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PIANO NAZIONALE DI RIPRESA E RESILIENZA



Mims
Ministero delle infrastrutture
e della mobilità sostenibili

PIANO NAZIONALE DI RIPRESA E RESILIENZA M2C4 - I4.1

"INVESTIMENTI IN INFRASTRUTTURE IDRICHE PRIMARIE PER LA SICUREZZA DELL'APPROVVIGIONAMENTO IDRICO"



CONSORZIO DI BONIFICA
della romagna occidentale

PROGETTO DI MESSA IN SICUREZZA E INCREMENTO DELLA RESILIENZA IDRICO-IDRAULICA DEI TERRITORI SOTTESI DAL CANALE "FOSSO VECCHIO" MEDIANTE COSTRUZIONE DI UNA CASSA DI ESPANSIONE CON FUNZIONE DI LAMINAZIONE DELLE PIENE E DI INVASO PER L'EFFICIENTAMENTO DELLA PRATICA IRRIGUA DA CANALI A RETE TUBATA IN PRESSIONE, NEI COMUNI DI BAGNACAVALLO, COTIGNOLA E FAENZA IN PROVINCIA DI RAVENNA.

CUP I41B21003430008

CODICE INTERVENTO PNRR-M2C4-I4.1-A2-2

ATTRAVERSAMENTO

FERROVIA CASTEL BOLOGNESE– RAVENNA Km 20 + 879

ALL. 5

RELAZIONE TECNICO IDRAULICA



IL PROGETTISTA
Dott. Ing. Elvio Cangini
Firmato digitalmente

DISTRETTO IRRIGUO BONCELLINO
Efficientamento dell'area irrigua

1. CALCOLI E VERIFICHE IDRAULICHE

1.1 PREMESSA

La presente relazione di calcolo prende in considerazione la verifica e il dimensionamento della rete di distribuzione irrigua in alta pressione in progetto, destinata a servire il distretto denominato “Boncellino” nel comune di Bagnacavallo (RA).

La batteria di 3 pompe a servizio della rete progettata sarà collocata all'interno della centrale di pompaggio omonima e la dotazione d'acqua da vasca di accumulo sarà pari a circa 450 l/s con pressione in uscita alla centrale di circa 8 atm.

L'area potenzialmente servita dalla rete di distribuzione è pari a circa 1200 Ha delimitati a sud-est dal fiume Lamone, a nord dall'autostrada A14, a ovest dalla strada prov. 8 e a sud-ovest dalla strada prov. 75.

Agli utenti deve essere garantita una pressione minima di esercizio pari a 4 atm per consentire ogni tipo di pratica irrigua senza bisogno di ulteriore rilancio.

Nel presente studio si considera anche l'ipotesi di funzionamento turnato.

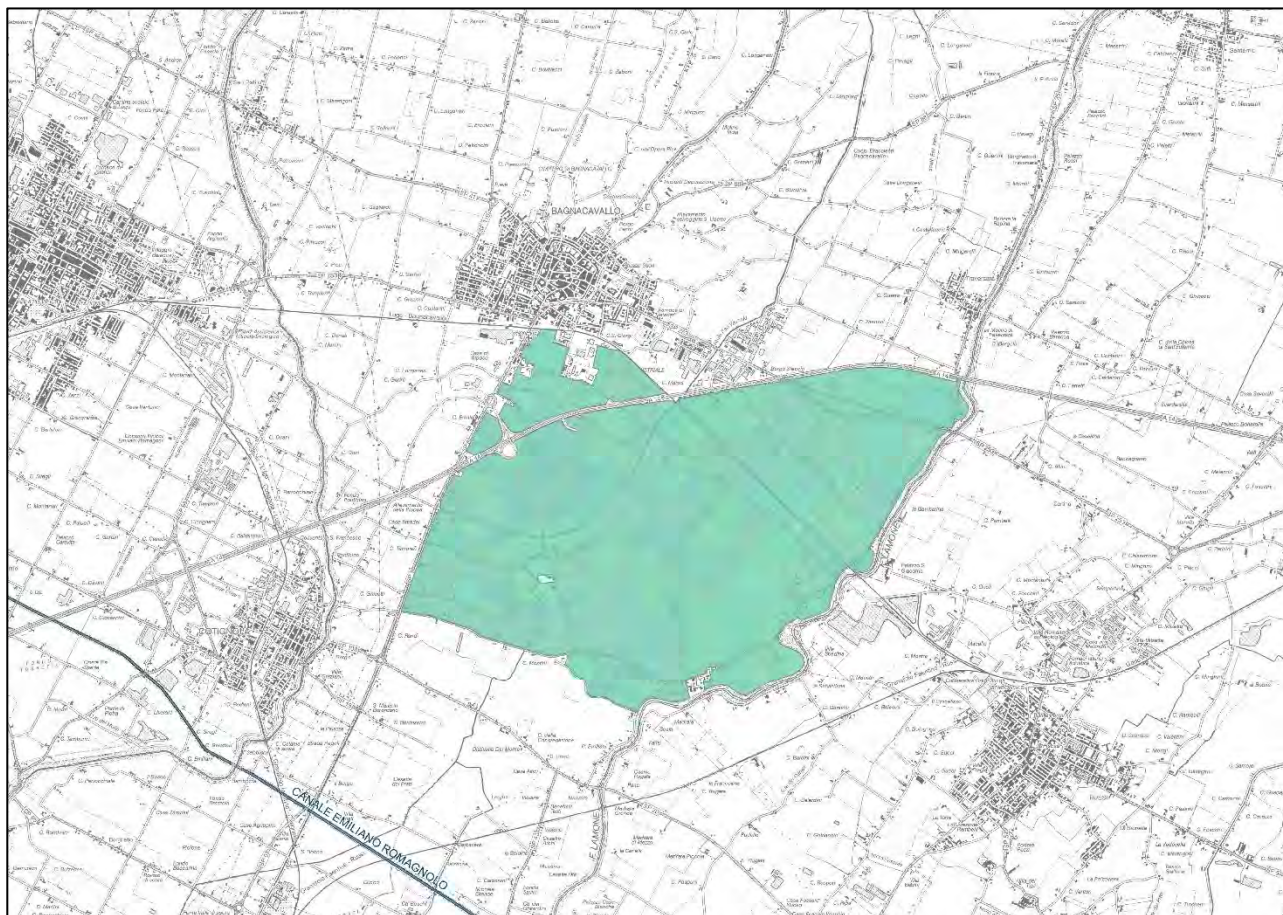


Figura 1 – area distretto Boncellino

1.2 DISTRETTO IRRIGUO “BONCELLINO”

Per la verifica della rete di distribuzione nel distretto irriguo servito dalla centrale di pompaggio denominata “Boncellino”, si è ricorso al modello idraulico EPANET sviluppato dal Water Supply and Water Resources Division del U.S. Environmental Protection Agency's National Risk Management Research Laboratories, che consente di simulare il comportamento idraulico e la qualità dell'acqua in una rete di condotte in pressione. Il programma si basa su un algoritmo di calcolo che sfrutta il metodo del gradiente per la soluzione iterativa di sistemi di equazioni non lineari. Si rimanda al sito <https://www.epa.gov/water-research/epanet> per la visualizzazione delle specifiche e del manuale.

Il legame tra perdite di carico e portate viene espresso mediante la formula di Darcy Weisbach in quanto teoricamente più corretta e applicabile a tutti i regimi di flusso. Tale formula si rappresenta nell'espressione seguente:

$$h_L = A \cdot q^B$$
$$\text{con } A = 0.0252 \cdot f(\varepsilon, d, q) \cdot d^{-5} \cdot L$$

in cui:

h_L = perdite di carico per unità di lunghezza;

A = coefficiente di resistenza;

q = portata;

B = esponente del flusso.

ε = coefficiente di rugosità di Darcy-Weisbach;

f = coefficiente di rugosità di Darcy-Weisbach;

L = lunghezza del tubo;

d = diametro del tubo.

La tipologia di condotte utilizzate per la rete in oggetto è costituita tubazioni in ghisa rivestite internamente in cemento centrifugato e condotte in polietilene ad alta densità.

Sulla base dei dati proposti dalle case costruttrici delle tubazioni di cui è previsto l'impiego in progetto è stato adottato un coefficiente $\varepsilon = 0.15$ mm per le condotte in ghisa sferoidale e $\varepsilon = 0.015$ mm per le condotte in polietilene alta densità, in linea con i valori solitamente assunti nella pratica progettuale e da letteratura.

La rete viene schematizzata con un reticolo costituito da NODI e RAMI.

I RAMI sono caratterizzati dai nodi di incidenza (iniziali e finali), dalla lunghezza, dal diametro interno e dalla scabrezza della tubazione; ai NODI viene applicata la portata (in entrata ed in uscita). Il programma di calcolo restituisce il carico ai NODI in funzione del carico iniziale dato dalle pompe della centrale e delle perdite di carico distribuite lungo la rete di distribuzione.

Ad ogni NODO è possibile assegnare anche una quota. Trattandosi di un distretto in pianura tutta la rete è stata considerata a quota 10 m. Al fine di considerare eventuali scostamenti di quota tra effettivo posizionamento dell'idrante e piano di progetto, si considera una pressione limite minima di progetto pari a 4,5 atm.

In riferimento agli schemi delle figure riportate successivamente, sono state considerate le seguenti condizioni di funzionamento:

- ipotesi di funzionamento considerando una portata in ingresso pari a 450 l/sec (portata massima che l'impianto di pompaggio è in grado di fornire) e una portata in uscita distribuita su tutta la rete (326 idranti potenziali) con valore medio pari a 1,38 l/sec per ogni idrante;
- ipotesi di funzionamento turnato a giorni alterni, considerando una portata in ingresso pari a 450 l/sec e distribuzione irrigua sugli idranti (per i quali si prevede una portata di 4.68 l/s e una pressione minima di 4,5 atm) all'interno del semicomparto individuato a ovest del distretto.
- ipotesi di funzionamento turnato a giorni alterni, considerando una portata in ingresso pari a 450 l/sec e distribuzione irrigua sugli idranti (per i quali si prevede una portata di 3.98 l/s e una pressione minima di 4,5 atm) all'interno del semicomparto individuato al centro del distretto.
- ipotesi di funzionamento turnato a giorni alterni, considerando una portata in ingresso pari a 450 l/sec e distribuzione irrigua sugli idranti (per i quali si prevede una portata di 3.84 l/s e una pressione minima di 4,5 atm) all'interno del semicomparto individuato ad est del distretto.

Vengono riportati in seguito, in forma tabellare, i dati generali adottati.

Ipotesi di funzionamento - a -			
Comparto	idranti potenziali	portata in uscita	portata da ogni idrante
Boncellino	n. 326	450 l/s	1,38 l/s

Ipotesi di funzionamento - b - Turno semicomparto ovest			
Comparto	idranti potenziali	portata da ogni idrante	portata complessiva
Boncellino nord	n. 96	4,68 l/s	450 l/s

Ipotesi di funzionamento - c - Turno semicomparto centro			
Comparto	idranti potenziali	portata da ogni idrante	Portata complessiva
Boncellino centro	n. 113	3,98 l/s	450 l/s

Ipotesi di funzionamento - d - Turno semicomparto est			
Comparto	idranti potenziali	portata da ogni idrante	Portata complessiva
Boncellino sud	n. 117	3,84 l/s	450 l/s

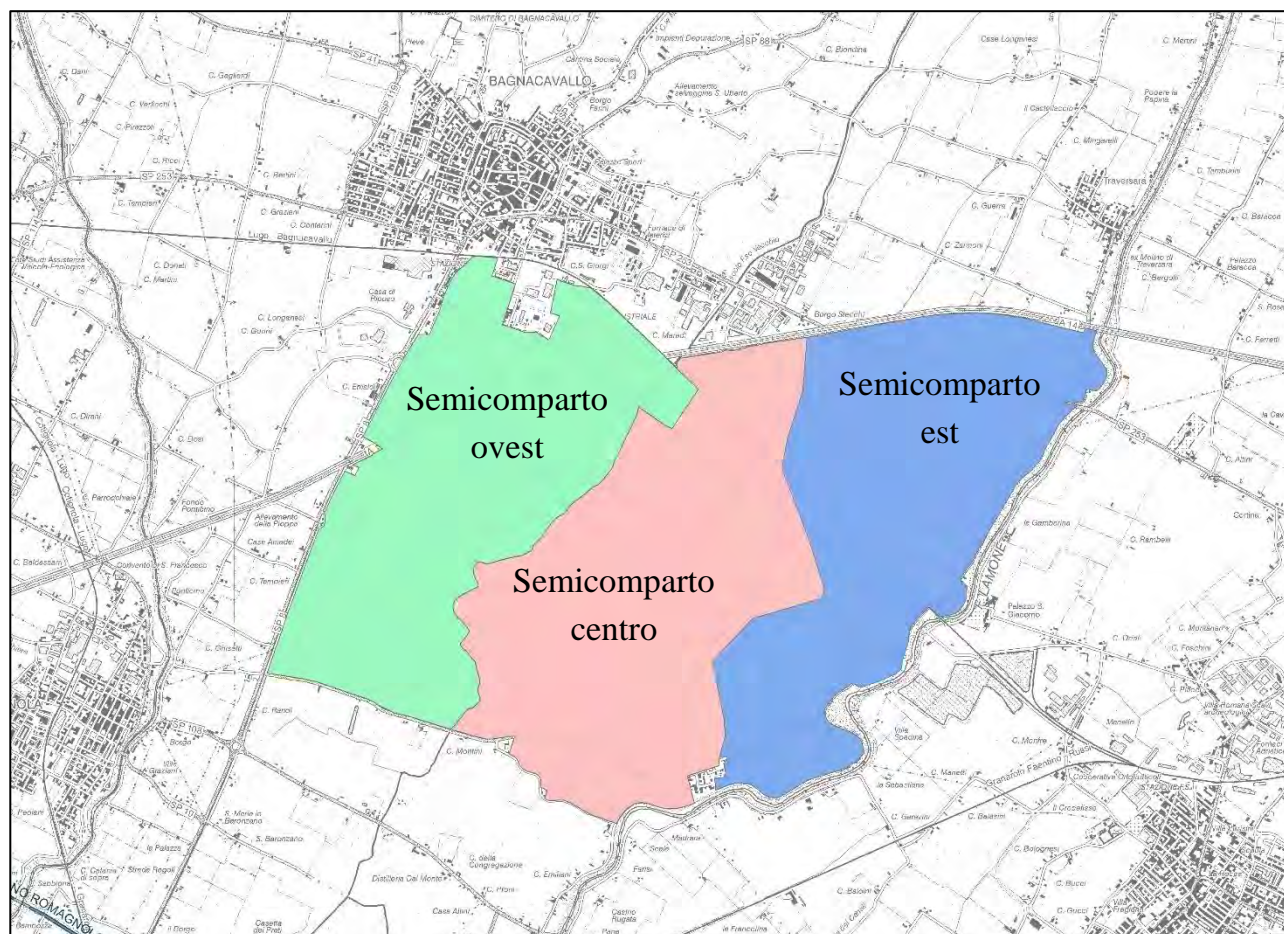


Figura 2 – Semicomparti distretto Boncellino

Con riferimento alla rete in oggetto si riporta nel seguito la schematizzazione effettuata ed i risultati principali ottenuti dal modello di calcolo.

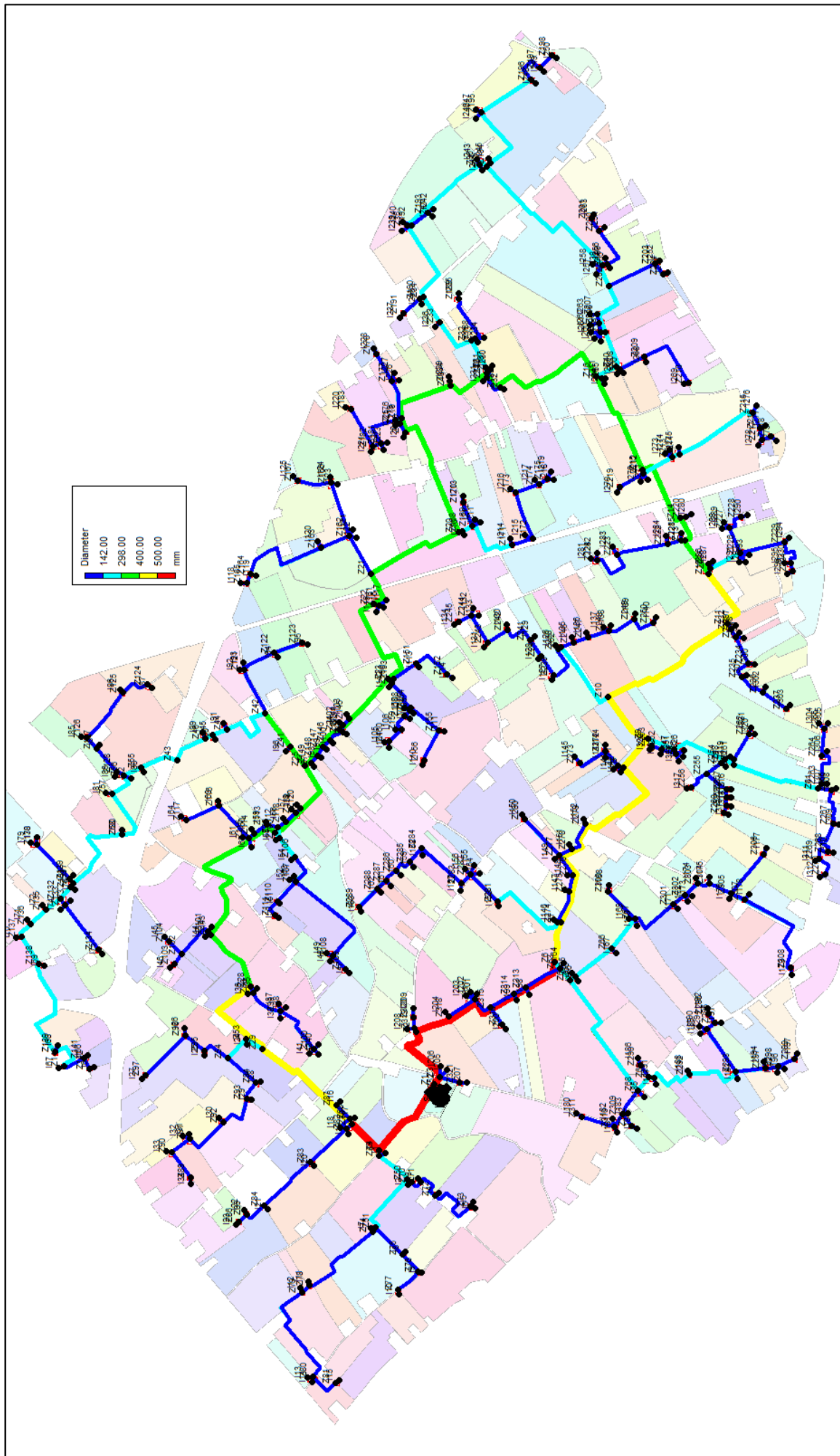


Figura 3 – modello della rete con numerazione nodi e diametri

* E P A N E T *****
* Hydraulic and Water Quality *
* Analysis for Pipe Networks *
* Version 2.2 *****

DATI SIMULAZIONE BONCELLINO

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[RESERVOIRS]

; ID Head
S1 10

Pattern

;

[PUMPS]

; ID Node1
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P2 S1
P3 S1
P4 S1

Node2
Z52
Z52
Z52
Z52

Parameters
HEAD C1 ;
HEAD C1 ;
HEAD C1 ;
HEAD C1 ;

[VALVES]

;ID	Node1	Node2	Diameter	Type	Setting	MinorLoss
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[PIPES]

;ID	Node1	Node2	Length	Diameter	Roughness	MinorLoss	Status
R1	Z1	Z4	376.99	500	0.15	1.8	Open ;
R2	Z1	Z3	36.23	500	0.15	1.8	Open ;
R3	Z4	Z30	158.87	500	0.15	0	Open ;
R4	Z30	Z29	511.94	400	0.15	0	Open ;
R5	Z29	Z28	434.27	400	0.15	0	Open ;
R6	Z28	Z27	287.35	312.8	0.015	0	Open ;
R7	Z27	Z26	776.86	312.8	0.015	0	Open ;
R8	Z26	Z25	386.60	312.8	0.015	0	Open ;
R9	Z25	Z24	215.34	312.8	0.015	0	Open ;
R10	Z24	Z23	301.23	312.8	0.015	0	Open ;
R11	Z23	Z22	483.92	312.8	0.015	0	Open ;
R12	Z22	Z21	165.41	312.8	0.015	0	Open ;
R13	Z21	Z20	432.52	312.8	0.015	0	Open ;
R14	Z20	Z19	589.94	312.8	0.015	0	Open ;
R15	Z19	Z18	288.16	312.8	0.015	0	Open ;
R16	Z18	Z17	195.48	312.8	0.015	0	Open ;
R17	Z17	Z16	639.32	312.8	0.015	0	Open ;
R18	Z16	Z15	449.15	312.8	0.015	0	Open ;
R19	Z15	Z14	322.70	312.8	0.015	0	Open ;
R20	Z14	Z13	121.51	312.8	0.015	0	Open ;
R21	Z13	Z12	176.09	312.8	0.015	0	Open ;
R22	Z12	Z11	283.53	400	0.15	0	Open ;
R23	Z11	Z10	623.06	400	0.15	0	Open ;
R24	Z10	Z9	252.99	400	0.15	0	Open ;
R25	Z9	Z8	161.10	400	0.15	0	Open ;
R26	Z8	Z7	965.02	400	0.15	0	Open ;
R27	Z7	Z6	174.34	400	0.15	0	Open ;
R28	Z6	Z2	733.02	500	0.15	0	Open ;
R29	Z2	Z3	295.18	500	0.15	0	Open ;
R30	Z17	Z31	20.64	277.6	0.015	1.8	Open ;
R31	Z31	Z32	131.11	277.6	0.015	0	Open ;
R32	Z32	Z33	193.47	277.6	0.015	0	Open ;
R33	Z33	Z34	130.26	277.6	0.015	0	Open ;

R34	Z34	Z35	378.35	277.6	0.015	0	Open ;
R35	Z35	Z36	399.85	277.6	0.015	0	Open ;
R36	Z36	Z37	45.95	277.6	0.015	0	Open ;
R39	Z39	Z40	159.80	277.6	0.015	0	Open ;
R40	Z40	Z16	93.15	277.6	0.015	1.8	Open ;
R41	Z25	Z41	102.26	312.8	0.015	1.8	Open ;
R42	Z41	Z42	180.32	312.8	0.015	0	Open ;
R43	Z42	Z44	302.32	277.6	0.015	0	Open ;
R44	Z44	Z45	64.21	277.6	0.015	0	Open ;
R45	Z45	Z46	36.74	277.6	0.015	0	Open ;
R46	Z46	Z43	156.53	277.6	0.015	0	Open ;
R47	Z9	Z47	121.61	221.2	0.015	1.8	Open ;
R48	Z47	Z48	240.32	221.2	0.015	0	Open ;
R49	Z4	Z49	24.55	197.4	0.015	1.8	Open ;
R50	Z49	Z50	155.79	197.4	0.015	0	Open ;
R51	Z50	Z51	282.48	197.4	0.015	0	Open ;
R52	Z52	Z1	29.23	500	0.15	0	Open ;
R53	Z29	Z53	79.69	197.4	0.015	1.8	Open ;
R54	Z53	Z54	111.39	197.4	0.015	0	Open ;
R55	Z43	Z55	168.27	277.6	0.015	1.8	Open ;
R56	Z55	Z56	81.61	277.6	0.015	0	Open ;
R57	Z56	Z57	122.30	277.6	0.015	0	Open ;
R58	Z57	Z58	248.24	277.6	0.015	0	Open ;
R59	Z58	Z59	408.67	277.6	0.015	0	Open ;
R60	Z48	Z60	42.59	197.4	0.015	1.8	Open ;
R61	Z60	Z61	381.34	197.4	0.015	0	Open ;
R62	Z10	Z62	326.51	197.4	0.015	1.8	Open ;
R63	Z6	Z63	37.20	197.4	0.015	1.8	Open ;
R64	Z63	Z64	65.06	197.4	0.015	0	Open ;
R65	Z64	Z65	27.55	197.4	0.015	1.8	Open ;
R66	Z65	Z66	197.52	197.4	0.015	0	Open ;
R67	Z66	Z67	159.32	197.4	0.015	0	Open ;
R68	Z64	Z68	593.09	197.4	0.015	0	Open ;
R69	Z68	Z69	73.39	197.4	0.015	0	Open ;
R71	Z50	Z70	19.58	141	0.015	1.8	Open ;
R72	Z70	Z71	52.37	141	0.015	0	Open ;
R73	Z71	Z72	134.03	141	0.015	0	Open ;
R74	Z72	Z73	272.89	141	0.015	0	Open ;

R75	Z51	Z74	21.33	141	0.015	1.8	Open	;
R76	Z74	Z75	171.77	141	0.015	1.8	Open	;
R77	Z75	Z76	100.49	141	0.015	0	Open	;
R78	Z76	Z77	113.17	141	0.015	0	Open	;
R79	Z74	Z78	388.18	141	0.015	0	Open	;
R80	Z78	Z79	41.68	141	0.015	0	Open	;
R81	Z79	Z80	492.04	141	0.015	0	Open	;
R82	Z80	Z81	136.69	141	0.015	0	Open	;
R83	Z30	Z82	28.20	141	0.015	1.8	Open	;
R84	Z82	Z83	210.10	141	0.015	0	Open	;
R85	Z83	Z84	273.85	141	0.015	0	Open	;
R86	Z84	Z85	100.05	141	0.015	0	Open	;
R87	Z85	Z86	44.57	141	0.015	0	Open	;
R88	Z82	Z88	63.06	141	0.015	1.8	Open	;
R89	Z88	Z87	83.04	141	0.015	0	Open	;
R90	Z54	Z94	156.07	141	0.015	1.8	Open	;
R91	Z94	Z93	83.07	141	0.015	0	Open	;
R92	Z93	Z92	187.75	141	0.015	0	Open	;
R93	Z92	Z91	200.47	141	0.015	0	Open	;
R94	Z91	Z90	94.69	141	0.015	0	Open	;
R95	Z90	Z89	132.30	141	0.015	0	Open	;
R96	Z54	Z95	125.84	141	0.015	1.8	Open	;
R97	Z95	Z96	103.76	141	0.015	0	Open	;
R98	Z96	Z97	240.97	141	0.015	0	Open	;
R99	Z28	Z98	29.24	141	0.015	1.8	Open	;
R100	Z98	Z99	145.56	141	0.015	0	Open	;
R101	Z99	Z100	238.71	141	0.015	0	Open	;
R102	Z27	Z101	21.88	141	0.015	1.8	Open	;
R103	Z101	Z102	160.47	141	0.015	0	Open	;
R104	Z102	Z103	54.42	141	0.015	0	Open	;
R105	Z102	Z104	75.70	141	0.015	1.8	Open	;
R106	Z26	Z105	28.55	221.2	0.015	1.8	Open	;
R107	Z105	Z106	105.99	197.4	0.015	0	Open	;
R108	Z106	Z107	133.09	141	0.015	0	Open	;
R109	Z107	Z110	114.87	141	0.015	0	Open	;
R110	Z110	Z111	81.12	141	0.015	0	Open	;
R111	Z107	Z108	472.49	141	0.015	1.8	Open	;
R112	Z108	Z109	82.44	141	0.015	0	Open	;

R113	Z105	Z112	46.30	197.4	0.015	1.8	Open	;
R114	Z112	Z113	49.61	141	0.015	0	Open	;
R115	Z113	Z114	65.69	141	0.015	0	Open	;
R116	Z114	Z115	30.56	141	0.015	0	Open	;
R117	Z115	Z116	187.17	141	0.015	0	Open	;
R118	Z116	Z117	152.14	141	0.015	0	Open	;
R119	Z112	Z118	39.18	141	0.015	1.8	Open	;
R120	Z118	Z119	57.41	141	0.015	0	Open	;
R121	Z119	Z120	27.68	141	0.015	0	Open	;
R122	Z42	Z121	207.55	141	0.015	1.8	Open	;
R123	Z121	Z122	148.77	141	0.015	0	Open	;
R124	Z122	Z123	127.14	141	0.015	0	Open	;
R125	Z124	Z125	129.31	141	0.015	0	Open	;
R126	Z125	Z126	246.99	141	0.015	0	Open	;
R127	Z126	Z127	60.88	141	0.015	0	Open	;
R128	Z127	Z128	133.26	141	0.015	0	Open	;
R129	Z56	Z128	33.52	141	0.015	1.8	Open	;
R130	Z59	Z129	27.91	141	0.015	1.8	Open	;
R131	Z129	Z130	199.21	141	0.015	0	Open	;
R132	Z59	Z131	20.63	277.6	0.015	1.8	Open	;
R133	Z131	Z132	65.50	277.6	0.015	0	Open	;
R134	Z132	Z133	35.33	141	0.015	1.8	Open	;
R135	Z133	Z134	237.49	141	0.015	0	Open	;
R136	Z132	Z135	76.63	221.2	0.015	0	Open	;
R137	Z135	Z136	91.24	221.2	0.015	0	Open	;
R138	Z136	Z137	70.66	221.2	0.015	0	Open	;
R139	Z137	Z138	138.52	221.2	0.015	0	Open	;
R140	Z138	Z139	474.00	221.2	0.015	0	Open	;
R141	Z139	Z140	161.81	221.2	0.015	0	Open	;
R142	Z140	Z141	100.63	141	0.015	0	Open	;
R143	Z141	Z142	51.23	141	0.015	0	Open	;
R144	Z24	Z143	18.52	141	0.015	1.8	Open	;
R145	Z143	Z144	31.51	141	0.015	1.8	Open	;
R146	Z144	Z145	39.17	141	0.015	0	Open	;
R147	Z143	Z146	67.46	141	0.015	0	Open	;
R148	Z146	Z147	39.15	141	0.015	0	Open	;
R149	Z147	Z148	44.74	141	0.015	0	Open	;
R150	Z148	Z149	41.44	141	0.015	0	Open	;

R151	Z150	Z23	22.15	141	0.015	1.8	Open	;
R152	Z150	Z153	17.92	141	0.015	1.8	Open	;
R153	Z153	Z151	116.34	141	0.015	0	Open	;
R154	Z151	Z152	177.89	141	0.015	0	Open	;
R155	Z150	Z154	144.12	141	0.015	0	Open	;
R156	Z154	Z155	151.16	141	0.015	0	Open	;
R157	Z155	Z156	143.30	141	0.015	0	Open	;
R158	Z154	Z157	14.93	141	0.015	1.8	Open	;
R159	Z157	Z158	31.41	141	0.015	0	Open	;
R160	Z158	Z159	75.87	141	0.015	0	Open	;
R161	Z159	Z160	73.37	141	0.015	0	Open	;
R162	Z22	Z161	23.71	141	0.015	1.8	Open	;
R163	Z21	Z162	186.92	141	0.015	1.8	Open	;
R164	Z162	Z163	129.60	141	0.015	1.8	Open	;
R165	Z163	Z164	430.09	141	0.015	0	Open	;
R166	Z164	Z165	43.79	141	0.015	0	Open	;
R167	Z162	Z166	242.40	141	0.015	0	Open	;
R168	Z166	Z167	143.47	141	0.015	0	Open	;
R169	Z20	Z168	13.72	197.4	0.015	1.8	Open	;
R170	Z168	Z169	46.96	197.4	0.015	0	Open	;
R171	Z169	Z170	108.21	141	0.015	1.8	Open	;
R172	Z169	Z171	252.22	197.4	0.015	0	Open	;
R173	Z171	Z172	90.88	141	0.015	0	Open	;
R174	Z172	Z173	208.23	141	0.015	0	Open	;
R175	Z173	Z174	103.57	141	0.015	0	Open	;
R176	Z174	Z175	41.91	141	0.015	0	Open	;
R177	Z19	Z176	26.61	197.4	0.015	1.8	Open	;
R178	Z176	Z179	22.99	141	0.015	1.8	Open	;
R179	Z179	Z180	45.71	141	0.015	0	Open	;
R180	Z176	Z177	176.45	141	0.015	1.8	Open	;
R181	Z177	Z178	131.66	141	0.015	0	Open	;
R182	Z176	Z181	185.32	141	0.015	0	Open	;
R183	Z181	Z182	35.93	141	0.015	0	Open	;
R184	Z182	Z183	183.87	141	0.015	0	Open	;
R185	Z18	Z184	21.45	141	0.015	1.8	Open	;
R186	Z31	Z187	17.99	141	0.015	1.8	Open	;
R187	Z187	Z186	36.73	141	0.015	0	Open	;
R188	Z186	Z185	91.70	141	0.015	0	Open	;

R189	Z32	Z188	17.39	141	0.015	1.8	Open	;
R190	Z188	Z189	214.03	141	0.015	0	Open	;
R191	Z34	Z190	16.51	141	0.015	1.8	Open	;
R192	Z190	Z191	91.95	141	0.015	0	Open	;
R193	Z35	Z192	18.55	141	0.015	1.8	Open	;
R194	Z192	Z193	88.12	141	0.015	0	Open	;
R195	Z37	Z194	21.70	221.2	0.015	1.8	Open	;
R196	Z194	Z195	304.20	221.2	0.015	0	Open	;
R197	Z195	Z196	254.68	221.2	0.015	0	Open	;
R198	Z196	Z197	154.03	141	0.015	0	Open	;
R199	Z197	Z198	74.29	141	0.015	0	Open	;
R200	Z38	Z199	20.82	141	0.015	1.8	Open	;
R201	Z199	Z200	198.07	141	0.015	0	Open	;
R202	Z200	Z201	61.79	141	0.015	0	Open	;
R203	Z38	Z202	100.55	277.6	0.015	0	Open	;
R204	Z202	Z39	249.63	277.6	0.015	0	Open	;
R205	Z202	Z203	216.43	141	0.015	1.8	Open	;
R206	Z203	Z204	60.37	141	0.015	0	Open	;
R207	Z39	Z205	17.80	141	0.015	1.8	Open	;
R208	Z205	Z206	36.88	141	0.015	0	Open	;
R209	Z206	Z207	40.28	141	0.015	0	Open	;
R210	Z40	Z208	17.66	141	0.015	1.8	Open	;
R211	Z208	Z209	115.69	141	0.015	0	Open	;
R212	Z209	Z210	291.13	141	0.015	0	Open	;
R213	Z16	Z211	21.66	141	0.015	1.8	Open	;
R214	Z15	Z212	16.25	197.4	0.015	1.8	Open	;
R215	Z212	Z219	117.93	141	0.015	1.8	Open	;
R216	Z212	Z213	141.13	197.4	0.015	0	Open	;
R217	Z213	Z214	33.48	197.4	0.015	0	Open	;
R218	Z214	Z215	375.87	197.4	0.015	0	Open	;
R219	Z215	Z216	70.07	141	0.015	0	Open	;
R220	Z216	Z217	52.26	141	0.015	0	Open	;
R221	Z217	Z218	42.37	141	0.015	0	Open	;
R222	Z14	Z220	20.17	141	0.015	1.8	Open	;
R223	Z13	Z221	18.14	141	0.015	1.8	Open	;
R224	Z221	Z222	56.74	141	0.015	0	Open	;
R225	Z222	Z223	222.95	141	0.015	0	Open	;
R226	Z223	Z224	212.85	141	0.015	0	Open	;

R227	Z12	Z225	23.45	197.4	0.015	1.8	Open	;
R228	Z225	Z226	144.31	197.4	0.015	0	Open	;
R229	Z226	Z229	194.01	141	0.015	0	Open	;
R230	Z229	Z230	146.49	141	0.015	0	Open	;
R231	Z230	Z231	36.13	141	0.015	0	Open	;
R232	Z226	Z227	119.70	141	0.015	1.8	Open	;
R233	Z227	Z228	88.55	141	0.015	0	Open	;
R234	Z11	Z232	25.97	141	0.015	1.8	Open	;
R235	Z232	Z233	42.28	141	0.015	0	Open	;
R236	Z233	Z234	123.38	141	0.015	0	Open	;
R237	Z234	Z235	89.55	141	0.015	0	Open	;
R238	Z235	Z236	117.34	141	0.015	0	Open	;
R239	Z236	Z237	121.53	141	0.015	0	Open	;
R240	Z62	Z238	15.70	141	0.015	1.8	Open	;
R241	Z238	Z239	163.82	141	0.015	0	Open	;
R242	Z239	Z240	97.16	141	0.015	0	Open	;
R243	Z240	Z241	85.25	141	0.015	0	Open	;
R244	Z241	Z242	144.60	141	0.015	0	Open	;
R245	Z242	Z243	99.06	141	0.015	0	Open	;
R246	Z243	Z244	134.07	141	0.015	0	Open	;
R247	Z244	Z245	58.07	141	0.015	0	Open	;
R248	Z62	Z246	57.55	141	0.015	1.8	Open	;
R249	Z246	Z247	65.50	141	0.015	0	Open	;
R250	Z247	Z248	90.88	141	0.015	0	Open	;
R251	Z248	Z249	123.03	141	0.015	0	Open	;
R252	Z249	Z250	106.83	141	0.015	0	Open	;
R253	Z47	Z251	21.24	141	0.015	1.8	Open	;
R254	Z251	Z252	64.30	141	0.015	0	Open	;
R255	Z252	Z253	48.96	141	0.015	0	Open	;
R256	Z48	Z254	22.76	141	0.015	1.8	Open	;
R257	Z254	Z255	76.57	141	0.015	0	Open	;
R258	Z255	Z256	96.29	141	0.015	0	Open	;
R259	Z255	Z257	109.65	141	0.015	1.8	Open	;
R260	Z257	Z258	35.33	141	0.015	0	Open	;
R261	Z258	Z259	36.27	141	0.015	0	Open	;
R262	Z259	Z260	33.20	141	0.015	0	Open	;
R263	Z60	Z261	21.13	141	0.015	1.8	Open	;
R264	Z261	Z262	126.38	141	0.015	0	Open	;

R265	Z61	Z263	21.78	141	0.015	1.8	Open	;
R266	Z263	Z264	176.17	141	0.015	0	Open	;
R267	Z264	Z265	113.99	141	0.015	0	Open	;
R268	Z61	Z266	56.13	141	0.015	1.8	Open	;
R269	Z266	Z267	164.61	141	0.015	0	Open	;
R270	Z267	Z268	194.42	141	0.015	0	Open	;
R271	Z268	Z269	80.35	141	0.015	0	Open	;
R272	Z269	Z270	93.18	141	0.015	0	Open	;
R273	Z8	Z271	24.62	141	0.015	1.8	Open	;
R274	Z271	Z272	80.46	141	0.015	0	Open	;
R275	Z272	Z273	139.79	141	0.015	0	Open	;
R276	Z7	Z274	17.00	141	0.015	1.8	Open	;
R277	Z274	Z275	142.61	141	0.015	1.8	Open	;
R278	Z275	Z276	70.95	141	0.015	0	Open	;
R279	Z276	Z277	100.34	141	0.015	0	Open	;
R280	Z277	Z280	212.67	141	0.015	1.8	Open	;
R281	Z277	Z278	57.63	141	0.015	0	Open	;
R282	Z278	Z279	145.20	141	0.015	0	Open	;
R283	Z274	Z281	345.62	197.4	0.015	0	Open	;
R284	Z281	Z282	164.02	141	0.015	0	Open	;
R285	Z282	Z283	54.06	141	0.015	0	Open	;
R286	Z283	Z284	225.21	141	0.015	0	Open	;
R287	Z284	Z285	78.40	141	0.015	0	Open	;
R288	Z285	Z286	88.42	141	0.015	0	Open	;
R289	Z286	Z287	62.84	141	0.015	0	Open	;
R290	Z287	Z288	47.97	141	0.015	0	Open	;
R291	Z288	Z289	112.72	141	0.015	0	Open	;
R292	Z69	Z290	62.74	141	0.015	1.8	Open	;
R293	Z69	Z291	21.78	197.4	0.015	1.8	Open	;
R294	Z291	Z292	213.78	197.4	0.015	0	Open	;
R295	Z292	Z293	241.55	197.4	0.015	0	Open	;
R296	Z293	Z294	220.84	141	0.015	1.8	Open	;
R297	Z294	Z295	46.21	141	0.015	0	Open	;
R298	Z295	Z296	45.28	141	0.015	0	Open	;
R299	Z293	Z297	127.87	141	0.015	0	Open	;
R300	Z297	Z298	56.12	141	0.015	0	Open	;
R301	Z298	Z299	73.08	141	0.015	0	Open	;
R302	Z67	Z300	164.85	141	0.015	1.8	Open	;

R303	Z67	Z301	229.85	141	0.015	1.8	Open	;
R304	Z301	Z302	62.81	141	0.015	0	Open	;
R305	Z302	Z303	72.95	141	0.015	0	Open	;
R306	Z303	Z304	57.99	141	0.015	0	Open	;
R307	Z304	Z305	100.75	141	0.015	0	Open	;
R308	Z305	Z306	217.67	141	0.015	1.8	Open	;
R309	Z305	Z307	64.94	141	0.015	0	Open	;
R310	Z307	Z308	454.50	141	0.015	0	Open	;
R311	Z68	Z309	122.36	141	0.015	1.8	Open	;
R312	Z309	Z312	65.15	141	0.015	1.8	Open	;
R313	Z309	Z310	63.04	141	0.015	0	Open	;
R314	Z310	Z311	144.30	141	0.015	0	Open	;
R315	Z63	Z313	168.16	141	0.015	1.8	Open	;
R316	Z313	Z314	57.79	141	0.015	0	Open	;
R317	Z314	Z315	112.48	141	0.015	0	Open	;
R318	Z315	Z316	88.44	141	0.015	1.8	Open	;
R319	Z315	Z317	96.05	141	0.015	0	Open	;
R320	Z317	Z318	132.38	141	0.015	0	Open	;
R321	Z2	Z319	16.60	141	0.015	1.8	Open	;
R322	Z319	Z320	46.93	141	0.015	0	Open	;
R323	Z3	Z321	90.37	141	0.015	1.8	Open	;
R326	Z77	I10	5	96.8	0.015	0	Open	;
R327	Z76	I9	5	96.8	0.015	0	Open	;
R328	Z75	I8	5	96.8	0.015	0	Open	;
R329	Z74	I7	5	96.8	0.015	0	Open	;
R330	Z78	I11	5	96.8	0.015	0	Open	;
R331	Z79	I12	5	96.8	0.015	0	Open	;
R332	Z80	I13	5	96.8	0.015	0	Open	;
R333	Z80	I14	5	96.8	0.015	0	Open	;
R334	Z81	I15	5	96.8	0.015	0	Open	;
R335	Z70	I2	5	96.8	0.015	0	Open	;
R336	Z71	I3	5	96.8	0.015	0	Open	;
R337	Z72	I4	5	96.8	0.015	0	Open	;
R338	Z73	I5	5	96.8	0.015	0	Open	;
R339	Z73	I6	5	96.8	0.015	0	Open	;
R340	Z49	I1	5	96.8	0.015	0	Open	;
R341	Z86	I23	5	96.8	0.015	0	Open	;
R342	Z85	I22	5	96.8	0.015	0	Open	;

R343	Z84	I21	5	96.8	0.015	0	Open	;
R344	Z83	I20	5	96.8	0.015	0	Open	;
R345	Z82	I18	5	96.8	0.015	0	Open	;
R346	Z82	I19	5	96.8	0.015	0	Open	;
R347	Z88	I17	5	96.8	0.015	0	Open	;
R348	Z87	I16	5	96.8	0.015	0	Open	;
R349	Z53	I24	5	96.8	0.015	0	Open	;
R350	Z95	I25	5	96.8	0.015	0	Open	;
R351	Z96	I26	5	96.8	0.015	0	Open	;
R352	Z97	I27	5	96.8	0.015	0	Open	;
R353	Z94	I28	5	96.8	0.015	0	Open	;
R354	Z93	I29	5	96.8	0.015	0	Open	;
R355	Z92	I30	5	96.8	0.015	0	Open	;
R356	Z91	I31	5	96.8	0.015	0	Open	;
R357	Z91	I32	5	96.8	0.015	0	Open	;
R358	Z90	I33	5	96.8	0.015	0	Open	;
R359	Z89	I34	5	96.8	0.015	0	Open	;
R360	Z98	I35	5	96.8	0.015	0	Open	;
R361	Z98	I36	5	96.8	0.015	0	Open	;
R362	Z99	I37	5	96.8	0.015	0	Open	;
R363	Z99	I38	5	96.8	0.015	0	Open	;
R364	Z99	I39	5	96.8	0.015	0	Open	;
R365	Z100	I40	5	96.8	0.015	0	Open	;
R366	Z100	I42	5	96.8	0.015	0	Open	;
R367	Z100	I41	5	96.8	0.015	0	Open	;
R368	Z101	I43	5	96.8	0.015	0	Open	;
R369	Z101	I44	5	96.8	0.015	0	Open	;
R370	Z104	I45	5	96.8	0.015	0	Open	;
R371	Z103	I46	5	96.8	0.015	0	Open	;
R372	Z109	I47	5	96.8	0.015	0	Open	;
R373	Z108	I48	5	96.8	0.015	0	Open	;
R374	Z108	I49	5	96.8	0.015	0	Open	;
R375	Z111	I50	5	96.8	0.015	0	Open	;
R376	Z110	I51	5	96.8	0.015	0	Open	;
R377	Z107	I53	5	96.8	0.015	0	Open	;
R378	Z107	I52	5	96.8	0.015	0	Open	;
R379	Z106	I54	5	96.8	0.015	0	Open	;
R380	Z105	I55	5	96.8	0.015	0	Open	;

R381	Z113	I59	5	96.8	0.015	0	Open	;
R382	Z114	I60	5	96.8	0.015	0	Open	;
R383	Z115	I62	5	96.8	0.015	0	Open	;
R384	Z115	I61	5	96.8	0.015	0	Open	;
R385	Z116	I63	5	96.8	0.015	0	Open	;
R386	Z117	I64	5	96.8	0.015	0	Open	;
R387	Z118	I56	5	96.8	0.015	0	Open	;
R388	Z119	I57	5	96.8	0.015	0	Open	;
R389	Z120	I58	5	96.8	0.015	0	Open	;
R390	Z142	I65	5	96.8	0.015	0	Open	;
R391	Z141	I66	5	96.8	0.015	0	Open	;
R392	Z140	I67	5	96.8	0.015	0	Open	;
R393	Z139	I68	5	96.8	0.015	0	Open	;
R394	Z138	I69	5	96.8	0.015	0	Open	;
R395	Z137	I70	5	96.8	0.015	0	Open	;
R396	Z136	I71	5	96.8	0.015	0	Open	;
R397	Z135	I72	5	96.8	0.015	0	Open	;
R398	Z134	I75	5	96.8	0.015	0	Open	;
R399	Z133	I74	5	96.8	0.015	0	Open	;
R400	Z133	I73	5	96.8	0.015	0	Open	;
R401	Z131	I76	5	96.8	0.015	0	Open	;
R402	Z129	I77	5	96.8	0.015	0	Open	;
R403	Z130	I78	5	96.8	0.015	0	Open	;
R404	Z130	I79	5	96.8	0.015	0	Open	;
R405	Z58	I80	5	96.8	0.015	0	Open	;
R406	Z57	I81	5	96.8	0.015	0	Open	;
R407	Z56	I82	5	96.8	0.015	0	Open	;
R408	Z128	I83	5	96.8	0.015	0	Open	;
R409	Z127	I84	5	96.8	0.015	0	Open	;
R410	Z126	I85	5	96.8	0.015	0	Open	;
R411	Z125	I86	5	96.8	0.015	0	Open	;
R412	Z124	I87	5	96.8	0.015	0	Open	;
R413	Z55	I88	5	96.8	0.015	0	Open	;
R414	Z46	I89	5	96.8	0.015	0	Open	;
R415	Z45	I90	5	96.8	0.015	0	Open	;
R416	Z44	I91	5	96.8	0.015	0	Open	;
R417	Z121	I92	5	96.8	0.015	0	Open	;
R418	Z121	I93	5	96.8	0.015	0	Open	;

R419	Z122	I94	5	96.8	0.015	0	Open	;
R420	Z123	I95	5	96.8	0.015	0	Open	;
R421	Z41	I96	5	96.8	0.015	0	Open	;
R422	Z149	I97	5	96.8	0.015	0	Open	;
R423	Z148	I98	5	96.8	0.015	0	Open	;
R424	Z147	I99	5	96.8	0.015	0	Open	;
R425	Z146	I100	5	96.8	0.015	0	Open	;
R426	Z143	I101	5	96.8	0.015	0	Open	;
R427	Z144	I102	5	96.8	0.015	0	Open	;
R428	Z145	I103	5	96.8	0.015	0	Open	;
R429	Z160	I105	5	96.8	0.015	0	Open	;
R430	Z160	I104	5	96.8	0.015	0	Open	;
R431	Z159	I106	5	96.8	0.015	0	Open	;
R432	Z158	I107	5	96.8	0.015	0	Open	;
R433	Z157	I109	5	96.8	0.015	0	Open	;
R434	Z157	I108	5	96.8	0.015	0	Open	;
R435	Z156	I110	5	96.8	0.015	0	Open	;
R436	Z155	I111	5	96.8	0.015	0	Open	;
R437	Z150	I112	5	96.8	0.015	0	Open	;
R438	Z151	I113	5	96.8	0.015	0	Open	;
R439	Z152	I114	5	96.8	0.015	0	Open	;
R440	Z161	I115	5	96.8	0.015	0	Open	;
R441	Z161	I116	5	96.8	0.015	0	Open	;
R442	Z161	I117	5	96.8	0.015	0	Open	;
R443	Z165	I118	5	96.8	0.015	0	Open	;
R444	Z164	I119	5	96.8	0.015	0	Open	;
R445	Z163	I120	5	96.8	0.015	0	Open	;
R446	Z162	I122	5	96.8	0.015	0	Open	;
R447	Z162	I121	5	96.8	0.015	0	Open	;
R448	Z166	I123	5	96.8	0.015	0	Open	;
R449	Z166	I124	5	96.8	0.015	0	Open	;
R450	Z167	I125	5	96.8	0.015	0	Open	;
R451	Z238	I126	5	96.8	0.015	0	Open	;
R452	Z239	I127	5	96.8	0.015	0	Open	;
R453	Z240	I128	5	96.8	0.015	0	Open	;
R454	Z241	I129	5	96.8	0.015	0	Open	;
R455	Z242	I130	5	96.8	0.015	0	Open	;
R456	Z243	I131	5	96.8	0.015	0	Open	;

R457	Z244	I133	5	96.8	0.015	0	Open	;
R458	Z244	I132	5	96.8	0.015	0	Open	;
R459	Z245	I134	5	96.8	0.015	0	Open	;
R460	Z246	I135	5	96.8	0.015	0	Open	;
R461	Z247	I136	5	96.8	0.015	0	Open	;
R462	Z248	I137	5	96.8	0.015	0	Open	;
R463	Z248	I138	5	96.8	0.015	0	Open	;
R464	Z249	I139	5	96.8	0.015	0	Open	;
R465	Z250	I140	5	96.8	0.015	0	Open	;
R466	Z271	I142	5	96.8	0.015	0	Open	;
R467	Z271	I141	5	96.8	0.015	0	Open	;
R468	Z272	I143	5	96.8	0.015	0	Open	;
R469	Z272	I144	5	96.8	0.015	0	Open	;
R470	Z273	I145	5	96.8	0.015	0	Open	;
R471	Z274	I146	5	96.8	0.015	0	Open	;
R472	Z275	I147	5	96.8	0.015	0	Open	;
R473	Z276	I148	5	96.8	0.015	0	Open	;
R474	Z277	I149	5	96.8	0.015	0	Open	;
R475	Z280	I150	5	96.8	0.015	0	Open	;
R476	Z278	I151	5	96.8	0.015	0	Open	;
R477	Z279	I152	5	96.8	0.015	0	Open	;
R478	Z281	I153	5	96.8	0.015	0	Open	;
R479	Z282	I154	5	96.8	0.015	0	Open	;
R480	Z282	I155	5	96.8	0.015	0	Open	;
R481	Z282	I156	5	96.8	0.015	0	Open	;
R482	Z283	I157	5	96.8	0.015	0	Open	;
R483	Z284	I158	5	96.8	0.015	0	Open	;
R484	Z285	I159	5	96.8	0.015	0	Open	;
R485	Z286	I160	5	96.8	0.015	0	Open	;
R486	Z287	I161	5	96.8	0.015	0	Open	;
R487	Z288	I162	5	96.8	0.015	0	Open	;
R488	Z289	I163	5	96.8	0.015	0	Open	;
R489	Z63	I164	5	96.8	0.015	0	Open	;
R490	Z65	I165	5	96.8	0.015	0	Open	;
R491	Z65	I166	5	96.8	0.015	0	Open	;
R492	Z66	I167	5	96.8	0.015	0	Open	;
R493	Z67	I169	5	96.8	0.015	0	Open	;
R494	Z67	I170	5	96.8	0.015	0	Open	;

R495	Z300	I168	5	96.8	0.015	0	Open	;
R496	Z301	I171	5	96.8	0.015	0	Open	;
R497	Z302	I172	5	96.8	0.015	0	Open	;
R498	Z302	I173	5	96.8	0.015	0	Open	;
R499	Z303	I174	5	96.8	0.015	0	Open	;
R500	Z304	I175	5	96.8	0.015	0	Open	;
R501	Z305	I176	5	96.8	0.015	0	Open	;
R502	Z306	I177	5	96.8	0.015	0	Open	;
R503	Z307	I178	5	96.8	0.015	0	Open	;
R504	Z308	I179	5	96.8	0.015	0	Open	;
R505	Z311	I180	5	96.8	0.015	0	Open	;
R506	Z310	I181	5	96.8	0.015	0	Open	;
R507	Z310	I182	5	96.8	0.015	0	Open	;
R508	Z309	I183	5	96.8	0.015	0	Open	;
R509	Z312	I184	5	96.8	0.015	0	Open	;
R510	Z68	I185	5	96.8	0.015	0	Open	;
R511	Z290	I186	5	96.8	0.015	0	Open	;
R512	Z291	I187	5	96.8	0.015	0	Open	;
R513	Z292	I188	5	96.8	0.015	0	Open	;
R514	Z293	I193	5	96.8	0.015	0	Open	;
R515	Z294	I189	5	96.8	0.015	0	Open	;
R516	Z294	I190	5	96.8	0.015	0	Open	;
R517	Z295	I191	5	96.8	0.015	0	Open	;
R518	Z296	I192	5	96.8	0.015	0	Open	;
R519	Z297	I194	5	96.8	0.015	0	Open	;
R520	Z298	I195	5	96.8	0.015	0	Open	;
R521	Z298	I196	5	96.8	0.015	0	Open	;
R522	Z299	I197	5	96.8	0.015	0	Open	;
R523	Z313	I198	5	96.8	0.015	0	Open	;
R524	Z314	I199	5	96.8	0.015	0	Open	;
R525	Z316	I200	5	96.8	0.015	0	Open	;
R526	Z317	I201	5	96.8	0.015	0	Open	;
R527	Z317	I202	5	96.8	0.015	0	Open	;
R528	Z317	I203	5	96.8	0.015	0	Open	;
R529	Z318	I204	5	96.8	0.015	0	Open	;
R530	Z320	I209	5	96.8	0.015	0	Open	;
R531	Z319	I208	5	96.8	0.015	0	Open	;
R532	Z3	I206	5	96.8	0.015	0	Open	;

R533	Z3	I205	5	96.8	0.015	0	Open	;
R534	Z321	I207	5	96.8	0.015	0	Open	;
R535	Z168	I210	5	96.8	0.015	0	Open	;
R536	Z170	I213	5	96.8	0.015	0	Open	;
R537	Z169	I212	5	96.8	0.015	0	Open	;
R538	Z169	I211	5	96.8	0.015	0	Open	;
R539	Z171	I214	5	96.8	0.015	0	Open	;
R540	Z172	I215	5	96.8	0.015	0	Open	;
R541	Z173	I216	5	96.8	0.015	0	Open	;
R542	Z174	I217	5	96.8	0.015	0	Open	;
R543	Z175	I218	5	96.8	0.015	0	Open	;
R544	Z175	I219	5	96.8	0.015	0	Open	;
R545	Z183	I220	5	96.8	0.015	0	Open	;
R546	Z182	I221	5	96.8	0.015	0	Open	;
R547	Z181	I223	5	96.8	0.015	0	Open	;
R548	Z181	I222	5	96.8	0.015	0	Open	;
R549	Z179	I225	5	96.8	0.015	0	Open	;
R550	Z180	I224	5	96.8	0.015	0	Open	;
R551	Z177	I226	5	96.8	0.015	0	Open	;
R552	Z177	I227	5	96.8	0.015	0	Open	;
R553	Z178	I228	5	96.8	0.015	0	Open	;
R554	Z184	I229	5	96.8	0.015	0	Open	;
R555	Z186	I231	5	96.8	0.015	0	Open	;
R556	Z185	I232	5	96.8	0.015	0	Open	;
R557	Z187	I230	5	96.8	0.015	0	Open	;
R558	Z188	I233	5	96.8	0.015	0	Open	;
R559	Z188	I234	5	96.8	0.015	0	Open	;
R560	Z189	I235	5	96.8	0.015	0	Open	;
R561	Z33	I236	5	96.8	0.015	0	Open	;
R562	Z191	I237	5	96.8	0.015	0	Open	;
R563	Z190	I238	5	96.8	0.015	0	Open	;
R566	Z193	I241	5	96.8	0.015	0	Open	;
R567	Z193	I242	5	96.8	0.015	0	Open	;
R568	Z192	I240	5	96.8	0.015	0	Open	;
R569	Z192	I239	5	96.8	0.015	0	Open	;
R570	Z36	I243	5	96.8	0.015	0	Open	;
R571	Z36	I244	5	96.8	0.015	0	Open	;
R572	Z194	I245	5	96.8	0.015	0	Open	;

R573	Z195	I246	5	96.8	0.015	0	Open	;
R574	Z195	I247	5	96.8	0.015	0	Open	;
R575	Z196	I248	5	96.8	0.015	0	Open	;
R576	Z197	I249	5	96.8	0.015	0	Open	;
R577	Z198	I250	22.13	96.8	0.015	0	Open	;
R578	Z204	I251	5	96.8	0.015	0	Open	;
R579	Z203	I252	5	96.8	0.015	0	Open	;
R580	Z38	I258	5	96.8	0.015	0	Open	;
R581	Z38	I257	5	96.8	0.015	0	Open	;
R582	Z199	I256	5	96.8	0.015	0	Open	;
R583	Z199	I255	5	96.8	0.015	0	Open	;
R584	Z200	I254	5	96.8	0.015	0	Open	;
R585	Z201	I253	5	96.8	0.015	0	Open	;
R586	Z205	I259	5	96.8	0.015	0	Open	;
R587	Z205	I260	5	96.8	0.015	0	Open	;
R588	Z205	I261	5	96.8	0.015	0	Open	;
R589	Z206	I262	5	96.8	0.015	0	Open	;
R590	Z207	I263	5	96.8	0.015	0	Open	;
R591	Z211	I264	5	96.8	0.015	0	Open	;
R592	Z211	I265	5	96.8	0.015	0	Open	;
R593	Z208	I267	5	96.8	0.015	0	Open	;
R594	Z208	I266	5	96.8	0.015	0	Open	;
R595	Z209	I268	5	96.8	0.015	0	Open	;
R596	Z210	I269	5	96.8	0.015	0	Open	;
R597	Z219	I270	5	96.8	0.015	0	Open	;
R598	Z212	I272	5	96.8	0.015	0	Open	;
R599	Z212	I271	5	96.8	0.015	0	Open	;
R600	Z213	I273	5	96.8	0.015	0	Open	;
R601	Z213	I274	5	96.8	0.015	0	Open	;
R602	Z214	I275	5	96.8	0.015	0	Open	;
R603	Z215	I276	5	96.8	0.015	0	Open	;
R604	Z216	I277	5	96.8	0.015	0	Open	;
R605	Z217	I278	5	96.8	0.015	0	Open	;
R606	Z218	I279	5	96.8	0.015	0	Open	;
R607	Z220	I280	5	96.8	0.015	0	Open	;
R608	Z224	I281	5	96.8	0.015	0	Open	;
R609	Z224	I282	5	96.8	0.015	0	Open	;
R610	Z223	I283	5	96.8	0.015	0	Open	;

R611	Z222	I284	5	96.8	0.015	0	Open	;
R612	Z221	I285	5	96.8	0.015	0	Open	;
R613	Z225	I286	5	96.8	0.015	0	Open	;
R614	Z225	I287	5	96.8	0.015	0	Open	;
R615	Z226	I291	5	96.8	0.015	0	Open	;
R616	Z226	I292	5	96.8	0.015	0	Open	;
R617	Z226	I293	5	96.8	0.015	0	Open	;
R618	Z227	I288	5	96.8	0.015	0	Open	;
R619	Z227	I289	5	96.8	0.015	0	Open	;
R620	Z228	I290	5	96.8	0.015	0	Open	;
R621	Z229	I294	5	96.8	0.015	0	Open	;
R622	Z230	I295	5	96.8	0.015	0	Open	;
R623	Z231	I296	5	96.8	0.015	0	Open	;
R624	Z232	I297	5	96.8	0.015	0	Open	;
R625	Z233	I298	5	96.8	0.015	0	Open	;
R626	Z233	I299	5	96.8	0.015	0	Open	;
R627	Z234	I300	5	96.8	0.015	0	Open	;
R628	Z235	I301	5	96.8	0.015	0	Open	;
R629	Z236	I302	5	96.8	0.015	0	Open	;
R630	Z237	I303	5	96.8	0.015	0	Open	;
R631	Z265	I304	5	96.8	0.015	0	Open	;
R632	Z265	I305	5	96.8	0.015	0	Open	;
R633	Z264	I306	5	96.8	0.015	0	Open	;
R634	Z263	I307	5	96.8	0.015	0	Open	;
R635	Z266	I308	5	96.8	0.015	0	Open	;
R636	Z267	I309	5	96.8	0.015	0	Open	;
R637	Z268	I310	5	96.8	0.015	0	Open	;
R638	Z269	I311	5	96.8	0.015	0	Open	;
R639	Z270	I312	5	96.8	0.015	0	Open	;
R640	Z260	I313	5	96.8	0.015	0	Open	;
R641	Z259	I314	5	96.8	0.015	0	Open	;
R642	Z258	I315	5	96.8	0.015	0	Open	;
R643	Z257	I316	5	96.8	0.015	0	Open	;
R644	Z256	I317	5	96.8	0.015	0	Open	;
R645	Z254	I318	5	96.8	0.015	0	Open	;
R646	Z261	I319	5	96.8	0.015	0	Open	;
R647	Z262	I320	5	96.8	0.015	0	Open	;
R648	Z262	I321	5	96.8	0.015	0	Open	;

R649	Z253	I322	5	96.8	0.015	0	Open	;
R650	Z252	I323	5	96.8	0.015	0	Open	;
R651	Z251	I324	5	96.8	0.015	0	Open	;
R652	Z251	I325	5	96.8	0.015	0	Open	;
R653	Z251	I326	5	96.8	0.015	0	Open	;
R37	Z38	Z37	706.98	277.6	0.015	0	Open	;

;Junction	Demand	Pattern	Category
-----------	--------	---------	----------

[STATUS]

;ID	Status/Setting
P1	Closed

[PATTERNS]

;ID	Multipliers
-----	-------------

[CURVES]

;ID	X-Value	Y-Value
;PUMP: 150l/s - H=80m		
C1	140	85
C1	160	75

[CONTROLS]

[RULES]

[ENERGY]

Global Efficiency	75
Global Price	0
Demand Charge	0

[EMITTERS]

;Junction	Coefficient
-----------	-------------

[QUALITY]

;Node	InitQual
-------	----------

```

[SOURCES]
;Node                Type                Quality                Pattern

[REACTIONS]
;Type                Pipe/Tank                Coefficient

[REACTIONS]
Order Bulk                1
Order Tank                1
Order Wall                1
Global Bulk                0
Global Wall                0
Limiting Potential        0
Roughness Correlation    0

[MIXING]
;Tank                Model

[TIMES]
Duration                0
Hydraulic Timestep      1:00
Quality Timestep        0:05
Pattern Timestep        1:00
Pattern Start           0:00
Report Timestep         1:00
Report Start            0:00
Start ClockTime         12 am
Statistic                None

[REPORT]
Status                Full
Summary               No
Page                  0

[OPTIONS]
Units                 LPS
Headloss              D-W

```

```

Specific Gravity        1
Viscosity               1
Trials                  50
Accuracy                0.001
CHECKFREQ              2
MAXCHECK                10
DAMPLIMIT              0
Unbalanced              Continue 10
Pattern                 1
Demand Multiplier       1.0
Emitter Exponent        0.5
Quality                 None mg/L
Diffusivity             1
Tolerance               0.01

```

```

[LABELS]
;X-Coord                Y-Coord                Label & Anchor Node

```

```

[BACKDROP]
DIMENSIONS              0.000                0.000                6024.792                3581.638
UNITS                   Meters
FILE                    U:\L A V O R I\FOSSO VECCHIO 38\studio idraulico\epanet_boncellino\boncellino.bmp
OFFSET                  0.00                0.00

```

```

[END]

```

1.3 IPOTESI DI FUNZIONAMENTO A

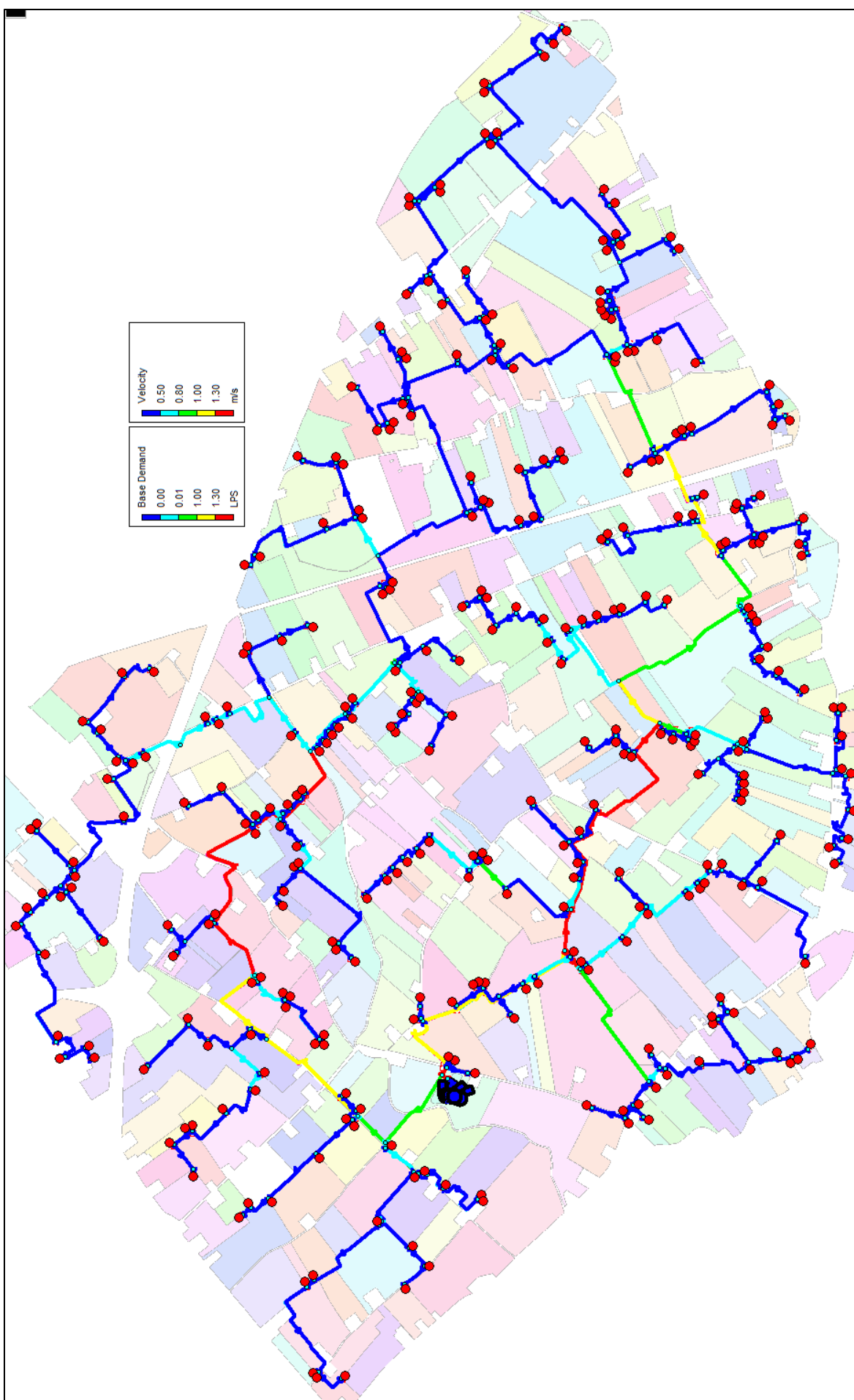


Figura 4 – Risultati della simulazione : base demand nei nodi e velocità nei rami

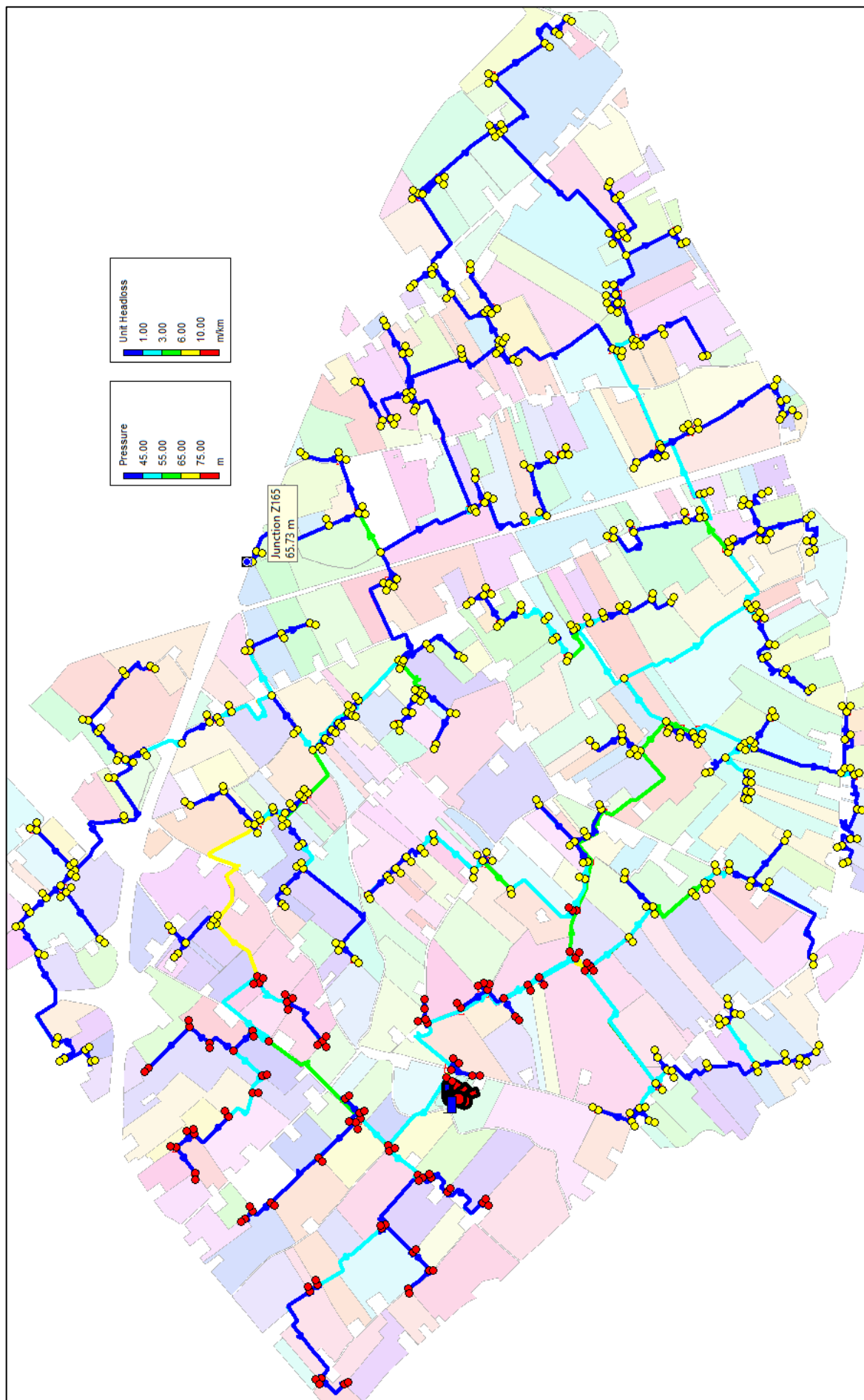


Figura 5 – Risultati della simulazione : pressione nei nodi e perdite di carico nei rami

RISULTATI SIMULAZIONE BONCELLINO IPOTESI FUNZIONAMENTO A

Link - Node Table:

Link ID	Start Node	End Node	Length m	Diameter mm
R1	Z1	Z4	376.99	500
R2	Z1	Z3	36.23	500
R3	Z4	Z30	158.87	500
R4	Z30	Z29	511.94	400
R5	Z29	Z28	434.27	400
R6	Z28	Z27	287.35	312.8
R7	Z27	Z26	776.86	312.8
R8	Z26	Z25	386.60	312.8
R9	Z25	Z24	215.34	312.8
R10	Z24	Z23	301.23	312.8
R11	Z23	Z22	483.92	312.8
R12	Z22	Z21	165.41	312.8
R13	Z21	Z20	432.52	312.8
R14	Z20	Z19	589.94	312.8
R15	Z19	Z18	288.16	312.8
R16	Z18	Z17	195.48	312.8
R17	Z17	Z16	639.32	312.8
R18	Z16	Z15	449.15	312.8
R19	Z15	Z14	322.70	312.8
R20	Z14	Z13	121.51	312.8
R21	Z13	Z12	176.09	312.8
R22	Z12	Z11	283.53	400
R23	Z11	Z10	623.06	400
R24	Z10	Z9	252.99	400
R25	Z9	Z8	161.10	400
R26	Z8	Z7	965.02	400
R27	Z7	Z6	174.34	400
R28	Z6	Z2	733.02	500
R29	Z2	Z3	295.18	500
R30	Z17	Z31	20.64	277.6
R31	Z31	Z32	131.11	277.6
R32	Z32	Z33	193.47	277.6
R33	Z33	Z34	130.26	277.6
R34	Z34	Z35	378.35	277.6
R35	Z35	Z36	399.85	277.6
R36	Z36	Z37	45.95	277.6
R39	Z39	Z40	159.80	277.6

Link ID	Start Node	End Node	Length m	Diameter mm
R40	Z40	Z16	93.15	277.6
R41	Z25	Z41	102.26	312.8
R42	Z41	Z42	180.32	312.8
R43	Z42	Z44	302.32	277.6
R44	Z44	Z45	64.21	277.6
R45	Z45	Z46	36.74	277.6
R46	Z46	Z43	156.53	277.6
R47	Z9	Z47	121.61	221.2
R48	Z47	Z48	240.32	221.2
R49	Z4	Z49	24.55	197.4
R50	Z49	Z50	155.79	197.4
R51	Z50	Z51	282.48	197.4
R52	Z52	Z1	29.23	500
R53	Z29	Z53	79.69	197.4
R54	Z53	Z54	111.39	197.4
R55	Z43	Z55	168.27	277.6
R56	Z55	Z56	81.61	277.6
R57	Z56	Z57	122.30	277.6
R58	Z57	Z58	248.24	277.6
R59	Z58	Z59	408.67	277.6
R60	Z48	Z60	42.59	197.4
R61	Z60	Z61	381.34	197.4
R62	Z10	Z62	326.51	197.4
R63	Z6	Z63	37.20	197.4
R64	Z63	Z64	65.06	197.4
R65	Z64	Z65	27.55	197.4
R66	Z65	Z66	197.52	197.4
R67	Z66	Z67	159.32	197.4
R68	Z64	Z68	593.09	197.4
R69	Z68	Z69	73.39	197.4
R71	Z50	Z70	19.58	141
R72	Z70	Z71	52.37	141
R73	Z71	Z72	134.03	141
R74	Z72	Z73	272.89	141
R75	Z51	Z74	21.33	141
R76	Z74	Z75	171.77	141
R77	Z75	Z76	100.49	141
R78	Z76	Z77	113.17	141
R79	Z74	Z78	388.18	141
R80	Z78	Z79	41.68	141
R81	Z79	Z80	492.04	141
R82	Z80	Z81	136.69	141
R83	Z30	Z82	28.20	141
R84	Z82	Z83	210.10	141
R85	Z83	Z84	273.85	141
R86	Z84	Z85	100.05	141
R87	Z85	Z86	44.57	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R88	Z82	Z88	63.06	141
R89	Z88	Z87	83.04	141
R90	Z54	Z94	156.07	141
R91	Z94	Z93	83.07	141
R92	Z93	Z92	187.75	141
R93	Z92	Z91	200.47	141
R94	Z91	Z90	94.69	141
R95	Z90	Z89	132.30	141
R96	Z54	Z95	125.84	141
R97	Z95	Z96	103.76	141
R98	Z96	Z97	240.97	141
R99	Z28	Z98	29.24	141
R100	Z98	Z99	145.56	141
R101	Z99	Z100	238.71	141
R102	Z27	Z101	21.88	141
R103	Z101	Z102	160.47	141
R104	Z102	Z103	54.42	141
R105	Z102	Z104	75.70	141
R106	Z26	Z105	28.55	221.2
R107	Z105	Z106	105.99	197.4
R108	Z106	Z107	133.09	141
R109	Z107	Z110	114.87	141
R110	Z110	Z111	81.12	141
R111	Z107	Z108	472.49	141
R112	Z108	Z109	82.44	141
R113	Z105	Z112	46.30	197.4
R114	Z112	Z113	49.61	141
R115	Z113	Z114	65.69	141
R116	Z114	Z115	30.56	141
R117	Z115	Z116	187.17	141
R118	Z116	Z117	152.14	141
R119	Z112	Z118	39.18	141
R120	Z118	Z119	57.41	141
R121	Z119	Z120	27.68	141
R122	Z42	Z121	207.55	141
R123	Z121	Z122	148.77	141
R124	Z122	Z123	127.14	141
R125	Z124	Z125	129.31	141
R126	Z125	Z126	246.99	141
R127	Z126	Z127	60.88	141
R128	Z127	Z128	133.26	141
R129	Z56	Z128	33.52	141
R130	Z59	Z129	27.91	141
R131	Z129	Z130	199.21	141
R132	Z59	Z131	20.63	277.6
R133	Z131	Z132	65.50	277.6
R134	Z132	Z133	35.33	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R135	Z133	Z134	237.49	141
R136	Z132	Z135	76.63	221.2
R137	Z135	Z136	91.24	221.2
R138	Z136	Z137	70.66	221.2
R139	Z137	Z138	138.52	221.2
R140	Z138	Z139	474.00	221.2
R141	Z139	Z140	161.81	221.2
R142	Z140	Z141	100.63	141
R143	Z141	Z142	51.23	141
R144	Z24	Z143	18.52	141
R145	Z143	Z144	31.51	141
R146	Z144	Z145	39.17	141
R147	Z143	Z146	67.46	141
R148	Z146	Z147	39.15	141
R149	Z147	Z148	44.74	141
R150	Z148	Z149	41.44	141
R151	Z150	Z23	22.15	141
R152	Z150	Z153	17.92	141
R153	Z153	Z151	116.34	141
R154	Z151	Z152	177.89	141
R155	Z150	Z154	144.12	141
R156	Z154	Z155	151.16	141
R157	Z155	Z156	143.30	141
R158	Z154	Z157	14.93	141
R159	Z157	Z158	31.41	141
R160	Z158	Z159	75.87	141
R161	Z159	Z160	73.37	141
R162	Z22	Z161	23.71	141
R163	Z21	Z162	186.92	141
R164	Z162	Z163	129.60	141
R165	Z163	Z164	430.09	141
R166	Z164	Z165	43.79	141
R167	Z162	Z166	242.40	141
R168	Z166	Z167	143.47	141
R169	Z20	Z168	13.72	197.4
R170	Z168	Z169	46.96	197.4
R171	Z169	Z170	108.21	141
R172	Z169	Z171	252.22	197.4
R173	Z171	Z172	90.88	141
R174	Z172	Z173	208.23	141
R175	Z173	Z174	103.57	141
R176	Z174	Z175	41.91	141
R177	Z19	Z176	26.61	197.4
R178	Z176	Z179	22.99	141
R179	Z179	Z180	45.71	141
R180	Z176	Z177	176.45	141
R181	Z177	Z178	131.66	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R182	Z176	Z181	185.32	141
R183	Z181	Z182	35.93	141
R184	Z182	Z183	183.87	141
R185	Z18	Z184	21.45	141
R186	Z31	Z187	17.99	141
R187	Z187	Z186	36.73	141
R188	Z186	Z185	91.70	141
R189	Z32	Z188	17.39	141
R190	Z188	Z189	214.03	141
R191	Z34	Z190	16.51	141
R192	Z190	Z191	91.95	141
R193	Z35	Z192	18.55	141
R194	Z192	Z193	88.12	141
R195	Z37	Z194	21.70	221.2
R196	Z194	Z195	304.20	221.2
R197	Z195	Z196	254.68	221.2
R198	Z196	Z197	154.03	141
R199	Z197	Z198	74.29	141
R200	Z38	Z199	20.82	141
R201	Z199	Z200	198.07	141
R202	Z200	Z201	61.79	141
R203	Z38	Z202	100.55	277.6
R204	Z202	Z39	249.63	277.6
R205	Z202	Z203	216.43	141
R206	Z203	Z204	60.37	141
R207	Z39	Z205	17.80	141
R208	Z205	Z206	36.88	141
R209	Z206	Z207	40.28	141
R210	Z40	Z208	17.66	141
R211	Z208	Z209	115.69	141
R212	Z209	Z210	291.13	141
R213	Z16	Z211	21.66	141
R214	Z15	Z212	16.25	197.4
R215	Z212	Z219	117.93	141
R216	Z212	Z213	141.13	197.4
R217	Z213	Z214	33.48	197.4
R218	Z214	Z215	375.87	197.4
R219	Z215	Z216	70.07	141
R220	Z216	Z217	52.26	141
R221	Z217	Z218	42.37	141
R222	Z14	Z220	20.17	141
R223	Z13	Z221	18.14	141
R224	Z221	Z222	56.74	141
R225	Z222	Z223	222.95	141
R226	Z223	Z224	212.85	141
R227	Z12	Z225	23.45	197.4
R228	Z225	Z226	144.31	197.4

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R229	Z226	Z229	194.01	141
R230	Z229	Z230	146.49	141
R231	Z230	Z231	36.13	141
R232	Z226	Z227	119.70	141
R233	Z227	Z228	88.55	141
R234	Z11	Z232	25.97	141
R235	Z232	Z233	42.28	141
R236	Z233	Z234	123.38	141
R237	Z234	Z235	89.55	141
R238	Z235	Z236	117.34	141
R239	Z236	Z237	121.53	141
R240	Z62	Z238	15.70	141
R241	Z238	Z239	163.82	141
R242	Z239	Z240	97.16	141
R243	Z240	Z241	85.25	141
R244	Z241	Z242	144.60	141
R245	Z242	Z243	99.06	141
R246	Z243	Z244	134.07	141
R247	Z244	Z245	58.07	141
R248	Z62	Z246	57.55	141
R249	Z246	Z247	65.50	141
R250	Z247	Z248	90.88	141
R251	Z248	Z249	123.03	141
R252	Z249	Z250	106.83	141
R253	Z47	Z251	21.24	141
R254	Z251	Z252	64.30	141
R255	Z252	Z253	48.96	141
R256	Z48	Z254	22.76	141
R257	Z254	Z255	76.57	141
R258	Z255	Z256	96.29	141
R259	Z255	Z257	109.65	141
R260	Z257	Z260	35.33	141
R261	Z258	Z259	36.27	141
R262	Z259	Z260	33.20	141
R263	Z60	Z261	21.13	141
R264	Z261	Z262	126.38	141
R265	Z61	Z263	21.78	141
R266	Z263	Z264	176.17	141
R267	Z264	Z265	113.99	141
R268	Z61	Z266	56.13	141
R269	Z266	Z267	164.61	141
R270	Z267	Z268	194.42	141
R271	Z268	Z269	80.35	141
R272	Z269	Z270	93.18	141
R273	Z8	Z271	24.62	141
R274	Z271	Z272	80.46	141
R275	Z272	Z273	139.79	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R276	Z7	Z274	17.00	141
R277	Z274	Z275	142.61	141
R278	Z275	Z276	70.95	141
R279	Z276	Z277	100.34	141
R280	Z277	Z280	212.67	141
R281	Z277	Z278	57.63	141
R282	Z278	Z279	145.20	141
R283	Z274	Z281	345.62	197.4
R284	Z281	Z282	164.02	141
R285	Z282	Z283	54.06	141
R286	Z283	Z284	225.21	141
R287	Z284	Z285	78.40	141
R288	Z285	Z286	88.42	141
R289	Z286	Z287	62.84	141
R290	Z287	Z288	47.97	141
R291	Z288	Z289	112.72	141
R292	Z69	Z290	62.74	141
R293	Z69	Z291	21.78	197.4
R294	Z291	Z292	213.78	197.4
R295	Z292	Z293	241.55	197.4
R296	Z293	Z294	220.84	141
R297	Z294	Z295	46.21	141
R298	Z295	Z296	45.28	141
R299	Z293	Z297	127.87	141
R300	Z297	Z298	56.12	141
R301	Z298	Z299	73.08	141
R302	Z67	Z300	164.85	141
R303	Z67	Z301	229.85	141
R304	Z301	Z302	62.81	141
R305	Z302	Z303	72.95	141
R306	Z303	Z304	57.99	141
R307	Z304	Z305	100.75	141
R308	Z305	Z306	217.67	141
R309	Z305	Z307	64.94	141
R310	Z307	Z308	454.50	141
R311	Z68	Z309	122.36	141
R312	Z309	Z312	65.15	141
R313	Z309	Z310	63.04	141
R314	Z310	Z311	144.30	141
R315	Z63	Z313	168.16	141
R316	Z313	Z314	57.79	141
R317	Z314	Z315	112.48	141
R318	Z315	Z316	88.44	141
R319	Z315	Z317	96.05	141
R320	Z317	Z318	132.38	141
R321	Z2	Z319	16.60	141
R322	Z319	Z320	46.93	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R323	Z3	Z321	90.37	141
R326	Z77	I10	5	96.8
R327	Z76	I9	5	96.8
R328	Z75	I8	5	96.8
R329	Z74	I7	5	96.8
R330	Z78	I11	5	96.8
R331	Z79	I12	5	96.8
R332	Z80	I13	5	96.8
R333	Z80	I14	5	96.8
R334	Z81	I15	5	96.8
R335	Z70	I2	5	96.8
R336	Z71	I3	5	96.8
R337	Z72	I4	5	96.8
R338	Z73	I5	5	96.8
R339	Z73	I6	5	96.8
R340	Z49	I1	5	96.8
R341	Z86	I23	5	96.8
R342	Z85	I22	5	96.8
R343	Z84	I21	5	96.8
R344	Z83	I20	5	96.8
R345	Z82	I18	5	96.8
R346	Z82	I19	5	96.8
R347	Z88	I17	5	96.8
R348	Z87	I16	5	96.8
R349	Z53	I24	5	96.8
R350	Z95	I25	5	96.8
R351	Z96	I26	5	96.8
R352	Z97	I27	5	96.8
R353	Z94	I28	5	96.8
R354	Z93	I29	5	96.8
R355	Z92	I30	5	96.8
R356	Z91	I31	5	96.8
R357	Z91	I32	5	96.8
R358	Z90	I33	5	96.8
R359	Z89	I34	5	96.8
R360	Z98	I35	5	96.8
R361	Z98	I36	5	96.8
R362	Z99	I37	5	96.8
R363	Z99	I38	5	96.8
R364	Z99	I39	5	96.8
R365	Z100	I40	5	96.8
R366	Z100	I42	5	96.8
R367	Z100	I41	5	96.8
R368	Z101	I43	5	96.8
R369	Z101	I44	5	96.8
R370	Z104	I45	5	96.8
R371	Z103	I46	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R372	Z109	I47	5	96.8
R373	Z108	I48	5	96.8
R374	Z108	I49	5	96.8
R375	Z111	I50	5	96.8
R376	Z110	I51	5	96.8
R377	Z107	I53	5	96.8
R378	Z107	I52	5	96.8
R379	Z106	I54	5	96.8
R380	Z105	I55	5	96.8
R381	Z113	I59	5	96.8
R382	Z114	I60	5	96.8
R383	Z115	I62	5	96.8
R384	Z115	I61	5	96.8
R385	Z116	I63	5	96.8
R386	Z117	I64	5	96.8
R387	Z118	I56	5	96.8
R388	Z119	I57	5	96.8
R389	Z120	I58	5	96.8
R390	Z142	I65	5	96.8
R391	Z141	I66	5	96.8
R392	Z140	I67	5	96.8
R393	Z139	I68	5	96.8
R394	Z138	I69	5	96.8
R395	Z137	I70	5	96.8
R396	Z136	I71	5	96.8
R397	Z135	I72	5	96.8
R398	Z134	I75	5	96.8
R399	Z133	I74	5	96.8
R400	Z133	I73	5	96.8
R401	Z131	I76	5	96.8
R402	Z129	I77	5	96.8
R403	Z130	I78	5	96.8
R404	Z130	I79	5	96.8
R405	Z58	I80	5	96.8
R406	Z57	I81	5	96.8
R407	Z56	I82	5	96.8
R408	Z128	I83	5	96.8
R409	Z127	I84	5	96.8
R410	Z126	I85	5	96.8
R411	Z125	I86	5	96.8
R412	Z124	I87	5	96.8
R413	Z55	I88	5	96.8
R414	Z46	I89	5	96.8
R415	Z45	I90	5	96.8
R416	Z44	I91	5	96.8
R417	Z121	I92	5	96.8
R418	Z121	I93	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R419	Z122	I94	5	96.8
R420	Z123	I95	5	96.8
R421	Z41	I96	5	96.8
R422	Z149	I97	5	96.8
R423	Z148	I98	5	96.8
R424	Z147	I99	5	96.8
R425	Z146	I100	5	96.8
R426	Z143	I101	5	96.8
R427	Z144	I102	5	96.8
R428	Z145	I103	5	96.8
R429	Z160	I105	5	96.8
R430	Z160	I104	5	96.8
R431	Z159	I106	5	96.8
R432	Z158	I107	5	96.8
R433	Z157	I109	5	96.8
R434	Z157	I108	5	96.8
R435	Z156	I110	5	96.8
R436	Z155	I111	5	96.8
R437	Z150	I112	5	96.8
R438	Z151	I113	5	96.8
R439	Z152	I114	5	96.8
R440	Z161	I115	5	96.8
R441	Z161	I116	5	96.8
R442	Z161	I117	5	96.8
R443	Z165	I118	5	96.8
R444	Z164	I119	5	96.8
R445	Z163	I120	5	96.8
R446	Z162	I122	5	96.8
R447	Z162	I121	5	96.8
R448	Z166	I123	5	96.8
R449	Z166	I124	5	96.8
R450	Z167	I125	5	96.8
R451	Z238	I126	5	96.8
R452	Z239	I127	5	96.8
R453	Z240	I128	5	96.8
R454	Z241	I129	5	96.8
R455	Z242	I130	5	96.8
R456	Z243	I131	5	96.8
R457	Z244	I133	5	96.8
R458	Z244	I132	5	96.8
R459	Z245	I134	5	96.8
R460	Z246	I135	5	96.8
R461	Z247	I136	5	96.8
R462	Z248	I137	5	96.8
R463	Z248	I138	5	96.8
R464	Z249	I139	5	96.8
R465	Z250	I140	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R466	Z271	I142	5	96.8
R467	Z271	I141	5	96.8
R468	Z272	I143	5	96.8
R469	Z272	I144	5	96.8
R470	Z273	I145	5	96.8
R471	Z274	I146	5	96.8
R472	Z275	I147	5	96.8
R473	Z276	I148	5	96.8
R474	Z277	I149	5	96.8
R475	Z280	I150	5	96.8
R476	Z278	I151	5	96.8
R477	Z279	I152	5	96.8
R478	Z281	I153	5	96.8
R479	Z282	I154	5	96.8
R480	Z282	I155	5	96.8
R481	Z282	I156	5	96.8
R482	Z283	I157	5	96.8
R483	Z284	I158	5	96.8
R484	Z285	I159	5	96.8
R485	Z286	I160	5	96.8
R486	Z287	I161	5	96.8
R487	Z288	I162	5	96.8
R488	Z289	I163	5	96.8
R489	Z63	I164	5	96.8
R490	Z65	I165	5	96.8
R491	Z65	I166	5	96.8
R492	Z66	I167	5	96.8
R493	Z67	I169	5	96.8
R494	Z67	I170	5	96.8
R495	Z300	I168	5	96.8
R496	Z301	I171	5	96.8
R497	Z302	I172	5	96.8
R498	Z302	I173	5	96.8
R499	Z303	I174	5	96.8
R500	Z304	I175	5	96.8
R501	Z305	I176	5	96.8
R502	Z306	I177	5	96.8
R503	Z307	I178	5	96.8
R504	Z308	I179	5	96.8
R505	Z311	I180	5	96.8
R506	Z310	I181	5	96.8
R507	Z310	I182	5	96.8
R508	Z309	I183	5	96.8
R509	Z312	I184	5	96.8
R510	Z68	I185	5	96.8
R511	Z290	I186	5	96.8
R512	Z291	I187	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R513	Z292	I188	5	96.8
R514	Z293	I193	5	96.8
R515	Z294	I189	5	96.8
R516	Z294	I190	5	96.8
R517	Z295	I191	5	96.8
R518	Z296	I192	5	96.8
R519	Z297	I194	5	96.8
R520	Z298	I195	5	96.8
R521	Z298	I196	5	96.8
R522	Z299	I197	5	96.8
R523	Z313	I198	5	96.8
R524	Z314	I199	5	96.8
R525	Z316	I200	5	96.8
R526	Z317	I201	5	96.8
R527	Z317	I202	5	96.8
R528	Z317	I203	5	96.8
R529	Z318	I204	5	96.8
R530	Z320	I209	5	96.8
R531	Z319	I208	5	96.8
R532	Z3	I206	5	96.8
R533	Z3	I205	5	96.8
R534	Z321	I207	5	96.8
R535	Z168	I210	5	96.8
R536	Z170	I213	5	96.8
R537	Z169	I212	5	96.8
R538	Z169	I211	5	96.8
R539	Z171	I214	5	96.8
R540	Z172	I215	5	96.8
R541	Z173	I216	5	96.8
R542	Z174	I217	5	96.8
R543	Z175	I218	5	96.8
R544	Z175	I219	5	96.8
R545	Z183	I220	5	96.8
R546	Z182	I221	5	96.8
R547	Z181	I223	5	96.8
R548	Z181	I222	5	96.8
R549	Z179	I225	5	96.8
R550	Z180	I224	5	96.8
R551	Z177	I226	5	96.8
R552	Z177	I227	5	96.8
R553	Z178	I228	5	96.8
R554	Z184	I229	5	96.8
R555	Z186	I231	5	96.8
R556	Z185	I232	5	96.8
R557	Z187	I230	5	96.8
R558	Z188	I233	5	96.8
R559	Z188	I234	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R560	Z189	I235	5	96.8
R561	Z33	I236	5	96.8
R562	Z191	I237	5	96.8
R563	Z190	I238	5	96.8
R566	Z193	I241	5	96.8
R567	Z193	I242	5	96.8
R568	Z192	I240	5	96.8
R569	Z192	I239	5	96.8
R570	Z36	I243	5	96.8
R571	Z36	I244	5	96.8
R572	Z194	I245	5	96.8
R573	Z195	I246	5	96.8
R574	Z195	I247	5	96.8
R575	Z196	I248	5	96.8
R576	Z197	I249	5	96.8
R577	Z198	I250	22.13	96.8
R578	Z204	I251	5	96.8
R579	Z203	I252	5	96.8
R580	Z38	I258	5	96.8
R581	Z38	I257	5	96.8
R582	Z199	I256	5	96.8
R583	Z199	I255	5	96.8
R584	Z200	I254	5	96.8
R585	Z201	I253	5	96.8
R586	Z205	I259	5	96.8
R587	Z205	I260	5	96.8
R588	Z205	I261	5	96.8
R589	Z206	I262	5	96.8
R590	Z207	I263	5	96.8
R591	Z211	I264	5	96.8
R592	Z211	I265	5	96.8
R593	Z208	I267	5	96.8
R594	Z208	I266	5	96.8
R595	Z209	I268	5	96.8
R596	Z210	I269	5	96.8
R597	Z219	I270	5	96.8
R598	Z212	I272	5	96.8
R599	Z212	I271	5	96.8
R600	Z213	I273	5	96.8
R601	Z213	I274	5	96.8
R602	Z214	I275	5	96.8
R603	Z215	I276	5	96.8
R604	Z216	I277	5	96.8
R605	Z217	I278	5	96.8
R606	Z218	I279	5	96.8
R607	Z220	I280	5	96.8
R608	Z224	I281	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R609	Z224	I282	5	96.8
R610	Z223	I283	5	96.8
R611	Z222	I284	5	96.8
R612	Z221	I285	5	96.8
R613	Z225	I286	5	96.8
R614	Z225	I287	5	96.8
R615	Z226	I291	5	96.8
R616	Z226	I292	5	96.8
R617	Z226	I293	5	96.8
R618	Z227	I288	5	96.8
R619	Z227	I289	5	96.8
R620	Z228	I290	5	96.8
R621	Z229	I294	5	96.8
R622	Z230	I295	5	96.8
R623	Z231	I296	5	96.8
R624	Z232	I297	5	96.8
R625	Z233	I298	5	96.8
R626	Z233	I299	5	96.8
R627	Z234	I300	5	96.8
R628	Z235	I301	5	96.8
R629	Z236	I302	5	96.8
R630	Z237	I303	5	96.8
R631	Z265	I304	5	96.8
R632	Z265	I305	5	96.8
R633	Z264	I306	5	96.8
R634	Z263	I307	5	96.8
R635	Z266	I308	5	96.8
R636	Z267	I309	5	96.8
R637	Z268	I310	5	96.8
R638	Z269	I311	5	96.8
R639	Z270	I312	5	96.8
R640	Z260	I313	5	96.8
R641	Z259	I314	5	96.8
R642	Z258	I315	5	96.8
R643	Z257	I316	5	96.8
R644	Z256	I317	5	96.8
R645	Z254	I318	5	96.8
R646	Z261	I319	5	96.8
R647	Z262	I320	5	96.8
R648	Z262	I321	5	96.8
R649	Z253	I322	5	96.8
R650	Z252	I323	5	96.8
R651	Z251	I324	5	96.8
R652	Z251	I325	5	96.8
R653	Z251	I326	5	96.8
R37	Z38	Z37	706.98	277.6
P1	S1	Z52	#N/A	#N/A Pump

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
P2	S1	Z52	#N/A	#N/A Pump
P3	S1	Z52	#N/A	#N/A Pump
P4	S1	Z52	#N/A	#N/A Pump

Energy Usage:

Pump	Usage Factor	Avg. Effic.	Kw-hr /m3	Avg. Kw	Peak Kw	Cost /day
P1	0.00	0.00	0.00	0.00	0.00	0.00
P2	100.00	75.00	0.29	156.84	156.84	0.00
P3	100.00	75.00	0.29	156.84	156.84	0.00
P4	100.00	75.00	0.29	156.84	156.84	0.00

Demand Charge: 0.00
Total Cost: 0.00

Node Results:

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1	0.00	89.75	79.75	0.00
Z2	0.00	88.67	78.67	0.00
Z3	0.00	89.49	79.49	0.00
Z4	0.00	89.07	79.07	0.00
Z6	0.00	86.68	76.68	0.00
Z7	0.00	85.78	75.78	0.00
Z8	0.00	81.95	71.95	0.00
Z9	0.00	81.36	71.36	0.00
Z10	0.00	80.75	70.75	0.00
Z11	0.00	79.67	69.67	0.00
Z12	0.00	79.25	69.25	0.00
Z13	0.00	78.72	68.72	0.00
Z14	0.00	78.41	68.41	0.00
Z15	0.00	77.60	67.60	0.00
Z16	0.00	76.81	66.81	0.00
Z17	0.00	76.54	66.54	0.00
Z18	0.00	76.53	66.53	0.00
Z19	0.00	76.52	66.52	0.00
Z20	0.00	76.53	66.53	0.00
Z21	0.00	76.60	66.60	0.00
Z22	0.00	76.67	66.67	0.00
Z23	0.00	76.93	66.93	0.00
Z24	0.00	77.25	67.25	0.00
Z25	0.00	77.56	67.56	0.00
Z26	0.00	79.15	69.15	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z27	0.00	83.94	73.94	0.00
Z28	0.00	85.86	75.86	0.00
Z29	0.00	87.10	77.10	0.00
Z30	0.00	88.87	78.87	0.00
Z31	0.00	76.52	66.52	0.00
Z32	0.00	76.49	66.49	0.00
Z33	0.00	76.46	66.46	0.00
Z34	0.00	76.45	66.45	0.00
Z35	0.00	76.42	66.42	0.00
Z36	0.00	76.42	66.42	0.00
Z37	0.00	76.42	66.42	0.00
Z38	0.00	76.48	66.48	0.00
Z39	0.00	76.60	66.60	0.00
Z40	0.00	76.70	66.70	0.00
Z41	0.00	77.44	67.44	0.00
Z42	0.00	77.29	67.29	0.00
Z43	0.00	76.69	66.69	0.00
Z44	0.00	76.94	66.94	0.00
Z45	0.00	76.87	66.87	0.00
Z46	0.00	76.84	66.84	0.00
Z47	0.00	80.98	70.98	0.00
Z48	0.00	80.59	70.59	0.00
Z49	0.00	88.98	78.98	0.00
Z50	0.00	88.70	78.70	0.00
Z51	0.00	88.47	78.47	0.00
Z52	0.00	90.00	80.00	0.00
Z53	0.00	86.98	76.98	0.00
Z54	0.00	86.87	76.87	0.00
Z55	0.00	76.51	66.51	0.00
Z56	0.00	76.44	66.44	0.00
Z57	0.00	76.38	66.38	0.00
Z58	0.00	76.27	66.27	0.00
Z59	0.00	76.11	66.11	0.00
Z60	0.00	80.50	70.50	0.00
Z61	0.00	80.19	70.19	0.00
Z62	0.00	80.04	70.04	0.00
Z63	0.00	85.88	75.88	0.00
Z64	0.00	85.32	75.32	0.00
Z65	0.00	85.22	75.22	0.00
Z66	0.00	84.90	74.90	0.00
Z67	0.00	84.68	74.68	0.00
Z68	0.00	83.61	73.61	0.00
Z69	0.00	83.51	73.51	0.00
Z70	0.00	88.65	78.65	0.00
Z71	0.00	88.60	78.60	0.00
Z72	0.00	88.52	78.52	0.00
Z73	0.00	88.45	78.45	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z74	0.00	88.32	78.32	0.00
Z75	0.00	88.21	78.21	0.00
Z76	0.00	88.19	78.19	0.00
Z77	0.00	88.18	78.18	0.00
Z78	0.00	87.76	77.76	0.00
Z79	0.00	87.72	77.72	0.00
Z80	0.00	87.44	77.44	0.00
Z81	0.00	87.43	77.43	0.00
Z82	0.00	88.73	78.73	0.00
Z83	0.00	88.53	78.53	0.00
Z84	0.00	88.37	78.37	0.00
Z85	0.00	88.34	78.34	0.00
Z86	0.00	88.34	78.34	0.00
Z87	0.00	88.70	78.70	0.00
Z88	0.00	88.71	78.71	0.00
Z89	0.00	85.76	75.76	0.00
Z90	0.00	85.77	75.77	0.00
Z91	0.00	85.80	75.80	0.00
Z92	0.00	85.99	75.99	0.00
Z93	0.00	86.26	76.26	0.00
Z94	0.00	86.43	76.43	0.00
Z95	0.00	86.79	76.79	0.00
Z96	0.00	86.76	76.76	0.00
Z97	0.00	86.74	76.74	0.00
Z98	0.00	85.72	75.72	0.00
Z99	0.00	85.43	75.43	0.00
Z100	0.00	85.29	75.29	0.00
Z101	0.00	83.91	73.91	0.00
Z102	0.00	83.87	73.87	0.00
Z103	0.00	83.86	73.86	0.00
Z104	0.00	83.86	73.86	0.00
Z105	0.00	79.07	69.07	0.00
Z106	0.00	79.00	69.00	0.00
Z107	0.00	78.65	68.65	0.00
Z108	0.00	78.37	68.37	0.00
Z109	0.00	78.36	68.36	0.00
Z110	0.00	78.62	68.62	0.00
Z111	0.00	78.61	68.61	0.00
Z112	0.00	79.02	69.02	0.00
Z113	0.00	78.92	68.92	0.00
Z114	0.00	78.82	68.82	0.00
Z115	0.00	78.79	68.79	0.00
Z116	0.00	78.74	68.74	0.00
Z117	0.00	78.73	68.73	0.00
Z118	0.00	78.99	68.99	0.00
Z119	0.00	78.97	68.97	0.00
Z120	0.00	78.97	68.97	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z121	0.00	77.08	67.08	0.00
Z122	0.00	77.04	67.04	0.00
Z123	0.00	77.03	67.03	0.00
Z124	0.00	76.13	66.13	0.00
Z125	0.00	76.14	66.14	0.00
Z126	0.00	76.21	66.21	0.00
Z127	0.00	76.24	66.24	0.00
Z128	0.00	76.37	66.37	0.00
Z129	0.00	76.08	66.08	0.00
Z130	0.00	76.03	66.03	0.00
Z131	0.00	76.09	66.09	0.00
Z132	0.00	76.08	66.08	0.00
Z133	0.00	76.05	66.05	0.00
Z134	0.00	76.03	66.03	0.00
Z135	0.00	76.05	66.05	0.00
Z136	0.00	76.02	66.02	0.00
Z137	0.00	76.01	66.01	0.00
Z138	0.00	75.98	65.98	0.00
Z139	0.00	75.93	65.93	0.00
Z140	0.00	75.92	65.92	0.00
Z141	0.00	75.89	65.89	0.00
Z142	0.00	75.89	65.89	0.00
Z143	0.00	77.16	67.16	0.00
Z144	0.00	77.15	67.15	0.00
Z145	0.00	77.15	67.15	0.00
Z146	0.00	77.10	67.10	0.00
Z147	0.00	77.08	67.08	0.00
Z148	0.00	77.06	67.06	0.00
Z149	0.00	77.06	67.06	0.00
Z150	0.00	76.71	66.71	0.00
Z151	0.00	76.67	66.67	0.00
Z152	0.00	76.66	66.66	0.00
Z153	0.00	76.70	66.70	0.00
Z154	0.00	76.23	66.23	0.00
Z155	0.00	76.18	66.18	0.00
Z156	0.00	76.17	66.17	0.00
Z157	0.00	76.17	66.17	0.00
Z158	0.00	76.14	66.14	0.00
Z159	0.00	76.10	66.10	0.00
Z160	0.00	76.08	66.08	0.00
Z161	0.00	76.65	66.65	0.00
Z162	0.00	75.93	65.93	0.00
Z163	0.00	75.85	65.85	0.00
Z164	0.00	75.73	65.73	0.00
Z165	0.00	75.73	65.73	0.00
Z166	0.00	75.79	65.79	0.00
Z167	0.00	75.78	65.78	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z168	0.00	76.49	66.49	0.00
Z169	0.00	76.46	66.46	0.00
Z170	0.00	76.45	66.45	0.00
Z171	0.00	76.36	66.36	0.00
Z172	0.00	76.23	66.23	0.00
Z173	0.00	76.03	66.03	0.00
Z174	0.00	75.97	65.97	0.00
Z175	0.00	75.95	65.95	0.00
Z176	0.00	76.48	66.48	0.00
Z177	0.00	76.37	66.37	0.00
Z178	0.00	76.36	66.36	0.00
Z179	0.00	76.47	66.47	0.00
Z180	0.00	76.47	66.47	0.00
Z181	0.00	76.30	66.30	0.00
Z182	0.00	76.29	66.29	0.00
Z183	0.00	76.28	66.28	0.00
Z184	0.00	76.53	66.53	0.00
Z185	0.00	76.49	66.49	0.00
Z186	0.00	76.49	66.49	0.00
Z187	0.00	76.51	66.51	0.00
Z188	0.00	76.47	66.47	0.00
Z189	0.00	76.45	66.45	0.00
Z190	0.00	76.44	66.44	0.00
Z191	0.00	76.43	66.43	0.00
Z192	0.00	76.39	66.39	0.00
Z193	0.00	76.37	66.37	0.00
Z194	0.00	76.41	66.41	0.00
Z195	0.00	76.36	66.36	0.00
Z196	0.00	76.34	66.34	0.00
Z197	0.00	76.30	66.30	0.00
Z198	0.00	76.29	66.29	0.00
Z199	0.00	76.45	66.45	0.00
Z200	0.00	76.39	66.39	0.00
Z201	0.00	76.39	66.39	0.00
Z202	0.00	76.51	66.51	0.00
Z203	0.00	76.44	66.44	0.00
Z204	0.00	76.44	66.44	0.00
Z205	0.00	76.56	66.56	0.00
Z206	0.00	76.55	66.55	0.00
Z207	0.00	76.54	66.54	0.00
Z208	0.00	76.67	66.67	0.00
Z209	0.00	76.64	66.64	0.00
Z210	0.00	76.61	66.61	0.00
Z211	0.00	76.80	66.80	0.00
Z212	0.00	77.56	67.56	0.00
Z213	0.00	77.49	67.49	0.00
Z214	0.00	77.48	67.48	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z215	0.00	77.41	67.41	0.00
Z216	0.00	77.37	67.37	0.00
Z217	0.00	77.35	67.35	0.00
Z218	0.00	77.35	67.35	0.00
Z219	0.00	77.55	67.55	0.00
Z220	0.00	78.40	68.40	0.00
Z221	0.00	78.68	68.68	0.00
Z222	0.00	78.62	68.62	0.00
Z223	0.00	78.49	68.49	0.00
Z224	0.00	78.43	68.43	0.00
Z225	0.00	79.20	69.20	0.00
Z226	0.00	79.08	69.08	0.00
Z227	0.00	79.01	69.01	0.00
Z228	0.00	79.00	69.00	0.00
Z229	0.00	78.97	68.97	0.00
Z230	0.00	78.93	68.93	0.00
Z231	0.00	78.93	68.93	0.00
Z232	0.00	79.56	69.56	0.00
Z233	0.00	79.48	69.48	0.00
Z234	0.00	79.36	69.36	0.00
Z235	0.00	79.31	69.31	0.00
Z236	0.00	79.27	69.27	0.00
Z237	0.00	79.26	69.26	0.00
Z238	0.00	79.91	69.91	0.00
Z239	0.00	79.36	69.36	0.00
Z240	0.00	79.11	69.11	0.00
Z241	0.00	78.94	68.94	0.00
Z242	0.00	78.73	68.73	0.00
Z243	0.00	78.63	68.63	0.00
Z244	0.00	78.56	68.56	0.00
Z245	0.00	78.55	68.55	0.00
Z246	0.00	79.89	69.89	0.00
Z247	0.00	79.80	69.80	0.00
Z248	0.00	79.71	69.71	0.00
Z249	0.00	79.68	69.68	0.00
Z250	0.00	79.67	69.67	0.00
Z251	0.00	80.94	70.94	0.00
Z252	0.00	80.92	70.92	0.00
Z253	0.00	80.91	70.91	0.00
Z254	0.00	80.52	70.52	0.00
Z255	0.00	80.41	70.41	0.00
Z256	0.00	80.40	70.40	0.00
Z257	0.00	80.29	70.29	0.00
Z258	0.00	80.27	70.27	0.00
Z259	0.00	80.26	70.26	0.00
Z260	0.00	80.26	70.26	0.00
Z261	0.00	80.48	70.48	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z262	0.00	80.45	70.45	0.00
Z263	0.00	80.16	70.16	0.00
Z264	0.00	80.06	70.06	0.00
Z265	0.00	80.02	70.02	0.00
Z266	0.00	80.09	70.09	0.00
Z267	0.00	79.93	69.93	0.00
Z268	0.00	79.82	69.82	0.00
Z269	0.00	79.80	69.80	0.00
Z270	0.00	79.79	69.79	0.00
Z271	0.00	81.90	71.90	0.00
Z272	0.00	81.85	71.85	0.00
Z273	0.00	81.84	71.84	0.00
Z274	0.00	85.30	75.30	0.00
Z275	0.00	84.99	74.99	0.00
Z276	0.00	84.89	74.89	0.00
Z277	0.00	84.79	74.79	0.00
Z278	0.00	84.77	74.77	0.00
Z279	0.00	84.76	74.76	0.00
Z280	0.00	84.77	74.77	0.00
Z281	0.00	84.89	74.89	0.00
Z282	0.00	84.07	74.07	0.00
Z283	0.00	83.92	73.92	0.00
Z284	0.00	83.48	73.48	0.00
Z285	0.00	83.36	73.36	0.00
Z286	0.00	83.28	73.28	0.00
Z287	0.00	83.24	73.24	0.00
Z288	0.00	83.23	73.23	0.00
Z289	0.00	83.22	73.22	0.00
Z290	0.00	83.51	73.51	0.00
Z291	0.00	83.46	73.46	0.00
Z292	0.00	83.25	73.25	0.00
Z293	0.00	83.06	73.06	0.00
Z294	0.00	82.83	72.83	0.00
Z295	0.00	82.82	72.82	0.00
Z296	0.00	82.81	72.81	0.00
Z297	0.00	82.93	72.93	0.00
Z298	0.00	82.90	72.90	0.00
Z299	0.00	82.89	72.89	0.00
Z300	0.00	84.67	74.67	0.00
Z301	0.00	83.67	73.67	0.00
Z302	0.00	83.46	73.46	0.00
Z303	0.00	83.31	73.31	0.00
Z304	0.00	83.23	73.23	0.00
Z305	0.00	83.13	73.13	0.00
Z306	0.00	83.12	73.12	0.00
Z307	0.00	83.12	73.12	0.00
Z308	0.00	83.08	73.08	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z309	0.00	83.42	73.42	0.00
Z310	0.00	83.38	73.38	0.00
Z311	0.00	83.37	73.37	0.00
Z312	0.00	83.41	73.41	0.00
Z313	0.00	85.41	75.41	0.00
Z314	0.00	85.29	75.29	0.00
Z315	0.00	85.13	75.13	0.00
Z316	0.00	85.12	75.12	0.00
Z317	0.00	85.04	75.04	0.00
Z318	0.00	85.03	75.03	0.00
Z319	0.00	88.67	78.67	0.00
Z320	0.00	88.66	78.66	0.00
Z321	0.00	89.48	79.48	0.00
I1	1.38	88.98	78.98	0.00
I2	1.38	88.65	78.65	0.00
I3	1.38	88.60	78.60	0.00
I4	1.38	88.52	78.52	0.00
I5	1.38	88.44	78.44	0.00
I6	1.38	88.44	78.44	0.00
I7	1.38	88.32	78.32	0.00
I8	1.38	88.21	78.21	0.00
I9	1.38	88.18	78.18	0.00
I10	1.38	88.17	78.17	0.00
I11	1.38	87.76	77.76	0.00
I12	1.38	87.72	77.72	0.00
I13	1.38	87.44	77.44	0.00
I14	1.38	87.44	77.44	0.00
I15	1.38	87.42	77.42	0.00
I23	1.38	88.34	78.34	0.00
I22	1.38	88.34	78.34	0.00
I21	1.38	88.37	78.37	0.00
I20	1.38	88.52	78.52	0.00
I19	1.38	88.73	78.73	0.00
I18	1.38	88.73	78.73	0.00
I17	1.38	88.71	78.71	0.00
I16	1.38	88.70	78.70	0.00
I24	1.38	86.98	76.98	0.00
I25	1.38	86.79	76.79	0.00
I26	1.38	86.76	76.76	0.00
I27	1.38	86.74	76.74	0.00
I28	1.38	86.42	76.42	0.00
I29	1.38	86.26	76.26	0.00
I30	1.38	85.99	75.99	0.00
I31	1.38	85.80	75.80	0.00
I32	1.38	85.80	75.80	0.00
I33	1.38	85.77	75.77	0.00
I34	1.38	85.76	75.76	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I35	1.38	85.71	75.71	0.00
I36	1.38	85.71	75.71	0.00
I37	1.38	85.42	75.42	0.00
I38	1.38	85.42	75.42	0.00
I39	1.38	85.42	75.42	0.00
I40	1.38	85.29	75.29	0.00
I41	1.38	85.29	75.29	0.00
I42	1.38	85.29	75.29	0.00
I43	1.38	83.91	73.91	0.00
I44	1.38	83.91	73.91	0.00
I45	1.38	83.86	73.86	0.00
I46	1.38	83.86	73.86	0.00
I47	1.38	78.36	68.36	0.00
I48	1.38	78.37	68.37	0.00
I49	1.38	78.37	68.37	0.00
I50	1.38	78.61	68.61	0.00
I51	1.38	78.61	68.61	0.00
I52	1.38	78.65	68.65	0.00
I53	1.38	78.65	68.65	0.00
I54	1.38	79.00	69.00	0.00
I55	1.38	79.07	69.07	0.00
I56	1.38	78.98	68.98	0.00
I57	1.38	78.97	68.97	0.00
I58	1.38	78.97	68.97	0.00
I59	1.38	78.91	68.91	0.00
I60	1.38	78.82	68.82	0.00
I61	1.38	78.79	68.79	0.00
I62	1.38	78.79	68.79	0.00
I63	1.38	78.74	68.74	0.00
I64	1.38	78.73	68.73	0.00
I65	1.38	75.88	65.88	0.00
I66	1.38	75.89	65.89	0.00
I67	1.38	75.92	65.92	0.00
I68	1.38	75.93	65.93	0.00
I69	1.38	75.98	65.98	0.00
I70	1.38	76.00	66.00	0.00
I71	1.38	76.02	66.02	0.00
I72	1.38	76.05	66.05	0.00
I73	1.38	76.05	66.05	0.00
I74	1.38	76.05	66.05	0.00
I75	1.38	76.03	66.03	0.00
I76	1.38	76.09	66.09	0.00
I77	1.38	76.08	66.08	0.00
I78	1.38	76.02	66.02	0.00
I79	1.38	76.02	66.02	0.00
I80	1.38	76.27	66.27	0.00
I81	1.38	76.38	66.38	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I82	1.38	76.44	66.44	0.00
I83	1.38	76.37	66.37	0.00
I84	1.38	76.24	66.24	0.00
I85	1.38	76.21	66.21	0.00
I86	1.38	76.14	66.14	0.00
I87	1.38	76.13	66.13	0.00
I88	1.38	76.51	66.51	0.00
I89	1.38	76.84	66.84	0.00
I90	1.38	76.87	66.87	0.00
I91	1.38	76.94	66.94	0.00
I92	1.38	77.08	67.08	0.00
I93	1.38	77.08	67.08	0.00
I94	1.38	77.04	67.04	0.00
I95	1.38	77.03	67.03	0.00
I96	1.38	77.44	67.44	0.00
I97	1.38	77.06	67.06	0.00
I98	1.38	77.06	67.06	0.00
I99	1.38	77.07	67.07	0.00
I100	1.38	77.10	67.10	0.00
I101	1.38	77.16	67.16	0.00
I102	1.38	77.15	67.15	0.00
I103	1.38	77.15	67.15	0.00
I104	1.38	76.07	66.07	0.00
I105	1.38	76.07	66.07	0.00
I106	1.38	76.10	66.10	0.00
I107	1.38	76.14	66.14	0.00
I108	1.38	76.17	66.17	0.00
I109	1.38	76.17	66.17	0.00
I110	1.38	76.17	66.17	0.00
I111	1.38	76.18	66.18	0.00
I112	1.38	76.71	66.71	0.00
I113	1.38	76.67	66.67	0.00
I114	1.38	76.65	66.65	0.00
I115	1.38	76.65	66.65	0.00
I116	1.38	76.65	66.65	0.00
I117	1.38	76.65	66.65	0.00
I118	1.38	75.72	65.72	0.00
I119	1.38	75.73	65.73	0.00
I120	1.38	75.85	65.85	0.00
I121	1.38	75.93	65.93	0.00
I122	1.38	75.93	65.93	0.00
I123	1.38	75.79	65.79	0.00
I124	1.38	75.79	65.79	0.00
I125	1.38	75.78	65.78	0.00
I126	1.38	79.91	69.91	0.00
I127	1.38	79.36	69.36	0.00
I128	1.38	79.10	69.10	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I129	1.38	78.93	68.93	0.00
I130	1.38	78.73	68.73	0.00
I131	1.38	78.63	68.63	0.00
I132	1.38	78.55	68.55	0.00
I133	1.38	78.55	68.55	0.00
I134	1.38	78.55	68.55	0.00
I135	1.38	79.89	69.89	0.00
I136	1.38	79.80	69.80	0.00
I137	1.38	79.71	69.71	0.00
I138	1.38	79.71	69.71	0.00
I139	1.38	79.68	69.68	0.00
I140	1.38	79.67	69.67	0.00
I141	1.38	81.90	71.90	0.00
I142	1.38	81.90	71.90	0.00
I143	1.38	81.85	71.85	0.00
I144	1.38	81.85	71.85	0.00
I145	1.38	81.84	71.84	0.00
I146	1.38	85.30	75.30	0.00
I147	1.38	84.99	74.99	0.00
I148	1.38	84.88	74.88	0.00
I149	1.38	84.79	74.79	0.00
I150	1.38	84.77	74.77	0.00
I151	1.38	84.77	74.77	0.00
I152	1.38	84.76	74.76	0.00
I153	1.38	84.89	74.89	0.00
I154	1.38	84.06	74.06	0.00
I155	1.38	84.06	74.06	0.00
I156	1.38	84.06	74.06	0.00
I157	1.38	83.92	73.92	0.00
I158	1.38	83.47	73.47	0.00
I159	1.38	83.36	73.36	0.00
I160	1.38	83.28	73.28	0.00
I161	1.38	83.24	73.24	0.00
I162	1.38	83.23	73.23	0.00
I163	1.38	83.22	73.22	0.00
I164	1.38	85.88	75.88	0.00
I165	1.38	85.21	75.21	0.00
I166	1.38	85.21	75.21	0.00
I167	1.38	84.90	74.90	0.00
I168	1.38	84.67	74.67	0.00
I169	1.38	84.68	74.68	0.00
I170	1.38	84.68	74.68	0.00
I171	1.38	83.67	73.67	0.00
I172	1.38	83.46	73.46	0.00
I173	1.38	83.46	73.46	0.00
I174	1.38	83.31	73.31	0.00
I175	1.38	83.23	73.23	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I176	1.38	83.13	73.13	0.00
I177	1.38	83.11	73.11	0.00
I178	1.38	83.11	73.11	0.00
I179	1.38	83.08	73.08	0.00
I180	1.38	83.37	73.37	0.00
I181	1.38	83.38	73.38	0.00
I182	1.38	83.38	73.38	0.00
I183	1.38	83.42	73.42	0.00
I184	1.38	83.41	73.41	0.00
I185	1.38	83.61	73.61	0.00
I186	1.38	83.50	73.50	0.00
I187	1.38	83.46	73.46	0.00
I188	1.38	83.25	73.25	0.00
I189	1.38	82.83	72.83	0.00
I190	1.38	82.83	72.83	0.00
I191	1.38	82.82	72.82	0.00
I192	1.38	82.81	72.81	0.00
I193	1.38	83.05	73.05	0.00
I194	1.38	82.93	72.93	0.00
I195	1.38	82.90	72.90	0.00
I196	1.38	82.90	72.90	0.00
I197	1.38	82.89	72.89	0.00
I198	1.38	85.40	75.40	0.00
I199	1.38	85.29	75.29	0.00
I200	1.38	85.12	75.12	0.00
I201	1.38	85.03	75.03	0.00
I202	1.38	85.03	75.03	0.00
I203	1.38	85.03	75.03	0.00
I204	1.38	85.02	75.02	0.00
I205	1.38	89.49	79.49	0.00
I206	1.38	89.49	79.49	0.00
I207	1.38	89.48	79.48	0.00
I208	1.38	88.66	78.66	0.00
I209	1.38	88.66	78.66	0.00
I210	1.38	76.49	66.49	0.00
I211	1.38	76.45	66.45	0.00
I212	1.38	76.45	66.45	0.00
I213	1.38	76.44	66.44	0.00
I214	1.38	76.35	66.35	0.00
I215	1.38	76.22	66.22	0.00
I216	1.38	76.02	66.02	0.00
I217	1.38	75.96	65.96	0.00
I218	1.38	75.95	65.95	0.00
I219	1.38	75.95	65.95	0.00
I220	1.38	76.27	66.27	0.00
I221	1.38	76.29	66.29	0.00
I222	1.38	76.30	66.30	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I223	1.38	76.30	66.30	0.00
I224	1.38	76.47	66.47	0.00
I225	1.38	76.47	66.47	0.00
I226	1.38	76.37	66.37	0.00
I227	1.38	76.37	66.37	0.00
I228	1.38	76.36	66.36	0.00
I229	1.38	76.52	66.52	0.00
I230	1.38	76.50	66.50	0.00
I231	1.38	76.49	66.49	0.00
I232	1.38	76.48	66.48	0.00
I233	1.38	76.47	66.47	0.00
I234	1.38	76.47	66.47	0.00
I235	1.38	76.45	66.45	0.00
I236	1.38	76.46	66.46	0.00
I237	1.38	76.43	66.43	0.00
I238	1.38	76.44	66.44	0.00
I239	1.38	76.39	66.39	0.00
I240	1.38	76.39	66.39	0.00
I241	1.38	76.36	66.36	0.00
I242	1.38	76.36	66.36	0.00
I243	1.38	76.41	66.41	0.00
I244	1.38	76.41	66.41	0.00
I245	1.38	76.41	66.41	0.00
I246	1.38	76.36	66.36	0.00
I247	1.38	76.36	66.36	0.00
I248	1.38	76.34	66.34	0.00
I249	1.38	76.29	66.29	0.00
I250	1.38	76.28	66.28	0.00
I251	1.38	76.44	66.44	0.00
I252	1.38	76.44	66.44	0.00
I253	1.38	76.38	66.38	0.00
I254	1.38	76.39	66.39	0.00
I255	1.38	76.44	66.44	0.00
I256	1.38	76.44	66.44	0.00
I257	1.38	76.48	66.48	0.00
I258	1.38	76.48	66.48	0.00
I259	1.38	76.55	66.55	0.00
I260	1.38	76.55	66.55	0.00
I261	1.38	76.55	66.55	0.00
I262	1.38	76.54	66.54	0.00
I263	1.38	76.54	66.54	0.00
I264	1.38	76.80	66.80	0.00
I265	1.38	76.80	66.80	0.00
I266	1.38	76.67	66.67	0.00
I267	1.38	76.67	66.67	0.00
I268	1.38	76.64	66.64	0.00
I269	1.38	76.61	66.61	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I270	1.38	77.55	67.55	0.00
I271	1.38	77.56	67.56	0.00
I272	1.38	77.56	67.56	0.00
I273	1.38	77.49	67.49	0.00
I274	1.38	77.49	67.49	0.00
I275	1.38	77.48	67.48	0.00
I276	1.38	77.40	67.40	0.00
I277	1.38	77.36	67.36	0.00
I278	1.38	77.35	67.35	0.00
I279	1.38	77.35	67.35	0.00
I280	1.38	78.40	68.40	0.00
I281	1.38	78.43	68.43	0.00
I282	1.38	78.43	68.43	0.00
I283	1.38	78.49	68.49	0.00
I284	1.38	78.62	68.62	0.00
I285	1.38	78.67	68.67	0.00
I286	1.38	79.20	69.20	0.00
I287	1.38	79.20	69.20	0.00
I288	1.38	79.01	69.01	0.00
I289	1.38	79.01	69.01	0.00
I290	1.38	79.00	69.00	0.00
I291	1.38	79.08	69.08	0.00
I292	1.38	79.08	69.08	0.00
I293	1.38	79.08	69.08	0.00
I294	1.38	78.97	68.97	0.00
I295	1.38	78.93	68.93	0.00
I296	1.38	78.93	68.93	0.00
I297	1.38	79.56	69.56	0.00
I298	1.38	79.48	69.48	0.00
I299	1.38	79.48	69.48	0.00
I300	1.38	79.36	69.36	0.00
I301	1.38	79.31	69.31	0.00
I302	1.38	79.27	69.27	0.00
I303	1.38	79.26	69.26	0.00
I304	1.38	80.02	70.02	0.00
I305	1.38	80.02	70.02	0.00
I306	1.38	80.05	70.05	0.00
I307	1.38	80.16	70.16	0.00
I308	1.38	80.09	70.09	0.00
I309	1.38	79.93	69.93	0.00
I310	1.38	79.82	69.82	0.00
I311	1.38	79.80	69.80	0.00
I312	1.38	79.79	69.79	0.00
I313	1.38	80.25	70.25	0.00
I314	1.38	80.26	70.26	0.00
I315	1.38	80.27	70.27	0.00
I316	1.38	80.29	70.29	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I317	1.38	80.40	70.40	0.00
I318	1.38	80.51	70.51	0.00
I319	1.38	80.48	70.48	0.00
I320	1.38	80.44	70.44	0.00
I321	1.38	80.44	70.44	0.00
I322	1.38	80.91	70.91	0.00
I323	1.38	80.92	70.92	0.00
I324	1.38	80.93	70.93	0.00
I325	1.38	80.93	70.93	0.00
I326	1.38	80.93	70.93	0.00
S1	-450.00	10.00	0.00	0.00 Reservoir

Link Results:

