

平成 24 年度地下水の水質測定結果について

(1) 内 容

水質汚濁防止法第 15 条の規定により、地下水の水質の状況を把握するため、岡山市及び倉敷市と協力して測定を実施した。

① 対象項目

地下水の水質汚濁に係る環境基準が定められている環境基準項目（カドミウム等 28 項目）と要監視項目（クロロホルム等 24 項目）

② 測定方法

県下 31 地点で概況調査を行うとともに、過去に汚染が確認された 12 地点で継続監視調査を実施した。

ア 概況調査

環境基準項目及び要監視項目 年 1 回

イ 継続監視調査

環境基準項目 年 1～2 回

表 5 調査地点の内訳

区 分	県	岡山市	倉敷市	計
概況調査	19	6	6	31
継続監視調査	2	6	4	12
合 計	21	12	10	43

(2) 結 果

① 概況調査

31 地点のうち 3 地点で環境基準を超過した。周辺調査の結果、ふっ素は自然由来、硝酸性窒素及び亜硝酸性窒素については施肥の影響と推定された。

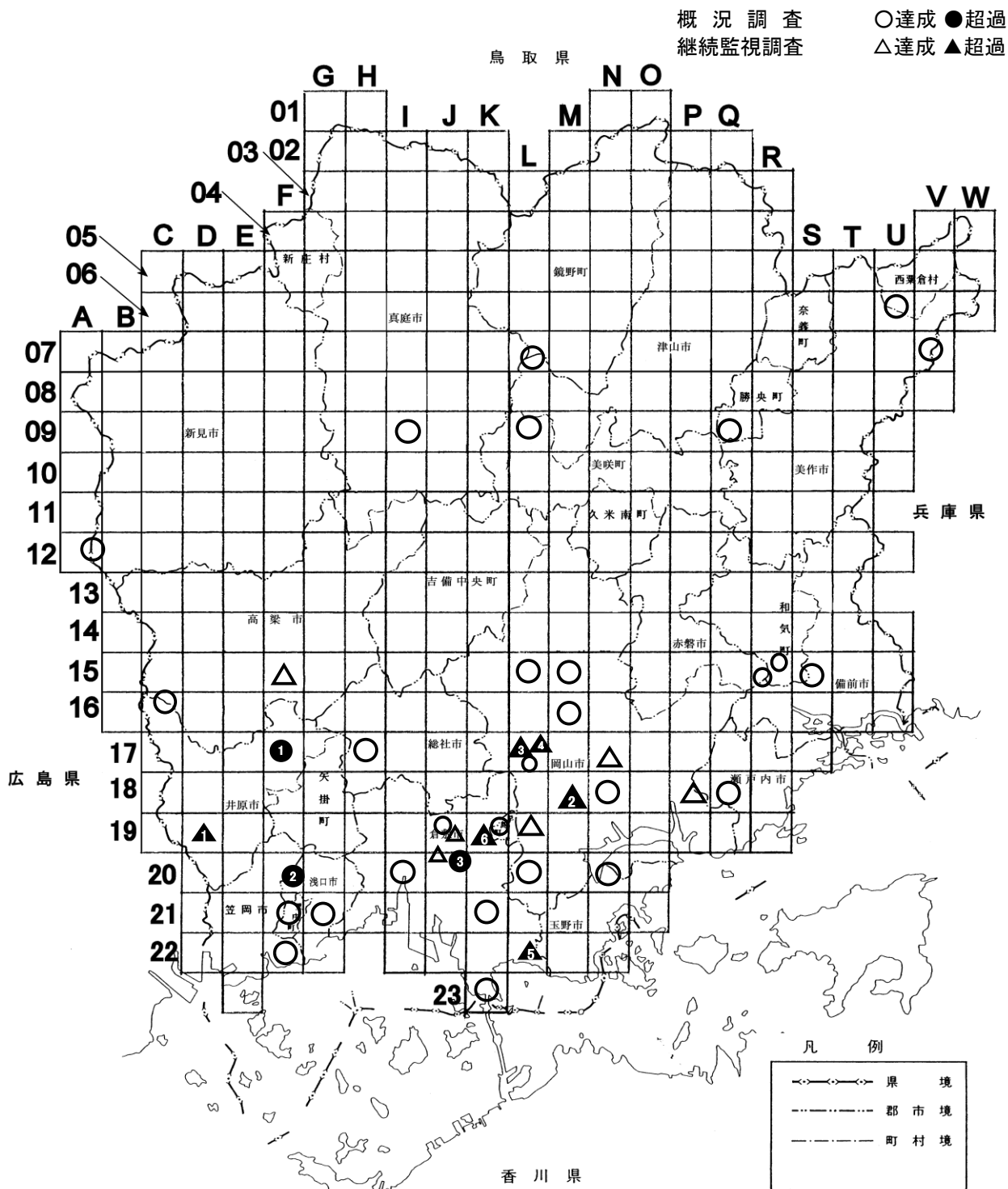
また、要監視項目は 2 地点で測定を行ったが、指針値のあるクロロホルム等 22 項目はいずれも指針値に適合した。指針値のないニッケル等 2 項目はいずれも不検出であった。

