

Field Data Printouts

Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 1
Date	7/19/2011
Meter ID	M15
Y ₁	1.0159
Pitot C _p	0.84

Nozzle Diameter (in)	0.250
Filter ID	12195
Train Type	Impinger
Train ID	IBA
P ₁ (Inches Hg)	29.56
P ₂ (Inches Hg)	-16.5
Start Time	7:03
Stop Time	8:39

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	700.0	590.1	109.9
Impinger 2	670.0	688.3	-18.3
Impinger 3	616.0	619.0	-3.0
Rinse		50.0	-50.0
Silica Gel	881.0	850.1	30.9
Weight of Water Collected, V _w (g)			36.3
Silica Gel Net Weight, V _{dry} (g)			30.9

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	11.8	NA	7.47

Run 4

Transverse Point	Min/Pl	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity (ft/sec)	Volume Metered (ft ³)	Isokinetic (%)
	Elapsed Time										
1-1	3.25	0.47	1.20	238.10	323	96	0.688	47.6	1.960	102.5	
1-2	6.50	0.50	1.30	240.15	324	99	0.707	49.1	1.982	99.6	
1-3	9.75	0.63	1.70	242.80	321	100	0.794	55.1	2.535	114.4	
1-4	13.00	0.64	1.70	245.05	318	104	0.800	55.4	2.141	95.7	
1-5	16.25	0.61	1.60	247.24	320	106	0.791	51.1	2.079	95.2	
1-6	19.50	0.53	1.40	249.36	321	108	0.728	50.5	2.005	98.7	
1-7	22.75	0.47	1.20	251.29	320	110	0.696	47.5	1.820	95.0	
2-1	26.00	0.53	1.40	253.57	323	111	0.726	50.6	2.141	105.6	
2-2	29.25	0.60	1.60	255.77	324	112	0.775	53.9	2.064	95.6	
2-3	32.50	0.70	1.90	258.19	325	114	0.937	58.2	2.268	97.2	
2-4	35.75	0.72	1.90	260.71	327	116	0.949	59.1	2.365	99.7	
2-5	39.00	0.70	1.90	263.10	327	117	0.937	56.3	2.226	95.7	
2-6	42.25	0.57	1.50	265.30	323	117	0.755	52.4	2.049	97.5	
2-7	45.50	0.50	1.30	267.32	324	118	0.707	49.1	1.877	95.3	
3-1	48.75	0.50	1.30	270.80	325	119	0.707	49.2	3.226	163.2	
3-2	52.00	0.55	1.50	272.84	326	120	0.742	51.6	1.886	91.5	
3-3	55.25	0.57	1.50	275.10	324	121	0.755	52.5	2.086	99.2	
3-4	58.50	0.61	1.60	277.33	323	122	0.781	54.2	2.057	94.5	
3-5	61.75	0.60	1.60	279.58	324	123	0.775	63.8	2.072	96.0	
3-6	65.00	0.57	1.50	281.80	323	124	0.755	52.4	2.040	96.9	
3-7	68.25	0.53	1.40	283.97	321	125	0.728	50.5	1.991	97.9	
4-1	71.50	0.43	1.10	286.32	318	126	0.656	45.4	2.162	117.3	
4-2	74.75	0.47	1.20	288.26	319	123	0.686	47.5	1.779	92.6	
4-3	78.00	0.55	1.50	290.41	320	124	0.742	51.4	1.969	95.1	
4-4	81.25	0.58	1.50	292.60	318	125	0.762	52.7	2.004	94.1	
4-5	84.50	0.51	1.40	294.70	311	126	0.714	49.2	1.920	95.7	
4-6	87.75	0.50	1.30	296.73	309	127	0.707	45.7	1.852	93.1	
4-7	91.00	0.43	1.10	298.64	307	127	0.656	45.1	1.740	94.2	

Port 1 to 2 Port 2 to 3 Port 3 to 4
 Less Volumes for Between port Leak Checks 0.27 0.90 0.06

Totals and Averages											
91	1.47	61.35	321	111	0.744	51.6	57.09	98.2			

Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 1
Date	7/19/2011
Meter ID	M15
Yr.	1.0159
Pilot Cp	0.84

Nozzle Diameter (in)	0.250
Filter ID	12163
Train Type	Impinger
Train ID	IBB
P _h (Inches Hg)	29.56
P _a (Inches H ₂ O)	-18.5
Start Time	10:03
Stop Time	11:52

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	723.0	609.7	113.3
Impinger 2	607.0	605.8	1.2
Impinger 3	559.0	556.9	2.1
Rinse		50.0	-50.0
Silica Gel	928.5	908.3	20.2
Weight of Water Collected, V _{wt} (g)			68.6
Silica Gel Net Weight, V _{net} (g)			20.2

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.2	NA	8.93

Run 5

Traverse Point	Min/Pt	Velocity Pressure ΔP (in. H ₂ O)	Orifice Setting ΔH (in. H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity V _s (ft/sec)	Volume Metered Vmstr (ft ³)	Isokinetic (%)
	3.25										
4-1	3.25	0.47	1.20	301.50	300	113	0.688	47.0	1.921	100.2	
4-2	6.50	0.49	1.30	303.58	300	114	0.700	48.0	1.924	98.5	
4-3	9.75	0.57	1.50	305.66	298	117	0.755	51.7	1.925	91.0	
4-4	13.00	0.50	1.30	307.67	300	117	0.707	48.5	1.859	94.0	
4-5	16.25	0.55	1.50	309.80	308	118	0.742	51.1	1.870	95.4	
4-6	19.50	0.49	1.30	311.89	311	119	0.700	48.3	1.832	98.4	
4-7	22.75	0.43	1.10	313.70	319	119	0.656	45.5	1.672	92.5	
3-1	26.00	0.50	1.30	315.81	321	119	0.707	49.1	1.950	100.0	
3-2	29.25	0.55	1.50	319.20	321	120	0.742	51.8	2.132	153.3	
3-3	32.50	0.58	1.50	321.35	326	121	0.762	53.1	1.983	94.7	
3-4	35.75	0.60	1.60	323.58	327	121	0.775	54.0	2.057	96.6	
3-5	39.00	0.57	1.50	325.77	326	121	0.755	52.6	2.020	97.3	
3-6	42.25	0.55	1.50	327.97	325	122	0.742	51.7	2.027	99.3	
3-7	45.50	0.57	1.40	330.04	324	122	0.755	52.6	1.907	91.7	
2-1	48.75	0.53	1.40	333.80	326	122	0.728	50.8	2.464	173.0	
2-2	52.00	0.60	1.60	335.40	327	122	0.775	54.0	1.475	69.3	
2-3	55.25	0.71	1.90	337.87	326	122	0.945	58.9	2.178	98.3	
2-4	58.50	0.70	1.90	339.99	328	122	0.831	58.4	1.964	85.0	
2-5	61.75	0.68	1.80	342.75	327	123	0.825	57.5	2.541	112.1	
2-6	65.00	0.60	1.60	345.02	326	123	0.775	54.0	2.089	98.0	
2-7	68.25	0.51	1.40	347.16	329	122	0.714	49.9	1.970	100.5	
1-1	71.50	0.47	1.20	350.03	330	122	0.688	47.9	2.640	140.4	
1-2	74.75	0.51	1.40	352.08	331	121	0.714	50.0	1.889	96.5	
1-3	78.00	0.67	1.80	354.41	330	122	0.819	57.2	2.137	95.8	
1-4	81.25	0.66	1.70	358.81	329	122	0.812	58.9	2.209	99.0	
1-5	84.50	0.63	1.70	359.15	328	123	0.784	55.4	2.152	98.7	
1-6	87.75	0.51	1.40	361.27	327	123	0.714	49.0	1.948	99.2	
1-7	91.00	0.48	1.30	363.28	326	123	0.693	48.0	1.846	96.9	

Port 1 to 2 Port 2 to 3 Port 3 to 4
 Less Volumes for Between port Leak Checks 0.55 0.97 0.58

Totals and Averages											
	91		1.49	61.75	321	116	0.747	51.9	56.95	98.7	

Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 1
Date	7/19/2011
Filter ID	M15
Yd	1.0159
Ptot Cp	0.84

Nozzle Diameter (in)	0.250
Filter ID	12184
Train Type	Impinger
Train ID	IBA
P ₁ (Inches Hg)	29.56
P ₂ (Inches H ₂ O)	-16.5
Start Time	13:01
Stop Time	14:48

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	664.6	530.5	134.0
Impinger 2	717.0	723.0	-6.0
Impinger 3	605.5	599.3	6.2
Rinse		50.0	-50.0
Silica Gel	902.0	880.4	21.6
Weight of Water Collected V _w (g)			94.2
Silica Gel Net Weight V _{sg} (g)			21.6

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	11.9	NA	7.39

Run 6

Traverse Point	Min/Flt	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity (ft/sec)	Volume Metered (ft ³)	Isokinesis (%)
	Elapsed Time										
4-1	3.25	0.46	1.20	366.23	324	120	119	0.678	47.4	1.653	105.9
4-2	6.50	0.47	1.20	368.21	326	121	120	0.686	48.0	1.612	97.5
4-3	9.75	0.55	1.50	370.24	328	120	117	0.742	52.0	1.686	92.2
4-4	13.00	0.50	1.30	372.33	328	121	118	0.707	49.5	1.917	100.0
4-5	16.25	0.57	1.50	374.54	326	120	115	0.755	52.9	2.035	99.6
4-6	19.50	0.51	1.40	376.47	327	119	115	0.714	50.0	1.776	91.7
4-7	22.75	0.43	1.10	378.35	326	118	114	0.656	45.9	1.734	97.4
3-1	26.00	0.50	1.30	379.90	327	117	114	0.707	49.5	1.431	74.6
3-2	29.25	0.55	1.50	381.98	328	117	114	0.742	52.0	1.922	95.5
3-3	32.50	0.57	1.50	384.04	327	116	114	0.755	52.9	1.905	95.0
3-4	35.75	0.61	1.60	386.26	327	118	114	0.781	54.7	2.050	96.7
3-5	39.00	0.60	1.60	388.34	326	120	114	0.775	54.2	1.917	91.2
3-6	42.25	0.57	1.50	390.41	326	120	114	0.755	52.6	1.908	95.0
3-7	45.50	0.53	1.40	392.48	326	120	114	0.728	50.9	1.907	96.5
2-1	48.75	0.53	1.40	394.92	327	120	114	0.728	51.0	2.246	113.9
2-2	52.00	0.60	1.60	398.30	327	120	114	0.775	52.2	3.115	146.2
2-3	55.25	0.70	1.90	401.34	325	119	113	0.837	56.5	2.808	123.6
2-4	58.50	0.69	1.80	403.41	324	119	113	0.931	58.1	1.912	84.7
2-5	61.75	0.67	1.80	405.83	325	118	112	0.819	57.2	2.239	100.7
2-6	65.00	0.60	1.60	408.24	325	117	112	0.775	54.2	2.231	106.0
2-7	68.25	0.50	1.30	410.27	326	117	112	0.707	49.5	1.678	97.9
1-1	71.50	0.47	1.20	412.75	325	116	111	0.686	47.9	2.296	123.3
1-2	74.75	0.50	1.30	414.57	324	116	110	0.707	49.4	1.586	87.8
1-3	78.00	0.64	1.70	416.90	325	116	110	0.800	56.6	2.163	96.5
1-4	81.25	0.61	1.60	419.14	326	116	108	0.781	54.7	2.083	98.2
1-5	84.50	0.58	1.50	421.36	325	116	109	0.762	53.2	2.062	99.6
1-6	87.75	0.50	1.30	423.36	324	115	108	0.707	49.4	1.860	96.7
1-7	91.00	0.47	1.20	425.24	325	115	108	0.686	47.9	1.745	93.6

Port 1 to 2 Port 2 to 3 Port 3 to 4
 Less Volumes for Between port Leak Checks 0.05 0.26 0.61

Totals and Averages	91	1.46	60.22	326	116	0.742	51.9	55.62	98.6
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 1
Date	7/20/2011
Meter ID	M20
Y ₀	0.9952
P _{to} : C _p	0.84

Place an "x" in the appropriate Box

Nozzle Diameter (in)	NA
Filter ID	NA
Train Type	Impinger
Train ID	IB18
P _h (Inches Hg)	29.50
F ₁ (Inches H ₂ O)	-16.5
Start Time	8:40
Stop Time	10:40

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	763.0	637.5	125.5
Impinger 2	705.1	659.3	45.8
Impinger 3	593.1	578.5	14.6
Rinse		50.0	-50.0
Silica Gel	964.0	934.7	29.3
Weight of Water Collected, V _w (g)			190.9
Silica Gel Net Weight, V _{wsg} (g)			29.3

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.1	NA	7.05

Run 4

Traverse Point	Min/Pk	Velocity Pressure ΔP (in. H ₂ O)	Orifice Setting ΔH (in. H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DMM Inlet (°F)	DGM Outlet (°F)	Square Root ΔF	Stack Gas Velocity (ft/sec)	Volume Metered (ft ³)
	Elapsed Time									
Single	10	NA	1.80	620.52	298	100	99	NA	NA	6.915
	20	NA	1.80	627.96	300	105	99	NA	NA	6.867
	30	NA	1.80	635.48	301	106	100	NA	NA	6.948
	40	NA	1.80	643.07	318	107	102	NA	NA	6.994
	50	NA	1.80	650.39	320	109	103	NA	NA	6.726
	60	NA	1.80	657.86	321	111	103	NA	NA	6.854
	70	NA	1.80	665.34	320	111	104	NA	NA	6.867
	80	NA	1.80	672.82	320	113	105	NA	NA	6.839
	90	NA	1.80	680.41	320	115	107	NA	NA	6.915
	100	NA	1.80	687.91	321	115	107	NA	NA	6.860
	110	NA	1.80	695.35	320	115	107	NA	NA	6.751
	120	NA	1.80	702.91	321	115	108	NA	NA	6.881

Totals and Averages

120	1.80	89.86	315	107	NA	NA	82.46
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 1
Date	7/20/2011
Meter ID	M20
Yr	0.9952
Pilot Cp	0.84

Nozzle Diameter (in)	NA
Filter ID	NA
Train Type	Impinger
Train IC	IB
F _b (Inches Hg)	29.50
P ₁ (Inches H ₂ O)	-16.5
Start Time	12:05
Stop Time	14:05

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	700.3	593.0	107.3
Impinger 2	790.0	733.0	57.0
Impinger 3	619.1	598.0	21.1
Rinse		50.0	-50.0
Silica Gel	856.7	823.0	33.7
Weight of Water Collected V _{wt} (g)			135.4
Silica Gel Net Weight V _{wt} (g)			33.7

FEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	11.5	NA	7.33

Run 5

Traverse Point	Min/Pt	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity Vs (ft/sec)	Volume Metered (ft ³)
	Elapsed Time									
Single	10	NA	1.80	712.05	330	108	105	NA	NA	8.954
	20	NA	1.80	719.63	330	108	107	NA	NA	8.938
	30	NA	1.80	726.96	331	110	107	NA	NA	8.707
	40	NA	1.80	734.43	331	111	107	NA	NA	8.829
	50	NA	1.80	742.07	331	112	107	NA	NA	6.975
	60	NA	1.80	749.66	332	112	107	NA	NA	5.333
	70	NA	1.80	757.18	332	112	107	NA	NA	6.065
	80	NA	1.80	764.70	332	113	107	NA	NA	6.862
	90	NA	1.80	772.22	331	113	108	NA	NA	6.357
	100	NA	1.80	779.74	331	114	108	NA	NA	6.551
	110	NA	1.80	787.62	333	114	108	NA	NA	7.179
	120	NA	1.80	795.28	332	114	108	NA	NA	6.972

Totals and Averages

120	1.80	90.79	331	109	NA	NA	82.96
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 1
Date	7/20/2011
Filter ID	M20
Y _s	0.9952
Pitot C _p	0.84

Nozzle Diameter (in)	NA
Filter ID	NA
Train Type	Impinger
Train ID	IB16
P ₁ (Inches Hg)	29.50
P ₂ (Inches H ₂ O)	-16.5
Start Time	15:20
Stop Time	17:20

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
width	162

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	788.0	638.6	149.4
Impinger 2	676.0	649.4	26.6
Impinger 3	590.0	577.3	12.7
Rinse		50.0	-50.0
Silica Gel	994.0	963.3	30.7
Weight of Water Collected V _w (g)			138.7
Silica Gel Net Weight V _{sg} (g)			30.7

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.0	NA	7.09

Run 6

Traverse Point	Wind/F ₁	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity (ft/sec)	Volume Metered (ft ³)
	10									
Single	10	NA	1.80	803.46	325	110	108	NA	NA	6.575
	20	NA	1.80	810.48	326	110	108	NA	NA	6.418
	30	NA	1.80	818.44	328	111	108	NA	NA	7.271
	40	NA	1.80	825.90	330	111	108	NA	NA	6.814
	50	NA	1.80	833.56	331	111	109	NA	NA	6.991
	60	NA	1.80	841.12	332	112	110	NA	NA	6.887
	70	NA	1.80	848.64	333	112	110	NA	NA	6.551
	80	NA	1.80	856.06	333	112	110	NA	NA	6.780
	90	NA	1.80	863.58	331	112	110	NA	NA	6.551
	100	NA	1.80	871.43	330	113	111	NA	NA	7.139
	110	NA	1.80	879.05	330	113	111	NA	NA	6.920
	120	NA	1.80	886.09	329	113	111	NA	NA	6.403

Totals and Averages

120	1.80	90.15	330	111	NA	NA	82.19
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 1
Date	7/20/2011
Filter ID	M15
Y _e	1.0159
Filter C _p	0.84

Place an "X" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Nozzle Diameter (in)	0.250
Filter ID	NA
Train Type	Impinger
Train ID	IB
P ₁ (Inches Hg)	29.50
P ₂ (Inches H ₂ O)	-16.5
Start Time	8:40
Stop Time	10:34

Moisture	Final Wt. (g)	Tare wt. (g)	Net Wt. (g)
Impinger 1	772.0	649.2	122.8
Impinger 2	756.3	721.4	34.9
Impinger 3	691.5	683.7	7.8
Impinger 4	671.1	657.7	13.4
Rinse		50.0	-50.0
Silica Gel	958.0	922.4	35.6
Weight of Water Collected V _w (g)			138.9
Silica Gel Net Weight V _{sil} (g)			35.6

DEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.1	NA	7.03

Run 4

Traverse Point	Ann/Ft	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity V _s (ft/sec)	Volume Measured V _{mstd} (ft ³)	Isokinetics (%)
	4.5										
4-1	4.5	0.46	1.30	429.20	294	106	106	0.675	46.7	2.240	87.2
4-2	9.0	0.48	1.30	431.98	298	107	108	0.693	47.5	2.603	93.5
4-3	13.5	0.55	1.50	434.98	300	109	108	0.742	51.2	2.805	100.3
4-4	18.0	0.50	1.40	437.92	298	106	101	0.707	48.8	2.762	103.7
4-5	22.5	0.49	1.30	440.73	315	114	108	0.700	48.8	2.615	100.0
4-6	27.0	0.48	1.30	443.57	320	116	107	0.683	48.5	2.636	102.2
4-7	31.5	0.43	1.20	446.23	318	117	108	0.656	45.2	2.464	100.8
3-1	36.0	0.50	1.40	450.41	312	120	110	0.707	49.2	3.658	145.8
3-2	40.5	0.56	1.50	453.43	312	121	114	0.748	52.1	2.775	98.1
3-3	45.0	0.59	1.60	456.56	312	123	112	0.766	53.6	2.877	100.1
3-4	49.5	0.62	1.70	459.81	325	124	108	0.787	55.3	2.395	102.5
3-5	54.0	0.60	1.60	462.96	332	125	113	0.775	54.2	2.398	100.9
3-6	58.5	0.59	1.60	466.19	330	121	114	0.768	54.1	2.689	104.5
3-7	63.0	0.50	1.40	469.07	334	122	113	0.707	49.9	2.646	101.4
2-1	67.5	0.50	1.40	473.37	320	121	112	0.707	49.5	1.957	150.4
2-2	72.0	0.60	1.60	476.56	323	121	112	0.775	53.3	2.337	102.1
2-3	76.5	0.52	1.40	479.41	321	120	111	0.721	50.5	2.627	98.0
2-4	81.0	0.62	1.70	482.58	329	119	111	0.797	55.1	2.927	100.5
2-5	85.5	0.64	1.70	485.76	331	120	111	0.800	56.4	2.934	99.2
2-6	90.0	0.56	1.50	488.71	332	120	111	0.748	52.8	2.720	96.4
2-7	94.5	0.48	1.30	491.54	332	119	110	0.683	48.9	2.612	102.1
1-1	99.0	0.43	1.20	494.80	332	118	109	0.656	46.2	3.014	124.4
1-2	103.5	0.46	1.30	497.54	332	119	110	0.678	47.2	2.530	101.0
1-3	108.0	0.60	1.60	500.56	333	120	111	0.775	54.7	2.785	97.4
1-4	112.5	0.56	1.50	503.61	333	120	111	0.748	52.8	2.812	101.8
1-5	117.0	0.52	1.40	506.56	334	120	112	0.721	50.9	2.717	102.1
1-6	121.5	0.50	1.40	509.30	333	119	111	0.707	49.9	2.528	96.9
1-7	126.0	0.40	1.10	511.90	333	118	112	0.632	44.5	2.397	102.7

Port 1 to 2 Port 2 to 3 Port 3 to 4
 Less Volumes for Between port Leak Checks 0.71 0.73 0.38

Totals and Averages	126	1.44	83.27	322	114	0.724	50.7	78.97	102.1
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 1
Date	7/20/2011
Meter ID	M15
%	1.0159
Pilot Cp	0.84

Nozzle Diameter (in)	0.250
Filter ID	NA
Train Type	Impinger
Train ID	IB
P ₁ (Inches Hg)	29.50
P ₂ (Inches H ₂ O)	-16.5
Start Time	12:05
Stop Time	14:14

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Impinger	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	749.0	638.0	111.0
Impinger 2	789.3	744.0	25.3
Impinger 3	724.2	719.0	5.2
Impinger 4	642.1	640.0	2.1
Rinse		50.0	-50.0
Silica Gel	898.0	877.0	21.0
Weight of Water Collected, V _w (g)			93.6
Silica Gel Net Weight, W _{sg} (g)			21.0