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R1	190.86	0.97	1.81	Open
R2	259.14	1.32	7.27	Open
R3	170.16	0.87	1.27	Open
R4	159.11	1.27	3.46	Open
R5	143.93	1.15	2.85	Open
R6	132.89	1.73	6.67	Open
R7	127.36	1.66	6.17	Open
R8	102.52	1.33	4.12	Open
R9	58.35	0.76	1.46	Open
R10	48.68	0.63	1.05	Open
R11	33.50	0.44	0.53	Open
R12	29.36	0.38	0.42	Open
R13	18.32	0.24	0.18	Open
R14	4.51	0.06	0.01	Open
R15	-7.91	0.10	0.04	Open
R16	-9.29	0.12	0.05	Open
R17	-29.43	0.38	0.42	Open
R18	-64.51	0.84	1.76	Open
R19	-78.31	1.02	2.51	Open
R20	-79.69	1.04	2.59	Open
R21	-86.59	1.13	3.02	Open
R22	-101.78	0.81	1.46	Open
R23	-111.44	0.89	1.74	Open
R24	-132.15	1.05	2.42	Open
R25	-163.89	1.30	3.67	Open
R26	-170.80	1.36	3.97	Open
R27	-195.64	1.56	5.17	Open
R28	-252.24	1.28	2.71	Open
R29	-255.00	1.30	2.77	Open
R30	20.13	0.33	0.87	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R31	15.99	0.26	0.25	Open
R32	11.85	0.20	0.15	Open
R33	10.47	0.17	0.12	Open
R34	7.71	0.13	0.07	Open
R35	2.19	0.04	0.01	Open
R36	-0.57	0.01	0.00	Open
R39	-26.80	0.44	0.63	Open
R40	-32.32	0.53	1.17	Open
R41	44.17	0.57	1.17	Open
R42	42.79	0.56	0.83	Open
R43	37.27	0.62	1.15	Open
R44	35.89	0.59	1.07	Open
R45	34.51	0.57	1.00	Open
R46	33.13	0.55	0.93	Open
R47	31.75	0.83	3.10	Open
R48	24.85	0.65	1.65	Open
R49	20.71	0.68	3.77	Open
R50	19.33	0.63	1.82	Open
R51	12.42	0.41	0.82	Open
R52	450.00	2.29	8.39	Open
R53	15.18	0.50	1.46	Open
R54	13.80	0.45	0.99	Open
R55	33.13	0.55	1.09	Open
R56	31.75	0.52	0.86	Open
R57	23.47	0.39	0.50	Open
R58	22.09	0.36	0.45	Open
R59	20.71	0.34	0.40	Open
R60	16.56	0.54	2.00	Open
R61	12.42	0.41	0.82	Open
R62	20.71	0.68	2.19	Open
R63	56.60	1.85	21.51	Open
R64	45.55	1.49	8.75	Open
R65	20.71	0.68	3.58	Open
R66	17.94	0.59	1.59	Open
R67	16.56	0.54	1.37	Open
R68	24.85	0.81	2.87	Open
R69	16.56	0.54	1.37	Open
R71	6.90	0.44	2.35	Open
R72	5.52	0.35	0.96	Open
R73	4.14	0.27	0.58	Open
R74	2.76	0.18	0.28	Open
R75	12.42	0.80	6.88	Open
R76	4.14	0.27	0.61	Open
R77	2.76	0.18	0.28	Open
R78	1.38	0.09	0.08	Open
R79	6.90	0.44	1.44	Open
R80	5.52	0.35	0.96	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R81	4.14	0.27		0.58	Open
R82	1.38	0.09		0.08	Open
R83	11.04	0.71		4.98	Open
R84	5.52	0.35		0.96	Open
R85	4.14	0.27		0.58	Open
R86	2.76	0.18		0.28	Open
R87	1.38	0.09		0.08	Open
R88	2.76	0.18		0.33	Open
R89	1.38	0.09		0.08	Open
R90	9.66	0.62		2.86	Open
R91	8.28	0.53		1.99	Open
R92	6.90	0.44		1.44	Open
R93	5.52	0.35		0.96	Open
R94	2.76	0.18		0.28	Open
R95	1.38	0.09		0.08	Open
R96	4.14	0.27		0.63	Open
R97	2.76	0.18		0.28	Open
R98	1.38	0.09		0.08	Open
R99	11.04	0.71		4.92	Open
R100	8.28	0.53		1.99	Open
R101	4.14	0.27		0.58	Open
R102	5.52	0.35		1.49	Open
R103	2.76	0.18		0.28	Open
R104	1.38	0.09		0.08	Open
R105	1.38	0.09		0.09	Open
R106	24.85	0.65		2.99	Open
R107	11.04	0.36		0.66	Open
R108	9.66	0.62		2.63	Open
R109	2.76	0.18		0.28	Open
R110	1.38	0.09		0.08	Open
R111	4.14	0.27		0.59	Open
R112	1.38	0.09		0.08	Open
R113	12.42	0.41		1.14	Open
R114	8.28	0.53		1.99	Open
R115	6.90	0.44		1.44	Open
R116	5.52	0.35		0.96	Open
R117	2.76	0.18		0.28	Open
R118	1.38	0.09		0.08	Open
R119	4.14	0.27		0.74	Open
R120	2.76	0.18		0.28	Open
R121	1.38	0.09		0.08	Open
R122	5.52	0.35		1.02	Open
R123	2.76	0.18		0.28	Open
R124	1.38	0.09		0.08	Open
R125	-1.38	0.09		0.08	Open
R126	-2.76	0.18		0.28	Open
R127	-4.14	0.27		0.58	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R128	-5.52	0.35		0.96	Open
R129	6.90	0.44		1.97	Open
R130	4.14	0.27		0.81	Open
R131	2.76	0.18		0.28	Open
R132	16.56	0.27		0.60	Open
R133	15.18	0.25		0.23	Open
R134	4.14	0.27		0.76	Open
R135	1.38	0.09		0.08	Open
R136	11.04	0.29		0.38	Open
R137	9.66	0.25		0.30	Open
R138	8.28	0.22		0.23	Open
R139	6.90	0.18		0.17	Open
R140	5.52	0.14		0.11	Open
R141	4.14	0.11		0.07	Open
R142	2.76	0.18		0.28	Open
R143	1.38	0.09		0.08	Open
R144	9.66	0.62		4.53	Open
R145	2.76	0.18		0.37	Open
R146	1.38	0.09		0.08	Open
R147	5.52	0.35		0.96	Open
R148	4.14	0.27		0.58	Open
R149	2.76	0.18		0.28	Open
R150	1.38	0.09		0.08	Open
R151	-15.18	0.97		9.91	Open
R152	2.76	0.18		0.44	Open
R153	2.76	0.18		0.28	Open
R154	1.38	0.09		0.08	Open
R155	11.04	0.71		3.36	Open
R156	2.76	0.18		0.28	Open
R157	1.38	0.09		0.08	Open
R158	8.28	0.53		3.72	Open
R159	5.52	0.35		0.96	Open
R160	4.14	0.27		0.58	Open
R161	2.76	0.18		0.28	Open
R162	4.14	0.27		0.85	Open
R163	11.04	0.71		3.60	Open
R164	4.14	0.27		0.63	Open
R165	2.76	0.18		0.28	Open
R166	1.38	0.09		0.08	Open
R167	4.14	0.27		0.58	Open
R168	1.38	0.09		0.08	Open
R169	13.80	0.45		2.35	Open
R170	12.42	0.41		0.82	Open
R171	1.38	0.09		0.09	Open
R172	8.28	0.27		0.39	Open
R173	6.90	0.44		1.44	Open
R174	5.52	0.35		0.96	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R175	4.14	0.27		0.58	Open
R176	2.76	0.18		0.28	Open
R177	12.42	0.41		1.38	Open
R178	2.76	0.18		0.41	Open
R179	1.38	0.09		0.08	Open
R180	4.14	0.27		0.61	Open
R181	1.38	0.09		0.08	Open
R182	5.52	0.35		0.96	Open
R183	2.76	0.18		0.28	Open
R184	1.38	0.09		0.08	Open
R185	1.38	0.09		0.12	Open
R186	4.14	0.27		0.93	Open
R187	2.76	0.18		0.28	Open
R188	1.38	0.09		0.08	Open
R189	4.14	0.27		0.95	Open
R190	1.38	0.09		0.08	Open
R191	2.76	0.18		0.45	Open
R192	1.38	0.09		0.08	Open
R193	5.52	0.35		1.58	Open
R194	2.76	0.18		0.28	Open
R195	8.28	0.22		0.42	Open
R196	6.90	0.18		0.17	Open
R197	4.14	0.11		0.07	Open
R198	2.76	0.18		0.28	Open
R199	1.38	0.09		0.08	Open
R200	5.52	0.35		1.51	Open
R201	2.76	0.18		0.28	Open
R202	1.38	0.09		0.08	Open
R203	-17.14	0.28		0.28	Open
R204	-19.90	0.33		0.37	Open
R205	2.76	0.18		0.29	Open
R206	1.38	0.09		0.08	Open
R207	6.90	0.44		2.44	Open
R208	2.76	0.18		0.28	Open
R209	1.38	0.09		0.08	Open
R210	5.52	0.35		1.61	Open
R211	2.76	0.18		0.28	Open
R212	1.38	0.09		0.08	Open
R213	2.76	0.18		0.41	Open
R214	13.80	0.45		2.14	Open
R215	1.38	0.09		0.09	Open
R216	9.66	0.32		0.52	Open
R217	6.90	0.23		0.28	Open
R218	5.52	0.18		0.19	Open
R219	4.14	0.27		0.58	Open
R220	2.76	0.18		0.28	Open
R221	1.38	0.09		0.08	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R222	1.38	0.09		0.12	Open
R223	6.90	0.44		2.42	Open
R224	5.52	0.35		0.96	Open
R225	4.14	0.27		0.58	Open
R226	2.76	0.18		0.28	Open
R227	15.18	0.50		2.14	Open
R228	12.42	0.41		0.82	Open
R229	4.14	0.27		0.58	Open
R230	2.76	0.18		0.28	Open
R231	1.38	0.09		0.08	Open
R232	4.14	0.27		0.63	Open
R233	1.38	0.09		0.08	Open
R234	9.66	0.62		3.99	Open
R235	8.28	0.53		1.99	Open
R236	5.52	0.35		0.96	Open
R237	4.14	0.27		0.58	Open
R238	2.76	0.18		0.28	Open
R239	1.38	0.09		0.08	Open
R240	12.42	0.80		7.85	Open
R241	11.04	0.71		3.36	Open
R242	9.66	0.62		2.63	Open
R243	8.28	0.53		1.99	Open
R244	6.90	0.44		1.44	Open
R245	5.52	0.35		0.96	Open
R246	4.14	0.27		0.58	Open
R247	1.38	0.09		0.08	Open
R248	8.28	0.53		2.44	Open
R249	6.90	0.44		1.44	Open
R250	5.52	0.35		0.96	Open
R251	2.76	0.18		0.28	Open
R252	1.38	0.09		0.08	Open
R253	6.90	0.44		2.28	Open
R254	2.76	0.18		0.28	Open
R255	1.38	0.09		0.08	Open
R256	8.28	0.53		3.13	Open
R257	6.90	0.44		1.44	Open
R258	1.38	0.09		0.08	Open
R259	5.52	0.35		1.07	Open
R260	4.14	0.27		0.58	Open
R261	2.76	0.18		0.28	Open
R262	1.38	0.09		0.08	Open
R263	4.14	0.27		0.88	Open
R264	2.76	0.18		0.28	Open
R265	5.52	0.35		1.49	Open
R266	4.14	0.27		0.58	Open
R267	2.76	0.18		0.28	Open
R268	6.90	0.44		1.75	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R269	5.52	0.35		0.96	Open
R270	4.14	0.27		0.58	Open
R271	2.76	0.18		0.28	Open
R272	1.38	0.09		0.08	Open
R273	6.90	0.44		2.16	Open
R274	4.14	0.27		0.58	Open
R275	1.38	0.09		0.08	Open
R276	24.85	1.59		28.48	Open
R277	8.28	0.53		2.17	Open
R278	6.90	0.44		1.44	Open
R279	5.52	0.35		0.96	Open
R280	1.38	0.09		0.09	Open
R281	2.76	0.18		0.28	Open
R282	1.38	0.09		0.08	Open
R283	15.18	0.50		1.17	Open
R284	13.80	0.88		5.04	Open
R285	9.66	0.62		2.63	Open
R286	8.28	0.53		1.99	Open
R287	6.90	0.44		1.44	Open
R288	5.52	0.35		0.96	Open
R289	4.14	0.27		0.58	Open
R290	2.76	0.18		0.28	Open
R291	1.38	0.09		0.08	Open
R292	1.38	0.09		0.09	Open
R293	15.18	0.50		2.21	Open
R294	13.80	0.45		0.99	Open
R295	12.42	0.41		0.82	Open
R296	5.52	0.35		1.01	Open
R297	2.76	0.18		0.28	Open
R298	1.38	0.09		0.08	Open
R299	5.52	0.35		0.96	Open
R300	4.14	0.27		0.58	Open
R301	1.38	0.09		0.08	Open
R302	1.38	0.09		0.09	Open
R303	12.42	0.80		4.41	Open
R304	11.04	0.71		3.36	Open
R305	8.28	0.53		1.99	Open
R306	6.90	0.44		1.44	Open
R307	5.52	0.35		0.96	Open
R308	1.38	0.09		0.09	Open
R309	2.76	0.18		0.28	Open
R310	1.38	0.09		0.08	Open
R311	6.90	0.44		1.58	Open
R312	1.38	0.09		0.09	Open
R313	4.14	0.27		0.58	Open
R314	1.38	0.09		0.08	Open
R315	9.66	0.62		2.84	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R316	8.28	0.53		1.99	Open
R317	6.90	0.44		1.44	Open
R318	1.38	0.09		0.09	Open
R319	5.52	0.35		0.96	Open
R320	1.38	0.09		0.08	Open
R321	2.76	0.18		0.45	Open
R322	1.38	0.09		0.08	Open
R323	1.38	0.09		0.09	Open
R326	1.38	0.19		0.50	Open
R327	1.38	0.19		0.50	Open
R328	1.38	0.19		0.50	Open
R329	1.38	0.19		0.50	Open
R330	1.38	0.19		0.50	Open
R331	1.38	0.19		0.50	Open
R332	1.38	0.19		0.50	Open
R333	1.38	0.19		0.50	Open
R334	1.38	0.19		0.50	Open
R335	1.38	0.19		0.50	Open
R336	1.38	0.19		0.50	Open
R337	1.38	0.19		0.50	Open
R338	1.38	0.19		0.50	Open
R339	1.38	0.19		0.50	Open
R340	1.38	0.19		0.50	Open
R341	1.38	0.19		0.50	Open
R342	1.38	0.19		0.50	Open
R343	1.38	0.19		0.50	Open
R344	1.38	0.19		0.50	Open
R345	1.38	0.19		0.50	Open
R346	1.38	0.19		0.50	Open
R347	1.38	0.19		0.50	Open
R348	1.38	0.19		0.50	Open
R349	1.38	0.19		0.50	Open
R350	1.38	0.19		0.50	Open
R351	1.38	0.19		0.50	Open
R352	1.38	0.19		0.50	Open
R353	1.38	0.19		0.50	Open
R354	1.38	0.19		0.50	Open
R355	1.38	0.19		0.50	Open
R356	1.38	0.19		0.50	Open
R357	1.38	0.19		0.50	Open
R358	1.38	0.19		0.50	Open
R359	1.38	0.19		0.50	Open
R360	1.38	0.19		0.50	Open
R361	1.38	0.19		0.50	Open
R362	1.38	0.19		0.50	Open
R363	1.38	0.19		0.50	Open
R364	1.38	0.19		0.50	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R365	1.38	0.19	0.50	Open	
R366	1.38	0.19	0.50	Open	
R367	1.38	0.19	0.50	Open	
R368	1.38	0.19	0.50	Open	
R369	1.38	0.19	0.50	Open	
R370	1.38	0.19	0.50	Open	
R371	1.38	0.19	0.50	Open	
R372	1.38	0.19	0.50	Open	
R373	1.38	0.19	0.50	Open	
R374	1.38	0.19	0.50	Open	
R375	1.38	0.19	0.50	Open	
R376	1.38	0.19	0.50	Open	
R377	1.38	0.19	0.50	Open	
R378	1.38	0.19	0.50	Open	
R379	1.38	0.19	0.50	Open	
R380	1.38	0.19	0.50	Open	
R381	1.38	0.19	0.50	Open	
R382	1.38	0.19	0.50	Open	
R383	1.38	0.19	0.50	Open	
R384	1.38	0.19	0.50	Open	
R385	1.38	0.19	0.50	Open	
R386	1.38	0.19	0.50	Open	
R387	1.38	0.19	0.50	Open	
R388	1.38	0.19	0.50	Open	
R389	1.38	0.19	0.50	Open	
R390	1.38	0.19	0.50	Open	
R391	1.38	0.19	0.50	Open	
R392	1.38	0.19	0.50	Open	
R393	1.38	0.19	0.50	Open	
R394	1.38	0.19	0.50	Open	
R395	1.38	0.19	0.50	Open	
R396	1.38	0.19	0.50	Open	
R397	1.38	0.19	0.50	Open	
R398	1.38	0.19	0.50	Open	
R399	1.38	0.19	0.50	Open	
R400	1.38	0.19	0.50	Open	
R401	1.38	0.19	0.50	Open	
R402	1.38	0.19	0.50	Open	
R403	1.38	0.19	0.50	Open	
R404	1.38	0.19	0.50	Open	
R405	1.38	0.19	0.50	Open	
R406	1.38	0.19	0.50	Open	
R407	1.38	0.19	0.50	Open	
R408	1.38	0.19	0.50	Open	
R409	1.38	0.19	0.50	Open	
R410	1.38	0.19	0.50	Open	
R411	1.38	0.19	0.50	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R412	1.38	0.19	0.50	Open	
R413	1.38	0.19	0.50	Open	
R414	1.38	0.19	0.50	Open	
R415	1.38	0.19	0.50	Open	
R416	1.38	0.19	0.50	Open	
R417	1.38	0.19	0.50	Open	
R418	1.38	0.19	0.50	Open	
R419	1.38	0.19	0.50	Open	
R420	1.38	0.19	0.50	Open	
R421	1.38	0.19	0.50	Open	
R422	1.38	0.19	0.50	Open	
R423	1.38	0.19	0.50	Open	
R424	1.38	0.19	0.50	Open	
R425	1.38	0.19	0.50	Open	
R426	1.38	0.19	0.50	Open	
R427	1.38	0.19	0.50	Open	
R428	1.38	0.19	0.50	Open	
R429	1.38	0.19	0.50	Open	
R430	1.38	0.19	0.50	Open	
R431	1.38	0.19	0.50	Open	
R432	1.38	0.19	0.50	Open	
R433	1.38	0.19	0.50	Open	
R434	1.38	0.19	0.50	Open	
R435	1.38	0.19	0.50	Open	
R436	1.38	0.19	0.50	Open	
R437	1.38	0.19	0.50	Open	
R438	1.38	0.19	0.50	Open	
R439	1.38	0.19	0.50	Open	
R440	1.38	0.19	0.50	Open	
R441	1.38	0.19	0.50	Open	
R442	1.38	0.19	0.50	Open	
R443	1.38	0.19	0.50	Open	
R444	1.38	0.19	0.50	Open	
R445	1.38	0.19	0.50	Open	
R446	1.38	0.19	0.50	Open	
R447	1.38	0.19	0.50	Open	
R448	1.38	0.19	0.50	Open	
R449	1.38	0.19	0.50	Open	
R450	1.38	0.19	0.50	Open	
R451	1.38	0.19	0.50	Open	
R452	1.38	0.19	0.50	Open	
R453	1.38	0.19	0.50	Open	
R454	1.38	0.19	0.50	Open	
R455	1.38	0.19	0.50	Open	
R456	1.38	0.19	0.50	Open	
R457	1.38	0.19	0.50	Open	
R458	1.38	0.19	0.50	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R459	1.38	0.19	0.50	Open	
R460	1.38	0.19	0.50	Open	
R461	1.38	0.19	0.50	Open	
R462	1.38	0.19	0.50	Open	
R463	1.38	0.19	0.50	Open	
R464	1.38	0.19	0.50	Open	
R465	1.38	0.19	0.50	Open	
R466	1.38	0.19	0.50	Open	
R467	1.38	0.19	0.50	Open	
R468	1.38	0.19	0.50	Open	
R469	1.38	0.19	0.50	Open	
R470	1.38	0.19	0.50	Open	
R471	1.38	0.19	0.50	Open	
R472	1.38	0.19	0.50	Open	
R473	1.38	0.19	0.50	Open	
R474	1.38	0.19	0.50	Open	
R475	1.38	0.19	0.50	Open	
R476	1.38	0.19	0.50	Open	
R477	1.38	0.19	0.50	Open	
R478	1.38	0.19	0.50	Open	
R479	1.38	0.19	0.50	Open	
R480	1.38	0.19	0.50	Open	
R481	1.38	0.19	0.50	Open	
R482	1.38	0.19	0.50	Open	
R483	1.38	0.19	0.50	Open	
R484	1.38	0.19	0.50	Open	
R485	1.38	0.19	0.50	Open	
R486	1.38	0.19	0.50	Open	
R487	1.38	0.19	0.50	Open	
R488	1.38	0.19	0.50	Open	
R489	1.38	0.19	0.50	Open	
R490	1.38	0.19	0.50	Open	
R491	1.38	0.19	0.50	Open	
R492	1.38	0.19	0.50	Open	
R493	1.38	0.19	0.50	Open	
R494	1.38	0.19	0.50	Open	
R495	1.38	0.19	0.50	Open	
R496	1.38	0.19	0.50	Open	
R497	1.38	0.19	0.50	Open	
R498	1.38	0.19	0.50	Open	
R499	1.38	0.19	0.50	Open	
R500	1.38	0.19	0.50	Open	
R501	1.38	0.19	0.50	Open	
R502	1.38	0.19	0.50	Open	
R503	1.38	0.19	0.50	Open	
R504	1.38	0.19	0.50	Open	
R505	1.38	0.19	0.50	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R506	1.38	0.19	0.50	Open	
R507	1.38	0.19	0.50	Open	
R508	1.38	0.19	0.50	Open	
R509	1.38	0.19	0.50	Open	
R510	1.38	0.19	0.50	Open	
R511	1.38	0.19	0.50	Open	
R512	1.38	0.19	0.50	Open	
R513	1.38	0.19	0.50	Open	
R514	1.38	0.19	0.50	Open	
R515	1.38	0.19	0.50	Open	
R516	1.38	0.19	0.50	Open	
R517	1.38	0.19	0.50	Open	
R518	1.38	0.19	0.50	Open	
R519	1.38	0.19	0.50	Open	
R520	1.38	0.19	0.50	Open	
R521	1.38	0.19	0.50	Open	
R522	1.38	0.19	0.50	Open	
R523	1.38	0.19	0.50	Open	
R524	1.38	0.19	0.50	Open	
R525	1.38	0.19	0.50	Open	
R526	1.38	0.19	0.50	Open	
R527	1.38	0.19	0.50	Open	
R528	1.38	0.19	0.50	Open	
R529	1.38	0.19	0.50	Open	
R530	1.38	0.19	0.50	Open	
R531	1.38	0.19	0.50	Open	
R532	1.38	0.19	0.50	Open	
R533	1.38	0.19	0.50	Open	
R534	1.38	0.19	0.50	Open	
R535	1.38	0.19	0.50	Open	
R536	1.38	0.19	0.50	Open	
R537	1.38	0.19	0.50	Open	
R538	1.38	0.19	0.50	Open	
R539	1.38	0.19	0.50	Open	
R540	1.38	0.19	0.50	Open	
R541	1.38	0.19	0.50	Open	
R542	1.38	0.19	0.50	Open	
R543	1.38	0.19	0.50	Open	
R544	1.38	0.19	0.50	Open	
R545	1.38	0.19	0.50	Open	
R546	1.38	0.19	0.50	Open	
R547	1.38	0.19	0.50	Open	
R548	1.38	0.19	0.50	Open	
R549	1.38	0.19	0.50	Open	
R550	1.38	0.19	0.50	Open	
R551	1.38	0.19	0.50	Open	
R552	1.38	0.19	0.50	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R553	1.38	0.19	0.50	Open	
R554	1.38	0.19	0.50	Open	
R555	1.38	0.19	0.50	Open	
R556	1.38	0.19	0.50	Open	
R557	1.38	0.19	0.50	Open	
R558	1.38	0.19	0.50	Open	
R559	1.38	0.19	0.50	Open	
R560	1.38	0.19	0.50	Open	
R561	1.38	0.19	0.50	Open	
R562	1.38	0.19	0.50	Open	
R563	1.38	0.19	0.50	Open	
R566	1.38	0.19	0.50	Open	
R567	1.38	0.19	0.50	Open	
R568	1.38	0.19	0.50	Open	
R569	1.38	0.19	0.50	Open	
R570	1.38	0.19	0.50	Open	
R571	1.38	0.19	0.50	Open	
R572	1.38	0.19	0.50	Open	
R573	1.38	0.19	0.50	Open	
R574	1.38	0.19	0.50	Open	
R575	1.38	0.19	0.50	Open	
R576	1.38	0.19	0.50	Open	
R577	1.38	0.19	0.50	Open	
R578	1.38	0.19	0.50	Open	
R579	1.38	0.19	0.50	Open	
R580	1.38	0.19	0.50	Open	
R581	1.38	0.19	0.50	Open	
R582	1.38	0.19	0.50	Open	
R583	1.38	0.19	0.50	Open	
R584	1.38	0.19	0.50	Open	
R585	1.38	0.19	0.50	Open	
R586	1.38	0.19	0.50	Open	
R587	1.38	0.19	0.50	Open	
R588	1.38	0.19	0.50	Open	
R589	1.38	0.19	0.50	Open	
R590	1.38	0.19	0.50	Open	
R591	1.38	0.19	0.50	Open	
R592	1.38	0.19	0.50	Open	
R593	1.38	0.19	0.50	Open	
R594	1.38	0.19	0.50	Open	
R595	1.38	0.19	0.50	Open	
R596	1.38	0.19	0.50	Open	
R597	1.38	0.19	0.50	Open	
R598	1.38	0.19	0.50	Open	
R599	1.38	0.19	0.50	Open	
R600	1.38	0.19	0.50	Open	
R601	1.38	0.19	0.50	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R602	1.38	0.19	0.50	Open	
R603	1.38	0.19	0.50	Open	
R604	1.38	0.19	0.50	Open	
R605	1.38	0.19	0.50	Open	
R606	1.38	0.19	0.50	Open	
R607	1.38	0.19	0.50	Open	
R608	1.38	0.19	0.50	Open	
R609	1.38	0.19	0.50	Open	
R610	1.38	0.19	0.50	Open	
R611	1.38	0.19	0.50	Open	
R612	1.38	0.19	0.50	Open	
R613	1.38	0.19	0.50	Open	
R614	1.38	0.19	0.50	Open	
R615	1.38	0.19	0.50	Open	
R616	1.38	0.19	0.50	Open	
R617	1.38	0.19	0.50	Open	
R618	1.38	0.19	0.50	Open	
R619	1.38	0.19	0.50	Open	
R620	1.38	0.19	0.50	Open	
R621	1.38	0.19	0.50	Open	
R622	1.38	0.19	0.50	Open	
R623	1.38	0.19	0.50	Open	
R624	1.38	0.19	0.50	Open	
R625	1.38	0.19	0.50	Open	
R626	1.38	0.19	0.50	Open	
R627	1.38	0.19	0.50	Open	
R628	1.38	0.19	0.50	Open	
R629	1.38	0.19	0.50	Open	
R630	1.38	0.19	0.50	Open	
R631	1.38	0.19	0.50	Open	
R632	1.38	0.19	0.50	Open	
R633	1.38	0.19	0.50	Open	
R634	1.38	0.19	0.50	Open	
R635	1.38	0.19	0.50	Open	
R636	1.38	0.19	0.50	Open	
R637	1.38	0.19	0.50	Open	
R638	1.38	0.19	0.50	Open	
R639	1.38	0.19	0.50	Open	
R640	1.38	0.19	0.50	Open	
R641	1.38	0.19	0.50	Open	
R642	1.38	0.19	0.50	Open	
R643	1.38	0.19	0.50	Open	
R644	1.38	0.19	0.50	Open	
R645	1.38	0.19	0.50	Open	
R646	1.38	0.19	0.50	Open	
R647	1.38	0.19	0.50	Open	
R648	1.38	0.19	0.50	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R649	1.38	0.19		0.50	Open
R650	1.38	0.19		0.50	Open
R651	1.38	0.19		0.50	Open
R652	1.38	0.19		0.50	Open
R653	1.38	0.19		0.50	Open
R37	8.85	0.15		0.09	Open
P1	0.00	0.00		0.00	Closed Pump
P2	150.00	0.00		-80.00	Open Pump
P3	150.00	0.00		-80.00	Open Pump
P4	150.00	0.00		-80.00	Open Pump

1.4 IPOTESI DI FUNZIONAMENTO B

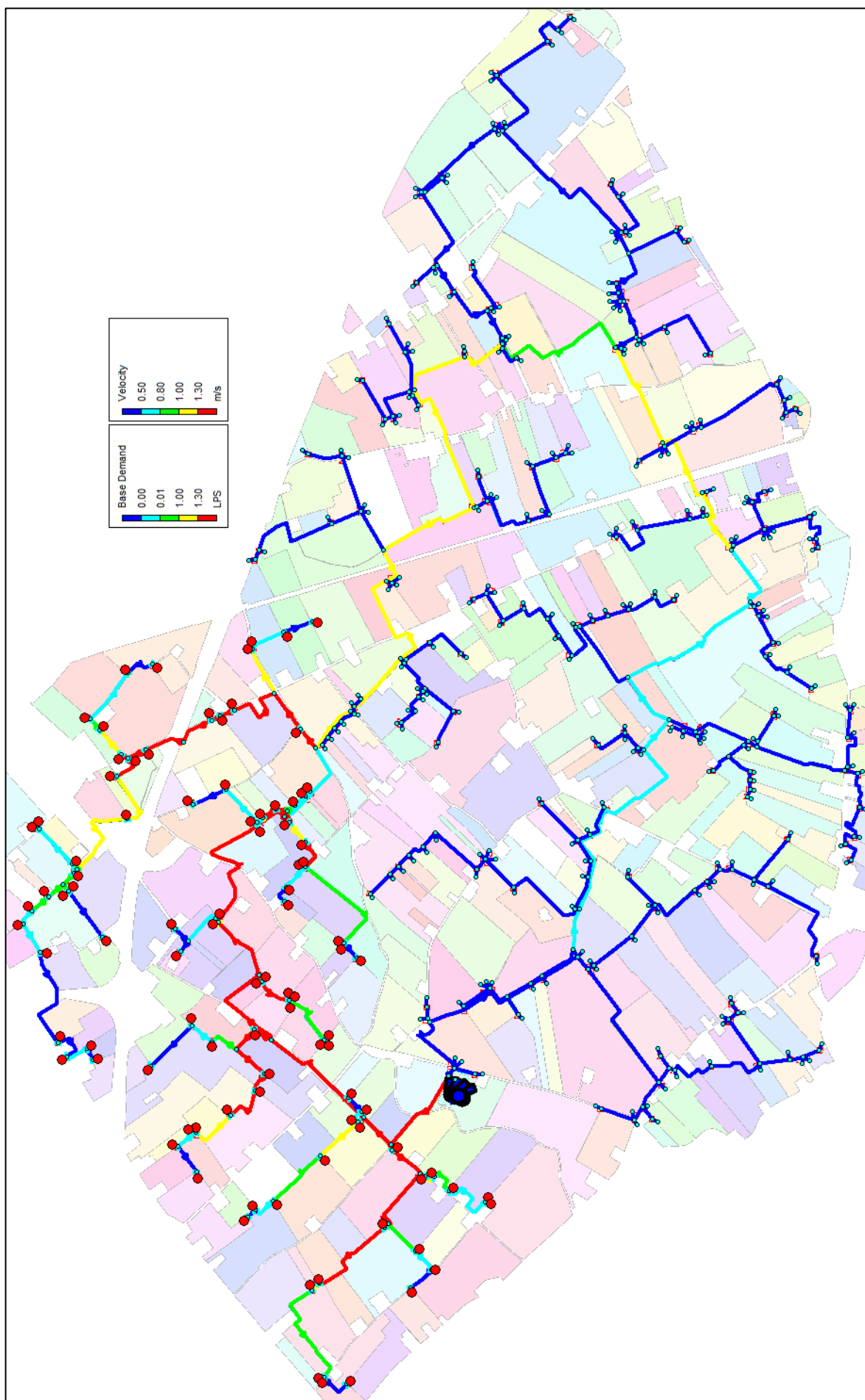


Figura 6 – Risultati della simulazione : base demand nei nodi e velocità nei rami

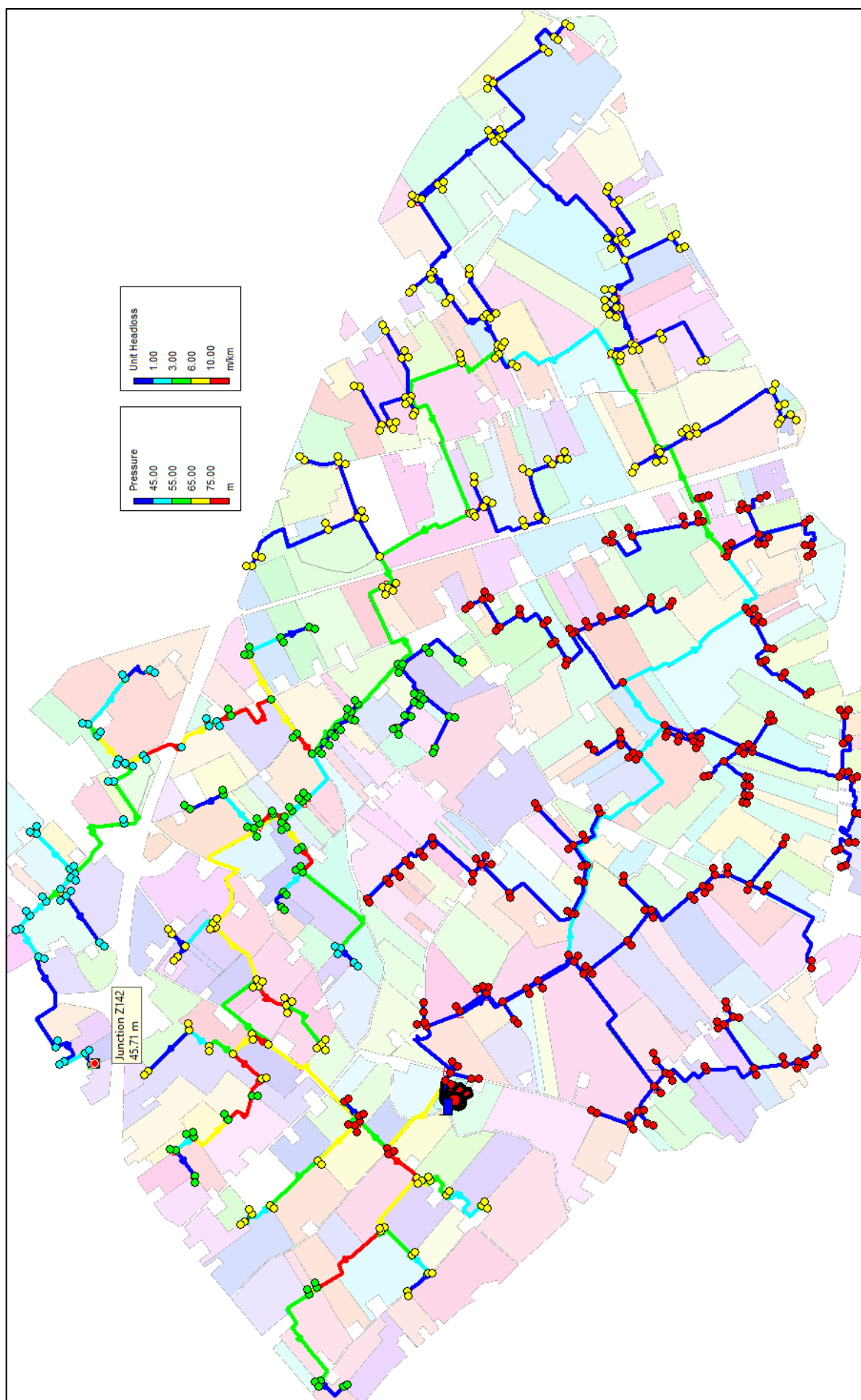


Figura 7 – Risultati della simulazione : pressione nei nodi e perdite di carico nei rami

RISULTATI SIMULAZIONE BONCELLINO IPOTESI FUNZIONAMENTO B

Link - Node Table:

Link ID	Start Node	End Node	Length m	Diameter mm
R1	Z1	Z4	376.99	500
R2	Z1	Z3	36.23	500
R3	Z4	Z30	158.87	500
R4	Z30	Z29	511.94	400
R5	Z29	Z28	434.27	400
R6	Z28	Z27	287.35	312.8
R7	Z27	Z26	776.86	312.8
R8	Z26	Z25	386.60	312.8
R9	Z25	Z24	215.34	312.8
R10	Z24	Z23	301.23	312.8
R11	Z23	Z22	483.92	312.8
R12	Z22	Z21	165.41	312.8
R13	Z21	Z20	432.52	312.8
R14	Z20	Z19	589.94	312.8
R15	Z19	Z18	288.16	312.8
R16	Z18	Z17	195.48	312.8
R17	Z17	Z16	639.32	312.8
R18	Z16	Z15	449.15	312.8
R19	Z15	Z14	322.70	312.8
R20	Z14	Z13	121.51	312.8
R21	Z13	Z12	176.09	312.8
R22	Z12	Z11	283.53	400
R23	Z11	Z10	623.06	400
R24	Z10	Z9	252.99	400
R25	Z9	Z8	161.10	400
R26	Z8	Z7	965.02	400
R27	Z7	Z6	174.34	400
R28	Z6	Z2	733.02	500
R29	Z2	Z3	295.18	500
R30	Z17	Z31	20.64	277.6
R31	Z31	Z32	131.11	277.6
R32	Z32	Z33	193.47	277.6
R33	Z33	Z34	130.26	277.6
R34	Z34	Z35	378.35	277.6
R35	Z35	Z36	399.85	277.6
R36	Z36	Z37	45.95	277.6
R39	Z39	Z40	159.80	277.6

Link ID	Start Node	End Node	Length m	Diameter mm
R40	Z40	Z16	93.15	277.6
R41	Z25	Z41	102.26	312.8
R42	Z41	Z42	180.32	312.8
R43	Z42	Z44	302.32	277.6
R44	Z44	Z45	64.21	277.6
R45	Z45	Z46	36.74	277.6
R46	Z46	Z43	156.53	277.6
R47	Z9	Z47	121.61	221.2
R48	Z47	Z48	240.32	221.2
R49	Z4	Z49	24.55	197.4
R50	Z49	Z50	155.79	197.4
R51	Z50	Z51	282.48	197.4
R52	Z52	Z1	29.23	500
R53	Z29	Z53	79.69	197.4
R54	Z53	Z54	111.39	197.4
R55	Z43	Z55	168.27	277.6
R56	Z55	Z56	81.61	277.6
R57	Z56	Z57	122.30	277.6
R58	Z57	Z58	248.24	277.6
R59	Z58	Z59	408.67	277.6
R60	Z48	Z60	42.59	197.4
R61	Z60	Z61	381.34	197.4
R62	Z10	Z62	326.51	197.4
R63	Z6	Z63	37.20	197.4
R64	Z63	Z64	65.06	197.4
R65	Z64	Z65	27.55	197.4
R66	Z65	Z66	197.52	197.4
R67	Z66	Z67	159.32	197.4
R68	Z64	Z68	593.09	197.4
R69	Z68	Z69	73.39	197.4
R71	Z50	Z70	19.58	141
R72	Z70	Z71	52.37	141
R73	Z71	Z72	134.03	141
R74	Z72	Z73	272.89	141
R75	Z51	Z74	21.33	141
R76	Z74	Z75	171.77	141
R77	Z75	Z76	100.49	141
R78	Z76	Z77	113.17	141
R79	Z74	Z78	388.18	141
R80	Z78	Z79	41.68	141
R81	Z79	Z80	492.04	141
R82	Z80	Z81	136.69	141
R83	Z30	Z82	28.20	141
R84	Z82	Z83	210.10	141
R85	Z83	Z84	273.85	141
R86	Z84	Z85	100.05	141
R87	Z85	Z86	44.57	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R88	Z82	Z88	63.06	141
R89	Z88	Z87	83.04	141
R90	Z54	Z94	156.07	141
R91	Z94	Z93	83.07	141
R92	Z93	Z92	187.75	141
R93	Z92	Z91	200.47	141
R94	Z91	Z90	94.69	141
R95	Z90	Z89	132.30	141
R96	Z54	Z95	125.84	141
R97	Z95	Z96	103.76	141
R98	Z96	Z97	240.97	141
R99	Z28	Z98	29.24	141
R100	Z98	Z99	145.56	141
R101	Z99	Z100	238.71	141
R102	Z27	Z101	21.88	141
R103	Z101	Z102	160.47	141
R104	Z102	Z103	54.42	141
R105	Z102	Z104	75.70	141
R106	Z26	Z105	28.55	221.2
R107	Z105	Z106	105.99	197.4
R108	Z106	Z107	133.09	141
R109	Z107	Z110	114.87	141
R110	Z110	Z111	81.12	141
R111	Z107	Z108	472.49	141
R112	Z108	Z109	82.44	141
R113	Z105	Z112	46.30	197.4
R114	Z112	Z113	49.61	141
R115	Z113	Z114	65.69	141
R116	Z114	Z115	30.56	141
R117	Z115	Z116	187.17	141
R118	Z116	Z117	152.14	141
R119	Z112	Z118	39.18	141
R120	Z118	Z119	57.41	141
R121	Z119	Z120	27.68	141
R122	Z42	Z121	207.55	141
R123	Z121	Z122	148.77	141
R124	Z122	Z123	127.14	141
R125	Z124	Z125	129.31	141
R126	Z125	Z126	246.99	141
R127	Z126	Z127	60.88	141
R128	Z127	Z128	133.26	141
R129	Z56	Z128	33.52	141
R130	Z59	Z129	27.91	141
R131	Z129	Z130	199.21	141
R132	Z59	Z131	20.63	277.6
R133	Z131	Z132	65.50	277.6
R134	Z132	Z133	35.33	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R135	Z133	Z134	237.49	141
R136	Z132	Z135	76.63	221.2
R137	Z135	Z136	91.24	221.2
R138	Z136	Z137	70.66	221.2
R139	Z137	Z138	138.52	221.2
R140	Z138	Z139	474.00	221.2
R141	Z139	Z140	161.81	221.2
R142	Z140	Z141	100.63	141
R143	Z141	Z142	51.23	141
R144	Z24	Z143	18.52	141
R145	Z143	Z144	31.51	141
R146	Z144	Z145	39.17	141
R147	Z143	Z146	67.46	141
R148	Z146	Z147	39.15	141
R149	Z147	Z148	44.74	141
R150	Z148	Z149	41.44	141
R151	Z150	Z23	22.15	141
R152	Z150	Z153	17.92	141
R153	Z153	Z151	116.34	141
R154	Z151	Z152	177.89	141
R155	Z150	Z154	144.12	141
R156	Z154	Z155	151.16	141
R157	Z155	Z156	143.30	141
R158	Z154	Z157	14.93	141
R159	Z157	Z158	31.41	141
R160	Z158	Z159	75.87	141
R161	Z159	Z160	73.37	141
R162	Z22	Z161	23.71	141
R163	Z21	Z162	186.92	141
R164	Z162	Z163	129.60	141
R165	Z163	Z164	430.09	141
R166	Z164	Z165	43.79	141
R167	Z162	Z166	242.40	141
R168	Z166	Z167	143.47	141
R169	Z20	Z168	13.72	197.4
R170	Z168	Z169	46.96	197.4
R171	Z169	Z170	108.21	141
R172	Z169	Z171	252.22	197.4
R173	Z171	Z172	90.88	141
R174	Z172	Z173	208.23	141
R175	Z173	Z174	103.57	141
R176	Z174	Z175	41.91	141
R177	Z19	Z176	26.61	197.4
R178	Z176	Z179	22.99	141
R179	Z179	Z180	45.71	141
R180	Z176	Z177	176.45	141
R181	Z177	Z178	131.66	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R182	Z176	Z181	185.32	141
R183	Z181	Z182	35.93	141
R184	Z182	Z183	183.87	141
R185	Z18	Z184	21.45	141
R186	Z31	Z187	17.99	141
R187	Z187	Z186	36.73	141
R188	Z186	Z185	91.70	141
R189	Z32	Z188	17.39	141
R190	Z188	Z189	214.03	141
R191	Z34	Z190	16.51	141
R192	Z190	Z191	91.95	141
R193	Z35	Z192	18.55	141
R194	Z192	Z193	88.12	141
R195	Z37	Z194	21.70	221.2
R196	Z194	Z195	304.20	221.2
R197	Z195	Z196	254.68	221.2
R198	Z196	Z197	154.03	141
R199	Z197	Z198	74.29	141
R200	Z38	Z199	20.82	141
R201	Z199	Z200	198.07	141
R202	Z200	Z201	61.79	141
R203	Z38	Z202	100.55	277.6
R204	Z202	Z39	249.63	277.6
R205	Z202	Z203	216.43	141
R206	Z203	Z204	60.37	141
R207	Z39	Z205	17.80	141
R208	Z205	Z206	36.88	141
R209	Z206	Z207	40.28	141
R210	Z40	Z208	17.66	141
R211	Z208	Z209	115.69	141
R212	Z209	Z210	291.13	141
R213	Z16	Z211	21.66	141
R214	Z15	Z212	16.25	197.4
R215	Z212	Z219	117.93	141
R216	Z212	Z213	141.13	197.4
R217	Z213	Z214	33.48	197.4
R218	Z214	Z215	375.87	197.4
R219	Z215	Z216	70.07	141
R220	Z216	Z217	52.26	141
R221	Z217	Z218	42.37	141
R222	Z14	Z220	20.17	141
R223	Z13	Z221	18.14	141
R224	Z221	Z222	56.74	141
R225	Z222	Z223	222.95	141
R226	Z223	Z224	212.85	141
R227	Z12	Z225	23.45	197.4
R228	Z225	Z226	144.31	197.4

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R229	Z226	Z229	194.01	141
R230	Z229	Z230	146.49	141
R231	Z230	Z231	36.13	141
R232	Z226	Z227	119.70	141
R233	Z227	Z228	88.55	141
R234	Z11	Z232	25.97	141
R235	Z232	Z233	42.28	141
R236	Z233	Z234	123.38	141
R237	Z234	Z235	89.55	141
R238	Z235	Z236	117.34	141
R239	Z236	Z237	121.53	141
R240	Z62	Z238	15.70	141
R241	Z238	Z239	163.82	141
R242	Z239	Z240	97.16	141
R243	Z240	Z241	85.25	141
R244	Z241	Z242	144.60	141
R245	Z242	Z243	99.06	141
R246	Z243	Z244	134.07	141
R247	Z244	Z245	58.07	141
R248	Z62	Z246	57.55	141
R249	Z246	Z247	65.50	141
R250	Z247	Z248	90.88	141
R251	Z248	Z249	123.03	141
R252	Z249	Z250	106.83	141
R253	Z47	Z251	21.24	141
R254	Z251	Z252	64.30	141
R255	Z252	Z253	48.96	141
R256	Z48	Z254	22.76	141
R257	Z254	Z255	76.57	141
R258	Z255	Z256	96.29	141
R259	Z255	Z257	109.65	141
R260	Z257	Z260	35.33	141
R261	Z258	Z259	36.27	141
R262	Z259	Z260	33.20	141
R263	Z60	Z261	21.13	141
R264	Z261	Z262	126.38	141
R265	Z61	Z263	21.78	141
R266	Z263	Z264	176.17	141
R267	Z264	Z265	113.99	141
R268	Z61	Z266	56.13	141
R269	Z266	Z267	164.61	141
R270	Z267	Z268	194.42	141
R271	Z268	Z269	80.35	141
R272	Z269	Z270	93.18	141
R273	Z8	Z271	24.62	141
R274	Z271	Z272	80.46	141
R275	Z272	Z273	139.79	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R276	Z7	Z274	17.00	141
R277	Z274	Z275	142.61	141
R278	Z275	Z276	70.95	141
R279	Z276	Z277	100.34	141
R280	Z277	Z280	212.67	141
R281	Z277	Z278	57.63	141
R282	Z278	Z279	145.20	141
R283	Z274	Z281	345.62	197.4
R284	Z281	Z282	164.02	141
R285	Z282	Z283	54.06	141
R286	Z283	Z284	225.21	141
R287	Z284	Z285	78.40	141
R288	Z285	Z286	88.42	141
R289	Z286	Z287	62.84	141
R290	Z287	Z288	47.97	141
R291	Z288	Z289	112.72	141
R292	Z69	Z290	62.74	141
R293	Z69	Z291	21.78	197.4
R294	Z291	Z292	213.78	197.4
R295	Z292	Z293	241.55	197.4
R296	Z293	Z294	220.84	141
R297	Z294	Z295	46.21	141
R298	Z295	Z296	45.28	141
R299	Z293	Z297	127.87	141
R300	Z297	Z298	56.12	141
R301	Z298	Z299	73.08	141
R302	Z67	Z300	164.85	141
R303	Z67	Z301	229.85	141
R304	Z301	Z302	62.81	141
R305	Z302	Z303	72.95	141
R306	Z303	Z304	57.99	141
R307	Z304	Z305	100.75	141
R308	Z305	Z306	217.67	141
R309	Z305	Z307	64.94	141
R310	Z307	Z308	454.50	141
R311	Z68	Z309	122.36	141
R312	Z309	Z312	65.15	141
R313	Z309	Z310	63.04	141
R314	Z310	Z311	144.30	141
R315	Z63	Z313	168.16	141
R316	Z313	Z314	57.79	141
R317	Z314	Z315	112.48	141
R318	Z315	Z316	88.44	141
R319	Z315	Z317	96.05	141
R320	Z317	Z318	132.38	141
R321	Z2	Z319	16.60	141
R322	Z319	Z320	46.93	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R323	Z3	Z321	90.37	141
R326	Z77	I10	5	96.8
R327	Z76	I9	5	96.8
R328	Z75	I8	5	96.8
R329	Z74	I7	5	96.8
R330	Z78	I11	5	96.8
R331	Z79	I12	5	96.8
R332	Z80	I13	5	96.8
R333	Z80	I14	5	96.8
R334	Z81	I15	5	96.8
R335	Z70	I2	5	96.8
R336	Z71	I3	5	96.8
R337	Z72	I4	5	96.8
R338	Z73	I5	5	96.8
R339	Z73	I6	5	96.8
R340	Z49	I1	5	96.8
R341	Z86	I23	5	96.8
R342	Z85	I22	5	96.8
R343	Z84	I21	5	96.8
R344	Z83	I20	5	96.8
R345	Z82	I18	5	96.8
R346	Z82	I19	5	96.8
R347	Z88	I17	5	96.8
R348	Z87	I16	5	96.8
R349	Z53	I24	5	96.8
R350	Z95	I25	5	96.8
R351	Z96	I26	5	96.8
R352	Z97	I27	5	96.8
R353	Z94	I28	5	96.8
R354	Z93	I29	5	96.8
R355	Z92	I30	5	96.8
R356	Z91	I31	5	96.8
R357	Z91	I32	5	96.8
R358	Z90	I33	5	96.8
R359	Z89	I34	5	96.8
R360	Z98	I35	5	96.8
R361	Z98	I36	5	96.8
R362	Z99	I37	5	96.8
R363	Z99	I38	5	96.8
R364	Z99	I39	5	96.8
R365	Z100	I40	5	96.8
R366	Z100	I42	5	96.8
R367	Z100	I41	5	96.8
R368	Z101	I43	5	96.8
R369	Z101	I44	5	96.8
R370	Z104	I45	5	96.8
R371	Z103	I46	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R372	Z109	I47	5	96.8
R373	Z108	I48	5	96.8
R374	Z108	I49	5	96.8
R375	Z111	I50	5	96.8
R376	Z110	I51	5	96.8
R377	Z107	I53	5	96.8
R378	Z107	I52	5	96.8
R379	Z106	I54	5	96.8
R380	Z105	I55	5	96.8
R381	Z113	I59	5	96.8
R382	Z114	I60	5	96.8
R383	Z115	I62	5	96.8
R384	Z115	I61	5	96.8
R385	Z116	I63	5	96.8
R386	Z117	I64	5	96.8
R387	Z118	I56	5	96.8
R388	Z119	I57	5	96.8
R389	Z120	I58	5	96.8
R390	Z142	I65	5	96.8
R391	Z141	I66	5	96.8
R392	Z140	I67	5	96.8
R393	Z139	I68	5	96.8
R394	Z138	I69	5	96.8
R395	Z137	I70	5	96.8
R396	Z136	I71	5	96.8
R397	Z135	I72	5	96.8
R398	Z134	I75	5	96.8
R399	Z133	I74	5	96.8
R400	Z133	I73	5	96.8
R401	Z131	I76	5	96.8
R402	Z129	I77	5	96.8
R403	Z130	I78	5	96.8
R404	Z130	I79	5	96.8
R405	Z58	I80	5	96.8
R406	Z57	I81	5	96.8
R407	Z56	I82	5	96.8
R408	Z128	I83	5	96.8
R409	Z127	I84	5	96.8
R410	Z126	I85	5	96.8
R411	Z125	I86	5	96.8
R412	Z124	I87	5	96.8
R413	Z55	I88	5	96.8
R414	Z46	I89	5	96.8
R415	Z45	I90	5	96.8
R416	Z44	I91	5	96.8
R417	Z121	I92	5	96.8
R418	Z121	I93	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R419	Z122	I94	5	96.8
R420	Z123	I95	5	96.8
R421	Z41	I96	5	96.8
R422	Z149	I97	5	96.8
R423	Z148	I98	5	96.8
R424	Z147	I99	5	96.8
R425	Z146	I100	5	96.8
R426	Z143	I101	5	96.8
R427	Z144	I102	5	96.8
R428	Z145	I103	5	96.8
R429	Z160	I105	5	96.8
R430	Z160	I104	5	96.8
R431	Z159	I106	5	96.8
R432	Z158	I107	5	96.8
R433	Z157	I109	5	96.8
R434	Z157	I108	5	96.8
R435	Z156	I110	5	96.8
R436	Z155	I111	5	96.8
R437	Z150	I112	5	96.8
R438	Z151	I113	5	96.8
R439	Z152	I114	5	96.8
R440	Z161	I115	5	96.8
R441	Z161	I116	5	96.8
R442	Z161	I117	5	96.8
R443	Z165	I118	5	96.8
R444	Z164	I119	5	96.8
R445	Z163	I120	5	96.8
R446	Z162	I122	5	96.8
R447	Z162	I121	5	96.8
R448	Z166	I123	5	96.8
R449	Z166	I124	5	96.8
R450	Z167	I125	5	96.8
R451	Z238	I126	5	96.8
R452	Z239	I127	5	96.8
R453	Z240	I128	5	96.8
R454	Z241	I129	5	96.8
R455	Z242	I130	5	96.8
R456	Z243	I131	5	96.8
R457	Z244	I133	5	96.8
R458	Z244	I132	5	96.8
R459	Z245	I134	5	96.8
R460	Z246	I135	5	96.8
R461	Z247	I136	5	96.8
R462	Z248	I137	5	96.8
R463	Z248	I138	5	96.8
R464	Z249	I139	5	96.8
R465	Z250	I140	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R466	Z271	I142	5	96.8
R467	Z271	I141	5	96.8
R468	Z272	I143	5	96.8
R469	Z272	I144	5	96.8
R470	Z273	I145	5	96.8
R471	Z274	I146	5	96.8
R472	Z275	I147	5	96.8
R473	Z276	I148	5	96.8
R474	Z277	I149	5	96.8
R475	Z280	I150	5	96.8
R476	Z278	I151	5	96.8
R477	Z279	I152	5	96.8
R478	Z281	I153	5	96.8
R479	Z282	I154	5	96.8
R480	Z282	I155	5	96.8
R481	Z282	I156	5	96.8
R482	Z283	I157	5	96.8
R483	Z284	I158	5	96.8
R484	Z285	I159	5	96.8
R485	Z286	I160	5	96.8
R486	Z287	I161	5	96.8
R487	Z288	I162	5	96.8
R488	Z289	I163	5	96.8
R489	Z63	I164	5	96.8
R490	Z65	I165	5	96.8
R491	Z65	I166	5	96.8
R492	Z66	I167	5	96.8
R493	Z67	I169	5	96.8
R494	Z67	I170	5	96.8
R495	Z300	I168	5	96.8
R496	Z301	I171	5	96.8
R497	Z302	I172	5	96.8
R498	Z302	I173	5	96.8
R499	Z303	I174	5	96.8
R500	Z304	I175	5	96.8
R501	Z305	I176	5	96.8
R502	Z306	I177	5	96.8
R503	Z307	I178	5	96.8
R504	Z308	I179	5	96.8
R505	Z311	I180	5	96.8
R506	Z310	I181	5	96.8
R507	Z310	I182	5	96.8
R508	Z309	I183	5	96.8
R509	Z312	I184	5	96.8
R510	Z68	I185	5	96.8
R511	Z290	I186	5	96.8
R512	Z291	I187	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R513	Z292	I188	5	96.8
R514	Z293	I193	5	96.8
R515	Z294	I189	5	96.8
R516	Z294	I190	5	96.8
R517	Z295	I191	5	96.8
R518	Z296	I192	5	96.8
R519	Z297	I194	5	96.8
R520	Z298	I195	5	96.8
R521	Z298	I196	5	96.8
R522	Z299	I197	5	96.8
R523	Z313	I198	5	96.8
R524	Z314	I199	5	96.8
R525	Z316	I200	5	96.8
R526	Z317	I201	5	96.8
R527	Z317	I202	5	96.8
R528	Z317	I203	5	96.8
R529	Z318	I204	5	96.8
R530	Z320	I209	5	96.8
R531	Z319	I208	5	96.8
R532	Z3	I206	5	96.8
R533	Z3	I205	5	96.8
R534	Z321	I207	5	96.8
R535	Z168	I210	5	96.8
R536	Z170	I213	5	96.8
R537	Z169	I212	5	96.8
R538	Z169	I211	5	96.8
R539	Z171	I214	5	96.8
R540	Z172	I215	5	96.8
R541	Z173	I216	5	96.8
R542	Z174	I217	5	96.8
R543	Z175	I218	5	96.8
R544	Z175	I219	5	96.8
R545	Z183	I220	5	96.8
R546	Z182	I221	5	96.8
R547	Z181	I223	5	96.8
R548	Z181	I222	5	96.8
R549	Z179	I225	5	96.8
R550	Z180	I224	5	96.8
R551	Z177	I226	5	96.8
R552	Z177	I227	5	96.8
R553	Z178	I228	5	96.8
R554	Z184	I229	5	96.8
R555	Z186	I231	5	96.8
R556	Z185	I232	5	96.8
R557	Z187	I230	5	96.8
R558	Z188	I233	5	96.8
R559	Z188	I234	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R560	Z189	I235	5	96.8
R561	Z33	I236	5	96.8
R562	Z191	I237	5	96.8
R563	Z190	I238	5	96.8
R566	Z193	I241	5	96.8
R567	Z193	I242	5	96.8
R568	Z192	I240	5	96.8
R569	Z192	I239	5	96.8
R570	Z36	I243	5	96.8
R571	Z36	I244	5	96.8
R572	Z194	I245	5	96.8
R573	Z195	I246	5	96.8
R574	Z195	I247	5	96.8
R575	Z196	I248	5	96.8
R576	Z197	I249	5	96.8
R577	Z198	I250	22.13	96.8
R578	Z204	I251	5	96.8
R579	Z203	I252	5	96.8
R580	Z38	I258	5	96.8
R581	Z38	I257	5	96.8
R582	Z199	I256	5	96.8
R583	Z199	I255	5	96.8
R584	Z200	I254	5	96.8
R585	Z201	I253	5	96.8
R586	Z205	I259	5	96.8
R587	Z205	I260	5	96.8
R588	Z205	I261	5	96.8
R589	Z206	I262	5	96.8
R590	Z207	I263	5	96.8
R591	Z211	I264	5	96.8
R592	Z211	I265	5	96.8
R593	Z208	I267	5	96.8
R594	Z208	I266	5	96.8
R595	Z209	I268	5	96.8
R596	Z210	I269	5	96.8
R597	Z219	I270	5	96.8
R598	Z212	I272	5	96.8
R599	Z212	I271	5	96.8
R600	Z213	I273	5	96.8
R601	Z213	I274	5	96.8
R602	Z214	I275	5	96.8
R603	Z215	I276	5	96.8
R604	Z216	I277	5	96.8
R605	Z217	I278	5	96.8
R606	Z218	I279	5	96.8
R607	Z220	I280	5	96.8
R608	Z224	I281	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R609	Z224	I282	5	96.8
R610	Z223	I283	5	96.8
R611	Z222	I284	5	96.8
R612	Z221	I285	5	96.8
R613	Z225	I286	5	96.8
R614	Z225	I287	5	96.8
R615	Z226	I291	5	96.8
R616	Z226	I292	5	96.8
R617	Z226	I293	5	96.8
R618	Z227	I288	5	96.8
R619	Z227	I289	5	96.8
R620	Z228	I290	5	96.8
R621	Z229	I294	5	96.8
R622	Z230	I295	5	96.8
R623	Z231	I296	5	96.8
R624	Z232	I297	5	96.8
R625	Z233	I298	5	96.8
R626	Z233	I299	5	96.8
R627	Z234	I300	5	96.8
R628	Z235	I301	5	96.8
R629	Z236	I302	5	96.8
R630	Z237	I303	5	96.8
R631	Z265	I304	5	96.8
R632	Z265	I305	5	96.8
R633	Z264	I306	5	96.8
R634	Z263	I307	5	96.8
R635	Z266	I308	5	96.8
R636	Z267	I309	5	96.8
R637	Z268	I310	5	96.8
R638	Z269	I311	5	96.8
R639	Z270	I312	5	96.8
R640	Z260	I313	5	96.8
R641	Z259	I314	5	96.8
R642	Z258	I315	5	96.8
R643	Z257	I316	5	96.8
R644	Z256	I317	5	96.8
R645	Z254	I318	5	96.8
R646	Z261	I319	5	96.8
R647	Z262	I320	5	96.8
R648	Z262	I321	5	96.8
R649	Z253	I322	5	96.8
R650	Z252	I323	5	96.8
R651	Z251	I324	5	96.8
R652	Z251	I325	5	96.8
R653	Z251	I326	5	96.8
R37	Z38	Z37	706.98	277.6
P1	S1	Z52	#N/A	#N/A Pump

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
P2	S1	Z52	#N/A	#N/A Pump
P3	S1	Z52	#N/A	#N/A Pump
P4	S1	Z52	#N/A	#N/A Pump

Energy Usage:

Pump	Usage Factor	Avg. Effic.	Kw-hr /m3	Avg. Kw	Peak Kw	Cost /day
P1	0.00	0.00	0.00	0.00	0.00	0.00
P2	100.00	75.00	0.29	156.84	156.84	0.00
P3	100.00	75.00	0.29	156.84	156.84	0.00
P4	100.00	75.00	0.29	156.84	156.84	0.00

Demand Charge: 0.00
Total Cost: 0.00

Node Results:

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1	0.00	89.75	79.75	0.00
Z2	0.00	89.60	79.60	0.00
Z3	0.00	89.72	79.72	0.00
Z4	0.00	87.46	77.46	0.00
Z6	0.00	89.29	79.29	0.00
Z7	0.00	89.07	79.07	0.00
Z8	0.00	87.85	77.85	0.00
Z9	0.00	87.65	77.65	0.00
Z10	0.00	87.33	77.33	0.00
Z11	0.00	86.54	76.54	0.00
Z12	0.00	86.18	76.18	0.00
Z13	0.00	85.55	75.55	0.00
Z14	0.00	85.12	75.12	0.00
Z15	0.00	83.98	73.98	0.00
Z16	0.00	82.39	72.39	0.00
Z17	0.00	81.05	71.05	0.00
Z18	0.00	80.36	70.36	0.00
Z19	0.00	79.33	69.33	0.00
Z20	0.00	77.24	67.24	0.00
Z21	0.00	75.71	65.71	0.00
Z22	0.00	75.12	65.12	0.00
Z23	0.00	73.41	63.41	0.00
Z24	0.00	72.34	62.34	0.00
Z25	0.00	71.58	61.58	0.00
Z26	0.00	72.09	62.09	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z27	0.00	77.79	67.79	0.00
Z28	0.00	80.46	70.46	0.00
Z29	0.00	82.72	72.72	0.00
Z30	0.00	86.91	76.91	0.00
Z31	0.00	81.07	71.07	0.00
Z32	0.00	81.14	71.14	0.00
Z33	0.00	81.24	71.24	0.00
Z34	0.00	81.30	71.30	0.00
Z35	0.00	81.49	71.49	0.00
Z36	0.00	81.69	71.69	0.00
Z37	0.00	81.71	71.71	0.00
Z38	0.00	82.07	72.07	0.00
Z39	0.00	82.24	72.24	0.00
Z40	0.00	82.32	72.32	0.00
Z41	0.00	70.37	60.37	0.00
Z42	0.00	68.95	58.95	0.00
Z43	0.00	63.26	53.26	0.00
Z44	0.00	65.64	55.64	0.00
Z45	0.00	64.98	54.98	0.00
Z46	0.00	64.63	54.63	0.00
Z47	0.00	87.65	77.65	0.00
Z48	0.00	87.65	77.65	0.00
Z49	0.00	86.49	76.49	0.00
Z50	0.00	83.81	73.81	0.00
Z51	0.00	81.66	71.66	0.00
Z52	0.00	90.00	80.00	0.00
Z53	0.00	81.58	71.58	0.00
Z54	0.00	80.55	70.55	0.00
Z55	0.00	61.46	51.46	0.00
Z56	0.00	60.80	50.80	0.00
Z57	0.00	60.23	50.23	0.00
Z58	0.00	59.20	49.20	0.00
Z59	0.00	57.70	47.70	0.00
Z60	0.00	87.65	77.65	0.00
Z61	0.00	87.65	77.65	0.00
Z62	0.00	87.33	77.33	0.00
Z63	0.00	89.29	79.29	0.00
Z64	0.00	89.29	79.29	0.00
Z65	0.00	89.29	79.29	0.00
Z66	0.00	89.29	79.29	0.00
Z67	0.00	89.29	79.29	0.00
Z68	0.00	89.29	79.29	0.00
Z69	0.00	89.29	79.29	0.00
Z70	0.00	83.34	73.34	0.00
Z71	0.00	82.88	72.88	0.00
Z72	0.00	82.18	72.18	0.00
Z73	0.00	81.50	71.50	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z74	0.00	80.15	70.15	0.00
Z75	0.00	79.18	69.18	0.00
Z76	0.00	78.93	68.93	0.00
Z77	0.00	78.85	68.85	0.00
Z78	0.00	74.98	64.98	0.00
Z79	0.00	74.61	64.61	0.00
Z80	0.00	72.05	62.05	0.00
Z81	0.00	71.95	61.95	0.00
Z82	0.00	85.48	75.48	0.00
Z83	0.00	83.63	73.63	0.00
Z84	0.00	82.20	72.20	0.00
Z85	0.00	81.95	71.95	0.00
Z86	0.00	81.92	71.92	0.00
Z87	0.00	85.23	75.23	0.00
Z88	0.00	85.29	75.29	0.00
Z89	0.00	70.12	60.12	0.00
Z90	0.00	70.22	60.22	0.00
Z91	0.00	70.45	60.45	0.00
Z92	0.00	72.22	62.22	0.00
Z93	0.00	74.72	64.72	0.00
Z94	0.00	76.27	66.27	0.00
Z95	0.00	79.82	69.82	0.00
Z96	0.00	79.56	69.56	0.00
Z97	0.00	79.39	69.39	0.00
Z98	0.00	79.00	69.00	0.00
Z99	0.00	76.28	66.28	0.00
Z100	0.00	75.04	65.04	0.00
Z101	0.00	77.47	67.47	0.00
Z102	0.00	77.07	67.07	0.00
Z103	0.00	77.03	67.03	0.00
Z104	0.00	77.01	67.01	0.00
Z105	0.00	71.20	61.20	0.00
Z106	0.00	70.55	60.55	0.00
Z107	0.00	67.25	57.25	0.00
Z108	0.00	64.71	54.71	0.00
Z109	0.00	64.65	54.65	0.00
Z110	0.00	66.96	56.96	0.00
Z111	0.00	66.90	56.90	0.00
Z112	0.00	70.67	60.67	0.00
Z113	0.00	69.75	59.75	0.00
Z114	0.00	68.87	58.87	0.00
Z115	0.00	68.61	58.61	0.00
Z116	0.00	68.14	58.14	0.00
Z117	0.00	68.03	58.03	0.00
Z118	0.00	70.40	60.40	0.00
Z119	0.00	70.25	60.25	0.00
Z120	0.00	70.23	60.23	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z121	0.00	66.99	56.99	0.00
Z122	0.00	66.62	56.62	0.00
Z123	0.00	66.52	56.52	0.00
Z124	0.00	57.94	47.94	0.00
Z125	0.00	58.03	48.03	0.00
Z126	0.00	58.65	48.65	0.00
Z127	0.00	58.97	48.97	0.00
Z128	0.00	60.14	50.14	0.00
Z129	0.00	57.48	47.48	0.00
Z130	0.00	56.98	46.98	0.00
Z131	0.00	57.57	47.57	0.00
Z132	0.00	57.43	47.43	0.00
Z133	0.00	57.17	47.17	0.00
Z134	0.00	57.00	47.00	0.00
Z135	0.00	57.16	47.16	0.00
Z136	0.00	56.91	46.91	0.00
Z137	0.00	56.77	46.77	0.00
Z138	0.00	56.56	46.56	0.00
Z139	0.00	56.09	46.09	0.00
Z140	0.00	55.99	45.99	0.00
Z141	0.00	55.74	45.74	0.00
Z142	0.00	55.71	45.71	0.00
Z143	0.00	72.34	62.34	0.00
Z144	0.00	72.34	62.34	0.00
Z145	0.00	72.34	62.34	0.00
Z146	0.00	72.34	62.34	0.00
Z147	0.00	72.34	62.34	0.00
Z148	0.00	72.34	62.34	0.00
Z149	0.00	72.34	62.34	0.00
Z150	0.00	73.41	63.41	0.00
Z151	0.00	73.41	63.41	0.00
Z152	0.00	73.41	63.41	0.00
Z153	0.00	73.41	63.41	0.00
Z154	0.00	73.41	63.41	0.00
Z155	0.00	73.41	63.41	0.00
Z156	0.00	73.41	63.41	0.00
Z157	0.00	73.41	63.41	0.00
Z158	0.00	73.41	63.41	0.00
Z159	0.00	73.41	63.41	0.00
Z160	0.00	73.41	63.41	0.00
Z161	0.00	75.12	65.12	0.00
Z162	0.00	75.71	65.71	0.00
Z163	0.00	75.71	65.71	0.00
Z164	0.00	75.71	65.71	0.00
Z165	0.00	75.71	65.71	0.00
Z166	0.00	75.71	65.71	0.00
Z167	0.00	75.71	65.71	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z168	0.00	77.24	67.24	0.00
Z169	0.00	77.24	67.24	0.00
Z170	0.00	77.24	67.24	0.00
Z171	0.00	77.24	67.24	0.00
Z172	0.00	77.24	67.24	0.00
Z173	0.00	77.24	67.24	0.00
Z174	0.00	77.24	67.24	0.00
Z175	0.00	77.24	67.24	0.00
Z176	0.00	79.33	69.33	0.00
Z177	0.00	79.33	69.33	0.00
Z178	0.00	79.33	69.33	0.00
Z179	0.00	79.33	69.33	0.00
Z180	0.00	79.33	69.33	0.00
Z181	0.00	79.33	69.33	0.00
Z182	0.00	79.33	69.33	0.00
Z183	0.00	79.33	69.33	0.00
Z184	0.00	80.36	70.36	0.00
Z185	0.00	81.07	71.07	0.00
Z186	0.00	81.07	71.07	0.00
Z187	0.00	81.07	71.07	0.00
Z188	0.00	81.14	71.14	0.00
Z189	0.00	81.14	71.14	0.00
Z190	0.00	81.30	71.30	0.00
Z191	0.00	81.30	71.30	0.00
Z192	0.00	81.49	71.49	0.00
Z193	0.00	81.49	71.49	0.00
Z194	0.00	81.71	71.71	0.00
Z195	0.00	81.71	71.71	0.00
Z196	0.00	81.71	71.71	0.00
Z197	0.00	81.71	71.71	0.00
Z198	0.00	81.71	71.71	0.00
Z199	0.00	82.07	72.07	0.00
Z200	0.00	82.07	72.07	0.00
Z201	0.00	82.07	72.07	0.00
Z202	0.00	82.12	72.12	0.00
Z203	0.00	82.12	72.12	0.00
Z204	0.00	82.12	72.12	0.00
Z205	0.00	82.24	72.24	0.00
Z206	0.00	82.24	72.24	0.00
Z207	0.00	82.24	72.24	0.00
Z208	0.00	82.32	72.32	0.00
Z209	0.00	82.32	72.32	0.00
Z210	0.00	82.32	72.32	0.00
Z211	0.00	82.39	72.39	0.00
Z212	0.00	83.98	73.98	0.00
Z213	0.00	83.98	73.98	0.00
Z214	0.00	83.98	73.98	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z215	0.00	83.98	73.98	0.00
Z216	0.00	83.98	73.98	0.00
Z217	0.00	83.98	73.98	0.00
Z218	0.00	83.98	73.98	0.00
Z219	0.00	83.98	73.98	0.00
Z220	0.00	85.12	75.12	0.00
Z221	0.00	85.55	75.55	0.00
Z222	0.00	85.55	75.55	0.00
Z223	0.00	85.55	75.55	0.00
Z224	0.00	85.55	75.55	0.00
Z225	0.00	86.18	76.18	0.00
Z226	0.00	86.18	76.18	0.00
Z227	0.00	86.18	76.18	0.00
Z228	0.00	86.18	76.18	0.00
Z229	0.00	86.18	76.18	0.00
Z230	0.00	86.18	76.18	0.00
Z231	0.00	86.18	76.18	0.00
Z232	0.00	86.54	76.54	0.00
Z233	0.00	86.54	76.54	0.00
Z234	0.00	86.54	76.54	0.00
Z235	0.00	86.54	76.54	0.00
Z236	0.00	86.54	76.54	0.00
Z237	0.00	86.54	76.54	0.00
Z238	0.00	87.33	77.33	0.00
Z239	0.00	87.33	77.33	0.00
Z240	0.00	87.33	77.33	0.00
Z241	0.00	87.33	77.33	0.00
Z242	0.00	87.33	77.33	0.00
Z243	0.00	87.33	77.33	0.00
Z244	0.00	87.33	77.33	0.00
Z245	0.00	87.33	77.33	0.00
Z246	0.00	87.33	77.33	0.00
Z247	0.00	87.33	77.33	0.00
Z248	0.00	87.33	77.33	0.00
Z249	0.00	87.33	77.33	0.00
Z250	0.00	87.33	77.33	0.00
Z251	0.00	87.65	77.65	0.00
Z252	0.00	87.65	77.65	0.00
Z253	0.00	87.65	77.65	0.00
Z254	0.00	87.65	77.65	0.00
Z255	0.00	87.65	77.65	0.00
Z256	0.00	87.65	77.65	0.00
Z257	0.00	87.65	77.65	0.00
Z258	0.00	87.65	77.65	0.00
Z259	0.00	87.65	77.65	0.00
Z260	0.00	87.65	77.65	0.00
Z261	0.00	87.65	77.65	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z262	0.00	87.65	77.65	0.00
Z263	0.00	87.65	77.65	0.00
Z264	0.00	87.65	77.65	0.00
Z265	0.00	87.65	77.65	0.00
Z266	0.00	87.65	77.65	0.00
Z267	0.00	87.65	77.65	0.00
Z268	0.00	87.65	77.65	0.00
Z269	0.00	87.65	77.65	0.00
Z270	0.00	87.65	77.65	0.00
Z271	0.00	87.85	77.85	0.00
Z272	0.00	87.85	77.85	0.00
Z273	0.00	87.85	77.85	0.00
Z274	0.00	89.07	79.07	0.00
Z275	0.00	89.07	79.07	0.00
Z276	0.00	89.07	79.07	0.00
Z277	0.00	89.07	79.07	0.00
Z278	0.00	89.07	79.07	0.00
Z279	0.00	89.07	79.07	0.00
Z280	0.00	89.07	79.07	0.00
Z281	0.00	89.07	79.07	0.00
Z282	0.00	89.07	79.07	0.00
Z283	0.00	89.07	79.07	0.00
Z284	0.00	89.07	79.07	0.00
Z285	0.00	89.07	79.07	0.00
Z286	0.00	89.07	79.07	0.00
Z287	0.00	89.07	79.07	0.00
Z288	0.00	89.07	79.07	0.00
Z289	0.00	89.07	79.07	0.00
Z290	0.00	89.29	79.29	0.00
Z291	0.00	89.29	79.29	0.00
Z292	0.00	89.29	79.29	0.00
Z293	0.00	89.29	79.29	0.00
Z294	0.00	89.29	79.29	0.00
Z295	0.00	89.29	79.29	0.00
Z296	0.00	89.29	79.29	0.00
Z297	0.00	89.29	79.29	0.00
Z298	0.00	89.29	79.29	0.00
Z299	0.00	89.29	79.29	0.00
Z300	0.00	89.29	79.29	0.00
Z301	0.00	89.29	79.29	0.00
Z302	0.00	89.29	79.29	0.00
Z303	0.00	89.29	79.29	0.00
Z304	0.00	89.29	79.29	0.00
Z305	0.00	89.29	79.29	0.00
Z306	0.00	89.29	79.29	0.00
Z307	0.00	89.29	79.29	0.00
Z308	0.00	89.29	79.29	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z309	0.00	89.29	79.29	0.00
Z310	0.00	89.29	79.29	0.00
Z311	0.00	89.29	79.29	0.00
Z312	0.00	89.29	79.29	0.00
Z313	0.00	89.29	79.29	0.00
Z314	0.00	89.29	79.29	0.00
Z315	0.00	89.29	79.29	0.00
Z316	0.00	89.29	79.29	0.00
Z317	0.00	89.29	79.29	0.00
Z318	0.00	89.29	79.29	0.00
Z319	0.00	89.60	79.60	0.00
Z320	0.00	89.60	79.60	0.00
Z321	0.00	89.72	79.72	0.00
I1	4.69	86.47	76.47	0.00
I2	4.69	83.32	73.32	0.00
I3	4.69	82.86	72.86	0.00
I4	4.69	82.16	72.16	0.00
I5	4.69	81.48	71.48	0.00
I6	4.69	81.48	71.48	0.00
I7	4.69	80.13	70.13	0.00
I8	4.69	79.16	69.16	0.00
I9	4.69	78.91	68.91	0.00
I10	4.69	78.82	68.82	0.00
I11	4.69	74.96	64.96	0.00
I12	4.69	74.59	64.59	0.00
I13	4.69	72.03	62.03	0.00
I14	4.69	72.03	62.03	0.00
I15	4.69	71.93	61.93	0.00
I23	4.69	81.90	71.90	0.00
I22	4.69	81.93	71.93	0.00
I21	4.69	82.18	72.18	0.00
I20	4.69	83.61	73.61	0.00
I19	4.69	85.46	75.46	0.00
I18	4.69	85.46	75.46	0.00
I17	4.69	85.27	75.27	0.00
I16	4.69	85.21	75.21	0.00
I24	4.69	81.56	71.56	0.00
I25	4.69	79.80	69.80	0.00
I26	4.69	79.54	69.54	0.00
I27	4.69	79.37	69.37	0.00
I28	4.69	76.25	66.25	0.00
I29	4.69	74.70	64.70	0.00
I30	4.69	72.20	62.20	0.00
I31	4.69	70.43	60.43	0.00
I32	4.69	70.43	60.43	0.00
I33	4.69	70.19	60.19	0.00
I34	4.69	70.10	60.10	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I35	4.69	78.98	68.98	0.00
I36	4.69	78.98	68.98	0.00
I37	4.69	76.26	66.26	0.00
I38	4.69	76.26	66.26	0.00
I39	4.69	76.26	66.26	0.00
I40	4.69	75.02	65.02	0.00
I41	4.69	75.02	65.02	0.00
I42	4.69	75.02	65.02	0.00
I43	4.69	77.45	67.45	0.00
I44	4.69	77.45	67.45	0.00
I45	4.69	76.98	66.98	0.00
I46	4.69	77.01	67.01	0.00
I47	4.69	64.63	54.63	0.00
I48	4.69	64.69	54.69	0.00
I49	4.69	64.69	54.69	0.00
I50	4.69	66.88	56.88	0.00
I51	4.69	66.94	56.94	0.00
I52	4.69	67.22	57.22	0.00
I53	4.69	67.22	57.22	0.00
I54	4.69	70.53	60.53	0.00
I55	4.69	71.18	61.18	0.00
I56	4.69	70.37	60.37	0.00
I57	4.69	70.23	60.23	0.00
I58	4.69	70.21	60.21	0.00
I59	4.69	69.73	59.73	0.00
I60	4.69	68.85	58.85	0.00
I61	4.69	68.58	58.58	0.00
I62	4.69	68.58	58.58	0.00
I63	4.69	68.12	58.12	0.00
I64	4.69	68.01	58.01	0.00
I65	4.69	55.68	45.68	0.00
I66	4.69	55.72	45.72	0.00
I67	4.69	55.97	45.97	0.00
I68	4.69	56.07	46.07	0.00
I69	4.69	56.54	46.54	0.00
I70	4.69	56.74	46.74	0.00
I71	4.69	56.89	46.89	0.00
I72	4.69	57.14	47.14	0.00
I73	4.69	57.15	47.15	0.00
I74	4.69	57.15	47.15	0.00
I75	4.69	56.98	46.98	0.00
I76	4.69	57.54	47.54	0.00
I77	4.69	57.45	47.45	0.00
I78	4.69	56.96	46.96	0.00
I79	4.69	56.96	46.96	0.00
I80	4.69	59.18	49.18	0.00
I81	4.69	60.21	50.21	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I82	4.69	60.77	50.77	0.00
I83	4.69	60.12	50.12	0.00
I84	4.69	58.95	48.95	0.00
I85	4.69	58.63	48.63	0.00
I86	4.69	58.01	48.01	0.00
I87	4.69	57.92	47.92	0.00
I88	4.69	61.44	51.44	0.00
I89	4.69	64.61	54.61	0.00
I90	4.69	64.96	54.96	0.00
I91	4.69	65.62	55.62	0.00
I92	4.69	66.96	56.96	0.00
I93	4.69	66.96	56.96	0.00
I94	4.69	66.59	56.59	0.00
I95	4.69	66.50	56.50	0.00
I96	4.69	70.35	60.35	0.00
I97	0.00	72.34	62.34	0.00
I98	0.00	72.34	62.34	0.00
I99	0.00	72.34	62.34	0.00
I100	0.00	72.34	62.34	0.00
I101	0.00	72.34	62.34	0.00
I102	0.00	72.34	62.34	0.00
I103	0.00	72.34	62.34	0.00
I104	0.00	73.41	63.41	0.00
I105	0.00	73.41	63.41	0.00
I106	0.00	73.41	63.41	0.00
I107	0.00	73.41	63.41	0.00
I108	0.00	73.41	63.41	0.00
I109	0.00	73.41	63.41	0.00
I110	0.00	73.41	63.41	0.00
I111	0.00	73.41	63.41	0.00
I112	0.00	73.41	63.41	0.00
I113	0.00	73.41	63.41	0.00
I114	0.00	73.41	63.41	0.00
I115	0.00	75.12	65.12	0.00
I116	0.00	75.12	65.12	0.00
I117	0.00	75.12	65.12	0.00
I118	0.00	75.71	65.71	0.00
I119	0.00	75.71	65.71	0.00
I120	0.00	75.71	65.71	0.00
I121	0.00	75.71	65.71	0.00
I122	0.00	75.71	65.71	0.00
I123	0.00	75.71	65.71	0.00
I124	0.00	75.71	65.71	0.00
I125	0.00	75.71	65.71	0.00
I126	0.00	87.33	77.33	0.00
I127	0.00	87.33	77.33	0.00
I128	0.00	87.33	77.33	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I129	0.00	87.33	77.33	0.00
I130	0.00	87.33	77.33	0.00
I131	0.00	87.33	77.33	0.00
I132	0.00	87.33	77.33	0.00
I133	0.00	87.33	77.33	0.00
I134	0.00	87.33	77.33	0.00
I135	0.00	87.33	77.33	0.00
I136	0.00	87.33	77.33	0.00
I137	0.00	87.33	77.33	0.00
I138	0.00	87.33	77.33	0.00
I139	0.00	87.33	77.33	0.00
I140	0.00	87.33	77.33	0.00
I141	0.00	87.85	77.85	0.00
I142	0.00	87.85	77.85	0.00
I143	0.00	87.85	77.85	0.00
I144	0.00	87.85	77.85	0.00
I145	0.00	87.85	77.85	0.00
I146	0.00	89.07	79.07	0.00
I147	0.00	89.07	79.07	0.00
I148	0.00	89.07	79.07	0.00
I149	0.00	89.07	79.07	0.00
I150	0.00	89.07	79.07	0.00
I151	0.00	89.07	79.07	0.00
I152	0.00	89.07	79.07	0.00
I153	0.00	89.07	79.07	0.00
I154	0.00	89.07	79.07	0.00
I155	0.00	89.07	79.07	0.00
I156	0.00	89.07	79.07	0.00
I157	0.00	89.07	79.07	0.00
I158	0.00	89.07	79.07	0.00
I159	0.00	89.07	79.07	0.00
I160	0.00	89.07	79.07	0.00
I161	0.00	89.07	79.07	0.00
I162	0.00	89.07	79.07	0.00
I163	0.00	89.07	79.07	0.00
I164	0.00	89.29	79.29	0.00
I165	0.00	89.29	79.29	0.00
I166	0.00	89.29	79.29	0.00
I167	0.00	89.29	79.29	0.00
I168	0.00	89.29	79.29	0.00
I169	0.00	89.29	79.29	0.00
I170	0.00	89.29	79.29	0.00
I171	0.00	89.29	79.29	0.00
I172	0.00	89.29	79.29	0.00
I173	0.00	89.29	79.29	0.00
I174	0.00	89.29	79.29	0.00
I175	0.00	89.29	79.29	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I176	0.00	89.29	79.29	0.00
I177	0.00	89.29	79.29	0.00
I178	0.00	89.29	79.29	0.00
I179	0.00	89.29	79.29	0.00
I180	0.00	89.29	79.29	0.00
I181	0.00	89.29	79.29	0.00
I182	0.00	89.29	79.29	0.00
I183	0.00	89.29	79.29	0.00
I184	0.00	89.29	79.29	0.00
I185	0.00	89.29	79.29	0.00
I186	0.00	89.29	79.29	0.00
I187	0.00	89.29	79.29	0.00
I188	0.00	89.29	79.29	0.00
I189	0.00	89.29	79.29	0.00
I190	0.00	89.29	79.29	0.00
I191	0.00	89.29	79.29	0.00
I192	0.00	89.29	79.29	0.00
I193	0.00	89.29	79.29	0.00
I194	0.00	89.29	79.29	0.00
I195	0.00	89.29	79.29	0.00
I196	0.00	89.29	79.29	0.00
I197	0.00	89.29	79.29	0.00
I198	0.00	89.29	79.29	0.00
I199	0.00	89.29	79.29	0.00
I200	0.00	89.29	79.29	0.00
I201	0.00	89.29	79.29	0.00
I202	0.00	89.29	79.29	0.00
I203	0.00	89.29	79.29	0.00
I204	0.00	89.29	79.29	0.00
I205	0.00	89.72	79.72	0.00
I206	0.00	89.72	79.72	0.00
I207	0.00	89.72	79.72	0.00
I208	0.00	89.60	79.60	0.00
I209	0.00	89.60	79.60	0.00
I210	0.00	77.24	67.24	0.00
I211	0.00	77.24	67.24	0.00
I212	0.00	77.24	67.24	0.00
I213	0.00	77.24	67.24	0.00
I214	0.00	77.24	67.24	0.00
I215	0.00	77.24	67.24	0.00
I216	0.00	77.24	67.24	0.00
I217	0.00	77.24	67.24	0.00
I218	0.00	77.24	67.24	0.00
I219	0.00	77.24	67.24	0.00
I220	0.00	79.33	69.33	0.00
I221	0.00	79.33	69.33	0.00
I222	0.00	79.33	69.33	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I223	0.00	79.33	69.33	0.00
I224	0.00	79.33	69.33	0.00
I225	0.00	79.33	69.33	0.00
I226	0.00	79.33	69.33	0.00
I227	0.00	79.33	69.33	0.00
I228	0.00	79.33	69.33	0.00
I229	0.00	80.36	70.36	0.00
I230	0.00	81.07	71.07	0.00
I231	0.00	81.07	71.07	0.00
I232	0.00	81.07	71.07	0.00
I233	0.00	81.14	71.14	0.00
I234	0.00	81.14	71.14	0.00
I235	0.00	81.14	71.14	0.00
I236	0.00	81.24	71.24	0.00
I237	0.00	81.30	71.30	0.00
I238	0.00	81.30	71.30	0.00
I239	0.00	81.49	71.49	0.00
I240	0.00	81.49	71.49	0.00
I241	0.00	81.49	71.49	0.00
I242	0.00	81.49	71.49	0.00
I243	0.00	81.69	71.69	0.00
I244	0.00	81.69	71.69	0.00
I245	0.00	81.71	71.71	0.00
I246	0.00	81.71	71.71	0.00
I247	0.00	81.71	71.71	0.00
I248	0.00	81.71	71.71	0.00
I249	0.00	81.71	71.71	0.00
I250	0.00	81.71	71.71	0.00
I251	0.00	82.12	72.12	0.00
I252	0.00	82.12	72.12	0.00
I253	0.00	82.07	72.07	0.00
I254	0.00	82.07	72.07	0.00
I255	0.00	82.07	72.07	0.00
I256	0.00	82.07	72.07	0.00
I257	0.00	82.07	72.07	0.00
I258	0.00	82.07	72.07	0.00
I259	0.00	82.24	72.24	0.00
I260	0.00	82.24	72.24	0.00
I261	0.00	82.24	72.24	0.00
I262	0.00	82.24	72.24	0.00
I263	0.00	82.24	72.24	0.00
I264	0.00	82.39	72.39	0.00
I265	0.00	82.39	72.39	0.00
I266	0.00	82.32	72.32	0.00
I267	0.00	82.32	72.32	0.00
I268	0.00	82.32	72.32	0.00
I269	0.00	82.32	72.32	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I270	0.00	83.98	73.98	0.00
I271	0.00	83.98	73.98	0.00
I272	0.00	83.98	73.98	0.00
I273	0.00	83.98	73.98	0.00
I274	0.00	83.98	73.98	0.00
I275	0.00	83.98	73.98	0.00
I276	0.00	83.98	73.98	0.00
I277	0.00	83.98	73.98	0.00
I278	0.00	83.98	73.98	0.00
I279	0.00	83.98	73.98	0.00
I280	0.00	85.12	75.12	0.00
I281	0.00	85.55	75.55	0.00
I282	0.00	85.55	75.55	0.00
I283	0.00	85.55	75.55	0.00
I284	0.00	85.55	75.55	0.00
I285	0.00	85.55	75.55	0.00
I286	0.00	86.18	76.18	0.00
I287	0.00	86.18	76.18	0.00
I288	0.00	86.18	76.18	0.00
I289	0.00	86.18	76.18	0.00
I290	0.00	86.18	76.18	0.00
I291	0.00	86.18	76.18	0.00
I292	0.00	86.18	76.18	0.00
I293	0.00	86.18	76.18	0.00
I294	0.00	86.18	76.18	0.00
I295	0.00	86.18	76.18	0.00
I296	0.00	86.18	76.18	0.00
I297	0.00	86.54	76.54	0.00
I298	0.00	86.54	76.54	0.00
I299	0.00	86.54	76.54	0.00
I300	0.00	86.54	76.54	0.00
I301	0.00	86.54	76.54	0.00
I302	0.00	86.54	76.54	0.00
I303	0.00	86.54	76.54	0.00
I304	0.00	87.65	77.65	0.00
I305	0.00	87.65	77.65	0.00
I306	0.00	87.65	77.65	0.00
I307	0.00	87.65	77.65	0.00
I308	0.00	87.65	77.65	0.00
I309	0.00	87.65	77.65	0.00
I310	0.00	87.65	77.65	0.00
I311	0.00	87.65	77.65	0.00
I312	0.00	87.65	77.65	0.00
I313	0.00	87.65	77.65	0.00
I314	0.00	87.65	77.65	0.00
I315	0.00	87.65	77.65	0.00
I316	0.00	87.65	77.65	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I317	0.00	87.65	77.65	0.00
I318	0.00	87.65	77.65	0.00
I319	0.00	87.65	77.65	0.00
I320	0.00	87.65	77.65	0.00
I321	0.00	87.65	77.65	0.00
I322	0.00	87.65	77.65	0.00
I323	0.00	87.65	77.65	0.00
I324	0.00	87.65	77.65	0.00
I325	0.00	87.65	77.65	0.00
I326	0.00	87.65	77.65	0.00
S1	-450.00	10.00	0.00	0.00 Reservoir

Link Results:

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R1	355.50	1.81	6.09	Open
R2	94.50	0.48	1.00	Open
R3	285.19	1.45	3.44	Open
R4	247.69	1.97	8.19	Open
R5	196.12	1.56	5.20	Open
R6	158.62	2.06	9.28	Open
R7	139.87	1.82	7.34	Open
R8	55.50	0.72	1.33	Open
R9	-94.50	1.23	3.55	Open
R10	-94.50	1.23	3.55	Open
R11	-94.50	1.23	3.55	Open
R12	-94.50	1.23	3.55	Open
R13	-94.50	1.23	3.55	Open
R14	-94.50	1.23	3.55	Open
R15	-94.50	1.23	3.55	Open
R16	-94.50	1.23	3.55	Open
R17	-70.92	0.92	2.09	Open
R18	-94.50	1.23	3.55	Open
R19	-94.50	1.23	3.55	Open
R20	-94.50	1.23	3.55	Open
R21	-94.50	1.23	3.55	Open
R22	-94.50	0.75	1.27	Open
R23	-94.50	0.75	1.27	Open
R24	-94.50	0.75	1.27	Open
R25	-94.50	0.75	1.27	Open
R26	-94.50	0.75	1.27	Open
R27	-94.50	0.75	1.27	Open
R28	-94.50	0.48	0.41	Open
R29	-94.50	0.48	0.41	Open
R30	-23.58	0.39	1.18	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R31	-23.58	0.39	0.50	Open
R32	-23.58	0.39	0.50	Open
R33	-23.58	0.39	0.50	Open
R34	-23.58	0.39	0.50	Open
R35	-23.58	0.39	0.50	Open
R36	-23.58	0.39	0.50	Open
R39	-23.58	0.39	0.50	Open
R40	-23.58	0.39	0.65	Open
R41	150.00	1.95	11.78	Open
R42	145.31	1.89	7.88	Open
R43	126.56	2.09	10.96	Open
R44	121.88	2.01	10.21	Open
R45	117.19	1.94	9.49	Open
R46	112.50	1.86	8.80	Open
R47	0.00	0.00	0.00	Open
R48	0.00	0.00	0.00	Open
R49	70.31	2.30	39.32	Open
R50	65.63	2.14	17.24	Open
R51	42.19	1.38	7.59	Open
R52	450.00	2.29	8.39	Open
R53	51.56	1.68	14.27	Open
R54	46.88	1.53	9.22	Open
R55	112.50	1.86	10.68	Open
R56	107.81	1.78	8.13	Open
R57	79.69	1.32	4.64	Open
R58	75.00	1.24	4.15	Open
R59	70.31	1.16	3.68	Open
R60	0.00	0.00	0.00	Open
R61	0.00	0.00	0.00	Open
R62	0.00	0.00	0.00	Open
R63	0.00	0.00	0.00	Open
R64	0.00	0.00	0.00	Open
R65	0.00	0.00	0.00	Open
R66	0.00	0.00	0.00	Open
R67	0.00	0.00	0.00	Open
R68	0.00	0.00	0.00	Open
R69	0.00	0.00	0.00	Open
R71	23.44	1.50	23.86	Open
R72	18.75	1.20	8.83	Open
R73	14.06	0.90	5.21	Open
R74	9.38	0.60	2.49	Open
R75	42.19	2.70	71.10	Open
R76	14.06	0.90	5.64	Open
R77	9.38	0.60	2.49	Open
R78	4.69	0.30	0.72	Open
R79	23.44	1.50	13.31	Open
R80	18.75	1.20	8.83	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R81	14.06	0.90	5.21	Open	Open
R82	4.69	0.30	0.72	Open	Open
R83	37.50	2.40	50.62	Open	Open
R84	18.75	1.20	8.83	Open	Open
R85	14.06	0.90	5.21	Open	Open
R86	9.38	0.60	2.49	Open	Open
R87	4.69	0.30	0.72	Open	Open
R88	9.38	0.60	3.02	Open	Open
R89	4.69	0.30	0.72	Open	Open
R90	32.81	2.10	27.44	Open	Open
R91	28.13	1.80	18.65	Open	Open
R92	23.44	1.50	13.31	Open	Open
R93	18.75	1.20	8.83	Open	Open
R94	9.38	0.60	2.49	Open	Open
R95	4.69	0.30	0.72	Open	Open
R96	14.06	0.90	5.80	Open	Open
R97	9.38	0.60	2.49	Open	Open
R98	4.69	0.30	0.72	Open	Open
R99	37.50	2.40	49.95	Open	Open
R100	28.13	1.80	18.65	Open	Open
R101	14.06	0.90	5.21	Open	Open
R102	18.75	1.20	14.87	Open	Open
R103	9.38	0.60	2.49	Open	Open
R104	4.69	0.30	0.72	Open	Open
R105	4.69	0.30	0.83	Open	Open
R106	84.38	2.20	31.21	Open	Open
R107	37.50	1.23	6.11	Open	Open
R108	32.81	2.10	24.84	Open	Open
R109	9.38	0.60	2.49	Open	Open
R110	4.69	0.30	0.72	Open	Open
R111	14.06	0.90	5.37	Open	Open
R112	4.69	0.30	0.72	Open	Open
R113	42.19	1.38	11.35	Open	Open
R114	28.13	1.80	18.65	Open	Open
R115	23.44	1.50	13.31	Open	Open
R116	18.75	1.20	8.82	Open	Open
R117	9.38	0.60	2.49	Open	Open
R118	4.69	0.30	0.72	Open	Open
R119	14.06	0.90	7.11	Open	Open
R120	9.38	0.60	2.49	Open	Open
R121	4.69	0.30	0.72	Open	Open
R122	18.75	1.20	9.46	Open	Open
R123	9.38	0.60	2.49	Open	Open
R124	4.69	0.30	0.72	Open	Open
R125	-4.69	0.30	0.72	Open	Open
R126	-9.38	0.60	2.49	Open	Open
R127	-14.06	0.90	5.21	Open	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R128	-18.75	1.20	8.83	Open	Open
R129	23.44	1.50	19.47	Open	Open
R130	14.06	0.90	7.88	Open	Open
R131	9.38	0.60	2.49	Open	Open
R132	56.25	0.93	6.28	Open	Open
R133	51.56	0.85	2.08	Open	Open
R134	14.06	0.90	7.32	Open	Open
R135	4.69	0.30	0.72	Open	Open
R136	37.50	0.98	3.51	Open	Open
R137	32.81	0.85	2.74	Open	Open
R138	28.13	0.73	2.07	Open	Open
R139	23.44	0.61	1.49	Open	Open
R140	18.75	0.49	0.99	Open	Open
R141	14.06	0.37	0.59	Open	Open
R142	9.38	0.60	2.49	Open	Open
R143	4.69	0.30	0.72	Open	Open
R144	0.00	0.00	0.00	Open	Open
R145	0.00	0.00	0.00	Open	Open
R146	0.00	0.00	0.00	Open	Open
R147	0.00	0.00	0.00	Open	Open
R148	0.00	0.00	0.00	Open	Open
R149	0.00	0.00	0.00	Open	Open
R150	0.00	0.00	0.00	Open	Open
R151	0.00	0.00	0.00	Open	Open
R152	0.00	0.00	0.00	Open	Open
R153	0.00	0.00	0.00	Open	Open
R154	0.00	0.00	0.00	Open	Open
R155	0.00	0.00	0.00	Open	Open
R156	0.00	0.00	0.00	Open	Open
R157	0.00	0.00	0.00	Open	Open
R158	0.00	0.00	0.00	Open	Open
R159	0.00	0.00	0.00	Open	Open
R160	0.00	0.00	0.00	Open	Open
R161	0.00	0.00	0.00	Open	Open
R162	0.00	0.00	0.00	Open	Open
R163	0.00	0.00	0.00	Open	Open
R164	0.00	0.00	0.00	Open	Open
R165	0.00	0.00	0.00	Open	Open
R166	0.00	0.00	0.00	Open	Open
R167	0.00	0.00	0.00	Open	Open
R168	0.00	0.00	0.00	Open	Open
R169	0.00	0.00	0.00	Open	Open
R170	0.00	0.00	0.00	Open	Open
R171	0.00	0.00	0.00	Open	Open
R172	0.00	0.00	0.00	Open	Open
R173	0.00	0.00	0.00	Open	Open
R174	0.00	0.00	0.00	Open	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R175	0.00	0.00	0.00	0.00	Open
R176	0.00	0.00	0.00	0.00	Open
R177	0.00	0.00	0.00	0.00	Open
R178	0.00	0.00	0.00	0.00	Open
R179	0.00	0.00	0.00	0.00	Open
R180	0.00	0.00	0.00	0.00	Open
R181	0.00	0.00	0.00	0.00	Open
R182	0.00	0.00	0.00	0.00	Open
R183	0.00	0.00	0.00	0.00	Open
R184	0.00	0.00	0.00	0.00	Open
R185	0.00	0.00	0.00	0.00	Open
R186	0.00	0.00	0.00	0.00	Open
R187	0.00	0.00	0.00	0.00	Open
R188	0.00	0.00	0.00	0.00	Open
R189	0.00	0.00	0.00	0.00	Open
R190	0.00	0.00	0.00	0.00	Open
R191	0.00	0.00	0.00	0.00	Open
R192	0.00	0.00	0.00	0.00	Open
R193	0.00	0.00	0.00	0.00	Open
R194	0.00	0.00	0.00	0.00	Open
R195	0.00	0.00	0.00	0.00	Open
R196	0.00	0.00	0.00	0.00	Open
R197	0.00	0.00	0.00	0.00	Open
R198	0.00	0.00	0.00	0.00	Open
R199	0.00	0.00	0.00	0.00	Open
R200	0.00	0.00	0.00	0.00	Open
R201	0.00	0.00	0.00	0.00	Open
R202	0.00	0.00	0.00	0.00	Open
R203	-23.58	0.39	0.50	0.50	Open
R204	-23.58	0.39	0.50	0.50	Open
R205	0.00	0.00	0.00	0.00	Open
R206	0.00	0.00	0.00	0.00	Open
R207	0.00	0.00	0.00	0.00	Open
R208	0.00	0.00	0.00	0.00	Open
R209	0.00	0.00	0.00	0.00	Open
R210	0.00	0.00	0.00	0.00	Open
R211	0.00	0.00	0.00	0.00	Open
R212	0.00	0.00	0.00	0.00	Open
R213	0.00	0.00	0.00	0.00	Open
R214	0.00	0.00	0.00	0.00	Open
R215	0.00	0.00	0.00	0.00	Open
R216	0.00	0.00	0.00	0.00	Open
R217	0.00	0.00	0.00	0.00	Open
R218	0.00	0.00	0.00	0.00	Open
R219	0.00	0.00	0.00	0.00	Open
R220	0.00	0.00	0.00	0.00	Open
R221	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R222	0.00	0.00	0.00	0.00	Open
R223	0.00	0.00	0.00	0.00	Open
R224	0.00	0.00	0.00	0.00	Open
R225	0.00	0.00	0.00	0.00	Open
R226	0.00	0.00	0.00	0.00	Open
R227	0.00	0.00	0.00	0.00	Open
R228	0.00	0.00	0.00	0.00	Open
R229	0.00	0.00	0.00	0.00	Open
R230	0.00	0.00	0.00	0.00	Open
R231	0.00	0.00	0.00	0.00	Open
R232	0.00	0.00	0.00	0.00	Open
R233	0.00	0.00	0.00	0.00	Open
R234	0.00	0.00	0.00	0.00	Open
R235	0.00	0.00	0.00	0.00	Open
R236	0.00	0.00	0.00	0.00	Open
R237	0.00	0.00	0.00	0.00	Open
R238	0.00	0.00	0.00	0.00	Open
R239	0.00	0.00	0.00	0.00	Open
R240	0.00	0.00	0.00	0.00	Open
R241	0.00	0.00	0.00	0.00	Open
R242	0.00	0.00	0.00	0.00	Open
R243	0.00	0.00	0.00	0.00	Open
R244	0.00	0.00	0.00	0.00	Open
R245	0.00	0.00	0.00	0.00	Open
R246	0.00	0.00	0.00	0.00	Open
R247	0.00	0.00	0.00	0.00	Open
R248	0.00	0.00	0.00	0.00	Open
R249	0.00	0.00	0.00	0.00	Open
R250	0.00	0.00	0.00	0.00	Open
R251	0.00	0.00	0.00	0.00	Open
R252	0.00	0.00	0.00	0.00	Open
R253	0.00	0.00	0.00	0.00	Open
R254	0.00	0.00	0.00	0.00	Open
R255	0.00	0.00	0.00	0.00	Open
R256	0.00	0.00	0.00	0.00	Open
R257	0.00	0.00	0.00	0.00	Open
R258	0.00	0.00	0.00	0.00	Open
R259	0.00	0.00	0.00	0.00	Open
R260	0.00	0.00	0.00	0.00	Open
R261	0.00	0.00	0.00	0.00	Open
R262	0.00	0.00	0.00	0.00	Open
R263	0.00	0.00	0.00	0.00	Open
R264	0.00	0.00	0.00	0.00	Open
R265	0.00	0.00	0.00	0.00	Open
R266	0.00	0.00	0.00	0.00	Open
R267	0.00	0.00	0.00	0.00	Open
R268	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R269	0.00	0.00	0.00	0.00	Open
R270	0.00	0.00	0.00	0.00	Open
R271	0.00	0.00	0.00	0.00	Open
R272	0.00	0.00	0.00	0.00	Open
R273	0.00	0.00	0.00	0.00	Open
R274	0.00	0.00	0.00	0.00	Open
R275	0.00	0.00	0.00	0.00	Open
R276	0.00	0.00	0.00	0.00	Open
R277	0.00	0.00	0.00	0.00	Open
R278	0.00	0.00	0.00	0.00	Open
R279	0.00	0.00	0.00	0.00	Open
R280	0.00	0.00	0.00	0.00	Open
R281	0.00	0.00	0.00	0.00	Open
R282	0.00	0.00	0.00	0.00	Open
R283	0.00	0.00	0.00	0.00	Open
R284	0.00	0.00	0.00	0.00	Open
R285	0.00	0.00	0.00	0.00	Open
R286	0.00	0.00	0.00	0.00	Open
R287	0.00	0.00	0.00	0.00	Open
R288	0.00	0.00	0.00	0.00	Open
R289	0.00	0.00	0.00	0.00	Open
R290	0.00	0.00	0.00	0.00	Open
R291	0.00	0.00	0.00	0.00	Open
R292	0.00	0.00	0.00	0.00	Open
R293	0.00	0.00	0.00	0.00	Open
R294	0.00	0.00	0.00	0.00	Open
R295	0.00	0.00	0.00	0.00	Open
R296	0.00	0.00	0.00	0.00	Open
R297	0.00	0.00	0.00	0.00	Open
R298	0.00	0.00	0.00	0.00	Open
R299	0.00	0.00	0.00	0.00	Open
R300	0.00	0.00	0.00	0.00	Open
R301	0.00	0.00	0.00	0.00	Open
R302	0.00	0.00	0.00	0.00	Open
R303	0.00	0.00	0.00	0.00	Open
R304	0.00	0.00	0.00	0.00	Open
R305	0.00	0.00	0.00	0.00	Open
R306	0.00	0.00	0.00	0.00	Open
R307	0.00	0.00	0.00	0.00	Open
R308	0.00	0.00	0.00	0.00	Open
R309	0.00	0.00	0.00	0.00	Open
R310	0.00	0.00	0.00	0.00	Open
R311	0.00	0.00	0.00	0.00	Open
R312	0.00	0.00	0.00	0.00	Open
R313	0.00	0.00	0.00	0.00	Open
R314	0.00	0.00	0.00	0.00	Open
R315	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R316	0.00	0.00	0.00	0.00	Open
R317	0.00	0.00	0.00	0.00	Open
R318	0.00	0.00	0.00	0.00	Open
R319	0.00	0.00	0.00	0.00	Open
R320	0.00	0.00	0.00	0.00	Open
R321	0.00	0.00	0.00	0.00	Open
R322	0.00	0.00	0.00	0.00	Open
R323	0.00	0.00	0.00	0.00	Open
R326	4.69	0.64	4.40	4.40	Open
R327	4.69	0.64	4.40	4.40	Open
R328	4.69	0.64	4.40	4.40	Open
R329	4.69	0.64	4.40	4.40	Open
R330	4.69	0.64	4.40	4.40	Open
R331	4.69	0.64	4.40	4.40	Open
R332	4.69	0.64	4.40	4.40	Open
R333	4.69	0.64	4.40	4.40	Open
R334	4.69	0.64	4.40	4.40	Open
R335	4.69	0.64	4.40	4.40	Open
R336	4.69	0.64	4.40	4.40	Open
R337	4.69	0.64	4.40	4.40	Open
R338	4.69	0.64	4.40	4.40	Open
R339	4.69	0.64	4.40	4.40	Open
R340	4.69	0.64	4.40	4.40	Open
R341	4.69	0.64	4.40	4.40	Open
R342	4.69	0.64	4.40	4.40	Open
R343	4.69	0.64	4.40	4.40	Open
R344	4.69	0.64	4.40	4.40	Open
R345	4.69	0.64	4.40	4.40	Open
R346	4.69	0.64	4.40	4.40	Open
R347	4.69	0.64	4.40	4.40	Open
R348	4.69	0.64	4.40	4.40	Open
R349	4.69	0.64	4.40	4.40	Open
R350	4.69	0.64	4.40	4.40	Open
R351	4.69	0.64	4.40	4.40	Open
R352	4.69	0.64	4.40	4.40	Open
R353	4.69	0.64	4.40	4.40	Open
R354	4.69	0.64	4.40	4.40	Open
R355	4.69	0.64	4.40	4.40	Open
R356	4.69	0.64	4.40	4.40	Open
R357	4.69	0.64	4.40	4.40	Open
R358	4.69	0.64	4.40	4.40	Open
R359	4.69	0.64	4.40	4.40	Open
R360	4.69	0.64	4.40	4.40	Open
R361	4.69	0.64	4.40	4.40	Open
R362	4.69	0.64	4.40	4.40	Open
R363	4.69	0.64	4.40	4.40	Open
R364	4.69	0.64	4.40	4.40	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit m/km	Headloss	Status
R365	4.69	0.64	4.40	4.40	Open
R366	4.69	0.64	4.40	4.40	Open
R367	4.69	0.64	4.40	4.40	Open
R368	4.69	0.64	4.40	4.40	Open
R369	4.69	0.64	4.40	4.40	Open
R370	4.69	0.64	4.40	4.40	Open
R371	4.69	0.64	4.40	4.40	Open
R372	4.69	0.64	4.40	4.40	Open
R373	4.69	0.64	4.40	4.40	Open
R374	4.69	0.64	4.40	4.40	Open
R375	4.69	0.64	4.40	4.40	Open
R376	4.69	0.64	4.40	4.40	Open
R377	4.69	0.64	4.40	4.40	Open
R378	4.69	0.64	4.40	4.40	Open
R379	4.69	0.64	4.40	4.40	Open
R380	4.69	0.64	4.40	4.40	Open
R381	4.69	0.64	4.40	4.40	Open
R382	4.69	0.64	4.40	4.40	Open
R383	4.69	0.64	4.40	4.40	Open
R384	4.69	0.64	4.40	4.40	Open
R385	4.69	0.64	4.40	4.40	Open
R386	4.69	0.64	4.40	4.40	Open
R387	4.69	0.64	4.40	4.40	Open
R388	4.69	0.64	4.40	4.40	Open
R389	4.69	0.64	4.40	4.40	Open
R390	4.69	0.64	4.40	4.40	Open
R391	4.69	0.64	4.40	4.40	Open
R392	4.69	0.64	4.40	4.40	Open
R393	4.69	0.64	4.40	4.40	Open
R394	4.69	0.64	4.40	4.40	Open
R395	4.69	0.64	4.40	4.40	Open
R396	4.69	0.64	4.40	4.40	Open
R397	4.69	0.64	4.40	4.40	Open
R398	4.69	0.64	4.40	4.40	Open
R399	4.69	0.64	4.40	4.40	Open
R400	4.69	0.64	4.40	4.40	Open
R401	4.69	0.64	4.40	4.40	Open
R402	4.69	0.64	4.40	4.40	Open
R403	4.69	0.64	4.40	4.40	Open
R404	4.69	0.64	4.40	4.40	Open
R405	4.69	0.64	4.40	4.40	Open
R406	4.69	0.64	4.40	4.40	Open
R407	4.69	0.64	4.40	4.40	Open
R408	4.69	0.64	4.40	4.40	Open
R409	4.69	0.64	4.40	4.40	Open
R410	4.69	0.64	4.40	4.40	Open
R411	4.69	0.64	4.40	4.40	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit m/km	Headloss	Status
R412	4.69	0.64	4.40	4.40	Open
R413	4.69	0.64	4.40	4.40	Open
R414	4.69	0.64	4.40	4.40	Open
R415	4.69	0.64	4.40	4.40	Open
R416	4.69	0.64	4.40	4.40	Open
R417	4.69	0.64	4.40	4.40	Open
R418	4.69	0.64	4.40	4.40	Open
R419	4.69	0.64	4.40	4.40	Open
R420	4.69	0.64	4.40	4.40	Open
R421	4.69	0.64	4.40	4.40	Open
R422	0.00	0.00	0.00	0.00	Open
R423	0.00	0.00	0.00	0.00	Open
R424	0.00	0.00	0.00	0.00	Open
R425	0.00	0.00	0.00	0.00	Open
R426	0.00	0.00	0.00	0.00	Open
R427	0.00	0.00	0.00	0.00	Open
R428	0.00	0.00	0.00	0.00	Open
R429	0.00	0.00	0.00	0.00	Open
R430	0.00	0.00	0.00	0.00	Open
R431	0.00	0.00	0.00	0.00	Open
R432	0.00	0.00	0.00	0.00	Open
R433	0.00	0.00	0.00	0.00	Open
R434	0.00	0.00	0.00	0.00	Open
R435	0.00	0.00	0.00	0.00	Open
R436	0.00	0.00	0.00	0.00	Open
R437	0.00	0.00	0.00	0.00	Open
R438	0.00	0.00	0.00	0.00	Open
R439	0.00	0.00	0.00	0.00	Open
R440	0.00	0.00	0.00	0.00	Open
R441	0.00	0.00	0.00	0.00	Open
R442	0.00	0.00	0.00	0.00	Open
R443	0.00	0.00	0.00	0.00	Open
R444	0.00	0.00	0.00	0.00	Open
R445	0.00	0.00	0.00	0.00	Open
R446	0.00	0.00	0.00	0.00	Open
R447	0.00	0.00	0.00	0.00	Open
R448	0.00	0.00	0.00	0.00	Open
R449	0.00	0.00	0.00	0.00	Open
R450	0.00	0.00	0.00	0.00	Open
R451	0.00	0.00	0.00	0.00	Open
R452	0.00	0.00	0.00	0.00	Open
R453	0.00	0.00	0.00	0.00	Open
R454	0.00	0.00	0.00	0.00	Open
R455	0.00	0.00	0.00	0.00	Open
R456	0.00	0.00	0.00	0.00	Open
R457	0.00	0.00	0.00	0.00	Open
R458	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R459	0.00	0.00	0.00	0.00	Open
R460	0.00	0.00	0.00	0.00	Open
R461	0.00	0.00	0.00	0.00	Open
R462	0.00	0.00	0.00	0.00	Open
R463	0.00	0.00	0.00	0.00	Open
R464	0.00	0.00	0.00	0.00	Open
R465	0.00	0.00	0.00	0.00	Open
R466	0.00	0.00	0.00	0.00	Open
R467	0.00	0.00	0.00	0.00	Open
R468	0.00	0.00	0.00	0.00	Open
R469	0.00	0.00	0.00	0.00	Open
R470	0.00	0.00	0.00	0.00	Open
R471	0.00	0.00	0.00	0.00	Open
R472	0.00	0.00	0.00	0.00	Open
R473	0.00	0.00	0.00	0.00	Open
R474	0.00	0.00	0.00	0.00	Open
R475	0.00	0.00	0.00	0.00	Open
R476	0.00	0.00	0.00	0.00	Open
R477	0.00	0.00	0.00	0.00	Open
R478	0.00	0.00	0.00	0.00	Open
R479	0.00	0.00	0.00	0.00	Open
R480	0.00	0.00	0.00	0.00	Open
R481	0.00	0.00	0.00	0.00	Open
R482	0.00	0.00	0.00	0.00	Open
R483	0.00	0.00	0.00	0.00	Open
R484	0.00	0.00	0.00	0.00	Open
R485	0.00	0.00	0.00	0.00	Open
R486	0.00	0.00	0.00	0.00	Open
R487	0.00	0.00	0.00	0.00	Open
R488	0.00	0.00	0.00	0.00	Open
R489	0.00	0.00	0.00	0.00	Open
R490	0.00	0.00	0.00	0.00	Open
R491	0.00	0.00	0.00	0.00	Open
R492	0.00	0.00	0.00	0.00	Open
R493	0.00	0.00	0.00	0.00	Open
R494	0.00	0.00	0.00	0.00	Open
R495	0.00	0.00	0.00	0.00	Open
R496	0.00	0.00	0.00	0.00	Open
R497	0.00	0.00	0.00	0.00	Open
R498	0.00	0.00	0.00	0.00	Open
R499	0.00	0.00	0.00	0.00	Open
R500	0.00	0.00	0.00	0.00	Open
R501	0.00	0.00	0.00	0.00	Open
R502	0.00	0.00	0.00	0.00	Open
R503	0.00	0.00	0.00	0.00	Open
R504	0.00	0.00	0.00	0.00	Open
R505	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R506	0.00	0.00	0.00	0.00	Open
R507	0.00	0.00	0.00	0.00	Open
R508	0.00	0.00	0.00	0.00	Open
R509	0.00	0.00	0.00	0.00	Open
R510	0.00	0.00	0.00	0.00	Open
R511	0.00	0.00	0.00	0.00	Open
R512	0.00	0.00	0.00	0.00	Open
R513	0.00	0.00	0.00	0.00	Open
R514	0.00	0.00	0.00	0.00	Open
R515	0.00	0.00	0.00	0.00	Open
R516	0.00	0.00	0.00	0.00	Open
R517	0.00	0.00	0.00	0.00	Open
R518	0.00	0.00	0.00	0.00	Open
R519	0.00	0.00	0.00	0.00	Open
R520	0.00	0.00	0.00	0.00	Open
R521	0.00	0.00	0.00	0.00	Open
R522	0.00	0.00	0.00	0.00	Open
R523	0.00	0.00	0.00	0.00	Open
R524	0.00	0.00	0.00	0.00	Open
R525	0.00	0.00	0.00	0.00	Open
R526	0.00	0.00	0.00	0.00	Open
R527	0.00	0.00	0.00	0.00	Open
R528	0.00	0.00	0.00	0.00	Open
R529	0.00	0.00	0.00	0.00	Open
R530	0.00	0.00	0.00	0.00	Open
R531	0.00	0.00	0.00	0.00	Open
R532	0.00	0.00	0.00	0.00	Open
R533	0.00	0.00	0.00	0.00	Open
R534	0.00	0.00	0.00	0.00	Open
R535	0.00	0.00	0.00	0.00	Open
R536	0.00	0.00	0.00	0.00	Open
R537	0.00	0.00	0.00	0.00	Open
R538	0.00	0.00	0.00	0.00	Open
R539	0.00	0.00	0.00	0.00	Open
R540	0.00	0.00	0.00	0.00	Open
R541	0.00	0.00	0.00	0.00	Open
R542	0.00	0.00	0.00	0.00	Open
R543	0.00	0.00	0.00	0.00	Open
R544	0.00	0.00	0.00	0.00	Open
R545	0.00	0.00	0.00	0.00	Open
R546	0.00	0.00	0.00	0.00	Open
R547	0.00	0.00	0.00	0.00	Open
R548	0.00	0.00	0.00	0.00	Open
R549	0.00	0.00	0.00	0.00	Open
R550	0.00	0.00	0.00	0.00	Open
R551	0.00	0.00	0.00	0.00	Open
R552	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R553	0.00	0.00	0.00	0.00	Open
R554	0.00	0.00	0.00	0.00	Open
R555	0.00	0.00	0.00	0.00	Open
R556	0.00	0.00	0.00	0.00	Open
R557	0.00	0.00	0.00	0.00	Open
R558	0.00	0.00	0.00	0.00	Open
R559	0.00	0.00	0.00	0.00	Open
R560	0.00	0.00	0.00	0.00	Open
R561	0.00	0.00	0.00	0.00	Open
R562	0.00	0.00	0.00	0.00	Open
R563	0.00	0.00	0.00	0.00	Open
R566	0.00	0.00	0.00	0.00	Open
R567	0.00	0.00	0.00	0.00	Open
R568	0.00	0.00	0.00	0.00	Open
R569	0.00	0.00	0.00	0.00	Open
R570	0.00	0.00	0.00	0.00	Open
R571	0.00	0.00	0.00	0.00	Open
R572	0.00	0.00	0.00	0.00	Open
R573	0.00	0.00	0.00	0.00	Open
R574	0.00	0.00	0.00	0.00	Open
R575	0.00	0.00	0.00	0.00	Open
R576	0.00	0.00	0.00	0.00	Open
R577	0.00	0.00	0.00	0.00	Open
R578	0.00	0.00	0.00	0.00	Open
R579	0.00	0.00	0.00	0.00	Open
R580	0.00	0.00	0.00	0.00	Open
R581	0.00	0.00	0.00	0.00	Open
R582	0.00	0.00	0.00	0.00	Open
R583	0.00	0.00	0.00	0.00	Open
R584	0.00	0.00	0.00	0.00	Open
R585	0.00	0.00	0.00	0.00	Open
R586	0.00	0.00	0.00	0.00	Open
R587	0.00	0.00	0.00	0.00	Open
R588	0.00	0.00	0.00	0.00	Open
R589	0.00	0.00	0.00	0.00	Open
R590	0.00	0.00	0.00	0.00	Open
R591	0.00	0.00	0.00	0.00	Open
R592	0.00	0.00	0.00	0.00	Open
R593	0.00	0.00	0.00	0.00	Open
R594	0.00	0.00	0.00	0.00	Open
R595	0.00	0.00	0.00	0.00	Open
R596	0.00	0.00	0.00	0.00	Open
R597	0.00	0.00	0.00	0.00	Open
R598	0.00	0.00	0.00	0.00	Open
R599	0.00	0.00	0.00	0.00	Open
R600	0.00	0.00	0.00	0.00	Open
R601	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R602	0.00	0.00	0.00	0.00	Open
R603	0.00	0.00	0.00	0.00	Open
R604	0.00	0.00	0.00	0.00	Open
R605	0.00	0.00	0.00	0.00	Open
R606	0.00	0.00	0.00	0.00	Open
R607	0.00	0.00	0.00	0.00	Open
R608	0.00	0.00	0.00	0.00	Open
R609	0.00	0.00	0.00	0.00	Open
R610	0.00	0.00	0.00	0.00	Open
R611	0.00	0.00	0.00	0.00	Open
R612	0.00	0.00	0.00	0.00	Open
R613	0.00	0.00	0.00	0.00	Open
R614	0.00	0.00	0.00	0.00	Open
R615	0.00	0.00	0.00	0.00	Open
R616	0.00	0.00	0.00	0.00	Open
R617	0.00	0.00	0.00	0.00	Open
R618	0.00	0.00	0.00	0.00	Open
R619	0.00	0.00	0.00	0.00	Open
R620	0.00	0.00	0.00	0.00	Open
R621	0.00	0.00	0.00	0.00	Open
R622	0.00	0.00	0.00	0.00	Open
R623	0.00	0.00	0.00	0.00	Open
R624	0.00	0.00	0.00	0.00	Open
R625	0.00	0.00	0.00	0.00	Open
R626	0.00	0.00	0.00	0.00	Open
R627	0.00	0.00	0.00	0.00	Open
R628	0.00	0.00	0.00	0.00	Open
R629	0.00	0.00	0.00	0.00	Open
R630	0.00	0.00	0.00	0.00	Open
R631	0.00	0.00	0.00	0.00	Open
R632	0.00	0.00	0.00	0.00	Open
R633	0.00	0.00	0.00	0.00	Open
R634	0.00	0.00	0.00	0.00	Open
R635	0.00	0.00	0.00	0.00	Open
R636	0.00	0.00	0.00	0.00	Open
R637	0.00	0.00	0.00	0.00	Open
R638	0.00	0.00	0.00	0.00	Open
R639	0.00	0.00	0.00	0.00	Open
R640	0.00	0.00	0.00	0.00	Open
R641	0.00	0.00	0.00	0.00	Open
R642	0.00	0.00	0.00	0.00	Open
R643	0.00	0.00	0.00	0.00	Open
R644	0.00	0.00	0.00	0.00	Open
R645	0.00	0.00	0.00	0.00	Open
R646	0.00	0.00	0.00	0.00	Open
R647	0.00	0.00	0.00	0.00	Open
R648	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R649	0.00	0.00		0.00	Open
R650	0.00	0.00		0.00	Open
R651	0.00	0.00		0.00	Open
R652	0.00	0.00		0.00	Open
R653	0.00	0.00		0.00	Open
R37	23.58	0.39		0.50	Open
P1	0.00	0.00		0.00	Closed Pump
P2	150.00	0.00		-80.00	Open Pump
P3	150.00	0.00		-80.00	Open Pump
P4	150.00	0.00		-80.00	Open Pump

1.5 IPOTESI DI FUNZIONAMENTO C

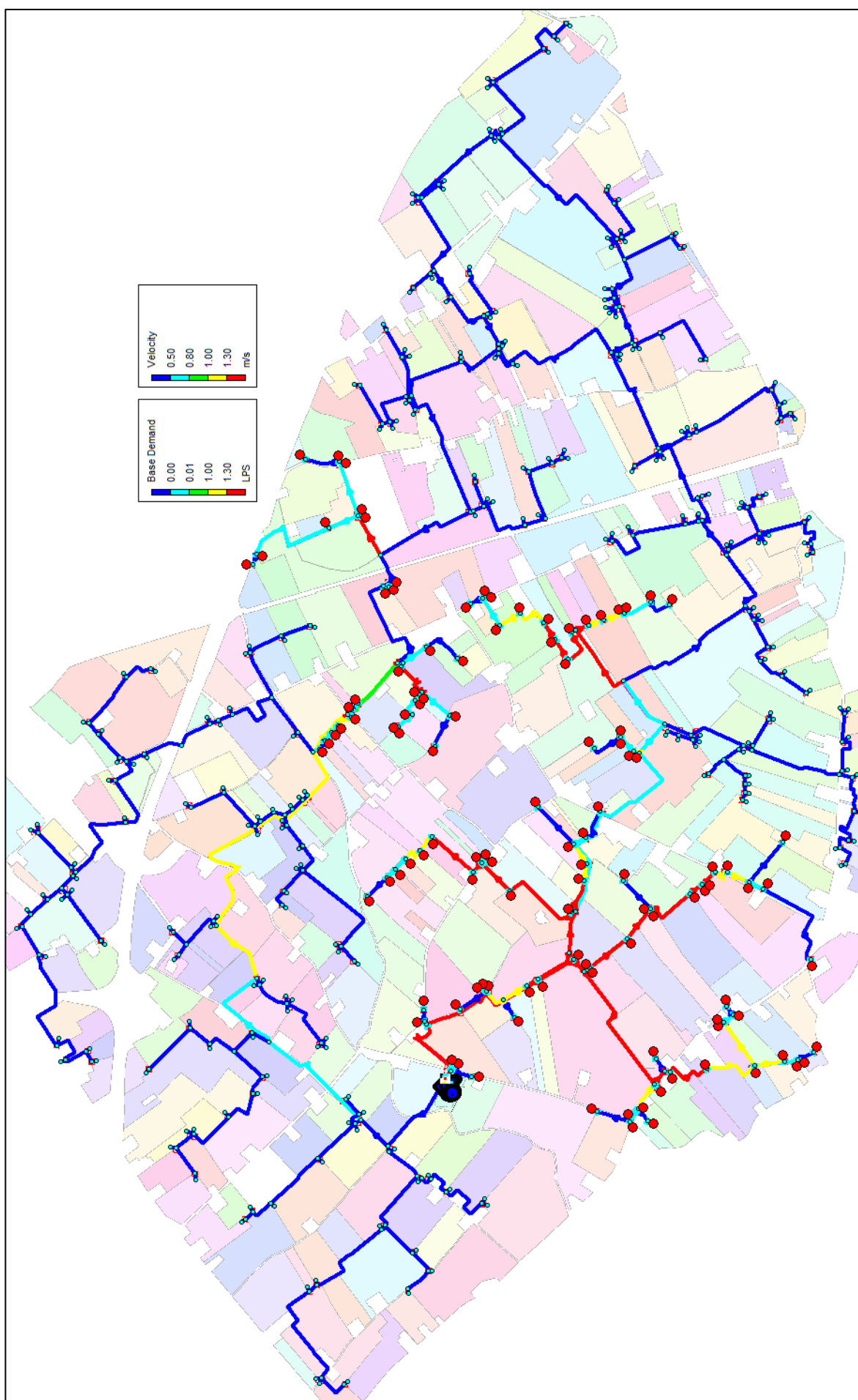


Figura 8 – Risultati della simulazione : base demand nei nodi e velocità nei rami

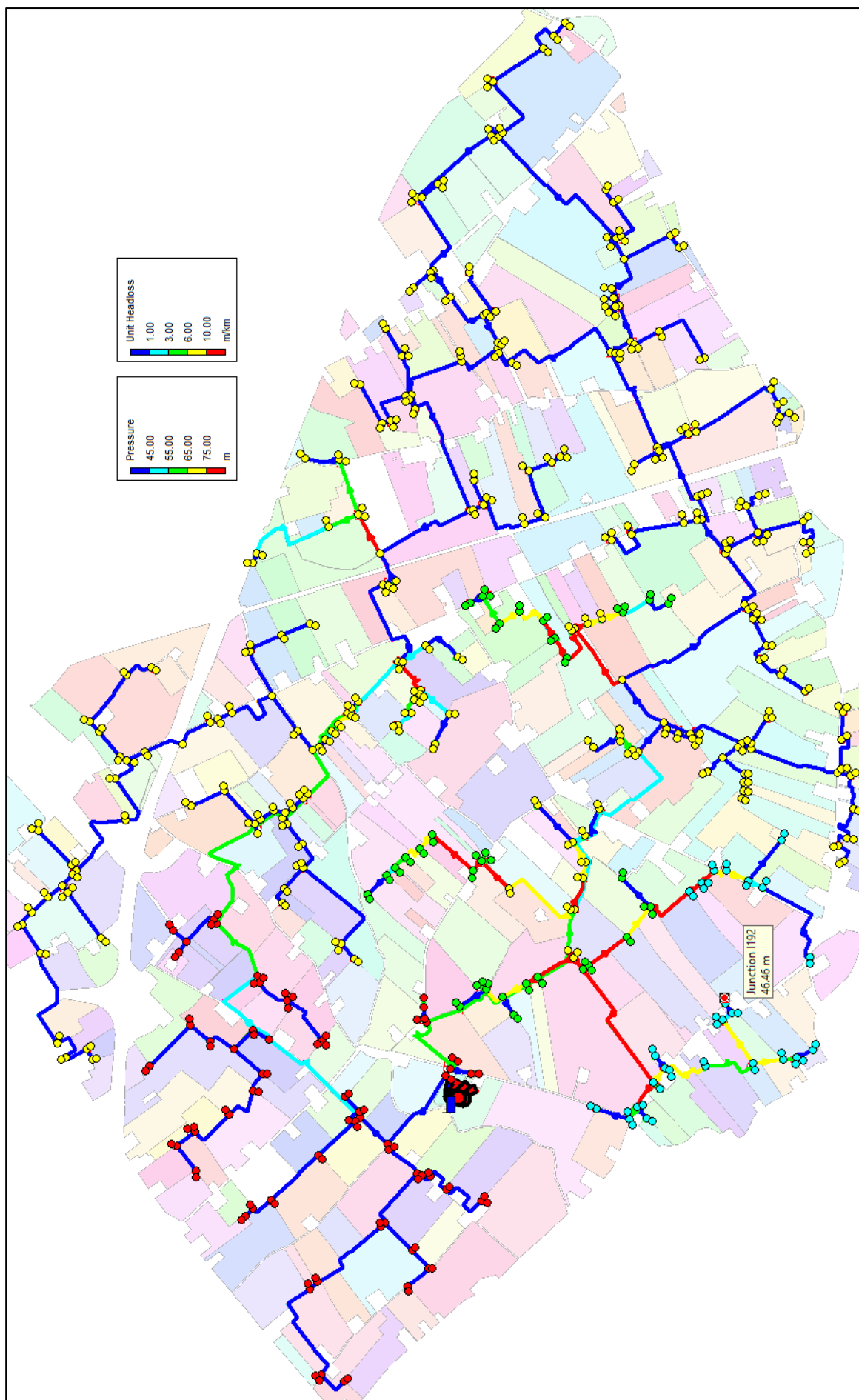


Figura 9 – Risultati della simulazione : pressione nei nodi e perdite di carico nei rami

RISULTATI SIMULAZIONE BONCELLINO IPOTESI FUNZIONAMENTO C

Link - Node Table:

Link ID	Start Node	End Node	Length m	Diameter mm
R1	Z1	Z4	376.99	500
R2	Z1	Z3	36.23	500
R3	Z4	Z30	158.87	500
R4	Z30	Z29	511.94	400
R5	Z29	Z28	434.27	400
R6	Z28	Z27	287.35	312.8
R7	Z27	Z26	776.86	312.8
R8	Z26	Z25	386.60	312.8
R9	Z25	Z24	215.34	312.8
R10	Z24	Z23	301.23	312.8
R11	Z23	Z22	483.92	312.8
R12	Z22	Z21	165.41	312.8
R13	Z21	Z20	432.52	312.8
R14	Z20	Z19	589.94	312.8
R15	Z19	Z18	288.16	312.8
R16	Z18	Z17	195.48	312.8
R17	Z17	Z16	639.32	312.8
R18	Z16	Z15	449.15	312.8
R19	Z15	Z14	322.70	312.8
R20	Z14	Z13	121.51	312.8
R21	Z13	Z12	176.09	312.8
R22	Z12	Z11	283.53	400
R23	Z11	Z10	623.06	400
R24	Z10	Z9	252.99	400
R25	Z9	Z8	161.10	400
R26	Z8	Z7	965.02	400
R27	Z7	Z6	174.34	400
R28	Z6	Z2	733.02	500
R29	Z2	Z3	295.18	500
R30	Z17	Z31	20.64	277.6
R31	Z31	Z32	131.11	277.6
R32	Z32	Z33	193.47	277.6
R33	Z33	Z34	130.26	277.6
R34	Z34	Z35	378.35	277.6
R35	Z35	Z36	399.85	277.6
R36	Z36	Z37	45.95	277.6
R39	Z39	Z40	159.80	277.6

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Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R40	Z40	Z16	93.15	277.6
R41	Z25	Z41	102.26	312.8
R42	Z41	Z42	180.32	312.8
R43	Z42	Z44	302.32	277.6
R44	Z44	Z45	64.21	277.6
R45	Z45	Z46	36.74	277.6
R46	Z46	Z43	156.53	277.6
R47	Z9	Z47	121.61	221.2
R48	Z47	Z48	240.32	221.2
R49	Z4	Z49	24.55	197.4
R50	Z49	Z50	155.79	197.4
R51	Z50	Z51	282.48	197.4
R52	Z52	Z1	29.23	500
R53	Z29	Z53	79.69	197.4
R54	Z53	Z54	111.39	197.4
R55	Z43	Z55	168.27	277.6
R56	Z55	Z56	81.61	277.6
R57	Z56	Z57	122.30	277.6
R58	Z57	Z58	248.24	277.6
R59	Z58	Z59	408.67	277.6
R60	Z48	Z60	42.59	197.4
R61	Z60	Z61	381.34	197.4
R62	Z10	Z62	326.51	197.4
R63	Z6	Z63	37.20	197.4
R64	Z63	Z64	65.06	197.4
R65	Z64	Z65	27.55	197.4
R66	Z65	Z66	197.52	197.4
R67	Z66	Z67	159.32	197.4
R68	Z64	Z68	593.09	197.4
R69	Z68	Z69	73.39	197.4
R71	Z50	Z70	19.58	141
R72	Z70	Z71	52.37	141
R73	Z71	Z72	134.03	141
R74	Z72	Z73	272.89	141
R75	Z51	Z74	21.33	141
R76	Z74	Z75	171.77	141
R77	Z75	Z76	100.49	141
R78	Z76	Z77	113.17	141
R79	Z74	Z78	388.18	141
R80	Z78	Z79	41.68	141
R81	Z79	Z80	492.04	141
R82	Z80	Z81	136.69	141
R83	Z30	Z82	28.20	141
R84	Z82	Z83	210.10	141
R85	Z83	Z84	273.85	141
R86	Z84	Z85	100.05	141
R87	Z85	Z86	44.57	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R88	Z82	Z88	63.06	141
R89	Z88	Z87	83.04	141
R90	Z54	Z94	156.07	141
R91	Z94	Z93	83.07	141
R92	Z93	Z92	187.75	141
R93	Z92	Z91	200.47	141
R94	Z91	Z90	94.69	141
R95	Z90	Z89	132.30	141
R96	Z54	Z95	125.84	141
R97	Z95	Z96	103.76	141
R98	Z96	Z97	240.97	141
R99	Z28	Z98	29.24	141
R100	Z98	Z99	145.56	141
R101	Z99	Z100	238.71	141
R102	Z27	Z101	21.88	141
R103	Z101	Z102	160.47	141
R104	Z102	Z103	54.42	141
R105	Z102	Z104	75.70	141
R106	Z26	Z105	28.55	221.2
R107	Z105	Z106	105.99	197.4
R108	Z106	Z107	133.09	141
R109	Z107	Z110	114.87	141
R110	Z110	Z111	81.12	141
R111	Z107	Z108	472.49	141
R112	Z108	Z109	82.44	141
R113	Z105	Z112	46.30	197.4
R114	Z112	Z113	49.61	141
R115	Z113	Z114	65.69	141
R116	Z114	Z115	30.56	141
R117	Z115	Z116	187.17	141
R118	Z116	Z117	152.14	141
R119	Z112	Z118	39.18	141
R120	Z118	Z119	57.41	141
R121	Z119	Z120	27.68	141
R122	Z42	Z121	207.55	141
R123	Z121	Z122	148.77	141
R124	Z122	Z123	127.14	141
R125	Z124	Z125	129.31	141
R126	Z125	Z126	246.99	141
R127	Z126	Z127	60.88	141
R128	Z127	Z128	133.26	141
R129	Z56	Z128	33.52	141
R130	Z59	Z129	27.91	141
R131	Z129	Z130	199.21	141
R132	Z59	Z131	20.63	277.6
R133	Z131	Z132	65.50	277.6
R134	Z132	Z133	35.33	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R135	Z133	Z134	237.49	141
R136	Z132	Z135	76.63	221.2
R137	Z135	Z136	91.24	221.2
R138	Z136	Z137	70.66	221.2
R139	Z137	Z138	138.52	221.2
R140	Z138	Z139	474.00	221.2
R141	Z139	Z140	161.81	221.2
R142	Z140	Z141	100.63	141
R143	Z141	Z142	51.23	141
R144	Z24	Z143	18.52	141
R145	Z143	Z144	31.51	141
R146	Z144	Z145	39.17	141
R147	Z143	Z146	67.46	141
R148	Z146	Z147	39.15	141
R149	Z147	Z148	44.74	141
R150	Z148	Z149	41.44	141
R151	Z150	Z23	22.15	141
R152	Z150	Z153	17.92	141
R153	Z153	Z151	116.34	141
R154	Z151	Z152	177.89	141
R155	Z150	Z154	144.12	141
R156	Z154	Z155	151.16	141
R157	Z155	Z156	143.30	141
R158	Z154	Z157	14.93	141
R159	Z157	Z158	31.41	141
R160	Z158	Z159	75.87	141
R161	Z159	Z160	73.37	141
R162	Z22	Z161	23.71	141
R163	Z21	Z162	186.92	141
R164	Z162	Z163	129.60	141
R165	Z163	Z164	430.09	141
R166	Z164	Z165	43.79	141
R167	Z162	Z166	242.40	141
R168	Z166	Z167	143.47	141
R169	Z20	Z168	13.72	197.4
R170	Z168	Z169	46.96	197.4
R171	Z169	Z170	108.21	141
R172	Z169	Z171	252.22	197.4
R173	Z171	Z172	90.88	141
R174	Z172	Z173	208.23	141
R175	Z173	Z174	103.57	141
R176	Z174	Z175	41.91	141
R177	Z19	Z176	26.61	197.4
R178	Z176	Z179	22.99	141
R179	Z179	Z180	45.71	141
R180	Z176	Z177	176.45	141
R181	Z177	Z178	131.66	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R182	Z176	Z181	185.32	141
R183	Z181	Z182	35.93	141
R184	Z182	Z183	183.87	141
R185	Z18	Z184	21.45	141
R186	Z31	Z187	17.99	141
R187	Z187	Z186	36.73	141
R188	Z186	Z185	91.70	141
R189	Z32	Z188	17.39	141
R190	Z188	Z189	214.03	141
R191	Z34	Z190	16.51	141
R192	Z190	Z191	91.95	141
R193	Z35	Z192	18.55	141
R194	Z192	Z193	88.12	141
R195	Z37	Z194	21.70	221.2
R196	Z194	Z195	304.20	221.2
R197	Z195	Z196	254.68	221.2
R198	Z196	Z197	154.03	141
R199	Z197	Z198	74.29	141
R200	Z38	Z199	20.82	141
R201	Z199	Z200	198.07	141
R202	Z200	Z201	61.79	141
R203	Z38	Z202	100.55	277.6
R204	Z202	Z39	249.63	277.6
R205	Z202	Z203	216.43	141
R206	Z203	Z204	60.37	141
R207	Z39	Z205	17.80	141
R208	Z205	Z206	36.88	141
R209	Z206	Z207	40.28	141
R210	Z40	Z208	17.66	141
R211	Z208	Z209	115.69	141
R212	Z209	Z210	291.13	141
R213	Z16	Z211	21.66	141
R214	Z15	Z212	16.25	197.4
R215	Z212	Z219	117.93	141
R216	Z212	Z213	141.13	197.4
R217	Z213	Z214	33.48	197.4
R218	Z214	Z215	375.87	197.4
R219	Z215	Z216	70.07	141
R220	Z216	Z217	52.26	141
R221	Z217	Z218	42.37	141
R222	Z14	Z220	20.17	141
R223	Z13	Z221	18.14	141
R224	Z221	Z222	56.74	141
R225	Z222	Z223	222.95	141
R226	Z223	Z224	212.85	141
R227	Z12	Z225	23.45	197.4
R228	Z225	Z226	144.31	197.4

