Summary of Quarterly Suncor Excess Emissions Reporting (Jan 2020- March 2022).

5/9/2022

2020						
Start Date & Time	End Date & Time	Hours	Pollutants	Unit(s)	Code	Cause
1/4/20 9:00 AM	1/7/20 7:00 PM	18	CO	Plant 2 FCCU	A	Startup/Shutdown
1/3/20 8:00 PM	3/17/20 6:24 PM	4	Opacity	Plant 2 FCCU	A	Startup/Shutdown
1/9/20 11:00 AM	1/9/20 12:00 PM	1	CO	Plant 1 FCCU	C	Process Problems
1/16/20 5:00 PM	1/17/20 5:00 PM	24	SO2	Plant 1 H-25	F	Malfunction
3/2/20 11:00 AM	3/2/20 2:00 PM	3	H2S	Plant 3 Flare	D	Other Known Problems
3/17/20 5:30 PM	3/17/20 6:12 PM	0.7	Opacity	Plant 2 FCCU	A	Startup/Shutdown
3/17/20 7:00 PM	3/18/20 5:00 AM	10	H2S	Plant 2 Flare	A	Startup/Shutdown
4/7/20 7:00 PM	4/8/20 7:00 AM	12	CO	Plant 1 FCCU	C	Process Problems
4/8/20 10:00 AM	4/8/20 1:00 PM	3	H2S	Plant 1 Flare	C	Process Problems
4/29/20 9:00 PM	4/30/20 4:00 PM	19	H2S	Plant 1 Flare	A	Startup/Shutdown
4/30/20 8:00 AM	5/1/20 1:00 AM	17	SO2	Plant 1 Flare	A	Startup/Shutdown
5/5/20 7:00 AM	5/5/20 8:00 AM	1	H2S	Plant 1 Flare	C	Process Problems
5/17/20 8:48 AM	5/22/20 11:42 AM	27.9	Opacity	Plant 1 FCCU	A	Startup/Shutdown
5/17/20 9:00 AM	5/17/20 10:00 AM	1.0	SO2	Plant 1 H-25	A	Startup/Shutdown
5/17/20 9:00 AM	5/19/20 12:00 PM	51.0	CO	Plant 1 FCCU	A	Startup/Shutdown
5/17/20 9:00 AM	5/18/20 9:00 AM	24.0	SO2	Plant 3 Flare	A	Startup/Shutdown
5/17/20 10:00 AM	5/19/20 12:00 PM	50.0	SO2	Plant 1 Flare	A	Startup/Shutdown
5/17/20 10:00 AM	5/24/20 10:00 AM	168.0	SO2	Plant 1 H-25	A	Startup/Shutdown
5/17/20 10:00 AM	5/17/20 4:00 PM	6.0	H2S	Plant 3 Flare	A	Startup/Shutdown
5/17/20 12:00 PM	5/19/20 9:00 PM	57	H2S	Plant 1 Flare	A	Startup/Shutdown
5/18/20 10:00 PM	5/19/20 1:00 AM	3	H2S	Plant 1 Fuel Gas H2S Content	A	Startup/Shutdown
5/18/20 12:00 AM	5/26/20 12:00 AM	192	Nox	Plant 1 FCCU	A	Startup/Shutdown

5/20/20 9:00 PM	5/22/20 6:00 AM	33	H2S	Plant 1 Fuel Gas H2S Content	A	Startup/Shutdown
5/20/20 1:00 AM	5/20/20 6:00 PM	17	H2S	Plant 1 Flare	A	Startup/Shutdown
5/21/20 2:00 AM	5/21/20 7:00 AM	5	CO	Plant 1 FCCU	A	Startup/Shutdown
5/21/20 11:00 AM	5/21/20 12:00 PM	1	CO	Plant 1 FCCU	A	Startup/Shutdown
5/21/20 2:00 PM	5/21/20 3:00 PM	1	CO	Plant 1 FCCU	A	Startup/Shutdown
5/22/20 6:00 AM	5/22/20 7:00 AM	1	CO	Plant 1 FCCU	A	Startup/Shutdown
5/22/20 2:00 PM	5/23/20 3:00 AM	13	SO2	Plant 1 Flare	A	Startup/Shutdown
5/22/20 4:00 PM	5/23/20 1:00 AM	9	H2S	Plant 1 Fuel Gas H2S Content	A	Startup/Shutdown
5/22/20 2:00 AM	5/22/20 6:00 AM	4	H2S	Plant 1 Flare	A	Startup/Shutdown
5/22/20 8:00 AM	5/22/20 9:00 AM	1	H2S	Plant 1 Flare	A	Startup/Shutdown
5/22/20 3:00 PM	5/23/20 1:00 AM	10	H2S	Plant 1 Flare	A	Startup/Shutdown
5/28/20 9:00 PM	5/29/20 9:00 AM	12	SO2	Plant 1 H-25	A	Startup/Shutdown
6/7/20 8:00 AM	6/7/20 7:00 PM	11	SO2	Plant 1 H-25	A	Startup/Shutdown
6/8/20 2:00 PM	6/9/20 2:00 AM	12	SO2	Plant 1 H-25	A	Startup/Shutdown
6/11/20 7:00 PM	6/12/20 7:00 AM	12	SO2	Plant 1 H-25	C	Process Problems
6/18/20 7:00 PM	6/21/20 12:00 AM	53	SO2	Plant 1 H-25	A	Startup/Shutdown
8/1/20 11:00 AM	8/1/20 7:00 PM	8	H2S	Plant 2 Fuel Gas H2S Content	A	Startup/Shutdown
8/13/20 1:00 PM	8/13/20 5:00 PM	4	CO	Plant 1 FCCU	D	Other Known Problems
8/13/20 1:00 PM	8/13/20 1:30 PM	0.5	Opacity	Plant 1 FCCU	D	Other Known Problems
8/13/20 3:00 PM	8/13/20 4:00 PM	1	H2S	Plant 1 Fuel Gas H2S Content	D	Other Known Problems
8/13/20 3:06 PM	8/13/20 3:12 PM	0.1	Opacity	Plant 1 FCCU	A	Startup/Shutdown
8/13/20 4:00 PM	8/13/20 5:00 PM	1	H2S	Plant 1 Flare	D	Other Known Problems
8/14/20 3:00 AM	8/14/20 6:00 AM	3	CO	Plant 1 FCCU	A	Startup/Shutdown
8/17/20 1:18 AM	8/17/20 2:24 AM	1.1	Opacity	Plant 2 FCCU	A	Startup/Shutdown

8/25/20 4:00 PM	8/25/20 5:00 PM	1	CO	Plant 2 FCCU	A	Startup/Shutdown
8/26/20 8:00 PM	8/27/20 6:00 AM	10	CO	Plant 2 FCCU	A	Startup/Shutdown
8/27/20 6:00 PM	8/27/20 8:00 PM	2	H2S	Plant 2 Fuel Gas H2S Content	A	Startup/Shutdown
8/28/20 9:00 AM	8/28/20 11:00 AM	2	H2S	Plant 2 Fuel Gas H2S Content	A	Startup/Shutdown
8/29/20 2:00 AM	8/29/20 8:00 PM	18	H2S	Plant 2 Fuel Gas H2S Content	A	Startup/Shutdown
9/25/20 8:00 PM	9/25/20 10:00 PM	2	H2S	Plant 3 Flare	C	Process Problems
10/19/20 5:00 PM	10/19/20 8:00 PM	3	SO2	Plant 1 H-25	A	Startup/Shutdown
10/21/20 4:00 PM	10/21/20 5:00 PM	1	SO2	Plant 1 H-25	A	Startup/Shutdown
10/21/20 4:00 PM	10/21/20 5:00 PM	1	CO	Plant 1 FCCU	A	Startup/Shutdown
10/21/20 5:00 PM	10/22/20 5:00 PM	24	SO2	Plant 1 Flare	D	Other Known Problems
10/21/20 7:00 PM	10/22/20 12:00 PM	17	H2S	Plant 1 Flare	D	Other Known Problems
10/21/20 6:00 PM	10/22/20 2:00 PM	20	SO2	Plant 1 H-25	A	Startup/Shutdown
10/21/20 4:00 PM	11/20/20 3:06 AM	8.8	Opacity	Plant 1 FCCU	A	Startup/Shutdown
10/26/20 5:00 AM	10/26/20 2:00 PM	9	CO	Plant 1 B-6	C	Process Problems
10/26/20 4:00 PM	11/4/20 2:00 AM	202	SO2	Plant 1 H-25	A	Startup/Shutdown
11/1/20 8:00 AM	11/1/20 10:00 AM	2	SO2	Plant 1 H-25	A	Startup/Shutdown
11/1/20 3:00 PM	11/1/20 4:00 PM	1	SO2	Plant 1 H-25	A	Startup/Shutdown
11/1/20 11:00 PM	11/2/20 12:00 AM	1	SO2	Plant 1 H-25	A	Startup/Shutdown
11/3/20 10:00 AM	11/3/20 3:00 PM	5	SO2	Plant 1 H-25	A	Startup/Shutdown
11/4/20 8:36 PM	11/4/20 8:42 PM	0.1	Opacity	Plant 2 FCCU	F	Malfunction
11/5/20 7:00 AM	11/5/20 5:00 PM	10	SO2	Plant 1 H-25	A	Startup/Shutdown
11/5/20 3:36 PM	11/5/20 4:06 PM	0.5	Opacity	Plant 2 FCCU	A	Startup/Shutdown
11/5/20 7:00 PM	11/5/20 8:00 PM	1	CO	Plant 2 FCCU	A	Startup/Shutdown
11/5/20 12:00 AM	11/6/20 11:00 AM	35	H2S	Plant 2 Flare	A	Startup/Shutdown
11/6/20 3:00 PM	11/6/20 9:00 PM	6	H2S	Plant 2 Flare	A	Startup/Shutdown

11/6/20 10:00 AM	11/7/20 6:00 PM	32	CO	Plant 2 FCCU	A	Startup/Shutdown
11/7/20 3:00 PM	11/7/20 5:00 PM	2	H2S	Plant 2 Flare	A	Startup/Shutdown
11/7/20 5:00 AM	11/7/20 12:00 PM	7	H2S	Plant 1 Flare	A	Startup/Shutdown
11/7/20 11:00 PM	11/8/20 4:00 PM	17	CO	Plant 1 FCCU	A	Startup/Shutdown
11/8/20 6:00 PM	11/9/20 12:00 PM	18	CO	Plant 1 FCCU	A	Startup/Shutdown
11/9/20 6:00 PM	11/9/20 7:00 PM	1	CO	Plant 1 FCCU	A	Startup/Shutdown
11/9/20 8:00 PM	11/9/20 10:00 PM	2	H2S	Plant 1 Flare	A	Startup/Shutdown
11/9/20 10:00 PM	11/10/20 6:00 AM	8	CO	Plant 1 FCCU	A	Startup/Shutdown
11/10/20 8:00 AM	11/10/20 9:00 AM	1	H2S	Plant 1 Flare	A	Startup/Shutdown
11/10/20 10:00 AM	11/10/20 1:00 PM	3	SO2	Plant 1 H-25	A	Startup/Shutdown
11/10/20 11:00 AM	11/11/20 12:00 AM	13	SO2	Plant 1 H-25	A	Startup/Shutdown
11/12/20 2:00 AM	11/12/20 3:00 AM	1	CO	Plant 1 FCCU	A	Startup/Shutdown
11/12/20 6:00 AM	11/12/20 12:00 PM	6	CO	Plant 1 FCCU	A	Startup/Shutdown
11/13/20 2:00 AM	11/13/20 3:00 AM	1	H2S	Plant 1 Flare	C	Process Problems
11/20/20 12:00 PM	11/20/20 1:00 PM	1	H2S	Plant 1 Flare	A	Startup/Shutdown
11/19/20 2:00 PM	11/20/20 4:00 AM	14	CO	Plant 1 FCCU	A	Startup/Shutdown
11/21/20 3:00 PM	11/21/20 5:00 PM	2	H2S	Plant 2 Flare	C	Process Problems
11/26/20 10:00 AM	11/26/20 12:00 PM	2	H2S	Plant 2 Fuel Gas H2S Content	C	Process Problems
11/30/20 9:00 AM	11/30/20 8:00 PM	11	CO	Plant 2 FCCU	A	Startup/Shutdown
12/10/20 2:48 PM	12/10/20 2:54 PM	0.1	Opacity	Plant 2 FCCU	C	Process Problems
12/17/20 9:00 PM	12/18/20 5:00 PM	20	H2S	Plant 1 Flare	A	Startup/Shutdown
12/18/20 3:00 AM	12/19/20 5:00 AM	26	SO2	Plant 1 Flare	A	Startup/Shutdown
	Total 2020	**1477**	**Hours**			

