



BRACEWELL ENGINEERING, INC.

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May 7, 2021

Mr. Eric Lacy
State Water Resources Control Board-Division of Drinking Water
850 Marina Bay Parkway, Building P, 2nd Floor
Richmond, CA 94804

Re: April 2021 Monthly Report to the Office of Drinking Water
La Honda Water System (County Service Area No. 7), No. W4100509

Dear Mr. Lacy:

Attached are the Monthly Summary of Distribution System Coliform Monitoring and the Monthly Summary of Monitoring for Surface Water Treatment Regulations for the La Honda Water System. The monthly distribution system treated water bacteriological sample showed an absence of total coliforms and E. coli.

Chlorine residuals were maintained as required and turbidity levels did not exceed 0.3 NTU when treating water for domestic use. The minimum disinfection CT ratio was 1.6 for a DDW required 1-log removal for Giardia.

Please do not hesitate to contact me if you have any questions.

Respectfully submitted,
BRACEWELL ENGINEERING, INC.

Lloyd W. Bracewell, PhD., RCE
Water System Engineer

cc: San Mateo County, CSA #7
BEI Office

WATER SYSTEM MONITORING REPORT

La Honda Water System (CSA No. 7)
 555 County Center, 5th Floor
 Redwood City, CA 94063
 System No. 4100509

Water Resources Control Board
 Division of Drinking Water
 850 Marina Bay Parkway, Bldg P
 Richmond, CA 98804

Station: Test: Units: Type: Frequency: Date	Finish Wtr FLOW gal/day calculated daily	Finish Wtr TEMP deg C grab weekly	Finish Wtr PH std units grab weekly	Finish Wtr CL2 RESID mg/L continuous daily	ContctPipe CT VALUE min-mg/L calculated daily	Finish Wtr CT REQUIRD min-mg/L calculated daily	ContctPipe CT RATIO ratio calculated daily	Finish Wtr TURBIDITY NTU continuous daily	Raw Water TURBIDITY NTU continuous daily	Finish Wtr TRB/PH/CL2 initials calib check weekly
04/01/21	33650	10.2	7.59	1.34	37.74	24.0	1.6	0.03	0.87	
04/02/21	31600	10.2	7.61	1.44	40.56	24.5	1.7	0.03	19.87	
04/03/21	0									
04/04/21	0									
04/05/21	48100	11.0	7.69	1.97	55.49	24.9	2.2	0.03	7.16	KB
04/06/21	48100	11.0	7.71	1.89	53.23	25.0	2.1	0.03	3.52	
04/07/21	24950	11.0	7.73	1.89	53.23	25.1	2.1	0.03	3.27	
04/08/21	24950	12.1	7.73	1.86	52.39	23.2	2.3	0.03	1.69	
04/09/21	28600	12.1	7.81	1.55	43.66	23.2	1.9	0.04	2.54	
04/10/21	0									
04/11/21	22567	12.1	7.68	1.84	51.83	22.8	2.3	0.04	2.90	
04/12/21	40500	12.1	7.72	1.63	45.91	22.7	2.0	0.03	3.32	KB
04/13/21	40500	12.1	7.69	2.13	59.99	23.4	2.6	0.03	2.80	
04/14/21	0									
04/15/21	0									
04/16/21	26700	13.7	7.62	2.36	66.47	20.7	3.2	0.03	3.36	
04/17/21	0									
04/18/21	0									
04/19/21	49300	13.7	7.79	1.81	50.98	21.1	2.4	0.03	5.51	KB
04/20/21	49300	13.7	7.76	2.03	57.18	21.3	2.7	0.03	3.36	
04/21/21	15950	13.7	7.77	1.59	44.78	20.6	2.2	0.03	1.86	
04/22/21	15950	13.7	7.68	1.48	41.69	19.8	2.1	0.05	1.55	
04/23/21	28800	13.7	8.29	1.93	54.36	25.2	2.2	0.05	2.98	
04/24/21	28800	13.2	7.94	2.08	58.59	23.5	2.5	0.05	0.95	
04/25/21	28800	13.2	7.81	2.29	64.50	22.8	2.8	0.05	2.89	
04/26/21	15850	13.2	7.91	1.63	45.91	22.5	2.0	0.05	2.31	KB
04/27/21	15850	13.2	7.66	2.11	59.43	21.4	2.8	0.03	0.81	
04/28/21	24150	13.2	8.29	1.78	50.14	25.8	1.9	0.04	4.41	
04/29/21	24150	13.2	7.84	2.15	60.56	22.9	2.6	0.05	3.54	
04/30/21	49967	13.2	8.09	1.95	54.92	24.5	2.2	0.05	3.43	
Average:	23903	12.5	7.80	1.86	52.33	23.1	2.3	0.04	3.69	
High:	49967	13.7	8.29	2.36	66.47	25.8	3.2	0.05	19.87	
Low:	0	10.2	7.59	1.34	37.74	19.8	1.6	0.03	0.81	
Total:	717084									

