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Project Name:	Viscofan Well Water System Cost Estimate
Customer:	Viscofan
Location:	Danville, IL
Classification:	Industrial
Job #:	12-4712
Date:	2/22/2012
By:	Beth Mader

Description	Quantity	Unit	Unit Material Cost	Unit Installation Cost	Material Total Price	Installation Total Price	Summary Total Price	Note-Source	Alternates			
									Description	Cost	Source	
Well Site												
Water Supply for Well Drilling	1	ea	\$0.00	\$0.00	\$5,000	\$0	\$5,000	ITG Estimate				
1000 gpm Production Well	2	ea	\$0.00	\$147,000.00	\$0	\$294,000	\$294,000	Layne				
Line Shaft Pumping System	2	ea	\$0.00	\$36,000.00	\$0	\$72,000	\$72,000	Layne				
Check Valve	1	ea	\$4,225.00	\$555.00	\$4,225	\$555	\$4,780	RSMMeans				
Flow Meter	1	ea	\$3,000.00	\$100.00	\$3,000	\$100	\$3,100	Brooks & Associates				
Well House Construction	2	ea	\$5,413.30	\$5,000.00	\$10,827	\$10,000	\$20,827	ITG Estimate				
Well Houses Electrical	1	ea	\$13,215.00	\$5,430.00	\$13,215	\$5,430	\$18,645	RSMMeans				
Well Site Electrical Services	1	ea	\$31,634.00	\$9,494.00	\$31,634	\$9,494	\$41,128	RSMMeans				
Communication Cable	14500	ft	\$1.50	\$0.00	\$21,750	\$0	\$21,750	ITG Estimate				
Well Pump 150 hp VFD	2	ea	\$11,900.00	\$2,050.00	\$23,800	\$4,100	\$27,900	RSMMeans				
Electrical Utility Fee	1	ea	\$0.00	\$6,500.00	\$0	\$6,500	\$6,500	ITG Estimate				
Pipe - Well Site to Plant												
AWWA C900 10" PVC	14500	ft	\$14.00	\$6.20	\$203,000	\$89,900	\$292,900	Crescent Pipe	10" Ductile Iron (Material only)	\$580,000.00	Crescent Pipe	
Detectable Underground Tape, reinforced	14500	ft	\$5.60	\$2.01	\$81,200	\$29,145	\$110,345	RSMMeans				
10" 45	5	ea	\$330.00	\$18.80	\$1,650	\$94	\$1,744	RSMMeans				
10" 90	8	ea	\$330.00	\$18.80	\$2,640	\$150	\$2,790	RSMMeans				
10" Tee	1	ea	\$565.00	\$23.50	\$565	\$24	\$589	RSMMeans				
10" Gate Valve and Box	6	ea	\$1,250.00	\$208.50	\$7,500	\$1,251	\$8,751	RSMMeans				
Trenching & Backfill Common Earth 2'x6'	14500	ft	\$1.52	\$4.67	\$22,040	\$67,715	\$89,755	RSMMeans				
Pipe Bedding & Compacting	14500	ft	\$5.45	\$2.76	\$79,025	\$40,020	\$119,045	RSMMeans				
Bridge over Stony Creek	1	ea	\$0.00	\$20,156.50	\$0	\$20,157	\$20,157	2000 Estimate +30%				
Street Crossings	5	ea	\$7,000.00	\$8,000.00	\$35,000	\$40,000	\$75,000	ITG Estimate				
Rail Road Crossing												
Horizontal Boring	115	ft	\$146.00	\$189.50	\$16,790	\$21,793	\$38,583	RSMMeans				
Jacking Pits	3	ea		\$3,150.00	\$0	\$9,450	\$9,450	RSMMeans				
Remove and Repair Pavement (Drives, Sidewalk, etc.)												
Pavement Demo	280	sq yd	\$3.78	\$9.42	\$1,058	\$2,638	\$3,696	RSMMeans				
Pavement Repair	280	sq yd	\$19.80	\$1.21	\$5,544	\$339	\$5,883	RSMMeans				
Clean Up												
Site Clean Up	2.7	mi	\$0.00	\$37,000.00	\$0	\$99,900	\$99,900	2000 Estimate +30%				
Sterilize (HTH)	50	hr	\$9.75		\$488	\$0	\$488	2000 Estimate +30%				
Test Pipe	7	2,000 ft		\$2,100.00	\$0	\$14,700	\$14,700	RSMMeans				
Fees												
Design and Inspection Fee	1	ea	\$65,000.00		\$65,000	\$0	\$65,000	2000 Estimate +30%				
Legal Description for Easements	1	ea	\$66,300.00		\$66,300	\$0	\$66,300	2000 Estimate +30%				
Railroad Insurance	1	ea	\$7,800.00		\$7,800	\$0	\$7,800	2000 Estimate +30%				
Railroad Inspection/Protection	1	ea	\$19,500.00		\$19,500	\$0	\$19,500	2000 Estimate +30%				
Treatment Plant												
Site												
Clearing and Grubbing	111	sq yd	\$0.00	\$1.35	\$0	\$150	\$150	RSMMeans				
Building Foundation	50	CY	\$190.00	\$240.00	\$9,500	\$12,000	\$21,500	UIUC Abbot				
Building Excavation	336	CY	\$0.00	\$20.00	\$0	\$6,720	\$6,720	UIUC Abbot				
Building Backfill & Compaction	241	CY	\$0.00	\$30.00	\$0	\$7,230	\$7,230	UIUC Abbot				
Building Slab	2686	SF	\$3.60	\$4.50	\$9,670	\$12,087	\$21,757	UIUC Abbot				
Pre-Engineered Building 2,500 sq ft	1	ea	\$122,165.00	\$20,000.00	\$122,165	\$20,000	\$142,165	Kelly Klosure				

