

Certificate of Analysis

This Certificate verifies that this Lot was cleaned to the recommended EPA wash procedure as set forth in EPA's "Specifications and Guidance for Obtaining Contaminant-Free Sample Containers", and this Lot was tested and found to comply with or be lower than the EPA specifications. CRQLs are based on the CLP Organics Low Concentration SOW.

QUALITY ASSURANCE

Group 1. Procedure A and C. Glass and HDPE Sample Containers for use in the analysis of Metals

Analyte	Contract Required Detection Limit (ug/L)	Analyte	Contract Required Detection Limit (ug/L)	Analyte	Contract Required Detection Limit (ug/L)
Ag (Silver)	< 10	Cr (Chromium)	< 10	Na (Sodium) HDPE	< 200
Al (Aluminum)	< 100	Cv (Copper)	< 10	Ni (Nickel)	< 20
As (Arsenic)	< 2	F (Fluoride)	< 200	Pb (Lead)	< 2
Ba (Barium)	< 20	Fe (Iron)	< 500	Sb (Antimony)	< 5
Be (Beryllium)	< 1	Hg (Mercury)	< 0.2	Se (Selenium)	< 3
Ca (Calcium) Glass	< 500	K (Potassium)	< 750	Tl (Thallium)	< 10
Ca (Calcium) HDPE	< 100	Mg (Magnesium)	< 500	V (Vanadium)	< 10
Cd (Cadmium)	< 1	Mn (Manganese)	< 10	Zn (Zinc)	< 20
CN (Cyanide)	< 10	Na (Sodium) Glass	< 5000	NO ₂ --/NO ₃ - Nitrite/Nitrate	< 100
Co (Cobalt)	< 10			(if Applicable)	

Instrumentation: ICP / GFAA

Group 2. Procedure A. Glass Sample Containers for use in the analysis of Semivolatiles, Pesticides, and PCBs

Analyte	Contract Required Quantitation Limit (ug/L)	Analyte	Contract Required Quantitation Limit (ug/L)	Analyte	Contract Required Quantitation Limit (ug/L)
Phenol	< 5	2, 4-Dinitrophenol	< 20	alpha-BHC	< 0.01
bis-(2-Chloroethyl) ether	< 5	4-Nitrophenol	< 20	beta-BHC	< 0.01
2-Chlorophenol	< 5	Dibenzofuran	< 5	delta-BHC	< 0.01
2-Methylphenol	< 5	2, 4-Dinitrotoluene	< 5	gamma-BHC (Lindane)	< 0.01
2, 2'-oxybis(1-Chloropropane)	< 5	Diethylphthalate	< 5	Heptachlor	< 0.01
4-Methylphenol	< 5	4-Chlorophenyl-phenylether	< 5	Aldrin	< 0.01
N-Nitroso-di-n-propylamine	< 5	Fluorene	< 5	Heptachlor epoxide	< 0.01
Hexachloroethane	< 5	4-Nitroaniline	< 20	Endosulfan I	< 0.01
Nitrobenzene	< 5	4, 6-Dinitro-2-methylphenol	< 20	Dieldrin	< 0.02
Isophorone	< 5	N-Nitrosodiphenylamine	< 5	4, 4'-DDE	< 0.02
2-Nitrophenol	< 5	4-Bromophenyl-phenylether	< 5	Endrin	< 0.02
2, 4-Dimethylphenol	< 5	Hexachlorobenzene	< 5	Endosulfan II	< 0.02
bis-(2-Chloroethoxy)methane	< 5	Pentachlorophenol	< 20	4, 4'-DDD	< 0.02
2, 4-Dichlorophenol	< 5	Phenanthrene	< 5	Endosulfan sulfate	< 0.02
1, 2, 4-Trichlorobenzene	< 5	Anthracene	< 5	4, 4'-DDT	< 0.02
Naphthalene	< 5	Di-n-butylphthalate	< 5	Methoxychlor	< 0.10
4-Chloroaniline	< 5	Fluoranthene	< 5	Endrin ketone	< 0.02
Hexachlorobutadiene	< 5	Pyrene	< 5	Endrin aldehyde	< 0.02
4-Chloro-3-methylphenol	< 5	Butylbenzylphthalate	< 5	alpha-Chlordane	< 0.01
2-Methylnaphthalene	< 5	3, 3'-Dichlorobenzidine	< 5	gamma-Chlordane	< 0.01
Hexachlorocyclopentadiene	< 5	Benzo(a)anthracene	< 5	Toxaphene	< 1.0
2, 4, 6-Trichlorophenol	< 5	Chrysene	< 5	Aroclor-1016	< 0.20
2, 4, 5-Trichlorophenol	< 20	bis-(2-Ethylhexyl) phthalate	< 5	Aroclor-1221	< 0.20
2-Chloronaphthalene	< 5	Di-n-octylphthalate	< 5	Aroclor-1232	< 0.40
2-Nitroaniline	< 20	Benzo(b)fluoranthene	< 5	Aroclor-1242	< 0.20
Dimethylphthalate	< 5	Benzo(k)fluoranthene	< 5	Aroclor-1248	< 0.20
Acenaphthylene	< 5	Benzo(a)pyrene	< 5	Aroclor-1254	< 0.20
2, 6-Dinitrotoluene	< 5	Indeno(1, 2, 3-cd)pyrene	< 5	Aroclor-1260	< 0.20
3-Nitroaniline	< 20	Dibenz(a, h)anthracene	< 5		
Acenaphthene	< 5	Benzo(g, h, i)perylene	< 5		

Instrumentation: GC/MS or GC/ECD

Group 3. Procedure B. Glass Sample Containers for use in the analysis of Volatile Organics

Analyte	Contract Required Quantitation Limit (ug/L)	Analyte	Contract Required Quantitation Limit (ug/L)	Analyte	Contract Required Quantitation Limit (ug/L)
Chloromethane	< 1	Bromochloromethane	< 1	Tetrachloroethene	< 1
Bromomethane	< 1	1, 1, 1-Trichloroethane	< 1	1, 1, 2, 2-Tetrachloroethane	< 1
Vinyl chloride	< 1	Carbon tetrachloride	< 1	1, 2-Dibromoethane	< 1
Chloroethane	< 1	Bromodichloromethane	< 1	Toluene	< 1
Methylene Chloride	< 2	1, 2-Dichloropropane	< 1	Chlorobenzene	< 1
Acetone	< 5	cis-1, 3-Dichloropropene	< 1	Ethylbenzene	< 1
Carbon disulfide	< 1	Trichloroethene	< 1	Styrene	< 1
1, 1-Dichloroethene	< 1	Dibromochloromethane	< 1	Xylenes (total)	< 1
1, 1-Dichloroethane	< 1	1, 1, 2-Trichloroethane	< 1	1, 3-Dichlorobenzene	< 1
cis-1, 2-Dichloroethene	< 1	Benzene	< 1	1, 4-Dichlorobenzene	< 1
trans-1, 2-Dichloroethene	< 1	trans-1, 3-Dichloropropene	< 1	1, 2-Dichlorobenzene	< 1
Chloroform	< 1	Bromoform	< 1	1, 2-Dibromo-3-chloropropane	< 1
1, 2-Dichloroethane	< 1	4-Methyl-2-pentanone	< 5		
2-Butanone	< 5	2-Hexanone	< 5		

Instrumentation: GC/MS

Please keep this Certificate for your records and to facilitate any necessary correspondence.

If Daniels Scientific Inc. can be of any further assistance, please call (864) 228-0055 and ask for our Technical Services Department.



Approval: _____

Kenneth J. Seiler