	0.20
170	33	152	150.00	100.00	120.00	-181.00	-0.30	-1.20	-0.20
175	56	68	165.00	100.00	120.00	415.00	0.60	5.70	0.90
176	68	136	726.00	44.00	130.00	-82.00	-0.60	-13.40	-9.70
177	136	137	512.00	44.00	130.00	56.00	0.40	6.50	3.40
178	137	187	277.00	140.00	130.00	-1,049.00	-0.80	-5.30	-1.50
182	71	124	400.00	225.00	120.00	-140.00	0.00	0.00	0.00
183	15	124	441.00	225.00	120.00	251.00	0.10	0.00	0.00
184	15	16	177.00	150.00	120.00	1,025.00	0.70	4.20	0.80
185	16	121	286.00	100.00	120.00	359.00	0.50	4.40	1.30
186	120	121	1,210.00	75.00	120.00	-183.00	-0.50	-5.10	-6.10
187	16	125	850.00	100.00	120.00	391.00	0.60	5.10	4.30
191	122	209	120.00	225.00	120.00	-687.00	-0.20	-0.30	0.00
193	125	126	396.00	100.00	120.00	353.00	0.50	4.20	1.70
194	126	128	668.00	65.00	130.00	92.00	0.30	2.50	1.60
195	126	127	1,047.00	65.00	130.00	87.00	0.30	2.20	2.30
196	128	129	90.00	65.00	130.00	30.00	0.10	0.30	0.00
197	129	130	60.00	44.00	130.00	17.00	0.10	0.80	0.10
198	130	131	88.00	37.00	130.00	6.00	0.10	0.30	0.00
199	62	520	569.00	100.00	120.00	102.00	0.10	0.40	0.20
200	41	42	237.00	100.00	120.00	61.00	0.10	0.20	0.00
201	30	113	250.00	150.00	120.00	-672.00	-0.40	-1.90	-0.50
203	5	36	105.00	150.00	120.00	420.00	0.30	0.80	0.10
179	187	300	500.00	150.00	120.00	-1,172.00	-0.80	-5.40	-2.70
250	136	301	215.00	65.00	130.00	-253.00	-0.90	-16.00	-3.50
209	160	300	152.00	150.00	120.00	407.00	0.30	0.80	0.10
213	62	524	334.00	97.00	130.00	-771.00	-1.20	-17.90	-6.00
214	30	503	334.00	100.00	120.00	378.00	0.60	4.80	1.60
215	112	511	132.00	75.00	120.00	-47.00	-0.10	-0.40	-0.10
216	500	501	100.00	140.00	130.00	37.00	0.00	0.00	0.00
217	154	501	104.00	65.00	130.00	48.00	0.20	0.70	0.10
218	186	501	221.00	140.00	130.00	-324.00	-0.20	-0.60	-0.10
110	118	503	167.00	75.00	120.00	-254.00	-0.70	-9.40	-1.60
300	215	301	554.00	100.00	120.00	376.00	0.60	4.80	2.60
208	215	300	250.00	100.00	120.00	841.00	1.20	21.10	5.30
17	205	527	250.00	100.00	120.00	211.00	0.30	1.60	0.40
172	15	153	577.00	150.00	120.00	879.00	0.60	3.20	1.80
302	10	70	480.00	150.00	120.00	-40.00	0.00	0.00	0.00
304	24	25	55.00	100.00	120.00	28.00	0.00	0.00	0.00

Net Work Analysis   Distribution Main   G

Pipe No.	Node A	Node B	Length (m)	Diameter (mm)	C	Flow (cum/d)	Velocity (m/s)	Pressure Gradient (o/oo)	Loss (m)
305	55	172	50.00	100.00	120.00	73.00	0.10	0.20	0.00
306	20	172	50.00	100.00	120.00	-118.00	-0.20	-0.60	0.00
307	23	25	75.00	100.00	120.00	26.00	0.00	0.00	0.00
308	40	178	150.00	150.00	120.00	89.00	0.10	0.10	0.00
77	39	40	180.00	100.00	120.00	200.00	0.30	1.50	0.30
78	40	189	60.00	100.00	120.00	47.00	0.10	0.10	0.00
79	100	101	450.00	44.00	130.00	-18.00	-0.10	-0.80	-0.40
309	41	42	150.00	150.00	120.00	227.00	0.10	0.30	0.00
310	119	521	350.00	65.00	130.00	165.00	0.60	7.30	2.50
311	521	522	350.00	65.00	130.00	82.00	0.30	2.00	0.70
313	33	35	150.00	100.00	120.00	98.00	0.10	0.40	0.10
301	11	523	120.00	150.00	120.00	774.00	0.50	2.50	0.30
314	59	523	180.00	100.00	120.00	-692.00	-1.00	-14.70	-2.60
315	502	524	150.00	75.00	120.00	-129.00	-0.30	-2.70	-0.40
317	524	600	450.00	97.00	130.00	-983.00	-1.50	-28.10	-12.60
319	525	526	210.00	75.00	120.00	-82.00	-0.20	-1.20	-0.20
321	527	528	480.00	65.00	130.00	285.00	1.00	19.90	9.60
322	134	528	200.00	65.00	130.00	-236.00	-0.80	-14.10	-2.80
11	165	601	75.00	65.00	130.00	-163.00	-0.60	-7.10	-0.50
324	188	527	50.00	65.00	130.00	-543.00	-1.90	-65.90	-3.30
325	122	123	160.00	140.00	130.00	105.00	0.10	0.10	0.00
327	56	59	352.00	140.00	130.00	-358.00	-0.30	-0.70	-0.30
328	1	49	264.00	158.00	130.00	833.00	0.50	1.90	0.50
329	206	527	215.00	150.00	120.00	666.00	0.40	1.90	0.40
330	156	541	931.00	100.00	120.00	926.00	1.40	25.20	23.40
331	112	540	434.00	97.00	130.00	693.00	1.10	14.70	6.40
601	91	139	162.00	150.00	120.00	463.00	0.30	1.00	0.20
602	91	161	225.00	65.00	130.00	17.00	0.10	0.10	0.00
603	70	93	662.00	150.00	120.00	-327.00	-0.20	-0.50	-0.30
605	93	132	616.00	150.00	120.00	-434.00	-0.30	-0.90	-0.50
606	93	185	300.00	150.00	120.00	106.00	0.10	0.10	0.00
212	22	54	275.00	150.00	120.00	761.00	0.50	2.40	0.70
610	122	160	931.00	225.00	120.00	437.00	0.10	0.10	0.10
611	91	92	228.00	150.00	120.00	-481.00	-0.30	-1.00	-0.20
612	92	135	690.00	100.00	120.00	-481.00	-0.70	-7.50	-5.20
613	604	610	200.00	97.00	130.00	58.00	0.10	0.10	0.00
614	105	612	250.00	44.00	130.00	-58.00	-0.40	-7.10	-1.80
616	174	542	569.00	97.00	130.00	-168.00	-0.30	-1.10	-0.60
701	186	606	500.00	250.00	120.00	-3,048.00	-0.70	-2.60	-1.30
702	169	603	50.00	55.00	130.00	-35.00	-0.20	-1.00	-0.10
703	15	153	577.00	140.00	130.00	794.00	0.60	3.20	1.80
705	16	125	850.00	65.00	130.00	136.00	0.50	5.10	4.30
713	102	103	350.00	198.00	130.00	1,449.00	0.50	1.80	0.60
714	103	106	400.00	198.00	130.00	1,393.00	0.50	1.70	0.70
715	28	106	250.00	198.00	130.00	-1,345.00	-0.50	-1.60	-0.40
716	28	107	40.00	198.00	130.00	798.00	0.30	0.60	0.00
717	107	108	200.00	198.00	130.00	734.00	0.30	0.50	0.10
718	108	109	120.00	198.00	130.00	675.00	0.30	0.40	0.10
719	109	511	400.00	198.00	130.00	647.00	0.20	0.40	0.20
720	112	511	132.00	198.00	130.00	-666.00	-0.30	-0.40	-0.10
731	113	114	265.00	140.00	130.00	231.00	0.20	0.30	0.10
732	114	117	500.00	140.00	130.00	149.00	0.10	0.10	0.10
741	179	208	104.00	140.00	130.00	-357.00	-0.30	-0.70	-0.10
751	610	611	630.00	97.00	130.00	58.00	0.10	0.10	0.10
752	611	612	610.00	65.00	130.00	58.00	0.20	1.10	0.60
761	50	542	1,044.00	97.00	130.00	-261.00	-0.40	-2.40	-2.50
762	68	542	165.00	97.00	130.00	429.00	0.70	6.10	1.00
771	101	102	120.00	140.00	130.00	-433.00	-0.30	-1.00	-0.10
772	100	101	450.00	140.00	130.00	-380.00	-0.30	-0.80	-0.40
773	41	100	120.00	140.00	130.00	-343.00	-0.30	-0.70	-0.10
781	5	6	221.00	250.00	120.00	2,211.00	0.50	1.50	0.30
782	6	27	150.00	250.00	120.00	2,113.00	0.50	1.30	0.20
783	27	181	1,106.00	250.00	120.00	2,171.00	0.50	1.40	1.60
784	102	181	92.00	250.00	120.00	-2,068.00	-0.50	-1.30	-0.10
791	151	186	450.00	140.00	130.00	-108.00	-0.10	-0.10	0.00
792	13	151	35.00	140.00	130.00	96.00	0.10	0.10	0.00
793	13	14	475.00	140.00	130.00	-252.00	-0.20	-0.40	-0.20
794	14	153	236.00	140.00	130.00	-440.00	-0.30	-1.10	-0.30
795	154	501	104.00	140.00	130.00	361.00	0.30	0.70	0.10
796	153	154	165.00	140.00	130.00	456.00	0.30	1.10	0.20

Net Work Analysis   Distribution Main

File Name   Nuwara011Year2015(4)   H
Season   Wet
Network Type Proposed

Demand   Year 2015
              Day Mean
Reserver   Water Level Fix   All
              Discharge Fix   None

Magnification of Demand   0.811

Reservoir Data

Node		HWL (MSL)	LWL (MSL)	Reservoir
203	1	1,927.0	1,927.0	Haddon Hill
205	1	1,955.0	1,955.0	New Water Field
206	1	1,955.0	1,955.0	Old Water Field
208	1	1,930.0	1,930.0	Bonavista
209	1	1,960.0	1,960.0	Lovers Leap
215	1	1,965.0	1,965.0	Gamunu/Brewery
600	1	1,946.0	1,946.0	Nseby
601	1	1,991.0	1,991.0	Piyatisappura
603	1	1,980.0	1,980.0	Unique View
604	1	1,925.0	1,925.0	Vijithapura
606	1	1,920.0	1,920.0	Low Area 2