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	11.8	NA	7.32

Run 5

Transverse Point	Min/P.	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Foot ΔP	Stack Gas Velocity (ft/sec)	Volume Metered (ft ³)	Isokinetic (%)
	4.5 Elapsed Time										
4-1	4.5	0.45	1.20	517.61	333	106	103	0.671	47.0	2.969	116.3
4-2	9.0	0.50	1.40	520.45	329	108	103	0.707	49.4	2.864	98.9
4-3	13.5	0.85	1.80	523.81	330	108	105	0.806	56.4	3.150	102.5
4-4	18.0	0.60	1.70	527.19	331	108	103	0.775	54.2	3.172	107.6
4-5	22.5	0.48	1.30	530.06	338	109	103	0.683	46.7	2.889	102.4
4-6	27.0	0.55	1.50	533.61	337	109	104	0.742	52.1	3.325	118.2
4-7	31.5	0.48	1.30	536.68	329	109	104	0.693	46.8	2.874	108.6
3-1	36.0	0.51	1.40	538.91	332	110	105	0.714	50.6	2.986	76.7
3-2	40.5	0.56	1.60	541.11	331	110	106	0.745	52.4	2.956	72.1
3-3	45.0	0.68	1.90	545.56	339	113	106	0.825	58.0	4.150	130.9
3-4	49.5	0.67	1.80	549.04	338	115	106	0.819	57.6	3.236	104.4
3-5	54.0	0.67	1.80	552.53	336	117	108	0.819	57.5	3.243	104.8
3-6	58.5	0.60	1.70	555.80	331	116	106	0.775	54.2	3.040	102.1
3-7	63.0	0.53	1.50	558.76	328	116	106	0.728	50.9	2.751	99.0
2-1	67.5	0.48	1.30	561.71	331	116	108	0.693	46.8	2.749	103.9
2-2	72.0	0.57	1.60	564.68	333	117	107	0.755	52.8	2.756	96.0
2-3	76.5	0.65	1.80	567.99	335	118	107	0.806	56.8	3.078	100.2
2-4	81.0	0.61	1.70	571.27	333	118	107	0.781	54.8	3.047	102.6
2-5	85.5	0.61	1.70	574.53	329	116	107	0.781	54.6	3.028	101.7
2-6	90.0	0.80	1.70	577.80	330	115	106	0.775	54.2	3.043	103.1
2-7	94.5	0.53	1.50	580.41	331	115	105	0.728	51.6	2.440	87.6
1-1	99.0	0.45	1.20	583.56	328	114	105	0.671	46.9	2.932	116.6
1-2	103.5	0.45	1.20	586.01	327	114	105	0.671	46.9	2.281	89.1
1-3	108.0	0.55	1.50	588.95	320	113	105	0.742	51.6	2.742	96.8
1-4	112.5	0.50	1.40	591.82	315	116	108	0.707	49.0	2.666	98.0
1-5	117.0	0.55	1.50	594.91	311	116	107	0.742	51.6	2.868	100.3
1-6	121.5	0.50	1.40	597.82	310	116	108	0.707	46.8	2.689	95.9
1-7	126.0	0.45	1.20	600.61	309	115	108	0.671	46.5	2.589	99.9

Totals and Averages

126	1.52	86.16	329	109	0.741	51.8	80.30	101.5
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 1
Date	7/20/2011
Master ID	M15
Y ₁	1.0159
Pitot Co.	0.84

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Character	
Length	162
Width	162

Moisture	Final wt. (g)	Tare wt. (g)	Net Wt. (g)
Impinger 1	705.1	647.8	57.3
Impinger 2	735.5	728.0	7.5
Impinger 3	662.0	663.9	-1.9
Impinger 4	660.5	659.0	1.5
Filter			-56.0
Silica Gel	973.0	958.0	15.0
Weight of Water Collected, V _w (g)			14.4
Silica Gel Net Weight, V _{wt} (g)			15.0

Nozzle Diameter (in)	0.250
Filter ID	NA
Train Type	Impinger
Train ID	IB25
P ₁ (Inches Hg)	29.50
P ₂ (Inches Hg)	-16.5
Start Time	15:20
Stop Time	17:30

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.0	NA	7.08

Run 6

Train Point	Min/Pt	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Inlet (ft ³) 603.30	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Foot ΔP	Stack Gas Velocity V _s (ft/sec)	Volume Metered V _m (ft ³)	Incline (%)
	4.5 Elapsed Time										
1-1	4.5	0.46	1.30	608.05	297	110	106	0.678	46.0	2.568	35.7
1-2	9.0	0.47	1.30	608.73	305	111	106	0.686	46.2	2.500	30.7
1-3	13.5	0.56	1.50	611.71	301	110	107	0.748	50.9	2.781	92.2
1-4	18.0	0.51	1.40	614.70	307	111	107	0.714	48.6	2.788	97.2
1-5	22.5	0.55	1.50	617.68	310	111	107	0.742	50.7	2.779	35.6
1-6	27.0	0.50	1.40	620.61	311	112	107	0.707	48.4	2.728	96.4
1-7	31.5	0.41	1.10	622.40	312	114	107	0.640	43.9	1.663	64.3
2-1	36.0	0.50	1.40	625.36	320	115	106	0.707	48.7	2.752	97.8
2-2	40.5	0.61	1.70	628.21	322	115	106	0.781	53.9	2.352	85.4
2-3	45.0	0.51	1.40	630.21	325	114	106	0.714	48.3	1.861	65.7
2-4	49.5	0.63	1.70	633.56	328	112	106	0.794	54.9	3.126	39.4
2-5	54.0	0.64	1.70	636.98	333	111	106	0.900	55.5	3.184	101.1
2-6	58.5	0.58	1.60	640.57	331	112	106	0.762	52.8	3.349	111.2
2-7	63.0	0.53	1.40	643.41	333	114	106	0.728	50.6	2.613	92.0
3-1	67.5	0.48	1.30	645.91	326	114	106	0.693	47.8	2.328	94.7
3-2	72.0	0.57	1.60	649.07	325	116	106	0.755	52.2	2.937	98.0
3-3	76.5	0.60	1.60	652.48	321	116	106	0.775	54.4	3.170	102.8
3-4	81.0	0.61	1.70	655.51	322	116	107	0.781	53.9	2.815	90.6
3-5	85.5	0.61	1.70	658.54	324	116	107	0.781	52.9	2.815	90.6
3-6	90.0	0.58	1.60	661.50	325	116	106	0.762	52.6	2.751	91.0
3-7	94.5	0.50	1.40	664.29	327	115	106	0.707	48.9	2.584	92.6
4-1	99.0	0.51	1.40	667.11	318	114	106	0.714	49.1	2.625	92.2
4-2	103.5	0.56	1.50	670.14	325	115	107	0.748	51.7	2.818	94.8
4-3	108.0	0.58	1.60	673.27	330	115	106	0.762	52.8	2.912	96.7
4-4	112.5	0.50	1.40	675.98	331	116	106	0.707	49.0	2.518	90.1
4-5	117.0	0.54	1.50	679.16	331	116	106	0.735	51.0	2.956	101.7
4-6	121.5	0.51	1.40	682.04	330	116	106	0.714	49.5	2.676	94.7
4-7	126.0	0.45	1.20	684.78	328	116	107	0.671	46.4	2.542	95.7

Totals and Averages

126	1.48	81.48	321	110	0.732	50.5	75.83	93.0
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 1
Date	7/19/11
P _b (Inches Hg)	29.56

Meter ID	CAE R1
Y _d	1.01450

Start Time	7:03
Stop Time	8:33

Meter ID	CAE R2
Y _e	0.99167

Run 4

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
3.75	Volume Initial (L)		
Elapsed Time	0.000		
3.75	1.345	103	1.264
7.50	2.897	105	1.453
11.25	4.125	106	1.148
15.00	5.791	108	1.552
18.75	7.054	111	1.170
22.50	8.590	111	1.423
26.25	10.100	113	1.394
30.00	11.636	113	1.418
33.75	13.188	114	1.430
37.50	15.020	115	1.685
41.25	16.284	116	1.161
45.00	17.781	116	1.375
48.75	18.527	118	0.683
52.50	19.966	119	1.315
56.25	21.369	120	1.280
60.00	22.916	121	1.409
63.75	24.444	122	1.389
67.50	25.985	122	1.401
71.25	27.471	123	1.348
75.00	28.978	123	1.367
78.75	30.179	124	1.088
82.50	31.611	125	1.295
86.25	33.199	126	1.434
90.00	34.716	125	1.372

Run 4 Spiked

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
3.75	Volume Initial (L)		
Elapsed Time	0.000		
3.8	1.418	102	1.305
7.5	3.122	105	1.560
11.3	4.411	107	1.176
15.0	5.806	110	1.266
18.8	7.131	110	1.202
22.5	8.761	111	1.476
26.3	10.335	114	1.418
30.0	12.023	114	1.521
33.8	13.333	116	1.176
37.5	14.779	117	1.296
41.3	16.324	118	1.382
45.0	17.551	118	1.098
48.8	19.188	119	1.462
52.5	20.599	121	1.256
56.3	22.098	122	1.332
60.0	23.541	123	1.280
63.8	24.897	124	1.201
67.5	26.414	124	1.343
71.3	27.798	124	1.225
75.0	29.192	125	1.232
78.8	30.206	126	0.895
82.5	31.708	126	1.325
86.3	33.110	127	1.235
90.0	35.032	127	1.693

Totals and Averages

90	34.716	117	31.85
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Totals and Averages

90	35.032	118	31.35
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 1
Date	7/19/11
P _o (Inches Hg)	29.56

Meter ID	CAE R1
Y _e	1.01450

Meter ID	CAE R2
Y _e	0.99167

Start Time	10:03
Stop Time	11:52

Run 5

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vrnstd (L)
Elapsed	Volume		
Time	Initial (L)		
3.75	0.000		
3.8	1.214	110	1.127
7.5	2.494	110	1.188
11.3	4.523	111	1.880
15.0	5.971	111	1.341
18.8	7.369	112	1.293
22.5	8.457	113	1.004
26.3	9.800	115	1.236
30.0	11.331	116	1.406
33.8	13.198	116	1.715
37.5	14.878	116	1.543
41.3	16.487	117	1.475
45.0	17.961	117	1.351
48.8	19.487	122	1.387
52.5	20.265	122	0.707
56.3	22.371	122	1.914
60.0	23.812	123	1.308
63.8	25.364	123	1.408
67.5	27.092	122	1.571
71.3	28.442	121	1.229
75.0	29.810	121	1.246
78.8	30.850	121	0.947
82.5	32.784	121	1.761
86.3	34.513	121	1.574
90.0	35.679	121	1.062

Run 5 Spiked

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vrnstd (L)
Elapsed	Volume		
Time	Initial (L)		
3.75	0.000		
3.8	1.240	110	1.125
7.5	2.487	111	1.129
11.3	4.521	110	1.845
15.0	6.061	110	1.397
18.8	7.400	111	1.213
22.5	8.616	112	1.099
26.3	10.001	115	1.246
30.0	11.496	117	1.340
33.8	13.201	116	1.531
37.5	15.078	116	1.685
41.3	16.501	117	1.275
45.0	18.017	117	1.359
48.8	19.509	122	1.326
52.5	20.498	122	0.879
56.3	22.406	122	1.695
60.0	23.910	123	1.334
63.8	25.345	123	1.273
67.5	27.010	122	1.480
71.3	28.491	120	1.320
75.0	29.887	120	1.245
78.8	31.487	119	1.429
82.5	32.877	119	1.241
86.3	34.209	118	1.192
90.0	35.809	118	1.431

Totals and Averages

90	35.679	118	32.67
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Totals and Averages

90	35.809	117	32.09
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 1
Date	7/19/11
P ₃ (Inches Hg)	29.56

Meter ID	CAE R1
Y _d	1.01450

Start Time	13:01
Stop Time	14:54

Meter ID	CAE R2
Y _d	0.99167

Run 6

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
3.75	Volume		
Elapsed Time	Initial (L)		
	0.000		
3.8	1.408	114	1 298
7.5	3.110	114	1 569
11.3	4.419	114	1 206
15.0	5.711	115	1 189
18.8	7.006	116	1 189
22.5	8.817	116	1 663
26.3	10.222	116	1 290
30.0	11.863	116	1 507
33.8	13.455	116	1 462
37.5	15.011	117	1 427
41.3	16.497	117	1 362
45.0	17.911	117	1 296
48.8	19.754	117	1 690
52.5	20.993	117	1 136
56.3	22.407	116	1 299
60.0	23.557	116	1 056
63.8	24.887	116	1 221
67.5	26.910	116	1 858
71.3	28.102	116	1 095
75.0	29.806	116	1 565
78.8	31.186	116	1 267
82.5	32.955	116	1 625
86.3	34.397	116	1 324
90.0	35.966	116	1 441

Totals and Averages

90	35.966	116	33.04
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Run 6 Spiked

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
3.75	Volume		
Elapsed Time	Initial (L)		
	0.000		
3.8	1.414	114	1 274
7.5	2.987	114	1 417
11.3	4.387	114	1 261
15.0	5.991	114	1 445
18.8	7.310	115	1 186
22.5	8.985	115	1 506
26.3	10.301	115	1 183
30.0	11.732	115	1 287
33.8	13.478	115	1 570
37.5	15.013	116	1 378
41.3	16.385	116	1 232
45.0	17.903	117	1 360
48.8	19.912	116	1 804
52.5	20.987	116	0 965
56.3	22.449	116	1 312
60.0	23.698	116	1 121
63.8	25.075	116	1 236
67.5	26.981	116	1 711
71.3	28.007	116	0 921
75.0	29.959	116	1 752
78.8	31.467	116	1 354
82.5	32.933	116	1 316
86.3	34.469	116	1 379
90.0	35.954	116	1 333

Totals and Averages

90	35.954	116	32.31
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 2
Date	7/19/2011
Meier ID	M9
V _g	0.9891
Pilot C _p	0.84

Nozzle Diameter (in)	0.250
Filter ID	12197
Train Type	Impinger
Train ID	IB
P ₁ (Inches Hg)	29.56
P ₂ (Inches H ₂ O)	-24.0
Start Time	7:03
Stop Time	8:39

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	550.0	483.8	66.2
Impinger 2	763.5	753.0	10.5
Impinger 3	635.1	645.0	-9.9
Rinse		50.0	-50.0
Silica Gel	936.1	907.0	29.1
Weight of Water Collected V _W (g)			16.8
Silica Gel Net Weight V _W (g)			29.1

CH ₄ S	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	11.8	NA	7.47

Run 4

Transverse Point	Min/Pl	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	Gas Inlet Outlet (°F)	Square Root ΔP	Stack Gas Velocity V _s (ft/sec)	Volume Metered V _m (ft ³)	Isokinetic (%)
	Elapsed Time										
1-1	3.25	0.37	1.04	808.80	302	91	90	0.608	42.0	2.142	124.8
1-2	6.50	0.28	0.79	810.00	305	93	91	0.620	36.8	1.311	87.8
1-3	9.75	0.34	0.95	811.80	304	94	92	0.583	40.3	1.633	102.2
1-4	13.00	0.50	1.40	813.90	301	96	91	0.707	46.2	1.964	98.2
1-5	16.25	0.39	1.10	816.00	303	97	95	0.624	43.1	1.953	110.7
1-6	19.50	0.32	0.90	817.40	301	98	96	0.566	39.0	1.289	81.2
1-7	22.75	0.34	0.96	819.10	305	99	97	0.563	40.3	1.575	95.8
2-1	26.00	0.25	0.70	820.50	306	99	97	0.500	34.6	1.296	32.0
2-2	29.25	0.40	1.10	822.10	316	99	97	0.632	44.1	1.483	93.7
2-3	32.50	0.42	1.18	824.10	312	100	98	0.648	45.0	1.551	101.7
2-4	35.75	0.35	0.98	825.90	316	102	100	0.592	41.2	1.659	100.1
2-5	39.00	0.42	1.18	827.60	315	102	99	0.648	45.1	1.565	86.4
2-6	42.25	0.42	1.20	829.50	315	103	100	0.648	45.1	1.750	96.4
2-7	45.50	0.42	1.20	831.30	315	104	100	0.648	45.1	1.657	91.2
3-1	48.75	0.44	1.23	832.70	318	103	100	0.662	46.3	1.290	89.5
3-2	52.00	0.46	1.30	834.60	321	103	99	0.678	47.4	1.752	92.3
3-3	55.25	0.52	1.46	836.60	318	103	100	0.721	50.3	1.345	91.4
3-4	58.50	0.55	1.50	838.90	319	105	101	0.742	51.8	2.115	102.0
3-5	61.75	0.45	1.30	840.90	321	105	100	0.671	46.9	1.840	98.2
3-6	65.00	0.51	1.43	843.20	322	105	99	0.714	49.9	2.118	108.3
3-7	68.25	0.55	1.50	845.30	322	105	99	0.742	51.3	1.934	92.5
4-1	71.50	0.34	0.95	846.80	329	105	99	0.583	41.0	1.380	95.2
4-2	74.75	0.33	0.95	848.60	328	105	100	0.575	40.0	1.654	105.6
4-3	78.00	0.40	1.10	850.40	330	105	99	0.632	44.5	1.656	94.4
4-4	81.25	0.42	1.20	852.10	329	106	100	0.648	45.5	1.562	38.8
4-5	84.50	0.52	1.46	854.60	329	106	100	0.721	50.7	2.296	114.8
4-6	87.75	0.52	1.46	856.00	330	107	101	0.721	50.7	1.285	64.2
4-7	91.00	0.48	1.34	858.91	328	108	102	0.695	48.8	2.667	136.5

Totals and Averages

91	1.17	52.59	316	99.8	0.644	44.8	48.59	96.3
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 2
Date	7/19/2011
Meter ID	M9
Y ₂	0.9891
Fltbt C _p	0.84

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	679.0	452.3	226.7
Impinger 2	678.0	738.2	-60.2
Impinger 3	619.0	612.8	6.2
Rins ⁹		50.0	-50.0
Silica Gel	890.8	846.9	43.9
Weight of Water Collected, V _w (g)			122.7
Silica Gel Net Weight, V _{wt} (g)			33.9

Nozzle Diameter (in)	0.250
Filter ID	12162
Train Type	Impinger
Train ID	
P ₁ (Inches Hg)	29.56
P ₂ (Inches H ₂ O)	-24.0
Start Time	10:03
Stop Time	11:57

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.2	NA	8.33

Run 5

Transverse Point	Min/Pi	Velocity Pressure ΔP (in. H ₂ O)	Orifice Setting ΔH (in. H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔF	Stack Gas Velocity V _g (ft/sec)	Volume Metered V _{msd} (ft ³)	Isokinetic (%)
	3.25										
4-1	3.25	0.37	1.00	864.10	332	103	103	0.608	43.5	1.928	122.2
4-2	6.50	0.43	1.20	866.10	332	103	103	0.658	46.8	1.838	102.1
4-3	9.75	0.42	1.20	867.70	332	104	103	0.645	46.3	1.469	87.4
4-4	13.00	0.44	1.23	869.90	332	104	103	0.663	47.5	2.020	117.4
4-5	16.25	0.45	1.26	871.90	332	105	103	0.671	47.9	1.835	105.5
4-6	19.50	0.49	1.38	874.10	331	105	103	0.700	50.0	2.019	111.2
4-7	22.75	0.51	1.43	876.10	332	106	103	0.714	51.0	1.934	99.0
3-1	26.00	0.39	1.10	879.45	321	107	103	0.624	44.2	3.069	188.1
3-2	29.25	0.45	1.26	881.40	323	107	103	0.671	47.7	1.786	102.1
3-3	32.50	0.58	1.60	883.70	325	108	104	0.762	53.2	2.104	106.1
3-4	35.75	0.55	1.55	885.90	326	109	104	0.742	52.2	2.011	104.2
3-5	39.00	0.53	1.50	887.90	326	111	104	0.728	51.2	1.824	96.3
3-6	42.25	0.52	1.46	890.30	324	111	105	0.721	51.3	2.187	116.4
3-7	45.50	0.62	1.74	892.60	324	111	105	0.787	56.0	2.097	102.2
2-1	48.75	0.43	1.20	894.70	318	111	105	0.686	46.4	1.912	111.5
2-2	52.00	0.45	1.26	896.90	320	111	105	0.671	47.6	2.004	114.3
2-3	55.25	0.48	1.35	899.00	320	112	106	0.693	49.1	1.910	105.5
2-4	58.50	0.54	1.50	901.15	321	112	106	0.735	52.1	1.958	102.0
2-5	61.75	0.55	1.55	903.40	321	112	106	0.742	52.6	2.047	105.7
2-6	65.00	0.55	1.55	905.50	319	112	106	0.742	52.5	1.911	98.6
2-7	68.25	0.52	1.46	908.90	321	112	106	0.721	51.2	3.093	183.3
1-1	71.50	0.34	0.96	910.10	312	111	107	0.585	41.1	1.090	71.2
1-2	74.75	0.41	1.15	912.00	314	111	107	0.640	45.2	1.727	102.8
1-3	78.00	0.52	1.46	913.90	310	112	107	0.721	50.8	1.727	91.1
1-4	81.25	0.45	1.26	916.10	310	114	108	0.671	47.0	1.993	113.0
1-5	84.50	0.55	1.55	918.00	306	114	108	0.742	52.1	1.723	89.1
1-6	87.75	0.45	1.26	920.30	306	114	108	0.671	47.1	2.064	117.8
1-7	91.00	0.43	1.20	922.50	306	114	108	0.650	46.1	1.980	115.0

Totals and Averages

91	1.34	60.49	321	107	0.691	49.0	55.18	109.3
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 2
Date	7/19/2011
Meier ID	M9
V _d	0.9891
Phi C _p	0.84

Nozzle Diameter (in)	0.250
Filter ID	12185
Train Type	Impinger
Train ID	1B
F _h (Inches Hg)	29.56
F _w (Inches H ₂ O)	-24.0
Start Time	13:01
Stop Time	14:34

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Noisefire	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	622.7	485.6	137.1
Impinger 2	740.0	747.5	-7.5
Impinger 3	624.0	609.0	15.0
Rinse		50.0	-50.0
Silica Gel	958.0	936.0	22.0
Weight of Water Collected, V _w (g)			9.6
Silica Gel Net Weight, V _{w,net} (g)			22.0

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	11.8	NA	7.39

Run 6

Transverse Point	Win/Pt	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity V _s (ft/sec)	Volume Metered V _m (ft ³)	Isokinetics (%)
	3.25										
4-1	3.25	0.32	0.90	926.30	316	104	104	0.586	39.8	1.953	131.5
4-2	6.50	0.34	0.95	927.90	317	104	104	0.583	41.1	1.487	93.8
4-3	9.75	0.34	0.95	929.90	317	104	104	0.583	41.1	1.833	117.4
4-4	13.00	0.54	1.50	932.10	311	105	104	0.755	51.6	2.018	102.1
4-5	16.25	0.52	1.46	934.30	310	107	104	0.721	50.6	2.014	103.8
4-6	19.50	0.45	1.26	936.40	307	108	104	0.671	46.9	1.920	106.1
4-7	22.75	0.46	1.29	938.30	307	109	105	0.676	47.5	1.734	94.6
3-1	26.00	0.45	1.26	942.60	316	110	105	0.671	47.1	3.920	218.0
3-2	29.25	0.45	1.28	942.50	320	111	105	0.671	47.3	4.091	-5.1
3-3	32.50	0.53	1.49	944.70	320	111	105	0.728	51.4	2.005	103.0
3-4	35.75	0.52	1.46	947.10	321	112	105	0.721	50.5	2.185	113.4
3-5	39.00	0.54	1.52	949.20	322	112	106	0.735	51.9	1.911	97.4
3-6	42.25	0.56	1.57	951.50	318	113	106	0.745	52.7	2.091	104.4
3-7	45.50	0.56	1.57	953.80	319	113	106	0.748	52.8	2.091	104.5
2-1	48.75	0.5	1.40	956.40	330	113	107	0.707	50.2	2.381	125.7
2-2	52.00	0.42	1.18	957.70	335	113	107	0.648	46.2	1.180	66.7
2-3	55.25	0.42	1.18	959.80	336	113	107	0.648	46.2	1.306	111.1
2-4	58.50	0.44	1.24	961.60	336	113	107	0.665	47.3	1.634	93.1
2-5	61.75	0.44	1.24	963.90	336	113	107	0.665	47.3	2.088	118.9
2-6	65.00	0.36	1.00	965.70	315	113	107	0.600	42.2	1.653	101.5
2-7	68.25	0.37	1.04	967.50	325	113	107	0.609	43.1	1.635	100.7
1-1	71.50	0.45	1.26	969.40	325	113	107	0.671	47.5	1.725	96.6
1-2	74.75	0.50	1.40	971.70	325	113	107	0.707	50.1	2.088	110.8
1-3	78.00	0.50	1.40	973.80	325	114	107	0.707	50.1	1.305	101.1
1-4	81.25	0.54	1.52	976.00	325	114	107	0.735	52.0	1.996	102.0
1-5	84.50	0.57	1.60	978.30	326	114	107	0.755	53.5	2.088	105.8
1-6	87.75	0.62	1.74	980.70	327	115	108	0.787	55.8	2.175	108.8
1-7	91.00	0.54	1.52	982.91	327	115	108	0.735	52.1	2.002	102.4