2021

Start Date & Time	End Date & Time	Hours	Pollutants	Unit(s)		
6/7/2021 5:00	6/9/2021 7:00	50	CO	Plant 1 B-6	A	Startup/Shutdown
6/10/2021 22:00	6/13/2021 13:00	63	CO	Plant 1 B-6	A	Startup/Shutdown
10/27/2021 18:00	10/27/2021 20:00	2	CO	Plant 1 B-6	C	Process Problems

10/31/2021 13:00	11/3/2021 1:00	60	CO	Plant 1 B-6	C	Process Problems
11/4/2021 11:00	11/5/2021 1:00	14	CO	Plant 1 B-6	C	Process Problems
12/16/2021 6:00	12/18/2021 15:00	57	CO	Plant 1 B-8	C	Process Problems
6/13/2021 11:00	6/14/2021 20:00	33	CO	Plant 1 B-8	A	Startup/Shutdown
6/14/2021 23:00	6/15/2021 10:00	11	CO	Plant 1 B-8	A	Startup/Shutdown
2/14/21 1:00 PM	2/15/21 2:00 AM	13	SO2	Plant 1 H-25	A	Startup/Shutdown
2/15/21 10:00 AM	2/16/21 1:00 PM	27	SO2	Plant 1 H-25	A	Startup/Shutdown
4/20/2021 17:00	4/21/2021 7:00	14	SO2	Plant 1 H-25	A	Startup/Shutdown
4/21/2021 23:00	4/22/2021 11:00	12	SO2	Plant 1 H-25	A	Startup/Shutdown
4/29/2021 15:00	5/1/2021 20:00	53	SO2	Plant 1 H-25	A	Startup/Shutdown
6/12/2021 9:00	6/13/2021 8:00	23	SO2	Plant 1 H-25	A	Startup/Shutdown
6/14/2021 6:00	6/15/2021 9:00	27	SO2	Plant 1 H-25	A	Startup/Shutdown
6/17/2021 15:00	6/17/2021 20:00	5	SO2	Plant 1 H-25	A	Startup/Shutdown
6/16/2021 17:00	6/18/2021 7:00	38	SO2	Plant 1 H-25	A	Startup/Shutdown
6/20/2021 6:00	6/20/2021 7:00	1	SO2	Plant 1 H-25	A	Startup/Shutdown
10/29/2021 4:00	10/29/2021 18:00	14	SO2	Plant 1 H-25	A	Startup/Shutdown
12/7/2021 14:00	12/9/2021 22:00	56	SO2	Plant 1 H-25	A	Startup/Shutdown
2/19/21 7:56 PM	2/19/21 8:01 PM	0.083	Opacity	Plant 1 FCCU	F	Malfunction
4/19/2021 0:00	6/22/2021 0:00	1.6	Opacity	Plant 1 FCCU	A	Startup/Shutdown
10/26/2021 7:00	10/27/2021 3:00	20	CO	Plant 1 FCCU	A	Startup/Shutdown
10/26/2021 7:12	10/26/2021 9:12	2	Opacity	Plant 1 FCCU	A	Startup/Shutdown
4/19/2021 6:00	4/19/2021 7:00	1	CO	Plant 1 FCCU	A	Startup/Shutdown
6/21/2021 23:00	6/22/2021 18:00	19	CO	Plant 1 FCCU	A	Startup/Shutdown
6/30/2021 8:00	7/1/2021 0:00	16	CO	Plant 1 FCCU	A	Startup/Shutdown
1/26/21 8:00 PM	1/26/21 10:00 PM	2	H2S	Plant 1 Flare	D	Other Known Problems
1/26/21 7:00 PM	1/27/21 7:00 PM	24	SO2	Plant 1 Flare	D	Other Known Problems
2/15/21 12:00 AM	2/15/21 2:00 AM	2	H2S	Plant 1 Flare	C	Process Problems
2/20/21 6:00 PM	2/21/21 1:00 AM	7	H2S	Plant 1 Flare	F	Malfunction

2/20/21 5:00 PM	2/21/21 5:00 PM	24	SO2	Plant 1 Flare	F	Malfunction
3/15/21 11:00 PM	3/16/21 10:00 AM	11	H2S	Plant 1 Flare	F	Malfunction
3/30/21 9:00 PM	3/31/21 5:00 PM	20	H2S	Plant 1 Flare	A	Startup/Shutdown
3/31/21 2:00 PM	3/31/21 8:00 PM	6	SO2	Plant 1 Flare	A	Startup/Shutdown
4/18/2021 12:00	4/18/2021 14:00	2	H2S	Plant 1 Flare	A	Startup/Shutdown
4/19/2021 20:00	4/19/2021 22:00	2	H2S	Plant 1 Flare	A	Startup/Shutdown
4/20/2021 9:00	4/20/2021 12:00	3	H2S	Plant 1 Flare	A	Startup/Shutdown
6/17/2021 9:00	6/18/2021 19:00	34	H2S	Plant 1 Flare	A	Startup/Shutdown
6/20/2021 10:00	6/20/2021 15:00	5	H2S	Plant 1 Flare	A	Startup/Shutdown
6/26/2021 11:00	6/26/2021 13:00	2	H2S	Plant 1 Flare	A	Startup/Shutdown
6/27/2021 19:00	6/28/2021 0:00	5	H2S	Plant 1 Flare	A	Startup/Shutdown
10/8/2021 15:00	10/8/2021 21:00	6	H2S	Plant 1 Flare	A	Startup/Shutdown
12/8/2021 17:00	12/9/2021 13:00	20	H2S	Plant 1 Flare	A	Startup/Shutdown
12/8/2021 18:00	12/10/2021 7:00	37	SO2	Plant 1 Flare	A	Startup/Shutdown
12/17/2021 11:00	12/17/2021 13:00	2	H2S	Plant 1 Flare	F	Malfunction
12/17/2021 18:00	12/18/2021 2:00	8	H2S	Plant 1 Flare	F	Malfunction
6/14/2021 13:00	6/14/2021 14:00	1	H2S	Plant 1 Fuel Gas H2S Content	A	Startup/Shutdown
6/17/2021 20:00	6/18/2021 3:00	7	H2S	Plant 1 Fuel Gas H2S Content	A	Startup/Shutdown
6/19/2021 3:00	6/19/2021 18:00	15	H2S	Plant 1 Fuel Gas H2S Content	A	Startup/Shutdown
3/22/21 7:00 AM	3/22/21 7:00 PM	12	CO	Plant 2 FCCU	A	Startup/Shutdown
3/22/21 11:54 AM	3/22/21 12:18 PM	0.4	Opacity	Plant 2 FCCU	A	Startup/Shutdown
3/25/2021 8:00	3/25/2021 19:00	11	CO	Plant 2 FCCU	A	Startup/Shutdown
4/13/2021 7:00	4/13/2021 18:00	11	CO	Plant 2 FCCU	A	Startup/Shutdown
4/30/2021 12:00	4/30/2021 13:00	1	CO	Plant 2 FCCU	B	Control Equipment Problems

4/13/2021 14:00	4/13/2021 14:06	0.1	Opacity	Plant 2 FCCU	A	Startup/Shutdown
11/2/2021 10:24	11/18/2021 15:30	21	Opacity	Plant 2 FCCU	A	Startup/Shutdown
11/2/2021 11:00	11/2/2021 22:00	11	CO	Plant 2 FCCU	A	Startup/Shutdown
11/3/2021 7:00	11/3/2021 10:00	3	CO	Plant 2 FCCU	A	Startup/Shutdown
11/16/2021 22:00	11/17/2021 6:00	8	CO	Plant 2 FCCU	A	Startup/Shutdown
11/17/2021 14:00	11/17/2021 17:00	3	CO	Plant 2 FCCU	A	Startup/Shutdown
11/18/2021 11:00	11/18/2021 16:00	5	CO	Plant 2 FCCU	A	Startup/Shutdown
3/19/21 5:00 AM	3/19/21 6:00 AM	1	H2S	Plant 2 Flare	F	Malfunction
3/19/21 7:00 AM	3/19/21 12:00 PM	5	H2S	Plant 2 Flare	F	Malfunction
4/13/2021 22:00	4/13/2021 23:00	1	H2S	Plant 2 Flare	A	Startup/Shutdown
6/9/2021 8:00	6/9/2021 10:00	2	H2S	Plant 2 Flare	B	Control Equipment Problems
11/2/2021 23:00	11/3/2021 9:00	10	H2S	Plant 2 Flare	A	Startup/Shutdown
11/18/2021 9:00	11/18/2021 12:00	3	H2S	Plant 2 Flare	A	Startup/Shutdown
11/19/2021 7:00	11/19/2021 10:00	3	H2S	Plant 2 Fuel Gas H2S Content	A	Startup/Shutdown
11/19/2021 6:00	11/19/2021 15:00	9	H2S	Plant 2 Flare	A	Startup/Shutdown
5/19/2021 9:00	5/19/2021 11:00	2	SO2	Plant 2 SRU	C	Process Problems
7/8/2021	7/8/2021 16:00	10:00	hydrogen sulfide, H2S	Plant 1 Fuel Gas		
7/29/2021 8:00	7/29/2021 12:00	4:00	Monitor/ Analyzer Downtime	Plant 1 Fuel Gas		
7/1/2021 7:00	7/1/2021 9:00	2:00	hydrogen sulfide, H2S	Plant 1 Flare (F1)		
7/8/2021 7:00	7/8/2021 18:00	11:00	hydrogen sulfide, H2S	Plant 1 Flare (F1)		
7/27/2021 9:00	7/27/2021 14:00	5:00	hydrogen sulfide, H2S	Plant 1 Flare (F1)		
8/23/2021 15:00	8/23/2021 21:00	6:00	hydrogen sulfide, H2S	Plant 1 Flare (F1)		

7/8/2021 7:00	7/9/2021 7:00	24:00	sulfur dioxide, SO2	Plant 1 Flare (F1)		
7/9/2021 7:00	7/9/2021 15:00	8:00	sulfur dioxide, SO2	Plant 1 Flare (F1)		
8/23/2021 17:00	8/24/2021 14:00	21:00	sulfur dioxide, SO2	Plant 1 Flare (F1)		
9/21/2021 9:00	9/21/2021 10:00	1:00	Monitor/ Analyzer Downtime	Plant 1 Flare (F1)		
9/21/2021 9:00	9/21/2021 10:00	1:00	Monitor/ Analyzer Downtime	Plant 1 Flare (F1)		
7/1/2021 20:00	7/1/2021 23:00	3:00	sulfur dioxide, SO2	Plant 1 TGU Incinerator (H-25)		
7/8/2021 4:00	7/8/2021 5:00	1:00	sulfur dioxide, SO2	Plant 1 TGU Incinerator (H-25)		
7/8/2021 9:00	7/8/2021 10:00	1:00	sulfur dioxide, SO2	Plant 1 TGU Incinerator (H-25)		
7/15/2021 22:00	7/16/2021 10:00	12:00	sulfur dioxide, SO2	Plant 1 TGU Incinerator (H-25)		
7/16/2021 13:00	7/16/2021 15:00	2:00	sulfur dioxide, SO2	Plant 1 TGU Incinerator (H-25)		
7/16/2021 23:00	7/17/2021 5:00	6:00	sulfur dioxide, SO2	Plant 1 TGU Incinerator (H-25)		
7/20/2021 9:00	7/20/2021 10:00	1:00	sulfur dioxide, SO2	Plant 1 TGU Incinerator (H-25)		

