Appendix B

Field Data Sheets

This Run is Post-test (Alta) 1445 warehouse, Run is designed to maximize collection of "re-entrained" chromium from hood & duct. This include super-iso sampling hood doors down, 3-4" gap (7-8 @ Alta) above base, Alta baffles covering base (Cr sides up).

FIELD DATA RECORD

PAGE 1 of

RUN NO.	WP-2	PROJECT NO.	T-03-048
LOCATION	~~Alta Dec. Co~~ 1445 warehouse	PLANT NAME	Alta Plating/1445 Post-Test
DATE	2/6/04	AMBIENT TEMP (F)	57 mostly cloudy w/trace rain
OPERATOR	D Todd / ~~[illegible]~~	METER TEMP (F)	60
METER BOX NO.	4206	BAR. PRESS ("Hg)	30.40
LOCAL TIME		STATIC PRESSURE ("H2O)	-0.28
START/STOP	0930/1640	ASSUMED MOISTURE (%)	1%
STACK DIAMETER	12"	ASSUMED O2 (%)	20.9
Ym:	1.002	ASSUMED CO2 (%)	—
moisture H@:	1.755	ASSUMED MW (WET, %)	
		ASSUMED MW (DRY, %)	

PITOT TUBE FACTOR 0.84
NOZZLE DIAMETER 3/8 in.
PROBE LENGTH 4 ft.

SAMPLE TRAIN LEAK TEST
BEFORE 15 in. ~~H_2O~~ Hg ok
AFTER in. H_2O
PITOT TUBE LEAK TEST
BEFORE 6.8" ok AFTER

$K = \frac{2.2}{0.10} = \frac{\Delta H}{\Delta P}$

POINT	CLOCK TIME	DRY GAS METER (cu. ft.)	VELOCITY dP (in. H2O) ~7.5%	ORIFICE dH (in. H2O) DESIRED	ORIFICE dH (in. H2O) ACTUAL (Super Iso k.)	TEMPERATURES (F) STACK	PROBE	FILTER Amb	RESIN	IMPGR	PUMP VAC (in. Hg)
START	0	480.28	—	—	—	—		—		—	—
S-1 ~~X~~-1	15	494.36	0.10	2.2	5.2 max	56		55		43	16
2	30	513.82	0.14	3.1	5.2	56		55		43	16
3	45	533.3	0.14	3.1	5.1	56		55		40	16
4	60	552.41	0.13	2.8	5.1	56		55		40	16
5	75	571.56	0.12	2.4	5.1	56		55		40	16
6	90	590.64	0.12	2.4	5.1	56		56		40	16
7	105	609.7	0.17	3.7	5.1	57		56		40	16
8	120	629.0	0.18	~~3.9~~ 3.9	5.0	57		56		40	16
9	135	648.0	0.20	4.4	5.1	57		56		40	16
10	150	667.30	0.22	4.8	5.2	57		57		40	16
11	165	686.58	0.23	5.0	5.2	58		57		41	16
12	180	705.71	0.23	5.0	5.1	58		57		41	16
W-1	195	724.31	0.15	3.3	5.1	59		57		41	16
2	210	743.63	0.18	3.9	5.1	58		57		41	16
3	225	762.76	0.19	4.1 ~~[illegible]~~	~~[illegible]~~ 5.1	59		57		41	16
4	240	783	0.16 ← good	3.5	5.1	58		58		41	16
5	255	800.94	0.17	3.7	5.1	58		58		41	16
6	270	820.2	0.16	3.5	5.1	59		58		41	16
7	285	839.15	0.17	3.7	5.1	58		58		41	16
8	300	858.24	0.18	3.9	5.1	59		58		41	16
9	315	877.28	0.19	4.2	5.1	59		58		41	16
10	330	896.27	0.20	4.4	5.0	59		59		42	16
11	345	915.28	0.21	4.6	5.0	59		59		42	16
12	360	934.48	0.21	4.6	5.0	60		59		42	16
	Theta: 360	Vm: 454.20	avg dP: 0.416		avg dH: 5.10	avg Ts 57.71					
			4.15		122.4	1385					

moisture
1222.2
-1170.6
51.6
85.3
+100.4
-100.6
-49.9
-14.8

51.6
-14.8
36.8

.23 static

24

FIELD DATA RECORD

PAGE 1 of

RUN NO. S-1
LOCATION Dec. Chrome Tank
DATE 3/9/04
OPERATOR Don Ridgley/Dave Dodd
METER BOX NO. 20004206
LOCAL TIME
START/STOP 9:35

STACK DIAMETER 12"
Ym: 1.002
H@: 1.755

PITOT TUBE FACTOR 0.84
NOZZLE DIAMETER 3/8 in.
PROBE LENGTH 4 ft.

