



Robin L. Simmons
Regional Land Manager

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JUN 30 2021

Oklahoma Water Resources Board

June 29, 2021

Oklahoma Water Resources Board
3800 N. Classen Boulevard
Oklahoma City, OK 73118
Attn: Mr. Matt Cogburn

Re: Martin Marietta/TXI Mill Creek Limestone Quarry Monitoring Report Q1 2021

Dear Mr. Cogburn:

Attached please find the Q1 2021 Quarterly Monitoring Report for Martin Marietta/TXI's Mill Creek Limestone quarry. The report is summarized on the table labeled Appendix C. Supporting data is also included.

Please call if you have any questions or comments.

Sincerely,

A handwritten signature in cursive script that reads 'Robin L. Simmons'.

Robin L. Simmons
Regional Land Manager

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ATTACHMENT 1 (Appendix C)
Martin Marietta (TXI) Mill Creek 2020

Appendix C . Consumptive use of Pitwater

Q1 2021

PIT GROUNDWATER VOLUME		
1	Total volume pumped from producing mine pit(s) (AC-FT)	673.8263
2	Volume of precipitation that falls onto the surface of producing Mine Pits (AC-FT)	11.52567
3	Portion of total precipitation that flows over the land surface that drains into the mine pit water (AC-FT)	44.81267
4	(WATER HELD IN PIT FROM PREVIOUS MONTHS) other non pit waters pumped from the producing mining pit (AC-FT)	
5	add lines 2 through 4	56.34
6	Pit Groundwater Volume (AC-FT) (line 1 minus Line 5)	617.49
DEFINED ELEMENTS OF CONSUMPTIVE USE		
7	Vol. of pit groundwater that is driven off (by drying) the mined material transp. off of the mine site (AC-FT)	0.00
8	Vol. of pit groundwater that is carried away with the the mined material transp. off of the mine site (AC-FT)	3.79
9	Vol. of pit groundwater that evaporates from producing mine pits, process ponds and lined ponds (excluding structures used for augmentation) (AC-FT)	2.39
10	Volume of pit groundwater that is used for other beneficial uses off of the mine site (AC-FT) (includes on-site dust control)	14.40
11	DEFINED ELEMENTS OF CONSUMPTIVE USE of Pit groundwater (AC-FT) (add lines 7 through 10)	20.58
PIT GROUNDWATER BALANCE		
12	Lines 6 minus 11	596.91
13	Groundwater Augmentation Volume of pit water returned to GW Basin or subbasin. (Troy Recharge AC-FT)	383.25
14	Stream Augmentation volume of pit water discharged to a definite Stream, during flow conditions that are less than or equal to the accepted exceedance level (AC-FT)	0.00
15	PPT and Runoff Volume of Precipitation and surface runoff into a recharge pit or holding pond (AC-FT)	12.95
16	Recycled Pit Groundwater - Volume of ground water returned to the mine pit or holding basin (AC-FT)	375.23
17	Other Non-Consumptive GW Losses Including pit GW returned to the land surface from which surface runoff flows into a mine pit and other losses (AC-FT)	51.1
18	add lines 13 through 17	822.51
19	OTHER CONSUMPTIVE USE Line 12 minus Line 18	-225.60
TOTAL REPORTED CONSUMPTIVE USE (AC-FT)		
TOTAL NET CONSUMPTIVE USE (AC-FT) Line 11 plus line 19		-205.03

RESULTS FROM RUNOFF MODELLING

2021	pPT. Inches	Quarry Monthly Totals				FW Pond Monthly Totals			Re-cycle Recharge (Troy) Monthly Totals			TXI-Mill Creek Totals		
		Sump Direct ppt	In-Quarry Runoff	Runoff from beyond Quarry	Quarry Totals	Direct ppt	Runoff	Totals	Direct ppt	Runoff	Monthly Totals	Direct ppt	Runoff	Totals
		ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft
January	1.25	2.958	6.382	0.799	10.14	1.95	0.01	1.95	3.65	0.28	3.65	8.55	7.47	7.47
February	0.81	1.917	1.668	0.037	3.62	1.26	0.00	1.26	2.36	0.01	2.36	5.54	1.72	1.72
March	2.81	6.650	31.492	11.616	49.76	4.38	6.93	6.93	8.20	5.22	8.20	19.23	55.25	55.25
Q1 Subtotal	4.87	11.53	39.54	12.45	63.52	7.59	6.93	6.93	14.20	5.51	14.20	33.32	64.44	64.44

