

Table B-59. Analytical Methods for the Determination of Pollutants Regulated by 30 TAC §section 307.6 of the Standards

Pollutant	Suggested Method	MAL (µg/L)	MDL (µg/L)	MAL Source Documentation
Acrylonitrile	<u>1624</u> 624	50	50	The MAL is based on the MDL published in 40 CFR Part 136, Method 1624. MAL based on the minimum quantitation level (MQL) developed by EPA, Region 6, July 1992. The MAL is equal to the minimum level at which the analytical system shall give acceptable calibration points documented in 40 CFR Part 136, Method 1624.
Aldrin	608	<u>0.01</u> 0.05	0.004	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. The MAL is approximately ten 2.5 times the detection limit MDL documented in 40 CFR Part 136, Method 608.
Aluminum, total ¹	<u>200.8</u> 202.2	<u>2.5</u> 30	<u>1.0</u> 7.8	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. The MAL is approximately 2.5 times the MDL, four times the detection limit for based on EPA Method 200.8 ¹ 200.9 ² .
Anthracene	<u>625</u>	10	— ⁴	The MAL is based on the MQL developed by EPA Region 6, July 1992.
Antimony, total	<u>200.8</u>	<u>5</u>	0.4	The MAL is 12.5 times the MDL based on EPA Method 200.8 ¹ .
Arsenic, total ¹	<u>200.8</u> 206.2	<u>0.5</u> 10	<u>0.4</u> 0.5	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. The MDL is published in EPA Method 200.8 ¹ . MAL is twenty times the detection limit documented in EPA, Method 200.9 ² and corresponds to the MQL developed by EPA Region 6, July 1992.
Barium, total ¹	<u>200.8</u> 208.2	<u>3</u> 10	<u>0.8</u> 2	The MAL is approximately 3.8 times the MDL based on EPA Method 200.8 ¹ . MAL is the lowest concentration of the optimum working range given for EPA, Method 208.2 ³ .
Benzene	624	10	4.4	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 624.

Pollutant	Suggested Method	MAL (µg/L)	MDL (µg/L)	MAL Source Documentation
Benzidine	625	50	$\frac{—^4}{44}$	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. MAL based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 625.
Benzo(a)anthracene	625	$\frac{5}{10}$	$\frac{—^4}{7.8}$	The MAL is based on the CERCLA National Contract Laboratory Program's CROQL referred to by EPA Region 6 MQL guidance dated February 8, 2008. MAL based on the MQL developed by EPA, Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 625.
Benzo(a)pyrene	625	$\frac{5}{10}$	$\frac{—^4}{2.5}$	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. MAL based on the MQL developed by EPA, Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 625.
<u>3,4-Benzofluoranthene</u>	<u>625</u>	<u>10</u>	$\frac{—^4}{—}$	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008.
<u>Benzo(k)fluoranthene</u>	<u>625</u>	<u>5</u>	$\frac{—^4}{—}$	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008.
<u>Beryllium, total</u> ¹	<u>200.8</u>	<u>0.5</u>		The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008.
<u>Bis(2-chloroethyl)ether</u>	<u>625</u>	<u>10</u>	$\frac{—^4}{—}$	The MAL is based on the MQL developed by EPA Region 6, July 1992.
Bis(chloromethyl)ether	$\frac{—^4}{—}$	$\frac{—^4}{—}$	$\frac{—^4}{—}$	Analytical method undetermined.
<u>Bis(2-ethylhexyl)phthalate</u> <u>[Di(2-ethylhexyl)phthalate]</u>	<u>625</u>	<u>10</u>	$\frac{—^4}{—}$	The MAL is based on the MQL developed by EPA Region 6, July 1992.
<u>Cadmium, total</u> ¹⁻⁵	<u>200.8</u> <u>213.2</u>	1	$\frac{0.5}{0.05}$	The MAL is two times the MDL based on EPA Method 200.8 ¹ . MAL is twenty times the detection limit given for EPA, Method 200.9 ² and corresponds to the MQL developed by EPA Region 6, July 1992.
Carbaryl	632	5.0	0.02	The MAL is based on laboratory consensus taken October 1992. The MDL is given by EPA Method 632 ⁶ .

