Batch # 1

Batch # 1

		Raw Data				Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
6/30/2010	8:18	19.58	1.09	62.57	1	19.60	1.27	62.79	39,907	25.02
6/30/2010	8:19	19.63	1.09	2.41	2	19.65	1.27	2.63	39,907	1.05
6/30/2010	8:20	19.67	0.27	16.42	3	19.69	0.45	16.64	39,907	6.63
6/30/2010	8:21	19.65	0.88	15.35	4	19.67	1.06	15.57	39,907	6.20
6/30/2010	8:22	19.67	1.01	11.74	5	19.69	1.19	11.96	39,907	4.77
6/30/2010	8:23	19.66	1.2	2.75	6	19.68	1.38	2.98	39,907	1.19
6/30/2010	8:24	19.71	0.67	16.42	7	19.73	0.85	16.64	39,907	6.63
6/30/2010	8:25	19.63	0.19	16.42	8	19.65	0.37	16.64	39,907	6.63
6/30/2010	8:26	19.62	0.19	16.42	9	19.64	0.37	16.64	39,907	6.63
6/30/2010	8:27	19.66	0.93	16.42	10	19.68	1.11	16.64	39,907	6.63
6/30/2010	8:28	19.65	0.99	14.46	11	19.67	1.17	14.69	39,907	5.85
6/30/2010	8:29	19.7	0.97	13.55	12	19.72	1.15	13.78	39,907	5.49
6/30/2010	8:30	19.66	1.2	1.84	13	19.68	1.38	2.07	39,907	0.82
6/30/2010	8:31	19.67	1.53	87.93	14	19.69	1.71	88.15	39,907	35.12
6/30/2010	8:32	19.66	1.24	1.98	15	19.68	1.42	2.20	39,907	0.88
6/30/2010	8:33	19.63	0.31	16.42	16	19.65	0.49	16.64	39,907	6.63
6/30/2010	8:34	19.65	0.11	16.42	17	19.67	0.29	16.64	39,907	6.63
6/30/2010	8:35	19.67	0.2	16.42	18	19.69	0.38	16.64	39,907	6.63
6/30/2010	8:36	19.62	0.48	10.75	19	19.64	0.66	10.97	39,907	4.37
6/30/2010	8:37	19.6	1.25	79.01	20	19.62	1.43	79.23	39,907	31.57
6/30/2010	8:38	19.55	1.24	73.21	21	19.57	1.42	73.43	39,907	29.26
6/30/2010	8:39	19.59	1.26	92.33	22	19.61	1.44	92.55	39,907	36.87
6/30/2010	8:40	19.64	1.23	5.67	23	19.66	1.41	5.89	39,907	2.35
6/30/2010	8:41	19.51	1.54	79.18	24	19.53	1.72	79.40	39,907	31.64
6/30/2010	8:42	19.55	1.54	79.24	25	19.57	1.72	79.46	39,907	31.66
6/30/2010	8:43	19.57	1.49	75.62	26	19.59	1.67	75.84	39,907	30.22
6/30/2010	8:44	19.46	1.65	79.71	27	19.48	1.83	79.93	39,907	31.85
6/30/2010	8:45	19.32	1.18	94.99	28	19.34	1.36	95.21	39,907	37.93
6/30/2010	8:46	19.46	1.05	13.98	29	19.48	1.23	14.21	39,907	5.66
6/30/2010	8:47	19.54	0.03	9.90	30	19.56	0.21	10.12	39,907	4.03
6/30/2010	8:48	19.57	0.49	6.40	31	19.59	0.67	6.62	39,907	2.64
6/30/2010	8:49	19.59	0.74	4.80	32	19.61	0.92	5.02	39,907	2.00
6/30/2010	8:50	19.58	0.9	16.42	33	19.60	1.08	16.64	39,907	6.63
6/30/2010	8:51	19.59	1.05	13.96	34	19.61	1.23	14.18	39,907	5.65
6/30/2010	8:52	19.6	1.13	15.29	35	19.62	1.31	15.52	39,907	6.18
6/30/2010	8:53	19.6	1.15	11.23	36	19.62	1.33	11.45	39,907	4.56
6/30/2010	8:54	19.62	1.18	6.98	37	19.64	1.36	7.20	39,907	2.87
6/30/2010	8:55	19.63	1.18	3.37	38	19.65	1.36	3.59	39,907	1.43
6/30/2010	8:56	19.61	1.25	0.96	39	19.63	1.43	1.19	39,907	0.47
6/30/2010	8:57	19.63	1.24	1.28	40	19.65	1.42	1.51	39,907	0.60
6/30/2010	8:58	19.62	1.26	3.58	41	19.64	1.44	3.81	39,907	1.52
6/30/2010	8:59	19.6	1.28	6.15	42	19.62	1.46	6.37	39,907	2.54
6/30/2010	9:00	19.61	1.3	7.62	43	19.63	1.48	7.84	39,907	3.13
6/30/2010	9:01	19.61	1.29	9.22	44	19.63	1.47	9.45	39,907	3.76
6/30/2010	9:02	19.61	1.25	11.20	45	19.63	1.43	11.43	39,907	4.55
6/30/2010	9:03	19.61	1.27	12.40	46	19.63	1.45	12.63	39,907	5.03
6/30/2010	9:04	19.62	1.26	13.37	47	19.64	1.44	13.59	39,907	5.42
6/30/2010	9:05	19.6	1.32	13.96	48	19.62	1.50	14.18	39,907	5.65
6/30/2010	9:06	19.63	1.26	15.85	49	19.65	1.44	16.08	39,907	6.41
6/30/2010	9:07	19.62	1.25	16.98	50	19.64	1.43	17.20	39,907	6.85
6/30/2010	9:08	19.62	1.28	17.75	51	19.64	1.46	17.98	39,907	7.16
6/30/2010	9:09	19.58	1.41	15.75	52	19.60	1.59	15.97	39,907	6.36
6/30/2010	9:10	19.48	1.19	13.66	53	19.50	1.37	13.89	39,907	5.53
6/30/2010	9:11	19.39	1.36	9.78	54	19.41	1.54	10.01	39,907	3.99
6/30/2010	9:12	19.39	1.54	19.12	55	19.41	1.72	19.34	39,907	7.71
6/30/2010	9:13	19.41	1.54	22.24	56	19.43	1.72	22.47	39,907	8.95
6/30/2010	9:14	19.48	1.54	22.00	57	19.50	1.72	22.23	39,907	8.86
6/30/2010	9:15	19.52	1.49	19.65	58	19.54	1.67	19.87	39,907	7.92
6/30/2010	9:16	19.5	1.65	7.08	59	19.52	1.83	7.31	39,907	2.91
6/30/2010	9:17	19.35	1.31	76.55	60	19.37	1.49	76.77	39,907	30.59
6/30/2010	9:18	19.38	1.53	89.34	61	19.40	1.71	89.56	39,907	35.68
6/30/2010	9:19	19.5	1.53	66.79	62	19.52	1.71	67.01	39,907	26.70
6/30/2010	9:20	19.59	0.61	60.60	63	19.61	0.79	60.82	39,907	24.23
6/30/2010	9:21	19.54	0.16	77.70	64	19.56	0.34	77.92	39,907	31.05
6/30/2010	9:22	19.51	0.14	46.00	65	19.53	0.32	46.22	39,907	18.42
6/30/2010	9:23	19.53	0.7	26.90	66	19.55	0.88	27.12	39,907	10.81
6/30/2010	9:24	19.55	1.14	19.50	67	19.57	1.32	19.72	39,907	7.86
6/30/2010	9:25	19.52	1.3	17.80	68	19.54	1.48	18.02	39,907	7.18

Batch # 1

		Raw Data				Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
6/30/2010	9:26	19.55	1.36	16.70	69	19.57	1.54	16.92	39,907	6.74
6/30/2010	9:27	19.51	1.32	17.60	70	19.53	1.50	17.82	39,907	7.10
6/30/2010	9:28	19.49	0.51	12.90	71	19.51	0.69	13.12	39,907	5.23
6/30/2010	9:29	19.52	1.1	15.96	72	19.54	1.28	16.19	39,907	6.45
6/30/2010	9:30	19.52	1.37	9.54	73	19.54	1.55	9.77	39,907	3.89
6/30/2010	9:31	19.51	1.57	8.98	74	19.53	1.75	9.21	39,907	3.67
6/30/2010	9:32	19.36	1.45	16.42	75	19.38	1.63	16.64	39,907	6.63
6/30/2010	9:33	19.31	1.48	12.67	76	19.33	1.66	12.90	39,907	5.14
6/30/2010	9:34	19.3	1.6	5.48	77	19.32	1.78	5.71	39,907	2.27
6/30/2010	9:35	19.33	1.64	4.04	78	19.35	1.82	4.26	39,907	1.70
6/30/2010	9:36	19.32	1.59	1.12	79	19.34	1.77	1.35	39,907	0.54
6/30/2010	9:37	19.32	1.72	2.38	80	19.34	1.90	2.60	39,907	1.04
6/30/2010	9:38	19.35	1.72	2.86	81	19.37	1.90	3.09	39,907	1.23
6/30/2010	9:39	19.33	1.8	4.28	82	19.35	1.98	4.50	39,907	1.79
6/30/2010	9:40	19.3	1.77	3.23	83	19.32	1.95	3.46	39,907	1.38
6/30/2010	9:41	19.33	1.78	3.29	84	19.35	1.96	3.51	39,907	1.40
6/30/2010	9:42	19.45	1.51	5.48	85	19.47	1.69	5.71	39,907	2.27
6/30/2010	9:43	19.62	1.35	9.33	86	19.64	1.53	9.56	39,907	3.81
6/30/2010	9:44	19.65	1.36	8.37	87	19.67	1.54	8.59	39,907	3.42
6/30/2010	9:45	19.63	1.26	8.07	88	19.65	1.44	8.30	39,907	3.31
6/30/2010	9:46	19.65	1.16	9.09	89	19.67	1.34	9.31	39,907	3.71
6/30/2010	9:47	19.64	1.16	8.64	90	19.66	1.34	8.86	39,907	3.53
6/30/2010	9:48	19.68	1.13	8.77	91	19.70	1.31	8.99	39,907	3.58
6/30/2010	9:49	19.64	1.37	8.74	92	19.66	1.55	8.97	39,907	3.57
6/30/2010	9:50	19.64	1.34	9.84	93	19.66	1.52	10.06	39,907	4.01
6/30/2010	9:51	19.66	1.24	10.67	94	19.68	1.42	10.89	39,907	4.34
6/30/2010	9:52	19.64	1.39	7.91	95	19.66	1.57	8.14	39,907	3.24
6/30/2010	9:53	19.62	1.28	9.49	96	19.64	1.46	9.72	39,907	3.87
6/30/2010	9:54	19.61	1.19	13.98	97	19.63	1.37	14.21	39,907	5.66
6/30/2010	9:55	19.61	1.51	4.65	98	19.63	1.69	4.88	39,907	1.94
6/30/2010	9:56	19.58	1.37	10.88	99	19.60	1.55	11.11	39,907	4.42
6/30/2010	9:57	19.59	1.41	14.41	100	19.61	1.59	14.63	39,907	5.83
6/30/2010	9:58	19.62	1.39	13.55	101	19.64	1.57	13.78	39,907	5.49
6/30/2010	9:59	19.63	1.36	13.21	102	19.65	1.54	13.43	39,907	5.35
6/30/2010	10:00	19.66	1.3	13.88	103	19.68	1.48	14.10	39,907	5.62
6/30/2010	10:01	19.63	1.27	13.23	104	19.65	1.45	13.46	39,907	5.36
6/30/2010	10:02	19.58	0.13	59.57	105	19.60	0.31	59.79	39,907	23.82
6/30/2010	10:03	19.61	0.54	15.08	106	19.63	0.72	15.30	39,907	6.10
6/30/2010	10:04	19.62	0.97	11.87	107	19.64	1.15	12.10	39,907	4.82
6/30/2010	10:05	19.61	1.25	6.50	108	19.63	1.43	6.72	39,907	2.68
6/30/2010	10:06	19.61	1.47	1.68	109	19.63	1.65	1.91	39,907	0.76
6/30/2010	10:07	19.66	0.11	16.42	110	19.68	0.29	16.64	39,907	6.63
6/30/2010	10:08	19.67	0.68	16.42	111	19.69	0.86	16.64	39,907	6.63
6/30/2010	10:09	19.67	1.09	10.13	112	19.69	1.27	10.36	39,907	4.13
6/30/2010	10:10	19.68	1.3	4.89	113	19.70	1.48	5.12	39,907	2.04
6/30/2010	10:11	19.62	1.39	62.59	114	19.64	1.57	62.81	39,907	25.03
6/30/2010	10:12	19.62	0.14	16.42	115	19.64	0.32	16.64	39,907	6.63
6/30/2010	10:13	19.63	1.01	13.82	116	19.65	1.19	14.05	39,907	5.60
6/30/2010	10:14	19.63	1.14	3.53	117	19.65	1.32	3.75	39,907	1.50
6/30/2010	10:15	19.66	1.35	7.27	118	19.68	1.53	7.50	39,907	2.99
6/30/2010	10:16	19.68	0.63	53.10	119	19.70	0.81	53.32	39,907	21.25
6/30/2010	10:17	19.65	0.57	16.42	120	19.67	0.75	16.64	39,907	6.63
6/30/2010	10:18	19.66	0.81	16.17	121	19.68	0.99	16.40	39,907	6.53
6/30/2010	10:19	19.64	1.06	2.06	122	19.66	1.24	2.28	39,907	0.91
6/30/2010	10:20	19.64	1.18	10.08	123	19.66	1.36	10.30	39,907	4.11
6/30/2010	10:21	19.66	1.44	3.61	124	19.68	1.62	3.83	39,907	1.53
6/30/2010	10:22	19.64	1.08	16.25	125	19.66	1.26	16.48	39,907	6.57
6/30/2010	10:23	19.64	0.62	16.31	126	19.66	0.80	16.53	39,907	6.59
6/30/2010	10:24	19.63	1.18	6.12	127	19.65	1.36	6.35	39,907	2.53
6/30/2010	10:25	19.66	1.14	5.19	128	19.68	1.32	5.41	39,907	2.16
6/30/2010	10:26	19.65	1.11	16.12	129	19.67	1.29	16.35	39,907	6.51
6/30/2010	10:27	19.65	1.05	20.99	130	19.67	1.23	21.21	39,907	8.45
6/30/2010	10:28	19.64	1.02	24.81	131	19.66	1.20	25.03	39,907	9.97
6/30/2010	10:29	19.7	0.98	1.55	132	19.72	1.16	1.78	39,907	0.71
6/30/2010	10:30	19.64	0.94	16.42	133	19.66	1.12	16.64	39,907	6.63
6/30/2010	10:31	19.61	0.04	16.42	134	19.63	0.22	16.64	39,907	6.63
6/30/2010	10:32	19.56	1.35	73.86	135	19.58	1.53	74.08	39,907	29.52
6/30/2010	10:33	19.54	1.91	90.25	136	19.56	2.09	90.47	39,907	36.05

Batch # 1

		Raw Data					Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)		O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
6/30/2010	10:34	19.58	1.26	94.58	137		19.60	1.44	94.80	39,907	37.77
6/30/2010	10:35	19.57	1.53	98.24	138		19.59	1.71	98.46	39,907	39.23
6/30/2010	10:36	19.59	1.53	95.89	139		19.61	1.71	96.11	39,907	38.29
6/30/2010	10:37	19.63	1.53	89.78	140		19.65	1.71	90.00	39,907	35.86
6/30/2010	10:38	19.62	1.53	91.40	141	Middle &	19.64	1.71	91.62	39,907	36.50
6/30/2010	10:39	19.63	1.01	14.52	142	End of	19.65	1.19	14.74	39,907	5.87
6/30/2010	10:40	19.55	1.12	16.70	143	Charge 17	19.57	1.30	16.92	39,907	6.74
6/30/2010	10:41	19.49	0.54	17.60	144		19.51	0.72	17.82	39,907	7.10
6/30/2010	10:42	19.48	0.88	12.90	145		19.50	1.06	13.12	39,907	5.23
6/30/2010	10:43	19.52	0.01	16.20	146		19.54	0.19	16.42	39,907	6.54
6/30/2010	10:44	19.55	0.7	9.90	147		19.57	0.88	10.12	39,907	4.03
6/30/2010	10:45	19.56	0.9	4.60	148		19.58	1.08	4.82	39,907	1.92
6/30/2010	10:46	19.57	1.11	3.90	149		19.59	1.29	4.12	39,907	1.64
6/30/2010	10:47	19.55	1.19	2.40	150		19.57	1.37	2.62	39,907	1.05
6/30/2010	10:48	19.55	1.24	2.70	151		19.57	1.42	2.92	39,907	1.17
6/30/2010	10:49	19.56	1.32	1.30	152		19.58	1.50	1.52	39,907	0.61
6/30/2010	10:50	19.53	0.89	1.10	153		19.55	1.07	1.32	39,907	0.53
6/30/2010	10:51	19.52	0.94	3.50	154		19.54	1.12	3.72	39,907	1.48
6/30/2010	10:52	19.51	0.83	2.90	155		19.53	1.01	3.12	39,907	1.24
6/30/2010	10:53	19.51	1.24	13.37	156		19.53	1.42	13.59	39,907	5.42
6/30/2010	10:54	19.51	1.29	16.17	157		19.53	1.47	16.40	39,907	6.53
6/30/2010	10:55	19.54	0.86	16.33	158		19.56	1.04	16.56	39,907	6.60
6/30/2010	10:56	19.56	1.33	3.96	159		19.58	1.51	4.18	39,907	1.67
6/30/2010	10:57	19.57	1.45	0.40	160		19.59	1.63	0.63	39,907	0.25
6/30/2010	10:58	19.55	1.43	3.56	161		19.57	1.61	3.78	39,907	1.51
6/30/2010	10:59	19.56	1.44	3.82	162		19.58	1.62	4.05	39,907	1.61
6/30/2010	11:00	19.57	1.45	3.72	163		19.59	1.63	3.94	39,907	1.57
6/30/2010	11:01	19.57	1.47	4.79	164		19.59	1.65	5.01	39,907	2.00
6/30/2010	11:02	19.57	1.38	5.29	165		19.59	1.56	5.52	39,907	2.20
6/30/2010	11:03	19.61	1.19	6.52	166		19.63	1.37	6.75	39,907	2.69
6/30/2010	11:04	19.66	1.04	7.25	167		19.68	1.22	7.47	39,907	2.98
6/30/2010	11:05	19.69	1.05	8.10	168		19.71	1.23	8.33	39,907	3.32
6/30/2010	11:06	19.69	1.03	7.97	169		19.71	1.21	8.19	39,907	3.26
6/30/2010	11:07	19.7	1.37	0.35	170		19.72	1.55	0.57	39,907	0.23
6/30/2010	11:08	19.64	0.83	4.17	171		19.66	1.01	4.40	39,907	1.75
6/30/2010	11:09	19.65	0.56	16.42	172		19.67	0.74	16.64	39,907	6.63
6/30/2010	11:10	19.67	1.1	10.43	173		19.69	1.28	10.65	39,907	4.24
6/30/2010	11:11	19.67	1.19	3.13	174		19.69	1.37	3.35	39,907	1.34
6/30/2010	11:12	19.68	0.73	42.27	175		19.70	0.91	42.49	39,907	16.93
6/30/2010	11:13	19.63	1.19	22.48	176		19.65	1.37	22.71	39,907	9.05
6/30/2010	11:14	19.63	0.54	16.42	177		19.65	0.72	16.64	39,907	6.63
6/30/2010	11:15	19.65	1.11	5.05	178		19.67	1.29	5.28	39,907	2.10
6/30/2010	11:16	19.66	0.72	61.28	179		19.68	0.90	61.50	39,907	24.50
6/30/2010	11:17	19.68	5.27	85.08	180		19.70	5.45	85.30	39,907	33.99
6/30/2010	11:18	19.67	0.9	8.53	181		19.69	1.08	8.75	39,907	3.49
6/30/2010	11:19	19.66	0.44	16.42	182		19.68	0.62	16.64	39,907	6.63
6/30/2010	11:20	19.67	0.99	8.96	183		19.69	1.17	9.18	39,907	3.66
6/30/2010	11:21	19.65	1.16	2.17	184		19.67	1.34	2.39	39,907	0.95
6/30/2010	11:22	19.67	1.32	4.63	185		19.69	1.50	4.85	39,907	1.93
6/30/2010	11:23	19.68	0.62	16.17	186		19.70	0.80	16.40	39,907	6.53
6/30/2010	11:24	19.64	0.57	16.42	187		19.66	0.75	16.64	39,907	6.63
6/30/2010	11:25	19.64	1.17	6.15	188		19.66	1.35	6.37	39,907	2.54
6/30/2010	11:26	19.65	1.31	4.30	189		19.67	1.49	4.53	39,907	1.80
6/30/2010	11:27	19.66	1.36	6.10	190		19.68	1.54	6.32	39,907	2.52
6/30/2010	11:28	19.68	1.34	2.46	191		19.70	1.52	2.68	39,907	1.07
6/30/2010	11:29	19.65	0.82	35.96	192		19.67	1.00	36.18	39,907	14.42
6/30/2010	11:30	19.53	0.08	90.79	193		19.55	0.26	91.01	39,907	36.26
6/30/2010	11:31	19.61	1.25	64.00	194		19.63	1.43	64.23	39,907	25.59
6/30/2010	11:32	19.65	0.8	16.39	195		19.67	0.98	16.61	39,907	6.62
6/30/2010	11:33	19.68	0.52	54.23	196		19.70	0.70	54.45	39,907	21.70
6/30/2010	11:34	19.64	0.89	26.84	197		19.66	1.07	27.07	39,907	10.78
6/30/2010	11:35	19.59	1.04	95.21	198		19.61	1.22	95.43	39,907	38.02
6/30/2010	11:36	19.58	1.17	27.40	199		19.60	1.35	27.63	39,907	11.01
6/30/2010	11:37	19.57	0.22	16.42	200		19.59	0.40	16.64	39,907	6.63
6/30/2010	11:38	19.64	0.92	16.42	201		19.66	1.10	16.64	39,907	6.63
6/30/2010	11:39	19.33	0.18	27.91	202		19.35	0.36	28.14	39,907	11.21
6/30/2010	11:40	19.61	0.34	44.92	203		19.63	0.52	45.14	39,907	17.99
6/30/2010	11:41	19.6	0.74	71.47	204		19.62	0.92	71.69	39,907	28.56

Batch # 1

		Raw Data				Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
6/30/2010	11:42	19.63	0.3	30.18	205	19.65	0.48	30.41	39,907	12.11
6/30/2010	11:43	19.61	1.09	15.53	206	19.63	1.27	15.76	39,907	6.28
6/30/2010	11:44	19.6	1.4	21.36	207	19.62	1.58	21.59	39,907	8.60
6/30/2010	11:45	19.66	0.74	27.56	208	19.68	0.92	27.79	39,907	11.07
6/30/2010	11:46	19.61	1.53	99.09	209	19.63	1.71	99.31	39,907	39.57
6/30/2010	11:47	19.57	1.51	59.20	210	19.59	1.69	59.42	39,907	23.68
6/30/2010	11:48	19.61	0.5	32.62	211	19.63	0.68	32.84	39,907	13.08
6/30/2010	11:49	19.54	1.25	32.83	212	19.56	1.43	33.06	39,907	13.17
6/30/2010	11:50	19.58	0.83	21.90	213	19.60	1.01	22.12	39,907	8.81
6/30/2010	11:51	19.67	1.5	100.41	214	19.69	1.68	100.63	39,907	40.09
6/30/2010	11:52	19.57	2.58	94.77	215	19.59	2.76	94.99	39,907	37.85
6/30/2010	11:53	19.56	0.76	15.24	216	19.58	0.94	15.46	39,907	6.16
6/30/2010	11:54	19.53	0.16	32.83	217	19.55	0.34	33.06	39,907	13.17
6/30/2010	11:55	19.58	0.25	32.83	218	19.60	0.43	33.06	39,907	13.17
6/30/2010	11:56	19.66	0.09	11.12	219	19.68	0.27	11.35	39,907	4.52
6/30/2010	11:57	19.55	1.53	105.01	220	19.57	1.71	105.23	39,907	41.93
6/30/2010	11:58	19.5	1.53	101.93	221	19.52	1.71	102.15	39,907	40.70
6/30/2010	11:59	19.52	1.12	28.61	222	19.54	1.30	28.83	39,907	11.49
6/30/2010	12:00	19.51	0.31	32.83	223	19.53	0.49	33.06	39,907	13.17
6/30/2010	12:01	19.48	0.71	94.86	224	19.50	0.89	95.08	39,907	37.88
6/30/2010	12:02	19.48	1.53	96.33	225	19.50	1.71	96.55	39,907	38.47
6/30/2010	12:03	19.5	1.53	95.69	226	19.52	1.71	95.91	39,907	38.21
6/30/2010	12:04	19.5	1.53	99.86	227	19.52	1.71	100.08	39,907	39.87
6/30/2010	12:05	19.51	1.32	50.40	228	19.53	1.50	50.62	39,907	20.17
6/30/2010	12:06	19.51	0.5	32.83	229	19.53	0.68	33.06	39,907	13.17
6/30/2010	12:07	19.58	0.32	32.83	230	19.60	0.50	33.06	39,907	13.17
6/30/2010	12:08	19.61	0.66	32.83	231	19.63	0.84	33.06	39,907	13.17
6/30/2010	12:09	19.6	0.95	30.18	232	19.62	1.13	30.41	39,907	12.11
6/30/2010	12:10	19.6	0.99	12.00	233	19.62	1.17	12.23	39,907	4.87
6/30/2010	12:11	19.6	1.1	2.81	234	19.62	1.28	3.03	39,907	1.21
6/30/2010	12:12	19.58	1.15	2.99	235	19.60	1.33	3.22	39,907	1.28
6/30/2010	12:13	19.59	1.22	4.20	236	19.61	1.40	4.42	39,907	1.76
6/30/2010	12:14	19.6	1.18	8.45	237	19.62	1.36	8.67	39,907	3.46
6/30/2010	12:15	19.59	1.24	12.78	238	19.61	1.42	13.00	39,907	5.18
6/30/2010	12:16	19.6	1.21	14.14	239	19.62	1.39	14.37	39,907	5.72
6/30/2010	12:17	19.64	1.3	11.09	240	19.66	1.48	11.32	39,907	4.51
6/30/2010	12:18	19.66	1.36	10.32	241	19.68	1.54	10.54	39,907	4.20
6/30/2010	12:19	19.67	1.24	11.36	242	19.69	1.42	11.59	39,907	4.62
6/30/2010	12:20	19.66	1.29	14.06	243	19.68	1.47	14.29	39,907	5.69
6/30/2010	12:21	19.62	1.57	9.95	244	19.64	1.75	10.17	39,907	4.05
6/30/2010	12:22	19.33	1.86	24.78	245	19.35	2.04	25.01	39,907	9.96
6/30/2010	12:23	19.23	1.19	32.46	246	19.25	1.37	32.68	39,907	13.02
6/30/2010	12:24	19.25	0.5	10.40	247	19.27	0.68	10.62	39,907	4.23
6/30/2010	12:25	19.23	0.94	21.60	248	19.25	1.12	21.82	39,907	8.70
6/30/2010	12:26	19.25	0.84	4.60	249	19.27	1.02	4.82	39,907	1.92
6/30/2010	12:27	19.28	0.86	32.83	250	19.30	1.04	33.06	39,907	13.17
6/30/2010	12:28	19.27	1.34	29.94	251	19.29	1.52	30.17	39,907	12.02
6/30/2010	12:29	19.26	1.44	19.30	252	19.28	1.62	19.53	39,907	7.78
6/30/2010	12:30	19.26	1.68	2.46	253	19.28	1.86	2.68	39,907	1.07
6/30/2010	12:31	19.28	1.8	1.52	254	19.30	1.98	1.75	39,907	0.70
6/30/2010	12:32	19.32	1.79	0.45	255	19.34	1.97	0.68	39,907	0.27
6/30/2010	12:33	19.3	1.38	1.52	256	19.32	1.56	1.75	39,907	0.70
6/30/2010	12:34	19.31	1.7	8.50	257	19.33	1.88	8.73	39,907	3.48
6/30/2010	12:35	19.32	1.82	4.41	258	19.34	2.00	4.64	39,907	1.85
6/30/2010	12:36	19.33	1.79	5.94	259	19.35	1.97	6.16	39,907	2.45
6/30/2010	12:37	19.35	1.82	7.35	260	19.37	2.00	7.58	39,907	3.02
6/30/2010	12:38	19.34	1.75	6.36	261	19.36	1.93	6.59	39,907	2.62
6/30/2010	12:39	19.33	1.83	4.36	262	19.35	2.01	4.58	39,907	1.83
6/30/2010	12:40	19.33	1.77	6.71	263	19.35	1.95	6.94	39,907	2.76
6/30/2010	12:41	19.35	1.79	6.71	264	19.37	1.97	6.94	39,907	2.76
6/30/2010	12:42	19.33	1.77	6.90	265	19.35	1.95	7.12	39,907	2.84
6/30/2010	12:43	19.34	1.82	6.26	266	19.36	2.00	6.48	39,907	2.58
6/30/2010	12:44	19.36	1.83	6.63	267	19.38	2.01	6.86	39,907	2.73
6/30/2010	12:45	19.33	1.86	6.60	268	19.35	2.04	6.83	39,907	2.72
6/30/2010	12:46	19.35	1.81	5.80	269	19.37	1.99	6.03	39,907	2.40
6/30/2010	12:47	19.35	1.83	5.69	270	19.37	2.01	5.92	39,907	2.36
6/30/2010	12:48	19.36	1.86	4.36	271	19.38	2.04	4.58	39,907	1.83
6/30/2010	12:49	19.37	1.82	5.75	272	19.39	2.00	5.97	39,907	2.38

Batch # 1

		Raw Data				Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
6/30/2010	12:50	19.4	1.7	6.34	273	19.42	1.88	6.56	39,907	2.61
6/30/2010	12:51	19.43	1.71	6.10	274	19.45	1.89	6.32	39,907	2.52
6/30/2010	12:52	19.44	1.71	5.96	275	19.46	1.89	6.19	39,907	2.46
6/30/2010	12:53	19.32	1.84	3.90	276	19.34	2.02	4.13	39,907	1.64
6/30/2010	12:54	19.31	1.72	5.83	277	19.33	1.90	6.05	39,907	2.41
6/30/2010	12:55	19.39	1.67	5.96	278	19.41	1.85	6.19	39,907	2.46
6/30/2010	12:56	19.42	1.64	6.28	279	19.44	1.82	6.51	39,907	2.59
6/30/2010	12:57	19.41	1.7	4.84	280	19.43	1.88	5.06	39,907	2.02
6/30/2010	12:58	19.38	1.71	4.76	281	19.40	1.89	4.98	39,907	1.99
6/30/2010	12:59	19.37	1.68	4.87	282	19.39	1.86	5.09	39,907	2.03
6/30/2010	13:00	19.35	1.76	5.00	283	19.37	1.94	5.22	39,907	2.08
7/1/2010	6:45	19.65	1.63	5.32	284	19.67	1.81	5.55	41,935	2.32
7/1/2010	6:46	19.65	1.63	5.85	285	19.67	1.81	6.08	41,935	2.55
7/1/2010	6:47	19.76	1.65	5.45	286	19.78	1.83	5.68	41,935	2.38
7/1/2010	6:48	19.89	1.5	5.27	287	19.91	1.68	5.49	41,935	2.30
7/1/2010	6:49	19.92	1.47	5.24	288	19.94	1.65	5.46	41,935	2.29
7/1/2010	6:50	19.93	1.5	4.63	289	19.95	1.68	4.85	41,935	2.03
7/1/2010	6:51	19.92	1.53	5.03	290	19.94	1.71	5.25	41,935	2.20
7/1/2010	6:52	19.93	1.53	5.99	291	19.95	1.71	6.21	41,935	2.60
7/1/2010	6:53	19.96	1.48	5.77	292	19.98	1.66	6.00	41,935	2.51
7/1/2010	6:54	19.97	1.51	4.38	293	19.99	1.69	4.61	41,935	1.93
7/1/2010	6:55	19.97	1.47	3.40	294	19.99	1.65	3.62	41,935	1.52
7/1/2010	6:56	20	1.43	2.89	295	20.02	1.61	3.11	41,935	1.30
7/1/2010	6:57	20	1.45	2.99	296	20.02	1.63	3.22	41,935	1.35
7/1/2010	6:58	20	1.38	3.42	297	20.02	1.56	3.65	41,935	1.53
7/1/2010	6:59	20	1.45	2.06	298	20.02	1.63	2.28	41,935	0.96
7/1/2010	7:00	19.96	1.42	2.73	299	19.98	1.60	2.95	41,935	1.24
7/1/2010	7:01	19.96	1.45	2.59	300	19.98	1.63	2.82	41,935	1.18
7/1/2010	7:02	19.96	1.54	2.81	301	19.98	1.72	3.03	41,935	1.27
7/1/2010	7:03	19.92	1.54	2.99	302	19.94	1.72	3.22	41,935	1.35
7/1/2010	7:04	19.9	1.57	3.53	303	19.92	1.75	3.75	41,935	1.57
7/1/2010	7:05	19.78	1.5	4.25	304	19.80	1.68	4.48	41,935	1.87
7/1/2010	7:06	19.76	1.56	3.42	305	19.78	1.74	3.65	41,935	1.53
7/1/2010	7:07	19.8	1.54	3.77	306	19.82	1.72	3.99	41,935	1.67
7/1/2010	7:08	19.73	1.56	3.77	307	19.75	1.74	3.99	41,935	1.67
7/1/2010	7:09	19.63	1.58	3.72	308	19.65	1.76	3.94	41,935	1.65
7/1/2010	7:10	19.63	1.67	3.74	309	19.65	1.85	3.97	41,935	1.66
7/1/2010	7:11	19.67	1.58	4.09	310	19.69	1.76	4.32	41,935	1.81
7/1/2010	7:12	19.72	1.59	3.80	311	19.74	1.77	4.02	41,935	1.68
7/1/2010	7:13	19.71	1.65	3.45	312	19.73	1.83	3.67	41,935	1.54
7/1/2010	7:14	19.71	1.6	4.49	313	19.73	1.78	4.72	41,935	1.97
7/1/2010	7:15	19.68	1.65	3.80	314	19.70	1.83	4.02	41,935	1.68
7/1/2010	7:16	19.65	1.59	4.17	315	19.67	1.77	4.40	41,935	1.84
7/1/2010	7:17	19.7	1.56	4.44	316	19.72	1.74	4.66	41,935	1.95
7/1/2010	7:18	19.7	1.58	3.80	317	19.72	1.76	4.02	41,935	1.68
7/1/2010	7:19	19.76	1.53	3.10	318	19.78	1.71	3.33	41,935	1.39
7/1/2010	7:20	19.76	1.6	3.34	319	19.78	1.78	3.57	41,935	1.49
7/1/2010	7:21	19.69	1.6	3.85	320	19.71	1.78	4.07	41,935	1.71
7/1/2010	7:22	19.67	1.6	4.73	321	19.69	1.78	4.96	41,935	2.08
7/1/2010	7:23	19.7	1.54	4.87	322	19.72	1.72	5.09	41,935	2.13
7/1/2010	7:24	19.7	1.6	3.05	323	19.72	1.78	3.27	41,935	1.37
7/1/2010	7:25	19.72	1.58	4.14	324	19.74	1.76	4.37	41,935	1.83
7/1/2010	7:26	19.72	1.56	3.40	325	19.74	1.74	3.62	41,935	1.52
7/1/2010	7:27	19.72	1.56	3.93	326	19.74	1.74	4.15	41,935	1.74
7/1/2010	7:28	19.77	1.55	3.02	327	19.79	1.73	3.25	41,935	1.36
7/1/2010	7:29	19.82	1.58	2.70	328	19.84	1.76	2.93	41,935	1.22
7/1/2010	7:30	19.81	1.59	2.22	329	19.83	1.77	2.44	41,935	1.02
7/1/2010	7:31	19.84	1.56	3.07	330	19.86	1.74	3.30	41,935	1.38
7/1/2010	7:32	19.83	1.56	1.95	331	19.85	1.74	2.18	41,935	0.91
7/1/2010	7:33	19.85	1.53	2.54	332	19.87	1.71	2.76	41,935	1.16
7/1/2010	7:34	19.87	1.49	2.57	333	19.89	1.67	2.79	41,935	1.17
7/1/2010	7:35	19.87	1.53	2.27	334	19.89	1.71	2.50	41,935	1.05
7/1/2010	7:36	19.87	1.52	2.57	335	19.89	1.70	2.79	41,935	1.17
7/1/2010	7:37	19.85	1.55	2.27	336	19.87	1.73	2.50	41,935	1.05
7/1/2010	7:38	19.84	1.56	2.25	337	19.86	1.74	2.47	41,935	1.03
7/1/2010	7:39	19.85	1.52	2.38	338	19.87	1.70	2.60	41,935	1.09
7/1/2010	7:40	19.84	1.52	2.38	339	19.86	1.70	2.60	41,935	1.09
7/1/2010	7:41	19.87	1.52	2.11	340	19.89	1.70	2.34	41,935	0.98

Batch # 1

		Raw Data					Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)		O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
7/1/2010	7:42	19.88	1.52	1.95	341		19.90	1.70	2.18	41,935	0.91
7/1/2010	7:43	19.86	1.5	2.38	342		19.88	1.68	2.60	41,935	1.09
7/1/2010	7:44	19.87	1.5	1.95	343		19.89	1.68	2.18	41,935	0.91
7/1/2010	7:45	19.86	1.53	1.79	344		19.88	1.71	2.02	41,935	0.84
7/1/2010	7:46	19.82	1.53	2.19	345		19.84	1.71	2.42	41,935	1.01
7/1/2010	7:47	19.84	1.46	2.46	346		19.86	1.64	2.68	41,935	1.12
7/1/2010	7:48	19.84	1.52	2.27	347		19.86	1.70	2.50	41,935	1.05
7/1/2010	7:49	19.84	1.47	1.76	348		19.86	1.65	1.99	41,935	0.83
7/1/2010	7:50	19.83	1.52	2.27	349		19.85	1.70	2.50	41,935	1.05
7/1/2010	7:51	19.86	1.49	1.92	350		19.88	1.67	2.15	41,935	0.90
7/1/2010	7:52	19.82	1.52	1.66	351		19.84	1.70	1.88	41,935	0.79
7/1/2010	7:53	19.83	1.54	2.22	352		19.85	1.72	2.44	41,935	1.02
7/1/2010	7:54	19.86	1.49	2.46	353		19.88	1.67	2.68	41,935	1.12
7/1/2010	7:55	19.84	1.49	2.41	354		19.86	1.67	2.63	41,935	1.10
7/1/2010	7:56	19.83	1.46	2.30	355		19.85	1.64	2.52	41,935	1.06
7/1/2010	7:57	19.84	1.46	1.74	356		19.86	1.64	1.96	41,935	0.82
7/1/2010	7:58	19.85	1.5	1.63	357		19.87	1.68	1.86	41,935	0.78
7/1/2010	7:59	19.85	1.44	1.63	358		19.87	1.62	1.86	41,935	0.78
7/1/2010	8:00	19.84	1.46	2.14	359		19.86	1.64	2.36	41,935	0.99
7/1/2010	8:01	19.84	1.51	1.82	360	Start of	19.86	1.69	2.04	41,935	0.86
7/1/2010	8:02	19.82	1.48	2.01	361	Charge 2	19.84	1.66	2.23	41,935	0.93
7/1/2010	8:03	19.83	1.49	1.42	362		19.85	1.67	1.64	41,935	0.69
7/1/2010	8:04	19.81	1.49	1.55	363		19.83	1.67	1.78	41,935	0.74
7/1/2010	8:05	19.82	1.52	1.98	364		19.84	1.70	2.20	41,935	0.92
7/1/2010	8:06	19.84	1.5	1.90	365		19.86	1.68	2.12	41,935	0.89
7/1/2010	8:07	19.84	1.51	1.87	366		19.86	1.69	2.10	41,935	0.88
7/1/2010	8:08	19.84	1.48	2.09	367		19.86	1.66	2.31	41,935	0.97
7/1/2010	8:09	19.82	1.47	2.25	368		19.84	1.65	2.47	41,935	1.03
7/1/2010	8:10	19.83	1.49	1.79	369		19.85	1.67	2.02	41,935	0.84
7/1/2010	8:11	19.87	1.4	1.71	370		19.89	1.58	1.94	41,935	0.81
7/1/2010	8:12	20.01	1.16	1.84	371		20.03	1.34	2.07	41,935	0.87
7/1/2010	8:13	20.03	1.16	1.58	372		20.05	1.34	1.80	41,935	0.75
7/1/2010	8:14	20	1.06	1.52	373		20.02	1.24	1.75	41,935	0.73
7/1/2010	8:15	20	0.98	1.74	374		20.02	1.16	1.96	41,935	0.82
7/1/2010	8:16	20.02	1	2.01	375		20.04	1.18	2.23	41,935	0.93
7/1/2010	8:17	20.02	1.05	1.79	376		20.04	1.23	2.02	41,935	0.84
7/1/2010	8:18	20.04	1.03	1.23	377		20.06	1.21	1.45	41,935	0.61
7/1/2010	8:19	20.03	0.95	1.52	378		20.05	1.13	1.75	41,935	0.73
7/1/2010	8:20	20.03	0.93	1.36	379		20.05	1.11	1.59	41,935	0.66
7/1/2010	8:21	20.02	0.9	1.58	380		20.04	1.08	1.80	41,935	0.75
7/1/2010	8:22	20.02	0.86	1.68	381		20.04	1.04	1.91	41,935	0.80
7/1/2010	8:23	20.03	0.88	1.60	382		20.05	1.06	1.83	41,935	0.77
7/1/2010	8:24	20.03	0.93	1.15	383		20.05	1.11	1.37	41,935	0.58
7/1/2010	8:25	20.03	0.99	1.87	384		20.05	1.17	2.10	41,935	0.88
7/1/2010	8:26	20.02	0.95	1.92	385		20.04	1.13	2.15	41,935	0.90
7/1/2010	8:27	20.03	0.99	1.68	386		20.05	1.17	1.91	41,935	0.80
7/1/2010	8:28	20.03	0.99	1.50	387		20.05	1.17	1.72	41,935	0.72
7/1/2010	8:29	20.02	0.99	1.28	388		20.04	1.17	1.51	41,935	0.63
7/1/2010	8:30	20.03	0.93	1.47	389		20.05	1.11	1.70	41,935	0.71
7/1/2010	8:31	20.03	0.77	1.36	390		20.05	0.95	1.59	41,935	0.66
7/1/2010	8:32	20.03	0.81	1.50	391		20.05	0.99	1.72	41,935	0.72
7/1/2010	8:33	20.06	0.73	1.68	392		20.08	0.91	1.91	41,935	0.80
7/1/2010	8:34	20.08	0.64	1.68	393		20.10	0.82	1.91	41,935	0.80
7/1/2010	8:35	20.07	0.7	1.95	394		20.09	0.88	2.18	41,935	0.91
7/1/2010	8:36	20.03	0.99	1.92	395		20.05	1.17	2.15	41,935	0.90
7/1/2010	8:37	19.92	1.01	2.25	396		19.94	1.19	2.47	41,935	1.03
7/1/2010	8:38	19.92	0.77	1.10	397		19.94	0.95	1.32	41,935	0.55
7/1/2010	8:39	19.92	0.8	0.45	398		19.94	0.98	0.68	41,935	0.28
7/1/2010	8:40	19.97	1.01	0.56	399		19.99	1.19	0.79	41,935	0.33
7/1/2010	8:41	19.94	1.32	0.86	400		19.96	1.50	1.08	41,935	0.45
7/1/2010	8:42	19.94	1.31	0.96	401		19.96	1.49	1.19	41,935	0.50
7/1/2010	8:43	19.98	1.27	0.96	402		20.00	1.45	1.19	41,935	0.50
7/1/2010	8:44	19.95	1.23	0.51	403		19.97	1.41	0.73	41,935	0.31
7/1/2010	8:45	19.98	1.18	0.70	404		20.00	1.36	0.92	41,935	0.39
7/1/2010	8:46	19.97	1.16	0.37	405		19.99	1.34	0.60	41,935	0.25
7/1/2010	8:47	19.97	1.1	1.02	406		19.99	1.28	1.24	41,935	0.52
7/1/2010	8:48	19.97	1.1	0.96	407		19.99	1.28	1.19	41,935	0.50
7/1/2010	8:49	19.98	1.08	1.07	408		20.00	1.26	1.29	41,935	0.54

Batch # 1

		Raw Data				Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
7/1/2010	8:50	19.95	1.26	0.53	409	19.97	1.44	0.76	41,935	0.32
7/1/2010	8:51	19.91	1.41	1.28	410	19.93	1.59	1.51	41,935	0.63
7/1/2010	8:52	19.94	1.39	1.18	411	19.96	1.57	1.40	41,935	0.59
7/1/2010	8:53	19.93	1.33	0.86	412	19.95	1.51	1.08	41,935	0.45
7/1/2010	8:54	19.93	1.31	1.26	413	19.95	1.49	1.48	41,935	0.62
7/1/2010	8:55	19.94	1.28	1.15	414	19.96	1.46	1.37	41,935	0.58
7/1/2010	8:56	19.94	1.25	1.28	415	19.96	1.43	1.51	41,935	0.63
7/1/2010	8:57	20	1.1	1.07	416	20.02	1.28	1.29	41,935	0.54
7/1/2010	8:58	20	1.02	0.78	417	20.02	1.20	1.00	41,935	0.42
7/1/2010	8:59	20.01	0.98	1.07	418	20.03	1.16	1.29	41,935	0.54
7/1/2010	9:00	20.02	0.95	1.36	419	20.04	1.13	1.59	41,935	0.66
7/1/2010	9:01	20.01	0.91	1.18	420	20.03	1.09	1.40	41,935	0.59
7/1/2010	9:02	20.01	1.05	1.47	421	20.03	1.23	1.70	41,935	0.71
7/1/2010	9:03	19.97	1.38	1.42	422	19.99	1.56	1.64	41,935	0.69
7/1/2010	9:04	19.96	1.33	1.87	423	19.98	1.51	2.10	41,935	0.88
7/1/2010	9:05	19.96	1.3	1.20	424	19.98	1.48	1.43	41,935	0.60
7/1/2010	9:06	19.97	1.39	1.07	425	19.99	1.57	1.29	41,935	0.54
7/1/2010	9:07	19.94	1.34	1.63	426	19.96	1.52	1.86	41,935	0.78
7/1/2010	9:08	19.96	1.34	1.20	427	19.98	1.52	1.43	41,935	0.60
7/1/2010	9:09	19.94	1.36	1.28	428	19.96	1.54	1.51	41,935	0.63
7/1/2010	9:10	19.88	1.42	1.50	429	19.90	1.60	1.72	41,935	0.72
7/1/2010	9:11	19.9	1.39	1.66	430	19.92	1.57	1.88	41,935	0.79
7/1/2010	9:12	19.88	1.45	1.55	431	19.90	1.63	1.78	41,935	0.74
7/1/2010	9:13	20.15	1.11	1.12	432	20.17	1.29	1.35	41,935	0.56
7/1/2010	9:14	20.15	1.1	1.74	433	20.17	1.28	1.96	41,935	0.82
7/1/2010	9:15	20.15	1.15	1.60	434	20.17	1.33	1.83	41,935	0.77
7/1/2010	9:16	20.17	1.12	1.34	435	20.19	1.30	1.56	41,935	0.65
7/1/2010	9:17	20.15	1.1	1.04	436	20.17	1.28	1.27	41,935	0.53
7/1/2010	9:18	20.16	1.07	1.44	437	20.18	1.25	1.67	41,935	0.70
Averages		**19.67**	**1.23**	**15.44**	**7.28**	**19.69**	**1.42**	**15.67**	**40,622**	**6.26**

Batch # 2

Batch # 2

		Raw Data				Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
6/30/2010	13:01	19.41	1.67	5.51	1	19.43	1.87	5.63	41,005	2.304
6/30/2010	13:02	19.41	1.71	6.87	2	19.43	1.91	6.99	41,005	2.862
6/30/2010	13:03	19.37	1.78	6.20	3	19.39	1.98	6.32	41,005	2.588
6/30/2010	13:04	19.35	1.77	7.35	4	19.37	1.97	7.47	41,005	3.059
6/30/2010	13:05	19.32	1.76	7.22	5	19.34	1.96	7.34	41,005	3.004
6/30/2010	13:06	19.32	1.71	9.76	6	19.34	1.91	9.88	41,005	4.044
6/30/2010	13:07	19.41	1.61	11.60	7	19.43	1.81	11.72	41,005	4.799
6/30/2010	13:08	19.61	1.30	12.78	8	19.63	1.50	12.90	41,005	5.281
6/30/2010	13:09	19.49	1.66	11.34	9	19.51	1.86	11.46	41,005	4.690
6/30/2010	13:10	19.38	1.69	10.85	10	19.40	1.89	10.97	41,005	4.493
6/30/2010	13:11	19.38	1.72	11.28	11	19.40	1.92	11.40	41,005	4.668
6/30/2010	13:12	19.37	1.73	11.20	12	19.39	1.93	11.32	41,005	4.635
6/30/2010	13:13	19.36	1.72	11.66	13	19.38	1.92	11.78	41,005	4.821
6/30/2010	13:14	19.35	1.71	10.45	14	19.37	1.91	10.57	41,005	4.328
6/30/2010	13:15	19.39	1.67	11.50	15	19.41	1.87	11.62	41,005	4.755
6/30/2010	13:16	19.36	1.77	10.13	16	19.38	1.97	10.25	41,005	4.197
6/30/2010	13:17	19.37	1.72	10.85	17	19.39	1.92	10.97	41,005	4.493
6/30/2010	13:18	19.39	1.73	11.20	18	19.41	1.93	11.32	41,005	4.635
6/30/2010	13:19	19.37	1.78	11.09	19	19.39	1.98	11.22	41,005	4.591
6/30/2010	13:20	19.36	1.80	10.80	20	19.38	2.00	10.92	41,005	4.471
6/30/2010	13:21	19.37	1.74	11.50	21	19.39	1.94	11.62	41,005	4.755
6/30/2010	13:22	19.37	1.78	11.47	22	19.39	1.98	11.59	41,005	4.744
6/30/2010	13:23	19.36	1.71	11.36	23	19.38	1.91	11.48	41,005	4.701
6/30/2010	13:24	19.36	1.80	12.03	24	19.38	2.00	12.15	41,005	4.974
6/30/2010	13:25	19.36	1.73	12.30	25	19.38	1.93	12.42	41,005	5.084
6/30/2010	13:26	19.37	1.77	12.97	26	19.39	1.97	13.09	41,005	5.357
6/30/2010	13:27	19.38	1.74	12.19	27	19.40	1.94	12.31	41,005	5.040
6/30/2010	13:28	19.35	1.73	12.62	28	19.37	1.93	12.74	41,005	5.215
6/30/2010	13:29	19.38	1.70	12.11	29	19.40	1.90	12.23	41,005	5.007
6/30/2010	13:30	19.41	1.70	12.46	30	19.43	1.90	12.58	41,005	5.149
6/30/2010	13:31	19.37	1.73	11.92	31	19.39	1.93	12.04	41,005	4.930
6/30/2010	13:32	19.39	1.71	11.87	32	19.41	1.91	11.99	41,005	4.909
6/30/2010	13:33	19.38	1.71	12.57	33	19.40	1.91	12.69	41,005	5.193
6/30/2010	13:34	19.39	1.75	11.84	34	19.41	1.95	11.96	41,005	4.898
6/30/2010	13:35	19.40	1.74	12.59	35	19.42	1.94	12.71	41,005	5.204
6/30/2010	13:36	19.38	1.76	12.73	36	19.40	1.96	12.85	41,005	5.259
6/30/2010	13:37	19.37	1.74	11.90	37	19.39	1.94	12.02	41,005	4.919
6/30/2010	13:38	19.38	1.74	11.58	38	19.40	1.94	11.70	41,005	4.788
6/30/2010	13:39	19.40	1.76	11.84	39	19.42	1.96	11.96	41,005	4.898
6/30/2010	13:40	19.37	1.79	12.03	40	19.39	1.99	12.15	41,005	4.974
6/30/2010	13:41	19.39	1.76	10.91	41	19.41	1.96	11.03	41,005	4.515
6/30/2010	13:42	19.36	1.75	10.29	42	19.38	1.95	10.41	41,005	4.263
6/30/2010	13:43	19.36	1.82	11.60	43	19.38	2.02	11.72	41,005	4.799
6/30/2010	13:44	19.37	1.83	10.19	44	19.39	2.03	10.31	41,005	4.219
6/30/2010	13:45	19.38	1.73	10.16	45	19.40	1.93	10.28	41,005	4.208
6/30/2010	13:46	19.37	1.80	10.75	46	19.39	2.00	10.87	41,005	4.449
6/30/2010	13:47	19.38	1.83	10.13	47	19.40	2.03	10.25	41,005	4.197
6/30/2010	13:48	19.34	1.73	7.89	48	19.36	1.93	8.01	41,005	3.278
6/30/2010	13:49	19.35	1.73	10.03	49	19.37	1.93	10.15	41,005	4.153
6/30/2010	13:50	19.37	1.80	10.35	50	19.39	2.00	10.47	41,005	4.285
6/30/2010	13:51	19.35	1.83	10.03	51	19.37	2.03	10.15	41,005	4.153
6/30/2010	13:52	19.35	1.87	9.92	52	19.37	2.07	10.04	41,005	4.110
6/30/2010	13:53	19.36	1.84	10.19	53	19.38	2.04	10.31	41,005	4.219
6/30/2010	13:54	19.36	1.83	10.59	54	19.38	2.03	10.71	41,005	4.383
6/30/2010	13:55	19.35	1.81	9.92	55	19.37	2.01	10.04	41,005	4.110
6/30/2010	13:56	19.36	1.80	10.11	56	19.38	2.00	10.23	41,005	4.186
6/30/2010	13:57	19.39	1.82	9.78	57	19.41	2.02	9.91	41,005	4.055
6/30/2010	13:58	19.39	1.81	9.73	58	19.41	2.01	9.85	41,005	4.033
6/30/2010	13:59	19.38	1.76	10.24	59	19.40	1.96	10.36	41,005	4.241
6/30/2010	14:00	19.39	1.78	9.14	60	19.41	1.98	9.26	41,005	3.792
6/30/2010	14:01	19.37	1.77	8.21	61	19.39	1.97	8.33	41,005	3.409
6/30/2010	14:02	19.39	1.79	9.81	62	19.41	1.99	9.93	41,005	4.066
6/30/2010	14:03	19.41	1.64	9.17	63	19.43	1.84	9.29	41,005	3.803
6/30/2010	14:04	19.58	1.39	9.97	64	19.60	1.59	10.09	41,005	4.131
6/30/2010	14:05	19.69	1.36	9.20	65	19.71	1.56	9.32	41,005	3.814
6/30/2010	14:06	19.72	1.36	8.53	66	19.74	1.56	8.65	41,005	3.540
6/30/2010	14:07	19.73	1.25	8.37	67	19.75	1.45	8.49	41,005	3.475
6/30/2010	14:08	19.71	1.20	8.56	68	19.73	1.40	8.68	41,005	3.551