Node Data

Node		Ground Elev (MSL)	Demand (cum/d)		
1	1	1,881.7	122.0	0	0
2	1	1,885.1	70.0	0	0
4	1	1,881.8	76.0	0	0
5	1	1,881.3	40.0	0	0
6	1	1,883.7	76.0	0	0
9	1	1,881.2	133.0	0	0
10	1	1,903.4	25.0	0	0
11	1	1,902.1	86.0	0	0
12	1	1,880.5	66.0	0	0
13	1	1,874.2	51.0	0	0
14	1	1,865.6	66.0	0	0
15	1	1,860.5	61.0	0	0
16	1	1,860.5	85.0	0	0
18	1	1,885.1	107.0	0	0
19	1	1,885.8	85.0	0	0
22	1	1,889.4	79.0	0	0
23	1	1,887.3	82.0	0	0
24	1	1,887.7	117.0	0	0
25	1	1,887.0	51.0	0	0
27	1	1,882.3	75.0	0	0
28	1	1,879.2	26.0	0	0
29	1	1,892.4	13.0	0	0
30	1	1,882.6	80.0	0	0
31	1	1,882.0	93.0	0	0
36	1	1,889.3	51.0	0	0
37	1	1,891.4	47.0	0	0
38	1	1,893.9	42.0	0	0
39	1	1,914.9	50.0	0	0
41	1	1,899.2	44.0	0	0
42	1	1,896.1	38.0	0	0
43	1	1,894.8	40.0	0	0
44	1	1,893.4	54.0	0	0
45	1	1,884.9	67.0	0	0
46	1	1,878.2	127.0	0	0
47	1	1,880.7	36.0	0	0
48	1	1,880.2	101.0	0	0
49	1	1,881.1	160.0	0	0
50	1	1,886.3	144.0	0	0
51	1	1,895.4	47.0	0	0
52	1	1,889.1	97.0	0	0
55	1	1,886.2	89.0	0	0
56	1	1,902.7	49.0	0	0
57	1	1,884.1	93.0	0	0

58	1	1,890.9	119.0	0	0
60	1	1,889.9	100.0	0	0
61	1	1,885.4	50.0	0	0
62	1	1,890.2	76.0	0	0
63	1	1,878.7	38.0	0	0
64	1	1,876.5	44.0	0	0
66	1	1,910.0	40.0	0	0
67	1	1,921.5	38.0	0	0
68	1	1,918.6	42.0	0	0
69	1	1,879.5	50.0	0	0
70	1	1,904.5	132.0	0	0
71	1	1,894.5	87.0	0	0
100	1	1,896.6	33.0	0	0
101	1	1,885.9	25.0	0	0
102	1	1,876.7	37.0	0	0
103	1	1,883.1	50.0	0	0
104	1	1,916.3	19.0	0	0
105	1	1,903.9	17.0	0	0
106	1	1,881.3	43.0	0	0
107	1	1,880.1	32.0	0	0
108	1	1,884.1	30.0	0	0
109	1	1,884.6	20.0	0	0
112	1	1,900.7	0.0	0	0
113	1	1,878.5	29.0	0	0
114	1	1,897.3	57.0	0	0
117	1	1,907.5	59.0	0	0
118	1	1,889.0	37.0	0	0
119	1	1,889.1	64.0	0	0
120	1	1,871.2	113.0	0	0
121	1	1,862.6	109.0	0	0
122	1	1,950.0	89.0	0	0
123	1	1,927.3	65.0	0	0
124	1	1,879.6	68.0	0	0
125	1	1,886.2	108.0	0	0
126	1	1,894.1	107.0	0	0
127	1	1,874.9	54.0	0	0
128	1	1,896.4	38.0	0	0
129	1	1,896.0	8.0	0	0
130	1	1,886.4	7.0	0	0
131	1	1,875.8	4.0	0	0
132	1	1,886.8	51.0	0	0
133	1	1,898.7	18.0	0	0
134	1	1,924.5	54.0	0	0
135	1	1,915.7	58.0	0	0
136	1	1,944.8	71.0	0	0
137	1	1,905.0	118.0	0	0
139	1	1,905.8	165.0	0	0
140	1	1,899.4	31.0	0	0
141	1	1,890.2	99.0	0	0
142	1	1,883.9	103.0	0	0
143	1	1,888.7	110.0	0	0
144	1	1,907.4	39.0	0	0
145	1	1,909.3	6.0	0	0
146	1	1,876.5	54.0	0	0
147	1	1,878.9	98.0	0	0
148	1	1,889.6	63.0	0	0
149	1	1,901.1	28.0	0	0
150	1	1,899.4	118.0	0	0
151	1	1,874.4	76.0	0	0
152	1	1,865.9	66.0	0	0
153	1	1,862.7	71.0	0	0
154	1	1,864.7	66.0	0	0
155	1	1,867.6	22.0	0	0
156	1	1,884.8	40.0	0	0
157	1	1,881.9	24.0	0	0
158	1	1,880.3	24.0	0	0
160	1	1,903.2	19.0	0	0
161	1	1,905.3	11.0	0	0
162	1	1,891.8	38.0	0	0
163	1	1,899.3	7.0	0	0
164	1	1,919.8	4.0	0	0
165	1	1,962.5	101.0	0	0
166	1	1,899.0	18.0	0	0
169	1	1,917.8	22.0	0	0
170	1	1,893.3	13.0	0	0

171	1	1,909.7	19.0	0	0
21	1	1,885.1	97.0	0	0
20	1	1,885.9	83.0	0	0
174	1	1,902.4	104.0	0	0
53	1	1,895.7	97.0	0	0
176	1	1,895.0	23.0	0	0
177	1	1,897.3	23.0	0	0
178	1	1,912.8	55.0	0	0
179	1	1,917.5	25.0	0	0
181	1	1,881.0	80.0	0	0
182	1	1,891.9	13.0	0	0
183	1	1,899.2	12.0	0	0
185	1	1,902.8	66.0	0	0
186	1	1,885.4	66.0	0	0
187	1	1,903.2	76.0	0	0
188	1	1,931.7	8.0	0	0
189	1	1,921.8	29.0	0	0
300	1	1,903.6	47.0	0	0
301	1	1,951.4	76.0	0	0
59	1	1,900.0	122.0	0	0
500	1	1,892.8	25.0	0	0
501	1	1,886.6	76.0	0	0
502	1	1,885.6	80.0	0	0
503	1	1,884.2	76.0	0	0
510	1	1,914.5	51.0	0	0
511	1	1,892.1	20.0	0	0
520	1	1,913.6	63.0	0	0
304	1	1,900.4	70.0	0	0
172	1	1,886.0	51.0	0	0
173	1	1,916.0	51.0	0	0
521	1	1,886.0	51.0	0	0
522	1	1,880.0	51.0	0	0
523	1	1,903.0	51.0	0	0
524	1	1,887.0	51.0	0	0
525	1	1,881.0	51.0	0	0
526	1	1,882.0	51.0	0	0
527	1	1,931.0	30.0	0	0
528	1	1,943.0	30.0	0	0
33	1	1,867.0	51.0	0	0
35	1	1,870.0	61.0	0	0
40	1	1,920.0	40.0	0	0
54	1	1,886.0	51.0	0	0
91	1	1,899.4	0.0	0	0
92	1	1,895.4	0.0	0	0
93	1	1,882.0	0.0	0	0
540	1	1,930.0	694.0	0	0
541	1	1,980.0	928.0	0	0
542	1	1,889.1	0.0	0	0
610	1	1,900.0	0.0	0	0
611	1	1,884.6	0.0	0	0
612	1	1,881.3	0.0	0	0

Booster Pump Data

No.	Type	Node A	Node B	Pipe No.	Pressure (■)
1	B	156.0	541.0	330	75.0
2	B	112.0	540.0	331	16.0

Pipe Data

Pipe No.	Node A	Node B	Diameter (mm)	Length (m)	C Value
1	139	510	225.0	800.0	120.0
2	139	304	44.0	374.0	130.0
5	51	140	150.0	228.0	120.0
6	162	163	44.0	143.0	130.0
7	51	162	150.0	20.0	120.0
9	134	135	65.0	178.0	130.0
12	134	164	44.0	84.0	130.0
13	66	135	150.0	265.0	120.0
14	50	66	100.0	530.0	120.0
15	50	67	100.0	583.0	120.0
16	67	188	100.0	165.0	120.0
20	21	54	150.0	59.0	120.0
21	21	23	100.0	88.0	120.0
22	23	24	150.0	55.0	120.0
23	20	24	100.0	90.0	120.0
24	20	21	150.0	66.0	120.0
26	25	52	100.0	110.0	120.0
27	52	53	100.0	176.0	120.0
28	53	60	100.0	100.0	120.0
29	18	60	100.0	134.0	120.0
30	18	19	150.0	54.0	120.0
31	19	52	100.0	151.0	120.0
32	19	55	100.0	133.0	120.0
33	54	172	100.0	100.0	120.0
34	9	18	225.0	315.0	120.0
35	9	48	100.0	47.0	120.0
36	1	48	225.0	265.0	120.0
37	48	49	100.0	201.0	120.0
38	22	49	150.0	672.0	120.0
39	22	51	150.0	596.0	120.0
40	49	148	100.0	536.0	120.0
41	148	171	50.0	372.0	120.0
42	69	148	100.0	325.0	120.0
43	46	69	150.0	90.0	120.0
44	69	149	100.0	551.0	120.0
45	1	49	100.0	264.0	120.0
46	1	46	225.0	401.0	120.0
47	46	47	100.0	268.0	120.0
48	47	64	100.0	268.0	120.0
49	63	64	300.0	444.0	120.0
50	46	63	225.0	268.0	120.0
51	63	158	300.0	47.0	120.0
52	158	166	50.0	358.0	120.0
53	157	158	300.0	77.0	120.0
54	157	170	44.0	264.0	130.0
55	156	157	300.0	300.0	120.0
56	2	156	300.0	100.0	120.0
61	2	203	350.0	704.0	120.0
62	2	4	225.0	442.0	120.0
63	4	5	225.0	65.0	120.0
64	4	61	65.0	972.0	130.0
65	5	6	150.0	221.0	120.0
66	6	27	150.0	150.0	120.0
67	27	37	100.0	216.0	120.0
68	36	37	150.0	400.0	120.0
69	36	38	100.0	563.0	120.0
70	37	38	150.0	30.0	120.0
72	27	181	150.0	1,106.0	120.0
74	39	173	44.0	320.0	130.0
76	102	181	150.0	92.0	120.0
80	39	179	150.0	125.0	120.0
82	179	208	65.0	104.0	130.0
83	102	103	150.0	350.0	120.0
84	101	102	44.0	120.0	130.0
86	41	100	44.0	120.0	130.0
87	100	101	37.0	312.0	130.0
88	42	43	100.0	257.0	120.0
89	42	43	100.0	257.0	120.0
90	43	44	150.0	268.0	120.0
91	44	177	100.0	391.0	120.0
92	44	176	100.0	391.0	120.0
93	176	177	100.0	90.0	120.0

