

**Appendix 4, Table A4-1 Low Level Sediment  
Contaminants of Potential Concern Requiring Low-level Analysis, Reporting Limits, Regulatory Criteria  
Site Inspection Work Plan, Former Gopher Ordnance Works  
Rosemount, MN**

Compound	CAS No.	Method	Units	RL	MDL	Screening Criteria Sediment Level I SQTs
<b>SVOCs/PAHs</b>						
Acenaphthene	83-32-9	8270C SIM	ug/kg	5	0.16	6.7
Acenaphthylene	208-96-8	8270C SIM	ug/kg	5	0.17	5.9
Anthracene	92-87-5	8270C SIM	ug/kg	5	0.133	57
Benzo(a)anthracene	56-55-3	8270C SIM	ug/kg	5	0.146	110
Benzo(a)pyrene	50-32-8	8270C SIM	ug/kg	5	0.143	150
Benzo(b)fluoranthene	205-99-2	8270C SIM	ug/kg	5	0.145	
Benzo(ghi)perylene	191-24-2	8270C SIM	ug/kg	5	0.199	
Benzo(k)fluoranthene	207-08-9	8270C SIM	ug/kg	5	0.13	
Chrysene	218-01-9	8270C SIM	ug/kg	5	0.192	170
Dibenz(a,h)anthracene	53-70-3	8270C SIM	ug/kg	5	0.243	33
Fluoranthene	206-44-0	8270C SIM	ug/kg	5	0.209	420
Fluorene	86-73-7	8270C SIM	ug/kg	5	0.227	77
Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	ug/kg	5	0.244	
Naphthalene	91-20-3	8270C SIM	ug/kg	5	0.326	180
Phenanthrene	85-01-8	8270C SIM	ug/kg	5	0.312	200
Pyrene	129-00-0	8270C SIM	ug/kg	5	0.177	200
2-Methylnaphthalene	91-57-6	8270C SIM	ug/kg	5	0.309	20
Method 8270 SIM selected for sediment samples to achieve lower reporting limits than methods shown for soil. Refer to Soil/Sediment table for other analytes and screening criteria applicable to sediments.						
In some cases, units of regulatory limits, MDLs, and RLs were converted to be consistently ppm or ppb.						
Blanks in Screening Criteria columns indicate no regulatory or screening limit established for that analyte.						
mg/kg = milligrams per kilogram						
RL = Reporting Limit						
MDL - Method Detection Limit						
ug/kg = micrograms per kilogram						
SQT - sediment quality target						
BaP - regulatory limit expressed as benzo(a)pyrene equivalence.						

**Appendix 4, Table A4-2**  
**STL, Denver Measurement Quality Objectives**  
**Cas No., Methods, Compounds, Reporting Limits, Method Detection Limits, and Control Limits**  
**Site Inspection Work Plan, Former Gopher Ordnance Works**  
**Rosemount, MN**

CAS No.	Method	Compound	RL	Units	MDL	Units	LCS Limits			MS/MSD Limits		
							LCL	UCL	RPD	LCL	UCL	RPD
7440-38-2	6010B	Arsenic	2.5	mg/kg	0.66	mg/kg	80	120	20	80	120	20
7440-39-3	6010B	Barium	2	mg/kg	0.24	mg/kg	80	120	10	80	120	10
7440-43-9	6010B	Cadmium	0.5	mg/kg	0.041	mg/kg	80	120	20	80	120	20
7440-47-3	6010B	Chromium	3.5	mg/kg	0.4	mg/kg	80	120	20	80	120	20
7439-92-1	6010B	Lead	9	mg/kg	0.27	mg/kg	80	120	20	80	120	20
7782-49-2	6010B	Selenium	3	mg/kg	0.86	mg/kg	80	120	20	80	120	20
7440-22-4	6010B	Silver	1.5	mg/kg	0.16	mg/kg	75	120	20	75	120	20
7439-97-6	7471A	Mercury	33	ug/kg	2.8	ug/kg	87	111	20	87	111	20
7440-38-2	6010B	Arsenic	25	ug/L	4.41	ug/L	80	120	20	80	120	20
7440-39-3	6010B	Barium	10	ug/L	1.04	ug/L	80	120	20	80	120	20
7440-43-9	6010B	Cadmium	5	ug/L	0.452	ug/L	80	120	20	80	120	20
7440-47-3	6010B	Chromium	15	ug/L	2.56	ug/L	80	120	20	80	120	20
7439-92-1	6010B	Lead	15	ug/L	2.61	ug/L	80	120	20	80	120	20
7782-49-2	6010B	Selenium	22	ug/L	4.86	ug/L	80	120	20	80	120	20
7440-22-4	6010B	Silver	15	ug/L	2.78	ug/L	80	120	20	80	120	20
7439-97-6	7470A	Mercury	0.2	ug/L	0.0272	ug/L	80	120	20	80	120	20
7440-38-2	6020	Arsenic	600	ug/kg	14.7	ug/kg	83	111	20	83	111	20
7440-39-3	6020	Barium	250	ug/kg	52.4	ug/kg	86	120	20	86	120	20
7440-43-9	6020	Cadmium	100	ug/kg	6.12	ug/kg	85	109	20	85	109	20
7440-47-3	6020	Chromium	600	ug/kg	60	ug/kg	87	121	20	87	121	20
7439-92-1	6020	Lead	400	ug/kg	50	ug/kg	81	125	20	81	125	20
7782-49-2	6020	Selenium	500	ug/kg	80	ug/kg	78	108	20	78	108	20
7440-22-4	6020	Silver	100	ug/kg	15.7	ug/kg	83	113	20	83	113	20
7440-38-2	6020	Arsenic	5	ug/L	0.21	ug/L	89	111	20	89	111	20
7440-39-3	6020	Barium	3	ug/L	0.11	ug/L	89	117	20	89	117	20
7440-43-9	6020	Cadmium	1	ug/L	0.04	ug/L	89	111	20	89	111	20
7440-47-3	6020	Chromium	10	ug/L	0.5	ug/L	86	124	20	86	124	20
7439-92-1	6020	Lead	3	ug/L	0.18	ug/L	88	119	20	88	119	20
7782-49-2	6020	Selenium	5	ug/L	0.7	ug/L	82	114	20	82	114	20
7440-22-4	6020	Silver	5	ug/L	0.16	ug/L	90	114	20	90	114	20
	WI-GRO	Gasoline Range Organics	100	ug/L	53	ug/L	80	120	20	80	120	20
98-08-8	WI-GRO	Trifluorotoluene					80	120	0	80	120	0
	WI-GRO	Gasoline Range Organics	10	mg/kg	0.94	mg/kg	80	120	20	80	120	20
98-08-8	WI-GRO	Trifluorotoluene					80	120	0	80	120	0

**Appendix 4, Table A4-1 Low Level Surface Water  
Contaminants of Potential Concern, Reporting Limits, Regulatory Criteria  
Site Inspection Work Plan, Former Gopher Ordnance Works  
Rosemount, MN**

Compound	CAS No.	Method	Units	RL	MDL	Surface water 7050 Tier 1
<b>Inorganics/Metals</b>						
Arsenic	7440-38-2	6020	ug/L	5	0.21	2
Barium	7440-39-3	6020	ug/L	3	0.11	Use Tier 2
Cadmium	7440-43-9	6020	ug/L	1	0.04	5 (or hardness-specific value if lower)
Chromium	7440-47-3	6020	ug/L	10	0.5	100
Lead	7439-92-1	6020		3	0.18	Hardness-specific value
Selenium	7782-49-2	6020	ug/L	5	0.7	5
Silver	7440-22-4	6020	ug/L	5	0.16	0.12
Mercury	7439-97-6	7470A	ug/L	0.2	0.0272	0.0069
<b>SVOCS/PAHs</b>						
Acenaphthene	83-32-9	8270C SIM	ug/L	0.100	0.00587	20
Acenaphthylene	208-96-8	8270C SIM	ug/L	0.100	0.00222	
Anthracene	98-87-5	8270C SIM	ug/L	0.100	0.012	0.035
Benzo(a)anthracene	56-55-3	8270C SIM	ug/L	0.100	0.00474	0.027
Benzo(a)pyrene	50-32-8	8270C SIM	ug/L	0.100	0.00795	Use Tier 2
Benzo(b)fluoranthene	205-99-2	8270C SIM	ug/L	0.100	0.0068	
Benzo(ghi)perylene	191-24-2	8270C SIM	ug/L	0.100	0.00727	
Benzo(k)fluoranthene	207-08-9	8270C SIM	ug/L	0.100	0.00572	
Chrysene	218-01-9	8270C SIM	ug/L	0.100	0.00877	
Dibenz(a,h)anthracene	53-70-3	8270C SIM	ug/L	0.100	0.00863	
Fluoranthene	206-44-0	8270C SIM	ug/L	0.100	0.00394	1.9
Fluorene	86-73-7	8270C SIM	ug/L	0.100	0.0065	3.9
Indeno(1,2,3-cd)pyrene	193-39-5	8270C SIM	ug/L	0.100	0.00733	
Naphthalene	91-20-3	8270C SIM	ug/L	0.100	0.0144	81
Phenanthrene	85-01-8	8270C SIM	ug/L	0.100	0.00802	3.6
Pyrene	129-00-0	8270C SIM	ug/L	0.100	0.0042	
2-Methylnaphthalene	91-57-6	8270C SIM	ug/L	0.100	0.0109	
Methods 6020 and 8270 SIM selected for surface water samples to achieve lower reporting limits than methods shown						
In some cases, units of regulatory limits, MDLs, and RLs were converted to be consistently ppm or ppb.						
Refer to Water table for other analytes and screening criteria applicable to surface water.						
Blanks in Screening Criteria columns indicate no regulatory or screening limit established for that analyte						
Use Tier 2 - refer to Surface Water Pathway Evaluation User's Guide - depends on surface water classification.						
mg/L = milligrams per Liter						
RL = Reporting Limit						
ug/L = micrograms per Liter						

**Appendix 4, Table A4-1 Soil  
and Sediment Contaminants of Potential Concern, Reporting Limits, Regulatory Criteria  
Site Inspection Work Plan, Former Gopher Ordnance Works  
Rosemount, MN**

Compound	CAS No.	Method	Units	RL	MDL	Screening Criteria		
						Tier 1 SRVs	Tier I SLVs	Sediment Level I SQTs
<b>Inorganics/Metals</b>								
Arsenic	7440-38-2	6010B	mg/kg	2.5	0.66	5	15.1	9.8
Barium	7440-39-3	6010B	mg/kg	2	0.24	1200	842	
Cadmium	7440-43-9	6010B	mg/kg	0.5	0.041	25	4.4	0.99
Chromium	7440-47-3	6010B	mg/kg	3.5	0.4	44000/87	1000000/18	43
Lead	7439-92-1	6010B	mg/kg	9	0.27	300	525	36
Selenium	7782-49-2	6010B	mg/kg	3	0.86	160	1.5	
Silver	7440-22-4	6010B	mg/kg	1.5	0.16	160	3.9	
Mercury	7439-97-6	7471A	ug/kg	33	2.8	500	1600	180
<b>Petroleum Hydrocarbons</b>								
Gasoline Range Organics		WI-GRO	mg/kg	10	0.94			
Diesel Range Organics		WI-DRO	mg/kg	10	1.1			
<b>Explosives</b>								
Nitrocellulose	9004-70-0	E 353.2	mg/kg	5	0.78			
2,4-Dinitrotoluene	121-14-2	8330	mg/kg	0.25	0.0498	50	0.001	
2,6-Dinitrotoluene	606-20-2	8330	mg/kg	0.25	0.0542	25	0.001	
<b>SVOCs/PAHs</b>								
Acenaphthene	83-32-9	8270C	ug/kg	330	10.3	1200000	50000	6.7
Acenaphthylene	208-96-8	8270C	ug/kg	330	17			5.9
Anthracene	120-12-7	8270C	ug/kg	330	17	7880000	942000	57
Benzidine	92-87-5	8270C	ug/kg	3300	990			
Benzo(a)anthracene	56-55-3	8270C	ug/kg	330	20	BaP	BaP	110
Benzo(b)fluoranthene	205-99-2	8270C	ug/kg	330	26.2	BaP	BaP	
Benzo(k)fluoranthene	207-08-9	8270C	ug/kg	330	40	BaP	BaP	
Benzoic acid	65-85-0	8270C	ug/kg	1600	152	50000000	30000	
Benzo(ghi)perylene	191-24-2	8270C	ug/kg	330	16			
Benzo(a)pyrene	50-32-8	8270C	ug/kg	330	20	2000	10200	150
Benzyl alcohol	100-51-6	8270C	ug/kg	330	10	8700000		
bis(2-Chloroethoxy)methane	111-91-1	8270C	ug/kg	330	23			
bis(2-Chloroethyl) ether	111-44-4	8270C	ug/kg	330	16.6	2500	1	
bis(2-Chloroisopropyl) ether	108-60-1	8270C	ug/kg	330	31		670	
bis(2-Ethylhexyl) phthalate	117-81-7	8270C	ug/kg	330	31	570000	40000	
4-Bromophenyl phenyl ether	101-55-3	8270C	ug/kg	330	19			
Butyl benzyl phthalate	85-68-7	8270C	ug/kg	330	43	580000	28000	
Carbazole	86-74-8	8270C	ug/kg	330	36	700000		
4-Chloroaniline	106-47-8	8270C	ug/kg	330	20.8			
4-Chloro-3-methylphenol	59-50-7	8270C	ug/kg	330	24			
2-Chloronaphthalene	91-58-7	8270C	ug/kg	330	10			
2-Chlorophenol	95-57-8	8270C	ug/kg	330	21		260	
4-Chlorophenyl phenyl ether	7005-72-3	8270C	ug/kg	330	21			
Chrysene	218-01-9	8270C	ug/kg	330	27	BaP	BaP	170
Dibenz(a,h)anthracene	53-70-3	8270C	ug/kg	330	19	BaP	BaP	33
Dibenzofuran	132-64-9	8270C	ug/kg	330	20	104000		
Di-n-butyl phthalate	84-74-2	8270C	ug/kg	330	29	2440000	23000	
1,2-Dichlorobenzene	95-50-1	8270C	ug/kg	330	22	26000	8100	
1,3-Dichlorobenzene	541-73-1	8270C	ug/kg	330	12	26000	4200	
1,4-Dichlorobenzene	106-46-7	8270C	ug/kg	330	13.6	30000	130	
3,3'-Dichlorobenzidine	91-94-1	8270C	ug/kg	1600	50	25000	360	
2,4-Dichlorophenol	120-83-2	8270C	ug/kg	330	10	48000	76	
2,6-Dichlorophenol	87-65-0	8270C	ug/kg	330	69			