Pollutant	Suggested Method	MAL (µg/L)	MDL (µg/L)	MAL Source Documentation
Carbon tetrachloride	624	<u>2</u> 10	2.8	The MAL is four times the CERCLA National Contract Laboratory Program's CRQL of 0.5 µg/L referred to by EPA Region 6 MQL guidance dated February 8, 2008. MAL based on the MQL developed by EPA, Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 624.
Chlordane	608	<u>0.2</u> 0.15	0.014	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. The MDL is documented in 40 CFR Part 136, Method 608. MAL is approximately ten times the detection limit documented in 40 CFR Part 136, Method 608.
Chlorobenzene	624	10	<u>6.0</u>	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 624.
Chloroform	624	10	1.6	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 624.
Chlorpyrifos	1657	0.05	0.004	The MAL is approximately ten <u>12.5</u> times the <u>MDL detection limit</u> given by EPA, Method 1657 ⁶ .
Chromium, total-Recoverable ¹ (Dissolved)	<u>200.8</u> 218.2	<u>3</u> 10.0	<u>0.9</u> 0.1	The MAL is 3.3 times the MDL based on EPA Method 200.8 ¹ . MAL is based on the contract required detection limit (CRDL) published in the EPA Contract Laboratory Program Statement of Work, Doc. No. ILMO2.0, Method 218.2. MDL based on EPA, Method 200.9 ² .
Chromium, hexavalent	218.4	10	1	The MAL is ten times the <u>MDL detection limit</u> given by EPA Method 218.4 ³ .
Chromium, trivalent	See documentation note.	—	—	Trivalent chromium is determined by subtracting the concentration of hexavalent chromium (dissolved) from the dissolved total chromium concentration.
Chrysene	625	<u>5</u> 10	<u>—</u> ⁴ 2.5	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. MAL based on the MQL developed by EPA, Region 6, July, 1992. The MDL is documented in 40 CFR Part 136, Method 625.

Pollutant	Suggested Method	MAL (µg/L)	MDL (µg/L)	MAL Source Documentation
Copper, <u>total</u> ^{1, 5}	<u>200.8</u> <u>220.2</u>	<u>0.5</u> 10	<u>0.5</u> <u>0.7</u>	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. The MDL is documented in EPA Method 200.8 ¹ . MAL is approximately ten times the detection limit given by EPA, Method 200.9 ² .
<i>p</i> -Chloro- <i>m</i> -cresol [4-Chloro-3-methylphenol]	625	10	<u>—</u> ⁴ 3	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 625.
4,6-Dinitro- <i>o</i> -cresol [2-Methyl-4,6-dinitrophenol]	625	50	<u>4.7</u> <u>24</u>	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 625.
<i>p</i> -Cresol [4-Methylphenol]	625	10	<u>7.8</u> <u>—</u> ⁴	The MDL is documented in 40 CFR Part 136, Method 625. MAL based on the contract required quantitation levels (CRQLs) for water from EPA Region 6, Target Compound List acquired January 14, 1993.
Cyanide, total	<u>335.2</u> <u>335.3</u> <u>4500-CN D</u>	<u>10</u> <u>20</u>	<u>—</u> ⁴	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. MAL is based on the lowest standard concentration within the applicable range set in EPA, Method 335.2 ³ . The CRDL is 10 µg/L published in the EPA Contract Laboratory Program Statement of Work, Document Number ILMO2.0 using Method 239.2.
Cyanide, amenable to chlorination	<u>4500-CN-G</u> <u>335.1</u>	<u>10</u> <u>20</u>	<u>—</u> ⁵⁴	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. There is no MDL documented in Standard Methods (20 th Edition) ⁵ . Both chlorinated and unchlorinated cyanide sample concentrations are determined using EPA, Method 335.2 ³ .
Cyanide, weak acid dissociable	4500-CN I.	<u>10</u> <u>20</u>	<u>—</u> ⁵ <u>1.4</u>	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. There is no MDL documented in Standard Methods (20 th Edition) ⁵ . MAL based on the MDL developed by the TNRCC Laboratory on 12/09/94.
4,4'-DDD	608	0.1	0.011	The MAL is approximately ten <u>9.1</u> times the detection limit documented in 40 CFR Part 136, Method 608.