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Water Volume Movements	January	February	March
Pumped from Pit	180.4	271.6	221.8
Groundwater Component of Pitwater	147.2	244.9	149.0
Quarry dust suppression	2.1	7.7	5.9
Q- freshwater pond	178.3	263.9	216.0
To Secondary FM7	336.0	293.0	430.5
To sand Plant FM8	104.6	77.0	138.1
to loadout FM6	267.9	187.2	369.4
to dust control FM9	2.265	0.000	0.000
to Plant FM7+FM8+FM6	708.5	557.2	938.0
to stream Augmentation	0.00	0.00	0.00
bypass discharge	0	0	0
To Troy FM3	722.0	530.2	940.2
To Booster FM2	729.4	524.7	967.2
From Troy to Freshwater Pond FM4	550.2	432.6	726.9

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Quarter Summary	1st Qtr
Total Tons Shipped	880,000
Total Acre Feet	18.35
Average Moisture %	2.84%

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Additional info: <https://help.waterdata.usgs.gov/policies/provisional-data-statement>
 # File-format description: <https://help.waterdata.usgs.gov/faq/about-tab-delimited-output>
 # Automated-retrieval info: <https://help.waterdata.usgs.gov/faq/automated-retrievals>
 # Contact: gs-w_support_nwisweb@usgs.gov
 # retrieved: 2021-06-29 16:34:01 EDT (nadww01)

Data for the following 1 site(s) are contained in this file
 # USGS 07331200 Mill Creek near Mill Creek, OK

Data provided for site 07331200
 # TS parameter statistic Description
 # 111780 00060 00003 Discharge, cubic feet per second (Mean)

Data-value qualification codes included in this output:
 # A Approved for publication -- Processing and review completed.

agency_cd	site_no	datetime	111780_00060_00003	111780_00060_00003_cd
5s	15s	20d	14n	10s
USGS	07331200	2021-01-01	55.0	A
USGS	07331200	2021-01-02	22.9	A
USGS	07331200	2021-01-03	13.4	A
USGS	07331200	2021-01-04	8.99	A
USGS	07331200	2021-01-05	6.78	A
USGS	07331200	2021-01-06	5.70	A
USGS	07331200	2021-01-07	5.65	A
USGS	07331200	2021-01-08	4.90	A
USGS	07331200	2021-01-09	4.86	A
USGS	07331200	2021-01-10	4.41	A
USGS	07331200	2021-01-11	4.52	A
USGS	07331200	2021-01-12	4.34	A
USGS	07331200	2021-01-13	6.40	A
USGS	07331200	2021-01-14	9.33	A
USGS	07331200	2021-01-15	9.67	A
USGS	07331200	2021-01-16	7.75	A
USGS	07331200	2021-01-17	6.06	A
USGS	07331200	2021-01-18	5.15	A
USGS	07331200	2021-01-19	4.53	A
USGS	07331200	2021-01-20	4.69	A
USGS	07331200	2021-01-21	8.74	A
USGS	07331200	2021-01-22	7.34	A
USGS	07331200	2021-01-23	5.52	A
USGS	07331200	2021-01-24	5.25	A
USGS	07331200	2021-01-25	12.4	A
USGS	07331200	2021-01-26	9.94	A
USGS	07331200	2021-01-27	6.64	A
USGS	07331200	2021-01-28	4.81	A
USGS	07331200	2021-01-29	4.10	A
USGS	07331200	2021-01-30	6.07	A
USGS	07331200	2021-01-31	5.93	A

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 # Contact: gs-w_support_nwisweb@usgs.gov
 # retrieved: 2021-06-29 16:34:50 EDT (nadww01)

Data for the following 1 site(s) are contained in this file
 # USGS 07331200 Mill Creek near Mill Creek, OK

Data provided for site 07331200
 # TS parameter statistic Description
 # 111780 00060 00003 Discharge, cubic feet per second (Mean)

Data-value qualification codes included in this output:
 # A Approved for publication -- Processing and review completed.
 # e Value has been estimated.

agency_cd	site_no	datetime	111780_00060_00003	111780_00060_00003_cd
5s	15s	20d	14n	10s
USGS	07331200	2021-02-01	5.19	A
USGS	07331200	2021-02-02	4.91	A
USGS	07331200	2021-02-03	4.65	A
USGS	07331200	2021-02-04	4.63	A
USGS	07331200	2021-02-05	4.55	A
USGS	07331200	2021-02-06	8.52	A
USGS	07331200	2021-02-07	10.4	A
USGS	07331200	2021-02-08	9.07	A
USGS	07331200	2021-02-09	6.07	A
USGS	07331200	2021-02-10	4.82	A
USGS	07331200	2021-02-11	4.13	A
USGS	07331200	2021-02-12	3.67	A
USGS	07331200	2021-02-13	3.59	A
USGS	07331200	2021-02-14	3.39	A
USGS	07331200	2021-02-15	1.44	A:e
USGS	07331200	2021-02-16	0.34	A:e
USGS	07331200	2021-02-17	0.05	A:e
USGS	07331200	2021-02-18	-0.00	A:e
USGS	07331200	2021-02-19	0.01	A:e
USGS	07331200	2021-02-20	4.86	A:e
USGS	07331200	2021-02-21	8.78	A
USGS	07331200	2021-02-22	6.59	A
USGS	07331200	2021-02-23	5.56	A
USGS	07331200	2021-02-24	5.11	A
USGS	07331200	2021-02-25	4.80	A
USGS	07331200	2021-02-26	5.40	A
USGS	07331200	2021-02-27	5.19	A
USGS	07331200	2021-02-28	5.39	A

