



Jesse Martindale
Sr. Environmental Engineer

May 17, 2024

RECEIVED
DEC 06 2024
OKLAHOMA WATER RESOURCES BOARD

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

TX1

Re: Martin Marietta Mill Creek Limestone Quarry Monitoring Report Q1 2024

Dear Mr. Cogburn:

Attached please find the Q1 2024 Quarterly Monitoring Report for Martin Marietta's Mill Creek Limestone quarry. The report is summarized on the table labeled Appendix C. Supporting data is also included.

MEPS for this facility is 128 acre-feet of groundwater per calendar year per permit 2000-533.

Please call if you have any questions or comments.

Sincerely,

A handwritten signature in blue ink that reads 'Jesse Martindale'.

Jesse Martindale
Sr. Environmental Engineer

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2024		Quarry Monthly Totals				FW Pond Monthly Totals		Re-cycle Recharge (Troy) Monthly Totals		MM-Mill Creek Limestone Totals	
	PPT.	Sump Direct ppt	In-Quarry Runoff	Runoff from beyond Quarry	Quarry Totals	Direct ppt	Runoff	Direct ppt	Runoff	Direct ppt	Runoff
	Inches	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft	ac-ft
January	0.36	0.015	10.085	0.988	11.09	2.67	0.14	5.39	0.47	8.07	11.68
February	0.89	0.010	7.240	0.616	7.87	1.78	0.01	3.59	0.26	5.38	8.12
March	2.71	0.023	22.043	3.845	25.91	3.95	1.45	7.98	1.93	11.95	29.27
Q1 Subtotal	3.96	0.05	39.37	5.45	44.86	8.39	1.60	16.97	2.66	25.41	49.08

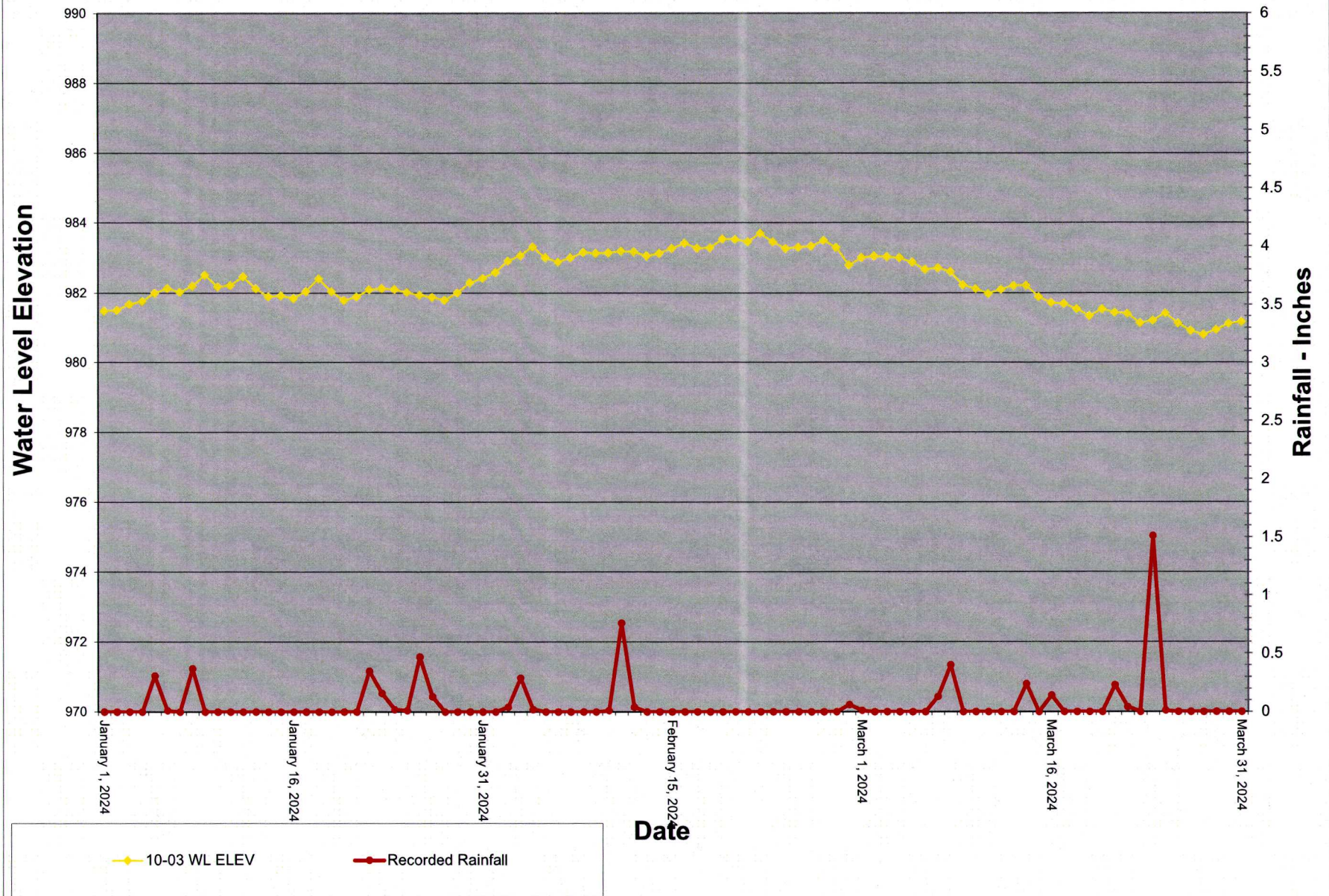
ATTACHMENT 1 (Appendix C)
Martin Marietta Mill Creek Limestone 2024

