

New Mexico Department of Health, Scientific Laboratory Division
Initial Demonstration of Capability: Method 8260B (SLD Method 765: MS Purgeables)
Minimum Detection Limit Determination
Nine Replicates at 1.0 ug/L for all analytes (Except: MEK and Xylenes at 2.0 ug/L; THF at 4.0 ug/L)
Analyst: Cyndi Reynolds Date: 25 February 2004
Instrument: Aurora (O I Analytical 4560/ Carlo Ebra GC8035/ Fisons MD-800)

8260 Analytes	Control Sample Analysis Date and MS Files (MDL Data, all quantitations are ug/L)									Statistical Results			
	1/13/2004	1/13/2004	1/14/2004	1/27/2004	1/27/2004	1/28/2004	2/13/2004	2/13/2004	2/16/2004	Ave. (ug/L)	Stand. Dev.	RSD	Detection Limit
	00703 MDL 1	00710 MDL 2	00724 MDL 3	01803 MDL 4	01812 MDL 5	01825 MDL 6	03003 MDL 7	03014 MDL 8	03018 MDL 9				
Dichlorodifluoromethane	1.15	0.81	0.78	1.18	0.99	0.92	1.02	0.65	0.93	0.94	0.172	18.4%	0.50 ug/L
Chloromethane	1.19	1.14	1.10	1.16	1.08	1.23	1.14	1.13	1.10	1.14	0.047	4.1%	0.14 ug/L
Vinylchloride	1.12	1.00	1.01	1.03	1.07	1.06	1.02	0.91	1.00	1.02	0.058	5.7%	0.17 ug/L
Bromomethane	1.15	1.08	1.03	1.08	1.16	1.17	1.12	1.09	1.08	1.11	0.046	4.2%	0.13 ug/L
Chloroethane	1.16	1.12	1.04	1.06	1.09	1.16	1.11	1.01	0.97	1.08	0.066	6.1%	0.19 ug/L
Trichlorofluoromethane	1.20	1.15	0.93	0.96	1.06	0.96	1.07	0.83	1.07	1.03	0.116	11.3%	0.33 ug/L
1,1-Dichloroethene	1.16	1.10	1.17	0.98	1.17	0.50	1.06	1.09	1.12	1.04	0.211	20.3%	0.61 ug/L
Acetone	0.89	1.48	1.54	0.91	2.08	1.72	1.13	2.40	0.90	1.45	0.547	37.7%	1.58 ug/L
Methylene Chloride	1.83	1.08	0.81	1.66	1.93	0.93	2.02	0.86	3.10	1.58	0.748	47.4%	2.17 ug/L
trans-1,2-Dichloroethene	1.17	1.06	1.14	1.17	1.08	1.16	1.14	1.06	1.06	1.12	0.050	4.4%	0.14 ug/L
Methyl tert-Butyl Ether	0.86	0.93	0.97	0.95	0.99	1.17	1.11	1.01	1.10	1.01	0.099	9.8%	0.29 ug/L
1,1-Dichloroethane	1.02	0.99	0.98	1.04	0.94	1.08	1.00	0.93	0.98	1.00	0.047	4.7%	0.14 ug/L
cis-1,2-Dichloroethene	1.01	1.02	0.93	1.04	0.96	1.11	1.06	1.02	1.00	1.02	0.053	5.2%	0.15 ug/L
2,2-Dichloropropane	1.16	1.20	1.00	1.15	1.01	1.07	1.14	0.85	1.14	1.08	0.110	10.2%	0.32 ug/L
Bromochloromethane	1.01	1.08	1.02	1.01	1.10	1.12	1.00	1.08	1.09	1.06	0.046	4.4%	0.13 ug/L
2-Butanone	2.24	1.82	2.30	2.30	2.14	2.52	2.14	2.40	2.38	2.25	0.202	9.0%	0.59 ug/L