② 継続監視調査

以前に汚染が確認され、周辺調査が終了している 12 地点のうち 6 地点で環境基準を超過し、汚染の継続が確認された。汚染原因としては、これまでと同様にそれぞれ、事業場由来、自然由来と検証されている。

(3) 今後の対応

事業場が原因の汚染の場合には、事業場に対して浄化指導を行い、引き続き地下水の水質の測定を行い、実態の把握に努める。



地下水環境基準達成状況図

概況調査の測定結果

(単位:mg/L)

番号	調査地点	用途	測定機関	環境基準項目																							要監視項目							
				カドミウム	全シアン	鉛	六価クロム	ヒ素	総水銀	アルキル水銀	PCB	ジクロロメタン	四塩化炭素	塩化ビニルモノマー	1,2-ジクロロエタン	1,1-ジクロロエチレン	1,2-ジクロロエチレン	1,1,1-トリクロロエタン	1,1,2-トリクロロエタン	トリクロロエチレン	テトラクロロエチレン	1,3-ジクロロプロペン	チウラム	シマジン	チオベンカルブ	ベンゼン		セレン	硝酸性窒素及び亜硝酸性窒素	ふっ素	ほう素	1,4-ジオキサン		
				0.003	N.D.	0.01	0.05	0.01	0.0005	N.D.	N.D.	0.02	0.002	0.002	0.004	0.1	0.04	1	0.006	0.03	0.01	0.002	0.006	0.003	0.02	0.01		0.01	10	0.8	1	0.05		
1	玉野市八浜町波知	生活用水	岡山県	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ウラン 0.0002(指針値0.002以下) その他 検出なし
2	備前市伊里中	その他	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
3	赤磐市奥吉原	生活用水	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
4	瀬戸内市邑久町豊原	生活用水	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
5	和気町清水	その他	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
6	笠岡市西大島	一般飲用	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
7	井原市美星町明治	生活用水	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
8	総社市新本	その他	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
9	高梁市川上町高山市	一般飲用	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
10	新見市哲西町大竹	一般飲用	〃	N.D.	N.D.	0.005	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
11	浅口市鴨方町小坂西	生活用水	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
12	早島町早島	その他	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
13	里庄町新庄	生活用水	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
14	津山市宮部上	一般飲用	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
15	真庭市日野上	生活用水	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
16	美作市今岡	その他	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
17	勝央町勝間田	生活用水	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	検出なし
18	西粟倉村知社	その他	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
19	美咲町北	一般飲用	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	

(注)地下水環境基準を測定項目下欄に示す。N.D.は不検出であることを示す。環境基準を超えている検体値は太字(太枠)で示す。

概況調査の測定結果

(単位:mg/L)

番号	調査地点	用途	測定機関	環境基準項目																							要監視項目					
				カドミウム	全シアン	鉛	六価クロム	ヒ素	総水銀	アルキル水銀	PCB	ジクロロメタン	四塩化炭素	塩化ビニルモノマー	1,2-ジクロロエタン	1,1-ジクロロエチレン	1,2-ジクロロエチレン	1,1-トリクロロエタン	1,2-トリクロロエタン	トリクロロエチレン	テトラクロロエチレン	1,3-ジクロロプロペン	チウラム	シマジン	チオベンカルブ	ベンゼン		セレン	硝酸性窒素及び亜硝酸性窒素	ふっ素	ほう素	1,4-ジオキサン
				0.003	N.D.	0.01	0.05	0.01	0.0005	N.D.	N.D.	0.02	0.002	0.002	0.004	0.1	0.04	1	0.006	0.03	0.01	0.002	0.006	0.003	0.02	0.01		0.01	10	0.8	1	0.05
20	岡山市北区吉備津	生活用水	岡山市	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.03	0.21	0.04	N.D.		
21	岡山市北区下高田	生活用水	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.72	0.57	0.05	N.D.		
22	岡山市北区御津川高	生活用水	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.99	0.15	N.D.	N.D.		
23	岡山市南区灘崎植松	生活用水	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	6.8	0.29	N.D.	N.D.		
24	岡山市中区国富	生活用水	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.08	0.16	N.D.	N.D.		
25	岡山市北区吉宗	生活用水	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1.4	0.21	N.D.	N.D.		
26	倉敷市玉島黒崎	生活用水	倉敷市	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1.5	0.17	N.D.	N.D.		
27	倉敷市玉島爪崎	生活用水	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.61	0.41	0.12	N.D.		
28	倉敷市浜町	生活用水	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.05	0.12	N.D.	N.D.		
29	倉敷市西中新田	生活用水	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1.3	0.4	N.D.	N.D.		
30	倉敷市曾原	生活用水	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.06	0.16	N.D.	N.D.		
31	倉敷市下津井	生活用水	〃	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	5.4	0.19	0.08	N.D.		