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R229	Z226	Z229	194.01	141
R230	Z229	Z230	146.49	141
R231	Z230	Z231	36.13	141
R232	Z226	Z227	119.70	141
R233	Z227	Z228	88.55	141
R234	Z11	Z232	25.97	141
R235	Z232	Z233	42.28	141
R236	Z233	Z234	123.38	141
R237	Z234	Z235	89.55	141
R238	Z235	Z236	117.34	141
R239	Z236	Z237	121.53	141
R240	Z62	Z238	15.70	141
R241	Z238	Z239	163.82	141
R242	Z239	Z240	97.16	141
R243	Z240	Z241	85.25	141
R244	Z241	Z242	144.60	141
R245	Z242	Z243	99.06	141
R246	Z243	Z244	134.07	141
R247	Z244	Z245	58.07	141
R248	Z62	Z246	57.55	141
R249	Z246	Z247	65.50	141
R250	Z247	Z248	90.88	141
R251	Z248	Z249	123.03	141
R252	Z249	Z250	106.83	141
R253	Z47	Z251	21.24	141
R254	Z251	Z252	64.30	141
R255	Z252	Z253	48.96	141
R256	Z48	Z254	22.76	141
R257	Z254	Z255	76.57	141
R258	Z255	Z256	96.29	141
R259	Z255	Z257	109.65	141
R260	Z257	Z260	35.33	141
R261	Z258	Z259	36.27	141
R262	Z259	Z260	33.20	141
R263	Z60	Z261	21.13	141
R264	Z261	Z262	126.38	141
R265	Z61	Z263	21.78	141
R266	Z263	Z264	176.17	141
R267	Z264	Z265	113.99	141
R268	Z61	Z266	56.13	141
R269	Z266	Z267	164.61	141
R270	Z267	Z268	194.42	141
R271	Z268	Z269	80.35	141
R272	Z269	Z270	93.18	141
R273	Z8	Z271	24.62	141
R274	Z271	Z272	80.46	141
R275	Z272	Z273	139.79	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R276	Z7	Z274	17.00	141
R277	Z274	Z275	142.61	141
R278	Z275	Z276	70.95	141
R279	Z276	Z277	100.34	141
R280	Z277	Z280	212.67	141
R281	Z277	Z278	57.63	141
R282	Z278	Z279	145.20	141
R283	Z274	Z281	345.62	197.4
R284	Z281	Z282	164.02	141
R285	Z282	Z283	54.06	141
R286	Z283	Z284	225.21	141
R287	Z284	Z285	78.40	141
R288	Z285	Z286	88.42	141
R289	Z286	Z287	62.84	141
R290	Z287	Z288	47.97	141
R291	Z288	Z289	112.72	141
R292	Z69	Z290	62.74	141
R293	Z69	Z291	21.78	197.4
R294	Z291	Z292	213.78	197.4
R295	Z292	Z293	241.55	197.4
R296	Z293	Z294	220.84	141
R297	Z294	Z295	46.21	141
R298	Z295	Z296	45.28	141
R299	Z293	Z297	127.87	141
R300	Z297	Z298	56.12	141
R301	Z298	Z299	73.08	141
R302	Z67	Z300	164.85	141
R303	Z67	Z301	229.85	141
R304	Z301	Z302	62.81	141
R305	Z302	Z303	72.95	141
R306	Z303	Z304	57.99	141
R307	Z304	Z305	100.75	141
R308	Z305	Z306	217.67	141
R309	Z305	Z307	64.94	141
R310	Z307	Z308	454.50	141
R311	Z68	Z309	122.36	141
R312	Z309	Z312	65.15	141
R313	Z309	Z310	63.04	141
R314	Z310	Z311	144.30	141
R315	Z63	Z313	168.16	141
R316	Z313	Z314	57.79	141
R317	Z314	Z315	112.48	141
R318	Z315	Z316	88.44	141
R319	Z315	Z317	96.05	141
R320	Z317	Z318	132.38	141
R321	Z2	Z319	16.60	141
R322	Z319	Z320	46.93	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R323	Z3	Z321	90.37	141
R326	Z77	I10	5	96.8
R327	Z76	I9	5	96.8
R328	Z75	I8	5	96.8
R329	Z74	I7	5	96.8
R330	Z78	I11	5	96.8
R331	Z79	I12	5	96.8
R332	Z80	I13	5	96.8
R333	Z80	I14	5	96.8
R334	Z81	I15	5	96.8
R335	Z70	I2	5	96.8
R336	Z71	I3	5	96.8
R337	Z72	I4	5	96.8
R338	Z73	I5	5	96.8
R339	Z73	I6	5	96.8
R340	Z49	I1	5	96.8
R341	Z86	I23	5	96.8
R342	Z85	I22	5	96.8
R343	Z84	I21	5	96.8
R344	Z83	I20	5	96.8
R345	Z82	I18	5	96.8
R346	Z82	I19	5	96.8
R347	Z88	I17	5	96.8
R348	Z87	I16	5	96.8
R349	Z53	I24	5	96.8
R350	Z95	I25	5	96.8
R351	Z96	I26	5	96.8
R352	Z97	I27	5	96.8
R353	Z94	I28	5	96.8
R354	Z93	I29	5	96.8
R355	Z92	I30	5	96.8
R356	Z91	I31	5	96.8
R357	Z91	I32	5	96.8
R358	Z90	I33	5	96.8
R359	Z89	I34	5	96.8
R360	Z98	I35	5	96.8
R361	Z98	I36	5	96.8
R362	Z99	I37	5	96.8
R363	Z99	I38	5	96.8
R364	Z99	I39	5	96.8
R365	Z100	I40	5	96.8
R366	Z100	I42	5	96.8
R367	Z100	I41	5	96.8
R368	Z101	I43	5	96.8
R369	Z101	I44	5	96.8
R370	Z104	I45	5	96.8
R371	Z103	I46	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R372	Z109	I47	5	96.8
R373	Z108	I48	5	96.8
R374	Z108	I49	5	96.8
R375	Z111	I50	5	96.8
R376	Z110	I51	5	96.8
R377	Z107	I53	5	96.8
R378	Z107	I52	5	96.8
R379	Z106	I54	5	96.8
R380	Z105	I55	5	96.8
R381	Z113	I59	5	96.8
R382	Z114	I60	5	96.8
R383	Z115	I62	5	96.8
R384	Z115	I61	5	96.8
R385	Z116	I63	5	96.8
R386	Z117	I64	5	96.8
R387	Z118	I56	5	96.8
R388	Z119	I57	5	96.8
R389	Z120	I58	5	96.8
R390	Z142	I65	5	96.8
R391	Z141	I66	5	96.8
R392	Z140	I67	5	96.8
R393	Z139	I68	5	96.8
R394	Z138	I69	5	96.8
R395	Z137	I70	5	96.8
R396	Z136	I71	5	96.8
R397	Z135	I72	5	96.8
R398	Z134	I75	5	96.8
R399	Z133	I74	5	96.8
R400	Z133	I73	5	96.8
R401	Z131	I76	5	96.8
R402	Z129	I77	5	96.8
R403	Z130	I78	5	96.8
R404	Z130	I79	5	96.8
R405	Z58	I80	5	96.8
R406	Z57	I81	5	96.8
R407	Z56	I82	5	96.8
R408	Z128	I83	5	96.8
R409	Z127	I84	5	96.8
R410	Z126	I85	5	96.8
R411	Z125	I86	5	96.8
R412	Z124	I87	5	96.8
R413	Z55	I88	5	96.8
R414	Z46	I89	5	96.8
R415	Z45	I90	5	96.8
R416	Z44	I91	5	96.8
R417	Z121	I92	5	96.8
R418	Z121	I93	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R419	Z122	I94	5	96.8
R420	Z123	I95	5	96.8
R421	Z41	I96	5	96.8
R422	Z149	I97	5	96.8
R423	Z148	I98	5	96.8
R424	Z147	I99	5	96.8
R425	Z146	I100	5	96.8
R426	Z143	I101	5	96.8
R427	Z144	I102	5	96.8
R428	Z145	I103	5	96.8
R429	Z160	I105	5	96.8
R430	Z160	I104	5	96.8
R431	Z159	I106	5	96.8
R432	Z158	I107	5	96.8
R433	Z157	I109	5	96.8
R434	Z157	I108	5	96.8
R435	Z156	I110	5	96.8
R436	Z155	I111	5	96.8
R437	Z150	I112	5	96.8
R438	Z151	I113	5	96.8
R439	Z152	I114	5	96.8
R440	Z161	I115	5	96.8
R441	Z161	I116	5	96.8
R442	Z161	I117	5	96.8
R443	Z165	I118	5	96.8
R444	Z164	I119	5	96.8
R445	Z163	I120	5	96.8
R446	Z162	I122	5	96.8
R447	Z162	I121	5	96.8
R448	Z166	I123	5	96.8
R449	Z166	I124	5	96.8
R450	Z167	I125	5	96.8
R451	Z238	I126	5	96.8
R452	Z239	I127	5	96.8
R453	Z240	I128	5	96.8
R454	Z241	I129	5	96.8
R455	Z242	I130	5	96.8
R456	Z243	I131	5	96.8
R457	Z244	I133	5	96.8
R458	Z244	I132	5	96.8
R459	Z245	I134	5	96.8
R460	Z246	I135	5	96.8
R461	Z247	I136	5	96.8
R462	Z248	I137	5	96.8
R463	Z248	I138	5	96.8
R464	Z249	I139	5	96.8
R465	Z250	I140	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R466	Z271	I142	5	96.8
R467	Z271	I141	5	96.8
R468	Z272	I143	5	96.8
R469	Z272	I144	5	96.8
R470	Z273	I145	5	96.8
R471	Z274	I146	5	96.8
R472	Z275	I147	5	96.8
R473	Z276	I148	5	96.8
R474	Z277	I149	5	96.8
R475	Z280	I150	5	96.8
R476	Z278	I151	5	96.8
R477	Z279	I152	5	96.8
R478	Z281	I153	5	96.8
R479	Z282	I154	5	96.8
R480	Z282	I155	5	96.8
R481	Z282	I156	5	96.8
R482	Z283	I157	5	96.8
R483	Z284	I158	5	96.8
R484	Z285	I159	5	96.8
R485	Z286	I160	5	96.8
R486	Z287	I161	5	96.8
R487	Z288	I162	5	96.8
R488	Z289	I163	5	96.8
R489	Z63	I164	5	96.8
R490	Z65	I165	5	96.8
R491	Z65	I166	5	96.8
R492	Z66	I167	5	96.8
R493	Z67	I169	5	96.8
R494	Z67	I170	5	96.8
R495	Z300	I168	5	96.8
R496	Z301	I171	5	96.8
R497	Z302	I172	5	96.8
R498	Z302	I173	5	96.8
R499	Z303	I174	5	96.8
R500	Z304	I175	5	96.8
R501	Z305	I176	5	96.8
R502	Z306	I177	5	96.8
R503	Z307	I178	5	96.8
R504	Z308	I179	5	96.8
R505	Z311	I180	5	96.8
R506	Z310	I181	5	96.8
R507	Z310	I182	5	96.8
R508	Z309	I183	5	96.8
R509	Z312	I184	5	96.8
R510	Z68	I185	5	96.8
R511	Z290	I186	5	96.8
R512	Z291	I187	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R513	Z292	I188	5	96.8
R514	Z293	I193	5	96.8
R515	Z294	I189	5	96.8
R516	Z294	I190	5	96.8
R517	Z295	I191	5	96.8
R518	Z296	I192	5	96.8
R519	Z297	I194	5	96.8
R520	Z298	I195	5	96.8
R521	Z298	I196	5	96.8
R522	Z299	I197	5	96.8
R523	Z313	I198	5	96.8
R524	Z314	I199	5	96.8
R525	Z316	I200	5	96.8
R526	Z317	I201	5	96.8
R527	Z317	I202	5	96.8
R528	Z317	I203	5	96.8
R529	Z318	I204	5	96.8
R530	Z320	I209	5	96.8
R531	Z319	I208	5	96.8
R532	Z3	I206	5	96.8
R533	Z3	I205	5	96.8
R534	Z321	I207	5	96.8
R535	Z168	I210	5	96.8
R536	Z170	I213	5	96.8
R537	Z169	I212	5	96.8
R538	Z169	I211	5	96.8
R539	Z171	I214	5	96.8
R540	Z172	I215	5	96.8
R541	Z173	I216	5	96.8
R542	Z174	I217	5	96.8
R543	Z175	I218	5	96.8
R544	Z175	I219	5	96.8
R545	Z183	I220	5	96.8
R546	Z182	I221	5	96.8
R547	Z181	I223	5	96.8
R548	Z181	I222	5	96.8
R549	Z179	I225	5	96.8
R550	Z180	I224	5	96.8
R551	Z177	I226	5	96.8
R552	Z177	I227	5	96.8
R553	Z178	I228	5	96.8
R554	Z184	I229	5	96.8
R555	Z186	I231	5	96.8
R556	Z185	I232	5	96.8
R557	Z187	I230	5	96.8
R558	Z188	I233	5	96.8
R559	Z188	I234	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R560	Z189	I235	5	96.8
R561	Z33	I236	5	96.8
R562	Z191	I237	5	96.8
R563	Z190	I238	5	96.8
R566	Z193	I241	5	96.8
R567	Z193	I242	5	96.8
R568	Z192	I240	5	96.8
R569	Z192	I239	5	96.8
R570	Z36	I243	5	96.8
R571	Z36	I244	5	96.8
R572	Z194	I245	5	96.8
R573	Z195	I246	5	96.8
R574	Z195	I247	5	96.8
R575	Z196	I248	5	96.8
R576	Z197	I249	5	96.8
R577	Z198	I250	22.13	96.8
R578	Z204	I251	5	96.8
R579	Z203	I252	5	96.8
R580	Z38	I258	5	96.8
R581	Z38	I257	5	96.8
R582	Z199	I256	5	96.8
R583	Z199	I255	5	96.8
R584	Z200	I254	5	96.8
R585	Z201	I253	5	96.8
R586	Z205	I259	5	96.8
R587	Z205	I260	5	96.8
R588	Z205	I261	5	96.8
R589	Z206	I262	5	96.8
R590	Z207	I263	5	96.8
R591	Z211	I264	5	96.8
R592	Z211	I265	5	96.8
R593	Z208	I267	5	96.8
R594	Z208	I266	5	96.8
R595	Z209	I268	5	96.8
R596	Z210	I269	5	96.8
R597	Z219	I270	5	96.8
R598	Z212	I272	5	96.8
R599	Z212	I271	5	96.8
R600	Z213	I273	5	96.8
R601	Z213	I274	5	96.8
R602	Z214	I275	5	96.8
R603	Z215	I276	5	96.8
R604	Z216	I277	5	96.8
R605	Z217	I278	5	96.8
R606	Z218	I279	5	96.8
R607	Z220	I280	5	96.8
R608	Z224	I281	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R609	Z224	I282	5	96.8
R610	Z223	I283	5	96.8
R611	Z222	I284	5	96.8
R612	Z221	I285	5	96.8
R613	Z225	I286	5	96.8
R614	Z225	I287	5	96.8
R615	Z226	I291	5	96.8
R616	Z226	I292	5	96.8
R617	Z226	I293	5	96.8
R618	Z227	I288	5	96.8
R619	Z227	I289	5	96.8
R620	Z228	I290	5	96.8
R621	Z229	I294	5	96.8
R622	Z230	I295	5	96.8
R623	Z231	I296	5	96.8
R624	Z232	I297	5	96.8
R625	Z233	I298	5	96.8
R626	Z233	I299	5	96.8
R627	Z234	I300	5	96.8
R628	Z235	I301	5	96.8
R629	Z236	I302	5	96.8
R630	Z237	I303	5	96.8
R631	Z265	I304	5	96.8
R632	Z265	I305	5	96.8
R633	Z264	I306	5	96.8
R634	Z263	I307	5	96.8
R635	Z266	I308	5	96.8
R636	Z267	I309	5	96.8
R637	Z268	I310	5	96.8
R638	Z269	I311	5	96.8
R639	Z270	I312	5	96.8
R640	Z260	I313	5	96.8
R641	Z259	I314	5	96.8
R642	Z258	I315	5	96.8
R643	Z257	I316	5	96.8
R644	Z256	I317	5	96.8
R645	Z254	I318	5	96.8
R646	Z261	I319	5	96.8
R647	Z262	I320	5	96.8
R648	Z262	I321	5	96.8
R649	Z253	I322	5	96.8
R650	Z252	I323	5	96.8
R651	Z251	I324	5	96.8
R652	Z251	I325	5	96.8
R653	Z251	I326	5	96.8
R37	Z38	Z37	706.98	277.6
P1	S1	Z52	#N/A	#N/A Pump

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm		
P2	S1	Z52	#N/A	#N/A Pump		
P3	S1	Z52	#N/A	#N/A Pump		
P4	S1	Z52	#N/A	#N/A Pump		
Energy Usage:						
Pump	Usage Factor	Avg. Effic.	Kw-hr /m3	Avg. Kw	Peak Kw	Cost /day
P1	0.00	0.00	0.00	0.00	0.00	0.00
P2	100.00	75.00	0.29	156.84	156.84	0.00
P3	100.00	75.00	0.29	156.84	156.84	0.00
P4	100.00	75.00	0.29	156.84	156.84	0.00
Demand Charge:						0.00
Total Cost:						0.00

Node Results:

Node ID	Demand LPS	Head m	Pressure m	Quality

Z1	0.00	89.75	79.75	0.00
Z2	0.00	87.82	77.82	0.00
Z3	0.00	89.27	79.27	0.00
Z4	0.00	89.57	79.57	0.00
Z6	0.00	84.39	74.39	0.00
Z7	0.00	83.70	73.70	0.00
Z8	0.00	82.37	72.37	0.00
Z9	0.00	82.23	72.23	0.00
Z10	0.00	82.00	72.00	0.00
Z11	0.00	81.96	71.96	0.00
Z12	0.00	81.95	71.95	0.00
Z13	0.00	81.91	71.91	0.00
Z14	0.00	81.89	71.89	0.00
Z15	0.00	81.83	71.83	0.00
Z16	0.00	81.74	71.74	0.00
Z17	0.00	81.67	71.67	0.00
Z18	0.00	81.63	71.63	0.00
Z19	0.00	81.57	71.57	0.00
Z20	0.00	81.46	71.46	0.00
Z21	0.00	81.38	71.38	0.00
Z22	0.00	81.39	71.39	0.00
Z23	0.00	81.54	71.54	0.00
Z24	0.00	82.13	72.13	0.00
Z25	0.00	82.92	72.92	0.00
Z26	0.00	84.34	74.34	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality

Z27	0.00	87.20	77.20	0.00
Z28	0.00	88.26	78.26	0.00
Z29	0.00	88.83	78.83	0.00
Z30	0.00	89.50	79.50	0.00
Z31	0.00	81.67	71.67	0.00
Z32	0.00	81.67	71.67	0.00
Z33	0.00	81.68	71.68	0.00
Z34	0.00	81.68	71.68	0.00
Z35	0.00	81.69	71.69	0.00
Z36	0.00	81.70	71.70	0.00
Z37	0.00	81.70	71.70	0.00
Z38	0.00	81.72	71.72	0.00
Z39	0.00	81.73	71.73	0.00
Z40	0.00	81.74	71.74	0.00
Z41	0.00	82.92	72.92	0.00
Z42	0.00	82.92	72.92	0.00
Z43	0.00	82.92	72.92	0.00
Z44	0.00	82.92	72.92	0.00
Z45	0.00	82.92	72.92	0.00
Z46	0.00	82.92	72.92	0.00
Z47	0.00	82.23	72.23	0.00
Z48	0.00	82.23	72.23	0.00
Z49	0.00	89.57	79.57	0.00
Z50	0.00	89.57	79.57	0.00
Z51	0.00	89.57	79.57	0.00
Z52	0.00	90.00	80.00	0.00
Z53	0.00	88.83	78.83	0.00
Z54	0.00	88.83	78.83	0.00
Z55	0.00	82.92	72.92	0.00
Z56	0.00	82.92	72.92	0.00
Z57	0.00	82.92	72.92	0.00
Z58	0.00	82.92	72.92	0.00
Z59	0.00	82.92	72.92	0.00
Z60	0.00	82.23	72.23	0.00
Z61	0.00	82.23	72.23	0.00
Z62	0.00	76.93	66.93	0.00
Z63	0.00	78.21	68.21	0.00
Z64	0.00	74.06	64.06	0.00
Z65	0.00	73.32	63.32	0.00
Z66	0.00	71.13	61.13	0.00
Z67	0.00	69.60	59.60	0.00
Z68	0.00	62.01	52.01	0.00
Z69	0.00	61.30	51.30	0.00
Z70	0.00	89.57	79.57	0.00
Z71	0.00	89.57	79.57	0.00
Z72	0.00	89.57	79.57	0.00
Z73	0.00	89.57	79.57	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z74	0.00	89.57	79.57	0.00
Z75	0.00	89.57	79.57	0.00
Z76	0.00	89.57	79.57	0.00
Z77	0.00	89.57	79.57	0.00
Z78	0.00	89.57	79.57	0.00
Z79	0.00	89.57	79.57	0.00
Z80	0.00	89.57	79.57	0.00
Z81	0.00	89.57	79.57	0.00
Z82	0.00	89.50	79.50	0.00
Z83	0.00	89.50	79.50	0.00
Z84	0.00	89.50	79.50	0.00
Z85	0.00	89.50	79.50	0.00
Z86	0.00	89.50	79.50	0.00
Z87	0.00	89.50	79.50	0.00
Z88	0.00	89.50	79.50	0.00
Z89	0.00	88.83	78.83	0.00
Z90	0.00	88.83	78.83	0.00
Z91	0.00	88.83	78.83	0.00
Z92	0.00	88.83	78.83	0.00
Z93	0.00	88.83	78.83	0.00
Z94	0.00	88.83	78.83	0.00
Z95	0.00	88.83	78.83	0.00
Z96	0.00	88.83	78.83	0.00
Z97	0.00	88.83	78.83	0.00
Z98	0.00	88.26	78.26	0.00
Z99	0.00	88.26	78.26	0.00
Z100	0.00	88.26	78.26	0.00
Z101	0.00	87.20	77.20	0.00
Z102	0.00	87.20	77.20	0.00
Z103	0.00	87.20	77.20	0.00
Z104	0.00	87.20	77.20	0.00
Z105	0.00	84.34	74.34	0.00
Z106	0.00	84.34	74.34	0.00
Z107	0.00	84.34	74.34	0.00
Z108	0.00	84.34	74.34	0.00
Z109	0.00	84.34	74.34	0.00
Z110	0.00	84.34	74.34	0.00
Z111	0.00	84.34	74.34	0.00
Z112	0.00	84.34	74.34	0.00
Z113	0.00	84.34	74.34	0.00
Z114	0.00	84.34	74.34	0.00
Z115	0.00	84.34	74.34	0.00
Z116	0.00	84.34	74.34	0.00
Z117	0.00	84.34	74.34	0.00
Z118	0.00	84.34	74.34	0.00
Z119	0.00	84.34	74.34	0.00
Z120	0.00	84.34	74.34	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z121	0.00	82.92	72.92	0.00
Z122	0.00	82.92	72.92	0.00
Z123	0.00	82.92	72.92	0.00
Z124	0.00	82.92	72.92	0.00
Z125	0.00	82.92	72.92	0.00
Z126	0.00	82.92	72.92	0.00
Z127	0.00	82.92	72.92	0.00
Z128	0.00	82.92	72.92	0.00
Z129	0.00	82.92	72.92	0.00
Z130	0.00	82.92	72.92	0.00
Z131	0.00	82.92	72.92	0.00
Z132	0.00	82.92	72.92	0.00
Z133	0.00	82.92	72.92	0.00
Z134	0.00	82.92	72.92	0.00
Z135	0.00	82.92	72.92	0.00
Z136	0.00	82.92	72.92	0.00
Z137	0.00	82.92	72.92	0.00
Z138	0.00	82.92	72.92	0.00
Z139	0.00	82.92	72.92	0.00
Z140	0.00	82.92	72.92	0.00
Z141	0.00	82.92	72.92	0.00
Z142	0.00	82.92	72.92	0.00
Z143	0.00	81.50	71.50	0.00
Z144	0.00	81.42	71.42	0.00
Z145	0.00	81.39	71.39	0.00
Z146	0.00	81.06	71.06	0.00
Z147	0.00	80.90	70.90	0.00
Z148	0.00	80.82	70.82	0.00
Z149	0.00	80.80	70.80	0.00
Z150	0.00	79.87	69.87	0.00
Z151	0.00	79.60	69.60	0.00
Z152	0.00	79.50	69.50	0.00
Z153	0.00	79.82	69.82	0.00
Z154	0.00	76.48	66.48	0.00
Z155	0.00	76.20	66.20	0.00
Z156	0.00	76.13	66.13	0.00
Z157	0.00	76.06	66.06	0.00
Z158	0.00	75.86	65.86	0.00
Z159	0.00	75.56	65.56	0.00
Z160	0.00	75.43	65.43	0.00
Z161	0.00	81.25	71.25	0.00
Z162	0.00	76.60	66.60	0.00
Z163	0.00	76.04	66.04	0.00
Z164	0.00	75.24	65.24	0.00
Z165	0.00	75.22	65.22	0.00
Z166	0.00	75.66	65.66	0.00
Z167	0.00	75.58	65.58	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z168	0.00	81.46	71.46	0.00
Z169	0.00	81.46	71.46	0.00
Z170	0.00	81.46	71.46	0.00
Z171	0.00	81.46	71.46	0.00
Z172	0.00	81.46	71.46	0.00
Z173	0.00	81.46	71.46	0.00
Z174	0.00	81.46	71.46	0.00
Z175	0.00	81.46	71.46	0.00
Z176	0.00	81.57	71.57	0.00
Z177	0.00	81.57	71.57	0.00
Z178	0.00	81.57	71.57	0.00
Z179	0.00	81.57	71.57	0.00
Z180	0.00	81.57	71.57	0.00
Z181	0.00	81.57	71.57	0.00
Z182	0.00	81.57	71.57	0.00
Z183	0.00	81.57	71.57	0.00
Z184	0.00	81.63	71.63	0.00
Z185	0.00	81.67	71.67	0.00
Z186	0.00	81.67	71.67	0.00
Z187	0.00	81.67	71.67	0.00
Z188	0.00	81.67	71.67	0.00
Z189	0.00	81.67	71.67	0.00
Z190	0.00	81.68	71.68	0.00
Z191	0.00	81.68	71.68	0.00
Z192	0.00	81.69	71.69	0.00
Z193	0.00	81.69	71.69	0.00
Z194	0.00	81.70	71.70	0.00
Z195	0.00	81.70	71.70	0.00
Z196	0.00	81.70	71.70	0.00
Z197	0.00	81.70	71.70	0.00
Z198	0.00	81.70	71.70	0.00
Z199	0.00	81.72	71.72	0.00
Z200	0.00	81.72	71.72	0.00
Z201	0.00	81.72	71.72	0.00
Z202	0.00	81.73	71.73	0.00
Z203	0.00	81.73	71.73	0.00
Z204	0.00	81.73	71.73	0.00
Z205	0.00	81.73	71.73	0.00
Z206	0.00	81.73	71.73	0.00
Z207	0.00	81.73	71.73	0.00
Z208	0.00	81.74	71.74	0.00
Z209	0.00	81.74	71.74	0.00
Z210	0.00	81.74	71.74	0.00
Z211	0.00	81.74	71.74	0.00
Z212	0.00	81.83	71.83	0.00
Z213	0.00	81.83	71.83	0.00
Z214	0.00	81.83	71.83	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z215	0.00	81.83	71.83	0.00
Z216	0.00	81.83	71.83	0.00
Z217	0.00	81.83	71.83	0.00
Z218	0.00	81.83	71.83	0.00
Z219	0.00	81.83	71.83	0.00
Z220	0.00	81.89	71.89	0.00
Z221	0.00	81.91	71.91	0.00
Z222	0.00	81.91	71.91	0.00
Z223	0.00	81.91	71.91	0.00
Z224	0.00	81.91	71.91	0.00
Z225	0.00	81.95	71.95	0.00
Z226	0.00	81.95	71.95	0.00
Z227	0.00	81.95	71.95	0.00
Z228	0.00	81.95	71.95	0.00
Z229	0.00	81.95	71.95	0.00
Z230	0.00	81.95	71.95	0.00
Z231	0.00	81.95	71.95	0.00
Z232	0.00	81.96	71.96	0.00
Z233	0.00	81.96	71.96	0.00
Z234	0.00	81.96	71.96	0.00
Z235	0.00	81.96	71.96	0.00
Z236	0.00	81.96	71.96	0.00
Z237	0.00	81.96	71.96	0.00
Z238	0.00	75.99	65.99	0.00
Z239	0.00	72.14	62.14	0.00
Z240	0.00	70.35	60.35	0.00
Z241	0.00	69.18	59.18	0.00
Z242	0.00	67.75	57.75	0.00
Z243	0.00	67.10	57.10	0.00
Z244	0.00	66.58	56.58	0.00
Z245	0.00	66.55	56.55	0.00
Z246	0.00	75.92	65.92	0.00
Z247	0.00	75.28	65.28	0.00
Z248	0.00	74.68	64.68	0.00
Z249	0.00	74.45	64.45	0.00
Z250	0.00	74.40	64.40	0.00
Z251	0.00	82.23	72.23	0.00
Z252	0.00	82.23	72.23	0.00
Z253	0.00	82.23	72.23	0.00
Z254	0.00	82.23	72.23	0.00
Z255	0.00	82.23	72.23	0.00
Z256	0.00	82.23	72.23	0.00
Z257	0.00	82.23	72.23	0.00
Z258	0.00	82.23	72.23	0.00
Z259	0.00	82.23	72.23	0.00
Z260	0.00	82.23	72.23	0.00
Z261	0.00	82.23	72.23	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z262	0.00	82.23	72.23	0.00
Z263	0.00	82.23	72.23	0.00
Z264	0.00	82.23	72.23	0.00
Z265	0.00	82.23	72.23	0.00
Z266	0.00	82.23	72.23	0.00
Z267	0.00	82.23	72.23	0.00
Z268	0.00	82.23	72.23	0.00
Z269	0.00	82.23	72.23	0.00
Z270	0.00	82.23	72.23	0.00
Z271	0.00	81.98	71.98	0.00
Z272	0.00	81.67	71.67	0.00
Z273	0.00	81.60	71.60	0.00
Z274	0.00	79.94	69.94	0.00
Z275	0.00	77.76	67.76	0.00
Z276	0.00	77.06	67.06	0.00
Z277	0.00	76.40	66.40	0.00
Z278	0.00	76.29	66.29	0.00
Z279	0.00	76.21	66.21	0.00
Z280	0.00	76.28	66.28	0.00
Z281	0.00	77.13	67.13	0.00
Z282	0.00	71.28	61.28	0.00
Z283	0.00	70.28	60.28	0.00
Z284	0.00	67.18	57.18	0.00
Z285	0.00	66.41	56.41	0.00
Z286	0.00	65.83	55.83	0.00
Z287	0.00	65.58	55.58	0.00
Z288	0.00	65.49	55.49	0.00
Z289	0.00	65.43	55.43	0.00
Z290	0.00	61.27	51.27	0.00
Z291	0.00	60.94	50.94	0.00
Z292	0.00	59.48	49.48	0.00
Z293	0.00	58.12	48.12	0.00
Z294	0.00	56.58	46.58	0.00
Z295	0.00	56.50	46.50	0.00
Z296	0.00	56.47	46.47	0.00
Z297	0.00	57.29	47.29	0.00
Z298	0.00	57.07	47.07	0.00
Z299	0.00	57.03	47.03	0.00
Z300	0.00	69.51	59.51	0.00
Z301	0.00	62.39	52.39	0.00
Z302	0.00	60.91	50.91	0.00
Z303	0.00	59.90	49.90	0.00
Z304	0.00	59.33	49.33	0.00
Z305	0.00	58.67	48.67	0.00
Z306	0.00	58.55	48.55	0.00
Z307	0.00	58.55	48.55	0.00
Z308	0.00	58.31	48.31	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z309	0.00	60.65	50.65	0.00
Z310	0.00	60.41	50.41	0.00
Z311	0.00	60.33	50.33	0.00
Z312	0.00	60.61	50.61	0.00
Z313	0.00	74.83	64.83	0.00
Z314	0.00	74.03	64.03	0.00
Z315	0.00	72.92	62.92	0.00
Z316	0.00	72.87	62.87	0.00
Z317	0.00	72.29	62.29	0.00
Z318	0.00	72.22	62.22	0.00
Z319	0.00	87.77	77.77	0.00
Z320	0.00	87.74	77.74	0.00
Z321	0.00	89.21	79.21	0.00
I1	0.00	89.57	79.57	0.00
I2	0.00	89.57	79.57	0.00
I3	0.00	89.57	79.57	0.00
I4	0.00	89.57	79.57	0.00
I5	0.00	89.57	79.57	0.00
I6	0.00	89.57	79.57	0.00
I7	0.00	89.57	79.57	0.00
I8	0.00	89.57	79.57	0.00
I9	0.00	89.57	79.57	0.00
I10	0.00	89.57	79.57	0.00
I11	0.00	89.57	79.57	0.00
I12	0.00	89.57	79.57	0.00
I13	0.00	89.57	79.57	0.00
I14	0.00	89.57	79.57	0.00
I15	0.00	89.57	79.57	0.00
I23	0.00	89.50	79.50	0.00
I22	0.00	89.50	79.50	0.00
I21	0.00	89.50	79.50	0.00
I20	0.00	89.50	79.50	0.00
I19	0.00	89.50	79.50	0.00
I18	0.00	89.50	79.50	0.00
I17	0.00	89.50	79.50	0.00
I16	0.00	89.50	79.50	0.00
I24	0.00	88.83	78.83	0.00
I25	0.00	88.83	78.83	0.00
I26	0.00	88.83	78.83	0.00
I27	0.00	88.83	78.83	0.00
I28	0.00	88.83	78.83	0.00
I29	0.00	88.83	78.83	0.00
I30	0.00	88.83	78.83	0.00
I31	0.00	88.83	78.83	0.00
I32	0.00	88.83	78.83	0.00
I33	0.00	88.83	78.83	0.00
I34	0.00	88.83	78.83	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I35	0.00	88.26	78.26	0.00
I36	0.00	88.26	78.26	0.00
I37	0.00	88.26	78.26	0.00
I38	0.00	88.26	78.26	0.00
I39	0.00	88.26	78.26	0.00
I40	0.00	88.26	78.26	0.00
I41	0.00	88.26	78.26	0.00
I42	0.00	88.26	78.26	0.00
I43	0.00	87.20	77.20	0.00
I44	0.00	87.20	77.20	0.00
I45	0.00	87.20	77.20	0.00
I46	0.00	87.20	77.20	0.00
I47	0.00	84.34	74.34	0.00
I48	0.00	84.34	74.34	0.00
I49	0.00	84.34	74.34	0.00
I50	0.00	84.34	74.34	0.00
I51	0.00	84.34	74.34	0.00
I52	0.00	84.34	74.34	0.00
I53	0.00	84.34	74.34	0.00
I54	0.00	84.34	74.34	0.00
I55	0.00	84.34	74.34	0.00
I56	0.00	84.34	74.34	0.00
I57	0.00	84.34	74.34	0.00
I58	0.00	84.34	74.34	0.00
I59	0.00	84.34	74.34	0.00
I60	0.00	84.34	74.34	0.00
I61	0.00	84.34	74.34	0.00
I62	0.00	84.34	74.34	0.00
I63	0.00	84.34	74.34	0.00
I64	0.00	84.34	74.34	0.00
I65	0.00	82.92	72.92	0.00
I66	0.00	82.92	72.92	0.00
I67	0.00	82.92	72.92	0.00
I68	0.00	82.92	72.92	0.00
I69	0.00	82.92	72.92	0.00
I70	0.00	82.92	72.92	0.00
I71	0.00	82.92	72.92	0.00
I72	0.00	82.92	72.92	0.00
I73	0.00	82.92	72.92	0.00
I74	0.00	82.92	72.92	0.00
I75	0.00	82.92	72.92	0.00
I76	0.00	82.92	72.92	0.00
I77	0.00	82.92	72.92	0.00
I78	0.00	82.92	72.92	0.00
I79	0.00	82.92	72.92	0.00
I80	0.00	82.92	72.92	0.00
I81	0.00	82.92	72.92	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I82	0.00	82.92	72.92	0.00
I83	0.00	82.92	72.92	0.00
I84	0.00	82.92	72.92	0.00
I85	0.00	82.92	72.92	0.00
I86	0.00	82.92	72.92	0.00
I87	0.00	82.92	72.92	0.00
I88	0.00	82.92	72.92	0.00
I89	0.00	82.92	72.92	0.00
I90	0.00	82.92	72.92	0.00
I91	0.00	82.92	72.92	0.00
I92	0.00	82.92	72.92	0.00
I93	0.00	82.92	72.92	0.00
I94	0.00	82.92	72.92	0.00
I95	0.00	82.92	72.92	0.00
I96	0.00	82.92	72.92	0.00
I97	3.98	80.78	70.78	0.00
I98	3.98	80.81	70.81	0.00
I99	3.98	80.89	70.89	0.00
I100	3.98	81.04	71.04	0.00
I101	3.98	81.48	71.48	0.00
I102	3.98	81.40	71.40	0.00
I103	3.98	81.38	71.38	0.00
I104	3.98	75.41	65.41	0.00
I105	3.98	75.41	65.41	0.00
I106	3.98	75.55	65.55	0.00
I107	3.98	75.84	65.84	0.00
I108	3.98	76.05	66.05	0.00
I109	3.98	76.05	66.05	0.00
I110	3.98	76.11	66.11	0.00
I111	3.98	76.19	66.19	0.00
I112	3.98	79.86	69.86	0.00
I113	3.98	79.58	69.58	0.00
I114	3.98	79.49	69.49	0.00
I115	3.98	81.23	71.23	0.00
I116	3.98	81.23	71.23	0.00
I117	3.98	81.23	71.23	0.00
I118	3.98	75.20	65.20	0.00
I119	3.98	75.23	65.23	0.00
I120	3.98	76.03	66.03	0.00
I121	3.98	76.58	66.58	0.00
I122	3.98	76.58	66.58	0.00
I123	3.98	75.64	65.64	0.00
I124	3.98	75.64	65.64	0.00
I125	3.98	75.57	65.57	0.00
I126	3.98	75.97	65.97	0.00
I127	3.98	72.12	62.12	0.00
I128	3.98	70.34	60.34	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I129	3.98	69.16	59.16	0.00
I130	3.98	67.74	57.74	0.00
I131	3.98	67.09	57.09	0.00
I132	3.98	66.57	56.57	0.00
I133	3.98	66.57	56.57	0.00
I134	3.98	66.54	56.54	0.00
I135	3.98	75.91	65.91	0.00
I136	3.98	75.26	65.26	0.00
I137	3.98	74.67	64.67	0.00
I138	3.98	74.67	64.67	0.00
I139	3.98	74.44	64.44	0.00
I140	3.98	74.38	64.38	0.00
I141	3.98	81.97	71.97	0.00
I142	3.98	81.97	71.97	0.00
I143	3.98	81.65	71.65	0.00
I144	3.98	81.65	71.65	0.00
I145	3.98	81.58	71.58	0.00
I146	3.98	79.92	69.92	0.00
I147	3.98	77.74	67.74	0.00
I148	3.98	77.04	67.04	0.00
I149	3.98	76.38	66.38	0.00
I150	3.98	76.26	66.26	0.00
I151	3.98	76.28	66.28	0.00
I152	3.98	76.20	66.20	0.00
I153	3.98	77.11	67.11	0.00
I154	3.98	71.26	61.26	0.00
I155	3.98	71.26	61.26	0.00
I156	3.98	71.26	61.26	0.00
I157	3.98	70.27	60.27	0.00
I158	3.98	67.16	57.16	0.00
I159	3.98	66.39	56.39	0.00
I160	3.98	65.81	55.81	0.00
I161	3.98	65.57	55.57	0.00
I162	3.98	65.48	55.48	0.00
I163	3.98	65.42	55.42	0.00
I164	3.98	78.19	68.19	0.00
I165	3.98	73.30	63.30	0.00
I166	3.98	73.30	63.30	0.00
I167	3.98	71.11	61.11	0.00
I168	3.98	69.49	59.49	0.00
I169	3.98	69.59	59.59	0.00
I170	3.98	69.59	59.59	0.00
I171	3.98	62.37	52.37	0.00
I172	3.98	60.89	50.89	0.00
I173	3.98	60.89	50.89	0.00
I174	3.98	59.89	49.89	0.00
I175	3.98	59.32	49.32	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I176	3.98	58.66	48.66	0.00
I177	3.98	58.53	48.53	0.00
I178	3.98	58.54	48.54	0.00
I179	3.98	58.29	48.29	0.00
I180	3.98	60.31	50.31	0.00
I181	3.98	60.39	50.39	0.00
I182	3.98	60.39	50.39	0.00
I183	3.98	60.64	50.64	0.00
I184	3.98	60.59	50.59	0.00
I185	3.98	61.99	51.99	0.00
I186	3.98	61.25	51.25	0.00
I187	3.98	60.92	50.92	0.00
I188	3.98	59.46	49.46	0.00
I189	3.98	56.57	46.57	0.00
I190	3.98	56.57	46.57	0.00
I191	3.98	56.48	46.48	0.00
I192	3.98	56.46	46.46	0.00
I193	3.98	58.11	48.11	0.00
I194	3.98	57.27	47.27	0.00
I195	3.98	57.05	47.05	0.00
I196	3.98	57.05	47.05	0.00
I197	3.98	57.01	47.01	0.00
I198	3.98	74.81	64.81	0.00
I199	3.98	74.01	64.01	0.00
I200	3.98	72.85	62.85	0.00
I201	3.98	72.28	62.28	0.00
I202	3.98	72.28	62.28	0.00
I203	3.98	72.28	62.28	0.00
I204	3.98	72.21	62.21	0.00
I205	3.98	89.25	79.25	0.00
I206	3.98	89.25	79.25	0.00
I207	3.98	89.20	79.20	0.00
I208	3.98	87.75	77.75	0.00
I209	3.98	87.73	77.73	0.00
I210	0.00	81.46	71.46	0.00
I211	0.00	81.46	71.46	0.00
I212	0.00	81.46	71.46	0.00
I213	0.00	81.46	71.46	0.00
I214	0.00	81.46	71.46	0.00
I215	0.00	81.46	71.46	0.00
I216	0.00	81.46	71.46	0.00
I217	0.00	81.46	71.46	0.00
I218	0.00	81.46	71.46	0.00
I219	0.00	81.46	71.46	0.00
I220	0.00	81.57	71.57	0.00
I221	0.00	81.57	71.57	0.00
I222	0.00	81.57	71.57	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I223	0.00	81.57	71.57	0.00
I224	0.00	81.57	71.57	0.00
I225	0.00	81.57	71.57	0.00
I226	0.00	81.57	71.57	0.00
I227	0.00	81.57	71.57	0.00
I228	0.00	81.57	71.57	0.00
I229	0.00	81.63	71.63	0.00
I230	0.00	81.67	71.67	0.00
I231	0.00	81.67	71.67	0.00
I232	0.00	81.67	71.67	0.00
I233	0.00	81.67	71.67	0.00
I234	0.00	81.67	71.67	0.00
I235	0.00	81.67	71.67	0.00
I236	0.00	81.68	71.68	0.00
I237	0.00	81.68	71.68	0.00
I238	0.00	81.68	71.68	0.00
I239	0.00	81.69	71.69	0.00
I240	0.00	81.69	71.69	0.00
I241	0.00	81.69	71.69	0.00
I242	0.00	81.69	71.69	0.00
I243	0.00	81.70	71.70	0.00
I244	0.00	81.70	71.70	0.00
I245	0.00	81.70	71.70	0.00
I246	0.00	81.70	71.70	0.00
I247	0.00	81.70	71.70	0.00
I248	0.00	81.70	71.70	0.00
I249	0.00	81.70	71.70	0.00
I250	0.00	81.70	71.70	0.00
I251	0.00	81.73	71.73	0.00
I252	0.00	81.73	71.73	0.00
I253	0.00	81.72	71.72	0.00
I254	0.00	81.72	71.72	0.00
I255	0.00	81.72	71.72	0.00
I256	0.00	81.72	71.72	0.00
I257	0.00	81.72	71.72	0.00
I258	0.00	81.72	71.72	0.00
I259	0.00	81.73	71.73	0.00
I260	0.00	81.73	71.73	0.00
I261	0.00	81.73	71.73	0.00
I262	0.00	81.73	71.73	0.00
I263	0.00	81.73	71.73	0.00
I264	0.00	81.74	71.74	0.00
I265	0.00	81.74	71.74	0.00
I266	0.00	81.74	71.74	0.00
I267	0.00	81.74	71.74	0.00
I268	0.00	81.74	71.74	0.00
I269	0.00	81.74	71.74	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I270	0.00	81.83	71.83	0.00
I271	0.00	81.83	71.83	0.00
I272	0.00	81.83	71.83	0.00
I273	0.00	81.83	71.83	0.00
I274	0.00	81.83	71.83	0.00
I275	0.00	81.83	71.83	0.00
I276	0.00	81.83	71.83	0.00
I277	0.00	81.83	71.83	0.00
I278	0.00	81.83	71.83	0.00
I279	0.00	81.83	71.83	0.00
I280	0.00	81.89	71.89	0.00
I281	0.00	81.91	71.91	0.00
I282	0.00	81.91	71.91	0.00
I283	0.00	81.91	71.91	0.00
I284	0.00	81.91	71.91	0.00
I285	0.00	81.91	71.91	0.00
I286	0.00	81.95	71.95	0.00
I287	0.00	81.95	71.95	0.00
I288	0.00	81.95	71.95	0.00
I289	0.00	81.95	71.95	0.00
I290	0.00	81.95	71.95	0.00
I291	0.00	81.95	71.95	0.00
I292	0.00	81.95	71.95	0.00
I293	0.00	81.95	71.95	0.00
I294	0.00	81.95	71.95	0.00
I295	0.00	81.95	71.95	0.00
I296	0.00	81.95	71.95	0.00
I297	0.00	81.96	71.96	0.00
I298	0.00	81.96	71.96	0.00
I299	0.00	81.96	71.96	0.00
I300	0.00	81.96	71.96	0.00
I301	0.00	81.96	71.96	0.00
I302	0.00	81.96	71.96	0.00
I303	0.00	81.96	71.96	0.00
I304	0.00	82.23	72.23	0.00
I305	0.00	82.23	72.23	0.00
I306	0.00	82.23	72.23	0.00
I307	0.00	82.23	72.23	0.00
I308	0.00	82.23	72.23	0.00
I309	0.00	82.23	72.23	0.00
I310	0.00	82.23	72.23	0.00
I311	0.00	82.23	72.23	0.00
I312	0.00	82.23	72.23	0.00
I313	0.00	82.23	72.23	0.00
I314	0.00	82.23	72.23	0.00
I315	0.00	82.23	72.23	0.00
I316	0.00	82.23	72.23	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I317	0.00	82.23	72.23	0.00
I318	0.00	82.23	72.23	0.00
I319	0.00	82.23	72.23	0.00
I320	0.00	82.23	72.23	0.00
I321	0.00	82.23	72.23	0.00
I322	0.00	82.23	72.23	0.00
I323	0.00	82.23	72.23	0.00
I324	0.00	82.23	72.23	0.00
I325	0.00	82.23	72.23	0.00
I326	0.00	82.23	72.23	0.00
S1	-450.00	10.00	0.00	0.00 Reservoir

Link Results:

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R1	96.39	0.49	0.49	Open
R2	353.61	1.80	13.44	Open
R3	96.39	0.49	0.43	Open
R4	96.39	0.77	1.32	Open
R5	96.39	0.77	1.32	Open
R6	96.39	1.25	3.68	Open
R7	96.39	1.25	3.68	Open
R8	96.39	1.25	3.68	Open
R9	96.39	1.25	3.68	Open
R10	68.52	0.89	1.96	Open
R11	24.71	0.32	0.31	Open
R12	12.77	0.17	0.09	Open
R13	-19.09	0.25	0.19	Open
R14	-19.09	0.25	0.19	Open
R15	-19.09	0.25	0.19	Open
R16	-19.09	0.25	0.19	Open
R17	-14.41	0.19	0.12	Open
R18	-19.09	0.25	0.19	Open
R19	-19.09	0.25	0.19	Open
R20	-19.09	0.25	0.19	Open
R21	-19.09	0.25	0.19	Open
R22	-19.09	0.15	0.06	Open
R23	-19.09	0.15	0.06	Open
R24	-78.83	0.63	0.90	Open
R25	-78.83	0.63	0.90	Open
R26	-98.74	0.79	1.38	Open
R27	-170.42	1.36	3.95	Open
R28	-333.69	1.70	4.68	Open
R29	-341.66	1.74	4.90	Open
R30	-4.68	0.08	0.05	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R31	-4.68	0.08	0.03	Open
R32	-4.68	0.08	0.03	Open
R33	-4.68	0.08	0.03	Open
R34	-4.68	0.08	0.03	Open
R35	-4.68	0.08	0.03	Open
R36	-4.68	0.08	0.03	Open
R39	-4.68	0.08	0.03	Open
R40	-4.68	0.08	0.03	Open
R41	0.00	0.00	0.00	Open
R42	0.00	0.00	0.00	Open
R43	0.00	0.00	0.00	Open
R44	0.00	0.00	0.00	Open
R45	0.00	0.00	0.00	Open
R46	0.00	0.00	0.00	Open
R47	0.00	0.00	0.00	Open
R48	0.00	0.00	0.00	Open
R49	0.00	0.00	0.00	Open
R50	0.00	0.00	0.00	Open
R51	0.00	0.00	0.00	Open
R52	450.00	2.29	8.39	Open
R53	0.00	0.00	0.00	Open
R54	0.00	0.00	0.00	Open
R55	0.00	0.00	0.00	Open
R56	0.00	0.00	0.00	Open
R57	0.00	0.00	0.00	Open
R58	0.00	0.00	0.00	Open
R59	0.00	0.00	0.00	Open
R60	0.00	0.00	0.00	Open
R61	0.00	0.00	0.00	Open
R62	59.73	1.95	15.54	Open
R63	163.27	5.33	166.37	Open
R64	131.42	4.29	63.67	Open
R65	59.73	1.95	27.15	Open
R66	51.77	1.69	11.09	Open
R67	47.79	1.56	9.56	Open
R68	71.68	2.34	20.33	Open
R69	47.79	1.56	9.56	Open
R71	0.00	0.00	0.00	Open
R72	0.00	0.00	0.00	Open
R73	0.00	0.00	0.00	Open
R74	0.00	0.00	0.00	Open
R75	0.00	0.00	0.00	Open
R76	0.00	0.00	0.00	Open
R77	0.00	0.00	0.00	Open
R78	0.00	0.00	0.00	Open
R79	0.00	0.00	0.00	Open
R80	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R81	0.00	0.00	0.00	0.00	Open
R82	0.00	0.00	0.00	0.00	Open
R83	0.00	0.00	0.00	0.00	Open
R84	0.00	0.00	0.00	0.00	Open
R85	0.00	0.00	0.00	0.00	Open
R86	0.00	0.00	0.00	0.00	Open
R87	0.00	0.00	0.00	0.00	Open
R88	0.00	0.00	0.00	0.00	Open
R89	0.00	0.00	0.00	0.00	Open
R90	0.00	0.00	0.00	0.00	Open
R91	0.00	0.00	0.00	0.00	Open
R92	0.00	0.00	0.00	0.00	Open
R93	0.00	0.00	0.00	0.00	Open
R94	0.00	0.00	0.00	0.00	Open
R95	0.00	0.00	0.00	0.00	Open
R96	0.00	0.00	0.00	0.00	Open
R97	0.00	0.00	0.00	0.00	Open
R98	0.00	0.00	0.00	0.00	Open
R99	0.00	0.00	0.00	0.00	Open
R100	0.00	0.00	0.00	0.00	Open
R101	0.00	0.00	0.00	0.00	Open
R102	0.00	0.00	0.00	0.00	Open
R103	0.00	0.00	0.00	0.00	Open
R104	0.00	0.00	0.00	0.00	Open
R105	0.00	0.00	0.00	0.00	Open
R106	0.00	0.00	0.00	0.00	Open
R107	0.00	0.00	0.00	0.00	Open
R108	0.00	0.00	0.00	0.00	Open
R109	0.00	0.00	0.00	0.00	Open
R110	0.00	0.00	0.00	0.00	Open
R111	0.00	0.00	0.00	0.00	Open
R112	0.00	0.00	0.00	0.00	Open
R113	0.00	0.00	0.00	0.00	Open
R114	0.00	0.00	0.00	0.00	Open
R115	0.00	0.00	0.00	0.00	Open
R116	0.00	0.00	0.00	0.00	Open
R117	0.00	0.00	0.00	0.00	Open
R118	0.00	0.00	0.00	0.00	Open
R119	0.00	0.00	0.00	0.00	Open
R120	0.00	0.00	0.00	0.00	Open
R121	0.00	0.00	0.00	0.00	Open
R122	0.00	0.00	0.00	0.00	Open
R123	0.00	0.00	0.00	0.00	Open
R124	0.00	0.00	0.00	0.00	Open
R125	0.00	0.00	0.00	0.00	Open
R126	0.00	0.00	0.00	0.00	Open
R127	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R128	0.00	0.00	0.00	0.00	Open
R129	0.00	0.00	0.00	0.00	Open
R130	0.00	0.00	0.00	0.00	Open
R131	0.00	0.00	0.00	0.00	Open
R132	0.00	0.00	0.00	0.00	Open
R133	0.00	0.00	0.00	0.00	Open
R134	0.00	0.00	0.00	0.00	Open
R135	0.00	0.00	0.00	0.00	Open
R136	0.00	0.00	0.00	0.00	Open
R137	0.00	0.00	0.00	0.00	Open
R138	0.00	0.00	0.00	0.00	Open
R139	0.00	0.00	0.00	0.00	Open
R140	0.00	0.00	0.00	0.00	Open
R141	0.00	0.00	0.00	0.00	Open
R142	0.00	0.00	0.00	0.00	Open
R143	0.00	0.00	0.00	0.00	Open
R144	27.88	1.79	34.13	0.00	Open
R145	7.96	0.51	2.62	0.00	Open
R146	3.98	0.26	0.54	0.00	Open
R147	15.93	1.02	6.54	0.00	Open
R148	11.95	0.77	3.87	0.00	Open
R149	7.96	0.51	1.86	0.00	Open
R150	3.98	0.26	0.54	0.00	Open
R151	-43.81	2.81	75.20	0.00	Open
R152	7.96	0.51	3.19	0.00	Open
R153	7.96	0.51	1.86	0.00	Open
R154	3.98	0.26	0.54	0.00	Open
R155	31.86	2.04	23.51	0.00	Open
R156	7.96	0.51	1.86	0.00	Open
R157	3.98	0.26	0.54	0.00	Open
R158	23.89	1.53	28.17	0.00	Open
R159	15.93	1.02	6.54	0.00	Open
R160	11.95	0.77	3.87	0.00	Open
R161	7.96	0.51	1.86	0.00	Open
R162	11.95	0.77	6.14	0.00	Open
R163	31.86	2.04	25.56	0.00	Open
R164	11.95	0.77	4.29	0.00	Open
R165	7.96	0.51	1.86	0.00	Open
R166	3.98	0.26	0.54	0.00	Open
R167	11.95	0.77	3.87	0.00	Open
R168	3.98	0.26	0.54	0.00	Open
R169	0.00	0.00	0.00	0.00	Open
R170	0.00	0.00	0.00	0.00	Open
R171	0.00	0.00	0.00	0.00	Open
R172	0.00	0.00	0.00	0.00	Open
R173	0.00	0.00	0.00	0.00	Open
R174	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R175	0.00	0.00	0.00	0.00	Open
R176	0.00	0.00	0.00	0.00	Open
R177	0.00	0.00	0.00	0.00	Open
R178	0.00	0.00	0.00	0.00	Open
R179	0.00	0.00	0.00	0.00	Open
R180	0.00	0.00	0.00	0.00	Open
R181	0.00	0.00	0.00	0.00	Open
R182	0.00	0.00	0.00	0.00	Open
R183	0.00	0.00	0.00	0.00	Open
R184	0.00	0.00	0.00	0.00	Open
R185	0.00	0.00	0.00	0.00	Open
R186	0.00	0.00	0.00	0.00	Open
R187	0.00	0.00	0.00	0.00	Open
R188	0.00	0.00	0.00	0.00	Open
R189	0.00	0.00	0.00	0.00	Open
R190	0.00	0.00	0.00	0.00	Open
R191	0.00	0.00	0.00	0.00	Open
R192	0.00	0.00	0.00	0.00	Open
R193	0.00	0.00	0.00	0.00	Open
R194	0.00	0.00	0.00	0.00	Open
R195	0.00	0.00	0.00	0.00	Open
R196	0.00	0.00	0.00	0.00	Open
R197	0.00	0.00	0.00	0.00	Open
R198	0.00	0.00	0.00	0.00	Open
R199	0.00	0.00	0.00	0.00	Open
R200	0.00	0.00	0.00	0.00	Open
R201	0.00	0.00	0.00	0.00	Open
R202	0.00	0.00	0.00	0.00	Open
R203	-4.68	0.08	0.08	0.03	Open
R204	-4.68	0.08	0.08	0.03	Open
R205	0.00	0.00	0.00	0.00	Open
R206	0.00	0.00	0.00	0.00	Open
R207	0.00	0.00	0.00	0.00	Open
R208	0.00	0.00	0.00	0.00	Open
R209	0.00	0.00	0.00	0.00	Open
R210	0.00	0.00	0.00	0.00	Open
R211	0.00	0.00	0.00	0.00	Open
R212	0.00	0.00	0.00	0.00	Open
R213	0.00	0.00	0.00	0.00	Open
R214	0.00	0.00	0.00	0.00	Open
R215	0.00	0.00	0.00	0.00	Open
R216	0.00	0.00	0.00	0.00	Open
R217	0.00	0.00	0.00	0.00	Open
R218	0.00	0.00	0.00	0.00	Open
R219	0.00	0.00	0.00	0.00	Open
R220	0.00	0.00	0.00	0.00	Open
R221	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R222	0.00	0.00	0.00	0.00	Open
R223	0.00	0.00	0.00	0.00	Open
R224	0.00	0.00	0.00	0.00	Open
R225	0.00	0.00	0.00	0.00	Open
R226	0.00	0.00	0.00	0.00	Open
R227	0.00	0.00	0.00	0.00	Open
R228	0.00	0.00	0.00	0.00	Open
R229	0.00	0.00	0.00	0.00	Open
R230	0.00	0.00	0.00	0.00	Open
R231	0.00	0.00	0.00	0.00	Open
R232	0.00	0.00	0.00	0.00	Open
R233	0.00	0.00	0.00	0.00	Open
R234	0.00	0.00	0.00	0.00	Open
R235	0.00	0.00	0.00	0.00	Open
R236	0.00	0.00	0.00	0.00	Open
R237	0.00	0.00	0.00	0.00	Open
R238	0.00	0.00	0.00	0.00	Open
R239	0.00	0.00	0.00	0.00	Open
R240	35.84	2.30	60.05	23.51	Open
R241	31.86	2.04	23.51	18.35	Open
R242	27.88	1.79	18.35	13.79	Open
R243	23.89	1.53	13.79	9.86	Open
R244	19.91	1.28	9.86	6.54	Open
R245	15.93	1.02	6.54	3.87	Open
R246	11.95	0.77	3.87	0.54	Open
R247	3.98	0.26	0.54	17.52	Open
R248	23.89	1.53	17.52	9.86	Open
R249	19.91	1.28	9.86	6.54	Open
R250	15.93	1.02	6.54	1.86	Open
R251	7.96	0.51	1.86	0.54	Open
R252	3.98	0.26	0.54	0.00	Open
R253	0.00	0.00	0.00	0.00	Open
R254	0.00	0.00	0.00	0.00	Open
R255	0.00	0.00	0.00	0.00	Open
R256	0.00	0.00	0.00	0.00	Open
R257	0.00	0.00	0.00	0.00	Open
R258	0.00	0.00	0.00	0.00	Open
R259	0.00	0.00	0.00	0.00	Open
R260	0.00	0.00	0.00	0.00	Open
R261	0.00	0.00	0.00	0.00	Open
R262	0.00	0.00	0.00	0.00	Open
R263	0.00	0.00	0.00	0.00	Open
R264	0.00	0.00	0.00	0.00	Open
R265	0.00	0.00	0.00	0.00	Open
R266	0.00	0.00	0.00	0.00	Open
R267	0.00	0.00	0.00	0.00	Open
R268	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R269	0.00	0.00	0.00	0.00	Open
R270	0.00	0.00	0.00	0.00	Open
R271	0.00	0.00	0.00	0.00	Open
R272	0.00	0.00	0.00	0.00	Open
R273	19.91	1.28	15.91	0.00	Open
R274	11.95	0.77	3.87	0.00	Open
R275	3.98	0.26	0.54	0.00	Open
R276	71.68	4.59	221.62	0.00	Open
R277	23.89	1.53	15.30	0.00	Open
R278	19.91	1.28	9.86	0.00	Open
R279	15.93	1.02	6.54	0.00	Open
R280	3.98	0.26	0.57	0.00	Open
R281	7.96	0.51	1.86	0.00	Open
R282	3.98	0.26	0.54	0.00	Open
R283	43.81	1.43	8.14	0.00	Open
R284	39.82	2.55	35.66	0.00	Open
R285	27.88	1.79	18.35	0.00	Open
R286	23.89	1.53	13.79	0.00	Open
R287	19.91	1.28	9.86	0.00	Open
R288	15.93	1.02	6.54	0.00	Open
R289	11.95	0.77	3.87	0.00	Open
R290	7.96	0.51	1.86	0.00	Open
R291	3.98	0.26	0.54	0.00	Open
R292	3.98	0.26	0.63	0.00	Open
R293	43.81	1.43	16.76	0.00	Open
R294	39.82	1.30	6.82	0.00	Open
R295	35.84	1.17	5.62	0.00	Open
R296	15.93	1.02	6.98	0.00	Open
R297	7.96	0.51	1.86	0.00	Open
R298	3.98	0.26	0.54	0.00	Open
R299	15.93	1.02	6.54	0.00	Open
R300	11.95	0.77	3.87	0.00	Open
R301	3.98	0.26	0.54	0.00	Open
R302	3.98	0.26	0.57	0.00	Open
R303	35.84	2.30	31.39	0.00	Open
R304	31.86	2.04	23.51	0.00	Open
R305	23.89	1.53	13.79	0.00	Open
R306	19.91	1.28	9.86	0.00	Open
R307	15.93	1.02	6.54	0.00	Open
R308	3.98	0.26	0.56	0.00	Open
R309	7.96	0.51	1.86	0.00	Open
R310	3.98	0.26	0.54	0.00	Open
R311	19.91	1.28	11.07	0.00	Open
R312	3.98	0.26	0.63	0.00	Open
R313	11.95	0.77	3.87	0.00	Open
R314	3.98	0.26	0.54	0.00	Open
R315	27.88	1.79	20.09	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R316	23.89	1.53	13.79	0.00	Open
R317	19.91	1.28	9.86	0.00	Open
R318	3.98	0.26	0.60	0.00	Open
R319	15.93	1.02	6.54	0.00	Open
R320	3.98	0.26	0.54	0.00	Open
R321	7.96	0.51	3.30	0.00	Open
R322	3.98	0.26	0.54	0.00	Open
R323	3.98	0.26	0.60	0.00	Open
R326	0.00	0.00	0.00	0.00	Open
R327	0.00	0.00	0.00	0.00	Open
R328	0.00	0.00	0.00	0.00	Open
R329	0.00	0.00	0.00	0.00	Open
R330	0.00	0.00	0.00	0.00	Open
R331	0.00	0.00	0.00	0.00	Open
R332	0.00	0.00	0.00	0.00	Open
R333	0.00	0.00	0.00	0.00	Open
R334	0.00	0.00	0.00	0.00	Open
R335	0.00	0.00	0.00	0.00	Open
R336	0.00	0.00	0.00	0.00	Open
R337	0.00	0.00	0.00	0.00	Open
R338	0.00	0.00	0.00	0.00	Open
R339	0.00	0.00	0.00	0.00	Open
R340	0.00	0.00	0.00	0.00	Open
R341	0.00	0.00	0.00	0.00	Open
R342	0.00	0.00	0.00	0.00	Open
R343	0.00	0.00	0.00	0.00	Open
R344	0.00	0.00	0.00	0.00	Open
R345	0.00	0.00	0.00	0.00	Open
R346	0.00	0.00	0.00	0.00	Open
R347	0.00	0.00	0.00	0.00	Open
R348	0.00	0.00	0.00	0.00	Open
R349	0.00	0.00	0.00	0.00	Open
R350	0.00	0.00	0.00	0.00	Open
R351	0.00	0.00	0.00	0.00	Open
R352	0.00	0.00	0.00	0.00	Open
R353	0.00	0.00	0.00	0.00	Open
R354	0.00	0.00	0.00	0.00	Open
R355	0.00	0.00	0.00	0.00	Open
R356	0.00	0.00	0.00	0.00	Open
R357	0.00	0.00	0.00	0.00	Open
R358	0.00	0.00	0.00	0.00	Open
R359	0.00	0.00	0.00	0.00	Open
R360	0.00	0.00	0.00	0.00	Open
R361	0.00	0.00	0.00	0.00	Open
R362	0.00	0.00	0.00	0.00	Open
R363	0.00	0.00	0.00	0.00	Open
R364	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R365	0.00	0.00	0.00	0.00	Open
R366	0.00	0.00	0.00	0.00	Open
R367	0.00	0.00	0.00	0.00	Open
R368	0.00	0.00	0.00	0.00	Open
R369	0.00	0.00	0.00	0.00	Open
R370	0.00	0.00	0.00	0.00	Open
R371	0.00	0.00	0.00	0.00	Open
R372	0.00	0.00	0.00	0.00	Open
R373	0.00	0.00	0.00	0.00	Open
R374	0.00	0.00	0.00	0.00	Open
R375	0.00	0.00	0.00	0.00	Open
R376	0.00	0.00	0.00	0.00	Open
R377	0.00	0.00	0.00	0.00	Open
R378	0.00	0.00	0.00	0.00	Open
R379	0.00	0.00	0.00	0.00	Open
R380	0.00	0.00	0.00	0.00	Open
R381	0.00	0.00	0.00	0.00	Open
R382	0.00	0.00	0.00	0.00	Open
R383	0.00	0.00	0.00	0.00	Open
R384	0.00	0.00	0.00	0.00	Open
R385	0.00	0.00	0.00	0.00	Open
R386	0.00	0.00	0.00	0.00	Open
R387	0.00	0.00	0.00	0.00	Open
R388	0.00	0.00	0.00	0.00	Open
R389	0.00	0.00	0.00	0.00	Open
R390	0.00	0.00	0.00	0.00	Open
R391	0.00	0.00	0.00	0.00	Open
R392	0.00	0.00	0.00	0.00	Open
R393	0.00	0.00	0.00	0.00	Open
R394	0.00	0.00	0.00	0.00	Open
R395	0.00	0.00	0.00	0.00	Open
R396	0.00	0.00	0.00	0.00	Open
R397	0.00	0.00	0.00	0.00	Open
R398	0.00	0.00	0.00	0.00	Open
R399	0.00	0.00	0.00	0.00	Open
R400	0.00	0.00	0.00	0.00	Open
R401	0.00	0.00	0.00	0.00	Open
R402	0.00	0.00	0.00	0.00	Open
R403	0.00	0.00	0.00	0.00	Open
R404	0.00	0.00	0.00	0.00	Open
R405	0.00	0.00	0.00	0.00	Open
R406	0.00	0.00	0.00	0.00	Open
R407	0.00	0.00	0.00	0.00	Open
R408	0.00	0.00	0.00	0.00	Open
R409	0.00	0.00	0.00	0.00	Open
R410	0.00	0.00	0.00	0.00	Open
R411	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R412	0.00	0.00	0.00	0.00	Open
R413	0.00	0.00	0.00	0.00	Open
R414	0.00	0.00	0.00	0.00	Open
R415	0.00	0.00	0.00	0.00	Open
R416	0.00	0.00	0.00	0.00	Open
R417	0.00	0.00	0.00	0.00	Open
R418	0.00	0.00	0.00	0.00	Open
R419	0.00	0.00	0.00	0.00	Open
R420	0.00	0.00	0.00	0.00	Open
R421	0.00	0.00	0.00	0.00	Open
R422	3.98	0.54	3.28	3.28	Open
R423	3.98	0.54	3.28	3.28	Open
R424	3.98	0.54	3.28	3.28	Open
R425	3.98	0.54	3.28	3.28	Open
R426	3.98	0.54	3.28	3.28	Open
R427	3.98	0.54	3.28	3.28	Open
R428	3.98	0.54	3.28	3.28	Open
R429	3.98	0.54	3.28	3.28	Open
R430	3.98	0.54	3.28	3.28	Open
R431	3.98	0.54	3.28	3.28	Open
R432	3.98	0.54	3.28	3.28	Open
R433	3.98	0.54	3.28	3.28	Open
R434	3.98	0.54	3.28	3.28	Open
R435	3.98	0.54	3.28	3.28	Open
R436	3.98	0.54	3.28	3.28	Open
R437	3.98	0.54	3.28	3.28	Open
R438	3.98	0.54	3.28	3.28	Open
R439	3.98	0.54	3.28	3.28	Open
R440	3.98	0.54	3.28	3.28	Open
R441	3.98	0.54	3.28	3.28	Open
R442	3.98	0.54	3.28	3.28	Open
R443	3.98	0.54	3.28	3.28	Open
R444	3.98	0.54	3.28	3.28	Open
R445	3.98	0.54	3.28	3.28	Open
R446	3.98	0.54	3.28	3.28	Open
R447	3.98	0.54	3.28	3.28	Open
R448	3.98	0.54	3.28	3.28	Open
R449	3.98	0.54	3.28	3.28	Open
R450	3.98	0.54	3.28	3.28	Open
R451	3.98	0.54	3.28	3.28	Open
R452	3.98	0.54	3.28	3.28	Open
R453	3.98	0.54	3.28	3.28	Open
R454	3.98	0.54	3.28	3.28	Open
R455	3.98	0.54	3.28	3.28	Open
R456	3.98	0.54	3.28	3.28	Open
R457	3.98	0.54	3.28	3.28	Open
R458	3.98	0.54	3.28	3.28	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R459	3.98	0.54		3.28	Open
R460	3.98	0.54		3.28	Open
R461	3.98	0.54		3.28	Open
R462	3.98	0.54		3.28	Open
R463	3.98	0.54		3.28	Open
R464	3.98	0.54		3.28	Open
R465	3.98	0.54		3.28	Open
R466	3.98	0.54		3.28	Open
R467	3.98	0.54		3.28	Open
R468	3.98	0.54		3.28	Open
R469	3.98	0.54		3.28	Open
R470	3.98	0.54		3.28	Open
R471	3.98	0.54		3.28	Open
R472	3.98	0.54		3.28	Open
R473	3.98	0.54		3.28	Open
R474	3.98	0.54		3.28	Open
R475	3.98	0.54		3.28	Open
R476	3.98	0.54		3.28	Open
R477	3.98	0.54		3.28	Open
R478	3.98	0.54		3.28	Open
R479	3.98	0.54		3.28	Open
R480	3.98	0.54		3.28	Open
R481	3.98	0.54		3.28	Open
R482	3.98	0.54		3.28	Open
R483	3.98	0.54		3.28	Open
R484	3.98	0.54		3.28	Open
R485	3.98	0.54		3.28	Open
R486	3.98	0.54		3.28	Open
R487	3.98	0.54		3.28	Open
R488	3.98	0.54		3.28	Open
R489	3.98	0.54		3.28	Open
R490	3.98	0.54		3.28	Open
R491	3.98	0.54		3.28	Open
R492	3.98	0.54		3.28	Open
R493	3.98	0.54		3.28	Open
R494	3.98	0.54		3.28	Open
R495	3.98	0.54		3.28	Open
R496	3.98	0.54		3.28	Open
R497	3.98	0.54		3.28	Open
R498	3.98	0.54		3.28	Open
R499	3.98	0.54		3.28	Open
R500	3.98	0.54		3.28	Open
R501	3.98	0.54		3.28	Open
R502	3.98	0.54		3.28	Open
R503	3.98	0.54		3.28	Open
R504	3.98	0.54		3.28	Open
R505	3.98	0.54		3.28	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R506	3.98	0.54		3.28	Open
R507	3.98	0.54		3.28	Open
R508	3.98	0.54		3.28	Open
R509	3.98	0.54		3.28	Open
R510	3.98	0.54		3.28	Open
R511	3.98	0.54		3.28	Open
R512	3.98	0.54		3.28	Open
R513	3.98	0.54		3.28	Open
R514	3.98	0.54		3.28	Open
R515	3.98	0.54		3.28	Open
R516	3.98	0.54		3.28	Open
R517	3.98	0.54		3.28	Open
R518	3.98	0.54		3.28	Open
R519	3.98	0.54		3.28	Open
R520	3.98	0.54		3.28	Open
R521	3.98	0.54		3.28	Open
R522	3.98	0.54		3.28	Open
R523	3.98	0.54		3.28	Open
R524	3.98	0.54		3.28	Open
R525	3.98	0.54		3.28	Open
R526	3.98	0.54		3.28	Open
R527	3.98	0.54		3.28	Open
R528	3.98	0.54		3.28	Open
R529	3.98	0.54		3.28	Open
R530	3.98	0.54		3.28	Open
R531	3.98	0.54		3.28	Open
R532	3.98	0.54		3.28	Open
R533	3.98	0.54		3.28	Open
R534	3.98	0.54		3.28	Open
R535	0.00	0.00		0.00	Open
R536	0.00	0.00		0.00	Open
R537	0.00	0.00		0.00	Open
R538	0.00	0.00		0.00	Open
R539	0.00	0.00		0.00	Open
R540	0.00	0.00		0.00	Open
R541	0.00	0.00		0.00	Open
R542	0.00	0.00		0.00	Open
R543	0.00	0.00		0.00	Open
R544	0.00	0.00		0.00	Open
R545	0.00	0.00		0.00	Open
R546	0.00	0.00		0.00	Open
R547	0.00	0.00		0.00	Open
R548	0.00	0.00		0.00	Open
R549	0.00	0.00		0.00	Open
R550	0.00	0.00		0.00	Open
R551	0.00	0.00		0.00	Open
R552	0.00	0.00		0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R553	0.00	0.00	0.00	0.00	Open
R554	0.00	0.00	0.00	0.00	Open
R555	0.00	0.00	0.00	0.00	Open
R556	0.00	0.00	0.00	0.00	Open
R557	0.00	0.00	0.00	0.00	Open
R558	0.00	0.00	0.00	0.00	Open
R559	0.00	0.00	0.00	0.00	Open
R560	0.00	0.00	0.00	0.00	Open
R561	0.00	0.00	0.00	0.00	Open
R562	0.00	0.00	0.00	0.00	Open
R563	0.00	0.00	0.00	0.00	Open
R566	0.00	0.00	0.00	0.00	Open
R567	0.00	0.00	0.00	0.00	Open
R568	0.00	0.00	0.00	0.00	Open
R569	0.00	0.00	0.00	0.00	Open
R570	0.00	0.00	0.00	0.00	Open
R571	0.00	0.00	0.00	0.00	Open
R572	0.00	0.00	0.00	0.00	Open
R573	0.00	0.00	0.00	0.00	Open
R574	0.00	0.00	0.00	0.00	Open
R575	0.00	0.00	0.00	0.00	Open
R576	0.00	0.00	0.00	0.00	Open
R577	0.00	0.00	0.00	0.00	Open
R578	0.00	0.00	0.00	0.00	Open
R579	0.00	0.00	0.00	0.00	Open
R580	0.00	0.00	0.00	0.00	Open
R581	0.00	0.00	0.00	0.00	Open
R582	0.00	0.00	0.00	0.00	Open
R583	0.00	0.00	0.00	0.00	Open
R584	0.00	0.00	0.00	0.00	Open
R585	0.00	0.00	0.00	0.00	Open
R586	0.00	0.00	0.00	0.00	Open
R587	0.00	0.00	0.00	0.00	Open
R588	0.00	0.00	0.00	0.00	Open
R589	0.00	0.00	0.00	0.00	Open
R590	0.00	0.00	0.00	0.00	Open
R591	0.00	0.00	0.00	0.00	Open
R592	0.00	0.00	0.00	0.00	Open
R593	0.00	0.00	0.00	0.00	Open
R594	0.00	0.00	0.00	0.00	Open
R595	0.00	0.00	0.00	0.00	Open
R596	0.00	0.00	0.00	0.00	Open
R597	0.00	0.00	0.00	0.00	Open
R598	0.00	0.00	0.00	0.00	Open
R599	0.00	0.00	0.00	0.00	Open
R600	0.00	0.00	0.00	0.00	Open
R601	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R602	0.00	0.00	0.00	0.00	Open
R603	0.00	0.00	0.00	0.00	Open
R604	0.00	0.00	0.00	0.00	Open
R605	0.00	0.00	0.00	0.00	Open
R606	0.00	0.00	0.00	0.00	Open
R607	0.00	0.00	0.00	0.00	Open
R608	0.00	0.00	0.00	0.00	Open
R609	0.00	0.00	0.00	0.00	Open
R610	0.00	0.00	0.00	0.00	Open
R611	0.00	0.00	0.00	0.00	Open
R612	0.00	0.00	0.00	0.00	Open
R613	0.00	0.00	0.00	0.00	Open
R614	0.00	0.00	0.00	0.00	Open
R615	0.00	0.00	0.00	0.00	Open
R616	0.00	0.00	0.00	0.00	Open
R617	0.00	0.00	0.00	0.00	Open
R618	0.00	0.00	0.00	0.00	Open
R619	0.00	0.00	0.00	0.00	Open
R620	0.00	0.00	0.00	0.00	Open
R621	0.00	0.00	0.00	0.00	Open
R622	0.00	0.00	0.00	0.00	Open
R623	0.00	0.00	0.00	0.00	Open
R624	0.00	0.00	0.00	0.00	Open
R625	0.00	0.00	0.00	0.00	Open
R626	0.00	0.00	0.00	0.00	Open
R627	0.00	0.00	0.00	0.00	Open
R628	0.00	0.00	0.00	0.00	Open
R629	0.00	0.00	0.00	0.00	Open
R630	0.00	0.00	0.00	0.00	Open
R631	0.00	0.00	0.00	0.00	Open
R632	0.00	0.00	0.00	0.00	Open
R633	0.00	0.00	0.00	0.00	Open
R634	0.00	0.00	0.00	0.00	Open
R635	0.00	0.00	0.00	0.00	Open
R636	0.00	0.00	0.00	0.00	Open
R637	0.00	0.00	0.00	0.00	Open
R638	0.00	0.00	0.00	0.00	Open
R639	0.00	0.00	0.00	0.00	Open
R640	0.00	0.00	0.00	0.00	Open
R641	0.00	0.00	0.00	0.00	Open
R642	0.00	0.00	0.00	0.00	Open
R643	0.00	0.00	0.00	0.00	Open
R644	0.00	0.00	0.00	0.00	Open
R645	0.00	0.00	0.00	0.00	Open
R646	0.00	0.00	0.00	0.00	Open
R647	0.00	0.00	0.00	0.00	Open
R648	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R649	0.00	0.00		0.00	Open
R650	0.00	0.00		0.00	Open
R651	0.00	0.00		0.00	Open
R652	0.00	0.00		0.00	Open
R653	0.00	0.00		0.00	Open
R37	4.68	0.08		0.03	Open
P1	0.00	0.00		0.00	Closed Pump
P2	150.00	0.00		-80.00	Open Pump
P3	150.00	0.00		-80.00	Open Pump
P4	150.00	0.00		-80.00	Open Pump

1.6 IPOTESI DI FUNZIONAMENTO D

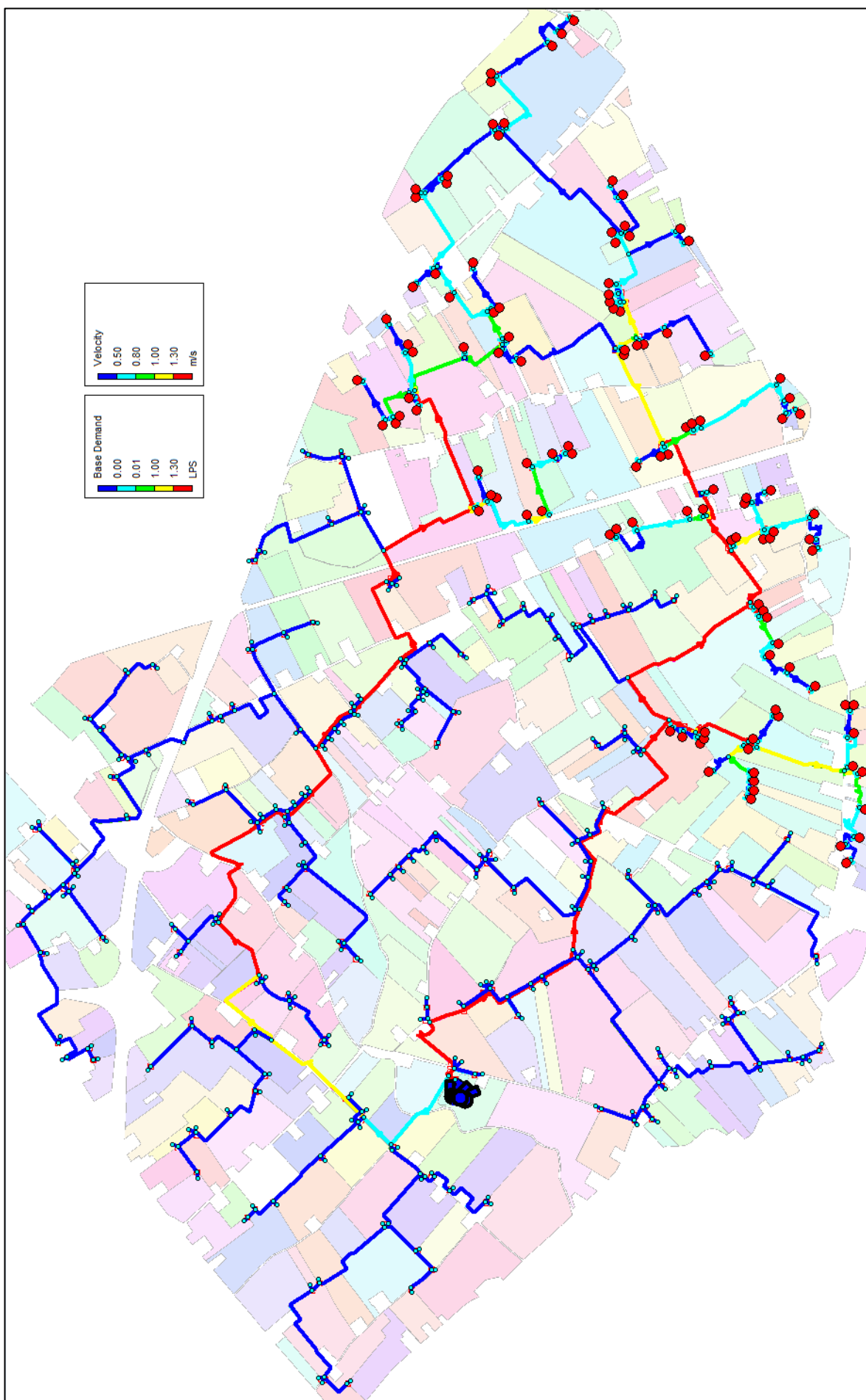


Figura 10 – Risultati della simulazione : base demand nei nodi e velocità nei rami

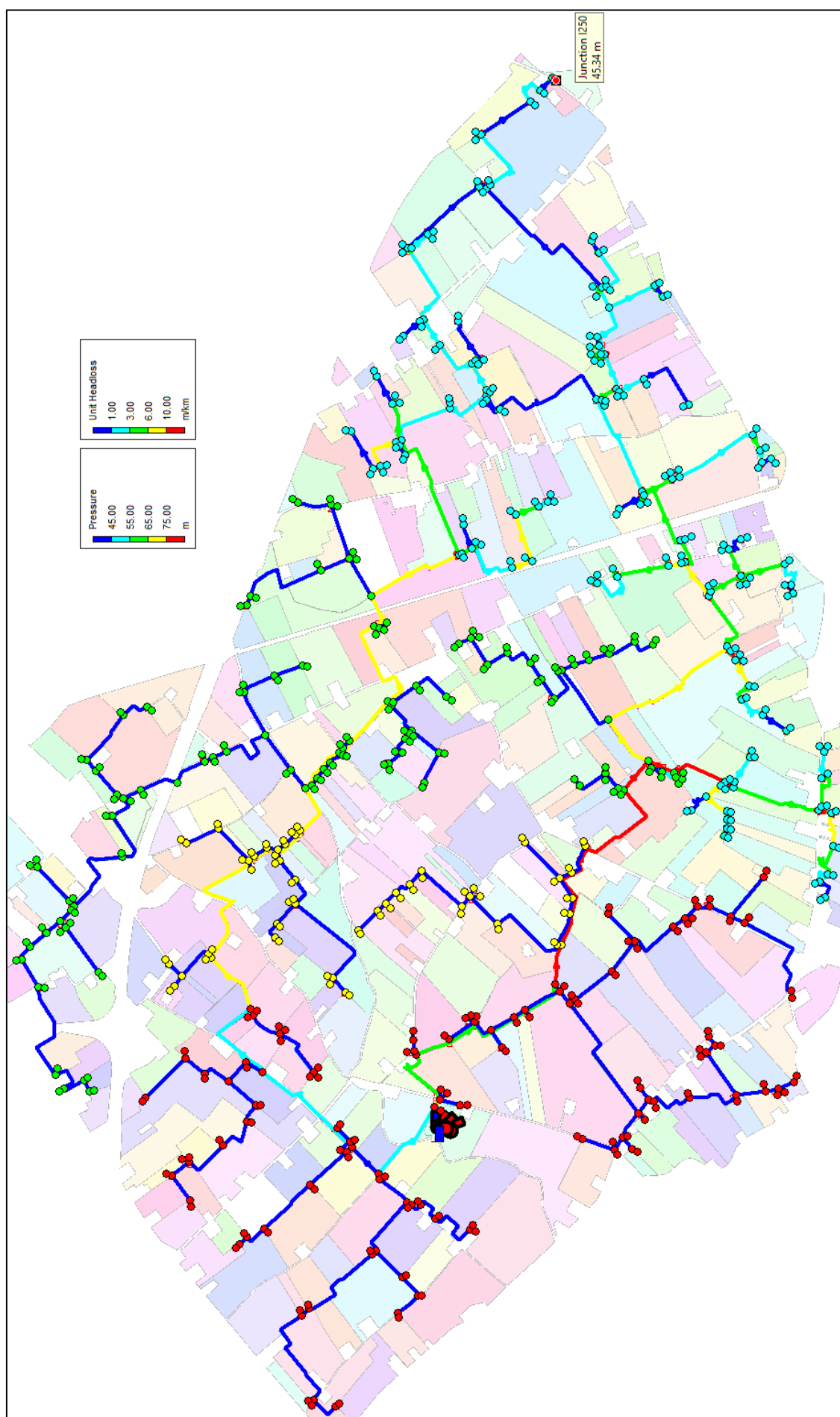


Figura 11 – Risultati della simulazione : pressione nei nodi e perdite di carico nei rami

RISULTATI SIMULAZIONE BONCELLINO IPOTESI FUNZIONAMENTO D

Link - Node Table:

Link ID	Start Node	End Node	Length m	Diameter mm
R1	Z1	Z4	376.99	500
R2	Z1	Z3	36.23	500
R3	Z4	Z30	158.87	500
R4	Z30	Z29	511.94	400
R5	Z29	Z28	434.27	400
R6	Z28	Z27	287.35	312.8
R7	Z27	Z26	776.86	312.8
R8	Z26	Z25	386.60	312.8
R9	Z25	Z24	215.34	312.8
R10	Z24	Z23	301.23	312.8
R11	Z23	Z22	483.92	312.8
R12	Z22	Z21	165.41	312.8
R13	Z21	Z20	432.52	312.8
R14	Z20	Z19	589.94	312.8
R15	Z19	Z18	288.16	312.8
R16	Z18	Z17	195.48	312.8
R17	Z17	Z16	639.32	312.8
R18	Z16	Z15	449.15	312.8
R19	Z15	Z14	322.70	312.8
R20	Z14	Z13	121.51	312.8
R21	Z13	Z12	176.09	312.8
R22	Z12	Z11	283.53	400
R23	Z11	Z10	623.06	400
R24	Z10	Z9	252.99	400
R25	Z9	Z8	161.10	400
R26	Z8	Z7	965.02	400
R27	Z7	Z6	174.34	400
R28	Z6	Z2	733.02	500
R29	Z2	Z3	295.18	500
R30	Z17	Z31	20.64	277.6
R31	Z31	Z32	131.11	277.6
R32	Z32	Z33	193.47	277.6
R33	Z33	Z34	130.26	277.6
R34	Z34	Z35	378.35	277.6
R35	Z35	Z36	399.85	277.6
R36	Z36	Z37	45.95	277.6
R39	Z39	Z40	159.80	277.6

Link ID	Start Node	End Node	Length m	Diameter mm
R40	Z40	Z16	93.15	277.6
R41	Z25	Z41	102.26	312.8
R42	Z41	Z42	180.32	312.8
R43	Z42	Z44	302.32	277.6
R44	Z44	Z45	64.21	277.6
R45	Z45	Z46	36.74	277.6
R46	Z46	Z43	156.53	277.6
R47	Z9	Z47	121.61	221.2
R48	Z47	Z48	240.32	221.2
R49	Z4	Z49	24.55	197.4
R50	Z49	Z50	155.79	197.4
R51	Z50	Z51	282.48	197.4
R52	Z52	Z1	29.23	500
R53	Z29	Z53	79.69	197.4
R54	Z53	Z54	111.39	197.4
R55	Z43	Z55	168.27	277.6
R56	Z55	Z56	81.61	277.6
R57	Z56	Z57	122.30	277.6
R58	Z57	Z58	248.24	277.6
R59	Z58	Z59	408.67	277.6
R60	Z48	Z60	42.59	197.4
R61	Z60	Z61	381.34	197.4
R62	Z10	Z62	326.51	197.4
R63	Z6	Z63	37.20	197.4
R64	Z63	Z64	65.06	197.4
R65	Z64	Z65	27.55	197.4
R66	Z65	Z66	197.52	197.4
R67	Z66	Z67	159.32	197.4
R68	Z64	Z68	593.09	197.4
R69	Z68	Z69	73.39	197.4
R71	Z50	Z70	19.58	141
R72	Z70	Z71	52.37	141
R73	Z71	Z72	134.03	141
R74	Z72	Z73	272.89	141
R75	Z51	Z74	21.33	141
R76	Z74	Z75	171.77	141
R77	Z75	Z76	100.49	141
R78	Z76	Z77	113.17	141
R79	Z74	Z78	388.18	141
R80	Z78	Z79	41.68	141
R81	Z79	Z80	492.04	141
R82	Z80	Z81	136.69	141
R83	Z30	Z82	28.20	141
R84	Z82	Z83	210.10	141
R85	Z83	Z84	273.85	141
R86	Z84	Z85	100.05	141
R87	Z85	Z86	44.57	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R88	Z82	Z88	63.06	141
R89	Z88	Z87	83.04	141
R90	Z54	Z94	156.07	141
R91	Z94	Z93	83.07	141
R92	Z93	Z92	187.75	141
R93	Z92	Z91	200.47	141
R94	Z91	Z90	94.69	141
R95	Z90	Z89	132.30	141
R96	Z54	Z95	125.84	141
R97	Z95	Z96	103.76	141
R98	Z96	Z97	240.97	141
R99	Z28	Z98	29.24	141
R100	Z98	Z99	145.56	141
R101	Z99	Z100	238.71	141
R102	Z27	Z101	21.88	141
R103	Z101	Z102	160.47	141
R104	Z102	Z103	54.42	141
R105	Z102	Z104	75.70	141
R106	Z26	Z105	28.55	221.2
R107	Z105	Z106	105.99	197.4
R108	Z106	Z107	133.09	141
R109	Z107	Z110	114.87	141
R110	Z110	Z111	81.12	141
R111	Z107	Z108	472.49	141
R112	Z108	Z109	82.44	141
R113	Z105	Z112	46.30	197.4
R114	Z112	Z113	49.61	141
R115	Z113	Z114	65.69	141
R116	Z114	Z115	30.56	141
R117	Z115	Z116	187.17	141
R118	Z116	Z117	152.14	141
R119	Z112	Z118	39.18	141
R120	Z118	Z119	57.41	141
R121	Z119	Z120	27.68	141
R122	Z42	Z121	207.55	141
R123	Z121	Z122	148.77	141
R124	Z122	Z123	127.14	141
R125	Z124	Z125	129.31	141
R126	Z125	Z126	246.99	141
R127	Z126	Z127	60.88	141
R128	Z127	Z128	133.26	141
R129	Z56	Z128	33.52	141
R130	Z59	Z129	27.91	141
R131	Z129	Z130	199.21	141
R132	Z59	Z131	20.63	277.6
R133	Z131	Z132	65.50	277.6
R134	Z132	Z133	35.33	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R135	Z133	Z134	237.49	141
R136	Z132	Z135	76.63	221.2
R137	Z135	Z136	91.24	221.2
R138	Z136	Z137	70.66	221.2
R139	Z137	Z138	138.52	221.2
R140	Z138	Z139	474.00	221.2
R141	Z139	Z140	161.81	221.2
R142	Z140	Z141	100.63	141
R143	Z141	Z142	51.23	141
R144	Z24	Z143	18.52	141
R145	Z143	Z144	31.51	141
R146	Z144	Z145	39.17	141
R147	Z143	Z146	67.46	141
R148	Z146	Z147	39.15	141
R149	Z147	Z148	44.74	141
R150	Z148	Z149	41.44	141
R151	Z150	Z23	22.15	141
R152	Z150	Z153	17.92	141
R153	Z153	Z151	116.34	141
R154	Z151	Z152	177.89	141
R155	Z150	Z154	144.12	141
R156	Z154	Z155	151.16	141
R157	Z155	Z156	143.30	141
R158	Z154	Z157	14.93	141
R159	Z157	Z158	31.41	141
R160	Z158	Z159	75.87	141
R161	Z159	Z160	73.37	141
R162	Z22	Z161	23.71	141
R163	Z21	Z162	186.92	141
R164	Z162	Z163	129.60	141
R165	Z163	Z164	430.09	141
R166	Z164	Z165	43.79	141
R167	Z162	Z166	242.40	141
R168	Z166	Z167	143.47	141
R169	Z20	Z168	13.72	197.4
R170	Z168	Z169	46.96	197.4
R171	Z169	Z170	108.21	141
R172	Z169	Z171	252.22	197.4
R173	Z171	Z172	90.88	141
R174	Z172	Z173	208.23	141
R175	Z173	Z174	103.57	141
R176	Z174	Z175	41.91	141
R177	Z19	Z176	26.61	197.4
R178	Z176	Z179	22.99	141
R179	Z179	Z180	45.71	141
R180	Z176	Z177	176.45	141
R181	Z177	Z178	131.66	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R182	Z176	Z181	185.32	141
R183	Z181	Z182	35.93	141
R184	Z182	Z183	183.87	141
R185	Z18	Z184	21.45	141
R186	Z31	Z187	17.99	141
R187	Z187	Z186	36.73	141
R188	Z186	Z185	91.70	141
R189	Z32	Z188	17.39	141
R190	Z188	Z189	214.03	141
R191	Z34	Z190	16.51	141
R192	Z190	Z191	91.95	141
R193	Z35	Z192	18.55	141
R194	Z192	Z193	88.12	141
R195	Z37	Z194	21.70	221.2
R196	Z194	Z195	304.20	221.2
R197	Z195	Z196	254.68	221.2
R198	Z196	Z197	154.03	141
R199	Z197	Z198	74.29	141
R200	Z38	Z199	20.82	141
R201	Z199	Z200	198.07	141
R202	Z200	Z201	61.79	141
R203	Z38	Z202	100.55	277.6
R204	Z202	Z39	249.63	277.6
R205	Z202	Z203	216.43	141
R206	Z203	Z204	60.37	141
R207	Z39	Z205	17.80	141
R208	Z205	Z206	36.88	141
R209	Z206	Z207	40.28	141
R210	Z40	Z208	17.66	141
R211	Z208	Z209	115.69	141
R212	Z209	Z210	291.13	141
R213	Z16	Z211	21.66	141
R214	Z15	Z212	16.25	197.4
R215	Z212	Z219	117.93	141
R216	Z212	Z213	141.13	197.4
R217	Z213	Z214	33.48	197.4
R218	Z214	Z215	375.87	197.4
R219	Z215	Z216	70.07	141
R220	Z216	Z217	52.26	141
R221	Z217	Z218	42.37	141
R222	Z14	Z220	20.17	141
R223	Z13	Z221	18.14	141
R224	Z221	Z222	56.74	141
R225	Z222	Z223	222.95	141
R226	Z223	Z224	212.85	141
R227	Z12	Z225	23.45	197.4
R228	Z225	Z226	144.31	197.4

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R229	Z226	Z229	194.01	141
R230	Z229	Z230	146.49	141
R231	Z230	Z231	36.13	141
R232	Z226	Z227	119.70	141
R233	Z227	Z228	88.55	141
R234	Z11	Z232	25.97	141
R235	Z232	Z233	42.28	141
R236	Z233	Z234	123.38	141
R237	Z234	Z235	89.55	141
R238	Z235	Z236	117.34	141
R239	Z236	Z237	121.53	141
R240	Z62	Z238	15.70	141
R241	Z238	Z239	163.82	141
R242	Z239	Z240	97.16	141
R243	Z240	Z241	85.25	141
R244	Z241	Z242	144.60	141
R245	Z242	Z243	99.06	141
R246	Z243	Z244	134.07	141
R247	Z244	Z245	58.07	141
R248	Z62	Z246	57.55	141
R249	Z246	Z247	65.50	141
R250	Z247	Z248	90.88	141
R251	Z248	Z249	123.03	141
R252	Z249	Z250	106.83	141
R253	Z47	Z251	21.24	141
R254	Z251	Z252	64.30	141
R255	Z252	Z253	48.96	141
R256	Z48	Z254	22.76	141
R257	Z254	Z255	76.57	141
R258	Z255	Z256	96.29	141
R259	Z255	Z257	109.65	141
R260	Z257	Z260	35.33	141
R261	Z258	Z259	36.27	141
R262	Z259	Z260	33.20	141
R263	Z60	Z261	21.13	141
R264	Z261	Z262	126.38	141
R265	Z61	Z263	21.78	141
R266	Z263	Z264	176.17	141
R267	Z264	Z265	113.99	141
R268	Z61	Z266	56.13	141
R269	Z266	Z267	164.61	141
R270	Z267	Z268	194.42	141
R271	Z268	Z269	80.35	141
R272	Z269	Z270	93.18	141
R273	Z8	Z271	24.62	141
R274	Z271	Z272	80.46	141
R275	Z272	Z273	139.79	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R276	Z7	Z274	17.00	141
R277	Z274	Z275	142.61	141
R278	Z275	Z276	70.95	141
R279	Z276	Z277	100.34	141
R280	Z277	Z280	212.67	141
R281	Z277	Z278	57.63	141
R282	Z278	Z279	145.20	141
R283	Z274	Z281	345.62	197.4
R284	Z281	Z282	164.02	141
R285	Z282	Z283	54.06	141
R286	Z283	Z284	225.21	141
R287	Z284	Z285	78.40	141
R288	Z285	Z286	88.42	141
R289	Z286	Z287	62.84	141
R290	Z287	Z288	47.97	141
R291	Z288	Z289	112.72	141
R292	Z69	Z290	62.74	141
R293	Z69	Z291	21.78	197.4
R294	Z291	Z292	213.78	197.4
R295	Z292	Z293	241.55	197.4
R296	Z293	Z294	220.84	141
R297	Z294	Z295	46.21	141
R298	Z295	Z296	45.28	141
R299	Z293	Z297	127.87	141
R300	Z297	Z298	56.12	141
R301	Z298	Z299	73.08	141
R302	Z67	Z300	164.85	141
R303	Z67	Z301	229.85	141
R304	Z301	Z302	62.81	141
R305	Z302	Z303	72.95	141
R306	Z303	Z304	57.99	141
R307	Z304	Z305	100.75	141
R308	Z305	Z306	217.67	141
R309	Z305	Z307	64.94	141
R310	Z307	Z308	454.50	141
R311	Z68	Z309	122.36	141
R312	Z309	Z312	65.15	141
R313	Z309	Z310	63.04	141
R314	Z310	Z311	144.30	141
R315	Z63	Z313	168.16	141
R316	Z313	Z314	57.79	141
R317	Z314	Z315	112.48	141
R318	Z315	Z316	88.44	141
R319	Z315	Z317	96.05	141
R320	Z317	Z318	132.38	141
R321	Z2	Z319	16.60	141
R322	Z319	Z320	46.93	141

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R323	Z3	Z321	90.37	141
R326	Z77	I10	5	96.8
R327	Z76	I9	5	96.8
R328	Z75	I8	5	96.8
R329	Z74	I7	5	96.8
R330	Z78	I11	5	96.8
R331	Z79	I12	5	96.8
R332	Z80	I13	5	96.8
R333	Z80	I14	5	96.8
R334	Z81	I15	5	96.8
R335	Z70	I2	5	96.8
R336	Z71	I3	5	96.8
R337	Z72	I4	5	96.8
R338	Z73	I5	5	96.8
R339	Z73	I6	5	96.8
R340	Z49	I1	5	96.8
R341	Z86	I23	5	96.8
R342	Z85	I22	5	96.8
R343	Z84	I21	5	96.8
R344	Z83	I20	5	96.8
R345	Z82	I18	5	96.8
R346	Z82	I19	5	96.8
R347	Z88	I17	5	96.8
R348	Z87	I16	5	96.8
R349	Z53	I24	5	96.8
R350	Z95	I25	5	96.8
R351	Z96	I26	5	96.8
R352	Z97	I27	5	96.8
R353	Z94	I28	5	96.8
R354	Z93	I29	5	96.8
R355	Z92	I30	5	96.8
R356	Z91	I31	5	96.8
R357	Z91	I32	5	96.8
R358	Z90	I33	5	96.8
R359	Z89	I34	5	96.8
R360	Z98	I35	5	96.8
R361	Z98	I36	5	96.8
R362	Z99	I37	5	96.8
R363	Z99	I38	5	96.8
R364	Z99	I39	5	96.8
R365	Z100	I40	5	96.8
R366	Z100	I42	5	96.8
R367	Z100	I41	5	96.8
R368	Z101	I43	5	96.8
R369	Z101	I44	5	96.8
R370	Z104	I45	5	96.8
R371	Z103	I46	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R372	Z109	I47	5	96.8
R373	Z108	I48	5	96.8
R374	Z108	I49	5	96.8
R375	Z111	I50	5	96.8
R376	Z110	I51	5	96.8
R377	Z107	I53	5	96.8
R378	Z107	I52	5	96.8
R379	Z106	I54	5	96.8
R380	Z105	I55	5	96.8
R381	Z113	I59	5	96.8
R382	Z114	I60	5	96.8
R383	Z115	I62	5	96.8
R384	Z115	I61	5	96.8
R385	Z116	I63	5	96.8
R386	Z117	I64	5	96.8
R387	Z118	I56	5	96.8
R388	Z119	I57	5	96.8
R389	Z120	I58	5	96.8
R390	Z142	I65	5	96.8
R391	Z141	I66	5	96.8
R392	Z140	I67	5	96.8
R393	Z139	I68	5	96.8
R394	Z138	I69	5	96.8
R395	Z137	I70	5	96.8
R396	Z136	I71	5	96.8
R397	Z135	I72	5	96.8
R398	Z134	I75	5	96.8
R399	Z133	I74	5	96.8
R400	Z133	I73	5	96.8
R401	Z131	I76	5	96.8
R402	Z129	I77	5	96.8
R403	Z130	I78	5	96.8
R404	Z130	I79	5	96.8
R405	Z58	I80	5	96.8
R406	Z57	I81	5	96.8
R407	Z56	I82	5	96.8
R408	Z128	I83	5	96.8
R409	Z127	I84	5	96.8
R410	Z126	I85	5	96.8
R411	Z125	I86	5	96.8
R412	Z124	I87	5	96.8
R413	Z55	I88	5	96.8
R414	Z46	I89	5	96.8
R415	Z45	I90	5	96.8
R416	Z44	I91	5	96.8
R417	Z121	I92	5	96.8
R418	Z121	I93	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R419	Z122	I94	5	96.8
R420	Z123	I95	5	96.8
R421	Z41	I96	5	96.8
R422	Z149	I97	5	96.8
R423	Z148	I98	5	96.8
R424	Z147	I99	5	96.8
R425	Z146	I100	5	96.8
R426	Z143	I101	5	96.8
R427	Z144	I102	5	96.8
R428	Z145	I103	5	96.8
R429	Z160	I105	5	96.8
R430	Z160	I104	5	96.8
R431	Z159	I106	5	96.8
R432	Z158	I107	5	96.8
R433	Z157	I109	5	96.8
R434	Z157	I108	5	96.8
R435	Z156	I110	5	96.8
R436	Z155	I111	5	96.8
R437	Z150	I112	5	96.8
R438	Z151	I113	5	96.8
R439	Z152	I114	5	96.8
R440	Z161	I115	5	96.8
R441	Z161	I116	5	96.8
R442	Z161	I117	5	96.8
R443	Z165	I118	5	96.8
R444	Z164	I119	5	96.8
R445	Z163	I120	5	96.8
R446	Z162	I122	5	96.8
R447	Z162	I121	5	96.8
R448	Z166	I123	5	96.8
R449	Z166	I124	5	96.8
R450	Z167	I125	5	96.8
R451	Z238	I126	5	96.8
R452	Z239	I127	5	96.8
R453	Z240	I128	5	96.8
R454	Z241	I129	5	96.8
R455	Z242	I130	5	96.8
R456	Z243	I131	5	96.8
R457	Z244	I133	5	96.8
R458	Z244	I132	5	96.8
R459	Z245	I134	5	96.8
R460	Z246	I135	5	96.8
R461	Z247	I136	5	96.8
R462	Z248	I137	5	96.8
R463	Z248	I138	5	96.8
R464	Z249	I139	5	96.8
R465	Z250	I140	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R466	Z271	I142	5	96.8
R467	Z271	I141	5	96.8
R468	Z272	I143	5	96.8
R469	Z272	I144	5	96.8
R470	Z273	I145	5	96.8
R471	Z274	I146	5	96.8
R472	Z275	I147	5	96.8
R473	Z276	I148	5	96.8
R474	Z277	I149	5	96.8
R475	Z280	I150	5	96.8
R476	Z278	I151	5	96.8
R477	Z279	I152	5	96.8
R478	Z281	I153	5	96.8
R479	Z282	I154	5	96.8
R480	Z282	I155	5	96.8
R481	Z282	I156	5	96.8
R482	Z283	I157	5	96.8
R483	Z284	I158	5	96.8
R484	Z285	I159	5	96.8
R485	Z286	I160	5	96.8
R486	Z287	I161	5	96.8
R487	Z288	I162	5	96.8
R488	Z289	I163	5	96.8
R489	Z63	I164	5	96.8
R490	Z65	I165	5	96.8
R491	Z65	I166	5	96.8
R492	Z66	I167	5	96.8
R493	Z67	I169	5	96.8
R494	Z67	I170	5	96.8
R495	Z300	I168	5	96.8
R496	Z301	I171	5	96.8
R497	Z302	I172	5	96.8
R498	Z302	I173	5	96.8
R499	Z303	I174	5	96.8
R500	Z304	I175	5	96.8
R501	Z305	I176	5	96.8
R502	Z306	I177	5	96.8
R503	Z307	I178	5	96.8
R504	Z308	I179	5	96.8
R505	Z311	I180	5	96.8
R506	Z310	I181	5	96.8
R507	Z310	I182	5	96.8
R508	Z309	I183	5	96.8
R509	Z312	I184	5	96.8
R510	Z68	I185	5	96.8
R511	Z290	I186	5	96.8
R512	Z291	I187	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R513	Z292	I188	5	96.8
R514	Z293	I193	5	96.8
R515	Z294	I189	5	96.8
R516	Z294	I190	5	96.8
R517	Z295	I191	5	96.8
R518	Z296	I192	5	96.8
R519	Z297	I194	5	96.8
R520	Z298	I195	5	96.8
R521	Z298	I196	5	96.8
R522	Z299	I197	5	96.8
R523	Z313	I198	5	96.8
R524	Z314	I199	5	96.8
R525	Z316	I200	5	96.8
R526	Z317	I201	5	96.8
R527	Z317	I202	5	96.8
R528	Z317	I203	5	96.8
R529	Z318	I204	5	96.8
R530	Z320	I209	5	96.8
R531	Z319	I208	5	96.8
R532	Z3	I206	5	96.8
R533	Z3	I205	5	96.8
R534	Z321	I207	5	96.8
R535	Z168	I210	5	96.8
R536	Z170	I213	5	96.8
R537	Z169	I212	5	96.8
R538	Z169	I211	5	96.8
R539	Z171	I214	5	96.8
R540	Z172	I215	5	96.8
R541	Z173	I216	5	96.8
R542	Z174	I217	5	96.8
R543	Z175	I218	5	96.8
R544	Z175	I219	5	96.8
R545	Z183	I220	5	96.8
R546	Z182	I221	5	96.8
R547	Z181	I223	5	96.8
R548	Z181	I222	5	96.8
R549	Z179	I225	5	96.8
R550	Z180	I224	5	96.8
R551	Z177	I226	5	96.8
R552	Z177	I227	5	96.8
R553	Z178	I228	5	96.8
R554	Z184	I229	5	96.8
R555	Z186	I231	5	96.8
R556	Z185	I232	5	96.8
R557	Z187	I230	5	96.8
R558	Z188	I233	5	96.8
R559	Z188	I234	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R560	Z189	I235	5	96.8
R561	Z33	I236	5	96.8
R562	Z191	I237	5	96.8
R563	Z190	I238	5	96.8
R566	Z193	I241	5	96.8
R567	Z193	I242	5	96.8
R568	Z192	I240	5	96.8
R569	Z192	I239	5	96.8
R570	Z36	I243	5	96.8
R571	Z36	I244	5	96.8
R572	Z194	I245	5	96.8
R573	Z195	I246	5	96.8
R574	Z195	I247	5	96.8
R575	Z196	I248	5	96.8
R576	Z197	I249	5	96.8
R577	Z198	I250	22.13	96.8
R578	Z204	I251	5	96.8
R579	Z203	I252	5	96.8
R580	Z38	I258	5	96.8
R581	Z38	I257	5	96.8
R582	Z199	I256	5	96.8
R583	Z199	I255	5	96.8
R584	Z200	I254	5	96.8
R585	Z201	I253	5	96.8
R586	Z205	I259	5	96.8
R587	Z205	I260	5	96.8
R588	Z205	I261	5	96.8
R589	Z206	I262	5	96.8
R590	Z207	I263	5	96.8
R591	Z211	I264	5	96.8
R592	Z211	I265	5	96.8
R593	Z208	I267	5	96.8
R594	Z208	I266	5	96.8
R595	Z209	I268	5	96.8
R596	Z210	I269	5	96.8
R597	Z219	I270	5	96.8
R598	Z212	I272	5	96.8
R599	Z212	I271	5	96.8
R600	Z213	I273	5	96.8
R601	Z213	I274	5	96.8
R602	Z214	I275	5	96.8
R603	Z215	I276	5	96.8
R604	Z216	I277	5	96.8
R605	Z217	I278	5	96.8
R606	Z218	I279	5	96.8
R607	Z220	I280	5	96.8
R608	Z224	I281	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R609	Z224	I282	5	96.8
R610	Z223	I283	5	96.8
R611	Z222	I284	5	96.8
R612	Z221	I285	5	96.8
R613	Z225	I286	5	96.8
R614	Z225	I287	5	96.8
R615	Z226	I291	5	96.8
R616	Z226	I292	5	96.8
R617	Z226	I293	5	96.8
R618	Z227	I288	5	96.8
R619	Z227	I289	5	96.8
R620	Z228	I290	5	96.8
R621	Z229	I294	5	96.8
R622	Z230	I295	5	96.8
R623	Z231	I296	5	96.8
R624	Z232	I297	5	96.8
R625	Z233	I298	5	96.8
R626	Z233	I299	5	96.8
R627	Z234	I300	5	96.8
R628	Z235	I301	5	96.8
R629	Z236	I302	5	96.8
R630	Z237	I303	5	96.8
R631	Z265	I304	5	96.8
R632	Z265	I305	5	96.8
R633	Z264	I306	5	96.8
R634	Z263	I307	5	96.8
R635	Z266	I308	5	96.8
R636	Z267	I309	5	96.8
R637	Z268	I310	5	96.8
R638	Z269	I311	5	96.8
R639	Z270	I312	5	96.8
R640	Z260	I313	5	96.8
R641	Z259	I314	5	96.8
R642	Z258	I315	5	96.8
R643	Z257	I316	5	96.8
R644	Z256	I317	5	96.8
R645	Z254	I318	5	96.8
R646	Z261	I319	5	96.8
R647	Z262	I320	5	96.8
R648	Z262	I321	5	96.8
R649	Z253	I322	5	96.8
R650	Z252	I323	5	96.8
R651	Z251	I324	5	96.8
R652	Z251	I325	5	96.8
R653	Z251	I326	5	96.8
R37	Z38	Z37	706.98	277.6
P1	S1	Z52	#N/A	#N/A Pump

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
P2	S1	Z52	#N/A	#N/A Pump
P3	S1	Z52	#N/A	#N/A Pump
P4	S1	Z52	#N/A	#N/A Pump

Energy Usage:

Pump	Usage Factor	Avg. Effic.	Kw-hr /m3	Avg. Kw	Peak Kw	Cost /day
P1	0.00	0.00	0.00	0.00	0.00	0.00
P2	100.00	75.00	0.29	156.84	156.84	0.00
P3	100.00	75.00	0.29	156.84	156.84	0.00
P4	100.00	75.00	0.29	156.84	156.84	0.00

Demand Charge: 0.00
Total Cost: 0.00

Node Results:

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1	0.00	89.75	79.75	0.00
Z2	0.00	88.26	78.26	0.00
Z3	0.00	89.40	79.40	0.00
Z4	0.00	89.34	79.34	0.00
Z6	0.00	85.43	75.43	0.00
Z7	0.00	83.32	73.32	0.00
Z8	0.00	71.64	61.64	0.00
Z9	0.00	69.69	59.69	0.00
Z10	0.00	68.13	58.13	0.00
Z11	0.00	64.30	54.30	0.00
Z12	0.00	62.96	52.96	0.00
Z13	0.00	61.58	51.58	0.00
Z14	0.00	60.86	50.86	0.00
Z15	0.00	59.03	49.03	0.00
Z16	0.00	57.78	47.78	0.00
Z17	0.00	57.78	47.78	0.00
Z18	0.00	58.18	48.18	0.00
Z19	0.00	58.85	48.85	0.00
Z20	0.00	61.58	51.58	0.00
Z21	0.00	65.09	55.09	0.00
Z22	0.00	66.44	56.44	0.00
Z23	0.00	70.37	60.37	0.00
Z24	0.00	72.82	62.82	0.00
Z25	0.00	74.57	64.57	0.00
Z26	0.00	77.71	67.71	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z27	0.00	84.02	74.02	0.00
Z28	0.00	86.35	76.35	0.00
Z29	0.00	87.65	77.65	0.00
Z30	0.00	89.19	79.19	0.00
Z31	0.00	57.58	47.58	0.00
Z32	0.00	57.25	47.25	0.00
Z33	0.00	56.92	46.92	0.00
Z34	0.00	56.73	46.73	0.00
Z35	0.00	56.35	46.35	0.00
Z36	0.00	56.21	46.21	0.00
Z37	0.00	56.20	46.20	0.00
Z38	0.00	56.30	46.30	0.00
Z39	0.00	56.76	46.76	0.00
Z40	0.00	57.22	47.22	0.00
Z41	0.00	74.57	64.57	0.00
Z42	0.00	74.57	64.57	0.00
Z43	0.00	74.57	64.57	0.00
Z44	0.00	74.57	64.57	0.00
Z45	0.00	74.57	64.57	0.00
Z46	0.00	74.57	64.57	0.00
Z47	0.00	67.11	57.11	0.00
Z48	0.00	64.50	54.50	0.00
Z49	0.00	89.34	79.34	0.00
Z50	0.00	89.34	79.34	0.00
Z51	0.00	89.34	79.34	0.00
Z52	0.00	90.00	80.00	0.00
Z53	0.00	87.65	77.65	0.00
Z54	0.00	87.65	77.65	0.00
Z55	0.00	74.57	64.57	0.00
Z56	0.00	74.57	64.57	0.00
Z57	0.00	74.57	64.57	0.00
Z58	0.00	74.57	64.57	0.00
Z59	0.00	74.57	64.57	0.00
Z60	0.00	63.91	53.91	0.00
Z61	0.00	61.90	51.90	0.00
Z62	0.00	68.13	58.13	0.00
Z63	0.00	85.43	75.43	0.00
Z64	0.00	85.43	75.43	0.00
Z65	0.00	85.43	75.43	0.00
Z66	0.00	85.43	75.43	0.00
Z67	0.00	85.43	75.43	0.00
Z68	0.00	85.43	75.43	0.00
Z69	0.00	85.43	75.43	0.00
Z70	0.00	89.34	79.34	0.00
Z71	0.00	89.34	79.34	0.00
Z72	0.00	89.34	79.34	0.00
Z73	0.00	89.34	79.34	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z74	0.00	89.34	79.34	0.00
Z75	0.00	89.34	79.34	0.00
Z76	0.00	89.34	79.34	0.00
Z77	0.00	89.34	79.34	0.00
Z78	0.00	89.34	79.34	0.00
Z79	0.00	89.34	79.34	0.00
Z80	0.00	89.34	79.34	0.00
Z81	0.00	89.34	79.34	0.00
Z82	0.00	89.19	79.19	0.00
Z83	0.00	89.19	79.19	0.00
Z84	0.00	89.19	79.19	0.00
Z85	0.00	89.19	79.19	0.00
Z86	0.00	89.19	79.19	0.00
Z87	0.00	89.19	79.19	0.00
Z88	0.00	89.19	79.19	0.00
Z89	0.00	87.65	77.65	0.00
Z90	0.00	87.65	77.65	0.00
Z91	0.00	87.65	77.65	0.00
Z92	0.00	87.65	77.65	0.00
Z93	0.00	87.65	77.65	0.00
Z94	0.00	87.65	77.65	0.00
Z95	0.00	87.65	77.65	0.00
Z96	0.00	87.65	77.65	0.00
Z97	0.00	87.65	77.65	0.00
Z98	0.00	86.35	76.35	0.00
Z99	0.00	86.35	76.35	0.00
Z100	0.00	86.35	76.35	0.00
Z101	0.00	84.02	74.02	0.00
Z102	0.00	84.02	74.02	0.00
Z103	0.00	84.02	74.02	0.00
Z104	0.00	84.02	74.02	0.00
Z105	0.00	77.71	67.71	0.00
Z106	0.00	77.71	67.71	0.00
Z107	0.00	77.71	67.71	0.00
Z108	0.00	77.71	67.71	0.00
Z109	0.00	77.71	67.71	0.00
Z110	0.00	77.71	67.71	0.00
Z111	0.00	77.71	67.71	0.00
Z112	0.00	77.71	67.71	0.00
Z113	0.00	77.71	67.71	0.00
Z114	0.00	77.71	67.71	0.00
Z115	0.00	77.71	67.71	0.00
Z116	0.00	77.71	67.71	0.00
Z117	0.00	77.71	67.71	0.00
Z118	0.00	77.71	67.71	0.00
Z119	0.00	77.71	67.71	0.00
Z120	0.00	77.71	67.71	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z121	0.00	74.57	64.57	0.00
Z122	0.00	74.57	64.57	0.00
Z123	0.00	74.57	64.57	0.00
Z124	0.00	74.57	64.57	0.00
Z125	0.00	74.57	64.57	0.00
Z126	0.00	74.57	64.57	0.00
Z127	0.00	74.57	64.57	0.00
Z128	0.00	74.57	64.57	0.00
Z129	0.00	74.57	64.57	0.00
Z130	0.00	74.57	64.57	0.00
Z131	0.00	74.57	64.57	0.00
Z132	0.00	74.57	64.57	0.00
Z133	0.00	74.57	64.57	0.00
Z134	0.00	74.57	64.57	0.00
Z135	0.00	74.57	64.57	0.00
Z136	0.00	74.57	64.57	0.00
Z137	0.00	74.57	64.57	0.00
Z138	0.00	74.57	64.57	0.00
Z139	0.00	74.57	64.57	0.00
Z140	0.00	74.57	64.57	0.00
Z141	0.00	74.57	64.57	0.00
Z142	0.00	74.57	64.57	0.00
Z143	0.00	72.82	62.82	0.00
Z144	0.00	72.82	62.82	0.00
Z145	0.00	72.82	62.82	0.00
Z146	0.00	72.82	62.82	0.00
Z147	0.00	72.82	62.82	0.00
Z148	0.00	72.82	62.82	0.00
Z149	0.00	72.82	62.82	0.00
Z150	0.00	70.37	60.37	0.00
Z151	0.00	70.37	60.37	0.00
Z152	0.00	70.37	60.37	0.00
Z153	0.00	70.37	60.37	0.00
Z154	0.00	70.37	60.37	0.00
Z155	0.00	70.37	60.37	0.00
Z156	0.00	70.37	60.37	0.00
Z157	0.00	70.37	60.37	0.00
Z158	0.00	70.37	60.37	0.00
Z159	0.00	70.37	60.37	0.00
Z160	0.00	70.37	60.37	0.00
Z161	0.00	66.44	56.44	0.00
Z162	0.00	65.09	55.09	0.00
Z163	0.00	65.09	55.09	0.00
Z164	0.00	65.09	55.09	0.00
Z165	0.00	65.09	55.09	0.00
Z166	0.00	65.09	55.09	0.00
Z167	0.00	65.09	55.09	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z168	0.00	61.35	51.35	0.00
Z169	0.00	61.10	51.10	0.00
Z170	0.00	61.04	51.04	0.00
Z171	0.00	60.47	50.47	0.00
Z172	0.00	59.63	49.63	0.00
Z173	0.00	58.35	48.35	0.00
Z174	0.00	57.97	47.97	0.00
Z175	0.00	57.90	47.90	0.00
Z176	0.00	58.59	48.59	0.00
Z177	0.00	57.90	47.90	0.00
Z178	0.00	57.83	47.83	0.00
Z179	0.00	58.53	48.53	0.00
Z180	0.00	58.50	48.50	0.00
Z181	0.00	57.45	47.45	0.00
Z182	0.00	57.39	47.39	0.00
Z183	0.00	57.29	47.29	0.00
Z184	0.00	58.17	48.17	0.00
Z185	0.00	57.36	47.36	0.00
Z186	0.00	57.40	47.40	0.00
Z187	0.00	57.47	47.47	0.00
Z188	0.00	57.14	47.14	0.00
Z189	0.00	57.03	47.03	0.00
Z190	0.00	56.68	46.68	0.00
Z191	0.00	56.63	46.63	0.00
Z192	0.00	56.15	46.15	0.00
Z193	0.00	55.99	45.99	0.00
Z194	0.00	56.14	46.14	0.00
Z195	0.00	55.82	45.82	0.00
Z196	0.00	55.72	45.72	0.00
Z197	0.00	55.45	45.45	0.00
Z198	0.00	55.41	45.41	0.00
Z199	0.00	56.09	46.09	0.00
Z200	0.00	55.74	45.74	0.00
Z201	0.00	55.71	45.71	0.00
Z202	0.00	56.40	46.40	0.00
Z203	0.00	56.00	46.00	0.00
Z204	0.00	55.97	45.97	0.00
Z205	0.00	56.46	46.46	0.00
Z206	0.00	56.40	46.40	0.00
Z207	0.00	56.38	46.38	0.00
Z208	0.00	57.03	47.03	0.00
Z209	0.00	56.82	46.82	0.00
Z210	0.00	56.68	46.68	0.00
Z211	0.00	57.72	47.72	0.00
Z212	0.00	58.78	48.78	0.00
Z213	0.00	58.31	48.31	0.00
Z214	0.00	58.25	48.25	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z215	0.00	57.80	47.80	0.00
Z216	0.00	57.55	47.55	0.00
Z217	0.00	57.46	47.46	0.00
Z218	0.00	57.43	47.43	0.00
Z219	0.00	58.72	48.72	0.00
Z220	0.00	60.84	50.84	0.00
Z221	0.00	61.28	51.28	0.00
Z222	0.00	60.93	50.93	0.00
Z223	0.00	60.12	50.12	0.00
Z224	0.00	59.75	49.75	0.00
Z225	0.00	62.60	52.60	0.00
Z226	0.00	61.84	51.84	0.00
Z227	0.00	61.36	51.36	0.00
Z228	0.00	61.31	51.31	0.00
Z229	0.00	61.14	51.14	0.00
Z230	0.00	60.88	50.88	0.00
Z231	0.00	60.86	50.86	0.00
Z232	0.00	63.58	53.58	0.00
Z233	0.00	63.03	53.03	0.00
Z234	0.00	62.28	52.28	0.00
Z235	0.00	61.95	51.95	0.00
Z236	0.00	61.75	51.75	0.00
Z237	0.00	61.68	51.68	0.00
Z238	0.00	68.13	58.13	0.00
Z239	0.00	68.13	58.13	0.00
Z240	0.00	68.13	58.13	0.00
Z241	0.00	68.13	58.13	0.00
Z242	0.00	68.13	58.13	0.00
Z243	0.00	68.13	58.13	0.00
Z244	0.00	68.13	58.13	0.00
Z245	0.00	68.13	58.13	0.00
Z246	0.00	68.13	58.13	0.00
Z247	0.00	68.13	58.13	0.00
Z248	0.00	68.13	58.13	0.00
Z249	0.00	68.13	58.13	0.00
Z250	0.00	68.13	58.13	0.00
Z251	0.00	66.78	56.78	0.00
Z252	0.00	66.67	56.67	0.00
Z253	0.00	66.64	56.64	0.00
Z254	0.00	64.00	54.00	0.00
Z255	0.00	63.30	53.30	0.00
Z256	0.00	63.25	53.25	0.00
Z257	0.00	62.53	52.53	0.00
Z258	0.00	62.41	52.41	0.00
Z259	0.00	62.34	52.34	0.00
Z260	0.00	62.33	52.33	0.00
Z261	0.00	63.78	53.78	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z262	0.00	63.56	53.56	0.00
Z263	0.00	61.68	51.68	0.00
Z264	0.00	61.04	51.04	0.00
Z265	0.00	60.84	50.84	0.00
Z266	0.00	61.24	51.24	0.00
Z267	0.00	60.23	50.23	0.00
Z268	0.00	59.52	49.52	0.00
Z269	0.00	59.38	49.38	0.00
Z270	0.00	59.34	49.34	0.00
Z271	0.00	71.64	61.64	0.00
Z272	0.00	71.64	61.64	0.00
Z273	0.00	71.64	61.64	0.00
Z274	0.00	83.32	73.32	0.00
Z275	0.00	83.32	73.32	0.00
Z276	0.00	83.32	73.32	0.00
Z277	0.00	83.32	73.32	0.00
Z278	0.00	83.32	73.32	0.00
Z279	0.00	83.32	73.32	0.00
Z280	0.00	83.32	73.32	0.00
Z281	0.00	83.32	73.32	0.00
Z282	0.00	83.32	73.32	0.00
Z283	0.00	83.32	73.32	0.00
Z284	0.00	83.32	73.32	0.00
Z285	0.00	83.32	73.32	0.00
Z286	0.00	83.32	73.32	0.00
Z287	0.00	83.32	73.32	0.00
Z288	0.00	83.32	73.32	0.00
Z289	0.00	83.32	73.32	0.00
Z290	0.00	85.43	75.43	0.00
Z291	0.00	85.43	75.43	0.00
Z292	0.00	85.43	75.43	0.00
Z293	0.00	85.43	75.43	0.00
Z294	0.00	85.43	75.43	0.00
Z295	0.00	85.43	75.43	0.00
Z296	0.00	85.43	75.43	0.00
Z297	0.00	85.43	75.43	0.00
Z298	0.00	85.43	75.43	0.00
Z299	0.00	85.43	75.43	0.00
Z300	0.00	85.43	75.43	0.00
Z301	0.00	85.43	75.43	0.00
Z302	0.00	85.43	75.43	0.00
Z303	0.00	85.43	75.43	0.00
Z304	0.00	85.43	75.43	0.00
Z305	0.00	85.43	75.43	0.00
Z306	0.00	85.43	75.43	0.00
Z307	0.00	85.43	75.43	0.00
Z308	0.00	85.43	75.43	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z309	0.00	85.43	75.43	0.00
Z310	0.00	85.43	75.43	0.00
Z311	0.00	85.43	75.43	0.00
Z312	0.00	85.43	75.43	0.00
Z313	0.00	85.43	75.43	0.00
Z314	0.00	85.43	75.43	0.00
Z315	0.00	85.43	75.43	0.00
Z316	0.00	85.43	75.43	0.00
Z317	0.00	85.43	75.43	0.00
Z318	0.00	85.43	75.43	0.00
Z319	0.00	88.26	78.26	0.00
Z320	0.00	88.26	78.26	0.00
Z321	0.00	89.40	79.40	0.00
I1	0.00	89.34	79.34	0.00
I2	0.00	89.34	79.34	0.00
I3	0.00	89.34	79.34	0.00
I4	0.00	89.34	79.34	0.00
I5	0.00	89.34	79.34	0.00
I6	0.00	89.34	79.34	0.00
I7	0.00	89.34	79.34	0.00
I8	0.00	89.34	79.34	0.00
I9	0.00	89.34	79.34	0.00
I10	0.00	89.34	79.34	0.00
I11	0.00	89.34	79.34	0.00
I12	0.00	89.34	79.34	0.00
I13	0.00	89.34	79.34	0.00
I14	0.00	89.34	79.34	0.00
I15	0.00	89.34	79.34	0.00
I23	0.00	89.19	79.19	0.00
I22	0.00	89.19	79.19	0.00
I21	0.00	89.19	79.19	0.00
I20	0.00	89.19	79.19	0.00
I19	0.00	89.19	79.19	0.00
I18	0.00	89.19	79.19	0.00
I17	0.00	89.19	79.19	0.00
I16	0.00	89.19	79.19	0.00
I24	0.00	87.65	77.65	0.00
I25	0.00	87.65	77.65	0.00
I26	0.00	87.65	77.65	0.00
I27	0.00	87.65	77.65	0.00
I28	0.00	87.65	77.65	0.00
I29	0.00	87.65	77.65	0.00
I30	0.00	87.65	77.65	0.00
I31	0.00	87.65	77.65	0.00
I32	0.00	87.65	77.65	0.00
I33	0.00	87.65	77.65	0.00
I34	0.00	87.65	77.65	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I35	0.00	86.35	76.35	0.00
I36	0.00	86.35	76.35	0.00
I37	0.00	86.35	76.35	0.00
I38	0.00	86.35	76.35	0.00
I39	0.00	86.35	76.35	0.00
I40	0.00	86.35	76.35	0.00
I41	0.00	86.35	76.35	0.00
I42	0.00	86.35	76.35	0.00
I43	0.00	84.02	74.02	0.00
I44	0.00	84.02	74.02	0.00
I45	0.00	84.02	74.02	0.00
I46	0.00	84.02	74.02	0.00
I47	0.00	77.71	67.71	0.00
I48	0.00	77.71	67.71	0.00
I49	0.00	77.71	67.71	0.00
I50	0.00	77.71	67.71	0.00
I51	0.00	77.71	67.71	0.00
I52	0.00	77.71	67.71	0.00
I53	0.00	77.71	67.71	0.00
I54	0.00	77.71	67.71	0.00
I55	0.00	77.71	67.71	0.00
I56	0.00	77.71	67.71	0.00
I57	0.00	77.71	67.71	0.00
I58	0.00	77.71	67.71	0.00
I59	0.00	77.71	67.71	0.00
I60	0.00	77.71	67.71	0.00
I61	0.00	77.71	67.71	0.00
I62	0.00	77.71	67.71	0.00
I63	0.00	77.71	67.71	0.00
I64	0.00	77.71	67.71	0.00
I65	0.00	74.57	64.57	0.00
I66	0.00	74.57	64.57	0.00
I67	0.00	74.57	64.57	0.00
I68	0.00	74.57	64.57	0.00
I69	0.00	74.57	64.57	0.00
I70	0.00	74.57	64.57	0.00
I71	0.00	74.57	64.57	0.00
I72	0.00	74.57	64.57	0.00
I73	0.00	74.57	64.57	0.00
I74	0.00	74.57	64.57	0.00
I75	0.00	74.57	64.57	0.00
I76	0.00	74.57	64.57	0.00
I77	0.00	74.57	64.57	0.00
I78	0.00	74.57	64.57	0.00
I79	0.00	74.57	64.57	0.00
I80	0.00	74.57	64.57	0.00
I81	0.00	74.57	64.57	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I82	0.00	74.57	64.57	0.00
I83	0.00	74.57	64.57	0.00
I84	0.00	74.57	64.57	0.00
I85	0.00	74.57	64.57	0.00
I86	0.00	74.57	64.57	0.00
I87	0.00	74.57	64.57	0.00
I88	0.00	74.57	64.57	0.00
I89	0.00	74.57	64.57	0.00
I90	0.00	74.57	64.57	0.00
I91	0.00	74.57	64.57	0.00
I92	0.00	74.57	64.57	0.00
I93	0.00	74.57	64.57	0.00
I94	0.00	74.57	64.57	0.00
I95	0.00	74.57	64.57	0.00
I96	0.00	74.57	64.57	0.00
I97	0.00	72.82	62.82	0.00
I98	0.00	72.82	62.82	0.00
I99	0.00	72.82	62.82	0.00
I100	0.00	72.82	62.82	0.00
I101	0.00	72.82	62.82	0.00
I102	0.00	72.82	62.82	0.00
I103	0.00	72.82	62.82	0.00
I104	0.00	70.37	60.37	0.00
I105	0.00	70.37	60.37	0.00
I106	0.00	70.37	60.37	0.00
I107	0.00	70.37	60.37	0.00
I108	0.00	70.37	60.37	0.00
I109	0.00	70.37	60.37	0.00
I110	0.00	70.37	60.37	0.00
I111	0.00	70.37	60.37	0.00
I112	0.00	70.37	60.37	0.00
I113	0.00	70.37	60.37	0.00
I114	0.00	70.37	60.37	0.00
I115	0.00	66.44	56.44	0.00
I116	0.00	66.44	56.44	0.00
I117	0.00	66.44	56.44	0.00
I118	0.00	65.09	55.09	0.00
I119	0.00	65.09	55.09	0.00
I120	0.00	65.09	55.09	0.00
I121	0.00	65.09	55.09	0.00
I122	0.00	65.09	55.09	0.00
I123	0.00	65.09	55.09	0.00
I124	0.00	65.09	55.09	0.00
I125	0.00	65.09	55.09	0.00
I126	0.00	68.13	58.13	0.00
I127	0.00	68.13	58.13	0.00
I128	0.00	68.13	58.13	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I129	0.00	68.13	58.13	0.00
I130	0.00	68.13	58.13	0.00
I131	0.00	68.13	58.13	0.00
I132	0.00	68.13	58.13	0.00
I133	0.00	68.13	58.13	0.00
I134	0.00	68.13	58.13	0.00
I135	0.00	68.13	58.13	0.00
I136	0.00	68.13	58.13	0.00
I137	0.00	68.13	58.13	0.00
I138	0.00	68.13	58.13	0.00
I139	0.00	68.13	58.13	0.00
I140	0.00	68.13	58.13	0.00
I141	0.00	71.64	61.64	0.00
I142	0.00	71.64	61.64	0.00
I143	0.00	71.64	61.64	0.00
I144	0.00	71.64	61.64	0.00
I145	0.00	71.64	61.64	0.00
I146	0.00	83.32	73.32	0.00
I147	0.00	83.32	73.32	0.00
I148	0.00	83.32	73.32	0.00
I149	0.00	83.32	73.32	0.00
I150	0.00	83.32	73.32	0.00
I151	0.00	83.32	73.32	0.00
I152	0.00	83.32	73.32	0.00
I153	0.00	83.32	73.32	0.00
I154	0.00	83.32	73.32	0.00
I155	0.00	83.32	73.32	0.00
I156	0.00	83.32	73.32	0.00
I157	0.00	83.32	73.32	0.00
I158	0.00	83.32	73.32	0.00
I159	0.00	83.32	73.32	0.00
I160	0.00	83.32	73.32	0.00
I161	0.00	83.32	73.32	0.00
I162	0.00	83.32	73.32	0.00
I163	0.00	83.32	73.32	0.00
I164	0.00	85.43	75.43	0.00
I165	0.00	85.43	75.43	0.00
I166	0.00	85.43	75.43	0.00
I167	0.00	85.43	75.43	0.00
I168	0.00	85.43	75.43	0.00
I169	0.00	85.43	75.43	0.00
I170	0.00	85.43	75.43	0.00
I171	0.00	85.43	75.43	0.00
I172	0.00	85.43	75.43	0.00
I173	0.00	85.43	75.43	0.00
I174	0.00	85.43	75.43	0.00
I175	0.00	85.43	75.43	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I176	0.00	85.43	75.43	0.00
I177	0.00	85.43	75.43	0.00
I178	0.00	85.43	75.43	0.00
I179	0.00	85.43	75.43	0.00
I180	0.00	85.43	75.43	0.00
I181	0.00	85.43	75.43	0.00
I182	0.00	85.43	75.43	0.00
I183	0.00	85.43	75.43	0.00
I184	0.00	85.43	75.43	0.00
I185	0.00	85.43	75.43	0.00
I186	0.00	85.43	75.43	0.00
I187	0.00	85.43	75.43	0.00
I188	0.00	85.43	75.43	0.00
I189	0.00	85.43	75.43	0.00
I190	0.00	85.43	75.43	0.00
I191	0.00	85.43	75.43	0.00
I192	0.00	85.43	75.43	0.00
I193	0.00	85.43	75.43	0.00
I194	0.00	85.43	75.43	0.00
I195	0.00	85.43	75.43	0.00
I196	0.00	85.43	75.43	0.00
I197	0.00	85.43	75.43	0.00
I198	0.00	85.43	75.43	0.00
I199	0.00	85.43	75.43	0.00
I200	0.00	85.43	75.43	0.00
I201	0.00	85.43	75.43	0.00
I202	0.00	85.43	75.43	0.00
I203	0.00	85.43	75.43	0.00
I204	0.00	85.43	75.43	0.00
I205	0.00	89.40	79.40	0.00
I206	0.00	89.40	79.40	0.00
I207	0.00	89.40	79.40	0.00
I208	0.00	88.26	78.26	0.00
I209	0.00	88.26	78.26	0.00
I210	3.85	61.33	51.33	0.00
I211	3.85	61.08	51.08	0.00
I212	3.85	61.08	51.08	0.00
I213	3.85	61.02	51.02	0.00
I214	3.85	60.45	50.45	0.00
I215	3.85	59.61	49.61	0.00
I216	3.85	58.33	48.33	0.00
I217	3.85	57.96	47.96	0.00
I218	3.85	57.88	47.88	0.00
I219	3.85	57.88	47.88	0.00
I220	3.85	57.28	47.28	0.00
I221	3.85	57.37	47.37	0.00
I222	3.85	57.43	47.43	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I223	3.85	57.43	47.43	0.00
I224	3.85	58.49	48.49	0.00
I225	3.85	58.51	48.51	0.00
I226	3.85	57.88	47.88	0.00
I227	3.85	57.88	47.88	0.00
I228	3.85	57.81	47.81	0.00
I229	3.85	58.15	48.15	0.00
I230	3.85	57.45	47.45	0.00
I231	3.85	57.39	47.39	0.00
I232	3.85	57.34	47.34	0.00
I233	3.85	57.12	47.12	0.00
I234	3.85	57.12	47.12	0.00
I235	3.85	57.01	47.01	0.00
I236	3.85	56.90	46.90	0.00
I237	3.85	56.62	46.62	0.00
I238	3.85	56.66	46.66	0.00
I239	3.85	56.13	46.13	0.00
I240	3.85	56.13	46.13	0.00
I241	3.85	55.98	45.98	0.00
I242	3.85	55.98	45.98	0.00
I243	3.85	56.20	46.20	0.00
I244	3.85	56.20	46.20	0.00
I245	3.85	56.12	46.12	0.00
I246	3.85	55.81	45.81	0.00
I247	3.85	55.81	45.81	0.00
I248	3.85	55.70	45.70	0.00
I249	3.85	55.43	45.43	0.00
I250	3.85	55.34	45.34	0.00
I251	3.85	55.96	45.96	0.00
I252	3.85	55.99	45.99	0.00
I253	3.85	55.69	45.69	0.00
I254	3.85	55.72	45.72	0.00
I255	3.85	56.07	46.07	0.00
I256	3.85	56.07	46.07	0.00
I257	3.85	56.29	46.29	0.00
I258	3.85	56.29	46.29	0.00
I259	3.85	56.45	46.45	0.00
I260	3.85	56.45	46.45	0.00
I261	3.85	56.45	46.45	0.00
I262	3.85	56.38	46.38	0.00
I263	3.85	56.36	46.36	0.00
I264	3.85	57.70	47.70	0.00
I265	3.85	57.70	47.70	0.00
I266	3.85	57.01	47.01	0.00
I267	3.85	57.01	47.01	0.00
I268	3.85	56.81	46.81	0.00
I269	3.85	56.66	46.66	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I270	3.85	58.70	48.70	0.00
I271	3.85	58.77	48.77	0.00
I272	3.85	58.77	48.77	0.00
I273	3.85	58.30	48.30	0.00
I274	3.85	58.30	48.30	0.00
I275	3.85	58.24	48.24	0.00
I276	3.85	57.79	47.79	0.00
I277	3.85	57.53	47.53	0.00
I278	3.85	57.44	47.44	0.00
I279	3.85	57.42	47.42	0.00
I280	3.85	60.82	50.82	0.00
I281	3.85	59.73	49.73	0.00
I282	3.85	59.73	49.73	0.00
I283	3.85	60.10	50.10	0.00
I284	3.85	60.91	50.91	0.00
I285	3.85	61.26	51.26	0.00
I286	3.85	62.59	52.59	0.00
I287	3.85	62.59	52.59	0.00
I288	3.85	61.34	51.34	0.00
I289	3.85	61.34	51.34	0.00
I290	3.85	61.30	51.30	0.00
I291	3.85	61.83	51.83	0.00
I292	3.85	61.83	51.83	0.00
I293	3.85	61.83	51.83	0.00
I294	3.85	61.12	51.12	0.00
I295	3.85	60.87	50.87	0.00
I296	3.85	60.85	50.85	0.00
I297	3.85	63.57	53.57	0.00
I298	3.85	63.02	53.02	0.00
I299	3.85	63.02	53.02	0.00
I300	3.85	62.26	52.26	0.00
I301	3.85	61.94	51.94	0.00
I302	3.85	61.73	51.73	0.00
I303	3.85	61.67	51.67	0.00
I304	3.85	60.82	50.82	0.00
I305	3.85	60.82	50.82	0.00
I306	3.85	61.02	51.02	0.00
I307	3.85	61.66	51.66	0.00
I308	3.85	61.22	51.22	0.00
I309	3.85	60.21	50.21	0.00
I310	3.85	59.51	49.51	0.00
I311	3.85	59.37	49.37	0.00
I312	3.85	59.32	49.32	0.00
I313	3.85	62.31	52.31	0.00
I314	3.85	62.33	52.33	0.00
I315	3.85	62.39	52.39	0.00
I316	3.85	62.52	52.52	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
I317	3.85	63.23	53.23	0.00
I318	3.85	63.99	53.99	0.00
I319	3.85	63.77	53.77	0.00
I320	3.85	63.55	53.55	0.00
I321	3.85	63.55	53.55	0.00
I322	3.85	66.63	56.63	0.00
I323	3.85	66.65	56.65	0.00
I324	3.85	66.76	56.76	0.00
I325	3.85	66.76	56.76	0.00
I326	3.85	66.76	56.76	0.00
S1	-450.00	10.00	0.00	0.00 Reservoir