Batch # 2

		Raw Data				Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
6/30/2010	14:09	19.74	1.20	8.82	69	19.76	1.40	8.94	41,005	3.661
6/30/2010	14:10	19.72	1.22	8.93	70	19.74	1.42	9.05	41,005	3.705
6/30/2010	14:11	19.72	1.13	10.53	71	19.74	1.33	10.65	41,005	4.361
6/30/2010	14:12	19.69	1.00	12.97	72	19.71	1.20	13.09	41,005	5.357
6/30/2010	14:13	19.78	1.02	15.13	73	19.80	1.22	15.25	41,005	6.244
6/30/2010	14:14	19.75	1.08	18.18	74	19.77	1.28	18.30	41,005	7.491
6/30/2010	14:15	19.74	1.18	18.82	75	19.76	1.38	18.94	41,005	7.754
6/30/2010	14:16	19.72	1.04	18.47	76	19.74	1.24	18.59	41,005	7.612
6/30/2010	14:17	19.74	1.03	19.86	77	19.76	1.23	19.98	41,005	8.181
6/30/2010	14:18	19.74	0.99	20.88	78	19.76	1.19	21.00	41,005	8.597
6/30/2010	14:19	19.76	0.98	21.90	79	19.78	1.18	22.02	41,005	9.013
6/30/2010	14:20	20.14	0.64	22.48	80	20.16	0.84	22.60	41,005	9.253
6/30/2010	14:21	20.49	0.33	17.32	81	20.51	0.53	17.44	41,005	7.141
6/30/2010	14:22	20.50	0.30	12.99	82	20.52	0.50	13.11	41,005	5.368
6/30/2010	14:23	20.49	0.30	10.03	83	20.51	0.50	10.15	41,005	4.153
6/30/2010	14:24	20.52	0.26	7.81	84	20.54	0.46	7.93	41,005	3.245
6/30/2010	14:25	20.53	0.20	6.55	85	20.55	0.40	6.67	41,005	2.731
6/30/2010	14:26	20.54	0.20	5.05	86	20.56	0.40	5.17	41,005	2.118
6/30/2010	14:27	20.56	0.16	4.65	87	20.58	0.36	4.77	41,005	1.954
6/30/2010	14:28	20.51	0.15	2.65	88	20.53	0.35	2.77	41,005	1.133
6/30/2010	14:29	20.49	0.14	2.22	89	20.51	0.34	2.34	41,005	0.958
6/30/2010	14:30	20.50	0.12	1.58	90	20.52	0.32	1.70	41,005	0.695
6/30/2010	14:31	20.58	0.09	1.55	91	20.60	0.29	1.67	41,005	0.684
6/30/2010	14:32	20.57	0.13	1.76	92	20.59	0.33	1.88	41,005	0.772
6/30/2010	14:33	20.56	0.09	0.24	93	20.58	0.29	0.36	41,005	0.148
6/30/2010	14:34	20.61	0.05	1.04	94	20.63	0.25	1.16	41,005	0.476
6/30/2010	14:35	20.62	0.10	0.80	95	20.64	0.30	0.92	41,005	0.378
6/30/2010	14:36	20.63	0.05	0.29	96	20.65	0.25	0.41	41,005	0.170
6/30/2010	14:37	20.64	0.07	1.07	97	20.66	0.27	1.19	41,005	0.487
6/30/2010	14:38	20.56	0.05	1.92	98	20.58	0.25	2.05	41,005	0.837
6/30/2010	14:39	20.59	0.07	2.17	99	20.61	0.27	2.29	41,005	0.936
6/30/2010	14:40	20.63	0.03	1.87	100	20.65	0.23	1.99	41,005	0.815
6/30/2010	14:41	20.24	0.31	2.09	101	20.26	0.51	2.21	41,005	0.903
6/30/2010	14:42	20.20	0.42	0.53	102	20.22	0.62	0.65	41,005	0.268
6/30/2010	14:43	20.64	0.03	0.19	103	20.66	0.23	0.31	41,005	0.126
6/30/2010	14:44	20.65	0.02	0.56	104	20.67	0.22	0.68	41,005	0.279
6/30/2010	14:45	20.68	0.00	0.32	105	20.70	0.20	0.44	41,005	0.181
6/30/2010	14:46	20.66	0.00	0.00	106	20.68	0.20	0.12	41,005	0.049
6/30/2010	14:47	20.41	0.19	0.86	107	20.43	0.39	0.98	41,005	0.399
6/30/2010	14:48	20.46	0.23	1.47	108	20.48	0.43	1.59	41,005	0.651
6/30/2010	14:49	20.64	0.02	1.34	109	20.66	0.22	1.46	41,005	0.596
6/30/2010	14:50	20.66	0.01	2.27	110	20.68	0.21	2.39	41,005	0.979
6/30/2010	14:51	20.66	0.02	2.73	111	20.68	0.22	2.85	41,005	1.166
6/30/2010	14:52	20.05	0.48	1.90	112	20.07	0.68	2.02	41,005	0.826
6/30/2010	14:53	19.67	0.88	0.83	113	19.69	1.08	0.95	41,005	0.388
6/30/2010	14:54	20.01	0.63	0.80	114	20.03	0.83	0.92	41,005	0.378
6/30/2010	14:55	20.63	0.05	2.70	115	20.65	0.25	2.82	41,005	1.155
6/30/2010	14:56	20.67	0.01	2.54	116	20.69	0.21	2.66	41,005	1.089
6/30/2010	14:57	20.69	0.00	1.60	117	20.71	0.20	1.72	41,005	0.706
6/30/2010	14:58	20.70	0.03	0.00	118	20.72	0.23	0.12	41,005	0.049
6/30/2010	14:59	20.72	0.01	0.45	119	20.74	0.21	0.57	41,005	0.235
6/30/2010	15:00	20.73	0.02	0.70	120	20.75	0.22	0.82	41,005	0.334
6/30/2010	15:01	20.71	0.02	1.95	121	20.73	0.22	2.07	41,005	0.848
6/30/2010	15:02	20.74	0.06	2.06	122	20.76	0.26	2.18	41,005	0.892
6/30/2010	15:03	20.73	0.06	2.03	123	20.75	0.26	2.15	41,005	0.881
6/30/2010	15:04	20.73	0.03	2.41	124	20.75	0.23	2.53	41,005	1.034
6/30/2010	15:05	20.73	0.04	2.59	125	20.75	0.24	2.71	41,005	1.111
6/30/2010	15:06	20.70	0.05	3.42	126	20.72	0.25	3.54	41,005	1.450
6/30/2010	15:07	20.74	0.08	3.90	127	20.76	0.28	4.02	41,005	1.647
6/30/2010	15:08	20.76	0.07	3.37	128	20.78	0.27	3.49	41,005	1.428
6/30/2010	15:09	20.74	0.07	3.40	129	20.76	0.27	3.52	41,005	1.439
6/30/2010	15:10	20.76	0.07	3.37	130	20.78	0.27	3.49	41,005	1.428
6/30/2010	15:11	20.75	0.02	4.76	131	20.77	0.22	4.88	41,005	1.997
6/30/2010	15:12	20.44	0.09	5.24	132	20.46	0.29	5.36	41,005	2.194
6/30/2010	15:13	19.37	3.36	3.64	133	19.39	3.56	3.76	41,005	1.538
6/30/2010	15:26	19.34	1.15	28.21	134	19.36	1.35	28.33	41,005	11.596
6/30/2010	15:27	19.38	1.17	25.24	135	19.40	1.37	25.36	41,005	10.381
6/30/2010	15:28	19.38	1.14	27.51	136	19.40	1.34	27.63	41,005	11.311

Batch # 2

		Raw Data				Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
6/30/2010	15:29	19.35	1.25	31.23	137	19.37	1.45	31.35	41,005	12.832
6/30/2010	15:30	19.36	1.24	35.45	138	19.38	1.44	35.57	41,005	14.562
6/30/2010	15:31	19.37	1.26	39.38	139	19.39	1.46	39.50	41,005	16.170
6/30/2010	15:32	19.36	1.33	42.70	140	19.38	1.53	42.82	41,005	17.527
6/30/2010	15:33	19.37	1.37	45.45	141	19.39	1.57	45.57	41,005	18.655
6/30/2010	15:34	19.36	1.45	48.44	142	19.38	1.65	48.56	41,005	19.881
6/30/2010	15:35	19.36	1.62	47.24	143	19.38	1.82	47.36	41,005	19.388
6/30/2010	15:36	19.39	1.53	37.05	144	19.41	1.73	37.17	41,005	15.218
6/30/2010	15:37	19.42	1.33	29.06	145	19.44	1.53	29.18	41,005	11.946
6/30/2010	15:38	19.43	1.35	26.55	146	19.45	1.55	26.67	41,005	10.917
6/30/2010	15:39	19.41	1.28	25.77	147	19.43	1.48	25.89	41,005	10.600
6/30/2010	15:40	19.43	1.30	26.79	148	19.45	1.50	26.91	41,005	11.016
6/30/2010	15:41	19.42	1.39	28.90	149	19.44	1.59	29.02	41,005	11.880
6/30/2010	15:42	19.43	1.55	30.08	150	19.45	1.75	30.20	41,005	12.362
6/30/2010	15:43	19.40	1.61	25.16	151	19.42	1.81	25.28	41,005	10.348
6/30/2010	15:44	19.38	1.66	19.97	152	19.40	1.86	20.09	41,005	8.225
6/30/2010	15:45	19.36	1.64	17.32	153	19.38	1.84	17.44	41,005	7.141
6/30/2010	15:46	19.35	1.69	15.21	154	19.37	1.89	15.33	41,005	6.277
6/30/2010	15:47	19.37	1.58	14.38	155	19.39	1.78	14.50	41,005	5.937
6/30/2010	15:48	19.38	1.48	15.16	156	19.40	1.68	15.28	41,005	6.255
6/30/2010	15:49	19.40	1.46	18.50	157	19.42	1.66	18.62	41,005	7.623
6/30/2010	15:50	19.44	1.39	21.31	158	19.46	1.59	21.43	41,005	8.772
6/30/2010	15:51	19.41	1.33	24.65	159	19.43	1.53	24.77	41,005	10.140
6/30/2010	15:52	19.41	1.41	28.31	160	19.43	1.61	28.43	41,005	11.639
6/30/2010	15:53	19.39	1.40	31.52	161	19.41	1.60	31.64	41,005	12.953
6/30/2010	15:54	19.42	1.46	33.93	162	19.44	1.66	34.05	41,005	13.938
6/30/2010	15:55	19.40	1.63	36.65	163	19.42	1.83	36.77	41,005	15.054
6/30/2010	15:56	19.35	1.69	32.86	164	19.37	1.89	32.98	41,005	13.500
6/30/2010	15:57	19.58	1.22	28.61	165	19.60	1.42	28.73	41,005	11.760
6/30/2010	15:58	19.74	0.93	25.18	166	19.76	1.13	25.30	41,005	10.359
6/30/2010	15:59	19.73	1.01	23.85	167	19.75	1.21	23.97	41,005	9.812
6/30/2010	16:00	19.73	0.99	23.45	168	19.75	1.19	23.57	41,005	9.647
6/30/2010	16:01	19.75	0.95	23.58	169	19.77	1.15	23.70	41,005	9.702
6/30/2010	16:02	19.76	0.94	24.44	170	19.78	1.14	24.56	41,005	10.052
6/30/2010	16:03	19.74	0.96	24.94	171	19.76	1.16	25.06	41,005	10.260
6/30/2010	16:04	19.76	0.93	25.69	172	19.78	1.13	25.81	41,005	10.567
6/30/2010	16:05	20.01	0.76	25.42	173	20.03	0.96	25.54	41,005	10.457
6/30/2010	16:06	20.47	0.29	20.67	174	20.49	0.49	20.79	41,005	8.509
6/30/2010	16:07	20.32	0.32	15.21	175	20.34	0.52	15.33	41,005	6.277
6/30/2010	16:08	19.94	0.71	12.99	176	19.96	0.91	13.11	41,005	5.368
6/30/2010	16:09	19.85	0.90	13.39	177	19.87	1.10	13.51	41,005	5.532
6/30/2010	16:10	19.85	0.90	12.97	178	19.87	1.10	13.09	41,005	5.357
6/30/2010	16:11	19.82	0.96	12.22	179	19.84	1.16	12.34	41,005	5.051
6/30/2010	16:12	19.81	0.94	11.66	180	19.83	1.14	11.78	41,005	4.821
6/30/2010	16:13	19.79	1.00	12.16	181	19.81	1.20	12.28	41,005	5.029
6/30/2010	16:14	19.79	0.97	11.23	182	19.81	1.17	11.35	41,005	4.646
6/30/2010	16:15	19.78	0.95	10.51	183	19.80	1.15	10.63	41,005	4.350
6/30/2010	16:16	19.76	1.08	11.39	184	19.78	1.28	11.51	41,005	4.712
6/30/2010	16:17	19.76	0.97	10.72	185	19.78	1.17	10.84	41,005	4.438
6/30/2010	16:18	19.72	1.08	11.84	186	19.74	1.28	11.96	41,005	4.898
6/30/2010	16:19	19.72	1.05	11.12	187	19.74	1.25	11.24	41,005	4.602
6/30/2010	16:20	19.73	1.02	11.12	188	19.75	1.22	11.24	41,005	4.602
6/30/2010	16:21	19.76	1.01	10.43	189	19.78	1.21	10.55	41,005	4.318
6/30/2010	16:22	19.73	1.02	10.19	190	19.75	1.22	10.31	41,005	4.219
6/30/2010	16:23	19.70	0.97	42.43	191	19.72	1.17	42.55	41,005	17.418
6/30/2010	16:24	19.60	1.51	46.80	192	19.62	1.71	46.92	41,005	19.208
6/30/2010	16:25	19.46	0.36	32.80	193	19.48	0.56	32.92	41,005	13.478
6/30/2010	16:26	19.63	0.05	32.80	194	19.65	0.25	32.92	41,005	13.478
6/30/2010	16:27	19.69	0.55	31.76	195	19.71	0.75	31.88	41,005	13.051
6/30/2010	16:28	19.38	0.52	45.77	196	19.40	0.72	45.89	41,005	18.786
6/30/2010	16:29	18.85	0.52	76.67	197	18.87	0.72	76.79	41,005	31.436
6/30/2010	16:30	19.54	1.29	53.18	198	19.56	1.49	53.30	41,005	21.819
6/30/2010	16:31	19.75	1.45	29.49	199	19.77	1.65	29.61	41,005	12.121
6/30/2010	16:32	19.70	0.54	32.80	200	19.72	0.74	32.92	41,005	13.478
6/30/2010	16:33	19.66	0.61	32.83	201	19.68	0.81	32.95	41,005	13.489
6/30/2010	16:34	19.68	0.46	32.83	202	19.70	0.66	32.95	41,005	13.489
6/30/2010	16:35	19.68	0.68	32.80	203	19.70	0.88	32.92	41,005	13.478
6/30/2010	16:36	19.84	0.42	6.55	204	19.86	0.62	6.67	41,005	2.731

Batch # 2

		Raw Data					Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)		O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
6/30/2010	16:37	20.10	0.64	8.96	205		20.12	0.84	9.08	41,005	3.716
6/30/2010	16:38	20.07	0.59	32.35	206		20.09	0.79	32.47	41,005	13.292
6/30/2010	16:39	20.06	0.41	10.00	207		20.08	0.61	10.12	41,005	4.142
6/30/2010	16:40	20.09	0.53	9.54	208		20.11	0.73	9.66	41,005	3.956
6/30/2010	16:41	20.09	0.54	15.27	209		20.11	0.74	15.39	41,005	6.298
6/30/2010	16:42	20.10	0.52	19.57	210		20.12	0.72	19.69	41,005	8.061
6/30/2010	16:43	20.11	0.54	22.22	211		20.13	0.74	22.34	41,005	9.144
6/30/2010	16:44	20.13	0.73	5.83	212		20.15	0.93	5.95	41,005	2.435
6/30/2010	16:45	20.02	0.42	38.65	213		20.04	0.62	38.77	41,005	15.871
6/30/2010	16:46	20.11	0.77	25.16	214		20.13	0.97	25.28	41,005	10.348
6/30/2010	16:47	20.09	0.51	0.72	215		20.11	0.71	0.84	41,005	0.345
6/30/2010	16:48	20.10	0.51	16.92	216		20.12	0.71	17.04	41,005	6.977
6/30/2010	16:49	20.10	0.51	22.40	217		20.12	0.71	22.52	41,005	9.221
6/30/2010	16:50	20.11	0.66	13.02	218		20.13	0.86	13.14	41,005	5.379
6/30/2010	16:51	20.05	0.29	10.13	219		20.07	0.49	10.25	41,005	4.197
6/30/2010	16:52	20.08	0.55	19.57	220		20.10	0.75	19.69	41,005	8.061
6/30/2010	16:53	20.11	0.59	23.21	221		20.13	0.79	23.33	41,005	9.549
6/30/2010	16:54	20.02	0.43	70.10	222		20.04	0.63	70.22	41,005	28.746
6/30/2010	16:55	20.13	0.01	16.42	223		20.15	0.21	16.54	41,005	6.769
6/30/2010	16:56	20.10	0.48	15.08	224		20.12	0.68	15.20	41,005	6.222
6/30/2010	16:57	20.13	0.63	15.02	225		20.15	0.83	15.15	41,005	6.200
6/30/2010	16:58	20.03	0.22	30.05	226		20.05	0.42	30.17	41,005	12.351
6/30/2010	16:59	20.06	0.66	1.50	227		20.08	0.86	1.62	41,005	0.662
6/30/2010	17:00	20.04	0.68	13.61	228		20.06	0.88	13.73	41,005	5.620
6/30/2010	17:01	20.09	0.65	11.39	229		20.11	0.85	11.51	41,005	4.712
6/30/2010	17:02	20.03	0.57	7.00	230		20.05	0.77	7.12	41,005	2.917
6/30/2010	17:03	20.05	0.66	14.49	231		20.07	0.86	14.61	41,005	5.981
6/30/2010	17:04	20.09	0.66	20.80	232		20.11	0.86	20.92	41,005	8.564
6/30/2010	17:05	20.06	0.70	13.23	233		20.08	0.90	13.35	41,005	5.467
6/30/2010	17:06	20.09	0.60	25.08	234		20.11	0.80	25.20	41,005	10.315
6/30/2010	17:07	20.12	0.75	14.44	235		20.14	0.95	14.56	41,005	5.959
6/30/2010	17:08	20.01	0.51	26.90	236		20.03	0.71	27.02	41,005	11.059
6/30/2010	17:09	19.91	0.39	32.83	237		19.93	0.59	32.95	41,005	13.489
6/30/2010	17:10	20.10	0.34	24.33	238		20.12	0.54	24.45	41,005	10.009
6/30/2010	17:11	20.08	0.53	10.67	239		20.10	0.73	10.79	41,005	4.416
6/30/2010	17:12	20.10	0.54	15.27	240		20.12	0.74	15.39	41,005	6.298
6/30/2010	17:13	20.14	0.57	16.58	241		20.16	0.77	16.70	41,005	6.835
6/30/2010	17:14	20.09	0.47	67.40	242		20.11	0.67	67.52	41,005	27.640
6/30/2010	17:15	20.04	0.79	2.97	243		20.06	0.99	3.09	41,005	1.264
6/30/2010	17:16	20.06	0.63	5.35	244		20.08	0.83	5.47	41,005	2.238
6/30/2010	17:17	20.09	0.58	19.44	245		20.11	0.78	19.56	41,005	8.006
6/30/2010	17:18	20.08	0.53	22.94	246		20.10	0.73	23.06	41,005	9.440
6/30/2010	17:19	20.06	0.30	15.37	247		20.08	0.50	15.49	41,005	6.342
6/30/2010	17:20	20.01	1.08	9.81	248		20.03	1.28	9.93	41,005	4.066
6/30/2010	17:21	20.03	0.54	3.45	249		20.05	0.74	3.57	41,005	1.461
6/30/2010	17:22	20.07	0.68	14.01	250		20.09	0.88	14.13	41,005	5.784
6/30/2010	17:23	20.11	0.75	20.72	251		20.13	0.95	20.84	41,005	8.531
6/30/2010	17:24	20.11	0.72	24.20	252		20.13	0.92	24.32	41,005	9.954
6/30/2010	17:25	20.12	0.68	25.21	253		20.14	0.88	25.33	41,005	10.370
6/30/2010	17:26	20.11	0.69	26.41	254		20.13	0.89	26.53	41,005	10.862
6/30/2010	17:27	20.13	0.70	25.42	255		20.15	0.90	25.54	41,005	10.457
6/30/2010	17:28	20.13	0.69	25.02	256		20.15	0.89	25.14	41,005	10.293
6/30/2010	17:29	20.10	0.71	26.07	257		20.12	0.91	26.19	41,005	10.720
6/30/2010	17:30	20.03	0.82	27.00	258		20.05	1.02	27.12	41,005	11.103
6/30/2010	17:31	20.03	0.91	29.57	259		20.05	1.11	29.69	41,005	12.154
6/30/2010	17:32	19.99	0.97	30.58	260		20.01	1.17	30.70	41,005	12.570
6/30/2010	17:33	20.01	0.90	31.76	261		20.03	1.10	31.88	41,005	13.051
6/30/2010	17:34	19.92	1.25	30.48	262	Complete Charge 17	19.94	1.45	30.60	41,005	12.526
6/30/2010	17:35	19.88	1.59	25.69	263		19.90	1.79	25.81	41,005	10.567
6/30/2010	17:36	19.87	1.43	26.57	264		19.89	1.63	26.69	41,005	10.928
6/30/2010	17:37	19.87	1.51	24.92	265		19.89	1.71	25.04	41,005	10.249
6/30/2010	17:38	19.85	1.23	11.55	266		19.87	1.43	11.67	41,005	4.777
6/30/2010	17:39	19.85	1.32	14.20	267		19.87	1.52	14.32	41,005	5.861
6/30/2010	17:40	19.86	1.36	6.90	268		19.88	1.56	7.02	41,005	2.873
6/30/2010	17:41	19.85	1.29	4.63	269		19.87	1.49	4.75	41,005	1.943
6/30/2010	17:42	19.84	1.12	16.04	270		19.86	1.32	16.16	41,005	6.616
6/30/2010	17:43	19.84	0.83	27.72	271		19.86	1.03	27.84	41,005	11.399
6/30/2010	17:44	19.90	1.09	1.02	272		19.92	1.29	1.14	41,005	0.465

Batch # 2

		Raw Data				Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
6/30/2010	17:45	19.82	0.91	21.15	273	19.84	1.11	21.27	41,005	8.706
6/30/2010	17:46	19.87	0.71	1.26	274	19.89	0.91	1.38	41,005	0.564
6/30/2010	17:47	19.88	1.08	3.21	275	19.90	1.28	3.33	41,005	1.363
6/30/2010	17:48	19.90	1.11	13.88	276	19.92	1.31	14.00	41,005	5.729
6/30/2010	17:49	19.90	1.16	14.46	277	19.92	1.36	14.58	41,005	5.970
6/30/2010	17:50	19.90	1.22	14.14	278	19.92	1.42	14.26	41,005	5.839
6/30/2010	17:51	19.94	1.16	14.38	279	19.96	1.36	14.50	41,005	5.937
6/30/2010	17:52	19.88	1.30	1.15	280	19.90	1.50	1.27	41,005	0.520
6/30/2010	17:53	19.88	1.07	7.81	281	19.90	1.27	7.93	41,005	3.245
6/30/2010	17:54	19.90	1.24	15.51	282	19.92	1.44	15.63	41,005	6.397
6/30/2010	17:55	19.90	1.24	15.45	283	19.92	1.44	15.57	41,005	6.375
6/30/2010	17:56	19.89	1.34	13.88	284	19.91	1.54	14.00	41,005	5.729
6/30/2010	17:57	19.89	1.25	14.12	285	19.91	1.45	14.24	41,005	5.828
6/30/2010	17:58	19.88	1.22	17.97	286	19.90	1.42	18.09	41,005	7.404
6/30/2010	17:59	19.88	1.30	15.83	287	19.90	1.50	15.95	41,005	6.528
6/30/2010	18:00	19.89	1.26	15.16	288	19.91	1.46	15.28	41,005	6.255
6/30/2010	18:01	19.88	1.29	16.23	289	19.90	1.49	16.35	41,005	6.692
6/30/2010	18:02	19.88	1.37	13.66	290	19.90	1.57	13.78	41,005	5.642
6/30/2010	18:03	19.90	1.23	12.08	291	19.92	1.43	12.20	41,005	4.996
6/30/2010	18:04	19.88	1.31	15.40	292	19.90	1.51	15.52	41,005	6.353
6/30/2010	18:05	19.87	1.36	11.92	293	19.89	1.56	12.04	41,005	4.930
6/30/2010	18:06	19.87	1.22	14.04	294	19.89	1.42	14.16	41,005	5.795
6/30/2010	18:07	19.88	1.28	16.55	295	19.90	1.48	16.67	41,005	6.824
6/30/2010	18:08	19.87	1.37	11.18	296	19.89	1.57	11.30	41,005	4.624
6/30/2010	18:09	19.87	1.28	14.01	297	19.89	1.48	14.13	41,005	5.784
6/30/2010	18:10	19.86	1.26	15.43	298	19.88	1.46	15.55	41,005	6.364
6/30/2010	18:11	19.88	1.34	14.70	299	19.90	1.54	14.82	41,005	6.069
6/30/2010	18:12	19.87	1.38	14.44	300	19.89	1.58	14.56	41,005	5.959
6/30/2010	18:13	19.86	1.36	13.74	301	19.88	1.56	13.86	41,005	5.675
6/30/2010	18:14	19.96	1.02	16.09	302	19.98	1.22	16.21	41,005	6.638
6/30/2010	18:15	20.04	0.83	16.87	303	20.06	1.03	16.99	41,005	6.955
6/30/2010	18:16	20.07	0.76	17.03	304	20.09	0.96	17.15	41,005	7.021
6/30/2010	18:17	20.09	0.76	17.62	305	20.11	0.96	17.74	41,005	7.262
6/30/2010	18:18	20.03	0.96	1.90	306	20.05	1.16	2.02	41,005	0.826
6/30/2010	18:19	20.06	0.67	17.81	307	20.08	0.87	17.93	41,005	7.338
6/30/2010	18:20	20.08	0.72	19.94	308	20.10	0.92	20.06	41,005	8.214
6/30/2010	18:21	20.04	0.92	11.09	309	20.06	1.12	11.22	41,005	4.591
6/30/2010	18:22	20.00	0.90	19.78	310	20.02	1.10	19.90	41,005	8.148
6/30/2010	18:23	20.05	0.88	22.16	311	20.07	1.08	22.28	41,005	9.122
6/30/2010	18:24	20.02	0.97	0.96	312	20.04	1.17	1.08	41,005	0.443
6/30/2010	18:25	20.04	0.77	24.97	313	20.06	0.97	25.09	41,005	10.271
6/30/2010	18:26	20.06	0.77	29.52	314	20.08	0.97	29.64	41,005	12.132
6/30/2010	18:27	20.02	1.02	14.44	315	20.04	1.22	14.56	41,005	5.959
6/30/2010	18:28	19.96	0.40	0.00	316	19.98	0.60	0.12	41,005	0.049
6/30/2010	18:29	20.04	0.81	28.42	317	20.06	1.01	28.54	41,005	11.683
6/30/2010	18:30	20.03	0.82	28.93	318	20.05	1.02	29.05	41,005	11.891
6/30/2010	18:31	19.99	0.94	4.30	319	20.01	1.14	4.42	41,005	1.811
6/30/2010	18:32	19.96	0.04	17.11	320	19.98	0.24	17.23	41,005	7.054
6/30/2010	18:33	20.01	0.89	20.32	321	20.03	1.09	20.44	41,005	8.367
6/30/2010	18:34	20.03	0.91	29.22	322	20.05	1.11	29.34	41,005	12.011
6/30/2010	18:35	20.03	0.88	31.65	323	20.05	1.08	31.77	41,005	13.007
6/30/2010	18:36	20.02	1.18	10.51	324	20.04	1.38	10.63	41,005	4.350
6/30/2010	18:37	19.87	0.31	32.83	325	19.89	0.51	32.95	41,005	13.489
6/30/2010	18:38	20.03	0.52	15.45	326	20.05	0.72	15.57	41,005	6.375
6/30/2010	18:39	20.01	1.09	12.81	327	20.03	1.29	12.93	41,005	5.292
6/30/2010	18:40	20.02	0.99	24.11	328	20.04	1.19	24.23	41,005	9.921
6/30/2010	18:41	20.05	0.43	23.69	329	20.07	0.63	23.81	41,005	9.746
6/30/2010	18:42	20.01	0.67	7.08	330	20.03	0.87	7.20	41,005	2.949
6/30/2010	18:43	20.03	1.13	6.02	331	20.05	1.33	6.14	41,005	2.512
6/30/2010	18:44	20.02	1.00	22.14	332	20.04	1.20	22.26	41,005	9.111
6/30/2010	18:45	20.03	0.99	28.39	333	20.05	1.19	28.51	41,005	11.672
6/30/2010	18:46	20.00	1.05	28.74	334	20.02	1.25	28.86	41,005	11.814
6/30/2010	18:47	19.92	0.21	32.06	335	19.94	0.41	32.18	41,005	13.172
6/30/2010	18:48	20.02	0.51	9.78	336	20.04	0.71	9.91	41,005	4.055
6/30/2010	18:49	20.00	1.15	17.56	337	20.02	1.35	17.68	41,005	7.240
6/30/2010	18:50	19.95	1.13	35.32	338	19.97	1.33	35.44	41,005	14.507
6/30/2010	18:51	19.64	1.35	80.74	339	19.66	1.55	80.86	41,005	33.101
6/30/2010	18:52	20.02	1.03	32.83	340	20.04	1.23	32.95	41,005	13.489

Batch # 2

		Raw Data				Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
6/30/2010	18:53	20.08	0.65	32.80	341	20.10	0.85	32.92	41,005	13.478
6/30/2010	18:54	20.03	0.46	20.59	342	20.05	0.66	20.71	41,005	8.476
6/30/2010	18:55	20.00	0.91	8.96	343	20.02	1.11	9.08	41,005	3.716
6/30/2010	18:56	20.01	1.00	15.77	344	20.03	1.20	15.89	41,005	6.506
6/30/2010	18:57	20.10	1.05	8.39	345	20.12	1.25	8.51	41,005	3.486
6/30/2010	18:58	20.02	0.51	24.57	346	20.04	0.71	24.69	41,005	10.107
6/30/2010	18:59	20.03	1.07	5.32	347	20.05	1.27	5.44	41,005	2.227
6/30/2010	19:00	20.07	0.73	21.63	348	20.09	0.93	21.75	41,005	8.903
6/30/2010	19:01	20.04	0.35	32.83	349	20.06	0.55	32.95	41,005	13.489
6/30/2010	19:02	20.03	0.71	10.93	350	20.05	0.91	11.05	41,005	4.525
6/30/2010	19:03	20.02	0.86	15.35	351	20.04	1.06	15.47	41,005	6.331
6/30/2010	19:04	20.02	0.87	31.04	352	20.04	1.07	31.16	41,005	12.756
6/30/2010	19:05	20.04	0.84	37.67	353	20.06	1.04	37.79	41,005	15.470
6/30/2010	19:06	20.03	0.78	40.74	354	20.05	0.98	40.86	41,005	16.729
6/30/2010	19:07	20.04	0.82	40.72	355	20.06	1.02	40.84	41,005	16.718
6/30/2010	19:08	20.05	0.90	39.27	356	20.07	1.10	39.39	41,005	16.127
6/30/2010	19:09	20.08	0.90	37.08	357	20.10	1.10	37.20	41,005	15.229
6/30/2010	19:10	20.07	0.86	35.93	358	20.09	1.06	36.05	41,005	14.759
6/30/2010	19:11	20.11	0.86	33.74	359	20.13	1.06	33.86	41,005	13.861
6/30/2010	19:12	20.10	0.78	32.00	360	20.12	0.98	32.12	41,005	13.150
6/30/2010	19:13	20.01	1.46	22.56	361	20.03	1.66	22.68	41,005	9.286
6/30/2010	19:14	19.88	1.64	17.19	362	19.90	1.84	17.31	41,005	7.086
6/30/2010	19:15	19.86	1.13	18.37	363	19.88	1.33	18.49	41,005	7.568
6/30/2010	19:16	19.87	1.34	12.19	364	19.89	1.54	12.31	41,005	5.040
6/30/2010	19:17	19.89	1.19	2.19	365	19.91	1.39	2.31	41,005	0.947
6/30/2010	19:18	19.77	0.91	60.61	366	19.79	1.11	60.73	41,005	24.860
6/30/2010	19:19	19.66	0.91	68.92	367	19.68	1.11	69.04	41,005	28.263
6/30/2010	19:20	20.08	0.65	32.83	368	20.10	0.85	32.95	41,005	13.489
6/30/2010	19:21	20.07	0.41	7.86	369	20.09	0.61	7.98	41,005	3.267
6/30/2010	19:22	20.06	0.76	9.81	370	20.08	0.96	9.93	41,005	4.066
6/30/2010	19:23	20.08	0.75	11.44	371	20.10	0.95	11.56	41,005	4.733
6/30/2010	19:24	20.08	0.79	11.66	372	20.10	0.99	11.78	41,005	4.821
6/30/2010	19:25	20.09	0.81	12.70	373	20.11	1.01	12.82	41,005	5.248
6/30/2010	19:26	20.10	0.76	14.57	374	20.12	0.96	14.69	41,005	6.014
6/30/2010	19:27	19.97	1.17	13.13	375	19.99	1.37	13.25	41,005	5.423
6/30/2010	19:28	19.87	1.39	12.83	376	19.89	1.59	12.95	41,005	5.303
6/30/2010	19:29	19.89	1.41	11.74	377	19.91	1.61	11.86	41,005	4.854
6/30/2010	19:30	19.86	1.56	3.37	378	19.88	1.76	3.49	41,005	1.428
6/30/2010	19:31	19.84	1.13	4.25	379	19.86	1.33	4.37	41,005	1.789
6/30/2010	19:32	19.86	1.41	9.52	380	19.88	1.61	9.64	41,005	3.945
6/30/2010	19:33	19.87	1.26	7.49	381	19.89	1.46	7.61	41,005	3.114
6/30/2010	19:34	19.86	1.35	12.65	382	19.88	1.55	12.77	41,005	5.226
6/30/2010	19:35	19.87	1.41	9.87	383	19.89	1.61	9.99	41,005	4.088
6/30/2010	19:36	19.86	1.37	10.13	384	19.88	1.57	10.25	41,005	4.197
6/30/2010	19:37	19.89	1.41	10.35	385	19.91	1.61	10.47	41,005	4.285
6/30/2010	19:38	19.87	1.32	10.59	386	19.89	1.52	10.71	41,005	4.383
6/30/2010	19:39	19.83	1.35	14.06	387	19.85	1.55	14.18	41,005	5.806
6/30/2010	19:40	19.77	0.70	15.83	388	19.79	0.90	15.95	41,005	6.528
6/30/2010	19:41	19.97	0.69	30.10	389	19.99	0.89	30.22	41,005	12.373
6/30/2010	19:42	20.04	0.86	5.80	390	20.06	1.06	5.92	41,005	2.424
6/30/2010	19:43	20.01	1.10	2.22	391	20.03	1.30	2.34	41,005	0.958
6/30/2010	19:44	19.91	1.14	22.11	392	19.93	1.34	22.23	41,005	9.100
6/30/2010	19:45	20.06	0.54	15.88	393	20.08	0.74	16.00	41,005	6.550
6/30/2010	19:46	20.05	0.84	9.84	394	20.07	1.04	9.96	41,005	4.077
6/30/2010	19:47	20.05	0.81	18.45	395	20.07	1.01	18.57	41,005	7.601
6/30/2010	19:48	20.00	0.55	10.80	396	20.02	0.75	10.92	41,005	4.471
6/30/2010	19:49	20.02	0.47	29.81	397	20.04	0.67	29.93	41,005	12.252
6/30/2010	19:50	20.03	0.98	0.19	398	20.05	1.18	0.31	41,005	0.126
6/30/2010	19:51	20.04	1.02	17.38	399	20.06	1.22	17.50	41,005	7.163
6/30/2010	19:52	20.03	0.09	44.27	400	20.05	0.29	44.39	41,005	18.172
6/30/2010	19:53	20.03	0.24	30.05	401	20.05	0.44	30.17	41,005	12.351
6/30/2010	19:54	20.03	0.92	2.14	402	20.05	1.12	2.26	41,005	0.925
6/30/2010	19:55	20.01	0.86	19.20	403	20.03	1.06	19.32	41,005	7.907
6/30/2010	19:56	20.06	1.03	3.96	404	20.08	1.23	4.08	41,005	1.669
6/30/2010	19:57	20.04	0.62	21.47	405	20.06	0.82	21.59	41,005	8.838
6/30/2010	19:58	20.02	0.19	22.08	406	20.04	0.39	22.20	41,005	9.089
6/30/2010	19:59	20.01	1.07	1.92	407	20.03	1.27	2.05	41,005	0.837
6/30/2010	20:00	20.00	1.08	26.39	408	20.02	1.28	26.51	41,005	10.851

Batch # 2

		Raw Data				Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
6/30/2010	20:01	20.02	1.12	29.46	409	20.04	1.32	29.58	41,005	12.110
6/30/2010	20:02	20.00	0.24	16.17	410	20.02	0.44	16.29	41,005	6.671
6/30/2010	20:03	20.00	1.03	32.40	411	20.02	1.23	32.52	41,005	13.314
6/30/2010	20:04	20.03	0.75	4.25	412	20.05	0.95	4.37	41,005	1.789
6/30/2010	20:05	20.03	1.00	26.57	413	20.05	1.20	26.69	41,005	10.928
6/30/2010	20:06	20.06	0.69	16.68	414	20.08	0.89	16.80	41,005	6.879
6/30/2010	20:07	19.99	0.82	5.94	415	20.01	1.02	6.06	41,005	2.479
6/30/2010	20:08	20.02	1.15	32.32	416	20.04	1.35	32.44	41,005	13.281
6/30/2010	20:09	19.97	0.08	38.23	417	19.99	0.28	38.35	41,005	15.699
6/30/2010	20:10	20.04	1.04	76.48	418	20.06	1.24	76.60	41,005	31.358
6/30/2010	20:11	20.03	0.83	29.68	419	20.05	1.03	29.80	41,005	12.198
6/30/2010	20:12	20.04	0.50	24.25	420	20.06	0.70	24.37	41,005	9.976
6/30/2010	20:13	20.03	0.76	65.95	421	20.05	0.96	66.07	41,005	27.049
6/30/2010	20:14	20.03	0.93	71.22	422	20.05	1.13	71.34	41,005	29.205
6/30/2010	20:15	19.93	0.91	22.06	423	19.95	1.11	22.18	41,005	9.078
6/30/2010	20:16	20.05	1.18	5.45	424	20.07	1.38	5.57	41,005	2.282
6/30/2010	20:17	20.00	0.62	0.59	425	20.02	0.82	0.71	41,005	0.290
6/30/2010	20:18	20.00	0.80	64.19	426	20.02	1.00	64.31	41,005	26.327
6/30/2010	20:19	20.02	1.12	92.64	427	20.04	1.32	92.76	41,005	37.972
6/30/2010	20:20	20.02	1.05	38.20	428	20.04	1.25	38.32	41,005	15.687
6/30/2010	20:21	20.04	0.90	41.46	429	20.06	1.10	41.58	41,005	17.022
6/30/2010	20:22	20.03	0.92	40.41	430	20.05	1.12	40.53	41,005	16.592
6/30/2010	20:23	20.05	0.89	40.09	431	20.07	1.09	40.21	41,005	16.461
6/30/2010	20:24	20.06	0.92	38.69	432	20.08	1.12	38.81	41,005	15.888
6/30/2010	20:25	19.94	1.96	84.13	433	19.96	2.16	84.25	41,005	34.491
6/30/2010	20:26	19.86	1.97	59.30	434	19.88	2.17	59.42	41,005	24.324
6/30/2010	20:27	19.86	1.62	75.31	435	19.88	1.82	75.43	41,005	30.880
6/30/2010	20:28	19.83	1.72	68.55	436	19.85	1.92	68.67	41,005	28.111
6/30/2010	20:29	19.82	1.52	60.77	437	19.84	1.72	60.89	41,005	24.926
6/30/2010	20:30	19.82	1.54	74.48	438	19.84	1.74	74.60	41,005	30.540
6/30/2010	20:31	19.82	1.41	71.44	439	19.84	1.61	71.56	41,005	29.293
6/30/2010	20:32	19.84	1.50	62.29	440	19.86	1.70	62.41	41,005	25.550
6/30/2010	20:33	19.85	1.46	60.98	441	19.87	1.66	61.10	41,005	25.013
6/30/2010	20:34	19.85	1.56	49.25	442	19.87	1.76	49.37	41,005	20.209
6/30/2010	20:35	19.83	1.49	32.11	443	19.85	1.69	32.23	41,005	13.193
6/30/2010	20:36	19.84	1.50	38.39	444	19.86	1.70	38.51	41,005	15.765
6/30/2010	20:37	19.85	1.59	33.90	445	19.87	1.79	34.02	41,005	13.927
6/30/2010	20:38	19.86	1.44	29.89	446	19.88	1.64	30.01	41,005	12.285
6/30/2010	20:39	19.85	1.56	43.04	447	19.87	1.76	43.16	41,005	17.670
6/30/2010	20:40	19.84	1.64	28.61	448	19.86	1.84	28.73	41,005	11.760
6/30/2010	20:41	19.87	1.56	27.40	449	19.89	1.76	27.52	41,005	11.267
6/30/2010	20:42	19.85	1.57	30.72	450	19.87	1.77	30.84	41,005	12.624
6/30/2010	20:43	19.87	1.56	32.62	451	19.89	1.76	32.74	41,005	13.401
6/30/2010	20:44	19.87	1.59	30.08	452	19.89	1.79	30.20	41,005	12.362
6/30/2010	20:45	19.89	1.53	29.03	453	19.91	1.73	29.15	41,005	11.935
6/30/2010	20:46	19.88	1.55	23.21	454	19.90	1.75	23.33	41,005	9.549
6/30/2010	20:47	19.88	1.49	26.65	455	19.90	1.69	26.77	41,005	10.961
6/30/2010	20:48	19.89	1.50	27.32	456	19.91	1.70	27.44	41,005	11.234
6/30/2010	20:49	19.88	1.49	25.05	457	19.90	1.69	25.17	41,005	10.304
6/30/2010	20:50	19.89	1.58	25.10	458	19.91	1.78	25.22	41,005	10.326
6/30/2010	20:51	19.86	1.54	0.37	459	19.88	1.74	0.49	41,005	0.202
6/30/2010	20:52	19.89	1.19	12.27	460	19.91	1.39	12.39	41,005	5.073
6/30/2010	20:53	19.90	1.41	27.22	461	19.92	1.61	27.34	41,005	11.191
6/30/2010	20:54	19.89	1.41	28.93	462	19.91	1.61	29.05	41,005	11.891
6/30/2010	20:55	19.89	1.46	27.70	463	19.91	1.66	27.82	41,005	11.388
6/30/2010	20:56	19.88	1.44	26.84	464	19.90	1.64	26.96	41,005	11.037
6/30/2010	20:57	19.89	1.54	24.22	465	19.91	1.74	24.34	41,005	9.965
6/30/2010	20:58	19.90	1.50	24.33	466	19.92	1.70	24.45	41,005	10.009
6/30/2010	20:59	19.89	1.52	20.85	467	19.91	1.72	20.97	41,005	8.586
6/30/2010	21:00	19.88	1.42	21.52	468	19.90	1.62	21.64	41,005	8.859
6/30/2010	21:01	19.89	1.46	20.43	469	19.91	1.66	20.55	41,005	8.411
6/30/2010	21:02	19.88	1.39	24.17	470	19.90	1.59	24.29	41,005	9.943
6/30/2010	21:03	19.86	1.41	26.65	471	19.88	1.61	26.77	41,005	10.961
6/30/2010	21:04	19.86	1.46	20.69	472	19.88	1.66	20.81	41,005	8.520
6/30/2010	21:05	19.88	1.41	21.84	473	19.90	1.61	21.96	41,005	8.991
6/30/2010	21:06	19.87	1.38	19.12	474	19.89	1.58	19.24	41,005	7.874
6/30/2010	21:07	19.88	1.49	13.74	475	19.90	1.69	13.86	41,005	5.675
6/30/2010	21:08	19.80	0.34	41.17	476	19.82	0.54	41.29	41,005	16.903

Batch # 2

		Raw Data				Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
6/30/2010	21:09	19.84	0.15	32.83	477	19.86	0.35	32.95	41,005	13.489
6/30/2010	21:10	19.77	0.42	52.16	478	19.79	0.62	52.28	41,005	21.402
6/30/2010	21:11	19.81	1.43	82.80	479	19.83	1.63	82.92	41,005	33.944
6/30/2010	21:12	19.93	1.52	81.74	480	19.95	1.72	81.86	41,005	33.511
6/30/2010	21:13	20.07	0.63	32.14	481	20.09	0.83	32.26	41,005	13.204
6/30/2010	21:14	20.02	0.62	12.30	482	20.04	0.82	12.42	41,005	5.084
6/30/2010	21:15	20.02	0.81	31.12	483	20.04	1.01	31.24	41,005	12.789
6/30/2010	21:16	20.05	0.90	1.44	484	20.07	1.10	1.56	41,005	0.640
6/30/2010	21:17	20.01	0.69	25.16	485	20.03	0.89	25.28	41,005	10.348
6/30/2010	21:18	20.02	0.81	43.39	486	20.04	1.01	43.51	41,005	17.812
6/30/2010	21:19	20.03	1.12	38.66	487	20.05	1.32	38.78	41,005	15.875
6/30/2010	21:20	19.99	0.89	56.10	488	20.01	1.09	56.22	41,005	23.015
6/30/2010	21:21	19.93	1.53	59.40	489	19.95	1.73	59.52	41,005	24.366
6/30/2010	21:22	20.01	0.47	30.99	490	20.03	0.67	31.11	41,005	12.734
6/30/2010	21:23	20.00	0.51	16.63	491	20.02	0.71	16.75	41,005	6.857
6/30/2010	21:24	20.01	0.09	22.48	492	20.03	0.29	22.60	41,005	9.253
6/30/2010	21:25	19.96	0.71	34.86	493	19.98	0.91	34.98	41,005	14.321
6/30/2010	21:26	19.95	0.96	59.22	494	19.97	1.16	59.34	41,005	24.291
6/30/2010	21:27	19.97	0.92	67.80	495	19.99	1.12	67.92	41,005	27.804
6/30/2010	21:28	19.95	0.91	69.27	496	19.97	1.11	69.39	41,005	28.406
6/30/2010	21:29	19.96	0.94	64.06	497	19.98	1.14	64.18	41,005	26.272
6/30/2010	21:30	19.96	0.93	63.71	498	19.98	1.13	63.83	41,005	26.130
6/30/2010	21:31	20.01	1.10	7.51	499	20.03	1.30	7.63	41,005	3.125
6/30/2010	21:32	19.96	3.05	92.85	500	19.98	3.25	92.97	41,005	38.059
6/30/2010	21:33	19.96	1.01	37.51	501	19.98	1.21	37.63	41,005	15.404
6/30/2010	21:34	20.00	2.52	54.31	502	20.02	2.72	54.43	41,005	22.282
6/30/2010	21:35	19.96	0.91	9.04	503	19.98	1.11	9.16	41,005	3.748
6/30/2010	21:36	19.95	0.94	26.87	504	19.97	1.14	26.99	41,005	11.048
6/30/2010	21:37	19.95	1.10	77.91	505	19.97	1.30	78.03	41,005	31.941
6/30/2010	21:38	19.98	1.07	88.31	506	20.00	1.27	88.43	41,005	36.199
6/30/2010	21:39	19.96	1.05	84.56	507	19.98	1.25	84.68	41,005	34.666
6/30/2010	21:40	20.00	1.05	77.61	508	20.02	1.25	77.73	41,005	31.821
6/30/2010	21:41	19.99	0.97	58.12	509	20.01	1.17	58.24	41,005	23.842
6/30/2010	21:42	20.01	0.83	64.27	510	20.03	1.03	64.39	41,005	26.360
6/30/2010	21:43	19.99	0.94	64.91	511	20.01	1.14	65.03	41,005	26.622
6/30/2010	21:44	19.98	0.91	62.16	512	20.00	1.11	62.28	41,005	25.495
6/30/2010	21:45	20.01	0.89	60.69	513	20.03	1.09	60.81	41,005	24.893
6/30/2010	21:46	20.00	0.95	60.18	514	20.02	1.15	60.30	41,005	24.685
6/30/2010	21:47	19.99	0.92	56.89	515	20.01	1.12	57.01	41,005	23.339
6/30/2010	21:48	20.00	0.92	56.33	516	20.02	1.12	56.45	41,005	23.109
6/30/2010	21:49	19.97	0.98	56.46	517	19.99	1.18	56.58	41,005	23.164
6/30/2010	21:50	19.97	1.00	54.99	518	19.99	1.20	55.11	41,005	22.562
6/30/2010	21:51	19.88	1.48	44.14	519	19.90	1.68	44.26	41,005	18.118
6/30/2010	21:52	19.88	1.34	44.49	520	19.90	1.54	44.61	41,005	18.261
6/30/2010	21:53	19.88	1.35	46.60	521	19.90	1.55	46.72	41,005	19.125
6/30/2010	21:54	19.88	1.38	46.81	522	19.90	1.58	46.93	41,005	19.213
6/30/2010	21:55	19.88	1.47	42.24	523	19.90	1.67	42.36	41,005	17.341
Averages		**19.90**	**1.01**	**22.04**	**8.72**	**19.92**	**1.21**	**22.16**	**41,005**	**9.072**