8/23/2021 3:00	8/23/2021 4:00	1:00	sulfur dioxide, SO2	Plant 1 TGU Incinerator (H-25)		
9/25/2021 20:00	9/25/2021 21:00	1:00	sulfur dioxide, SO2	Plant 1 TGU Incinerator (H-25)		
7/1/2021 20:00	7/2/2021 10:00	14:00	sulfur dioxide, SO2	Plant 1 TGU Incinerator (H-25)		
7/8/2021 4:00	7/9/2021 4:00	24:00	sulfur dioxide, SO2	Plant 1 TGU Incinerator (H-25)		
7/9/2021 4:00	7/9/2021 12:00	8:00	sulfur dioxide, SO2	Plant 1 TGU Incinerator (H-25)		
7/9/2021 13:00	7/10/2021 2:00	13:00	sulfur dioxide, SO2	Plant 1 TGU Incinerator (H-25)		
7/14/2021 12:00	7/15/2021 2:00	14:00	sulfur dioxide, SO2	Plant 1 TGU Incinerator (H-25)		
7/15/2021 12:00	7/16/2021 12:00	24:00	sulfur dioxide, SO2	Plant 1 TGU Incinerator (H-25)		
7/16/2021 12:00	7/17/2021 12:00	24:00	sulfur dioxide, SO2	Plant 1 TGU Incinerator (H-25)		
7/17/2021 12:00	7/17/2021 15:00	3:00	sulfur dioxide, SO2	Plant 1 TGU Incinerator (H-25)		

9/25/2021 20:00	9/26/2021 8:00	12:00	sulfur dioxide, SO2	Plant 1 TGU Incinerator (H-25)		
9/25/2021 22:00	9/26/2021 0:00	2:00	sulfur dioxide, SO2	Plant 1 TGU Incinerator (H-25)		
7/3/2021 7:00	7/4/2021 7:00	24:00	Monitor/ Analyzer Downtime	Plant 1 TGU Incinerator (H-25)		
7/3/2021 7:00	7/4/2021 7:00	24:00	Monitor/ Analyzer Downtime	Plant 1 TGU Incinerator (H-25)		
7/4/2021 7:00	7/4/2021 10:00	3:00	Monitor/ Analyzer Downtime	Plant 1 TGU Incinerator (H-25)		
7/4/2021 7:00	7/4/2021 10:00	3:00	Monitor/ Analyzer Downtime	Plant 1 TGU Incinerator (H-25)		
7/5/2021 11:00	7/5/2021 12:00	1:00	Monitor/ Analyzer Downtime	Plant 1 TGU Incinerator (H-25)		
7/5/2021 11:00	7/5/2021 12:00	1:00	Monitor/ Analyzer Downtime	Plant 1 TGU Incinerator (H-25)		
7/10/2021 7:00	7/11/2021 7:00	24:00	Monitor/ Analyzer Downtime	Plant 1 TGU Incinerator (H-25)		
7/10/2021 7:00	7/11/2021 7:00	24:00	Monitor/ Analyzer Downtime	Plant 1 TGU Incinerator (H-25)		

7/11/2021 7:00	7/11/2021 9:00	2:00	Monitor/ Analyzer Downtime	Plant 1 TGU Incinerator (H-25)		
7/11/2021 7:00	7/11/2021 9:00	2:00	Monitor/ Analyzer Downtime	Plant 1 TGU Incinerator (H-25)		
7/12/2021 8:00	7/12/2021 9:00	1:00	Monitor/ Analyzer Downtime	Plant 1 TGU Incinerator (H-25)		
7/12/2021 8:00	7/12/2021 9:00	1:00	Monitor/ Analyzer Downtime	Plant 1 TGU Incinerator (H-25)		
7/14/2021 7:00	7/14/2021 8:00	1:00	Monitor/ Analyzer Downtime	Plant 1 TGU Incinerator (H-25)		
8/3/2021 9:00	8/3/2021 11:00	2:00	Monitor/ Analyzer Downtime	Plant 1 TGU Incinerator (H-25)		
8/3/2021 9:00	8/3/2021 11:00	2:00	Monitor/ Analyzer Downtime	Plant 1 TGU Incinerator (H-25)		
8/26/2021 4:00	8/26/2021 9:00	5:00	Monitor/ Analyzer Downtime	Plant 1 TGU Incinerator (H-25)		
8/31/2021 10:00	8/31/2021 11:00	1:00	Monitor/ Analyzer Downtime	Plant 1 TGU Incinerator (H-25)		
8/31/2021 10:00	8/31/2021 11:00	1:00	Monitor/ Analyzer Downtime	Plant 1 TGU Incinerator (H-25)		
7/1/2021 0:00	7/1/2021 14:00	14:00	carbon monoxide, CO	Plant 1 FCCU (P103)		

7/1/2021 16:00	7/2/2021 2:00	10:00	carbon monoxide, CO	Plant 1 FCCU (P103)		
7/2/2021 13:00	7/2/2021 14:00	1:00	carbon monoxide, CO	Plant 1 FCCU (P103)		
7/2/2021 17:00	7/2/2021 18:00	1:00	carbon monoxide, CO	Plant 1 FCCU (P103)		
7/3/2021 4:00	7/3/2021 10:00	6:00	carbon monoxide, CO	Plant 1 FCCU (P103)		
7/3/2021 15:00	7/3/2021 18:00	3:00	carbon monoxide, CO	Plant 1 FCCU (P103)		
7/4/2021 0:00	7/4/2021 8:00	8:00	carbon monoxide, CO	Plant 1 FCCU (P103)		
7/12/2021 12:00	7/13/2021 12:00	24:00	carbon monoxide, CO	Plant 1 FCCU (P103)		
7/17/2021 15:00:00 PM	7/17/2021 16:00:00	1:00	carbon monoxide, CO	Plant 2 SRU		
9/7/2021 10:00	9/7/2021 11:00	1:00	Monitor/ Analyzer Downtime	Plant 1 FCCU (P103)		
9/7/2021 10:00	9/7/2021 11:00	1:00	Monitor/ Analyzer Downtime	Plant 1 FCCU (P103)		
7/1/2021 7:24	7/1/2021 7:30	0:06	opacity	Plant 1 FCCU (P103)		
7/2/2021 3:54	7/2/2021 4:00	0:06	opacity	Plant 1 FCCU (P103)		
7/3/2021 0:00	7/3/2021 0:06	0:06	opacity	Plant 1 FCCU (P103)		
7/12/2021 11:30	7/12/2021 11:48	0:18	opacity	Plant 1 FCCU (P103)		
7/13/2021 10:00	7/13/2021 10:30	0:30	opacity	Plant 1 FCCU (P103)		
7/1/2021 9:16	7/1/2021 9:19	0:03	opacity	Plant 1 FCCU (P103)		
7/7/2021 7:26	7/7/2021 10:02	2:36	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		

7/14/2021 6:34	7/14/2021 9:01	2:27	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
7/30/2021 14:00	7/30/2021 14:02	0:02	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
9/21/2021 16:57	9/21/2021 16:58	0:01	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
9/19/2021 10:22	9/19/2021 10:23	0:01	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
9/28/2001 12:51	9/28/2001 14:52	2:01	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
8/24/2021 13:00	8/25/2021 11:00	22:00	Monitor/ Analyzer Downtime	Plant 1 B-6		
8/9/2021 13:00	8/9/2021 16:00	3:00	Monitor/ Analyzer Downtime	Plant 1 B-8		
8/9/2021 13:00	8/9/2021 16:00	3:00	Monitor/ Analyzer Downtime	Plant 1 B-8		
7/12/2021 11:30	7/12/2021 11:48	0:18	opacity	Plant 1 FCCU (P103)		
7/7/2021 7:26	7/7/2021 10:02	2:36	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
7/14/2021 6:34	7/14/2021 9:01	2:27	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
7/30/2021 14:00	7/30/2021 14:02	0:02	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
9/21/2021 16:57	9/21/2021 16:58	0:01	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
9/19/2021 10:22	9/19/2021 10:23	0:01	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
9/28/2001 12:51	9/28/2001 14:52	2:01	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
8/24/2021 13:00	8/25/2021 11:00	22:00	Monitor/ Analyzer Downtime	Plant 1 B-6		
	7/12/2021 11:48	0:18	opacity	Plant 1 FCCU (P103)		

7/7/2021 7:26	7/7/2021 10:02	2:36	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
7/14/2021 6:34	7/14/2021 9:01	2:27	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
7/30/2021 14:00	7/30/2021 14:02	0:02	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
9/21/2021 16:57	9/21/2021 16:58	0:01	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
9/19/2021 10:22	9/19/2021 10:23	0:01	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
9/28/2001 12:51	9/28/2001 14:52	2:01	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
8/24/2021 13:00	8/25/2021 11:00	22:00	Monitor/ Analyzer Downtime	Plant 1 B-6		
8/9/2021 13:00	8/9/2021 16:00	3:00	Monitor/ Analyzer Downtime	Plant 1 B-8		
8/9/2021 13:00	8/9/2021 16:00	3:00	Monitor/ Analyzer Downtime	Plant 1 B-8		
8/9/2021 13:00	8/9/2021 16:00	3:00	Monitor/ Analyzer Downtime	Plant 1 B-8		
8/9/2021 13:00	8/9/2021 16:00	3:00	Monitor/ Analyzer Downtime	Plant 1 B-8		
7/14/2021 13:00	7/14/2021 14:00	1:00	Monitor/ Analyzer Downtime	Plant 1 H-2410		
7/14/2021 13:00	7/14/2021 14:00	1:00	Monitor/ Analyzer Downtime	Plant 1 H-2410		
7/31/2021 22:00	8/1/2021 8:00	10:00	Monitor/ Analyzer Downtime	Plant 1 H-1716		
7/31/2021 22:00	8/1/2021 8:00	10:00	Monitor/ Analyzer Downtime	Plant 1 H-1716		
8/27/2021 11:00	8/27/2021 13:00	2:00	Monitor/ Analyzer Downtime	Plant 1 H-1716		
9/10/2021 5:00	9/10/2021 17:00	12:00	Monitor/ Analyzer Downtime	Plant 1 H-1716		
8/17/2021 11:00	8/18/2021 11:00	24:00	hydrogen sulfide, H2S	Plant 2 Fuel Gas		
8/17/2021 11:00	8/17/2021 20:00	9:00	hydrogen sulfide, H2S	Plant 2 Flare		

