

APPENDICES

A: A Sample of Raw Data on Particle Size Analyses for Solvent-Based
and Water-Based Paint Dust

B: Mercury Alignment Curve

C: Calibration Curves for As, Cu, Pb and Zn

D: Questionnaires

E: Addenda

A: Raw Data for Solvent-Based Paint Dust



LS Particle Size Analyzer

COULTER

3 Sep 1997

a 501

Channel Diameter (Lower) μm	Cum. < Volume %	Channel Diameter (Lower) μm	Cum. < Volume %
0.375	0	69.62	100.00
0.412	3.73	76.43	100.00
0.452	10.07	83.90	100.00
0.496	18.41	92.09	100.00
0.545	28.88	101.1	100.00
0.598	40.23	111.0	100.00
0.657	51.42	121.8	100.00
0.721	61.22	133.7	100.00
0.791	68.47	146.8	100.00
0.869	72.38	161.2	100.00
0.953	73.76	176.8	100.00
1.047	74.00	194.2	100.00
1.149	74.02	213.2	100.00
1.261	74.02	234.1	100.00
1.385	74.02	256.8	100.00
1.520	74.12	282.1	100.00
1.669	75.08	309.6	100.00
1.832	79.05	339.8	100.00
2.010	86.45	373.1	100.00
2.207	94.16	409.6	100.00
2.423	98.70	449.7	100.00
2.660	99.87	493.6	100.00
2.920	100.00	541.9	100.00
3.206	100.00	594.9	100.00
3.519	100.00	653.0	100.00
3.862	100.00	716.9	100.00
4.241	100.00	786.9	100.00
4.656	100.00	863.9	100.00
5.111	100.00	948.2	100.00
5.611	100.00	1,041	100.00
6.158	100.00	1,143	100.00
6.761	100.00	1,255	100.00
7.421	100.00	1,377	100.00
8.147	100.00	1,512	100.00
8.944	100.00	1,660	100.00
9.819	100.00	1,822	100.00
10.78	100.00	2,000	100.00
11.83	100.00		
12.99	100.00		
14.26	100.00		
15.65	100.00		
17.18	100.00		
18.86	100.00		
20.70	100.00		
22.73	100.00		
24.95	100.00		
27.38	100.00		
30.07	100.00		
33.00	100.00		
36.24	100.00		
39.77	100.00		
43.66	100.00		
47.93	100.00		
52.63	100.00		
57.77	100.00		
63.41	100.00		