Method: SM2550B SM4500-H+ B SM4500-C1 G SM2130B SM2130B
 Limit1: mn d >= 0.20 mx d >= 1.0 mx d <= 0.3
 Over/Total: 0/23 0/23 0/23

WATER SYSTEM MONITORING REPORT

La Honda Water System (CSA No. 7)
 555 County Center, 5th Floor
 Redwood City, CA 94063
 System No. 4100509

Water Resources Control Board
 Division of Drinking Water
 850 Marina Bay Parkway, Bldg P
 Richmond, CA 98804

Station:	Raw Water	Raw Water	Raw Water	APN 240070	APN 240070	APN 240070	APN 240070	01dC12Sta	01dC12Sta	01dC12Sta	01dC12Sta
Test:	SAMPL TYPE	COLIFORM	E. COLI	SAMPL TYPE	COLIFORM	E. COLI	CL2 RESID	SAMPL TYPE	COLIFORM	E. COLI	CL2 RESID
Units:	TYPE	MPN/100mL	MPN/100mL	TYPE	pres./abs.	pres./abs.	mg/L	TYPE	pres./abs.	pres./abs.	mg/L
Type:	observation	grab	grab	observation	grab	grab	grab	observation	grab	grab	grab
Frequency:	as needed	monthly	monthly	Mar/May/Oct	Mar/May/Oct	Mar/May/Oct	Mar/May/Oct	Apr/Jun/Nov	Apr/Jun/Nov	Apr/Jun/Nov	Apr/Jun/Nov
Date				due 05/21	due 05/21	due 05/21	due 05/21				
04/01/21											
04/02/21											
04/03/21											
04/04/21											
04/05/21											
04/06/21	Other	17.5	14.8					Routine	Absence	Absence	1.94
04/07/21											
04/08/21											
04/09/21											
04/10/21											
04/11/21											
04/12/21											
04/13/21											
04/14/21											
04/15/21											
04/16/21											
04/17/21											
04/18/21											
04/19/21											
04/20/21											
04/21/21											
04/22/21											
04/23/21											
04/24/21											
04/25/21											
04/26/21											
04/27/21											
04/28/21											
04/29/21											
04/30/21											
Average:		17.5	14.8						0	0	1.94
High:		17.5	14.8						0	0	1.94
Low:		17.5	14.8						0	0	1.94
DL/RL:		1.0/1.0	1.0/1.0								
Method:		SM9223 B-18	SM9223 B-18		SM9223B-18	SM9223B-18	SM4500-C1 G		SM9223B-18	SM9223B-18	SM4500-C1 G
Limit1:					mx d < 1	mx d < 1	mn d >= 0.05		mx d < 1	mx d < 1	mn d >= 0.05
Over/Total:					0/0	0/0	0/0		0/1	0/1	0/1

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 Division of Drinking Water
 850 Marina Bay Parkway, Bldg P
 Richmond, CA 98804