**Appendix 4, Table A4-1 Water  
Contaminants of Potential Concern, Reporting Limits, Regulatory Criteria  
Site Inspection Work Plan, Former Gopher Ordnance Works  
Rosemount, MN**

Compound	CAS No.	Method	Units	RL	MDL	Screening Criteria		
						Drinking Water Criterion	Drinking Water Basis	Surface water 7050 Tier 1
<b>Inorganics/Metals</b>								
Arsenic	7440-38-2	6010B	ug/L	25	4.41	10	MCL	2
Barium	7440-39-3	6010B	ug/L	10	1.04	2000	HRL	Use Tier 2
Cadmium	7440-43-9	6010B	ug/L	5	0.452	4	HRL	5 (or hardness-specific value if lower)
Chromium	7440-47-3	6010B	ug/L	15	2.56	100	MCL	100
Lead	7439-92-1	6010B	ug/L	15	2.61	NA	NA	Hardness-specific value
Selenium	7782-49-2	6010B	ug/L	22	4.86	30	HRL	5
Silver	7440-22-4	6010B	ug/L	15	2.78	30	HRL	0.12
Mercury	7439-97-6	7470A	ug/L	0.2	0.0272	2	MCL	0.0069
<b>Petroleum Hydrocarbons</b>								
Gasoline Range Organics		WI-GRO	ug/L	100	53	200 T	HBV	
Diesel Range Organics		WI-DRO	ug/L	0.1	29	200 T	HBV	
<b>Explosives</b>								
Nitrocellulose	9004-70-0	E 353.2	mg/L	0.5	0.124			
2,4-Dinitrotoluene	121-14-2	8330	ug/L	0.4	0.0838			230 T
2,6-Dinitrotoluene	606-20-2	8330	ug/L	0.4	0.0645			230 T
<b>SVOCs/PAHs</b>								
Acenaphthene	83-32-9	8270C	ug/L	10	1.7	400	HRL	20
Acenaphthylene	208-96-8	8270C	ug/L	10	1.8			
Anthracene	120-12-7	8270C	ug/L	10	1.9	2000	HRL	0.035
Benzidine	92-87-5	8270C	ug/L	120	50			3.9
Benzo(a)anthracene	56-55-3	8270C	ug/L	10	1.7	BaP		0.027
Benzo(b)fluoranthene	205-99-2	8270C	ug/L	10	0.39	BaP		
Benzo(k)fluoranthene	207-08-9	8270C	ug/L	10	0.46	BaP		
Benzoic acid	65-85-0	8270C	ug/L	65	20	30000	HRL	42
Benzo(ghi)perylene	191-24-2	8270C	ug/L	10	1			
Benzo(a)pyrene	50-32-8	8270C	ug/L	10	1.3	BaP	BaP	Use Tier 2
Benzyl alcohol	100-51-6	8270C	ug/L	25	2			8.6
bis(2-Chloroethoxy)methane	111-91-1	8270C	ug/L	10	1.4			
bis(2-Chloroethyl) ether	111-44-4	8270C	ug/L	15	3.93	0.3	HRL	
bis(2-Chloroisopropyl) ether	108-60-1	8270C	ug/L	10	0.433	300	LHA	
bis(2-Ethylhexyl) phthalate	117-81-7	8270C	ug/L	10	1.4	20	HRL	1.9
4-Bromophenyl phenyl ether	101-55-3	8270C	ug/L	10	2.1			1.5
Butyl benzyl phthalate	85-68-7	8270C	ug/L	18	5	100	HRL	19
Carbazole	86-74-8	8270C	ug/L	10	1.9			
4-Chloroaniline	106-47-8	8270C	ug/L	25	2			
4-Chloro-3-methylphenol	59-50-7	8270C	ug/L	18	5			
2-Chloronaphthalene	91-58-7	8270C	ug/L	10	1.7			
2-Chlorophenol	95-57-8	8270C	ug/L	10	0.382	30	HRL	2000
4-Chlorophenyl phenyl ether	7005-72-3	8270C	ug/L	10	2			
Chrysene	218-01-9	8270C	ug/L	10	1	BaP		
Dibenz(a,h)anthracene	53-70-3	8270C	ug/L	10	1.4	BaP		
Dibenzofuran	132-64-9	8270C	ug/L	10	1.7			3.7
Di-n-butyl phthalate	84-74-2	8270C	ug/L	18	5	700	HRL	35

**Appendix 4, Table A4-1 Water  
Contaminants of Potential Concern, Reporting Limits, Regulatory Criteria  
Site Inspection Work Plan, Former Gopher Ordnance Works  
Rosemount, MN**

Compound	CAS No.	Method	Units	RL	MDL	Screening Criteria		
						Drinking Water Criterion	Drinking Water Basis	Surface water 7050 Tier 1
1,2-Dichlorobenzene	95-50-1	8270C	ug/L	10	1.4	600	HRL	14
1,3-Dichlorobenzene	541-73-1	8270C	ug/L	10	1.5	600	MCL	71
1,4-Dichlorobenzene	106-46-7	8270C	ug/L	10	1.4	10	HRL	15
3,3'-Dichlorobenzidine	91-94-1	8270C	ug/L	50	2	0.8	HRL	
2,4-Dichlorophenol	120-83-2	8270C	ug/L	10	1.3	20	HRL	
2,6-Dichlorophenol	87-65-0	8270C	ug/L	10	1.05			
Diethyl phthalate	84-66-2	8270C	ug/L	18	5	6000	HRL	Use Tier 2
2,4-Dimethylphenol	105-67-9	8270C	ug/L	10	0.566	100	HRL	Use Tier 2
Dimethyl phthalate	131-11-3	8270C	ug/L	18	5	70000	HRL	
4,6-Dinitro-2-methylphenol	534-52-1	8270C	ug/L	65	20			
2,4-Dinitrophenol	51-28-5	8270C	ug/L	65	20	10	HRL	Use Tier 2
2,4-Dinitrotoluene	121-14-2	8270C	ug/L	18	5	0.5	SRL	
2,6-Dinitrotoluene	606-20-2	8270C	ug/L	18	5	0.5	SRL	
Di-n-octyl phthalate	117-84-0	8270C	ug/L	18	5			30
1,2-Diphenylhydrazine	122-66-7	8270C	ug/L	10	0.635			
Fluoranthene	206-44-0	8270C	ug/L	18	5	300	HRL	1.9
Fluorene	86-73-7	8270C	ug/L	10	1	300	HRL	3.9
Hexachlorobenzene	118-74-1	8270C	ug/L	10	2.1	0.2	HRL	0.000061
Hexachlorobutadiene	87-68-3	8270C	ug/L	30	1.3	1	HRL	9.3
Hexachloroethane	67-72-1	8270C	ug/L	10	0.46	1	LHA	12
Indeno(1,2,3-cd)pyrene	193-39-5	8270C	ug/L	10	1.5	BaP		
Isophorone	78-59-1	8270C	ug/L	10	1.5	100	HRL	
2-Methylnaphthalene	91-57-6	8270C	ug/L	10	1.6			
2-Methylphenol	95-48-7	8270C	ug/L	10	1.4	30	HRL	13
3-Methylphenol & 4-Methylphenol	65794-96-9	8270C	ug/L	18	5	30/3	HRL	
Naphthalene	91-20-3	8270C	ug/L	10	1.5	300	HRL	81
2-Nitroaniline	88-74-4	8270C	ug/L	50	5			
3-Nitroaniline	99-09-2	8270C	ug/L	50	3.6			
4-Nitroaniline	100-01-6	8270C	ug/L	50	10			
Nitrobenzene	98-95-3	8270C	ug/L	18	5			
2-Nitrophenol	88-75-5	8270C	ug/L	18	5			
4-Nitrophenol	100-02-7	8270C	ug/L	50	1.74	60	LHA	300
N-Nitrosodimethylamine	62-75-9	8270C	ug/L	10	1.6			
N-Nitrosodiphenylamine	86-30-6	8270C	ug/L	10	0.44	70	HRL	210
N-Nitrosodi-n-propylamine	621-64-7	8270C	ug/L	18	5			
N-Nitrosopyrrolidine	930-55-2	8270C	ug/L	10	0.804			
Pentachlorophenol	87-86-5	8270C	ug/L	65	20	3	HRL	0.93
Phenanthrene	85-01-8	8270C	ug/L	10	1			3.6
Phenol	108-95-2	8270C	ug/L	10	1.4	4000	HRL	123
Pyrene	129-00-0	8270C	ug/L	10	0.37	200	HRL	
1,2,4-Trichlorobenzene	120-82-1	8270C	ug/L	10	1.5	70	MCL	70
2,4,5-Trichlorophenol	95-95-4	8270C	ug/L	18	5			
2,4,6-Trichlorophenol	88-06-2	8270C	ug/L	18	5	30	HRL	2.0
Diphenylamine	122-39-4	8270C	ug/L	10	1.06	200	LHA	
<b>VOCs</b>								
Acetone	67-64-1	8260B	ug/L	10	1.9	700	HRL	1500
Benzene	71-43-2	8260B	ug/L	1	0.16	10	HRL	5
Bromobenzene	108-86-1	8260B	ug/L	1	0.17			
Bromochloromethane	74-97-5	8260B	ug/L	1	0.1	90	LHA	
Bromodichloromethane	75-27-4	8260B	ug/L	1	0.17	6	HRL	
Bromoform	75-25-2	8260B	ug/L	1	0.19	40	HRL	33

**Appendix 4, Table A4-1 Water  
Contaminants of Potential Concern, Reporting Limits, Regulatory Criteria  
Site Inspection Work Plan, Former Gopher Ordnance Works  
Rosemount, MN**