SAMPLE TRAIN LEAK TEST
BEFORE ~~.45~~ ~~7.4~~ 27 in. ~~H2O~~ Hg OK
AFTER 19 in. ~~H2O~~ Hg OK
PITOT TUBE LEAK TEST
BEFORE 7.4 AFTER 6.4 ~~7.4~~

PROJECT NO. T-03-058
PLANT NAME Sherm's Plating
AMBIENT TEMP (F) 64
METER TEMP (F) 60
BAR. PRESS ("Hg) 30.18
STATIC PRESSURE ("H2O) ~~-0.20~~ -0.23
ASSUMED MOISTURE (%) ~1%
ASSUMED O2 (%) 20.9
ASSUMED CO2 (%) 0
ASSUMED MW (WET, %) ~~[illegible]~~
ASSUMED MW (DRY, %)

15 min/pt
x 15 pts
25
15
225 min @15 pts

	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)
	START	0	981.397		—	—						
1	S ~~1~~ 1	15	988.513	.04	.82	.82	68		67		66	3
2	2	30	998.14	.06	1.2	1.2	68		68		54	4.5
3	3	45	1008.52	.07	1.4	1.4	69		69		46	5
4	4	60	1018.98	.07	1.4	1.4	70		70		45	5
5	5	75	1029.78	.08	~~1.4~~ 1.7	~~1.4~~ 1.7	71		71		45	5
6	6	90	1041.525	~~.06~~ .09	~~1.7~~ 1.9	1.9 ~~1.7~~	71		71		45	6
7	7	105	1055.72	~~[illegible]~~ .14	2.95	2.95	72		72		45	9.5
8	8	120	1071.17	0.16	3.4	3.4	73		73		45	11
9	9	135	1087.14	0.17	3.6	3.6	73		73		46	12
10	10	150	1103.16	0.17	3.6	3.6	74		74		46	12
11	11	165	1119.53	0.18	3.8	3.8	75		74		46	12.5
12	12	180	1136.063	0.18	3.8	3.8	76		75		47	12.5
13	W 1	195	1148.98	0.08	~~3.6~~ 1.7	~~3.6~~ 1.7	75		78		49	11.5
14	2	210	1161.05	0.10	2.1	2.1	76		77		48	6½
15	3	225	174.67	0.12	2.7	2.7	76		77		49	9
16	4	240	188.53	0.13	2.7	2.7	76		78		49	9
17	5	255	202.41	0.13	2.7	2.7	77		78		49	9
18	6	270	215.67	0.14	2.95	2.95	78		78		50	8
19	7	285	Forgot to Record	0.14	2.95	2.95	78		78		50	9
20	8	300	243.75	0.13	2.7	2.7	78		78		50	8.5
21	9	315	257.50	0.13	2.7	2.7	79		79		50	8½
22	10	330	271.78	0.14	3.0	3.0	80		79		50	9
23	11	345	286.20	0.14	3.0	3.0	80		80		50	9
24	12	360	301.021	0.15	3.2	3.2	79		79		50	10
		Theta:	Vm: 319.624	avg dP: .3506		avg dH: 2.582	avg Ts 74.666		74.833		48.75	8.583

FIELD DATA RECORD

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RUN NO. S-2
LOCATION Dec. Chrome Tank
DATE 3/10/04
OPERATOR Dave Ridgley / Dave Todd
METER BOX NO. 2000 4206
LOCAL TIME
START/STOP 0900/1515

STACK DIAMETER 12"
Ym: 1.002
H@: 1.755

PITOT TUBE FACTOR 0.84
NOZZLE DIAMETER 3/8 in.
PROBE LENGTH 4 ft.

SAMPLE TRAIN LEAK TEST
X BEFORE 19 in. ~~H2O~~ Hg
AFTER 25 in. ~~H2O~~ Hg
PITOT TUBE LEAK TEST
X BEFORE 5.2/5.8 AFTER 5.9/4.7

