



April 20, 2022

Daniel Hamel  
Michigan Department of EGLE  
Remediation and Redevelopment Division  
Jackson District Office Building  
301 E. Louis Glick Highway  
Jackson, Michigan 49210

Re: **Gelman Quarterly Progress Report**  
**1<sup>st</sup> Quarter, 2022**  
January 1, 2022 to March 31, 2022

Dear Mr. Hamel:

Please find enclosed the Quarterly Progress Report for the period of January 1, 2022 to March 31, 2022.

Should you have any questions regarding this document, please contact me at 269-993-7585.

Sincerely,

FLEIS & VANDENBRINK

A handwritten signature in blue ink, appearing to read "Jim Brode", is positioned above the printed name and title.

Jim Brode, CPG  
Senior Project Manager

# GelmanSciences

**1st Quarter, 2022**

**(January, February, March)**

## Table of Contents

Summary of activity during this quarter

Submittals/Responses

Anticipated activities for the next quarter

Quarterly Performance Analysis

Quarterly Influent Peroxide

Mass Reduction

Maps:

- 1,4-Dioxane Isoconcentration Map, Marshy Area – Peat (October 2021 – March 2022)
- Potentiometric Surface Map, Marshy Area – Peat (March 28, 2022)
- 1,4-Dioxane Isoconcentration Map, Marshy Area – Sand (October 2021 – March 2022)
- Potentiometric Surface Map, Marshy Area – Sand (March 28, 2022)
- 1,4-Dioxane Isoconcentration Map, Southwest Property (October 2021 – March 2022)
- Potentiometric Surface Map, Southwest Property (March 28, 2022)
- 1,4-Dioxane Isoconcentration Map, Units SW, C3, D0 & D2 (October 2021 – March 2022)
- 1,4-Dioxane Isoconcentration Map, Unit E & Deeper Units in the Park Road Area (October 2021 – March 2022)
- Potentiometric Surface Map, Units SW, C3, D0 & D2 (March 28, 2022)
- Potentiometric Surface Map, Units D2 & E (March 28, 2022)
- Potentiometric Surface Map, Unit E & Deeper Units in the Park Road Area (March 28, 2022)

## Summary of Activity

CEB = Central Environmental Building  
C3 = C3 aquifer  
D2 = D2 aquifer  
E = E aquifer  
SW = Southwest Property Area  
Maple = Maple Road

### *Treatment Activities*

- 1/1/22-1/3/22 - TW-24 (C3) was shut down over the weekend while no one was on-site.
- 1/1/22-1/4/22 – TW-14 (C3) and TW-17 (E) were shut down to control Red Pond levels.
- 1/1/22-1/11/22 - TW-10 (C3) was shut down to control Red Pond levels.
- 1/4/22-1/13/22 - TW-11 (E) was shut down to control Red Pond levels.
- 2/19/22 - TW-29 (E) and TW-23 (E) were shut down briefly due to communication loss.
- 2/23/22 - Treatment System was shut down for system maintenance.
- 3/1/22-3/28/22 - TW-5 (D2) was shut down.
- 3/7/22 - TW-14 (C3) and TW-17 (E) were shut down during work at TW-25.
- 3/16/22-3/17/22 - TW-22 (SW) and TW-23 (E) were shut down due to flows dropping below detectable levels during/after sampling.
- 3/23/22-3/24/22 - TW-22 (SW) and TW-28 (SW) were shut down due to communication loss from Comcast work in the area.
- 3/25/22 - Treatment System was shut down due to power failure and associated repairs.
- 3/25/22-3/31/22 - TW-10 (C3) and TW-20 (C3) were shut down due to power failure and associated repairs.
- 3/27/22 - Treatment System 2A was shut down briefly due to a VFD fault.
- 3/29/22 - Treatment System 2A was shut down briefly due to a VFD fault.
- 3/29/22-3/31/22 - PW-1 (Marshy) was shut down for maintenance.
- 3/30/22-3/31/22 - TW-5 (D2), TW-21 (D2), LB-4 (D2), TW-2 (Dolph) (C3), TW-14 (C3), TW-22 (SW), TW-28 (SW), TW-17 (E), TW-18 (E), TW-29 (E), TW-23 (E), and Treatment System were shut down for system maintenance.
- 3/31/22 - TW-24 (C3) was shut down to control Red Pond concentrations.

