

Appendix F

HYDRAULIC ANALYSIS RESULTS

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City of Gold Bar

Hydraulic Model Data Report

Pipe Input Data

ID	From Node	To Node	Length (ft)	Diameter (in)	C Factor	Status
11	J10	J198	587.95	6	130	Open
13	J10	J12	867.12	8	130	Open
15	J14	J192	613.66	6	140	Open
17	J187	J16	560.27	6	130	Open
19	J278	J18	68.03	6	140	Open
21	J20	J265	856.03	6	140	Closed
27	J20	J22	10.00	6	120	Open
29	J320	J278	47.60	6	150	Open
31	J22	J240	45.00	8	130	Open
33	J18	J22	20.00	6	120	Closed
35	J154	J424	742.52	6	100	Open
37	J24	J26	492.18	6	100	Open
39	J26	J28	773.40	6	130	Open
41	J182	J30	240.00	8	130	Open
43	J32	J183	100.00	8	130	Open
47	J32	J30	853.48	8	130	Open
53	J230	J34	355.26	6	130	Open
55	J230	J36	330.61	6	130	Open
57	J145	J38	1334.40	6	140	Open
59	J38	J40	978.26	6	140	Open
61	J40	J42	415.74	6	140	Open
317	J137	J138	243.00	8	100	Open
318	J231	J139	161.32	8	100	Open
319	J141	J142	184.88	8	140	Open
320	J145	J146	219.28	8	130	Open
321	J147	J148	224.00	8	140	Open
322	J149	J150	591.00	8	140	Open
323	J150	J151	31.52	8	140	Open
324	J152	J153	557.52	8	140	Open
325	J153	J154	372.80	6	100	Open
326	J158	J159	464.64	8	130	Open
327	J159	J160	1033.29	8	130	Open
328	J160	J161	355.69	8	130	Open
329	J161	J162	78.06	8	130	Open
330	J150	J163	420.12	8	140	Open
331	J151	J164	329.33	6	150	Open
332	J164	J165	293.89	6	140	Open
333	J165	J166	21.15	6	150	Open
334	J151	J167	402.96	6	130	Open
335	J156	J168	291.41	6	140	Open
336	J168	J169	40.00	6	140	Open
337	J169	J170	293.83	6	140	Open
338	J170	J171	33.74	6	140	Open
339	J173	J174	347.69	6	140	Open
340	J155	J175	299.13	8	100	Open
341	J175	J176	324.38	8	100	Open

Junction Input Data

ID	Demand (gpm)	Elevation (ft)
J10	2.2	190
J12	0.0	190
J14	0.0	190
J16	5.5	195
J18	0.5	190
J20	0.0	190
J22	0.0	190
J24	2.0	185
J26	6.0	185
J28	7.0	180
J30	1.0	190
J32	1.0	190
J34	0.5	190
J36	0.5	190
J38	0.8	240
J40	1.2	310
J42	0.8	300
J136	0.0	397.4
J137	0.0	397.4
J138	0.0	300
J139	0.5	250
J140	0.0	190
J141	0.5	190
J142	0.0	190
J143	0.0	190
J144	2.0	190
J145	2.0	180
J146	2.0	180
J147	2.0	180
J148	2.0	180
J149	2.0	190
J150	2.0	190
J151	2.0	190
J152	2.0	190
J153	2.0	190
J154	2.0	190
J155	2.0	190
J156	2.0	190
J157	2.0	190
J158	2.0	190
J159	2.0	190
J160	2.0	190
J161	2.0	235
J162	2.0	235
J163	8.5	182
J164	2.0	190

Pipe Input Data

ID	From Node	To Node	Length (ft)	Diameter (in)	C Factor	Status
342	J176	J177	355.50	8	100	Open
343	J177	J178	331.88	8	100	Open
344	J178	J179	302.15	8	100	Open
345	J179	J180	336.01	8	100	Open
346	J180	J181	327.78	8	100	Open
347	J181	J182	323.21	8	100	Open
348	J30	J32	350.00	8	130	Open
349	J184	J185	75.05	6	140	Open
350	J157	J186	80.86	8	130	Open
351	J158	J187	118.38	8	130	Open
352	J164	J156	600.31	6	150	Open
353	J165	J168	601.18	6	150	Open
354	J168	J189	291.69	6	150	Open
355	J166	J190	233.91	6	150	Open
356	J190	J191	639.17	6	140	Open
357	J192	J193	320.00	6	140	Open
358	J193	J194	105.50	6	130	Open
359	J194	J173	732.56	4	140	Open
360	J173	J195	310.08	4	140	Open
361	J195	J196	217.29	4	140	Open
362	J196	J181	43.09	8	100	Open
363	J191	J197	132.00	6	130	Open
364	J197	J198	126.00	6	130	Open
365	J199	J200	13.00	6	130	Open
366	J200	J201	188.40	6	150	Open
367	J202	J178	24.82	8	100	Open
368	J203	J180	27.90	8	100	Open
369	J205	J206	246.69	6	150	Open
370	J206	J207	11.09	6	130	Open
371	J207	J208	222.43	6	150	Open
372	J208	J179	27.22	8	100	Open
373	J170	J209	291.68	6	150	Open
374	J209	J210	230.78	6	150	Open
375	J210	J176	32.55	8	100	Open
376	J189	J209	330.06	4	140	Open
377	J209	J199	355.23	4	140	Open
378	J200	J207	634.73	4	140	Open
379	J206	J195	654.80	4	140	Open
380	J195	J211	338.50	4	140	Open
381	J212	J213	327.82	6	140	Open
382	J213	J214	87.35	6	140	Open
383	J216	J217	80.49	8	150	Open
384	J217	J218	94.52	8	150	Open
385	J218	J219	319.31	8	150	Open
386	J219	J220	224.43	8	150	Open
387	J213	J221	509.56	8	150	Open
388	J221	J222	104.85	8	150	Open
389	J222	J223	88.66	8	150	Open
390	J223	J194	157.54	8	150	Open
391	J217	J224	83.61	8	150	Open

Junction Input Data

ID	Demand (gpm)	Elevation (ft)
J165	2.0	190
J166	2.0	190
J167	0.5	190
J168	2.0	190
J169	2.0	190
J170	2.0	190
J171	2.0	190
J172	2.0	190
J173	2.0	190
J174	2.0	190
J175	2.0	190
J176	2.0	190
J177	2.0	190
J178	2.0	190
J179	2.0	190
J180	2.0	190
J181	2.0	190
J182	2.0	190
J183	2.0	190
J184	2.0	190
J185	2.0	190
J186	2.0	190
J187	2.0	190
J188	2.0	190
J189	2.0	190
J190	2.0	190
J191	2.0	190
J192	2.0	190
J193	2.0	190
J194	2.0	190
J195	2.0	190
J196	2.0	190
J197	2.0	190
J198	2.0	190
J199	2.0	190
J200	2.0	190
J201	2.0	190
J202	2.0	190
J203	2.0	190
J204	2.0	190
J205	2.0	190
J206	2.0	190
J207	2.0	190
J208	2.0	190
J209	2.0	190
J210	2.0	190
J211	2.0	190
J212	2.0	190
J213	2.0	190
J214	2.0	190

