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Project Name:	Viscofan Well Water System Cost Estimate
Customer:	Viscofan
Location:	Danville, IL
Classification:	Industrial
Job #:	12-4712
Date:	2/27/2012
By:	Beth Mader

Viscofan Well water operating cost

Well pumps

1,000 gpm	124 Amp @ 480 VAC
220 ft head	103 KVA* 0.8 Power Factor
70% efficient	82 KW * 8760 Hrs = 721,610 kWh/yr
100 Hp	721,610 * .048 $/kWh = $ 34,637

Transfer Pumps (two required)

1000 gpm	37 Amp @ 480 VAC
50 ft head	31 KVA * .8 PF = 24.7 KW
70 % efficient	24.7 KW * 8760 hrs = 216,483 kWh/yr
30 hp	216,483 kWh * 0.048 $/kWh = $10,319

Water Use

1,000,000 gal/day * 365 day = 365,000,000 gal/year

Chlorine Costs

84 lbs/day	150 lbs/cylinder
0.50 $/lb	204 cylinders/yr
72 $/ delivery	20 deliveries

16770 $/yr

General Maintenance
.2% of total capitol cost per year

$3,662,130 * .002 = $ 7,324

Operator Cost
Test and Sample 1 hour per day
1 person * 1 hour * 35 $/hr * 365 days = $ 12,775

Summary

Well Pump	34,637	$/year
Transfer Pumps	20,638	$/year
Chlorine use	16,770	$/year
Gen. Maint.	7,324	$/year
Operator	12,775	$/year
Total	92,144	$/year

Total operating cost per 1000 gal water 0.25 $ / 1000 gal