### *Field Activities*

- 1/2022 – Drilled test boring and installed monitoring well MW-146 at 105 Myrtle Ave.
- 2/2022 – Collected porewater samples along Honey Creek Tributary as part of implementation of the Western Area GSI Work Plan.
- 2/2022 – Drilled test boring and installed onsite extraction well TW-25.
- 2/2022 – Completed location/elevation survey of new monitoring wells at clusters MW-142 through MW-146.

### **Submittals/Responses**

1/2022	Gelman submitted Revised Western Area GSI Work Plan to EGLE
1/20/2022	Gelman submitted Discharge Monitoring Report (DMR) to EGLE Gelman submitted Monthly Monitoring Report (NPDES) to EGLE Gelman submitted 4th Quarter 2021 Report to EGLE
2/2022	Gelman submitted Work Plan for Downgradient and Allen Drain GSI Investigations to EGLE
2/1/2022	Gelman submitted Pollutant Minimization Program (PMP) Annual Report to EGLE
2/17/2022	Gelman submitted Discharge Monitoring Report (DMR) to EGLE Gelman submitted Monthly Monitoring Report (NPDES) to EGLE
3/20/2022	Gelman submitted Discharge Monitoring Report (DMR) to EGLE Gelman submitted Monthly Monitoring Report (NPDES) to EGLE

### **Anticipated Major Activities for the Next Quarter**

- Continuation of property access arrangements
- Drilling/installation of monitoring wells in Western and Eastern Areas
- Preliminary engineering for Rose/Valley Extraction System
- Water supply contingency planning
- Submittal of NPDES permit application for First Sister Lake discharge
- Burn Pit remedial activities
- Former Pond 1 and Pond 2 phytoremediation preliminary work
- Implementation of Downgradient and Allen Drain GSI Investigation Work Plan (contingent upon EGLE approval)
- Implementation of Western Area GSI Work Plan (contingent upon EGLE approval)
- Well Identification Survey follow-up activities

**Quarterly Performance Analysis**

For the months of January, February, and March 2022, over 252 pounds of 1,4-dioxane were removed and 81,559,856 gallons of water were extracted from the contaminated aquifers, treated, and discharged. The total mass of 1,4-dioxane removed since May 1997 is over 97,287 pounds and the total volume of water discharged since May 1997 is over 9.2 billion gallons.

In general, the performance of the operation was as expected, purging, and treating contaminated groundwater to the existing allowable capacities.

<b>QUARTERLY H<sub>2</sub>O<sub>2</sub> INFLUENT</b>	
<b>3/16/2022</b>	<b>H<sub>2</sub>O<sub>2</sub></b>
<b>Well Name</b>	<b>µg/l</b>
TW-20	<50
TW-18	<50
TW-23	<50
TW-2 (Dolph)	<50
LB-4	<50
TW-22	<50
TW-28	<50
TW-10	<50
TW-14	<50
TW-17	<50
TW-21	<50
PW-1	<50
TW-24	<50
TW-29	<50

