

Приложение А-3

Результаты анализа распределительных сетей

2010(Hourly Max/Ежечный максимальный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание	
1 11_001		3.123	399.95	345.50	54.45	
2 12_029		2.297	399.98	346.00	53.98	
3 11_002		3.123	399.94	345.10	54.84	
4 11_005		1.649	399.93	344.70	55.23	
5 11_006		1.649	399.93	344.90	55.03	
6 11_007		1.649	399.91	345.80	54.11	
7 11_008		1.649	400.00	344.80	55.20	
8 21_003		1.649	400.05	345.00	55.05	
9 12_041		3.123	399.90	348.60	51.30	
10 12_003		3.548	399.90	349.80	50.10	
11 12_004		2.303	399.91	348.80	51.11	
12 12_005		3.548	399.83	349.50	50.33	
13 12_006		3.548	399.83	349.90	49.93	
14 12_007		3.548	399.86	350.50	49.36	
15 12_009		3.548	399.79	351.50	48.29	
16 12_010		3.548	399.79	350.80	48.99	
17 12_018		2.297	399.90	350.00	49.90	
18 12_019		2.297	399.90	349.80	50.10	
19 12_020		2.297	399.91	349.10	50.81	
20 12_021		2.297	399.91	350.50	49.41	
21 12_022		2.297	399.91	349.80	50.11	
22 12_027		2.297	400.01	346.50	53.51	
23 12_028		2.297	399.98	346.10	53.88	
24 12_030		2.297	399.94	347.30	52.64	
25 12_025		2.297	399.97	347.00	52.97	
26 12_032		2.297	399.95	349.00	50.95	
27 12_033		2.297	399.93	349.80	50.13	
28 12_034		2.297	400.00	348.20	51.80	
29 12_035		2.297	399.99	348.40	51.59	
30 12_002		3.543	400.18	349.30	50.88	
31 12_001		5.200	400.18	348.80	51.38	
32 22_052		5.232	400.20	350.00	50.20	
33 12_036		5.232	400.15	348.80	51.35	
34 12_037		5.232	400.06	348.20	51.86	
35 22_020		5.232	400.12	348.80	51.32	
36 12_038		2.297	399.95	349.50	50.45	
37 12_039		2.297	400.04	348.60	51.44	
38 22_012		2.297	400.05	346.80	53.25	
39 12_040		3.123	399.90	349.10	50.80	
40 12_031		2.297	399.96	349.10	50.86	
41 22_021		5.232	400.07	349.20	50.87	
42 12_050		5.232	400.11	348.90	51.21	
43 12_015		3.548	399.82	351.50	48.32	
44 22_001		2.297	400.08	346.10	53.98	
45 12_045		5.232	400.05	349.00	51.05	
46 12_046		2.297	400.01	349.00	51.01	
47 12_047		3.548	400.18	349.00	51.18	
48 23_005		5.232	400.25	351.80	48.45	
49 22_003		2.297	400.04	346.40	53.64	
50 13_001		3.548	398.31	355.10	43.21	
51 13_002		34.982	398.21	352.20	46.01	TETs-1(2)
52 13_004		3.548	398.98	361.10	37.88	
53 13_006		3.548	398.49	353.50	44.99	
54 23_001		3.548	398.75	355.70	43.05	
55 13_013		3.548	399.20	362.00	37.20	
56 23_059		3.548	399.32	364.50	34.82	
57 13_008		31.434	398.15	352.20	45.95	TETs-1(1)
58 21_004		3.123	400.11	345.34	54.77	
59 21_005		2.297	400.17	345.50	54.67	
60 22_002		2.297	400.19	346.50	53.69	

2010(Hourly Max/Ежечный максимальный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание	
61 21_007		2.297	400.14	345.40	54.74	
62 21_002		6.279	400.04	344.50	55.54	
63 21_008		6.279	400.04	344.00	56.04	
64 22_006		2.297	400.11	347.00	53.11	
65 22_007		2.297	400.11	346.50	53.61	
66 22_008		2.297	400.10	346.50	53.60	
67 22_009		2.297	400.12	346.00	54.12	
68 22_010		2.297	400.06	346.50	53.56	
69 22_011		2.297	400.06	346.60	53.46	
70 22_013		5.232	400.12	346.70	53.42	BPS/LWL:346.5,PH:65
71 22_014		5.232	400.10	348.00	52.10	
72 22_015		5.232	400.12	349.30	50.82	
73 22_016		5.232	400.13	350.10	50.03	
74 22_017		5.232	400.13	350.00	50.13	
75 22_018		5.232	400.16	350.60	49.56	
76 22_019		5.232	400.20	350.60	49.60	
77 22_022		5.232	400.17	349.80	50.37	
78 22_023		5.232	400.19	350.60	49.59	
79 22_024		5.232	400.19	348.20	51.99	
80 22_025		5.232	400.17	347.00	53.17	
81 22_026		5.232	400.22	352.00	48.22	
82 22_027		5.232	400.25	351.00	49.25	
83 22_028		5.232	400.19	348.00	52.19	
84 22_029		5.232	400.21	347.50	52.71	
85 22_030		5.232	400.23	350.10	50.13	
86 22_032		5.256	400.30	350.00	50.30	
87 22_033		5.232	400.24	352.40	47.84	
88 22_034		5.246	400.30	350.20	50.10	
89 22_035		5.232	400.24	352.60	47.64	
90 23_017		5.246	400.34	350.00	50.34	
91 22_036		5.232	400.28	352.00	48.28	
92 23_018		5.232	400.31	352.60	47.71	
93 22_037		5.232	400.27	352.90	47.37	
94 23_009		5.232	400.29	353.50	46.79	
95 22_038		5.232	400.28	353.00	47.28	
96 23_007		5.232	400.27	351.80	48.47	
97 22_039		5.246	400.50	350.00	50.50	
98 32_010		5.246	400.50	350.10	50.40	
99 22_040		5.246	400.35	346.80	53.55	
100 22_042		5.246	400.28	349.20	51.08	
101 22_043		5.246	400.33	346.00	54.33	
102 22_044		5.246	400.46	348.00	52.46	
103 32_016		5.246	400.46	347.40	53.06	
104 22_045		5.246	400.48	349.50	50.98	
105 22_059		5.246	400.48	349.50	50.98	
106 22_046		5.246	400.44	348.20	52.24	
107 23_010		5.246	400.57	352.00	48.57	
108 22_047		5.246	400.39	345.90	54.49	
109 22_048		5.246	400.39	345.50	54.89	
110 22_049		5.246	400.38	346.00	54.38	
111 22_050		5.246	400.39	344.50	55.89	
112 22_051		5.246	400.42	347.00	53.42	
113 23_041		5.246	400.50	349.80	50.70	
114 22_041		5.246	400.26	350.00	50.26	
115 22_053		2.297	400.11	346.50	53.61	
116 32_008		5.246	400.39	344.50	55.89	
117 22_054		5.232	400.22	350.80	49.42	
118 22_055		5.246	400.36	347.00	53.36	
119 23_016		5.246	400.41	348.50	51.91	
120 22_056		2.297	400.23	346.50	53.73	

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2010(Hourly Max/Ежечный максимальный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
	Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание
121	22_057	2.297	400.23	346.70	53.53	
122	22_058	5.246	400.38	346.00	54.38	
123	32_007	5.246	400.49	349.30	51.19	
124	23_004	8.007	399.13	360.50	38.63	
125	24_003	8.007	400.11	355.00	45.11	
126	23_006	5.232	400.27	352.50	47.77	
127	23_008	5.232	400.32	354.00	46.32	
128	23_011	5.246	400.69	354.00	46.69	
129	23_012	5.246	400.63	353.20	47.43	
130	23_013	5.246	400.60	354.00	46.60	
131	23_014	5.246	400.64	354.00	46.64	
132	23_015	5.246	400.52	352.00	48.52	
133	23_019	5.246	400.74	350.00	50.74	
134	33_036	5.246	400.69	348.00	52.69	
135	23_020	5.246	400.64	350.10	50.54	
136	33_048	5.246	400.59	350.20	50.39	
137	23_021	5.246	400.40	351.20	49.20	
138	23_022	5.232	400.38	351.80	48.58	
139	23_023	5.246	400.37	351.00	49.37	
140	23_024	5.246	400.41	349.70	50.71	
141	23_025	5.232	400.34	351.70	48.64	
142	23_026	4.110	400.43	353.70	46.73	
143	23_027	4.096	400.46	355.00	45.46	
144	23_028	4.096	400.52	354.50	46.02	
145	23_029	3.548	400.52	353.90	46.62	
146	23_030	4.096	400.43	354.20	46.23	
147	23_031	4.096	400.44	355.70	44.74	
148	23_033	4.096	400.70	356.10	44.60	
149	23_034	4.096	400.80	354.00	46.80	
150	23_039	4.157	400.82	350.52	50.30	
151	23_036	4.096	401.11	353.80	47.31	
152	23_037	4.096	401.12	354.80	46.32	
153	23_038	4.150	401.20	354.20	47.00	
154	23_039	4.096	401.05	355.50	45.55	
155	23_042	5.246	400.55	352.20	48.35	
156	23_045	4.096	400.64	356.50	44.14	
157	23_049	4.096	400.96	356.20	44.76	
158	23_050	4.096	401.08	355.20	45.88	
159	23_051	4.096	400.59	355.50	45.09	
160	23_053	8.007	401.13	354.40	46.73	
161	23_055	4.096	401.21	354.70	46.51	
162	23_056	4.096	401.29	354.40	46.89	
163	23_057	4.096	401.37	354.00	47.37	
164	23_058	4.096	401.45	353.60	47.85	
165	24_001	8.007	400.09	359.00	41.09	
166	24_006	4.096	401.54	353.10	48.44	
167	23_052	8.007	401.87	354.50	47.37	
168	23_060	4.096	401.87	355.00	46.87	
169	23_061	5.246	400.45	350.50	49.95	
170	23_062	4.096	400.62	355.80	44.82	
171	23_063	4.096	400.76	356.10	44.66	
172	23_064	4.096	400.58	356.00	44.58	
173	23_043	4.096	400.96	356.90	44.06	
174	23_065	4.096	401.00	356.30	44.70	
175	23_047	4.096	401.03	355.00	46.03	
176	23_078	3.548	399.08	359.90	39.18	
177	24_007	4.096	401.89	353.40	48.49	
178	23_066	4.096	401.03	356.10	44.93	
179	23_040	5.246	400.58	352.50	48.08	
180	23_071	4.096	401.28	354.40	46.88	

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2010(Hourly Max/Ежечный максимальный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
	Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание
181	23_073	4.096	401.35	354.00	47.35	
182	34_049	4.096	401.60	352.70	48.90	
183	23_074	4.150	401.36	353.30	48.06	
184	33_034	4.150	401.43	353.00	48.43	
185	23_075	4.150	401.23	354.40	46.83	
186	23_072	4.150	401.29	354.00	47.29	
187	23_076	4.150	401.06	353.00	48.06	
188	23_035	4.150	400.99	352.00	48.99	
189	23_077	4.150	400.92	351.00	49.92	
190	33_031	4.150	401.43	352.50	48.93	
191	33_040	4.150	400.70	348.00	52.70	
192	24_002	8.007	400.76	355.80	44.96	
193	24_004	8.007	401.30	351.90	49.40	
194	34_038	8.007	401.76	351.20	50.56	
195	24_008	-2651.107	402.00	353.00	49.00	LWL:352.0 + PH:50.0
196	34_011	8.225	401.71	354.00	47.71	
197	25_001	483.121	401.47	360.00	41.47	TETs-2
198	34_045	12.662	399.68	360.00	39.68	
199	34_048	4.096	401.75	351.20	50.55	
200	24_009	8.007	401.93	350.50	51.43	
201	32_002	2.279	400.45	344.20	56.25	
202	32_003	2.279	400.49	345.10	55.39	
203	33_020	18.883	400.54	345.00	55.54	
204	32_004	2.279	400.40	343.50	56.90	
205	32_005	5.246	400.48	347.40	53.08	
206	32_006	5.246	400.46	346.90	53.56	
207	33_044	5.246	400.54	348.40	52.14	
208	32_009	2.279	400.39	346.00	54.39	
209	33_047	5.246	400.55	350.20	50.35	
210	32_015	2.279	400.40	343.50	56.90	
211	32_013	2.279	400.40	344.00	56.40	
212	33_003	16.930	400.82	349.10	51.72	
213	34_015	16.930	400.66	348.30	52.36	
214	33_004	16.930	401.21	349.30	51.91	
215	34_030	16.930	401.35	350.50	50.85	
216	33_005	4.150	401.32	348.10	53.22	
217	33_006	4.150	400.88	346.00	54.88	
218	33_007	18.883	400.68	346.00	54.68	
219	33_008	4.150	401.12	346.80	54.32	
220	33_009	4.150	401.17	347.40	53.77	
221	33_011	4.150	401.32	348.60	52.72	
222	33_012	4.150	401.07	346.00	55.07	
223	33_013	4.150	401.00	345.50	55.50	
224	33_014	4.150	400.93	345.50	55.43	
225	33_015	4.150	401.32	348.00	53.32	
226	33_016	4.150	401.23	348.10	53.13	
227	33_017	4.150	401.24	346.80	54.44	
228	33_019	4.150	400.99	346.00	54.99	
229	33_021	18.883	400.62	346.30	54.32	
230	33_029	4.150	401.35	348.40	52.95	
231	34_036	4.150	401.51	349.40	52.11	
232	33_030	4.150	401.38	350.90	50.48	
233	33_028	4.150	401.58	350.30	51.28	
234	34_035	4.150	401.61	350.30	51.31	
235	33_032	4.150	401.51	350.00	51.51	
236	33_033	4.150	401.54	350.00	51.54	
237	34_034	4.150	401.49	352.80	48.69	
238	33_037	5.246	400.69	346.80	53.89	
239	33_038	5.246	400.63	347.70	52.93	
240	33_039	5.246	400.59	348.40	52.19	

2010(Hourly Max/Ежечный максимальный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание	
241 33_041	4.150	400.69	346.00	54.69		
242 33_042	5.246	400.69	345.90	54.79		
243 33_045	5.246	400.54	349.70	50.84		
244 33_046	5.246	400.56	349.20	51.36		
245 33_049	5.246	400.66	345.90	54.76		
246 33_050	4.150	401.11	347.30	53.81		
247 34_001	8.229	400.39	357.90	42.49		
248 34_002	8.225	400.48	358.20	42.28		
249 34_003	8.225	400.74	357.80	42.94		
250 34_004	8.225	400.59	357.80	42.79		
251 34_006	8.225	400.64	359.20	41.44		
252 34_007	8.225	400.94	357.30	43.64		
253 34_008	8.225	401.57	354.10	47.47		
254 34_009	8.225	400.94	357.00	43.94		
255 35_002	8.225	400.02	359.60	40.42		
256 34_010	8.225	400.48	358.60	41.88		
257 35_001	8.225	400.05	360.30	39.75		
258 34_012	8.225	401.05	356.50	44.55		
259 34_013	16.930	401.55	353.80	47.75		
260 34_016	16.930	400.61	350.80	49.81		
261 34_017	16.930	401.02	351.00	50.02		
262 34_018	16.930	401.06	356.30	44.76		
263 34_019	16.930	401.39	351.80	49.59		
264 34_020	16.930	401.06	353.20	47.86		
265 34_021	16.930	400.93	353.00	47.93		
266 34_022	16.930	400.93	352.20	48.73		
267 34_023	16.930	401.47	353.00	48.47		
268 34_026	16.930	401.18	356.70	44.48		
269 34_031	16.930	401.55	353.90	47.65		
270 34_032	16.930	401.52	354.00	47.52		
271 34_033	4.150	401.57	351.80	49.77		
272 34_037	4.150	401.64	350.00	51.64		
273 34_039	4.096	401.66	350.50	51.16		
274 34_043	12.662	399.24	354.00	45.24		
275 44_006	9.108	399.02	349.00	50.02		
276 34_044	12.662	399.48	359.00	40.48		
277 34_046	12.662	398.71	361.00	37.71		
278 45_001	12.662	397.83	360.00	37.83		
279 35_003	10.072	399.08	365.10	33.98		
280 35_007	12.662	398.53	367.00	31.53		
281 35_008	10.072	398.82	366.00	32.82		
282 35_009	19.874	398.82	367.50	31.32		
283 45_005	19.874	398.59	372.50	26.09		
284 36_004	9.303	398.55	367.50	31.05		
285 42_001	9.108	398.23	347.00	51.23		
286 42_002	9.108	397.54	347.00	50.54		
287 42_003	14.741	396.18	348.00	48.18		
288 52_004	14.743	394.36	348.00	46.36		
289 43_001	14.743	397.48	348.00	49.48		
290 43_002	9.108	397.63	348.00	49.63		
291 42_004	9.108	398.31	346.00	52.31		
292 42_005	9.108	398.28	346.00	52.28		
293 42_006	9.108	398.25	347.00	51.25		
294 42_007	9.108	398.35	346.00	52.35		
295 43_004	9.108	398.54	348.00	50.54		
296 43_003	9.108	397.44	348.00	49.44		
297 44_001	9.108	397.13	350.00	47.13		
298 43_005	9.108	398.61	348.00	50.61		
299 43_006	9.108	398.71	348.00	50.71		
300 44_003	9.108	397.56	355.00	42.56		

А.3-3

2010(Hourly Max/Ежечный максимальный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание	
301 44_005	9.108	398.88	347.00	51.88		
302 44_002	9.108	397.07	353.00	44.07		
303 54_007	68.433	396.67	353.00	43.67		
304 44_004	12.662	397.45	356.00	41.45		
305 44_007	68.435	397.05	357.00	40.05		
306 45_002	12.662	397.59	363.00	34.59		
307 54_002	68.433	396.90	353.00	43.90		
308 45_003	13.369	397.47	357.00	40.47		
309 52_001	14.743	392.43	349.50	42.93		
310 62_001	14.743	391.89	350.00	41.89		
311 52_005	14.743	393.07	349.00	44.07		
312 63_001	14.743	391.31	350.00	41.31		
313 62_002	2.244	391.62	350.00	41.62		
314 72_001	2.244	391.61	351.00	40.61		
315 62_003	2.244	391.47	350.60	40.87		
316 73_001	5.979	391.26	352.00	39.26		
317 63_002	0.000	391.30	350.00	41.30		
318 63_003	1.474	391.28	350.50	40.78		
319 63_005	2.244	391.27	350.50	40.77		

2010(Hourly Max/Ежечный максимальный)

[Pipe]	Node(u) Верхний	Node(d) Нижний	Dia.(mm) Диам.(мм)	Length(m) Длина(м)	C	Flow(l/s) Течение(л/с)	Velocity(m/s) Скорость(м/с)	Gradient(%) Градуc(%)
1	12_029	11_001	400	760	110	11.265	0.090	0.04
2	11_001	11_002	400	490	110	8.142	0.065	0.02
3	11_005	11_006	400	880	110	3.370	0.027	0.00
4	11_006	11_007	300	220	110	7.239	0.102	0.07
5	21_003	11_008	300	700	110	7.167	0.101	0.07
6	11_002	11_005	400	680	110	5.019	0.040	0.01
7	11_008	11_006	300	1720	110	5.518	0.078	0.04
8	11_007	12_041	400	1630	110	5.590	0.044	0.01
9	12_004	12_003	300	970	110	3.548	0.050	0.02
10	12_004	12_005	300	320	110	14.768	0.209	0.26
11	12_007	12_006	200	330	110	2.972	0.095	0.10
12	12_010	12_009	300	400	110	3.548	0.050	0.02
13	12_005	12_006	300	140	110	4.124	0.058	0.02
14	12_005	12_010	300	590	110	7.096	0.100	0.07
15	12_019	12_018	300	50	110	9.473	0.134	0.11
16	12_020	12_019	300	140	110	7.824	0.111	0.08
17	12_021	12_019	300	340	110	3.946	0.056	0.02
18	12_022	12_021	300	150	110	4.111	0.058	0.02
19	12_027	12_028	400	290	110	15.859	0.126	0.07
20	12_028	12_029	400	120	110	13.562	0.108	0.05
21	12_025	12_030	300	450	110	6.725	0.095	0.06
22	12_032	12_030	300	170	110	5.283	0.075	0.04
23	12_030	12_020	300	250	110	9.711	0.137	0.12
24	12_022	12_020	300	340	110	0.410	0.006	0.00
25	12_033	12_022	300	360	110	6.818	0.096	0.06
26	12_034	12_035	300	110	110	6.563	0.093	0.06
27	12_002	12_035	300	470	110	18.485	0.262	0.39
28	22_052	12_001	700	410	110	56.678	0.147	0.05
29	12_001	12_036	300	120	110	15.965	0.226	0.30
30	22_020	12_037	300	330	110	12.755	0.180	0.20
31	12_038	12_033	300	110	110	9.115	0.129	0.11
32	12_034	12_038	300	340	110	11.412	0.161	0.16
33	22_012	12_039	400	510	110	7.881	0.063	0.02
34	12_018	12_040	400	720	110	0.656	0.005	0.00
35	12_031	12_032	300	180	110	7.580	0.107	0.08
36	22_021	12_037	300	380	110	3.906	0.055	0.02
37	12_001	12_050	300	200	110	17.010	0.241	0.33
38	12_006	12_015	300	730	110	3.548	0.050	0.02
39	12_035	12_004	300	140	110	22.751	0.322	0.57
40	12_004	12_021	300	730	110	2.132	0.030	0.01
41	12_027	12_025	300	350	110	9.022	0.128	0.10
42	22_001	12_027	300	770	110	8.417	0.119	0.09
43	12_037	12_045	300	240	110	4.839	0.068	0.03
44	12_045	12_034	300	110	110	20.272	0.287	0.46
45	12_037	12_039	300	370	110	6.590	0.093	0.06
46	12_046	12_031	300	370	110	9.877	0.140	0.12
47	12_039	12_046	300	170	110	12.174	0.172	0.18
48	12_001	12_047	600	120	110	18.503	0.065	0.01
49	12_036	22_020	300	140	110	10.990	0.155	0.15
50	22_052	12_036	300	530	110	9.143	0.129	0.11
51	23_005	12_047	300	1080	110	7.074	0.100	0.07
52	12_018	12_007	300	630	110	6.520	0.092	0.06
53	22_003	12_027	400	350	110	18.761	0.149	0.10
54	12_041	12_040	400	440	110	2.467	0.020	0.00
55	12_050	12_045	300	130	110	20.664	0.292	0.48
56	12_036	12_050	300	310	110	8.887	0.126	0.10
57	12_047	12_002	600	80	110	22.028	0.078	0.02
58	13_001	13_002	400	320	110	34.982	0.278	0.31
59	13_004	13_001	400	1800	110	38.530	0.307	0.37
60	23_001	13_006	400	840	110	34.982	0.278	0.31

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2010(Hourly Max/Ежечный максимальный)

[Pipe]	Node(u) Верхний	Node(d) Нижний	Dia.(mm) Диам.(мм)	Length(m) Длина(м)	C	Flow(l/s) Течение(л/с)	Velocity(m/s) Скорость(м/с)	Gradient(%) Градуc(%)
61	23_059	13_013	400	240	110	45.626	0.363	0.51
62	13_013	13_004	400	490	110	42.078	0.335	0.44
63	13_006	13_008	400	1330	110	31.434	0.250	0.26
64	21_004	21_003	400	1200	110	13.174	0.105	0.05
65	22_002	21_005	600	410	110	39.805	0.141	0.06
66	21_005	22_001	300	650	110	10.714	0.152	0.14
67	21_005	21_007	500	380	110	26.794	0.136	0.06
68	21_003	21_002	300	480	110	4.358	0.062	0.03
69	21_008	21_002	300	1170	110	1.921	0.027	0.01
70	21_007	21_004	400	210	110	24.497	0.195	0.16
71	21_004	21_008	300	780	110	8.200	0.116	0.09
72	22_006	22_007	300	410	110	0.380	0.005	0.00
73	22_007	22_008	300	110	110	11.549	0.163	0.16
74	22_009	22_003	300	660	110	9.519	0.135	0.11
75	22_009	22_006	300	180	110	2.677	0.038	0.01
76	22_010	22_011	400	200	110	6.955	0.055	0.02
77	22_011	22_012	400	360	110	10.178	0.081	0.03
78	22_011	22_003	400	490	110	11.539	0.092	0.04
79	22_013	22_014	300	950	110	3.994	0.057	0.02
80	22_015	22_014	300	180	110	10.376	0.147	0.13
81	22_016	22_015	300	330	110	4.302	0.061	0.03
82	22_018	22_017	300	280	110	8.805	0.125	0.10
83	22_019	22_016	300	330	110	12.959	0.183	0.20
84	22_016	22_020	300	390	110	3.522	0.050	0.02
85	22_017	22_020	300	400	110	3.476	0.049	0.02
86	22_014	22_021	300	290	110	9.138	0.129	0.11
87	22_022	22_015	300	330	110	11.305	0.160	0.16
88	22_024	22_023	300	660	110	0.302	0.004	0.00
89	22_023	22_022	300	410	110	4.316	0.061	0.03
90	22_025	22_013	400	240	110	28.582	0.227	0.22
91	22_026	22_019	400	410	110	14.509	0.115	0.06
92	22_019	22_022	400	340	110	15.494	0.123	0.07
93	22_027	22_019	400	520	110	19.176	0.153	0.10
94	22_022	22_025	400	650	110	3.272	0.026	0.00
95	22_024	22_025	600	400	110	30.542	0.108	0.03
96	22_028	22_024	600	80	110	36.076	0.128	0.05
97	22_030	22_029	600	270	110	46.540	0.165	0.07
98	22_032	22_026	400	660	110	20.684	0.165	0.12
99	22_026	22_023	300	350	110	9.246	0.131	0.11
100	22_033	22_026	300	170	110	8.303	0.117	0.09
101	22_034	22_032	600	170	110	19.260	0.068	0.01
102	22_035	22_033	300	170	110	4.207	0.060	0.03
103	23_017	22_034	400	360	110	19.820	0.158	0.11
104	22_036	22_033	300	420	110	9.327	0.132	0.11
105	22_034	22_036	300	260	110	7.523	0.106	0.07
106	23_018	22_036	300	350	110	7.036	0.100	0.07
107	23_005	22_018	300	390	110	14.037	0.199	0.23
108	22_037	22_027	400	420	110	10.255	0.082	0.03
109	23_009	22_037	300	240	110	9.040	0.128	0.10
110	22_038	22_037	400	210	110	15.886	0.126	0.07
111	23_007	22_027	400	250	110	14.153	0.113	0.06
112	32_010	22_039	300	350	110	1.386	0.020	0.00
113	22_040	22_032	400	320	110	23.081	0.184	0.15
114	22_032	22_042	400	340	110	16.401	0.131	0.08
115	22_043	22_042	300	310	110	11.615	0.164	0.17
116	22_044	32_016	300	190	110	2.556	0.036	0.01
117	22_045	22_059	300	180	110	2.134	0.030	0.01
118	22_045	22_044	600	350	110	42.247	0.149	0.06
119	22_039	22_046	300	340	110	11.734	0.166	0.17
120	22_039	22_045	600	180	110	61.445	0.217	0.12

2010(Hourly Max/Ежесуточный максимальный)

[Pipe]	Node(u)	Node(d)	Dia.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
Верхний	Нижний	диам.(мм)	Длина(м)			Течение(л/с)	Скорость(м/с)	Градуус(%)
121	23_010	22_039	600	350	110	77.038	0.272	0.19
122	22_044	22_047	300	360	110	12.458	0.176	0.19
123	22_047	22_048	600	220	110	21.440	0.076	0.02
124	22_050	22_049	800	190	110	38.571	0.077	0.01
125	22_044	22_050	300	630	110	9.529	0.135	0.11
126	22_045	22_051	300	350	110	11.818	0.167	0.17
127	22_051	22_047	700	340	110	76.371	0.198	0.09
128	22_046	22_051	700	180	110	97.612	0.254	0.14
129	23_041	22_046	700	360	110	105.128	0.273	0.16
130	22_047	22_043	600	360	110	74.601	0.264	0.18
131	22_043	22_041	600	520	110	64.631	0.229	0.14
132	22_051	22_040	400	350	110	27.812	0.221	0.20
133	22_040	22_043	300	340	110	6.891	0.097	0.06
134	22_042	22_041	400	280	110	15.357	0.122	0.07
135	22_029	22_028	600	340	110	41.308	0.146	0.06
136	22_044	22_047	300	360	110	12.458	0.176	0.19
137	22_041	22_030	600	400	110	44.359	0.157	0.07
138	22_017	22_016	300	400	110	0.097	0.001	0.00
139	22_053	22_011	400	660	110	17.059	0.136	0.08
140	32_008	22_050	800	350	110	34.288	0.068	0.01
141	22_013	22_053	500	170	110	19.356	0.099	0.04
142	22_054	22_052	700	270	110	71.052	0.185	0.08
143	22_055	22_034	300	310	110	12.209	0.173	0.18
144	22_055	22_040	300	170	110	7.406	0.105	0.07
145	23_016	22_055	300	360	110	10.856	0.154	0.15
146	22_046	22_055	300	360	110	14.004	0.198	0.23
147	22_002	22_009	350	640	110	14.493	0.151	0.12
148	23_005	22_054	700	330	110	76.284	0.198	0.09
149	22_056	22_057	700	230	110	14.620	0.038	0.00
150	22_056	22_007	300	550	110	13.466	0.191	0.22
151	22_008	22_010	300	300	110	9.252	0.131	0.11
152	22_037	22_035	300	200	110	9.439	0.134	0.11
153	23_018	22_038	400	220	110	21.118	0.168	0.12
154	22_048	22_058	600	430	110	16.194	0.057	0.01
155	22_057	22_002	600	390	110	56.595	0.200	0.11
156	22_058	22_057	600	2230	110	44.272	0.157	0.07
157	22_041	22_056	700	1480	110	30.383	0.079	0.02
158	22_042	22_030	300	640	110	7.412	0.105	0.07
159	22_049	22_058	800	150	110	33.325	0.066	0.01
160	32_007	22_059	300	170	110	5.491	0.078	0.04
161	22_059	32_016	200	350	110	2.379	0.076	0.06
162	24_003	23_004	400	1610	110	50.085	0.399	0.61
163	23_006	23_005	800	300	110	102.627	0.204	0.08
164	23_006	23_007	400	160	110	12.778	0.102	0.05
165	23_008	23_006	800	400	110	120.638	0.240	0.11
166	23_009	23_007	300	410	110	6.606	0.093	0.06
167	23_011	23_012	600	160	110	111.447	0.394	0.37
168	23_014	23_013	500	170	110	54.000	0.275	0.24
169	23_013	23_015	500	340	110	52.874	0.269	0.23
170	23_016	23_017	400	330	110	28.193	0.224	0.21
171	23_017	23_018	400	240	110	23.417	0.186	0.15
172	23_019	33_036	400	320	110	22.470	0.179	0.14
173	23_020	33_048	400	130	110	36.977	0.294	0.35
174	23_015	23_021	400	320	110	39.497	0.314	0.39
175	23_021	23_022	400	240	110	17.171	0.137	0.08
176	23_024	23_023	300	210	110	12.184	0.172	0.18
177	23_023	23_025	300	240	110	10.563	0.149	0.14
178	23_025	23_018	300	240	110	9.970	0.141	0.12
179	23_022	23_025	300	170	110	13.958	0.197	0.23
180	23_023	23_017	400	240	110	20.290	0.161	0.11