Pollutant	Suggested Method	MAL (µg/L)	MDL (µg/L)	MAL Source Documentation
4,4'-DDE	608	0.1	0.004	The MAL is based on the MQL Developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 608.
4,4'-DDT	608	0.1 0.02	0.012	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. The MDL is documented in 40 CFR Part 136, Method 608. MAL is approximately ten times the detection limit documented in 40 CFR Part 136, Method 608.
2,4-D	615	10	1.2	The MAL is approximately ten 8.3 times the detection limit given by EPA Method 615 ⁶ .
Danitol [Fenpropathrin]	No published EPA method available Method under development	— ⁴	— ⁴	No published EPA method available. Method, MAL and MDL developed by the Texas Natural Resource Conservation Commission Laboratory. May be reviewed by EPA, Region 6 for use in Texas.
Demeton	1657	0.20	0.020	The MAL is ten times the detection limit given by EPA Method 1657 ⁶ .
Diazinon	1657	0.5	0.038	The MAL is approximately ten 13.2 times the detection limit given by EPA Method 1657 ⁶ .
<u>Dibenzo(a,h)anthracene</u>	<u>625</u>	<u>5</u>	<u>—⁴</u>	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008.
Dibromochloromethane	624	10	3.1	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 624.
1,2-Dibromoethane	618	2	0.2	The MAL is ten times the detection limit given in EPA Method 618 ⁶ .
<u>m-Dichlorobenzene</u> [<u>1,3-Dichlorobenzene</u>]	<u>625</u>	<u>10</u>	<u>—⁴</u>	The MAL is based on the MQL developed by EPA Region 6, July 1992.
<u>o-Dichlorobenzene</u> [<u>1,2-Dichlorobenzene</u>]	<u>625</u>	<u>10</u>	<u>—⁴</u>	The MAL is based on the MQL developed by EPA Region 6, July 1992.
<u>p-Dichlorobenzene</u> [<u>1,4-Dichlorobenzene</u>]	625	10	<u>—⁴</u> 4.4	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 625.

Pollutant	Suggested Method	MAL (µg/L)	MDL (µg/L)	MAL Source Documentation
<u>3,3'-Dichlorobenzidine</u>	<u>625</u>	<u>5</u>	<u>—⁴</u>	The MAL is based on the CERCLA National Contract Laboratory Program's CRQL referred to by EPA Region 6 MQL guidance dated February 8, 2008.
1,2-Dichloroethane	624	10	2.8	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 624.
1,1-Dichloroethylene	624	10	2.8	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 624.
<u>Dichloromethane</u> <u>[Methylene chloride]</u>	<u>624</u>	<u>20</u>	<u>2.8</u>	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 624.
<u>1,2-Dichloropropane</u>	<u>624</u>	<u>10</u>	<u>6.0</u>	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 624.
1,3-Dichloropropene	624	10	5.0	The MAL is based on the MQL developed by EPA Region 6, July, 1992. The MDL is documented in 40 CFR Part 136, Method 624 for cis-1,3-Dichloropropene.
Dicofol <u>[Kelthane]</u>	617	20	<u>—⁴</u>	The MAL is based on laboratory consensus taken October 1992 and Method 617 ⁶ .
Dieldrin	608	<u>0.02</u> <u>0.1</u>	0.002	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. MAL based on the MQL developed by EPA, Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 608.
<u>2,4-Dimethylphenol</u>	<u>625</u>	<u>10</u>	<u>—⁴</u>	The MAL is based on the MQL developed by EPA Region 6, July 1992.
<u>Dimethyl phthalate</u>	<u>625</u>	<u>10</u>	<u>—⁴</u>	The MAL is based on the MQL developed by EPA Region 6, July 1992.
<u>Di-n-butyl phthalate</u>	<u>625</u>	<u>10</u>	<u>—⁴</u>	The MAL is based on the MQL developed by EPA Region 6, July 1992.

