FLORENCE COPPER

FLORENCE COPPER INC.
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florencecopper.com

June 21, 2021

ADEQ Water Quality Compliance Section
Mail Code 5415B-1
1110 West Washington Street
Phoenix, Arizona 85007

Attention: Mr. Tracy Bunch

Subject: Weekly Monitoring Report for Week Ending 6/12/2021
Florence Copper, Production Test Facility
Aquifer Protection Permit No. 101704, LTF 88973

Dear Mr. Bunch:

Florence Copper is submitting this report in accordance with Table 15 of Aquifer Protection Permit (APP) No. 101704.

This report includes In-Situ Best Available Demonstrated Control Technology (BADCT) compliance monitoring that is required to be reported on a weekly basis including:

- Recovered volume to injection volume;
- Inward hydraulic gradient; and
- Maximum injection pressure.

A map showing the location of the PTF injection, recovery, and observation wells is included as Figure 1.

Recovered Volume to Injection Volume

A summary of the injected and recovered volumes for the week of 6/6/2021 to 6/12/2021 is included in Table 1. Observation Wells O-02 and O-03 were pumped a portion of the day as part of the recovered volumes. The total injected and recovered volumes, as well as the percent recoveries, are presented on Figure 2.

During the reporting period no exceedance of the alert level was measured for recovered volume to injected volume percent recovery.

Inward Hydraulic Gradient

Table 2 includes a summary of water levels in the recovery and observation well pairs, and the difference in head measurements. Hydrographs showing the water level elevation comparisons for each recovery well and observation well pair are included in Figure 3. R-08 was down for pump replacement on 6/6/2021. R-03 was down for reconditioning on 6/6 to 6/8/2021.

During the reporting period, there were no exceedances of the alert level for the daily average water level comparisons for the inward hydraulic gradient.

Injection Pressure

A summary of the injection pressures during the reporting period is included in Table 3. During the reporting period, no alert levels were exceeded for the daily maximum injection pressure.

Please contact me at 520-374-3984 if you require any additional information.

Sincerely,
Florence Copper Inc.

Brent Berg
General Manager

Attachments:
Tables and Figures

cc: Maribeth Greenslade, ADEQ
Nancy Rumrill, United States Environmental Protection Agency

TABLES

Table 1. Injected and recovered volumes (gallons) for the week 6/6/2021 to 6/12/2021

Date	Daily Injection Flow (gal)	Daily Recovery Flow (gal)	% Recovery	AL % Recovery Less than
6/6/2021	199300	227700	114	106
6/7/2021	198000	227500	115	106
6/8/2021	201100	229100	114	106
6/9/2021	197400	227700	115	106
6/10/2021	199300	227200	114	106
6/11/2021	199200	229400	115	106
6/12/2021	198100	228000	115	106
Weekly Average	**198914**	**228086**	115	106
Avg Flow Rate (gpm)	138	158		

Table 2. Average daily water levels in the recovery and observation well pairs (amsl)

Well Pairs Average Daily Elevation & Gradient (feet)														
Well Pairs	6/6/21		6/7/21		6/8/21		6/9/21		6/10/21		6/11/21		6/12/21	
Well	Elev.	Gradient	Elev.	Gradient	Elev.	Gradient	Elev.	Gradient	Elev.	Gradient	Elev.	Gradient	Elev.	Gradient
R-01	1220.93		1222.41		1224.00		1225.62		1226.13		1227.01		1227.35	
O-01	1238.86	17.93	1239.52	17.11	1240.43	16.43	1241.67	16.05	1242.28	16.15	1243.45	16.44	1243.51	16.16
O-07	1237.98	17.05	1238.44	16.03	1239.45	15.45	1240.73	15.11	1241.26	15.13	1242.11	15.10	1242.31	14.96
R-02	1196.49		1204.26		1208.55		1207.52		1210.93		1217.39		1215.67	
O-01	1238.86	42.37	1239.52	35.26	1240.43	31.88	1241.67	34.16	1242.28	31.35	1243.45	26.06	1243.51	27.84
O-02	1230.65	34.16	1231.85	27.59	1232.51	23.96	1233.72	26.21	1234.26	23.32	1235.27	17.88	1235.45	19.78
R-03							1175.66		1170.50		1170.36		1170.01	
O-02	1230.65		1231.85		1232.51		1233.72	58.06	1234.26	63.76	1235.27	64.91	1235.45	65.44
O-03	1224.10		1225.95		1226.08		1232.99	57.33	1237.63	67.14	1238.51	68.15	1238.70	68.69
R-04	1147.25		1150.77		1152.02		1151.25		1150.74		1149.40		1150.15	
O-03	1224.10	76.85	1225.95	75.17	1226.08	74.06	1232.99	81.73	1237.63	86.89	1238.51	89.11	1238.70	88.55
R-05	1137.86		1150.18		1158.47		1157.26		1159.52		1158.67		1157.40	
O-04	1239.47	101.60	1240.76	90.58	1242.21	83.74	1243.61	86.35	1244.37	84.86	1245.22	86.55	1245.49	88.09
R-06	1154.50		1161.20		1169.27		1175.09		1179.18		1194.45		1196.82	
O-04	1239.47	84.97	1240.76	79.57	1242.21	72.94	1243.61	68.52	1244.37	65.19	1245.22	50.77	1245.49	48.67
O-05	1238.36	83.86	1239.17	77.97	1240.37	71.10	1241.93	66.84	1242.64	63.46	1243.71	49.26	1243.96	47.14
R-07	1236.12		1236.74		1237.95		1234.43		1234.65		1235.91		1236.24	
O-05	1238.36	2.25	1239.17	2.43	1240.37	2.42	1241.93	7.50	1242.64	7.99	1243.71	7.80	1243.96	7.72
O-06	1238.50	2.38	1238.74	2.00	1239.59	1.65	1241.10	6.67	1241.66	7.01	1242.70	6.79	1242.91	6.67
R-08			1226.05		1225.55		1227.51		1227.13		1227.58		1228.15	
O-06	1238.50		1238.74	12.69	1239.59	14.04	1241.10	13.59	1241.66	14.53	1242.70	15.12	1242.91	14.76
O-07	1237.98		1238.44	12.39	1239.45	13.90	1240.73	13.22	1241.26	14.13	1242.11	14.53	1242.31	14.16