8/18/2021 13:00	8/18/2021 21:00	8:00	hydrogen sulfide, H2S	Plant 2 Flare		
9/10/2021 21:00	9/11/2021 3:00	6:00	hydrogen sulfide, H2S	Plant 2 Flare		
9/15/2021 6:00	9/15/2021 11:00	5:00	hydrogen sulfide, H2S	Plant 2 Flare		
9/15/2021 19:00	9/15/2021 22:00	3:00	hydrogen sulfide, H2S	Plant 2 Flare		
9/18/2021 21:00	9/19/2021 0:00	3:00	hydrogen sulfide, H2S	Plant 2 Flare		
7/16/2021 15:00	7/16/2021 19:00	4:00	Monitor/ Analyzer Downtime	Plant 2 Flare		
7/17/2021 1:00	7/17/2021 5:00	4:00	Monitor/ Analyzer Downtime	Plant 2 Flare		
7/22/2021 22:00	7/23/2021 3:00	5:00	Monitor/ Analyzer Downtime	Plant 2 Flare		
7/25/2021 11:00	7/25/2021 14:00	3:00	Monitor/ Analyzer Downtime	Plant 2 Flare		
8/23/2021 14:00	8/23/2021 16:00	2:00	Monitor/ Analyzer Downtime	Plant 2 Flare		
8/23/2021 14:00	8/23/2021 16:00	2:00	Monitor/ Analyzer Downtime	Plant 2 Flare		
8/30/2021 13:00	8/30/2021 15:00	2:00	Monitor/ Analyzer Downtime	Plant 3 Flare		
7/12/2021 11:00	7/12/2021 12:00	1:00	Monitor/ Analyzer Downtime	Plant 2 SRU		
7/17/2021 15:00	7/17/2021 16:00	1:00	Monitor/ Analyzer Downtime	Plant 2 SRU		
8/26/2021 22:00	8/26/2021 23:00	1:00	carbon monoxide, CO	Plant 2 FCCU		
8/27/2021 4:00	8/27/2021 6:00	2:00	carbon monoxide, CO	Plant 2 FCCU		
8/28/2021 19:00	8/28/2021 22:00	3:00	carbon monoxide, CO	Plant 2 FCCU		
8/29/2021 2:00	8/29/2021 8:00	6:00	carbon monoxide, CO	Plant 2 FCCU		
9/10/2021 10:00	9/10/2021 20:00	10:00	carbon monoxide, CO	Plant 2 FCCU		
8/26/2021 14:00	8/26/2021 16:00	2:00	Monitor/ Analyzer Downtime	Plant 2 FCCU		
9/8/2021 22:00	9/9/2021 0:00	2:00	Monitor/ Analyzer Downtime	Plant 2 FCCU		

8/18/2021 17:54	8/18/2021 18:00	0:06	opacity	Plant 2 FCCU		
8/26/2021 14:00	8/26/2021 14:30	0:30	opacity	Plant 2 FCCU		
8/27/2021 1:18	8/27/2021 1:54	0:36	opacity	Plant 2 FCCU		
8/28/2021 8:36	8/28/2021 9:06	0:30	opacity	Plant 2 FCCU		
9/5/2021 8:06	9/5/2021 8:18	0:12	opacity	Plant 2 FCCU		
9/10/2021 0:06	9/10/2021 0:12	0:06	opacity	Plant 2 FCCU		
8/25/2021 8:15	8/25/2021 10:09	1:54	Monitor Downtime (opacity)	Plant 2 FCCU		
9/21/2021 16:57	9/21/2021 16:58	0:01	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
9/19/2021 10:22	9/19/2021 10:23	0:01	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
9/28/2001 12:51	9/28/2001 14:52	2:01	Monitor Downtime (opacity)	Plant 1 FCCU (P103)		
8/24/2021 13:00	8/25/2021 11:00	22:00	Monitor/ Analyzer Downtime	Plant 1 B-6		
8/9/2021 13:00	8/9/2021 16:00	3:00	Monitor/ Analyzer Downtime	Plant 1 B-8		
7/12/2021 11:00	7/12/2021 12:00	1:00	Monitor/ Analyzer Downtime	Plant 2 SRU		

2022

Start Date & Time	End Date & Time	Hours	Pollutants	Unit(s)	Code	Cause
2/24/2022 7:00	2/24/2022 11:00	4	H2S	Plant 1 Flare	A	Startup/Shutdown
2/25/2022 10:00	2/26/2022 4:00	18	H2S	Plant 1 Flare	F	Malfunction
2/26/2022 5:00	2/26/2022 22:00	17	H2S	Plant 1 Flare	F	Malfunction
2/27/2022 12:00	2/27/2022 15:00	3	H2S	Plant 1 Flare	F	Malfunction
2/28/2022 10:00	2/28/2022 13:00	3	H2S	Plant 1 Flare	A	Startup/Shutdown
3/12/2022 1:00	3/12/2022 4:00	3	H2S	Plant 1 Flare	A	Startup/Shutdown
3/17/2022 13:00	3/19/2022 21:00	56	H2S	Plant 1 Flare	F	Malfunction
3/22/2022 8:00	3/23/2022 16:00	32	H2S	Plant 1 Flare	A	Startup/Shutdown
3/24/2022 1:00	3/24/2022 20:00	19	H2S	Plant 1 Flare	A	Startup/Shutdown

2/25/2022 15:00	2/26/2022 22:00	31	SO2	Plant 1 Flare	F	Malfunction
3/19/2022 10:00	3/20/2022 11:00	25	SO2	Plant 1 Flare	F	Malfunction
3/23/2022 6:00	3/24/2022 2:00	20	SO2	Plant 1 Flare	A	Startup/Shutdown
2/24/2022 11:00	2/26/2022 15:00	52	SO2	Plant 1 H-25	A	Startup/Shutdown
3/17/2022 1:00	3/17/2022 14:00	13	SO2	Plant 1 H-25	F	Malfunction
3/19/2022 0:00	3/20/2022 1:00	25	SO2	Plant 1 H-25	A	Startup/Shutdown
3/21/2022 23:00	3/22/2022 4:00	5	SO2	Plant 1 H-25	A	Startup/Shutdown
3/22/2022 10:00	3/23/2022 4:00	18	SO2	Plant 1 H-25	A	Startup/Shutdown
3/23/2022 13:00	3/24/2022 2:00	13	SO2	Plant 1 H-25	A	Startup/Shutdown
3/17/2022 12:00	3/17/2022 18:00	6	CO	Plant 1 FCCU	F	Malfunction
3/19/2022 23:00	3/20/2022 0:00	1	CO	Plant 1 FCCU	A	Startup/Shutdown
3/20/2022 5:00	3/20/2022 7:00	2	CO	Plant 1 FCCU	A	Startup/Shutdown
3/21/2022 6:00	3/21/2022 9:00	3	CO	Plant 1 FCCU	A	Startup/Shutdown
3/21/2022 10:00	3/21/2022 21:00	11	CO	Plant 1 FCCU	A	Startup/Shutdown
3/17/2022 12:24	3/17/2022 12:30	0.1	Opacity	Plant 1 FCCU	F	Malfunction
3/19/2022 12:36	3/19/2022 12:42	0.1	Opacity	Plant 1 FCCU	A	Startup/Shutdown
3/20/2022 10:54	3/20/2022 11:00	0.1	Opacity	Plant 1 FCCU	A	Startup/Shutdown
3/29/2022 0:00	3/29/2022 15:00	15	CO	Plant 1 B-6	F	Malfunction
1/31/2022 12:00	2/1/2022 0:00	12	CO	B-8	C	Process Problems
3/18/2022 0:00	3/22/2022 16:00	112	CO	B-8	F	Malfunction
3/23/2022 20:00	3/25/2022 3:00	31	CO	B-8	F	Malfunction
3/28/2022 21:00	3/29/2022 17:00	20	CO	B-8	F	Malfunction
1/26/2022 3:00	1/26/2022 5:00	2	H2S	Plant 2 Fuel Gas H2S Content	F	Malfunction
2/3/2022 2:00	2/3/2022 9:00	7	H2S	Plant 2 Fuel Gas H2S Content	F	Malfunction
1/25/2022 22:00	1/26/2022 0:00	2	H2S	Plant 2 Flare	F	Malfunction
1/28/2022 17:00	1/29/2022 0:00	7	H2S	Plant 2 Flare	A	Startup/Shutdown
3/2/2022 5:00	3/2/2022 8:00	3	H2S	Plant 2 Flare	D	Other Known Problems
2/25/2022 11:00	2/25/2022 12:00	1	H2S	Plant 3 Flare	F	Malfunction

2/25/2021 15:00	2/25/2021 20:00	5	H2S	Plant 3 Flare	F	Malfunction
2/25/2022 19:00	2/26/2022 8:00	13	SO2	Plant 3 Flare	F	Malfunction
1/27/2022 1:00	1/27/2022 15:00	14	CO	Plant 2 FCCU	A	Startup/Shutdown
1/28/2022 9:00	1/28/2022 18:00	9	CO	Plant 2 FCCU	A	Startup/Shutdown
2/14/2022 12:00	2/14/2022 18:00	6	CO	Plant 2 FCCU	A	Startup/Shutdown
2/14/2022 22:00	2/15/2022 1:00	3	CO	Plant 2 FCCU	A	Startup/Shutdown
2/9/2022 6:54	2/9/2022 7:30	0.6	Opacity	Plant 2 FCCU	F	Malfunction
2/13/2022 19:42	2/13/2022 19:54	0.2	Opacity	Plant 2 FCCU	A	Startup/Shutdown
2/13/2022 20:00	2/13/2022 20:42	0.7	Opacity	Plant 2 FCCU	A	Startup/Shutdown
2/14/2022 0:00	2/14/2022 0:06	0.1	Opacity	Plant 2 FCCU	A	Startup/Shutdown
	Total: 1st Quarter 2022	**643.90**				
04/02/2022				Air Operating Unit: Plant 2 Fluidized Catalytic Cracking Unit (FCC)		
04/02/2022				Air Operating Unit: Plant 2 Fluidized Catalytic Cracking Unit (FCC)		
04/02/2022				Air Operating Unit: Plant 2 Fluidized Catalytic Cracking Unit (FCC)		
3/29/2022				Air Operating Plant 2 Flare Pilots Out		
3/19/22 - 3/29						
3/19/22 - 3/29				Plant 1 -Boiler 8		
3/19/22 - 3/29				Plant 1		
3/19/22 - 3/29				Boiler 6		
3/19/22 - 3/29				Plant 1		
3/19/22 - 3/29				Plant 1		
3/19/22 - 3/29				Flare		
3/19/22 - 3/29				Plant 1 - Flare		
3/19/22 - 3/29				Plant 1 Operating units		
3/17/2022				Plant 1 - Flare		
3/17/2022				Electrical Substation Arc Flash and Power Failure - Multiple Units		

3/12/2022				No. 4 Hydrodesulfurizatio n (#4 HDS) Unit		
3/2/2022				Plant 2 Unsaturated Gas Unit		

Attachment A: Suncor Emission Exceedance Report Data

Start Date & Time	End Date & Time	Hours	Pollutants	Unit(s)	Code	Cause
1/3/2020 20:00	3/17/2020 18:24	4	Opacity	Plant 2 FCCU	A	Startup/Shutdown
1/4/2020 9:00	1/7/2020 19:00	18	CO	Plant 2 FCCU	A	Startup/Shutdown
1/9/2020 11:00	1/9/2020 12:00	1	CO	Plant 1 FCCU	C	Process Problems
1/16/2020 17:00	1/17/2020 17:00	24	SO2	Plant 1 H-25	F	Malfunction
3/2/2020 11:00	3/2/2020 14:00	3	H2S	Plant 3 Flare	D	Other Known Problems
3/17/2020 17:30	3/17/2020 18:12	0.7	Opacity	Plant 2 FCCU	A	Startup/Shutdown
3/17/2020 19:00	3/18/2020 5:00	10	H2S	Plant 2 Flare	A	Startup/Shutdown
4/7/2020 19:00	4/8/2020 7:00	12	CO	Plant 1 FCCU	C	Process Problems
4/8/2020 10:00	4/8/2020 13:00	3	H2S	Plant 1 Flare	C	Process Problems
4/29/2020 21:00	4/30/2020 16:00	19	H2S	Plant 1 Flare	A	Startup/Shutdown
4/30/2020 8:00	5/1/2020 1:00	17	SO2	Plant 1 Flare	A	Startup/Shutdown
5/5/2020 7:00	5/5/2020 8:00	1	H2S	Plant 1 Flare	C	Process Problems
5/17/2020 8:48	5/22/2020 11:42	27.9	Opacity	Plant 1 FCCU	A	Startup/Shutdown
5/17/2020 9:00	5/19/2020 12:00	51	CO	Plant 1 FCCU	A	Startup/Shutdown
5/17/2020 9:00	5/17/2020 10:00	1	SO2	Plant 1 H-25	A	Startup/Shutdown
5/17/2020 9:00	5/18/2020 9:00	24	SO2	Plant 3 Flare	A	Startup/Shutdown
5/17/2020 10:00	5/19/2020 12:00	50	SO2	Plant 1 Flare	A	Startup/Shutdown
5/17/2020 10:00	5/24/2020 10:00	168	SO2	Plant 1 H-25	A	Startup/Shutdown
5/17/2020 10:00	5/17/2020 16:00	6	H2S	Plant 3 Flare	A	Startup/Shutdown
5/17/2020 12:00	5/19/2020 21:00	57	H2S	Plant 1 Flare	A	Startup/Shutdown
5/18/2020 0:00	5/26/2020 0:00	192	Nox	Plant 1 FCCU	A	Startup/Shutdown
5/18/2020 22:00	5/19/2020 1:00	3	H2S	Plant 1 Fuel Gas	A	Startup/Shutdown
5/20/2020 1:00	5/20/2020 18:00	17	H2S	Plant 1 Flare	A	Startup/Shutdown
5/20/2020 21:00	5/22/2020 6:00	33	H2S	Plant 1 Fuel Gas	A	Startup/Shutdown
5/21/2020 2:00	5/21/2020 7:00	5	CO	Plant 1 FCCU	A	Startup/Shutdown
5/21/2020 11:00	5/21/2020 12:00	1	CO	Plant 1 FCCU	A	Startup/Shutdown
5/21/2020 14:00	5/21/2020 15:00	1	CO	Plant 1 FCCU	A	Startup/Shutdown
5/22/2020 2:00	5/22/2020 6:00	4	H2S	Plant 1 Flare	A	Startup/Shutdown