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2010(Hourly Max/Ежесуточный максимальный)

[Pipe]	Node(u)	Node(d)	Dia.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
Верхний	Нижний	диам.(мм)	Длина(м)			Течение(л/с)	Скорость(м/с)	Градуус(%)
181	23_021	23_023	400	170	110	23.915	0.190	0.15
182	23_026	23_022	800	380	110	139.447	0.277	0.14
183	23_027	23_026	800	220	110	147.299	0.293	0.15
184	23_029	23_028	300	370	110	2.960	0.042	0.01
185	23_026	23_030	300	130	110	3.742	0.053	0.02
186	23_031	23_030	300	210	110	7.189	0.102	0.07
187	23_028	23_027	800	350	110	151.395	0.301	0.16
188	23_033	23_013	700	370	110	144.561	0.376	0.28
189	23_034	23_011	600	310	110	108.482	0.384	0.35
190	23_079	23_034	300	330	110	6.985	0.099	0.06
191	23_037	23_036	500	490	110	4.096	0.021	0.00
192	23_038	23_037	600	250	110	105.414	0.373	0.33
193	23_039	23_034	600	750	110	105.593	0.373	0.34
194	23_042	23_041	700	230	110	129.577	0.337	0.23
195	23_049	23_045	600	370	110	178.516	0.631	0.89
196	23_050	23_039	900	160	110	247.355	0.389	0.22
197	23_037	23_050	600	110	110	97.222	0.344	0.29
198	23_025	23_009	300	430	110	9.319	0.132	0.11
199	23_022	23_008	800	450	110	137.428	0.273	0.13
200	23_008	23_009	300	160	110	11.559	0.164	0.16
201	23_051	23_028	700	520	110	96.271	0.250	0.13
202	23_055	23_053	700	360	110	133.851	0.348	0.25
203	23_056	23_055	900	250	110	286.436	0.450	0.29
204	23_057	23_056	900	270	110	290.532	0.457	0.30
205	23_058	23_057	900	250	110	294.628	0.463	0.31
206	24_001	23_059	400	1320	110	49.174	0.391	0.59
207	24_006	23_058	900	280	110	298.724	0.470	0.32
208	23_052	23_060	500	980	110	4.096	0.021	0.00
209	23_015	23_061	300	170	110	18.770	0.266	0.40
210	23_063	23_062	300	330	110	18.831	0.266	0.40
211	23_064	23_015	300	380	110	10.639	0.151	0.14
212	23_062	23_064	300	190	110	14.735	0.208	0.26
213	23_063	23_033	700	180	110	148.657	0.386	0.30
214	23_065	23_043	700	180	110	133.570	0.347	0.24
215	23_039	23_065	700	170	110	137.666	0.358	0.26
216	23_053	23_047	700	450	110	125.844	0.327	0.22
217	23_043	23_063	700	520	110	171.584	0.446	0.39
218	23_004	23_078	400	130	110	42.078	0.335	0.44
219	24_007	23_052	500	1050	110	12.103	0.062	0.01
220	23_028	23_031	300	500	110	11.285	0.160	0.16
221	23_030	23_021	300	480	110	6.835	0.097	0.06
222	23_050	23_066	600	170	110	107.070	0.379	0.34
223	23_041	23_016	400	330	110	32.105	0.255	0.27
224	23_010	23_041	300	330	110	12.902	0.183	0.20
225	23_011	23_014	500	170	110	59.246	0.302	0.28
226	23_019	23_011	600	330	110	67.456	0.239	0.15
227	23_055	23_050	900	520	110	261.300	0.411	0.25
228	23_051	23_029	300	1140	110	6.508	0.092	0.06
229	23_045	23_051	600	140	110	106.875	0.378	0.34
230	23_061	23_016	300	230	110	12.191	0.172	0.18
231	23_061	23_024	300	130	110	17.430	0.247	0.35
232	23_013	23_042	700	170	110	140.440	0.365	0.27
233	23_042	23_061	300	330	110	16.097	0.228	0.30
234	23_040	23_042	300	160	110	10.479	0.148	0.14
235	23_012	23_010	600	220	110	95.186	0.337	0.28
236	23_012	23_040	300	180	110	15.725	0.222	0.29
237	23_019	23_020	400	180	110	46.933	0.373	0.54
238	23_020	23_012	300	340	110	4.710	0.067	0.03
239	23_066	23_049	600	190	110	102.974	0.364	0.32
240	23_049	23_043	700	160	110	42.110	0.109	0.03

2010(Hourly Max/Ежечный максимальный)

[Pipe]	Node(u) Верхний	Node(d) Нижний	Dia.(mm) Диам.(мм)	Length(m) Длина(м)	C	Flow(l/s) Течение(л/с)	Velocity(m/s) Скорость(м/с)	Gradient(%) Градуc(%)
241	23_047	23_049	700	300	110	121.748	0.316	0.21
242	23_071	23_055	500	260	110	55.056	0.280	0.24
243	23_073	23_071	500	270	110	59.152	0.301	0.28
244	34_049	23_073	500	780	110	63.248	0.322	0.32
245	33_034	23_074	800	260	110	196.691	0.391	0.26
246	23_075	23_055	700	350	110	57.755	0.150	0.05
247	23_072	23_075	800	240	110	188.391	0.375	0.24
248	23_074	23_072	800	270	110	192.541	0.383	0.25
249	23_076	23_035	700	170	110	179.437	0.466	0.42
250	23_035	23_077	700	170	110	175.287	0.455	0.40
251	33_031	23_038	600	300	110	166.665	0.589	0.78
252	23_075	23_038	800	280	110	126.486	0.252	0.12
253	23_038	23_076	700	310	110	183.587	0.477	0.44
254	23_045	23_028	600	800	110	67.545	0.239	0.15
255	23_078	23_001	400	870	110	38.530	0.307	0.37
256	23_079	33_040	300	320	110	17.890	0.253	0.37
257	23_079	23_019	700	300	110	142.105	0.369	0.27
258	23_077	23_079	700	270	110	171.137	0.445	0.39
259	24_002	24_001	400	1170	110	48.478	0.386	0.57
260	24_003	24_001	400	750	110	8.703	0.069	0.02
261	24_004	24_003	400	1150	110	66.795	0.532	1.04
262	24_004	24_002	400	710	110	56.485	0.449	0.76
263	34_038	24_006	900	680	110	302.820	0.476	0.33
264	24_008	34_011	1000	640	110	475.185	0.605	0.45
265	24_008	24_004	600	1390	110	131.287	0.464	0.50
266	24_008	34_038	1000	830	110	375.270	0.478	0.29
267	24_008	25_001	1000	4120	110	242.034	0.308	0.13
268	24_008	25_001	1000	4150	110	241.087	0.307	0.13
269	24_008	34_045	1000	4750	110	496.096	0.632	0.49
270	24_008	34_048	1000	830	110	378.263	0.482	0.30
271	24_009	24_007	500	1770	110	16.199	0.083	0.03
272	24_009	34_038	900	590	110	287.680	0.452	0.30
273	24_008	24_009	1000	320	110	311.886	0.397	0.21
274	32_003	32_002	600	660	110	41.876	0.148	0.06
275	33_020	32_003	600	740	110	46.474	0.164	0.07
276	32_002	32_004	600	920	110	39.597	0.140	0.05
277	32_005	32_006	300	330	110	6.709	0.095	0.06
278	33_044	32_005	300	540	110	9.636	0.136	0.12
279	32_006	32_016	300	170	110	0.311	0.004	0.00
280	32_007	32_006	300	360	110	7.901	0.112	0.08
281	32_006	32_008	300	640	110	9.053	0.128	0.10
282	32_009	32_008	900	680	110	30.481	0.048	0.00
283	32_010	32_007	400	180	110	18.638	0.148	0.10
284	33_047	32_010	400	260	110	25.270	0.201	0.17
285	32_003	32_005	300	1570	110	2.319	0.033	0.01
286	32_004	32_015	600	320	110	4.558	0.016	0.00
287	32_004	32_009	900	1150	110	32.760	0.051	0.01
288	32_015	32_013	600	570	110	2.279	0.008	0.00
289	33_003	34_015	400	560	110	33.860	0.269	0.29
290	33_004	33_003	400	620	110	50.790	0.404	0.62
291	34_030	33_004	400	380	110	38.108	0.303	0.37
292	33_005	33_004	400	490	110	29.612	0.236	0.23
293	33_005	33_006	600	1270	110	107.273	0.379	0.35
294	33_006	33_007	400	300	110	52.461	0.417	0.66
295	33_006	33_007	400	320	110	50.662	0.403	0.62
296	33_009	33_008	400	230	110	29.867	0.238	0.23
297	33_005	33_011	400	290	110	3.231	0.026	0.00
298	33_008	33_012	400	360	110	21.567	0.172	0.13
299	33_012	33_013	300	200	110	17.417	0.246	0.35
300	33_013	33_014	300	330	110	13.267	0.188	0.21

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2010(Hourly Max/Ежечный максимальный)

[Pipe]	Node(u) Верхний	Node(d) Нижний	Dia.(mm) Диам.(мм)	Length(m) Длина(м)	C	Flow(l/s) Течение(л/с)	Velocity(m/s) Скорость(м/с)	Gradient(%) Градуc(%)
301	33_015	33_011	400	430	110	0.919	0.007	0.00
302	33_015	33_016	300	150	110	22.758	0.322	0.57
303	33_015	33_017	400	210	110	38.167	0.304	0.37
304	33_019	33_014	300	230	110	14.458	0.205	0.25
305	33_017	33_009	400	240	110	34.017	0.271	0.30
306	33_021	33_020	600	560	110	65.357	0.231	0.14
307	33_029	33_005	600	190	110	74.990	0.265	0.18
308	34_036	33_029	400	420	110	38.696	0.308	0.38
309	33_030	33_015	600	420	110	65.994	0.233	0.14
310	33_031	33_030	600	350	110	70.144	0.248	0.16
311	34_035	33_028	1000	270	110	253.409	0.323	0.14
312	33_033	33_032	1000	270	110	245.109	0.312	0.13
313	33_028	33_033	1000	230	110	249.259	0.317	0.14
314	34_034	33_034	800	250	110	200.841	0.400	0.27
315	33_037	33_036	500	430	110	1.353	0.007	0.00
316	33_038	33_039	300	110	110	16.704	0.236	0.32
317	33_032	33_031	1000	590	110	240.959	0.307	0.13
318	33_040	33_036	400	310	110	9.590	0.076	0.03
319	33_040	33_041	300	440	110	4.150	0.059	0.02
320	33_042	33_037	500	210	110	6.599	0.034	0.00
321	33_045	33_044	300	140	110	2.182	0.031	0.01
322	33_046	33_045	300	250	110	7.428	0.105	0.07
323	33_039	33_046	300	180	110	12.674	0.179	0.19
324	33_048	33_047	400	190	110	30.516	0.243	0.24
325	33_036	33_038	400	300	110	28.167	0.224	0.21
326	33_007	33_021	600	370	110	72.825	0.258	0.17
327	33_029	33_005	600	220	110	69.277	0.245	0.15
328	33_007	33_021	300	390	110	11.415	0.161	0.16
329	33_014	33_042	300	390	110	23.575	0.334	0.61
330	33_048	33_039	300	210	110	1.215	0.017	0.00
331	33_042	33_049	300	170	110	11.729	0.166	0.17
332	33_016	33_019	300	620	110	18.608	0.263	0.40
333	33_038	33_044	300	460	110	12.700	0.180	0.19
334	34_036	33_029	600	440	110	109.721	0.388	0.36
335	33_008	33_050	300	300	110	4.150	0.059	0.02
336	33_049	33_038	300	630	110	6.483	0.092	0.06
337	34_002	34_001	400	580	110	24.249	0.193	0.16
338	34_003	34_004	500	240	110	92.992	0.474	0.64
339	34_006	34_002	400	360	110	41.453	0.330	0.43
340	34_007	34_006	400	500	110	49.678	0.395	0.60
341	34_008	34_007	400	810	110	57.499	0.458	0.78
342	34_009	34_003	500	260	110	101.217	0.515	0.75
343	34_009	34_007	300	600	110	0.404	0.006	0.00
344	34_001	35_002	500	500	110	100.787	0.513	0.75
345	34_002	34_010	400	180	110	8.979	0.071	0.03
346	34_010	35_001	400	340	110	74.085	0.590	1.25
347	34_011	34_012	500	660	110	118.072	0.601	1.00
348	34_011	34_008	1000	550	110	348.888	0.444	0.25
349	34_008	34_013	1000	100	110	283.165	0.361	0.17
350	34_015	34_016	400	620	110	16.930	0.135	0.08
351	34_018	34_017	600	850	110	32.905	0.116	0.04
352	34_019	34_020	300	260	110	34.815	0.493	1.26
353	34_020	34_021	300	370	110	17.885	0.253	0.37
354	34_021	34_022	300	170	110	0.955	0.014	0.00
355	34_017	34_022	300	320	110	15.975	0.226	0.30
356	34_023	34_019	700	500	110	106.783	0.277	0.16
357	34_019	34_030	600	430	110	55.038	0.195	0.10
358	34_013	34_026	600	670	110	140.095	0.495	0.57
359	34_013	34_031	1000	60	110	157.573	0.201	0.06
360	34_032	34_023	700	250	110	123.713	0.321	0.21

2010(Hourly Max/Ежечный максимум)

[Pipe]	Node(u)	Node(d)	Dia.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
	Верхний	Нижний	диам.(мм)	Длина(м)		Течение(л/с)	Скорость(м/с)	Градус(%)
361	34_033	34_034	800	260	110	204.991	0.408	0.28
362	34_037	34_035	1000	210	110	257.559	0.328	0.15
363	34_038	34_039	1000	380	110	352.122	0.448	0.26
364	34_037	34_036	400	330	110	39.974	0.318	0.40
365	34_037	34_036	600	350	110	112.593	0.398	0.38
366	34_018	34_010	500	1390	110	73.330	0.373	0.42
367	34_026	34_018	600	270	110	123.165	0.436	0.45
368	34_043	44_006	1000	750	110	375.411	0.478	0.29
369	34_044	34_043	1000	790	110	388.073	0.494	0.31
370	34_045	34_044	1000	610	110	400.735	0.510	0.33
371	34_045	34_046	400	630	110	82.699	0.658	1.54
372	34_046	45_001	400	780	110	70.037	0.557	1.13
373	34_004	34_001	500	360	110	84.767	0.432	0.54
374	34_048	34_037	1000	670	110	275.390	0.351	0.16
375	34_048	34_013	400	780	110	31.434	0.250	0.26
376	34_048	34_049	500	440	110	67.344	0.343	0.35
377	34_039	34_037	1000	330	110	138.886	0.177	0.05
378	34_039	34_033	800	320	110	209.141	0.416	0.29
379	34_031	34_032	700	100	110	140.643	0.365	0.27
380	34_012	34_009	500	130	110	109.847	0.559	0.88
381	35_001	35_002	400	570	110	14.507	0.115	0.06
382	35_002	35_003	500	1120	110	107.069	0.545	0.84
383	35_007	45_001	500	1550	110	76.564	0.390	0.45
384	35_003	35_008	500	370	110	96.997	0.494	0.70
385	35_009	45_005	400	1030	110	29.177	0.232	0.22
386	35_009	35_008	500	660	110	2.302	0.012	0.00
387	35_008	35_007	500	490	110	89.226	0.454	0.60
388	35_001	35_009	400	1930	110	51.353	0.409	0.64
389	45_005	36_004	400	1380	110	9.303	0.074	0.03
390	42_001	42_002	400	540	110	74.389	0.592	1.26
391	42_002	42_003	400	990	110	77.805	0.619	1.37
392	42_003	52_004	400	1010	110	90.144	0.717	1.80
393	43_001	42_003	300	1640	110	27.080	0.383	0.79
394	43_002	42_002	400	1780	110	12.524	0.100	0.05
395	42_004	42_005	800	400	110	101.713	0.202	0.08
396	42_005	42_006	800	540	110	92.605	0.184	0.06
397	42_006	42_001	800	360	110	83.497	0.166	0.05
398	42_007	42_004	800	460	110	110.821	0.220	0.09
399	43_004	42_007	800	1830	110	119.929	0.239	0.10
400	43_002	43_001	500	990	110	41.823	0.213	0.15
401	43_002	43_003	400	550	110	36.743	0.292	0.34
402	43_003	44_001	400	1530	110	27.635	0.220	0.20
403	43_005	43_004	1000	530	110	229.235	0.292	0.12
404	43_006	43_005	1000	810	110	238.343	0.303	0.13
405	43_006	44_003	500	1310	110	109.743	0.559	0.88
406	44_005	43_006	1000	660	110	357.195	0.455	0.27
407	43_004	43_002	500	1240	110	100.198	0.510	0.74
408	44_001	44_002	400	590	110	18.527	0.147	0.10
409	44_002	54_007	400	810	110	45.135	0.359	0.50
410	44_003	44_004	500	360	110	61.489	0.313	0.30
411	45_001	44_004	500	1590	110	54.366	0.277	0.24
412	44_006	44_005	1000	490	110	366.303	0.466	0.28
413	44_003	44_002	400	1270	110	39.147	0.312	0.39
414	44_002	44_007	300	1170	110	3.431	0.049	0.02
415	45_002	44_007	300	1560	110	17.302	0.245	0.35
416	44_004	44_007	600	1250	110	103.193	0.365	0.32
417	44_007	54_002	600	1440	110	55.491	0.196	0.10
418	45_001	45_002	600	1220	110	79.573	0.281	0.20
419	45_002	45_003	600	1420	110	49.609	0.175	0.08
420	45_003	54_002	400	1700	110	36.240	0.288	0.33

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2010(Hourly Max/Ежечный максимум)

[Pipe]	Node(u)	Node(d)	Dia.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
	Верхний	Нижний	диам.(мм)	Длина(м)		Течение(л/с)	Скорость(м/с)	Градус(%)
421	52_001	62_001	400	1030	110	45.915	0.365	0.52
422	52_004	52_005	400	1000	110	75.401	0.600	1.30
423	52_005	52_001	400	740	110	60.658	0.483	0.87
424	54_002	54_007	400	1620	110	23.298	0.185	0.15
425	62_001	63_001	300	1500	110	18.461	0.261	0.39
426	62_001	62_002	300	1390	110	12.711	0.180	0.20
427	62_002	72_001	300	2020	110	2.244	0.032	0.01
428	62_002	62_003	300	1760	110	8.223	0.116	0.09
429	62_003	73_001	300	4300	110	5.979	0.085	0.05
430	63_001	63_002	300	670	110	3.718	0.053	0.02
431	63_002	63_003	300	860	110	3.718	0.053	0.02
432	63_003	63_005	300	850	110	2.244	0.032	0.01

2020(Hourly Max/Ежечный максимум)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
	Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание
1	11_001	7.155	398.45	345.50	52.95	
2	12_029	3.647	398.64	346.00	52.64	
3	11_002	7.155	398.38	345.10	53.28	
4	11_005	1.925	398.34	344.70	53.64	
5	11_006	1.925	398.29	344.90	53.39	
6	11_007	1.925	398.29	345.80	52.49	
7	11_008	1.925	397.78	344.80	52.98	
8	21_003	1.925	397.61	345.00	52.61	
9	12_041	7.155	398.31	348.60	49.71	
10	12_003	4.780	398.57	349.80	48.77	
11	12_004	3.654	398.60	348.80	49.80	
12	12_005	4.780	398.41	349.50	48.91	
13	12_006	4.780	398.39	349.90	48.49	
14	12_007	4.780	398.39	350.50	47.89	
15	12_009	4.780	398.32	351.50	46.82	
16	12_010	4.780	398.34	350.80	47.54	
17	12_018	3.647	398.41	350.00	48.41	
18	12_019	3.647	398.46	349.80	48.66	
19	12_020	3.647	398.52	349.10	49.42	
20	12_021	3.647	398.52	350.50	48.02	
21	12_022	3.647	398.53	349.80	48.73	
22	12_027	3.647	398.77	346.50	52.27	
23	12_028	3.647	398.67	346.10	52.57	
24	12_030	3.647	398.63	347.30	51.33	
25	12_025	3.647	398.69	347.00	51.69	
26	12_032	3.647	398.66	349.00	49.66	
27	12_033	3.647	398.63	349.80	48.83	
28	12_034	3.647	398.86	348.20	50.66	
29	12_035	3.647	398.84	348.40	50.44	
30	12_002	4.773	399.35	349.30	50.05	
31	12_001	7.008	399.36	348.80	50.56	
32	22_052	7.052	399.41	350.00	49.41	
33	12_036	7.052	399.29	348.80	50.49	
34	12_037	7.052	399.07	348.20	50.87	
35	22_020	7.052	399.25	348.80	50.45	
36	12_038	3.647	398.67	349.50	49.17	
37	12_039	3.647	398.97	348.60	50.37	
38	22_012	3.647	398.99	346.80	52.19	
39	12_040	7.155	398.33	349.10	49.23	
40	12_031	3.647	398.71	349.10	49.61	
41	22_021	7.052	399.11	349.20	49.91	
42	12_050	7.052	399.20	348.90	50.30	
43	12_015	4.780	398.37	351.50	46.87	
44	22_001	3.647	398.95	346.10	52.85	
45	12_045	7.052	399.03	349.00	50.03	
46	12_046	3.647	398.87	349.00	49.87	
47	12_047	4.780	399.36	349.00	50.36	
48	23_005	7.052	399.51	351.80	47.71	
49	22_003	3.647	398.92	346.40	52.52	
50	13_001	4.780	396.50	355.10	41.40	
51	13_002	42.516	396.36	352.20	44.16 TETs-1(2)	
52	13_004	4.780	397.49	361.10	36.39	
53	13_006	4.780	396.81	353.50	43.31	
54	23_001	4.780	397.19	355.70	41.49	
55	13_013	4.780	397.81	362.00	35.81	
56	23_059	4.780	397.99	364.50	33.49	
57	13_008	37.736	396.34	352.20	44.14 TETs-1(1)	
58	21_004	7.155	398.37	345.34	53.03	
59	21_005	3.647	399.19	345.50	53.69	
60	22_002	3.647	399.32	346.50	52.82	

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2020(Hourly Max/Ежечный максимум)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
	Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание
61	21_007	3.647	398.98	345.40	53.58	
62	21_002	60.847	395.80	344.50	51.30	
63	21_008	60.844	395.79	344.00	51.79	
64	21_009	60.844	399.06	344.00	55.06	
65	31_003	2.558	399.24	342.00	57.24	
66	22_006	3.647	399.15	347.00	52.15	
67	22_007	3.647	399.16	346.50	52.66	
68	22_008	3.647	399.11	346.50	52.61	
69	22_009	3.647	399.15	346.00	53.15	
70	22_010	3.647	399.03	346.50	52.53	
71	22_011	3.647	399.02	346.60	52.42	
72	22_013	7.052	399.25	346.70	52.55 BPS/LWL:346.5,PH:65	
73	22_014	7.052	399.20	348.00	51.20	
74	22_015	7.052	399.27	349.30	49.97	
75	22_016	7.052	399.28	350.10	49.18	
76	22_017	7.052	399.28	350.00	49.28	
77	22_018	7.052	399.34	350.60	48.74	
78	22_019	7.052	399.45	350.60	48.85	
79	22_022	7.052	399.41	349.80	49.61	
80	22_023	7.052	399.44	350.60	48.84	
81	22_024	7.052	399.45	348.20	51.24	
82	22_025	7.052	399.40	347.00	52.40	
83	22_026	7.052	399.52	352.00	47.52	
84	22_027	7.052	399.54	351.00	48.54	
85	22_028	7.052	399.46	348.00	51.46	
86	22_029	7.052	399.51	347.50	52.01	
87	22_030	7.052	399.56	350.10	49.46	
88	22_032	6.822	399.72	350.00	49.72	
89	22_033	7.052	399.55	352.40	47.15	
90	22_034	6.808	399.73	350.20	49.53	
91	22_035	7.052	399.55	352.60	46.95	
92	23_017	6.808	399.77	350.00	49.77	
93	22_036	7.052	399.66	352.00	47.66	
94	23_018	7.052	399.68	352.60	47.08	
95	22_037	7.052	399.58	352.90	46.68	
96	23_009	7.052	399.61	353.50	46.11	
97	22_038	7.052	399.62	353.00	46.62	
98	23_007	7.052	399.56	351.80	47.76	
99	22_039	6.808	400.21	350.00	50.21	
100	32_010	6.808	400.23	350.10	50.13	
101	22_040	6.808	399.87	346.80	53.07	
102	22_042	6.808	399.68	349.20	50.48	
103	22_043	6.808	399.85	346.00	53.85	
104	22_044	6.808	400.19	348.00	52.19	
105	32_016	6.808	400.20	347.40	52.80	
106	22_045	6.808	400.20	349.50	50.70	
107	22_059	6.808	400.20	349.50	50.70	
108	22_046	6.808	400.09	348.20	51.89	
109	23_010	6.808	400.26	352.00	48.26	
110	22_047	6.808	400.06	345.90	54.16	
111	22_048	6.808	400.10	345.50	54.60	
112	22_049	6.808	400.21	346.00	54.21	
113	22_050	6.808	400.26	344.50	55.76	
114	22_051	6.808	400.07	347.00	53.07	
115	23_041	6.808	400.13	349.80	50.33	
116	22_041	6.808	399.63	350.00	49.63	
117	22_053	3.647	399.23	346.50	52.73	
118	32_008	6.808	400.35	344.50	55.85	
119	22_054	7.052	399.45	350.80	48.55	
120	22_055	6.808	399.88	347.00	52.88	

2020(Hourly Max/Ежечный максимальный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание	
121_23_016	6.808	399.94	348.50	51.44		
122_22_056	3.647	399.53	346.50	53.03		
123_22_057	3.647	399.52	346.70	52.82		
124_22_058	6.808	400.18	346.00	54.18		
125_32_007	6.808	400.22	349.30	50.92		
126_23_004	9.731	397.75	360.50	37.25		
127_24_003	9.733	399.20	355.00	44.20		
128_23_006	7.052	399.56	352.50	47.06		
129_23_008	7.052	399.65	354.00	45.65		
130_23_011	6.808	400.38	354.00	46.38		
131_23_012	6.808	400.32	353.20	47.12		
132_23_013	6.808	400.24	354.00	46.24		
133_23_014	6.808	400.31	354.00	46.31		
134_23_015	6.808	400.09	352.00	48.09		
135_23_019	6.808	400.45	350.00	50.45		
136_33_036	6.808	400.41	348.00	52.41		
137_23_020	6.808	400.35	350.10	50.25		
138_33_048	6.808	400.31	350.20	50.11		
139_23_021	6.808	399.83	351.20	48.63		
140_23_022	7.052	399.76	351.80	47.96		
141_23_023	6.808	399.80	351.00	48.80		
142_23_024	6.808	399.89	349.70	50.19		
143_23_025	7.052	399.72	351.70	48.02		
144_23_026	5.296	399.84	353.70	46.14		
145_23_027	5.279	399.90	355.00	44.90		
146_23_028	5.279	399.99	354.50	45.49		
147_23_029	4.780	399.99	353.90	46.09		
148_23_030	5.279	399.84	354.20	45.64		
149_23_031	5.279	399.86	355.70	44.16		
150_23_033	5.279	400.37	356.10	44.27		
151_23_034	5.279	400.51	354.00	46.51		
152_23_079	5.247	400.55	350.52	50.03		
153_23_036	5.279	400.90	353.80	47.10		
154_23_037	5.279	400.90	354.80	46.10		
155_23_038	5.239	401.02	354.20	46.82		
156_23_039	5.279	400.81	355.50	45.31		
157_23_042	6.808	400.19	352.20	47.99		
158_23_045	5.279	400.17	356.50	43.67		
159_23_049	5.279	400.69	356.20	44.49		
160_23_050	5.279	400.86	355.20	45.66		
161_23_051	5.279	400.09	355.50	44.59		
162_23_053	9.733	400.91	354.40	46.51		
163_23_055	5.279	401.03	354.70	46.33		
164_23_056	5.279	401.12	354.40	46.72		
165_23_057	5.279	401.23	354.00	47.23		
166_23_058	5.279	401.33	353.60	47.73		
167_24_001	9.733	399.17	359.00	40.17		
168_24_006	5.279	401.44	353.10	48.34		
169_23_052	9.733	401.83	354.50	47.33		
170_23_060	5.279	401.83	355.00	46.83		
171_23_061	6.808	399.99	350.50	49.49		
172_23_062	5.279	400.23	355.80	44.43		
173_23_063	5.279	400.43	356.10	44.33		
174_23_064	5.279	400.16	356.00	44.16		
175_23_043	5.279	400.68	356.90	43.78		
176_23_065	5.279	400.75	356.30	44.45		
177_23_047	5.279	400.77	355.00	45.77		
178_23_078	4.780	397.67	359.90	37.77		
179_24_007	5.279	401.86	353.40	48.46		
180_23_066	5.279	400.77	356.10	44.67		

