Appendix C

Field Data Sheets

011

Tank Temp: 95 F Avg 90-100 F Range

FIELD DATA RECORD

PAGE ___ of ___

RUN NO. W-11
LOCATION Walker's Chrome
DATE 2/15/06
OPERATOR [illegible]
METER BOX NO. 4206
LOCAL TIME 1000/1205
START/STOP

STACK DIAMETER 12"
Vm: 0.973
H@: 1.752

PITOT TUBE FACTOR 0.84
NOZZLE DIAMETER 3/8 in.
PROBE LENGTH 5 ft.

Fan @ ~70%

SAMPLE TRAIN LEAK TEST
BEFORE 15" ok in. ~~H2O~~ Hg
AFTER 10" ok in. ~~H2O~~ Hg
PITOT TUBE LEAK TEST
BEFORE 4.3" ok H2O AFTER ~~10~~ 4.8"

PROJECT NO. 06-05
PLANT NAME Walker's Chrome
AMBIENT TEMP (F) 57
METER TEMP (F) 60
BAR. PRESS ("Hg) 29.79
STATIC PRESSURE ("H2O) -0.26
ASSUMED MOISTURE (%) <1%
ASSUMED O2 (%) 20.1
ASSUMED CO2 (%) <1
ASSUMED MW (WET, %)
ASSUMED MW (DRY, %)

	POINT	CLOCK TIME	DRY GAS METER (cu. ft.)	VELOCITY dP (in. H2O)	ORIFICE dH (in. H2O) DESIRED	ORIFICE dH (in. H2O) ACTUAL	TEMPERATURES (F) 1 STACK	2 PROBE	3 ~~FILTER~~ Amb	RESIN	4 IMPGR	PUMP VAC (in. Hg)
0	START	0	220.16	—	—	—	—	—	—	—	—	—
1	SE-1	10	230.08	0.13	2.8	2.8	61	61	60		42	7
2	2	20	240	0.12	2.5	2.5	62	61	~~63~~		41	7
3	3	30	249.05	0.12	2.5	2.5	65	62	~~64~~ 58		41	7
4	4	40	258.54	0.12	2.5	2.5	66	62	58		41	7
5	5	50	267.98	0.12	2.5	2.5	66	62	58		41	7
6	6	60	276.75	0.10	2.1	2.1	66	62	57		41	6
7	7	70	285.75	0.11	2.3	2.3	67	62	56		42	6
8	8	80	294	0.11	2.3	2.3	66	64	57		41	6
9	9	90	303.78	0.11	2.3	2.3	66	63	57		42	6
10	10	100	313.12	0.12	2.5	2.5	65	63	57		42	7
11	11	110	322.	0.12	2.5	2.5	66	63	57		42	7
12	12	120	331.88	0.12	2.5	2.5	65	63	58		42	7
13		1/2 Run - Run ended because 300 Amp-hrs reached - No plating for next 1/2 if continued.										
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
		Theta: 120	Vm: 111.72	avg dP: 0.341 1.4		avg dH: 29.3	avg Ts 781					

-end 300 A-hr

FIELD DATA RECORD

PAGE 1 of

RUN NO. W-12
LOCATION Walker's Chrome
DATE 2/16/06
OPERATOR D Welt
METER BOX NO. 4206
LOCAL TIME
START/STOP 0830/ 1235

STACK DIAMETER 12 "
Ym: 0.973
H@: 1.752

PITOT TUBE FACTOR 0.84
NOZZLE DIAMETER (3/8) 0.375 in.
PROBE LENGTH 5 ft.

Fan = 70 %

SAMPLE TRAIN LEAK TEST
BEFORE 20 ok in. ~~H2O Hg~~
AFTER 10 in. ~~H2O Hg~~
PITOT TUBE LEAK TEST
BEFORE 5.8" ok AFTER 4.90k

PROJECT NO. 06-05
PLANT NAME Walker's Chrome
AMBIENT TEMP (F) ~54
METER TEMP (F) 60
BAR. PRESS ("Hg) 29.87
STATIC PRESSURE ("H2O) -0.24
ASSUMED MOISTURE (%) ≤1%
ASSUMED O2 (%) 20.9
ASSUMED CO2 (%) <1
ASSUMED MW (WET, %)
ASSUMED MW (DRY, %)

