

PID Check of the Vaposol Plants at Universal Services Limited on 15/7/10.

16/7/10.

The following data and graphs are the results of three PID checks carried out on the Vaposol plant at Universal Services Limited on 15th July 2010.

Event 1 was a brief check around the plant to check for any leaks at joints or inefficient extraction. The only leak detected was around the cover of the water separator. (See Appendix A)

Event 2 was a check carried out in the working environment adjacent to the plant carried out over a period of 30 minutes while the plant was in operation. The results from this test show that there are no current concerns for worker safety from this Vaposol plant, in fact there was almost no vapour detected.

Event 3 was a brief check to detect the concentration of solvent vapour present in the extracted air by running a check in the extraction duct air stream. Again it was evident that there is no significant concentration of solvent in the extraction air stream indicating that the chilling system in the degreaser was operating extremely well containing the vapour very efficiently.

Air velocity checks were also carried out at the vent slits around the degreaser top and in the extraction duct.

Generally the air velocity entering the extract duct openings was found to be 4-6m/s, mainly at 6m/s. At the end where the extract system was connected the velocity was 10m/s.

The air velocity inside the duct was found to be 10m/s across the whole section of the duct.

G. Butcher.

EVENT 1.

Instrument: ToxiRAE (PGM30) Serial Number: 006307
User ID: 1 Site ID: 1
Data Points: 27 Sample Period: 10 sec
Last Calib Time: 01/13/2010 14:11 Value: 101.0 ppm
Last Check Time: 01/13/2010 14:11 Value: 100.4 ppm

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Measurement Type: Min(ppm) Avg(ppm) Max(ppm)
High Alarm Levels: 500.0 500.0 500.0
Low Alarm Levels: 300.0 300.0 300.0
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Line# Date Time Min(ppm) Avg(ppm) Max(ppm)
=====
1 06/26/2010 03:52 2.0 2.0 2.2
2 06/26/2010 03:52 2.5 4.2 6.4
3 06/26/2010 03:52 2.0 2.1 2.3
4 06/26/2010 03:52 2.0 2.1 2.5
5 06/26/2010 03:52 1.8 1.9 2.0
6 06/26/2010 03:52 1.7 1.7 1.9
7 06/26/2010 03:53 1.7 1.7 1.8
8 06/26/2010 03:53 1.7 1.8 2.0
9 06/26/2010 03:53 1.5 1.6 1.8
10 06/26/2010 03:53 1.5 1.6 1.9
11 06/26/2010 03:53 1.7 1.8 2.0
12 06/26/2010 03:53 1.7 1.7 1.9
13 06/26/2010 03:54 1.7 1.7 1.7
14 06/26/2010 03:54 1.7 70.2 165.6
15 06/26/2010 03:54 3.0 6.8 16.1
16 06/26/2010 03:54 2.0 2.3 2.6
17 06/26/2010 03:54 1.9 1.9 2.1
18 06/26/2010 03:54 1.7 1.7 1.9
19 06/26/2010 03:55 1.7 3.2 4.9
20 06/26/2010 03:55 2.0 2.2 3.6
21 06/26/2010 03:55 1.9 3.2 5.1
22 06/26/2010 03:55 1.7 1.8 2.3
23 06/26/2010 03:55 1.6 1.7 1.9
24 06/26/2010 03:55 1.7 16.6 45.3
25 06/26/2010 03:56 33.4 42.4 52.2
26 06/26/2010 03:56 14.1 53.7 89.0
27 06/26/2010 03:56 2.2 3.8 9.6