Pipe Input Data

ID	From Node	To Node	Length (ft)	Diameter (in)	C Factor	Status
392	J224	J225	318.56	8	150	Open
393	J225	J226	95.78	8	150	Open
394	J227	J228	80.00	4	140	Open
395	J228	J426	267.62	6	140	Open
396	J174	J211	303.63	4	140	Open
397	J211	J229	225.88	4	140	Open
398	J229	J182	33.21	8	100	Open
399	J184	J230	417.79	6	150	Open
400	J231	J140	38.49	8	130	Open
401	J232	J231	356.23	12	100	Open
402	J233	J232	206.14	12	100	Open
403	J236	J235	1062.00	12	100	Open
404	J237	J236	156.00	12	100	Open
405	J239	J238	308.00	12	150	Open
406	J241	J240	195.18	8	150	Open
407	J243	J242	281.82	8	150	Open
408	J244	J243	26.87	8	150	Open
409	J245	J244	277.53	8	150	Open
410	J246	J245	75.80	6	150	Open
411	J247	J246	142.00	8	140	Open
412	J248	J247	41.00	8	140	Open
413	J249	J248	157.58	8	140	Open
414	J250	J249	792.00	8	140	Open
415	J251	J250	29.51	8	130	Open
416	J252	J251	2250.00	8	150	Open
417	J253	J252	209.83	8	150	Open
418	J254	J253	90.82	8	130	Open
419	J255	J254	1188.93	8	150	Open
420	J255	J256	534.55	8	140	Open
421	J256	J257	464.00	8	140	Open
422	J257	J258	70.00	8	140	Open
423	PMP-400	J258	89.17	8	150	Open
424	J144	J259	69.00	8	140	Open
425	J259	J260	14.00	8	140	Open
426	J260	J261	1134.28	8	140	Open
427	J136	J137	44.00	8	100	Open
428	J262	J155	31.50	8	100	Open
429	J155	J263	21.89	8	140	Open
430	J263	J156	530.77	6	150	Open
431	J189	J264	239.75	6	150	Open
432	J264	J175	22.03	8	100	Open
433	J265	V-100	73.33	6	130	Open
434	J266	J20	856.03	6	140	Open
435	J267	J268	147.25	6	140	Open
436	W-3	PMP-300	83.44	6	100	Open
437	W-4	PMP-400	74.64	6	100	Open
438	J191	J269	383.54	6	140	Open
439	J269	J14	613.66	6	140	Open
440	J173	J270	657.93	6	140	Open
441	J203	J271	232.70	6	150	Open

Junction Input Data

ID	Demand (gpm)	Elevation (ft)
J215	2.0	190
J216	2.0	190
J217	2.0	190
J218	2.0	190
J219	2.0	190
J220	2.0	190
J221	2.0	190
J222	2.0	190
J223	2.0	190
J224	2.0	190
J225	2.0	190
J226	2.0	190
J227	23.0	190
J228	2.0	190
J229	2.0	190
J230	1.0	190
J231	0.0	190
J232	0.0	190
J233	0.0	190
J234	0.0	190
J235	0.0	190
J236	0.0	180
J237	0.0	180
J238	0.0	180
J239	0.0	180
J240	0.0	180
J241	0.0	190
J242	0.0	190
J243	0.0	190
J244	0.0	190
J245	0.0	190
J246	0.0	190
J247	0.0	190
J248	0.0	190
J249	0.0	190
J250	0.0	190
J251	0.0	190
J252	0.0	190
J253	0.0	190
J254	0.0	190
J255	0.0	190
J256	0.0	190
J257	0.0	190
J258	0.0	190
J259	2.0	190
J260	2.0	190
J261	5.0	190
J262	2.0	190
J263	2.0	190
J264	2.0	190

Pipe Input Data

ID	From Node	To Node	Length (ft)	Diameter (in)	C Factor	Status
442	J271	J192	1147.55	8	150	Open
443	J205	J204	640.23	6	150	Open
444	J272	J171	321.76	6	140	Open
445	J200	J272	305.44	6	150	Open
446	J272	J10	587.95	6	130	Open
447	J172	J269	839.53	6	150	Open
448	J272	J172	333.35	6	140	Open
449	J172	J270	294.69	6	140	Open
450	J273	T-2	10.00	8	100	Open
451	J274	T-1	10.00	8	100	Open
453	J273	J274	10.00	8	100	Open
454	J274	J275	10.00	8	100	Open
455	J136	J275	10.00	8	100	Open
456	J238	J276	244.72	12	130	Open
457	J276	J237	220.00	12	130	Open
458	J277	J147	283.00	8	100	Open
459	J146	J277	217.00	8	100	Open
460	J144	J145	970.16	8	140	Open
461	J18	J279	845.32	6	140	Open
462	J279	J280	276.79	6	140	Open
463	J280	J281	40.55	6	140	Open
464	J267	J281	337.24	6	140	Open
465	J151	J416	564.82	8	140	Open
466	J152	J156	332.15	6	140	Open
467	J153	J262	301.96	6	130	Open
468	J177	J201	61.74	6	130	Open
469	J172	J282	313.45	6	130	Open
470	J282	J202	221.90	6	130	Open
471	J183	J184	484.73	6	140	Open
472	J157	J283	290.72	8	130	Open
473	J283	J158	80.97	8	130	Open
474	J283	J284	303.27	8	150	Open
475	J284	J285	689.98	8	150	Open
476	J159	J188	68.91	6	130	Open
477	J140	J141	405.43	8	140	Open
478	J143	J144	243.47	8	140	Open
479	J235	J234	253.20	12	140	Open
480	J142	J143	201.85	8	140	Open
481	J234	J233	202.14	12	140	Open
482	J138	J139	334.06	8	130	Open
483	J148	J265	151.67	6	130	Open
484	J240	J239	242.05	12	150	Open
485	J242	J241	413.41	8	150	Open
486	J278	J149	203.57	6	130	Open
487	J214	J215	99.39	8	150	Open
488	J215	J216	113.17	8	150	Open
489	J192	J212	221.17	6	130	Open
491	J267	J286	72.49	6	140	Open
492	J286	J287	492.33	6	140	Open
493	J288	J289	198.56	6	140	Open

Junction Input Data

ID	Demand (gpm)	Elevation (ft)
J265	2.0	180
J266	0.0	180
J267	2.0	180
J268	2.0	180
J269	2.0	190
J270	2.0	190
J271	2.0	190
J272	2.0	190
J273	0.0	398.6
J274	0.0	398.6
J275	0.0	397.4
J276	0.0	180
J277	0.0	180
J278	0.5	180
J279	1.0	180
J280	1.0	180
J281	0.0	180
J282	0.0	190
J283	2.0	190
J284	2.0	190
J285	10.0	190
J286	1.5	180
J287	3.5	180
J288	3.5	180
J289	6.0	180
J290	3.5	180
J291	0.5	180
J292	1.5	180
J293	3.5	180
J294	3.0	180
J295	2.0	180
J296	1.5	180
J297	5.0	180
J298	4.0	180
J299	0.0	180
J300	0.5	180
J301	0.5	180
J302	1.5	180
J303	1.0	180
J304	0.5	180
J305	3.5	180
J306	1.5	180
J307	0.5	180
J308	0.0	180
J320	0.0	190
J400	0.0	200
J402	0.0	200
J404	0.0	200
J406	0.0	200
J408	3.5	190

Pipe Input Data

ID	From Node	To Node	Length (ft)	Diameter (in)	C Factor	Status
494	J289	J290	444.18	6	140	Closed
495	J290	J291	103.43	6	130	Open
496	J292	J293	255.52	4	140	Open
497	J287	J294	107.69	6	140	Open
498	J294	J288	158.17	6	140	Open
499	J294	J295	287.50	6	130	Open
500	J295	J296	49.52	6	130	Open
501	J296	J290	356.84	6	130	Open
502	J297	J298	858.13	6	130	Open
503	J298	J299	33.30	6	130	Open
504	J299	J300	237.92	6	130	Open
505	J300	J301	214.56	6	130	Open
506	J301	J302	448.52	6	130	Open
507	J291	J304	54.46	4	140	Open
508	J304	J292	142.19	4	140	Open
509	J304	J305	205.62	6	130	Open
510	J268	J306	146.32	6	130	Open
511	J306	J297	245.29	6	130	Open
512	J305	J306	872.56	6	130	Open
514	J408	J410	350.17	8	130	Open
515	J320	J307	108.51	6	150	Open
516	J281	J308	29.55	6	140	Open
517	J303	J308	198.83	6	130	Open
518	PMP-300	J266	892.24	6	120	Open
520	V-100	J320	36.99	6	140	Open
P522	T-4	J406	283.07	10	130	Open
P524	J400	PMP440	50.99	10	130	Open
P526	PMP440	J402	47.08	12	130	Open
P528	J402	J404	96.55	12	130	Open
P530	J404	J185	954.99	12	130	Open
P532	J400	J406	95.06	10	130	Open
P534	J406	PMP420	48.24	8	130	Open
P536	PMP420	J404	47.15	8	130	Open
P538	J402	V8004	131.16	8	130	Open
P540	V8004	J400	134.38	8	130	Open
P542	J307	J408	448.19	8	130	Open
P544	J410	J157	98.89	8	130	Open
P546	J408	J412	336.97	8	130	Open
P548	J412	J414	234.09	8	130	Open
P550	J414	J410	425.35	8	130	Open
P552	J416	J152	31.86	8	140	Open
P554	J416	J418	395.63	6	140	Open
P556	J418	J420	345.12	6	130	Open
P558	J420	J422	310.79	6	130	Open
P560	J424	J24	622.86	6	100	Open
P562	J426	J174	95.89	6	140	Open