PROJECT NO. T-03-058
PLANT NAME Sherm's Plating
AMBIENT TEMP (F)
METER TEMP (F) 60
BAR. PRESS ("Hg) 30.05
STATIC PRESSURE ("H2O) -0.29
ASSUMED MOISTURE (%) ~~1.0~~ 2.0%
ASSUMED O2 (%) 20.9
ASSUMED CO2 (%) 0
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)
START	0	301.702		—	—						
1	15	305.900	0.08	1.65	1.65	68		67		61	0.5
2	30	316.55	0.09	1.85	1.85	69		69		47	6.5
3	45	328.25	0.09	1.85	1.85	70		70		46	6.5
4	60	340.36	0.10	2.05	2.05	70		71		45	7.0
5	75	352.54	0.10	2.05	2.05	71		71		45	7.0
6	90	365.40	0.17	2.3	2.3	72		72		45	10
7	105	379.99	0.15	3.1	3.1	72		74		45	10
8	120	395.42	0.17	3.5	3.5	73		74		45	11.6
9	135	411.87	0.19	3.9	3.9	74		74		45	13
10	150	428.65	.20	4.1	4.1	74		74		46	13.5
11	165	445.90	.21	4.4	4.4	75		75		45	15
12	180	463.233	.21	4.4	4.4	75		77		45	15
1220 13	W-1	478.30	.16	3.3	3.3	76		79		48	10
14	2	493.12	.15	3.1	3.1	77		77		47	10
15	3	508.64	0.17	3.5	3.5	77		80		48	11.2
16	4	524.87	0.18	3.7	3.7	78		79		48	12
17	5	542.05	0.18	3.8	3.8	79		80		48	13
18	6	556.67	0.17	3.5	3.5	78		79		49	12
19	7	571.81	0.16	3.3	3.3	78		80		49	11
20	8	586.90	0.16	3.3	3.3	78		80		49	11
21	9	602.00	0.16	3.3	3.3	78		80		49	11
22	10	618.41	0.19	4.0	4.0	79		80		49	14
23	11	634.91	0.19	4.0	4.0	79		80		49	13.5
24	12	360	651.713	0.20	4.2	4.2	80		81		49	14
	Theta:	Vm: 350.011	avg dP:	3.25625	avg dH:	avg Ts		75.958		47.542	10.667

FIELD DATA RECORD

RUN NO. B (Parallels Run #2)
LOCATION Dec Chrome Tank
DATE 3/10/04
OPERATOR Don Ridgley / Dave Todd
METER BOX NO. 2000 4204
LOCAL TIME
START/STOP

STACK DIAMETER 12'
Ym: 1.002
H@: 1.755

PITOT TUBE FACTOR 0.84
NOZZLE DIAMETER 0.375 in.
PROBE LENGTH 4 ft.

SAMPLE TRAIN LEAK TEST
BEFORE 26 in. H_2O Hg OK
AFTER 25 in. H_2O Hg OK
PITOT TUBE LEAK TEST
BEFORE 4.5/5.3 AFTER 5.9/4.7

PAGE ___ of ___
PROJECT NO. T-03-058
PLANT NAME Sherm's Plating
AMBIENT TEMP (F) 81
METER TEMP (F) 60
BAR. PRESS ("Hg) 30.05
STATIC PRESSURE ("H2O)
ASSUMED MOISTURE (%) ~1%
ASSUMED O2 (%) 20.9%
ASSUMED CO2 (%) 0
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	RESIN	IMPGR	PUMP VAC (in. Hg)
~~START~~	0										
Blank	Leak Test Volume										
Start		651.713									
End		652.468									
	Theta:	Vm: 0.755	avg dP:		avg dH:	avg Ts					

Note: 0.755 cu ft of air was drawn into the impinger during 2 leak check. A start and end leak check performed before and after a run will double the volume to 1.510 cu ft/run

FIELD DATA RECORD

RUN NO. S 3
LOCATION Dec. Chrome Tank
DATE 3/11/04
OPERATOR Dave Todd/Don Ridgley
METER BOX NO. 20004206
LOCAL TIME 09:25
START/STOP 14:42

STACK DIAMETER 12"
Ym: 1.002
H@: 1.755

PITOT TUBE FACTOR 0.84
NOZZLE DIAMETER 3/8 in.
PROBE LENGTH 4 ft.