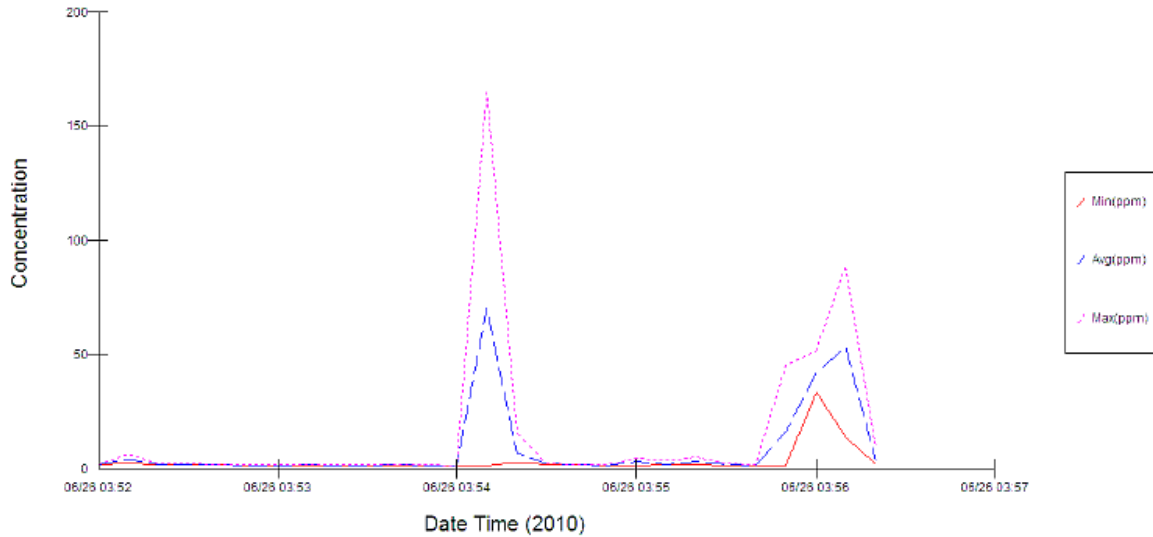
Instrument: ToxiRAE (PGM30) Serial Number: 006307
User ID: 1 Site ID: 1
Data Points: 27 Sample Period: 10 sec
Last Calib Time: 01/13/2010 14:11 Value: 101.0 ppm
Last Check Time: 01/13/2010 14:11 Value: 100.4 ppm
Start At: 06/26/2010 03:52 End At: 06/26/2010 03:56

=====
Measurement Type: Min(ppm) Avg(ppm) Max(ppm)
High Alarm Levels: 500.0 500.0 500.0
Low Alarm Levels: 300.0 300.0 300.0
STEL Alarm Levels: 300.0 300.0 300.0
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TWA Alarm Levels: 300.0 300.0 300.0

Measurement Type:	Min (ppm)	Avg (ppm)	Max (ppm)
Peak Data Value:	33.4	70.2	165.6
Min Data Value:	1.5	1.6	1.7
TWA Data Value:	0.0	0.1	0.2
AVG Data Value:	3.5	8.8	16.0

Unversal Services Plant Leak Check 15/7/10.



EVENT 2.

Instrument: ToxiRAE (PGM30) Serial Number: 006307
 User ID: 1 Site ID: 1
 Data Points: 191 Sample Period: 10 sec
 Last Calib Time: 01/13/2010 14:11 Value: 101.0 ppm
 Last Check Time: 01/13/2010 14:11 Value: 100.4 ppm

Measurement Type:	Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels:	500.0	500.0	500.0
Low Alarm Levels:	300.0	300.0	300.0

Line#	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	06/26/2010	04:16	1.7	1.7	1.9
2	06/26/2010	04:16	1.7	1.7	1.9
3	06/26/2010	04:16	1.9	1.9	2.0
4	06/26/2010	04:16	1.7	1.7	2.0
5	06/26/2010	04:16	1.6	1.6	1.7
6	06/26/2010	04:16	1.7	1.7	2.1
7	06/26/2010	04:17	1.8	2.1	2.4
8	06/26/2010	04:17	1.7	1.8	1.9
9	06/26/2010	04:17	1.6	1.7	1.9
10	06/26/2010	04:17	1.6	1.6	1.7
11	06/26/2010	04:17	1.2	1.3	1.6

