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Oklahoma Water Resources Board

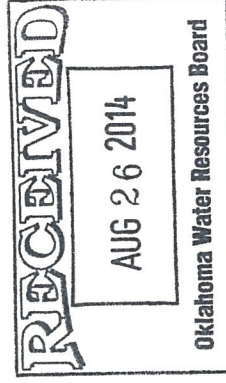
**MMM Davis Quarry 2014 Monitoring Report**

All volumes are in acre-feet.

	Total Groundwater Entering Pit	Total Stormwater Entering Pit	Total Pit Stormwater Diverted	Total Pit Water Diverted	Pit Water Sent To Holding Basin	Groundwater Augmentation	Streamwater Augmentation	Consumptive Use of Pit Water	Consumptive Use of Groundwater	Groundwater Pumped From Well
January-14	-7.51	0.72	0.72	-6.79	N/A	-7.51	0.00	3.36	0.00	0.00
February-14	2.55	1.38	1.38	3.92	N/A	2.55	0.00	3.12	0.00	0.00
March-14	-6.05	18.93	18.93	12.88	N/A	-6.05	0.00	3.63	0.00	0.00
<b>1st QTR Totals</b>	<b>-11.02</b>	<b>21.03</b>	<b>21.03</b>	<b>10.01</b>	<b>0.00</b>	<b>-11.02</b>	<b>0.00</b>	<b>10.10</b>	<b>0.00</b>	<b>0.00</b>
April-14	-8.90	10.19	10.19	1.29	N/A	-8.90	0.00	4.68	0.00	0.00
May-14	-4.12	9.78	9.78	5.66	N/A	-4.12	0.00	5.24	0.00	0.00
June-14	-35.01	48.77	48.77	13.76	N/A	-35.01	0.00	4.50	0.00	0.00
<b>2nd QTR Totals</b>	<b>-48.04</b>	<b>68.75</b>	<b>68.75</b>	<b>20.71</b>	<b>0.00</b>	<b>-48.04</b>	<b>0.00</b>	<b>14.42</b>	<b>0.00</b>	<b>0.00</b>

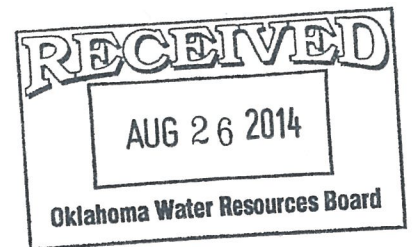
	Consumptive Use											
	January	February	March	April	May	June	July	August	September			
Water Truck Usage	0.49	0.34	0.40	1.23	1.44	0.74	-	-	-			
Moisture Content of Product Shipped	2.87	2.78	3.23	3.46	3.80	3.76	-	-	-			
Misc on site use	-	-	-	-	-	-	-	-	-			
Misc off site	-	-	-	-	-	-	-	-	-			
<b>Total</b>	<b>3.36</b>	<b>3.12</b>	<b>3.63</b>	<b>4.68</b>	<b>5.24</b>	<b>4.50</b>	<b>-</b>	<b>-</b>	<b>-</b>			

	January	February	March	April	May	June	July	August	September
	Shipped Tons	52,439	49,339	54,065	58,759	62,687	54,216	-	-
Base	75,435	62,483	76,095	94,111	97,268	83,133	-	-	-
Coarse Aggregate	12,723	17,953	21,728	17,340	23,006	34,115	-	-	-
Fine Aggregate	140,597	129,775	151,888	170,210	182,961	171,463	-	-	-
<b>Total</b>	<b>2.87</b>	<b>2.78</b>	<b>3.23</b>	<b>3.46</b>	<b>3.80</b>	<b>3.76</b>	<b>-</b>	<b>-</b>	<b>-</b>