Totals and Averages											
91		1.33		58.79	322	109		0.686	48.4	53.50	104.4

Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 2
Date	7/20/2011
Meter ID	M5
Y_4	0.9953
Pitot C_p	0.84

Nozzle Diameter (in)	0.250
Filter ID	NA
Train Type	Impinger
Train ID	IB
P_b (Inches Hg)	29.50
P_s (Inches H ₂ O)	-24.0
Start Time	6:40
Stop Time	10:39

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Measure	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	848.3	651.0	197.3
Impinger 2	856.4	629.1	227.3
Impinger 3	591.7	587.8	3.9
Rinse		50.0	-50.0
Silica Gel	885.5	861.2	24.3
Weight of Water Collected, $V_{w,sp}$ (g)			178.5
Silica Gel Net Weight, $V_{w,sp}$ (g)			24.3

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.1	NA	7.03

Run 4

Traverse Point	Wiring	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity (ft/sec)	Volume Metered (ft ³)
	10 Elapsed Time									
Single	10	NA	2.00	388.31	405.90	302	100	94	NA	7.089
	20	NA	2.00	413.60	413.60	303	102	95	NA	7.178
	30	NA	2.00	421.50	421.50	303	109	97	NA	7.304
	40	NA	2.00	429.30	429.30	304	111	98	NA	7.192
	50	NA	2.00	436.75	436.75	305	113	100	NA	6.845
	60	NA	2.00	444.50	444.50	305	114	101	NA	7.106
	70	NA	2.00	452.70	452.70	305	118	103	NA	7.482
	80	NA	2.00	460.25	460.25	333	118	105	NA	6.876
	90	NA	2.00	468.00	468.00	334	119	106	NA	7.046
	100	NA	2.00	476.10	476.10	335	120	107	NA	7.352
	110	NA	2.00	483.70	483.70	336	121	109	NA	6.890
	120	NA	2.00	491.44	491.44	338	122	110	NA	6.993

Totals and Averages

120	2.00	93.12	317	108	NA	NA	85.34
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 2
Date	7/20/2011
Meier ID	M5
V _d	0.9953
Pitot C _p	0.84

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	923.8	720.6	203.2
Impinger 2	755.3	736.0	19.3
Impinger 3	610.3	801.0	19.3
Rinsc		50.0	-50.0
Silica Gel	963.0	938.0	25.0
Weight of Water Collected V _w (g)			181.8
Silica Gel Net Weight V _{wsg} (g)			25.0

Nozzle Diameter (in)	0.250
Filter ID	NA
Train Type	Impinger
Train ID	IB
P _b (Inches Hg)	29.50
P _s (Inches H ₂ O)	-24.0
Start Time	12:05
Stop Time	14:05

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	11.5	NA	7.33

Run 5

Traverse Point	Min/Ft	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM1 Inlet (°F)	DGM Outlet (°F)	Square Root ΔF	Stack Gas Velocity (ft/sec)	Volume Metered (ft ³)
	10									
Single	10	NA	2.00	503.47	331	109	108	NA	NA	7.553
	20	NA	2.00	511.20	337	110	107	NA	NA	7.078
	30	NA	2.00	518.80	337	114	107	NA	NA	6.934
	40	NA	2.00	526.50	336	118	108	NA	NA	6.995
	50	NA	2.00	534.17	337	120	109	NA	NA	6.949
	60	NA	2.00	541.92	337	122	111	NA	NA	6.897
	70	NA	2.00	549.68	337	121	111	NA	NA	7.013
	80	NA	2.00	557.53	337	121	111	NA	NA	7.094
	90	NA	2.00	565.30	337	122	111	NA	NA	7.015
	100	NA	2.00	573.11	311	121	111	NA	NA	7.058
	110	NA	2.00	580.91	311	122	111	NA	NA	7.045
	120	NA	2.00	588.72	311	122	111	NA	NA	7.052

Totals and Averages

	120		2.00	93.50	330		114	NA	NA	84.78
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 2
Date	7/20/2011
Meier ID	M5
Y _d	0.9953
Prot C _p	0.84

Nozzle Diameter (in)	0.250
Filter ID	NA
Train Type	Impinger
Train ID	IB
P ₁ (Inches Hg)	29.50
P ₂ (Inches H ₂ O)	-24.0
Start Time	15:20
Stop Time	17:20

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Mositure	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	854.0	655.9	198.1
Impinger 2	851.0	630.5	20.5
Impinger 3	595.0	592.5	2.5
Rins		50.0	-50.0
Silica Gel	901.0	885.5	15.5
Weight of Water Collected V _w (g)			171.1
Silica Gel Net Weight V _w (g)			15.5

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.0	NA	7.09

Run 6

Traverse Point	Min/Pt	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft. ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Squeeze Foot ΔP	Stack Gas Velocity /s (ft/sec)	Volume Metered /mst/d (ft. ³)
	10									
Single	10	NA	2.00	598.90	310	114	112	NA	NA	7.567
	20	NA	2.00	606.68	312	117	112	NA	NA	7.049
	30	NA	2.00	614.44	311	120	113	NA	NA	7.006
	40	NA	2.00	622.20	311	122	113	NA	NA	6.994
	50	NA	2.00	629.96	311	123	114	NA	NA	6.982
	60	NA	2.00	637.75	311	123	114	NA	NA	7.009
	70	NA	2.00	645.37	310	123	114	NA	NA	6.956
	80	NA	2.00	653.08	338	123	114	NA	NA	6.937
	90	NA	2.00	660.88	337	123	114	NA	NA	7.018
	100	NA	2.00	668.71	338	123	114	NA	NA	7.045
	110	NA	2.00	676.55	338	123	114	NA	NA	7.054
	120	NA	2.00	684.15	338	123	114	NA	NA	6.941

Totals and Averages

120	2.00	93.58	322	117	NA	NA	84.35
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 2
Date	7/20/2011
Meter ID	M9
V_a	0.9891
Pitot C_p	0.84

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	641.2	480.6	160.6
Impinger 2	652.8	714.5	-61.7
Impinger 3	730.5	722.5	8.0
Impinger 4	622.0	620.8	1.2
Rinse		50.0	-50.0
Silica Gel	879.3	861.5	17.8
Weight of Water Collected, V_w (g)			58.1
Silica Gel Net Weight, V_{sig} (g)			17.8

Nozzle Diameter (in)	0.250
Filter ID	NA
Train Type	Impinger
Train ID	IB12
F_a (Inches Hg)	29.50
F_b (Inches H ₂ O)	-24.0
Start Time	8:40
Stop Time	10:55

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.1	NA	7.0

Run 4

Transverse Point	Min/Pt	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	D3M Inlet (°F)	D3M Outlet (°F)	Square Root ΔF	Stack Gas Velocity (ft/sec)	Volume Metered (ft ³)	Isokinetics (%)
	Elapsd Time										
1-1	4.5	0.38	1.05	990.46	331	99	98	0.616	43.4	3.021	125.3
1-2	9.0	0.37	1.02	992.98	331	102	98	0.608	42.8	2.322	100.0
1-3	13.5	0.37	1.02	995.51	330	103	99	0.608	42.8	2.327	100.2
1-4	18.0	0.36	1.00	998.08	330	105	99	0.600	42.2	2.380	103.0
1-5	22.5	0.35	0.97	1000.61	331	106	100	0.592	41.7	2.319	102.7
1-6	27.0	0.37	1.02	1003.18	331	107	101	0.608	42.8	2.351	101.3
1-7	31.5	0.50	1.39	1005.72	329	108	102	0.707	49.5	2.322	85.9
2-1	36.0	0.47	1.30	1008.29	318	108	102	0.688	47.9	2.349	99.0
2-2	40.5	0.48	1.33	1010.95	318	109	103	0.693	46.4	2.427	91.0
2-3	45.0	0.56	1.52	1013.87	324	111	103	0.742	52.0	2.661	95.6
2-4	49.5	0.57	1.58	1016.94	324	111	104	0.755	53.0	2.795	96.6
2-5	54.0	0.56	1.55	1019.98	323	111	105	0.748	52.5	2.785	96.5
2-6	58.5	0.37	1.02	1022.89	323	112	105	0.508	42.8	2.641	113.2
2-7	63.0	0.39	1.08	1025.47	324	112	106	0.624	43.8	2.340	97.8
3-1	67.5	0.39	1.08	1028.25	319	111	106	0.624	45.7	2.524	105.1
3-2	72.0	0.38	1.05	1031.53	319	112	107	0.616	43.1	2.972	125.4
3-3	76.5	0.40	1.10	1033.22	320	112	107	0.632	44.3	1.532	62.0
3-4	81.0	0.52	1.44	1035.99	319	113	107	0.721	50.3	2.519	90.5
3-5	85.5	0.54	1.50	1038.97	319	114	108	0.755	51.5	2.696	95.4
3-6	90.0	0.46	1.27	1042.02	312	115	108	0.678	47.3	2.758	105.2
3-7	94.5	0.47	1.30	1044.88	315	114	108	0.686	47.8	2.588	97.9
4-1	99.0	0.32	0.89	1047.74	310	115	109	0.566	38.3	2.579	117.9
4-2	103.5	0.30	0.83	1050.36	314	116	109	0.548	38.2	2.360	111.7
4-3	108.0	0.30	0.83	1052.66	314	114	109	0.548	36.2	2.076	98.2
4-4	112.5	0.50	1.39	1055.43	307	114	109	0.707	49.1	2.503	91.1
4-5	117.0	0.52	1.44	1058.37	308	114	109	0.721	50.1	2.957	95.2
4-6	121.5	0.54	1.50	1061.43	308	114	108	0.735	51.0	2.780	97.3
4-7	126.0	0.53	1.49	1064.48	308	114	108	0.728	50.5	2.760	97.9

Totals and Averages

126		1.21	77.29	320	108	0.659	46.1	70.28	99.2
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 2
Date	7/20/2011
Meter ID	M9
γ_s	0.9891
Prbl Cp	0.84

Nozzle Diameter (in)	0.250
Filter ID	NA
Train Type	Impinger
Train ID	IB
P_s (Inches Hg)	29.50
P_c (Inches H ₂ O)	-24.0
Start Time	12:05
Stop Time	14:14

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Impinger	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	726.0	561.0	165.0
Impinger 2	775.5	741.0	34.5
Impinger 3	675.5	671.0	4.5
Impinger 4	589.9	589.0	0.9
Fluore		50.0	-50.0
Silica Gel	895.0	886.0	9.0
Weight of Water Collected, $V_{w,2}$ (g)			17.9
Silica Gel Net Weight, $V_{w,2}$ (g)			9.0

GEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	11.8	NA	7.33

Run 5

Train/Point	Min/Pl	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity vs (ft/sec)	Volume Metered V _{msid} (ft ³)	Isokinetics (%)
	Elapsed Time										
1-1	4.5	0.28	0.78	1071.11	318	107	107	0.525	37.5	3.274	170.0
1-2	9.0	0.28	0.78	1073.34	318	108	107	0.529	37.5	2.326	105.2
1-3	13.5	0.28	0.78	1075.56	318	109	107	0.529	37.5	2.016	107.7
1-4	18.0	0.40	1.10	1077.72	312	111	107	0.632	44.6	1.959	84.8
1-5	22.5	0.42	1.16	1080.59	312	112	107	0.645	45.7	2.601	108.9
1-6	27.0	0.41	1.14	1083.24	308	112	107	0.640	45.1	2.402	102.4
1-7	31.5	0.45	1.27	1085.98	308	112	107	0.671	47.3	2.194	101.2
2-1	36.0	0.39	1.08	1088.65	323	112	108	0.624	46.4	2.417	106.7
2-2	40.5	0.41	1.14	1091.24	324	113	108	0.640	45.5	2.543	100.3
2-3	45.0	0.39	1.08	1093.83	323	113	108	0.624	44.4	2.343	103.4
2-4	49.5	0.59	1.63	1096.73	323	114	108	0.768	54.6	2.625	94.2
2-5	54.0	0.56	1.55	1099.87	324	115	108	0.748	53.2	2.338	104.6
2-6	58.5	0.35	0.97	1102.62	320	115	108	0.592	42.0	2.487	115.4
2-7	63.0	0.35	0.97	1105.21	320	113	108	0.592	42.0	2.342	108.9
3-1	67.5	0.43	1.19	1107.67	329	113	108	0.656	46.8	2.226	93.9
3-2	72.0	0.44	1.22	1110.35	328	113	108	0.685	47.3	2.425	101.1
3-3	76.5	0.46	1.27	1113.07	330	113	108	0.678	46.4	2.462	100.5
3-4	81.0	0.44	1.22	1115.84	331	114	108	0.683	47.4	2.505	104.6
3-5	85.5	0.52	1.44	1118.61	330	114	108	0.721	51.5	2.506	96.2
3-6	90.0	0.54	1.50	1121.49	329	113	108	0.735	52.4	2.608	98.2
3-7	94.5	0.52	1.44	1124.47	330	114	108	0.721	51.5	2.696	103.5
4-1	99.0	0.28	0.78	1127.29	337	114	108	0.528	37.9	2.617	133.8
4-2	103.5	0.28	0.78	1129.52	337	113	108	0.529	37.9	2.016	105.9
4-3	108.0	0.44	1.22	1132.03	336	113	108	0.663	47.5	2.271	95.2
4-4	112.5	0.47	1.30	1134.81	336	115	109	0.698	49.1	2.510	101.7
4-5	117.0	0.45	1.25	1137.60	336	115	109	0.671	46.1	2.518	104.3
4-6	121.5	0.48	1.33	1140.47	335	115	109	0.693	48.6	2.581	100.9
4-7	126.0	0.45	1.25	1143.25	336	115	109	0.671	48.1	2.509	104.0

Totals and Averages

126	1.17	75.74	325	110	0.645	45.9	68.55	104.8
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 2
Date	7/20/2011
Meter ID	M9
V _s	0.9891
Pitot C _p	0.84

Nozzle Diameter (in)	0.250
Filter ID	NA
Train Type	Impinger
Train IC	IB
P ₁ (Inches Hg)	29.50
P ₂ (Inches H ₂ O)	-24.0
Start Time	15:20
Stop Time	17:30

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Impinger	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	655.8	483.3	172.5
Impinger 2	745.2	713.3	31.9
Impinger 3	732.2	727.3	4.9
Impinger 4	625.0	622.3	2.7
Rinse		50.0	-50.0
Silica Gel	895.0	879.0	16.0
Weight of Water Collected, W _w (g)			162.0
Silica Gel Net Weight, W _{sg} (g)			16.0

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.0	NA	7.09

Run 6

Travel Point	Min/Pt	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity V _g (ft/sec)	Volume Metered V _m (ft ³)	Isokinetic (%)
	Elapsed Time										
1-1	4.5	0.30	0.83	150.19	341	104	104	0.548	39.3	5.000	151.6
1-2	9.0	0.30	0.83	152.35	340	104	104	0.548	39.3	1.975	99.8
1-3	13.5	0.44	1.22	154.88	339	106	103	0.663	47.5	2.314	96.5
1-4	18.0	0.43	1.19	157.56	338	107	104	0.656	47.0	2.447	103.1
1-5	22.5	0.44	1.22	160.30	338	107	104	0.663	47.5	2.501	104.2
1-6	27.0	0.28	0.78	162.76	329	108	104	0.529	37.7	2.241	116.4
1-7	31.5	0.29	0.80	165.01	330	108	104	0.539	38.4	2.050	104.7
2-1	36.0	0.48	1.34	167.58	328	110	104	0.693	49.3	2.341	92.8
2-2	40.5	0.47	1.30	170.31	326	111	105	0.688	48.7	2.482	99.3
2-3	45.0	0.50	1.39	173.19	328	111	105	0.707	50.3	2.618	101.7
2-4	49.5	0.57	1.58	176.22	329	112	105	0.755	53.8	2.758	100.3
2-5	54.0	0.58	1.61	179.34	329	112	106	0.762	54.2	2.834	102.3
2-6	58.5	0.41	1.14	182.47	320	113	106	0.640	45.3	2.837	121.1
2-7	63.0	0.42	1.16	185.23	319	113	106	0.648	45.8	2.302	105.8
3-1	67.5	0.49	1.36	187.92	323	112	106	0.700	49.7	2.482	95.5
3-2	72.0	0.47	1.30	190.74	323	112	106	0.686	48.8	2.559	102.2
3-3	76.5	0.63	1.75	193.82	325	113	106	0.794	56.4	2.786	96.6
3-4	81.0	0.60	1.67	196.31	323	113	106	0.776	55.0	2.260	79.9
3-5	85.5	0.63	1.75	200.47	324	113	106	0.798	56.2	3.776	130.3
3-6	90.0	0.41	1.14	203.85	318	113	107	0.640	45.2	3.061	130.4
3-7	94.5	0.39	1.08	206.48	315	113	106	0.624	44.1	2.387	103.9
4-1	99.0	0.30	0.83	209.09	316	112	106	0.548	38.7	2.365	117.7
4-2	103.5	0.28	0.78	211.68	317	112	106	0.528	37.4	2.347	121.0
4-3	108.0	0.30	0.83	214.27	317	112	106	0.548	38.7	2.348	116.9
4-4	112.5	0.53	1.47	216.84	312	112	106	0.726	51.3	2.332	87.1
4-5	117.0	0.54	1.50	219.85	311	112	106	0.735	51.7	2.733	101.0
4-6	121.5	0.55	1.52	222.93	311	113	106	0.742	52.2	2.794	102.4
4-7	126.0	0.52	1.44	226.01	312	113	106	0.721	50.8	2.794	105.3

Totals and Averages

126	1.24	79.10	324	108	0.664	47.2	71.90	105.9
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 2
Date	7/19/11
P _b (Inches Hg)	29.56

Meter ID	Rental
Y _d	1.0072

Start Time	7:03
Stop Time	8:39

Meter ID	Rental
Y _d	0.9985

Run 4

Min/Pt	Gas Sample Volume Initial (L)	DGM Temp (°F)	Volume Metered Vmstd (L)
3.75	0.00		
Elapsed Time			
3.75	1.86	93	1.766
7.50	3.66	94	1.706
11.25	5.45	95	1.694
15.00	7.13	95	1.590
18.75	8.95	97	1.716
22.50	10.64	99	1.588
26.25	12.42	102	1.663
30.00	14.24	104	1.695
33.75	16.00	104	1.639
37.50	17.76	104	1.639
41.25	19.48	105	1.599
45.00	21.23	106	1.624
48.75	22.95	109	1.588
52.50	24.70	110	1.612
56.25	26.39	112	1.552
60.00	28.20	112	1.662
63.75	29.20	114	0.915
67.50	31.39	114	2.004
71.25	32.79	116	1.277
75.00	34.35	119	1.415
78.75	36.14	121	1.618
82.50	37.90	123	1.585
86.25	39.67	125	1.589
90.00	41.42	124	1.574

Totals and Averages

90	41.42	108	38.28
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Run 4 Spiked

Min/Pt	Gas Sample Volume Initial (L)	DGM Temp (°F)	Volume Metered Vmstd (L)
3.75	0.00		
Elapsed Time			
3.8	1.79	93	1.685
7.5	3.69	94	1.786
11.3	5.02	95	1.248
15.0	7.76	95	2.570
18.8	8.93	97	1.094
22.5	10.03	99	1.025
26.3	12.33	102	2.131
30.0	14.02	104	1.560
33.8	15.69	104	1.542
37.5	17.41	104	1.588
41.3	19.23	105	1.677
45.0	20.96	106	1.591
48.8	22.09	109	1.034
52.5	24.51	110	2.211
56.3	26.29	112	1.620
60.0	28.09	112	1.638
63.8	29.56	114	1.333
67.5	31.38	114	1.651
71.3	33.19	116	1.636
75.0	35.00	119	1.628
78.8	36.81	121	1.622
82.5	38.03	121	1.093
86.3	39.80	123	1.581
90.0	41.69	124	1.685

Totals and Averages

90	41.69	108	38.21
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 2
Date	7/19/11
P _b (Inches Hg)	29.56

Meter ID	Rental
Y _d	1.0072

Start Time	10:03
Stop Time	11:57

Meter ID	Rental
Y _d	0.9985

Run 5

Min/Pt	Gas Sample	DGM	Volume
3.75	Volume		
Elapsed	Initial (L)	Temp	Metered
Time	0.00	(°F)	Vmstd
			(L)
3.8	1.72	105	1.599
7.5	3.42	105	1.580
11.3	5.64	107	2.056
15.0	7.00	108	1.258
18.8	8.45	108	1.341
22.5	10.12	112	1.533
26.3	11.72	115	1.461
30.0	13.52	116	1.641
33.8	15.36	117	1.675
37.5	17.16	119	1.633
41.3	18.90	121	1.573
45.0	20.76	121	1.681
48.8	22.54	122	1.606
52.5	24.34	122	1.624
56.3	26.12	123	1.604
60.0	27.92	123	1.622
63.8	29.72	124	1.619
67.5	31.52	124	1.619
71.3	33.19	125	1.499
75.0	35.12	125	1.733
78.8	36.81	126	1.515
82.5	37.80	126	0.887
86.3	39.61	126	1.622
90.0	40.82	126	1.084

Totals and Averages

90	40.82	119	37.05
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Run 5 Spiked

Min/Pt	Gas Sample	DGM	Volume
3.75	Volume		
Elapsed	Initial (L)	Temp	Metered
Time	0.00	(°F)	Vmstd
			(L)
3.8	1.80	105	1.659
7.5	3.57	105	1.631
11.3	5.15	107	1.451
15.0	6.74	108	1.457
18.8	8.30	108	1.430
22.5	10.08	112	1.620
26.3	11.88	115	1.630
30.0	13.68	116	1.627
33.8	15.48	117	1.624
37.5	17.28	119	1.619
41.3	19.08	121	1.613
45.0	20.85	121	1.586
48.8	22.89	122	1.825
52.5	24.09	122	1.074
56.3	25.89	123	1.608
60.0	27.55	123	1.482
63.8	29.35	124	1.605
67.5	31.15	124	1.605
71.3	32.95	125	1.602
75.0	34.78	125	1.629
78.8	36.55	126	1.573
82.5	37.88	126	1.192
86.3	39.00	126	0.995
90.0	41.36	126	2.097

Totals and Averages

90	41.36	119	37.22
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 2
Date	7/19/11
P _b (Inches Hg)	29.56

Meter ID	Rental
Y _d	1.0072

Start Time	13:01
Stop Time	14:54

Meter ID	Rental
Y _d	0.9985

Run 6

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
Elapsed Time	Volume Initial (L)		
3.75	0.00		
3.8	1.69	108	1.563
7.5	3.49	109	1.661
11.3	5.29	110	1.659
15.0	7.11	113	1.668
18.8	8.61	116	1.368
22.5	10.39	116	1.623
26.3	12.19	118	1.636
30.0	13.99	121	1.627
33.8	15.65	123	1.495
37.5	17.03	124	1.241
41.3	18.83	124	1.619
45.0	20.51	128	1.501
48.8	22.31	128	1.608
52.5	24.51	129	1.962
56.3	26.29	129	1.587
60.0	28.09	129	1.605
63.8	29.76	129	1.489
67.5	31.56	130	1.602
71.3	33.36	132	1.597
75.0	35.16	132	1.597
78.8	36.96	133	1.394
82.5	38.76	133	1.594
86.3	40.55	133	1.585
90.0	42.30	133	1.550

Totals and Averages

90	42.30	124	38.03
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Run 6 Spiked

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
Elapsed Time	Volume Initial (L)		
3.75	0.00		
3.8	1.72	108	1.577
7.5	3.72	108	1.833
11.3	5.20	110	1.352
15.0	7.00	113	1.636
18.8	8.82	116	1.645
22.5	10.58	116	1.591
26.3	12.34	118	1.585
30.0	14.14	121	1.613
33.8	15.49	123	1.206
37.5	17.29	124	1.605
41.3	19.09	124	1.605
45.0	20.87	128	1.576
48.8	22.67	128	1.594
52.5	24.62	129	1.724
56.3	26.41	129	1.582
60.0	28.16	129	1.547
63.8	29.87	129	1.512
67.5	31.67	130	1.588
71.3	33.47	132	1.583
75.0	35.29	132	1.601
78.8	37.07	133	1.563
82.5	38.87	133	1.580
86.3	40.90	133	1.782
90.0	42.41	133	1.326

