APPENDIX H.4
SULFUR TRIOXIDE TESTS

- **Sampling Data Reduction Worksheets**
- **Field Sampling Data Sheets**

Greenidge Baseline SO_3 Sampling Results

							Low Load	Low Load			
DATE	11/17/2004	11/17/2004	11/17/2004	11/17/2004	11/17/2004	11/17/2004	11/18/2004	11/18/2004	11/18/2004	11/18/2004	11/18/2004
START TIME	1116	1116	853	1500	1500	1453	400	520	1438	1439	1436
END TIME	1152	1156	943	1530	1540	1543	440	600	1508	1529	1536
RUN	AHI-1	AHO-1	STK-1	AHI-2	AHO-2	STK-2	AHO-3	AHO-4	AHI-3	AHO-5	STK-3
MEASURED METER VARIABLES											
SAMPLE TIME [Minutes]	36	40	50	30	40	50	40	40	30	40	60
BAROMETRIC PRESSURE [" Hg]	29.60	29.60	29.60	29.56	29.56	29.56	29.50	29.50	29.40	29.40	29.40
SAMPLE VOLUME [ft^3]	3.05	4.53	5.52	2.94	4.37	5.34	4.43	4.21	2.39	4.15	6.40
METER TEMPERATURE [°F]	126.1	60.6	56.3	128.3	61.1	67.9	58.6	65.1	128.2	68.4	64.9
ORIFICE PRESSURE [" H_2O]	0.02	0.02	0.02	0.02	0.03	0.02	0.03	0.02	0.03	0.03	0.03
Y FACTOR	1.038	0.966	1.006	1.038	0.966	1.006	0.966	0.966	1.038	0.966	1.006
DSCF SAMPLED	2.824	4.390	5.617	2.704	4.226	5.308	4.296	4.032	2.188	3.937	6.364
APPROX CONDENSER TEMP [°F]	128	128	138	130	123	144	91	135	127	146	141
WATER BATH TEMP [°F]	132	145	146	129	147	147	146	146	129	146	147
CC/MIN @ CONDENSER	2489	3558	3652	2846	3436	3454	3492	3277	2302	3200	3449
DUCT STATIC PRESSURE, in H_2O	-15.00	-13.00	-1.00	-15.00	-13.00	-1.00	-13.00	-13.00	-15.00	-13.00	-1.00
DUCT PRESSURE, " Hg	28.50	28.64	29.53	28.46	28.60	29.49	28.54	28.54	28.30	28.44	29.33
DUCT MOISTURE, % VOL	6.00	6.00	6.90	6.00	6.40	6.70	6.00	6.00	6.00	6.00	6.90
DUCT OXYGEN [%]	3.80	6.00	6.20	2.90	6.40	6.40	9.90	9.70	3.00	6.40	6.70
DUCT TEMP DURING TEST [°F]	693.5	313.8	312.8	654.7	303.3	312.8	274.0	277.8	673.0	305.3	313.3
SO_2											
SO_2 in IMPINGERS											
lb/DSCF	2.46E-04	1.95E-04	1.92E-04	2.47E-04	1.99E-04	2.03E-04	1.56E-04	1.60E-04	2.63E-04	1.88E-04	2.03E-04
PPMV, As Sampled	1486	1180	1162	1491	1200	1224	945	966	1592	1135	1224
PPMV, @ 0% Oxygen	1816	1656	1652	1731	1730	1765	1795	1802	1859	1637	1801
SO_3											
SO_3 in FILTER PLUG											
lb/DSCF	8.04E-08	5.17E-08	4.04E-08	8.40E-08	5.37E-08	4.28E-08	5.29E-08	5.63E-08	2.08E-07	5.77E-08	5.35E-08
PPMV, As Sampled	0.4	0.3	0.2	0.4	0.3	0.2	0.3	0.3	1.0	0.3	0.3
PPMV, @ 0% Oxygen	0.5	0.4	0.3	0.5	0.4	0.3	0.5	0.5	1.2	0.4	0.4
SO_3 in PROBE											
lb/DSCF	6.43E-07	4.66E-07	1.21E-07	2.94E-07	2.96E-07	8.56E-08	7.93E-07	5.63E-07	3.11E-07	2.02E-07	1.43E-07
PPMV, As Sampled	3.1	2.3	0.6	1.4	1.4	0.4	3.8	2.7	1.5	1.0	0.7
PPMV, @ 0% Oxygen	3.8	3.2	0.8	1.7	2.1	0.6	7.3	5.1	1.8	1.4	1.0
SO_3 in CONDENSER											
lb/DSCF	8.85E-07	2.07E-07	1.62E-07	4.20E-07	1.61E-07	3.64E-07	8.72E-07	7.04E-07	3.63E-07	4.04E-07	5.71E-07
PPMV, As Sampled	4.3	1.0	0.8	2.0	0.8	1.8	4.2	3.4	1.8	2.0	2.8
PPMV, @ 0% Oxygen	5.2	1.4	1.1	2.4	1.1	2.5	8.0	6.4	2.1	2.8	4.1
GAS PHASE SO_3 [lb/DSCF]	1.53E-06	6.72E-07	2.83E-07	7.14E-07	4.57E-07	4.49E-07	1.67E-06	1.27E-06	6.75E-07	6.06E-07	7.14E-07
GAS PHASE SO_3 [As Sampled PPM]	7.4	3.3	1.4	3.5	2.2	2.2	8.0	6.1	3.3	2.9	3.5
GAS PHASE SO_3, PPM @ 0% O_2	**9.0**	**4.6**	**1.9**	**4.0**	**3.2**	**3.1**	**15.3**	**11.4**	**3.8**	**4.2**	**5.1**
TOTAL PHASE SO_3 [lb/DSCF]	1.61E-06	7.24E-07	3.23E-07	7.98E-07	5.11E-07	4.92E-07	1.72E-06	1.32E-06	8.82E-07	6.63E-07	7.67E-07
TOTAL PHASE SO_3 [As Sampled PPM]	7.8	3.5	1.6	3.9	2.5	2.4	8.3	6.4	4.3	3.2	3.7
TOTAL SO_3, PPM @ 0% O_2	9.5	4.9	2.2	4.5	3.6	3.4	15.8	11.9	5.0	4.6	5.5
% SO_3 in SOLIDS [filter plug/total]	5.0	7.1	12.5	10.5	10.5	8.7	3.1	4.3	23.5	8.7	7.0
DEW POINT DETERMINATION											
Partial Pressure H_2O, mmHg	43.43	43.65	51.75	43.37	46.50	50.18	43.50	43.50	43.12	43.35	51.40
Partial Pressure SO_3, mmHg	0.0056	0.0025	0.0012	0.0028	0.0018	0.0018	0.0060	0.0046	0.0031	0.0023	0.0028
Calculated SO_3 Dew Point, °F	264	250	240	251	245	246	265	260	253	248	254

DATE	03/29/07	03/29/07	03/29/07	03/29/07	03/29/07	03/29/07
START TIME	1000	1003	1220	1240	1515	1517
END TIME	1040	1103	1300	1330	1555	1617
RUN	AHO-1	STK-1	AHO-2	STK-2	AHO-3	STK-3
Titration Information:						
FILTER PLUG:						
NORMALITY	0.0095	0.0095	0.0095	0.0095	0.0095	0.0095
VOLUME	100	100	100	100	100	100
ALIQUOT	10.0	10.0	10.0	10.0	10.0	10.0
TITRANT	0.20	0.10	0.20	0.10	0.15	0.10
PROBE:						
NORMALITY	0.0095	0.0095	0.0095	0.0095	0.0095	0.0095
VOLUME	100	100	100	100	100	100
ALIQUOT	10.0	10.0	10.0	10.0	10.0	10.0
TITRANT	0.15	0.10	0.20	0.10	0.20	0.10
CONDENSER:						
VOLUME	100	100	100	100	100	100
ALIQUOT	10.0	10.0	10.0	10.0	10.0	10.0
TITRANT	0.30	0.15	0.35	0.10	0.28	0.13

AES Greenidge Turbosorp SO_3 Sampling Results
Guarantee Testing (Invalid)

DATE	3/29/2007	3/29/2007	3/29/2007	3/29/2007	3/29/2007	3/29/2007
START TIME	1000	1003	1220	1240	1515	1517
END TIME	1040	1103	1300	1330	1555	1617
RUN	AHO-1	STK-1	AHO-2	STK-2	AHO-3	STK-3
MEASURED METER VARIABLES						
SAMPLE TIME [Minutes]	40	60	40	60	40	60
BAROMETRIC PRESSURE [" Hg]	30.06	30.06	30.03	30.03	29.97	29.97
SAMPLE VOLUME [ft^3]	3.77	5.94	3.82	4.81	4.02	5.82
METER TEMPERATURE [^oF]	41.1	56.6	45.8	59.0	50.0	74.4
ORIFICE PRESSURE [" H_2O] (assumed)	0.20	0.20	0.20	0.20	0.20	0.20
Y FACTOR	0.983	1.046	0.983	1.046	0.983	1.046
DSCF SAMPLED	3.922	6.385	3.929	5.132	4.097	6.021
APPROX CONDENSER TEMP [^oF]	142	151	141	149	141	155
DUCT STATIC PRESSURE, in H_2O	-13.60	-0.55	-13.50	-0.56	-13.10	-0.57
DUCT PRESSURE, " Hg	29.06	30.02	29.04	29.99	29.01	29.93
DUCT MOISTURE, % VOL	7.20	10.60	7.70	11.00	7.80	10.50
DUCT OXYGEN [%] (see note)	7.20	9.16	7.10	8.50	7.25	8.94
DUCT TEMP DURING TEST [^oF]	304.0	186.3	307.3	185.6	306.3	187.5
SO_3						
SO_3 in FILTER PLUG						
lb/DSCF	4.27E-07	1.31E-07	4.26E-07	1.63E-07	3.07E-07	1.39E-07
PPMVD, As Sampled	2.1	0.6	2.1	0.8	1.5	0.7
PPMVD, @ 3% Oxygen	2.7	1.0	2.7	1.1	1.9	1.0
SO_3 in PROBE						
lb/DSCF	3.20E-07	1.31E-07	4.26E-07	1.63E-07	4.09E-07	1.39E-07
PPMVD, As Sampled	1.5	0.6	2.1	0.8	2.0	0.7
PPMVD, @ 3% Oxygen	2.0	1.0	2.7	1.1	2.6	1.0
SO_3 in CONDENSER						
lb/DSCF	6.41E-07	1.97E-07	7.46E-07	1.63E-07	5.62E-07	1.74E-07
PPMVD, As Sampled	3.1	1.0	3.6	0.8	2.7	0.8
PPMVD, @ 3% Oxygen	4.0	1.5	4.7	1.1	3.6	1.3
GAS PHASE SO_3 [lb/DSCF]	9.61E-07	3.28E-07	1.17E-06	3.27E-07	9.71E-07	3.13E-07
GAS PHASE SO_3 [As Sampled PPMVD]	4.6	1.6	5.7	1.6	4.7	1.5
GAS PHASE SO_3, PPMVD @ 3% O_2	**6.1**	**2.4**	**7.4**	**2.3**	**6.2**	**2.3**
TOTAL PHASE SO_3 [lb/DSCF]	1.39E-06	4.59E-07	1.60E-06	4.90E-07	1.28E-06	4.52E-07
TOTAL PHASE SO_3 [As Sampled PPMVD	6.7	2.2	7.7	2.4	6.2	2.2
TOTAL SO_3, PPMVD @ 3% O_2	8.8	3.4	10.0	3.4	8.1	3.3
% SO_3 in SOLIDS [filter plug/total]	30.8	28.6	26.7	33.3	24.0	30.8
DEW POINT DETERMINATION						
Partial Pressure H_2O, mmHg	53.14	80.83	56.79	83.79	57.47	79.82
Partial Pressure SO_3, mmHg	0.0050	0.0017	0.0057	0.0018	0.0046	0.0017
Calculated SO_3 Dew Point, ^oF	265	255	269	256	265	254

NOTE: The %O_2 at the air heater outlet was measured by CONSOL using a Teledyne Max 5 portable electrochemical O_2 analyzer, and the % O_2 at the stack was calculated from the %CO_2 measured by the plant's stack CEM and from the coal composition.

DATE	03/30/07	03/30/07	03/30/07	03/30/07	03/30/07	03/30/07
START TIME	1137	1137	1333	1333	1552	1552
END TIME	1217	1218	1414	1414	1632	1632
RUN	SCRI-1	SCRO-1	SCRI-2	SCRO-2	SCRI-3	SCRO-3
SAMPLE O_2 [sampling meter reading]	4.50	5.30	10.70	7.80	11.20	9.30
Titration Information:						
FILTER PLUG:						
NORMALITY	0.0095	0.0095	0.0095	0.0095	0.0095	0.0095
VOLUME	100	100	100	100	100	100
ALIQUOT	10.0	10.0	10.0	10.0	10.0	10.0
TITRANT	0.08	0.10	0.05	0.40	0.10	0.10
PROBE:						
NORMALITY	0.0095	0.0095	0.0095	0.0095	0.0095	0.0095
VOLUME	100	100	100	100	100	100
ALIQUOT	10.0	10.0	10.0	10.0	10.0	10.0
TITRANT	0.05	0.25	0.08	0.33	0.10	0.38
CONDENSER:						
VOLUME	100	100	100	100	100	100
ALIQUOT	10.0	10.0	10.0	10.0	10.0	10.0
TITRANT	0.15	0.23	0.20	0.10	0.10	0.25

AES Greenidge SCR SO_3 Sampling Results
Guarantee Testing (Invalid)

DATE	3/30/2007	3/30/2007	3/30/2007	3/30/2007	3/30/2007	3/30/2007
START TIME	1137	1137	1333	1333	1552	1552
END TIME	1217	1218	1414	1414	1632	1632
RUN	SCRI-1	SCRO-1	SCRI-2	SCRO-2	SCRI-3	SCRO-3
MEASURED METER VARIABLES						
SAMPLE TIME [Minutes]	40	40	40	40	40	40
BAROMETRIC PRESSURE [" Hg]	29.74	29.74	29.74	29.74	29.71	29.71
SAMPLE VOLUME [ft^3]	3.26	4.17	3.98	4.04	3.52	4.35
METER TEMPERATURE [^oF]	86.3	76.8	89.3	84.0	92.0	80.8
ORIFICE PRESSURE [" H_2O] (assumed)	0.20	0.20	0.20	0.20	0.20	0.20
Y FACTOR	1.046	0.991	1.046	0.991	1.046	0.991
DSCF SAMPLED	3.279	4.038	3.975	3.866	3.497	4.178
APPROX CONDENSER TEMP [^oF]	148	145	147	142	138	140
DUCT STATIC PRESSURE, in H_2O	-13.60	-13.60	-13.50	-13.50	-13.10	-13.10
DUCT PRESSURE, " Hg	28.74	28.74	28.75	28.75	28.75	28.75
DUCT MOISTURE, % VOL	7.20	7.20	7.60	7.60	8.30	8.30
DUCT OXYGEN [%]	4.50	5.30	10.70	7.80	11.20	9.30
DUCT TEMP DURING TEST [^oF]	691.5	673.0	717.5	659.8	714.0	651.3
SO_3						
SO_3 in FILTER PLUG						
lb/DSCF	1.92E-07	2.08E-07	1.05E-07	8.67E-07	2.40E-07	2.01E-07
PPMVD, As Sampled	0.9	1.0	0.5	4.2	1.2	1.0
PPMVD, @ 3% Oxygen	1.0	1.2	0.9	5.7	2.1	1.5
SO_3 in PROBE						
lb/DSCF	1.28E-07	5.19E-07	1.58E-07	7.04E-07	2.40E-07	7.52E-07
PPMVD, As Sampled	0.6	2.5	0.8	3.4	1.2	3.6
PPMVD, @ 3% Oxygen	0.7	2.9	1.3	4.7	2.1	5.6
SO_3 in CONDENSER						
lb/DSCF	3.83E-07	4.67E-07	4.22E-07	2.17E-07	2.40E-07	5.01E-07
PPMVD, As Sampled	1.9	2.3	2.0	1.0	1.2	2.4
PPMVD, @ 3% Oxygen	2.0	2.6	3.6	1.4	2.1	3.7
GAS PHASE SO_3 [lb/DSCF]	5.11E-07	9.86E-07	5.80E-07	9.21E-07	4.79E-07	1.25E-06
GAS PHASE SO_3 [As Sampled PPMVD]	2.5	4.8	2.8	4.5	2.3	6.1
GAS PHASE SO_3, PPMVD @ 3% O_2	**2.7**	**5.5**	**4.9**	**6.1**	**4.3**	**9.3**
TOTAL PHASE SO_3 [lb/DSCF]	7.03E-07	1.19E-06	6.85E-07	1.79E-06	7.19E-07	1.45E-06
TOTAL PHASE SO_3 [As Sampled PPMVD	3.4	5.8	3.3	8.6	3.5	7.0
TOTAL SO_3, PPMVD @ 3% O_2	3.7	6.6	5.8	11.8	6.4	10.8
% SO_3 in SOLIDS [filter plug/total]	27.3	17.4	15.4	48.5	33.3	13.8
DEW POINT DETERMINATION						
Partial Pressure H_2O, mmHg	52.56	52.56	55.49	55.49	60.60	60.60
Partial Pressure SO_3, mmHg	0.0025	0.0042	0.0024	0.0063	0.0025	0.0051
Calculated SO_3 Dew Point, ^oF	253	262	254	270	256	268

AES Greenidge Turbosorp SO_3 Sampling Results
Guarantee Testing

DATE	5/2/2007	5/2/2007	5/2/2007	5/2/2007	5/2/2007	5/2/2007
START TIME	1050	1044	1322	1312	1527	1517
END TIME	1202	1215	1426	1443	1635	1648
RUN	AHO-1	STK-1	AHO-2	STK-2	AHO-3	STK-3
MEASURED METER VARIABLES						
SAMPLE TIME [Minutes]	60	90	60	90	60	90
BAROMETRIC PRESSURE [" Hg]	29.41	29.41	29.47	29.47	29.47	29.47
SAMPLE VOLUME [ft^3]	5.53	9.70	5.73	9.04	5.89	9.39
METER TEMPERATURE [^oF]	62.2	63.5	67.2	73.2	66.5	78.7
ORIFICE PRESSURE [" H_2O] (assumed)	0.20	0.20	0.20	0.20	0.20	0.20
Y FACTOR	0.991	0.970	0.991	0.970	0.991	0.970
DSCF SAMPLED	5.447	9.330	5.597	8.551	5.766	8.789
APPROX CONDENSER TEMP [^oF]	143	140	144	141	146	140
WATER BATH TEMP [^oF]	143	140	144	141	146	140
CC/MIN @ CONDENSER	2937	3335	3020	3061	3124	3144
DUCT STATIC PRESSURE, in H_2O						
DUCT PRESSURE, " Hg	29.41	29.41	29.47	29.47	29.47	29.47
DUCT MOISTURE, % VOL						
DUCT OXYGEN [%] (see note)	8.0	8.0	8.1	8.1	8.0	8.0
DUCT TEMP DURING TEST [^oF]		172.1	299.5	172.0	306.0	172.0
SO_3						
SO_3 in FILTER PLUG						
Analytical Results: mg SO_4^{2-}	3.02	0.41	2.27	0.03	3.39	0.11
PPMVD SO_3, As Sampled	4.9	0.4	3.6	0.0	5.2	0.1
PPMVD SO_3, @ 3% Oxygen	6.8	0.5	5.0	0.0	7.2	0.2
SO_3 in PROBE						
Analytical Results: mg SO_4^{2-}	2.29	0.41	4.29	0.17	2.06	0.16
PPMVD SO_3, As Sampled	3.7	0.4	6.8	0.2	3.2	0.2
PPMVD SO_3, @ 3% Oxygen	5.2	0.5	9.5	0.2	4.4	0.2
SO_3 in CONDENSER						
Analytical Results: mg SO_4^{2-}	9.06	0.24	8.69	0.38	9.92	0.31
PPMVD SO_3, As Sampled	14.7	0.2	13.7	0.4	15.2	0.3
PPMVD SO_3, @ 3% Oxygen	20.4	0.3	19.2	0.5	21.1	0.4
GAS PHASE SO_3, PPMVD as Sampled	18.4	0.6	20.5	0.6	18.4	0.5
GAS PHASE SO_3, PPMVD @ 3% O_2	**25.5**	**0.8**	**28.7**	**0.8**	**25.4**	**0.7**
TOTAL PHASE SO_3, PPMVD as Sampled	23.3	1.0	24.1	0.6	23.6	0.6
TOTAL PHASE SO_3, PPMVD @ 3% O_2	**32.3**	**1.4**	**33.7**	**0.8**	**32.6**	**0.8**
% SO_3 in SOLIDS [filter plug/total]	21.0%	38.6%	14.9%	5.2%	22.1%	19.0%

NOTE: The % O_2 at the stack was calculated from the %CO_2 measured by the plant's stack CEM and from the coal composition. O_2 measurements at the air heater outlet were invalid; hence, the %O_2 at the air heater outlet was assumed to approximately equal the %O_2 at the stack.

AES Greenidge SO_3 Sampling Results
Process Performance Testing - High-Sulfur Coal

DATE	10/4/2007	10/4/2007	10/4/2007	10/4/2007	10/5/2007	10/5/2007	10/5/2007	10/5/2007	10/5/2007	10/5/2007	10/5/2007	10/5/2007
START TIME	1530	1525	1520	1541	840	840	840	840	1120	1120	1405	1405
END TIME	1605	1625	1623	1641	948	950	950	940	1220	1220	1505	1505
RUN	SCRI-1	SCRO-1	AHO-1	STK-1	SCRI-2	SCRO-2	AHO-2	STK-2	SCRI-3	SCRO-3	SCRI-4	SCRO-4
MEASURED METER VARIABLES												
SAMPLE TIME [Minutes]	35.2	60	60	60	60	60	70	60	60	60	60	60
BAROMETRIC PRESSURE [" Hg]	29.59	29.59	29.59	29.59	29.70	29.70	29.70	29.70	29.68	29.68	29.65	29.65
SAMPLE VOLUME [ft^3]	2.94	3.62	7.85	6.04	5.82	6.08	6.53	6.30	6.00	5.88	5.98	6.57
METER TEMPERATURE [^oF]	87.0	86.0	84.9	82.9	79.0	79.9	73.5	67.5	84.2	87.6	89.3	92.1
ORIFICE PRESSURE [" H_2O]	0.04	0.03	0.03	0.03	0.05	0.04	0.03	0.03	0.04	0.04	0.04	0.04
Y FACTOR	1.046	0.991	1.001	1.004	1.046	0.991	1.001	1.004	1.046	0.991	1.046	0.991
DSCF SAMPLED	2.935	3.430	7.529	5.829	5.918	5.849	6.418	6.281	6.039	5.572	5.960	6.169
APPROX CONDENSER TEMP [^oF]	140	142	140	140	140	141	143	136	140	142	140	142
WATER BATH TEMP [^oF]	140	142	140	140	143	140	144	141	143	140	146	140
CC/MIN @ CONDENSER	2683	1845	4039	3127	3191	3137	2968	3372	3256	2988	3229	3310
DUCT STATIC PRESSURE, in H_2O												
DUCT PRESSURE, " Hg												
DUCT MOISTURE, % VOL												
DUCT OXYGEN [%]	4.3	10.6	6.5	7.0	4.1	6.0	7.0	7.2	4.7	4.8	5.6	6.3
DUCT TEMP DURING TEST [^oF]	636.0	695.0	318.2	178.7	672.8	679.7	316.3	176.5	634.5	659.8	636.3	670.0
SO_2												
SO_2 in IMPINGERS and LINE												
Analytical Results: mg SO_4^{2-}	519.8	555.9	1245.92	43.55	1380.39	1079.22	1070.44	24.12	187.07	1296.11	1257.43	1218.35
PPMVD SO_2, As Sampled	1565.8	1432.9	1463.0	66.1	2062.0	1631.1	1474.6	34.0	273.9	2056.5	1865.0	1746.0
PPMVD SO_2, @ 3% Oxygen	1688.4	2490.1	1818.6	85.1	2197.1	1959.5	1898.9	44.4	302.6	2286.4	2181.9	2140.7
SO_3												
SO_3 in FILTER PLUG												
Analytical Results: mg SO_4^{2-}	1.01	0.62	3.41	0.13	0.14	1.13	1.97	0.20	1.11	2.30	0.61	1.55
PPMVD SO_3, As Sampled	3.0	1.6	4.0	0.2	0.2	1.7	2.7	0.3	1.6	3.6	0.9	2.2
PPMVD SO_3, @ 3% Oxygen	3.3	2.8	5.0	0.3	0.2	2.1	3.5	0.4	1.8	4.1	1.1	2.7
SO_3 in PROBE												
Analytical Results: mg SO_4^{2-}	0.45	5.06	8.30	0.16	3.23	6.28	2.25	0.17	1.12	3.44	2.73	2.98
PPMVD SO_3, As Sampled	1.4	13.0	9.7	0.2	4.8	9.5	3.1	0.2	1.6	5.5	4.0	4.3
PPMVD SO_3, @ 3% Oxygen	1.5	22.7	12.1	0.3	5.1	11.4	4.0	0.3	1.8	6.1	4.7	5.2
SO_3 in CONDENSER												
Analytical Results: mg SO_4^{2-}	1.69	3.50	6.06	0.35	3.69	5.74	2.73	0.26	0.75	5.77	3.12	5.26
PPMVD SO_3, As Sampled	5.1	9.0	7.1	0.5	5.5	8.7	3.8	0.4	1.1	9.2	4.6	7.5
PPMVD SO_3, @ 3% Oxygen	5.5	15.7	8.8	0.7	5.9	10.4	4.8	0.5	1.2	10.2	5.4	9.2
GAS PHASE SO_3, PPMVD as Sampled	6.4	22.1	16.9	0.8	10.3	18.2	6.9	0.6	2.7	14.6	8.7	11.8
GAS PHASE SO_3, PPMVD @ 3% O_2	**7.0**	**38.3**	**21.0**	**1.0**	**11.0**	**21.8**	**8.8**	**0.8**	**3.0**	**16.2**	**10.2**	**14.5**
TOTAL PHASE SO_3, PPMVD as Sampled	9.5	23.7	20.9	1.0	10.5	19.9	9.6	0.9	4.4	18.3	9.6	14.0
TOTAL PHASE SO_3, PPMVD @ 3% O_2	**10.2**	**41.1**	**25.9**	**1.2**	**11.2**	**23.9**	**12.3**	**1.2**	**4.8**	**20.3**	**11.2**	**17.2**
% SO_3 in SOLIDS [filter plug/total]	32.1%	6.8%	19.2%	20.3%	2.0%	8.6%	28.3%	31.7%	37.2%	20.0%	9.4%	15.8%

AES Greenidge SO_3 Sampling Results
Process Performance Testing - Turbosorp Parametric Tests

DATE	10/8/2007	10/8/2007	10/9/2007	10/9/2007	10/10/2007	10/10/2007	10/11/2007	10/11/2007
START TIME	1533	1530	1040	1040	1040	1044	1230	1230
END TIME	1634	1630	1150	1140	1140	1144	1335	1335
RUN	AHO-3	STK-3	AHO-4	STK-4	AHO-5	STK-5	AHO-6	STK-6
MEASURED METER VARIABLES								
SAMPLE TIME [Minutes]	60	60	60	60	60	60	60	60
BAROMETRIC PRESSURE [" Hg]	29.26	29.26	29.26	29.26	29.12	29.12	29.15	29.15
SAMPLE VOLUME [ft^3]	5.74	6.22	6.01	6.17	5.90	6.06	5.98	6.35
METER TEMPERATURE [^oF]	87.6	86.0	72.3	70.4	68.7	68.3	60.8	58.5
ORIFICE PRESSURE [" H_2O]	0.04	0.03	0.04	0.03	0.03	0.03	0.04	0.03
Y FACTOR	0.970	1.004	0.970	1.004	0.970	1.004	0.970	1.004
DSCF SAMPLED	5.249	5.903	5.653	6.022	5.561	5.911	5.728	6.319
APPROX CONDENSER TEMP [^oF]	144	140	144	140	144	140	144	140
WATER BATH TEMP [^oF]	144	140	144	140	144	140	144	140
CC/MIN @ CONDENSER	2833	3167	3052	3229	3002	3170	3090	3387
DUCT STATIC PRESSURE, in H_2O								
DUCT PRESSURE, " Hg								
DUCT MOISTURE, % VOL								
DUCT OXYGEN [%]	6.5	7.3	6.8	7.5	7.0	7.4	7.2	7.2
DUCT TEMP DURING TEST [^oF]	316.5	175.0	307.7	176.8	307.2	174.0	303.2	181.0
SO_2								
SO_2 in IMPINGERS and LINE								
Analytical Results: mg SO_4^{2-}	644.19	10.78	686.47	80.02	883.84	81.66	889.18	79.19
PPMVD SO_2, As Sampled	1085.0	16.1	1073.5	117.5	1405.1	122.1	1372.4	110.8
PPMVD SO_2, @ 3% Oxygen	1348.8	21.2	1362.8	156.9	1809.4	161.9	1793.1	144.7
SO_3								
SO_3 in FILTER PLUG								
Analytical Results: mg SO_4^{2-}	3.90	0.08	3.01	0.04	3.58	0.10	2.23	0.04
PPMVD SO_3, As Sampled	6.6	0.1	4.7	0.1	5.7	0.1	3.4	0.1
PPMVD SO_3, @ 3% Oxygen	8.2	0.2	6.0	0.1	7.3	0.2	4.5	0.1
SO_3 in PROBE								
Analytical Results: mg SO_4^{2-}	2.00	0.07	3.08	0.07	1.69	0.07	2.7	0.06
PPMVD SO_3, As Sampled	3.4	0.1	4.8	0.1	2.7	0.1	4.2	0.1
PPMVD SO_3, @ 3% Oxygen	4.2	0.1	6.1	0.1	3.5	0.1	5.4	0.1
SO_3 in CONDENSER								
Analytical Results: mg SO_4^{2-}	2.47	0.16	0.94	0.21	1.97	0.73	2.3	0.26
PPMVD SO_3, As Sampled	4.2	0.2	1.5	0.3	3.1	1.1	3.5	0.4
PPMVD SO_3, @ 3% Oxygen	5.2	0.3	1.9	0.4	4.0	1.4	4.6	0.5
GAS PHASE SO_3, PPMVD as Sampled	7.5	0.3	6.3	0.4	5.8	1.2	7.7	0.4
GAS PHASE SO_3, PPMVD @ 3% O_2	**9.4**	**0.5**	**8.0**	**0.5**	**7.5**	**1.6**	**10.1**	**0.6**
TOTAL PHASE SO_3, PPMVD as Sampled	14.1	0.5	11.0	0.5	11.5	1.3	11.2	0.5
TOTAL PHASE SO_3, PPMVD @ 3% O_2	**17.5**	**0.6**	**14.0**	**0.6**	**14.8**	**1.8**	**14.6**	**0.7**
% SO_3 in SOLIDS [filter plug/total]	46.6%	25.8%	42.8%	12.5%	49.4%	11.1%	30.8%	11.1%