12	06/26/2010	04:17	1.1	1.2	1.3
13	06/26/2010	04:18	1.1	1.1	1.4
14	06/26/2010	04:18	1.1	1.1	1.2
15	06/26/2010	04:18	1.0	1.0	1.1
16	06/26/2010	04:18	0.9	1.0	1.2
17	06/26/2010	04:18	1.1	1.1	1.1
18	06/26/2010	04:18	0.8	0.8	1.0
19	06/26/2010	04:19	0.8	0.8	0.9
20	06/26/2010	04:19	0.8	0.8	0.9
21	06/26/2010	04:19	0.8	0.8	1.0
22	06/26/2010	04:19	0.8	0.9	1.1
23	06/26/2010	04:19	0.8	0.9	1.0
24	06/26/2010	04:19	0.8	0.8	0.9
25	06/26/2010	04:20	0.5	0.7	0.9
26	06/26/2010	04:20	0.5	0.6	0.8
27	06/26/2010	04:20	0.7	0.7	0.8
28	06/26/2010	04:20	0.7	0.8	1.0
29	06/26/2010	04:20	0.7	0.7	0.9
30	06/26/2010	04:20	0.5	0.7	0.8
31	06/26/2010	04:21	0.5	0.5	0.6
32	06/26/2010	04:21	0.7	0.7	0.9
33	06/26/2010	04:21	0.6	0.7	0.8
34	06/26/2010	04:21	0.5	0.5	0.7
35	06/26/2010	04:21	0.5	0.5	0.5
36	06/26/2010	04:21	0.5	0.5	0.7
37	06/26/2010	04:22	0.5	0.5	0.7
38	06/26/2010	04:22	0.5	0.5	0.6
39	06/26/2010	04:22	0.5	0.5	0.6
40	06/26/2010	04:22	0.5	0.5	0.5
41	06/26/2010	04:22	0.5	0.5	0.5
42	06/26/2010	04:22	0.5	0.5	0.5
43	06/26/2010	04:23	0.5	0.6	0.8
44	06/26/2010	04:23	0.5	0.5	0.6
45	06/26/2010	04:23	0.5	0.5	0.6
46	06/26/2010	04:23	0.5	0.5	0.5
47	06/26/2010	04:23	0.5	0.5	0.7
48	06/26/2010	04:23	0.5	0.5	0.7
49	06/26/2010	04:24	0.5	0.6	0.7
50	06/26/2010	04:24	0.5	0.6	0.7
51	06/26/2010	04:24	0.5	0.5	0.7
52	06/26/2010	04:24	0.5	0.5	0.6
53	06/26/2010	04:24	0.5	0.5	0.6
54	06/26/2010	04:24	0.5	0.5	0.6
55	06/26/2010	04:25	0.5	0.5	0.6
56	06/26/2010	04:25	0.4	0.4	0.5
57	06/26/2010	04:25	0.4	0.4	0.5
58	06/26/2010	04:25	0.5	0.5	0.5
59	06/26/2010	04:25	0.5	0.5	0.5
60	06/26/2010	04:25	0.5	0.5	0.5
61	06/26/2010	04:26	0.5	0.5	0.5
62	06/26/2010	04:26	0.5	0.5	0.6
63	06/26/2010	04:26	0.5	0.6	0.8
64	06/26/2010	04:26	0.5	0.6	0.8
65	06/26/2010	04:26	0.5	0.6	0.8
66	06/26/2010	04:26	0.7	0.7	0.8
67	06/26/2010	04:27	0.8	0.8	0.9
68	06/26/2010	04:27	0.8	0.8	0.9