Link Results:

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R1	147.69	0.75	1.10	Open
R2	302.31	1.54	9.86	Open
R3	147.69	0.75	0.97	Open
R4	147.69	1.18	3.00	Open
R5	147.69	1.18	3.00	Open
R6	147.69	1.92	8.12	Open
R7	147.69	1.92	8.12	Open
R8	147.69	1.92	8.12	Open
R9	147.69	1.92	8.12	Open
R10	147.69	1.92	8.12	Open
R11	147.69	1.92	8.12	Open
R12	147.69	1.92	8.12	Open
R13	147.69	1.92	8.12	Open
R14	109.23	1.42	4.64	Open
R15	74.62	0.97	2.29	Open
R16	70.77	0.92	2.08	Open
R17	1.51	0.02	0.00	Open
R18	-83.08	1.08	2.79	Open
R19	-121.54	1.58	5.65	Open
R20	-125.38	1.63	5.99	Open
R21	-144.61	1.88	7.81	Open
R22	-186.92	1.49	4.73	Open
R23	-213.84	1.70	6.15	Open
R24	-213.84	1.70	6.15	Open
R25	-302.31	2.41	12.11	Open
R26	-302.31	2.41	12.11	Open
R27	-302.31	2.41	12.11	Open
R28	-302.31	1.54	3.86	Open
R29	-302.31	1.54	3.86	Open
R30	69.26	1.14	9.40	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R31	57.72	0.95	2.56	Open
R32	46.18	0.76	1.70	Open
R33	42.33	0.70	1.45	Open
R34	34.64	0.57	1.01	Open
R35	19.26	0.32	0.35	Open
R36	11.56	0.19	0.14	Open
R39	-61.51	1.02	2.88	Open
R40	-76.90	1.27	5.93	Open
R41	0.00	0.00	0.00	Open
R42	0.00	0.00	0.00	Open
R43	0.00	0.00	0.00	Open
R44	0.00	0.00	0.00	Open
R45	0.00	0.00	0.00	Open
R46	0.00	0.00	0.00	Open
R47	88.46	2.30	21.18	Open
R48	69.23	1.80	10.88	Open
R49	0.00	0.00	0.00	Open
R50	0.00	0.00	0.00	Open
R51	0.00	0.00	0.00	Open
R52	450.00	2.29	8.39	Open
R53	0.00	0.00	0.00	Open
R54	0.00	0.00	0.00	Open
R55	0.00	0.00	0.00	Open
R56	0.00	0.00	0.00	Open
R57	0.00	0.00	0.00	Open
R58	0.00	0.00	0.00	Open
R59	0.00	0.00	0.00	Open
R60	46.15	1.51	13.86	Open
R61	34.62	1.13	5.27	Open
R62	0.00	0.00	0.00	Open
R63	0.00	0.00	0.00	Open
R64	0.00	0.00	0.00	Open
R65	0.00	0.00	0.00	Open
R66	0.00	0.00	0.00	Open
R67	0.00	0.00	0.00	Open
R68	0.00	0.00	0.00	Open
R69	0.00	0.00	0.00	Open
R71	0.00	0.00	0.00	Open
R72	0.00	0.00	0.00	Open
R73	0.00	0.00	0.00	Open
R74	0.00	0.00	0.00	Open
R75	0.00	0.00	0.00	Open
R76	0.00	0.00	0.00	Open
R77	0.00	0.00	0.00	Open
R78	0.00	0.00	0.00	Open
R79	0.00	0.00	0.00	Open
R80	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit m/km	Headloss	Status
R81	0.00	0.00	0.00	0.00	Open
R82	0.00	0.00	0.00	0.00	Open
R83	0.00	0.00	0.00	0.00	Open
R84	0.00	0.00	0.00	0.00	Open
R85	0.00	0.00	0.00	0.00	Open
R86	0.00	0.00	0.00	0.00	Open
R87	0.00	0.00	0.00	0.00	Open
R88	0.00	0.00	0.00	0.00	Open
R89	0.00	0.00	0.00	0.00	Open
R90	0.00	0.00	0.00	0.00	Open
R91	0.00	0.00	0.00	0.00	Open
R92	0.00	0.00	0.00	0.00	Open
R93	0.00	0.00	0.00	0.00	Open
R94	0.00	0.00	0.00	0.00	Open
R95	0.00	0.00	0.00	0.00	Open
R96	0.00	0.00	0.00	0.00	Open
R97	0.00	0.00	0.00	0.00	Open
R98	0.00	0.00	0.00	0.00	Open
R99	0.00	0.00	0.00	0.00	Open
R100	0.00	0.00	0.00	0.00	Open
R101	0.00	0.00	0.00	0.00	Open
R102	0.00	0.00	0.00	0.00	Open
R103	0.00	0.00	0.00	0.00	Open
R104	0.00	0.00	0.00	0.00	Open
R105	0.00	0.00	0.00	0.00	Open
R106	0.00	0.00	0.00	0.00	Open
R107	0.00	0.00	0.00	0.00	Open
R108	0.00	0.00	0.00	0.00	Open
R109	0.00	0.00	0.00	0.00	Open
R110	0.00	0.00	0.00	0.00	Open
R111	0.00	0.00	0.00	0.00	Open
R112	0.00	0.00	0.00	0.00	Open
R113	0.00	0.00	0.00	0.00	Open
R114	0.00	0.00	0.00	0.00	Open
R115	0.00	0.00	0.00	0.00	Open
R116	0.00	0.00	0.00	0.00	Open
R117	0.00	0.00	0.00	0.00	Open
R118	0.00	0.00	0.00	0.00	Open
R119	0.00	0.00	0.00	0.00	Open
R120	0.00	0.00	0.00	0.00	Open
R121	0.00	0.00	0.00	0.00	Open
R122	0.00	0.00	0.00	0.00	Open
R123	0.00	0.00	0.00	0.00	Open
R124	0.00	0.00	0.00	0.00	Open
R125	0.00	0.00	0.00	0.00	Open
R126	0.00	0.00	0.00	0.00	Open
R127	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit m/km	Headloss	Status
R128	0.00	0.00	0.00	0.00	Open
R129	0.00	0.00	0.00	0.00	Open
R130	0.00	0.00	0.00	0.00	Open
R131	0.00	0.00	0.00	0.00	Open
R132	0.00	0.00	0.00	0.00	Open
R133	0.00	0.00	0.00	0.00	Open
R134	0.00	0.00	0.00	0.00	Open
R135	0.00	0.00	0.00	0.00	Open
R136	0.00	0.00	0.00	0.00	Open
R137	0.00	0.00	0.00	0.00	Open
R138	0.00	0.00	0.00	0.00	Open
R139	0.00	0.00	0.00	0.00	Open
R140	0.00	0.00	0.00	0.00	Open
R141	0.00	0.00	0.00	0.00	Open
R142	0.00	0.00	0.00	0.00	Open
R143	0.00	0.00	0.00	0.00	Open
R144	0.00	0.00	0.00	0.00	Open
R145	0.00	0.00	0.00	0.00	Open
R146	0.00	0.00	0.00	0.00	Open
R147	0.00	0.00	0.00	0.00	Open
R148	0.00	0.00	0.00	0.00	Open
R149	0.00	0.00	0.00	0.00	Open
R150	0.00	0.00	0.00	0.00	Open
R151	0.00	0.00	0.00	0.00	Open
R152	0.00	0.00	0.00	0.00	Open
R153	0.00	0.00	0.00	0.00	Open
R154	0.00	0.00	0.00	0.00	Open
R155	0.00	0.00	0.00	0.00	Open
R156	0.00	0.00	0.00	0.00	Open
R157	0.00	0.00	0.00	0.00	Open
R158	0.00	0.00	0.00	0.00	Open
R159	0.00	0.00	0.00	0.00	Open
R160	0.00	0.00	0.00	0.00	Open
R161	0.00	0.00	0.00	0.00	Open
R162	0.00	0.00	0.00	0.00	Open
R163	0.00	0.00	0.00	0.00	Open
R164	0.00	0.00	0.00	0.00	Open
R165	0.00	0.00	0.00	0.00	Open
R166	0.00	0.00	0.00	0.00	Open
R167	0.00	0.00	0.00	0.00	Open
R168	0.00	0.00	0.00	0.00	Open
R169	38.46	1.26	16.95	16.95	Open
R170	34.62	1.13	5.27	5.27	Open
R171	3.85	0.25	0.56	0.56	Open
R172	23.08	0.75	2.51	2.51	Open
R173	19.23	1.23	9.25	9.25	Open
R174	15.38	0.99	6.14	6.14	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R175	11.54	0.74		3.63	Open
R176	7.69	0.49		1.75	Open
R177	34.62	1.13		9.68	Open
R178	7.69	0.49		2.71	Open
R179	3.85	0.25		0.51	Open
R180	11.54	0.74		3.92	Open
R181	3.85	0.25		0.51	Open
R182	15.38	0.99		6.14	Open
R183	7.69	0.49		1.75	Open
R184	3.85	0.25		0.51	Open
R185	3.85	0.25		0.76	Open
R186	11.54	0.74		6.42	Open
R187	7.69	0.49		1.75	Open
R188	3.85	0.25		0.51	Open
R189	11.54	0.74		6.51	Open
R190	3.85	0.25		0.51	Open
R191	7.69	0.49		3.09	Open
R192	3.85	0.25		0.51	Open
R193	15.38	0.99		10.94	Open
R194	7.69	0.49		1.75	Open
R195	23.08	0.60		2.97	Open
R196	19.23	0.50		1.04	Open
R197	11.54	0.30		0.41	Open
R198	7.69	0.49		1.75	Open
R199	3.85	0.25		0.51	Open
R200	15.38	0.99		10.42	Open
R201	7.69	0.49		1.75	Open
R202	3.85	0.25		0.51	Open
R203	-34.59	0.57		1.00	Open
R204	-42.28	0.70		1.45	Open
R205	7.69	0.49		1.85	Open
R206	3.85	0.25		0.51	Open
R207	19.23	1.23		17.06	Open
R208	7.69	0.49		1.75	Open
R209	3.85	0.25		0.51	Open
R210	15.38	0.99		11.18	Open
R211	7.69	0.49		1.75	Open
R212	3.85	0.25		0.51	Open
R213	7.69	0.49		2.77	Open
R214	38.46	1.26		15.31	Open
R215	3.85	0.25		0.55	Open
R216	26.92	0.88		3.32	Open
R217	19.23	0.63		1.80	Open
R218	15.38	0.50		1.20	Open
R219	11.54	0.74		3.63	Open
R220	7.69	0.49		1.75	Open
R221	3.85	0.25		0.51	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R222	3.85	0.25	0.78	Open	
R223	19.23	1.23	16.91	Open	
R224	15.38	0.99	6.14	Open	
R225	11.54	0.74	3.63	Open	
R226	7.69	0.49	1.75	Open	
R227	42.31	1.38	15.10	Open	
R228	34.62	1.13	5.27	Open	
R229	11.54	0.74	3.63	Open	
R230	7.69	0.49	1.75	Open	
R231	3.85	0.25	0.51	Open	
R232	11.54	0.74	4.05	Open	
R233	3.85	0.25	0.51	Open	
R234	26.92	1.72	27.70	Open	
R235	23.08	1.48	12.94	Open	
R236	15.38	0.99	6.14	Open	
R237	11.54	0.74	3.63	Open	
R238	7.69	0.49	1.75	Open	
R239	3.85	0.25	0.51	Open	
R240	0.00	0.00	0.00	Open	
R241	0.00	0.00	0.00	Open	
R242	0.00	0.00	0.00	Open	
R243	0.00	0.00	0.00	Open	
R244	0.00	0.00	0.00	Open	
R245	0.00	0.00	0.00	Open	
R246	0.00	0.00	0.00	Open	
R247	0.00	0.00	0.00	Open	
R248	0.00	0.00	0.00	Open	
R249	0.00	0.00	0.00	Open	
R250	0.00	0.00	0.00	Open	
R251	0.00	0.00	0.00	Open	
R252	0.00	0.00	0.00	Open	
R253	19.23	1.23	15.79	Open	
R254	7.69	0.49	1.75	Open	
R255	3.85	0.25	0.51	Open	
R256	23.08	1.48	21.73	Open	
R257	19.23	1.23	9.25	Open	
R258	3.85	0.25	0.51	Open	
R259	15.38	0.99	6.95	Open	
R260	11.54	0.74	3.63	Open	
R261	7.69	0.49	1.75	Open	
R262	3.85	0.25	0.51	Open	
R263	11.54	0.74	6.00	Open	
R264	7.69	0.49	1.75	Open	
R265	15.38	0.99	10.23	Open	
R266	11.54	0.74	3.63	Open	
R267	7.69	0.49	1.75	Open	
R268	19.23	1.23	11.72	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R269	15.38	0.99		6.14	Open
R270	11.54	0.74		3.63	Open
R271	7.69	0.49		1.75	Open
R272	3.85	0.25		0.51	Open
R273	0.00	0.00		0.00	Open
R274	0.00	0.00		0.00	Open
R275	0.00	0.00		0.00	Open
R276	0.00	0.00		0.00	Open
R277	0.00	0.00		0.00	Open
R278	0.00	0.00		0.00	Open
R279	0.00	0.00		0.00	Open
R280	0.00	0.00		0.00	Open
R281	0.00	0.00		0.00	Open
R282	0.00	0.00		0.00	Open
R283	0.00	0.00		0.00	Open
R284	0.00	0.00		0.00	Open
R285	0.00	0.00		0.00	Open
R286	0.00	0.00		0.00	Open
R287	0.00	0.00		0.00	Open
R288	0.00	0.00		0.00	Open
R289	0.00	0.00		0.00	Open
R290	0.00	0.00		0.00	Open
R291	0.00	0.00		0.00	Open
R292	0.00	0.00		0.00	Open
R293	0.00	0.00		0.00	Open
R294	0.00	0.00		0.00	Open
R295	0.00	0.00		0.00	Open
R296	0.00	0.00		0.00	Open
R297	0.00	0.00		0.00	Open
R298	0.00	0.00		0.00	Open
R299	0.00	0.00		0.00	Open
R300	0.00	0.00		0.00	Open
R301	0.00	0.00		0.00	Open
R302	0.00	0.00		0.00	Open
R303	0.00	0.00		0.00	Open
R304	0.00	0.00		0.00	Open
R305	0.00	0.00		0.00	Open
R306	0.00	0.00		0.00	Open
R307	0.00	0.00		0.00	Open
R308	0.00	0.00		0.00	Open
R309	0.00	0.00		0.00	Open
R310	0.00	0.00		0.00	Open
R311	0.00	0.00		0.00	Open
R312	0.00	0.00		0.00	Open
R313	0.00	0.00		0.00	Open
R314	0.00	0.00		0.00	Open
R315	0.00	0.00		0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R316	0.00	0.00		0.00	Open
R317	0.00	0.00		0.00	Open
R318	0.00	0.00		0.00	Open
R319	0.00	0.00		0.00	Open
R320	0.00	0.00		0.00	Open
R321	0.00	0.00		0.00	Open
R322	0.00	0.00		0.00	Open
R323	0.00	0.00		0.00	Open
R326	0.00	0.00		0.00	Open
R327	0.00	0.00		0.00	Open
R328	0.00	0.00		0.00	Open
R329	0.00	0.00		0.00	Open
R330	0.00	0.00		0.00	Open
R331	0.00	0.00		0.00	Open
R332	0.00	0.00		0.00	Open
R333	0.00	0.00		0.00	Open
R334	0.00	0.00		0.00	Open
R335	0.00	0.00		0.00	Open
R336	0.00	0.00		0.00	Open
R337	0.00	0.00		0.00	Open
R338	0.00	0.00		0.00	Open
R339	0.00	0.00		0.00	Open
R340	0.00	0.00		0.00	Open
R341	0.00	0.00		0.00	Open
R342	0.00	0.00		0.00	Open
R343	0.00	0.00		0.00	Open
R344	0.00	0.00		0.00	Open
R345	0.00	0.00		0.00	Open
R346	0.00	0.00		0.00	Open
R347	0.00	0.00		0.00	Open
R348	0.00	0.00		0.00	Open
R349	0.00	0.00		0.00	Open
R350	0.00	0.00		0.00	Open
R351	0.00	0.00		0.00	Open
R352	0.00	0.00		0.00	Open
R353	0.00	0.00		0.00	Open
R354	0.00	0.00		0.00	Open
R355	0.00	0.00		0.00	Open
R356	0.00	0.00		0.00	Open
R357	0.00	0.00		0.00	Open
R358	0.00	0.00		0.00	Open
R359	0.00	0.00		0.00	Open
R360	0.00	0.00		0.00	Open
R361	0.00	0.00		0.00	Open
R362	0.00	0.00		0.00	Open
R363	0.00	0.00		0.00	Open
R364	0.00	0.00		0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R365	0.00	0.00	0.00	0.00	Open
R366	0.00	0.00	0.00	0.00	Open
R367	0.00	0.00	0.00	0.00	Open
R368	0.00	0.00	0.00	0.00	Open
R369	0.00	0.00	0.00	0.00	Open
R370	0.00	0.00	0.00	0.00	Open
R371	0.00	0.00	0.00	0.00	Open
R372	0.00	0.00	0.00	0.00	Open
R373	0.00	0.00	0.00	0.00	Open
R374	0.00	0.00	0.00	0.00	Open
R375	0.00	0.00	0.00	0.00	Open
R376	0.00	0.00	0.00	0.00	Open
R377	0.00	0.00	0.00	0.00	Open
R378	0.00	0.00	0.00	0.00	Open
R379	0.00	0.00	0.00	0.00	Open
R380	0.00	0.00	0.00	0.00	Open
R381	0.00	0.00	0.00	0.00	Open
R382	0.00	0.00	0.00	0.00	Open
R383	0.00	0.00	0.00	0.00	Open
R384	0.00	0.00	0.00	0.00	Open
R385	0.00	0.00	0.00	0.00	Open
R386	0.00	0.00	0.00	0.00	Open
R387	0.00	0.00	0.00	0.00	Open
R388	0.00	0.00	0.00	0.00	Open
R389	0.00	0.00	0.00	0.00	Open
R390	0.00	0.00	0.00	0.00	Open
R391	0.00	0.00	0.00	0.00	Open
R392	0.00	0.00	0.00	0.00	Open
R393	0.00	0.00	0.00	0.00	Open
R394	0.00	0.00	0.00	0.00	Open
R395	0.00	0.00	0.00	0.00	Open
R396	0.00	0.00	0.00	0.00	Open
R397	0.00	0.00	0.00	0.00	Open
R398	0.00	0.00	0.00	0.00	Open
R399	0.00	0.00	0.00	0.00	Open
R400	0.00	0.00	0.00	0.00	Open
R401	0.00	0.00	0.00	0.00	Open
R402	0.00	0.00	0.00	0.00	Open
R403	0.00	0.00	0.00	0.00	Open
R404	0.00	0.00	0.00	0.00	Open
R405	0.00	0.00	0.00	0.00	Open
R406	0.00	0.00	0.00	0.00	Open
R407	0.00	0.00	0.00	0.00	Open
R408	0.00	0.00	0.00	0.00	Open
R409	0.00	0.00	0.00	0.00	Open
R410	0.00	0.00	0.00	0.00	Open
R411	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R412	0.00	0.00	0.00	0.00	Open
R413	0.00	0.00	0.00	0.00	Open
R414	0.00	0.00	0.00	0.00	Open
R415	0.00	0.00	0.00	0.00	Open
R416	0.00	0.00	0.00	0.00	Open
R417	0.00	0.00	0.00	0.00	Open
R418	0.00	0.00	0.00	0.00	Open
R419	0.00	0.00	0.00	0.00	Open
R420	0.00	0.00	0.00	0.00	Open
R421	0.00	0.00	0.00	0.00	Open
R422	0.00	0.00	0.00	0.00	Open
R423	0.00	0.00	0.00	0.00	Open
R424	0.00	0.00	0.00	0.00	Open
R425	0.00	0.00	0.00	0.00	Open
R426	0.00	0.00	0.00	0.00	Open
R427	0.00	0.00	0.00	0.00	Open
R428	0.00	0.00	0.00	0.00	Open
R429	0.00	0.00	0.00	0.00	Open
R430	0.00	0.00	0.00	0.00	Open
R431	0.00	0.00	0.00	0.00	Open
R432	0.00	0.00	0.00	0.00	Open
R433	0.00	0.00	0.00	0.00	Open
R434	0.00	0.00	0.00	0.00	Open
R435	0.00	0.00	0.00	0.00	Open
R436	0.00	0.00	0.00	0.00	Open
R437	0.00	0.00	0.00	0.00	Open
R438	0.00	0.00	0.00	0.00	Open
R439	0.00	0.00	0.00	0.00	Open
R440	0.00	0.00	0.00	0.00	Open
R441	0.00	0.00	0.00	0.00	Open
R442	0.00	0.00	0.00	0.00	Open
R443	0.00	0.00	0.00	0.00	Open
R444	0.00	0.00	0.00	0.00	Open
R445	0.00	0.00	0.00	0.00	Open
R446	0.00	0.00	0.00	0.00	Open
R447	0.00	0.00	0.00	0.00	Open
R448	0.00	0.00	0.00	0.00	Open
R449	0.00	0.00	0.00	0.00	Open
R450	0.00	0.00	0.00	0.00	Open
R451	0.00	0.00	0.00	0.00	Open
R452	0.00	0.00	0.00	0.00	Open
R453	0.00	0.00	0.00	0.00	Open
R454	0.00	0.00	0.00	0.00	Open
R455	0.00	0.00	0.00	0.00	Open
R456	0.00	0.00	0.00	0.00	Open
R457	0.00	0.00	0.00	0.00	Open
R458	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R459	0.00	0.00	0.00	0.00	Open
R460	0.00	0.00	0.00	0.00	Open
R461	0.00	0.00	0.00	0.00	Open
R462	0.00	0.00	0.00	0.00	Open
R463	0.00	0.00	0.00	0.00	Open
R464	0.00	0.00	0.00	0.00	Open
R465	0.00	0.00	0.00	0.00	Open
R466	0.00	0.00	0.00	0.00	Open
R467	0.00	0.00	0.00	0.00	Open
R468	0.00	0.00	0.00	0.00	Open
R469	0.00	0.00	0.00	0.00	Open
R470	0.00	0.00	0.00	0.00	Open
R471	0.00	0.00	0.00	0.00	Open
R472	0.00	0.00	0.00	0.00	Open
R473	0.00	0.00	0.00	0.00	Open
R474	0.00	0.00	0.00	0.00	Open
R475	0.00	0.00	0.00	0.00	Open
R476	0.00	0.00	0.00	0.00	Open
R477	0.00	0.00	0.00	0.00	Open
R478	0.00	0.00	0.00	0.00	Open
R479	0.00	0.00	0.00	0.00	Open
R480	0.00	0.00	0.00	0.00	Open
R481	0.00	0.00	0.00	0.00	Open
R482	0.00	0.00	0.00	0.00	Open
R483	0.00	0.00	0.00	0.00	Open
R484	0.00	0.00	0.00	0.00	Open
R485	0.00	0.00	0.00	0.00	Open
R486	0.00	0.00	0.00	0.00	Open
R487	0.00	0.00	0.00	0.00	Open
R488	0.00	0.00	0.00	0.00	Open
R489	0.00	0.00	0.00	0.00	Open
R490	0.00	0.00	0.00	0.00	Open
R491	0.00	0.00	0.00	0.00	Open
R492	0.00	0.00	0.00	0.00	Open
R493	0.00	0.00	0.00	0.00	Open
R494	0.00	0.00	0.00	0.00	Open
R495	0.00	0.00	0.00	0.00	Open
R496	0.00	0.00	0.00	0.00	Open
R497	0.00	0.00	0.00	0.00	Open
R498	0.00	0.00	0.00	0.00	Open
R499	0.00	0.00	0.00	0.00	Open
R500	0.00	0.00	0.00	0.00	Open
R501	0.00	0.00	0.00	0.00	Open
R502	0.00	0.00	0.00	0.00	Open
R503	0.00	0.00	0.00	0.00	Open
R504	0.00	0.00	0.00	0.00	Open
R505	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R506	0.00	0.00	0.00	0.00	Open
R507	0.00	0.00	0.00	0.00	Open
R508	0.00	0.00	0.00	0.00	Open
R509	0.00	0.00	0.00	0.00	Open
R510	0.00	0.00	0.00	0.00	Open
R511	0.00	0.00	0.00	0.00	Open
R512	0.00	0.00	0.00	0.00	Open
R513	0.00	0.00	0.00	0.00	Open
R514	0.00	0.00	0.00	0.00	Open
R515	0.00	0.00	0.00	0.00	Open
R516	0.00	0.00	0.00	0.00	Open
R517	0.00	0.00	0.00	0.00	Open
R518	0.00	0.00	0.00	0.00	Open
R519	0.00	0.00	0.00	0.00	Open
R520	0.00	0.00	0.00	0.00	Open
R521	0.00	0.00	0.00	0.00	Open
R522	0.00	0.00	0.00	0.00	Open
R523	0.00	0.00	0.00	0.00	Open
R524	0.00	0.00	0.00	0.00	Open
R525	0.00	0.00	0.00	0.00	Open
R526	0.00	0.00	0.00	0.00	Open
R527	0.00	0.00	0.00	0.00	Open
R528	0.00	0.00	0.00	0.00	Open
R529	0.00	0.00	0.00	0.00	Open
R530	0.00	0.00	0.00	0.00	Open
R531	0.00	0.00	0.00	0.00	Open
R532	0.00	0.00	0.00	0.00	Open
R533	0.00	0.00	0.00	0.00	Open
R534	0.00	0.00	0.00	0.00	Open
R535	3.85	0.52	3.08	3.08	Open
R536	3.85	0.52	3.08	3.08	Open
R537	3.85	0.52	3.08	3.08	Open
R538	3.85	0.52	3.08	3.08	Open
R539	3.85	0.52	3.08	3.08	Open
R540	3.85	0.52	3.08	3.08	Open
R541	3.85	0.52	3.08	3.08	Open
R542	3.85	0.52	3.08	3.08	Open
R543	3.85	0.52	3.08	3.08	Open
R544	3.85	0.52	3.08	3.08	Open
R545	3.85	0.52	3.08	3.08	Open
R546	3.85	0.52	3.08	3.08	Open
R547	3.85	0.52	3.08	3.08	Open
R548	3.85	0.52	3.08	3.08	Open
R549	3.85	0.52	3.08	3.08	Open
R550	3.85	0.52	3.08	3.08	Open
R551	3.85	0.52	3.08	3.08	Open
R552	3.85	0.52	3.08	3.08	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R553	3.85	0.52	3.08	Open	
R554	3.85	0.52	3.08	Open	
R555	3.85	0.52	3.08	Open	
R556	3.85	0.52	3.08	Open	
R557	3.85	0.52	3.08	Open	
R558	3.85	0.52	3.08	Open	
R559	3.85	0.52	3.08	Open	
R560	3.85	0.52	3.08	Open	
R561	3.85	0.52	3.08	Open	
R562	3.85	0.52	3.08	Open	
R563	3.85	0.52	3.08	Open	
R566	3.85	0.52	3.08	Open	
R567	3.85	0.52	3.08	Open	
R568	3.85	0.52	3.08	Open	
R569	3.85	0.52	3.08	Open	
R570	3.85	0.52	3.08	Open	
R571	3.85	0.52	3.08	Open	
R572	3.85	0.52	3.08	Open	
R573	3.85	0.52	3.08	Open	
R574	3.85	0.52	3.08	Open	
R575	3.85	0.52	3.08	Open	
R576	3.85	0.52	3.08	Open	
R577	3.85	0.52	3.08	Open	
R578	3.85	0.52	3.08	Open	
R579	3.85	0.52	3.08	Open	
R580	3.85	0.52	3.08	Open	
R581	3.85	0.52	3.08	Open	
R582	3.85	0.52	3.08	Open	
R583	3.85	0.52	3.08	Open	
R584	3.85	0.52	3.08	Open	
R585	3.85	0.52	3.08	Open	
R586	3.85	0.52	3.08	Open	
R587	3.85	0.52	3.08	Open	
R588	3.85	0.52	3.08	Open	
R589	3.85	0.52	3.08	Open	
R590	3.85	0.52	3.08	Open	
R591	3.85	0.52	3.08	Open	
R592	3.85	0.52	3.08	Open	
R593	3.85	0.52	3.08	Open	
R594	3.85	0.52	3.08	Open	
R595	3.85	0.52	3.08	Open	
R596	3.85	0.52	3.08	Open	
R597	3.85	0.52	3.08	Open	
R598	3.85	0.52	3.08	Open	
R599	3.85	0.52	3.08	Open	
R600	3.85	0.52	3.08	Open	
R601	3.85	0.52	3.08	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R602	3.85	0.52	3.08	Open	
R603	3.85	0.52	3.08	Open	
R604	3.85	0.52	3.08	Open	
R605	3.85	0.52	3.08	Open	
R606	3.85	0.52	3.08	Open	
R607	3.85	0.52	3.08	Open	
R608	3.85	0.52	3.08	Open	
R609	3.85	0.52	3.08	Open	
R610	3.85	0.52	3.08	Open	
R611	3.85	0.52	3.08	Open	
R612	3.85	0.52	3.08	Open	
R613	3.85	0.52	3.08	Open	
R614	3.85	0.52	3.08	Open	
R615	3.85	0.52	3.08	Open	
R616	3.85	0.52	3.08	Open	
R617	3.85	0.52	3.08	Open	
R618	3.85	0.52	3.08	Open	
R619	3.85	0.52	3.08	Open	
R620	3.85	0.52	3.08	Open	
R621	3.85	0.52	3.08	Open	
R622	3.85	0.52	3.08	Open	
R623	3.85	0.52	3.08	Open	
R624	3.85	0.52	3.08	Open	
R625	3.85	0.52	3.08	Open	
R626	3.85	0.52	3.08	Open	
R627	3.85	0.52	3.08	Open	
R628	3.85	0.52	3.08	Open	
R629	3.85	0.52	3.08	Open	
R630	3.85	0.52	3.08	Open	
R631	3.85	0.52	3.08	Open	
R632	3.85	0.52	3.08	Open	
R633	3.85	0.52	3.08	Open	
R634	3.85	0.52	3.08	Open	
R635	3.85	0.52	3.08	Open	
R636	3.85	0.52	3.08	Open	
R637	3.85	0.52	3.08	Open	
R638	3.85	0.52	3.08	Open	
R639	3.85	0.52	3.08	Open	
R640	3.85	0.52	3.08	Open	
R641	3.85	0.52	3.08	Open	
R642	3.85	0.52	3.08	Open	
R643	3.85	0.52	3.08	Open	
R644	3.85	0.52	3.08	Open	
R645	3.85	0.52	3.08	Open	
R646	3.85	0.52	3.08	Open	
R647	3.85	0.52	3.08	Open	
R648	3.85	0.52	3.08	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R649	3.85	0.52		3.08	Open
R650	3.85	0.52		3.08	Open
R651	3.85	0.52		3.08	Open
R652	3.85	0.52		3.08	Open
R653	3.85	0.52		3.08	Open
R37	11.51	0.19		0.14	Open
P1	0.00	0.00		0.00	Closed Pump
P2	150.00	0.00		-80.00	Open Pump
P3	150.00	0.00		-80.00	Open Pump
P4	150.00	0.00		-80.00	Open Pump

1.7 CONCLUSIONI

Il dimensionamento della rete di distribuzione risulta verificato e corretto alla luce dei risultati sopra riportati.

In particolare nell'ipotesi di funzionamento "a" la rete risulta ben bilanciata e non si evidenziano particolari perdite di carico. Considerando una prevalenza in centrale pari a 80 m si verifica che nei nodi periferici le pressioni di esercizio calcolate sono largamente sopra il limite minimo garantito di 4,5 atm.

Si è ipotizzata inoltre una suddivisione della rete in tre semidistretti, di seguito riportati, per i quali è stato verificato il modello nelle condizioni descritte nell'ipotesi di funzionamento "b", "c" e "d". Anche in tali configurazioni, nei rami periferici, sui quali è stato simulato il funzionamento turnato, risultano comunque pressioni di esercizio superiori al limite minimo di 4,5 atm :

- Configurazione b - semicomparto ovest : nodo Z142 - $p = 45.71$ m;
- Configurazione c - semicomparto centro : nodo I192 - $p = 46.46$ m;
- Configurazione d - semicomparto est : nodo I250 - $p = 45.34$ m.

DISTRETTO IRRIGUO VILLA PRATI
Efficientamento dell'area irrigua

2. CALCOLI E VERIFICHE IDRAULICHE

2.1 PREMESSA

La presente relazione di calcolo prende in considerazione la verifica e il dimensionamento della rete di distribuzione irrigua in alta pressione in progetto, destinata a servire il distretto denominato “Villa Prati” nel comune di Bagnacavallo (RA).

La batteria di 6 pompe a servizio della rete progettata sarà collocata all'interno della centrale di pompaggio denominata “Valletta” e la dotazione d'acqua da vasca di accumulo sarà pari a circa 900 l/s con pressione in uscita alla centrale di circa 8 atm.

L'area potenzialmente servita dalla rete di distribuzione è pari a circa 2900 Ha delimitati a Est dal fiume Lamone, a Sud dall'autostrada A14, a Ovest dal canale Naviglio e a Nord dalla strada SS16.

Agli utenti deve essere garantita una pressione minima di esercizio pari a 4 atm per consentire ogni tipo di pratica irrigua senza bisogno di ulteriore rilancio.

Nel presente studio si considera anche l'ipotesi di funzionamento turnato.

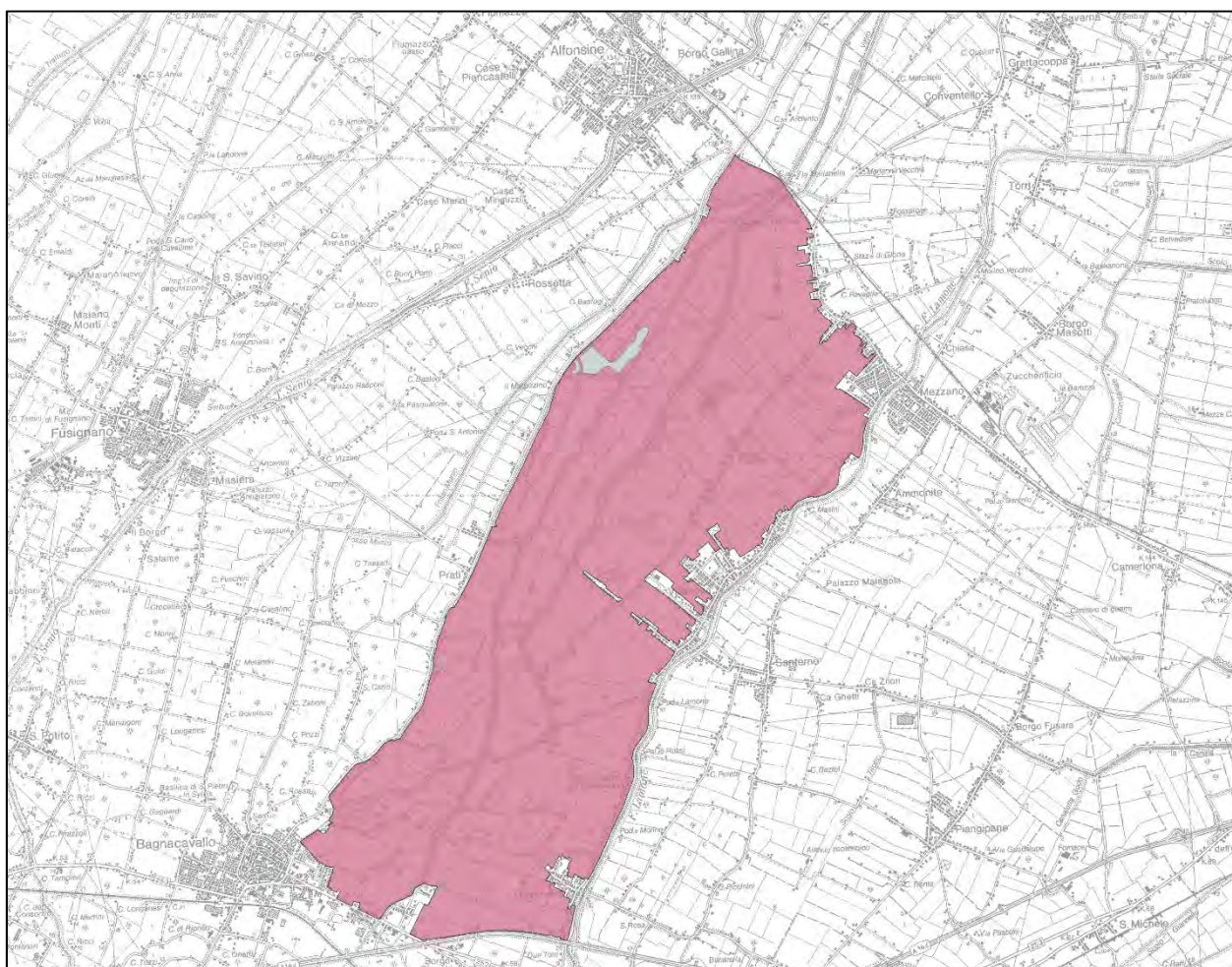


Figura 12 – area distretto Villa Prati

2.2 DISTRETTO IRRIGUO “VILLA PRATI”

Per la verifica della rete di distribuzione nel distretto irriguo servito dalla centrale di pompaggio denominata “Valletta”, si è ricorso al modello idraulico EPANET sviluppato dal Water Supply and Water Resources Division del U.S. Environmental Protection Agency's National Risk Management Research Laboratories, che consente di simulare il comportamento idraulico e la qualità dell'acqua in una rete di condotte in pressione. Il programma si basa su un algoritmo di calcolo che sfrutta il metodo del gradiente per la soluzione iterativa di sistemi di equazioni non lineari. Si rimanda al sito <https://www.epa.gov/water-research/epanet> per la visualizzazione delle specifiche e del manuale.

Il legame tra perdite di carico e portate viene espresso mediante la formula di Darcy Weisbach in quanto teoricamente più corretta e applicabile a tutti i regimi di flusso. Tale formula si rappresenta nell'espressione seguente:

$$h_L = A \cdot q^B$$
$$\text{con } A = 0.0252 \cdot f(\varepsilon, d, q) \cdot d^{-5} \cdot L$$

in cui:

h_L = perdite di carico per unità di lunghezza;

A = coefficiente di resistenza;

q = portata;

B = esponente del flusso.

ε = coefficiente di rugosità di Darcy-Weisbach;

f = coefficiente di rugosità di Darcy-Weisbach;

L = lunghezza del tubo;

d = diametro del tubo.

La tipologia di condotte utilizzate per la rete in oggetto è costituita tubazioni in ghisa rivestite internamente in cemento centrifugato e condotte in polietilene ad alta densità.

Sulla base dei dati proposti dalle case costruttrici delle tubazioni di cui è previsto l'impiego in progetto è stato adottato un coefficiente $\varepsilon = 0.15$ mm per le condotte in ghisa sferoidale e $\varepsilon = 0.015$ mm per le condotte in polietilene alta densità, in linea con i valori solitamente assunti nella pratica progettuale e da letteratura.

La rete viene schematizzata con un reticolo costituito da NODI e RAMI.

I RAMI sono caratterizzati dai nodi di incidenza (iniziali e finali), dalla lunghezza, dal diametro interno e dalla scabrezza della tubazione; ai NODI viene applicata la portata (in entrata ed in uscita). Il programma di calcolo restituisce il carico ai NODI in funzione del carico iniziale dato dalle pompe della centrale e delle perdite di carico distribuite lungo la rete di distribuzione.

Ad ogni NODO è possibile assegnare anche una quota. Trattandosi di un distretto in pianura tutta la rete è stata considerata a quota 10 m. Al fine di considerare eventuali scostamenti di quota tra effettivo posizionamento dell'idrante e piano di progetto, si considera una pressione limite minima di progetto pari a 4,5 atm.

In riferimento agli schemi delle figure riportate successivamente, sono state considerate le seguenti condizioni di funzionamento:

- a. ipotesi di funzionamento considerando una portata in ingresso pari a 900 l/sec (portata massima che l'impianto di pompaggio è in grado di fornire) e una portata in uscita distribuita su tutta la rete (623 idranti potenziali) con valore medio pari a 1,44 l/sec per ogni idrante;
- b. ipotesi di funzionamento turnato a giorni alterni, considerando una portata in ingresso pari a 900 l/sec e distribuzione irrigua sugli idranti (per i quali si prevede una portata di 3.06 l/s e una pressione minima di 4,5 atm) all'interno del semicomparto individuato a nord del distretto.
- c. ipotesi di funzionamento turnato a giorni alterni, considerando una portata in ingresso pari a 900 l/sec e distribuzione irrigua sugli idranti (per i quali si prevede una portata di 2.72 l/s e una pressione minima di 4,5 atm) all'interno del semicomparto individuato a sud del distretto.

Vengono riportati in seguito, in forma tabellare, i dati generali adottati.

Ipotesi di funzionamento - a -			
Comparto	idranti potenziali	portata in uscita	portata da ogni idrante
Villa Prati	n. 623	900 l/s	1,44 l/s

Ipotesi di funzionamento - b - Turno semicomparto nord			
Comparto	idranti potenziali	portata da ogni idrante	portata complessiva
Villa Prati nord	n. 295	3,06 l/s	900 l/s

Ipotesi di funzionamento - c - Turno semicomparto centro			
Comparto	idranti potenziali	portata da ogni idrante	portata complessiva
Villa Prati sud	n. 331	2,72 l/s	900 l/s

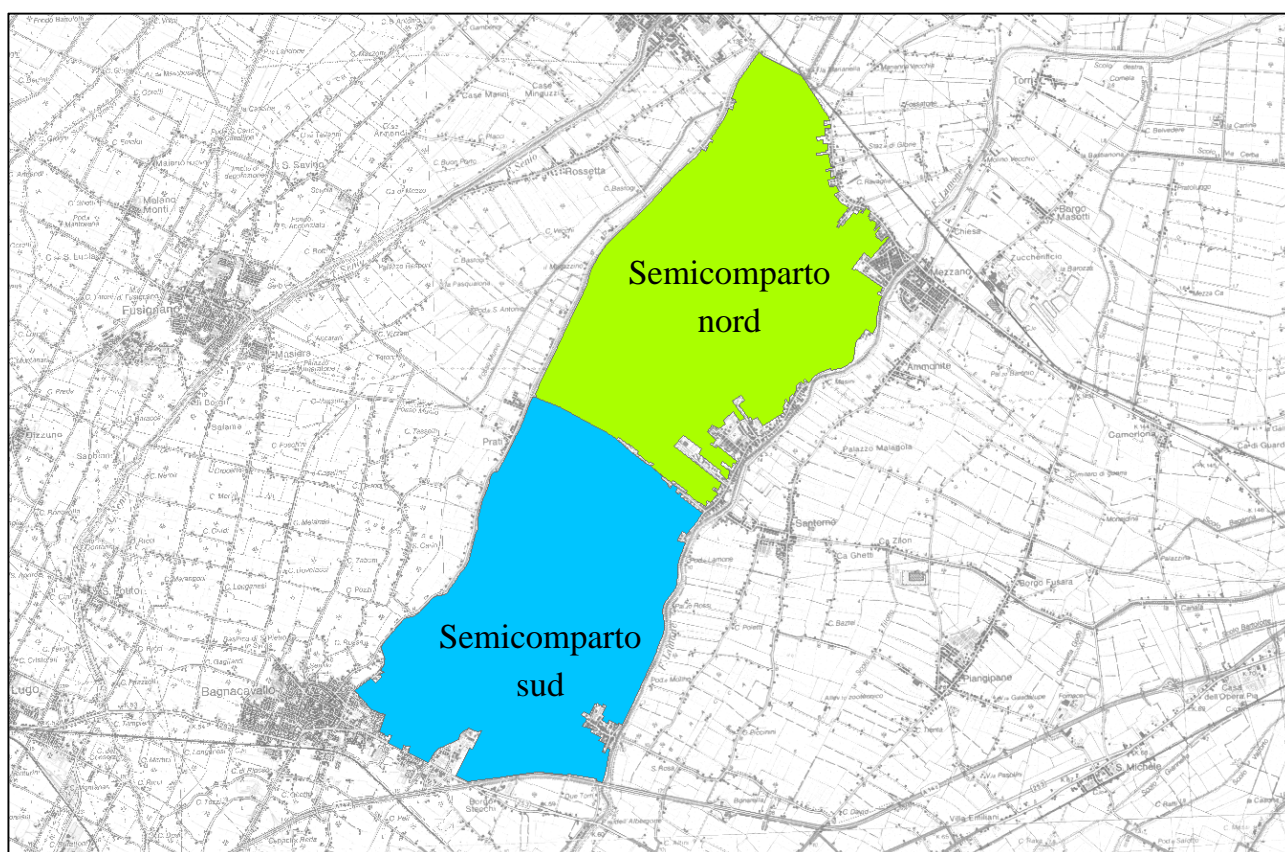


Figura 13 – Semicomparti distretto Villa Prati

Con riferimento alla rete in oggetto si riporta nel seguito la schematizzazione effettuata ed i risultati principali ottenuti dal modello di calcolo.

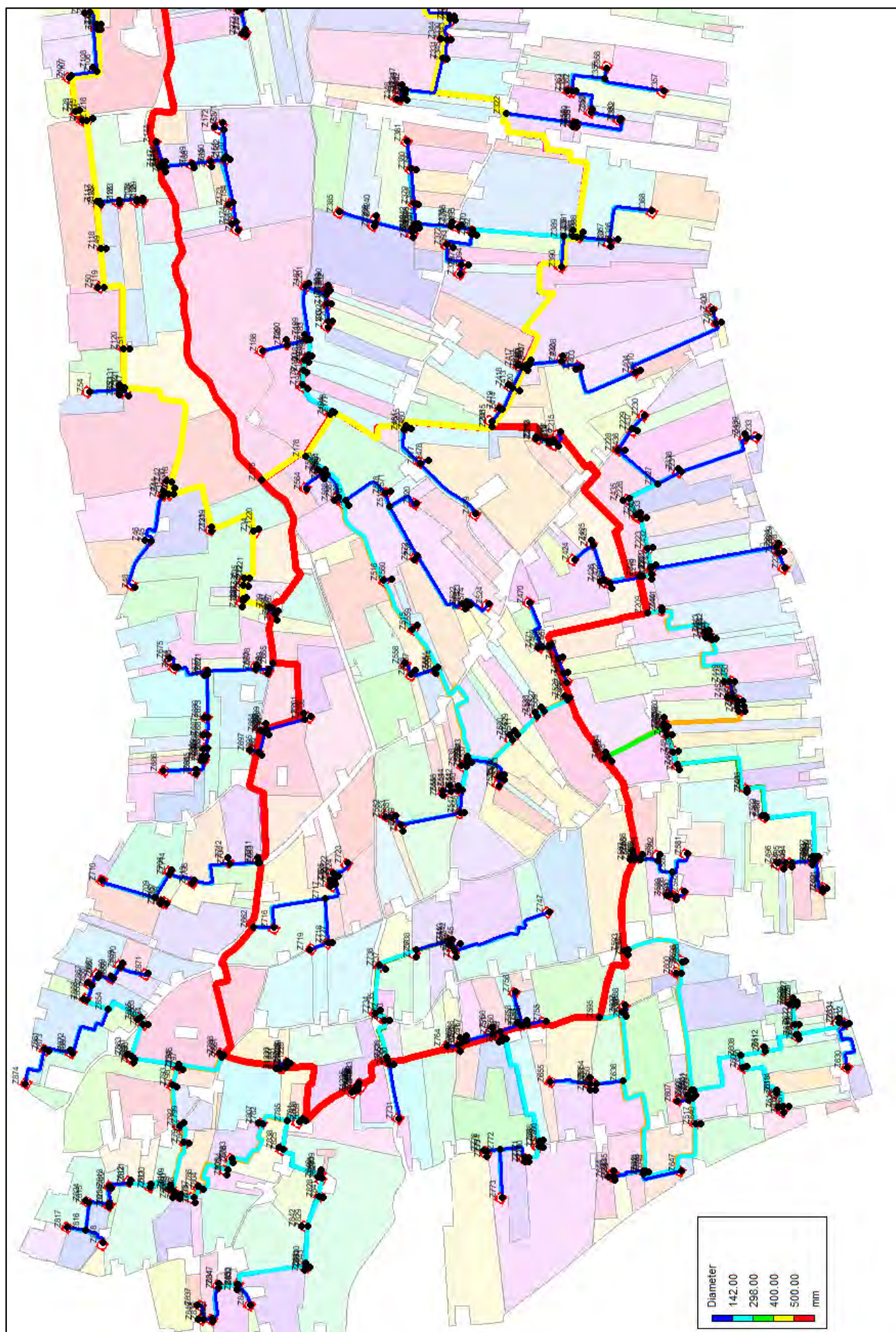
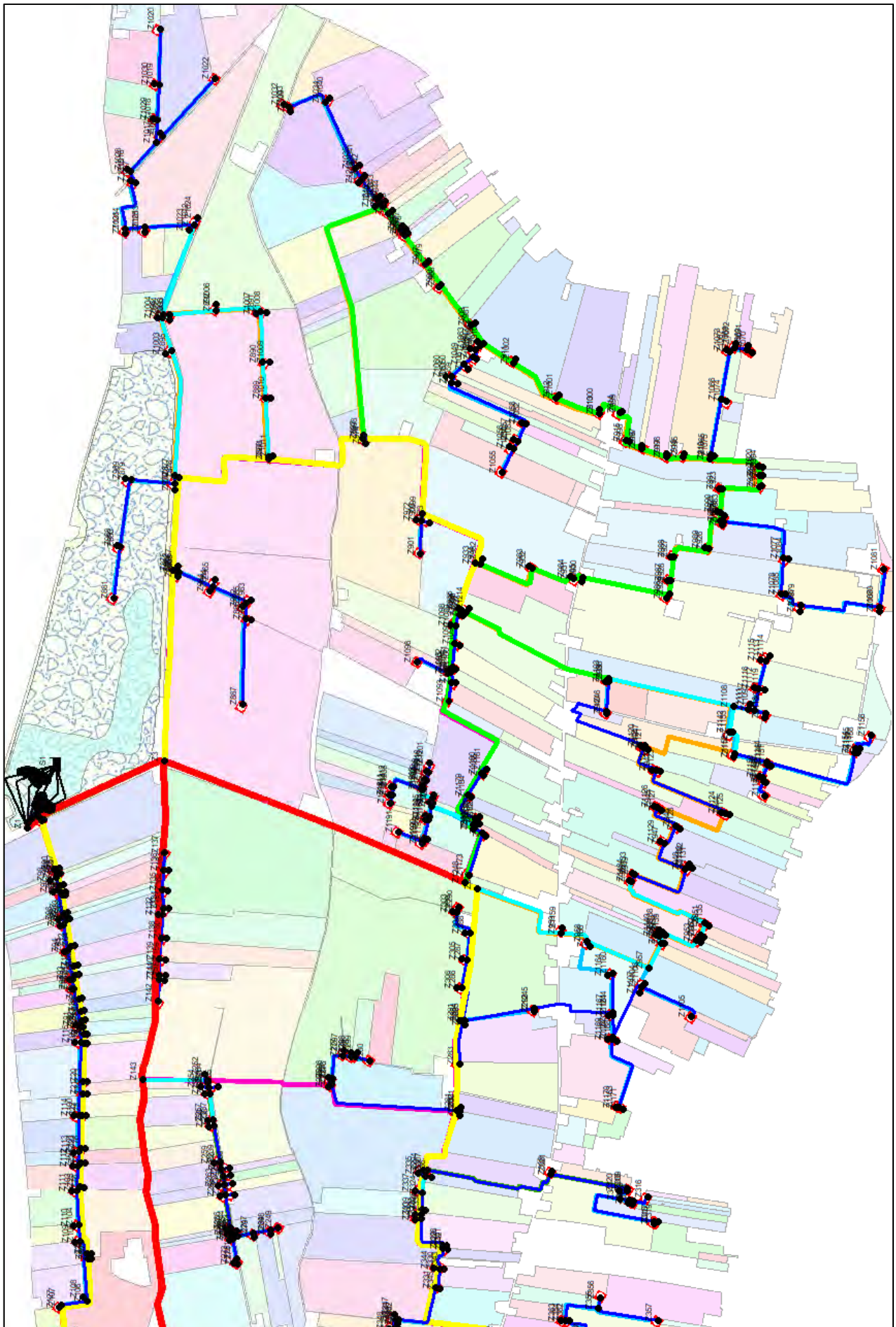


Figura 14_a – modello della rete con numerazione nodi e diametri



***** E P A N E T *****
* Hydraulic and Water Quality *
* Analysis for Pipe Networks *
* Version 2.2 *

DATI SIMULAZIONE VILLA PRATI

[JUNCTIONS]			
;ID	Elev	Demand	
Z1	10	0	;
Z2	10	0	;
Z3	10	0	;
Z4	10	0	;
Z5	10	0	;
Z6	10	0	;
Z7	10	0	;
Z8	10	0	;
Z9	10	0	;
Z10	10	0	;
Z11	10	0	;
Z12	10	0	;
Z13	10	0	;
Z14	10	0	;
Z15	10	0	;
Z16	10	0	;
Z17	10	0	;
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Z19	10	0	;
Z20	10	0	;
Z21	10	0	;
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Z23	10	0	;
Z24	10	0	;
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Z65	10	1.44	;
Z66	10	1.44	;
Z67	10	1.44	;
Z68	10	1.44	;

Z69	10	1.44	;
Z70	10	1.44	;
Z71	10	1.44	;
Z72	10	1.44	;
Z73	10	1.44	;
Z74	10	1.44	;
Z75	10	1.44	;
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Z117	10	0	;
Z118	10	0	;
Z119	10	0	;
Z120	10	0	;
Z121	10	0	;
Z122	10	0	;
Z123	10	0	;

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Z125	10	1.44	;	Z156	10	1.44	;
Z126	10	1.44	;	Z157	10	1.44	;
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Z144	10	1.44	;	Z199	10	1.44	;
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Z262	10	1.44	;	Z317	10	0	;

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Z438	10	1.44	/	Z493	10	0
Z439	10	1.44	/	Z494	10	0
Z440	10	0	/	Z495	10	0
Z441	10	1.44	/	Z496	10	1.44
Z442	10	0	/	Z497	10	1.44
Z443	10	1.44	/	Z498	10	1.44
Z444	10	0	/	Z499	10	1.44
Z445	10	1.44	/	Z500	10	1.44
Z446	10	0	/	Z501	10	1.44
Z447	10	1.44	/	Z502	10	1.44
Z448	10	0	/	Z503	10	1.44
Z449	10	1.44	/	Z504	10	1.44
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Z452	10	1.44	/	Z507	10	1.44
Z453	10	0	/	Z508	10	1.44
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Z455	10	0	/	Z510	10	0
Z456	10	1.44	/	Z511	10	0
Z457	10	0	/	Z512	10	0
Z458	10	1.44	/	Z513	10	0
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Z463	10	0	/	Z519	10	0
Z464	10	1.44	/	Z520	10	1.44
Z465	10	1.44	/	Z521	10	0
Z466	10	0	/	Z522	10	0
Z467	10	0	/	Z523	10	0
Z468	10	0	/	Z524	10	1.44
Z469	10	0	/	Z525	10	0
Z470	10	1.44	/	Z526	10	1.44
Z471	10	1.44	/	Z527	10	1.44
Z472	10	0	/	Z528	10	1.44
Z473	10	1.44	/	Z529	10	1.44
Z474	10	0	/	Z530	10	1.44
Z475	10	1.44	/	Z531	10	0
Z476	10	1.44	/	Z532	10	0
Z477	10	0	/	Z533	10	1.44
Z478	10	1.44	/	Z534	10	1.44
Z479	10	1.44	/	Z535	10	1.44
Z480	10	1.44	/	Z536	10	0
Z481	10	0	/	Z537	10	1.44
Z482	10	0	/	Z538	10	1.44

Z648	10	1.44	;	Z703	10	0	;
Z649	10	0	;	Z704	10	0	;
Z650	10	0	;	Z705	10	0	;
Z651	10	0	;	Z706	10	0	;
Z652	10	1.44	;	Z707	10	0	;
Z653	10	1.44	;	Z708	10	1.44	;
Z654	10	1.44	;	Z709	10	0	;
Z655	10	1.44	;	Z710	10	1.44	;
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Z657	10	0	;	Z712	10	1.44	;
Z658	10	0	;	Z713	10	1.44	;
Z659	10	0	;	Z714	10	1.44	;
Z660	10	0	;	Z715	10	1.44	;
Z661	10	0	;	Z716	10	0	;
Z662	10	1.44	;	Z717	10	0	;
Z663	10	0	;	Z718	10	0	;
Z664	10	0	;	Z719	10	1.44	;
Z665	10	0	;	Z720	10	0	;
Z666	10	0	;	Z721	10	0	;
Z667	10	1.44	;	Z722	10	0	;
Z668	10	1.44	;	Z723	10	1.44	;
Z669	10	0	;	Z724	10	1.44	;
Z670	10	0	;	Z725	10	1.44	;
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[COORDINATES]

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Z3	7647.580	4016.643

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[RESERVOIRS]

;ID Head
S1 10

Pattern

;

[PUMPS]

;ID Node1
P1 S1
P2 S1
P3 S1
P4 S1
P5 S1
P6 S1
P7 S1

Node2

Parameters
HEAD C1 ;
HEAD C1 ;
HEAD C1 ;
HEAD C1 ;
HEAD C1 ;
HEAD C1 ;
HEAD C1 ;

[PIPES]

;ID	Node1	Node2	Length	Diameter	Roughness	MinorLoss	Status
G20	Z1	Z2	30	600	0.15	0	Open ;
G1	Z2	Z3	577.2	600	0.15	0	Open ;
R3	Z2	Z4	18.5	400	0.15	1.8	Open ;
R4	Z4	Z5	213.4	400	0.15	0	Open ;
R5	Z5	Z6	18.6	400	0.15	0	Open ;
R6	Z6	Z7	50	400	0.15	0	Open ;
R7	Z7	Z8	32.8	400	0.15	0	Open ;
R8	Z8	Z9	10	400	0.15	0	Open ;
R9	Z9	Z10	77.7	400	0.15	0	Open ;
R10	Z10	Z11	27.2	400	0.15	0	Open ;
R11	Z11	Z12	113.0	400	0.15	0	Open ;
R12	Z12	Z13	80.80	400	0.15	0	Open ;
R13	Z13	Z14	39.50	400	0.15	0	Open ;
R14	Z14	Z15	100.7	400	0.15	0	Open ;
R15	Z15	Z16	53.2	400	0.15	0	Open ;
R16	Z16	Z17	37.1	400	0.15	0	Open ;
R17	Z17	Z29	27.4	400	0.15	0	Open ;
R18	Z29	Z18	29.8	400	0.15	0	Open ;
R19	Z18	Z19	37.40	400	0.15	0	Open ;
R20	Z19	Z20	161.3	400	0.15	0	Open ;
R21	Z20	Z21	49.5	400	0.15	0	Open ;
R22	Z21	Z22	92.5	400	0.15	0	Open ;
R23	Z22	Z23	139.4	400	0.15	0	Open ;
R24	Z23	Z24	56.4	400	0.15	0	Open ;
R25	Z24	Z25	103.7	400	0.15	0	Open ;
R26	Z25	Z26	297.1	400	0.15	0	Open ;
R27	Z26	Z27	13	400	0.15	0	Open ;
R28	Z27	Z28	449.3	400	0.15	0	Open ;
R56	Z4	Z56	5	96.8	0.015	0	Open ;
R57	Z5	Z57	5	96.8	0.015	0	Open ;
R58	Z6	Z58	5	96.8	0.015	0	Open ;
R59	Z7	Z59	5	96.8	0.015	0	Open ;
R60	Z8	Z60	5	96.8	0.015	0	Open ;
R61	Z9	Z61	5	96.8	0.015	0	Open ;
R62	Z10	Z62	5	96.8	0.015	0	Open ;

R63	Z11	Z63	5	96.8	0.015	0	Open ;
R64	Z12	Z64	5	98.6	0.015	0	Open ;
R65	Z13	Z65	5	96.8	0.015	0	Open ;
R66	Z14	Z66	5	96.8	0.015	0	Open ;
R67	Z15	Z67	5	96.8	0.015	0	Open ;
R68	Z16	Z68	5	96.8	0.015	0	Open ;
R69	Z17	Z69	5	96.8	0.015	0	Open ;
R29	Z29	Z72	9	141	0.015	1.8	Open ;
R71	Z18	Z70	5	96.8	0.015	0	Open ;
R72	Z19	Z71	5	96.8	0.015	0	Open ;
R73	Z20	Z73	5	96.8	0.015	0	Open ;
R74	Z21	Z74	5	96.8	0.015	0	Open ;
R75	Z22	Z75	5	96.8	0.015	0	Open ;
R76	Z23	Z76	5	96.8	0.015	0	Open ;
R77	Z24	Z77	5	96.8	0.015	0	Open ;
R78	Z25	Z78	5	96.8	0.015	0	Open ;
R79	Z26	Z79	5	96.8	0.015	0	Open ;
R80	Z27	Z80	5	96.8	0.015	0	Open ;
R81	Z28	Z81	5	96.8	0.015	0	Open ;
R30	Z72	Z82	9.7	141	0.015	1.8	Open ;
R31	Z82	Z83	159.2	141.0	0.015	0	Open ;
R32	Z83	Z84	38.2	141.0	0.015	0	Open ;
R33	Z84	Z85	117.3	141.0	0.015	0	Open ;
R34	Z85	Z86	113.7	141.0	0.015	0	Open ;
R35	Z86	Z87	27.4	141.0	0.015	0	Open ;
R36	Z87	Z88	117.2	141.0	0.015	0	Open ;
R37	Z88	Z89	50.80	141.0	0.015	0	Open ;
R38	Z89	Z90	35.05	141.0	0.015	0	Open ;
R91	Z82	Z91	5	96.8	0.015	0	Open ;
R92	Z83	Z92	5	96.8	0.015	0	Open ;
R93	Z84	Z93	5	96.8	0.015	0	Open ;
R94	Z85	Z94	5	96.8	0.015	0	Open ;
R95	Z86	Z95	5	96.8	0.015	0	Open ;
R96	Z87	Z96	5	96.8	0.015	0	Open ;
R97	Z88	Z97	5	96.8	0.015	0	Open ;
R98	Z89	Z98	5	96.8	0.015	0	Open ;
R39	Z72	Z99	60.2	141.0	0.015	0	Open ;
R40	Z99	Z100	309.8	141.0	0.015	0	Open ;

R41	Z100	Z101	151.6	141.0	0.015	0	Open	;
R42	Z101	Z102	575	141.0	0.015	0	Open	;
R43	Z102	Z103	103.5	141.0	0.015	0	Open	;
R44	Z103	Z104	144.7	141.0	0.015	0	Open	;
R45	Z104	Z105	66.4	141.0	0.015	0	Open	;
R46	Z105	Z106	256.8	141.0	0.015	0	Open	;
R47	Z106	Z107	110.74	141.0	0.015	0	Open	;
R107	Z106	Z108	5	96.8	0.015	0	Open	;
R108	Z105	Z109	5	96.8	0.015	0	Open	;
R109	Z104	Z110	5	96.8	0.015	0	Open	;
R110	Z103	Z111	5	96.8	0.015	0	Open	;
R111	Z102	Z112	5	96.8	0.015	0	Open	;
R112	Z101	Z113	5	96.8	0.015	0	Open	;
R113	Z100	Z114	5	96.8	0.015	0	Open	;
R114	Z99	Z115	5	96.8	0.015	0	Open	;
R49	Z28	Z116	80	400	0.15	0	Open	;
R50	Z116	Z117	380.3	400	0.15	0	Open	;
R51	Z117	Z118	195.4	400	0.15	0	Open	;
R52	Z118	Z119	163.7	400	0.15	0	Open	;
R53	Z119	Z120	336.9	400	0.15	0	Open	;
R54	Z120	Z121	169.6	400	0.15	0	Open	;
R55	Z117	Z122	16.1	141.0	0.015	1.8	Open	;
R120	Z122	Z123	84.1	141.0	0.015	0	Open	;
R121	Z123	Z124	71.9	141.0	0.015	0	Open	;
R122	Z122	Z125	15.04	96.8	0.015	0	Open	;
R123	Z123	Z126	13.85	96.8	0.015	0	Open	;
R124	Z107	Z127	5	96.8	0.015	0	Open	;
R125	Z128	Z124	5	96.8	0.015	0	Open	;
R126	Z124	Z129	26	141.0	0.015	0	Open	;
R127	Z129	Z130	5	96.8	0.015	0	Open	;
R82	Z30	Z31	61.5	400	0.15	0	Open	;
R83	Z31	Z32	13.8	400	0.15	0	Open	;
R84	Z121	Z30	623	400	0.15	0	Open	;
R85	Z32	Z33	322.7	400	0.15	0	Open	;
R86	Z33	Z34	261.2	400	0.15	0	Open	;
R87	Z34	Z35	231.7	400	0.15	0	Open	;
R88	Z35	Z36	34.2	400	0.15	0	Open	;
R89	Z36	Z37	49.8	400	0.15	0	Open	;

R90	Z37	Z38	11	400	0.15	0	Open	;
R99	Z38	Z39	127.3	400	0.15	0	Open	;
R100	Z39	Z40	3.8	400	0.15	1.8	Open	;
R101	Z31	Z43	14.3	141.0	0.015	1.8	Open	;
R102	Z43	Z45	243.6	141.0	0.015	0	Open	;
R103	Z45	Z48	218.5	141.0	0.015	0	Open	;
R104	Z45	Z46	5	96.8	0.015	0	Open	;
R105	Z43	Z44	5	96.8	0.015	0	Open	;
R106	Z30	Z42	5	96.8	0.015	0	Open	;
R115	Z118	Z49	5	96.8	0.015	0	Open	;
R116	Z119	Z50	5	141	0.015	0	Open	;
R117	Z120	Z51	5	96.8	0.015	0	Open	;
R118	Z121	Z52	12.1	141.0	0.015	1.8	Open	;
R119	Z52	Z53	5.5	141.0	0.015	1.8	Open	;
R128	Z53	Z54	140.8	141.0	0.015	0	Open	;
R129	Z53	Z131	5	96.8	0.015	0	Open	;
R130	Z53	Z55	5	96.8	0.015	0	Open	;
G131	Z3	Z132	618	600	0.15	0	Open	;
R131	Z132	Z133	4	141.0	0.015	1.8	Open	;
R132	Z133	Z134	19.7	141.0	0.015	1.8	Open	;
R133	Z134	Z135	81.5	141.0	0.015	0	Open	;
R134	Z135	Z136	81.4	141.0	0.015	0	Open	;
R135	Z136	Z137	75	141.0	0.015	0	Open	;
R136	Z133	Z138	98.5	141.0	0.015	0	Open	;
R137	Z138	Z139	90.2	141.0	0.015	0	Open	;
R138	Z139	Z140	70	141.0	0.015	0	Open	;
R139	Z140	Z141	15.2	141.0	0.015	0	Open	;
R140	Z141	Z142	97	141.0	0.015	0	Open	;
R141	Z141	Z157	5	96.8	0.015	0	Open	;
R142	Z140	Z158	5	96.8	0.015	0	Open	;
R143	Z139	Z159	5	96.8	0.015	0	Open	;
R144	Z138	Z160	5	96.8	0.015	0	Open	;
R145	Z134	Z161	5	96.8	0.015	0	Open	;
R146	Z135	Z162	5	96.8	0.015	0	Open	;
R147	Z136	Z163	5	96.8	0.015	0	Open	;
G148	Z132	Z143	701.3	600	0.15	0	Open	;
G149	Z143	Z147	1433.79	600	0.15	0	Open	;
R149	Z147	Z145	5.8	141.0	0.015	1.8	Open	;

R150	Z145	Z148	5.7	141.0	0.015	0	Open	;
R151	Z148	Z149	120	141.0	0.015	0	Open	;
R152	Z149	Z150	76.8	141.0	0.015	0	Open	;
R153	Z150	Z151	47.6	141.0	0.015	0	Open	;
R154	Z151	Z152	12.7	141.0	0.015	1.8	Open	;
R155	Z152	Z153	131	141.0	0.015	0	Open	;
R156	Z151	Z154	189.1	141.0	0.015	0	Open	;
R157	Z154	Z155	78.3	141.0	0.015	0	Open	;
R158	Z155	Z156	31	141.0	0.015	0	Open	;
R159	Z145	Z146	17.77	141.0	0.015	1.8	Open	;
R160	Z146	Z144	90.77	141.0	0.015	0	Open	;
R161	Z146	Z166	5	96.8	0.015	0	Open	;
R162	Z148	Z167	5	96.8	0.015	0	Open	;
R163	Z149	Z168	5	96.8	0.015	0	Open	;
R164	Z150	Z169	5	96.8	0.015	0	Open	;
R165	Z152	Z170	5	96.8	0.015	0	Open	;
R166	Z153	Z171	5	96.8	0.015	0	Open	;
R167	Z153	Z172	5	96.8	0.015	0	Open	;
R168	Z154	Z173	5	96.8	0.015	0	Open	;
R169	Z155	Z174	5	96.8	0.015	0	Open	;
G170	Z147	Z175	1472.3	600	0.15	0	Open	;
G171	Z175	Z176	219.9	400	0.15	1.8	Open	;
G172	Z176	Z177	220.58	400	0.15	0	Open	;
R172	Z177	Z178	10.81	197.4	0.015	1.8	Open	;
R173	Z178	Z179	171.80	197.4	0.015	0	Open	;
R174	Z179	Z180	60	197.4	0.015	0	Open	;
R175	Z180	Z181	50	197.4	0.015	0	Open	;
R176	Z181	Z182	13.6	197.4	0.015	0	Open	;
R177	Z182	Z183	82.8	197.4	0.015	0	Open	;
R178	Z183	Z184	11.4	141.0	0.015	1.8	Open	;
R179	Z184	Z185	89.8	141.0	0.015	0	Open	;
R180	Z185	Z186	109.2	141.0	0.015	0	Open	;
R181	Z183	Z187	223.6	141.0	0.015	1.8	Open	;
R182	Z187	Z188	94.3	141.0	0.015	0	Open	;
R183	Z188	Z189	22.2	141.0	0.015	1.8	Open	;
R184	Z189	Z190	15.82	141.0	0.015	0	Open	;
R185	Z188	Z191	32.5	141.0	0.015	0	Open	;
R186	Z191	Z192	87	141.0	0.015	0	Open	;

R187	Z192	Z193	10.5	141.0	0.015	0	Open	;
R188	Z178	Z194	17.19	96.8	0.015	0	Open	;
R189	Z179	Z195	5	96.8	0.015	0	Open	;
R190	Z180	Z196	5	96.8	0.015	0	Open	;
R191	Z181	Z197	5	96.8	0.015	0	Open	;
R192	Z182	Z198	5	96.8	0.015	0	Open	;
R193	Z184	Z199	5	96.8	0.015	0	Open	;
R194	Z185	Z200	5	96.8	0.015	0	Open	;
R195	Z187	Z201	5	96.8	0.015	0	Open	;
R196	Z189	Z202	5	96.8	0.015	0	Open	;
R197	Z191	Z203	5	96.8	0.015	0	Open	;
R198	Z192	Z204	5	96.8	0.015	0	Open	;
G199	Z177	Z205	379.4	400	0.15	0	Open	;
G200	Z205	Z206	385	400	0.15	1.8	Open	;
G201	Z206	Z207	302.8	500	0.15	0	Open	;
G202	Z207	Z208	873.57	500	0.15	0	Open	;
G203	Z208	Z209	159.2	500	0.15	0	Open	;
R200	Z207	Z210	2.6	141.0	0.015	1.8	Open	;
R201	Z210	Z211	5.7	141.0	0.015	1.8	Open	;
R202	Z211	Z212	52.01	141.0	0.015	0	Open	;
R203	Z212	Z213	6.8	141.0	0.015	0	Open	;
R204	Z210	Z214	4	141.0	0.015	0	Open	;
R205	Z214	Z215	47.3	141.0	0.015	0	Open	;
R206	Z212	Z216	5	96.8	0.015	0	Open	;
R207	Z211	Z217	5	96.8	0.015	0	Open	;
R208	Z214	Z218	21.86	96.8	0.015	0	Open	;
R209	Z208	Z219	3.7	197.4	0.015	1.8	Open	;
R210	Z219	Z220	46.2	197.4	0.015	0	Open	;
R211	Z220	Z221	22.1	197.4	0.015	0	Open	;
R212	Z221	Z222	4	197.4	0.015	0	Open	;
R213	Z222	Z223	83.2	197.4	0.015	0	Open	;
R214	Z223	Z224	144.3	197.4	0.015	0	Open	;
R215	Z224	Z225	18.9	197.4	0.015	0	Open	;
R216	Z225	Z226	77.3	197.4	0.015	0	Open	;
R217	Z226	Z227	137.1	197.4	0.015	0	Open	;
R218	Z227	Z231	104.6	141.0	0.015	1.8	Open	;
R219	Z231	Z232	344.4	141.0	0.015	0	Open	;
R220	Z232	Z233	51.3	141.0	0.015	0	Open	;

R221	Z227	Z228	228.1	141.0	0.015	1.8	Open ;
R222	Z228	Z229	98.5	141.0	0.015	0	Open ;
R223	Z229	Z230	78.6	141.0	0.015	0	Open ;
R224	Z221	Z234	539.7	141.0	0.015	1.8	Open ;
R225	Z234	Z235	26	141.0	0.015	0	Open ;
R226	Z235	Z236	70.4	141.0	0.015	0	Open ;
R48	Z143	Z164	271.5	197.4	0.015	1.8	Open ;
R70	Z164	Z41	3	197.4	0.015	0	Open ;
R148	Z41	Z253	23	197.4	0.015	0	Open ;
R170	Z47	Z237	119.4	197.4	0.015	0	Open ;
R171	Z237	Z238	16.2	141	0.015	1.8	Open ;
R199	Z238	Z239	153.6	141	0.015	0	Open ;
R227	Z239	Z240	32.5	141	0.015	0	Open ;
R228	Z240	Z241	33.8	141	0.015	0	Open ;
R229	Z241	Z242	34.3	141	0.015	0	Open ;
R230	Z242	Z243	45.9	141	0.015	0	Open ;
R231	Z243	Z244	131.1	141	0.015	0	Open ;
R232	Z244	Z245	20.3	141	0.015	0	Open ;
R233	Z245	Z246	16.4	141	0.015	0	Open ;
R234	Z246	Z268	18.2	141.0	0.015	1.8	Open ;
R235	Z247	Z248	70.4	141.0	0.015	0	Open ;
R236	Z248	Z249	37.8	141.0	0.015	0	Open ;
R237	Z246	Z250	3	141.0	0.015	1.8	Open ;
R238	Z250	Z251	103	141.0	0.015	0	Open ;
R239	Z41	Z252	5	96.8	0.015	0	Open ;
R240	Z253	Z47	27.7	197.4	0.015	0	Open ;
R241	Z253	Z254	5	96.8	0.015	0	Open ;
R242	Z253	Z255	5	141.0	0.015	0	Open ;
R243	Z47	Z256	5	96.8	0.015	0	Open ;
R244	Z237	Z257	5	96.8	0.015	0	Open ;
R245	Z238	Z258	5	96.8	0.015	0	Open ;
R246	Z239	Z259	5	96.8	0.015	0	Open ;
R247	Z240	Z260	5	96.8	0.015	0	Open ;
R248	Z241	Z261	5	96.8	0.015	0	Open ;
R249	Z242	Z262	5	96.8	0.015	0	Open ;
R250	Z242	Z263	5	96.8	0.015	0	Open ;
R251	Z243	Z265	5	96.8	0.015	0	Open ;
R252	Z243	Z264	5	96.8	0.015	0	Open ;

R253	Z244	Z266	5	96.8	0.015	0	Open ;
R254	Z245	Z267	5	96.8	0.015	0	Open ;
R255	Z268	Z247	70.4	141.0	0.015	0	Open ;
R256	Z268	Z271	5	96.8	0.015	0	Open ;
R257	Z247	Z270	5	96.8	0.015	0	Open ;
R258	Z248	Z269	5	96.8	0.015	0	Open ;
R259	Z250	Z272	5	96.8	0.015	0	Open ;
R260	Z251	Z273	5	96.8	0.015	0	Open ;
R261	Z251	Z274	5	96.8	0.015	0	Open ;
R263	Z165	Z275	8	141.0	0.015	0	Open ;
R264	Z275	Z276	6	141.0	0.015	0	Open ;
R265	Z276	Z277	136.6	141.0	0.015	0	Open ;
R266	Z277	Z278	40	141.0	0.015	0	Open ;
R267	Z278	Z279	14.2	141.0	0.015	0	Open ;
R268	Z279	Z280	67.4	141.0	0.015	0	Open ;
R269	Z165	Z281	589.9	141	0.015	1.8	Open ;
R270	Z281	Z282	7.7	141.0	0.015	1.8	Open ;
R271	Z281	Z291	382.8	400	0.15	0	Open ;
R272	Z284	Z286	145.2	141.0	0.015	1.8	Open ;
R273	Z286	Z287	120.5	141.0	0.015	0	Open ;
R274	Z287	Z288	116.4	141.0	0.015	0	Open ;
R275	Z288	Z289	133.1	141.0	0.015	0	Open ;
R276	Z289	Z290	17.6	141.0	0.015	0	Open ;
R277	Z291	Z284	7	141	0.015	1.8	Open ;
R278	Z284	Z283	184.7	141.0	0.015	1.8	Open ;
R279	Z284	Z285	5	141	0.015	0	Open ;
R280	Z285	Z1245	300	141	0.015	0	Open ;
R281	Z291	Z293	557.27	400	0.15	0	Open ;
R282	Z275	Z295	5	96.8	0.015	0	Open ;
R283	Z276	Z296	5	96.8	0.015	0	Open ;
R284	Z277	Z297	5	96.8	0.015	0	Open ;
R285	Z278	Z298	5	96.8	0.015	0	Open ;
R286	Z279	Z299	5	96.8	0.015	0	Open ;
R287	Z282	Z300	5	96.8	0.015	0	Open ;
R288	Z282	Z301	5	96.8	0.015	0	Open ;
R289	Z285	Z302	5	96.8	0.015	0	Open ;
R290	Z286	Z306	5	96.8	0.015	0	Open ;
R291	Z287	Z305	5	96.8	0.015	0	Open ;

R292	Z288	Z304	5	96.8	0.015	0	Open	;
R293	Z289	Z303	5	96.8	0.015	0	Open	;
R294	Z281	Z294	325.5	400	0.15	0	Open	;
R295	Z294	Z307	2.8	197.4	0.015	1.8	Open	;
R296	Z307	Z308	593.6	141	0.015	1.8	Open	;
R297	Z308	Z321	5	96.8	0.015	0	Open	;
R298	Z308	Z309	338	141.0	0.015	0	Open	;
R299	Z309	Z310	7.5	141.0	0.015	0	Open	;
R300	Z310	Z311	59.00	141.0	0.015	0	Open	;
R301	Z311	Z313	44.3	141.0	0.015	0	Open	;
R302	Z313	Z314	9.8	141.0	0.015	0	Open	;
R303	Z314	Z316	70	141.0	0.015	0	Open	;
R304	Z311	Z317	419.9	141.0	0.015	1.8	Open	;
R305	Z317	Z318	5	96.8	0.015	0	Open	;
R306	Z317	Z319	8.4	141.0	0.015	0	Open	;
R307	Z314	Z315	5	96.8	0.015	0	Open	;
R308	Z313	Z312	5	96.8	0.015	0	Open	;
R309	Z310	Z320	5	96.8	0.015	0	Open	;
R310	Z294	Z322	1122.7	400	0.15	0	Open	;
R311	Z307	Z323	9	197.4	0.015	0	Open	;
R312	Z323	Z324	94	197.4	0.015	0	Open	;
R313	Z324	Z325	81	141	0.015	1.8	Open	;
R314	Z325	Z326	21.8	141	0.015	0	Open	;
R315	Z326	Z327	11.5	141	0.015	0	Open	;
R316	Z327	Z328	204.3	141.0	0.015	0	Open	;
R317	Z328	Z329	7.8	141.0	0.015	0	Open	;
R318	Z329	Z330	96	141.0	0.015	0	Open	;
R319	Z330	Z331	86	141.0	0.015	0	Open	;
R320	Z331	Z332	292.5	141.0	0.015	0	Open	;
R321	Z332	Z333	5.6	141.0	0.015	0	Open	;
R322	Z333	Z334	38	141.0	0.015	0	Open	;
R323	Z323	Z336	5	96.8	0.015	0	Open	;
R324	Z323	Z335	5	96.8	0.015	0	Open	;
R325	Z324	Z337	5	96.8	0.015	0	Open	;
R326	Z325	Z338	5	96.8	0.015	0	Open	;
R327	Z326	Z339	5	96.8	0.015	0	Open	;
R328	Z327	Z340	5	96.8	0.015	0	Open	;
R329	Z328	Z341	5	96.8	0.015	0	Open	;

R330	Z329	Z342	5	96.8	0.015	0	Open	;
R331	Z330	Z343	5	96.8	0.015	0	Open	;
R332	Z330	Z344	5	96.8	0.015	0	Open	;
R333	Z331	Z345	5	96.8	0.015	0	Open	;
R334	Z332	Z346	5	96.8	0.015	0	Open	;
R335	Z333	Z347	5	96.8	0.015	0	Open	;
R336	Z334	Z349	5	96.8	0.015	0	Open	;
R337	Z334	Z348	5	96.8	0.015	0	Open	;
R338	Z322	Z350	290	141.0	0.015	1.8	Open	;
R339	Z351	Z352	246.5	141.0	0.015	0	Open	;
R340	Z352	Z353	126.3	141.0	0.015	0	Open	;
R341	Z353	Z354	167	141.0	0.015	0	Open	;
R342	Z354	Z355	207	141.0	0.015	0	Open	;
R343	Z355	Z356	57.1	141.0	0.015	1.8	Open	;
R344	Z355	Z357	257.4	141.0	0.015	0	Open	;
R345	Z354	Z363	5	96.8	0.015	0	Open	;
R346	Z354	Z362	5	96.8	0.015	0	Open	;
R347	Z353	Z361	5	96.8	0.015	0	Open	;
R348	Z352	Z360	5	96.8	0.015	0	Open	;
R349	Z351	Z359	5	96.8	0.015	0	Open	;
R350	Z350	Z358	5	96.8	0.015	0	Open	;
R351	Z350	Z351	8.8	141.0	0.015	0	Open	;
R352	Z322	Z364	835.5	400	0.15	0	Open	;
R353	Z364	Z365	825.7	400	0.15	0	Open	;
R354	Z206	Z365	302.8	400	0.15	1.8	Open	;
R355	Z364	Z366	5	141.0	0.015	1.8	Open	;
R356	Z366	Z367	142.5	141.0	0.015	0	Open	;
R357	Z367	Z368	297.05	141.0	0.015	0	Open	;
R358	Z366	Z388	5	96.8	0.015	0	Open	;
R359	Z367	Z387	5	96.8	0.015	0	Open	;
R360	Z367	Z386	5	96.8	0.015	0	Open	;
R361	Z364	Z369	22.8	197.4	0.015	1.8	Open	;
R362	Z369	Z389	48	197.4	0.015	0	Open	;
R363	Z389	Z370	386	197.4	0.015	0	Open	;
R364	Z370	Z371	8.8	141.0	0.015	1.8	Open	;
R365	Z371	Z372	174.8	141.0	0.015	0	Open	;
R366	Z372	Z373	135.5	141.0	0.015	0	Open	;
R367	Z373	Z374	42.4	141.0	0.015	0	Open	;

R368	Z389	Z390	127	141.0	0.015	1.8	Open	;
R369	Z370	Z375	62.3	141.0	0.015	1.8	Open	;
R370	Z375	Z376	2	141.0	0.015	0	Open	;
R371	Z376	Z377	155.7	141.0	0.015	0	Open	;
R372	Z377	Z378	9.8	141.0	0.015	0	Open	;
R373	Z378	Z379	82	141.0	0.015	1.8	Open	;
R374	Z379	Z380	143.1	141.0	0.015	0	Open	;
R375	Z380	Z381	124.5	141.0	0.015	0	Open	;
R376	Z378	Z382	30.6	141.0	0.015	0	Open	;
R377	Z382	Z383	9.4	141.0	0.015	0	Open	;
R378	Z383	Z384	166.7	141.0	0.015	0	Open	;
R379	Z384	Z385	152.4	141.0	0.015	0	Open	;
R380	Z369	Z391	5	96.8	0.015	0	Open	;
R381	Z373	Z394	5	96.8	0.015	0	Open	;
R382	Z372	Z393	5	96.8	0.015	0	Open	;
R383	Z371	Z392	5	96.8	0.015	0	Open	;
R384	Z375	Z395	5	96.8	0.015	0	Open	;
R385	Z376	Z396	5	96.8	0.015	0	Open	;
R386	Z377	Z397	5	96.8	0.015	0	Open	;
R387	Z379	Z398	5	96.8	0.015	0	Open	;
R388	Z380	Z399	5	96.8	0.015	0	Open	;
R389	Z365	Z401	5	141.0	0.015	1.8	Open	;
R390	Z401	Z400	5.2	141.0	0.015	0	Open	;
R391	Z400	Z402	148.3	141.0	0.015	0	Open	;
R392	Z402	Z403	95	141.0	0.015	0	Open	;
R393	Z403	Z404	337.6	141.0	0.015	0	Open	;
R394	Z404	Z405	442	141.0	0.015	0	Open	;
R395	Z405	Z406	61.5	141.0	0.015	0	Open	;
R396	Z400	Z407	5	96.8	0.015	0	Open	;
R397	Z402	Z408	5	96.8	0.015	0	Open	;
R398	Z403	Z409	5	96.8	0.015	0	Open	;
R399	Z404	Z410	5	96.8	0.015	0	Open	;
R400	Z405	Z411	20.84	141.0	0.015	0	Open	;
R401	Z401	Z412	19.3	141.0	0.015	1.8	Open	;
R402	Z412	Z417	5	96.8	0.015	0	Open	;
R403	Z412	Z416	5	96.8	0.015	0	Open	;
R404	Z412	Z413	94.8	141.0	0.015	0	Open	;
R405	Z413	Z418	5	96.8	0.015	0	Open	;

R406	Z413	Z420	5	96.8	0.015	0	Open	;
R407	Z413	Z414	105.6	141.0	0.015	0	Open	;
R408	Z414	Z419	5	96.8	0.015	0	Open	;
R409	Z414	Z415	70.3	141.0	0.015	0	Open	;
R410	Z219	Z421	138.2	141.0	0.015	1.8	Open	;
R411	Z421	Z422	10.7	141.0	0.015	0	Open	;
R412	Z422	Z423	160	141.0	0.015	0	Open	;
R413	Z423	Z424	104.3	141.0	0.015	0	Open	;
R414	Z423	Z425	5	96.8	0.015	0	Open	;
R415	Z422	Z426	5	96.8	0.015	0	Open	;
R416	Z421	Z427	5	96.8	0.015	0	Open	;
R417	Z235	Z428	5	96.8	0.015	0	Open	;
R418	Z234	Z429	5	96.8	0.015	0	Open	;
R419	Z220	Z430	5	96.8	0.015	0	Open	;
R420	Z229	Z437	5	96.8	0.015	0	Open	;
R421	Z228	Z436	5	96.8	0.015	0	Open	;
R422	Z226	Z435	5	96.8	0.015	0	Open	;
R423	Z225	Z434	5	96.8	0.015	0	Open	;
R424	Z224	Z433	5	96.8	0.015	0	Open	;
R425	Z223	Z432	5	96.8	0.015	0	Open	;
R426	Z222	Z431	5	96.8	0.015	0	Open	;
R427	Z231	Z438	5	96.8	0.015	0	Open	;
R428	Z232	Z439	5	96.8	0.015	0	Open	;
G429	Z209	Z467	480.3	500	0.15	0	Open	;
G430	Z467	Z466	238.5	500	0.15	1.8	Open	;
G431	Z466	Z463	303.93	500	0.15	0	Open	;
R429	Z463	Z462	15.40	312.8	0.015	1.8	Open	;
R431	Z461	Z459	16.8	141	0.015	1.8	Open	;
R433	Z457	Z455	13.8	141	0.015	0	Open	;
R434	Z455	Z453	24.7	141	0.015	0	Open	;
R435	Z453	Z451	38.3	141	0.015	0	Open	;
R436	Z451	Z448	66.8	141	0.015	1.8	Open	;
R437	Z448	Z446	328	197.4	0.015	0	Open	;
R438	Z446	Z444	24	197.4	0.015	0	Open	;
R439	Z444	Z442	11.9	197.4	0.015	0	Open	;
R440	Z442	Z440	319.2	197.4	0.015	0	Open	;
R441	Z440	Z209	64.8	197.4	0.015	1.8	Open	;
R442	Z462	Z465	5	96.8	0.015	0	Open	;

R443	Z462	Z464	5	96.8	0.015	0	Open	;
R444	Z459	Z460	5	96.8	0.015	0	Open	;
R445	Z440	Z441	5	96.8	0.015	0	Open	;
R446	Z442	Z443	5	96.8	0.015	0	Open	;
R447	Z444	Z445	5	96.8	0.015	0	Open	;
R448	Z446	Z447	5	96.8	0.015	0	Open	;
R449	Z448	Z450	5	96.8	0.015	0	Open	;
R450	Z448	Z449	5	96.8	0.015	0	Open	;
R451	Z451	Z452	5	96.8	0.015	0	Open	;
R452	Z453	Z454	5	96.8	0.015	0	Open	;
R453	Z455	Z456	5	96.8	0.015	0	Open	;
R454	Z457	Z458	5	96.8	0.015	0	Open	;
R455	Z467	Z468	4.4	141.0	0.015	1.8	Open	;
R456	Z468	Z469	33.2	141.0	0.015	0	Open	;
R457	Z469	Z471	5	96.8	0.015	0	Open	;
R458	Z469	Z470	214	141.0	0.015	0	Open	;
R459	Z468	Z472	84.7	141.0	0.015	1.8	Open	;
R460	Z472	Z474	64.9	141.0	0.015	0	Open	;
R461	Z474	Z476	34.5	141.0	0.015	0	Open	;
R462	Z472	Z473	5	96.8	0.015	0	Open	;
R463	Z474	Z475	5	96.8	0.015	0	Open	;
R464	Z205	Z481	2	141.0	0.015	1.8	Open	;
R465	Z481	Z477	186	141.0	0.015	0	Open	;
R466	Z477	Z479	322.7	141.0	0.015	0	Open	;
R467	Z481	Z480	5	96.8	0.015	0	Open	;
R468	Z477	Z478	5	96.8	0.015	0	Open	;
R469	Z461	Z482	4.8	277.6	0.015	1.8	Open	;
R470	Z482	Z483	38.1	277.6	0.015	0	Open	;
R471	Z483	Z484	70.8	277.6	0.015	0	Open	;
R472	Z484	Z485	58.5	277.6	0.015	0	Open	;
R473	Z482	Z497	5	96.8	0.015	0	Open	;
R474	Z483	Z498	5	96.8	0.015	0	Open	;
R475	Z484	Z499	5	96.8	0.015	0	Open	;
R476	Z485	Z500	5	96.8	0.015	0	Open	;
R477	Z485	Z486	401.1	277.6	0.015	0	Open	;
R478	Z486	Z487	194.6	221.2	0.015	1.8	Open	;
R479	Z487	Z488	12.6	221.2	0.015	0	Open	;
R480	Z486	Z501	5	96.8	0.015	0	Open	;

R481	Z487	Z502	5	96.8	0.015	0	Open	;
R482	Z488	Z490	391.7	197.4	0.015	1.8	Open	;
R483	Z490	Z489	3.1	197.4	0.015	0	Open	;
R484	Z489	Z493	9	141.0	0.015	1.8	Open	;
R485	Z493	Z494	92.8	141.0	0.015	0	Open	;
R486	Z494	Z495	28.8	141.0	0.015	0	Open	;
R487	Z495	Z496	32.16	141.0	0.015	0	Open	;
R488	Z489	Z491	152.9	141.0	0.015	1.8	Open	;
R489	Z490	Z504	5	96.8	0.015	0	Open	;
R490	Z491	Z503	5	96.8	0.015	0	Open	;
R491	Z491	Z492	5.7	141.0	0.015	0	Open	;
R492	Z495	Z505	5	96.8	0.015	0	Open	;
R493	Z494	Z506	5	96.8	0.015	0	Open	;
R494	Z493	Z507	5	96.8	0.015	0	Open	;
R495	Z493	Z508	5	96.8	0.015	0	Open	;
R496	Z176	Z561	105.5	221.2	0.015	1.8	Open	;
R497	Z561	Z562	5.4	141.0	0.015	1.8	Open	;
R498	Z562	Z565	5.4	141.0	0.015	1.8	Open	;
R499	Z565	Z564	99.3	141.0	0.015	0	Open	;
R500	Z565	Z563	5	96.8	0.015	0	Open	;
R501	Z575	Z566	5	96.8	0.015	0	Open	;
R502	Z562	Z575	10.2	141.0	0.015	0	Open	;
R503	Z575	Z567	119	141.0	0.015	0	Open	;
R504	Z567	Z569	38.1	141.0	0.015	0	Open	;
R505	Z567	Z568	5	96.8	0.015	0	Open	;
R506	Z569	Z570	5	96.8	0.015	0	Open	;
R507	Z569	Z518	223.4	141.0	0.015	0	Open	;
R508	Z518	Z519	62.7	141.0	0.015	0	Open	;
R509	Z518	Z571	5	96.8	0.015	0	Open	;
R510	Z519	Z520	144.1	141.0	0.015	1.8	Open	;
R511	Z519	Z521	236.5	141.0	0.015	0	Open	;
R512	Z521	Z522	320.1	141.0	0.015	0	Open	;
R513	Z522	Z523	11.7	141.0	0.015	0	Open	;
R514	Z523	Z524	121	141.0	0.015	0	Open	;
R515	Z523	Z574	5	96.8	0.015	0	Open	;
R516	Z522	Z573	5	96.8	0.015	0	Open	;
R517	Z521	Z572	5	96.8	0.015	0	Open	;
R518	Z561	Z516	549.46	221.2	0.015	0	Open	;

R519	Z516	Z515	239.7	221.2	0.015	0	Open	;
R520	Z515	Z514	190.8	221.2	0.015	0	Open	;
R521	Z516	Z560	5	96.8	0.015	0	Open	;
R522	Z515	Z559	5	96.8	0.015	0	Open	;
R523	Z514	Z554	7.1	141.0	0.015	1.8	Open	;
R524	Z554	Z556	117.8	141.0	0.015	0	Open	;
R525	Z556	Z558	55.2	141.0	0.015	0	Open	;
R526	Z554	Z555	5	96.8	0.015	0	Open	;
R527	Z556	Z557	5	96.8	0.015	0	Open	;
R528	Z514	Z513	525.6	221.2	0.015	0	Open	;
R529	Z466	Z525	5.6	221.2	0.015	1.8	Open	;
R530	Z525	Z509	120.7	221.2	0.015	0	Open	;
R531	Z509	Z510	36.1	221.2	0.015	0	Open	;
R532	Z510	Z511	117.2	221.2	0.015	0	Open	;
R533	Z511	Z512	29.4	221.2	0.015	0	Open	;
R534	Z512	Z513	230.4	221.2	0.015	0	Open	;
R535	Z512	Z530	5	96.8	0.015	0	Open	;
R536	Z511	Z529	5	96.8	0.015	0	Open	;
R537	Z510	Z528	5	96.8	0.015	0	Open	;
R538	Z509	Z527	5	96.8	0.015	0	Open	;
R539	Z525	Z526	5	96.8	0.015	0	Open	;
R540	Z513	Z531	4.4	197.4	0.015	1.8	Open	;
R541	Z531	Z532	200.5	141.0	0.015	1.8	Open	;
R542	Z532	Z576	1.2	141.0	0.015	0	Open	;
R543	Z576	Z535	28	141.0	0.015	0	Open	;
R544	Z532	Z533	5	96.8	0.015	0	Open	;
R545	Z576	Z534	5	96.8	0.015	0	Open	;
R546	Z531	Z536	8.8	197.4	0.015	0	Open	;
R547	Z536	Z539	22.2	197.4	0.015	0	Open	;
R548	Z539	Z540	106.8	197.4	0.015	0	Open	;
R549	Z540	Z541	9.8	141.0	0.015	1.8	Open	;
R550	Z541	Z543	31.7	141.0	0.015	0	Open	;
R551	Z543	Z546	24.5	141.0	0.015	0	Open	;
R552	Z536	Z537	5	96.8	0.015	0	Open	;
R553	Z539	Z538	5	96.8	0.015	0	Open	;
R554	Z541	Z542	5	96.8	0.015	0	Open	;
R555	Z543	Z544	5	96.8	0.015	0	Open	;
R556	Z546	Z545	5	96.8	0.015	0	Open	;

R557	Z540	Z547	94.1	141	0.015	1.8	Open	;
R558	Z547	Z549	252.2	141	0.015	0	Open	;
R559	Z549	Z551	48.1	141	0.015	0	Open	;
R560	Z551	Z552	45.1	141.0	0.015	0	Open	;
R561	Z551	Z553	5	96.8	0.015	0	Open	;
R562	Z549	Z550	5	96.8	0.015	0	Open	;
R563	Z547	Z548	5	96.8	0.015	0	Open	;
R564	Z175	Z40	647	500	0.15	1.8	Open	;
G565	Z463	Z577	463.2	500	0.15	0	Open	;
R565	Z577	Z578	13	141	0.015	1.8	Open	;
R566	Z578	Z579	81.4	141	0.015	0	Open	;
R567	Z579	Z580	104.3	141	0.015	0	Open	;
R568	Z580	Z581	128	141	0.015	1.8	Open	;
R569	Z580	Z588	92.4	141	0.015	0	Open	;
R570	Z588	Z590	17	141.0	0.015	0	Open	;
R571	Z590	Z592	45.3	141.0	0.015	0	Open	;
R572	Z578	Z583	5.3	141	0.015	1.8	Open	;
R573	Z583	Z585	14.5	141.0	0.015	0	Open	;
R574	Z585	Z587	5	96.8	0.015	0	Open	;
R575	Z585	Z586	5	96.8	0.015	0	Open	;
R576	Z583	Z584	5	96.8	0.015	0	Open	;
R577	Z590	Z591	5	96.8	0.015	0	Open	;
R578	Z588	Z589	5	96.8	0.015	0	Open	;
R579	Z579	Z582	21.6	141.0	0.015	1.8	Open	;
G580	Z577	Z593	400	500	0.15	0	Open	;
G581	Z593	Z595	355.4	500	0.15	0	Open	;
R580	Z594	Z597	5	96.8	0.015	0	Open	;
R581	Z596	Z598	5	96.8	0.015	0	Open	;
R582	Z602	Z603	5	96.8	0.015	0	Open	;
R583	Z605	Z606	5	96.8	0.015	0	Open	;
R584	Z609	Z610	5	96.8	0.015	0	Open	;
R585	Z611	Z612	5	96.8	0.015	0	Open	;
R586	Z613	Z614	5	96.8	0.015	0	Open	;
R587	Z615	Z616	5	96.8	0.015	0	Open	;
R588	Z615	Z617	5	96.8	0.015	0	Open	;
R589	Z620	Z621	5	96.8	0.015	0	Open	;
R590	Z622	Z623	5	96.8	0.015	0	Open	;
R591	Z624	Z625	5	96.8	0.015	0	Open	;

R592	Z626	Z628	5	96.8	0.015	0	Open	;
R593	Z626	Z629	5	96.8	0.015	0	Open	;
R594	Z631	Z632	5	96.8	0.015	0	Open	;
R595	Z633	Z634	5	96.8	0.015	0	Open	;
R596	Z593	Z594	5.4	277.6	0.015	1.8	Open	;
R597	Z594	Z596	313.3	277.6	0.015	0	Open	;
R598	Z596	Z599	49.3	277.6	0.015	0	Open	;
R599	Z599	Z600	18.9	141.0	0.015	1.8	Open	;
R600	Z599	Z601	504	277.6	0.015	0	Open	;
R601	Z601	Z604	24.9	277.6	0.015	0	Open	;
R602	Z604	Z605	21.3	141.0	0.015	1.8	Open	;
R603	Z605	Z607	41.7	141.0	0.015	0	Open	;
R604	Z601	Z602	5	277.6	0.015	1.8	Open	;
R605	Z602	Z608	336.4	277.6	0.015	0	Open	;
R606	Z608	Z609	50.5	197.4	0.015	1.8	Open	;
R607	Z609	Z613	245	197.4	0.015	0	Open	;
R608	Z613	Z615	80.4	197.4	0.015	0	Open	;
R609	Z615	Z618	17.5	141.0	0.015	1.8	Open	;
R610	Z608	Z611	101	277.6	0.015	0	Open	;
R611	Z611	Z619	191.3	277.6	0.015	0	Open	;
R612	Z619	Z622	37.8	197.4	0.015	1.8	Open	;
R613	Z622	Z624	85.9	197.4	0.015	0	Open	;
R614	Z624	Z626	11.4	141	0.015	1.8	Open	;
R615	Z626	Z627	7.4	141.0	0.015	0	Open	;
R616	Z619	Z620	4.4	197.4	0.015	1.8	Open	;
R617	Z620	Z633	185.8	197.4	0.015	0	Open	;
R618	Z633	Z631	35.8	141	0.015	1.8	Open	;
R619	Z631	Z630	345.2	141	0.015	0	Open	;
R620	Z604	Z517	116.7	277.6	0.015	0	Open	;
R621	Z517	Z635	436.7	277.6	0.015	0	Open	;
R622	Z635	Z636	497.7	277.6	0.015	0	Open	;
R623	Z595	Z637	90.6	277.6	0.015	1.8	Open	;
R624	Z637	Z636	301.5	277.6	0.015	0	Open	;
R625	Z649	Z639	5	96.8	0.015	0	Open	;
R627	Z517	Z640	5	96.8	0.015	0	Open	;
R628	Z635	Z641	5.6	141	0.015	1.8	Open	;
R629	Z641	Z642	5.6	141.0	0.015	1.8	Open	;
R630	Z641	Z643	140.3	141	0.015	0	Open	;

R631	Z643	Z645	5	96.8	0.015	0	Open	;
R632	Z643	Z646	5	96.8	0.015	0	Open	;
R633	Z643	Z644	12.3	141.0	0.015	0	Open	;
R634	Z642	Z648	5	96.8	0.015	0	Open	;
R635	Z642	Z647	182.6	141.0	0.015	0	Open	;
R636	Z637	Z649	6.1	141.0	0.015	1.8	Open	;
R637	Z649	Z638	37	141.0	0.015	0	Open	;
R638	Z636	Z650	125.1	141.0	0.015	1.8	Open	;
R639	Z650	Z651	13.8	141.0	0.015	0	Open	;
R640	Z651	Z655	167.2	141.0	0.015	0	Open	;
R641	Z650	Z652	5	96.8	0.015	0	Open	;
R642	Z651	Z653	5	96.8	0.015	0	Open	;
R643	Z651	Z654	5	96.8	0.015	0	Open	;
R644	Z595	Z656	440.3	500	0.15	0	Open	;
R645	Z656	Z657	506.6	500	0.15	0	Open	;
R646	Z657	Z658	191.7	500	0.15	0	Open	;
R647	Z658	Z659	278.4	500	0.015	0	Open	;
R648	Z659	Z660	355.9	500	0.15	0	Open	;
R649	Z660	Z661	279	500	0.15	0	Open	;
R650	Z661	Z662	669.8	500	0.15	0	Open	;
R651	Z662	Z663	282.5	500	0.15	0	Open	;
R652	Z664	Z663	606.5	500	0.15	0	Open	;
R653	Z665	Z664	503.8	500	0.15	0	Open	;
R654	Z40	Z665	241.2	500	0.15	0	Open	;
R655	Z666	Z667	5	96.8	0.015	0	Open	;
R656	Z666	Z668	5	96.8	0.015	0	Open	;
R657	Z39	Z666	41	141.0	0.015	1.8	Open	;
R658	Z674	Z676	5	96.8	0.015	0	Open	;
R659	Z672	Z677	5	96.8	0.015	0	Open	;
R660	Z669	Z679	5	96.8	0.015	0	Open	;
R661	Z670	Z678	5	96.8	0.015	0	Open	;
R662	Z673	Z680	5	96.8	0.015	0	Open	;
R663	Z681	Z687	5	96.8	0.015	0	Open	;
R664	Z682	Z688	5	96.8	0.015	0	Open	;
R665	Z683	Z689	5	96.8	0.015	0	Open	;
R666	Z684	Z690	5	96.8	0.015	0	Open	;
R667	Z685	Z691	5	96.8	0.015	0	Open	;
R668	Z665	Z669	43	141	0.015	1.8	Open	;

R669	Z669	Z670	54.4	141	0.015	0	Open	;
R670	Z670	Z671	212.7	141	0.015	0	Open	;
R671	Z671	Z674	171.4	141.0	0.015	1.8	Open	;
R672	Z674	Z675	43.7	141.0	0.015	0	Open	;
R673	Z671	Z672	10.8	141.0	0.015	0	Open	;
R674	Z672	Z673	189.3	141.0	0.015	0	Open	;
R675	Z673	Z681	75.6	141.0	0.015	0	Open	;
R676	Z681	Z682	55.7	141.0	0.015	0	Open	;
R677	Z682	Z683	36.8	141.0	0.015	0	Open	;
R678	Z683	Z684	13	141.0	0.015	0	Open	;
R679	Z684	Z685	70.7	141.0	0.015	0	Open	;
R680	Z685	Z686	130.9	141.0	0.015	0	Open	;
R681	Z695	Z696	5	96.8	0.015	0	Open	;
R682	Z693	Z694	5	96.8	0.015	0	Open	;
R683	Z664	Z692	4.6	141.0	0.015	1.8	Open	;
R684	Z692	Z693	1.7	141.0	0.015	1.8	Open	;
R685	Z693	Z695	85	141.0	0.015	0	Open	;
R686	Z695	Z697	19.5	141.0	0.015	0	Open	;
R687	Z692	Z698	3.9	141.0	0.015	0	Open	;
R688	Z698	Z702	168.3	141.0	0.015	0	Open	;
R689	Z702	Z700	40.2	141.0	0.015	0	Open	;
R690	Z702	Z701	5	96.8	0.015	0	Open	;
R691	Z698	Z699	5	96.8	0.015	0	Open	;
R692	Z703	Z704	125.6	141.0	0.015	0	Open	;
R693	Z704	Z705	233.7	141.0	0.015	0	Open	;
R694	Z705	Z706	108.5	141.0	0.015	0	Open	;
R695	Z706	Z709	123.5	141.0	0.015	0	Open	;
R696	Z709	Z710	232.8	141.0	0.015	0	Open	;
R697	Z709	Z707	43.5	141.0	0.015	1.8	Open	;
R698	Z707	Z708	12.8	141.0	0.015	0	Open	;
R699	Z703	Z711	5	96.8	0.015	0	Open	;
R700	Z704	Z712	5	96.8	0.015	0	Open	;
R701	Z705	Z713	5	96.8	0.015	0	Open	;
R702	Z706	Z714	5	96.8	0.015	0	Open	;
R703	Z707	Z715	5	96.8	0.015	0	Open	;
R704	Z663	Z703	9	141.0	0.015	1.8	Open	;
R705	Z662	Z716	82.3	141	0.015	1.8	Open	;
R706	Z716	Z717	318.1	141	0.015	0	Open	;

R707	Z717	Z718	192.7	141.0	0.015	1.8	Open	;
R708	Z718	Z719	68.9	141.0	0.015	0	Open	;
R709	Z717	Z720	94.5	141	0.015	0	Open	;
R710	Z720	Z721	13.7	141	0.015	0	Open	;
R711	Z721	Z722	40.2	141.0	0.015	1.8	Open	;
R712	Z722	Z723	84.7	141.0	0.015	0	Open	;
R713	Z722	Z724	5	96.8	0.015	0	Open	;
R714	Z721	Z725	5	96.8	0.015	0	Open	;
R715	Z720	Z726	5	96.8	0.015	0	Open	;
R716	Z718	Z727	5	96.8	0.015	0	Open	;
R626	Z657	Z728	2.7	197.4	0.015	1.8	Open	;
R717	Z728	Z729	23.9	141.0	0.015	1.8	Open	;
R718	Z730	Z729	5	96.8	0.015	0	Open	;
R719	Z729	Z731	235	141.0	0.015	0	Open	;
R720	Z728	Z732	187.7	197.4	0.015	0	Open	;
R721	Z732	Z734	65.9	197.4	0.015	0	Open	;
R722	Z734	Z736	200.9	197.4	0.015	0	Open	;
R723	Z736	Z738	161	197.4	0.015	0	Open	;
R724	Z738	Z740	160.5	141	0.015	1.8	Open	;
R725	Z740	Z742	13.1	141	0.015	0	Open	;
R726	Z742	Z743	45.4	141	0.015	1.8	Open	;
R727	Z743	Z744	9.4	141	0.015	0	Open	;
R728	Z744	Z747	466	141.0	0.015	0	Open	;
R729	Z744	Z746	5	96.8	0.015	0	Open	;
R730	Z743	Z745	5	96.8	0.015	0	Open	;
R731	Z740	Z741	5	96.8	0.015	0	Open	;
R732	Z738	Z739	5	96.8	0.015	0	Open	;
R733	Z736	Z737	5	96.8	0.015	0	Open	;
R734	Z734	Z735	5	96.8	0.015	0	Open	;
R735	Z732	Z733	5	96.8	0.015	0	Open	;
R736	Z656	Z748	8.5	197.4	0.015	1.8	Open	;
R737	Z748	Z749	6.8	141	0.015	1.8	Open	;
R738	Z749	Z750	20.2	141	0.015	0	Open	;
R739	Z750	Z752	85.5	141	0.015	1.8	Open	;
R740	Z752	Z753	4.3	141	0.015	0	Open	;
R741	Z753	Z754	9	141.0	0.015	0	Open	;
R742	Z753	Z756	148.8	141.0	0.015	1.8	Open	;
R743	Z754	Z755	78.04	141.0	0.015	0	Open	;

R744	Z750	Z751	41.2	141	0.015	0	Open	;
R745	Z751	Z761	110.6	141	0.015	0	Open	;
R746	Z761	Z762	20.5	141.0	0.015	0	Open	;
R747	Z762	Z763	14.1	141.0	0.015	0	Open	;
R748	Z763	Z764	48.89	141.0	0.015	0	Open	;
R749	Z763	Z765	5	96.8	0.015	0	Open	;
R750	Z762	Z766	5	96.8	0.015	0	Open	;
R751	Z761	Z767	5	96.8	0.015	0	Open	;
R752	Z751	Z760	5	96.8	0.015	0	Open	;
R753	Z749	Z759	5	96.8	0.015	0	Open	;
R754	Z752	Z758	5	96.8	0.015	0	Open	;
R755	Z754	Z757	5	96.8	0.015	0	Open	;
R756	Z774	Z776	5	96.8	0.015	0	Open	;
R757	Z771	Z777	5	96.8	0.015	0	Open	;
R758	Z770	Z778	5	96.8	0.015	0	Open	;
R759	Z769	Z779	5	96.8	0.015	0	Open	;
R760	Z768	Z780	5	96.8	0.015	0	Open	;
R761	Z748	Z768	510.8	197.4	0.015	0	Open	;
R762	Z768	Z769	18.4	197.4	0.015	0	Open	;
R763	Z769	Z770	96.3	197.4	0.015	0	Open	;
R764	Z770	Z771	10.4	141	0.015	1.8	Open	;
R765	Z771	Z772	139.1	141	0.015	0	Open	;
R766	Z772	Z774	61.3	141.0	0.015	1.8	Open	;
R767	Z774	Z775	9.1	141.0	0.015	0	Open	;
R768	Z772	Z773	202.6	141.0	0.015	0	Open	;
R769	Z659	Z781	48.6	277.6	0.015	1.8	Open	;
R770	Z781	Z785	78.2	277.6	0.015	0	Open	;
R771	Z785	Z782	128.1	277.6	0.015	0	Open	;
R772	Z782	Z783	269.1	277.6	0.015	0	Open	;
R773	Z783	Z784	64.2	277.6	0.015	0	Open	;
R774	Z784	Z786	247.3	277.6	0.015	0	Open	;
R775	Z786	Z787	47.2	277.6	0.015	0	Open	;
R776	Z787	Z788	53.7	277.6	0.015	0	Open	;
R777	Z788	Z789	9.9	277.6	0.015	0	Open	;
R778	Z789	Z790	29	277.6	0.015	0	Open	;
R779	Z790	Z791	207.9	221.2	0.015	1.8	Open	;
R780	Z791	Z792	90.2	221.2	0.015	0	Open	;
R781	Z792	Z793	193.2	221.2	0.015	0	Open	;

R782	Z793	Z794	83.3	221.2	0.015	0	Open	;
R783	Z794	Z795	10.7	221.2	0.015	1.8	Open	;
R798	Z809	Z795	224.05	277.6	0.015	0	Open	;
R785	Z781	Z808	5	96.8	0.015	0	Open	;
R786	Z782	Z807	5	96.8	0.015	0	Open	;
R787	Z783	Z806	5	96.8	0.015	0	Open	;
R788	Z784	Z805	5	96.8	0.015	0	Open	;
R789	Z786	Z804	5	96.8	0.015	0	Open	;
R790	Z787	Z803	5	96.8	0.015	0	Open	;
R791	Z788	Z802	5	96.8	0.015	0	Open	;
R792	Z789	Z801	5	96.8	0.015	0	Open	;
R793	Z791	Z800	5	96.8	0.015	0	Open	;
R794	Z792	Z799	5	96.8	0.015	0	Open	;
R795	Z793	Z798	5	96.8	0.015	0	Open	;
R796	Z794	Z797	5	96.8	0.015	0	Open	;
R797	Z809	Z796	20.86	96.8	0.015	0	Open	;
R799	Z661	Z809	10.74	277.6	0.015	1.8	Open	;
R800	Z790	Z810	5.7	197.4	0.015	1.8	Open	;
R801	Z810	Z811	112.1	197.4	0.015	0	Open	;
R802	Z811	Z812	88.7	197.4	0.015	0	Open	;
R803	Z812	Z813	88.5	141	0.015	1.8	Open	;
R804	Z813	Z814	89.2	141	0.015	0	Open	;
R805	Z814	Z815	87.3	141.0	0.015	0	Open	;
R806	Z815	Z816	118.8	141.0	0.015	0	Open	;
R807	Z816	Z817	76.1	141.0	0.015	0	Open	;
R808	Z816	Z818	116.9	141.0	0.015	1.8	Open	;
R809	Z810	Z819	5	96.8	0.015	0	Open	;
R810	Z811	Z820	5	96.8	0.015	0	Open	;
R811	Z812	Z821	5	96.8	0.015	0	Open	;
R812	Z813	Z822	5	96.8	0.015	0	Open	;
R813	Z814	Z823	5	96.8	0.015	0	Open	;
R814	Z815	Z824	5	96.8	0.015	0	Open	;
R784	Z825	Z838	5	96.8	0.015	0	Open	;
R815	Z826	Z839	5	96.8	0.015	0	Open	;
R816	Z827	Z840	5	96.8	0.015	0	Open	;
R817	Z828	Z841	5	96.8	0.015	0	Open	;
R818	Z829	Z842	5	96.8	0.015	0	Open	;
R819	Z831	Z843	5	96.8	0.015	0	Open	;

R820	Z831	Z844	5	96.8	0.015	0	Open	;
R821	Z833	Z845	5	96.8	0.015	0	Open	;
R822	Z834	Z847	5	96.8	0.015	0	Open	;
R823	Z835	Z848	5	96.8	0.015	0	Open	;
R824	Z836	Z849	5	96.8	0.015	0	Open	;
R825	Z785	Z825	122.1	277.6	0.015	1.8	Open	;
R826	Z825	Z826	233.5	277.6	0.015	0	Open	;
R827	Z826	Z827	33	277.6	0.015	0	Open	;
R828	Z827	Z828	65.4	221.2	0.015	1.8	Open	;
R829	Z828	Z829	138.6	221.2	0.015	0	Open	;
R830	Z829	Z830	163.2	221.2	0.015	0	Open	;
R831	Z830	Z831	8.3	141.0	0.015	1.8	Open	;
R832	Z830	Z832	322.9	197.4	0.015	1.8	Open	;
R833	Z832	Z846	106.9	141.0	0.015	1.8	Open	;
R834	Z832	Z833	1.3	197.4	0.015	0	Open	;
R835	Z833	Z834	83.9	197.4	0.015	0	Open	;
R836	Z834	Z835	150.6	141	0.015	1.8	Open	;
R837	Z835	Z836	34.9	141.0	0.015	0	Open	;
R838	Z836	Z837	60.7	141.0	0.015	0	Open	;
R839	Z795	Z850	189	221.2	0.015	1.8	Open	;
R840	Z850	Z851	8.9	221.2	0.015	0	Open	;
R841	Z851	Z852	143.3	221.2	0.015	0	Open	;
R842	Z852	Z853	44.2	221.2	0.015	0	Open	;
R843	Z853	Z854	171.3	221.2	0.015	0	Open	;
R844	Z854	Z855	103.3	197.4	0.015	1.8	Open	;
R845	Z855	Z856	64	141	0.015	1.8	Open	;
R846	Z856	Z857	61.3	141	0.015	0	Open	;
R847	Z857	Z858	80.2	141	0.015	0	Open	;
R848	Z858	Z859	56.2	141	0.015	0	Open	;
R849	Z859	Z871	121	141.0	0.015	0	Open	;
R850	Z854	Z860	316	141	0.015	1.8	Open	;
R851	Z860	Z861	122.9	141	0.015	0	Open	;
R852	Z861	Z874	201	141.0	0.015	0	Open	;
R853	Z850	Z862	5	96.8	0.015	0	Open	;
R854	Z851	Z863	5	96.8	0.015	0	Open	;
R855	Z852	Z864	5	96.8	0.015	0	Open	;
R856	Z853	Z865	5	96.8	0.015	0	Open	;
R857	Z855	Z866	5	96.8	0.015	0	Open	;

R858	Z856	Z867	5	96.8	0.015	0	Open	;
R859	Z857	Z868	5	96.8	0.015	0	Open	;
R860	Z858	Z869	5	96.8	0.015	0	Open	;
R861	Z859	Z870	5	96.8	0.015	0	Open	;
R862	Z860	Z872	5	96.8	0.015	0	Open	;
R863	Z861	Z873	5	96.8	0.015	0	Open	;
R864	Z3	Z875	803.3	400	0.15	1.8	Open	;
R865	Z875	Z882	7.5	141.0	0.015	1.8	Open	;
R866	Z882	Z883	18.5	141.0	0.015	0	Open	;
R867	Z883	Z884	155.6	141.0	0.015	0	Open	;
R868	Z884	Z885	156.9	141.0	0.015	0	Open	;
R869	Z885	Z886	71.4	141.0	0.015	0	Open	;
R870	Z886	Z887	367.4	141.0	0.015	0	Open	;
R871	Z886	Z961	5	96.8	0.015	0	Open	;
R872	Z885	Z962	5	96.8	0.015	0	Open	;
R873	Z885	Z963	5	96.8	0.015	0	Open	;
R874	Z884	Z964	5	96.8	0.015	0	Open	;
R875	Z884	Z965	5	96.8	0.015	0	Open	;
R876	Z883	Z966	5	96.8	0.015	0	Open	;
R877	Z882	Z967	5	96.8	0.015	0	Open	;
R878	Z875	Z876	383.9	400	0.15	0	Open	;
R879	Z876	Z888	477.2	400	0.15	0	Open	;
R880	Z888	Z897	507.9	400	0.15	0	Open	;
R881	Z876	Z877	20	197.4	0.015	1.8	Open	;
R882	Z877	Z878	32.5	141.0	0.015	1.8	Open	;
R883	Z878	Z879	183.4	141.0	0.015	0	Open	;
R884	Z879	Z880	278.4	141.0	0.015	0	Open	;
R885	Z880	Z881	212.9	141.0	0.015	0	Open	;
R886	Z878	Z970	5	96.8	0.015	0	Open	;
R887	Z879	Z969	5	96.8	0.015	0	Open	;
R888	Z880	Z968	5	96.8	0.015	0	Open	;
R889	Z877	Z895	533.7	197.4	0.015	0	Open	;
R890	Z895	Z896	151	197.4	0.015	0	Open	;
R891	Z896	Z894	27.1	197.4	0.015	0	Open	;
R896	Z888	Z971	8.8	197.4	0.015	1.8	Open	;
R897	Z889	Z890	148	197.4	0.015	0	Open	;
R898	Z890	Z891	213	197.4	0.015	0	Open	;
R899	Z891	Z892	201.5	197.4	0.015	0	Open	;

R900	Z892	Z893	192.7	197.4	0.015	0	Open	;
R901	Z893	Z894	27.1	197.4	0.015	0	Open	;
R902	Z971	Z889	251.5	197.4	0.015	0	Open	;
R903	Z897	Z899	550.3	400	0.15	0	Open	;
R904	Z1248	Z960	264.3	312.8	0.015	1.8	Open	;
R905	Z960	Z935	1161.6	312.8	0.015	0	Open	;
R906	Z935	Z933	206.7	400	0.15	0	Open	;
R907	Z933	Z899	373.5	400	0.15	0	Open	;
R908	Z899	Z900	26.4	141.0	0.015	1.8	Open	;
R909	Z900	Z901	140	141.0	0.015	0	Open	;
R910	Z900	Z972	5	96.8	0.015	0	Open	;
R911	Z900	Z973	5	96.8	0.015	0	Open	;
R912	Z897	Z898	3.9	312.8	0.015	1.8	Open	;
R913	Z898	Z902	1143.2	312.8	0.015	0	Open	;
R914	Z898	Z974	5	96.8	0.015	0	Open	;
R915	Z902	Z903	33	312.8	0.015	0	Open	;
R916	Z903	Z904	90.3	312.8	0.015	0	Open	;
R917	Z904	Z905	13.5	312.8	0.015	0	Open	;
R918	Z905	Z906	15.7	312.8	0.015	0	Open	;
R919	Z906	Z907	146.3	312.8	0.015	0	Open	;
R920	Z907	Z908	109.5	312.8	0.015	0	Open	;
R921	Z908	Z909	204	312.8	0.015	0	Open	;
R922	Z909	Z910	100.9	312.8	0.015	0	Open	;
R923	Z909	Z981	5	96.8	0.015	0	Open	;
R924	Z908	Z980	5	96.8	0.015	0	Open	;
R925	Z907	Z979	5	96.8	0.015	0	Open	;
R926	Z906	Z978	5	96.8	0.015	0	Open	;
R927	Z905	Z977	5	96.8	0.015	0	Open	;
R928	Z904	Z976	5	96.8	0.015	0	Open	;
R929	Z903	Z975	5	96.8	0.015	0	Open	;
R930	Z933	Z934	12.9	312.8	0.015	1.8	Open	;
R931	Z934	Z932	294.6	312.8	0.015	0	Open	;
R932	Z932	Z931	209.5	312.8	0.015	0	Open	;
R933	Z931	Z930	37.3	312.8	0.015	0	Open	;
R934	Z930	Z929	363.5	312.8	0.015	0	Open	;
R935	Z929	Z928	69	312.8	0.015	0	Open	;
R936	Z928	Z927	99.8	312.8	0.015	0	Open	;
R937	Z927	Z926	192.8	312.8	0.015	0	Open	;

R938	Z926	Z925	150.8	312.8	0.015	0	Open	;
R939	Z925	Z924	33.5	312.8	0.015	0	Open	;
R940	Z924	Z923	101.4	312.8	0.015	0	Open	;
R941	Z923	Z922	150.2	312.8	0.015	0	Open	;
R942	Z922	Z921	46.9	312.8	0.015	0	Open	;
R943	Z921	Z920	36.5	312.8	0.015	0	Open	;
R944	Z920	Z919	210.77	312.8	0.015	0	Open	;
R945	Z919	Z918	114.5	312.8	0.015	0	Open	;
R946	Z918	Z917	69.4	312.8	0.015	0	Open	;
R947	Z917	Z916	105.3	312.8	0.015	0	Open	;
R948	Z916	Z915	91.6	312.8	0.015	0	Open	;
R949	Z915	Z914	143.4	312.8	0.015	0	Open	;
R950	Z914	Z913	145.1	312.8	0.015	0	Open	;
R951	Z913	Z912	191.7	312.8	0.015	0	Open	;
R952	Z912	Z911	249.3	312.8	0.015	0	Open	;
R953	Z911	Z910	143.2	312.8	0.015	0	Open	;
R954	Z934	Z982	5	96.8	0.015	0	Open	;
R955	Z932	Z983	5	96.8	0.015	0	Open	;
R956	Z931	Z984	5	96.8	0.015	0	Open	;
R957	Z930	Z985	20.46	96.8	0.015	0	Open	;
R958	Z929	Z986	5	96.8	0.015	0	Open	;
R959	Z928	Z987	5	96.8	0.015	0	Open	;
R960	Z927	Z988	5	96.8	0.015	0	Open	;
R961	Z926	Z989	5	96.8	0.015	0	Open	;
R962	Z924	Z990	5	96.8	0.015	0	Open	;
R963	Z923	Z991	5	96.8	0.015	0	Open	;
R964	Z922	Z992	5	96.8	0.015	0	Open	;
R965	Z921	Z993	5	96.8	0.015	0	Open	;
R966	Z920	Z994	5	96.8	0.015	0	Open	;
R967	Z918	Z995	5	96.8	0.015	0	Open	;
R968	Z917	Z996	5	96.8	0.015	0	Open	;
R969	Z916	Z997	5	96.8	0.015	0	Open	;
R970	Z915	Z998	5	96.8	0.015	0	Open	;
R971	Z914	Z999	5	96.8	0.015	0	Open	;
R972	Z913	Z1000	5	96.8	0.015	0	Open	;
R973	Z912	Z1001	5	96.8	0.015	0	Open	;
R974	Z911	Z1002	5	96.8	0.015	0	Open	;
R975	Z971	Z1011	5	96.8	0.015	0	Open	;

R976	Z889	Z1010	5	96.8	0.015	0	Open	;
R977	Z890	Z1009	5	96.8	0.015	0	Open	;
R978	Z891	Z1008	5	96.8	0.015	0	Open	;
R979	Z891	Z1007	5	96.8	0.015	0	Open	;
R980	Z892	Z1006	5	96.8	0.015	0	Open	;
R981	Z893	Z1005	5	96.8	0.015	0	Open	;
R982	Z896	Z1004	5	96.8	0.015	0	Open	;
R983	Z895	Z1003	5	96.8	0.015	0	Open	;
R984	Z894	Z1012	405.2	197.4	0.015	1.8	Open	;
R985	Z1012	Z1013	210.7	141	0.015	1.8	Open	;
R986	Z1013	Z1014	79.4	141	0.015	0	Open	;
R987	Z1014	Z1015	257.4	141	0.015	0	Open	;
R988	Z1015	Z1016	47.92	141	0.015	0	Open	;
R989	Z1016	Z1017	169.6	141	0.015	0	Open	;
R990	Z1017	Z1018	98.3	141.0	0.015	1.8	Open	;
R991	Z1018	Z1019	144.7	141.0	0.015	0	Open	;
R992	Z1019	Z1020	226.2	141.0	0.015	0	Open	;
R993	Z1017	Z1021	29.9	141.0	0.015	0	Open	;
R994	Z1021	Z1022	331.5	141.0	0.015	0	Open	;
R995	Z1012	Z1023	5	96.8	0.015	0	Open	;
R996	Z1012	Z1024	30.48	96.8	0.015	0	Open	;
R997	Z1013	Z1025	5	96.8	0.015	0	Open	;
R998	Z1014	Z1026	5	96.8	0.015	0	Open	;
R999	Z1015	Z1027	5	96.8	0.015	0	Open	;
R1000	Z1016	Z1028	5	96.8	0.015	0	Open	;
R1001	Z1018	Z1029	5	96.8	0.015	0	Open	;
R1002	Z1019	Z1030	5	96.8	0.015	0	Open	;
R1003	Z1021	Z1031	5	96.8	0.015	0	Open	;
R892	Z902	Z1038	8.6	141	0.015	1.8	Open	;
R893	Z1038	Z1037	31.8	141	0.015	0	Open	;
R894	Z1037	Z1036	110	141	0.015	0	Open	;
R895	Z1036	Z1035	56	141	0.015	0	Open	;
R1004	Z1035	Z1034	301.8	141	0.015	0	Open	;
R1005	Z1034	Z1033	178.1	141.0	0.015	0	Open	;
R1006	Z1033	Z1032	25.8	141.0	0.015	0	Open	;
R1007	Z1033	Z1039	5	96.8	0.015	0	Open	;
R1008	Z1034	Z1040	5	96.8	0.015	0	Open	;
R1009	Z1035	Z1041	5	96.8	0.015	0	Open	;

R1010	Z1036	Z1042	5	96.8	0.015	0	Open	;
R1011	Z1037	Z1043	5	96.8	0.015	0	Open	;
R1012	Z1038	Z1044	5	96.8	0.015	0	Open	;
R1013	Z1038	Z1045	5	96.8	0.015	0	Open	;
R1014	Z910	Z1046	15.4	141	0.015	1.8	Open	;
R1015	Z1046	Z1047	32.2	141	0.015	0	Open	;
R1016	Z1047	Z1048	50.4	141	0.015	0	Open	;
R1017	Z1048	Z1049	32	141	0.015	0	Open	;
R1018	Z1049	Z1050	74.2	141	0.015	0	Open	;
R1019	Z1050	Z1051	21.5	141	0.015	0	Open	;
R1020	Z1051	Z1052	390.4	141	0.015	0	Open	;
R1021	Z1052	Z1053	76.9	141.0	0.015	0	Open	;
R1022	Z1053	Z1054	44.6	141.0	0.015	0	Open	;
R1023	Z1054	Z1055	103.2	141.0	0.015	0	Open	;
R1024	Z1046	Z1064	5	96.8	0.015	0	Open	;
R1025	Z1047	Z1063	5	96.8	0.015	0	Open	;
R1026	Z1048	Z1062	5	96.8	0.015	0	Open	;
R1027	Z1049	Z1061	5	96.8	0.015	0	Open	;
R1028	Z1050	Z1060	5	96.8	0.015	0	Open	;
R1029	Z1051	Z1059	5	96.8	0.015	0	Open	;
R1030	Z1052	Z1058	5	96.8	0.015	0	Open	;
R1031	Z1053	Z1057	5	96.8	0.015	0	Open	;
R1032	Z1054	Z1056	5	96.8	0.015	0	Open	;
R1033	Z1065	Z1075	5	96.8	0.015	0	Open	;
R1034	Z1066	Z1074	5	96.8	0.015	0	Open	;
R1035	Z1067	Z1073	5	96.8	0.015	0	Open	;
R1036	Z1068	Z1072	5	96.8	0.015	0	Open	;
R1037	Z1069	Z1071	5	96.8	0.015	0	Open	;
R1038	Z919	Z1065	17.3	141	0.015	1.8	Open	;
R1039	Z1065	Z1066	231.1	141	0.015	0	Open	;
R1040	Z1066	Z1067	215.1	141	0.015	0	Open	;
R1041	Z1067	Z1068	21.9	141	0.015	0	Open	;
R1042	Z1068	Z1069	56.7	141.0	0.015	0	Open	;
R1043	Z1069	Z1070	11.7	141.0	0.015	0	Open	;
R1044	Z1076	Z1082	5	96.8	0.015	0	Open	;
R1045	Z1076	Z1083	5	96.8	0.015	0	Open	;
R1046	Z1077	Z1084	5	96.8	0.015	0	Open	;
R1047	Z1078	Z1085	5	96.8	0.015	0	Open	;

R1048	Z1079	Z1086	5	96.8	0.015	0	Open	;
R1049	Z1080	Z1087	5	96.8	0.015	0	Open	;
R1050	Z925	Z1076	13.15	141	0.015	1.8	Open	;
R1051	Z1076	Z1077	381.1	141	0.015	0	Open	;
R1052	Z1077	Z1078	146.5	141	0.015	0	Open	;
R1053	Z1078	Z1079	111	141	0.015	0	Open	;
R1054	Z1079	Z1080	368.5	141	0.015	0	Open	;
R1055	Z1080	Z1081	158.1	141.0	0.015	0	Open	;
R1056	Z936	Z1088	12.2	141.0	0.015	1.8	Open	;
R1057	Z1088	Z1089	58.7	141.0	0.015	0	Open	;
R1058	Z1089	Z1090	77.3	141.0	0.015	0	Open	;
R1059	Z1090	Z1091	99.5	141.0	0.015	0	Open	;
R1060	Z1091	Z1094	28.5	141.0	0.015	0	Open	;
R1061	Z1094	Z1092	40.2	141.0	0.015	1.8	Open	;
R1062	Z1092	Z1093	79.4	141.0	0.015	0	Open	;
R1063	Z1094	Z1095	11.4	141.0	0.015	0	Open	;
R1064	Z1095	Z1096	145.5	141.0	0.015	0	Open	;
R1065	Z1095	Z1102	11.82	96.8	0.015	0	Open	;
R1066	Z1092	Z1101	5	96.8	0.015	0	Open	;
R1067	Z1091	Z1100	5	96.8	0.015	0	Open	;
R1068	Z1090	Z1099	5	96.8	0.015	0	Open	;
R1069	Z1089	Z1098	5	96.8	0.015	0	Open	;
R1070	Z1088	Z1097	5	96.8	0.015	0	Open	;
R1071	Z935	Z936	2.7	312.8	0.015	1.8	Open	;
R1072	Z936	Z937	12	312.8	0.015	0	Open	;
R1073	Z937	Z938	688.3	312.8	0.015	0	Open	;
R1074	Z938	Z1108	530.5	221.2	0.015	1.8	Open	;
R1075	Z938	Z939	10.60	141	0.015	1.8	Open	;
R1076	Z939	Z1246	136.2	141	0.015	0	Open	;
R1077	Z939	Z1103	5	96.8	0.015	0	Open	;
R1079	Z942	Z943	150.6	141	0.015	0	Open	;
R1080	Z943	Z944	381.9	141	0.015	0	Open	;
R1082	Z945	Z946	141.3	141	0.015	0	Open	;
R1083	Z946	Z947	90.4	141	0.015	0	Open	;
R1084	Z947	Z948	188.8	141	0.015	0	Open	;
R1085	Z948	Z949	293.7	141	0.015	0	Open	;
R1086	Z949	Z950	28.6	141	0.015	1.8	Open	;
R1088	Z951	Z952	52	197.4	0.015	0	Open	;

R1089	Z952	Z953	23.4	197.4	0.015	0	Open	;
R1090	Z953	Z954	174.2	197.4	0.015	0	Open	;
R1091	Z954	Z955	16.5	197.4	0.015	0	Open	;
R1092	Z955	Z956	37.2	197.4	0.015	0	Open	;
R1093	Z956	Z957	114	197.4	0.015	0	Open	;
R1095	Z1104	Z1105	268.6	141.0	0.015	0	Open	;
R1096	Z1104	Z1107	5	96.8	0.015	0	Open	;
R1097	Z1104	Z1106	5	96.8	0.015	0	Open	;
R1099	Z1108	Z1111	76	141	0.015	1.8	Open	;
R1100	Z1111	Z1109	16.7	141	0.015	0	Open	;
R1101	Z1109	Z1110	69.3	141.0	0.015	0	Open	;
R1102	Z1109	Z1112	94	141	0.015	1.8	Open	;
R1103	Z1112	Z1113	121.5	141	0.015	0	Open	;
R1104	Z1113	Z1114	12.3	141.0	0.015	0	Open	;
R1105	Z1111	Z1117	5	96.8	0.015	0	Open	;
R1106	Z1110	Z1118	5	96.8	0.015	0	Open	;
R1107	Z1112	Z1116	5	96.8	0.015	0	Open	;
R1108	Z1112	Z1119	5	96.8	0.015	0	Open	;
R1109	Z1113	Z1115	5	96.8	0.015	0	Open	;
R1110	Z942	Z1120	5	96.8	0.015	0	Open	;
R1111	Z942	Z1121	5	96.8	0.015	0	Open	;
R1112	Z943	Z1122	5	96.8	0.015	0	Open	;
R1113	Z943	Z1123	5	96.8	0.015	0	Open	;
R1114	Z944	Z1124	5	96.8	0.015	0	Open	;
R1115	Z944	Z1125	5	96.8	0.015	0	Open	;
R1116	Z945	Z1126	5	96.8	0.015	0	Open	;
R1117	Z945	Z1127	5	96.8	0.015	0	Open	;
R1118	Z946	Z1128	5	96.8	0.015	0	Open	;
R1119	Z947	Z1129	5	96.8	0.015	0	Open	;
R1120	Z948	Z1130	5	96.8	0.015	0	Open	;
R1121	Z1130	Z1132	5	96.8	0.015	0	Open	;
R1122	Z1130	Z1131	5	96.8	0.015	0	Open	;
R1123	Z949	Z1133	5	96.8	0.015	0	Open	;
R1124	Z950	Z1134	5	96.8	0.015	0	Open	;
R1125	Z951	Z1135	5	96.8	0.015	0	Open	;
R1126	Z952	Z1136	5	96.8	0.015	0	Open	;
R1127	Z953	Z1137	5	96.8	0.015	0	Open	;
R1128	Z956	Z1141	5	96.8	0.015	0	Open	;

R1129	Z955	Z1140	5	96.8	0.015	0	Open	;
R1130	Z954	Z1138	5	96.8	0.015	0	Open	;
R1131	Z954	Z1139	5	96.8	0.015	0	Open	;
R1132	Z1108	Z1142	122	197.4	0.015	1.8	Open	;
R1133	Z1142	Z1143	197.4	197.4	0.015	0	Open	;
R1134	Z1143	Z1144	197.4	141	0.015	1.8	Open	;
R1135	Z1144	Z1145	4.8	141	0.015	1.8	Open	;
R1136	Z1145	Z1146	64.4	141	0.015	0	Open	;
R1137	Z1146	Z1147	21.4	141.0	0.015	0	Open	;
R1138	Z1147	Z1148	77.3	141.0	0.015	0	Open	;
R1139	Z1142	Z1153	5	96.8	0.015	0	Open	;
R1140	Z1143	Z1152	5	96.8	0.015	0	Open	;
R1141	Z1145	Z1151	5	96.8	0.015	0	Open	;
R1142	Z1146	Z1150	5	96.8	0.015	0	Open	;
R1143	Z1147	Z1149	5	96.8	0.015	0	Open	;
R1144	Z1144	Z1154	494	141	0.015	0	Open	;
R1145	Z1154	Z1155	7.5	141	0.015	0	Open	;
R1146	Z1155	Z1156	114.7	141.0	0.015	1.8	Open	;
R1147	Z1155	Z1158	5	96.8	0.015	0	Open	;
R1148	Z1154	Z1157	5	96.8	0.015	0	Open	;
R1149	Z957	Z958	288	197.4	0.015	0	Open	;
R1150	Z959	Z958	122.3	197.4	0.015	0	Open	;
R1151	Z293	Z959	453	197.4	0.015	1.8	Open	;
R1152	Z959	Z1159	5	96.8	0.015	0	Open	;
R1153	Z1163	Z1170	5	96.8	0.015	0	Open	;
R1154	Z1163	Z1171	5	96.8	0.015	0	Open	;
R1155	Z1162	Z1168	5	96.8	0.015	0	Open	;
R1156	Z1162	Z1169	5	96.8	0.015	0	Open	;
R1157	Z1161	Z1167	5	96.8	0.015	0	Open	;
R1158	Z1160	Z1164	5	96.8	0.015	0	Open	;
R1159	Z958	Z1166	5	96.8	0.015	0	Open	;
R1162	Z1244	Z1161	6.6	141.0	0.015	0	Open	;
R1163	Z1161	Z1243	88.2	141.0	0.015	0	Open	;
R1164	Z1162	Z1163	347.6	141.0	0.015	0	Open	;
R1165	Z1172	Z1174	5	96.8	0.015	0	Open	;
R1166	Z960	Z1175	3.8	221.2	0.015	1.8	Open	;
R1167	Z1175	Z1172	48.5	141.0	0.015	1.8	Open	;
R1168	Z1172	Z1173	181.7	141.0	0.015	0	Open	;