Junction Input Data

ID	Demand (gpm)	Elevation (ft)
J410	2.5	190
J412	4.0	189
J414	4.0	188
J416	0.5	190
J418	4.0	185
J420	2.0	187
J422	7.0	188
J424	15.5	187
J426	19.0	190

City of Gold Bar Hydraulic Model Data Report

Tank Input Data

ID	Elevation (ft)	Minimum Level (ft)	Maximum Level (ft)	Initial Level (ft)	Diameter (ft)
T-1	408.4	0	19.1	10.6	48
T-2	403.5	0	24	15.5	27
T-4	200	2	22	20	50

Well Input Data

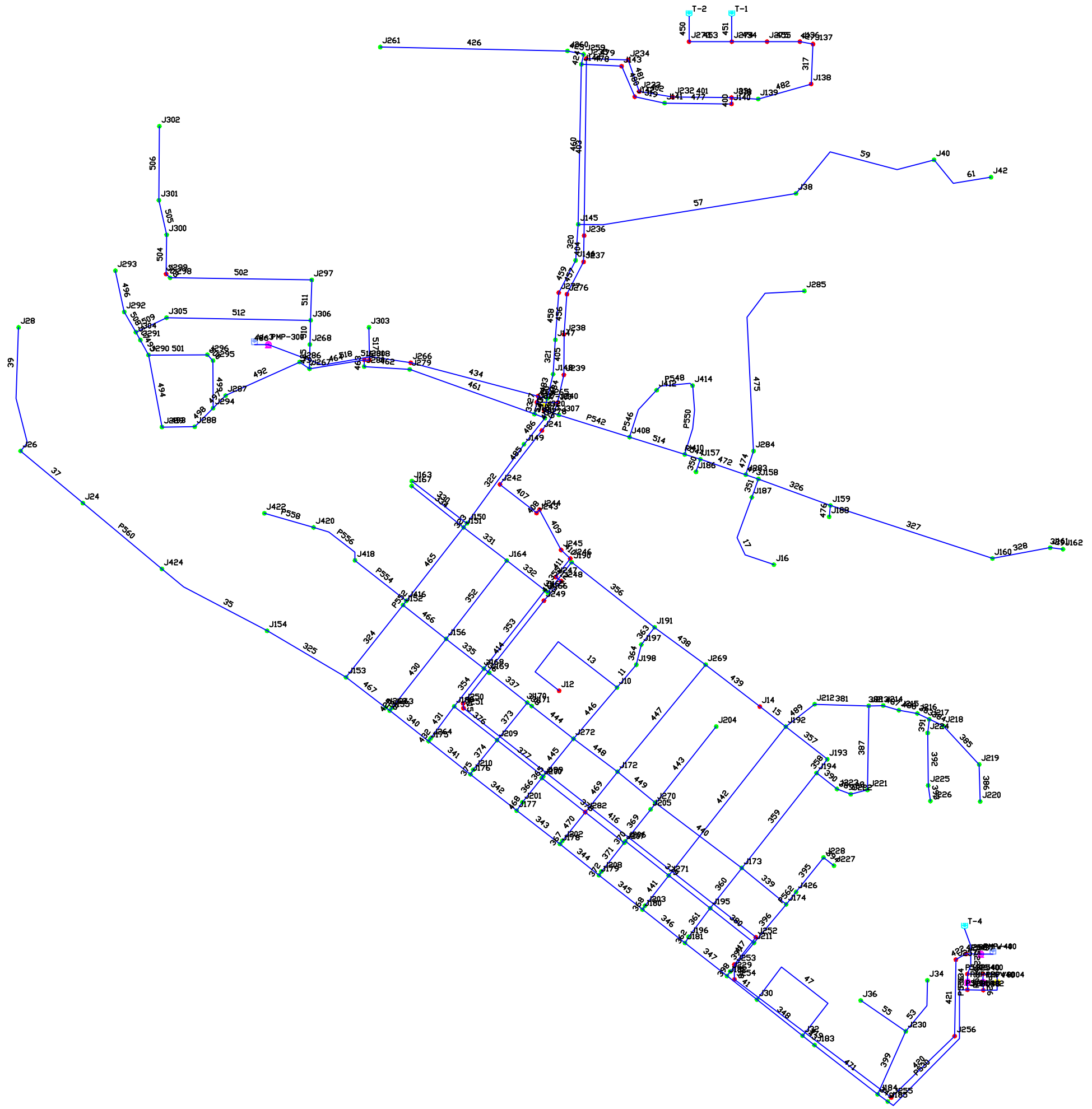
ID	Head (ft)
W-3	170
W-4	260

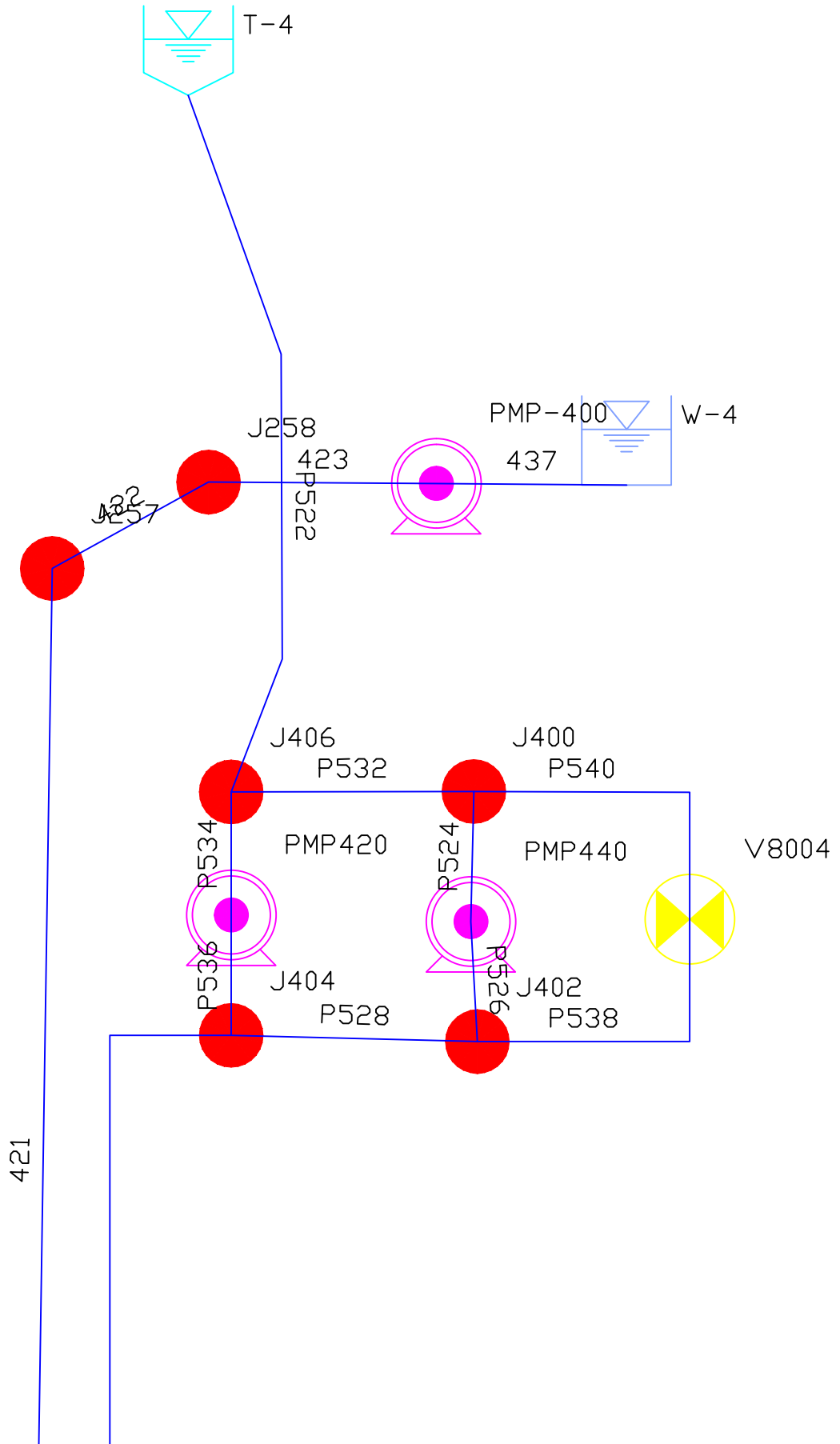
Pump Input Data

ID	Type (Int)	Elevation (ft)	Diameter (in)	Constant Power (hp)	Shutoff Head (ft)	Design Head (ft)	Design Flow (gpm)	High Head (ft)	High Flow (gpm)
PMP420	1: Design Point Curve	150		16		260	160		
PMP440	1: Design Point Curve	210		40		180	260		
PMP-300	2: Exponential 3-Point Curve	205	12		326	215	1500	162.5	1800
PMP-400	2: Exponential 3-Point Curve	205	6		236	208	200	160	300

Control Valve Input Data

ID	Type (Int)	Elevation (ft)	Diameter (in)	Setting (Double)	Minor Loss (Double)
V8004	0: Pressure Reducing Valve	190	6	65	6.2
V-100	1: Pressure Sustaining Valve	205	8	100	6.1





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Junction Pressures
Peak Hour Demand - 2021

System Demand: 634.1 gpm
 Tank Level: 419.0' HG

ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)	Notes
J406	0	200	219.75	8.54	Near Tanks - no customers affected
J400	0	200	219.75	8.54	Near Tanks - no customers affected
J273	0	398.6	419	8.82	Near Tanks - no customers affected
J274	0	398.6	419	8.82	Near Tanks - no customers affected
J275	0	397.4	419.01	9.35	Near Tanks - no customers affected
J136	0	397.4	419.02	9.35	Near Tanks - no customers affected
J137	0	397.4	419.06	9.37	Near Tanks - no customers affected
J162	3.29	235	339.92	45.37	
J161	3.29	235	339.92	45.37	
J40	1.97	310	416.69	46.14	
J42	1.32	300	416.69	50.46	
J138	0	300	419.29	51.59	
J402	0	200	343.02	61.85	
J404	0	200	343.02	61.85	
J16	9.05	195	339.92	62.67	
J154	3.29	190	339.66	64.72	
J227	38.4	190	339.78	64.77	
J153	3.29	190	339.86	64.81	
J228	3.29	190	339.87	64.81	
J152	3.29	190	339.88	64.81	
J416	0.82	190	339.88	64.81	
J262	3.29	190	339.89	64.82	