Batch # 3

Batch # 3

		Raw Data				Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
6/30/2010	21:56	19.87	1.42	33.37	1	19.89	1.62	33.49	41,005	13.708
6/30/2010	21:57	19.87	1.27	22.59	2	19.89	1.47	22.71	41,005	9.297
6/30/2010	21:58	19.87	1.01	4.14	3	19.89	1.21	4.26	41,005	1.746
6/30/2010	21:59	19.89	1.28	28.47	4	19.91	1.48	28.59	41,005	11.705
6/30/2010	22:00	19.88	1.31	29.09	5	19.90	1.51	29.21	41,005	11.957
6/30/2010	22:01	19.87	1.29	28.53	6	19.89	1.49	28.65	41,005	11.727
6/30/2010	22:02	19.90	1.18	32.83	7	19.92	1.38	32.95	41,005	13.489
6/30/2010	22:03	20.03	0.97	34.46	8	20.05	1.17	34.58	41,005	14.157
6/30/2010	22:04	20.03	0.96	32.78	9	20.05	1.16	32.90	41,005	13.467
6/30/2010	22:05	20.04	0.98	33.37	10	20.06	1.18	33.49	41,005	13.708
6/30/2010	22:06	20.06	0.94	35.88	11	20.08	1.14	36.00	41,005	14.737
6/30/2010	22:07	20.05	0.96	37.78	12	20.07	1.16	37.90	41,005	15.514
6/30/2010	22:08	20.08	0.92	39.92	13	20.10	1.12	40.04	41,005	16.389
6/30/2010	22:09	20.04	0.90	40.93	14	20.06	1.10	41.05	41,005	16.805
6/30/2010	22:10	20.06	0.89	43.74	15	20.08	1.09	43.86	41,005	17.954
6/30/2010	22:11	20.05	0.89	46.97	16	20.07	1.09	47.09	41,005	19.279
6/30/2010	22:12	20.05	0.92	48.39	17	20.07	1.12	48.51	41,005	19.859
6/30/2010	22:13	20.05	0.88	49.09	18	20.07	1.08	49.21	41,005	20.143
6/30/2010	22:14	20.03	0.90	48.04	19	20.05	1.10	48.16	41,005	19.716
6/30/2010	22:15	20.05	0.91	47.24	20	20.07	1.11	47.36	41,005	19.388
6/30/2010	22:16	20.06	0.85	46.79	21	20.08	1.05	46.91	41,005	19.202
6/30/2010	22:17	20.06	0.90	47.53	22	20.08	1.10	47.65	41,005	19.508
6/30/2010	22:18	20.05	0.92	49.35	23	20.07	1.12	49.47	41,005	20.253
6/30/2010	22:19	20.06	0.89	50.07	24	20.08	1.09	50.19	41,005	20.548
6/30/2010	22:20	20.04	0.89	50.53	25	20.06	1.09	50.65	41,005	20.734
6/30/2010	22:21	20.04	0.90	51.38	26	20.06	1.10	51.50	41,005	21.084
6/30/2010	22:22	20.05	0.91	51.14	27	20.07	1.11	51.26	41,005	20.986
6/30/2010	22:23	20.04	0.91	51.65	28	20.06	1.11	51.77	41,005	21.194
6/30/2010	22:24	20.06	0.90	52.64	29	20.08	1.10	52.76	41,005	21.599
6/30/2010	22:25	20.00	1.06	51.22	30	20.02	1.26	51.34	41,005	21.019
6/30/2010	22:26	20.04	0.91	55.05	31	20.06	1.11	55.17	41,005	22.584
6/30/2010	22:27	20.02	0.94	54.35	32	20.04	1.14	54.47	41,005	22.299
6/30/2010	22:28	20.04	0.94	54.38	33	20.06	1.14	54.50	41,005	22.310
6/30/2010	22:29	20.03	0.96	53.52	34	20.05	1.16	53.64	41,005	21.960
6/30/2010	22:30	20.03	1.01	54.19	35	20.05	1.21	54.31	41,005	22.234
6/30/2010	22:31	20.04	0.98	53.68	36	20.06	1.18	53.80	41,005	22.026
6/30/2010	22:32	20.02	1.00	53.20	37	20.04	1.20	53.32	41,005	21.829
6/30/2010	22:33	20.01	0.97	53.28	38	20.03	1.17	53.40	41,005	21.861
6/30/2010	22:34	20.03	0.95	53.31	39	20.05	1.15	53.43	41,005	21.872
6/30/2010	22:35	20.02	0.94	51.89	40	20.04	1.14	52.01	41,005	21.292
6/30/2010	22:36	20.01	0.93	52.13	41	20.03	1.13	52.25	41,005	21.391
6/30/2010	22:37	20.02	0.96	53.12	42	20.04	1.16	53.24	41,005	21.796
6/30/2010	22:38	20.04	0.98	54.11	43	20.06	1.18	54.23	41,005	22.201
6/30/2010	22:39	20.01	0.97	54.06	44	20.03	1.17	54.18	41,005	22.179
6/30/2010	22:40	20.03	0.99	54.11	45	20.05	1.19	54.23	41,005	22.201
6/30/2010	22:41	20.03	0.98	54.73	46	20.05	1.18	54.85	41,005	22.452
6/30/2010	22:42	20.03	0.97	54.70	47	20.05	1.17	54.82	41,005	22.442
6/30/2010	22:43	20.02	0.93	54.03	48	20.04	1.13	54.15	41,005	22.168
6/30/2010	22:44	20.02	0.94	52.40	49	20.04	1.14	52.52	41,005	21.500
6/30/2010	22:45	20.02	0.92	52.48	50	20.04	1.12	52.60	41,005	21.533
6/30/2010	22:46	20.03	0.91	52.75	51	20.05	1.11	52.87	41,005	21.643
6/30/2010	22:47	20.02	0.96	52.24	52	20.04	1.16	52.36	41,005	21.435
6/30/2010	22:48	20.03	0.95	51.49	53	20.05	1.15	51.61	41,005	21.128
6/30/2010	22:49	20.03	0.94	51.71	54	20.05	1.14	51.83	41,005	21.216
6/30/2010	22:50	20.01	1.01	51.12	55	20.03	1.21	51.24	41,005	20.975
6/30/2010	22:51	20.01	1.05	50.88	56	20.03	1.25	51.00	41,005	20.876
6/30/2010	22:52	20.01	1.01	51.22	57	20.03	1.21	51.34	41,005	21.019
6/30/2010	22:53	20.01	1.04	52.21	58	20.03	1.24	52.33	41,005	21.424
6/30/2010	22:54	19.98	1.03	53.34	59	20.00	1.23	53.46	41,005	21.883
6/30/2010	22:55	19.92	1.23	55.26	60	19.94	1.43	55.38	41,005	22.671
6/30/2010	22:56	19.93	1.24	57.32	61	19.95	1.44	57.44	41,005	23.514
6/30/2010	22:57	19.93	1.32	56.04	62	19.95	1.52	56.16	41,005	22.989
6/30/2010	22:58	19.85	1.73	49.33	63	19.87	1.93	49.45	41,005	20.242
6/30/2010	22:59	19.82	1.74	47.27	64	19.84	1.94	47.39	41,005	19.399
6/30/2010	23:00	19.83	1.75	44.81	65	19.85	1.95	44.93	41,005	18.392
6/30/2010	23:01	19.83	1.81	39.25	66	19.85	2.01	39.37	41,005	16.116
6/30/2010	23:02	19.85	1.76	37.00	67	19.87	1.96	37.12	41,005	15.196
6/30/2010	23:03	19.84	1.76	34.76	68	19.86	1.96	34.88	41,005	14.277

Batch # 3

		Raw Data				Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
6/30/2010	23:04	19.85	1.68	34.27	69	19.87	1.88	34.39	41,005	14.080
6/30/2010	23:05	19.83	1.69	34.17	70	19.85	1.89	34.29	41,005	14.036
6/30/2010	23:06	19.88	1.78	31.84	71	19.90	1.98	31.96	41,005	13.084
6/30/2010	23:07	19.84	1.75	29.57	72	19.86	1.95	29.69	41,005	12.154
6/30/2010	23:08	19.84	1.77	30.29	73	19.86	1.97	30.41	41,005	12.449
6/30/2010	23:09	19.85	1.89	29.30	74	19.87	2.09	29.42	41,005	12.044
6/30/2010	23:10	19.83	1.82	27.75	75	19.85	2.02	27.87	41,005	11.410
6/30/2010	23:11	19.82	1.76	29.19	76	19.84	1.96	29.31	41,005	12.001
6/30/2010	23:12	19.83	1.80	28.95	77	19.85	2.00	29.07	41,005	11.902
6/30/2010	23:13	19.83	1.78	29.22	78	19.85	1.98	29.34	41,005	12.011
6/30/2010	23:14	19.84	1.80	28.63	79	19.86	2.00	28.75	41,005	11.771
6/30/2010	23:15	19.84	1.88	28.23	80	19.86	2.08	28.35	41,005	11.607
6/30/2010	23:16	19.82	1.77	25.24	81	19.84	1.97	25.36	41,005	10.381
6/30/2010	23:17	19.82	1.80	28.90	82	19.84	2.00	29.02	41,005	11.880
6/30/2010	23:18	19.83	1.81	29.35	83	19.85	2.01	29.47	41,005	12.066
6/30/2010	23:19	19.83	1.78	28.77	84	19.85	1.98	28.89	41,005	11.825
6/30/2010	23:20	19.84	1.73	28.21	85	19.86	1.93	28.33	41,005	11.596
6/30/2010	23:21	19.83	1.80	29.57	86	19.85	2.00	29.69	41,005	12.154
6/30/2010	23:22	19.84	1.76	27.83	87	19.86	1.96	27.95	41,005	11.442
6/30/2010	23:23	19.85	1.75	28.58	88	19.87	1.95	28.70	41,005	11.749
6/30/2010	23:24	19.84	1.77	28.07	89	19.86	1.97	28.19	41,005	11.541
6/30/2010	23:25	19.83	1.76	28.18	90	19.85	1.96	28.30	41,005	11.585
6/30/2010	23:26	19.83	1.81	26.23	91	19.85	2.01	26.35	41,005	10.786
6/30/2010	23:27	19.82	1.79	25.72	92	19.84	1.99	25.84	41,005	10.578
6/30/2010	23:28	19.82	1.78	26.63	93	19.84	1.98	26.75	41,005	10.950
6/30/2010	23:29	19.84	1.79	26.63	94	19.86	1.99	26.75	41,005	10.950
6/30/2010	23:30	19.83	1.80	26.23	95	19.85	2.00	26.35	41,005	10.786
6/30/2010	23:31	19.82	1.90	22.38	96	19.84	2.10	22.50	41,005	9.210
6/30/2010	23:32	19.82	1.78	22.86	97	19.84	1.98	22.98	41,005	9.407
6/30/2010	23:33	19.83	1.81	21.95	98	19.85	2.01	22.07	41,005	9.035
6/30/2010	23:34	19.83	1.78	22.06	99	19.85	1.98	22.18	41,005	9.078
6/30/2010	23:35	19.83	1.76	22.14	100	19.85	1.96	22.26	41,005	9.111
6/30/2010	23:36	19.83	1.77	21.41	101	19.85	1.97	21.53	41,005	8.816
6/30/2010	23:37	19.84	1.79	18.69	102	19.86	1.99	18.81	41,005	7.699
6/30/2010	23:38	19.84	1.74	18.61	103	19.86	1.94	18.73	41,005	7.667
6/30/2010	23:39	19.84	1.80	19.44	104	19.86	2.00	19.56	41,005	8.006
6/30/2010	23:40	19.86	1.70	17.24	105	19.88	1.90	17.36	41,005	7.108
6/30/2010	23:41	19.85	1.72	18.18	106	19.87	1.92	18.30	41,005	7.491
6/30/2010	23:42	19.84	1.72	20.29	107	19.86	1.92	20.41	41,005	8.356
6/30/2010	23:43	19.85	1.67	19.52	108	19.87	1.87	19.64	41,005	8.039
6/30/2010	23:44	19.85	1.60	19.97	109	19.87	1.80	20.09	41,005	8.225
6/30/2010	23:45	19.85	1.67	19.92	110	19.87	1.87	20.04	41,005	8.203
6/30/2010	23:46	19.85	1.62	19.04	111	19.87	1.82	19.16	41,005	7.842
6/30/2010	23:47	19.86	1.65	19.70	112	19.88	1.85	19.82	41,005	8.115
6/30/2010	23:48	19.84	1.66	19.12	113	19.86	1.86	19.24	41,005	7.874
6/30/2010	23:49	19.84	1.57	19.44	114	19.86	1.77	19.56	41,005	8.006
6/30/2010	23:50	19.84	1.66	19.01	115	19.86	1.86	19.13	41,005	7.831
6/30/2010	23:51	19.85	1.67	16.52	116	19.87	1.87	16.64	41,005	6.813
6/30/2010	23:52	19.84	1.57	17.40	117	19.86	1.77	17.52	41,005	7.174
6/30/2010	23:53	19.85	1.58	17.06	118	19.87	1.78	17.18	41,005	7.032
6/30/2010	23:54	19.79	1.70	2.19	119	19.81	1.90	2.31	41,005	0.947
6/30/2010	23:55	19.84	1.48	11.66	120	19.86	1.68	11.78	41,005	4.821
6/30/2010	23:56	19.87	1.59	13.26	121	19.89	1.79	13.38	41,005	5.478
6/30/2010	23:57	19.85	1.61	14.06	122	19.87	1.81	14.18	41,005	5.806
6/30/2010	23:58	19.84	1.51	13.74	123	19.86	1.71	13.86	41,005	5.675
6/30/2010	23:59	19.86	1.56	14.81	124	19.88	1.76	14.93	41,005	6.112
7/1/2010	0:00	19.86	1.58	16.87	125	19.88	1.78	16.99	41,934	7.113
7/1/2010	0:01	19.85	1.54	16.82	126	19.87	1.74	16.94	41,934	7.090
7/1/2010	0:02	19.85	1.60	18.93	127	19.87	1.80	19.05	41,934	7.975
7/1/2010	0:03	19.84	1.56	16.15	128	19.86	1.76	16.27	41,934	6.811
7/1/2010	0:04	19.95	1.14	22.64	129	19.97	1.34	22.76	41,934	9.530
7/1/2010	0:05	20.03	0.85	28.85	130	20.05	1.05	28.97	41,934	12.127
7/1/2010	0:06	20.02	0.80	36.87	131	20.04	1.00	36.99	41,934	15.485
7/1/2010	0:07	20.04	0.84	47.69	132	20.06	1.04	47.82	41,934	20.018
7/1/2010	0:08	20.04	0.82	56.41	133	20.06	1.02	56.53	41,934	23.666
7/1/2010	0:09	20.05	0.80	60.10	134	20.07	1.00	60.22	41,934	25.211
7/1/2010	0:10	20.07	0.84	58.17	135	20.09	1.04	58.30	41,934	24.405
7/1/2010	0:11	19.92	1.53	51.84	136	19.94	1.73	51.96	41,934	21.752

Batch # 3

		Raw Data				Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
7/1/2010	0:12	19.85	1.51	38.34	137	19.87	1.71	38.46	41,934	16.100
7/1/2010	0:13	19.86	1.45	33.12	138	19.88	1.65	33.24	41,934	13.918
7/1/2010	0:14	19.85	1.49	29.22	139	19.87	1.69	29.34	41,934	12.284
7/1/2010	0:15	19.86	1.39	29.89	140	19.88	1.59	30.01	41,934	12.563
7/1/2010	0:16	19.87	1.38	29.68	141	19.89	1.58	29.80	41,934	12.474
7/1/2010	0:17	19.88	1.31	31.36	142	19.90	1.51	31.48	41,934	13.179
7/1/2010	0:18	19.87	1.32	33.45	143	19.89	1.52	33.57	41,934	14.052
7/1/2010	0:19	19.25	1.92	41.97	144	19.27	2.12	42.09	41,934	17.622
7/1/2010	0:20	19.73	1.55	41.25	145	19.75	1.75	41.37	41,934	17.320
7/1/2010	0:21	19.90	1.23	28.02	146	19.92	1.43	28.14	41,934	11.780
7/1/2010	0:22	19.88	1.30	24.38	147	19.90	1.50	24.50	41,934	10.258
7/1/2010	0:23	19.88	1.31	22.51	148	19.90	1.51	22.63	41,934	9.474
7/1/2010	0:24	19.91	1.24	23.18	149	19.93	1.44	23.30	41,934	9.754
7/1/2010	0:25	19.94	1.27	23.95	150	19.96	1.47	24.07	41,934	10.079
7/1/2010	0:26	19.92	1.26	24.57	151	19.94	1.46	24.69	41,934	10.336
7/1/2010	0:27	19.87	1.42	22.24	152	19.89	1.62	22.36	41,934	9.362
7/1/2010	0:28	19.90	1.33	19.76	153	19.92	1.53	19.88	41,934	8.322
7/1/2010	0:29	19.89	1.31	18.74	154	19.91	1.51	18.86	41,934	7.896
7/1/2010	0:30	19.88	1.26	18.15	155	19.90	1.46	18.27	41,934	7.650
7/1/2010	0:31	19.89	1.21	18.10	156	19.91	1.41	18.22	41,934	7.628
7/1/2010	0:32	19.87	1.17	18.53	157	19.89	1.37	18.65	41,934	7.807
7/1/2010	0:33	19.89	1.22	19.68	158	19.91	1.42	19.80	41,934	8.288
7/1/2010	0:34	19.91	1.18	21.71	159	19.93	1.38	21.83	41,934	9.139
7/1/2010	0:35	19.91	1.17	22.51	160	19.93	1.37	22.63	41,934	9.474
7/1/2010	0:36	19.92	1.16	22.46	161	19.94	1.36	22.58	41,934	9.452
7/1/2010	0:37	19.94	1.19	23.87	162	19.96	1.39	23.99	41,934	10.045
7/1/2010	0:38	19.93	1.19	23.85	163	19.95	1.39	23.97	41,934	10.034
7/1/2010	0:39	19.93	1.19	23.47	164	19.95	1.39	23.59	41,934	9.877
7/1/2010	0:40	19.95	1.16	23.02	165	19.97	1.36	23.14	41,934	9.687
7/1/2010	0:41	19.93	1.19	22.83	166	19.95	1.39	22.95	41,934	9.609
7/1/2010	0:42	19.88	1.27	22.97	167	19.90	1.47	23.09	41,934	9.665
7/1/2010	0:43	19.64	1.48	25.10	168	19.66	1.68	25.22	41,934	10.560
7/1/2010	0:44	20.03	1.09	20.56	169	20.05	1.29	20.68	41,934	8.657
7/1/2010	0:45	20.09	0.97	19.17	170	20.11	1.17	19.29	41,934	8.075
7/1/2010	0:46	20.08	0.80	18.95	171	20.10	1.00	19.08	41,934	7.986
7/1/2010	0:47	20.08	0.66	22.40	172	20.10	0.86	22.52	41,934	9.430
7/1/2010	0:48	20.09	0.66	28.66	173	20.11	0.86	28.78	41,934	12.049
7/1/2010	0:49	20.10	0.68	35.53	174	20.12	0.88	35.65	41,934	14.925
7/1/2010	0:50	20.10	0.66	42.21	175	20.12	0.86	42.33	41,934	17.723
7/1/2010	0:51	20.11	0.67	48.28	176	20.13	0.87	48.40	41,934	20.264
7/1/2010	0:52	20.11	0.65	54.16	177	20.13	0.85	54.28	41,934	22.726
7/1/2010	0:53	20.10	0.65	59.73	178	20.12	0.85	59.85	41,934	25.054
7/1/2010	0:54	20.12	0.65	64.14	179	20.14	0.85	64.26	41,934	26.901
7/1/2010	0:55	20.12	0.65	68.76	180	20.14	0.85	68.88	41,934	28.837
7/1/2010	0:56	20.13	0.65	72.56	181	20.15	0.85	72.68	41,934	30.427
7/1/2010	0:57	20.11	0.67	73.92	182	20.13	0.87	74.04	41,934	30.997
7/1/2010	0:58	20.13	0.65	76.22	183	20.15	0.85	76.34	41,934	31.960
7/1/2010	0:59	20.12	0.66	77.32	184	20.14	0.86	77.44	41,934	32.419
7/1/2010	1:00	20.13	0.65	80.02	185	20.15	0.85	80.14	41,934	33.549
7/1/2010	1:01	20.11	0.69	82.10	186	20.13	0.89	82.22	41,934	34.422
7/1/2010	1:02	20.02	0.98	75.79	187	20.04	1.18	75.91	41,934	31.781
7/1/2010	1:03	19.66	1.32	31.17	188	19.68	1.52	31.29	41,934	13.101
7/1/2010	1:04	19.89	0.82	16.25	189	19.91	1.02	16.37	41,934	6.855
7/1/2010	1:05	19.92	1.12	21.28	190	19.94	1.32	21.40	41,934	8.959
7/1/2010	1:06	20.01	1.16	10.61	191	20.03	1.36	10.73	41,934	4.494
7/1/2010	1:07	20.04	1.03	2.33	192	20.06	1.23	2.45	41,934	1.024
7/1/2010	1:08	19.90	0.61	26.82	193	19.92	0.81	26.94	41,934	11.276
7/1/2010	1:09	19.93	0.87	3.05	194	19.95	1.07	3.17	41,934	1.326
7/1/2010	1:10	19.99	1.15	0.67	195	20.01	1.35	0.79	41,934	0.330
7/1/2010	1:11	19.98	1.04	8.34	196	20.00	1.24	8.46	41,934	3.542
7/1/2010	1:12	19.95	0.95	15.53	197	19.97	1.15	15.65	41,934	6.553
7/1/2010	1:13	19.83	0.66	11.36	198	19.85	0.86	11.48	41,934	4.807
7/1/2010	1:14	19.94	1.13	2.27	199	19.96	1.33	2.39	41,934	1.002
7/1/2010	1:15	20.03	1.07	4.79	200	20.05	1.27	4.91	41,934	2.054
7/1/2010	1:16	19.88	0.76	27.64	201	19.90	0.96	27.76	41,934	11.623
7/1/2010	1:17	19.73	0.66	18.18	202	19.75	0.86	18.30	41,934	7.661
7/1/2010	1:18	19.77	1.03	1.20	203	19.79	1.23	1.32	41,934	0.554
7/1/2010	1:19	19.82	1.14	0.05	204	19.84	1.34	0.17	41,934	0.073

Batch # 3

		Raw Data					Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)		O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
7/1/2010	1:20	19.79	1.15	3.29	205		19.81	1.35	3.41	41,934	1.427
7/1/2010	1:21	19.73	1.12	8.85	206		19.75	1.32	8.97	41,934	3.755
7/1/2010	1:22	19.69	0.98	3.07	207		19.71	1.18	3.19	41,934	1.337
7/1/2010	1:23	19.53	1.29	6.95	208		19.55	1.49	7.07	41,934	2.960
7/1/2010	1:24	19.51	1.30	8.26	209		19.53	1.50	8.38	41,934	3.509
7/1/2010	1:25	19.63	1.22	10.99	210		19.65	1.42	11.11	41,934	4.650
7/1/2010	1:26	19.73	1.23	10.80	211		19.75	1.43	10.92	41,934	4.572
7/1/2010	1:27	19.72	1.22	2.97	212		19.74	1.42	3.09	41,934	1.293
7/1/2010	1:28	19.68	0.98	6.79	213		19.70	1.18	6.91	41,934	2.893
7/1/2010	1:29	19.66	1.14	7.46	214		19.68	1.34	7.58	41,934	3.173
7/1/2010	1:30	19.58	1.24	8.80	215		19.60	1.44	8.92	41,934	3.733
7/1/2010	1:31	19.59	1.26	8.23	216		19.61	1.46	8.35	41,934	3.498
7/1/2010	1:32	19.69	1.25	1.60	217		19.71	1.45	1.72	41,934	0.722
7/1/2010	1:33	19.65	1.27	0.75	218		19.67	1.47	0.87	41,934	0.364
7/1/2010	1:34	19.47	1.37	3.50	219		19.49	1.57	3.62	41,934	1.517
7/1/2010	1:35	19.53	1.30	6.34	220		19.55	1.50	6.46	41,934	2.703
7/1/2010	1:36	19.53	1.34	7.65	221		19.55	1.54	7.77	41,934	3.251
7/1/2010	1:37	19.48	1.35	7.33	222		19.50	1.55	7.45	41,934	3.117
7/1/2010	1:38	19.62	1.21	8.64	223		19.64	1.41	8.76	41,934	3.665
7/1/2010	1:39	19.68	1.20	9.09	224		19.70	1.40	9.21	41,934	3.856
7/1/2010	1:40	19.65	1.27	7.51	225		19.67	1.47	7.63	41,934	3.195
7/1/2010	1:41	19.57	1.40	6.23	226		19.59	1.60	6.35	41,934	2.658
7/1/2010	1:42	19.52	1.34	4.57	227		19.54	1.54	4.69	41,934	1.964
7/1/2010	1:43	19.50	1.36	4.28	228		19.52	1.56	4.40	41,934	1.841
7/1/2010	1:44	19.39	1.49	3.74	229		19.41	1.69	3.86	41,934	1.617
7/1/2010	1:45	19.49	1.34	3.29	230		19.51	1.54	3.41	41,934	1.427
7/1/2010	1:46	19.58	1.17	3.66	231		19.60	1.37	3.78	41,934	1.584
7/1/2010	1:47	19.66	1.21	4.20	232		19.68	1.41	4.32	41,934	1.808
7/1/2010	1:48	19.49	1.39	3.37	233		19.51	1.59	3.49	41,934	1.461
7/1/2010	1:49	19.44	1.48	3.18	234		19.46	1.68	3.30	41,934	1.382
7/1/2010	1:50	19.51	1.31	2.65	235		19.53	1.51	2.77	41,934	1.158
7/1/2010	1:51	19.52	1.33	2.09	236		19.54	1.53	2.21	41,934	0.923
7/1/2010	1:52	19.55	1.32	2.54	237		19.57	1.52	2.66	41,934	1.114
7/1/2010	1:53	19.61	1.27	2.14	238		19.63	1.47	2.26	41,934	0.946
7/1/2010	1:54	19.71	1.39	1.63	239		19.73	1.59	1.75	41,934	0.733
7/1/2010	1:55	19.82	1.44	4.71	240		19.84	1.64	4.83	41,934	2.020
7/1/2010	1:56	19.82	1.15	6.07	241		19.84	1.35	6.19	41,934	2.591
7/1/2010	1:57	19.82	1.29	4.52	242		19.84	1.49	4.64	41,934	1.942
7/1/2010	1:58	19.82	1.29	3.23	243		19.84	1.49	3.36	41,934	1.405
7/1/2010	1:59	19.89	1.39	3.48	244		19.91	1.59	3.60	41,934	1.505
7/1/2010	2:00	19.93	1.41	6.66	245		19.95	1.61	6.78	41,934	2.837
7/1/2010	2:01	19.91	1.27	9.89	246		19.93	1.47	10.01	41,934	4.191
7/1/2010	2:02	19.93	1.24	7.51	247		19.95	1.44	7.63	41,934	3.195
7/1/2010	2:03	19.94	1.44	5.77	248		19.96	1.64	5.89	41,934	2.468
7/1/2010	2:04	19.96	1.39	5.99	249		19.98	1.59	6.11	41,934	2.557
7/1/2010	2:05	19.98	1.39	4.65	250		20.00	1.59	4.77	41,934	1.998
7/1/2010	2:06	19.99	1.41	1.79	251		20.01	1.61	1.91	41,934	0.800
7/1/2010	2:07	19.99	1.40	2.25	252		20.01	1.60	2.37	41,934	0.990
7/1/2010	2:08	20.00	1.36	3.61	253		20.02	1.56	3.73	41,934	1.561
7/1/2010	2:09	20.01	1.36	2.43	254		20.03	1.56	2.55	41,934	1.069
7/1/2010	2:10	19.99	1.36	3.23	255		20.01	1.56	3.36	41,934	1.405
7/1/2010	2:11	20.03	1.36	2.83	256		20.05	1.56	2.95	41,934	1.237
7/1/2010	2:12	19.99	1.37	2.73	257		20.01	1.57	2.85	41,934	1.192
7/1/2010	2:13	20.02	1.32	1.87	258		20.04	1.52	1.99	41,934	0.834
7/1/2010	2:14	20.03	1.37	1.55	259		20.05	1.57	1.67	41,934	0.699
7/1/2010	2:15	20.01	1.33	2.06	260		20.03	1.53	2.18	41,934	0.912
7/1/2010	2:16	19.99	1.40	1.71	261		20.01	1.60	1.83	41,934	0.767
7/1/2010	2:17	19.99	1.40	1.66	262		20.01	1.60	1.78	41,934	0.744
7/1/2010	2:18	19.97	1.38	1.12	263		19.99	1.58	1.24	41,934	0.520
7/1/2010	2:19	19.97	1.36	0.70	264		19.99	1.56	0.82	41,934	0.341
7/1/2010	2:20	19.98	1.43	0.88	265	Complete	20.00	1.63	1.00	41,934	0.420
7/1/2010	2:21	19.97	1.43	0.72	266	Charge 1	19.99	1.63	0.84	41,934	0.352
7/1/2010	2:22	19.96	1.40	0.05	267		19.98	1.60	0.17	41,934	0.073
7/1/2010	2:23	19.96	1.42	0.19	268		19.98	1.62	0.31	41,934	0.129
7/1/2010	2:24	19.96	1.38	0.27	269		19.98	1.58	0.39	41,934	0.162
7/1/2010	2:25	19.97	1.43	0.00	270		19.99	1.63	0.12	41,934	0.050
7/1/2010	2:26	19.97	1.44	0.51	271		19.99	1.64	0.63	41,934	0.263
7/1/2010	2:27	19.96	1.45	0.21	272		19.98	1.65	0.33	41,934	0.140

Batch # 3

		Raw Data				Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
7/1/2010	2:28	19.94	1.43	0.19	273	19.96	1.63	0.31	41,934	0.129
7/1/2010	2:29	19.94	1.41	0.19	274	19.96	1.61	0.31	41,934	0.129
7/1/2010	2:30	19.94	1.44	1.12	275	19.96	1.64	1.24	41,934	0.520
7/1/2010	2:31	19.94	1.44	0.48	276	19.96	1.64	0.60	41,934	0.252
7/1/2010	2:32	19.97	1.47	0.51	277	19.99	1.67	0.63	41,934	0.263
7/1/2010	2:33	19.95	1.49	0.35	278	19.97	1.69	0.47	41,934	0.196
7/1/2010	2:34	19.97	1.37	0.45	279	19.99	1.57	0.57	41,934	0.241
7/1/2010	2:35	19.96	1.51	0.72	280	19.98	1.71	0.84	41,934	0.352
7/1/2010	2:36	19.95	1.42	0.21	281	19.97	1.62	0.33	41,934	0.140
7/1/2010	2:37	19.96	1.44	0.72	282	19.98	1.64	0.84	41,934	0.352
7/1/2010	2:38	19.98	1.46	0.03	283	20.00	1.66	0.15	41,934	0.061
7/1/2010	2:39	19.97	1.41	0.32	284	19.99	1.61	0.44	41,934	0.185
7/1/2010	2:40	19.94	1.42	0.80	285	19.96	1.62	0.92	41,934	0.386
7/1/2010	2:41	19.93	1.40	1.60	286	19.95	1.60	1.72	41,934	0.722
7/1/2010	2:42	19.93	1.42	1.42	287	19.95	1.62	1.54	41,934	0.643
7/1/2010	2:43	19.94	1.35	2.17	288	19.96	1.55	2.29	41,934	0.957
7/1/2010	2:44	19.93	1.31	2.06	289	19.95	1.51	2.18	41,934	0.912
7/1/2010	2:45	19.92	1.34	2.41	290	19.94	1.54	2.53	41,934	1.058
7/1/2010	2:46	19.90	1.33	2.97	291	19.92	1.53	3.09	41,934	1.293
7/1/2010	2:47	19.67	1.53	9.57	292	19.69	1.73	9.69	41,934	4.057
7/1/2010	2:48	19.81	1.25	0.13	293	19.83	1.45	0.25	41,934	0.106
7/1/2010	2:49	19.82	1.37	3.34	294	19.84	1.57	3.46	41,934	1.449
7/1/2010	2:50	19.79	1.21	2.06	295	19.81	1.41	2.18	41,934	0.912
7/1/2010	2:51	19.83	1.36	4.06	296	19.85	1.56	4.18	41,934	1.752
7/1/2010	2:52	19.66	1.12	2.30	297	19.68	1.32	2.42	41,934	1.013
7/1/2010	2:53	19.74	1.26	2.38	298	19.76	1.46	2.50	41,934	1.046
7/1/2010	2:54	19.71	1.24	13.13	299	19.73	1.44	13.25	41,934	5.546
7/1/2010	2:55	19.68	1.11	0.27	300	19.70	1.31	0.39	41,934	0.162
7/1/2010	2:56	19.61	1.27	2.43	301	19.63	1.47	2.55	41,934	1.069
7/1/2010	2:57	19.53	1.37	2.94	302	19.55	1.57	3.06	41,934	1.281
7/1/2010	2:58	19.40	1.37	3.85	303	19.42	1.57	3.97	41,934	1.662
7/1/2010	2:59	19.53	1.29	4.38	304	19.55	1.49	4.50	41,934	1.886
7/1/2010	3:00	19.60	1.29	2.41	305	19.62	1.49	2.53	41,934	1.058
7/1/2010	3:01	19.54	1.30	3.93	306	19.56	1.50	4.05	41,934	1.696
7/1/2010	3:02	19.44	1.43	3.66	307	19.46	1.63	3.78	41,934	1.584
7/1/2010	3:03	19.28	1.52	2.94	308	19.30	1.72	3.06	41,934	1.281
7/1/2010	3:04	19.32	1.55	3.21	309	19.34	1.75	3.33	41,934	1.393
7/1/2010	3:05	19.44	1.48	2.59	310	19.46	1.68	2.71	41,934	1.136
7/1/2010	3:06	19.39	1.52	0.05	311	19.41	1.72	0.17	41,934	0.073
7/1/2010	3:07	19.45	1.38	2.62	312	19.47	1.58	2.74	41,934	1.147
7/1/2010	3:08	19.47	1.40	2.27	313	19.49	1.60	2.39	41,934	1.002
7/1/2010	3:09	19.40	1.48	2.17	314	19.42	1.68	2.29	41,934	0.957
7/1/2010	3:10	19.52	1.35	3.18	315	19.54	1.55	3.30	41,934	1.382
7/1/2010	3:11	19.53	1.42	2.33	316	19.55	1.62	2.45	41,934	1.024
7/1/2010	3:12	19.52	1.44	1.47	317	19.54	1.64	1.59	41,934	0.666
7/1/2010	3:13	19.46	1.64	0.59	318	19.48	1.84	0.71	41,934	0.297
7/1/2010	3:14	19.49	1.50	0.40	319	19.51	1.70	0.52	41,934	0.218
7/1/2010	3:15	19.61	1.19	0.91	320	19.63	1.39	1.03	41,934	0.431
7/1/2010	3:16	19.69	1.18	1.31	321	19.71	1.38	1.43	41,934	0.599
7/1/2010	3:17	19.74	1.24	1.18	322	19.76	1.44	1.30	41,934	0.543
7/1/2010	3:18	19.81	1.35	0.21	323	19.83	1.55	0.33	41,934	0.140
7/1/2010	3:19	19.86	1.35	0.08	324	19.88	1.55	0.20	41,934	0.084
7/1/2010	3:20	19.86	1.32	0.03	325	19.88	1.52	0.15	41,934	0.061
7/1/2010	3:21	19.92	1.35	0.19	326	19.94	1.55	0.31	41,934	0.129
7/1/2010	3:22	19.89	1.32	0.45	327	19.91	1.52	0.57	41,934	0.241
7/1/2010	3:23	19.84	1.40	0.27	328	19.86	1.60	0.39	41,934	0.162
7/1/2010	3:24	19.88	1.44	3.07	329	19.90	1.64	3.19	41,934	1.337
7/1/2010	3:25	19.65	1.34	0.83	330	19.67	1.54	0.95	41,934	0.397
7/1/2010	3:26	19.72	1.34	0.27	331	19.74	1.54	0.39	41,934	0.162
7/1/2010	3:27	19.80	1.37	0.21	332	19.82	1.57	0.33	41,934	0.140
7/1/2010	3:28	19.83	1.39	0.32	333	19.85	1.59	0.44	41,934	0.185
7/1/2010	3:29	19.85	1.35	0.78	334	19.87	1.55	0.90	41,934	0.375
7/1/2010	3:30	19.84	1.45	1.92	335	19.86	1.65	2.05	41,934	0.856
7/1/2010	3:31	19.74	1.33	0.05	336	19.76	1.53	0.17	41,934	0.073
7/1/2010	3:32	19.83	1.37	0.37	337	19.85	1.57	0.49	41,934	0.207
7/1/2010	3:33	19.90	1.33	0.78	338	19.92	1.53	0.90	41,934	0.375
7/1/2010	3:34	19.90	1.40	0.45	339	19.92	1.60	0.57	41,934	0.241
7/1/2010	3:35	19.91	1.42	0.45	340	19.93	1.62	0.57	41,934	0.241

Batch # 3

		Raw Data				Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
7/1/2010	3:36	19.79	1.45	0.61	341	19.81	1.65	0.74	41,934	0.308
7/1/2010	3:37	19.68	1.56	0.99	342	19.70	1.76	1.11	41,934	0.464
7/1/2010	3:38	19.68	1.56	0.86	343	19.70	1.76	0.98	41,934	0.408
7/1/2010	3:39	19.70	1.57	0.43	344	19.72	1.77	0.55	41,934	0.229
7/1/2010	3:40	19.72	1.60	0.59	345	19.74	1.80	0.71	41,934	0.297
7/1/2010	3:41	19.72	1.62	0.35	346	19.74	1.82	0.47	41,934	0.196
7/1/2010	3:42	19.74	1.60	0.80	347	19.76	1.80	0.92	41,934	0.386
7/1/2010	3:43	19.72	1.61	0.96	348	19.74	1.81	1.08	41,934	0.453
7/1/2010	3:44	19.72	1.63	0.48	349	19.74	1.83	0.60	41,934	0.252
7/1/2010	3:45	19.75	1.59	0.64	350	19.77	1.79	0.76	41,934	0.319
7/1/2010	3:46	19.76	1.54	0.80	351	19.78	1.74	0.92	41,934	0.386
7/1/2010	3:47	19.75	1.55	0.67	352	19.77	1.75	0.79	41,934	0.330
7/1/2010	3:48	19.74	1.61	0.00	353	19.76	1.81	0.12	41,934	0.050
7/1/2010	3:49	19.74	1.64	0.72	354	19.76	1.84	0.84	41,934	0.352
7/1/2010	3:50	19.73	1.59	0.37	355	19.75	1.79	0.49	41,934	0.207
7/1/2010	3:51	19.73	1.60	0.56	356	19.75	1.80	0.68	41,934	0.285
7/1/2010	3:52	19.73	1.61	0.29	357	19.75	1.81	0.41	41,934	0.173
7/1/2010	3:53	19.75	1.62	0.45	358	19.77	1.82	0.57	41,934	0.241
7/1/2010	3:54	19.75	1.61	0.29	359	19.77	1.81	0.41	41,934	0.173
7/1/2010	3:55	19.75	1.57	0.56	360	19.77	1.77	0.68	41,934	0.285
7/1/2010	3:56	19.75	1.58	0.00	361	19.77	1.78	0.12	41,934	0.050
7/1/2010	3:57	19.79	1.58	0.11	362	19.81	1.78	0.23	41,934	0.095
7/1/2010	3:58	19.76	1.55	0.64	363	19.78	1.75	0.76	41,934	0.319
7/1/2010	3:59	19.77	1.58	0.37	364	19.79	1.78	0.49	41,934	0.207
7/1/2010	4:00	19.78	1.55	0.59	365	19.80	1.75	0.71	41,934	0.297
7/1/2010	4:01	19.77	1.58	0.05	366	19.79	1.78	0.17	41,934	0.073
7/1/2010	4:02	19.78	1.55	0.16	367	19.80	1.75	0.28	41,934	0.117
7/1/2010	4:03	19.80	1.52	0.43	368	19.82	1.72	0.55	41,934	0.229
7/1/2010	4:04	19.78	1.53	0.96	369	19.80	1.73	1.08	41,934	0.453
7/1/2010	4:05	19.83	1.52	0.80	370	19.85	1.72	0.92	41,934	0.386
7/1/2010	4:06	19.96	1.42	0.59	371	19.98	1.62	0.71	41,934	0.297
7/1/2010	4:07	19.98	1.36	0.78	372	20.00	1.56	0.90	41,934	0.375
7/1/2010	4:08	19.99	1.36	0.72	373	20.01	1.56	0.84	41,934	0.352
7/1/2010	4:09	19.98	1.37	0.51	374	20.00	1.57	0.63	41,934	0.263
7/1/2010	4:10	19.79	1.45	6.26	375	19.81	1.65	6.38	41,934	2.669
7/1/2010	4:11	19.77	1.14	4.95	376	19.79	1.34	5.07	41,934	2.121
7/1/2010	4:12	19.88	1.35	3.85	377	19.90	1.55	3.97	41,934	1.662
7/1/2010	4:13	19.78	1.13	7.03	378	19.80	1.33	7.15	41,934	2.994
7/1/2010	4:14	19.71	1.23	1.95	379	19.73	1.43	2.07	41,934	0.867
7/1/2010	4:15	19.73	1.21	4.79	380	19.75	1.41	4.91	41,934	2.054
7/1/2010	4:16	19.68	1.25	1.63	381	19.70	1.45	1.75	41,934	0.733
7/1/2010	4:17	19.52	1.30	0.72	382	19.54	1.50	0.84	41,934	0.352
7/1/2010	4:18	19.50	1.32	0.40	383	19.52	1.52	0.52	41,934	0.218
7/1/2010	4:19	19.64	1.24	0.19	384	19.66	1.44	0.31	41,934	0.129
7/1/2010	4:20	19.79	1.28	6.52	385	19.81	1.48	6.64	41,934	2.781
7/1/2010	4:21	19.73	1.23	4.87	386	19.75	1.43	4.99	41,934	2.087
7/1/2010	4:22	19.53	1.37	1.92	387	19.55	1.57	2.05	41,934	0.856
7/1/2010	4:23	19.53	1.31	0.11	388	19.55	1.51	0.23	41,934	0.095
7/1/2010	4:24	19.64	1.20	0.99	389	19.66	1.40	1.11	41,934	0.464
7/1/2010	4:25	19.66	1.17	1.34	390	19.68	1.37	1.46	41,934	0.610
7/1/2010	4:26	19.72	1.20	1.52	391	19.74	1.40	1.64	41,934	0.688
7/1/2010	4:27	19.74	1.33	1.23	392	19.76	1.53	1.35	41,934	0.565
7/1/2010	4:28	19.77	1.32	0.91	393	19.79	1.52	1.03	41,934	0.431
7/1/2010	4:29	19.72	1.27	0.78	394	19.74	1.47	0.90	41,934	0.375
7/1/2010	4:30	19.79	1.31	9.84	395	19.81	1.51	9.96	41,934	4.169
7/1/2010	4:31	19.82	1.07	20.99	396	19.84	1.27	21.11	41,934	8.836
7/1/2010	4:32	19.58	1.20	4.68	397	19.60	1.40	4.80	41,934	2.009
7/1/2010	4:33	19.62	1.34	0.70	398	19.64	1.54	0.82	41,934	0.341
7/1/2010	4:34	19.63	1.26	0.40	399	19.65	1.46	0.52	41,934	0.218
7/1/2010	4:35	19.66	1.29	0.05	400	19.68	1.49	0.17	41,934	0.073
7/1/2010	4:36	19.82	1.33	20.24	401	19.84	1.53	20.36	41,934	8.523
7/1/2010	4:37	19.92	0.96	32.83	402	19.94	1.16	32.95	41,934	13.795
7/1/2010	4:38	19.68	0.07	29.11	403	19.70	0.27	29.23	41,934	12.239
7/1/2010	4:39	19.50	1.31	7.81	404	19.52	1.51	7.93	41,934	3.318
7/1/2010	4:40	19.56	1.31	5.94	405	19.58	1.51	6.06	41,934	2.535
7/1/2010	4:41	19.61	1.32	4.09	406	19.63	1.52	4.21	41,934	1.763
7/1/2010	4:42	19.73	1.28	21.20	407	19.75	1.48	21.32	41,934	8.926
7/1/2010	4:43	19.72	1.05	12.94	408	19.74	1.25	13.06	41,934	5.467

Batch # 3

		Raw Data				Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
7/1/2010	4:44	19.70	1.23	2.62	409	19.72	1.43	2.74	41,934	1.147
7/1/2010	4:45	19.73	1.34	2.67	410	19.75	1.54	2.79	41,934	1.170
7/1/2010	4:46	19.75	1.32	3.88	411	19.77	1.52	4.00	41,934	1.673
7/1/2010	4:47	19.80	1.27	13.13	412	19.82	1.47	13.25	41,934	5.546
7/1/2010	4:48	19.79	1.03	18.13	413	19.81	1.23	18.25	41,934	7.639
7/1/2010	4:49	19.74	1.12	6.74	414	19.76	1.32	6.86	41,934	2.871
7/1/2010	4:50	19.70	1.33	1.84	415	19.72	1.53	1.96	41,934	0.823
7/1/2010	4:51	19.65	1.45	1.39	416	19.67	1.65	1.51	41,934	0.632
7/1/2010	4:52	19.69	1.42	1.90	417	19.71	1.62	2.02	41,934	0.845
7/1/2010	4:53	19.75	1.29	1.68	418	19.77	1.49	1.80	41,934	0.755
7/1/2010	4:54	19.78	1.38	3.02	419	19.80	1.58	3.14	41,934	1.315
7/1/2010	4:55	19.69	1.49	3.07	420	19.71	1.69	3.19	41,934	1.337
7/1/2010	4:56	19.69	1.37	4.30	421	19.71	1.57	4.42	41,934	1.852
7/1/2010	4:57	19.77	1.39	3.50	422	19.79	1.59	3.62	41,934	1.517
7/1/2010	4:58	19.75	1.36	5.53	423	19.77	1.56	5.65	41,934	2.367
7/1/2010	4:59	19.76	1.38	4.71	424	19.78	1.58	4.83	41,934	2.020
7/1/2010	5:00	19.84	1.27	16.09	425	19.86	1.47	16.21	41,934	6.788
7/1/2010	5:01	19.91	1.20	17.75	426	19.93	1.40	17.87	41,934	7.482
7/1/2010	5:02	19.87	1.24	14.28	427	19.89	1.44	14.40	41,934	6.027
7/1/2010	5:03	19.90	1.33	9.17	428	19.92	1.53	9.29	41,934	3.889
7/1/2010	5:04	19.95	1.37	8.96	429	19.97	1.57	9.08	41,934	3.800
7/1/2010	5:05	19.98	1.40	6.74	430	20.00	1.60	6.86	41,934	2.871
7/1/2010	5:06	19.98	1.52	5.85	431	20.00	1.72	5.98	41,934	2.501
7/1/2010	5:07	19.97	1.57	6.52	432	19.99	1.77	6.64	41,934	2.781
7/1/2010	5:08	19.99	1.50	6.36	433	20.01	1.70	6.48	41,934	2.714
7/1/2010	5:09	20.00	1.46	5.13	434	20.02	1.66	5.25	41,934	2.199
7/1/2010	5:10	20.00	1.56	2.99	435	20.02	1.76	3.11	41,934	1.304
7/1/2010	5:11	20.00	1.54	3.90	436	20.02	1.74	4.02	41,934	1.684
7/1/2010	5:12	20.00	1.55	2.99	437	20.02	1.75	3.11	41,934	1.304
7/1/2010	5:13	19.98	1.60	3.40	438	20.00	1.80	3.52	41,934	1.472
7/1/2010	5:14	20.00	1.60	3.77	439	20.02	1.80	3.89	41,934	1.628
7/1/2010	5:15	19.98	1.63	2.99	440	20.00	1.83	3.11	41,934	1.304
7/1/2010	5:16	19.99	1.66	2.22	441	20.01	1.86	2.34	41,934	0.979
7/1/2010	5:17	19.99	1.60	2.09	442	20.01	1.80	2.21	41,934	0.923
7/1/2010	5:18	19.97	1.60	2.17	443	19.99	1.80	2.29	41,934	0.957
7/1/2010	5:19	19.96	1.56	2.19	444	19.98	1.76	2.31	41,934	0.968
7/1/2010	5:20	19.96	1.54	1.87	445	19.98	1.74	1.99	41,934	0.834
7/1/2010	5:21	19.98	1.51	2.06	446	20.00	1.71	2.18	41,934	0.912
7/1/2010	5:22	19.97	1.53	1.92	447	19.99	1.73	2.05	41,934	0.856
7/1/2010	5:23	19.97	1.58	2.30	448	19.99	1.78	2.42	41,934	1.013
7/1/2010	5:24	19.95	1.59	2.09	449	19.97	1.79	2.21	41,934	0.923
7/1/2010	5:25	19.94	1.55	1.36	450	19.96	1.75	1.48	41,934	0.621
7/1/2010	5:26	19.94	1.56	1.82	451	19.96	1.76	1.94	41,934	0.811
7/1/2010	5:27	19.96	1.56	1.92	452	19.98	1.76	2.05	41,934	0.856
7/1/2010	5:28	19.93	1.53	1.74	453	19.95	1.73	1.86	41,934	0.778
7/1/2010	5:29	19.95	1.47	1.63	454	19.97	1.67	1.75	41,934	0.733
7/1/2010	5:30	19.95	1.48	1.44	455	19.97	1.68	1.56	41,934	0.655
7/1/2010	5:31	19.94	1.51	1.60	456	19.96	1.71	1.72	41,934	0.722
7/1/2010	5:32	19.94	1.52	1.60	457	19.96	1.72	1.72	41,934	0.722
7/1/2010	5:33	19.95	1.39	2.30	458	19.97	1.59	2.42	41,934	1.013
7/1/2010	5:34	19.93	1.34	1.47	459	19.95	1.54	1.59	41,934	0.666
7/1/2010	5:35	19.92	1.36	1.36	460	19.94	1.56	1.48	41,934	0.621
7/1/2010	5:36	19.92	1.34	1.79	461	19.94	1.54	1.91	41,934	0.800
7/1/2010	5:37	19.90	1.35	1.26	462	19.92	1.55	1.38	41,934	0.576
7/1/2010	5:38	19.90	1.44	1.12	463	19.92	1.64	1.24	41,934	0.520
7/1/2010	5:39	19.92	1.48	1.15	464	19.94	1.68	1.27	41,934	0.532
7/1/2010	5:40	19.94	1.55	5.96	465	19.96	1.75	6.08	41,934	2.546
7/1/2010	5:41	19.90	1.36	10.00	466	19.92	1.56	10.12	41,934	4.236
7/1/2010	5:42	19.89	1.51	5.80	467	19.91	1.71	5.92	41,934	2.479
7/1/2010	5:43	19.85	1.50	5.29	468	19.87	1.70	5.41	41,934	2.266
7/1/2010	5:44	19.78	1.32	12.32	469	19.80	1.52	12.44	41,934	5.210
7/1/2010	5:45	19.73	1.19	5.05	470	19.75	1.39	5.17	41,934	2.166
7/1/2010	5:46	19.70	1.37	2.91	471	19.72	1.57	3.03	41,934	1.270
7/1/2010	5:47	19.79	1.37	10.56	472	19.81	1.57	10.68	41,934	4.471
7/1/2010	5:48	19.80	1.17	12.08	473	19.82	1.37	12.20	41,934	5.109
7/1/2010	5:49	19.84	1.29	7.43	474	19.86	1.49	7.55	41,934	3.162
7/1/2010	5:50	19.90	1.30	9.14	475	19.92	1.50	9.26	41,934	3.878
7/1/2010	5:51	19.96	1.21	20.53	476	19.98	1.41	20.65	41,934	8.646

Batch # 3

		Raw Data				Calibration Corrected Data			Mass Rates	
Date	Hour	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Time (min)	O_2 (%)	CO_2 (%)	SO_2 (ppm)	Flow (dscfm)	SO_2 (lb/hr)
7/1/2010	5:52	19.96	0.87	28.53	477	19.98	1.07	28.65	41,934	11.993
7/1/2010	5:53	19.92	1.08	20.13	478	19.94	1.28	20.25	41,934	8.478
7/1/2010	5:54	19.93	1.10	26.73	479	19.95	1.30	26.85	41,934	11.243
7/1/2010	5:55	19.94	0.87	30.91	480	19.96	1.07	31.03	41,934	12.989
7/1/2010	5:56	19.89	1.02	20.37	481	19.91	1.22	20.49	41,934	8.579
7/1/2010	5:57	19.95	1.00	30.34	482	19.97	1.20	30.46	41,934	12.754
7/1/2010	5:58	20.01	0.00	22.15	483	20.03	0.20	22.27	41,934	9.323
7/1/2010	5:59	19.92	0.13	25.36	484	19.94	0.33	25.48	41,934	10.667
7/1/2010	6:00	19.86	0.75	25.91	485	19.88	0.95	26.03	41,934	10.897
7/1/2010	6:01	19.95	0.56	23.96	486	19.97	0.76	24.08	41,934	10.081
7/1/2010	6:02	19.97	0.23	23.83	487	19.99	0.43	23.95	41,934	10.027
7/1/2010	6:03	19.92	0.25	2.81	488	19.94	0.45	2.93	41,934	1.227
7/1/2010	6:04	19.87	0.54	34.73	489	19.89	0.74	34.85	41,934	14.590
7/1/2010	6:05	19.85	0.93	30.02	490	19.87	1.13	30.14	41,934	12.619
7/1/2010	6:06	19.89	0.73	28.17	491	19.91	0.93	28.29	41,934	11.844
7/1/2010	6:07	19.93	0.62	25.64	492	19.95	0.82	25.76	41,934	10.784
7/1/2010	6:08	19.93	0.80	22.73	493	19.95	1.00	22.85	41,934	9.566
7/1/2010	6:09	19.93	0.85	31.65	494	19.95	1.05	31.77	41,934	13.302
7/1/2010	6:10	20.01	1.00	32.75	495	20.03	1.20	32.87	41,934	13.761
7/1/2010	6:11	20.05	0.90	32.80	496	20.07	1.10	32.92	41,934	13.783
7/1/2010	6:12	20.07	1.10	30.10	497	20.09	1.30	30.22	41,934	12.653
7/1/2010	6:13	20.05	1.10	30.50	498	20.07	1.30	30.62	41,934	12.821
7/1/2010	6:14	20.01	0.97	32.70	499	20.03	1.17	32.82	41,934	13.739
7/1/2010	6:15	19.99	1.00	31.68	500	20.01	1.20	31.80	41,934	13.313
7/1/2010	6:16	20.02	1.17	12.62	501	20.04	1.37	12.74	41,934	5.333
7/1/2010	6:17	20.01	1.17	5.91	502	20.03	1.37	6.03	41,934	2.524
7/1/2010	6:18	20.02	1.04	4.01	503	20.04	1.24	4.13	41,934	1.729
7/1/2010	6:19	20.02	0.96	3.07	504	20.04	1.16	3.19	41,934	1.337
7/1/2010	6:20	20.02	0.90	2.25	505	20.04	1.10	2.37	41,934	0.990
7/1/2010	6:21	20.02	0.89	2.11	506	20.04	1.09	2.23	41,934	0.934
7/1/2010	6:22	20.02	0.99	1.90	507	20.04	1.19	2.02	41,934	0.845
7/1/2010	6:23	19.98	1.16	1.58	508	20.00	1.36	1.70	41,934	0.711
7/1/2010	6:24	19.97	1.16	1.98	509	19.99	1.36	2.10	41,934	0.879
7/1/2010	6:25	19.97	1.16	1.90	510	19.99	1.36	2.02	41,934	0.845
7/1/2010	6:26	19.97	1.11	2.25	511	19.99	1.31	2.37	41,934	0.990
7/1/2010	6:27	19.96	1.09	1.98	512	19.98	1.29	2.10	41,934	0.879
7/1/2010	6:28	20.03	1.04	2.30	513	20.05	1.24	2.42	41,934	1.013
7/1/2010	6:29	20.37	0.36	1.31	514	20.39	0.56	1.43	41,934	0.599
7/1/2010	6:30	20.46	0.25	1.50	515	20.48	0.45	1.62	41,934	0.677
7/1/2010	6:31	20.44	0.29	1.39	516	20.46	0.49	1.51	41,934	0.632
7/1/2010	6:32	19.98	1.35	6.71	517	20.00	1.55	6.83	41,934	2.860
7/1/2010	6:33	19.94	1.40	7.91	518	19.96	1.60	8.03	41,934	3.363
7/1/2010	6:34	19.82	1.27	13.63	519	19.84	1.47	13.75	41,934	5.758
7/1/2010	6:35	19.82	1.47	11.07	520	19.84	1.67	11.19	41,934	4.684
7/1/2010	6:36	19.85	1.42	12.49	521	19.87	1.62	12.61	41,934	5.277
7/1/2010	6:37	19.89	1.46	11.84	522	19.91	1.66	11.96	41,934	5.009
7/1/2010	6:38	19.91	1.49	12.11	523	19.93	1.69	12.23	41,934	5.120
7/1/2010	6:39	19.91	1.45	7.91	524	19.93	1.65	8.03	41,934	3.363
7/1/2010	6:40	19.92	1.55	8.29	525	19.94	1.75	8.41	41,934	3.520
7/1/2010	6:41	19.78	1.53	10.00	526	19.80	1.73	10.12	41,934	4.236
7/1/2010	6:42	19.75	1.73	7.25	527	19.77	1.93	7.37	41,934	3.083
7/1/2010	6:43	19.69	1.68	9.52	528	19.71	1.88	9.64	41,934	4.035
7/1/2010	6:44	19.64	1.63	7.65	529	19.66	1.83	7.77	41,934	3.251
7/1/2010	6:45	19.65	1.63	5.32	530	19.67	1.83	5.44	41,934	2.278
Averages		**19.86**	**1.29**	**16.53**	**8.83**	**19.88**	**1.49**	**16.65**	**41,717**	**6.892**

