

*Corporate Environmental Affairs*

June 21, 2018

**RECEIVED**

**JUN 22 2018**

Oklahoma Water Resources Board

Oklahoma Water Resources Board  
3800 N. Classen  
Oklahoma City, OK 73118  
(405) 530-8800

**Consumptive Water Use Report – Quarter 1, 2018  
Mine L.E.-1565 – Unimin Corporation – Roff Facility**

Dear Sir or Madam:

Enclosed please find Unimin's consumptive water use report for the first quarter of 2018. As noted on the attached worksheet, the plant remains below our allocated equal proportionate share.

If you have any questions or require any additional information, please contact myself or Jim Bonsall at (580) 456-7772.

Respectfully,

David Caldwell  
QC Supervisor

**Attachments**

CC Plant  
IRO

# Consumptive Use of Pitwater Worksheet Quarter 1

Enter Values In Yellow

Pit Groundwater Volume		Amount	(gallons)	
1	Total volume of water pumped from the producing mine pit(s)	424,705,500		
2	Volume of precipitation that falls onto the surface of water in the producing mining pit(s)	33,229,107	Area of Pit:	1.16 (acres)
3	Portion of total precipitation that flows over the land surfaces that drains into the mine pit water	0	Rainfall:	10.55 (inches)
4	Other non-pit waters pumped from the producing mine pit	0		
5	Add lines 2 through 4	33,229,107		
6	<b>Pit Groundwater Volume (Line 1 - Line 5)</b>	<b>391,476,393</b>		
Defined Elements of Consumptive Use		Amount	(gallons)	
7	Volume of pit water that is driven off (by drying) the mined material transported off the mine site	3,442,946	Tons Mined	287,486
8	Volume of pit water that is carried away with the mined material transported off the mining site (shipped)	0	% Moisture	5.0
9	Volume of pit water that evaporates from the producing mine pit, process water ponds, and lined ponds (excluding structures used for augmentation)	557,767	ASHRAE Evaporation Model	A: 95
10	Volume of pit water that is used for other beneficial uses off the mine site (outfall discharge)	843,835,314		B: 37.4
11	<b>Defined Elements of Consumptive Use of Pit Groundwater (add Lines 7 through 10)</b>	<b>847,836,027</b>		V: 5 (in/hr)
				Pw: 0.69 (in-Hg)
				Ps: 0.522 (in-Hg)
				Hv: 970.4 (Btu/lb)
			Evap Area:	10 (acre)
Pit Groundwater Balance		Amount	(gallons)	
12	Total groundwater from pit	391,476,393		
13	Groundwater Augmentation (Volume of pit groundwater returned to the groundwater basin or sub basin)	0		
14	Stream Augmentation (Volume of pit groundwater discharged to a definite stream, during flow conditions that are less than or equal to 50% exceedance or median historic flows)	843,835,314		
15	Precipitation & Run-off (Volume of precipitation and surface run-off into a recharge pit or holding pond used for augmentation)	0		
16	Additional Discharge (Volume of pit groundwater discharged to a definite stream, not meeting stream augmentation credit criteria)	0		
17	Recycled Pit Groundwater (Volume of pit groundwater returned to a mine pit or holding basin not included on lines 7 through 10)	391,476,393		
18	Other Non-Consumptive Losses (Including pit groundwater returned to the land surface from which surface run-off flows into a mine pit, and other losses not included in lines 7 through 10)	0		
19	Add lines 13 through 18	1,235,311,707		
20	<b>Other Consumptive Use (adjusted) Line 12 minus 19</b>	<b>-843,835,314</b>		
				CREDITS
Total Reported Consumptive Use Of Pit		Amount	(gallons)	
21	<b>Total Reported Consumptive Use Of Pit (add Line 11 and Line 20)</b>	<b>4,000,713</b>		
	Facility's Equal Proportionate Share (EPS)	62,693,815	at	0.2 acre-feet for 962 acres

Oklahoma Water Resources Board

JUN 22 2018

RECEIVED