AES Greenidge Unit 4 SO_3 Sampling Results
Process Performance Testing - Reduced Load / Biomass Co-Firing

DATE	11/13/2007	11/13/2007	11/14/2007	11/14/2007	11/14/2007	11/14/2007	11/14/2007	11/14/2007	11/15/2007	11/15/2007	11/15/2007	11/15/2007	11/16/2007	11/16/2007	11/16/2007	11/16/2007
START TIME	2330	2325	0135	0135	0405	0405	2305	2305	0105	0105	0430	0430	1218	1215	1427	1427
END TIME	0047	0025	0240	0235	0510	0505	0010	0005	0210	0205	0535	0530	1328	1315	1533	1527
RUN	AHO-1	STK-1	AHO-2	STK-2	AHO-3	STK-3	AHO-4	STK-4	AHO-5	STK-5	AHO-6	STK-6	AHO-7	STK-7	AHO-8	STK-8
MEASURED METER VARIABLES																
SAMPLE TIME [Minutes]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
BAROMETRIC PRESSURE [" Hg]	29.32	29.32	29.29	29.29	29.29	29.29	29.06	29.06	29.06	29.06	29.03	29.03	29.21	29.21	29.23	29.23
SAMPLE VOLUME [ft^3]	5.95	9.70	5.90	8.09	6.01	8.65	6.01	6.90	5.99	7.16	5.99	6.27	6.00	6.87	6.00	6.49
METER TEMPERATURE [^{0}F]	49.7	51.0	50.6	50.2	55.5	49.3	62.8	58.2	59.8	56.9	53.0	50.5	38.9	33.4	40.3	35.0
ORIFICE PRESSURE [" H_2O]	0.04	0.10	0.04	0.09	0.04	0.10	0.04	0.06	0.04	0.06	0.04	0.06	0.04	0.05	0.04	0.05
Y FACTOR	1.001	0.967	1.001	0.967	1.001	0.967	1.001	0.967	1.001	0.967	1.001	0.967	1.001	0.967	1.001	0.967
DSCF SAMPLED	6.044	9.495	5.977	7.920	6.030	8.488	5.899	6.601	5.914	6.867	5.986	6.083	6.204	6.939	6.191	6.539
APPROX CONDENSER TEMP [^{0}F]	141	147	141	140	140	139	144	138	141	138	140	138	141	137	140	139
WATER BATH TEMP [^{0}F]	141	147	141	140	140	139	144	138	141	138	140	138	141	137	140	139
CC/MIN @ CONDENSER	3244	5151	3209	4247	3232	4542	3186	3529	3174	3672	3211	3250	3331	3701	3321	3499
DUCT STATIC PRESSURE, in H_2O																
DUCT PRESSURE, " Hg																
DUCT MOISTURE, % VOL																
DUCT OXYGEN [%]	11.3	10.0	10.8	10.0	10.9	11.0	9.1	7.7	9.1	7.7	9.5	8.3	8.8	7.7	9.6	7.6
DUCT TEMP DURING TEST [^{0}F]	268.0	171.1	269.7	172.7	279.0	169.8	298.2	170.7	304.7	170.7	286.0	184.0	307.7	170.3	309.8	171.2
SO_2																
SO_2 in IMPINGERS and LINE																
Analytical Results: mg SO_4^{2-}	691.00	45.23	809.55	26.02	758.07	56.43	912.86	32.69	968.26	19.77	862.51	55.42	930.99	9.02	945.54	29.20
PPMVD SO_2, As Sampled	1010.7	42.1	1197.4	29.0	1111.3	58.8	1367.9	43.8	1447.4	25.4	1273.8	80.5	1326.7	11.5	1350.3	39.5
PPMVD SO_2, @ 3% Oxygen	1884.5	69.2	2122.2	47.7	1989.2	106.3	2075.1	59.1	2195.7	34.5	1991.4	114.4	1962.6	15.6	2138.9	53.1
SO_3																
SO_3 in FILTER PLUG																
Analytical Results: mg SO_4^{2-}	2.28	0.01	2.58	0.10	2.36	0.02	2.30	0.07	1.17	0.09	2.43	0.06	1.71	0.03	2.59	0.12
PPMVD SO_3, As Sampled	3.3	0.0	3.8	0.1	3.5	0.0	3.4	0.1	1.7	0.1	3.6	0.1	2.4	0.0	3.7	0.2
PPMVD SO_3, @ 3% Oxygen	6.2	0.0	6.8	0.2	6.2	0.0	5.2	0.1	2.7	0.2	5.6	0.1	3.6	0.1	5.9	0.2
SO_3 in PROBE																
Analytical Results: mg SO_4^{2-}	1.18	0.05	2.54	0.05	3.23	0.05	1.05	0.06	1.74	0.12	2.01	0.17	3.21	0.08	2.32	0.07
PPMVD SO_3, As Sampled	1.7	0.0	3.8	0.1	4.7	0.1	1.6	0.1	2.6	0.2	3.0	0.2	4.6	0.1	3.3	0.1
PPMVD SO_3, @ 3% Oxygen	3.2	0.1	6.7	0.1	8.5	0.1	2.4	0.1	3.9	0.2	4.6	0.4	6.8	0.1	5.2	0.1
SO_3 in CONDENSER																
Analytical Results: mg SO_4^{2-}	0.55	0.44	0.98	0.43	1.94	0.16	1.42	0.07	2.11	0.34	2.70	0.66	3.02	0.19	1.01	0.1
PPMVD SO_3, As Sampled	0.8	0.4	1.4	0.5	2.8	0.2	2.1	0.1	3.2	0.4	4.0	1.0	4.3	0.2	1.4	0.1
PPMVD SO_3, @ 3% Oxygen	1.5	0.7	2.6	0.8	5.1	0.3	3.2	0.1	4.8	0.6	6.2	1.4	6.4	0.3	2.3	0.2
GAS PHASE SO_3, PPMVD as Sampled	2.5	0.5	5.2	0.5	7.6	0.2	3.7	0.2	5.8	0.6	7.0	1.2	8.9	0.3	4.8	0.2
GAS PHASE SO_3, PPMVD @ 3% O_2	**4.7**	**0.7**	**9.2**	**0.9**	**13.6**	**0.4**	**5.6**	**0.2**	**8.7**	**0.8**	**10.9**	**1.7**	**13.1**	**0.5**	**7.5**	**0.3**
TOTAL PHASE SO_3, PPMVD as Sampled	5.9	0.5	9.0	0.6	11.0	0.2	7.1	0.3	7.5	0.7	10.5	1.3	11.3	0.4	8.5	0.4
TOTAL PHASE SO_3, PPMVD @ 3% O_2	**10.9**	**0.8**	**16.0**	**1.1**	**19.8**	**0.4**	**10.8**	**0.4**	**11.4**	**1.0**	**16.5**	**1.8**	**16.7**	**0.5**	**13.4**	**0.5**
% SO_3 in SOLIDS [filter plug/total]	56.9%	2.0%	42.3%	17.2%	31.3%	8.7%	48.2%	35.0%	23.3%	16.4%	34.0%	6.7%	21.5%	10.0%	43.8%	41.4%

AES Greenidge Unit 4 SO_3 Sampling Results

Process Performance Testing - Biomass Co-Firing

DATE	3/10/2008	3/10/2008	3/10/2008	3/10/2008	3/13/2008	3/13/2008	3/13/2008	3/13/2008	3/13/2008	3/13/2008	3/13/2008	3/13/2008	3/13/2008	3/13/2008	3/13/2008	3/13/2008
START TIME	1440	1448	1448	1440	900	903	902	906	1149	1150	1148	1150	1420	1420	1421	1420
END TIME	1604	1558	1622	1560	1026	1008	1017	1006	1308	1255	1254	1250	1539	1525	1534	1520
RUN	ECO-1	AHI-1	AHO-1	STK-1	ECO-2	AHI-2	AHO-2	STK-2	ECO-3	AHI-3	AHO-3	STK-3	ECO-4	AHI-4	AHO-4	STK-4
MEASURED METER VARIABLES																
SAMPLE TIME [Minutes]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
BAROMETRIC PRESSURE [" Hg]	29.74	29.74	29.74	29.74	29.38	29.38	29.38	29.38	29.29	29.29	29.29	29.29	29.18	29.18	29.18	29.18
SAMPLE VOLUME [ft^3]	4.15	6.34	5.55	6.01	6.10	6.14	5.41	6.00	6.17	6.25	5.45	6.01	5.87	5.82	5.57	6.00
METER TEMPERATURE [^{0}F]	63.0	90.9	34.4	50.6	55.4	87.8	38.6	48.8	57.2	95.5	42.4	52.8	63.2	97.8	48.0	58.5
ORIFICE PRESSURE [" H_2O]	0.02	0.04	0.04	0.04	0.03	0.04	0.03	0.04	0.03	0.04	0.03	0.04	0.02	0.04	0.03	0.04
Y FACTOR	0.985	0.986	0.990	1.062	0.985	0.986	0.990	1.062	0.985	0.986	0.990	1.062	0.985	0.986	0.990	1.062
DSCF SAMPLED	4.097	5.949	5.831	6.558	6.045	5.730	5.568	6.491	6.068	5.732	5.549	6.432	5.686	5.296	5.588	6.326
APPROX CONDENSER TEMP [^{0}F]	138	147	140	145	137	148	140	153	137	147	141	154	139	147	139	153
WATER BATH TEMP [^{0}F]	138	147	140	145	137	148	140	153	137	147	141	154	139	147	139	153
CC/MIN @ CONDENSER	2188	3226	3128	3546	3227	3111	2986	3558	3238	3111	2978	3529	3046	2875	2992	3465
DUCT STATIC PRESSURE, in H_2O								-0.69			-16.44	-0.68			-16.75	-0.78
DUCT PRESSURE, " Hg																
DUCT MOISTURE, % VOL																
DUCT OXYGEN [%]	12.7	5.1	8.2	7.6	12.7	5.4	9.3	7.9	9.4	5.6	10.0	7.9	14.5	5.4	9.5	7.8
DUCT TEMP DURING TEST [^{0}F]	652.1	647.0	312.5	174.0	647.3	629.3	307.8	184.8	657.3	635.7	311.3	185.7	642.4	638.5	320.5	184.7
SO_2																
SO_2 in IMPINGERS and LINE																
Analytical Results: mg SO_4^{2-}	338.08	920.84	782.86	47.39	498.24	839.25	629.63	44.62	672.30	851.36	544.95	45.48	400.57	798.65	656.57	39.60
PPMVD SO_2, As Sampled	729.6	1368.4	1186.9	63.9	728.6	1294.8	999.8	60.8	979.5	1313.0	868.1	62.5	622.8	1333.1	1038.7	55.3
PPMVD SO_2, @ 3% Oxygen	1592.6	1550.3	1672.9	86.0	1590.5	1495.3	1542.7	83.7	1524.6	1536.1	1425.7	86.1	1741.9	1539.6	1631.0	75.6
SO_3																
SO_3 in FILTER PLUG																
Analytical Results: mg SO_4^{2-}	2.31	3.57	7.17	0.16	2.55	0.10	2.63	0.18	1.95	0.09	2.04	0.09	2.14	0.82	1.37	0.12
PPMVD SO_3, As Sampled	5.0	5.3	10.9	0.2	3.7	0.2	4.2	0.2	2.8	0.1	3.2	0.1	3.3	1.4	2.2	0.2
PPMVD SO_3, @ 3% Oxygen	10.9	6.0	15.3	0.3	8.1	0.2	6.4	0.3	4.4	0.2	5.3	0.2	9.3	1.6	3.4	0.2
SO_3 in PROBE																
Analytical Results: mg SO_4^{2-}	0.96	7.52	2.82	0.16	1.55	2.32	1.48	0.17	3.18	4.00	1.90	0.09	1.04	3.60	1.99	0.11
PPMVD SO_3, As Sampled	2.1	11.2	4.3	0.2	2.3	3.6	2.4	0.2	4.6	6.2	3.0	0.1	1.6	6.0	3.1	0.2
PPMVD SO_3, @ 3% Oxygen	4.5	12.7	6.0	0.3	4.9	4.1	3.6	0.3	7.2	7.2	5.0	0.2	4.5	6.9	4.9	0.2
SO_3 in CONDENSER																
Analytical Results: mg SO_4^{2-}	0.84	4.86	1.55	0.23	1.96	8.61	0.92	0.30	2.20	6.33	0.88	0.21	0.93	4.05	1.35	0.25
PPMVD SO_3, As Sampled	1.8	7.2	2.4	0.3	2.9	13.3	1.5	0.4	3.2	9.8	1.4	0.3	1.4	6.8	2.1	0.3
PPMVD SO_3, @ 3% Oxygen	4.0	8.2	3.3	0.4	6.3	15.3	2.3	0.6	5.0	11.4	2.3	0.4	4.0	7.8	3.4	0.5
GAS PHASE SO_3, PPMVD as Sampled	3.9	18.4	6.6	0.5	5.1	16.9	3.8	0.6	7.8	15.9	4.4	0.4	3.1	12.8	5.3	0.5
GAS PHASE SO_3, PPMVD @ 3% O_2	**8.5**	**20.8**	**9.3**	**0.7**	**11.2**	**19.5**	**5.9**	**0.9**	**12.2**	**18.6**	**7.3**	**0.6**	**8.6**	**14.7**	**8.3**	**0.7**
TOTAL PHASE SO_3, PPMVD as Sampled	8.9	23.7	17.5	0.7	8.9	17.0	8.0	0.9	10.7	16.1	7.7	0.5	6.4	14.1	7.5	0.7
TOTAL PHASE SO_3, PPMVD @ 3% O_2	**19.4**	**26.9**	**24.7**	**1.0**	**19.3**	**19.7**	**12.3**	**1.2**	**16.6**	**18.8**	**12.6**	**0.7**	**17.9**	**16.3**	**11.7**	**0.9**
% SO_3 in SOLIDS [filter plug/total]	56.2%	22.4%	62.1%	29.1%	42.1%	0.9%	52.3%	27.7%	26.6%	0.9%	42.3%	23.1%	52.1%	9.7%	29.1%	25.0%

NOTE: The O2 concentrations measured at the economizer outlet were abnormally high. This likely resulted from a probe liner leak, although this cannot be confirmed. The SO2 concentrations measured at the economizer outlet, when corrected to 3% O2, agree closely with the SO2 concentrations measured at the air heater inlet/outlet. Hence, it is likely that the SO3 concentrations measured at the economizer outlet, when corrected to 3% O2, are reasonably

AES Greenidge Unit 4 SO_3 Sampling Results

Process Performance Testing - Reduced Load

DATE	5/21/2008	5/21/2008	5/21/2008	5/21/2008	5/21/2008	5/21/2008	5/22/2008	5/22/2008	5/22/2008	5/22/2008
START TIME	0044	0040	0350	0435	2300	2300	0125	0125	0410	0410
END TIME	0146	0140	0452	0535	0010	0000	0225	0225	0510	0510
RUN	AHO-1	STK-1	AHO-2	STK-2	AHO-3	STK-3	AHO-4	STK-4	AHO-5	STK-5
MEASURED METER VARIABLES										
SAMPLE TIME [Minutes]	60	60	60	60	60	60	60	60	60	60
BAROMETRIC PRESSURE [" Hg]	28.88	28.88	28.88	28.88	28.91	28.91	28.94	28.94	28.97	28.97
SAMPLE VOLUME [ft^3]	5.99	6.01	6.24	6.01	5.97	6.00	5.89	6.00	5.86	6.01
METER TEMPERATURE [^oF]	58.7	58.3	58.3	61.0	57.0	58.8	59.5	58.3	54.3	56.6
ORIFICE PRESSURE [" H_2O]	0.05	0.10	0.05	0.10	0.04	0.08	0.04	0.10	0.05	0.07
Y FACTOR	0.970	1.046	0.970	1.046	0.970	1.046	0.970	1.046	0.970	1.046
DSCF SAMPLED	5.707	6.181	5.950	6.149	5.713	6.170	5.615	6.183	5.649	6.220
APPROX CONDENSER TEMP [^oF]	142	147	142	147	142	147	142	146	142	147
WATER BATH TEMP [^oF]	142	147	142	147	142	147	142	146	142	147
CC/MIN @ CONDENSER	3071	3353	3201	3336	3074	3348	3021	3349	3039	3374
DUCT STATIC PRESSURE, in H_2O	-10.46	-0.49	-9.25	-0.50	-6.60	-0.46	-6.80	-0.47	-6.70	-0.43
DUCT PRESSURE, " Hg	28.11	28.84	28.20	28.84	28.42	28.88	28.44	28.91	28.48	28.94
DUCT MOISTURE, % VOL										
DUCT OXYGEN [%]	7.2	7.9	7.4	8.3	9.5	10.1	9.5	10.2	9.6	10.3
DUCT TEMP DURING TEST [^oF]	293.5	176.7	286.3	174.3	275.2	176.0	273.7	173.6	269.3	174.0
SO_2										
SO_2 in IMPINGERS and LINE										
Analytical Results: mg SO_4^{2-}	899.16	20.74	1076.11	46.66	790.21	124.68	862.39	15.90	865.56	34.98
PPMVD SO_2, As Sampled	1392.8	29.7	1598.8	67.1	1222.8	178.6	1357.8	22.7	1354.6	49.7
PPMVD SO_2, @ 3% Oxygen	1819.7	40.8	2119.9	95.3	1920.1	296.1	2132.0	38.0	2145.8	84.0
SO_3										
SO_3 in FILTER PLUG										
Analytical Results: mg SO_4^{2-}	0.13	0.39	0.75	0.13	1.65	0.2	1.7	0.13	1.79	0.11
PPMVD SO_3, As Sampled	0.2	0.6	1.1	0.2	2.6	0.3	2.7	0.2	2.8	0.2
PPMVD SO_3, @ 3% Oxygen	0.3	0.8	1.5	0.3	4.0	0.5	4.2	0.3	4.4	0.3
SO_3 in PROBE										
Analytical Results: mg SO_4^{2-}	6.19	0.11	3.89	0.05	0.57	0.04	1.63	0.03	0.73	0.04
PPMVD SO_3, As Sampled	9.6	0.2	5.8	0.1	0.9	0.1	2.6	0.0	1.1	0.1
PPMVD SO_3, @ 3% Oxygen	12.5	0.2	7.7	0.1	1.4	0.1	4.0	0.1	1.8	0.1
SO_3 in CONDENSER										
Analytical Results: mg SO_4^{2-}	4.1	0.17	4.68	0.08	1.87	0.11	4.29	0.07	2.49	0.1
PPMVD SO_3, As Sampled	6.4	0.2	7.0	0.1	2.9	0.2	6.8	0.1	3.9	0.1
PPMVD SO_3, @ 3% Oxygen	8.3	0.3	9.2	0.2	4.5	0.3	10.6	0.2	6.2	0.2
GAS PHASE SO_3, PPMVD as Sampled	15.9	0.4	12.7	0.2	3.8	0.2	9.3	0.1	5.0	0.2
GAS PHASE SO_3, PPMVD @ 3% O_2	**20.8**	**0.6**	**16.9**	**0.3**	**5.9**	**0.4**	**14.6**	**0.2**	**8.0**	**0.3**
TOTAL PHASE SO_3, PPMVD as Sampled	16.1	1.0	13.8	0.4	6.3	0.5	12.0	0.3	7.8	0.4
TOTAL PHASE SO_3, PPMVD @ 3% O_2	**21.1**	**1.3**	**18.4**	**0.5**	**9.9**	**0.8**	**18.8**	**0.6**	**12.4**	**0.6**
% SO_3 in SOLIDS [filter plug/total]	1.2%	58.2%	8.0%	50.0%	40.3%	57.1%	22.3%	56.5%	35.7%	44.0%

AES Greenidge Unit 4 SO_3 Sampling Results
Follow-Up Testing

DATE	6/10/2008	6/10/2008	6/10/2008	6/10/2008	6/11/2008	6/11/2008	6/11/2008	6/11/2008	6/11/2008	6/11/2008	6/11/2008	6/11/2008	6/11/2008	6/11/2008	6/11/2008	6/11/2008
START TIME	1327	1325	1325	1325	900	900	900	900	1149	1150	1149	1150	1605	1502	1502	1502
END TIME	1541	1530	1525	1535	1025	1003	1003	1000	1320	1253	1251	1250	1705	1635	1637	1637
RUN	ECON-1	AHI-1	AHO-1	STK-1	ECON-2	AHI-2	AHO-2	STK-2	ECON-3	AHI-3	AHO-3	STK-3	ECON-4	AHI-4	AHO-4	STK-4
MEASURED METER VARIABLES																
SAMPLE TIME [Minutes]	60	60	60	60	60	60	60	60	60	60	60	60	50	60	60	60
BAROMETRIC PRESSURE [" Hg]	29.29	29.29	29.29	29.29	29.38	29.38	29.38	29.38	29.41	29.41	29.41	29.41	29.44	29.44	29.44	29.44
SAMPLE VOLUME [ft^3]	5.78	5.15	6.00	5.99	6.45	5.95	6.00	6.00	5.08	6.37	6.00	6.01	3.86	6.03	6.00	6.01
METER TEMPERATURE [^oF]	110.3	101.8	94.6	97.8	103.4	86.3	77.2	83.6	112.5	93.8	83.0	86.9	104.5	97.1	85.5	92.6
ORIFICE PRESSURE [" H_2O]	0.03	0.05	0.03	0.08	0.03	0.05	0.04	0.03	0.03	0.05	0.04	0.06	0.03	0.05	0.04	0.05
Y FACTOR	0.999	1.002	0.986	1.062	0.999	1.002	0.986	1.062	1.009	1.002	0.986	1.062	1.009	1.002	0.986	1.062
DSCF SAMPLED	5.232	4.746	5.512	5.894	5.930	5.657	5.707	6.075	4.643	5.980	5.653	6.055	3.578	5.633	5.633	5.999
APPROX CONDENSER TEMP [^oF]	148	140	146	148	144	140	145	142	147	140	144	142	150	140	145	144
WATER BATH TEMP [^oF]	148	140	146	148	144	140	145	142	147	140	144	142	150	140	145	144
CC/MIN @ CONDENSER	2842	2545	2985	3203	3201	3033	3086	3269	2519	3207	3052	3258	2341	3021	3046	3238
DUCT STATIC PRESSURE, in H_2O																
DUCT PRESSURE, " Hg																
DUCT MOISTURE, % VOL																
DUCT OXYGEN [%]	5.8	4.8	7.6	8.4	12.4	5.3	7.1	7.8	9.8	5.3	6.9	7.7	4.2	5.3	7.3	7.8
DUCT TEMP DURING TEST [^oF]	617	644	314	174	680	649	304	175	686	647	308	142	635	643	308	174
SO_2																
SO_2 in IMPINGERS and LINE																
Analytical Results: mg SO_4^{2-}	865.68	1197.64	948.52	12.63	251.84	1016.87	1069.84	36.52	499.97	1138.53	1028.41	41.73	750.15	1171.42	987.28	29.52
PPMVD SO_2, As Sampled	1462.8	2230.6	1521.3	18.9	375.5	1589.2	1657.2	53.1	951.9	1683.1	1608.3	60.9	1853.3	1838.4	1549.5	43.5
PPMVD SO_2, @ 3% Oxygen	1734.1	2480.0	2047.5	27.1	790.7	1823.5	2149.6	72.6	1535.0	1931.3	2056.3	82.6	1986.5	2109.4	2039.4	59.4
SO_3																
SO_3 in FILTER PLUG																
Analytical Results: mg SO_4^{2-}	1.03	0.07		0.09	0.01	0.88	1.35	0.12	0.53	1.17	1.43	0.06	0.15	2.6	0.78	0.06
PPMVD SO_3, As Sampled	1.7	0.1	0.0	0.1	0.0	1.4	2.1	0.2	1.0	1.7	2.2	0.1	0.4	4.1	1.2	0.1
PPMVD SO_3, @ 3% Oxygen	2.1	0.1	0.0	0.2	0.0	1.6	2.7	0.2	1.6	2.0	2.9	0.1	0.4	4.7	1.6	0.1
SO_3 in PROBE																
Analytical Results: mg SO_4^{2-}	1.44	7.62	2.97	0.03	1.49	3.91	1.73	0.07	2.07	3.36	2.68	0.51	2.76	3.84	1.88	0.02
PPMVD SO_3, As Sampled	2.4	14.2	4.8	0.0	2.2	6.1	2.7	0.1	3.9	5.0	4.2	0.7	6.8	6.0	3.0	0.0
PPMVD SO_3, @ 3% Oxygen	2.9	15.8	6.4	0.1	4.7	7.0	3.5	0.1	6.4	5.7	5.4	1.0	7.3	6.9	3.9	0.0
SO_3 in CONDENSER																
Analytical Results: mg SO_4^{2-}	3.24	8.97	4.03	0.17	1.7	7.16	5.71	0.24	2.13	8.87	5.79	0.11	3.2	8.95	4.9	0.08
PPMVD SO_3, As Sampled	5.5	16.7	6.5	0.3	2.5	11.2	8.8	0.3	4.1	13.1	9.1	0.2	7.9	14.0	7.7	0.1
PPMVD SO_3, @ 3% Oxygen	6.5	18.6	8.7	0.4	5.3	12.8	11.5	0.5	6.5	15.0	11.6	0.2	8.5	16.1	10.1	0.2
GAS PHASE SO_3, PPMVD as Sampled	7.9	30.9	11.2	0.3	4.8	17.3	11.5	0.5	8.0	18.1	13.2	0.9	14.7	20.1	10.6	0.1
GAS PHASE SO_3, PPMVD @ 3% O_2	**9.4**	**34.4**	**15.1**	**0.4**	**10.0**	**19.9**	**14.9**	**0.6**	**12.9**	**20.7**	**16.9**	**1.2**	**15.8**	**23.0**	**14.0**	**0.2**
TOTAL PHASE SO_3, PPMVD as Sampled	9.6	31.0	11.2	0.4	4.8	18.7	13.6	0.6	9.0	19.8	15.5	1.0	15.1	24.2	11.9	0.2
TOTAL PHASE SO_3, PPMVD @ 3% O_2	**11.4**	**34.5**	**15.1**	**0.6**	**10.0**	**21.4**	**17.7**	**0.9**	**14.5**	**22.7**	**19.8**	**1.3**	**16.2**	**27.7**	**15.6**	**0.3**
% SO_3 in SOLIDS [filter plug/total]	18.0%	0.4%	0.0%	31.0%	0.3%	7.4%	15.4%	27.9%	11.2%	8.7%	14.4%	8.8%	2.5%	16.9%	10.3%	37.5%
			No plug		Invalid - Significant leak at ECON, SO2 indicates significant											