J263	3.29	190	339.89	64.82	
J155	3.29	190	339.89	64.82	
J156	3.29	190	339.89	64.82	
J164	3.29	190	339.9	64.82	
J167	0.82	190	339.9	64.82	
J151	3.29	190	339.9	64.82	
J150	3.29	190	339.9	64.82	
J165	3.29	190	339.9	64.82	
J168	3.29	190	339.9	64.82	
J264	3.29	190	339.9	64.82	
J175	3.29	190	339.9	64.82	
J189	3.29	190	339.9	64.82	
J166	3.29	190	339.9	64.82	
J169	3.29	190	339.9	64.82	
J190	3.29	190	339.91	64.83	
J426	31.27	190	339.92	64.83	
J170	3.29	190	339.92	64.83	
J209	3.29	190	339.92	64.83	
J210	3.29	190	339.92	64.83	
J176	3.29	190	339.92	64.83	
J171	3.29	190	339.92	64.83	
J160	3.29	190	339.92	64.83	
J285	16.46	190	339.93	64.83	
J188	3.29	190	339.93	64.83	
J159	3.29	190	339.93	64.83	

J187	3.29	190	339.93	64.83
J284	3.29	190	339.93	64.83
J158	3.29	190	339.93	64.84
J283	3.29	190	339.93	64.84
J197	3.29	190	339.94	64.84
J198	3.29	190	339.94	64.84
J191	3.29	190	339.94	64.84
J10	3.62	190	339.94	64.84
J12	0	190	339.94	64.84
J272	3.29	190	339.95	64.84
J199	3.29	190	339.95	64.84
J200	3.29	190	339.95	64.84
J201	3.29	190	339.95	64.85
J149	3.29	190	339.96	64.85
J177	3.29	190	339.96	64.85
J186	3.29	190	339.96	64.85
J157	3.29	190	339.96	64.85
J269	3.29	190	339.96	64.85
J220	3.29	190	339.96	64.85
J219	3.29	190	339.97	64.85
J226	3.29	190	339.97	64.85
J225	3.29	190	339.97	64.85
J218	3.29	190	339.97	64.85
J224	3.29	190	339.97	64.85
J217	3.29	190	339.97	64.85
J216	3.29	190	339.97	64.85
J174	3.29	190	339.97	64.85
J410	4.11	190	339.97	64.85
J215	3.29	190	339.97	64.85
J172	3.29	190	339.97	64.85
J214	3.29	190	339.97	64.85
J270	3.29	190	339.97	64.85
J213	3.29	190	339.98	64.86
J221	3.29	190	339.98	64.86
J222	3.29	190	339.98	64.86
J223	3.29	190	339.98	64.86
J194	3.29	190	339.99	64.86
J173	3.29	190	339.99	64.86
J408	5.76	190	339.99	64.86
J14	0	190	339.99	64.86
J193	3.29	190	339.99	64.86
J282	0	190	340	64.86
J212	3.29	190	340	64.87
J18	0.82	190	340	64.87
J202	3.29	190	340.01	64.87
J178	3.29	190	340.02	64.87
J192	3.29	190	340.02	64.87
J204	3.29	190	340.13	64.92
J205	3.29	190	340.13	64.92
J207	3.29	190	340.13	64.92
J206	3.29	190	340.13	64.92
J208	3.29	190	340.13	64.92
J179	3.29	190	340.13	64.92
J320	0	190	340.14	64.93