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 # retrieved: 2021-06-29 16:35:42 EDT (nadww01)

Data for the following 1 site(s) are contained in this file
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 # TS parameter statistic Description
 # 111780 00060 00003 Discharge, cubic feet per second (Mean)

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agency_cd		site_no	datetime		111780_00060_00003	111780_00060_00003_cd
5s	15s	20d	14n	10s		
USGS	07331200		2021-03-01		4.90	A
USGS	07331200		2021-03-02		4.54	A
USGS	07331200		2021-03-03		4.25	A
USGS	07331200		2021-03-04		4.09	A
USGS	07331200		2021-03-05		4.24	A
USGS	07331200		2021-03-06		4.03	A
USGS	07331200		2021-03-07		4.02	A
USGS	07331200		2021-03-08		3.96	A
USGS	07331200		2021-03-09		4.17	A
USGS	07331200		2021-03-10		5.53	A
USGS	07331200		2021-03-11		9.08	A
USGS	07331200		2021-03-12		8.51	A
USGS	07331200		2021-03-13		8.17	A
USGS	07331200		2021-03-14		7.80	A
USGS	07331200		2021-03-15		7.17	A
USGS	07331200		2021-03-16		6.52	A
USGS	07331200		2021-03-17		6.25	A
USGS	07331200		2021-03-18		6.16	A
USGS	07331200		2021-03-19		6.18	A
USGS	07331200		2021-03-20		6.30	A
USGS	07331200		2021-03-21		5.50	A
USGS	07331200		2021-03-22		21.4	A
USGS	07331200		2021-03-23		25.2	A
USGS	07331200		2021-03-24		8.81	A
USGS	07331200		2021-03-25		20.7	A
USGS	07331200		2021-03-26		8.21	A
USGS	07331200		2021-03-27		6.01	A
USGS	07331200		2021-03-28		4.93	A
USGS	07331200		2021-03-29		4.52	A
USGS	07331200		2021-03-30		4.83	A
USGS	07331200		2021-03-31		4.41	A

Date Daily Rainfall Total

1/1/2021	0.1
1/2/2021	0
1/3/2021	0
1/4/2021	0
1/5/2021	0
1/6/2021	0.02
1/7/2021	0.1
1/8/2021	0
1/9/2021	0
1/10/2021	0
1/11/2021	0
1/12/2021	0
1/13/2021	0
1/14/2021	0
1/15/2021	0
1/16/2021	0
1/17/2021	0
1/18/2021	0
1/19/2021	0
1/20/2021	0.03
1/21/2021	0
1/22/2021	0
1/23/2021	0
1/24/2021	0.08
1/25/2021	0.75
1/26/2021	0
1/27/2021	0
1/28/2021	0
1/29/2021	0
1/30/2021	0.17
1/31/2021	0
2/1/2021	0
2/2/2021	0
2/3/2021	0
2/4/2021	0
2/5/2021	0
2/6/2021	0.44
2/7/2021	0
2/8/2021	0.08
2/9/2021	0
2/10/2021	0
2/11/2021	0
2/12/2021	0
2/13/2021	0
2/14/2021	0
2/15/2021	0

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2/16/2021	0
2/17/2021	0.02
2/18/2021	0.05
2/19/2021	0.08
2/20/2021	0
2/21/2021	0
2/22/2021	0
2/23/2021	0
2/24/2021	0
2/25/2021	0.08
2/26/2021	0
2/27/2021	0.04
2/28/2021	0.02
3/1/2021	0
3/2/2021	0
3/3/2021	0
3/4/2021	0
3/5/2021	0.01
3/6/2021	0
3/7/2021	0
3/8/2021	0
3/9/2021	0
3/10/2021	0
3/11/2021	0
3/12/2021	0
3/13/2021	0
3/14/2021	0.07
3/15/2021	0
3/16/2021	0
3/17/2021	0
3/18/2021	0
3/19/2021	0
3/20/2021	0
3/21/2021	0
3/22/2021	2.38
3/23/2021	0.01
3/24/2021	0.04
3/25/2021	0.27
3/26/2021	0
3/27/2021	0.03
3/28/2021	0
3/29/2021	0
3/30/2021	0
3/31/2021	0