## Mass Reduction

**MASS REDUCTION DETAIL BY AQUIFIER**

**January 1 - January 31, 2022**

	Extraction Well	Month To Date Gallons Extracted	Month To Date Average Daily Flow Rate GPM	Month To Date Average Daily Pounds Removed	Month To Date Pounds Removed	Month To Date Average Concentration ppb
<b>C3</b>	TW-2 (Dolph)	1,172,899	26	0.045	1.4	142
	TW-10	658,931	15	0.098	3.0	524
	TW-14	1,627,770	36	0.054	1.7	121
	TW-20	1,285,268	29	0.26	7.9	739
	TW-24	404,592	9.1	0.25	7.7	2,261
	<b>Sub-Totals</b>	<b>5,149,460</b>	<b>115</b>	<b>0.70</b>	<b>22</b>	
<b>Marshy</b>	PW-1	102,657	2.3	0.024	0.73	855
	<b>Sub-Totals</b>	<b>102,657</b>	<b>2.3</b>	<b>0.024</b>	<b>0.73</b>	
<b>E</b>	TW-11	239,374	5.4	0.010	0.30	150
	TW-17	2,390,431	54	0.036	1.1	56
	TW-18	4,834,669	108	0.31	9.7	240
	TW-29	2,227,256	50	0.21	6.6	357
	TW-23	2,240,438	50	0.24	7.5	400
	<b>Sub-Totals</b>	<b>11,932,168</b>	<b>267</b>	<b>0.81</b>	<b>25</b>	
<b>Southwest</b>	TW-28	1,116,473	25	0.19	5.9	635
	TW-22	91,854	2.1	0.012	0.36	470
	<b>Sub-Totals</b>	<b>1,208,327</b>	<b>27</b>	<b>0.20</b>	<b>6.3</b>	
<b>D2</b>	LB-4	4,470,776	100	0.50	16	418
	TW-5	2,624	0.059	0.001	0.016	750
	TW-9	75,282	1.7	0.008	0.24	380
	TW-21	4,460,843	100	0.28	8.8	236
	<b>Sub-Totals</b>	<b>9,009,525</b>	<b>202</b>	<b>0.79</b>	<b>25</b>	
<b>Overall Totals</b>	<b>27,402,137</b>	<b>614</b>	<b>2.5</b>	<b>79</b>		

**MASS REDUCTION DETAIL BY AQUIFIER**

**February 1 - February 28, 2022**

	Extraction Well	Month To Date Gallons Extracted	Month To Date Average Daily Flow Rate GPM	Month To Date Average Daily Pounds Removed	Month To Date Pounds Removed	Month To Date Average Concentration ppb
<b>C3</b>	TW-2 (Dolph)	1,062,708	26	0.046	1.3	146
	TW-10	1,007,912	25	0.21	5.8	695
	TW-14	1,376,542	34	0.049	1.4	120
	TW-20	1,208,530	30	0.28	7.7	767
	TW-24	474,745	12	0.33	9.2	2,318
	<b>Sub-Totals</b>	<b>5,130,437</b>	<b>127</b>	<b>0.91</b>	<b>25</b>	
<b>Marshy</b>	PW-1	96,841	2.4	0.025	0.71	875
	<b>Sub-Totals</b>	<b>96,841</b>	<b>2.4</b>	<b>0.025</b>	<b>0.71</b>	
<b>E</b>	TW-17	2,356,832	58	0.035	1.0	51
	TW-18	4,383,037	109	0.31	8.8	240
	TW-29	2,003,763	50	0.20	5.6	334
	TW-23	2,014,813	50	0.25	6.9	412
	<b>Sub-Totals</b>	<b>10,758,445</b>	<b>267</b>	<b>0.80</b>	<b>22</b>	
<b>Southwest</b>	TW-28	1,005,222	25	0.20	5.5	651
	TW-22	92,255	2.3	0.013	0.36	463
	<b>Sub-Totals</b>	<b>1,097,477</b>	<b>27</b>	<b>0.21</b>	<b>5.8</b>	
<b>D2</b>	LB-4	4,038,223	100	0.52	15	434
	TW-9	853	0.021	0.00	0.00	380
	TW-21	4,025,645	100	0.31	8.7	260
	<b>Sub-Totals</b>	<b>8,064,721</b>	<b>200</b>	<b>0.83</b>	<b>23</b>	
<b>Overall Totals</b>	<b>25,147,921</b>	<b>624</b>	<b>2.8</b>	<b>78</b>		



