



When determined not to be of any further use, the ponds will be decommissioned. This will involve:

- Disposal of any remaining water/fluid at an approved facility.
 - Disposal of any sludge at an approved facility.
 - Removal of the liners, fences and all other infrastructure.
 - Backfilling, compacting and grading of the pond footprints.
6. Site Plans and associated figures (**Attachment 3**)
 7. Engineering drawings (**Attachment 4**)
 8. Description of liquid

The liquid represents a mixture of freshwater obtained from the Kennetcook River, formation water extracted during stimulation of KC#1 and KC#2 and rain water.

Results of samples collected from the Kennetcook River on September 7, 2007; KC#1 and KC#2 on December 15, 2007 (subsequent to fracturing); KC#1 and KC#2 ponds on March 11, 2008 and, again from KC#2 Pond on June 20, 2008 are provided in **Attachment 5**. The following table provides a summary of concentrations for a number of inorganic parameters (including metals) within these samples. It is noted that the March 2008 pond samples were collected when the water levels were high. The KC#2 pond sample was collected subsequent to the removal/disposal of most of the water.

Parameter	Concentrations (mg/L)					
	KC#1 Well	KC#2 Well	Kennetcook River	KC#1 Pond Mar. 11/08	KC#2 Pond Mar. 11/08	KC#2 Pond June 20/08
TDS	118,000	91,900	198	40,500	39,300	92,100
hardness	6,200	5,300	53	2,500	2,000	5,100
alkalinity	84	65	84	37	54	61
calcium	1.4	1.2	17.9	570	450	1,100
chloride	72,000	58,000	30	24,000	23,000	56,000
sodium	44	32	16.8	16,000	16,000	34,000

TOC	120	27	-	10	19	5
pH	6.24	5.95	7.14	6.63	6.44	6.78
sulphate	100	200	28	66	120	210
barium	6.3	2.2	0.03	0.77	1.8	nd
boron	0.9	1.3	-	nd	nd	nd
iron	65	110	0.48	42	7.4	nd
manganese	4.3	7.8	0.02	2.9	1.6	3.5
strontium	18	8.9	0.14	4.2	6.3	8.3
Note elevated detection limits for metals in the KC#2 Pond sample collected in June 2008						

Petroleum Hydrocarbon (TPH/BTEX) and Polycyclic Aromatic Hydrocarbon (PAH) data for samples collected from the ponds on March 11, 2008 are also included in Attachment 5. Except for a traces (0.001 and 0.002 mg/L) of benzene lighter end (<C₆) components were not detected. The total concentrations of petroleum hydrocarbons were also low (0.1 and 3.7 mg/L).

PAHs were not recorded above the laboratory detection limit in the KC#1 sample. A number of compounds were observed in the KC#2 sample, however, the concentrations were low (only slightly above detection limits).

9. Air Emissions – none

10. Solid Waste

With the possible exception of a small amount of sludge accumulated at the bottom of the ponds, there is no solid waste associated with this process. Such sludge will be removed and disposed of at an acceptable off-site facility.

11. Contingency Plan

Submitted in previous applications.