R1169	Z1175	Z1176	9.2	221.2	0.015	0	Open	;
R1170	Z1176	Z1177	17	141.0	0.015	1.8	Open	;
R1171	Z1177	Z1178	11.4	141.0	0.015	0	Open	;
R1172	Z1178	Z1179	155	141.0	0.015	0	Open	;
R1173	Z1179	Z1180	108.8	141.0	0.015	0	Open	;
R1174	Z1180	Z1181	24.6	141.0	0.015	0	Open	;
R1175	Z1180	Z1185	5	96.8	0.015	0	Open	;
R1176	Z1179	Z1184	5	96.8	0.015	0	Open	;
R1177	Z1178	Z1183	5	96.8	0.015	0	Open	;
R1178	Z1177	Z1182	5	96.8	0.015	0	Open	;
R1179	Z1176	Z1186	193.3	221.2	0.015	0	Open	;
R1180	Z1186	Z1187	47.2	141.0	0.015	1.8	Open	;
R1181	Z1187	Z1188	12.6	141.0	0.015	0	Open	;
R1182	Z1188	Z1189	85.2	141.0	0.015	0	Open	;
R1183	Z1189	Z1190	12.1	141.0	0.015	0	Open	;
R1184	Z1190	Z1191	108.7	141.0	0.015	0	Open	;
R1185	Z1190	Z1192	5	96.8	0.015	0	Open	;
R1186	Z1189	Z1193	5	96.8	0.015	0	Open	;
R1187	Z1188	Z1194	5	96.8	0.015	0	Open	;
R1188	Z1187	Z1195	5	96.8	0.015	0	Open	;
R1189	Z1186	Z1196	22.1	197.4	0.015	1.8	Open	;
R1190	Z1196	Z1197	11.9	197.4	0.015	0	Open	;
R1191	Z1197	Z1198	70.1	197.4	0.015	0	Open	;
R1192	Z1198	Z1199	40.4	141.0	0.015	1.8	Open	;
R1193	Z1199	Z1200	31.7	141.0	0.015	0	Open	;
R1194	Z1200	Z1201	28.9	141.0	0.015	0	Open	;
R1195	Z1198	Z1202	8.6	141.0	0.015	1.8	Open	;
R1196	Z1202	Z1203	149.5	141.0	0.015	0	Open	;
R1197	Z1203	Z1204	36.3	141.0	0.015	0	Open	;
R1198	Z1204	Z1205	34	141.0	0.015	0	Open	;
R1199	Z1196	Z1206	5	96.8	0.015	0	Open	;
R1200	Z1197	Z1207	5	96.8	0.015	0	Open	;
R1201	Z1202	Z1208	5	96.8	0.015	0	Open	;
R1202	Z1199	Z1209	5	96.8	0.015	0	Open	;
R1203	Z1200	Z1210	5	96.8	0.015	0	Open	;
R1204	Z1203	Z1212	5	96.8	0.015	0	Open	;
R1205	Z1204	Z1211	5	96.8	0.015	0	Open	;
R1206	Z1036	Z1213	5	96.8	0.015	0	Open	;

R1207	Z937	Z1214	21.07	96.8	0.015	0	Open	;
R1208	Z116	Z1215	5	96.8	0.015	0	Open	;
R1209	Z116	Z1216	5	96.8	0.015	0	Open	;
R1210	Z52	Z1217	5	96.8	0.015	0	Open	;
R1211	Z32	Z1218	5	96.8	0.015	0	Open	;
R1212	Z33	Z1219	5	96.8	0.015	0	Open	;
R1213	Z34	Z1220	5	96.8	0.015	0	Open	;
R1214	Z35	Z1221	5	96.8	0.015	0	Open	;
R1215	Z36	Z1222	5	96.8	0.015	0	Open	;
R1216	Z37	Z1223	5	96.8	0.015	0	Open	;
R1217	Z38	Z1224	5	96.8	0.015	0	Open	;
R1218	Z660	Z1225	6.8	141.0	0.015	1.8	Open	;
R1219	Z1225	Z1226	3.2	141.0	0.015	0	Open	;
R1220	Z1226	Z1228	10.3	141.0	0.015	0	Open	;
R1221	Z1226	Z1229	5	96.8	0.015	0	Open	;
R1222	Z1225	Z1227	36.5	141.0	0.015	1.8	Open	;
R1223	Z1227	Z1230	5	96.8	0.015	0	Open	;
R1224	Z1227	Z1231	5	96.8	0.015	0	Open	;
R1225	Z658	Z1232	2.7	141.0	0.015	1.8	Open	;
R1226	Z1232	Z1234	7.4	141.0	0.015	0	Open	;
R1227	Z1234	Z1236	10	141.0	0.015	0	Open	;
R1228	Z1236	Z1235	31.2	141.0	0.015	0	Open	;
R1229	Z1232	Z1233	10.3	141.0	0.015	1.8	Open	;
R1230	Z1234	Z1238	5	96.8	0.015	0	Open	;
R1231	Z1236	Z1237	5	96.8	0.015	0	Open	;
R1	Z384	Z1239	5	96.8	0.015	0	Open	;
R2	Z384	Z1240	5	96.8	0.015	0	Open	;
R1232	Z383	Z1241	5	96.8	0.015	0	Open	;
R1233	Z382	Z1242	5	96.8	0.015	0	Open	;
R430	Z462	Z461	276.2	312.8	0.015	0	Open	;
R1234	Z1243	Z1162	14.2	141.0	0.015	0	Open	;
R1235	Z1243	Z1104	275.3	141.0	0.015	1.8	Open	;
R1236	Z1245	Z1244	357.4	141	0.015	0	Open	;
R1237	Z1245	Z292	5	98.6	0.015	0	Open	;
R1238	Z1244	Z1160	164.3	141.0	0.015	1.8	Open	;
R3187	Z951	Z950	400.7	197.4	0.015	0	Open	;
R1239	Z1246	Z940	5	96.8	0.015	0	Open	;
R1240	Z1246	Z1247	543	141	0.015	0	Open	;

R1241	Z1247	Z942	5.5	141	0.015	0	Open	;
R1078	Z3	Z1248	13465	600	0.15	1.8	Open	;
R1081	Z1248	Z293	68.4	400	0.15	1.8	Open	;

[DEMANDS]
;Junction Demand Pattern Category

[STATUS]
;ID Status/Setting
P1 Closed

[PATTERNS]
;ID Multipliers

[CURVES]
;ID X-Value Y-Value
;PUMP: 150 L/S - 80 m
C1 150 80

[CONTROLS]

[RULES]

[ENERGY]
Global Efficiency 75
Global Price 0
Demand Charge 0

[EMITTERS]
;Junction Coefficient

[QUALITY]
;Node InitQual

[SOURCES]
;Node Type Quality Pattern

```
[REACTIONS]
;Type      Pipe/Tank      Coefficient
```

```
[REACTIONS]
Order Bulk      1
Order Tank      1
Order Wall      1
Global Bulk     0
Global Wall     0
Limiting Potential 0
Roughness Correlation 0
```

```
[MIXING]
;Tank      Model
```

```
[TIMES]
Duration      0
Hydraulic Timestep 1:00
Quality Timestep 0:05
Pattern Timestep 1:00
Pattern Start 0:00
Report Timestep 1:00
Report Start 0:00
Start ClockTime 12 am
Statistic     None
```

```
[REPORT]
Status      Full
Summary     No
Page        0
```

```
[OPTIONS]
Units      LPS
Headloss   D-W
Specific Gravity 1
Viscosity  1
Trials     50
```

```
Accuracy      0.001
CHECKFREQ     2
MAXCHECK      10
DAMPLIMIT     0
Unbalanced    Continue 10
Pattern       1
Demand Multiplier 1.0
Emitter Exponent 0.5
Quality       None mg/L
Diffusivity   1
Tolerance     0.01
```

```
[LABELS]
;X-Coord      Y-Coord      Label & Anchor Node
```

```
[BACKDROP]
DIMENSIONS    0.000      0.000      10920.713      6492.180
UNITS         Meters
FILE          U:\L A V O R I\FOSSO VECCHIO 38\studio idraulico\epanet_valletta\valletta.bmp
OFFSET        0.00      0.00
```

```
[END]
```

2.3 IPOTESI DI FUNZIONAMENTO A

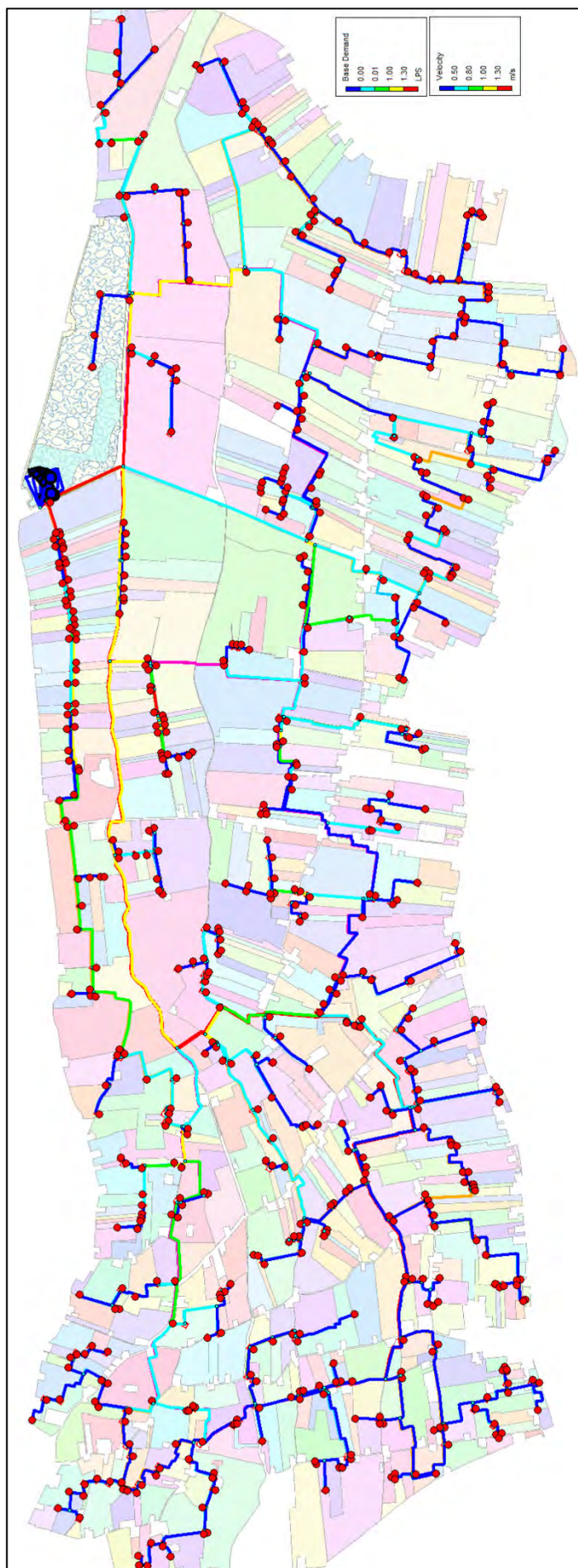


Figura 15 – Risultati della simulazione : base demand nei nodi e velocità nei rami

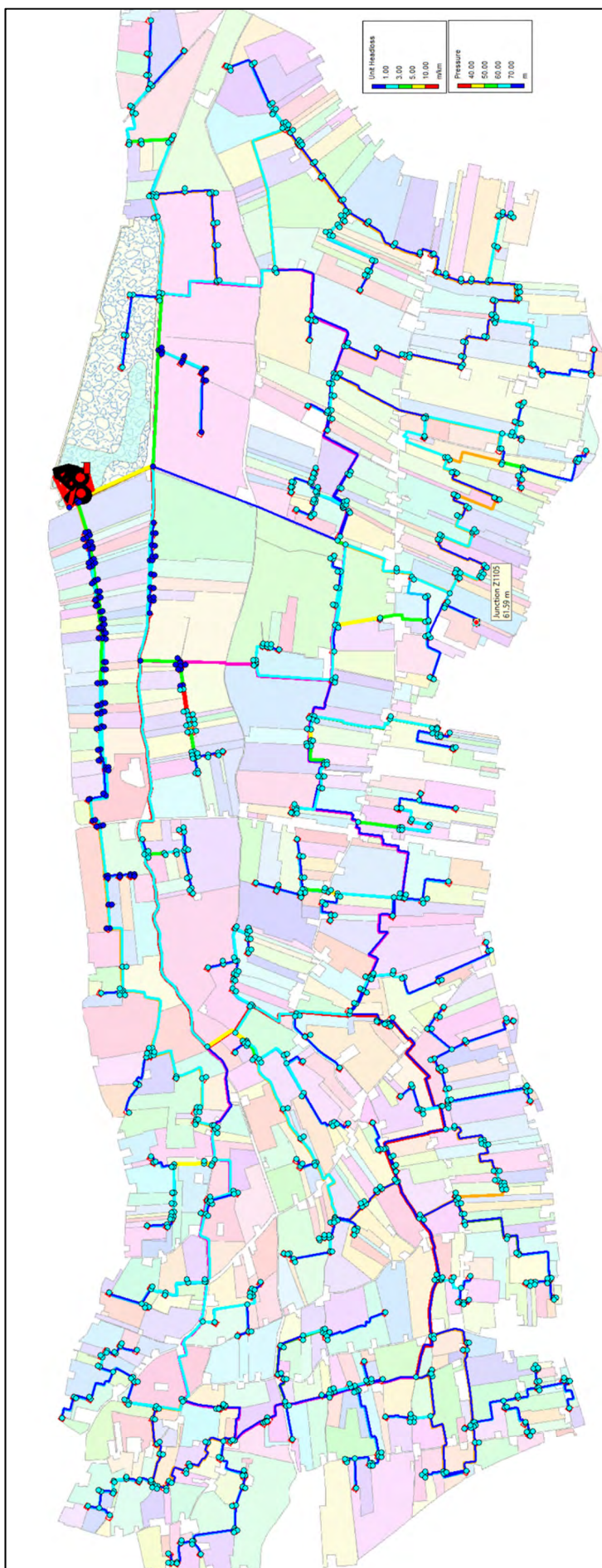


Figura 16 – Risultati della simulazione : pressione nei nodi e perdite di carico nei rami

RISULTATI SIMULAZIONE VILLA PRATI IPOTESI FUNZIONAMENTO A

Link - Node Table:

Link ID	Start Node	End Node	Length m	Diameter mm
G20	Z1	Z2	30	600
G1	Z2	Z3	577.2	600
R3	Z2	Z4	18.5	400
R4	Z4	Z5	213.4	400
R5	Z5	Z6	18.6	400
R6	Z6	Z7	50	400
R7	Z7	Z8	32.8	400
R8	Z8	Z9	10	400
R9	Z9	Z10	77.7	400
R10	Z10	Z11	27.2	400
R11	Z11	Z12	113.0	400
R12	Z12	Z13	80.80	400
R13	Z13	Z14	39.50	400
R14	Z14	Z15	100.7	400
R15	Z15	Z16	53.2	400
R16	Z16	Z17	37.1	400
R17	Z17	Z29	27.4	400
R18	Z29	Z18	29.8	400
R19	Z18	Z19	37.40	400
R20	Z19	Z20	161.3	400
R21	Z20	Z21	49.5	400
R22	Z21	Z22	92.5	400
R23	Z22	Z23	139.4	400
R24	Z23	Z24	56.4	400
R25	Z24	Z25	103.7	400
R26	Z25	Z26	297.1	400
R27	Z26	Z27	13	400
R28	Z27	Z28	449.3	400
R56	Z4	Z56	5	96.8
R57	Z5	Z57	5	96.8
R58	Z6	Z58	5	96.8
R59	Z7	Z59	5	96.8
R60	Z8	Z60	5	96.8
R61	Z9	Z61	5	96.8
R62	Z10	Z62	5	96.8
R63	Z11	Z63	5	96.8
R64	Z12	Z64	5	98.6

Link ID	Start Node	End Node	Length m	Diameter mm
R65	Z13	Z65	5	96.8
R66	Z14	Z66	5	96.8
R67	Z15	Z67	5	96.8
R68	Z16	Z68	5	96.8
R69	Z17	Z69	5	96.8
R29	Z29	Z72	9	141
R71	Z18	Z70	5	96.8
R72	Z19	Z71	5	96.8
R73	Z20	Z73	5	96.8
R74	Z21	Z74	5	96.8
R75	Z22	Z75	5	96.8
R76	Z23	Z76	5	96.8
R77	Z24	Z77	5	96.8
R78	Z25	Z78	5	96.8
R79	Z26	Z79	5	96.8
R80	Z27	Z80	5	96.8
R81	Z28	Z81	5	96.8
R30	Z72	Z82	9.7	141
R31	Z82	Z83	159.2	141.0
R32	Z83	Z84	38.2	141.0
R33	Z84	Z85	117.3	141.0
R34	Z85	Z86	113.7	141.0
R35	Z86	Z87	27.4	141.0
R36	Z87	Z88	117.2	141.0
R37	Z88	Z89	50.80	141.0
R38	Z89	Z90	35.05	141.0
R91	Z82	Z91	5	96.8
R92	Z83	Z92	5	96.8
R93	Z84	Z93	5	96.8
R94	Z85	Z94	5	96.8
R95	Z86	Z95	5	96.8
R96	Z87	Z96	5	96.8
R97	Z88	Z97	5	96.8
R98	Z89	Z98	5	96.8
R39	Z72	Z99	60.2	141.0
R40	Z99	Z100	309.8	141.0
R41	Z100	Z101	151.6	141.0
R42	Z101	Z102	575	141.0
R43	Z102	Z103	103.5	141.0
R44	Z103	Z104	144.7	141.0
R45	Z104	Z105	66.4	141.0
R46	Z105	Z106	256.8	141.0
R47	Z106	Z107	110.74	141.0
R107	Z106	Z108	5	96.8
R108	Z105	Z109	5	96.8
R109	Z104	Z110	5	96.8
R110	Z103	Z111	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R111	Z102	Z112	5	96.8
R112	Z101	Z113	5	96.8
R113	Z100	Z114	5	96.8
R114	Z99	Z115	5	96.8
R49	Z28	Z116	80	400
R50	Z116	Z117	380.3	400
R51	Z117	Z118	195.4	400
R52	Z118	Z119	163.7	400
R53	Z119	Z120	336.9	400
R54	Z120	Z121	169.6	400
R55	Z117	Z122	16.1	141.0
R120	Z122	Z123	84.1	141.0
R121	Z123	Z124	71.9	141.0
R122	Z122	Z125	15.04	96.8
R123	Z123	Z126	13.85	96.8
R124	Z107	Z127	5	96.8
R125	Z128	Z124	5	96.8
R126	Z124	Z129	26	141.0
R127	Z129	Z130	5	96.8
R82	Z30	Z31	61.5	400
R83	Z31	Z32	13.8	400
R84	Z121	Z30	623	400
R85	Z32	Z33	322.7	400
R86	Z33	Z34	261.2	400
R87	Z34	Z35	231.7	400
R88	Z35	Z36	34.2	400
R89	Z36	Z37	49.8	400
R90	Z37	Z38	11	400
R99	Z38	Z39	127.3	400
R100	Z39	Z40	3.8	400
R101	Z31	Z43	14.3	141.0
R102	Z43	Z45	243.6	141.0
R103	Z45	Z48	218.5	141.0
R104	Z45	Z46	5	96.8
R105	Z43	Z44	5	96.8
R106	Z30	Z42	5	96.8
R115	Z118	Z49	5	96.8
R116	Z119	Z50	5	141
R117	Z120	Z51	5	96.8
R118	Z121	Z52	12.1	141.0
R119	Z52	Z53	5.5	141.0
R128	Z53	Z54	140.8	141.0
R129	Z53	Z131	5	96.8
R130	Z53	Z55	5	96.8
G131	Z3	Z132	618	600
R131	Z132	Z133	4	141.0
R132	Z133	Z134	19.7	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R133	Z134	Z135	81.5	141.0
R134	Z135	Z136	81.4	141.0
R135	Z136	Z137	75	141.0
R136	Z133	Z138	98.5	141.0
R137	Z138	Z139	90.2	141.0
R138	Z139	Z140	70	141.0
R139	Z140	Z141	15.2	141.0
R140	Z141	Z142	97	141.0
R141	Z141	Z157	5	96.8
R142	Z140	Z158	5	96.8
R143	Z139	Z159	5	96.8
R144	Z138	Z160	5	96.8
R145	Z134	Z161	5	96.8
R146	Z135	Z162	5	96.8
R147	Z136	Z163	5	96.8
G148	Z132	Z143	701.3	600
G149	Z143	Z147	1433.79	600
R149	Z147	Z145	5.8	141.0
R150	Z145	Z148	5.7	141.0
R151	Z148	Z149	120	141.0
R152	Z149	Z150	76.8	141.0
R153	Z150	Z151	47.6	141.0
R154	Z151	Z152	12.7	141.0
R155	Z152	Z153	131	141.0
R156	Z151	Z154	189.1	141.0
R157	Z154	Z155	78.3	141.0
R158	Z155	Z156	31	141.0
R159	Z145	Z146	17.77	141.0
R160	Z146	Z144	90.77	141.0
R161	Z146	Z166	5	96.8
R162	Z148	Z167	5	96.8
R163	Z149	Z168	5	96.8
R164	Z150	Z169	5	96.8
R165	Z152	Z170	5	96.8
R166	Z153	Z171	5	96.8
R167	Z153	Z172	5	96.8
R168	Z154	Z173	5	96.8
R169	Z155	Z174	5	96.8
G170	Z147	Z175	1472.3	600
G171	Z175	Z176	219.9	400
G172	Z176	Z177	220.58	400
R172	Z177	Z178	10.81	197.4
R173	Z178	Z179	171.80	197.4
R174	Z179	Z180	60	197.4
R175	Z180	Z181	50	197.4
R176	Z181	Z182	13.6	197.4
R177	Z182	Z183	82.8	197.4

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R178	Z183	Z184	11.4	141.0
R179	Z184	Z185	89.8	141.0
R180	Z185	Z186	109.2	141.0
R181	Z183	Z187	223.6	141.0
R182	Z187	Z188	94.3	141.0
R183	Z188	Z189	22.2	141.0
R184	Z189	Z190	15.82	141.0
R185	Z188	Z191	32.5	141.0
R186	Z191	Z192	87	141.0
R187	Z192	Z193	10.5	141.0
R188	Z178	Z194	17.19	96.8
R189	Z179	Z195	5	96.8
R190	Z180	Z196	5	96.8
R191	Z181	Z197	5	96.8
R192	Z182	Z198	5	96.8
R193	Z184	Z199	5	96.8
R194	Z185	Z200	5	96.8
R195	Z187	Z201	5	96.8
R196	Z189	Z202	5	96.8
R197	Z191	Z203	5	96.8
R198	Z192	Z204	5	96.8
G199	Z177	Z205	379.4	400
G200	Z205	Z206	385	400
G201	Z206	Z207	302.8	500
G202	Z207	Z208	873.57	500
G203	Z208	Z209	159.2	500
R200	Z207	Z210	2.6	141.0
R201	Z210	Z211	5.7	141.0
R202	Z211	Z212	52.01	141.0
R203	Z212	Z213	6.8	141.0
R204	Z210	Z214	4	141.0
R205	Z214	Z215	47.3	141.0
R206	Z212	Z216	5	96.8
R207	Z211	Z217	5	96.8
R208	Z214	Z218	21.86	96.8
R209	Z208	Z219	3.7	197.4
R210	Z219	Z220	46.2	197.4
R211	Z220	Z221	22.1	197.4
R212	Z221	Z222	4	197.4
R213	Z222	Z223	83.2	197.4
R214	Z223	Z224	144.3	197.4
R215	Z224	Z225	18.9	197.4
R216	Z225	Z226	77.3	197.4
R217	Z226	Z227	137.1	197.4
R218	Z227	Z231	104.6	141.0
R219	Z231	Z232	344.4	141.0
R220	Z232	Z233	51.3	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R221	Z227	Z228	228.1	141.0
R222	Z228	Z229	98.5	141.0
R223	Z229	Z230	78.6	141.0
R224	Z221	Z234	539.7	141.0
R225	Z234	Z235	26	141.0
R226	Z235	Z236	70.4	141.0
R48	Z143	Z164	271.5	197.4
R70	Z164	Z41	3	197.4
R148	Z41	Z253	23	197.4
R170	Z47	Z237	119.4	197.4
R171	Z237	Z238	16.2	141
R199	Z238	Z239	153.6	141
R227	Z239	Z240	32.5	141
R228	Z240	Z241	33.8	141
R229	Z241	Z242	34.3	141
R230	Z242	Z243	45.9	141
R231	Z243	Z244	131.1	141
R232	Z244	Z245	20.3	141
R233	Z245	Z246	16.4	141
R234	Z246	Z268	18.2	141.0
R235	Z247	Z248	70.4	141.0
R236	Z248	Z249	37.8	141.0
R237	Z246	Z250	3	141.0
R238	Z250	Z251	103	141.0
R239	Z41	Z252	5	96.8
R240	Z253	Z47	27.7	197.4
R241	Z253	Z254	5	96.8
R242	Z253	Z255	5	141.0
R243	Z47	Z256	5	96.8
R244	Z237	Z257	5	96.8
R245	Z238	Z258	5	96.8
R246	Z239	Z259	5	96.8
R247	Z240	Z260	5	96.8
R248	Z241	Z261	5	96.8
R249	Z242	Z262	5	96.8
R250	Z242	Z263	5	96.8
R251	Z243	Z265	5	96.8
R252	Z243	Z264	5	96.8
R253	Z244	Z266	5	96.8
R254	Z245	Z267	5	96.8
R255	Z268	Z247	70.4	141.0
R256	Z268	Z271	5	96.8
R257	Z247	Z270	5	96.8
R258	Z248	Z269	5	96.8
R259	Z250	Z272	5	96.8
R260	Z251	Z273	5	96.8
R261	Z251	Z274	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R263	Z165	Z275	8	141.0
R264	Z275	Z276	6	141.0
R265	Z276	Z277	136.6	141.0
R266	Z277	Z278	40	141.0
R267	Z278	Z279	14.2	141.0
R268	Z279	Z280	67.4	141.0
R269	Z165	Z281	589.9	141
R270	Z281	Z282	7.7	141.0
R271	Z281	Z291	382.8	400
R272	Z284	Z286	145.2	141.0
R273	Z286	Z287	120.5	141.0
R274	Z287	Z288	116.4	141.0
R275	Z288	Z289	133.1	141.0
R276	Z289	Z290	17.6	141.0
R277	Z291	Z284	7	141
R278	Z284	Z283	184.7	141.0
R279	Z284	Z285	5	141
R280	Z285	Z1245	300	141
R281	Z291	Z293	557.27	400
R282	Z275	Z295	5	96.8
R283	Z276	Z296	5	96.8
R284	Z277	Z297	5	96.8
R285	Z278	Z298	5	96.8
R286	Z279	Z299	5	96.8
R287	Z282	Z300	5	96.8
R288	Z282	Z301	5	96.8
R289	Z285	Z302	5	96.8
R290	Z286	Z306	5	96.8
R291	Z287	Z305	5	96.8
R292	Z288	Z304	5	96.8
R293	Z289	Z303	5	96.8
R294	Z281	Z294	325.5	400
R295	Z294	Z307	2.8	197.4
R296	Z307	Z308	593.6	141
R297	Z308	Z321	5	96.8
R298	Z308	Z309	338	141.0
R299	Z309	Z310	7.5	141.0
R300	Z310	Z311	59.00	141.0
R301	Z311	Z313	44.3	141.0
R302	Z313	Z314	9.8	141.0
R303	Z314	Z316	70	141.0
R304	Z311	Z317	419.9	141.0
R305	Z317	Z318	5	96.8
R306	Z317	Z319	8.4	141.0
R307	Z314	Z315	5	96.8
R308	Z313	Z312	5	96.8
R309	Z310	Z320	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R310	Z294	Z322	1122.7	400
R311	Z307	Z323	9	197.4
R312	Z323	Z324	94	197.4
R313	Z324	Z325	81	141
R314	Z325	Z326	21.8	141
R315	Z326	Z327	11.5	141
R316	Z327	Z328	204.3	141.0
R317	Z328	Z329	7.8	141.0
R318	Z329	Z330	96	141.0
R319	Z330	Z331	86	141.0
R320	Z331	Z332	292.5	141.0
R321	Z332	Z333	5.6	141.0
R322	Z333	Z334	38	141.0
R323	Z323	Z336	5	96.8
R324	Z323	Z335	5	96.8
R325	Z324	Z337	5	96.8
R326	Z325	Z338	5	96.8
R327	Z326	Z339	5	96.8
R328	Z327	Z340	5	96.8
R329	Z328	Z341	5	96.8
R330	Z329	Z342	5	96.8
R331	Z330	Z343	5	96.8
R332	Z330	Z344	5	96.8
R333	Z331	Z345	5	96.8
R334	Z332	Z346	5	96.8
R335	Z333	Z347	5	96.8
R336	Z334	Z349	5	96.8
R337	Z334	Z348	5	96.8
R338	Z322	Z350	290	141.0
R339	Z351	Z352	246.5	141.0
R340	Z352	Z353	126.3	141.0
R341	Z353	Z354	167	141.0
R342	Z354	Z355	207	141.0
R343	Z355	Z356	57.1	141.0
R344	Z355	Z357	257.4	141.0
R345	Z354	Z363	5	96.8
R346	Z354	Z362	5	96.8
R347	Z353	Z361	5	96.8
R348	Z352	Z360	5	96.8
R349	Z351	Z359	5	96.8
R350	Z350	Z358	5	96.8
R351	Z350	Z351	8.8	141.0
R352	Z322	Z364	835.5	400
R353	Z364	Z365	825.7	400
R354	Z206	Z365	302.8	400
R355	Z364	Z366	5	141.0
R356	Z366	Z367	142.5	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R357	Z367	Z368	297.05	141.0
R358	Z366	Z388	5	96.8
R359	Z367	Z387	5	96.8
R360	Z367	Z386	5	96.8
R361	Z364	Z369	22.8	197.4
R362	Z369	Z389	48	197.4
R363	Z389	Z370	386	197.4
R364	Z370	Z371	8.8	141.0
R365	Z371	Z372	174.8	141.0
R366	Z372	Z373	135.5	141.0
R367	Z373	Z374	42.4	141.0
R368	Z389	Z390	127	141.0
R369	Z370	Z375	62.3	141.0
R370	Z375	Z376	2	141.0
R371	Z376	Z377	155.7	141.0
R372	Z377	Z378	9.8	141.0
R373	Z378	Z379	82	141.0
R374	Z379	Z380	143.1	141.0
R375	Z380	Z381	124.5	141.0
R376	Z378	Z382	30.6	141.0
R377	Z382	Z383	9.4	141.0
R378	Z383	Z384	166.7	141.0
R379	Z384	Z385	152.4	141.0
R380	Z369	Z391	5	96.8
R381	Z373	Z394	5	96.8
R382	Z372	Z393	5	96.8
R383	Z371	Z392	5	96.8
R384	Z375	Z395	5	96.8
R385	Z376	Z396	5	96.8
R386	Z377	Z397	5	96.8
R387	Z379	Z398	5	96.8
R388	Z380	Z399	5	96.8
R389	Z365	Z401	5	141.0
R390	Z401	Z400	5.2	141.0
R391	Z400	Z402	148.3	141.0
R392	Z402	Z403	95	141.0
R393	Z403	Z404	337.6	141.0
R394	Z404	Z405	442	141.0
R395	Z405	Z406	61.5	141.0
R396	Z400	Z407	5	96.8
R397	Z402	Z408	5	96.8
R398	Z403	Z409	5	96.8
R399	Z404	Z410	5	96.8
R400	Z405	Z411	20.84	141.0
R401	Z401	Z412	19.3	141.0
R402	Z412	Z417	5	96.8
R403	Z412	Z416	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R404	Z412	Z413	94.8	141.0
R405	Z413	Z418	5	96.8
R406	Z413	Z420	5	96.8
R407	Z413	Z414	105.6	141.0
R408	Z414	Z419	5	96.8
R409	Z414	Z415	70.3	141.0
R410	Z219	Z421	138.2	141.0
R411	Z421	Z422	10.7	141.0
R412	Z422	Z423	160	141.0
R413	Z423	Z424	104.3	141.0
R414	Z423	Z425	5	96.8
R415	Z422	Z426	5	96.8
R416	Z421	Z427	5	96.8
R417	Z235	Z428	5	96.8
R418	Z234	Z429	5	96.8
R419	Z220	Z430	5	96.8
R420	Z229	Z437	5	96.8
R421	Z228	Z436	5	96.8
R422	Z226	Z435	5	96.8
R423	Z225	Z434	5	96.8
R424	Z224	Z433	5	96.8
R425	Z223	Z432	5	96.8
R426	Z222	Z431	5	96.8
R427	Z231	Z438	5	96.8
R428	Z232	Z439	5	96.8
G429	Z209	Z467	480.3	500
G430	Z467	Z466	238.5	500
G431	Z466	Z463	303.93	500
R429	Z463	Z462	15.40	312.8
R431	Z461	Z459	16.8	141
R433	Z457	Z455	13.8	141
R434	Z455	Z453	24.7	141
R435	Z453	Z451	38.3	141
R436	Z451	Z448	66.8	141
R437	Z448	Z446	328	197.4
R438	Z446	Z444	24	197.4
R439	Z444	Z442	11.9	197.4
R440	Z442	Z440	319.2	197.4
R441	Z440	Z209	64.8	197.4
R442	Z462	Z465	5	96.8
R443	Z462	Z464	5	96.8
R444	Z459	Z460	5	96.8
R445	Z440	Z441	5	96.8
R446	Z442	Z443	5	96.8
R447	Z444	Z445	5	96.8
R448	Z446	Z447	5	96.8
R449	Z448	Z450	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R450	Z448	Z449	5	96.8
R451	Z451	Z452	5	96.8
R452	Z453	Z454	5	96.8
R453	Z455	Z456	5	96.8
R454	Z457	Z458	5	96.8
R455	Z467	Z468	4.4	141.0
R456	Z468	Z469	33.2	141.0
R457	Z469	Z471	5	96.8
R458	Z469	Z470	214	141.0
R459	Z468	Z472	84.7	141.0
R460	Z472	Z474	64.9	141.0
R461	Z474	Z476	34.5	141.0
R462	Z472	Z473	5	96.8
R463	Z474	Z475	5	96.8
R464	Z205	Z481	2	141.0
R465	Z481	Z477	186	141.0
R466	Z477	Z479	322.7	141.0
R467	Z481	Z480	5	96.8
R468	Z477	Z478	5	96.8
R469	Z461	Z482	4.8	277.6
R470	Z482	Z483	38.1	277.6
R471	Z483	Z484	70.8	277.6
R472	Z484	Z485	58.5	277.6
R473	Z482	Z497	5	96.8
R474	Z483	Z498	5	96.8
R475	Z484	Z499	5	96.8
R476	Z485	Z500	5	96.8
R477	Z485	Z486	401.1	277.6
R478	Z486	Z487	194.6	221.2
R479	Z487	Z488	12.6	221.2
R480	Z486	Z501	5	96.8
R481	Z487	Z502	5	96.8
R482	Z488	Z490	391.7	197.4
R483	Z490	Z489	3.1	197.4
R484	Z489	Z493	9	141.0
R485	Z493	Z494	92.8	141.0
R486	Z494	Z495	28.8	141.0
R487	Z495	Z496	32.16	141.0
R488	Z489	Z491	152.9	141.0
R489	Z490	Z504	5	96.8
R490	Z491	Z503	5	96.8
R491	Z491	Z492	5.7	141.0
R492	Z495	Z505	5	96.8
R493	Z494	Z506	5	96.8
R494	Z493	Z507	5	96.8
R495	Z493	Z508	5	96.8
R496	Z176	Z561	105.5	221.2

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R497	Z561	Z562	5.4	141.0
R498	Z562	Z565	5.4	141.0
R499	Z565	Z564	99.3	141.0
R500	Z565	Z563	5	96.8
R501	Z575	Z566	5	96.8
R502	Z562	Z575	10.2	141.0
R503	Z575	Z567	119	141.0
R504	Z567	Z569	38.1	141.0
R505	Z567	Z568	5	96.8
R506	Z569	Z570	5	96.8
R507	Z569	Z518	223.4	141.0
R508	Z518	Z519	62.7	141.0
R509	Z518	Z571	5	96.8
R510	Z519	Z520	144.1	141.0
R511	Z519	Z521	236.5	141.0
R512	Z521	Z522	320.1	141.0
R513	Z522	Z523	11.7	141.0
R514	Z523	Z524	121	141.0
R515	Z523	Z574	5	96.8
R516	Z522	Z573	5	96.8
R517	Z521	Z572	5	96.8
R518	Z561	Z516	549.46	221.2
R519	Z516	Z515	239.7	221.2
R520	Z515	Z514	190.8	221.2
R521	Z516	Z560	5	96.8
R522	Z515	Z559	5	96.8
R523	Z514	Z554	7.1	141.0
R524	Z554	Z556	117.8	141.0
R525	Z556	Z558	55.2	141.0
R526	Z554	Z555	5	96.8
R527	Z556	Z557	5	96.8
R528	Z514	Z513	525.6	221.2
R529	Z466	Z525	5.6	221.2
R530	Z525	Z509	120.7	221.2
R531	Z509	Z510	36.1	221.2
R532	Z510	Z511	117.2	221.2
R533	Z511	Z512	29.4	221.2
R534	Z512	Z513	230.4	221.2
R535	Z512	Z530	5	96.8
R536	Z511	Z529	5	96.8
R537	Z510	Z528	5	96.8
R538	Z509	Z527	5	96.8
R539	Z525	Z526	5	96.8
R540	Z513	Z531	4.4	197.4
R541	Z531	Z532	200.5	141.0
R542	Z532	Z576	1.2	141.0
R543	Z576	Z535	28	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R544	Z532	Z533	5	96.8
R545	Z576	Z534	5	96.8
R546	Z531	Z536	8.8	197.4
R547	Z536	Z539	22.2	197.4
R548	Z539	Z540	106.8	197.4
R549	Z540	Z541	9.8	141.0
R550	Z541	Z543	31.7	141.0
R551	Z543	Z546	24.5	141.0
R552	Z536	Z537	5	96.8
R553	Z539	Z538	5	96.8
R554	Z541	Z542	5	96.8
R555	Z543	Z544	5	96.8
R556	Z546	Z545	5	96.8
R557	Z540	Z547	94.1	141
R558	Z547	Z549	252.2	141
R559	Z549	Z551	48.1	141
R560	Z551	Z552	45.1	141.0
R561	Z551	Z553	5	96.8
R562	Z549	Z550	5	96.8
R563	Z547	Z548	5	96.8
R564	Z175	Z40	647	500
G565	Z463	Z577	463.2	500
R565	Z577	Z578	13	141
R566	Z578	Z579	81.4	141
R567	Z579	Z580	104.3	141
R568	Z580	Z581	128	141
R569	Z580	Z588	92.4	141
R570	Z588	Z590	17	141.0
R571	Z590	Z592	45.3	141.0
R572	Z578	Z583	5.3	141
R573	Z583	Z585	14.5	141.0
R574	Z585	Z587	5	96.8
R575	Z585	Z586	5	96.8
R576	Z583	Z584	5	96.8
R577	Z590	Z591	5	96.8
R578	Z588	Z589	5	96.8
R579	Z579	Z582	21.6	141.0
G580	Z577	Z593	400	500
G581	Z593	Z595	355.4	500
R580	Z594	Z597	5	96.8
R581	Z596	Z598	5	96.8
R582	Z602	Z603	5	96.8
R583	Z605	Z606	5	96.8
R584	Z609	Z610	5	96.8
R585	Z611	Z612	5	96.8
R586	Z613	Z614	5	96.8
R587	Z615	Z616	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R588	Z615	Z617	5	96.8
R589	Z620	Z621	5	96.8
R590	Z622	Z623	5	96.8
R591	Z624	Z625	5	96.8
R592	Z626	Z628	5	96.8
R593	Z626	Z629	5	96.8
R594	Z631	Z632	5	96.8
R595	Z633	Z634	5	96.8
R596	Z593	Z594	5.4	277.6
R597	Z594	Z596	313.3	277.6
R598	Z596	Z599	49.3	277.6
R599	Z599	Z600	18.9	141.0
R600	Z599	Z601	504	277.6
R601	Z601	Z604	24.9	277.6
R602	Z604	Z605	21.3	141.0
R603	Z605	Z607	41.7	141.0
R604	Z601	Z602	5	277.6
R605	Z602	Z608	336.4	277.6
R606	Z608	Z609	50.5	197.4
R607	Z609	Z613	245	197.4
R608	Z613	Z615	80.4	197.4
R609	Z615	Z618	17.5	141.0
R610	Z608	Z611	101	277.6
R611	Z611	Z619	191.3	277.6
R612	Z619	Z622	37.8	197.4
R613	Z622	Z624	85.9	197.4
R614	Z624	Z626	11.4	141
R615	Z626	Z627	7.4	141.0
R616	Z619	Z620	4.4	197.4
R617	Z620	Z633	185.8	197.4
R618	Z633	Z631	35.8	141
R619	Z631	Z630	345.2	141
R620	Z604	Z517	116.7	277.6
R621	Z517	Z635	436.7	277.6
R622	Z635	Z636	497.7	277.6
R623	Z595	Z637	90.6	277.6
R624	Z637	Z636	301.5	277.6
R625	Z639	Z639	5	96.8
R627	Z517	Z640	5	96.8
R628	Z635	Z641	5.6	141
R629	Z641	Z642	5.6	141.0
R630	Z641	Z643	140.3	141
R631	Z643	Z645	5	96.8
R632	Z643	Z646	5	96.8
R633	Z643	Z644	12.3	141.0
R634	Z642	Z648	5	96.8
R635	Z642	Z647	182.6	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R636	Z637	Z649	6.1	141.0
R637	Z649	Z638	37	141.0
R638	Z636	Z650	125.1	141.0
R639	Z650	Z651	13.8	141.0
R640	Z651	Z655	167.2	141.0
R641	Z650	Z652	5	96.8
R642	Z651	Z653	5	96.8
R643	Z651	Z654	5	96.8
R644	Z595	Z656	440.3	500
R645	Z656	Z657	506.6	500
R646	Z657	Z658	191.7	500
R647	Z658	Z659	278.4	500
R648	Z659	Z660	355.9	500
R649	Z660	Z661	279	500
R650	Z661	Z662	669.8	500
R651	Z662	Z663	282.5	500
R652	Z664	Z663	606.5	500
R653	Z665	Z664	503.8	500
R654	Z40	Z665	241.2	500
R655	Z666	Z667	5	96.8
R656	Z666	Z668	5	96.8
R657	Z39	Z666	41	141.0
R658	Z674	Z676	5	96.8
R659	Z672	Z677	5	96.8
R660	Z669	Z679	5	96.8
R661	Z670	Z678	5	96.8
R662	Z673	Z680	5	96.8
R663	Z681	Z687	5	96.8
R664	Z682	Z688	5	96.8
R665	Z683	Z689	5	96.8
R666	Z684	Z690	5	96.8
R667	Z685	Z691	5	96.8
R668	Z665	Z669	43	141
R669	Z669	Z670	54.4	141
R670	Z670	Z671	212.7	141
R671	Z671	Z674	171.4	141.0
R672	Z674	Z675	43.7	141.0
R673	Z671	Z672	10.8	141.0
R674	Z672	Z673	189.3	141.0
R675	Z673	Z681	75.6	141.0
R676	Z681	Z682	55.7	141.0
R677	Z682	Z683	36.8	141.0
R678	Z683	Z684	13	141.0
R679	Z684	Z685	70.7	141.0
R680	Z685	Z686	130.9	141.0
R681	Z695	Z696	5	96.8
R682	Z693	Z694	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R683	Z664	Z692	4.6	141.0
R684	Z692	Z693	1.7	141.0
R685	Z693	Z695	85	141.0
R686	Z695	Z697	19.5	141.0
R687	Z692	Z698	3.9	141.0
R688	Z698	Z702	168.3	141.0
R689	Z702	Z700	40.2	141.0
R690	Z702	Z701	5	96.8
R691	Z698	Z699	5	96.8
R692	Z703	Z704	125.6	141.0
R693	Z704	Z705	233.7	141.0
R694	Z705	Z706	108.5	141.0
R695	Z706	Z709	123.5	141.0
R696	Z709	Z710	232.8	141.0
R697	Z709	Z707	43.5	141.0
R698	Z707	Z708	12.8	141.0
R699	Z703	Z711	5	96.8
R700	Z704	Z712	5	96.8
R701	Z705	Z713	5	96.8
R702	Z706	Z714	5	96.8
R703	Z707	Z715	5	96.8
R704	Z663	Z703	9	141.0
R705	Z662	Z716	82.3	141
R706	Z716	Z717	318.1	141
R707	Z717	Z718	192.7	141.0
R708	Z718	Z719	68.9	141.0
R709	Z717	Z720	94.5	141
R710	Z720	Z721	13.7	141
R711	Z721	Z722	40.2	141.0
R712	Z722	Z723	84.7	141.0
R713	Z722	Z724	5	96.8
R714	Z721	Z725	5	96.8
R715	Z720	Z726	5	96.8
R716	Z718	Z727	5	96.8
R626	Z657	Z728	2.7	197.4
R717	Z728	Z729	23.9	141.0
R718	Z730	Z729	5	96.8
R719	Z729	Z731	235	141.0
R720	Z728	Z732	187.7	197.4
R721	Z732	Z734	65.9	197.4
R722	Z734	Z736	200.9	197.4
R723	Z736	Z738	161	197.4
R724	Z738	Z740	160.5	141
R725	Z740	Z742	13.1	141
R726	Z742	Z743	45.4	141
R727	Z743	Z744	9.4	141
R728	Z744	Z747	466	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R729	Z744	Z746	5	96.8
R730	Z743	Z745	5	96.8
R731	Z740	Z741	5	96.8
R732	Z738	Z739	5	96.8
R733	Z736	Z737	5	96.8
R734	Z734	Z735	5	96.8
R735	Z732	Z733	5	96.8
R736	Z656	Z748	8.5	197.4
R737	Z748	Z749	6.8	141
R738	Z749	Z750	20.2	141
R739	Z750	Z752	85.5	141
R740	Z752	Z753	4.3	141
R741	Z753	Z754	9	141.0
R742	Z753	Z756	148.8	141.0
R743	Z754	Z755	78.04	141.0
R744	Z750	Z751	41.2	141
R745	Z751	Z761	110.6	141
R746	Z761	Z762	20.5	141.0
R747	Z762	Z763	14.1	141.0
R748	Z763	Z764	48.89	141.0
R749	Z763	Z765	5	96.8
R750	Z762	Z766	5	96.8
R751	Z761	Z767	5	96.8
R752	Z751	Z760	5	96.8
R753	Z749	Z759	5	96.8
R754	Z752	Z758	5	96.8
R755	Z754	Z757	5	96.8
R756	Z774	Z776	5	96.8
R757	Z771	Z777	5	96.8
R758	Z770	Z778	5	96.8
R759	Z769	Z779	5	96.8
R760	Z768	Z780	5	96.8
R761	Z748	Z768	510.8	197.4
R762	Z768	Z769	18.4	197.4
R763	Z769	Z770	96.3	197.4
R764	Z770	Z771	10.4	141
R765	Z771	Z772	139.1	141
R766	Z772	Z774	61.3	141.0
R767	Z774	Z775	9.1	141.0
R768	Z772	Z773	202.6	141.0
R769	Z659	Z781	48.6	277.6
R770	Z781	Z785	78.2	277.6
R771	Z785	Z782	128.1	277.6
R772	Z782	Z783	269.1	277.6
R773	Z783	Z784	64.2	277.6
R774	Z784	Z786	247.3	277.6
R775	Z786	Z787	47.2	277.6

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R776	Z787	Z788	53.7	277.6
R777	Z788	Z789	9.9	277.6
R778	Z789	Z790	29	277.6
R779	Z790	Z791	207.9	221.2
R780	Z791	Z792	90.2	221.2
R781	Z792	Z793	193.2	221.2
R782	Z793	Z794	83.3	221.2
R783	Z794	Z795	10.7	221.2
R798	Z809	Z795	224.05	277.6
R785	Z781	Z808	5	96.8
R786	Z782	Z807	5	96.8
R787	Z783	Z806	5	96.8
R788	Z784	Z805	5	96.8
R789	Z786	Z804	5	96.8
R790	Z787	Z803	5	96.8
R791	Z788	Z802	5	96.8
R792	Z789	Z801	5	96.8
R793	Z791	Z800	5	96.8
R794	Z792	Z799	5	96.8
R795	Z793	Z798	5	96.8
R796	Z794	Z797	5	96.8
R797	Z809	Z796	20.86	96.8
R799	Z661	Z809	10.74	277.6
R800	Z790	Z810	5.7	197.4
R801	Z810	Z811	112.1	197.4
R802	Z811	Z812	88.7	197.4
R803	Z812	Z813	88.5	141
R804	Z813	Z814	89.2	141
R805	Z814	Z815	87.3	141.0
R806	Z815	Z816	118.8	141.0
R807	Z816	Z817	76.1	141.0
R808	Z816	Z818	116.9	141.0
R809	Z810	Z819	5	96.8
R810	Z811	Z820	5	96.8
R811	Z812	Z821	5	96.8
R812	Z813	Z822	5	96.8
R813	Z814	Z823	5	96.8
R814	Z815	Z824	5	96.8
R784	Z825	Z838	5	96.8
R815	Z826	Z839	5	96.8
R816	Z827	Z840	5	96.8
R817	Z828	Z841	5	96.8
R818	Z829	Z842	5	96.8
R819	Z831	Z843	5	96.8
R820	Z831	Z844	5	96.8
R821	Z833	Z845	5	96.8
R822	Z834	Z847	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R823	Z835	Z848	5	96.8
R824	Z836	Z849	5	96.8
R825	Z785	Z825	122.1	277.6
R826	Z825	Z826	233.5	277.6
R827	Z826	Z827	33	277.6
R828	Z827	Z828	65.4	221.2
R829	Z828	Z829	138.6	221.2
R830	Z829	Z830	163.2	221.2
R831	Z830	Z831	8.3	141.0
R832	Z830	Z832	322.9	197.4
R833	Z832	Z846	106.9	141.0
R834	Z832	Z833	1.3	197.4
R835	Z833	Z834	83.9	197.4
R836	Z834	Z835	150.6	141
R837	Z835	Z836	34.9	141.0
R838	Z836	Z837	60.7	141.0
R839	Z795	Z850	189	221.2
R840	Z850	Z851	8.9	221.2
R841	Z851	Z852	143.3	221.2
R842	Z852	Z853	44.2	221.2
R843	Z853	Z854	171.3	221.2
R844	Z854	Z855	103.3	197.4
R845	Z855	Z856	64	141
R846	Z856	Z857	61.3	141
R847	Z857	Z858	80.2	141
R848	Z858	Z859	56.2	141
R849	Z859	Z871	121	141.0
R850	Z854	Z860	316	141
R851	Z860	Z861	122.9	141
R852	Z861	Z874	201	141.0
R853	Z850	Z862	5	96.8
R854	Z851	Z863	5	96.8
R855	Z852	Z864	5	96.8
R856	Z853	Z865	5	96.8
R857	Z855	Z866	5	96.8
R858	Z856	Z867	5	96.8
R859	Z857	Z868	5	96.8
R860	Z858	Z869	5	96.8
R861	Z859	Z870	5	96.8
R862	Z860	Z872	5	96.8
R863	Z861	Z873	5	96.8
R864	Z3	Z875	803.3	400
R865	Z875	Z882	7.5	141.0
R866	Z882	Z883	18.5	141.0
R867	Z883	Z884	155.6	141.0
R868	Z884	Z885	156.9	141.0
R869	Z885	Z886	71.4	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R870	Z886	Z887	367.4	141.0
R871	Z886	Z961	5	96.8
R872	Z885	Z962	5	96.8
R873	Z885	Z963	5	96.8
R874	Z884	Z964	5	96.8
R875	Z884	Z965	5	96.8
R876	Z883	Z966	5	96.8
R877	Z882	Z967	5	96.8
R878	Z875	Z876	383.9	400
R879	Z876	Z888	477.2	400
R880	Z888	Z897	507.9	400
R881	Z876	Z877	20	197.4
R882	Z877	Z878	32.5	141.0
R883	Z878	Z879	183.4	141.0
R884	Z879	Z880	278.4	141.0
R885	Z880	Z881	212.9	141.0
R886	Z878	Z970	5	96.8
R887	Z879	Z969	5	96.8
R888	Z880	Z968	5	96.8
R889	Z877	Z895	533.7	197.4
R890	Z895	Z896	151	197.4
R891	Z896	Z894	27.1	197.4
R896	Z888	Z971	8.8	197.4
R897	Z889	Z890	148	197.4
R898	Z890	Z891	213	197.4
R899	Z891	Z892	201.5	197.4
R900	Z892	Z893	192.7	197.4
R901	Z893	Z894	27.1	197.4
R902	Z971	Z889	251.5	197.4
R903	Z897	Z899	550.3	400
R904	Z1248	Z960	264.3	312.8
R905	Z960	Z935	1161.6	312.8
R906	Z935	Z933	206.7	400
R907	Z933	Z899	373.5	400
R908	Z899	Z900	26.4	141.0
R909	Z900	Z901	140	141.0
R910	Z900	Z972	5	96.8
R911	Z900	Z973	5	96.8
R912	Z897	Z898	3.9	312.8
R913	Z898	Z902	1143.2	312.8
R914	Z898	Z974	5	96.8
R915	Z902	Z903	33	312.8
R916	Z903	Z904	90.3	312.8
R917	Z904	Z905	13.5	312.8
R918	Z905	Z906	15.7	312.8
R919	Z906	Z907	146.3	312.8
R920	Z907	Z908	109.5	312.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R921	Z908	Z909	204	312.8
R922	Z909	Z910	100.9	312.8
R923	Z909	Z981	5	96.8
R924	Z908	Z980	5	96.8
R925	Z907	Z979	5	96.8
R926	Z906	Z978	5	96.8
R927	Z905	Z977	5	96.8
R928	Z904	Z976	5	96.8
R929	Z903	Z975	5	96.8
R930	Z933	Z934	12.9	312.8
R931	Z934	Z932	294.6	312.8
R932	Z932	Z931	209.5	312.8
R933	Z931	Z930	37.3	312.8
R934	Z930	Z929	363.5	312.8
R935	Z929	Z928	69	312.8
R936	Z928	Z927	99.8	312.8
R937	Z927	Z926	192.8	312.8
R938	Z926	Z925	150.8	312.8
R939	Z925	Z924	33.5	312.8
R940	Z924	Z923	101.4	312.8
R941	Z923	Z922	150.2	312.8
R942	Z922	Z921	46.9	312.8
R943	Z921	Z920	36.5	312.8
R944	Z920	Z919	210.77	312.8
R945	Z919	Z918	114.5	312.8
R946	Z918	Z917	69.4	312.8
R947	Z917	Z916	105.3	312.8
R948	Z916	Z915	91.6	312.8
R949	Z915	Z914	143.4	312.8
R950	Z914	Z913	145.1	312.8
R951	Z913	Z912	191.7	312.8
R952	Z912	Z911	249.3	312.8
R953	Z911	Z910	143.2	312.8
R954	Z934	Z982	5	96.8
R955	Z932	Z983	5	96.8
R956	Z931	Z984	5	96.8
R957	Z930	Z985	20.46	96.8
R958	Z929	Z986	5	96.8
R959	Z928	Z987	5	96.8
R960	Z927	Z988	5	96.8
R961	Z926	Z989	5	96.8
R962	Z924	Z990	5	96.8
R963	Z923	Z991	5	96.8
R964	Z922	Z992	5	96.8
R965	Z921	Z993	5	96.8
R966	Z920	Z994	5	96.8
R967	Z918	Z995	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R968	Z917	Z996	5	96.8
R969	Z916	Z997	5	96.8
R970	Z915	Z998	5	96.8
R971	Z914	Z999	5	96.8
R972	Z913	Z1000	5	96.8
R973	Z912	Z1001	5	96.8
R974	Z911	Z1002	5	96.8
R975	Z971	Z1011	5	96.8
R976	Z889	Z1010	5	96.8
R977	Z890	Z1009	5	96.8
R978	Z891	Z1008	5	96.8
R979	Z891	Z1007	5	96.8
R980	Z892	Z1006	5	96.8
R981	Z893	Z1005	5	96.8
R982	Z896	Z1004	5	96.8
R983	Z895	Z1003	5	96.8
R984	Z894	Z1012	405.2	197.4
R985	Z1012	Z1013	210.7	141
R986	Z1013	Z1014	79.4	141
R987	Z1014	Z1015	257.4	141
R988	Z1015	Z1016	47.92	141
R989	Z1016	Z1017	169.6	141
R990	Z1017	Z1018	98.3	141.0
R991	Z1018	Z1019	144.7	141.0
R992	Z1019	Z1020	226.2	141.0
R993	Z1017	Z1021	29.9	141.0
R994	Z1021	Z1022	331.5	141.0
R995	Z1012	Z1023	5	96.8
R996	Z1012	Z1024	30.48	96.8
R997	Z1013	Z1025	5	96.8
R998	Z1014	Z1026	5	96.8
R999	Z1015	Z1027	5	96.8
R1000	Z1016	Z1028	5	96.8
R1001	Z1018	Z1029	5	96.8
R1002	Z1019	Z1030	5	96.8
R1003	Z1021	Z1031	5	96.8
R892	Z902	Z1038	8.6	141
R893	Z1038	Z1037	31.8	141
R894	Z1037	Z1036	110	141
R895	Z1036	Z1035	56	141
R1004	Z1035	Z1034	301.8	141
R1005	Z1034	Z1033	178.1	141.0
R1006	Z1033	Z1032	25.8	141.0
R1007	Z1033	Z1039	5	96.8
R1008	Z1034	Z1040	5	96.8
R1009	Z1035	Z1041	5	96.8
R1010	Z1036	Z1042	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1011	Z1037	Z1043	5	96.8
R1012	Z1038	Z1044	5	96.8
R1013	Z1038	Z1045	5	96.8
R1014	Z910	Z1046	15.4	141
R1015	Z1046	Z1047	32.2	141
R1016	Z1047	Z1048	50.4	141
R1017	Z1048	Z1049	32	141
R1018	Z1049	Z1050	74.2	141
R1019	Z1050	Z1051	21.5	141
R1020	Z1051	Z1052	390.4	141
R1021	Z1052	Z1053	76.9	141.0
R1022	Z1053	Z1054	44.6	141.0
R1023	Z1054	Z1055	103.2	141.0
R1024	Z1046	Z1064	5	96.8
R1025	Z1047	Z1063	5	96.8
R1026	Z1048	Z1062	5	96.8
R1027	Z1049	Z1061	5	96.8
R1028	Z1050	Z1060	5	96.8
R1029	Z1051	Z1059	5	96.8
R1030	Z1052	Z1058	5	96.8
R1031	Z1053	Z1057	5	96.8
R1032	Z1054	Z1056	5	96.8
R1033	Z1065	Z1075	5	96.8
R1034	Z1066	Z1074	5	96.8
R1035	Z1067	Z1073	5	96.8
R1036	Z1068	Z1072	5	96.8
R1037	Z1069	Z1071	5	96.8
R1038	Z919	Z1065	17.3	141
R1039	Z1065	Z1066	231.1	141
R1040	Z1066	Z1067	215.1	141
R1041	Z1067	Z1068	21.9	141
R1042	Z1068	Z1069	56.7	141.0
R1043	Z1069	Z1070	11.7	141.0
R1044	Z1076	Z1082	5	96.8
R1045	Z1076	Z1083	5	96.8
R1046	Z1077	Z1084	5	96.8
R1047	Z1078	Z1085	5	96.8
R1048	Z1079	Z1086	5	96.8
R1049	Z1080	Z1087	5	96.8
R1050	Z925	Z1076	13.15	141
R1051	Z1076	Z1077	381.1	141
R1052	Z1077	Z1078	146.5	141
R1053	Z1078	Z1079	111	141
R1054	Z1079	Z1080	368.5	141
R1055	Z1080	Z1081	158.1	141.0
R1056	Z936	Z1088	12.2	141.0
R1057	Z1088	Z1089	58.7	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1058	Z1089	Z1090	77.3	141.0
R1059	Z1090	Z1091	99.5	141.0
R1060	Z1091	Z1094	28.5	141.0
R1061	Z1094	Z1092	40.2	141.0
R1062	Z1092	Z1093	79.4	141.0
R1063	Z1094	Z1095	11.4	141.0
R1064	Z1095	Z1096	145.5	141.0
R1065	Z1095	Z1102	11.82	96.8
R1066	Z1092	Z1101	5	96.8
R1067	Z1091	Z1100	5	96.8
R1068	Z1090	Z1099	5	96.8
R1069	Z1089	Z1098	5	96.8
R1070	Z1088	Z1097	5	96.8
R1071	Z935	Z936	2.7	312.8
R1072	Z936	Z937	12	312.8
R1073	Z937	Z938	688.3	312.8
R1074	Z938	Z1108	530.5	221.2
R1075	Z938	Z939	10.60	141
R1076	Z939	Z1246	136.2	141
R1077	Z939	Z1103	5	96.8
R1079	Z942	Z943	150.6	141
R1080	Z943	Z944	381.9	141
R1082	Z945	Z946	141.3	141
R1083	Z946	Z947	90.4	141
R1084	Z947	Z948	188.8	141
R1085	Z948	Z949	293.7	141
R1086	Z949	Z950	28.6	141
R1088	Z951	Z952	52	197.4
R1089	Z952	Z953	23.4	197.4
R1090	Z953	Z954	174.2	197.4
R1091	Z954	Z955	16.5	197.4
R1092	Z955	Z956	37.2	197.4
R1093	Z956	Z957	114	197.4
R1095	Z1104	Z1105	268.6	141.0
R1096	Z1104	Z1107	5	96.8
R1097	Z1104	Z1106	5	96.8
R1099	Z1108	Z1111	76	141
R1100	Z1111	Z1109	16.7	141
R1101	Z1109	Z1110	69.3	141.0
R1102	Z1109	Z1112	94	141
R1103	Z1112	Z1113	121.5	141
R1104	Z1113	Z1114	12.3	141.0
R1105	Z1111	Z1117	5	96.8
R1106	Z1110	Z1118	5	96.8
R1107	Z1112	Z1116	5	96.8
R1108	Z1112	Z1119	5	96.8
R1109	Z1113	Z1115	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1110	Z942	Z1120	5	96.8
R1111	Z942	Z1121	5	96.8
R1112	Z943	Z1122	5	96.8
R1113	Z943	Z1123	5	96.8
R1114	Z944	Z1124	5	96.8
R1115	Z944	Z1125	5	96.8
R1116	Z945	Z1126	5	96.8
R1117	Z945	Z1127	5	96.8
R1118	Z946	Z1128	5	96.8
R1119	Z947	Z1129	5	96.8
R1120	Z948	Z1130	5	96.8
R1121	Z1130	Z1132	5	96.8
R1122	Z1130	Z1131	5	96.8
R1123	Z949	Z1133	5	96.8
R1124	Z950	Z1134	5	96.8
R1125	Z951	Z1135	5	96.8
R1126	Z952	Z1136	5	96.8
R1127	Z953	Z1137	5	96.8
R1128	Z956	Z1141	5	96.8
R1129	Z955	Z1140	5	96.8
R1130	Z954	Z1138	5	96.8
R1131	Z954	Z1139	5	96.8
R1132	Z1108	Z1142	122	197.4
R1133	Z1142	Z1143	197.4	197.4
R1134	Z1143	Z1144	197.4	141
R1135	Z1144	Z1145	4.8	141
R1136	Z1145	Z1146	64.4	141
R1137	Z1146	Z1147	21.4	141.0
R1138	Z1147	Z1148	77.3	141.0
R1139	Z1142	Z1153	5	96.8
R1140	Z1143	Z1152	5	96.8
R1141	Z1145	Z1151	5	96.8
R1142	Z1146	Z1150	5	96.8
R1143	Z1147	Z1149	5	96.8
R1144	Z1144	Z1154	494	141
R1145	Z1154	Z1155	7.5	141
R1146	Z1155	Z1156	114.7	141.0
R1147	Z1155	Z1158	5	96.8
R1148	Z1154	Z1157	5	96.8
R1149	Z957	Z958	288	197.4
R1150	Z959	Z958	122.3	197.4
R1151	Z293	Z959	453	197.4
R1152	Z959	Z1159	5	96.8
R1153	Z1163	Z1170	5	96.8
R1154	Z1163	Z1171	5	96.8
R1155	Z1162	Z1168	5	96.8
R1156	Z1162	Z1169	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1157	Z1161	Z1167	5	96.8
R1158	Z1160	Z1164	5	96.8
R1159	Z958	Z1166	5	96.8
R1162	Z1244	Z1161	6.6	141.0
R1163	Z1161	Z1243	88.2	141.0
R1164	Z1162	Z1163	347.6	141.0
R1165	Z1172	Z1174	5	96.8
R1166	Z960	Z1175	3.8	221.2
R1167	Z1175	Z1172	48.5	141.0
R1168	Z1172	Z1173	181.7	141.0
R1169	Z1175	Z1176	9.2	221.2
R1170	Z1176	Z1177	17	141.0
R1171	Z1177	Z1178	11.4	141.0
R1172	Z1178	Z1179	155	141.0
R1173	Z1179	Z1180	108.8	141.0
R1174	Z1180	Z1181	24.6	141.0
R1175	Z1180	Z1185	5	96.8
R1176	Z1179	Z1184	5	96.8
R1177	Z1178	Z1183	5	96.8
R1178	Z1177	Z1182	5	96.8
R1179	Z1176	Z1186	193.3	221.2
R1180	Z1186	Z1187	47.2	141.0
R1181	Z1187	Z1188	12.6	141.0
R1182	Z1188	Z1189	85.2	141.0
R1183	Z1189	Z1190	12.1	141.0
R1184	Z1190	Z1191	108.7	141.0
R1185	Z1190	Z1192	5	96.8
R1186	Z1189	Z1193	5	96.8
R1187	Z1188	Z1194	5	96.8
R1188	Z1187	Z1195	5	96.8
R1189	Z1186	Z1196	22.1	197.4
R1190	Z1196	Z1197	11.9	197.4
R1191	Z1197	Z1198	70.1	197.4
R1192	Z1198	Z1199	40.4	141.0
R1193	Z1199	Z1200	31.7	141.0
R1194	Z1200	Z1201	28.9	141.0
R1195	Z1198	Z1202	8.6	141.0
R1196	Z1202	Z1203	149.5	141.0
R1197	Z1203	Z1204	36.3	141.0
R1198	Z1204	Z1205	34	141.0
R1199	Z1196	Z1206	5	96.8
R1200	Z1197	Z1207	5	96.8
R1201	Z1202	Z1208	5	96.8
R1202	Z1199	Z1209	5	96.8
R1203	Z1200	Z1210	5	96.8
R1204	Z1203	Z1212	5	96.8
R1205	Z1204	Z1211	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1206	Z1036	Z1213	5	96.8
R1207	Z937	Z1214	21.07	96.8
R1208	Z116	Z1215	5	96.8
R1209	Z116	Z1216	5	96.8
R1210	Z52	Z1217	5	96.8
R1211	Z32	Z1218	5	96.8
R1212	Z33	Z1219	5	96.8
R1213	Z34	Z1220	5	96.8
R1214	Z35	Z1221	5	96.8
R1215	Z36	Z1222	5	96.8
R1216	Z37	Z1223	5	96.8
R1217	Z38	Z1224	5	96.8
R1218	Z660	Z1225	6.8	141.0
R1219	Z1225	Z1226	3.2	141.0
R1220	Z1226	Z1228	10.3	141.0
R1221	Z1226	Z1229	5	96.8
R1222	Z1225	Z1227	36.5	141.0
R1223	Z1227	Z1230	5	96.8
R1224	Z1227	Z1231	5	96.8
R1225	Z658	Z1232	2.7	141.0
R1226	Z1232	Z1234	7.4	141.0
R1227	Z1234	Z1236	10	141.0
R1228	Z1236	Z1235	31.2	141.0
R1229	Z1232	Z1233	10.3	141.0
R1230	Z1234	Z1238	5	96.8
R1231	Z1236	Z1237	5	96.8
R1	Z384	Z1239	5	96.8
R2	Z384	Z1240	5	96.8
R1232	Z383	Z1241	5	96.8
R1233	Z382	Z1242	5	96.8
R430	Z462	Z461	276.2	312.8
R1234	Z1243	Z1162	14.2	141.0
R1235	Z1243	Z1104	275.3	141.0
R1236	Z1245	Z1244	357.4	141
R1237	Z1245	Z292	5	98.6
R1238	Z1244	Z1160	164.3	141.0
R3187	Z951	Z950	400.7	197.4
R1239	Z1246	Z940	5	96.8
R1240	Z1246	Z1247	543	141
R1241	Z1247	Z942	5.5	141
R1078	Z3	Z1248	13465	600
R1081	Z1248	Z293	68.4	400
P1	S1	Z1	#N/A	#N/A Pump
P2	S1	Z1	#N/A	#N/A Pump
P3	S1	Z1	#N/A	#N/A Pump
P4	S1	Z1	#N/A	#N/A Pump
P5	S1	Z1	#N/A	#N/A Pump

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm		
P6	S1	Z1	#N/A	#N/A Pump		
P7	S1	Z1	#N/A	#N/A Pump		
Energy Usage:						
Pump	Usage Factor	Avg. Effic.	Kw-hr /m3	Avg. Kw	Peak Kw	Cost /day
P1	0.00	0.00	0.00	0.00	0.00	0.00
P2	100.00	75.00	0.29	156.92	156.92	0.00
P3	100.00	75.00	0.29	156.92	156.92	0.00
P4	100.00	75.00	0.29	156.92	156.92	0.00
P5	100.00	75.00	0.29	156.92	156.92	0.00
P6	100.00	75.00	0.29	156.92	156.92	0.00
P7	100.00	75.00	0.29	156.92	156.92	0.00
Demand Charge:					0.00	0.00
Total Cost:					0.00	0.00

Node Results:

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1	0.00	89.91	79.91	0.00
Z2	0.00	89.53	79.53	0.00
Z3	0.00	84.83	74.83	0.00
Z4	0.00	89.24	79.24	0.00
Z5	0.00	88.24	78.24	0.00
Z6	0.00	88.16	78.16	0.00
Z7	0.00	87.93	77.93	0.00
Z8	0.00	87.78	77.78	0.00
Z9	0.00	87.74	77.74	0.00
Z10	0.00	87.40	77.40	0.00
Z11	0.00	87.29	77.29	0.00
Z12	0.00	86.81	76.81	0.00
Z13	0.00	86.48	76.48	0.00
Z14	0.00	86.32	76.32	0.00
Z15	0.00	85.92	75.92	0.00
Z16	0.00	85.71	75.71	0.00
Z17	0.00	85.57	75.57	0.00
Z18	0.00	85.38	75.38	0.00
Z19	0.00	85.28	75.28	0.00
Z20	0.00	84.87	74.87	0.00
Z21	0.00	84.74	74.74	0.00
Z22	0.00	84.51	74.51	0.00
Z23	0.00	84.17	74.17	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z24	0.00	84.04	74.04	0.00
Z25	0.00	83.80	73.80	0.00
Z26	0.00	83.12	73.12	0.00
Z27	0.00	83.10	73.10	0.00
Z28	0.00	82.12	72.12	0.00
Z29	0.00	85.46	75.46	0.00
Z56	1.44	89.23	79.23	0.00
Z57	1.44	88.24	78.24	0.00
Z58	1.44	88.15	78.15	0.00
Z59	1.44	87.93	77.93	0.00
Z60	1.44	87.78	77.78	0.00
Z61	1.44	87.74	77.74	0.00
Z62	1.44	87.40	77.40	0.00
Z63	1.44	87.28	77.28	0.00
Z64	1.44	86.81	76.81	0.00
Z65	1.44	86.48	76.48	0.00
Z66	1.44	86.32	76.32	0.00
Z67	1.44	85.91	75.91	0.00
Z68	1.44	85.71	75.71	0.00
Z69	1.44	85.56	75.56	0.00
Z70	1.44	85.38	75.38	0.00
Z71	1.44	85.28	75.28	0.00
Z72	1.44	85.02	75.02	0.00
Z73	1.44	84.86	74.86	0.00
Z74	1.44	84.74	74.74	0.00
Z75	1.44	84.51	74.51	0.00
Z76	1.44	84.17	74.17	0.00
Z77	1.44	84.04	74.04	0.00
Z78	1.44	83.80	73.80	0.00
Z79	1.44	83.12	73.12	0.00
Z80	1.44	83.09	73.09	0.00
Z81	1.44	82.11	72.11	0.00
Z82	0.00	84.91	74.91	0.00
Z83	0.00	84.34	74.34	0.00
Z84	0.00	84.23	74.23	0.00
Z85	0.00	83.98	73.98	0.00
Z86	0.00	83.80	73.80	0.00
Z87	0.00	83.77	73.77	0.00
Z88	0.00	83.70	73.70	0.00
Z89	0.00	83.68	73.68	0.00
Z90	1.44	83.68	73.68	0.00
Z91	1.44	84.91	74.91	0.00
Z92	1.44	84.33	74.33	0.00
Z93	1.44	84.23	74.23	0.00
Z94	1.44	83.97	73.97	0.00
Z95	1.44	83.80	73.80	0.00
Z96	1.44	83.77	73.77	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z97	1.44	83.70	73.70	0.00
Z98	1.44	83.68	73.68	0.00
Z99	0.00	84.75	74.75	0.00
Z100	0.00	83.63	73.63	0.00
Z101	0.00	83.20	73.20	0.00
Z102	0.00	81.96	71.96	0.00
Z103	0.00	81.80	71.80	0.00
Z104	0.00	81.65	71.65	0.00
Z105	0.00	81.61	71.61	0.00
Z106	0.00	81.53	71.53	0.00
Z107	0.00	81.52	71.52	0.00
Z108	1.44	81.53	71.53	0.00
Z109	1.44	81.60	71.60	0.00
Z110	1.44	81.65	71.65	0.00
Z111	1.44	81.80	71.80	0.00
Z112	1.44	81.96	71.96	0.00
Z113	1.44	83.19	73.19	0.00
Z114	1.44	83.62	73.62	0.00
Z115	1.44	84.75	74.75	0.00
Z116	0.00	81.95	71.95	0.00
Z117	0.00	81.17	71.17	0.00
Z118	0.00	80.81	70.81	0.00
Z119	0.00	80.52	70.52	0.00
Z120	0.00	79.92	69.92	0.00
Z121	0.00	79.63	69.63	0.00
Z122	0.00	81.14	71.14	0.00
Z123	0.00	81.09	71.09	0.00
Z124	0.00	81.07	71.07	0.00
Z125	1.44	81.14	71.14	0.00
Z126	1.44	81.09	71.09	0.00
Z127	1.44	81.52	71.52	0.00
Z128	1.44	81.07	71.07	0.00
Z129	0.00	81.07	71.07	0.00
Z130	1.44	81.07	71.07	0.00
Z30	0.00	78.66	68.66	0.00
Z31	0.00	78.57	68.57	0.00
Z32	0.00	78.55	68.55	0.00
Z33	0.00	78.11	68.11	0.00
Z34	0.00	77.77	67.77	0.00
Z35	0.00	77.47	67.47	0.00
Z36	0.00	77.43	67.43	0.00
Z37	0.00	77.37	67.37	0.00
Z38	0.00	77.36	67.36	0.00
Z39	0.00	77.21	67.21	0.00
Z40	0.00	77.17	67.17	0.00
Z42	1.44	78.66	68.66	0.00
Z43	0.00	78.56	68.56	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z44	1.44	78.55	68.55	0.00
Z45	0.00	78.48	68.48	0.00
Z46	1.44	78.48	68.48	0.00
Z48	1.44	78.46	68.46	0.00
Z49	1.44	80.81	70.81	0.00
Z50	1.44	80.52	70.52	0.00
Z51	1.44	79.92	69.92	0.00
Z52	0.00	79.61	69.61	0.00
Z53	0.00	79.60	69.60	0.00
Z54	1.44	79.58	69.58	0.00
Z55	1.44	79.59	69.59	0.00
Z131	1.44	79.59	69.59	0.00
Z132	0.00	83.51	73.51	0.00
Z133	0.00	83.43	73.43	0.00
Z134	0.00	83.40	73.40	0.00
Z135	0.00	83.35	73.35	0.00
Z136	0.00	83.32	73.32	0.00
Z137	1.44	83.32	73.32	0.00
Z138	0.00	83.28	73.28	0.00
Z139	0.00	83.19	73.19	0.00
Z140	0.00	83.14	73.14	0.00
Z141	0.00	83.14	73.14	0.00
Z142	1.44	83.13	73.13	0.00
Z143	0.00	82.13	72.13	0.00
Z144	1.44	79.63	69.63	0.00
Z145	0.00	79.64	69.64	0.00
Z146	0.00	79.63	69.63	0.00
Z147	0.00	79.77	69.77	0.00
Z148	0.00	79.62	69.62	0.00
Z149	0.00	79.18	69.18	0.00
Z150	0.00	78.96	68.96	0.00
Z151	0.00	78.86	68.86	0.00
Z152	0.00	78.85	68.85	0.00
Z153	0.00	78.81	68.81	0.00
Z154	0.00	78.74	68.74	0.00
Z155	0.00	78.72	68.72	0.00
Z156	1.44	78.72	68.72	0.00
Z157	1.44	83.14	73.14	0.00
Z158	1.44	83.14	73.14	0.00
Z159	1.44	83.18	73.18	0.00
Z160	1.44	83.28	73.28	0.00
Z161	1.44	83.40	73.40	0.00
Z162	1.44	83.35	73.35	0.00
Z163	1.44	83.32	73.32	0.00
Z164	0.00	80.81	70.81	0.00
Z165	0.00	73.89	63.89	0.00
Z166	1.44	79.63	69.63	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z167	1.44	79.61	69.61	0.00
Z168	1.44	79.18	69.18	0.00
Z169	1.44	78.96	68.96	0.00
Z170	1.44	78.84	68.84	0.00
Z171	1.44	78.80	68.80	0.00
Z172	1.44	78.80	68.80	0.00
Z173	1.44	78.74	68.74	0.00
Z174	1.44	78.72	68.72	0.00
Z175	0.00	77.59	67.59	0.00
Z176	0.00	76.40	66.40	0.00
Z177	0.00	75.80	65.80	0.00
Z178	0.00	75.74	65.74	0.00
Z179	0.00	75.44	65.44	0.00
Z180	0.00	75.36	65.36	0.00
Z181	0.00	75.29	65.29	0.00
Z182	0.00	75.28	65.28	0.00
Z183	0.00	75.20	65.20	0.00
Z184	0.00	75.19	65.19	0.00
Z185	0.00	75.16	65.16	0.00
Z186	1.44	75.15	65.15	0.00
Z187	0.00	74.70	64.70	0.00
Z188	0.00	74.55	64.55	0.00
Z189	0.00	74.54	64.54	0.00
Z190	1.44	74.54	64.54	0.00
Z191	0.00	74.53	64.53	0.00
Z192	0.00	74.50	64.50	0.00
Z193	1.44	74.50	64.50	0.00
Z194	1.44	75.73	65.73	0.00
Z195	1.44	75.44	65.44	0.00
Z196	1.44	75.35	65.35	0.00
Z197	1.44	75.29	65.29	0.00
Z198	1.44	75.27	65.27	0.00
Z199	1.44	75.19	65.19	0.00
Z200	1.44	75.16	65.16	0.00
Z201	1.44	74.69	64.69	0.00
Z202	1.44	74.54	64.54	0.00
Z203	1.44	74.53	64.53	0.00
Z204	1.44	74.50	64.50	0.00
Z205	0.00	75.04	65.04	0.00
Z206	0.00	74.24	64.24	0.00
Z207	0.00	74.08	64.08	0.00
Z208	0.00	73.68	63.68	0.00
Z209	0.00	73.64	63.64	0.00
Z210	0.00	74.06	64.06	0.00
Z211	0.00	74.05	64.05	0.00
Z212	0.00	74.03	64.03	0.00
Z213	1.44	74.03	64.03	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z214	0.00	74.06	64.06	0.00
Z215	1.44	74.05	64.05	0.00
Z216	1.44	74.03	64.03	0.00
Z217	1.44	74.04	64.04	0.00
Z218	1.44	74.04	64.04	0.00
Z219	0.00	73.59	63.59	0.00
Z220	0.00	73.49	63.49	0.00
Z221	0.00	73.45	63.45	0.00
Z222	0.00	73.44	63.44	0.00
Z223	0.00	73.35	63.35	0.00
Z224	0.00	73.23	63.23	0.00
Z225	0.00	73.21	63.21	0.00
Z226	0.00	73.17	63.17	0.00
Z227	0.00	73.11	63.11	0.00
Z228	0.00	72.96	62.96	0.00
Z229	0.00	72.93	62.93	0.00
Z230	1.44	72.93	62.93	0.00
Z231	0.00	73.04	63.04	0.00
Z232	0.00	72.94	62.94	0.00
Z233	1.44	72.93	62.93	0.00
Z234	0.00	73.11	63.11	0.00
Z235	0.00	73.10	63.10	0.00
Z236	1.44	73.09	63.09	0.00
Z41	0.00	80.80	70.80	0.00
Z47	0.00	80.61	70.61	0.00
Z237	0.00	80.24	70.24	0.00
Z238	0.00	79.78	69.78	0.00
Z239	0.00	77.80	67.80	0.00
Z240	0.00	77.43	67.43	0.00
Z241	0.00	77.09	67.09	0.00
Z242	0.00	76.79	66.79	0.00
Z243	0.00	76.49	66.49	0.00
Z244	0.00	75.90	65.90	0.00
Z245	0.00	75.83	65.83	0.00
Z246	0.00	75.78	65.78	0.00
Z247	0.00	75.70	65.70	0.00
Z248	0.00	75.68	65.68	0.00
Z249	1.44	75.68	65.68	0.00
Z250	0.00	75.77	65.77	0.00
Z251	0.00	75.74	65.74	0.00
Z252	1.44	80.80	70.80	0.00
Z253	0.00	80.71	70.71	0.00
Z254	1.44	80.70	70.70	0.00
Z255	1.44	80.70	70.70	0.00
Z256	1.44	80.61	70.61	0.00
Z257	1.44	80.24	70.24	0.00
Z258	1.44	79.78	69.78	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z259	1.44	77.80	67.80	0.00
Z260	1.44	77.43	67.43	0.00
Z261	1.44	77.08	67.08	0.00
Z262	1.44	76.78	66.78	0.00
Z263	1.44	76.78	66.78	0.00
Z264	1.44	76.49	66.49	0.00
Z265	1.44	76.49	66.49	0.00
Z266	1.44	75.90	65.90	0.00
Z267	1.44	75.82	65.82	0.00
Z268	0.00	75.75	65.75	0.00
Z269	1.44	75.68	65.68	0.00
Z270	1.44	75.70	65.70	0.00
Z271	1.44	75.74	65.74	0.00
Z272	1.44	75.77	65.77	0.00
Z273	1.44	75.74	65.74	0.00
Z274	1.44	75.74	65.74	0.00
Z275	0.00	73.87	63.87	0.00
Z276	0.00	73.86	63.86	0.00
Z277	0.00	73.72	63.72	0.00
Z278	0.00	73.70	63.70	0.00
Z279	0.00	73.69	63.69	0.00
Z280	1.44	73.69	63.69	0.00
Z281	0.00	75.19	65.19	0.00
Z282	0.00	75.18	65.18	0.00
Z283	1.44	75.32	65.32	0.00
Z284	0.00	75.34	65.34	0.00
Z285	0.00	75.30	65.30	0.00
Z286	0.00	75.09	65.09	0.00
Z287	0.00	74.97	64.97	0.00
Z288	0.00	74.89	64.89	0.00
Z289	0.00	74.85	64.85	0.00
Z290	1.44	74.85	64.85	0.00
Z291	0.00	75.66	65.66	0.00
Z292	1.44	73.67	63.67	0.00
Z293	0.00	76.75	66.75	0.00
Z294	0.00	74.87	64.87	0.00
Z295	1.44	73.87	63.87	0.00
Z296	1.44	73.86	63.86	0.00
Z297	1.44	73.72	63.72	0.00
Z298	1.44	73.69	63.69	0.00
Z299	1.44	73.69	63.69	0.00
Z300	1.44	75.18	65.18	0.00
Z301	1.44	75.18	65.18	0.00
Z302	1.44	75.30	65.30	0.00
Z303	1.44	74.85	64.85	0.00
Z304	1.44	74.89	64.89	0.00
Z305	1.44	74.96	64.96	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z306	1.44	75.09	65.09	0.00
Z307	0.00	74.76	64.76	0.00
Z308	0.00	73.04	63.04	0.00
Z309	0.00	72.31	62.31	0.00
Z310	0.00	72.29	62.29	0.00
Z311	0.00	72.20	62.20	0.00
Z312	1.44	72.17	62.17	0.00
Z313	0.00	72.17	62.17	0.00
Z314	0.00	72.17	62.17	0.00
Z315	1.44	72.17	62.17	0.00
Z316	1.44	72.16	62.16	0.00
Z317	0.00	72.07	62.07	0.00
Z318	1.44	72.07	62.07	0.00
Z319	1.44	72.07	62.07	0.00
Z320	1.44	72.29	62.29	0.00
Z321	1.44	73.03	63.03	0.00
Z322	0.00	74.44	64.44	0.00
Z323	0.00	74.74	64.74	0.00
Z324	0.00	74.58	64.58	0.00
Z325	0.00	73.85	63.85	0.00
Z326	0.00	73.71	63.71	0.00
Z327	0.00	73.65	63.65	0.00
Z328	0.00	72.73	62.73	0.00
Z329	0.00	72.70	62.70	0.00
Z330	0.00	72.43	62.43	0.00
Z331	0.00	72.30	62.30	0.00
Z332	0.00	71.99	61.99	0.00
Z333	0.00	71.99	61.99	0.00
Z334	0.00	71.98	61.98	0.00
Z335	1.44	74.74	64.74	0.00
Z336	1.44	74.74	64.74	0.00
Z337	1.44	74.58	64.58	0.00
Z338	1.44	73.85	63.85	0.00
Z339	1.44	73.71	63.71	0.00
Z340	1.44	73.65	63.65	0.00
Z341	1.44	72.73	62.73	0.00
Z342	1.44	72.70	62.70	0.00
Z343	1.44	72.43	62.43	0.00
Z344	1.44	72.43	62.43	0.00
Z345	1.44	72.29	62.29	0.00
Z346	1.44	71.99	61.99	0.00
Z347	1.44	71.99	61.99	0.00
Z348	1.44	71.98	61.98	0.00
Z349	1.44	71.98	61.98	0.00
Z350	0.00	73.34	63.34	0.00
Z351	0.00	73.32	63.32	0.00
Z352	0.00	72.79	62.79	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z353	0.00	72.59	62.59	0.00
Z354	0.00	72.42	62.42	0.00
Z355	0.00	72.35	62.35	0.00
Z356	1.44	72.35	62.35	0.00
Z357	1.44	72.33	62.33	0.00
Z358	1.44	73.34	63.34	0.00
Z359	1.44	73.31	63.31	0.00
Z360	1.44	72.78	62.78	0.00
Z361	1.44	72.59	62.59	0.00
Z362	1.44	72.41	62.41	0.00
Z363	1.44	72.41	62.41	0.00
Z364	0.00	74.25	64.25	0.00
Z365	0.00	74.23	64.23	0.00
Z366	0.00	74.23	64.23	0.00
Z367	0.00	74.14	64.14	0.00
Z368	1.44	74.11	64.11	0.00
Z369	0.00	74.12	64.12	0.00
Z370	0.00	73.14	63.15	0.00
Z371	0.00	73.12	63.12	0.00
Z372	0.00	73.01	63.01	0.00
Z373	0.00	72.97	62.97	0.00
Z374	1.44	72.97	62.97	0.00
Z375	0.00	72.65	62.65	0.00
Z376	0.00	72.64	62.64	0.00
Z377	0.00	71.94	61.94	0.00
Z378	0.00	71.90	61.90	0.00
Z379	0.00	71.84	61.84	0.00
Z380	0.00	71.80	61.80	0.00
Z381	1.44	71.79	61.79	0.00
Z382	0.00	71.85	61.85	0.00
Z383	0.00	71.84	61.84	0.00
Z384	0.00	71.74	61.74	0.00
Z385	1.44	71.73	61.73	0.00
Z386	1.44	74.14	64.14	0.00
Z387	1.44	74.14	64.14	0.00
Z388	1.44	74.23	64.23	0.00
Z389	0.00	74.00	64.00	0.00
Z390	1.44	73.99	63.99	0.00
Z391	1.44	74.12	64.12	0.00
Z392	1.44	73.12	63.12	0.00
Z393	1.44	73.01	63.01	0.00
Z394	1.44	72.97	62.97	0.00
Z395	1.44	72.64	62.64	0.00
Z396	1.44	72.63	62.63	0.00
Z397	1.44	71.93	61.93	0.00
Z398	1.44	71.84	61.84	0.00
Z399	1.44	71.80	61.80	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z400	0.00	74.07	64.07	0.00
Z401	0.00	74.08	64.08	0.00
Z402	0.00	73.84	63.84	0.00
Z403	0.00	73.74	63.74	0.00
Z404	0.00	73.53	63.53	0.00
Z405	0.00	73.40	63.40	0.00
Z406	1.44	73.39	63.39	0.00
Z407	1.44	74.07	64.07	0.00
Z408	1.44	73.84	63.84	0.00
Z409	1.44	73.74	63.74	0.00
Z410	1.44	73.53	63.53	0.00
Z411	1.44	73.40	63.40	0.00
Z412	0.00	74.01	64.01	0.00
Z413	0.00	73.92	63.92	0.00
Z414	0.00	73.88	63.88	0.00
Z415	1.44	73.88	63.88	0.00
Z416	1.44	74.01	64.01	0.00
Z417	1.44	74.01	64.01	0.00
Z418	1.44	73.91	63.91	0.00
Z419	1.44	73.88	63.88	0.00
Z420	1.44	73.91	63.91	0.00
Z421	0.00	73.44	63.44	0.00
Z422	0.00	73.43	63.43	0.00
Z423	0.00	73.38	63.38	0.00
Z424	1.44	73.37	63.37	0.00
Z425	1.44	73.38	63.38	0.00
Z426	1.44	73.43	63.43	0.00
Z427	1.44	73.44	63.44	0.00
Z428	1.44	73.09	63.09	0.00
Z429	1.44	73.10	63.10	0.00
Z430	1.44	73.49	63.49	0.00
Z431	1.44	73.44	63.44	0.00
Z432	1.44	73.35	63.35	0.00
Z433	1.44	73.22	63.22	0.00
Z434	1.44	73.21	63.21	0.00
Z435	1.44	73.17	63.17	0.00
Z436	1.44	72.96	62.96	0.00
Z437	1.44	72.93	62.93	0.00
Z438	1.44	73.04	63.04	0.00
Z439	1.44	72.93	62.93	0.00
Z440	0.00	73.55	63.55	0.00
Z441	1.44	73.55	63.55	0.00
Z442	0.00	73.27	63.27	0.00
Z443	1.44	73.27	63.27	0.00
Z444	0.00	73.26	63.26	0.00
Z445	1.44	73.26	63.26	0.00
Z446	0.00	73.25	63.25	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z447	1.44	73.24	63.24	0.00
Z448	0.00	73.11	63.11	0.00
Z449	1.44	73.10	63.10	0.00
Z450	1.44	73.10	63.10	0.00
Z451	0.00	73.03	63.03	0.00
Z452	1.44	73.02	63.02	0.00
Z453	0.00	73.00	63.00	0.00
Z454	1.44	73.00	63.00	0.00
Z455	0.00	72.99	62.99	0.00
Z456	1.44	72.99	62.99	0.00
Z457	0.00	72.99	62.99	0.00
Z458	1.44	72.99	62.99	0.00
Z459	0.00	73.41	63.41	0.00
Z460	1.44	73.41	63.41	0.00
Z461	0.00	73.41	63.41	0.00
Z462	0.00	73.48	63.48	0.00
Z463	0.00	73.49	63.49	0.00
Z464	1.44	73.47	63.47	0.00
Z465	1.44	73.47	63.47	0.00
Z466	0.00	73.52	63.52	0.00
Z467	0.00	73.56	63.56	0.00
Z468	0.00	73.53	63.53	0.00
Z469	0.00	73.52	63.52	0.00
Z470	1.44	73.50	63.50	0.00
Z471	1.44	73.52	63.52	0.00
Z472	0.00	73.47	63.47	0.00
Z473	1.44	73.47	63.47	0.00
Z474	0.00	73.45	63.45	0.00
Z475	1.44	73.45	63.45	0.00
Z476	1.44	73.45	63.45	0.00
Z477	0.00	74.97	64.97	0.00
Z478	1.44	74.97	64.97	0.00
Z479	1.44	74.94	64.94	0.00
Z480	1.44	75.03	65.03	0.00
Z481	0.00	75.03	65.03	0.00
Z482	0.00	73.40	63.40	0.00
Z483	0.00	73.39	63.39	0.00
Z484	0.00	73.37	63.37	0.00
Z485	0.00	73.35	63.35	0.00
Z486	0.00	73.27	63.27	0.00
Z487	0.00	73.16	63.16	0.00
Z488	0.00	73.15	63.15	0.00
Z489	0.00	72.86	62.86	0.00
Z490	0.00	72.86	62.86	0.00
Z491	0.00	72.81	62.81	0.00
Z492	1.44	72.81	62.81	0.00
Z493	0.00	72.83	62.83	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z494	0.00	72.77	62.77	0.00
Z495	0.00	72.76	62.76	0.00
Z496	1.44	72.76	62.76	0.00
Z497	1.44	73.40	63.40	0.00
Z498	1.44	73.38	63.38	0.00
Z499	1.44	73.36	63.36	0.00
Z500	1.44	73.35	63.35	0.00
Z501	1.44	73.27	63.27	0.00
Z502	1.44	73.16	63.16	0.00
Z503	1.44	72.81	62.81	0.00
Z504	1.44	72.86	62.86	0.00
Z505	1.44	72.76	62.76	0.00
Z506	1.44	72.77	62.77	0.00
Z507	1.44	72.82	62.82	0.00
Z508	1.44	72.82	62.82	0.00
Z509	0.00	73.52	63.52	0.00
Z510	0.00	73.51	63.51	0.00
Z511	0.00	73.51	63.51	0.00
Z512	0.00	73.51	63.51	0.00
Z513	0.00	73.52	63.52	0.00
Z514	0.00	74.08	64.08	0.00
Z515	0.00	74.37	64.37	0.00
Z516	0.00	74.78	64.78	0.00
Z518	0.00	74.62	64.62	0.00
Z519	0.00	74.53	64.53	0.00
Z520	1.44	74.51	64.51	0.00
Z521	0.00	74.28	64.28	0.00
Z522	0.00	74.08	64.08	0.00
Z523	0.00	74.08	64.08	0.00
Z524	1.44	74.07	64.07	0.00
Z525	0.00	73.52	63.52	0.00
Z526	1.44	73.52	63.52	0.00
Z527	1.44	73.51	63.51	0.00
Z528	1.44	73.51	63.51	0.00
Z529	1.44	73.51	63.51	0.00
Z530	1.44	73.51	63.51	0.00
Z531	0.00	73.48	63.48	0.00
Z532	0.00	73.35	63.35	0.00
Z533	1.44	73.35	63.35	0.00
Z534	1.44	73.35	63.35	0.00
Z535	1.44	73.35	63.35	0.00
Z536	0.00	73.48	63.48	0.00
Z537	1.44	73.47	63.47	0.00
Z538	1.44	73.46	63.46	0.00
Z539	0.00	73.46	63.46	0.00
Z540	0.00	73.40	63.40	0.00
Z541	0.00	73.39	63.39	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z542	1.44	73.38	63.38	0.00
Z543	0.00	73.38	63.38	0.00
Z544	1.44	73.37	63.37	0.00
Z545	1.44	73.37	63.37	0.00
Z546	0.00	73.38	63.38	0.00
Z547	0.00	73.29	63.29	0.00
Z548	1.44	73.29	63.29	0.00
Z549	0.00	73.13	63.13	0.00
Z550	1.44	73.13	63.13	0.00
Z551	0.00	73.12	63.12	0.00
Z552	1.44	73.11	63.11	0.00
Z553	1.44	73.12	63.12	0.00
Z554	0.00	74.07	64.07	0.00
Z555	1.44	74.07	64.07	0.00
Z556	0.00	74.03	64.03	0.00
Z557	1.44	74.03	64.03	0.00
Z558	1.44	74.03	64.03	0.00
Z559	1.44	74.37	64.37	0.00
Z560	1.44	74.78	64.78	0.00
Z561	0.00	75.82	65.82	0.00
Z562	0.00	75.69	65.69	0.00
Z563	1.44	75.68	65.68	0.00
Z564	1.44	75.68	65.68	0.00
Z565	0.00	75.68	65.68	0.00
Z566	1.44	75.64	65.64	0.00
Z567	0.00	75.21	65.21	0.00
Z568	1.44	75.21	65.21	0.00
Z569	0.00	75.10	65.10	0.00
Z570	1.44	75.10	65.10	0.00
Z571	1.44	74.62	64.62	0.00
Z572	1.44	74.28	64.28	0.00
Z573	1.44	74.08	64.08	0.00
Z574	1.44	74.08	64.08	0.00
Z575	0.00	75.64	65.64	0.00
Z576	0.00	73.35	63.35	0.00
Z577	0.00	73.48	63.48	0.00
Z578	0.00	73.38	63.38	0.00
Z579	0.00	73.26	63.26	0.00
Z580	0.00	73.15	63.15	0.00
Z581	1.44	73.13	63.13	0.00
Z582	1.44	73.25	63.25	0.00
Z583	0.00	73.37	63.37	0.00
Z584	1.44	73.37	63.37	0.00
Z585	0.00	73.37	63.37	0.00
Z586	1.44	73.36	63.36	0.00
Z587	1.44	73.36	63.36	0.00
Z588	0.00	73.09	63.09	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z589	1.44	73.09	63.09	0.00
Z590	0.00	73.08	63.08	0.00
Z591	1.44	73.08	63.08	0.00
Z592	1.44	73.08	63.08	0.00
Z593	0.00	73.48	63.48	0.00
Z594	0.00	73.46	63.46	0.00
Z595	0.00	73.48	63.48	0.00
Z596	0.00	73.32	63.32	0.00
Z597	1.44	73.46	63.46	0.00
Z598	1.44	73.32	63.32	0.00
Z599	0.00	73.30	63.30	0.00
Z600	1.44	73.30	63.30	0.00
Z601	0.00	73.13	63.13	0.00
Z602	0.00	73.12	63.12	0.00
Z603	1.44	73.11	63.11	0.00
Z604	0.00	73.13	63.13	0.00
Z605	0.00	73.12	63.12	0.00
Z606	1.44	73.12	63.12	0.00
Z607	1.44	73.12	63.12	0.00
Z608	0.00	72.97	62.97	0.00
Z609	0.00	72.95	62.95	0.00
Z610	1.44	72.95	62.95	0.00
Z611	0.00	72.95	62.95	0.00
Z612	1.44	72.95	62.95	0.00
Z613	0.00	72.90	62.90	0.00
Z614	1.44	72.90	62.90	0.00
Z615	0.00	72.89	62.89	0.00
Z616	1.44	72.89	62.89	0.00
Z617	1.44	72.89	62.89	0.00
Z618	1.44	72.89	62.89	0.00
Z619	0.00	72.92	62.92	0.00
Z620	0.00	72.91	62.91	0.00
Z621	1.44	72.91	62.91	0.00
Z622	0.00	72.90	62.90	0.00
Z623	1.44	72.90	62.90	0.00
Z624	0.00	72.88	62.88	0.00
Z625	1.44	72.88	62.88	0.00
Z626	0.00	72.87	62.87	0.00
Z627	1.44	72.87	62.87	0.00
Z628	1.44	72.87	62.87	0.00
Z629	1.44	72.87	62.87	0.00
Z630	1.44	72.85	62.85	0.00
Z631	0.00	72.88	62.88	0.00
Z632	1.44	72.88	62.88	0.00
Z633	0.00	72.89	62.89	0.00
Z634	1.44	72.89	62.89	0.00
Z517	0.00	73.14	63.14	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z635	0.00	73.17	63.17	0.00
Z636	0.00	73.29	63.29	0.00
Z637	0.00	73.42	63.42	0.00
Z638	1.44	73.41	63.41	0.00
Z639	1.44	73.41	63.41	0.00
Z640	1.44	73.14	63.14	0.00
Z641	0.00	73.15	63.15	0.00
Z642	0.00	73.14	63.14	0.00
Z643	0.00	73.06	63.06	0.00
Z644	1.44	73.06	63.06	0.00
Z645	1.44	73.06	63.06	0.00
Z646	1.44	73.06	63.06	0.00
Z647	1.44	73.12	63.12	0.00
Z648	1.44	73.14	63.14	0.00
Z649	0.00	73.41	63.41	0.00
Z650	0.00	73.15	63.15	0.00
Z651	0.00	73.14	63.14	0.00
Z652	1.44	73.15	63.15	0.00
Z653	1.44	73.14	63.14	0.00
Z654	1.44	73.14	63.14	0.00
Z655	1.44	73.13	63.13	0.00
Z656	0.00	73.51	63.51	0.00
Z657	0.00	73.61	63.61	0.00
Z658	0.00	73.66	63.66	0.00
Z659	0.00	73.74	63.74	0.00
Z660	0.00	73.95	63.95	0.00
Z661	0.00	74.12	64.12	0.00
Z662	1.44	74.84	64.84	0.00
Z663	0.00	75.18	65.18	0.00
Z664	0.00	76.00	66.00	0.00
Z665	0.00	76.74	66.74	0.00
Z666	0.00	77.20	67.20	0.00
Z667	1.44	77.20	67.20	0.00
Z668	1.44	77.20	67.20	0.00
Z669	0.00	76.30	66.30	0.00
Z670	0.00	75.95	65.95	0.00
Z671	0.00	74.79	64.79	0.00
Z672	0.00	74.76	64.76	0.00
Z673	0.00	74.22	64.22	0.00
Z674	0.00	74.74	64.74	0.00
Z675	1.44	74.74	64.74	0.00
Z676	1.44	74.74	64.74	0.00
Z677	1.44	74.75	64.75	0.00
Z678	1.44	75.95	65.95	0.00
Z679	1.44	76.30	66.30	0.00
Z680	1.44	74.21	64.21	0.00
Z681	0.00	74.05	64.05	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z682	0.00	73.97	63.97	0.00
Z683	0.00	73.93	63.93	0.00
Z684	0.00	73.92	63.92	0.00
Z685	0.00	73.90	63.90	0.00
Z686	1.44	73.89	63.89	0.00
Z687	1.44	74.05	64.05	0.00
Z688	1.44	73.97	63.97	0.00
Z689	1.44	73.93	63.93	0.00
Z690	1.44	73.92	63.92	0.00
Z691	1.44	73.90	63.90	0.00
Z692	0.00	75.96	65.96	0.00
Z693	0.00	75.95	65.95	0.00
Z694	1.44	75.95	65.95	0.00
Z695	0.00	75.93	65.93	0.00
Z696	1.44	75.92	65.92	0.00
Z697	1.44	75.92	65.92	0.00
Z698	0.00	75.96	65.96	0.00
Z699	1.44	75.95	65.95	0.00
Z700	1.44	75.90	65.90	0.00
Z701	1.44	75.90	65.90	0.00
Z702	0.00	75.91	65.91	0.00
Z703	0.00	75.12	65.12	0.00
Z704	0.00	74.85	64.85	0.00
Z705	0.00	74.48	64.48	0.00
Z706	0.00	74.37	64.37	0.00
Z707	0.00	74.28	64.28	0.00
Z708	1.44	74.28	64.28	0.00
Z709	0.00	74.29	64.29	0.00
Z710	1.44	74.27	64.27	0.00
Z711	1.44	75.11	65.11	0.00
Z712	1.44	74.84	64.84	0.00
Z713	1.44	74.48	64.48	0.00
Z714	1.44	74.37	64.37	0.00
Z715	1.44	74.27	64.27	0.00
Z716	0.00	74.63	64.63	0.00
Z717	0.00	73.95	63.95	0.00
Z718	0.00	73.89	63.89	0.00
Z719	1.44	73.88	63.88	0.00
Z720	0.00	73.85	63.85	0.00
Z721	0.00	73.84	63.84	0.00
Z722	0.00	73.83	63.83	0.00
Z723	1.44	73.82	63.82	0.00
Z724	1.44	73.82	63.82	0.00
Z725	1.44	73.84	63.84	0.00
Z726	1.44	73.85	63.85	0.00
Z727	1.44	73.89	63.89	0.00
Z728	0.00	73.58	63.58	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z729	0.00	73.57	63.57	0.00
Z730	1.44	73.57	63.57	0.00
Z731	1.44	73.55	63.55	0.00
Z732	0.00	73.45	63.45	0.00
Z733	1.44	73.45	63.45	0.00
Z734	0.00	73.41	63.41	0.00
Z735	1.44	73.41	63.41	0.00
Z736	0.00	73.33	63.33	0.00
Z737	1.44	73.32	63.32	0.00
Z738	0.00	73.28	63.28	0.00
Z739	1.44	73.27	63.27	0.00
Z740	0.00	73.10	63.10	0.00
Z741	1.44	73.10	63.10	0.00
Z742	0.00	73.09	63.09	0.00
Z743	0.00	73.06	63.06	0.00
Z744	0.00	73.05	63.05	0.00
Z745	1.44	73.05	63.05	0.00
Z746	1.44	73.05	63.05	0.00
Z747	1.44	73.01	63.01	0.00
Z748	0.00	73.43	63.43	0.00
Z749	0.00	73.31	63.31	0.00
Z750	0.00	73.22	63.22	0.00
Z751	0.00	73.16	63.16	0.00
Z752	0.00	73.12	63.12	0.00
Z753	0.00	73.12	63.12	0.00
Z754	0.00	73.12	63.12	0.00
Z755	1.44	73.11	63.11	0.00
Z756	1.44	73.11	63.11	0.00
Z757	1.44	73.11	63.11	0.00
Z758	1.44	73.12	63.12	0.00
Z759	1.44	73.31	63.31	0.00
Z760	1.44	73.16	63.16	0.00
Z761	0.00	73.05	63.05	0.00
Z762	0.00	73.03	63.03	0.00
Z763	0.00	73.03	63.03	0.00
Z764	1.44	73.02	63.02	0.00
Z765	1.44	73.03	63.03	0.00
Z766	1.44	73.03	63.03	0.00
Z767	1.44	73.04	63.04	0.00
Z768	0.00	73.14	63.14	0.00
Z769	0.00	73.14	63.14	0.00
Z770	0.00	73.11	63.11	0.00
Z771	0.00	73.08	63.08	0.00
Z772	0.00	73.00	63.00	0.00
Z773	1.44	72.98	62.98	0.00
Z774	0.00	72.97	62.97	0.00
Z775	1.44	72.97	62.97	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z776	1.44	72.97	62.97	0.00
Z777	1.44	73.08	63.08	0.00
Z778	1.44	73.10	63.10	0.00
Z779	1.44	73.13	63.13	0.00
Z780	1.44	73.14	63.14	0.00
Z781	0.00	73.67	63.67	0.00
Z782	0.00	73.60	63.60	0.00
Z783	0.00	73.57	63.57	0.00
Z784	0.00	73.56	63.56	0.00
Z785	0.00	73.61	63.61	0.00
Z786	0.00	73.55	63.55	0.00
Z787	0.00	73.55	63.55	0.00
Z788	0.00	73.55	63.55	0.00
Z789	0.00	73.55	63.55	0.00
Z790	0.00	73.55	63.55	0.00
Z791	0.00	73.63	63.63	0.00
Z792	0.00	73.67	63.67	0.00
Z793	0.00	73.77	63.77	0.00
Z794	0.00	73.82	63.82	0.00
Z795	0.00	73.85	63.85	0.00
Z796	1.44	74.07	64.07	0.00
Z797	1.44	73.82	63.82	0.00
Z798	1.44	73.77	63.77	0.00
Z799	1.44	73.66	63.66	0.00
Z800	1.44	73.62	63.62	0.00
Z801	1.44	73.54	63.54	0.00
Z802	1.44	73.54	63.54	0.00
Z803	1.44	73.55	63.55	0.00
Z804	1.44	73.55	63.55	0.00
Z805	1.44	73.56	63.56	0.00
Z806	1.44	73.57	63.57	0.00
Z807	1.44	73.59	63.59	0.00
Z808	1.44	73.67	63.67	0.00
Z809	0.00	74.08	64.08	0.00
Z810	0.00	73.53	63.53	0.00
Z811	0.00	73.47	63.47	0.00
Z812	0.00	73.43	63.43	0.00
Z813	0.00	73.27	63.27	0.00
Z814	0.00	73.18	63.18	0.00
Z815	0.00	73.13	63.13	0.00
Z816	0.00	73.09	63.09	0.00
Z817	1.44	73.08	63.08	0.00
Z818	1.44	73.08	63.08	0.00
Z819	1.44	73.53	63.53	0.00
Z820	1.44	73.46	63.46	0.00
Z821	1.44	73.43	63.43	0.00
Z822	1.44	73.27	63.27	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z823	1.44	73.18	63.18	0.00
Z824	1.44	73.12	63.12	0.00
Z825	0.00	73.56	63.56	0.00
Z826	0.00	73.50	63.50	0.00
Z827	0.00	73.49	63.49	0.00
Z828	0.00	73.44	63.44	0.00
Z829	0.00	73.36	63.36	0.00
Z830	0.00	73.30	63.30	0.00
Z831	0.00	73.29	63.29	0.00
Z832	0.00	73.15	63.15	0.00
Z833	0.00	73.15	63.15	0.00
Z834	0.00	73.14	63.14	0.00
Z835	0.00	73.03	63.03	0.00
Z836	0.00	73.02	63.02	0.00
Z837	1.44	73.02	63.02	0.00
Z838	1.44	73.56	63.56	0.00
Z839	1.44	73.49	63.49	0.00
Z840	1.44	73.49	63.49	0.00
Z841	1.44	73.43	63.43	0.00
Z842	1.44	73.36	63.36	0.00
Z843	1.44	73.29	63.29	0.00
Z844	1.44	73.29	63.29	0.00
Z845	1.44	73.15	63.15	0.00
Z846	1.44	73.14	63.14	0.00
Z847	1.44	73.13	63.13	0.00
Z848	1.44	73.03	63.03	0.00
Z849	1.44	73.02	63.02	0.00
Z850	0.00	73.64	63.64	0.00
Z851	0.00	73.63	63.63	0.00
Z852	0.00	73.53	63.53	0.00
Z853	0.00	73.50	63.50	0.00
Z854	0.00	73.41	63.41	0.00
Z855	0.00	73.36	63.36	0.00
Z856	0.00	73.24	63.24	0.00
Z857	0.00	73.18	63.18	0.00
Z858	0.00	73.13	63.13	0.00
Z859	0.00	73.11	63.11	0.00
Z860	0.00	73.21	63.21	0.00
Z861	0.00	73.17	63.17	0.00
Z862	1.44	73.64	63.64	0.00
Z863	1.44	73.63	63.63	0.00
Z864	1.44	73.53	63.53	0.00
Z865	1.44	73.50	63.50	0.00
Z866	1.44	73.36	63.36	0.00
Z867	1.44	73.24	63.24	0.00
Z868	1.44	73.18	63.18	0.00
Z869	1.44	73.13	63.13	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z870	1.44	73.11	63.11	0.00
Z871	1.44	73.10	63.10	0.00
Z872	1.44	73.21	63.21	0.00
Z873	1.44	73.17	63.17	0.00
Z874	1.44	73.16	63.16	0.00
Z875	0.00	81.35	71.35	0.00
Z876	0.00	79.98	69.98	0.00
Z877	0.00	79.85	69.85	0.00
Z878	0.00	79.81	69.81	0.00
Z879	0.00	79.69	69.69	0.00
Z880	0.00	79.61	69.61	0.00
Z881	1.44	79.59	69.59	0.00
Z882	0.00	81.28	71.28	0.00
Z883	0.00	81.22	71.22	0.00
Z884	0.00	80.89	70.89	0.00
Z885	0.00	80.73	70.73	0.00
Z886	0.00	80.71	70.71	0.00
Z887	1.44	80.67	70.67	0.00
Z888	0.00	78.74	68.74	0.00
Z889	0.00	78.64	68.64	0.00
Z890	0.00	78.61	68.61	0.00
Z891	0.00	78.58	68.58	0.00
Z892	0.00	78.57	68.57	0.00
Z893	0.00	78.57	68.57	0.00
Z894	0.00	78.57	68.57	0.00
Z895	0.00	78.85	68.85	0.00
Z896	0.00	78.61	68.61	0.00
Z897	0.00	77.60	67.60	0.00
Z898	0.00	77.55	67.55	0.00
Z899	0.00	77.12	67.12	0.00
Z900	0.00	77.09	67.09	0.00
Z901	1.44	77.08	67.08	0.00
Z902	0.00	76.37	66.37	0.00
Z903	0.00	76.35	66.35	0.00
Z904	0.00	76.30	66.30	0.00
Z905	0.00	76.29	66.29	0.00
Z906	0.00	76.29	66.29	0.00
Z907	0.00	76.22	66.22	0.00
Z908	0.00	76.18	66.18	0.00
Z909	0.00	76.11	66.11	0.00
Z910	0.00	76.08	66.08	0.00
Z911	0.00	76.07	66.07	0.00
Z912	0.00	76.05	66.05	0.00
Z913	0.00	76.04	66.04	0.00
Z914	0.00	76.04	66.04	0.00
Z915	0.00	76.04	66.04	0.00
Z916	0.00	76.04	66.04	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z917	0.00	76.04	66.04	0.00
Z918	0.00	76.04	66.04	0.00
Z919	0.00	76.04	66.04	0.00
Z920	0.00	76.05	66.05	0.00
Z921	0.00	76.05	66.05	0.00
Z922	0.00	76.05	66.05	0.00
Z923	0.00	76.07	66.07	0.00
Z924	0.00	76.08	66.08	0.00
Z925	0.00	76.09	66.09	0.00
Z926	0.00	76.14	66.14	0.00
Z927	0.00	76.21	66.21	0.00
Z928	0.00	76.25	66.25	0.00
Z929	0.00	76.29	66.29	0.00
Z930	0.00	76.47	66.47	0.00
Z931	0.00	76.49	66.49	0.00
Z932	0.00	76.61	66.61	0.00
Z933	0.00	76.82	66.82	0.00
Z934	0.00	76.79	66.79	0.00
Z935	0.00	76.78	66.78	0.00
Z936	0.00	76.75	66.75	0.00
Z937	0.00	76.74	66.74	0.00
Z938	0.00	76.38	66.38	0.00
Z939	0.00	76.30	66.30	0.00
Z940	1.44	75.91	65.91	0.00
Z942	0.00	74.73	64.73	0.00
Z943	0.00	74.57	64.57	0.00
Z944	0.00	74.46	64.46	0.00
Z945	0.00	72.50	62.50	0.00
Z946	0.00	72.54	62.54	0.00
Z947	0.00	72.60	62.60	0.00
Z948	0.00	72.79	62.79	0.00
Z949	0.00	73.42	63.42	0.00
Z950	0.00	73.54	63.54	0.00
Z951	0.00	73.83	63.83	0.00
Z952	0.00	73.88	63.88	0.00
Z953	0.00	73.90	63.90	0.00
Z954	0.00	74.12	64.12	0.00
Z955	0.00	74.15	64.15	0.00
Z956	0.00	74.22	64.22	0.00
Z957	0.00	74.48	64.48	0.00
Z958	0.00	75.12	65.12	0.00
Z959	0.00	75.42	65.42	0.00
Z960	0.00	76.84	66.84	0.00
Z961	1.44	80.70	70.70	0.00
Z962	1.44	80.72	70.72	0.00
Z963	1.44	80.72	70.72	0.00
Z964	1.44	80.89	70.89	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z965	1.44	80.89	70.89	0.00
Z966	1.44	81.22	71.22	0.00
Z967	1.44	81.27	71.27	0.00
Z968	1.44	79.61	69.61	0.00
Z969	1.44	79.69	69.69	0.00
Z970	1.44	79.80	69.80	0.00
Z971	0.00	78.73	68.73	0.00
Z972	1.44	77.09	67.09	0.00
Z973	1.44	77.09	67.09	0.00
Z974	1.44	77.55	67.55	0.00
Z975	1.44	76.35	66.35	0.00
Z976	1.44	76.30	66.30	0.00
Z977	1.44	76.29	66.29	0.00
Z978	1.44	76.28	66.28	0.00
Z979	1.44	76.22	66.22	0.00
Z980	1.44	76.18	66.18	0.00
Z981	1.44	76.11	66.11	0.00
Z982	1.44	76.79	66.79	0.00
Z983	1.44	76.61	66.61	0.00
Z984	1.44	76.48	66.48	0.00
Z985	1.44	76.46	66.46	0.00
Z986	1.44	76.28	66.28	0.00
Z987	1.44	76.25	66.25	0.00
Z988	1.44	76.21	66.21	0.00
Z989	1.44	76.14	66.14	0.00
Z990	1.44	76.08	66.08	0.00
Z991	1.44	76.07	66.07	0.00
Z992	1.44	76.05	66.05	0.00
Z993	1.44	76.05	66.05	0.00
Z994	1.44	76.04	66.04	0.00
Z995	1.44	76.03	66.03	0.00
Z996	1.44	76.03	66.03	0.00
Z997	1.44	76.03	66.03	0.00
Z998	1.44	76.03	66.03	0.00
Z999	1.44	76.04	66.04	0.00
Z1000	1.44	76.04	66.04	0.00
Z1001	1.44	76.05	66.05	0.00
Z1002	1.44	76.06	66.06	0.00
Z1003	1.44	78.85	68.85	0.00
Z1004	1.44	78.60	68.60	0.00
Z1005	1.44	78.57	68.57	0.00
Z1006	1.44	78.57	68.57	0.00
Z1007	1.44	78.57	68.57	0.00
Z1008	1.44	78.57	68.57	0.00
Z1009	1.44	78.61	68.61	0.00
Z1010	1.44	78.64	68.64	0.00
Z1011	1.44	78.73	68.73	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1012	0.00	78.03	68.03	0.00
Z1013	0.00	77.02	67.02	0.00
Z1014	0.00	76.73	66.73	0.00
Z1015	0.00	76.00	66.00	0.00
Z1016	0.00	75.90	65.90	0.00
Z1017	0.00	75.64	65.64	0.00
Z1018	0.00	75.57	65.57	0.00
Z1019	0.00	75.52	65.52	0.00
Z1020	1.44	75.50	65.50	0.00
Z1021	0.00	75.63	65.63	0.00
Z1022	1.44	75.60	65.60	0.00
Z1023	1.44	78.03	68.03	0.00
Z1024	1.44	78.02	68.02	0.00
Z1025	1.44	77.02	67.02	0.00
Z1026	1.44	76.73	66.73	0.00
Z1027	1.44	76.00	66.00	0.00
Z1028	1.44	75.90	65.90	0.00
Z1029	1.44	75.57	65.57	0.00
Z1030	1.44	75.52	65.52	0.00
Z1031	1.44	75.62	65.62	0.00
Z1032	1.44	75.64	65.64	0.00
Z1033	0.00	75.64	65.64	0.00
Z1034	0.00	75.69	65.69	0.00
Z1035	0.00	75.88	65.88	0.00
Z1036	0.00	75.94	65.94	0.00
Z1037	0.00	76.18	66.18	0.00
Z1038	0.00	76.27	66.27	0.00
Z1039	1.44	75.64	65.64	0.00
Z1040	1.44	75.69	65.69	0.00
Z1041	1.44	75.88	65.88	0.00
Z1042	1.44	75.94	65.94	0.00
Z1043	1.44	76.17	66.17	0.00
Z1044	1.44	76.26	66.26	0.00
Z1045	1.44	76.26	66.26	0.00
Z1046	0.00	75.91	65.91	0.00
Z1047	0.00	75.77	65.77	0.00
Z1048	0.00	75.59	65.59	0.00
Z1049	0.00	75.50	65.50	0.00
Z1050	0.00	75.34	65.34	0.00
Z1051	0.00	75.30	65.30	0.00
Z1052	0.00	74.90	64.90	0.00
Z1053	0.00	74.85	64.85	0.00
Z1054	0.00	74.84	64.84	0.00
Z1055	1.44	74.83	64.83	0.00
Z1056	1.44	74.83	64.83	0.00
Z1057	1.44	74.85	64.85	0.00
Z1058	1.44	74.89	64.89	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1059	1.44	75.30	65.30	0.00
Z1060	1.44	75.33	65.33	0.00
Z1061	1.44	75.49	65.49	0.00
Z1062	1.44	75.58	65.58	0.00
Z1063	1.44	75.77	65.77	0.00
Z1064	1.44	75.91	65.91	0.00
Z1065	0.00	75.97	65.97	0.00
Z1066	0.00	75.61	65.61	0.00
Z1067	0.00	75.39	65.39	0.00
Z1068	0.00	75.38	65.38	0.00
Z1069	0.00	75.36	65.36	0.00
Z1070	1.44	75.36	65.36	0.00
Z1071	1.44	75.36	65.36	0.00
Z1072	1.44	75.37	65.37	0.00
Z1073	1.44	75.39	65.39	0.00
Z1074	1.44	75.61	65.61	0.00
Z1075	1.44	75.97	65.97	0.00
Z1076	0.00	76.01	66.01	0.00
Z1077	0.00	75.42	65.42	0.00
Z1078	0.00	75.27	65.27	0.00
Z1079	0.00	75.20	65.20	0.00
Z1080	0.00	75.09	65.09	0.00
Z1081	1.44	75.07	65.07	0.00
Z1082	1.44	76.01	66.01	0.00
Z1083	1.44	76.01	66.01	0.00
Z1084	1.44	75.42	65.42	0.00
Z1085	1.44	75.27	65.27	0.00
Z1086	1.44	75.20	65.20	0.00
Z1087	1.44	75.08	65.08	0.00
Z1088	0.00	76.65	66.65	0.00
Z1089	0.00	76.49	66.49	0.00
Z1090	0.00	76.32	66.32	0.00
Z1091	0.00	76.17	66.17	0.00
Z1092	0.00	76.12	66.12	0.00
Z1093	1.44	76.11	66.11	0.00
Z1094	0.00	76.14	66.14	0.00
Z1095	0.00	76.13	66.13	0.00
Z1096	1.44	76.12	66.12	0.00
Z1097	1.44	76.65	66.65	0.00
Z1098	1.44	76.48	66.48	0.00
Z1099	1.44	76.32	66.32	0.00
Z1100	1.44	76.16	66.16	0.00
Z1101	1.44	76.12	66.12	0.00
Z1102	1.44	76.13	66.13	0.00
Z1103	1.44	76.29	66.29	0.00
Z1104	0.00	71.61	61.61	0.00
Z1105	1.44	71.59	61.59	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1106	1.44	71.61	61.61	0.00
Z1107	1.44	71.61	61.61	0.00
Z1108	0.00	75.67	65.67	0.00
Z1109	0.00	75.46	65.46	0.00
Z1110	0.00	75.45	65.45	0.00
Z1111	0.00	75.48	65.48	0.00
Z1112	0.00	75.35	65.35	0.00
Z1113	0.00	75.31	65.31	0.00
Z1114	1.44	75.31	65.31	0.00
Z1115	1.44	75.31	65.31	0.00
Z1116	1.44	75.34	65.34	0.00
Z1117	1.44	75.48	65.48	0.00
Z1118	1.44	75.45	65.45	0.00
Z1119	1.44	75.34	65.34	0.00
Z1120	1.44	74.72	64.72	0.00
Z1121	1.44	74.72	64.72	0.00
Z1122	1.44	74.57	64.57	0.00
Z1123	1.44	74.57	64.57	0.00
Z1124	1.44	74.45	64.45	0.00
Z1125	1.44	74.45	64.45	0.00
Z1126	1.44	72.49	62.49	0.00
Z1127	1.44	72.49	62.49	0.00
Z1128	1.44	72.54	62.54	0.00
Z1129	1.44	72.59	62.59	0.00
Z1130	0.00	72.78	62.78	0.00
Z1131	1.44	72.78	62.78	0.00
Z1132	1.44	72.78	62.78	0.00
Z1133	1.44	73.42	63.42	0.00
Z1134	1.44	73.54	63.54	0.00
Z1135	1.44	73.83	63.83	0.00
Z1136	1.44	73.87	63.87	0.00
Z1137	1.44	73.90	63.90	0.00
Z1138	1.44	74.12	64.12	0.00
Z1139	1.44	74.12	64.12	0.00
Z1140	1.44	74.15	64.15	0.00
Z1141	1.44	74.22	64.22	0.00
Z1142	0.00	75.55	65.55	0.00
Z1143	0.00	75.41	65.41	0.00
Z1144	0.00	74.81	64.81	0.00
Z1145	0.00	74.79	64.79	0.00
Z1146	0.00	74.75	64.75	0.00
Z1147	0.00	74.75	64.75	0.00
Z1148	1.44	74.74	64.74	0.00
Z1149	1.44	74.74	64.74	0.00
Z1150	1.44	74.75	64.75	0.00
Z1151	1.44	74.79	64.79	0.00
Z1152	1.44	75.41	65.41	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1153	1.44	75.55	65.55	0.00
Z1154	0.00	74.50	64.50	0.00
Z1155	0.00	74.50	64.50	0.00
Z1156	1.44	74.49	64.49	0.00
Z1157	1.44	74.50	64.50	0.00
Z1158	1.44	74.50	64.50	0.00
Z1159	1.44	75.42	65.42	0.00
Z1160	0.00	72.05	62.05	0.00
Z1161	0.00	72.04	62.04	0.00
Z1162	0.00	71.78	61.78	0.00
Z1163	0.00	71.67	61.67	0.00
Z1164	1.44	72.05	62.05	0.00
Z1166	1.44	75.11	65.11	0.00
Z1167	1.44	72.04	62.04	0.00
Z1168	1.44	71.77	61.77	0.00
Z1169	1.44	71.77	61.77	0.00
Z1170	1.44	71.67	61.67	0.00
Z1171	1.44	71.67	61.67	0.00
Z1172	0.00	76.76	66.76	0.00
Z1173	1.44	76.74	66.74	0.00
Z1174	1.44	76.76	66.76	0.00
Z1175	0.00	76.78	66.78	0.00
Z1176	0.00	76.76	66.76	0.00
Z1177	0.00	76.71	66.71	0.00
Z1178	0.00	76.70	66.70	0.00
Z1179	0.00	76.60	66.60	0.00
Z1180	0.00	76.57	66.57	0.00
Z1181	1.44	76.57	66.57	0.00
Z1182	1.44	76.71	66.71	0.00
Z1183	1.44	76.70	66.70	0.00
Z1184	1.44	76.60	66.60	0.00
Z1185	1.44	76.57	66.57	0.00
Z1186	0.00	76.54	66.54	0.00
Z1187	0.00	76.45	66.45	0.00
Z1188	0.00	76.43	66.43	0.00
Z1189	0.00	76.38	66.38	0.00
Z1190	0.00	76.38	66.38	0.00
Z1191	1.44	76.37	66.37	0.00
Z1192	1.44	76.37	66.37	0.00
Z1193	1.44	76.38	66.38	0.00
Z1194	1.44	76.43	66.43	0.00
Z1195	1.44	76.44	66.44	0.00
Z1196	0.00	76.50	66.50	0.00
Z1197	0.00	76.50	66.50	0.00
Z1198	0.00	76.46	66.46	0.00
Z1199	0.00	76.42	66.42	0.00
Z1200	0.00	76.41	66.41	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1201	1.44	76.41	66.41	0.00
Z1202	0.00	76.43	66.43	0.00
Z1203	0.00	76.34	66.34	0.00
Z1204	0.00	76.33	66.33	0.00
Z1205	1.44	76.33	66.33	0.00
Z1206	1.44	76.50	66.50	0.00
Z1207	1.44	76.49	66.49	0.00
Z1208	1.44	76.43	66.43	0.00
Z1209	1.44	76.42	66.42	0.00
Z1210	1.44	76.41	66.41	0.00
Z1211	1.44	76.33	66.33	0.00
Z1212	1.44	76.34	66.34	0.00
Z1213	1.44	75.94	65.94	0.00
Z1214	0.00	76.74	66.74	0.00
Z1215	1.44	81.94	71.94	0.00
Z1216	1.44	81.94	71.94	0.00
Z1217	1.44	79.60	69.60	0.00
Z1218	1.44	78.55	68.55	0.00
Z1219	1.44	78.11	68.11	0.00
Z1220	1.44	77.77	67.77	0.00
Z1221	1.44	77.47	67.47	0.00
Z1222	1.44	77.43	67.43	0.00
Z1223	1.44	77.37	67.37	0.00
Z1224	1.44	77.36	67.36	0.00
Z1225	0.00	73.93	63.93	0.00
Z1226	0.00	73.92	63.92	0.00
Z1227	0.00	73.91	63.91	0.00
Z1228	1.44	73.92	63.92	0.00
Z1229	1.44	73.92	63.92	0.00
Z1230	1.44	73.91	63.91	0.00
Z1231	1.44	73.91	63.91	0.00
Z1232	0.00	73.64	63.64	0.00
Z1233	1.44	73.64	63.64	0.00
Z1234	0.00	73.64	63.64	0.00
Z1235	1.44	73.63	63.63	0.00
Z1236	0.00	73.64	63.64	0.00
Z1237	1.44	73.63	63.63	0.00
Z1238	1.44	73.64	63.64	0.00
Z1239	1.44	71.74	61.74	0.00
Z1240	1.44	71.74	61.74	0.00
Z1241	1.44	71.84	61.84	0.00
Z1242	1.44	71.85	61.85	0.00
Z1243	0.00	71.79	61.79	0.00
Z1244	0.00	72.07	62.07	0.00
Z1245	0.00	73.67	63.67	0.00
Z1246	0.00	75.91	65.91	0.00
Z1247	0.00	74.74	64.74	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality	Status
Z1248 S1	0.00 -901.44	77.06 10.00	67.06 0.00	0.00	0.00 Reservoir
Link Results:					
Link ID	Flow LPS	Velocity m/s	Unit m/km	Headloss	Status
G20	901.44	3.19	12.87		Open
G1	714.33	2.53	8.15		Open
R3	187.11	1.49	15.73		Open
R4	185.67	1.48	4.67		Open
R5	184.23	1.47	4.60		Open
R6	182.79	1.45	4.53		Open
R7	181.35	1.44	4.46		Open
R8	179.91	1.43	4.39		Open
R9	178.47	1.42	4.32		Open
R10	177.03	1.41	4.26		Open
R11	175.59	1.40	4.19		Open
R12	174.15	1.39	4.12		Open
R13	172.71	1.37	4.06		Open
R14	171.27	1.36	3.99		Open
R15	169.83	1.35	3.93		Open
R16	168.39	1.34	3.86		Open
R17	166.95	1.33	3.80		Open
R18	139.59	1.11	2.69		Open
R19	138.15	1.10	2.63		Open
R20	136.71	1.09	2.58		Open
R21	135.27	1.08	2.53		Open
R22	133.83	1.06	2.48		Open
R23	132.39	1.05	2.42		Open
R24	130.95	1.04	2.37		Open
R25	129.51	1.03	2.32		Open
R26	128.07	1.02	2.27		Open
R27	126.63	1.01	2.22		Open
R28	125.19	1.00	2.18		Open
R56	1.44	0.20	0.54		Open
R57	1.44	0.20	0.54		Open
R58	1.44	0.20	0.54		Open
R59	1.44	0.20	0.54		Open
R60	1.44	0.20	0.54		Open
R61	1.44	0.20	0.54		Open
R62	1.44	0.20	0.54		Open
R63	1.44	0.20	0.54		Open
R64	1.44	0.19	0.49		Open
R65	1.44	0.20	0.54		Open
R66	1.44	0.20	0.54		Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit m/km	Headloss	Status
R67	1.44	0.20	0.54		Open
R68	1.44	0.20	0.54		Open
R69	1.44	0.20	0.54		Open
R29	27.36	1.75	49.00		Open
R71	1.44	0.20	0.54		Open
R72	1.44	0.20	0.54		Open
R73	1.44	0.20	0.54		Open
R74	1.44	0.20	0.54		Open
R75	1.44	0.20	0.54		Open
R76	1.44	0.20	0.54		Open
R77	1.44	0.20	0.54		Open
R78	1.44	0.20	0.54		Open
R79	1.44	0.20	0.54		Open
R80	1.44	0.20	0.54		Open
R81	1.44	0.20	0.54		Open
R30	12.96	0.83	11.00		Open
R31	11.52	0.74	3.62		Open
R32	10.08	0.65	2.84		Open
R33	8.64	0.55	2.15		Open
R34	7.20	0.46	1.55		Open
R35	5.76	0.37	1.04		Open
R36	4.32	0.28	0.62		Open
R37	2.88	0.18	0.30		Open
R38	1.44	0.09	0.09		Open
R91	1.44	0.20	0.54		Open
R92	1.44	0.20	0.54		Open
R93	1.44	0.20	0.54		Open
R94	1.44	0.20	0.54		Open
R95	1.44	0.20	0.54		Open
R96	1.44	0.20	0.54		Open
R97	1.44	0.20	0.54		Open
R98	1.44	0.20	0.54		Open
R39	12.96	0.83	4.49		Open
R40	11.52	0.74	3.62		Open
R41	10.08	0.65	2.84		Open
R42	8.64	0.55	2.15		Open
R43	7.20	0.46	1.55		Open
R44	5.76	0.37	1.04		Open
R45	4.32	0.28	0.62		Open
R46	2.88	0.18	0.30		Open
R47	1.44	0.09	0.09		Open
R107	1.44	0.20	0.54		Open
R108	1.44	0.20	0.54		Open
R109	1.44	0.20	0.54		Open
R110	1.44	0.20	0.54		Open
R111	1.44	0.20	0.54		Open
R112	1.44	0.20	0.54		Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R113	1.44	0.20	0.54	Open	
R114	1.44	0.20	0.54	Open	
R49	123.75	0.98	2.13	Open	
R50	120.87	0.96	2.03	Open	
R51	115.11	0.92	1.85	Open	
R52	113.67	0.90	1.81	Open	
R53	112.23	0.89	1.76	Open	
R54	110.79	0.88	1.72	Open	
R55	5.76	0.37	1.81	Open	
R120	4.32	0.28	0.62	Open	
R121	2.88	0.18	0.30	Open	
R122	1.44	0.20	0.54	Open	
R123	1.44	0.20	0.54	Open	
R124	1.44	0.20	0.54	Open	
R125	-1.44	0.20	0.54	Open	
R126	1.44	0.09	0.09	Open	
R127	1.44	0.20	0.54	Open	
R82	103.59	0.82	1.51	Open	
R83	99.27	0.79	1.39	Open	
R84	105.03	0.84	1.55	Open	
R85	97.83	0.78	1.35	Open	
R86	96.39	0.77	1.32	Open	
R87	94.95	0.76	1.28	Open	
R88	93.51	0.74	1.24	Open	
R89	92.07	0.73	1.21	Open	
R90	90.63	0.72	1.17	Open	
R99	89.19	0.71	1.13	Open	
R100	86.31	0.69	12.45	Open	
R101	4.32	0.28	1.11	Open	
R102	2.88	0.18	0.30	Open	
R103	1.44	0.09	0.09	Open	
R104	1.44	0.20	0.54	Open	
R105	1.44	0.20	0.54	Open	
R106	1.44	0.20	0.54	Open	
R115	1.44	0.20	0.54	Open	
R116	1.44	0.09	0.09	Open	
R117	1.44	0.20	0.54	Open	
R118	5.76	0.37	2.07	Open	
R119	4.32	0.28	1.90	Open	
R128	1.44	0.09	0.09	Open	
R129	1.44	0.20	0.54	Open	
R130	1.44	0.20	0.54	Open	
GI31	358.70	1.27	2.12	Open	
R131	12.96	0.83	20.28	Open	
R132	5.76	0.37	1.67	Open	
R133	4.32	0.28	0.62	Open	
R134	2.88	0.18	0.30	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R135	1.44	0.09	0.09	Open	
R136	7.20	0.46	1.55	Open	
R137	5.76	0.37	1.04	Open	
R138	4.32	0.28	0.62	Open	
R139	2.88	0.18	0.30	Open	
R140	1.44	0.09	0.09	Open	
R141	1.44	0.20	0.54	Open	
R142	1.44	0.20	0.54	Open	
R143	1.44	0.20	0.54	Open	
R144	1.44	0.20	0.54	Open	
R145	1.44	0.20	0.54	Open	
R146	1.44	0.20	0.54	Open	
R147	1.44	0.20	0.54	Open	
GI48	345.74	1.22	1.98	Open	
GI49	314.06	1.11	1.64	Open	
R149	15.84	1.01	22.75	Open	
R150	12.96	0.83	4.49	Open	
R151	11.52	0.74	3.62	Open	
R152	10.08	0.65	2.84	Open	
R153	8.64	0.55	2.15	Open	
R154	4.32	0.28	1.17	Open	
R155	2.88	0.18	0.30	Open	
R156	4.32	0.28	0.62	Open	
R157	2.88	0.18	0.30	Open	
R158	1.44	0.09	0.09	Open	
R159	2.88	0.18	0.48	Open	
R160	1.44	0.09	0.09	Open	
R161	1.44	0.20	0.54	Open	
R162	1.44	0.20	0.54	Open	
R163	1.44	0.20	0.54	Open	
R164	1.44	0.20	0.54	Open	
R165	1.44	0.20	0.54	Open	
R166	1.44	0.20	0.54	Open	
R167	1.44	0.20	0.54	Open	
R168	1.44	0.20	0.54	Open	
R169	1.44	0.20	0.54	Open	
GI70	298.22	1.05	1.48	Open	
GI71	182.85	1.46	5.42	Open	
GI72	140.28	1.12	2.71	Open	
R172	20.16	0.66	5.64	Open	
R173	18.72	0.61	1.71	Open	
R174	17.28	0.56	1.48	Open	
R175	15.84	0.52	1.27	Open	
R176	14.40	0.47	1.07	Open	
R177	12.96	0.42	0.88	Open	
R178	4.32	0.28	1.24	Open	
R179	2.88	0.18	0.30	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit m/km	Headloss	Status
R180	1.44	0.09	0.09	0.09	Open
R181	8.64	0.55	2.28	2.28	Open
R182	7.20	0.46	1.55	1.55	Open
R183	2.88	0.18	0.44	0.44	Open
R184	1.44	0.09	0.09	0.09	Open
R185	4.32	0.28	0.62	0.62	Open
R186	2.88	0.18	0.30	0.30	Open
R187	1.44	0.09	0.09	0.09	Open
R188	1.44	0.20	0.54	0.54	Open
R189	1.44	0.20	0.54	0.54	Open
R190	1.44	0.20	0.54	0.54	Open
R191	1.44	0.20	0.54	0.54	Open
R192	1.44	0.20	0.54	0.54	Open
R193	1.44	0.20	0.54	0.54	Open
R194	1.44	0.20	0.54	0.54	Open
R195	1.44	0.20	0.54	0.54	Open
R196	1.44	0.20	0.54	0.54	Open
R197	1.44	0.20	0.54	0.54	Open
R198	1.44	0.20	0.54	0.54	Open
G199	120.12	0.96	2.01	2.01	Open
G200	115.80	0.92	2.08	2.08	Open
G201	107.12	0.55	0.52	0.52	Open
G202	99.92	0.51	0.46	0.46	Open
G203	72.56	0.37	0.25	0.25	Open
R200	7.20	0.46	9.05	9.05	Open
R201	4.32	0.28	1.85	1.85	Open
R202	2.88	0.18	0.30	0.30	Open
R203	1.44	0.09	0.09	0.09	Open
R204	2.88	0.18	0.30	0.30	Open
R205	1.44	0.09	0.09	0.09	Open
R206	1.44	0.20	0.54	0.54	Open
R207	1.44	0.20	0.54	0.54	Open
R208	1.44	0.20	0.54	0.54	Open
R209	27.36	0.89	23.23	23.23	Open
R210	21.60	0.71	2.22	2.22	Open
R211	20.16	0.66	1.96	1.96	Open
R212	15.84	0.52	1.27	1.27	Open
R213	14.40	0.47	1.07	1.07	Open
R214	12.96	0.42	0.88	0.88	Open
R215	11.52	0.38	0.71	0.71	Open
R216	10.08	0.33	0.56	0.56	Open
R217	8.64	0.28	0.43	0.43	Open
R218	4.32	0.28	0.69	0.69	Open
R219	2.88	0.18	0.30	0.30	Open
R220	1.44	0.09	0.09	0.09	Open
R221	4.32	0.28	0.65	0.65	Open
R222	2.88	0.18	0.30	0.30	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit m/km	Headloss	Status
R223	1.44	0.09	0.09	0.09	Open
R224	4.32	0.28	0.63	0.63	Open
R225	2.88	0.18	0.30	0.30	Open
R226	1.44	0.09	0.09	0.09	Open
R48	31.68	1.04	4.84	4.84	Open
R70	31.68	1.04	4.48	4.48	Open
R148	30.24	0.99	4.11	4.11	Open
R170	25.92	0.85	3.10	3.10	Open
R171	24.48	1.57	28.34	28.34	Open
R199	23.04	1.48	12.90	12.90	Open
R227	21.60	1.38	11.45	11.45	Open
R228	20.16	1.29	10.08	10.08	Open
R229	18.72	1.20	8.80	8.80	Open
R230	15.84	1.01	6.48	6.48	Open
R231	12.96	0.83	4.49	4.49	Open
R232	11.52	0.74	3.62	3.62	Open
R233	10.08	0.65	2.84	2.84	Open
R234	5.76	0.37	1.72	1.72	Open
R235	2.88	0.18	0.30	0.30	Open
R236	1.44	0.09	0.09	0.09	Open
R237	4.32	0.28	2.96	2.96	Open
R238	2.88	0.18	0.30	0.30	Open
R239	1.44	0.20	0.54	0.54	Open
R240	27.36	0.89	3.42	3.42	Open
R241	1.44	0.20	0.54	0.54	Open
R242	1.44	0.09	0.09	0.09	Open
R243	1.44	0.20	0.54	0.54	Open
R244	1.44	0.20	0.54	0.54	Open
R245	1.44	0.20	0.54	0.54	Open
R246	1.44	0.20	0.54	0.54	Open
R247	1.44	0.20	0.54	0.54	Open
R248	1.44	0.20	0.54	0.54	Open
R249	1.44	0.20	0.54	0.54	Open
R250	1.44	0.20	0.54	0.54	Open
R251	1.44	0.20	0.54	0.54	Open
R252	1.44	0.20	0.54	0.54	Open
R253	1.44	0.20	0.54	0.54	Open
R254	1.44	0.20	0.54	0.54	Open
R255	4.32	0.28	0.62	0.62	Open
R256	1.44	0.20	0.54	0.54	Open
R257	1.44	0.20	0.54	0.54	Open
R258	1.44	0.20	0.54	0.54	Open
R259	1.44	0.20	0.54	0.54	Open
R260	1.44	0.20	0.54	0.54	Open
R261	1.44	0.20	0.54	0.54	Open
R263	8.64	0.55	2.15	2.15	Open
R264	7.20	0.46	1.55	1.55	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R265	5.76	0.37		1.04	Open
R266	4.32	0.28		0.62	Open
R267	2.88	0.18		0.30	Open
R268	1.44	0.09		0.09	Open
R269	-8.64	0.55		2.20	Open
R270	2.88	0.18		0.71	Open
R271	-93.56	0.74		1.24	Open
R272	7.20	0.46		1.68	Open
R273	5.76	0.37		1.04	Open
R274	4.32	0.28		0.62	Open
R275	2.88	0.18		0.30	Open
R276	1.44	0.09		0.09	Open
R277	24.48	1.57		46.62	Open
R278	1.44	0.09		0.09	Open
R279	15.84	1.01		6.48	Open
R280	14.40	0.92		5.44	Open
R281	-118.04	0.94		1.94	Open
R282	1.44	0.20		0.54	Open
R283	1.44	0.20		0.54	Open
R284	1.44	0.20		0.54	Open
R285	1.44	0.20		0.54	Open
R286	1.44	0.20		0.54	Open
R287	1.44	0.20		0.54	Open
R288	1.44	0.20		0.54	Open
R289	1.44	0.20		0.54	Open
R290	1.44	0.20		0.54	Open
R291	1.44	0.20		0.54	Open
R292	1.44	0.20		0.54	Open
R293	1.44	0.20		0.54	Open
R294	82.04	0.65		0.97	Open
R295	31.68	1.04		39.57	Open
R296	10.08	0.65		2.91	Open
R297	1.44	0.20		0.54	Open
R298	8.64	0.55		2.15	Open
R299	8.64	0.55		2.15	Open
R300	7.20	0.46		1.55	Open
R301	4.32	0.28		0.62	Open
R302	2.88	0.18		0.30	Open
R303	1.44	0.09		0.09	Open
R304	2.88	0.18		0.31	Open
R305	1.44	0.20		0.54	Open
R306	1.44	0.09		0.09	Open
R307	1.44	0.20		0.54	Open
R308	1.44	0.20		0.54	Open
R309	1.44	0.20		0.54	Open
R310	50.36	0.40		0.38	Open
R311	21.60	0.71		2.22	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R312	18.72	0.61		1.71	Open
R313	17.28	1.11		8.98	Open
R314	15.84	1.01		6.48	Open
R315	14.40	0.92		5.44	Open
R316	12.96	0.83		4.49	Open
R317	11.52	0.74		3.62	Open
R318	10.08	0.65		2.84	Open
R319	7.20	0.46		1.55	Open
R320	5.76	0.37		1.04	Open
R321	4.32	0.28		0.62	Open
R322	2.88	0.18		0.30	Open
R323	1.44	0.20		0.54	Open
R324	1.44	0.20		0.54	Open
R325	1.44	0.20		0.54	Open
R326	1.44	0.20		0.54	Open
R327	1.44	0.20		0.54	Open
R328	1.44	0.20		0.54	Open
R329	1.44	0.20		0.54	Open
R330	1.44	0.20		0.54	Open
R331	1.44	0.20		0.54	Open
R332	1.44	0.20		0.54	Open
R333	1.44	0.20		0.54	Open
R334	1.44	0.20		0.54	Open
R335	1.44	0.20		0.54	Open
R336	1.44	0.20		0.54	Open
R337	1.44	0.20		0.54	Open
R338	11.52	0.74		3.80	Open
R339	8.64	0.55		2.15	Open
R340	7.20	0.46		1.55	Open
R341	5.76	0.37		1.04	Open
R342	2.88	0.18		0.30	Open
R343	1.44	0.09		0.10	Open
R344	1.44	0.09		0.09	Open
R345	1.44	0.20		0.54	Open
R346	1.44	0.20		0.54	Open
R347	1.44	0.20		0.54	Open
R348	1.44	0.20		0.54	Open
R349	1.44	0.20		0.54	Open
R350	1.44	0.20		0.54	Open
R351	10.08	0.65		2.84	Open
R352	38.84	0.31		0.24	Open
R353	8.60	0.07		0.01	Open
R354	8.68	0.07		0.02	Open
R355	5.76	0.37		3.53	Open
R356	4.32	0.28		0.62	Open
R357	1.44	0.09		0.09	Open
R358	1.44	0.20		0.54	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R359	1.44	0.20	0.54	Open	
R360	1.44	0.20	0.54	Open	
R361	24.48	0.80	5.37	Open	
R362	23.04	0.75	2.50	Open	
R363	21.60	0.71	2.22	Open	
R364	5.76	0.37	2.46	Open	
R365	4.32	0.28	0.62	Open	
R366	2.88	0.18	0.30	Open	
R367	1.44	0.09	0.09	Open	
R368	1.44	0.09	0.10	Open	
R369	15.84	1.01	7.99	Open	
R370	14.40	0.92	5.44	Open	
R371	12.96	0.83	4.49	Open	
R372	11.52	0.74	3.62	Open	
R373	4.32	0.28	0.71	Open	
R374	2.88	0.18	0.30	Open	
R375	1.44	0.09	0.09	Open	
R376	7.20	0.46	1.55	Open	
R377	5.76	0.37	1.04	Open	
R378	4.32	0.28	0.62	Open	
R379	1.44	0.09	0.09	Open	
R380	1.44	0.20	0.54	Open	
R381	1.44	0.20	0.54	Open	
R382	1.44	0.20	0.54	Open	
R383	1.44	0.20	0.54	Open	
R384	1.44	0.20	0.54	Open	
R385	1.44	0.20	0.54	Open	
R386	1.44	0.20	0.54	Open	
R387	1.44	0.20	0.54	Open	
R388	1.44	0.20	0.54	Open	
R389	17.28	1.11	30.06	Open	
R390	8.64	0.55	2.15	Open	
R391	7.20	0.46	1.55	Open	
R392	5.76	0.37	1.04	Open	
R393	4.32	0.28	0.62	Open	
R394	2.88	0.18	0.30	Open	
R395	1.44	0.09	0.09	Open	
R396	1.44	0.20	0.54	Open	
R397	1.44	0.20	0.54	Open	
R398	1.44	0.20	0.54	Open	
R399	1.44	0.20	0.54	Open	
R400	1.44	0.09	0.09	Open	
R401	8.64	0.55	3.61	Open	
R402	1.44	0.20	0.54	Open	
R403	1.44	0.20	0.54	Open	
R404	5.76	0.37	1.04	Open	
R405	1.44	0.20	0.54	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R406	1.44	0.20	0.54	Open	
R407	2.88	0.18	0.30	Open	
R408	1.44	0.20	0.54	Open	
R409	1.44	0.09	0.09	Open	
R410	5.76	0.37	1.13	Open	
R411	4.32	0.28	0.62	Open	
R412	2.88	0.18	0.30	Open	
R413	1.44	0.09	0.09	Open	
R414	1.44	0.20	0.54	Open	
R415	1.44	0.20	0.54	Open	
R416	1.44	0.20	0.54	Open	
R417	1.44	0.20	0.54	Open	
R418	1.44	0.20	0.54	Open	
R419	1.44	0.20	0.54	Open	
R420	1.44	0.20	0.54	Open	
R421	1.44	0.20	0.54	Open	
R422	1.44	0.20	0.54	Open	
R423	1.44	0.20	0.54	Open	
R424	1.44	0.20	0.54	Open	
R425	1.44	0.20	0.54	Open	
R426	1.44	0.20	0.54	Open	
R427	1.44	0.20	0.54	Open	
R428	1.44	0.20	0.54	Open	
G429	58.16	0.30	0.17	Open	
G430	50.96	0.26	0.16	Open	
G431	46.01	0.23	0.11	Open	
R429	24.48	0.32	0.91	Open	
R431	1.44	0.09	0.14	Open	
R433	-1.44	0.09	0.09	Open	
R434	-2.88	0.18	0.30	Open	
R435	-4.32	0.28	0.62	Open	
R436	-5.76	0.37	1.22	Open	
R437	-8.64	0.28	0.43	Open	
R438	-10.08	0.33	0.56	Open	
R439	-11.52	0.38	0.71	Open	
R440	-12.96	0.42	0.88	Open	
R441	-14.40	0.47	1.38	Open	
R442	1.44	0.20	0.54	Open	
R443	1.44	0.20	0.54	Open	
R444	1.44	0.20	0.54	Open	
R445	1.44	0.20	0.54	Open	
R446	1.44	0.20	0.54	Open	
R447	1.44	0.20	0.54	Open	
R448	1.44	0.20	0.54	Open	
R449	1.44	0.20	0.54	Open	
R450	1.44	0.20	0.54	Open	
R451	1.44	0.20	0.54	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R452	1.44	0.20	0.54	Open	
R453	1.44	0.20	0.54	Open	
R454	1.44	0.20	0.54	Open	
R455	7.20	0.46	5.98	Open	
R456	2.88	0.18	0.30	Open	
R457	1.44	0.20	0.54	Open	
R458	1.44	0.09	0.09	Open	
R459	4.32	0.28	0.70	Open	
R460	2.88	0.18	0.30	Open	
R461	1.44	0.09	0.09	Open	
R462	1.44	0.20	0.54	Open	
R463	1.44	0.20	0.54	Open	
R464	4.32	0.28	4.13	Open	
R465	2.88	0.18	0.30	Open	
R466	1.44	0.09	0.09	Open	
R467	1.44	0.20	0.54	Open	
R468	1.44	0.20	0.54	Open	
R469	20.16	0.33	2.50	Open	
R470	18.72	0.31	0.33	Open	
R471	17.28	0.29	0.29	Open	
R472	15.84	0.26	0.24	Open	
R473	1.44	0.20	0.54	Open	
R474	1.44	0.20	0.54	Open	
R475	1.44	0.20	0.54	Open	
R476	1.44	0.20	0.54	Open	
R477	14.40	0.24	0.21	Open	
R478	12.96	0.34	0.56	Open	
R479	11.52	0.30	0.41	Open	
R480	1.44	0.20	0.54	Open	
R481	1.44	0.20	0.54	Open	
R482	11.52	0.38	0.75	Open	
R483	10.08	0.33	0.56	Open	
R484	7.20	0.46	3.72	Open	
R485	4.32	0.28	0.62	Open	
R486	2.88	0.18	0.30	Open	
R487	1.44	0.09	0.09	Open	
R488	2.88	0.18	0.32	Open	
R489	1.44	0.20	0.54	Open	
R490	1.44	0.20	0.54	Open	
R491	1.44	0.09	0.09	Open	
R492	1.44	0.20	0.54	Open	
R493	1.44	0.20	0.54	Open	
R494	1.44	0.20	0.54	Open	
R495	1.44	0.20	0.54	Open	
R496	42.57	1.11	5.49	Open	
R497	15.84	1.01	23.95	Open	
R498	2.88	0.18	0.88	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R499	1.44	0.09	0.09	Open	
R500	1.44	0.20	0.54	Open	
R501	1.44	0.20	0.54	Open	
R502	12.96	0.83	4.49	Open	
R503	11.52	0.74	3.62	Open	
R504	10.08	0.65	2.84	Open	
R505	1.44	0.20	0.54	Open	
R506	1.44	0.20	0.54	Open	
R507	8.64	0.55	2.15	Open	
R508	7.20	0.46	1.55	Open	
R509	1.44	0.20	0.54	Open	
R510	1.44	0.09	0.10	Open	
R511	5.76	0.37	1.04	Open	
R512	4.32	0.28	0.62	Open	
R513	2.88	0.18	0.30	Open	
R514	1.44	0.09	0.09	Open	
R515	1.44	0.20	0.54	Open	
R516	1.44	0.20	0.54	Open	
R517	1.44	0.20	0.54	Open	
R518	26.73	0.70	1.89	Open	
R519	25.29	0.66	1.71	Open	
R520	23.85	0.62	1.53	Open	
R521	1.44	0.20	0.54	Open	
R522	1.44	0.20	0.54	Open	
R523	4.32	0.28	1.61	Open	
R524	2.88	0.18	0.30	Open	
R525	1.44	0.09	0.09	Open	
R526	1.44	0.20	0.54	Open	
R527	1.44	0.20	0.54	Open	
R528	19.53	0.51	1.07	Open	
R529	4.95	0.13	0.36	Open	
R530	3.51	0.09	0.05	Open	
R531	2.07	0.05	0.02	Open	
R532	0.63	0.02	0.00	Open	
R533	-0.81	0.02	0.00	Open	
R534	-2.25	0.06	0.02	Open	
R535	1.44	0.20	0.54	Open	
R536	1.44	0.20	0.54	Open	
R537	1.44	0.20	0.54	Open	
R538	1.44	0.20	0.54	Open	
R539	1.44	0.20	0.54	Open	
R540	17.28	0.56	8.13	Open	
R541	4.32	0.28	0.66	Open	
R542	2.88	0.18	0.30	Open	
R543	1.44	0.09	0.09	Open	
R544	1.44	0.20	0.54	Open	
R545	1.44	0.20	0.54	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R546	12.96	0.42		0.88	Open
R547	11.52	0.38		0.71	Open
R548	10.08	0.33		0.56	Open
R549	4.32	0.28		1.34	Open
R550	2.88	0.18		0.30	Open
R551	1.44	0.09		0.09	Open
R552	1.44	0.20		0.54	Open
R553	1.44	0.20		0.54	Open
R554	1.44	0.20		0.54	Open
R555	1.44	0.20		0.54	Open
R556	1.44	0.20		0.54	Open
R557	5.76	0.37		1.17	Open
R558	4.32	0.28		0.62	Open
R559	2.88	0.18		0.30	Open
R560	1.44	0.09		0.09	Open
R561	1.44	0.20		0.54	Open
R562	1.44	0.20		0.54	Open
R563	1.44	0.20		0.54	Open
R564	115.36	0.59		0.65	Open
G565	21.53	0.11		0.03	Open
R565	11.52	0.74		7.46	Open
R566	7.20	0.46		1.55	Open
R567	5.76	0.37		1.04	Open
R568	1.44	0.09		0.10	Open
R569	4.32	0.28		0.62	Open
R570	2.88	0.18		0.30	Open
R571	1.44	0.09		0.09	Open
R572	4.32	0.28		1.95	Open
R573	2.88	0.18		0.30	Open
R574	1.44	0.20		0.54	Open
R575	1.44	0.20		0.54	Open
R576	1.44	0.20		0.54	Open
R577	1.44	0.20		0.54	Open
R578	1.44	0.20		0.54	Open
R579	1.44	0.09		0.13	Open
G580	10.01	0.05		0.01	Open
G581	-13.31	0.07		0.01	Open
R580	1.44	0.20		0.54	Open
R581	1.44	0.20		0.54	Open
R582	1.44	0.20		0.54	Open
R583	1.44	0.20		0.54	Open
R584	1.44	0.20		0.54	Open
R585	1.44	0.20		0.54	Open
R586	1.44	0.20		0.54	Open
R587	1.44	0.20		0.54	Open
R588	1.44	0.20		0.54	Open
R589	1.44	0.20		0.54	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R590	1.44	0.20		0.54	Open
R591	1.44	0.20		0.54	Open
R592	1.44	0.20		0.54	Open
R593	1.44	0.20		0.54	Open
R594	1.44	0.20		0.54	Open
R595	1.44	0.20		0.54	Open
R596	23.32	0.39		3.01	Open
R597	21.88	0.36		0.44	Open
R598	20.44	0.34		0.39	Open
R599	1.44	0.09		0.13	Open
R600	19.00	0.31		0.34	Open
R601	-4.04	0.07		0.02	Open
R602	2.88	0.18		0.45	Open
R603	1.44	0.09		0.09	Open
R604	23.04	0.38		3.14	Open
R605	21.60	0.36		0.43	Open
R606	7.20	0.24		0.41	Open
R607	5.76	0.19		0.21	Open
R608	4.32	0.14		0.12	Open
R609	1.44	0.09		0.13	Open
R610	14.40	0.24		0.21	Open
R611	12.96	0.21		0.17	Open
R612	7.20	0.24		0.44	Open
R613	5.76	0.19		0.21	Open
R614	4.32	0.28		1.24	Open
R615	1.44	0.09		0.09	Open
R616	5.76	0.19		0.94	Open
R617	4.32	0.14		0.12	Open
R618	2.88	0.18		0.39	Open
R619	1.44	0.09		0.09	Open
R620	-6.92	0.11		0.06	Open
R621	-8.36	0.14		0.08	Open
R622	-15.56	0.26		0.24	Open
R623	24.20	0.40		0.69	Open
R624	21.32	0.35		0.42	Open
R625	1.44	0.20		0.54	Open
R627	1.44	0.20		0.54	Open
R628	7.20	0.46		5.03	Open
R629	2.88	0.18		0.86	Open
R630	4.32	0.28		0.62	Open
R631	1.44	0.20		0.54	Open
R632	1.44	0.20		0.54	Open
R633	1.44	0.09		0.09	Open
R634	1.44	0.20		0.54	Open
R635	1.44	0.09		0.09	Open
R636	2.88	0.18		0.81	Open
R637	1.44	0.09		0.09	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R638	5.76	0.37	1.14	Open
R639	4.32	0.28	0.62	Open
R640	1.44	0.09	0.09	Open
R641	1.44	0.20	0.54	Open
R642	1.44	0.20	0.54	Open
R643	1.44	0.20	0.54	Open
R644	-37.51	0.19	0.07	Open
R645	-61.99	0.32	0.19	Open
R646	-76.39	0.39	0.28	Open
R647	-82.15	0.42	0.28	Open
R648	-113.41	0.58	0.58	Open
R649	-119.17	0.61	0.64	Open
R650	-155.59	0.79	1.07	Open
R651	-165.67	0.84	1.20	Open
R652	175.75	0.90	1.35	Open
R653	184.39	0.94	1.48	Open
R654	201.67	1.03	1.76	Open
R655	1.44	0.20	0.54	Open
R656	1.44	0.20	0.54	Open
R657	2.88	0.18	0.38	Open
R658	1.44	0.20	0.54	Open
R659	1.44	0.20	0.54	Open
R660	1.44	0.20	0.54	Open
R661	1.44	0.20	0.54	Open
R662	1.44	0.20	0.54	Open
R663	1.44	0.20	0.54	Open
R664	1.44	0.20	0.54	Open
R665	1.44	0.20	0.54	Open
R666	1.44	0.20	0.54	Open
R667	1.44	0.20	0.54	Open
R668	17.28	1.11	10.21	Open
R669	15.84	1.01	6.48	Open
R670	14.40	0.92	5.44	Open
R671	2.88	0.18	0.32	Open
R672	1.44	0.09	0.09	Open
R673	11.52	0.74	3.62	Open
R674	10.08	0.65	2.84	Open
R675	8.64	0.55	2.15	Open
R676	7.20	0.46	1.55	Open
R677	5.76	0.37	1.04	Open
R678	4.32	0.28	0.62	Open
R679	2.88	0.18	0.30	Open
R680	1.44	0.09	0.09	Open
R681	1.44	0.20	0.54	Open
R682	1.44	0.20	0.54	Open
R683	8.64	0.55	8.26	Open
R684	4.32	0.28	4.75	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R685	2.88	0.18	0.30	Open
R686	1.44	0.09	0.09	Open
R687	4.32	0.28	0.62	Open
R688	2.88	0.18	0.30	Open
R689	1.44	0.09	0.09	Open
R690	1.44	0.20	0.54	Open
R691	1.44	0.20	0.54	Open
R692	8.64	0.55	2.15	Open
R693	7.20	0.46	1.55	Open
R694	5.76	0.37	1.04	Open
R695	4.32	0.28	0.62	Open
R696	1.44	0.09	0.09	Open
R697	2.88	0.18	0.37	Open
R698	1.44	0.09	0.09	Open
R699	1.44	0.20	0.54	Open
R700	1.44	0.20	0.54	Open
R701	1.44	0.20	0.54	Open
R702	1.44	0.20	0.54	Open
R703	1.44	0.20	0.54	Open
R704	10.08	0.65	7.09	Open
R705	8.64	0.55	2.49	Open
R706	8.64	0.55	2.15	Open
R707	2.88	0.18	0.32	Open
R708	1.44	0.09	0.09	Open
R709	5.76	0.37	1.04	Open
R710	4.32	0.28	0.62	Open
R711	2.88	0.18	0.38	Open
R712	1.44	0.09	0.09	Open
R713	1.44	0.20	0.54	Open
R714	1.44	0.20	0.54	Open
R715	1.44	0.20	0.54	Open
R716	1.44	0.20	0.54	Open
R626	14.40	0.47	8.59	Open
R717	2.88	0.18	0.43	Open
R718	-1.44	0.20	0.54	Open
R719	1.44	0.09	0.09	Open
R720	11.52	0.38	0.71	Open
R721	10.08	0.33	0.56	Open
R722	8.64	0.28	0.43	Open
R723	7.20	0.24	0.31	Open
R724	5.76	0.37	1.12	Open
R725	4.32	0.28	0.62	Open
R726	4.32	0.28	0.78	Open
R727	2.88	0.18	0.30	Open
R728	1.44	0.09	0.09	Open
R729	1.44	0.20	0.54	Open
R730	1.44	0.20	0.54	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R731	1.44	0.20	0.54	Open	
R732	1.44	0.20	0.54	Open	
R733	1.44	0.20	0.54	Open	
R734	1.44	0.20	0.54	Open	
R735	1.44	0.20	0.54	Open	
R736	24.48	0.80	9.70	Open	
R737	14.40	0.92	16.91	Open	
R738	12.96	0.83	4.49	Open	
R739	5.76	0.37	1.18	Open	
R740	4.32	0.28	0.62	Open	
R741	2.88	0.18	0.30	Open	
R742	1.44	0.09	0.10	Open	
R743	1.44	0.09	0.09	Open	
R744	7.20	0.46	1.55	Open	
R745	5.76	0.37	1.04	Open	
R746	4.32	0.28	0.62	Open	
R747	2.88	0.18	0.30	Open	
R748	1.44	0.09	0.09	Open	
R749	1.44	0.20	0.54	Open	
R750	1.44	0.20	0.54	Open	
R751	1.44	0.20	0.54	Open	
R752	1.44	0.20	0.54	Open	
R753	1.44	0.20	0.54	Open	
R754	1.44	0.20	0.54	Open	
R755	1.44	0.20	0.54	Open	
R756	1.44	0.20	0.54	Open	
R757	1.44	0.20	0.54	Open	
R758	1.44	0.20	0.54	Open	
R759	1.44	0.20	0.54	Open	
R760	1.44	0.20	0.54	Open	
R761	10.08	0.33	0.56	Open	
R762	8.64	0.28	0.43	Open	
R763	7.20	0.24	0.31	Open	
R764	5.76	0.37	2.24	Open	
R765	4.32	0.28	0.62	Open	
R766	2.88	0.18	0.35	Open	
R767	1.44	0.09	0.09	Open	
R768	1.44	0.09	0.09	Open	
R769	31.26	0.52	1.34	Open	
R770	29.82	0.49	0.77	Open	
R771	11.10	0.18	0.13	Open	
R772	9.66	0.16	0.10	Open	
R773	8.22	0.14	0.08	Open	
R774	6.78	0.11	0.05	Open	
R775	5.34	0.09	0.04	Open	
R776	3.90	0.06	0.02	Open	
R777	2.46	0.04	0.01	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R778	1.02	0.02	0.00	Open	
R779	-10.50	0.27	0.38	Open	
R780	-11.94	0.31	0.44	Open	
R781	-13.38	0.35	0.54	Open	
R782	-14.82	0.39	0.65	Open	
R783	-16.26	0.42	2.30	Open	
R798	34.98	0.58	1.02	Open	
R785	1.44	0.20	0.54	Open	
R786	1.44	0.20	0.54	Open	
R787	1.44	0.20	0.54	Open	
R788	1.44	0.20	0.54	Open	
R789	1.44	0.20	0.54	Open	
R790	1.44	0.20	0.54	Open	
R791	1.44	0.20	0.54	Open	
R792	1.44	0.20	0.54	Open	
R793	1.44	0.20	0.54	Open	
R794	1.44	0.20	0.54	Open	
R795	1.44	0.20	0.54	Open	
R796	1.44	0.20	0.54	Open	
R797	1.44	0.20	0.54	Open	
R799	36.42	0.60	4.19	Open	
R800	11.52	0.38	2.99	Open	
R801	10.08	0.33	0.56	Open	
R802	8.64	0.28	0.43	Open	
R803	7.20	0.46	1.77	Open	
R804	5.76	0.37	1.04	Open	
R805	4.32	0.28	0.62	Open	
R806	2.88	0.18	0.30	Open	
R807	1.44	0.09	0.09	Open	
R808	1.44	0.09	0.10	Open	
R809	1.44	0.20	0.54	Open	
R810	1.44	0.20	0.54	Open	
R811	1.44	0.20	0.54	Open	
R812	1.44	0.20	0.54	Open	
R813	1.44	0.20	0.54	Open	
R814	1.44	0.20	0.54	Open	
R784	1.44	0.20	0.54	Open	
R815	1.44	0.20	0.54	Open	
R816	1.44	0.20	0.54	Open	
R817	1.44	0.20	0.54	Open	
R818	1.44	0.20	0.54	Open	
R819	1.44	0.20	0.54	Open	
R820	1.44	0.20	0.54	Open	
R821	1.44	0.20	0.54	Open	
R822	1.44	0.20	0.54	Open	
R823	1.44	0.20	0.54	Open	
R824	1.44	0.20	0.54	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R825	18.72	0.31	0.40	Open	
R826	17.28	0.29	0.29	Open	
R827	15.84	0.26	0.24	Open	
R828	14.40	0.37	0.81	Open	
R829	12.96	0.34	0.51	Open	
R830	11.52	0.30	0.41	Open	
R831	2.88	0.18	0.68	Open	
R832	8.64	0.28	0.45	Open	
R833	1.44	0.09	0.10	Open	
R834	7.20	0.24	0.31	Open	
R835	5.76	0.19	0.21	Open	
R836	4.32	0.28	0.67	Open	
R837	2.88	0.18	0.30	Open	
R838	1.44	0.09	0.09	Open	
R839	18.72	0.49	1.10	Open	
R840	17.28	0.45	0.86	Open	
R841	15.84	0.41	0.73	Open	
R842	14.40	0.37	0.62	Open	
R843	12.96	0.34	0.51	Open	
R844	8.64	0.28	0.50	Open	
R845	7.20	0.46	1.85	Open	
R846	5.76	0.37	1.04	Open	
R847	4.32	0.28	0.62	Open	
R848	2.88	0.18	0.30	Open	
R849	1.44	0.09	0.09	Open	
R850	4.32	0.28	0.64	Open	
R851	2.88	0.18	0.30	Open	
R852	1.44	0.09	0.09	Open	
R853	1.44	0.20	0.54	Open	
R854	1.44	0.20	0.54	Open	
R855	1.44	0.20	0.54	Open	
R856	1.44	0.20	0.54	Open	
R857	1.44	0.20	0.54	Open	
R858	1.44	0.20	0.54	Open	
R859	1.44	0.20	0.54	Open	
R860	1.44	0.20	0.54	Open	
R861	1.44	0.20	0.54	Open	
R862	1.44	0.20	0.54	Open	
R863	1.44	0.20	0.54	Open	
R864	173.70	1.38	4.32	Open	
R865	11.52	0.74	10.28	Open	
R866	10.08	0.65	2.84	Open	
R867	8.64	0.55	2.15	Open	
R868	5.76	0.37	1.04	Open	
R869	2.88	0.18	0.30	Open	
R870	1.44	0.09	0.09	Open	
R871	1.44	0.20	0.54	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R872	1.44	0.20	0.54	Open	
R873	1.44	0.20	0.54	Open	
R874	1.44	0.20	0.54	Open	
R875	1.44	0.20	0.54	Open	
R876	1.44	0.20	0.54	Open	
R877	1.44	0.20	0.54	Open	
R878	162.18	1.29	3.59	Open	
R879	136.77	1.09	2.58	Open	
R880	127.62	1.02	2.26	Open	
R881	25.41	0.83	6.15	Open	
R882	5.76	0.37	1.42	Open	
R883	4.32	0.28	0.62	Open	
R884	2.88	0.18	0.30	Open	
R885	1.44	0.09	0.09	Open	
R886	1.44	0.20	0.54	Open	
R887	1.44	0.20	0.54	Open	
R888	1.44	0.20	0.54	Open	
R889	19.65	0.64	1.87	Open	
R890	18.21	0.59	1.63	Open	
R891	16.77	0.55	1.40	Open	
R896	9.15	0.30	1.40	Open	
R897	6.27	0.20	0.24	Open	
R898	4.83	0.16	0.15	Open	
R899	1.95	0.06	0.03	Open	
R900	0.51	0.02	0.00	Open	
R901	-0.93	0.03	0.01	Open	
R902	7.71	0.25	0.35	Open	
R903	77.81	0.62	0.87	Open	
R904	39.42	0.51	0.81	Open	
R905	9.18	0.12	0.05	Open	
R906	-35.46	0.28	0.20	Open	
R907	-73.49	0.58	0.78	Open	
R908	4.32	0.28	0.89	Open	
R909	1.44	0.09	0.09	Open	
R910	1.44	0.20	0.54	Open	
R911	1.44	0.20	0.54	Open	
R912	49.82	0.65	10.97	Open	
R913	48.38	0.63	1.04	Open	
R914	1.44	0.20	0.54	Open	
R915	35.42	0.46	0.59	Open	
R916	33.98	0.44	0.55	Open	
R917	32.54	0.42	0.50	Open	
R918	31.10	0.40	0.46	Open	
R919	29.66	0.39	0.43	Open	
R920	28.22	0.37	0.39	Open	
R921	26.78	0.35	0.35	Open	
R922	25.34	0.33	0.32	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R923	1.44	0.20	0.54	Open	
R924	1.44	0.20	0.54	Open	
R925	1.44	0.20	0.54	Open	
R926	1.44	0.20	0.54	Open	
R927	1.44	0.20	0.54	Open	
R928	1.44	0.20	0.54	Open	
R929	1.44	0.20	0.54	Open	
R930	38.02	0.49	2.41	Open	
R931	36.58	0.48	0.62	Open	
R932	35.14	0.46	0.58	Open	
R933	33.70	0.44	0.54	Open	
R934	32.26	0.42	0.50	Open	
R935	30.82	0.40	0.46	Open	
R936	29.38	0.38	0.42	Open	
R937	27.94	0.36	0.38	Open	
R938	26.50	0.34	0.35	Open	
R939	16.42	0.21	0.15	Open	
R940	14.98	0.19	0.12	Open	
R941	13.54	0.18	0.10	Open	
R942	12.10	0.16	0.09	Open	
R943	10.66	0.14	0.07	Open	
R944	9.22	0.12	0.05	Open	
R945	0.58	0.01	0.00	Open	
R946	-0.86	0.01	0.00	Open	
R947	-2.30	0.03	0.00	Open	
R948	-3.74	0.05	0.01	Open	
R949	-5.18	0.07	0.02	Open	
R950	-6.62	0.09	0.03	Open	
R951	-8.06	0.10	0.04	Open	
R952	-9.50	0.12	0.06	Open	
R953	-10.94	0.14	0.07	Open	
R954	1.44	0.20	0.54	Open	
R955	1.44	0.20	0.54	Open	
R956	1.44	0.20	0.54	Open	
R957	1.44	0.20	0.54	Open	
R958	1.44	0.20	0.54	Open	
R959	1.44	0.20	0.54	Open	
R960	1.44	0.20	0.54	Open	
R961	1.44	0.20	0.54	Open	
R962	1.44	0.20	0.54	Open	
R963	1.44	0.20	0.54	Open	
R964	1.44	0.20	0.54	Open	
R965	1.44	0.20	0.54	Open	
R966	1.44	0.20	0.54	Open	
R967	1.44	0.20	0.54	Open	
R968	1.44	0.20	0.54	Open	
R969	1.44	0.20	0.54	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R970	1.44	0.20	0.54	Open	
R971	1.44	0.20	0.54	Open	
R972	1.44	0.20	0.54	Open	
R973	1.44	0.20	0.54	Open	
R974	1.44	0.20	0.54	Open	
R975	1.44	0.20	0.54	Open	
R976	1.44	0.20	0.54	Open	
R977	1.44	0.20	0.54	Open	
R978	1.44	0.20	0.54	Open	
R979	1.44	0.20	0.54	Open	
R980	1.44	0.20	0.54	Open	
R981	1.44	0.20	0.54	Open	
R982	1.44	0.20	0.54	Open	
R983	1.44	0.20	0.54	Open	
R984	15.84	0.52	1.33	Open	
R985	12.96	0.83	4.79	Open	
R986	11.52	0.74	3.62	Open	
R987	10.08	0.65	2.84	Open	
R988	8.64	0.55	2.15	Open	
R989	7.20	0.46	1.55	Open	
R990	4.32	0.28	0.69	Open	
R991	2.88	0.18	0.30	Open	
R992	1.44	0.09	0.09	Open	
R993	2.88	0.18	0.30	Open	
R994	1.44	0.09	0.09	Open	
R995	1.44	0.20	0.54	Open	
R996	1.44	0.20	0.54	Open	
R997	1.44	0.20	0.54	Open	
R998	1.44	0.20	0.54	Open	
R999	1.44	0.20	0.54	Open	
R1000	1.44	0.20	0.54	Open	
R1001	1.44	0.20	0.54	Open	
R1002	1.44	0.20	0.54	Open	
R1003	1.44	0.20	0.54	Open	
R892	12.96	0.83	11.83	Open	
R893	10.08	0.65	2.84	Open	
R894	8.64	0.55	2.15	Open	
R895	5.76	0.37	1.04	Open	
R1004	4.32	0.28	0.62	Open	
R1005	2.88	0.18	0.30	Open	
R1006	1.44	0.09	0.09	Open	
R1007	1.44	0.20	0.54	Open	
R1008	1.44	0.20	0.54	Open	
R1009	1.44	0.20	0.54	Open	
R1010	1.44	0.20	0.54	Open	
R1011	1.44	0.20	0.54	Open	
R1012	1.44	0.20	0.54	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1013	1.44	0.20		0.54	Open
R1014	14.40	0.92		10.51	Open
R1015	12.96	0.83		4.49	Open
R1016	11.52	0.74		3.62	Open
R1017	10.08	0.65		2.84	Open
R1018	8.64	0.55		2.15	Open
R1019	7.20	0.46		1.55	Open
R1020	5.76	0.37		1.04	Open
R1021	4.32	0.28		0.62	Open
R1022	2.88	0.18		0.30	Open
R1023	1.44	0.09		0.09	Open
R1024	1.44	0.20		0.54	Open
R1025	1.44	0.20		0.54	Open
R1026	1.44	0.20		0.54	Open
R1027	1.44	0.20		0.54	Open
R1028	1.44	0.20		0.54	Open
R1029	1.44	0.20		0.54	Open
R1030	1.44	0.20		0.54	Open
R1031	1.44	0.20		0.54	Open
R1032	1.44	0.20		0.54	Open
R1033	1.44	0.20		0.54	Open
R1034	1.44	0.20		0.54	Open
R1035	1.44	0.20		0.54	Open
R1036	1.44	0.20		0.54	Open
R1037	1.44	0.20		0.54	Open
R1038	8.64	0.55		3.78	Open
R1039	7.20	0.46		1.55	Open
R1040	5.76	0.37		1.04	Open
R1041	4.32	0.28		0.62	Open
R1042	2.88	0.18		0.30	Open
R1043	1.44	0.09		0.09	Open
R1044	1.44	0.20		0.54	Open
R1045	1.44	0.20		0.54	Open
R1046	1.44	0.20		0.54	Open
R1047	1.44	0.20		0.54	Open
R1048	1.44	0.20		0.54	Open
R1049	1.44	0.20		0.54	Open
R1050	10.08	0.65		5.75	Open
R1051	7.20	0.46		1.55	Open
R1052	5.76	0.37		1.04	Open
R1053	4.32	0.28		0.62	Open
R1054	2.88	0.18		0.30	Open
R1055	1.44	0.09		0.09	Open
R1056	11.52	0.74		7.71	Open
R1057	10.08	0.65		2.84	Open
R1058	8.64	0.55		2.15	Open
R1059	7.20	0.46		1.55	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1060	5.76	0.37		1.04	Open
R1061	2.88	0.18		0.38	Open
R1062	1.44	0.09		0.09	Open
R1063	2.88	0.18		0.30	Open
R1064	1.44	0.09		0.09	Open
R1065	1.44	0.20		0.54	Open
R1066	1.44	0.20		0.54	Open
R1067	1.44	0.20		0.54	Open
R1068	1.44	0.20		0.54	Open
R1069	1.44	0.20		0.54	Open
R1070	1.44	0.20		0.54	Open
R1071	44.64	0.58		12.35	Open
R1072	33.12	0.43		0.52	Open
R1073	33.12	0.43		0.52	Open
R1074	21.60	0.56		1.34	Open
R1075	11.52	0.74		8.33	Open
R1076	10.08	0.65		2.84	Open
R1077	1.44	0.20		0.54	Open
R1079	5.76	0.37		1.04	Open
R1080	2.88	0.18		0.30	Open
R1082	-2.88	0.18		0.30	Open
R1083	-4.32	0.28		0.62	Open
R1084	-5.76	0.37		1.04	Open
R1085	-8.64	0.55		2.15	Open
R1086	-10.08	0.65		4.18	Open
R1088	-12.96	0.42		0.88	Open
R1089	-14.40	0.47		1.07	Open
R1090	-15.84	0.52		1.27	Open
R1091	-18.72	0.61		1.71	Open
R1092	-20.16	0.66		1.96	Open
R1093	-21.60	0.71		2.22	Open
R1095	1.44	0.09		0.09	Open
R1096	1.44	0.20		0.54	Open
R1097	1.44	0.20		0.54	Open
R1099	8.64	0.55		2.52	Open
R1100	7.20	0.46		1.55	Open
R1101	1.44	0.09		0.09	Open
R1102	5.76	0.37		1.17	Open
R1103	2.88	0.18		0.30	Open
R1104	1.44	0.09		0.09	Open
R1105	1.44	0.20		0.54	Open
R1106	1.44	0.20		0.54	Open
R1107	1.44	0.20		0.54	Open
R1108	1.44	0.20		0.54	Open
R1109	1.44	0.20		0.54	Open
R1110	1.44	0.20		0.54	Open
R1111	1.44	0.20		0.54	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1112	1.44	0.20	0.54	Open	
R1113	1.44	0.20	0.54	Open	
R1114	1.44	0.20	0.54	Open	
R1115	1.44	0.20	0.54	Open	
R1116	1.44	0.20	0.54	Open	
R1117	1.44	0.20	0.54	Open	
R1118	1.44	0.20	0.54	Open	
R1119	1.44	0.20	0.54	Open	
R1120	2.88	0.39	1.83	Open	
R1121	1.44	0.20	0.54	Open	
R1122	1.44	0.20	0.54	Open	
R1123	1.44	0.20	0.54	Open	
R1124	1.44	0.20	0.54	Open	
R1125	1.44	0.20	0.54	Open	
R1126	1.44	0.20	0.54	Open	
R1127	1.44	0.20	0.54	Open	
R1128	1.44	0.20	0.54	Open	
R1129	1.44	0.20	0.54	Open	
R1130	1.44	0.20	0.54	Open	
R1131	1.44	0.20	0.54	Open	
R1132	12.96	0.42	1.02	Open	
R1133	11.52	0.38	0.71	Open	
R1134	10.08	0.65	3.04	Open	
R1135	5.76	0.37	3.64	Open	
R1136	4.32	0.28	0.62	Open	
R1137	2.88	0.18	0.30	Open	
R1138	1.44	0.09	0.09	Open	
R1139	1.44	0.20	0.54	Open	
R1140	1.44	0.20	0.54	Open	
R1141	1.44	0.20	0.54	Open	
R1142	1.44	0.20	0.54	Open	
R1143	1.44	0.20	0.54	Open	
R1144	4.32	0.28	0.62	Open	
R1145	2.88	0.18	0.30	Open	
R1146	1.44	0.09	0.10	Open	
R1147	1.44	0.20	0.54	Open	
R1148	1.44	0.20	0.54	Open	
R1149	-21.60	0.71	2.22	Open	
R1150	23.04	0.75	2.50	Open	
R1151	24.48	0.80	2.92	Open	
R1152	1.44	0.20	0.54	Open	
R1153	1.44	0.20	0.54	Open	
R1154	1.44	0.20	0.54	Open	
R1155	1.44	0.20	0.54	Open	
R1156	1.44	0.20	0.54	Open	
R1157	1.44	0.20	0.54	Open	
R1158	1.44	0.20	0.54	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1159	1.44	0.20	0.54	Open	
R1162	11.52	0.74	3.62	Open	
R1163	10.08	0.65	2.84	Open	
R1164	2.88	0.18	0.30	Open	
R1165	1.44	0.20	0.54	Open	
R1166	30.24	0.79	17.30	Open	
R1167	2.88	0.18	0.37	Open	
R1168	1.44	0.09	0.09	Open	
R1169	27.36	0.71	1.97	Open	
R1170	7.20	0.46	2.70	Open	
R1171	5.76	0.37	1.04	Open	
R1172	4.32	0.28	0.62	Open	
R1173	2.88	0.18	0.30	Open	
R1174	1.44	0.09	0.09	Open	
R1175	1.44	0.20	0.54	Open	
R1176	1.44	0.20	0.54	Open	
R1177	1.44	0.20	0.54	Open	
R1178	1.44	0.20	0.54	Open	
R1179	20.16	0.52	1.13	Open	
R1180	7.20	0.46	1.96	Open	
R1181	5.76	0.37	1.04	Open	
R1182	4.32	0.28	0.62	Open	
R1183	2.88	0.18	0.30	Open	
R1184	1.44	0.09	0.09	Open	
R1185	1.44	0.20	0.54	Open	
R1186	1.44	0.20	0.54	Open	
R1187	1.44	0.20	0.54	Open	
R1188	1.44	0.20	0.54	Open	
R1189	12.96	0.42	1.63	Open	
R1190	11.52	0.38	0.71	Open	
R1191	10.08	0.33	0.56	Open	
R1192	4.32	0.28	0.79	Open	
R1193	2.88	0.18	0.30	Open	
R1194	1.44	0.09	0.09	Open	
R1195	5.76	0.37	2.49	Open	
R1196	4.32	0.28	0.62	Open	
R1197	2.88	0.18	0.30	Open	
R1198	1.44	0.09	0.09	Open	
R1199	1.44	0.20	0.54	Open	
R1200	1.44	0.20	0.54	Open	
R1201	1.44	0.20	0.54	Open	
R1202	1.44	0.20	0.54	Open	
R1203	1.44	0.20	0.54	Open	
R1204	1.44	0.20	0.54	Open	
R1205	1.44	0.20	0.54	Open	
R1206	1.44	0.20	0.54	Open	
R1207	0.00	0.00	0.00	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R1208	1.44	0.20	0.54	Open
R1209	1.44	0.20	0.54	Open
R1210	1.44	0.20	0.54	Open
R1211	1.44	0.20	0.54	Open
R1212	1.44	0.20	0.54	Open
R1213	1.44	0.20	0.54	Open
R1214	1.44	0.20	0.54	Open
R1215	1.44	0.20	0.54	Open
R1216	1.44	0.20	0.54	Open
R1217	1.44	0.20	0.54	Open
R1218	5.76	0.37	2.87	Open
R1219	2.88	0.18	0.30	Open
R1220	1.44	0.09	0.09	Open
R1221	1.44	0.20	0.54	Open
R1222	2.88	0.18	0.39	Open
R1223	1.44	0.20	0.54	Open
R1224	1.44	0.20	0.54	Open
R1225	5.76	0.37	5.66	Open
R1226	4.32	0.28	0.62	Open
R1227	2.88	0.18	0.30	Open
R1228	1.44	0.09	0.09	Open
R1229	1.44	0.09	0.17	Open
R1230	1.44	0.20	0.54	Open
R1231	1.44	0.20	0.54	Open
R1	1.44	0.20	0.54	Open
R2	1.44	0.20	0.54	Open
R1232	1.44	0.20	0.54	Open
R1233	1.44	0.20	0.54	Open
R430	21.60	0.28	0.24	Open
R1234	5.76	0.37	1.04	Open
R1235	4.32	0.28	0.65	Open
R1236	12.96	0.83	4.49	Open
R1237	1.44	0.19	0.49	Open
R1238	1.44	0.09	0.09	Open
R3187	11.52	0.38	0.71	Open
R1239	1.44	0.20	0.54	Open
R1240	8.64	0.55	2.15	Open
R1241	8.64	0.55	2.15	Open
R1078	181.93	0.64	0.58	Open
R1081	142.52	1.13	4.52	Open
P1	0.00	0.00	0.00	Closed Pump
P2	150.24	0.00	-79.91	Open Pump
P3	150.24	0.00	-79.91	Open Pump
P4	150.24	0.00	-79.91	Open Pump
P5	150.24	0.00	-79.91	Open Pump
P6	150.24	0.00	-79.91	Open Pump
P7	150.24	0.00	-79.91	Open Pump