5/22/2020 6:00	5/22/2020 7:00	1	CO	Plant 1 FCCU	A	Startup/Shutdown
5/22/2020 8:00	5/22/2020 9:00	1	H2S	Plant 1 Flare	A	Startup/Shutdown
5/22/2020 14:00	5/23/2020 3:00	13	SO2	Plant 1 Flare	A	Startup/Shutdown
5/22/2020 15:00	5/23/2020 1:00	10	H2S	Plant 1 Flare	A	Startup/Shutdown
5/22/2020 16:00	5/23/2020 1:00	9	H2S	Plant 1 Fuel Ga:	A	Startup/Shutdown
5/28/2020 21:00	5/29/2020 9:00	12	SO2	Plant 1 H-25	A	Startup/Shutdown
6/7/2020 8:00	6/7/2020 19:00	11	SO2	Plant 1 H-25	A	Startup/Shutdown
6/8/2020 14:00	6/9/2020 2:00	12	SO2	Plant 1 H-25	A	Startup/Shutdown
6/11/2020 19:00	6/12/2020 7:00	12	SO2	Plant 1 H-25	C	Process Problems
6/18/2020 19:00	6/21/2020 0:00	53	SO2	Plant 1 H-25	A	Startup/Shutdown
8/1/2020 11:00	8/1/2020 19:00	8	H2S	Plant 2 Fuel Ga:	A	Startup/Shutdown
8/13/2020 13:00	8/13/2020 17:00	4	CO	Plant 1 FCCU	D	Other Known Problems
8/13/2020 13:00	8/13/2020 13:30	0.5	Opacity	Plant 1 FCCU	D	Other Known Problems
8/13/2020 15:00	8/13/2020 16:00	1	H2S	Plant 1 Fuel Ga:	D	Other Known Problems
8/13/2020 15:06	8/13/2020 15:12	0.1	Opacity	Plant 1 FCCU	A	Startup/Shutdown
8/13/2020 16:00	8/13/2020 17:00	1	H2S	Plant 1 Flare	D	Other Known Problems
8/14/2020 3:00	8/14/2020 6:00	3	CO	Plant 1 FCCU	A	Startup/Shutdown
8/17/2020 1:18	8/17/2020 2:24	1.1	Opacity	Plant 2 FCCU	A	Startup/Shutdown
8/25/2020 16:00	8/25/2020 17:00	1	CO	Plant 2 FCCU	A	Startup/Shutdown
8/26/2020 15:54	8/26/2020 23:54	0.8	Opacity	Plant 2 FCCU	A	Startup/Shutdown
8/26/2020 20:00	8/27/2020 6:00	10	CO	Plant 2 FCCU	A	Startup/Shutdown
8/27/2020 18:00	8/27/2020 20:00	2	H2S	Plant 2 Fuel Ga:	A	Startup/Shutdown
8/28/2020 9:00	8/28/2020 11:00	2	H2S	Plant 2 Fuel Ga:	A	Startup/Shutdown
8/29/2020 2:00	8/29/2020 20:00	18	H2S	Plant 2 Fuel Ga:	A	Startup/Shutdown
9/25/2020 20:00	9/25/2020 22:00	2	H2S	Plant 3 Flare	C	Process Problems
10/19/2020 17:00	10/19/2020 20:00	3	SO2	Plant 1 H-25	A	Startup/Shutdown
10/21/2020 16:00	10/21/2020 17:00	1	CO	Plant 1 FCCU	A	Startup/Shutdown
10/21/2020 16:00	11/20/2020 3:06	8.8	Opacity	Plant 1 FCCU	A	Startup/Shutdown
10/21/2020 16:00	10/21/2020 17:00	1	SO2	Plant 1 H-25	A	Startup/Shutdown
10/21/2020 17:00	10/22/2020 17:00	24	SO2	Plant 1 Flare	D	Other Known Problems
10/21/2020 18:00	10/22/2020 14:00	20	SO2	Plant 1 H-25	A	Startup/Shutdown

10/21/2020 19:00	10/22/2020 12:00	17	H2S	Plant 1 Flare	D	Other Known Problems
10/26/2020 5:00	10/26/2020 14:00	9	CO	Plant 1 B-6	C	Process Problems
10/26/2020 16:00	11/4/2020 2:00	202	SO2	Plant 1 H-25	A	Startup/Shutdown
11/1/2020 8:00	11/1/2020 10:00	2	SO2	Plant 1 H-25	A	Startup/Shutdown
11/1/2020 15:00	11/1/2020 16:00	1	SO2	Plant 1 H-25	A	Startup/Shutdown
11/1/2020 23:00	11/2/2020 0:00	1	SO2	Plant 1 H-25	A	Startup/Shutdown
11/3/2020 10:00	11/3/2020 15:00	5	SO2	Plant 1 H-25	A	Startup/Shutdown
11/4/2020 20:36	11/4/2020 20:42	0.1	Opacity	Plant 2 FCCU	F	Malfunction
11/5/2020 0:00	11/6/2020 11:00	35	H2S	Plant 2 Flare	A	Startup/Shutdown
11/5/2020 7:00	11/5/2020 17:00	10	SO2	Plant 1 H-25	A	Startup/Shutdown
11/5/2020 15:36	11/5/2020 16:06	0.5	Opacity	Plant 2 FCCU	A	Startup/Shutdown
11/5/2020 19:00	11/5/2020 20:00	1	CO	Plant 2 FCCU	A	Startup/Shutdown
11/6/2020 10:00	11/7/2020 18:00	32	CO	Plant 2 FCCU	A	Startup/Shutdown
11/6/2020 15:00	11/6/2020 21:00	6	H2S	Plant 2 Flare	A	Startup/Shutdown
11/7/2020 5:00	11/7/2020 12:00	7	H2S	Plant 1 Flare	A	Startup/Shutdown
11/7/2020 15:00	11/7/2020 17:00	2	H2S	Plant 2 Flare	A	Startup/Shutdown
11/7/2020 23:00	11/8/2020 16:00	17	CO	Plant 1 FCCU	A	Startup/Shutdown
11/8/2020 18:00	11/9/2020 12:00	18	CO	Plant 1 FCCU	A	Startup/Shutdown
11/9/2020 18:00	11/9/2020 19:00	1	CO	Plant 1 FCCU	A	Startup/Shutdown
11/9/2020 20:00	11/9/2020 22:00	2	H2S	Plant 1 Flare	A	Startup/Shutdown
11/9/2020 22:00	11/10/2020 6:00	8	CO	Plant 1 FCCU	A	Startup/Shutdown
11/10/2020 8:00	11/10/2020 9:00	1	H2S	Plant 1 Flare	A	Startup/Shutdown
11/10/2020 10:00	11/10/2020 13:00	3	SO2	Plant 1 H-25	A	Startup/Shutdown
11/10/2020 11:00	11/11/2020 0:00	13	SO2	Plant 1 H-25	A	Startup/Shutdown
11/12/2020 2:00	11/12/2020 3:00	1	CO	Plant 1 FCCU	A	Startup/Shutdown
11/12/2020 6:00	11/12/2020 12:00	6	CO	Plant 1 FCCU	A	Startup/Shutdown
11/13/2020 2:00	11/13/2020 3:00	1	H2S	Plant 1 Flare	C	Process Problems
11/19/2020 14:00	11/20/2020 4:00	14	CO	Plant 1 FCCU	A	Startup/Shutdown
11/20/2020 12:00	11/20/2020 13:00	1	H2S	Plant 1 Flare	A	Startup/Shutdown
11/21/2020 15:00	11/21/2020 17:00	2	H2S	Plant 2 Flare	C	Process Problems
11/26/2020 10:00	11/26/2020 12:00	2	H2S	Plant 2 Fuel Ga	C	Process Problems
11/30/2020 9:00	11/30/2020 20:00	11	CO	Plant 2 FCCU	A	Startup/Shutdown
12/10/2020 14:48	12/10/2020 14:54	0.1	Opacity	Plant 2 FCCU	C	Process Problems

12/17/2020 21:00	12/18/2020 17:00	20	H2S	Plant 1 Flare	A	Startup/Shutdown
12/18/2020 3:00	12/19/2020 5:00	26	SO2	Plant 1 Flare	A	Startup/Shutdown
1/26/2021 19:00	1/27/2021 19:00	24	SO2	Plant 1 Flare	D	Other Known Problems
1/26/2021 20:00	1/26/2021 22:00	2	H2S	Plant 1 Flare	D	Other Known Problems
2/14/2021 13:00	2/15/2021 2:00	13	SO2	Plant 1 H-25	A	Startup/Shutdown
2/15/2021 0:00	2/15/2021 2:00	2	H2S	Plant 1 Flare	C	Process Problems
2/15/2021 10:00	2/16/2021 13:00	27	SO2	Plant 1 H-25	A	Startup/Shutdown
2/19/2021 19:56	2/19/2021 20:01	0.08333	Opacity	Plant 1 FCCU	F	Malfunction
2/20/2021 17:00	2/21/2021 17:00	24	SO2	Plant 1 Flare	F	Malfunction
2/20/2021 18:00	2/21/2021 1:00	7	H2S	Plant 1 Flare	F	Malfunction
2/25/2021 15:00	2/25/2021 20:00	5	H2S	Plant 3 Flare	F	Malfunction
3/15/2021 23:00	3/16/2021 10:00	11	H2S	Plant 1 Flare	F	Malfunction
3/19/2021 5:00	3/19/2021 6:00	1	H2S	Plant 2 Flare	F	Malfunction
3/19/2021 7:00	3/19/2021 12:00	5	H2S	Plant 2 Flare	F	Malfunction
3/22/2021 7:00	3/22/2021 19:00	12	CO	Plant 2 FCCU	A	Startup/Shutdown
3/22/2021 11:54	3/22/2021 12:18	0.4	Opacity	Plant 2 FCCU	A	Startup/Shutdown
3/25/2021 8:00	3/25/2021 19:00	11	CO	Plant 2 FCCU	A	Startup/Shutdown
3/30/2021 21:00	3/31/2021 17:00	20	H2S	Plant 1 Flare	A	Startup/Shutdown
3/31/2021 14:00	3/31/2021 20:00	6	SO2	Plant 1 Flare	A	Startup/Shutdown
4/13/2021 7:00	4/13/2021 18:00	11	CO	Plant 2 FCCU	A	Startup/Shutdown
4/13/2021 14:00	4/13/2021 14:06	0.1	Opacity	Plant 2 FCCU	A	Startup/Shutdown
4/13/2021 22:00	4/13/2021 23:00	1	H2S	Plant 2 Flare	A	Startup/Shutdown
4/18/2021 12:00	4/18/2021 14:00	2	H2S	Plant 1 Flare	A	Startup/Shutdown
4/19/2021 0:00	6/22/2021 0:00	1.6	Opacity	Plant 1 FCCU	A	Startup/Shutdown
4/19/2021 6:00	4/19/2021 7:00	1	CO	Plant 1 FCCU	A	Startup/Shutdown
4/19/2021 20:00	4/19/2021 22:00	2	H2S	Plant 1 Flare	A	Startup/Shutdown
4/20/2021 9:00	4/20/2021 12:00	3	H2S	Plant 1 Flare	A	Startup/Shutdown
4/20/2021 17:00	4/21/2021 7:00	14	SO2	Plant 1 H-25	A	Startup/Shutdown
4/21/2021 23:00	4/22/2021 11:00	12	SO2	Plant 1 H-25	A	Startup/Shutdown
4/29/2021 15:00	5/1/2021 20:00	53	SO2	Plant 1 H-25	A	Startup/Shutdown
4/30/2021 12:00	4/30/2021 13:00	1	CO	Plant 2 FCCU	B	Control Equipment Problems
5/19/2021 9:00	5/19/2021 11:00	2	SO2	Plant 2 SRU	C	Process Problems
6/7/2021 5:00	6/9/2021 7:00	50	CO	Plant 1 B-6	A	Startup/Shutdown
6/9/2021 8:00	6/9/2021 10:00	2	H2S	Plant 2 Flare	B	Control Equipment Problems
6/10/2021 22:00	6/13/2021 13:00	63	CO	Plant 1 B-6	A	Startup/Shutdown