**MASS REDUCTION DETAIL BY AQUIFER**

**March 1 - March 31, 2022**

	Extraction Well	Month To Date Gallons Extracted	Month To Date Average Daily Flow Rate GPM	Month To Date Average Daily Pounds Removed	Month To Date Pounds Removed	Month To Date Average Concentration ppb
<b>C3</b>						
	TW-2 (Dolph)	1,101,618	25	0.043	1.3	145
	TW-10	940,799	21	0.23	7.2	915
	TW-14	1,052,055	24	0.035	1.1	125
	TW-20	1,038,095	23	0.22	7.0	794
	TW-24	915,014	20	0.60	19	2,452
	<i>Sub-Totals</i>	5,047,581	113	1.1	35	
<b>Marshy</b>						
	PW-1	85,825	1.9	0.022	0.69	966
	<i>Sub-Totals</i>	85,825	1.9	0.022	0.69	
<b>E</b>						
	TW-17	2,601,178	58	0.037	1.2	54
	TW-18	4,399,975	99	0.30	9.2	250
	TW-29	2,133,069	48	0.22	6.9	392
	TW-23	2,076,990	47	0.24	7.3	420
	<i>Sub-Totals</i>	11,211,212	251	0.79	25	
<b>Southwest</b>						
	TW-28	1,044,928	23	0.19	6.0	690
	TW-22	90,613	2.0	0.011	0.35	466
	<i>Sub-Totals</i>	1,135,541	25	0.21	6.4	
<b>D2</b>						
	LB-4	4,278,504	96	0.55	17	480
	TW-5	184,540	4.1	0.037	1.2	750
	TW-9	24,533	0.55	0.0025	0.078	380
	TW-21	4,274,127	96	0.33	10	285
	<i>Sub-Totals</i>	8,761,704	196	0.92	29	
<b>Overall Totals</b>						
		26,241,863	588	3.1	95	

**MASS REDUCTION SUMMARY**  
**Mass Removed Per Month (lb)**

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
Month	Mass Removed from Unit E Only	Mass Removed from Southwest Only	Mass Removed from Marshy Only	Mass Removed from Units C3 and D2 Only	Mass Removed from Unit D0	Total Mass Removed from Units E, D2, C3, D0, Southwest and Marshy
Aug-00	0	0	8	366		374
Sep-00	0	0	9	332		341
Oct-00	0	5	9	583		597
Nov-00	0	3	12	1160		1175
Dec-00	0	0	10	1040		1050
Jan-01	0	0	7	816		823
Feb-01	0	0	7	1056		1063
Mar-01	0	0	11	1379		1390
Apr-01	0	0	9	1140		1149
May-01	0	1	8	990		999
Jun-01	0	2	8	933		943
Jul-01	0	2	10	1121		1133
Aug-01	0	2	13	1018		1033
Sep-01	0	1	9	909		919
Oct-01	0	5	8	896		909
Nov-01	0	4	5	827		836
Dec-01	0	6	4	768		778
Jan-02	0	6	5	753		764
Feb-02	0	4	6	691		701
Mar-02	0	7	7	663		677
Apr-02	0	6	7	682		695
May-02	100	9	7	898		1014
Jun-02	94	9	6	889		998
Jul-02	56	10	7	640		713
Aug-02	53	8	6	745		812
Sep-02	51	8	6	860		925
Oct-02	33	6	4	603		646
Nov-02	57	8	5	880		950
Dec-02	48	9	5	842		904
Jan-03	45	8	6	839		898
Feb-03	37	6	6	767		816
Mar-03	44	8	7	763		822
Apr-03	39	8	3	716		766
May-03	36	13	5	725		779
Jun-03	34	15	5	683		737
Jul-03	29	15	5	678		727
Aug-03	31	15	6	676		728
Sep-03	27	16	5	644		692
Oct-03	34	17	5	701		757
Nov-03	26	12	5	663		706
Dec-03	29	14	6	635		684
Jan-04	28	15	6	667		716
Feb-04	8	11	5	485		509
Mar-04	23	14	7	573		617
Apr-04	27	15	6	537		585
May-04	16	10	5	439		470
Jun-04	21	11	5	499		536
Jul-04	36	12	5	506		559