Method 2
Velocities

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	Date :	6/29/2010
Project Number :	39400582.00001	Test I.D. :	R4
Source :	Baghouse Stack	Test Team:	TG, TB, BJ

INPUT PARAMETERS

Barometric Pressure (Pb), in.Hg.	29.95 in, Hg
Avg. Percent CO2	1.0 %
Avg. Percent O2	20.0 %
Avg. Percent N2	79.0 %
Average Square Root of Delta P	0.6339 in. H_2O
Average Stack Temperature, (T_s)	179 (°F)
Static Pressure	0.36 in. H_2O
Stack Diameter	62.50 inches
Pressure in the stack, (P_s)	29.98 in Hg
Stack area, (A_s)	21.31 ft^2
Pitot Tube Coeffiecent , (C_p)	0.833
Average Percent Moisture, (B_{wo})	4.99%

Point No.	Delta P	Sq. Root Delta P	Stack Temp (F)
1	0.48	0.6928	169
2	0.47	0.6856	173
3	0.50	0.7071	176
4	0.41	0.6403	178
5	0.36	0.6000	179
6	0.35	0.5916	180
7	0.35	0.5916	180
8	0.40	0.6325	180
9	0.43	0.6557	180
10	0.43	0.6557	180
11	0.42	0.6481	179
12	0.37	0.6083	176
13	0.30	0.5477	170
14	0.31	0.5568	172
15	0.34	0.5831	175
16	0.33	0.5745	176
17	0.33	0.5745	178
16	0.33	0.5745	180
19	0.37	0.6083	183
20	0.43	0.6557	186
21	0.48	0.6928	189
22	0.51	0.7141	189
23	0.51	0.7141	189
24	0.50	0.7071	189
Average	0.4046	0.6339	179.4

VELOCITY CALCULATIONS

Molecular Weight of the Dry Gas Stream

$Md = (.44)(\%CO_2) + (.32)(\%O_2) + (.28)(\%CO + \%N_2)$

Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)

Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas

Ms = (Md)(1-Bwo) + 18(Bwo)

Ms = (28.96) * (1-0.050) + (18) * (0.050)

Ms = 28.41 lb/lbmol

Velocity of Stack Gas

$Vs = 85.49 * 60 * Cp * (\Delta P)^{0.5} * [(Ts+460)/Ps/Ms]^{0.5}$

Vs = 85.49 * 60 *(0.83) * (0.6339) * sqrt {[(639.42)/(29.98)/(28.41)]

Vs = 2,346.6 ft/min

Total Flow of Stack Gas

Qa = As * Vs

Qa = (21.3053) * (2,346.6)

Qa = 49,995.7 ACFM

Qs = Qa * 528/Ts * Ps/29.92

Qs = (49,995.7) * (528/639.0) * (29.98/29.92)

Qs = 41,387.9 SCFM

Qstd = Qs * (1 - Bwo)

Qstd = (41,387.9) * (1-0.050)

Qstd = 39,321.7 DSCFM

VELOCITY TRAVERSE TEST RESULTS

Stack Gas Temperature (°F)	179	Stack Velocity (ft/min)	2,347
Moisture Content (% Vol.)	4.99%	Gas Flow Rate (ACFM)	49,996
CO_2 (% Vol.)	1.0	Gas Flow Rate (SCFM)	41,388
O_2 (% Vol.)	20.0	Gas Flow Rate (DSCFM)	39,322

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	Date :	6/29/2010
Project Number :	39400582.00001	Test I.D. :	R5
Source :	Baghouse Stack	Test Team:	TG, TB, BJ

INPUT PARAMETERS

Barometric Pressure (Pb), in.Hg.	29.95 in, Hg
Avg. Percent CO2	1.0 %
Avg. Percent O2	20.0 %
Avg. Percent N2	79.0 %
Average Square Root of Delta P	0.6585 in. H_2O
Average Stack Temperature, (T_s)	151 (°F)
Static Pressure	0.42 in. H_2O
Stack Diameter	62.50 inches
Pressure in the stack, (P_s)	29.98 in Hg
Stack area, (A_s)	21.31 ft^2
Pitot Tube Coeffiecent , (C_p)	0.833
Average Percent Moisture, (B_{wo})	3.96%

Point No.	Delta P	Sq. Root Delta P	Stack Temp (F)
1	0.54	0.7348	142
2	0.54	0.7348	142
3	0.54	0.7348	142
4	0.51	0.7141	145
5	0.44	0.6633	148
6	0.38	0.6164	150
7	0.39	0.6245	153
8	0.44	0.6633	154
9	0.46	0.6782	155
10	0.45	0.6708	155
11	0.43	0.6557	155
12	0.41	0.6403	155
13	0.33	0.5745	151
14	0.36	0.6000	151
15	0.35	0.5916	150
16	0.34	0.5831	151
17	0.35	0.5916	151
16	0.36	0.6000	151
19	0.42	0.6481	152
20	0.44	0.6633	153
21	0.48	0.6928	154
22	0.53	0.7280	155
23	0.53	0.7280	154
24	0.45	0.6708	150
Average	**0.4363**	**0.6585**	**150.8**

VELOCITY CALCULATIONS

Molecular Weight of the Dry Gas Stream

$Md = (.44)(\%CO_2) + (.32)(\%O_2) + (.28)(\%CO + \%N_2)$

$Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)$

$Md = 28.96$ lb/lbmol

Molecular Weight of Stack Gas

$Ms = (Md)(1-Bwo) + 18(Bwo)$

$Ms = (28.96) * (1-0.040) + (18) * (0.040)$

$Ms = 28.53$ lb/lbmol

Velocity of Stack Gas

$Vs = 85.49 * 60 * Cp * (\Delta P)^{0.5} * [(Ts+460)/Ps/Ms]^{0.5}$

$Vs = 85.49 * 60 *(0.83) * (0.6585) * sqrt \{[(610.79)/(29.98)/(28.53)]$

$Vs = 2,377.7$ ft/min

Total Flow of Stack Gas

$Qa = As * Vs$

$Qa = (21.3053) * (2,377.7)$

$Qa = 50,656.7$ ACFM

$Qs = Qa * 528/Ts * Ps/29.92$

$Qs = (50,656.7) * (528/610.4) * (29.98/29.92)$

$Qs = 43,908.2$ SCFM

$Qstd = Qs * (1 - Bwo)$

$Qstd = (43,908.2) * (1-0.040)$

$Qstd = 42,169.3$ DSCFM

VELOCITY TRAVERSE TEST RESULTS

Stack Gas Temperature (°F)	151	Stack Velocity (ft/min)	2,378
Moisture Content (% Vol.)	3.96%	Gas Flow Rate (ACFM)	50,657
CO_2 (% Vol.)	1.0	Gas Flow Rate (SCFM)	43,908
O_2 (% Vol.)	20.0	Gas Flow Rate (DSCFM)	42,169

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	Date :	6/29/2010
Project Number :	39400582.00001	Test I.D. :	R6
Source :	Baghouse Stack	Test Team:	TG, TB, BJ

INPUT PARAMETERS

Barometric Pressure (Pb), in.Hg.	29.95 in, Hg
Avg. Percent CO2	1.0 %
Avg. Percent O2	20.0 %
Avg. Percent N2	79.0 %
Average Square Root of Delta P	0.6755 in. H_2O
Average Stack Temperature, (T_s)	164 (°F)
Static Pressure	0.30 in. H_2O
Stack Diameter	62.50 inches
Pressure in the stack, (P_s)	29.97 in Hg
Stack area, (A_s)	21.31 ft^2
Pitot Tube Coeffiecent , (C_p)	0.833
Average Percent Moisture, (B_{wo})	5.53%

Point No.	Delta P	Sq. Root Delta P	Stack Temp (F)
1	0.54	0.7348	155
2	0.57	0.7550	158
3	0.56	0.7483	162
4	0.56	0.7483	164
5	0.52	0.7211	164
6	0.41	0.6403	165
7	0.42	0.6481	165
8	0.48	0.6928	167
9	0.50	0.7071	167
10	0.51	0.7141	168
11	0.47	0.6856	167
12	0.29	0.5385	159
13	0.32	0.5657	155
14	0.35	0.5916	159
15	0.36	0.6000	160
16	0.38	0.6164	161
17	0.39	0.6245	162
16	0.37	0.6083	163
19	0.44	0.6633	166
20	0.51	0.7141	168
21	0.54	0.7348	170
22	0.57	0.7550	171
23	0.57	0.7550	171
24	0.42	0.6481	164
Average	**0.4604**	**0.6755**	**163.8**

VELOCITY CALCULATIONS

Molecular Weight of the Dry Gas Stream

$Md = (.44)(\%CO_2) + (.32)(\%O_2) + (.28)(\%CO + \%N_2)$

$Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)$

Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas

Ms = (Md)(1-Bwo) + 18(Bwo)

Ms = (28.96) * (1-0.055) + (18) * (0.055)

Ms = 28.35 lb/lbmol

Velocity of Stack Gas

$Vs = 85.49 * 60 * Cp * (\Delta P)^{0.5} * [(Ts+460)/Ps/Ms]^{0.5}$

Vs = 85.49 * 60 *(0.83) * (0.6755) * sqrt {[(623.79)/(29.97)/(28.35)]

Vs = 2,472.7 ft/min

Total Flow of Stack Gas

Qa = As * Vs

Qa = (21.3053) * (2,472.7)

Qa = 52,680.8 ACFM

Qs = Qa * 528/Ts * Ps/29.92

Qs = (52,680.8) * (528/623.4) * (29.97/29.92)

Qs = 44,697.2 SCFM

Qstd = Qs * (1 - Bwo)

Qstd = (44,697.2) * (1-0.055)

Qstd = 42,225.4 DSCFM

VELOCITY TRAVERSE TEST RESULTS

Stack Gas Temperature (°F)	164	Stack Velocity (ft/min)	2,473
Moisture Content (% Vol.)	5.53%	Gas Flow Rate (ACFM)	52,681
CO_2 (% Vol.)	1.0	Gas Flow Rate (SCFM)	44,697
O_2 (% Vol.)	20.0	Gas Flow Rate (DSCFM)	42,225

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	Date :	6/30/2010
Project Number :	39400582.00001	Test I.D. :	R7
Source :	Baghouse Stack	Test Team:	TG, TB, BJ

INPUT PARAMETERS

Barometric Pressure (Pb), in.Hg.	29.98 in, Hg
Avg. Percent CO2	1.0 %
Avg. Percent O2	20.0 %
Avg. Percent N2	79.0 %
Average Square Root of Delta P	0.6336 in. H_2O
Average Stack Temperature, (T_s)	159 (^oF)
Static Pressure	0.17 in. H_2O
Stack Diameter	62.50 inches
Pressure in the stack, (P_s)	29.99 in Hg
Stack area, (A_s)	21.31 ft^2
Pitot Tube Coeffiecent , (C_p)	0.833
Average Percent Moisture, (B_{wo})	5.14%

Point No.	Delta P	Sq. Root Delta P	Stack Temp (F)
1	0.36	0.6000	146
2	0.48	0.6928	146
3	0.32	0.5657	148
4	0.36	0.6000	153
5	0.53	0.7280	156
6	0.34	0.5831	157
7	0.36	0.6000	161
8	0.41	0.6403	163
9	0.44	0.6633	164
10	0.45	0.6708	164
11	0.48	0.6928	164
12	0.46	0.6782	160
13	0.40	0.6325	156
14	0.41	0.6403	157
15	0.44	0.6633	158
16	0.47	0.6856	159
17	0.38	0.6164	160
16	0.32	0.5657	161
19	0.32	0.5657	163
20	0.38	0.6164	164
21	0.32	0.5657	164
22	0.34	0.5831	165
23	0.44	0.6633	165
24	0.48	0.6928	162
Average	**0.4038**	**0.6336**	**159.0**

VELOCITY CALCULATIONS

Molecular Weight of the Dry Gas Stream

$Md = (.44)(\%CO_2) + (.32)(\%O_2) + (.28)(\%CO + \%N_2)$

$Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)$

Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas

Ms = (Md)(1-Bwo) + 18(Bwo)

Ms = (28.96) * (1-0.051) + (18) * (0.051)

Ms = 28.40 lb/lbmol

Velocity of Stack Gas

$Vs = 85.49 * 60 * Cp * (\Delta P)^{0.5} * [(Ts+460)/Ps/Ms]^{0.5}$

Vs = 85.49 * 60 *(0.83) * (0.6336) * sqrt {[(619.00)/(29.99)/(28.40)]

Vs = 2,307.9 ft/min

Total Flow of Stack Gas

Qa = As * Vs

Qa = (21.3053) * (2,307.9)

Qa = 49,171.2 ACFM

Qs = Qa * 528/Ts * Ps/29.92

Qs = (49,171.2) * (528/618.6) * (29.99/29.92)

Qs = 42,071.3 SCFM

Qstd = Qs * (1 - Bwo)

Qstd = (42,071.3) * (1-0.051)

Qstd = 39,906.8 DSCFM

VELOCITY TRAVERSE TEST RESULTS

Stack Gas Temperature (°F)	159	Stack Velocity (ft/min)	2,308
Moisture Content (% Vol.)	5.14%	Gas Flow Rate (ACFM)	49,171
CO_2 (% Vol.)	1.0	Gas Flow Rate (SCFM)	42,071
O_2 (% Vol.)	20.0	Gas Flow Rate (DSCFM)	39,907

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	**Date :**	6/30/2010
Project Number :	39400582.00001	**Test I.D. :**	R8
Source :	Baghouse Stack	**Test Team:**	TG, TB, BJ

INPUT PARAMETERS

Barometric Pressure (Pb), in.Hg.	29.98 in, Hg
Avg. Percent CO2	1.0 %
Avg. Percent O2	20.0 %
Avg. Percent N2	79.0 %
Average Square Root of Delta P	0.6345 in. H_2O
Average Stack Temperature, (T_s)	157 (°F)
Static Pressure	0.41 in. H_2O
Stack Diameter	62.50 inches
Pressure in the stack, (P_s)	30.01 in Hg
Stack area, (A_s)	21.31 ft^2
Pitot Tube Coeffiecent , (C_p)	0.833
Average Percent Moisture, (B_{wo})	4.21%

Point No.	Delta P	Sq. Root Delta P	Stack Temp (F)
1	0.31	0.5568	145
2	0.34	0.5831	149
3	0.34	0.5831	153
4	0.33	0.5745	155
5	0.32	0.5657	157
6	0.33	0.5745	158
7	0.39	0.6245	160
8	0.45	0.6708	161
9	0.53	0.7280	161
10	0.56	0.7483	161
11	0.56	0.7483	160
12	0.41	0.6403	157
13	0.49	0.7000	150
14	0.48	0.6928	149
15	0.47	0.6856	153
16	0.42	0.6481	157
17	0.38	0.6164	159
16	0.34	0.5831	160
19	0.35	0.5916	160
20	0.39	0.6245	162
21	0.41	0.6403	162
22	0.41	0.6403	163
23	0.39	0.6245	163
24	0.34	0.5831	160
Average	0.4058	0.6345	157.3

VELOCITY CALCULATIONS

Molecular Weight of the Dry Gas Stream

$Md = (.44)(\%CO_2) + (.32)(\%O_2) + (.28)(\%CO + \%N_2)$

$Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)$

Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas

Ms = (Md)(1-Bwo) + 18(Bwo)

Ms = (28.96) * (1-0.042) + (18) * (0.042)

Ms = 28.50 lb/lbmol

Velocity of Stack Gas

$Vs = 85.49 * 60 * Cp * (\Delta P)^{0.5} * [(Ts+460)/Ps/Ms]^{0.5}$

Vs = 85.49 * 60 *(0.83) * (0.6345) * sqrt {[(617.29)/(30.01)/(28.50)]}

Vs = 2,303.3 ft/min

Total Flow of Stack Gas

Qa = As * Vs

Qa = (21.3053) * (2,303.3)

Qa = 49,072.3 ACFM

Qs = Qa * 528/Ts * Ps/29.92

Qs = (49,072.3) * (528/616.9) * (30.01/29.92)

Qs = 42,127.8 SCFM

Qstd = Qs * (1 - Bwo)

Qstd = (42,127.8) * (1-0.042)

Qstd = 40,353.4 DSCFM

VELOCITY TRAVERSE TEST RESULTS

Stack Gas Temperature (°F)	157	Stack Velocity (ft/min)	2,303
Moisture Content (% Vol.)	4.21%	Gas Flow Rate (ACFM)	49,072
CO_2 (% Vol.)	1.0	Gas Flow Rate (SCFM)	42,128
O_2 (% Vol.)	20.0	Gas Flow Rate (DSCFM)	40,353

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	**Date :**	6/30/2010
Project Number :	39400582.00001	**Test I.D. :**	R9
Source :	Baghouse Stack	**Test Team:**	TG, TB, BJ

INPUT PARAMETERS

Barometric Pressure (Pb), in.Hg.	29.98	in, Hg
Avg. Percent CO2	1.0	%
Avg. Percent O2	20.0	%
Avg. Percent N2	79.0	%
Average Square Root of Delta P	0.6761	in. H_2O
Average Stack Temperature, (T_s)	164	(°F)
Static Pressure	0.28	in. H_2O
Stack Diameter	62.50	inches
Pressure in the stack, (P_s)	30.00	in Hg
Stack area, (A_s)	21.31	ft^2
Pitot Tube Coeffiecent , (C_p)	0.833	
Average Percent Moisture, (B_{wo})	4.21%	

Point No.	Delta P	Sq. Root Delta P	Stack Temp (F)
1	0.37	0.6083	161
2	0.37	0.6083	161
3	0.37	0.6083	161
4	0.33	0.5745	161
5	0.33	0.5745	162
6	0.30	0.5477	163
7	0.41	0.6403	165
8	0.48	0.6928	167
9	0.57	0.7550	168
10	0.60	0.7746	168
11	0.60	0.7746	168
12	0.46	0.6782	162
13	0.52	0.7211	160
14	0.59	0.7681	162
15	0.59	0.7681	163
16	0.55	0.7416	164
17	0.51	0.7141	165
16	0.44	0.6633	166
19	0.41	0.6403	166
20	0.47	0.6856	167
21	0.48	0.6928	167
22	0.49	0.7000	167
23	0.46	0.6782	166
24	0.38	0.6164	160
Average	**0.4617**	**0.6761**	**164.2**

VELOCITY CALCULATIONS

Molecular Weight of the Dry Gas Stream

$Md = (.44)(\%CO_2) + (.32)(\%O_2) + (.28)(\%CO + \%N_2)$

Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)

Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas

Ms = (Md)(1-Bwo) + 18(Bwo)

Ms = (28.96) * (1-0.042) + (18) * (0.042)

Ms = 28.50 lb/lbmol

Velocity of Stack Gas

$Vs = 85.49 * 60 * Cp * (\Delta P)^{0.5} * [(Ts+460)/Ps/Ms]^{0.5}$

Vs = 85.49 * 60 *(0.83) * (0.6761) * sqrt {[(624.17)/(30.00)/(28.50)]

Vs = 2,468.4 ft/min

Total Flow of Stack Gas

Qa = As * Vs

Qa = (21.3053) * (2,468.4)

Qa = 52,589.1 ACFM

Qs = Qa * 528/Ts * Ps/29.92

Qs = (52,589.1) * (528/623.8) * (30.00/29.92)

Qs = 44,635.0 SCFM

Qstd = Qs * (1 - Bwo)

Qstd = (44,635.0) * (1-0.042)

Qstd = 42,755.1 DSCFM

VELOCITY TRAVERSE TEST RESULTS

Stack Gas Temperature (°F)	164	Stack Velocity (ft/min)	2,468
Moisture Content (% Vol.)	4.21%	Gas Flow Rate (ACFM)	52,589
CO_2 (% Vol.)	1.0	Gas Flow Rate (SCFM)	44,635
O_2 (% Vol.)	20.0	Gas Flow Rate (DSCFM)	42,755

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	Date :	7/1/2010
Project Number :	39400582.00001	Test I.D. :	R10
Source :	Baghouse Stack	Test Team:	TG, TB, BJ

INPUT PARAMETERS

Barometric Pressure (Pb), in.Hg.	29.95 in, Hg
Avg. Percent CO2	1.0 %
Avg. Percent O2	20.0 %
Avg. Percent N2	79.0 %
Average Square Root of Delta P	0.6686 in. H_2O
Average Stack Temperature, (T_s)	177 (°F)
Static Pressure	0.37 in. H_2O
Stack Diameter	62.50 inches
Pressure in the stack, (P_s)	29.98 in Hg
Stack area, (A_s)	21.31 ft^2
Pitot Tube Coeffiecent , (C_p)	0.833
Average Percent Moisture, (B_{wo})	3.66%

Point No.	Delta P	Sq. Root Delta P	Stack Temp (F)
1	0.67	0.8185	174
2	0.62	0.7874	176
3	0.58	0.7616	177
4	0.52	0.7211	178
5	0.45	0.6708	179
6	0.39	0.6245	178
7	0.40	0.6325	179
8	0.43	0.6557	179
9	0.45	0.6708	179
10	0.47	0.6856	179
11	0.43	0.6557	178
12	0.38	0.6164	174
13	0.31	0.5568	170
14	0.33	0.5745	172
15	0.34	0.5831	173
16	0.34	0.5831	174
17	0.35	0.5916	174
16	0.35	0.5916	175
19	0.42	0.6481	177
20	0.49	0.7000	178
21	0.53	0.7280	179
22	0.57	0.7550	180
23	0.57	0.7550	180
24	0.46	0.6782	174
Average	**0.4521**	**0.6686**	**176.5**

VELOCITY CALCULATIONS

Molecular Weight of the Dry Gas Stream

$Md = (.44)(\%CO_2) + (.32)(\%O_2) + (.28)(\%CO + \%N_2)$

$Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)$

$Md = 28.96$ lb/lbmol

Molecular Weight of Stack Gas

$Ms = (Md)(1-Bwo) + 18(Bwo)$

$Ms = (28.96) * (1-0.037) + (18) * (0.037)$

$Ms = 28.56$ lb/lbmol

Velocity of Stack Gas

$Vs = 85.49 * 60 * Cp * (\Delta P)^{0.5} * [(Ts+460)/Ps/Ms]^{0.5}$

$Vs = 85.49 * 60 *(0.83) * (0.6686) * sqrt \{[(636.50)/(29.98)/(28.56)]$

$Vs = 2,463.1$ ft/min

Total Flow of Stack Gas

$Qa = As * Vs$

$Qa = (21.3053) * (2,463.1)$

$Qa = 52,477.8$ ACFM

$Qs = Qa * 528/Ts * Ps/29.92$

$Qs = (52,477.8) * (528/636.1) * (29.98/29.92)$

$Qs = 43,642.9$ SCFM

$Qstd = Qs * (1 - Bwo)$

$Qstd = (43,642.9) * (1-0.037)$

$Qstd = 42,046.8$ DSCFM

VELOCITY TRAVERSE TEST RESULTS

Stack Gas Temperature (°F)	177	Stack Velocity (ft/min)	2,463
Moisture Content (% Vol.)	3.66%	Gas Flow Rate (ACFM)	52,478
CO_2 (% Vol.)	1.0	Gas Flow Rate (SCFM)	43,643
O_2 (% Vol.)	20.0	Gas Flow Rate (DSCFM)	42,047

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	Date :	7/1/2010
Project Number :	39400582.00001	Test I.D. :	R11
Source :	Baghouse Stack	Test Team:	TG, TB, BJ

INPUT PARAMETERS

Barometric Pressure (Pb), in.Hg.	29.95 in, Hg
Avg. Percent CO2	1.0 %
Avg. Percent O2	20.0 %
Avg. Percent N2	79.0 %
Average Square Root of Delta P	0.6652 in. H_2O
Average Stack Temperature, (T_s)	177 (^oF)
Static Pressure	0.28 in. H_2O
Stack Diameter	62.50 inches
Pressure in the stack, (P_s)	29.97 in Hg
Stack area, (A_s)	21.31 ft^2
Pitot Tube Coeffiecent , (C_p)	0.833
Average Percent Moisture, (B_{wo})	3.66%

Point No.	Delta P	Sq. Root Delta P	Stack Temp (F)
1	0.37	0.6083	174
2	0.38	0.6164	175
3	0.36	0.6000	175
4	0.37	0.6083	175
5	0.34	0.5831	176
6	0.34	0.5831	176
7	0.42	0.6481	177
8	0.50	0.7071	178
9	0.55	0.7416	180
10	0.57	0.7550	180
11	0.57	0.7550	180
12	0.46	0.6782	175
13	0.50	0.7071	174
14	0.53	0.7280	175
15	0.56	0.7483	176
16	0.54	0.7348	177
17	0.44	0.6633	178
16	0.41	0.6403	178
19	0.40	0.6325	178
20	0.44	0.6633	178
21	0.45	0.6708	179
22	0.45	0.6708	179
23	0.44	0.6633	178
24	0.31	0.5568	169
Average	**0.4458**	**0.6652**	**176.7**

VELOCITY CALCULATIONS

Molecular Weight of the Dry Gas Stream

$Md = (.44)(\%CO_2) + (.32)(\%O_2) + (.28)(\%CO + \%N_2)$

Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)

Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas

Ms = (Md)(1-Bwo) + 18(Bwo)

Ms = (28.96) * (1-0.037) + (18) * (0.037)

Ms = 28.56 lb/lbmol

Velocity of Stack Gas

$Vs = 85.49 * 60 * Cp * (\Delta P)^{0.5} * [(Ts+460)/Ps/Ms]^{0.5}$

Vs = 85.49 * 60 *(0.83) * (0.6652) * sqrt {[(636.67)/(29.97)/(28.56)]

Vs = 2,451.1 ft/min

Total Flow of Stack Gas

Qa = As * Vs

Qa = (21.3053) * (2,451.1)

Qa = 52,222.2 ACFM

Qs = Qa * 528/Ts * Ps/29.92

Qs = (52,222.2) * (528/636.3) * (29.97/29.92)

Qs = 43,409.4 SCFM

Qstd = Qs * (1 - Bwo)

Qstd = (43,409.4) * (1-0.037)

Qstd = 41,821.8 DSCFM

VELOCITY TRAVERSE TEST RESULTS

Stack Gas Temperature (°F)	177	Stack Velocity (ft/min)	2,451
Moisture Content (% Vol.)	3.66%	Gas Flow Rate (ACFM)	52,222
CO_2 (% Vol.)	1.0	Gas Flow Rate (SCFM)	43,409
O_2 (% Vol.)	20.0	Gas Flow Rate (DSCFM)	41,822

Method 4
Moisture

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	**Date :**	6/29/2010
Project Number :	39400582.00001	**Test I.D. :**	R4
Source :	Baghouse Stack	**Test Team:**	TG, TB, BJ

INPUT PARAMETERS

Volume of water Collected, Vl_o (ml)	28.9	ml
Volume measured by dry gas meter (Vm), ft^3	28.44	ft^3
Delta H, in. H_2O	1.000	in. H_2O
Gamma	0.926	
Barometric Pressure (Pb), in. Hg.	29.95	in. Hg
Temperature of the meter box (Tm), °F	79.00	°F
Percent CO_2	1.0	%
Percent O_2	20.0	%
Percent N_2	79.0	%
Average Stack Temperature (T_s), °F	179.4	°F

Impinger Weights

Initial	Final	Net Gain
684.9	698.8	13.9
682.9	686.8	3.9
937.3	948.4	11.1
		0
2305.1	2334	28.9

SAMPLING CALCULATIONS

Volume of Water Collected
Vwstd = (Vl0)(0.04707)
Vwstd = (28.9) * (0.04707)
Vwstd = 1.36 ft^3

Volume of Gas Metered, Standard Conditions
Vmstd = ((17.65) (V_m)(P_b + ΔH/13.6)(gamma)/Tm
Vmstd = ((17.65) * (28.44) * (29.95 + (1.0000/13.6)) * (0.9256) / (538.60)
Vmstd = 25.90 ft^3

Moisture Content
Bwo = Vwstd/(Vmstd + Vwstd)
Bwo = 1.36 / (25.89 + 1.36)
Bwo = 0.050

Molecular Weight of the Dry Gas Stream
Md = (.44)(%CO2) + (.32)(%O2) + (.28)(%CO +%N2)
Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)
Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas
Ms = (Md)(1-Bwo) + 18(Bwo)
Ms = (28.96) * (1-0.050) + (18) * (0.050)
Ms = 28.41 lb/lbmol

GAS COMPOSITION TEST RESULTS

Vol. Sampled at STP (ft^3)	25.89
Stack Gas Temperature (°F)	179
Moisture Content (% Vol)	4.99%
CO_2 Percent	1.0
O_2 Percent	20.0

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	**Date :**	6/29/2010
Project Number :	39400582.00001	**Test I.D. :**	R5
Source :	Baghouse Stack	**Test Team:**	TG, TB, BJ

INPUT PARAMETERS

Volume of water Collected, Vl_o (ml)	22.8	ml
Volume measured by dry gas meter (Vm), ft^3	28.60	ft^3
Delta H, in. H_2O	1.000	in. H_2O
Gamma	0.926	
Barometric Pressure (Pb), in. Hg.	29.95	in. Hg
Temperature of the meter box (Tm), °F	79.00	°F
Percent CO_2	1.0	%
Percent O_2	20.0	%
Percent N_2	79.0	%
Average Stack Temperature (T_s), °F	150.8	°F

Impinger Weights

Initial	Final	Net Gain
681.7	695.0	13.3
699.2	701.5	2.3
601.4	602.7	1.3
896.6	902.5	5.9
2878.9	2901.7	22.8

SAMPLING CALCULATIONS

Volume of Water Collected
Vwstd = (Vl0)(0.04707)
Vwstd = (22.8) * (0.04707)
Vwstd = 1.07 ft^3

Volume of Gas Metered, Standard Conditions
Vmstd = ((17.65) (V_m)(P_b + ΔH/13.6)(gamma)/Tm
Vmstd = ((17.65) * (28.60) * (29.95 + (1.0000/13.6)) * (0.9256) / (538.60)
Vmstd = 26.04 ft^3

Moisture Content
Bwo = Vwstd/(Vmstd + Vwstd)
Bwo = 1.07 / (26.03 + 1.07)
Bwo = 0.040

Molecular Weight of the Dry Gas Stream
Md = (.44)(%CO2) + (.32)(%O2) + (.28)(%CO +%N2)
Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)
Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas
Ms = (Md)(1-Bwo) + 18(Bwo)
Ms = (28.96) * (1-0.040) + (18) * (0.040)
Ms = 28.53 lb/lbmol

GAS COMPOSITION TEST RESULTS

Vol. Sampled at STP (ft^3)	26.03
Stack Gas Temperature (°F)	151
Moisture Content (% Vol)	3.96%
CO_2 Percent	1.0
O_2 Percent	20.0

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	**Date :**	6/29/2010
Project Number :	39400582.00001	**Test I.D. :**	R6
Source :	Baghouse Stack	**Test Team:**	TG, TB, BJ

INPUT PARAMETERS

Volume of water Collected, Vl_o (ml)	32.2	ml
Volume measured by dry gas meter (Vm), ft^3	28.45	ft^3
Delta H, in. H_2O	1.000	in. H_2O
Gamma	0.926	
Barometric Pressure (Pb), in. Hg.	29.95	in. Hg
Temperature of the meter box (Tm), °F	79.00	°F
Percent CO_2	1.0	%
Percent O_2	20.0	%
Percent N_2	79.0	%
Average Stack Temperature (T_s), °F	163.8	°F

Impinger Weights

Initial	Final	Net Gain
729.3	756.5	27.2
691.8	693.4	1.6
605.8	605.8	0
872.4	875.8	3.4
2899.3	2931.5	32.2

SAMPLING CALCULATIONS

Volume of Water Collected
Vwstd = (Vl0)(0.04707)
Vwstd = (32.2) * (0.04707)
Vwstd = 1.52 ft^3

Volume of Gas Metered, Standard Conditions
Vmstd = ((17.65) (V_m)(P_b + ΔH/13.6)(gamma)/Tm
Vmstd = ((17.65) * (28.45) * (29.95 + (1.0000/13.6)) * (0.9256) / (538.60)
Vmstd = 25.91 ft^3

Moisture Content
Bwo = Vwstd/(Vmstd + Vwstd)
Bwo = 1.52 / (25.89 + 1.52)
Bwo = 0.055

Molecular Weight of the Dry Gas Stream
Md = (.44)(%CO2) + (.32)(%O2) + (.28)(%CO +%N2)
Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)
Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas
Ms = (Md)(1-Bwo) + 18(Bwo)
Ms = (28.96) * (1-0.055) + (18) * (0.055)
Ms = 28.35 lb/lbmol

GAS COMPOSITION TEST RESULTS

Vol. Sampled at STP (ft^3)	25.89
Stack Gas Temperature (°F)	164
Moisture Content (% Vol)	5.53%
CO_2 Percent	1.0
O_2 Percent	20.0

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	**Date :**	6/30/2010
Project Number :	39400582.00001	**Test I.D. :**	R7
Source :	Baghouse Stack	**Test Team:**	TG, TB, BJ

INPUT PARAMETERS

			Impinger Weights		
Volume of water Collected, Vl_o (ml)	29.6	ml			
Volume measured by dry gas meter (Vm), ft^3	28.20	ft^3	Initial	Final	Net Gain
Delta H, in. H_2O	1.000	in. H_2O	698.8	719.2	20.4
Gamma	0.926		686.8	689.4	2.6
Barometric Pressure (Pb), in. Hg.	29.98	in. Hg	948.4	955.0	6.6
Temperature of the meter box (Tm), °F	79.00	°F			0
Percent CO_2	1.0	%	2334	2363.6	29.6
Percent O_2	20.0	%			
Percent N_2	79.0	%			
Average Stack Temperature (T_s), °F	159.0	°F			

SAMPLING CALCULATIONS

Volume of Water Collected
Vwstd = (Vl0)(0.04707)
Vwstd = (29.6) * (0.04707)
Vwstd = 1.39 ft^3

Volume of Gas Metered, Standard Conditions
Vmstd = ((17.65) (V_m)(P_b + ΔH/13.6)(gamma)/Tm
Vmstd = ((17.65) * (28.20) * (29.98 + (1.0000/13.6)) * (0.9256) / (538.60)
Vmstd = 25.70 ft^3

Moisture Content
Bwo = Vwstd/(Vmstd + Vwstd)
Bwo = 1.39 / (25.69 + 1.39)
Bwo = 0.051

Molecular Weight of the Dry Gas Stream
Md = (.44)(%CO2) + (.32)(%O2) + (.28)(%CO +%N2)
Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)
Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas
Ms = (Md)(1-Bwo) + 18(Bwo)
Ms = (28.96) * (1-0.051) + (18) * (0.051)
Ms = 28.40 lb/lbmol

GAS COMPOSITION TEST RESULTS	
Vol. Sampled at STP (ft^3)	25.69
Stack Gas Temperature (°F)	159
Moisture Content (% Vol)	5.14%
CO_2 Percent	1.0
O_2 Percent	20.0

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	**Date :**	6/30/2010
Project Number :	39400582.00001	**Test I.D. :**	R8
Source :	Baghouse Stack	**Test Team:**	TG, TB, BJ

INPUT PARAMETERS

			Impinger Weights		
Volume of water Collected, Vl_o (ml)	24.6	ml			
Volume measured by dry gas meter (Vm), ft^3	28.91	ft^3	**Initial**	**Final**	**Net Gain**
Delta H, in. H_2O	1.000	in. H_2O	695.0	712.4	17.4
Gamma	0.926		701.5	703.1	1.6
Barometric Pressure (Pb), in. Hg.	29.98	in. Hg	602.7	602.7	0
Temperature of the meter box (Tm), °F	79.00	°F	902.5	908.1	5.6
Percent CO_2	1.0	%	2901.7	2926.3	24.6
Percent O_2	20.0	%			
Percent N_2	79.0	%			
Average Stack Temperature (T_s), °F	157.3	°F			

SAMPLING CALCULATIONS

Volume of Water Collected
Vwstd = (Vl0)(0.04707)
Vwstd = (24.6) * (0.04707)
Vwstd = 1.16 ft^3

Volume of Gas Metered, Standard Conditions
Vmstd = ((17.65) (V_m)(P_b + ΔH/13.6)(gamma)/Tm
Vmstd = ((17.65) * (28.91) * (29.98 + (1.0000/13.6)) * (0.9256) / (538.60)
Vmstd = 26.35 ft^3

Moisture Content
Bwo = Vwstd/(Vmstd + Vwstd)
Bwo = 1.16 / (26.33 + 1.16)
Bwo = 0.042

Molecular Weight of the Dry Gas Stream
Md = (.44)(%CO2) + (.32)(%O2) + (.28)(%CO +%N2)
Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)
Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas
Ms = (Md)(1-Bwo) + 18(Bwo)
Ms = (28.96) * (1-0.042) + (18) * (0.042)
Ms = 28.50 lb/lbmol

GAS COMPOSITION TEST RESULTS

Vol. Sampled at STP (ft^3)	26.33
Stack Gas Temperature (°F)	157
Moisture Content (% Vol)	4.21%
CO_2 Percent	1.0
O_2 Percent	20.0

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	**Date :**	6/30/2010
Project Number :	39400582.00001	**Test I.D. :**	R9
Source :	Baghouse Stack	**Test Team:**	TG, TB, BJ

INPUT PARAMETERS

Volume of water Collected, Vl_o (ml)	24.6	ml
Volume measured by dry gas meter (Vm), ft^3	28.91	ft^3
Delta H, in. H_2O	1.000	in. H_2O
Gamma	0.926	
Barometric Pressure (Pb), in. Hg.	29.98	in. Hg
Temperature of the meter box (Tm), °F	79.00	°F
Percent CO_2	1.0	%
Percent O_2	20.0	%
Percent N_2	79.0	%
Average Stack Temperature (T_s), °F	164.2	°F

Impinger Weights

Initial	Final	Net Gain
695.0	712.4	17.4
701.5	703.1	1.6
602.7	602.7	0
902.5	908.1	5.6
2901.7	2926.3	24.6

SAMPLING CALCULATIONS

Volume of Water Collected
Vwstd = (Vl0)(0.04707)
Vwstd = (24.6) * (0.04707)
Vwstd = 1.16 ft^3

Volume of Gas Metered, Standard Conditions
Vmstd = ((17.65) (V_m)(P_b + ΔH/13.6)(gamma)/Tm
Vmstd = ((17.65) * (28.91) * (29.98 + (1.0000/13.6)) * (0.9256) / (538.60)
Vmstd = 26.35 ft^3

Moisture Content
Bwo = Vwstd/(Vmstd + Vwstd)
Bwo = 1.16 / (26.33 + 1.16)
Bwo = 0.042

Molecular Weight of the Dry Gas Stream
Md = (.44)(%CO2) + (.32)(%O2) + (.28)(%CO +%N2)
Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)
Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas
Ms = (Md)(1-Bwo) + 18(Bwo)
Ms = (28.96) * (1-0.042) + (18) * (0.042)
Ms = 28.50 lb/lbmol

GAS COMPOSITION TEST RESULTS

Vol. Sampled at STP (ft^3)	26.33
Stack Gas Temperature (°F)	164
Moisture Content (% Vol)	4.21%
CO_2 Percent	1.0
O_2 Percent	20.0

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	**Date :**	7/1/2010
Project Number :	39400582.00001	**Test I.D. :**	R10
Source :	Baghouse Stack	**Test Team:**	TG, TB, BJ

INPUT PARAMETERS

Volume of water Collected, Vl_o (ml)	20.7	ml
Volume measured by dry gas meter (Vm), ft^3	28.20	ft^3
Delta H, in. H_2O	1.000	in. H_2O
Gamma	0.926	
Barometric Pressure (Pb), in. Hg.	29.95	in. Hg
Temperature of the meter box (Tm), °F	79.00	°F
Percent CO_2	1.0	%
Percent O_2	20.0	%
Percent N_2	79.0	%
Average Stack Temperature (T_s), °F	176.5	°F

Impinger Weights

Initial	Final	Net Gain
756.5	771.6	15.1
693.4	694.9	1.5
605.8	605.2	-0.6
880.4	885.1	4.7
2936.1	2956.8	20.7

SAMPLING CALCULATIONS

Volume of Water Collected
Vwstd = (Vl0)(0.04707)
Vwstd = (20.7) * (0.04707)
Vwstd = 0.97 ft^3

Volume of Gas Metered, Standard Conditions
Vmstd = ((17.65) (V_m)(P_b + ΔH/13.6)(gamma)/Tm
Vmstd = ((17.65) * (28.20) * (29.95 + (1.0000/13.6)) * (0.9256) / (538.60)
Vmstd = 25.68 ft^3

Moisture Content
Bwo = Vwstd/(Vmstd + Vwstd)
Bwo = 0.97 / (25.67 + 0.97)
Bwo = 0.037

Molecular Weight of the Dry Gas Stream
Md = (.44)(%CO2) + (.32)(%O2) + (.28)(%CO +%N2)
Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)
Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas
Ms = (Md)(1-Bwo) + 18(Bwo)
Ms = (28.96) * (1-0.037) + (18) * (0.037)
Ms = 28.56 lb/lbmol

GAS COMPOSITION TEST RESULTS

Vol. Sampled at STP (ft^3)	25.67
Stack Gas Temperature (°F)	177
Moisture Content (% Vol)	3.66%
CO_2 Percent	1.0
O_2 Percent	20.0

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	**Date :**	7/1/2010
Project Number :	39400582.00001	**Test I.D. :**	R11
Source :	Baghouse Stack	**Test Team:**	TG, TB, BJ

INPUT PARAMETERS

Volume of water Collected, Vl_o (ml)	20.7	ml
Volume measured by dry gas meter (Vm), ft^3	28.20	ft^3
Delta H, in. H_2O	1.000	in. H_2O
Gamma	0.926	
Barometric Pressure (Pb), in. Hg.	29.95	in. Hg
Temperature of the meter box (Tm), °F	79.00	°F
Percent CO_2	1.0	%
Percent O_2	20.0	%
Percent N_2	79.0	%
Average Stack Temperature (T_s), °F	176.7	°F

Impinger Weights

Initial	Final	Net Gain
756.5	771.6	15.1
693.4	694.9	1.5
605.8	605.2	-0.6
880.4	885.1	4.7
2936.1	2956.8	20.7

SAMPLING CALCULATIONS

Volume of Water Collected
Vwstd = (Vl0)(0.04707)
Vwstd = (20.7) * (0.04707)
Vwstd = 0.97 ft^3

Volume of Gas Metered, Standard Conditions
Vmstd = ((17.65) (V_m)(P_b + ΔH/13.6)(gamma)/Tm
Vmstd = ((17.65) * (28.20) * (29.95 + (1.0000/13.6)) * (0.9256) / (538.60)
Vmstd = 25.68 ft^3

Moisture Content
Bwo = Vwstd/(Vmstd + Vwstd)
Bwo = 0.97 / (25.67 + 0.97)
Bwo = 0.037

Molecular Weight of the Dry Gas Stream
Md = (.44)(%CO2) + (.32)(%O2) + (.28)(%CO +%N2)
Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)
Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas
Ms = (Md)(1-Bwo) + 18(Bwo)
Ms = (28.96) * (1-0.037) + (18) * (0.037)
Ms = 28.56 lb/lbmol

GAS COMPOSITION TEST RESULTS	
Vol. Sampled at STP (ft^3)	25.67
Stack Gas Temperature (°F)	177
Moisture Content (% Vol)	3.66%
CO_2 Percent	1.0
O_2 Percent	20.0

URS

EPA M2/M4 DATA SHEET

Project Name: Battery Recycling
Project No.:
Date: 6/29/10

Test No.: Batch #1 R4
Location: Baghouse Stack
Personnel: TB BJ

Stack Dimensions:
Barometric Pressure: 29.95 in. Hg
Static Pressure: +0.36 in. H_2O

M2 Test Time : Start : 1332 Stop : 1341

VELOCITY TRAVERSE		
TRAVERSE POINT	VELOCITY PRESSURE (ΔP)	STACK TEMP.
1	0.48	169
2	0.47	173
3	0.50	176
4	0.41	178
5	0.36	179
6	0.35	180
7	0.35	180
8	0.40	180
9	0.43	180
10	0.43	180
11	0.42	179
12	0.37	176
13	0.30	170
14	0.31	172
15	0.34	175
16	0.33	176
17	0.33	178
18	0.33	180
19	0.37	183
20	0.43	186
21	0.48	189
22	0.51	189
23	0.51	189
24	0.50	189
Average		

IMPINGER WEIGHTS			
Impinger	Initial Wt.	Final Wt.	Total
1	684.9	698.8	
2	682.9	686.8	
3	937.3	948.4	
4			
Total			

PITOT LEAK CHECK (> 3")		
INITIAL	(+) ✓	(-) ✓
FINAL	(+) ✓	(-) ✓
TRAIN LEAK CHECK (ft^3 @ In, Hg.)		
INITIAL	0.002 @ 15"	
FINAL	0.000 @ 5"	

MOISTURE TRAIN ΔH = 1.00					
SAMPLING TIME Clock	Sample	DRY GAS METER	DGM TEMP.	LAST IMPINGER TEMP.	TRAIN VACUUM
1327	0	398.900	78	66	1
	10	404.52	79	65	1
	20	410.21	79	65	1
	30	415.89	79	64	1
	40	421.58	80	64	1
1417	50	427.343	Stop		

M4 Sample Train I.D. : R4
Control Console I.D.: V ΔH@: 1.8526 Y: 0.9256
Pitot Tube Type: S I.D. No.: P5-001 Coefficient:
Manometer Type: Incl I.D. No.: V
Thermometer Type: K I.D. No.: P5-001

NOTES:

URS

EPA M2/M4 DATA SHEET

Project Name: Battery Recycling
Project No.:
Date: 6/29/10

Test No.: 5
Location: Baghouse
Personnel: TB BS TG

Stack Dimensions:
Barometric Pressure: 29.95 in. Hg
Static Pressure: +0.42 in. H_2O

M2 Test Time : Start : 1445 Stop : 1453

VELOCITY TRAVERSE		
TRAVERSE POINT	VELOCITY PRESSURE (ΔP)	STACK TEMP.
1	0.54	142
2	0.54	142
3	0.54	142
4	0.51	145
5	0.44	148
6	0.38	150
7	0.39	153
8	0.44	154
9	0.46	155
10	0.45	155
11	0.43	155
12	0.41	155
13	0.33	151
14	0.36	151
15	0.35	150
16	0.34	151
17	0.35	151
18	0.36	151
19	0.42	152
20	0.44	153
21	0.48	154
22	0.53	155
23	0.53	154
24	0.45	150
Average		

IMPINGER WEIGHTS			
Impinger	Initial Wt.	Final Wt.	Total
1	681.7	695.0	
2	699.2	701.5	
3	601.4	602.7	
4	896.6	902.5	
Total			

PITOT LEAK CHECK (> 3")		
INITIAL	(+) ✓	(-) ✓
FINAL	(+) ✓	(-) ✓
TRAIN LEAK CHECK (ft^3 @ In, Hg.)		
INITIAL	0.000 @ 15"	
FINAL	0.000 @ 5"	

MOISTURE TRAIN ΔH = 1.0

SAMPLING TIME Clock	Sample	DRY GAS METER	DGM TEMP.	LAST IMPINGER TEMP.	TRAIN VACUUM
1445	0	427.608	78	67	1
	10	433.38	77	65	1
	20	438.32	76	62	1
	30	444.88	77	62	1
	40	450.92	77	63	1
1535	50	456.203	Stop		

M4 Sample Train I.D. : 5
Control Console I.D.: V
ΔH@: 1.8526 Y: 0.9256
Pitot Tube Type: S I.D. No.: P5-001 Coefficient:
Manometer Type: Incl I.D. No.: V
Thermometer Type: K I.D. No.: P5-001

NOTES:

URS

EPA M2/M4 DATA SHEET

Project Name: Battery Recycling

Project No.:

Date: 6/29/10

Test No.: 4

Location: Baghouse Stack

Personnel: TB BJ TG

Stack Dimensions:

Barometric Pressure: 29.95 in. Hg

Static Pressure: +0.30 in. H_2O

M2 Test Time : Start : 1546 Stop : 1554

VELOCITY TRAVERSE		
TRAVERSE POINT	VELOCITY PRESSURE (ΔP)	STACK TEMP.
1	0.54	155
2	0.57	158
3	0.56	162
4	0.56	164
5	0.52	164
6	0.41	165
7	0.42	165
8	0.48	167
9	0.50	167
10	0.51	168
11	0.47	167
12	0.29	159
13	0.32	155
14	0.35	159
15	0.36	160
16	0.38	161
17	0.39	162
18	0.37	163
19	0.44	166
20	0.51	168
21	0.54	170
22	0.57	171
23	0.57	171
24	0.42	164
Average		

IMPINGER WEIGHTS			
Impinger	Initial Wt.	Final Wt.	Total
1	729.3	756.5	
2	691.8	693.4	
3	605.8	605.8	
4	872.4	875.8	
Total			

PITOT LEAK CHECK (> 3")		
INITIAL	(+) ✓	(-) ✓
FINAL	(+) ✓	(-) ✓
TRAIN LEAK CHECK (ft^3 @ In, Hg.)		
INITIAL	0.000 @ 15"	
FINAL	0.000 @ 5"	

MOISTURE TRAIN ΔH =

SAMPLING TIME Clock	SAMPLING TIME Sample	DRY GAS METER	DGM TEMP.	LAST IMPINGER TEMP.	TRAIN VACUUM
1546	0	456.492	77	64	1
	10	462.15	77	55	1
	20	467.86	76	54	1
	30	473.57	77	56	1
	40	479.26	77	58	1
1636	50	484.940	Stop		

M4 Sample Train I.D. : 6

Control Console I.D.: V ΔH@: 1.8526 Y: 0.9256

Pitot Tube Type: S I.D. No.: P5-001 Coefficient:

Manometer Type: Inc I.D. No.: V

Thermometer Type: K I.D. No.: P5-001

NOTES:

URS

EPA M2/M4 DATA SHEET

Project Name: Battery Recycling
Project No.:
Date: 06/30/10

Test No.: 7
Location: Baghouse Stack
Personnel: JB BS TC

Stack Dimensions:
Barometric Pressure: 29.98 in. Hg
Static Pressure: 0.17 in. H_2O

M2 Test Time: Start: 0834 Stop: 0842

VELOCITY TRAVERSE		
TRAVERSE POINT	VELOCITY PRESSURE (ΔP)	STACK TEMP.
1	0.36	146
2	0.48	146
3	0.32	148
4	0.36	153
5	0.53	156
6	0.34	157
7	0.36	161
8	0.41	163
9	0.44	164
10	0.45	164
11	0.48	164
12	0.46	160
13	0.40	156
14	0.41	157
15	0.44	158
16	0.47	159
17	0.38	160
18	0.32	161
19	0.32	163
20	0.38	164
21	0.32	164
22	0.34	165
23	0.44	165
24	0.48	162
Average		

IMPINGER WEIGHTS			
Impinger	Initial Wt.	Final Wt.	Total
1	698.8	719.2	
2	686.8	689.4	
3	948.4	955.0	
4			
Total			

PITOT LEAK CHECK (> 3")		
INITIAL	(+) ✓	(-) ✓
FINAL	(+) ✓	(-) ✓
TRAIN LEAK CHECK (ft^3 @ in, Hg.)		
INITIAL	0.00	@ 14"
FINAL	0.00	@ 5"

MOISTURE TRAIN					
SAMPLING TIME Clock	Sample	DRY GAS METER	DGM TEMP.	LAST IMPINGER TEMP.	TRAIN VACUUM
0822	0	485.088	70	66	1
	10	491.12	71	65	1
	20	496.62	71	65	2
	30	501.98	72	65	1
	40	507.66	72	65	1
0912	50	513.284	Stop		

M4 Sample Train I.D.: 7
Control Console I.D.: V
Pitot Tube Type: S
Manometer Type: Incl
Thermometer Type: K

ΔH@: 1.8526
I.D. No.: PS-001
I.D. No.: V
I.D. No.: PS-001

Y: 0.9256
Coefficient: 0.833

NOTES:

URS

EPA M2/M4 DATA SHEET

Project Name: Battery Recycling
Project No.:
Date: 6/30/10

Test No.: 8
Location: Baghouse Stack
Personnel: TB BJ TB

Stack Dimensions:
Barometric Pressure: 29.98 in. Hg
Static Pressure: +0.41 in. H_2O

M2 Test Time : Start : 1636 Stop : 1643

VELOCITY TRAVERSE		
TRAVERSE POINT	VELOCITY PRESSURE (ΔP)	STACK TEMP.
1	0.31 ~~0.08~~	195 TB
2	0.34 ~~0.09~~	149
3	0.34 ~~0.09~~	153
4	0.33 ~~0.11~~	155
5	0.32 ~~0.09~~	157
6	0.35 ~~0.10~~	158
7	0.39 ~~0.15~~	160
8	0.45 ~~0.17~~	161
9	0.53 ~~0.17~~	161
10	0.56 ~~0.17~~	161
11	0.56 ~~0.16~~	160
12	0.45 ~~0.13~~	157
13	0.49	150
14	0.48	149
15	0.47	153
16	0.42	157
17	0.38	159
18	0.34	160
19	0.35	160
20	0.39	162
21	0.41	162
22	0.41	163
23	0.39	163
24	0.34	160
Average		

IMPINGER WEIGHTS			
Impinger	Initial Wt.	Final Wt.	Total
1	695.0	712.4	
2	701.5	703.1	
3	602.7	602.7	
4	902.5	908.1	
Total			

PITOT LEAK CHECK (> 3")		
INITIAL	(+) ✓	(-) ✓
FINAL	(+) ✓	(-) ✓
TRAIN LEAK CHECK (ft^3 @ In, Hg.)		
INITIAL	0.000 @ 15"	
FINAL	0.000 @ 8"	

MOISTURE TRAIN ΔH=1.0

SAMPLING TIME Clock	SAMPLING TIME Sample	DRY GAS METER	DGM TEMP.	LAST IMPINGER TEMP.	TRAIN VACUUM
1625	0	513.536	80	67	1
	10	519.25	80	64	1
	20	525.05	81	62	1
	30	530.88	81	60	1
	40	536.65	81	62	1
1715	50	542.441	Stop		