Compound	CAS No.	Method	Units	RL	MDL	Screening Criteria		
						Drinking Water Criterion	Drinking Water Basis	Surface water 7050 Tier 1
Bromomethane	74-83-9	8260B	ug/L	2	0.21	10	HRL	
2-Butanone (MEK)	78-93-3	8260B	ug/L	6	1.83	4000	HRL	14000
n-Butylbenzene	104-51-8	8260B	ug/L	1	0.14			
sec-Butylbenzene	135-98-8	8260B	ug/L	1	0.17			
tert-Butylbenzene	98-06-6	8260B	ug/L	1	0.16			
Carbon disulfide	75-15-0	8260B	ug/L	2	0.45	700	HRL	0.92
Carbon tetrachloride	56-23-5	8260B	ug/L	2	0.19	3	HRL	1.9
Chlorobenzene	108-90-7	8260B	ug/L	1	0.17	100	HRL	20
Dibromochloromethane	124-48-1	8260B	ug/L	1	0.17	80	MCL	
Chloroethane	75-00-3	8260B	ug/L	2	0.41	280	HBV	
Chloroform	67-66-3	8260B	ug/L	1	0.16	60	HRL	53
Chloromethane	74-87-3	8260B	ug/L	2	0.3	3	LHA	
2-Chlorotoluene	95-49-8	8260B	ug/L	1	0.17	100	LHA	
4-Chlorotoluene	106-43-4	8260B	ug/L	1	0.17	100	LHA	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ug/L	5	1.5	0.2	MCL	0.2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ug/L	1	0.18	0.004	HRL	0.05
Dibromomethane	74-95-3	8260B	ug/L	1	0.17			
1,2-Dichlorobenzene	95-50-1	8260B	ug/L	1	0.13	600	HRL	14
1,3-Dichlorobenzene	541-73-1	8260B	ug/L	1	0.16	600	MCL	71
1,4-Dichlorobenzene	106-46-7	8260B	ug/L	1	0.16	10	HRL	15
Dichlorodifluoromethane	75-71-8	8260B	ug/L	2	0.31	1000	HRL	
1,1-Dichloroethane	75-34-3	8260B	ug/L	1	0.16	70	HRL	47
1,2-Dichloroethane	107-06-2	8260B	ug/L	1	0.13	4	HRL	3.5
cis-1,2-Dichloroethene	156-59-2	8260B	ug/L	1	0.15			
trans-1,2-Dichloroethene	156-60-5	8260B	ug/L	1	0.15	100	HRL	100
1,1-Dichloroethene	75-35-4	8260B	ug/L	1	0.14	6	HRL	7
1,2-Dichloropropane	78-87-5	8260B	ug/L	1	0.13	5	HRL	5
1,3-Dichloropropane	142-28-9	8260B	ug/L	1	0.15			
2,2-Dichloropropane	594-20-7	8260B	ug/L	1	0.2			
cis-1,3-Dichloropropene	10061-01-5	8260B	ug/L	1	0.16			
trans-1,3-Dichloropropene	10061-02-6	8260B	ug/L	1	0.19			
1,1-Dichloropropene	563-58-6	8260B	ug/L	1	0.15			
Ethylbenzene	100-41-4	8260B	ug/L	1	0.16	700	HRL	68
Hexachlorobutadiene	87-68-3	8260B	ug/L	1	0.12	1	HRL	9.3
2-Hexanone	591-78-6	8260B	ug/L	5	1.4			99
Isopropylbenzene	98-82-8	8260B	ug/L	1	0.19	300	HRL	
p-Isopropyltoluene	99-87-6	8260B	ug/L	1	0.17			
Methylene chloride	75-09-2	8260B	ug/L	5	0.32	50	HRL	5
4-Methyl-2-pentanone	108-10-1	8260B	ug/L	5	0.49	300	HRL	170
Methyl tert-butyl ether	1634-04-4	8260B	ug/L	5	0.25	70	HBV	
Naphthalene	91-20-3	8260B	ug/L	1	0.22	300	HRL	81
n-Propylbenzene	103-65-1	8260B	ug/L	1	0.16			
Styrene	100-42-5	8260B	ug/L	1	0.17	100	MCL	Use Tier 2
1,1,1,2-Tetrachloroethane	630-20-6	8260B	ug/L	1	0.17	70	HRL	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ug/L	1	0.2	2	HRL	1.1
Tetrachloroethene	127-18-4	8260B	ug/L	1	0.2	7	HRL	3.8
Toluene	108-88-3	8260B	ug/L	1	0.17	1000	HRL	253
1,2,3-Trichlorobenzene	87-61-6	8260B	ug/L	1	0.18			
1,2,4-Trichlorobenzene	120-82-1	8260B	ug/L	1	0.32	70	MCL	70
1,1,1-Trichloroethane	71-55-6	8260B	ug/L	1	0.16	600	HRL	200
1,1,2-Trichloroethane	79-00-5	8260B	ug/L	1	0.32	3	HRL	Use Tier 2
Trichloroethene	79-01-6	8260B	ug/L	1	0.16	30	HRL	5
Trichlorofluoromethane	75-69-4	8260B	ug/L	2	0.29	2000	HRL	

**Appendix 4, Table A4-1 Water  
Contaminants of Potential Concern, Reporting Limits, Regulatory Criteria  
Site Inspection Work Plan, Former Gopher Ordnance Works  
Rosemount, MN**

Compound	CAS No.	Method	Units	RL	MDL	Screening Criteria		
						Drinking Water Criterion	Drinking Water Basis	Surface water 7050 Tier 1
1,2,3-Trichloropropane	96-18-4	8260B	ug/L	2	0.27	40	HRL	
1,2,4-Trimethylbenzene	95-63-6	8260B	ug/L	1	0.14			
1,3,5-Trimethylbenzene	108-67-8	8260B	ug/L	1	0.14			
Vinyl chloride	75-01-4	8260B	ug/L	1	0.17	0.2	HRL	0.17
m-Xylene & p-Xylene	136777-61-2	8260B	ug/L	2	0.34	10000 T	HRL	
o-Xylene	95-47-6	8260B	ug/L	1	0.19	10000 T	HRL	
<b>PCBs</b>								
Aroclor 1016	12674-11-2	8082	ug/L	1	0.0968	0.04 T	HRL	0.000014 T
Aroclor 1221	11104-28-2	8082	ug/L	1	0.214	0.04 T	HRL	0.000014 T
Aroclor 1232	11141-16-5	8082	ug/L	1	0.135	0.04 T	HRL	0.000014 T
Aroclor 1242	53469-21-9	8082	ug/L	1	0.104	0.04 T	HRL	0.000014 T
Aroclor 1248	12672-29-6	8082	ug/L	1	0.0776	0.04 T	HRL	0.000014 T
Aroclor 1254	11097-69-1	8082	ug/L	1	0.0873	0.04 T	HRL	0.000014 T
Aroclor 1260	11096-82-5	8082	ug/L	1	0.16	0.04 T	HRL	0.000014 T
<b>Pesticides</b>								
alpha-BHC	319-84-6	8081A	ug/L	0.05	0.0053	0.06	HBV	
alpha-Chlordane	5103-71-9	8081A	ug/L	0.05	0.0053			
beta-BHC	319-85-7	8081A	ug/L	0.05	0.0087	0.2	HBV	
delta-BHC	319-86-8	8081A	ug/L	0.05	0.0058			
gamma-BHC (Lindane)	58-89-9	8081A	ug/L	0.05	0.0069	0.2	HBV	0.0087
gamma-Chlordane	5103-74-2	8081A	ug/L	0.05	0.0091			
Aldrin	309-00-2	8081A	ug/L	0.05	0.0059	0.02	HBV	
Dieldrin	60-57-1	8081A	ug/L	0.05	0.0063	0.02	HBV	0.0000065
Endosulfan sulfate	1031-07-8	8081A	ug/L	0.05	0.0057			
Endosulfan I	959-98-8	8081A	ug/L	0.05	0.0058			
Endosulfan II	33213-65-9	8081A	ug/L	0.05	0.007			
Endrin	72-20-8	8081A	ug/L	0.05	0.0079	2	HBV	0.0039
Endrin aldehyde	7421-93-4	8081A	ug/L	0.05	0.0088			
Endrin ketone	53494-70-5	8081A	ug/L	0.05	0.007			
Heptachlor	76-44-8	8081A	ug/L	0.05	0.0077	0.08	HRL	0.00010
Heptachlor epoxide	1024-57-3	8081A	ug/L	0.05	0.0075	0.04	HRL	0.00012
Methoxychlor	72-43-5	8081A	ug/L	0.1	0.013	40	MCL	0.03
Toxaphene	8001-35-2	8081A	ug/L	5	0.894	0.3	HRL	0.00031
4,4'-DDD	72-54-8	8081A	ug/L	0.05	0.0077	1	HRL	0.01
4,4'-DDE	72-55-9	8081A	ug/L	0.05	0.0075	1	HRL	
4,4'-DDT	50-29-3	8081A	ug/L	0.05	0.0148	1	HRL	0.000011
In some cases, units of regulatory limits were converted to match MDL and RL units.								
Blanks in Screening Criteria columns indicate no regulatory or screening limit established for that analyte								
Refer to low-level surface water table for comparison of surface water screening criteria to MDLs and RLs for methods 6020 and 8270 SIM.								
Use Tier 2 - refer to Surface Water Pathway Evaluation User's Guide - depends on surface water classification.								
MDL = Method Detection Limit								
mg/L = milligrams per Liter								
RL = Reporting Limit								
ug/L = micrograms per Liter								
BaP - regulatory limit expressed as benzo(a)pyrene equivalence.								
T- regulatory limit expressed as total of isomers (or TPH in the case of GRO and DRO).								
HRL - Health Risk Limit								
MCL - Maximum Contaminant Level								
HBV - Health Based Value								



**Appendix 4, Table A4-1 Water  
 Contaminants of Potential Concern, Reporting Limits, Regulatory Criteria  
 Site Inspection Work Plan, Former Gopher Ordnance Works  
 Rosemount, MN**

Compound	CAS No.	Method	Units	RL	MDL	Screening Criteria		
						Drinking Water Criterion	Drinking Water Basis	Surface water 7050 Tier 1
LHA - Lifetime Health Advisory								
NA - MPCA drinking water criterion cited as not applicable (Maximum Contaminant Level Goal is zero at tap).								
Drinking Water Basis is the type of regulatory standard (HRL, MCL, etc. cited in the MPCA drinking water criteria table)								

**Appendix 4, Table A4-1 Soil  
and Sediment Contaminants of Potential Concern, Reporting Limits, Regulatory Criteria  
Site Inspection Work Plan, Former Gopher Ordnance Works  
Rosemount, MN**

Compound	CAS No.	Method	Units	RL	MDL	Screening Criteria		
						Tier 1 SRVs	Tier I SLVs	Sediment Level I SQTs
Diethyl phthalate	84-66-2	8270C	ug/kg	660	26		18000	
2,4-Dimethylphenol	105-67-9	8270C	ug/kg	330	26	390000	340	
Dimethyl phthalate	131-11-3	8270C	ug/kg	330	18		172000	
4,6-Dinitro-2-methylphenol	534-52-1	8270C	ug/kg	1600	50			
2,4-Dinitrophenol	51-28-5	8270C	ug/kg	1600	50		14	
2,4-Dinitrotoluene	121-14-2	8270C	ug/kg	330	23	50000	1	
2,6-Dinitrotoluene	606-20-2	8270C	ug/kg	330	28	25000	1	
Di-n-octyl phthalate	117-84-0	8270C	ug/kg	330	14.4	520000		
1,2-Diphenylhydrazine	122-66-7	8270C	ug/kg	330	22			
Fluoranthene	206-44-0	8270C	ug/kg	330	36	1080000	295000	420
Fluorene	86-73-7	8270C	ug/kg	330	18	850000	47000	77
Hexachlorobenzene	118-74-1	8270C	ug/kg	330	29	5000	320	
Hexachlorobutadiene	87-68-3	8270C	ug/kg	330	10	6000	25000	
Hexachloroethane	67-72-1	8270C	ug/kg	330	21.3		50	
Indeno(1,2,3-cd)pyrene	193-39-5	8270C	ug/kg	330	22			
Isophorone	78-59-1	8270C	ug/kg	330	17		160	
2-Methylnaphthalene	91-57-6	8270C	ug/kg	330	19	100000		20
2-Methylphenol	95-48-7	8270C	ug/kg	330	13	75000	64	
3-Methylphenol & 4-Methylphenol	65794-96-9	8270C	ug/kg	330	10			
Naphthalene	91-20-3	8270C	ug/kg	330	31	10000	7500	180
2-Nitroaniline	88-74-4	8270C	ug/kg	1600	50			
3-Nitroaniline	99-09-2	8270C	ug/kg	1600	50			
4-Nitroaniline	100-01-6	8270C	ug/kg	1600	72.5			
Nitrobenzene	98-95-3	8270C	ug/kg	330	22			
2-Nitrophenol	88-75-5	8270C	ug/kg	330	10			
4-Nitrophenol	100-02-7	8270C	ug/kg	1600	43			
N-Nitrosodimethylamine	62-75-9	8270C	ug/kg	520	37		820	
N-Nitrosodiphenylamine	86-30-6	8270C	ug/kg	330	21	1950000	880	
N-Nitrosodi-n-propylamine	621-64-7	8270C	ug/kg	330	31	700		
N-Nitrosopyrrolidine	930-55-2	8270C	ug/kg	330	64			
Pentachlorophenol	87-86-5	8270C	ug/kg	1600	110	6000	34	
Phenanthrene	85-01-8	8270C	ug/kg	330	17			200
Phenol	108-95-2	8270C	ug/kg	330	18	1100000	7800	
Pyrene	129-00-0	8270C	ug/kg	400	12.1	890000	272000	200
1,2,4-Trichlorobenzene	120-82-1	8270C	ug/kg	330	28	200000	310	
2,4,5-Trichlorophenol	95-95-4	8270C	ug/kg	330	10	1920000		
2,4,6-Trichlorophenol	88-06-2	8270C	ug/kg	330	10	595000	210	
Diphenylamine	122-39-4	8270C	ug/kg	330	44		1600	
<b>Volatile Organics</b>								
Acetone	67-64-1	8260B	ug/kg	20	5.38	340000	700	
Benzene	71-43-2	8260B	ug/kg	5	0.47	6000	34	
Bromobenzene	108-86-1	8260B	ug/kg	5	0.49			
Bromochloromethane	74-97-5	8260B	ug/kg	5	0.51		150	
Bromodichloromethane	75-27-4	8260B	ug/kg	5	0.51	10000	13	
Bromoform	75-25-2	8260B	ug/kg	5	0.48	370000	140	
Bromomethane	74-83-9	8260B	ug/kg	10	0.5	700	500	
2-Butanone (MEK)	78-93-3	8260B	ug/kg	20	1.83	5500000	6400	
n-Butylbenzene	104-51-8	8260B	ug/kg	5	0.56	30000		
sec-Butylbenzene	135-98-8	8260B	ug/kg	5	0.77	25000		
tert-Butylbenzene	98-06-6	8260B	ug/kg	5	0.5	30000		
Carbon disulfide	75-15-0	8260B	ug/kg	5	0.42	65000	2800	

**Appendix 4, Table A4-1 Soil  
and Sediment Contaminants of Potential Concern, Reporting Limits, Regulatory Criteria  
Site Inspection Work Plan, Former Gopher Ordnance Works  
Rosemount, MN**