Appendix C . Consumptive use of Pitwater

Q1 2024

PIT GROUNDWATER VOLUME			
1	Total volume pumped from producing mine pit(s) (AC-FT)		346.5
2	Volume of precipitation that falls onto the surface of producing Mine Pits (AC-FT)		0.0
3	Portion of total precipitation that flows over the land surface that drains into the mine pit water (AC-FT)		44.8
4	(WATER HELD IN PIT FROM PREVIOUS MONTHS) other non pit waters pumped from the producing mining pit (AC-FT)		0.1
5	add lines 2 through 4		45.0
6	Pit Groundwater Volume (AC-FT) (line 1 minus Line 5)		301.5
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)		2.52
9	Vol. of pit groundwater that evaporates from producing mine pits, process ponds and lined ponds (excluding structures used for augmentation) (AC-FT)		0.00
10	Volume of pit groundwater that is used for other beneficial uses off of the mine site (AC-FT) (includes on-site dust control)		5.49
11	DEFINED ELEMENTS OF CONSUMPTIVE USE of Pit groundwater (AC-FT) (add lines 7 through 10)		8.01
PIT GROUNDWATER BALANCE			
12	Lines 6 minus 11		293.50
13	Groundwater Augmentation Volume of pit water returned to GW Basin or subbasin. (Troy Recharge AC-FT)	Credits	449.69
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)		19.62
16	Recycled Pit Groundwater - Volume of ground water returned to the mine pit or holding basin (AC-FT)		246.82
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)		9.28
18	add lines 13 through 17		725.42
19	OTHER CONSUMPTIVE USE Line 12 minus Line 18		-431.91
TOTAL REPORTED CONSUMPTIVE USE (AC-FT)			
TOTAL NET CONSUMPTIVE USE (AC-FT) Line 11 plus line 19			-423.90