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99	29	112	65.0	251.0	130.0
100	109	511	100.0	400.0	120.0
101	108	109	100.0	120.0	120.0
102	108	183	44.0	228.0	130.0
103	107	108	100.0	200.0	120.0
104	107	182	44.0	253.0	130.0
105	28	107	100.0	40.0	120.0
106	28	113	150.0	66.0	120.0
107	113	114	65.0	265.0	130.0
108	114	117	65.0	500.0	130.0
109	117	118	44.0	318.0	130.0
111	118	119	75.0	248.0	120.0
113	28	106	150.0	250.0	120.0
114	103	106	150.0	400.0	120.0
116	104	105	44.0	300.0	130.0
118	30	526	100.0	210.0	120.0
119	62	132	150.0	1,500.0	120.0
120	155	500	140.0	175.0	130.0
125	132	133	44.0	363.0	130.0
127	31	64	225.0	167.0	120.0
129	70	144	100.0	284.0	120.0
130	144	145	44.0	121.0	130.0
132	45	47	150.0	162.0	120.0
133	9	45	100.0	761.0	120.0
134	9	57	100.0	25.0	120.0
135	57	58	100.0	120.0	120.0
136	58	60	100.0	262.0	120.0
138	56	59	97.0	352.0	130.0
140	58	143	100.0	168.0	120.0
141	142	143	50.0	264.0	120.0
142	57	142	100.0	202.0	120.0
143	141	142	100.0	99.0	120.0
146	12	150	150.0	360.0	120.0
147	12	151	150.0	163.0	120.0
148	13	151	150.0	35.0	120.0
149	151	186	140.0	450.0	130.0
151	154	155	100.0	132.0	120.0
160	153	154	100.0	165.0	120.0
161	14	153	150.0	236.0	120.0
162	13	14	150.0	475.0	120.0
163	13	146	150.0	35.0	120.0
164	146	147	150.0	137.0	120.0
167	11	137	150.0	663.0	120.0
168	14	152	100.0	66.0	120.0
170	33	152	100.0	150.0	120.0
175	56	68	100.0	165.0	120.0
176	68	136	44.0	726.0	130.0
177	136	137	44.0	512.0	130.0
178	137	187	140.0	277.0	130.0
182	71	124	225.0	400.0	120.0
183	15	124	225.0	441.0	120.0
184	15	16	150.0	177.0	120.0
185	16	121	100.0	286.0	120.0
186	120	121	75.0	1,210.0	120.0
187	16	125	100.0	850.0	120.0
191	122	209	225.0	120.0	120.0
193	125	126	100.0	396.0	120.0
194	126	128	65.0	668.0	130.0
195	126	127	65.0	1,047.0	130.0
196	128	129	65.0	90.0	130.0
197	129	130	44.0	60.0	130.0
198	130	131	37.0	88.0	130.0
199	62	520	100.0	569.0	120.0
200	41	42	100.0	237.0	120.0
201	30	113	150.0	250.0	120.0
203	5	36	150.0	105.0	120.0
179	187	300	150.0	500.0	120.0
250	136	301	65.0	215.0	130.0
209	160	300	150.0	152.0	120.0
213	62	524	97.0	334.0	130.0
214	30	503	100.0	334.0	120.0
215	112	511	75.0	132.0	120.0
216	500	501	140.0	100.0	130.0
217	154	501	65.0	104.0	130.0
218	186	501	140.0	221.0	130.0

110	118	503	75.0	167.0	120.0
300	215	301	100.0	554.0	120.0
208	215	300	100.0	250.0	120.0
17	205	527	100.0	250.0	120.0
172	15	153	150.0	577.0	120.0
302	10	70	150.0	480.0	120.0
304	24	25	100.0	55.0	120.0
305	55	172	100.0	50.0	120.0
306	20	172	100.0	50.0	120.0
307	23	25	100.0	75.0	120.0
308	40	178	150.0	150.0	120.0
77	39	40	100.0	180.0	120.0
78	40	189	100.0	60.0	120.0
79	100	101	44.0	450.0	130.0
309	41	42	150.0	150.0	120.0
310	119	521	65.0	350.0	130.0
311	521	522	65.0	350.0	130.0
313	33	35	100.0	150.0	120.0
301	11	523	150.0	120.0	120.0
314	59	523	100.0	180.0	120.0
315	502	524	75.0	150.0	120.0
317	524	600	97.0	450.0	130.0
319	525	526	75.0	210.0	120.0
321	527	528	65.0	480.0	130.0
322	134	528	65.0	200.0	130.0
11	165	601	65.0	75.0	130.0
324	188	527	65.0	50.0	130.0
325	122	123	140.0	160.0	130.0
327	56	59	140.0	352.0	130.0
328	1	49	158.0	264.0	130.0
329	206	527	150.0	215.0	120.0
330	156	541	100.0	931.0	120.0
331	112	540	97.0	434.0	130.0
601	91	139	150.0	162.0	120.0
602	91	161	65.0	225.0	130.0
603	70	93	150.0	662.0	120.0
605	93	132	150.0	616.0	120.0
606	93	185	150.0	300.0	120.0
212	22	54	150.0	275.0	120.0
610	122	160	225.0	931.0	120.0
611	91	92	150.0	228.0	120.0
612	92	135	100.0	690.0	120.0
613	604	610	97.0	200.0	130.0
614	105	612	44.0	250.0	130.0
616	174	542	97.0	569.0	130.0
701	15	606	250.0	500.0	120.0
702	169	603	55.0	50.0	130.0
703	15	153	140.0	577.0	130.0
705	16	125	65.0	850.0	130.0
713	102	103	198.0	350.0	130.0
714	103	106	198.0	400.0	130.0
715	28	106	198.0	250.0	130.0
716	28	107	198.0	40.0	130.0
717	107	108	198.0	200.0	130.0
718	108	109	198.0	120.0	130.0
719	109	511	198.0	400.0	130.0
720	112	511	198.0	132.0	130.0
731	113	114	140.0	265.0	130.0
732	114	117	140.0	500.0	130.0
741	179	208	140.0	104.0	130.0
751	610	611	97.0	630.0	130.0
752	611	612	65.0	610.0	130.0
761	50	542	97.0	1,044.0	130.0
762	68	542	97.0	165.0	130.0
771	101	102	140.0	120.0	130.0
772	100	101	140.0	450.0	130.0
773	41	100	140.0	120.0	130.0
781	5	6	250.0	221.0	120.0
782	6	27	250.0	150.0	120.0
783	27	181	250.0	1,106.0	120.0
784	102	181	250.0	92.0	120.0
791	151	186	140.0	450.0	130.0
792	13	151	140.0	35.0	130.0
793	13	14	140.0	475.0	130.0
794	14	153	140.0	236.0	130.0

| 795 | 154 | 501 | 140.0 | 104.0 | 130.0 |
| 796 | 153 | 154 | 140.0 | 165.0 | 130.0 |