Compound	CAS No.	Method	Units	RL	MDL	Screening Criteria		Sediment Level I SQTs
						Tier 1 SRVs	Tier I SLVs	
Carbon tetrachloride	56-23-5	8260B	ug/kg	5	0.63	300	23	
Chlorobenzene	108-90-7	8260B	ug/kg	5	0.54	11000	1100	
Dibromochloromethane	124-48-1	8260B	ug/kg	5	0.57	12000	30	
Chloroethane	75-00-3	8260B	ug/kg	10	0.89	1000000		
Chloroform	67-66-3	8260B	ug/kg	10	0.58	2500	170	
Chloromethane	74-87-3	8260B	ug/kg	10	0.77	8000	6	
2-Chlorotoluene	95-49-8	8260B	ug/kg	5	0.51	436000		
4-Chlorotoluene	106-43-4	8260B	ug/kg	5	0.78			
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ug/kg	10	0.6		1	
1,2-Dibromoethane (EDB)	106-93-4	8260B	ug/kg	5	0.52	300	0.01	
Dibromomethane	74-95-3	8260B	ug/kg	5	0.84	260000		
1,2-Dichlorobenzene	95-50-1	8260B	ug/kg	5	0.45	26000	8100	
1,3-Dichlorobenzene	541-73-1	8260B	ug/kg	5	0.48	26000	4200	
1,4-Dichlorobenzene	106-46-7	8260B	ug/kg	5	0.78	30000	130	
Dichlorodifluoromethane	75-71-8	8260B	ug/kg	10	0.52	16000	38000	
1,1-Dichloroethane	75-34-3	8260B	ug/kg	5	0.54	34000	180	
1,2-Dichloroethane	107-06-2	8260B	ug/kg	5	0.7	4000	10	
cis-1,2-Dichloroethene	154-59-2	8260B	ug/kg	2.5	0.56	8000	140	
trans-1,2-Dichloroethene	156-60-5	8260B	ug/kg	2.5	0.39	11000	270	
1,1-Dichloroethene	75-35-4	8260B	ug/kg	5	0.59	20000	25	
1,2-Dichloropropane	78-87-5	8260B	ug/kg	5	0.55	4000	11	
1,3-Dichloropropane	142-28-9	8260B	ug/kg	5	0.51			
2,2-Dichloropropane	594-20-7	8260B	ug/kg	5	0.44			
cis-1,3-Dichloropropene	10061-01-5	8260B	ug/kg	5	1.29		5.00 T	
trans-1,3-Dichloropropene	10061-02-6	8260B	ug/kg	5	0.67		5.00 T	
1,1-Dichloropropene	563-58-6	8260B	ug/kg	5	0.54			
Ethylbenzene	100-41-4	8260B	ug/kg	5	0.67	200000	4700	
Hexachlorobutadiene	87-68-3	8260B	ug/kg	5	0.55	6000	25000	
2-Hexanone	591-78-6	8260B	ug/kg	20	4.89			
Isopropylbenzene	98-82-8	8260B	ug/kg	5	0.59	30000	18000	
p-Isopropyltoluene	99-87-6	8260B	ug/kg	5	0.49			
Methylene chloride	75-09-2	8260B	ug/kg	5	0.75	97000	68	
4-Methyl-2-pentanone	108-10-1	8260B	ug/kg	20	4.36	1700000	420	
Methyl tert-butyl ether	1634-04-4	8260B	ug/kg	20	0.34		27	
Naphthalene	91-20-3	8260B	ug/kg	5	0.63	10000	7500	180
n-Propylbenzene	103-65-1	8260B	ug/kg	5	0.58	30000		
Styrene	100-42-5	8260B	ug/kg	5	0.63	210000	1900	
1,1,1,2-Tetrachloroethane	630-20-6	8260B	ug/kg	5	0.56	31000	1400	
1,1,1,2,2-Tetrachloroethane	79-34-5	8260B	ug/kg	5	0.61	3500	5	
Tetrachloroethene	127-18-4	8260B	ug/kg	5	0.59	72000	68	
Toluene	108-88-3	8260B	ug/kg	5	0.69	107000	6400	
1,2,3-Trichlorobenzene	87-61-6	8260B	ug/kg	5	0.75			
1,2,4-Trichlorobenzene	120-82-1	8260B	ug/kg	5	0.73	200000	310	
1,1,1-Trichloroethane	71-55-6	8260B	ug/kg	5	0.52	140000	3500	
1,1,2-Trichloroethane	79-00-5	8260B	ug/kg	5	0.88	9000	10	
Trichloroethene	79-01-6	8260B	ug/kg	5	0.49	29000	140	
Trichlorofluoromethane	75-69-4	8260B	ug/kg	10	1.04	67000	22000	
1,2,3-Trichloropropane	96-18-4	8260B	ug/kg	5	0.81		350	
1,2,4-Trimethylbenzene	95-63-6	8260B	ug/kg	5	0.58	8000		
1,3,5-Trimethylbenzene	108-67-8	8260B	ug/kg	5	0.57	3000		
Vinyl chloride	75-01-4	8260B	ug/kg	5	0.58	800	1	
m-Xylene & p-Xylene	136777-61-2	8260B	ug/kg	2.5	1.04	45000 T	45000 T	
o-Xylene	95-47-6	8260B	ug/kg	2.5	0.61	45000 T	45000 T	

**Appendix 4, Table A4-1 Soil  
and Sediment Contaminants of Potential Concern, Reporting Limits, Regulatory Criteria  
Site Inspection Work Plan, Former Gopher Ordnance Works  
Rosemount, MN**

Compound	CAS No.	Method	Units	RL	MDL	Screening Criteria		
						Tier 1 SRVs	Tier I SLVs	Sediment Level I SQTs
<b>Polychlorinated Biphenyls</b>								
Aroclor 1016	12674-11-2	8082	ug/kg	33	5.09	1200 T	2100 T	60 T
Aroclor 1221	11104-28-2	8082	ug/kg	33	10.6	1200 T	2100 T	60 T
Aroclor 1232	11141-16-5	8082	ug/kg	33	5.12	1200 T	2100 T	60 T
Aroclor 1242	53469-21-9	8082	ug/kg	33	9.12	1200 T	2100 T	60 T
Aroclor 1248	12672-29-6	8082	ug/kg	33	3.4	1200 T	2100 T	60 T
Aroclor 1254	11097-69-1	8082	ug/kg	33	3.97	1200 T	2100 T	60 T
Aroclor 1260	11096-82-5	8082	ug/kg	33	2.65	1200 T	2100 T	60 T
<b>Pesticides</b>								
alpha-BHC	319-84-6	8081A	ug/kg	1.7	0.214	2000		
alpha-Chlordane	5103-71-9	8081A	ug/kg	1.7	0.323			3.2
beta-BHC	319-85-7	8081A	ug/kg	1.7	0.286	7000		
delta-BHC	319-86-8	8081A	ug/kg	1.7	0.166			
gamma-BHC (Lindane)	58-89-9	8081A	ug/kg	1.7	0.143	9000		2.4
gamma-Chlordane	5103-74-2	8081A	ug/kg	1.7	0.266			
Aldrin	309-00-2	8081A	ug/kg	1.7	0.251	1000		
Dieldrin	60-57-1	8081A	ug/kg	1.7	0.21	800		1.9
Endosulfan sulfate	1031-07-8	8081A	ug/kg	1.7	0.276			
Endosulfan I	959-98-8	8081A	ug/kg	1.7	0.176			
Endosulfan II	33213-65-9	8081A	ug/kg	1.7	0.287			
Endrin	72-20-8	8081A	ug/kg	1.7	0.306	8000		2.2 T
Endrin aldehyde	7421-93-4	8081A	ug/kg	1.7	0.171			
Endrin ketone	53494-70-5	8081A	ug/kg	1.7	0.213			
Heptachlor	76-44-8	8081A	ug/kg	1.7	0.214	2000		
Heptachlor epoxide	1024-57-3	8081A	ug/kg	1.7	0.426	400		2.5
Methoxychlor	72-43-5	8081A	ug/kg	3.3	0.45	11000		
Toxaphene	8001-35-2	8081A	ug/kg	170	15.8	13000		0.1
4,4'-DDD	72-54-8	8081A	ug/kg	1.7	0.546	56000		4.9 T
4,4'-DDE	72-55-9	8081A	ug/kg	1.7	0.238	40000		3.2 T
4,4'-DDT	50-29-3	8081A	ug/kg	2	0.59	15000		4.2 T
In some cases, units of regulatory limits were converted to match MDL and RL units.								
Blanks in Screening Criteria columns indicate no regulatory or screening limit established for that analyte								
Refer to low-level sediment table for comparison of sediment screening criteria to MDLs and RLs for method 8270 SIM								
Cadmium SRV and SLV shown as Cd(III)/Cd(VI).								
MDL = Method Detection Limit								
mg/kg = milligrams per kilogram								
RL = Reporting Limit								
RPD = Relative Percent Difference								
ug/kg = micrograms per kilogram								
SRV - Soil Reference Value								
SLV - Soil Leaching Value								
SQT - sediment quality target								
BaP - regulatory limit expressed as benzo(a)pyrene equivalence.								
T- regulatory limit expressed as total of isomers.								

**Appendix 4, Table A4-2**  
**STL, Denver Measurement Quality Objectives**  
**Cas No., Methods, Compounds, Reporting Limits, Method Detection Limits, and Control Limits**  
**Site Inspection Work Plan, Former Gopher Ordnance Works**  
**Rosemount, MN**

CAS No.	Method	Compound	RL	Units	MDL	Units	LCS Limits			MS/MSD Limits		
							LCL	UCL	RPD	LCL	UCL	RPD
	WI-DRO	Diesel Range Organics	0.1	mg/L	29	ug/L	75	115	20	60	130	25
	WI-DRO	C9 (nonane)					10	110	0	10	110	0
	WI-DRO	Diesel Range Organics	10	mg/kg	1.1	mg/kg	70	120	20	60	130	25
	WI-DRO	C9 (nonane)					10	110	0	10	110	0
9004-70-0	E 353.2	Nitrocellulose	0.5	mg/L	0.124	mg/L	37	155	15	37	155	15
9004-70-0	E 353.2	Nitrocellulose	5	mg/kg	0.78	mg/kg	38	108	20	38	108	20
121-14-2	8330	2,4-Dinitrotoluene	0.25	mg/kg	0.0498	mg/kg	80	125	30	80	125	30
606-20-2	8330	2,6-Dinitrotoluene	0.25	mg/kg	0.0542	mg/kg	80	120	30	80	120	30
528-29-0	8330	1,2-Dinitrobenzene					83	122	0	83	122	0
121-14-2	8330	2,4-Dinitrotoluene	0.4	ug/L	0.0838	ug/L	60	135	30	60	135	30
606-20-2	8330	2,6-Dinitrotoluene	0.4	ug/L	0.0645	ug/L	60	135	30	60	135	30
528-29-0	8330	1,2-Dinitrobenzene					75	118	0	75	118	0
83-32-9	8270C	Acenaphthene	10	ug/L	1.7	ug/L	45	110	30	45	110	30
208-96-8	8270C	Acenaphthylene	10	ug/L	1.8	ug/L	50	105	30	50	105	30
120-12-7	8270C	Anthracene	10	ug/L	1.9	ug/L	55	110	30	55	110	30
92-87-5	8270C	Benzidine	120	ug/L	50	ug/L	0	0	0	0	0	0
56-55-3	8270C	Benzo(a)anthracene	10	ug/L	1.7	ug/L	55	110	30	55	110	30
205-99-2	8270C	Benzo(b)fluoranthene	10	ug/L	0.39	ug/L	45	120	30	45	120	30
207-08-9	8270C	Benzo(k)fluoranthene	10	ug/L	0.46	ug/L	45	125	30	45	125	30
65-85-0	8270C	Benzoic acid	65	ug/L	20	ug/L	30	104	30	30	104	30
191-24-2	8270C	Benzo(ghi)perylene	10	ug/L	1	ug/L	40	125	30	40	125	30
50-32-8	8270C	Benzo(a)pyrene	10	ug/L	1.3	ug/L	55	110	30	55	110	30
100-51-6	8270C	Benzyl alcohol	25	ug/L	2	ug/L	30	110	30	30	110	30
111-91-1	8270C	bis(2-Chloroethoxy)methane	10	ug/L	1.4	ug/L	45	105	30	45	105	30
111-44-4	8270C	bis(2-Chloroethyl) ether	15	ug/L	3.93	ug/L	35	110	30	35	110	30
108-60-1	8270C	bis(2-Chloroisopropyl) ether	10	ug/L	0.433	ug/L	25	130	30	25	130	30
117-81-7	8270C	bis(2-Ethylhexyl) phthalate	10	ug/L	1.4	ug/L	40	125	30	40	125	30
101-55-3	8270C	4-Bromophenyl phenyl ether	10	ug/L	2.1	ug/L	50	115	30	50	115	30
85-68-7	8270C	Butyl benzyl phthalate	18	ug/L	5	ug/L	45	115	30	45	115	30
86-74-8	8270C	Carbazole	10	ug/L	1.9	ug/L	50	115	30	50	115	30
106-47-8	8270C	4-Chloroaniline	25	ug/L	2	ug/L	15	110	30	15	110	30
59-50-7	8270C	4-Chloro-3-methylphenol	18	ug/L	5	ug/L	45	110	30	45	110	30

**Appendix 4, Table A4-2**  
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**Site Inspection Work Plan, Former Gopher Ordnance Works**  
**Rosemount, MN**