Mill Creek Water Levels 1st Quarter 2024



Water Volume Movements			
	January	February	March
Pumped from Pit	105.9	127.1	113.5
Groundwater Component of Pitwater	96.0	120.4	88.9
Quarry dust suppression	0.2	2.0	1.3
Q- freshwater pond	105.6	125.1	112.3
To Secondary FM7	211.4	441.6	448.4
To sand Plant FM8	65.4	155.3	154.7
to loadout FM6	147.6	316.1	300.1
to dust control FM9	0.674	9.672	10.612
to Plant FM7+FM8+FM6	424.4	913.0	903.2
to stream Augmentation	0	0	0
bypass discharge	2.0238	1.9556	0
To Troy FM3	416.9	957.4	943.7
To Booster FM2	433.8	962.3	965.5
From Troy to Freshwater Pond FM4	302.9	871.0	706.8

Quarter Summary	1st Qtr
Total Tons Shipped	870,000
Total Acre Feet	16.52
Average Moisture %	2.58%


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# ----- WARNING -----
# Some of the data that you have obtained from this U.S. Geological Survey database
# may not have received Director's approval. Any such data values are qualified
# as provisional and are subject to revision. Provisional data are released on the
# condition that neither the USGS nor the United States Government may be held liable
# for any damages resulting from its use.
#
# Additional info: https://waterdata.usgs.gov/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_waterdata_support@usgs.gov
# retrieved: 2024-05-17 09:24:26 EDT (sdww02)
#
# 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
# 325587 00060 00003 Discharge, cubic feet per second (Mean)
#
# Data-value qualification codes included in this output:
# A Approved for publication -- Processing and review completed.
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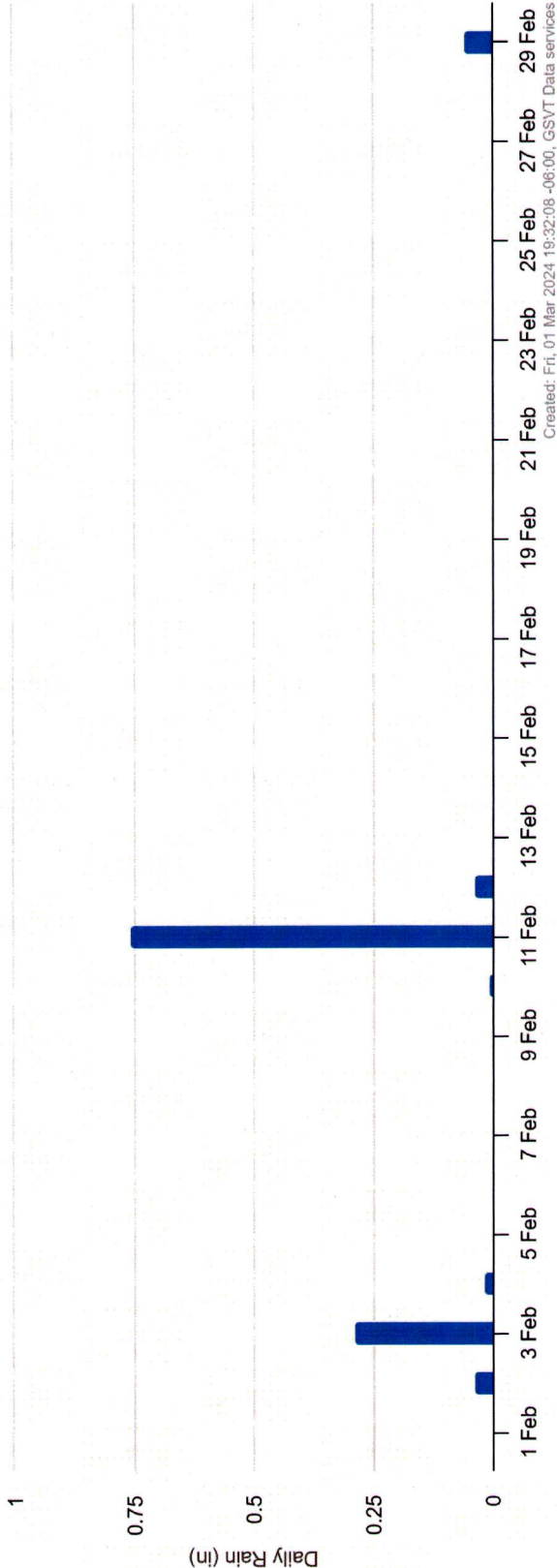
