Summary of Spronk Water Engineers' Return Flow Analysis
2005 and 2006

Year	Total Return Flows (acre-ft)	% Ground Water (%)	% Surface Water (%)	Additional Flow (Irrigation Season) (acre-ft)	Additional Flow (Irrigation Season) (mean cfs)	Additional Flow (Off Season) (acre-ft)	Additional Flow (Off Season) (mean cfs)
2005	20,202	82%	18%	10,537	35	9,665	23
2006	15,005	77%	23%	8,269	27	6,736	16

Note: Groundwater returns were assumed to be uniform over a 12 month period and surface water was assumed to be available within the irrigation season.

KAN. EXHIBIT 55
Kan v. Neb. & Colo., No. 126, Orig.
Arbitration Initiated 10/21/08

Spronk Water Engineers' Return Flow Analysis

				Above Lovewell						
				IRRIGATION SUPPLY						
No. of Days in Season	Season a a	Year a b	Months	FHG Delivery (af) c						
153	Irrigation	2005	May - Sept	10,947	2,772	1,155	1,720	9,867	3,700	6,575
212	Off	2005	Oct - Apr			1,617			5,180	6,797
153	Irrigation	2006	May - Sept	8,801	2,228	928	1,615	3,474	1,303	3,846
212	Off	2006	Oct - Apr			1,300			1,824	3,124

				Below Lovewell						
				IRRIGATION SUPPLY						
No. of Days in Season	Season a a	Year a b	Months	FHG Delivery (af) j						
153	Irrigation	2005	May - Sept	11,437	2,896	1,207	2,104	3,215	1,206	4,516
212	Off	2005	Oct - Apr			1,689			1,688	3,377
153	Irrigation	2006	May - Sept	10,187	2,579	1,075	2,025	4,689	1,758	4,858
212	Off	2006	Oct - Apr			1,505			2,462	3,966

Note: A farm irrigation efficiency of 74.7% was used, which included a 3% spay loss on sprinklers. Efficiency was calculated using 2006 survey data from the 2006 KBID Annual Report.