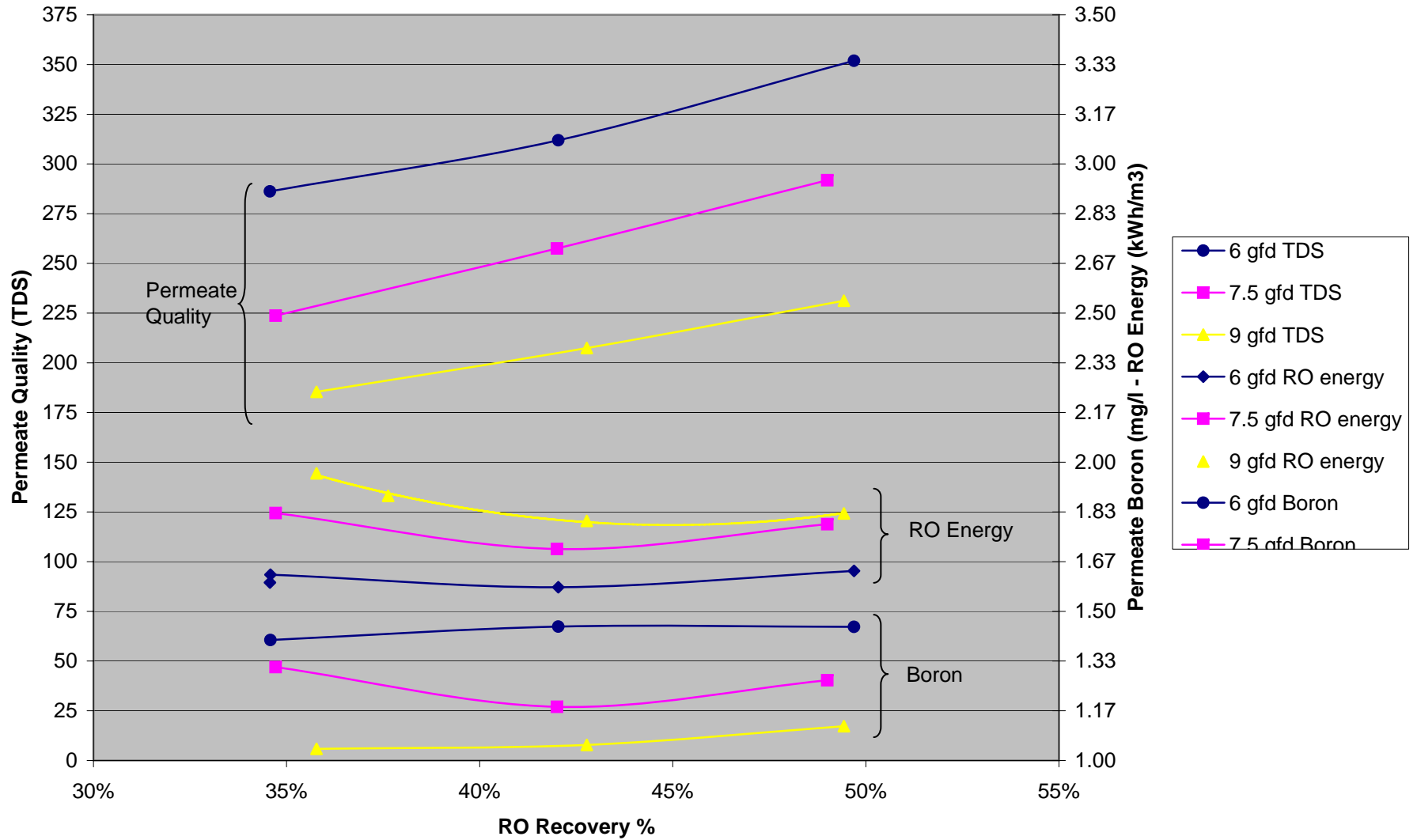


### ADC Set 2 SW30XLE-400i Performance vs Recovery



TEST TIME	CALCULATED PARAMETERS						PRESSURES						FLOWS				MAIN PANEL KW METER				VFD KW METER			Notes					
	Date MM/DD/YY	Time hh:mm	Operation Time hh:hh	RO Recovery %	Flux Gfd	Power kWh/m3	Influent Temp. (°C)	P <sub>MF-in</sub> (psi)	P <sub>MF-out</sub> (psi)	P <sub>CF-in</sub> (psi)	P <sub>CF-out</sub> (psi)	P <sub>PX-Feed In</sub> (psi)	P <sub>PX-Feed out</sub> (psi)	P <sub>PX-conc out</sub> (psi)	P <sub>PX-boost suct</sub> (psi)	P <sub>F-SYS</sub> (psi)	P <sub>C-SYS</sub> (psi)	P <sub>P-SYS</sub> (psi)	Q <sub>F-HP Pump</sub> (gpm)	Q <sub>PX Pump</sub> (gpm)	Q <sub>Feed PX-in</sub> (gpm)	Q <sub>P-SYS</sub> (gpm)	A <sub>sys</sub> amp		P <sub>HP/PX</sub> (kw)	P <sub>booster</sub> (kw)	Power Factor	PX power (kw)	HP Power (kw)
<b>SW30XLE-400i Set II Testing</b>																													
SW30XLE-400i RIPENING PERIOD	12/5/2005	2:15PM	776.71	42%	7.5	1.71	14	55.9	52	51	46.5	44.9	P <sub>PX-conc out</sub>	36.6	700	721	710	1.8	44	59.28	60.62	43.8	22.8	17	nm	0.891	1.4	14.8	5.7
	12/6/2005	2:32PM	800.99	42%	7.5	1.73	15	55.2	48.6	47.5	40.9	39.5	P <sub>PX-conc out</sub>	31.5	700	725	710	2.3	44	59.12	60.34	43.8	23.3	17.2	nm	0.892	1.5	14.8	5.7
	12/7/2005	1:37PM	824.1	42%	7.5	1.74	15	55.5	45.5	44.3	35.8	34.3	P <sub>PX-conc out</sub>	26.2	705	730	720	2.2	43	59.35	60.33	43.8	23.5	17.3	nm	0.896	1.5	14.8	5.6
	12/9/2005	1:45PM	845.81	42%	7.5	1.72	15.5	45.8	41.8	40.8	28.5	26.8	P <sub>PX-conc out</sub>	17.5	682	705	700	1.7	44	59.24	60.45	43.8	23.6	17.1	nm	0.895	1.5	14.9	4.7
	12/12/2005	1:20PM	852.45	42%	7.5	1.70	15	46.5	41.8	40.8	31.7	30.1	P <sub>PX-conc out</sub>	20.7	680	708	695	2.8	44	59.4	60.34	43.8	23.1	16.9	nm	0.896	1.5	14.6	4.7