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Date	Reference ET, Short (in.)	Reference ET, Tall (in.)	Cool Season Grass ET (in.)	Warm Season Grass ET (in.)	Pan Evapotranspira tion (in.)
1/1/2024	0.05	0.07	0.04	0.03	0.06
1/2/2024	0.03	0.05	0.03	0.02	0.04
1/3/2024	0.04	0.06	0.04	0.03	0.05
1/4/2024	0.06	0.08	0.05	0.03	0.07
1/5/2024	0.02	0.02	0.02	0.01	0.02
1/6/2024	0.03	0.04	0.03	0.02	0.03
1/7/2024	0.07	0.11	0.07	0.04	0.09
1/8/2024	0.04	0.06	0.04	0.02	0.05
1/9/2024	0.05	0.08	0.05	0.03	0.08
1/10/2024	0.09	0.14	0.08	0.06	0.12
1/11/2024	0.09	0.13	0.08	0.05	0.11
1/12/2024	0.12	0.2	0.12	0.08	0.17
1/13/2024	0.05	0.08	0.05	0.03	0.08
1/14/2024	0.02	0.04	0.02	0.02	0.04
1/15/2024	0.04	0.06	0.04	0.02	0.06
1/16/2024	0.04	0.05	0.03	0.02	0.05
1/17/2024	0.07	0.11	0.06	0.04	0.1
1/18/2024	0.09	0.14	0.08	0.06	0.12
1/19/2024	0.07	0.11	0.07	0.05	0.11
1/20/2024	0.05	0.07	0.04	0.03	0.06
1/21/2024	0.04	0.06	0.04	0.03	0.06
1/22/2024	0.01	0.02	0.01	0.01	0.02
1/23/2024	0.02	0.02	0.02	0.01	0.02
1/24/2024	0.02	0.02	0.02	0.01	0.03
1/25/2024	0.03	0.04	0.03	0.02	0.04
1/26/2024	0.02	0.03	0.02	0.01	0.03
1/27/2024	0.02	0.03	0.02	0.01	0.03
1/28/2024	0.06	0.08	0.05	0.04	0.07
1/29/2024	0.08	0.11	0.07	0.05	0.09
1/30/2024	0.1	0.14	0.09	0.06	0.12
1/31/2024	0.09	0.12	0.08	0.05	0.11
2/1/2024	0.11	0.17	0.11	0.07	0.15
2/2/2024	0.03	0.05	0.03	0.02	0.04
2/3/2024	0.04	0.05	0.03	0.02	0.04
2/4/2024	0.05	0.07	0.05	0.03	0.07
2/5/2024	0.1	0.14	0.09	0.06	0.13
2/6/2024	0.09	0.12	0.08	0.05	0.11
2/7/2024	0.13	0.19	0.12	0.08	0.18
2/8/2024	0.14	0.21	0.13	0.09	0.19
2/9/2024	0.08	0.11	0.07	0.05	0.1
2/10/2024	0.06	0.09	0.06	0.04	0.08
2/11/2024	0.03	0.04	0.03	0.02	0.04
2/12/2024	0.08	0.11	0.07	0.05	0.1