Station:	400 Ranch	400 Ranch	400 Ranch	400 Ranch	LaHondaRd	LaHondaRd	LaHondaRd	LaHondaRd
Test:	SAMPL TYPE	COLIFORM	E. COLI	CL2 RESID	SAMPL TYPE	COLIFORM	E. COLI	CL2 RESID
Units:	TYPE	pres./abs.	pres./abs.	mg/L	TYPE	pres./abs.	pres./abs.	mg/L
Type:	observation	grab	grab	grab	observation	grab	grab	grab
Frequency:	Feb/Sep	Feb/Sep	Feb/Sep	Feb/Sep	as needed	as needed	as needed	as needed

Date				
04/01/21	due 09/21	due 09/21	due 09/21	due 09/21
04/02/21				
04/03/21				
04/04/21				
04/05/21				
04/06/21				
04/07/21				
04/08/21				
04/09/21				
04/10/21				
04/11/21				
04/12/21				
04/13/21				
04/14/21				
04/15/21				
04/16/21				
04/17/21				
04/18/21				
04/19/21				
04/20/21				
04/21/21				
04/22/21				
04/23/21				
04/24/21				
04/25/21				
04/26/21				
04/27/21				
04/28/21				
04/29/21				
04/30/21				

Average:
 High:
 Low:

Method:	SM9223B-18	SM9223B-18	SM4500-C1 G	SM9223B-18	SM9223B-18	SM4500-C1 G
Limit1:	mx d < 1	mx d < 1	mn d >= 0.05	mx d < 1	mx d < 1	mn d >= 0.05
Over/Total:	0/0	0/0	0/0	0/0	0/0	0/0

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Station: Test: Units: Type: Frequency: Date	LHW OPERATOR units observation as needed	LHW ACTIONS comments observation as needed	Raw Water PH std units grab weekly	Raw Water ALKALINITY mg/L-CaCO3 grab as needed	Raw Water TOC mg/L grab as needed	Unchlor TW TOC mg/L grab as needed	Unchlor TW TOC Remove % removal calculated monthly	Raw Water IRON ug/L grab every 3 mo	TreatedWtr IRON ug/L grab every 3 mo	Raw Water NITRATE-N mg/L grab every 3 mo
04/01/21								due 05/21	due 05/21	
04/02/21	KB									
04/03/21										
04/04/21										
04/05/21	KB		8.53							
04/06/21										< 0.4
04/07/21	KB									
04/08/21										
04/09/21	KB									
04/10/21										
04/11/21										
04/12/21	KB		8.49							
04/13/21										
04/14/21	KB									
04/15/21										
04/16/21	KB									
04/17/21										
04/18/21										
04/19/21	KB		8.35							
04/20/21										
04/21/21	KB									
04/22/21										
04/23/21	KB									
04/24/21										
04/25/21										
04/26/21	KB		8.44							
04/27/21										
04/28/21	KB									
04/29/21										
04/30/21	KB									
Average:			8.45							< 0.4
High:			8.53							< 0.4
Low:			8.35							< 0.4
DL/RL:				3/2	0.100/0.100	0.100/0.100		20/20	20/10	0.03/0.4
Method:			SM4500-H+ B	SM2320B	EPA 415.1	EPA 415.1		EPA 200.8	EPA 200.8	SM4500-NO3 D
Limit1:							mn d >= 25			mx d <= 10
Over/Total:							0/0			0/1

Monthly Summary of Distribution System Coliform Monitoring


System Name: La Honda Water System (CSA #7)	System Number: 4100509
Sampling Period	
Month: April	Year: 2021

	Number Required	Number Collected	Number Total Coliform Positives	Number Fecal/ E. coli Positives
1. Routine Samples (see note 1)	<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>
2. Repeat Samples Following Samples Which are Total Coliform Positive and Fecal/E. coli <i>Negative</i> (see notes 5 and 6)		<u>0</u>	<u> </u>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>
3. Repeat Samples Following Routine Samples Which are Total Coliform Positive and Fecal/E. coli <i>Positive</i> (see notes 5 and 6)		<u>0</u>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>
4. MCL Computation For Total Coliform Positive Samples				
a. Totals (sum of columns)		<u>1</u>	<u>0</u>	
b. If 40 or more samples collected in month, determine percent of samples that are total confirm positive. [(total number positive/total number collected)x100]				
c. Is system in compliance... ..with fecal/E.coli MCL? (see notes 2 and 3)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
...with monthly MCL? (see note 4)		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

5. Invalidated Samples

(Note what samples, if any, were invalidated; why they were invalidated; who authorized the invalidation; and when replacement samples were collected. Attach additional sheets, if necessary.)