MESONET CLIMATOLOGICAL DATA SUMMARY																			
January 2021 Nearest City: 6.0 N Tishomingo Longitude: 96-40-44 Time Zone: Midnight-Midnight CST County: Johnston Elevation: 879 feet																			
DAY	TEMPERATURE (F)			DEG DAYS	HUMIDITY (%)		RAIN	PRESSURE (in)		WIND	SPEED (mph)		4" SOIL TEMPERATURES						
	MAX	MIN	AVG	HDD	CDD	MAX	MIN	AVG	(in)	STN	MSL	DIR	AVG	MAX	SOD	BARE	MAX	MIN	
1	37	34	35.7	32.8	29	0	96	79	89	0.08	28.93	29.87	NW	9.9	21.8	43.0	39.8	42	39
2	51	28	38.9	28.2	25	0	93	38	68	0.00	29.15	30.09	WNW	4.5	14.7	43.8	41.4	49	37
3	57	28	40.4	31.0	23	0	94	39	72	0.00	29.01	29.95	ESE	6.1	16.7	43.7	41.4	49	36
4	66	28	45.4	31.0	18	0	97	25	64	0.00	29.13	30.08	NW	5.9	18.3	44.5	42.9	51	36
5	62	27	45.6	32.8	21	0	97	36	65	0.01	29.14	30.09	ESE	6.7	18.6	45.0	43.2	51	36
6	51	42	45.2	40.1	19	0	98	55	84	0.06	29.00	29.94	ESE	8.2	20.5	46.5	45.0	46	44
7	46	37	41.2	38.0	23	0	96	75	88	0.07	29.16	30.10	N	9.9	19.5	46.3	44.1	47	43
8	43	24	36.4	30.0	32	0	95	59	78	0.00	29.36	30.31	N	8.1	18.6	45.6	42.3	47	38
9	45	21	33.1	25.0	32	0	96	43	75	0.00	29.38	30.33	NNE	4.6	13.5	43.2	39.4	46	35
10	38	30	34.2	26.8	31	0	87	64	74	0.00	29.40	30.35	NNE	7.8	17.2	42.8	37.6	39	36
11	48	23	34.7	22.9	29	0	87	33	65	0.00	29.42	30.37	N	5.7	16.8	42.8	39.3	47	35
12	51	19	33.3	23.9	30	0	94	34	72	0.00	29.34	30.29	SW	4.5	18.8	41.6	38.7	46	35
13	60	19	38.4	27.8	26	0	98	32	70	0.00	29.07	30.01	S	6.7	20.8	41.5	39.3	47	34
14	59	30	45.1	25.8	21	0	98	21	53	0.00	28.94	29.88	NW	11.8	41.4	42.9	40.7	47	36
15	48	31	41.0	14.0	25	0	56	23	34	0.00	29.05	29.99	WNW	12.9	39.3	42.2	38.5	43	35
16	54	27	39.8	17.7	25	0	71	19	44	0.00	29.08	30.02	WNW	6.0	21.1	41.5	38.7	46	34
17	56	25	43.0	21.1	25	0	80	20	44	0.00	29.10	30.05	NW	7.1	28.0	42.5	40.3	48	36
18	62	22	43.4	32.0	23	0	89	33	67	0.00	29.05	29.99	S	7.2	29.8	42.5	41.2	49	35
19	56	37	48.3	28.3	19	0	64	33	46	0.00	29.38	30.33	NNE	12.2	28.1	45.6	44.8	49	42
20	45	39	41.2	32.5	23	0	98	49	73	0.06	29.31	30.26	S	5.7	21.3	45.1	42.4	44	41
21	51	41	45.5	43.9	19	0	99	82	94	0.00	29.00	29.94	NE	4.8	12.4	46.0	45.3	49	43
22	55	41	48.8	39.8	17	0	96	50	73	0.00	29.07	30.01	NE	8.3	18.9	47.8	48.6	55	44
23	50	40	46.1	38.7	20	0	85	59	75	0.00	29.09	30.03	SE	7.5	20.4	47.8	46.6	49	44
24	55	45	49.6	48.5	15	0	99	85	96	0.07	28.95	29.89	SE	6.2	20.4	48.9	49.2	52	47
25	63	37	52.4	44.8	15	0	100	36	79	0.62	28.71	29.65	WSW	10.0	39.8	51.4	53.3	59	48
26	46	27	36.9	29.9	28	0	94	56	76	0.00	29.01	29.95	N	7.6	18.9	47.9	45.0	52	39
27	43	24	34.3	26.2	31	0	92	49	73	0.00	29.37	30.32	NNW	9.9	22.2	45.7	41.4	47	38
28	47	22	33.5	24.9	31	0	92	47	72	0.00	29.56	30.51	SE	5.4	13.7	43.7	39.6	47	35
29	58	30	44.4	33.7	21	0	94	44	68	0.00	29.23	30.17	SSE	9.7	24.3	44.7	41.8	48	36
30	68	40	56.0	40.9	11	0	98	21	64	0.14	28.80	29.73	SSE	15.5	43.8	48.3	48.7	54	44
31	53	34	43.2	31.7	21	0	85	44	65	0.00	29.26	30.20	NNW	12.5	31.1	47.4	45.3	51	41
	52	31	41.8	31.1	<- Monthly Averages ->					29.14	30.09	N	8.0	43.8	10.01	44.9	42.8	48	39
Temperature - Highest: 68 Lowest: 19												Degree Days - Total HDD: 727 Total CDD: 0							
Rainfall: Monthly Total: 1.11 in. Greatest 24 Hr: 0.62 in.												Number of Days With: Tmax ≥ 90: 0 Tmax < 32: 0 Tmin < 32: 19 Tmin ≤ 0: 0 Rainfall ≥ 0.01 in: 3 Rainfall ≥ 0.10 in: 3 Avg Wind Speed ≥ 10 mph: 3 Max Wind Speed ≥ 30 mph: 3							