A: Raw Data for Water-Based Paint Dust



LS Particle Size Analyzer

COULTER

4 Aug 1997

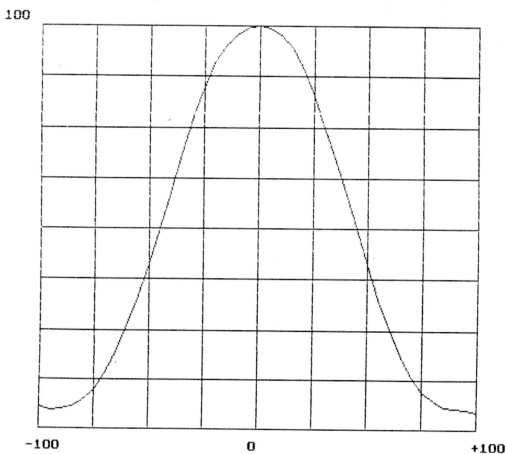
b 501

Channel Diameter (Lower) μm	Diff. Volume %	Cum. < Volume %	Channel Diameter (Lower) μm	Diff. Volume %	Cum. < Volume %
0.375	0.261	0	69.62	0	100.00
0.412	0.460	0.261	76.43	0	100.00
0.452	0.663	0.720	83.90	0	100.00
0.496	0.915	1.38	92.09	0	100.00
0.545	1.09	2.30	101.1	0	100.00
0.598	1.21	3.39	111.0	0	100.00
0.657	1.29	4.61	121.8	0	100.00
0.721	1.33	5.89	133.7	0	100.00
0.791	1.33	7.23	146.8	0	100.00
0.869	1.28	8.55	161.2	0	100.00
0.953	1.19	9.83	176.8	0	100.00
1.047	1.10	11.02	194.2	0	100.00
1.149	1.03	12.13	213.2	0	100.00
1.261	0.977	13.16	234.1	0	100.00
1.385	0.953	14.13	256.8	0	100.00
1.520	0.971	15.09	282.1	0	100.00
1.669	1.04	16.06	309.6	0	100.00
1.832	1.17	17.10	339.8	0	100.00
2.010	1.34	18.27	373.1	0	100.00
2.207	1.55	19.61	409.6	0	100.00
2.423	1.78	21.16	449.7	0	100.00
2.660	2.03	22.94	493.6	0	100.00
2.920	2.29	24.97	541.9	0	100.00
3.206	2.55	27.26	594.9	0	100.00
3.519	2.80	29.81	653.0	0	100.00
3.862	3.03	32.61	716.9	0	100.00
4.241	3.24	35.63	786.9	0	100.00
4.656	3.43	38.87	863.9	0	100.00
5.111	3.59	42.30	948.2	0	100.00
5.611	3.72	45.88	1,041	0	100.00
6.158	3.81	49.60	1,143	0	100.00
6.761	3.87	53.41	1,255	0	100.00
7.421	3.91	57.29	1,377	0	100.00
8.147	3.93	61.20	1,512	0	100.00
8.944	3.90	65.13	1,660	0	100.00
9.819	3.81	69.02	1,822	0	100.00
10.78	3.65	72.83	2,000	0	100.00
11.83	3.44	76.48			
12.99	3.24	79.93			
14.26	3.07	83.16			
15.65	2.92	86.23			
17.18	2.74	89.15			
18.86	2.45	91.88			
20.70	2.03	94.34			
22.73	1.50	96.36			
24.95	0.955	97.86			
27.38	0.516	98.81			
30.07	0.251	99.33			
33.00	0.130	99.58			
36.24	0.094	99.71			
39.77	0.084	99.80			
43.66	0.067	99.89			
47.93	0.036	99.95			
52.63	0.009	99.99			
57.77	0.001	100.00			
63.41	0	100.00			

B: Mercury Alignment Curve

MERCURY ALIGNMENT

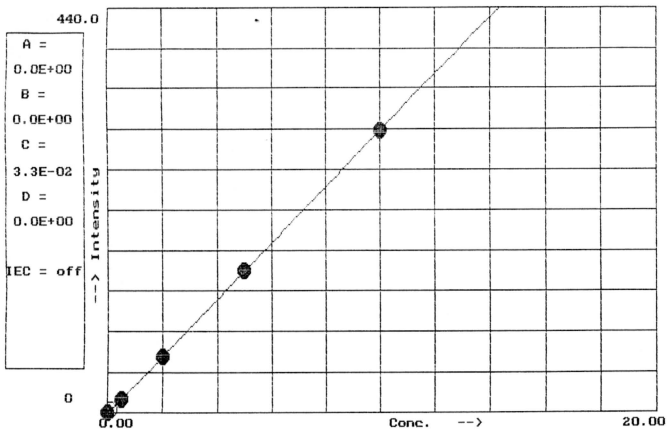
Maximum mercury reading : 433 Position : 2359



C: Calibration Curve for As

CURVE PLOT FOR ELEMENT As Wavelength : 189.04 IN CURVE SET HUANG

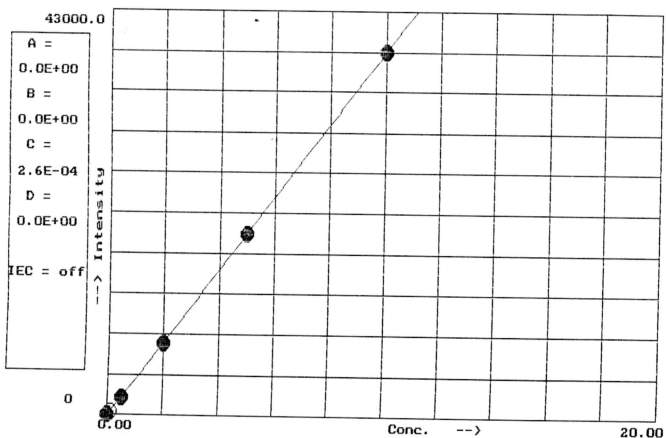
Int. : Degree : 1 Forced through origin
Conc. : Correlation : 0.999984 W. fac : no weighing