	12/13/2005	11:12AM	874.31	42%	7.5	1.74	15	46.6	38.9	37.8	23.2	21.3	P <sub>PX-conc out</sub>	12.2	680	703	692	2.4	44	59.51	60.45	43.5	23.4	17.2	nm	0.892	1.5	14.8	4.7
	12/14/2005	3:01PM	899.38	42%	7.5	1.73	15.5	46.7	37.2	36	33.5	31.8	P <sub>PX-conc out</sub>	22.3	690	715	705	2.4	44	59.3	60.25	43.7	23.1	17.2	nm	0.895	1.5	14.4	4.7
12/15/2005	10:12AM	918.55	42%	7.5	1.74	15.3	46.7	32.2	31.2	28.7	26.8	P <sub>PX-conc out</sub>	17.5	685	712	700	2.4	44	59.77	60.57	43.7	23.4	17.3	nm	0.894	1.6	14.5	4.7	
SW30XLE-400i ELUX AND RECOVERY DATA POINTS	12/19/2005	3:05PM	925.17	35%	6.1	1.60	15	46.7	42.8	41.8	39.3	37.5	P <sub>PX-conc out</sub>	26.2	595	621	605	1.7	36	64.68	66.81	35.3	18.5	12.8	nm	0.834	1.9	9.8	4.7
	12/20/2005	4:07PM	931.8	35%	6.0	1.62	15.2	46.8	41.2	40.2	37.8	35.8	P <sub>PX-conc out</sub>	24.8	595	622	608	0.8	36	65	66.21	35	18.2	12.9	nm	0.84	1.9	10	4.7
	12/21/2005	3:43PM	938.78	42%	6.0	1.58	15.2	49.3	44.3	43.7	41.8	40.5	P <sub>PX-conc out</sub>	34.3	660	675	670	0.8	36	47.36	48.4	35.1	18	12.6	nm	0.833	0.7	10.6	4.4
	12/22/2005	3:38PM	944.43	49%	6.0	1.70	15	52.1	47.6	47.1	45.7	44.9	P <sub>PX-conc out</sub>	41.3	750	760	755	0.9	37	35.01	36.15	35	19.1	13.5	nm	0.841	0.3	11.8	4.1
	12/29/2005	4:13PM	960.82	35%	7.5	1.83	14.9	42	28.8	27.2	23.2	20.3	P <sub>PX-conc out</sub>	16	625	660	630	2.4	45	81.35	82.36	43.8	23.5	18.2	nm	0.9	3.2	13.8	5
	12/27/2005	5:20PM	951.05	42%	7.5	1.71	14.8	46.6	35.2	34.2	31.3	29.7	P <sub>PX-conc out</sub>	20.2	675	710	695	2.6	44	59.44	60.48	43.8	22.6	17	nm	0.89	1.5	14.5	4.7
	12/28/2005	5:12PM	955.77	49%	7.4	1.79	15	49	41.5	40.8	38.5	37.3	P <sub>PX-conc out</sub>	32	740	750	755	2	45	43.74	44.75	43	23.3	17.5	nm	0.895	0.7	15.8	4.4
	1/3/2006	4:21PM	966.05	38%	9.0	1.89	14	39.7	31.8	29.7	25	21.5	P <sub>PX-conc out</sub>	16.8	665	695	675	4.2	52	86.27	87.01	52.5	29	22.5	nm	0.918	3.8	17.6	5.2