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2020(Hourly Max/Ежечный максимальный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание	
181_23_040	6.808	400.23	352.50	47.73		
182_23_071	5.279	401.11	354.40	46.71		
183_23_073	5.279	401.21	354.00	47.21		
184_34_049	5.279	401.54	352.70	48.84		
185_23_074	5.239	401.23	353.30	47.93		
186_33_034	5.239	401.32	353.00	48.32		
187_23_075	5.239	401.06	354.40	46.66		
188_23_072	5.239	401.14	354.00	47.14		
189_23_076	5.239	400.85	353.00	47.85		
190_23_035	5.239	400.76	352.00	48.76		
191_23_077	5.239	400.68	351.00	49.68		
192_33_031	5.239	401.37	352.50	48.87		
193_33_040	5.239	400.41	348.00	52.41		
194_24_002	9.733	400.17	355.80	44.37		
195_24_004	9.733	400.97	351.90	49.07		
196_34_038	9.733	401.73	351.20	50.53		
197_24_008	-2240.255	402.00	353.00	49.00	LWL:352.0 + PH:50.0	
198_34_011	9.415	401.79	354.00	47.79		
199_25_001	483.121	401.47	360.00	41.47	TETs-2	
200_34_045	14.493	401.93	360.00	41.93		
201_34_048	5.279	401.74	351.20	50.54		
202_24_009	9.733	401.92	350.50	51.42		
203_30_001	2.556	399.23	342.00	57.23		
204_31_001	2.558	400.02	342.00	58.02		
205_31_002	2.558	400.04	342.00	58.04		
206_31_004	2.558	399.38	342.00	57.38		
207_32_013	2.558	400.36	344.00	56.36		
208_32_002	2.558	401.03	344.20	56.83		
209_32_003	2.558	401.28	345.10	56.18		
210_33_020	21.616	401.53	345.00	56.53		
211_32_004	2.558	400.70	343.50	57.20		
212_32_005	6.808	400.31	347.40	52.91		
213_32_006	6.808	400.24	346.90	53.34		
214_33_044	6.808	400.30	348.40	51.90		
215_32_009	2.558	400.48	346.00	54.48		
216_33_047	6.808	400.26	350.20	50.06		
217_32_015	2.558	400.58	343.50	57.08		
218_42_004	11.102	401.82	346.00	55.82		
219_33_003	20.138	401.48	349.10	52.38		
220_34_015	20.138	401.51	348.30	53.21		
221_33_004	20.138	401.50	349.30	52.20		
222_34_030	20.138	401.52	350.50	51.02		
223_33_005	5.239	401.53	348.10	53.43		
224_33_006	5.239	401.51	346.00	55.51		
225_33_007	21.616	401.51	346.00	55.51		
226_33_008	5.239	401.01	346.80	54.21		
227_33_009	5.239	401.09	347.40	53.69		
228_33_011	5.239	401.42	348.60	52.82		
229_33_012	5.239	400.94	346.00	54.94		
230_33_013	5.239	400.84	345.50	55.34		
231_33_014	5.239	400.74	345.50	55.24		
232_33_015	5.239	401.31	348.00	53.31		
233_33_016	5.239	401.18	348.10	53.08		
234_33_017	5.239	401.19	346.80	54.39		
235_33_019	5.239	400.82	346.00	54.82		
236_33_021	21.616	401.51	346.30	55.21		
237_33_029	5.239	401.54	348.40	53.14		
238_34_036	5.239	401.59	349.40	52.19		
239_33_030	5.239	401.34	350.90	50.44		
240_33_028	5.239	401.55	350.30	51.25		

2020(Hourly Max/Ежечный максимальный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание	
241	34_035	5.239	401.59	350.30	51.29	
242	33_032	5.239	401.46	350.00	51.46	
243	33_033	5.239	401.51	350.00	51.51	
244	34_034	5.239	401.41	352.80	48.61	
245	33_037	6.808	400.41	346.80	53.61	
246	33_038	6.808	400.35	347.70	52.65	
247	33_039	6.808	400.31	348.40	51.91	
248	33_041	5.239	400.40	346.00	54.40	
249	33_042	6.808	400.41	345.90	54.51	
250	33_045	6.808	400.29	349.70	50.59	
251	33_046	6.808	400.29	349.20	51.09	
252	33_049	6.808	400.37	345.90	54.47	
253	33_050	5.239	401.00	347.30	53.70	
254	42_007	11.102	401.79	346.00	55.79	
255	34_001	9.421	401.24	357.90	43.34	
256	34_002	9.415	401.24	358.20	43.04	
257	34_003	9.415	401.34	357.80	43.54	
258	34_004	9.415	401.29	357.80	43.49	
259	34_006	9.415	401.28	359.20	42.08	
260	34_007	9.415	401.40	357.30	44.10	
261	34_008	9.415	401.68	354.10	47.58	
262	34_009	9.415	401.41	357.00	44.41	
263	35_002	9.415	401.18	359.60	41.58	
264	34_010	9.415	401.24	358.60	42.64	
265	35_001	9.415	401.18	360.30	40.88	
266	34_012	9.415	401.46	356.50	44.96	
267	34_013	20.138	401.66	353.80	47.86	
268	34_016	20.138	401.44	350.80	50.64	
269	34_017	20.138	401.28	351.00	50.28	
270	34_018	20.138	401.34	356.30	45.04	
271	34_019	20.138	401.53	351.80	49.73	
272	34_020	20.138	401.18	353.20	47.98	
273	34_021	20.138	401.07	353.00	48.07	
274	34_022	20.138	401.07	352.20	48.87	
275	34_023	20.138	401.59	353.00	48.59	
276	34_026	20.138	401.41	356.70	44.71	
277	34_031	20.138	401.66	353.90	47.76	
278	34_032	20.138	401.64	354.00	47.64	
279	34_033	5.239	401.51	351.80	49.71	
280	34_037	5.239	401.63	350.00	51.63	
281	34_039	5.279	401.64	350.50	51.14	
282	34_043	14.493	401.91	354.00	47.91	
283	44_006	11.102	401.91	349.00	52.91	
284	34_044	14.493	401.92	359.00	42.92	
285	34_046	14.493	401.96	361.00	40.96	
286	45_001	14.493	402.13	360.00	42.13	
287	35_003	21.860	401.12	365.10	36.02	
288	35_007	14.493	401.30	367.00	34.30	
289	35_008	21.860	401.12	366.00	35.12	
290	35_009	23.017	401.02	367.50	33.52	
291	45_005	23.017	400.69	372.50	28.19	
292	35_006	9.733	401.08	369.00	32.08	
293	36_004	12.245	400.63	367.50	33.13	
294	42_001	11.102	402.90	347.00	55.90	
295	52_002	19.496	404.42	348.00	56.42	
296	42_002	11.102	403.08	347.00	56.08	
297	42_003	19.494	404.01	348.00	56.01	
298	52_004	19.496	405.05	348.00	57.05	
299	43_001	19.496	404.50	348.00	56.50	
300	43_002	11.102	402.97	348.00	54.97	

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2020(Hourly Max/Ежечный максимальный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание	
301	42_005	11.102	402.13	346.00	56.13	
302	42_006	11.102	402.58	347.00	55.58	
303	43_004	11.102	401.91	348.00	53.91	
304	53_001	19.496	406.12	350.00	56.12	
305	43_003	11.102	402.69	348.00	54.69	
306	44_001	11.102	402.24	350.00	52.24	
307	43_005	11.102	401.91	348.00	53.91	
308	43_006	11.102	401.91	348.00	53.91	
309	44_003	11.102	402.13	355.00	47.13	
310	44_005	11.102	401.91	347.00	54.91	
311	53_004	5.589	405.72	349.00	56.72	
312	44_002	11.102	402.16	353.00	49.16	
313	54_007	91.760	402.06	353.00	49.06	
314	44_004	14.493	402.21	356.00	46.21	
315	44_007	91.763	402.50	357.00	45.50	
316	45_002	14.493	402.52	363.00	39.52	
317	54_002	91.760	403.96	353.00	50.96	
318	45_003	22.565	403.13	357.00	46.13	
319	55_001	23.738	404.28	351.00	53.28	
320	45_004	22.565	400.13	354.00	46.13	
321	46_001	22.565	399.23	354.00	45.23	
322	46_002	22.565	398.73	354.00	44.73	
323	46_003	22.565	398.29	354.00	44.29	
324	52_001	19.496	400.63	349.50	51.13	
325	62_001	19.496	399.23	350.00	49.23	
326	52_003	19.496	404.68	348.00	56.68	
327	52_005	19.496	402.16	349.00	53.16	
328	53_002	5.589	406.58	350.00	56.58	
329	53_003	19.496	406.02	350.00	56.02	
330	53_005	5.589	406.55	350.00	56.55	
331	53_006	5.589	406.85	350.00	56.85	
332	53_007	5.589	407.54	350.00	57.54	
333	53_008	5.589	406.85	350.00	56.85	
334	63_004	5.589	406.82	350.00	56.82	
335	53_009	5.589	407.01	350.00	57.01	
336	54_003	7.388	407.95	350.00	57.95	
337	54_006	5.589	406.98	350.00	56.98	
338	53_010	5.589	407.23	350.00	57.23	
339	53_011	7.386	406.93	350.00	56.93	
340	64_001	7.388	406.48	350.50	55.98	
341	54_001	7.388	405.19	350.00	55.19	
342	55_002	23.738	404.63	351.00	53.63	
343	54_004	7.388	406.62	350.00	56.62	
344	54_005	7.388	405.44	350.00	55.44	
345	64_005	7.388	406.07	350.80	55.27	
346	64_004	7.388	405.36	350.20	55.16	
347	54_008	-1616.250	408.00	350.00	58.00	New No.2 WTP
348	56_001	15.313	404.15	351.00	53.15	
349	65_001	23.738	403.44	350.00	53.44	
350	63_001	19.496	396.15	350.00	46.15	
351	62_002	2.761	398.97	350.00	48.97	
352	72_001	2.761	398.95	351.00	47.95	
353	62_003	2.761	398.85	350.60	48.25	
354	73_001	4.245	398.74	352.00	46.74	
355	63_002	5.589	395.66	350.00	45.66	
356	63_003	7.388	395.26	350.50	44.76	
357	64_002	7.388	395.07	350.50	44.57	
358	63_005	2.761	395.25	350.50	44.75	
359	64_006	2.761	395.05	351.00	44.05	
360	64_003	7.388	405.52	350.50	55.02	

2020(Hourly Max/Ежечный максимальный)

{Pipe}	Node(u)	Node(d)	Dia.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
Верхний	Нижний	диам.(мм)	Длина(м)			Течение(л/с)	Скорость(м/с)	Градус(%)
1	12_029	11_001	400	760	110	30.111	0.240	0.24
2	11_001	11_002	400	490	110	22.956	0.183	0.14
3	11_005	11_006	400	880	110	13.876	0.110	0.06
4	11_007	11_006	300	220	110	3.959	0.056	0.02
5	11_008	21_003	300	700	110	13.984	0.198	0.23
6	11_002	11_005	400	680	110	15.801	0.126	0.07
7	11_006	11_008	300	1720	110	15.909	0.225	0.30
8	12_041	11_007	400	1630	110	5.884	0.047	0.01
9	12_004	12_003	300	970	110	4.780	0.068	0.03
10	12_004	12_005	300	320	110	23.573	0.333	0.61
11	12_007	12_006	200	330	110	0.327	0.010	0.00
12	12_010	12_009	300	400	110	4.780	0.068	0.03
13	12_005	12_006	300	140	110	9.233	0.131	0.11
14	12_005	12_010	300	590	110	9.560	0.135	0.12
15	12_019	12_018	300	50	110	28.948	0.410	0.90
16	12_020	12_019	300	140	110	20.100	0.284	0.46
17	12_021	12_019	300	340	110	12.495	0.177	0.19
18	12_022	12_021	300	150	110	6.927	0.098	0.06
19	12_027	12_028	400	290	110	37.405	0.298	0.35
20	12_028	12_029	400	120	110	33.758	0.269	0.29
21	12_025	12_030	300	450	110	10.577	0.150	0.14
22	12_032	12_030	300	170	110	12.240	0.173	0.18
23	12_030	12_020	300	250	110	19.170	0.271	0.42
24	12_022	12_020	300	340	110	4.577	0.065	0.03
25	12_033	12_022	300	360	110	15.151	0.214	0.27
26	12_034	12_035	300	110	110	12.731	0.180	0.20
27	12_002	12_035	300	470	110	32.138	0.455	1.09
28	22_052	12_001	700	410	110	88.294	0.229	0.11
29	12_001	12_036	300	120	110	23.387	0.331	0.60
30	22_020	12_037	300	330	110	22.592	0.320	0.57
31	12_038	12_033	300	110	110	18.798	0.266	0.40
32	12_034	12_038	300	340	110	22.445	0.318	0.56
33	22_012	12_039	400	510	110	12.133	0.097	0.04
34	12_018	12_040	400	720	110	20.194	0.161	0.11
35	12_031	12_032	300	180	110	15.887	0.225	0.29
36	22_021	12_037	300	380	110	9.613	0.136	0.12
37	12_001	12_050	300	200	110	27.097	0.383	0.79
38	12_006	12_015	300	730	110	4.780	0.068	0.03
39	12_035	12_004	300	140	110	41.222	0.583	1.72
40	12_004	12_021	300	730	110	9.216	0.130	0.11
41	12_027	12_025	300	350	110	14.224	0.201	0.24
42	22_001	12_027	300	770	110	14.007	0.198	0.23
43	12_037	12_045	300	240	110	10.457	0.148	0.14
44	12_045	12_034	300	110	110	38.823	0.549	1.54
45	12_037	12_039	300	370	110	14.695	0.208	0.26
46	12_046	12_031	300	370	110	19.534	0.276	0.43
47	12_039	12_046	300	170	110	23.181	0.328	0.59
48	12_001	12_047	600	120	110	30.802	0.109	0.03
49	12_036	22_020	300	140	110	14.671	0.208	0.25
50	22_052	12_036	300	530	110	13.708	0.194	0.22
51	23_005	12_047	300	1080	110	10.889	0.154	0.15
52	12_018	12_007	300	630	110	5.107	0.072	0.04
53	22_003	12_027	400	350	110	41.269	0.328	0.42
54	12_040	12_041	400	440	110	13.039	0.104	0.05
55	12_050	12_045	300	130	110	35.417	0.501	1.30
56	12_036	12_050	300	310	110	15.372	0.217	0.28
57	12_047	12_002	600	80	110	36.911	0.131	0.05
58	13_001	13_002	400	320	110	42.516	0.338	0.45
59	13_004	13_001	400	1800	110	47.296	0.376	0.55
60	23_001	13_006	400	840	110	42.516	0.338	0.45

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2020(Hourly Max/Ежечный максимальный)

{Pipe}	Node(u)	Node(d)	Dia.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
Верхний	Нижний	диам.(мм)	Длина(м)			Течение(л/с)	Скорость(м/с)	Градус(%)
61	23_059	13_013	400	240	110	56.856	0.452	0.77
62	13_013	13_004	400	490	110	52.076	0.414	0.65
63	13_006	13_008	400	1330	110	37.736	0.300	0.36
64	21_004	21_003	400	1200	110	50.994	0.406	0.63
65	22_002	21_005	600	410	110	106.075	0.375	0.34
66	21_005	22_001	300	650	110	17.654	0.250	0.36
67	21_005	21_007	500	380	110	84.774	0.432	0.54
68	21_003	21_002	300	480	110	63.053	0.892	3.78
69	21_002	21_008	300	1170	110	2.206	0.031	0.01
70	21_007	21_004	400	210	110	116.787	0.929	2.91
71	21_004	21_008	300	780	110	58.638	0.830	3.30
72	21_009	21_007	600	1770	110	35.660	0.126	0.05
73	31_003	21_009	600	640	110	96.504	0.341	0.28
74	22_007	22_006	300	410	110	2.205	0.031	0.01
75	22_007	22_008	300	110	110	19.029	0.269	0.41
76	22_009	22_003	300	660	110	17.479	0.247	0.35
77	22_009	22_006	300	180	110	1.442	0.020	0.00
78	22_010	22_011	400	200	110	11.735	0.093	0.04
79	22_011	22_012	400	360	110	15.780	0.126	0.07
80	22_011	22_003	400	490	110	27.437	0.218	0.20
81	22_013	22_014	300	950	110	5.985	0.085	0.05
82	22_015	22_014	300	180	110	17.732	0.251	0.36
83	22_016	22_015	300	330	110	5.478	0.077	0.04
84	22_018	22_017	300	280	110	13.001	0.184	0.20
85	22_019	22_016	300	330	110	21.554	0.305	0.52
86	22_016	22_020	300	390	110	7.629	0.108	0.08
87	22_017	22_020	300	400	110	7.344	0.104	0.07
88	22_014	22_021	300	290	110	16.665	0.236	0.32
89	22_022	22_015	300	330	110	19.306	0.273	0.42
90	22_024	22_023	300	660	110	1.358	0.019	0.00
91	22_023	22_022	300	410	110	8.119	0.115	0.09
92	22_025	22_013	400	240	110	51.811	0.412	0.65
93	22_026	22_019	400	410	110	25.112	0.200	0.17
94	22_019	22_022	400	340	110	22.002	0.175	0.13
95	22_027	22_019	400	520	110	25.496	0.203	0.17
96	22_022	22_025	400	650	110	3.763	0.030	0.01
97	22_024	22_025	600	400	110	55.101	0.195	0.10
98	22_028	22_024	600	80	110	63.511	0.225	0.13
99	22_030	22_029	600	270	110	77.615	0.275	0.19
100	22_032	22_026	400	660	110	34.370	0.274	0.30
101	22_026	22_023	300	350	110	13.813	0.195	0.23
102	22_033	22_026	300	170	110	11.607	0.164	0.17
103	22_034	22_032	600	170	110	20.762	0.073	0.02
104	22_035	22_033	300	170	110	3.802	0.054	0.02
105	23_017	22_034	400	360	110	21.217	0.169	0.12
106	22_036	22_033	300	420	110	14.857	0.210	0.26
107	22_034	22_036	300	260	110	14.559	0.206	0.25
108	23_018	22_036	300	350	110	7.350	0.104	0.07
109	23_005	22_018	300	390	110	20.053	0.284	0.45
110	22_037	22_027	400	420	110	18.292	0.146	0.09
111	23_009	22_037	300	240	110	9.943	0.141	0.12
112	22_038	22_037	400	210	110	26.255	0.209	0.18
113	23_007	22_027	400	250	110	14.256	0.113	0.06
114	32_010	22_039	300	350	110	5.382	0.076	0.04
115	22_040	22_032	400	320	110	42.632	0.339	0.45
116	22_032	22_042	400	340	110	22.201	0.177	0.13
117	22_043	22_042	300	310	110	22.364	0.316	0.56
118	32_016	22_044	300	190	110	6.598	0.093	0.06
119	22_059	22_045	300	180	110	2.716	0.038	0.01
120	22_045	22_044	600	350	110	26.452	0.094	0.03

2020(Hourly Max/Ежечный максимальный)

[Pipe]	Node(u)	Node(d)	Dia.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
Верхний	Нижний	Диам.(мм)	Длина(м)			Течение(л/с)	Скорость(м/с)	Градус(%)
121	22_039	22_046	300	340	110	17.849	0.253	0.37
122	22_039	22_045	600	180	110	48.383	0.171	0.08
123	23_010	22_039	600	350	110	67.657	0.239	0.15
124	22_044	22_047	300	360	110	17.684	0.250	0.36
125	22_048	22_047	600	220	110	70.467	0.249	0.16
126	22_050	22_049	800	190	110	189.015	0.376	0.24
127	22_050	22_044	300	630	110	9.125	0.129	0.11
128	22_045	22_051	300	350	110	17.839	0.252	0.37
129	22_051	22_047	700	340	110	43.900	0.114	0.03
130	22_046	22_051	700	180	110	81.810	0.213	0.10
131	23_041	22_046	700	360	110	93.808	0.244	0.13
132	22_047	22_043	600	360	110	142.926	0.505	0.59
133	22_043	22_041	600	520	110	120.058	0.425	0.43
134	22_051	22_040	400	350	110	48.940	0.389	0.58
135	22_040	22_043	300	340	110	6.304	0.089	0.05
136	22_042	22_041	400	280	110	25.555	0.203	0.18
137	22_029	22_028	600	340	110	70.563	0.250	0.16
138	22_044	22_047	300	360	110	17.684	0.250	0.36
139	22_041	22_030	600	400	110	72.464	0.256	0.17
140	22_016	22_017	300	400	110	1.395	0.020	0.00
141	22_053	22_011	400	660	110	35.128	0.280	0.32
142	32_008	22_050	800	350	110	204.948	0.408	0.28
143	22_013	22_053	500	170	110	38.775	0.197	0.13
144	22_054	22_052	700	270	110	109.054	0.283	0.17
145	22_055	22_034	300	310	110	20.912	0.296	0.49
146	22_055	22_040	300	170	110	6.804	0.096	0.06
147	23_016	22_055	300	360	110	11.486	0.162	0.16
148	22_046	22_055	300	360	110	23.038	0.326	0.59
149	22_002	22_009	350	640	110	22.568	0.235	0.27
150	23_005	22_054	700	330	110	116.106	0.302	0.19
151	22_056	22_057	700	230	110	37.812	0.098	0.02
152	22_056	22_007	300	550	110	24.881	0.352	0.68
153	22_008	22_010	300	300	110	15.382	0.218	0.28
154	22_037	22_035	300	200	110	10.854	0.154	0.15
155	23_018	22_038	400	220	110	33.307	0.265	0.29
156	22_058	22_048	600	430	110	77.275	0.273	0.19
157	22_057	22_002	600	390	110	132.290	0.468	0.51
158	22_058	22_057	600	2230	110	98.125	0.347	0.29
159	22_041	22_056	700	1480	110	66.340	0.172	0.07
160	22_042	22_030	300	640	110	12.203	0.173	0.18
161	22_049	22_058	800	150	110	182.207	0.362	0.23
162	32_007	22_059	300	170	110	9.632	0.136	0.12
163	22_059	32_016	200	350	110	0.109	0.003	0.00
164	24_003	23_004	400	1610	110	61.807	0.492	0.90
165	23_006	23_005	800	300	110	154.100	0.307	0.17
166	23_006	23_007	400	160	110	10.982	0.087	0.04
167	23_008	23_006	800	400	110	172.134	0.342	0.20
168	23_009	23_007	300	410	110	10.325	0.146	0.13
169	23_011	23_012	600	160	110	113.959	0.403	0.39
170	23_014	23_013	500	170	110	71.041	0.362	0.39
171	23_013	23_015	500	340	110	76.193	0.388	0.45
172	23_016	23_017	400	330	110	45.155	0.359	0.50
173	23_017	23_018	400	240	110	37.429	0.298	0.35
174	23_019	33_036	400	320	110	22.787	0.181	0.14
175	23_020	33_048	400	130	110	34.312	0.273	0.30
176	23_015	23_021	400	320	110	58.897	0.469	0.82
177	23_021	23_022	400	240	110	32.730	0.260	0.28
178	23_024	23_023	300	210	110	19.580	0.277	0.43
179	23_023	23_025	300	240	110	17.078	0.242	0.34
180	23_025	23_018	300	240	110	10.280	0.145	0.13

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2020(Hourly Max/Ежечный максимальный)

[Pipe]	Node(u)	Node(d)	Dia.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
Верхний	Нижний	Диам.(мм)	Длина(м)			Течение(л/с)	Скорость(м/с)	Градус(%)
181	23_022	23_025	300	170	110	14.483	0.205	0.25
182	23_023	23_017	400	240	110	20.298	0.162	0.11
183	23_021	23_023	400	170	110	24.604	0.196	0.16
184	23_026	23_022	800	380	110	181.084	0.360	0.22
185	23_027	23_026	800	220	110	187.949	0.374	0.24
186	23_029	23_028	300	370	110	3.564	0.050	0.02
187	23_026	23_030	300	130	110	1.569	0.022	0.00
188	23_031	23_030	300	210	110	8.954	0.127	0.10
189	23_028	23_027	800	350	110	193.228	0.384	0.25
190	23_033	23_013	700	370	110	159.556	0.415	0.34
191	23_034	23_011	600	310	110	118.979	0.421	0.42
192	23_079	23_034	300	330	110	9.253	0.131	0.11
193	23_037	23_036	500	490	110	5.279	0.027	0.00
194	23_038	23_037	600	250	110	129.459	0.458	0.49
195	23_039	23_034	600	750	110	115.005	0.407	0.39
196	23_042	23_041	700	230	110	131.857	0.343	0.24
197	23_049	23_045	600	370	110	228.078	0.807	1.39
198	23_050	23_039	900	160	110	288.159	0.453	0.30
199	23_037	23_050	600	110	110	118.901	0.421	0.42
200	23_025	23_009	300	430	110	14.228	0.201	0.24
201	23_022	23_008	800	450	110	192.279	0.383	0.25
202	23_008	23_009	300	160	110	13.092	0.185	0.21
203	23_051	23_028	700	520	110	122.915	0.319	0.21
204	23_055	23_053	360	110	110	159.496	0.414	0.34
205	23_056	23_055	900	250	110	327.013	0.514	0.38
206	23_057	23_056	900	270	110	332.292	0.522	0.39
207	23_058	23_057	900	250	110	337.571	0.531	0.40
208	24_001	23_059	400	1320	110	61.636	0.490	0.89
209	24_006	23_058	900	280	110	342.850	0.539	0.41
210	23_052	23_060	500	980	110	5.279	0.027	0.00
211	23_015	23_061	300	170	110	23.206	0.328	0.59
212	23_063	23_062	300	330	110	23.277	0.329	0.60
213	23_064	23_015	300	380	110	12.719	0.180	0.20
214	23_062	23_064	300	190	110	17.998	0.255	0.37
215	23_063	23_033	700	180	110	164.835	0.428	0.36
216	23_065	23_043	700	180	110	162.596	0.422	0.35
217	23_039	23_065	700	170	110	167.875	0.436	0.37
218	23_053	23_047	700	450	110	149.763	0.389	0.30
219	23_043	23_063	700	520	110	193.391	0.503	0.48
220	23_004	23_078	400	130	110	52.076	0.414	0.65
221	24_007	23_052	500	1050	110	15.012	0.076	0.02
222	23_028	23_031	300	500	110	14.233	0.201	0.24
223	23_030	23_021	300	480	110	5.244	0.074	0.04
224	23_050	23_066	600	170	110	130.225	0.461	0.49
225	23_041	23_016	400	330	110	49.827	0.397	0.60
226	23_010	23_041	300	330	110	18.586	0.263	0.39
227	23_011	23_014	500	170	110	77.849	0.396	0.46
228	23_019	23_011	600	330	110	79.637	0.282	0.20
229	23_055	23_050	900	520	110	304.762	0.479	0.33
230	23_051	23_029	300	1140	110	8.344	0.118	0.09
231	23_045	23_051	600	140	110	136.538	0.483	0.54
232	23_061	23_016	300	230	110	13.622	0.193	0.22
233	23_061	23_024	300	130	110	26.388	0.373	0.75
234	23_013	23_042	700	170	110	147.596	0.384	0.29
235	23_042	23_061	300	330	110	23.611	0.334	0.61
236	23_040	23_042	300	160	110	14.680	0.208	0.25
237	23_012	23_010	600	220	110	93.051	0.329	0.27
238	23_012	23_040	300	180	110	21.488	0.304	0.52
239	23_019	23_020	400	180	110	48.508	0.386	0.57
240	23_020	23_012	300	340	110	7.388	0.105	0.07

2020(Hourly Max/Ежечный максимум)

(Pipe)	Node(u)	Node(d)	Dia.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
Верхний	Нижний	Диам.(мм)	Длина(м)	Течение(л/с)	Скорости(м/с)	Градус(%)		
241	23_066	23_049	600	190	110	124.946	0.442	0.46
242	23_049	23_043	700	160	110	36.073	0.094	0.02
243	23_047	23_049	700	300	110	144.484	0.375	0.28
244	23_071	23_055	500	260	110	63.096	0.321	0.31
245	23_073	23_071	500	270	110	68.375	0.348	0.36
246	34_049	23_073	500	780	110	73.654	0.375	0.42
247	33_034	23_074	800	260	110	230.362	0.458	0.35
248	23_075	23_055	700	350	110	79.429	0.206	0.09
249	23_072	23_075	800	240	110	219.884	0.437	0.32
250	23_074	23_072	800	270	110	225.123	0.448	0.34
251	23_076	23_035	700	170	110	202.170	0.525	0.53
252	23_035	23_077	700	170	110	196.931	0.512	0.50
253	33_031	23_038	600	300	110	206.892	0.732	1.16
254	23_075	23_038	800	280	110	135.216	0.269	0.13
255	23_038	23_076	700	310	110	207.409	0.539	0.55
256	23_045	23_028	600	800	110	86.261	0.305	0.23
257	23_078	23_001	400	870	110	47.296	0.376	0.55
258	23_079	33_040	300	320	110	19.453	0.275	0.43
259	23_079	23_019	700	300	110	157.740	0.410	0.33
260	23_077	23_079	700	270	110	191.692	0.498	0.48
261	24_002	24_001	400	1170	110	60.166	0.479	0.85
262	24_003	24_001	400	750	110	11.203	0.089	0.04
263	24_004	24_003	400	1150	110	82.743	0.658	1.54
264	24_004	24_002	400	710	110	69.899	0.556	1.13
265	34_038	24_006	900	680	110	348.129	0.547	0.42
266	24_008	34_011	1000	640	110	400.448	0.510	0.33
267	24_008	24_004	600	1390	110	162.375	0.574	0.74
268	24_008	34_038	1000	830	110	398.059	0.507	0.32
269	24_008	25_001	1000	4120	110	242.034	0.308	0.13
270	24_008	25_001	1000	4150	110	241.087	0.307	0.13
271	24_008	34_045	1000	4750	110	75.585	0.096	0.02
272	24_008	34_048	1000	830	110	386.621	0.492	0.31
273	24_009	24_007	500	1770	110	20.291	0.103	0.04
274	24_009	34_038	900	590	110	304.023	0.478	0.33
275	24_008	24_009	1000	320	110	334.047	0.425	0.23
276	31_003	30_001	300	1500	110	2.556	0.036	0.01
277	31_002	31_001	300	1720	110	2.558	0.036	0.01
278	31_004	31_003	600	430	110	101.618	0.359	0.31
279	31_002	31_004	600	2020	110	104.176	0.368	0.33
280	32_013	31_002	600	920	110	109.292	0.387	0.36
281	32_003	32_002	600	660	110	112.530	0.398	0.38
282	33_020	32_003	600	740	110	105.987	0.375	0.34
283	32_002	32_004	600	920	110	109.972	0.389	0.36
284	32_005	32_006	300	330	110	13.522	0.191	0.22
285	32_005	33_044	300	540	110	3.425	0.048	0.02
286	32_006	32_016	300	170	110	13.298	0.188	0.21
287	32_006	32_007	300	360	110	5.741	0.081	0.04
288	32_008	32_006	300	640	110	12.324	0.174	0.18
289	32_009	32_008	900	680	110	224.080	0.352	0.19
290	32_010	32_007	400	180	110	10.700	0.085	0.03
291	33_047	32_010	400	260	110	22.890	0.182	0.14
292	32_003	32_005	300	1570	110	23.755	0.336	0.62
293	32_004	32_015	600	320	110	114.408	0.405	0.39
294	32_004	32_009	900	1150	110	226.638	0.356	0.19
295	32_015	32_013	600	570	110	111.850	0.396	0.37
296	42_004	32_003	800	1160	110	266.488	0.530	0.46
297	32_003	32_004	800	1620	110	233.631	0.465	0.36
298	34_015	33_003	400	560	110	11.956	0.095	0.04
299	33_004	33_003	400	620	110	8.182	0.065	0.02
300	34_030	33_004	400	380	110	13.588	0.108	0.05