$K = \frac{21}{1.0} \frac{\Delta H}{\Delta P}$

012

	POINT	CLOCK TIME	DRY GAS METER (cu. ft.)	VELOCITY dP (in. H2O)	ORIFICE dH (in. H2O) DESIRED	ORIFICE dH (in. H2O) ACTUAL	TEMPERATURES (F) STACK	PROBE	~~FILTER~~ Amb	RESIN	IMPGR	PUMP VAC (in. Hg)
0	START	0	332.05	—	—	—	—	—			—	—
1	SE-1	10	340.76	0.10	2.1	2.1	52	49			38	5
2	2	20	349.84	0.11	2.3	2.3	54	57	55		38	6
3	3	30	360.12	0.14	3.0	3.0	57	52	51		38	7
4	4	40	370.	0.13	2.7	2.7	58	54	52		39	6
5	5	50	379.86	0.13	2.7	2.7	59	55	51		40	6
6	6	60	389.42	0.12	2.5	2.5	60	55	52		40	6
7	7	70	398.97	0.12	2.5	2.5	60	56	52		40	6
8	8	80	408.38	0.12	2.5	2.5	60	56	52		40	6
9	9	90	418.80	0.15	3.2	3.2	61	57	52		40	7
10	10	100	429.23	~~0.14~~ 0.15	~~3.2~~ 3.1	~~3.2~~ 3.1	61	57	52		40	7
11	11	110	439.63	0.15	3.1	3.1	62	58	53		40	7
12	12	120	450.33	0.16	3.4	3.4	63	59	52		40	7
NE 13	NE-1	130	460.00	0.16	3.4	3.4	60	59	53		40	7
14	2	140	471.79	~~0.16~~ 0.15	3.4	3.4	60	59	52		40	7
15	3	150	481.91	0.14	3.0	3.0	63	59	53		40	6
16	4	160	492.01	0.14	3.0	3.0	63	60	56		40	6
17	5	170	502.34	0.15	3.1	3.1	64	60	55		41	7
18	6	180	512.72	0.15	3.2	3.2	63	60	55		41	7
19	7	190	521.45	0.10	2.1	2.1	63	60	55		41	5
20	8	200	530.30	0.11	2.3	2.3	65	61	55		41	5
21	9	210	539.20	0.11	2.3	2.3	65	61	55		41	5
22	10	220	548.12	0.11	2.3	2.3	65	62	57		41	5
23	11	230	558	0.12	2.5	2.5	64	61	56		42	5
24	12	240	566.79	0.12	2.5	2.5	64	62	56		43	5
		Theta: 240	Vm: 234.74	avg dP: 0.361		avg dH: 2.758	avg Ts 61.08					

Coveralls
~~Lab coat~~, swell
Ziplock bags
Acetone / isoalcohol
Labels
Cr. Proj. Book

$K = \frac{2.0}{0.1} = \frac{\Delta H}{\Delta P}$

013

FIELD DATA RECORD

PAGE 1 of

RUN NO. W-13
LOCATION Walker's
DATE 2/17/06
OPERATOR [illegible]
METER BOX NO. 4206
LOCAL TIME
START/STOP 0820/
STACK DIAMETER 12"
Ym: 0.973
H@: 1.752

PITOT TUBE FACTOR 0.84
NOZZLE DIAMETER 3/8 0.375 in.
PROBE LENGTH 5 ft.
Fan @ 70%
SAMPLE TRAIN LEAK TEST
BEFORE 15 ok in. ~~H2O~~ Hg
AFTER 10 ok in. ~~H2O~~ Hg
PITOT TUBE LEAK TEST
BEFORE 4.7 ok AFTER 4.4 ok

PROJECT NO. 06-05
PLANT NAME Walker's Chrome
AMBIENT TEMP (F) Overcast
METER TEMP (F) 60
BAR. PRESS ("Hg) 29.24 - 29.20
STATIC PRESSURE ("H2O) -0.25
ASSUMED MOISTURE (%) <1
ASSUMED O2 (%) 20.9
ASSUMED CO2 (%) <1
ASSUMED MW (WET, %)
ASSUMED MW (DRY, %)

	POINT	CLOCK TIME	DRY GAS METER (cu. ft.)	VELOCITY dP (in. H2O)	ORIFICE dH (in. H2O) DESIRED	ORIFICE dH (in. H2O) ACTUAL	TEMPERATURES (F) STACK	PROBE	~~FILTER~~ Amb.	RESIN	IMPGR	PUMP VAC (in. Hg)
0	START	0	566.93	—	—	—	—	—	—		—	—
1	NE-1	10	576.29	0.12	2.4	2.4	52	54	50		40	6
2	2	20	585.94	0.13	2.6	2.6	54	53	52		39	6
3	3	30	596.	0.15	3.0	3.0	59	55	52		40	7
4	4	40	607.0	0.16	3.2	3.2	59	55	52		40	7
5	5	50	617.03	0.15	3.0	3.0	59	55	52		40	7
6	6	60	627.38	0.15	3.0	3.0	60	55	52		40	7
7	7	70	637.05	0.13	2.6	2.6	60	56	51		40	6
8	8	80	646.69	0.13	2.6	2.6	60	56	53		40	6
9	9	90	656.	0.12	2.4	2.4	60	56	53		40	6
10	10	100	665.40	0.13	2.4	2.4	60	57	52		40	6
11	11	110	675.29	0.14	2.8	2.8	60	57	53		40	6
12	12	120	685.16	0.14	2.8	2.8	60	57	52		40	6
13	SE-1	130	694.94	0.14	2.8	2.8	58	57	53		40	6
14	2	140	704.81	0.14	2.8	2.8	59	58	53		40	6
15	3	150	715.01	0.15	3.0	3.0	61	59	52		40	6
16	4	160	724.92	0.14	2.8	2.8	62	58	53		40	6
17	5	170	735.06	0.15	3.0	3.0	63	59	54		40	7
18	6	180	745.61	0.16	3.2	3.2	63	59	54		40	7
19	7	190	755.8	0.15	3.0	3.0	64	59	54		40	7
20	8	200	766.26	0.16	3.2	3.2	64	60	54		40	7
21	9	210	777.	0.17	3.4	3.4	65	61	55		40	7
22	10	220	787.9	0.17	3.4	3.4	64	61	54		40	7
23	11	230	799.0	0.17	3.4	3.4	64	61	55		40	7
24	12	240	809.45	0.17	3.4	3.4	62	60	54		40	7
		Theta: 240	Vm: 242.52	avg dP: 0.382		avg dH: — 2.975 00	avg Ts 60					