**MASS REDUCTION SUMMARY**  
**Mass Removed Per Month (lb)**

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
Month	Mass Removed from Unit E Only	Mass Removed from Southwest Only	Mass Removed from Marshy Only	Mass Removed from Units C3 and D2 Only	Mass Removed from Unit D0	Total Mass Removed from Units E, D2, C3, D0, Southwest and Marshy
Aug-04	54	12	5	480		551
Sep-04	34	9	5	382		430
Oct-04	30	10	5	358		403
Nov-04	30	9	5	395		439
Dec-04	33	11	5	442		491
Jan-05	29	11	4	404		448
Feb-05	26	9	4	390		429
Mar-05	27	9	4	409		450
Apr-05	33	4	3	396		436
May-05	27	8	2	364		401
Jun-05	31	9	3	361		404
Jul-05	31	8	1	279		319
Aug-05	12	6	2	275		295
Sep-05	13	8	2	327		350
Oct-05	16	6	3	297		322
Nov-05	13	7	4	291		315
Dec-05	12	8	4	325		349
Jan-06	115	7	3	308		433
Feb-06	144	7	3	290		444
Mar-06	148	8	3	331		490
Apr-06	125	7	3	291		426
May-06	137	9	3	402		551
Jun-06	119	5	2	329		456
Jul-06	107	8	3	310		427
Aug-06	104	8	2	307		421
Sep-06	97	9	3	300		409
Oct-06	93	9	3	327		432
Nov-06	80	7	2	268		357
Dec-06	68	6	2	238		314
Jan-07	91	8	2	305		406
Feb-07	84	8	2	284		378
Mar-07	91	8	3	306		408
Apr-07	84	8	2	280		374
May-07	82	8	2	288		380
Jun-07	81	8	2	279		370
Jul-07	66	8	2	256		332
Aug-07	73	8	2	270		353
Sep-07	77	8	2	247		334
Oct-07	73	8	2	244		327
Nov-07	68	8	2	263		341
Dec-07	69	8	2	260		339
Jan-08	65	7	2	237		311
Feb-08	53	6	2	203		264
Mar-08	56	7	2	220		285
Apr-08	54	7	2	200		263
May-08	55	7	2	206		270
Jun-08	52	6	2	195		256
Jul-08	39	1	2	139		181

**MASS REDUCTION SUMMARY**  
**Mass Removed Per Month (lb)**

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
Month	Mass Removed from Unit E Only	Mass Removed from Southwest Only	Mass Removed from Marshy Only	Mass Removed from Units C3 and D2 Only	Mass Removed from Unit D0	Total Mass Removed from Units E, D2, C3, D0, Southwest and Marshy
Aug-08	50	7	2	198		256
Sep-08	43	5	2	177		227
Oct-08	45	5	2	187		239
Nov-08	45	7	2	197		251
Dec-08	45	5	2	187		239
Jan-09	39	8	2	124		173
Feb-09	34	8	2	122		164
Mar-09	35	8	2	122		166
Apr-09	32	6	1	119		158
May-09	45	7	2	201		254
Jun-09	39	5	1	157		202
Jul-09	38	5	1	152		196
Aug-09	39	7	2	202		250
Sep-09	36	6	2	223		267
Oct-09	36	8	2	206		251
Nov-09	32	7	1	167		208
Dec-09	32	8	1	171		212
Jan-10	34	8	1	175		219
Feb-10	30	7	1	161		198
Mar-10	33	7	1	173		214
Apr-10	33	7	1	175		216
May-10	33	7	1	176		217
Jun-10	29	6	1	130		165
Jul-10	20	7	1	171		200
Aug-10	23	7	1	188		220
Sep-10	21	6	1	148		177
Oct-10	24	7	2	185		218
Nov-10	18	6	2	151		176
Dec-10	26	6	2	164		198
Jan-11	25	6	2	163		195
Feb-11	25	7	2	165		198
Mar-11	27	8	2	174		209
Apr-11	22	6	1	143		171
May-11	20	5	1	138		164
Jun-11	17	5	1	104		127
Jul-11	15	4	1	92		112
Aug-11	14	2	1	80		97
Sep-11	16	6	1	98		121
Oct-11	17	6	1	113		137
Nov-11	33	6	1	105		145
Dec-11	45	6	1	98		150
Jan-12	46	6	1	103		156
Feb-12	40	5	1	89		135
Mar-12	43	5	1	94	0.017	142
Apr-12	47	6	1	105	0.000	159
May-12	47	6	1	100	0.000	154
Jun-12	42	6	0.3	99	0.029	148
Jul-12	30	6	0.1	102	0.000	138