2/13/2024	0.09	0.12	0.08	0.05	0.11
2/14/2024	0.12	0.17	0.11	0.07	0.15
2/15/2024	0.08	0.1	0.07	0.05	0.09
2/16/2024	0.08	0.11	0.07	0.05	0.1
2/17/2024	0.07	0.1	0.06	0.04	0.1
2/18/2024	0.07	0.09	0.07	0.04	0.09
2/19/2024	0.11	0.16	0.1	0.07	0.14
2/20/2024	0.15	0.22	0.14	0.09	0.19
2/21/2024	0.15	0.22	0.14	0.09	0.2
2/22/2024	0.17	0.24	0.15	0.1	0.23
2/23/2024	0.15	0.22	0.14	0.09	0.21
2/24/2024	0.15	0.22	0.14	0.09	0.21
2/25/2024	0.18	0.27	0.17	0.11	0.25
2/26/2024	0.18	0.27	0.16	0.11	0.23
2/27/2024	0.09	0.12	0.08	0.05	0.12
2/28/2024	0.1	0.16	0.1	0.06	0.15
2/29/2024	0.05	0.08	0.05	0.03	0.07
3/1/2024	0.08	0.1	0.07	0.05	0.1
3/2/2024	0.17	0.25	0.16	0.11	0.23
3/3/2024	0.17	0.24	0.16	0.1	0.23
3/4/2024	0.14	0.2	0.13	0.08	0.18
3/5/2024	0.12	0.18	0.11	0.08	0.16
3/6/2024	0.12	0.16	0.11	0.07	0.15
3/8/2024	0.05	0.07	0.05	0.03	0.06
3/9/2024	0.13	0.18	0.12	0.08	0.17
3/10/2024	0.11	0.15	0.1	0.07	0.14
3/11/2024	0.12	0.17	0.11	0.08	0.16
3/12/2024	0.14	0.2	0.13	0.09	0.19
3/13/2024	0.15	0.2	0.14	0.09	0.2
3/14/2024	0.11	0.15	0.1	0.07	0.14
3/15/2024	0.08	0.11	0.07	0.05	0.1
3/16/2024	0.04	0.04	0.04	0.02	0.05
3/17/2024	0.17	0.24	0.15	0.1	0.24
3/18/2024	0.13	0.18	0.12	0.08	0.19
3/19/2024	0.14	0.2	0.13	0.09	0.18
3/20/2024	0.13	0.17	0.12	0.08	0.17
3/21/2024	0.06	0.07	0.05	0.04	0.07
3/22/2024	0.09	0.12	0.08	0.06	0.11
3/23/2024	0.13	0.17	0.12	0.08	0.17
3/24/2024	0.1	0.14	0.09	0.06	0.13
3/25/2024	0.12	0.17	0.12	0.08	0.17
3/26/2024	0.12	0.16	0.11	0.07	0.16
3/27/2024	0.11	0.15	0.1	0.07	0.15
3/28/2024	0.14	0.19	0.13	0.09	0.19
3/29/2024	0.18	0.26	0.17	0.11	0.26
3/30/2024	0.15	0.2	0.14	0.09	0.2
3/31/2024	0.07	0.09	0.07	0.04	0.09

Martin Marietta Mill Creek Limestone Weather - Daily Total Rain

Total Rain: 1.22 (in)