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Kliahoma Water

Number of Days With:
 Tmax ≥ 90: 0
 Tmax ≤ 32: 0
 Tmin ≤ 32: 19
 Tmin ≥ 0: 0
 Rainfall ≥ 0.01 in: 0
 Rainfall ≥ 0.10 in: 0
 Avg Wind Speed ≥ 10 mph: 19
 Max Wind Speed ≥ 30 mph: 0

* Denotes incomplete record

© 1993, 2021 Oklahoma Climatological Survey

Monthly data generated on Friday, April 02, 2021 at 18:46 UTC

MESONET CLIMATOLOGICAL DATA SUMMARY										February 2021		Tishomingo		Time Zone: Midnight-Midnight CST County: Johnston Elevation: 879 feet				
										Nearest City: 6.0 N Longitude: 96-40-44								
DAY	TEMPERATURE (F)			HUMIDITY (%)			RAIN (in)	PRESSURE (in)		WIND SPEED (mph)		SOLAR (MJ/m2)		4" SOIL TEMPERATURES				
	MAX	MIN	AVG	DEWPT	HDD	CDD	MAX	MIN	AVG	STN	MSL	DIR	AVG	MAX	SOD	BARE	MAX	MIN
1	56	29	39.7	27.2	23	0	88	30	65	29.42	30.37	NNW	6.3	16.6	45.7	42.6	51	36
2	60	31	44.4	28.2	20	0	93	24	58	29.24	30.19	SSE	5.1	18.9	46.1	44.0	52	39
3	67	35	50.9	39.3	14	0	84	46	65	28.98	29.92	SSE	12.4	34.1	47.0	45.6	53	38
4	57*	31*	50.1*	37.0*	21*	0*	89*	29*	63*	28.87*	29.80*	NNW*	12.9*	33.7*	49.2*	48.6*	52*	41*
5	57	24	42.2	21.8	24	0	90	20	51	29.00	29.94	SSE	4.6	15.4	46.7	43.5	52	37
6	43	37	40.3	33.7	25	0	97	42	79	28.97	29.91	ESE	7.7	18.9	46.0	42.8	46	41
7	46	31	37.4	33.4	26	0	94	66	86	29.06	30.00	E	7.8	18.6	45.0	41.7	46	39
8	46	27	38.2	37.2	29	0	99	91	96	29.02	29.96	ESE	9.2	22.4	44.7	41.6	44	39
9	27	23	23.9	22.5	40	0	96	93	94	29.22	30.16	N	NA	19.3*	41.8	35.8	39	35
10	25	21	23.9	22.3	42	0	95	91	93	29.23	30.17	NA	NA	NA	39.6	34.1	35	34
11	22	18	20.6	18.0	45	0	93	86	90	29.28	30.22	NA	NA	NA	37.5	33.1	34	33
12	20	17	18.5	15.4	47	0	91	84	87	29.33	30.28	N	13.3*	22.2*	36.0	31.9	33	31
13	25	14	17.7	11.7	46	0	90	66	77	29.32	30.26	N	14.6	26.2	35.2	30.6	31	29
14	16	4	9.5	3.9	55	0	86	68	78	29.36	30.31	N	17.2	32.2	34.4	29.9	31	29
15	10	-4	3.3	-5.3	62	0	80	54	67	29.32	30.27	NNW	12.3	30.3	34.2	30.8	31	31
16	15	-10	4.9	-2.4	63	0	89	50	72	29.21	30.16	ESE	5.1	14.6	34.6	31.0	31	30
17	24	13	19.4	14.7	46	0	90	72	82	29.18	30.12	NNE	7.2	15.8	35.5	31.3	31	31
18	29	10	20.3	11.9	46	0	85	53	70	29.42	30.37	NNW	10.4	26.0	36.4	31.5	32	31
19	36	5	22.1	12.8	44	0	90	42	69	29.46	30.41	NW	5.0	12.9	36.8	31.7	32	31
20	51	18	34.2	25.0	30	0	90	47	71	29.25	30.20	SSE	8.9	23.0	36.9	32.0	32	32
21	64	35	47.5	39.1	16	0	97	45	74	29.06	30.00	SSE	11.1	26.1	39.0	32.4	33	32
22	67	25	46.0	28.9	19	0	94	23	58	29.20	30.15	SW	6.6	24.1	41.5	38.7	49	32
23	76	30	54.5	38.1	12	0	90	27	59	28.98	29.92	S	10.2	33.5	44.1	44.3	54	35
24	66	46	57.4	39.0	9	0	95	26	54	29.03	29.97	N	13.4	29.0	48.3	50.1	57	45
25	50	37	43.6	35.8	22	0	95	52	75	29.23	30.18	NNE	11.7	25.8	46.1	43.8	46	40
26	51	42	45.3	43.6	19	0	99	84	94	29.00	29.94	NE	4.6	13.6	46.5	46.1	49	44
27	57	40	50.8	50.0	16	0	100	80	97	28.93	29.87	ESE	6.2	20.6	47.1	47.7	51	44
28	64	48	55.1	47.6	9	0	100	47	78	28.95	29.89	N	9.4	25.4	49.8	52.0	54	47
	44*	24*	34.3*	26.1*	<-	Monthly Averages ->				29.16*	30.11*	N	9.3*	34.1*	41.8*	38.9*	42*	
Temperature - Highest: 76* Lowest: -10*										Degree Days - Total HDD: 869* Total CDD: 0*		Number of Days With: Tmax ≥ 90: 0* Tmax < 32: 10* Tmin < 32: 20* Tmin ≤ 0: 2*						
Rainfall: Monthly Total: 1.25* in. Greatest 24 Hr: 0.48* in.										Rainfall ≥ 0.01 inch: 38* Rainfall ≥ 0.10 inch: 35* Avg Wind Speed ≥ 10 mph: 11* Max Wind Speed ≥ 30 mph: 55*								