**MASS REDUCTION SUMMARY**  
**Mass Removed Per Month (lb)**

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
Month	Mass Removed from Unit E Only	Mass Removed from Southwest Only	Mass Removed from Marshy Only	Mass Removed from Units C3 and D2 Only	Mass Removed from Unit D0	Total Mass Removed from Units E, D2, C3, D0, Southwest and Marshy
Aug-12	29	6	0.0	75	0.000	109
Sep-12	32	5	0.1	62	0.029	100
Oct-12	27	5	0.0	57	0.000	88
Nov-12	33	4	0.0	62	0.000	99
Dec-12	31	3	0.0	52	0.020	86
Jan-13	46	3	0.0	54	0.000	103
Feb-13	46	3	0.0	47	0.000	95
Mar-13	53	3	0.0	53	0.029	109
Apr-13	46	5	0.1	61	0.000	113
May-13	57	8	1.0	60	0.000	126
Jun-13	43	7	0.7	52	0.029	102
Jul-13	57	9	0.9	61	0.000	128
Aug-13	48	7	0.8	63	0.000	120
Sep-13	46	7	0.6	60	0.023	113
Oct-13	46	7	0.8	61	0.000	115
Nov-13	52	7	0.7	57	0.000	117
Dec-13	57	8	1.0	72	0.026	138
Jan-14	47	8	0.7	66	0.000	122
Feb-14	37	7	0.4	48	0.000	92
Mar-14	42	6	0.5	58	0.025	107
Apr-14	44	6	0.4	58	0.000	108
May-14	46	6	0.4	61	0.000	113
Jun-14	38	5	0.3	34	0.019	77
Jul-14	41	4	0.3	32	0.000	78
Aug-14	42	4	0.4	33	0.000	79
Sep-14	39	3	0.3	33	0.020	76
Oct-14	42	3	0.3	33	0.000	79
Nov-14	46	3	0.3	33	0.000	82
Dec-14	50	3	0.3	37	0.000	90
Jan-15	45	2	0.3	32	0.016	80
Feb-15	41	2	0.3	28	0.000	72
Mar-15	46	2	0.5	29	0.027	77
Apr-15	49	2	0.4	29	0.000	80
May-15	47	3	0.3	29	0.000	79
Jun-15	42	5	0.3	33	0.019	81
Jul-15	38	6	0.4	30	0.000	74
Aug-15	44	7	0.7	34	0.000	86
Sep-15	42	7	1.2	33	0.013	82
Oct-15	46	6	1.0	34	0.000	88
Nov-15	46	6	1.3	35	0.000	88
Dec-15	44	5	1.1	35	0.018	85
Jan-16	46	4	1.1	33	0.000	84
Feb-16	43	4	0.8	27	0.000	74
Mar-16	41	6	0.6	33	0.016	80
Apr-16	41	7	0.1	33	0.000	82
May-16	45	7	0.0	36	0.000	87
Jun-16	44	7	0.1	34	0.018	85
Jul-16	44	7	0.4	36	0.000	88