2.4 IPOTESI DI FUNZIONAMENTO B

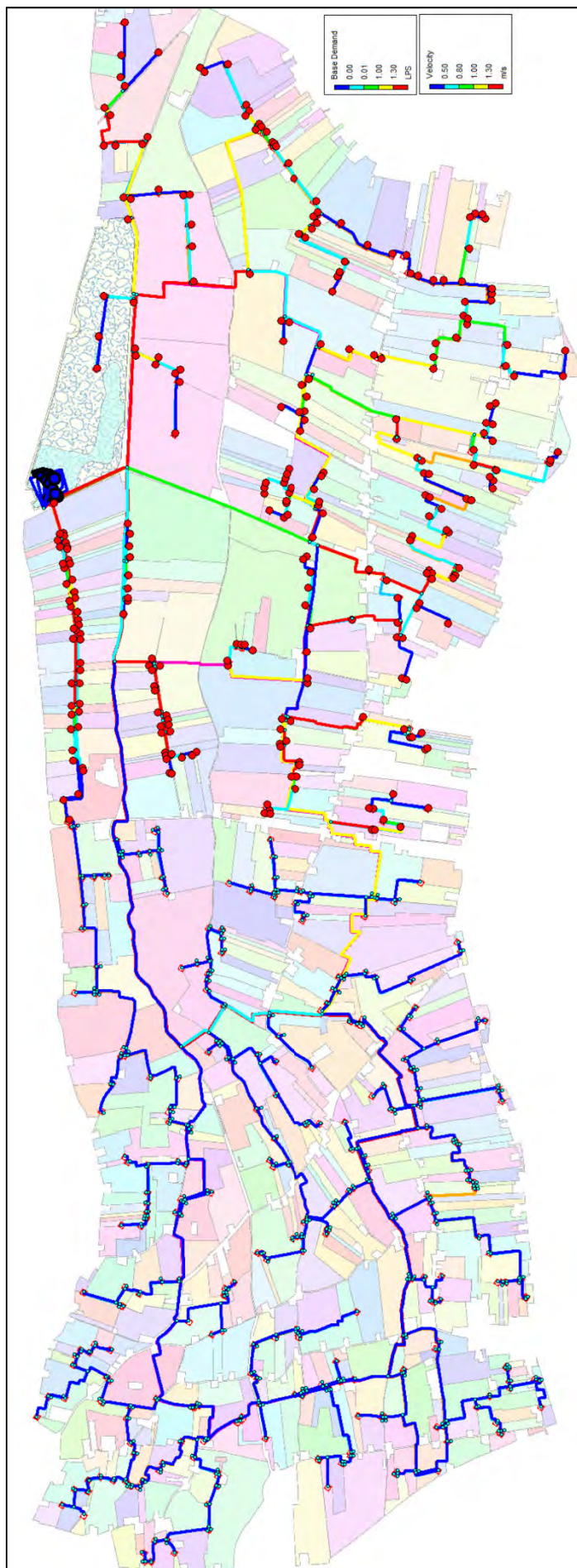


Figura 17 – Risultati della simulazione : base demand nei nodi e velocità nei rami



Figura 18 – Risultati della simulazione : pressione nei nodi e perdite di carico nei rami

RISULTATI SIMULAZIONE VILLA PRATI IPOTESI FUNZIONAMENTO B

Link - Node Table:

Link ID	Start Node	End Node	Length m	Diameter mm
G20	Z1	Z2	30	600
G1	Z2	Z3	577.2	600
R3	Z2	Z4	18.5	400
R4	Z4	Z5	213.4	400
R5	Z5	Z6	18.6	400
R6	Z6	Z7	50	400
R7	Z7	Z8	32.8	400
R8	Z8	Z9	10	400
R9	Z9	Z10	77.7	400
R10	Z10	Z11	27.2	400
R11	Z11	Z12	113.0	400
R12	Z12	Z13	80.80	400
R13	Z13	Z14	39.50	400
R14	Z14	Z15	100.7	400
R15	Z15	Z16	53.2	400
R16	Z16	Z17	37.1	400
R17	Z17	Z29	27.4	400
R18	Z29	Z18	29.8	400
R19	Z18	Z19	37.40	400
R20	Z19	Z20	161.3	400
R21	Z20	Z21	49.5	400
R22	Z21	Z22	92.5	400
R23	Z22	Z23	139.4	400
R24	Z23	Z24	56.4	400
R25	Z24	Z25	103.7	400
R26	Z25	Z26	297.1	400
R27	Z26	Z27	13	400
R28	Z27	Z28	449.3	400
R56	Z4	Z56	5	96.8
R57	Z5	Z57	5	96.8
R58	Z6	Z58	5	96.8
R59	Z7	Z59	5	96.8
R60	Z8	Z60	5	96.8
R61	Z9	Z61	5	96.8
R62	Z10	Z62	5	96.8
R63	Z11	Z63	5	96.8
R64	Z12	Z64	5	98.6

Link ID	Start Node	End Node	Length m	Diameter mm
R65	Z13	Z65	5	96.8
R66	Z14	Z66	5	96.8
R67	Z15	Z67	5	96.8
R68	Z16	Z68	5	96.8
R69	Z17	Z69	5	96.8
R29	Z29	Z72	9	141
R71	Z18	Z70	5	96.8
R72	Z19	Z71	5	96.8
R73	Z20	Z73	5	96.8
R74	Z21	Z74	5	96.8
R75	Z22	Z75	5	96.8
R76	Z23	Z76	5	96.8
R77	Z24	Z77	5	96.8
R78	Z25	Z78	5	96.8
R79	Z26	Z79	5	96.8
R80	Z27	Z80	5	96.8
R81	Z28	Z81	5	96.8
R30	Z72	Z82	9.7	141
R31	Z82	Z83	159.2	141.0
R32	Z83	Z84	38.2	141.0
R33	Z84	Z85	117.3	141.0
R34	Z85	Z86	113.7	141.0
R35	Z86	Z87	27.4	141.0
R36	Z87	Z88	117.2	141.0
R37	Z88	Z89	50.80	141.0
R38	Z89	Z90	35.05	141.0
R91	Z82	Z91	5	96.8
R92	Z83	Z92	5	96.8
R93	Z84	Z93	5	96.8
R94	Z85	Z94	5	96.8
R95	Z86	Z95	5	96.8
R96	Z87	Z96	5	96.8
R97	Z88	Z97	5	96.8
R98	Z89	Z98	5	96.8
R39	Z72	Z99	60.2	141.0
R40	Z99	Z100	309.8	141.0
R41	Z100	Z101	151.6	141.0
R42	Z101	Z102	575	141.0
R43	Z102	Z103	103.5	141.0
R44	Z103	Z104	144.7	141.0
R45	Z104	Z105	66.4	141.0
R46	Z105	Z106	256.8	141.0
R47	Z106	Z107	110.74	141.0
R107	Z106	Z108	5	96.8
R108	Z105	Z109	5	96.8
R109	Z104	Z110	5	96.8
R110	Z103	Z111	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R111	Z102	Z112	5	96.8
R112	Z101	Z113	5	96.8
R113	Z100	Z114	5	96.8
R114	Z99	Z115	5	96.8
R49	Z28	Z116	80	400
R50	Z116	Z117	380.3	400
R51	Z117	Z118	195.4	400
R52	Z118	Z119	163.7	400
R53	Z119	Z120	336.9	400
R54	Z120	Z121	169.6	400
R55	Z117	Z122	16.1	141.0
R120	Z122	Z123	84.1	141.0
R121	Z123	Z124	71.9	141.0
R122	Z122	Z125	15.04	96.8
R123	Z123	Z126	13.85	96.8
R124	Z107	Z127	5	96.8
R125	Z128	Z124	5	96.8
R126	Z124	Z129	26	141.0
R127	Z129	Z130	5	96.8
R82	Z30	Z31	61.5	400
R83	Z31	Z32	13.8	400
R84	Z121	Z30	623	400
R85	Z32	Z33	322.7	400
R86	Z33	Z34	261.2	400
R87	Z34	Z35	231.7	400
R88	Z35	Z36	34.2	400
R89	Z36	Z37	49.8	400
R90	Z37	Z38	11	400
R99	Z38	Z39	127.3	400
R100	Z39	Z40	3.8	400
R101	Z31	Z43	14.3	141.0
R102	Z43	Z45	243.6	141.0
R103	Z45	Z48	218.5	141.0
R104	Z45	Z46	5	96.8
R105	Z43	Z44	5	96.8
R106	Z30	Z42	5	96.8
R115	Z118	Z49	5	96.8
R116	Z119	Z50	5	141
R117	Z120	Z51	5	96.8
R118	Z121	Z52	12.1	141.0
R119	Z52	Z53	5.5	141.0
R128	Z53	Z54	140.8	141.0
R129	Z53	Z131	5	96.8
R130	Z53	Z55	5	96.8
G131	Z3	Z132	618	600
R131	Z132	Z133	4	141.0
R132	Z133	Z134	19.7	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R133	Z134	Z135	81.5	141.0
R134	Z135	Z136	81.4	141.0
R135	Z136	Z137	75	141.0
R136	Z133	Z138	98.5	141.0
R137	Z138	Z139	90.2	141.0
R138	Z139	Z140	70	141.0
R139	Z140	Z141	15.2	141.0
R140	Z141	Z142	97	141.0
R141	Z141	Z157	5	96.8
R142	Z140	Z158	5	96.8
R143	Z139	Z159	5	96.8
R144	Z138	Z160	5	96.8
R145	Z134	Z161	5	96.8
R146	Z135	Z162	5	96.8
R147	Z136	Z163	5	96.8
G148	Z132	Z143	701.3	600
G149	Z143	Z147	1433.79	600
R149	Z147	Z145	5.8	141.0
R150	Z145	Z148	5.7	141.0
R151	Z148	Z149	120	141.0
R152	Z149	Z150	76.8	141.0
R153	Z150	Z151	47.6	141.0
R154	Z151	Z152	12.7	141.0
R155	Z152	Z153	131	141.0
R156	Z151	Z154	189.1	141.0
R157	Z154	Z155	78.3	141.0
R158	Z155	Z156	31	141.0
R159	Z145	Z146	17.77	141.0
R160	Z146	Z144	90.77	141.0
R161	Z146	Z166	5	96.8
R162	Z148	Z167	5	96.8
R163	Z149	Z168	5	96.8
R164	Z150	Z169	5	96.8
R165	Z152	Z170	5	96.8
R166	Z153	Z171	5	96.8
R167	Z153	Z172	5	96.8
R168	Z154	Z173	5	96.8
R169	Z155	Z174	5	96.8
G170	Z147	Z175	1472.3	600
G171	Z175	Z176	219.9	400
G172	Z176	Z177	220.58	400
R172	Z177	Z178	10.81	197.4
R173	Z178	Z179	171.80	197.4
R174	Z179	Z180	60	197.4
R175	Z180	Z181	50	197.4
R176	Z181	Z182	13.6	197.4
R177	Z182	Z183	82.8	197.4

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R178	Z183	Z184	11.4	141.0
R179	Z184	Z185	89.8	141.0
R180	Z185	Z186	109.2	141.0
R181	Z183	Z187	223.6	141.0
R182	Z187	Z188	94.3	141.0
R183	Z188	Z189	22.2	141.0
R184	Z189	Z190	15.82	141.0
R185	Z188	Z191	32.5	141.0
R186	Z191	Z192	87	141.0
R187	Z192	Z193	10.5	141.0
R188	Z178	Z194	17.19	96.8
R189	Z179	Z195	5	96.8
R190	Z180	Z196	5	96.8
R191	Z181	Z197	5	96.8
R192	Z182	Z198	5	96.8
R193	Z184	Z199	5	96.8
R194	Z185	Z200	5	96.8
R195	Z187	Z201	5	96.8
R196	Z189	Z202	5	96.8
R197	Z191	Z203	5	96.8
R198	Z192	Z204	5	96.8
G199	Z177	Z205	379.4	400
G200	Z205	Z206	385	400
G201	Z206	Z207	302.8	500
G202	Z207	Z208	873.57	500
G203	Z208	Z209	159.2	500
R200	Z207	Z210	2.6	141.0
R201	Z210	Z211	5.7	141.0
R202	Z211	Z212	52.01	141.0
R203	Z212	Z213	6.8	141.0
R204	Z210	Z214	4	141.0
R205	Z214	Z215	47.3	141.0
R206	Z212	Z216	5	96.8
R207	Z211	Z217	5	96.8
R208	Z214	Z218	21.86	96.8
R209	Z208	Z219	3.7	197.4
R210	Z219	Z220	46.2	197.4
R211	Z220	Z221	22.1	197.4
R212	Z221	Z222	4	197.4
R213	Z222	Z223	83.2	197.4
R214	Z223	Z224	144.3	197.4
R215	Z224	Z225	18.9	197.4
R216	Z225	Z226	77.3	197.4
R217	Z226	Z227	137.1	197.4
R218	Z227	Z231	104.6	141.0
R219	Z231	Z232	344.4	141.0
R220	Z232	Z233	51.3	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R221	Z227	Z228	228.1	141.0
R222	Z228	Z229	98.5	141.0
R223	Z229	Z230	78.6	141.0
R224	Z221	Z234	539.7	141.0
R225	Z234	Z235	26	141.0
R226	Z235	Z236	70.4	141.0
R48	Z143	Z164	271.5	197.4
R70	Z164	Z41	3	197.4
R148	Z41	Z253	23	197.4
R170	Z47	Z237	119.4	197.4
R171	Z237	Z238	16.2	141
R199	Z238	Z239	153.6	141
R227	Z239	Z240	32.5	141
R228	Z240	Z241	33.8	141
R229	Z241	Z242	34.3	141
R230	Z242	Z243	45.9	141
R231	Z243	Z244	131.1	141
R232	Z244	Z245	20.3	141
R233	Z245	Z246	16.4	141
R234	Z246	Z268	18.2	141.0
R235	Z247	Z248	70.4	141.0
R236	Z248	Z249	37.8	141.0
R237	Z246	Z250	3	141.0
R238	Z250	Z251	103	141.0
R239	Z41	Z252	5	96.8
R240	Z253	Z47	27.7	197.4
R241	Z253	Z254	5	96.8
R242	Z253	Z255	5	141.0
R243	Z47	Z256	5	96.8
R244	Z237	Z257	5	96.8
R245	Z238	Z258	5	96.8
R246	Z239	Z259	5	96.8
R247	Z240	Z260	5	96.8
R248	Z241	Z261	5	96.8
R249	Z242	Z262	5	96.8
R250	Z242	Z263	5	96.8
R251	Z243	Z265	5	96.8
R252	Z243	Z264	5	96.8
R253	Z244	Z266	5	96.8
R254	Z245	Z267	5	96.8
R255	Z268	Z247	70.4	141.0
R256	Z268	Z271	5	96.8
R257	Z247	Z270	5	96.8
R258	Z248	Z269	5	96.8
R259	Z250	Z272	5	96.8
R260	Z251	Z273	5	96.8
R261	Z251	Z274	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R263	Z165	Z275	8	141.0
R264	Z275	Z276	6	141.0
R265	Z276	Z277	136.6	141.0
R266	Z277	Z278	40	141.0
R267	Z278	Z279	14.2	141.0
R268	Z279	Z280	67.4	141.0
R269	Z165	Z281	589.9	141
R270	Z281	Z282	7.7	141.0
R271	Z281	Z291	382.8	400
R272	Z284	Z286	145.2	141.0
R273	Z286	Z287	120.5	141.0
R274	Z287	Z288	116.4	141.0
R275	Z288	Z289	133.1	141.0
R276	Z289	Z290	17.6	141.0
R277	Z291	Z284	7	141
R278	Z284	Z283	184.7	141.0
R279	Z284	Z285	5	141
R280	Z285	Z1245	300	141
R281	Z291	Z293	557.27	400
R282	Z275	Z295	5	96.8
R283	Z276	Z296	5	96.8
R284	Z277	Z297	5	96.8
R285	Z278	Z298	5	96.8
R286	Z279	Z299	5	96.8
R287	Z282	Z300	5	96.8
R288	Z282	Z301	5	96.8
R289	Z285	Z302	5	96.8
R290	Z286	Z306	5	96.8
R291	Z287	Z305	5	96.8
R292	Z288	Z304	5	96.8
R293	Z289	Z303	5	96.8
R294	Z281	Z294	325.5	400
R295	Z294	Z307	2.8	197.4
R296	Z307	Z308	593.6	141
R297	Z308	Z321	5	96.8
R298	Z308	Z309	338	141.0
R299	Z309	Z310	7.5	141.0
R300	Z310	Z311	59.00	141.0
R301	Z311	Z313	44.3	141.0
R302	Z313	Z314	9.8	141.0
R303	Z314	Z316	70	141.0
R304	Z311	Z317	419.9	141.0
R305	Z317	Z318	5	96.8
R306	Z317	Z319	8.4	141.0
R307	Z314	Z315	5	96.8
R308	Z313	Z312	5	96.8
R309	Z310	Z320	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R310	Z294	Z322	1122.7	400
R311	Z307	Z323	9	197.4
R312	Z323	Z324	94	197.4
R313	Z324	Z325	81	141
R314	Z325	Z326	21.8	141
R315	Z326	Z327	11.5	141
R316	Z327	Z328	204.3	141.0
R317	Z328	Z329	7.8	141.0
R318	Z329	Z330	96	141.0
R319	Z330	Z331	86	141.0
R320	Z331	Z332	292.5	141.0
R321	Z332	Z333	5.6	141.0
R322	Z333	Z334	38	141.0
R323	Z323	Z336	5	96.8
R324	Z323	Z335	5	96.8
R325	Z324	Z337	5	96.8
R326	Z325	Z338	5	96.8
R327	Z326	Z339	5	96.8
R328	Z327	Z340	5	96.8
R329	Z328	Z341	5	96.8
R330	Z329	Z342	5	96.8
R331	Z330	Z343	5	96.8
R332	Z330	Z344	5	96.8
R333	Z331	Z345	5	96.8
R334	Z332	Z346	5	96.8
R335	Z333	Z347	5	96.8
R336	Z334	Z349	5	96.8
R337	Z334	Z348	5	96.8
R338	Z322	Z350	290	141.0
R339	Z351	Z352	246.5	141.0
R340	Z352	Z353	126.3	141.0
R341	Z353	Z354	167	141.0
R342	Z354	Z355	207	141.0
R343	Z355	Z356	57.1	141.0
R344	Z355	Z357	257.4	141.0
R345	Z354	Z363	5	96.8
R346	Z354	Z362	5	96.8
R347	Z353	Z361	5	96.8
R348	Z352	Z360	5	96.8
R349	Z351	Z359	5	96.8
R350	Z350	Z358	5	96.8
R351	Z350	Z351	8.8	141.0
R352	Z322	Z364	835.5	400
R353	Z364	Z365	825.7	400
R354	Z206	Z365	302.8	400
R355	Z364	Z366	5	141.0
R356	Z366	Z367	142.5	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R357	Z367	Z368	297.05	141.0
R358	Z366	Z388	5	96.8
R359	Z367	Z387	5	96.8
R360	Z367	Z386	5	96.8
R361	Z364	Z369	22.8	197.4
R362	Z369	Z389	48	197.4
R363	Z389	Z370	386	197.4
R364	Z370	Z371	8.8	141.0
R365	Z371	Z372	174.8	141.0
R366	Z372	Z373	135.5	141.0
R367	Z373	Z374	42.4	141.0
R368	Z389	Z390	127	141.0
R369	Z370	Z375	62.3	141.0
R370	Z375	Z376	2	141.0
R371	Z376	Z377	155.7	141.0
R372	Z377	Z378	9.8	141.0
R373	Z378	Z379	82	141.0
R374	Z379	Z380	143.1	141.0
R375	Z380	Z381	124.5	141.0
R376	Z378	Z382	30.6	141.0
R377	Z382	Z383	9.4	141.0
R378	Z383	Z384	166.7	141.0
R379	Z384	Z385	152.4	141.0
R380	Z369	Z391	5	96.8
R381	Z373	Z394	5	96.8
R382	Z372	Z393	5	96.8
R383	Z371	Z392	5	96.8
R384	Z375	Z395	5	96.8
R385	Z376	Z396	5	96.8
R386	Z377	Z397	5	96.8
R387	Z379	Z398	5	96.8
R388	Z380	Z399	5	96.8
R389	Z365	Z401	5	141.0
R390	Z401	Z400	5.2	141.0
R391	Z400	Z402	148.3	141.0
R392	Z402	Z403	95	141.0
R393	Z403	Z404	337.6	141.0
R394	Z404	Z405	442	141.0
R395	Z405	Z406	61.5	141.0
R396	Z400	Z407	5	96.8
R397	Z402	Z408	5	96.8
R398	Z403	Z409	5	96.8
R399	Z404	Z410	5	96.8
R400	Z405	Z411	20.84	141.0
R401	Z401	Z412	19.3	141.0
R402	Z412	Z417	5	96.8
R403	Z412	Z416	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R404	Z412	Z413	94.8	141.0
R405	Z413	Z418	5	96.8
R406	Z413	Z420	5	96.8
R407	Z413	Z414	105.6	141.0
R408	Z414	Z419	5	96.8
R409	Z414	Z415	70.3	141.0
R410	Z219	Z421	138.2	141.0
R411	Z421	Z422	10.7	141.0
R412	Z422	Z423	160	141.0
R413	Z423	Z424	104.3	141.0
R414	Z423	Z425	5	96.8
R415	Z422	Z426	5	96.8
R416	Z421	Z427	5	96.8
R417	Z235	Z428	5	96.8
R418	Z234	Z429	5	96.8
R419	Z220	Z430	5	96.8
R420	Z229	Z437	5	96.8
R421	Z228	Z436	5	96.8
R422	Z226	Z435	5	96.8
R423	Z225	Z434	5	96.8
R424	Z224	Z433	5	96.8
R425	Z223	Z432	5	96.8
R426	Z222	Z431	5	96.8
R427	Z231	Z438	5	96.8
R428	Z232	Z439	5	96.8
G429	Z209	Z467	480.3	500
G430	Z467	Z466	238.5	500
G431	Z466	Z463	303.93	500
R429	Z463	Z462	15.40	312.8
R431	Z461	Z459	16.8	141
R433	Z457	Z455	13.8	141
R434	Z455	Z453	24.7	141
R435	Z453	Z451	38.3	141
R436	Z451	Z448	66.8	141
R437	Z448	Z446	328	197.4
R438	Z446	Z444	24	197.4
R439	Z444	Z442	11.9	197.4
R440	Z442	Z440	319.2	197.4
R441	Z440	Z209	64.8	197.4
R442	Z462	Z465	5	96.8
R443	Z462	Z464	5	96.8
R444	Z459	Z460	5	96.8
R445	Z440	Z441	5	96.8
R446	Z442	Z443	5	96.8
R447	Z444	Z445	5	96.8
R448	Z446	Z447	5	96.8
R449	Z448	Z450	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R450	Z448	Z449	5	96.8
R451	Z451	Z452	5	96.8
R452	Z453	Z454	5	96.8
R453	Z455	Z456	5	96.8
R454	Z457	Z458	5	96.8
R455	Z467	Z468	4.4	141.0
R456	Z468	Z469	33.2	141.0
R457	Z469	Z471	5	96.8
R458	Z469	Z470	214	141.0
R459	Z468	Z472	84.7	141.0
R460	Z472	Z474	64.9	141.0
R461	Z474	Z476	34.5	141.0
R462	Z472	Z473	5	96.8
R463	Z474	Z475	5	96.8
R464	Z205	Z481	2	141.0
R465	Z481	Z477	186	141.0
R466	Z477	Z479	322.7	141.0
R467	Z481	Z480	5	96.8
R468	Z477	Z478	5	96.8
R469	Z461	Z482	4.8	277.6
R470	Z482	Z483	38.1	277.6
R471	Z483	Z484	70.8	277.6
R472	Z484	Z485	58.5	277.6
R473	Z482	Z497	5	96.8
R474	Z483	Z498	5	96.8
R475	Z484	Z499	5	96.8
R476	Z485	Z500	5	96.8
R477	Z485	Z486	401.1	277.6
R478	Z486	Z487	194.6	221.2
R479	Z487	Z488	12.6	221.2
R480	Z486	Z501	5	96.8
R481	Z487	Z502	5	96.8
R482	Z488	Z490	391.7	197.4
R483	Z490	Z489	3.1	197.4
R484	Z489	Z493	9	141.0
R485	Z493	Z494	92.8	141.0
R486	Z494	Z495	28.8	141.0
R487	Z495	Z496	32.16	141.0
R488	Z489	Z491	152.9	141.0
R489	Z490	Z504	5	96.8
R490	Z491	Z503	5	96.8
R491	Z491	Z492	5.7	141.0
R492	Z495	Z505	5	96.8
R493	Z494	Z506	5	96.8
R494	Z493	Z507	5	96.8
R495	Z493	Z508	5	96.8
R496	Z176	Z561	105.5	221.2

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R497	Z561	Z562	5.4	141.0
R498	Z562	Z565	5.4	141.0
R499	Z565	Z564	99.3	141.0
R500	Z565	Z563	5	96.8
R501	Z575	Z566	5	96.8
R502	Z562	Z575	10.2	141.0
R503	Z575	Z567	119	141.0
R504	Z567	Z569	38.1	141.0
R505	Z567	Z568	5	96.8
R506	Z569	Z570	5	96.8
R507	Z569	Z518	223.4	141.0
R508	Z518	Z519	62.7	141.0
R509	Z518	Z571	5	96.8
R510	Z519	Z520	144.1	141.0
R511	Z519	Z521	236.5	141.0
R512	Z521	Z522	320.1	141.0
R513	Z522	Z523	11.7	141.0
R514	Z523	Z524	121	141.0
R515	Z523	Z574	5	96.8
R516	Z522	Z573	5	96.8
R517	Z521	Z572	5	96.8
R518	Z561	Z516	549.46	221.2
R519	Z516	Z515	239.7	221.2
R520	Z515	Z514	190.8	221.2
R521	Z516	Z560	5	96.8
R522	Z515	Z559	5	96.8
R523	Z514	Z554	7.1	141.0
R524	Z554	Z556	117.8	141.0
R525	Z556	Z558	55.2	141.0
R526	Z554	Z555	5	96.8
R527	Z556	Z557	5	96.8
R528	Z514	Z513	525.6	221.2
R529	Z466	Z525	5.6	221.2
R530	Z525	Z509	120.7	221.2
R531	Z509	Z510	36.1	221.2
R532	Z510	Z511	117.2	221.2
R533	Z511	Z512	29.4	221.2
R534	Z512	Z513	230.4	221.2
R535	Z512	Z530	5	96.8
R536	Z511	Z529	5	96.8
R537	Z510	Z528	5	96.8
R538	Z509	Z527	5	96.8
R539	Z525	Z526	5	96.8
R540	Z513	Z531	4.4	197.4
R541	Z531	Z532	200.5	141.0
R542	Z532	Z576	1.2	141.0
R543	Z576	Z535	28	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R544	Z532	Z533	5	96.8
R545	Z576	Z534	5	96.8
R546	Z531	Z536	8.8	197.4
R547	Z536	Z539	22.2	197.4
R548	Z539	Z540	106.8	197.4
R549	Z540	Z541	9.8	141.0
R550	Z541	Z543	31.7	141.0
R551	Z543	Z546	24.5	141.0
R552	Z536	Z537	5	96.8
R553	Z539	Z538	5	96.8
R554	Z541	Z542	5	96.8
R555	Z543	Z544	5	96.8
R556	Z546	Z545	5	96.8
R557	Z540	Z547	94.1	141
R558	Z547	Z549	252.2	141
R559	Z549	Z551	48.1	141
R560	Z551	Z552	45.1	141.0
R561	Z551	Z553	5	96.8
R562	Z549	Z550	5	96.8
R563	Z547	Z548	5	96.8
R564	Z175	Z40	647	500
G565	Z463	Z577	463.2	500
R565	Z577	Z578	13	141
R566	Z578	Z579	81.4	141
R567	Z579	Z580	104.3	141
R568	Z580	Z581	128	141
R569	Z580	Z588	92.4	141
R570	Z588	Z590	17	141.0
R571	Z590	Z592	45.3	141.0
R572	Z578	Z583	5.3	141
R573	Z583	Z585	14.5	141.0
R574	Z585	Z587	5	96.8
R575	Z585	Z586	5	96.8
R576	Z583	Z584	5	96.8
R577	Z590	Z591	5	96.8
R578	Z588	Z589	5	96.8
R579	Z579	Z582	21.6	141.0
G580	Z577	Z593	400	500
G581	Z593	Z595	355.4	500
R580	Z594	Z597	5	96.8
R581	Z596	Z598	5	96.8
R582	Z602	Z603	5	96.8
R583	Z605	Z606	5	96.8
R584	Z609	Z610	5	96.8
R585	Z611	Z612	5	96.8
R586	Z613	Z614	5	96.8
R587	Z615	Z616	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R588	Z615	Z617	5	96.8
R589	Z620	Z621	5	96.8
R590	Z622	Z623	5	96.8
R591	Z624	Z625	5	96.8
R592	Z626	Z628	5	96.8
R593	Z626	Z629	5	96.8
R594	Z631	Z632	5	96.8
R595	Z633	Z634	5	96.8
R596	Z593	Z594	5.4	277.6
R597	Z594	Z596	313.3	277.6
R598	Z596	Z599	49.3	277.6
R599	Z599	Z600	18.9	141.0
R600	Z599	Z601	504	277.6
R601	Z601	Z604	24.9	277.6
R602	Z604	Z605	21.3	141.0
R603	Z605	Z607	41.7	141.0
R604	Z601	Z602	5	277.6
R605	Z602	Z608	336.4	277.6
R606	Z608	Z609	50.5	197.4
R607	Z609	Z613	245	197.4
R608	Z613	Z615	80.4	197.4
R609	Z615	Z618	17.5	141.0
R610	Z608	Z611	101	277.6
R611	Z611	Z619	191.3	277.6
R612	Z619	Z622	37.8	197.4
R613	Z622	Z624	85.9	197.4
R614	Z624	Z626	11.4	141
R615	Z626	Z627	7.4	141.0
R616	Z619	Z620	4.4	197.4
R617	Z620	Z633	185.8	197.4
R618	Z633	Z631	35.8	141
R619	Z631	Z630	345.2	141
R620	Z604	Z517	116.7	277.6
R621	Z517	Z635	436.7	277.6
R622	Z635	Z636	497.7	277.6
R623	Z595	Z637	90.6	277.6
R624	Z637	Z636	301.5	277.6
R625	Z639	Z639	5	96.8
R627	Z517	Z640	5	96.8
R628	Z635	Z641	5.6	141
R629	Z641	Z642	5.6	141.0
R630	Z641	Z643	140.3	141
R631	Z643	Z645	5	96.8
R632	Z643	Z646	5	96.8
R633	Z643	Z644	12.3	141.0
R634	Z642	Z648	5	96.8
R635	Z642	Z647	182.6	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R636	Z637	Z649	6.1	141.0
R637	Z649	Z638	37	141.0
R638	Z636	Z650	125.1	141.0
R639	Z650	Z651	13.8	141.0
R640	Z651	Z655	167.2	141.0
R641	Z650	Z652	5	96.8
R642	Z651	Z653	5	96.8
R643	Z651	Z654	5	96.8
R644	Z595	Z656	440.3	500
R645	Z656	Z657	506.6	500
R646	Z657	Z658	191.7	500
R647	Z658	Z659	278.4	500
R648	Z659	Z660	355.9	500
R649	Z660	Z661	279	500
R650	Z661	Z662	669.8	500
R651	Z662	Z663	282.5	500
R652	Z664	Z663	606.5	500
R653	Z665	Z664	503.8	500
R654	Z40	Z665	241.2	500
R655	Z666	Z667	5	96.8
R656	Z666	Z668	5	96.8
R657	Z39	Z666	41	141.0
R658	Z674	Z676	5	96.8
R659	Z672	Z677	5	96.8
R660	Z669	Z679	5	96.8
R661	Z670	Z678	5	96.8
R662	Z673	Z680	5	96.8
R663	Z681	Z687	5	96.8
R664	Z682	Z688	5	96.8
R665	Z683	Z689	5	96.8
R666	Z684	Z690	5	96.8
R667	Z685	Z691	5	96.8
R668	Z665	Z669	43	141
R669	Z669	Z670	54.4	141
R670	Z670	Z671	212.7	141
R671	Z671	Z674	171.4	141.0
R672	Z674	Z675	43.7	141.0
R673	Z671	Z672	10.8	141.0
R674	Z672	Z673	189.3	141.0
R675	Z673	Z681	75.6	141.0
R676	Z681	Z682	55.7	141.0
R677	Z682	Z683	36.8	141.0
R678	Z683	Z684	13	141.0
R679	Z684	Z685	70.7	141.0
R680	Z685	Z686	130.9	141.0
R681	Z695	Z696	5	96.8
R682	Z693	Z694	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R683	Z664	Z692	4.6	141.0
R684	Z692	Z693	1.7	141.0
R685	Z693	Z695	85	141.0
R686	Z695	Z697	19.5	141.0
R687	Z692	Z698	3.9	141.0
R688	Z698	Z702	168.3	141.0
R689	Z702	Z700	40.2	141.0
R690	Z702	Z701	5	96.8
R691	Z698	Z699	5	96.8
R692	Z703	Z704	125.6	141.0
R693	Z704	Z705	233.7	141.0
R694	Z705	Z706	108.5	141.0
R695	Z706	Z709	123.5	141.0
R696	Z709	Z710	232.8	141.0
R697	Z709	Z707	43.5	141.0
R698	Z707	Z708	12.8	141.0
R699	Z703	Z711	5	96.8
R700	Z704	Z712	5	96.8
R701	Z705	Z713	5	96.8
R702	Z706	Z714	5	96.8
R703	Z707	Z715	5	96.8
R704	Z663	Z703	9	141.0
R705	Z662	Z716	82.3	141
R706	Z716	Z717	318.1	141
R707	Z717	Z718	192.7	141.0
R708	Z718	Z719	68.9	141.0
R709	Z717	Z720	94.5	141
R710	Z720	Z721	13.7	141
R711	Z721	Z722	40.2	141.0
R712	Z722	Z723	84.7	141.0
R713	Z722	Z724	5	96.8
R714	Z721	Z725	5	96.8
R715	Z720	Z726	5	96.8
R716	Z718	Z727	5	96.8
R626	Z657	Z728	2.7	197.4
R717	Z728	Z729	23.9	141.0
R718	Z730	Z729	5	96.8
R719	Z729	Z731	235	141.0
R720	Z728	Z732	187.7	197.4
R721	Z732	Z734	65.9	197.4
R722	Z734	Z736	200.9	197.4
R723	Z736	Z738	161	197.4
R724	Z738	Z740	160.5	141
R725	Z740	Z742	13.1	141
R726	Z742	Z743	45.4	141
R727	Z743	Z744	9.4	141
R728	Z744	Z747	466	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R729	Z744	Z746	5	96.8
R730	Z743	Z745	5	96.8
R731	Z740	Z741	5	96.8
R732	Z738	Z739	5	96.8
R733	Z736	Z737	5	96.8
R734	Z734	Z735	5	96.8
R735	Z732	Z733	5	96.8
R736	Z656	Z748	8.5	197.4
R737	Z748	Z749	6.8	141
R738	Z749	Z750	20.2	141
R739	Z750	Z752	85.5	141
R740	Z752	Z753	4.3	141
R741	Z753	Z754	9	141.0
R742	Z753	Z756	148.8	141.0
R743	Z754	Z755	78.04	141.0
R744	Z750	Z751	41.2	141
R745	Z751	Z761	110.6	141
R746	Z761	Z762	20.5	141.0
R747	Z762	Z763	14.1	141.0
R748	Z763	Z764	48.89	141.0
R749	Z763	Z765	5	96.8
R750	Z762	Z766	5	96.8
R751	Z761	Z767	5	96.8
R752	Z751	Z760	5	96.8
R753	Z749	Z759	5	96.8
R754	Z752	Z758	5	96.8
R755	Z754	Z757	5	96.8
R756	Z774	Z776	5	96.8
R757	Z771	Z777	5	96.8
R758	Z770	Z778	5	96.8
R759	Z769	Z779	5	96.8
R760	Z768	Z780	5	96.8
R761	Z748	Z768	510.8	197.4
R762	Z768	Z769	18.4	197.4
R763	Z769	Z770	96.3	197.4
R764	Z770	Z771	10.4	141
R765	Z771	Z772	139.1	141
R766	Z772	Z774	61.3	141.0
R767	Z774	Z775	9.1	141.0
R768	Z772	Z773	202.6	141.0
R769	Z659	Z781	48.6	277.6
R770	Z781	Z785	78.2	277.6
R771	Z785	Z782	128.1	277.6
R772	Z782	Z783	269.1	277.6
R773	Z783	Z784	64.2	277.6
R774	Z784	Z786	247.3	277.6
R775	Z786	Z787	47.2	277.6

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R776	Z787	Z788	53.7	277.6
R777	Z788	Z789	9.9	277.6
R778	Z789	Z790	29	277.6
R779	Z790	Z791	207.9	221.2
R780	Z791	Z792	90.2	221.2
R781	Z792	Z793	193.2	221.2
R782	Z793	Z794	83.3	221.2
R783	Z794	Z795	10.7	221.2
R798	Z809	Z795	224.05	277.6
R785	Z781	Z808	5	96.8
R786	Z782	Z807	5	96.8
R787	Z783	Z806	5	96.8
R788	Z784	Z805	5	96.8
R789	Z786	Z804	5	96.8
R790	Z787	Z803	5	96.8
R791	Z788	Z802	5	96.8
R792	Z789	Z801	5	96.8
R793	Z791	Z800	5	96.8
R794	Z792	Z799	5	96.8
R795	Z793	Z798	5	96.8
R796	Z794	Z797	5	96.8
R797	Z809	Z796	20.86	96.8
R799	Z661	Z809	10.74	277.6
R800	Z790	Z810	5.7	197.4
R801	Z810	Z811	112.1	197.4
R802	Z811	Z812	88.7	197.4
R803	Z812	Z813	88.5	141
R804	Z813	Z814	89.2	141
R805	Z814	Z815	87.3	141.0
R806	Z815	Z816	118.8	141.0
R807	Z816	Z817	76.1	141.0
R808	Z816	Z818	116.9	141.0
R809	Z810	Z819	5	96.8
R810	Z811	Z820	5	96.8
R811	Z812	Z821	5	96.8
R812	Z813	Z822	5	96.8
R813	Z814	Z823	5	96.8
R814	Z815	Z824	5	96.8
R784	Z825	Z838	5	96.8
R815	Z826	Z839	5	96.8
R816	Z827	Z840	5	96.8
R817	Z828	Z841	5	96.8
R818	Z829	Z842	5	96.8
R819	Z831	Z843	5	96.8
R820	Z831	Z844	5	96.8
R821	Z833	Z845	5	96.8
R822	Z834	Z847	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R823	Z835	Z848	5	96.8
R824	Z836	Z849	5	96.8
R825	Z785	Z825	122.1	277.6
R826	Z825	Z826	233.5	277.6
R827	Z826	Z827	33	277.6
R828	Z827	Z828	65.4	221.2
R829	Z828	Z829	138.6	221.2
R830	Z829	Z830	163.2	221.2
R831	Z830	Z831	8.3	141.0
R832	Z830	Z832	322.9	197.4
R833	Z832	Z846	106.9	141.0
R834	Z832	Z833	1.3	197.4
R835	Z833	Z834	83.9	197.4
R836	Z834	Z835	150.6	141
R837	Z835	Z836	34.9	141.0
R838	Z836	Z837	60.7	141.0
R839	Z795	Z850	189	221.2
R840	Z850	Z851	8.9	221.2
R841	Z851	Z852	143.3	221.2
R842	Z852	Z853	44.2	221.2
R843	Z853	Z854	171.3	221.2
R844	Z854	Z855	103.3	197.4
R845	Z855	Z856	64	141
R846	Z856	Z857	61.3	141
R847	Z857	Z858	80.2	141
R848	Z858	Z859	56.2	141
R849	Z859	Z871	121	141.0
R850	Z854	Z860	316	141
R851	Z860	Z861	122.9	141
R852	Z861	Z874	201	141.0
R853	Z850	Z862	5	96.8
R854	Z851	Z863	5	96.8
R855	Z852	Z864	5	96.8
R856	Z853	Z865	5	96.8
R857	Z855	Z866	5	96.8
R858	Z856	Z867	5	96.8
R859	Z857	Z868	5	96.8
R860	Z858	Z869	5	96.8
R861	Z859	Z870	5	96.8
R862	Z860	Z872	5	96.8
R863	Z861	Z873	5	96.8
R864	Z3	Z875	803.3	400
R865	Z875	Z882	7.5	141.0
R866	Z882	Z883	18.5	141.0
R867	Z883	Z884	155.6	141.0
R868	Z884	Z885	156.9	141.0
R869	Z885	Z886	71.4	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R870	Z886	Z887	367.4	141.0
R871	Z886	Z961	5	96.8
R872	Z885	Z962	5	96.8
R873	Z885	Z963	5	96.8
R874	Z884	Z964	5	96.8
R875	Z884	Z965	5	96.8
R876	Z883	Z966	5	96.8
R877	Z882	Z967	5	96.8
R878	Z875	Z876	383.9	400
R879	Z876	Z888	477.2	400
R880	Z888	Z897	507.9	400
R881	Z876	Z877	20	197.4
R882	Z877	Z878	32.5	141.0
R883	Z878	Z879	183.4	141.0
R884	Z879	Z880	278.4	141.0
R885	Z880	Z881	212.9	141.0
R886	Z878	Z970	5	96.8
R887	Z879	Z969	5	96.8
R888	Z880	Z968	5	96.8
R889	Z877	Z895	533.7	197.4
R890	Z895	Z896	151	197.4
R891	Z896	Z894	27.1	197.4
R896	Z888	Z971	8.8	197.4
R897	Z889	Z890	148	197.4
R898	Z890	Z891	213	197.4
R899	Z891	Z892	201.5	197.4
R900	Z892	Z893	192.7	197.4
R901	Z893	Z894	27.1	197.4
R902	Z971	Z889	251.5	197.4
R903	Z897	Z899	550.3	400
R904	Z1248	Z960	264.3	312.8
R905	Z960	Z935	1161.6	312.8
R906	Z935	Z933	206.7	400
R907	Z933	Z899	373.5	400
R908	Z899	Z900	26.4	141.0
R909	Z900	Z901	140	141.0
R910	Z900	Z972	5	96.8
R911	Z900	Z973	5	96.8
R912	Z897	Z898	3.9	312.8
R913	Z898	Z902	1143.2	312.8
R914	Z898	Z974	5	96.8
R915	Z902	Z903	33	312.8
R916	Z903	Z904	90.3	312.8
R917	Z904	Z905	13.5	312.8
R918	Z905	Z906	15.7	312.8
R919	Z906	Z907	146.3	312.8
R920	Z907	Z908	109.5	312.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R921	Z908	Z909	204	312.8
R922	Z909	Z910	100.9	312.8
R923	Z909	Z981	5	96.8
R924	Z908	Z980	5	96.8
R925	Z907	Z979	5	96.8
R926	Z906	Z978	5	96.8
R927	Z905	Z977	5	96.8
R928	Z904	Z976	5	96.8
R929	Z903	Z975	5	96.8
R930	Z933	Z934	12.9	312.8
R931	Z934	Z932	294.6	312.8
R932	Z932	Z931	209.5	312.8
R933	Z931	Z930	37.3	312.8
R934	Z930	Z929	363.5	312.8
R935	Z929	Z928	69	312.8
R936	Z928	Z927	99.8	312.8
R937	Z927	Z926	192.8	312.8
R938	Z926	Z925	150.8	312.8
R939	Z925	Z924	33.5	312.8
R940	Z924	Z923	101.4	312.8
R941	Z923	Z922	150.2	312.8
R942	Z922	Z921	46.9	312.8
R943	Z921	Z920	36.5	312.8
R944	Z920	Z919	210.77	312.8
R945	Z919	Z918	114.5	312.8
R946	Z918	Z917	69.4	312.8
R947	Z917	Z916	105.3	312.8
R948	Z916	Z915	91.6	312.8
R949	Z915	Z914	143.4	312.8
R950	Z914	Z913	145.1	312.8
R951	Z913	Z912	191.7	312.8
R952	Z912	Z911	249.3	312.8
R953	Z911	Z910	143.2	312.8
R954	Z934	Z982	5	96.8
R955	Z932	Z983	5	96.8
R956	Z931	Z984	5	96.8
R957	Z930	Z985	20.46	96.8
R958	Z929	Z986	5	96.8
R959	Z928	Z987	5	96.8
R960	Z927	Z988	5	96.8
R961	Z926	Z989	5	96.8
R962	Z924	Z990	5	96.8
R963	Z923	Z991	5	96.8
R964	Z922	Z992	5	96.8
R965	Z921	Z993	5	96.8
R966	Z920	Z994	5	96.8
R967	Z918	Z995	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R968	Z917	Z996	5	96.8
R969	Z916	Z997	5	96.8
R970	Z915	Z998	5	96.8
R971	Z914	Z999	5	96.8
R972	Z913	Z1000	5	96.8
R973	Z912	Z1001	5	96.8
R974	Z911	Z1002	5	96.8
R975	Z971	Z1011	5	96.8
R976	Z889	Z1010	5	96.8
R977	Z890	Z1009	5	96.8
R978	Z891	Z1008	5	96.8
R979	Z891	Z1007	5	96.8
R980	Z892	Z1006	5	96.8
R981	Z893	Z1005	5	96.8
R982	Z896	Z1004	5	96.8
R983	Z895	Z1003	5	96.8
R984	Z894	Z1012	405.2	197.4
R985	Z1012	Z1013	210.7	141
R986	Z1013	Z1014	79.4	141
R987	Z1014	Z1015	257.4	141
R988	Z1015	Z1016	47.92	141
R989	Z1016	Z1017	169.6	141
R990	Z1017	Z1018	98.3	141.0
R991	Z1018	Z1019	144.7	141.0
R992	Z1019	Z1020	226.2	141.0
R993	Z1017	Z1021	29.9	141.0
R994	Z1021	Z1022	331.5	141.0
R995	Z1012	Z1023	5	96.8
R996	Z1012	Z1024	30.48	96.8
R997	Z1013	Z1025	5	96.8
R998	Z1014	Z1026	5	96.8
R999	Z1015	Z1027	5	96.8
R1000	Z1016	Z1028	5	96.8
R1001	Z1018	Z1029	5	96.8
R1002	Z1019	Z1030	5	96.8
R1003	Z1021	Z1031	5	96.8
R892	Z902	Z1038	8.6	141
R893	Z1038	Z1037	31.8	141
R894	Z1037	Z1036	110	141
R895	Z1036	Z1035	56	141
R1004	Z1035	Z1034	301.8	141
R1005	Z1034	Z1033	178.1	141.0
R1006	Z1033	Z1032	25.8	141.0
R1007	Z1033	Z1039	5	96.8
R1008	Z1034	Z1040	5	96.8
R1009	Z1035	Z1041	5	96.8
R1010	Z1036	Z1042	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1011	Z1037	Z1043	5	96.8
R1012	Z1038	Z1044	5	96.8
R1013	Z1038	Z1045	5	96.8
R1014	Z910	Z1046	15.4	141
R1015	Z1046	Z1047	32.2	141
R1016	Z1047	Z1048	50.4	141
R1017	Z1048	Z1049	32	141
R1018	Z1049	Z1050	74.2	141
R1019	Z1050	Z1051	21.5	141
R1020	Z1051	Z1052	390.4	141
R1021	Z1052	Z1053	76.9	141.0
R1022	Z1053	Z1054	44.6	141.0
R1023	Z1054	Z1055	103.2	141.0
R1024	Z1046	Z1064	5	96.8
R1025	Z1047	Z1063	5	96.8
R1026	Z1048	Z1062	5	96.8
R1027	Z1049	Z1061	5	96.8
R1028	Z1050	Z1060	5	96.8
R1029	Z1051	Z1059	5	96.8
R1030	Z1052	Z1058	5	96.8
R1031	Z1053	Z1057	5	96.8
R1032	Z1054	Z1056	5	96.8
R1033	Z1065	Z1075	5	96.8
R1034	Z1066	Z1074	5	96.8
R1035	Z1067	Z1073	5	96.8
R1036	Z1068	Z1072	5	96.8
R1037	Z1069	Z1071	5	96.8
R1038	Z919	Z1065	17.3	141
R1039	Z1065	Z1066	231.1	141
R1040	Z1066	Z1067	215.1	141
R1041	Z1067	Z1068	21.9	141
R1042	Z1068	Z1069	56.7	141.0
R1043	Z1069	Z1070	11.7	141.0
R1044	Z1076	Z1082	5	96.8
R1045	Z1076	Z1083	5	96.8
R1046	Z1077	Z1084	5	96.8
R1047	Z1078	Z1085	5	96.8
R1048	Z1079	Z1086	5	96.8
R1049	Z1080	Z1087	5	96.8
R1050	Z925	Z1076	13.15	141
R1051	Z1076	Z1077	381.1	141
R1052	Z1077	Z1078	146.5	141
R1053	Z1078	Z1079	111	141
R1054	Z1079	Z1080	368.5	141
R1055	Z1080	Z1081	158.1	141.0
R1056	Z936	Z1088	12.2	141.0
R1057	Z1088	Z1089	58.7	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1058	Z1089	Z1090	77.3	141.0
R1059	Z1090	Z1091	99.5	141.0
R1060	Z1091	Z1094	28.5	141.0
R1061	Z1094	Z1092	40.2	141.0
R1062	Z1092	Z1093	79.4	141.0
R1063	Z1094	Z1095	11.4	141.0
R1064	Z1095	Z1096	145.5	141.0
R1065	Z1095	Z1102	11.82	96.8
R1066	Z1092	Z1101	5	96.8
R1067	Z1091	Z1100	5	96.8
R1068	Z1090	Z1099	5	96.8
R1069	Z1089	Z1098	5	96.8
R1070	Z1088	Z1097	5	96.8
R1071	Z935	Z936	2.7	312.8
R1072	Z936	Z937	12	312.8
R1073	Z937	Z938	688.3	312.8
R1074	Z938	Z1108	530.5	221.2
R1075	Z938	Z939	10.60	141
R1076	Z939	Z1246	136.2	141
R1077	Z939	Z1103	5	96.8
R1079	Z942	Z943	150.6	141
R1080	Z943	Z944	381.9	141
R1082	Z945	Z946	141.3	141
R1083	Z946	Z947	90.4	141
R1084	Z947	Z948	188.8	141
R1085	Z948	Z949	293.7	141
R1086	Z949	Z950	28.6	141
R1088	Z951	Z952	52	197.4
R1089	Z952	Z953	23.4	197.4
R1090	Z953	Z954	174.2	197.4
R1091	Z954	Z955	16.5	197.4
R1092	Z955	Z956	37.2	197.4
R1093	Z956	Z957	114	197.4
R1095	Z1104	Z1105	268.6	141.0
R1096	Z1104	Z1107	5	96.8
R1097	Z1104	Z1106	5	96.8
R1099	Z1108	Z1111	76	141
R1100	Z1111	Z1109	16.7	141
R1101	Z1109	Z1110	69.3	141.0
R1102	Z1109	Z1112	94	141
R1103	Z1112	Z1113	121.5	141
R1104	Z1113	Z1114	12.3	141.0
R1105	Z1111	Z1117	5	96.8
R1106	Z1110	Z1118	5	96.8
R1107	Z1112	Z1116	5	96.8
R1108	Z1112	Z1119	5	96.8
R1109	Z1113	Z1115	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1110	Z942	Z1120	5	96.8
R1111	Z942	Z1121	5	96.8
R1112	Z943	Z1122	5	96.8
R1113	Z943	Z1123	5	96.8
R1114	Z944	Z1124	5	96.8
R1115	Z944	Z1125	5	96.8
R1116	Z945	Z1126	5	96.8
R1117	Z945	Z1127	5	96.8
R1118	Z946	Z1128	5	96.8
R1119	Z947	Z1129	5	96.8
R1120	Z948	Z1130	5	96.8
R1121	Z1130	Z1132	5	96.8
R1122	Z1130	Z1131	5	96.8
R1123	Z949	Z1133	5	96.8
R1124	Z950	Z1134	5	96.8
R1125	Z951	Z1135	5	96.8
R1126	Z952	Z1136	5	96.8
R1127	Z953	Z1137	5	96.8
R1128	Z956	Z1141	5	96.8
R1129	Z955	Z1140	5	96.8
R1130	Z954	Z1138	5	96.8
R1131	Z954	Z1139	5	96.8
R1132	Z1108	Z1142	122	197.4
R1133	Z1142	Z1143	197.4	197.4
R1134	Z1143	Z1144	197.4	141
R1135	Z1144	Z1145	4.8	141
R1136	Z1145	Z1146	64.4	141
R1137	Z1146	Z1147	21.4	141.0
R1138	Z1147	Z1148	77.3	141.0
R1139	Z1142	Z1153	5	96.8
R1140	Z1143	Z1152	5	96.8
R1141	Z1145	Z1151	5	96.8
R1142	Z1146	Z1150	5	96.8
R1143	Z1147	Z1149	5	96.8
R1144	Z1144	Z1154	494	141
R1145	Z1154	Z1155	7.5	141
R1146	Z1155	Z1156	114.7	141.0
R1147	Z1155	Z1158	5	96.8
R1148	Z1154	Z1157	5	96.8
R1149	Z957	Z958	288	197.4
R1150	Z959	Z958	122.3	197.4
R1151	Z293	Z959	453	197.4
R1152	Z959	Z1159	5	96.8
R1153	Z1163	Z1170	5	96.8
R1154	Z1163	Z1171	5	96.8
R1155	Z1162	Z1168	5	96.8
R1156	Z1162	Z1169	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1157	Z1161	Z1167	5	96.8
R1158	Z1160	Z1164	5	96.8
R1159	Z958	Z1166	5	96.8
R1162	Z1244	Z1161	6.6	141.0
R1163	Z1161	Z1243	88.2	141.0
R1164	Z1162	Z1163	347.6	141.0
R1165	Z1172	Z1174	5	96.8
R1166	Z960	Z1175	3.8	221.2
R1167	Z1175	Z1172	48.5	141.0
R1168	Z1172	Z1173	181.7	141.0
R1169	Z1175	Z1176	9.2	221.2
R1170	Z1176	Z1177	17	141.0
R1171	Z1177	Z1178	11.4	141.0
R1172	Z1178	Z1179	155	141.0
R1173	Z1179	Z1180	108.8	141.0
R1174	Z1180	Z1181	24.6	141.0
R1175	Z1180	Z1185	5	96.8
R1176	Z1179	Z1184	5	96.8
R1177	Z1178	Z1183	5	96.8
R1178	Z1177	Z1182	5	96.8
R1179	Z1176	Z1186	193.3	221.2
R1180	Z1186	Z1187	47.2	141.0
R1181	Z1187	Z1188	12.6	141.0
R1182	Z1188	Z1189	85.2	141.0
R1183	Z1189	Z1190	12.1	141.0
R1184	Z1190	Z1191	108.7	141.0
R1185	Z1190	Z1192	5	96.8
R1186	Z1189	Z1193	5	96.8
R1187	Z1188	Z1194	5	96.8
R1188	Z1187	Z1195	5	96.8
R1189	Z1186	Z1196	22.1	197.4
R1190	Z1196	Z1197	11.9	197.4
R1191	Z1197	Z1198	70.1	197.4
R1192	Z1198	Z1199	40.4	141.0
R1193	Z1199	Z1200	31.7	141.0
R1194	Z1200	Z1201	28.9	141.0
R1195	Z1198	Z1202	8.6	141.0
R1196	Z1202	Z1203	149.5	141.0
R1197	Z1203	Z1204	36.3	141.0
R1198	Z1204	Z1205	34	141.0
R1199	Z1196	Z1206	5	96.8
R1200	Z1197	Z1207	5	96.8
R1201	Z1202	Z1208	5	96.8
R1202	Z1199	Z1209	5	96.8
R1203	Z1200	Z1210	5	96.8
R1204	Z1203	Z1212	5	96.8
R1205	Z1204	Z1211	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1206	Z1036	Z1213	5	96.8
R1207	Z937	Z1214	21.07	96.8
R1208	Z116	Z1215	5	96.8
R1209	Z116	Z1216	5	96.8
R1210	Z52	Z1217	5	96.8
R1211	Z32	Z1218	5	96.8
R1212	Z33	Z1219	5	96.8
R1213	Z34	Z1220	5	96.8
R1214	Z35	Z1221	5	96.8
R1215	Z36	Z1222	5	96.8
R1216	Z37	Z1223	5	96.8
R1217	Z38	Z1224	5	96.8
R1218	Z660	Z1225	6.8	141.0
R1219	Z1225	Z1226	3.2	141.0
R1220	Z1226	Z1228	10.3	141.0
R1221	Z1226	Z1229	5	96.8
R1222	Z1225	Z1227	36.5	141.0
R1223	Z1227	Z1230	5	96.8
R1224	Z1227	Z1231	5	96.8
R1225	Z658	Z1232	2.7	141.0
R1226	Z1232	Z1234	7.4	141.0
R1227	Z1234	Z1236	10	141.0
R1228	Z1236	Z1235	31.2	141.0
R1229	Z1232	Z1233	10.3	141.0
R1230	Z1234	Z1238	5	96.8
R1231	Z1236	Z1237	5	96.8
R1	Z384	Z1239	5	96.8
R2	Z384	Z1240	5	96.8
R1232	Z383	Z1241	5	96.8
R1233	Z382	Z1242	5	96.8
R430	Z462	Z461	276.2	312.8
R1234	Z1243	Z1162	14.2	141.0
R1235	Z1243	Z1104	275.3	141.0
R1236	Z1245	Z1244	357.4	141
R1237	Z1245	Z292	5	98.6
R1238	Z1244	Z1160	164.3	141.0
R3187	Z951	Z950	400.7	197.4
R1239	Z1246	Z940	5	96.8
R1240	Z1246	Z1247	543	141
R1241	Z1247	Z942	5.5	141
R1078	Z3	Z1248	13465	600
R1081	Z1248	Z293	68.4	400
P1	S1	Z1	#N/A	#N/A Pump
P2	S1	Z1	#N/A	#N/A Pump
P3	S1	Z1	#N/A	#N/A Pump
P4	S1	Z1	#N/A	#N/A Pump
P5	S1	Z1	#N/A	#N/A Pump

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm		
P6	S1	Z1	#N/A	#N/A Pump		
P7	S1	Z1	#N/A	#N/A Pump		
Energy Usage:						
Pump	Usage Factor	Avg. Effic.	Kw-hr /m3	Avg. Kw	Peak Kw	Cost /day
P1	0.00	0.00	0.00	0.00	0.00	0.00
P2	100.00	75.00	0.29	156.99	156.99	0.00
P3	100.00	75.00	0.29	156.99	156.99	0.00
P4	100.00	75.00	0.29	156.99	156.99	0.00
P5	100.00	75.00	0.29	156.99	156.99	0.00
P6	100.00	75.00	0.29	156.99	156.99	0.00
P7	100.00	75.00	0.29	156.99	156.99	0.00
Demand Charge:					0.00	0.00
Total Cost:					0.00	0.00
Node Results:						
Node ID	Demand LPS	Head m	Pressure m	Quality		
Z1	0.00	89.84	79.84	0.00		
Z2	0.00	89.45	79.45	0.00		
Z3	0.00	84.75	74.75	0.00		
Z4	0.00	89.16	79.16	0.00		
Z5	0.00	88.16	78.16	0.00		
Z6	0.00	88.08	78.08	0.00		
Z7	0.00	87.86	77.86	0.00		
Z8	0.00	87.72	77.72	0.00		
Z9	0.00	87.68	77.68	0.00		
Z10	0.00	87.38	77.38	0.00		
Z11	0.00	87.27	77.27	0.00		
Z12	0.00	86.86	76.86	0.00		
Z13	0.00	86.57	76.57	0.00		
Z14	0.00	86.44	76.44	0.00		
Z15	0.00	86.11	76.11	0.00		
Z16	0.00	85.94	75.94	0.00		
Z17	0.00	85.83	75.83	0.00		
Z18	0.00	85.72	75.72	0.00		
Z19	0.00	85.68	75.68	0.00		
Z20	0.00	85.52	75.52	0.00		
Z21	0.00	85.48	75.48	0.00		
Z22	0.00	85.41	75.41	0.00		
Z23	0.00	85.30	75.30	0.00		