6/12/2021 9:00	6/13/2021 8:00	23	SO2	Plant 1	H-25	A	Startup/Shutdown
6/13/2021 11:00	6/14/2021 20:00	33	CO	Plant 1	B-8	A	Startup/Shutdown
6/14/2021 6:00	6/15/2021 9:00	27	SO2	Plant 1	H-25	A	Startup/Shutdown
6/14/2021 13:00	6/14/2021 14:00	1	H2S	Plant 1	Fuel Gas	A	Startup/Shutdown
6/14/2021 23:00	6/15/2021 10:00	11	CO	Plant 1	B-8	A	Startup/Shutdown
6/16/2021 17:00	6/18/2021 7:00	38	SO2	Plant 1	H-25	A	Startup/Shutdown
6/17/2021 9:00	6/18/2021 19:00	34	H2S	Plant 1	Flare	A	Startup/Shutdown
6/17/2021 15:00	6/17/2021 20:00	5	SO2	Plant 1	H-25	A	Startup/Shutdown
6/17/2021 20:00	6/18/2021 3:00	7	H2S	Plant 1	Fuel Gas	A	Startup/Shutdown
6/19/2021 3:00	6/19/2021 18:00	15	H2S	Plant 1	Fuel Gas	A	Startup/Shutdown
6/20/2021 6:00	6/20/2021 7:00	1	SO2	Plant 1	H-25	A	Startup/Shutdown
6/20/2021 10:00	6/20/2021 15:00	5	H2S	Plant 1	Flare	A	Startup/Shutdown
6/21/2021 23:00	6/22/2021 18:00	19	CO	Plant 1	FCCU	A	Startup/Shutdown
6/26/2021 11:00	6/26/2021 13:00	2	H2S	Plant 1	Flare	A	Startup/Shutdown
6/27/2021 19:00	6/28/2021 0:00	5	H2S	Plant 1	Flare	A	Startup/Shutdown
6/30/2021 8:00	7/1/2021 0:00	16	CO	Plant 1	FCCU	A	Startup/Shutdown
7/1/2021 0:00	7/1/2021 14:00	14	CO	Plant 1	FCCU		
7/1/2021 16:00	7/2/2021 2:00	10	CO	Plant 1	FCCU		
7/2/2021 13:00	7/2/2021 14:00	1	CO	Plant 1	FCCU		
7/2/2021 17:00	7/2/2021 18:00	1	CO	Plant 1	FCCU		
7/3/2021 4:00	7/3/2021 10:00	6	CO	Plant 1	FCCU		
7/3/2021 15:00	7/3/2021 18:00	3	CO	Plant 1	FCCU		
7/4/2021 0:00	7/4/2021 8:00	8	CO	Plant 1	FCCU		
7/12/2021 12:00	7/13/2021 12:00	24	CO	Plant 1	FCCU		
8/26/2021 22:00	8/26/2021 23:00	1	CO	Plant 2	FCCU		
8/27/2021 4:00	8/27/2021 6:00	2	CO	Plant 2	FCCU		
8/28/2021 19:00	8/28/2021 22:00	3	CO	Plant 2	FCCU		
8/29/2021 2:00	8/29/2021 8:00	6	CO	Plant 2	FCCU		
9/10/2021 10:00	9/10/2021 20:00	10	CO	Plant 2	FCCU		
7/8/2021 6:00	7/8/2021 16:00	10	H2S	Plant 1	Fuel Gas H2S Content		
7/1/2021 7:00	7/1/2021 9:00	2	H2S	Plant 1	Flare		
7/8/2021 7:00	7/8/2021 18:00	11	H2S	Plant 1	Flare		
7/27/2021 9:00	7/27/2021 14:00	5	H2S	Plant 1	Flare		
8/23/2021 15:00	8/23/2021 21:00	6	H2S	Plant 1	Flare		
8/17/2021 11:00	8/18/2021 11:00	24	H2S	Plant 2	Fuel Gas H2S Content		
8/18/2021 11:00	8/18/2021 20:00	9	H2S	Plant 2	Fuel Gas H2S Content		
8/17/2021 11:00	8/17/2021 20:00	9	H2S	Plant 2	Flare		
8/18/2021 13:00	8/18/2021 21:00	8	H2S	Plant 2	Flare		
9/10/2021 21:00	9/11/2021 3:00	6	H2S	Plant 2	Flare		
9/15/2021 6:00	9/15/2021 11:00	5	H2S	Plant 2	Flare		
9/15/2021 19:00	9/15/2021 22:00	3	H2S	Plant 2	Flare		
9/18/2021 21:00	9/19/2021 0:00	3	H2S	Plant 2	Flare		
7/1/2021 7:24	7/1/2021 7:30	0.1	Opacity	Plant 1	FCCU		
7/2/2021 3:54	7/2/2021 4:00	0.1	Opacity	Plant 1	FCCU		
7/3/2021 0:00	7/3/2021 0:06	0.1	Opacity	Plant 1	FCCU		
7/12/2021 11:30	7/12/2021 11:48	0.3	Opacity	Plant 1	FCCU		
7/13/2021 10:00	7/13/2021 10:30	0.5	Opacity	Plant 1	FCCU		
7/1/2021 9:16	7/1/2021 9:19	0.05	Opacity	Plant 1	FCCU		
7/12/2021 11:30	7/12/2021 11:48	0.3	Opacity	Plant 1	FCCU		
8/18/2021 17:54	8/18/2021 18:00	0.1	Opacity	Plant 2	FCCU		
8/26/2021 14:00	8/26/2021 14:30	0.5	Opacity	Plant 2	FCCU		

8/27/2021 1:18	8/27/2021 1:54	0.6	Opacity	Plant 2 FCCU		
8/28/2021 8:36	8/28/2021 9:06	0.5	Opacity	Plant 2 FCCU		
9/5/2021 8:06	9/5/2021 8:18	0.2	Opacity	Plant 2 FCCU		
9/10/2021 0:06	9/10/2021 0:12	0.1	Opacity	Plant 2 FCCU		
7/8/2021 7:00	7/9/2021 7:00	24	SO2	Plant 1 Flare		
7/9/2021 7:00	7/9/2021 15:00	8	SO2	Plant 1 Flare		
8/23/2021 17:00	8/24/2021 14:00	21	SO2	Plant 1 Flare		
7/1/2021 20:00	7/1/2021 23:00	3	SO2	Plant 1 H-25		
7/8/2021 4:00	7/8/2021 5:00	1	SO2	Plant 1 H-25		
7/8/2021 9:00	7/8/2021 10:00	1	SO2	Plant 1 H-25		
7/15/2021 22:00	7/16/2021 10:00	12	SO2	Plant 1 H-25		
7/16/2021 13:00	7/16/2021 15:00	2	SO2	Plant 1 H-25		
7/16/2021 23:00	7/17/2021 5:00	6	SO2	Plant 1 H-25		
7/20/2021 9:00	7/20/2021 10:00	1	SO2	Plant 1 H-25		
8/23/2021 3:00	8/23/2021 4:00	1	SO2	Plant 1 H-25		
9/25/2021 20:00	9/25/2021 21:00	1	SO2	Plant 1 H-25		
7/1/2021 20:00	7/2/2021 10:00	14	SO2	Plant 1 H-25		
7/8/2021 4:00	7/9/2021 4:00	24	SO2	Plant 1 H-25		
7/9/2021 4:00	7/9/2021 12:00	8	SO2	Plant 1 H-25		
7/9/2021 13:00	7/10/2021 2:00	13	SO2	Plant 1 H-25		
7/14/2021 12:00	7/15/2021 2:00	14	SO2	Plant 1 H-25		
7/15/2021 12:00	7/16/2021 12:00	24	SO2	Plant 1 H-25		
7/16/2021 12:00	7/17/2021 12:00	24	SO2	Plant 1 H-25		
7/17/2021 12:00	7/17/2021 15:00	3	SO2	Plant 1 H-25		
9/25/2021 20:00	9/26/2021 8:00	12	SO2	Plant 1 H-25		
9/25/2021 22:00	9/26/2021 0:00	2	SO2	Plant 1 H-25		
10/8/2021 15:00	10/8/2021 21:00	6	H2S	Plant 1 Flare	A	Startup/Shutdown
10/26/2021 7:00	10/27/2021 3:00	20	CO	Plant 1 FCCU	A	Startup/Shutdown
10/26/2021 7:12	10/26/2021 9:12	2	Opacity	Plant 1 FCCU	A	Startup/Shutdown
10/27/2021 18:00	10/27/2021 20:00	2	CO	Plant 1 B-6	C	Process Problems
10/29/2021 4:00	10/29/2021 18:00	14	SO2	Plant 1 H-25	A	Startup/Shutdown
10/31/2021 13:00	11/3/2021 1:00	60	CO	Plant 1 B-6	C	Process Problems
11/2/2021 10:24	11/18/2021 15:30	21	Opacity	Plant 2 FCCU	A	Startup/Shutdown
11/2/2021 11:00	11/2/2021 22:00	11	CO	Plant 2 FCCU	A	Startup/Shutdown
11/2/2021 23:00	11/3/2021 9:00	10	H2S	Plant 2 Flare	A	Startup/Shutdown
11/3/2021 7:00	11/3/2021 10:00	3	CO	Plant 2 FCCU	A	Startup/Shutdown
11/4/2021 11:00	11/5/2021 1:00	14	CO	Plant 1 B-6	C	Process Problems
11/16/2021 22:00	11/17/2021 6:00	8	CO	Plant 2 FCCU	A	Startup/Shutdown
11/17/2021 14:00	11/17/2021 17:00	3	CO	Plant 2 FCCU	A	Startup/Shutdown
11/18/2021 9:00	11/18/2021 12:00	3	H2S	Plant 2 Flare	A	Startup/Shutdown
11/18/2021 11:00	11/18/2021 16:00	5	CO	Plant 2 FCCU	A	Startup/Shutdown
11/19/2021 6:00	11/19/2021 15:00	9	H2S	Plant 2 Flare	A	Startup/Shutdown
11/19/2021 7:00	11/19/2021 10:00	3	H2S	Plant 2 Fuel Ga	A	Startup/Shutdown
12/7/2021 14:00	12/9/2021 22:00	56	SO2	Plant 1 H-25	A	Startup/Shutdown
12/8/2021 17:00	12/9/2021 13:00	20	H2S	Plant 1 Flare	A	Startup/Shutdown
12/8/2021 18:00	12/10/2021 7:00	37	SO2	Plant 1 Flare	A	Startup/Shutdown