SAMPLE TRAIN LEAK TEST
BEFORE 17 in. ~~H2O~~ OK
AFTER 15 in. ~~H2O~~ OK
PITOT TUBE LEAK TEST
BEFORE 6.2/6.7 AFTER 5.8

PAGE 1 of
PROJECT NO. T-03-058
PLANT NAME Sherm's Plating
AMBIENT TEMP (F) 62
METER TEMP (F) 60
BAR. PRESS ("Hg) 30.01
STATIC PRESSURE ("H2O) -0.19
ASSUMED MOISTURE (%) ~1%
ASSUMED O2 (%) 20.9
ASSUMED CO2 (%) 0
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)
	START	0	654.046	0.07	—	—						
1	S-1	13	662.62	0.07	1.45	1.45	67		65		45	4.5 ~~4.5~~
2	2	26	672.26	.08	1.65	1.65	68		65		44	5
3	3	39	682.42	.09	1.85	1.85	68		66		44	5.5
4	4	52	692.65	.08	1.65	1.65	69		67		45	5.[illegible]
5	5	65	702.67	.09	1.85	1.85	69		68		45	5.5
6	6	78	712.75	.09	1.85	1.85	69		70		45	5.5
7	7	91	724.54	~~1.3~~ .13	2.7	2.7	70		69		46	7.5
8	8	104	737.41	~~1.5~~ .15	3.1	3.1	70		70		46	8.5
9	9	117	749.37	~~1.2~~ .12	~~2.9~~ 2.5	~~2.9~~ 2.5	70		70		44	7
10	10	130	762.92	~~1.8~~ .18	3.7	3.7	71		73		44	10.5
11	11	143	777.44	~~1.9~~ .19	3.9	3.9	71		71		44	11
12	12	156	791.362	~~1.8~~ .18	3.7	3.7	72		72		44	10.5
13	W-1	169	802.08	0.10 ~~0.9~~ ~~1.0~~	2.05	2.05	73		74		47	6
14	2	182	813.56	0.12	2.5	2.5	73		74		46	7
15	3	195	825.95	0.14	2.9	2.9	74		74		46	8
16	4	208	838.52	0.14	2.9	2.9	74		74		46	8
17	5	221	851.27	0.15	3.1	3.1	75		75		47	9
18	6	234	864.50	0.16	3.3	3.3	75		76		47	9
19	7	247	877.37	0.15	3.1	3.1	75		77		48	8.5
20	8	260	889.815	0.14	2.9	2.9	76		77		49	8
21	9	273	902.54	0.15	3.1	3.1	76		77		48	8.5
22	10	286	915.30	0.15	3.1	3.1	76		78		48	8.5
23	11	299	928.43	0.16	3.3	3.3	76		76		49	9
24	12	312	941.606	0.16	3.1	3.1	77		78		48	9
		Theta:	Vm: 287.560	avg dP: 3.17 / 132	2.71875	avg dH: 2.71875	avg Ts 72.25					7.6875

FIELD DATA RECORD

PAGE 1 of

RUN NO. SP
LOCATION 14th & S Warehouse
DATE 3/17/04
OPERATOR Don Ridgley & Dave Tall
METER BOX NO. 20004206
LOCAL TIME 07:58
START/STOP ~~07:58~~ 941.828

STACK DIAMETER 12"
Ym: 1.002
H@: 1.755

PITOT TUBE FACTOR .84
NOZZLE DIAMETER .375 in.
PROBE LENGTH 4 ft.

SAMPLE TRAIN LEAK TEST
BEFORE 18 in. Hg ok
AFTER 15 in. Hg ok
PITOT TUBE LEAK TEST
BEFORE 5.4/4.7 AFTER 5.4/5.4

PROJECT NO. T-03-058
PLANT NAME Sherri's Post Test
AMBIENT TEMP (F) 67
METER TEMP (F) 60
BAR. PRESS ("Hg) 30.03
STATIC PRESSURE ("H2O) -.24
ASSUMED MOISTURE (%) <1%
ASSUMED O2 (%) 20.9%
ASSUMED CO2 (%) 0%
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~~ Amb	FILTER	RESIN	IMPGR	PUMP VAC (in. Hg)
START	0	941.828	.10	2.9	2.9	67	70			47	11
W-1	15	954.28	.12	2.9	2.9	67	68			45	11
2	30	968.77	.14	2.9	2.9	67	68			45	11
3	45	983.20	.15	2.9	2.9	67	69			45	11
4	60	997.73	.14	2.9	2.9	67	69			45	11
5	75	1012.15	.15	2.9	2.9	67	70			45	11
6	90	1026.54	.14	2.9	2.9	68	69			45	11
7	105	1040.99	.13	2.9	2.9	68	69			45	11
8	120	1055.41	.13	2.9	2.9	68	69			45	11
9	135	1069.82	~~.14~~ .13	2.9	2.9	68	70			46	11
10	150	1084.24	.15	2.9	2.9	69	70			46	11
11	165	1098.62	.15	2.9	2.9	70	70			46	11
12	180	1112.90	.07	2.9	2.9	70	71			49	11
S-1	195	1127.32	.09	2.9	2.9	71	71			47	11
2	210	1141.67	.09	2.9	2.9	72	71			47	11
3	225	1156.00	0.11	2.9	2.9	72	72			46	11
4	240	1170.50	0.12	2.9	2.9	72	72			47	11
5	255	1184.63	0.13	2.9	2.9	72	72			48	11
6	270	1198.90	0.18	2.9	2.9	72	72			48	11
7	285	1213.16	0.22	2.9	2.9	72	72			48	11
8	300	1227.43	0.23	2.9	2.9	73	73			48	11
9	315	1241.70	0.24	2.9	2.9	73	73			48	11
10	330	1256.00	0.26	2.9	2.9	73	73			49	11
11	345	1270.27	0.26	2.9	2.9	73	73			49	11
12	360	1284.524	~	~	~	~	~			~	~
	Theta:	Vm:	avg dP:		avg dH:	avg Ts					