AES Greenidge Unit 4 SO_3 Sampling Results

Process Performance Testing - Turbosorp Parametric Tests

DATE	6/16/2008	6/16/2008	6/16/2008	6/16/2008	6/16/2008	6/16/2008	6/17/2008	6/17/2008	6/17/2008	6/17/2008	6/17/2008	6/17/2008	6/18/2008	6/18/2008	6/18/2008	6/18/2008	6/18/2008	6/18/2008	6/19/2008	6/19/2008	6/19/2008	6/19/2008	6/19/2008	6/19/2008
START TIME	1132	1130	1415	1415	1621	1620	1130	1130	1350	1350	1545	1545	1212	1210	1400	1400	1555	1555	1150	1150	1358	1356	1540	1540
END TIME	1232	1230	1515	1515	1721	1720	1230	1230	1450	1450	1645	1645	1312	1310	1500	1500	1655	1655	1250	1250	1458	1456	1646	1640
RUN	AHO-5	STK-5	AHO-6	STK-6	AHO-7	STK-7	AHO-8	STK-8	AHO-9	STK-9	AHO-10	STK-10	AHO-11	STK-11	AHO-12	STK-12	AHO-13	STK-13	AHO-14	STK-14	AHO-15	STK-15	AHO-16	STK-16
MEASURED METER VARIABLE!																								
SAMPLE TIME [Minutes]	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
BAROMETRIC PRESSURE [" Hg]	29.23	29.23	29.21	29.21	29.21	29.21	29.18	29.18	29.15	29.15	29.18	29.18	29.18	29.18	29.18	29.18	29.18	29.18	29.23	29.23	29.26	29.26	29.26	29.26
SAMPLE VOLUME [ft^3]	5.12	5.98	5.21	6.00	5.77	6.00	6.75	6.00	6.51	5.91	5.60	6.00	7.13	6.00	5.56	6.00	5.95	6.01	6.07	6.01	6.05	6.00	5.58	5.99
METER TEMPERATURE [^oF]	81.9	86.6	83.7	85.3	82.1	92.3	67.5	76.0	68.2	77.5	68.2	78.5	61.8	74.8	65.3	81.6	68.4	85.7	66.3	77.3	67.8	78.8	69.3	80.2
ORIFICE PRESSURE [" H_2O]	0.02	0.02	0.02	0.01	0.02	0.03	0.02	0.01	0.02	0.05	0.02	0.04	0.02	0.04	0.02	0.03	0.02	0.03	0.02	0.03	0.02	0.03	0.02	0.05
Y FACTOR	1.002	1.062	1.002	1.062	1.002	1.062	1.002	1.062	1.002	1.062	1.002	1.062	1.002	1.062	1.002	1.062	1.002	1.062	1.002	1.062	1.002	1.062	1.002	1.062
DSCF SAMPLED	4.879	5.991	4.949	6.021	5.498	5.945	6.603	6.119	6.354	6.005	5.469	6.091	7.049	6.133	5.456	6.056	5.803	6.021	5.961	6.126	5.929	6.105	5.454	6.079
APPROX CONDENSER TEMP [^oF]	141	146	135	147	142	146	143	147	141	147	140	147	140	147	140	147	141	147	141	147	141	147	140	147
WATER BATH TEMP [^oF]	141	146	135	147	142	146	143	147	141	147	140	147	140	147	140	147	141	147	141	147	141	147	140	147
CC/MIN @ CONDENSER	2619	3246	2633	3265	2958	3221	3556	3320	3410	3257	2934	3306	3781	3325	2926	3286	3115	3266	3202	3321	3182	3312	2925	3296
DUCT STATIC PRESSURE, in H_2O																								
DUCT PRESSURE, " Hg																								
DUCT MOISTURE, % VOL																								
DUCT OXYGEN [%]	7.4	8.0	7.3	8.4	7.4	7.8	7.1	8.3	7.4	9.7	7.6	8.9	7.1	7.4	8.1	7.4	7.6	9.0	7.3	7.6	7.4	7.3	7.3	7.6
DUCT TEMP DURING TEST [^oF]	312	176	313	175	314	176	308	174	308	174	313	174	306	175	304	175	303	175	299	181	299	179	303	179
SO_2																								
SO_2 in IMPINGERS and LINE																								
Analytical Results: mg SO_4^{2-}	917.71	81.56	945.78	84.70	985.31	95.00	1147.14	63.42	991.12	40.01	926.14	47.96	958.20	26.78	788.51	20.84	1049.28	35.31	1143.91	69.96	1107.90	75.98	948.63	54.85
PPMVD SO_2, As Sampled	1662.9	120.3	1689.6	124.4	1584.4	141.3	1535.8	91.6	1378.9	58.9	1496.9	69.6	1201.7	38.6	1277.5	30.4	1598.4	51.8	1696.5	101.0	1652.0	110.0	1537.5	79.8
PPMVD SO_2, @ 3% Oxygen	2204.9	167.0	2223.8	178.1	2093.1	192.7	1995.0	129.6	1828.3	94.1	2014.7	103.8	1553.1	51.1	1786.5	40.3	2151.3	78.0	2232.9	135.9	2190.5	144.8	2023.6	107.0
SO_3																								
SO_3 in FILTER PLUG																								
Analytical Results: mg SO_4^{2-}	0.30	0.05	0.28	0.10	0.26	0.12	0.70	0.10	0.57	0.17	0.53	0.10	0.58	0.14	0.59	0.20	0.80	0.14	1.02	0.12	0.10	0.11	1.42	0.16
PPMVD SO_3, As Sampled	0.5	0.1	0.5	0.1	0.4	0.2	0.9	0.1	0.8	0.3	0.9	0.1	0.7	0.2	1.0	0.3	1.2	0.2	1.5	0.2	0.1	0.2	2.3	0.2
PPMVD SO_3, @ 3% Oxygen	0.7	0.1	0.7	0.2	0.6	0.2	1.2	0.2	1.1	0.4	1.2	0.2	0.9	0.3	1.3	0.4	1.6	0.3	2.0	0.2	0.2	0.2	3.0	0.3
SO_3 in PROBE																								
Analytical Results: mg SO_4^{2-}	1.46	0.02	0.65	0.03	0.84	0.51	0.97	0.12	0.49	0.12	2.51	0.12	2.34	0.10	0.61	0.15	0.61	0.14	1.28	0.13	0.43	0.13	1.01	0.10
PPMVD SO_3, As Sampled	2.6	0.0	1.2	0.0	1.4	0.8	1.3	0.2	0.7	0.2	4.1	0.2	2.9	0.1	1.0	0.2	0.9	0.2	1.9	0.2	0.6	0.2	1.6	0.1
PPMVD SO_3, @ 3% Oxygen	3.5	0.0	1.5	0.1	1.8	1.0	1.7	0.2	0.9	0.3	5.5	0.3	3.8	0.2	1.4	0.3	1.3	0.3	2.5	0.3	0.9	0.2	2.2	0.2
SO_3 in CONDENSER																								
Analytical Results: mg SO_4^{2-}	8.71	0.05	9.02	0.15	9.96	0.21	9.28	0.24	9.39	0.20	10.25	0.19	5.38	0.17	4.34	0.21	7.24	0.15	4.95	0.17	7.35	0.22	7.05	0.28
PPMVD SO_3, As Sampled	15.8	0.1	16.1	0.2	16.0	0.3	12.4	0.3	13.1	0.3	16.6	0.3	6.7	0.2	7.0	0.3	11.0	0.2	7.3	0.2	11.0	0.3	11.4	0.4
PPMVD SO_3, @ 3% Oxygen	20.9	0.1	21.2	0.3	21.2	0.4	16.1	0.5	17.3	0.5	22.3	0.4	8.7	0.3	9.8	0.4	14.8	0.3	9.7	0.3	14.5	0.4	15.0	0.5
GAS PHASE SO_3, PPMVD as Sampled	18.4	0.1	17.3	0.3	17.4	1.1	13.7	0.5	13.7	0.5	20.6	0.4	9.7	0.4	8.0	0.5	12.0	0.4	9.2	0.4	11.6	0.5	13.1	0.6
GAS PHASE SO_3, PPMVD @ 3% O_2	**24.4**	**0.1**	**22.7**	**0.4**	**22.9**	**1.5**	**17.8**	**0.7**	**18.2**	**0.8**	**27.8**	**0.7**	**12.5**	**0.5**	**11.2**	**0.7**	**16.1**	**0.6**	**12.2**	**0.6**	**15.4**	**0.7**	**17.2**	**0.7**
TOTAL PHASE SO_3, PPMVD as Sampled	19.0	0.2	17.8	0.4	17.8	1.2	14.7	0.7	14.5	0.7	21.5	0.6	10.4	0.6	9.0	0.8	13.2	0.6	10.8	0.6	11.8	0.7	15.4	0.8
TOTAL PHASE SO_3, PPMVD @ 3% O_2	**25.2**	**0.2**	**23.4**	**0.6**	**23.5**	**1.7**	**19.0**	**0.9**	**19.3**	**1.2**	**28.9**	**0.9**	**13.5**	**0.8**	**12.6**	**1.1**	**17.7**	**0.9**	**14.2**	**0.8**	**15.6**	**0.9**	**20.2**	**1.1**
% SO_3 in SOLIDS [filter plug/total]	2.9%	41.7%	2.8%	35.7%	2.4%	14.3%	6.4%	21.7%	5.5%	34.7%	4.0%	24.4%	7.0%	34.1%	10.6%	35.7%	9.2%	32.6%	14.1%	28.6%	1.3%	23.9%	15.0%	29.6%

SO_3 FIELD SAMPLING DATA SHEET

PLANT	AES Greenidge
LOCATION	Air Heater Inlet
DUCT DIMENSIONS	
DUCT AREA	
DATE	
TIME	Start- - Stop-
SAMPLE BOX	
METER BOX	NuTech #
PITOT TUBE DESC	
OPERATOR(S)	

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	
%H_2O (Assumed)	6
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	xxxx

(Assumed=)

WATER BATH SETTING	140
PROBE HTR SETTING	530
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page 1 of 1

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
A-	0 - 10														
	10 - 20														
	20 - 30														
B-	~~30 - 40~~														
	~~40 - 50~~														
	~~50 - 60~~														
AVERAGE															

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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11/11/04

SO_3 FIELD SAMPLING DATA SHEET

PLANT	AES Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	
DUCT AREA	
DATE	11/17/04 1
TIME	Start- 1116 Stop- 1156
SAMPLE BOX	
METER BOX	NuTech # 4
PITOT TUBE DESC	
OPERATOR(S)	DJK

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	29.60
%H_2O (Assumed)	6
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	.960
C(p)	
K	XXXX

WATER BATH SETTING	140		Page _____ of _____
PROBE HTR SETTING	530		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
			5			(Assumed=)			4	2	3				
						735.53									
A-	0 - 10		310	~~[illegible]~~	80	736.65	61	60	137	555	138	8			
	10 - 20		310	~~[illegible]~~	80	737.80	61	60	138	539	147	8	6.6	13.5	
	20 - 30														
B-	~~20-30~~ 30 - 40		317	0.02	80	738.92	61	60	117	544	146	8.5	5.7	14.4	
	~~30-40~~ ~~40-50~~		318		80	740.06	61	61	121	547	147	8.5	5.6	14.5	
	50 - 60														
AVERAGE			313.3	.02	80	4.53	60.6		123.3		144.5		6.2		

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY.

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	AES Greenidge
LOCATION	Stack
DUCT DIMENSIONS	
DUCT AREA	
DATE	
TIME	Start- Stop-
SAMPLE BOX	
METER BOX	NuTech #
PITOT TUBE DESC	
OPERATOR(S)	

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	
%H_2O (Assumed)	6
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	xxxx

WATER BATH SETTING	140
PROBE HTR SETTING	530
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page 1 of 1

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
D- 50 3/8	0 - 10														
	10 - 20														
	20 - 30														
	30 - 40														
	40 - 50														
	50 - 60														
AVERAGE			312.8			5.52	56.3		138		146.2		6.2		

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	AES Greenidge
LOCATION	Air Heater Inlet
DUCT DIMENSIONS	
DUCT AREA	
DATE	
TIME	Start- Stop-
SAMPLE BOX	
METER BOX	NuTech #
PITOT TUBE DESC	NA
OPERATOR(S)	

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	
%H_2O (Assumed)	6
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	xxxx

WATER BATH SETTING	140
PROBE HTR SETTING	530
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
A-	0 - 10			NA											
	10 - 20														
	20 - 30														
B-	30 - 40														
	40 - 50														
	50 - 60														
AVERAGE			654.1		20	2.737	178.3		330		127		2.9		

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	AES Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	
DUCT AREA	
DATE	11/17/04 - 2
TIME	Start- 1500 Stop- 1540
SAMPLE BOX	
METER BOX	NuTech # 4
PITOT TUBE DESC	
OPERATOR(S)	DJK

AMBIENT TEMP [—uo°F]	66
BAROMETRIC PRESSURE [" Hg]	29.56
%H_2O (Assumed)	6
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	.966
C(p)	
K	XXXX

WATER BATH SETTING	140		
PROBE HTR SETTING	530		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM C O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						742.85									
A-	0 - 10		301	0.3	5	743.97	60	58	124	551	146	8	6.3	13.9	
	10 - 20		302		5	745.04	62	59	122	544	147	8	6.3	13.9	
	20 - 30														
B-	~~20 - 30~~ 30 - 40		304	0.3	5	746.18	64	61	124	551	146	8	6.4	13.8	
	~~30 - 40~~ ~~40 - 50~~		306		5	747.22	64	61	123	557	147	8	6.4	13.8	
	50 - 60														
AVERAGE			303.3			4.37	61.1		123.3		146.5	6.4			

(Assumed=) 4 2 3

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	AES Greenidge
LOCATION	Stack
DUCT DIMENSIONS	
DUCT AREA	
DATE	11/17/04
TIME	Start- Stop-
SAMPLE BOX	
METER BOX	NuTech # N-5
PITOT TUBE DESC	
OPERATOR(S)	

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	
%H_2O (Assumed)	6
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.000
C(p)	
K	xxxx

WATER BATH SETTING	140
PROBE HTR SETTING	530
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
D- 50 3/8	0 - 10		312												
	10 - 20		312												
	20 - 30		313												
	30 - 40		313												
	40 - 50		314												
	50 - 60														
AVERAGE			312.8			5.34	67.9		147.2		146.8		6.4		

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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11/11/04

Reduced Cond Test

SO_3 FIELD SAMPLING DATA SHEET

PLANT	AES Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	
DUCT AREA	
DATE	11/18/04 Test 3
TIME	Start-0420 Stop-0140
SAMPLE BOX	
METER BOX	NuTech # N-4
PITOT TUBE DESC	
OPERATOR(S)	JEL/DJK

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	29.50
%H_2O (Assumed)	6
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	0.966
C(p)	
K	xxxx

WATER BATH SETTING	140
PROBE HTR SETTING	530
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						748.52									
A-	0 - 10		268	0.02	10	749.68	57	56	90	542	147	7	10.0	10.5	
	10 - 20		272		10	750.81	58	57	91	548	146	7	9.9		
	20 - 30														
B-	~~30 - 40~~ 20-30		276	0.03	10	751.88	61	58	84	541	146	7	9.7	10.4	
	~~40 - 50~~ 30-40		280	0.02	10	752.95	62	60	97	543	146	7	9.9		
	50 - 60														
AVERAGE			274	0.03		4.43	58.6		90.5		146.3		7.7		

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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11/11/04

Reduced Load Test

SO_3 FIELD SAMPLING DATA SHEET

PLANT	AES Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	
DUCT AREA	
DATE	11/18/04 - #2
TIME	Start- ~~0540~~ Stop- TEST 5-1
SAMPLE BOX	5C52C 2622
METER BOX	NuTech # N-4
PITOT TUBE DESC	
OPERATOR(S)	

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	29.50
%H_2O (Assumed)	6
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	0.966
C(p)	
K	xxxx

WATER BATH SETTING	140	Page _____ of _____	
PROBE HTR SETTING	530		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM C O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						754.25									
A-	0 - 10		275	0.02	10	755.34	65	63	120	541	144	8	9.9	9.9	
	10 - 20		273	0.02	10	756.40	66	63	130	549	147	8	10.0	10.3	
	20 - 30														
B-	~~20-30~~ ~~30-40~~		281	0.02	10	757.46	67	64	144	550	147	8	~~10.9~~	~~9.4~~	
	~~30-40~~ ~~40-50~~		282	0.02	10	758.46	68	65	146	551	147	8	9.3	11.0	
	50 - 60														
AVERAGE			277.8	.02		1.21	65.1		135		146.3		9.7		

REMARKS: Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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11/11/04

SO_3 FIELD SAMPLING DATA SHEET

PLANT	AES Greenidge
LOCATION	Air Heater Inlet
DUCT DIMENSIONS	
DUCT AREA	
DATE	
TIME	Start- Stop-
SAMPLE BOX	
METER BOX	NuTech #
PITOT TUBE DESC	
OPERATOR(S)	

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	
%H_2O (Assumed)	6
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	xxxx

WATER BATH SETTING	140
PROBE HTR SETTING	530
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page ____ of ____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
A-	0 - 10														
	10 - 20														
	20 - 30														
B-	~~30 - 40~~														
	~~40 - 50~~														
	~~50 - 60~~														
AVERAGE			673		20	2.388	128.2		127.3		128.7		3.0		

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY.

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11/11/04

SO_3 FIELD SAMPLING DATA SHEET

PLANT	AES Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	
DUCT AREA	
DATE	11/18/04 Test 5
TIME	Start-14:39 Stop-
SAMPLE BOX	
METER BOX	NuTech # N-4
PITOT TUBE DESC	
OPERATOR(S)	DJK

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	29.40
%H_2O (Assumed)	6
PROBE LENGTH [ft]	6
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	0.966
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	530
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						759.58									
A-	0 - 10		301	0.3	10	760.76	68	65	147	541	145	8	6.5	13.6	
	10 - 20		303	0.3	10	761.80	69	66	145	551	146	8	6.1	14.0	
	20 - 30														
	~~20 - 30~~														
B-	~~30 - 40~~		308	0.2	10	762.84	71	68	146	549	147	8	6.3	13.8	
	~~30 - 40~~ ~~40 - 50~~		309	0.2	10	763.73	71	69	145	552	147	8	6.5	13.7	
	50 - 60														
AVERAGE			305.3	.025		4.15	68.4		145.8		146.3		6.4		

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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11/11/04

SO_3 FIELD SAMPLING DATA SHEET

PLANT	AES Greenidge
LOCATION	Stack
DUCT DIMENSIONS	
DUCT AREA	
DATE	
TIME	Start- Stop-
SAMPLE BOX	
METER BOX	NuTech #
PITOT TUBE DESC	
OPERATOR(S)	

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	
%H_2O (Assumed)	6
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	530
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
D- 50 3/8	0 - 10														
	10 - 20														
	20 - 30														
	30 - 40														
	40 - 50														
	50 - 60														
AVERAGE			313.3			6.40	64.9		1:08		146.5		6.7		

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY.

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11/11/04

Run 1

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	AIR HEATER OUTLET
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/29/06
TIME	Start- 1000 Stop- 1040
SAMPLE BOX	N-4
METER BOX	NuTech # 4
PITOT TUBE DESC	NA
OPERATOR(S)	R. ODA & D. OLSEN

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	30.06
%H_2O (Assumed)	10
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	.983
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

1.2

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%] -	CONTROL ROOM DUCT TEMP [°F]
						810.673								
8"	0 - 10	-13.22	302	~~3LPM~~	3LPM	811.441	41	39	144	421	10	7.4%		
8"	10 - 20	-12.86	304		3LPM	812.583	41	39	145	464	13	6.9		
8"	~~20 - 30~~	Stop Change plug				812.703	~~43~~	~~31~~	~~139~~	~~442~~	~~14~~	~~7.3~~		
8"	~~20 - 30~~ ~~30 - 40~~	-13.39	305		3LPM	813.62	43	41	139	442	14	7.3		
8"	~~30 - 40~~ ~~40 - 50~~	-13.16	305		3LPM	814.442	44	41	140	479	18	7.1		
8"	50 - 60													
AVERAGE		-13.16	304			3.769	41.1		142			7.2		

REMARKS Pre-Leak Check: Good Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG–SO_3						
PROBE–SO_3						
CONDENSER–SO_3						
BLANK						
IMPINGER (H_2O_2)–SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	STACK Test #1
DUCT DIMENSIONS	
DUCT AREA	
DATE	3-26-07
TIME	Start- 1003 Stop- 1103
SAMPLE BOX	
METER BOX	NuTech # N3
PITOT TUBE DESC	
OPERATOR(S)	K. CERAR & B. SLIFER R. Douglas

AMBIENT TEMP [—uo°F]	40
BAROMETRIC PRESSURE [" Hg]	30.06
%H_2O (Assumed)	10 %
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	10.6
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed= 3 2)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [°F]
	1003					434.26								
8"	0 - 10	-.503	187		1.2 V.A.N	435.22	55	54	143	529	9	9.6		
8"	10 - 20		186			436.21	57	54	154	551	11	9.5		
8"	20 - 30	-.571	186			437.29	58	55	157	560	11	9.6		
8"	30 - 40		186			438.26	58	56	151	561	11	9.6		
8"	40 - 50		186			439.15	59	57	149	562	11	9.8		
8"	50 - 60	-.569	157			440.19	59	57	153	561	11	9.6		
AVERAGE		-0.548	186.3			5.944	56.6		151.2			9.6		

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG–SO_3						
PROBE–SO_3						
CONDENSER–SO_3						
BLANK						
IMPINGER (H_2O_2)–SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	AIR HEATER OUTLET -TRST #7
DUCT DIMENSIONS	
DUCT AREA	
DATE	
TIME	Start- 1220 Stop- 1300
SAMPLE BOX	
METER BOX	NuTech # 4
PITOT TUBE DESC	
OPERATOR(S)	R. ODA & D. OLSEN

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	30.03
%H_2O (Assumed)	
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	.985
C(p)	
K	XXXX

WATER BATH SETTING	140		Page _____ of _____
PROBE HTR SETTING	550		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

7.7

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [°F]
						816.396								
8"	0 - 10	-13.10	307		3LPM	817.4	47	44	142	460	6	7.6		
8"	10 - 20		307		3LPM	818.4	49	46	141	490	7			
8"	20 - 30		307		3LPM	819.3	49	46	140	485	7	7.2		
8"	30 - 40	-13.9	308		3LPM	820.211	50	47	139	478	13	6.5		
8"	40 - 50													
8"	50 - 60													
						3.815								
AVERAGE		-13.5	307.3			~~2.904~~	48.8	45.8	140.5	478.3		7.1		

REMARKS: Pre-Leak Check: Good — Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG–SO_3						
PROBE–SO_3						
CONDENSER–SO_3						
BLANK						
IMPINGER (H_2O_2)–SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	STACK – Test #2
DUCT DIMENSIONS	
DUCT AREA	
DATE	3-29-07
TIME	Start-1240 Stop- 1350
SAMPLE BOX	
METER BOX	NuTech # N-3
PITOT TUBE DESC	
OPERATOR(S)	K. CERAR & B. SLIFER K Douglas

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	30.03
%H_2O (Assumed)	10%
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	xxxx 11.0

(Assumed=)

WATER BATH SETTING	150
PROBE HTR SETTING	550
DUCT X-SECTION	circ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [°F]
	1240					440.700								
8'	0 - 10		184		1 rev/min	441.75	55	58	144	560	11	9.5		
8'	10 - 20		186			442.61	59	59	147	554	11	9.3		
8'	20 - 30		186			443.67	60	58	151	562	11	9.4		
8'	30 - 40		186			444.50	60	58	153	554	11	9.4		
8'	40 - 50		186			445.505	61	59	151	565	11	9.6		
8'	50 - 60													
AVERAGE			185.6			4.805	59.6	58.4	149.2	559.0		9.44		

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG–SO_3						
PROBE–SO_3						
CONDENSER–SO_3						
BLANK						
IMPINGER (H_2O_2)–SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY.

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	AIR HEATER OUTLET
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/29/07
TIME	Start- 1515 Stop-
SAMPLE BOX	
METER BOX	NuTech # 4
PITOT TUBE DESC	
OPERATOR(S)	R. ODA & D. OLSEN

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	29.97
$\%H_2O$ (Assumed)	10
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	xxxx

7.8

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? (rect ?) other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [°F]
						822.175								
8'	0 - 10	-13.17	306		3LPM	823.06	51	47	142	381	6	7.5		
8'	10 - 20	-13.25	305		3LPM	824.08	51	49	139	428	7	6.7		
8'	20 - 30		307		3LPM	824.93	52	49	140	430	8	7.6		
8'	30 - 40	-13.89	307		3LPM	826.194	52	49	141	434	13	7.2		
8'	40 - 50													
8'	50 - 60													
AVERAGE	40	-13.10	306.3			4.019	50		140.5			7.25		

REMARKS Pre-Leak Check: Post-Leak Check: OK @ 10" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG–SO_3						
PROBE–SO_3						
CONDENSER–SO_3						
BLANK						
IMPINGER (H_2O_2)–SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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03/20/07

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	STACK
DUCT DIMENSIONS	
DUCT AREA	
DATE	
TIME	Start- 1517 Stop-
SAMPLE BOX	
METER BOX	NuTech # N-3
PITOT TUBE DESC	
OPERATOR(S)	K. CERAR & B. SLIFER K. Douglas

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	29.97
%H_2O (Assumed)	10%
PROBE LENGTH [ft]	8'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	XXXX

WATER BATH SETTING	140		Page _____ of _____
PROBE HTR SETTING	550		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

10.5

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [°F]
		3.17				446.304								
8'	0 - 10	-.519	186			447.25	71	72	158	552	9	9.3		
8'	10 - 20		187			448.~~35~~	73	73	149	548	9	9.2		
8'	20 - 30	-.536	186			449.12	74	74	151	575	9	9.2		
8'	30 - 40		186			450.10	75	75	157	560	9	9.2		
8'	40 - 50		186			451.10	76	76	157	558	9	9.2		
8'	50 - 60	-.640	184			452.120	77	77	156	567	9	9.2		
AVERAGE	60	-.565	187.5			5.816	74.4		154.7			9.22		

REMARKS Pre-Leak Check: ✓ Post-Leak Check: ✓

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG–SO_3						
PROBE–SO_3						
CONDENSER–SO_3						
BLANK						
IMPINGER (H_2O_2)–SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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Run 1

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	SCR INLET
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/30/07
TIME	Start- 1137 Stop- 1217
SAMPLE BOX	
METER BOX	NuTech # 3
PITOT TUBE DESC	
OPERATOR(S)	B. GREEN & R. DOUGLAS

AMBIENT TEMP [—uo°F]	98
BAROMETRIC PRESSURE [" Hg]	
%H_2O (Assumed)	
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	XXXX

WATER BATH SETTING	140		Page _____ of _____
PROBE HTR SETTING	550		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [°F]
						452.752								
8'	0 - 10		707			453.55	90	90	153	562	5			
8'	10 - 20		709			454.44	86	86	149	541	6	3.2		
8'	20 - 30		636			455.22	85	86	146	547	6			
8'	30 - 40		714			456.015	84	84	144	555	5	5.8		
8'	40 - 50													
8'	50 - 60													
AVERAGE			691.5			3.263	86.3		148			4.5		

REMARKS Pre-Leak Check: ✓ Post-Leak Check: ✓

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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03/20/07

Run One

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	SCR OUTLET
DUCT DIMENSIONS	
DUCT AREA	
DATE	3-30-07
TIME	Start- 1137 Stop- 1218
SAMPLE BOX	
METER BOX	NuTech # M5
PITOT TUBE DESC	
OPERATOR(S)	B. GREEN & R. DOUGLAS

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	
%H_2O (Assumed)	10%
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	0.991
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [°F]
						680.784								
8'	0 - 10		667		3LPM	681.7	80	79	146	607	4			
8'	10 - 20		678		3LPM	682.8	80	78	147	608	4	3.8		
8'	20 - 30		677		3LPM	682.9	78	73	146	672	3			
8'	30 - 40		670		3LPM	684.951	76	71	140	664	4	6.8 -	soot blow	
8'	40 - 50													
8'	50 - 60													
AVERAGE			673			4.161	76.8		144.8			5.3		

REMARKS Pre-Leak Check: Good Post-Leak Check: Good

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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03/20/07

Super heater soot blow during last 10 min of test

Run 2

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	SCR INLET
DUCT DIMENSIONS	
DUCT AREA	
DATE	3-30-07
TIME	Start-1533 Stop- 1414
SAMPLE BOX	
METER BOX	NuTech # N 3
PITOT TUBE DESC	
OPERATOR(S)	B. GREEN & R. DOUGLAS

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	29.74
%H_2O (Assumed)	
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	xxxx

WATER BATH SETTING	140		
PROBE HTR SETTING	550		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [°F]
						457.223								
8'	0 - 10		679			458.23	89	87	146	545	6			
8'	10 - 20		723			459.19	90	88	147	545	6	10.7		
8'	20 - 30		739			460.28	90	89	149	545	7			
8'	30 - 40		729			461.20	91	90	147	545	8			
8'	40 - 50													
8'	50 - 60													
AVERAGE			717.5			3.977	89.5		147.3			10.7		

REMARKS Pre-Leak Check: ✓ Post-Leak Check: ✓

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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03/20/07

Run 2

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	SCR OUTLET
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/30/07
TIME	Start- 1333 Stop- 1414
SAMPLE BOX	
METER BOX	NuTech # 5
PITOT TUBE DESC	
OPERATOR(S)	B. GREEN & R. DOUGLAS

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	29.74
%H_2O (Assumed)	10
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	.991
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [°F]
						688.559								
8'	0 - 10		646		3LPM	689.54	81	85	138	542	4			
8'	10 - 20		661		3LPM	690.6	83	86	142	639	5	7.8		
8'	20 - 30		668		3LPM	691.59	83	85	146	663	5			
8'	30 - 40		664		3LPM	692.602	84	85	140	669	5			
8'	40 - 50													
8'	50 - 60													
AVERAGE			659.8			4.043	84		141.5			7.8		