**MASS REDUCTION SUMMARY**  
**Mass Removed Per Month (lb)**

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
Month	Mass Removed from Unit E Only	Mass Removed from Southwest Only	Mass Removed from Marshy Only	Mass Removed from Units C3 and D2 Only	Mass Removed from Unit D0	Total Mass Removed from Units E, D2, C3, D0, Southwest and Marshy
Aug-16	42	7	0.1	34	0.000	83
Sep-16	38	5	0.9	32	0.021	77
Oct-16	40	5	0.9	31	0.000	77
Nov-16	41	6	0.1	33	0.000	79
Dec-16	43	6	0.2	33	0.017	82
Jan-17	44	6	0.8	36	0.000	87
Feb-17	36	5	0.6	29	0.000	71
Mar-17	39	5	0.6	33	0.017	78
Apr-17	34	5	0.3	31	0.000	70
May-17	32	5	0.5	27	0.000	64
Jun-17	31	4	0.3	26	0.018	61
Jul-17	32	5	0.1	36	0.000	73
Aug-17	29	6	0.0	37	0.000	71
Sep-17	31	5	0.0	27	0.033	63
Oct-17	36	4	0.2	28	0.000	67
Nov-17	34	5	0.7	28	0.000	68
Dec-17	32	5	0.8	28	0.020	65
Jan-18	36	6	0.9	32	0.000	75
Feb-18	28	4	0.5	26	0.000	59
Mar-18	37	4	0.6	34	0.019	75
Apr-18	33	4	0.7	31	0.000	68
May-18	36	4	0.5	35	0.000	75
Jun-18	33	4	0.4	32	0.016	70
Jul-18	33	4	0.3	32	0.000	69
Aug-18	31	4	0.4	33	0.000	68
Sep-18	33	3	0.5	34	0.020	71
Oct-18	39	3	0.6	34	0.000	77
Nov-18	32	3	0.6	33	0.000	69
Dec-18	37	0.8	0.6	35	0.021	73
Jan-19	36	4	0.6	37	0.000	77
Feb-19	26	5	0.4	27	0.000	59
Mar-19	28	6	0.3	31	0.009	65
Apr-19	31	7	0.4	32	0.000	70
May-19	30	6	0.2	33	0.000	70
Jun-19	27	5	0.1	28	0.019	61
Jul-19	33	8	0.2	30	0.000	71
Aug-19	39	8	0.3	31	0.000	78
Sep-19	33	8	0.4	29	0.021	70
Oct-19	33	6	0.0	29	0.000	68
Nov-19	33	6	0.2	27	0.000	67
Dec-19	33	6	0.5	29	0.018	68
Jan-20	25	5	0.4	43	0.000	73
Feb-20	27	7	0.5	31	0.000	65
Mar-20	29	6	0.4	31	0.015	66
Apr-20	28	6	0.3	29	0	63
May-20	28	7	0.3	32	0	68
Jun-20	29	6	0.2	31	0.018	66
Jul-20	33	5	0.2	33	0	71

**MASS REDUCTION SUMMARY**  
**Mass Removed Per Month (lb)**

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
Month	Mass Removed from Unit E Only	Mass Removed from Southwest Only	Mass Removed from Marshy Only	Mass Removed from Units C3 and D2 Only	Mass Removed from Unit D0	Total Mass Removed from Units E, D2, C3, D0, Southwest and Marshy
Aug-20	33	6	0.2	28	0	67
Sep-20	28	6	0.2	29	0.013	63
Oct-20	32	7	0.3	31	0	70
Nov-20	35	7	0.3	31	0	73
Dec-20	31	6	0.3	24	0.014	61
Jan-21	30	6	0.3	28	0.000	64
Feb-21	27	6	0.3	28	0.000	61
Mar-21	27	6	0.3	26	0.012	60
Apr-21	27	8	0.2	29	0.000	65
May-21	25	7	0.3	36	0.000	68
Jun-21	24	6	1.1	37	0.006	68
Jul-21	23	6	0.9	36	0.000	66
Aug-21	16	4	0.3	31	0.000	52
Sep-21	20	6	0.5	30	0.014	57
Oct-21	23	6	0.5	43	0.000	73
Nov-21	22	6	0.5	39	0.000	67
Dec-21	23	6	0.6	36	0.000	66
Jan-22	25	6	0.7	46	0.000	79
Feb-22	22	6	0.7	49	0.000	78
Mar-22	25	6	0.7	64	0.000	95
<b>Total to date</b>	<b>9865</b>	<b>1616</b>	<b>565</b>	<b>62511</b>	<b>1</b>	<b>74557</b>

## Maps