69	06/26/2010	04:27	0.5	0.6	0.8
70	06/26/2010	04:27	0.5	0.5	0.7
71	06/26/2010	04:27	0.7	0.7	0.8
72	06/26/2010	04:27	0.5	0.5	0.6
73	06/26/2010	04:28	0.5	0.5	0.5
74	06/26/2010	04:28	0.5	0.5	0.6
75	06/26/2010	04:28	0.4	0.4	0.5
76	06/26/2010	04:28	0.4	0.4	0.6
77	06/26/2010	04:28	0.5	0.6	0.7
78	06/26/2010	04:28	0.4	0.4	0.6
79	06/26/2010	04:29	0.2	0.3	0.5
80	06/26/2010	04:29	0.2	0.2	0.4
81	06/26/2010	04:29	0.2	0.3	0.4
82	06/26/2010	04:29	0.2	0.2	0.2
83	06/26/2010	04:29	0.2	0.2	0.4
84	06/26/2010	04:29	0.2	0.2	0.2
85	06/26/2010	04:30	0.2	0.2	0.3
86	06/26/2010	04:30	0.2	0.2	0.2
87	06/26/2010	04:30	0.2	0.2	0.3
88	06/26/2010	04:30	0.2	0.2	0.2
89	06/26/2010	04:30	0.1	0.1	0.2
90	06/26/2010	04:30	0.1	0.1	0.2
91	06/26/2010	04:31	0.0	0.1	0.2
92	06/26/2010	04:31	0.1	0.1	0.1
93	06/26/2010	04:31	0.1	0.1	0.2
94	06/26/2010	04:31	0.0	0.0	0.1
95	06/26/2010	04:31	0.1	0.1	0.1
96	06/26/2010	04:31	0.0	0.1	0.2
97	06/26/2010	04:32	0.0	0.0	0.2
98	06/26/2010	04:32	0.0	0.0	0.1
99	06/26/2010	04:32	0.0	0.0	0.1
100	06/26/2010	04:32	0.0	0.0	0.1
101	06/26/2010	04:32	0.0	0.0	0.0
102	06/26/2010	04:32	0.0	0.0	0.1
103	06/26/2010	04:33	0.0	0.0	0.1
104	06/26/2010	04:33	0.0	0.0	0.1
105	06/26/2010	04:33	0.0	0.0	0.1
106	06/26/2010	04:33	0.0	0.0	0.1
107	06/26/2010	04:33	0.0	0.0	0.0
108	06/26/2010	04:33	0.0	0.0	0.1
109	06/26/2010	04:34	0.0	0.0	0.1
110	06/26/2010	04:34	0.0	0.0	0.1
111	06/26/2010	04:34	0.0	0.0	0.1
112	06/26/2010	04:34	0.0	0.0	0.1
113	06/26/2010	04:34	0.0	0.0	0.1
114	06/26/2010	04:34	0.0	0.0	0.0
115	06/26/2010	04:35	0.0	0.0	0.0
116	06/26/2010	04:35	0.0	0.0	0.1
117	06/26/2010	04:35	0.0	0.0	0.0
118	06/26/2010	04:35	0.0	0.0	0.0
119	06/26/2010	04:35	0.0	0.0	0.0
120	06/26/2010	04:35	0.0	0.0	0.0
121	06/26/2010	04:36	0.0	0.0	0.0
122	06/26/2010	04:36	0.0	0.0	0.0
123	06/26/2010	04:36	0.0	0.0	0.0
124	06/26/2010	04:36	0.0	0.0	0.0
125	06/26/2010	04:36	0.0	0.0	0.0