J271	3.29	190	340.16	64.94
J203	3.29	190	340.29	64.99
J180	3.29	190	340.3	64.99
J195	3.29	190	340.42	65.05
J211	3.29	190	340.56	65.11
J196	3.29	190	340.77	65.2
J181	3.29	190	340.78	65.2
J412	6.58	189	339.98	65.29
J229	3.29	190	341.5	65.52
J182	3.29	190	341.51	65.52
J422	11.52	188	339.84	65.66
J414	6.58	188	339.97	65.72
J30	1.65	190	342.09	65.77
J424	25.51	187	339.31	65.86
J32	1.65	190	342.44	65.92
J183	3.29	190	342.48	65.94
J34	0.82	190	342.64	66.01
J36	0.82	190	342.64	66.01
J230	1.65	190	342.64	66.01
J184	3.29	190	342.65	66.01
J185	3.29	190	342.67	66.02
J420	3.29	187	339.85	66.1
J26	9.98	185	339.18	66.67
J24	3.29	185	339.23	66.69
J418	6.58	185	339.86	66.97
J163	13.99	182	339.9	68.28
J293	5.76	180	338.83	68.68
J292	2.47	180	338.84	68.69
J289	9.87	180	338.84	68.69
J290	5.76	180	338.85	68.69
J291	0.82	180	338.85	68.69
J304	0.82	180	338.85	68.69
J288	5.76	180	338.85	68.69
J296	2.47	180	338.85	68.69
J295	3.29	180	338.85	68.69
J305	5.76	180	338.85	68.69
J294	4.94	180	338.85	68.69
J302	2.47	180	338.86	68.7
J301	0.82	180	338.86	68.7
J300	0.82	180	338.86	68.7
J299	0	180	338.86	68.7
J298	6.58	180	338.86	68.7
J287	5.76	180	338.86	68.7
J297	8.23	180	338.87	68.7
J306	2.47	180	338.89	68.71
J268	3.29	180	338.91	68.72
J286	2.47	180	338.93	68.73
J267	3.29	180	338.94	68.73
J303	1.65	180	339.16	68.83
J308	0	180	339.16	68.83
J281	0	180	339.16	68.83
J28	11.52	180	339.17	68.83
J280	1.65	180	339.19	68.84
J279	1.65	180	339.38	68.92

J278	0.82	180	340.05	69.21
J307	0.82	180	340.07	69.22
J139	0.82	250	419.49	73.29
J38	1.32	240	416.7	76.41
J261	8.23	190	418	98.59
J260	3.29	190	418	98.59
J259	3.29	190	418	98.59
J144	3.29	190	418	98.59
J143	0	190	418.37	98.75
J142	0	190	418.67	98.89
J141	0.82	190	418.96	99.01
J140	0	190	419.57	99.28
J231	0	190	419.64	99.3
J232	0	190	419.96	99.44
J233	0	190	420.14	99.52
J234	0	190	420.24	99.56
J235	0	190	420.36	99.62
J22	0	190	421.96	100.31
J20	0	190	421.99	100.32
J241	0	190	422.18	100.4
J242	0	190	422.71	100.63
J243	0	190	423.08	100.79
J244	0	190	423.11	100.8
J245	0	190	423.47	100.96
J246	0	190	423.86	101.13
J247	0	190	424.07	101.22
J265	3.29	180	414.13	101.24
J248	0	190	424.13	101.24
J249	0	190	424.36	101.34
J148	3.29	180	414.96	101.6
J147	3.29	180	415.23	101.72
J250	0	190	425.51	101.84
J251	0	190	425.56	101.86
J277	0	180	415.88	102
J146	3.29	180	416.38	102.22
J145	3.29	180	416.7	102.36
J252	0	190	428.45	103.11
J253	0	190	428.72	103.23
J254	0	190	428.87	103.29
J255	0	190	430.39	103.95
J256	0	190	431.17	104.29
J236	0	180	421.31	104.35
J237	0	180	421.45	104.41
J276	0	180	421.57	104.46
J238	0	180	421.7	104.52
J239	0	180	421.83	104.58
J257	0	190	431.85	104.58
J240	0	180	421.93	104.62
J258	0	190	431.95	104.63
J266	0	180	423.91	105.48

634.1

Available Fire Flows
Max Day Demand - 2021

Tank Level: 419.0'
 Booster Pump: **OFF**
 High Flow Pump: **OFF**

ID	Total Demand (gpm)	Critical Node ID	Critical Node Pressure (psi)	Available Flow at Hydrant (gpm)	Available Flow Pressure (psi)	Notes
J40	1001.0	J40	-48.05	476.82	20	End of 6" pipe on 145th Street
J42	1000.7	J42	-55.36	489.67	20	End of 6" pipe on 145th Street
J28	1006.0	J28	-133.17	500.01	20	
J26	1005.2	J26	-110.25	530.97	20	
J293	1003.0	J293	-107.73	553.74	20	
J24	1001.7	J26	-84.06	590.04	20	
J302	1001.3	J302	-86.59	602.39	20	
J301	1000.4	J302	-72.18	633.19	20	
J300	1000.4	J302	-65.27	647.99	20	
J299	1000.0	J302	-57.61	665.26	20	
J292	1001.3	J293	-55.96	670.54	20	
J298	1003.4	J302	-56.54	671.28	20	
J424	1013.3	J424	-51.66	678.98	20	
J162	1001.7	J162	-16.91	731.36	20	
J289	1005.1	J289	-35.08	732.11	20	
J161	1001.7	J162	-16.29	734.23	20	
J227	1020.0	J227	-33.28	735.25	20	
J34	1000.4	J34	-27.17	738.41	20	
J36	1000.4	J36	-26.38	741.24	20	
J288	1003.0	J289	-29.47	748.16	20	
J297	1004.3	J302	-28.73	752.09	20	
J304	1000.4	J293	-27.08	753.81	20	
J296	1001.3	J296	-27.19	754.27	20	
J295	1001.7	J295	-27.08	755.06	20	
J291	1000.4	J291	-26.22	756.79	20	
J305	1003.0	J305	-26.96	756.82	20	
J290	1003.0	J290	-25.7	761.19	20	
J204	1001.7	J204	-21.3	761.85	20	
J294	1002.6	J289	-24.98	763.34	20	
J287	1003.0	J287	-23.95	767.52	20	
J422	1006.0	J422	-21.75	767.76	20	
J306	1001.3	J302	-20.72	777.95	20	
J228	1001.7	J227	-16.57	779.57	20	
J230	1000.9	J34	-15.77	783.08	20	
J268	1001.7	J268	-18.25	788.01	20	
J286	1001.3	J286	-16.91	792.97	20	
J220	1001.7	J220	-12.17	799.42	20	
J154	1001.7	J154	-12.34	799.43	20	
J267	1001.7	J293	-15.22	800.36	20	
J226	1001.7	J226	-11.31	803.3	20	

J219	1001.7	J220	-10.8	805.64	20	
J225	1001.7	J226	-10.73	805.97	20	
J420	1001.7	J422	-11.68	808.26	20	
J303	1000.9	J303	-12.22	812.88	20	
J218	1001.7	J220	-8.85	814.77	20	
J224	1001.7	J226	-8.79	815.09	20	
J217	1001.7	J220	-8.28	817.55	20	
J216	1001.7	J220	-7.78	819.97	20	
J12	1000.0	J12	-7.22	821.97	20	
J215	1001.7	J220	-7.07	823.43	20	
J214	1001.7	J220	-6.46	826.51	20	
J211	1001.7	J211	-6.41	826.88	20	
J174	1001.7	J227	-5.92	829.05	20	
J426	1016.3	J227	-8.79	829.33	20	
J185	1001.7	J185	-5.54	831.28	20	
J184	1001.7	J34	-5.45	831.7	20	
J205	1001.7	J204	-5.5	831.79	20	
J32	1000.9	J34	-4.81	834.15	20	
J183	1001.7	J34	-4.92	834.43	20	
J213	1001.7	J220	-3.94	839.42	20	
J30	1000.9	J34	-3.66	840.12	20	
J308	1000.0	J303	-5.83	840.95	20	
J221	1001.7	J221	-3.53	841.56	20	
J222	1001.7	J222	-3.41	842.2	20	
J223	1001.7	J223	-3.29	842.82	20	
J212	1001.7	J212	-3.29	842.9	20	
J194	1001.7	J194	-3.06	844.05	20	
J193	1001.7	J193	-3	844.4	20	
J281	1000.0	J293	-5.05	844.93	20	
J195	1001.7	J195	-2.85	845.29	20	
J16	1004.7	J16	-3.27	848.94	20	
J229	1001.7	J229	-1.93	850.19	20	
J182	1001.7	J34	-1.73	851.27	20	
J14	1000.0	J14	-1.39	851.68	20	
J280	1000.9	J293	-3.82	851.88	20	
J173	1001.7	J173	-1.33	853.35	20	
J192	1001.7	J192	-0.31	859.11	20	
J167	1000.4	J167	-0.41	859.42	20	
J10	1001.9	J10	-0.37	859.55	20	
J196	1001.7	J196	0.26	862.36	20	
J271	1001.7	J271	0.45	863.47	20	
J181	1001.7	J181	0.58	864.16	20	
J270	1001.7	J270	0.6	864.48	20	
J206	1001.7	J204	0.61	864.53	20	
J207	1001.7	J207	0.85	865.89	20	
J198	1001.7	J198	0.86	866.29	20	
J418	1003.4	J422	-0.45	872.29	20	
J197	1001.7	J197	1.97	872.74	20	