Pollutant	Suggested Method	MAL (µg/L)	MDL (µg/L)	MAL Source Documentation
<u>Dioxins/Furans (TCDD Equivalents)</u> 2,3,7,8-TCDD 1,2,3,7,8-PeCDD <u>2,3,7,8-HxCDDs</u> 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD <u>1,2,3,4,6,7,8-HpCDD</u> <u>OCDD</u> 2,3,7,8-TCDF 1,2,3,7,8-PeCDF ⁹ 2,3,4,7,8-PeCDF <u>2,3,7,8-HxCDFs</u> 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 2,3,4,6,7,8-HxCDF <u>2,3,4,7,8-HpCDFs</u> <u>1,2,3,4,6,7,8-HpCDF</u> <u>1,2,3,4,7,8,9-HpCDF</u> <u>OCDF</u>	1613	(ppq) 10 50 50 50 50 <u>50</u> <u>100</u> 10 50 50 50 50 50 <u>50</u> <u>50</u> <u>100</u>	(ppq) See documen- tation note +0	<u>The MAL is based on the Minimum Level (ML) published in 40 CFR Part 136, Method 1613. The ML for each analyte is defined as the level at which the entire analytical system must give a recognizable signal and acceptable calibration point. It is equivalent to the concentration of the lowest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed. MAL based on the MQL developed by the Dioxin National Strategy as reported by EPA Region 6, July 1992 Minimum Quantification Report and the minimum levels at which the analytical system will give acceptable selected ion current profile and calibration as published in EPA Method 1613.</u>
<u>1,2-Diphenylhydrazine (as Azobenzene)</u>	<u>1625</u>	<u>20</u>		<u>The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008.</u>
Diuron	632	0.090	0.009	The MAL is approximately ten times the detection limit given by EPA Method 632 ⁶ .
Endosulfan I (<i>alpha</i>)	608	<u>0.01</u> 0.1	0.014	<u>The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. MAL based on the MQL developed by EPA, Region 6, July 1992.</u> The MDL is documented in 40 CFR Part 136, Method 608.
Endosulfan II (<i>beta</i>)	608	<u>0.02</u> 0.1	0.004	<u>The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. MAL based on the MQL developed by EPA, Region 6, July 1992.</u> The MDL is documented in 40 CFR Part 136, Method 608.
Endosulfan sulfate	608	0.1	0.066	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 608.
Endrin	608	<u>0.02</u> 0.1	0.006	<u>The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. MAL based on the MQL developed by EPA, Region 6, July 1992.</u> The MDL is documented in 40 CFR Part 136, Method 608.

Pollutant	Suggested Method	MAL (µg/L)	MDL (µg/L)	MAL Source Documentation
<u>Ethylbenzene</u>	<u>624</u>	<u>10</u>	<u>7.2</u>	The MAL is based on the MQL developed by EPA Region 6 July 1992. The MDL is documented in 40 CFR Part 136, Method 624.
Fluoride	340.3	500	50	The MAL is ten times the lowest concentration of the applicable working range given by EPA Method 340.3 ³ .
Guthion	1657	0.1	0.009	The MAL is approximately ten <u>11.1</u> times the detection limit given by EPA Method 1657 ⁶ .
Heptachlor	608	0.01 <u>0.05</u>	0.003	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. The MAL is approximately ten <u>3.3</u> times the detection limit documented in 40 CFR Part 136, Method 608.
Heptachlor epoxide	608	0.01 <u>1.0</u>	0.083	The MAL is based on the CERCLA National Contract Laboratory Program's CRQL referred to by EPA Region 6 MQL guidance dated February 8, 2008. MAL is approximately ten times the <u>The MDL is</u> detection limit documented in 40 CFR Part 136, Method 608.
Hexachlorobenzene	625	5 <u>10</u>	—⁴ <u>1.9</u>	The MAL is based on the CERCLA National Contract Laboratory Program's CRQL referred to by EPA Region 6 MQL guidance dated February 8, 2008. MAL based on the MQL developed by EPA, Region 6, July, 1992. The MDL is documented in 40 CFR Part 136, Method 625.
Hexachlorobutadiene	625	10	—⁴ <u>0.9</u>	The MAL is approximately ten <u>11.1</u> times the detection limit documented in 40 CFR Part 136, Method 625 and corresponds to the MQL developed by EPA Region 6, July, 1992.
<i>alpha</i> -Hexachlorocyclohexane	608	0.05	0.003	The MAL is approximately ten <u>16.7</u> times the detection limit documented in 40 CFR Part 136, Method 608.
<i>beta</i> -Hexachlorocyclohexane	608	0.05	0.006	The MAL is approximately ten <u>8.3</u> times the detection limit documented in 40 CFR Part 136, Method 608.
<i>gamma</i> -Hexachlorocyclohexane [Lindane]	608	0.05	0.004	The MAL is approximately ten <u>12.5</u> times the detection limit documented in 40 CFR Part 136, Method 608.
<u>Hexachlorocyclopentadiene</u>	<u>625</u>	<u>10</u>	—⁴	The MAL is based on the MQL developed by EPA Region 6, July, 1992.