12/16/2021 6:00	12/18/2021 15:00	57	CO	Plant 1	B-8	C	Process Problems
12/17/2021 11:00	12/17/2021 13:00	2	H2S	Plant 1	Flare	F	Malfunction
12/17/2021 18:00	12/18/2021 2:00	8	H2S	Plant 1	Flare	F	Malfunction
1/25/2022 22:00	1/26/2022 0:00	2	H2S	Plant 2	Flare	F	Malfunction
1/26/2022 3:00	1/26/2022 5:00	2	H2S	Plant 2	Fuel Ga:	F	Malfunction
1/27/2022 1:00	1/27/2022 15:00	14	CO	Plant 2	FCCU	A	Startup/Shutdown
1/28/2022 9:00	1/28/2022 18:00	9	CO	Plant 2	FCCU	A	Startup/Shutdown
1/28/2022 17:00	1/29/2022 0:00	7	H2S	Plant 2	Flare	A	Startup/Shutdown
1/31/2022 12:00	2/1/2022 0:00	12	CO	Plant 1	B-8	C	Process Problems
2/3/2022 2:00	2/3/2022 9:00	7	H2S	Plant 2	Fuel Ga:	F	Malfunction
2/9/2022 6:54	2/9/2022 7:30	0.6	Opacity	Plant 2	FCCU	F	Malfunction
2/13/2022 19:42	2/13/2022 19:54	0.2	Opacity	Plant 2	FCCU	A	Startup/Shutdown
2/13/2022 20:00	2/13/2022 20:42	0.7	Opacity	Plant 2	FCCU	A	Startup/Shutdown
2/14/2022 0:00	2/14/2022 0:06	0.1	Opacity	Plant 2	FCCU	A	Startup/Shutdown
2/14/2022 12:00	2/14/2022 18:00	6	CO	Plant 2	FCCU	A	Startup/Shutdown
2/14/2022 22:00	2/15/2022 1:00	3	CO	Plant 2	FCCU	A	Startup/Shutdown
2/24/2022 7:00	2/24/2022 11:00	4	H2S	Plant 1	Flare	A	Startup/Shutdown
2/24/2022 11:00	2/26/2022 15:00	52	SO2	Plant 1	H-25	A	Startup/Shutdown
2/25/2022 10:00	2/26/2022 4:00	18	H2S	Plant 1	Flare	F	Malfunction
2/25/2022 11:00	2/25/2022 12:00	1	H2S	Plant 3	Flare	F	Malfunction
2/25/2022 15:00	2/26/2022 22:00	31	SO2	Plant 1	Flare	F	Malfunction
2/25/2022 19:00	2/26/2022 8:00	13	SO2	Plant 3	Flare	F	Malfunction
2/26/2022 5:00	2/26/2022 22:00	17	H2S	Plant 1	Flare	F	Malfunction
2/27/2022 12:00	2/27/2022 15:00	3	H2S	Plant 1	Flare	F	Malfunction
2/28/2022 10:00	2/28/2022 13:00	3	H2S	Plant 1	Flare	A	Startup/Shutdown
3/2/2022 5:00	3/2/2022 8:00	3	H2S	Plant 2	Flare	D	Other Known Problems
3/12/2022 1:00	3/12/2022 4:00	3	H2S	Plant 1	Flare	A	Startup/Shutdown
3/17/2022 1:00	3/17/2022 14:00	13	SO2	Plant 1	H-25	F	Malfunction
3/17/2022 12:00	3/17/2022 18:00	6	CO	Plant 1	FCCU	F	Malfunction
3/17/2022 12:24	3/17/2022 12:30	0.1	Opacity	Plant 1	FCCU	F	Malfunction
3/17/2022 13:00	3/19/2022 21:00	56	H2S	Plant 1	Flare	F	Malfunction
3/18/2022 0:00	3/22/2022 16:00	112	CO	Plant 1	B-8	F	Malfunction
3/19/2022 0:00	3/20/2022 1:00	25	SO2	Plant 1	H-25	A	Startup/Shutdown
3/19/2022 10:00	3/20/2022 11:00	25	SO2	Plant 1	Flare	F	Malfunction
3/19/2022 12:36	3/19/2022 12:42	0.1	Opacity	Plant 1	FCCU	A	Startup/Shutdown
3/19/2022 23:00	3/20/2022 0:00	1	CO	Plant 1	FCCU	A	Startup/Shutdown
3/20/2022 5:00	3/20/2022 7:00	2	CO	Plant 1	FCCU	A	Startup/Shutdown
3/20/2022 10:54	3/20/2022 11:00	0.1	Opacity	Plant 1	FCCU	A	Startup/Shutdown
3/21/2022 6:00	3/21/2022 9:00	3	CO	Plant 1	FCCU	A	Startup/Shutdown
3/21/2022 10:00	3/21/2022 21:00	11	CO	Plant 1	FCCU	A	Startup/Shutdown
3/21/2022 23:00	3/22/2022 4:00	5	SO2	Plant 1	H-25	A	Startup/Shutdown
3/22/2022 8:00	3/23/2022 16:00	32	H2S	Plant 1	Flare	A	Startup/Shutdown

3/22/2022 10:00	3/23/2022 4:00	18	SO2	Plant 1 H-25	A	Startup/Shutdown	
3/23/2022 6:00	3/24/2022 2:00	20	SO2	Plant 1 Flare	A	Startup/Shutdown	
3/23/2022 13:00	3/24/2022 2:00	13	SO2	Plant 1 H-25	A	Startup/Shutdown	6:00 AM
3/23/2022 20:00	3/25/2022 3:00	31	CO	Plant 1 B-8	F	Malfunction	
3/24/2022 1:00	3/24/2022 20:00	19	H2S	Plant 1 Flare	A	Startup/Shutdown	
3/28/2022 21:00	3/29/2022 17:00	20	CO	Plant 1 B-8	F	Malfunction	
3/29/2022 0:00	3/29/2022 15:00	15	CO	Plant 1 B-6	F	Malfunction	
4/2/2022 23:00	4/5/2022 6:00	54	CO	Plant 2 FCC	A	Startup/Shutdown	
4/2/2022 23:00	4/5/2022 6:00	54	H2S	Plant 2 FCC	A	Startup/Shutdown	
4/2/2022 23:00	4/5/2022 6:00	54	Opacity	Plant 2 FCC	A	Startup/Shutdown	

Excess Emission Codes

Code	Cuase
A	Startup/Shutdown
B	Control Equipment Problems
C	Process Problems
D	Other Known Problems
E	Unknown Problems
F	Malfunction

Suncor Air Exceedance Reports						
Date	Media Impact	Location/Unit	Summary	Exceedance	Permit Limit	Community Impact
04/02/2022	Air	Air Operating Unit: Plant 2 Fluidized Catalytic Cracking Unit (FCC)	While starting up the Plant 2 FCC, torch oil was introduced to the unit which caused elevated carbon monoxide (CO) emissions. Additionally, while starting up the main air blower for the FCC, an opacity spike was measured at the FCC stack which was above the permit limits. During the	2,031 ppm CO at 0% O2 for a 1-hour average	500 ppm CO at 0% O2 for	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute
04/02/2022	Air	Air Operating Unit: Plant 2 Fluidized Catalytic Cracking Unit (FCC)	While starting up the Plant 2 FCC, torch oil was introduced to the unit which caused elevated carbon monoxide (CO) emissions. Additionally, while starting up the main air blower for the FCC, an opacity spike was measured at the FCC stack which was above the permit limits. During the	177 ppm H2S in flare gas for a 3-hour average	162 ppm H2S in flare gas for a 3-hour average	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute
4/2/2022	Air	Air Operating Unit: Plant 2 Fluidized Catalytic Cracking Unit (FCC)	While starting up the Plant 2 FCC, torch oil was introduced to the unit which caused elevated carbon monoxide (CO) emissions. Additionally, while starting up the main air blower for the FCC, an opacity spike was measured at the FCC stack which was above the permit limits. During the	28% for a 6-minute average	Opacity not to exceed 20% for a 6-minute average	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute
3/29/2022	Air	Air Operating Plant 2 Flare Pilots Out	While relieving pressure from the Plant 2 Reformer Unit, the Plant 2 Flare pilots and flame were inadvertently snuffed when the steam output exceeded the gas output from the Reformer. Operations personnel reduced the Reformer pressure relief and worked quickly to re-light the flare and the pilots.	Unlit flare	The flare shall be operated with a flame present at all times	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute health reference guidelines during this event.
3/29	Air		10 day event - see below	Reported at 23 lb/hr of SO2 for	15.68 lb/hr of SO2 1-	CCD - Not Verified
3/29		Plant 1 -Boiler 8	10 day event - see below	Reported at 0.170 lb of CO per	Permit limit of 0.060 lb of	CCD - Not Verified
3/29		Plant 1	10 day event - see below	Reported at 73% opacity for a	Permit limit of opacity not	CCD - Not Verified
3/29		Boiler 6	10 day event - see below	Reported at 0.078 lb of CO per	Permit limit of 0.060 lb of	CCD - Not Verified
3/29		Plant 1	10 day event - see below	Reported at 2,030 ppm CO at 0	500 ppm CO at 0% O2 for	CCD - Not Verified
3/29		Plant 1	10 day event - see below	Reported at 561 ppm SO2 at	250 ppm SO2 at 0%	CCD - Not Verified
3/19/22 - 3/29	Air	Flare	10 day event - see below	Reported at 258 btu/scf	Heat content of the flare shall not drop below 270 btu/scf (Plant 1 Main Plant Flare)	CCD - Not Verified
3/19/22 - 3/29	Air	Plant 1 - Flare	10 day event - see below	624 lbs of SO2	Emergency Planning and Community Right-to-Know Act (EPCRA) reportable quantity (RQ) exceedance for SO2 – 500 lbs 24-hour rolling total (Plant 1 Main Plant Flare)	CCD - Not Verified
3/19/22 - 3/29	Air	Plant 1 Operating units	While starting up the after the power failure on 03/17/2022, there were multiple permit exceedances as the units were being stabilized. Many of the exceedances were related to instrumentation issues which required recalibration or replacement after power was restored. This event began 03/19/2022 at 12:00 a.m. and ended on 03/29/2022 at 5:00 p.m. once all units were operational and running stably.	Reported at 300 ppm H2S in flare gas for a 3-hour average	162 ppm H2S in flare gas for a 3-hour average (Plant 1 Main Plant Flare)	CCD - Not Verified
3/17/2022	Air	Plant 1 - Flare	While under normal operation, an electrical arc flash occurred at the refinery from an onsite Power Distribution Center (PDC) in Plant 2, which resulted in multiple refinery operating units shutting down. These units shutting down caused the gases normally processed in the units to be sent to the Plant 1 Main Plant Flare for safe combustion. H2S is combusted at the flare, which results in the generation of SO2 and water vapor. The refinery plant alarm system was sounded which, per procedure, activated the Suncor Emergency Operations Center (EOC) and the Refinery Emergency Response Team (ERT). All refinery operating units were brought to a safe state by refinery operations personnel and no injuries were reported in associated with this incident.	1,174 lbs of SO2	Emergency Planning and Community Right-to-Know Act (EPCRA) reportable quantity (RQ) exceedance for SO2 – 500 lbs 24-hour rolling total (Plant 1 Main Plant Flare	CCD - Not Verified
3/17/2022	Air	Electrical Substation Arc Flash and Power Failure - Multiple Units	While under normal operation, an electrical arc flash occurred at the refinery from an onsite Power Distribution Center (PDC) in Plant 2, which resulted in multiple refinery operating units shutting down. These units shutting down caused the gases normally processed in the units to be sent to the Plant 1 Main Plant Flare for safe combustion. H2S is combusted at the flare, which results in the generation of SO2 and water vapor. The refinery plant alarm system was sounded which, per procedure, activated the Suncor Emergency Operations Center (EOC) and the Refinery Emergency Response Team (ERT). All refinery operating units were brought to a safe state by refinery operations personnel and no injuries were reported in associated with this incident.	Reported at 300 ppm H2S in flare gas for a 3-hour average	162 ppm H2S in flare gas f	CCD - Not Verified
3/12/2022	Air	No. 4 Hydrodesulfurization (#4 HDS) Unit	The No. 4 HDS unit was required to be shut down to make the necessary repairs to the main compressor. This work was related to the unit trip on February 24. During the planned shutdown, gases were routed to the Plant 1 Main Plant Flare for safe combustion. H2S is combusted at the flare, which results in the generation of SO2 and water vapor	Reported at 248 ppm H2S in flare gas for a 3-hour average	162 ppm H2S for a three-hour avaerage	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute health reference guidelines during this event.
3/2/2022	Air	Plant 2 Unsaturated Gas Unit	While purging the Unsaturated gas unit to prepare for maintenance work, some residual sour gases from the unit were sent to the flare for safe combustion. H2S is combusted at the flare, which results in the generation of SO2 and water vapor	Reported at 222 ppm for a 3-hour average	162 ppm H2S for a three-hour avaerage	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute health reference guidelines during this event.
3/22/2022	Air	Plant 1 Flare	Startup/Shutdown	H2S		A
3/24/2022	Air	Plant 1 Flare	Startup/Shutdown	H2S		A
2/25/2022	Air	Plant 1 Flare	Malfunction	SO2		F
2/28/2022	Air	Plant 1 Hydrogen Unit	The Plant 1 Hydrogen Unit was shut down to perform maintenance on equipment. During the shutdown, the Flare Gas Recovery Unit (FGRU) was temporarily bypassed and gases from the Hydrogen Unit were sent to the flare for safe combustion. H2S is combusted at the flare, which results in the generation of SO2 and water vapor	Reported at 241 ppm H2S in flare gas for a 3-hour average	162 ppm H2S for a three-hour avaerage	The Commerce City North Denver Air Monitoring network of sensors within a three-mile radius of the refinery did not detect any levels above the acute health reference guidelines during this event.
2/25/2022	Air	Plant 1 Flare	Malfunction	SO2		
2/24/2022	Air	Plant 1 Flare	Startup/Shutdown	H2S		
2/25/2022	Air	Plant 1 Flare	Malfunction	H2S		
2/26/2022	Air	Plant 1 Flare	Malfunction	H2S		
2/27/2022	Air	Plant 1 Flare	Malfunction	H2S		
2/28/2022	Air	Plant 1 Flare	Startup/Shutdown	H2S		
1/31/2022	Air	B8	Process Problems	CO		
10-Jan	Soil	Tank 3801	An overflow of the water draw pan. Personnel collected soil samples (diesel and water). The stained soil area was excavated found and backfilled with clean soil	1 barrel of diesel/water mix	N/A	N/A
17-Dec	Air	Plant 1 Hydrogen Unit and Plant 1 No. 3 Unit (No. 3 HDS).	During maintenance unit tripped causing excess methane released and subsequent fire.	Reported at 300 ppm (max value) for a 3-hour average.	162 ppm H2S in Plant 1 Flare Gas for a 3-hour average.	
16-Dec	Air	Plant I – Hydrogen Unit & Hydrodesulphurization (HDS) Unit	Carbon monoxide release	0.068 lb. of CO per MMBtu for a 24 hr. (average)	0.060 lb. of CO/ MMBtu 24 hr. (average)	