Totals and Averages

90	42.41	124	37.80
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Front Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 3
Date	7/19/2011
Meter ID	M10
V _d	1.0091
P _{rot} C _p	0.84

Nozzle Diameter (in)	0.250
Filter ID	12193
Train Type	Impinger
Train ID	IB
P ₁ (Inches Hg)	29.56
P ₂ (Inches H ₂ O)	-16.5
Start Time	7:03
Stop Time	8:39

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	715.7	527.7	188.0
Impinger 2	681.8	722.0	-40.2
Impinger 3	655.1	606.0	49.1
Rinse		50.0	-50.0
Silica Gel	926.7	897.5	29.2
Weight of Water Collected V _w (g)			148.9
Silica Gel Net Weight V _{wg} (g)			29.2

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	11.5	NA	7.47

Run 4

Traverse Point	Min/Pi	Velocity Pressure Δ P (in H ₂ O)	Orifice Sizing Δ H (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Start Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root Δ P	Stack Gas Velocity V _s (ft/sec)	Volume Metered V _m (ft ³)	Isokinetic (%)
	Elapsed Time										
4-1	3.25	0.36	0.90	410.16	342	95	91	0.600	43.0	1.796	113.5
4-2	6.50	0.38	0.95	411.80	342	96	91	0.616	44.2	1.585	98.8
4-3	9.75	0.40	1.00	413.71	336	97	92	0.632	45.1	1.817	112.7
4-4	13.00	0.42	1.10	415.39	338	98	92	0.648	46.3	1.597	98.8
4-5	16.25	0.45	1.10	417.25	340	98	94	0.671	48.0	1.765	103.5
4-6	19.50	0.41	1.00	419.31	339	99	94	0.640	45.9	1.355	119.9
4-7	22.75	0.38	0.95	420.89	339	101	95	0.616	44.1	1.495	95.5
3-1	26.00	0.38	0.95	422.30	338	101	96	0.616	44.1	1.332	84.9
3-2	29.25	0.39	0.97	424.41	336	102	97	0.624	44.6	1.989	125.0
3-3	32.50	0.41	1.00	426.29	338	103	98	0.640	45.8	1.766	106.5
3-4	35.75	0.43	1.10	428.46	340	103	98	0.656	46.9	2.045	122.5
3-5	39.00	0.44	1.10	430.11	338	103	98	0.663	47.4	1.563	92.0
3-6	42.25	0.40	1.00	432.00	340	103	98	0.632	45.5	1.775	110.6
3-7	45.50	0.38	0.95	433.71	344	104	99	0.616	44.2	1.676	102.7
2-1	48.75	0.37	0.92	435.76	338	104	99	0.608	43.5	1.925	124.5
2-2	52.00	0.39	0.97	437.81	336	104	99	0.624	44.6	1.925	121.0
2-3	55.25	0.41	1.00	439.23	339	104	99	0.640	45.8	1.394	81.9
2-4	58.50	0.42	1.10	441.53	340	104	99	0.648	46.4	2.161	131.2
2-5	61.75	0.44	1.10	443.21	338	105	100	0.663	47.4	1.575	95.3
2-6	65.00	0.40	1.00	445.28	336	105	100	0.632	45.1	1.941	120.5
2-7	68.25	0.38	0.95	447.13	336	106	100	0.616	44.0	1.733	110.3
1-1	71.50	0.39	0.97	448.78	338	107	101	0.624	44.6	1.513	97.1
1-2	74.75	0.41	1.00	450.81	338	108	102	0.640	45.8	1.895	118.5
1-3	78.00	0.43	1.10	452.66	346	108	102	0.656	47.1	1.725	104.0
1-4	81.25	0.44	1.10	454.63	343	108	102	0.663	47.6	1.840	109.3
1-5	84.50	0.45	1.10	456.40	340	108	102	0.671	46.0	1.653	96.0
1-6	87.75	0.42	1.10	458.53	339	107	102	0.648	46.3	1.991	120.7
1-7	91.00	0.4	1.00	460.52	340	108	102	0.632	45.3	1.958	115.5

Totals and Averages											
91		1.02	52.18	339		101		0.637	45.6	49.10	108.2

Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 3
Date	7/19/2011
Analyzer ID	M10
V _A	1.0091
Pilot C _p	0.84

Nozzle Diameter (in)	0.250
Filter ID	12161
Train Type	Impinger
Train ID	1B
P ₁ (Inches Hg)	29.56
P ₂ (Inches H ₂ O)	-19.5
Start Time	10:03
Stop Time	11:57

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Impinger	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	609.8	460.5	149.3
Impinger 2	643.6	642.9	0.7
Impinger 3	650.3	632.4	17.9
Filter		50.0	-50.0
Silica Gel	934.3	893.3	41.0
Weight of Water Collected, V _w (g)			117.8
Silica Gel Net Weight, W _{sg} (g)			41.0

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.2	NA	6.93

Run 5

Traverse Point	min/Pi	Velocity Pressure (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Pools ΔF	Stack Gas Velocity V _s (ft/sec)	Volume Measured V _{mstd} (ft ³)	Isokinetic (%)
	3.25										
1-1	3.25	0.39	0.96	472.01	344	120	120	0.616	46.8	1.722	110.0
1-2	6.50	0.39	0.98	473.78	346	122	120	0.624	46.9	1.807	101.1
1-3	9.75	0.41	1.00	475.89	348	122	120	0.640	48.1	1.916	117.9
1-4	13.00	0.43	1.10	477.53	345	123	120	0.656	47.1	1.488	99.1
1-5	16.25	0.45	1.10	479.66	350	123	120	0.671	48.6	1.932	113.5
1-6	19.50	0.41	1.00	481.50	349	123	121	0.640	46.1	1.868	102.6
1-7	22.75	0.38	0.96	483.42	350	123	121	0.616	45.4	1.710	111.2
2-1	26.00	0.39	0.98	485.11	351	124	121	0.624	45.1	1.530	96.8
2-2	29.25	0.41	1.00	487.36	352	124	121	0.640	46.2	2.038	125.6
2-3	32.50	0.42	1.10	489.52	354	125	121	0.648	46.2	1.955	119.2
2-4	35.75	0.44	1.10	490.63	350	125	121	0.662	47.3	1.005	58.7
2-5	39.00	0.45	1.10	492.80	352	126	121	0.671	48.4	1.962	115.4
2-6	42.25	0.40	1.00	494.63	350	126	121	0.632	45.6	1.654	103.1
2-7	45.50	0.37	0.93	496.74	351	126	122	0.608	43.9	1.910	123.5
3-1	48.75	0.38	0.96	498.50	356	126	122	0.616	44.6	1.590	102.0
3-2	52.00	0.41	1.00	500.36	352	126	122	0.640	46.2	1.580	105.5
3-3	55.25	0.42	1.10	502.84	350	126	123	0.646	46.7	2.239	138.1
3-4	58.50	0.44	1.10	504.33	350	127	123	0.663	47.8	1.344	79.5
3-5	61.75	0.45	1.10	506.02	349	127	123	0.671	48.0	1.524	99.5
3-6	65.00	0.41	1.00	507.89	355	127	123	0.640	46.2	1.886	106.1
3-7	68.25	0.39	0.98	509.82	351	127	124	0.624	45.1	1.736	109.9
4-1	71.50	0.37	0.93	511.52	350	127	124	0.608	45.9	1.531	98.2
4-2	74.75	0.39	0.98	513.60	352	127	124	0.624	45.1	1.874	118.4
4-3	78.00	0.40	1.00	515.49	352	128	125	0.632	45.7	1.700	106.0
4-4	81.25	0.43	1.10	517.36	353	128	125	0.656	47.4	1.682	101.3
4-5	84.50	0.45	1.10	519.42	352	128	125	0.671	48.5	1.853	109.0
4-6	87.75	0.42	1.10	521.22	352	128	125	0.648	46.8	1.619	99.6
4-7	91.00	0.38	0.96	523.05	353	128	125	0.616	45.5	1.646	105.4

Totals and Averages

91	1.03	52.94	351	124	0.640	46.1	47.83	105.3
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 3
Date	7/19/2011
Metel ID	M10
Y ₁	1.0091
Pitot C _p	0.84

Place an "x" in the appropriate Box

Nozzle Diameter (in)	0.250
Filter ID	12186
Train Type	Impinger
Train ID	IB
P _c (Inches Hg)	29.56
F _c (Inches H ₂ O)	-19.5
Start Time	13:01
Stop Time	14:54

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Measure	Final wt (g)	Tare wt (g)	Net Wt (g)
Impinger 1	757.0	591.0	166.0
Impinger 2	581.0	493.0	88.0
Impinger 3	556.0	433.8	122.2
Rinse		50.0	-50.0
Silica Gel	952.0	926.3	25.7
Weight of Water Collected, V _w (g)			26.2
Silica Gel Net Weight, V _{net} (g)			25.7

CEMS	%CO ₂	%CO ₂ -%O ₂	%O ₂
Average	11.2	NA	7.39

Run 6

Traverse Point	Min/Pt	Velocity Pressure Δ P (in. H ₂ O)	Orifice Setting Δ H (in. H ₂ O)	Gas Sample Volume	Stack Temp (°F)	DGI Inlet (°F)	DGI Outlet (°F)	Square Root P	Stack Gas Velocity V _s (ft/sec)	Volume Metered V _m (ft ³)	Isokinetics (%)
	Elapsed Time			Initial (ft ³)							
3-1	3.25	0.39	1.00	535.88	352	128	126	0.624	44.3	1.689	98.8
3-2	6.50	0.40	1.00	537.63	353	129	126	0.632	44.5	1.571	90.7
3-3	9.75	0.42	1.10	539.84	354	129	127	0.648	46.0	1.983	111.9
3-4	13.00	0.44	1.10	541.62	357	130	127	0.682	47.2	1.596	88.1
3-5	16.25	0.45	1.20	543.40	356	129	127	0.671	47.7	1.598	87.2
3-6	19.50	0.41	1.10	545.51	356	129	127	0.640	45.5	1.891	108.2
3-7	22.75	0.38	0.99	547.39	357	130	127	0.616	43.8	1.686	100.1
2-1	26.00	0.38	0.99	549.36	356	130	127	0.616	43.8	1.766	104.8
2-2	29.25	0.40	1.00	551.28	354	130	127	0.632	44.9	1.721	99.5
2-3	32.50	0.41	1.10	553.01	355	130	127	0.640	45.5	1.551	86.8
2-4	35.75	0.45	1.20	554.93	356	130	127	0.671	47.7	1.721	92.9
2-5	39.00	0.45	1.20	556.80	355	131	127	0.671	47.7	1.676	91.2
2-6	42.25	0.41	1.10	558.70	352	131	127	0.640	45.4	1.702	97.0
2-7	45.50	0.37	0.96	560.34	353	131	127	0.609	43.2	1.480	88.2
1-1	48.75	0.37	0.96	562.41	356	131	128	0.608	43.2	1.852	111.4
1-2	52.00	0.38	0.99	564.83	354	131	128	0.616	43.9	2.165	128.4
1-3	55.25	0.40	1.00	566.40	352	131	128	0.632	44.8	1.405	81.1
1-4	58.50	0.43	1.10	568.19	357	131	128	0.656	46.6	1.602	89.5
1-5	61.75	0.44	1.10	570.34	355	131	128	0.665	47.1	1.924	106.1
1-6	65.00	0.41	1.10	572.36	352	131	128	0.640	45.4	1.806	103.1
1-7	68.25	0.40	1.00	574.01	356	132	128	0.632	45.0	1.375	85.4
4-1	71.50	0.39	1.00	575.90	353	132	128	0.624	44.3	1.690	98.8
1-2	74.75	0.41	1.10	577.79	352	132	128	0.640	45.4	1.680	96.4
1-3	78.00	0.42	1.10	579.74	358	132	128	0.645	46.1	1.744	98.6
4-4	81.25	0.43	1.10	581.89	356	132	128	0.656	46.6	1.823	107.3
4-5	84.50	0.44	1.10	583.50	354	132	128	0.665	47.1	1.440	79.3
4-6	87.75	0.43	1.10	585.63	355	132	128	0.656	46.6	1.905	106.2
4-7	91.00	0.40	1.00	587.36	357	132	128	0.632	45.0	1.547	89.5

Totals and Averages

91	1.06	53.36	355	129	0.641	45.5	47.79	97.4
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Project Number	3649
Client	Big Rivers
Plant	Wilson
Location	ESP 3
Date	7/20/2011
Meter ID	M14
Y _d	1.087
Pitot Coefficient	0.84

Place an "x" in the appropriate Box

Nozzle Diameter (in)	0.250
Filter ID	NA
Train Type	Impinger
Train ID	IB9
P ₁ (Inches Hg)	29.50
P ₂ (Inches H ₂ O)	-19.5
Start Time	8:38
Stop Time	10:39

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	709.0	666.0	43.0
Impinger 2	754.0	617.1	136.9
Impinger 3	602.0	590.2	11.8
Pinse		50.0	-50.0
Silica Gel	933.0	893.5	39.5
Weight of Water Collected V _W (g)			141.7
Silica Gel Net Weight V _{Wsg} (g)			39.5

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.1	NA	7.03

Run 4

Traverse Point	Min/Pl	Velocity Pressure Δ P (in. H ₂ O)	Orifice Setting Δ H (in. H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Foot Δ P	Stack Gas Velocity V _s (ft/sec)	Volume Metered (ft ³)
	10 Elapsed Time									
Single	10	NA	1.80	290.21	334	99	99	NA	NA	6.801
	20	NA	1.80	297.42	333	104	99	NA	NA	6.770
	30	NA	1.80	304.63	334	109	101	NA	NA	6.728
	40	NA	1.80	311.84	334	113	104	NA	NA	6.687
	50	NA	1.80	319.09	334	115	105	NA	NA	6.706
	60	NA	1.80	326.65	333	118	109	NA	NA	6.950
	70	NA	1.80	334.04	336	120	112	NA	NA	3.765
	80	NA	1.80	341.36	334	123	114	NA	NA	6.872
	90	NA	1.80	348.96	335	127	116	NA	NA	6.891
	100	NA	1.80	356.25	334	126	117	NA	NA	6.610
	110	NA	1.80	363.64	336	126	118	NA	NA	6.695
	120	NA	1.80	371.04	336	126	118	NA	NA	6.704

Totals and Averages

120	1.80	88.04	334	113	NA	NA	80.98
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Project Number	3649
Client	Big Rivers
Plant	Wilson
Location	ESP 3
Date	7/20/2011
Meter ID	M14
T _d	1.0087
Pitot C _p	0.84

Nozzle Diameter (in)	0.250
Filter ID	NA
Train Type	Impinger
Train ID	IB2
F ₁ (Inches Hg)	29.50
F ₂ (Inches H ₂ O)	-19.5
Start Time	12:05
Stop Time	14:05

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Metric	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	733.0	605.0	128.0
Impinger 2	740.0	691.0	49.0
Impinger 3	672.0	656.0	16.0
Rinse		50.0	-50.0
Silica Gel	977.0	946.0	31.0
Weight of Moisture Collected, V ₁ (g)			143.0
Silica Gel Net Weight, V ₂ (g)			31.0

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	11.8	NA	7.33

Run 5

Traverse Point	Min(P)	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity (ft/sec)	Volume Metered (ft ³)
	Elapsed Time									
Single	10	NA	1.80	396.01	340	118	114	NA	NA	6.975
	20	NA	1.80	403.46	341	119	114	NA	NA	6.814
	30	NA	1.80	411.12	340	120	115	NA	NA	6.394
	40	NA	1.80	418.63	342	122	115	NA	NA	6.845
	50	NA	1.80	425.70	343	125	115	NA	NA	6.427
	60	NA	1.80	433.68	342	124	115	NA	NA	7.261
	70	NA	1.80	440.46	340	123	115	NA	NA	6.174
	80	NA	1.80	447.88	341	124	115	NA	NA	6.751
	90	NA	1.80	455.25	343	122	114	NA	NA	6.723
	100	NA	1.80	462.64	340	120	114	NA	NA	6.753
	110	NA	1.80	470.01	341	120	114	NA	NA	6.735
	120	NA	1.80	477.38	342	120	114	NA	NA	6.735

Totals and Averages

	120		1.80	88.88	341	118		NA	NA	81.08
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Project Number	3649
Client	Big Rivers
Plant	Wilson
Location	ESP 3
Date	7/20/2011
Meter ID	M14
Yr	1.0087
Pilot Cp	0.84

Nozzle Diameter (in)	0.250
Filter ID	NA
Train Type	Impinger
Train ID	IB9
P ₁ (Inches Hg)	29.50
P ₂ (Inches H ₂ O)	-19.5
Start Time	15:20
Stop Time	17:20

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Moisture	Final Wt (g)	Tara Wt (g)	Net Wt (g)
Impinger 1	782.0	699.0	83.0
Impinger 2	715.0	667.0	48.0
Impinger 3	620.0	594.0	26.0
Runse		50.0	-50.0
Silica Gel	966.0	934.0	32.0
Weight of Water Collected (g)			107.0
Silica Gel Net Weight (g)			32.0

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.0	NA	7.08

Run 6

Traverse Point	W/V/P	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity (ft/sec)	Volume Metered (ft ³)
	10 Elapsed Time									
Single	10	NA	1.80	489.74	344	121	115	NA	NA	6.933
	20	NA	1.80	504.93	342	127	120	NA	NA	6.858
	30	NA	1.80	512.73	344	128	122	NA	NA	7.030
	40	NA	1.80	520.23	343	128	122	NA	NA	6.760
	50	NA	1.80	528.14	342	129	122	NA	NA	7.125
	60	NA	1.80	535.32	343	129	122	NA	NA	6.806
	70	NA	1.80	542.92	345	129	122	NA	NA	6.814
	80	NA	1.80	550.57	344	129	122	NA	NA	6.889
	90	NA	1.80	558.10	345	130	122	NA	NA	6.775
	100	NA	1.80	565.82	343	132	122	NA	NA	6.934
	110	NA	1.80	573.29	344	131	122	NA	NA	6.718
	120	NA	1.80	580.76	343	130	122	NA	NA	6.721

Totals and Averages

	120		1.80	91.02	344		125	NA	NA	82.05
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 3
Date	7/20/2011
Meter ID	M-10
V _s	1.0091
Pitot Coefficient	0.84

Nozzle Diameter (in)	0.270
Filter ID	NA
Train Type	Impinger
Train ID	IB
P ₀ (Inches Hg)	29.50
P ₁ (Inches H ₂ O)	-19.5
Start Time	8:40
Stop Time	10:46

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Impinger	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	731.0	531.4	199.6
Impinger 2	742.0	700.2	41.8
Impinger 3	730.0	719.1	10.9
Impinger 4	637.0	633.4	3.6
Rinse		50.0	-50.0
Silica Gel	891.0	872.6	18.4
Weight of Water Collected V _w (g)			206.9
Silica Gel Net Weight, V _{wsg} (g)			18.4

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.1	NA	7.03

Run 4

Traverse Point	Min/Ft	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity V _s (ft/sec)	Volume Measured V _{mstd} (ft ³)	Isokinetics (%)
	Elapsed Time										
4-1	4.5	0.42	1.40	592.58	340	103	101	0.548	46.2	2.771	101.3
4-2	9.0	0.45	1.50	595.65	347	105	103	0.671	48.1	2.986	101.8
4-3	13.5	0.45	1.50	598.40	348	105	102	0.671	48.1	2.972	91.3
4-4	18.0	0.54	1.80	602.15	348	107	103	0.735	52.7	3.501	113.4
4-5	22.5	0.59	2.00	605.68	350	109	104	0.768	55.1	3.288	102.1
4-6	27.0	0.44	1.50	608.75	352	111	108	0.663	47.7	2.841	102.2
4-7	31.5	0.47	1.60	611.90	352	112	108	0.686	48.3	2.916	101.4
3-1	36.0	0.50	1.70	615.40	346	114	108	0.707	50.6	3.232	106.7
3-2	40.5	0.45	1.50	618.50	347	114	110	0.671	48.1	2.957	101.3
3-3	45.0	0.54	1.80	622.24	348	115	112	0.735	52.7	3.440	111.6
3-4	49.5	0.60	2.10	625.89	349	116	114	0.775	55.6	3.351	103.1
3-5	54.0	0.60	2.10	629.58	350	117	115	0.775	55.6	3.382	104.1
3-6	58.5	0.55	1.90	633.28	351	120	115	0.742	53.3	3.380	108.7
3-7	63.0	0.55	1.90	636.80	353	121	115	0.742	53.3	3.213	103.5
2-1	67.5	0.53	1.80	640.05	349	122	117	0.728	52.2	2.956	96.2
2-2	72.0	0.54	1.80	643.60	349	122	117	0.735	52.7	3.231	104.9
2-3	76.5	0.50	1.70	646.69	349	124	119	0.707	50.7	2.802	91.4
2-4	81.0	0.45	1.50	649.60	348	124	119	0.671	46.1	2.636	93.6
2-5	85.5	0.58	1.90	653.22	348	125	120	0.748	53.7	2.279	104.2
2-6	90.0	0.55	1.90	656.73	347	126	121	0.742	53.1	2.174	101.8
2-7	94.5	0.50	1.70	659.90	346	127	122	0.707	50.6	2.360	96.2
1-1	99.0	0.48	1.60	663.21	349	127	122	0.693	49.7	2.986	102.7
1-2	103.5	0.53	1.80	666.60	350	127	123	0.728	52.3	3.057	100.1
1-3	108.0	0.53	1.80	670.07	350	127	123	0.728	52.3	3.129	102.5
1-4	112.5	0.50	1.70	673.21	352	127	124	0.707	50.8	2.826	96.5
1-5	117.0	0.55	1.90	676.95	350	127	124	0.742	53.2	3.370	106.3
1-6	121.5	0.58	2.00	680.51	348	127	125	0.762	54.6	3.206	100.2
1-7	126.0	0.50	1.70	683.85	348	126	124	0.707	50.7	3.011	101.4

Totals and Averages

126	1.75	94.23	349	117	0.718	51.5	86.15	102.1
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 3
Date	7/20/2011
Meter ID	M-10
V _c	1.0091
P _{no} : C _p	0.84

Nozzle Diameter (in)	0.270
Filter ID	NA
Train Type	Impinger
Train ID	1B
F _s (Inches Hg)	29.50
P _s (Inches H ₂ O)	-19.5
Start Time	12:05
Stop Time	14:14

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Impinger	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	791.0	618.0	173.0
Impinger 2	793.0	743.0	50.0
Impinger 3	614.0	606.0	8.0
Impinger 4	644.0	643.0	1.0
Rinse		50.0	-50.0
Silica Gel	835.0	824.0	11.0
Weight of Water Collected, V _w (g)			182.0
Silica Gel Net Weight, V _{sg} (g)			11.0