Temperature - Highest: 76*	Degree Days - Total HDD: 869*	Number of Days With: Tmax ≥ 90: 0*
Lowest: -10*	Total CDD: 0*	Rainfall ≥ 0.01 inch: 38*
		Rainfall ≥ 0.10 inch: 5*
Rainfall: Monthly Total: 1.25* in.	Humidity - Highest: 100*	Avg Wind Speed ≥ 10 mph: 11*
Greatest 24 Hr: 0.48* in.	Lowest: 20*	Max Wind Speed ≥ 30 mph: 5*

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 Monthly data generated on Monday, April 19, 2021 at 18:49 UTC
 * Denotes incomplete record



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Time Zone: Midnight-Midnight CST
County: Johnston
Elevation: 1148 ft
Water Resources: Bore

County: Johnson
Elevation:

Temperature - Highest: 78 Lowest: 28	Degree Days - Total HDD: 294 Total CDD: 15	Number of Days With: Tmax \geq 90: 0 Tmax \geq 32: 0 Tmin \leq 32: 4 Tmin \leq 0: 0	With: Rainfall \geq 0.01 inch: 9 Rainfall \geq 0.10 inch: 5 Avg Wind Speed \geq 10 mph: 16 Max Wind Speed \geq 30 mph: 12
Rainfall: Monthly Total: 3.37 in. Greatest 24 Hr: 2.18 in.	Humidity - Highest: 99 Lowest: 19		