6. Summary Completed By:

Signature 	Title Water System Engineer	Date 5/7/2021
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Notes and Instructions:

1. Routine samples include:
 - a. Samples required per 22, CCR, Section 64423;
 - b. Extra samples required for systems collecting less than five routine samples per month that had one or more total coliform positives in previous month;
 - c. Extra samples for systems with high source water turbidities that are using surface water or groundwater under the direct influence of surface water do not practice filtration in compliance with regulations.
2. Note: For a repeat sample following a total coliform positive sample, any fecal/E. coli positive repeat (boxed entry) *constitutes an MCL violation and requires immediate notification to the Department* (22, CCR, Section 64426.1).
3. Note: For a repeat sample following a fecal/E. coli positive sample, any total coliform positive repeat (boxed entry) *constitutes an MCL violation and requires immediate notification to the Department* (22, CCR, Section 64426.1).
4. Total coliform MCL (*Notify Department within 24 hours of MCL violation*):
 - a. For systems collecting less than 40 samples, if two or more samples are total coliform positive, then the MCL is violated.
 - b. For systems collecting 40 or more samples, if more than 5.0 percent of samples collected are total coliform positive, then the MCL is violated.
5. Positive results and their associated repeat samples must be tracked on the worksheet on the other side.
6. For systems collecting more than one routine sample per month, three repeat samples must be collected for each total coliform positive sample. Repeat samples must be collected within 24 hours of being notified of the positive result.

Monthly Summary of Monitoring For Surface Water Treatment Regulations

System Name: La Honda Water System (CSA #7)

System Number: 4100509

Treatment Plant Name: La Honda Water System (CSA #7)

Month: April Year: 2021

Treated Water Turbidities Every Four Hours (NTU)*

Date	Peak Raw Water Turbidity	Peak Settled Water Turbidity	Midnight to 0400	0400 to 0800	0800 to Noon	Noon to 1600	1600 to 2000	2000 to Midnight	Average Treated Water	Minimum Ct. Ratio
1	0.87		0.02	0.02			0.02	0.02	0.02	1.6
2	19.87				0.03	0.03	0.03	0.02	0.03	1.7
3										
4										
5	7.16				0.03	0.03	0.02	0.02	0.03	2.2
6	3.52		0.03	0.03	0.02	0.03	0.03	0.02	0.03	2.1
7	3.27		0.02	0.03	0.02	0.02	0.03	0.02	0.02	2.1
8	1.69		0.02	0.03					0.03	2.3
9	2.54					0.03	0.03		0.03	1.9
10										
11	2.90				0.03	0.03	0.02	0.02	0.03	2.3
12	3.32		0.03	0.03	0.03	0.02	0.02	0.02	0.03	2.0
13	2.80		0.02	0.03	0.02	0.02	0.02	0.02	0.02	2.6
14										
15										
16	3.36					0.03	0.03	0.02	0.03	3.2
17										
18										
19	5.51					0.03	0.03	0.02	0.03	2.4
20	3.36		0.02	0.02	0.02	0.02	0.02	0.02	0.02	2.7
21	1.86		0.02	0.03	0.03	0.03	0.03		0.03	2.2
22	1.55				0.05	0.04			0.05	2.1
23	2.98				0.05	0.05	0.04	0.04	0.05	2.2
24	0.95		0.05	0.04	0.04				0.04	2.5
25	2.89				0.05	0.05	0.05	0.05	0.05	2.8
26	2.31					0.04	0.04	0.04	0.04	2.0
27	0.81		0.03						0.03	2.8
28	4.41					0.04	0.04		0.04	1.9
29	3.54				0.04	0.05	0.04	0.03	0.04	2.6
30	3.43				0.04	0.04	0.04	0.04	0.04	2.2
31										
Ave.	3.69								0.03	