	1/4/2006	4:22PM	972.36	36%	9.0	1.96	15.2	45.3	38.1	35.8	30.5	26.8	P <sub>PX-conc out</sub>	21.3	660	705	670	3.7	51	93.76	94.25	52.5	30.3	23.4	nm	0.923	5.1	17.3	6.5
	1/5/2006	3:30PM	977.33	43%	9.0	1.80	16	51.2	44.6	43.2	39.2	37.2	P <sub>PX-conc out</sub>	24.7	715	745	730	2.9	53	69.25	70.24	52.5	28.1	21.5	nm	0.918	2.5	17.9	6.1
1/11/2006	3:33PM	1012.05	49%	9.0	1.83	14	55.5	52	50.8	47.5	45.7	P <sub>PX-conc out</sub>	37.8	795	815	810	4	53	52.5	53.71	52.5	28.6	21.8	nm	0.913	1	19.6	5.8	
Post-synchronous operation @ 9gfd and 50% recovery	1/12/2006	12:17PM	1017.72	42%	7.5	1.71	16	55	51.1	49.9	44.7	44	P <sub>PX-conc out</sub>	34.5	690	710	705	2.6	45	59.64	60.47	43.8	22.8	17	nm	0.895	1.5	14.6	5.8
	1/17/2006	3:13PM	1024.75	50%	6.0	1.64	14	60	57.2	56.5	54.3	53	P <sub>PX-conc out</sub>	48.8	725	730	725	1.2	38	35.43	40.43	35	18.5	13		0.84	0.4	11.5	5.2
	1/19/2006	10:02AM	1045.16	49%	9.0	1.90	13.5	55.2	48.2	47.2	41	38.8	P <sub>PX-conc out</sub>	31.2	805	825	815	4.3	54	52.53	53.65	52.5	29.9	22.6		0.915	1	20.5	5.8
	1/20/2006	9:35AM	1068.69	50%	9.0	1.90	13	55.3	42.1	41	36	33.5	P <sub>PX-conc out</sub>	26.3	815	835	825	4.7	54	52.52	53.53	52.5	29.8	22.7		0.915	1	20.5	5.8
	1/23/2006	2:45PM	1073.79	49%	9.0	1.89	13.9	54	49.8	48.7	43.9	41.8	P <sub>PX-conc out</sub>	34.6	805	830	815	3.2	54	52.63	53.7	52.3	29.6	22.5		0.916	1.1	20.3	5.8
	1/24/2006	1:03PM	1096.1	50%	9.0	1.91	14	54	46.6	45.3	40.3	38.3	P <sub>PX-conc out</sub>	30.8	815	838	825	3.3	54	52.38	53.26	52.5	30.2	22.8		0.918	1	20.6	5.8
	1/25/2006	10:37AM	1117.65	49%	9.0	1.93	13	54.9	44.4	43.2	38	35.7	P <sub>PX-conc out</sub>	28.2	818	837	825	4.3	54	52.6	53.93	52.5	30.4	23		0.918	1	20.8	5.8
	1/27/2006	3:05PM	1166.62	50%	9.0	1.93	14	54.0	43.5	42.0	33.0	30.5	P <sub>PX-conc out</sub>	23.5	815	840	825	4.0	54	51.96	52.49	52.7	30.2	23.1		0.915	1	20.8	5.8