Pollutant	Suggested Method	MAL (µg/L)	MDL (µg/L)	MAL Source Documentation
Hexachloroethane	625	20	$\frac{—}{4}$ 4-6	The MAL is based on the MQL developed by EPA Region 6, July, 1992. The MDL is documented in 40 CFR Part 136, Method 625.
Hexachlorophene	604.1	10	1.2	The MAL is approximately ten 8.3 times the detection limit given in EPA Method 604.1 ⁶ .
Indeno(1,2,3-cd)pyrene	625	5		The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008.
Lead, total ¹⁻⁵	200.8 239.2	0.5 5.0	0.05 0.7	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. The MDL is published in EPA Method 200.8 ¹ . MAL is based on the MQL developed by EPA, Region 6, July, 1992 and is greater than the CRDL of 3 µg/L published in the EPA Contract Laboratory Program Statement of Work, Doc. Number ILMO2.0 using Method 239.2. MDL based on EPA, Method 200.9 ² .
Malathion	1657	0.1	0.011	The MAL is approximately ten 9.1 times the detection limit given in EPA Method 1657 ⁶ .
Mercury ^{4-7,8}	245.7 245.1	0.005 0.2	0.0018 $\frac{—}{4}$	The MAL is based on the MQL published in the EPA national policy memorandum dated August 23, 2007 and in the Method 245.7 published in February 2005. MAL is based on the CRDL published in the EPA Contract Laboratory Program Statement of Work, Document Number ILMO2.0 using Method 245.1 and corresponds with the MQL developed by EPA, Region 6, July 1992.
	1631E	0.0005	0.0002	The MAL is based on the MQL published in the EPA national policy memorandum dated August 23, 2007 and in the Method 1631E published in August 2002. MAL is based on the minimum level published in Method 1631, Revision B ⁸ .
Methoxychlor	617	2.0	0.176	The MAL is approximately ten 11.4 times the detection limit given in EPA Method 617 ⁶ .

Pollutant	Suggested Method	MAL (µg/L)	MDL (µg/L)	MAL Source Documentation
Methyl ethyl ketone	624	50	50	The MAL is the minimum level at which the analytical system shall give acceptable calibration points documented in 40 CFR 136, Method 1624. MAL is five times the CRQL for water analysis using Method 624 from the EPA Region 6, Target Compound List acquired January 14, 1993.
Mirex	617	0.2	0.015	The MAL is approximately ten 13.3 times the detection limit given in EPA Method 617 ⁶ .
Nickel, total ^{1,5}	200.8 249.2	0.5 10	0.5 0.6	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. The MAL is equal to the MDL given for EPA Method 200.8 ¹ . MAL is approximately ten times the detection limit given for EPA, Method 200.9 ² .
Nitrate-nitrogen	352.1	1000	100	The MAL is ten times the lowest concentration of the applicable range given by EPA 1979, Method 352.1 ³ .
Nitrobenzene	625	10	1.9 ⁴	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 625.
N-Nitrosodiethylamine	625	20	5 ⁴	The suggested method, MAL and MDL are based on laboratory consensus taken October 1992.
N-Nitroso-di-n-butylamine	625	20	5 ⁴	The suggested method, MAL and MDL are based on laboratory consensus taken October 1992.
Nonylphenol (CASRN 84852-15-3)	1625	333	111	The MAL is three times the MDL published in Method 1625.
Nonylphenol (CASRN 25154-52-3)	1625	333	111	The MAL is three times the MDL published in Method 1625.
Parathion (ethyl)	1657	0.1	0.010	The MAL is ten times the detection limit given in EPA Method 1657 ⁶ .
Pentachlorobenzene	625	20	5 ⁴	The suggested method, MAL and MDL are based on laboratory consensus taken October 1992.
Pentachlorophenol	625	5 50	3.6 ⁴	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. MAL based on the MQL developed by EPA, Region 6, July 1992. MAL is based on the CRQL for water analysis using Method 625 from the EPA Region 6, Target Compound List acquired January 14, 1993.