126	06/26/2010	04:36	0.0	0.0	0.0
127	06/26/2010	04:37	0.0	0.0	0.0
128	06/26/2010	04:37	0.0	0.0	0.0
129	06/26/2010	04:37	0.0	0.0	0.0
130	06/26/2010	04:37	0.0	0.0	0.0
131	06/26/2010	04:37	0.0	0.0	0.0
132	06/26/2010	04:37	0.0	0.0	0.0
133	06/26/2010	04:38	0.0	0.0	0.0
134	06/26/2010	04:38	0.0	0.0	0.0
135	06/26/2010	04:38	0.0	0.0	0.0
136	06/26/2010	04:38	0.0	0.0	0.0
137	06/26/2010	04:38	0.0	0.0	0.0
138	06/26/2010	04:38	0.0	0.0	0.0
139	06/26/2010	04:39	0.0	0.0	0.0
140	06/26/2010	04:39	0.0	0.0	0.0
141	06/26/2010	04:39	0.0	0.0	0.0
142	06/26/2010	04:39	0.0	0.0	0.0
143	06/26/2010	04:39	0.0	0.0	0.0
144	06/26/2010	04:39	0.0	0.0	0.0
145	06/26/2010	04:40	0.0	0.0	0.0
146	06/26/2010	04:40	0.0	0.0	0.0
147	06/26/2010	04:40	0.0	0.0	0.0
148	06/26/2010	04:40	0.0	0.0	0.0
149	06/26/2010	04:40	0.0	0.0	0.0
150	06/26/2010	04:40	0.0	0.0	0.0
151	06/26/2010	04:41	0.0	0.0	0.0
152	06/26/2010	04:41	0.0	0.0	0.0
153	06/26/2010	04:41	0.0	0.0	0.0
154	06/26/2010	04:41	0.0	0.0	0.0
155	06/26/2010	04:41	0.0	0.0	0.0
156	06/26/2010	04:41	0.0	0.0	0.0
157	06/26/2010	04:42	0.0	0.0	0.0
158	06/26/2010	04:42	0.0	0.0	0.0
159	06/26/2010	04:42	0.0	0.0	0.0
160	06/26/2010	04:42	0.0	0.0	0.0
161	06/26/2010	04:42	0.0	0.0	0.0
162	06/26/2010	04:42	0.0	0.0	0.1
163	06/26/2010	04:43	0.0	0.0	0.1
164	06/26/2010	04:43	0.0	0.0	0.0
165	06/26/2010	04:43	0.0	0.0	0.1
166	06/26/2010	04:43	0.1	0.1	0.2
167	06/26/2010	04:43	0.0	0.0	0.0
168	06/26/2010	04:43	0.0	0.0	0.0
169	06/26/2010	04:44	0.0	0.0	0.0
170	06/26/2010	04:44	0.0	0.0	0.0
171	06/26/2010	04:44	0.0	0.0	0.0
172	06/26/2010	04:44	0.0	0.0	0.0
173	06/26/2010	04:44	0.0	0.0	0.0
174	06/26/2010	04:44	0.0	0.0	0.0
175	06/26/2010	04:45	0.0	0.0	0.0
176	06/26/2010	04:45	0.0	0.0	0.0
177	06/26/2010	04:45	0.0	0.0	0.0
178	06/26/2010	04:45	0.0	0.0	0.0
179	06/26/2010	04:45	0.0	0.0	0.0
180	06/26/2010	04:45	0.0	0.0	0.0
181	06/26/2010	04:46	0.0	0.0	0.0
182	06/26/2010	04:46	0.0	0.0	0.0

183	06/26/2010	04:46	0.0	0.0	0.0
184	06/26/2010	04:46	0.0	0.0	0.0
185	06/26/2010	04:46	0.0	0.0	0.0
186	06/26/2010	04:46	0.0	0.0	0.0
187	06/26/2010	04:47	0.0	0.0	0.0
188	06/26/2010	04:47	0.0	0.0	0.0
189	06/26/2010	04:47	0.0	0.0	0.0
190	06/26/2010	04:47	0.0	0.0	0.0
191	06/26/2010	04:47	0.0	0.0	0.0

Instrument: ToxiRAE (PGM30)