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z24	0.00	85.26	75.26	0.00
Z25	0.00	85.19	75.19	0.00
Z26	0.00	85.02	75.02	0.00
Z27	0.00	85.01	75.01	0.00
Z28	0.00	84.80	74.80	0.00
Z29	0.00	85.75	75.75	0.00
Z56	3.06	89.15	79.15	0.00
Z57	3.06	88.15	78.15	0.00
Z58	3.06	88.07	78.07	0.00
Z59	3.06	87.85	77.85	0.00
Z60	3.06	87.71	77.71	0.00
Z61	3.06	87.67	77.67	0.00
Z62	3.06	87.37	77.37	0.00
Z63	3.06	87.26	77.26	0.00
Z64	3.06	86.85	76.85	0.00
Z65	3.06	86.56	76.56	0.00
Z66	3.06	86.43	76.43	0.00
Z67	3.06	86.10	76.10	0.00
Z68	3.06	85.93	75.93	0.00
Z69	3.06	85.82	75.82	0.00
Z70	3.06	85.71	75.71	0.00
Z71	3.06	85.67	75.67	0.00
Z72	3.06	83.82	73.82	0.00
Z73	3.06	85.51	75.51	0.00
Z74	3.06	85.47	75.47	0.00
Z75	3.06	85.40	75.40	0.00
Z76	3.06	85.29	75.29	0.00
Z77	3.06	85.25	75.25	0.00
Z78	3.06	85.18	75.18	0.00
Z79	3.06	85.01	75.01	0.00
Z80	3.06	85.00	75.00	0.00
Z81	3.06	84.79	74.79	0.00
Z82	0.00	83.36	73.36	0.00
Z83	0.00	81.07	71.07	0.00
Z84	0.00	80.64	70.64	0.00
Z85	0.00	79.64	69.64	0.00
Z86	0.00	78.95	68.95	0.00
Z87	0.00	78.84	68.84	0.00
Z88	0.00	78.56	68.56	0.00
Z89	0.00	78.50	68.50	0.00
Z90	3.06	78.49	68.49	0.00
Z91	3.06	83.35	73.35	0.00
Z92	3.06	81.06	71.06	0.00
Z93	3.06	80.63	70.63	0.00
Z94	3.06	79.63	69.63	0.00
Z95	3.06	78.94	68.94	0.00
Z96	3.06	78.83	68.83	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z97	3.06	78.55	68.55	0.00
Z98	3.06	78.49	68.49	0.00
Z99	0.00	82.74	72.74	0.00
Z100	0.00	78.27	68.27	0.00
Z101	0.00	76.57	66.57	0.00
Z102	0.00	71.68	61.68	0.00
Z103	0.00	71.05	61.05	0.00
Z104	0.00	70.47	60.47	0.00
Z105	0.00	70.31	60.31	0.00
Z106	0.00	70.01	60.01	0.00
Z107	0.00	69.97	59.97	0.00
Z108	3.06	70.00	60.00	0.00
Z109	3.06	70.30	60.30	0.00
Z110	3.06	70.46	60.46	0.00
Z111	3.06	71.04	61.04	0.00
Z112	3.06	71.67	61.67	0.00
Z113	3.06	76.56	66.56	0.00
Z114	3.06	78.26	68.26	0.00
Z115	3.06	82.73	72.73	0.00
Z116	0.00	84.76	74.76	0.00
Z117	0.00	84.60	74.60	0.00
Z118	0.00	84.51	74.51	0.00
Z119	0.00	84.44	74.44	0.00
Z120	0.00	84.30	74.30	0.00
Z121	0.00	84.22	74.22	0.00
Z122	0.00	84.60	74.60	0.00
Z123	0.00	84.60	74.60	0.00
Z124	0.00	84.60	74.60	0.00
Z125	0.00	84.60	74.60	0.00
Z126	0.00	84.60	74.60	0.00
Z127	3.06	69.96	59.96	0.00
Z128	0.00	84.60	74.60	0.00
Z129	0.00	84.60	74.60	0.00
Z130	0.00	84.60	74.60	0.00
Z30	0.00	83.95	73.95	0.00
Z31	0.00	83.93	73.93	0.00
Z32	0.00	83.92	73.92	0.00
Z33	0.00	83.78	73.78	0.00
Z34	0.00	83.67	73.67	0.00
Z35	0.00	83.57	73.57	0.00
Z36	0.00	83.55	73.55	0.00
Z37	0.00	83.53	73.53	0.00
Z38	0.00	83.52	73.52	0.00
Z39	0.00	83.47	73.47	0.00
Z40	0.00	83.45	73.45	0.00
Z42	0.00	83.95	73.95	0.00
Z43	0.00	83.93	73.93	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z44	0.00	83.93	73.93	0.00
Z45	0.00	83.93	73.93	0.00
Z46	0.00	83.93	73.93	0.00
Z48	0.00	83.93	73.93	0.00
Z49	0.00	84.51	74.51	0.00
Z50	0.00	84.44	74.44	0.00
Z51	0.00	84.30	74.30	0.00
Z52	0.00	84.22	74.22	0.00
Z53	0.00	84.22	74.22	0.00
Z54	0.00	84.22	74.22	0.00
Z55	0.00	84.22	74.22	0.00
Z131	0.00	84.22	74.22	0.00
Z132	0.00	84.34	74.34	0.00
Z133	0.00	83.99	73.99	0.00
Z134	0.00	83.85	73.85	0.00
Z135	0.00	83.65	73.65	0.00
Z136	0.00	83.56	73.56	0.00
Z137	3.06	83.53	73.53	0.00
Z138	0.00	83.39	73.39	0.00
Z139	0.00	83.02	73.02	0.00
Z140	0.00	82.85	72.85	0.00
Z141	0.00	82.84	72.84	0.00
Z142	3.06	82.80	72.80	0.00
Z143	0.00	84.00	74.00	0.00
Z144	0.00	83.73	73.73	0.00
Z145	0.00	83.73	73.73	0.00
Z146	0.00	83.73	73.73	0.00
Z147	0.00	83.73	73.73	0.00
Z148	0.00	83.73	73.73	0.00
Z149	0.00	83.73	73.73	0.00
Z150	0.00	83.73	73.73	0.00
Z151	0.00	83.73	73.73	0.00
Z152	0.00	83.73	73.73	0.00
Z153	0.00	83.73	73.73	0.00
Z154	0.00	83.73	73.73	0.00
Z155	0.00	83.73	73.73	0.00
Z156	0.00	83.73	73.73	0.00
Z157	3.06	82.83	72.83	0.00
Z158	3.06	82.84	72.84	0.00
Z159	3.06	83.01	73.01	0.00
Z160	3.06	83.38	73.38	0.00
Z161	3.06	83.84	73.84	0.00
Z162	3.06	83.64	73.64	0.00
Z163	3.06	83.55	73.55	0.00
Z164	0.00	78.64	68.64	0.00
Z165	0.00	67.51	57.51	0.00
Z166	0.00	83.73	73.73	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z167	0.00	83.73	73.73	0.00
Z168	0.00	83.73	73.73	0.00
Z169	0.00	83.73	73.73	0.00
Z170	0.00	83.73	73.73	0.00
Z171	0.00	83.73	73.73	0.00
Z172	0.00	83.73	73.73	0.00
Z173	0.00	83.73	73.73	0.00
Z174	0.00	83.73	73.73	0.00
Z175	0.00	83.45	73.45	0.00
Z176	0.00	83.11	73.11	0.00
Z177	0.00	82.88	72.88	0.00
Z178	0.00	82.88	72.88	0.00
Z179	0.00	82.88	72.88	0.00
Z180	0.00	82.88	72.88	0.00
Z181	0.00	82.88	72.88	0.00
Z182	0.00	82.88	72.88	0.00
Z183	0.00	82.88	72.88	0.00
Z184	0.00	82.88	72.88	0.00
Z185	0.00	82.88	72.88	0.00
Z186	0.00	82.88	72.88	0.00
Z187	0.00	82.88	72.88	0.00
Z188	0.00	82.88	72.88	0.00
Z189	0.00	82.88	72.88	0.00
Z190	0.00	82.88	72.88	0.00
Z191	0.00	82.88	72.88	0.00
Z192	0.00	82.88	72.88	0.00
Z193	0.00	82.88	72.88	0.00
Z194	0.00	82.88	72.88	0.00
Z195	0.00	82.88	72.88	0.00
Z196	0.00	82.88	72.88	0.00
Z197	0.00	82.88	72.88	0.00
Z198	0.00	82.88	72.88	0.00
Z199	0.00	82.88	72.88	0.00
Z200	0.00	82.88	72.88	0.00
Z201	0.00	82.88	72.88	0.00
Z202	0.00	82.88	72.88	0.00
Z203	0.00	82.88	72.88	0.00
Z204	0.00	82.88	72.88	0.00
Z205	0.00	82.47	72.47	0.00
Z206	0.00	82.02	72.02	0.00
Z207	0.00	82.09	72.09	0.00
Z208	0.00	82.28	72.28	0.00
Z209	0.00	82.32	72.32	0.00
Z210	0.00	82.09	72.09	0.00
Z211	0.00	82.09	72.09	0.00
Z212	0.00	82.09	72.09	0.00
Z213	0.00	82.09	72.09	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z214	0.00	82.09	72.09	0.00
Z215	0.00	82.09	72.09	0.00
Z216	0.00	82.09	72.09	0.00
Z217	0.00	82.09	72.09	0.00
Z218	0.00	82.09	72.09	0.00
Z219	0.00	82.28	72.28	0.00
Z220	0.00	82.28	72.28	0.00
Z221	0.00	82.28	72.28	0.00
Z222	0.00	82.28	72.28	0.00
Z223	0.00	82.28	72.28	0.00
Z224	0.00	82.28	72.28	0.00
Z225	0.00	82.28	72.28	0.00
Z226	0.00	82.28	72.28	0.00
Z227	0.00	82.28	72.28	0.00
Z228	0.00	82.28	72.28	0.00
Z229	0.00	82.28	72.28	0.00
Z230	0.00	82.28	72.28	0.00
Z231	0.00	82.28	72.28	0.00
Z232	0.00	82.28	72.28	0.00
Z233	0.00	82.28	72.28	0.00
Z234	0.00	82.28	72.28	0.00
Z235	0.00	82.28	72.28	0.00
Z236	0.00	82.28	72.28	0.00
Z41	0.00	78.59	68.59	0.00
Z47	0.00	77.83	67.83	0.00
Z237	0.00	76.34	66.34	0.00
Z238	0.00	74.37	64.37	0.00
Z239	0.00	66.30	56.30	0.00
Z240	0.00	64.79	54.79	0.00
Z241	0.00	63.41	53.41	0.00
Z242	0.00	62.19	52.19	0.00
Z243	0.00	60.99	50.99	0.00
Z244	0.00	58.64	48.64	0.00
Z245	0.00	58.35	48.35	0.00
Z246	0.00	58.16	48.16	0.00
Z247	0.00	57.86	47.86	0.00
Z248	0.00	57.78	47.78	0.00
Z249	3.06	57.77	47.77	0.00
Z250	0.00	58.12	48.12	0.00
Z251	0.00	58.00	48.00	0.00
Z252	3.06	78.58	68.58	0.00
Z253	0.00	78.21	68.21	0.00
Z254	3.06	78.20	68.20	0.00
Z255	3.06	78.21	68.21	0.00
Z256	3.06	77.82	67.82	0.00
Z257	3.06	76.33	66.33	0.00
Z258	3.06	74.36	64.36	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z259	3.06	66.29	56.29	0.00
Z260	3.06	64.78	54.78	0.00
Z261	3.06	63.40	53.40	0.00
Z262	3.06	62.18	52.18	0.00
Z263	3.06	62.18	52.18	0.00
Z264	3.06	60.98	50.98	0.00
Z265	3.06	60.98	50.98	0.00
Z266	3.06	58.63	48.63	0.00
Z267	3.06	58.34	48.34	0.00
Z268	0.00	58.03	48.03	0.00
Z269	3.06	57.77	47.77	0.00
Z270	3.06	57.85	47.85	0.00
Z271	3.06	58.02	48.02	0.00
Z272	3.06	58.11	48.11	0.00
Z273	3.06	57.99	47.99	0.00
Z274	3.06	57.99	47.99	0.00
Z275	0.00	67.44	57.44	0.00
Z276	0.00	67.41	57.41	0.00
Z277	0.00	66.85	56.85	0.00
Z278	0.00	66.76	56.76	0.00
Z279	0.00	66.74	56.74	0.00
Z280	3.06	66.72	56.72	0.00
Z281	0.00	72.65	62.65	0.00
Z282	0.00	72.62	62.62	0.00
Z283	3.06	71.06	61.06	0.00
Z284	0.00	71.13	61.13	0.00
Z285	0.00	71.00	61.00	0.00
Z286	0.00	70.16	60.16	0.00
Z287	0.00	69.67	59.67	0.00
Z288	0.00	69.39	59.39	0.00
Z289	0.00	69.24	59.24	0.00
Z290	3.06	69.23	59.23	0.00
Z291	0.00	72.56	62.56	0.00
Z292	3.06	64.44	54.44	0.00
Z293	0.00	72.58	62.58	0.00
Z294	0.00	72.83	62.83	0.00
Z295	3.06	67.43	57.43	0.00
Z296	3.06	67.40	57.40	0.00
Z297	3.06	66.84	56.84	0.00
Z298	3.06	66.75	56.75	0.00
Z299	3.06	66.73	56.73	0.00
Z300	3.06	72.61	62.61	0.00
Z301	3.06	72.61	62.61	0.00
Z302	3.06	70.99	60.99	0.00
Z303	3.06	69.23	59.23	0.00
Z304	3.06	69.38	59.38	0.00
Z305	3.06	69.66	59.66	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z306	3.06	70.15	60.15	0.00
Z307	0.00	72.34	62.34	0.00
Z308	0.00	65.47	55.47	0.00
Z309	0.00	62.60	52.60	0.00
Z310	0.00	62.54	52.54	0.00
Z311	0.00	62.18	52.18	0.00
Z312	3.06	62.07	52.07	0.00
Z313	0.00	62.08	52.08	0.00
Z314	0.00	62.06	52.06	0.00
Z315	3.06	62.05	52.05	0.00
Z316	3.06	62.04	52.04	0.00
Z317	0.00	61.68	51.68	0.00
Z318	3.06	61.67	51.67	0.00
Z319	3.06	61.68	51.68	0.00
Z320	3.06	62.53	52.53	0.00
Z321	3.06	65.46	55.46	0.00
Z322	0.00	75.46	65.46	0.00
Z323	0.00	72.26	62.26	0.00
Z324	0.00	71.62	61.62	0.00
Z325	0.00	68.63	58.63	0.00
Z326	0.00	68.06	58.06	0.00
Z327	0.00	67.81	57.81	0.00
Z328	0.00	64.15	54.15	0.00
Z329	0.00	64.03	54.03	0.00
Z330	0.00	62.95	52.95	0.00
Z331	0.00	62.43	52.43	0.00
Z332	0.00	61.25	51.25	0.00
Z333	0.00	61.23	51.23	0.00
Z334	0.00	61.19	51.19	0.00
Z335	3.06	72.25	62.25	0.00
Z336	3.06	72.25	62.25	0.00
Z337	3.06	71.61	61.61	0.00
Z338	3.06	68.62	58.62	0.00
Z339	3.06	68.05	58.05	0.00
Z340	3.06	67.80	57.80	0.00
Z341	3.06	64.14	54.14	0.00
Z342	3.06	64.02	54.02	0.00
Z343	3.06	62.94	52.94	0.00
Z344	3.06	62.94	52.94	0.00
Z345	3.06	62.42	52.42	0.00
Z346	3.06	61.24	51.24	0.00
Z347	3.06	61.22	51.22	0.00
Z348	3.06	61.18	51.18	0.00
Z349	3.06	61.18	51.18	0.00
Z350	0.00	71.05	61.05	0.00
Z351	0.00	70.95	60.95	0.00
Z352	0.00	68.86	58.86	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z353	0.00	68.09	58.09	0.00
Z354	0.00	67.42	57.42	0.00
Z355	0.00	67.18	57.18	0.00
Z356	3.06	67.16	57.16	0.00
Z357	3.06	67.09	57.09	0.00
Z358	3.06	71.04	61.04	0.00
Z359	3.06	70.94	60.94	0.00
Z360	3.06	68.85	58.85	0.00
Z361	3.06	68.08	58.08	0.00
Z362	3.06	67.41	57.41	0.00
Z363	3.06	67.41	57.41	0.00
Z364	0.00	78.19	68.19	0.00
Z365	0.00	80.89	70.89	0.00
Z366	0.00	78.19	68.19	0.00
Z367	0.00	78.19	68.19	0.00
Z368	0.00	78.19	68.19	0.00
Z369	0.00	78.19	68.19	0.00
Z370	0.00	78.19	68.19	0.00
Z371	0.00	78.19	68.19	0.00
Z372	0.00	78.19	68.19	0.00
Z373	0.00	78.19	68.19	0.00
Z374	0.00	78.19	68.19	0.00
Z375	0.00	78.19	68.19	0.00
Z376	0.00	78.19	68.19	0.00
Z377	0.00	78.19	68.19	0.00
Z378	0.00	78.19	68.19	0.00
Z379	0.00	78.19	68.19	0.00
Z380	0.00	78.19	68.19	0.00
Z381	0.00	78.19	68.19	0.00
Z382	0.00	78.19	68.19	0.00
Z383	0.00	78.19	68.19	0.00
Z384	0.00	78.19	68.19	0.00
Z385	0.00	78.19	68.19	0.00
Z386	0.00	78.19	68.19	0.00
Z387	0.00	78.19	68.19	0.00
Z388	0.00	78.19	68.19	0.00
Z389	0.00	78.19	68.19	0.00
Z390	0.00	78.19	68.19	0.00
Z391	0.00	78.19	68.19	0.00
Z392	0.00	78.19	68.19	0.00
Z393	0.00	78.19	68.19	0.00
Z394	0.00	78.19	68.19	0.00
Z395	0.00	78.19	68.19	0.00
Z396	0.00	78.19	68.19	0.00
Z397	0.00	78.19	68.19	0.00
Z398	0.00	78.19	68.19	0.00
Z399	0.00	78.19	68.19	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z400	0.00	80.89	70.89	0.00
Z401	0.00	80.89	70.89	0.00
Z402	0.00	80.89	70.89	0.00
Z403	0.00	80.89	70.89	0.00
Z404	0.00	80.89	70.89	0.00
Z405	0.00	80.89	70.89	0.00
Z406	0.00	80.89	70.89	0.00
Z407	0.00	80.89	70.89	0.00
Z408	0.00	80.89	70.89	0.00
Z409	0.00	80.89	70.89	0.00
Z410	0.00	80.89	70.89	0.00
Z411	0.00	80.89	70.89	0.00
Z412	0.00	80.89	70.89	0.00
Z413	0.00	80.89	70.89	0.00
Z414	0.00	80.89	70.89	0.00
Z415	0.00	80.89	70.89	0.00
Z416	0.00	80.89	70.89	0.00
Z417	0.00	80.89	70.89	0.00
Z418	0.00	80.89	70.89	0.00
Z419	0.00	80.89	70.89	0.00
Z420	0.00	80.89	70.89	0.00
Z421	0.00	82.28	72.28	0.00
Z422	0.00	82.28	72.28	0.00
Z423	0.00	82.28	72.28	0.00
Z424	0.00	82.28	72.28	0.00
Z425	0.00	82.28	72.28	0.00
Z426	0.00	82.28	72.28	0.00
Z427	0.00	82.28	72.28	0.00
Z428	0.00	82.28	72.28	0.00
Z429	0.00	82.28	72.28	0.00
Z430	0.00	82.28	72.28	0.00
Z431	0.00	82.28	72.28	0.00
Z432	0.00	82.28	72.28	0.00
Z433	0.00	82.28	72.28	0.00
Z434	0.00	82.28	72.28	0.00
Z435	0.00	82.28	72.28	0.00
Z436	0.00	82.28	72.28	0.00
Z437	0.00	82.28	72.28	0.00
Z438	0.00	82.28	72.28	0.00
Z439	0.00	82.28	72.28	0.00
Z440	0.00	82.32	72.32	0.00
Z441	0.00	82.32	72.32	0.00
Z442	0.00	82.32	72.32	0.00
Z443	0.00	82.32	72.32	0.00
Z444	0.00	82.32	72.32	0.00
Z445	0.00	82.32	72.32	0.00
Z446	0.00	82.32	72.32	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z447	0.00	82.32	72.32	0.00
Z448	0.00	82.32	72.32	0.00
Z449	0.00	82.32	72.32	0.00
Z450	0.00	82.32	72.32	0.00
Z451	0.00	82.32	72.32	0.00
Z452	0.00	82.32	72.32	0.00
Z453	0.00	82.32	72.32	0.00
Z454	0.00	82.32	72.32	0.00
Z455	0.00	82.32	72.32	0.00
Z456	0.00	82.32	72.32	0.00
Z457	0.00	82.32	72.32	0.00
Z458	0.00	82.32	72.32	0.00
Z459	0.00	82.54	72.54	0.00
Z460	0.00	82.54	72.54	0.00
Z461	0.00	82.54	72.54	0.00
Z462	0.00	82.54	72.54	0.00
Z463	0.00	82.54	72.54	0.00
Z464	0.00	82.54	72.54	0.00
Z465	0.00	82.54	72.54	0.00
Z466	0.00	82.49	72.49	0.00
Z467	0.00	82.42	72.42	0.00
Z468	0.00	82.42	72.42	0.00
Z469	0.00	82.42	72.42	0.00
Z470	0.00	82.42	72.42	0.00
Z471	0.00	82.42	72.42	0.00
Z472	0.00	82.42	72.42	0.00
Z473	0.00	82.42	72.42	0.00
Z474	0.00	82.42	72.42	0.00
Z475	0.00	82.42	72.42	0.00
Z476	0.00	82.42	72.42	0.00
Z477	0.00	82.47	72.47	0.00
Z478	0.00	82.47	72.47	0.00
Z479	0.00	82.47	72.47	0.00
Z480	0.00	82.47	72.47	0.00
Z481	0.00	82.47	72.47	0.00
Z482	0.00	82.54	72.54	0.00
Z483	0.00	82.54	72.54	0.00
Z484	0.00	82.54	72.54	0.00
Z485	0.00	82.54	72.54	0.00
Z486	0.00	82.54	72.54	0.00
Z487	0.00	82.54	72.54	0.00
Z488	0.00	82.54	72.54	0.00
Z489	0.00	82.54	72.54	0.00
Z490	0.00	82.54	72.54	0.00
Z491	0.00	82.54	72.54	0.00
Z492	0.00	82.54	72.54	0.00
Z493	0.00	82.54	72.54	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z494	0.00	82.54	72.54	0.00
Z495	0.00	82.54	72.54	0.00
Z496	0.00	82.54	72.54	0.00
Z497	0.00	82.54	72.54	0.00
Z498	0.00	82.54	72.54	0.00
Z499	0.00	82.54	72.54	0.00
Z500	0.00	82.54	72.54	0.00
Z501	0.00	82.54	72.54	0.00
Z502	0.00	82.54	72.54	0.00
Z503	0.00	82.54	72.54	0.00
Z504	0.00	82.54	72.54	0.00
Z505	0.00	82.54	72.54	0.00
Z506	0.00	82.54	72.54	0.00
Z507	0.00	82.54	72.54	0.00
Z508	0.00	82.54	72.54	0.00
Z509	0.00	82.53	72.53	0.00
Z510	0.00	82.54	72.54	0.00
Z511	0.00	82.57	72.57	0.00
Z512	0.00	82.58	72.58	0.00
Z513	0.00	82.65	72.65	0.00
Z514	0.00	82.80	72.80	0.00
Z515	0.00	82.85	72.85	0.00
Z516	0.00	82.92	72.92	0.00
Z518	0.00	83.08	73.08	0.00
Z519	0.00	83.08	73.08	0.00
Z520	0.00	83.08	73.08	0.00
Z521	0.00	83.08	73.08	0.00
Z522	0.00	83.08	73.08	0.00
Z523	0.00	83.08	73.08	0.00
Z524	0.00	83.08	73.08	0.00
Z525	0.00	82.50	72.50	0.00
Z526	0.00	82.50	72.50	0.00
Z527	0.00	82.53	72.53	0.00
Z528	0.00	82.54	72.54	0.00
Z529	0.00	82.57	72.57	0.00
Z530	0.00	82.58	72.58	0.00
Z531	0.00	82.65	72.65	0.00
Z532	0.00	82.65	72.65	0.00
Z533	0.00	82.65	72.65	0.00
Z534	0.00	82.65	72.65	0.00
Z535	0.00	82.65	72.65	0.00
Z536	0.00	82.65	72.65	0.00
Z537	0.00	82.65	72.65	0.00
Z538	0.00	82.65	72.65	0.00
Z539	0.00	82.65	72.65	0.00
Z540	0.00	82.65	72.65	0.00
Z541	0.00	82.65	72.65	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z542	0.00	82.65	72.65	0.00
Z543	0.00	82.65	72.65	0.00
Z544	0.00	82.65	72.65	0.00
Z545	0.00	82.65	72.65	0.00
Z546	0.00	82.65	72.65	0.00
Z547	0.00	82.65	72.65	0.00
Z548	0.00	82.65	72.65	0.00
Z549	0.00	82.65	72.65	0.00
Z550	0.00	82.65	72.65	0.00
Z551	0.00	82.65	72.65	0.00
Z552	0.00	82.65	72.65	0.00
Z553	0.00	82.65	72.65	0.00
Z554	0.00	82.80	72.80	0.00
Z555	0.00	82.80	72.80	0.00
Z556	0.00	82.80	72.80	0.00
Z557	0.00	82.80	72.80	0.00
Z558	0.00	82.80	72.80	0.00
Z559	0.00	82.85	72.85	0.00
Z560	0.00	82.92	72.92	0.00
Z561	0.00	83.08	73.08	0.00
Z562	0.00	83.08	73.08	0.00
Z563	0.00	83.08	73.08	0.00
Z564	0.00	83.08	73.08	0.00
Z565	0.00	83.08	73.08	0.00
Z566	0.00	83.08	73.08	0.00
Z567	0.00	83.08	73.08	0.00
Z568	0.00	83.08	73.08	0.00
Z569	0.00	83.08	73.08	0.00
Z570	0.00	83.08	73.08	0.00
Z571	0.00	83.08	73.08	0.00
Z572	0.00	83.08	73.08	0.00
Z573	0.00	83.08	73.08	0.00
Z574	0.00	83.08	73.08	0.00
Z575	0.00	83.08	73.08	0.00
Z576	0.00	82.65	72.65	0.00
Z577	0.00	82.62	72.62	0.00
Z578	0.00	82.62	72.62	0.00
Z579	0.00	82.62	72.62	0.00
Z580	0.00	82.62	72.62	0.00
Z581	0.00	82.62	72.62	0.00
Z582	0.00	82.62	72.62	0.00
Z583	0.00	82.62	72.62	0.00
Z584	0.00	82.62	72.62	0.00
Z585	0.00	82.62	72.62	0.00
Z586	0.00	82.62	72.62	0.00
Z587	0.00	82.62	72.62	0.00
Z588	0.00	82.62	72.62	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z589	0.00	82.62	72.62	0.00
Z590	0.00	82.62	72.62	0.00
Z591	0.00	82.62	72.62	0.00
Z592	0.00	82.62	72.62	0.00
Z593	0.00	82.68	72.68	0.00
Z594	0.00	82.69	72.69	0.00
Z595	0.00	82.74	72.74	0.00
Z596	0.00	82.69	72.69	0.00
Z597	0.00	82.69	72.69	0.00
Z598	0.00	82.69	72.69	0.00
Z599	0.00	82.69	72.69	0.00
Z600	0.00	82.69	72.69	0.00
Z601	0.00	82.70	72.70	0.00
Z602	0.00	82.70	72.70	0.00
Z603	0.00	82.70	72.70	0.00
Z604	0.00	82.71	72.71	0.00
Z605	0.00	82.71	72.71	0.00
Z606	0.00	82.71	72.71	0.00
Z607	0.00	82.71	72.71	0.00
Z608	0.00	82.70	72.70	0.00
Z609	0.00	82.70	72.70	0.00
Z610	0.00	82.70	72.70	0.00
Z611	0.00	82.70	72.70	0.00
Z612	0.00	82.70	72.70	0.00
Z613	0.00	82.70	72.70	0.00
Z614	0.00	82.70	72.70	0.00
Z615	0.00	82.70	72.70	0.00
Z616	0.00	82.70	72.70	0.00
Z617	0.00	82.70	72.70	0.00
Z618	0.00	82.70	72.70	0.00
Z619	0.00	82.70	72.70	0.00
Z620	0.00	82.70	72.70	0.00
Z621	0.00	82.70	72.70	0.00
Z622	0.00	82.70	72.70	0.00
Z623	0.00	82.70	72.70	0.00
Z624	0.00	82.70	72.70	0.00
Z625	0.00	82.70	72.70	0.00
Z626	0.00	82.70	72.70	0.00
Z627	0.00	82.70	72.70	0.00
Z628	0.00	82.70	72.70	0.00
Z629	0.00	82.70	72.70	0.00
Z630	0.00	82.70	72.70	0.00
Z631	0.00	82.70	72.70	0.00
Z632	0.00	82.70	72.70	0.00
Z633	0.00	82.70	72.70	0.00
Z634	0.00	82.70	72.70	0.00
Z517	0.00	82.71	72.71	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z635	0.00	82.72	72.72	0.00
Z636	0.00	82.73	72.73	0.00
Z637	0.00	82.73	72.73	0.00
Z638	0.00	82.73	72.73	0.00
Z639	0.00	82.73	72.73	0.00
Z640	0.00	82.71	72.71	0.00
Z641	0.00	82.72	72.72	0.00
Z642	0.00	82.72	72.72	0.00
Z643	0.00	82.72	72.72	0.00
Z644	0.00	82.72	72.72	0.00
Z645	0.00	82.72	72.72	0.00
Z646	0.00	82.72	72.72	0.00
Z647	0.00	82.72	72.72	0.00
Z648	0.00	82.72	72.72	0.00
Z649	0.00	82.73	72.73	0.00
Z650	0.00	82.73	72.73	0.00
Z651	0.00	82.73	72.73	0.00
Z652	0.00	82.73	72.73	0.00
Z653	0.00	82.73	72.73	0.00
Z654	0.00	82.73	72.73	0.00
Z655	0.00	82.73	72.73	0.00
Z656	0.00	82.81	72.81	0.00
Z657	0.00	82.90	72.90	0.00
Z658	0.00	82.93	72.93	0.00
Z659	0.00	82.97	72.97	0.00
Z660	0.00	83.02	73.02	0.00
Z661	0.00	83.06	73.06	0.00
Z662	0.00	83.18	73.18	0.00
Z663	0.00	83.22	73.22	0.00
Z664	0.00	83.33	73.33	0.00
Z665	0.00	83.41	73.41	0.00
Z666	0.00	83.47	73.47	0.00
Z667	0.00	83.47	73.47	0.00
Z668	0.00	83.47	73.47	0.00
Z669	0.00	83.41	73.41	0.00
Z670	0.00	83.41	73.41	0.00
Z671	0.00	83.41	73.41	0.00
Z672	0.00	83.41	73.41	0.00
Z673	0.00	83.41	73.41	0.00
Z674	0.00	83.41	73.41	0.00
Z675	0.00	83.41	73.41	0.00
Z676	0.00	83.41	73.41	0.00
Z677	0.00	83.41	73.41	0.00
Z678	0.00	83.41	73.41	0.00
Z679	0.00	83.41	73.41	0.00
Z680	0.00	83.41	73.41	0.00
Z681	0.00	83.41	73.41	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z682	0.00	83.41	73.41	0.00
Z683	0.00	83.41	73.41	0.00
Z684	0.00	83.41	73.41	0.00
Z685	0.00	83.41	73.41	0.00
Z686	0.00	83.41	73.41	0.00
Z687	0.00	83.41	73.41	0.00
Z688	0.00	83.41	73.41	0.00
Z689	0.00	83.41	73.41	0.00
Z690	0.00	83.41	73.41	0.00
Z691	0.00	83.41	73.41	0.00
Z692	0.00	83.33	73.33	0.00
Z693	0.00	83.33	73.33	0.00
Z694	0.00	83.33	73.33	0.00
Z695	0.00	83.33	73.33	0.00
Z696	0.00	83.33	73.33	0.00
Z697	0.00	83.33	73.33	0.00
Z698	0.00	83.33	73.33	0.00
Z699	0.00	83.33	73.33	0.00
Z700	0.00	83.33	73.33	0.00
Z701	0.00	83.33	73.33	0.00
Z702	0.00	83.33	73.33	0.00
Z703	0.00	83.22	73.22	0.00
Z704	0.00	83.22	73.22	0.00
Z705	0.00	83.22	73.22	0.00
Z706	0.00	83.22	73.22	0.00
Z707	0.00	83.22	73.22	0.00
Z708	0.00	83.22	73.22	0.00
Z709	0.00	83.22	73.22	0.00
Z710	0.00	83.22	73.22	0.00
Z711	0.00	83.22	73.22	0.00
Z712	0.00	83.22	73.22	0.00
Z713	0.00	83.22	73.22	0.00
Z714	0.00	83.22	73.22	0.00
Z715	0.00	83.22	73.22	0.00
Z716	0.00	83.18	73.18	0.00
Z717	0.00	83.18	73.18	0.00
Z718	0.00	83.18	73.18	0.00
Z719	0.00	83.18	73.18	0.00
Z720	0.00	83.18	73.18	0.00
Z721	0.00	83.18	73.18	0.00
Z722	0.00	83.18	73.18	0.00
Z723	0.00	83.18	73.18	0.00
Z724	0.00	83.18	73.18	0.00
Z725	0.00	83.18	73.18	0.00
Z726	0.00	83.18	73.18	0.00
Z727	0.00	83.18	73.18	0.00
Z728	0.00	82.90	72.90	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z729	0.00	82.90	72.90	0.00
Z730	0.00	82.90	72.90	0.00
Z731	0.00	82.90	72.90	0.00
Z732	0.00	82.90	72.90	0.00
Z733	0.00	82.90	72.90	0.00
Z734	0.00	82.90	72.90	0.00
Z735	0.00	82.90	72.90	0.00
Z736	0.00	82.90	72.90	0.00
Z737	0.00	82.90	72.90	0.00
Z738	0.00	82.90	72.90	0.00
Z739	0.00	82.90	72.90	0.00
Z740	0.00	82.90	72.90	0.00
Z741	0.00	82.90	72.90	0.00
Z742	0.00	82.90	72.90	0.00
Z743	0.00	82.90	72.90	0.00
Z744	0.00	82.90	72.90	0.00
Z745	0.00	82.90	72.90	0.00
Z746	0.00	82.90	72.90	0.00
Z747	0.00	82.90	72.90	0.00
Z748	0.00	82.81	72.81	0.00
Z749	0.00	82.81	72.81	0.00
Z750	0.00	82.81	72.81	0.00
Z751	0.00	82.81	72.81	0.00
Z752	0.00	82.81	72.81	0.00
Z753	0.00	82.81	72.81	0.00
Z754	0.00	82.81	72.81	0.00
Z755	0.00	82.81	72.81	0.00
Z756	0.00	82.81	72.81	0.00
Z757	0.00	82.81	72.81	0.00
Z758	0.00	82.81	72.81	0.00
Z759	0.00	82.81	72.81	0.00
Z760	0.00	82.81	72.81	0.00
Z761	0.00	82.81	72.81	0.00
Z762	0.00	82.81	72.81	0.00
Z763	0.00	82.81	72.81	0.00
Z764	0.00	82.81	72.81	0.00
Z765	0.00	82.81	72.81	0.00
Z766	0.00	82.81	72.81	0.00
Z767	0.00	82.81	72.81	0.00
Z768	0.00	82.81	72.81	0.00
Z769	0.00	82.81	72.81	0.00
Z770	0.00	82.81	72.81	0.00
Z771	0.00	82.81	72.81	0.00
Z772	0.00	82.81	72.81	0.00
Z773	0.00	82.81	72.81	0.00
Z774	0.00	82.81	72.81	0.00
Z775	0.00	82.81	72.81	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z776	0.00	82.81	72.81	0.00
Z777	0.00	82.81	72.81	0.00
Z778	0.00	82.81	72.81	0.00
Z779	0.00	82.81	72.81	0.00
Z780	0.00	82.81	72.81	0.00
Z781	0.00	82.97	72.97	0.00
Z782	0.00	82.98	72.98	0.00
Z783	0.00	82.99	72.99	0.00
Z784	0.00	82.99	72.99	0.00
Z785	0.00	82.98	72.98	0.00
Z786	0.00	83.00	73.00	0.00
Z787	0.00	83.00	73.00	0.00
Z788	0.00	83.00	73.00	0.00
Z789	0.00	83.00	73.00	0.00
Z790	0.00	83.00	73.00	0.00
Z791	0.00	83.02	73.02	0.00
Z792	0.00	83.03	73.03	0.00
Z793	0.00	83.05	73.05	0.00
Z794	0.00	83.05	73.05	0.00
Z795	0.00	83.06	73.06	0.00
Z796	0.00	83.06	73.06	0.00
Z797	0.00	83.05	73.05	0.00
Z798	0.00	83.05	73.05	0.00
Z799	0.00	83.03	73.03	0.00
Z800	0.00	83.02	73.02	0.00
Z801	0.00	83.00	73.00	0.00
Z802	0.00	83.00	73.00	0.00
Z803	0.00	83.00	73.00	0.00
Z804	0.00	83.00	73.00	0.00
Z805	0.00	82.99	72.99	0.00
Z806	0.00	82.99	72.99	0.00
Z807	0.00	82.98	72.98	0.00
Z808	0.00	82.97	72.97	0.00
Z809	0.00	83.06	73.06	0.00
Z810	0.00	83.00	73.00	0.00
Z811	0.00	83.00	73.00	0.00
Z812	0.00	83.00	73.00	0.00
Z813	0.00	83.00	73.00	0.00
Z814	0.00	83.00	73.00	0.00
Z815	0.00	83.00	73.00	0.00
Z816	0.00	83.00	73.00	0.00
Z817	0.00	83.00	73.00	0.00
Z818	0.00	83.00	73.00	0.00
Z819	0.00	83.00	73.00	0.00
Z820	0.00	83.00	73.00	0.00
Z821	0.00	83.00	73.00	0.00
Z822	0.00	83.00	73.00	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z823	0.00	83.00	73.00	0.00
Z824	0.00	83.00	73.00	0.00
Z825	0.00	82.98	72.98	0.00
Z826	0.00	82.98	72.98	0.00
Z827	0.00	82.98	72.98	0.00
Z828	0.00	82.98	72.98	0.00
Z829	0.00	82.98	72.98	0.00
Z830	0.00	82.98	72.98	0.00
Z831	0.00	82.98	72.98	0.00
Z832	0.00	82.98	72.98	0.00
Z833	0.00	82.98	72.98	0.00
Z834	0.00	82.98	72.98	0.00
Z835	0.00	82.98	72.98	0.00
Z836	0.00	82.98	72.98	0.00
Z837	0.00	82.98	72.98	0.00
Z838	0.00	82.98	72.98	0.00
Z839	0.00	82.98	72.98	0.00
Z840	0.00	82.98	72.98	0.00
Z841	0.00	82.98	72.98	0.00
Z842	0.00	82.98	72.98	0.00
Z843	0.00	82.98	72.98	0.00
Z844	0.00	82.98	72.98	0.00
Z845	0.00	82.98	72.98	0.00
Z846	0.00	82.98	72.98	0.00
Z847	0.00	82.98	72.98	0.00
Z848	0.00	82.98	72.98	0.00
Z849	0.00	82.98	72.98	0.00
Z850	0.00	83.06	73.06	0.00
Z851	0.00	83.06	73.06	0.00
Z852	0.00	83.06	73.06	0.00
Z853	0.00	83.06	73.06	0.00
Z854	0.00	83.06	73.06	0.00
Z855	0.00	83.06	73.06	0.00
Z856	0.00	83.06	73.06	0.00
Z857	0.00	83.06	73.06	0.00
Z858	0.00	83.06	73.06	0.00
Z859	0.00	83.06	73.06	0.00
Z860	0.00	83.06	73.06	0.00
Z861	0.00	83.06	73.06	0.00
Z862	0.00	83.06	73.06	0.00
Z863	0.00	83.06	73.06	0.00
Z864	0.00	83.06	73.06	0.00
Z865	0.00	83.06	73.06	0.00
Z866	0.00	83.06	73.06	0.00
Z867	0.00	83.06	73.06	0.00
Z868	0.00	83.06	73.06	0.00
Z869	0.00	83.06	73.06	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z870	0.00	83.06	73.06	0.00
Z871	0.00	83.06	73.06	0.00
Z872	0.00	83.06	73.06	0.00
Z873	0.00	83.06	73.06	0.00
Z874	0.00	83.06	73.06	0.00
Z875	0.00	75.33	65.33	0.00
Z876	0.00	71.74	61.74	0.00
Z877	0.00	71.32	61.32	0.00
Z878	0.00	71.13	61.13	0.00
Z879	0.00	70.69	60.69	0.00
Z880	0.00	70.37	60.37	0.00
Z881	3.06	70.30	60.30	0.00
Z882	0.00	75.00	65.00	0.00
Z883	0.00	74.79	64.79	0.00
Z884	0.00	73.47	63.47	0.00
Z885	0.00	72.84	62.84	0.00
Z886	0.00	72.75	62.75	0.00
Z887	3.06	72.63	62.63	0.00
Z888	0.00	68.74	58.74	0.00
Z889	0.00	68.08	58.08	0.00
Z890	0.00	67.83	57.83	0.00
Z891	0.00	67.56	57.56	0.00
Z892	0.00	67.46	57.46	0.00
Z893	0.00	67.41	57.41	0.00
Z894	0.00	67.40	57.40	0.00
Z895	0.00	68.25	58.25	0.00
Z896	0.00	67.51	57.51	0.00
Z897	0.00	66.22	56.22	0.00
Z898	0.00	66.06	56.06	0.00
Z899	0.00	65.52	55.52	0.00
Z900	0.00	65.43	55.43	0.00
Z901	3.06	65.38	55.38	0.00
Z902	0.00	62.05	52.05	0.00
Z903	0.00	61.99	51.99	0.00
Z904	0.00	61.84	51.84	0.00
Z905	0.00	61.82	51.82	0.00
Z906	0.00	61.80	51.80	0.00
Z907	0.00	61.61	51.61	0.00
Z908	0.00	61.48	51.48	0.00
Z909	0.00	61.28	51.28	0.00
Z910	0.00	61.18	51.18	0.00
Z911	0.00	61.17	51.17	0.00
Z912	0.00	61.15	51.15	0.00
Z913	0.00	61.14	51.14	0.00
Z914	0.00	61.14	51.14	0.00
Z915	0.00	61.14	51.14	0.00
Z916	0.00	61.14	51.14	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z917	0.00	61.14	51.14	0.00
Z918	0.00	61.14	51.14	0.00
Z919	0.00	61.15	51.15	0.00
Z920	0.00	61.23	51.23	0.00
Z921	0.00	61.25	51.25	0.00
Z922	0.00	61.28	51.28	0.00
Z923	0.00	61.37	51.37	0.00
Z924	0.00	61.45	51.45	0.00
Z925	0.00	61.48	51.48	0.00
Z926	0.00	61.75	51.75	0.00
Z927	0.00	62.13	52.13	0.00
Z928	0.00	62.34	52.34	0.00
Z929	0.00	62.49	52.49	0.00
Z930	0.00	63.39	53.39	0.00
Z931	0.00	63.48	53.48	0.00
Z932	0.00	64.08	54.08	0.00
Z933	0.00	65.13	55.13	0.00
Z934	0.00	64.97	54.97	0.00
Z935	0.00	65.13	55.13	0.00
Z936	0.00	64.98	54.98	0.00
Z937	0.00	64.96	54.96	0.00
Z938	0.00	63.54	53.54	0.00
Z939	0.00	63.16	53.16	0.00
Z940	3.06	61.62	51.62	0.00
Z942	0.00	56.97	46.97	0.00
Z943	0.00	56.36	46.36	0.00
Z944	0.00	55.92	45.92	0.00
Z945	0.00	55.65	45.65	0.00
Z946	0.00	55.81	45.81	0.00
Z947	0.00	56.03	46.03	0.00
Z948	0.00	56.79	46.79	0.00
Z949	0.00	59.29	49.29	0.00
Z950	0.00	59.78	49.78	0.00
Z951	0.00	60.90	50.90	0.00
Z952	0.00	61.08	51.08	0.00
Z953	0.00	61.18	51.18	0.00
Z954	0.00	62.05	52.05	0.00
Z955	0.00	62.17	52.17	0.00
Z956	0.00	62.46	52.46	0.00
Z957	0.00	63.47	53.47	0.00
Z958	0.00	66.02	56.02	0.00
Z959	0.00	67.24	57.24	0.00
Z960	0.00	69.64	59.64	0.00
Z961	3.06	72.74	62.74	0.00
Z962	3.06	72.83	62.83	0.00
Z963	3.06	72.83	62.83	0.00
Z964	3.06	73.46	63.46	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z965	3.06	73.46	63.46	0.00
Z966	3.06	74.78	64.78	0.00
Z967	3.06	74.99	64.99	0.00
Z968	3.06	70.36	60.36	0.00
Z969	3.06	70.68	60.68	0.00
Z970	3.06	71.12	61.12	0.00
Z971	0.00	68.65	58.65	0.00
Z972	3.06	65.42	55.42	0.00
Z973	3.06	65.42	55.42	0.00
Z974	3.06	66.05	56.05	0.00
Z975	3.06	61.98	51.98	0.00
Z976	3.06	61.83	51.83	0.00
Z977	3.06	61.81	51.81	0.00
Z978	3.06	61.79	51.79	0.00
Z979	3.06	61.60	51.60	0.00
Z980	3.06	61.47	51.47	0.00
Z981	3.06	61.27	51.27	0.00
Z982	3.06	64.96	54.96	0.00
Z983	3.06	64.07	54.07	0.00
Z984	3.06	63.47	53.47	0.00
Z985	3.06	63.34	53.34	0.00
Z986	3.06	62.48	52.48	0.00
Z987	3.06	62.33	52.33	0.00
Z988	3.06	62.12	52.12	0.00
Z989	3.06	61.74	51.74	0.00
Z990	3.06	61.44	51.44	0.00
Z991	3.06	61.36	51.36	0.00
Z992	3.06	61.27	51.27	0.00
Z993	3.06	61.24	51.24	0.00
Z994	3.06	61.22	51.22	0.00
Z995	3.06	61.13	51.13	0.00
Z996	3.06	61.13	51.13	0.00
Z997	3.06	61.13	51.13	0.00
Z998	3.06	61.13	51.13	0.00
Z999	3.06	61.13	51.13	0.00
Z1000	3.06	61.13	51.13	0.00
Z1001	3.06	61.14	51.14	0.00
Z1002	3.06	61.16	51.16	0.00
Z1003	3.06	68.24	58.24	0.00
Z1004	3.06	67.50	57.50	0.00
Z1005	3.06	67.40	57.40	0.00
Z1006	3.06	67.45	57.45	0.00
Z1007	3.06	67.55	57.55	0.00
Z1008	3.06	67.55	57.55	0.00
Z1009	3.06	67.82	57.82	0.00
Z1010	3.06	68.07	58.07	0.00
Z1011	3.06	68.64	58.64	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1012	0.00	65.26	55.26	0.00
Z1013	0.00	61.20	51.20	0.00
Z1014	0.00	60.05	50.05	0.00
Z1015	0.00	57.15	47.15	0.00
Z1016	0.00	56.74	46.74	0.00
Z1017	0.00	55.71	45.71	0.00
Z1018	0.00	55.44	45.44	0.00
Z1019	0.00	55.28	45.28	0.00
Z1020	3.06	55.20	45.20	0.00
Z1021	0.00	55.68	45.68	0.00
Z1022	3.06	55.57	45.57	0.00
Z1023	3.06	65.25	55.25	0.00
Z1024	3.06	65.20	55.20	0.00
Z1025	3.06	61.19	51.19	0.00
Z1026	3.06	60.04	50.04	0.00
Z1027	3.06	57.14	47.14	0.00
Z1028	3.06	56.73	46.73	0.00
Z1029	3.06	55.43	45.43	0.00
Z1030	3.06	55.27	45.27	0.00
Z1031	3.06	55.67	45.67	0.00
Z1032	3.06	59.16	49.16	0.00
Z1033	0.00	59.16	49.16	0.00
Z1034	0.00	59.37	49.37	0.00
Z1035	0.00	60.09	50.09	0.00
Z1036	0.00	60.32	50.32	0.00
Z1037	0.00	61.26	51.26	0.00
Z1038	0.00	61.61	51.61	0.00
Z1039	3.06	59.15	49.15	0.00
Z1040	3.06	59.36	49.36	0.00
Z1041	3.06	60.08	50.08	0.00
Z1042	3.06	60.31	50.31	0.00
Z1043	3.06	61.25	51.25	0.00
Z1044	3.06	61.60	51.60	0.00
Z1045	3.06	61.60	51.60	0.00
Z1046	0.00	60.50	50.50	0.00
Z1047	0.00	59.92	49.92	0.00
Z1048	0.00	59.19	49.19	0.00
Z1049	0.00	58.83	48.83	0.00
Z1050	0.00	58.20	48.20	0.00
Z1051	0.00	58.07	48.07	0.00
Z1052	0.00	56.49	46.49	0.00
Z1053	0.00	56.31	46.31	0.00
Z1054	0.00	56.25	46.25	0.00
Z1055	3.06	56.22	46.22	0.00
Z1056	3.06	56.24	46.24	0.00
Z1057	3.06	56.30	46.30	0.00
Z1058	3.06	56.48	46.48	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z11059	3.06	58.06	48.06	0.00
Z11060	3.06	58.19	48.19	0.00
Z11061	3.06	58.82	48.82	0.00
Z11062	3.06	59.18	49.18	0.00
Z11063	3.06	59.91	49.91	0.00
Z11064	3.06	60.49	50.49	0.00
Z11065	0.00	60.87	50.87	0.00
Z11066	0.00	59.47	49.47	0.00
Z11067	0.00	58.60	48.60	0.00
Z11068	0.00	58.55	48.55	0.00
Z11069	0.00	58.48	48.48	0.00
Z11070	3.06	58.48	48.48	0.00
Z11071	3.06	58.47	48.47	0.00
Z11072	3.06	58.54	48.54	0.00
Z11073	3.06	58.59	48.59	0.00
Z11074	3.06	59.46	49.46	0.00
Z11075	3.06	60.86	50.86	0.00
Z11076	0.00	61.16	51.16	0.00
Z11077	0.00	58.84	48.84	0.00
Z11078	0.00	58.25	48.25	0.00
Z11079	0.00	57.98	47.98	0.00
Z11080	0.00	57.56	47.56	0.00
Z11081	3.06	57.50	47.50	0.00
Z11082	3.06	61.15	51.15	0.00
Z11083	3.06	61.15	51.15	0.00
Z11084	3.06	58.83	48.83	0.00
Z11085	3.06	58.24	48.24	0.00
Z11086	3.06	57.97	47.97	0.00
Z11087	3.06	57.55	47.55	0.00
Z11088	0.00	64.58	54.58	0.00
Z11089	0.00	63.92	53.92	0.00
Z11090	0.00	63.26	53.26	0.00
Z11091	0.00	62.66	52.66	0.00
Z11092	0.00	62.48	52.48	0.00
Z11093	3.06	62.46	52.46	0.00
Z11094	0.00	62.54	52.54	0.00
Z11095	0.00	62.53	52.53	0.00
Z11096	3.06	62.48	52.48	0.00
Z11097	3.06	64.57	54.57	0.00
Z11098	3.06	63.91	53.91	0.00
Z11099	3.06	63.25	53.25	0.00
Z11100	3.06	62.65	52.65	0.00
Z11101	3.06	62.47	52.47	0.00
Z11102	3.06	62.51	52.51	0.00
Z11103	3.06	63.15	53.15	0.00
Z11104	0.00	56.26	46.26	0.00
Z11105	3.06	56.17	46.17	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z11106	3.06	56.25	46.25	0.00
Z11107	3.06	56.25	46.25	0.00
Z11108	0.00	60.71	50.71	0.00
Z11109	0.00	59.84	49.84	0.00
Z11110	0.00	59.82	49.82	0.00
Z11111	0.00	59.94	49.94	0.00
Z11112	0.00	59.40	49.40	0.00
Z11113	0.00	59.26	49.26	0.00
Z11114	3.06	59.26	49.26	0.00
Z11115	3.06	59.25	49.25	0.00
Z11116	3.06	59.39	49.39	0.00
Z11117	3.06	59.93	49.93	0.00
Z11118	3.06	59.81	49.81	0.00
Z11119	3.06	59.39	49.39	0.00
Z11120	3.06	56.96	46.96	0.00
Z11121	3.06	56.96	46.96	0.00
Z11122	3.06	56.35	46.35	0.00
Z11123	3.06	56.35	46.35	0.00
Z11124	3.06	55.91	45.91	0.00
Z11125	3.06	55.91	45.91	0.00
Z11126	3.06	55.64	45.64	0.00
Z11127	3.06	55.64	45.64	0.00
Z11128	3.06	55.80	45.80	0.00
Z11129	3.06	56.02	46.02	0.00
Z11130	0.00	56.76	46.76	0.00
Z11131	3.06	56.75	46.75	0.00
Z11132	3.06	56.75	46.75	0.00
Z11133	3.06	59.28	49.28	0.00
Z11134	3.06	59.77	49.77	0.00
Z11135	3.06	60.89	50.89	0.00
Z11136	3.06	61.07	51.07	0.00
Z11137	3.06	61.17	51.17	0.00
Z11138	3.06	62.04	52.04	0.00
Z11139	3.06	62.04	52.04	0.00
Z11140	3.06	62.16	52.16	0.00
Z11141	3.06	62.45	52.45	0.00
Z11142	0.00	60.22	50.22	0.00
Z11143	0.00	59.67	49.67	0.00
Z11144	0.00	57.27	47.27	0.00
Z11145	0.00	57.19	47.19	0.00
Z11146	0.00	57.04	47.04	0.00
Z11147	0.00	57.01	47.01	0.00
Z11148	3.06	56.99	46.99	0.00
Z11149	3.06	57.00	47.00	0.00
Z11150	3.06	57.03	47.03	0.00
Z11151	3.06	57.18	47.18	0.00
Z11152	3.06	59.66	49.66	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1153	3.06	60.21	50.21	0.00
Z1154	0.00	56.08	46.08	0.00
Z1155	0.00	56.07	46.07	0.00
Z1156	3.06	56.03	46.03	0.00
Z1157	3.06	56.07	46.07	0.00
Z1158	3.06	56.06	46.06	0.00
Z1159	3.06	67.23	57.23	0.00
Z1160	0.00	57.98	47.98	0.00
Z1161	0.00	57.95	47.95	0.00
Z1162	0.00	56.89	46.89	0.00
Z1163	0.00	56.49	46.49	0.00
Z1164	3.06	57.97	47.97	0.00
Z1166	3.06	66.01	56.01	0.00
Z1167	3.06	57.94	47.94	0.00
Z1168	3.06	56.88	46.88	0.00
Z1169	3.06	56.88	46.88	0.00
Z1170	3.06	56.48	46.48	0.00
Z1171	3.06	56.48	46.48	0.00
Z1172	0.00	69.27	59.27	0.00
Z1173	3.06	69.21	59.21	0.00
Z1174	3.06	69.26	59.26	0.00
Z1175	0.00	69.34	59.34	0.00
Z1176	0.00	69.27	59.27	0.00
Z1177	0.00	69.08	59.08	0.00
Z1178	0.00	69.03	59.03	0.00
Z1179	0.00	68.66	58.66	0.00
Z1180	0.00	68.54	58.54	0.00
Z1181	3.06	68.53	58.53	0.00
Z1182	3.06	69.07	59.07	0.00
Z1183	3.06	69.02	59.02	0.00
Z1184	3.06	68.65	58.65	0.00
Z1185	3.06	68.53	58.53	0.00
Z1186	0.00	68.41	58.41	0.00
Z1187	0.00	68.03	58.03	0.00
Z1188	0.00	67.98	57.98	0.00
Z1189	0.00	67.78	57.78	0.00
Z1190	0.00	67.76	57.76	0.00
Z1191	3.06	67.73	57.73	0.00
Z1192	3.06	67.75	57.75	0.00
Z1193	3.06	67.77	57.77	0.00
Z1194	3.06	67.97	57.97	0.00
Z1195	3.06	68.02	58.02	0.00
Z1196	0.00	68.26	58.26	0.00
Z1197	0.00	68.22	58.22	0.00
Z1198	0.00	68.07	58.07	0.00
Z1199	0.00	67.94	57.94	0.00
Z1200	0.00	67.90	57.90	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1201	3.06	67.89	57.89	0.00
Z1202	0.00	67.98	57.98	0.00
Z1203	0.00	67.62	57.62	0.00
Z1204	0.00	67.58	57.58	0.00
Z1205	3.06	67.57	57.57	0.00
Z1206	3.06	68.25	58.25	0.00
Z1207	3.06	68.21	58.21	0.00
Z1208	3.06	67.97	57.97	0.00
Z1209	3.06	67.93	57.93	0.00
Z1210	3.06	67.89	57.89	0.00
Z1211	3.06	67.57	57.57	0.00
Z1212	3.06	67.61	57.61	0.00
Z1213	3.06	60.31	50.31	0.00
Z1214	0.00	64.96	54.96	0.00
Z1215	0.00	84.76	74.76	0.00
Z1216	0.00	84.76	74.76	0.00
Z1217	0.00	84.22	74.22	0.00
Z1218	0.00	83.92	73.92	0.00
Z1219	0.00	83.78	73.78	0.00
Z1220	0.00	83.67	73.67	0.00
Z1221	0.00	83.57	73.57	0.00
Z1222	0.00	83.55	73.55	0.00
Z1223	0.00	83.53	73.53	0.00
Z1224	0.00	83.52	73.52	0.00
Z1225	0.00	83.02	73.02	0.00
Z1226	0.00	83.02	73.02	0.00
Z1227	0.00	83.02	73.02	0.00
Z1228	0.00	83.02	73.02	0.00
Z1229	0.00	83.02	73.02	0.00
Z1230	0.00	83.02	73.02	0.00
Z1231	0.00	83.02	73.02	0.00
Z1232	0.00	82.93	72.93	0.00
Z1233	0.00	82.93	72.93	0.00
Z1234	0.00	82.93	72.93	0.00
Z1235	0.00	82.93	72.93	0.00
Z1236	0.00	82.93	72.93	0.00
Z1237	0.00	82.93	72.93	0.00
Z1238	0.00	82.93	72.93	0.00
Z1239	0.00	78.19	68.19	0.00
Z1240	0.00	78.19	68.19	0.00
Z1241	0.00	78.19	68.19	0.00
Z1242	0.00	78.19	68.19	0.00
Z1243	0.00	56.95	46.95	0.00
Z1244	0.00	58.04	48.04	0.00
Z1245	0.00	64.45	54.45	0.00
Z1246	0.00	61.63	51.63	0.00
Z1247	0.00	57.02	47.02	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality	Status
Z1248 S1	0.00 -902.70	72.65 10.00	62.65 0.00	0.00	0.00 Reservoir
Link Results:					
Link ID	Flow LPS	Velocity m/s	Unit m/km	Headloss	Status
G20	902.70	3.19	12.91		Open
G1	714.29	2.53	8.15		Open
R3	188.41	1.50	15.95		Open
R4	185.35	1.47	4.66		Open
R5	182.29	1.45	4.51		Open
R6	179.23	1.43	4.36		Open
R7	176.17	1.40	4.22		Open
R8	173.11	1.38	4.08		Open
R9	170.05	1.35	3.94		Open
R10	166.99	1.33	3.80		Open
R11	163.93	1.30	3.67		Open
R12	160.87	1.28	3.54		Open
R13	157.81	1.26	3.41		Open
R14	154.75	1.23	3.28		Open
R15	151.69	1.21	3.15		Open
R16	148.63	1.18	3.03		Open
R17	145.57	1.16	2.91		Open
R18	87.43	0.70	1.09		Open
R19	84.37	0.67	1.02		Open
R20	81.31	0.65	0.95		Open
R21	78.25	0.62	0.88		Open
R22	75.19	0.60	0.82		Open
R23	72.13	0.57	0.76		Open
R24	69.07	0.55	0.70		Open
R25	66.01	0.53	0.64		Open
R26	62.95	0.50	0.58		Open
R27	59.89	0.48	0.53		Open
R28	56.83	0.45	0.48		Open
R56	3.06	0.42	2.04		Open
R57	3.06	0.42	2.04		Open
R58	3.06	0.42	2.04		Open
R59	3.06	0.42	2.04		Open
R60	3.06	0.42	2.04		Open
R61	3.06	0.42	2.04		Open
R62	3.06	0.42	2.04		Open
R63	3.06	0.42	2.04		Open
R64	3.06	0.40	1.87		Open
R65	3.06	0.42	2.04		Open
R66	3.06	0.42	2.04		Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit m/km	Headloss	Status
R67	3.06	0.42	2.04		Open
R68	3.06	0.42	2.04		Open
R69	3.06	0.42	2.04		Open
R29	58.14	3.72	213.86		Open
R71	3.06	0.42	2.04		Open
R72	3.06	0.42	2.04		Open
R73	3.06	0.42	2.04		Open
R74	3.06	0.42	2.04		Open
R75	3.06	0.42	2.04		Open
R76	3.06	0.42	2.04		Open
R77	3.06	0.42	2.04		Open
R78	3.06	0.42	2.04		Open
R79	3.06	0.42	2.04		Open
R80	3.06	0.42	2.04		Open
R81	3.06	0.42	2.04		Open
R30	27.54	1.76	47.34		Open
R31	24.48	1.57	14.43		Open
R32	21.42	1.37	11.27		Open
R33	18.36	1.18	8.49		Open
R34	15.30	0.98	6.08		Open
R35	12.24	0.78	4.05		Open
R36	9.18	0.59	2.40		Open
R37	6.12	0.39	1.16		Open
R38	3.06	0.20	0.34		Open
R91	3.06	0.42	2.04		Open
R92	3.06	0.42	2.04		Open
R93	3.06	0.42	2.04		Open
R94	3.06	0.42	2.04		Open
R95	3.06	0.42	2.04		Open
R96	3.06	0.42	2.04		Open
R97	3.06	0.42	2.04		Open
R98	3.06	0.42	2.04		Open
R39	27.54	1.76	17.94		Open
R40	24.48	1.57	14.43		Open
R41	21.42	1.37	11.27		Open
R42	18.36	1.18	8.49		Open
R43	15.30	0.98	6.08		Open
R44	12.24	0.78	4.05		Open
R45	9.18	0.59	2.40		Open
R46	6.12	0.39	1.16		Open
R47	3.06	0.20	0.34		Open
R107	3.06	0.42	2.04		Open
R108	3.06	0.42	2.04		Open
R109	3.06	0.42	2.04		Open
R110	3.06	0.42	2.04		Open
R111	3.06	0.42	2.04		Open
R112	3.06	0.42	2.04		Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R113	3.06	0.42	2.04	Open	
R114	3.06	0.42	2.04	Open	
R49	53.77	0.43	0.43	Open	
R50	53.77	0.43	0.43	Open	
R51	53.77	0.43	0.43	Open	
R52	53.77	0.43	0.43	Open	
R53	53.77	0.43	0.43	Open	
R54	53.77	0.43	0.43	Open	
R55	0.00	0.00	0.00	Open	
R120	0.00	0.00	0.00	Open	
R121	0.00	0.00	0.00	Open	
R122	0.00	0.00	0.00	Open	
R123	0.00	0.00	0.00	Open	
R124	3.06	0.42	2.04	Open	
R125	0.00	0.00	0.00	Open	
R126	0.00	0.00	0.00	Open	
R127	0.00	0.00	0.00	Open	
R82	53.77	0.43	0.43	Open	
R83	53.77	0.43	0.43	Open	
R84	53.77	0.43	0.43	Open	
R85	53.77	0.43	0.43	Open	
R86	53.77	0.43	0.43	Open	
R87	53.77	0.43	0.43	Open	
R88	53.77	0.43	0.43	Open	
R89	53.77	0.43	0.43	Open	
R90	53.77	0.43	0.43	Open	
R99	53.77	0.43	0.43	Open	
R100	53.77	0.43	4.85	Open	
R101	0.00	0.00	0.00	Open	
R102	0.00	0.00	0.00	Open	
R103	0.00	0.00	0.00	Open	
R104	0.00	0.00	0.00	Open	
R105	0.00	0.00	0.00	Open	
R106	0.00	0.00	0.00	Open	
R115	0.00	0.00	0.00	Open	
R116	0.00	0.00	0.00	Open	
R117	0.00	0.00	0.00	Open	
R118	0.00	0.00	0.00	Open	
R119	0.00	0.00	0.00	Open	
R128	0.00	0.00	0.00	Open	
R129	0.00	0.00	0.00	Open	
R130	0.00	0.00	0.00	Open	
GI31	195.58	0.69	0.66	Open	
R131	27.54	1.76	89.25	Open	
R132	12.24	0.78	6.91	Open	
R133	9.18	0.59	2.40	Open	
R134	6.12	0.39	1.16	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R135	3.06	0.20	0.34	Open	
R136	15.30	0.98	6.08	Open	
R137	12.24	0.78	4.05	Open	
R138	9.18	0.59	2.40	Open	
R139	6.12	0.39	1.16	Open	
R140	3.06	0.20	0.34	Open	
R141	3.06	0.42	2.04	Open	
R142	3.06	0.42	2.04	Open	
R143	3.06	0.42	2.04	Open	
R144	3.06	0.42	2.04	Open	
R145	3.06	0.42	2.04	Open	
R146	3.06	0.42	2.04	Open	
R147	3.06	0.42	2.04	Open	
GI48	168.04	0.59	0.49	Open	
GI49	100.72	0.36	0.19	Open	
R149	0.00	0.00	0.00	Open	
R150	0.00	0.00	0.00	Open	
R151	0.00	0.00	0.00	Open	
R152	0.00	0.00	0.00	Open	
R153	0.00	0.00	0.00	Open	
R154	0.00	0.00	0.00	Open	
R155	0.00	0.00	0.00	Open	
R156	0.00	0.00	0.00	Open	
R157	0.00	0.00	0.00	Open	
R158	0.00	0.00	0.00	Open	
R159	0.00	0.00	0.00	Open	
R160	0.00	0.00	0.00	Open	
R161	0.00	0.00	0.00	Open	
R162	0.00	0.00	0.00	Open	
R163	0.00	0.00	0.00	Open	
R164	0.00	0.00	0.00	Open	
R165	0.00	0.00	0.00	Open	
R166	0.00	0.00	0.00	Open	
R167	0.00	0.00	0.00	Open	
R168	0.00	0.00	0.00	Open	
R169	0.00	0.00	0.00	Open	
GI70	100.72	0.36	0.19	Open	
GI71	95.74	0.76	1.54	Open	
GI72	86.35	0.69	1.07	Open	
R172	0.00	0.00	0.00	Open	
R173	0.00	0.00	0.00	Open	
R174	0.00	0.00	0.00	Open	
R175	0.00	0.00	0.00	Open	
R176	0.00	0.00	0.00	Open	
R177	0.00	0.00	0.00	Open	
R178	0.00	0.00	0.00	Open	
R179	0.00	0.00	0.00	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R180	0.00	0.00	0.00	0.00	Open
R181	0.00	0.00	0.00	0.00	Open
R182	0.00	0.00	0.00	0.00	Open
R183	0.00	0.00	0.00	0.00	Open
R184	0.00	0.00	0.00	0.00	Open
R185	0.00	0.00	0.00	0.00	Open
R186	0.00	0.00	0.00	0.00	Open
R187	0.00	0.00	0.00	0.00	Open
R188	0.00	0.00	0.00	0.00	Open
R189	0.00	0.00	0.00	0.00	Open
R190	0.00	0.00	0.00	0.00	Open
R191	0.00	0.00	0.00	0.00	Open
R192	0.00	0.00	0.00	0.00	Open
R193	0.00	0.00	0.00	0.00	Open
R194	0.00	0.00	0.00	0.00	Open
R195	0.00	0.00	0.00	0.00	Open
R196	0.00	0.00	0.00	0.00	Open
R197	0.00	0.00	0.00	0.00	Open
R198	0.00	0.00	0.00	0.00	Open
G199	86.35	0.69	1.07	1.07	Open
G200	86.35	0.69	1.18	1.18	Open
G201	-68.14	0.35	0.22	0.22	Open
G202	-68.14	0.35	0.22	0.22	Open
G203	-68.14	0.35	0.22	0.22	Open
R200	0.00	0.00	0.00	0.00	Open
R201	0.00	0.00	0.00	0.00	Open
R202	0.00	0.00	0.00	0.00	Open
R203	0.00	0.00	0.00	0.00	Open
R204	0.00	0.00	0.00	0.00	Open
R205	0.00	0.00	0.00	0.00	Open
R206	0.00	0.00	0.00	0.00	Open
R207	0.00	0.00	0.00	0.00	Open
R208	0.00	0.00	0.00	0.00	Open
R209	0.00	0.00	0.00	0.00	Open
R210	0.00	0.00	0.00	0.00	Open
R211	0.00	0.00	0.00	0.00	Open
R212	0.00	0.00	0.00	0.00	Open
R213	0.00	0.00	0.00	0.00	Open
R214	0.00	0.00	0.00	0.00	Open
R215	0.00	0.00	0.00	0.00	Open
R216	0.00	0.00	0.00	0.00	Open
R217	0.00	0.00	0.00	0.00	Open
R218	0.00	0.00	0.00	0.00	Open
R219	0.00	0.00	0.00	0.00	Open
R220	0.00	0.00	0.00	0.00	Open
R221	0.00	0.00	0.00	0.00	Open
R222	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R223	0.00	0.00	0.00	0.00	Open
R224	0.00	0.00	0.00	0.00	Open
R225	0.00	0.00	0.00	0.00	Open
R226	0.00	0.00	0.00	0.00	Open
R48	67.32	2.20	19.71	19.71	Open
R70	67.32	2.20	18.08	18.08	Open
R148	64.26	2.10	16.58	16.58	Open
R170	55.08	1.80	12.44	12.44	Open
R171	52.02	3.33	121.70	121.70	Open
R199	48.96	3.14	52.53	52.53	Open
R227	45.90	2.94	46.53	46.53	Open
R228	42.84	2.74	40.88	40.88	Open
R229	39.78	2.55	35.58	35.58	Open
R230	33.66	2.16	26.05	26.05	Open
R231	27.54	1.76	17.94	17.94	Open
R232	24.48	1.57	14.43	14.43	Open
R233	21.42	1.37	11.27	11.27	Open
R234	12.24	0.78	7.14	7.14	Open
R235	6.12	0.39	1.16	1.16	Open
R236	3.06	0.20	0.34	0.34	Open
R237	9.18	0.59	12.97	12.97	Open
R238	6.12	0.39	1.16	1.16	Open
R239	3.06	0.42	2.04	2.04	Open
R240	58.14	1.90	13.76	13.76	Open
R241	3.06	0.42	2.04	2.04	Open
R242	3.06	0.20	0.34	0.34	Open
R243	3.06	0.42	2.04	2.04	Open
R244	3.06	0.42	2.04	2.04	Open
R245	3.06	0.42	2.04	2.04	Open
R246	3.06	0.42	2.04	2.04	Open
R247	3.06	0.42	2.04	2.04	Open
R248	3.06	0.42	2.04	2.04	Open
R249	3.06	0.42	2.04	2.04	Open
R250	3.06	0.42	2.04	2.04	Open
R251	3.06	0.42	2.04	2.04	Open
R252	3.06	0.42	2.04	2.04	Open
R253	3.06	0.42	2.04	2.04	Open
R254	3.06	0.42	2.04	2.04	Open
R255	9.18	0.59	2.40	2.40	Open
R256	3.06	0.42	2.04	2.04	Open
R257	3.06	0.42	2.04	2.04	Open
R258	3.06	0.42	2.04	2.04	Open
R259	3.06	0.42	2.04	2.04	Open
R260	3.06	0.42	2.04	2.04	Open
R261	3.06	0.42	2.04	2.04	Open
R263	18.36	1.18	8.49	8.49	Open
R264	15.30	0.98	6.08	6.08	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R265	12.24	0.78		4.05	Open
R266	9.18	0.59		2.40	Open
R267	6.12	0.39		1.16	Open
R268	3.06	0.20		0.34	Open
R269	-18.36	1.18		8.71	Open
R270	6.12	0.39		2.99	Open
R271	38.21	0.30		0.23	Open
R272	15.30	0.98		6.69	Open
R273	12.24	0.78		4.05	Open
R274	9.18	0.59		2.40	Open
R275	6.12	0.39		1.16	Open
R276	3.06	0.20		0.34	Open
R277	52.02	3.33		204.26	Open
R278	3.06	0.20		0.36	Open
R279	33.66	2.16		26.05	Open
R280	30.60	1.96		21.82	Open
R281	-13.81	0.11		0.04	Open
R282	3.06	0.42		2.04	Open
R283	3.06	0.42		2.04	Open
R284	3.06	0.42		2.04	Open
R285	3.06	0.42		2.04	Open
R286	3.06	0.42		2.04	Open
R287	3.06	0.42		2.04	Open
R288	3.06	0.42		2.04	Open
R289	3.06	0.42		2.04	Open
R290	3.06	0.42		2.04	Open
R291	3.06	0.42		2.04	Open
R292	3.06	0.42		2.04	Open
R293	3.06	0.42		2.04	Open
R294	-62.69	0.50		0.58	Open
R295	67.32	2.20		176.52	Open
R296	21.42	1.37		11.57	Open
R297	3.06	0.42		2.04	Open
R298	18.36	1.18		8.49	Open
R299	18.36	1.18		8.49	Open
R300	15.30	0.98		6.08	Open
R301	9.18	0.59		2.40	Open
R302	6.12	0.39		1.16	Open
R303	3.06	0.20		0.34	Open
R304	6.12	0.39		1.19	Open
R305	3.06	0.42		2.04	Open
R306	3.06	0.20		0.34	Open
R307	3.06	0.42		2.04	Open
R308	3.06	0.42		2.04	Open
R309	3.06	0.42		2.04	Open
R310	-130.01	1.03		2.34	Open
R311	45.90	1.50		8.87	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R312	39.78	1.30		6.81	Open
R313	36.72	2.35		36.90	Open
R314	33.66	2.16		26.05	Open
R315	30.60	1.96		21.82	Open
R316	27.54	1.76		17.94	Open
R317	24.48	1.57		14.43	Open
R318	21.42	1.37		11.27	Open
R319	15.30	0.98		6.08	Open
R320	12.24	0.78		4.05	Open
R321	9.18	0.59		2.40	Open
R322	6.12	0.39		1.16	Open
R323	3.06	0.42		2.04	Open
R324	3.06	0.42		2.04	Open
R325	3.06	0.42		2.04	Open
R326	3.06	0.42		2.04	Open
R327	3.06	0.42		2.04	Open
R328	3.06	0.42		2.04	Open
R329	3.06	0.42		2.04	Open
R330	3.06	0.42		2.04	Open
R331	3.06	0.42		2.04	Open
R332	3.06	0.42		2.04	Open
R333	3.06	0.42		2.04	Open
R334	3.06	0.42		2.04	Open
R335	3.06	0.42		2.04	Open
R336	3.06	0.42		2.04	Open
R337	3.06	0.42		2.04	Open
R338	24.48	1.57		15.20	Open
R339	18.36	1.18		8.49	Open
R340	15.30	0.98		6.08	Open
R341	12.24	0.78		4.05	Open
R342	6.12	0.39		1.16	Open
R343	3.06	0.20		0.40	Open
R344	3.06	0.20		0.34	Open
R345	3.06	0.42		2.04	Open
R346	3.06	0.42		2.04	Open
R347	3.06	0.42		2.04	Open
R348	3.06	0.42		2.04	Open
R349	3.06	0.42		2.04	Open
R350	3.06	0.42		2.04	Open
R351	21.42	1.37		11.27	Open
R352	-154.49	1.23		3.27	Open
R353	-154.49	1.23		3.27	Open
R354	154.49	1.23		3.73	Open
R355	0.00	0.00		0.00	Open
R356	0.00	0.00		0.00	Open
R357	0.00	0.00		0.00	Open
R358	0.00	0.00		0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R359	0.00	0.00	0.00	0.00	Open
R360	0.00	0.00	0.00	0.00	Open
R361	0.00	0.00	0.00	0.00	Open
R362	0.00	0.00	0.00	0.00	Open
R363	0.00	0.00	0.00	0.00	Open
R364	0.00	0.00	0.00	0.00	Open
R365	0.00	0.00	0.00	0.00	Open
R366	0.00	0.00	0.00	0.00	Open
R367	0.00	0.00	0.00	0.00	Open
R368	0.00	0.00	0.00	0.00	Open
R369	0.00	0.00	0.00	0.00	Open
R370	0.00	0.00	0.00	0.00	Open
R371	0.00	0.00	0.00	0.00	Open
R372	0.00	0.00	0.00	0.00	Open
R373	0.00	0.00	0.00	0.00	Open
R374	0.00	0.00	0.00	0.00	Open
R375	0.00	0.00	0.00	0.00	Open
R376	0.00	0.00	0.00	0.00	Open
R377	0.00	0.00	0.00	0.00	Open
R378	0.00	0.00	0.00	0.00	Open
R379	0.00	0.00	0.00	0.00	Open
R380	0.00	0.00	0.00	0.00	Open
R381	0.00	0.00	0.00	0.00	Open
R382	0.00	0.00	0.00	0.00	Open
R383	0.00	0.00	0.00	0.00	Open
R384	0.00	0.00	0.00	0.00	Open
R385	0.00	0.00	0.00	0.00	Open
R386	0.00	0.00	0.00	0.00	Open
R387	0.00	0.00	0.00	0.00	Open
R388	0.00	0.00	0.00	0.00	Open
R389	0.00	0.00	0.00	0.00	Open
R390	0.00	0.00	0.00	0.00	Open
R391	0.00	0.00	0.00	0.00	Open
R392	0.00	0.00	0.00	0.00	Open
R393	0.00	0.00	0.00	0.00	Open
R394	0.00	0.00	0.00	0.00	Open
R395	0.00	0.00	0.00	0.00	Open
R396	0.00	0.00	0.00	0.00	Open
R397	0.00	0.00	0.00	0.00	Open
R398	0.00	0.00	0.00	0.00	Open
R399	0.00	0.00	0.00	0.00	Open
R400	0.00	0.00	0.00	0.00	Open
R401	0.00	0.00	0.00	0.00	Open
R402	0.00	0.00	0.00	0.00	Open
R403	0.00	0.00	0.00	0.00	Open
R404	0.00	0.00	0.00	0.00	Open
R405	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R406	0.00	0.00	0.00	0.00	Open
R407	0.00	0.00	0.00	0.00	Open
R408	0.00	0.00	0.00	0.00	Open
R409	0.00	0.00	0.00	0.00	Open
R410	0.00	0.00	0.00	0.00	Open
R411	0.00	0.00	0.00	0.00	Open
R412	0.00	0.00	0.00	0.00	Open
R413	0.00	0.00	0.00	0.00	Open
R414	0.00	0.00	0.00	0.00	Open
R415	0.00	0.00	0.00	0.00	Open
R416	0.00	0.00	0.00	0.00	Open
R417	0.00	0.00	0.00	0.00	Open
R418	0.00	0.00	0.00	0.00	Open
R419	0.00	0.00	0.00	0.00	Open
R420	0.00	0.00	0.00	0.00	Open
R421	0.00	0.00	0.00	0.00	Open
R422	0.00	0.00	0.00	0.00	Open
R423	0.00	0.00	0.00	0.00	Open
R424	0.00	0.00	0.00	0.00	Open
R425	0.00	0.00	0.00	0.00	Open
R426	0.00	0.00	0.00	0.00	Open
R427	0.00	0.00	0.00	0.00	Open
R428	0.00	0.00	0.00	0.00	Open
G429	-68.14	0.35	0.22	0.22	Open
G430	-68.14	0.35	0.27	0.27	Open
G431	-58.75	0.30	0.17	0.17	Open
R429	0.00	0.00	0.00	0.00	Open
R431	0.00	0.00	0.00	0.00	Open
R433	0.00	0.00	0.00	0.00	Open
R434	0.00	0.00	0.00	0.00	Open
R435	0.00	0.00	0.00	0.00	Open
R436	0.00	0.00	0.00	0.00	Open
R437	0.00	0.00	0.00	0.00	Open
R438	0.00	0.00	0.00	0.00	Open
R439	0.00	0.00	0.00	0.00	Open
R440	0.00	0.00	0.00	0.00	Open
R441	0.00	0.00	0.00	0.00	Open
R442	0.00	0.00	0.00	0.00	Open
R443	0.00	0.00	0.00	0.00	Open
R444	0.00	0.00	0.00	0.00	Open
R445	0.00	0.00	0.00	0.00	Open
R446	0.00	0.00	0.00	0.00	Open
R447	0.00	0.00	0.00	0.00	Open
R448	0.00	0.00	0.00	0.00	Open
R449	0.00	0.00	0.00	0.00	Open
R450	0.00	0.00	0.00	0.00	Open
R451	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R452	0.00	0.00	0.00	0.00	Open
R453	0.00	0.00	0.00	0.00	Open
R454	0.00	0.00	0.00	0.00	Open
R455	0.00	0.00	0.00	0.00	Open
R456	0.00	0.00	0.00	0.00	Open
R457	0.00	0.00	0.00	0.00	Open
R458	0.00	0.00	0.00	0.00	Open
R459	0.00	0.00	0.00	0.00	Open
R460	0.00	0.00	0.00	0.00	Open
R461	0.00	0.00	0.00	0.00	Open
R462	0.00	0.00	0.00	0.00	Open
R463	0.00	0.00	0.00	0.00	Open
R464	0.00	0.00	0.00	0.00	Open
R465	0.00	0.00	0.00	0.00	Open
R466	0.00	0.00	0.00	0.00	Open
R467	0.00	0.00	0.00	0.00	Open
R468	0.00	0.00	0.00	0.00	Open
R469	0.00	0.00	0.00	0.00	Open
R470	0.00	0.00	0.00	0.00	Open
R471	0.00	0.00	0.00	0.00	Open
R472	0.00	0.00	0.00	0.00	Open
R473	0.00	0.00	0.00	0.00	Open
R474	0.00	0.00	0.00	0.00	Open
R475	0.00	0.00	0.00	0.00	Open
R476	0.00	0.00	0.00	0.00	Open
R477	0.00	0.00	0.00	0.00	Open
R478	0.00	0.00	0.00	0.00	Open
R479	0.00	0.00	0.00	0.00	Open
R480	0.00	0.00	0.00	0.00	Open
R481	0.00	0.00	0.00	0.00	Open
R482	0.00	0.00	0.00	0.00	Open
R483	0.00	0.00	0.00	0.00	Open
R484	0.00	0.00	0.00	0.00	Open
R485	0.00	0.00	0.00	0.00	Open
R486	0.00	0.00	0.00	0.00	Open
R487	0.00	0.00	0.00	0.00	Open
R488	0.00	0.00	0.00	0.00	Open
R489	0.00	0.00	0.00	0.00	Open
R490	0.00	0.00	0.00	0.00	Open
R491	0.00	0.00	0.00	0.00	Open
R492	0.00	0.00	0.00	0.00	Open
R493	0.00	0.00	0.00	0.00	Open
R494	0.00	0.00	0.00	0.00	Open
R495	0.00	0.00	0.00	0.00	Open
R496	9.39	0.24	0.34	0.34	Open
R497	0.00	0.00	0.00	0.00	Open
R498	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R499	0.00	0.00	0.00	0.00	Open
R500	0.00	0.00	0.00	0.00	Open
R501	0.00	0.00	0.00	0.00	Open
R502	0.00	0.00	0.00	0.00	Open
R503	0.00	0.00	0.00	0.00	Open
R504	0.00	0.00	0.00	0.00	Open
R505	0.00	0.00	0.00	0.00	Open
R506	0.00	0.00	0.00	0.00	Open
R507	0.00	0.00	0.00	0.00	Open
R508	0.00	0.00	0.00	0.00	Open
R509	0.00	0.00	0.00	0.00	Open
R510	0.00	0.00	0.00	0.00	Open
R511	0.00	0.00	0.00	0.00	Open
R512	0.00	0.00	0.00	0.00	Open
R513	0.00	0.00	0.00	0.00	Open
R514	0.00	0.00	0.00	0.00	Open
R515	0.00	0.00	0.00	0.00	Open
R516	0.00	0.00	0.00	0.00	Open
R517	0.00	0.00	0.00	0.00	Open
R518	9.39	0.24	0.29	0.29	Open
R519	9.39	0.24	0.29	0.29	Open
R520	9.39	0.24	0.29	0.29	Open
R521	0.00	0.00	0.00	0.00	Open
R522	0.00	0.00	0.00	0.00	Open
R523	0.00	0.00	0.00	0.00	Open
R524	0.00	0.00	0.00	0.00	Open
R525	0.00	0.00	0.00	0.00	Open
R526	0.00	0.00	0.00	0.00	Open
R527	0.00	0.00	0.00	0.00	Open
R528	9.39	0.24	0.29	0.29	Open
R529	-9.39	0.24	1.26	1.26	Open
R530	-9.39	0.24	0.29	0.29	Open
R531	-9.39	0.24	0.29	0.29	Open
R532	-9.39	0.24	0.29	0.29	Open
R533	-9.39	0.24	0.29	0.29	Open
R534	-9.39	0.24	0.29	0.29	Open
R535	0.00	0.00	0.00	0.00	Open
R536	0.00	0.00	0.00	0.00	Open
R537	0.00	0.00	0.00	0.00	Open
R538	0.00	0.00	0.00	0.00	Open
R539	0.00	0.00	0.00	0.00	Open
R540	0.00	0.00	0.00	0.00	Open
R541	0.00	0.00	0.00	0.00	Open
R542	0.00	0.00	0.00	0.00	Open
R543	0.00	0.00	0.00	0.00	Open
R544	0.00	0.00	0.00	0.00	Open
R545	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R546	0.00	0.00	0.00	0.00	Open
R547	0.00	0.00	0.00	0.00	Open
R548	0.00	0.00	0.00	0.00	Open
R549	0.00	0.00	0.00	0.00	Open
R550	0.00	0.00	0.00	0.00	Open
R551	0.00	0.00	0.00	0.00	Open
R552	0.00	0.00	0.00	0.00	Open
R553	0.00	0.00	0.00	0.00	Open
R554	0.00	0.00	0.00	0.00	Open
R555	0.00	0.00	0.00	0.00	Open
R556	0.00	0.00	0.00	0.00	Open
R557	0.00	0.00	0.00	0.00	Open
R558	0.00	0.00	0.00	0.00	Open
R559	0.00	0.00	0.00	0.00	Open
R560	0.00	0.00	0.00	0.00	Open
R561	0.00	0.00	0.00	0.00	Open
R562	0.00	0.00	0.00	0.00	Open
R563	0.00	0.00	0.00	0.00	Open
R564	4.98	0.03	0.00	0.00	Open
G565	-58.75	0.30	0.17	0.00	Open
R565	0.00	0.00	0.00	0.00	Open
R566	0.00	0.00	0.00	0.00	Open
R567	0.00	0.00	0.00	0.00	Open
R568	0.00	0.00	0.00	0.00	Open
R569	0.00	0.00	0.00	0.00	Open
R570	0.00	0.00	0.00	0.00	Open
R571	0.00	0.00	0.00	0.00	Open
R572	0.00	0.00	0.00	0.00	Open
R573	0.00	0.00	0.00	0.00	Open
R574	0.00	0.00	0.00	0.00	Open
R575	0.00	0.00	0.00	0.00	Open
R576	0.00	0.00	0.00	0.00	Open
R577	0.00	0.00	0.00	0.00	Open
R578	0.00	0.00	0.00	0.00	Open
R579	0.00	0.00	0.00	0.00	Open
G580	-58.75	0.30	0.17	0.00	Open
G581	-54.65	0.28	0.15	0.00	Open
R580	0.00	0.00	0.00	0.00	Open
R581	0.00	0.00	0.00	0.00	Open
R582	0.00	0.00	0.00	0.00	Open
R583	0.00	0.00	0.00	0.00	Open
R584	0.00	0.00	0.00	0.00	Open
R585	0.00	0.00	0.00	0.00	Open
R586	0.00	0.00	0.00	0.00	Open
R587	0.00	0.00	0.00	0.00	Open
R588	0.00	0.00	0.00	0.00	Open
R589	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R590	0.00	0.00	0.00	0.00	Open
R591	0.00	0.00	0.00	0.00	Open
R592	0.00	0.00	0.00	0.00	Open
R593	0.00	0.00	0.00	0.00	Open
R594	0.00	0.00	0.00	0.00	Open
R595	0.00	0.00	0.00	0.00	Open
R596	-4.09	0.07	0.10	0.00	Open
R597	-4.09	0.07	0.02	0.02	Open
R598	-4.09	0.07	0.02	0.02	Open
R599	0.00	0.00	0.00	0.00	Open
R600	-4.09	0.07	0.02	0.02	Open
R601	-4.09	0.07	0.02	0.02	Open
R602	0.00	0.00	0.00	0.00	Open
R603	0.00	0.00	0.00	0.00	Open
R604	0.00	0.00	0.00	0.00	Open
R605	0.00	0.00	0.00	0.00	Open
R606	0.00	0.00	0.00	0.00	Open
R607	0.00	0.00	0.00	0.00	Open
R608	0.00	0.00	0.00	0.00	Open
R609	0.00	0.00	0.00	0.00	Open
R610	0.00	0.00	0.00	0.00	Open
R611	0.00	0.00	0.00	0.00	Open
R612	0.00	0.00	0.00	0.00	Open
R613	0.00	0.00	0.00	0.00	Open
R614	0.00	0.00	0.00	0.00	Open
R615	0.00	0.00	0.00	0.00	Open
R616	0.00	0.00	0.00	0.00	Open
R617	0.00	0.00	0.00	0.00	Open
R618	0.00	0.00	0.00	0.00	Open
R619	0.00	0.00	0.00	0.00	Open
R620	-4.09	0.07	0.02	0.02	Open
R621	-4.09	0.07	0.02	0.02	Open
R622	-4.09	0.07	0.02	0.02	Open
R623	4.09	0.07	0.03	0.00	Open
R624	4.09	0.07	0.02	0.00	Open
R625	0.00	0.00	0.00	0.00	Open
R627	0.00	0.00	0.00	0.00	Open
R628	0.00	0.00	0.00	0.00	Open
R629	0.00	0.00	0.00	0.00	Open
R630	0.00	0.00	0.00	0.00	Open
R631	0.00	0.00	0.00	0.00	Open
R632	0.00	0.00	0.00	0.00	Open
R633	0.00	0.00	0.00	0.00	Open
R634	0.00	0.00	0.00	0.00	Open
R635	0.00	0.00	0.00	0.00	Open
R636	0.00	0.00	0.00	0.00	Open
R637	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R638	0.00	0.00	0.00	0.00	Open
R639	0.00	0.00	0.00	0.00	Open
R640	0.00	0.00	0.00	0.00	Open
R641	0.00	0.00	0.00	0.00	Open
R642	0.00	0.00	0.00	0.00	Open
R643	0.00	0.00	0.00	0.00	Open
R644	-58.75	0.30	0.17	0.17	Open
R645	-58.75	0.30	0.17	0.17	Open
R646	-58.75	0.30	0.17	0.17	Open
R647	-58.75	0.30	0.15	0.15	Open
R648	-53.92	0.27	0.14	0.14	Open
R649	-53.92	0.27	0.14	0.14	Open
R650	-58.75	0.30	0.17	0.17	Open
R651	-58.75	0.30	0.17	0.17	Open
R652	58.75	0.30	0.17	0.17	Open
R653	58.75	0.30	0.17	0.17	Open
R654	58.75	0.30	0.17	0.17	Open
R655	0.00	0.00	0.00	0.00	Open
R656	0.00	0.00	0.00	0.00	Open
R657	0.00	0.00	0.00	0.00	Open
R658	0.00	0.00	0.00	0.00	Open
R659	0.00	0.00	0.00	0.00	Open
R660	0.00	0.00	0.00	0.00	Open
R661	0.00	0.00	0.00	0.00	Open
R662	0.00	0.00	0.00	0.00	Open
R663	0.00	0.00	0.00	0.00	Open
R664	0.00	0.00	0.00	0.00	Open
R665	0.00	0.00	0.00	0.00	Open
R666	0.00	0.00	0.00	0.00	Open
R667	0.00	0.00	0.00	0.00	Open
R668	0.00	0.00	0.00	0.00	Open
R669	0.00	0.00	0.00	0.00	Open
R670	0.00	0.00	0.00	0.00	Open
R671	0.00	0.00	0.00	0.00	Open
R672	0.00	0.00	0.00	0.00	Open
R673	0.00	0.00	0.00	0.00	Open
R674	0.00	0.00	0.00	0.00	Open
R675	0.00	0.00	0.00	0.00	Open
R676	0.00	0.00	0.00	0.00	Open
R677	0.00	0.00	0.00	0.00	Open
R678	0.00	0.00	0.00	0.00	Open
R679	0.00	0.00	0.00	0.00	Open
R680	0.00	0.00	0.00	0.00	Open
R681	0.00	0.00	0.00	0.00	Open
R682	0.00	0.00	0.00	0.00	Open
R683	0.00	0.00	0.00	0.00	Open
R684	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R685	0.00	0.00	0.00	0.00	Open
R686	0.00	0.00	0.00	0.00	Open
R687	0.00	0.00	0.00	0.00	Open
R688	0.00	0.00	0.00	0.00	Open
R689	0.00	0.00	0.00	0.00	Open
R690	0.00	0.00	0.00	0.00	Open
R691	0.00	0.00	0.00	0.00	Open
R692	0.00	0.00	0.00	0.00	Open
R693	0.00	0.00	0.00	0.00	Open
R694	0.00	0.00	0.00	0.00	Open
R695	0.00	0.00	0.00	0.00	Open
R696	0.00	0.00	0.00	0.00	Open
R697	0.00	0.00	0.00	0.00	Open
R698	0.00	0.00	0.00	0.00	Open
R699	0.00	0.00	0.00	0.00	Open
R700	0.00	0.00	0.00	0.00	Open
R701	0.00	0.00	0.00	0.00	Open
R702	0.00	0.00	0.00	0.00	Open
R703	0.00	0.00	0.00	0.00	Open
R704	0.00	0.00	0.00	0.00	Open
R705	0.00	0.00	0.00	0.00	Open
R706	0.00	0.00	0.00	0.00	Open
R707	0.00	0.00	0.00	0.00	Open
R708	0.00	0.00	0.00	0.00	Open
R709	0.00	0.00	0.00	0.00	Open
R710	0.00	0.00	0.00	0.00	Open
R711	0.00	0.00	0.00	0.00	Open
R712	0.00	0.00	0.00	0.00	Open
R713	0.00	0.00	0.00	0.00	Open
R714	0.00	0.00	0.00	0.00	Open
R715	0.00	0.00	0.00	0.00	Open
R716	0.00	0.00	0.00	0.00	Open
R626	0.00	0.00	0.00	0.00	Open
R717	0.00	0.00	0.00	0.00	Open
R718	0.00	0.00	0.00	0.00	Open
R719	0.00	0.00	0.00	0.00	Open
R720	0.00	0.00	0.00	0.00	Open
R721	0.00	0.00	0.00	0.00	Open
R722	0.00	0.00	0.00	0.00	Open
R723	0.00	0.00	0.00	0.00	Open
R724	0.00	0.00	0.00	0.00	Open
R725	0.00	0.00	0.00	0.00	Open
R726	0.00	0.00	0.00	0.00	Open
R727	0.00	0.00	0.00	0.00	Open
R728	0.00	0.00	0.00	0.00	Open
R729	0.00	0.00	0.00	0.00	Open
R730	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R731	0.00	0.00	0.00	0.00	Open
R732	0.00	0.00	0.00	0.00	Open
R733	0.00	0.00	0.00	0.00	Open
R734	0.00	0.00	0.00	0.00	Open
R735	0.00	0.00	0.00	0.00	Open
R736	0.00	0.00	0.00	0.00	Open
R737	0.00	0.00	0.00	0.00	Open
R738	0.00	0.00	0.00	0.00	Open
R739	0.00	0.00	0.00	0.00	Open
R740	0.00	0.00	0.00	0.00	Open
R741	0.00	0.00	0.00	0.00	Open
R742	0.00	0.00	0.00	0.00	Open
R743	0.00	0.00	0.00	0.00	Open
R744	0.00	0.00	0.00	0.00	Open
R745	0.00	0.00	0.00	0.00	Open
R746	0.00	0.00	0.00	0.00	Open
R747	0.00	0.00	0.00	0.00	Open
R748	0.00	0.00	0.00	0.00	Open
R749	0.00	0.00	0.00	0.00	Open
R750	0.00	0.00	0.00	0.00	Open
R751	0.00	0.00	0.00	0.00	Open
R752	0.00	0.00	0.00	0.00	Open
R753	0.00	0.00	0.00	0.00	Open
R754	0.00	0.00	0.00	0.00	Open
R755	0.00	0.00	0.00	0.00	Open
R756	0.00	0.00	0.00	0.00	Open
R757	0.00	0.00	0.00	0.00	Open
R758	0.00	0.00	0.00	0.00	Open
R759	0.00	0.00	0.00	0.00	Open
R760	0.00	0.00	0.00	0.00	Open
R761	0.00	0.00	0.00	0.00	Open
R762	0.00	0.00	0.00	0.00	Open
R763	0.00	0.00	0.00	0.00	Open
R764	0.00	0.00	0.00	0.00	Open
R765	0.00	0.00	0.00	0.00	Open
R766	0.00	0.00	0.00	0.00	Open
R767	0.00	0.00	0.00	0.00	Open
R768	0.00	0.00	0.00	0.00	Open
R769	-4.82	0.08	0.08	0.04	Open
R770	-4.82	0.08	0.08	0.03	Open
R771	-4.82	0.08	0.08	0.03	Open
R772	-4.82	0.08	0.08	0.03	Open
R773	-4.82	0.08	0.08	0.03	Open
R774	-4.82	0.08	0.08	0.03	Open
R775	-4.82	0.08	0.08	0.03	Open
R776	-4.82	0.08	0.08	0.03	Open
R777	-4.82	0.08	0.08	0.03	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R778	-4.82	0.08	0.08	0.03	Open
R779	-4.82	0.13	0.13	0.09	Open
R780	-4.82	0.13	0.13	0.09	Open
R781	-4.82	0.13	0.13	0.09	Open
R782	-4.82	0.13	0.13	0.09	Open
R783	-4.82	0.13	0.13	0.22	Open
R798	4.82	0.08	0.08	0.03	Open
R785	0.00	0.00	0.00	0.00	Open
R786	0.00	0.00	0.00	0.00	Open
R787	0.00	0.00	0.00	0.00	Open
R788	0.00	0.00	0.00	0.00	Open
R789	0.00	0.00	0.00	0.00	Open
R790	0.00	0.00	0.00	0.00	Open
R791	0.00	0.00	0.00	0.00	Open
R792	0.00	0.00	0.00	0.00	Open
R793	0.00	0.00	0.00	0.00	Open
R794	0.00	0.00	0.00	0.00	Open
R795	0.00	0.00	0.00	0.00	Open
R796	0.00	0.00	0.00	0.00	Open
R797	0.00	0.00	0.00	0.00	Open
R799	4.82	0.08	0.08	0.08	Open
R800	0.00	0.00	0.00	0.00	Open
R801	0.00	0.00	0.00	0.00	Open
R802	0.00	0.00	0.00	0.00	Open
R803	0.00	0.00	0.00	0.00	Open
R804	0.00	0.00	0.00	0.00	Open
R805	0.00	0.00	0.00	0.00	Open
R806	0.00	0.00	0.00	0.00	Open
R807	0.00	0.00	0.00	0.00	Open
R808	0.00	0.00	0.00	0.00	Open
R809	0.00	0.00	0.00	0.00	Open
R810	0.00	0.00	0.00	0.00	Open
R811	0.00	0.00	0.00	0.00	Open
R812	0.00	0.00	0.00	0.00	Open
R813	0.00	0.00	0.00	0.00	Open
R814	0.00	0.00	0.00	0.00	Open
R784	0.00	0.00	0.00	0.00	Open
R815	0.00	0.00	0.00	0.00	Open
R816	0.00	0.00	0.00	0.00	Open
R817	0.00	0.00	0.00	0.00	Open
R818	0.00	0.00	0.00	0.00	Open
R819	0.00	0.00	0.00	0.00	Open
R820	0.00	0.00	0.00	0.00	Open
R821	0.00	0.00	0.00	0.00	Open
R822	0.00	0.00	0.00	0.00	Open
R823	0.00	0.00	0.00	0.00	Open
R824	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R825	0.00	0.00	0.00	0.00	Open
R826	0.00	0.00	0.00	0.00	Open
R827	0.00	0.00	0.00	0.00	Open
R828	0.00	0.00	0.00	0.00	Open
R829	0.00	0.00	0.00	0.00	Open
R830	0.00	0.00	0.00	0.00	Open
R831	0.00	0.00	0.00	0.00	Open
R832	0.00	0.00	0.00	0.00	Open
R833	0.00	0.00	0.00	0.00	Open
R834	0.00	0.00	0.00	0.00	Open
R835	0.00	0.00	0.00	0.00	Open
R836	0.00	0.00	0.00	0.00	Open
R837	0.00	0.00	0.00	0.00	Open
R838	0.00	0.00	0.00	0.00	Open
R839	0.00	0.00	0.00	0.00	Open
R840	0.00	0.00	0.00	0.00	Open
R841	0.00	0.00	0.00	0.00	Open
R842	0.00	0.00	0.00	0.00	Open
R843	0.00	0.00	0.00	0.00	Open
R844	0.00	0.00	0.00	0.00	Open
R845	0.00	0.00	0.00	0.00	Open
R846	0.00	0.00	0.00	0.00	Open
R847	0.00	0.00	0.00	0.00	Open
R848	0.00	0.00	0.00	0.00	Open
R849	0.00	0.00	0.00	0.00	Open
R850	0.00	0.00	0.00	0.00	Open
R851	0.00	0.00	0.00	0.00	Open
R852	0.00	0.00	0.00	0.00	Open
R853	0.00	0.00	0.00	0.00	Open
R854	0.00	0.00	0.00	0.00	Open
R855	0.00	0.00	0.00	0.00	Open
R856	0.00	0.00	0.00	0.00	Open
R857	0.00	0.00	0.00	0.00	Open
R858	0.00	0.00	0.00	0.00	Open
R859	0.00	0.00	0.00	0.00	Open
R860	0.00	0.00	0.00	0.00	Open
R861	0.00	0.00	0.00	0.00	Open
R862	0.00	0.00	0.00	0.00	Open
R863	0.00	0.00	0.00	0.00	Open
R864	289.44	2.30	11.72	11.72	Open
R865	24.48	1.57	44.47	44.47	Open
R866	21.42	1.37	11.27	11.27	Open
R867	18.36	1.18	8.49	8.49	Open
R868	12.24	0.78	4.05	4.05	Open
R869	6.12	0.39	1.16	1.16	Open
R870	3.06	0.20	0.34	0.34	Open
R871	3.06	0.42	2.04	2.04	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R872	3.06	0.42	2.04	2.04	Open
R873	3.06	0.42	2.04	2.04	Open
R874	3.06	0.42	2.04	2.04	Open
R875	3.06	0.42	2.04	2.04	Open
R876	3.06	0.42	2.04	2.04	Open
R877	3.06	0.42	2.04	2.04	Open
R878	264.96	2.11	9.35	9.35	Open
R879	216.44	1.72	6.30	6.30	Open
R880	191.52	1.52	4.96	4.96	Open
R881	48.52	1.59	21.35	21.35	Open
R882	12.24	0.78	5.78	5.78	Open
R883	9.18	0.59	2.40	2.40	Open
R884	6.12	0.39	1.16	1.16	Open
R885	3.06	0.20	0.34	0.34	Open
R886	3.06	0.42	2.04	2.04	Open
R887	3.06	0.42	2.04	2.04	Open
R888	3.06	0.42	2.04	2.04	Open
R889	36.28	1.19	5.75	5.75	Open
R890	33.22	1.09	4.89	4.89	Open
R891	30.16	0.99	4.09	4.09	Open
R896	24.92	0.81	9.80	9.80	Open
R897	18.80	0.61	1.73	1.73	Open
R898	15.74	0.51	1.25	1.25	Open
R899	9.62	0.31	0.52	0.52	Open
R900	6.56	0.21	0.26	0.26	Open
R901	3.50	0.11	0.09	0.09	Open
R902	21.86	0.71	2.27	2.27	Open
R903	94.55	0.75	1.27	1.27	Open
R904	163.44	2.13	11.39	11.39	Open
R905	99.18	1.29	3.88	3.88	Open
R906	4.32	0.03	0.00	0.00	Open
R907	-85.37	0.68	1.04	1.04	Open
R908	9.18	0.59	3.60	3.60	Open
R909	3.06	0.20	0.34	0.34	Open
R910	3.06	0.42	2.04	2.04	Open
R911	3.06	0.42	2.04	2.04	Open
R912	96.97	1.26	41.16	41.16	Open
R913	93.91	1.22	3.50	3.50	Open
R914	3.06	0.42	2.04	2.04	Open
R915	66.37	0.86	1.85	1.85	Open
R916	63.31	0.82	1.70	1.70	Open
R917	60.25	0.78	1.55	1.55	Open
R918	57.19	0.74	1.41	1.41	Open
R919	54.13	0.70	1.27	1.27	Open
R920	51.07	0.66	1.14	1.14	Open
R921	48.01	0.62	1.02	1.02	Open
R922	44.95	0.58	0.91	0.91	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R923	3.06	0.42	2.04	2.04	Open
R924	3.06	0.42	2.04	2.04	Open
R925	3.06	0.42	2.04	2.04	Open
R926	3.06	0.42	2.04	2.04	Open
R927	3.06	0.42	2.04	2.04	Open
R928	3.06	0.42	2.04	2.04	Open
R929	3.06	0.42	2.04	2.04	Open
R930	89.69	1.17	12.90	12.90	Open
R931	86.63	1.13	3.02	3.02	Open
R932	83.57	1.09	2.83	2.83	Open
R933	80.51	1.05	2.64	2.64	Open
R934	77.45	1.01	2.46	2.46	Open
R935	74.39	0.97	2.28	2.28	Open
R936	71.33	0.93	2.11	2.11	Open
R937	68.27	0.89	1.95	1.95	Open
R938	65.21	0.85	1.79	1.79	Open
R939	43.79	0.57	0.86	0.86	Open
R940	40.73	0.53	0.76	0.76	Open
R941	37.67	0.49	0.66	0.66	Open
R942	34.61	0.45	0.56	0.56	Open
R943	31.55	0.41	0.48	0.48	Open
R944	28.49	0.37	0.40	0.40	Open
R945	10.13	0.13	0.06	0.06	Open
R946	7.07	0.09	0.03	0.03	Open
R947	4.01	0.05	0.01	0.01	Open
R948	0.95	0.01	0.00	0.00	Open
R949	-2.11	0.03	0.00	0.00	Open
R950	-5.17	0.07	0.02	0.02	Open
R951	-8.23	0.11	0.04	0.04	Open
R952	-11.29	0.15	0.08	0.08	Open
R953	-14.35	0.19	0.12	0.12	Open
R954	3.06	0.42	2.04	2.04	Open
R955	3.06	0.42	2.04	2.04	Open
R956	3.06	0.42	2.04	2.04	Open
R957	3.06	0.42	2.04	2.04	Open
R958	3.06	0.42	2.04	2.04	Open
R959	3.06	0.42	2.04	2.04	Open
R960	3.06	0.42	2.04	2.04	Open
R961	3.06	0.42	2.04	2.04	Open
R962	3.06	0.42	2.04	2.04	Open
R963	3.06	0.42	2.04	2.04	Open
R964	3.06	0.42	2.04	2.04	Open
R965	3.06	0.42	2.04	2.04	Open
R966	3.06	0.42	2.04	2.04	Open
R967	3.06	0.42	2.04	2.04	Open
R968	3.06	0.42	2.04	2.04	Open
R969	3.06	0.42	2.04	2.04	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R970	3.06	0.42	2.04	2.04	Open
R971	3.06	0.42	2.04	2.04	Open
R972	3.06	0.42	2.04	2.04	Open
R973	3.06	0.42	2.04	2.04	Open
R974	3.06	0.42	2.04	2.04	Open
R975	3.06	0.42	2.04	2.04	Open
R976	3.06	0.42	2.04	2.04	Open
R977	3.06	0.42	2.04	2.04	Open
R978	3.06	0.42	2.04	2.04	Open
R979	3.06	0.42	2.04	2.04	Open
R980	3.06	0.42	2.04	2.04	Open
R981	3.06	0.42	2.04	2.04	Open
R982	3.06	0.42	2.04	2.04	Open
R983	3.06	0.42	2.04	2.04	Open
R984	33.66	1.10	5.28	5.28	Open
R985	27.54	1.76	19.29	19.29	Open
R986	24.48	1.57	14.43	14.43	Open
R987	21.42	1.37	11.27	11.27	Open
R988	18.36	1.18	8.49	8.49	Open
R989	15.30	0.98	6.08	6.08	Open
R990	9.18	0.59	2.72	2.72	Open
R991	6.12	0.39	1.16	1.16	Open
R992	3.06	0.20	0.34	0.34	Open
R993	6.12	0.39	1.16	1.16	Open
R994	3.06	0.20	0.34	0.34	Open
R995	3.06	0.42	2.04	2.04	Open
R996	3.06	0.42	2.04	2.04	Open
R997	3.06	0.42	2.04	2.04	Open
R998	3.06	0.42	2.04	2.04	Open
R999	3.06	0.42	2.04	2.04	Open
R1000	3.06	0.42	2.04	2.04	Open
R1001	3.06	0.42	2.04	2.04	Open
R1002	3.06	0.42	2.04	2.04	Open
R1003	3.06	0.42	2.04	2.04	Open
R892	27.54	1.76	51.11	51.11	Open
R893	21.42	1.37	11.27	11.27	Open
R894	18.36	1.18	8.49	8.49	Open
R895	12.24	0.78	4.05	4.05	Open
R1004	9.18	0.59	2.40	2.40	Open
R1005	6.12	0.39	1.16	1.16	Open
R1006	3.06	0.20	0.34	0.34	Open
R1007	3.06	0.42	2.04	2.04	Open
R1008	3.06	0.42	2.04	2.04	Open
R1009	3.06	0.42	2.04	2.04	Open
R1010	3.06	0.42	2.04	2.04	Open
R1011	3.06	0.42	2.04	2.04	Open
R1012	3.06	0.42	2.04	2.04	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1013	3.06	0.42	2.04	2.04	Open
R1014	30.60	1.96	44.68	44.68	Open
R1015	27.54	1.76	17.94	17.94	Open
R1016	24.48	1.57	14.43	14.43	Open
R1017	21.42	1.37	11.27	11.27	Open
R1018	18.36	1.18	8.49	8.49	Open
R1019	15.30	0.98	6.08	6.08	Open
R1020	12.24	0.78	4.05	4.05	Open
R1021	9.18	0.59	2.40	2.40	Open
R1022	6.12	0.39	1.16	1.16	Open
R1023	3.06	0.20	0.34	0.34	Open
R1024	3.06	0.42	2.04	2.04	Open
R1025	3.06	0.42	2.04	2.04	Open
R1026	3.06	0.42	2.04	2.04	Open
R1027	3.06	0.42	2.04	2.04	Open
R1028	3.06	0.42	2.04	2.04	Open
R1029	3.06	0.42	2.04	2.04	Open
R1030	3.06	0.42	2.04	2.04	Open
R1031	3.06	0.42	2.04	2.04	Open
R1032	3.06	0.42	2.04	2.04	Open
R1033	3.06	0.42	2.04	2.04	Open
R1034	3.06	0.42	2.04	2.04	Open
R1035	3.06	0.42	2.04	2.04	Open
R1036	3.06	0.42	2.04	2.04	Open
R1037	3.06	0.42	2.04	2.04	Open
R1038	18.36	1.18	15.82	15.82	Open
R1039	15.30	0.98	6.08	6.08	Open
R1040	12.24	0.78	4.05	4.05	Open
R1041	9.18	0.59	2.40	2.40	Open
R1042	6.12	0.39	1.16	1.16	Open
R1043	3.06	0.20	0.34	0.34	Open
R1044	3.06	0.42	2.04	2.04	Open
R1045	3.06	0.42	2.04	2.04	Open
R1046	3.06	0.42	2.04	2.04	Open
R1047	3.06	0.42	2.04	2.04	Open
R1048	3.06	0.42	2.04	2.04	Open
R1049	3.06	0.42	2.04	2.04	Open
R1050	21.42	1.37	24.40	24.40	Open
R1051	15.30	0.98	6.08	6.08	Open
R1052	12.24	0.78	4.05	4.05	Open
R1053	9.18	0.59	2.40	2.40	Open
R1054	6.12	0.39	1.16	1.16	Open
R1055	3.06	0.20	0.34	0.34	Open
R1056	24.48	1.57	32.90	32.90	Open
R1057	21.42	1.37	11.27	11.27	Open
R1058	18.36	1.18	8.49	8.49	Open
R1059	15.30	0.98	6.08	6.08	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1060	12.24	0.78	4.05	4.05	Open
R1061	6.12	0.39	1.51	1.51	Open
R1062	3.06	0.20	0.34	0.34	Open
R1063	6.12	0.39	1.16	1.16	Open
R1064	3.06	0.20	0.34	0.34	Open
R1065	3.06	0.42	2.04	2.04	Open
R1066	3.06	0.42	2.04	2.04	Open
R1067	3.06	0.42	2.04	2.04	Open
R1068	3.06	0.42	2.04	2.04	Open
R1069	3.06	0.42	2.04	2.04	Open
R1070	3.06	0.42	2.04	2.04	Open
R1071	94.86	1.23	55.32	55.32	Open
R1072	70.38	0.92	2.06	2.06	Open
R1073	70.38	0.92	2.06	2.06	Open
R1074	45.90	1.19	5.33	5.33	Open
R1075	24.48	1.57	35.69	35.69	Open
R1076	21.42	1.37	11.27	11.27	Open
R1077	3.06	0.42	2.04	2.04	Open
R1079	12.24	0.78	4.05	4.05	Open
R1080	6.12	0.39	1.16	1.16	Open
R1082	-6.12	0.39	1.16	1.16	Open
R1083	-9.18	0.59	2.40	2.40	Open
R1084	-12.24	0.78	4.05	4.05	Open
R1085	-18.36	1.18	8.49	8.49	Open
R1086	-21.42	1.37	17.31	17.31	Open
R1088	-27.54	0.90	3.46	3.46	Open
R1089	-30.60	1.00	4.20	4.20	Open
R1090	-33.66	1.10	5.01	5.01	Open
R1091	-39.78	1.30	6.81	6.81	Open
R1092	-42.84	1.40	7.81	7.81	Open
R1093	-45.90	1.50	8.87	8.87	Open
R1095	3.06	0.20	0.34	0.34	Open
R1096	3.06	0.42	2.04	2.04	Open
R1097	3.06	0.42	2.04	2.04	Open
R1099	18.36	1.18	10.16	10.16	Open
R1100	15.30	0.98	6.08	6.08	Open
R1101	3.06	0.20	0.34	0.34	Open
R1102	12.24	0.78	4.65	4.65	Open
R1103	6.12	0.39	1.16	1.16	Open
R1104	3.06	0.20	0.34	0.34	Open
R1105	3.06	0.42	2.04	2.04	Open
R1106	3.06	0.42	2.04	2.04	Open
R1107	3.06	0.42	2.04	2.04	Open
R1108	3.06	0.42	2.04	2.04	Open
R1109	3.06	0.42	2.04	2.04	Open
R1110	3.06	0.42	2.04	2.04	Open
R1111	3.06	0.42	2.04	2.04	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit m/km	Headloss	Status
R1112	3.06	0.42	2.04	2.04	Open
R1113	3.06	0.42	2.04	2.04	Open
R1114	3.06	0.42	2.04	2.04	Open
R1115	3.06	0.42	2.04	2.04	Open
R1116	3.06	0.42	2.04	2.04	Open
R1117	3.06	0.42	2.04	2.04	Open
R1118	3.06	0.42	2.04	2.04	Open
R1119	3.06	0.42	2.04	2.04	Open
R1120	6.12	0.83	7.12	7.12	Open
R1121	3.06	0.42	2.04	2.04	Open
R1122	3.06	0.42	2.04	2.04	Open
R1123	3.06	0.42	2.04	2.04	Open
R1124	3.06	0.42	2.04	2.04	Open
R1125	3.06	0.42	2.04	2.04	Open
R1126	3.06	0.42	2.04	2.04	Open
R1127	3.06	0.42	2.04	2.04	Open
R1128	3.06	0.42	2.04	2.04	Open
R1129	3.06	0.42	2.04	2.04	Open
R1130	3.06	0.42	2.04	2.04	Open
R1131	3.06	0.42	2.04	2.04	Open
R1132	27.54	0.90	4.07	4.07	Open
R1133	24.48	0.80	2.79	2.79	Open
R1134	21.42	1.37	12.15	12.15	Open
R1135	12.24	0.78	15.78	15.78	Open
R1136	9.18	0.59	2.40	2.40	Open
R1137	6.12	0.39	1.16	1.16	Open
R1138	3.06	0.20	0.34	0.34	Open
R1139	3.06	0.42	2.04	2.04	Open
R1140	3.06	0.42	2.04	2.04	Open
R1141	3.06	0.42	2.04	2.04	Open
R1142	3.06	0.42	2.04	2.04	Open
R1143	3.06	0.42	2.04	2.04	Open
R1144	9.18	0.59	2.40	2.40	Open
R1145	6.12	0.39	1.16	1.16	Open
R1146	3.06	0.20	0.37	0.37	Open
R1147	3.06	0.42	2.04	2.04	Open
R1148	3.06	0.42	2.04	2.04	Open
R1149	-45.90	1.50	8.87	8.87	Open
R1150	48.96	1.60	10.00	10.00	Open
R1151	52.02	1.70	11.77	11.77	Open
R1152	3.06	0.42	2.04	2.04	Open
R1153	3.06	0.42	2.04	2.04	Open
R1154	3.06	0.42	2.04	2.04	Open
R1155	3.06	0.42	2.04	2.04	Open
R1156	3.06	0.42	2.04	2.04	Open
R1157	3.06	0.42	2.04	2.04	Open
R1158	3.06	0.42	2.04	2.04	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit m/km	Headloss	Status
R1159	3.06	0.42	2.04	2.04	Open
R1162	24.48	1.57	14.43	14.43	Open
R1163	21.42	1.37	11.27	11.27	Open
R1164	6.12	0.39	1.16	1.16	Open
R1165	3.06	0.42	2.04	2.04	Open
R1166	64.26	1.67	76.94	76.94	Open
R1167	6.12	0.39	1.45	1.45	Open
R1168	3.06	0.20	0.34	0.34	Open
R1169	58.14	1.51	7.87	7.87	Open
R1170	15.30	0.98	11.26	11.26	Open
R1171	12.24	0.78	4.05	4.05	Open
R1172	9.18	0.59	2.40	2.40	Open
R1173	6.12	0.39	1.16	1.16	Open
R1174	3.06	0.20	0.34	0.34	Open
R1175	3.06	0.42	2.04	2.04	Open
R1176	3.06	0.42	2.04	2.04	Open
R1177	3.06	0.42	2.04	2.04	Open
R1178	3.06	0.42	2.04	2.04	Open
R1179	42.84	1.11	4.48	4.48	Open
R1180	15.30	0.98	7.94	7.94	Open
R1181	12.24	0.78	4.05	4.05	Open
R1182	9.18	0.59	2.40	2.40	Open
R1183	6.12	0.39	1.16	1.16	Open
R1184	3.06	0.20	0.34	0.34	Open
R1185	3.06	0.42	2.04	2.04	Open
R1186	3.06	0.42	2.04	2.04	Open
R1187	3.06	0.42	2.04	2.04	Open
R1188	3.06	0.42	2.04	2.04	Open
R1189	27.54	0.90	6.82	6.82	Open
R1190	24.48	0.80	2.79	2.79	Open
R1191	21.42	0.70	2.19	2.19	Open
R1192	9.18	0.59	3.19	3.19	Open
R1193	6.12	0.39	1.16	1.16	Open
R1194	3.06	0.20	0.34	0.34	Open
R1195	12.24	0.78	10.60	10.60	Open
R1196	9.18	0.59	2.40	2.40	Open
R1197	6.12	0.39	1.16	1.16	Open
R1198	3.06	0.20	0.34	0.34	Open
R1199	3.06	0.42	2.04	2.04	Open
R1200	3.06	0.42	2.04	2.04	Open
R1201	3.06	0.42	2.04	2.04	Open
R1202	3.06	0.42	2.04	2.04	Open
R1203	3.06	0.42	2.04	2.04	Open
R1204	3.06	0.42	2.04	2.04	Open
R1205	3.06	0.42	2.04	2.04	Open
R1206	3.06	0.42	2.04	2.04	Open
R1207	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R1208	0.00	0.00	0.00	Open
R1209	0.00	0.00	0.00	Open
R1210	0.00	0.00	0.00	Open
R1211	0.00	0.00	0.00	Open
R1212	0.00	0.00	0.00	Open
R1213	0.00	0.00	0.00	Open
R1214	0.00	0.00	0.00	Open
R1215	0.00	0.00	0.00	Open
R1216	0.00	0.00	0.00	Open
R1217	0.00	0.00	0.00	Open
R1218	0.00	0.00	0.00	Open
R1219	0.00	0.00	0.00	Open
R1220	0.00	0.00	0.00	Open
R1221	0.00	0.00	0.00	Open
R1222	0.00	0.00	0.00	Open
R1223	0.00	0.00	0.00	Open
R1224	0.00	0.00	0.00	Open
R1225	0.00	0.00	0.00	Open
R1226	0.00	0.00	0.00	Open
R1227	0.00	0.00	0.00	Open
R1228	0.00	0.00	0.00	Open
R1229	0.00	0.00	0.00	Open
R1230	0.00	0.00	0.00	Open
R1231	0.00	0.00	0.00	Open
R1	0.00	0.00	0.00	Open
R2	0.00	0.00	0.00	Open
R1232	0.00	0.00	0.00	Open
R1233	0.00	0.00	0.00	Open
R430	0.00	0.00	0.00	Open
R1234	12.24	0.78	4.05	Open
R1235	9.18	0.59	2.52	Open
R1236	27.54	1.76	17.94	Open
R1237	3.06	0.40	1.87	Open
R1238	3.06	0.20	0.36	Open
R3187	24.48	0.80	2.79	Open
R1239	3.06	0.42	2.04	Open
R1240	18.36	1.18	8.49	Open
R1241	18.36	1.18	8.49	Open
R1078	229.27	0.81	0.90	Open
R1081	65.83	0.52	1.00	Open
P1	0.00	0.00	0.00	Closed Pump
P2	150.45	0.00	-79.84	Open Pump
P3	150.45	0.00	-79.84	Open Pump
P4	150.45	0.00	-79.84	Open Pump
P5	150.45	0.00	-79.84	Open Pump
P6	150.45	0.00	-79.84	Open Pump
P7	150.45	0.00	-79.84	Open Pump

2.5 IPOTESI DI FUNZIONAMENTO C

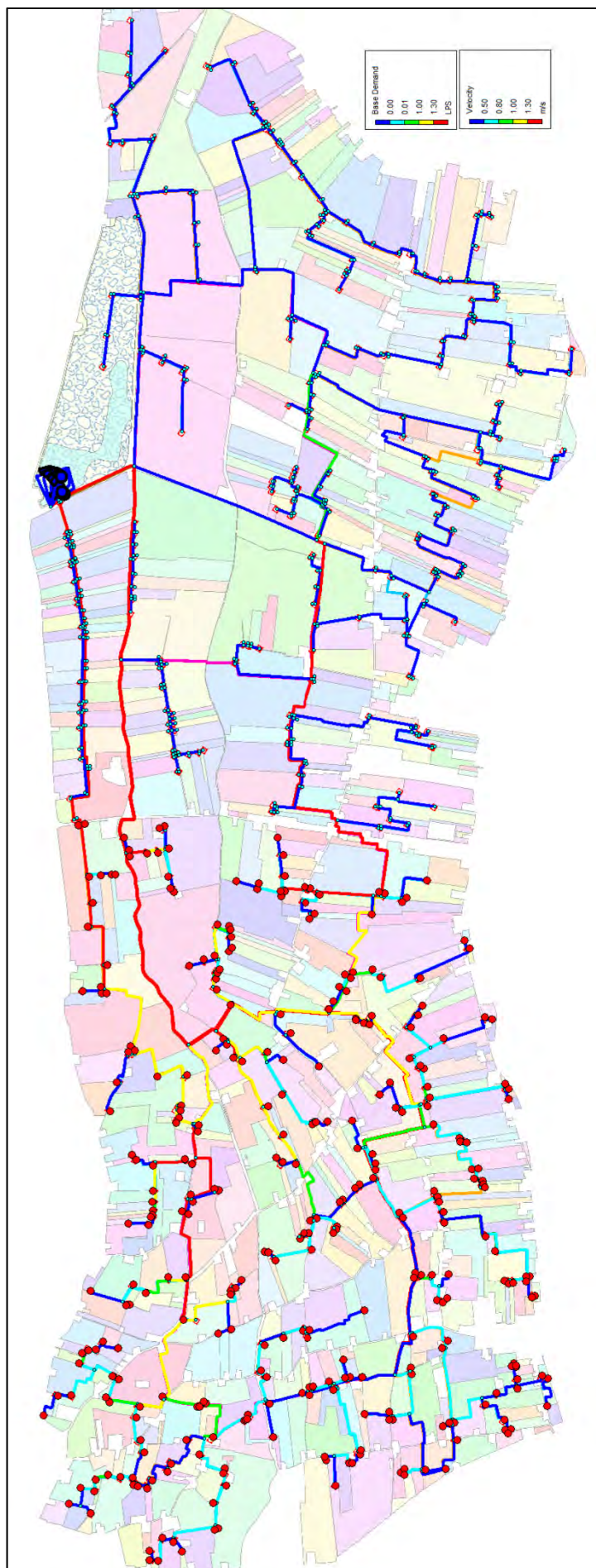


Figura 19 – Risultati della simulazione : base demand nei nodi e velocità nei rami

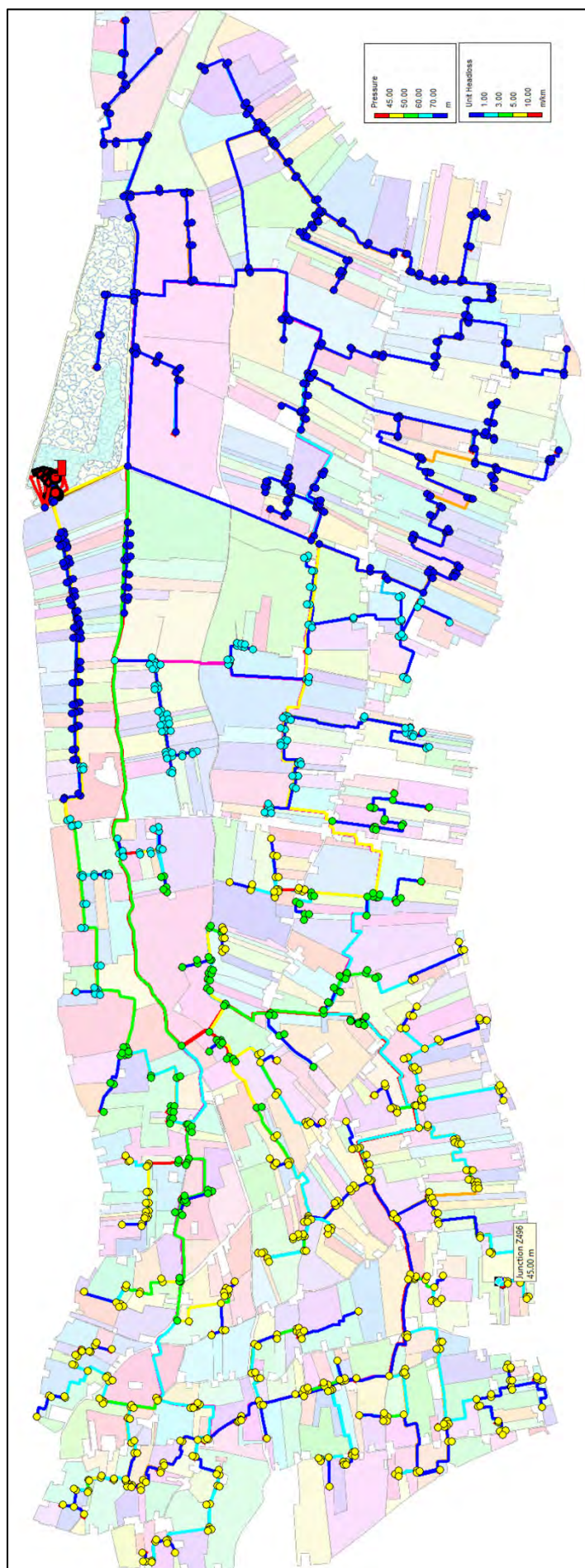


Figura 20 – Risultati della simulazione : pressione nei nodi e perdite di carico nei rami

RISULTATI SIMULAZIONE VILLA PRATI IPOTESI FUNZIONAMENTO C

Link - Node Table:

Link ID	Start Node	End Node	Length m	Diameter mm
G20	Z1	Z2	30	600
G1	Z2	Z3	577.2	600
R3	Z2	Z4	18.5	400
R4	Z4	Z5	213.4	400
R5	Z5	Z6	18.6	400
R6	Z6	Z7	50	400
R7	Z7	Z8	32.8	400
R8	Z8	Z9	10	400
R9	Z9	Z10	77.7	400
R10	Z10	Z11	27.2	400
R11	Z11	Z12	113.0	400
R12	Z12	Z13	80.80	400
R13	Z13	Z14	39.50	400
R14	Z14	Z15	100.7	400
R15	Z15	Z16	53.2	400
R16	Z16	Z17	37.1	400
R17	Z17	Z29	27.4	400
R18	Z29	Z18	29.8	400
R19	Z18	Z19	37.40	400
R20	Z19	Z20	161.3	400
R21	Z20	Z21	49.5	400
R22	Z21	Z22	92.5	400
R23	Z22	Z23	139.4	400
R24	Z23	Z24	56.4	400
R25	Z24	Z25	103.7	400
R26	Z25	Z26	297.1	400
R27	Z26	Z27	13	400
R28	Z27	Z28	449.3	400
R56	Z4	Z56	5	96.8
R57	Z5	Z57	5	96.8
R58	Z6	Z58	5	96.8
R59	Z7	Z59	5	96.8
R60	Z8	Z60	5	96.8
R61	Z9	Z61	5	96.8
R62	Z10	Z62	5	96.8
R63	Z11	Z63	5	96.8
R64	Z12	Z64	5	98.6

Link ID	Start Node	End Node	Length m	Diameter mm
R65	Z13	Z65	5	96.8
R66	Z14	Z66	5	96.8
R67	Z15	Z67	5	96.8
R68	Z16	Z68	5	96.8
R69	Z17	Z69	5	96.8
R29	Z29	Z72	9	141
R71	Z18	Z70	5	96.8
R72	Z19	Z71	5	96.8
R73	Z20	Z73	5	96.8
R74	Z21	Z74	5	96.8
R75	Z22	Z75	5	96.8
R76	Z23	Z76	5	96.8
R77	Z24	Z77	5	96.8
R78	Z25	Z78	5	96.8
R79	Z26	Z79	5	96.8
R80	Z27	Z80	5	96.8
R81	Z28	Z81	5	96.8
R30	Z72	Z82	9.7	141
R31	Z82	Z83	159.2	141.0
R32	Z83	Z84	38.2	141.0
R33	Z84	Z85	117.3	141.0
R34	Z85	Z86	113.7	141.0
R35	Z86	Z87	27.4	141.0
R36	Z87	Z88	117.2	141.0
R37	Z88	Z89	50.80	141.0
R38	Z89	Z90	35.05	141.0
R91	Z82	Z91	5	96.8
R92	Z83	Z92	5	96.8
R93	Z84	Z93	5	96.8
R94	Z85	Z94	5	96.8
R95	Z86	Z95	5	96.8
R96	Z87	Z96	5	96.8
R97	Z88	Z97	5	96.8
R98	Z89	Z98	5	96.8
R39	Z72	Z99	60.2	141.0
R40	Z99	Z100	309.8	141.0
R41	Z100	Z101	151.6	141.0
R42	Z101	Z102	575	141.0
R43	Z102	Z103	103.5	141.0
R44	Z103	Z104	144.7	141.0
R45	Z104	Z105	66.4	141.0
R46	Z105	Z106	256.8	141.0
R47	Z106	Z107	110.74	141.0
R107	Z106	Z108	5	96.8
R108	Z105	Z109	5	96.8
R109	Z104	Z110	5	96.8
R110	Z103	Z111	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R111	Z102	Z112	5	96.8
R112	Z101	Z113	5	96.8
R113	Z100	Z114	5	96.8
R114	Z99	Z115	5	96.8
R49	Z28	Z116	80	400
R50	Z116	Z117	380.3	400
R51	Z117	Z118	195.4	400
R52	Z118	Z119	163.7	400
R53	Z119	Z120	336.9	400
R54	Z120	Z121	169.6	400
R55	Z117	Z122	16.1	141.0
R120	Z122	Z123	84.1	141.0
R121	Z123	Z124	71.9	141.0
R122	Z122	Z125	15.04	96.8
R123	Z123	Z126	13.85	96.8
R124	Z107	Z127	5	96.8
R125	Z128	Z124	5	96.8
R126	Z124	Z129	26	141.0
R127	Z129	Z130	5	96.8
R82	Z30	Z31	61.5	400
R83	Z31	Z32	13.8	400
R84	Z121	Z30	623	400
R85	Z32	Z33	322.7	400
R86	Z33	Z34	261.2	400
R87	Z34	Z35	231.7	400
R88	Z35	Z36	34.2	400
R89	Z36	Z37	49.8	400
R90	Z37	Z38	11	400
R99	Z38	Z39	127.3	400
R100	Z39	Z40	3.8	400
R101	Z31	Z43	14.3	141.0
R102	Z43	Z45	243.6	141.0
R103	Z45	Z48	218.5	141.0
R104	Z45	Z46	5	96.8
R105	Z43	Z44	5	96.8
R106	Z30	Z42	5	96.8
R115	Z118	Z49	5	96.8
R116	Z119	Z50	5	141
R117	Z120	Z51	5	96.8
R118	Z121	Z52	12.1	141.0
R119	Z52	Z53	5.5	141.0
R128	Z53	Z54	140.8	141.0
R129	Z53	Z131	5	96.8
R130	Z53	Z55	5	96.8
G131	Z3	Z132	618	600
R131	Z132	Z133	4	141.0
R132	Z133	Z134	19.7	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R133	Z134	Z135	81.5	141.0
R134	Z135	Z136	81.4	141.0
R135	Z136	Z137	75	141.0
R136	Z133	Z138	98.5	141.0
R137	Z138	Z139	90.2	141.0
R138	Z139	Z140	70	141.0
R139	Z140	Z141	15.2	141.0
R140	Z141	Z142	97	141.0
R141	Z141	Z157	5	96.8
R142	Z140	Z158	5	96.8
R143	Z139	Z159	5	96.8
R144	Z138	Z160	5	96.8
R145	Z134	Z161	5	96.8
R146	Z135	Z162	5	96.8
R147	Z136	Z163	5	96.8
G148	Z132	Z143	701.3	600
G149	Z143	Z147	1433.79	600
R149	Z147	Z145	5.8	141.0
R150	Z145	Z148	5.7	141.0
R151	Z148	Z149	120	141.0
R152	Z149	Z150	76.8	141.0
R153	Z150	Z151	47.6	141.0
R154	Z151	Z152	12.7	141.0
R155	Z152	Z153	131	141.0
R156	Z151	Z154	189.1	141.0
R157	Z154	Z155	78.3	141.0
R158	Z155	Z156	31	141.0
R159	Z145	Z146	17.77	141.0
R160	Z146	Z144	90.77	141.0
R161	Z146	Z166	5	96.8
R162	Z148	Z167	5	96.8
R163	Z149	Z168	5	96.8
R164	Z150	Z169	5	96.8
R165	Z152	Z170	5	96.8
R166	Z153	Z171	5	96.8
R167	Z153	Z172	5	96.8
R168	Z154	Z173	5	96.8
R169	Z155	Z174	5	96.8
G170	Z147	Z175	1472.3	600
G171	Z175	Z176	219.9	400
G172	Z176	Z177	220.58	400
R172	Z177	Z178	10.81	197.4
R173	Z178	Z179	171.80	197.4
R174	Z179	Z180	60	197.4
R175	Z180	Z181	50	197.4
R176	Z181	Z182	13.6	197.4
R177	Z182	Z183	82.8	197.4

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R178	Z183	Z184	11.4	141.0
R179	Z184	Z185	89.8	141.0
R180	Z185	Z186	109.2	141.0
R181	Z183	Z187	223.6	141.0
R182	Z187	Z188	94.3	141.0
R183	Z188	Z189	22.2	141.0
R184	Z189	Z190	15.82	141.0
R185	Z188	Z191	32.5	141.0
R186	Z191	Z192	87	141.0
R187	Z192	Z193	10.5	141.0
R188	Z178	Z194	17.19	96.8
R189	Z179	Z195	5	96.8
R190	Z180	Z196	5	96.8
R191	Z181	Z197	5	96.8
R192	Z182	Z198	5	96.8
R193	Z184	Z199	5	96.8
R194	Z185	Z200	5	96.8
R195	Z187	Z201	5	96.8
R196	Z189	Z202	5	96.8
R197	Z191	Z203	5	96.8
R198	Z192	Z204	5	96.8
G199	Z177	Z205	379.4	400
G200	Z205	Z206	385	400
G201	Z206	Z207	302.8	500
G202	Z207	Z208	873.57	500
G203	Z208	Z209	159.2	500
R200	Z207	Z210	2.6	141.0
R201	Z210	Z211	5.7	141.0
R202	Z211	Z212	52.01	141.0
R203	Z212	Z213	6.8	141.0
R204	Z210	Z214	4	141.0
R205	Z214	Z215	47.3	141.0
R206	Z212	Z216	5	96.8
R207	Z211	Z217	5	96.8
R208	Z214	Z218	21.86	96.8
R209	Z208	Z219	3.7	197.4
R210	Z219	Z220	46.2	197.4
R211	Z220	Z221	22.1	197.4
R212	Z221	Z222	4	197.4
R213	Z222	Z223	83.2	197.4
R214	Z223	Z224	144.3	197.4
R215	Z224	Z225	18.9	197.4
R216	Z225	Z226	77.3	197.4
R217	Z226	Z227	137.1	197.4
R218	Z227	Z231	104.6	141.0
R219	Z231	Z232	344.4	141.0
R220	Z232	Z233	51.3	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R221	Z227	Z228	228.1	141.0
R222	Z228	Z229	98.5	141.0
R223	Z229	Z230	78.6	141.0
R224	Z221	Z234	539.7	141.0
R225	Z234	Z235	26	141.0
R226	Z235	Z236	70.4	141.0
R48	Z143	Z164	271.5	197.4
R70	Z164	Z41	3	197.4
R148	Z41	Z253	23	197.4
R170	Z47	Z237	119.4	197.4
R171	Z237	Z238	16.2	141
R199	Z238	Z239	153.6	141
R227	Z239	Z240	32.5	141
R228	Z240	Z241	33.8	141
R229	Z241	Z242	34.3	141
R230	Z242	Z243	45.9	141
R231	Z243	Z244	131.1	141
R232	Z244	Z245	20.3	141
R233	Z245	Z246	16.4	141
R234	Z246	Z268	18.2	141.0
R235	Z247	Z248	70.4	141.0
R236	Z248	Z249	37.8	141.0
R237	Z246	Z250	3	141.0
R238	Z250	Z251	103	141.0
R239	Z41	Z252	5	96.8
R240	Z253	Z47	27.7	197.4
R241	Z253	Z254	5	96.8
R242	Z253	Z255	5	141.0
R243	Z47	Z256	5	96.8
R244	Z237	Z257	5	96.8
R245	Z238	Z258	5	96.8
R246	Z239	Z259	5	96.8
R247	Z240	Z260	5	96.8
R248	Z241	Z261	5	96.8
R249	Z242	Z262	5	96.8
R250	Z242	Z263	5	96.8
R251	Z243	Z265	5	96.8
R252	Z243	Z264	5	96.8
R253	Z244	Z266	5	96.8
R254	Z245	Z267	5	96.8
R255	Z268	Z247	70.4	141.0
R256	Z268	Z271	5	96.8
R257	Z247	Z270	5	96.8
R258	Z248	Z269	5	96.8
R259	Z250	Z272	5	96.8
R260	Z251	Z273	5	96.8
R261	Z251	Z274	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R263	Z165	Z275	8	141.0
R264	Z275	Z276	6	141.0
R265	Z276	Z277	136.6	141.0
R266	Z277	Z278	40	141.0
R267	Z278	Z279	14.2	141.0
R268	Z279	Z280	67.4	141.0
R269	Z165	Z281	589.9	141
R270	Z281	Z282	7.7	141.0
R271	Z281	Z291	382.8	400
R272	Z284	Z286	145.2	141.0
R273	Z286	Z287	120.5	141.0
R274	Z287	Z288	116.4	141.0
R275	Z288	Z289	133.1	141.0
R276	Z289	Z290	17.6	141.0
R277	Z291	Z284	7	141
R278	Z284	Z283	184.7	141.0
R279	Z284	Z285	5	141
R280	Z285	Z1245	300	141
R281	Z291	Z293	557.27	400
R282	Z275	Z295	5	96.8
R283	Z276	Z296	5	96.8
R284	Z277	Z297	5	96.8
R285	Z278	Z298	5	96.8
R286	Z279	Z299	5	96.8
R287	Z282	Z300	5	96.8
R288	Z282	Z301	5	96.8
R289	Z285	Z302	5	96.8
R290	Z286	Z306	5	96.8
R291	Z287	Z305	5	96.8
R292	Z288	Z304	5	96.8
R293	Z289	Z303	5	96.8
R294	Z281	Z294	325.5	400
R295	Z294	Z307	2.8	197.4
R296	Z307	Z308	593.6	141
R297	Z308	Z321	5	96.8
R298	Z308	Z309	338	141.0
R299	Z309	Z310	7.5	141.0
R300	Z310	Z311	59.00	141.0
R301	Z311	Z313	44.3	141.0
R302	Z313	Z314	9.8	141.0
R303	Z314	Z316	70	141.0
R304	Z311	Z317	419.9	141.0
R305	Z317	Z318	5	96.8
R306	Z317	Z319	8.4	141.0
R307	Z314	Z315	5	96.8
R308	Z313	Z312	5	96.8
R309	Z310	Z320	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R310	Z294	Z322	1122.7	400
R311	Z307	Z323	9	197.4
R312	Z323	Z324	94	197.4
R313	Z324	Z325	81	141
R314	Z325	Z326	21.8	141
R315	Z326	Z327	11.5	141
R316	Z327	Z328	204.3	141.0
R317	Z328	Z329	7.8	141.0
R318	Z329	Z330	96	141.0
R319	Z330	Z331	86	141.0
R320	Z331	Z332	292.5	141.0
R321	Z332	Z333	5.6	141.0
R322	Z333	Z334	38	141.0
R323	Z323	Z336	5	96.8
R324	Z323	Z335	5	96.8
R325	Z324	Z337	5	96.8
R326	Z325	Z338	5	96.8
R327	Z326	Z339	5	96.8
R328	Z327	Z340	5	96.8
R329	Z328	Z341	5	96.8
R330	Z329	Z342	5	96.8
R331	Z330	Z343	5	96.8
R332	Z330	Z344	5	96.8
R333	Z331	Z345	5	96.8
R334	Z332	Z346	5	96.8
R335	Z333	Z347	5	96.8
R336	Z334	Z349	5	96.8
R337	Z334	Z348	5	96.8
R338	Z322	Z350	290	141.0
R339	Z351	Z352	246.5	141.0
R340	Z352	Z353	126.3	141.0
R341	Z353	Z354	167	141.0
R342	Z354	Z355	207	141.0
R343	Z355	Z356	57.1	141.0
R344	Z355	Z357	257.4	141.0
R345	Z354	Z363	5	96.8
R346	Z354	Z362	5	96.8
R347	Z353	Z361	5	96.8
R348	Z352	Z360	5	96.8
R349	Z351	Z359	5	96.8
R350	Z350	Z358	5	96.8
R351	Z350	Z351	8.8	141.0
R352	Z322	Z364	835.5	400
R353	Z364	Z365	825.7	400
R354	Z206	Z365	302.8	400
R355	Z364	Z366	5	141.0
R356	Z366	Z367	142.5	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R357	Z367	Z368	297.05	141.0
R358	Z366	Z388	5	96.8
R359	Z367	Z387	5	96.8
R360	Z367	Z386	5	96.8
R361	Z364	Z369	22.8	197.4
R362	Z369	Z389	48	197.4
R363	Z389	Z370	386	197.4
R364	Z370	Z371	8.8	141.0
R365	Z371	Z372	174.8	141.0
R366	Z372	Z373	135.5	141.0
R367	Z373	Z374	42.4	141.0
R368	Z389	Z390	127	141.0
R369	Z370	Z375	62.3	141.0
R370	Z375	Z376	2	141.0
R371	Z376	Z377	155.7	141.0
R372	Z377	Z378	9.8	141.0
R373	Z378	Z379	82	141.0
R374	Z379	Z380	143.1	141.0
R375	Z380	Z381	124.5	141.0
R376	Z378	Z382	30.6	141.0
R377	Z382	Z383	9.4	141.0
R378	Z383	Z384	166.7	141.0
R379	Z384	Z385	152.4	141.0
R380	Z369	Z391	5	96.8
R381	Z373	Z394	5	96.8
R382	Z372	Z393	5	96.8
R383	Z371	Z392	5	96.8
R384	Z375	Z395	5	96.8
R385	Z376	Z396	5	96.8
R386	Z377	Z397	5	96.8
R387	Z379	Z398	5	96.8
R388	Z380	Z399	5	96.8
R389	Z365	Z401	5	141.0
R390	Z401	Z400	5.2	141.0
R391	Z400	Z402	148.3	141.0
R392	Z402	Z403	95	141.0
R393	Z403	Z404	337.6	141.0
R394	Z404	Z405	442	141.0
R395	Z405	Z406	61.5	141.0
R396	Z400	Z407	5	96.8
R397	Z402	Z408	5	96.8
R398	Z403	Z409	5	96.8
R399	Z404	Z410	5	96.8
R400	Z405	Z411	20.84	141.0
R401	Z401	Z412	19.3	141.0
R402	Z412	Z417	5	96.8
R403	Z412	Z416	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R404	Z412	Z413	94.8	141.0
R405	Z413	Z418	5	96.8
R406	Z413	Z420	5	96.8
R407	Z413	Z414	105.6	141.0
R408	Z414	Z419	5	96.8
R409	Z414	Z415	70.3	141.0
R410	Z219	Z421	138.2	141.0
R411	Z421	Z422	10.7	141.0
R412	Z422	Z423	160	141.0
R413	Z423	Z424	104.3	141.0
R414	Z423	Z425	5	96.8
R415	Z422	Z426	5	96.8
R416	Z421	Z427	5	96.8
R417	Z235	Z428	5	96.8
R418	Z234	Z429	5	96.8
R419	Z220	Z430	5	96.8
R420	Z229	Z437	5	96.8
R421	Z228	Z436	5	96.8
R422	Z226	Z435	5	96.8
R423	Z225	Z434	5	96.8
R424	Z224	Z433	5	96.8
R425	Z223	Z432	5	96.8
R426	Z222	Z431	5	96.8
R427	Z231	Z438	5	96.8
R428	Z232	Z439	5	96.8
G429	Z209	Z467	480.3	500
G430	Z467	Z466	238.5	500
G431	Z466	Z463	303.93	500
R429	Z463	Z462	15.40	312.8
R431	Z461	Z459	16.8	141
R433	Z457	Z455	13.8	141
R434	Z455	Z453	24.7	141
R435	Z453	Z451	38.3	141
R436	Z451	Z448	66.8	141
R437	Z448	Z446	328	197.4
R438	Z446	Z444	24	197.4
R439	Z444	Z442	11.9	197.4
R440	Z442	Z440	319.2	197.4
R441	Z440	Z209	64.8	197.4
R442	Z462	Z465	5	96.8
R443	Z462	Z464	5	96.8
R444	Z459	Z460	5	96.8
R445	Z440	Z441	5	96.8
R446	Z442	Z443	5	96.8
R447	Z444	Z445	5	96.8
R448	Z446	Z447	5	96.8
R449	Z448	Z450	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R450	Z448	Z449	5	96.8
R451	Z451	Z452	5	96.8
R452	Z453	Z454	5	96.8
R453	Z455	Z456	5	96.8
R454	Z457	Z458	5	96.8
R455	Z467	Z468	4.4	141.0
R456	Z468	Z469	33.2	141.0
R457	Z469	Z471	5	96.8
R458	Z469	Z470	214	141.0
R459	Z468	Z472	84.7	141.0
R460	Z472	Z474	64.9	141.0
R461	Z474	Z476	34.5	141.0
R462	Z472	Z473	5	96.8
R463	Z474	Z475	5	96.8
R464	Z205	Z481	2	141.0
R465	Z481	Z477	186	141.0
R466	Z477	Z479	322.7	141.0
R467	Z481	Z480	5	96.8
R468	Z477	Z478	5	96.8
R469	Z461	Z482	4.8	277.6
R470	Z482	Z483	38.1	277.6
R471	Z483	Z484	70.8	277.6
R472	Z484	Z485	58.5	277.6
R473	Z482	Z497	5	96.8
R474	Z483	Z498	5	96.8
R475	Z484	Z499	5	96.8
R476	Z485	Z500	5	96.8
R477	Z485	Z486	401.1	277.6
R478	Z486	Z487	194.6	221.2
R479	Z487	Z488	12.6	221.2
R480	Z486	Z501	5	96.8
R481	Z487	Z502	5	96.8
R482	Z488	Z490	391.7	197.4
R483	Z490	Z489	3.1	197.4
R484	Z489	Z493	9	141.0
R485	Z493	Z494	92.8	141.0
R486	Z494	Z495	28.8	141.0
R487	Z495	Z496	32.16	141.0
R488	Z489	Z491	152.9	141.0
R489	Z490	Z504	5	96.8
R490	Z491	Z503	5	96.8
R491	Z491	Z492	5.7	141.0
R492	Z495	Z505	5	96.8
R493	Z494	Z506	5	96.8
R494	Z493	Z507	5	96.8
R495	Z493	Z508	5	96.8
R496	Z176	Z561	105.5	221.2

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R497	Z561	Z562	5.4	141.0
R498	Z562	Z565	5.4	141.0
R499	Z565	Z564	99.3	141.0
R500	Z565	Z563	5	96.8
R501	Z575	Z566	5	96.8
R502	Z562	Z575	10.2	141.0
R503	Z575	Z567	119	141.0
R504	Z567	Z569	38.1	141.0
R505	Z567	Z568	5	96.8
R506	Z569	Z570	5	96.8
R507	Z569	Z518	223.4	141.0
R508	Z518	Z519	62.7	141.0
R509	Z518	Z571	5	96.8
R510	Z519	Z520	144.1	141.0
R511	Z519	Z521	236.5	141.0
R512	Z521	Z522	320.1	141.0
R513	Z522	Z523	11.7	141.0
R514	Z523	Z524	121	141.0
R515	Z523	Z574	5	96.8
R516	Z522	Z573	5	96.8
R517	Z521	Z572	5	96.8
R518	Z561	Z516	549.46	221.2
R519	Z516	Z515	239.7	221.2
R520	Z515	Z514	190.8	221.2
R521	Z516	Z560	5	96.8
R522	Z515	Z559	5	96.8
R523	Z514	Z554	7.1	141.0
R524	Z554	Z556	117.8	141.0
R525	Z556	Z558	55.2	141.0
R526	Z554	Z555	5	96.8
R527	Z556	Z557	5	96.8
R528	Z514	Z513	525.6	221.2
R529	Z466	Z525	5.6	221.2
R530	Z525	Z509	120.7	221.2
R531	Z509	Z510	36.1	221.2
R532	Z510	Z511	117.2	221.2
R533	Z511	Z512	29.4	221.2
R534	Z512	Z513	230.4	221.2
R535	Z512	Z530	5	96.8
R536	Z511	Z529	5	96.8
R537	Z510	Z528	5	96.8
R538	Z509	Z527	5	96.8
R539	Z525	Z526	5	96.8
R540	Z513	Z531	4.4	197.4
R541	Z531	Z532	200.5	141.0
R542	Z532	Z576	1.2	141.0
R543	Z576	Z535	28	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R544	Z532	Z533	5	96.8
R545	Z576	Z534	5	96.8
R546	Z531	Z536	8.8	197.4
R547	Z536	Z539	22.2	197.4
R548	Z539	Z540	106.8	197.4
R549	Z540	Z541	9.8	141.0
R550	Z541	Z543	31.7	141.0
R551	Z543	Z546	24.5	141.0
R552	Z536	Z537	5	96.8
R553	Z539	Z538	5	96.8
R554	Z541	Z542	5	96.8
R555	Z543	Z544	5	96.8
R556	Z546	Z545	5	96.8
R557	Z540	Z547	94.1	141
R558	Z547	Z549	252.2	141
R559	Z549	Z551	48.1	141
R560	Z551	Z552	45.1	141.0
R561	Z551	Z553	5	96.8
R562	Z549	Z550	5	96.8
R563	Z547	Z548	5	96.8
R564	Z175	Z40	647	500
G565	Z463	Z577	463.2	500
R565	Z577	Z578	13	141
R566	Z578	Z579	81.4	141
R567	Z579	Z580	104.3	141
R568	Z580	Z581	128	141
R569	Z580	Z588	92.4	141
R570	Z588	Z590	17	141.0
R571	Z590	Z592	45.3	141.0
R572	Z578	Z583	5.3	141
R573	Z583	Z585	14.5	141.0
R574	Z585	Z587	5	96.8
R575	Z585	Z586	5	96.8
R576	Z583	Z584	5	96.8
R577	Z590	Z591	5	96.8
R578	Z588	Z589	5	96.8
R579	Z579	Z582	21.6	141.0
G580	Z577	Z593	400	500
G581	Z593	Z595	355.4	500
R580	Z594	Z597	5	96.8
R581	Z596	Z598	5	96.8
R582	Z602	Z603	5	96.8
R583	Z605	Z606	5	96.8
R584	Z609	Z610	5	96.8
R585	Z611	Z612	5	96.8
R586	Z613	Z614	5	96.8
R587	Z615	Z616	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R588	Z615	Z617	5	96.8
R589	Z620	Z621	5	96.8
R590	Z622	Z623	5	96.8
R591	Z624	Z625	5	96.8
R592	Z626	Z628	5	96.8
R593	Z626	Z629	5	96.8
R594	Z631	Z632	5	96.8
R595	Z633	Z634	5	96.8
R596	Z593	Z594	5.4	277.6
R597	Z594	Z596	313.3	277.6
R598	Z596	Z599	49.3	277.6
R599	Z599	Z600	18.9	141.0
R600	Z599	Z601	504	277.6
R601	Z601	Z604	24.9	277.6
R602	Z604	Z605	21.3	141.0
R603	Z605	Z607	41.7	141.0
R604	Z601	Z602	5	277.6
R605	Z602	Z608	336.4	277.6
R606	Z608	Z609	50.5	197.4
R607	Z609	Z613	245	197.4
R608	Z613	Z615	80.4	197.4
R609	Z615	Z618	17.5	141.0
R610	Z608	Z611	101	277.6
R611	Z611	Z619	191.3	277.6
R612	Z619	Z622	37.8	197.4
R613	Z622	Z624	85.9	197.4
R614	Z624	Z626	11.4	141
R615	Z626	Z627	7.4	141.0
R616	Z619	Z620	4.4	197.4
R617	Z620	Z633	185.8	197.4
R618	Z633	Z631	35.8	141
R619	Z631	Z630	345.2	141
R620	Z604	Z517	116.7	277.6
R621	Z517	Z635	436.7	277.6
R622	Z635	Z636	497.7	277.6
R623	Z595	Z637	90.6	277.6
R624	Z637	Z636	301.5	277.6
R625	Z639	Z639	5	96.8
R627	Z517	Z640	5	96.8
R628	Z635	Z641	5.6	141
R629	Z641	Z642	5.6	141.0
R630	Z641	Z643	140.3	141
R631	Z643	Z645	5	96.8
R632	Z643	Z646	5	96.8
R633	Z643	Z644	12.3	141.0
R634	Z642	Z648	5	96.8
R635	Z642	Z647	182.6	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R636	Z637	Z649	6.1	141.0
R637	Z649	Z638	37	141.0
R638	Z636	Z650	125.1	141.0
R639	Z650	Z651	13.8	141.0
R640	Z651	Z655	167.2	141.0
R641	Z650	Z652	5	96.8
R642	Z651	Z653	5	96.8
R643	Z651	Z654	5	96.8
R644	Z595	Z656	440.3	500
R645	Z656	Z657	506.6	500
R646	Z657	Z658	191.7	500
R647	Z658	Z659	278.4	500
R648	Z659	Z660	355.9	500
R649	Z660	Z661	279	500
R650	Z661	Z662	669.8	500
R651	Z662	Z663	282.5	500
R652	Z664	Z663	606.5	500
R653	Z665	Z664	503.8	500
R654	Z40	Z665	241.2	500
R655	Z666	Z667	5	96.8
R656	Z666	Z668	5	96.8
R657	Z39	Z666	41	141.0
R658	Z674	Z676	5	96.8
R659	Z672	Z677	5	96.8
R660	Z669	Z679	5	96.8
R661	Z670	Z678	5	96.8
R662	Z673	Z680	5	96.8
R663	Z681	Z687	5	96.8
R664	Z682	Z688	5	96.8
R665	Z683	Z689	5	96.8
R666	Z684	Z690	5	96.8
R667	Z685	Z691	5	96.8
R668	Z665	Z669	43	141
R669	Z669	Z670	54.4	141
R670	Z670	Z671	212.7	141
R671	Z671	Z674	171.4	141.0
R672	Z674	Z675	43.7	141.0
R673	Z671	Z672	10.8	141.0
R674	Z672	Z673	189.3	141.0
R675	Z673	Z681	75.6	141.0
R676	Z681	Z682	55.7	141.0
R677	Z682	Z683	36.8	141.0
R678	Z683	Z684	13	141.0
R679	Z684	Z685	70.7	141.0
R680	Z685	Z686	130.9	141.0
R681	Z695	Z696	5	96.8
R682	Z693	Z694	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R683	Z664	Z692	4.6	141.0
R684	Z692	Z693	1.7	141.0
R685	Z693	Z695	85	141.0
R686	Z695	Z697	19.5	141.0
R687	Z692	Z698	3.9	141.0
R688	Z698	Z702	168.3	141.0
R689	Z702	Z700	40.2	141.0
R690	Z702	Z701	5	96.8
R691	Z698	Z699	5	96.8
R692	Z703	Z704	125.6	141.0
R693	Z704	Z705	233.7	141.0
R694	Z705	Z706	108.5	141.0
R695	Z706	Z709	123.5	141.0
R696	Z709	Z710	232.8	141.0
R697	Z709	Z707	43.5	141.0
R698	Z707	Z708	12.8	141.0
R699	Z703	Z711	5	96.8
R700	Z704	Z712	5	96.8
R701	Z705	Z713	5	96.8
R702	Z706	Z714	5	96.8
R703	Z707	Z715	5	96.8
R704	Z663	Z703	9	141.0
R705	Z662	Z716	82.3	141
R706	Z716	Z717	318.1	141
R707	Z717	Z718	192.7	141.0
R708	Z718	Z719	68.9	141.0
R709	Z717	Z720	94.5	141
R710	Z720	Z721	13.7	141
R711	Z721	Z722	40.2	141.0
R712	Z722	Z723	84.7	141.0
R713	Z722	Z724	5	96.8
R714	Z721	Z725	5	96.8
R715	Z720	Z726	5	96.8
R716	Z718	Z727	5	96.8
R626	Z657	Z728	2.7	197.4
R717	Z728	Z729	23.9	141.0
R718	Z730	Z729	5	96.8
R719	Z729	Z731	235	141.0
R720	Z728	Z732	187.7	197.4
R721	Z732	Z734	65.9	197.4
R722	Z734	Z736	200.9	197.4
R723	Z736	Z738	161	197.4
R724	Z738	Z740	160.5	141
R725	Z740	Z742	13.1	141
R726	Z742	Z743	45.4	141
R727	Z743	Z744	9.4	141
R728	Z744	Z747	466	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R729	Z744	Z746	5	96.8
R730	Z743	Z745	5	96.8
R731	Z740	Z741	5	96.8
R732	Z738	Z739	5	96.8
R733	Z736	Z737	5	96.8
R734	Z734	Z735	5	96.8
R735	Z732	Z733	5	96.8
R736	Z656	Z748	8.5	197.4
R737	Z748	Z749	6.8	141
R738	Z749	Z750	20.2	141
R739	Z750	Z752	85.5	141
R740	Z752	Z753	4.3	141
R741	Z753	Z754	9	141.0
R742	Z753	Z756	148.8	141.0
R743	Z754	Z755	78.04	141.0
R744	Z750	Z751	41.2	141
R745	Z751	Z761	110.6	141
R746	Z761	Z762	20.5	141.0
R747	Z762	Z763	14.1	141.0
R748	Z763	Z764	48.89	141.0
R749	Z763	Z765	5	96.8
R750	Z762	Z766	5	96.8
R751	Z761	Z767	5	96.8
R752	Z751	Z760	5	96.8
R753	Z749	Z759	5	96.8
R754	Z752	Z758	5	96.8
R755	Z754	Z757	5	96.8
R756	Z774	Z776	5	96.8
R757	Z771	Z777	5	96.8
R758	Z770	Z778	5	96.8
R759	Z769	Z779	5	96.8
R760	Z768	Z780	5	96.8
R761	Z748	Z768	510.8	197.4
R762	Z768	Z769	18.4	197.4
R763	Z769	Z770	96.3	197.4
R764	Z770	Z771	10.4	141
R765	Z771	Z772	139.1	141
R766	Z772	Z774	61.3	141.0
R767	Z774	Z775	9.1	141.0
R768	Z772	Z773	202.6	141.0
R769	Z659	Z781	48.6	277.6
R770	Z781	Z785	78.2	277.6
R771	Z785	Z782	128.1	277.6
R772	Z782	Z783	269.1	277.6
R773	Z783	Z784	64.2	277.6
R774	Z784	Z786	247.3	277.6
R775	Z786	Z787	47.2	277.6

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R776	Z787	Z788	53.7	277.6
R777	Z788	Z789	9.9	277.6
R778	Z789	Z790	29	277.6
R779	Z790	Z791	207.9	221.2
R780	Z791	Z792	90.2	221.2
R781	Z792	Z793	193.2	221.2
R782	Z793	Z794	83.3	221.2
R783	Z794	Z795	10.7	221.2
R798	Z809	Z795	224.05	277.6
R785	Z781	Z808	5	96.8
R786	Z782	Z807	5	96.8
R787	Z783	Z806	5	96.8
R788	Z784	Z805	5	96.8
R789	Z786	Z804	5	96.8
R790	Z787	Z803	5	96.8
R791	Z788	Z802	5	96.8
R792	Z789	Z801	5	96.8
R793	Z791	Z800	5	96.8
R794	Z792	Z799	5	96.8
R795	Z793	Z798	5	96.8
R796	Z794	Z797	5	96.8
R797	Z809	Z796	20.86	96.8
R799	Z661	Z809	10.74	277.6
R800	Z790	Z810	5.7	197.4
R801	Z810	Z811	112.1	197.4
R802	Z811	Z812	88.7	197.4
R803	Z812	Z813	88.5	141
R804	Z813	Z814	89.2	141
R805	Z814	Z815	87.3	141.0
R806	Z815	Z816	118.8	141.0
R807	Z816	Z817	76.1	141.0
R808	Z816	Z818	116.9	141.0
R809	Z810	Z819	5	96.8
R810	Z811	Z820	5	96.8
R811	Z812	Z821	5	96.8
R812	Z813	Z822	5	96.8
R813	Z814	Z823	5	96.8
R814	Z815	Z824	5	96.8
R784	Z825	Z838	5	96.8
R815	Z826	Z839	5	96.8
R816	Z827	Z840	5	96.8
R817	Z828	Z841	5	96.8
R818	Z829	Z842	5	96.8
R819	Z831	Z843	5	96.8
R820	Z831	Z844	5	96.8
R821	Z833	Z845	5	96.8
R822	Z834	Z847	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R823	Z835	Z848	5	96.8
R824	Z836	Z849	5	96.8
R825	Z785	Z825	122.1	277.6
R826	Z825	Z826	233.5	277.6
R827	Z826	Z827	33	277.6
R828	Z827	Z828	65.4	221.2
R829	Z828	Z829	138.6	221.2
R830	Z829	Z830	163.2	221.2
R831	Z830	Z831	8.3	141.0
R832	Z830	Z832	322.9	197.4
R833	Z832	Z846	106.9	141.0
R834	Z832	Z833	1.3	197.4
R835	Z833	Z834	83.9	197.4
R836	Z834	Z835	150.6	141
R837	Z835	Z836	34.9	141.0
R838	Z836	Z837	60.7	141.0
R839	Z795	Z850	189	221.2
R840	Z850	Z851	8.9	221.2
R841	Z851	Z852	143.3	221.2
R842	Z852	Z853	44.2	221.2
R843	Z853	Z854	171.3	221.2
R844	Z854	Z855	103.3	197.4
R845	Z855	Z856	64	141
R846	Z856	Z857	61.3	141
R847	Z857	Z858	80.2	141
R848	Z858	Z859	56.2	141
R849	Z859	Z871	121	141.0
R850	Z854	Z860	316	141
R851	Z860	Z861	122.9	141
R852	Z861	Z874	201	141.0
R853	Z850	Z862	5	96.8
R854	Z851	Z863	5	96.8
R855	Z852	Z864	5	96.8
R856	Z853	Z865	5	96.8
R857	Z855	Z866	5	96.8
R858	Z856	Z867	5	96.8
R859	Z857	Z868	5	96.8
R860	Z858	Z869	5	96.8
R861	Z859	Z870	5	96.8
R862	Z860	Z872	5	96.8
R863	Z861	Z873	5	96.8
R864	Z3	Z875	803.3	400
R865	Z875	Z882	7.5	141.0
R866	Z882	Z883	18.5	141.0
R867	Z883	Z884	155.6	141.0
R868	Z884	Z885	156.9	141.0
R869	Z885	Z886	71.4	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R870	Z886	Z887	367.4	141.0
R871	Z886	Z961	5	96.8
R872	Z885	Z962	5	96.8
R873	Z885	Z963	5	96.8
R874	Z884	Z964	5	96.8
R875	Z884	Z965	5	96.8
R876	Z883	Z966	5	96.8
R877	Z882	Z967	5	96.8
R878	Z875	Z876	383.9	400
R879	Z876	Z888	477.2	400
R880	Z888	Z897	507.9	400
R881	Z876	Z877	20	197.4
R882	Z877	Z878	32.5	141.0
R883	Z878	Z879	183.4	141.0
R884	Z879	Z880	278.4	141.0
R885	Z880	Z881	212.9	141.0
R886	Z878	Z970	5	96.8
R887	Z879	Z969	5	96.8
R888	Z880	Z968	5	96.8
R889	Z877	Z895	533.7	197.4
R890	Z895	Z896	151	197.4
R891	Z896	Z894	27.1	197.4
R896	Z888	Z971	8.8	197.4
R897	Z889	Z890	148	197.4
R898	Z890	Z891	213	197.4
R899	Z891	Z892	201.5	197.4
R900	Z892	Z893	192.7	197.4
R901	Z893	Z894	27.1	197.4
R902	Z971	Z889	251.5	197.4
R903	Z897	Z899	550.3	400
R904	Z1248	Z960	264.3	312.8
R905	Z960	Z935	1161.6	312.8
R906	Z935	Z933	206.7	400
R907	Z933	Z899	373.5	400
R908	Z899	Z900	26.4	141.0
R909	Z900	Z901	140	141.0
R910	Z900	Z972	5	96.8
R911	Z900	Z973	5	96.8
R912	Z897	Z898	3.9	312.8
R913	Z898	Z902	1143.2	312.8
R914	Z898	Z974	5	96.8
R915	Z902	Z903	33	312.8
R916	Z903	Z904	90.3	312.8
R917	Z904	Z905	13.5	312.8
R918	Z905	Z906	15.7	312.8
R919	Z906	Z907	146.3	312.8
R920	Z907	Z908	109.5	312.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R921	Z908	Z909	204	312.8
R922	Z909	Z910	100.9	312.8
R923	Z909	Z981	5	96.8
R924	Z908	Z980	5	96.8
R925	Z907	Z979	5	96.8
R926	Z906	Z978	5	96.8
R927	Z905	Z977	5	96.8
R928	Z904	Z976	5	96.8
R929	Z903	Z975	5	96.8
R930	Z933	Z934	12.9	312.8
R931	Z934	Z932	294.6	312.8
R932	Z932	Z931	209.5	312.8
R933	Z931	Z930	37.3	312.8
R934	Z930	Z929	363.5	312.8
R935	Z929	Z928	69	312.8
R936	Z928	Z927	99.8	312.8
R937	Z927	Z926	192.8	312.8
R938	Z926	Z925	150.8	312.8
R939	Z925	Z924	33.5	312.8
R940	Z924	Z923	101.4	312.8
R941	Z923	Z922	150.2	312.8
R942	Z922	Z921	46.9	312.8
R943	Z921	Z920	36.5	312.8
R944	Z920	Z919	210.77	312.8
R945	Z919	Z918	114.5	312.8
R946	Z918	Z917	69.4	312.8
R947	Z917	Z916	105.3	312.8
R948	Z916	Z915	91.6	312.8
R949	Z915	Z914	143.4	312.8
R950	Z914	Z913	145.1	312.8
R951	Z913	Z912	191.7	312.8
R952	Z912	Z911	249.3	312.8
R953	Z911	Z910	143.2	312.8
R954	Z934	Z982	5	96.8
R955	Z932	Z983	5	96.8
R956	Z931	Z984	5	96.8
R957	Z930	Z985	20.46	96.8
R958	Z929	Z986	5	96.8
R959	Z928	Z987	5	96.8
R960	Z927	Z988	5	96.8
R961	Z926	Z989	5	96.8
R962	Z924	Z990	5	96.8
R963	Z923	Z991	5	96.8
R964	Z922	Z992	5	96.8
R965	Z921	Z993	5	96.8
R966	Z920	Z994	5	96.8
R967	Z918	Z995	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R968	Z917	Z996	5	96.8
R969	Z916	Z997	5	96.8
R970	Z915	Z998	5	96.8
R971	Z914	Z999	5	96.8
R972	Z913	Z1000	5	96.8
R973	Z912	Z1001	5	96.8
R974	Z911	Z1002	5	96.8
R975	Z971	Z1011	5	96.8
R976	Z889	Z1010	5	96.8
R977	Z890	Z1009	5	96.8
R978	Z891	Z1008	5	96.8
R979	Z891	Z1007	5	96.8
R980	Z892	Z1006	5	96.8
R981	Z893	Z1005	5	96.8
R982	Z896	Z1004	5	96.8
R983	Z895	Z1003	5	96.8
R984	Z894	Z1012	405.2	197.4
R985	Z1012	Z1013	210.7	141
R986	Z1013	Z1014	79.4	141
R987	Z1014	Z1015	257.4	141
R988	Z1015	Z1016	47.92	141
R989	Z1016	Z1017	169.6	141
R990	Z1017	Z1018	98.3	141.0
R991	Z1018	Z1019	144.7	141.0
R992	Z1019	Z1020	226.2	141.0
R993	Z1017	Z1021	29.9	141.0
R994	Z1021	Z1022	331.5	141.0
R995	Z1012	Z1023	5	96.8
R996	Z1012	Z1024	30.48	96.8
R997	Z1013	Z1025	5	96.8
R998	Z1014	Z1026	5	96.8
R999	Z1015	Z1027	5	96.8
R1000	Z1016	Z1028	5	96.8
R1001	Z1018	Z1029	5	96.8
R1002	Z1019	Z1030	5	96.8
R1003	Z1021	Z1031	5	96.8
R892	Z902	Z1038	8.6	141
R893	Z1038	Z1037	31.8	141
R894	Z1037	Z1036	110	141
R895	Z1036	Z1035	56	141
R1004	Z1035	Z1034	301.8	141
R1005	Z1034	Z1033	178.1	141.0
R1006	Z1033	Z1032	25.8	141.0
R1007	Z1033	Z1039	5	96.8
R1008	Z1034	Z1040	5	96.8
R1009	Z1035	Z1041	5	96.8
R1010	Z1036	Z1042	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1011	Z1037	Z1043	5	96.8
R1012	Z1038	Z1044	5	96.8
R1013	Z1038	Z1045	5	96.8
R1014	Z910	Z1046	15.4	141
R1015	Z1046	Z1047	32.2	141
R1016	Z1047	Z1048	50.4	141
R1017	Z1048	Z1049	32	141
R1018	Z1049	Z1050	74.2	141
R1019	Z1050	Z1051	21.5	141
R1020	Z1051	Z1052	390.4	141
R1021	Z1052	Z1053	76.9	141.0
R1022	Z1053	Z1054	44.6	141.0
R1023	Z1054	Z1055	103.2	141.0
R1024	Z1046	Z1064	5	96.8
R1025	Z1047	Z1063	5	96.8
R1026	Z1048	Z1062	5	96.8
R1027	Z1049	Z1061	5	96.8
R1028	Z1050	Z1060	5	96.8
R1029	Z1051	Z1059	5	96.8
R1030	Z1052	Z1058	5	96.8
R1031	Z1053	Z1057	5	96.8
R1032	Z1054	Z1056	5	96.8
R1033	Z1065	Z1075	5	96.8
R1034	Z1066	Z1074	5	96.8
R1035	Z1067	Z1073	5	96.8
R1036	Z1068	Z1072	5	96.8
R1037	Z1069	Z1071	5	96.8
R1038	Z919	Z1065	17.3	141
R1039	Z1065	Z1066	231.1	141
R1040	Z1066	Z1067	215.1	141
R1041	Z1067	Z1068	21.9	141
R1042	Z1068	Z1069	56.7	141.0
R1043	Z1069	Z1070	11.7	141.0
R1044	Z1076	Z1082	5	96.8
R1045	Z1076	Z1083	5	96.8
R1046	Z1077	Z1084	5	96.8
R1047	Z1078	Z1085	5	96.8
R1048	Z1079	Z1086	5	96.8
R1049	Z1080	Z1087	5	96.8
R1050	Z925	Z1076	13.15	141
R1051	Z1076	Z1077	381.1	141
R1052	Z1077	Z1078	146.5	141
R1053	Z1078	Z1079	111	141
R1054	Z1079	Z1080	368.5	141
R1055	Z1080	Z1081	158.1	141.0
R1056	Z936	Z1088	12.2	141.0
R1057	Z1088	Z1089	58.7	141.0