(注)地下水環境基準を測定項目下欄に示す。N.D.は不検出であることを示す。環境基準を超えている検体値は太字(太枠)で示す。

継続監視調査の測定結果

(単位:mg/L)

番号	調査地点	用途	測定機関	環境基準項目																				要監視項目										
				カドミウム	全シアン	鉛	六価クロム	ひ素	総水銀	アルキル水銀	PCB	ジクロロメタン	四塩化炭素	塩化ビニルモノマー	1,2-ジクロロエタン	1,1-ジクロロエチレン	1,2-ジクロロエチレン	1,1,1-トリクロロエタン	1,1,2-トリクロロエタン	トリクロロエチレン	テトラクロロエチレン	1,3-ジクロロプロペン	チウラム		シマジン	チオベンカルブ	ベンゼン	セレン	硝酸性窒素及び亜硝酸性窒素	ふっ素	ほう素	1,4-ジオキサソ		
				0.003	N.D.	0.01	0.05	0.01	0.0005	N.D.	N.D.	0.02	0.002	0.002	0.004	0.1	0.04	1	0.006	0.03	0.01	0.002	0.006	0.003	0.02	0.01	0.01	10	0.8	1	0.05			
1	高梁市成羽町成羽	生活用水	岡山県									N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.002	N.D.	N.D.				N.D.								
2	井原市高屋町	生活用水	"											N.D.		0.005			0.038															
3	岡山市東区金岡東町	生活用水	岡山市					N.D.																										
4	岡山市中区藤原光町	生活用水	"			N.D.		N.D.																										
5	岡山市北区野田	工業用水	"					0.033																										
6	岡山市南区箕島	生活用水	"																								10							
7	岡山市北区立田	その他	"																									0.91						
8	岡山市北区今岡	生活用水	"																							11	1.2							
9	倉敷市児島唐琴	生活用水	倉敷市									N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.095	N.D.					N.D.								
10	倉敷市沖	生活用水	"									N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.0050						N.D.								
11	倉敷市中帯江	生活用水	"					N.D.																				1.9						
12	倉敷市中島	生活用水	"									N.D.	N.D.	N.D.	N.D.	0.017	N.D.	N.D.	0.004	N.D.						N.D.								

(注)地下水環境基準を測定項目下欄に示す。N.D.は不検出であることを示す。環境基準を超えている検体値は太字(太枠)で示す。

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○地下水測定項目について

環境基準項目	環境基準で定めている人の健康の保護に係る項目
<p>カドミウム、全シアン、鉛、六価クロム、ヒ素、総水銀、アルキル水銀、ポリ塩化ビフェニル、ジクロロメタン、四塩化炭素、塩化ビニルモノマー、1,2-ジクロロエタン、1,1-ジクロロエチレン、1,2-ジクロロエチレン、1,1,1-トリクロロエタン、1,1,2-トリクロロエタン、トリクロロエチレン、テトラクロロエチレン、1,3-ジクロロプロペン、チウラム、シマジン、チオベンカルブ、ベンゼン、セレン、硝酸性窒素及び亜硝酸性窒素、ふっ素、ほう素、1,4-ジオキサン（以上28項目）</p>	

要監視項目	人の健康の保護に関連する物質ではあるが、現時点では直ちに環境基準項目とせず引き続き知見の集積に努めるべき項目
<p>クロロホルム、1,2-ジクロロプロパン、p-ジクロロベンゼン、イソキサチオン、ダイアジノン、フェニトロチオン、イソプロチオラン、オキシ銅、クロロタロニル、プロピザミド、o-エチル=o-4-ニトロフェニル=フェニルホスホノチオアート、ジクロロボス、フェノブカルブ、イプロベンホス、クロルニトロフェン、トルエン、キシレン、フタル酸ジエチルヘキシル、ニッケル、モリブデン、アンチモン、エピクロロヒドリン、全マンガン、ウラン（以上24項目）</p>	