Tetrahydrofuran	4.36	2.88	4.28	4.44	4.28	5.28	4.68	4.56	4.40	4.35	0.632	14.5%	1.83 ug/L
Chloroform	1.10	1.13	1.04	1.14	1.10	1.22	1.10	1.10	1.12	1.12	0.048	4.3%	0.14 ug/L
1,1,1-Trichloroethane	1.14	1.07	0.97	1.14	1.02	1.01	1.11	0.94	1.08	1.05	0.072	6.9%	0.21 ug/L
1,1-Dichloropropene	1.08	1.09	1.06	1.10	1.03	1.19	1.09	1.01	1.14	1.09	0.054	5.0%	0.16 ug/L
Carbon Tetrachloride	1.14	1.07	1.07	1.16	1.02	1.09	1.13	0.99	1.16	1.09	0.061	5.6%	0.18 ug/L
Benzene	1.13	1.20	1.10	1.14	0.98	1.24	1.11	1.15	1.14	1.13	0.072	6.4%	0.21 ug/L
1,2-Dichloroethane	0.95	0.96	0.89	0.96	0.95	1.11	0.94	1.00	0.95	0.97	0.060	6.2%	0.17 ug/L
Trichloroethene	1.09	1.01	1.01	1.07	0.94	1.12	1.06	0.94	1.05	1.03	0.063	6.1%	0.18 ug/L
1,2-Dichloropropane	0.97	0.97	0.91	1.01	1.00	1.06	0.95	0.94	0.98	0.98	0.044	4.5%	0.13 ug/L
Dibromomethane	1.02	0.93	0.92	1.00	1.02	1.14	0.99	1.03	1.01	1.01	0.064	6.3%	0.18 ug/L
Bromodichloromethane	1.11	1.10	1.03	1.10	1.05	1.14	1.09	1.05	1.07	1.08	0.035	3.2%	0.10 ug/L
cis-1,3-Dichloropropene	1.14	1.11	1.05	1.05	1.00	1.14	1.08	0.99	1.02	1.06	0.057	5.3%	0.16 ug/L
Toluene	1.16	1.05	1.05	1.11	0.97	1.07	1.07	0.95	1.06	1.05	0.064	6.1%	0.19 ug/L
trans-1,3-Dichloropropene	1.12	1.07	1.03	1.09	1.00	1.09	1.10	0.95	1.06	1.06	0.054	5.1%	0.16 ug/L
1,1,2-Trichloroethane	1.14	0.99	1.00	1.13	1.11	1.17	1.13	1.08	1.09	1.09	0.062	5.7%	0.18 ug/L
1,3-Dichloropropane	1.08	1.01	1.02	0.98	1.03	1.16	1.03	1.04	1.04	1.04	0.051	4.9%	0.15 ug/L
Tetrachloroethene	1.15	1.05	1.19	1.20	1.18	1.19	1.17	1.01	1.11	1.14	0.068	6.0%	0.20 ug/L
Dibromochloromethane	1.17	0.94	0.94	1.05	0.99	1.05	1.09	0.98	1.05	1.03	0.075	7.3%	0.22 ug/L
1,2-Dibromoethane (EDB)	1.10	0.94	1.01	1.02	1.01	1.13	1.07	1.02	1.03	1.04	0.056	5.4%	0.16 ug/L
Chlorobenzene	1.10	1.06	1.08	1.04	1.01	1.10	1.03	1.02	1.07	1.06	0.034	3.2%	0.10 ug/L
Ethylbenzene	1.15	1.02	1.05	1.08	0.95	1.04	1.01	0.94	1.06	1.03	0.064	6.2%	0.19 ug/L
1,1,1,2-Tetrachloroethane	1.08	0.98	0.98	1.06	0.94	1.00	1.07	0.95	1.03	1.01	0.052	5.2%	0.15 ug/L
m/p-Xylenes	2.26	2.02	2.10	2.14	1.90	2.10	2.00	1.84	2.10	2.05	0.127	6.2%	0.37 ug/L
o-Xylene	1.12	1.01	1.01	1.06	0.96	1.05	1.00	0.93	1.02	1.02	0.056	5.5%	0.16 ug/L
Styrene	1.07	0.97	1.03	1.03	0.97	1.05	0.99	0.97	1.04	1.01	0.039	3.8%	0.11 ug/L
Bromoform	1.12	0.74	0.93	1.07	1.01	0.99	1.10	0.91	1.01	0.99	0.117	11.8%	0.34 ug/L