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1058	Z1089	Z1090	77.3	141.0
R1059	Z1090	Z1091	99.5	141.0
R1060	Z1091	Z1094	28.5	141.0
R1061	Z1094	Z1092	40.2	141.0
R1062	Z1092	Z1093	79.4	141.0
R1063	Z1094	Z1095	11.4	141.0
R1064	Z1095	Z1096	145.5	141.0
R1065	Z1095	Z1102	11.82	96.8
R1066	Z1092	Z1101	5	96.8
R1067	Z1091	Z1100	5	96.8
R1068	Z1090	Z1099	5	96.8
R1069	Z1089	Z1098	5	96.8
R1070	Z1088	Z1097	5	96.8
R1071	Z935	Z936	2.7	312.8
R1072	Z936	Z937	12	312.8
R1073	Z937	Z938	688.3	312.8
R1074	Z938	Z1108	530.5	221.2
R1075	Z938	Z939	10.60	141
R1076	Z939	Z1246	136.2	141
R1077	Z939	Z1103	5	96.8
R1079	Z942	Z943	150.6	141
R1080	Z943	Z944	381.9	141
R1082	Z945	Z946	141.3	141
R1083	Z946	Z947	90.4	141
R1084	Z947	Z948	188.8	141
R1085	Z948	Z949	293.7	141
R1086	Z949	Z950	28.6	141
R1088	Z951	Z952	52	197.4
R1089	Z952	Z953	23.4	197.4
R1090	Z953	Z954	174.2	197.4
R1091	Z954	Z955	16.5	197.4
R1092	Z955	Z956	37.2	197.4
R1093	Z956	Z957	114	197.4
R1095	Z1104	Z1105	268.6	141.0
R1096	Z1104	Z1107	5	96.8
R1097	Z1104	Z1106	5	96.8
R1099	Z1108	Z1111	76	141
R1100	Z1111	Z1109	16.7	141
R1101	Z1109	Z1110	69.3	141.0
R1102	Z1109	Z1112	94	141
R1103	Z1112	Z1113	121.5	141
R1104	Z1113	Z1114	12.3	141.0
R1105	Z1111	Z1117	5	96.8
R1106	Z1110	Z1118	5	96.8
R1107	Z1112	Z1116	5	96.8
R1108	Z1112	Z1119	5	96.8
R1109	Z1113	Z1115	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1110	Z942	Z1120	5	96.8
R1111	Z942	Z1121	5	96.8
R1112	Z943	Z1122	5	96.8
R1113	Z943	Z1123	5	96.8
R1114	Z944	Z1124	5	96.8
R1115	Z944	Z1125	5	96.8
R1116	Z945	Z1126	5	96.8
R1117	Z945	Z1127	5	96.8
R1118	Z946	Z1128	5	96.8
R1119	Z947	Z1129	5	96.8
R1120	Z948	Z1130	5	96.8
R1121	Z1130	Z1132	5	96.8
R1122	Z1130	Z1131	5	96.8
R1123	Z949	Z1133	5	96.8
R1124	Z950	Z1134	5	96.8
R1125	Z951	Z1135	5	96.8
R1126	Z952	Z1136	5	96.8
R1127	Z953	Z1137	5	96.8
R1128	Z956	Z1141	5	96.8
R1129	Z955	Z1140	5	96.8
R1130	Z954	Z1138	5	96.8
R1131	Z954	Z1139	5	96.8
R1132	Z1108	Z1142	122	197.4
R1133	Z1142	Z1143	197.4	197.4
R1134	Z1143	Z1144	197.4	141
R1135	Z1144	Z1145	4.8	141
R1136	Z1145	Z1146	64.4	141
R1137	Z1146	Z1147	21.4	141.0
R1138	Z1147	Z1148	77.3	141.0
R1139	Z1142	Z1153	5	96.8
R1140	Z1143	Z1152	5	96.8
R1141	Z1145	Z1151	5	96.8
R1142	Z1146	Z1150	5	96.8
R1143	Z1147	Z1149	5	96.8
R1144	Z1144	Z1154	494	141
R1145	Z1154	Z1155	7.5	141
R1146	Z1155	Z1156	114.7	141.0
R1147	Z1155	Z1158	5	96.8
R1148	Z1154	Z1157	5	96.8
R1149	Z957	Z958	288	197.4
R1150	Z959	Z958	122.3	197.4
R1151	Z293	Z959	453	197.4
R1152	Z959	Z1159	5	96.8
R1153	Z1163	Z1170	5	96.8
R1154	Z1163	Z1171	5	96.8
R1155	Z1162	Z1168	5	96.8
R1156	Z1162	Z1169	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1157	Z1161	Z1167	5	96.8
R1158	Z1160	Z1164	5	96.8
R1159	Z958	Z1166	5	96.8
R1162	Z1244	Z1161	6.6	141.0
R1163	Z1161	Z1243	88.2	141.0
R1164	Z1162	Z1163	347.6	141.0
R1165	Z1172	Z1174	5	96.8
R1166	Z960	Z1175	3.8	221.2
R1167	Z1175	Z1172	48.5	141.0
R1168	Z1172	Z1173	181.7	141.0
R1169	Z1175	Z1176	9.2	221.2
R1170	Z1176	Z1177	17	141.0
R1171	Z1177	Z1178	11.4	141.0
R1172	Z1178	Z1179	155	141.0
R1173	Z1179	Z1180	108.8	141.0
R1174	Z1180	Z1181	24.6	141.0
R1175	Z1180	Z1185	5	96.8
R1176	Z1179	Z1184	5	96.8
R1177	Z1178	Z1183	5	96.8
R1178	Z1177	Z1182	5	96.8
R1179	Z1176	Z1186	193.3	221.2
R1180	Z1186	Z1187	47.2	141.0
R1181	Z1187	Z1188	12.6	141.0
R1182	Z1188	Z1189	85.2	141.0
R1183	Z1189	Z1190	12.1	141.0
R1184	Z1190	Z1191	108.7	141.0
R1185	Z1190	Z1192	5	96.8
R1186	Z1189	Z1193	5	96.8
R1187	Z1188	Z1194	5	96.8
R1188	Z1187	Z1195	5	96.8
R1189	Z1186	Z1196	22.1	197.4
R1190	Z1196	Z1197	11.9	197.4
R1191	Z1197	Z1198	70.1	197.4
R1192	Z1198	Z1199	40.4	141.0
R1193	Z1199	Z1200	31.7	141.0
R1194	Z1200	Z1201	28.9	141.0
R1195	Z1198	Z1202	8.6	141.0
R1196	Z1202	Z1203	149.5	141.0
R1197	Z1203	Z1204	36.3	141.0
R1198	Z1204	Z1205	34	141.0
R1199	Z1196	Z1206	5	96.8
R1200	Z1197	Z1207	5	96.8
R1201	Z1202	Z1208	5	96.8
R1202	Z1199	Z1209	5	96.8
R1203	Z1200	Z1210	5	96.8
R1204	Z1203	Z1212	5	96.8
R1205	Z1204	Z1211	5	96.8

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm
R1206	Z1036	Z1213	5	96.8
R1207	Z937	Z1214	21.07	96.8
R1208	Z116	Z1215	5	96.8
R1209	Z116	Z1216	5	96.8
R1210	Z52	Z1217	5	96.8
R1211	Z32	Z1218	5	96.8
R1212	Z33	Z1219	5	96.8
R1213	Z34	Z1220	5	96.8
R1214	Z35	Z1221	5	96.8
R1215	Z36	Z1222	5	96.8
R1216	Z37	Z1223	5	96.8
R1217	Z38	Z1224	5	96.8
R1218	Z660	Z1225	6.8	141.0
R1219	Z1225	Z1226	3.2	141.0
R1220	Z1226	Z1228	10.3	141.0
R1221	Z1226	Z1229	5	96.8
R1222	Z1225	Z1227	36.5	141.0
R1223	Z1227	Z1230	5	96.8
R1224	Z1227	Z1231	5	96.8
R1225	Z658	Z1232	2.7	141.0
R1226	Z1232	Z1234	7.4	141.0
R1227	Z1234	Z1236	10	141.0
R1228	Z1236	Z1235	31.2	141.0
R1229	Z1232	Z1233	10.3	141.0
R1230	Z1234	Z1238	5	96.8
R1231	Z1236	Z1237	5	96.8
R1	Z384	Z1239	5	96.8
R2	Z384	Z1240	5	96.8
R1232	Z383	Z1241	5	96.8
R1233	Z382	Z1242	5	96.8
R430	Z462	Z461	276.2	312.8
R1234	Z1243	Z1162	14.2	141.0
R1235	Z1243	Z1104	275.3	141.0
R1236	Z1245	Z1244	357.4	141
R1237	Z1245	Z292	5	98.6
R1238	Z1244	Z1160	164.3	141.0
R3187	Z951	Z950	400.7	197.4
R1239	Z1246	Z940	5	96.8
R1240	Z1246	Z1247	543	141
R1241	Z1247	Z942	5.5	141
R1078	Z3	Z1248	13465	600
R1081	Z1248	Z293	68.4	400
P1	S1	Z1	#N/A	#N/A Pump
P2	S1	Z1	#N/A	#N/A Pump
P3	S1	Z1	#N/A	#N/A Pump
P4	S1	Z1	#N/A	#N/A Pump
P5	S1	Z1	#N/A	#N/A Pump

Link - Node Table: (continued)

Link ID	Start Node	End Node	Length m	Diameter mm		
P6	S1	Z1	#N/A	#N/A Pump		
P7	S1	Z1	#N/A	#N/A Pump		
Energy Usage:						
Pump	Usage Factor	Avg. Effic.	Kw-hr /m3	Avg. Kw	Peak Kw	Cost /day
P1	0.00	0.00	0.00	0.00	0.00	0.00
P2	100.00	75.00	0.29	156.86	156.86	0.00
P3	100.00	75.00	0.29	156.86	156.86	0.00
P4	100.00	75.00	0.29	156.86	156.86	0.00
P5	100.00	75.00	0.29	156.86	156.86	0.00
P6	100.00	75.00	0.29	156.86	156.86	0.00
P7	100.00	75.00	0.29	156.86	156.86	0.00
Demand Charge:					0.00	0.00
Total Cost:					0.00	0.00
Node Results:						
Node ID	Demand LPS	Head m	Pressure m	Quality		
Z1	0.00	89.98	79.98	0.00		
Z2	0.00	89.60	79.60	0.00		
Z3	0.00	85.00	75.00	0.00		
Z4	0.00	89.28	79.28	0.00		
Z5	0.00	88.19	78.19	0.00		
Z6	0.00	88.09	78.09	0.00		
Z7	0.00	87.84	77.84	0.00		
Z8	0.00	87.67	77.67	0.00		
Z9	0.00	87.62	77.62	0.00		
Z10	0.00	87.22	77.22	0.00		
Z11	0.00	87.08	77.08	0.00		
Z12	0.00	86.51	76.51	0.00		
Z13	0.00	86.09	76.09	0.00		
Z14	0.00	85.89	75.89	0.00		
Z15	0.00	85.38	75.38	0.00		
Z16	0.00	85.10	75.10	0.00		
Z17	0.00	84.91	74.91	0.00		
Z18	0.00	84.62	74.62	0.00		
Z19	0.00	84.43	74.43	0.00		
Z20	0.00	83.60	73.60	0.00		
Z21	0.00	83.35	73.35	0.00		
Z22	0.00	82.88	72.88	0.00		
Z23	0.00	82.17	72.17	0.00		

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z24	0.00	81.88	71.88	0.00
Z25	0.00	81.35	71.35	0.00
Z26	0.00	79.83	69.83	0.00
Z27	0.00	79.76	69.76	0.00
Z28	0.00	77.46	67.46	0.00
Z29	0.00	84.77	74.77	0.00
Z56	0.00	89.28	79.28	0.00
Z57	0.00	88.19	78.19	0.00
Z58	0.00	88.09	78.09	0.00
Z59	0.00	87.84	77.84	0.00
Z60	0.00	87.67	77.67	0.00
Z61	0.00	87.62	77.62	0.00
Z62	0.00	87.22	77.22	0.00
Z63	0.00	87.08	77.08	0.00
Z64	0.00	86.51	76.51	0.00
Z65	0.00	86.09	76.09	0.00
Z66	0.00	85.89	75.89	0.00
Z67	0.00	85.38	75.38	0.00
Z68	0.00	85.10	75.10	0.00
Z69	0.00	84.91	74.91	0.00
Z70	0.00	84.62	74.62	0.00
Z71	0.00	84.43	74.43	0.00
Z72	0.00	84.77	74.77	0.00
Z73	0.00	83.60	73.60	0.00
Z74	0.00	83.35	73.35	0.00
Z75	0.00	82.88	72.88	0.00
Z76	0.00	82.17	72.17	0.00
Z77	0.00	81.88	71.88	0.00
Z78	0.00	81.35	71.35	0.00
Z79	0.00	79.83	69.83	0.00
Z80	0.00	79.76	69.76	0.00
Z81	0.00	77.46	67.46	0.00
Z82	0.00	84.77	74.77	0.00
Z83	0.00	84.77	74.77	0.00
Z84	0.00	84.77	74.77	0.00
Z85	0.00	84.77	74.77	0.00
Z86	0.00	84.77	74.77	0.00
Z87	0.00	84.77	74.77	0.00
Z88	0.00	84.77	74.77	0.00
Z89	0.00	84.77	74.77	0.00
Z90	0.00	84.77	74.77	0.00
Z91	0.00	84.77	74.77	0.00
Z92	0.00	84.77	74.77	0.00
Z93	0.00	84.77	74.77	0.00
Z94	0.00	84.77	74.77	0.00
Z95	0.00	84.77	74.77	0.00
Z96	0.00	84.77	74.77	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z97	0.00	84.77	74.77	0.00
Z98	0.00	84.77	74.77	0.00
Z99	0.00	84.77	74.77	0.00
Z100	0.00	84.77	74.77	0.00
Z101	0.00	84.77	74.77	0.00
Z102	0.00	84.77	74.77	0.00
Z103	0.00	84.77	74.77	0.00
Z104	0.00	84.77	74.77	0.00
Z105	0.00	84.77	74.77	0.00
Z106	0.00	84.77	74.77	0.00
Z107	0.00	84.77	74.77	0.00
Z108	0.00	84.77	74.77	0.00
Z109	0.00	84.77	74.77	0.00
Z110	0.00	84.77	74.77	0.00
Z111	0.00	84.77	74.77	0.00
Z112	0.00	84.77	74.77	0.00
Z113	0.00	84.77	74.77	0.00
Z114	0.00	84.77	74.77	0.00
Z115	0.00	84.77	74.77	0.00
Z116	0.00	77.05	67.05	0.00
Z117	0.00	75.21	65.21	0.00
Z118	0.00	74.37	64.37	0.00
Z119	0.00	73.68	63.68	0.00
Z120	0.00	72.32	62.32	0.00
Z121	0.00	71.65	61.65	0.00
Z122	0.00	75.12	65.12	0.00
Z123	0.00	74.95	64.95	0.00
Z124	0.00	74.88	64.88	0.00
Z125	2.72	75.09	65.09	0.00
Z126	2.72	74.93	64.93	0.00
Z127	0.00	84.77	74.77	0.00
Z128	2.72	74.88	64.88	0.00
Z129	0.00	74.88	64.88	0.00
Z130	2.72	74.87	64.87	0.00
Z30	0.00	69.49	59.49	0.00
Z31	0.00	69.28	59.28	0.00
Z32	0.00	69.24	59.24	0.00
Z33	0.00	68.30	58.30	0.00
Z34	0.00	67.57	57.57	0.00
Z35	0.00	66.94	56.94	0.00
Z36	0.00	66.85	56.85	0.00
Z37	0.00	66.73	56.73	0.00
Z38	0.00	66.70	56.70	0.00
Z39	0.00	66.41	56.41	0.00
Z40	0.00	66.31	56.31	0.00
Z42	2.72	69.48	59.48	0.00
Z43	0.00	69.23	59.23	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z44	2.72	69.22	59.22	0.00
Z45	0.00	69.00	59.00	0.00
Z46	2.72	68.99	58.99	0.00
Z48	2.72	68.94	58.94	0.00
Z49	2.72	74.36	64.36	0.00
Z50	2.72	73.68	63.68	0.00
Z51	2.72	72.31	62.31	0.00
Z52	0.00	71.56	61.56	0.00
Z53	0.00	71.53	61.53	0.00
Z54	2.72	71.49	61.49	0.00
Z55	2.72	71.52	61.52	0.00
Z131	2.72	71.52	61.52	0.00
Z132	0.00	82.37	72.37	0.00
Z133	0.00	82.37	72.37	0.00
Z134	0.00	82.37	72.37	0.00
Z135	0.00	82.37	72.37	0.00
Z136	0.00	82.37	72.37	0.00
Z137	0.00	82.37	72.37	0.00
Z138	0.00	82.37	72.37	0.00
Z139	0.00	82.37	72.37	0.00
Z140	0.00	82.37	72.37	0.00
Z141	0.00	82.37	72.37	0.00
Z142	0.00	82.37	72.37	0.00
Z143	0.00	79.38	69.38	0.00
Z144	2.72	72.76	62.76	0.00
Z145	0.00	72.81	62.81	0.00
Z146	0.00	72.79	62.79	0.00
Z147	0.00	73.27	63.27	0.00
Z148	0.00	72.73	62.73	0.00
Z149	0.00	71.34	61.34	0.00
Z150	0.00	70.64	60.64	0.00
Z151	0.00	70.32	60.32	0.00
Z152	0.00	70.27	60.27	0.00
Z153	0.00	70.14	60.14	0.00
Z154	0.00	69.95	59.95	0.00
Z155	0.00	69.88	59.88	0.00
Z156	2.72	69.87	59.87	0.00
Z157	0.00	82.37	72.37	0.00
Z158	0.00	82.37	72.37	0.00
Z159	0.00	82.37	72.37	0.00
Z160	0.00	82.37	72.37	0.00
Z161	0.00	82.37	72.37	0.00
Z162	0.00	82.37	72.37	0.00
Z163	0.00	82.37	72.37	0.00
Z164	0.00	79.38	69.38	0.00
Z165	0.00	75.59	65.59	0.00
Z166	2.72	72.78	62.78	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z167	2.72	72.72	62.72	0.00
Z168	2.72	71.33	61.33	0.00
Z169	2.72	70.63	60.63	0.00
Z170	2.72	70.26	60.26	0.00
Z171	2.72	70.14	60.14	0.00
Z172	2.72	70.14	60.14	0.00
Z173	2.72	69.94	59.94	0.00
Z174	2.72	69.87	59.87	0.00
Z175	0.00	67.69	57.69	0.00
Z176	0.00	65.15	55.15	0.00
Z177	0.00	64.04	54.04	0.00
Z178	0.00	63.83	53.83	0.00
Z179	0.00	62.89	52.89	0.00
Z180	0.00	62.60	52.60	0.00
Z181	0.00	62.40	52.40	0.00
Z182	0.00	62.35	52.35	0.00
Z183	0.00	62.12	52.12	0.00
Z184	0.00	62.08	52.08	0.00
Z185	0.00	61.99	51.99	0.00
Z186	2.72	61.96	51.96	0.00
Z187	0.00	60.49	50.49	0.00
Z188	0.00	60.03	50.03	0.00
Z189	0.00	60.00	50.00	0.00
Z190	2.72	59.99	49.99	0.00
Z191	0.00	59.97	49.97	0.00
Z192	0.00	59.89	49.89	0.00
Z193	2.72	59.88	49.88	0.00
Z194	2.72	63.80	53.80	0.00
Z195	2.72	62.88	52.88	0.00
Z196	2.72	62.59	52.59	0.00
Z197	2.72	62.39	52.39	0.00
Z198	2.72	62.35	52.35	0.00
Z199	2.72	62.07	52.07	0.00
Z200	2.72	61.98	51.98	0.00
Z201	2.72	60.48	50.48	0.00
Z202	2.72	59.99	49.99	0.00
Z203	2.72	59.96	49.96	0.00
Z204	2.72	59.88	49.88	0.00
Z205	0.00	62.78	52.78	0.00
Z206	0.00	61.51	51.51	0.00
Z207	0.00	60.70	50.70	0.00
Z208	0.00	58.60	48.60	0.00
Z209	0.00	58.36	48.36	0.00
Z210	0.00	60.61	50.61	0.00
Z211	0.00	60.58	50.58	0.00
Z212	0.00	60.53	50.53	0.00
Z213	2.72	60.53	50.53	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z214	0.00	60.61	50.61	0.00
Z215	2.72	60.60	50.60	0.00
Z216	2.72	60.52	50.52	0.00
Z217	2.72	60.57	50.57	0.00
Z218	2.72	60.57	50.57	0.00
Z219	0.00	58.30	48.30	0.00
Z220	0.00	57.97	47.97	0.00
Z221	0.00	57.83	47.83	0.00
Z222	0.00	57.81	47.81	0.00
Z223	0.00	57.53	47.53	0.00
Z224	0.00	57.13	47.13	0.00
Z225	0.00	57.09	47.09	0.00
Z226	0.00	56.95	46.95	0.00
Z227	0.00	56.77	46.77	0.00
Z228	0.00	56.30	46.30	0.00
Z229	0.00	56.21	46.21	0.00
Z230	2.72	56.19	46.19	0.00
Z231	0.00	56.54	46.54	0.00
Z232	0.00	56.22	46.22	0.00
Z233	2.72	56.20	46.20	0.00
Z234	0.00	56.76	46.76	0.00
Z235	0.00	56.73	46.73	0.00
Z236	2.72	56.71	46.71	0.00
Z41	0.00	79.38	69.38	0.00
Z47	0.00	79.38	69.38	0.00
Z237	0.00	79.38	69.38	0.00
Z238	0.00	79.38	69.38	0.00
Z239	0.00	79.38	69.38	0.00
Z240	0.00	79.38	69.38	0.00
Z241	0.00	79.38	69.38	0.00
Z242	0.00	79.38	69.38	0.00
Z243	0.00	79.38	69.38	0.00
Z244	0.00	79.38	69.38	0.00
Z245	0.00	79.38	69.38	0.00
Z246	0.00	79.38	69.38	0.00
Z247	0.00	79.38	69.38	0.00
Z248	0.00	79.38	69.38	0.00
Z249	0.00	79.38	69.38	0.00
Z250	0.00	79.38	69.38	0.00
Z251	0.00	79.38	69.38	0.00
Z252	0.00	79.38	69.38	0.00
Z253	0.00	79.38	69.38	0.00
Z254	0.00	79.38	69.38	0.00
Z255	0.00	79.38	69.38	0.00
Z256	0.00	79.38	69.38	0.00
Z257	0.00	79.38	69.38	0.00
Z258	0.00	79.38	69.38	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z259	0.00	79.38	69.38	0.00
Z260	0.00	79.38	69.38	0.00
Z261	0.00	79.38	69.38	0.00
Z262	0.00	79.38	69.38	0.00
Z263	0.00	79.38	69.38	0.00
Z264	0.00	79.38	69.38	0.00
Z265	0.00	79.38	69.38	0.00
Z266	0.00	79.38	69.38	0.00
Z267	0.00	79.38	69.38	0.00
Z268	0.00	79.38	69.38	0.00
Z269	0.00	79.38	69.38	0.00
Z270	0.00	79.38	69.38	0.00
Z271	0.00	79.38	69.38	0.00
Z272	0.00	79.38	69.38	0.00
Z273	0.00	79.38	69.38	0.00
Z274	0.00	79.38	69.38	0.00
Z275	0.00	75.59	65.59	0.00
Z276	0.00	75.59	65.59	0.00
Z277	0.00	75.59	65.59	0.00
Z278	0.00	75.59	65.59	0.00
Z279	0.00	75.59	65.59	0.00
Z280	0.00	75.59	65.59	0.00
Z281	0.00	75.59	65.59	0.00
Z282	0.00	75.59	65.59	0.00
Z283	0.00	77.52	67.52	0.00
Z284	0.00	77.52	67.52	0.00
Z285	0.00	77.52	67.52	0.00
Z286	0.00	77.52	67.52	0.00
Z287	0.00	77.52	67.52	0.00
Z288	0.00	77.52	67.52	0.00
Z289	0.00	77.52	67.52	0.00
Z290	0.00	77.52	67.52	0.00
Z291	0.00	77.52	67.52	0.00
Z292	0.00	77.52	67.52	0.00
Z293	0.00	80.32	70.32	0.00
Z294	0.00	73.96	63.96	0.00
Z295	0.00	75.59	65.59	0.00
Z296	0.00	75.59	65.59	0.00
Z297	0.00	75.59	65.59	0.00
Z298	0.00	75.59	65.59	0.00
Z299	0.00	75.59	65.59	0.00
Z300	0.00	75.59	65.59	0.00
Z301	0.00	75.59	65.59	0.00
Z302	0.00	77.52	67.52	0.00
Z303	0.00	77.52	67.52	0.00
Z304	0.00	77.52	67.52	0.00
Z305	0.00	77.52	67.52	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z306	0.00	77.52	67.52	0.00
Z307	0.00	73.96	63.96	0.00
Z308	0.00	73.96	63.96	0.00
Z309	0.00	73.96	63.96	0.00
Z310	0.00	73.96	63.96	0.00
Z311	0.00	73.96	63.96	0.00
Z312	0.00	73.96	63.96	0.00
Z313	0.00	73.96	63.96	0.00
Z314	0.00	73.96	63.96	0.00
Z315	0.00	73.96	63.96	0.00
Z316	0.00	73.96	63.96	0.00
Z317	0.00	73.96	63.96	0.00
Z318	0.00	73.96	63.96	0.00
Z319	0.00	73.96	63.96	0.00
Z320	0.00	73.96	63.96	0.00
Z321	0.00	73.96	63.96	0.00
Z322	0.00	68.32	58.32	0.00
Z323	0.00	73.96	63.96	0.00
Z324	0.00	73.96	63.96	0.00
Z325	0.00	73.96	63.96	0.00
Z326	0.00	73.96	63.96	0.00
Z327	0.00	73.96	63.96	0.00
Z328	0.00	73.96	63.96	0.00
Z329	0.00	73.96	63.96	0.00
Z330	0.00	73.96	63.96	0.00
Z331	0.00	73.96	63.96	0.00
Z332	0.00	73.96	63.96	0.00
Z333	0.00	73.96	63.96	0.00
Z334	0.00	73.96	63.96	0.00
Z335	0.00	73.96	63.96	0.00
Z336	0.00	73.96	63.96	0.00
Z337	0.00	73.96	63.96	0.00
Z338	0.00	73.96	63.96	0.00
Z339	0.00	73.96	63.96	0.00
Z340	0.00	73.96	63.96	0.00
Z341	0.00	73.96	63.96	0.00
Z342	0.00	73.96	63.96	0.00
Z343	0.00	73.96	63.96	0.00
Z344	0.00	73.96	63.96	0.00
Z345	0.00	73.96	63.96	0.00
Z346	0.00	73.96	63.96	0.00
Z347	0.00	73.96	63.96	0.00
Z348	0.00	73.96	63.96	0.00
Z349	0.00	73.96	63.96	0.00
Z350	0.00	68.32	58.32	0.00
Z351	0.00	68.32	58.32	0.00
Z352	0.00	68.32	58.32	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z353	0.00	68.32	58.32	0.00
Z354	0.00	68.32	58.32	0.00
Z355	0.00	68.32	58.32	0.00
Z356	0.00	68.32	58.32	0.00
Z357	0.00	68.32	58.32	0.00
Z358	0.00	68.32	58.32	0.00
Z359	0.00	68.32	58.32	0.00
Z360	0.00	68.32	58.32	0.00
Z361	0.00	68.32	58.32	0.00
Z362	0.00	68.32	58.32	0.00
Z363	0.00	68.32	58.32	0.00
Z364	0.00	64.12	54.12	0.00
Z365	0.00	62.02	52.02	0.00
Z366	0.00	64.06	54.06	0.00
Z367	0.00	63.78	53.78	0.00
Z368	2.72	63.70	53.70	0.00
Z369	0.00	63.70	53.70	0.00
Z370	0.00	60.56	50.56	0.00
Z371	0.00	60.49	50.49	0.00
Z372	0.00	60.15	50.15	0.00
Z373	0.00	60.03	50.03	0.00
Z374	2.72	60.01	50.01	0.00
Z375	0.00	58.92	48.92	0.00
Z376	0.00	58.89	48.89	0.00
Z377	0.00	56.64	46.64	0.00
Z378	0.00	56.53	46.53	0.00
Z379	0.00	56.35	46.35	0.00
Z380	0.00	56.21	46.21	0.00
Z381	2.72	56.18	46.18	0.00
Z382	0.00	56.38	46.38	0.00
Z383	0.00	56.35	46.35	0.00
Z384	0.00	56.03	46.03	0.00
Z385	2.72	55.98	45.98	0.00
Z386	2.72	63.77	53.77	0.00
Z387	2.72	63.77	53.77	0.00
Z388	2.72	64.05	54.05	0.00
Z389	0.00	63.32	53.32	0.00
Z390	2.72	63.28	53.28	0.00
Z391	2.72	63.70	53.70	0.00
Z392	2.72	60.48	50.48	0.00
Z393	2.72	60.14	50.14	0.00
Z394	2.72	60.02	50.02	0.00
Z395	2.72	58.92	48.92	0.00
Z396	2.72	58.88	48.88	0.00
Z397	2.72	56.63	46.63	0.00
Z398	2.72	56.34	46.34	0.00
Z399	2.72	56.20	46.20	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z400	0.00	61.46	51.46	0.00
Z401	0.00	61.50	51.50	0.00
Z402	0.00	60.73	50.73	0.00
Z403	0.00	60.42	50.42	0.00
Z404	0.00	59.77	49.77	0.00
Z405	0.00	59.35	49.35	0.00
Z406	2.72	59.34	49.34	0.00
Z407	2.72	61.45	51.45	0.00
Z408	2.72	60.73	50.73	0.00
Z409	2.72	60.42	50.42	0.00
Z410	2.72	59.76	49.76	0.00
Z411	2.72	59.35	49.35	0.00
Z412	0.00	61.27	51.27	0.00
Z413	0.00	60.96	50.96	0.00
Z414	0.00	60.86	50.86	0.00
Z415	2.72	60.84	50.84	0.00
Z416	2.72	61.26	51.26	0.00
Z417	2.72	61.26	51.26	0.00
Z418	2.72	60.95	50.95	0.00
Z419	2.72	60.85	50.85	0.00
Z420	2.72	60.95	50.95	0.00
Z421	0.00	57.80	47.80	0.00
Z422	0.00	57.78	47.78	0.00
Z423	0.00	57.63	47.63	0.00
Z424	2.72	57.60	47.60	0.00
Z425	2.72	57.62	47.62	0.00
Z426	2.72	57.77	47.77	0.00
Z427	2.72	57.79	47.79	0.00
Z428	2.72	56.72	46.72	0.00
Z429	2.72	56.75	46.75	0.00
Z430	2.72	57.96	47.96	0.00
Z431	2.72	57.81	47.81	0.00
Z432	2.72	57.52	47.52	0.00
Z433	2.72	57.12	47.12	0.00
Z434	2.72	57.08	47.08	0.00
Z435	2.72	56.94	46.94	0.00
Z436	2.72	56.29	46.29	0.00
Z437	2.72	56.20	46.20	0.00
Z438	2.72	56.53	46.53	0.00
Z439	2.72	56.21	46.21	0.00
Z440	0.00	58.07	48.07	0.00
Z441	2.72	58.06	48.06	0.00
Z442	0.00	57.18	47.18	0.00
Z443	2.72	57.17	47.17	0.00
Z444	0.00	57.15	47.15	0.00
Z445	2.72	57.15	47.15	0.00
Z446	0.00	57.11	47.11	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z447	2.72	57.10	47.10	0.00
Z448	0.00	56.67	46.67	0.00
Z449	2.72	56.66	46.66	0.00
Z450	2.72	56.66	46.66	0.00
Z451	0.00	56.41	46.41	0.00
Z452	2.72	56.40	46.40	0.00
Z453	0.00	56.34	46.34	0.00
Z454	2.72	56.33	46.33	0.00
Z455	0.00	56.31	46.31	0.00
Z456	2.72	56.30	46.30	0.00
Z457	0.00	56.31	46.31	0.00
Z458	2.72	56.30	46.30	0.00
Z459	0.00	57.07	47.07	0.00
Z460	2.72	57.06	47.06	0.00
Z461	0.00	57.08	47.08	0.00
Z462	0.00	57.29	47.29	0.00
Z463	0.00	57.34	47.34	0.00
Z464	2.72	57.28	47.28	0.00
Z465	2.72	57.28	47.28	0.00
Z466	0.00	57.57	47.57	0.00
Z467	0.00	57.84	47.84	0.00
Z468	0.00	57.75	47.75	0.00
Z469	0.00	57.71	47.71	0.00
Z470	2.72	57.66	47.66	0.00
Z471	2.72	57.71	47.71	0.00
Z472	0.00	57.56	47.56	0.00
Z473	2.72	57.55	47.55	0.00
Z474	0.00	57.50	47.50	0.00
Z475	2.72	57.49	47.49	0.00
Z476	2.72	57.49	47.49	0.00
Z477	0.00	62.58	52.58	0.00
Z478	2.72	62.57	52.57	0.00
Z479	2.72	62.49	52.49	0.00
Z480	2.72	62.74	52.74	0.00
Z481	0.00	62.75	52.75	0.00
Z482	0.00	57.04	47.04	0.00
Z483	0.00	57.00	47.00	0.00
Z484	0.00	56.93	46.93	0.00
Z485	0.00	56.89	46.89	0.00
Z486	0.00	56.63	46.63	0.00
Z487	0.00	56.28	46.28	0.00
Z488	0.00	56.26	46.26	0.00
Z489	0.00	55.33	45.33	0.00
Z490	0.00	55.33	45.33	0.00
Z491	0.00	55.17	45.17	0.00
Z492	2.72	55.17	45.17	0.00
Z493	0.00	55.21	45.21	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z494	0.00	55.03	45.03	0.00
Z495	0.00	55.01	45.01	0.00
Z496	2.72	55.00	45.00	0.00
Z497	2.72	57.03	47.03	0.00
Z498	2.72	56.99	46.99	0.00
Z499	2.72	56.92	46.92	0.00
Z500	2.72	56.88	46.88	0.00
Z501	2.72	56.62	46.62	0.00
Z502	2.72	56.27	46.27	0.00
Z503	2.72	55.16	45.16	0.00
Z504	2.72	55.32	45.32	0.00
Z505	2.72	55.00	45.00	0.00
Z506	2.72	55.02	45.02	0.00
Z507	2.72	55.20	45.20	0.00
Z508	2.72	55.20	45.20	0.00
Z509	0.00	57.50	47.50	0.00
Z510	0.00	57.49	47.49	0.00
Z511	0.00	57.48	47.48	0.00
Z512	0.00	57.48	47.48	0.00
Z513	0.00	57.47	47.47	0.00
Z514	0.00	58.85	48.85	0.00
Z515	0.00	59.61	49.61	0.00
Z516	0.00	60.69	50.69	0.00
Z518	0.00	59.60	49.60	0.00
Z519	0.00	59.29	49.29	0.00
Z520	2.72	59.25	49.25	0.00
Z521	0.00	58.52	48.52	0.00
Z522	0.00	57.90	47.90	0.00
Z523	0.00	57.89	47.89	0.00
Z524	2.72	57.85	47.85	0.00
Z525	0.00	57.55	47.55	0.00
Z526	2.72	57.54	47.54	0.00
Z527	2.72	57.49	47.49	0.00
Z528	2.72	57.48	47.48	0.00
Z529	2.72	57.47	47.47	0.00
Z530	2.72	57.47	47.47	0.00
Z531	0.00	57.35	47.35	0.00
Z532	0.00	56.94	46.94	0.00
Z533	2.72	56.93	46.93	0.00
Z534	2.72	56.93	46.93	0.00
Z535	2.72	56.93	46.93	0.00
Z536	0.00	57.33	47.33	0.00
Z537	2.72	57.32	47.32	0.00
Z538	2.72	57.27	47.27	0.00
Z539	0.00	57.28	47.28	0.00
Z540	0.00	57.09	47.09	0.00
Z541	0.00	57.04	47.04	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z542	2.72	57.03	47.03	0.00
Z543	0.00	57.01	47.01	0.00
Z544	2.72	57.00	47.00	0.00
Z545	2.72	57.00	47.00	0.00
Z546	0.00	57.01	47.01	0.00
Z547	0.00	56.73	46.73	0.00
Z548	2.72	56.73	46.73	0.00
Z549	0.00	56.24	46.24	0.00
Z550	2.72	56.24	46.24	0.00
Z551	0.00	56.20	46.20	0.00
Z552	2.72	56.19	46.19	0.00
Z553	2.72	56.19	46.19	0.00
Z554	0.00	58.82	48.82	0.00
Z555	2.72	58.81	48.81	0.00
Z556	0.00	58.70	48.70	0.00
Z557	2.72	58.70	48.70	0.00
Z558	2.72	58.69	48.69	0.00
Z559	2.72	59.60	49.60	0.00
Z560	2.72	60.68	50.68	0.00
Z561	0.00	63.45	53.45	0.00
Z562	0.00	63.00	53.00	0.00
Z563	2.72	62.98	52.98	0.00
Z564	2.72	62.96	52.96	0.00
Z565	0.00	62.98	52.98	0.00
Z566	2.72	62.85	52.85	0.00
Z567	0.00	61.47	51.47	0.00
Z568	2.72	61.46	51.46	0.00
Z569	0.00	61.13	51.13	0.00
Z570	2.72	61.12	51.12	0.00
Z571	2.72	59.59	49.59	0.00
Z572	2.72	58.51	48.51	0.00
Z573	2.72	57.89	47.89	0.00
Z574	2.72	57.88	47.88	0.00
Z575	0.00	62.85	52.85	0.00
Z576	0.00	56.93	46.93	0.00
Z577	0.00	57.18	47.18	0.00
Z578	0.00	56.86	46.86	0.00
Z579	0.00	56.46	46.46	0.00
Z580	0.00	56.12	46.12	0.00
Z581	2.72	56.08	46.08	0.00
Z582	2.72	56.45	46.45	0.00
Z583	0.00	56.82	46.82	0.00
Z584	2.72	56.81	46.81	0.00
Z585	0.00	56.81	46.81	0.00
Z586	2.72	56.80	46.80	0.00
Z587	2.72	56.80	46.80	0.00
Z588	0.00	55.94	45.94	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z589	2.72	55.93	45.93	0.00
Z590	0.00	55.92	45.92	0.00
Z591	2.72	55.91	45.91	0.00
Z592	2.72	55.91	45.91	0.00
Z593	0.00	57.11	47.11	0.00
Z594	0.00	57.05	47.05	0.00
Z595	0.00	57.10	47.10	0.00
Z596	0.00	56.61	46.61	0.00
Z597	2.72	57.04	47.04	0.00
Z598	2.72	56.61	46.61	0.00
Z599	0.00	56.55	46.55	0.00
Z600	2.72	56.55	46.55	0.00
Z601	0.00	56.01	46.01	0.00
Z602	0.00	55.95	45.95	0.00
Z603	2.72	55.95	45.95	0.00
Z604	0.00	56.01	46.01	0.00
Z605	0.00	55.98	45.98	0.00
Z606	2.72	55.97	45.97	0.00
Z607	2.72	55.97	45.97	0.00
Z608	0.00	55.50	45.50	0.00
Z609	0.00	55.43	45.43	0.00
Z610	2.72	55.42	45.42	0.00
Z611	0.00	55.43	45.43	0.00
Z612	2.72	55.42	45.42	0.00
Z613	0.00	55.27	45.27	0.00
Z614	2.72	55.27	45.27	0.00
Z615	0.00	55.24	45.24	0.00
Z616	2.72	55.23	45.23	0.00
Z617	2.72	55.23	45.23	0.00
Z618	2.72	55.24	45.24	0.00
Z619	0.00	55.33	45.33	0.00
Z620	0.00	55.32	45.32	0.00
Z621	2.72	55.31	45.31	0.00
Z622	0.00	55.28	45.28	0.00
Z623	2.72	55.27	45.27	0.00
Z624	0.00	55.22	45.22	0.00
Z625	2.72	55.21	45.21	0.00
Z626	0.00	55.17	45.17	0.00
Z627	2.72	55.17	45.17	0.00
Z628	2.72	55.16	45.16	0.00
Z629	2.72	55.16	45.16	0.00
Z630	2.72	55.11	45.11	0.00
Z631	0.00	55.20	45.20	0.00
Z632	2.72	55.19	45.19	0.00
Z633	0.00	55.24	45.24	0.00
Z634	2.72	55.24	45.24	0.00
Z517	0.00	56.03	46.03	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z635	0.00	56.14	46.14	0.00
Z636	0.00	56.50	46.50	0.00
Z637	0.00	56.90	46.90	0.00
Z638	2.72	56.87	46.87	0.00
Z639	2.72	56.88	46.88	0.00
Z640	2.72	56.02	46.02	0.00
Z641	0.00	56.04	46.04	0.00
Z642	0.00	56.02	46.02	0.00
Z643	0.00	55.77	45.77	0.00
Z644	2.72	55.76	45.76	0.00
Z645	2.72	55.76	45.76	0.00
Z646	2.72	55.76	45.76	0.00
Z647	2.72	55.97	45.97	0.00
Z648	2.72	56.01	46.01	0.00
Z649	0.00	56.88	46.88	0.00
Z650	0.00	56.05	46.05	0.00
Z651	0.00	56.02	46.02	0.00
Z652	2.72	56.04	46.04	0.00
Z653	2.72	56.02	46.02	0.00
Z654	2.72	56.02	46.02	0.00
Z655	2.72	55.98	45.98	0.00
Z656	0.00	57.12	47.12	0.00
Z657	0.00	57.25	47.25	0.00
Z658	0.00	57.34	47.34	0.00
Z659	0.00	57.48	47.48	0.00
Z660	0.00	57.95	47.95	0.00
Z661	0.00	58.36	48.36	0.00
Z662	2.72	60.16	50.16	0.00
Z663	0.00	61.03	51.03	0.00
Z664	0.00	63.18	53.18	0.00
Z665	0.00	65.15	55.15	0.00
Z666	0.00	66.36	56.36	0.00
Z667	2.72	66.35	56.35	0.00
Z668	2.72	66.35	56.35	0.00
Z669	0.00	63.70	53.70	0.00
Z670	0.00	62.56	52.56	0.00
Z671	0.00	58.83	48.83	0.00
Z672	0.00	58.70	48.70	0.00
Z673	0.00	56.98	46.98	0.00
Z674	0.00	58.66	48.66	0.00
Z675	2.72	58.64	48.64	0.00
Z676	2.72	58.65	48.65	0.00
Z677	2.72	58.69	48.69	0.00
Z678	2.72	62.55	52.55	0.00
Z679	2.72	63.69	53.69	0.00
Z680	2.72	56.98	46.98	0.00
Z681	0.00	56.47	46.47	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z682	0.00	56.19	46.19	0.00
Z683	0.00	56.07	46.07	0.00
Z684	0.00	56.05	46.05	0.00
Z685	0.00	55.98	45.98	0.00
Z686	2.72	55.95	45.95	0.00
Z687	2.72	56.46	46.46	0.00
Z688	2.72	56.19	46.19	0.00
Z689	2.72	56.07	46.07	0.00
Z690	2.72	56.04	46.04	0.00
Z691	2.72	55.97	45.97	0.00
Z692	0.00	63.04	53.04	0.00
Z693	0.00	63.02	53.02	0.00
Z694	2.72	63.01	53.01	0.00
Z695	0.00	62.94	52.94	0.00
Z696	2.72	62.93	52.93	0.00
Z697	2.72	62.93	52.93	0.00
Z698	0.00	63.04	53.04	0.00
Z699	2.72	63.03	53.03	0.00
Z700	2.72	62.87	52.87	0.00
Z701	2.72	62.87	52.87	0.00
Z702	0.00	62.88	52.88	0.00
Z703	0.00	60.82	50.82	0.00
Z704	0.00	59.96	49.96	0.00
Z705	0.00	58.81	48.81	0.00
Z706	0.00	58.46	48.46	0.00
Z707	0.00	58.17	48.17	0.00
Z708	2.72	58.16	48.16	0.00
Z709	0.00	58.22	48.22	0.00
Z710	2.72	58.15	48.15	0.00
Z711	2.72	60.81	50.81	0.00
Z712	2.72	59.95	49.95	0.00
Z713	2.72	58.80	48.80	0.00
Z714	2.72	58.45	48.45	0.00
Z715	2.72	58.16	48.16	0.00
Z716	0.00	59.50	49.50	0.00
Z717	0.00	57.32	47.32	0.00
Z718	0.00	57.13	47.13	0.00
Z719	2.72	57.11	47.11	0.00
Z720	0.00	57.01	47.01	0.00
Z721	0.00	56.99	46.99	0.00
Z722	0.00	56.94	46.94	0.00
Z723	2.72	56.91	46.91	0.00
Z724	2.72	56.93	46.93	0.00
Z725	2.72	56.98	46.98	0.00
Z726	2.72	57.00	47.00	0.00
Z727	2.72	57.12	47.12	0.00
Z728	0.00	57.17	47.17	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z729	0.00	57.14	47.14	0.00
Z730	2.72	57.13	47.13	0.00
Z731	2.72	57.07	47.07	0.00
Z732	0.00	56.75	46.75	0.00
Z733	2.72	56.74	46.74	0.00
Z734	0.00	56.63	46.63	0.00
Z735	2.72	56.62	46.62	0.00
Z736	0.00	56.36	46.36	0.00
Z737	2.72	56.36	46.36	0.00
Z738	0.00	56.21	46.21	0.00
Z739	2.72	56.20	46.20	0.00
Z740	0.00	55.64	45.64	0.00
Z741	2.72	55.63	45.63	0.00
Z742	0.00	55.61	45.61	0.00
Z743	0.00	55.50	45.50	0.00
Z744	0.00	55.49	45.49	0.00
Z745	2.72	55.49	45.49	0.00
Z746	2.72	55.48	45.48	0.00
Z747	2.72	55.36	45.36	0.00
Z748	0.00	56.84	46.84	0.00
Z749	0.00	56.44	46.44	0.00
Z750	0.00	56.15	46.15	0.00
Z751	0.00	55.94	45.94	0.00
Z752	0.00	55.82	45.82	0.00
Z753	0.00	55.81	45.81	0.00
Z754	0.00	55.81	45.81	0.00
Z755	2.72	55.78	45.78	0.00
Z756	2.72	55.77	45.77	0.00
Z757	2.72	55.80	45.80	0.00
Z758	2.72	55.81	45.81	0.00
Z759	2.72	56.43	46.43	0.00
Z760	2.72	55.94	45.94	0.00
Z761	0.00	55.58	45.58	0.00
Z762	0.00	55.54	45.54	0.00
Z763	0.00	55.53	45.53	0.00
Z764	2.72	55.52	45.52	0.00
Z765	2.72	55.52	45.52	0.00
Z766	2.72	55.54	45.54	0.00
Z767	2.72	55.58	45.58	0.00
Z768	0.00	55.93	45.93	0.00
Z769	0.00	55.91	45.91	0.00
Z770	0.00	55.82	45.82	0.00
Z771	0.00	55.74	45.74	0.00
Z772	0.00	55.47	45.47	0.00
Z773	2.72	55.41	45.41	0.00
Z774	0.00	55.40	45.40	0.00
Z775	2.72	55.40	45.40	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z776	2.72	55.39	45.39	0.00
Z777	2.72	55.73	45.73	0.00
Z778	2.72	55.81	45.81	0.00
Z779	2.72	55.90	45.90	0.00
Z780	2.72	55.92	45.92	0.00
Z781	0.00	57.24	47.24	0.00
Z782	0.00	56.97	46.97	0.00
Z783	0.00	56.86	46.86	0.00
Z784	0.00	56.84	46.84	0.00
Z785	0.00	57.04	47.04	0.00
Z786	0.00	56.78	46.78	0.00
Z787	0.00	56.77	46.77	0.00
Z788	0.00	56.77	46.77	0.00
Z789	0.00	56.77	46.77	0.00
Z790	0.00	56.77	46.77	0.00
Z791	0.00	56.96	46.96	0.00
Z792	0.00	57.06	47.06	0.00
Z793	0.00	57.33	47.33	0.00
Z794	0.00	57.47	47.47	0.00
Z795	0.00	57.54	47.54	0.00
Z796	2.72	58.19	48.19	0.00
Z797	2.72	57.46	47.46	0.00
Z798	2.72	57.32	47.32	0.00
Z799	2.72	57.05	47.05	0.00
Z800	2.72	56.95	46.95	0.00
Z801	2.72	56.76	46.76	0.00
Z802	2.72	56.76	46.76	0.00
Z803	2.72	56.77	46.77	0.00
Z804	2.72	56.77	46.77	0.00
Z805	2.72	56.83	46.83	0.00
Z806	2.72	56.85	46.85	0.00
Z807	2.72	56.96	46.96	0.00
Z808	2.72	57.24	47.24	0.00
Z809	0.00	58.22	48.22	0.00
Z810	0.00	56.71	46.71	0.00
Z811	0.00	56.51	46.51	0.00
Z812	0.00	56.39	46.39	0.00
Z813	0.00	55.89	45.89	0.00
Z814	0.00	55.60	45.60	0.00
Z815	0.00	55.43	45.43	0.00
Z816	0.00	55.32	45.32	0.00
Z817	2.72	55.30	45.30	0.00
Z818	2.72	55.28	45.28	0.00
Z819	2.72	56.70	46.70	0.00
Z820	2.72	56.50	46.50	0.00
Z821	2.72	56.38	46.38	0.00
Z822	2.72	55.88	45.88	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z823	2.72	55.59	45.59	0.00
Z824	2.72	55.42	45.42	0.00
Z825	0.00	56.88	46.88	0.00
Z826	0.00	56.67	46.67	0.00
Z827	0.00	56.64	46.64	0.00
Z828	0.00	56.47	46.47	0.00
Z829	0.00	56.24	46.24	0.00
Z830	0.00	56.03	46.03	0.00
Z831	0.00	56.01	46.01	0.00
Z832	0.00	55.57	45.57	0.00
Z833	0.00	55.57	45.57	0.00
Z834	0.00	55.52	45.52	0.00
Z835	0.00	55.20	45.20	0.00
Z836	0.00	55.17	45.17	0.00
Z837	2.72	55.15	45.15	0.00
Z838	2.72	56.87	46.87	0.00
Z839	2.72	56.66	46.66	0.00
Z840	2.72	56.63	46.63	0.00
Z841	2.72	56.46	46.46	0.00
Z842	2.72	56.24	46.24	0.00
Z843	2.72	56.00	46.00	0.00
Z844	2.72	56.00	46.00	0.00
Z845	2.72	55.56	45.56	0.00
Z846	2.72	55.54	45.54	0.00
Z847	2.72	55.51	45.51	0.00
Z848	2.72	55.19	45.19	0.00
Z849	2.72	55.16	45.16	0.00
Z850	0.00	56.87	46.87	0.00
Z851	0.00	56.84	46.84	0.00
Z852	0.00	56.51	46.51	0.00
Z853	0.00	56.42	46.42	0.00
Z854	0.00	56.15	46.15	0.00
Z855	0.00	55.99	45.99	0.00
Z856	0.00	55.60	45.60	0.00
Z857	0.00	55.40	45.40	0.00
Z858	0.00	55.25	45.25	0.00
Z859	0.00	55.19	45.19	0.00
Z860	0.00	55.51	45.51	0.00
Z861	0.00	55.40	45.40	0.00
Z862	2.72	56.86	46.86	0.00
Z863	2.72	56.83	46.83	0.00
Z864	2.72	56.50	46.50	0.00
Z865	2.72	56.42	46.42	0.00
Z866	2.72	55.98	45.98	0.00
Z867	2.72	55.59	45.59	0.00
Z868	2.72	55.39	45.39	0.00
Z869	2.72	55.24	45.24	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z870	2.72	55.18	45.18	0.00
Z871	2.72	55.16	45.16	0.00
Z872	2.72	55.50	45.50	0.00
Z873	2.72	55.39	45.39	0.00
Z874	2.72	55.34	45.34	0.00
Z875	0.00	84.52	74.52	0.00
Z876	0.00	84.30	74.30	0.00
Z877	0.00	84.30	74.30	0.00
Z878	0.00	84.30	74.30	0.00
Z879	0.00	84.30	74.30	0.00
Z880	0.00	84.30	74.30	0.00
Z881	0.00	84.30	74.30	0.00
Z882	0.00	84.52	74.52	0.00
Z883	0.00	84.52	74.52	0.00
Z884	0.00	84.52	74.52	0.00
Z885	0.00	84.52	74.52	0.00
Z886	0.00	84.52	74.52	0.00
Z887	0.00	84.52	74.52	0.00
Z888	0.00	84.06	74.06	0.00
Z889	0.00	84.10	74.10	0.00
Z890	0.00	84.12	74.12	0.00
Z891	0.00	84.15	74.15	0.00
Z892	0.00	84.17	74.17	0.00
Z893	0.00	84.20	74.20	0.00
Z894	0.00	84.20	74.20	0.00
Z895	0.00	84.23	74.23	0.00
Z896	0.00	84.21	74.21	0.00
Z897	0.00	83.77	73.77	0.00
Z898	0.00	83.77	73.77	0.00
Z899	0.00	83.55	73.55	0.00
Z900	0.00	83.55	73.55	0.00
Z901	0.00	83.55	73.55	0.00
Z902	0.00	83.69	73.69	0.00
Z903	0.00	83.69	73.69	0.00
Z904	0.00	83.68	73.68	0.00
Z905	0.00	83.68	73.68	0.00
Z906	0.00	83.68	73.68	0.00
Z907	0.00	83.67	73.67	0.00
Z908	0.00	83.66	73.66	0.00
Z909	0.00	83.64	73.64	0.00
Z910	0.00	83.64	73.64	0.00
Z911	0.00	83.63	73.63	0.00
Z912	0.00	83.61	73.61	0.00
Z913	0.00	83.60	73.60	0.00
Z914	0.00	83.59	73.59	0.00
Z915	0.00	83.58	73.58	0.00
Z916	0.00	83.57	73.57	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z917	0.00	83.56	73.56	0.00
Z918	0.00	83.56	73.56	0.00
Z919	0.00	83.55	73.55	0.00
Z920	0.00	83.53	73.53	0.00
Z921	0.00	83.53	73.53	0.00
Z922	0.00	83.53	73.53	0.00
Z923	0.00	83.52	73.52	0.00
Z924	0.00	83.51	73.51	0.00
Z925	0.00	83.51	73.51	0.00
Z926	0.00	83.50	73.50	0.00
Z927	0.00	83.48	73.48	0.00
Z928	0.00	83.48	73.48	0.00
Z929	0.00	83.47	73.47	0.00
Z930	0.00	83.44	73.44	0.00
Z931	0.00	83.44	73.44	0.00
Z932	0.00	83.43	73.43	0.00
Z933	0.00	83.40	73.40	0.00
Z934	0.00	83.41	73.41	0.00
Z935	0.00	83.29	73.29	0.00
Z936	0.00	83.29	73.29	0.00
Z937	0.00	83.29	73.29	0.00
Z938	0.00	83.29	73.29	0.00
Z939	0.00	83.29	73.29	0.00
Z940	0.00	83.29	73.29	0.00
Z942	0.00	83.29	73.29	0.00
Z943	0.00	83.29	73.29	0.00
Z944	0.00	83.29	73.29	0.00
Z945	0.00	80.32	70.32	0.00
Z946	0.00	80.32	70.32	0.00
Z947	0.00	80.32	70.32	0.00
Z948	0.00	80.32	70.32	0.00
Z949	0.00	80.32	70.32	0.00
Z950	0.00	80.32	70.32	0.00
Z951	0.00	80.32	70.32	0.00
Z952	0.00	80.32	70.32	0.00
Z953	0.00	80.32	70.32	0.00
Z954	0.00	80.32	70.32	0.00
Z955	0.00	80.32	70.32	0.00
Z956	0.00	80.32	70.32	0.00
Z957	0.00	80.32	70.32	0.00
Z958	0.00	80.32	70.32	0.00
Z959	0.00	80.32	70.32	0.00
Z960	0.00	81.37	71.37	0.00
Z961	0.00	84.52	74.52	0.00
Z962	0.00	84.52	74.52	0.00
Z963	0.00	84.52	74.52	0.00
Z964	0.00	84.52	74.52	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z965	0.00	84.52	74.52	0.00
Z966	0.00	84.52	74.52	0.00
Z967	0.00	84.52	74.52	0.00
Z968	0.00	84.30	74.30	0.00
Z969	0.00	84.30	74.30	0.00
Z970	0.00	84.30	74.30	0.00
Z971	0.00	84.07	74.07	0.00
Z972	0.00	83.55	73.55	0.00
Z973	0.00	83.55	73.55	0.00
Z974	0.00	83.77	73.77	0.00
Z975	0.00	83.69	73.69	0.00
Z976	0.00	83.68	73.68	0.00
Z977	0.00	83.68	73.68	0.00
Z978	0.00	83.68	73.68	0.00
Z979	0.00	83.67	73.67	0.00
Z980	0.00	83.66	73.66	0.00
Z981	0.00	83.64	73.64	0.00
Z982	0.00	83.41	73.41	0.00
Z983	0.00	83.43	73.43	0.00
Z984	0.00	83.44	73.44	0.00
Z985	0.00	83.44	73.44	0.00
Z986	0.00	83.47	73.47	0.00
Z987	0.00	83.48	73.48	0.00
Z988	0.00	83.48	73.48	0.00
Z989	0.00	83.50	73.50	0.00
Z990	0.00	83.51	73.51	0.00
Z991	0.00	83.52	73.52	0.00
Z992	0.00	83.53	73.53	0.00
Z993	0.00	83.53	73.53	0.00
Z994	0.00	83.53	73.53	0.00
Z995	0.00	83.56	73.56	0.00
Z996	0.00	83.56	73.56	0.00
Z997	0.00	83.57	73.57	0.00
Z998	0.00	83.58	73.58	0.00
Z999	0.00	83.59	73.59	0.00
Z1000	0.00	83.60	73.60	0.00
Z1001	0.00	83.61	73.61	0.00
Z1002	0.00	83.63	73.63	0.00
Z1003	0.00	84.23	74.23	0.00
Z1004	0.00	84.21	74.21	0.00
Z1005	0.00	84.20	74.20	0.00
Z1006	0.00	84.17	74.17	0.00
Z1007	0.00	84.15	74.15	0.00
Z1008	0.00	84.15	74.15	0.00
Z1009	0.00	84.12	74.12	0.00
Z1010	0.00	84.10	74.10	0.00
Z1011	0.00	84.07	74.07	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1012	0.00	84.20	74.20	0.00
Z1013	0.00	84.20	74.20	0.00
Z1014	0.00	84.20	74.20	0.00
Z1015	0.00	84.20	74.20	0.00
Z1016	0.00	84.20	74.20	0.00
Z1017	0.00	84.20	74.20	0.00
Z1018	0.00	84.20	74.20	0.00
Z1019	0.00	84.20	74.20	0.00
Z1020	0.00	84.20	74.20	0.00
Z1021	0.00	84.20	74.20	0.00
Z1022	0.00	84.20	74.20	0.00
Z1023	0.00	84.20	74.20	0.00
Z1024	0.00	84.20	74.20	0.00
Z1025	0.00	84.20	74.20	0.00
Z1026	0.00	84.20	74.20	0.00
Z1027	0.00	84.20	74.20	0.00
Z1028	0.00	84.20	74.20	0.00
Z1029	0.00	84.20	74.20	0.00
Z1030	0.00	84.20	74.20	0.00
Z1031	0.00	84.20	74.20	0.00
Z1032	0.00	83.69	73.69	0.00
Z1033	0.00	83.69	73.69	0.00
Z1034	0.00	83.69	73.69	0.00
Z1035	0.00	83.69	73.69	0.00
Z1036	0.00	83.69	73.69	0.00
Z1037	0.00	83.69	73.69	0.00
Z1038	0.00	83.69	73.69	0.00
Z1039	0.00	83.69	73.69	0.00
Z1040	0.00	83.69	73.69	0.00
Z1041	0.00	83.69	73.69	0.00
Z1042	0.00	83.69	73.69	0.00
Z1043	0.00	83.69	73.69	0.00
Z1044	0.00	83.69	73.69	0.00
Z1045	0.00	83.69	73.69	0.00
Z1046	0.00	83.64	73.64	0.00
Z1047	0.00	83.64	73.64	0.00
Z1048	0.00	83.64	73.64	0.00
Z1049	0.00	83.64	73.64	0.00
Z1050	0.00	83.64	73.64	0.00
Z1051	0.00	83.64	73.64	0.00
Z1052	0.00	83.64	73.64	0.00
Z1053	0.00	83.64	73.64	0.00
Z1054	0.00	83.64	73.64	0.00
Z1055	0.00	83.64	73.64	0.00
Z1056	0.00	83.64	73.64	0.00
Z1057	0.00	83.64	73.64	0.00
Z1058	0.00	83.64	73.64	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1059	0.00	83.64	73.64	0.00
Z1060	0.00	83.64	73.64	0.00
Z1061	0.00	83.64	73.64	0.00
Z1062	0.00	83.64	73.64	0.00
Z1063	0.00	83.64	73.64	0.00
Z1064	0.00	83.64	73.64	0.00
Z1065	0.00	83.55	73.55	0.00
Z1066	0.00	83.55	73.55	0.00
Z1067	0.00	83.55	73.55	0.00
Z1068	0.00	83.55	73.55	0.00
Z1069	0.00	83.55	73.55	0.00
Z1070	0.00	83.55	73.55	0.00
Z1071	0.00	83.55	73.55	0.00
Z1072	0.00	83.55	73.55	0.00
Z1073	0.00	83.55	73.55	0.00
Z1074	0.00	83.55	73.55	0.00
Z1075	0.00	83.55	73.55	0.00
Z1076	0.00	83.51	73.51	0.00
Z1077	0.00	83.51	73.51	0.00
Z1078	0.00	83.51	73.51	0.00
Z1079	0.00	83.51	73.51	0.00
Z1080	0.00	83.51	73.51	0.00
Z1081	0.00	83.51	73.51	0.00
Z1082	0.00	83.51	73.51	0.00
Z1083	0.00	83.51	73.51	0.00
Z1084	0.00	83.51	73.51	0.00
Z1085	0.00	83.51	73.51	0.00
Z1086	0.00	83.51	73.51	0.00
Z1087	0.00	83.51	73.51	0.00
Z1088	0.00	83.29	73.29	0.00
Z1089	0.00	83.29	73.29	0.00
Z1090	0.00	83.29	73.29	0.00
Z1091	0.00	83.29	73.29	0.00
Z1092	0.00	83.29	73.29	0.00
Z1093	0.00	83.29	73.29	0.00
Z1094	0.00	83.29	73.29	0.00
Z1095	0.00	83.29	73.29	0.00
Z1096	0.00	83.29	73.29	0.00
Z1097	0.00	83.29	73.29	0.00
Z1098	0.00	83.29	73.29	0.00
Z1099	0.00	83.29	73.29	0.00
Z1100	0.00	83.29	73.29	0.00
Z1101	0.00	83.29	73.29	0.00
Z1102	0.00	83.29	73.29	0.00
Z1103	0.00	83.29	73.29	0.00
Z1104	0.00	77.52	67.52	0.00
Z1105	0.00	77.52	67.52	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1106	0.00	77.52	67.52	0.00
Z1107	0.00	77.52	67.52	0.00
Z1108	0.00	83.29	73.29	0.00
Z1109	0.00	83.29	73.29	0.00
Z1110	0.00	83.29	73.29	0.00
Z1111	0.00	83.29	73.29	0.00
Z1112	0.00	83.29	73.29	0.00
Z1113	0.00	83.29	73.29	0.00
Z1114	0.00	83.29	73.29	0.00
Z1115	0.00	83.29	73.29	0.00
Z1116	0.00	83.29	73.29	0.00
Z1117	0.00	83.29	73.29	0.00
Z1118	0.00	83.29	73.29	0.00
Z1119	0.00	83.29	73.29	0.00
Z1120	0.00	83.29	73.29	0.00
Z1121	0.00	83.29	73.29	0.00
Z1122	0.00	83.29	73.29	0.00
Z1123	0.00	83.29	73.29	0.00
Z1124	0.00	83.29	73.29	0.00
Z1125	0.00	83.29	73.29	0.00
Z1126	0.00	80.32	70.32	0.00
Z1127	0.00	80.32	70.32	0.00
Z1128	0.00	80.32	70.32	0.00
Z1129	0.00	80.32	70.32	0.00
Z1130	0.00	80.32	70.32	0.00
Z1131	0.00	80.32	70.32	0.00
Z1132	0.00	80.32	70.32	0.00
Z1133	0.00	80.32	70.32	0.00
Z1134	0.00	80.32	70.32	0.00
Z1135	0.00	80.32	70.32	0.00
Z1136	0.00	80.32	70.32	0.00
Z1137	0.00	80.32	70.32	0.00
Z1138	0.00	80.32	70.32	0.00
Z1139	0.00	80.32	70.32	0.00
Z1140	0.00	80.32	70.32	0.00
Z1141	0.00	80.32	70.32	0.00
Z1142	0.00	83.29	73.29	0.00
Z1143	0.00	83.29	73.29	0.00
Z1144	0.00	83.29	73.29	0.00
Z1145	0.00	83.29	73.29	0.00
Z1146	0.00	83.29	73.29	0.00
Z1147	0.00	83.29	73.29	0.00
Z1148	0.00	83.29	73.29	0.00
Z1149	0.00	83.29	73.29	0.00
Z1150	0.00	83.29	73.29	0.00
Z1151	0.00	83.29	73.29	0.00
Z1152	0.00	83.29	73.29	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1153	0.00	83.29	73.29	0.00
Z1154	0.00	83.29	73.29	0.00
Z1155	0.00	83.29	73.29	0.00
Z1156	0.00	83.29	73.29	0.00
Z1157	0.00	83.29	73.29	0.00
Z1158	0.00	83.29	73.29	0.00
Z1159	0.00	80.32	70.32	0.00
Z1160	0.00	77.52	67.52	0.00
Z1161	0.00	77.52	67.52	0.00
Z1162	0.00	77.52	67.52	0.00
Z1163	0.00	77.52	67.52	0.00
Z1164	0.00	77.52	67.52	0.00
Z1166	0.00	80.32	70.32	0.00
Z1167	0.00	77.52	67.52	0.00
Z1168	0.00	77.52	67.52	0.00
Z1169	0.00	77.52	67.52	0.00
Z1170	0.00	77.52	67.52	0.00
Z1171	0.00	77.52	67.52	0.00
Z1172	0.00	81.37	71.37	0.00
Z1173	0.00	81.37	71.37	0.00
Z1174	0.00	81.37	71.37	0.00
Z1175	0.00	81.37	71.37	0.00
Z1176	0.00	81.37	71.37	0.00
Z1177	0.00	81.37	71.37	0.00
Z1178	0.00	81.37	71.37	0.00
Z1179	0.00	81.37	71.37	0.00
Z1180	0.00	81.37	71.37	0.00
Z1181	0.00	81.37	71.37	0.00
Z1182	0.00	81.37	71.37	0.00
Z1183	0.00	81.37	71.37	0.00
Z1184	0.00	81.37	71.37	0.00
Z1185	0.00	81.37	71.37	0.00
Z1186	0.00	81.37	71.37	0.00
Z1187	0.00	81.37	71.37	0.00
Z1188	0.00	81.37	71.37	0.00
Z1189	0.00	81.37	71.37	0.00
Z1190	0.00	81.37	71.37	0.00
Z1191	0.00	81.37	71.37	0.00
Z1192	0.00	81.37	71.37	0.00
Z1193	0.00	81.37	71.37	0.00
Z1194	0.00	81.37	71.37	0.00
Z1195	0.00	81.37	71.37	0.00
Z1196	0.00	81.37	71.37	0.00
Z1197	0.00	81.37	71.37	0.00
Z1198	0.00	81.37	71.37	0.00
Z1199	0.00	81.37	71.37	0.00
Z1200	0.00	81.37	71.37	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1201	0.00	81.37	71.37	0.00
Z1202	0.00	81.37	71.37	0.00
Z1203	0.00	81.37	71.37	0.00
Z1204	0.00	81.37	71.37	0.00
Z1205	0.00	81.37	71.37	0.00
Z1206	0.00	81.37	71.37	0.00
Z1207	0.00	81.37	71.37	0.00
Z1208	0.00	81.37	71.37	0.00
Z1209	0.00	81.37	71.37	0.00
Z1210	0.00	81.37	71.37	0.00
Z1211	0.00	81.37	71.37	0.00
Z1212	0.00	81.37	71.37	0.00
Z1213	0.00	83.69	73.69	0.00
Z1214	0.00	83.29	73.29	0.00
Z1215	2.72	77.04	67.04	0.00
Z1216	2.72	77.04	67.04	0.00
Z1217	2.72	71.56	61.56	0.00
Z1218	2.72	69.23	59.23	0.00
Z1219	2.72	68.29	58.29	0.00
Z1220	2.72	67.56	57.56	0.00
Z1221	2.72	66.93	56.93	0.00
Z1222	2.72	66.84	56.84	0.00
Z1223	2.72	66.72	56.72	0.00
Z1224	2.72	66.69	56.69	0.00
Z1225	0.00	57.88	47.88	0.00
Z1226	0.00	57.88	47.88	0.00
Z1227	0.00	57.84	47.84	0.00
Z1228	2.72	57.88	47.88	0.00
Z1229	2.72	57.87	47.87	0.00
Z1230	2.72	57.83	47.83	0.00
Z1231	2.72	57.83	47.83	0.00
Z1232	0.00	57.29	47.29	0.00
Z1233	2.72	57.28	47.28	0.00
Z1234	0.00	57.28	47.28	0.00
Z1235	2.72	57.26	47.26	0.00
Z1236	0.00	57.27	47.27	0.00
Z1237	2.72	57.26	47.26	0.00
Z1238	2.72	57.27	47.27	0.00
Z1239	2.72	56.02	46.02	0.00
Z1240	2.72	56.02	46.02	0.00
Z1241	2.72	56.34	46.34	0.00
Z1242	2.72	56.37	46.37	0.00
Z1243	0.00	77.52	67.52	0.00
Z1244	0.00	77.52	67.52	0.00
Z1245	0.00	77.52	67.52	0.00
Z1246	0.00	83.29	73.29	0.00
Z1247	0.00	83.29	73.29	0.00

Node Results: (continued)

Node ID	Demand LPS	Head m	Pressure m	Quality
Z1248	0.00	80.88	70.88	0.00
S1	-900.32	10.00	0.00	0.00 Reservoir

Link Results:

Link ID	Flow LPS	Velocity m/s	Unit m/s	Headloss m/km	Status
G20	900.32	3.18	12.84		Open
G1	705.78	2.50	7.96		Open
R3	194.54	1.55	16.99		Open
R4	194.54	1.55	5.11		Open
R5	194.54	1.55	5.11		Open
R6	194.54	1.55	5.11		Open
R7	194.54	1.55	5.11		Open
R8	194.54	1.55	5.12		Open
R9	194.54	1.55	5.11		Open
R10	194.54	1.55	5.11		Open
R11	194.54	1.55	5.11		Open
R12	194.54	1.55	5.11		Open
R13	194.54	1.55	5.11		Open
R14	194.54	1.55	5.11		Open
R15	194.54	1.55	5.11		Open
R16	194.54	1.55	5.11		Open
R17	194.54	1.55	5.11		Open
R18	194.54	1.55	5.11		Open
R19	194.54	1.55	5.11		Open
R20	194.54	1.55	5.11		Open
R21	194.54	1.55	5.11		Open
R22	194.54	1.55	5.11		Open
R23	194.54	1.55	5.11		Open
R24	194.54	1.55	5.11		Open
R25	194.54	1.55	5.11		Open
R26	194.54	1.55	5.11		Open
R27	194.54	1.55	5.11		Open
R28	194.54	1.55	5.11		Open
R56	0.00	0.00	0.00		Open
R57	0.00	0.00	0.00		Open
R58	0.00	0.00	0.00		Open
R59	0.00	0.00	0.00		Open
R60	0.00	0.00	0.00		Open
R61	0.00	0.00	0.00		Open
R62	0.00	0.00	0.00		Open
R63	0.00	0.00	0.00		Open
R64	0.00	0.00	0.00		Open
R65	0.00	0.00	0.00		Open
R66	0.00	0.00	0.00		Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit m/s	Headloss m/km	Status
R67	0.00	0.00	0.00	0.00	Open
R68	0.00	0.00	0.00	0.00	Open
R69	0.00	0.00	0.00	0.00	Open
R29	0.00	0.00	0.00	0.00	Open
R71	0.00	0.00	0.00	0.00	Open
R72	0.00	0.00	0.00	0.00	Open
R73	0.00	0.00	0.00	0.00	Open
R74	0.00	0.00	0.00	0.00	Open
R75	0.00	0.00	0.00	0.00	Open
R76	0.00	0.00	0.00	0.00	Open
R77	0.00	0.00	0.00	0.00	Open
R78	0.00	0.00	0.00	0.00	Open
R79	0.00	0.00	0.00	0.00	Open
R80	0.00	0.00	0.00	0.00	Open
R81	0.00	0.00	0.00	0.00	Open
R30	0.00	0.00	0.00	0.00	Open
R31	0.00	0.00	0.00	0.00	Open
R32	0.00	0.00	0.00	0.00	Open
R33	0.00	0.00	0.00	0.00	Open
R34	0.00	0.00	0.00	0.00	Open
R35	0.00	0.00	0.00	0.00	Open
R36	0.00	0.00	0.00	0.00	Open
R37	0.00	0.00	0.00	0.00	Open
R38	0.00	0.00	0.00	0.00	Open
R91	0.00	0.00	0.00	0.00	Open
R92	0.00	0.00	0.00	0.00	Open
R93	0.00	0.00	0.00	0.00	Open
R94	0.00	0.00	0.00	0.00	Open
R95	0.00	0.00	0.00	0.00	Open
R96	0.00	0.00	0.00	0.00	Open
R97	0.00	0.00	0.00	0.00	Open
R98	0.00	0.00	0.00	0.00	Open
R39	0.00	0.00	0.00	0.00	Open
R40	0.00	0.00	0.00	0.00	Open
R41	0.00	0.00	0.00	0.00	Open
R42	0.00	0.00	0.00	0.00	Open
R43	0.00	0.00	0.00	0.00	Open
R44	0.00	0.00	0.00	0.00	Open
R45	0.00	0.00	0.00	0.00	Open
R46	0.00	0.00	0.00	0.00	Open
R47	0.00	0.00	0.00	0.00	Open
R107	0.00	0.00	0.00	0.00	Open
R108	0.00	0.00	0.00	0.00	Open
R109	0.00	0.00	0.00	0.00	Open
R110	0.00	0.00	0.00	0.00	Open
R111	0.00	0.00	0.00	0.00	Open
R112	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R113	0.00	0.00	0.00	0.00	Open
R114	0.00	0.00	0.00	0.00	Open
R49	194.54	1.55	5.11	5.11	Open
R50	189.10	1.50	4.84	4.84	Open
R51	178.22	1.42	4.31	4.31	Open
R52	175.50	1.40	4.19	4.19	Open
R53	172.78	1.37	4.06	4.06	Open
R54	170.06	1.35	3.94	3.94	Open
R55	10.88	0.70	6.03	6.03	Open
R120	8.16	0.52	1.94	1.94	Open
R121	5.44	0.35	0.94	0.94	Open
R122	2.72	0.37	1.66	1.66	Open
R123	2.72	0.37	1.66	1.66	Open
R124	0.00	0.00	0.00	0.00	Open
R125	-2.72	0.37	1.66	1.66	Open
R126	2.72	0.17	0.27	0.27	Open
R127	2.72	0.37	1.66	1.66	Open
R82	156.46	1.25	3.35	3.35	Open
R83	148.30	1.18	3.02	3.02	Open
R84	159.18	1.27	3.46	3.46	Open
R85	145.58	1.16	2.91	2.91	Open
R86	142.86	1.14	2.81	2.81	Open
R87	140.14	1.12	2.71	2.71	Open
R88	137.42	1.09	2.61	2.61	Open
R89	134.70	1.07	2.51	2.51	Open
R90	131.98	1.05	2.41	2.41	Open
R99	129.26	1.03	2.31	2.31	Open
R100	123.82	0.99	25.56	25.56	Open
R101	8.16	0.52	3.69	3.69	Open
R102	5.44	0.35	0.94	0.94	Open
R103	2.72	0.17	0.27	0.27	Open
R104	2.72	0.37	1.66	1.66	Open
R105	2.72	0.37	1.66	1.66	Open
R106	2.72	0.37	1.66	1.66	Open
R115	2.72	0.37	1.66	1.66	Open
R116	2.72	0.17	0.27	0.27	Open
R117	2.72	0.37	1.66	1.66	Open
R118	10.88	0.70	6.95	6.95	Open
R119	8.16	0.52	6.49	6.49	Open
R128	2.72	0.17	0.27	0.27	Open
R129	2.72	0.37	1.66	1.66	Open
R130	2.72	0.37	1.66	1.66	Open
GI31	513.01	1.81	4.26	4.26	Open
R131	0.00	0.00	0.00	0.00	Open
R132	0.00	0.00	0.00	0.00	Open
R133	0.00	0.00	0.00	0.00	Open
R134	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R135	0.00	0.00	0.00	0.00	Open
R136	0.00	0.00	0.00	0.00	Open
R137	0.00	0.00	0.00	0.00	Open
R138	0.00	0.00	0.00	0.00	Open
R139	0.00	0.00	0.00	0.00	Open
R140	0.00	0.00	0.00	0.00	Open
R141	0.00	0.00	0.00	0.00	Open
R142	0.00	0.00	0.00	0.00	Open
R143	0.00	0.00	0.00	0.00	Open
R144	0.00	0.00	0.00	0.00	Open
R145	0.00	0.00	0.00	0.00	Open
R146	0.00	0.00	0.00	0.00	Open
R147	0.00	0.00	0.00	0.00	Open
GI48	513.01	1.81	4.26	4.26	Open
GI49	513.01	1.81	4.26	4.26	Open
R149	29.92	1.92	78.97	78.97	Open
R150	24.48	1.57	14.43	14.43	Open
R151	21.76	1.39	11.61	11.61	Open
R152	19.04	1.22	9.08	9.08	Open
R153	16.32	1.05	6.84	6.84	Open
R154	8.16	0.52	3.91	3.91	Open
R155	5.44	0.35	0.94	0.94	Open
R156	8.16	0.52	1.94	1.94	Open
R157	5.44	0.35	0.94	0.94	Open
R158	2.72	0.17	0.27	0.27	Open
R159	5.44	0.35	1.56	1.56	Open
R160	2.72	0.17	0.27	0.27	Open
R161	2.72	0.37	1.66	1.66	Open
R162	2.72	0.37	1.66	1.66	Open
R163	2.72	0.37	1.66	1.66	Open
R164	2.72	0.37	1.66	1.66	Open
R165	2.72	0.37	1.66	1.66	Open
R166	2.72	0.37	1.66	1.66	Open
R167	2.72	0.37	1.66	1.66	Open
R168	2.72	0.37	1.66	1.66	Open
R169	2.72	0.37	1.66	1.66	Open
GI70	483.09	1.71	3.79	3.79	Open
GI71	269.12	2.14	11.55	11.55	Open
GI72	193.59	1.54	5.07	5.07	Open
R172	38.08	1.24	19.41	19.41	Open
R173	35.36	1.16	5.48	5.48	Open
R174	32.64	1.07	4.73	4.73	Open
R175	29.92	0.98	4.03	4.03	Open
R176	27.20	0.89	3.39	3.39	Open
R177	24.48	0.80	2.79	2.79	Open
R178	8.16	0.52	4.14	4.14	Open
R179	5.44	0.35	0.94	0.94	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R180	2.72	0.17		0.27	Open
R181	16.32	1.05		7.29	Open
R182	13.60	0.87		4.90	Open
R183	5.44	0.35		1.44	Open
R184	2.72	0.17		0.27	Open
R185	8.16	0.52		1.94	Open
R186	5.44	0.35		0.94	Open
R187	2.72	0.17		0.27	Open
R188	2.72	0.37		1.66	Open
R189	2.72	0.37		1.66	Open
R190	2.72	0.37		1.66	Open
R191	2.72	0.37		1.66	Open
R192	2.72	0.37		1.66	Open
R193	2.72	0.37		1.66	Open
R194	2.72	0.37		1.66	Open
R195	2.72	0.37		1.66	Open
R196	2.72	0.37		1.66	Open
R197	2.72	0.37		1.66	Open
R198	2.72	0.37		1.66	Open
G199	155.51	1.24		3.31	Open
G200	147.35	1.17		3.31	Open
G201	250.35	1.28		2.67	Open
G202	236.75	1.21		2.40	Open
G203	185.07	0.94		1.49	Open
R200	13.60	0.87		31.65	Open
R201	8.16	0.52		6.33	Open
R202	5.44	0.35		0.94	Open
R203	2.72	0.17		0.27	Open
R204	5.44	0.35		0.94	Open
R205	2.72	0.17		0.27	Open
R206	2.72	0.37		1.66	Open
R207	2.72	0.37		1.66	Open
R208	2.72	0.37		1.66	Open
R209	51.68	1.69		81.71	Open
R210	40.80	1.33		7.14	Open
R211	38.08	1.24		6.28	Open
R212	29.92	0.98		4.03	Open
R213	27.20	0.89		3.39	Open
R214	24.48	0.80		2.79	Open
R215	21.76	0.71		2.25	Open
R216	19.04	0.62		1.77	Open
R217	16.32	0.53		1.34	Open
R218	8.16	0.52		2.18	Open
R219	5.44	0.35		0.94	Open
R220	2.72	0.17		0.27	Open
R221	8.16	0.52		2.05	Open
R222	5.44	0.35		0.94	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R223	2.72	0.17		0.27	Open
R224	8.16	0.52		1.99	Open
R225	5.44	0.35		0.94	Open
R226	2.72	0.17		0.27	Open
R48	0.00	0.00		0.00	Open
R70	0.00	0.00		0.00	Open
R148	0.00	0.00		0.00	Open
R170	0.00	0.00		0.00	Open
R171	0.00	0.00		0.00	Open
R199	0.00	0.00		0.00	Open
R227	0.00	0.00		0.00	Open
R228	0.00	0.00		0.00	Open
R229	0.00	0.00		0.00	Open
R230	0.00	0.00		0.00	Open
R231	0.00	0.00		0.00	Open
R232	0.00	0.00		0.00	Open
R233	0.00	0.00		0.00	Open
R234	0.00	0.00		0.00	Open
R235	0.00	0.00		0.00	Open
R236	0.00	0.00		0.00	Open
R237	0.00	0.00		0.00	Open
R238	0.00	0.00		0.00	Open
R239	0.00	0.00		0.00	Open
R240	0.00	0.00		0.00	Open
R241	0.00	0.00		0.00	Open
R242	0.00	0.00		0.00	Open
R243	0.00	0.00		0.00	Open
R244	0.00	0.00		0.00	Open
R245	0.00	0.00		0.00	Open
R246	0.00	0.00		0.00	Open
R247	0.00	0.00		0.00	Open
R248	0.00	0.00		0.00	Open
R249	0.00	0.00		0.00	Open
R250	0.00	0.00		0.00	Open
R251	0.00	0.00		0.00	Open
R252	0.00	0.00		0.00	Open
R253	0.00	0.00		0.00	Open
R254	0.00	0.00		0.00	Open
R255	0.00	0.00		0.00	Open
R256	0.00	0.00		0.00	Open
R257	0.00	0.00		0.00	Open
R258	0.00	0.00		0.00	Open
R259	0.00	0.00		0.00	Open
R260	0.00	0.00		0.00	Open
R261	0.00	0.00		0.00	Open
R263	0.00	0.00		0.00	Open
R264	0.00	0.00		0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R265	0.00	0.00	0.00	0.00	Open
R266	0.00	0.00	0.00	0.00	Open
R267	0.00	0.00	0.00	0.00	Open
R268	0.00	0.00	0.00	0.00	Open
R269	0.00	0.00	0.00	0.00	Open
R270	0.00	0.00	0.00	0.00	Open
R271	-192.77	1.53	5.02	0.00	Open
R272	0.00	0.00	0.00	0.00	Open
R273	0.00	0.00	0.00	0.00	Open
R274	0.00	0.00	0.00	0.00	Open
R275	0.00	0.00	0.00	0.00	Open
R276	0.00	0.00	0.00	0.00	Open
R277	0.00	0.00	0.00	0.00	Open
R278	0.00	0.00	0.00	0.00	Open
R279	0.00	0.00	0.00	0.00	Open
R280	0.00	0.00	0.00	0.00	Open
R281	-192.77	1.53	5.02	0.00	Open
R282	0.00	0.00	0.00	0.00	Open
R283	0.00	0.00	0.00	0.00	Open
R284	0.00	0.00	0.00	0.00	Open
R285	0.00	0.00	0.00	0.00	Open
R286	0.00	0.00	0.00	0.00	Open
R287	0.00	0.00	0.00	0.00	Open
R288	0.00	0.00	0.00	0.00	Open
R289	0.00	0.00	0.00	0.00	Open
R290	0.00	0.00	0.00	0.00	Open
R291	0.00	0.00	0.00	0.00	Open
R292	0.00	0.00	0.00	0.00	Open
R293	0.00	0.00	0.00	0.00	Open
R294	192.77	1.53	5.02	0.00	Open
R295	0.00	0.00	0.00	0.00	Open
R296	0.00	0.00	0.00	0.00	Open
R297	0.00	0.00	0.00	0.00	Open
R298	0.00	0.00	0.00	0.00	Open
R299	0.00	0.00	0.00	0.00	Open
R300	0.00	0.00	0.00	0.00	Open
R301	0.00	0.00	0.00	0.00	Open
R302	0.00	0.00	0.00	0.00	Open
R303	0.00	0.00	0.00	0.00	Open
R304	0.00	0.00	0.00	0.00	Open
R305	0.00	0.00	0.00	0.00	Open
R306	0.00	0.00	0.00	0.00	Open
R307	0.00	0.00	0.00	0.00	Open
R308	0.00	0.00	0.00	0.00	Open
R309	0.00	0.00	0.00	0.00	Open
R310	192.77	1.53	5.02	0.00	Open
R311	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R312	0.00	0.00	0.00	0.00	Open
R313	0.00	0.00	0.00	0.00	Open
R314	0.00	0.00	0.00	0.00	Open
R315	0.00	0.00	0.00	0.00	Open
R316	0.00	0.00	0.00	0.00	Open
R317	0.00	0.00	0.00	0.00	Open
R318	0.00	0.00	0.00	0.00	Open
R319	0.00	0.00	0.00	0.00	Open
R320	0.00	0.00	0.00	0.00	Open
R321	0.00	0.00	0.00	0.00	Open
R322	0.00	0.00	0.00	0.00	Open
R323	0.00	0.00	0.00	0.00	Open
R324	0.00	0.00	0.00	0.00	Open
R325	0.00	0.00	0.00	0.00	Open
R326	0.00	0.00	0.00	0.00	Open
R327	0.00	0.00	0.00	0.00	Open
R328	0.00	0.00	0.00	0.00	Open
R329	0.00	0.00	0.00	0.00	Open
R330	0.00	0.00	0.00	0.00	Open
R331	0.00	0.00	0.00	0.00	Open
R332	0.00	0.00	0.00	0.00	Open
R333	0.00	0.00	0.00	0.00	Open
R334	0.00	0.00	0.00	0.00	Open
R335	0.00	0.00	0.00	0.00	Open
R336	0.00	0.00	0.00	0.00	Open
R337	0.00	0.00	0.00	0.00	Open
R338	0.00	0.00	0.00	0.00	Open
R339	0.00	0.00	0.00	0.00	Open
R340	0.00	0.00	0.00	0.00	Open
R341	0.00	0.00	0.00	0.00	Open
R342	0.00	0.00	0.00	0.00	Open
R343	0.00	0.00	0.00	0.00	Open
R344	0.00	0.00	0.00	0.00	Open
R345	0.00	0.00	0.00	0.00	Open
R346	0.00	0.00	0.00	0.00	Open
R347	0.00	0.00	0.00	0.00	Open
R348	0.00	0.00	0.00	0.00	Open
R349	0.00	0.00	0.00	0.00	Open
R350	0.00	0.00	0.00	0.00	Open
R351	0.00	0.00	0.00	0.00	Open
R352	192.77	1.53	5.02	0.00	Open
R353	135.65	1.08	2.54	0.00	Open
R354	-103.01	0.82	1.70	0.00	Open
R355	10.88	0.70	12.17	0.00	Open
R356	8.16	0.52	1.94	0.00	Open
R357	2.72	0.17	0.27	0.00	Open
R358	2.72	0.37	1.66	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R359	2.72	0.37		1.66	Open
R360	2.72	0.37		1.66	Open
R361	46.24	1.51		18.17	Open
R362	43.52	1.42		8.04	Open
R363	40.80	1.33		7.14	Open
R364	10.88	0.70		8.33	Open
R365	8.16	0.52		1.94	Open
R366	5.44	0.35		0.94	Open
R367	2.72	0.17		0.27	Open
R368	2.72	0.17		0.30	Open
R369	29.92	1.92		26.33	Open
R370	27.20	1.74		17.53	Open
R371	24.48	1.57		14.43	Open
R372	21.76	1.39		11.61	Open
R373	8.16	0.52		2.25	Open
R374	5.44	0.35		0.94	Open
R375	2.72	0.17		0.27	Open
R376	13.60	0.87		4.90	Open
R377	10.88	0.70		3.27	Open
R378	8.16	0.52		1.94	Open
R379	2.72	0.17		0.27	Open
R380	2.72	0.37		1.66	Open
R381	2.72	0.37		1.66	Open
R382	2.72	0.37		1.66	Open
R383	2.72	0.37		1.66	Open
R384	2.72	0.37		1.66	Open
R385	2.72	0.37		1.66	Open
R386	2.72	0.37		1.66	Open
R387	2.72	0.37		1.66	Open
R388	2.72	0.37		1.66	Open
R389	32.64	2.09		104.73	Open
R390	16.32	1.05		6.84	Open
R391	13.60	0.87		4.90	Open
R392	10.88	0.70		3.27	Open
R393	8.16	0.52		1.94	Open
R394	5.44	0.35		0.94	Open
R395	2.72	0.17		0.27	Open
R396	2.72	0.37		1.66	Open
R397	2.72	0.37		1.66	Open
R398	2.72	0.37		1.66	Open
R399	2.72	0.37		1.66	Open
R400	2.72	0.17		0.27	Open
R401	16.32	1.05		12.03	Open
R402	2.72	0.37		1.66	Open
R403	2.72	0.37		1.66	Open
R404	10.88	0.70		3.27	Open
R405	2.72	0.37		1.66	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R406	2.72	0.37		1.66	Open
R407	5.44	0.35		0.94	Open
R408	2.72	0.37		1.66	Open
R409	2.72	0.17		0.27	Open
R410	10.88	0.70		3.59	Open
R411	8.16	0.52		1.94	Open
R412	5.44	0.35		0.94	Open
R413	2.72	0.17		0.27	Open
R414	2.72	0.37		1.66	Open
R415	2.72	0.37		1.66	Open
R416	2.72	0.37		1.66	Open
R417	2.72	0.37		1.66	Open
R418	2.72	0.37		1.66	Open
R419	2.72	0.37		1.66	Open
R420	2.72	0.37		1.66	Open
R421	2.72	0.37		1.66	Open
R422	2.72	0.37		1.66	Open
R423	2.72	0.37		1.66	Open
R424	2.72	0.37		1.66	Open
R425	2.72	0.37		1.66	Open
R426	2.72	0.37		1.66	Open
R427	2.72	0.37		1.66	Open
R428	2.72	0.37		1.66	Open
G429	157.87	0.80		1.10	Open
G430	144.27	0.73		1.13	Open
G431	130.05	0.66		0.76	Open
R429	46.24	0.60		3.11	Open
R431	2.72	0.17		0.44	Open
R433	-2.72	0.17		0.27	Open
R434	-5.44	0.35		0.94	Open
R435	-8.16	0.52		1.94	Open
R436	-10.88	0.70		3.93	Open
R437	-16.32	0.53		1.34	Open
R438	-19.04	0.62		1.77	Open
R439	-21.76	0.71		2.25	Open
R440	-24.48	0.80		2.79	Open
R441	-27.20	0.89		4.50	Open
R442	2.72	0.37		1.66	Open
R443	2.72	0.37		1.66	Open
R444	2.72	0.37		1.66	Open
R445	2.72	0.37		1.66	Open
R446	2.72	0.37		1.66	Open
R447	2.72	0.37		1.66	Open
R448	2.72	0.37		1.66	Open
R449	2.72	0.37		1.66	Open
R450	2.72	0.37		1.66	Open
R451	2.72	0.37		1.66	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R452	2.72	0.37	1.66	Open	
R453	2.72	0.37	1.66	Open	
R454	2.72	0.37	1.66	Open	
R455	13.60	0.87	20.71	Open	
R456	5.44	0.35	0.94	Open	
R457	2.72	0.37	1.66	Open	
R458	2.72	0.17	0.27	Open	
R459	8.16	0.52	2.24	Open	
R460	5.44	0.35	0.94	Open	
R461	2.72	0.17	0.27	Open	
R462	2.72	0.37	1.66	Open	
R463	2.72	0.37	1.66	Open	
R464	8.16	0.52	14.46	Open	
R465	5.44	0.35	0.94	Open	
R466	2.72	0.17	0.27	Open	
R467	2.72	0.37	1.66	Open	
R468	2.72	0.37	1.66	Open	
R469	38.08	0.63	8.76	Open	
R470	35.36	0.58	1.04	Open	
R471	32.64	0.54	0.90	Open	
R472	29.92	0.49	0.77	Open	
R473	2.72	0.37	1.66	Open	
R474	2.72	0.37	1.66	Open	
R475	2.72	0.37	1.66	Open	
R476	2.72	0.37	1.66	Open	
R477	27.20	0.45	0.65	Open	
R478	24.48	0.64	1.80	Open	
R479	21.76	0.57	1.30	Open	
R480	2.72	0.37	1.66	Open	
R481	2.72	0.37	1.66	Open	
R482	21.76	0.71	2.37	Open	
R483	19.04	0.62	1.77	Open	
R484	13.60	0.87	12.63	Open	
R485	8.16	0.52	1.94	Open	
R486	5.44	0.35	0.94	Open	
R487	2.72	0.17	0.27	Open	
R488	5.44	0.35	1.01	Open	
R489	2.72	0.37	1.66	Open	
R490	2.72	0.37	1.66	Open	
R491	2.72	0.17	0.27	Open	
R492	2.72	0.37	1.66	Open	
R493	2.72	0.37	1.66	Open	
R494	2.72	0.37	1.66	Open	
R495	2.72	0.37	1.66	Open	
R496	75.54	1.97	16.15	Open	
R497	29.92	1.92	83.27	Open	
R498	5.44	0.35	3.00	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R499	2.72	0.17	0.27	Open	
R500	2.72	0.37	1.66	Open	
R501	2.72	0.37	1.66	Open	
R502	24.48	1.57	14.43	Open	
R503	21.76	1.39	11.61	Open	
R504	19.04	1.22	9.08	Open	
R505	2.72	0.37	1.66	Open	
R506	2.72	0.37	1.66	Open	
R507	16.32	1.05	6.84	Open	
R508	13.60	0.87	4.90	Open	
R509	2.72	0.37	1.66	Open	
R510	2.72	0.17	0.29	Open	
R511	10.88	0.70	3.27	Open	
R512	8.16	0.52	1.94	Open	
R513	5.44	0.35	0.94	Open	
R514	2.72	0.17	0.27	Open	
R515	2.72	0.37	1.66	Open	
R516	2.72	0.37	1.66	Open	
R517	2.72	0.37	1.66	Open	
R518	45.62	1.19	5.03	Open	
R519	42.90	1.12	4.49	Open	
R520	40.18	1.05	3.98	Open	
R521	2.72	0.37	1.66	Open	
R522	2.72	0.37	1.66	Open	
R523	8.16	0.52	5.47	Open	
R524	5.44	0.35	0.94	Open	
R525	2.72	0.17	0.27	Open	
R526	2.72	0.37	1.66	Open	
R527	2.72	0.37	1.66	Open	
R528	32.02	0.83	2.62	Open	
R529	14.22	0.37	2.84	Open	
R530	11.50	0.30	0.41	Open	
R531	8.78	0.23	0.25	Open	
R532	6.06	0.16	0.13	Open	
R533	3.34	0.09	0.05	Open	
R534	0.62	0.02	0.00	Open	
R535	2.72	0.37	1.66	Open	
R536	2.72	0.37	1.66	Open	
R537	2.72	0.37	1.66	Open	
R538	2.72	0.37	1.66	Open	
R539	2.72	0.37	1.66	Open	
R540	32.64	1.07	28.43	Open	
R541	8.16	0.52	2.07	Open	
R542	5.44	0.35	0.94	Open	
R543	2.72	0.17	0.27	Open	
R544	2.72	0.37	1.66	Open	
R545	2.72	0.37	1.66	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R546	24.48	0.80	2.79	Open	
R547	21.76	0.71	2.25	Open	
R548	19.04	0.62	1.77	Open	
R549	8.16	0.52	4.50	Open	
R550	5.44	0.35	0.94	Open	
R551	2.72	0.17	0.27	Open	
R552	2.72	0.37	1.66	Open	
R553	2.72	0.37	1.66	Open	
R554	2.72	0.37	1.66	Open	
R555	2.72	0.37	1.66	Open	
R556	2.72	0.37	1.66	Open	
R557	10.88	0.70	3.74	Open	
R558	8.16	0.52	1.94	Open	
R559	5.44	0.35	0.94	Open	
R560	2.72	0.17	0.27	Open	
R561	2.72	0.37	1.66	Open	
R562	2.72	0.37	1.66	Open	
R563	2.72	0.37	1.66	Open	
R564	213.96	1.09	2.14	Open	
G565	83.81	0.43	0.33	Open	
R565	21.76	1.39	25.30	Open	
R566	13.60	0.87	4.90	Open	
R567	10.88	0.70	3.27	Open	
R568	2.72	0.17	0.30	Open	
R569	8.16	0.52	1.94	Open	
R570	5.44	0.35	0.94	Open	
R571	2.72	0.17	0.27	Open	
R572	8.16	0.52	6.67	Open	
R573	5.44	0.35	0.94	Open	
R574	2.72	0.37	1.66	Open	
R575	2.72	0.37	1.66	Open	
R576	2.72	0.37	1.66	Open	
R577	2.72	0.37	1.66	Open	
R578	2.72	0.37	1.66	Open	
R579	2.72	0.17	0.40	Open	
G580	62.05	0.32	0.19	Open	
G581	17.87	0.09	0.02	Open	
R580	2.72	0.37	1.66	Open	
R581	2.72	0.37	1.66	Open	
R582	2.72	0.37	1.66	Open	
R583	2.72	0.37	1.66	Open	
R584	2.72	0.37	1.66	Open	
R585	2.72	0.37	1.66	Open	
R586	2.72	0.37	1.66	Open	
R587	2.72	0.37	1.66	Open	
R588	2.72	0.37	1.66	Open	
R589	2.72	0.37	1.66	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R590	2.72	0.37	1.66	Open	
R591	2.72	0.37	1.66	Open	
R592	2.72	0.37	1.66	Open	
R593	2.72	0.37	1.66	Open	
R594	2.72	0.37	1.66	Open	
R595	2.72	0.37	1.66	Open	
R596	44.19	0.73	10.62	Open	
R597	41.47	0.69	1.40	Open	
R598	38.75	0.64	1.23	Open	
R599	2.72	0.17	0.42	Open	
R600	36.03	0.60	1.08	Open	
R601	-7.49	0.12	0.06	Open	
R602	5.44	0.35	1.46	Open	
R603	2.72	0.17	0.27	Open	
R604	43.52	0.72	11.01	Open	
R605	40.80	0.67	1.36	Open	
R606	13.60	0.44	1.32	Open	
R607	10.88	0.36	0.64	Open	
R608	8.16	0.27	0.38	Open	
R609	2.72	0.17	0.43	Open	
R610	27.20	0.45	0.65	Open	
R611	24.48	0.40	0.54	Open	
R612	13.60	0.44	1.44	Open	
R613	10.88	0.36	0.64	Open	
R614	8.16	0.52	4.14	Open	
R615	2.72	0.17	0.27	Open	
R616	10.88	0.36	3.28	Open	
R617	8.16	0.27	0.38	Open	
R618	5.44	0.35	1.25	Open	
R619	2.72	0.17	0.27	Open	
R620	-12.93	0.21	0.17	Open	
R621	-15.65	0.26	0.24	Open	
R622	-29.25	0.48	0.74	Open	
R623	45.57	0.75	2.23	Open	
R624	40.13	0.66	1.32	Open	
R625	2.72	0.37	1.66	Open	
R627	2.72	0.37	1.66	Open	
R628	13.60	0.87	17.32	Open	
R629	5.44	0.35	2.93	Open	
R630	8.16	0.52	1.94	Open	
R631	2.72	0.37	1.66	Open	
R632	2.72	0.37	1.66	Open	
R633	2.72	0.17	0.27	Open	
R634	2.72	0.37	1.66	Open	
R635	2.72	0.17	0.27	Open	
R636	5.44	0.35	2.76	Open	
R637	2.72	0.17	0.27	Open	

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R638	10.88	0.70	3.62	Open	Open
R639	8.16	0.52	1.94	Open	Open
R640	2.72	0.17	0.27	Open	Open
R641	2.72	0.37	1.66	Open	Open
R642	2.72	0.37	1.66	Open	Open
R643	2.72	0.37	1.66	Open	Open
R644	-27.71	0.14	0.04	Open	Open
R645	-73.95	0.38	0.26	Open	Open
R646	-101.15	0.52	0.47	Open	Open
R647	-112.03	0.57	0.49	Open	Open
R648	-173.80	0.89	1.32	Open	Open
R649	-184.68	0.94	1.48	Open	Open
R650	-250.75	1.28	2.68	Open	Open
R651	-269.79	1.37	3.09	Open	Open
R652	288.83	1.47	3.53	Open	Open
R653	305.15	1.55	3.93	Open	Open
R654	337.79	1.72	4.79	Open	Open
R655	2.72	0.37	1.66	Open	Open
R656	2.72	0.37	1.66	Open	Open
R657	5.44	0.35	1.21	Open	Open
R658	2.72	0.37	1.66	Open	Open
R659	2.72	0.37	1.66	Open	Open
R660	2.72	0.37	1.66	Open	Open
R661	2.72	0.37	1.66	Open	Open
R662	2.72	0.37	1.66	Open	Open
R663	2.72	0.37	1.66	Open	Open
R664	2.72	0.37	1.66	Open	Open
R665	2.72	0.37	1.66	Open	Open
R666	2.72	0.37	1.66	Open	Open
R667	2.72	0.37	1.66	Open	Open
R668	32.64	2.09	33.92	Open	Open
R669	29.92	1.92	20.92	Open	Open
R670	27.20	1.74	17.53	Open	Open
R671	5.44	0.35	1.00	Open	Open
R672	2.72	0.17	0.27	Open	Open
R673	21.76	1.39	11.61	Open	Open
R674	19.04	1.22	9.08	Open	Open
R675	16.32	1.05	6.84	Open	Open
R676	13.60	0.87	4.90	Open	Open
R677	10.88	0.70	3.27	Open	Open
R678	8.16	0.52	1.94	Open	Open
R679	5.44	0.35	0.94	Open	Open
R680	2.72	0.17	0.27	Open	Open
R681	2.72	0.37	1.66	Open	Open
R682	2.72	0.37	1.66	Open	Open
R683	16.32	1.05	28.62	Open	Open
R684	8.16	0.52	16.67	Open	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R685	5.44	0.35	0.94	Open	Open
R686	2.72	0.17	0.27	Open	Open
R687	8.16	0.52	1.94	Open	Open
R688	5.44	0.35	0.94	Open	Open
R689	2.72	0.17	0.27	Open	Open
R690	2.72	0.37	1.66	Open	Open
R691	2.72	0.37	1.66	Open	Open
R692	16.32	1.05	6.84	Open	Open
R693	13.60	0.87	4.90	Open	Open
R694	10.88	0.70	3.27	Open	Open
R695	8.16	0.52	1.94	Open	Open
R696	2.72	0.17	0.27	Open	Open
R697	5.44	0.35	1.19	Open	Open
R698	2.72	0.17	0.27	Open	Open
R699	2.72	0.37	1.66	Open	Open
R700	2.72	0.37	1.66	Open	Open
R701	2.72	0.37	1.66	Open	Open
R702	2.72	0.37	1.66	Open	Open
R703	2.72	0.37	1.66	Open	Open
R704	19.04	1.22	24.23	Open	Open
R705	16.32	1.05	8.06	Open	Open
R706	16.32	1.05	6.84	Open	Open
R707	5.44	0.35	0.99	Open	Open
R708	2.72	0.17	0.27	Open	Open
R709	10.88	0.70	3.27	Open	Open
R710	8.16	0.52	1.94	Open	Open
R711	5.44	0.35	1.21	Open	Open
R712	2.72	0.17	0.27	Open	Open
R713	2.72	0.37	1.66	Open	Open
R714	2.72	0.37	1.66	Open	Open
R715	2.72	0.37	1.66	Open	Open
R716	2.72	0.37	1.66	Open	Open
R626	27.20	0.89	30.21	Open	Open
R717	5.44	0.35	1.40	Open	Open
R718	-2.72	0.37	1.66	Open	Open
R719	2.72	0.17	0.27	Open	Open
R720	21.76	0.71	2.25	Open	Open
R721	19.04	0.62	1.77	Open	Open
R722	16.32	0.53	1.34	Open	Open
R723	13.60	0.44	0.96	Open	Open
R724	10.88	0.70	3.54	Open	Open
R725	8.16	0.52	1.94	Open	Open
R726	8.16	0.52	2.49	Open	Open
R727	5.44	0.35	0.94	Open	Open
R728	2.72	0.17	0.27	Open	Open
R729	2.72	0.37	1.66	Open	Open
R730	2.72	0.37	1.66	Open	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R731	2.72	0.37		1.66	Open
R732	2.72	0.37		1.66	Open
R733	2.72	0.37		1.66	Open
R734	2.72	0.37		1.66	Open
R735	2.72	0.37		1.66	Open
R736	46.24	1.51		33.62	Open
R737	27.20	1.74		58.45	Open
R738	24.48	1.57		14.43	Open
R739	10.88	0.70		3.79	Open
R740	8.16	0.52		1.94	Open
R741	5.44	0.35		0.94	Open
R742	2.72	0.17		0.29	Open
R743	2.72	0.17		0.27	Open
R744	13.60	0.87		4.90	Open
R745	10.88	0.70		3.27	Open
R746	8.16	0.52		1.94	Open
R747	5.44	0.35		0.94	Open
R748	2.72	0.17		0.27	Open
R749	2.72	0.37		1.66	Open
R750	2.72	0.37		1.66	Open
R751	2.72	0.37		1.66	Open
R752	2.72	0.37		1.66	Open
R753	2.72	0.37		1.66	Open
R754	2.72	0.37		1.66	Open
R755	2.72	0.37		1.66	Open
R756	2.72	0.37		1.66	Open
R757	2.72	0.37		1.66	Open
R758	2.72	0.37		1.66	Open
R759	2.72	0.37		1.66	Open
R760	2.72	0.37		1.66	Open
R761	19.04	0.62		1.77	Open
R762	16.32	0.53		1.34	Open
R763	13.60	0.44		0.96	Open
R764	10.88	0.70		7.55	Open
R765	8.16	0.52		1.94	Open
R766	5.44	0.35		1.12	Open
R767	2.72	0.17		0.27	Open
R768	2.72	0.17		0.27	Open
R769	61.77	1.02		4.86	Open
R770	59.05	0.98		2.67	Open
R771	23.69	0.39		0.51	Open
R772	20.97	0.35		0.41	Open
R773	18.25	0.30		0.32	Open
R774	15.53	0.26		0.24	Open
R775	12.81	0.21		0.17	Open
R776	10.09	0.17		0.11	Open
R777	7.37	0.12		0.06	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R778	4.65	0.08		0.03	Open
R779	-17.11	0.45		0.93	Open
R780	-19.83	0.52		1.10	Open
R781	-22.55	0.59		1.39	Open
R782	-25.27	0.66		1.70	Open
R783	-27.99	0.73		6.60	Open
R785	63.35	1.05		3.04	Open
R785	2.72	0.37		1.66	Open
R786	2.72	0.37		1.66	Open
R787	2.72	0.37		1.66	Open
R788	2.72	0.37		1.66	Open
R789	2.72	0.37		1.66	Open
R790	2.72	0.37		1.66	Open
R791	2.72	0.37		1.66	Open
R792	2.72	0.37		1.66	Open
R793	2.72	0.37		1.66	Open
R794	2.72	0.37		1.66	Open
R795	2.72	0.37		1.66	Open
R796	2.72	0.37		1.66	Open
R797	2.72	0.37		1.66	Open
R799	66.07	1.09		13.46	Open
R800	21.76	0.71		10.39	Open
R801	19.04	0.62		1.77	Open
R802	16.32	0.53		1.34	Open
R803	13.60	0.87		5.69	Open
R804	10.88	0.70		3.27	Open
R805	8.16	0.52		1.94	Open
R806	5.44	0.35		0.94	Open
R807	2.72	0.17		0.27	Open
R808	2.72	0.17		0.30	Open
R809	2.72	0.37		1.66	Open
R810	2.72	0.37		1.66	Open
R811	2.72	0.37		1.66	Open
R812	2.72	0.37		1.66	Open
R813	2.72	0.37		1.66	Open
R814	2.72	0.37		1.66	Open
R784	2.72	0.37		1.66	Open
R815	2.72	0.37		1.66	Open
R816	2.72	0.37		1.66	Open
R817	2.72	0.37		1.66	Open
R818	2.72	0.37		1.66	Open
R819	2.72	0.37		1.66	Open
R820	2.72	0.37		1.66	Open
R821	2.72	0.37		1.66	Open
R822	2.72	0.37		1.66	Open
R823	2.72	0.37		1.66	Open
R824	2.72	0.37		1.66	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R825	35.36	0.58	1.30	Open	Open
R826	32.64	0.54	0.90	Open	Open
R827	29.92	0.49	0.77	Open	Open
R828	27.20	0.71	2.65	Open	Open
R829	24.48	0.64	1.61	Open	Open
R830	21.76	0.57	1.30	Open	Open
R831	5.44	0.35	2.28	Open	Open
R832	16.32	0.53	1.42	Open	Open
R833	2.72	0.17	0.30	Open	Open
R834	13.60	0.44	0.96	Open	Open
R835	10.88	0.36	0.64	Open	Open
R836	8.16	0.52	2.11	Open	Open
R837	5.44	0.35	0.94	Open	Open
R838	2.72	0.17	0.27	Open	Open
R839	35.36	0.92	3.56	Open	Open
R840	32.64	0.85	2.72	Open	Open
R841	29.92	0.78	2.32	Open	Open
R842	27.20	0.71	1.95	Open	Open
R843	24.48	0.64	1.61	Open	Open
R844	16.32	0.53	1.59	Open	Open
R845	13.60	0.87	5.99	Open	Open
R846	10.88	0.70	3.27	Open	Open
R847	8.16	0.52	1.94	Open	Open
R848	5.44	0.35	0.94	Open	Open
R849	2.72	0.17	0.27	Open	Open
R850	8.16	0.52	2.02	Open	Open
R851	5.44	0.35	0.94	Open	Open
R852	2.72	0.17	0.27	Open	Open
R853	2.72	0.37	1.66	Open	Open
R854	2.72	0.37	1.66	Open	Open
R855	2.72	0.37	1.66	Open	Open
R856	2.72	0.37	1.66	Open	Open
R857	2.72	0.37	1.66	Open	Open
R858	2.72	0.37	1.66	Open	Open
R859	2.72	0.37	1.66	Open	Open
R860	2.72	0.37	1.66	Open	Open
R861	2.72	0.37	1.66	Open	Open
R862	2.72	0.37	1.66	Open	Open
R863	2.72	0.37	1.66	Open	Open
R864	62.31	0.50	0.60	Open	Open
R865	0.00	0.00	0.00	Open	Open
R866	0.00	0.00	0.00	Open	Open
R867	0.00	0.00	0.00	Open	Open
R868	0.00	0.00	0.00	Open	Open
R869	0.00	0.00	0.00	Open	Open
R870	0.00	0.00	0.00	Open	Open
R871	0.00	0.00	0.00	Open	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R872	0.00	0.00	0.00	0.00	Open
R873	0.00	0.00	0.00	0.00	Open
R874	0.00	0.00	0.00	0.00	Open
R875	0.00	0.00	0.00	0.00	Open
R876	0.00	0.00	0.00	0.00	Open
R877	0.00	0.00	0.00	0.00	Open
R878	62.31	0.50	0.57	0.57	Open
R879	57.84	0.46	0.50	0.50	Open
R880	62.31	0.50	0.57	0.57	Open
R881	4.47	0.15	0.23	0.23	Open
R882	0.00	0.00	0.00	0.00	Open
R883	0.00	0.00	0.00	0.00	Open
R884	0.00	0.00	0.00	0.00	Open
R885	0.00	0.00	0.00	0.00	Open
R886	0.00	0.00	0.00	0.00	Open
R887	0.00	0.00	0.00	0.00	Open
R888	0.00	0.00	0.00	0.00	Open
R889	4.47	0.15	0.13	0.13	Open
R890	4.47	0.15	0.13	0.13	Open
R891	4.47	0.15	0.13	0.13	Open
R896	-4.47	0.15	0.35	0.35	Open
R897	-4.47	0.15	0.13	0.13	Open
R898	-4.47	0.15	0.13	0.13	Open
R899	-4.47	0.15	0.13	0.13	Open
R900	-4.47	0.15	0.13	0.13	Open
R901	-4.47	0.15	0.13	0.13	Open
R902	-4.47	0.15	0.13	0.13	Open
R903	51.39	0.41	0.40	0.40	Open
R904	-62.31	0.81	1.88	1.88	Open
R905	-62.31	0.81	1.65	1.65	Open
R906	-62.31	0.50	0.57	0.57	Open
R907	-51.39	0.41	0.40	0.40	Open
R908	0.00	0.00	0.00	0.00	Open
R909	0.00	0.00	0.00	0.00	Open
R910	0.00	0.00	0.00	0.00	Open
R911	0.00	0.00	0.00	0.00	Open
R912	10.92	0.14	0.55	0.55	Open
R913	10.92	0.14	0.07	0.07	Open
R914	0.00	0.00	0.00	0.00	Open
R915	10.92	0.14	0.07	0.07	Open
R916	10.92	0.14	0.07	0.07	Open
R917	10.92	0.14	0.07	0.07	Open
R918	10.92	0.14	0.07	0.07	Open
R919	10.92	0.14	0.07	0.07	Open
R920	10.92	0.14	0.07	0.07	Open
R921	10.92	0.14	0.07	0.07	Open
R922	10.92	0.14	0.07	0.07	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R923	0.00	0.00	0.00	0.00	Open
R924	0.00	0.00	0.00	0.00	Open
R925	0.00	0.00	0.00	0.00	Open
R926	0.00	0.00	0.00	0.00	Open
R927	0.00	0.00	0.00	0.00	Open
R928	0.00	0.00	0.00	0.00	Open
R929	0.00	0.00	0.00	0.00	Open
R930	-10.92	0.14	0.21	0.21	Open
R931	-10.92	0.14	0.07	0.07	Open
R932	-10.92	0.14	0.07	0.07	Open
R933	-10.92	0.14	0.07	0.07	Open
R934	-10.92	0.14	0.07	0.07	Open
R935	-10.92	0.14	0.07	0.07	Open
R936	-10.92	0.14	0.07	0.07	Open
R937	-10.92	0.14	0.07	0.07	Open
R938	-10.92	0.14	0.07	0.07	Open
R939	-10.92	0.14	0.07	0.07	Open
R940	-10.92	0.14	0.07	0.07	Open
R941	-10.92	0.14	0.07	0.07	Open
R942	-10.92	0.14	0.07	0.07	Open
R943	-10.92	0.14	0.07	0.07	Open
R944	-10.92	0.14	0.07	0.07	Open
R945	-10.92	0.14	0.07	0.07	Open
R946	-10.92	0.14	0.07	0.07	Open
R947	-10.92	0.14	0.07	0.07	Open
R948	-10.92	0.14	0.07	0.07	Open
R949	-10.92	0.14	0.07	0.07	Open
R950	-10.92	0.14	0.07	0.07	Open
R951	-10.92	0.14	0.07	0.07	Open
R952	-10.92	0.14	0.07	0.07	Open
R953	-10.92	0.14	0.07	0.07	Open
R954	0.00	0.00	0.00	0.00	Open
R955	0.00	0.00	0.00	0.00	Open
R956	0.00	0.00	0.00	0.00	Open
R957	0.00	0.00	0.00	0.00	Open
R958	0.00	0.00	0.00	0.00	Open
R959	0.00	0.00	0.00	0.00	Open
R960	0.00	0.00	0.00	0.00	Open
R961	0.00	0.00	0.00	0.00	Open
R962	0.00	0.00	0.00	0.00	Open
R963	0.00	0.00	0.00	0.00	Open
R964	0.00	0.00	0.00	0.00	Open
R965	0.00	0.00	0.00	0.00	Open
R966	0.00	0.00	0.00	0.00	Open
R967	0.00	0.00	0.00	0.00	Open
R968	0.00	0.00	0.00	0.00	Open
R969	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R970	0.00	0.00	0.00	0.00	Open
R971	0.00	0.00	0.00	0.00	Open
R972	0.00	0.00	0.00	0.00	Open
R973	0.00	0.00	0.00	0.00	Open
R974	0.00	0.00	0.00	0.00	Open
R975	0.00	0.00	0.00	0.00	Open
R976	0.00	0.00	0.00	0.00	Open
R977	0.00	0.00	0.00	0.00	Open
R978	0.00	0.00	0.00	0.00	Open
R979	0.00	0.00	0.00	0.00	Open
R980	0.00	0.00	0.00	0.00	Open
R981	0.00	0.00	0.00	0.00	Open
R982	0.00	0.00	0.00	0.00	Open
R983	0.00	0.00	0.00	0.00	Open
R984	0.00	0.00	0.00	0.00	Open
R985	0.00	0.00	0.00	0.00	Open
R986	0.00	0.00	0.00	0.00	Open
R987	0.00	0.00	0.00	0.00	Open
R988	0.00	0.00	0.00	0.00	Open
R989	0.00	0.00	0.00	0.00	Open
R990	0.00	0.00	0.00	0.00	Open
R991	0.00	0.00	0.00	0.00	Open
R992	0.00	0.00	0.00	0.00	Open
R993	0.00	0.00	0.00	0.00	Open
R994	0.00	0.00	0.00	0.00	Open
R995	0.00	0.00	0.00	0.00	Open
R996	0.00	0.00	0.00	0.00	Open
R997	0.00	0.00	0.00	0.00	Open
R998	0.00	0.00	0.00	0.00	Open
R999	0.00	0.00	0.00	0.00	Open
R1000	0.00	0.00	0.00	0.00	Open
R1001	0.00	0.00	0.00	0.00	Open
R1002	0.00	0.00	0.00	0.00	Open
R1003	0.00	0.00	0.00	0.00	Open
R892	0.00	0.00	0.00	0.00	Open
R893	0.00	0.00	0.00	0.00	Open
R894	0.00	0.00	0.00	0.00	Open
R895	0.00	0.00	0.00	0.00	Open
R1004	0.00	0.00	0.00	0.00	Open
R1005	0.00	0.00	0.00	0.00	Open
R1006	0.00	0.00	0.00	0.00	Open
R1007	0.00	0.00	0.00	0.00	Open
R1008	0.00	0.00	0.00	0.00	Open
R1009	0.00	0.00	0.00	0.00	Open
R1010	0.00	0.00	0.00	0.00	Open
R1011	0.00	0.00	0.00	0.00	Open
R1012	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1013	0.00	0.00	0.00	0.00	Open
R1014	0.00	0.00	0.00	0.00	Open
R1015	0.00	0.00	0.00	0.00	Open
R1016	0.00	0.00	0.00	0.00	Open
R1017	0.00	0.00	0.00	0.00	Open
R1018	0.00	0.00	0.00	0.00	Open
R1019	0.00	0.00	0.00	0.00	Open
R1020	0.00	0.00	0.00	0.00	Open
R1021	0.00	0.00	0.00	0.00	Open
R1022	0.00	0.00	0.00	0.00	Open
R1023	0.00	0.00	0.00	0.00	Open
R1024	0.00	0.00	0.00	0.00	Open
R1025	0.00	0.00	0.00	0.00	Open
R1026	0.00	0.00	0.00	0.00	Open
R1027	0.00	0.00	0.00	0.00	Open
R1028	0.00	0.00	0.00	0.00	Open
R1029	0.00	0.00	0.00	0.00	Open
R1030	0.00	0.00	0.00	0.00	Open
R1031	0.00	0.00	0.00	0.00	Open
R1032	0.00	0.00	0.00	0.00	Open
R1033	0.00	0.00	0.00	0.00	Open
R1034	0.00	0.00	0.00	0.00	Open
R1035	0.00	0.00	0.00	0.00	Open
R1036	0.00	0.00	0.00	0.00	Open
R1037	0.00	0.00	0.00	0.00	Open
R1038	0.00	0.00	0.00	0.00	Open
R1039	0.00	0.00	0.00	0.00	Open
R1040	0.00	0.00	0.00	0.00	Open
R1041	0.00	0.00	0.00	0.00	Open
R1042	0.00	0.00	0.00	0.00	Open
R1043	0.00	0.00	0.00	0.00	Open
R1044	0.00	0.00	0.00	0.00	Open
R1045	0.00	0.00	0.00	0.00	Open
R1046	0.00	0.00	0.00	0.00	Open
R1047	0.00	0.00	0.00	0.00	Open
R1048	0.00	0.00	0.00	0.00	Open
R1049	0.00	0.00	0.00	0.00	Open
R1050	0.00	0.00	0.00	0.00	Open
R1051	0.00	0.00	0.00	0.00	Open
R1052	0.00	0.00	0.00	0.00	Open
R1053	0.00	0.00	0.00	0.00	Open
R1054	0.00	0.00	0.00	0.00	Open
R1055	0.00	0.00	0.00	0.00	Open
R1056	0.00	0.00	0.00	0.00	Open
R1057	0.00	0.00	0.00	0.00	Open
R1058	0.00	0.00	0.00	0.00	Open
R1059	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1060	0.00	0.00	0.00	0.00	Open
R1061	0.00	0.00	0.00	0.00	Open
R1062	0.00	0.00	0.00	0.00	Open
R1063	0.00	0.00	0.00	0.00	Open
R1064	0.00	0.00	0.00	0.00	Open
R1065	0.00	0.00	0.00	0.00	Open
R1066	0.00	0.00	0.00	0.00	Open
R1067	0.00	0.00	0.00	0.00	Open
R1068	0.00	0.00	0.00	0.00	Open
R1069	0.00	0.00	0.00	0.00	Open
R1070	0.00	0.00	0.00	0.00	Open
R1071	0.00	0.00	0.00	0.00	Open
R1072	0.00	0.00	0.00	0.00	Open
R1073	0.00	0.00	0.00	0.00	Open
R1074	0.00	0.00	0.00	0.00	Open
R1075	0.00	0.00	0.00	0.00	Open
R1076	0.00	0.00	0.00	0.00	Open
R1077	0.00	0.00	0.00	0.00	Open
R1079	0.00	0.00	0.00	0.00	Open
R1080	0.00	0.00	0.00	0.00	Open
R1082	0.00	0.00	0.00	0.00	Open
R1083	0.00	0.00	0.00	0.00	Open
R1084	0.00	0.00	0.00	0.00	Open
R1085	0.00	0.00	0.00	0.00	Open
R1086	0.00	0.00	0.00	0.00	Open
R1088	0.00	0.00	0.00	0.00	Open
R1089	0.00	0.00	0.00	0.00	Open
R1090	0.00	0.00	0.00	0.00	Open
R1091	0.00	0.00	0.00	0.00	Open
R1092	0.00	0.00	0.00	0.00	Open
R1093	0.00	0.00	0.00	0.00	Open
R1095	0.00	0.00	0.00	0.00	Open
R1096	0.00	0.00	0.00	0.00	Open
R1097	0.00	0.00	0.00	0.00	Open
R1099	0.00	0.00	0.00	0.00	Open
R1100	0.00	0.00	0.00	0.00	Open
R1101	0.00	0.00	0.00	0.00	Open
R1102	0.00	0.00	0.00	0.00	Open
R1103	0.00	0.00	0.00	0.00	Open
R1104	0.00	0.00	0.00	0.00	Open
R1105	0.00	0.00	0.00	0.00	Open
R1106	0.00	0.00	0.00	0.00	Open
R1107	0.00	0.00	0.00	0.00	Open
R1108	0.00	0.00	0.00	0.00	Open
R1109	0.00	0.00	0.00	0.00	Open
R1110	0.00	0.00	0.00	0.00	Open
R1111	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1112	0.00	0.00	0.00	0.00	Open
R1113	0.00	0.00	0.00	0.00	Open
R1114	0.00	0.00	0.00	0.00	Open
R1115	0.00	0.00	0.00	0.00	Open
R1116	0.00	0.00	0.00	0.00	Open
R1117	0.00	0.00	0.00	0.00	Open
R1118	0.00	0.00	0.00	0.00	Open
R1119	0.00	0.00	0.00	0.00	Open
R1120	0.00	0.00	0.00	0.00	Open
R1121	0.00	0.00	0.00	0.00	Open
R1122	0.00	0.00	0.00	0.00	Open
R1123	0.00	0.00	0.00	0.00	Open
R1124	0.00	0.00	0.00	0.00	Open
R1125	0.00	0.00	0.00	0.00	Open
R1126	0.00	0.00	0.00	0.00	Open
R1127	0.00	0.00	0.00	0.00	Open
R1128	0.00	0.00	0.00	0.00	Open
R1129	0.00	0.00	0.00	0.00	Open
R1130	0.00	0.00	0.00	0.00	Open
R1131	0.00	0.00	0.00	0.00	Open
R1132	0.00	0.00	0.00	0.00	Open
R1133	0.00	0.00	0.00	0.00	Open
R1134	0.00	0.00	0.00	0.00	Open
R1135	0.00	0.00	0.00	0.00	Open
R1136	0.00	0.00	0.00	0.00	Open
R1137	0.00	0.00	0.00	0.00	Open
R1138	0.00	0.00	0.00	0.00	Open
R1139	0.00	0.00	0.00	0.00	Open
R1140	0.00	0.00	0.00	0.00	Open
R1141	0.00	0.00	0.00	0.00	Open
R1142	0.00	0.00	0.00	0.00	Open
R1143	0.00	0.00	0.00	0.00	Open
R1144	0.00	0.00	0.00	0.00	Open
R1145	0.00	0.00	0.00	0.00	Open
R1146	0.00	0.00	0.00	0.00	Open
R1147	0.00	0.00	0.00	0.00	Open
R1148	0.00	0.00	0.00	0.00	Open
R1149	0.00	0.00	0.00	0.00	Open
R1150	0.00	0.00	0.00	0.00	Open
R1151	0.00	0.00	0.00	0.00	Open
R1152	0.00	0.00	0.00	0.00	Open
R1153	0.00	0.00	0.00	0.00	Open
R1154	0.00	0.00	0.00	0.00	Open
R1155	0.00	0.00	0.00	0.00	Open
R1156	0.00	0.00	0.00	0.00	Open
R1157	0.00	0.00	0.00	0.00	Open
R1158	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit	Headloss m/km	Status
R1159	0.00	0.00	0.00	0.00	Open
R1162	0.00	0.00	0.00	0.00	Open
R1163	0.00	0.00	0.00	0.00	Open
R1164	0.00	0.00	0.00	0.00	Open
R1165	0.00	0.00	0.00	0.00	Open
R1166	0.00	0.00	0.00	0.00	Open
R1167	0.00	0.00	0.00	0.00	Open
R1168	0.00	0.00	0.00	0.00	Open
R1169	0.00	0.00	0.00	0.00	Open
R1170	0.00	0.00	0.00	0.00	Open
R1171	0.00	0.00	0.00	0.00	Open
R1172	0.00	0.00	0.00	0.00	Open
R1173	0.00	0.00	0.00	0.00	Open
R1174	0.00	0.00	0.00	0.00	Open
R1175	0.00	0.00	0.00	0.00	Open
R1176	0.00	0.00	0.00	0.00	Open
R1177	0.00	0.00	0.00	0.00	Open
R1178	0.00	0.00	0.00	0.00	Open
R1179	0.00	0.00	0.00	0.00	Open
R1180	0.00	0.00	0.00	0.00	Open
R1181	0.00	0.00	0.00	0.00	Open
R1182	0.00	0.00	0.00	0.00	Open
R1183	0.00	0.00	0.00	0.00	Open
R1184	0.00	0.00	0.00	0.00	Open
R1185	0.00	0.00	0.00	0.00	Open
R1186	0.00	0.00	0.00	0.00	Open
R1187	0.00	0.00	0.00	0.00	Open
R1188	0.00	0.00	0.00	0.00	Open
R1189	0.00	0.00	0.00	0.00	Open
R1190	0.00	0.00	0.00	0.00	Open
R1191	0.00	0.00	0.00	0.00	Open
R1192	0.00	0.00	0.00	0.00	Open
R1193	0.00	0.00	0.00	0.00	Open
R1194	0.00	0.00	0.00	0.00	Open
R1195	0.00	0.00	0.00	0.00	Open
R1196	0.00	0.00	0.00	0.00	Open
R1197	0.00	0.00	0.00	0.00	Open
R1198	0.00	0.00	0.00	0.00	Open
R1199	0.00	0.00	0.00	0.00	Open
R1200	0.00	0.00	0.00	0.00	Open
R1201	0.00	0.00	0.00	0.00	Open
R1202	0.00	0.00	0.00	0.00	Open
R1203	0.00	0.00	0.00	0.00	Open
R1204	0.00	0.00	0.00	0.00	Open
R1205	0.00	0.00	0.00	0.00	Open
R1206	0.00	0.00	0.00	0.00	Open
R1207	0.00	0.00	0.00	0.00	Open

Link Results: (continued)

Link ID	Flow LPS	Velocity m/s	Unit Headloss m/km	Status
R1208	2.72	0.37	1.66	Open
R1209	2.72	0.37	1.66	Open
R1210	2.72	0.37	1.66	Open
R1211	2.72	0.37	1.66	Open
R1212	2.72	0.37	1.66	Open
R1213	2.72	0.37	1.66	Open
R1214	2.72	0.37	1.66	Open
R1215	2.72	0.37	1.66	Open
R1216	2.72	0.37	1.66	Open
R1217	2.72	0.37	1.66	Open
R1218	10.88	0.70	9.81	Open
R1219	5.44	0.35	0.94	Open
R1220	2.72	0.17	0.27	Open
R1221	2.72	0.37	1.66	Open
R1222	5.44	0.35	1.24	Open
R1223	2.72	0.37	1.66	Open
R1224	2.72	0.37	1.66	Open
R1225	10.88	0.70	19.75	Open
R1226	8.16	0.52	1.94	Open
R1227	5.44	0.35	0.94	Open
R1228	2.72	0.17	0.27	Open
R1229	2.72	0.17	0.54	Open
R1230	2.72	0.37	1.66	Open
R1231	2.72	0.37	1.66	Open
R1	2.72	0.37	1.66	Open
R2	2.72	0.37	1.66	Open
R1232	2.72	0.37	1.66	Open
R1233	2.72	0.37	1.66	Open
R430	40.80	0.53	0.76	Open
R1234	0.00	0.00	0.00	Open
R1235	0.00	0.00	0.00	Open
R1236	0.00	0.00	0.00	Open
R1237	0.00	0.00	0.00	Open
R1238	0.00	0.00	0.00	Open
R3187	0.00	0.00	0.00	Open
R1239	0.00	0.00	0.00	Open
R1240	0.00	0.00	0.00	Open
R1241	0.00	0.00	0.00	Open
R1078	130.46	0.46	0.31	Open
R1081	192.77	1.53	8.18	Open
P1	0.00	0.00	0.00	Closed Pump
P2	150.05	0.00	-79.98	Open Pump
P3	150.05	0.00	-79.98	Open Pump
P4	150.05	0.00	-79.98	Open Pump
P5	150.05	0.00	-79.98	Open Pump
P6	150.05	0.00	-79.98	Open Pump
P7	150.05	0.00	-79.98	Open Pump

2.6 CONCLUSIONI

Il dimensionamento della rete di distribuzione risulta verificato e corretto alla luce dei risultati sopra riportati.

In particolare nell'ipotesi di funzionamento "a" la rete risulta ben bilanciata e non si evidenziano particolari perdite di carico. Considerando una prevalenza in centrale pari a 80 m si verifica che nei nodi periferici le pressioni di esercizio calcolate sono largamente sopra il limite minimo garantito di 4,5 atm.

Si è ipotizzata inoltre una suddivisione della rete in due semidistretti, di seguito riportati, per i quali è stato verificato il modello nelle condizioni descritte nell'ipotesi di funzionamento "b" e "c". Anche in tali configurazioni, nei rami periferici, sui quali è stato simulato il funzionamento turnato, risultano comunque pressioni di esercizio superiori al limite minimo di 4,5 atm :

- Configurazione b - semicomparto nord : nodo Z1020 - $p = 45.20$ m;
- Configurazione c - semicomparto sud : nodo Z496 - $p = 45.00$ m;

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