CEMS	%CO ₂	%CO ₂ +%O ₂	%C ₂
Average	11.8	NA	7.33

Run 5

Travel Point	Min/Pl	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Orifice (°F)	Square Root ΔP	Stack Gas Velocity V _s (ft/sec)	Volume Metered V _m (ft ³)	Isokinetic (%)
	4.5										
4-1	4.5	0.45	1.50	687.58	352	124	124	0.671	48.2	2.718	98.0
4-2	9.0	0.44	1.50	690.67	353	122	123	0.663	47.7	2.796	98.9
4-3	13.5	0.42	1.40	693.67	352	123	124	0.646	46.5	2.709	98.0
4-4	18.0	0.42	1.40	696.69	351	123	123	0.646	46.5	2.730	99.7
4-5	22.5	0.47	1.60	699.96	350	123	124	0.686	49.2	2.955	101.9
4-6	27.0	0.50	1.70	703.26	351	123	123	0.707	50.7	2.995	99.9
4-7	31.5	0.40	1.40	706.24	350	127	124	0.632	45.3	2.682	100.3
3-1	36.0	0.47	1.60	709.46	351	125	124	0.686	49.2	2.904	100.3
3-2	40.5	0.45	1.50	712.59	353	126	125	0.671	48.2	2.818	99.5
3-3	45.0	0.45	1.70	715.90	353	126	124	0.671	48.2	2.986	106.6
3-4	49.5	0.45	1.50	719.03	354	127	125	0.671	48.2	2.815	99.5
3-5	54.0	0.60	2.10	722.75	356	126	124	0.775	55.7	3.357	102.9
3-6	58.5	0.52	1.80	726.20	358	126	125	0.721	52.0	2.108	102.4
3-7	63.0	0.5	1.70	729.00	356	124	123	0.707	50.9	2.531	85.0
2-1	67.5	0.44	1.50	732.64	350	124	123	0.663	47.6	3.288	117.2
2-2	72.0	0.48	1.60	735.82	356	123	122	0.693	49.8	2.878	96.6
2-3	76.5	0.45	1.50	738.93	359	124	123	0.671	48.4	2.809	99.6
2-4	81.0	0.47	1.60	742.20	360	124	123	0.686	49.5	2.955	102.6
2-5	85.5	0.52	1.80	745.58	360	123	122	0.721	52.0	3.061	101.0
2-6	90.0	0.45	1.50	748.70	361	123	122	0.671	48.4	2.823	100.2
2-7	94.5	0.45	1.50	751.77	361	122	121	0.671	48.4	2.783	96.9
1-1	99.0	0.41	1.40	754.78	349	122	121	0.640	45.9	2.728	100.7
1-2	103.5	0.50	1.70	758.10	355	121	122	0.707	50.9	3.011	101.0
1-3	108.0	0.44	1.50	761.24	357	124	121	0.663	47.8	2.841	101.7
1-4	112.5	0.43	1.50	764.36	357	125	122	0.658	47.2	2.818	102.1
1-5	117.0	0.53	1.80	767.76	358	126	123	0.728	52.5	3.068	100.2
1-6	121.5	0.48	1.60	770.99	360	127	123	0.693	50.0	2.911	101.0
1-7	126.0	0.40	1.40	774.02	358	127	124	0.632	45.6	2.730	102.6

Totals and Averages											
	126		1.58	89.46	355	124		0.680	48.9	80.79	100.6

Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 3
Date	7/20/2011
Meter ID	M-10
Y_1	1.0091
$P_{100} C_p$	0.84

Nozzle Diameter (in)	0.270
Filter ID	NA
Train Type	Impinger
Train ID	1B
P_1 (Inches Hg)	29.50
P_2 (Inches H ₂ O)	-19.5
Start Time	15:20
Stop Time	17:30

Place an "X" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	716.0	530.0	186.0
Impinger 2	744.0	704.0	40.0
Impinger 3	723.0	716.0	7.0
Impinger 4	633.0	631.0	2.0
Rinse		50.0	-50.0
Silica Gel	802.0	891.0	11.0
Weight of Water Collector, V_{WC} (g)			185.0
Silica Gel Net Weight, V_{SG} (g)			11.0

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.0	NA	7.09

Run 6

Traverse Point	Min/Pt	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity (ft/sec)	Volume Metered (ft ³)	Isokinetics (%)
	Elapsed Time										
1-1	4.5	0.40	1.40	777.35	355	119	119	0.632	45.5	2.377	96.7
1-2	9.0	0.46	1.60	780.51	358	118	119	0.679	48.9	2.340	101.0
1-3	13.5	0.45	1.50	783.62	363	118	118	0.671	48.5	2.834	100.7
1-4	18.0	0.45	1.50	786.72	362	119	118	0.671	46.4	2.824	100.4
1-5	22.5	0.55	1.90	790.17	365	120	118	0.742	53.6	3.144	101.2
1-6	27.0	0.50	1.70	793.46	365	121	118	0.707	51.2	2.994	101.1
1-7	31.5	0.45	1.50	796.40	364	121	119	0.671	48.5	2.672	95.1
2-1	36.0	0.51	1.70	799.82	355	121	119	0.714	51.5	3.109	103.3
2-2	40.5	0.47	1.60	802.99	356	121	120	0.686	49.5	2.879	99.7
2-3	45.0	0.47	1.60	806.23	355	121	121	0.686	48.3	2.940	101.6
2-4	49.5	0.45	1.50	809.29	356	122	119	0.671	48.2	2.778	98.4
2-5	54.0	0.58	2.00	812.93	358	122	118	0.782	54.9	3.312	103.5
2-6	58.5	0.50	1.70	816.30	360	121	118	0.707	51.0	3.067	103.0
2-7	63.0	0.5	1.70	819.67	361	121	118	0.707	51.0	3.067	103.0
3-1	67.5	0.48	1.60	822.86	353	120	117	0.693	48.8	2.907	99.5
3-2	72.0	0.4	1.40	825.83	356	120	117	0.632	45.5	2.705	101.6
3-3	76.5	0.50	1.70	829.16	356	120	117	0.707	50.9	3.036	102.0
3-4	81.0	0.43	1.50	832.29	357	120	118	0.656	47.2	2.849	103.3
3-5	85.5	0.53	1.80	835.68	353	120	118	0.726	52.3	3.088	100.6
3-6	90.0	0.56	1.90	839.11	352	121	117	0.748	53.7	3.126	99.0
3-7	94.5	0.51	1.70	842.55	352	120	117	0.714	51.2	3.136	104.0
4-1	99.0	0.48	1.60	845.82	355	119	116	0.693	49.8	2.985	102.3
4-2	103.5	0.35	1.20	848.00	356	118	115	0.592	42.1	1.952	80.0
4-3	108.0	0.30	1.00	851.26	356	117	115	0.546	39.4	2.979	129.2
4-4	112.5	0.40	1.40	854.26	355	119	118	0.632	45.5	2.733	102.6
4-5	117.0	0.52	1.80	857.72	354	117	116	0.721	51.8	3.168	104.1
4-6	121.5	0.50	1.70	861.04	353	115	114	0.707	50.8	3.047	102.2
4-7	126.0	0.53	1.80	864.50	351	116	113	0.728	52.2	3.178	105.5

Totals and Averages

126	1.61	89.98	357	119	0.686	49.4	82.00	101.5
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 3
Date	7/19/11
P ₃ (Inches Hg)	29.56

Meter ID	M25
Y _d	0.9994

Start Time	7:03
Stop Time	8:33

Meter ID	M25
Y _d	1.00170

Run 4

Min/Pt	Gas Sample	DGM	Volume
3.75	Volume	Temp	Metered
Elapsed	Initial (L)	(°F)	Vmstd
Time	0.00	(°F)	(L)
3.75	1.44	96	1.350
7.50	2.87	96	1.340
11.25	4.35	98	1.382
15.00	5.69	100	1.247
18.75	7.26	103	1.453
22.50	8.60	104	1.238
26.25	10.17	105	1.448
30.00	11.56	109	1.273
33.75	12.75	113	1.082
37.50	14.25	113	1.364
41.25	15.96	115	1.550
45.00	17.20	117	1.120
48.75	18.65	118	1.307
52.50	20.02	118	1.235
56.25	21.51	119	1.341
60.00	23.11	119	1.440
63.75	24.69	120	1.420
67.50	26.23	120	1.384
71.25	27.73	121	1.345
75.00	29.41	123	1.502
78.75	30.51	125	0.980
82.50	31.65	126	1.014
86.25	32.50	127	0.755
90.00	34.31	127	1.607

Totals and Averages

90	34.310	114	31.16
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Run 4 Spiked

Min/Pt	Gas Sample	DGM	Volume
3.75	Volume	Temp	Metered
Elapsed	Initial (L)	(°F)	Vmstd
Time	0.000	(°F)	(L)
3.8	1.370	95	1.289
7.5	2.750	95	1.299
11.3	4.150	99	1.308
15.0	5.500	99	1.261
18.8	6.790	105	1.193
22.5	8.220	105	1.322
26.3	9.450	107	1.133
30.0	10.960	110	1.384
33.8	12.480	114	1.383
37.5	13.830	115	1.226
41.3	14.950	117	1.014
45.0	16.310	117	1.231
48.8	17.670	118	1.229
52.5	19.190	118	1.374
56.3	20.620	119	1.290
60.0	21.740	120	1.009
63.8	23.120	120	1.243
67.5	24.670	122	1.391
71.3	26.100	124	1.279
75.0	27.530	125	1.277
78.8	29.840	125	2.063
82.5	30.004	126	0.146
86.3	31.360	127	1.207
90.0	32.630	128	1.128

Totals and Averages

90	32.630	115	29.66
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 3
Date	7/19/11
P _b (Inches Hg)	29.56

Meter ID	M25
Y _d	0.9994

Start Time	10:03
Stop Time	11:33

Meter ID	M25
Y _d	1.00170

Run 5

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
3.75	Volume Initial (L)		
Elapsed Time	0.000		
3.8	1.400	109	1.282
7.5	3.110	110	1.563
11.3	4.730	110	1.481
15.0	6.330	110	1.463
18.8	7.850	112	1.385
22.5	10.790	117	2.655
26.3	11.320	120	0.476
30.0	12.670	122	1.209
33.8	13.990	124	1.178
37.5	15.880	126	1.681
41.3	17.330	127	1.287
45.0	19.160	128	1.622
48.8	21.670	130	2.217
52.5	22.970	131	1.146
56.3	24.760	132	1.576
60.0	26.460	132	1.496
63.8	28.330	133	1.643
67.5	30.380	134	1.798
71.3	31.670	135	1.130
75.0	32.760	136	0.953
78.8	36.040	137	2.863
82.5	37.770	138	1.508
86.3	38.480	139	0.618
90.0	39.110	140	0.547

Totals and Averages

90	39.110	126	34.76
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Run 5 Spiked

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
3.75	Volume Initial (L)		
Elapsed Time	0.000		
3.8	1.440	109	1.322
7.5	2.900	110	1.338
11.3	4.510	112	1.470
15.0	5.880	111	1.253
18.8	7.680	113	1.641
22.5	8.480	114	0.728
26.3	10.220	119	1.570
30.0	11.640	121	1.277
33.8	12.820	125	1.054
37.5	14.830	127	1.789
41.3	16.180	128	1.199
45.0	17.990	129	1.605
48.8	19.070	131	0.955
52.5	20.880	131	1.600
56.3	22.490	132	1.421
60.0	24.010	133	1.339
63.8	25.710	134	1.495
67.5	26.990	135	1.124
71.3	29.210	136	1.946
75.0	29.990	137	0.682
78.8	31.530	138	1.545
82.5	33.930	139	2.093
86.3	34.510	140	0.505
90.0	36.920	140	2.098

Totals and Averages

90	36.920	127	32.86
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 3
Date	7/19/11
P _b (Inches Hg)	29.56

Meter ID	M25
Y _d	0.9994

Start Time	13:01
Stop Time	14:33

Meter ID	M25
Y _d	1.00170

Run 6

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vrristd (L)
	Volume Initial (L)		
3.75	0.000		
Elapsed Time			
3.8	1.380	99	1.286
7.5	2.850	119	1.323
11.3	4.380	121	1.372
15.0	5.970	123	1.421
18.8	7.300	123	1.189
22.5	8.830	130	1.351
26.3	10.180	131	1.190
30.0	11.730	133	1.362
33.8	13.040	136	1.145
37.5	14.200	137	1.013
41.3	16.490	139	1.992
45.0	17.530	140	0.903
48.8	18.890	140	1.181
52.5	20.080	140	1.034
56.3	22.100	140	1.754
60.0	23.530	141	1.240
63.8	25.590	141	1.786
67.5	27.680	141	1.812
71.3	28.680	142	0.866
75.0	30.030	142	1.169
78.8	31.290	142	1.091
82.5	33.820	143	2.186
86.3	34.790	143	0.838
90.0	36.770	144	1.708

Totals and Averages

90	36.770	135	32.23
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Run 6 Spiked

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vrristd (L)
	Volume Initial (L)		
3.75	0.000		
Elapsed Time			
3.8	1.580	100	1.474
7.5	3.170	101	1.480
11.3	4.810	102	1.524
15.0	6.680	103	1.735
18.8	7.980	104	1.204
22.5	9.530	131	1.370
26.3	11.340	133	1.594
30.0	12.780	135	1.264
33.8	14.580	136	1.577
37.5	15.210	137	0.551
41.3	17.010	138	1.572
45.0	19.060	140	1.785
48.8	20.540	140	1.288
52.5	22.340	141	1.564
56.3	23.730	141	1.208
60.0	25.050	142	1.145
63.8	26.540	142	1.293
67.5	28.410	142	1.623
71.3	30.390	143	1.715
75.0	32.590	143	1.906
78.8	33.940	143	1.169
82.5	35.300	143	1.178
86.3	35.360	144	0.052
90.0	37.930	144	2.222

Totals and Averages

90	37.930	132	33.47
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 4
Date	7/19/2011
Meter ID	M17
V _d	1.0141
Pitot C _p	0.84

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	511.5	449.0	62.5
Impinger 2	689.2	585.0	104.2
Impinger 3	557.4	560.4	-3.0
Rinse		50.0	-50.0
Silica Gel	950.6	917.0	33.6
Weight of Water Collected V _w (g)			110.7
Silica Gel Net Weight V _{sil} (g)			33.6

Nozzle Diameter (in)	0.250
Filter ID	12196
Train Type	Impinger
Train ID	IB3
P ₁ (Inches Hg)	29.56
P ₂ (Inches H ₂ O)	-16.0
Start Time	7:03
Stop Time	8:34

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	11.5	NA	7.47

Run 4

Transverse Point	Min/Ft	Velocity Pressure ΔP (in H ₂ O)	Coeffice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Foot ΔP	Stack Gas Velocity (ft/sec)	Volume Measured (ft ³)	Isokinetics (%)
	3.25										
1-1	3.25	0.33	0.86	959.16	318	84	80	0.574	40.2	1.401	91.5
1-2	6.50	0.49	1.30	961.67	320	87	82	0.700	49.0	2.445	131.1
1-3	9.75	0.53	1.40	963.74	323	87	81	0.726	51.1	2.919	104.2
1-4	13.00	0.50	1.30	965.81	323	88	82	0.707	49.6	2.015	107.1
1-5	16.25	0.30	0.78	967.40	325	88	82	0.548	38.5	1.546	106.2
1-6	19.50	0.39	1.00	969.00	324	89	83	0.624	43.9	1.553	93.6
1-7	22.75	0.30	0.78	970.68	326	90	83	0.548	38.5	1.630	112.0
3-1	26.00	0.33	0.86	972.20	309	90	83	0.574	40.0	1.473	95.5
3-2	29.25	0.60	1.60	974.47	307	92	84	0.775	53.8	2.199	105.6
3-3	32.50	0.60	1.60	977.04	309	93	84	0.775	53.9	2.486	119.6
3-4	35.75	0.60	1.60	979.26	310	94	85	0.775	53.9	2.145	103.2
3-5	39.00	0.60	1.60	981.45	316	94	86	0.775	54.1	2.114	102.1
3-6	42.25	0.60	1.60	983.68	314	94	86	0.775	54.1	2.153	103.8
3-7	45.50	0.63	1.60	985.67	314	94	86	0.794	55.4	2.114	99.5
4-1	48.75	0.55	1.40	988.01	295	94	87	0.742	51.1	2.062	102.7
4-2	52.00	0.55	1.40	990.11	296	95	87	0.742	51.2	2.022	100.7
4-3	55.25	0.55	1.40	992.18	297	95	88	0.742	51.2	1.992	99.2
4-4	58.50	0.60	1.60	994.30	299	96	88	0.775	53.5	2.039	97.3
4-5	61.75	0.55	1.40	996.55	302	96	88	0.742	51.4	2.165	108.1
4-6	65.00	0.65	1.70	998.90	309	96	89	0.806	56.1	2.256	104.4
4-7	68.25	0.65	1.70	1001.10	309	96	89	0.806	56.1	2.114	97.7
2-1	71.50	0.55	1.40	1003.40	311	95	89	0.742	51.7	2.211	111.2
2-2	74.75	0.55	1.40	1005.54	314	94	89	0.742	51.8	2.069	105.7
2-3	78.00	0.62	1.60	1007.50	317	95	88	0.787	55.1	1.687	99.7
2-4	81.25	0.63	1.60	1,010.13	323	95	90	0.794	55.7	2.527	119.7
2-5	84.50	0.65	1.70	1,012.44	328	96	90	0.806	56.5	2.218	103.7
2-6	87.75	0.62	1.60	1,014.75	328	96	90	0.787	55.5	2.218	106.2
2-7	91.00	0.60	1.60	1,017.03	327	96	91	0.775	55.5	2.157	106.4

Totals and Averages

91	1.41	59.30	314	89.4	0.731	51.0	57.27	104.6
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 4
Date	7/19/2011
Meiter ID	M117
Y _d	1.0141
Prot. O ₂	0.84

Nozzle Diameter (in)	0.250
Filter ID	12164
Train Type	Impinger
Train ID	IB13
F _h (Inches Hg)	28.56
F _c (Inches H ₂ O)	-16.0
Start Time	10:03
Stop Time	11:48

Place an "x" in the appropriate box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	697.5	590.0	107.5
Impinger 2	620.2	632.0	-11.8
Impinger 3	540.4	544.0	-3.6
Rinse		50.0	-50.0
Silica Gel	892.0	872.8	19.2
Weight of Water Collected, V _w (g)			42.1
Silica Gel Net Weight, V _{sg} (g)			19.2

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.2	NA	8.95

Run 5

Traverse Point	Min/Max	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity V _s (ft/sec)	Volume Metered V _m (ft ³)	Inkineticus (%)
	3.25										
4-1	3.25	0.30	0.78	19.58	323	96	94	0.546	38.0	1.601	104.9
4-2	6.50	0.40	1.00	21.37	324	97	94	0.632	42.9	1.708	96.8
4-3	9.75	0.35	0.91	23.07	325	98	95	0.592	41.1	1.619	96.2
4-4	13.00	0.35	0.91	24.75	323	98	94	0.592	41.0	1.601	97.0
4-5	16.25	0.45	1.20	26.52	321	99	94	0.671	46.5	1.687	90.0
4-6	19.50	0.40	1.00	28.27	319	99	95	0.632	43.7	1.666	94.1
4-7	22.75	0.40	1.00	30.03	320	99	95	0.632	43.8	1.675	91.7
1-1	26.00	0.41	1.00	32.90	300	99	96	0.640	43.7	2.129	150.4
1-2	29.25	0.45	1.20	33.10	299	99	96	0.671	45.8	0.190	10.0
1-3	32.50	0.45	1.20	36.45	301	98	95	0.671	45.9	3.193	168.1
1-4	35.75	0.50	1.30	38.60	302	99	96	0.707	48.4	2.046	102.2
1-5	39.00	0.50	1.30	40.71	309	101	96	0.707	48.6	2.004	100.6
1-6	42.25	0.45	1.20	42.57	309	101	96	0.671	46.1	1.768	95.5
1-7	45.50	0.43	1.10	44.50	309	101	96	0.666	45.1	1.832	99.2
2-1	48.75	0.60	1.60	46.60	319	101	96	0.775	53.6	1.998	92.1
2-2	52.00	0.60	1.60	48.78	320	102	96	0.775	53.6	2.070	95.6
2-3	55.25	0.60	1.60	51.01	329	101	96	0.775	53.9	2.120	98.1
2-4	58.50	0.60	1.20	53.06	328	100	96	0.775	53.9	1.948	90.4
2-5	61.75	0.55	1.20	55.01	329	99	96	0.742	51.6	1.855	89.9
2-6	65.00	0.52	1.20	56.99	331	99	96	0.721	50.9	1.864	94.1
2-7	68.25	0.57	1.20	58.94	335	98	96	0.755	52.8	1.859	95.5
3-1	71.50	0.55	1.40	61.41	311	99	96	0.742	51.0	2.350	112.6
3-2	74.75	0.53	1.40	63.52	313	101	96	0.729	50.2	2.005	98.0
3-3	78.00	0.53	1.40	65.61	315	102	96	0.726	50.2	1.994	97.1
3-4	81.25	0.55	1.40	67.73	319	101	96	0.742	51.3	2.011	97.0
3-5	84.50	0.58	1.50	69.96	319	101	96	0.762	52.7	2.119	99.4
3-6	87.75	0.61	1.60	72.28	323	102	97	0.781	54.2	2.201	101.0
3-7	91.00	0.54	1.40	74.47	324	102	96	0.735	51.0	2.379	101.4

Port 1 to 2 Port 2 to 3
 Less Volumes for Between port Leak Checks 1.66 0.333

Totals and Averages											
91	1.24	54.58	318	97.7	0.698	48.3	51.91	94.8			

Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 4
Date	7/19/2011
Filter ID	M17
V ₁	1.0141
Filter Q ₁	0.84

Nozzle Diameter (in)	0.250
Filter ID	12187
Train Type	Impinger
Train ID	IB3
P ₁ (Inches Hg)	29.56
P ₂ (Inches H ₂ O)	-20.0
Start Time	13:01
Stop Time	14:48

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	568.0	457.6	110.4
Impinger 2	827.0	630.5	196.5
Impinger 3	546.0	542.4	3.6
Rinse		50.0	-50.0
Silica Gel	965.0	951.2	13.8
Weight of Water Collected, W ₁ (g)			86.5
Silica Gel Net Weight, W ₂ (g)			13.6

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	11.3	NA	7.39

Run 6

Traverse Point	Min/Pl	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔP (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGH Inlet (°F)	DGH Outlet (°F)	Square Root ΔP	Stack Gas Velocity V _{sg} (ft/sec)	Volume Metered V _{mstd} (ft ³)	Isokinetic (%)
	3.25 Elapsed Time										
1-1	3.25	0.30	0.78	78.90	321	95	94	0.546	35.2	1.679	110.8
1-2	6.50	0.38	0.99	78.70	331	96	95	0.616	43.3	1.718	101.3
1-3	9.75	0.50	1.30	80.74	332	97	94	0.707	49.7	1.948	100.3
1-4	13.00	0.30	0.78	82.21	333	98	95	0.548	36.5	1.400	93.1
1-5	16.25	0.39	1.00	84.12	334	98	95	0.624	43.6	1.819	106.2
1-6	19.50	0.38	0.99	85.89	334	99	95	0.616	43.3	1.684	99.6
1-7	22.75	0.35	0.91	84.60	332	99	95	0.592	41.5	1.227	75.5
2-1	26.00	0.49	1.30	89.55	318	101	96	0.700	48.7	4.702	242.3
2-2	29.25	0.48	1.30	91.69	321	102	96	0.603	42.3	1.936	101.0
2-3	32.50	0.60	1.60	93.78	324	102	96	0.775	51.1	2.080	97.2
2-4	35.75	0.49	1.30	95.88	329	102	96	0.700	49.1	1.992	103.1
2-5	39.00	0.60	1.60	98.14	333	104	97	0.775	54.4	2.141	100.6
2-6	42.25	0.64	1.70	100.48	333	104	97	0.800	56.2	2.217	100.9
2-7	45.50	0.60	1.60	102.79	333	104	97	0.775	54.4	2.168	102.9
4-1	48.75	0.50	1.30	105.07	298	103	98	0.707	46.6	2.156	108.7
4-2	52.00	0.55	1.40	107.19	301	103	98	0.742	51.1	2.107	96.5
4-3	55.25	0.50	1.30	109.19	305	103	98	0.707	48.6	1.893	95.8
4-4	58.50	0.50	1.30	111.23	307	102	97	0.707	48.9	1.894	98.0
4-5	61.75	0.62	1.60	113.51	313	103	97	0.787	54.6	2.162	98.7
4-6	65.00	0.60	1.60	115.79	314	104	98	0.775	53.8	2.168	100.2
4-7	68.25	0.61	1.60	118.00	312	104	98	0.781	54.2	2.091	96.2
3-1	71.50	0.55	1.40	120.31	310	105	98	0.742	51.4	2.182	105.6
3-2	74.75	0.53	1.40	122.46	314	105	99	0.728	50.5	2.030	100.3
3-3	78.00	0.63	1.60	124.74	319	105	99	0.794	55.5	2.154	97.9
3-4	81.25	0.62	1.60	127.03	326	105	98	0.787	55.1	2.165	99.7
3-5	84.50	0.67	1.70	129.39	330	105	99	0.815	57.2	2.230	99.4
3-6	87.75	0.62	1.60	131.73	331	105	99	0.787	55.3	2.210	102.1
3-7	91.00	0.60	1.60	134.02	330	105	99	0.775	54.3	2.158	101.3