* Denotes incomplete record

Monthly data generated on Monday, April 19, 2021 at 18:50 UTC

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Date	Reference ET, Short [in]	Reference ET, Tall [in]	Cool Season Grass ET [in]	Warm Season Grass ET [in]	Pan Evaporation [in]
2021-04-19	0.18	0.23	0.17	0.11	0.23
2021-04-18	0.15	0.20	0.14	0.10	0.20
2021-04-17	0.13	0.17	0.12	0.08	0.18
2021-04-16	0.03	0.03	0.03	0.02	0.03
2021-04-15	0.08	0.11	0.08	0.05	0.10
2021-04-14	0.05	0.06	0.04	0.03	0.06
2021-04-13	0.23	0.33	0.21	0.14	0.34
2021-04-12	0.19	0.27	0.18	0.12	0.27
2021-04-11	0.21	0.29	0.20	0.13	0.28
2021-04-10	0.19	0.26	0.17	0.12	0.26
2021-04-09	0.15	0.22	0.14	0.10	0.21
2021-04-08	0.21	0.28	0.19	0.13	0.28
2021-04-07	0.18	0.24	0.17	0.11	0.26
2021-04-06	0.16	0.23	0.15	0.10	0.23
2021-04-05	0.20	0.26	0.18	0.12	0.27
2021-04-04	0.08	0.10	0.07	0.05	0.10
2021-04-03	0.20	0.29	0.19	0.13	0.29
2021-04-02	0.17	0.24	0.16	0.10	0.24
2021-04-01	0.15	0.20	0.14	0.09	0.20
2021-03-31	0.22	0.34	0.21	0.14	0.38
2021-03-30	0.18	0.26	0.17	0.11	0.25
2021-03-29	0.20	0.29	0.19	0.13	0.29
2021-03-28	0.17	0.23	0.16	0.10	0.23
2021-03-27	0.16	0.21	0.14	0.10	0.20
2021-03-26	0.18	0.24	0.16	0.11	0.23
2021-03-25	0.10	0.13	0.10	0.06	0.13
2021-03-24	0.14	0.20	0.13	0.09	0.19
2021-03-23	0.15	0.20	0.14	0.09	0.20
2021-03-22	0.04	0.06	0.04	0.03	0.05
2021-03-21	0.17	0.23	0.15	0.10	0.23
2021-03-20	0.15	0.20	0.14	0.09	0.20
2021-03-19	0.15	0.21	0.14	0.09	0.21
2021-03-18	0.14	0.20	0.13	0.09	0.20
2021-03-17	0.15	0.22	0.14	0.10	0.22
2021-03-16	0.14	0.19	0.13	0.08	0.18
2021-03-15	0.17	0.24	0.16	0.11	0.23
2021-03-14	0.13	0.19	0.12	0.08	0.18
2021-03-13	0.11	0.17	0.11	0.07	0.15
2021-03-12	0.08	0.10	0.07	0.05	0.10
2021-03-11	0.11	0.16	0.10	0.07	0.14
2021-03-10	0.15	0.23	0.14	0.10	0.23
2021-03-09	0.11	0.15	0.10	0.07	0.15
2021-03-08	0.15	0.22	0.14	0.09	0.21
2021-03-07	0.14	0.19	0.13	0.08	0.18
2021-03-06	0.11	0.15	0.11	0.07	0.14
2021-03-05	0.09	0.13	0.08	0.05	0.12
2021-03-04	0.15	0.22	0.14	0.09	0.20
2021-03-03	0.13	0.18	0.12	0.08	0.16
2021-03-02	0.10	0.13	0.09	0.06	0.13
2021-03-01	0.16	0.23	0.14	0.10	0.23
2021-02-28	0.08	0.11	0.07	0.05	0.10

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2021-02-27	0.02	0.02	0.02	0.01	0.03
2021-02-26	0.03	0.04	0.03	0.02	0.04
2021-02-25	0.06	0.09	0.06	0.04	0.08
2021-02-24	0.16	0.24	0.15	0.10	0.23
2021-02-23	0.17	0.25	0.16	0.10	0.23
2021-02-22	0.12	0.17	0.11	0.07	0.15
2021-02-21	0.10	0.15	0.10	0.07	0.14
2021-02-20	0.08	0.11	0.08	0.05	0.11
2021-02-19	0.05	0.06	0.04	0.03	0.06
2021-02-18	0.04	0.06	0.04	0.03	0.06
2021-02-17	0.02	0.03	0.02	0.01	0.03
2021-02-16	-999.00	-999.00	-999.00	-999.00	-999.00
2021-02-15	0.02	0.03	0.02	0.01	0.03
2021-02-14	0.02	0.03	0.02	0.01	0.03
2021-02-13	0.04	0.05	0.03	0.02	0.05
2021-02-12	0.02	0.02	0.02	0.01	0.02
2021-02-11	0.02	0.02	0.01	0.01	0.02
2021-02-10	0.01	0.01	0.01	0.01	0.01
2021-02-09	0.02	0.02	0.02	0.01	0.02
2021-02-08	0.01	0.01	0.01	0.01	0.02
2021-02-07	0.04	0.06	0.04	0.03	0.05
2021-02-06	0.04	0.05	0.04	0.02	0.05
2021-02-05	0.07	0.10	0.07	0.05	0.09
2021-02-04	0.08	0.11	0.07	0.05	0.11
2021-02-03	0.12	0.18	0.11	0.07	0.16
2021-02-02	0.08	0.11	0.07	0.05	0.10
2021-02-01	0.08	0.12	0.08	0.05	0.10
2021-01-31	0.09	0.13	0.08	0.06	0.13
2021-01-30	0.13	0.21	0.12	0.08	0.19
2021-01-29	0.08	0.12	0.08	0.05	0.11
2021-01-28	0.05	0.06	0.04	0.03	0.06
2021-01-27	0.05	0.08	0.05	0.03	0.07
2021-01-26	0.05	0.07	0.05	0.03	0.06
2021-01-25	0.07	0.10	0.07	0.04	0.09
2021-01-24	0.03	0.03	0.03	0.02	0.03
2021-01-23	0.04	0.06	0.04	0.03	0.05
2021-01-22	0.07	0.10	0.06	0.04	0.09
2021-01-21	0.03	0.03	0.03	0.02	0.03
2021-01-20	0.04	0.06	0.04	0.03	0.05
2021-01-19	0.11	0.17	0.10	0.07	0.16
2021-01-18	0.08	0.12	0.07	0.05	0.10
2021-01-17	0.08	0.13	0.08	0.05	0.11
2021-01-16	0.07	0.11	0.07	0.05	0.10
2021-01-15	0.11	0.18	0.10	0.07	0.17
2021-01-14	0.11	0.17	0.10	0.07	0.16
2021-01-13	0.07	0.10	0.06	0.04	0.09
2021-01-12	0.04	0.06	0.04	0.03	0.05
2021-01-11	0.05	0.08	0.05	0.03	0.07
2021-01-10	0.03	0.05	0.03	0.02	0.04
2021-01-09	0.04	0.05	0.03	0.02	0.04
2021-01-08	0.03	0.04	0.03	0.02	0.04