REMARKS Pre-Leak Check: Good Post-Leak Check: Good

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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03/20/07

Run 3

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	SCR INLET
DUCT DIMENSIONS	
DUCT AREA	
DATE	
TIME	Start- 1552 Stop-
SAMPLE BOX	
METER BOX	NuTech # N3
PITOT TUBE DESC	
OPERATOR(S)	B. GREEN & R. DOUGLAS

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	24.71
%H_2O (Assumed)	
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	XXXX

WATER BATH SETTING	140		
PROBE HTR SETTING	550		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [°F]
						462.580								
8'	0 - 10		670			463.503	92	92	138	546	8			
8'	10 - 20		729			464.34	92	92	140	561	8	11.1		
8'	20 - 30		728			465.22	92	92	137	549	8	11.3		
8'	30 - 40		729			466.100	92	92	136	551	8			
8'	40 - 50													
8'	50 - 60													
AVERAGE			714			3.52	92		137.75			11.2		

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

stopped at 12.8 mins vol was 463.768

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03/20/07

Run 3

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	SCR OUTLET
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/30/07
TIME	Start- 1552 Stop- 1632
SAMPLE BOX	
METER BOX	NuTech # 5
PITOT TUBE DESC	
OPERATOR(S)	B. GREEN & R. DOUGLAS

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	29.71
%H_2O (Assumed)	
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	.991
C(p)	
K	xxxx

WATER BATH SETTING	140		
PROBE HTR SETTING	550		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [°F]
						697.020								
8'	0 - 10		652		3LPM	698.031	84	80	136	563	6	9.2		
8'	10 - 20		660		5LPM	699.12	83	78	141	606	8			
8'	20 - 30		660			700.25	83	78	141	608	8	9.4		
8'	30 - 40		660			701.368	82	78	141	608	8			
8'	40 - 50													
8'	50 - 60													
AVERAGE			651.3			4.348	80	75	139.8			9.3		

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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03/20/07

Run One

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	AIR HEATER OUTLET
DUCT DIMENSIONS	
DUCT AREA	
DATE	5-2-07
TIME	Start- 1050 Stop- 1202
SAMPLE BOX	
METER BOX	NuTech # N-5
PITOT TUBE DESC	10ft SG
OPERATOR(S)	RPD BPS

AMBIENT TEMP [°F]	48°F
BAROMETRIC PRESSURE [" Hg]	29.41
$\%H_2O$ (Assumed)	8%
PROBE LENGTH [ft]	10
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.883
Y	.991
C(p)	
K	XXXX

WATER BATH SETTING	150
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)

WET MOLECULAR WEIGHT (Assumed)

(Assumed=)

TRAVRSE POINT 24/72 [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
~~B/2~~						867.67									
A-2	0 - 10					868.26	60	63	140	550	NA	10			
A-2	10 - 20					869.05	60	63	145	552		13	12.7		
B-1	20 - 30					870.08	60	63	144	545		10	10.7		
B-2	30 - 40					871.10	61	63	144	551		10	10.3		
C-1	40 - 50					872.15	61	65	144	555		10	10.6		
C-2	50 - 60					873.15	62	65	143	543		11	10.5		
	A port is on the bottom														
AVERAGE						5.53	62	.2	143.3				10.9		

REMARKS Pre-Leak Check: Good Post-Leak Check: Good

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG–SO_3						
PROBE–SO_3						
CONDENSER–SO_3						
BLANK						
IMPINGER (H_2O_2)–SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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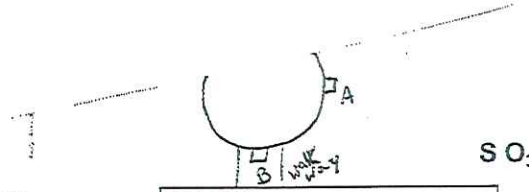
04/27/07



Run One

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	STACK
DUCT DIMENSIONS	
DUCT AREA	
DATE	5/2/07
TIME	Start- 1044 Stop- 1215
SAMPLE BOX	
METER BOX	NuTech # 1
PITOT TUBE DESC	
OPERATOR(S)	BWG & KRC

AMBIENT TEMP [°F]	60
BAROMETRIC PRESSURE [" Hg]	29.41
%H_2O (Assumed)	9
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.894
Y	0.970
C(p)	
K	xxxx

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page 1 of 1

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

3 points per 2 ports. 15 minutes per point / 10 minute readings

.1 cu. ft/min (Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM CO_2 [%]	CONTROL ROOM ~~DUCT TEMP~~ [—uo°F]
						512.849									
Port A-1	0 - 10	NA	171		.1 ft^3/min	514.02	63	60	143	544	NA	5			
1 - 2	10 - 20		172		"	514.98	63	61	140	508		4	7.3		
2/3	20 - 30		172		"	515.96	64	61	138	497		4	7.0		
3	30 - 40		172		"	517.05	64	62	140	495		4	7.3		
3/B-1	40 - 50		172		"	518.12	66	63	142	499		4	7.2		
B-1	50 - 60		172		"	519.24	65	63	139	503		4	7.2		
2	60 - 70		172		"	520.32	65	63	139	504		4	7.2		
2/B-3	70 - 80		173		"	521.42	66	64	140	495		4	7.2		
B-3	80 - 90		173		"	522.550	66	64	139	495		4	7.3		
	~~90-96~~														
AVERAGE			172.1			9.701	63.5		140				7.2		

REMARKS Pre-Leak Check: Good Post-Leak Check: Good

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG–SO_3						
PROBE–SO_3						
CONDENSER–SO_3						
BLANK						
IMPINGER (H_2O_2)–SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

port change at 45 minutes

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04/27/07

Run 2

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	AIR HEATER OUTLET
DUCT DIMENSIONS	
DUCT AREA	
DATE	5-2-07
TIME	Start-1322 Stop-1426
SAMPLE BOX	
METER BOX	NuTech # N-5
PITOT TUBE DESC	8ft probe SO_3
OPERATOR(S)	RBJ BJS

AMBIENT TEMP [°F]	~~[illegible]~~ 55°
BAROMETRIC PRESSURE [" Hg]	29.47
%H_2O (Assumed)	8%
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.883
Y	.991
C(p)	
K	xxxx

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

Stack CO_2

(Assumed=)

TRAVRSE POINT 24/72 [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM $<O_2$ [%]	CONTROL ROOM DUCT TEMP [—uoF]
						874.330									
A1	0 - 10		301			875.48	65	67	144	549	NA	10	9.2		
A2	10 - 20		303			876.32	65	68	144	543		10	8.8	11.2	
B1	20 - 30		300			877.38	66	68	143	554		10	8.7	11.5	
B2	30 - 40		303			878.15	66	69	144	554		10	8.7	11.6	
C1	40 - 50		291			879.10	67	69	143	550		10	9.2	11.1	
C2	50 - 60		299			880.055	67	69	144	546		10	9.2	11.2	
	A-Port is on the bottom														
AVERAGE			299.5			5.775	67.2		143.7				9.0	11.3	

REMARKS Pre-Leak Check: Good Post-Leak Check: Good

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG–SO_3				–		
PROBE–SO_3						
CONDENSER–SO_3						
BLANK						
IMPINGER (H_2O_2)–SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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04/27/07

Run Two

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	STACK
DUCT DIMENSIONS	
DUCT AREA	
DATE	5/2/07
TIME	Start- 1312 Stop- 1443
SAMPLE BOX	
METER BOX	NuTech #
PITOT TUBE DESC	
OPERATOR(S)	BWG & KRC

AMBIENT TEMP [°F]	60
BAROMETRIC PRESSURE [" Hg]	29.47
%H_2O (Assumed)	9
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.894
Y	0.970
C(p)	NA
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? / rect ? / other:
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

Page 1 of 1

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	~~CONTROL ROOM~~ CO_2 [%]	~~CONTROL ROOM~~ DUCT TEMP [—uo°F]
						526.300									
B-1	0-10	NA	172		.1 ft^3/min	527.30	68	66	142	498	NA	4			
1/2	10-20	↓	171		"	528.34	69	67	140	492		4	7.5		
2	20-30		172		"	529.33	71	69	140	510		4	7.2	13.0	
3	30-40		172		"	530.36	73	71	141	532		4	7.0	13.2	
3/A-1	40-50		173		"	531.52	76	73	139	513		4	6.9	13.3	
A-1	50-60		172		"	532.36	78	75	143	501		4	7.0	13.2	
2	60-70		172		"	533.34	78	75	145	515		4	7.1	13.1	
2/3	70-80		172			534.33	78	76	138	523		4	7.2	13.0	
3	80-90	↓	172			535.337	78	76	139	525		4	7.2	13.0	
AVERAGE			172			9.037	73.2		140.8				7.1	13.1	

REMARKS Pre-Leak Check: Good Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG–SO_3						
PROBE–SO_3						
CONDENSER–SO_3						
BLANK						
IMPINGER (H_2O_2)–SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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04/27/07

Run 3

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	AIR HEATER OUTLET Run-3
DUCT DIMENSIONS	
DUCT AREA	
DATE	5-2-07
TIME	Start-1527 Stop- 1635
SAMPLE BOX	
METER BOX	NuTech # N-5
PITOT TUBE DESC	8 ft SO3
OPERATOR(S)	RPD BPS

AMBIENT TEMP [°F]	61
BAROMETRIC PRESSURE [" Hg]	29.47
%H_2O (Assumed)	8 8
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.883
Y	.981
C(p)	
K	XXXX

WATER BATH SETTING	140		
PROBE HTR SETTING	350		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

CO_2

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [--uo°F]
						881.550									
	0 - 10		301			882.71	65	66	154	554	NA	10	9.3	11.0	
	10 - 20		303			883.72	66	67	150	552		10	8.7	11.6	
	20 - 30		301			884.53	66	67	142	553		10	9.0	11.3	
	30 - 40		303			885.44	66	67	143	554		14	8.8	11.5	
	40 - 50		292			886.47	66	68	144	552		15	9.3	10.9	
	50 - 60		300			887.440	66	68	144	548		15	9.0	11.3	
AVERAGE			306			5.890		66.5	146.2				9.0	11.3	

REMARKS Pre-Leak Check: Good Post-Leak Check: Good

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG–SO_3						
PROBE–SO_3						
CONDENSER–SO_3						
BLANK						
IMPINGER (H_2O_2)–SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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04/27/07

Run 3

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	STACK
DUCT DIMENSIONS	
DUCT AREA	
DATE	5/2/07
TIME	Start- 1517 Stop- 1645
SAMPLE BOX	
METER BOX	NuTech # 1
PITOT TUBE DESC	
OPERATOR(S)	BWG ERC

AMBIENT TEMP [°F]	66
BAROMETRIC PRESSURE [" Hg]	29.47
%H_2O (Assumed)	9
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.894
Y	0.970
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page 1 of 1

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	~~CONTROL ROOM~~ CO_2 [%]	DUCT TEMP [—uo°F]
						536.721									
A-1	0-10		173		.1 ft^3/min	537.72	79	78	146	509	NA	5	7.5	12.7	
1/2	10-20		172		"	538.73	79	78	140	499		6	7.6	12.6	
2	20-30		172		"	539.75	78	78	139	492		6	7.5	12.7	
2/	30-40		172		"	540.84	79	78	137	497		6	7.4	12.8	
3/B-1	40-50		172		"	541.99	78	78	143	498		6	7.4	12.8	
~~1/B-2~~	50-60		172		"	543.04	79	79	141	497		6	7.4	12.8	
B-2	60-70		172		"	544.03	79	79	141	497		6	7.4	12.8	
2/3	70-80		172		"	545.05	79	79	139	496		6	7.4	12.8	
3	80-90		172		"	546.106	80	79	138	494		6	7.4	12.8	
AVERAGE			172			9.385		78.7	140.4				7.4	12.8	

REMARKS Pre-Leak Check: Good Post-Leak Check: Good

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG-SO_3						
PROBE-SO_3						
CONDENSER-SO_3						
BLANK						
IMPINGER (H_2O_2)-SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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SO_3 FIELD SAMPLING DATA SHEET

TEST 1

PLANT	GREENIDGE
LOCATION	SCR INLET
DUCT DIMENSIONS	
DUCT AREA	
DATE	10-4-07
TIME	Start-1530 Stop- 1630
SAMPLE BOX	
METER BOX	NuTech # 3
PITOT TUBE DESC	
OPERATOR(S)	BS, DL

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	27.57
%H_2O (Assumed)	
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.0446
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F] (1)	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP (4) [°F] inlet	METER TEMP (4) [°F] outlet	CONDENSER TEMP [°F] (3)	PROBE TEMP [°F] (2)	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						250.80									
	0 - 10		636	.04	90	251.62	88	86	140	520		10	4.3		
	10 - 20		636	.04	80	252.60	88	86	140	530		15	—		
	20 - 30	STOP	636			253.40	88	86					—		
	30 - 40	35.2				253.74									
	40 - 50														
	50 - 60														
AVERAGE			636	0.04		2.94	87		140				4.3		

REMARKS Pre-Leak Check: OK Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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SO_3 FIELD SAMPLING DATA SHEET

TEST 1

PLANT	GREENIDGE
LOCATION	SCR OUTLET
DUCT DIMENSIONS	
DUCT AREA	
DATE	10-4-07
TIME	1525 Start- ~~1525~~ Stop- 1625
SAMPLE BOX	
METER BOX	NuTech # 5
PITOT TUBE DESC	
OPERATOR(S)	BS, DL

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	29.59
%H_2O (Assumed)	
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	0.991
C(p)	
K	XXXX

WATER BATH SETTING	140		Page _____ of _____
PROBE HTR SETTING	550		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP (1) [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] (4) inlet	METER TEMP [°F] (7) outlet	CONDENSER TEMP (3) [°F]	PROBE TEMP (2) [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						406.94									
	0 - 10		688			407.64	86	86	143	630		—		—	
	10 - 20		692			408.11	86	85	143	639		—		—	
	20 - 30		690			408.52	86	85	141	527		20	12.7	~~12.7~~	
	30 - 40		699			409.18	85	86	141	450					
	40 - 50		699			409.85	86	87	142	432		25	8.5		
	50 - 60		702			410.56	86	88	142	425					
AVERAGE			695			3.62	86.0		142				10.6		

REMARKS Pre-Leak Check: OK Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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Test 1

SO_3 FIELD SAMPLING DATA SHEET

PLANT	AES Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	
DUCT AREA	
DATE	10/4/07
TIME	Start-1520 Stop-
SAMPLE BOX	
METER BOX	NuTech # 12
PITOT TUBE DESC	
OPERATOR(S)	BJN / KZ

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	29.57
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	xxxx

WATER BATH SETTING			
PROBE HTR SETTING			
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F] 3	PROBE TEMP [°F] 2	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						392.419									
	0 - 10	-	305	-	10	393.500	85	85	141	475	60	5.0			
	10 - 20	-	316	-	10	-	85	84	140	483	58	15.0			
	20 - 30	-	319	-	10	395.990	85	85	140	476	58	10.0			
	30 - 40	-	314	-	10	397.190	85	85	140	430	59	15.0			
	40 - 50	-	328	-	10	398.650	85	85	140	499	60	14.0		6.5	
	50 - 60	-	317	-	10	400.270	85	85	140	496	60	14.0			
	60 - 63														
AVERAGE			318.2			7.351	84.9		142.2					6.5	

REMARKS Pre-Leak Check: 0.000/5" Hg Post-Leak Check: 0.000/15" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

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SO_3 FIELD SAMPLING DATA SHEET

Test 1

PLANT	AES Greenridge
LOCATION	Stack
DUCT DIMENSIONS	
DUCT AREA	
DATE	10-4-07
TIME	Start- 1541 Stop- 1641
SAMPLE BOX	
METER BOX	Nutech # Clean Air
PITOT TUBE DESC	NA
OPERATOR(S)	JM BC

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	29.59
%H_2O (Assumed)	13%
PROBE LENGTH [ft]	81
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.004
C(p)	NA
K	XXXX

WATER BATH SETTING	
PROBE HTR SETTING	
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

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DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

Impl

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft³]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						184.718 184.350									
	0 - 10		179	NA	10	185.750	80	79	140	547	62	5	7.1		
	10 - 20		179			186.780	81	79	141	549	62	5	7.0		
	20 - 30		181			187.800	83	81	141	550	60	5	7.0		
	30 - 40		178			188.830	86	82	140	550	60	5	6.9		
	40 - 50		177			189.780	88	84	140	550	60	5	7.0		
	50 - 60		178			190.756	88	84	140	550	60	5	7.0		
AVERAGE			175.7			6.038	82.9		140.3				7.0		

REMARKS Pre-Leak Check: 0.000 @ 10" Hg Post-Leak Check: 0.000 @ 8" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft³/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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SO_3 FIELD SAMPLING DATA SHEET

TEST 2

PLANT	AES GREENRIDGE
LOCATION	SCR INLET
DUCT DIMENSIONS	
DUCT AREA	
DATE	10/5/07
TIME	Start- 0846 Stop- 0948
SAMPLE BOX	
METER BOX	NuTech # 3
PITOT TUBE DESC	
OPERATOR(S)	BS

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	
%H_2O (Assumed)	
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.046
C(p)	
K	XXXX

WATER BATH SETTING	140		
PROBE HTR SETTING	550		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						254.02									
	0 - 10		621	.03	90	254.91	80	77	140	465		20	4.0		
	10 - 20		621	.05	90	255.90	80	77	140	460		20	—		
	20 - 30		622	.05	90	257.03	81	77	140	505		22	4.1		
	30 - 40		623	.05	90	257.97	81	77	140	532		22	—		
	40 - 50		625	.05	90	258.90	81	77	140	535		24	4.3		
	50 - 60		625	.05	90	259.84	82	78	140	534		27	—		
AVERAGE			622.3	0.05		5.82	78.0		140				4.1		

REMARKS Pre-Leak Check: OK Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

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30-40 plug change mid

SO_3 FIELD SAMPLING DATA SHEET

TEST 2

PLANT	GREENRIDGE
LOCATION	SCR OUTLET
DUCT DIMENSIONS	
DUCT AREA	
DATE	10/5/07
TIME	Start- Stop-
SAMPLE BOX	
METER BOX	NuTech # 5
PITOT TUBE DESC	
OPERATOR(S)	BS, DL

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	
%H_2O (Assumed)	
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	0.991
C(p)	
K	xxxx

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=) 3 2

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP 6 [°F] 7 inlet	METER TEMP 6 [°F] 7 outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						410.904									
840	0 - 10	—	689	—	10	412.150	78	79	143	556	188	6.0		6.0	
Change plug	10 - 20	—	674	—	90	413.120	79	79	.140	552		15.0			
	20 - 30	—	684	—	90	414.00	80	80	140	550		10.0			
Change plug	30 - 40	—	682	—	90	414.987	79	80	140	551		7.0		6.0	
	40 - 50	—	684	—	80	415.720	80	82	143	549		15.0			
	50 - 60	—	685	—	10	416.986	80	83	140	546		20.0			
950															
AVERAGE			679.7			6.032	79.8		141					6.0	

REMARKS Pre-Leak Check: 0.000 / 5" Hg Post-Leak Check: 0.000 / 20" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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SO_3 FIELD SAMPLING DATA SHEET

AHO-2

PLANT	AES Greenidge
LOCATION	Air heater Outlet
DUCT DIMENSIONS	
DUCT AREA	
DATE	10/5/07
TIME	Start- 840 Stop-
SAMPLE BOX	
METER BOX	NuTech # 12
PITOT TUBE DESC	
OPERATOR(S)	

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	
$\%H_2O$ (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	xxxx

WATER BATH SETTING	
PROBE HTR SETTING	
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP (1) [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
			(1)			400.254	(6)	(7)	(3)	(2)	(3)				
	0 - 10	—	323	—	1 RTM	401.201	68		.141	416		6			
	10 - 20	—	316	—		402.000	70		.141	442		6			
	20 - 30	—	310	—		403.512	74		.143	424		6			
	30 - 40	—	311	—		404.280	75		.147	476		10			
	40 - 50	—	319	—		405.044	77		143	426		5			
	50 - 60	—	319	—		405.942	77		144	400		5			
	70					406.782									
AVERAGE			316.3			6.528	73.5		143.2						

REMARKS Pre-Leak Check: Good Post-Leak Check: Good

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

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402.379 Leak check @ 24.3 min
402.700 Start @ 24.3 min

SO_3 FIELD SAMPLING DATA SHEET

PLANT	AES Greenridge
LOCATION	Stack
DUCT DIMENSIONS	
DUCT AREA	
DATE	10-5-07
TIME	Start- 0940 Stop- 0940
SAMPLE BOX	
METER BOX	NuTech # Clean Air
PITOT TUBE DESC	NA
OPERATOR(S)	JRK

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	
%H_2O (Assumed)	13%
PROBE LENGTH [ft]	3'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	.85
K	XXXX

WATER BATH SETTING			
PROBE HTR SETTING			
DUCT X-SECTION	circ.?	rect ?	other:
POSITION OF PORT A			

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DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						191.120									
						191.167									
	0 - 10		178	NA	10	192.145	65	64	135	548	60	4	7.3	-	
	10 - 20		177			193.372	66	65	138	550	58	4	7.2		
	20 - 30		176			194.468	67	67	135	549	58	4	7.3		
	30 - 40		176			195.420	69	67	135	550	55	4	7.1		
	40 - 50		176			196.421	70	69	135	550	58	4	7.2		
	50 - 60		176			197.418	71	70	140	548	59	5	6.9		
AVERAGE			176.5			6.298		67.5	136.3				7.2		

REMARKS Pre-Leak Check: 0.0 @ 7" Hg Post-Leak Check: 0.00 @ 7" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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SO_3 FIELD SAMPLING DATA SHEET

TEST 3

PLANT	GREENIDGE
LOCATION	SCR INLET
DUCT DIMENSIONS	
DUCT AREA	
DATE	10-5-07
TIME	Start-1120 Stop- 1220
SAMPLE BOX	
METER BOX	NuTech # 3
PITOT TUBE DESC	
OPERATOR(S)	BS

AMBIENT TEMP [—uo°F]	85
BAROMETRIC PRESSURE [" Hg]	29.68
%H_2O (Assumed)	
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.046
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						259.88									
	0 - 10		627	.03	70	260.91	83	81	140	501		15	4.7		
	10 - 20		630	.04	80	261.78	85	83	140	497		19	—		
	20 - 30		635	.04	90	262.82	86	83	140	492		22	4.5		
	30 - 40		636	.05	100	263.80	86	83	140	493		24	—		
	40 - 50		639	.05	100	264.88	86	84	140	490		26	4.9		
	50 - 60		640	.05	100+	265.88	86	84	140	491		26	—		
AVERAGE			634.5	0.04		6.000	84.2		140				4.7		

REMARKS Pre-Leak Check: OK Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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Test 3

SO_3 FIELD SAMPLING DATA SHEET

PLANT	AES Greenridge
LOCATION	SCR outlet
DUCT DIMENSIONS	
DUCT AREA	
DATE	10/5/07
TIME	Start- 1120 Stop-
SAMPLE BOX	
METER BOX	NuTech # 5
PITOT TUBE DESC	
OPERATOR(S)	KZ, Bruce, Doug

AMBIENT TEMP [—uo°F]	85°
BAROMETRIC PRESSURE [" Hg]	29.68
%H_2O (Assumed)	
PROBE LENGTH [ft]	8'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	0.991
C(p)	
K	XXXX

WATER BATH SETTING			
PROBE HTR SETTING			
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						417.02									
1120	0 - 10	~~658~~	658	—	60	418.210	83	86	143	547	1~~8~~8	15	~~4.7~~	~~4.7~~	
	10 - 20	—	658	—	80	419.240	84	89	143	546	—	20.0			
	20 - 30	—	658	—	80	420.420	85	90	143	549	—	20.0	5.0		
	30 - 40	—	661	—	80	421.38	86	91	142	544	—	20.0			
	40 - 50	—	661	—	80	422.18	87	91	141	540	—	~~20~~ 19.0			
12:20	50 - 60	—	663	—	80	422.90	87	92	142	537	—	21			
											—				
AVERAGE			659.8			5.088	87.6		142.3				4.8		

REMARKS Pre-Leak Check: 0.000 @ 15" Hg Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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SO_3 FIELD SAMPLING DATA SHEET

TEST 4

PLANT	GREENRIDGE
LOCATION	SCR Inlet
DUCT DIMENSIONS	
DUCT AREA	
DATE	10/5/07
TIME	Start-1405 Stop- 1505
SAMPLE BOX	
METER BOX	NuTech # 3
PITOT TUBE DESC	
OPERATOR(S)	RS

AMBIENT TEMP [—uo°F]	86
BAROMETRIC PRESSURE [" Hg]	29.65
%H_2O (Assumed)	
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.046
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						265.956									
	0 - 10		640	.04	70	266.85	87	84	140	489		15	6.0		
	10 - 20		634	.04	80	267.92	90	87	140	490		17	—		
	20 - 30		635	.04	90	268.80	91	88	140	501		20	5.0		
	30 - 40		636	.04	100	269.88	92	88	140	526		25	—		
	40 - 50		637	.04	100	270.92	92	89	140	529		26	5.8		
	50 - 60		636	.04	100	271.94	93	90	140	531		27	—		
AVERAGE			636.3	0.04		5.984	89.3		140				5.6		

REMARKS Pre-Leak Check: OK Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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SO_3 FIELD SAMPLING DATA SHEET

Test 4

PLANT	AES Greenridge
LOCATION	CSR Outlet
DUCT DIMENSIONS	
DUCT AREA	
DATE	10/5/07
TIME	Start- 1405 Stop- 1505
SAMPLE BOX	
METER BOX	NuTech # 5
PITOT TUBE DESC	
OPERATOR(S)	KZ, Bruce, Doug

AMBIENT TEMP [—uo"F]	86
BAROMETRIC PRESSURE [" Hg]	29.65
%H_2O (Assumed)	
PROBE LENGTH [ft]	8'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	.991
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo"F]
						423.200									
1405	0 - 10	-	666	-	90	424.200	88	90	142	540		6.0	5.0		
	10 - 20	-	668	-	90	425.480	89	92	142	551		6.0			
	20 - 30	-	670	-	90	426.950	90	94	143	551		6.0			
	30 - 40	-	672	-	90	427.96	91	95	141	548		6.0	5.0		
	40 - 50	-	672	-	90	428.84	92	96	141	544		6.0			
	50 - 60	-	672	-	90	429.77	92	96	142	548		[illegible]	9.0		
AVERAGE			670			6.570	92.1		141.3				6.3		

REMARKS Pre-Leak Check: O/K Post-Leak Check: O/K

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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TEST 3

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	AHO - 3
DUCT DIMENSIONS	
DUCT AREA	
DATE	10-8-07
TIME	Start- 1533 Stop- 1534
SAMPLE BOX	
METER BOX	NuTech # 1
PITOT TUBE DESC	
OPERATOR(S)	BS, RO

AMBIENT TEMP [—uo°F]	80°
BAROMETRIC PRESSURE [" Hg]	29.26
%H_2O (Assumed)	
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	.970
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						736.15									
A-1	0 - 10		316	.05	20	737.03	87	86	142	470		8	—		
2	10 - 20	-14.6	322	.04	20	738.00	88	86	144	469		8	6.2		
3	20 - 30		316	.04	20	739.05	89	87	145	483		8	—		
B-1	30 - 40	-14.5	315	.04	20	739.97	89	87	144	480		12	6.8		
2	40 - 50		314	.04	20	740.92	89	87	145	480		16	—		
3	50 - 60	-14.4	316	.03	30	741.89	89	87	144	476		25	—		
AVERAGE		-14.5	316.5	0.04		5.74	87.6		144				6.5		

REMARKS Pre-Leak Check: OK Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	Stack - 3
DUCT DIMENSIONS	
DUCT AREA	
DATE	10/5/07
TIME	Start- 1530 Stop- 1630
SAMPLE BOX	
METER BOX	~~RuTech~~ # CAE-204354
PITOT TUBE DESC	NA
OPERATOR(S)	BG & KC

AMBIENT TEMP [—uo°F]	35
BAROMETRIC PRESSURE [" Hg]	29.26
%H_2O (Assumed)	8
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.0036
C(p)	
K	XXXX

(Assumed=)

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page 1 of 1

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						197.511					Same as condenser				
A 1	0 - 10	—	176	—	1 RTM	198.59	86	85	139	547	—	10	7.4		
2	10 - 20	—	176	—		199.45	86	85	140	550	—	6			
2	20 - 30	—	175	—		200.51	86	86	141	550	—	6			
3	30 - 40	—	175	—		201.53	86	86	140	550	—	6			
3	40 - 50	—	175	—		202.68	86	86	141	551	—	7	7.2		
4	50 - 60	—	175	—		203.733	87	87	140	549	—	7			
											—				
AVERAGE						6.222	86		140.2				7.3		

REMARKS Pre-Leak Check: Good Post-Leak Check: Good

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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SO_3 FIELD SAMPLING DATA SHEET

TEST 4

PLANT	GREENIDGE
LOCATION	AHO-4
DUCT DIMENSIONS	
DUCT AREA	
DATE	10-9-07
TIME	Start-1040 Stop- 1150
SAMPLE BOX	
METER BOX	NuTech # 1
PITOT TUBE DESC	
OPERATOR(S)	BS, RO