Totals and Averages											
91		1.36	58.87	322	99.5	0.718	50.1	55.83	100.4		

Project Number	3649
Client	Big Rivers
Plant	Wilson
Location	ESP 4
Date	7/20/2011
Meter ID	M6
Y _s	1.0076
Pilot C _p	0.84

Place an "x" in the appropriate Box

Nozzle Diameter (in)	0.230
Filter ID	NA
Train Type	Impinger
Train ID	IB24
P ₁ (Inches Hg)	29.50
P ₂ (Inches H ₂ O)	-20.0
Start Time	8:40
Stop Time	10:40

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Moisture	Final Wt (g)	Trail Wt (g)	Net Wt (g)
Impinger 1	689.0	609.4	79.6
Impinger 2	662.0	608.8	53.2
Impinger 3	653.0	629.0	24.0
Rinse		50.0	-50.0
Silica Gel	891.0	858.4	32.6
Weight of Water Collected, V _{wt} (g)			106.8
Silica Gel Net Weight, V _{wt} (g)			32.6

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.1	NA	7.02

Run 4

Traverse Point	Min/Pr	Velocity Pressure ΔP (in. H ₂ O)	Orifice Setting ΔH (in. H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity V _s (ft/sec)	Volume Metered (ft ³)
	Elapsed Time									
Single	10	NA	1.80	561.56	303	95	95	NA	NA	7.355
	20	NA	1.80	568.85	302	95	95	NA	NA	6.818
	30	NA	1.80	576.17	304	94	94	NA	NA	6.959
	40	NA	1.80	583.59	305	94	94	NA	NA	7.054
	50	NA	1.80	590.99	305	95	94	NA	NA	7.029
	60	NA	1.80	598.45	305	95	94	NA	NA	7.086
	70	NA	1.80	605.86	305	96	94	NA	NA	7.032
	80	NA	1.80	613.43	305	97	95	NA	NA	7.171
	90	NA	1.80	620.76	306	97	95	NA	NA	6.944
	100	NA	1.80	628.21	305	98	96	NA	NA	7.045
	110	NA	1.80	635.63	306	99	96	NA	NA	7.010
	120	NA	1.80	643.07	305	99	97	NA	NA	7.022

Totals and Averages

120	1.80	89.26	305	95.5	NA	NA	84.62
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Project Number	3649
Client	Big Rivers
Plant	Wilson
Location	ESP 4
Date	7/20/2011
Meter ID	M6
Y _d	1.0076
Pitot C _p	0.84

Place an "x" in the appropriate Box

Nozzle Diameter (in)	0.230
Filter ID	NA
Train Type	Impinger
Train ID	IB New
P ₁ (Inches Hg)	29.50
P ₂ (Inches H ₂ O)	-20.0
Start Time	12:05
Stop Time	14:05

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	771.0	714.0	57.0
Impinger 2	731.0	693.0	38.0
Impinger 3	555.0	545.0	10.0
Raise		50.0	-50.0
Silica Gel	972.0	941.0	31.0
Weight of Water Collected V ₁₅ (g)			55.0
Silica Gel Net Weight V ₁₅ (g)			21.0

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	11.8	NA	7.32

Run 5

Traveler Point	Min/Pt	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DSM Inlet (°F)	DSM Outlet (°F)	Square Root ΔP	Stack Gas Velocity V _s (ft/sec)	Volume Metered V _{mtrl} (ft ³)
	10									
Single	10	NA	1.80	656.12	305	97	96	NA	NA	6.064
	20	NA	1.80	663.72	305	97	96	NA	NA	7.193
	30	NA	1.80	671.37	305	98	97	NA	NA	7.227
	40	NA	1.80	679.01	305	99	97	NA	NA	7.211
	50	NA	1.80	686.54	306	99	98	NA	NA	7.101
	60	NA	1.80	693.97	306	99	98	NA	NA	7.007
	70	NA	1.80	701.67	306	99	98	NA	NA	7.261
	80	NA	1.80	709.25	305	99	98	NA	NA	7.142
	90	NA	1.80	716.83	305	99	98	NA	NA	7.146
	100	NA	1.80	724.39	305	99	98	NA	NA	7.129
	110	NA	1.80	731.95	305	100	98	NA	NA	7.123
	120	NA	1.80	739.47	305	101	99	NA	NA	7.073

Totals and Averages

120	1.80	91.87	305	98.2	NA	NA	86.68
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Project Number	3649
Client	Big Rivers
Plant	Wilson
Location	ESP 4
Date	7/20/2011
Filter ID	M6
Y ₉	1.0076
Pitot C _p	0.84

Place an "x" in the appropriate Box

Nozzle Diameter (in)	0.230
Filter ID	NA
Titan Type	Impinger
Titan ID	IB24
P ₁ (Inches Hg)	29.50
P ₂ (Inches H ₂ O)	-20.0
Start Time	15:05
Stop Time	17:20

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Impinger	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	706.0	610.0	96.0
Impinger 2	652.0	609.0	43.0
Impinger 3	652.0	631.0	21.0
Rinse		50.0	-50.0
Silica Gel	927.0	891.0	36.0
Weight of Water Collected			110.0
Silica Gel Net Weight			36.0

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.0	NA	7.09

Run 6

Traverse Point	Min Pit	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume (ft ³)	Stack Temp (°F)	DSM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity vs (ft/sec)	Volume Measured (ft ³)
	Elapsed Time									
Single	10	NA	1.80	749.93	305	100	99	NA	NA	7.653
	20	NA	1.80	758.01	305	101	99	NA	NA	7.599
	30	NA	1.80	765.25	305	101	99	NA	NA	6.909
	40	NA	1.80	772.92	305	102	99	NA	NA	7.207
	50	NA	1.80	780.57	305	102	100	NA	NA	7.182
	60	NA	1.80	788.25	305	103	100	NA	NA	7.204
	70	NA	1.80	795.43	304	103	100	NA	NA	6.735
	80	NA	1.80	803.59	305	102	100	NA	NA	7.661
	90	NA	1.80	811.25	306	102	100	NA	NA	7.181
	100	NA	1.80	818.79	305	102	100	NA	NA	7.079
	110	NA	1.80	825.46	305	102	100	NA	NA	6.262
	120	NA	1.80	834.98	305	102	100	NA	NA	8.938

Totals and Averages

120	1.80	93.18	305	101	NA	NA	87.52
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 4
Date	7/20/2011
Meier ID	M17
N ₂	1.0141
Fluor C ₂	0.84

Nozzle Diameter (in)	0.268
Filter ID	NA
Titan Type	Impinger
Titan ID	1B18
P ₀ (Inches Hg)	29.50
P ₁ (Inches H ₂ O)	-20.0
Start Time	8:40
Stop Time	16:48

Place an "x" in the appropriate box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	809.0	633.1	175.9
Impinger 2	786.0	740.9	45.1
Impinger 3	788.0	771.5	16.5
Impinger 4	857.0	864.2	-7.2
Rinse		50.0	-50.0
Silica Gel	969.0	949.5	19.5
Weight of Water Collected, V _w (g)			180.3
Silica Gel net Weight, V _{sg} (g)			19.5

GEMS	%CO ₂	%CO ₂ +%C ₂	%O ₂
Average	12.1	NA	7.02

Run 4

Traverse Point	Min/Pi	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔF	Stack Gas Velocity Vs (ft/sec)	Volume Metered Vmstd (ft ³)	Isokinetic (%)
	Elapsed Time										
	4.5			134.77							
1-1	4.5	0.39	1.40	138.10	315	95	94	0.624	42.7	3.180	119.1
1-2	9.0	0.13	0.46	139.79	317	96	94	0.381	25.3	1.602	104.5
1-3	13.5	0.34	1.20	142.53	319	98	94	0.582	41.0	2.608	104.9
1-4	18.0	0.47	1.70	145.86	320	99	94	0.686	42.2	2.171	108.5
1-5	22.5	0.22	0.78	148.10	322	99	94	0.483	30.0	2.122	106.6
1-6	27.0	0.22	0.78	150.27	323	99	94	0.489	30.0	2.062	103.7
1-7	31.5	0.30	0.71	152.34	324	99	94	0.542	38.6	1.966	84.1
2-1	36.0	0.58	2.10	156.26	324	99	94	0.762	53.7	3.737	115.4
2-2	40.5	0.55	2.00	159.89	311	102	94	0.742	51.5	3.450	108.5
2-3	45.0	0.54	1.90	163.40	313	103	95	0.735	51.4	3.325	105.8
2-4	49.5	0.61	2.20	167.23	316	103	95	0.781	54.7	3.635	105.8
2-5	54.0	0.55	2.00	170.81	320	104	95	0.742	52.1	3.393	107.3
2-6	58.5	0.64	2.30	174.68	325	104	95	0.803	56.4	3.671	106.0
2-7	63.0	0.60	2.10	178.31	325	105	96	0.775	54.0	3.416	104.4
3-1	67.5	0.57	2.00	182.34	304	104	96	0.755	52.5	3.817	117.4
3-2	72.0	0.59	2.10	186.04	305	105	96	0.752	53.5	3.502	105.9
3-3	76.5	0.54	1.90	189.59	308	106	97	0.735	51.2	3.352	106.2
3-4	81.0	0.63	2.20	193.40	312	107	97	0.794	55.5	3.597	105.8
3-5	85.5	0.54	1.90	197.96	317	107	97	0.735	51.5	4.302	137.1
3-6	90.0	0.55	1.90	200.60	324	108	98	0.742	52.3	2.486	75.8
3-7	94.5	0.57	2.00	204.11	324	108	98	0.755	53.2	3.306	103.0
4-1	99.0	0.53	1.90	208.40	293	105	98	0.728	50.3	4.051	128.3
4-2	103.5	0.55	1.90	211.80	297	107	98	0.742	51.3	3.205	99.9
4-3	108.0	0.49	1.70	215.15	297	105	97	0.700	46.5	3.165	104.5
4-4	112.5	0.62	2.20	218.93	299	105	98	0.787	54.6	3.572	106.0
4-5	117.0	0.46	1.60	222.18	301	106	97	0.678	47.1	3.087	104.8
4-6	121.5	0.56	2.00	225.79	309	105	97	0.748	52.2	3.413	106.2
4-7	126.0	0.55	2.00	229.33	310	107	98	0.742	51.6	3.338	104.9

Totals and Averages

126			1.75	94.56	313	99.5		0.696	48.7	89.57	107.4
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 4
Date	7/20/2011
Filter ID	M17
V ₁	1.0141
Pitot C ₂	0.84

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Impinger	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	809.0	640.0	169.0
Impinger 2	810.0	763.0	47.0
Impinger 3	708.0	690.0	18.0
Impinger 4	589.0	584.0	5.0
Rinse		50.0	-50.0
Silica Gel	909.0	892.0	17.0
Weight of Water Collected, W ₁ (g)			189.0
Silica Gel Net Weight, W ₂ (g)			17.0

Nozzle Diameter (in)	0.268
Filter ID	NA
Train Type	Impinger
Train ID	IB3
P ₁ (Inches Hg)	29.60
P ₂ (Inches Hg)	-20.0
Start Time	12:05
Stop Time	14:14

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	11.8	NA	7.32

Run 5

Transverse Point	Min/Pt	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Inlet (ft ³)	Stack Temp (°F)	DSM Inlet (°F)	DSM Orifice (°F)	Square Root ΔP	Stack Gas Velocity V _s (ft/sec)	Volume Metered V _{std} (ft ³)	Isokinetics (%)
	4.5										
1-1	4.5	0.25	0.89	232.10	325	100	97	0.500	35.9	1.638	77.2
1-2	9.0	0.30	1.10	234.80	324	101	97	0.548	38.5	2.558	109.8
1-3	13.5	0.32	1.10	238.21	324	102	97	0.566	39.9	3.225	134.3
1-4	18.0	0.39	1.40	241.26	326	104	98	0.624	44.1	2.879	108.8
1-5	22.5	0.45	1.60	244.41	328	105	98	0.671	47.8	2.972	104.3
1-6	27.0	0.39	1.40	247.41	330	105	98	0.624	44.2	2.829	107.2
1-7	31.5	0.39	1.40	250.37	329	105	97	0.616	43.6	2.794	107.1
2-1	36.0	0.47	1.70	254.12	311	105	99	0.680	48.0	3.534	120.5
2-2	40.5	0.57	2.00	257.72	315	106	99	0.755	52.9	3.394	105.0
2-3	45.0	0.59	2.10	261.40	315	107	99	0.768	53.9	3.447	105.7
2-4	49.5	0.57	2.00	265.12	318	108	100	0.755	52.1	3.498	108.7
2-5	54.0	0.65	2.30	268.99	321	107	99	0.806	56.8	3.648	108.9
2-6	58.5	0.57	2.00	272.02	326	106	99	0.765	53.2	2.857	89.3
2-7	63.0	0.68	2.40	276.54	331	107	99	0.825	58.4	4.262	122.3
3-1	67.5	0.48	1.70	280.30	303	105	99	0.693	48.2	5.546	119.0
3-2	72.0	0.60	2.10	285.79	307	106	99	0.775	54.0	5.177	155.8
3-3	76.5	0.53	1.90	287.15	310	108	99	0.728	50.9	1.262	41.1
3-4	81.0	0.60	2.10	290.76	314	106	99	0.775	54.3	3.405	102.9
3-5	85.5	0.51	1.80	294.22	318	105	98	0.714	50.0	3.266	107.4
3-6	90.0	0.53	1.90	297.73	324	106	99	0.728	51.4	3.308	107.1
3-7	94.5	0.55	2.00	301.31	320	105	98	0.742	52.2	3.381	107.2
4-1	99.0	0.43	1.50	304.89	297	107	100	0.656	45.5	3.365	118.8
4-2	103.5	0.54	1.90	308.42	297	109	101	0.735	50.9	3.313	104.9
4-3	108.0	0.44	1.60	311.65	300	110	101	0.685	46.1	3.028	105.8
4-4	112.5	0.60	2.10	315.33	302	110	101	0.775	53.9	3.452	103.5
4-5	117.0	0.48	1.70	318.68	306	110	101	0.695	48.3	3.139	105.5
4-6	121.5	0.51	1.80	322.09	309	108	100	0.714	49.9	3.205	104.7
4-7	126.0	0.52	1.80	325.47	310	108	101	0.721	50.4	3.174	102.8

Totals and Averages

126	1.76	95.10	316	103	0.700	49.1	89.61	107.1
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 4
Date	7/20/2011
Meter ID	M17
Y ₂	1.0141
Fiber C ₂	0.84

Place an "x" in the appropriate Box

Circular?	
Rectangular?	x
Diameter	
Length	162
Width	162

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	800.0	633.0	167.0
Impinger 2	777.0	738.0	39.0
Impinger 3	789.0	766.0	23.0
Impinger 4	658.0	655.0	3.0
Rinse		50.0	-50.0
Silica Gel	992.0	969.0	23.0
Weight of Water Collected, W _{wt} (g)			182.0
Silica Gel Net Weight, V _{wt} (g)			23.0

Nozzle Diameter (in)	0.268
Filter ID	NA
Train Type	Impinger
Train ID	IB18
P ₁ (Inches Hg)	29.50
P ₂ (Inches H ₂ O)	-20.0
Start Time	15:05
Stop Time	17:30

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.0	NA	7.0R

Run 6

Traverse Point	Min/Pt	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity (ft/sec)	Volume Metered (ft ³)	Isokinetic (%)
	Elapsed Time										
1-1	4.5	0.21	0.75	334.24	325	101	100	0.45R	32.3	2.066	100.0
1-2	9.0	0.32	1.10	336.81	327	102	101	0.586	40.0	2.422	101.1
1-3	13.5	0.30	1.10	339.39	328	104	102	0.548	38.7	2.426	104.6
1-4	18.0	0.39	1.40	342.43	329	106	101	0.621	44.2	2.857	108.2
1-5	22.5	0.48	1.70	345.74	331	107	101	0.693	49.1	3.110	109.3
1-6	27.0	0.21	0.75	347.90	317	109	101	0.45R	32.2	2.021	103.5
1-7	31.5	0.20	0.72	349.98	318	107	102	0.447	31.4	1.929	101.3
2-1	36.0	0.47	1.70	353.66	312	105	102	0.68R	48.0	2.380	115.5
2-2	40.5	0.59	2.10	357.25	317	107	101	0.76R	53.9	3.471	108.1
2-3	45.0	0.55	2.00	360.89	318	109	102	0.742	52.1	3.414	106.1
2-4	49.5	0.61	2.20	364.67	322	110	102	0.781	55.0	3.564	106.8
2-5	54.0	0.59	2.10	368.43	327	110	102	0.798	54.3	3.524	108.4
2-6	58.5	0.62	2.20	372.29	332	110	102	0.787	55.8	3.619	108.9
2-7	63.0	0.64	2.20	376.05	332	110	103	0.800	56.7	3.522	104.0
3-1	67.5	0.47	1.70	379.87	305	107	102	0.686	47.8	3.382	121.8
3-2	72.0	0.6	2.10	383.57	307	108	103	0.775	54.0	2.471	104.5
3-3	76.5	0.52	1.80	387.03	311	110	103	0.721	50.8	3.258	105.0
3-4	81.0	0.62	2.20	390.84	316	110	103	0.787	55.2	3.589	106.3
3-5	85.5	0.51	1.80	394.29	319	110	103	0.714	50.0	3.228	106.2
3-6	90.0	0.60	2.10	397.99	326	109	103	0.775	54.7	3.468	105.7
3-7	94.5	0.60	2.10	401.70	327	110	103	0.775	54.7	3.474	105.9
4-1	99.0	0.55	2.00	405.76	297	107	102	0.742	51.4	3.814	119.2
4-2	103.5	0.51	1.80	409.21	298	109	103	0.714	49.5	3.221	104.9
4-3	108.0	0.48	1.70	412.63	301	109	103	0.683	48.1	3.108	104.2
4-4	112.5	0.60	2.10	418.26	303	110	103	0.775	53.9	2.490	103.9
4-5	117.0	0.36	1.30	419.20	307	110	103	0.600	41.8	2.748	106.5
4-6	121.5	0.62	2.20	422.99	314	110	103	0.787	55.2	3.550	105.6
4-7	126.0	0.58	2.10	426.79	314	110	103	0.762	53.4	3.552	109.5

Totals and Averages

126	1.75	94.74	317	105	0.694	48.7	88.85	107.3
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 4
Date	7/19/11
P _b (Inches Hg)	29.56

Meter ID	M26
Y _c	0.99580

Start Time	10:03
Stop Time	11:33

Meter ID	M26
Y _c	0.99020

Run 5

Min/Pt	Gas Sample	DGM	Volume
Elapsed	Volume		
Time	Initial (L)	Temp.	Vmstd
	0.000	(°F)	(L)
3.75	2.44	113	2.211
7.50	4.75	109	2.108
11.25	6.97	106	2.037
15.00	8.99	108	1.847
18.75	11.06	107	1.896
22.50	12.98	108	1.755
26.25	15.00	109	1.843
30.00	16.84	110	1.676
33.75	18.45	111	1.464
37.50	20.59	113	1.939
41.25	22.41	113	1.649
45.00	24.33	114	1.737
48.75	26.27	115	1.752
52.50	28.13	116	1.677
56.25	30.05	116	1.731
60.00	31.97	116	1.731
63.75	34.05	116	1.875
67.50	36.18	117	1.917
71.25	38.34	117	1.944
75.00	40.51	117	1.953
78.75	42.68	116	1.956
82.50	44.85	116	1.956
86.25	47.00	116	1.938
90.00	49.17	116	1.956

Totals and Averages

90	49.17	113	44.55
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Run 5 Spiked

Min/Pt	Gas Sample	DGM	Volume
Elapsed	Volume		
Time	Initial (L)	Temp.	Vmstd
	0.000	(°F)	(L)
3.75	1.66	106	1.514
7.50	3.68	108	1.836
11.25	6.12	107	2.222
15.00	8.47	107	2.140
18.75	10.85	108	2.163
22.50	13.11	109	2.051
26.25	15.47	110	2.138
30.00	16.98	111	1.365
33.75	18.85	112	1.688
37.50	21.76	113	2.622
41.25	23.96	114	1.979
45.00	26.17	114	1.988
48.75	28.36	115	1.967
52.50	30.55	116	1.963
56.25	32.72	116	1.945
60.00	34.90	118	1.947
63.75	37.10	118	1.965
67.50	39.36	119	2.015
71.25	41.49	119	1.899
75.00	43.70	118	1.974
78.75	45.91	116	1.981
82.50	48.12	116	1.981
86.25	50.33	116	1.981
90.00	52.43	116	1.882

Totals and Averages

90	52.43	113	47.21
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	ESP 4
Date	7/19/11
P _b (Inches Hg)	29.56

Meter ID	M26
Y _d	0.99580

Start Time	13:01
Stop Time	14:33

Meter ID	M26
Y _d	0.99020

Run 6

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
3.75	Volume		
Elapsed Time	Initial (L)		
	0.000		
3.75	2.550	120	2.283
7.50	5.110	120	2.292
11.25	7.600	120	2.229
15.00	10.000	120	2.149
18.75	12.500	120	2.238
22.50	15.000	121	2.234
26.25	17.590	121	2.315
30.00	20.100	120	2.247
33.75	22.530	120	2.175
37.50	24.950	120	2.167
41.25	27.380	120	2.175
45.00	29.790	120	2.158
48.75	32.190	120	2.149
52.50	34.510	121	2.073
56.25	37.000	121	2.225
60.00	39.780	121	2.485
63.75	42.560	121	2.485
67.50	45.380	120	2.525
71.25	48.200	120	2.525
75.00	51.150	120	2.641
78.75	53.610	120	2.202
82.50	57.060	120	3.089
86.25	59.970	120	2.605
90.00	62.800	120	2.534

Totals and Averages

90 62.800 120 56.20

Run 6 Spiked

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
3.75	Volume		
Elapsed Time	Initial (L)		
	0.000		
3.75	2.420	120	2.154
7.50	4.830	120	2.145
11.25	7.050	120	1.976
15.00	9.330	120	2.030
18.75	11.700	120	2.110
22.50	14.410	121	2.408
26.25	17.110	121	2.399
30.00	19.800	120	2.395
33.75	22.440	120	2.350
37.50	24.950	120	2.234
41.25	27.470	120	2.243
45.00	29.940	120	2.199
48.75	32.410	121	2.195
52.50	35.850	121	3.057
56.25	37.450	121	1.422
60.00	40.050	121	2.311
63.75	42.490	121	2.168
67.50	45.000	120	2.234
71.25	47.600	120	2.315
75.00	50.170	120	2.288
78.75	52.990	120	2.510
82.50	55.800	120	2.502
86.25	58.640	120	2.528
90.00	61.280	120	2.350