Net Work Analysis   Distribution Main   H

Node No.	Elevation of Pipe (MSL)	Demand (cum/d)	Dynamic Pressure (MSL)	Dynamic Pressure (m)	Static Pressure (m)			Leakage (cum/d)
1	1,881.7	98.8	1,924.6	42.9	109.3	0.0	0.0	25.0
2	1,885.1	56.7	1,926.0	40.9	105.9	0.0	0.0	23.7
4	1,881.8	61.6	1,925.2	43.4	109.2	0.0	0.0	25.3
5	1,881.3	32.4	1,925.1	43.8	109.7	0.0	0.0	25.5
6	1,883.7	61.6	1,925.0	41.3	107.3	0.0	0.0	23.9
9	1,881.2	107.7	1,923.5	42.3	109.8	0.0	0.0	24.6
10	1,903.4	20.3	1,940.1	36.7	87.6	0.0	0.0	21.0
11	1,902.1	69.7	1,957.9	55.8	88.9	0.0	0.0	33.4
12	1,880.5	53.5	1,919.0	38.5	110.5	0.0	0.0	22.2
13	1,874.2	41.3	1,919.0	44.8	116.8	0.0	0.0	26.2
14	1,865.6	53.5	1,919.1	53.5	125.4	0.0	0.0	31.8
15	1,860.5	49.4	1,919.6	59.1	130.5	0.0	0.0	35.6
16	1,860.5	68.8	1,919.4	58.9	130.5	0.0	0.0	35.4
18	1,885.1	86.7	1,923.4	38.3	105.9	0.0	0.0	22.1
19	1,885.8	68.8	1,923.4	37.6	105.2	0.0	0.0	21.6
22	1,889.4	64.0	1,923.6	34.1	101.6	0.0	0.0	19.4
23	1,887.3	66.4	1,923.3	36.0	103.7	0.0	0.0	20.6
24	1,887.7	94.8	1,923.3	35.6	103.3	0.0	0.0	20.4
25	1,887.0	41.3	1,923.3	36.3	104.0	0.0	0.0	20.8
27	1,882.3	60.8	1,924.9	42.6	108.7	0.0	0.0	24.8
28	1,879.2	21.1	1,923.6	44.4	111.8	0.0	0.0	25.9
29	1,892.4	10.5	1,923.3	30.9	98.6	0.0	0.0	17.4
30	1,882.6	64.8	1,923.4	40.8	108.4	0.0	0.0	23.6
31	1,882.0	75.3	1,925.6	43.6	109.0	0.0	0.0	25.4
36	1,889.3	41.3	1,925.0	35.7	101.7	0.0	0.0	20.4
37	1,891.4	38.1	1,925.0	33.6	99.6	0.0	0.0	19.1
38	1,893.9	34.0	1,925.0	31.1	97.1	0.0	0.0	17.5
39	1,914.9	40.5	1,930.0	15.1	76.1	0.0	0.0	7.9
41	1,899.2	35.6	1,924.1	24.9	91.8	0.0	0.0	13.7
42	1,896.1	30.8	1,924.1	28.0	94.9	0.0	0.0	15.6
43	1,894.8	32.4	1,924.1	29.3	96.2	0.0	0.0	16.4
44	1,893.4	43.7	1,924.1	30.6	97.6	0.0	0.0	17.3
45	1,884.9	54.3	1,925.0	40.1	106.1	0.0	0.0	23.2
46	1,878.2	102.9	1,925.1	46.9	112.8	0.0	0.0	27.6
47	1,880.7	29.2	1,925.0	44.3	110.3	0.0	0.0	25.9
48	1,880.2	81.8	1,924.4	44.2	110.8	0.0	0.0	25.9
49	1,881.1	129.6	1,924.4	43.3	109.9	0.0	0.0	25.3
50	1,886.3	116.6	1,953.7	67.3	104.7	0.0	0.0	41.0
51	1,895.4	38.1	1,923.5	28.1	95.6	0.0	0.0	15.7
52	1,889.1	78.6	1,923.3	34.2	101.9	0.0	0.0	19.5
55	1,886.2	72.1	1,923.4	37.2	104.8	0.0	0.0	21.3
56	1,902.7	39.7	1,956.6	53.9	88.3	0.0	0.0	32.1
57	1,884.1	75.3	1,923.4	39.3	106.9	0.0	0.0	22.7
58	1,890.9	96.4	1,923.3	32.4	100.1	0.0	0.0	18.3
60	1,889.9	81.0	1,923.3	33.4	101.1	0.0	0.0	19.0
61	1,885.4	40.5	1,924.7	39.3	105.6	0.0	0.0	22.7
62	1,890.2	61.6	1,940.8	50.6	100.8	0.0	0.0	30.0
63	1,878.7	30.8	1,925.6	46.9	112.3	0.0	0.0	27.6
64	1,876.5	35.6	1,925.6	49.1	114.5	0.0	0.0	29.0
66	1,910.0	32.4	1,952.3	42.3	81.0	0.0	0.0	24.6
67	1,921.5	30.8	1,954.2	32.7	69.5	0.0	0.0	18.5
68	1,918.6	34.0	1,956.1	37.5	72.4	0.0	0.0	21.6
69	1,879.5	40.5	1,925.1	45.6	111.5	0.0	0.0	26.7
70	1,904.5	106.9	1,940.1	35.6	86.5	0.0	0.0	20.3
71	1,894.5	70.5	1,919.6	25.1	96.5	0.0	0.0	13.9
100	1,896.6	26.7	1,924.1	27.5	94.4	0.0	0.0	15.3
101	1,885.9	20.3	1,924.2	38.3	105.1	0.0	0.0	22.1
102	1,876.7	30.0	1,924.3	47.6	114.3	0.0	0.0	28.0
103	1,883.1	40.5	1,924.0	40.9	107.9	0.0	0.0	23.7
104	1,916.3	15.4	1,929.1	12.8	74.7	0.0	0.0	6.6
105	1,903.9	13.8	1,929.3	25.4	87.1	0.0	0.0	14.0
106	1,881.3	34.8	1,923.8	42.5	109.7	0.0	0.0	24.7
107	1,880.1	25.9	1,923.6	43.5	110.9	0.0	0.0	25.4
108	1,884.1	24.3	1,923.5	39.4	106.9	0.0	0.0	22.8
109	1,884.6	16.2	1,923.5	38.9	106.4	0.0	0.0	22.4
112	1,900.7	0.0	1,923.4	22.7	90.3	0.0	0.0	12.4
113	1,878.5	23.5	1,923.5	45.0	112.5	0.0	0.0	26.4
114	1,897.3	46.2	1,923.5	26.2	93.7	0.0	0.0	14.5
117	1,907.5	47.8	1,923.5	16.0	83.5	0.0	0.0	8.4
118	1,889.0	30.0	1,922.5	33.5	102.0	0.0	0.0	19.1
119	1,889.1	51.8	1,921.8	32.7	101.9	0.0	0.0	18.6
120	1,871.2	91.5	1,917.4	46.2	119.8	0.0	0.0	27.1
121	1,862.6	88.3	1,919.1	56.5	128.4	0.0	0.0	33.8
122	1,950.0	72.1	1,960.0	10.0	41.0	0.0	0.0	5.0
123	1,927.3	52.6	1,960.0	32.7	63.7	0.0	0.0	18.5
124	1,879.6	55.1	1,919.6	40.0	111.4	0.0	0.0	23.2
125	1,886.2	87.5	1,918.2	32.0	104.8	0.0	0.0	18.1

Net Work Analysis   Distribution Main   H

Node No.	Elevation of Pipe (MSL)	Demand (cum/d)	Dynamic Pressure (MSL)	Dynamic Pressure (m)	Static Pressure (m)			Leakage (cum/d)
126	1,894.1	86.7	1,917.8	23.7	96.9	0.0	0.0	13.0
127	1,874.9	43.7	1,917.1	42.2	116.1	0.0	0.0	24.6
128	1,896.4	30.8	1,917.3	20.9	94.6	0.0	0.0	11.3
129	1,896.0	6.5	1,917.3	21.3	95.0	0.0	0.0	11.6
130	1,886.4	5.7	1,917.3	30.9	104.6	0.0	0.0	17.4
131	1,875.8	3.2	1,917.3	41.5	115.2	0.0	0.0	24.1
132	1,886.8	41.3	1,940.3	53.5	104.2	0.0	0.0	31.9
133	1,898.7	14.6	1,940.1	41.4	92.3	0.0	0.0	24.0
134	1,924.5	43.7	1,952.4	27.9	66.5	0.0	0.0	15.6
135	1,915.7	47.0	1,952.2	36.5	75.3	0.0	0.0	20.9
136	1,944.8	57.5	1,962.1	17.3	46.2	0.0	0.0	9.2
137	1,905.0	95.6	1,958.7	53.7	86.0	0.0	0.0	32.0
139	1,905.8	133.7	1,950.7	44.9	85.2	0.0	0.0	26.3
140	1,899.4	25.1	1,923.5	24.1	91.6	0.0	0.0	13.3
141	1,890.2	80.2	1,923.2	33.0	100.8	0.0	0.0	18.7
142	1,883.9	83.4	1,923.2	39.3	107.1	0.0	0.0	22.7
143	1,888.7	89.1	1,923.2	34.5	102.3	0.0	0.0	19.7
144	1,907.4	31.6	1,940.0	32.6	83.6	0.0	0.0	18.5
145	1,909.3	4.9	1,940.0	30.7	81.7	0.0	0.0	17.3
146	1,876.5	43.7	1,919.0	42.5	114.5	0.0	0.0	24.7
147	1,878.9	79.4	1,919.0	40.1	112.1	0.0	0.0	23.2
148	1,889.6	51.0	1,924.7	35.1	101.4	0.0	•0.0	20.0
149	1,901.1	22.7	1,925.0	23.9	89.9	0.0	0.0	13.2
150	1,899.4	95.6	1,919.0	19.6	91.6	0.0	0.0	10.5
151	1,874.4	61.6	1,919.0	44.6	116.6	0.0	0.0	26.1
152	1,865.9	53.5	1,919.0	53.1	125.1	0.0	0.0	31.6
153	1,862.7	57.5	1,919.1	56.4	128.3	0.0	0.0	33.8
154	1,864.7	53.5	1,919.1	54.4	126.3	0.0	0.0	32.4
155	1,867.6	17.8	1,919.1	51.5	123.4	0.0	0.0	30.5
156	1,884.8	32.4	1,925.9	41.1	106.2	0.0	0.0	23.8
157	1,881.9	19.4	1,925.7	43.8	109.1	0.0	0.0	25.6
158	1,880.3	19.4	1,925.6	45.3	110.7	0.0	0.0	26.6
160	1,903.2	15.4	1,960.0	56.8	87.8	0.0	0.0	34.0
161	1,905.3	8.9	1,950.7	45.4	85.7	0.0	0.0	26.6
162	1,891.8	30.8	1,923.5	31.7	99.2	0.0	0.0	17.9
163	1,899.3	5.7	1,923.5	24.2	91.7	0.0	0.0	13.3
164	1,919.8	3.2	1,952.4	32.6	71.2	0.0	0.0	18.5
165	1,962.5	81.8	1,990.8	28.4	28.5	0.0	0.0	15.9
166	1,899.0	14.6	1,925.5	26.5	92.0	0.0	0.0	14.7
169	1,917.8	17.8	1,980.0	62.2	73.2	0.0	0.0	37.6
170	1,893.3	10.5	1,925.6	32.3	97.7	0.0	0.0	18.3
171	1,909.7	15.4	1,924.6	14.9	81.3	0.0	0.0	7.8
21	1,885.1	78.6	1,923.3	38.3	105.9	0.0	0.0	22.0
20	1,885.9	67.2	1,923.3	37.4	105.1	0.0	0.0	21.5
174	1,902.4	84.2	1,955.4	53.0	88.6	0.0	0.0	31.5
53	1,895.7	78.6	1,923.3	27.6	95.3	0.0	0.0	15.4
176	1,895.0	18.6	1,924.0	29.0	96.0	0.0	0.0	16.3
177	1,897.3	18.6	1,924.0	26.7	93.7	0.0	0.0	14.9
178	1,912.8	44.5	1,929.9	17.1	78.2	0.0	0.0	9.1
179	1,917.5	20.3	1,930.0	12.5	73.5	0.0	0.0	6.4
181	1,881.0	64.8	1,924.3	43.3	110.0	0.0	0.0	25.3
182	1,891.9	10.5	1,923.5	31.6	99.1	0.0	0.0	17.9
183	1,899.2	9.7	1,923.5	24.3	91.8	0.0	0.0	13.4
185	1,902.8	53.5	1,940.2	37.4	88.2	0.0	0.0	21.4
186	1,885.4	53.5	1,919.0	33.6	105.6	0.0	0.0	19.1
187	1,903.2	61.6	1,959.2	56.0	87.8	0.0	0.0	33.5
188	1,931.7	6.5	1,954.4	22.7	59.3	0.0	0.0	12.4
189	1,921.8	23.5	1,929.9	8.1	69.2	0.0	0.0	4.0
300	1,903.6	38.1	1,960.0	56.4	87.4	0.0	0.0	33.8
301	1,951.4	61.6	1,963.9	12.5	39.6	0.0	0.0	6.4
59	1,900.0	98.8	1,956.7	56.7	91.0	0.0	0.0	34.0
500	1,892.8	20.3	1,919.1	26.3	98.2	0.0	0.0	14.6
501	1,886.6	61.6	1,919.1	32.5	104.4	0.0	0.0	18.4
502	1,885.6	64.8	1,942.4	56.8	105.4	0.0	0.0	34.0
503	1,884.2	61.6	1,923.0	38.8	106.8	0.0	0.0	22.4
510	1,914.5	41.3	1,950.7	36.2	76.5	0.0	0.0	20.7
511	1,892.1	16.2	1,923.4	31.3	98.9	0.0	0.0	17.7
520	1,913.6	51.0	1,940.8	27.2	77.4	0.0	0.0	15.1
304	1,900.4	56.7	1,948.2	47.8	90.6	0.0	0.0	28.1
172	1,886.0	41.3	1,923.3	37.4	105.0	0.0	0.0	21.5
173	1,916.0	41.3	1,928.8	12.8	75.0	0.0	0.0	6.6
521	1,886.0	41.3	1,921.1	35.1	105.0	0.0	0.0	20.1
522	1,880.0	41.3	1,920.9	40.9	111.0	0.0	0.0	23.7
523	1,903.0	41.3	1,957.8	54.8	88.0	0.0	0.0	32.7
524	1,887.0	41.3	1,942.5	55.5	104.0	0.0	0.0	33.2
525	1,881.0	41.3	1,923.3	42.3	110.0	0.0	0.0	24.6
526	1,882.0	41.3	1,923.3	41.3	109.0	0.0	0.0	24.0