Serial Number: 006307

User ID: 1

Site ID: 1

Data Points: 191

Sample Period: 10 sec

Last Calib Time: 01/13/2010 14:11 Value: 101.0 ppm

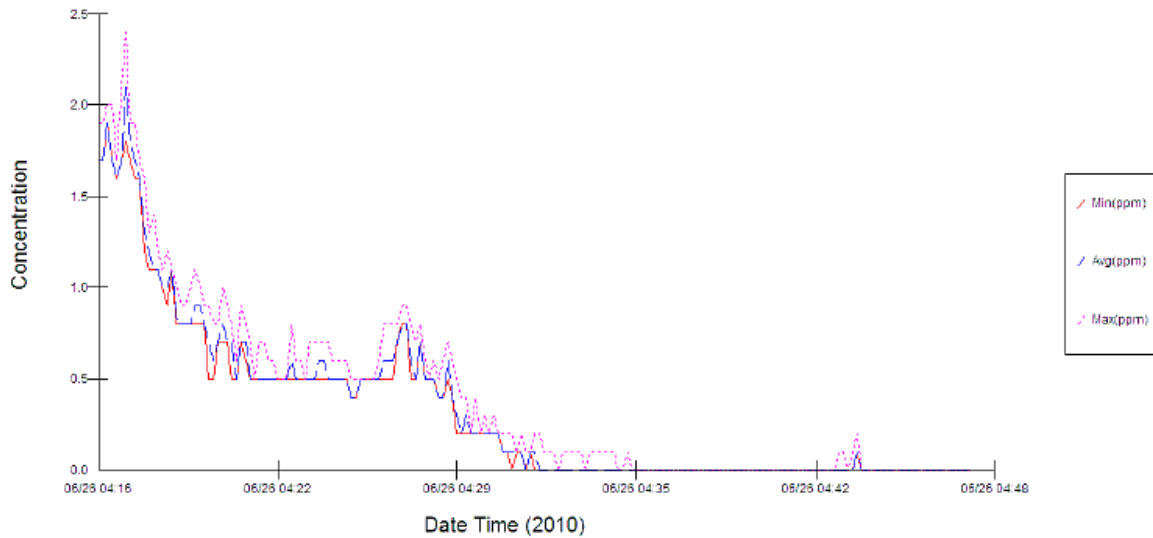
Last Check Time: 01/13/2010 14:11 Value: 100.4 ppm

Start At: 06/26/2010 04:16 End At: 06/26/2010 04:47

Measurement Type:	Min (ppm)	Avg (ppm)	Max (ppm)
High Alarm Levels:	500.0	500.0	500.0
Low Alarm Levels:	300.0	300.0	300.0
STEL Alarm Levels:	300.0	300.0	300.0
TWA Alarm Levels:	300.0	300.0	300.0

Measurement Type:	Min (ppm)	Avg (ppm)	Max (ppm)
Peak Data Value:	1.9	2.1	2.4
Min Data Value:	0.0	0.0	0.0
TWA Data Value:	0.0	0.0	0.0
AVG Data Value:	0.3	0.3	0.4

Universal Services Environment Check 15/7/10.



EVENT 3.

Instrument: ToxiRAE (PGM30) Serial Number: 006307
User ID: 1 Site ID: 1
Data Points: 24 Sample Period: 10 sec
Last Calib Time: 01/13/2010 14:11 Value: 101.0 ppm
Last Check Time: 01/13/2010 14:11 Value: 100.4 ppm

=====
Measurement Type: Min (ppm) Avg (ppm) Max (ppm)
High Alarm Levels: 500.0 500.0 500.0
Low Alarm Levels: 300.0 300.0 300.0
=====

Line#	Date	Time	Min (ppm)	Avg (ppm)	Max (ppm)
1	06/26/2010	04:49	0.0	0.1	0.5
2	06/26/2010	04:49	0.0	0.4	0.8
3	06/26/2010	04:49	0.0	0.0	0.4
4	06/26/2010	04:49	0.4	0.5	0.8
5	06/26/2010	04:49	0.0	0.0	0.3
6	06/26/2010	04:49	0.0	0.0	0.0
7	06/26/2010	04:50	0.0	0.0	0.0
8	06/26/2010	04:50	0.0	0.0	0.0
9	06/26/2010	04:50	0.0	0.0	0.0
10	06/26/2010	04:50	0.0	0.0	0.0
11	06/26/2010	04:50	0.0	0.0	0.0
12	06/26/2010	04:50	0.0	0.0	0.0
13	06/26/2010	04:51	0.0	0.0	0.0
14	06/26/2010	04:51	0.0	0.0	0.0
15	06/26/2010	04:51	0.0	0.0	0.0
16	06/26/2010	04:51	0.0	0.0	0.0
17	06/26/2010	04:51	0.0	0.0	0.0
18	06/26/2010	04:51	0.0	0.0	0.0
19	06/26/2010	04:52	0.0	0.0	0.0
20	06/26/2010	04:52	0.0	0.0	0.0
21	06/26/2010	04:52	0.0	0.0	0.0
22	06/26/2010	04:52	0.0	0.0	0.0
23	06/26/2010	04:52	0.0	0.0	0.0
24	06/26/2010	04:52	0.0	0.0	0.0