*If a continuous monitoring turbidimeter is used, determine discrete turbidity value for the same times during each 24-hour period

Total No. of Samples: 88 No. of Readings ≤ 0.3 NTU: 88

% Readings ≤ 0.3 NTU = [(No. Readings ≤ 0.3 NTU) / (Total No. Samples)] x 100 = 100%

Meets Standard (i.e. more than 95% of readings are ≤ 0.3 NTU) (Y/N)? Y

Percent reduction during the month = $\frac{[(\text{Average Raw NTU} - \text{Average Effluent NTU})]}{(\text{Average Raw NTU})} \times 100 = \underline{99\%}$

Meets Standard (i.e. reduction is greater than 80%) (Y/N)? Y

95th Percentile Value of all turbidity readings (95% of all turbidity readings are less than this value): 0.050

Incidents of turbidity greater than 1.0 NTU

Date of Incident				
Value				
Duration				

Total Number of incidents where turbidity is > 1.0 NTU: 0
 Total Number of incidents where turbidity is > 5.0 NTU: 0
 Meets Standards (i.e. NTU is not > 1.0 for more than eight consecutive hours) (Y/N)? Y

After placing a filter back into service after any interruption (e.g. backwashing), did the filter effluent comply with the following criteria:

a. < 2.0 NTU after all events (Y/N)? Y
 b. < 1.0 NTU after 90% of events (Y/N)? Y
 c. < 0.5 NTU after 4 hours (Y/N)? Y

Indicate the date that the turbidimeters that are used for regulatory monitoring purposes were calibrated

Date	Which Turbidimeter	Standard used (primary/secondary)	Date	Which Turbidimeter	Standard Used (primary/secondary)
3/13/2019	Hach, raw wtr	0/20 Formazin	3/13/2019	Hach, treated	0/20 Formazin
5/17/2019	Hach, raw wtr	0/20 Formazin	5/17/2019	Hach, treated	0/20 Formazin
7/15/2019	Hach, raw wtr	0/20 Formazin	7/15/2019	Hach, treated	0/20 Formazin
10/17/2019	Hach, raw wtr	0/20 Formazin	10/17/2019	Hach, treated	0/20 Formazin
4/3/2020	Hach, raw wtr	0/20 Formazin	4/3/2020	Hach, treated	0/20 Formazin
7/2/2020	Hach, raw wtr	0/20 Formazin	7/2/2020	Hach, treated	0/20 Formazin
10/28/2020	Hach, raw wtr	0/20 Formazin	10/28/2020	Hach, treated	0/20 Formazin
1/29/2021	Hach, raw wtr	0/20 Formazin	1/29/2021	Hach, treated	0/20 Formazin

Disinfection Process Data

Disinfectant residual type: free chlorine: X combined chlorine: _____ other (specify) _____

Incidents of chlorine residuals less than 0.2 ppm at the plant effluent:

Date of Incident				
Duration				
Date Dept. Notified				

Total number of incidents where residual is < 0.2 ppm: 0
 Meets standard (i.e. not less than 0.2 ppm for more than four hours) (Y/N)? Y

No. of distribution system residual samples collected:	1
No of distribution system samples for HPC only:	
Total No. residual and/or HPC samples collected:	1
No. of samples with no detectable residual and HPC is not measured:	0
No. of samples with no residual and HPC > 500 CFU/ml:	
No. of samples for HPC only and HPC > 500 CFU/ml:	
Total No. Samples with no residual and/or HPC > 500 CFU/ml:	0

Compute V where $V = [1 - (\text{Total number of samples with no residual and/or HPC} > 500) / (\text{Total number of residual and/or HPC samples collected})] \times 100 =$ 100%

Meets Standard (i.e V > 95%) (Y/N) Y