	2/1/2006	11:20AM	1186.88	49%	9.0	1.92	14	54.8	40.8	39.8	29.8	27.8	P <sub>PX-conc out</sub>	20.3	805	825	815	4.3	53.5	52.49	53.5	52.4	30.1	22.9		0.916	1	20.7	5.8
	2/2/2006	11:08AM	1208.31	42%	7.5	1.79	14	54.9	50.8	49.5	28	25.0	P <sub>PX-conc out</sub>	15.5	698	725	712	2.7	44	59.75	60.86	43.8	23.9	17.8		0.895	1.5	15.3	5.8

TEST	pH		CONDUCTIVITY					TDS					TURBIDITY			SDI			BORON			OTHER					Notes					
	Date MM/DD/YY	Time hh:mm	Operation Time hh:hh	pH			Conductivity (mS/cm)			TDS (mg/L)					Turbidity (NTU)			Silt Density Index			Boron (mg/L)			V <sub>TANK</sub> (gallons)	Inhibitor Pump Speed (gph)	HP VFD Speed (Hertz)		PX VFD Speed (Hertz)	FEED VFD Speed (Hertz)			
				pH <sub>F-ays</sub>	pH <sub>P-ays</sub>	pH <sub>C-ays</sub>	C <sub>CF-out</sub>	C <sub>F-PX-out</sub>	C <sub>F-ays</sub>	C <sub>P-ays</sub>	C <sub>C-ays</sub>	TDS <sub>CF-out</sub>	TDS <sub>F-PX-out</sub>	PX % Inc	TDS <sub>F-ays</sub>	TDS <sub>P-ays</sub>	TDS <sub>C-ays</sub>	NTU <sub>MF-in</sub>	NTU <sub>MF-out</sub>	NTU <sub>CF-out</sub>	SDI <sub>MF-in</sub>	SDI <sub>MF-out</sub>	SDI <sub>CF-out</sub>							B <sub>CF-out</sub>	B <sub>F-ays</sub>	B <sub>P-ays</sub>
<b>SW30XLE-400i Set II Testing</b>																																
SW30XLE-400 RIPENING PERIOD	12/5/2005	2:15PM	776.71	nm	nm	nm	49.73	53.65	50.2	495.5	79.42	31.85	34.58	8.6%	32.06	239.5	56.07	2.224	nm	0.068	nm	nm	nm	nm	nm	nm	13.3	10x50	44.5	38.6	64.8	
	12/6/2005	2:32PM	800.99	nm	nm	nm	49.7	54.03	50.14	498.1	79.76	31.9	34.92	9.5%	32.2	241.1	56.4	0.884	nm	0.054	nm	nm	3.7	nm	nm	nm	13	10x50	44.6	39.7	64.8	
	12/7/2005	1:37PM	824.1	nm	nm	nm	49.15	53.85	49.97	485.5	79.37	31.65	34.76	9.8%	32.07	234.2	56	0.885	nm	0.053	nm	nm	nm	4.567	4.897	1.142	12.7		44.6	39.7	64.8	
	12/9/2005	1:45PM	845.81	nm	nm	nm	49.58	52.25	49.96	518.1	78.27	31.78	33.6	5.7%	32.04	251.1	55	0.943	nm	0.085	nm	nm	5.2	nm	nm	nm	12.5	0x0	44.5	39.4	59.8	Changed PX LP inlet flow meter.