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2020(Hourly Max/Ежечный максимум)

(Pipe)	Node(u)	Node(d)	Dia.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
Верхний	Нижний	Диам.(мм)	Длина(м)	Течение(л/с)	Скорости(м/с)	Градус(%)		
301	33_005	33_004	400	490	110	14.732	0.117	0.06
302	33_005	33_006	600	1270	110	15.900	0.056	0.01
303	33_006	33_007	400	300	110	5.424	0.043	0.01
304	33_006	33_007	400	320	110	5.238	0.042	0.01
305	33_009	33_008	400	230	110	36.895	0.294	0.35
306	33_005	33_011	400	290	110	37.530	0.299	0.36
307	33_008	33_012	400	360	110	26.417	0.210	0.19
308	33_012	33_013	300	200	110	21.178	0.300	0.50
309	33_013	33_014	300	330	110	15.939	0.225	0.30
310	33_011	33_015	400	430	110	32.291	0.257	0.27
311	33_015	33_016	300	150	110	28.059	0.397	0.84
312	33_015	33_017	400	210	110	47.373	0.377	0.55
313	33_019	33_014	300	230	110	17.581	0.249	0.36
314	33_017	33_009	400	240	110	42.134	0.335	0.44
315	33_020	33_021	600	560	110	32.571	0.115	0.04
316	33_029	33_005	600	190	110	38.154	0.135	0.05
317	34_036	33_029	400	420	110	20.503	0.163	0.12
318	33_030	33_015	600	420	110	48.380	0.171	0.08
319	33_031	33_030	600	350	110	53.619	0.190	0.10
320	34_035	33_028	1000	270	110	281.467	0.358	0.17
321	33_033	33_032	1000	270	110	270.989	0.345	0.16
322	33_028	33_033	1000	230	110	276.228	0.352	0.17
323	34_034	33_034	800	250	110	235.601	0.469	0.36
324	33_037	33_036	500	430	110	2.128	0.011	0.00
325	33_038	33_039	300	110	110	17.058	0.241	0.34
326	33_032	33_031	1000	590	110	265.750	0.338	0.15
327	33_040	33_036	400	310	110	8.975	0.071	0.03
328	33_040	33_041	300	440	110	5.239	0.074	0.04
329	33_042	33_037	500	210	110	8.936	0.046	0.01
330	33_044	33_045	300	140	110	5.560	0.079	0.04
331	33_046	33_045	300	250	110	1.248	0.018	0.00
332	33_039	33_046	300	180	110	8.056	0.114	0.08
333	33_048	33_047	400	190	110	29.698	0.236	0.23
334	33_036	33_038	400	300	110	27.082	0.216	0.19
335	33_021	33_007	600	370	110	9.470	0.033	0.00
336	33_029	33_005	600	220	110	35.247	0.125	0.04
337	33_021	33_007	300	390	110	1.484	0.021	0.00
338	33_014	33_042	300	390	110	28.280	0.400	0.86
339	33_039	33_048	300	210	110	2.195	0.031	0.01
340	33_042	33_049	300	170	110	12.536	0.177	0.19
341	33_016	33_019	300	620	110	22.820	0.323	0.58
342	33_038	33_044	300	460	110	8.944	0.127	0.10
343	34_036	33_029	600	440	110	58.137	0.206	0.11
344	33_008	33_050	300	300	110	5.239	0.074	0.04
345	33_049	33_038	300	630	110	5.728	0.081	0.04
346	42_007	33_020	800	1450	110	160.173	0.319	0.18
347	34_002	34_001	400	580	110	4.780	0.038	0.01
348	34_003	34_004	500	240	110	49.961	0.254	0.20
349	34_006	34_002	400	360	110	20.604	0.164	0.12
350	34_007	34_006	400	500	110	30.019	0.239	0.24
351	34_008	34_007	400	810	110	36.621	0.291	0.34
352	34_009	34_003	500	260	110	59.376	0.302	0.28
353	34_009	34_007	300	600	110	2.812	0.040	0.01
354	34_001	35_002	500	500	110	35.905	0.183	0.11
355	34_002	34_010	400	180	110	6.409	0.051	0.01
356	34_010	35_001	400	340	110	25.176	0.200	0.17
357	34_011	34_012	500	660	110	81.019	0.413	0.50
358	34_011	34_008	1000	550	110	310.014	0.395	0.20
359	34_008	34_013	1000	100	110	263.978	0.336	0.15
360	34_015	34_016	400	620	110	20.138	0.160	0.11

2020 (Hourly Max/Ежечный максимальный)

[Pipe]	Node(u)	Node(d)	Dia.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
Верхний	Нижний	Нижний	Диам.(мм)	Длина(м)		Течение(л/с)	Скорость(м/с)	Градуус(%)
361	34_018	34_017	600	850	110	44.342	0.157	0.07
362	34_019	34_020	300	260	110	36.210	0.512	1.35
363	34_020	34_021	300	370	110	16.072	0.227	0.30
364	34_022	34_021	300	170	110	4.066	0.058	0.02
365	34_017	34_022	300	320	110	24.204	0.342	0.64
366	34_023	34_019	700	500	110	90.073	0.234	0.12
367	34_019	34_030	600	430	110	33.726	0.119	0.04
368	34_013	34_026	600	670	110	112.800	0.399	0.38
369	34_013	34_031	1000	60	110	150.487	0.192	0.05
370	34_032	34_023	700	250	110	110.211	0.286	0.17
371	34_033	34_034	800	260	110	240.840	0.479	0.38
372	34_037	34_035	1000	210	110	286.706	0.365	0.18
373	34_038	34_039	1000	380	110	344.220	0.438	0.25
374	34_037	34_036	400	330	110	21.977	0.175	0.13
375	34_037	34_036	600	350	110	61.902	0.219	0.12
376	34_018	34_010	500	1390	110	28.182	0.144	0.07
377	34_026	34_018	600	270	110	92.662	0.328	0.26
378	34_043	44_006	1000	750	110	45.809	0.058	0.01
379	34_044	34_043	1000	790	110	60.302	0.077	0.01
380	34_045	34_044	1000	610	110	74.795	0.095	0.01
381	34_046	34_045	400	630	110	13.704	0.109	0.06
382	45_001	34_046	400	780	110	28.197	0.224	0.21
383	34_004	34_001	500	360	110	40.546	0.207	0.14
384	34_048	34_037	1000	670	110	282.962	0.360	0.17
385	34_048	34_013	400	780	110	19.447	0.155	0.11
386	34_048	34_049	500	440	110	78.933	0.402	0.48
387	34_039	34_037	1000	330	110	92.862	0.118	0.02
388	34_039	34_033	800	320	110	246.079	0.490	0.40
389	34_031	34_032	700	100	110	130.349	0.339	0.23
390	34_012	34_009	500	130	110	71.604	0.365	0.40
391	44_006	34_015	400	610	110	52.232	0.416	0.66
392	35_002	35_001	400	570	110	1.259	0.010	0.00
393	35_002	35_003	500	1120	110	25.231	0.129	0.06
394	45_001	35_007	500	1550	110	83.975	0.428	0.53
395	35_003	35_008	500	370	110	3.371	0.017	0.00
396	35_009	45_005	400	1030	110	35.262	0.281	0.32
397	35_008	35_009	500	660	110	41.260	0.210	0.14
398	35_008	35_006	400	1280	110	9.733	0.077	0.03
399	35_007	35_008	500	490	110	69.482	0.354	0.38
400	35_001	35_009	400	1930	110	17.019	0.135	0.08
401	45_005	36_004	400	1380	110	12.245	0.097	0.04
402	52_002	42_001	800	1980	110	353.160	0.703	0.77
403	42_002	42_001	400	540	110	37.143	0.296	0.35
404	42_003	42_002	400	990	110	63.222	0.503	0.94
405	52_004	42_003	400	1010	110	66.656	0.530	1.03
406	43_001	42_003	300	1640	110	16.060	0.227	0.30
407	42_002	43_002	400	1780	110	14.977	0.119	0.07
408	42_005	42_004	800	400	110	356.996	0.710	0.79
409	42_006	42_005	800	540	110	368.098	0.732	0.83
410	42_001	42_006	800	360	110	379.200	0.754	0.88
411	42_004	42_007	800	460	110	79.406	0.158	0.05
412	43_004	42_007	800	1830	110	91.869	0.183	0.06
413	43_001	43_002	500	990	110	149.519	0.761	1.55
414	53_001	43_001	500	1030	110	150.614	0.767	1.57
415	43_002	43_003	400	550	110	45.079	0.359	0.50
416	43_003	44_001	400	1530	110	33.977	0.270	0.30
417	43_004	43_005	1000	530	110	5.344	0.007	0.00
418	43_006	43_005	1000	810	110	5.758	0.007	0.00
419	44_003	43_006	500	1310	110	45.487	0.232	0.17
420	43_006	44_005	1000	660	110	28.627	0.036	0.00

А.3-14

2020 (Hourly Max/Ежечный максимальный)

[Pipe]	Node(u)	Node(d)	Dia.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
Верхний	Нижний	Нижний	Диам.(мм)	Длина(м)		Течение(л/с)	Скорость(м/с)	Градуус(%)
421	53_004	43_001	300	980	110	34.461	0.488	1.24
422	43_002	43_004	500	1240	110	108.314	0.552	0.85
423	44_001	44_002	400	590	110	22.875	0.182	0.14
424	44_002	54_007	400	810	110	20.423	0.163	0.12
425	44_004	44_003	500	360	110	49.373	0.251	0.20
426	44_004	45_001	500	1590	110	23.267	0.118	0.05
427	44_005	44_006	1000	490	110	17.525	0.022	0.00
428	44_002	44_003	400	1270	110	7.216	0.057	0.02
429	44_007	44_002	300	1170	110	15.866	0.224	0.29
430	45_002	44_007	300	1560	110	2.981	0.042	0.01
431	44_007	44_004	600	1250	110	87.133	0.308	0.24
432	54_002	44_007	600	1440	110	191.781	0.678	1.01
433	45_002	45_001	600	1220	110	103.397	0.366	0.32
434	45_003	45_002	600	1420	110	120.871	0.427	0.43
435	54_002	45_003	400	1700	110	44.325	0.353	0.48
436	55_001	45_003	600	1160	110	189.371	0.670	0.99
437	45_003	45_004	400	1660	110	90.260	0.718	1.81
438	45_004	46_001	400	850	110	67.695	0.539	1.06
439	46_001	46_002	300	890	110	22.565	0.319	0.56
440	46_001	46_003	300	1660	110	22.565	0.319	0.56
441	52_001	62_001	400	1030	110	77.407	0.616	1.36
442	52_003	52_002	800	300	110	372.656	0.741	0.85
443	52_004	52_003	800	400	110	392.152	0.780	0.94
444	53_001	52_004	1000	1570	110	594.702	0.757	0.68
445	52_004	52_005	400	1000	110	116.399	0.926	2.89
446	52_005	52_001	400	740	110	96.903	0.771	2.06
447	53_002	53_001	1200	970	110	784.308	0.693	0.47
448	53_001	53_003	400	1000	110	19.496	0.155	0.11
449	53_005	53_004	300	510	110	40.050	0.567	1.63
450	53_002	53_005	300	480	110	6.925	0.098	0.06
451	53_006	53_002	1200	560	110	796.822	0.705	0.48
452	53_007	53_006	1200	1430	110	801.250	0.708	0.49
453	53_008	53_006	300	1300	110	1.161	0.016	0.00
454	53_008	63_004	300	840	110	5.589	0.079	0.04
455	53_007	53_009	300	1450	110	17.928	0.254	0.37
456	53_009	53_008	300	860	110	12.339	0.175	0.18
457	54_003	53_007	1200	710	110	874.659	0.773	0.57
458	54_006	53_005	400	1140	110	38.714	0.308	0.38
459	53_010	54_006	400	510	110	44.303	0.353	0.48
460	53_007	53_010	400	530	110	49.892	0.397	0.60
461	54_003	53_011	400	1480	110	53.676	0.427	0.69
462	53_011	64_001	400	860	110	46.290	0.368	0.53
463	54_001	55_002	800	1130	110	275.898	0.549	0.49
464	54_001	54_002	800	1270	110	399.203	0.794	0.97
465	54_003	54_004	900	910	110	680.527	1.070	1.46
466	54_004	54_001	900	1060	110	652.949	1.026	1.35
467	64_005	54_005	400	1300	110	44.317	0.353	0.48
468	54_005	54_001	400	1110	110	29.541	0.235	0.23
469	54_005	64_004	300	1080	110	7.388	0.105	0.07
470	54_002	54_007	400	1620	110	71.337	0.568	1.17
471	54_004	64_005	300	1200	110	20.191	0.286	0.46
472	54_008	54_003	1500	80	110	1616.250	0.915	0.60
473	55_001	56_001	400	1960	110	15.313	0.122	0.07
474	55_002	55_001	800	1030	110	228.422	0.454	0.34
475	55_002	65_001	300	1930	110	23.738	0.336	0.62
476	62_001	63_001	300	1500	110	45.383	0.642	2.06
477	62_001	62_002	300	1390	110	12.528	0.177	0.19
478	62_002	72_001	300	2020	110	2.761	0.039	0.01
479	62_002	62_003	300	1760	110	7.006	0.099	0.06
480	62_003	73_001	300	4300	110	4.245	0.060	0.03

2020 (Hourly Max/Ежечный максимальный)

[Pipe]	Node(u)	Node(d)	Диa.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
	Верхний	Нижний	диaм.(мм)	Длина(м)		Течение(л/с)	Скорость(м/с)	Градуc(%)
481	63_001	63_002	300	670	110	25.887	0.366	0.73
482	63_002	63_003	300	860	110	20.298	0.287	0.46
483	63_003	64_002	300	1500	110	10.149	0.144	0.13
484	63_003	63_005	300	850	110	2.761	0.039	0.01
485	64_002	64_006	300	1810	110	2.761	0.039	0.01
486	64_001	64_005	400	1070	110	38.902	0.310	0.38
487	64_005	64_003	200	1070	110	7.388	0.235	0.52

2030 (Hourly Max/Ежечный максимальный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
	Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание
1	11_001	12.053	395.69	345.50	50.19	
2	12_029	5.237	396.01	346.00	50.01	
3	11_002	12.053	395.58	345.10	50.48	
4	11_005	1.989	395.53	344.70	50.83	
5	11_006	1.989	395.47	344.90	50.57	
6	11_007	1.989	395.49	345.80	49.69	
7	11_008	1.989	394.76	344.80	49.96	
8	21_003	1.989	394.52	345.00	49.52	
9	12_041	12.053	395.52	348.60	46.92	
10	12_003	4.971	396.14	349.80	46.34	
11	12_004	5.249	396.17	348.80	47.37	
12	12_005	4.971	395.87	349.50	46.37	
13	12_006	4.971	395.84	349.90	45.94	
14	12_007	4.971	395.77	350.50	45.27	
15	12_009	4.971	395.79	351.50	44.29	
16	12_010	4.971	395.80	350.80	45.00	
17	12_018	5.237	395.77	350.00	45.77	
18	12_019	5.237	395.84	349.80	46.04	
19	12_020	5.237	395.94	349.10	46.84	
20	12_021	5.237	395.97	350.50	45.47	
21	12_022	5.237	395.98	349.80	46.18	
22	12_027	5.237	396.25	346.50	49.75	
23	12_028	5.237	396.07	346.10	49.97	
24	12_030	5.237	396.08	347.30	48.78	
25	12_025	5.237	396.15	347.00	49.15	
26	12_032	5.237	396.13	349.00	47.13	
27	12_033	5.237	396.16	349.80	46.36	
28	12_034	5.237	396.62	348.20	48.42	
29	12_035	5.237	396.58	348.40	48.18	
30	12_002	4.964	397.52	349.30	48.22	
31	12_001	8.498	397.53	348.80	48.73	
32	22_052	8.550	397.61	350.00	47.61	
33	12_036	8.550	397.39	348.80	48.59	
34	12_037	8.550	396.96	348.20	48.76	
35	22_020	8.550	397.32	348.80	48.52	
36	12_038	5.237	396.25	349.50	46.75	
37	12_039	5.237	396.69	348.60	48.09	
38	22_012	5.237	396.71	346.80	49.91	
39	12_040	12.053	395.57	349.10	46.47	
40	12_031	5.237	396.22	349.10	47.12	
41	22_021	8.550	397.04	349.20	47.84	
42	12_050	8.550	397.24	348.90	48.34	
43	12_015	4.971	395.81	351.50	44.31	
44	22_001	5.237	396.46	346.10	50.36	
45	12_045	8.550	396.92	349.00	47.92	
46	12_046	5.237	396.51	349.00	47.51	
47	12_047	4.971	397.52	349.00	48.52	
48	23_005	8.550	397.79	351.80	45.99	
49	22_003	5.237	396.53	346.40	50.13	
50	13_001	4.971	396.36	355.10	41.26	
51	13_002	42.707	396.22	352.20	44.02	ТЭTs-1(2)
52	13_004	4.971	397.36	361.10	36.26	
53	13_006	4.971	396.69	353.50	43.19	
54	23_001	4.971	397.07	355.70	41.37	
55	13_013	4.971	397.69	362.00	35.69	
56	23_059	4.971	397.88	364.50	33.38	
57	13_008	37.736	396.21	352.20	44.01	ТЭTs-1(1)
58	21_004	12.053	395.42	345.34	50.08	
59	21_005	5.237	396.75	345.50	51.25	
60	22_002	5.237	397.08	346.50	50.58	

А.3-15

2030(Hourly Max/Ежечный максимальный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание	
61 21_007	5.237	396.20	345.40	50.80		
62 21_002	68.333	392.26	344.50	47.76		
63 21_008	68.331	392.25	344.00	48.25		
64 21_009	68.331	396.20	344.00	52.20		
65 31_003	21.976	396.28	342.00	54.28		
66 22_006	5.237	396.87	347.00	49.87		
67 22_007	5.237	396.90	346.50	50.40		
68 22_008	5.237	396.84	346.50	50.34		
69 22_009	5.237	396.87	346.00	50.87		
70 22_010	5.237	396.75	346.50	50.25		
71 22_011	5.237	396.74	346.60	50.14		
72 22_013	8.550	397.23	346.70	50.53	BPS/LWL:346.5,PH:65	
73 22_014	8.550	397.20	348.00	49.20		
74 22_015	8.550	397.32	349.30	48.02		
75 22_016	8.550	397.37	350.10	47.27		
76 22_017	8.550	397.37	350.00	47.37		
77 22_018	8.550	397.48	350.60	46.88		
78 22_019	8.550	397.64	350.60	47.04		
79 22_022	8.550	397.53	349.80	47.73		
80 22_023	8.550	397.58	350.60	46.98		
81 22_024	8.550	397.57	348.20	49.37		
82 22_025	8.550	397.51	347.00	50.51		
83 22_026	8.550	397.75	352.00	45.75		
84 22_027	8.550	397.83	351.00	46.83		
85 22_028	8.550	397.58	348.00	49.58		
86 22_029	8.550	397.65	347.50	50.15		
87 22_030	8.550	397.72	350.10	47.62		
88 22_032	7.591	398.07	350.00	48.07		
89 22_033	8.550	397.82	352.40	45.42		
90 22_034	7.575	398.07	350.20	47.87		
91 22_035	8.550	397.83	352.60	45.23		
92 23_017	7.575	398.19	350.00	48.19		
93 22_036	8.550	398.00	352.00	46.00		
94 23_018	8.550	398.06	352.60	45.46		
95 22_037	8.550	397.89	352.90	44.99		
96 23_009	8.550	397.96	353.50	44.46		
97 22_038	8.550	397.96	353.00	44.96		
98 23_007	8.550	397.86	351.80	46.06		
99 22_039	7.575	398.84	350.00	48.84		
100 32_010	7.575	398.87	350.10	48.77		
101 22_040	7.575	398.28	346.80	51.48		
102 22_042	7.575	397.93	349.20	48.73		
103 22_043	7.575	398.20	346.00	52.20		
104 22_044	7.575	398.76	348.00	50.76		
105 32_016	7.575	398.78	347.40	51.38		
106 22_045	7.575	398.80	349.50	49.30		
107 22_059	7.575	398.80	349.50	49.30		
108 22_046	7.575	398.63	348.20	50.43		
109 23_010	7.575	398.97	352.00	46.97		
110 22_047	7.575	398.54	345.90	52.64		
111 22_048	7.575	398.55	345.50	53.05		
112 22_049	7.575	398.63	346.00	52.63		
113 22_050	7.575	398.68	344.50	54.18		
114 22_051	7.575	398.58	347.00	51.58		
115 23_041	7.575	398.75	349.80	48.95		
116 22_041	7.575	397.81	350.00	47.81		
117 22_053	5.237	397.18	346.50	50.68		
118 32_008	7.575	398.77	344.50	54.27		
119 22_054	8.550	397.69	350.80	46.89		
120 22_055	7.575	398.31	347.00	51.31		

2030(Hourly Max/Ежечный максимальный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание	
121 23_016	7.575	398.45	348.50	49.95		
122 22_056	5.237	397.53	346.50	51.03		
123 22_057	5.237	397.51	346.70	50.81		
124 22_058	7.575	398.59	346.00	52.59		
125 32_007	7.575	398.84	349.30	49.54		
126 23_004	9.927	397.64	360.50	37.14		
127 24_003	9.929	399.12	355.00	44.12		
128 23_006	8.550	397.88	352.50	45.38		
129 23_008	8.550	398.02	354.00	44.02		
130 23_011	7.575	399.23	354.00	45.23		
131 23_012	7.575	399.10	353.20	45.90		
132 23_013	7.575	398.97	354.00	44.97		
133 23_014	7.575	399.09	354.00	45.09		
134 23_015	7.575	398.73	352.00	46.73		
135 23_019	7.575	399.35	350.00	49.35		
136 33_036	7.575	399.29	348.00	51.29		
137 23_020	7.575	399.16	350.10	49.06		
138 33_048	7.575	399.08	350.20	48.88		
139 23_021	7.575	398.31	351.20	47.11		
140 23_022	8.550	398.21	351.80	46.41		
141 23_023	7.575	398.25	351.00	47.25		
142 23_024	7.575	398.40	349.70	48.70		
143 23_025	8.550	398.13	351.70	46.43		
144 23_026	5.950	398.36	353.70	44.66		
145 23_027	5.930	398.45	355.00	43.45		
146 23_028	5.930	398.61	354.50	44.11		
147 23_029	4.971	398.62	353.90	44.72		
148 23_030	5.930	398.36	354.20	44.16		
149 23_031	5.930	398.40	355.70	42.70		
150 23_033	5.930	399.20	356.10	43.10		
151 23_034	5.930	399.46	354.00	45.46		
152 23_079	5.902	399.53	350.52	49.01		
153 23_036	5.930	400.16	353.80	46.36		
154 23_037	5.930	400.16	354.80	45.36		
155 23_038	5.893	400.36	354.20	46.16		
156 23_039	5.930	400.00	355.50	44.50		
157 23_042	7.575	398.87	352.20	46.67		
158 23_045	5.930	398.92	356.50	42.42		
159 23_049	5.930	399.79	356.20	43.59		
160 23_050	5.930	400.08	355.20	44.88		
161 23_051	5.930	398.79	355.50	43.29		
162 23_053	9.929	400.17	354.40	45.77		
163 23_055	5.930	400.37	354.70	45.67		
164 23_056	5.930	400.53	354.40	46.13		
165 23_057	5.930	400.71	354.00	46.71		
166 23_058	5.930	400.88	353.60	47.28		
167 24_001	9.929	399.09	359.00	40.09		
168 24_006	5.930	401.07	353.10	47.97		
169 23_052	9.929	401.77	354.50	47.27		
170 23_060	5.930	401.77	355.00	46.77		
171 23_061	7.575	398.55	350.50	48.05		
172 23_062	5.930	399.00	355.80	43.20		
173 23_063	5.930	399.32	356.10	43.22		
174 23_064	5.930	398.88	356.00	42.88		
175 23_043	5.930	399.78	356.90	42.88		
176 23_065	5.930	399.89	356.30	43.59		
177 23_047	5.930	399.93	355.00	44.93		
178 23_078	4.971	397.55	359.90	37.65		
179 24_007	5.930	401.80	353.40	48.40		
180 23_066	5.930	399.94	356.10	43.84		

2030(Hourly Max/Ежечный максимум)

[Node]	Наиме Название	Q(l/s) Объем(л/с)	WL(m) Уровень(м)	GL(m) Уровень земли	EH(m) Напор(м)	Comment Примечание
181	23_040	7.575	398.94	352.50	46.44	
182	23_071	5.930	400.52	354.40	46.12	
183	23_073	5.930	400.68	354.00	46.68	
184	34_049	5.930	401.23	352.70	48.53	
185	23_074	5.893	400.71	353.30	47.41	
186	33_034	5.893	400.86	353.00	47.86	
187	23_075	5.893	400.43	354.40	46.03	
188	23_072	5.893	400.56	354.00	46.56	
189	23_076	5.893	400.07	353.00	47.07	
190	23_035	5.893	399.91	352.00	47.91	
191	23_077	5.893	399.76	351.00	48.76	
192	33_031	5.893	400.95	352.50	48.45	
193	33_040	5.893	399.31	348.00	51.31	
194	24_002	9.929	400.11	355.80	44.31	
195	24_004	9.929	400.94	351.90	49.04	
196	34_038	9.929	401.55	351.20	50.35	
197	24_008	-2831.510	402.00	353.00	49.00	LWL:352.0 + PH:50.0
198	34_011	10.574	401.69	354.00	47.69	
199	25_001	495.191	401.44	360.00	41.44	TETs-2
200	34_045	16.279	401.54	360.00	41.54	
201	34_048	5.930	401.57	351.20	50.37	
202	24_009	9.929	401.88	350.50	51.38	
203	30_001	21.973	395.81	342.00	53.81	
204	31_001	21.976	395.90	342.00	53.90	
205	31_002	21.976	397.31	342.00	55.31	
206	31_004	21.976	396.41	342.00	54.41	
207	32_013	21.976	398.08	344.00	54.08	
208	32_002	21.976	399.60	344.20	55.40	
209	32_003	21.976	400.09	345.10	54.99	
210	33_020	24.273	400.70	345.00	55.70	
211	32_004	21.976	399.07	343.50	55.57	
212	32_005	7.575	399.02	347.40	51.62	
213	32_006	7.575	398.82	346.90	51.92	
214	33_044	7.575	399.04	348.40	50.64	
215	32_009	21.976	398.87	346.00	52.87	
216	33_047	7.575	398.97	350.20	48.77	
217	32_015	21.976	398.67	343.50	55.17	
218	42_004	11.700	400.99	346.00	54.99	
219	33_003	22.653	401.04	349.10	51.94	
220	34_015	22.653	401.04	348.30	52.74	
221	33_004	22.653	401.09	349.30	51.79	
222	34_030	22.653	401.23	350.50	50.73	
223	33_005	5.893	401.09	348.10	52.99	
224	33_006	5.893	400.84	346.00	54.84	
225	33_007	24.273	400.73	346.00	54.73	
226	33_008	5.893	400.40	346.80	53.60	
227	33_009	5.893	400.52	347.40	53.12	
228	33_011	5.893	400.97	348.60	52.37	
229	33_012	5.893	400.29	346.00	54.29	
230	33_013	5.893	400.12	345.50	54.62	
231	33_014	5.893	399.94	345.50	54.44	
232	33_015	5.893	400.84	348.00	52.84	
233	33_016	5.893	400.65	348.10	52.55	
234	33_017	5.893	400.67	346.80	53.87	
235	33_019	5.893	400.07	346.00	54.07	
236	33_021	24.273	400.71	346.30	54.41	
237	33_029	5.893	401.12	348.40	52.72	
238	34_036	5.893	401.25	349.40	51.85	
239	33_030	5.893	400.89	350.90	49.99	
240	33_028	5.893	401.23	350.30	50.93	

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2030(Hourly Max/Ежечный максимум)