M4 Sample Train I.D. : 8
Control Console I.D.: V ΔH@: 1.8526 Y: 0.9256
Pitot Tube Type: S I.D. No.: P5-001 Coefficient:
Manometer Type: Inc I.D. No.: V
Thermometer Type: K I.D. No.: P5-001

NOTES:

URS

EPA M2/M4 DATA SHEET

Project Name: Battery Recycling
Project No.:
Date: 6/30/10

Test No.: 9
Location: Baghouse Stack
Personnel: TB BS TG

Stack Dimensions:
Barometric Pressure: 29.98 in. Hg
Static Pressure: +0.28 in. H_2O

M2 Test Time : Start : 1644 Stop : 1652

VELOCITY TRAVERSE		
TRAVERSE POINT	VELOCITY PRESSURE (ΔP)	STACK TEMP.
1	0.37	161
2	0.37	161
3	0.37	161
4	0.33	161
5	0.33	162
6	0.30	163
7	0.41	165
8	0.48	167
9	0.57	168
10	0.60	168
11	0.60	168
12	0.46	162
13	0.52	160
14	0.59	162
15	0.59	163
16	0.55	164
17	0.51	165
18	0.44	166
19	0.41	166
20	0.47	167
21	0.48	167
22	0.49	167
23	0.46	166
24	0.38	160
Average		

IMPINGER WEIGHTS			
Impinger	Initial Wt.	Final Wt.	Total
1			
2			
3			
4			
Total			

PITOT LEAK CHECK (> 3")		
INITIAL	(+) ✓	(-) ✓
FINAL	(+) ✓	(-) ✓
TRAIN LEAK CHECK (ft^3 @ In, Hg.)		
INITIAL	@	
FINAL	@	

MOISTURE TRAIN					
SAMPLING TIME		DRY GAS METER	DGM TEMP.	LAST IMPINGER TEMP.	TRAIN VACUUM
Clock	Sample				

M4 Sample Train I.D. :
Control Console I.D.: V ΔH@: Y:
Pitot Tube Type: S I.D. No.: PS-001 Coefficient:
Manometer Type: Inc I.D. No.: V
Thermometer Type: K I.D. No.: PS-001

NOTES:

URS

EPA M2/M4 DATA SHEET

Project Name: Battery Recycling
Project No.:
Date: 7/1/10

Test No.: 10
Location: Baghouse Stack
Personnel: TP TG BJ

Stack Dimensions:
Barometric Pressure: 29.95 in. Hg
Static Pressure: +0.37 in. H_2O

M2 Test Time : Start : 0852 Stop : 0900

VELOCITY TRAVERSE		
TRAVERSE POINT	VELOCITY PRESSURE (ΔP)	STACK TEMP.
1	0.67	174
2	0.62	176
3	0.58	177
4	0.52	178
5	0.45	179
6	0.39	178
7	0.40	179
8	0.43	179
9	0.45	179
10	0.47	179
11	0.43	178
12	0.38	174
13	0.31	170
14	0.33	172
15	0.34	173
16	0.34	174
17	0.35	174
18	0.35	175
19	0.42	177
20	0.49	178
21	0.53	179
22	0.57	180
23	0.57	180
24	0.46	174
Average		

IMPINGER WEIGHTS			
Impinger	Initial Wt.	Final Wt.	Total
1	756.5	771.6	
2	693.4	694.9	
3	605.8	605.2	
4	880.4	885.1	
Total			

PITOT LEAK CHECK (> 3")		
INITIAL	(+) ✓	(-) ✓
FINAL	(+) ✓	(-) ✓
TRAIN LEAK CHECK (ft^3 @ In, Hg.)		
INITIAL	0.000	@ 15"
FINAL	0.000	@ 8"

MOISTURE TRAIN ΔH = 1.0

SAMPLING TIME Clock	SAMPLING TIME Sample	DRY GAS METER	DGM TEMP.	LAST IMPINGER TEMP.	TRAIN VACUUM
0852	0	542.605	71	66	1
	10	548.40	72	59	1
	20	553.89	71	60	1
	30	559.55	72	62	1
	40	565.18	72	64	1
09:42	50	570.806	Stop		

M4 Sample Train I.D. :
Control Console I.D.: V ΔH@: 1.8526 Y: 0.9256
Pitot Tube Type: S I.D. No.: PS-001 Coefficient:
Manometer Type: Incl I.D. No.: V
Thermometer Type: K I.D. No.: PS-001

NOTES:

URS

EPA M2/M4 DATA SHEET

Project Name: Battery Recycling
Project No.:
Date: 7/1/10

Test No.: 1Φ
Location: Boghouse Stack
Personnel: TB BJ TG

Stack Dimensions:
Barometric Pressure: 29.95 in. Hg
Static Pressure: +0.28 in. H_2O

M2 Test Time : Start : 0901 Stop : 0909

VELOCITY TRAVERSE		
TRAVERSE POINT	VELOCITY PRESSURE (ΔP)	STACK TEMP.
1	0.37	174
2	0.38	175
3	0.36	175
4	0.37	175
5	0.34	176
6	0.34	176
7	0.42	177
8	0.50	178
9	0.55	180
10	0.57	180
11	0.57	180
12	0.46	175
13	0.50	174
14	0.53	175
15	0.56	176
16	0.54	177
17	0.44	178
18	0.41	178
19	0.40	178
20	0.44	178
21	0.45	179
22	0.45	179
23	0.44	178
24	0.31	169
Average		

IMPINGER WEIGHTS			
Impinger	Initial Wt.	Final Wt.	Total
1	719.2		
2	689.4		
3	955.0		
4			
Total			

PITOT LEAK CHECK (> 3")		
INITIAL	(+) ✓	(-) ✓
FINAL	(+) ✓	(-) ✓
TRAIN LEAK CHECK (ft^3 @ in, Hg.)		
INITIAL	@	
FINAL	@	

MOISTURE TRAIN					
SAMPLING TIME		DRY GAS METER	DGM TEMP.	LAST IMPINGER TEMP.	TRAIN VACUUM
Clock	Sample				

M4 Sample Train I.D. :
Control Console I.D.: I ΔH@: Y:
Pitot Tube Type: S I.D. No.: PS-001 Coefficient:
Manometer Type: Inc I.D. No.: I
Thermometer Type: K I.D. No.: PS-001

NOTES:

Method 6C
Sulfur Dioxide

Battery Recycling Company

SO_2 Summary of Results

Batch Averages				Calibration Corrected Data			Flow	Corrected Data	Time	Batch Data	Calculations		Corrected Data	Corrected Data
				(%)	(%)	(ppm)	(dscfm)	(lb/hr)	(hours)	(lb/batch)	(lbs/ton)	(hr/year)	(tons/yr)	(tons/yr/batch)
	Date	Start	End	CO_2	O_2	SO_2		SO_2		SO_2			SO_2	SO_2
Batch # 1	6/30/2010	8:18	13:00	19.67	1.23	15.44	40,622	6.26	7.28	45.60	2000	8760	27.42	27.88
	7/1/2010	6:45	9:18											
Batch # 2	6/30/2010	13:01	21:55	19.92	1.21	22.16	41,005	9.07	8.72	79.08	2000	8760	39.73	48.35
Batch # 3	6/30/2010	21:56	6:45	19.88	1.49	16.65	41,717	6.89	8.83	60.88	2000	8760	30.19	37.22
	7/1/2010													
Average per Batch				**19.82**	**1.31**	**18.09**	**41,115**	**7.41**		**61.85**	**2000**	**8760**	**32.45**	**37.82**

Method 5/12
Particulate Matter
&
Inorganic Lead

URS

SUMMARY OF RESULTS

Project Name:	Battery Recycling Co.
Project Number:	39400582.00001
Site Location:	New Furnace
Test Location:	Baghouse Stack

Parameters				Avgerage
Run Times	0841-0943	1005-1107	1125-1227	
Date	6/29/2010	6/29/2010	6/29/2010	
Sample Time	60	60	60	
Vol. Sampled @ STP (ft3)	36.644	37.478	36.527	36.883
Moisture Content (% Vol.)	4.4	3.9	4.0	4.1
O2 (%)	20.0	19.9	20.2	20.0
CO2 (%)	0.8	0.7	0.5	0.7
Stack Gas Temperature (°F)	191	190	184	188
Pitot Coef.	0.8420	0.8420	0.8420	0.8420
Stack Velocity (ft/min.)	2,356	2,447	2,377	2,393
Stack Velocity (ft/sec.)	39.27	40.78	39.61	39.89
Gas Flow Rate (ACFM)	50,199	52,129	50,640	50,989
Gas Flow Rate (SCFM)	40,778	42,340	41,547	41,555
Gas Flow Rate (DSCFM)	38,971	40,699	39,881	39,851
Percent Isokinetic	97.9	95.9	95.4	96.4
Particulate Conc. (Grains/DSCF)	0.0017	0.0023	0.0015	0.0018
Particulate Mass Rate (pounds/hr)	0.577	0.790	0.520	0.629
Particulate Mass Rate (tons/year)	2.53	3.46	2.28	2.755
Lead Concentration (grains/dscf)	0.00001	0.00006	0.00001	0.00002
Lead Mass rate (pounds/ hr)	0.00211	0.02068	0.00202	0.00827
Lead Mass rate (tons/year)	0.00924	0.09060	0.00886	0.03623

STACK TEST CALCULATIONS

Project:	Battery Recycling	Barom. Psr.:	29.97		Calculated
Project No:	39400582	Static Psr.:	-0.2	Ps:	29.955
Source:	aghouse Stack	Delta H @:	1.8526	As:	21.305
Run No.:	1	Gamma:	0.9256	An:	0.000341
Date:	6/29/2010	Pitot Coef.:	0.842		
Sample Volume:	40.125	Stack Dia.:	62.5	,in.	
Sample Time:	60	Nozzle Dia.:	0.25	,in.	
O2 Conc.:	20	H2O Gain:	36.1	,ml	
CO2 Conc.:	0.8	Part. Weight:	0.0041	,g	

TRAVERSE POINT NUMBER	VELOCITY DELTA P Actual	VELOCITY DELTA P Sq. Root	DELTA H	DRY GAS METER TEMPERATURE	STACK TEMP.
1	0.36	0.6	1.20	79	181
2	0.36	0.6	1.20	79	184
3	0.36	0.6	1.20	79	185
4	0.32	0.565685	1.10	79	187
5	0.32	0.565685	1.10	78	187
6	0.32	0.565685	1.10	78	188
7	0.36	0.6	1.20	78	191
8	0.41	0.640312	1.35	78	191
9	0.43	0.655744	1.45	77	192
10	0.46	0.678233	1.55	78	195
11	0.47	0.685565	1.55	77	197
12	0.46	0.678233	1.55	77	197
13	0.41	0.640312	1.35	77	191
14	0.44	0.663325	1.45	77	193
15	0.47	0.685565	1.55	77	193
16	0.44	0.663325	1.45	77	192
17	0.38	0.616441	1.25	77	194
18	0.34	0.583095	1.12	77	192
19	0.34	0.583095	1.12	77	192
20	0.40	0.632456	1.30	77	192
21	0.40	0.632456	1.30	77	192
22	0.41	0.640312	1.35	77	192
23	0.38	0.616441	1.25	77	191
24	0.38	0.616441	1.25	77	189
AVERAGE	0.3925	0.62535	1.3039167	77.54166667	190.75

Project: Battery Recycling
Project No: 39400582
Source: Baghouse Stack
Run No.: 1

Stack Sampling Calculations

Volume of Water Collected

Vwstd = (VI0)(0.04707)

Vwstd = 1.70 cubic feet

Volume of Gas Metered, Standard Conditions

Vmstd = ((17.64) (Vm)(Pb + DeltaH/13.6)(gamma))/Tm

Vmstd = 36.644 cubic feet

Moisture Content

Bwo = Vwstd/(Vmstd + Vwstd)

Bwo = 0.04

Molecular Weight of the Dry Gas Stream

Md = (.44)(%CO2) + (.32)(%O2) + (.28)(%CO +%N2)

Md = 28.9

Molecular Weight of Stack Gas

Ms = (Md(1-Bwo) + 18(bwo)

Ms = 28.4

Velocity of Stack Gas

Vs = 174 Cp (DeltaP sq.rt.)((Ts+459.6) X 29.92 X 28.96/Ps/Ms)^.5

Vs = 2,356.2 ft/min

Total Flow of Stack Gas

Qa = As X Vs

Qa = 50,199.06 ACFM

Qs = Qa X 528/Ts X Ps/29.92

Qs = 40,778.13 SCFM

Qstd = Qs(1 - Bwo)

Qstd = 38,970.98 DSCFM

Vsstd = Qstd/As

Vsstd = 1829.17 ft/min

Percent Isokinetic

Is = Vmstd/(An X Time X Vsstd)

Is = 0.98

Particulate Concentration

Cs = (15.43)(Mn)/Vmstd

Cs = 0.0017

Particulate Mass Rate

Pmr = (Mn)(Qstd)(60)/(Vmstd)(453.6)

Pmr = 0.58

STACK TEST CALCULATIONS

Project:	Battery Recycling	Barom. Psr.:	29.94		Calculated
Project No:	39400582	Static Psr.:	-0.24	Ps:	29.922
Source:	Baghouse Stack	Delta H @:	1.8526	As:	21.305
Run No.:	2	Gamma:	0.9256	An:	0.000341
Date:	6/29/2010	Pitot Coef.:	0.842		
Sample Volume:	40.965	Stack Dia.:	62.5	,in.	
Sample Time:	60	Nozzle Dia.:	0.25	,in.	
O2 Conc.:	19.9	H2O Gain:	32.1	,ml	
CO2 Conc.:	0.7	Part. Weight:	0.0055	,g	

TRAVERSE POINT NUMBER	VELOCITY DELTA P Actual	VELOCITY DELTA P Sq. Root	DELTA H	DRY GAS METER TEMPERATURE	STACK TEMP.
1	0.48	0.69282	1.57	76	195
2	0.53	0.728011	1.72	76	192
3	0.56	0.748331	1.85	76	192
4	0.53	0.728011	1.72	76	188
5	0.42	0.648074	1.37	76	190
6	0.38	0.616441	1.25	76	189
7	0.40	0.632456	1.30	76	192
8	0.44	0.663325	1.45	76	192
9	0.44	0.663325	1.45	76	193
10	0.46	0.678233	1.50	76	193
11	0.44	0.663325	1.45	76	192
12	0.44	0.663325	1.45	76	189
13	0.32	0.565685	1.05	76	186
14	0.32	0.565685	1.05	77	187
15	0.32	0.565685	1.05	76	186
16	0.32	0.565685	1.05	76	187
17	0.30	0.547723	0.98	76	188
18	0.32	0.565685	1.05	76	188
19	0.38	0.616441	1.25	76	190
20	0.44	0.663325	1.45	77	191
21	0.48	0.69282	1.57	77	191
22	0.50	0.707107	1.65	76	191
23	0.50	0.707107	1.65	77	191
24	0.50	0.707107	1.65	76	190
AVERAGE	0.4258333	0.649822	1.396875	76.16666667	190.125

Project: Battery Recycling
Project No: 39400582
Source: Baghouse Stack
Run No.: 2

Stack Sampling Calculations

Volume of Water Collected

Vwstd = (VI0)(0.04707)

Vwstd = 1.51 cubic feet

Volume of Gas Metered, Standard Conditions

Vmstd = ((17.64) (Vm)(Pb + DeltaH/13.6)(gamma))/Tm

Vmstd = 37.478 cubic feet

Moisture Content

Bwo = Vwstd/(Vmstd + Vwstd)

Bwo = 0.04

Molecular Weight of the Dry Gas Stream

Md = (.44)(%CO2) + (.32)(%O2) + (.28)(%CO +%N2)

Md = 28.9

Molecular Weight of Stack Gas

Ms = (Md(1-Bwo) + 18(bwo)

Ms = 28.5

Velocity of Stack Gas

Vs = 174 Cp (DeltaP sq.rt.)((Ts+459.6) X 29.92 X 28.96/Ps/Ms)^.5

Vs = 2,446.8 ft/min

Total Flow of Stack Gas

Qa = As X Vs

Qa = 52,129.04 ACFM

Qs = Qa X 528/Ts X Ps/29.92

Qs = 42,340.01 SCFM

Qstd = Qs(1 - Bwo)

Qstd = 40,699.19 DSCFM

Vsstd = Qstd/As

Vsstd = 1910.29 ft/min

Percent Isokinetic

Is = Vmstd/(An X Time X Vsstd)

Is = 0.96

Particulate Concentration

Cs = (15.43)(Mn)/Vmstd

Cs = 0.0023

Particulate Mass Rate

Pmr = (Mn)(Qstd)(60)/(Vmstd)(453.6)

Pmr = 0.79

STACK TEST CALCULATIONS

Project:	Battery Recycling	Barom. Psr.:	29.94		Calculated
Project No:	39400582	Static Psr.:	-0.23	Ps:	29.923
Source:	Baghouse Stack	Delta H @:	1.8526	As:	21.305
Run No.:	3	Gamma:	0.9256	An:	0.000341
Date:	6/29/2010	Pitot Coef.:	0.842		
Sample Volume:	40.02	Stack Dia.:	62.5	,in.	
Sample Time:	60	Nozzle Dia.:	0.25	,in.	
O2 Conc.:	20.2	H2O Gain:	32.4	,ml	
CO2 Conc.:	0.45	Part. Weight:	0.0036	,g	

TRAVERSE POINT NUMBER	VELOCITY DELTA P Actual	Sq. Root	DELTA H	DRY GAS METER TEMPERATURE	STACK TEMP.
1	0.32	0.565685	1.05	76	183
2	0.34	0.583095	1.12	76	183
3	0.34	0.583095	1.12	76	183
4	0.32	0.565685	1.05	76	183
5	0.32	0.565685	1.05	76	183
6	0.32	0.565685	1.05	77	184
7	0.36	0.6	1.17	77	186
8	0.42	0.648074	1.37	77	187
9	0.46	0.678233	1.50	77	187
10	0.48	0.69282	1.55	77	186
11	0.48	0.69282	1.55	77	185
12	0.48	0.69282	1.55	77	185
13	0.46	0.678233	1.50	77	182
14	0.48	0.69282	1.55	78	182
15	0.50	0.707107	1.65	78	182
16	0.46	0.678233	1.50	78	181
17	0.42	0.648074	1.37	78	182
18	0.34	0.583095	1.12	78	183
19	0.38	0.616441	1.25	78	184
20	0.40	0.632456	1.30	78	183
21	0.40	0.632456	1.30	78	184
22	0.42	0.648074	1.37	78	184
23	0.40	0.632456	1.30	79	183
24	0.40	0.632456	1.30	79	182
AVERAGE	0.4041667	0.633983	1.3183333	77.33333333	183.625

Project: Battery Recycling
Project No: 39400582
Source: Baghouse Stack
Run No.: 3

Stack Sampling Calculations

Volume of Water Collected

Vwstd = (VI0)(0.04707)

Vwstd = 1.53 cubic feet

Volume of Gas Metered, Standard Conditions

Vmstd = ((17.64) (Vm)(Pb + DeltaH/13.6)(gamma))/Tm

Vmstd = 36.527 cubic feet

Moisture Content

Bwo = Vwstd/(Vmstd + Vwstd)

Bwo = 0.04

Molecular Weight of the Dry Gas Stream

Md = (.44)(%CO2) + (.32)(%O2) + (.28)(%CO +%N2)

Md = 28.9

Molecular Weight of Stack Gas

Ms = (Md(1-Bwo) + 18(bwo)

Ms = 28.4

Velocity of Stack Gas

Vs = 174 Cp (DeltaP sq.rt.)((Ts+459.6) X 29.92 X 28.96/Ps/Ms)^.5

Vs = 2,376.9 ft/min

Total Flow of Stack Gas

Qa = As X Vs

Qa = 50,639.53 ACFM

Qs = Qa X 528/Ts X Ps/29.92

Qs = 41,546.60 SCFM

Qstd = Qs(1 - Bwo)

Qstd = 39,881.47 DSCFM

Vsstd = Qstd/As

Vsstd = 1871.91 ft/min

Percent Isokinetic

Is = Vmstd/(An X Time X Vsstd)

Is = 0.95

Particulate Concentration

Cs = (15.43)(Mn)/Vmstd

Cs = 0.0015

Particulate Mass Rate

Pmr = (Mn)(Qstd)(60)/(Vmstd)(453.6)

Pmr = 0.52

URS

TEST LAB DATA SHEET

PROJECT:	Battery Recycling Company	PROJECT NO.:	
SOURCE:	Baghouse Stack	TEST DATE:	6/29/2010
TRAIN I.D.		TEST NO.:	M5/M12 Run 1
COLLECTED BY:	TG, BJ, TB, MM	CHKD BY:	TG

CONDENSATION

IMPINGER NO.	INITIAL VOL.,ml/g	FINAL VOL., ml/g	NET GAIN, ml/g
1	802.5	823.4	20.9
2	744.4	750.2	5.8
3	600.6	603.4	2.8
4	858.3	864.9	6.6
5			0
6			0
7			0
TOTAL	3005.8	3041.9	36.1

PARTICULATE

SAMPLE I.D. NO.	INITIAL WT., g	FINIAL WT., g	NET WT., g
PROBE WASH	12.5074	12.5115	0.0041
REAGENT BLANK	12.4854	12.4857	0.0003
CORRECTED PROBE WASH *			0.0038
FILTER # 1	0.3474	0.3477	0.0003
FILTER # 2			0
IMPINGERS			0

* subtract reagent blank from probe wash

TOTAL PARTICULATED COLLECTED

PARTICULATE COLLECTED (excluding impinger catch)	0.0041
PARTICULATE COLLECTED (including impinger catch)	

QA PROBE WASH (as required)

SAMPLE I.D. NO.	INITIAL WT., g	FINIAL WT., g	NET WT., g

COMMENTS:

URS

TEST LAB DATA SHEET

PROJECT:	Battery Recycling Company	PROJECT NO.:	
SOURCE:	Baghouse Stack	TEST DATE:	6/29/2010
TRAIN I.D.		TEST NO.:	M5/M12 Run 2
COLLECTED BY:	TG, BJ, TB, MM	CHKD BY:	TG

CONDENSATION

IMPINGER NO.	INITIAL VOL.,ml/g	FINAL VOL., ml/g	NET GAIN, ml/g
1	728.3	748.9	20.6
2	732.3	736.6	4.3
3	606.1	606.4	0.3
4	894.9	901.8	6.9
5			0
6			0
7			0
TOTAL	2961.6	2993.7	32.1

PARTICULATE

SAMPLE I.D. NO.	INITIAL WT., g	FINIAL WT., g	NET WT., g
PROBE WASH	12.786	12.7913	0.0053
REAGENT BLANK	12.4854	12.4857	0.0003
CORRECTED PROBE WASH *			0.005
FILTER # 1	0.3464	0.3469	0.0005
FILTER # 2			0
IMPINGERS			0

* subtract reagent blank from probe wash

TOTAL PARTICULATED COLLECTED

PARTICULATE COLLECTED (excluding impinger catch)	0.0055
PARTICULATE COLLECTED (including impinger catch)	

QA PROBE WASH (as required)

SAMPLE I.D. NO.	INITIAL WT., g	FINIAL WT., g	NET WT., g

COMMENTS:

URS

TEST LAB DATA SHEET

PROJECT:	Battery Recycling Company	PROJECT NO.:	
SOURCE:	Baghouse Stack	TEST DATE:	6/29/2010
TRAIN I.D.		TEST NO.:	M5/M12 Run 3
COLLECTED BY:	TG, BJ, TB, MM	CHKD BY:	TG

CONDENSATION

IMPINGER NO.	INITIAL VOL.,ml/g	FINAL VOL., ml/g	NET GAIN, ml/g
1	707.2	722.3	15.1
2	651.6	659.9	8.3
3	602.6	604.1	1.5
4	864.9	872.4	7.5
5			0
6			0
7			0
TOTAL	2826.3	2858.7	32.4

PARTICULATE

SAMPLE I.D. NO.	INITIAL WT., g	FINIAL WT., g	NET WT., g
PROBE WASH	12.4768	12.48	0.0032
REAGENT BLANK	12.4854	12.4857	0.0003
CORRECTED PROBE WASH *			0.0029
FILTER # 1	0.3514	0.3521	0.0007
FILTER # 2			0
IMPINGERS			0

* subtract reagent blank from probe wash

TOTAL PARTICULATED COLLECTED

PARTICULATE COLLECTED (excluding impinger catch)	0.0036
PARTICULATE COLLECTED (including impinger catch)	

QA PROBE WASH (as required)

SAMPLE I.D. NO.	INITIAL WT., g	FINIAL WT., g	NET WT., g

COMMENTS:

Project: Battery Recycling Company
Project No.: 39400582
Date: June 29, 2010

Lead Mass Emission Calculations

INPUT PARAMETERS

Lead	Total ug	grams/sample	Vmstd	Qstd	Mass Rate (lbs/hr)	Lead Concentration (grains/dscf)
Run 1	15	0.0000150	36.644	38,971	0.0021101	0.0000063
Run 2	144	0.0001440	37.478	40,699	0.0206848	0.0000593
Run 3	14	0.0000140	36.527	39,881	0.0020219	0.0000059
			Average		0.0062042	0.0000179
			Compliance Limit			0.000870
					Tons/year	0.0271745

Lead Mass Rate (lb/hr)

Mmr= (Mn)(Qstd)(60)/(Vmstd)(453.6)

Mn= grams/sample
Qstd= stack gas flow rate (dscfm)
Vmstd= volume of air sample (@ stp)

Lead Mass Rate (Tons/year)

mass rate (Tons/year) = mass rate(lbs/hr) * 24(hrs) * 365(days) / 2000(lbs/ton)

URS **STACK TEST DATA SHEET** TEST METHOD: M5 / M12

PROJECT: Battery Recycling	BAROMETRIC (Pb): 29.97	STACK DIA.: 62.5"Ø	
PROJECT NO.:	STATIC (Ps): ~0.20	PORT LENGTH: 3"	
SOURCE: Baghouse Stack	CONSOLE I.D.: V	PROBE/PITOT I.D.: S-001	
RUN I.D.: 1	DELTA H @: 1.8526	PITOT COEF.:	
DATE: 6-29-10	GAMMA: 0.9256	PROBE LINER: glass	
OPERATORS: MM, TG, BJ, TB	TEST DURATION: 60	FILTER NO.: G1065	

TRAVERSE POINT NUMBER	SAMPLING TIME Clock	SAMPLING TIME Sample	VELOCITY ΔP	SAMPLE ΔH	GAS SAMPLE VOLUME	STACK TEMP.	PROBE TEMP.	FILTER BOX TEMP.	LAST IMPINGER TEMP.	DRY GAS METER TEMP.	TRAIN VACUUM	
1	08:41	0	0.36	1.20	275.940	181	247	242	65	79	0	
2		2.5	0.36	1.20	277.90	184	241	243	65	79	0	
3		5.0	0.36	1.20	279.90	185	241	241	64	79	0	
4		7.5	0.32	1.10	281.40	187	244	241	61	79	0	
5		10.0	0.32	1.10	282.70	187	242	241	59	78	0	
6		12.5	0.32	1.10	284.30	188	247	239	57	78	0	
7		15.0	0.36	1.20	285.70	191	241	240	59	78	0	
8		17.5	0.41	1.35	287.10	191	241	242	58	78	0	
9		20.0	0.43	1.45	288.60	192	241	243	58	77	0	
10		22.5	0.46	1.55	290.10	195	239	240	54	78	1	
11		25.0	0.47	1.55	291.90	197	241	239	54	77	1	
12		27.5	0.46	1.55	294.20	197	239	241	56	77	1	
1		30.0	0.41	1.35	295.68	191	242	243	56	77	1	
2		32.5	0.44	1.45	298.50	193	240	241	54	77	1	
3		35.0	0.47	1.55	299.80	193	241	240	54	77	1	
4		37.5	0.44	1.45	301.20	192	240	241	55	77	1	
5		40.0	0.38	1.25	303.30	194	242	242	55	77	1	
6		42.5	0.34	1.12	304.90	192	240	240	56	77	1	
7		45.0	0.34	1.12	306.10	192	241	240	56	77	1	
8		47.5	0.40	1.30	307.80	192	240	241	56	77	1	
9		50.0	0.40	1.30	309.50	192	241	242	56	77	1	
10		52.5	0.41	1.35	311.00	192	242	240	56	77	1	
11		55.0	0.38	1.25	312.90	191	239	243	56	77	1	
12		57.5	0.38	1.25	314.80	189	240	243	57	77	1	
	09:43	60.0			316.065							
AVERAGE												

PITOT LEAK CHECK (> 3")		
INITIAL	(+) ✓	(-) ✓
FINAL	(+) ✓	(-) ✓
TRAIN LEAK CHECK (ft^3 @ in, Hg.)		
INITIAL	0.0	@15"
FINAL	0.0	@ 5"

NOZZLE MEASUREMENT	
NOZZLE I.D.:	N12
1	~~.242~~ 0.250
2	0.250
3	0.250
Avg.	0.250

STACK GAS ANALYSIS			
	CO2	O2	
1	0.80	20.0	
2	0.80	20.0	
3	0.60	20.1	
Avg.			

NOTES:

URS

M5 PARTICULATE TEST LAB DATA SHEET

PROJECT: Battery Recycling
SOURCE: Baghouse Stack
TRAIN I.D.: M12-1
COLLECTED BY:

JOB NO.:
DATE: 6-29-10
TEST NO.: 1
CHKD. BY:

CONDENSATION

IMPINGER NO.	INITIAL VOL., ml/g	FINAL VOL., ml/g	NET GAIN, ml/g
1	802.5	823.4	
2	744.4	750.2	
3	600.6	603.4	
4	858.3	864.9	
5			
6			
7			
TOTAL			

PARTICULATE

SAMPLE I.D. NO.	INITIAL WT., g	FINAL WT., g	NET WT., g
PROBE WASH			
REAGENT BLANK			
CORRECTED PROBE WASH*			
#1 FILTER			
#2 FILTER			
IMPINGERS			
PARTICULATE COLLECTED			

*subtract reagent blank from probe wash

CALIBRATION WEIGHT

CALIBRATED VALUE, g	MEASURED VALUE, g	DIFFERENCE, g

URS **STACK TEST DATA SHEET** TEST METHOD: M5 / M12

PROJECT: Battery Recycling	BAROMETRIC (Pb): 29.94	STACK DIA.: 62.5"Ø	
PROJECT NO.:	STATIC (Ps): -0.24	PORT LENGTH: 3"	
SOURCE: Baghouse Stack	CONSOLE I.D.: V	PROBE/PITOT I.D.:	
RUN I.D.: 2	DELTA H @: 1.8526	PITOT COEF.:	
DATE: 6-29-10	GAMMA: 0.9256	PROBE LINER: glass	
OPERATORS: TG, BJ, TB	TEST DURATION: 60	FILTER NO.: G 1066	

TRAVERSE POINT NUMBER	SAMPLING TIME Clock	SAMPLING TIME Sample	VELOCITY ΔP	SAMPLE ΔH	GAS SAMPLE VOLUME	STACK TEMP.	PROBE TEMP.	FILTER BOX TEMP.	LAST IMPINGER TEMP.	DRY GAS METER TEMP.	TRAIN VACUUM	
1	10:05	0	0.48	1.57	317.105	195	242	227	67	76	1.0	
2		2.5	0.53	1.72	319.20	192	240	240	67	76	1.0	
3		5.0	0.56	1.85	321.40	192	239	238	57	76	1.0	
4		7.5	0.53	1.72	323.10	188	241	241	55	76	1.0	
5		10.0	0.42	1.37	324.90	190	239	239	54	76	1.0	
6		12.5	0.38	1.25	327.00	189	241	242	55	76	1.0	
7		15.0	0.40	1.30	328.40	192	241	240	55	76	1.0	
8		17.5	0.44	1.45	329.70	192	237	239	56	76	1.0	
9		20.0	0.44	1.45	331.80	193	239	241	56	76	1.0	
10		22.5	0.46	1.50	333.60	193	239	242	55	76	1.0	
11		25.0	0.44	1.45	335.40	192	243	240	55	76	1.0	
12		27.5	0.44	1.45	337.50	189	242	243	55	76	1.0	
1		30.0	0.32	1.05	338.565	186	242	241	61	76	1.0	
2		32.5	0.32	1.05	340.10	187	240	240	56	77	1.0	
3		35.0	0.32	1.05	341.70	186	241	240	56	76	1.0	
4		37.5	0.32	1.05	343.00	187	242	240	56	76	1.0	
5		40.0	0.30	0.975	344.40	188	240	242	56	76	1.0	
6		42.5	0.32	1.05	345.90	188	241	241	57	76	1.0	
7		45.0	0.38	1.25	348.00	190	240	241	57	76	1.0	
8		47.5	0.44	1.45	349.00	191	241	239	58	77	1.0	
9		50.0	0.48	1.57	350.80	191	236	240	58	77	1.0	
10		52.5	0.50	1.65	352.40	191	240	243	58	76	1.0	
11		55.0	0.50	1.65	354.30	191	238	238	58	77	1.0	
12		57.5	0.50	1.65	356.40	190	240	242	58	76	1.0	
	11:07	60.0			358.070							
AVERAGE												

PITOT LEAK CHECK (> 3")		
INITIAL	(+) ✓	(-) ✓
FINAL	(+) ✓	(-) ✓
TRAIN LEAK CHECK (ft^3 @ in, Hg.)		
INITIAL	0.0	@ 16"
FINAL	0.0	@ 5"

NOZZLE MEASUREMENT	
NOZZLE I.D.:	N12
1	0.250
2	0.250
3	0.250
Avg.	0.250

STACK GAS ANALYSIS			
	CO2	O2	
1	0.50	19.9	
2	0.90	19.9	
3	0.70	20.0	
Avg.			

NOTES:

URS

M5 PARTICULATE TEST LAB DATA SHEET

PROJECT: Battery Recycling
SOURCE: Baghouse Stack
TRAIN I.D.: M12-2
COLLECTED BY:

JOB NO.:
DATE: 6-29-10
TEST NO.: 2
CHKD. BY:

CONDENSATION

IMPINGER NO.	INITIAL VOL., ml/g	FINAL VOL., ml/g	NET GAIN, ml/g
1	728.3	748.9	
2	732.3	736.6	
3	606.1	606.4	
4	894.9	901.8	
5			
6			
7			
TOTAL			

PARTICULATE

SAMPLE I.D. NO.	INITIAL WT., g	FINAL WT., g	NET WT., g
PROBE WASH			
REAGENT BLANK			
CORRECTED PROBE WASH*			
#1 FILTER			
#2 FILTER			
IMPINGERS			
PARTICULATE COLLECTED			

*subtract reagent blank from probe wash

CALIBRATION WEIGHT

CALIBRATED VALUE, g	MEASURED VALUE, g	DIFFERENCE, g

URS **STACK TEST DATA SHEET** TEST METHOD: M5 / M12

PROJECT: Battery Recycling	BAROMETRIC (Pb): 29.94	STACK DIA.: 62.5"Ø	
PROJECT NO.:	STATIC (Ps): -0.23	PORT LENGTH: 3"	
SOURCE: Baghouse Stack	CONSOLE I.D.: V	PROBE/PITOT I.D.:	
RUN I.D.: 3	DELTA H @: 1.8526	PITOT COEF.:	
DATE: 6-29-10	GAMMA: 0.9256	PROBE LINER: glass	
OPERATORS: TG, BJ, TB	TEST DURATION: 60	FILTER NO.: 61067	

TRAVERSE POINT NUMBER	SAMPLING TIME Clock	SAMPLING TIME Sample	VELOCITY ΔP	SAMPLE ΔH	GAS SAMPLE VOLUME	STACK TEMP.	PROBE TEMP.	FILTER BOX TEMP.	LAST IMPINGER TEMP.	DRY GAS METER TEMP.	TRAIN VACUUM	
1	11:25	0	0.32	1.05	358.600	~~242~~ 183	233	242	68	76	1.0	
2		2.5	0.34	1.12	360.30	183	241	238	58	76	1.0	
3		5.0	0.34	1.12	361.70	183	240	242	52	76	1.0	
4		7.5	0.32	1.05	363.40	183	240	241	51	76	1.0	
5		10.0	0.32	1.05	364.90	183	239	242	51	76	1.0	
6		12.5	0.32	1.05	366.40	184	244	240	50	77	1.0	
7		15.0	0.36	1.17	368.10	186	240	241	49	77	1.0	
8		17.5	0.42	1.37	369.60	187	243	244	50	77	1.0	
9		20.0	0.46	1.50	371.20	187	242	239	50	77	1.0	
10		22.5	0.48	1.55	372.80	186	242	242	50	77	1.0	
11		25.0	0.48	1.55	374.80	185	240	242	50	77	1.0	
12		27.5	0.48	1.55	376.50	185	241	239	50	77	1.0	
1		30.0	0.46	1.50	378.125	182	244	243	55	77	1.0	
2		32.5	0.48	1.55	379.90	182	243	244	52	78	1.0	
3		35.0	0.50	1.65	382.40	182	238	240	52	78	1.0	
4		37.5	0.46	1.50	384.50	181	240	240	53	78	1.0	
5		40.0	0.42	1.37	385.60	182	239	240	53	78	1.0	
6		42.5	0.34	1.12	387.00	183	240	240	54	78	1.0	
7		45.0	0.38	1.25	389.20	184	240	240	55	78	1.0	
8		47.5	0.40	1.30	390.60	183	241	240	55	78	1.0	
9		50.0	0.40	1.30	392.00	184	239	241	56	78	1.0	
10		52.5	0.42	1.37	393.80	184	239	241	55	78	1.0	
11		55.0	0.40	1.30	395.40	183	238	239	55	79	1.0	
12		57.5	0.40	1.30	396.80	182	239	240	56	79	1.0	
	12:27	60.0			398.620							
AVERAGE												

PITOT LEAK CHECK (> 3")		
INITIAL	(+) ✓	(-) ✓
FINAL	(+) ✓	(-) ✓
TRAIN LEAK CHECK (ft^3 @ In, Hg.)		
INITIAL	0.0	@ 10"
FINAL	0.0	@ 5"

NOZZLE MEASUREMENT	
NOZZLE I.D.:	N12
1	0.250
2	0.250
3	0.250
Avg.	0.250

STACK GAS ANALYSIS			
	CO2	O2	
1	0.60	20.1	
2	0.40	20.2	
3	0.40	20.2	
Avg.			

NOTES:

URS

M5 PARTICULATE TEST LAB DATA SHEET

PROJECT: Battery Recycling
SOURCE: Baghouse Stack
TRAIN I.D.: M12-3
COLLECTED BY:

JOB NO.:
DATE: 6-29-10
TEST NO.: 3
CHKD. BY:

CONDENSATION

IMPINGER NO.	INITIAL VOL., ml/g	FINAL VOL., ml/g	NET GAIN, ml/g
1	707.2	722.3	
2	651.6	659.9	
3	602.6	604.1	
4	864.9	872.4	
5			
6			
7			
TOTAL			

PARTICULATE

SAMPLE I.D. NO.	INITIAL WT., g	FINAL WT., g	NET WT., g
PROBE WASH			
REAGENT BLANK			
CORRECTED PROBE WASH*			
#1 FILTER			
#2 FILTER			
IMPINGERS			
PARTICULATE COLLECTED			

*subtract reagent blank from probe wash

CALIBRATION WEIGHT

CALIBRATED VALUE, g	MEASURED VALUE, g	DIFFERENCE, g

Raw Test Data
6/30/2010

Date	Hour	O2	CO2	SO2
6/30/2010	8:05	19.04	5.08	-0.90
6/30/2010	8:06	19.04	5.09	-1.17
6/30/2010	8:07	19.04	5.12	-1.01
6/30/2010	8:08	19.06	5.08	-1.15
6/30/2010	8:09	19.01	4.93	-1.24
6/30/2010	8:10	10.26	2.43	5.75
6/30/2010	8:11	0.08	-0.14	35.22
6/30/2010	8:12	-0.01	-0.14	42.96
6/30/2010	8:13	-0.02	-0.17	45.64
6/30/2010	8:14	-0.02	-0.18	46.72
6/30/2010	8:15	-0.03	-0.17	47.63
6/30/2010	8:16	-0.02	-0.17	47.75
6/30/2010	8:17	15.05	0.69	47.75
6/30/2010	8:18	19.58	1.09	62.57
6/30/2010	8:19	19.63	1.09	2.41
6/30/2010	8:20	19.67	0.27	16.42
6/30/2010	8:21	19.65	0.88	15.35
6/30/2010	8:22	19.67	1.01	11.74
6/30/2010	8:23	19.66	1.2	2.75
6/30/2010	8:24	19.71	0.67	16.42
6/30/2010	8:25	19.63	0.19	16.42
6/30/2010	8:26	19.62	0.19	16.42
6/30/2010	8:27	19.66	0.93	16.42
6/30/2010	8:28	19.65	0.99	14.46
6/30/2010	8:29	19.7	0.97	13.55
6/30/2010	8:30	19.66	1.2	1.84
6/30/2010	8:31	19.67	1.53	87.93
6/30/2010	8:32	19.66	1.24	1.98
6/30/2010	8:33	19.63	0.31	16.42
6/30/2010	8:34	19.65	0.11	16.42
6/30/2010	8:35	19.67	0.2	16.42
6/30/2010	8:36	19.62	0.48	10.75
6/30/2010	8:37	19.6	1.25	79.01
6/30/2010	8:38	19.55	1.24	73.21
6/30/2010	8:39	19.59	1.26	92.33
6/30/2010	8:40	19.64	1.23	5.67
6/30/2010	8:41	19.51	1.54	79.18
6/30/2010	8:42	19.55	1.54	79.24
6/30/2010	8:43	19.57	1.49	75.62
6/30/2010	8:44	19.46	1.65	79.71
6/30/2010	8:45	19.32	1.18	94.99
6/30/2010	8:46	19.46	1.05	13.98
6/30/2010	8:47	19.54	0.03	9.90
6/30/2010	8:48	19.57	0.49	6.40
6/30/2010	8:49	19.59	0.74	4.80
6/30/2010	8:50	19.58	0.9	16.42
6/30/2010	8:51	19.59	1.05	13.96
6/30/2010	8:52	19.6	1.13	15.29
6/30/2010	8:53	19.6	1.15	11.23
6/30/2010	8:54	19.62	1.18	6.98
6/30/2010	8:55	19.63	1.18	3.37
6/30/2010	8:56	19.61	1.25	0.96
6/30/2010	8:57	19.63	1.24	1.28
6/30/2010	8:58	19.62	1.26	3.58
6/30/2010	8:59	19.6	1.28	6.15
6/30/2010	9:00	19.61	1.3	7.62
6/30/2010	9:01	19.61	1.29	9.22
6/30/2010	9:02	19.61	1.25	11.20

Date	Hour	O2	CO2	SO2
6/30/2010	9:03	19.61	1.27	12.40
6/30/2010	9:04	19.62	1.26	13.37
6/30/2010	9:05	19.6	1.32	13.96
6/30/2010	9:06	19.63	1.26	15.85
6/30/2010	9:07	19.62	1.25	16.98
6/30/2010	9:08	19.62	1.28	17.75
6/30/2010	9:09	19.58	1.41	15.75
6/30/2010	9:10	19.48	1.19	13.66
6/30/2010	9:11	19.39	1.36	9.78
6/30/2010	9:12	19.39	1.54	19.12
6/30/2010	9:13	19.41	1.54	22.24
6/30/2010	9:14	19.48	1.54	22.00
6/30/2010	9:15	19.52	1.49	19.65
6/30/2010	9:16	19.5	1.65	7.08
6/30/2010	9:17	19.35	1.31	76.55
6/30/2010	9:18	19.38	1.53	89.34
6/30/2010	9:19	19.5	1.53	66.79
6/30/2010	9:20	19.59	0.61	60.60
6/30/2010	9:21	19.54	0.16	77.70
6/30/2010	9:22	19.51	0.14	46.00
6/30/2010	9:23	19.53	0.7	26.90
6/30/2010	9:24	19.55	1.14	19.50
6/30/2010	9:25	19.52	1.3	17.80
6/30/2010	9:26	19.55	1.36	16.70
6/30/2010	9:27	19.51	1.32	17.60
6/30/2010	9:28	19.49	0.51	12.90
6/30/2010	9:29	19.52	1.1	15.96
6/30/2010	9:30	19.52	1.37	9.54
6/30/2010	9:31	19.51	1.57	8.98
6/30/2010	9:32	19.36	1.45	16.42
6/30/2010	9:33	19.31	1.48	12.67
6/30/2010	9:34	19.3	1.6	5.48
6/30/2010	9:35	19.33	1.64	4.04
6/30/2010	9:36	19.32	1.59	1.12
6/30/2010	9:37	19.32	1.72	2.38
6/30/2010	9:38	19.35	1.72	2.86
6/30/2010	9:39	19.33	1.8	4.28
6/30/2010	9:40	19.3	1.77	3.23
6/30/2010	9:41	19.33	1.78	3.29
6/30/2010	9:42	19.45	1.51	5.48
6/30/2010	9:43	19.62	1.35	9.33
6/30/2010	9:44	19.65	1.36	8.37
6/30/2010	9:45	19.63	1.26	8.07
6/30/2010	9:46	19.65	1.16	9.09
6/30/2010	9:47	19.64	1.16	8.64
6/30/2010	9:48	19.68	1.13	8.77
6/30/2010	9:49	19.64	1.37	8.74
6/30/2010	9:50	19.64	1.34	9.84
6/30/2010	9:51	19.66	1.24	10.67
6/30/2010	9:52	19.64	1.39	7.91
6/30/2010	9:53	19.62	1.28	9.49
6/30/2010	9:54	19.61	1.19	13.98
6/30/2010	9:55	19.61	1.51	4.65
6/30/2010	9:56	19.58	1.37	10.88
6/30/2010	9:57	19.59	1.41	14.41
6/30/2010	9:58	19.62	1.39	13.55
6/30/2010	9:59	19.63	1.36	13.21
6/30/2010	10:00	19.66	1.3	13.88
6/30/2010	10:01	19.63	1.27	13.23
6/30/2010	10:02	19.58	0.13	59.57

Date	Hour	O2	CO2	SO2
6/30/2010	10:03	19.61	0.54	15.08
6/30/2010	10:04	19.62	0.97	11.87
6/30/2010	10:05	19.61	1.25	6.50
6/30/2010	10:06	19.61	1.47	1.68
6/30/2010	10:07	19.66	0.11	16.42
6/30/2010	10:08	19.67	0.68	16.42
6/30/2010	10:09	19.67	1.09	10.13
6/30/2010	10:10	19.68	1.3	4.89
6/30/2010	10:11	19.62	1.39	62.59
6/30/2010	10:12	19.62	0.14	16.42
6/30/2010	10:13	19.63	1.01	13.82
6/30/2010	10:14	19.63	1.14	3.53
6/30/2010	10:15	19.66	1.35	7.27
6/30/2010	10:16	19.68	0.63	53.10
6/30/2010	10:17	19.65	0.57	16.42
6/30/2010	10:18	19.66	0.81	16.17
6/30/2010	10:19	19.64	1.06	2.06
6/30/2010	10:20	19.64	1.18	10.08
6/30/2010	10:21	19.66	1.44	3.61
6/30/2010	10:22	19.64	1.08	16.25
6/30/2010	10:23	19.64	0.62	16.31
6/30/2010	10:24	19.63	1.18	6.12
6/30/2010	10:25	19.66	1.14	5.19
6/30/2010	10:26	19.65	1.11	16.12
6/30/2010	10:27	19.65	1.05	20.99
6/30/2010	10:28	19.64	1.02	24.81
6/30/2010	10:29	19.7	0.98	1.55
6/30/2010	10:30	19.64	0.94	16.42
6/30/2010	10:31	19.61	0.04	16.42
6/30/2010	10:32	19.56	1.35	73.86
6/30/2010	10:33	19.54	1.91	90.25
6/30/2010	10:34	19.58	1.26	94.58
6/30/2010	10:35	19.57	1.53	98.24
6/30/2010	10:36	19.59	1.53	95.89
6/30/2010	10:37	19.63	1.53	89.78
6/30/2010	10:38	19.62	1.53	91.40
6/30/2010	10:39	19.63	1.01	14.52
6/30/2010	10:40	19.55	1.12	16.70
6/30/2010	10:41	19.49	0.54	17.60
6/30/2010	10:42	19.48	0.88	12.90
6/30/2010	10:43	19.52	0.01	16.20
6/30/2010	10:44	19.55	0.7	9.90
6/30/2010	10:45	19.56	0.9	4.60
6/30/2010	10:46	19.57	1.11	3.90
6/30/2010	10:47	19.55	1.19	2.40
6/30/2010	10:48	19.55	1.24	2.70
6/30/2010	10:49	19.56	1.32	1.30
6/30/2010	10:50	19.53	0.89	1.10
6/30/2010	10:51	19.52	0.94	3.50
6/30/2010	10:52	19.51	0.83	2.90
6/30/2010	10:53	19.51	1.24	13.37
6/30/2010	10:54	19.51	1.29	16.17
6/30/2010	10:55	19.54	0.86	16.33
6/30/2010	10:56	19.56	1.33	3.96
6/30/2010	10:57	19.57	1.45	0.40
6/30/2010	10:58	19.55	1.43	3.56
6/30/2010	10:59	19.56	1.44	3.82
6/30/2010	11:00	19.57	1.45	3.72
6/30/2010	11:01	19.57	1.47	4.79
6/30/2010	11:02	19.57	1.38	5.29

Date	Hour	O2	CO2	SO2
6/30/2010	11:03	19.61	1.19	6.52
6/30/2010	11:04	19.66	1.04	7.25
6/30/2010	11:05	19.69	1.05	8.10
6/30/2010	11:06	19.69	1.03	7.97
6/30/2010	11:07	19.7	1.37	0.35
6/30/2010	11:08	19.64	0.83	4.17
6/30/2010	11:09	19.65	0.56	16.42
6/30/2010	11:10	19.67	1.1	10.43
6/30/2010	11:11	19.67	1.19	3.13
6/30/2010	11:12	19.68	0.73	42.27
6/30/2010	11:13	19.63	1.19	22.48
6/30/2010	11:14	19.63	0.54	16.42
6/30/2010	11:15	19.65	1.11	5.05
6/30/2010	11:16	19.66	0.72	61.28
6/30/2010	11:17	19.68	5.27	85.08
6/30/2010	11:18	19.67	0.9	8.53
6/30/2010	11:19	19.66	0.44	16.42
6/30/2010	11:20	19.67	0.99	8.96
6/30/2010	11:21	19.65	1.16	2.17
6/30/2010	11:22	19.67	1.32	4.63
6/30/2010	11:23	19.68	0.62	16.17
6/30/2010	11:24	19.64	0.57	16.42
6/30/2010	11:25	19.64	1.17	6.15
6/30/2010	11:26	19.65	1.31	4.30
6/30/2010	11:27	19.66	1.36	6.10
6/30/2010	11:28	19.68	1.34	2.46
6/30/2010	11:29	19.65	0.82	35.96
6/30/2010	11:30	19.53	0.08	90.79
6/30/2010	11:31	19.61	1.25	64.00
6/30/2010	11:32	19.65	0.8	16.39
6/30/2010	11:33	19.68	0.52	54.23
6/30/2010	11:34	19.64	0.89	26.84
6/30/2010	11:35	19.59	1.04	95.21
6/30/2010	11:36	19.58	1.17	27.40
6/30/2010	11:37	19.57	0.22	16.42
6/30/2010	11:38	19.64	0.92	16.42
6/30/2010	11:39	19.33	0.18	27.91
6/30/2010	11:40	19.61	0.34	44.92
6/30/2010	11:41	19.6	0.74	71.47
6/30/2010	11:42	19.63	0.3	30.18
6/30/2010	11:43	19.61	1.09	15.53
6/30/2010	11:44	19.6	1.4	21.36
6/30/2010	11:45	19.66	0.74	27.56
6/30/2010	11:46	19.61	1.53	99.09
6/30/2010	11:47	19.57	1.51	59.20
6/30/2010	11:48	19.61	0.5	32.62
6/30/2010	11:49	19.54	1.25	32.83
6/30/2010	11:50	19.58	0.83	21.90
6/30/2010	11:51	19.67	1.5	100.41
6/30/2010	11:52	19.57	2.58	94.77
6/30/2010	11:53	19.56	0.76	15.24
6/30/2010	11:54	19.53	0.16	32.83
6/30/2010	11:55	19.58	0.25	32.83
6/30/2010	11:56	19.66	0.09	11.12
6/30/2010	11:57	19.55	1.53	105.01
6/30/2010	11:58	19.5	1.53	101.93
6/30/2010	11:59	19.52	1.12	28.61
6/30/2010	12:00	19.51	0.31	32.83
6/30/2010	12:01	19.48	0.71	94.86
6/30/2010	12:02	19.48	1.53	96.33