J203	1001.7	J203	2.19	873.54	20	
J180	1001.7	J180	2.35	874.46	20	
J282	1000.0	J282	2.72	875.2	20	
J269	1001.7	J269	2.91	878.08	20	
J208	1001.7	J208	3.23	879.8	20	
J179	1001.7	J179	3.44	881.07	20	
J191	1001.7	J191	3.61	882.44	20	
J172	1001.7	J172	4.28	886.34	20	
J202	1001.7	J202	4.44	887.29	20	
J178	1001.7	J178	4.59	888.23	20	
J199	1001.7	J199	4.73	889.21	20	
J190	1001.7	J190	4.68	889.22	20	
J200	1001.7	J200	4.99	890.8	20	
J201	1001.7	J201	5.07	891.3	20	
J272	1001.7	J272	5.51	894.1	20	
J177	1001.7	J177	5.67	895.05	20	
J171	1001.7	J171	5.92	896.8	20	
J279	1000.9	J293	4.56	897.12	20	
J209	1001.7	J209	6.05	897.6	20	
J170	1001.7	J170	6.26	898.95	20	
J210	1001.7	J210	6.5	900.49	20	
J176	1001.7	J176	6.67	901.56	20	
J189	1001.7	J189	6.65	901.58	20	
J160	1001.7	J162	-13.47	901.78	20	
J166	1001.7	J166	6.89	903.19	20	
J165	1001.7	J165	7.16	905	20	
J169	1001.7	J169	7.24	905.38	20	
J264	1001.7	J264	7.4	906.43	20	
J175	1001.7	J175	7.52	907.19	20	
J38	1000.7	J40	-20.61	907.76	20	
J168	1001.7	J168	7.78	908.98	20	
J262	1001.7	J262	7.93	910.01	20	
J263	1001.7	J263	7.96	910.23	20	
J155	1001.7	J155	8.01	910.56	20	
J153	1001.7	J154	8.09	911.31	20	
J156	1001.7	J156	8.84	916.12	20	
J164	1001.7	J164	9.17	918.45	20	
J416	1000.4	J416	9.98	922.74	20	
J152	1001.7	J152	9.89	923.4	20	
J188	1001.7	J162	-5.23	940.99	20	
J151	1001.7	J162	10.4	942.35	20	
J150	1001.7	J162	10.4	944.63	20	
J285	1008.6	J162	-0.84	951.21	20	
J163	1007.3	J162	10.4	956.65	20	
J159	1001.7	J162	-5.23	956.74	20	
J284	1001.7	J162	-0.84	975.6	20	
J187	1001.7	J162	-1.5	977.67	20	
J158	1001.7	J162	-1.5	985.1	20	

J283	1001.7	J162	-0.84	990.39	20	
J149	1001.7	J162	10.4	990.57	20	
J186	1001.7	J162	1.58	1005.06	20	
J157	1001.7	J162	1.58	1010.51	20	
J410	1002.1	J162	2.4	1018.1	20	
J412	1003.4	J162	3.22	1023.64	20	
J414	1003.4	J162	2.96	1024.78	20	
J408	1003.0	J162	3.69	1030.37	20	
J18	1000.4	J162	10.4	1054.73	20	
J307	1000.4	J162	7.51	1102.21	20	
J278	1000.4	J162	10.4	1114.2	20	
J148	1001.7	J40	16.87	1465.76	20	
J147	1001.7	J40	16.87	1517.31	20	
J277	1000.0	J40	16.87	1656.19	20	
J146	1001.7	J40	16.87	1789	20	
J261	1004.3	J40	27.23	1851.47	20	
J145	1001.7	J40	16.87	1884.18	20	
J260	1001.7	J40	27.23	2293.73	20	
J259	1001.7	J40	27.23	2301.33	20	
J144	1001.7	J40	27.23	2339.97	20	
J143	1000.0	J40	29.85	2534.02	20	
J142	1000.0	J40	32.03	2731.03	20	
J141	1000.4	J40	34.03	2949.9	20	
J138	1000.0	J40	42.37	3314.97	20	
J139	1000.4	J40	40.39	3430.08	20	
J140	1000.0	J40	38.4	3638.44	20	
J231	1000.0	J40	38.88	3740.55	20	

Available Fire Flows
Max Day Demand - 2021

Tank Level: **419.0'**
 Booster Pump: **ON**
 High Flow Pump: **OFF**

ID	Total Demand (gpm)	Critical Node ID	Critical Node Pressure (psi)	Available Flow at Hydrant (gpm)	Available Flow Pressure (psi)	Notes
J28	1006.0	J28	-89.51	535.0	20	
J40	1001.0	J40	-35.33	556.4	20	
J42	1000.7	J42	-42.65	559.9	20	
J293	1003.0	J293	-74.72	560.1	20	
J26	1005.2	J26	-66.59	572.4	20	
J302	1001.3	J302	-53.58	609.8	20	
J24	1001.7	J26	-40.4	641.3	20	
J301	1000.4	J302	-39.16	652.7	20	
J300	1000.4	J302	-32.26	677.1	20	
J299	1000.0	J302	-24.6	707.1	20	
J298	1003.4	J302	-23.53	715.1	20	
J292	1001.3	J293	-22.95	715.4	20	
J424	1013.3	J424	-8.01	789.4	20	
J289	1005.1	J289	-2.07	831.1	20	
J288	1003.0	J289	3.54	868.6	20	
J297	1004.3	J302	4.28	875.7	20	
J296	1001.3	J296	5.82	884.7	20	
J304	1000.4	J293	5.93	884.7	20	
J295	1001.7	J295	5.93	885.9	20	
J305	1003.0	J305	6.05	888.3	20	
J291	1000.4	J291	6.79	891.7	20	
J290	1003.0	J290	7.31	898.6	20	
J294	1002.6	J289	8.03	904.2	20	
J287	1003.0	J287	9.06	913.5	20	
J306	1001.3	J302	12.29	941.5	20	
J162	1001.7	J162	15.09	947.1	20	
J161	1001.7	J162	15.71	958.6	20	
J227	1020.0	J227	14.58	961.5	20	
J268	1001.7	J268	14.76	966.4	20	
J286	1001.3	J286	16.1	975.4	20	
J267	1001.7	J293	17.79	986.8	20	
J303	1000.9	J303	20.79	1006.4	20	
J422	1006.0	J422	21.53	1017.0	20	
J38	1000.7	J40	-7.89	1023.1	20	
J204	1001.7	J204	26.1	1048.2	20	
J308	1000.0	J303	27.18	1053.2	20	
J34	1000.4	J34	26.43	1054.2	20	
J281	1000.0	J293	27.96	1059.9	20	
J36	1000.4	J36	27.22	1060.8	20	