Totals and Averages

90 61.280 120 54.53

Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	Stack
Date	7/19/2011
Meter ID	M16
Yd	0.9907
Pilot C ₂	0.84

Place an "x" in the appropriate Box

Circular?	x
Rectangular?	
Diameter	408
Length	
Width	

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	697.5	481.0	236.5
Impinger 2	579.0	587.0	-8.0
Impinger 3	554.0	532.0	22.0
Rinse		50.0	-50.0
Silica Gel	901.0	877.5	23.5
Weight of Water Collected, W _w (g)			200.5
Silica Gel Net Weight, W _{sg} (g)			23.5

Nozzle Diameter (in)	0.312
Filter ID	12154
Train Type	Impinger
Train ID	1B23
P ₁ (inches Hg)	29.56
P ₂ (inches H ₂ O)	-0.2
Start Time	7:03
Stop Time	8:43

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	11.9	NA	7.45

Run 4

Transverse Point	Min/Pt	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity V _s (ft/sec)	Volume Metered V _{mstd} (ft ³)	Isokinetics (%)
	7.5										
1-1	7.5	0.25	1.70	265.56	131	98	95	0.500	30.1	5.183	97.8
1-2	15.0	0.24	1.60	270.90	130	97	95	0.490	29.5	4.981	93.9
1-3	22.5	0.27	1.80	276.48	131	100	95	0.520	31.5	5.194	92.6
2-1	30.0	0.26	1.80	282.10	130	104	96	0.510	30.7	5.208	96.3
2-2	37.5	0.27	1.80	287.72	131	107	97	0.520	31.3	5.189	92.3
2-3	45.0	0.24	1.60	293.19	130	109	98	0.490	29.5	5.035	94.9
3-1	52.5	0.24	1.60	298.42	130	107	100	0.490	29.5	4.814	90.7
3-2	60.0	0.26	1.80	303.96	131	112	102	0.510	30.7	5.070	91.9
3-3	67.5	0.23	1.60	309.43	131	114	103	0.480	28.9	4.990	96.2
4-1	75.0	0.25	1.70	314.90	130	116	104	0.500	30.1	4.975	92.0
4-2	82.5	0.26	1.80	320.57	130	117	105	0.510	30.7	4.953	93.3
4-3	90.0	0.25	1.70	326.15	130	118	106	0.500	30.1	5.061	93.5

Totals and Averages

90	1.71	66.15	130	104	0.502	30.2	60.85	93.4
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	Stack
Date	7/19/2011
Meter ID	M16
Y_d	0.9907
Ratio C_1	0.84

Place an "x" in the appropriate Box

Circular?	x
Rectangular?	
Diameter	408
Length	
Width	

Nozzle Diameter (in)	0.312
Filter ID	12165
Train Type	Impinger
Train ID	IB4
P_s (Inches Hg)	29.56
P_r (Inches H ₂ O)	-0.2
Start Time	10:03
Stop Time	11:48

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	782.0	565.0	217.0
Impinger 2	719.0	715.0	4.0
Impinger 3	645.0	640.5	4.5
Rinse		50.0	-50.0
Silica Gel	954.0	910.0	44.0
Weight of Water Collected, W_{col} (g)			175.5
Silica Gel Net Weight, W_{net} (g)			44.0

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.0	NA	7.17

Run 5

Traverse Point	Min/Pr	Velocity Pressure ΔP (in. H ₂ O)	Orifice Sizing ΔH (in. H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity V _s (ft/sec)	Volume Metered V _{mstd} (ft ³)	Isokinetic (%)
	7.5										
				327.60							
1-1	7.5	0.26	1.80	333.32	131	100	101	0.510	30.7	5.295	95.6
1-2	15.0	0.27	1.80	339.05	131	102	101	0.520	31.2	5.295	93.8
1-3	22.5	0.24	1.60	344.53	130	106	101	0.490	29.5	5.034	94.7
1-4	30.0	0.24	1.60	349.98	131	108	101	0.490	29.5	5.007	94.1
1-5	37.5	0.24	1.60	355.54	131	110	102	0.490	29.5	5.095	95.7
1-6	45.0	0.20	1.40	360.55	131	112	103	0.447	26.9	4.576	94.2
1-7	52.5	0.23	1.60	365.89	131	111	104	0.480	28.9	4.880	93.7
2-1	60.0	0.29	1.80	371.74	131	111	104	0.539	32.4	5.349	91.4
2-2	67.5	0.20	1.90	377.61	131	112	105	0.447	26.9	5.355	110.2
2-3	75.0	0.26	1.80	383.41	130	114	106	0.510	30.7	5.240	85.3
2-4	82.5	0.27	1.80	389.91	131	114	106	0.520	31.2	5.917	104.5
2-5	90.0	0.26	1.80	394.99	131	115	106	0.510	31.2	4.621	83.4

Totals and Averages

90	1.71	67.39	131	107	0.496	29.9	61.71	95.5
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	Stack
Date	7/19/2011
Filter ID	M16
V_d	0.9907
Filter C_p	0.84

Nozzle Diameter (in)	0.312
Filter ID	12183
Train Type	Impinger
Train ID	IB23
P_s (Inches Hg)	29.56
P_b (Inches H ₂ O)	-0.2
Start Time	13:07
Stop Time	14:48

Place an "x" in the appropriate Box

Circular?	x
Rectangular?	
Diameter	408
Length	
Width	

Measure	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	707.5	451.0	256.5
Impinger 2	585.5	587.0	-1.5
Impinger 3	575.5	546.0	29.5
Rinse		50.0	-50.0
Silica Gel	921.4	900.2	21.2
Weight of Water Collected (g)			234.5
Silica Gel Net Weight (g)			21.2

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	13.1	NA	6.11

Run 6

Traverse Point	Min/Pi	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Foot ΔF	Stack Gas Velocity (ft/sec)	Volume Metered (ft ³)	Isokinetic (%)
	7.5										
1-1	7.5	0.25	1.70	401.21	130	101	96	0.500	30.1	5.099	96.2
1-2	15.0	0.26	1.80	406.71	129	103	102	0.510	30.5	5.074	92.8
1-3	22.5	0.24	1.60	412.22	130	106	102	0.490	29.5	5.087	97.5
1-4	30.0	0.27	1.80	417.75	129	109	102	0.520	31.2	5.074	92.0
1-5	37.5	0.25	1.70	423.36	131	111	103	0.500	30.1	5.133	96.9
1-6	45.0	0.24	1.60	428.85	130	112	104	0.490	29.5	5.013	96.5
1-7	52.5	0.27	1.80	434.56	127	113	104	0.520	31.2	5.212	94.4
2-1	60.0	0.26	1.80	440.31	127	114	105	0.510	30.6	5.236	96.7
2-2	67.5	0.23	1.60	445.80	130	115	105	0.480	28.2	4.995	98.2
2-3	75.0	0.28	1.90	451.47	130	115	106	0.520	31.2	5.158	91.9
2-4	82.5	0.25	1.70	457.52	131	116	107	0.500	30.1	5.492	103.7
2-5	90.0	0.24	1.60	462.70	131	116	107	0.480	29.5	4.701	90.0

Totals and Averages

90	1.72	66.98	130	107	0.503	30.2	61.26	94.2
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	Stack
Date	7/20/2011
Meter ID	M3
V_s	0.8891
Pitot C_p	0.84

Place an "x" in the appropriate Box

Circular?	x
Rectangular?	
Diameter	408
Length	
Width	

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	783.0	663.5	119.5
Impinger 2	725.0	677.1	47.9
Impinger 3	636.5	617.7	18.8
Impinger 4			0.0
Pinse		50.0	-50.0
Silica Gel	947.5	928.5	19.0
Weight of Water Collected, V_{wv} (g)			136.2
Silica Gel Net Weight, V_{mg} (g)			19.0

Nozzle Diameter (in)	0.370
Filter ID	NA
Train Type	Impinger
Train ID	IB14
P_1 (Inches Hg)	29.50
P_2 (Inches H ₂ O)	-0.2
Start Time	8:40
Stop Time	10:55

CEMS	%CO ₂	%CO ₂ +%C ₂	%O ₂
Average	11.2	NA	8.02

Run 4

Traverse Point	Min/Pt	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity V_s (ft/sec)	Volume Metered V_m (ft ³)	Isokinetics (%)
	10										
1-1	10	0.25	1.90	950.00	131	94	94	0.500	29.8	7.064	65.7
1-2	20	0.23	1.80	957.67	132	94	93	0.460	28.6	7.164	69.2
1-3	30	0.23	1.80	965.27	132	87	94	0.480	28.6	7.074	68.4
2-1	40	0.26	2.00	973.15	132	100	94	0.510	30.4	7.318	66.5
2-2	50	0.22	1.70	980.56	132	102	95	0.469	28.0	6.858	67.9
2-3	60	0.19	1.50	987.55	132	103	96	0.436	26.0	6.454	68.6
3-1	70	0.24	1.90	995.30	132	106	97	0.490	29.2	7.138	67.5
3-2	80	0.22	1.70	1002.77	132	106	98	0.469	28.0	6.870	67.9
3-3	90	0.22	1.70	1010.25	132	107	99	0.469	28.0	6.867	67.9
4-1	100	0.25	1.90	1018.05	131	108	100	0.500	29.8	7.152	66.2
4-2	110	0.24	1.90	1025.92	132	108	100	0.490	29.2	7.216	66.3
4-3	120	0.22	1.70	1033.31	132	108	100	0.469	26.0	6.773	66.9

Totals and Averages

120		1.79	90.91	132	99.7	0.480	28.6	83.97	67.5
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	Stack
Date	7/20/2011
Meter ID	M3
Y _s	0.9991
Pitot C _p	0.84

Nozzle Diameter (in)	0.370
Filter ID	NA
Train Type	Impinger
Train ID	IB23
P ₃ (Inches Hg)	29.50
P ₂ (Inches H ₂ O)	-0.2
Start Time	12:04
Stop Time	14:14

Place an "x" in the appropriate Box

Circular?	x
Rectangular?	
Diameter	408
Length	
Width	

Impinger	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	942.0	711.0	231.0
Impinger 2	806.0	737.0	69.0
Impinger 3	527.0	507.0	20.0
Impinger 4			0.0
Pinse		50.0	-50.0
Silica Gel	907.0	877.0	30.0
Weight of Water Collected, V _w (g)			270.0
Silica Gel Net Weight, V _{scg} (g)			30.0

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.1	NA	6.95

Run 5

Traverse Point	Min/P	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity V _s (ft/sec)	Volume Metered V _m (ft ³)	Isokinetic (%)
	10										
1-1	10	0.26	2.00	41.45	132	97	97	0.510	30.8	7.058	68.8
1-2	20	0.24	1.90	49.15	132	99	97	0.490	29.6	7.136	72.0
1-3	30	0.21	1.60	58.56	132	102	97	0.468	27.7	8.644	73.8
2-1	40	0.25	1.90	63.97	132	105	98	0.500	30.2	6.825	67.5
2-2	50	0.24	1.90	71.58	132	107	99	0.490	29.6	6.990	70.5
2-3	60	0.22	1.70	78.99	132	108	100	0.469	28.3	6.791	71.6
3-1	70	0.23	1.80	86.50	132	108	101	0.480	29.0	6.878	70.9
3-2	80	0.22	1.70	93.85	132	109	101	0.465	28.3	6.723	70.9
3-3	90	0.19	1.50	100.91	132	109	102	0.436	26.5	6.451	70.1
4-1	100	0.22	1.70	108.23	132	110	102	0.469	28.3	6.685	70.4
4-2	110	0.22	1.70	112.50	132	111	102	0.465	28.3	3.898	41.7
4-3	120	0.18	1.40	122.20	132	111	102	0.424	26.6	8.844	105.0

Totals and Averages

120		1.73	88.35	132	103	0.472	28.5	81.11	70.8
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	Stack
Date	7/20/2011
Meter ID	M3
Y_a	0.9891
Ratio C_p	0.84

Nozzle Diameter (in)	0.370
Filter ID	NA
Train Type	Impinger
Train ID	IB21
F_1 (Inches Hg)	29.50
F_2 (Inches H ₂ O)	-0.2
Start Time	15:20
Stop Time	17:36

Place an "x" in the appropriate Box

Circular?	x
Rectangular?	
Diameter	408
Length	
Width	

Impinger	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	828.0	667.5	160.5
Impinger 2	670.0	673.4	-3.4
Impinger 3	673.5	624.0	49.5
Impinger 4			0.0
Filter		50.0	-50.0
Silica Gel	1016.0	979.9	36.1
Weight of Water Collected (g)			156.6
Silica Gel Net Weight (g)			36.1

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	11.4	NA	7.74

Run 6

Traverse Point	MiscPt	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity V _s (ft/sec)	Volume (Metered) V _{mstd} (ft ³)	Isokinetic (%)
	10										
1-1	10	0.24	1.90	130.58	132	100	100	0.490	29.3	7.369	70.9
1-2	20	0.24	1.90	138.37	132	100	100	0.490	29.3	7.194	68.2
1-3	30	0.21	1.60	145.60	132	103	99	0.455	27.4	6.680	68.5
2-1	40	0.25	1.90	153.17	132	106	100	0.500	29.5	6.953	65.5
2-2	50	0.23	1.80	161.00	132	108	100	0.480	28.7	7.172	70.5
2-3	60	0.19	1.50	167.98	132	109	101	0.436	26.1	6.392	59.0
3-1	70	0.26	2.00	175.98	132	110	102	0.510	30.5	7.220	68.7
3-2	80	0.24	1.90	183.73	132	111	103	0.490	29.3	7.160	68.9
3-3	90	0.24	1.90	191.50	132	111	103	0.490	29.3	7.087	66.2
4-1	100	0.23	1.80	199.15	132	111	104	0.480	28.7	3.989	68.5
4-2	110	0.21	1.60	206.38	132	112	104	0.458	27.4	6.375	67.6
4-3	120	0.21	1.60	213.52	132	112	104	0.458	27.4	6.496	66.3

Totals and Averages

120	1.78	90.92	132	105	0.478	28.6	83.24	68.3
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	Stack
Date	7/20/2011
Meter ID	M16
Y _d	0.9907
Phot C _p	0.84

Nozzle Diameter (in)	0.312
Filter ID	NA
Train Type	Impinger
Train ID	IB15
P ₁ (Inches Hg)	29.50
P ₂ (Inches H ₂ O)	-0.2
Start Time	8:40
Stop Time	10:55

Place an "x" in the appropriate Box

Circular?	x
Rectangular?	
Diameter	408
Length	
Width	

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	817.0	634.2	182.8
Impinger 2	800.8	744.0	56.8
Impinger 3	748.5	719.5	29.0
Impinger 4	647.8	635.0	12.8
Rinse		50.0	-50.0
Silica Gel	914.8	885.6	29.2
Weight of Water Collected V _{water} (g)			231.8
Silica Gel Net Weight V _{dry} (g)			29.0

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	11.2	NA	8.03

Run 4

Traverse Point	Min/Pr	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity V _s (ft/sec)	Volume Measured V _{mstd} (ft ³)	Isokinetic (%)
	10										
				463.39							
1-1	10	0.25	1.90	471.33	131	105	103	0.500	30.1	7.292	99.6
1-1	20	0.23	1.70	478.72	132	113	103	0.480	28.9	6.736	96.4
1-2	30	0.22	1.60	485.95	132	117	105	0.465	26.3	6.557	95.5
2-1	40	0.24	1.80	493.54	132	118	106	0.490	29.5	6.972	95.9
2-2	50	0.23	1.70	500.99	132	119	107	0.480	28.9	6.731	96.0
2-3	60	0.21	1.50	508.02	132	119	108	0.450	27.0	6.543	94.6
3-1	70	0.24	1.70	515.45	132	119	108	0.490	29.5	6.707	93.0
3-2	80	0.24	1.70	522.85	132	119	109	0.490	29.5	6.676	93.1
3-3	90	0.23	1.70	530.25	133	119	110	0.480	28.9	6.669	95.1
4-1	100	0.22	1.60	539.48	132	119	110	0.465	26.3	6.316	121.2
4-2	110	0.23	1.70	544.85	132	119	110	0.480	28.9	4.839	69.0
4-3	120	0.22	1.60	552.09	132	120	110	0.465	26.3	6.517	95.0

Totals and Averages

120	1.68	88.70	132	112	0.479	28.9	60.24	95.4
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	Stack
Date	7/20/2011
Method	M16
Flow	0.9907
Factor	0.84

Place an "x" in the appropriate Box

Circular?	x
Rectangular?	
Diameter	408
Length	
Width	

Moisture	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	915.5	641.0	274.5
Impinger 2	787.0	744.0	43.0
Impinger 3	719.7	706.0	13.7
Impinger 4	645.0	643.0	2.0
Rinse		50.0	-50.0
Silica Gel	924.0	900.0	24.0
Weight of Water Collected			283.2
Silica Gel Net Weight			24.0

Nozzle Diameter (in)	0.312
Filter ID	NA
Train Type	Impinger
Train ID	IB4
P ₁ (Inches Hg)	29.50
P ₂ (Inches H ₂ O)	-0.2
Start Time	12:05
Stop Time	14:14

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	12.1	NA	6.95

Run 5

Traverse Point	Min/Pi	Velocity Pressure ΔP (in H ₂ O)	Orifice Setting ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity V _e (ft/sec)	Volume Metered V _{mstd} (ft ³)	Isolines (%)
	10										
1-1	10	0.23	1.60	559.44	132	106	105	0.480	29.0	6.306	95.4
1-1	20	0.24	1.60	566.52	132	112	105	0.490	29.7	6.446	92.5
1-2	30	0.19	1.30	573.08	132	116	106	0.435	26.4	5.942	95.9
2-1	40	0.24	1.60	550.20	132	117	107	0.490	29.7	6.270	92.0
2-2	50	0.21	1.40	587.04	132	118	108	0.456	27.7	6.261	91.1
2-3	60	0.21	1.40	593.85	132	119	108	0.458	27.7	6.143	91.2
3-1	70	0.24	1.60	601.03	132	119	109	0.490	29.7	6.374	92.9
3-2	80	0.22	1.50	608.13	132	120	110	0.463	28.4	6.390	95.7
3-3	90	0.21	1.40	614.97	132	120	110	0.458	27.7	6.151	94.1
4-1	100	0.25	1.70	622.30	132	120	111	0.500	30.0	6.594	92.7
4-2	110	0.23	1.60	629.54	132	120	111	0.480	29.0	6.512	95.4
4-3	120	0.20	1.40	636.54	132	120	111	0.447	27.1	6.293	98.8

Totals and Averages

120		1.51	84.21	132	113	0.471	28.5	76.07	94.5
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Project Number	3648
Client	Big Rivers
Plant	Wislon
Location	Stack
Date	7/20/2011
Meter ID	M16
V ₁	0.9907
V ₁ C ₁	0.84

Place an "x" in the appropriate Box

Circular?	x
Rectangular?	
Diameter	408
Length	
Width	

Impinger	Final Wt (g)	Tare Wt (g)	Net Wt (g)
Impinger 1	930.7	637.0	293.7
Impinger 2	787.0	743.0	44.0
Impinger 3	731.1	722.2	8.9
Impinger 4	638.5	637.0	1.5
Rinse		50.0	-50.0
Silica Gel	927.5	914.5	13.0
Weight of Water Collected, V _{ex} (g)			298.1
Silica Gel Net Weight, V _{sil} (g)			13.0

Nozzle Diameter (in)	0.312
Filter ID	NA
Train Type	Impinger
Train ID	IB15
P ₁ (Inches Hg)	29.50
P ₂ (Inches H ₂ O)	-0.2
Start Time	15:20
Stop Time	17:25

CEMS	%CO ₂	%CO ₂ +%O ₂	%O ₂
Average	11.4	NA	7.74

Run 6

Traverse Point	min/Pt	Velocity Pressure ΔP (in H ₂ O)	Orifice Seiring ΔH (in H ₂ O)	Gas Sample Volume Initial (ft ³)	Stack Temp (°F)	DGM Inlet (°F)	DGM Outlet (°F)	Square Root ΔP	Stack Gas Velocity V _s (ft/sec)	Volume Metered Vmstd (ft ³)	Isokinetic (%)
	10										
1-1	10	0.24	1.60	643.76	131	102	102	0.491	29.7	6.318	90.4
1-1	20	0.21	1.40	650.96	132	108	103	0.458	27.8	6.591	100.9
1-2	30	0.21	1.40	657.40	132	111	103	0.468	27.8	5.872	89.9
2-1	40	0.26	1.80	664.99	132	114	105	0.510	30.9	6.902	95.0
2-2	50	0.24	1.60	672.15	132	116	106	0.490	26.7	6.490	93.0
2-3	60	0.20	1.40	678.99	132	117	107	0.447	27.1	5.186	97.1
3-1	70	0.25	1.70	686.40	133	118	107	0.500	30.2	6.701	94.1
3-2	80	0.22	1.50	693.45	132	119	109	0.469	28.1	6.358	95.1
3-3	90	0.21	1.40	700.36	133	120	109	0.458	27.8	6.222	95.4
4-1	100	0.25	1.70	707.69	132	120	110	0.500	30.2	5.600	92.6
4-2	110	0.23	1.60	714.96	132	121	111	0.480	28.1	6.532	95.6
4-3	120	0.22	1.50	722.12	133	121	111	0.469	28.4	6.432	96.3

Totals and Averages

120	1.55	85.22	132	111	0.477	28.9	77.21	94.6
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	Stack
Date	7/19/11
P ₀ (Inches Hg)	29.56

Meter ID	R19075A
Y _d	1.00000

Start Time	7:03
Stop Time	8:33

Meter ID	R19075B
Y _d	1.00000

Run 4

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume Initial (L)		
Elapsed Time	0.00		
5.0	1.875	91	1.774
10.0	3.864	91	1.882
15.0	5.763	91	1.797
20.0	7.798	91	1.926
25.0	9.792	91	1.887
30.0	11.802	92	1.899
35.0	13.822	92	1.908
40.0	15.798	92	1.867
45.0	17.779	93	1.868
50.0	19.766	93	1.874
55.0	21.799	93	1.917
60.0	23.813	94	1.896
65.0	25.800	94	1.870
70.0	27.792	94	1.875
75.0	29.777	94	1.868
80.0	31.859	95	1.956
85.0	33.903	95	1.920
90.0	36.034	95	2.002

Run 4 Spiked

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume Initial (L)		
Elapsed Time	0.00		
5.0	1.790	92	1.691
10.0	3.587	92	1.698
15.0	5.618	92	1.919
20.0	7.719	93	1.981
25.0	9.843	94	1.999
30.0	11.975	94	2.007
35.0	13.977	94	1.884
40.0	16.012	94	1.915
45.0	18.007	94	1.878
50.0	20.001	94	1.877
55.0	21.811	94	1.704
60.0	23.780	95	1.850
65.0	25.752	95	1.853
70.0	27.755	95	1.882
75.0	29.779	95	1.902
80.0	31.797	96	1.893
85.0	33.856	96	1.931
90.0	35.904	96	1.921

Totals and Averages

90	36.034	92.8	33.99
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Totals and Averages

90	35.904	94.2	33.78
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	Stack
Date	7/19/11
P _b (Inches Hg)	29.56

Meter ID	R19075A
Y _d	1.00000

Start Time	10:03
Stop Time	11:33

Meier ID	R19075B
Y _d	1.00000

Run 5

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vrnstd (L)
5	Volume		
Elapsed Time	Initial (L)		
	0.000		
5.0	2.025	94	1.906
10.0	4.111	94	1.963
15.0	6.180	94	1.947
20.0	8.174	94	1.877
25.0	12.194	94	3.784
30.0	12.166	94	-0.026
35.0	14.107	94	1.827
40.0	16.099	94	1.875
45.0	18.111	95	1.890
50.0	19.972	95	1.748
55.0	21.970	95	1.877
60.0	24.036	95	1.941
65.0	25.955	96	1.800
70.0	28.111	96	2.022
75.0	29.958	96	1.732
80.0	31.917	96	1.837
85.0	33.859	96	1.821
90.0	35.754	96	1.777