Date	Hour	O2	CO2	SO2
6/30/2010	12:03	19.5	1.53	95.69
6/30/2010	12:04	19.5	1.53	99.86
6/30/2010	12:05	19.51	1.32	50.40
6/30/2010	12:06	19.51	0.5	32.83
6/30/2010	12:07	19.58	0.32	32.83
6/30/2010	12:08	19.61	0.66	32.83
6/30/2010	12:09	19.6	0.95	30.18
6/30/2010	12:10	19.6	0.99	12.00
6/30/2010	12:11	19.6	1.1	2.81
6/30/2010	12:12	19.58	1.15	2.99
6/30/2010	12:13	19.59	1.22	4.20
6/30/2010	12:14	19.6	1.18	8.45
6/30/2010	12:15	19.59	1.24	12.78
6/30/2010	12:16	19.6	1.21	14.14
6/30/2010	12:17	19.64	1.3	11.09
6/30/2010	12:18	19.66	1.36	10.32
6/30/2010	12:19	19.67	1.24	11.36
6/30/2010	12:20	19.66	1.29	14.06
6/30/2010	12:21	19.62	1.57	9.95
6/30/2010	12:22	19.33	1.86	24.78
6/30/2010	12:23	19.23	1.19	32.46
6/30/2010	12:24	19.25	0.5	10.40
6/30/2010	12:25	19.23	0.94	21.60
6/30/2010	12:26	19.25	0.84	4.60
6/30/2010	12:27	19.28	0.86	32.83
6/30/2010	12:28	19.27	1.34	29.94
6/30/2010	12:29	19.26	1.44	19.30
6/30/2010	12:30	19.26	1.68	2.46
6/30/2010	12:31	19.28	1.8	1.52
6/30/2010	12:32	19.32	1.79	0.45
6/30/2010	12:33	19.3	1.38	1.52
6/30/2010	12:34	19.31	1.7	8.50
6/30/2010	12:35	19.32	1.82	4.41
6/30/2010	12:36	19.33	1.79	5.94
6/30/2010	12:37	19.35	1.82	7.35
6/30/2010	12:38	19.34	1.75	6.36
6/30/2010	12:39	19.33	1.83	4.36
6/30/2010	12:40	19.33	1.77	6.71
6/30/2010	12:41	19.35	1.79	6.71
6/30/2010	12:42	19.33	1.77	6.90
6/30/2010	12:43	19.34	1.82	6.26
6/30/2010	12:44	19.36	1.83	6.63
6/30/2010	12:45	19.33	1.86	6.60
6/30/2010	12:46	19.35	1.81	5.80
6/30/2010	12:47	19.35	1.83	5.69
6/30/2010	12:48	19.36	1.86	4.36
6/30/2010	12:49	19.37	1.82	5.75
6/30/2010	12:50	19.4	1.7	6.34
6/30/2010	12:51	19.43	1.71	6.10
6/30/2010	12:52	19.44	1.71	5.96
6/30/2010	12:53	19.32	1.84	3.90
6/30/2010	12:54	19.31	1.72	5.83
6/30/2010	12:55	19.39	1.67	5.96
6/30/2010	12:56	19.42	1.64	6.28
6/30/2010	12:57	19.41	1.7	4.84
6/30/2010	12:58	19.38	1.71	4.76
6/30/2010	12:59	19.37	1.68	4.87
6/30/2010	13:00	19.35	1.76	5.00
6/30/2010	13:01	19.41	1.67	5.51
6/30/2010	13:02	19.41	1.71	6.87

Date	Hour	O2	CO2	SO2
6/30/2010	13:03	19.37	1.78	6.20
6/30/2010	13:04	19.35	1.77	7.35
6/30/2010	13:05	19.32	1.76	7.22
6/30/2010	13:06	19.32	1.71	9.76
6/30/2010	13:07	19.41	1.61	11.60
6/30/2010	13:08	19.61	1.3	12.78
6/30/2010	13:09	19.49	1.66	11.34
6/30/2010	13:10	19.38	1.69	10.85
6/30/2010	13:11	19.38	1.72	11.28
6/30/2010	13:12	19.37	1.73	11.20
6/30/2010	13:13	19.36	1.72	11.66
6/30/2010	13:14	19.35	1.71	10.45
6/30/2010	13:15	19.39	1.67	11.50
6/30/2010	13:16	19.36	1.77	10.13
6/30/2010	13:17	19.37	1.72	10.85
6/30/2010	13:18	19.39	1.73	11.20
6/30/2010	13:19	19.37	1.78	11.09
6/30/2010	13:20	19.36	1.8	10.80
6/30/2010	13:21	19.37	1.74	11.50
6/30/2010	13:22	19.37	1.78	11.47
6/30/2010	13:23	19.36	1.71	11.36
6/30/2010	13:24	19.36	1.8	12.03
6/30/2010	13:25	19.36	1.73	12.30
6/30/2010	13:26	19.37	1.77	12.97
6/30/2010	13:27	19.38	1.74	12.19
6/30/2010	13:28	19.35	1.73	12.62
6/30/2010	13:29	19.38	1.7	12.11
6/30/2010	13:30	19.41	1.7	12.46
6/30/2010	13:31	19.37	1.73	11.92
6/30/2010	13:32	19.39	1.71	11.87
6/30/2010	13:33	19.38	1.71	12.57
6/30/2010	13:34	19.39	1.75	11.84
6/30/2010	13:35	19.4	1.74	12.59
6/30/2010	13:36	19.38	1.76	12.73
6/30/2010	13:37	19.37	1.74	11.90
6/30/2010	13:38	19.38	1.74	11.58
6/30/2010	13:39	19.4	1.76	11.84
6/30/2010	13:40	19.37	1.79	12.03
6/30/2010	13:41	19.39	1.76	10.91
6/30/2010	13:42	19.36	1.75	10.29
6/30/2010	13:43	19.36	1.82	11.60
6/30/2010	13:44	19.37	1.83	10.19
6/30/2010	13:45	19.38	1.73	10.16
6/30/2010	13:46	19.37	1.8	10.75
6/30/2010	13:47	19.38	1.83	10.13
6/30/2010	13:48	19.34	1.73	7.89
6/30/2010	13:49	19.35	1.73	10.03
6/30/2010	13:50	19.37	1.8	10.35
6/30/2010	13:51	19.35	1.83	10.03
6/30/2010	13:52	19.35	1.87	9.92
6/30/2010	13:53	19.36	1.84	10.19
6/30/2010	13:54	19.36	1.83	10.59
6/30/2010	13:55	19.35	1.81	9.92
6/30/2010	13:56	19.36	1.8	10.11
6/30/2010	13:57	19.39	1.82	9.78
6/30/2010	13:58	19.39	1.81	9.73
6/30/2010	13:59	19.38	1.76	10.24
6/30/2010	14:00	19.39	1.78	9.14
6/30/2010	14:01	19.37	1.77	8.21
6/30/2010	14:02	19.39	1.79	9.81

Date	Hour	O2	CO2	SO2
6/30/2010	14:03	19.41	1.64	9.17
6/30/2010	14:04	19.58	1.39	9.97
6/30/2010	14:05	19.69	1.36	9.20
6/30/2010	14:06	19.72	1.36	8.53
6/30/2010	14:07	19.73	1.25	8.37
6/30/2010	14:08	19.71	1.2	8.56
6/30/2010	14:09	19.74	1.2	8.82
6/30/2010	14:10	19.72	1.22	8.93
6/30/2010	14:11	19.72	1.13	10.53
6/30/2010	14:12	19.69	1	12.97
6/30/2010	14:13	19.78	1.02	15.13
6/30/2010	14:14	19.75	1.08	18.18
6/30/2010	14:15	19.74	1.18	18.82
6/30/2010	14:16	19.72	1.04	18.47
6/30/2010	14:17	19.74	1.03	19.86
6/30/2010	14:18	19.74	0.99	20.88
6/30/2010	14:19	19.76	0.98	21.90
6/30/2010	14:20	20.14	0.64	22.48
6/30/2010	14:21	20.49	0.33	17.32
6/30/2010	14:22	20.5	0.3	12.99
6/30/2010	14:23	20.49	0.3	10.03
6/30/2010	14:24	20.52	0.26	7.81
6/30/2010	14:25	20.53	0.2	6.55
6/30/2010	14:26	20.54	0.2	5.05
6/30/2010	14:27	20.56	0.16	4.65
6/30/2010	14:28	20.51	0.15	2.65
6/30/2010	14:29	20.49	0.14	2.22
6/30/2010	14:30	20.5	0.12	1.58
6/30/2010	14:31	20.58	0.09	1.55
6/30/2010	14:32	20.57	0.13	1.76
6/30/2010	14:33	20.56	0.09	0.24
6/30/2010	14:34	20.61	0.05	1.04
6/30/2010	14:35	20.62	0.1	0.80
6/30/2010	14:36	20.63	0.05	0.29
6/30/2010	14:37	20.64	0.07	1.07
6/30/2010	14:38	20.56	0.05	1.92
6/30/2010	14:39	20.59	0.07	2.17
6/30/2010	14:40	20.63	0.03	1.87
6/30/2010	14:41	20.24	0.31	2.09
6/30/2010	14:42	20.2	0.42	0.53
6/30/2010	14:43	20.64	0.03	0.19
6/30/2010	14:44	20.65	0.02	0.56
6/30/2010	14:45	20.68	0	0.32
6/30/2010	14:46	20.66	0	0.00
6/30/2010	14:47	20.41	0.19	0.86
6/30/2010	14:48	20.46	0.23	1.47
6/30/2010	14:49	20.64	0.02	1.34
6/30/2010	14:50	20.66	0.01	2.27
6/30/2010	14:51	20.66	0.02	2.73
6/30/2010	14:52	20.05	0.48	1.90
6/30/2010	14:53	19.67	0.88	0.83
6/30/2010	14:54	20.01	0.63	0.80
6/30/2010	14:55	20.63	0.05	2.70
6/30/2010	14:56	20.67	0.01	2.54
6/30/2010	14:57	20.69	0	1.60
6/30/2010	14:58	20.7	0.03	0.00
6/30/2010	14:59	20.72	0.01	0.45
6/30/2010	15:00	20.73	0.02	0.70
6/30/2010	15:01	20.71	0.02	1.95
6/30/2010	15:02	20.74	0.06	2.06

Date	Hour	O2	CO2	SO2
6/30/2010	15:03	20.73	0.06	2.03
6/30/2010	15:04	20.73	0.03	2.41
6/30/2010	15:05	20.73	0.04	2.59
6/30/2010	15:06	20.7	0.05	3.42
6/30/2010	15:07	20.74	0.08	3.90
6/30/2010	15:08	20.76	0.07	3.37
6/30/2010	15:09	20.74	0.07	3.40
6/30/2010	15:10	20.76	0.07	3.37
6/30/2010	15:11	20.75	0.02	4.76
6/30/2010	15:12	20.44	0.09	5.24
6/30/2010	15:13	19.37	3.36	3.64
6/30/2010	15:14	19.04	4.87	3.42
6/30/2010	15:15	19.01	4.98	1.26
6/30/2010	15:16	19.02	5.03	0.24
6/30/2010	15:17	19.03	4.98	0.12
6/30/2010	15:18	10.69	2.41	5.12
6/30/2010	15:19	0.11	-0.21	35.24
6/30/2010	15:20	0.01	-0.23	43.63
6/30/2010	15:21	0	-0.22	46.17
6/30/2010	15:22	0	-0.2	47.23
6/30/2010	15:23	0	-0.23	47.66
6/30/2010	15:24	0.95	-0.17	48.13
6/30/2010	15:25	17.95	1	26.66
6/30/2010	15:26	19.34	1.15	28.21
6/30/2010	15:27	19.38	1.17	25.24
6/30/2010	15:28	19.38	1.14	27.51
6/30/2010	15:29	19.35	1.25	31.23
6/30/2010	15:30	19.36	1.24	35.45
6/30/2010	15:31	19.37	1.26	39.38
6/30/2010	15:32	19.36	1.33	42.70
6/30/2010	15:33	19.37	1.37	45.45
6/30/2010	15:34	19.36	1.45	48.44
6/30/2010	15:35	19.36	1.62	47.24
6/30/2010	15:36	19.39	1.53	37.05
6/30/2010	15:37	19.42	1.33	29.06
6/30/2010	15:38	19.43	1.35	26.55
6/30/2010	15:39	19.41	1.28	25.77
6/30/2010	15:40	19.43	1.3	26.79
6/30/2010	15:41	19.42	1.39	28.90
6/30/2010	15:42	19.43	1.55	30.08
6/30/2010	15:43	19.4	1.61	25.16
6/30/2010	15:44	19.38	1.66	19.97
6/30/2010	15:45	19.36	1.64	17.32
6/30/2010	15:46	19.35	1.69	15.21
6/30/2010	15:47	19.37	1.58	14.38
6/30/2010	15:48	19.38	1.48	15.16
6/30/2010	15:49	19.4	1.46	18.50
6/30/2010	15:50	19.44	1.39	21.31
6/30/2010	15:51	19.41	1.33	24.65
6/30/2010	15:52	19.41	1.41	28.31
6/30/2010	15:53	19.39	1.4	31.52
6/30/2010	15:54	19.42	1.46	33.93
6/30/2010	15:55	19.4	1.63	36.65
6/30/2010	15:56	19.35	1.69	32.86
6/30/2010	15:57	19.58	1.22	28.61
6/30/2010	15:58	19.74	0.93	25.18
6/30/2010	15:59	19.73	1.01	23.85
6/30/2010	16:00	19.73	0.99	23.45
6/30/2010	16:01	19.75	0.95	23.58
6/30/2010	16:02	19.76	0.94	24.44

Date	Hour	O2	CO2	SO2
6/30/2010	16:03	19.74	0.96	24.94
6/30/2010	16:04	19.76	0.93	25.69
6/30/2010	16:05	20.01	0.76	25.42
6/30/2010	16:06	20.47	0.29	20.67
6/30/2010	16:07	20.32	0.32	15.21
6/30/2010	16:08	19.94	0.71	12.99
6/30/2010	16:09	19.85	0.9	13.39
6/30/2010	16:10	19.85	0.9	12.97
6/30/2010	16:11	19.82	0.96	12.22
6/30/2010	16:12	19.81	0.94	11.66
6/30/2010	16:13	19.79	1	12.16
6/30/2010	16:14	19.79	0.97	11.23
6/30/2010	16:15	19.78	0.95	10.51
6/30/2010	16:16	19.76	1.08	11.39
6/30/2010	16:17	19.76	0.97	10.72
6/30/2010	16:18	19.72	1.08	11.84
6/30/2010	16:19	19.72	1.05	11.12
6/30/2010	16:20	19.73	1.02	11.12
6/30/2010	16:21	19.76	1.01	10.43
6/30/2010	16:22	19.73	1.02	10.19
6/30/2010	16:23	19.7	0.97	42.43
6/30/2010	16:24	19.6	1.51	46.80
6/30/2010	16:25	19.46	0.36	32.80
6/30/2010	16:26	19.63	0.05	32.80
6/30/2010	16:27	19.69	0.55	31.76
6/30/2010	16:28	19.38	0.52	45.77
6/30/2010	16:29	18.85	0.52	76.67
6/30/2010	16:30	19.54	1.29	53.18
6/30/2010	16:31	19.75	1.45	29.49
6/30/2010	16:32	19.7	0.54	32.80
6/30/2010	16:33	19.66	0.61	32.83
6/30/2010	16:34	19.68	0.46	32.83
6/30/2010	16:35	19.68	0.68	32.80
6/30/2010	16:36	19.84	0.42	6.55
6/30/2010	16:37	20.1	0.64	8.96
6/30/2010	16:38	20.07	0.59	32.35
6/30/2010	16:39	20.06	0.41	10.00
6/30/2010	16:40	20.09	0.53	9.54
6/30/2010	16:41	20.09	0.54	15.27
6/30/2010	16:42	20.1	0.52	19.57
6/30/2010	16:43	20.11	0.54	22.22
6/30/2010	16:44	20.13	0.73	5.83
6/30/2010	16:45	20.02	0.42	38.65
6/30/2010	16:46	20.11	0.77	25.16
6/30/2010	16:47	20.09	0.51	0.72
6/30/2010	16:48	20.1	0.51	16.92
6/30/2010	16:49	20.1	0.51	22.40
6/30/2010	16:50	20.11	0.66	13.02
6/30/2010	16:51	20.05	0.29	10.13
6/30/2010	16:52	20.08	0.55	19.57
6/30/2010	16:53	20.11	0.59	23.21
6/30/2010	16:54	20.02	0.43	70.10
6/30/2010	16:55	20.13	0.01	16.42
6/30/2010	16:56	20.1	0.48	15.08
6/30/2010	16:57	20.13	0.63	15.02
6/30/2010	16:58	20.03	0.22	30.05
6/30/2010	16:59	20.06	0.66	1.50
6/30/2010	17:00	20.04	0.68	13.61
6/30/2010	17:01	20.09	0.65	11.39
6/30/2010	17:02	20.03	0.57	7.00

Date	Hour	O2	CO2	SO2
6/30/2010	17:03	20.05	0.66	14.49
6/30/2010	17:04	20.09	0.66	20.80
6/30/2010	17:05	20.06	0.7	13.23
6/30/2010	17:06	20.09	0.6	25.08
6/30/2010	17:07	20.12	0.75	14.44
6/30/2010	17:08	20.01	0.51	26.90
6/30/2010	17:09	19.91	0.39	32.83
6/30/2010	17:10	20.1	0.34	24.33
6/30/2010	17:11	20.08	0.53	10.67
6/30/2010	17:12	20.1	0.54	15.27
6/30/2010	17:13	20.14	0.57	16.58
6/30/2010	17:14	20.09	0.47	67.40
6/30/2010	17:15	20.04	0.79	2.97
6/30/2010	17:16	20.06	0.63	5.35
6/30/2010	17:17	20.09	0.58	19.44
6/30/2010	17:18	20.08	0.53	22.94
6/30/2010	17:19	20.06	0.3	15.37
6/30/2010	17:20	20.01	1.08	9.81
6/30/2010	17:21	20.03	0.54	3.45
6/30/2010	17:22	20.07	0.68	14.01
6/30/2010	17:23	20.11	0.75	20.72
6/30/2010	17:24	20.11	0.72	24.20
6/30/2010	17:25	20.12	0.68	25.21
6/30/2010	17:26	20.11	0.69	26.41
6/30/2010	17:27	20.13	0.7	25.42
6/30/2010	17:28	20.13	0.69	25.02
6/30/2010	17:29	20.1	0.71	26.07
6/30/2010	17:30	20.03	0.82	27.00
6/30/2010	17:31	20.03	0.91	29.57
6/30/2010	17:32	19.99	0.97	30.58
6/30/2010	17:33	20.01	0.9	31.76
6/30/2010	17:34	19.92	1.25	30.48
6/30/2010	17:35	19.88	1.59	25.69
6/30/2010	17:36	19.87	1.43	26.57
6/30/2010	17:37	19.87	1.51	24.92
6/30/2010	17:38	19.85	1.23	11.55
6/30/2010	17:39	19.85	1.32	14.20
6/30/2010	17:40	19.86	1.36	6.90
6/30/2010	17:41	19.85	1.29	4.63
6/30/2010	17:42	19.84	1.12	16.04
6/30/2010	17:43	19.84	0.83	27.72
6/30/2010	17:44	19.9	1.09	1.02
6/30/2010	17:45	19.82	0.91	21.15
6/30/2010	17:46	19.87	0.71	1.26
6/30/2010	17:47	19.88	1.08	3.21
6/30/2010	17:48	19.9	1.11	13.88
6/30/2010	17:49	19.9	1.16	14.46
6/30/2010	17:50	19.9	1.22	14.14
6/30/2010	17:51	19.94	1.16	14.38
6/30/2010	17:52	19.88	1.3	1.15
6/30/2010	17:53	19.88	1.07	7.81
6/30/2010	17:54	19.9	1.24	15.51
6/30/2010	17:55	19.9	1.24	15.45
6/30/2010	17:56	19.89	1.34	13.88
6/30/2010	17:57	19.89	1.25	14.12
6/30/2010	17:58	19.88	1.22	17.97
6/30/2010	17:59	19.88	1.3	15.83
6/30/2010	18:00	19.89	1.26	15.16
6/30/2010	18:01	19.88	1.29	16.23
6/30/2010	18:02	19.88	1.37	13.66

Date	Hour	O2	CO2	SO2
6/30/2010	18:03	19.9	1.23	12.08
6/30/2010	18:04	19.88	1.31	15.40
6/30/2010	18:05	19.87	1.36	11.92
6/30/2010	18:06	19.87	1.22	14.04
6/30/2010	18:07	19.88	1.28	16.55
6/30/2010	18:08	19.87	1.37	11.18
6/30/2010	18:09	19.87	1.28	14.01
6/30/2010	18:10	19.86	1.26	15.43
6/30/2010	18:11	19.88	1.34	14.70
6/30/2010	18:12	19.87	1.38	14.44
6/30/2010	18:13	19.86	1.36	13.74
6/30/2010	18:14	19.96	1.02	16.09
6/30/2010	18:15	20.04	0.83	16.87
6/30/2010	18:16	20.07	0.76	17.03
6/30/2010	18:17	20.09	0.76	17.62
6/30/2010	18:18	20.03	0.96	1.90
6/30/2010	18:19	20.06	0.67	17.81
6/30/2010	18:20	20.08	0.72	19.94
6/30/2010	18:21	20.04	0.92	11.09
6/30/2010	18:22	20	0.9	19.78
6/30/2010	18:23	20.05	0.88	22.16
6/30/2010	18:24	20.02	0.97	0.96
6/30/2010	18:25	20.04	0.77	24.97
6/30/2010	18:26	20.06	0.77	29.52
6/30/2010	18:27	20.02	1.02	14.44
6/30/2010	18:28	19.96	0.4	0.00
6/30/2010	18:29	20.04	0.81	28.42
6/30/2010	18:30	20.03	0.82	28.93
6/30/2010	18:31	19.99	0.94	4.30
6/30/2010	18:32	19.96	0.04	17.11
6/30/2010	18:33	20.01	0.89	20.32
6/30/2010	18:34	20.03	0.91	29.22
6/30/2010	18:35	20.03	0.88	31.65
6/30/2010	18:36	20.02	1.18	10.51
6/30/2010	18:37	19.87	0.31	32.83
6/30/2010	18:38	20.03	0.52	15.45
6/30/2010	18:39	20.01	1.09	12.81
6/30/2010	18:40	20.02	0.99	24.11
6/30/2010	18:41	20.05	0.43	23.69
6/30/2010	18:42	20.01	0.67	7.08
6/30/2010	18:43	20.03	1.13	6.02
6/30/2010	18:44	20.02	1	22.14
6/30/2010	18:45	20.03	0.99	28.39
6/30/2010	18:46	20	1.05	28.74
6/30/2010	18:47	19.92	0.21	32.06
6/30/2010	18:48	20.02	0.51	9.78
6/30/2010	18:49	20	1.15	17.56
6/30/2010	18:50	19.95	1.13	35.32
6/30/2010	18:51	19.64	1.35	80.74
6/30/2010	18:52	20.02	1.03	32.83
6/30/2010	18:53	20.08	0.65	32.80
6/30/2010	18:54	20.03	0.46	20.59
6/30/2010	18:55	20	0.91	8.96
6/30/2010	18:56	20.01	1	15.77
6/30/2010	18:57	20.1	1.05	8.39
6/30/2010	18:58	20.02	0.51	24.57
6/30/2010	18:59	20.03	1.07	5.32
6/30/2010	19:00	20.07	0.73	21.63
6/30/2010	19:01	20.04	0.35	32.83
6/30/2010	19:02	20.03	0.71	10.93

Date	Hour	O2	CO2	SO2
6/30/2010	19:03	20.02	0.86	15.35
6/30/2010	19:04	20.02	0.87	31.04
6/30/2010	19:05	20.04	0.84	37.67
6/30/2010	19:06	20.03	0.78	40.74
6/30/2010	19:07	20.04	0.82	40.72
6/30/2010	19:08	20.05	0.9	39.27
6/30/2010	19:09	20.08	0.9	37.08
6/30/2010	19:10	20.07	0.86	35.93
6/30/2010	19:11	20.11	0.86	33.74
6/30/2010	19:12	20.1	0.78	32.00
6/30/2010	19:13	20.01	1.46	22.56
6/30/2010	19:14	19.88	1.64	17.19
6/30/2010	19:15	19.86	1.13	18.37
6/30/2010	19:16	19.87	1.34	12.19
6/30/2010	19:17	19.89	1.19	2.19
6/30/2010	19:18	19.77	0.91	60.61
6/30/2010	19:19	19.66	0.91	68.92
6/30/2010	19:20	20.08	0.65	32.83
6/30/2010	19:21	20.07	0.41	7.86
6/30/2010	19:22	20.06	0.76	9.81
6/30/2010	19:23	20.08	0.75	11.44
6/30/2010	19:24	20.08	0.79	11.66
6/30/2010	19:25	20.09	0.81	12.70
6/30/2010	19:26	20.1	0.76	14.57
6/30/2010	19:27	19.97	1.17	13.13
6/30/2010	19:28	19.87	1.39	12.83
6/30/2010	19:29	19.89	1.41	11.74
6/30/2010	19:30	19.86	1.56	3.37
6/30/2010	19:31	19.84	1.13	4.25
6/30/2010	19:32	19.86	1.41	9.52
6/30/2010	19:33	19.87	1.26	7.49
6/30/2010	19:34	19.86	1.35	12.65
6/30/2010	19:35	19.87	1.41	9.87
6/30/2010	19:36	19.86	1.37	10.13
6/30/2010	19:37	19.89	1.41	10.35
6/30/2010	19:38	19.87	1.32	10.59
6/30/2010	19:39	19.83	1.35	14.06
6/30/2010	19:40	19.77	0.7	15.83
6/30/2010	19:41	19.97	0.69	30.10
6/30/2010	19:42	20.04	0.86	5.80
6/30/2010	19:43	20.01	1.1	2.22
6/30/2010	19:44	19.91	1.14	22.11
6/30/2010	19:45	20.06	0.54	15.88
6/30/2010	19:46	20.05	0.84	9.84
6/30/2010	19:47	20.05	0.81	18.45
6/30/2010	19:48	20	0.55	10.80
6/30/2010	19:49	20.02	0.47	29.81
6/30/2010	19:50	20.03	0.98	0.19
6/30/2010	19:51	20.04	1.02	17.38
6/30/2010	19:52	20.03	0.09	44.27
6/30/2010	19:53	20.03	0.24	30.05
6/30/2010	19:54	20.03	0.92	2.14
6/30/2010	19:55	20.01	0.86	19.20
6/30/2010	19:56	20.06	1.03	3.96
6/30/2010	19:57	20.04	0.62	21.47
6/30/2010	19:58	20.02	0.19	22.08
6/30/2010	19:59	20.01	1.07	1.92
6/30/2010	20:00	20	1.08	26.39
6/30/2010	20:01	20.02	1.12	29.46
6/30/2010	20:02	20	0.24	16.17

Date	Hour	O2	CO2	SO2
6/30/2010	20:03	20	1.03	32.40
6/30/2010	20:04	20.03	0.75	4.25
6/30/2010	20:05	20.03	1	26.57
6/30/2010	20:06	20.06	0.69	16.68
6/30/2010	20:07	19.99	0.82	5.94
6/30/2010	20:08	20.02	1.15	32.32
6/30/2010	20:09	19.97	0.08	38.23
6/30/2010	20:10	20.04	1.04	76.48
6/30/2010	20:11	20.03	0.83	29.68
6/30/2010	20:12	20.04	0.5	24.25
6/30/2010	20:13	20.03	0.76	65.95
6/30/2010	20:14	20.03	0.93	71.22
6/30/2010	20:15	19.93	0.91	22.06
6/30/2010	20:16	20.05	1.18	5.45
6/30/2010	20:17	20	0.62	0.59
6/30/2010	20:18	20	0.8	64.19
6/30/2010	20:19	20.02	1.12	92.64
6/30/2010	20:20	20.02	1.05	38.20
6/30/2010	20:21	20.04	0.9	41.46
6/30/2010	20:22	20.03	0.92	40.41
6/30/2010	20:23	20.05	0.89	40.09
6/30/2010	20:24	20.06	0.92	38.69
6/30/2010	20:25	19.94	1.96	84.13
6/30/2010	20:26	19.86	1.97	59.30
6/30/2010	20:27	19.86	1.62	75.31
6/30/2010	20:28	19.83	1.72	68.55
6/30/2010	20:29	19.82	1.52	60.77
6/30/2010	20:30	19.82	1.54	74.48
6/30/2010	20:31	19.82	1.41	71.44
6/30/2010	20:32	19.84	1.5	62.29
6/30/2010	20:33	19.85	1.46	60.98
6/30/2010	20:34	19.85	1.56	49.25
6/30/2010	20:35	19.83	1.49	32.11
6/30/2010	20:36	19.84	1.5	38.39
6/30/2010	20:37	19.85	1.59	33.90
6/30/2010	20:38	19.86	1.44	29.89
6/30/2010	20:39	19.85	1.56	43.04
6/30/2010	20:40	19.84	1.64	28.61
6/30/2010	20:41	19.87	1.56	27.40
6/30/2010	20:42	19.85	1.57	30.72
6/30/2010	20:43	19.87	1.56	32.62
6/30/2010	20:44	19.87	1.59	30.08
6/30/2010	20:45	19.89	1.53	29.03
6/30/2010	20:46	19.88	1.55	23.21
6/30/2010	20:47	19.88	1.49	26.65
6/30/2010	20:48	19.89	1.5	27.32
6/30/2010	20:49	19.88	1.49	25.05
6/30/2010	20:50	19.89	1.58	25.10
6/30/2010	20:51	19.86	1.54	0.37
6/30/2010	20:52	19.89	1.19	12.27
6/30/2010	20:53	19.9	1.41	27.22
6/30/2010	20:54	19.89	1.41	28.93
6/30/2010	20:55	19.89	1.46	27.70
6/30/2010	20:56	19.88	1.44	26.84
6/30/2010	20:57	19.89	1.54	24.22
6/30/2010	20:58	19.9	1.5	24.33
6/30/2010	20:59	19.89	1.52	20.85
6/30/2010	21:00	19.88	1.42	21.52
6/30/2010	21:01	19.89	1.46	20.43
6/30/2010	21:02	19.88	1.39	24.17

Date	Hour	O2	CO2	SO2
6/30/2010	21:03	19.86	1.41	26.65
6/30/2010	21:04	19.86	1.46	20.69
6/30/2010	21:05	19.88	1.41	21.84
6/30/2010	21:06	19.87	1.38	19.12
6/30/2010	21:07	19.88	1.49	13.74
6/30/2010	21:08	19.8	0.34	41.17
6/30/2010	21:09	19.84	0.15	32.83
6/30/2010	21:10	19.77	0.42	52.16
6/30/2010	21:11	19.81	1.43	82.80
6/30/2010	21:12	19.93	1.52	81.74
6/30/2010	21:13	20.07	0.63	32.14
6/30/2010	21:14	20.02	0.62	12.30
6/30/2010	21:15	20.02	0.81	31.12
6/30/2010	21:16	20.05	0.9	1.44
6/30/2010	21:17	20.01	0.69	25.16
6/30/2010	21:18	20.02	0.81	43.39
6/30/2010	21:19	20.03	1.12	38.66
6/30/2010	21:20	19.99	0.89	56.10
6/30/2010	21:21	19.93	1.53	59.40
6/30/2010	21:22	20.01	0.47	30.99
6/30/2010	21:23	20	0.51	16.63
6/30/2010	21:24	20.01	0.09	22.48
6/30/2010	21:25	19.96	0.71	34.86
6/30/2010	21:26	19.95	0.96	59.22
6/30/2010	21:27	19.97	0.92	67.80
6/30/2010	21:28	19.95	0.91	69.27
6/30/2010	21:29	19.96	0.94	64.06
6/30/2010	21:30	19.96	0.93	63.71
6/30/2010	21:31	20.01	1.1	7.51
6/30/2010	21:32	19.96	3.05	92.85
6/30/2010	21:33	19.96	1.01	37.51
6/30/2010	21:34	20	2.52	54.31
6/30/2010	21:35	19.96	0.91	9.04
6/30/2010	21:36	19.95	0.94	26.87
6/30/2010	21:37	19.95	1.1	77.91
6/30/2010	21:38	19.98	1.07	88.31
6/30/2010	21:39	19.96	1.05	84.56
6/30/2010	21:40	20	1.05	77.61
6/30/2010	21:41	19.99	0.97	58.12
6/30/2010	21:42	20.01	0.83	64.27
6/30/2010	21:43	19.99	0.94	64.91
6/30/2010	21:44	19.98	0.91	62.16
6/30/2010	21:45	20.01	0.89	60.69
6/30/2010	21:46	20	0.95	60.18
6/30/2010	21:47	19.99	0.92	56.89
6/30/2010	21:48	20	0.92	56.33
6/30/2010	21:49	19.97	0.98	56.46
6/30/2010	21:50	19.97	1	54.99
6/30/2010	21:51	19.88	1.48	44.14
6/30/2010	21:52	19.88	1.34	44.49
6/30/2010	21:53	19.88	1.35	46.60
6/30/2010	21:54	19.88	1.38	46.81
6/30/2010	21:55	19.88	1.47	42.24
6/30/2010	21:56	19.87	1.42	33.37
6/30/2010	21:57	19.87	1.27	22.59
6/30/2010	21:58	19.87	1.01	4.14
6/30/2010	21:59	19.89	1.28	28.47
6/30/2010	22:00	19.88	1.31	29.09
6/30/2010	22:01	19.87	1.29	28.53
6/30/2010	22:02	19.9	1.18	32.83

Date	Hour	O2	CO2	SO2
6/30/2010	22:03	20.03	0.97	34.46
6/30/2010	22:04	20.03	0.96	32.78
6/30/2010	22:05	20.04	0.98	33.37
6/30/2010	22:06	20.06	0.94	35.88
6/30/2010	22:07	20.05	0.96	37.78
6/30/2010	22:08	20.08	0.92	39.92
6/30/2010	22:09	20.04	0.9	40.93
6/30/2010	22:10	20.06	0.89	43.74
6/30/2010	22:11	20.05	0.89	46.97
6/30/2010	22:12	20.05	0.92	48.39
6/30/2010	22:13	20.05	0.88	49.09
6/30/2010	22:14	20.03	0.9	48.04
6/30/2010	22:15	20.05	0.91	47.24
6/30/2010	22:16	20.06	0.85	46.79
6/30/2010	22:17	20.06	0.9	47.53
6/30/2010	22:18	20.05	0.92	49.35
6/30/2010	22:19	20.06	0.89	50.07
6/30/2010	22:20	20.04	0.89	50.53
6/30/2010	22:21	20.04	0.9	51.38
6/30/2010	22:22	20.05	0.91	51.14
6/30/2010	22:23	20.04	0.91	51.65
6/30/2010	22:24	20.06	0.9	52.64
6/30/2010	22:25	20	1.06	51.22
6/30/2010	22:26	20.04	0.91	55.05
6/30/2010	22:27	20.02	0.94	54.35
6/30/2010	22:28	20.04	0.94	54.38
6/30/2010	22:29	20.03	0.96	53.52
6/30/2010	22:30	20.03	1.01	54.19
6/30/2010	22:31	20.04	0.98	53.68
6/30/2010	22:32	20.02	1	53.20
6/30/2010	22:33	20.01	0.97	53.28
6/30/2010	22:34	20.03	0.95	53.31
6/30/2010	22:35	20.02	0.94	51.89
6/30/2010	22:36	20.01	0.93	52.13
6/30/2010	22:37	20.02	0.96	53.12
6/30/2010	22:38	20.04	0.98	54.11
6/30/2010	22:39	20.01	0.97	54.06
6/30/2010	22:40	20.03	0.99	54.11
6/30/2010	22:41	20.03	0.98	54.73
6/30/2010	22:42	20.03	0.97	54.70
6/30/2010	22:43	20.02	0.93	54.03
6/30/2010	22:44	20.02	0.94	52.40
6/30/2010	22:45	20.02	0.92	52.48
6/30/2010	22:46	20.03	0.91	52.75
6/30/2010	22:47	20.02	0.96	52.24
6/30/2010	22:48	20.03	0.95	51.49
6/30/2010	22:49	20.03	0.94	51.71
6/30/2010	22:50	20.01	1.01	51.12
6/30/2010	22:51	20.01	1.05	50.88
6/30/2010	22:52	20.01	1.01	51.22
6/30/2010	22:53	20.01	1.04	52.21
6/30/2010	22:54	19.98	1.03	53.34
6/30/2010	22:55	19.92	1.23	55.26
6/30/2010	22:56	19.93	1.24	57.32
6/30/2010	22:57	19.93	1.32	56.04
6/30/2010	22:58	19.85	1.73	49.33
6/30/2010	22:59	19.82	1.74	47.27
6/30/2010	23:00	19.83	1.75	44.81
6/30/2010	23:01	19.83	1.81	39.25
6/30/2010	23:02	19.85	1.76	37.00

Date	Hour	O2	CO2	SO2
6/30/2010	23:03	19.84	1.76	34.76
6/30/2010	23:04	19.85	1.68	34.27
6/30/2010	23:05	19.83	1.69	34.17
6/30/2010	23:06	19.88	1.78	31.84
6/30/2010	23:07	19.84	1.75	29.57
6/30/2010	23:08	19.84	1.77	30.29
6/30/2010	23:09	19.85	1.89	29.30
6/30/2010	23:10	19.83	1.82	27.75
6/30/2010	23:11	19.82	1.76	29.19
6/30/2010	23:12	19.83	1.8	28.95
6/30/2010	23:13	19.83	1.78	29.22
6/30/2010	23:14	19.84	1.8	28.63
6/30/2010	23:15	19.84	1.88	28.23
6/30/2010	23:16	19.82	1.77	25.24
6/30/2010	23:17	19.82	1.8	28.90
6/30/2010	23:18	19.83	1.81	29.35
6/30/2010	23:19	19.83	1.78	28.77
6/30/2010	23:20	19.84	1.73	28.21
6/30/2010	23:21	19.83	1.8	29.57
6/30/2010	23:22	19.84	1.76	27.83
6/30/2010	23:23	19.85	1.75	28.58
6/30/2010	23:24	19.84	1.77	28.07
6/30/2010	23:25	19.83	1.76	28.18
6/30/2010	23:26	19.83	1.81	26.23
6/30/2010	23:27	19.82	1.79	25.72
6/30/2010	23:28	19.82	1.78	26.63
6/30/2010	23:29	19.84	1.79	26.63
6/30/2010	23:30	19.83	1.8	26.23
6/30/2010	23:31	19.82	1.9	22.38
6/30/2010	23:32	19.82	1.78	22.86
6/30/2010	23:33	19.83	1.81	21.95
6/30/2010	23:34	19.83	1.78	22.06
6/30/2010	23:35	19.83	1.76	22.14
6/30/2010	23:36	19.83	1.77	21.41
6/30/2010	23:37	19.84	1.79	18.69
6/30/2010	23:38	19.84	1.74	18.61
6/30/2010	23:39	19.84	1.8	19.44
6/30/2010	23:40	19.86	1.7	17.24
6/30/2010	23:41	19.85	1.72	18.18
6/30/2010	23:42	19.84	1.72	20.29
6/30/2010	23:43	19.85	1.67	19.52
6/30/2010	23:44	19.85	1.6	19.97
6/30/2010	23:45	19.85	1.67	19.92
6/30/2010	23:46	19.85	1.62	19.04
6/30/2010	23:47	19.86	1.65	19.70
6/30/2010	23:48	19.84	1.66	19.12
6/30/2010	23:49	19.84	1.57	19.44
6/30/2010	23:50	19.84	1.66	19.01
6/30/2010	23:51	19.85	1.67	16.52
6/30/2010	23:52	19.84	1.57	17.40
6/30/2010	23:53	19.85	1.58	17.06
6/30/2010	23:54	19.79	1.7	2.19
6/30/2010	23:55	19.84	1.48	11.66
6/30/2010	23:56	19.87	1.59	13.26
6/30/2010	23:57	19.85	1.61	14.06
6/30/2010	23:58	19.84	1.51	13.74
6/30/2010	23:59	19.86	1.56	14.81

Raw Test Data
7/1/2010

Date	Hour	O2	CO2	SO2
7/1/2010	0:00	19.86	1.58	16.87
7/1/2010	0:01	19.85	1.54	16.82
7/1/2010	0:02	19.85	1.6	18.93
7/1/2010	0:03	19.84	1.56	16.15
7/1/2010	0:04	19.95	1.14	22.64
7/1/2010	0:05	20.03	0.85	28.85
7/1/2010	0:06	20.02	0.8	36.87
7/1/2010	0:07	20.04	0.84	47.69
7/1/2010	0:08	20.04	0.82	56.41
7/1/2010	0:09	20.05	0.8	60.10
7/1/2010	0:10	20.07	0.84	58.17
7/1/2010	0:11	19.92	1.53	51.84
7/1/2010	0:12	19.85	1.51	38.34
7/1/2010	0:13	19.86	1.45	33.12
7/1/2010	0:14	19.85	1.49	29.22
7/1/2010	0:15	19.86	1.39	29.89
7/1/2010	0:16	19.87	1.38	29.68
7/1/2010	0:17	19.88	1.31	31.36
7/1/2010	0:18	19.87	1.32	33.45
7/1/2010	0:19	19.25	1.92	41.97
7/1/2010	0:20	19.73	1.55	41.25
7/1/2010	0:21	19.9	1.23	28.02
7/1/2010	0:22	19.88	1.3	24.38
7/1/2010	0:23	19.88	1.31	22.51
7/1/2010	0:24	19.91	1.24	23.18
7/1/2010	0:25	19.94	1.27	23.95
7/1/2010	0:26	19.92	1.26	24.57
7/1/2010	0:27	19.87	1.42	22.24
7/1/2010	0:28	19.9	1.33	19.76
7/1/2010	0:29	19.89	1.31	18.74
7/1/2010	0:30	19.88	1.26	18.15
7/1/2010	0:31	19.89	1.21	18.10
7/1/2010	0:32	19.87	1.17	18.53
7/1/2010	0:33	19.89	1.22	19.68
7/1/2010	0:34	19.91	1.18	21.71
7/1/2010	0:35	19.91	1.17	22.51
7/1/2010	0:36	19.92	1.16	22.46
7/1/2010	0:37	19.94	1.19	23.87
7/1/2010	0:38	19.93	1.19	23.85
7/1/2010	0:39	19.93	1.19	23.47
7/1/2010	0:40	19.95	1.16	23.02
7/1/2010	0:41	19.93	1.19	22.83
7/1/2010	0:42	19.88	1.27	22.97
7/1/2010	0:43	19.64	1.48	25.10
7/1/2010	0:44	20.03	1.09	20.56
7/1/2010	0:45	20.09	0.97	19.17
7/1/2010	0:46	20.08	0.8	18.95
7/1/2010	0:47	20.08	0.66	22.40
7/1/2010	0:48	20.09	0.66	28.66
7/1/2010	0:49	20.1	0.68	35.53
7/1/2010	0:50	20.1	0.66	42.21
7/1/2010	0:51	20.11	0.67	48.28
7/1/2010	0:52	20.11	0.65	54.16
7/1/2010	0:53	20.1	0.65	59.73
7/1/2010	0:54	20.12	0.65	64.14
7/1/2010	0:55	20.12	0.65	68.76
7/1/2010	0:56	20.13	0.65	72.56
7/1/2010	0:57	20.11	0.67	73.92

Date	Hour	O2	CO2	SO2
7/1/2010	0:58	20.13	0.65	76.22
7/1/2010	0:59	20.12	0.66	77.32
7/1/2010	1:00	20.13	0.65	80.02
7/1/2010	1:01	20.11	0.69	82.10
7/1/2010	1:02	20.02	0.98	75.79
7/1/2010	1:03	19.66	1.32	31.17
7/1/2010	1:04	19.89	0.82	16.25
7/1/2010	1:05	19.92	1.12	21.28
7/1/2010	1:06	20.01	1.16	10.61
7/1/2010	1:07	20.04	1.03	2.33
7/1/2010	1:08	19.9	0.61	26.82
7/1/2010	1:09	19.93	0.87	3.05
7/1/2010	1:10	19.99	1.15	0.67
7/1/2010	1:11	19.98	1.04	8.34
7/1/2010	1:12	19.95	0.95	15.53
7/1/2010	1:13	19.83	0.66	11.36
7/1/2010	1:14	19.94	1.13	2.27
7/1/2010	1:15	20.03	1.07	4.79
7/1/2010	1:16	19.88	0.76	27.64
7/1/2010	1:17	19.73	0.66	18.18
7/1/2010	1:18	19.77	1.03	1.20
7/1/2010	1:19	19.82	1.14	0.05
7/1/2010	1:20	19.79	1.15	3.29
7/1/2010	1:21	19.73	1.12	8.85
7/1/2010	1:22	19.69	0.98	3.07
7/1/2010	1:23	19.53	1.29	6.95
7/1/2010	1:24	19.51	1.3	8.26
7/1/2010	1:25	19.63	1.22	10.99
7/1/2010	1:26	19.73	1.23	10.80
7/1/2010	1:27	19.72	1.22	2.97
7/1/2010	1:28	19.68	0.98	6.79
7/1/2010	1:29	19.66	1.14	7.46
7/1/2010	1:30	19.58	1.24	8.80
7/1/2010	1:31	19.59	1.26	8.23
7/1/2010	1:32	19.69	1.25	1.60
7/1/2010	1:33	19.65	1.27	0.75
7/1/2010	1:34	19.47	1.37	3.50
7/1/2010	1:35	19.53	1.3	6.34
7/1/2010	1:36	19.53	1.34	7.65
7/1/2010	1:37	19.48	1.35	7.33
7/1/2010	1:38	19.62	1.21	8.64
7/1/2010	1:39	19.68	1.2	9.09
7/1/2010	1:40	19.65	1.27	7.51
7/1/2010	1:41	19.57	1.4	6.23
7/1/2010	1:42	19.52	1.34	4.57
7/1/2010	1:43	19.5	1.36	4.28
7/1/2010	1:44	19.39	1.49	3.74
7/1/2010	1:45	19.49	1.34	3.29
7/1/2010	1:46	19.58	1.17	3.66
7/1/2010	1:47	19.66	1.21	4.20
7/1/2010	1:48	19.49	1.39	3.37
7/1/2010	1:49	19.44	1.48	3.18
7/1/2010	1:50	19.51	1.31	2.65
7/1/2010	1:51	19.52	1.33	2.09
7/1/2010	1:52	19.55	1.32	2.54
7/1/2010	1:53	19.61	1.27	2.14
7/1/2010	1:54	19.71	1.39	1.63
7/1/2010	1:55	19.82	1.44	4.71
7/1/2010	1:56	19.82	1.15	6.07
7/1/2010	1:57	19.82	1.29	4.52

Date	Hour	O2	CO2	SO2
7/1/2010	1:58	19.82	1.29	3.23
7/1/2010	1:59	19.89	1.39	3.48
7/1/2010	2:00	19.93	1.41	6.66
7/1/2010	2:01	19.91	1.27	9.89
7/1/2010	2:02	19.93	1.24	7.51
7/1/2010	2:03	19.94	1.44	5.77
7/1/2010	2:04	19.96	1.39	5.99
7/1/2010	2:05	19.98	1.39	4.65
7/1/2010	2:06	19.99	1.41	1.79
7/1/2010	2:07	19.99	1.4	2.25
7/1/2010	2:08	20	1.36	3.61
7/1/2010	2:09	20.01	1.36	2.43
7/1/2010	2:10	19.99	1.36	3.23
7/1/2010	2:11	20.03	1.36	2.83
7/1/2010	2:12	19.99	1.37	2.73
7/1/2010	2:13	20.02	1.32	1.87
7/1/2010	2:14	20.03	1.37	1.55
7/1/2010	2:15	20.01	1.33	2.06
7/1/2010	2:16	19.99	1.4	1.71
7/1/2010	2:17	19.99	1.4	1.66
7/1/2010	2:18	19.97	1.38	1.12
7/1/2010	2:19	19.97	1.36	0.70
7/1/2010	2:20	19.98	1.43	0.88
7/1/2010	2:21	19.97	1.43	0.72
7/1/2010	2:22	19.96	1.4	0.05
7/1/2010	2:23	19.96	1.42	0.19
7/1/2010	2:24	19.96	1.38	0.27
7/1/2010	2:25	19.97	1.43	0.00
7/1/2010	2:26	19.97	1.44	0.51
7/1/2010	2:27	19.96	1.45	0.21
7/1/2010	2:28	19.94	1.43	0.19
7/1/2010	2:29	19.94	1.41	0.19
7/1/2010	2:30	19.94	1.44	1.12
7/1/2010	2:31	19.94	1.44	0.48
7/1/2010	2:32	19.97	1.47	0.51
7/1/2010	2:33	19.95	1.49	0.35
7/1/2010	2:34	19.97	1.37	0.45
7/1/2010	2:35	19.96	1.51	0.72
7/1/2010	2:36	19.95	1.42	0.21
7/1/2010	2:37	19.96	1.44	0.72
7/1/2010	2:38	19.98	1.46	0.03
7/1/2010	2:39	19.97	1.41	0.32
7/1/2010	2:40	19.94	1.42	0.80
7/1/2010	2:41	19.93	1.4	1.60
7/1/2010	2:42	19.93	1.42	1.42
7/1/2010	2:43	19.94	1.35	2.17
7/1/2010	2:44	19.93	1.31	2.06
7/1/2010	2:45	19.92	1.34	2.41
7/1/2010	2:46	19.9	1.33	2.97
7/1/2010	2:47	19.67	1.53	9.57
7/1/2010	2:48	19.81	1.25	0.13
7/1/2010	2:49	19.82	1.37	3.34
7/1/2010	2:50	19.79	1.21	2.06
7/1/2010	2:51	19.83	1.36	4.06
7/1/2010	2:52	19.66	1.12	2.30
7/1/2010	2:53	19.74	1.26	2.38
7/1/2010	2:54	19.71	1.24	13.13
7/1/2010	2:55	19.68	1.11	0.27
7/1/2010	2:56	19.61	1.27	2.43
7/1/2010	2:57	19.53	1.37	2.94

Date	Hour	O2	CO2	SO2
7/1/2010	2:58	19.4	1.37	3.85
7/1/2010	2:59	19.53	1.29	4.38
7/1/2010	3:00	19.6	1.29	2.41
7/1/2010	3:01	19.54	1.3	3.93
7/1/2010	3:02	19.44	1.43	3.66
7/1/2010	3:03	19.28	1.52	2.94
7/1/2010	3:04	19.32	1.55	3.21
7/1/2010	3:05	19.44	1.48	2.59
7/1/2010	3:06	19.39	1.52	0.05
7/1/2010	3:07	19.45	1.38	2.62
7/1/2010	3:08	19.47	1.4	2.27
7/1/2010	3:09	19.4	1.48	2.17
7/1/2010	3:10	19.52	1.35	3.18
7/1/2010	3:11	19.53	1.42	2.33
7/1/2010	3:12	19.52	1.44	1.47
7/1/2010	3:13	19.46	1.64	0.59
7/1/2010	3:14	19.49	1.5	0.40
7/1/2010	3:15	19.61	1.19	0.91
7/1/2010	3:16	19.69	1.18	1.31
7/1/2010	3:17	19.74	1.24	1.18
7/1/2010	3:18	19.81	1.35	0.21
7/1/2010	3:19	19.86	1.35	0.08
7/1/2010	3:20	19.86	1.32	0.03
7/1/2010	3:21	19.92	1.35	0.19
7/1/2010	3:22	19.89	1.32	0.45
7/1/2010	3:23	19.84	1.4	0.27
7/1/2010	3:24	19.88	1.44	3.07
7/1/2010	3:25	19.65	1.34	0.83
7/1/2010	3:26	19.72	1.34	0.27
7/1/2010	3:27	19.8	1.37	0.21
7/1/2010	3:28	19.83	1.39	0.32
7/1/2010	3:29	19.85	1.35	0.78
7/1/2010	3:30	19.84	1.45	1.92
7/1/2010	3:31	19.74	1.33	0.05
7/1/2010	3:32	19.83	1.37	0.37
7/1/2010	3:33	19.9	1.33	0.78
7/1/2010	3:34	19.9	1.4	0.45
7/1/2010	3:35	19.91	1.42	0.45
7/1/2010	3:36	19.79	1.45	0.61
7/1/2010	3:37	19.68	1.56	0.99
7/1/2010	3:38	19.68	1.56	0.86
7/1/2010	3:39	19.7	1.57	0.43
7/1/2010	3:40	19.72	1.6	0.59
7/1/2010	3:41	19.72	1.62	0.35
7/1/2010	3:42	19.74	1.6	0.80
7/1/2010	3:43	19.72	1.61	0.96
7/1/2010	3:44	19.72	1.63	0.48
7/1/2010	3:45	19.75	1.59	0.64
7/1/2010	3:46	19.76	1.54	0.80
7/1/2010	3:47	19.75	1.55	0.67
7/1/2010	3:48	19.74	1.61	0.00
7/1/2010	3:49	19.74	1.64	0.72
7/1/2010	3:50	19.73	1.59	0.37
7/1/2010	3:51	19.73	1.6	0.56
7/1/2010	3:52	19.73	1.61	0.29
7/1/2010	3:53	19.75	1.62	0.45
7/1/2010	3:54	19.75	1.61	0.29
7/1/2010	3:55	19.75	1.57	0.56
7/1/2010	3:56	19.75	1.58	0.00
7/1/2010	3:57	19.79	1.58	0.11

Date	Hour	O2	CO2	SO2
7/1/2010	3:58	19.76	1.55	0.64
7/1/2010	3:59	19.77	1.58	0.37
7/1/2010	4:00	19.78	1.55	0.59
7/1/2010	4:01	19.77	1.58	0.05
7/1/2010	4:02	19.78	1.55	0.16
7/1/2010	4:03	19.8	1.52	0.43
7/1/2010	4:04	19.78	1.53	0.96
7/1/2010	4:05	19.83	1.52	0.80
7/1/2010	4:06	19.96	1.42	0.59
7/1/2010	4:07	19.98	1.36	0.78
7/1/2010	4:08	19.99	1.36	0.72
7/1/2010	4:09	19.98	1.37	0.51
7/1/2010	4:10	19.79	1.45	6.26
7/1/2010	4:11	19.77	1.14	4.95
7/1/2010	4:12	19.88	1.35	3.85
7/1/2010	4:13	19.78	1.13	7.03
7/1/2010	4:14	19.71	1.23	1.95
7/1/2010	4:15	19.73	1.21	4.79
7/1/2010	4:16	19.68	1.25	1.63
7/1/2010	4:17	19.52	1.3	0.72
7/1/2010	4:18	19.5	1.32	0.40
7/1/2010	4:19	19.64	1.24	0.19
7/1/2010	4:20	19.79	1.28	6.52
7/1/2010	4:21	19.73	1.23	4.87
7/1/2010	4:22	19.53	1.37	1.92
7/1/2010	4:23	19.53	1.31	0.11
7/1/2010	4:24	19.64	1.2	0.99
7/1/2010	4:25	19.66	1.17	1.34
7/1/2010	4:26	19.72	1.2	1.52
7/1/2010	4:27	19.74	1.33	1.23
7/1/2010	4:28	19.77	1.32	0.91
7/1/2010	4:29	19.72	1.27	0.78
7/1/2010	4:30	19.79	1.31	9.84
7/1/2010	4:31	19.82	1.07	20.99
7/1/2010	4:32	19.58	1.2	4.68
7/1/2010	4:33	19.62	1.34	0.70
7/1/2010	4:34	19.63	1.26	0.40
7/1/2010	4:35	19.66	1.29	0.05
7/1/2010	4:36	19.82	1.33	20.24
7/1/2010	4:37	19.92	0.96	32.83
7/1/2010	4:38	19.68	0.07	29.11
7/1/2010	4:39	19.5	1.31	7.81
7/1/2010	4:40	19.56	1.31	5.94
7/1/2010	4:41	19.61	1.32	4.09
7/1/2010	4:42	19.73	1.28	21.20
7/1/2010	4:43	19.72	1.05	12.94
7/1/2010	4:44	19.7	1.23	2.62
7/1/2010	4:45	19.73	1.34	2.67
7/1/2010	4:46	19.75	1.32	3.88
7/1/2010	4:47	19.8	1.27	13.13
7/1/2010	4:48	19.79	1.03	18.13
7/1/2010	4:49	19.74	1.12	6.74
7/1/2010	4:50	19.7	1.33	1.84
7/1/2010	4:51	19.65	1.45	1.39
7/1/2010	4:52	19.69	1.42	1.90
7/1/2010	4:53	19.75	1.29	1.68
7/1/2010	4:54	19.78	1.38	3.02
7/1/2010	4:55	19.69	1.49	3.07
7/1/2010	4:56	19.69	1.37	4.30
7/1/2010	4:57	19.77	1.39	3.50