J280	1000.9	J293	29.19	1070.8	20	
J16	1004.7	J16	28.73	1075.7	20	
J228	1001.7	J227	31.29	1094.1	20	
J154	1001.7	J154	31.31	1094.3	20	
J420	1001.7	J422	31.61	1098.6	20	
J220	1001.7	J40	32.27	1133.9	20	
J226	1001.7	J40	32.27	1142.7	20	
J279	1000.9	J40	31.37	1147.6	20	
J219	1001.7	J40	32.27	1148.1	20	
J225	1001.7	J40	32.27	1148.9	20	
J160	1001.7	J162	18.54	1160.7	20	
J230	1000.9	J40	32.67	1161.9	20	
J12	1000.0	J40	32.19	1166.5	20	
J218	1001.7	J40	32.27	1169.3	20	
J224	1001.7	J40	32.27	1170.0	20	
J217	1001.7	J40	32.27	1175.8	20	
J216	1001.7	J40	32.27	1181.5	20	
J426	1016.3	J40	32.3	1188.2	20	
J215	1001.7	J40	32.27	1189.7	20	
J214	1001.7	J40	32.27	1197.0	20	
J167	1000.4	J40	31.97	1202.0	20	
J205	1001.7	J40	32.26	1205.1	20	
J174	1001.7	J40	32.3	1207.1	20	
J211	1001.7	J40	32.36	1212.8	20	
J418	1003.4	J40	32.03	1227.3	20	
J213	1001.7	J40	32.27	1228.1	20	
J188	1001.7	J162	26.78	1232.5	20	
J221	1001.7	J40	32.27	1233.4	20	
J222	1001.7	J40	32.27	1235.0	20	
J212	1001.7	J40	32.27	1236.0	20	
J223	1001.7	J40	32.27	1236.5	20	
J194	1001.7	J40	32.27	1239.6	20	
J193	1001.7	J40	32.27	1240.1	20	
J285	1008.6	J162	31.16	1245.7	20	
J14	1000.0	J40	32.23	1249.9	20	
J195	1001.7	J40	32.33	1251.6	20	
J10	1001.9	J40	32.19	1252.7	20	
J159	1001.7	J162	26.78	1262.3	20	
J173	1001.7	J40	32.29	1262.9	20	
J198	1001.7	J40	32.18	1267.3	20	
J192	1001.7	J40	32.27	1276.4	20	
J270	1001.7	J40	32.25	1279.5	20	
J197	1001.7	J40	32.18	1282.8	20	
J206	1001.7	J40	32.26	1286.5	20	
J207	1001.7	J40	32.26	1289.9	20	
J271	1001.7	J40	32.29	1291.3	20	
J185	1001.7	J40	32.67	1291.9	20	

J184	1001.7	J40	32.67	1292.2	20	
J32	1000.9	J40	32.64	1294.4	20	
J183	1001.7	J40	32.65	1294.7	20	
J284	1001.7	J162	31.16	1298.7	20	
J30	1000.9	J40	32.6	1299.8	20	
J187	1001.7	J162	30.5	1302.8	20	
J269	1001.7	J40	32.2	1304.5	20	
J282	1000.0	J40	32.23	1306.0	20	
J229	1001.7	J40	32.51	1306.2	20	
J191	1001.7	J40	32.17	1306.5	20	
J190	1001.7	J40	32.12	1308.4	20	
J182	1001.7	J40	32.52	1310.1	20	
J196	1001.7	J40	32.39	1313.3	20	
J158	1001.7	J162	30.5	1317.5	20	
J181	1001.7	J40	32.4	1318.9	20	
J203	1001.7	J40	32.32	1323.0	20	
J180	1001.7	J40	32.32	1325.9	20	
J208	1001.7	J40	32.26	1327.3	20	
J283	1001.7	J162	31.16	1327.9	20	
J199	1001.7	J40	32.19	1329.0	20	
J172	1001.7	J40	32.22	1330.0	20	
J179	1001.7	J40	32.26	1330.8	20	
J200	1001.7	J40	32.19	1333.4	20	
J202	1001.7	J40	32.23	1335.0	20	
J201	1001.7	J40	32.19	1335.0	20	
J178	1001.7	J40	32.23	1337.5	20	
J171	1001.7	J40	32.15	1338.0	20	
J166	1001.7	J40	32.11	1338.8	20	
J209	1001.7	J40	32.16	1340.6	20	
J272	1001.7	J40	32.19	1340.8	20	
J189	1001.7	J40	32.12	1341.0	20	
J170	1001.7	J40	32.15	1342.5	20	
J165	1001.7	J40	32.1	1342.9	20	
J177	1001.7	J40	32.19	1344.5	20	
J153	1001.7	J40	32.06	1346.9	20	
J210	1001.7	J40	32.15	1348.0	20	
J169	1001.7	J40	32.12	1349.7	20	
J176	1001.7	J40	32.15	1350.6	20	
J262	1001.7	J40	32.09	1352.6	20	
J264	1001.7	J40	32.12	1353.4	20	
J263	1001.7	J40	32.09	1353.8	20	
J155	1001.7	J40	32.09	1354.7	20	
J175	1001.7	J40	32.12	1355.2	20	
J186	1001.7	J40	31.3	1357.0	20	
J168	1001.7	J40	32.12	1357.4	20	
J164	1001.7	J40	32.05	1363.4	20	
J156	1001.7	J40	32.08	1364.7	20	

J157	1001.7	J40	31.3	1368.1	20	
J416	1000.4	J40	32.03	1371.1	20	
J152	1001.7	J40	32.03	1371.9	20	
J410	1002.1	J40	31.3	1383.1	20	
J163	1007.3	J40	31.96	1386.6	20	
J414	1003.4	J40	31.3	1388.9	20	
J412	1003.4	J40	31.3	1389.7	20	
J151	1001.7	J40	31.97	1397.4	20	
J150	1001.7	J40	31.96	1399.7	20	
J408	1003.0	J40	31.3	1407.4	20	
J149	1001.7	J40	31.75	1445.0	20	
J18	1000.4	J40	31.37	1482.5	20	
J307	1000.4	J40	31.3	1527.0	20	
J278	1000.4	J40	31.37	1576.1	20	
J148	1001.7	J40	29.58	1774.9	20	
J147	1001.7	J40	29.58	1826.4	20	
J277	1000.0	J40	29.58	1965.3	20	
J261	1004.3	J40	36.4	2047.3	20	
J146	1001.7	J40	29.58	2098.1	20	
J145	1001.7	J40	29.58	2193.3	20	
J260	1001.7	J40	36.4	2591.0	20	
J259	1001.7	J40	36.4	2600.6	20	
J144	1001.7	J40	36.4	2649.1	20	
J143	1000.0	J40	38.14	2843.1	20	
J142	1000.0	J40	39.58	3040.1	20	
J141	1000.4	J40	40.9	3259.0	20	
J138	1000.0	J40	46.63	3618.5	20	
J139	1000.4	J40	45.22	3736.7	20	
J140	1000.0	J40	43.8	3947.5	20	
J231	1000.0	J40	44.11	4049.7	20	

Available Fire Flows
Max Day Demand - 2021

Tank Level: 419.0'
 Booster Pump: **OFF**
 High Flow Pump: **ON**

ID	Total Demand (gpm)	Critical Node ID	Critical Node Pressure (psi)	Available Flow at Hydrant (gpm)	Available Flow Pressure (psi)	Notes
J40	1001.0	J40	-35.33	556.4	20	
J42	1000.7	J42	-42.65	559.9	20	
J293	1003.0	J293	-67.37	683.1	20	
J28	1006.0	J28	-59.88	705.1	20	
J302	1001.3	J302	-46.24	731.2	20	
J26	1005.2	J26	-36.96	758.7	20	
J301	1000.4	J302	-31.82	771.0	20	
J300	1000.4	J302	-24.91	792.9	20	
J299	1000.0	J302	-17.25	819.1	20	
J298	1003.4	J302	-16.18	826.5	20	
J292	1001.3	J293	-15.6	826.5	20	
J185	1001.7	J40	48.78	831.3	20	
J184	1001.7	J40	48.78	831.7	20	
J32	1000.9	J40	48.78	834.2	20	
J183	1001.7	J40	48.78	834.4	20	
J30	1000.9	J40	48.78	840.1	20	
J24	1001.7	J26	-10.77	844.5	20	
J229	1001.7	J40	48.78	850.2	20	
J182	1001.7	J40	48.78	851.3	20	
J289	1005.1	J289	5.28	920.7	20	
J288	1003.0	J289	10.89	948.2	20	
J297	1004.3	J302	11.63	953.7	20	
J304	1000.4	J293	13.28	959.2	20	
J296	1001.3	J296	13.17	959.4	20	
J295	1001.7	J295	13.27	960.4	20	
J305	1003.0	J305	13.4	962.4	20	
J291	1000.4	J291	14.14	964.2	20	
J290	1003.0	J290	14.66	969.8	20	
J294	1002.6	J289	15.37	973.7	20	
J287	1003.0	J287	16.4	980.3	20	
J306	1001.3	J302	19.64	998.9	20	
J162	1001.7	J162	20.37	1005.0	20	
J161	1001.7	J162	20.98	1010.6	20	
J268	1001.7	J268	22.11	1015.7	20	
J38	1000.7	J40	-7.89	1023.1	20	
J424	1013.3	J424	21.63	1024.3	20	
J286	1001.3	J286	23.45	1024.5	20	
J267	1001.7	J293	25.13	1037.0	20	
J303	1000.9	J303	28.14	1058.7	20	
J308	1000.0	J303	34.53	1153.9	20	