Pollutant	Suggested Method	MAL (µg/L)	MDL (µg/L)	MAL Source Documentation
Phenanthrene	625	10	$\frac{—}{5.4}^4$	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 625.
Polychlorinated biphenyls (PCBs)	608			
PCB-77	1668	0.0005	0.000169	The MALs are based on estimated minimum levels as published in Method 1668.
PCB-81	1668	0.0005	0.000177	
PCB-126	1668	0.0005	0.000136	The MALs are based on the MQLs approved by EPA Region 6 on February 8, 2008. MAL based on the MQLs developed by EPA, Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 608.
PCB-169	1668	0.0005	0.000161	
PCB-1016	608	0.2+0	ND ⁴	
PCB-1221	608	0.2+0	ND ⁴	
PCB-1232	608	0.2+0	ND ⁴	
PCB-1242	608	0.2+0	0.065	
PCB-1248	608	0.2+0	ND ⁴	
PCB-1254	608	0.2+0	ND ⁴	
PCB-1260	608	0.2+0	ND ⁴	
Pyridine	625	20	$\frac{—}{5}^4$	
Selenium, total ¹⁻⁵	200.8 270.2	5 10.0	2.1 2.0	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. The MDL is published in EPA Method 200.8 ¹ . MAL is five times the detection limit for Method 270.2.
Silver, total ¹⁻⁵	200.8 272.2	0.5 2.0	0.1 0.5	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. The MAL is five times the MDL in EPA Method 200.8 ¹ . MAL is based on the MQL developed by EPA Region 6, July 1992. MDL based on EPA, Method 200.9 ² .
1,2,4,5-Tetrachlorobenzene	625	20	$\frac{—}{5}^4$	The suggested method, MAL and MDL are based on laboratory consensus taken October, 1992.
1,1,2,2-Tetrachloroethane	624	10	6.9	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 624.
Tetrachloroethylene	624	10	4.1	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 624.
Thallium, total ¹	200.8	0.5	0.3	The MAL is based on the MQL approved by EPA Region 6 on February 8, 2008. The MAL is approximately 1.7 times the MDL in EPA Method 200.8 ¹ .

Pollutant	Suggested Method	MAL (µg/L)	MDL (µg/L)	MAL Source Documentation
<u>Toluene</u>	<u>624</u>	<u>10</u>	<u>6.0</u>	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 624.
Toxaphene	608	<u>0.3</u> 5.0	0.24	The MAL is based on the MQL approved by EPA Region 6 in February 8, 2008. MAL based on the MQL developed by EPA, Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 608.
2,4,5-TP [Silvex]	615	2.0	0.17	The MAL is approximately ten <u>11.8</u> times the detection limit given by EPA Method 615 ⁶ .
Tributyltin [TBT]	TNRCC 1001	0.010	3.2×10^{-6}	The method is entitled "Measurement of Butyltin Species in Water by n-Pentyl Derivatization with Gas Chromatography/Flame Photometric Detection (GC/FPD) and Gas Chromatography/Mass Spectrometry (GC/MS)." The MAL is equal to EPA tributyltin advisory level.
1,1,1-Trichloroethane	624	10	3.8	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 624.
<u>1,1,2-Trichloroethane</u>	<u>624</u>	<u>10</u>	<u>5.0</u>	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 624.
Trichloroethylene	624	10	1.9	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is documented in 40 CFR Part 136, Method 624.
2,4,5-Trichlorophenol	625	50	10 <u>4</u>	The MAL is five times the minimum level at which the analytical system shall give acceptable calibration points documented in 40 CFR Part 136, Method 1625. The MAL is based on the CRQL for water analysis using Method 625 from the EPA Region 6, Target Compound List acquired January 14, 1993.
TTHM (Total Trihalomethanes) Bromodichloromethane Dibromochloromethane Tribromomethane [Bromoform] Trichloromethane [Chloroform]	624	10 10 10 10	2.2 3.1 4.7 1.6	The MAL is based on the CRQL for water analysis using Method 624 from the EPA Region 6, Target Compound List acquired January 14, 1993. Method detection limits are documented in 40 CFR Part 136, Method 624.