	12/12/2005	1:20PM	852.45	nm	nm	nm	49.69	52.43	50.06	578.2	78.58	31.83	33.78	6.1%	32.15	277.9	55.3	1.256	nm	0.087	nm	nm	nm	nm	nm	nm	12.3	10x40	44.5	39.1	59.8	
	12/13/2005	11:12AM	874.31	nm	nm	nm	49.22	52.17	49.85	531.8	77.67	31.59	33.65	6.5%	32	257.6	54.3	0.918	nm	0.078	nm	nm	5.3	5.581	5.531	1.319	12.2	10x40	44.5	39.9	59.8	
	12/14/2005	3:01PM	899.38	nm	nm	nm	49.58	52.48	49.93	483	77.8	31.84	33.86	6.3%	32.1	233.3	54.6	1.185	nm	0.043	nm	nm	2.8	nm	nm	nm	11.3	30x50	44.7	40.1	59.8	
	12/15/2005	10:12AM	918.55	nm	nm	nm	49.65	52.4	49.88	476.1	77.45	31.88	33.79	6.0%	32.05	229.8	54.3	0.836	nm	0.047	nm	nm	2.6	5.156	5.431	1.231	10.3	30x50	44.7	40.7	59.8	
SW30XLE-400 ELUX AND RECOVERY DATA POINTS	12/19/2005	3:05PM	925.17	nm	nm	nm	48.55	51.21	49.66	592.4	70.12	31.26	32.87	5.2%	31.81	286.2	47.9	3.005	nm	0.043	nm	nm	3.1	4.684	4.929	1.404	9.8	30x50	35.5	43	59.8	
	12/20/2005	4:07PM	931.8	8.1	7.94	7.93	49.27	51.47	49.72	585	70.29	31.59	33.15	4.9%	31.9	283.7	48.2	0.985	nm	0.051	nm	nm	3.1	4.809	4.959	1.404	9.8	20x40	35.8	43.2	59.8	
	12/21/2005	3:43PM	938.78	nm	nm	nm	49.2	51.45	49.77	642.2	78.06	31.57	33.13	4.9%	31.95	311.9	54.83	1.983	nm	0.045	nm	nm	2.6	1.449	4.754	1.449	9.5	20x40	35.8	31.1	59.8	
	12/22/2005	3:38PM	944.43	8.03	7.27	7.83	49.36	53.92	49.82	774.8	87.91	31.67	34.87	10.1%	32	378.9	63.76	1.83	nm	0.041	nm	nm	2.7	4.675	4.781	1.517	9.3	20x40	35.7	24.1	59.8	High PX outlet salinity. Point re-run on 1-1
	12/29/2005	4:13PM	960.82	nm	nm	nm	49.15	52.11	49.56	463.5	69.79	31.56	33.64	6.6%	31.82	223.7	47.87	5.22	nm	0.047	nm	nm	3.3	4.830	5.310	1.313	6	70x80	45.3	51.8	59.8	
	12/27/2005	5:20PM	951.05	nm	nm	nm	49.61	52.34	49.77	532.5	77.73	31.85	33.77	6.0%	32.01	257.5	54.62	2.23	nm	0.047	nm	nm	3.3	4.760	4.980	1.180	8.2	80x80	44.8	39.6	59.8	
	12/28/2005	5:12PM	955.77	7.96	7.34	7.74	49.55	52.72	50.01	600.6	86.91	31.79	34.04	7.1%	32.15	291.8	62.84	3.126	nm	0.071	nm	nm	3.2	4.845	5.210	1.269	7	90x100	44.8	30.3	59.8	
	1/3/2006	4:21PM	966.05	8.03	7.7	7.91	48.86	52.03	49.11	395.7	71.66	31.33	33.55	7.1%	31.52	190	49.35	2.529	nm	0.043	nm	nm	2.8	4.639	5.079	1.055	5.2	70x80	54.3	54.7	59.8	
	1/4/2006	4:22PM	972.36	nm	nm	nm	48.75	52.46	49.49	385.8	70.38	31.2	33.82	8.4%	31.73	185.4	48.28	2.55	nm	0.048	nm	nm	2.9	4.659	4.879	1.039	4.7	20x40	54.2	60	64.8	