Description	Quantity	Unit	Unit Material Cost	Unit Installation Cost	Material Total Price	Installation Total Price	Summary Total Price	Note-Source	Alternates		
									Description	Cost	Source
Drives and Walks	1	lot	\$15,000	\$7,000	\$15,000	\$7,000	\$22,000	ITG Estimate			
Building Electrical											
400 A, 480 V Service from Existing Breaker in Sub "I"	1	ea	\$111.92	\$57.24	\$89,536	\$45,792	\$149,628	RSMMeans			
Low Voltage Feeders	1	ea	\$14,063.58	\$6,936.34	\$19,820	\$12,112	\$31,932	RSMMeans			
Building Electric Service	1	ea	\$11,425.00	\$26,700.00	\$11,425	\$26,700	\$38,125	RSMMeans			
Treatment Pump VFD's	1	lot	\$11,868.00	\$3,890.00	\$18,901	\$6,040	\$24,941.00	RSMMeans			
Controls & Instrumentation											
PLC Control Panel : 80 DI, 30 DO, 12 AI, 12 AO	1	ea	\$35,000.00	\$0.00	\$35,000	\$0	\$35,000	Kraft			
PLC Remote Control Panel	1	ea	\$15,000.00	\$0.00	\$15,000	\$0	\$15,000	Kraft			
Instruments	1	lot	\$7,000.00	\$0.00	\$7,000	\$0	\$7,000	Foxboro			
Engineering: Controls Design and Programming	1	lot	\$0.00	\$40,000.00	\$0	\$40,000	\$40,000	ITG Estimate			
Instrumentation Conduit and Wire	840	lot	\$3.35	\$10.15	\$2,814	\$8,526	\$11,340	ITG Estimate			
Chlorination System	1	ea	\$29,000.00	\$1,000.00	\$29,000	\$1,000	\$30,000	Brooks & Associates	Automate Backwash	\$75,000	Brooks & Associates
Aeration Tower											
Aeration Tower and Blower	1	ea	\$55,000.00	\$9,500.00	\$55,000	\$9,500	\$64,500	Brooks & Associates	Pressure Aerator	\$10,000	Layne
Aerator Foundation Excavation	33	cu yd	\$6.75	\$12.05	\$223	\$398	\$620	RSMMeans			
Aerator Foundation Pad 4'	33	cu yd	\$178.00	\$84.48	\$5,874	\$2,788	\$8,662	RSMMeans			
Settling Tank											
Settling Tank 30,000 gal	1	ea	\$35,000.00	\$5,000.00	\$35,000	\$5,000	\$40,000	CAT Decatur	LayneOx Filter System	\$400,000	Layne
Tank Foundation excavation	107	cu yd	\$6.75	\$12.05	\$722	\$1,289	\$2,012	RSMMeans			
Tank Foundation Pad 4'	107	cu yd	\$178.00	\$84.48	\$19,046	\$9,039	\$28,085	RSMMeans			
Filters											
5 - 8'φ Sand/Anthracite Filter Skids	1	ea	\$213,900.00	\$2,000.00	\$213,900	\$2,000	\$215,900	Brooks & Associates			
Pumps											
Tower Pump	2	ea	\$16,000.00	\$1,220.00	\$32,000	\$2,440	\$34,440	BRI			
Filter Pump	2	ea	\$14,500.00	\$1,220.00	\$29,000	\$2,440	\$31,440	BRI			
Backwash Pump	1	ea	\$13,575.00	\$1,220.00	\$13,575	\$1,220	\$14,795	BRI			
Booster Pump	1	ea	\$7,600.00	\$700.00	\$7,600	\$700	\$8,300	BRI			
Backwash To Lagoon											
AWWA C900 10" PVC	1000	ft	\$14.00	\$6.20	\$14,000	\$6,200	\$20,200	Crescent Pipe	Sewer Connection	\$500	ITG Estimate
Trenching & Backfill Common Earth 2'x6'	1000	ft	\$1.52	\$4.67	\$1,520	\$4,670	\$6,190	RSMMeans			
Pipe Bedding & Compacting	1000	ft	\$5.45	\$2.76	\$5,450	\$2,760	\$8,210	RSMMeans			
Optional Treated Water Storage Tank											
120,000 Gal 304 Stainless Steel (API 650 Storage Tank)	1	ea	\$212,000.00	\$131,500.00	\$212,000	\$131,500	\$343,500	UIUC Abbot			
120,000 Gal Tank Side Wall Ins. - 2" Fiberboard + Alum. Jkt.	2750	ea	\$4.00	\$6.00	\$11,000	\$16,500	\$27,500	UIUC Abbot			
120,000 Gal Tank Roof Ins. - 2" Fiberboard + Alum. Jkt.	475	ea	\$8.00	\$12.00	\$3,800	\$5,700	\$9,500	UIUC Abbot			

Well Site	\$515,630
Piping to Treatment Plant	\$1,052,374
Treatment Plant	\$1,053,242
Optional Storage Tank	\$380,500
Subtotal	\$3,001,746
Contractor Mark Up 5%	\$150,087
Engineering 2%	\$60,035
Contingency 15%	\$450,262
Total	\$3,662,130