System Performance Data - Blue Creek Ranch

In addition, here are some quick system facts and a legend for the wastewater characteristics.

Quick Facts

Building / Facilities: **Subdivison**
Start-up: **Dec-04**
Location: **Carbondale, CO**
Designer / Engineer: **Church & Associates, Inc.**
Contractor / Installer: **Gould Construction**
Regulating Authority: **State of Colorado**
Design Flows: **20,000 gallons per day**
Grease Tank:
Septic Tank:
Recirculation Tank: **13,000 gallons**
Filters: **4,000 sq. ft. RSF**
Actual Loading Rate (gpd/ft2): **1.0**
System Configuration: **Mode 1**
Discharge: **Surface to Roaring Fork River**

Legend

BOD5: Biochemical Oxygen Demand (*5 day, uninhibited*)
cBOD5: Carbonaceous Biochemical Oxygen Demand (*5 day, inhibited*)
TSS: Total Suspended Solids
TKN: Total Kjeldahl-Nitrogen (*Organic and Ammonia Nitrogen*)
NH3-n: Ammonia-Nitrogen
NO2-n: Nitrite-Nitrogen
NO3-n: Nitrate-Nitrogen
NOx: Nitrite + Nitrate
TN: Total Nitrogen = (TKN) + (NO3-n) + (NO2-n)
DO: Dissolved Oxygen
pH: Measure of acidity, 7 is neutral. Wastewater w/value <5 or >9 are difficult to treat biologically
Alk: Alkalinity
TP: Total Phosphorus
G&O: Grease and Oil
FC: Fecal Coliform

Notes: Ultraviolet Disinfection
Data taken from DMR's provided by operator.

		Influent											
Date	GPD	BOD5	TSS	TKN	NH3	NO3	NOx	TN	pH	Alk	TP	G&O	FC
Dec-04	127	46	376										
Feb-05	197	133	84										
Mar-05	127	206	196										
Apr-05	226	188	272										
May-05	1361	198	280										
Aug-05	1050	90	136										
Oct-05	2284	217	208										
Nov-05	2078	228	308										
Dec-05	2728	73	48										
Jan-06	3177	265	172										
Feb-06	3400	275	264										
Mar-06	6800	293	64										
Apr-06	3655	230	308										
May-06	5052	288	210										
Jun-06	6296	277	280										
Jul-06	4065	304	252										
Aug-06	3686	251	340										
Sep-06	3553	210	172										
Oct-06	6323	263	164										
Nov-06	5147	253	360										
Dec-06	3998	152	360										
Jan-07	3790	299	248										
Feb-07	4100	280	380										
Mar-07	4900	357	288										
Apr-07	4367	230	136										
AVE:	**3299**	**224**	**236**										

	Filtrate Effluent										
BOD5	TSS	TKN	NH3	NO3	NOx	TN	pH	Alk	TP	G&O	FC
4	2										
2	4										40
4	2										20
3	2										20
2	4										0
15	12										0
11	2										0
3	2										0
4	2										20
8	2										80
3	2		1.78								20
8	2										0
4	2		1.95								0
6	2		2.04								40
5	8		1.88								20
3	2		2.20								20
6	4		3.91								320
4	6		1.71								20
10	4		1.54								20
5	4		9.53								0
18	2		1.82								80
3	12		1.03								720
5	2		3.20								20
3	18										60
4	4		2.44								80
6	**4**		**2**								**67**