## Davis Water Balance

	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14
<b>Monitoring Period, Days</b>	31	28	31	30	31	30
<b>Monthly Production, tons</b>	129,160	112,239	155,305	168,000	173,134	150,060
<b>Product Moisture Content</b>	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
<b>Water Truck Loads</b>	16	11	13	40	47	24
<b>Month End Water Elevs.</b>						
1) Freshwater pond, depth to water	18.392	18.152	9.338	14.164	15.169	6.947
2) Pit Sump, depth to water	15.111	14.273	14.249	14.823	14.336	11.656
<b>Pond Surface Acres</b>						
1) Freshwater pond	0.937	0.937	0.937	0.937	0.937	0.937
2) Pit Sump	0.322	0.322	0.322	0.322	0.322	0.322
Total surface acres	1.259	1.259	1.259	1.259	1.259	1.259
<b>Pond Water Volume Change</b>						
1) Freshwater pond	-6.766	0.225	8.259	-4.522	-0.942	7.704
2) Pit Sump	-0.047	0.270	0.008	-0.185	0.157	0.863
3) Change in settling pond storage	0.000	0.000	0.000	0.000	0.000	0.000
<b>Net Volume Change</b>	<b>-6.813</b>	<b>0.495</b>	<b>8.266</b>	<b>-4.707</b>	<b>-0.785</b>	<b>8.567</b>
<b>Water Inputs, ac-ft</b>						
Rural Water	4.103	0.017	0.247	0.081	0.084	0.059
Lake Water	0.000	0.000	0.000	0.000	0.000	0.000
Well Water	0.000	0.000	0.000	0.000	0.000	0.000
Precipitation	0.725	1.377	18.929	10.192	9.785	48.774
<b>Total Water Input</b>	<b>4.828</b>	<b>1.394</b>	<b>19.175</b>	<b>10.273</b>	<b>9.869</b>	<b>48.833</b>
<b>Water Usage, ac-ft</b>						
Product moisture content	3.326	2.890	4.000	4.326	4.459	3.864
Haul road dust control	0.491	0.338	0.399	1.228	1.442	0.737
Evaporation losses	0.311	0.219	0.457	0.522	0.630	0.654
Misc usage	0	0	0	0	0	0
<b>Total Water Usage, Ac-ft</b>	<b>4.128</b>	<b>3.447</b>	<b>4.856</b>	<b>6.076</b>	<b>6.531</b>	<b>5.255</b>
<b>Net Water Input</b>	<b>0.699</b>	<b>-2.053</b>	<b>14.320</b>	<b>4.197</b>	<b>3.338</b>	<b>43.578</b>
<b>Groundwater Inflow</b>	<b>-7.513</b>	<b>2.548</b>	<b>-6.053</b>	<b>-8.904</b>	<b>-4.123</b>	<b>-35.011</b>
<b>Groundwater Inflow, Avg Ac-ft/Day</b>	<b>-0.242</b>	<b>0.091</b>	<b>-0.195</b>	<b>-0.297</b>	<b>-0.133</b>	<b>-1.167</b>
<b>Groundwater Inflow, Avg Gallons/Day</b>	<b>-78,968</b>	<b>29,650</b>	<b>-63,627</b>	<b>-96,715</b>	<b>-43,337</b>	<b>-380,277</b>

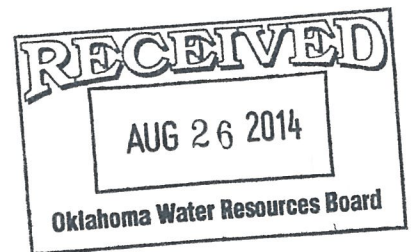


April Precipitation Data

PIT RUNOFF ASSUMPTIONS		
Hydrologic Soil Group	D	
Land Use	gravel road	
AMC Condition	II (ave)	
CN (pit fringe)	88	area draining into pit
CN (pit)	100	area with direct interception
S (pit fringe)	1.364	area draining into pit
S (pit)	0.000	area with direct interception
Pit - Direct Interception (>95 ft deep)	54.36	subject to refinement
Pit fringe (area drains to pit)	68.34	subject to refinement
Drainage to Pit (total area)	122.70	subject to refinement

Quarry area Fringe area

Date	Precip, in.	Runoff, in.	Runoff, in.	Evapor, in/day
1-Apr	0.00	0.00	0.00	0.10
2-Apr	0.00	0.00	0.00	0.11
3-Apr	0.00	0.00	0.00	0.25
4-Apr	0.00	0.00	0.00	0.17
5-Apr	0.09	0.09	0.00	0.10
6-Apr	0.57	0.57	0.00	0.01
7-Apr	0.01	0.01	0.00	0.13
8-Apr	0.00	0.00	0.00	0.13
9-Apr	0.00	0.00	0.00	0.21
10-Apr	0.00	0.00	0.00	0.23
11-Apr	0.00	0.00	0.00	0.18
12-Apr	0.00	0.00	0.00	0.17
13-Apr	0.21	0.21	0.00	0.16
14-Apr	0.01	0.01	0.00	0.10
15-Apr	0.00	0.00	0.00	0.19
16-Apr	0.00	0.00	0.00	0.19
17-Apr	0.00	0.00	0.00	0.09
18-Apr	0.00	0.00	0.00	0.18
19-Apr	0.00	0.00	0.00	0.17
20-Apr	0.30	0.30	0.00	0.06
21-Apr	0.83	0.83	0.00	0.10
22-Apr	0.00	0.00	0.00	0.19
23-Apr	0.01	0.01	0.00	0.20
24-Apr	0.10	0.10	0.00	0.22
25-Apr	0.00	0.00	0.00	0.21
26-Apr	0.00	0.00	0.00	0.21
27-Apr	0.12	0.12	0.00	0.28
28-Apr	0.00	0.00	0.00	0.25
29-Apr	0.00	0.00	0.00	0.19
30-Apr	0.00	0.00	0.00	0.19
		0.00	0.00	
		2.25	0.00	
<b>Volume, ac-ft</b>		<b>10.19</b>	<b>0.00</b>	<b>4.9708</b>
<b>Total Vol, ac-ft</b>		<b>10.19</b>		