Net Work Analysis

Node No.	Elevation of Pipe (MSL)	Demand (cum/d)	Dynamic Pressure (MSL)	Distribution Main Dynamic Pressure (m)	Static Pressure (m)			Leakage (cum/d)
527	1,931.0	24.3	1,954.9	23.9	60.0	0.0	0.0	13.2
528	1,943.0	24.3	1,952.9	9.9	48.0	0.0	0.0	5.0
33	1,867.0	41.3	1,919.0	52.0	124.0	0.0	0.0	30.9
35	1,870.0	49.4	1,918.9	48.9	121.0	0.0	0.0	28.9
40	1,920.0	32.4	1,929.9	9.9	71.0	0.0	0.0	5.0
54	1,886.0	41.3	1,923.4	37.4	105.0	0.0	0.0	21.5
91	1,899.4	0.0	1,950.7	51.3	91.6	0.0	0.0	30.4
92	1,895.4	0.0	1,950.8	55.4	95.6	0.0	0.0	33.1
93	1,882.0	0.0	1,940.2	58.1	109.0	0.0	0.0	34.9
540	1,930.0	562.1	1,935.0	5.0	61.0	0.0	0.0	2.4
541	1,980.0	751.7	1,985.0	5.0	11.0	0.0	0.0	2.4
542	1,889.1	0.0	1,955.6	66.5	101.9	0.0	0.0	40.5
610	1,900.0	0.0	1,930.0	30.0	91.0	0.0	0.0	16.9
611	1,884.6	0.0	1,930.0	45.4	106.4	0.0	0.0	26.6
612	1,881.3	0.0	1,929.8	48.5	109.7	0.0	0.0	28.6

A-5.4.110

Net Work Analysis　　　　Distribution Main　　H

Pipe No.	Node A	Node B	Length (m)	Diameter (mm)	C	Flow (cum/d)	Velocity (m/s)	Pressure Gradient (o/oo)	Loss (m)
1	139	510	800.00	225.00	120.00	41.00	0.00	0.00	0.00
2	139	304	374.00	44.00	130.00	56.00	0.40	6.70	2.50
5	51	140	228.00	150.00	120.00	25.00	0.00	0.00	0.00
6	162	163	143.00	44.00	130.00	5.00	0.00	0.10	0.00
7	51	162	20.00	150.00	120.00	36.00	0.00	0.00	0.00
9	134	135	178.00	65.00	130.00	51.00	0.20	0.80	0.10
12	134	164	84.00	44.00	130.00	3.00	0.00	0.00	0.00
13	66	135	265.00	150.00	120.00	236.00	0.10	0.30	0.10
14	50	66	530.00	100.00	120.00	268.00	0.40	2.50	1.40
15	50	67	583.00	100.00	120.00	-158.00	-0.20	-1.00	-0.60
16	67	188	165.00	100.00	120.00	-189.00	-0.30	-1.30	-0.20
20	21	54	59.00	150.00	120.00	-275.00	-0.20	-0.40	0.00
21	21	23	88.00	100.00	120.00	97.00	0.10	0.40	0.00
22	23	24	55.00	150.00	120.00	18.00	0.00	0.00	0.00
23	20	24	90.00	100.00	120.00	91.00	0.10	0.30	0.00
24	20	21	66.00	150.00	120.00	-99.00	-0.10	-0.10	0.00
26	25	52	110.00	100.00	120.00	-13.00	0.00	0.00	0.00
27	52	53	176.00	100.00	120.00	40.00	0.10	0.10	0.00
28	53	60	100.00	100.00	120.00	-37.00	-0.10	-0.10	0.00
29	18	60	134.00	100.00	120.00	163.00	0.20	1.00	0.10
30	18	19	54.00	150.00	120.00	310.00	0.20	0.50	0.00
31	19	52	151.00	100.00	120.00	133.00	0.20	0.70	0.10
32	19	55	133.00	100.00	120.00	108.00	0.20	0.50	0.10
33	54	172	100.00	100.00	120.00	63.00	0.10	0.20	0.00
34	9	18	315.00	225.00	120.00	561.00	0.20	0.20	0.10
35	9	48	47.00	100.00	120.00	-817.00	-1.20	-19.90	-0.90
36	1	48	265.00	225.00	120.00	932.00	0.30	0.50	0.10
37	48	49	201.00	100.00	120.00	33.00	0.10	0.10	0.00
38	22	49	672.00	150.00	120.00	-544.00	-0.40	-1.30	-0.90
39	22	51	596.00	150.00	120.00	99.00	0.10	0.10	0.00
40	49	148	536.00	100.00	120.00	-108.00	-0.20	-0.50	-0.30
41	148	171	372.00	50.00	120.00	15.00	0.10	0.40	0.10
42	69	148	325.00	100.00	120.00	174.00	0.30	1.10	0.40
43	46	69	90.00	150.00	120.00	238.00	0.20	0.30	0.00
44	69	149	551.00	100.00	120.00	22.00	0.00	0.00	0.00
45	1	49	264.00	100.00	120.00	115.00	0.20	0.50	0.10
46	1	46	401.00	225.00	120.00	-1,563.00	-0.50	-1.30	-0.50
47	46	47	268.00	100.00	120.00	69.00	0.10	0.20	0.10
48	47	64	268.00	100.00	120.00	-244.00	-0.40	-2.10	-0.60
49	63	64	444.00	300.00	120.00	355.00	0.10	0.00	0.00
50	46	63	268.00	225.00	120.00	-1,973.00	-0.60	-2.00	-0.50
51	63	158	47.00	300.00	120.00	-2,360.00	-0.40	-0.70	0.00
52	158	166	358.00	50.00	120.00	14.00	0.10	0.30	0.10
53	157	158	77.00	300.00	120.00	2,394.00	0.40	0.70	0.10
54	157	170	264.00	44.00	130.00	10.00	0.10	0.30	0.10
55	156	157	300.00	300.00	120.00	2,424.00	0.40	0.70	0.20
56	2	156	100.00	300.00	120.00	3,208.00	0.50	1.20	0.10
61	2	203	704.00	350.00	120.00	-5,219.00	-0.60	-1.40	-1.00
62	2	4	442.00	225.00	120.00	1,954.00	0.60	1.90	0.80
63	4	5	65.00	225.00	120.00	1,852.00	0.50	1.80	0.10
64	4	61	972.00	65.00	130.00	40.00	0.10	0.50	0.50
65	5	6	221.00	150.00	120.00	329.00	0.20	0.50	0.10
66	6	27	150.00	150.00	120.00	316.00	0.20	0.50	0.10
67	27	37	216.00	100.00	120.00	-114.00	-0.20	-0.50	-0.10
68	36	37	400.00	150.00	120.00	145.00	0.10	0.10	0.10
69	36	38	563.00	100.00	120.00	41.00	0.10	0.10	0.10
70	37	38	30.00	150.00	120.00	-7.00	0.00	0.00	0.00
72	27	181	1,106.00	150.00	120.00	327.00	0.20	0.50	0.60
74	39	173	320.00	44.00	130.00	41.00	0.30	3.70	1.20
76	102	181	92.00	150.00	120.00	-314.00	-0.20	-0.50	0.00
80	39	179	125.00	150.00	120.00	-182.00	-0.10	-0.20	0.00
82	179	208	104.00	65.00	130.00	-23.00	-0.10	-0.20	0.00
83	102	103	350.00	150.00	120.00	388.00	0.30	0.70	0.20
84	101	102	120.00	44.00	130.00	-10.00	-0.10	-0.30	0.00
86	41	100	120.00	44.00	130.00	-8.00	-0.10	-0.20	0.00
87	100	101	312.00	37.00	130.00	-7.00	-0.10	-0.30	-0.10
88	42	43	257.00	100.00	120.00	56.00	0.10	0.10	0.00
89	42	43	257.00	100.00	120.00	56.00	0.10	0.10	0.00
90	43	44	268.00	150.00	120.00	81.00	0.10	0.00	0.00
91	44	177	391.00	100.00	120.00	18.00	0.00	0.00	0.00
92	44	176	391.00	100.00	120.00	18.00	0.00	0.00	0.00
93	176	177	90.00	100.00	120.00	0.00	0.00	0.00	0.00
99	29	112	251.00	65.00	130.00	-10.00	0.00	0.00	0.00
100	109	511	400.00	100.00	120.00	78.00	0.10	0.30	0.10
101	108	109	120.00	100.00	120.00	80.00	0.10	0.30	0.00
102	108	183	228.00	44.00	130.00	9.00	0.10	0.30	0.10
103	107	108	200.00	100.00	120.00	84.00	0.10	0.30	0.10