[Node]	Наиме Название	Q(l/s) Объем(л/с)	WL(m) Уровень(м)	GL(m) Уровень земли	EH(m) Напор(м)	Comment Примечание
241	34_035	5.893	401.31	350.30	51.01	
242	33_032	5.893	401.10	350.00	51.10	
243	33_033	5.893	401.17	350.00	51.17	
244	34_034	5.893	401.01	352.80	48.21	
245	33_037	7.575	399.30	346.80	52.50	
246	33_038	7.575	399.17	347.70	51.47	
247	33_039	7.575	399.09	348.40	50.69	
248	33_041	5.893	399.29	346.00	53.29	
249	33_042	7.575	399.30	345.90	53.40	
250	33_045	7.575	399.04	349.70	49.34	
251	33_046	7.575	399.05	349.20	49.85	
252	33_049	7.575	399.24	345.90	53.34	
253	33_050	5.893	400.38	347.30	53.08	
254	42_007	11.700	400.99	346.00	54.99	
255	34_001	10.580	400.90	357.90	43.00	
256	34_002	10.574	400.91	358.20	42.71	
257	34_003	10.574	401.05	357.80	43.25	
258	34_004	10.574	400.98	357.80	43.18	
259	34_006	10.574	400.98	359.20	41.78	
260	34_007	10.574	401.15	357.30	43.85	
261	34_008	10.574	401.53	354.10	47.43	
262	34_009	10.574	401.16	357.00	44.16	
263	35_002	10.574	400.81	359.60	41.21	
264	34_010	10.574	400.91	358.60	42.31	
265	35_001	10.574	400.81	360.30	40.51	
266	34_012	10.574	401.23	356.50	44.73	
267	34_013	22.653	401.50	353.80	47.71	
268	34_016	22.653	400.95	350.80	50.15	
269	34_017	22.653	401.00	351.00	50.00	
270	34_018	22.653	401.07	356.30	44.77	
271	34_019	22.653	401.28	351.80	49.48	
272	34_020	22.653	400.86	353.20	47.66	
273	34_021	22.653	400.72	353.00	47.72	
274	34_022	22.653	400.73	352.20	48.53	
275	34_023	22.653	401.39	353.00	48.39	
276	34_026	22.653	401.16	356.70	44.46	
277	34_031	22.653	401.50	353.90	47.60	
278	34_032	22.653	401.46	354.00	47.46	
279	34_033	5.893	401.18	351.80	49.38	
280	34_037	5.893	401.37	350.00	51.37	
281	34_039	5.930	401.38	350.50	50.88	
282	34_043	16.279	401.45	354.00	47.45	
283	44_006	11.700	401.41	349.00	52.41	
284	34_044	16.279	401.50	359.00	42.50	
285	34_046	16.279	401.52	361.00	40.52	
286	45_001	16.279	401.54	360.00	41.54	
287	35_003	24.549	400.66	365.10	35.56	
288	35_007	16.279	400.81	367.00	33.81	
289	35_008	24.549	400.66	366.00	34.66	
290	35_009	25.302	400.56	367.50	33.06	
291	45_005	25.302	400.17	372.50	27.67	
292	35_006	9.929	400.62	369.00	31.62	
293	36_004	13.461	400.09	367.50	32.59	
294	42_001	11.700	402.17	347.00	55.17	
295	52_002	30.310	403.84	348.00	55.84	
296	42_002	11.700	402.38	347.00	55.38	
297	42_003	30.307	403.28	348.00	55.28	
298	52_004	30.310	404.58	348.00	56.58	
299	43_001	30.310	403.85	348.00	55.85	
300	43_002	11.700	402.32	348.00	54.32	

2030(Hourly Max/Ежечный максимальный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
Название	Объем(л/с)	Уровень(м)	Уровень земли	ЕН(м)	Напор(м)	Примечание
301	42_005	11.700	401.33	346.00	55.33	
302	42_006	11.700	401.82	347.00	54.82	
303	43_004	11.700	401.36	348.00	53.36	
304	53_001	30.310	405.68	350.00	55.68	
305	43_003	11.700	402.03	348.00	54.03	
306	44_001	11.700	401.56	350.00	51.56	
307	43_005	11.700	401.37	348.00	53.37	
308	43_006	11.700	401.39	348.00	53.39	
309	44_003	11.700	401.49	355.00	46.49	
310	44_005	11.700	401.40	347.00	54.40	
311	53_004	7.305	405.19	349.00	56.19	
312	44_002	11.700	401.48	353.00	48.48	
313	54_007	103.065	401.28	353.00	48.28	
314	44_004	16.279	401.56	356.00	45.56	
315	44_007	103.068	401.79	357.00	44.79	
316	45_002	16.279	401.84	363.00	38.84	
317	54_002	103.065	403.20	353.00	50.20	
318	45_003	25.346	402.36	357.00	45.36	
319	55_001	26.662	403.54	351.00	52.54	
320	45_004	25.346	398.64	354.00	44.64	
321	46_001	25.346	397.52	354.00	43.52	
322	46_002	25.346	396.89	354.00	42.89	
323	46_003	25.346	396.36	354.00	42.36	
324	52_001	30.310	402.79	349.50	53.29	
325	62_001	30.310	402.46	350.00	52.46	
326	52_003	30.310	404.13	348.00	56.13	
327	52_005	30.310	403.53	349.00	54.53	
328	53_003	30.310	404.86	350.00	54.86	
329	53_002	7.304	406.21	350.00	56.21	
330	53_005	7.305	406.17	350.00	56.17	
331	53_006	7.305	406.53	350.00	56.53	
332	53_007	7.305	407.40	350.00	57.40	
333	53_008	7.305	405.18	350.00	55.18	
334	63_004	7.305	404.35	350.00	54.35	
335	53_009	7.305	405.23	350.00	55.23	
336	54_003	16.705	407.93	350.00	57.93	
337	54_006	7.305	406.68	350.00	56.68	
338	53_010	7.305	406.99	350.00	56.99	
339	53_011	16.703	405.01	350.00	55.01	
340	63_003	16.705	403.93	350.50	53.43	
341	64_001	16.705	404.51	350.50	54.01	
342	54_001	16.705	404.48	350.00	54.48	
343	55_002	26.660	403.92	351.00	52.92	
344	54_004	16.705	406.22	350.00	56.22	
345	54_005	16.705	404.34	350.00	54.34	
346	64_005	16.705	404.49	350.80	53.69	
347	64_004	16.705	403.64	350.20	53.44	
348	54_008	-1901.507	408.00	350.00	58.00	New No.2 WTP
349	56_001	17.177	403.37	351.00	52.37	
350	65_001	26.660	403.37	350.00	53.37	
351	63_001	30.310	402.72	350.00	52.72	
352	62_002	3.604	402.01	350.00	52.01	
353	72_001	3.604	401.97	351.00	50.98	
354	62_003	3.604	401.81	350.60	51.21	
355	73_001	5.898	401.61	352.00	49.61	
356	63_002	7.305	403.92	350.00	53.92	
357	64_002	16.705	403.84	350.50	53.34	
358	63_005	3.604	403.91	350.50	53.41	
359	64_006	3.604	403.80	351.00	52.80	
360	64_003	16.705	403.66	350.50	53.16	

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2030(Hourly Max/Ежечный максимальный)

[Pipe]	Node(u)	Node(d)	Dia.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
Верхний	Нижний	Диам.(мм)	Длина(м)	Течение(л/с)	Скорость(м/с)	Градуc(%)		
1	12_029	11_001	400	760	110	40.816	0.325	0.42
2	11_001	11_002	400	490	110	28.763	0.229	0.22
3	11_005	11_006	400	880	110	14.721	0.117	0.06
4	11_007	11_006	300	220	110	6.384	0.090	0.05
5	11_008	21_003	300	700	110	17.127	0.242	0.34
6	11_002	11_005	400	680	110	16.710	0.133	0.08
7	11_006	11_008	300	1720	110	19.116	0.270	0.42
8	12_041	11_007	400	1630	110	8.373	0.067	0.02
9	12_004	12_003	300	970	110	4.971	0.070	0.03
10	12_004	12_005	300	320	110	29.457	0.417	0.92
11	12_006	12_007	200	330	110	4.602	0.146	0.21
12	12_010	12_009	300	400	110	4.971	0.070	0.03
13	12_005	12_006	300	140	110	14.544	0.206	0.25
14	12_005	12_010	300	590	110	9.942	0.141	0.12
15	12_019	12_018	300	50	110	38.084	0.539	1.49
16	12_020	12_019	300	140	110	25.611	0.362	0.71
17	12_021	12_019	300	340	110	17.711	0.251	0.36
18	12_022	12_021	300	150	110	7.493	0.106	0.07
19	12_027	12_028	400	290	110	51.290	0.408	0.64
20	12_028	12_029	400	120	110	46.053	0.366	0.52
21	12_025	12_030	300	450	110	11.005	0.156	0.15
22	12_032	12_030	300	170	110	16.264	0.230	0.31
23	12_030	12_020	300	250	110	22.032	0.312	0.54
24	12_022	12_020	300	340	110	8.816	0.125	0.10
25	12_033	12_022	300	360	110	21.546	0.305	0.52
26	12_034	12_035	300	110	110	15.867	0.224	0.29
27	12_002	12_035	300	470	110	44.501	0.630	1.98
28	22_052	12_001	700	410	110	118.515	0.308	0.20
29	12_001	12_036	300	120	110	32.608	0.461	1.12
30	22_020	12_037	300	330	110	32.370	0.458	1.10
31	12_038	12_033	300	110	110	26.783	0.379	0.78
32	12_034	12_038	300	340	110	32.020	0.453	1.08
33	22_012	12_039	400	510	110	11.537	0.092	0.04
34	12_018	12_040	400	720	110	32.479	0.258	0.27
35	12_031	12_032	300	180	110	21.501	0.304	0.52
36	22_021	12_037	300	380	110	13.421	0.190	0.22
37	12_001	12_050	300	200	110	37.510	0.531	1.45
38	12_006	12_015	300	730	110	4.971	0.070	0.03
39	12_035	12_004	300	140	110	55.132	0.780	2.95
40	12_004	12_021	300	730	110	15.454	0.219	0.28
41	12_027	12_025	300	350	110	16.242	0.230	0.31
42	22_001	12_027	300	770	110	14.921	0.211	0.26
43	12_037	12_045	300	240	110	11.565	0.164	0.16
44	12_045	12_034	300	110	110	53.124	0.752	2.75
45	12_037	12_039	300	370	110	25.675	0.363	0.72
46	12_046	12_031	300	370	110	26.738	0.378	0.77
47	12_039	12_046	300	170	110	31.975	0.452	1.08
48	12_001	12_047	600	120	110	39.898	0.141	0.06
49	12_036	22_020	300	140	110	21.746	0.308	0.53
50	22_052	12_036	300	530	110	18.837	0.266	0.40
51	23_005	12_047	300	1080	110	14.538	0.206	0.25
52	12_018	12_007	300	630	110	0.369	0.005	0.00
53	22_003	12_027	400	350	110	57.847	0.460	0.79
54	12_040	12_041	400	440	110	20.426	0.163	0.12
55	12_050	12_045	300	130	110	50.109	0.709	2.47
56	12_036	12_050	300	310	110	21.149	0.299	0.50
57	12_047	12_002	600	80	110	49.465	0.175	0.08
58	13_001	13_002	400	320	110	42.707	0.340	0.45
59	13_004	13_001	400	1800	110	47.678	0.379	0.55
60	23_001	13_006	400	840	110	42.707	0.340	0.45

2030(Hourly Max/Ежечный максимальный)

[Pipe]	Node(u)	Node(d)	Dia.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
	Верхний	Нижний	диам.(мм)	Длина(м)		Течение(л/с)	Скорость(м/с)	Градуус(%)
61	23_059	13_013	400	240	110	57.620	0.459	0.79
62	13_013	13_004	400	490	110	52.649	0.419	0.67
63	13_006	13_008	400	1330	110	37.736	0.300	0.36
64	21_004	21_003	400	1200	110	55.929	0.445	0.75
65	22_002	21_005	600	410	110	169.824	0.601	0.81
66	21_005	22_001	300	650	110	20.158	0.285	0.46
67	21_005	21_007	500	380	110	144.429	0.736	1.45
68	21_003	21_002	300	480	110	71.066	1.005	4.71
69	21_002	21_008	300	1170	110	2.733	0.039	0.01
70	21_007	21_004	400	210	110	133.579	1.063	3.73
71	21_004	21_008	300	780	110	65.598	0.928	4.07
72	21_007	21_009	600	1770	110	5.613	0.020	0.00
73	31_003	21_009	600	640	110	62.718	0.222	0.13
74	22_007	22_006	300	410	110	6.610	0.094	0.06
75	22_007	22_008	300	110	110	21.401	0.303	0.51
76	22_009	22_003	300	660	110	21.524	0.305	0.52
77	22_006	22_009	300	180	110	1.373	0.019	0.00
78	22_010	22_011	400	200	110	10.927	0.087	0.04
79	22_011	22_012	400	360	110	16.774	0.133	0.08
80	22_011	22_003	400	490	110	41.560	0.331	0.43
81	22_013	22_014	300	950	110	4.903	0.069	0.03
82	22_015	22_014	300	180	110	25.618	0.362	0.71
83	22_016	22_015	300	330	110	10.135	0.143	0.13
84	22_018	22_017	300	280	110	18.751	0.265	0.40
85	22_019	22_016	300	330	110	27.657	0.391	0.82
86	22_016	22_020	300	390	110	9.634	0.136	0.12
87	22_017	22_020	300	400	110	9.540	0.135	0.11
88	22_014	22_021	300	290	110	21.971	0.311	0.54
89	22_022	22_015	300	330	110	24.033	0.340	0.63
90	22_023	22_024	300	660	110	3.182	0.045	0.02
91	22_023	22_022	300	410	110	9.296	0.132	0.11
92	22_025	22_013	400	240	110	71.333	0.568	1.17
93	22_026	22_019	400	410	110	32.786	0.261	0.28
94	22_019	22_022	400	340	110	34.638	0.276	0.31
95	22_027	22_019	400	520	110	38.059	0.303	0.37
96	22_022	22_025	400	650	110	11.351	0.090	0.04
97	22_024	22_025	600	400	110	68.532	0.242	0.15
98	22_028	22_024	600	80	110	73.900	0.261	0.17
99	22_030	22_029	600	270	110	91.000	0.322	0.25
100	22_032	22_026	400	660	110	43.834	0.349	0.48
101	22_026	22_023	300	350	110	21.029	0.297	0.50
102	22_033	22_026	300	170	110	18.531	0.262	0.39
103	22_034	22_032	600	170	110	38.135	0.135	0.05
104	22_035	22_033	300	170	110	7.769	0.110	0.08
105	23_017	22_034	400	360	110	35.164	0.280	0.32
106	22_036	22_033	300	420	110	19.312	0.273	0.42
107	22_034	22_036	300	260	110	16.007	0.226	0.30
108	23_018	22_036	300	350	110	11.854	0.168	0.17
109	23_005	22_018	300	390	110	27.301	0.386	0.80
110	22_037	22_027	400	420	110	24.028	0.191	0.16
111	23_009	22_037	300	240	110	14.738	0.209	0.26
112	22_038	22_037	400	210	110	34.158	0.272	0.30
113	23_007	22_027	400	250	110	22.581	0.180	0.14
114	32_010	22_039	300	350	110	7.144	0.101	0.07
115	22_040	22_032	400	320	110	52.338	0.416	0.66
116	22_032	22_042	400	340	110	39.047	0.311	0.38
117	22_043	22_042	300	310	110	28.079	0.397	0.85
118	32_016	22_044	300	190	110	8.521	0.121	0.09
119	22_059	22_045	300	180	110	2.478	0.035	0.01
120	22_045	22_044	600	350	110	57.280	0.203	0.11

2030(Hourly Max/Ежечный максимальный)

[Pipe]	Node(u)	Node(d)	Dia.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
	Верхний	Нижний	диам.(мм)	Длина(м)		Течение(л/с)	Скорость(м/с)	Градуус(%)
121	22_039	22_046	300	340	110	23.749	0.336	0.62
122	22_039	22_045	600	180	110	86.229	0.305	0.23
123	23_010	22_039	600	350	110	110.410	0.390	0.36
124	22_044	22_047	300	360	110	23.988	0.339	0.63
125	22_048	22_047	600	220	110	46.576	0.165	0.07
126	22_050	22_049	800	190	110	198.202	0.394	0.26
127	22_044	22_050	300	630	110	10.250	0.145	0.13
128	22_045	22_051	300	350	110	23.853	0.337	0.63
129	22_051	22_047	700	340	110	97.539	0.253	0.14
130	22_046	22_051	700	180	110	142.255	0.370	0.27
131	23_041	22_046	700	360	110	155.003	0.403	0.32
132	22_047	22_043	600	360	110	184.516	0.653	0.94
133	22_043	22_041	600	520	110	162.844	0.576	0.75
134	22_051	22_040	400	350	110	60.993	0.485	0.88
135	22_040	22_043	300	340	110	13.983	0.198	0.23
136	22_042	22_041	400	280	110	42.649	0.339	0.45
137	22_029	22_028	600	340	110	82.450	0.292	0.21
138	22_044	22_047	300	360	110	23.988	0.339	0.63
139	22_041	22_030	600	400	110	82.647	0.292	0.21
140	22_017	22_016	300	400	110	0.662	0.009	0.00
141	22_053	22_011	400	660	110	52.643	0.419	0.67
142	32_008	22_050	800	350	110	195.527	0.389	0.26
143	22_013	22_053	500	170	110	57.880	0.295	0.27
144	22_054	22_052	700	270	110	145.902	0.379	0.29
145	22_055	22_034	300	310	110	26.553	0.376	0.76
146	22_055	22_040	300	170	110	12.902	0.183	0.20
147	23_016	22_055	300	360	110	18.107	0.256	0.38
148	22_046	22_055	300	360	110	28.923	0.409	0.89
149	22_002	22_009	350	640	110	25.389	0.264	0.33
150	23_005	22_054	700	330	110	154.452	0.401	0.32
151	22_056	22_057	700	230	110	76.786	0.200	0.09
152	22_056	22_007	300	550	110	33.248	0.470	1.16
153	22_008	22_010	300	300	110	16.164	0.229	0.30
154	22_037	22_035	300	200	110	16.319	0.231	0.31
155	23_018	22_038	400	220	110	42.708	0.340	0.45
156	22_058	22_048	600	430	110	54.151	0.192	0.10
157	22_057	22_002	600	390	110	200.450	0.709	1.10
158	22_058	22_057	600	2230	110	128.901	0.456	0.49
159	22_041	22_056	700	1480	110	115.271	0.300	0.19
160	22_042	22_030	300	640	110	16.902	0.239	0.33
161	22_049	22_058	800	150	110	190.627	0.379	0.25
162	32_007	22_059	300	170	110	12.415	0.176	0.19
163	22_059	32_016	200	350	110	2.361	0.075	0.06
164	24_003	23_004	400	1610	110	62.576	0.498	0.92
165	23_006	23_005	800	300	110	204.841	0.408	0.28
166	23_006	23_007	400	160	110	17.395	0.138	0.09
167	23_008	23_006	800	400	110	230.786	0.459	0.35
168	23_009	23_007	300	410	110	13.737	0.194	0.23
169	23_011	23_012	600	160	110	167.110	0.591	0.78
170	23_014	23_013	500	170	110	97.343	0.496	0.70
171	23_013	23_015	500	340	110	96.784	0.493	0.69
172	23_016	23_017	400	330	110	57.380	0.457	0.78
173	23_017	23_018	400	240	110	47.342	0.377	0.55
174	23_019	33_036	400	320	110	26.438	0.210	0.19
175	23_020	33_048	400	130	110	49.556	0.394	0.60
176	23_015	23_021	400	320	110	76.081	0.605	1.32
177	23_021	23_022	400	240	110	40.986	0.326	0.42
178	23_024	23_023	300	210	110	25.672	0.363	0.72
179	23_023	23_025	300	240	110	21.876	0.309	0.53
180	23_025	23_018	300	240	110	15.770	0.223	0.29

А.3-19

2030(Hourly Max/Ежечный максимальный)

[Pipe]	Node(u) Верхний	Node(d) Нижний	Dia.(mm) диам.(мм)	Length(m) Длина(м)	C	Flow(l/s) Течение(л/с)	Velocity(m/s) Скорость(м/с)	Gradient(%) Градус(%)
181	23_022	23_025	300	170	110	21.098	0.298	0.50
182	23_023	23_017	400	240	110	32.701	0.260	0.28
183	23_021	23_023	400	170	110	36.481	0.290	0.34
184	23_026	23_022	800	380	110	246.369	0.490	0.40
185	23_027	23_026	800	220	110	254.220	0.506	0.42
186	23_029	23_028	300	370	110	5.962	0.084	0.05
187	23_026	23_030	300	130	110	1.901	0.027	0.01
188	23_031	23_030	300	210	110	12.990	0.184	0.20
189	23_028	23_027	800	350	110	260.150	0.518	0.44
190	23_033	23_013	700	370	110	223.900	0.582	0.64
191	23_034	23_011	600	310	110	165.509	0.585	0.77
192	23_079	23_034	300	330	110	13.169	0.186	0.21
193	23_037	23_036	500	490	110	5.930	0.030	0.00
194	23_038	23_037	600	250	110	171.381	0.606	0.82
195	23_039	23_034	600	750	110	158.270	0.560	0.71
196	23_042	23_041	700	230	110	200.258	0.520	0.52
197	23_049	23_045	600	370	110	301.831	1.068	2.34
198	23_050	23_039	900	160	110	387.760	0.610	0.52
199	23_037	23_050	600	110	110	159.521	0.564	0.72
200	23_025	23_009	300	430	110	18.654	0.264	0.40
201	23_022	23_008	800	450	110	257.706	0.513	0.43
202	23_008	23_009	300	160	110	18.371	0.260	0.39
203	23_051	23_028	700	520	110	164.169	0.427	0.36
204	23_055	23_053	700	360	110	210.685	0.547	0.57
205	23_056	23_055	900	250	110	434.589	0.683	0.64
206	23_057	23_056	900	270	110	440.519	0.692	0.65
207	23_058	23_057	900	250	110	446.449	0.702	0.67
208	24_001	23_059	400	1320	110	62.591	0.498	0.92
209	24_006	23_058	900	280	110	452.379	0.711	0.69
210	23_052	23_060	500	980	110	5.930	0.030	0.00
211	23_015	23_061	300	170	110	31.535	0.446	1.05
212	23_063	23_062	300	330	110	30.267	0.428	0.97
213	23_064	23_015	300	380	110	18.407	0.260	0.39
214	23_062	23_064	300	190	110	24.337	0.344	0.65
215	23_063	23_033	700	180	110	229.830	0.597	0.67
216	23_065	23_043	700	180	110	217.631	0.566	0.60
217	23_039	23_065	700	170	110	223.561	0.581	0.63
218	23_053	23_047	700	450	110	209.756	0.522	0.52
219	23_043	23_063	700	520	110	266.028	0.691	0.87
220	23_004	23_078	400	130	110	52.649	0.419	0.67
221	24_007	23_052	500	1050	110	15.859	0.081	0.02
222	23_028	23_031	300	500	110	18.920	0.268	0.41
223	23_030	23_021	300	480	110	8.960	0.127	0.10
224	23_050	23_066	600	170	110	173.192	0.613	0.84
225	23_041	23_016	400	330	110	62.520	0.498	0.92
226	23_010	23_041	300	330	110	24.841	0.351	0.67
227	23_011	23_014	500	170	110	104.918	0.534	0.81
228	23_019	23_011	600	330	110	114.094	0.404	0.39
229	23_055	23_050	900	520	110	407.361	0.640	0.57
230	23_051	23_029	300	1140	110	10.933	0.155	0.15
231	23_045	23_051	600	140	110	181.032	0.640	0.91
232	23_061	23_016	300	230	110	20.543	0.291	0.47
233	23_061	23_024	300	130	110	33.247	0.470	1.16
234	23_013	23_042	700	170	110	216.884	0.564	0.60
235	23_042	23_061	300	330	110	29.829	0.422	0.95
236	23_040	23_042	300	160	110	20.778	0.294	0.48
237	23_012	23_010	600	220	110	142.825	0.505	0.59
238	23_012	23_040	300	180	110	28.353	0.401	0.86
239	23_019	23_020	400	180	110	68.775	0.547	1.09
240	23_020	23_012	300	340	110	11.643	0.165	0.17

2030(Hourly Max/Ежечный максимальный)

[Pipe]	Node(u) Верхний	Node(d) Нижний	Dia.(mm) диам.(мм)	Length(m) Длина(м)	C	Flow(l/s) Течение(л/с)	Velocity(m/s) Скорость(м/с)	Gradient(%) Градус(%)
241	23_066	23_049	600	190	110	167.262	0.592	0.79
242	23_049	23_043	700	160	110	54.327	0.141	0.05
243	23_047	23_049	700	300	110	194.826	0.506	0.49
244	23_071	23_055	500	260	110	85.361	0.435	0.55
245	23_073	23_071	500	270	110	91.291	0.465	0.62
246	34_049	23_073	500	780	110	97.221	0.495	0.70
247	33_034	23_074	800	260	110	304.127	0.605	0.58
248	23_075	23_055	700	350	110	104.026	0.270	0.15
249	23_072	23_075	800	240	110	292.341	0.582	0.54
250	23_074	23_072	800	270	110	298.234	0.593	0.56
251	23_076	23_035	700	170	110	273.015	0.709	0.92
252	23_035	23_077	700	170	110	267.122	0.694	0.88
253	33_031	23_038	600	300	110	273.760	0.968	1.95
254	23_075	23_038	800	280	110	182.422	0.363	0.23
255	23_038	23_076	700	310	110	278.908	0.725	0.95
256	23_045	23_028	600	800	110	114.869	0.406	0.39
257	23_078	23_001	400	870	110	47.678	0.379	0.55
258	23_079	33_040	300	320	110	25.277	0.358	0.70
259	23_079	23_019	700	300	110	216.881	0.564	0.60
260	23_077	23_079	700	270	110	261.229	0.679	0.85
261	24_002	24_001	400	1170	110	61.050	0.486	0.88
262	24_003	24_001	400	750	110	11.470	0.091	0.04
263	24_004	24_003	400	1150	110	83.975	0.668	1.58
264	24_004	24_002	400	710	110	70.979	0.565	1.16
265	34_038	24_006	900	680	110	458.309	0.720	0.70
266	24_008	34_011	1000	640	110	490.757	0.625	0.48
267	24_008	24_004	600	1390	110	164.883	0.583	0.76
268	24_008	34_038	1000	830	110	527.077	0.671	0.55
269	24_008	25_001	1000	4120	110	248.081	0.316	0.14
270	24_008	25_001	1000	4150	110	247.110	0.315	0.13
271	24_008	34_045	1000	4750	110	206.476	0.263	0.10
272	24_008	34_048	1000	830	110	510.767	0.650	0.51
273	24_009	24_007	500	1770	110	21.789	0.111	0.04
274	24_009	34_038	900	590	110	404.641	0.636	0.56
275	24_008	24_009	1000	320	110	436.359	0.556	0.38
276	31_001	30_001	300	2100	110	5.614	0.079	0.04
277	31_003	30_001	300	1500	110	16.359	0.231	0.31
278	31_002	31_001	300	1720	110	27.590	0.390	0.82
279	31_004	31_003	600	430	110	101.054	0.357	0.31
280	31_002	31_004	600	2020	110	123.030	0.435	0.44
281	32_013	31_002	600	920	110	172.595	0.610	0.83
282	32_003	32_002	600	660	110	162.455	0.575	0.74
283	33_020	32_003	600	740	110	171.255	0.606	0.82
284	32_002	32_004	600	920	110	140.479	0.497	0.57
285	32_005	32_006	300	330	110	23.281	0.329	0.60
286	33_044	32_005	300	540	110	5.846	0.083	0.05
287	32_006	32_016	300	170	110	13.734	0.194	0.23
288	32_007	32_006	300	360	110	5.584	0.079	0.04
289	32_006	32_008	300	640	110	7.556	0.107	0.07
290	32_009	32_008	900	680	110	195.546	0.307	0.15
291	32_010	32_007	400	180	110	25.573	0.204	0.18
292	33_047	32_010	400	260	110	40.292	0.321	0.41
293	32_003	32_005	300	1570	110	25.010	0.354	0.68
294	32_004	32_015	600	320	110	216.547	0.766	1.27
295	32_004	32_009	900	1150	110	217.522	0.342	0.18
296	32_015	32_013	600	570	110	194.571	0.688	1.04
297	42_004	32_003	800	1160	110	353.752	0.704	0.77
298	32_003	32_004	800	1620	110	315.566	0.628	0.63
299	34_015	33_003	400	560	110	4.553	0.036	0.01
300	33_004	33_003	400	620	110	18.100	0.144	0.09

A.3-20

2030(Hourly Max/Ежечный максимальный)

[Pipe]	Node(u) Верхний	Node(d) Нижний	Dia.(mm) диам.(мм)	Length(m) Длина(м)	C	Flow(l/s) Течение(л/с)	Velocity(m/s) Скорость(м/с)	Gradient(%) Градус(%)
301	34_030	33_004	400	380	110	38.091	0.303	0.37
302	33_005	33_004	400	490	110	2.662	0.021	0.00
303	33_005	33_006	600	1270	110	79.785	0.282	0.20
304	33_006	33_007	400	300	110	37.590	0.299	0.36
305	33_006	33_007	400	320	110	36.301	0.289	0.34
306	33_009	33_008	400	230	110	45.956	0.366	0.52
307	33_005	33_011	400	290	110	40.853	0.325	0.42
308	33_008	33_012	400	360	110	34.170	0.272	0.30
309	33_012	33_013	300	200	110	28.277	0.400	0.86
310	33_013	33_014	300	330	110	22.384	0.317	0.56
311	33_011	33_015	400	430	110	34.960	0.278	0.31
312	33_015	33_016	300	150	110	35.274	0.499	1.29
313	33_015	33_017	400	210	110	57.742	0.459	0.79
314	33_019	33_014	300	230	110	23.488	0.332	0.61
315	33_017	33_009	400	240	110	51.849	0.413	0.65
316	33_021	33_020	600	560	110	25.346	0.090	0.02
317	33_029	33_005	600	190	110	67.154	0.238	0.15
318	34_036	33_029	400	420	110	35.220	0.280	0.32
319	33_030	33_015	600	420	110	63.949	0.226	0.13
320	33_031	33_030	600	350	110	69.842	0.247	0.16
321	34_035	33_028	1000	270	110	367.174	0.468	0.28
322	33_033	33_032	1000	270	110	355.388	0.452	0.26
323	33_028	33_033	1000	230	110	361.281	0.460	0.27
324	34_034	33_034	800	250	110	310.020	0.617	0.61
325	33_037	33_036	500	430	110	7.774	0.040	0.01
326	33_038	33_039	300	110	110	26.514	0.375	0.76
327	33_032	33_031	1000	590	110	349.495	0.445	0.26
328	33_040	33_036	400	310	110	13.491	0.107	0.05
329	33_040	33_041	300	440	110	5.893	0.083	0.05
330	33_042	33_037	500	210	110	15.349	0.078	0.02
331	33_044	33_045	300	140	110	2.097	0.030	0.01
332	33_046	33_045	300	250	110	5.478	0.078	0.04
333	33_039	33_046	300	180	110	13.053	0.185	0.21
334	33_048	33_047	400	190	110	47.867	0.381	0.56
335	33_036	33_038	400	300	110	40.128	0.319	0.40
336	33_007	33_021	600	370	110	42.895	0.152	0.06
337	33_029	33_005	600	220	110	62.038	0.219	0.13
338	33_007	33_021	300	390	110	6.724	0.095	0.06
339	33_014	33_042	300	390	110	39.979	0.566	1.63
340	33_039	33_048	300	210	110	5.886	0.083	0.05
341	33_042	33_049	300	170	110	17.055	0.241	0.34
342	33_016	33_019	300	620	110	29.381	0.416	0.92
343	33_038	33_044	300	460	110	15.518	0.220	0.28
344	34_036	33_029	600	440	110	99.865	0.353	0.30
345	33_008	33_050	300	300	110	5.893	0.083	0.05
346	33_049	33_038	300	630	110	9.480	0.134	0.11
347	42_007	33_020	800	1450	110	170.182	0.339	0.20
348	34_002	34_001	400	580	110	7.306	0.058	0.02
349	34_003	34_004	500	240	110	61.901	0.315	0.30
350	34_006	34_002	400	360	110	25.961	0.207	0.18
351	34_007	34_006	400	500	110	36.535	0.291	0.34
352	34_008	34_007	400	810	110	43.534	0.346	0.47
353	34_009	34_003	500	260	110	72.475	0.369	0.41
354	34_009	34_007	300	600	110	3.575	0.051	0.02
355	34_001	35_002	500	500	110	48.053	0.245	0.19
356	34_002	34_010	400	180	110	8.081	0.064	0.02
357	34_010	35_001	400	340	110	33.949	0.270	0.30
358	34_011	34_012	500	660	110	97.198	0.495	0.70
359	34_011	34_008	1000	550	110	382.985	0.488	0.30
360	34_008	34_013	1000	100	110	328.877	0.419	0.23