$K = \frac{2.0}{0.1} = \frac{\Delta H}{\Delta P}$

FIELD DATA RECORD

PAGE 1 of

RUN NO. W-14 Walker's Slop black (No Slotting)
LOCATION
DATE 2/23/06
OPERATOR D. Gold
METER BOX NO. 4206
LOCAL TIME
START/STOP 0835/

STACK DIAMETER 12"
Ym: ~~1.752~~ 0.923
H@: 1.752

PITOT TUBE FACTOR 0.84
NOZZLE DIAMETER 0.375 (3/8) in.
PROBE LENGTH 5 ft.
Fan ~ 70%

SAMPLE TRAIN LEAK TEST
BEFORE 15 OK in. ~~H2O~~ Hg
AFTER 14 OK in. ~~H2O~~ Hg
PITOT TUBE LEAK TEST
BEFORE 5.5 OK AFTER

PROJECT NO. 06-05
PLANT NAME Walker's Channel
AMBIENT TEMP (F)
METER TEMP (F) 60
BAR. PRESS ("Hg) 29.42
STATIC PRESSURE ("H2O) -0.24
ASSUMED MOISTURE (%) <1
ASSUMED O2 (%) 20.9
ASSUMED CO2 (%) <1
ASSUMED MW (WET, %)
ASSUMED MW (DRY, %)

	POINT	CLOCK TIME	DRY GAS METER (cu. ft.)	VELOCITY dP (in. H2O)	ORIFICE dH (in. H2O) DESIRED	ORIFICE dH (in. H2O) ACTUAL	TEMPERATURES (F) STACK	PROBE	FILTER dark	RESIN	IMPGR	PUMP VAC (in. Hg)
0	START	0	810.29	—	—	—	—	—	—	—	—	
1	NE-1	10	820.53	0.15	3.0	3.0	69	59	60		50	10
2	2	20	830.27	0.13	2.6	2.6	65	60	61		47	9
3	3	30	840.91	0.16	3.2	3.2	65	62	62		45	~~9~~ 11
4	4	40	95 1	0.16	3.2	3.2	67	63	62		44	11
5	5	50	861.51	0.14	2.8	2.8	68	64	63		45	9
6	6	60	871.76	0.15	3.0	3.0	69	65	64		45	10
7	7	70	880.92	0.12	2.4	2.4	69	66	63		46	8
8	8	80	889.8	0.11	2.2	2.2	70	66	64		46	8
9	9	90	898.6	0.12	2.4	2.4	70	67	63		46	8
10	10	100	907.81	0.12	2.4	2.4	71	68	64		46	8
11	11	110	917.20	0.13	2.6	2.6	72	68	64		46	8
12	12	120	926.67	0.13	2.6	2.6	72	~~70~~ 69	63		46	8
13	SE-1	130	935.84	~~0.11~~ 0.12	2.4	2.4	~~70~~ 72	70	65		47	8
14	2	140	944.92	0.12	2.4	2.4	73	71	65		47	8
15	3	150	954.03	0.12	2.4	2.4	74	71	65		48	8
16	4	160	963.42	0.13	2.6	2.6	75	72	66		48	9
17	5	170	972.87	0.13	2.6	2.6	76	73	66		49	9
18	6	180	981.95	0.12	2.4	2.4	76	73	66		49	8
19	7	190	991.03	0.12	2.4	2.4	76	74	66		49	8
20	8	200	1000.49	0.14	2.8	2.8	77	74	67		49	9
21	9	210	1010.2	0.16	3.2	3.2	77	75	67		49	11
22	10	220	1020.42	0.16	3.2	3.2	77	75	67		49	11
23	11	230	1030.89	0.16	3.2	3.2	78	76	70		49	11
24	12	240	1040.88	0.15	3.0	3.0	~~78~~ 77	76	71		49	10
		Theta: 240	Vm: 230.59	avg dP: 0.1379		avg dH: 2.708	avg Ts 72.04					

Tank Temp @ 30 min. 104.8 F

014