Isopropylbenzene	1.17	1.08	1.14	1.10	0.98	1.13	0.88	0.97	1.13	1.06	0.098	9.2%	0.28 ug/L
1,1,2,2-Tetrachloroethane	1.19	0.85	1.02	1.11	1.05	1.10	1.15	1.03	1.10	1.07	0.098	9.2%	0.28 ug/L
1,2,3-Trichloropropane	1.13	0.85	1.07	1.04	1.09	1.15	1.08	1.04	1.05	1.06	0.086	8.2%	0.25 ug/L
Bromobenzene	1.06	1.07	1.04	1.03	1.02	1.10	1.04	0.99	1.04	1.04	0.031	3.0%	0.09 ug/L
Propylbenzene	1.15	1.02	1.12	1.02	0.94	1.06	0.97	0.90	1.11	1.03	0.086	8.3%	0.25 ug/L
2-Chlorotoluene	1.07	1.00	1.03	1.05	0.94	1.04	0.99	0.94	1.03	1.01	0.046	4.6%	0.13 ug/L
1,3,5-Trimethylbenzene	1.16	1.10	1.17	1.12	1.03	1.17	0.86	0.97	1.11	1.08	0.105	9.8%	0.30 ug/L
4-Chlorotoluene	1.09	1.05	1.09	1.07	1.01	1.12	0.98	0.98	1.06	1.05	0.050	4.8%	0.14 ug/L
tert-Butylbenzene	1.11	1.06	1.13	1.05	0.94	1.09	0.92	0.93	1.09	1.04	0.083	8.0%	0.24 ug/L
1,2,4-Trimethylbenzene	1.12	1.09	1.18	1.11	1.03	1.17	0.88	0.98	1.09	1.07	0.095	8.9%	0.28 ug/L
sec-Butylbenzene	1.19	1.12	1.19	1.12	0.97	1.19	0.98	0.95	1.20	1.10	0.105	9.6%	0.31 ug/L
1,3-Dichlorobenzene	1.11	1.06	1.10	1.09	1.01	1.13	1.01	1.01	1.10	1.07	0.048	4.5%	0.14 ug/L
4-Isopropyltoluene	1.15	1.10	1.17	1.08	0.94	1.17	0.80	0.90	1.14	1.05	0.136	12.9%	0.39 ug/L
1,4-Dichlorobenzene	1.09	1.08	1.11	1.08	1.04	1.14	1.01	1.03	1.08	1.07	0.041	3.8%	0.12 ug/L
1,2-Dichlorobenzene	1.09	1.04	1.12	1.08	1.02	1.15	1.01	1.01	1.07	1.07	0.050	4.7%	0.14 ug/L
n-Butylbenzene	1.19	1.11	1.18	1.11	0.91	1.16	0.84	0.87	1.16	1.06	0.143	13.5%	0.41 ug/L
1,2-Dibromo-3-chloropropane	1.15	0.68	1.10	1.15	1.13	1.13	1.20	0.92	1.07	1.06	0.163	15.3%	0.47 ug/L
Nitrobenzene	38.60	9.00	12.20	28.40	15.40	12.60	30.00	14.40	22.40	20.33	10.065	49.5%	29.1 ug/L
1,2,4-Trichlorobenzene	1.15	1.07	1.15	1.12	1.04	1.22	0.85	1.03	1.19	1.09	0.111	10.2%	0.32 ug/L
Hexachlorobutadiene	1.35	1.29	1.15	1.19	0.86	1.43	0.67	0.93	1.42	1.14	0.268	23.4%	0.78 ug/L
Naphthalene	1.12	0.82	1.07	1.11	1.03	1.11	0.99	0.98	1.11	1.04	0.098	9.4%	0.28 ug/L
1,2,3-Trichlorobenzene	1.15	1.05	1.18	1.12	1.06	1.22	0.85	1.01	1.20	1.09	0.116	10.6%	0.34 ug/L
Total Xylenes	3.38	3.03	3.11	3.20	2.86	3.15	3.00	2.77	3.12	3.07	0.182	5.9%	0.53 ug/L
Total Trihalomethanes	4.50	3.91	3.94	4.36	4.15	4.40	4.38	4.04	4.25	4.21	0.215	5.1%	0.62 ug/L

Remarks: For nine replicates, student t value = 2.896, MDL = 2.896 x Std. Dev.