Created: Fri, 01 Mar 2024 19:32:08 -06:00, GSVT Data services

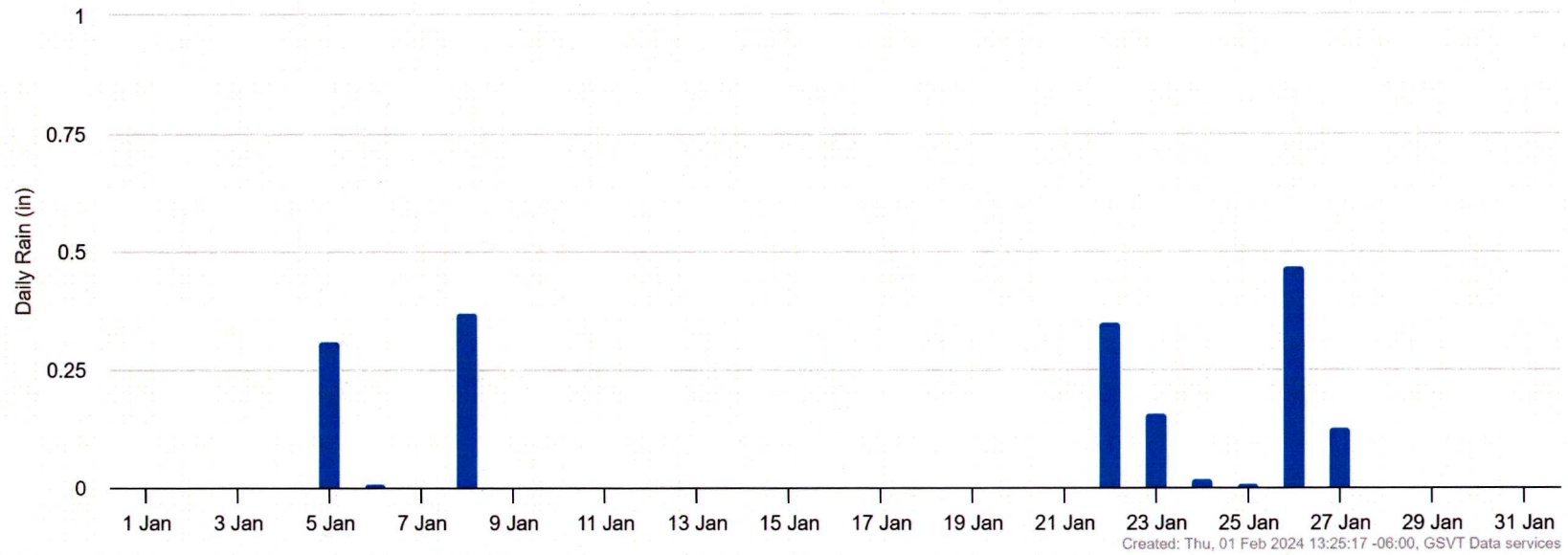
Date	Daily Rain (in)
2/1/2024	0
2/2/2024	0.04
2/3/2024	0.29
2/4/2024	0.02
2/5/2024	0
2/6/2024	0
2/7/2024	0
2/8/2024	0
2/9/2024	0
2/10/2024	0.01

2/11/2024	0.76
2/12/2024	0.04
2/13/2024	0
2/14/2024	0
2/15/2024	0
2/16/2024	0
2/17/2024	0
2/18/2024	0
2/19/2024	0
2/20/2024	0
2/21/2024	0

2/22/2024	0
2/23/2024	0
2/24/2024	0
2/25/2024	0
2/26/2024	0
2/27/2024	0
2/28/2024	0
2/29/2024	0.06

Martin Marietta Mill Creek Limestone Weather - Daily Total Rain

Total Rain: 1.83 (in)