AMBIENT TEMP [—uo°F]	~71°
BAROMETRIC PRESSURE [" Hg]	29.26
%H_2O (Assumed)	
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	0.970
C(p)	
K	xxxx

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

743.10 (Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP (1) [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP (6) [°F] inlet	METER TEMP (9) [°F] outlet	CONDENSER TEMP (3) [°F]	PROBE TEMP (2) [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						~~742.30~~									
A 1	0 - 10		304	.03	15	744.00	71	70	144	483		5	—		
2	10 - 20	-15.7	313	.03	15	744.92	72	70	143	481		12	6.4		
3	20 - 30		309	.03	20	745.84	72	71	144	487		25	—		
B 1	30 - 40	—	306	.03	15	746.90	74	72	144	489		15	—		
2	40 - 50	-15.3	306	.04	20	747.84	75	72	144	488		25	—		
3	50 - 60		308	.05	15	749.11	76	73	144	489		9	7.2		
AVERAGE		-15.5	307.7	2.04		6.01	72.3		144				6.8		

REMARKS Pre-Leak Check: OK Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	STACK -4
DUCT DIMENSIONS	
DUCT AREA	
DATE	10/9/07
TIME	Start- 1040 Stop- 11:40
SAMPLE BOX	
METER BOX	NuTech # CAE 204354
PITOT TUBE DESC	NA
OPERATOR(S)	BG + ICC

AMBIENT TEMP [—uo°F]	69
BAROMETRIC PRESSURE [" Hg]	29.26
%H_2O (Assumed)	8
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.0036
C(p)	NA
K	XXXX

WATER BATH SETTING	140		
PROBE HTR SETTING	550		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
				ΔH		203.773					same as condenser				
D-1	0 - 10	–	178	.03	1 RTM	204.83	68	68	140	552	–	5	7.6		
2	10 - 20	–	177	.03		204.88	69	68	140	549	–	5			
2	20 - 30	–	176	.03		206.78	70	68	140	548	–	5	7.5		
3	30 - 40	–	176	.03		207.80	71	71	140	549	–	5			
3	40 - 50	–	177	.03		208.81	73	71	140	551	–	5	7.4		
4	50 - 60	–	177	.03	↓	~~209.81~~	74	74	140	551	–	5			
						209.899									
AVERAGE		-0.38	176.83	.03		6.166		70.42	140				7.5		

REMARKS Pre-Leak Check: Good Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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TEST 5

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	AHO
DUCT DIMENSIONS	
DUCT AREA	
DATE	10-10-07
TIME	Start-1040 Stop- 1148
SAMPLE BOX	
METER BOX	NuTech # 1
PITOT TUBE DESC	
OPERATOR(S)	BS, BO

AMBIENT TEMP [—uo°F]	~63°
BAROMETRIC PRESSURE [" Hg]	29.12
%H_2O (Assumed)	
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	0.570
C(p)	
K	XXXX

WATER BATH SETTING	140		Page _____ of _____
PROBE HTR SETTING	550		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F] (1)	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] (6) inlet	METER TEMP [°F] (7) outlet	CONDENSER TEMP [°F] (3)	PROBE TEMP [°F] (2)	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						749.30									
A-1	0 - 10		300	.03	15	750.24	66	64	144	474		5	—		
2	10 - 20	-15.3	308	.04	15	751.25	67	65	144	475		17	7.0		
3	20 - 30		307	.03	25	752.04	70	67	144	483		25	—		
B-1	30 - 40		310	.03	15	753.22	71	68	144	487		7	—		
2	40 - 50	-15.2	308	.03	15	754.32	72	69	144	491		9	7.0		
3	50 - 60		310	.04	20	755.20	74	71	144	489		15	—		
AVERAGE		-15.25	307.17	.033		5.90		68.67	144				7.0		

REMARKS Pre-Leak Check: OK Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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09/28/07

SO_3 FIELD SAMPLING DATA SHEET

PLANT	Greenidge
LOCATION	STACK - 5
DUCT DIMENSIONS	
DUCT AREA	
DATE	10/10/07
TIME	Start- 1044 Stop- 1144
SAMPLE BOX	CAE
METER BOX	NuTech # CAE 204354
PITOT TUBE DESC	NA
OPERATOR(S)	BG + KC

AMBIENT TEMP [—uo°F]	
BAROMETRIC PRESSURE [" Hg]	
%H_2O (Assumed)	8
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.0036
C(p)	NA
K	xxxx

ΔH : 1.9442

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

Page _____ of _____

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
				.02		209.940					same as condenser				
	0 - 10	–	175	~~.04~~ .02	1RTM	211.03	65	64	140	548	–	5			
	10 - 20	–	175	.02	1RTM	212.11	67	65	141	551	–	4	7.4		
	20 - 30	–	175	.03	1RTM	213.17	69	67	140	550	–	5			
	30 - 40	–	176	.03	1RTM	214.16	70	68	140	550	–	5	7.4		
	40 - 50	–	176	.04	1RTM	215.13	71	70	140	550	–	5			
	50 - 60	–	177	.03	1RTM	215.997	72	71	140	550	–	5	7.3		
AVERAGE			17567	.0283		6.057		68.25	140				7.37		

REMARKS Pre-Leak Check: Good Post-Leak Check: Good

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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SO_3 FIELD SAMPLING DATA SHEET

TEST 6

PLANT	GREENIDGE
LOCATION	AHO-6
DUCT DIMENSIONS	
DUCT AREA	
DATE	10-11-07
TIME	Start-1230 Stop- 1335
SAMPLE BOX	
METER BOX	NuTech # 1
PITOT TUBE DESC	
OPERATOR(S)	BS, RO

AMBIENT TEMP [—uo°F]	~60°
BAROMETRIC PRESSURE [" Hg]	29.15
%H_2O (Assumed)	
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	0.970
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP (1) [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP (6) [°F] inlet	METER TEMP (7) [°F] outlet	CONDENSER TEMP (3) [°F]	PROBE TEMP (2) [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						755.40									
A1	0 - 10		300	.03	15	756.40	59	58	143	475		5	—		
112	10 - 20	-15.3	305	.04	15	757.40	61	59	143	477		9	7.1		
113	20 - 30		308	.04	15	758.32	62	60	144	483		12	—		
B1	30 - 40		301	.04	15	759.41	63	60	144	486		5	—		
112	40 - 50	-15.0	302	.04	15	760.42	63	61	144	483		5	7.2		
113	50 - 60		303	.04	15	761.38	63	61	144	487		9	—		
AVERAGE			303.2	0.038		5.98	60.8		143.7				7.2		

REMARKS Pre-Leak Check: OK Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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09/28/07

6

SO_3 FIELD SAMPLING DATA SHEET

PLANT	Greenidge
LOCATION	Stk - 6
DUCT DIMENSIONS	
DUCT AREA	
DATE	10/11/07
TIME	Start- 12:30 Stop-
SAMPLE BOX	
METER BOX	~~NuTech #~~ CAG
PITOT TUBE DESC	
OPERATOR(S)	BG + KC

AMBIENT TEMP [—uo°F]	58
BAROMETRIC PRESSURE [" Hg]	29.15
%H_2O (Assumed)	8
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.0036
C(p)	
K	xxxx

WATER BATH SETTING	140		Page _____ of _____
PROBE HTR SETTING	550		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD ΔH [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						216.002									
A - 1	0 - 10	-.38	182	.04	IRTM	217.15	57	57	140	548	140	5	7.3		
2	10 - 20		181	.03	IRTM	218.02	58	58	140	551	140	4	7.2		
2	20 - 30		180	.02	IRTM	219.05	59	58	139	549	139	4			
3	30 - 40	-.42	181	.02	IRTM	220.15	59	59	139	546	140	4	7.1		
3	40 - 50		181	.02	IRTM	221.26	59	59	140	549	140	4			
4	50 - 60		181	.02	IRTM	222.351	60	59	140	550	140	5	7.1		
AVERAGE		-.40	181	.025		6.349		58.5	139.7				7.18		

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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09/28/07

TEST #1

SO_3 FIELD SAMPLING DATA SHEET

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	11-13-07
TIME	Start-2330 Stop-0047
SAMPLE BOX	
METER BOX	NuTech # 4
PITOT TUBE DESC	
OPERATOR(S)	BJ, PR

AMBIENT TEMP [°F]	~45
BAROMETRIC PRESSURE [" Hg]	29.32
%H_2O (Assumed)	
PROBE LENGTH [ft]	12.1
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.001
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP (12) [°F]	Meter Orifice (DH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP (3) [°F]	PROBE TEMP (2) [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						650.10								
	0 - 10			.04	15	651.08	49	47	140	482		6	11.2	
	10 - 20			.04	15	652.04	49	47	141	480		6	11.8	
	20 - 30			.04	20	652.83	51	49	140	501		15	11.4	
	30 - 40		266	.04	15	654.06	51	49	140	484		7	11.0	
	40 - 50		268	.04	15	654.97	52	50	141	488		9	11.5	
	50 - 60		270	.04	25	656.05	52	50	141	507		22	11.0	
AVERAGE			268	0.04		5.95	49.7		140.5	490.3		10.8	11.3	

REMARKS Pre-Leak Check: OK Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

#1

SO_3 FIELD SAMPLING DATA SHEET

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	11-13-07
TIME	Start- 1125 Stop- 1225
SAMPLE BOX	
METER BOX	NuTech # 2
PITOT TUBE DESC	
OPERATOR(S)	KC, BH

AMBIENT TEMP [°F]	38
BAROMETRIC PRESSURE [" Hg]	29.31
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	XXXX

WATER BATH SETTING	
PROBE HTR SETTING	
DUCT X-SECTION	circ ? (circled) rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (DH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						529.901								
	0 - 10		180	.1	20	531.52	51	49	247	500		10		
	10 - 20		170	.1	20	533.13	51	49	247	497		10	10.1	
	20 - 30		169	.1	20	534.75	51	49	248	490		10		
	30 - 40		169	.1	20	536.45	52	50	248	490		10	9.9	
	40 - 50		171	.1	20	538.00	53	50	246	499		10		
	50 - 60		171	.1	20	539.60	53	50	246	500		10	10.0	
AVERAGE			171.7	0.1	20	9.699	51			496		10	10.0	

REMARKS Pre-Leak Check: ok <0.01 Post-Leak Check: <0.01

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO_3 FIELD SAMPLING DATA SHEET

TEST #2

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	11-14-07
TIME	Start- 0135 Stop- 0240
SAMPLE BOX	
METER BOX	NuTech # 4
PITOT TUBE DESC	
OPERATOR(S)	BS, PB

AMBIENT TEMP [°F]	~40°
BAROMETRIC PRESSURE [" Hg]	25.27
%H_2O (Assumed)	
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.001
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

Page _____ of _____

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP (1) [°F]	Meter Orifice (DH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP (3) [°F]	PROBE TEMP (2) [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						656.30								
	0 - 10		266	.04	15	657.27	48	47	141	485		4	10.6	
	10 - 20		268	.04	15	658.20	50	48	141	485		13	10.8	
	20 - 30		270	.04	15	659.29	51	48	141	504		15	11.0	
	30 - 40		269	.04	15	660.27	52	50	140	489		6	10.4	
	40 - 50		274	.04	15	661.27	54	51	141	482		9	11.0	
	50 - 60		271	.04	15	662.20	56	52	140	507		20	11.1	
AVERAGE			269.7	0.04		5.90	50.6		140.7	492		11.2	10.8	

REMARKS Pre-Leak Check: OK Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOL ENERGY

TEST #1

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	STACK
DUCT DIMENSIONS	
DUCT AREA	
DATE	3-10-08
TIME	Start- 1440 Stop- 1550
SAMPLE BOX	
METER BOX	NuTech # 3
PITOT TUBE DESC	
OPERATOR(S)	JJS, AGS

AMBIENT TEMP [°F]	~40
BAROMETRIC PRESSURE [" Hg]	29.74
%H_2O (Assumed)	9
PROBE LENGTH [ft]	7'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.827
Y	1.062
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed= 6 7 3 2 ~~5~~)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						372.70									
	0 - 10		—	.04	25	373.74	49	48	145	558	NA	2	7.8		
	10 - 20		173	.04	25	374.74	50	48	145	560		2.5	—		
	20 - 30		173	.04	25	375.70	51	49	145	560		3	—		
	30 - 40		174	.04	25	376.76	52	50	145	560		3	7.6		
	40 - 50		175	.04	25	377.71	53	51	145	561		4	—		
	50 - 60		175	.04	25	378.71	54	52	145	561		5.5	7.4		
	60 - 70														
	70 - 80														
	80 - 90														
AVERAGE			174.0	0.04		6.01	50.6		145	560.0		3.3	7.6		

REMARKS Pre-Leak Check: OK Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--CO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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03/05/08

#2

SO_3 FIELD SAMPLING DATA SHEET

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	11-14-07
TIME	Start- Stop-
SAMPLE BOX	
METER BOX	NuTech # 2
PITOT TUBE DESC	
OPERATOR(S)	KC BH

AMBIENT TEMP [°F]	38
BAROMETRIC PRESSURE [" Hg]	27.39
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	xxxx

(Assumed=)

WATER BATH SETTING		Page _____ of _____	
PROBE HTR SETTING			
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (DH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						539.80								
	0 - 10	.39	172	.1	20	541.3	52	50	140	499	1	7	10.2	
	10 - 20		173	.1	16	542.9	50	50	140	496		7		
	20 - 30		176	.08	16	544.2	50	49	140	503		5	9.9	
	30 - 40		176	.08	14	545.5	50	49	140	501		5		
	40 - 50		169	.08	14	546.7	51	50	140	504		5	10.0	
	50 - 60		170	.08	14	547.886	51	50	140	507		5		
AVERAGE			172.7	0.086		8.086	50.7		140	501.7		5.7	10.0	

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOL ENERGY

SO_3 FIELD SAMPLING DATA SHEET

TEST #3

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	11-14-07
TIME	Start- 0405 Stop- 0510
SAMPLE BOX	
METER BOX	NuTech # 4
PITOT TUBE DESC	
OPERATOR(S)	BS, PR (1)

AMBIENT TEMP [°F]	~44°
BAROMETRIC PRESSURE [" Hg]	29.29
%H_2O (Assumed)	
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.001
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (DH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F] (3)	PROBE TEMP [°F] (2)	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						663.50								
	0 - 10		279	.04	90	664.50	55	51	140	484		12	10.5	
	10 - 20		281	.04	90	665.48	57	54	139	484		16	11.0	
	20 - 30		279	.04	90+	666.46	57	54	141	506		26	11.0	
	30 - 40		278	.04	90	667.50	57	55	140	499		15	10.7	
	40 - 50		278	.05	90	668.46	58	55	139	486		21	10.9	
	50 - 60		279	.05	90+	669.51	58	55	139	505		26	11.0	
AVERAGE			279	0.043		6.01	55.5		139.7	494		19.3	10.9	

REMARKS Pre-Leak Check: OK Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

#3

SO_3 FIELD SAMPLING DATA SHEET

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	11-14-07
TIME	Start-4:03 Stop-
SAMPLE BOX	
METER BOX	NuTech # 2
PITOT TUBE DESC	
OPERATOR(S)	KC BH

AMBIENT TEMP [°F]	38
BAROMETRIC PRESSURE [" Hg]	29.23
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	XXXX

WATER BATH SETTING	
PROBE HTR SETTING	
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (DH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						547.95								
	0 - 10		169	.1	20	549.41	49	48	139	503		7	10.3	
	10 - 20	.42	170	.1	20	550.92	49	48	138	499		7	11.1	
	20 - 30		170	.1	20	552.43	49	48	139	498		7	11.5	
	30 - 40		170	.1	20	554.00	50	48	139	501		7	11.5	
	40 - 50		170	.1	20	555.23	51	49	139	499		7		
	50 - 60		170	.1	20	556.60	52	50	138	499		7		
AVERAGE		0.42	169.8	0.1		8.65	49.3		138.7	499.8		7	11.1	

REMARKS Pre-Leak Check: < 0.01 Post-Leak Check: < 0.01

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO_3 FIELD SAMPLING DATA SHEET

TEST #4

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	11-14-07
TIME	Start- 2305 Stop- 0010
SAMPLE BOX	
METER BOX	NuTech # 4
PITOT TUBE DESC	
OPERATOR(S)	BS, PB

AMBIENT TEMP [°F]	~60°
BAROMETRIC PRESSURE [" Hg]	29.06
%H_2O (Assumed)	
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.001
C(p)	
K	xxxx

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP (1) [°F]	Meter Orifice (DH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP (3) [°F]	PROBE TEMP (2) [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						669.0								
	0 - 10		289	.04	90	670.57	63	61	150	487		12	8.2	
	10 - 20		290	.04	90	671.57	63	61	140	485		19	8.4	
	20 - 30		297	.04	90+	673.59	63	61	142	512		26	9.0	
	30 - 40		302	.04	90	673.56	64	62	152	487		18	9.2	
	40 - 50		304	.04	90	674.59	65	63	140	488		21	9.6	
	50 - 60		307	.04	90+	675.61	65	63	141	517		26	9.5	
AVERAGE			298.2	0.04		6.01	62.8		144.2				9.1	

REMARKS Pre-Leak Check: OK Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOL ENERGY

#4

SO_3 FIELD SAMPLING DATA SHEET

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	11-14-07
TIME	Start- 11:05 Stop- 12 05
SAMPLE BOX	
METER BOX	NuTech # 2
PITOT TUBE DESC	
OPERATOR(S)	BH, KC

AMBIENT TEMP [°F]	48
BAROMETRIC PRESSURE [" Hg]	29.06
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	300
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (DH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						557.01								
	0 - 10		170	.05	.088	558.00	58	57	138	499		4	7.7	12.6
	10 - 20		170	.06	.095	559.17	58	57	139	499		5	7.6	9.9
	20 - 30	.38	171	.06	.10	560.48	58	57	138	498		5		
	30 - 40		171	.06	.10	561.59	59	57	138	498		5	7.7	12.6
	40 - 50		171	.06	.10	562.80	60	58	138	500		5		
	50 - 60		171	.06	.10	563.91	60	59	138	501		5	7.6	12.6
AVERAGE		0.38	170.7	0.058		6.90	58.2		138.2	499.2			7.65	

REMARKS Pre-Leak Check: OK Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOL ENERGY

TEST #5

SO_3 FIELD SAMPLING DATA SHEET

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	11-15-07
TIME	Start-0105 Stop- 0210
SAMPLE BOX	
METER BOX	NuTech # 4
PITOT TUBE DESC	
OPERATOR(S)	BS, PR

AMBIENT TEMP [°F]	~56°
BAROMETRIC PRESSURE [" Hg]	29.09
%H_2O (Assumed)	
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.001
C(p)	
K	xxxx

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

Page _____ of _____

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP (1) [°F]	Meter Orifice (DH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP (3) [°F]	PROBE TEMP (2) [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						675.70								
	0 - 10		308	.04	90	676.65	59	58	140	477		9	8.7	
	10 - 20		310	.04	90	677.65	59	58	141	472		15	8.4	
	20 - 30		313	.04	90	678.68	60	58	141	519		16	8.8	
	30 - 40		298	.04	90	679.60	61	59	140	455		14	8.8	
	40 - 50		297	.04	90	680.69	62	60	141	490		18	9.6	
	50 - 60		302	.04	90	681.69	63	60	140	518		22	10.0	
AVERAGE			304.7	0.04		5.99	59.8		140.5				9.1	

REMARKS Pre-Leak Check: OK Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOL ENERGY.

#5

SO_3 FIELD SAMPLING DATA SHEET

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	11-15-07
TIME	Start- 1:05 Stop- 2:05
SAMPLE BOX	
METER BOX	NuTech # 2
PITOT TUBE DESC	
OPERATOR(S)	BH, KC

AMBIENT TEMP [°F]	48
BAROMETRIC PRESSURE [" Hg]	29.06
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	XXXX

WATER BATH SETTING	
PROBE HTR SETTING	
DUCT X-SECTION	circ ? (circled) rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (DH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						564.02								
	0 - 10		171	.06	.10	565.30	57	57	138	502		5	8.0	12.2
	10 - 20		171	.06	.10	566.50	57	56	139	499		5		
	20 - 30		171	.06	.10	567.82	57	56	139	487		5		
	30 - 40		171	.06	.10	569.02	57	56	138	497		5	7.6	12.6
	40 - 50		170	.06	.10	570.28	58	56	138	493		4		
	50 - 60		170	.06	.10	571.18	59	57	138	498		4	7.5	12.7
AVERAGE			170.7	0.06		7.16	56.9		138.3	496.0			7.7	

REMARKS Pre-Leak Check: OK Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY.

SO_3 FIELD SAMPLING DATA SHEET

TEST #6

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	11-15-07
TIME	Start-0430 Stop- 0535
SAMPLE BOX	
METER BOX	NuTech # 4
PITOT TUBE DESC	
OPERATOR(S)	BS, PB

AMBIENT TEMP [°F]	~53°
BAROMETRIC PRESSURE [" Hg]	29.03
%H_2O (Assumed)	
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.001
C(p)	
K	xxxx

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP (1) [°F]	Meter Orifice (DH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP (3) [°F]	PROBE TEMP (2) [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						681.80								
	0 - 10		287	.04	90	682.75	54	52	140	482		12	8.8	
	10 - 20		290	.04	90+	683.67	54	52	140	481		26	9.9	
	20 - 30		295	.04	90+	684.79	54	52	140	506		26	9.9	
	30 - 40		280	.04	90	685.78	54	52	140	489		14	8.7	
	40 - 50		279	.04	90+	686.79	54	52	140	485		18	9.4	
	50 - 60		285	.04	90+	687.79	54	52	141	501		26	10.0	
AVERAGE			286	0.04		5.99	53.0		140.2	490.7			9.45	

REMARKS Pre-Leak Check: OK Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOL ENERGY

#6

SO_3 FIELD SAMPLING DATA SHEET

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	11-15-07
TIME	Start-2:30 Stop- 3:30
SAMPLE BOX	
METER BOX	NuTech # 2
PITOT TUBE DESC	
OPERATOR(S)	BH, KC

AMBIENT TEMP [°F]	48
BAROMETRIC PRESSURE [" Hg]	29.03
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	xxxx

WATER BATH SETTING	
PROBE HTR SETTING	
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (DH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						571.40								
	0 - 10		184	.06	.10	572.48	50	50	138	500		4	8.3	11.9
	10 - 20		184	.06	.10	573.52	52	50	137	502		4		
	20 - 30		183	.06	.10	574.58	50	49	139	500		4	8.3	11.9
	30 - 40		183	.06	.10	575.63	51	50	138	499		4		
	40 - 50		185	.06	.10	576.65	53	49	138	498		4	8.3	11.9
	50 - 60		185	.06	.10	577.67	53	49	137	499		4		
AVERAGE			184	0.06	0.10	6.27	50.5		137.8	499.7			8.3	

REMARKS Pre-Leak Check: OK Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

TEST #7

SO_3 FIELD SAMPLING DATA SHEET

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	11-16-07
TIME	Start- 1218 Stop- 1328
SAMPLE BOX	
METER BOX	NuTech # 4
PITOT TUBE DESC	
OPERATOR(S)	BS, PR

AMBIENT TEMP [°F]	~32
BAROMETRIC PRESSURE [" Hg]	29.71
%H_2O (Assumed)	
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.001
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F] (1)	Meter Orifice (DH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F] (3)	PROBE TEMP [°F] (2)	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						687.90								
	0 - 10		312	.04	90	688.84	39	37	141	535		13	9.4	
	10 - 20		310	.04	90	689.83	39	38	141	488		18	8.4	
	20 - 30		302	.04	90+	690.90	39	38	141	470		24	8.0	
	30 - 40		310	.04	90	691.87	40	38	141	530		16	9.0	
	40 - 50		308	.04	90	692.92	41	38	141	487		20	9.3	
	50 - 60		304	.04	90+	693.90	41	39	140	465		26	8.8	
AVERAGE			307.1	0.04		6.000	38.9		140.8				8.8	

REMARKS Pre-Leak Check: OK Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

#7

SO_3 FIELD SAMPLING DATA SHEET

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	11/8/07
TIME	Start- 1215 Stop-
SAMPLE BOX	
METER BOX	NuTech # 2
PITOT TUBE DESC	
OPERATOR(S)	KC / BTH

AMBIENT TEMP [°F]	33
BAROMETRIC PRESSURE [" Hg]	29.31
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	0.967
C(p)	
K	XXXX

WATER BATH SETTING	
PROBE HTR SETTING	325
DUCT X-SECTION	circ ? (circled) / rect ? / other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (DH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						573.87								
	0 - 10		170	.06	12	574.98	33	32	137	488		5	7.8	12.4
	10 - 20		171	.05	12	580.15	34	32	132	502		5		
	20 - 30		170	.05	12	581.33	35	33	139	499		5	7.8	12.4
	30 - 40		171	.05	12	582.48	34	32	137	500		5		
	40 - 50		170	.05	12	583.61	35	33	138	501		5	7.5	12.7
	50 - 60		176	.05	12	584.74	35	33	138	502		5		
AVERAGE			170.3	0.052		6.87	33.4		136.8				7.7	12.5

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOL ENERGY

TEST # 8

SO_3 FIELD SAMPLING DATA SHEET

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	11-16-07
TIME	Start- 1427 Stop- 1533
SAMPLE BOX	
METER BOX	NuTech # 4
PITOT TUBE DESC	
OPERATOR(S)	BS, PR

AMBIENT TEMP [°F]	~36°
BAROMETRIC PRESSURE [" Hg]	29.23
%H_2O (Assumed)	
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.001
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP (1) [°F]	Meter Orifice (DH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP (3) [°F]	PROBE TEMP (2) [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						694.00								
	0 - 10		314	.04	90	694.98	41	39	140	544		13	10.8	
	10 - 20		310	.04	90	696.01	41	39	140	488		18	9.4	
	20 - 30		307	.04	90+	696.90	41	39	140	463		26	8.6	
	30 - 40		310	.04	90	698.02	41	39	140	516		14	10.7	
	40 - 50		310	.04	90	699.01	42	39	141	475		24	10.0	
	50 - 60		308	.04	90+	700.00	42	40	141	461		26	7.8	
AVERAGE			309.8	0.04		6.00	40.3		140.3				9.6	

REMARKS Pre-Leak Check: OK Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY.

#8

SO_3 FIELD SAMPLING DATA SHEET

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	11/14/07
TIME	Start- ~~1435~~ Stop- ~~2150~~
SAMPLE BOX	1427 1527
METER BOX	NuTech # 1
PITOT TUBE DESC	
OPERATOR(S)	BH, KC

AMBIENT TEMP [°F]	61
BAROMETRIC PRESSURE [" Hg]	29.21
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	.967
C(p)	
K	xxxx

(Assumed=)

WATER BATH SETTING	
PROBE HTR SETTING	
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (DH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						584.779								
	0 - 10		171	.05	.10	585.88	35	33	140	486		4	7.6	12.6
	10 - 20		171	.05	10	586.40	35	34	139	486		4		
	20 - 30		173	.05	10	588.05	35	34	138	495		4		
	30 - 40		172	.05	10	589.13	35	34	138	501		4	7.5	12.7
	40 - 50		171	.05	.10	590.21	37	35	138	502		4		
	50 - 60		170	.05	10	591.27	37	35	139	502		4	7.6	12.6
AVERAGE			171.2	0.05		6.491	36	5.0	138.7				7.6	12.6

REMARKS Pre-Leak Check: ok Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY.