	1/5/2006	3:30PM	977.33	8.01	7.51	7.87	48	52	49.32	431.5	77.27	30.84	33.4	8.3%	31.47	207.4	53.87	1.444	nm	0.044	nm	nm	2.5	4.839	5.139	1.052	4.5	20x40	53.5	47.3	64.8	
	1/11/2006	3:33PM	1012.05	7.99	6.27	7.77	48.73	51.75	49.55	478.6	86.46	31.22	33.26	6.5%	31.75	231.2	62.35	3.63	nm	0.049	nm	nm	3	4.749	4.808	1.115	4.1	20x40	54.1	35.2	64.8	FilmTec's data reversed RO feed and CF out
	Most affordable operation @ 9gfd and 50% recovery	1/12/2006	12:17PM	1017.72	8	6.57	7.85	49.52	51.7	49.85	502.8	77.82	31.77	33.33	4.9%	32.02	243.2	54.65	1.275	nm	0.054	nm	nm	3.2	4.999	5.029	1.17	4	20x40	45.2	39.5	64.8
1/17/2006		3:13PM	1024.75	8	6.52	7.81	48.89	51.15	49.62	722.5	85	31.3	32.84	4.9%	31.86	351.9	61.06	1.048	nm	0.052	nm	nm	3.4	5.115	5.115	1.448	3.9	20x40	35.9	24.8	64.8	
1/19/2006		10:02AM	1045.16	7.97	6.03	7.76	49.68	52.01	50.00	457.7	87.82	31.89	33.53	5.1%	32.19	220.6	63.73	1.378	nm	0.047	nm	nm	3.2	nm	nm	nm	29.8	20x40	54.6	35.1	64.8	Chemical tank refilled with coagulant (30 g)
1/20/2006		9:35AM	1068.69	7.91	6.54	7.73	49.73	52.32	50.03	429.4	88.29	31.93	33.7	5.5%	32.2	206.8	64.2	2.13	nm	0.04	nm	nm	2.3	4.875	5.125	1.017	29	20x40	54.6	35.2	64.8	
1/23/2006		2:45PM	1073.79	7.89	6.19	7.7	48.56	51.7	49.64	444.6	86.93	31.17	33.1	6.2%	31.7	213.6	62.5	2.32	nm	0.038	nm	nm	1.8	nm	nm	nm	28.7	20x40	54.5	35.3	64.8	
1/24/2006		1:03PM	1096.1				48.84	51.86	49.80	427.6	87.11	31.26	33.33	6.6%	31.9	205.9	62.9	1.678	nm	0.041	nm	nm	1.9	nm	nm	nm	28.3	20x40	54.6	35.2	64.8	
1/25/2006		10:37AM	1117.65	7.95	6.41	7.77	49.65	52.37	50.00	421.4	87.92	31.87	33.79	6.0%	32.12	203.0	63.75	1.463	nm	0.046	nm	nm	2.1	nm	nm	nm	27.9	20x40	54.6	35.3	64.8	MacHarg observed data collection.
1/27/2006		3:05PM	1166.62				48.51	51.61	49.37	413.1	86.80	31.03	33.20	7.0%	31.66	198.1	62.73		nm	0.060	nm	nm	nm	4.853	4.833	1.041	27.5	20x40	54.6	35.3	64.8	
2/1/2006		11:20AM	1186.88	8.05	6.25	7.83	50.01	52.31	50.19	456.3	87.84	32.08	33.75	5.2%	32.29	219.0	63.85	0.912	nm	0.044	nm	nm	2.5	4.823	4.903	1.073	26.8	20x40	54.6	35.2	64.8	
2/2/2006		11:08AM	1208.31	8.02	6.35	7.84	49.50	51.62	49.96	449.0	77.69	31.80	33.27	4.6%	32.10	216.8	54.50	1.364	nm	0.081	nm	nm	4.7	4.913	4.943	1.129	26.5	60x80	45.9	39.5	64.8	