C: Calibration Curve for Cu

CURVE PLOT FOR ELEMENT Cu Wavelength : 324.75 IN CURVE SET HUANG

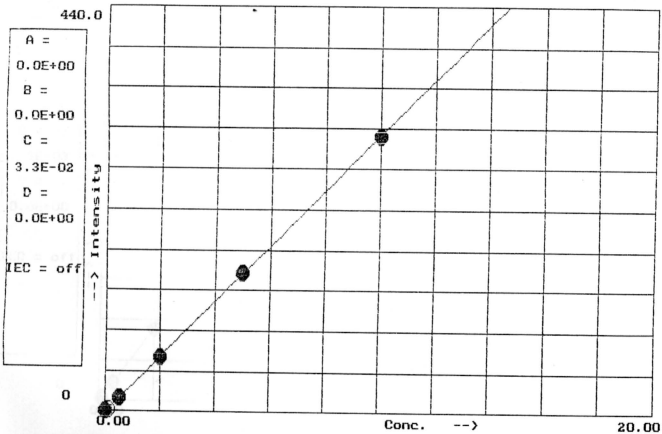
Int. : Degree : 1 Forced through origin
Conc. : Correlation : 0.999994 W. fac : no weighing



C:Calibration Curve for Pb

CURVE PLOT FOR ELEMENT Pb Wavelength : 220.35 IN CURVE SET HUANG

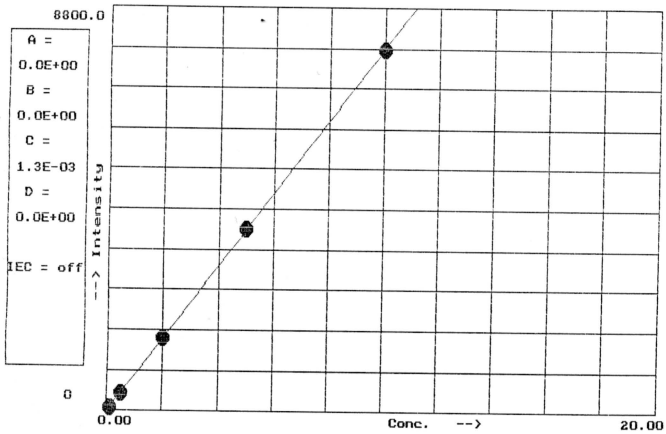
Int. : Degree : 1 Forced through origin
Conc. : Correlation : 0.999985 W. fac : no weighing



C: Calibration Curve for Zn

CURVE PLOT FOR ELEMENT Zn Wavelength : 213.86 IN CURVE SET HUANG

Int. : Degree : 1 Forced through origin
Conc. : Correlation : 0.999987 W. fac : no weighing



D: Questionnaires

Page 49 The thin layer of soil

1. What is the total output per annum?
2. Of the total production, what percentage is solvent-based paint and water-based paint?
3. How much is the operating cost involved per annum?
4. What is the company environmental policy?
5. Is the company a wholly-owned Malaysian company?
6. What are the major sources of wastes generated?
7. What type of dust-collection equipment is used in the plant?
8. How do you rate the efficiency of the equipment?
9. Can photographs be taken of the equipment?
10. What is the general composition of the dust?
11. How is the dust generated in the plant?
12. Are the ducts arranged separately for the dry pre-treatment operation unit or for the bulk samples (before the dust is collected by the hopper)?
13. How is the dust being disposed off subsequently?
14. What raw materials are used for the manufacture of solvent-based paint and water-based paint?
15. What types of solvent, resins, pigments and extenders are used?
16. What type of solution is used for cleaning equipment?
17. Can you provide me with a layout plan of the factory and the process flow diagrams?
18. Describe briefly the processes involved in the manufacture of solvent-based paint and water-based paint.

E: Addenda

- Page 49 This thin layer of scum constituted only about 1-2% by volume of the total contents of the beaker. Therefore, the removal of this scum would not significantly affect the determination of the mean particle size and the particle size distribution of the overall sample.
- Page 59 Non-digestible fractions of the dust samples comprise refractory materials which are not easily digestible. Any toxic elements that may be present in the materials are therefore "locked-in". Hence, such materials would not be potentially toxic. Incomplete digestion of the dust samples by strong concentrated nitric acid would not therefore be inconsistent with the defined objectives of this short-term study.