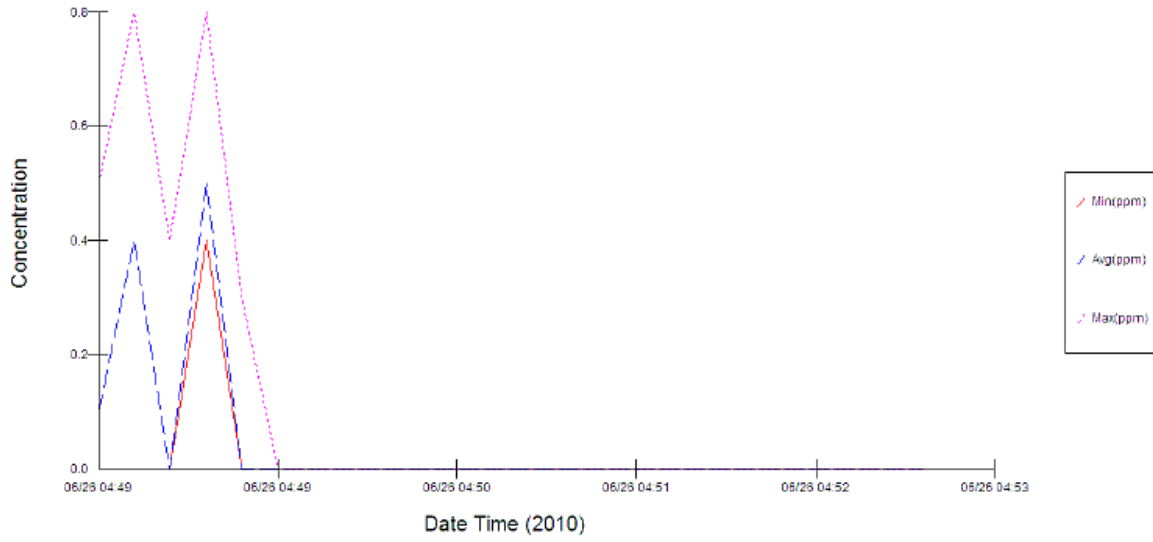
Instrument: ToxiRAE (PGM30) Serial Number: 006307
User ID: 1 Site ID: 1
Data Points: 24 Sample Period: 10 sec
Last Calib Time: 01/13/2010 14:11 Value: 101.0 ppm
Last Check Time: 01/13/2010 14:11 Value: 100.4 ppm
Start At: 06/26/2010 04:49 End At: 06/26/2010 04:52

=====
Measurement Type: Min (ppm) Avg (ppm) Max (ppm)
High Alarm Levels: 500.0 500.0 500.0
Low Alarm Levels: 300.0 300.0 300.0
STEL Alarm Levels: 300.0 300.0 300.0
TWA Alarm Levels: 300.0 300.0 300.0
=====

Measurement Type: Min (ppm) Avg (ppm) Max (ppm)
Peak Data Value: 0.4 0.5 0.8
Min Data Value: 0.0 0.0 0.0

TWA Data Value: 0.0 0.0 0.0
AVG Data Value: 0.0 0.0 0.1

Universal Services Extracted Air Check 15/7/10.



APPENDIX A.

Leak Detected