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	Economizer Run No. 1 Port 1+2
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/10/08
TIME	Start- 1440 Stop- 1515
SAMPLE BOX	
METER BOX	NuTech # 2
PITOT TUBE DESC	NA
OPERATOR(S)	P. Burg K. Bimenov

AMBIENT TEMP [°F]	≈100
BAROMETRIC PRESSURE [" Hg]	29.74
%H_2O (Assumed)	9
PROBE LENGTH [ft]	12
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.779
Y	0.985
C(p)	
K	XXXX

WATER BATH SETTING	140		
PROBE HTR SETTING	500		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page 1 of 2

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	~~PITOT~~ ΔH ~~HEAD~~ [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
0						724.854									
5	0 - 10		662	.01	40	725	62	61	133	491	NA	9	12.3		
10	10 - 20		686	.01	54	725.49	62	61	138	481		9	10.5		
15	20 - 30		637	.02	58	725.85	63	62	137	469		7	12.5		
20	30 - 40		648	.02	58	726.28	62	62	136	489		15	12.8		
25	40 - 50		648	.02	60	726.59	63	62	136	497		20	12.5		
31 30	50 - 60		645	.02	65	726.921	Stop test,		132 Remove plug,	495 leak check @		15"Hg	= .000,	727.233	Start Port 3 @ 1533
AVERAGE	(Port 1)		654.3	0.02		2.067	62.1		136.8	487.0		14.8	12.1		

REMARKS Pre-Leak Check: 0.001 cfm @ 10" Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	Economizer Run 1 Ports 3+4
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/10/08
TIME	Start- 1533 Stop- 1604
SAMPLE BOX	
METER BOX	NuTech # 2
PITOT TUBE DESC	
OPERATOR(S)	P Burg, K. Pimenoe

AMBIENT TEMP [°F]	
BAROMETRIC PRESSURE [" Hg]	
%H_2O (Assumed)	9
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.779
Y	0.985
C(p)	
K	xxxx

WATER BATH SETTING			
PROBE HTR SETTING			
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page 2 of 2

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	~~PITOT~~ ΔH HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
31						727.233								CO_2	
35	0 - 10		592	.02	65	727.50	64	63	136	432	NA	16	11.7	9.0	
40	10 - 20		608	.02	68	727.83	64	63	135	443		18	10.2	10.1	
45	20 - 30		610	.02	70	728.3	65	64	136	449		15	10.4		
50	30 - 40		660	.03	78	728.60	64	63	142	484		15			
55	40 - 50		699	.02	70	728.98	65	63	140	510		20	17.0		
60	50 - 60		730	.02	>100	729.312	64	63	140	507		28	16.8		
Average	(Part 2)		649.8	0.02		2.079	63.8		138.8	470.8		18.7	13.2		
AVERAGE	(combined)		652.1	0.02		4.146	63.0		137.5	478.9		16.8	12.7		

REMARKS Pre-Leak Check: Post-Leak Check: 15" .001

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	AHI
DUCT DIMENSIONS	
DUCT AREA	
DATE	3-10-08
TIME	Start- 1248 Stop- 1558
SAMPLE BOX	
METER BOX	NuTech # 1
PITOT TUBE DESC	
OPERATOR(S)	KRC

AMBIENT TEMP [°F]	89
BAROMETRIC PRESSURE [" Hg]	29.74
%H_2O (Assumed)	9
PROBE LENGTH [ft]	3
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	
Y	0.98
C(p)	
K	XXXX

WATER BATH SETTING		Page _____ of _____	
PROBE HTR SETTING			
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F] (5)	~~PITOT HEAD~~ ΔH orifice [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] (6) inlet	METER TEMP [°F] (7) outlet	CONDENSER TEMP [°F] (3)	PROBE TEMP [°F] (2)	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						123.125									
	0 - 10		650	0.04	.65	124.10	90	89	147	537	NA	5	4.6		
	10 - 20		644	0.04	.60	124.95	90	89	146	545		5	4.2		
	20 - 30		645	0.04	.55	125.50	90	89	147	544		7	4.2		
	30 - 40		646	0.04	.65	126.[illegible]	93	91	147	537		5	6.0		
	40 - 50		648	0.04	.64	128.50	93	92	146	558		5	5.8		
	50 - 60		649	0.04	.63	129.46	93	92	147	545		5	5.8		
AVERAGE			647.0	0.04		6.335	90.9		146.7	547.7		5.3	5.1		

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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AHO-1

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	AHO
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/10/08
TIME	Start- 1443 Stop- 1622
SAMPLE BOX	
METER BOX	NuTech # 5
PITOT TUBE DESC	
OPERATOR(S)	RLO SL (1) Office

AMBIENT TEMP [°F]	
BAROMETRIC PRESSURE [" Hg]	
%H_2O (Assumed)	9
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.813
Y	0.990
C(p)	
K	XXXX
(Assumed= 7)	

WATER BATH SETTING		Page _____ of _____	
PROBE HTR SETTING			
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(3) (2)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT ΔH HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
		1448				228.32									
Upper	0 - 10	1458	305	0.04		229.21	38	33	142	227	NA	6			
↓	10 - 20	1534	313	0.03		230.17	36	31	139	423		7		8.7	11.6
↓	20 - 30	1544	309	0.05		231.10	36	32	141	430		7		8.2	12.0
lower	30 - 40	1552 / 1602	318	0.04		231.20 / 232.07	36	33	141	436		7		8.1	11.6
	40 - 50	1612	314	0.05		233.06	36	33	140	444		7		8.1	12.0
	50 - 60	1622	316	0.05		233.95	36	33	139	446		7		8.1	12.0
				1458		waited for probe to heat up									
AVERAGE			312.5	0.04		5.55	34.4		140.3	401		6.8		8.2	

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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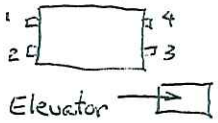
SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE Dresden, NY
LOCATION	Economizer Run 2-SO_3
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/13/08
TIME	Start- 0900 Stop- 1026
SAMPLE BOX	
METER BOX	NuTech # N-2
PITOT TUBE DESC	
OPERATOR(S)	PCB / KP

AMBIENT TEMP [°F]	≈60
BAROMETRIC PRESSURE [" Hg]	29.38
%H_2O (Assumed)	9
PROBE LENGTH [ft]	12
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.779
Y	0.985
C(p)	NA
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? (rect ?) other:
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

Page _____ of _____



(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	~~STATIC PRESSURE~~ [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP* [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
0900	0	ΔH				996.360									
Port #4	0 5 10	.03	653	NA	65	996.8	55	53	139	414	NA	6	13.3	~~13.5~~	
0910	10 20	.03	669		65	997.30	55	54	138	416		6	13.9		
0915	20 25 30	.03	693		70	997.800	56	54	138	416		9	13.2		
Port #3	30 - 40					Stop Test change ports, change glass wool filter									
0921	40 45 50	~~.03~~				997.800									
0926	50 55 60	.03	604		80	998.26	56	54	135	404		9	10.9		
0931	25	.03	610		80	998.77	56	54	133	378		11	11.2		
0936	30	.03	609		80	999.330	56	54	134	369		11	12.4		
				Stop Test, change ports, leak check @ 13" Hg = 0.000, change glass wool filter											
			647.3												
AVERAGE		0.03	~~639.9~~			6.103	55.4		137.2				12.7		

REMARKS: Pre-Leak Check: @ 11" Hg = 0.000 Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

* Probe temperature questionable

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	Economizer Run 2-SO_3
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/13/08
TIME	Start- Stop- 1026
SAMPLE BOX	
METER BOX	NuTech # N-2
PITOT TUBE DESC	NA
OPERATOR(S)	PCB/KP

AMBIENT TEMP [°F]	≈60
BAROMETRIC PRESSURE [" Hg]	29.38
%H_2O (Assumed)	9
PROBE LENGTH [ft]	12
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.779
Y	0.935
C(p)	NA
K	XXXX

WATER BATH SETTING	140		
PROBE HTR SETTING	550		
DUCT X-SECTION	circ ?	(rect ?)	other:
POSITION OF PORT A			

Page 2 of 2

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
0952	30	4 4				999.377									
0957	35	.03	606		75	999.90	57	55	137	365	NA	10		11.5	
1002	40	.03	617		75	000.38	57	55	136	364		11		9.2	
1007	45	.03	624		75	000.962	56	55	138	360		11		7.3	
1012	50				Stop test	change	ports								
1011	45					000.962									
1016	50	.03	690		78	1.51	58	55	140	495		11		15.8	
1021	55	.03	694		78	2.00	57	55	140	570		11		17.2	
1026	60	.03	698		72	2.510	57	55	138	563		11		16.1	
					Stop test	leak check @ 12" Hg = 0.000									
AVERAGE															

REMARKS Pre-Leak Check: Post-Leak Check: @ 12" Hg = 0.000

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	AHI Test 2
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/13/08
TIME	Start- 9:07 Stop- 10:08
SAMPLE BOX	
METER BOX	NuTech # 1
PITOT TUBE DESC	
OPERATOR(S)	KC - PR

AMBIENT TEMP [°F]	86
BAROMETRIC PRESSURE [" Hg]	29.38
%H_2O (Assumed)	9
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.867
Y	0.986
C(p)	
K	xxxx

WATER BATH SETTING			
PROBE HTR SETTING			
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						129.648									
	0 - 10		636	.04	.80	130.72	88	87	147	552	NA	8	5.0		
	10 - 20		634	.04	.79	131.75	87	86	148	549		8	4.8		
	20 - 30		635	.04	.72	132.74	88	86	147	548		8	4.6		
	30 - 40		613	.04	.73	133.72	88	87	148	548		8	5.7		
	40 - 50		628	.04	.75	134.75	90	88	147	550		8	6.0		
	50 - 60		630	.04	.75	135.79	90	89	148	548		8	6.0		
AVERAGE			629.3	0.04		6.142	87.8		147.5				5.4		

REMARKS Pre-Leak Check: <0.01 at 6 Post-Leak Check: <0.01 at 7

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE Test 2
LOCATION	AHO
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/13/08
TIME	Start- 9:02 Stop- 10:17
SAMPLE BOX	
METER BOX	NuTech # 5
PITOT TUBE DESC	
OPERATOR(S)	RLW STL

AMBIENT TEMP [°F]	
BAROMETRIC PRESSURE [" Hg]	29.36
%H_2O (Assumed)	9
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	
Y	
C(p)	
K	XXXX

(Assumed= 1) 1 3 2

WATER BATH SETTING	
PROBE HTR SETTING	
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
9:02						234.50									
	0 - 10		307		0.03	235.41	36	39	140	412	NA	1	9.0		
Top	10 - 20		308		0.035	236.36	36	39	140	419			9.0		
	20 - 30		296		0.035	237.24	37	39	140	425					
	30 - 40		308		0.03	238.14	38	41	139	423		6.5	10.0		
Bottom	40 - 50		313		0.03	239.17	39	40	139	428		7.0			
	50 - 60		314		0.03	240.01	39	40	139	430		7.0			
AVERAGE			307.8		0.03	5.41	38.6		140				9.3		

REMARKS Pre-Leak Check: OK @ 6" Hg Post-Leak Check: OK @ 7" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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SO_3 FIELD SAMPLING DATA SHEET

Test 2

PLANT	GREENIDGE
LOCATION	STACK
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/13/08
TIME	Start-0901 Stop- 1006
SAMPLE BOX	
METER BOX	NuTech #
PITOT TUBE DESC	
OPERATOR(S)	BS AG

AMBIENT TEMP [°F]	45
BAROMETRIC PRESSURE [" Hg]	27.38
%H_2O (Assumed)	9
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	
Y	
C(p)	
K	XXXX

WATER BATH SETTING			
PROBE HTR SETTING	250		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP (1) [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP (6) [°F] inlet	METER TEMP (7) [°F] outlet	CONDENSER TEMP (3) [°F]	PROBE TEMP (2) [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						378.80									
	0 - 10		153	.04		379.50	47	46	153	561	NA	6.0			
	10 - 20		154	.08	25	380.80	49	47	153	562		8.0	8.0		
	20 - 30	-.69	154	.04	25	381.80	50	47	153	561		8.0			
	30 - 40		155	.04	25	382.80	51	48	153	562		8.0	7.8		
	40 - 50		156	.03	25	383.81	51	49	154	562		8.0			
	50 - 60		157	.03	25	384.80	52	49	154	562		6.3			
	60 - 70														
	70 - 80														
	80 - 90														
AVERAGE			154.8	0.04		6.00	48	48	153.3				7.9		

REMARKS Pre-Leak Check: 0.1< @1" Post-Leak Check: 0.1< @1"

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE Dresden, NY
LOCATION	Economizer Run 3 - SO_3
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/13/08
TIME	Start- 1150 Stop- 1308
SAMPLE BOX	1149
METER BOX	NuTech # N-2
PITOT TUBE DESC	NA
OPERATOR(S)	PCB / KP

AMBIENT TEMP [°F]	≈60
BAROMETRIC PRESSURE [" Hg]	29.29
%H_2O (Assumed)	9
PROBE LENGTH [ft]	12
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.779
Y	0.985
C(p)	NA
K	XXXX

WATER BATH SETTING	140		
PROBE HTR SETTING	550		
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page 1 of 2

DRY MOLECULAR WEIGHT (Assumed)
WET MOLECULAR WEIGHT (Assumed)

Elv

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	~~STATIC PRESSURE~~ [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
Port 1 1149	0	ΔH		NA		3.234									
1154	5 10	.03	639		68	3.76	56	55	137	555	NA	8	8.1		
1159	10 20	.03	675		70	4.23	56	55	137	558		8	5.4		
1204	20 30	.03	694		65	4.7	56	55	138	553		8	5.4		
	30 - 40				Stop test, change ports										
Port 2 1206	40 50					4.7									
1211	50 60	.03	609		74	5.20	57	56	136	502		9	10.3		
1216	25	.02	625		70	5.67	58	56	136	426		10	12.6		
1221	30	.02	625		70	6.16	58	56	136	410		10	13.7		
					Stop test, change ports										
		0.03			probe heat wires shorted, GFI Trip, fix wires										
AVERAGE		~~2.23~~	657.3			6.166	57.2		137.1				9.4		

REMARKS

Pre-Leak Check: 10" Hg = 0.000

Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE Dresden, NY
LOCATION	Economizer Run 3-SO_3
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/12/08
TIME	Start- Stop- 1208
SAMPLE BOX	
METER BOX	NuTech # N-2
PITOT TUBE DESC	
OPERATOR(S)	PCB/KP

AMBIENT TEMP [°F]	60
BAROMETRIC PRESSURE [" Hg]	
%H_2O (Assumed)	9
PROBE LENGTH [ft]	12
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.779
Y	0.985
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? (rect ?) other:
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
12 1225	30				6.16	6.18									
Port 3 1242	0350	.03	590		70	6.74	58	57	130	343	NA	6		9.6	
1247	1020	.03	595		70	7.25	58	57	130	348		6		8.8	
1252	2045 30	.03	604		70	7.76	58	57	135	383		6		8.8	
port 4	30 - 40			Stop test, change ports											
1253	4050	.05				7.76									
1258	5060	.03	734		70	8.30	59	58	143	505		6		9.3	
1:03	55	.03	749		76	8.87	60	58	144	567		7		10.2	
1:08	60	.02	749		76	9.400	60	59	143	560		7		10.9	
				Stop test											
				Leak check from tip of probe bad. Cracked glass at probe tip											
AVERAGE				Leak check from SO_3 condenser @ 12" = 0.000											

REMARKS Pre-Leak Check: Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	AHI Test 3
DUCT DIMENSIONS	
DUCT AREA	
DATE	10-13-08
TIME	Start- 11:50 Stop- 12:55
SAMPLE BOX	
METER BOX	NuTech # 1
PITOT TUBE DESC	
OPERATOR(S)	KC. PR

AMBIENT TEMP [°F]	90
BAROMETRIC PRESSURE [" Hg]	29.29
%H_2O (Assumed)	9
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.817
Y	0.986
C(p)	
K	XXXX

WATER BATH SETTING			
PROBE HTR SETTING			
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						135.85									
	0 - 10		623	.04	.80	137.03	95	93	147	550	NA	8	6.1		
	10 - 20		635	.04	.75	138.06	95	94	147	549		8	6.0		
	20 - 30		632	.04	.73	139.05	96	95	147	551		8	6.2		
	30 - 40		637	.04	.75	140.07	96	95	147	552		8	5.5		
	40 - 50		643	.04	.75	141.02	97	96	148	548		8	5.1		
	50 - 60		644	.04	.78	142.10	98	96	148	548		8	4.9		
AVERAGE			635.7	0.04		6.25	95.5		147.3				5.6		

REMARKS Pre-Leak Check: <0.01 at 7 Post-Leak Check: <0.01 at 6

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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1.14 K

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	AHO — 5
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/13/08
TIME	Start- Stop-
SAMPLE BOX	
METER BOX	NuTech # 5
PITOT TUBE DESC	
OPERATOR(S)	BW ST

AMBIENT TEMP [°F]	
BAROMETRIC PRESSURE [" Hg]	29.29
%H_2O (Assumed)	9
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.818
Y	0.990
C(p)	
K	XXXX

WATER BATH SETTING		Page _____ of _____	
PROBE HTR SETTING			
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=) (3) (2)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
11:48						240.10				385					
	0 - 10	-16.32	302		3	241.08	39	42	142		NA	7.5	10.0		
Top	10 - 20		310		3	242.01	41	43	141	415					
	20 - 30		308		3	242.98	41	43	139	427		8			
	30 - 40	-16.56	316		3	243.83	42	44	141	428		10			
Bottom	40 - 50		316		3	244.72	43	44	140	431		10.5			
	50 - 60		316		3	245.55	43	44	141	438		14			
12:54															
AVERAGE		-16.44	311.3			5.45	42.4		140.5				10.0		

REMARKS — Pre-Leak Check: OK <0.01 @ 6" — Post-Leak Check: OK <0.01 @ 5"

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	STACK Test 3
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/18/08
TIME	Start- 1150 Stop- 1250
SAMPLE BOX	
METER BOX	NuTech #N3
PITOT TUBE DESC	
OPERATOR(S)	BJ/AG

AMBIENT TEMP [°F]	35
BAROMETRIC PRESSURE [" Hg]	29.29
%H_2O (Assumed)	9
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.827
Y	1.062
C(p)	
K	xxxx

WATER BATH SETTING			
PROBE HTR SETTING			
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=) 3 2

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						384.90									
	0 - 10		185	0.04	25	385.90	52	49	154	561	NA	3			
	10 - 20	-.70	185	0.04	25	386.91	54	51	154	562		3	7.9		
	20 - 30		186	0.04	25	388.00	54	51	154	562		3	7.9		
	30 - 40		186	0.05	25	388.90	55	52	154	562		3.25	7.8		
	40 - 50	-.65	186	0.04	25	389.91	55	52	154	564		3.25			
	50 - 60		186	0.04	25	390.91	55	53	154	562		3.25	7.9		
	60 - 70														
	70 - 80														
	80 - 90														
AVERAGE		-0.68	185.7	0.04		6.01	52.8		154				7.9		

REMARKS Pre-Leak Check: 0.1< @ 10" Post-Leak Check: 0.1< @ 10"

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE Dresden NY
LOCATION	Economizer Run 4 - SO_3
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/13/08
TIME	Start- 1420 Stop- 1539
SAMPLE BOX	
METER BOX	NuTech # N-2
PITOT TUBE DESC	None
OPERATOR(S)	PCB / KP

AMBIENT TEMP [°F]	≈65
BAROMETRIC PRESSURE [" Hg]	29.19
%H_2O (Assumed)	9
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.779
Y	0.985
C(p)	NA
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? (rect ?) other:
POSITION OF PORT A	

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DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

Elevation

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	~~STATIC~~ PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
Port #4 1420	0	ΔH		NA		11.010									
1425	05 10	0.02	617		68	11.51	62	61	145	553	NA	7	12.7		
1430	10 20	0.02	656		68	12.01	62	61	143	545		7	12.5		
1435	20 30	0.02	707		62	12.475	61	61	141	557		7	13.0		
~~1440~~	30 - 40	~~0.02~~			stop	test change		ports							
1438	40 50					12.475									
1443	50 60	0.03	615		68	12.96	62	61	138	497		7	16.0		
1445	22	0.03			68	13.150	stop	test,	leak check @ 9" Hg = 0.000			7	18.5		
1450	22					13.099			from Condenser						
1453	25	0.03	589		68	13.52	64	62	137	365		8	16.8		
1458	30	0.02	600		70	14.005	64	62	137	355		9	16.3		
AVERAGE		0.02	642.4	stop Test, change ports, leak check from condenser @ 13" Hg = 0.000									14.5		

REMARKS: Pre-Leak Check: from SO_3 Condenser @ 11" Hg = 0.000 Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3	5.367	63.2		139.4		
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE Dresden, NY
LOCATION	Economizer Run 4 - SO_3
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/13/08
TIME	Start- Stop-
SAMPLE BOX	
METER BOX	NuTech # N-2
PITOT TUBE DESC	None
OPERATOR(S)	PCB / KP

AMBIENT TEMP [°F]	~65
BAROMETRIC PRESSURE [" Hg]	29.18
%H_2O (Assumed)	9
PROBE LENGTH [ft]	12
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.779
Y	0.985
C(p)	NA
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	350
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

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DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
1506 Port 2	30	ΔH				14.032									
15:11	35 10	0.02	579		68	14.54	64	63	137	338	NA	7.5	16.6		
15:16	10 40 20	0.02	613		68	15.03	64	63	138	342		7.5	16.3		
15:21	20 45 30	0.02	625		66	15.510	65	63	138	349		7.5	16.1		
	30 - 40			Stop test, change ports											
1524	40 50					15.510									
1529	50 60	0.02	632		64	15.98	65	64	140	575		7.5	13.8		
1534	55	0.02	708		68	16.44	66	65	140	654		8	9.3		
1539	60	0.02	718		68	16.904	66	65	139	679		9	9.9		
				Stop test											
AVERAGE															

REMARKS Pre-Leak Check: Post-Leak Check: from Condenser @ 12" Hg = 0.000

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	AHI Test #4
DUCT DIMENSIONS	
DUCT AREA	
DATE	10-13-08
TIME	Start- 14:20 Stop- 15:25
SAMPLE BOX	
METER BOX	NuTech #
PITOT TUBE DESC	
OPERATOR(S)	KC · PR

AMBIENT TEMP [°F]	
BAROMETRIC PRESSURE [" Hg]	29.19
%H_2O (Assumed)	9
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.867
Y	0.986
C(p)	
K	XXXX

WATER BATH SETTING			
PROBE HTR SETTING			
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						142.15									
	0 - 10		643	0.04	.73	143.15	96	95	147	550	NA	8	5.1		
	10 - 20		645	0.04	.73	144.12	99	98	147	550		8	4.7		
	20 - 30		646	0.04	.73	145.08	98	97	144	549		8	4.7		
	30 - 40		630	0.04	.75	146.12	98	97	148	551		9	5.8		
	40 - 50		633	0.04	.71	146.95	99	98	148	553		9	6.0		
	50 - 60		634	0.04	.72	147.97	100	98	147	551		10	6.1		
AVERAGE			638.5	0.04		5.82	97.8		147.3				5.4		

REMARKS Pre-Leak Check: <0.01 at 6 Post-Leak Check: <0.01 at 7

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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03/05/08

Test 4

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	AHO
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/13/08
TIME	Start- Stop-
SAMPLE BOX	
METER BOX	NuTech # 5
PITOT TUBE DESC	
OPERATOR(S)	RAW, SJL

AMBIENT TEMP [°F]	
BAROMETRIC PRESSURE [" Hg]	29.18
%H_2O (Assumed)	9
PROBE LENGTH [ft]	10
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.814
Y	0.990
C(p)	1
K	XXXX

WATER BATH SETTING			
PROBE HTR SETTING			
DUCT X-SECTION	circ ?	rect ?	other:
POSITION OF PORT A			

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
1421						246.03									
	0 - 10	-17.11	318		0.035	247.02	46	47	140	420	NA	3	9.6		
Top	10 - 20		318		0.035	247.98	46	47	139	429		3	9.3		
	20 - 30		319		0.03	248.97	47	48	138	430		5.5			
Bottom	30 - 40	-16.38	324		0.03	249.79	47	49	139	429		5.5	9.6		
	40 - 50		322		0.03	250.65	48	51	139	439		8	9.6		
	50 - 60		322		0.025	251.57	49	51	140	440		11			
AVERAGE		-16.75	320.5		0.03	5.57	48.0		139.2				9.5		

REMARKS Pre-Leak Check: OK @ 8" Hg Post-Leak Check: OK @ 7" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOLENERGY

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03/05/08

SO_3 FIELD SAMPLING DATA SHEET

PLANT	GREENIDGE
LOCATION	STACK Test 4
DUCT DIMENSIONS	
DUCT AREA	
DATE	3/13/8
TIME	Start- 1425 Stop- 1520
SAMPLE BOX	
METER BOX	NuTech # N-3
PITOT TUBE DESC	
OPERATOR(S)	BS/AG

AMBIENT TEMP [°F]	35
BAROMETRIC PRESSURE [" Hg]	29.18
%H_2O (Assumed)	9
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	1.827
Y	1.062
C(p)	
K	XXXX

WATER BATH SETTING	
PROBE HTR SETTING	
DUCT X-SECTION	circ ? rect ? other:
POSITION OF PORT A	

Page _____ of _____

DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	PITOT HEAD [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	WATER BATH TEMP [°F]	METER VACUUM [" Hg]	O_2 METER [%]	CONTROL ROOM O_2 [%]	CONTROL ROOM DUCT TEMP [—uo°F]
						391.0									
	0 - 10		184	0.03	25	392.0	57	55	151	561	NA	6	7.8		
	10 - 20	-.76	184	0.04	25	393.0	58	56	151	561		6	7.8		
	20 - 30		185	0.04	25	393.99	60	57	153	561		6	7.7		
	30 - 40		185	0.04	25	395.0	61	58	154	562		6	7.7		
	40 - 50	-.80	185	0.04	25	396.0	61	58	154	562		6	7.8		
	50 - 60		185	0.04	25	397.0	62	59	154	562		6	7.7		
	60 - 70														
	70 - 80														
	80 - 90														
AVERAGE		-0.78	184.7	0.04		6.00	58.5		152.8				7.8		

REMARKS Pre-Leak Check: 0.01L @ 10^{11} Post-Leak Check: 0.01L @ 10^{11}

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

	ALIQUOT / VOLUME	TITRATION (ml)		lb/dscf	ppmv,act	ppmv,cor
PLUG--SO_3						
PROBE--SO_3						
CONDENSER--SO_3						
BLANK						
IMPINGER (H_2O_2)--SO_2						

Gas Vol, dscf

$BaCl_2$ NORMALITY

CONSOL ENERGY

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03/05/08

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	5-20-08
TIME	Start- 0844 Stop- 01:46
SAMPLE BOX	NuTech 1
METER BOX	NuTech #
PITOT TUBE DESC	
OPERATOR(S)	KRC

AMBIENT TEMP [°F]	30
BAROMETRIC PRESSURE [" Hg]	29.85
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

171.41 (Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						~~172.05~~							
	0 - 10		288	.005	.12	172.53	60	58	142	523	6		
	10 - 20		289	.005	.12	173.64	59	57	142	522	6		
	20 - 30		289	.005	.12	174.69	59	57	142	525	6	7.2	13.1
	30 - 40	-10.46	298	.005	.12	175.71	60	58	142	549	6		
	40 - 50		299	.005	.12	176.60	60	58	142	550	6	7.3	12.9
	50 - 60		298	.005	.12	177.40	60	58	142	550	6		
AVERAGE			293.5	0.005		5.99	58.7		142			7.2	13.0

REMARKS: Pre-Leak Check: < 0.01 7 Post-Leak Check: < 0.01 6

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO_3 FIELD SAMPLING DATA SHEET

SO3 #1

Page ____ of ____

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	5-20-08
TIME	Start-1240 Stop-
SAMPLE BOX	
METER BOX	NuTech # N-3
PITOT TUBE DESC	
OPERATOR(S)	BS, PR

AMBIENT TEMP [°F]	~45°
BAROMETRIC PRESSURE [" Hg]	28.38
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP (1) [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP (6) [°F] (7) inlet	METER TEMP (6) [°F] (7) outlet	CONDENSER TEMP (3) [°F]	PROBE TEMP (2) [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						531.60							
	0 - 10			0.10	70	532.60	57	57	147	556	5.0		
	10 - 20		177	0.10	70	533.61	58	57	147	557	5.0	7.9	
	20 - 30	-.500		0.10	70	534.62	58	57	146	556	5.0		
	30 - 40			0.10	68	535.60	59	58	147	556	5.0		
	40 - 50		176	0.10	69	536.56	60	59	146	556	5.0	8.0	
	50 - 60	-.485	177	0.10	72	537.61	60	59	147	557	5.0		
AVERAGE		-0.493	176.7	0.10		6.01	58.3		146.7			7.9	

REMARKS Pre-Leak Check: OK Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO3-2

SO_3 FIELD SAMPLING DATA SHEET

Page _____ of _____

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	5-21-08
TIME	Start- 3:50 Stop- 4:57
SAMPLE BOX	
METER BOX	NuTech # 1
PITOT TUBE DESC	
OPERATOR(S)	KRC

AMBIENT TEMP [°F]	32
BAROMETRIC PRESSURE [" Hg]	29.28
$\%H_2O$ (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						177.46							
	0 - 10		289	.005	12	178.62	57	56	142	551	6	7.6	12.6
	10 - 20	-9.10	290	.006	12	179.75	58	56	142	550	7	—	—
	20 - 30		290	.006	12	180.79	59	57	142	550	7	7.3	12.9
	30 - 40		283	.005	12	181.77	60	58	143	550	7	—	—
	40 - 50	-9.40	283	.005	12	182.71	60	58	142	551	7	7.4	12.8
	50 - 60		283	0.05	12	183.70	61	59	141	550	7	7.3	12.9
AVERAGE		-9.25	286.3	0.053		6.24	59.3		142			7.4	12.8

REMARKS Pre-Leak Check: <0.01 6 Post-Leak Check: <0.01 7

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO_3 FIELD SAMPLING DATA SHEET

SO3 #2

Page ____ of ____

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	5/21
TIME	Start- 04:35 Stop- 05:35
SAMPLE BOX	
METER BOX	NuTech # 3
PITOT TUBE DESC	
OPERATOR(S)	BPS/PR

AMBIENT TEMP [°F]	~45
BAROMETRIC PRESSURE [" Hg]	28.33
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						537.70							
	0 - 10		172	0.10	70	538.68	61	60	147	548	10.0		
	10 - 20			0.10	70	539.61	61	60	147	555	10.0	8.2	
	20 - 30			0.10	75	540.70	61	60	146	559	10.0		
	30 - 40		173	0.10	70	541.55	61	60	147	555	10.0	8.2	
	40 - 50		177	0.10	80	542.59	63	61	147	555	10.0	8.3	
	50 - 60		175	0.10	85	543.71	63	61	147	555	10.0	8.3	
AVERAGE			174.3	0.10		6.01	61	60	147			8.3	