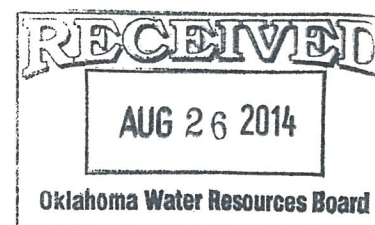


May Precipitation Data

PIT RUNOFF ASSUMPTIONS		
Hydrologic Soil Group	D	
Land Use	gravel road	
AMC Condition	II (ave)	
CN (pit fringe)	88	area draining into pit
CN (pit)	100	area with direct interception
S (pit fringe)	1.364	area draining into pit
S (pit)	0.000	area with direct interception
Pit - Direct Interception (>95 ft deep)	54.36	subject to refinement
Pit fringe (area drains to pit)	68.34	subject to refinement
Drainage to Pit (total area)	122.70	subject to refinement

Quarry areFringe area

Date	Precip, in.	Runoff, in.	Runoff, in.	Evapor, in/day
1-May	0.00	0.00	0.00	0.23
2-May	0.00	0.00	0.00	0.23
3-May	0.00	0.00	0.00	0.27
4-May	0.00	0.00	0.00	0.33
5-May	0.00	0.00	0.00	0.29
6-May	0.00	0.00	0.00	0.21
7-May	0.00	0.00	0.00	0.16
8-May	0.36	0.36	0.00	0.15
9-May	0.00	0.00	0.00	0.21
10-May	0.00	0.00	0.00	0.22
11-May	0.00	0.00	0.00	0.19
12-May	1.04	1.04	0.00	0.46
13-May	0.06	0.06	0.00	0.15
14-May	0.04	0.04	0.00	0.17
15-May	0.00	0.00	0.00	0.18
16-May	0.00	0.00	0.00	0.19
17-May	0.00	0.00	0.00	0.16
18-May	0.00	0.00	0.00	0.15
19-May	0.00	0.00	0.00	0.21
20-May	0.00	0.00	0.00	0.22
21-May	0.00	0.00	0.00	0.22
22-May	0.00	0.00	0.00	0.22
23-May	0.14	0.14	0.00	0.15
24-May	0.04	0.04	0.00	0.13
25-May	0.00	0.00	0.00	0.12
26-May	0.00	0.00	0.00	0.11
27-May	0.48	0.48	0.00	0.08
28-May	0.00	0.00	0.00	0.14
29-May	0.00	0.00	0.00	0.19
30-May	0.00	0.00	0.00	0.13
31-May	0.00	0.00	0.00	0.15
		2.16	0.00	0.00
Volume, ac-ft		9.78	0.00	6.004
Total Vol, ac-ft		9.78		



June Precipitation Data

PIT RUNOFF ASSUMPTIONS		
Hydrologic Soil Group	D	
Land Use	gravel road	
AMC Condition	II (ave)	
CN (pit fringe)	88	area draining into pit
CN (pit)	100	area with direct interception
S (pit fringe)	1.364	area draining into pit
S (pit)	0.000	area with direct interception
Pit - Direct Interception (>95 ft deep)	54.36	subject to refinement
Pit fringe (area drains to pit)	68.34	subject to refinement
Drainage to Pit (total area)	122.70	subject to refinement

Date	Precip, in.	Quarry area		Evapor, in/day
		Runoff, in.	Fringe area Runoff, in.	
1-Jun	0.00	0.00	0.00	0.16
2-Jun	0.00	0.00	0.00	0.20
3-Jun	0.00	0.00	0.00	0.19
4-Jun	0.00	0.00	0.00	0.24
5-Jun	0.00	0.00	0.00	0.21
6-Jun	2.28	2.28	1.20	0.13
7-Jun	0.74	0.74	0.00	0.21
8-Jun	1.26	1.26	0.00	0.09
9-Jun	0.24	0.24	0.00	0.21
10-Jun	0.00	0.00	0.00	0.94
11-Jun	0.00	0.00	0.00	0.23
12-Jun	0.62	0.62	0.00	0.14
13-Jun	0.00	0.00	0.00	0.21
14-Jun	0.00	0.00	0.00	0.20
15-Jun	0.00	0.00	0.00	0.19
16-Jun	0.00	0.00	0.00	0.22
17-Jun	0.00	0.00	0.00	0.21
18-Jun	0.51	0.51	0.00	0.20
19-Jun	0.36	0.36	0.00	0.09
20-Jun	0.86	0.86	0.00	0.18
21-Jun	0.00	0.00	0.00	0.18
22-Jun	0.00	0.00	0.00	0.18
23-Jun	1.58	1.58	0.64	0.16
24-Jun	0.00	0.00	0.00	0.18
25-Jun	0.00	0.00	0.00	0.17
26-Jun	0.00	0.00	0.00	0.15
27-Jun	0.00	0.00	0.00	0.18
28-Jun	0.01	0.01	0.00	0.14
29-Jun	0.00	0.00	0.00	0.22
30-Jun	0.00	0.00	0.00	0.24
		0.00	0.00	
		8.46	1.84	
Volume, ac-ft		38.32	10.45	6.235
Total Vol, ac-ft		48.77		