J281	1000.0	J293	35.31	1168.2	20	
J280	1000.9	J293	36.54	1191.0	20	
J16	1004.7	J16	34	1198.4	20	
J422	1006.0	J40	48.78	1237.4	20	
J227	1020.0	J40	48.78	1293.5	20	
J204	1001.7	J40	48.78	1374.0	20	
J279	1000.9	J293	44.91	1377.8	20	
J160	1001.7	J162	23.81	1415.2	20	
J420	1001.7	J40	48.78	1456.7	20	
J154	1001.7	J40	48.78	1471.3	20	
J34	1000.4	J40	48.78	1561.5	20	
J36	1000.4	J40	48.78	1573.4	20	
J228	1001.7	J40	48.78	1586.5	20	
J188	1001.7	J162	32.05	1657.2	20	
J285	1008.6	J162	36.44	1689.5	20	
J220	1001.7	J40	48.78	1720.2	20	
J226	1001.7	J40	48.78	1762.3	20	
J148	1001.7	J40	29.58	1774.9	20	
J159	1001.7	J162	32.05	1781.2	20	
J219	1001.7	J40	48.78	1788.7	20	
J225	1001.7	J40	48.78	1792.4	20	
J147	1001.7	J40	29.58	1826.4	20	
J12	1000.0	J40	48.78	1832.7	20	
J167	1000.4	J40	48.78	1868.9	20	
J218	1001.7	J40	48.78	1898.2	20	
J224	1001.7	J40	48.78	1902.2	20	
J217	1001.7	J40	48.78	1933.8	20	
J284	1001.7	J162	36.44	1957.9	20	
J277	1000.0	J40	29.58	1965.3	20	
J216	1001.7	J40	48.78	1965.6	20	
J418	1003.4	J40	48.78	1973.5	20	
J187	1001.7	J162	35.78	1976.2	20	
J426	1016.3	J40	48.78	1980.3	20	
J215	1001.7	J40	48.78	2012.6	20	
J158	1001.7	J162	35.78	2021.9	20	
J261	1004.3	J40	36.4	2047.3	20	
J283	1001.7	J162	36.44	2055.4	20	
J214	1001.7	J40	48.78	2056.2	20	
J205	1001.7	J40	48.78	2090.2	20	
J146	1001.7	J40	29.58	2098.1	20	
J230	1000.9	J40	48.78	2121.9	20	
J186	1001.7	J162	38.85	2151.9	20	
J174	1001.7	J40	48.78	2163.5	20	
J157	1001.7	J162	38.85	2185.0	20	
J145	1001.7	J40	29.58	2193.3	20	
J211	1001.7	J40	48.78	2226.1	20	
J414	1003.4	J162	40.24	2227.7	20	
J410	1002.1	J162	39.68	2228.4	20	

J412	1003.4	J162	40.49	2237.5	20	
J213	1001.7	J40	48.78	2258.8	20	
J221	1001.7	J40	48.78	2296.3	20	
J408	1003.0	J162	40.96	2300.6	20	
J222	1001.7	J40	48.78	2307.9	20	
J212	1001.7	J40	48.78	2312.8	20	
J223	1001.7	J40	48.78	2318.9	20	
J10	1001.9	J40	48.78	2340.6	20	
J194	1001.7	J40	48.78	2341.5	20	
J193	1001.7	J40	48.78	2344.0	20	
J14	1000.0	J40	48.78	2381.3	20	
J198	1001.7	J40	48.78	2407.4	20	
J195	1001.7	J40	48.78	2476.6	20	
J197	1001.7	J40	48.78	2478.2	20	
J173	1001.7	J40	48.78	2506.5	20	
J270	1001.7	J40	48.78	2541.3	20	
J192	1001.7	J40	48.78	2545.4	20	
J190	1001.7	J40	48.78	2550.9	20	
J206	1001.7	J40	48.78	2582.0	20	
J260	1001.7	J40	36.4	2591.0	20	
J191	1001.7	J40	48.78	2593.9	20	
J207	1001.7	J40	48.78	2599.5	20	
J259	1001.7	J40	36.4	2600.6	20	
J307	1000.4	J162	44.79	2612.2	20	
J18	1000.4	J40	48.78	2614.3	20	
J269	1001.7	J40	48.78	2619.8	20	
J163	1007.3	J40	48.78	2622.0	20	
J271	1001.7	J40	48.78	2643.0	20	
J144	1001.7	J40	36.4	2649.1	20	
J282	1000.0	J40	48.78	2653.5	20	
J153	1001.7	J40	48.78	2666.9	20	
J166	1001.7	J40	48.78	2682.0	20	
J165	1001.7	J40	48.78	2700.2	20	
J189	1001.7	J40	48.78	2715.0	20	
J199	1001.7	J40	48.78	2729.8	20	
J171	1001.7	J40	48.78	2736.2	20	
J262	1001.7	J40	48.78	2736.6	20	
J263	1001.7	J40	48.78	2745.7	20	
J164	1001.7	J40	48.78	2745.9	20	
J209	1001.7	J40	48.78	2748.4	20	
J155	1001.7	J40	48.78	2751.1	20	
J200	1001.7	J40	48.78	2756.4	20	
J170	1001.7	J40	48.78	2757.1	20	
J169	1001.7	J40	48.78	2761.1	20	
J201	1001.7	J40	48.78	2765.3	20	
J416	1000.4	J40	48.78	2770.0	20	
J152	1001.7	J40	48.78	2771.7	20	
J264	1001.7	J40	48.78	2777.8	20	

J172	1001.7	J40	48.78	2781.1	20	
J156	1001.7	J40	48.78	2786.0	20	
J175	1001.7	J40	48.78	2788.1	20	
J210	1001.7	J40	48.78	2790.2	20	
J272	1001.7	J40	48.78	2795.8	20	
J168	1001.7	J40	48.78	2797.6	20	
J176	1001.7	J40	48.78	2804.9	20	
J149	1001.7	J40	48.78	2808.7	20	
J202	1001.7	J40	48.78	2812.1	20	
J208	1001.7	J40	48.78	2817.4	20	
J177	1001.7	J40	48.78	2820.7	20	
J178	1001.7	J40	48.78	2827.5	20	
J150	1001.7	J40	48.78	2831.5	20	
J151	1001.7	J40	48.78	2833.1	20	
J179	1001.7	J40	48.78	2838.9	20	
J143	1000.0	J40	38.14	2843.1	20	
J203	1001.7	J40	48.78	2858.3	20	
J278	1000.4	J40	48.78	2864.1	20	
J180	1001.7	J40	48.78	2880.3	20	
J196	1001.7	J40	48.78	2900.6	20	
J181	1001.7	J40	48.78	2941.8	20	
J142	1000.0	J40	39.58	3040.1	20	
J141	1000.4	J40	40.9	3259.0	20	
J138	1000.0	J40	46.63	3618.5	20	
J139	1000.4	J40	45.22	3736.7	20	
J140	1000.0	J40	43.8	3947.5	20	
J231	1000.0	J40	44.11	4049.7	20	