Net Work Analysis   Distribution Main   H

Pipe No.	Node A	Node B	Length (m)	Diameter (mm)	C	Flow (cum/d)	Velocity (m/s)	Pressure Gradient (o/oo)	Loss (m)
104	107	182	253.00	44.00	130.00	10.00	0.10	0.30	0.10
105	28	107	40.00	100.00	120.00	89.00	0.10	0.30	0.00
106	28	113	66.00	150.00	120.00	490.00	0.30	1.10	0.10
107	113	114	265.00	65.00	130.00	15.00	0.10	0.10	0.00
108	114	117	500.00	65.00	130.00	9.00	0.00	0.00	0.00
109	117	118	318.00	44.00	130.00	37.00	0.30	3.00	1.00
111	118	119	248.00	75.00	120.00	134.00	0.30	2.90	0.70
113	28	106	250.00	150.00	120.00	-365.00	-0.20	-0.60	-0.20
114	103	106	400.00	150.00	120.00	376.00	0.30	0.70	0.30
116	104	105	300.00	44.00	130.00	-15.00	-0.10	-0.60	-0.20
118	30	526	210.00	100.00	120.00	82.00	0.10	0.30	0.10
119	62	132	1,500.00	150.00	120.00	273.00	0.20	0.40	0.50
120	155	500	175.00	140.00	130.00	39.00	0.00	0.00	0.00
125	132	133	363.00	44.00	130.00	14.00	0.10	0.50	0.20
127	31	64	167.00	225.00	120.00	-75.00	0.00	0.00	0.00
129	70	144	284.00	100.00	120.00	36.00	0.10	0.10	0.00
130	144	145	121.00	44.00	130.00	4.00	0.00	0.10	0.00
132	45	47	162.00	150.00	120.00	-285.00	-0.20	-0.40	-0.10
133	9	45	761.00	100.00	120.00	-230.00	-0.30	-1.90	-1.50
134	9	57	25.00	100.00	120.00	379.00	0.60	4.80	0.10
135	57	58	120.00	100.00	120.00	147.00	0.20	0.80	0.10
136	58	60	262.00	100.00	120.00	-45.00	-0.10	-0.10	0.00
138	56	59	352.00	97.00	130.00	-88.00	-0.10	-0.30	-0.10
140	58	143	168.00	100.00	120.00	96.00	0.10	0.40	0.10
141	142	143	264.00	50.00	120.00	-7.00	0.00	-0.10	0.00
142	57	142	202.00	100.00	120.00	156.00	0.20	0.90	0.20
143	141	142	99.00	100.00	120.00	-80.00	-0.10	-0.30	0.00
146	12	150	360.00	150.00	120.00	95.00	0.10	0.10	0.00
147	12	151	163.00	150.00	120.00	-149.00	-0.10	-0.10	0.00
148	13	151	35.00	150.00	120.00	53.00	0.00	0.00	0.00
149	151	186	450.00	140.00	130.00	-54.00	0.00	0.00	0.00
151	154	155	132.00	100.00	120.00	56.00	0.10	0.10	0.00
160	153	154	165.00	100.00	120.00	87.00	0.10	0.30	0.10
161	14	153	236.00	150.00	120.00	-243.00	-0.20	-0.30	-0.10
162	13	14	475.00	150.00	120.00	-139.00	-0.10	-0.10	-0.10
163	13	146	35.00	150.00	120.00	123.00	0.10	0.10	0.00
164	146	147	137.00	150.00	120.00	79.00	0.10	0.00	0.00
167	11	137	663.00	150.00	120.00	-531.00	-0.30	-1.30	-0.80
168	14	152	66.00	100.00	120.00	144.00	0.20	0.80	0.10
170	33	152	150.00	100.00	120.00	-90.00	-0.10	-0.30	-0.10
175	56	68	165.00	100.00	120.00	281.00	0.40	2.80	0.50
176	68	136	726.00	44.00	130.00	-63.00	-0.50	-8.20	-6.00
177	136	137	512.00	44.00	130.00	56.00	0.40	6.60	3.40
178	137	187	277.00	140.00	130.00	-570.00	-0.40	-1.70	-0.50
182	71	124	400.00	225.00	120.00	-70.00	0.00	0.00	0.00
183	15	124	441.00	225.00	120.00	125.00	0.00	0.00	0.00
184	15	16	177.00	150.00	120.00	512.00	0.30	1.20	0.20
185	16	121	286.00	100.00	120.00	179.00	0.30	1.20	0.30
186	120	121	1,210.00	75.00	120.00	-91.00	-0.20	-1.40	-1.70
187	16	125	850.00	100.00	120.00	195.00	0.30	1.40	1.20
191	122	209	120.00	225.00	120.00	6.00	0.00	0.00	0.00
193	125	126	396.00	100.00	120.00	176.00	0.30	1.20	0.50
194	126	128	668.00	65.00	130.00	46.00	0.20	0.70	0.50
195	126	127	1,047.00	65.00	130.00	43.00	0.10	0.60	0.70
196	128	129	90.00	65.00	130.00	15.00	0.10	0.10	0.00
197	129	130	60.00	44.00	130.00	8.00	0.10	0.20	0.00
198	130	131	88.00	37.00	130.00	3.00	0.00	0.10	0.00
199	62	520	569.00	100.00	120.00	51.00	0.10	0.10	0.10
200	41	42	237.00	100.00	120.00	30.00	0.10	0.10	0.00
201	30	113	250.00	150.00	120.00	-336.00	-0.20	-0.50	-0.10
203	5	36	105.00	150.00	120.00	227.00	0.10	0.30	0.00
179	187	300	500.00	150.00	120.00	-631.00	-0.40	-1.70	-0.90
250	136	301	215.00	65.00	130.00	-177.00	-0.60	-8.30	-1.80
209	160	300	152.00	150.00	120.00	-146.00	-0.10	-0.10	0.00
213	62	524	334.00	97.00	130.00	-385.00	-0.60	-5.00	-1.70
214	30	503	334.00	100.00	120.00	189.00	0.30	1.30	0.40
215	112	511	132.00	75.00	120.00	-38.00	-0.10	-0.30	0.00
216	500	501	100.00	140.00	130.00	18.00	0.00	0.00	0.00
217	154	501	104.00	65.00	130.00	24.00	0.10	0.20	0.00
218	186	501	221.00	140.00	130.00	-162.00	-0.10	-0.20	0.00
110	118	503	167.00	75.00	120.00	-127.00	-0.30	-2.60	-0.40
300	215	301	554.00	100.00	120.00	238.00	0.30	2.00	1.10
208	215	300	250.00	100.00	120.00	816.00	1.20	19.90	5.00
17	205	527	250.00	100.00	120.00	82.00	0.10	0.30	0.10
172	15	153	577.00	150.00	120.00	439.00	0.30	0.90	0.50
302	10	70	480.00	150.00	120.00	-20.00	0.00	0.00	0.00
304	24	25	55.00	100.00	120.00	14.00	0.00	0.00	0.00

Net Work Analysis Distribution Main H

Pipe No.	Node A	Node B	Length (m)	Diameter (mm)	C	Flow (cum/d)	Velocity (m/s)	Pressure Gradient (o/oo)	Loss (m)
305	55	172	50.00	100.00	120.00	36.00	0.10	0.10	0.00
306	20	172	50.00	100.00	120.00	-59.00	-0.10	-0.10	0.00
307	23	25	75.00	100.00	120.00	13.00	0.00	0.00	0.00
308	40	178	150.00	150.00	120.00	44.00	0.00	0.00	0.00
77	39	40	180.00	100.00	120.00	100.00	0.10	0.40	0.10
78	40	189	60.00	100.00	120.00	23.00	0.00	0.00	0.00
79	100	101	450.00	44.00	130.00	-9.00	-0.10	-0.20	-0.10
309	41	42	150.00	150.00	120.00	113.00	0.10	0.10	0.00
310	119	521	350.00	65.00	130.00	82.00	0.30	2.00	0.70
311	521	522	350.00	65.00	130.00	41.00	0.10	0.60	0.20
313	33	35	150.00	100.00	120.00	49.00	0.10	0.10	0.00
301	11	523	120.00	150.00	120.00	461.00	0.30	1.00	0.10
314	59	523	180.00	100.00	120.00	-420.00	-0.60	-5.80	-1.10
315	502	524	150.00	75.00	120.00	-64.00	-0.20	-0.70	-0.10
317	524	600	450.00	97.00	130.00	-491.00	-0.80	-7.80	-3.50
319	525	526	210.00	75.00	120.00	-41.00	-0.10	-0.30	-0.10
321	527	528	480.00	65.00	130.00	122.00	0.40	4.20	2.00
322	134	528	200.00	65.00	130.00	-98.00	-0.30	-2.80	-0.60
11	165	601	75.00	65.00	130.00	-81.00	-0.30	-2.00	-0.10
324	188	527	50.00	65.00	130.00	-196.00	-0.70	-10.00	-0.50
325	122	123	160.00	140.00	130.00	52.00	0.00	0.00	0.00
327	56	59	352.00	140.00	130.00	-232.00	-0.20	-0.30	-0.10
328	1	49	264.00	158.00	130.00	416.00	0.30	0.50	0.10
329	206	527	215.00	150.00	120.00	260.00	0.20	0.30	0.10
330	156	541	931.00	100.00	120.00	751.00	1.10	17.10	15.90
331	112	540	434.00	97.00	130.00	562.00	0.90	10.00	4.30
601	91	139	162.00	150.00	120.00	231.00	0.10	0.30	0.00
602	91	161	225.00	65.00	130.00	8.00	0.00	0.00	0.00
603	70	93	662.00	150.00	120.00	-163.00	-0.10	-0.10	-0.10
605	93	132	616.00	150.00	120.00	-217.00	-0.10	-0.20	-0.10
606	93	185	300.00	150.00	120.00	53.00	0.00	0.00	0.00
212	22	54	275.00	150.00	120.00	380.00	0.30	0.70	0.20
610	122	160	931.00	225.00	120.00	-130.00	0.00	0.00	0.00
611	91	92	228.00	150.00	120.00	-240.00	-0.20	-0.30	-0.10
612	92	135	690.00	100.00	120.00	-240.00	-0.30	-2.10	-1.40
613	604	610	200.00	97.00	130.00	29.00	0.10	0.00	0.00
614	105	612	250.00	44.00	130.00	-29.00	-0.20	-2.00	-0.50
616	174	542	569.00	97.00	130.00	-84.00	-0.10	-0.30	-0.20
701	186	606	500.00	250.00	120.00	-1,524.00	-0.40	-0.70	-0.40
702	169	603	50.00	55.00	130.00	-17.00	-0.10	-0.30	0.00
703	15	153	577.00	140.00	130.00	397.00	0.30	0.90	0.50
705	16	125	850.00	65.00	130.00	68.00	0.20	1.40	1.20
713	102	103	350.00	198.00	130.00	874.00	0.30	0.70	0.20
714	103	106	400.00	198.00	130.00	846.00	0.30	0.70	0.30
715	28	106	250.00	198.00	130.00	-821.00	-0.30	-0.60	-0.20
716	28	107	40.00	198.00	130.00	585.00	0.20	0.30	0.00
717	107	108	200.00	198.00	130.00	554.00	0.20	0.30	0.10
718	108	109	120.00	198.00	130.00	524.00	0.20	0.30	0.00
719	109	511	400.00	198.00	130.00	510.00	0.20	0.30	0.10
720	112	511	132.00	198.00	130.00	-534.00	-0.20	-0.30	0.00
731	113	114	265.00	140.00	130.00	115.00	0.10	0.10	0.00
732	114	117	500.00	140.00	130.00	74.00	0.10	0.00	0.00
741	179	208	104.00	140.00	130.00	-178.00	-0.10	-0.20	0.00
751	610	611	630.00	97.00	130.00	29.00	0.10	0.00	0.00
752	611	612	610.00	65.00	130.00	29.00	0.10	0.30	0.20
761	50	542	1,044.00	97.00	130.00	-226.00	-0.30	-1.90	-1.90
762	68	542	165.00	97.00	130.00	310.00	0.50	3.30	0.60
771	101	102	120.00	140.00	130.00	-216.00	-0.20	-0.30	0.00
772	100	101	450.00	140.00	130.00	-190.00	-0.10	-0.20	-0.10
773	41	100	120.00	140.00	130.00	-171.00	-0.10	-0.20	0.00
781	5	6	221.00	250.00	120.00	1,262.00	0.30	0.50	0.10
782	6	27	150.00	250.00	120.00	1,213.00	0.30	0.50	0.10
783	27	181	1,106.00	250.00	120.00	1,256.00	0.30	0.50	0.60
784	102	181	92.00	250.00	120.00	-1,205.00	-0.30	-0.50	0.00
791	151	186	450.00	140.00	130.00	-54.00	0.00	0.00	0.00
792	13	151	35.00	140.00	130.00	48.00	0.00	0.00	0.00
793	13	14	475.00	140.00	130.00	-126.00	-0.10	-0.10	-0.10
794	14	153	236.00	140.00	130.00	-220.00	-0.20	-0.30	-0.10
795	154	501	104.00	140.00	130.00	181.00	0.10	0.20	0.00
796	153	154	165.00	140.00	130.00	228.00	0.20	0.30	0.10