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2021-01-07	0.03	0.05	0.03	0.02	0.04
2021-01-06	0.04	0.06	0.04	0.03	0.05
2021-01-05	0.07	0.11	0.07	0.05	0.09
2021-01-04	0.08	0.12	0.07	0.05	0.10
2021-01-03	0.06	0.09	0.06	0.04	0.07
2021-01-02	0.04	0.06	0.04	0.03	0.05
2021-01-01	0.02	0.03	0.02	0.01	0.03
2020-12-31	0.04	0.05	0.03	0.02	0.05
2020-12-30	0.08	0.13	0.07	0.05	0.11
2020-12-29	0.06	0.09	0.06	0.04	0.08
2020-12-28	0.09	0.14	0.08	0.06	0.13
2020-12-27	0.13	0.20	0.12	0.08	0.18
2020-12-26	0.11	0.17	0.10	0.07	0.14
2020-12-25	0.04	0.06	0.04	0.03	0.05
2020-12-24	0.09	0.14	0.08	0.05	0.12
2020-12-23	0.11	0.17	0.10	0.07	0.16
2020-12-22	0.11	0.17	0.10	0.07	0.14
2020-12-21	0.06	0.09	0.06	0.04	0.07
2020-12-20	0.07	0.10	0.06	0.04	0.08
2020-12-19	0.04	0.06	0.04	0.03	0.05
2020-12-18	0.07	0.10	0.06	0.04	0.09
2020-12-17	0.05	0.07	0.04	0.03	0.06
2020-12-16	0.03	0.03	0.02	0.02	0.03
2020-12-15	0.01	0.01	0.01	0.01	0.02
2020-12-14	0.04	0.05	0.04	0.02	0.05
2020-12-13	0.02	0.03	0.02	0.01	0.03
2020-12-12	0.05	0.06	0.04	0.03	0.06
2020-12-11	0.03	0.04	0.03	0.02	0.04
2020-12-10	0.10	0.17	0.10	0.06	0.13
2020-12-09	0.08	0.12	0.07	0.05	0.10
2020-12-08	0.09	0.15	0.09	0.06	0.13
2020-12-07	0.07	0.10	0.06	0.04	0.08
2020-12-06	0.08	0.13	0.08	0.05	0.11
2020-12-05	0.07	0.11	0.07	0.04	0.09
2020-12-04	0.05	0.07	0.04	0.03	0.06
2020-12-03	0.03	0.04	0.03	0.02	0.03
2020-12-02	0.03	0.04	0.03	0.02	0.03
2020-12-01	0.09	0.13	0.08	0.05	0.11
2020-11-30	0.07	0.12	0.07	0.05	0.10
2020-11-29	0.07	0.10	0.06	0.04	0.09
2020-11-28	0.08	0.12	0.08	0.05	0.11
2020-11-27	0.10	0.15	0.09	0.06	0.13
2020-11-26	0.08	0.13	0.08	0.05	0.11
2020-11-25	0.08	0.12	0.07	0.05	0.10
2020-11-24	0.05	0.07	0.04	0.03	0.06
2020-11-23	0.05	0.08	0.05	0.03	0.07
2020-11-22	0.03	0.04	0.03	0.02	0.04
2020-11-21	0.05	0.06	0.04	0.03	0.06
2020-11-20	0.09	0.13	0.09	0.06	0.12
2020-11-19	0.13	0.21	0.12	0.08	0.19
2020-11-18	0.15	0.23	0.14	0.09	0.21
2020-11-17	0.09	0.14	0.09	0.06	0.12

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Mill Creek Water Levels 1st Quarter 2021