Run 5 Spiked

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume		
Elapsed Time	Initial (L)		
	0.000		
5.0	2.007	95	1.886
10.0	3.915	95	1.793
15.0	5.719	95	1.695
20.0	7.767	95	1.924
25.0	9.783	95	1.894
30.0	11.888	95	1.978
35.0	14.010	95	1.994
40.0	16.051	95	1.918
45.0	18.020	96	1.847
50.0	20.000	96	1.857
55.0	21.990	96	1.866
60.0	3.936	96	-16.932
65.0	25.867	97	20.531
70.0	27.750	97	1.763
75.0	29.842	97	1.958
80.0	31.900	97	1.927
85.0	33.917	97	1.888
90.0	36.027	97	1.975

Totals and Averages

90	35.754	94.9	33.60
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Totals and Averages

90	36.027	95.9	33.79
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	Stack
Date	7/19/11
P _b (Inches Hg)	29.56

Meter ID	R19075A
Y _d	1.00000

Start Time	13:03
Stop Time	14:33

Meter ID	R19075B
Y _d	1.00000

Run 6

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume		
Elapsed Time	Initial (L) 0.000		
5.0	2.140	95	2.011
10.0	4.170	95	1.907
15.0	6.154	95	1.864
20.0	8.136	95	1.862
25.0	10.136	95	1.879
30.0	12.120	95	1.864
35.0	14.089	95	1.850
40.0	16.062	95	1.854
45.0	18.012	96	1.829
50.0	20.011	96	1.875
55.0	21.996	96	1.862
60.0	22.906	96	0.853
65.0	25.995	96	2.397
70.0	27.902	96	1.788
75.0	29.848	96	1.825
80.0	32.132	96	2.142
85.0	34.208	96	1.947
90.0	36.298	96	1.960

Run 6 Spiked

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume		
Elapsed Time	Initial (L) 0.000		
5.0	2.214	96	2.076
10.0	4.150	96	1.916
15.0	6.003	96	1.738
20.0	7.865	96	1.746
25.0	9.682	96	1.704
30.0	11.717	96	1.909
35.0	13.989	96	2.131
40.0	16.032	96	1.916
45.0	18.032	97	1.872
50.0	20.011	97	1.853
55.0	21.900	97	1.768
60.0	23.968	97	1.936
65.0	25.895	97	1.804
70.0	27.855	97	1.835
75.0	29.898	97	1.913
80.0	31.926	97	1.899
85.0	33.941	97	1.886
90.0	35.952	97	1.883

Totals and Averages

90	36.298	95.6	34.07
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Totals and Averages

90	35.952	96.6	33.68
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	SCR 1
Date	7/20/11
P ₃ (Inches Hg)	29.50

Meter ID	R20078
Y _d	1.0072

Start Time	9:28
Stop Time	10:58

Meter ID	R20078
Y _d	0.9985

Run 4

Min/Pt	Gas Sample	DGM	Volume
5	Volume	Temp	Metered
Elapsed	Initial (L)	(°F)	Vmstd
Time	0.000		(L)
5.00	2.480	102	2.313
10.00	5.120	105	2.449
15.00	7.680	110	2.354
20.00	10.220	112	2.327
25.00	12.420	113	2.012
30.00	14.900	113	2.268
35.00	17.360	114	2.246
40.00	19.820	115	2.342
45.00	22.360	115	2.315
50.00	24.910	115	2.324
55.00	27.410	115	2.279
60.00	29.820	115	2.197
65.00	32.410	120	2.340
70.00	34.960	120	2.304
75.00	37.410	120	2.214
80.00	39.900	120	2.250
85.00	42.340	121	2.201
90.00	44.760	121	2.183

Run 4 Spiked

Min/Pt	Gas Sample	DGM	Volume
5	Volume	Temp	Metered
Elapsed	Initial (L)	(°F)	Vmstd
Time	0.000		(L)
5.0	2.390	102	2.210
10.0	4.820	105	2.235
15.0	7.520	110	2.461
20.0	9.900	112	2.162
25.0	12.390	113	2.258
30.0	14.940	113	2.312
35.0	17.520	114	2.335
40.0	20.160	115	2.386
45.0	22.690	115	2.286
50.0	24.960	115	2.051
55.0	27.510	116	2.300
60.0	30.100	116	2.336
65.0	32.520	120	2.168
70.0	34.980	120	2.204
75.0	37.440	120	2.204
80.0	39.750	120	2.069
85.0	42.290	121	2.272
90.0	44.360	121	1.851

Totals and Averages

90	44.760	115	40.82
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Totals and Averages

90	44.360	115	40.09
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	SCR 1
Date	7/20/11
P ₃ (Inches Hg)	29.50

Meter ID	R20078
Y _e	1.0072

Start Time	12:37
Stop Time	14:07

Meter ID	R20078
Y _e	0.9985

Run 5

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume Initial (L)		
Elapsed Time	0.000		
5.0	2.620	108	2.418
10.0	5.190	109	2.367
15.0	7.210	110	1.857
20.0	9.510	110	2.115
25.0	12.030	111	2.313
30.0	14.590	112	2.346
35.0	17.980	114	3.095
40.0	20.460	116	2.257
45.0	22.700	117	2.035
50.0	25.130	117	2.207
55.0	27.310	118	1.977
60.0	29.400	118	1.895
65.0	31.860	120	2.223
70.0	34.180	121	2.093
75.0	36.490	123	2.077
80.0	39.020	124	2.271
85.0	40.160	125	1.021
90.0	41.820	125	1.487

Run 5 Spiked

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume Initial (L)		
Elapsed Time	0.000		
5.0	2.360	108	2.159
10.0	4.690	109	2.128
15.0	7.140	110	2.233
20.0	9.420	110	2.078
25.0	11.960	111	2.311
30.0	14.390	112	2.207
35.0	16.870	114	2.245
40.0	19.160	116	2.066
45.0	21.560	117	2.161
50.0	24.010	117	2.206
55.0	26.390	118	2.140
60.0	28.890	118	2.247
65.0	31.420	120	2.267
70.0	33.920	121	2.236
75.0	36.360	123	2.175
80.0	38.770	124	2.144
85.0	41.220	125	2.176
90.0	43.560	125	2.078

Totals and Averages

90	41.820	117	38.02
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Totals and Averages

90	43.560	117	39.26
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	SCR 1
Date	7/20/11
P _b (Inches Hg)	29.50

Meter ID	R20078
Y _c	1.0072

Start Time	14:48
Stop Time	16:18

Meter ID	R20078
Y _c	0.9985

Run 6

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume		
Elapsed Time	Initial (L)		
	0.000		
5.0	2.360	110	2 170
10.0	4.720	111	2 166
15.0	7.090	112	2 172
20.0	9.390	112	2 108
25.0	11.760	112	2 172
30.0	14.890	113	2 863
35.0	16.160	114	1 160
40.0	18.460	114	2 100
45.0	21.020	116	2 329
50.0	23.420	116	2 184
55.0	25.840	117	2 198
60.0	27.030	117	1 081
65.0	29.390	118	2 140
70.0	31.880	118	2 258
75.0	34.180	119	2 082
80.0	36.390	119	2 001
85.0	38.720	119	2 109
90.0	40.960	119	2 028

Totals and Averages

90	40.960	115	37.31
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Run 6 Spiked

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume		
Elapsed Time	Initial (L)		
	0.000		
5.0	2.310	110	2 106
10.0	4.630	111	2 111
15.0	7.020	112	2 171
20.0	9.520	112	2 271
25.0	11.800	112	2 071
30.0	14.190	113	2 167
35.0	16.600	114	2 182
40.0	18.920	114	2 100
45.0	21.300	116	2 147
50.0	23.860	116	2 309
55.0	26.120	117	2 035
60.0	28.360	117	2 017
65.0	30.720	118	2 122
70.0	33.160	118	2 193
75.0	35.420	119	2 028
80.0	37.690	119	2 037
85.0	39.990	119	2 064
90.0	42.310	119	2 082

Totals and Averages

90	42.310	115	38.21
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	SCR 2
Date	7/20/11
P _b (Inches Hg)	29.50

Meter ID	25A
Y _d	0.9994

Start Time	9:28
Stop Time	10:58

Meter ID	25B
Y _d	1.0017

Run 4

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume Initial (L)		
Elapsed Time	0.000		
5.00	2.690	110	2.454
10.00	5.170	112	2.255
15.00	7.520	113	2.133
20.00	9.930	115	2.180
25.00	12.380	117	2.208
30.00	14.860	117	2.235
35.00	17.380	118	2.267
40.00	19.910	118	2.276
45.00	22.410	119	2.246
50.00	24.920	119	2.255
55.00	27.460	119	2.281
60.00	29.810	119	2.111
65.00	32.320	121	2.247
70.00	34.520	123	1.963
75.00	37.210	125	2.391
80.00	39.400	125	1.947
85.00	42.190	126	2.476
90.00	44.360	126	1.926

Run 4 Spiked

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume Initial (L)		
Elapsed Time	0.000		
5.0	2.400	110	2.195
10.0	4.820	112	2.205
15.0	7.420	113	2.365
20.0	9.860	115	2.212
25.0	12.460	117	2.349
30.0	14.920	117	2.222
35.0	17.420	118	2.255
40.0	19.930	118	2.264
45.0	22.430	119	2.251
50.0	24.910	119	2.233
55.0	27.410	119	2.251
60.0	29.760	119	2.116
65.0	32.410	121	2.378
70.0	34.860	123	2.191
75.0	37.330	125	2.201
80.0	39.750	125	2.156
85.0	42.250	126	2.224
90.0	44.710	126	2.188

Totals and Averages

90	44.360	119	39.84
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Totals and Averages

90	44.710	119	40.25
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	SCR 2
Date	7/20/11
P _b (Inches Hg)	29.50

Meter ID	25A
Y _d	0.9994

Start Time	12:37
Stop Time	14:07

Meter ID	25B
Y _d	1.0017

Run 5

Min/Ft	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume Initial (L)		
Elapsed Time	0.000		
5.0	2.310	110	2 108
10.0	4.760	110	2 235
15.0	7.350	111	2 359
20.0	9.800	112	2 228
25.0	12.360	114	2 319
30.0	14.800	115	2 207
35.0	16.670	116	1 688
40.0	19.120	117	2 208
45.0	21.480	118	2 123
50.0	23.920	119	2 192
55.0	25.400	119	1 329
60.0	27.750	119	2 111
65.0	30.170	121	2 166
70.0	32.550	121	2 130
75.0	36.010	122	3 092
80.0	38.390	122	2 127
85.0	40.890	123	2 230
90.0	43.620	123	2 435

Run 5 Spiked

Min/Ft	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume Initial (L)		
Elapsed Time	0.000		
5.0	2.520	110	2 305
10.0	5.060	110	2 233
15.0	7.420	111	2 154
20.0	9.870	112	2 233
25.0	12.370	114	2 270
30.0	14.820	115	2 221
35.0	17.160	116	2 118
40.0	19.360	117	1 987
45.0	21.760	118	2 164
50.0	23.980	119	1 999
55.0	26.510	119	2 278
60.0	38.710	119	10 983
65.0	31.100	121	-6 828
70.0	33.660	121	2 297
75.0	36.120	122	2 203
80.0	38.660	122	2 275
85.0	41.100	123	2 182
90.0	43.410	123	2 065

Totals and Averages

90	43.620	117	39.29
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Totals and Averages

90	43.410	117	39.19
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	SCR 2
Date	7/20/11
P _b (Inches Hg)	29.50

Meter ID	25A
Y _d	0.9994

Start Time	14:48
Stop Time	16:18

Meter ID	25B
Y _d	1.0017

Run 6

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume Initial (L)		
Elapsed Time	0.000		
5.0	2.460	110	2.245
10.0	4.750	111	2.086
15.0	7.440	111	2.450
20.0	9.720	112	2.073
25.0	12.400	114	2.428
30.0	14.700	114	2.084
35.0	17.190	114	2.256
40.0	19.420	114	2.020
45.0	21.900	116	2.239
50.0	24.120	117	2.001
55.0	26.390	117	2.046
60.0	28.650	118	2.033
65.0	30.960	119	2.075
70.0	33.420	119	2.210
75.0	35.920	120	2.242
80.0	38.120	120	1.973
85.0	40.150	121	1.817
90.0	42.110	121	1.754

Run 6 Spiked

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume Initial (L)		
Elapsed Time	0.000		
5.0	2.220	110	2.030
10.0	4.460	111	2.045
15.0	6.620	111	1.972
20.0	8.840	112	2.023
25.0	11.190	114	2.134
30.0	13.690	114	2.270
35.0	16.030	114	2.125
40.0	18.440	114	2.189
45.0	20.960	116	2.281
50.0	23.360	117	2.168
55.0	25.720	117	2.132
60.0	28.130	118	2.173
65.0	30.340	119	1.990
70.0	32.660	119	2.089
75.0	34.990	120	2.094
80.0	37.400	120	2.166
85.0	39.720	121	2.081
90.0	42.510	121	2.503

Totals and Averages

90	42.110	116	38.02
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Totals and Averages

90	42.510	116	38.47
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	SCR 3
Date	7/20/11
P _b (Inches Hg)	29.50

Meter ID	M26
Y _d	0.9958

Start Time	9:28
Stop Time	10:58

Meter ID	M26
Y _d	0.9902

Run 4

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume Initial (L)		
Elapsed Time	0.000		
5.00	2.467	95	2 303
10.00	4.721	100	2 086
15.00	6.830	100	1 952
20.00	9.885	100	2 827
25.00	11.987	103	1 935
30.00	14.586	103	2 392
35.00	17.413	105	2 593
40.00	20.193	106	2 545
45.00	22.883	107	2 458
50.00	23.467	111	0 530
55.00	25.487	111	1 833
60.00	30.386	111	4 446
65.00	32.751	113	2 139
70.00	35.147	113	2 167
75.00	36.954	113	1 634
80.00	39.132	113	1 970
85.00	40.273	113	1 032
90.00	43.052	113	2 513

Totals and Averages

90	43.052	107	39.33
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Run 4 Spiked

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume Initial (L)		
Elapsed Time	0.000		
5.0	2.687	100	2 472
10.0	4.937	100	2 070
15.0	7.647	100	2 494
20.0	10.112	102	2 260
25.0	12.463	103	2 152
30.0	14.793	104	2 129
35.0	17.507	106	2 471
40.0	20.374	108	2 601
45.0	21.120	109	0 676
50.0	23.742	110	2 370
55.0	25.632	112	1 703
60.0	30.327	112	4 229
65.0	32.698	112	2 136
70.0	35.098	113	2 158
75.0	37.052	113	1 757
80.0	39.047	113	1 794
85.0	41.273	113	2 002
90.0	43.253	113	1 781

Totals and Averages

90	43.253	108	39.24
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	SCR 3
Date	7/20/11
P _b (Inches Hg)	29.50

Meier ID	M26
Y _d	0.9958

Start Time	12:37
Stop Time	14:07

Meter ID	M26
Y _d	0.9902

Run 5

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume Initial (L)		
Elapsed Time	0.000		
5.0	3.580	105	3.283
10.0	6.047	106	2.259
15.0	7.728	107	1.536
20.0	9.503	109	1.617
25.0	10.923	109	1.293
30.0	12.281	112	1.230
35.0	13.604	112	1.199
40.0	15.183	113	1.428
45.0	16.889	113	1.543
50.0	19.873	114	2.694
55.0	22.921	114	2.752
60.0	24.899	115	1.783
65.0	27.063	115	1.950
70.0	29.085	115	1.822
75.0	31.028	115	1.751
80.0	32.756	115	1.557
85.0	34.333	115	1.421
90.0	35.852	115	1.369

Run 5 Spiked

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume Initial (L)		
Elapsed Time	0.000		
5.0	3.707	105	3.381
10.0	5.956	106	2.047
15.0	8.147	109	1.984
20.0	9.737	110	1.437
25.0	10.481	110	0.673
30.0	11.489	112	0.908
35.0	13.967	113	2.228
40.0	15.634	114	1.496
45.0	17.295	114	1.491
50.0	20.331	115	2.721
55.0	23.156	115	2.532
60.0	26.235	116	2.754
65.0	28.891	116	2.376
70.0	31.724	116	2.534
75.0	34.420	116	2.412
80.0	37.004	117	2.308
85.0	39.665	116	2.380
90.0	42.118	116	2.194

Totals and Averages

90	35.852	112	32.47
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Totals and Averages

90	42.118	113	37.87
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	SCR 3
Date	7/20/11
P _b (Inches Hg)	29.50

Meter ID	M26
Y ₂	0.9958

Start Time	14:48
Stop Time	16:18

Meter ID	M26
Y ₆	0.9902

Run 6

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume Initial (L)		
Elapsed Time	0.000		
5.0	2.853	105	2.617
10.0	5.216	104	2.171
15.0	6.073	104	0.787
20.0	8.565	105	2.286
25.0	10.867	107	2.104
30.0	13.147	108	2.080
35.0	15.319	110	1.975
40.0	17.481	111	1.962
45.0	19.667	112	1.980
50.0	21.753	113	1.886
55.0	23.762	114	1.814
60.0	29.963	114	5.598
65.0	28.266	116	-1.527
70.0	30.269	115	1.805
75.0	32.274	116	1.804
80.0	34.218	116	1.749
85.0	36.355	116	1.923
90.0	38.328	116	1.775

Run 6 Spiked

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume Initial (L)		
Elapsed Time	0.000		
5.0	2.756	104	2.518
10.0	4.632	104	1.714
15.0	6.512	105	1.715
20.0	8.236	106	1.570
25.0	9.998	106	1.604
30.0	12.614	110	2.365
35.0	16.092	111	3.139
40.0	18.816	112	2.454
45.0	20.223	113	1.265
50.0	21.775	114	1.393
55.0	23.994	115	1.989
60.0	26.227	115	2.001
65.0	28.351	114	1.907
70.0	30.434	116	1.863
75.0	32.349	116	1.713
80.0	34.407	115	1.844
85.0	37.158	117	2.457
90.0	39.519	118	2.105

Totals and Averages

90	38.328	111	34.77
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Totals and Averages

90	39.519	112	35.62
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	SCR 4
Date	7/20/11
P _b (Inches Hg)	29.50

Meter ID	R19075
Y _d	1.0000

Start Time	9:28
Stop Time	10:58

Meter ID	R19075
Y _d	1.0000

Run 4

Min/Pt	Gas Sample	DGM Temp. (°F)	Volume Metered Vmstd (L)
5	Volume		
Elapsed Time	Initial (L)		
	0.000		
5.00	2.778	87	2.643
10.00	4.987	87	2.101
15.00	7.121	88	2.026
20.00	9.083	89	1.860
25.00	11.073	90	1.883
30.00	13.000	91	1.820
35.00	14.986	89	1.882
40.00	17.194	89	2.093
45.00	19.789	91	2.451
50.00	22.309	91	2.380
55.00	27.508	91	4.910
60.00	28.647	91	1.076
65.00	30.198	91	1.465
70.00	34.327	91	3.900
75.00	36.598	91	2.145
80.00	39.887	91	3.106
85.00	40.924	91	0.979
90.00	42.783	91	1.756

Run 4 Spiked

Min/Pt	Gas Sample	DGM Temp. (°F)	Volume Metered Vmstd (L)
5	Volume		
Elapsed Time	Initial (L)		
	0.000		
5.0	2.429	88	2.307
10.0	5.000	88	2.441
15.0	7.096	88	1.990
20.0	9.387	89	2.172
25.0	11.574	89	2.073
30.0	13.862	89	2.169
35.0	15.905	90	1.933
40.0	18.427	90	2.386
45.0	21.247	90	2.668
50.0	23.721	90	2.341
55.0	29.632	91	5.583
60.0	30.148	91	0.487
65.0	32.312	91	2.044
70.0	34.172	91	1.757
75.0	37.060	92	2.723
80.0	39.258	92	2.072
85.0	40.563	92	1.230
90.0	43.605	92	2.868

Totals and Averages

90	42.783	90.0	40.48
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Totals and Averages

90	43.605	90.2	41.24
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	SCR 4
Date	7/20/11
P _k (Inches Hg)	29.50

Meter ID	R19075
Y _d	1.0000

Start Time	12:37
Stop Time	14:07

Meter ID	R19075
Y _d	1.0000

Run 5

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume Initial (L)		
Elapsed Time	0.000		
5.0	2.263	91	2.137
10.0	5.641	92	3.184
15.0	8.111	92	2.329
20.0	10.208	92	1.977
25.0	11.651	92	1.360
30.0	12.616	92	0.910
35.0	13.896	92	1.207
40.0	15.547	92	1.556
45.0	17.798	93	2.118
50.0	20.113	93	2.178
55.0	22.778	93	2.508
60.0	26.203	93	3.223
65.0	29.374	93	2.984
70.0	32.297	93	2.751
75.0	35.178	93	2.711
80.0	38.143	93	2.790
85.0	40.679	93	2.386
90.0	43.155	93	2.330

Run 5 Spiked

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume Initial (L)		
Elapsed Time	0.000		
5.0	3.898	92	3.675
10.0	5.978	92	1.961
15.0	8.381	93	2.261
20.0	10.404	93	1.904
25.0	11.601	93	1.126
30.0	12.743	93	1.075
35.0	13.824	93	1.017
40.0	15.288	93	1.378
45.0	17.492	94	2.070
50.0	20.271	94	2.610
55.0	23.091	94	2.649
60.0	27.891	94	4.509
65.0	31.642	94	3.523
70.0	34.872	94	3.034
75.0	36.556	94	1.582
80.0	38.150	94	1.497
85.0	40.025	94	1.761
90.0	41.997	94	1.852

Totals and Averages

90	43.155	92.5	40.65
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Totals and Averages

90	41.997	93.4	39.49
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Project Number	3648
Client	Big Rivers
Plant	Wilson
Location	SCR 4
Date	7/20/11
P ₃ (Inches Hg)	29.50

Meter ID	R19075
Y _d	1.0000

Start Time	14:48
Stop Time	16:18

Meter ID	R19075
Y _d	1.0000

Run 6

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume		
Elapsed Time	Initial (L)		
	0.000		
5.0	1.912	93	1.799
10.0	4.681	93	2.606
15.0	7.326	93	2.489
20.0	9.828	93	2.354
25.0	12.171	93	2.205
30.0	13.736	93	1.473
35.0	15.289	94	1.459
40.0	17.049	94	1.653
45.0	18.547	94	1.407
50.0	20.634	94	1.960
55.0	22.620	94	1.865
60.0	24.516	94	1.781
65.0	26.398	95	1.765
70.0	28.329	95	1.811
75.0	30.995	95	2.500
80.0	33.909	95	2.732
85.0	36.885	95	2.790
90.0	39.755	95	2.681

Run 6 Spiked

Min/Pt	Gas Sample	DGM Temp (°F)	Volume Metered Vmstd (L)
5	Volume		
Elapsed Time	Initial (L)		
	0.000		
5.0	2.476	94	2.326
10.0	4.865	94	2.244
15.0	7.085	94	2.085
20.0	9.234	94	2.019
25.0	11.314	94	1.954
30.0	13.334	94	1.897
35.0	15.993	95	2.493
40.0	18.356	95	2.216
45.0	19.702	95	1.262
50.0	20.781	95	1.012
55.0	22.415	95	1.532
60.0	24.407	95	1.868
65.0	26.591	95	2.048
70.0	28.808	95	2.079
75.0	31.419	96	2.444
80.0	34.227	96	2.628
85.0	37.006	96	2.601
90.0	39.721	96	2.541

Totals and Averages

90	39.755	94.0	37.34
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Totals and Averages

90	39.721	94.9	37.25
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