CAS No.	Method	Compound	RL	Units	MDL	Units	LCS Limits			MS/MSD Limits		
							LCL	UCL	RPD	LCL	UCL	RPD
91-58-7	8270C	2-Chloronaphthalene	10	ug/L	1.7	ug/L	50	105	30	50	105	30
95-57-8	8270C	2-Chlorophenol	10	ug/L	0.382	ug/L	35	105	30	35	105	30
7005-72-3	8270C	4-Chlorophenyl phenyl ether	10	ug/L	2	ug/L	50	110	30	50	110	30
218-01-9	8270C	Chrysene	10	ug/L	1	ug/L	55	110	30	55	110	30
53-70-3	8270C	Dibenz(a,h)anthracene	10	ug/L	1.4	ug/L	40	125	30	40	125	30
132-64-9	8270C	Dibenzofuran	10	ug/L	1.7	ug/L	55	105	30	55	105	30
84-74-2	8270C	Di-n-butyl phthalate	18	ug/L	5	ug/L	55	115	30	55	115	30
95-50-1	8270C	1,2-Dichlorobenzene	10	ug/L	1.4	ug/L	35	100	30	35	100	30
541-73-1	8270C	1,3-Dichlorobenzene	10	ug/L	1.5	ug/L	30	100	30	30	100	30
106-46-7	8270C	1,4-Dichlorobenzene	10	ug/L	1.4	ug/L	30	100	30	30	100	30
91-94-1	8270C	3,3'-Dichlorobenzidine	50	ug/L	2	ug/L	20	110	30	20	110	30
120-83-2	8270C	2,4-Dichlorophenol	10	ug/L	1.3	ug/L	50	105	30	50	105	30
87-65-0	8270C	2,6-Dichlorophenol	10	ug/L	1.05	ug/L	0	0	0	0	0	0
84-66-2	8270C	Diethyl phthalate	18	ug/L	5	ug/L	40	120	30	40	120	30
105-67-9	8270C	2,4-Dimethylphenol	10	ug/L	0.566	ug/L	30	110	30	30	110	30
131-11-3	8270C	Dimethyl phthalate	18	ug/L	5	ug/L	25	125	30	25	125	30
534-52-1	8270C	4,6-Dinitro-2-methylphenol	65	ug/L	20	ug/L	40	130	30	40	130	30
51-28-5	8270C	2,4-Dinitrophenol	65	ug/L	20	ug/L	15	140	30	15	140	30
121-14-2	8270C	2,4-Dinitrotoluene	18	ug/L	5	ug/L	50	120	30	50	120	30
606-20-2	8270C	2,6-Dinitrotoluene	18	ug/L	5	ug/L	50	115	30	50	115	30
117-84-0	8270C	Di-n-octyl phthalate	18	ug/L	5	ug/L	35	135	30	35	135	30
122-66-7	8270C	1,2-Diphenylhydrazine	10	ug/L	0.635	ug/L	0	0	0	0	0	0
206-44-0	8270C	Fluoranthene	18	ug/L	5	ug/L	55	115	30	55	115	30
86-73-7	8270C	Fluorene	10	ug/L	1	ug/L	50	110	30	50	110	30
118-74-1	8270C	Hexachlorobenzene	10	ug/L	2.1	ug/L	50	110	30	50	110	30
87-68-3	8270C	Hexachlorobutadiene	30	ug/L	1.3	ug/L	25	105	30	25	105	30
67-72-1	8270C	Hexachloroethane	10	ug/L	0.46	ug/L	30	95	30	30	95	30
193-39-5	8270C	Indeno(1,2,3-cd)pyrene	10	ug/L	1.5	ug/L	45	125	30	45	125	30
78-59-1	8270C	Isophorone	10	ug/L	1.5	ug/L	50	110	30	50	110	30
91-57-6	8270C	2-Methylnaphthalene	10	ug/L	1.6	ug/L	45	105	30	45	105	30
95-48-7	8270C	2-Methylphenol	10	ug/L	1.4	ug/L	40	110	30	40	110	30
65794-96-9	8270C	3-Methylphenol & 4-Methylphenol	18	ug/L	5	ug/L	30	110	30	30	110	30
91-20-3	8270C	Naphthalene	10	ug/L	1.5	ug/L	40	100	30	40	100	30
88-74-4	8270C	2-Nitroaniline	50	ug/L	5	ug/L	50	115	30	50	115	30
99-09-2	8270C	3-Nitroaniline	50	ug/L	3.6	ug/L	20	125	30	20	125	30
100-01-6	8270C	4-Nitroaniline	50	ug/L	10	ug/L	35	120	30	35	120	30
98-95-3	8270C	Nitrobenzene	18	ug/L	5	ug/L	45	110	30	45	110	30
88-75-5	8270C	2-Nitrophenol	18	ug/L	5	ug/L	40	115	30	40	115	30
100-02-7	8270C	4-Nitrophenol	50	ug/L	1.74	ug/L	54	124	30	54	124	30

**Appendix 4, Table A4-2**  
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**Rosemount, MN**

CAS No.	Method	Compound	RL	Units	MDL	Units	LCS Limits			MS/MSD Limits		
							LCL	UCL	RPD	LCL	UCL	RPD
62-75-9	8270C	N-Nitrosodimethylamine	10	ug/L	1.6	ug/L	25	110	30	25	110	30
86-30-6	8270C	N-Nitrosodiphenylamine	10	ug/L	0.44	ug/L	50	110	30	50	110	30
621-64-7	8270C	N-Nitrosodi-n-propylamine	18	ug/L	5	ug/L	35	130	30	35	130	30
930-55-2	8270C	N-Nitrosopyrrolidine	10	ug/L	0.804	ug/L	0	0	0	0	0	0
87-86-5	8270C	Pentachlorophenol	65	ug/L	20	ug/L	40	115	30	40	115	30
85-01-8	8270C	Phenanthrene	10	ug/L	1	ug/L	50	115	30	50	115	30
108-95-2	8270C	Phenol	10	ug/L	1.4	ug/L	55	98	30	55	98	30
129-00-0	8270C	Pyrene	10	ug/L	0.37	ug/L	50	130	30	50	130	30
120-82-1	8270C	1,2,4-Trichlorobenzene	10	ug/L	1.5	ug/L	35	105	30	35	105	30
95-95-4	8270C	2,4,5-Trichlorophenol	18	ug/L	5	ug/L	50	110	30	50	110	30
88-06-2	8270C	2,4,6-Trichlorophenol	18	ug/L	5	ug/L	50	115	30	50	115	30
321-60-8	8270C	2-Fluorobiphenyl					50	110	0	50	110	0
367-12-4	8270C	2-Fluorophenol					20	110	0	20	110	0
118-79-6	8270C	2,4,6-Tribromophenol					40	125	0	40	125	0
4165-60-0	8270C	Nitrobenzene-d5					40	110	0	40	110	0
4165-62-2	8270C	Phenol-d5					53	93	0	53	93	0
1718-51-0	8270C	Terphenyl-d14					50	135	0	50	135	0
83-32-9	8270C	Acenaphthene	330	ug/kg	10.3	ug/kg	45	110	30	45	110	30
208-96-8	8270C	Acenaphthylene	330	ug/kg	17	ug/kg	45	105	30	45	105	30
120-12-7	8270C	Anthracene	330	ug/kg	17	ug/kg	55	105	30	55	105	30
92-87-5	8270C	Benzidine	3300	ug/kg	990	ug/kg	0	0	0	0	0	0
56-55-3	8270C	Benzo(a)anthracene	330	ug/kg	20	ug/kg	50	110	30	50	110	30
205-99-2	8270C	Benzo(b)fluoranthene	330	ug/kg	26.2	ug/kg	45	115	30	45	115	30
207-08-9	8270C	Benzo(k)fluoranthene	330	ug/kg	40	ug/kg	45	125	30	45	125	30
65-85-0	8270C	Benzoic acid	1600	ug/kg	152	ug/kg	10	92	30	10	92	30
191-24-2	8270C	Benzo(ghi)perylene	330	ug/kg	16	ug/kg	40	125	30	40	125	30
50-32-8	8270C	Benzo(a)pyrene	330	ug/kg	20	ug/kg	50	110	30	50	110	30
100-51-6	8270C	Benzyl alcohol	330	ug/kg	10	ug/kg	20	125	30	20	125	30
111-91-1	8270C	bis(2-Chloroethoxy)methane	330	ug/kg	23	ug/kg	45	110	30	45	110	30
111-44-4	8270C	bis(2-Chloroethyl) ether	330	ug/kg	16.6	ug/kg	40	105	30	40	105	30
108-60-1	8270C	bis(2-Chloroisopropyl) ether	330	ug/kg	31	ug/kg	20	115	30	20	115	30
117-81-7	8270C	bis(2-Ethylhexyl) phthalate	330	ug/kg	31	ug/kg	45	125	30	45	125	30
101-55-3	8270C	4-Bromophenyl phenyl ether	330	ug/kg	19	ug/kg	45	115	30	45	115	30
85-68-7	8270C	Butyl benzyl phthalate	330	ug/kg	43	ug/kg	55	110	30	55	110	30
86-74-8	8270C	Carbazole	330	ug/kg	36	ug/kg	45	115	30	45	115	30
106-47-8	8270C	4-Chloroaniline	330	ug/kg	20.8	ug/kg	23	100	30	23	100	30
59-50-7	8270C	4-Chloro-3-methylphenol	330	ug/kg	24	ug/kg	45	115	30	45	115	30
91-58-7	8270C	2-Chloronaphthalene	330	ug/kg	10	ug/kg	45	105	30	45	105	30

**Appendix 4, Table A4-2**  
**STL, Denver Measurement Quality Objectives**  
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**Rosemount, MN**

CAS No.	Method	Compound	RL	Units	MDL	Units	LCS Limits			MS/MSD Limits		
							LCL	UCL	RPD	LCL	UCL	RPD
95-57-8	8270C	2-Chlorophenol	330	ug/kg	21	ug/kg	45	105	30	45	105	30
7005-72-3	8270C	4-Chlorophenyl phenyl ether	330	ug/kg	21	ug/kg	45	110	30	45	110	30
218-01-9	8270C	Chrysene	330	ug/kg	27	ug/kg	55	110	30	55	110	30
53-70-3	8270C	Dibenz(a,h)anthracene	330	ug/kg	19	ug/kg	40	125	30	40	125	30
132-64-9	8270C	Dibenzofuran	330	ug/kg	20	ug/kg	50	105	30	50	105	30
84-74-2	8270C	Di-n-butyl phthalate	330	ug/kg	29	ug/kg	55	110	30	55	110	30
95-50-1	8270C	1,2-Dichlorobenzene	330	ug/kg	22	ug/kg	45	95	30	45	95	30
541-73-1	8270C	1,3-Dichlorobenzene	330	ug/kg	12	ug/kg	40	100	30	40	100	30
106-46-7	8270C	1,4-Dichlorobenzene	330	ug/kg	13.6	ug/kg	35	105	30	35	105	30
91-94-1	8270C	3,3'-Dichlorobenzidine	1600	ug/kg	50	ug/kg	28	90	30	28	90	30
120-83-2	8270C	2,4-Dichlorophenol	330	ug/kg	10	ug/kg	45	110	30	45	110	30
87-65-0	8270C	2,6-Dichlorophenol	330	ug/kg	69	ug/kg	0	0	0	0	0	0
84-66-2	8270C	Diethyl phthalate	660	ug/kg	26	ug/kg	50	115	30	50	115	30
105-67-9	8270C	2,4-Dimethylphenol	330	ug/kg	26	ug/kg	30	105	30	30	105	30
131-11-3	8270C	Dimethyl phthalate	330	ug/kg	18	ug/kg	50	110	30	50	110	30
534-52-1	8270C	4,6-Dinitro-2-methylphenol	1600	ug/kg	50	ug/kg	30	135	30	30	135	30
51-28-5	8270C	2,4-Dinitrophenol	1600	ug/kg	50	ug/kg	15	130	30	15	130	30
121-14-2	8270C	2,4-Dinitrotoluene	330	ug/kg	23	ug/kg	50	115	30	50	115	30
606-20-2	8270C	2,6-Dinitrotoluene	330	ug/kg	28	ug/kg	50	110	30	50	110	30
117-84-0	8270C	Di-n-octyl phthalate	330	ug/kg	14.4	ug/kg	40	130	30	40	130	30
122-66-7	8270C	1,2-Diphenylhydrazine	330	ug/kg	22	ug/kg	0	0	0	0	0	0
206-44-0	8270C	Fluoranthene	330	ug/kg	36	ug/kg	55	115	30	55	115	30
86-73-7	8270C	Fluorene	330	ug/kg	18	ug/kg	50	110	30	50	110	30
118-74-1	8270C	Hexachlorobenzene	330	ug/kg	29	ug/kg	45	120	30	45	120	30
87-68-3	8270C	Hexachlorobutadiene	330	ug/kg	10	ug/kg	50	95	30	50	95	30
67-72-1	8270C	Hexachloroethane	330	ug/kg	21.3	ug/kg	52	93	30	52	93	30
193-39-5	8270C	Indeno(1,2,3-cd)pyrene	330	ug/kg	22	ug/kg	46	102	30	46	102	30
78-59-1	8270C	Isophorone	330	ug/kg	17	ug/kg	45	110	30	45	110	30
91-57-6	8270C	2-Methylnaphthalene	330	ug/kg	19	ug/kg	45	105	30	45	105	30
95-48-7	8270C	2-Methylphenol	330	ug/kg	13	ug/kg	40	105	30	40	105	30
65794-96-9	8270C	3-Methylphenol & 4-Methylphenol	330	ug/kg	10	ug/kg	40	105	30	40	105	30
91-20-3	8270C	Naphthalene	330	ug/kg	31	ug/kg	51	91	30	51	91	30
88-74-4	8270C	2-Nitroaniline	1600	ug/kg	50	ug/kg	45	120	30	45	120	30
99-09-2	8270C	3-Nitroaniline	1600	ug/kg	50	ug/kg	25	110	30	25	110	30
100-01-6	8270C	4-Nitroaniline	1600	ug/kg	72.5	ug/kg	35	115	30	35	115	30
98-95-3	8270C	Nitrobenzene	330	ug/kg	22	ug/kg	40	115	30	40	115	30
88-75-5	8270C	2-Nitrophenol	330	ug/kg	10	ug/kg	40	110	30	40	110	30
100-02-7	8270C	4-Nitrophenol	1600	ug/kg	43	ug/kg	15	140	30	15	140	30
62-75-9	8270C	N-Nitrosodimethylamine	520	ug/kg	37	ug/kg	20	115	30	20	115	30