Date	Hour	O2	CO2	SO2
7/1/2010	4:58	19.75	1.36	5.53
7/1/2010	4:59	19.76	1.38	4.71
7/1/2010	5:00	19.84	1.27	16.09
7/1/2010	5:01	19.91	1.2	17.75
7/1/2010	5:02	19.87	1.24	14.28
7/1/2010	5:03	19.9	1.33	9.17
7/1/2010	5:04	19.95	1.37	8.96
7/1/2010	5:05	19.98	1.4	6.74
7/1/2010	5:06	19.98	1.52	5.85
7/1/2010	5:07	19.97	1.57	6.52
7/1/2010	5:08	19.99	1.5	6.36
7/1/2010	5:09	20	1.46	5.13
7/1/2010	5:10	20	1.56	2.99
7/1/2010	5:11	20	1.54	3.90
7/1/2010	5:12	20	1.55	2.99
7/1/2010	5:13	19.98	1.6	3.40
7/1/2010	5:14	20	1.6	3.77
7/1/2010	5:15	19.98	1.63	2.99
7/1/2010	5:16	19.99	1.66	2.22
7/1/2010	5:17	19.99	1.6	2.09
7/1/2010	5:18	19.97	1.6	2.17
7/1/2010	5:19	19.96	1.56	2.19
7/1/2010	5:20	19.96	1.54	1.87
7/1/2010	5:21	19.98	1.51	2.06
7/1/2010	5:22	19.97	1.53	1.92
7/1/2010	5:23	19.97	1.58	2.30
7/1/2010	5:24	19.95	1.59	2.09
7/1/2010	5:25	19.94	1.55	1.36
7/1/2010	5:26	19.94	1.56	1.82
7/1/2010	5:27	19.96	1.56	1.92
7/1/2010	5:28	19.93	1.53	1.74
7/1/2010	5:29	19.95	1.47	1.63
7/1/2010	5:30	19.95	1.48	1.44
7/1/2010	5:31	19.94	1.51	1.60
7/1/2010	5:32	19.94	1.52	1.60
7/1/2010	5:33	19.95	1.39	2.30
7/1/2010	5:34	19.93	1.34	1.47
7/1/2010	5:35	19.92	1.36	1.36
7/1/2010	5:36	19.92	1.34	1.79
7/1/2010	5:37	19.9	1.35	1.26
7/1/2010	5:38	19.9	1.44	1.12
7/1/2010	5:39	19.92	1.48	1.15
7/1/2010	5:40	19.94	1.55	5.96
7/1/2010	5:41	19.9	1.36	10.00
7/1/2010	5:42	19.89	1.51	5.80
7/1/2010	5:43	19.85	1.5	5.29
7/1/2010	5:44	19.78	1.32	12.32
7/1/2010	5:45	19.73	1.19	5.05
7/1/2010	5:46	19.7	1.37	2.91
7/1/2010	5:47	19.79	1.37	10.56
7/1/2010	5:48	19.8	1.17	12.08
7/1/2010	5:49	19.84	1.29	7.43
7/1/2010	5:50	19.9	1.3	9.14
7/1/2010	5:51	19.96	1.21	20.53
7/1/2010	5:52	19.96	0.87	28.53
7/1/2010	5:53	19.92	1.08	20.13
7/1/2010	5:54	19.93	1.1	26.73
7/1/2010	5:55	19.94	0.87	30.91
7/1/2010	5:56	19.89	1.02	20.37
7/1/2010	5:57	19.95	1	30.34

Date	Hour	O2	CO2	SO2
7/1/2010	5:58	20.01	0	22.15
7/1/2010	5:59	19.92	0.13	25.36
7/1/2010	6:00	19.86	0.75	25.91
7/1/2010	6:01	19.95	0.56	23.96
7/1/2010	6:02	19.97	0.23	23.83
7/1/2010	6:03	19.92	0.25	2.81
7/1/2010	6:04	19.87	0.54	34.73
7/1/2010	6:05	19.85	0.93	30.02
7/1/2010	6:06	19.89	0.73	28.17
7/1/2010	6:07	19.93	0.62	25.64
7/1/2010	6:08	19.93	0.8	22.73
7/1/2010	6:09	19.93	0.85	31.65
7/1/2010	6:10	20.01	1	32.75
7/1/2010	6:11	20.05	0.9	32.80
7/1/2010	6:12	20.07	1.1	30.10
7/1/2010	6:13	20.05	1.1	30.50
7/1/2010	6:14	20.01	0.97	32.70
7/1/2010	6:15	19.99	1	31.68
7/1/2010	6:16	20.02	1.17	12.62
7/1/2010	6:17	20.01	1.17	5.91
7/1/2010	6:18	20.02	1.04	4.01
7/1/2010	6:19	20.02	0.96	3.07
7/1/2010	6:20	20.02	0.9	2.25
7/1/2010	6:21	20.02	0.89	2.11
7/1/2010	6:22	20.02	0.99	1.90
7/1/2010	6:23	19.98	1.16	1.58
7/1/2010	6:24	19.97	1.16	1.98
7/1/2010	6:25	19.97	1.16	1.90
7/1/2010	6:26	19.97	1.11	2.25
7/1/2010	6:27	19.96	1.09	1.98
7/1/2010	6:28	20.03	1.04	2.30
7/1/2010	6:29	20.37	0.36	1.31
7/1/2010	6:30	20.46	0.25	1.50
7/1/2010	6:31	20.44	0.29	1.39
7/1/2010	6:32	19.98	1.35	6.71
7/1/2010	6:33	19.94	1.4	7.91
7/1/2010	6:34	19.82	1.27	13.63
7/1/2010	6:35	19.82	1.47	11.07
7/1/2010	6:36	19.85	1.42	12.49
7/1/2010	6:37	19.89	1.46	11.84
7/1/2010	6:38	19.91	1.49	12.11
7/1/2010	6:39	19.91	1.45	7.91
7/1/2010	6:40	19.92	1.55	8.29
7/1/2010	6:41	19.78	1.53	10.00
7/1/2010	6:42	19.75	1.73	7.25
7/1/2010	6:43	19.69	1.68	9.52
7/1/2010	6:44	19.64	1.63	7.65
7/1/2010	6:45	19.65	1.63	5.32
7/1/2010	6:46	19.65	1.63	5.85
7/1/2010	6:47	19.76	1.65	5.45
7/1/2010	6:48	19.89	1.5	5.27
7/1/2010	6:49	19.92	1.47	5.24
7/1/2010	6:50	19.93	1.5	4.63
7/1/2010	6:51	19.92	1.53	5.03
7/1/2010	6:52	19.93	1.53	5.99
7/1/2010	6:53	19.96	1.48	5.77
7/1/2010	6:54	19.97	1.51	4.38
7/1/2010	6:55	19.97	1.47	3.40
7/1/2010	6:56	20	1.43	2.89
7/1/2010	6:57	20	1.45	2.99

Date	Hour	O2	CO2	SO2
7/1/2010	6:58	20	1.38	3.42
7/1/2010	6:59	20	1.45	2.06
7/1/2010	7:00	19.96	1.42	2.73
7/1/2010	7:01	19.96	1.45	2.59
7/1/2010	7:02	19.96	1.54	2.81
7/1/2010	7:03	19.92	1.54	2.99
7/1/2010	7:04	19.9	1.57	3.53
7/1/2010	7:05	19.78	1.5	4.25
7/1/2010	7:06	19.76	1.56	3.42
7/1/2010	7:07	19.8	1.54	3.77
7/1/2010	7:08	19.73	1.56	3.77
7/1/2010	7:09	19.63	1.58	3.72
7/1/2010	7:10	19.63	1.67	3.74
7/1/2010	7:11	19.67	1.58	4.09
7/1/2010	7:12	19.72	1.59	3.80
7/1/2010	7:13	19.71	1.65	3.45
7/1/2010	7:14	19.71	1.6	4.49
7/1/2010	7:15	19.68	1.65	3.80
7/1/2010	7:16	19.65	1.59	4.17
7/1/2010	7:17	19.7	1.56	4.44
7/1/2010	7:18	19.7	1.58	3.80
7/1/2010	7:19	19.76	1.53	3.10
7/1/2010	7:20	19.76	1.6	3.34
7/1/2010	7:21	19.69	1.6	3.85
7/1/2010	7:22	19.67	1.6	4.73
7/1/2010	7:23	19.7	1.54	4.87
7/1/2010	7:24	19.7	1.6	3.05
7/1/2010	7:25	19.72	1.58	4.14
7/1/2010	7:26	19.72	1.56	3.40
7/1/2010	7:27	19.72	1.56	3.93
7/1/2010	7:28	19.77	1.55	3.02
7/1/2010	7:29	19.82	1.58	2.70
7/1/2010	7:30	19.81	1.59	2.22
7/1/2010	7:31	19.84	1.56	3.07
7/1/2010	7:32	19.83	1.56	1.95
7/1/2010	7:33	19.85	1.53	2.54
7/1/2010	7:34	19.87	1.49	2.57
7/1/2010	7:35	19.87	1.53	2.27
7/1/2010	7:36	19.87	1.52	2.57
7/1/2010	7:37	19.85	1.55	2.27
7/1/2010	7:38	19.84	1.56	2.25
7/1/2010	7:39	19.85	1.52	2.38
7/1/2010	7:40	19.84	1.52	2.38
7/1/2010	7:41	19.87	1.52	2.11
7/1/2010	7:42	19.88	1.52	1.95
7/1/2010	7:43	19.86	1.5	2.38
7/1/2010	7:44	19.87	1.5	1.95
7/1/2010	7:45	19.86	1.53	1.79
7/1/2010	7:46	19.82	1.53	2.19
7/1/2010	7:47	19.84	1.46	2.46
7/1/2010	7:48	19.84	1.52	2.27
7/1/2010	7:49	19.84	1.47	1.76
7/1/2010	7:50	19.83	1.52	2.27
7/1/2010	7:51	19.86	1.49	1.92
7/1/2010	7:52	19.82	1.52	1.66
7/1/2010	7:53	19.83	1.54	2.22
7/1/2010	7:54	19.86	1.49	2.46
7/1/2010	7:55	19.84	1.49	2.41
7/1/2010	7:56	19.83	1.46	2.30
7/1/2010	7:57	19.84	1.46	1.74

Date	Hour	O2	CO2	SO2
7/1/2010	7:58	19.85	1.5	1.63
7/1/2010	7:59	19.85	1.44	1.63
7/1/2010	8:00	19.84	1.46	2.14
7/1/2010	8:01	19.84	1.51	1.82
7/1/2010	8:02	19.82	1.48	2.01
7/1/2010	8:03	19.83	1.49	1.42
7/1/2010	8:04	19.81	1.49	1.55
7/1/2010	8:05	19.82	1.52	1.98
7/1/2010	8:06	19.84	1.5	1.90
7/1/2010	8:07	19.84	1.51	1.87
7/1/2010	8:08	19.84	1.48	2.09
7/1/2010	8:09	19.82	1.47	2.25
7/1/2010	8:10	19.83	1.49	1.79
7/1/2010	8:11	19.87	1.4	1.71
7/1/2010	8:12	20.01	1.16	1.84
7/1/2010	8:13	20.03	1.16	1.58
7/1/2010	8:14	20	1.06	1.52
7/1/2010	8:15	20	0.98	1.74
7/1/2010	8:16	20.02	1	2.01
7/1/2010	8:17	20.02	1.05	1.79
7/1/2010	8:18	20.04	1.03	1.23
7/1/2010	8:19	20.03	0.95	1.52
7/1/2010	8:20	20.03	0.93	1.36
7/1/2010	8:21	20.02	0.9	1.58
7/1/2010	8:22	20.02	0.86	1.68
7/1/2010	8:23	20.03	0.88	1.60
7/1/2010	8:24	20.03	0.93	1.15
7/1/2010	8:25	20.03	0.99	1.87
7/1/2010	8:26	20.02	0.95	1.92
7/1/2010	8:27	20.03	0.99	1.68
7/1/2010	8:28	20.03	0.99	1.50
7/1/2010	8:29	20.02	0.99	1.28
7/1/2010	8:30	20.03	0.93	1.47
7/1/2010	8:31	20.03	0.77	1.36
7/1/2010	8:32	20.03	0.81	1.50
7/1/2010	8:33	20.06	0.73	1.68
7/1/2010	8:34	20.08	0.64	1.68
7/1/2010	8:35	20.07	0.7	1.95
7/1/2010	8:36	20.03	0.99	1.92
7/1/2010	8:37	19.92	1.01	2.25
7/1/2010	8:38	19.92	0.77	1.10
7/1/2010	8:39	19.92	0.8	0.45
7/1/2010	8:40	19.97	1.01	0.56
7/1/2010	8:41	19.94	1.32	0.86
7/1/2010	8:42	19.94	1.31	0.96
7/1/2010	8:43	19.98	1.27	0.96
7/1/2010	8:44	19.95	1.23	0.51
7/1/2010	8:45	19.98	1.18	0.70
7/1/2010	8:46	19.97	1.16	0.37
7/1/2010	8:47	19.97	1.1	1.02
7/1/2010	8:48	19.97	1.1	0.96
7/1/2010	8:49	19.98	1.08	1.07
7/1/2010	8:50	19.95	1.26	0.53
7/1/2010	8:51	19.91	1.41	1.28
7/1/2010	8:52	19.94	1.39	1.18
7/1/2010	8:53	19.93	1.33	0.86
7/1/2010	8:54	19.93	1.31	1.26
7/1/2010	8:55	19.94	1.28	1.15
7/1/2010	8:56	19.94	1.25	1.28
7/1/2010	8:57	20	1.1	1.07

Date	Hour	O2	CO2	SO2
7/1/2010	8:58	20	1.02	0.78
7/1/2010	8:59	20.01	0.98	1.07
7/1/2010	9:00	20.02	0.95	1.36
7/1/2010	9:01	20.01	0.91	1.18
7/1/2010	9:02	20.01	1.05	1.47
7/1/2010	9:03	19.97	1.38	1.42
7/1/2010	9:04	19.96	1.33	1.87
7/1/2010	9:05	19.96	1.3	1.20
7/1/2010	9:06	19.97	1.39	1.07
7/1/2010	9:07	19.94	1.34	1.63
7/1/2010	9:08	19.96	1.34	1.20
7/1/2010	9:09	19.94	1.36	1.28
7/1/2010	9:10	19.88	1.42	1.50
7/1/2010	9:11	19.9	1.39	1.66
7/1/2010	9:12	19.88	1.45	1.55
7/1/2010	9:13	20.15	1.11	1.12
7/1/2010	9:14	20.15	1.1	1.74
7/1/2010	9:15	20.15	1.15	1.60
7/1/2010	9:16	20.17	1.12	1.34
7/1/2010	9:17	20.15	1.1	1.04
7/1/2010	9:18	20.16	1.07	1.44
7/1/2010	9:19	19.98	1.05	1.63
7/1/2010	9:20	19.27	3.39	0.95
7/1/2010	9:21	19.16	4.88	0.35
7/1/2010	9:22	19.14	4.87	-0.48
7/1/2010	9:23	19.06	4.92	-0.19
7/1/2010	9:24	19.18	4.95	4.30
7/1/2010	9:25	2.66	0.67	39.78
7/1/2010	9:26	-0.01	-0.23	49.72
7/1/2010	9:27	-0.04	-0.21	47.69
7/1/2010	9:28	-0.03	-0.22	47.84
7/1/2010	9:29	0	-0.17	48.02
7/1/2010	9:30	0.21	-0.16	47.66

Method 4
Moisture

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	**Date :**	6/29/2010
Project Number :	39400582.00001	**Test I.D. :**	R4
Source :	Baghouse Stack	**Test Team:**	TG, TB, BJ

INPUT PARAMETERS

Volume of water Collected, Vl_o (ml)	28.9	ml
Volume measured by dry gas meter (Vm), ft^3	28.44	ft^3
Delta H, in. H_2O	1.000	in. H_2O
Gamma	0.926	
Barometric Pressure (Pb), in. Hg.	29.95	in. Hg
Temperature of the meter box (Tm), °F	79.00	°F
Percent CO_2	1.0	%
Percent O_2	20.0	%
Percent N_2	79.0	%
Average Stack Temperature (T_s), °F	179.4	°F

Impinger Weights

Initial	Final	Net Gain
684.9	698.8	13.9
682.9	686.8	3.9
937.3	948.4	11.1
		0
2305.1	2334	28.9

SAMPLING CALCULATIONS

Volume of Water Collected
Vwstd = (Vl0)(0.04707)
Vwstd = (28.9) * (0.04707)
Vwstd = 1.36 ft^3

Volume of Gas Metered, Standard Conditions
Vmstd = ((17.65) (V_m)(P_b + ΔH/13.6)(gamma)/Tm
Vmstd = ((17.65) * (28.44) * (29.95 + (1.0000/13.6)) * (0.9256) / (538.60)
Vmstd = 25.90 ft^3

Moisture Content
Bwo = Vwstd/(Vmstd + Vwstd)
Bwo = 1.36 / (25.89 + 1.36)
Bwo = 0.050

Molecular Weight of the Dry Gas Stream
Md = (.44)(%CO2) + (.32)(%O2) + (.28)(%CO +%N2)
Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)
Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas
Ms = (Md)(1-Bwo) + 18(Bwo)
Ms = (28.96) * (1-0.050) + (18) * (0.050)
Ms = 28.41 lb/lbmol

GAS COMPOSITION TEST RESULTS

Vol. Sampled at STP (ft^3)	25.89
Stack Gas Temperature (°F)	179
Moisture Content (% Vol)	4.99%
CO_2 Percent	1.0
O_2 Percent	20.0

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	**Date :**	6/29/2010
Project Number :	39400582.00001	**Test I.D. :**	R5
Source :	Baghouse Stack	**Test Team:**	TG, TB, BJ

INPUT PARAMETERS

Volume of water Collected, Vl_o (ml)	22.8	ml
Volume measured by dry gas meter (Vm), ft^3	28.60	ft^3
Delta H, in. H_2O	1.000	in. H_2O
Gamma	0.926	
Barometric Pressure (Pb), in. Hg.	29.95	in. Hg
Temperature of the meter box (Tm), °F	79.00	°F
Percent CO_2	1.0	%
Percent O_2	20.0	%
Percent N_2	79.0	%
Average Stack Temperature (T_s), °F	150.8	°F

Impinger Weights

Initial	Final	Net Gain
681.7	695.0	13.3
699.2	701.5	2.3
601.4	602.7	1.3
896.6	902.5	5.9
2878.9	2901.7	22.8

SAMPLING CALCULATIONS

Volume of Water Collected
Vwstd = (Vl0)(0.04707)
Vwstd = (22.8) * (0.04707)
Vwstd = 1.07 ft^3

Volume of Gas Metered, Standard Conditions
Vmstd = ((17.65) (V_m)(P_b + ΔH/13.6)(gamma)/Tm
Vmstd = ((17.65) * (28.60) * (29.95 + (1.0000/13.6)) * (0.9256) / (538.60)
Vmstd = 26.04 ft^3

Moisture Content
Bwo = Vwstd/(Vmstd + Vwstd)
Bwo = 1.07 / (26.03 + 1.07)
Bwo = 0.040

Molecular Weight of the Dry Gas Stream
Md = (.44)(%CO2) + (.32)(%O2) + (.28)(%CO +%N2)
Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)
Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas
Ms = (Md)(1-Bwo) + 18(Bwo)
Ms = (28.96) * (1-0.040) + (18) * (0.040)
Ms = 28.53 lb/lbmol

GAS COMPOSITION TEST RESULTS

Vol. Sampled at STP (ft^3)	26.03
Stack Gas Temperature (°F)	151
Moisture Content (% Vol)	3.96%
CO_2 Percent	1.0
O_2 Percent	20.0

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	**Date :**	6/29/2010
Project Number :	39400582.00001	**Test I.D. :**	R6
Source :	Baghouse Stack	**Test Team:**	TG, TB, BJ

INPUT PARAMETERS

Volume of water Collected, Vl_o (ml)	32.2	ml
Volume measured by dry gas meter (Vm), ft^3	28.45	ft^3
Delta H, in. H_2O	1.000	in. H_2O
Gamma	0.926	
Barometric Pressure (Pb), in. Hg.	29.95	in. Hg
Temperature of the meter box (Tm), °F	79.00	°F
Percent CO_2	1.0	%
Percent O_2	20.0	%
Percent N_2	79.0	%
Average Stack Temperature (T_s), °F	163.8	°F

Impinger Weights

Initial	Final	Net Gain
729.3	756.5	27.2
691.8	693.4	1.6
605.8	605.8	0
872.4	875.8	3.4
2899.3	2931.5	32.2

SAMPLING CALCULATIONS

Volume of Water Collected
Vwstd = (Vl0)(0.04707)
Vwstd = (32.2) * (0.04707)
Vwstd = 1.52 ft^3

Volume of Gas Metered, Standard Conditions
Vmstd = ((17.65) (V_m)(P_b + ΔH/13.6)(gamma)/Tm
Vmstd = ((17.65) * (28.45) * (29.95 + (1.0000/13.6)) * (0.9256) / (538.60)
Vmstd = 25.91 ft^3

Moisture Content
Bwo = Vwstd/(Vmstd + Vwstd)
Bwo = 1.52 / (25.89 + 1.52)
Bwo = 0.055

Molecular Weight of the Dry Gas Stream
Md = (.44)(%CO2) + (.32)(%O2) + (.28)(%CO +%N2)
Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)
Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas
Ms = (Md)(1-Bwo) + 18(Bwo)
Ms = (28.96) * (1-0.055) + (18) * (0.055)
Ms = 28.35 lb/lbmol

GAS COMPOSITION TEST RESULTS

Vol. Sampled at STP (ft^3)	25.89
Stack Gas Temperature (°F)	164
Moisture Content (% Vol)	5.53%
CO_2 Percent	1.0
O_2 Percent	20.0

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	**Date :**	6/30/2010
Project Number :	39400582.00001	**Test I.D. :**	R7
Source :	Baghouse Stack	**Test Team:**	TG, TB, BJ

INPUT PARAMETERS

			Impinger Weights		
Volume of water Collected, Vl_o (ml)	29.6	ml			
Volume measured by dry gas meter (Vm), ft^3	28.20	ft^3	Initial	Final	Net Gain
Delta H, in. H_2O	1.000	in. H_2O	698.8	719.2	20.4
Gamma	0.926		686.8	689.4	2.6
Barometric Pressure (Pb), in. Hg.	29.98	in. Hg	948.4	955.0	6.6
Temperature of the meter box (Tm), °F	79.00	°F			0
Percent CO_2	1.0	%	2334	2363.6	29.6
Percent O_2	20.0	%			
Percent N_2	79.0	%			
Average Stack Temperature (T_s), °F	159.0	°F			

SAMPLING CALCULATIONS

Volume of Water Collected
Vwstd = (Vl0)(0.04707)
Vwstd = (29.6) * (0.04707)
Vwstd = 1.39 ft^3

Volume of Gas Metered, Standard Conditions
Vmstd = ((17.65) (V_m)(P_b + ΔH/13.6)(gamma)/Tm
Vmstd = ((17.65) * (28.20) * (29.98 + (1.0000/13.6)) * (0.9256) / (538.60)
Vmstd = 25.70 ft^3

Moisture Content
Bwo = Vwstd/(Vmstd + Vwstd)
Bwo = 1.39 / (25.69 + 1.39)
Bwo = 0.051

Molecular Weight of the Dry Gas Stream
Md = (.44)(%CO2) + (.32)(%O2) + (.28)(%CO +%N2)
Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)
Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas
Ms = (Md)(1-Bwo) + 18(Bwo)
Ms = (28.96) * (1-0.051) + (18) * (0.051)
Ms = 28.40 lb/lbmol

GAS COMPOSITION TEST RESULTS	
Vol. Sampled at STP (ft^3)	25.69
Stack Gas Temperature (°F)	159
Moisture Content (% Vol)	5.14%
CO_2 Percent	1.0
O_2 Percent	20.0

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	**Date :**	6/30/2010
Project Number :	39400582.00001	**Test I.D. :**	R8
Source :	Baghouse Stack	**Test Team:**	TG, TB, BJ

INPUT PARAMETERS

			Impinger Weights		
Volume of water Collected, Vl_o (ml)	24.6	ml			
Volume measured by dry gas meter (Vm), ft^3	28.91	ft^3	**Initial**	**Final**	**Net Gain**
Delta H, in. H_2O	1.000	in. H_2O	695.0	712.4	17.4
Gamma	0.926		701.5	703.1	1.6
Barometric Pressure (Pb), in. Hg.	29.98	in. Hg	602.7	602.7	0
Temperature of the meter box (Tm), °F	79.00	°F	902.5	908.1	5.6
Percent CO_2	1.0	%	2901.7	2926.3	24.6
Percent O_2	20.0	%			
Percent N_2	79.0	%			
Average Stack Temperature (T_s), °F	157.3	°F			

SAMPLING CALCULATIONS

Volume of Water Collected
Vwstd = (Vl0)(0.04707)
Vwstd = (24.6) * (0.04707)
Vwstd = 1.16 ft^3

Volume of Gas Metered, Standard Conditions
Vmstd = ((17.65) (V_m)(P_b + ΔH/13.6)(gamma)/Tm
Vmstd = ((17.65) * (28.91) * (29.98 + (1.0000/13.6)) * (0.9256) / (538.60)
Vmstd = 26.35 ft^3

Moisture Content
Bwo = Vwstd/(Vmstd + Vwstd)
Bwo = 1.16 / (26.33 + 1.16)
Bwo = 0.042

Molecular Weight of the Dry Gas Stream
Md = (.44)(%CO2) + (.32)(%O2) + (.28)(%CO +%N2)
Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)
Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas
Ms = (Md)(1-Bwo) + 18(Bwo)
Ms = (28.96) * (1-0.042) + (18) * (0.042)
Ms = 28.50 lb/lbmol

GAS COMPOSITION TEST RESULTS

Vol. Sampled at STP (ft^3)	26.33
Stack Gas Temperature (°F)	157
Moisture Content (% Vol)	4.21%
CO_2 Percent	1.0
O_2 Percent	20.0

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	**Date :**	6/30/2010
Project Number :	39400582.00001	**Test I.D. :**	R9
Source :	Baghouse Stack	**Test Team:**	TG, TB, BJ

INPUT PARAMETERS

Volume of water Collected, Vl_o (ml)	24.6	ml
Volume measured by dry gas meter (Vm), ft^3	28.91	ft^3
Delta H, in. H_2O	1.000	in. H_2O
Gamma	0.926	
Barometric Pressure (Pb), in. Hg.	29.98	in. Hg
Temperature of the meter box (Tm), °F	79.00	°F
Percent CO_2	1.0	%
Percent O_2	20.0	%
Percent N_2	79.0	%
Average Stack Temperature (T_s), °F	164.2	°F

Impinger Weights

Initial	Final	Net Gain
695.0	712.4	17.4
701.5	703.1	1.6
602.7	602.7	0
902.5	908.1	5.6
2901.7	2926.3	24.6

SAMPLING CALCULATIONS

Volume of Water Collected
Vwstd = (Vl0)(0.04707)
Vwstd = (24.6) * (0.04707)
Vwstd = 1.16 ft^3

Volume of Gas Metered, Standard Conditions
Vmstd = ((17.65) (V_m)(P_b + ΔH/13.6)(gamma)/Tm
Vmstd = ((17.65) * (28.91) * (29.98 + (1.0000/13.6)) * (0.9256) / (538.60)
Vmstd = 26.35 ft^3

Moisture Content
Bwo = Vwstd/(Vmstd + Vwstd)
Bwo = 1.16 / (26.33 + 1.16)
Bwo = 0.042

Molecular Weight of the Dry Gas Stream
Md = (.44)(%CO2) + (.32)(%O2) + (.28)(%CO +%N2)
Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)
Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas
Ms = (Md)(1-Bwo) + 18(Bwo)
Ms = (28.96) * (1-0.042) + (18) * (0.042)
Ms = 28.50 lb/lbmol

GAS COMPOSITION TEST RESULTS

Vol. Sampled at STP (ft^3)	26.33
Stack Gas Temperature (°F)	164
Moisture Content (% Vol)	4.21%
CO_2 Percent	1.0
O_2 Percent	20.0

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	**Date :**	7/1/2010
Project Number :	39400582.00001	**Test I.D. :**	R10
Source :	Baghouse Stack	**Test Team:**	TG, TB, BJ

INPUT PARAMETERS

Volume of water Collected, Vl_o (ml)	20.7	ml
Volume measured by dry gas meter (Vm), ft^3	28.20	ft^3
Delta H, in. H_2O	1.000	in. H_2O
Gamma	0.926	
Barometric Pressure (Pb), in. Hg.	29.95	in. Hg
Temperature of the meter box (Tm), °F	79.00	°F
Percent CO_2	1.0	%
Percent O_2	20.0	%
Percent N_2	79.0	%
Average Stack Temperature (T_s), °F	176.5	°F

Impinger Weights

Initial	Final	Net Gain
756.5	771.6	15.1
693.4	694.9	1.5
605.8	605.2	-0.6
880.4	885.1	4.7
2936.1	2956.8	20.7

SAMPLING CALCULATIONS

Volume of Water Collected
Vwstd = (Vl0)(0.04707)
Vwstd = (20.7) * (0.04707)
Vwstd = 0.97 ft^3

Volume of Gas Metered, Standard Conditions
Vmstd = ((17.65) (V_m)(P_b + ΔH/13.6)(gamma)/Tm
Vmstd = ((17.65) * (28.20) * (29.95 + (1.0000/13.6)) * (0.9256) / (538.60)
Vmstd = 25.68 ft^3

Moisture Content
Bwo = Vwstd/(Vmstd + Vwstd)
Bwo = 0.97 / (25.67 + 0.97)
Bwo = 0.037

Molecular Weight of the Dry Gas Stream
Md = (.44)(%CO2) + (.32)(%O2) + (.28)(%CO +%N2)
Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)
Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas
Ms = (Md)(1-Bwo) + 18(Bwo)
Ms = (28.96) * (1-0.037) + (18) * (0.037)
Ms = 28.56 lb/lbmol

GAS COMPOSITION TEST RESULTS

Vol. Sampled at STP (ft^3)	25.67
Stack Gas Temperature (°F)	177
Moisture Content (% Vol)	3.66%
CO_2 Percent	1.0
O_2 Percent	20.0

URS VELOCITY TRAVERSE AND GAS COMPOSITION CALCULATION SHEET

Client :	Battery Recycling Company	**Date :**	7/1/2010
Project Number :	39400582.00001	**Test I.D. :**	R11
Source :	Baghouse Stack	**Test Team:**	TG, TB, BJ

INPUT PARAMETERS

Volume of water Collected, Vl_o (ml)	20.7	ml
Volume measured by dry gas meter (Vm), ft^3	28.20	ft^3
Delta H, in. H_2O	1.000	in. H_2O
Gamma	0.926	
Barometric Pressure (Pb), in. Hg.	29.95	in. Hg
Temperature of the meter box (Tm), °F	79.00	°F
Percent CO_2	1.0	%
Percent O_2	20.0	%
Percent N_2	79.0	%
Average Stack Temperature (T_s), °F	176.7	°F

Impinger Weights

Initial	Final	Net Gain
756.5	771.6	15.1
693.4	694.9	1.5
605.8	605.2	-0.6
880.4	885.1	4.7
2936.1	2956.8	20.7

SAMPLING CALCULATIONS

Volume of Water Collected
Vwstd = (Vl0)(0.04707)
Vwstd = (20.7) * (0.04707)
Vwstd = 0.97 ft^3

Volume of Gas Metered, Standard Conditions
Vmstd = ((17.65) (V_m)(P_b + ΔH/13.6)(gamma)/Tm
Vmstd = ((17.65) * (28.20) * (29.95 + (1.0000/13.6)) * (0.9256) / (538.60)
Vmstd = 25.68 ft^3

Moisture Content
Bwo = Vwstd/(Vmstd + Vwstd)
Bwo = 0.97 / (25.67 + 0.97)
Bwo = 0.037

Molecular Weight of the Dry Gas Stream
Md = (.44)(%CO2) + (.32)(%O2) + (.28)(%CO +%N2)
Md = (0.44)*(1.00) + (0.32)*(20.00) + (0.28)*(79.00)
Md = 28.96 lb/lbmol

Molecular Weight of Stack Gas
Ms = (Md)(1-Bwo) + 18(Bwo)
Ms = (28.96) * (1-0.037) + (18) * (0.037)
Ms = 28.56 lb/lbmol

GAS COMPOSITION TEST RESULTS	
Vol. Sampled at STP (ft^3)	25.67
Stack Gas Temperature (°F)	177
Moisture Content (% Vol)	3.66%
CO_2 Percent	1.0
O_2 Percent	20.0

URS

EPA M2/M4 DATA SHEET

Project Name: Battery Recycling
Project No.:
Date: 6/29/10

Test No.: Batch #1 R4
Location: Baghouse Stack
Personnel: TB BJ

Stack Dimensions:
Barometric Pressure: 29.95 in. Hg
Static Pressure: +0.36 in. H_2O

M2 Test Time : Start : 1332 Stop : 1341

VELOCITY TRAVERSE		
TRAVERSE POINT	VELOCITY PRESSURE (ΔP)	STACK TEMP.
1	0.48	169
2	0.47	173
3	0.50	176
4	0.41	178
5	0.36	179
6	0.35	180
7	0.35	180
8	0.40	180
9	0.43	180
10	0.43	180
11	0.42	179
12	0.37	176
13	0.30	170
14	0.31	172
15	0.34	175
16	0.33	176
17	0.33	178
18	0.33	180
19	0.37	183
20	0.43	186
21	0.48	189
22	0.51	189
23	0.51	189
24	0.50	189
Average		

IMPINGER WEIGHTS			
Impinger	Initial Wt.	Final Wt.	Total
1	684.9	698.8	
2	682.9	686.8	
3	937.3	948.4	
4			
Total			

PITOT LEAK CHECK (> 3")		
INITIAL	(+) ✓	(-) ✓
FINAL	(+) ✓	(-) ✓
TRAIN LEAK CHECK (ft^3 @ In, Hg.)		
INITIAL	0.002 @ 15"	
FINAL	0.000 @ 5"	

MOISTURE TRAIN ΔH = 1.00					
SAMPLING TIME Clock	Sample	DRY GAS METER	DGM TEMP.	LAST IMPINGER TEMP.	TRAIN VACUUM
1327	0	398.900	78	66	1
	10	404.52	79	65	1
	20	410.21	79	65	1
	30	415.89	79	64	1
	40	421.58	80	64	1
1417	50	427.343	Stop		

M4 Sample Train I.D. : R4
Control Console I.D.: V ΔH@: 1.8526 Y: 0.9256
Pitot Tube Type: S I.D. No.: P5-001 Coefficient:
Manometer Type: Incl I.D. No.: V
Thermometer Type: K I.D. No.: P5-001

NOTES:

URS

EPA M2/M4 DATA SHEET

Project Name: Battery Recycling
Project No.:
Date: 6/29/10

Test No.: 5
Location: Baghouse
Personnel: TB BS TG

Stack Dimensions:
Barometric Pressure: 29.95 in. Hg
Static Pressure: +0.42 in. H_2O

M2 Test Time : Start : 1445 Stop : 1453

VELOCITY TRAVERSE		
TRAVERSE POINT	VELOCITY PRESSURE (ΔP)	STACK TEMP.
1	0.54	142
2	0.54	142
3	0.54	142
4	0.51	145
5	0.44	148
6	0.38	150
7	0.39	153
8	0.44	154
9	0.46	155
10	0.45	155
11	0.43	155
12	0.41	155
13	0.33	151
14	0.36	151
15	0.35	150
16	0.34	151
17	0.35	151
18	0.36	151
19	0.42	152
20	0.44	153
21	0.48	154
22	0.53	155
23	0.53	154
24	0.45	150
Average		

IMPINGER WEIGHTS			
Impinger	Initial Wt.	Final Wt.	Total
1	681.7	695.0	
2	699.2	701.5	
3	601.4	602.7	
4	896.6	902.5	
Total			

PITOT LEAK CHECK (> 3")		
INITIAL	(+) ✓	(-) ✓
FINAL	(+) ✓	(-) ✓
TRAIN LEAK CHECK (ft^3 @ In, Hg.)		
INITIAL	0.000 @ 15"	
FINAL	0.000 @ 5"	

MOISTURE TRAIN ΔH = 1.0

SAMPLING TIME Clock	Sample	DRY GAS METER	DGM TEMP.	LAST IMPINGER TEMP.	TRAIN VACUUM
1445	0	427.608	78	67	1
	10	433.38	77	65	1
	20	438.32	76	62	1
	30	444.88	77	62	1
	40	450.92	77	63	1
1535	50	456.203	Stop		

M4 Sample Train I.D. : 5
Control Console I.D.: V
ΔH@: 1.8526 Y: 0.9256
Pitot Tube Type: S I.D. No.: P5-001 Coefficient:
Manometer Type: Incl I.D. No.: V
Thermometer Type: K I.D. No.: P5-001

NOTES:

URS

EPA M2/M4 DATA SHEET

Project Name: Battery Recycling

Project No.:

Date: 6/29/10

Test No.: 4

Location: Baghouse Stack

Personnel: TB BJ TG

Stack Dimensions:

Barometric Pressure: 29.95 in. Hg

Static Pressure: +0.30 in. H_2O

M2 Test Time : Start : 1546 Stop : 1554

VELOCITY TRAVERSE		
TRAVERSE POINT	VELOCITY PRESSURE (ΔP)	STACK TEMP.
1	0.54	155
2	0.57	158
3	0.56	162
4	0.56	164
5	0.52	164
6	0.41	165
7	0.42	165
8	0.48	167
9	0.50	167
10	0.51	168
11	0.47	167
12	0.29	159
13	0.32	155
14	0.35	159
15	0.36	160
16	0.38	161
17	0.39	162
18	0.37	163
19	0.44	166
20	0.51	168
21	0.54	170
22	0.57	171
23	0.57	171
24	0.42	164
Average		

IMPINGER WEIGHTS			
Impinger	Initial Wt.	Final Wt.	Total
1	729.3	756.5	
2	691.8	693.4	
3	605.8	605.8	
4	872.4	875.8	
Total			

PITOT LEAK CHECK (> 3")		
INITIAL	(+) ✓	(-) ✓
FINAL	(+) ✓	(-) ✓
TRAIN LEAK CHECK (ft^3 @ In, Hg.)		
INITIAL	0.000 @ 15"	
FINAL	0.000 @ 5"	

MOISTURE TRAIN ΔH =

SAMPLING TIME Clock	SAMPLING TIME Sample	DRY GAS METER	DGM TEMP.	LAST IMPINGER TEMP.	TRAIN VACUUM
1546	0	456.492	77	64	1
	10	462.15	77	55	1
	20	467.86	76	54	1
	30	473.57	77	56	1
	40	479.26	77	58	1
1636	50	484.940	Stop		

M4 Sample Train I.D. : 6

Control Console I.D.: V ΔH@: 1.8526 Y: 0.9256

Pitot Tube Type: S I.D. No.: P5-001 Coefficient:

Manometer Type: Inc I.D. No.: V

Thermometer Type: K I.D. No.: P5-001

NOTES:

URS

EPA M2/M4 DATA SHEET

Project Name: Battery Recycling
Project No.:
Date: 06/30/10

Test No.: 7
Location: Baghouse Stack
Personnel: JB BS TC

Stack Dimensions:
Barometric Pressure: 29.98 in. Hg
Static Pressure: 0.17 in. H_2O

M2 Test Time: Start: 0834 Stop: 0842

VELOCITY TRAVERSE		
TRAVERSE POINT	VELOCITY PRESSURE (ΔP)	STACK TEMP.
1	0.36	146
2	0.48	146
3	0.32	148
4	0.36	153
5	0.53	156
6	0.34	157
7	0.36	161
8	0.41	163
9	0.44	164
10	0.45	164
11	0.48	164
12	0.46	160
13	0.40	156
14	0.41	157
15	0.44	158
16	0.47	159
17	0.38	160
18	0.32	161
19	0.32	163
20	0.38	164
21	0.32	164
22	0.34	165
23	0.44	165
24	0.48	162
Average		

IMPINGER WEIGHTS			
Impinger	Initial Wt.	Final Wt.	Total
1	698.8	719.2	
2	686.8	689.4	
3	948.4	955.0	
4			
Total			

PITOT LEAK CHECK (> 3")		
INITIAL	(+) ✓	(-) ✓
FINAL	(+) ✓	(-) ✓
TRAIN LEAK CHECK (ft^3 @ in, Hg.)		
INITIAL	0.00	@ 14"
FINAL	0.00	@ 5"

MOISTURE TRAIN					
SAMPLING TIME Clock	Sample	DRY GAS METER	DGM TEMP.	LAST IMPINGER TEMP.	TRAIN VACUUM
0822	0	485.088	70	66	1
	10	491.12	71	65	1
	20	496.62	71	65	2
	30	501.98	72	65	1
	40	507.66	72	65	1
0912	50	513.284	Stop		

M4 Sample Train I.D.: 7
Control Console I.D.: V
Pitot Tube Type: S
Manometer Type: Incl
Thermometer Type: K

ΔH@: 1.8526
I.D. No.: PS-001
I.D. No.: V
I.D. No.: PS-001

Y: 0.9256
Coefficient: 0.833

NOTES:

URS

EPA M2/M4 DATA SHEET

Project Name: Battery Recycling
Project No.:
Date: 6/30/10

Test No.: 8
Location: Baghouse Stack
Personnel: TB BJ TB

Stack Dimensions:
Barometric Pressure: 29.98 in. Hg
Static Pressure: +0.41 in. H_2O

M2 Test Time : Start : 1636 Stop : 1643

VELOCITY TRAVERSE		
TRAVERSE POINT	VELOCITY PRESSURE (ΔP)	STACK TEMP.
1	0.31 ~~0.08~~	195 TB
2	0.34 ~~0.09~~	149
3	0.34 ~~0.09~~	153
4	0.33 ~~0.11~~	155
5	0.32 ~~0.09~~	157
6	0.35 ~~0.10~~	158
7	0.39 ~~0.15~~	160
8	0.45 ~~0.17~~	161
9	0.53 ~~0.17~~	161
10	0.56 ~~0.17~~	161
11	0.56 ~~0.16~~	160
12	0.45 ~~0.13~~	157
13	0.49	150
14	0.48	149
15	0.47	153
16	0.42	157
17	0.38	159
18	0.34	160
19	0.35	160
20	0.39	162
21	0.41	162
22	0.41	163
23	0.39	163
24	0.34	160
Average		

IMPINGER WEIGHTS			
Impinger	Initial Wt.	Final Wt.	Total
1	695.0	712.4	
2	701.5	703.1	
3	602.7	602.7	
4	902.5	908.1	
Total			

PITOT LEAK CHECK (> 3")		
INITIAL	(+) ✓	(-) ✓
FINAL	(+) ✓	(-) ✓
TRAIN LEAK CHECK (ft^3 @ In, Hg.)		
INITIAL	0.000 @ 15"	
FINAL	0.000 @ 8"	

MOISTURE TRAIN ΔH=1.0

SAMPLING TIME Clock	SAMPLING TIME Sample	DRY GAS METER	DGM TEMP.	LAST IMPINGER TEMP.	TRAIN VACUUM
1625	0	513.536	80	67	1
	10	519.25	80	64	1
	20	525.05	81	62	1
	30	530.88	81	60	1
	40	536.65	81	62	1
1715	50	542.441	Stop		

M4 Sample Train I.D. : 8
Control Console I.D.: V ΔH@: 1.8526 Y: 0.9256
Pitot Tube Type: S I.D. No.: P5-001 Coefficient:
Manometer Type: Inc I.D. No.: V
Thermometer Type: K I.D. No.: P5-001

NOTES:

URS

EPA M2/M4 DATA SHEET

Project Name: Battery Recycling
Project No.:
Date: 6/30/10

Test No.: 9
Location: Baghouse Stack
Personnel: TB BS TG

Stack Dimensions:
Barometric Pressure: 29.98 in. Hg
Static Pressure: +0.28 in. H_2O

M2 Test Time : Start : 1644 Stop : 1652

VELOCITY TRAVERSE		
TRAVERSE POINT	VELOCITY PRESSURE (ΔP)	STACK TEMP.
1	0.37	161
2	0.37	161
3	0.37	161
4	0.33	161
5	0.33	162
6	0.30	163
7	0.41	165
8	0.48	167
9	0.57	168
10	0.60	168
11	0.60	168
12	0.46	162
13	0.52	160
14	0.59	162
15	0.59	163
16	0.55	164
17	0.51	165
18	0.44	166
19	0.41	166
20	0.47	167
21	0.48	167
22	0.49	167
23	0.46	166
24	0.38	160
Average		

IMPINGER WEIGHTS			
Impinger	Initial Wt.	Final Wt.	Total
1			
2			
3			
4			
Total			

PITOT LEAK CHECK (> 3")		
INITIAL	(+) ✓	(-) ✓
FINAL	(+) ✓	(-) ✓
TRAIN LEAK CHECK (ft^3 @ In, Hg.)		
INITIAL	@	
FINAL	@	

MOISTURE TRAIN					
SAMPLING TIME		DRY GAS METER	DGM TEMP.	LAST IMPINGER TEMP.	TRAIN VACUUM
Clock	Sample				

M4 Sample Train I.D. :
Control Console I.D.: V ΔH@: Y:
Pitot Tube Type: S I.D. No.: PS-001 Coefficient:
Manometer Type: Inc I.D. No.: V
Thermometer Type: K I.D. No.: PS-001

NOTES:

URS

EPA M2/M4 DATA SHEET

Project Name: Battery Recycling
Project No.:
Date: 7/1/10

Test No.: 10
Location: Baghouse Stack
Personnel: TP TG BJ

Stack Dimensions:
Barometric Pressure: 29.95 in. Hg
Static Pressure: +0.37 in. H_2O

M2 Test Time : Start : 0852 Stop : 0900

VELOCITY TRAVERSE		
TRAVERSE POINT	VELOCITY PRESSURE (ΔP)	STACK TEMP.
1	0.67	174
2	0.62	176
3	0.58	177
4	0.52	178
5	0.45	179
6	0.39	178
7	0.40	179
8	0.43	179
9	0.45	179
10	0.47	179
11	0.43	178
12	0.38	174
13	0.31	170
14	0.33	172
15	0.34	173
16	0.34	174
17	0.35	174
18	0.35	175
19	0.42	177
20	0.49	178
21	0.53	179
22	0.57	180
23	0.57	180
24	0.46	174
Average		

IMPINGER WEIGHTS			
Impinger	Initial Wt.	Final Wt.	Total
1	756.5	771.6	
2	693.4	694.9	
3	605.8	605.2	
4	880.4	885.1	
Total			

PITOT LEAK CHECK (> 3")		
INITIAL	(+) ✓	(-) ✓
FINAL	(+) ✓	(-) ✓
TRAIN LEAK CHECK (ft^3 @ In, Hg.)		
INITIAL	0.000	@ 15"
FINAL	0.000	@ 8"

MOISTURE TRAIN ΔH = 1.0

SAMPLING TIME Clock	SAMPLING TIME Sample	DRY GAS METER	DGM TEMP.	LAST IMPINGER TEMP.	TRAIN VACUUM
0852	0	542.605	71	66	1
	10	548.40	72	59	1
	20	553.89	71	60	1
	30	559.55	72	62	1
	40	565.18	72	64	1
09:42	50	570.806	Stop		

M4 Sample Train I.D. :
Control Console I.D.: V ΔH@: 1.8526 Y: 0.9256
Pitot Tube Type: S I.D. No.: PS-001 Coefficient:
Manometer Type: Incl I.D. No.: V
Thermometer Type: K I.D. No.: PS-001

NOTES:

URS

EPA M2/M4 DATA SHEET

Project Name: Battery Recycling
Project No.:
Date: 7/1/10

Test No.: 1Φ
Location: Boghouse Stack
Personnel: TB BJ TG

Stack Dimensions:
Barometric Pressure: 29.95 in. Hg
Static Pressure: +0.28 in. H_2O

M2 Test Time : Start : 0901 Stop : 0909

VELOCITY TRAVERSE		
TRAVERSE POINT	VELOCITY PRESSURE (ΔP)	STACK TEMP.
1	0.37	174
2	0.38	175
3	0.36	175
4	0.37	175
5	0.34	176
6	0.34	176
7	0.42	177
8	0.50	178
9	0.55	180
10	0.57	180
11	0.57	180
12	0.46	175
13	0.50	174
14	0.53	175
15	0.56	176
16	0.54	177
17	0.44	178
18	0.41	178
19	0.40	178
20	0.44	178
21	0.45	179
22	0.45	179
23	0.44	178
24	0.31	169
Average		

IMPINGER WEIGHTS			
Impinger	Initial Wt.	Final Wt.	Total
1	719.2		
2	689.4		
3	955.0		
4			
Total			

PITOT LEAK CHECK (> 3")		
INITIAL	(+) ✓	(-) ✓
FINAL	(+) ✓	(-) ✓
TRAIN LEAK CHECK (ft^3 @ in, Hg.)		
INITIAL	@	
FINAL	@	

MOISTURE TRAIN					
SAMPLING TIME		DRY GAS METER	DGM TEMP.	LAST IMPINGER TEMP.	TRAIN VACUUM
Clock	Sample				

M4 Sample Train I.D. :
Control Console I.D.: I ΔH@: Y:
Pitot Tube Type: S I.D. No.: PS-001 Coefficient:
Manometer Type: Inc I.D. No.: I
Thermometer Type: K I.D. No.: PS-001

NOTES:

Velocity Summary

URS

VELOCITY TRAVERSE AND GAS COMPOSITION SUMMARY SHEET

	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	Averages
Stack Gas Temperature (°F)	190.75	190.125	183.625	179.42	150.79	163.79	159.00	157.29	164.17	176.50	176.67	**172.01**
Moisture Content (% Vol.)	4.43%	3.88%	4.01%	4.99%	3.96%	5.53%	5.14%	4.21%	4.21%	3.66%	3.66%	**4.33%**
CO_2 (% Vol.)	0.8	0.7	0.45	1	1	1	1	1	1	1	1	**0.90**
O_2 (% Vol.)	20	19.9	20.2	20	20	20	20	20	20	20	20	**20.01**
Stack Velocity (ft/min)	2,356	2,447	2,377	2,347	2,378	2,473	2,308	2,303	2,468	2,463	2,451	**2,397**
Gas Flow Rate (ACFM)	50,199	52,129	50,640	49,996	50,657	52,681	49,171	49,072	52,589	52,478	52,222	**51,076**
Gas Flow Rate (SCFM)	40,778	42,340	41,547	41,388	43,908	44,697	42,071	42,128	44,635	43,643	43,409	**42,777**
Gas Flow Rate (DSCFM)	38,971	40,699	39,881	39,322	42,169	42,225	39,907	40,353	42,755	42,047	41,822	**40,923**

Appendix A

Visible Emissions
Opacity

Visible Emission Observation Form

Company Name	VE Observer	Observation Date	Start Time	End Time
attery Recycling Company	Thomas Brado	6/29/2010	8:41	9:40

Location: Main Stack

City: Arecibo | **State**: Puerto Rico | **Zip**: 00612

Process Equipment: Process Ventilation | **Operating Mode**: Normal

Control Equipment: Baghouse | **Operating Mode**: Normal

Describe Emission Point: Steel Stack Circular

Height of Emission Point: 75 ft

Height Relative to Observer: Start 75 ft End 75 ft

Distance to Emission Point: Start 150 ft End 150 ft

Direction to Emission Point: Start NNW End NNW

Vertical Angle to Observation Point: Start 40° End 40°

Direction to Observation Point: Start SSE End SSE

Describe Emissions: Start n/a End n/a

Emission Color: Start n/a End n/a

If Water Droplet Plume (Shaded): n/a

Point In The Plume At Which Opacity Was Determined: Start 6 ft above Stack exit End 6 ft above Stack exit

Describe Plume Background: Start Sky End Sky

Background Color: Start Blue/Grey End Blue/Grey

Sky Condition: Start PC End PC

Wind Speed (mph): Start Gentle End Gentle

Wind Direction (from): Start from SSW End from SSW

Ambient Temp: Start 85° End 95°

Wet Blub Temp: n/a

RH Percent: n/a

Interval	0	15	30	45	Interval	0	15	30	45
1	0	0	0	0	31	0	0	0	0
2	0	0	0	0	32	0	0	0	0
3	0	0	0	0	33	0	0	0	0
4	0	0	0	0	34	0	0	0	0
5	0	0	0	0	35	0	0	0	0
6	0	0	0	0	36	0	0	0	0
7	0	0	0	0	37	0	0	0	0
8	0	0	0	0	38	0	0	0	0
9	0	0	0	0	39	0	0	0	0
10	0	0	0	0	40	0	0	0	0
11	0	0	0	0	41	0	0	0	0
12	0	0	0	0	42	0	0	0	0
13	0	0	0	0	43	0	0	0	0
14	0	0	0	0	44	0	0	0	0
15	0	0	0	0	45	0	0	0	0
16	0	0	0	0	46	0	0	0	0
17	0	0	0	0	47	0	0	0	0
18	0	0	0	0	48	0	0	0	0
19	0	0	0	0	49	0	0	0	0
20	0	0	0	0	50	0	0	0	0
21	0	0	0	0	51	0	0	0	0
22	0	0	0	0	52	0	0	0	0
23	0	0	0	0	53	0	0	0	0
24	0	0	0	0	54	0	0	0	0
25	0	0	0	0	55	0	0	0	0
26	0	0	0	0	56	0	0	0	0
27	0	0	0	0	57	0	0	0	0
28	0	0	0	0	58	0	0	0	0
29	0	0	0	0	59	0	0	0	0
30	0	0	0	0	60	0	0	0	0