A.3-21

2030(Hourly Max/Ежечный максимальный)

[Pipe]	Node(u) Верхний	Node(d) Нижний	Dia.(mm) диам.(мм)	Length(m) Длина(м)	C	Flow(l/s) Течение(л/с)	Velocity(m/s) Скорость(м/с)	Gradient(%) Градус(%)
361	34_015	34_016	400	620	110	22.653	0.180	0.14
362	34_018	34_017	600	850	110	50.387	0.178	0.09
363	34_019	34_020	300	260	110	40.225	0.569	1.64
364	34_020	34_021	300	370	110	17.572	0.249	0.36
365	34_022	34_021	300	170	110	5.081	0.072	0.04
366	34_017	34_022	300	320	110	27.734	0.392	0.83
367	34_023	34_019	700	500	110	123.622	0.321	0.21
368	34_019	34_030	600	430	110	60.744	0.215	0.12
369	34_013	34_026	600	670	110	132.136	0.467	0.51
370	34_013	34_031	1000	60	110	191.581	0.244	0.08
371	34_032	34_023	700	250	110	146.275	0.380	0.29
372	34_033	34_034	800	260	110	315.913	0.628	0.63
373	34_037	34_035	1000	210	110	373.067	0.475	0.29
374	34_038	34_039	1000	380	110	463.481	0.590	0.43
375	34_037	34_036	400	330	110	36.938	0.294	0.35
376	34_037	34_036	600	350	110	104.041	0.368	0.33
377	34_018	34_010	500	1390	110	36.442	0.186	0.11
378	34_026	34_018	600	270	110	109.483	0.387	0.36
379	34_043	44_006	1000	750	110	148.130	0.189	0.05
380	34_044	34_043	1000	790	110	164.409	0.209	0.06
381	34_045	34_044	1000	610	110	180.688	0.230	0.08
382	34_045	34_046	400	630	110	9.509	0.076	0.03
383	45_001	34_046	400	780	110	6.770	0.054	0.01
384	34_044	34_001	500	360	110	51.327	0.261	0.21
385	34_048	34_037	1000	670	110	384.193	0.489	0.30
386	34_048	34_013	400	780	110	17.492	0.139	0.09
387	34_048	34_049	500	440	110	103.151	0.525	0.78
388	34_039	34_037	1000	330	110	135.745	0.173	0.04
389	34_039	34_033	800	320	110	321.806	0.640	0.65
390	34_031	34_032	700	100	110	168.928	0.439	0.38
391	34_012	34_009	500	130	110	86.624	0.441	0.57
392	44_006	34_015	400	610	110	49.859	0.397	0.60
393	35_001	35_002	400	570	110	1.568	0.012	0.00
394	35_002	35_003	500	1120	110	39.047	0.199	0.13
395	45_001	35_007	500	1550	110	78.517	0.400	0.47
396	35_003	35_008	500	370	110	14.498	0.074	0.02
397	35_009	45_005	400	1030	110	38.763	0.308	0.38
398	35_008	35_009	500	660	110	42.258	0.215	0.15
399	35_008	35_006	400	1280	110	9.929	0.079	0.03
400	35_007	35_008	500	490	110	62.238	0.317	0.31
401	35_001	35_009	400	1930	110	21.807	0.174	0.13
402	45_005	36_004	400	1380	110	13.461	0.107	0.05
403	52_002	42_001	800	1980	110	370.435	0.737	0.84
404	42_002	42_001	400	540	110	39.524	0.315	0.39
405	42_003	42_002	400	990	110	62.136	0.494	0.91
406	52_004	42_003	400	1010	110	75.048	0.597	1.28
407	43_001	42_003	300	1640	110	17.394	0.246	0.35
408	42_002	43_002	400	1780	110	10.912	0.087	0.04
409	42_005	42_004	800	400	110	374.858	0.746	0.86
410	42_006	42_005	800	540	110	386.558	0.769	0.91
411	42_001	42_006	800	360	110	398.258	0.792	0.96
412	42_004	42_007	800	460	110	9.406	0.019	0.00
413	43_004	42_007	800	1830	110	172.476	0.343	0.20
414	43_001	43_002	500	990	110	149.409	0.761	1.55
415	53_001	43_001	500	1030	110	160.740	0.819	1.77
416	43_002	43_003	400	550	110	46.138	0.367	0.52
417	43_003	44_001	400	1530	110	34.438	0.274	0.30
418	43_005	43_004	1000	530	110	81.694	0.104	0.02
419	43_006	43_005	1000	810	110	93.394	0.119	0.02
420	44_003	43_006	500	1310	110	30.223	0.154	0.08

2030(Hourly Max/Ежечасный максимальный)

[Pipe]	Node(u) Верхний	Node(d) Нижний	Dia.(mm) Диам.(мм)	Length(m) Длина(м)	C	Flow(l/s) Течение(л/с)	Velocity(m/s) Скорость(м/с)	Gradient(%) Градуc(%)
421	44_005	43_006	1000	660	110	74.871	0.095	0.01
422	53_004	43_001	300	980	110	36.373	0.515	1.37
423	43_002	43_004	500	1240	110	102.483	0.522	0.77
424	44_001	44_002	400	590	110	22.738	0.181	0.14
425	44_002	54_007	400	810	110	31.174	0.248	0.25
426	44_004	44_003	500	360	110	47.219	0.240	0.18
427	44_004	45_001	500	1590	110	12.103	0.062	0.01
428	44_006	44_005	1000	490	110	86.571	0.110	0.02
429	44_003	44_002	400	1270	110	5.296	0.042	0.01
430	44_007	44_002	300	1170	110	14.841	0.210	0.26
431	45_002	44_007	300	1560	110	4.869	0.069	0.03
432	44_007	44_004	600	1250	110	75.600	0.267	0.18
433	54_002	44_007	600	1440	110	188.640	0.667	0.98
434	45_002	45_001	600	1220	110	89.463	0.316	0.25
435	45_003	45_002	600	1420	110	110.611	0.391	0.37
436	54_002	45_003	400	1700	110	44.843	0.357	0.50
437	55_001	45_003	600	1160	110	192.497	0.681	1.02
438	45_003	45_004	400	1660	110	101.384	0.807	2.24
439	45_004	46_001	400	850	110	76.038	0.605	1.32
440	46_001	46_002	300	890	110	25.346	0.359	0.70
441	46_001	46_003	300	1660	110	25.346	0.359	0.70
442	52_001	62_001	400	1030	110	35.154	0.280	0.32
443	52_003	52_002	800	300	110	400.745	0.797	0.97
444	52_004	52_003	800	400	110	431.055	0.858	1.11
445	53_001	52_004	1000	1570	110	603.675	0.769	0.70
446	52_004	52_005	400	1000	110	67.262	0.535	1.05
447	52_005	52_001	400	740	110	65.464	0.521	1.00
448	53_003	52_005	300	1530	110	28.512	0.403	0.87
449	53_002	53_001	1200	970	110	853.547	0.755	0.55
450	53_001	53_003	400	1000	110	58.822	0.468	0.82
451	53_005	53_004	300	510	110	43.678	0.618	1.92
452	53_002	53_005	300	480	110	8.301	0.117	0.09
453	53_006	53_002	1200	560	110	869.152	0.768	0.57
454	53_007	53_006	1200	1430	110	907.763	0.803	0.61
455	53_006	53_008	300	1300	110	31.306	0.443	1.03
456	53_008	63_004	300	840	110	30.510	0.432	0.99
457	53_009	63_004	300	1340	110	24.446	0.346	0.65
458	53_007	53_009	300	1450	110	38.259	0.541	1.50
459	53_009	53_008	300	860	110	6.509	0.092	0.06
460	54_003	53_007	1200	710	110	1010.619	0.894	0.75
461	54_006	53_005	400	1140	110	42.682	0.340	0.45
462	53_010	54_006	400	510	110	49.987	0.398	0.61
463	53_007	53_010	400	530	110	57.292	0.456	0.78
464	54_003	53_011	400	1480	110	94.652	0.753	1.97
465	53_011	63_003	300	1220	110	28.849	0.408	0.89
466	53_011	64_001	400	860	110	49.100	0.391	0.59
467	54_001	55_002	800	1130	110	279.003	0.555	0.50
468	54_001	54_002	800	1270	110	408.439	0.813	1.01
469	54_003	54_004	900	910	110	779.530	1.225	1.88
470	54_004	54_001	900	1060	110	725.285	1.140	1.65
471	64_005	54_005	400	1300	110	19.915	0.158	0.11
472	54_001	54_005	400	1110	110	21.138	0.168	0.12
473	54_005	64_004	300	1080	110	24.348	0.344	0.65
474	54_002	54_007	400	1620	110	71.891	0.572	1.19
475	54_004	64_005	300	1200	110	37.540	0.531	1.45
476	54_008	54_003	1500	80	110	1901.507	1.076	0.81
477	55_001	56_001	400	1960	110	17.572	0.140	0.09
478	55_002	55_001	800	1030	110	236.731	0.471	0.37
479	55_002	65_001	300	1930	110	15.612	0.221	0.29
480	56_001	65_001	300	1980	110	0.395	0.006	0.00

A.3-22

2030(Hourly Max/Ежечасный максимальный)

[Pipe]	Node(u) Верхний	Node(d) Нижний	Dia.(mm) Диам.(мм)	Length(m) Длина(м)	C	Flow(l/s) Течение(л/с)	Velocity(m/s) Скорость(м/с)	Gradient(%) Градуc(%)
481	63_001	62_001	300	1500	110	11.866	0.168	0.17
482	62_001	62_002	300	1390	110	16.710	0.236	0.32
483	62_002	72_001	300	2020	110	3.604	0.051	0.02
484	62_002	62_003	300	1760	110	9.502	0.134	0.11
485	62_003	73_001	300	4300	110	5.898	0.083	0.05
486	63_002	63_001	300	670	110	42.176	0.597	1.80
487	63_003	63_002	300	860	110	1.831	0.026	0.01
488	63_003	64_002	300	1500	110	6.710	0.095	0.06
489	63_003	63_005	300	850	110	3.604	0.051	0.02
490	63_004	63_002	300	190	110	47.651	0.674	2.25
491	64_001	64_002	300	1050	110	24.127	0.341	0.64
492	64_002	64_006	300	1810	110	3.604	0.051	0.02
493	64_002	64_003	300	1290	110	10.528	0.149	0.14
494	64_003	64_004	300	1460	110	3.010	0.043	0.01
495	64_001	64_005	400	1070	110	8.267	0.066	0.02
496	64_005	64_003	200	1070	110	9.187	0.292	0.77
497	64_004	65_001	300	1960	110	10.653	0.151	0.14

2030(Fire Fighting/Противопожарный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание	
1 11_001	12.053	392.74	345.50	47.24		
2 12_029	5.237	393.60	346.00	47.60		
3 11_002	12.053	392.35	345.10	47.25		
4 11_005	1.989	392.01	344.70	47.31		
5 11_006	1.989	391.59	344.90	46.69		
6 11_007	96.989	391.02	345.80	45.22		
7 11_008	1.989	391.80	344.80	47.00		
8 21_003	1.989	391.92	345.00	46.92		
9 12_041	12.053	391.84	348.60	43.24		
10 12_003	4.971	393.88	349.80	44.08		
11 12_004	5.249	393.91	348.80	45.11		
12 12_005	4.971	393.47	349.50	43.97		
13 12_006	4.971	393.40	349.90	43.50		
14 12_007	4.971	393.02	350.50	42.52		
15 12_009	4.971	393.39	351.50	41.89		
16 12_010	4.971	393.40	350.80	42.60		
17 12_018	5.237	392.99	350.00	42.99		
18 12_019	5.237	393.21	349.80	43.41		
19 12_020	5.237	393.48	349.10	44.38		
20 12_021	5.237	393.52	350.50	43.02		
21 12_022	5.237	393.54	349.80	43.74		
22 12_027	5.237	394.17	346.50	47.67		
23 12_028	5.237	393.75	346.10	47.65		
24 12_030	5.237	393.84	347.30	46.54		
25 12_025	5.237	393.99	347.00	46.99		
26 12_032	5.237	393.96	349.00	44.96		
27 12_033	5.237	393.89	349.80	44.09		
28 12_034	5.237	394.59	348.20	46.39		
29 12_035	5.237	394.52	348.40	46.12		
30 12_002	99.964	395.66	349.30	46.36		
31 12_001	8.498	395.77	348.80	46.97		
32 22_052	8.550	395.98	350.00	45.98		
33 12_036	8.550	395.71	348.80	46.91		
34 12_037	8.550	395.24	348.20	47.04		
35 22_020	8.550	395.70	348.80	46.90		
36 12_038	5.237	394.03	349.50	44.53		
37 12_039	5.237	394.95	348.60	46.35		
38 22_012	5.237	395.00	346.80	48.20		
39 12_040	12.053	392.19	349.10	43.09		
40 12_031	5.237	394.15	349.10	45.05		
41 22_021	8.550	395.43	349.20	46.23		
42 12_050	8.550	395.48	348.90	46.58		
43 12_015	4.971	393.38	351.50	41.88		
44 22_001	5.237	394.72	346.10	48.62		
45 12_045	8.550	395.10	349.00	46.10		
46 12_046	5.237	394.65	349.00	45.65		
47 12_047	4.971	395.71	349.00	46.71		
48 23_005	8.550	396.39	351.80	44.59		
49 22_003	5.237	394.70	346.40	48.30		
50 13_001	4.971	396.36	355.10	41.26		
51 13_002	42.707	396.22	352.20	44.02	ТЕТЬ-1(2)	
52 13_004	4.971	397.36	361.10	36.26		
53 13_006	4.971	396.69	353.50	43.19		
54 23_001	4.971	397.07	355.70	41.37		
55 13_013	4.971	397.69	362.00	35.69		
56 23_059	4.971	397.88	364.50	33.38		
57 13_008	37.736	396.21	352.20	44.01	ТЕТЬ-1(1)	
58 21_004	12.053	393.64	345.34	48.30		
59 21_005	5.237	395.38	345.50	49.88		
60 22_002	5.237	395.78	346.50	49.28		

A.3-23

2030(Fire Fighting/Противопожарный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание	
61 21_007	5.237	394.76	345.40	49.36		
62 21_002	68.333	389.96	344.50	45.46		
63 21_008	68.331	389.97	344.00	45.97		
64 21_009	68.331	394.78	344.00	50.78		
65 31_003	21.976	394.92	342.00	52.92		
66 22_006	5.237	395.38	347.00	48.38		
67 22_007	5.237	395.40	346.50	48.90		
68 22_008	5.237	395.29	346.50	48.79		
69 22_009	5.237	395.38	346.00	49.38		
70 22_010	5.237	395.09	346.50	48.59		
71 22_011	5.237	395.07	346.60	48.47		
72 22_013	8.550	395.81	346.70	49.11	BPS/LWL:346.5,PH:65	
73 22_014	8.550	395.70	348.00	47.70		
74 22_015	8.550	395.87	349.30	46.57		
75 22_016	8.550	395.87	350.10	45.77		
76 22_017	8.550	395.86	350.00	45.86		
77 22_018	8.550	396.01	350.60	45.41		
78 22_019	8.550	396.36	350.60	45.76		
79 22_022	8.550	396.25	349.80	46.45		
80 22_023	8.550	396.34	350.60	45.74		
81 22_024	8.550	396.34	348.20	48.14		
82 22_025	8.550	396.24	347.00	49.24		
83 22_026	8.550	396.55	352.00	44.55		
84 22_027	8.550	396.55	351.00	45.55		
85 22_028	8.550	396.36	348.00	48.36		
86 22_029	8.550	396.48	347.50	48.98		
87 22_030	8.550	396.58	350.10	46.48		
88 22_032	7.575	397.03	350.00	47.03		
89 22_033	8.550	396.64	352.40	44.24		
90 22_034	7.575	397.04	350.20	46.84		
91 22_035	8.550	396.65	352.60	44.05		
92 23_017	7.575	397.17	350.00	47.17		
93 22_036	8.550	396.91	352.00	44.91		
94 23_018	8.550	396.96	352.60	44.36		
95 22_037	8.550	396.69	352.90	43.79		
96 23_009	8.550	396.74	353.50	43.24		
97 22_038	8.550	396.80	353.00	43.80		
98 23_007	8.550	396.56	351.80	44.76		
99 22_039	7.575	398.13	350.00	48.13		
100 32_010	7.575	398.17	350.10	48.07		
101 22_040	7.575	397.34	346.80	50.54		
102 22_042	7.575	396.87	349.20	47.67		
103 22_043	7.575	397.24	346.00	51.24		
104 22_044	7.575	398.03	348.00	50.03		
105 32_016	7.575	398.06	347.40	50.66		
106 22_045	7.575	398.08	349.50	48.58		
107 22_059	7.575	398.08	349.50	48.58		
108 22_046	7.575	397.83	348.20	49.63		
109 23_010	7.575	398.29	352.00	46.29		
110 22_047	7.575	397.70	345.90	51.80		
111 22_048	7.575	397.73	345.50	52.23		
112 22_049	7.575	397.84	346.00	51.84		
113 22_050	7.575	397.90	344.50	53.40		
114 22_051	7.575	397.76	347.00	50.76		
115 23_041	7.575	397.97	349.80	48.17		
116 22_041	7.575	396.71	350.00	46.71		
117 22_053	5.237	395.74	346.50	49.24		
118 32_008	7.575	398.02	344.50	53.52		
119 22_054	8.550	396.16	350.80	45.36		
120 22_055	7.575	397.38	347.00	50.38		

2030(Fire Fighting/Противопожарный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
	Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание
121	23_016	7.575	397.55	348.50	49.05	
122	22_056	5.237	396.36	346.50	49.86	
123	22_057	5.237	396.34	346.70	49.64	
124	22_058	7.575	397.79	346.00	51.79	
125	32_007	7.575	398.13	349.30	48.83	
126	23_004	9.927	397.64	360.50	37.14	
127	24_003	9.929	399.12	355.00	44.12	
128	23_006	8.550	396.56	352.50	44.06	
129	23_008	8.550	396.80	354.00	42.80	
130	23_011	7.575	398.61	354.00	44.61	
131	23_012	7.575	398.45	353.20	45.25	
132	23_013	7.575	398.25	354.00	44.25	
133	23_014	7.575	398.42	354.00	44.42	
134	23_015	7.575	397.92	352.00	45.92	
135	23_019	7.575	398.78	350.00	48.78	
136	33_036	7.575	398.73	348.00	50.73	
137	23_020	7.575	398.54	350.10	48.44	
138	33_048	7.575	398.46	350.20	48.26	
139	23_021	7.575	397.29	351.20	46.09	
140	23_022	8.550	397.10	351.80	45.30	
141	23_023	7.575	397.24	351.00	46.24	
142	23_024	7.575	397.48	349.70	47.78	
143	23_025	8.550	397.03	351.70	45.33	
144	23_026	5.950	397.32	353.70	43.62	
145	23_027	5.930	397.45	355.00	42.45	
146	23_028	5.930	397.67	354.50	43.17	
147	23_029	4.971	397.70	353.90	43.80	
148	23_030	5.930	397.33	354.20	43.13	
149	23_031	5.930	397.39	355.70	41.69	
150	23_033	5.930	398.55	356.10	42.45	
151	23_034	5.930	398.90	354.00	44.90	
152	23_079	5.902	399.00	350.52	48.48	
153	23_036	5.930	399.75	353.80	45.95	
154	23_037	5.930	399.75	354.80	44.95	
155	23_038	5.893	400.01	354.20	45.81	
156	23_039	5.930	399.55	355.50	44.05	
157	23_042	7.575	398.13	352.20	45.93	
158	23_045	5.930	398.10	356.50	41.60	
159	23_049	5.930	399.27	356.20	43.07	
160	23_050	5.930	399.65	355.20	44.45	
161	23_051	5.930	397.92	355.50	42.42	
162	23_053	9.929	399.76	354.40	45.36	
163	23_055	5.930	400.02	354.70	45.32	
164	23_056	5.930	400.22	354.40	45.82	
165	23_057	5.930	400.43	354.00	46.43	
166	23_058	5.930	400.64	353.60	47.04	
167	24_001	9.929	399.09	359.00	40.09	
168	24_006	5.930	400.87	353.10	47.77	
169	23_052	9.929	401.75	354.50	47.25	
170	23_060	5.930	401.75	355.00	46.75	
171	23_061	7.575	397.69	350.50	47.19	
172	23_062	5.930	398.30	355.80	42.50	
173	23_063	5.930	398.70	356.10	42.60	
174	23_064	5.930	398.13	356.00	42.13	
175	23_043	5.930	399.27	356.90	42.37	
176	23_065	5.930	399.41	356.30	43.11	
177	23_047	5.930	399.46	355.00	44.46	
178	23_078	4.971	397.55	359.90	37.65	
179	24_007	5.930	401.78	353.40	48.38	
180	23_066	5.930	399.47	356.10	43.37	

A.3-24

2030(Fire Fighting/Противопожарный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
	Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание
181	23_040	7.575	398.24	352.50	45.74	
182	23_071	5.930	400.20	354.40	45.80	
183	23_073	5.930	400.41	354.00	46.41	
184	34_049	5.930	401.08	352.70	48.38	
185	23_074	5.893	400.44	353.30	47.14	
186	33_034	5.893	400.63	353.00	47.63	
187	23_075	5.893	400.09	354.40	45.69	
188	23_072	5.893	400.25	354.00	46.25	
189	23_076	5.893	399.66	353.00	46.66	
190	23_035	5.893	399.47	352.00	47.47	
191	23_077	5.893	399.28	351.00	48.28	
192	33_031	5.893	400.74	352.50	48.24	
193	33_040	5.893	398.75	348.00	50.75	
194	24_002	9.929	400.11	355.80	44.31	
195	24_004	9.929	400.94	351.90	49.04	
196	34_038	9.929	401.46	351.20	50.26	
197	24_008	-3036.595	402.00	353.00	49.00	LWL:352.0 + PH:50.0
198	34_011	10.574	401.67	354.00	47.67	
199	25_001	495.191	401.44	360.00	41.44	TETS-2
200	34_045	16.279	401.37	360.00	41.37	
201	34_048	5.930	401.50	351.20	50.30	
202	24_009	9.929	401.85	350.50	51.35	
203	30_001	21.973	394.54	342.00	52.54	
204	31_001	21.976	394.69	342.00	52.69	
205	31_002	21.976	396.27	342.00	54.27	
206	31_004	21.976	395.10	342.00	53.10	
207	32_013	21.976	397.21	344.00	53.21	
208	32_002	21.976	399.03	344.20	54.83	
209	32_003	21.976	399.61	345.10	54.51	
210	33_020	24.273	400.35	345.00	55.35	
211	32_004	21.976	398.40	343.50	54.90	
212	32_005	7.575	398.38	347.40	50.98	
213	32_006	7.575	398.11	346.90	51.21	
214	33_044	7.575	398.43	348.40	50.03	
215	32_009	21.976	398.15	346.00	52.15	
216	33_047	7.575	398.32	350.20	48.12	
217	32_015	21.976	397.92	343.50	54.42	
218	42_004	11.700	400.66	346.00	54.66	
219	33_003	22.653	400.86	349.10	51.76	
220	34_015	22.653	400.86	348.30	52.56	
221	33_004	22.653	400.93	349.30	51.63	
222	34_030	22.653	401.14	350.50	50.64	
223	33_005	5.893	400.93	348.10	52.83	
224	33_006	5.893	400.58	346.00	54.58	
225	33_007	24.273	400.42	346.00	54.42	
226	33_008	5.893	400.13	346.80	53.33	
227	33_009	5.893	400.27	347.40	52.87	
228	33_011	5.893	400.79	348.60	52.19	
229	33_012	5.893	400.01	346.00	54.01	
230	33_013	5.893	399.80	345.50	54.30	
231	33_014	5.893	399.56	345.50	54.06	
232	33_015	5.893	400.63	348.00	52.63	
233	33_016	5.893	400.41	348.10	52.31	
234	33_017	5.893	400.44	346.80	53.64	
235	33_019	5.893	399.73	346.00	53.73	
236	33_021	24.273	400.39	346.30	54.09	
237	33_029	5.893	400.96	348.40	52.56	
238	34_036	5.893	401.12	349.40	51.72	
239	33_030	5.893	400.69	350.90	49.79	
240	33_028	5.893	401.09	350.30	50.79	

2030(Fire Fighting/Противопожарный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание	
241 34_035	5.893	401.18	350.30	50.88		
242 33_032	5.893	400.93	350.00	50.93		
243 33_033	5.893	401.01	350.00	51.01		
244 34_034	5.893	400.81	352.80	48.01		
245 33_037	7.575	398.74	346.80	51.94		
246 33_038	7.575	398.58	347.70	50.88		
247 33_039	7.575	398.48	348.40	50.08		
248 33_041	5.893	398.73	346.00	52.73		
249 33_042	7.575	398.74	345.90	52.84		
250 33_045	7.575	398.43	349.70	48.73		
251 33_046	7.575	398.44	349.20	49.24		
252 33_049	7.575	398.68	345.90	52.78		
253 33_050	5.893	400.12	347.30	52.82		
254 42_007	11.700	400.66	346.00	54.66		
255 34_001	10.580	400.82	357.90	42.92		
256 34_002	10.574	400.83	358.20	42.63		
257 34_003	10.574	400.99	357.80	43.19		
258 34_004	10.574	400.91	357.80	43.11		
259 34_006	10.574	400.91	359.20	41.71		
260 34_007	10.574	401.09	357.30	43.79		
261 34_008	10.574	401.49	354.10	47.39		
262 34_009	10.574	401.10	357.00	44.10		
263 35_002	10.574	400.71	359.60	41.11		
264 34_010	10.574	400.83	358.60	42.23		
265 35_001	10.574	400.71	360.30	40.41		
266 34_012	10.574	401.18	356.50	44.68		
267 34_013	22.653	401.46	353.80	47.66		
268 34_016	22.653	400.77	350.80	49.97		
269 34_017	22.653	400.93	351.00	49.93		
270 34_018	22.653	401.01	356.30	44.71		
271 34_019	22.653	401.21	351.80	49.41		
272 34_020	22.653	400.79	353.20	47.59		
273 34_021	22.653	400.66	353.00	47.66		
274 34_022	22.653	400.67	352.20	48.47		
275 34_023	22.653	401.33	353.00	48.33		
276 34_026	22.653	401.11	356.70	44.41		
277 34_031	22.653	401.46	353.90	47.56		
278 34_032	22.653	401.41	354.00	47.41		
279 34_033	5.893	401.01	351.80	49.21		
280 34_037	5.893	401.25	350.00	51.25		
281 34_039	5.930	401.27	350.50	50.77		
282 34_043	16.279	401.24	354.00	47.24		
283 44_006	11.700	401.19	349.00	52.19		
284 34_044	16.279	401.31	359.00	42.31		
285 34_046	16.279	401.27	361.00	40.27		
286 45_001	16.279	401.25	360.00	41.25		
287 35_003	24.549	400.53	365.10	35.43		
288 35_007	16.279	400.64	367.00	33.64		
289 35_008	24.549	400.52	366.00	34.52		
290 35_009	25.302	400.42	367.50	32.92		
291 45_005	25.302	400.03	372.50	27.53		
292 35_006	9.929	400.48	369.00	31.48		
293 36_004	13.461	399.96	367.50	32.46		
294 42_001	11.700	401.91	347.00	54.91		
295 52_002	30.310	403.67	348.00	55.67		
296 42_002	11.700	402.15	347.00	55.15		
297 42_003	30.307	403.10	348.00	55.10		
298 52_004	30.310	404.44	348.00	56.44		
299 43_001	30.310	403.70	348.00	55.70		
300 43_002	11.700	402.10	348.00	54.10		

A.3-25

2030(Fire Fighting/Противопожарный)

