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24 March 2025  
25-HSE-017

Mr. Jason Tutkowski  
Oklahoma Water Resources Board  
3800 North Classen Boulevard  
Oklahoma City, OK 73118

OKLAHOMA WATER RESOURCES BOARD

RE: Water Monitoring Plan Report, 4<sup>th</sup> Quarter 2024, for Dolese Bros. Co. Big Canyon Quarry, Murray County, Oklahoma

Dear Mr. Tutkowski:

According to the Oklahoma Water Resources Board's Title 785, Chapter 30, Subchapter 15, Part 4, *Mines with Preexisting Exemptions*, Dolese Bros. Co. Big Canyon Quarry qualifies as a mine with a preexisting exemption. As part of maintaining this exemption status, the regulations require us to do the following:

1. Adopt and implement a plan to monitor and report to the Board the accumulation and disposition of pit water during the previous calendar year.
  - The Big Canyon Quarry has adopted and implemented such a plan, and the tables below serve to report to the Board the accumulation and disposition of pit water during 4<sup>th</sup> Quarter 2024.
2. Make quarterly and annual reports of the measured or reasonably estimated groundwater and surface water volumes, separately stated, entering the pit, of the water that is diverted from the pit, of the disposition of the water from the pit, and of the consumptive use of the water from the pit on or before the deadlines provided by Title 82 of Oklahoma Statutes, § 1020.2(E)(1).
  - Mining operations were suspended at this quarry before SB597 was passed. All permits were kept active, and operations resumed earlier this year. The third quarter is the first quarter with mining activity taking place. Product has not been sold or transported off site.
3. At any time after March 31, 2015, demonstrate to the satisfaction of the Board within the pertinent report or reports that the mine has not consumptively used during the previous twelve-month period, from the mining site, an amount of groundwater which combined with any amounts used from permitted groundwater wells exceeds the Mine's Equal Proportionate Share (MEPS). Such demonstration may require providing to the Board a copy of the mine's monitoring plan and all the data collected and procedures used to support the calculations and results reported.
  - The Big Canyon Quarry will be willing to demonstrate to the Board that the mine site has not consumptively used during the previous twelve-month period from the mining site, an amount of groundwater which combined with any amounts used from permitted groundwater wells exceeds the MEPS.

Using OWRB's Appendix C, our calculations show that Big Canyon Quarry's total estimated groundwater consumption for 4<sup>th</sup> Quarter 2024 was 1.58 acre-feet. Our sources of "consumptive use" in order or magnitude are: water used for land application of dust suppression, evaporation from the pit, water used for dust suppression on the plant, and moisture trapped in material that is hauled away from the site.

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During the fourth quarter, the largest individual consumptive use was associated with dust suppression totaling 5.83 acre-feet. The dust suppression water is used on the haul road and land applied when material is being brought from the pit along with dust suppression on the processing plant. This dust suppression accounts for 5.56 and 0.27 acre-feet of consumptive use respectively.

The lake-evaporation in acre-feet was calculated from the pan-evaporation for the quarter from Mesonet. The quarterly lake-evaporation was 2.89 acre-feet. This evaporation is offset by direct and indirect precipitation into the pit. Direct precipitation accounted for an addition of 2.49 acre-feet and indirect precipitation accounted for 1.76 acre-feet. 0.23 acre-feet was hauled away from the site with the sold material.

Our total consumptive use, as defined in SB597, is 1.58 acre-feet for the quarter. We are allowed 286.8 acre-feet per year from 1,434 acres of land that overlies the ASA. We often combine this water right with our water right from our Davis Quarry when evaluating water use in the ASA for the year.

An annual summary of Big Canyon's consumptive use, using OWRB Appendix C, is shown below.

**Table 1:** Annual Summary of Inflows and Outflows to the Mine Pit

Quarter	Pit Water Used (acre-feet)	Net Water Entering Pit (acre-feet)	Reported Consumptive Use (acre-feet)
1 <sup>st</sup>	2.89	2.14	0.75
2 <sup>nd</sup>	8.99	9.92	-0.92
3 <sup>rd</sup>	15.57	2.62	12.95
4 <sup>th</sup>	5.83	4.25	1.58
2024 Total	33.28	18.93	14.36

As we have stated for many quarters in our Davis reports, water management always has been and continues to be very important to us at Dolese Bros. Co., especially at the Big Canyon and Davis Quarries. We understand that the Arbuckle Simpson Aquifer is a unique aquifer that must be protected. Our plant personnel make daily efforts to responsibly manage the waters within our quarry boundaries so that when they return to their nearby homes and properties, these same quality waters will be available for their personal and community uses.

Please contact me if you have any questions or comments concerning this submittal. Thank you.

Sincerely,

Dolese Bros. Co.

*Remington Butler*

Remington Butler  
Environmental Engineer

cc: Mr. Chris Neel, Oklahoma Water Resources Board  
Mr. Matt Cogburn, Oklahoma Water Resources Board

Email: [rbutler@dolese.com](mailto:rbutler@dolese.com)  
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PIT GROUNDWATER VOLUME		
1	Total volume of water pumped from the producing mine pit(s)	5.83
2	Volume of precipitation that falls onto the surface of water in the producing mining pit(s)	2.49
3	Portion of total precipitation that flows over the land surface that drains into the mine pit water	1.76
4	Other non-pit waters pumped from the producing mine pit	0.00
5	Add lines 2 through 4	4.25
6	<b>Pit Groundwater Volume</b> Line 1 minus Line 5	1.58
DEFINED ELEMENTS OF CONSUMPTIVE USE		
7	Volume of pit groundwater that is driven off (by drying) the mined material transported off the mine site	0.00
8	Volume of pit groundwater that is carried away with the mined material transported off the mining site (shipped)	0.23
9	Volume of pit groundwater that evaporates from the producing mine pit, process water ponds, and lined ponds (Excluding structures used for augmentation)	2.89
10	Volume of pit groundwater that is used for other beneficial uses off the mine site	0.00
11	<b>Defined Elements of Consumptive Use of Pit Groundwater</b> Add Lines 7 through 10	3.11
PIT GROUNDWATER BALANCE		
12	Line 6 minus Line 11	-1.53
13	<b>Groundwater Augmentation</b> Volume of pit groundwater returned to the groundwater basin or subbasin, pursuant to a Management Plan	Credits 0.00
14	<b>Stream Augmentation</b> Volume of pit groundwater discharged to a definite stream, during flow conditions that are less than or equal to 50% exceedance, pursuant to a Management Plan	
15	<b>Precipitation &amp; Run-off</b> Volume of precipitation and surface run-off into a recharge pit or holding pond used for augmentation	
16	<b>Recycled Pit Groundwater</b> Volume of pit groundwater returned to a mine pit or holding basin (not included on lines 7 through 10)	0.00
17	<b>Other Non-Consumptive Losses</b> Including pit groundwater returned to the land surface from which surface runoff flows into a mine pit, and other losses (not included in lines 7 through 10)	0.00
18	Add lines 13 through 17	0.00
19	<b>Other Consumptive Use (adjusted)</b> Line 12 minus Line 18	-1.53
TOTAL REPORTED CONSUMPTIVE USE OF PIT		
20	<b>Total Net Reported Consumptive Use</b> Line 11 plus Line 19	1.58