Net Work Analysis   Distribution Main

File Name   Nuwara103Year2005FSDry   I
Season   Dry
Network Type   Proposed

Demand   Year 2005
              Hourly Max
Reserver   Water Level Fix   Except for Follows
              Discharge Fix   No.205,206,215,209

Magnification of Demand   1.547

Reservoir Data

Node		HWL (MSL)	LWL (MSL)	Reservoir
203	1	1,927.0	1,927.0	Haddon Hill
208	1	1,930.0	1,930.0	Bonavista
600	1	1,946.0	1,946.0	Nseby
601	1	1,991.0	1,991.0	Piyatisappura
602	1	1,948.0	1,948.0	New Pedro Reserver
603	1	1,980.0	1,980.0	Unique View
604	1	1,925.0	1,925.0	Vijithapura
606	1	1,920.0	1,920.0	Low Area 2

Node Data

Node		Ground Elev (MSL)	Demand (cum/d)		
1	1	1,881.7	122.0	0	0
2	1	1,885.1	70.0	0	0
4	1	1,881.8	76.0	0	0
5	1	1,881.3	40.0	0	0
6	1	1,883.7	76.0	0	0
9	1	1,881.2	133.0	0	0
10	1	1,903.4	25.0	0	0
11	1	1,902.1	86.0	0	0
12	1	1,880.5	66.0	0	0
13	1	1,874.2	51.0	0	0
14	1	1,865.6	66.0	0	0
15	1	1,860.5	61.0	0	0
16	1	1,860.5	85.0	0	0
18	1	1,885.1	107.0	0	0
19	1	1,885.8	85.0	0	0
22	1	1,889.4	79.0	0	0
23	1	1,887.3	82.0	0	0
24	1	1,887.7	117.0	0	0
25	1	1,887.0	51.0	0	0
27	1	1,882.3	75.0	0	0
28	1	1,879.2	26.0	0	0
29	1	1,892.4	13.0	0	0
30	1	1,882.6	80.0	0	0
31	1	1,882.0	93.0	0	0
36	1	1,889.3	51.0	0	0
37	1	1,891.4	47.0	0	0
38	1	1,893.9	42.0	0	0
39	1	1,914.9	50.0	0	0
41	1	1,899.2	44.0	0	0
42	1	1,896.1	38.0	0	0
43	1	1,894.8	40.0	0	0
44	1	1,893.4	54.0	0	0
45	1	1,884.9	67.0	0	0
46	1	1,878.2	127.0	0	0
47	1	1,880.7	36.0	0	0
48	1	1,880.2	101.0	0	0
49	1	1,881.1	160.0	0	0
50	1	1,886.3	144.0	0	0
51	1	1,895.4	47.0	0	0
52	1	1,889.1	97.0	0	0
55	1	1,886.2	89.0	0	0
56	1	1,902.7	49.0	0	0
57	1	1,884.1	93.0	0	0
58	1	1,890.9	119.0	0	0
60	1	1,889.9	100.0	0	0
61	1	1,885.4	50.0	0	0

62	1	1,890.2	76.0	0	0
63	1	1,878.7	38.0	0	0
64	1	1,876.5	44.0	0	0
66	1	1,910.0	40.0	0	0
67	1	1,921.5	38.0	0	0
68	1	1,918.6	42.0	0	0
69	1	1,879.5	50.0	0	0
70	1	1,904.5	132.0	0	0
71	1	1,894.5	87.0	0	0
100	1	1,896.6	33.0	0	0
101	1	1,885.9	25.0	0	0
102	1	1,876.7	37.0	0	0
103	1	1,883.1	50.0	0	0
104	1	1,916.3	19.0	0	0
105	1	1,903.9	17.0	0	0
106	1	1,881.3	43.0	0	0
107	1	1,880.1	32.0	0	0
108	1	1,884.1	30.0	0	0
109	1	1,884.6	20.0	0	0
112	1	1,900.7	0.0	0	0
113	1	1,878.5	29.0	0	0
114	1	1,897.3	57.0	0	0
117	1	1,907.5	59.0	0	0
118	1	1,889.0	37.0	0	0
119	1	1,889.1	64.0	0	0
120	1	1,871.2	113.0	0	0
121	1	1,862.6	109.0	0	0
122	1	1,950.0	89.0	0	0
123	1	1,927.3	65.0	0	0
124	1	1,879.6	68.0	0	0
125	1	1,886.2	108.0	0	0
126	1	1,894.1	107.0	0	0
127	1	1,874.9	54.0	0	0
128	1	1,896.4	38.0	0	0
129	1	1,896.0	8.0	0	0
130	1	1,886.4	7.0	0	0
131	1	1,875.8	4.0	0	0
132	1	1,886.8	51.0	0	0
133	1	1,898.7	18.0	0	0
134	1	1,924.5	54.0	0	0
135	1	1,915.7	58.0	0	0
136	1	1,944.8	71.0	0	0
137	1	1,905.0	118.0	0	0
139	1	1,905.8	165.0	0	0
140	1	1,899.4	31.0	0	0
141	1	1,890.2	99.0	0	0
142	1	1,883.9	103.0	0	0
143	1	1,888.7	110.0	0	0
144	1	1,907.4	39.0	0	0
145	1	1,909.3	6.0	0	0
146	1	1,876.5	54.0	0	0
147	1	1,878.9	98.0	0	0
148	1	1,889.6	63.0	0	0
149	1	1,901.1	28.0	0	0
150	1	1,899.4	118.0	0	0
151	1	1,874.4	76.0	0	0
152	1	1,865.9	66.0	0	0
153	1	1,862.7	71.0	0	0
154	1	1,864.7	66.0	0	0
155	1	1,867.6	22.0	0	0
156	1	1,884.8	40.0	0	0
157	1	1,881.9	24.0	0	0
158	1	1,880.3	24.0	0	0
160	1	1,903.2	19.0	0	0
161	1	1,905.3	11.0	0	0
162	1	1,891.8	38.0	0	0
163	1	1,899.3	7.0	0	0
164	1	1,919.8	4.0	0	0
165	1	1,962.5	101.0	0	0
166	1	1,899.0	18.0	0	0
169	1	1,917.8	22.0	0	0
170	1	1,893.3	13.0	0	0
171	1	1,909.7	19.0	0	0
21	1	1,885.1	97.0	0	0
20	1	1,885.9	83.0	0	0

174	1	1,902.4	104.0	0	0
53	1	1,895.7	97.0	0	0
176	1	1,895.0	23.0	0	0
177	1	1,897.3	23.0	0	0
178	1	1,912.8	55.0	0	0
179	1	1,917.5	25.0	0	0
181	1	1,881.0	80.0	0	0
182	1	1,891.9	13.0	0	0
183	1	1,899.2	12.0	0	0
185	1	1,902.8	66.0	0	0
186	1	1,885.4	66.0	0	0
187	1	1,903.2	76.0	0	0
188	1	1,931.7	8.0	0	0
189	1	1,921.8	29.0	0	0
300	1	1,903.6	47.0	0	0
301	1	1,951.4	76.0	0	0
59	1	1,900.0	122.0	0	0
500	1	1,892.8	25.0	0	0
501	1	1,886.6	76.0	0	0
502	1	1,885.6	80.0	0	0
503	1	1,884.2	76.0	0	0
510	1	1,914.5	51.0	0	0
511	1	1,892.1	20.0	0	0
520	1	1,913.6	63.0	0	0
304	1	1,900.4	70.0	0	0
172	1	1,886.0	51.0	0	0
173	1	1,916.0	51.0	0	0
521	1	1,886.0	51.0	0	0
522	1	1,880.0	51.0	0	0
523	1	1,903.0	51.0	0	0
524	1	1,887.0	51.0	0	0
525	1	1,881.0	51.0	0	0
526	1	1,882.0	51.0	0	0
527	1	1,931.0	30.0	0	0
528	1	1,943.0	30.0	0	0
33	1	1,867.0	51.0	0	0
35	1	1,870.0	61.0	0	0
40	1	1,920.0	40.0	0	0
54	1	1,886.0	51.0	0	0
91	1	1,899.4	0.0	0	0
92	1	1,895.4	0.0	0	0
93	1	1,882.0	0.0	0	0
540	1	1,930.0	416.0	0	0
541	1	1,980.0	557.0	0	0
542	1	1,889.1	0.0	0	0
610	1	1,900.0	0.0	0	0
611	1	1,884.6	0.0	0	0
612	1	1,881.3	0.0	0	0
205	1	1,960.0	-64.0	0	0
206	1	1,955.0	-365.0	0	0
215	1	1,979.0	-247.0	0	0
209	1	1,960.0	-103.0	0	0