REMARKS Pre-Leak Check: OK Post-Leak Check: <0.01

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	5-21-08 1201 3
TIME	Start- 23:00 Stop- 00:10
SAMPLE BOX	
METER BOX	NuTech # 1
PITOT TUBE DESC	
OPERATOR(S)	KRC

AMBIENT TEMP [°F]	52
BAROMETRIC PRESSURE [" Hg]	28.97
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						184.00							
	0 - 10		277	0.04	.12	184.80	55	53	141	544	7	9.4	10.9
	10 - 20	-6.6	275	0.04	.12	185.70	56	54	142	542	10	—	—
	20 - 30		275	0.04	.12	186.90	58	55	142	530	10		
						188.93	Restart						
		30-4	275	0.04	.12	189.93	59	57	142	533	7	9.4	10.9
		40-50	275	0.04	.12	190.94	60	58	142	533	6		
		50-6	274	0.04	.12	192.00	61	58	142	534	6	9.6	10.7
AVERAGE		-6.6	275.2	0.04		5.97	57.0		142			9.5	10.8

REMARKS Pre-Leak Check: <0.01 6 Post-Leak Check: <0.01 6

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	5/21/08 TEST 3
TIME	Start- 23:00 Stop- 24:00
SAMPLE BOX	
METER BOX	NuTech # 3
PITOT TUBE DESC	
OPERATOR(S)	BS/PR

AMBIENT TEMP [°F]	47
BAROMETRIC PRESSURE [" Hg]	28.91
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						550.00							
	0 - 10		150	0.08	72	551.00	58	57	147	550	8.0		
	10 - 20	-.464	173	0.08	72	552.00	58	58	147	550	8.0	10.1	
	20 - 30		177	0.08	72	553.00	59	58	147	555	8.0	10.0	
	30 - 40	-.458	187	0.08	72	554.00	60	58	147	555	9.0		
	40 - 50		183	0.08	72	555.00	60	59	147	555	9.0		
	50 - 60		186	0.08	72	556.00	60	60	146	555	9.0	10.1	
AVERAGE		-.461	176	0.08		6.00	58.8		147			6.1	

REMARKS Pre-Leak Check: OK <0.01 Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	5-22-08 Tuesday
TIME	Start- 7:25 Stop- 7:25
SAMPLE BOX	
METER BOX	NuTech #
PITOT TUBE DESC	
OPERATOR(S)	KRC

AMBIENT TEMP [°F]	55
BAROMETRIC PRESSURE [" Hg]	28.92
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						192.30							
	0 - 10		274	0.04	.12	193.56	59	57	142	531	6	9.7	10.5
	10 - 20	-6.7	274	0.04	.12	194.57	60	58	142	530	6	—	—
	20 - 30		275	0.04	.12	195.47	60	58	142	530	6	9.4	10.9
	30 - 40		273	0.04	.12	196.53	61	59	142	529	6	—	—
	40 - 50	-6.8	273	0.04	.12	197.42	62	59	142	527	6	9.4	10.9
	50 - 60		273	0.04	.12	198.39	62	59	142	530	6	—	—
AVERAGE		-6.8	273.7	0.04		5.89	59.5		142			9.5	10.8

REMARKS: Pre-Leak Check: <0.01 @ 6 Post-Leak Check: <0.01 @ 7

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOL ENERGY

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	5/22/08 Test 4
TIME	Start-01:25 Stop-
SAMPLE BOX	
METER BOX	NuTech # 3
PITOT TUBE DESC	
OPERATOR(S)	BS/PR

AMBIENT TEMP [°F]	~45
BAROMETRIC PRESSURE [" Hg]	28.94
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	XXXX

(Assumed=)

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						556.10							
	0 - 10		169	0.10	64	557.10	57	56	145	550	3.0	10.2	
	10 - 20	-.469	176	0.10	62	558.10	58	57	147	554	3.0		
	20 - 30			0.10	62	559.10	59	58	~~58~~ 147	555	3.0	10.1	
	30 - 40		175	0.10	62	560.10	59	58	146	555	3.0	10.2	
	40 - 50	-.474	175	0.10	62	561.10	60	59	146	554	3.0		
	50 - 60		173	0.10	62	562.10	60	59	147	555	3.0	10.2	
AVERAGE		-0.472	173.6	0.10		6.00	58.3		146.3			10.2	

REMARKS: Pre-Leak Check: OK <0.01 | Post-Leak Check: OK <0.01

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	5-22-08 Test 3
TIME	Start-04:10 Stop-
SAMPLE BOX	
METER BOX	NuTech # /
PITOT TUBE DESC	
OPERATOR(S)	KRC

AMBIENT TEMP [°F]	
BAROMETRIC PRESSURE [" Hg]	28.77
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						198.58							
	0 - 10		270	0.04	.12	199.37	54	54	142	550	5	—	—
	10 - 20		267	0.05	.14	200.10	55	53	143	550	10	—	—
	20 - 30		266	0.05	.12	201.54	55	53	142	550	5	9.3	
	30 - 40		271	0.05	.12	202.53	55	53	142	539	5	—	—
	40 - 50		271	0.05	.12	203.46	56	53	142	538	5	9.8	
	50 - 60		271	0.05	.12	204.44	56	54	142	539	6	9.7	10.6
AVERAGE			269.3	0.05	0.12	5.86	54.3		142			9.6	10.6

REMARKS Pre-Leak Check: <0.01 @ 6 Post-Leak Check: <0.01 @ 7

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY.

SO_3 FIELD SAMPLING DATA SHEET

Page _____ of _____

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	5/22 TEST 5
TIME	Start-0410 Stop-
SAMPLE BOX	
METER BOX	NuTech # 3
PITOT TUBE DESC	
OPERATOR(S)	BS/PR

AMBIENT TEMP [°F]	45
BAROMETRIC PRESSURE [" Hg]	28.97
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						562.20							
	0 - 10			0.08	62	563.20	55	55	147	550	3.0		
	10 - 20	-.418		0.08	62	564.21	56	55	147	554	3.0	10.3	
	20 - 30			0.08	60	565.20	57	56	148	555	3.0		
	30 - 40	-.434		0.07	63	566.20	58	57	147	555	3.0		
	40 - 50			0.06	63	567.21	58	57	147	555	3.0		
	50 - 60			0.06	63	568.21	58	57	147	555	3.0		
AVERAGE		-0.426		0.07		6.01	56.6		147			10.3	

REMARKS Pre-Leak Check: OK <0.01 Post-Leak Check: OK <0.01

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

RUN 1

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Economizer Outlet
DUCT DIMENSIONS	
DUCT AREA	
DATE	6/10/08
TIME	Start- 1327 Stop- 1541
SAMPLE BOX	MB #19
METER BOX	NuTech #
PITOT TUBE DESC	~~S-Type~~ NA
OPERATOR(S)	JM

AMBIENT TEMP [°F]	90
BAROMETRIC PRESSURE [" Hg]	29.29
%H_2O (Assumed)	
PROBE LENGTH [ft]	10'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	.99910
C(p)	N/A
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]	
						693.932								
1335 A	0-~~7.5~~	NA	634	2.0	.55	694.665	107	107	146	553	4	6.5	13.5	
1345 A	~~7.5-15~~ ~~10-20~~	|	635	2.0	.60	695.560	110	107	144	561	5	6.4	13.6	STOP 1335
1425 B	~~15-22.5~~ ~~20-30~~	|	615	1.9	.60	696.228	112	110	149	568	7	6.8	13.2	START 1440
1502.5 B	~~22.5-30~~ ~~30-40~~	|	616	1.9	.60	697.035	112	111	148	556	7	6.8	13.2	→ port change C 522
1518.5 C	~~30-37.5~~ ~~40-50~~	|	609	2.0	.60	697.750	112	110	149	548	7	5.6	15.3	stack 1511
1524.0 C	~~37.5-45~~ ~~50-60~~	|	609	2.0	.60	698.378	112	110	148	549	7	5.0	15.4	
1533.5 C	45-52.5	|	608	2.0	.60	699.022	111	110	149	549	9	4.7	16.2	
1541 C	52.5-60	↓	607	2.0	.60	699.710	113	111	149	548	8	4.8	16.1	STOP 1541
AVERAGE			616.6	—	—	5.778	110.3		147.8			5.8	14.6	

REMARKS: Pre-Leak Check: 0.00 @ 10" Hg Post-Leak Check: 0.0001" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

Leak ✓ between port B & C → 0.00 @ 10" Hg
new DGM = 697.707

CONSOLENERGY

Elevator

SO_3 FIELD SAMPLING DATA SHEET

Page _____ of _____

PLANT	Greenidge
LOCATION	Air Heater Inlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	
DATE	1-10-08
TIME	Start- 1325 Stop- 1530
SAMPLE BOX	
METER BOX	NuTech # 41
PITOT TUBE DESC	0
OPERATOR(S)	KR C

AMBIENT TEMP [°F]	96
BAROMETRIC PRESSURE [" Hg]	29.79
$\%H_2O$ (Assumed)	
PROBE LENGTH [ft]	3'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.002
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						158.000							
	0 - 10		640	0.05	.12	660.00	98	98	140	567	4	5.0	15.1
	10 - 20		641	0.05	.12	661.00	99	98	140	559	4	5.0	15.1
	20 - 30		642	0.05	.12	662.10 / 662.39	104	102	141	569	4	5.0	15.1
	30 - 40		640	0.05	.12	663.20	104	102	140	547	4	5.0	15.1
	40 - 50		649	0.05	.12	664.21	104	104	141	569	4	4.9	15.6
	50 - 60		650	0.05	.12	665.20	104	104	140	566	5	4.4	15.6
AVERAGE			643.7	0.05		5.15	101.8		140			4.8	15.3

stoped at 13:35 Restart @ 14:40

REMARKS Pre-Leak Check: <0.01 @ 6 Post-Leak Check: <0.01 @ 7

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	06-10-08
TIME	Start- 1:25 Stop- 3:25
SAMPLE BOX	
METER BOX	NuTech #
PITOT TUBE DESC	
OPERATOR(S)	RAVI S.

AMBIENT TEMP [°F]	66.°F
BAROMETRIC PRESSURE [" Hg]	29.29
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	0.986
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						205.600							
	0 - 10	-13.11	308	.03		206.100	91	88	148	506	3"	7.80	12.0
*	10 - 20	-12.80	309	.03		207.00	92	89	146	486	3"		
	20 - 30	-12.36	311	.03		208.10	97	94	145	536	5"	8.3	11.8
	30 - 40		317	.04		209.10	97	94	145	541	4"	7.4	12.7
	40 - 50		316	.03		210.10	97	95	145	547	4"	7.3	12.9
	50 - 60		316	.03		211.10	98	95	145	551	4"	7.2	13.0
*1	18	-12.64	312	.03		207.4	97	94	146	534	4"	8.0	12.2
*2	32		317	.04		208.8	97	94	145	535	4"	7.9	12.3
*3	60		316	.03		211.6	98	95	145	550	4"	7.2	13.0
AVERAGE			313.6	0.03		6.000	94.6		145.6			7.6	12.5

REMARKS Pre-Leak Check: <0.001 @ 10 Post-Leak Check: <0.001 @ 8

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY.

*1 Initial Reading taken after the delay @ 18 min into the test

*2 Initial Reading after changing ports @ 32 mins into the test

*3 Final Reading @ 60 min

Lost Power 13:38 "Stoped"
Restart ~~[illegible]~~ 14.40

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	6/10/08
TIME	Start- 13.25 Stop-
SAMPLE BOX	KS
METER BOX	NuTech # 3
PITOT TUBE DESC	
OPERATOR(S)	PR/BS

AMBIENT TEMP [°F]	87
BAROMETRIC PRESSURE [" Hg]	29.29
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.062
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						568.50							
	0 - 10		172	.05	70	569.50	93	93	148	550	5.0		
	10 - 20	-.40	.174	.07	65	570.50	98	97	148	537	5.0	8.7	
	20 - 30		.174	.07	68	571.49	99	98	149	542	5.0	8.5	
	30 - 40			.07	68	572.48	99	98	147	542	5.0	8.2	
	40 - 50	-.40	.175	.10	70	573.50	100	98	147	541	5.0	8.4	
	50 - 60	-.36	174	0.10	69	574.49	101	99	146	542	5.0	8.3	
AVERAGE		-0.351	173.3	0.077		5.99	97.3		148			8.4	

REMARKS Pre-Leak Check: OK <0.01/min. Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

RUN 2

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Economizer Outlet
DUCT DIMENSIONS	
DUCT AREA	
DATE	6-11-08
TIME	Start- ~~0900~~ Stop- 1025
SAMPLE BOX	
METER BOX	~~NuTech #~~ ADES #19
PITOT TUBE DESC	~~S-type~~ N/A
OPERATOR(S)	JY, MW

AMBIENT TEMP [°F]	95
BAROMETRIC PRESSURE [" Hg]	29.38
%H_2O (Assumed)	
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	.99910
C(p)	N/A
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]	
						702.743								
A	~~0-7.5~~ ~~0-10~~		640	~~.03~~ ~~2.0~~	60	703.575	98	97	~~144~~	~~144~~ ~~545~~	5	5.9	15.0	
A	~~7.5-15~~ ~~10-20~~		724	~~.06~~ ~~2.0~~	60	704.240	98	97	~~143~~	~~143~~ ~~551~~	5	4.6	16.3	stop 0915
B	~~15-22.5~~ ~~20-30~~		685	~~.07~~ ~~2.0~~	60	704.900	98	97	~~143~~	~~143~~ ~~556~~	6	6.8	14.1	
B	~~22.5-30~~ ~~30-40~~		710	~~.07~~ ~~2.0~~	60	~~705.570~~ ~~706.238~~	99	97	144	556	6	6.8	14.1	stop 0935
C	~~30-37.5~~ ~~40-50~~		687	~~.05~~ ~~2.0~~	60	706.720	104	102	143	558	6	17.4*		start 0948
C	~~37.5-45~~ ~~50-60~~		619	.03	60	707.640	107	106	142	550	6	18.3*		stop 1003
D	45-52.5		684	.03	60	708.650	113	112	144	538	6	19.4*		start 1012
D	52.5-60		687	.03	60	709.585	115	113	145	551	6	17.0*		stop 1025
						6.450 dif								
AVERAGE			680	0.03		~~6.792~~	103.4		144			12.4*		

REMARKS Pre-Leak Check: 0.00 @ 10" Hg Post-Leak Check: 0.0 @ 10" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

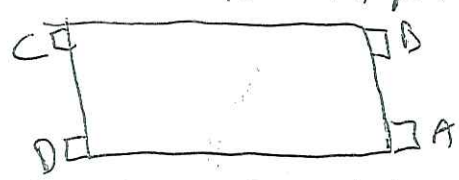
Leak ✓ after 1st port change = 0.00 @ 8"

new Vol = 706.130

Leak ✓ after port C = 0.00 @ 9" Hg

new Vol = 707.820

Elevated



* good leak checks between ports, but O_2 #'s are high

CONSOLENERGY.

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge Test #2
LOCATION	Air Heater Inlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	
DATE	6-11-08
TIME	Start 9:00 Stop-
SAMPLE BOX	
METER BOX	NuTech # 4
PITOT TUBE DESC	
OPERATOR(S)	KRC

AMBIENT TEMP [°F]	85
BAROMETRIC PRESSURE [" Hg]	29.38
%H_2O (Assumed)	
PROBE LENGTH [ft]	31
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.002
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						665.400							
	0 - 10		624	0.05	12	666.39	84	84	140	555	4	5.6	14.5
	10 - 20		651	0.05	12	667.35	84	84	141	575	4	5.6	14.5
	20 - 30		651	0.05	12	~~668.42~~ 668.76	87	86	140	561	4	5.5	14.6
	30 - 40		650	0.05	12	669.60	88	87	140	564	5	5.4	17.7
	40 - 50		657	0.05	12	670.53	88	87	140	579	5	5.8	15.2
	50 - 60		658	0.05	12	671.60	89	88	140	580	5	4.8	15.2
AVERAGE			649	0.05		5.95	86.3		140			5.3	

REMARKS: Pre-Leak Check: <0.01 @ 6 Post-Leak Check: <0.01 @ 7

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO_3 Test #2

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	06-11-08
TIME	Start- 9:00AM Stop- 10:03
SAMPLE BOX	I
METER BOX	NuTech #
PITOT TUBE DESC	
OPERATOR(S)	Ravi C.

AMBIENT TEMP [°F]	72
BAROMETRIC PRESSURE [" Hg]	29.38
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	0.986
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						212.20							
	0 - 10	-13.62	306	.04		212.70	77	74	145	548	17	7.6	12.6
	10 - 20	-14.14	306	.04		213.70	77	75	145	547	8	7.5	12.7
	20 - 30	-15.18	307	.04		214.70	78	75	145	547	7	7.0	13.3
	30 - 40	-14.09	303	.05		215.69	79	76	145	550	8	6.9	13.3
	40 - 50	-13.90	302	.05		216.71	79	76	144	519	8	7.0	13.0
	50 - 60	-13.37	303	.04		217.70	80	77	144	489	8	7.0	13.2
	60	-13.38	304	.04		218.199	80	78	144	487	8	6.8	13.4
AVERAGE			304	0.04		5.999	77.3		145			7.1	

REMARKS: Pre-Leak Check: < .001 ft^3 @ 10" Post-Leak Check: < .001 ft^3 @ 18"

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO_3 FIELD SAMPLING DATA SHEET

Page _____ of _____

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	6/11/08 TEST 2
TIME	Start-09:00 Stop- 10:00
SAMPLE BOX	
METER BOX	NuTech # 3
PITOT TUBE DESC	
OPERATOR(S)	PR/BS

AMBIENT TEMP [°F]	80 F
BAROMETRIC PRESSURE [" Hg]	29.38
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.062
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						574.60							
	0 - 10		175	.02	68	575.59	82	81	142	525	5.0	8.0	
	10 - 20	-.35		.02	70	576.60	83	81	142	523	5.0	7.9	
	20 - 30		172	.02	70	577.60	85	83	142	525	5.0		
	30 - 40	-.40	175	.04	76	578.61	85	84	142	526	5.0	7.8	
	40 - 50		176	.05	70	579.60	86	84	142	526	5.0	7.7	
	50 - 60	-.46	176	.05	70	580.60	85	84	142	527	5.0	7.6	
AVERAGE			175	0.03		6.00	83.6		142			7.8	

REMARKS Pre-Leak Check: OK <0.01/min Post-Leak Check: OK <0.01/min

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

RUN 3

SO_3 FIELD SAMPLING DATA SHEET

Page 2 of 1

PLANT	Greenidge
LOCATION	Economizer Outlet
DUCT DIMENSIONS	
DUCT AREA	
DATE	6-11-08
TIME	Start- 1149 Stop- 1320
SAMPLE BOX	
METER BOX	~~NuTech~~ # 4901 083
PITOT TUBE DESC	NA
OPERATOR(S)	TY, NM

AMBIENT TEMP [°F]	95°
BAROMETRIC PRESSURE [" Hg]	29.41
%H_2O (Assumed)	
PROBE LENGTH [ft]	121
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.00086
C(p)	NA
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]	
						462.665								
D	~~0-7.5~~ ~~0-10~~		683	.03	60	463.298	115	114	148	551	6	4.6	16.3	
D	~~7.5-15~~ ~~10-20~~		746	.03	60	464.020	116	114	146	552	6	5.2	15.7	Stop 1204
C	~~15-22.5~~ ~~20-30~~		669	.03	60	464.610	115	114	149	568	8	9.8	11.1	START 1207
C	~~22.5-30~~ 30-40		671	.03	60	465.439	115	114	148	570	10	17.1	3.8	STOP 1222
B	~~30-37.5~~ ~~40-50~~		682	.03	60	466.267	114	113	146	577	6	7.3	13.6	START 1248
B	~~37.5-45~~ ~~50-60~~		681	.03	60	466.870	110	110	148	576	7	8.3	12.6	stop: 1303
A	45-525		672	.03	60	467.420	109	109	146	575	10	11.5	9.4	START: 1305
A	525-560		682	.03	60	467.952	109	109	148	575	12	14.7	6.2	stop 1320
						5.080								
AVERAGE			686	0.03		~~5.285~~	112.5		147			9.8		

REMARKS: Pre-Leak Check: 0.00 0.00 — Post-Leak Check: 0.00 0.15

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

Leak ✓ between port C & B
0.00 @ 12" Hg After fixing leak
that occured during port C
NEW DGM= 465.643

CONSOLENERGY

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge Test #3
LOCATION	Air Heater Inlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	
DATE	6-11-08
TIME	Start- 11:50 Stop- 12:53
SAMPLE BOX	
METER BOX	NuTech # 4
PITOT TUBE DESC	
OPERATOR(S)	KRC

AMBIENT TEMP [°F]	84
BAROMETRIC PRESSURE [" Hg]	29.41
%H_2O (Assumed)	
PROBE LENGTH [ft]	3'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.007
C(p)	
K	XXXX

(Assumed=)

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						672.000							
	0 - 10		644	0.04	12	673.14	93	92	140	560	3	5.8	14.3
	10 - 20		646	0.04	12	674.13	93	92	140	559	3	5.5	14.6
	20 - 30		647	0.05	12	~~675.17~~ 675.30	94	93	140	576	4	5.4	14.7
	30 - 40		641	0.05	12	676.27	95	94	139	573	4	5.0	15.1
	40 - 50		652	0.05	12	677.37	95	94	140	560	4	5.0	15.1
	50 - 60		654	0.06	12	678.50	96	95	140	559	4	4.8	15.3
AVERAGE			647	0.05		6.37	93.8		140			5.3	

REMARKS Pre-Leak Check: <0.01 @ 6 Post-Leak Check: <0.01 @ 6

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

TEST # 3

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	06-11-08
TIME	Start- 11:44 Stop- 12:51
SAMPLE BOX	
METER BOX	NuTech #
PITOT TUBE DESC	
OPERATOR(S)	RAVI C

AMBIENT TEMP [°F]	75 F
BAROMETRIC PRESSURE [" Hg]	29.44
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	.996
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						218.40							
	0 - 10	-13.93	313	.03		215.90	83	81	145	425	3	7.2	12.9
	10 - 20	-13.92	312	.03		219.90	84	81	144	418	3	6.9	13.2
	20 - 30	-13.82	310	.04		220.90	84	81	145	418	4	7.0	13.2
	30 - 40	-13.96	306	.04		221.90	84	82	143	423	4	6.9	13.3
	40 - 50	-13.87	306	.04		222.89	84	82	145	436	5	6.9	13.3
	50 - 60	-13.60	303	.04		223.90	85	83	144	444	5	6.8	13.4
	60	-13.52	306	.04		224.40	85	83	144	444	5	6.8	13.4
AVERAGE			308	0.04		6.000	83.0		144			6.9	

REMARKS Pre-Leak Check: <.001 @ 20" Post-Leak Check: <.001 HP @ 7"

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY.

LP → TP

* Equ. ~ 64

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	6/11/08 Test 3
TIME	Start- 11:50 Stop- 12:50
SAMPLE BOX	
METER BOX	NuTech # 5
PITOT TUBE DESC	
OPERATOR(S)	PR/BS

AMBIENT TEMP [°F]	80
BAROMETRIC PRESSURE [" Hg]	29.41
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.062
C(p)	
K	XXXX

(Assumed=)

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						580.70							
	0 - 10	-.48	174	0.05	70	581.70	86	85	143	527	5.0	7.5	
	10 - 20		173	0.05	70	582.70	87	86	142	522	5.0	7.5	
	20 - 30	-.42	174	0.05	70	583.69	87	86	143	522	5.0	7.7	
	30 - 40		174	0.07	70	584.71	88	86	142	524	5.0	7.9	
	40 - 50	-.40	174	0.07	70	585.70	89	87	143	522	5.0	7.7	
	50 - 60			0.07	70	586.71	89	87	141	522	5.0		
AVERAGE			174	0.06		6.01	86.9		142			7.7	

REMARKS Pre-Leak Check: OK <0.01/min Post-Leak Check: OK <0.01/min

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

Run 4

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Economizer Outlet
DUCT DIMENSIONS	
DUCT AREA	
DATE	6-11-08
TIME	Start- Stop-
SAMPLE BOX	
METER BOX	NuTech # A-JES 083
PITOT TUBE DESC	NA
OPERATOR(S)	JM, NM

AMBIENT TEMP [°F]	60
BAROMETRIC PRESSURE [" Hg]	27.41
%H_2O (Assumed)	
PROBE LENGTH [ft]	12
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.0086
C(p)	NA
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]	
						470.468								
A	0 - 10		666	~~.03~~ .03	60	471.270	102	102	138	554	6	4.2	16.7	
A	10 - 20		671	.03	60	472.995	102	102	149	558	7	4.3	16.6	
A	20 - ~~30~~ 25		650	.03	60	472.276	102	102	154	660	9	2.7	18.2	STOP 1630
C	~~30 - 40~~ 25-35		603	.03	60	473.195	104	104	152	543	7	5.1	15.8	START 1640
C	~~40 - 50~~ 35-45		612	.03	60	473.950	105	105	153	556	7	4.3	16.6	
C	~~50 - 60~~ 45-50		605	.03	60	474.324	112	113	154	531	8	4.8	16.1	STOP 1705
AVERAGE			635	0.03		3.856	104.5		150			4.2		

REMARKS: Pre-Leak Check: 0.0 @ 12" Hg — Post-Leak Check:

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO_3 FIELD SAMPLING DATA SHEET

Page _____ of _____

PLANT	Greenidge Test # 7
LOCATION	Air Heater Inlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	
DATE	6-11-08
TIME	Start- 15:07 Stop- 16:35
SAMPLE BOX	
METER BOX	NuTech # 4
PITOT TUBE DESC	
OPERATOR(S)	KRC

AMBIENT TEMP [°F]	95
BAROMETRIC PRESSURE [" Hg]	29.44
%H_2O (Assumed)	
PROBE LENGTH [ft]	3'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.002
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]	
						678.900								
	0 - 10		640	0.05	12	680.00	96	96	140	582	6	5.1	15.0	
	10 - 20		649	0.05	12	681.07	96	96	140	560	6	5.1	15.0	Stopped 15:32
	20 - 30		650	0.05	12	682.25 / 682.20	97	96	140	564	6	5.1	15.0	
	30 - 40		637	0.05	12	683.12	98	98	140	576	6	5.6	14.5	Re started 1605
	40 - 50		642	0.05	12	684.07	98	98	140	559	6	5.5	14.6	
	50 - 60		641	0.05	12	685.08	98	98	140	579	6	5.4	14.7	
AVERAGE			643.2	0.05		6.03	97.1		140			5.3		

REMARKS: Pre-Leak Check: <0.01@7 Post-Leak Check: <0.01@6

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

TEST # 4

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	6/11/08
TIME	Start- 3:40 Stop- 4:37
SAMPLE BOX	
METER BOX	NuTech #
PITOT TUBE DESC	
OPERATOR(S)	RAVI C.