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**Rosemount, MN**

CAS No.	Method	Compound	RL	Units	MDL	Units	LCS Limits			MS/MSD Limits		
							LCL	UCL	RPD	LCL	UCL	RPD
86-30-6	8270C	N-Nitrosodiphenylamine	330	ug/kg	21	ug/kg	50	115	30	50	115	30
621-64-7	8270C	N-Nitrosodi-n-propylamine	330	ug/kg	31	ug/kg	40	115	30	40	115	30
930-55-2	8270C	N-Nitrosopyrrolidine	330	ug/kg	64	ug/kg	0	0	0	0	0	0
87-86-5	8270C	Pentachlorophenol	1600	ug/kg	110	ug/kg	25	120	30	25	120	30
85-01-8	8270C	Phenanthrene	330	ug/kg	17	ug/kg	50	110	30	50	110	30
108-95-2	8270C	Phenol	330	ug/kg	18	ug/kg	40	100	30	40	100	30
129-00-0	8270C	Pyrene	400	ug/kg	12.1	ug/kg	45	125	30	45	125	30
120-82-1	8270C	1,2,4-Trichlorobenzene	330	ug/kg	28	ug/kg	52	92	30	52	92	30
95-95-4	8270C	2,4,5-Trichlorophenol	330	ug/kg	10	ug/kg	50	110	30	50	110	30
88-06-2	8270C	2,4,6-Trichlorophenol	330	ug/kg	10	ug/kg	54	103	30	54	103	30
321-60-8	8270C	2-Fluorobiphenyl					45	105	0	45	105	0
367-12-4	8270C	2-Fluorophenol					35	105	0	35	105	0
118-79-6	8270C	2,4,6-Tribromophenol					35	125	0	35	125	0
4165-60-0	8270C	Nitrobenzene-d5					35	100	0	35	100	0
4165-62-2	8270C	Phenol-d5					40	100	0	40	100	0
1718-51-0	8270C	Terphenyl-d14					30	125	0	30	125	0
83-32-9	8270C SIM	Acenaphthene	5	ug/kg	0.16	ug/kg	35	108	50	35	108	50
208-96-8	8270C SIM	Acenaphthylene	5	ug/kg	0.17	ug/kg	41	98	50	41	98	50
92-87-5	8270C SIM	Anthracene	5	ug/kg	0.133	ug/kg	43	98	50	43	98	50
56-55-3	8270C SIM	Benzo(a)anthracene	5	ug/kg	0.146	ug/kg	36	105	40	36	105	40
50-32-8	8270C SIM	Benzo(a)pyrene	5	ug/kg	0.143	ug/kg	40	97	30	40	97	30
205-99-2	8270C SIM	Benzo(b)fluoranthene	5	ug/kg	0.145	ug/kg	37	99	28	37	99	28
191-24-2	8270C SIM	Benzo(ghi)perylene	5	ug/kg	0.199	ug/kg	20	123	30	20	123	30
207-08-9	8270C SIM	Benzo(k)fluoranthene	5	ug/kg	0.13	ug/kg	46	99	28	46	99	28
218-01-9	8270C SIM	Chrysene	5	ug/kg	0.192	ug/kg	34	108	41	34	108	41
53-70-3	8270C SIM	Dibenzo(a,h)anthracene	5	ug/kg	0.243	ug/kg	20	141	25	20	141	25
206-44-0	8270C SIM	Fluoranthene	5	ug/kg	0.209	ug/kg	45	100	30	45	100	30
86-73-7	8270C SIM	Fluorene	5	ug/kg	0.227	ug/kg	44	92	50	44	92	50
193-39-5	8270C SIM	Indeno(1,2,3-cd)pyrene	5	ug/kg	0.244	ug/kg	20	127	50	20	127	50
91-20-3	8270C SIM	Naphthalene	5	ug/kg	0.326	ug/kg	44	99	50	44	99	50
85-01-8	8270C SIM	Phenanthrene	5	ug/kg	0.312	ug/kg	44	92	42	44	92	42
129-00-0	8270C SIM	Pyrene	5	ug/kg	0.177	ug/kg	43	94	30	43	94	30
91-57-6	8270C SIM	2-Methylnaphthalene	5	ug/kg	0.309	ug/kg	30	111	30	30	111	30
	8270C SIM	2-Fluorobiphenyl					39	104	0	39	104	0
	8270C SIM	Nitrobenzene-d5					42	112	0	42	112	0
	8270C SIM	Terphenyl-d14					35	112	0	35	112	0
83-32-9	8270C SIM	Acenaphthene	100	ng/L	5.87	ng/L	47	98	50	47	98	50

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CAS No.	Method	Compound	RL	Units	MDL	Units	LCS Limits			MS/MSD Limits		
							LCL	UCL	RPD	LCL	UCL	RPD
208-96-8	8270C SIM	Acenaphthylene	100	ng/L	2.22	ng/L	39	99	50	39	99	50
92-87-5	8270C SIM	Anthracene	100	ng/L	12	ng/L	28	111	50	28	111	50
56-55-3	8270C SIM	Benzo(a)anthracene	100	ng/L	4.74	ng/L	42	103	40	42	103	40
50-32-8	8270C SIM	Benzo(a)pyrene	100	ng/L	7.95	ng/L	46	107	21	46	107	21
205-99-2	8270C SIM	Benzo(b)fluoranthene	100	ng/L	6.8	ng/L	44	108	28	44	108	28
191-24-2	8270C SIM	Benzo(ghi)perylene	100	ng/L	7.27	ng/L	39	108	23	39	108	23
207-08-9	8270C SIM	Benzo(k)fluoranthene	100	ng/L	5.72	ng/L	43	109	28	43	109	28
218-01-9	8270C SIM	Chrysene	100	ng/L	8.77	ng/L	35	118	41	35	118	41
53-70-3	8270C SIM	Dibenzo(a,h)anthracene	100	ng/L	8.63	ng/L	27	126	25	27	126	25
206-44-0	8270C SIM	Fluoranthene	100	ng/L	3.94	ng/L	46	117	24	46	117	24
86-73-7	8270C SIM	Fluorene	100	ng/L	6.5	ng/L	49	99	50	49	99	50
193-39-5	8270C SIM	Indeno(1,2,3-cd)pyrene	100	ng/L	7.33	ng/L	38	113	25	38	113	25
91-20-3	8270C SIM	Naphthalene	100	ng/L	14.4	ng/L	37	102	50	37	102	50
85-01-8	8270C SIM	Phenanthrene	100	ng/L	8.02	ng/L	46	99	42	46	99	42
129-00-0	8270C SIM	Pyrene	100	ng/L	4.2	ng/L	49	111	22	49	111	22
91-57-6	8270C SIM	2-Methylnaphthalene	100	ng/L	10.9	ng/L	36	121	30	36	121	30
	8270C SIM	2-Fluorobiphenyl					42	98	0	42	98	0
	8270C SIM	Nitrobenzene-d5					43	119	0	43	119	0
	8270C SIM	Terphenyl-d14					47	110	0	47	110	0
122-39-4	8270C	Diphenylamine	330	ug/kg	44	ug/kg	0	0	0	0	0	0
122-39-4	8270C	Diphenylamine	10	ug/L	1.06	ug/L	0	0	0	0	0	0
67-64-1	8260B	Acetone	20	ug/kg	5.38	ug/kg	20	160	30	20	160	30
71-43-2	8260B	Benzene	5	ug/kg	0.47	ug/kg	75	125	30	75	125	30
108-86-1	8260B	Bromobenzene	5	ug/kg	0.49	ug/kg	65	120	30	65	120	30
74-97-5	8260B	Bromochloromethane	5	ug/kg	0.51	ug/kg	70	125	30	70	125	30
75-27-4	8260B	Bromodichloromethane	5	ug/kg	0.51	ug/kg	70	130	30	70	130	30
75-25-2	8260B	Bromoform	5	ug/kg	0.48	ug/kg	55	135	30	55	135	30
74-83-9	8260B	Bromomethane	10	ug/kg	0.5	ug/kg	30	160	30	30	160	30
78-93-3	8260B	2-Butanone (MEK)	20	ug/kg	1.83	ug/kg	30	160	30	30	160	30
104-51-8	8260B	n-Butylbenzene	5	ug/kg	0.56	ug/kg	65	140	30	65	140	30
135-98-8	8260B	sec-Butylbenzene	5	ug/kg	0.77	ug/kg	65	130	30	65	130	30
98-06-6	8260B	tert-Butylbenzene	5	ug/kg	0.5	ug/kg	65	130	30	65	130	30
75-15-0	8260B	Carbon disulfide	5	ug/kg	0.42	ug/kg	45	160	30	45	160	30
56-23-5	8260B	Carbon tetrachloride	5	ug/kg	0.63	ug/kg	65	135	30	65	135	30
108-90-7	8260B	Chlorobenzene	5	ug/kg	0.54	ug/kg	75	125	30	75	125	30
124-48-1	8260B	Dibromochloromethane	5	ug/kg	0.57	ug/kg	65	130	30	65	130	30

**Appendix 4, Table A4-2**  
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CAS No.	Method	Compound	RL	Units	MDL	Units	LCS Limits			MS/MSD Limits		
							LCL	UCL	RPD	LCL	UCL	RPD
75-00-3	8260B	Chloroethane	10	ug/kg	0.89	ug/kg	40	155	30	40	155	30
67-66-3	8260B	Chloroform	10	ug/kg	0.58	ug/kg	70	125	30	70	125	30
74-87-3	8260B	Chloromethane	10	ug/kg	0.77	ug/kg	50	130	30	50	130	30
95-49-8	8260B	2-Chlorotoluene	5	ug/kg	0.51	ug/kg	70	130	30	70	130	30
106-43-4	8260B	4-Chlorotoluene	5	ug/kg	0.78	ug/kg	75	125	30	75	125	30
96-12-8	8260B	1,2-Dibromo-3-chloropropane (DBCP)	10	ug/kg	0.6	ug/kg	40	135	30	40	135	30
106-93-4	8260B	1,2-Dibromoethane (EDB)	5	ug/kg	0.52	ug/kg	70	125	30	70	125	30
74-95-3	8260B	Dibromomethane	5	ug/kg	0.84	ug/kg	75	130	30	75	130	30
95-50-1	8260B	1,2-Dichlorobenzene	5	ug/kg	0.45	ug/kg	75	120	30	75	120	30
541-73-1	8260B	1,3-Dichlorobenzene	5	ug/kg	0.48	ug/kg	70	125	30	70	125	30
106-46-7	8260B	1,4-Dichlorobenzene	5	ug/kg	0.78	ug/kg	70	125	30	70	125	30
75-71-8	8260B	Dichlorodifluoromethane	10	ug/kg	0.52	ug/kg	35	135	30	35	135	30
75-34-3	8260B	1,1-Dichloroethane	5	ug/kg	0.54	ug/kg	75	125	30	75	125	30
107-06-2	8260B	1,2-Dichloroethane	5	ug/kg	0.7	ug/kg	70	135	30	70	135	30
156-59-2	8260B	cis-1,2-Dichloroethene	2.5	ug/kg	0.56	ug/kg	65	125	30	65	125	30
156-60-5	8260B	trans-1,2-Dichloroethene	2.5	ug/kg	0.39	ug/kg	65	135	30	65	135	30
75-35-4	8260B	1,1-Dichloroethene	5	ug/kg	0.59	ug/kg	65	135	30	65	135	30
78-87-5	8260B	1,2-Dichloropropane	5	ug/kg	0.55	ug/kg	70	120	30	70	120	30
142-28-9	8260B	1,3-Dichloropropane	5	ug/kg	0.51	ug/kg	75	125	30	75	125	30
594-20-7	8260B	2,2-Dichloropropane	5	ug/kg	0.44	ug/kg	65	135	30	65	135	30
10061-01-5	8260B	cis-1,3-Dichloropropene	5	ug/kg	1.29	ug/kg	70	125	30	70	125	30
10061-02-6	8260B	trans-1,3-Dichloropropene	5	ug/kg	0.67	ug/kg	65	125	30	65	125	30
563-58-6	8260B	1,1-Dichloropropene	5	ug/kg	0.54	ug/kg	70	135	30	70	135	30
100-41-4	8260B	Ethylbenzene	5	ug/kg	0.67	ug/kg	75	125	30	75	125	30
87-68-3	8260B	Hexachlorobutadiene	5	ug/kg	0.55	ug/kg	55	140	30	55	140	30
591-78-6	8260B	2-Hexanone	20	ug/kg	4.89	ug/kg	45	145	30	45	145	30
98-82-8	8260B	Isopropylbenzene	5	ug/kg	0.59	ug/kg	75	130	30	75	130	30
99-87-6	8260B	p-Isopropyltoluene	5	ug/kg	0.49	ug/kg	75	135	30	75	135	30
75-09-2	8260B	Methylene chloride	5	ug/kg	0.75	ug/kg	55	140	30	55	140	30
108-10-1	8260B	4-Methyl-2-pentanone	20	ug/kg	4.36	ug/kg	45	145	30	45	145	30
1634-04-4	8260B	Methyl tert-butyl ether	20	ug/kg	0.34	ug/kg	67	119	30	67	119	30
91-20-3	8260B	Naphthalene	5	ug/kg	0.63	ug/kg	40	125	30	40	125	30
103-65-1	8260B	n-Propylbenzene	5	ug/kg	0.58	ug/kg	65	135	30	65	135	30
100-42-5	8260B	Styrene	5	ug/kg	0.63	ug/kg	75	125	30	75	125	30
630-20-6	8260B	1,1,1,2-Tetrachloroethane	5	ug/kg	0.56	ug/kg	75	125	30	75	125	30
79-34-5	8260B	1,1,2,2-Tetrachloroethane	5	ug/kg	0.61	ug/kg	55	130	30	55	130	30
127-18-4	8260B	Tetrachloroethene	5	ug/kg	0.59	ug/kg	65	140	30	65	140	30
108-88-3	8260B	Toluene	5	ug/kg	0.69	ug/kg	70	125	30	70	125	30
87-61-6	8260B	1,2,3-Trichlorobenzene	5	ug/kg	0.75	ug/kg	60	135	30	60	135	30