[Node]	Name	Q(l/s)	WL(m)	GL(m)	EH(m)	Comment
Название	Объем(л/с)	Уровень(м)	Уровень земли	Напор(м)	Примечание	
301 42_005	11.700	401.02	346.00	55.02		
302 42_006	11.700	401.55	347.00	54.55		
303 43_004	11.700	401.12	348.00	53.12		
304 53_001	30.310	405.59	350.00	55.59		
305 43_003	11.700	401.79	348.00	53.79		
306 44_001	11.700	401.29	350.00	51.29		
307 43_005	11.700	401.13	348.00	53.13		
308 43_006	11.700	401.16	348.00	53.16		
309 44_003	11.700	401.22	355.00	46.22		
310 44_005	11.700	401.18	347.00	54.18		
311 53_004	7.305	405.09	349.00	56.09		
312 44_002	11.700	401.19	353.00	48.19		
313 54_007	103.065	400.96	353.00	47.96		
314 44_004	16.279	401.27	356.00	45.27		
315 44_007	103.068	401.45	357.00	44.45		
316 45_002	16.279	401.45	363.00	38.45		
317 54_002	103.065	402.76	353.00	49.76		
318 45_003	25.346	401.80	357.00	44.80		
319 55_001	26.662	402.71	351.00	51.71		
320 45_004	25.346	398.08	354.00	44.08		
321 46_001	25.346	396.96	354.00	42.96		
322 46_002	25.346	396.34	354.00	42.34		
323 46_003	25.346	395.80	354.00	41.80		
324 52_001	30.310	402.61	349.50	53.11		
325 62_001	30.310	402.26	350.00	52.26		
326 52_003	30.310	403.98	348.00	55.98		
327 52_005	30.310	403.37	349.00	54.37		
328 53_003	30.310	404.76	350.00	54.76		
329 53_002	7.304	406.14	350.00	56.14		
330 53_005	7.305	406.10	350.00	56.10		
331 53_006	7.305	406.47	350.00	56.47		
332 53_007	7.305	407.38	350.00	57.38		
333 53_008	7.305	405.00	350.00	55.00		
334 63_004	7.305	404.08	350.00	54.08		
335 53_009	7.305	405.05	350.00	55.05		
336 54_003	16.705	407.93	350.00	57.93		
337 54_006	7.305	406.63	350.00	56.63		
338 53_010	7.305	406.95	350.00	56.95		
339 53_011	16.703	404.70	350.00	54.70		
340 63_003	16.705	403.59	350.00	53.09		
341 64_001	16.705	404.09	350.00	53.59		
342 54_001	16.705	404.01	350.00	54.01		
343 55_002	26.660	403.22	351.00	52.22		
344 54_004	16.705	405.99	350.00	55.99		
345 54_005	16.705	403.84	350.00	53.84		
346 64_005	16.705	404.05	350.80	53.25		
347 64_004	16.705	402.73	350.20	52.53		
348 54_008	-1981.422	408.00	350.00	58.00	New No.2 WTP	
349 56_001	112.177	399.64	351.00	48.64		
350 65_001	26.660	401.37	350.00	51.37		
351 63_001	30.310	402.47	350.00	52.47		
352 62_002	3.604	401.81	350.00	51.81		
353 72_001	3.604	401.77	351.00	50.77		
354 62_003	3.604	401.61	350.60	51.01		
355 73_001	5.898	401.41	352.00	49.41		
356 63_002	7.305	403.60	350.00	53.60		
357 64_002	16.705	403.35	350.50	52.85		
358 63_005	3.604	403.57	350.50	53.07		
359 64_006	3.604	403.32	351.00	52.32		
360 64_003	16.705	402.94	350.50	52.44		

2030(Fire Fighting/Противопожарный)

[Pipe]	Node(u)	Node(d)	Dia.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
Верхний	Нижний	диам.(мм)	Длина(м)	Течение(л/с)	Скорость(м/с)	Градуус(%)		
1	12_029	11_001	400	760	110	69.829	0.556	1.12
2	11_001	11_002	400	490	110	57.776	0.460	0.79
3	11_005	11_006	400	880	110	43.734	0.348	0.47
4	11_006	11_007	300	220	110	51.606	0.730	2.61
5	21_003	11_008	300	700	110	11.849	0.168	0.17
6	11_002	11_005	400	680	110	45.723	0.364	0.51
7	11_008	11_006	300	1720	110	9.860	0.139	0.12
8	12_041	11_007	400	1630	110	45.384	0.361	0.51
9	12_004	12_003	300	970	110	4.971	0.070	0.03
10	12_004	12_005	300	320	110	36.260	0.513	1.36
11	12_006	12_007	200	330	110	11.405	0.363	1.15
12	12_010	12_009	300	400	110	4.971	0.070	0.03
13	12_005	12_006	300	140	110	21.347	0.302	0.51
14	12_005	12_010	300	590	110	9.942	0.141	0.12
15	12_019	12_018	300	50	110	68.293	0.966	4.38
16	12_020	12_019	300	140	110	44.325	0.627	1.97
17	12_021	12_019	300	340	110	29.205	0.413	0.91
18	12_022	12_021	300	150	110	12.476	0.176	0.19
19	12_027	12_028	400	290	110	80.303	0.639	1.46
20	12_028	12_029	400	120	110	75.066	0.597	1.29
21	12_025	12_030	300	450	110	16.706	0.236	0.32
22	12_032	12_030	300	170	110	25.840	0.366	0.73
23	12_030	12_020	300	250	110	37.309	0.528	1.43
24	12_022	12_020	300	340	110	12.253	0.173	0.18
25	12_033	12_022	300	360	110	29.966	0.424	0.95
26	12_034	12_035	300	110	110	24.113	0.341	0.64
27	12_002	12_035	300	470	110	49.570	0.701	2.42
28	22_052	12_001	700	410	110	197.825	0.514	0.51
29	12_001	12_036	300	120	110	21.028	0.297	0.50
30	22_020	12_037	300	330	110	37.085	0.525	1.42
31	12_038	12_033	300	110	110	35.203	0.498	1.29
32	12_034	12_038	300	340	110	40.440	0.572	1.66
33	22_012	12_039	400	510	110	19.944	0.159	0.11
34	12_018	12_040	400	720	110	69.490	0.553	1.11
35	12_031	12_032	300	180	110	31.077	0.440	1.02
36	22_021	12_037	300	380	110	21.302	0.301	0.51
37	12_001	12_050	300	200	110	37.644	0.533	1.46
38	12_006	12_015	300	730	110	4.971	0.070	0.03
39	12_035	12_004	300	140	110	68.446	0.968	4.40
40	12_004	12_021	300	730	110	21.966	0.311	0.54
41	12_027	12_025	300	350	110	21.943	0.310	0.54
42	22_001	12_027	300	770	110	25.631	0.363	0.71
43	12_037	12_045	300	240	110	22.993	0.325	0.58
44	12_045	12_034	300	110	110	69.790	0.987	4.56
45	12_037	12_039	300	370	110	26.844	0.380	0.78
46	12_046	12_031	300	370	110	36.314	0.514	1.36
47	12_039	12_046	300	170	110	41.551	0.588	1.75
48	12_001	12_047	600	120	110	130.654	0.462	0.50
49	12_036	22_020	300	140	110	7.436	0.105	0.07
50	22_052	12_036	300	530	110	21.209	0.300	0.50
51	23_005	12_047	300	1080	110	23.851	0.337	0.63
52	12_007	12_018	300	630	110	6.434	0.091	0.06
53	22_003	12_027	400	350	110	81.852	0.651	1.51
54	12_040	12_041	400	440	110	57.436	0.457	0.78
55	12_050	12_045	300	130	110	55.347	0.783	2.97
56	12_036	12_050	300	310	110	26.252	0.371	0.75
57	12_047	12_002	600	80	110	149.534	0.529	0.64
58	13_001	13_002	400	320	110	42.707	0.340	0.45
59	13_004	13_001	400	1800	110	47.678	0.379	0.55
60	23_001	13_006	400	840	110	42.707	0.340	0.45

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2030(Fire Fighting/Противопожарный)

[Pipe]	Node(u)	Node(d)	Dia.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
Верхний	Нижний	диам.(мм)	Длина(м)	Течение(л/с)	Скорость(м/с)	Градуус(%)		
61	23_059	13_013	400	240	110	57.620	0.459	0.79
62	13_013	13_004	400	490	110	52.649	0.419	0.67
63	13_006	13_008	400	1330	110	37.736	0.300	0.36
64	21_004	21_003	400	1200	110	79.570	0.633	1.43
65	22_002	21_005	600	410	110	189.104	0.669	0.99
66	21_005	22_001	300	650	110	30.868	0.437	1.01
67	21_005	21_007	500	380	110	152.999	0.779	1.62
68	21_003	21_002	300	480	110	65.732	0.930	4.08
69	21_008	21_002	300	1170	110	2.601	0.037	0.01
70	21_007	21_004	400	210	110	162.555	1.294	5.37
71	21_004	21_008	300	780	110	70.932	1.003	4.70
72	21_009	21_007	600	1770	110	14.793	0.052	0.01
73	31_003	21_009	600	640	110	83.124	0.294	0.22
74	22_007	22_006	300	410	110	5.907	0.084	0.05
75	22_007	22_008	300	110	110	30.353	0.429	0.98
76	22_009	22_003	300	660	110	31.252	0.442	1.03
77	22_006	22_009	300	180	110	0.670	0.009	0.00
78	22_010	22_011	400	200	110	19.879	0.158	0.11
79	22_011	22_012	400	360	110	25.181	0.200	0.17
80	22_011	22_003	400	490	110	55.837	0.444	0.74
81	22_013	22_014	300	950	110	9.357	0.132	0.11
82	22_015	22_014	300	180	110	29.046	0.411	0.90
83	22_016	22_015	300	330	110	4.317	0.061	0.03
84	22_018	22_017	300	280	110	21.798	0.308	0.53
85	22_019	22_016	300	330	110	37.818	0.535	1.47
86	22_016	22_020	300	390	110	19.709	0.279	0.44
87	22_017	22_020	300	400	110	18.491	0.262	0.39
88	22_014	22_021	300	290	110	29.852	0.422	0.95
89	22_022	22_015	300	330	110	33.279	0.471	1.16
90	22_023	22_024	300	660	110	1.413	0.020	0.00
91	22_023	22_022	300	410	110	13.637	0.193	0.22
92	22_025	22_013	400	240	110	89.519	0.712	1.78
93	22_026	22_019	400	410	110	43.874	0.349	0.48
94	22_019	22_022	400	340	110	35.745	0.284	0.33
95	22_027	22_019	400	520	110	38.239	0.304	0.37
96	22_022	22_025	400	650	110	7.553	0.060	0.02
97	22_024	22_025	600	400	110	90.517	0.320	0.25
98	22_028	22_024	600	80	110	97.654	0.345	0.29
99	22_030	22_029	600	270	110	114.754	0.406	0.39
100	22_032	22_026	400	660	110	54.858	0.437	0.72
101	22_026	22_023	300	350	110	23.599	0.334	0.61
102	22_033	22_026	300	170	110	21.165	0.299	0.50
103	22_034	22_032	600	170	110	41.008	0.145	0.06
104	22_035	22_033	300	170	110	5.597	0.079	0.04
105	23_017	22_034	400	360	110	37.343	0.297	0.35
106	22_036	22_033	300	420	110	24.118	0.341	0.64
107	22_034	22_036	300	260	110	21.245	0.301	0.50
108	23_018	22_036	300	350	110	11.423	0.162	0.16
109	23_005	22_018	300	390	110	30.348	0.429	0.98
110	22_037	22_027	400	420	110	36.659	0.292	0.34
111	23_009	22_037	300	240	110	12.979	0.184	0.20
112	22_038	22_037	400	210	110	46.377	0.369	0.53
113	23_007	22_027	400	250	110	10.130	0.081	0.03
114	32_010	22_039	300	350	110	10.013	0.142	0.13
115	22_040	22_032	400	320	110	64.398	0.512	0.97
116	22_032	22_042	400	340	110	42.957	0.342	0.46
117	22_043	22_042	300	310	110	33.726	0.477	1.19
118	32_016	22_044	300	190	110	11.354	0.161	0.16
119	22_059	22_045	300	180	110	5.240	0.074	0.04
120	22_045	22_044	600	350	110	66.886	0.237	0.14

2030(Fire Fighting/Противопожарный)

[Pipe]	Node(s) Верхний	Node(d) Нижний	Dia.(mm) Диам.(мм)	Length(m) Длина(м)	C	Flow(l/s) Течение(л/с)	Velocity(m/s) Скорость(м/с)	Gradient(%) Градус(%)
121	22_039	22_046	300	340	110	28.858	0.408	0.89
122	22_039	22_045	600	180	110	98.168	0.347	0.29
123	23_010	22_039	600	350	110	124.588	0.441	0.46
124	22_044	22_047	300	360	110	28.941	0.409	0.89
125	22_048	22_047	600	220	110	56.986	0.202	0.11
126	22_050	22_049	800	190	110	230.758	0.459	0.35
127	22_044	22_050	300	630	110	12.783	0.181	0.20
128	22_045	22_051	300	350	110	28.947	0.410	0.89
129	22_051	22_047	700	340	110	111.238	0.289	0.17
130	22_046	22_051	700	180	110	162.732	0.423	0.35
131	23_041	22_046	700	360	110	175.940	0.457	0.41
132	22_047	22_043	600	360	110	218.532	0.773	1.29
133	22_043	22_041	600	520	110	192.855	0.682	1.02
134	22_051	22_040	400	350	110	72.866	0.580	1.22
135	22_040	22_043	300	340	110	15.624	0.221	0.29
136	22_042	22_041	400	280	110	48.996	0.390	0.58
137	22_029	22_028	600	340	110	106.204	0.376	0.34
138	22_044	22_047	300	360	110	28.941	0.409	0.89
139	22_041	22_030	600	400	110	103.193	0.365	0.32
140	22_016	22_017	300	400	110	5.242	0.074	0.04
141	22_053	22_011	400	660	110	66.376	0.528	1.02
142	32_008	22_050	800	350	110	225.550	0.449	0.34
143	22_013	22_053	500	170	110	71.613	0.365	0.40
144	22_054	22_052	700	270	110	227.584	0.591	0.66
145	22_055	22_034	300	310	110	32.485	0.460	1.11
146	22_055	22_040	300	170	110	14.732	0.208	0.26
147	23_016	22_055	300	360	110	20.301	0.287	0.46
148	22_046	22_055	300	360	110	34.491	0.488	1.24
149	22_002	22_009	350	640	110	35.819	0.372	0.63
150	23_005	22_054	700	330	110	236.134	0.614	0.70
151	22_056	22_057	700	230	110	84.350	0.219	0.10
152	22_056	22_007	300	550	110	41.497	0.587	1.74
153	22_008	22_010	300	300	110	25.116	0.355	0.69
154	22_037	22_035	300	200	110	14.147	0.200	0.24
155	23_018	22_038	400	220	110	54.927	0.437	0.72
156	22_058	22_048	600	430	110	64.561	0.228	0.13
157	22_057	22_002	600	390	110	230.160	0.814	1.42
158	22_058	22_057	600	2230	110	151.047	0.534	0.65
159	22_041	22_056	700	1480	110	131.084	0.341	0.24
160	22_042	22_030	300	640	110	20.111	0.285	0.46
161	22_049	22_058	800	150	110	223.183	0.444	0.33
162	32_007	22_059	300	170	110	15.469	0.219	0.28
163	22_059	32_016	200	350	110	2.655	0.084	0.08
164	24_003	23_004	400	1610	110	62.576	0.498	0.92
165	23_006	23_005	800	300	110	298.884	0.595	0.57
166	23_007	23_006	400	160	110	1.262	0.010	0.00
167	23_008	23_006	800	400	110	306.172	0.609	0.59
168	23_009	23_007	300	410	110	19.941	0.282	0.45
169	23_011	23_012	600	160	110	188.049	0.665	0.98
170	23_014	23_013	500	170	110	116.682	0.594	0.98
171	23_013	23_015	500	340	110	116.174	0.592	0.97
172	23_016	23_017	400	330	110	71.081	0.566	1.16
173	23_017	23_018	400	240	110	59.772	0.476	0.84
174	23_019	33_036	400	320	110	24.419	0.194	0.16
175	23_020	33_048	400	130	110	53.462	0.425	0.69
176	23_015	23_021	400	320	110	94.606	0.753	1.97
177	23_021	23_022	400	240	110	57.640	0.459	0.79
178	23_024	23_023	300	210	110	33.009	0.467	1.14
179	23_023	23_025	300	240	110	28.407	0.402	0.86
180	23_025	23_018	300	240	110	15.128	0.214	0.27

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2030(Fire Fighting/Противопожарный)

[Pipe]	Node(u) Верхний	Node(d) Нижний	Dia.(mm) Диам.(мм)	Length(m) Длина(м)	C	Flow(l/s) Течение(л/с)	Velocity(m/s) Скорость(м/с)	Gradient(%) Градус(%)
181	23_022	23_025	300	170	110	19.896	0.281	0.45
182	23_023	23_017	400	240	110	33.609	0.267	0.29
183	23_021	23_023	400	170	110	36.582	0.291	0.34
184	23_026	23_022	800	380	110	302.373	0.602	0.58
185	23_027	23_026	800	220	110	305.102	0.607	0.59
186	23_029	23_028	300	370	110	7.867	0.111	0.08
187	23_030	23_026	300	130	110	3.222	0.046	0.02
188	23_031	23_030	300	210	110	16.342	0.231	0.31
189	23_028	23_027	800	350	110	311.032	0.619	0.61
190	23_033	23_013	700	370	110	253.085	0.658	0.80
191	23_034	23_011	600	310	110	185.477	0.656	0.95
192	23_079	23_034	300	330	110	16.064	0.227	0.30
193	23_037	23_036	500	490	110	5.930	0.030	0.00
194	23_038	23_037	600	250	110	195.040	0.690	1.04
195	23_039	23_034	600	750	110	175.343	0.620	0.86
196	23_042	23_041	700	230	110	228.671	0.594	0.66
197	23_049	23_045	600	370	110	356.065	1.259	3.18
198	23_050	23_039	900	160	110	438.419	0.689	0.65
199	23_037	23_050	600	110	110	183.180	0.648	0.93
200	23_025	23_009	300	430	110	24.625	0.348	0.66
201	23_022	23_008	800	450	110	331.567	0.660	0.69
202	23_008	23_009	300	160	110	16.845	0.238	0.33
203	23_051	23_028	700	520	110	195.150	0.507	0.49
204	23_055	23_053	700	360	110	238.933	0.621	0.72
205	23_056	23_055	900	250	110	486.874	0.765	0.79
206	23_057	23_056	900	270	110	492.804	0.775	0.80
207	23_058	23_057	900	250	110	498.734	0.784	0.82
208	24_001	23_059	400	1320	110	62.591	0.498	0.92
209	24_006	23_058	900	280	110	504.664	0.793	0.84
210	23_052	23_060	500	980	110	5.930	0.030	0.00
211	23_015	23_061	300	170	110	36.338	0.514	1.36
212	23_063	23_062	300	330	110	34.205	0.484	1.22
213	23_064	23_015	300	380	110	22.345	0.316	0.55
214	23_062	23_064	300	190	110	28.275	0.400	0.86
215	23_063	23_033	700	180	110	259.015	0.673	0.83
216	23_065	23_043	700	180	110	251.216	0.653	0.79
217	23_039	23_065	700	170	110	257.146	0.668	0.82
218	23_053	23_047	700	450	110	229.004	0.595	0.66
219	23_043	23_063	700	520	110	299.150	0.777	1.09
220	23_004	23_078	400	130	110	52.649	0.419	0.67
221	24_007	23_052	500	1050	110	15.859	0.081	0.02
222	23_028	23_031	300	500	110	22.272	0.315	0.55
223	23_030	23_021	300	480	110	7.190	0.102	0.07
224	23_050	23_066	600	170	110	198.714	0.703	1.08
225	23_041	23_016	400	330	110	75.150	0.598	1.29
226	23_010	23_041	300	330	110	29.994	0.424	0.96
227	23_011	23_014	500	170	110	124.257	0.633	1.10
228	23_019	23_011	600	330	110	134.404	0.475	0.52
229	23_055	23_050	900	520	110	459.883	0.723	0.71
230	23_051	23_029	300	1140	110	12.838	0.182	0.20
231	23_045	23_051	600	140	110	213.917	0.757	1.24
232	23_061	23_016	300	230	110	23.807	0.337	0.62
233	23_061	23_024	300	130	110	40.584	0.574	1.67
234	23_013	23_042	700	170	110	246.017	0.639	0.76
235	23_042	23_061	300	330	110	35.628	0.504	1.31
236	23_040	23_042	300	160	110	25.857	0.366	0.73
237	23_012	23_010	600	220	110	162.157	0.574	0.74
238	23_012	23_040	300	180	110	33.432	0.473	1.17
239	23_019	23_020	400	180	110	76.152	0.606	1.32
240	23_020	23_012	300	340	110	15.115	0.214	0.27

2030(Fire Fighting/Противопожарный)

{Pipe}	Node(u)	Node(d)	Dia.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
Верхний	Нижний	диам.(мм)	Длина(м)			Течение(л/с)	Скорость(м/с)	Градус(%)
241	23_066	23_049	600	190	110	192.784	0.682	1.02
242	23_049	23_043	700	160	110	53.864	0.140	0.05
243	23_047	23_049	700	300	110	223.074	0.580	0.63
244	23_071	23_055	500	260	110	96.808	0.493	0.69
245	23_073	23_071	500	270	110	102.738	0.523	0.77
246	34_049	23_073	500	780	110	108.668	0.553	0.86
247	33_034	23_074	800	260	110	340.288	0.677	0.72
248	23_075	23_055	700	350	110	121.064	0.315	0.20
249	23_072	23_075	800	240	110	328.502	0.654	0.67
250	23_074	23_072	800	270	110	334.395	0.665	0.70
251	23_076	23_035	700	170	110	303.310	0.788	1.12
252	23_035	23_077	700	170	110	297.417	0.773	1.08
253	33_031	23_038	600	300	110	308.591	1.091	2.44
254	23_075	23_038	800	280	110	201.544	0.401	0.27
255	23_038	23_076	700	310	110	309.203	0.803	1.16
256	23_045	23_028	600	800	110	136.217	0.482	0.54
257	23_078	23_001	400	870	110	47.678	0.379	0.55
258	23_079	33_040	300	320	110	27.007	0.382	0.79
259	23_079	23_019	700	300	110	242.550	0.630	0.74
260	23_077	23_079	700	270	110	291.524	0.758	1.04
261	24_002	24_001	400	1170	110	61.050	0.486	0.88
262	24_003	24_001	400	750	110	11.470	0.091	0.04
263	24_004	24_003	400	1150	110	83.975	0.668	1.58
264	24_004	24_002	400	710	110	70.979	0.565	1.16
265	34_038	24_006	900	680	110	510.594	0.803	0.86
266	24_008	34_011	1000	640	110	512.670	0.653	0.52
267	24_008	24_004	600	1390	110	164.883	0.583	0.76
268	24_008	34_038	1000	830	110	580.757	0.739	0.65
269	24_008	25_001	1000	4120	110	248.081	0.316	0.14
270	24_008	25_001	1000	4150	110	247.110	0.315	0.13
271	24_008	34_045	1000	4750	110	246.061	0.313	0.13
272	24_008	34_048	1000	830	110	558.635	0.711	0.61
273	24_009	24_007	500	1770	110	21.789	0.111	0.04
274	24_009	34_038	900	590	110	446.681	0.702	0.67
275	24_008	24_009	1000	320	110	478.399	0.609	0.46
276	31_001	30_001	300	2100	110	7.366	0.104	0.07
277	31_003	30_001	300	1500	110	14.607	0.207	0.25
278	31_002	31_001	300	1720	110	29.342	0.415	0.92
279	31_004	31_003	600	430	110	119.708	0.423	0.42
280	31_002	31_004	600	2020	110	141.684	0.501	0.58
281	32_013	31_002	600	920	110	193.001	0.683	1.02
282	32_003	32_002	600	660	110	177.747	0.629	0.88
283	33_020	32_003	600	740	110	190.679	0.674	1.00
284	32_002	32_004	600	920	110	155.771	0.551	0.69
285	32_005	32_006	300	330	110	27.575	0.390	0.82
286	33_044	32_005	300	540	110	8.172	0.116	0.09
287	32_006	32_016	300	170	110	16.274	0.230	0.31
288	32_007	32_006	300	360	110	6.861	0.097	0.06
289	32_006	32_008	300	640	110	10.586	0.150	0.14
290	32_009	32_008	900	680	110	222.539	0.350	0.18
291	32_010	32_007	400	180	110	29.905	0.238	0.23
292	33_047	32_010	400	260	110	47.493	0.378	0.55
293	32_003	32_005	300	1570	110	26.977	0.382	0.79
294	32_004	32_015	600	320	110	236.953	0.838	1.50
295	32_004	32_009	900	1150	110	244.515	0.384	0.22
296	32_015	32_013	600	570	110	214.977	0.760	1.25
297	42_004	32_003	800	1160	110	383.696	0.763	0.90
298	32_003	32_004	800	1620	110	347.674	0.692	0.75
299	34_015	33_003	400	560	110	1.904	0.015	0.00
300	33_004	33_003	400	620	110	20.749	0.165	0.12

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2030(Fire Fighting/Противопожарный)

{Pipe}	Node(u)	Node(d)	Dia.(mm)	Length(m)	C	Flow(l/s)	Velocity(m/s)	Gradient(%)
Верхний	Нижний	диам.(мм)	Длина(м)			Течение(л/с)	Скорость(м/с)	Градус(%)
301	34_030	33_004	400	380	110	47.780	0.380	0.56
302	33_004	33_005	400	490	110	4.379	0.035	0.01
303	33_005	33_006	600	1270	110	95.200	0.337	0.28
304	33_006	33_007	400	300	110	45.433	0.362	0.51
305	33_006	33_007	400	320	110	43.875	0.349	0.48
306	33_009	33_008	400	230	110	49.163	0.391	0.59
307	33_005	33_011	400	290	110	44.358	0.353	0.49
308	33_008	33_012	400	360	110	37.377	0.297	0.35
309	33_012	33_013	300	200	110	31.484	0.445	1.05
310	33_013	33_014	300	330	110	25.591	0.362	0.71
311	33_011	33_015	400	430	110	38.465	0.306	0.37
312	33_015	33_016	300	150	110	37.976	0.537	1.48
313	33_015	33_017	400	210	110	60.949	0.485	0.87
314	33_019	33_014	300	230	110	26.190	0.371	0.74
315	33_017	33_009	400	240	110	55.056	0.438	0.72
316	33_021	33_020	600	560	110	40.761	0.144	0.06
317	33_029	33_005	600	190	110	73.330	0.259	0.17
318	34_036	33_029	400	420	110	38.318	0.305	0.37
319	33_030	33_015	600	420	110	66.353	0.235	0.14
320	33_031	33_030	600	350	110	72.246	0.256	0.17
321	34_035	33_028	1000	270	110	404.408	0.515	0.33
322	33_033	33_032	1000	270	110	392.622	0.500	0.32
323	33_028	33_033	1000	230	110	398.515	0.507	0.33
324	34_034	33_034	800	250	110	346.181	0.689	0.74
325	33_037	33_036	500	430	110	12.232	0.062	0.02
326	33_038	33_039	300	110	110	30.349	0.429	0.98
327	33_032	33_031	1000	590	110	386.729	0.492	0.31
328	33_040	33_036	400	310	110	15.221	0.121	0.07
329	33_040	33_041	300	440	110	5.893	0.083	0.05
330	33_042	33_037	500	210	110	19.807	0.101	0.04
331	33_044	33_045	300	140	110	1.557	0.022	0.00
332	33_046	33_045	300	250	110	6.018	0.085	0.05
333	33_039	33_046	300	180	110	13.593	0.192	0.22
334	33_048	33_047	400	190	110	55.068	0.438	0.72
335	33_036	33_038	400	300	110	44.297	0.353	0.48
336	33_007	33_021	600	370	110	56.222	0.199	0.10
337	33_029	33_005	600	220	110	67.743	0.240	0.15
338	33_007	33_021	300	390	110	8.813	0.125	0.10
339	33_014	33_042	300	390	110	45.888	0.649	2.10
340	33_039	33_048	300	210	110	9.181	0.130	0.11
341	33_042	33_049	300	170	110	18.506	0.262	0.39
342	33_016	33_019	300	620	110	32.083	0.454	1.08
343	33_038	33_044	300	460	110	17.304	0.245	0.35
344	34_036	33_029	600	440	110	108.649	0.384	0.35
345	33_008	33_050	300	300	110	5.893	0.083	0.05
346	33_049	33_038	300	630	110	10.931	0.155	0.15
347	42_007	33_020	800	1450	110	174.190	0.347	0.21
348	34_002	34_001	400	580	110	8.293	0.066	0.02
349	34_003	34_004	500	240	110	64.868	0.330	0.33
350	34_006	34_002	400	360	110	27.387	0.218	0.20
351	34_007	34_006	400	500	110	37.961	0.302	0.36
352	34_008	34_007	400	810	110	44.731	0.356	0.49
353	34_009	34_003	500	260	110	75.442	0.384	0.44
354	34_009	34_007	300	600	110	3.803	0.054	0.02
355	34_001	35_002	500	500	110	52.007	0.265	0.22
356	34_002	34_010	400	180	110	8.520	0.068	0.02
357	34_010	35_001	400	340	110	36.797	0.293	0.34
358	34_011	34_012	500	660	110	100.393	0.511	0.74
359	34_011	34_008	1000	550	110	401.702	0.511	0.33
360	34_008	34_013	1000	100	110	346.397	0.441	0.25

2030(Fire Fighting/Противопожарный)