Test Results:

Maximum 6 Minute Rolling Avg:	0.000	%	Minimum Opacity:	0.0	%
Average Opacity:	0.000	%	# of Readings >20%:	0	
Maximum Opacity:	0.0	%	Number of Readings:	240	

Visible Emission Observation Form

Company Name	VE Observer	Observation Date	Start Time	End Time
Battery Recycling Company	Thomas Brado	6/29/2010	10:05	11:04

Location: Main Stack

City	State	Zip
Arecibo	Puerto Rico	00612

Process Equipment	Operating Mode
Process Ventilation	Normal

Control Equipment	Operating Mode
Baghouse	Normal

Describe Emission Point

Steel Stack Circular

Height of Emission Point	Height Relative to Observer
75 ft	Start 75 ft End 75 ft

Distance to Emission Point	Direction to Emission Point
Start 150 ft End 150 ft	Start NNW End NNW

Vertical Angle to Observation Point	Direction to Observation Point
Start 40° End 40°	Start SSE End SSE

Describe Emissions

Start n/a End whitish dust

Emission Color	If Water Droplet Plume (Shaded)
Start n/a End n/a	n/a

Point In The Plume At Which Opacity Was Determined
Start 6 ft above Stack exit End 6 ft above Stack exit

Describe Plume Background

Start Sky End Sky

Background Color	Sky Condition
Start Blue/Grey End Blue/Grey	Start PC End PC

Wind Speed (mph)	Wind Direction (from)
Start Gentle End Gentle	Start from ENE End from East

Ambient Temp	Wet Blub Temp	RH Percent
Start 95° End 95°	n/a	n/a

Interval	0	15	30	45	Interval	0	15	30	45
1	0	0	0	0	31	0	0	0	0
2	0	0	0	0	32	0	0	0	0
3	0	0	0	0	33	0	0	0	0
4	0	0	0	0	34	0	0	0	0
5	0	0	0	0	35	0	0	0	0
6	0	0	0	5	36	0	0	0	0
7	5	0	0	0	37	0	0	0	0
8	0	0	0	0	38	0	0	0	0
9	0	0	0	0	39	0	0	0	0
10	0	0	0	0	40	0	0	0	0
11	0	0	0	0	41	0	0	0	0
12	0	0	0	0	42	0	0	0	0
13	0	0	0	0	43	0	0	0	0
14	0	0	0	0	44	0	0	0	0
15	0	0	0	0	45	0	0	0	0
16	0	0	0	0	46	0	0	0	0
17	0	0	0	0	47	0	0	0	0
18	0	0	0	0	48	0	0	0	0
19	0	0	0	0	49	0	0	0	0
20	0	0	0	0	50	0	0	0	0
21	0	0	0	0	51	0	0	0	0
22	0	0	0	0	52	0	0	0	0
23	0	0	0	0	53	0	0	0	0
24	0	0	0	0	54	0	0	0	0
25	0	0	0	0	55	0	0	0	0
26	0	0	0	0	56	0	0	0	0
27	0	0	0	0	57	0	0	0	0
28	0	0	0	0	58	0	0	0	0
29	0	0	0	0	59	0	0	0	0
30	0	0	0	0	60	0	0	0	0

Test Results:

Maximum 6 Minute Rolling Avg:	0.417	%	Minimum Opacity:	0.0	%
Average Opacity:	0.042	%	# of Readings >20%:	0	
Maximum Opacity:	5.0	%	Number of Readings:	240	

Visible Emission Observation Form

Company Name	VE Observer	Observation Date	Start Time	End Time
attery Recycling Company	Thomas Brado	6/29/2010	11:25	12:24

Location: Main Stack

City	State	Zip
Arecibo	Puerto Rico	00612

Process Equipment: Process Ventilation — **Operating Mode**: Normal

Control Equipment: Baghouse — **Operating Mode**: Normal

Describe Emission Point: Steel Stack Circular

Height of Emission Point	75 ft	**Height Relative to Observer**	Start 75 ft, End 75 ft
Distance to Emission Point	Start 150 ft, End 150 ft	**Direction to Emission Point**	Start NNW, End NNW
Vertical Angle to Observation Point	Start 40°, End 40°	**Direction to Observation Point**	Start SSE, End SSE

Describe Emissions

Start	n/a	**End**	n/a
Emission Color	Start n/a, End n/a	**If Water Droplet Plume (Shaded)**	n/a
Point In The Plume At Which Opacity Was Determined	Start 6 ft above Stack exit	End	6 ft above Stack exit

Describe Plume Background

Start	Sky	**End**	Sky
Background Color	Start Blue/Grey, End Blue/Grey	**Sky Condition**	Start PC, End PC
Wind Speed (mph)	Start Gentle, End Gentle	**Wind Direction (from)**	Start from East, End from East
Ambient Temp	Start 95°, End 95°	**Wet Blub Temp** n/a	**RH Percent** n/a

Interval	0	15	30	45	Interval	0	15	30	45
1	0	0	0	0	31	0	0	0	0
2	0	0	0	0	32	0	0	0	0
3	0	0	0	0	33	0	0	0	0
4	0	0	0	0	34	0	0	0	0
5	0	0	0	0	35	0	0	0	0
6	0	0	0	0	36	0	0	0	0
7	0	0	0	0	37	0	0	0	0
8	0	0	0	0	38	0	0	0	0
9	0	0	0	0	39	0	0	0	0
10	0	0	0	0	40	0	0	0	0
11	0	0	0	0	41	0	0	0	0
12	0	0	0	0	42	0	0	0	0
13	0	0	0	0	43	0	0	0	0
14	0	0	0	0	44	0	0	0	0
15	0	0	0	0	45	0	0	0	0
16	0	0	0	0	46	0	0	0	0
17	0	0	0	0	47	0	0	0	0
18	0	0	0	0	48	0	0	0	0
19	0	0	0	0	49	0	0	0	0
20	0	0	0	0	50	0	0	0	0
21	0	0	0	0	51	0	0	0	0
22	0	0	0	0	52	0	0	0	0
23	0	0	0	0	53	0	0	0	0
24	0	0	0	0	54	0	0	0	0
25	0	0	0	0	55	0	0	0	0
26	0	0	0	0	56	0	0	0	0
27	0	0	0	0	57	0	0	0	0
28	0	0	0	0	58	0	0	0	0
29	0	0	0	0	59	0	0	0	0
30	0	0	0	0	60	0	0	0	0

Test Results:

Maximum 6 Minute Rolling Avg:	0.000	%	Minimum Opacity:	0.0	%
Average Opacity:	0.000	%	# of Readings >20%:	0	
Maximum Opacity:	0.0	%	Number of Readings:	240	

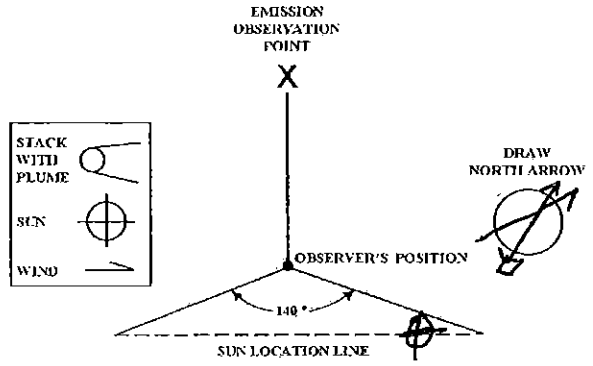
c/o Michael Mowery

CARL KOONTZ ASSOCIATES
of Nashville, Tennessee
This is to acknowledge that
THOMAS BRADO
successfully participated in Visible Emissions training on APR 12 2010
and is qualified to evaluate Visible Emissions for a period of six (6) months from the date of certification.
Carl Koontz
Instructor

VISIBLE EMISSION OBSERVATION FORM

Company Name	Battery Recycling Co
Location	
City	Arecibo
State	PR
Zip	
Process Equipment	~~Baghouse~~ Pot Room/Furnace
Operating Mode	Normal
Control Equipment	Baghouse
Operating Mode	Normal
Describe Emission Point	Steel vertical Stack
Height of Emission Point	~75'
Height Relative to Observer	Start ~75' End ~75'
Distance to Emission Point	Start ~150' End ~150'
Direction to Emission Point	Start NNW End NNW
Vertical Angle to Observation Pt.	Start ~40° End ~40°
Direction to Observation Point	Start SSE End SSE
Describe Emissions	Start N/A End N/A
Emission Color	Start N/A End N/A
If Water Droplet Plume (Circle)	Attached Detached (N/A)
Point In The Plume At Which Opacity Was Determined	Start 6' End 6'
Describe Plume Background	Start Sky End Sky
Background Color	Start Blue/Grey End Blue/Grey
Sky Condition	Start Partly Cloudy End Part. Cloudy
Wind Speed	Start Gentle End Gentle
Wind Direction	Start from SSW End from SSW
Ambient Temp	Start 85° End 95°
Wet Bulb Temp	N/A
RH Percent	N/A

SOURCE LAYOUT SKETCH



Additional Information

Observation Date	Start Time	End Time
06/29/10	0841	0940

Min \ Sec	0	15	30	45	Comments
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2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
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9	0	0	0	0	
10	0	0	0	0	
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12	0	0	0	0	
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26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

Observer's Name (Print)	Thomas Brado
Observer's Signature	[signature]
Date	6/29/10
Organization	URS Corporation
Certified by	Carl Kontz Assoc.
Date	

Continue on reverse side

6841 70940

Sec / Min	0	15	30	45	Comments
31	0	0	0	0	
32	0	0	0	0	
33	0	0	0	0	
34	0	0	0	0	
35	0	0	0	0	
36	0	0	0	0	
37	0	0	0	0	
38	0	0	0	0	
39	0	0	0	0	
40	0	0	0	0	
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56	0	0	0	0	
57	0	0	0	0	
58	0	0	0	0	
59	0	0	0	0	
60	0	0	0	0	

Additional Information

VISIBLE EMISSION OBSERVATION FORM

Company Name	Battery Recycling Co
Location	
City	Arecibo
State	PR
Zip	
Process Equipment	Pot Room/Furnace
Operating Mode	Normal
Control Equipment	Baghouse
Operating Mode	Normal
Describe Emission Point	Steel vertical stack
Height of Emission Point	~75'
Height Relative to Observer	Start 75' End ~~75~~ 75'
Distance to Emission Point	Start ~150' End ~150'
Direction to Emission Point	Start NNW End NNW
Vertical Angle to Observation Pt.	Start ~40° End ~40°
Direction to Observation Point	Start SSE End SSE
Describe Emissions	Start N/A End whitish dust
Emission Color	Start N/A End white
If Water Droplet Plume (Circle)	Attached Detached (N/A)
Point In The Plume At Which Opacity Was Determined	Start 6' End 6'
Describe Plume Background	Start Sky End Sky
Background Color	Start Blue/Grey End Blue/Grey
Sky Condition	Start Partly Cloudy End Part. Cloudy
Wind Speed	Start gentle End gentle
Wind Direction	Start from ENE End from East
Ambient Temp	Start 95° End 95°
Wet Bulb Temp	N/A
RH Percent	N/A

Observation Date	Start Time	End Time
06/29/10	1005	1104

Min \ Sec	0	15	30	45	Comments
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	5	
7	5	0	0	0	
8	0	0	0	0	
9	0	0	0	0	
10	0	0	0	0	
11	0	0	0	0	
12	0	0	0	0	
13	0	0	0	0	
14	0	0	0	0	
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18	0	0	0	0	
19	0	0	0	0	
20	0	0	0	0	
21	0	0	0	0	
22	0	0	0	0	
23	0	0	0	0	
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25	0	0	0	0	
26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
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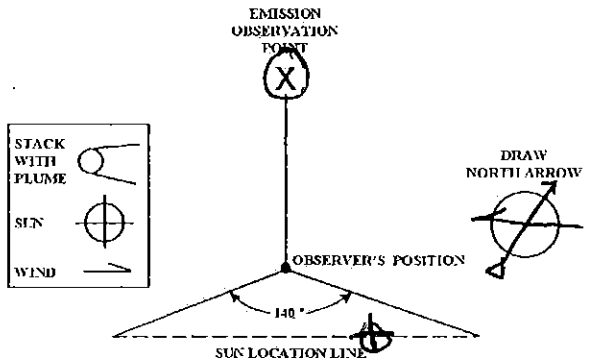
SOURCE LAYOUT SKETCH



Observer's Name (Print)	Thomas Brado
Observer's Signature	Date TB 06/29/10
Organization	URS Corp.
Certified by	Carl Koontz Assoc.
Date	

Additional Information

Continue on reverse side

1005 - 1104

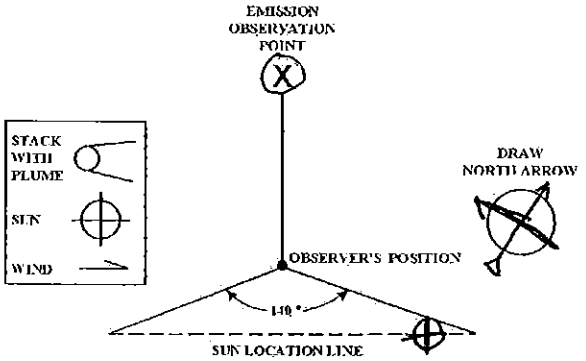
Sec / Min	0	15	30	45	Comments
31	O	O	O	O	
32	O	O	O	O	
33	O	O	O	O	
34	O	O	O	O	
35	O	O	O	O	
36	O	O	O	O	
37	O	O	O	O	
38	O	O	O	O	
39	O	O	O	O	
40	O	O	O	O	
41	O	O	O	O	
42	O	O	O	O	
43	O	O	O	O	
44	O	O	O	O	
45	O	O	O	O	
46	O	O	O	O	
47	O	O	O	O	
48	O	O	O	O	
49	O	O	O	O	
50	O	O	O	O	
51	O	O	O	O	
52	O	O	O	O	
53	O	O	O	O	
54	O	O	O	O	
55	O	O	O	O	
56	O	O	O	O	
57	O	O	O	O	
58	O	O	O	O	
59	O	O	O	O	
60	O	O	O	O	

Additional Information

VISIBLE EMISSION OBSERVATION FORM

Company Name	Battery Recycling Co
Location	
City	Arecibo
State	PR
Zip	
Process Equipment	Pot Room/Furnace
Operating Mode	Normal
Control Equipment	Baghouse
Operating Mode	Normal
Describe Emission Point	Steel Vertical Stack
Height of Emission Point	~75'
Height Relative to Observer	Start 75' End 75'
Distance to Emission Point	Start 150' End 150'
Direction to Emission Point	Start NNW End NNW
Vertical Angle to Observation Pt.	Start ~40° End ~40°
Direction to Observation Point	Start SSE End SSE
Describe Emissions	Start N/A End N/A
Emission Color	Start N/A End N/A
If Water Droplet Plume (Circle)	Attached Detached (N/A)
Point In The Plume At Which Opacity Was Determined	Start 6' End 6'
Describe Plume Background	Start Sky End Sky
Background Color	Start Blue/Grey End Blue/Grey
Sky Condition	Start Part. Cloudy End Part. Cloudy
Wind Speed	Start gentle End gentle
Wind Direction	Start from E End from E
Ambient Temp	Start 95° End 95°
Wet Bulb Temp	N/A
RH Percent	N/A

SOURCE LAYOUT SKETCH



Additional Information

Observation Date	Start Time	End Time
6/29/10	1125	1225

Min \ Sec	0	15	30	45	Comments
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3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7	0	0	0	0	
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26	0	0	0	0	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	0	0	
30	0	0	0	0	

Observer's Name (Print)	Thomas Brado
Observer's Signature	[signature]
Date	6/29/10
Organization	URS Corporation
Certified by	Carl Koontz Assoc.
Date	

Continue on reverse side

1125 - 1225 TB

Min \ Sec	0	15	30	45	Comments
31	0	0	0	0	
32	0	0	0	0	
33	0	0	0	0	
34	0	0	0	0	
35	0	0	0	0	
36	0	0	0	0	
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57	0	0	0	0	
58	0	0	0	0	
59	0	0	0	0	
60	0	0	0	0	

Additional Information

Appendix B

Battery Recycling Co.

Carga de Oxido en Horno No.2

No. Carga	Turno	Supervisor	Fecha
16	6-2	W. Ruiz	6-30-10

Datos de Carga Anterior

Escoria	Plomo	Tiempo de Corrida	Corrección Requerida (√)
Descarga en Charola	24"	16 hrs. 40 min.	( ) si (✓) No

Material para Carga

Materiales	Peso Patrón	Peso Medido (Lb.)
Oxido	42,000	46,987
Polvo de Filtro	2	2
Plomo	8,000	8,069
Hierro	3,600	1,999 + 1590
Carbón	3,800	3,836
Soda	4,400	4,403
Mezcla Realizada por: Alexander Ruiz		Loader: 621-D

Flujo de Aceite

Flama baja SP.	200 ± 10
Valor Real	204
Flama Media SP.	220 ± 10
Valor Real	226
Flama Alta SP.	280 ± 10
Valor Real	283

Acompañamiento de la Carga

Acción	Flama	Tiempo Patrón	Tiempo Programado Inicial	Tiempo Programado Final	Tiempo Real Inicial	Tiempo Real Final	Turno
1er Cargamento (6/30/10 4:20am)	Baja	30min	4:20	4:50	4:20	5:00	☑A ☑B ☐C ☐D
Fundir	Media	1hrs	4:50	5:50	5:00	6:00	☑A ☐B ☐C ☐D
2do Cargamento	Baja	30min	5:50	6:20	6:00	6:40	☑A ☐B ☐C ☐D
Fundir	Media	1 hrs.	6:20	7:20	6:40	7:40	☑A ☐B ☐C ☐D
3er Cargamento	Baja	30min	7:20	7:50	7:40	8:10	☑A ☐B ☐C ☐D
Fundir	Media	1 hrs.	7:50	8:50	8:10	9:10	☑A ☐B ☐C ☐D
4to Cargamento	Baja	2hrs 15min	8:50	9:20	9:10	9:40	☑A ☐B ☐C ☐D
Fundir	Alta	45min.	9:20	11:35	9:40	12:20	☑A ☐B ☐C ☐D
Descarga (6/30/10 1:00 pm)	Baja	45min.	11:35	12:20	12:20	1:00	☐A ☐B ☑C ☐D
Tiempo Total					8hrs 40min		

Escoria Obtenida	Conos de Escoria	Grande	Pequeño
	Cantidad	Descarga en Charola	N/A ER

Plomo Obtenido	Conos de Plomo	N/A ER	Olla ☐6 ☐7 ☐8 ☐9 ☑n/a
	Pulgadas de Plomo Olla No.6	22"	

Características del Producto (√)

Escoria en el Horno	( ) No	(✓) Si, cantidad = 10"	
Escoria	(✓) Liquida	( ) Espesa	( ) Gruesa
Color del Humo	( ) Negra Falta Hierro	( ) Blanca Falta Carbón	(✓) Normal
Ladrillos	( ) Limpio	(✓) Sucio	

Limpieza del Horno (√)

Cajón de Plomo	(✓) Limpio ( ) Sucio
Canal	(✓) Limpio ( ) Sucio
Boca del Horno	(✓) Limpio ( ) Sucio
Realizado por:	E. Santana

Código	Código de Anomalía
	Observaciones: N/A ER 06/30/10

	Turno	Hora	Nombre	Firma	Fecha
Supervisor	☐A ☑B ☐C ☐D	6-2	Wilfredo Ruiz	W. Ruiz	6-30-10
Supervisor	☐A ☐B ☐C ☐D	2-10	W. Corren		6/30/10
Supervisor	☐A ☐B ☑C ☐D	10-6	Elvin Rios		06/30/10
Supervisor	~~☐A ☐B ☐C ☐D~~		N/A		

Supervisor de Producción: _____ Fecha: 07/01/10

Supervisor de Calidad : _____ Fecha: 07/01/10

PRD-F-24-A

Battery Recycling Co.

Carga de Oxido en Horno No.2

No. Carga	Turno	Supervisor	Fecha
#17	2do.	W Cerrer	6/30/10

Datos de Carga Anterior

Escoria	Plomo	Tiempo de Corrida	Corrección Requerida (√)
descarga en Charola	22"	8hrs 40min	( ) si (✓) No

Material para Carga

Materiales	Peso Patrón	Peso Medido (Lb.)
Oxido	47.000	46.950
Polvo de Filtro	2	2
Plomo	8,000	8156
Hierro	3,600	2590 + 1027
Carbón	3800	3881
Soda	4,400	4400
Mezcla Realizada por: H. Serrano		Loader: 621-D

Flujo de Aceite

Flama baja SP.	200 ± 10
Valor Real	207
Flama Media SP.	220 ± 10
Valor Real	221
Flama Alta SP.	280 ± 10
Valor Real	276

Acompañamiento de la Carga

Acción	Flama	Tiempo Patrón	Tiempo Programado Inicial	Tiempo Programado Final	Tiempo Real Inicial	Tiempo Real Final	Turno
1er Cargamento	Baja	30min	1:00	1:30	1:00	1:30	☐A ☐B ☒C ☐D
Fundir	Media	60min	1:30	2:30	1:30	2:30	☐A ☐B ☒C ☐D
2do Cargamento	Baja	30min	2:30	3:00	2:30	3:00	☐A ☐B ☒C ☐D
Fundir	Media	60min	3:00	4:00	3:00	4:00	☐A ☐B ☒C ☐D
3er Cargamento	Baja	30min	4:00	4:30	4:00	4:30	☐A ☐B ☒C ☐D
Fundir	Media	60min	4:30	5:30	4:30	5:30	☐A ☐B ☒C ☐D
4to Cargamento	Baja	30min	5:30	6:00	5:30	6:00	☐A ☐B ☒C ☐D
Fundir	Alta	135min	6:00	8:15	6:00	8:35	☐A ☒B ☐C ☐D
Descarga	Baja	45min	8:15	9:00	8:35	9:55	☐A ☒B ☐C ☐D
Tiempo Total					8hrs 55min		

6/30/10 1:00 pm

6/30/10 9:55pm

Escoria Obtenida	Conos de Escoria Cantidad	Grande	Pequeño
		Charola	N.A.I.S.R

Plomo Obtenido		
Conos de Plomo	19"	Olla ☒6 ☐7 ☐8 ☐9 ☐ n/a
Pulgadas de Plomo Olla No.6	2 Conos en olla #1	

Características del Producto (√)

Escoria en el Horno	( ) No	(✓) Si, cantidad = 9"	
Escoria	(✓) Liquida	( ) Espesa	( ) Gruesa
Color del Humo	( ) Negra Falta Hierro	( ) Blanca Falta Carbón	(✓) Normal
Ladrillos	(✓) Limpio	( ) Sucio	

Limpieza del Horno (√)

Cajón de Plomo	(✓) Limpio ( ) Sucio
Canal	(✓) Limpio ( ) Sucio
Boca del Horno	(✓) Limpio ( ) Sucio
Realizado por:	A. Ruiz

Código	Código de Anomalía
N/A	Observaciones: N/A

	Turno	Hora	Nombre	Firma	Fecha
Supervisor	☒A ☐B ☐C ☐D	2-10	W Cerrer		6/30/10
Supervisor	☐A ☐B ☒C ☐D	10-6	E. Ríos		06/30/10
Supervisor	☐A ☐B ☐C ☐D	6-2	I. Soto		07/01/10
Supervisor	☐A ☐B ☐C ☐D		N/A		

Supervisor de Producción: _____ Fecha: 07/01/10

Supervisor de Calidad : _____ Fecha: _____

PRD-F-24-A

Battery Recycling Co.

Carga de Oxido en Horno No.2

No. Carga	Turno	Supervisor	Fecha
WRP 7-1-10 18 #2	6-2	I. Soto	07/01/10

Datos de Carga Anterior

Escoria	Plomo	Tiempo de Corrida	Corrección Requerida (√)
Charola	19 lb en olla #6 y 2 conos en olla #1	8 hrs 55 min	( ) si (√) No

Material para Carga

Materiales	Peso Patrón	Peso Medido (Lb.)
Oxido	47,000	46,966
Polvo de Filtro	2	2
Plomo	8,000	8,087
Hierro	3,600	2,094 + 1,485
Carbón	3,800	3,789
Soda	4,400	4,400
Mezcla Realizada por:	A. Ruiz	Loader: 621-D

Flujo de Aceite

Flama baja SP.	200 ± 10
Valor Real	203
Flama Media SP.	220 ± 10
Valor Real	218
Flama Alta SP.	280 ± 10
Valor Real	284

Acompañamiento de la Carga

Acción	Flama	Tiempo Patrón	Tiempo Programado Inicial	Tiempo Programado Final	Tiempo Real Inicial	Tiempo Real Final	Turno
1er Cargamento	Baja	30 min	9:55	10:25	9:55	10:35	☐A ☑B ☐C ☐D
Fundir	Media	60 min	10:25	11:25	10:35	11:35	☐A ☑B ☐C ☐D
2do Cargamento	Baja	30 min	11:25	11:55	11:35	12:15	☐A ☑B ☐C ☐D
Fundir	Media	60 min	11:55	12:55	12:15	1:15	☐A ☑B ☐C ☐D
3er Cargamento	Baja	30 min	12:55	1:25	1:15	1:45	☐A ☑B ☐C ☐D
Fundir	Media	60 min	1:25	2:25	1:45	2:45	☑A ☐B ☐C ☐D
4to Cargamento	Baja	30 min	2:25	2:55	2:45	3:45	☑A ☐B ☐C ☐D
Fundir	Alta	2 hrs 15 min	2:55	5:10	3:45	6:00	☑A ☐B ☐C ☐D
Descarga	Baja	45 min	5:10	5:55	6:00	6:45	☑A ☐B ☐C ☐D
Tiempo Total					8 hrs 50 min		

6/30/10 9:55 pm

7/1/10 6:45 am

Escoria Obtenida	Conos de Escoria	Grande	Pequeño
	Cantidad	charola	n/a

Plomo Obtenido	Conos de Plomo	25"	Olla ☑6 ☐7 ☐8 ☐9 ☐ n/a
	Pulgadas de Plomo Olla No.6	n/a	

Características del Producto (√)

Escoria en el Horno	( ) No	(√) Si, cantidad = 9"	
Escoria	(√) Liquida	( ) Espesa	( ) Gruesa
Color del Humo	( ) Negra Falta Hierro	( ) Blanca Falta Carbón	(√) Normal
Ladrillos	(√) Limpio	( ) Sucio	

Limpieza del Horno (√)

Cajón de Plomo	(√) Limpio ( ) Sucio
Canal	(√) Limpio ( ) Sucio
Boca del Horno	(√) Limpio ( ) Sucio
Realizado por:	J. Cruz

Código	Código de Anomalía
N/A	Observaciones: N/A

	Turno	Hora	Nombre	Firma	Fecha
Supervisor	☐A ☑B ☐C ☐D	6-2	I. Soto	[signature]	07/01/10
Supervisor	☐A ☐B ☐C ☐D	2-10	I. Pacheco	[signature]	7-1-10
~~Supervisor~~	~~☐A ☐B ☐C ☐D~~				
Supervisor	☐A ☐B ☐C ☐D		N/A		

Supervisor de Producción: _____ Fecha: _____

Supervisor de Calidad : _____ Fecha: _____

PRD-F-24-A

Battery Recycling Co.

Carga de Oxido en Horno No.2

No. Carga	Turno	Supervisor	Fecha
2	2-10	I. Pacheco	7-1-10

Datos de Carga Anterior

Escoria	Plomo	Tiempo de Corrida	Corrección Requerida (√)
charola	25"	8hrs 50 min	( ) si ( ) No

Material para Carga

Materiales	Peso Patrón	Peso Medido (Lb.)
Oxido	47,000	46,971
Polvo de Filtro	2	2
Plomo	8,000	8,092
Hierro	3,600	2,496 + 1,088
Carbón	3,800	3,798
Soda	4,400	4,400
Mezcla Realizada por:		Loader:

Flujo de Aceite

Flama baja SP.	200 ± 10
Valor Real	184
Flama Media SP.	220 ± 10
Valor Real	217
Flama Alta SP.	280 ± 10
Valor Real	281

Acompañamiento de la Carga

Acción	Flama	Tiempo Patrón	Tiempo Programado		Tiempo Real		Turno
			Inicial	Final	Inicial	Final	
1er Cargamento	Baja	30 min	6:45	7:15	6:45	7:15	☑A □B □C □D
Fundir	Media	1 Hr	7:15	8:15	7:15	8:15	☑A □B □C □D
2do Cargamento	Baja	30 min	8:15	8:45	8:15	8:45	☑A □B □C □D
Fundir	Media	1 Hr	8:45	9:45	8:45	9:45	☑A □B □C □D
3er Cargamento	Baja	30 min	9:45	10:15	9:45	10:15	☑A □B □C □D
Fundir	Media	1 Hr	10:15	11:15	10:15	11:15	□A □B ☑C □D
4to Cargamento	Baja	30 min	11:15	11:45	11:15	11:45	□A □B ☑C □D
Fundir	Alta	2Hrs 15min	11:45	2:00	11:45	2:00	□A □B ☑C □D
Descarga	Baja	45min	2:00	2:45	2:00	3:00	□A □B ☑C □D
Tiempo Total			8 hrs		8hrs 15min		

Escoria Obtenida	Conos de Escoria	Grande	Pequeño
	Cantidad	Charola	N/A

Plomo Obtenido	Conos de Plomo	N/A	Olla □6 □7 □8 □9 ☑n/a
	Pulgadas de Plomo Olla No.6	23"	

Características del Producto (√)

Escoria en el Horno	( ) No	(√) Si, cantidad = 7"	
Escoria	(√) Liquida	( ) Espesa	( ) Gruesa
Color del Humo	( ) Negra Falta Hierro	( ) Blanca Falta Carbón	(√) Normal
Ladrillos	(√) Limpio	( ) Sucio	

Limpieza del Horno (√)

Cajón de Plomo	(√) Limpio ( ) Sucio
Canal	(√) Limpio ( ) Sucio
Boca del Horno	(√) Limpio ( ) Sucio
Realizado por:	E. Santana

Código	Código de Anomalía
	Observaciones: N/A

	Turno	Hora	Nombre	Firma	Fecha
Supervisor	□A □B □C □D	2-10	I. Pacheco		7-1-10
Supervisor	□A □B ☑C □D	10-6	E. Rios		07/01/10
Supervisor	□A □B □C □D				
Supervisor	□A □B □C □D				

Supervisor de Producción: _____ Fecha: _____

Supervisor de Calidad : _____ Fecha: _____

PRD-F-24-A

Appendix C

Calibration Sheets

CEM CALIBRATIONS

PROJECT NAME	Battery Recycling Company
PROJECT NUMBER	39400582
DATE	June 30, 2010
RUN NUMBER	1
START TIME	8:18 AM
STOP TIME	1:00 PM

ANALYZER	SPAN
CO	
CO_2	5
O_2	19
NO_x	
SO_2	97
THC	

		CALIBRATION ERROR			SYSTEM BIAS CHECK								
					PRETEST		POST TEST						
	GAS CYLINDER NUMBER	CAL. GAS VALUE (% or PPM)	ANALYZER RESPONSE (% or PPM)	CAL ERROR (% SPAN)	SYSTEM RESP.	SYS. BIAS (% SPAN)	SYSTEM RESP.	SYS. BIAS (% SPAN)	DRIFT (% SPAN)	IS CAL ERROR CHECK OK? (YES/NO)	IS PRETEST BIAS OK? (YES/NO)	IS POSTEST BIAS OK? (YES/NO)	IS SYSTEM DRIFT OK? (YES/NO)
CO_2 zero	n/a	0.00	-0.11	2.24	-0.17	1.22	-0.20	1.83	0.61	NO	YES	YES	YES
CO_2 mid	SG9140044	4.92	4.96	-0.85	5.08	-2.44	5.03	-1.42	1.02	YES	YES	YES	YES
CO_2 hi				0.00									
O_2 zero	n/a	0.00	0.00	0.00	-0.03	0.16	0.00	0.00	-0.16	YES	YES	YES	YES
O_2 mid	SG9140044	19.01	19.03	-0.11	19.04	-0.05	19.02	0.05	0.11	YES	YES	YES	YES
O_2 hi				0.00									
SO_2 zero	n/a	0.00	0.11	-0.11	-0.90	1.04	0.24	-0.13	-1.18	YES	YES	YES	YES
SO_2 mid	CC266907	47.63	47.78	-0.15	47.63	0.15	47.23	0.57	0.41	YES	YES	YES	YES
SO_2 hi	CC92956	96.88	96.06	0.85									

Correction factors

CO_2	Avg. Conc	-	-0.185	* 0.9385496
O_2	Avg. Conc	-	-0.015	* 0.9981622
SO_2	Avg. Conc	-	-0.33	* 0.9972781

Calibration error = ((cal. gas value - analyzer resp) / analyzer span) * 100: allowable error ± 2 % , ± 5 % for THC

System Bias = ((analyzer resp - system resp) / analyzer span) * 100: allowable error ± 5 %

Drift = ((pretest sys resp - post test sys resp) / analyzer span) * 100: allowable error ± 3 %

Sys Bias (pre and post) must be performed on each run: To determine Drift.
Use zero gas and either mid or hi cal gas, choose cal gas closest to measured stack concentration.

Drift must be performed every hour on THC

Calibration Error is performed only at start, unless allowable error parameters are exceeded.

CEM CALIBRATIONS

PROJECT NAME	Battery Recycling Company
PROJECT NUMBER	39400582
DATE	July 1, 2010
RUN NUMBER	1
START TIME	6:45 AM
STOP TIME	9:18 AM

ANALYZER SPAN	
CO	
CO_2	5
O_2	19
NO_x	
SO_2	97
THC	

		CALIBRATION ERROR			SYSTEM BIAS CHECK								
					PRETEST		POST TEST						
	GAS CYLINDER NUMBER	CAL. GAS VALUE (% or PPM)	ANALYZER RESPONSE (% or PPM)	CAL ERROR (% SPAN)	SYSTEM RESP.	SYS. BIAS (% SPAN)	SYSTEM RESP.	SYS. BIAS (% SPAN)	DRIFT (% SPAN)	IS CAL ERROR CHECK OK? (YES/NO)	IS PRETEST BIAS OK? (YES/NO)	IS POSTEST BIAS OK? (YES/NO)	IS SYSTEM DRIFT OK? (YES/NO)
CO_2 zero	n/a	0.00	-0.11	2.04	-0.20	1.67	-0.21	1.85	0.19	NO	YES	YES	YES
CO_2 mid	SG9140044	4.92	4.96	-0.78	5.03	-1.30	4.87	1.67	2.96	YES	YES	YES	YES
CO_2 hi				0.00									
O_2 zero	n/a	0.00	0.00	0.00	0.00	0.00	-0.04	0.21	0.21	YES	YES	YES	YES
O_2 mid	SG9140044	19.01	19.03	-0.11	19.02	0.05	19.14	-0.58	-0.63	YES	YES	YES	YES
O_2 hi				0.00									
SO_2 zero	n/a	0.00	0.11	-0.11	0.24	-0.13	-0.48	0.61	0.74	YES	YES	YES	YES
SO_2 mid	CC266907	47.63	47.78	-0.15	47.23	0.57	47.69	0.09	-0.47	YES	YES	YES	YES
SO_2 hi	CC92956	96.88	96.06	0.85									

Correction factors

CO_2	Avg. Conc	-	-0.205	*	0.9540252
O_2	Avg. Conc	-	-0.02	*	0.995288
SO_2	Avg. Conc	-	-0.12	*	1.0010509

Calibration error = ((cal. gas value - analyzer resp) / analyzer span) * 100: allowable error ± 2 % , ± 5 % for THC

System Bias = ((analyzer resp - system resp) / analyzer span) * 100: allowable error ± 5 %

Drift = ((pretest sys resp - post test sys resp) / analyzer span) * 100: allowable error ± 3 %

Sys Bias (pre and post) must be performed on each run: To determine Drift.
Use zero gas and either mid or hi cal gas, choose cal gas closest to measured stack concentration.

Drift must be performed every hour on THC

Calibration Error is performed only at start, unless allowable error parameters are exceeded.

CEM CALIBRATIONS

PROJECT NAME	Battery Recycling Company
PROJECT NUMBER	39400582
DATE	June 30, 2010
RUN NUMBER	2
START TIME	8:20 AM
STOP TIME	1:00 PM

ANALYZER SPAN	
CO	0
CO_2	5
O_2	19
NO_x	0
SO_2	97
THC	0

		CALIBRATION ERROR			SYSTEM BIAS CHECK								
					PRETEST		POST TEST						
	GAS CYLINDER NUMBER	CAL. GAS VALUE (% or PPM)	ANALYZER RESPONSE (% or PPM)	CAL ERROR (% SPAN)	SYSTEM RESP.	SYS. BIAS (% SPAN)	SYSTEM RESP.	SYS. BIAS (% SPAN)	DRIFT (% SPAN)	IS CAL ERROR CHECK OK? (YES/NO)	IS PRETEST BIAS OK? (YES/NO)	IS POSTEST BIAS OK? (YES/NO)	IS SYSTEM DRIFT OK? (YES/NO)
CO_2 zero	n/a	0.00	-0.11	2.24	-0.17	1.22	-0.20	1.83	0.61	NO	YES	YES	YES
CO_2 mid	SG9140044	4.92	4.96	-0.85	5.08	-2.44	5.03	-1.42	1.02	YES	YES	YES	YES
CO_2 hi	0	0.00	0.00	0.00									
O_2 zero	n/a	0.00	0.00	0.00	-0.03	0.16	0.00	0.00	-0.16	YES	YES	YES	YES
O_2 mid	SG9140044	19.01	19.03	-0.11	19.04	-0.05	19.02	0.05	0.11	YES	YES	YES	YES
O_2 hi	0	0.00	0.00	0.00									
SO_2 zero	n/a	0.00	0.11	-0.11	-0.90	1.04	0.24	-0.13	-1.18	YES	YES	YES	YES
SO_2 mid	CC266907	47.63	47.78	-0.15	47.63	0.15	47.23	0.57	0.41	YES	YES	YES	YES
SO_2 hi	CC92956	96.88	96.06	0.85									

Correction factors

CO_2	Avg. Conc -	-0.185	*	0.9385496
O_2	Avg. Conc -	-0.015	*	0.9981622
SO_2	Avg. Conc -	-0.33	*	0.9972781

Calibration error = ((cal. gas value - analyzer resp) / analyzer span) * 100: allowable error ± 2 % , ± 5 % for THC

System Bias = ((analyzer resp - system resp) / analyzer span) * 100: allowable error ± 5 %

Drift = ((pretest sys resp - post test sys resp) / analyzer span) * 100: allowable error ± 3 %

Sys Bias (pre and post) must be performed on each run: To determine Drift.
Use zero gas and either mid or hi cal gas, choose cal gas closest to measured stack concentration.

Drift must be performed every hour on THC

Calibration Error is performed only at start, unless allowable error parameters are exceeded.

CEM CALIBRATIONS

PROJECT NAME	Battery Recycling Company	
PROJECT NUMBER	39400582	
DATE	July 1, 2010	
RUN NUMBER	3	4
START TIME	1:01 PM	9:56 PM
STOP TIME	9:55 PM	6:45 AM

ANALYZER SPAN	
CO	0
CO_2	25
O_2	25
NO_x	0
SO_2	97
THC	0

		CALIBRATION ERROR			SYSTEM BIAS CHECK								
					PRETEST		POST TEST						
	GAS CYLINDER NUMBER	CAL. GAS VALUE (% or PPM)	ANALYZER RESPONSE (% or PPM)	CAL ERROR (% SPAN)	SYSTEM RESP.	SYS. BIAS (% SPAN)	SYSTEM RESP.	SYS. BIAS (% SPAN)	DRIFT (% SPAN)	IS CAL ERROR CHECK OK? (YES/NO)	IS PRETEST BIAS OK? (YES/NO)	IS POSTEST BIAS OK? (YES/NO)	IS SYSTEM DRIFT OK? (YES/NO)
CO_2 zero	n/a	0.00	-0.11	0.44	-0.20	0.36	-0.21	0.40	0.04	YES	YES	YES	YES
CO_2 mid	SG9140044	4.92	4.96	-0.17	5.03	-0.28	4.87	0.36	0.64	YES	YES	YES	YES
CO_2 hi	0	0.00	0.00	0.00									
O_2 zero	n/a	0.00	0.00	0.00	0.00	0.00	-0.04	0.16	0.16	YES	YES	YES	YES
O_2 mid	SG9140044	19.01	19.03	-0.08	19.02	0.04	19.14	-0.44	-0.48	YES	YES	YES	YES
O_2 hi	0	0.00	0.00	0.00									
SO_2 zero	n/a	0.00	0.11	-0.11	0.24	-0.13	-0.48	0.61	0.74	YES	YES	YES	YES
SO_2 mid	CC266907	47.63	47.78	-0.15	47.23	0.57	47.69	0.09	-0.47	YES	YES	YES	YES
SO_2 hi	CC92956	96.88	96.06	0.85									

Correction factors

CO_2	Avg. Conc	-	-0.205	*	0.9540252
O_2	Avg. Conc	-	-0.02	*	0.995288
SO_2	Avg. Conc	-	-0.12	*	1.0010509

Calibration error = ((cal. gas value - analyzer resp) / analyzer span) * 100: allowable error ± 2 % , ± 5 % for THC

System Bias = ((analyzer resp - system resp) / analyzer span) * 100: allowable error ± 5 %

Drift = ((pretest sys resp - post test sys resp) / analyzer span) * 100: allowable error ± 3 %

Sys Bias (pre and post) must be performed on each run: To determine Drift.
Use zero gas and either mid or hi cal gas, choose cal gas closest to measured stack concentration.

Drift must be performed every hour on THC

Calibration Error is performed only at start, unless allowable error parameters are exceeded.

Airgas

R7991

Airgas Speciality Gases
12722 S. Wentworth Avenue
Chicago, IL 60628
1-773-785-3000
FAX: 1-773-785-1928
www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E03NI76E15A52R4	Reference Number:	54-124170878-1
Cylinder Number:	SG9140044BAL	Cylinder Volume:	109 Cu.Ft.
Laboratory:	ASG - Chicago - IL	Cylinder Pressure:	1475 PSIG
Analysis Date:	Mar 11, 2009	Valve Outlet:	590

Expiration Date: Mar 11, 2012

Certification performed in accordance with "EPA-Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.
Do Not Use This Cylinder below 150 psig.i.e. 1 Mega Pascal

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
CARBON DIOXIDE	5.000 %	4.918 %	G1	+/- 1% NIST Traceable
OXYGEN	19.00 %	19.01 %	G1	+/- 1% NIST Traceable
NITROGEN	Balance			

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Expiration Date
NTRM/O2	60608	CC206134	22.51% OXYGEN/NITROGEN	May 01, 2010
NTRM/CO2	970508	SG9166474BAL	7.029% CARBON DIOXIDE/	May 01, 2010

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
HORIBA 510	NDIR	Mar 06, 2009
(P-1) CAI-110	Paramagnetic	Mar 06, 2009

Triad Data Available Upon Request

Notes:

QA Approval

Airgas

R18997

Airgas Speciality Gases
12722 S. Wentworth Avenue
Chicago, IL 60628
1-773-785-3000
FAX: 1-773-785-1928
www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI99E15AC2N6	Reference Number:	54-124155157-31
Cylinder Number:	CC266907	Cylinder Volume:	144 Cu.Ft.
Laboratory:	ASG - Chicago - IL	Cylinder Pressure:	2015 PSIG
Analysis Date:	Oct 30, 2008	Valve Outlet:	660

Expiration Date: Oct 30, 2010

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.
Do Not Use This Cylinder below 150 psig.i.e. 1 Mega Pascal

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
SULFUR DIOXIDE	47.00 PPM	47.63 PPM	G1	+/- 1% NIST Traceable
NITROGEN	Balance			

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Expiration Date
NTRM/SO2	052405	CC208182	45.91PPM SULFUR DIOXIDE/	Sep 12, 2010

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Thermo 6700	FTIR	Oct 08, 2008

Triad Data Available Upon Request

Notes:

QA Approval

Airgas

R9211

Airgas Speciality Gases
12722 S. Wentworth Avenue
Chicago, IL 60628
1-773-785-3000
FAX: 1-773-785-1928
www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI99E15A0155	Reference Number:	54-124158802-9
Cylinder Number:	CC92956	Cylinder Volume:	127 Cu.Ft.
Laboratory:	ASG - Chicago - IL	Cylinder Pressure:	1775 PSIG
Analysis Date:	Nov 13, 2008	Valve Outlet:	660

Expiration Date: Nov 13, 2010

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.
Do Not Use This Cylinder below 150 psig.i.e. 1 Mega Pascal

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
SULFUR DIOXIDE	95.00 PPM	96.88 PPM	G1	+/- 1% NIST Traceable
NITROGEN	Balance			

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Expiration Date
NTRM/SO2	10509	SG9138224BAL	173.0PPM SULFUR DIOXIDE/	May 01, 2011

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Thermo 6700	FTIR	Nov 07, 2008

Triad Data Available Upon Request

Notes:

QA Approval

Field Notes

URS

CALC. NO. _____

CALCULATION SHEET

SIGNATURE _____ DATE 6/29/10 CHECKED _____ DATE _____

PROJECT _____ JOB NO. _____

SUBJECT Battery Recycling SHEET 1 OF _____ SHEETS

Calibration

	Time	O2	CO2	SO2	
O2/CO2	08:24	19.03	4.96	0.11	
SO2	08:32	0.0	-0.11	96.06	6/29/10
SO2	08:39	0.0	-0.15	47.78	
zero	08:17		-0.01	-0.02	

Start batch @ 09:02 - 16:35
stopped ~~ear~~ due to length of batch because of heat loss

Bias	Time	O2	CO2	SO2	
O2/CO2	16:40	19.09	4.94	-0.35	6/29/10
SO2	16.46	~~0.2~~ 0.0	-0.21	47.76	
~~zero~~					

Bias	Time	O2	CO2	SO2	
O2/CO2	08:05	19.04	5.08	-0.90	6/30/10
SO2	08:15	-0.03	-0.17	47.63	

Start Data collection @ 08:20 - end of batch

	Time	O2	CO2	SO2	
O2/CO2	15:16	19.02	5.03	0.24	6/30/10
SO2	15:22	0.0	-0.2	47.23	

7-1-10

Bias	Time	O2	CO2	SO2
O2/CO2	09:22	~~19.14~~	~~4.89~~	
~~SO2~~		19.14	4.87	-0.48
SO2	09:27	-0.04	-0.21	47.69

Lab Chain of Custody
&
Lab Results

URS

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference COC No.: _____

Page 1 of 2

Project Name: Battery Recycling Co.
Project Number: 39400582
URS Sample Team: T. Gregg

Sample Shipment Date: July 12, 2010
Laboratory Destination: Test America
Laboratory Contact: Kevin woodcock
Project Contact/Phone: 865-291-3082
Carrier Waybill No.: n/a

Bill To: URS Corporation
1093 Commerce Park Drive
Suite 100
Oak Ridge , Tenn
37830
Report To: Todd Gregg
URS Corporation
865-220-8101

Sample Number	Sample Type	Date Collected	# of Containers	Sample Matrix	Requested Testing Program	Special Instructions
AQS-1906	Run # 1	06/29/10	1	Impinger Catch	USEPA Method 12 Inorganic Lead	
AQS-1907	Run # 1	06/29/10	1	filter	USEPA Method 12 Inorganic Lead	
AQS-1908	Run # 1	06/29/10	1	Probe Rinse	USEPA Method 12 Inorganic Lead	
AQS-1909	Run # 2	06/29/10	1	Impinger Catch	USEPA Method 12 Inorganic Lead	
AQS-1910	Run # 2	06/29/10	1	filter	USEPA Method 12 Inorganic Lead	
AQS-1911	Run # 2	06/29/10	1	Probe Rinse	USEPA Method 12 Inorganic Lead	

TURNAROUND TIME REQUIRED Normal: X Rush: _____

POSSIBLE HAZARD IDENTIFICATION:
Nonhazard: X
Highly Toxic: _____
Flammable: _____
Radiological: _____

Level of QC Required: I. X
II. _____

SAMPLE DISPOSAL: Return to Client _____ Disposal By Lab X

1. Relinquished by: Signature/Affiliation: [signature]	Date: 16:30 Time: 7-9-10	1. Received by Signature/Affiliation: [signature]	Date: 7-9-10 Time: 16:30
2. Relinquished by Signature/Affiliation:	Date: Time:	2. Received by Signature/Affiliation:	Date: Time:
3. Relinquished by Signature/Affiliation:	Date: Time:	3. Received by Signature/Affiliation:	Date: Time:

Comments:

URS

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference COC No.: 0

Project Name: Battery Recycling Co.
Project Number: 39400582

Sample Shipment Date: July 12, 2010
Laboratory Destination: Test America

Sample Number	Sample Type	Date Collected	# of Containers	Sample Matrix	Requested Testing Program	Special Instructions
AQS-1912	Run # 3	06/29/10	1	Impinger Catch	USEPA Method 12 Inorganic Lead	
AQS-1913	Run # 3	06/29/10	1	filter	USEPA Method 12 Inorganic Lead	
AQS-1914	Run # 3	06/29/10	1	Probe Rinse	USEPA Method 12 Inorganic Lead	
AQS-1915	Blank	06/29/10	1	Solution Blank	USEPA Method 12 Inorganic Lead	
AQS-1916	Blank	06/29/10	1	Filter Blank	USEPA Method 12 Inorganic Lead	
Fil-0301	EQB Audit	06/29/10	1	Audit Filter	USEPA Method 12 Inorganic Lead	
Blank	EQB Audit	06/29/10	1	Audit Filter Blank	USEPA Method 12 Inorganic Lead	

H0G110401
-005
-006

Method 12 Compliance Audit Material
(Lead Spiked Filter)

REPORTING FORM: To be completed by laboratory

Request Number/Sample Number: M12-4578-01/FII-0301 Date Issued: 06/15/10

Auditee:

Company: TestAmerica Laboratories, Inc.

Address: 5815 MIDDLEBROOK PIKE, KNOXVILLE, TN 37921

Attention of: Kevin S. Woodcock Phone: (865) 291-3000

Requestor:

Agency: Puerto Rico Environmental Quality Board

Address: 1308 Ponce De Leon Avenue, Suite 234, Rio Piedras, PR 00926

Attention of: Weldin Ortiz Phone: 787-767-8181 x3293

Project Name: The Battery Recycling Company, Inc.

Audit Results (Results in µg)

Compound	Result	Blank Filter Result
Lead	114.13	0.768

SAMPLE SUMMARY

H0G110401

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L3229	001	AQS-1906,1907,1908 RUN 1	06/29/10	
L323A	002	AQS-1909,1910,1911 RUN 2	06/29/10	
L323C	003	AQS-1912,1913,1914 RUN 3	06/29/10	
L323D	004	AQS-1915,1916 RUN BLANK	06/29/10	
L323E	005	FIL-0301 (M12-4578-01/FIL-0301)	06/29/10	
L323F	006	Blank Filter (M12-4578-01/FIL-0301)	06/29/10	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

URS Corporation

Client Sample ID: AQS-1906,1907,1908 RUN 1

TOTAL Metals

Lot-Sample #...: H0G110401-001 Matrix.....: AIR
Date Sampled...: 06/29/10 Date Received..: 07/09/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0204176						
Lead	15.0	1.0	ug	CFR60A 12	07/26-07/29/10	L32291AA
		Dilution Factor: 1		MDL.....: 0.35		

URS Corporation

Client Sample ID: AQS-1909,1910,1911 RUN 2

TOTAL Metals

Lot-Sample #...: H0G110401-002 Matrix.....: AIR
Date Sampled...: 06/29/10 Date Received..: 07/09/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0204176						
Lead	144	1.0	ug	CFR60A 12	07/26-07/29/10	L323A1AA
		Dilution Factor: 1		MDL.....: 0.35		

URS Corporation

Client Sample ID: AQS-1912,1913,1914 RUN 3

TOTAL Metals

Lot-Sample #...: H0G110401-003 Matrix.....: AIR
Date Sampled...: 06/29/10 Date Received..: 07/09/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0204176						
Lead	14.0	1.0	ug	CFR60A 12	07/26-07/29/10	L323C1AA
		Dilution Factor: 1		MDL.....: 0.35		

URS Corporation

Client Sample ID: AQS-1915,1916 RUN BLANK

TOTAL Metals

Lot-Sample #...: H0G110401-004 Matrix.....: AIR
Date Sampled...: 06/29/10 Date Received..: 07/09/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0204176						
Lead	7.1	1.0	ug	CFR60A 12	07/26-07/29/10	L323D1AA
		Dilution Factor: 1		MDL.....: 0.35		

URS Corporation

Client Sample ID: FIL-0301 (M12-4578-01/FIL-0301)

TOTAL Metals

Lot-Sample #...: H0G110401-005 Matrix.....: AIR
Date Sampled...: 06/29/10 Date Received..: 07/09/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0204176						
Lead	114	1.0	ug	CFR60A 12	07/26-07/29/10	L323E1AA
		Dilution Factor: 1		MDL.....: 0.35		

URS Corporation

Client\Sample ID: Blank Filter (M12-4578-01/FIL-0301)

TOTAL Metals

Lot-Sample #...: H0G110401-006 Matrix.....: AIR
Date Sampled...: 06/29/10 Date Received..: 07/09/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0204176						
Lead	0.77 B	1.0	ug	CFR60A 12	07/26-07/29/10	L323F1AA
		Dilution Factor: 1		MDL.....: 0.35		

NOTE(S):

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: H0G110401 Matrix.....: AIR

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: H0G230000-176 Prep Batch #...: 0204176						
Lead	ND	1.0	ug	CFR60A 12	07/26-07/29/10	L4LAP1AA
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: H0G110401 Matrix.....: AIR

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP-BATCH #
Lead	97	(80 - 120)			CFR60A 12	07/26-07/29/10	0204176
	99	(80 - 120)	1.6	(0-20)	CFR60A 12	07/26-07/29/10	0204176

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Lot-Sample #...: H0G110401 Matrix.....: AIR

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Lead	10.0	9.74	ug	97		CFR60A 12	07/26-07/29/10	0204176
	10.0	9.90	ug	99	1.6	CFR60A 12	07/26-07/29/10	0204176

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.