**Appendix 4, Table A4-2**  
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CAS No.	Method	Compound	RL	Units	MDL	Units	LCS Limits			MS/MSD Limits		
							LCL	UCL	RPD	LCL	UCL	RPD
120-82-1	8260B	1,2,4-Trichlorobenzene	5	ug/kg	0.73	ug/kg	65	130	30	65	130	30
71-55-6	8260B	1,1,1-Trichloroethane	5	ug/kg	0.52	ug/kg	70	135	30	70	135	30
79-00-5	8260B	1,1,2-Trichloroethane	5	ug/kg	0.88	ug/kg	60	125	30	60	125	30
79-01-6	8260B	Trichloroethene	5	ug/kg	0.49	ug/kg	75	125	30	75	125	30
75-69-4	8260B	Trichlorofluoromethane	10	ug/kg	1.04	ug/kg	25	185	30	25	185	30
96-18-4	8260B	1,2,3-Trichloropropane	5	ug/kg	0.81	ug/kg	65	130	30	65	130	30
95-63-6	8260B	1,2,4-Trimethylbenzene	5	ug/kg	0.58	ug/kg	65	135	30	65	135	30
108-67-8	8260B	1,3,5-Trimethylbenzene	5	ug/kg	0.57	ug/kg	65	135	30	65	135	30
75-01-4	8260B	Vinyl chloride	5	ug/kg	0.58	ug/kg	60	125	30	60	125	30
136777-61-2	8260B	m-Xylene & p-Xylene	2.5	ug/kg	1.04	ug/kg	80	125	30	80	125	30
95-47-6	8260B	o-Xylene	2.5	ug/kg	0.61	ug/kg	75	125	30	75	125	30
460-00-4	8260B	4-Bromofluorobenzene					85	120	0	85	120	0
17060-07-0	8260B	1,2-Dichloroethane-d4					61	129	0	61	129	0
2037-26-5	8260B	Toluene-d8					85	115	0	85	115	0
1868-53-7	8260B	Dibromofluoromethane					71	126	0	71	126	0
67-64-1	8260B	Acetone	10	ug/L	1.9	ug/L	40	140	30	40	140	30
71-43-2	8260B	Benzene	1	ug/L	0.16	ug/L	80	120	30	80	120	30
108-86-1	8260B	Bromobenzene	1	ug/L	0.17	ug/L	75	125	30	75	125	30
74-97-5	8260B	Bromochloromethane	1	ug/L	0.1	ug/L	65	130	30	65	130	30
75-27-4	8260B	Bromodichloromethane	1	ug/L	0.17	ug/L	75	120	30	75	120	30
75-25-2	8260B	Bromoform	1	ug/L	0.19	ug/L	70	130	30	70	130	30
74-83-9	8260B	Bromomethane	2	ug/L	0.21	ug/L	30	145	30	30	145	30
78-93-3	8260B	2-Butanone (MEK)	6	ug/L	1.83	ug/L	30	150	30	30	150	30
104-51-8	8260B	n-Butylbenzene	1	ug/L	0.14	ug/L	70	135	30	70	135	30
135-98-8	8260B	sec-Butylbenzene	1	ug/L	0.17	ug/L	70	125	30	70	125	30
98-06-6	8260B	tert-Butylbenzene	1	ug/L	0.16	ug/L	70	130	30	70	130	30
75-15-0	8260B	Carbon disulfide	2	ug/L	0.45	ug/L	35	160	30	35	160	30
56-23-5	8260B	Carbon tetrachloride	2	ug/L	0.19	ug/L	65	140	30	65	140	30
108-90-7	8260B	Chlorobenzene	1	ug/L	0.17	ug/L	80	120	30	80	120	30
124-48-1	8260B	Dibromochloromethane	1	ug/L	0.17	ug/L	60	135	30	60	135	30
75-00-3	8260B	Chloroethane	2	ug/L	0.41	ug/L	60	135	30	60	135	30
67-66-3	8260B	Chloroform	1	ug/L	0.16	ug/L	65	135	30	65	135	30
74-87-3	8260B	Chloromethane	2	ug/L	0.3	ug/L	40	125	30	40	125	30
95-49-8	8260B	2-Chlorotoluene	1	ug/L	0.17	ug/L	75	125	30	75	125	30
106-43-4	8260B	4-Chlorotoluene	1	ug/L	0.17	ug/L	75	130	30	75	130	30
96-12-8	8260B	1,2-Dibromo-3-chloropropane (DBCP)	5	ug/L	1.5	ug/L	50	130	30	50	130	30
106-93-4	8260B	1,2-Dibromoethane (EDB)	1	ug/L	0.18	ug/L	80	120	30	80	120	30
74-95-3	8260B	Dibromomethane	1	ug/L	0.17	ug/L	75	125	30	75	125	30

**Appendix 4, Table A4-2**  
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CAS No.	Method	Compound	RL	Units	MDL	Units	LCS Limits			MS/MSD Limits		
							LCL	UCL	RPD	LCL	UCL	RPD
95-50-1	8260B	1,2-Dichlorobenzene	1	ug/L	0.13	ug/L	70	120	30	70	120	30
541-73-1	8260B	1,3-Dichlorobenzene	1	ug/L	0.16	ug/L	75	125	30	75	125	30
106-46-7	8260B	1,4-Dichlorobenzene	1	ug/L	0.16	ug/L	75	125	30	75	125	30
75-71-8	8260B	Dichlorodifluoromethane	2	ug/L	0.31	ug/L	30	155	30	30	155	30
75-34-3	8260B	1,1-Dichloroethane	1	ug/L	0.16	ug/L	70	135	30	70	135	30
107-06-2	8260B	1,2-Dichloroethane	1	ug/L	0.13	ug/L	70	130	30	70	130	30
156-59-2	8260B	cis-1,2-Dichloroethene	1	ug/L	0.15	ug/L	70	125	30	70	125	30
156-60-5	8260B	trans-1,2-Dichloroethene	1	ug/L	0.15	ug/L	60	140	30	60	140	30
75-35-4	8260B	1,1-Dichloroethene	1	ug/L	0.14	ug/L	70	130	30	70	130	30
78-87-5	8260B	1,2-Dichloropropane	1	ug/L	0.13	ug/L	75	125	30	75	125	30
142-28-9	8260B	1,3-Dichloropropane	1	ug/L	0.15	ug/L	75	125	30	75	125	30
594-20-7	8260B	2,2-Dichloropropane	1	ug/L	0.2	ug/L	70	135	30	70	135	30
10061-01-5	8260B	cis-1,3-Dichloropropene	1	ug/L	0.16	ug/L	70	130	30	70	130	30
10061-02-6	8260B	trans-1,3-Dichloropropene	1	ug/L	0.19	ug/L	55	140	30	55	140	30
563-58-6	8260B	1,1-Dichloropropene	1	ug/L	0.15	ug/L	75	130	30	75	130	30
100-41-4	8260B	Ethylbenzene	1	ug/L	0.16	ug/L	75	125	30	75	125	30
87-68-3	8260B	Hexachlorobutadiene	1	ug/L	0.12	ug/L	50	140	30	50	140	30
591-78-6	8260B	2-Hexanone	5	ug/L	1.4	ug/L	55	130	30	55	130	30
98-82-8	8260B	Isopropylbenzene	1	ug/L	0.19	ug/L	75	125	30	75	125	30
99-87-6	8260B	p-Isopropyltoluene	1	ug/L	0.17	ug/L	75	130	30	75	130	30
75-09-2	8260B	Methylene chloride	5	ug/L	0.32	ug/L	55	140	30	55	140	30
108-10-1	8260B	4-Methyl-2-pentanone	5	ug/L	0.49	ug/L	60	135	30	60	135	30
1634-04-4	8260B	Methyl tert-butyl ether	5	ug/L	0.25	ug/L	65	125	30	65	125	30
91-20-3	8260B	Naphthalene	1	ug/L	0.22	ug/L	55	140	30	55	140	30
103-65-1	8260B	n-Propylbenzene	1	ug/L	0.16	ug/L	70	130	30	70	130	30
100-42-5	8260B	Styrene	1	ug/L	0.17	ug/L	65	135	30	65	135	30
630-20-6	8260B	1,1,1,2-Tetrachloroethane	1	ug/L	0.17	ug/L	80	130	30	80	130	30
79-34-5	8260B	1,1,2,2-Tetrachloroethane	1	ug/L	0.2	ug/L	65	130	30	65	130	30
127-18-4	8260B	Tetrachloroethene	1	ug/L	0.2	ug/L	45	150	30	45	150	30
108-88-3	8260B	Toluene	1	ug/L	0.17	ug/L	75	120	30	75	120	30
87-61-6	8260B	1,2,3-Trichlorobenzene	1	ug/L	0.18	ug/L	55	140	30	55	140	30
120-82-1	8260B	1,2,4-Trichlorobenzene	1	ug/L	0.32	ug/L	65	135	30	65	135	30
71-55-6	8260B	1,1,1-Trichloroethane	1	ug/L	0.16	ug/L	65	130	30	65	130	30
79-00-5	8260B	1,1,2-Trichloroethane	1	ug/L	0.32	ug/L	75	125	30	75	125	30
79-01-6	8260B	Trichloroethene	1	ug/L	0.16	ug/L	70	125	30	70	125	30
75-69-4	8260B	Trichlorofluoromethane	2	ug/L	0.29	ug/L	60	145	30	60	145	30
96-18-4	8260B	1,2,3-Trichloropropane	2	ug/L	0.27	ug/L	75	125	30	75	125	30
95-63-6	8260B	1,2,4-Trimethylbenzene	1	ug/L	0.14	ug/L	75	130	30	75	130	30
108-67-8	8260B	1,3,5-Trimethylbenzene	1	ug/L	0.14	ug/L	75	130	30	75	130	30

**Appendix 4, Table A4-2**  
**STL, Denver Measurement Quality Objectives**  
**Cas No., Methods, Compounds, Reporting Limits, Method Detection Limits, and Control Limits**  
**Site Inspection Work Plan, Former Gopher Ordnance Works**  
**Rosemount, MN**