[Pipe]	Node(u) Верхний	Node(d) Нижний	Dia.(mm) диам.(мм)	Length(m) Длина(м)	C	Flow(l/s) Течение(л/с)	Velocity(m/s) Скорость(м/с)	Gradient(%) Градуc(%)
361	34_015	34_016	400	620	110	22.653	0.180	0.14
362	34_018	34_017	600	850	110	50.601	0.179	0.09
363	34_019	34_020	300	260	110	40.011	0.566	1.63
364	34_020	34_021	300	370	110	17.358	0.246	0.35
365	34_022	34_021	300	170	110	5.295	0.075	0.04
366	34_017	34_022	300	320	110	27.948	0.395	0.84
367	34_023	34_019	700	500	110	133.097	0.346	0.24
368	34_019	34_030	600	430	110	70.433	0.249	0.16
369	34_013	34_026	600	670	110	134.759	0.477	0.53
370	34_013	34_031	1000	60	110	201.056	0.256	0.09
371	34_032	34_023	700	250	110	155.750	0.405	0.32
372	34_033	34_034	800	260	110	352.074	0.700	0.77
373	34_037	34_035	1000	210	110	410.301	0.522	0.34
374	34_038	34_039	1000	380	110	506.914	0.645	0.51
375	34_037	34_036	400	330	110	40.050	0.319	0.40
376	34_037	34_036	600	350	110	112.809	0.399	0.38
377	34_018	34_010	500	1390	110	38.852	0.198	0.13
378	34_026	34_018	600	270	110	112.106	0.396	0.37
379	34_043	44_006	1000	750	110	173.271	0.221	0.07
380	34_044	34_043	1000	790	110	189.550	0.241	0.08
381	34_045	34_044	1000	610	110	205.829	0.262	0.10
382	34_045	34_046	400	630	110	23.952	0.191	0.16
383	34_046	45_001	400	780	110	7.673	0.061	0.02
384	34_004	34_001	500	360	110	54.294	0.277	0.24
385	34_048	34_037	1000	670	110	426.036	0.542	0.37
386	34_048	34_013	400	780	110	12.071	0.096	0.04
387	34_048	34_049	500	440	110	114.598	0.584	0.95
388	34_039	34_037	1000	330	110	143.018	0.182	0.05
389	34_039	34_033	800	320	110	357.967	0.712	0.79
390	34_031	34_032	700	100	110	178.403	0.464	0.42
391	34_012	34_009	500	130	110	89.819	0.457	0.60
392	44_006	34_015	400	610	110	47.210	0.376	0.54
393	35_001	35_002	400	570	110	2.746	0.022	0.00
394	35_002	35_003	500	1120	110	44.179	0.225	0.16
395	45_001	35_007	500	1550	110	71.715	0.365	0.40
396	35_003	35_008	500	370	110	19.630	0.100	0.04
397	35_009	45_005	400	1030	110	38.763	0.308	0.38
398	35_008	35_009	500	660	110	40.587	0.207	0.14
399	35_008	35_006	400	1280	110	9.929	0.079	0.03
400	35_007	35_008	500	490	110	55.436	0.282	0.25
401	35_001	35_009	400	1930	110	23.478	0.187	0.15
402	45_005	36_004	400	1380	110	13.461	0.107	0.05
403	52_002	42_001	800	1980	110	381.002	0.758	0.89
404	42_002	42_001	400	540	110	42.120	0.335	0.44
405	42_003	42_002	400	990	110	63.998	0.509	0.96
406	52_004	42_003	400	1010	110	76.510	0.609	1.33
407	43_001	42_003	300	1640	110	17.795	0.252	0.36
408	42_002	43_002	400	1780	110	10.177	0.081	0.03
409	42_005	42_004	800	400	110	388.022	0.772	0.92
410	42_006	42_005	800	540	110	399.722	0.795	0.97
411	42_001	42_006	800	360	110	411.422	0.818	1.02
412	42_007	42_004	800	460	110	7.374	0.015	0.00
413	43_004	42_007	800	1830	110	193.264	0.384	0.25
414	43_001	43_002	500	990	110	152.908	0.779	1.62
415	53_001	43_001	500	1030	110	163.858	0.835	1.84
416	43_002	43_003	400	550	110	47.669	0.379	0.55
417	43_003	44_001	400	1530	110	35.969	0.286	0.33
418	43_005	43_004	1000	530	110	101.247	0.129	0.03
419	43_006	43_005	1000	810	110	112.947	0.144	0.03
420	44_003	43_006	500	1310	110	21.986	0.112	0.04

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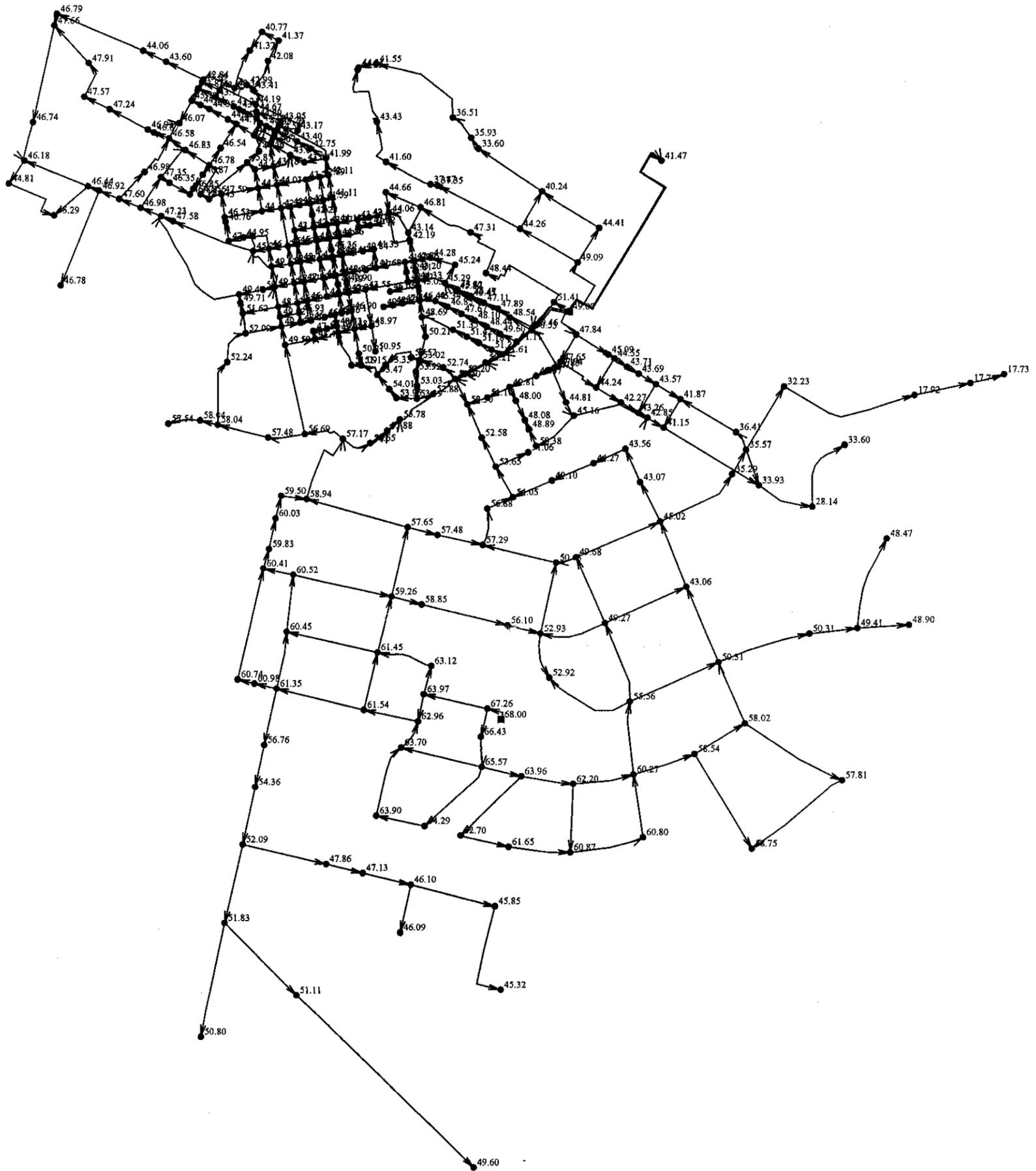
2030(Fire Fighting/Противопожарный)

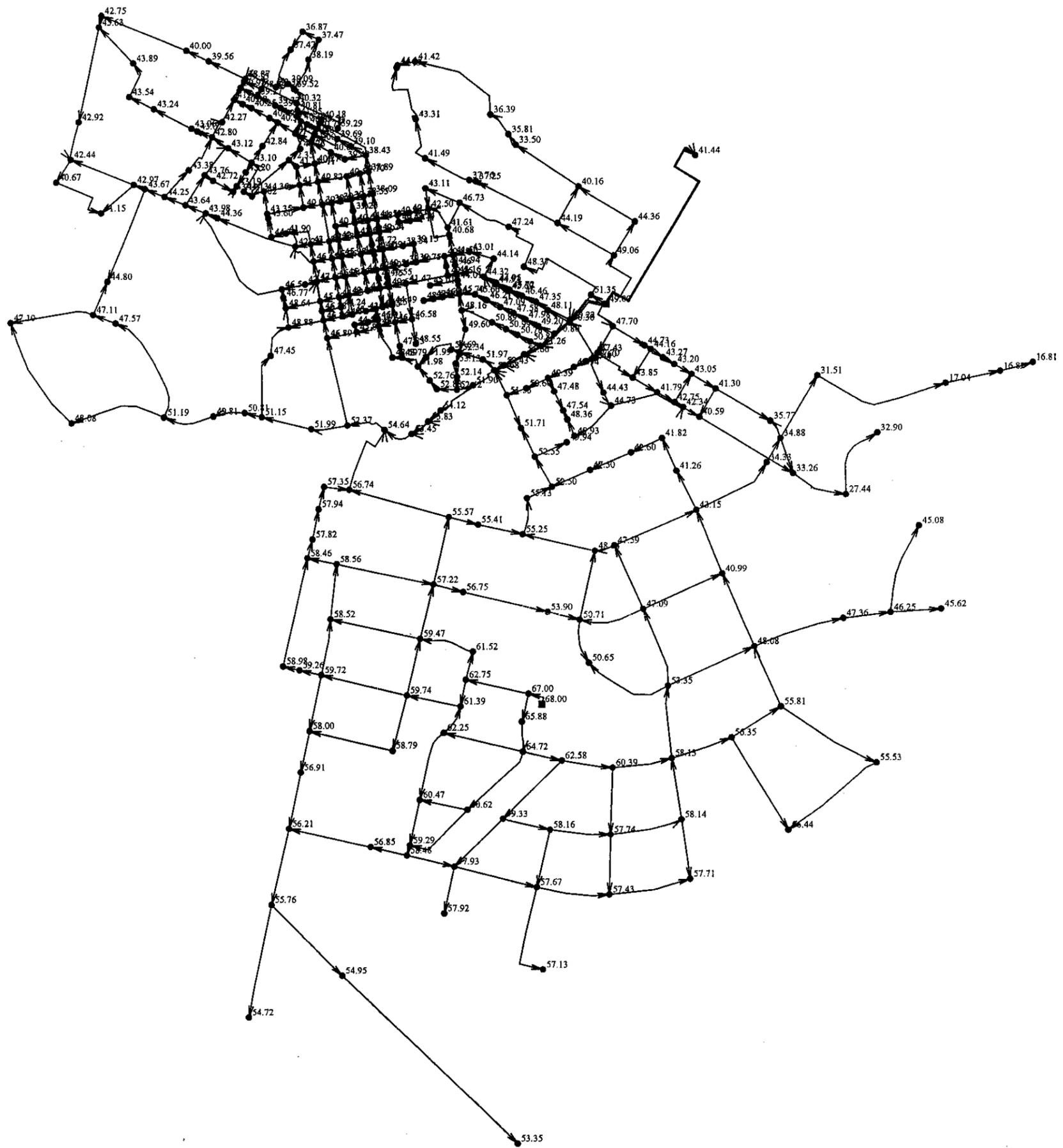
[Pipe]	Node(u) Верхний	Node(d) Нижний	Dia.(mm) диам.(мм)	Length(m) Длина(м)	C	Flow(l/s) Течение(л/с)	Velocity(m/s) Скорость(м/с)	Gradient(%) Градуc(%)
421	44_005	43_006	1000	660	110	102.661	0.131	0.03
422	53_004	43_001	300	980	110	37.154	0.526	1.42
423	43_002	43_004	500	1240	110	103.716	0.528	0.79
424	44_001	44_002	400	590	110	24.269	0.193	0.16
425	44_002	54_007	400	810	110	33.568	0.267	0.29
426	44_004	44_003	500	360	110	41.242	0.210	0.14
427	44_004	45_001	500	1590	110	9.036	0.046	0.01
428	44_006	44_005	1000	490	110	114.361	0.146	0.03
429	44_003	44_002	400	1270	110	7.556	0.060	0.02
430	44_007	44_002	300	1170	110	13.443	0.190	0.22
431	45_002	44_007	300	1560	110	1.462	0.021	0.00
432	44_007	44_004	600	1250	110	66.557	0.235	0.14
433	54_002	44_007	600	1440	110	181.607	0.642	0.91
434	45_002	45_001	600	1220	110	71.284	0.252	0.16
435	45_003	45_002	600	1420	110	89.025	0.315	0.24
436	54_002	45_003	400	1700	110	48.239	0.384	0.57
437	55_001	45_003	600	1160	110	167.516	0.592	0.79
438	45_003	45_004	400	1660	110	101.384	0.807	2.24
439	45_004	46_001	400	850	110	76.038	0.605	1.32
440	46_001	46_002	300	890	110	25.346	0.359	0.70
441	46_001	46_003	300	1660	110	25.346	0.359	0.70
442	52_001	62_001	400	1030	110	36.490	0.290	0.34
443	52_003	52_002	800	300	110	411.312	0.818	1.02
444	52_004	52_003	800	400	110	441.622	0.879	1.17
445	53_001	52_004	1000	1570	110	616.460	0.785	0.73
446	52_004	52_005	400	1000	110	68.018	0.541	1.07
447	52_005	52_001	400	740	110	66.800	0.532	1.04
448	53_003	52_005	300	1530	110	29.091	0.412	0.90
449	53_002	53_001	1200	970	110	870.030	0.769	0.57
450	53_001	53_003	400	1000	110	59.401	0.473	0.83
451	53_005	53_004	300	510	110	44.459	0.629	1.98
452	53_002	53_005	300	480	110	8.189	0.116	0.09
453	53_006	53_002	1200	560	110	885.523	0.783	0.59
454	53_007	53_006	1200	1430	110	925.705	0.819	0.64
455	53_006	53_008	300	1300	110	32.877	0.465	1.13
456	53_008	63_004	300	840	110	32.227	0.456	1.09
457	53_009	63_004	300	1340	110	25.776	0.365	0.72
458	53_007	53_009	300	1450	110	39.736	0.562	1.61
459	53_009	53_008	300	860	110	6.655	0.094	0.06
460	54_003	53_007	1200	710	110	1030.932	0.912	0.78
461	54_006	53_005	400	1140	110	43.575	0.347	0.47
462	53_010	54_006	400	510	110	50.880	0.405	0.63
463	53_007	53_010	400	530	110	58.185	0.463	0.80
464	54_003	53_011	400	1480	110	99.978	0.796	2.18
465	53_011	63_003	300	1220	110	29.166	0.413	0.91
466	53_011	64_001	400	860	110	54.109	0.431	0.70
467	54_001	55_002	800	1130	110	334.465	0.665	0.70
468	54_001	54_002	800	1270	110	402.407	0.801	0.98
469	54_003	54_004	900	910	110	833.807	1.311	2.13
470	54_004	54_001	900	1060	110	777.219	1.222	1.87
471	64_005	54_005	400	1300	110	24.282	0.193	0.16
472	54_001	54_005	400	1110	110	23.642	0.188	0.15
473	54_005	64_004	300	1080	110	31.219	0.442	1.03
474	54_002	54_007	400	1620	110	69.497	0.553	1.11
475	54_004	64_005	300	1200	110	39.883	0.564	1.62
476	54_008	54_003	1500	80	110	1981.422	1.121	0.88
477	55_001	56_001	400	1960	110	83.584	0.665	1.57
478	55_002	55_001	800	1030	110	277.761	0.553	0.49
479	55_002	65_001	300	1930	110	30.043	0.425	0.96
480	65_001	56_001	300	1980	110	28.593	0.405	0.87

2030(Fire Fighting/Противопожарный)

[Pipe]	Node(u) Верхний	Node(d) Нижний	Dia.(mm) диам.(мм)	Length(m) Длина(м)	C	Flow(l/s) Течение(л/с)	Velocity(m/s) Скорость(м/с)	Gradient(‰) Градуc(‰)
481	63_001	62_001	300	1500	110	10.530	0.149	0.14
482	62_001	62_002	300	1390	110	16.710	0.236	0.32
483	62_002	72_001	300	2020	110	3.604	0.051	0.02
484	62_002	62_003	300	1760	110	9.502	0.134	0.11
485	62_003	73_001	300	4300	110	5.898	0.083	0.05
486	63_002	63_001	300	670	110	40.840	0.578	1.69
487	63_002	63_003	300	860	110	2.553	0.036	0.01
488	63_003	64_002	300	1500	110	11.410	0.161	0.16
489	63_003	63_005	300	850	110	3.604	0.051	0.02
490	63_004	63_002	300	190	110	50.698	0.717	2.52
491	64_001	64_002	300	1050	110	25.510	0.361	0.71
492	64_002	64_006	300	1810	110	3.604	0.051	0.02
493	64_002	64_003	300	1290	110	16.611	0.235	0.32
494	64_003	64_004	300	1460	110	10.696	0.151	0.14
495	64_001	64_005	400	1070	110	11.894	0.095	0.04
496	64_005	64_003	200	1070	110	10.790	0.343	1.04
497	64_004	65_001	300	1960	110	25.210	0.357	0.69

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Приложение А-4

Результаты расчетов сетей водоснабжения

I . Расчет производительности для НФС
Производительность = 100,000 куб м/сут

Наименование	Общая система	
Проектный расход	Q = 100,000 куб м/сут	
Производительность НФС (макс. суточная)	Q = 105,300 куб м/сут = 4,388 куб м/час = 73.1 куб м/мин = 1.22 куб м/сек	После фильтра 100,000 куб м/сут 4,167 куб м/час 69.4 куб м/мин 1.16 куб м/сек
1. Водоочистные сооружения		
(1) Распределительная камера	Q= 210,000 куб м/сут 146 куб м/мин	
Вид	прямоугольный	
Критерии проектирования		
Время удержания	T >	2.0 мин
Количество единиц	No.	1 единиц
Размеры	L м x W м x D м x N единиц	
	10.0 10.2 6.0 1	
Объем	V =	612.0 куб м
Время удержания	T ₁ =	4.2 мин
(2) Приемный колодец	Q= 105,300 куб м/сут	
Вид	прямоугольный	
Критерии проектирования		
Время удержания	T >	1.5 мин
Количество единиц	No.	2 единиц
Размеры	L м x W м x D м x N единиц	
	7.0 4.2 6.0 2	
Объем	V =	176.4 куб м
Время удержания	T ₁ =	2.4 мин
(2) Камера смешивания	Q= 105,300 куб м/сут	
Вид	прямоугольный, самотечное смешивание расхода	
Критерии проектирования		
Время удержания	T =	1 - 5 мин
Количество единиц	No.	2 единиц
Размеры	L м x W м x D м x N единиц	
	4.2 4.2 4.3 2	
Действующий объем единицы	UV =	75.9 куб м/ед.
Общий объем	TV =	151.7 куб м
Время удержания	T ₁ =	2.1 мин
Значение G	G =	113 сек-1 > 100сек-1
(3) Флокуляционная камера	Q= 105,300 куб м/сут	
Вид	прямоугольный, горизонтальный зигзагообразный поток	
Критерии проектирования		
Время удержания	T =	20 - 40 мин
Требуемый объем	V = 1,463 куб м	2,925 куб м
Расход единицы	q =	333.0 куб м/мин/камера
Количество камер	N =	6 камер
Размеры Шаг 1	W м x L м x D м x число камер	
	9.0 1.2 3.7 2	
Шаг 2	W м x L м x D м x число камер	
	9.0 1.5 3.7 2	
Шаг 3	W м x L м x D м x число камер	
	9.0 2.3 3.7 2	
Единица объема	Шаг 1	79.9 куб м/ед.
	Шаг 2	99.9 куб м/ед.
	Шаг 3	153.2 куб м/ед.
	Объем/ед.	333.0 куб м/ед.

Наименование	Общая система																
Действительный объем Время удержания Значение G Значение GT	$V = 1,998$ куб м $T_1 = 27.3$ минут $G = 60$ сек-1 > 10~75сек-1 $GT = 98,030 < 23,000 \sim 210,000$ $Q =$ Расход единицы 0.203куб м/сек $H =$ Потеря напора 0.6м $\rho =$ Плотность воды 1000кг/м3 $V =$ Объем единиц 333кубм/ед. $\mu =$ Вязкость жидкости 1×10^{-3} кг/м ^{сек}																
(4) Отстойник	Q= 103,700 куб м/сут																
Вид Критерии проектирования Расход единицы Время удержания Поверхностная нагрузка Скорость горизонтальн. потока Отношение L/W Глубина Количество камер Размеры Действительный объем Время удержания Отношение L/W Поверхностная нагрузка Скорость горизонтальн. потока Водослив Длина лотка Количество лотков Размеры Общая длина Устранение ила	прямоугольный, горизонтального потока $q = 720$ куб м/ч/камера $T = 2.5$ часа $a = 15 - 30$ мм/мин $v < 0.40$ м/мин $L/W = 3 - 8$ раз $D = 3 - 4$ м Глубина 30 см и более предусматривается для оседания ила $N = 6$ камер <table style="margin-left: 40px;"> <tr> <td>W м</td> <td>x</td> <td>L м</td> <td>x</td> <td>D м</td> </tr> <tr> <td>9</td> <td></td> <td>50</td> <td></td> <td>4.0</td> </tr> </table> $V = 1,800$ куб м/камера $T_1 = 2.5$ часа $L/W = 5.6$ $a = 26.7$ мм/мин $v = 0.33$ м/мин $рузка = 350$ куб м/м/сут $L = 49$ м и более $No. = 6$ лотков <table style="margin-left: 40px;"> <tr> <td>L м</td> <td>x</td> <td>N</td> </tr> <tr> <td>4.2</td> <td></td> <td>6</td> </tr> </table> $L = 50.4$ м > 49м Подводный илосборник, управляемый кабелями	W м	x	L м	x	D м	9		50		4.0	L м	x	N	4.2		6
W м	x	L м	x	D м													
9		50		4.0													
L м	x	N															
4.2		6															
(5) Скорый песчаный фильтр	Q= 103,700 куб м/сут																
Вид Количество единиц Расход единицы Критерии проектирования Норма фильтрования Действительная площадь фильтра на единицу Размеры Норма фильтрования Норма фильтрования Во время промывки Промывка фильтра Частота Норма Объем воды для промывки для ВСЕХ единиц	нижнего потока, с однокомпонентным наполнителем $No. = 12$ единиц 2 ед. резерв $q = 8,642$ куб м/сут/ед. $Fr = 120 - 144$ м/сут $A = 73.1$ кв м <table style="margin-left: 40px;"> <tr> <td>W м</td> <td>x</td> <td>L м</td> <td>единиц</td> </tr> <tr> <td>5.8</td> <td></td> <td>12.6</td> <td>12</td> </tr> </table> $A = 73.1$ кв м/ед. $Fr = 118$ м/сут (12единиц) $Fr' = 142$ м/сут (10единиц) 2 единицы из 10 промываются один раз в день для каждого фильтра Поверх.промыв степень = 0.15 куб м/кв м/мин продолжительность = 5 мин Обратн.промыв степень = 0.60 куб м/кв м/мин продолжительность = 7 мин Поверх.промыв $V_s = 54.8$ куб м/ед. Обратн.промыв $V_b = 306.9$ куб м/ед. $V_s + V_b = 361.7$ куб м/ед. Общий объем для промыв 4,341 м3/сут (обр. промывка 3,700м3/сут) %-ность для проектного р: 4.1 % (только обр. промывка=3.5%)	W м	x	L м	единиц	5.8		12.6	12								
W м	x	L м	единиц														
5.8		12.6	12														

Наименование	Общая система		
(6) Канал смешивания хлора	Q= 100,000 куб м/сут		
Расположение	на входе распределительного резервуара		
Критерии			
Продолжительность контакта	T=	5 минут	
Требуемый объем	V=	347 куб м	
Количество единиц	No.	1 ед.	
Размеры	L м x W м x D м x N единиц		
	48.0 3.0 2.8 1		
Действительный объем	V=	403 куб м	
Время удержания	T ₁ =	5.5 мин	
(7) Распределительный резервуар (сущ) Q 100,000 куб м/сут			
Критерии			
Время удержания	T >	8.0 часов	
Требуемый объем	V=	57,667 куб м	
Количество единиц		3 единиц	
Размеры	L м x W м x D м x N единиц		
	64.0 64.0 5.0 3		
Действительный объем	V=	61,440 куб м	
Время удержания	T ₁ =	8.5 часов	
(8) Общая потеря воды	OT1600+Фильтр3700=5300	5.0 %	
2. Дренажные сооружения НФС			
(1) Критерии проектирования			
	Среднегодовое	Высокая мутность	Низкая мутность
Объем очищенной воды	87,750 куб м/сут	105,300 куб м/сут	87,750
Мутность (градус)	5	30	3
Норма подачи сернокисл. алю м (мг/л)	7.5	30	1
Твердый объем (т-сухой ил/сут)	0.58	4.40	0.23
Образуемый ил (ОТ)	0.3 %	0.3 %	0.3
(ИУ)	2 %	4 %	2
Объем ила (ОТ)	193 куб м/сут	1,468 куб м/сут	77
(ИУ)	29 куб м/сут	110 куб м/сут	11.6
	<p>ОТ: Отстойник, ИУ: Илоуплотнитель</p> <p>A : $So=Q \times [k \times (T_1 \cdot T_2) + V \times 156/666] \times 10^{-6}$</p> <p>Q= Объем очищенной воды</p> <p>k= Скорость преобразования мутности и $ВВ=1.2 (0.8-1.5)$</p> <p>T₁= Мутность сырой воды</p> <p>T₂= Мутность после отстойника = 1</p> <p>V= Норма подачи сернокислого алюминия</p> <p>В : Объем вынимаемого ила</p> <p>Общее количество иловых бункеров равно 24 единицы и ил будет выниматься 24 раза в сутки. Продолжительность вынимания ила = 60сек/раз</p> <p>С учетом мощности трубы вынимания, объем вынимаемого ила равен 0.046куб м/сек (Диам 250 мм, l = 2.3/440 , Q=4,000 куб м/сут)</p> <p>Суточный объем вынимаемого ила=0.046куб м/сек x 60сек x 24ед.x24раз/сут</p> <p>So= 1,600 куб м/сут</p> <p>С : Концентрация вынимаемого ила</p> <p>По результатам вышеуказанных расчетов, концентрация ила в отстойнике равна :</p> <p>W = 0.3 %</p>		

Наименование	Общая система			
(1) Дренажный бассейн обратной промывки				
Вид	прямоугольный, горизонтального потока			
Объем на фильтр (сущ-щий)	Q1 =	594 куб м		
Объем на фильтр (новый)	Q2 =	362 куб м		
Требуемый объем	V=	1,242 куб м (30% плюс)		
Количество единиц	N =	2 единиц (1 ед. резерв)		
Размеры	L м x W м x D м x N единиц	34.5 12.4 3.0 1		
Действительный объем	V1 =	1,283 куб м > 1,242куб м		
Возвратный насос	к приемному колодцу			
Вид насоса	иловый насос с винтовым всасыванием			
Производительность насоса	Производительность насоса должна быть достаточной для возврата воды обр. промывки на 1 фильтр до приемного колодца сырой воды за 1 час			
	Q=	1,283 м3 минуты	60 м3/мин	10.7 единиц
	P=	0.163 м3/мин	10.7 м	17.0 кВт
Иловый насос	к илоуплотнителю			
Вид насоса	горизонтальный иловый насос незабывающегося типа			
Производительность насоса	Мощность должна быть достаточной для отправки ила воды обратной промывки объемом, эквивалентным мощности 1 илоуплотнителя за 1 час			
	Q=	201 м3 минуты	60 м3/мин	3.3 единиц
	P=	0.163 м3/мин	3.3 м	7.0 кВт
(2) Илоуплотнитель				
Вид	круглый			
Требуемая площадь	применяет твердую загрузку	20.0 кг сухого ила/сут		
	A=	220 кв м/ед.		
Количество единиц	No.	2 единиц		
Требуемый объем 1	Макс.мутность x V=	771 куб м/камера		
2	Мин.мутность x V=	867 куб м/камера		
Размеры (круглые)	Диаметр Глубина	18.0 3.5 СНиП		
Действительный объем единиц	UV=	890 куб м > 867куб м		
Общий объем	TV=	1,780 куб м		
Проверить (Концентрация 2%)	Ил низкой мутности	154 сут > 150сут		
Проверить (Концентрация 4%)	Ил высокой мутности	16 сут > 7сут		
Площадь поверхности	A ₁ =	254 кв м > 221кв м/ед.		
Проверить (твердая загрузка)	Ил низкой мутности	0.9 < 20кг сухого ила/кв м/сут		
	Ил высокой мутности	17.3 < 20кг сухого ила/кв м/сут		
Иловый насос	к иловой площадке			
Вид насоса	горизонтальный иловый насос незабывающегося типа			
Производительность насоса	Мощность насоса должна быть достаточной для отправки ила площадки за 2 сут (6 часов в сутки)			
	Q=	900 м2	0.5 м	1.3 м3/мин
	P=	0.163 м3/мин	1.3 м	8.0 кВт
(3) Иловая площадка				
Вид	прямоугольный, горизонтального потока			
Время цикла	Все площадки управляются 2 раза в год			
Требуемая площадь	Применяет твердую загрузку:	20.0 кг сухого ила/кв м/раз		
	A=	5,293 кв м		
Количество единиц	No.	6 единиц		
Размеры	L м W м x D м	45.0 20.0 1.0 куб м		
Действительная площадь	кв м	900		
Общая площадь=	900.0 кв м единиц	6.0		
Проверить	5,400 кв м > 5,293м2			
	19.6 < 20кг сухого ила/кв м/раз			

Наименование	Общая система			
(4) Площадка сухого кока				
Вид	прямоугольный, горизонтального потока			
Количество единиц	No.	1 единиц		
Размеры		L м x	W м	
		30.0	20.0	
Требуемая площадь	A =	600 кв м		
Действительный объем	V =	212 куб м/год		
(5) Накопительный резервуар				
Вид	прямоугольный, горизонтального потока			
Требуемый объем	ИУ 2,550м3/сут+ИП 450м3/с	3,000 м3/сут		
Время удержания	T =	8 часов		
Требуемый объем	V =	1,000 куб м		
Количество единиц	No.	2 единиц		
Размеры	L м	W м x	H м единиц	
	34.5	11.8	3.0 2 (1 ед. резерв)	
Действительный объем	V _г =	1,221 куб м > 1,000 куб м		
Иловый насос	к колодцу КОС			
Вид насоса	горизонтальный иловый насос незабивающегося типа			
Производительность насоса	Мощность насоса должна быть достаточной для перекачки скапливаемой надосадочной жидкости объемом 3,000м3 в сутки.			
		м3	минут	м3/мин
	Q =	3,000	1,440	2.1
			м3/мин	м
	P =	0.163	2.1	8.0
				4.3 5.5кВт