Booster Pump Data

No.	Type	Node A	Node B	Pipe No.	Pressure (m)
1	B	156	541	330	81.5
2	B	112	540	331	29.9

Pipe Data

Pipe No.	Node A	Node B	Diameter (mm)	Length (m)	C Value
1	139	510	225.0	800.0	120.0
2	139	304	44.0	374.0	130.0
5	51	140	150.0	228.0	120.0
6	162	163	44.0	143.0	130.0
7	51	162	150.0	20.0	120.0
9	134	135	65.0	178.0	130.0
12	134	164	44.0	84.0	130.0
13	66	135	150.0	265.0	120.0
14	50	66	100.0	530.0	120.0
15	50	67	100.0	583.0	120.0
16	67	188	100.0	165.0	120.0
20	21	54	150.0	59.0	120.0
21	21	23	100.0	88.0	120.0
22	23	24	150.0	55.0	120.0
23	20	24	100.0	90.0	120.0
24	20	21	150.0	66.0	120.0
26	25	52	100.0	110.0	120.0
27	52	53	100.0	176.0	120.0
28	53	60	100.0	100.0	120.0
29	18	60	100.0	134.0	120.0
30	18	19	150.0	54.0	120.0
31	19	52	100.0	151.0	120.0
32	19	55	100.0	133.0	120.0
33	54	172	100.0	100.0	120.0
34	9	18	225.0	315.0	120.0
35	9	48	100.0	47.0	120.0
36	1	48	225.0	265.0	120.0
37	48	49	100.0	201.0	120.0
38	22	49	150.0	672.0	120.0
39	22	51	150.0	596.0	120.0
40	49	148	100.0	536.0	120.0
41	148	171	50.0	372.0	120.0
42	69	148	100.0	325.0	120.0
43	46	69	150.0	90.0	120.0
44	69	149	100.0	551.0	120.0
45	1	49	100.0	264.0	120.0
46	1	46	225.0	401.0	120.0
47	46	47	100.0	268.0	120.0
48	47	64	100.0	268.0	120.0
49	63	64	300.0	444.0	120.0
50	46	63	225.0	268.0	120.0
51	63	158	300.0	47.0	120.0
52	158	166	50.0	358.0	120.0
53	157	158	300.0	77.0	120.0
54	157	170	44.0	264.0	130.0
55	156	157	300.0	300.0	120.0
56	2	156	300.0	100.0	120.0
61	2	203	350.0	704.0	120.0
62	2	4	225.0	442.0	120.0
63	4	5	225.0	65.0	120.0
64	4	61	65.0	972.0	130.0
65	5	6	150.0	221.0	120.0
66	6	27	150.0	150.0	120.0
67	27	37	100.0	216.0	120.0
68	36	37	150.0	400.0	120.0
69	36	38	100.0	563.0	120.0
70	37	38	150.0	30.0	120.0
72	27	181	150.0	1,106.0	120.0
74	39	173	44.0	320.0	130.0
76	102	181	150.0	92.0	120.0
80	39	179	150.0	125.0	120.0
82	179	208	65.0	104.0	130.0
83	102	103	150.0	350.0	120.0
84	101	102	44.0	120.0	130.0
86	41	100	44.0	120.0	130.0
87	100	101	37.0	312.0	130.0
88	42	43	100.0	257.0	120.0
89	42	43	100.0	257.0	120.0
90	43	44	150.0	268.0	120.0
91	44	177	100.0	391.0	120.0
92	44	176	100.0	391.0	120.0
93	176	177	100.0	90.0	120.0

99	29	112	65.0	251.0	130.0
100	109	511	100.0	400.0	120.0
101	108	109	100.0	120.0	120.0
102	108	183	44.0	228.0	130.0
103	107	108	100.0	200.0	120.0
104	107	182	44.0	253.0	130.0
105	28	107	100.0	40.0	120.0
106	28	113	150.0	66.0	120.0
107	113	114	65.0	265.0	130.0
108	114	117	65.0	500.0	130.0
109	117	118	44.0	318.0	130.0
111	118	119	75.0	248.0	120.0
113	28	106	150.0	250.0	120.0
114	103	106	150.0	400.0	120.0
116	104	105	44.0	300.0	130.0
118	30	526	100.0	210.0	120.0
119	62	132	150.0	1,500.0	120.0
120	155	500	140.0	175.0	130.0
125	132	133	44.0	363.0	130.0
127	31	64	225.0	167.0	120.0
129	70	144	100.0	284.0	120.0
130	144	145	44.0	121.0	130.0
132	45	47	150.0	162.0	120.0
133	9	45	100.0	761.0	120.0
134	9	57	100.0	25.0	120.0
135	57	58	100.0	120.0	120.0
136	58	60	100.0	262.0	120.0
138	56	59	97.0	352.0	130.0
140	58	143	100.0	168.0	120.0
141	142	143	50.0	264.0	120.0
142	57	142	100.0	202.0	120.0
143	141	142	100.0	99.0	120.0
146	12	150	150.0	360.0	120.0
147	12	151	150.0	163.0	120.0
148	13	151	150.0	35.0	120.0
149	151	186	140.0	450.0	130.0
151	154	155	100.0	132.0	120.0
160	153	154	100.0	165.0	120.0
161	14	153	150.0	236.0	120.0
162	13	14	150.0	475.0	120.0
163	13	146	150.0	35.0	120.0
164	146	147	150.0	137.0	120.0
167	11	137	150.0	663.0	120.0
168	14	152	100.0	66.0	120.0
170	33	152	100.0	150.0	120.0
175	56	68	100.0	165.0	120.0
176	68	136	44.0	726.0	130.0
177	136	137	44.0	512.0	130.0
178	137	187	140.0	277.0	130.0
182	71	124	225.0	400.0	120.0
183	15	124	225.0	441.0	120.0
184	15	16	150.0	177.0	120.0
185	16	121	100.0	286.0	120.0
186	120	121	75.0	1,210.0	120.0
187	16	125	100.0	850.0	120.0
191	122	209	225.0	120.0	120.0
193	125	126	100.0	396.0	120.0
194	126	128	65.0	668.0	130.0
195	126	127	65.0	1,047.0	130.0
196	128	129	65.0	90.0	130.0
197	129	130	44.0	60.0	130.0
198	130	131	37.0	88.0	130.0
199	62	520	100.0	569.0	120.0
200	41	42	100.0	237.0	120.0
201	30	113	150.0	250.0	120.0
203	5	36	150.0	105.0	120.0
179	187	300	150.0	500.0	120.0
250	136	301	65.0	215.0	130.0
209	160	300	150.0	152.0	120.0
213	62	524	97.0	334.0	130.0
214	30	503	100.0	334.0	120.0
215	112	511	75.0	132.0	120.0
216	500	501	140.0	100.0	130.0
217	154	501	65.0	104.0	130.0
218	186	501	140.0	221.0	130.0

110	118	503	75.0	167.0	120.0
300	215	301	100.0	554.0	120.0
208	215	300	100.0	250.0	120.0
17	205	527	100.0	250.0	120.0
172	15	153	150.0	577.0	120.0
302	10	70	150.0	480.0	120.0
304	24	25	100.0	55.0	120.0
305	55	172	100.0	50.0	120.0
306	20	172	100.0	50.0	120.0
307	23	25	100.0	75.0	120.0
308	40	178	150.0	150.0	120.0
77	39	40	100.0	180.0	120.0
78	40	189	100.0	60.0	120.0
79	100	101	44.0	450.0	130.0
309	41	42	150.0	150.0	120.0
310	119	521	65.0	350.0	130.0
311	521	522	65.0	350.0	130.0
313	33	35	100.0	150.0	120.0
301	11	523	150.0	120.0	120.0
314	59	523	100.0	180.0	120.0
315	502	524	75.0	150.0	120.0
317	524	600	97.0	450.0	130.0
319	525	526	75.0	210.0	120.0
321	527	528	65.0	480.0	130.0
322	134	528	65.0	200.0	130.0
11	165	601	65.0	75.0	130.0
324	188	527	65.0	50.0	130.0
325	122	123	140.0	160.0	130.0
327	56	59	140.0	352.0	130.0
328	1	49	158.0	264.0	130.0
329	206	527	150.0	215.0	120.0
330	156	541	100.0	931.0	120.0
331	112	540	97.0	434.0	130.0
601	91	139	150.0	162.0	120.0
602	91	161	65.0	225.0	130.0
603	70	93	150.0	662.0	120.0
605	93	132	150.0	616.0	120.0
606	93	185	150.0	300.0	120.0
607	56	602	200.0	1,000.0	120.0
212	22	54	150.0	275.0	120.0
610	122	160	225.0	931.0	120.0
611	91	92	150.0	228.0	120.0
612	92	135	100.0	690.0	120.0
613	604	610	97.0	200.0	130.0
614	105	612	44.0	250.0	130.0
616	174	542	97.0	569.0	130.0
701	15	606	250.0	509.0	120.0
702	169	603	55.0	50.0	130.0
705	16	125	65.0	850.0	130.0
713	102	103	198.0	350.0	130.0
714	103	106	198.0	400.0	130.0
715	28	106	198.0	250.0	130.0
716	28	107	198.0	40.0	130.0
717	107	108	198.0	200.0	130.0
718	108	109	198.0	120.0	130.0
719	109	511	198.0	400.0	130.0
731	113	114	140.0	265.0	130.0
732	114	117	140.0	500.0	130.0
741	179	208	140.0	104.0	130.0
751	610	611	97.0	630.0	130.0
752	611	612	65.0	610.0	130.0
761	50	542	97.0	1,044.0	130.0
762	68	542	97.0	165.0	130.0
771	101	102	140.0	120.0	130.0
772	100	101	140.0	450.0	130.0
773	41	100	140.0	120.0	130.0
781	5	6	250.0	221.0	120.0
782	6	27	250.0	150.0	120.0
783	27	181	250.0	1,106.0	120.0
784	102	181	250.0	92.0	120.0
795	154	501	140.0	104.0	130.0
796	153	154	140.0	165.0	130.0

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