Pollutant	Suggested Method	MAL (µg/L)	MDL (µg/L)	MAL Source Documentation
Vinyl chloride	624	10	— ⁴	The MAL is based on the MQL developed by EPA Region 6, July 1992. The MDL is given as “nd” in 40 CFR Part 136, Method 624.
Zinc, total ^{1,5}	200.8 289.2	5.0	1.8 0.3	The MAL is approximately 2.8 ten times the MDL based on detection limit given by EPA Method 200.8 ² 200.9.

- ¹ Method 200.8 is approved for use in the NPDES program [40 CFR Part 136, revised March 12, 2007]. Method 200.8. Determination of Trace Elements in Waters and Wastes by Inductively Coupled-Plasma - Mass Spectrometry, U.S. Environmental Protection Agency, EPA 600-R-94-111, May 1994. Method 200.8 contains accuracy and precision data generated using determination of trace elements in waters and wastes by inductively coupled plasma-mass spectrometry techniques for the following metals: aluminum, arsenic, barium, cadmium, chromium, copper, lead, nickel, selenium, silver, thallium, and zinc. EPA Method 200.8 may also be used upon request. Such a request should be made in writing to EPA's Houston Laboratory, 10625 Fallstone Road, Houston, Texas, 77099-4303. Once Method 200.8 is approved for use in the NPDES program, no written request will be necessary.
- ² Methods for the Determination of Metals in Environmental Samples, U.S. Environmental Protection Agency, Environmental Monitoring Systems Laboratory-Cincinnati, EPA-600/4-91-010, June 1991. Method 200.9, which contains accuracy and precision data generated using graphite furnace atomic absorbance spectrophotometer techniques, includes for the following metals: aluminum, arsenic, cadmium, chromium, copper, lead, nickel, and selenium, silver and zinc. This accuracy and precision data supports the working ranges and detection limits for each corresponding method found in 40 CFR Part 136.
- ³ Methods for the Chemical Analysis of Water and Wastes, U.S. Environmental Protection Agency, Environmental Monitoring Systems Laboratory-Cincinnati (EMSL-CI), EPA-600/4-79-020, Revised March 1983 and 1979 where applicable.
- ⁴ Not determined or not published by the EPA.
- ⁵ Standard Methods for the Examination of Water and Wastewater, 20th Edition, American Public Health Association, American Water Works Association, and Water Environment Federation, 1998. EPA Method 1638 may also be used once it is approved for use in the NPDES program. Method 1638. Determination of Trace Elements in Ambient Waters by Inductively Coupled Plasma-mass Spectrometry, U.S. Environmental Protection Agency, Office of Water, EPA 821-R-96-005, January 1996.
- ⁶ EPA Methods for the Determination of Nonconventional Pesticides in Municipal and Industrial Wastewater, U.S. Environmental Protection Agency, EPA-821-R-93-010-A & B, August 1993.
- ⁷ Either method listed for mercury may be used.
- ⁸ Method 1631, Revision EB. Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Fluorescence Spectrometry, U.S. Environmental Protection Agency, Office of Water, EPA 821-R-02-019, August 2002/821-R-99-005, May 1999.
- ⁹ The ML is not published in 40 CFR Part 136, Method 1613.
- * The TCEQ has requested EPA to provide MALs and/or suggested methods.
- † The method, MAL, MDL, or documentation is still considered draft rather than final.