62 ppm H2S in flare gas for a 3-hour average (Plant 1 Main Plant Flare) • Reported at 300 ppm H2S in flare gas for a 3-hour average • Emergency Planning and Community Right-to-Know Act (EPCRA) reportable quantity (RQ) exceedance for SO2 – 500 lbs 24-hour rolling total (Plant 1 Main Plant Flare) • 1,174 lbs of SO2 • 15.68 lb/hr of SO2 1-hour average from the tail gas incinerator (H-25) • Reported at 156 lb/hr of SO2 for a 1-hour average (maximum) • 250 ppm SO2 at 0% O2 for a 12-hour rolling average from the tail gas incinerator (H-25) • Reported at 2,212 ppm SO2 at 0% O2 for a 12-hour average • Permit limit of 0.060 lb of CO per MMBtu for a 24-hour period (average) (Boiler B8) • Reported at 0.240 lb of CO per MMBtu for a 24-hour period (average) • 500 ppm CO at 0% O2 for a 1-hour average (Plant 1 Fluidized Catalytic Cracking Unit – FCC) • Reported at 2,030 ppm CO at 0% O2 for a 1-hour average • Permit limit of opacity not to exceed 20% for a 3-hour average (Plant 1 FCC) • Reported at 33% opacity for a 6-min bl

•All levels are expressed as parts per million or milligrams per cubic meter (ppm or mg/m^3) of a substance above which it is predicted that the general population could experience, including susceptible individuals:

Below AEGL Level 1

•Airborne concentrations below the AEGL-1 represent exposure levels that could produce mild and progressively increasing but transient and non-disabling odor, taste, and sensory irritation or certain asymptomatic, non-sensory effects.

•AEGL values represent threshold levels for the general public. As mentioned, that includes susceptible subpopulations, such as infants, children, the elderly, persons with asthma, and those with other illnesses. However, it is recognized that individuals, subject to unique or idiosyncratic responses, could experience the effects described at concentrations below the corresponding AEGL.

*primary	1 hour	75 ppb	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
*secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year

NPDES ID	Start Date	End Date	Outfall Number	Output Type	Outfall Type Description	Parameter Code	Parameter Desc	Max Violation Status	Compliance Status
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	10	Temperature, water deg. centigrade	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	94	Conductivity	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	300	Oxygen, dissolved [DO]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	310	BOD, 5-day, 20 deg. C	Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	340	Oxygen demand, chem. [high level] [COD]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	400	pH	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	440	Bicarbonate ion- [as HCO3]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	530	Solids, total suspended	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	610	Nitrogen, ammonia total [as N]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	745	Sulfide, total [as S]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	918	Calcium, total recoverable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	921	Magnesium, total recoverable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	923	Sodium, total recoverable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	931	Sodium adsorption ratio	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	978	Arsenic, total recoverable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	980	Iron, total recoverable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	1032	Chromium, hexavalent [as Cr]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	1034	Chromium, total [as Cr]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	1303	Zinc, potentially dissolved	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	1304	Silver, potentially dissolved	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	1306	Copper, potentially dissolved	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	1318	Lead, potentially dissolvd	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	1319	Manganese, potentially dissolvd	No Violation Identified	No Violation Identified

CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	1322	Nickel, potentially dissolvd	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	1323	Selenium, potentially dissolvd	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	1326	Uranium, potentially dissolvd	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	3582	Oil and grease	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	22417	Methyl tert-butyl ether [MTBE]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	30383	Benzene, ethylbenzene, toluene, xylene combination	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	32730	Phenolics, total recoverable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	34030	Benzene	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	50050	Flow, in conduit or thru treatment plant	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	51202	Sulfide-hydrogen sulfide [undissociated]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	2	EXO	External Outfall	71900	Mercury, total [as Hg]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	10	Temperature, water deg. centigrade	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	94	Conductivity	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	335	Oxygen demand, chem. [low level] [COD]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	400	pH	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	440	Bicarbonate ion-[as HCO3]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	530	Solids, total suspended	Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	918	Calcium, total recoverable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	921	Magnesium, total recoverable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	923	Sodium, total recoverable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	931	Sodium adsorption ratio	No Violation Identified	No Violation Identified

CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	978	Arsenic, total recoverable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	980	Iron, total recoverable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	1303	Zinc, potentially dissolved	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	1304	Silver, potentially dissolved	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	1306	Copper, potentially dissolved	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	1318	Lead, potentially dissolvd	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	1319	Manganese, potentially dissolvd	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	1322	Nickel, potentially dissolvd	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	1323	Selenium, potentially dissolvd	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	1326	Uranium, potentially dissolvd	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	3582	Oil and grease	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	22417	Methyl tert-butyl ether [MTBE]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	30383	Benzene, ethylbenzene, toluene, xylene combination	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	34030	Benzene	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	50050	Flow, in conduit or thru treatment plant	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	51202	Sulfide-hydrogen sulfide [undissociated]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	3	EXO	External Outfall	71900	Mercury, total [as Hg]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	94	Conductivity	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	440	Bicarbonate ion-[as HCO3]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	718	Cyanide, weak acid, dissociable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	918	Calcium, total recoverable	No Violation Identified	No Violation Identified

CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	921	Magnesium, total recoverable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	923	Sodium, total recoverable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	931	Sodium adsorption ratio	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	980	Iron, total recoverable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	1002	Arsenic, total [as As]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	1303	Zinc, potentially dissolved	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	1304	Silver, potentially dissolved	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	1306	Copper, potentially dissolved	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	1318	Lead, potentially dissolvd	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	1319	Manganese, potentially dissolvd	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	1322	Nickel, potentially dissolvd	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	1323	Selenium, potentially dissolvd	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	1326	Uranium, potentially dissolvd	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	22417	Methyl tert-butyl ether [MTBE]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	30383	Benzene, ethylbenzene, toluene, xylene combination	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	34030	Benzene	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	50050	Flow, in conduit or thru treatment plant	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	51202	Sulfide-hydrogen sulfide [undissociated]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	71900	Mercury, total [as Hg]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	TKP3B	Static Renewal 7 Day Chronic Ceriodaphnia dubia	No Violation Identified	No Violation Identified

CO0001147	1/1/2019	5/20/2022	10	EXO	External Outfall	TKP6C	Static Renewal 7 Day Chronic Pimephales promelas	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	10	Temperature, water deg. centigrade	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	94	Conductivity	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	300	Oxygen, dissolved [DO]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	400	pH	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	440	Bicarbonate ion-[as HCO3]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	718	Cyanide, weak acid, dissociable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	918	Calcium, total recoverable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	921	Magnesium, total recoverable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	923	Sodium, total recoverable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	931	Sodium adsorption ratio	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	978	Arsenic, total recoverable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	980	Iron, total recoverable	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	1303	Zinc, potentially dissolved	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	1304	Silver, potentially dissolved	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	1306	Copper, potentially dissolved	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	1318	Lead, potentially dissolvd	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	1319	Manganese, potentially dissolvd	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	1322	Nickel, potentially dissolvd	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	1323	Selenium, potentially dissolvd	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	1326	Uranium, potentially dissolvd	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	22417	Methyl tert-butyl ether [MTBE]	No Violation Identified	No Violation Identified

CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	30383	Benzene, ethylbenzene, toluene, xylene combination	Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	34030	Benzene	Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	50050	Flow, in conduit or thru treatment plant	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	51202	Sulfide-hydrogen sulfide [undissociated]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	71900	Mercury, total [as Hg]	No Violation Identified	No Violation Identified
CO0001147	1/1/2019	5/20/2022	20	EXO	External Outfall	TKP3B	Static Renewal 7 Day Chronic Ceriodaphnia dubia	No Violation Identified	No Violation Identified
#NAME?	1/1/2019	5/20/2022	20	EXO	External Outfall	TKP6C	Static Renewal 7 Day Chronic Pimephales promelas	No Violation Identified	No Violation Identified