AMBIENT TEMP [°F]	
BAROMETRIC PRESSURE [" Hg]	29.44
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	.986
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						224.5							
	0 - 10	-13.24	306	.03		225.0	85	83	145	542	6	7.6	12.6
	10 - 20	-11.22	305	.04		226.0	86	84	145	547	8"	7.5	12.7
	20 - 30	-13.38	305	.04		227.0	86	84	145	550	8"	7.5	12.8
	30 - 40		310	.03		228.0	87	86	144	491	8"	6.6	
	40 - 50		307	.04		229.0	87	85	144	497	7"		
	50 - 60		310	.04		230.0	87	85	145	496	8"		
	60		310	.04		230.5	87	85	145	498	8"		
AVERAGE			308	0.04		6.000	85.5		145			7.3	

REMARKS Pre-Leak Check: < .001 ft³ @ 15" Post-Leak Check: @ 12"

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft³/min

CONSOLENERGY

- Bad O_2 meter after changing parts
- No static pressure readings (AG probe was out)

TP → LP

STOPED 15:31
RESTART 16:~~15~~05

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	6/11/08 TEST 4
TIME	Start- 15:03 Stop- 16:37
SAMPLE BOX	
METER BOX	NuTech # 3
PITOT TUBE DESC	
OPERATOR(S)	PR/BS

AMBIENT TEMP [°F]	90
BAROMETRIC PRESSURE [" Hg]	29.44
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.062
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						586.80							
	0 - 10	-.32	173	0.05	75	587.85	90	89	142	542	6.0	7.6	
	10 - 20		173	0.05	70	588.81	92	91	142	525	6.0	7.8	
	20 - 30	-.44	174	0.05	70	589.80	93	92	142	523	6.0	7.9	
	30 - 40		174	0.05	70	590.81	95	93	143	524	6.5	7.9	
	40 - 50			0.05	70	591.80	94	93	147	528	7.0		
	50 - 60			0.05	70	592.81	95	94	148	527	7.0		
AVERAGE			174	0.05		6.01	92.6				6.4	7.8	

REMARKS Pre-Leak Check: OK <0.01/min Post-Leak Check: OK <0.01/min

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

RUN 5

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	6-16-08
TIME	Start-1132 Stop- 1232
SAMPLE BOX	
METER BOX	NuTech # NC-4
PITOT TUBE DESC	NA
OPERATOR(S)	SJ, AG

AMBIENT TEMP [°F]	75°
BAROMETRIC PRESSURE [" Hg]	29.23
%H_2O (Assumed)	
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.002
C(p)	NA
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						827.327							
Lower	0 - 10	-14.9	310	.02	70	828.215	82	79	141	542	5	7.5	13.4
↓	10 - 20	-14.9	310	.02	70	829.080	84	80	142	548	6	7.4	13.5
↓	20 - 30	~~-15.4~~ -15.4	311	.02	70	829.980	84	80	140	545	6	7.3	13.6
upper	30 - 40	-15.3	311	.02	70	830.788	84	80	140	541	7	7.7	13.2
↓	40 - 50	-15.8	315	.02	70	831.625	84	80	140	549	7	7.2	13.7
↓	50 - 60	-15.3	314	.02	70	832.440	85	81	141	549	7	7.2	13.7
AVERAGE		-15.3	311.8	0.02		5.117	81.9		140.7			7.4	

REMARKS Pre-Leak Check: 0.00 @ 10" Hg Post-Leak Check: 0.00 @ 12" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	6/16 TEST 5
TIME	Start- 11:30 Stop- 12:30
SAMPLE BOX	
METER BOX	NuTech # 3
PITOT TUBE DESC	
OPERATOR(S)	PK/BS

AMBIENT TEMP [°F]	75
BAROMETRIC PRESSURE [" Hg]	29.23
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.062
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						593.50							
	0 - 10		175	.02	~~2.0~~ 75	594.56	84	83	145	553	6 ~~12.0~~	8.0	
	10 - 20	-0.44	176	.02	75	595.50	86	84	146	553	6.0	8.0	
	20 - 30		176	.02	70	596.50	87	86	146	554	6.0	7.9	
	30 - 40	-0.44	175	.02	70	597.50	88	87	147	554	6.0	7.9	
	40 - 50	-0.48	176	.02	70	598.50	89	87	147	554	6.0	8.0	
	50 - 60	-0.40	176	.03	70	599.48	90	88	146	554	6.0	8.0	
AVERAGE		-0.44	175.7	0.02		5.98	86.6		146.2			8.0	

REMARKS Pre-Leak Check: OK <0.01/min Post-Leak Check: OK <0.01/min

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

RUN 6

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	6-16-08
TIME	Start-1415 Stop- 1515
SAMPLE BOX	
METER BOX	NuTech # NC-4
PITOT TUBE DESC	NA
OPERATOR(S)	JM, ACO

AMBIENT TEMP [°F]	82
BAROMETRIC PRESSURE [" Hg]	27.
%H_2O (Assumed)	
PROBE LENGTH [ft]	81
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.002
C(p)	NA
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						832.542							
lower	0 - 10	-14.5	318	.02	70	833.485	86	84	140	549	6	7.2	13.7
	10 - 20	-14.5	314	.02	70	834.368	86	83	143	448	7	7.2	13.7
	20 - 30	-14.3	313	.02	70	835.195	86	83	137	443	7	7.3	13.6
upper	30 - 40	-15.8	312	.02	70	836.070	84	82	136	520	7	7.4	13.5
	40 - 50	-14.8	314	.02	70	836.906	84	81	126	551	8	7.5	13.4
	50 - 60	-14.7	315	.02	70	837.753	84	81	130	552	8	7.4	13.5
AVERAGE		-14.8	312.7	0.02		5.211	83.7		135.3			7.3	

REMARKS: Pre-Leak Check: 0.00 @ 11" Hg; Post-Leak Check: 0.00 @ 9" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOL ENERGY

SO_3 FIELD SAMPLING DATA SHEET

Page _____ of _____

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	6/18/08 Test 6
TIME	Start- Stop-
SAMPLE BOX	
METER BOX	NuTech # 3
PITOT TUBE DESC	
OPERATOR(S)	DR / BS

AMBIENT TEMP [°F]	77
BAROMETRIC PRESSURE [" Hg]	20.21
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.062
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						599.60							
	0 - 10		174	0.01	70	600.59	84	84	147	541	6.0	8.2	
	10 - 20	-.475	176	0.01	70	601.60	86	85	147	554	6.0	8.5	
	20 - 30		175	0.01	70	602.60	86	85	147	555	6.0	8.5	
	30 - 40		173	0.01	70	603.60	86	84	146	555	6.0	8.5	
	40 - 50		174	0.01	70	604.60	86	85	147	555	6.0	8.5	
	50 - 60		176	0.01	70	605.60	87	86	147	554	6.0	8.2	
AVERAGE			174.7	0.01	cf	6.00	85.3		146.8	552.3		8.40	

REMARKS Pre-Leak Check: OK <0.01/min. Post-Leak Check: OK <0.01 cf/min

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY.

RUN 7

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	8-16-08
TIME	Start-1421 Stop-
SAMPLE BOX	
METER BOX	NuTech # NC4
PITOT TUBE DESC	NA
OPERATOR(S)	JM

AMBIENT TEMP [°F]	80
BAROMETRIC PRESSURE [" Hg]	29.84
%H_2O (Assumed)	
PROBE LENGTH [ft]	8'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.002
C(p)	NA
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						837.783							
lower	1431 0 - 10	-14.8	316	.02	80	838.735	83	81	150	425	7	7.5	13.4
	1441 10 - 20	-15.0	316	.02	80	839.710	83	81	150	435	7	7.4	13.5
	1451 20 - 30	-14.8	313	.02	80	840.860	83	80	145	469	8	7.3	13.7
upper	30 - 40	-15.3	310	.02	80	841.700	83	81	140	478	8	7.4	13.5
	40 - 50	-15.3	313	.02	80	842.640	84	81	135	543	8	7.3	13.6
	50 - 60	-15.3	314	.02	80	843.555	84	81	132	548	8	7.2	13.7
AVERAGE			313.7	0.02		5.772	82.1		142.0	486.3		7.35	

REMARKS Pre-Leak Check: 0.00 @ 11" Hg Post-Leak Check: 0.00 @ 10" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY.

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	6/16/08 TEST 7
TIME	Start 1620 Stop- 1720
SAMPLE BOX	
METER BOX	NuTech # 5
PITOT TUBE DESC	
OPERATOR(S)	PR/BS

AMBIENT TEMP [°F]	77
BAROMETRIC PRESSURE [" Hg]	29.21
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.062
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						605.70				554			
	0 - 10		177	.03	70	606.70	92	92	146	~~554~~	6	—	—
	10 - 20		177	.03	70	607.70	92	92	147	557	6	7.7	—
	20 - 30		177	.03	70	608.68	93	92	146	554	7	7.8	—
	30 - 40		177	.03	70	609.71	93	92	146	554	7	7.8	—
	40 - 50		174	.03	70	610.70	93	92	146	555	7	7.8	—
	50 - 60		174	.03	70	611.70	93	92	146	554	7	7.8	—
AVERAGE			176.0	0.03		6.000	92.3		146.2	554.7		7.78	

REMARKS Pre-Leak Check: OK <0.01 cf/min Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

RUN 8

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	6-17-08
TIME	Start- 1130 Stop- 1230
SAMPLE BOX	
METER BOX	NuTech # NC 4
PITOT TUBE DESC	NA
OPERATOR(S)	JT, AG

AMBIENT TEMP [°F]	66
BAROMETRIC PRESSURE [" Hg]	29.18
%H_2O (Assumed)	
PROBE LENGTH [ft]	8'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.002
C(p)	NA
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						843.757							
Loved	0 - 10	-15.3	303	.02	80	844.965	68	64	140	491	3	7.2	13.7
↓	10 - 20	-15.5	305	.02	80	846.057	68	65	144	470	3	7.1	13.8
↓	20 - 30	-14.4	304	.02	80	847.220	70	65	140	470	3	6.8	14.1
Uffed	30 - 40	-14.7	312	.02	90	848.320	70	66	143	492	3	7.3	13.6
↓	40 - 50	-14.7	311	.02	80	849.425	70	66	144	495	3	7.2	13.7
↓	50 - 60	-14.5	314	.02	80	850.510	71	67	144	501	3	7.1	13.8
										486.5			
AVERAGE			308.2	0.02		6.753	67.5		142.5	~~486.5~~ 488.5		7.12	

REMARKS Pre-Leak Check: 0.00 @ 10" Hg Post-Leak Check: 0.00 @ 12" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY.

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	10/17/08 Test 8
TIME	Start 1130 Stop-
SAMPLE BOX	
METER BOX	NuTech # 3
PITOT TUBE DESC	
OPERATOR(S)	PR/BS

AMBIENT TEMP [°F]	65
BAROMETRIC PRESSURE [" Hg]	29.18
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.062
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						612.10							
	0 - 10			.01	70	613.10	75	74	147	554	6.0	8.3	
	10 - 20	-.520	174	.01	70	614.10	75	74	147	554	6.0	8.3	
	20 - 30	-.463	174	.01	70	615.10	77	75	147	554	6.0	8.2	
	30 - 40		174	.01	70	616.10	77	75	147	554	6.0	8.2	
	40 - 50	-.554		.01	70	617.10	78	77	147	554	6.0	8.3	
	50 - 60		174	.01	70	618.10	78	77	147	554	6.0	8.2	
AVERAGE			174.0	0.01		6.00	76.0		147.0	554.0		8.25	

REMARKS: Pre-Leak Check: OK <0.01 cf/min. Post-Leak Check: OK <0.01 cf/min

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

Run 9

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	6-17-08
TIME	Start-1350 Stop-1450
SAMPLE BOX	
METER BOX	NuTech # NC-4
PITOT TUBE DESC	NA
OPERATOR(S)	JT, AG

AMBIENT TEMP [°F]	66
BAROMETRIC PRESSURE [" Hg]	27.18
%H_2O (Assumed)	
PROBE LENGTH [ft]	51
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.002
C(p)	NA
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						850.642							
Lowed	0 - 10	-14.5	302	.02	80	851.950	69	66	140	547	4	7.5	13.4
	10 - 20	-15.4	302	.02	80	852.98	69	66	142	524	4	7.2	13.7
	20 - 30	-15.0	303	.02	80	853.730	70	67	140	516	4	7.2	13.7
Yaxed	30 - 40	-14.9	308	.02	80	855.030	70	66	141	510	5	7.4	13.5
	40 - 50	-15.0	317	.02	80	856.175	71	66	140	504	5	7.3	13.6
	50 - 60	-14.7	313	.02	80	857.156	71	67	140	498	5	7.6	13.3
AVERAGE			307.5	.02		6.514	68.2		140.5			7.4	

REMARKS Pre-Leak Check: 0.00 @ 12" Hg Post-Leak Check: 0.00 @ 12" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	6/17/08 Test 9
TIME	Start- 13:50 Stop-
SAMPLE BOX	
METER BOX	NuTech # 3
PITOT TUBE DESC	
OPERATOR(S)	PR/BS

AMBIENT TEMP [°F]	66
BAROMETRIC PRESSURE [" Hg]	29.15
$\%H_2O$ (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.062
C(p)	
K	XXXX

(Assumed=)

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						618.20							
	0 - 10		174	.04	70	619.20	75	75	147	553	6.0	9.8	
	10 - 20	-.526	174	.04	70	620.20	76	75	146	553	6.0	9.8	
	20 - 30	-.441	174	.04	70	621.20	78	77	147	554	6.0		
	30 - 40	—	—	—	—	—	—	—	—	—	—	—	
	40 - 50		174	.05	70	623.19	80	80	147	555	6.0	9.8	
	50 - 60		174	.06	70	624.11	80	79	147	554	6.0	9.4	
AVERAGE			174	0.046		5.91	77.5		146.8			9.7	

REMARKS Pre-Leak Check: OK < 0.01 CF/MIN. Post-Leak Check: OK DGD STOP

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

RUN 10

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	6-17-08
TIME	Start-1545 Stop- 1645
SAMPLE BOX	
METER BOX	NuTech # NC-4
PITOT TUBE DESC	NA
OPERATOR(S)	JM, AG

AMBIENT TEMP [°F]	88
BAROMETRIC PRESSURE [" Hg]	29.18
%H_2O (Assumed)	
PROBE LENGTH [ft]	9'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.007
C(p)	NA
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						857.174							
UPPER	0 - 10		311	.02	80	858.173	71	69	140	549	6	7.8	13.1
	10 - 20		319	.02	80	859.140	70	68	140	464	6	7.6	13.3
	20 - 30		316	.02	80	860.095	69	66	141	441	8	7.6	13.3
LOWER	30 - 40		307	.02	80	860.965	69	66	140	444	9	7.6	13.3
	40 - 50		311	.02	80	861.845	69	66	140	451	10	7.4	13.5
	50 - 60		312	.02	80	862.775	69	66	141	451	14	7.4	13.5
AVERAGE			312.7	0.02		5.601	68.7		140.3			7.6	

REMARKS Pre-Leak Check: 0.00 @ 16" Hg Post-Leak Check: 0.00 @ 20" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

Run 10

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	6/17/08 Test 10
TIME	Start- 15:45 Stop-
SAMPLE BOX	
METER BOX	NuTech # 3
PITOT TUBE DESC	
OPERATOR(S)	PR/DS

AMBIENT TEMP [°F]	69
BAROMETRIC PRESSURE [" Hg]	29.18
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.062
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						624.20							
	0 - 10		174	.05	75	625.20	78	79	147	548	8.0	9.3	
	10 - 20		174	.05	75	626.20	79	79	147	554	8.0	9.0	
	20 - 30		174	.05	75	627.21	79	78	147	554	8.0	8.8	
	30 - 40		174	.03	75	628.20	80	79	147	555	8.0	8.8	
	40 - 50		174	.03	75	629.21	78	78	147	555	8.0	8.6	
	50 - 60		174	.03	75	630.20	78	77	148	555	8.0	8.7	
AVERAGE			174	0.04		6.000	78.5		147.2			8.9	

REMARKS Pre-Leak Check: OK Dead Stop. Post-Leak Check: OK Dead Stop

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

RUN 11

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	6-18-08
TIME	Start-1212 Stop- 1312
SAMPLE BOX	
METER BOX	NuTech # NL-4
PITOT TUBE DESC	NA
OPERATOR(S)	JM, AG

AMBIENT TEMP [°F]	66
BAROMETRIC PRESSURE [" Hg]	29.18
%H_2O (Assumed)	
PROBE LENGTH [ft]	12'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.002
C(p)	NA
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						862.842							
1 inch	0 - 10	-16.3	302	.02	79	863.755	61	60	141	528	3	7.0	13.9
	10 - 20	-16.3	301	.02	79	864.785	62	61	140	530	4	6.8	14.1
	20 - 30	-16.0	302	.02	79	866.030	63	60	140	529	4.5	6.8	14.1
1 inch	30 - 40	-15.8	311	.02	75	867.040	63	61	140	527	4.5	7.3	13.6
	40 - 50	-15.8	310	.02	72	868.000	63	62	140	529	5.0	7.2	13.7
	50 - 60	-	310	.02	72	869.973	63	62	140	528	5.0	7.2	13.7
AVERAGE			306.0	0.02		7.131	61.8		140.2	528.5		7.05	

REMARKS Pre-Leak Check: 0.00 @ 12" Hg Post-Leak Check: 0.00 @ 14" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	6-18-08 TEST 11
TIME	Start- 12:10 Stop- 13:10
SAMPLE BOX	
METER BOX	NuTech # N-3
PITOT TUBE DESC	
OPERATOR(S)	BS, PR

AMBIENT TEMP [°F]	65
BAROMETRIC PRESSURE [" Hg]	29.18
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.062
C(p)	
K	XXXX

(Assumed=)

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						630.40							
	0 - 10		175	.03	80	631.50	74	73	146	555	8.0	7.4	
	10 - 20	-.471	175	.03	78	632.38	74	74	148	554	9.0	7.4	
	20 - 30	-.471	175	.03	80	633.42	75	74	147	554	9.0	7.3	
	30 - 40		175	.03	80	634.39	75	75	146	554	9.0	—	
	40 - 50	-.445	175	.04	80	635.40	76	75	146	554	9.0	—	
	50 - 60		175	.05	80	636.40	77	76	146	554	9.0	7.4	
AVERAGE			175	0.035		6.00	74.8		146.5	554.2		7.38	

REMARKS Pre-Leak Check: OK Dead Stop Post-Leak Check: OK Dead Stop

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

RUN 12

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	6-18-08
TIME	Start- 1400 Stop- 1500
SAMPLE BOX	
METER BOX	NuTech # NC-4
PITOT TUBE DESC	NA
OPERATOR(S)	JT, JG

AMBIENT TEMP [°F]	68
BAROMETRIC PRESSURE [" Hg]	27.18
%H_2O (Assumed)	
PROBE LENGTH [ft]	8'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.002
C(p)	NT
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						869.044							
lower	0 - 10	-15.7	301	.02	74	870.105	65	65	140	547	3	8.2	12.7
↓	10 - 20	-16.0	301	.02	74	871.165	65	64	140	552	4	8.2	12.7
↓	20 - 30	-14.8	302	.02	74	872.901	66	65	140	471	8	8.2	12.7
upper	30 - 40	-16.2	308	.02	74	872.815	66	65	140	501	7	8.2	12.7
↓	40 - 50	-15.4	307	.02	74	873.680	66	65	140	510	8	8.2	12.7
↓	50 - 60	-14.9	307	.02	74	874.601	66	65	140	520	9	7.7	13.2
AVERAGE		-15.5	304.3	.02		5.557	65.3		140			8.1	

REMARKS: Pre-Leak Check: 0.10 @ 15" Hg; Post-Leak Check: 0.00 @ 18" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

* O2 Raw ≅ 1.0% high this test no leaks were found during sampling. Final Leak ✓ was good without making any adjustments. JM

Run 12

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	6/15/03 Test 12
TIME	Start- 14:00 Stop- 15:00
SAMPLE BOX	
METER BOX	NuTech # N-3
PITOT TUBE DESC	
OPERATOR(S)	PR/P.S

AMBIENT TEMP [°F]	65
BAROMETRIC PRESSURE [" Hg]	29.18
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.062
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						636.50							
	0 - 10	-.424	175	.03	80	637.48	81	81	148	554	9.0	7.3	
	10 - 20	-.403	175	.03	80	638.49	82	81	147	554	9.0	7.5	
	20 - 30		175	.03	80	639.58	82	81	147	554	9.0	7.4	
	30 - 40	-.440	175	.03	80	640.50	82	81	147	554	9.0	7.3	
	40 - 50		175	.03	80	641.51	83	81	147	554	9.0	7.5	
	50 - 60		175	.03	80	642.50	83	81	146	554	9.0	7.4	
AVERAGE		-0.422	175	.03		6.00000	81.6		147			7.4	

REMARKS Pre-Leak Check: OK Dead Stop. Post-Leak Check: OK Dead Stop.

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

Run 13

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	6.18.08
TIME	Start- 1555 Stop- 1655
SAMPLE BOX	
METER BOX	NuTech # NC 4
PITOT TUBE DESC	NA
OPERATOR(S)	JT, AG

AMBIENT TEMP [°F]	72
BAROMETRIC PRESSURE [" Hg]	29.
%H_2O (Assumed)	
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.002
C(p)	NA
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						874.655							
~~[illegible]~~	0 - 10		300	.02	80	875.715	69	66	141	538	6	7.9	13.0
	10 - 20		301	.02	80	876.700	69	66	140	523	6	7.8	13.1
	20 - 30		300	.02	~~80~~ 77	877.670	69	67	140	501	6	7.7	13.2
inlet	30 - 40		308	.02	77	878.645	70	67	141	500	6	7.3	13.4
	40 - 50		308	.02	77	879.625	71	68	139	497	6	7.4	13.5
	50 - 60		308	.02	77	880.600	71	68	142	496	6	7.5	13.4
AVERAGE			303	0.02		5.945	68.4		140.5			7.6	

REMARKS Pre-Leak Check: 0.000 @ 18" Hg Post-Leak Check: 0.00 @ 15" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO_3 FIELD SAMPLING DATA SHEET

Page ____ of ____

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	6-18-08 Test
TIME	Start- 15:55 Stop- 16:55
SAMPLE BOX	
METER BOX	NuTech # 3
PITOT TUBE DESC	
OPERATOR(S)	PR/BS

AMBIENT TEMP [°F]	65
BAROMETRIC PRESSURE [" Hg]	29.18
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.062
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						643.20							
	0 - 10		175	.02	75	644.22	84	84	147	554	9.0		
	10 - 20		175	.02	75	645.18	84	84	147	554	9.0	9.3	
	20 - 30		175	.02	75	646.11	85	84	147	554	9.0	9.0	
	30 - 40		175	.03	80	647.22	86	86	147	555	9.0	8.9	
	40 - 50		175	.03	75	648.20	87	87	147	554	9.0	9.0	
	50 - 60		175	.04	78	649.21	89	88	147	555	9.0	8.9	
AVERAGE			175	0.027		6.01	85.7		147			9.0	

REMARKS: Pre-Leak Check: OK Dead Stop — Post-Leak Check: * OK Dead Stop

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

* Don't think the MAX 5 reads accurately at such a low flowrate was using O_2 from the Acid Gas Train ~~from~~ for all previous tests

Pete

RUN 14

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	6-17-08
TIME	Start-1150 Stop- 1250
SAMPLE BOX	
METER BOX	NuTech # NU-4
PITOT TUBE DESC	NA
OPERATOR(S)	JT, AG

AMBIENT TEMP [°F]	60
BAROMETRIC PRESSURE [" Hg]	29.23
%H_2O (Assumed)	~~NA~~
PROBE LENGTH [ft]	8 1
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.002
C(p)	NA
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						880.725							
Lowest	0 - 10	-16.0	294	.02	~~75~~ 75	881.850	66	65	140	545	3	7.4	13.5
↓	10 - 20	-16.3	296	.02	75	882.875	66	65	143	493	3	7.4	13.5
↓	20 - 30	-16.2	294	.02	75	883.910	66	65	141	485	3	7.2	13.7
Upper	30 - 40	-16.3	302	.02	75	884.920	68	65	142	512	3	7.3	13.6
↓	40 - 50	-16.3	304	.02	75	885.885	68	66	140	546	3	7.3	13.6
↓	50 - 60	-16.2	305	.02	75	886.795	69	66	140	548	3	7.3	13.6
AVERAGE			299.2	0.02		6.072	66.3		141.0	519.8		7.32	

REMARKS: Pre-Leak Check: 0.00 @ 22" Hg Post-Leak Check: 0.00 @ 9" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	6-19-08 TEST 14
TIME	Start- 11:50 Stop-
SAMPLE BOX	
METER BOX	NuTech # N3
PITOT TUBE DESC	
OPERATOR(S)	PR/BS

AMBIENT TEMP [°F]	65
BAROMETRIC PRESSURE [" Hg]	29.23
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.062
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						649.30							
	0 - 10		182	.03	80	650.30	77	76	144	555	9.0	7.7	
	10 - 20	-.507	183	.03	80	651.30	77	76	148	552	9.0	7.6	
	20 - 30	-.424	180	.03	80	652.30	78	77	146	555	9.0	7.6	
	30 - 40		180	.03	80	653.30	78	77	148	554	9.0	7.5	
	40 - 50	-.514	180	.03	80	654.30	78	77	147	555	9.0	7.6	
	50 - 60	-.451	180	.03	80	655.31	79	78	147	551	9.0	7.6	
AVERAGE			180.8	0.03		6.01	77.3		146.7	553.7		7.60	

REMARKS: Pre-Leak Check: OK Dead Stop — Post-Leak Check: OK Dead Stop

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

Run 15

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	6-19-08
TIME	Start- 1458 Stop- 1558
SAMPLE BOX	
METER BOX	NuTech # NC4
PITOT TUBE DESC	NA
OPERATOR(S)	JM, AG

AMBIENT TEMP [°F]	65
BAROMETRIC PRESSURE [" Hg]	29.76
%H_2O (Assumed)	
PROBE LENGTH [ft]	8
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.002
C(p)	NA
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						886.850							
Equal	0 - 10		297	.02	75	887.955	68	67	140	539	5	7.4	13.5
	10 - 20		299	.02	75	888.940	68	67	142	482	5	7.4	13.5
N	20 - 30		299	.02	75	889.930	68	68	140	493	5	7.3	13.6
Dimpr	30 - 40		306	.02	75	890.915	68	68	140	492	5	7.4	13.5
	40 - 50		307	.02	75	891.912	68	67	140	473	5	7.2	13.7
N	50 - 60		305	.02	75	892.900	68	68	141	469	5	7.4	13.5
AVERAGE			299.2	0.02		6.05	67.8		140.5			7.4	

REMARKS Pre-Leak Check: 0.00 @ 8" Hg Post-Leak Check: 0.00 @ 8" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	6-19-08 TEST 15
TIME	Start- 14:56 Stop- 15:56
SAMPLE BOX	
METER BOX	NuTech # N3
PITOT TUBE DESC	
OPERATOR(S)	PR

AMBIENT TEMP [°F]	65
BAROMETRIC PRESSURE [" Hg]	29.26
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.062
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						655.40							
	0 - 10		180	.04	90	656.50	79	78	147	554	10		
	10 - 20		180	.03	80	657.40	80	78	147	555	10		
	20 - 30		179	.03	80	658.40	80	78	147	555	10		
	30 - 40		179	.03	80	659.40	80	78	147	555	10		
	40 - 50		178	.03	80	660.40	79	78	147	555	10		
	50 - 60		179	.03	80	661.40	79	78	147	555	10	7.3	
AVERAGE			179.2	0.03		6.000	78.5		147			7.3	

REMARKS Pre-Leak Check: OK Deed Stop Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

Run 16

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Air Heater Outlet
DUCT DIMENSIONS	9' x 12'
DUCT AREA	108 ft2
DATE	6-19-08
TIME	Start- 1540 Stop- 1646
SAMPLE BOX	
METER BOX	NuTech # NC-4
PITOT TUBE DESC	NA
OPERATOR(S)	JT, AG

AMBIENT TEMP [°F]	70
BAROMETRIC PRESSURE [" Hg]	29.26
%H_2O (Assumed)	
PROBE LENGTH [ft]	8'
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.002
C(p)	NA
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]	
						892.913								
Lower	0 - 10	-15.1	298	.02	75	893.900	69	69	140	503	6	7.2	13.7	
	10 - 20	-15.0	299	.02	75	894.730	70	68	140	470	8	7.1	13.8	
	20 - 30	-15.3	302	.02	75	895.925	70	68	140	470	10	7.1	13.8	
Upper	30 - 40	—	308	.02	75	896.935	71	68	140	496	6	7.3	13.6	START 1616
	40 - 50	—	305	.02	75	897.48	71	68	141	454	6	7.3	13.6	
	50 - 60	—	304	.02	75	898.455	72	68	140	458	6	7.5	13.4	
AVERAGE		-15.2	302.7	0.02		5.582	69.3		140			7.3		

REMARKS: Pre-Leak Check: 0.00 @ 10" Hg Post-Leak Check: 0.00 @ 15" Hg

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

CONSOLENERGY

SO_3 FIELD SAMPLING DATA SHEET

Page 1 of 1

PLANT	Greenidge
LOCATION	Stack
DUCT DIMENSIONS	13 ft
DUCT AREA	132.732 ft2
DATE	1-19-08 TEST 1b
TIME	Start- 15:40 Stop- 16:40
SAMPLE BOX	
METER BOX	NuTech # N3
PITOT TUBE DESC	
OPERATOR(S)	PR

AMBIENT TEMP [°F]	65
BAROMETRIC PRESSURE [" Hg]	29.26
%H_2O (Assumed)	
PROBE LENGTH [ft]	
NOZZLE ID [inch]	XXXX
CALIBRATION FACTORS: delta H	XXXX
Y	1.062
C(p)	
K	XXXX

WATER BATH SETTING	140
PROBE HTR SETTING	550
DUCT X-SECTION	circ ? rect ?
POSITION OF PORT A	
DRY MOLECULAR WEIGHT (Assumed)	
WET MOLECULAR WEIGHT (Assumed)	

(Assumed=)

TRAVRSE POINT [inch]	SAMPLE TIME [minute]	STATIC PRESSURE [" H_2O]	STACK TEMP [°F]	Meter Orifice (ΔH) [" H_2O]	ROTOMETER SETTING	METER READING [ft^3]	METER TEMP [°F] inlet	METER TEMP [°F] outlet	CONDENSER TEMP [°F]	PROBE TEMP [°F]	METER VACUUM [" Hg]	Meter Outlet O_2 [%]	Meter Outlet CO_2 [%]
						661.50							
	0 - 10		179	.05	80	662.50	80	78	145	551	10.0	7.5	
	10 - 20	-.45+	179	.05	80	663.50	81	80	147	554	10.0	7.6	
	20 - 30		179	.05	80	664.47	81	80	147	554	10.0		
	30 - 40		180	.05	80	665.50	81	80	147	555	10.0		
	40 - 50		180	.05	80	666.50	81	79	147	554	10.0		
	50 - 60		178	.06	80	667.49	81	80	147	554	10.0		
AVERAGE			179.2	0.05		5.99	80.2		146.7	553.7		7.55	

REMARKS: Pre-Leak Check: OK Dead Stop — Post-Leak Check: OK

Condenser Temp = 140°F

Sampling Rate=3 lpm=0.1 ft^3/min

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