CAS No.	Method	Compound	RL	Units	MDL	Units	LCS Limits			MS/MSD Limits		
							LCL	UCL	RPD	LCL	UCL	RPD
75-01-4	8260B	Vinyl chloride	1	ug/L	0.17	ug/L	50	145	30	50	145	30
136777-61-2	8260B	m-Xylene & p-Xylene	2	ug/L	0.34	ug/L	75	130	30	75	130	30
95-47-6	8260B	o-Xylene	1	ug/L	0.19	ug/L	80	120	30	80	120	30
460-00-4	8260B	4-Bromofluorobenzene					75	120	0	75	120	0
17060-07-0	8260B	1,2-Dichloroethane-d4					70	120	0	70	120	0
2037-26-5	8260B	Toluene-d8					85	120	0	85	120	0
1868-53-7	8260B	Dibromofluoromethane					85	115	0	85	115	0
12674-11-2	8082	Aroclor 1016	1	ug/L	0.0968	ug/L	25	145	30	25	145	30
11104-28-2	8082	Aroclor 1221	1	ug/L	0.214	ug/L	0	0	0	0	0	0
11141-16-5	8082	Aroclor 1232	1	ug/L	0.135	ug/L	0	0	0	0	0	0
53469-21-9	8082	Aroclor 1242	1	ug/L	0.104	ug/L	0	0	0	0	0	0
12672-29-6	8082	Aroclor 1248	1	ug/L	0.0776	ug/L	0	0	0	0	0	0
11097-69-1	8082	Aroclor 1254	1	ug/L	0.0873	ug/L	0	0	0	0	0	0
11096-82-5	8082	Aroclor 1260	1	ug/L	0.16	ug/L	30	145	30	30	145	30
2051-24-3	8082	Decachlorobiphenyl					40	135	0	40	135	0
12674-11-2	8082	Aroclor 1016	33	ug/kg	5.09	ug/kg	40	140	30	40	140	30
11104-28-2	8082	Aroclor 1221	33	ug/kg	10.6	ug/kg	0	0	0	0	0	0
11141-16-5	8082	Aroclor 1232	33	ug/kg	5.12	ug/kg	0	0	0	0	0	0
53469-21-9	8082	Aroclor 1242	33	ug/kg	9.12	ug/kg	0	0	0	0	0	0
12672-29-6	8082	Aroclor 1248	33	ug/kg	3.4	ug/kg	0	0	0	0	0	0
11097-69-1	8082	Aroclor 1254	33	ug/kg	3.97	ug/kg	0	0	0	0	0	0
11096-82-5	8082	Aroclor 1260	33	ug/kg	2.65	ug/kg	60	130	30	60	130	30
2051-24-3	8082	Decachlorobiphenyl					60	125	0	60	125	0
319-84-6	8081A	alpha-BHC	0.05	ug/L	0.0053	ug/L	60	130	30	60	130	30
5103-71-9	8081A	alpha-Chlordane	0.05	ug/L	0.0053	ug/L	65	125	30	65	125	30
319-85-7	8081A	beta-BHC	0.05	ug/L	0.0087	ug/L	65	125	30	65	125	30
319-86-8	8081A	delta-BHC	0.05	ug/L	0.0058	ug/L	45	135	30	45	135	30
58-89-9	8081A	gamma-BHC (Lindane)	0.05	ug/L	0.0069	ug/L	25	135	30	25	135	30
5103-74-2	8081A	gamma-Chlordane	0.05	ug/L	0.0091	ug/L	60	125	30	60	125	30
309-00-2	8081A	Aldrin	0.05	ug/L	0.0059	ug/L	25	140	30	25	140	30
60-57-1	8081A	Dieldrin	0.05	ug/L	0.0063	ug/L	60	130	30	60	130	30
1031-07-8	8081A	Endosulfan sulfate	0.05	ug/L	0.0057	ug/L	55	135	30	55	135	30
959-98-8	8081A	Endosulfan I	0.05	ug/L	0.0058	ug/L	50	110	30	50	110	30
33213-65-9	8081A	Endosulfan II	0.05	ug/L	0.007	ug/L	30	130	30	30	130	30
72-20-8	8081A	Endrin	0.05	ug/L	0.0079	ug/L	55	135	30	55	135	30
7421-93-4	8081A	Endrin aldehyde	0.05	ug/L	0.0088	ug/L	55	135	30	55	135	30

**Appendix 4, Table A4-2**  
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**Rosemount, MN**

CAS No.	Method	Compound	RL	Units	MDL	Units	LCS Limits			MS/MSD Limits		
							LCL	UCL	RPD	LCL	UCL	RPD
53494-70-5	8081A	Endrin ketone	0.05	ug/L	0.007	ug/L	75	125	30	75	125	30
76-44-8	8081A	Heptachlor	0.05	ug/L	0.0077	ug/L	40	130	30	40	130	30
1024-57-3	8081A	Heptachlor epoxide	0.05	ug/L	0.0075	ug/L	60	130	30	60	130	30
72-43-5	8081A	Methoxychlor	0.1	ug/L	0.013	ug/L	55	150	30	55	150	30
8001-35-2	8081A	Toxaphene	5	ug/L	0.894	ug/L	63	142	30	63	142	30
72-54-8	8081A	4,4'-DDD	0.05	ug/L	0.0077	ug/L	25	150	30	25	150	30
72-55-9	8081A	4,4'-DDE	0.05	ug/L	0.0075	ug/L	35	140	30	35	140	30
50-29-3	8081A	4,4'-DDT	0.05	ug/L	0.0148	ug/L	45	140	30	45	140	30
2051-24-3	8081A	Decachlorobiphenyl					30	135	0	30	135	0
877-09-8	8081A	Tetrachloro-m-xylene					25	140	0	25	140	0
319-84-6	8081A	alpha-BHC	1.7	ug/kg	0.214	ug/kg	60	125	30	60	125	30
5103-71-9	8081A	alpha-Chlordane	1.7	ug/kg	0.323	ug/kg	65	120	30	65	120	30
319-85-7	8081A	beta-BHC	1.7	ug/kg	0.286	ug/kg	60	125	30	60	125	30
319-86-8	8081A	delta-BHC	1.7	ug/kg	0.166	ug/kg	55	130	30	55	130	30
58-89-9	8081A	gamma-BHC (Lindane)	1.7	ug/kg	0.143	ug/kg	60	125	30	60	125	30
5103-74-2	8081A	gamma-Chlordane	1.7	ug/kg	0.266	ug/kg	65	125	30	65	125	30
309-00-2	8081A	Aldrin	1.7	ug/kg	0.251	ug/kg	45	140	30	45	140	30
60-57-1	8081A	Dieldrin	1.7	ug/kg	0.21	ug/kg	65	125	30	65	125	30
1031-07-8	8081A	Endosulfan sulfate	1.7	ug/kg	0.276	ug/kg	60	135	30	60	135	30
959-98-8	8081A	Endosulfan I	1.7	ug/kg	0.176	ug/kg	15	135	30	15	135	30
33213-65-9	8081A	Endosulfan II	1.7	ug/kg	0.287	ug/kg	35	140	30	35	140	30
72-20-8	8081A	Endrin	1.7	ug/kg	0.306	ug/kg	60	135	30	60	135	30
7421-93-4	8081A	Endrin aldehyde	1.7	ug/kg	0.171	ug/kg	35	145	30	35	145	30
53494-70-5	8081A	Endrin ketone	1.7	ug/kg	0.213	ug/kg	65	135	30	65	135	30
76-44-8	8081A	Heptachlor	1.7	ug/kg	0.214	ug/kg	50	140	30	50	140	30
1024-57-3	8081A	Heptachlor epoxide	1.7	ug/kg	0.426	ug/kg	65	130	30	65	130	30
72-43-5	8081A	Methoxychlor	3.3	ug/kg	0.45	ug/kg	55	145	30	55	145	30
8001-35-2	8081A	Toxaphene	170	ug/kg	15.8	ug/kg	51	139	30	51	139	30
72-54-8	8081A	4,4'-DDD	1.7	ug/kg	0.546	ug/kg	30	135	30	30	135	30
72-55-9	8081A	4,4'-DDE	1.7	ug/kg	0.238	ug/kg	70	125	30	70	125	30
50-29-3	8081A	4,4'-DDT	2	ug/kg	0.59	ug/kg	45	140	30	45	140	30
2051-24-3	8081A	Decachlorobiphenyl					55	130	0	55	130	0
877-09-8	8081A	Tetrachloro-m-xylene					70	125	0	70	125	0
83-32-9	8270C	Acenaphthene	330	ug/kg	10.3	ug/kg	45	110	30	45	110	30
208-96-8	8270C	Acenaphthylene	330	ug/kg	17	ug/kg	45	105	30	45	105	30
120-12-7	8270C	Anthracene	330	ug/kg	17	ug/kg	55	105	30	55	105	30
56-55-3	8270C	Benzo(a)anthracene	330	ug/kg	20	ug/kg	50	110	30	50	110	30

**Appendix 4, Table A4-2**  
**STL, Denver Measurement Quality Objectives**  
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**Rosemount, MN**

CAS No.	Method	Compound	RL	Units	MDL	Units	LCS Limits			MS/MSD Limits		
							LCL	UCL	RPD	LCL	UCL	RPD
50-32-8	8270C	Benzo(a)pyrene	330	ug/kg	20	ug/kg	50	110	30	50	110	30
205-99-2	8270C	Benzo(b)fluoranthene	330	ug/kg	26.2	ug/kg	45	115	30	45	115	30
191-24-2	8270C	Benzo(ghi)perylene	330	ug/kg	16	ug/kg	40	125	30	40	125	30
207-08-9	8270C	Benzo(k)fluoranthene	330	ug/kg	40	ug/kg	45	125	30	45	125	30
218-01-9	8270C	Chrysene	330	ug/kg	27	ug/kg	55	110	30	55	110	30
53-70-3	8270C	Dibenz(a,h)anthracene	330	ug/kg	19	ug/kg	40	125	30	40	125	30
206-44-0	8270C	Fluoranthene	330	ug/kg	36	ug/kg	55	115	30	55	115	30
86-73-7	8270C	Fluorene	330	ug/kg	18	ug/kg	50	110	30	50	110	30
193-39-5	8270C	Indeno(1,2,3-cd)pyrene	330	ug/kg	22	ug/kg	46	102	30	46	102	30
91-20-3	8270C	Naphthalene	330	ug/kg	31	ug/kg	51	91	30	51	91	30
85-01-8	8270C	Phenanthrene	330	ug/kg	17	ug/kg	50	110	30	50	110	30
129-00-0	8270C	Pyrene	400	ug/kg	12.1	ug/kg	45	125	30	45	125	30
91-57-6	8270C	2-Methylnaphthalene	330	ug/kg	19	ug/kg	45	105	30	45	105	30
321-60-8	8270C	2-Fluorobiphenyl					45	105	0	45	105	0
367-12-4	8270C	2-Fluorophenol					35	105	0	35	105	0
118-79-6	8270C	2,4,6-Tribromophenol					35	125	0	35	125	0
4165-60-0	8270C	Nitrobenzene-d5					35	100	0	35	100	0
4165-62-2	8270C	Phenol-d5					40	100	0	40	100	0
1718-51-0	8270C	Terphenyl-d14					30	125	0	30	125	0
83-32-9	8270C	Acenaphthene	10	ug/L	1.7	ug/L	45	110	30	45	110	30
208-96-8	8270C	Acenaphthylene	10	ug/L	1.8	ug/L	50	105	30	50	105	30
120-12-7	8270C	Anthracene	10	ug/L	1.9	ug/L	55	110	30	55	110	30
56-55-3	8270C	Benzo(a)anthracene	10	ug/L	1.7	ug/L	55	110	30	55	110	30
50-32-8	8270C	Benzo(a)pyrene	10	ug/L	1.3	ug/L	55	110	30	55	110	30
205-99-2	8270C	Benzo(b)fluoranthene	10	ug/L	0.39	ug/L	45	120	30	45	120	30
191-24-2	8270C	Benzo(ghi)perylene	10	ug/L	1	ug/L	40	125	30	40	125	30
207-08-9	8270C	Benzo(k)fluoranthene	10	ug/L	0.46	ug/L	45	125	30	45	125	30
218-01-9	8270C	Chrysene	10	ug/L	1	ug/L	55	110	30	55	110	30
53-70-3	8270C	Dibenz(a,h)anthracene	10	ug/L	1.4	ug/L	40	125	30	40	125	30
206-44-0	8270C	Fluoranthene	18	ug/L	5	ug/L	55	115	30	55	115	30
86-73-7	8270C	Fluorene	10	ug/L	1	ug/L	50	110	30	50	110	30
193-39-5	8270C	Indeno(1,2,3-cd)pyrene	10	ug/L	1.5	ug/L	45	125	30	45	125	30
91-20-3	8270C	Naphthalene	10	ug/L	1.5	ug/L	40	100	30	40	100	30
85-01-8	8270C	Phenanthrene	10	ug/L	1	ug/L	50	115	30	50	115	30
129-00-0	8270C	Pyrene	10	ug/L	0.37	ug/L	50	130	30	50	130	30
91-57-6	8270C	2-Methylnaphthalene	10	ug/L	1.6	ug/L	45	105	30	45	105	30
321-60-8	8270C	2-Fluorobiphenyl					50	110	0	50	110	0
367-12-4	8270C	2-Fluorophenol					20	110	0	20	110	0



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**Rosemount, MN**

CAS No.	Method	Compound	RL	Units	MDL	Units	LCS Limits			MS/MSD Limits		
							LCL	UCL	RPD	LCL	UCL	RPD
118-79-6	8270C	2,4,6-Tribromophenol					40	125	0	40	125	0
4165-60-0	8270C	Nitrobenzene-d5					40	110	0	40	110	0
4165-62-2	8270C	Phenol-d5					53	93	0	53	93	0
1718-51-0	8270C	Terphenyl-d14					50	135	0	50	135	0
LCL = Lower Confidence Limit												
LCS = Laboratory Control Sample												
MDL = Method Detection Limit												
mg/kg = milligrams per kilogram												
mg/L = miligrams per Liter												
MS/MSD = Matrix Spike/Matrix Spike Duplicate												
RL = Reporting Limit												
RPD = Relative Percent Difference												
UCL = Upper Confidence Limit												
ug/kg = micrograms per kilogram												
ug/L = micrograms per Liter												