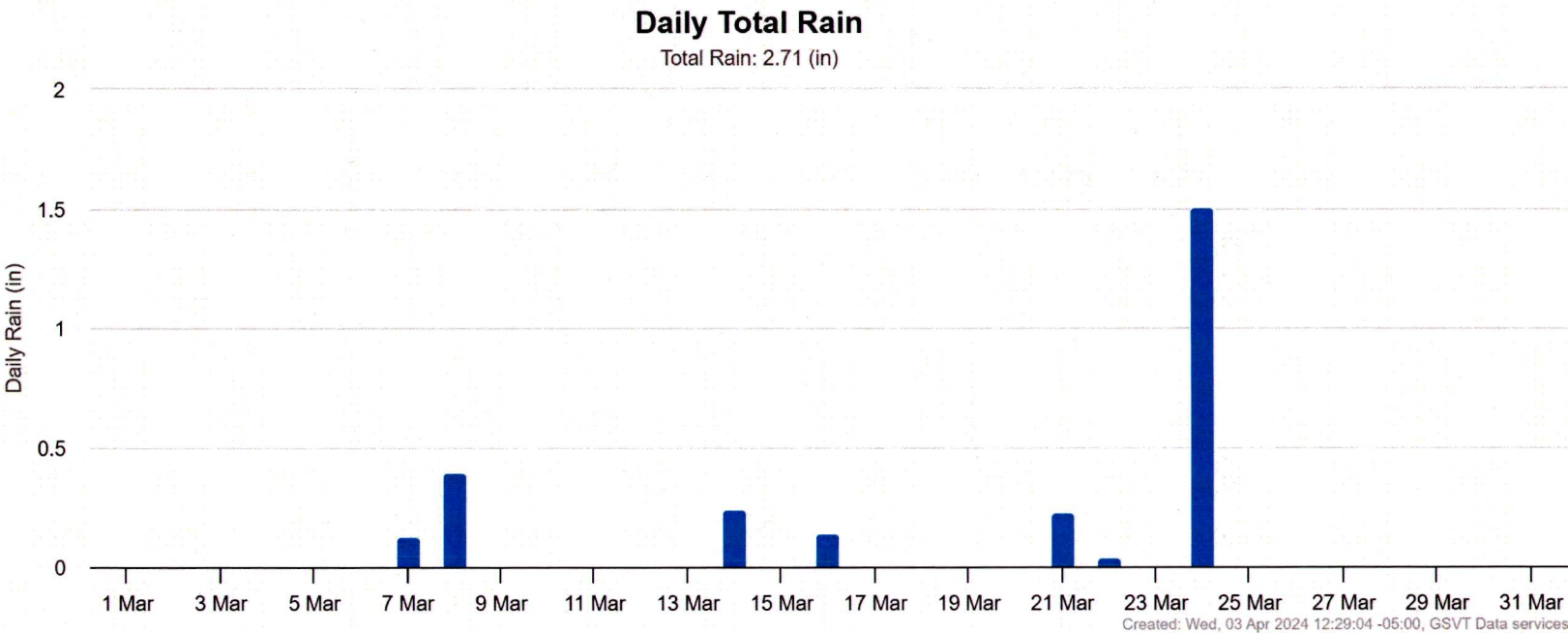


Date	Daily Rain (in)
1/1/2024	0
1/2/2024	0
1/3/2024	0
1/4/2024	0
1/5/2024	0.31
1/6/2024	0.01
1/7/2024	0
1/8/2024	0.37
1/9/2024	0
1/10/2024	0
1/11/2024	0
1/12/2024	0

1/13/2024	0
1/14/2024	0
1/15/2024	0
1/16/2024	0
1/17/2024	0
1/18/2024	0
1/19/2024	0
1/20/2024	0
1/21/2024	0
1/22/2024	0.35
1/23/2024	0.16
1/24/2024	0.02
1/25/2024	0.01

1/26/2024	0.47
1/27/2024	0.13
1/28/2024	0
1/29/2024	0
1/30/2024	0
1/31/2024	0

MARTIN MARIETTA MILL CREEK LIMESTONE WEATHER – DAILY TOTAL RAIN



Date	Daily Rain (in)
3/1/2024	0.01
3/2/2024	0
3/3/2024	0
3/4/2024	0
3/5/2024	0
3/6/2024	0
3/7/2024	0.13
3/8/2024	0.4
3/9/2024	0
3/10/2024	0
3/11/2024	0
3/12/2024	0

3/13/2024	0
3/14/2024	0.24
3/15/2024	0
3/16/2024	0.14
3/17/2024	0
3/18/2024	0
3/19/2024	0
3/20/2024	0
3/21/2024	0.23
3/22/2024	0.04
3/23/2024	0
3/24/2024	1.51
3/25/2024	0.01

3/26/2024	0
3/27/2024	0
3/28/2024	0
3/29/2024	0
3/30/2024	0
3/31/2024	0