Alert level is exceeded if gradient is less than 1 foot.
R-03 was down for reconditioning on 6/6 to 6/8/2021.
R-08 was down for pump replacement on 6/6/2021.

Table 3. Injection well pressures (psi)

Date	I-01			I-02			I-03			I-04			AL Max Inj Pressure
	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	AVG	MIN	MAX	
6/6/2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	113
6/7/2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	113
6/8/2021	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.03	0.00	0.00	0.03	113
6/9/2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	113
6/10/2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	113
6/11/2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	113
6/12/2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	113

FIGURES

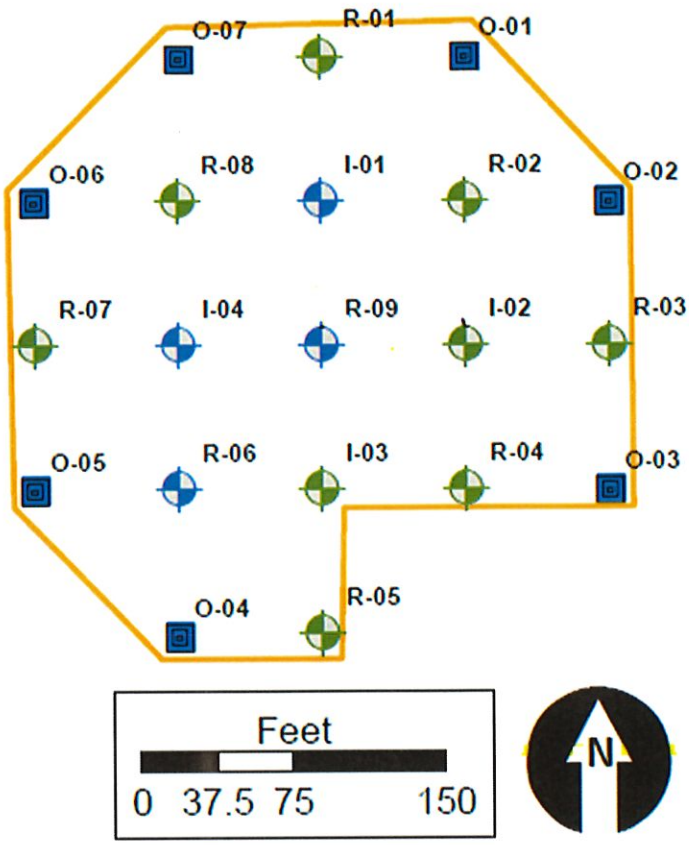

Figure 1. PTF injection, recovery, and observation well locations

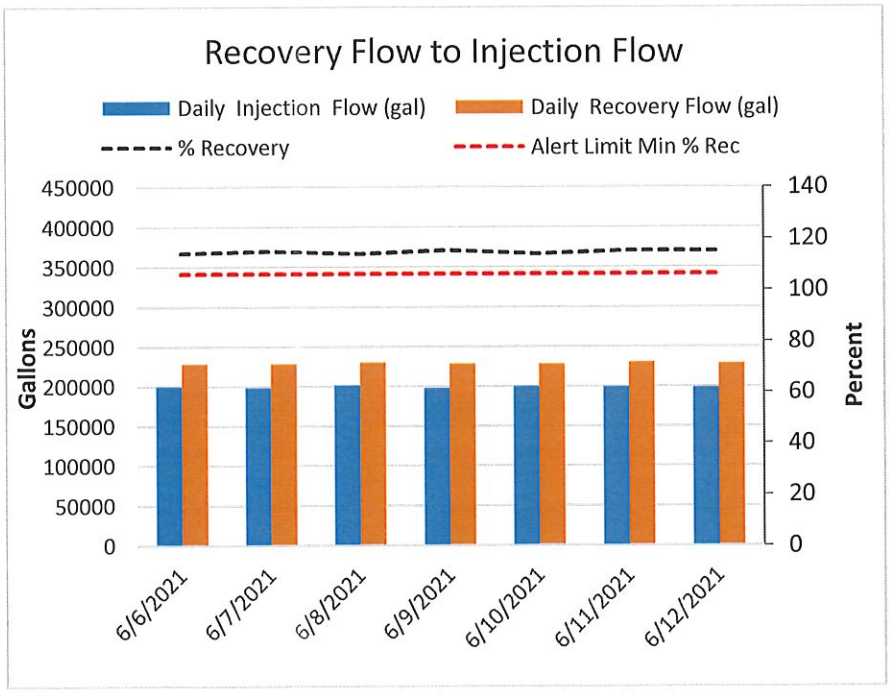

Figure 2. Recovered volume to injected volume

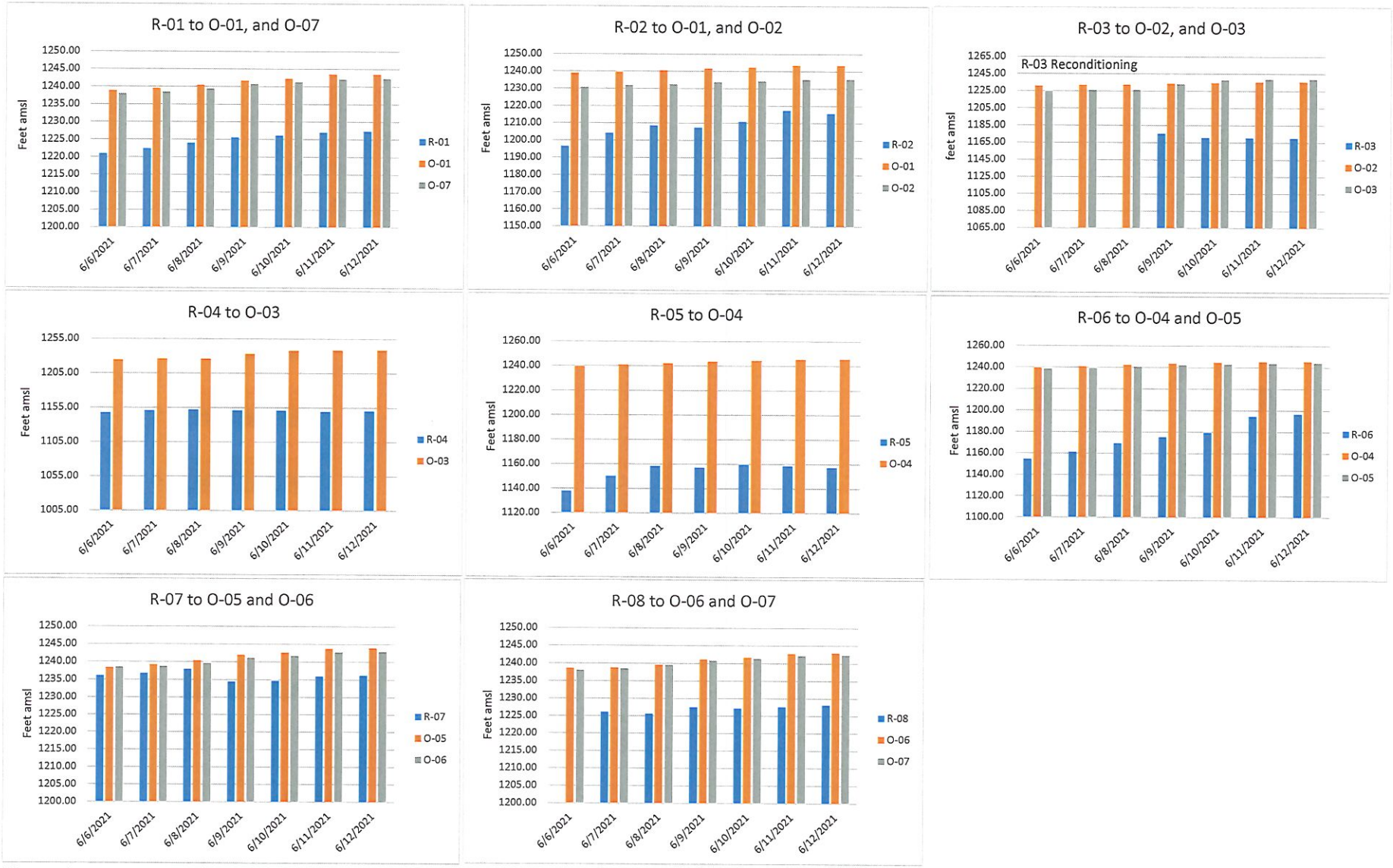

Figure 3. Recovery and observation well pairs. R-08 was down for pump replacement on 6/6/2021. R-03 was down for reconditioning on 6/6 to 6/8/2021.