

## 平成 22 年度地下水の水質測定結果について

水質汚濁防止法第 15 条に基づき、地下水の水質の状況を把握するため、国、岡山市及び倉敷市と協力して、県下の 35 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 10 地点で継続監視調査を実施した。

### (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(28項目)と要監視項目(24項目)

### (2) 測定内容

#### ア 概況調査

環境基準項目及び要監視項目 年 1 回測定

#### イ 継続監視調査

環境基準項目 年 1 ～ 2 回測定

測定地点の内訳

区分	県	国	岡山市	倉敷市	計
概況調査	19	4	6	6	35
継続監視調査	2	1	4	3	10

### (3) 測定結果

#### ア 概況調査

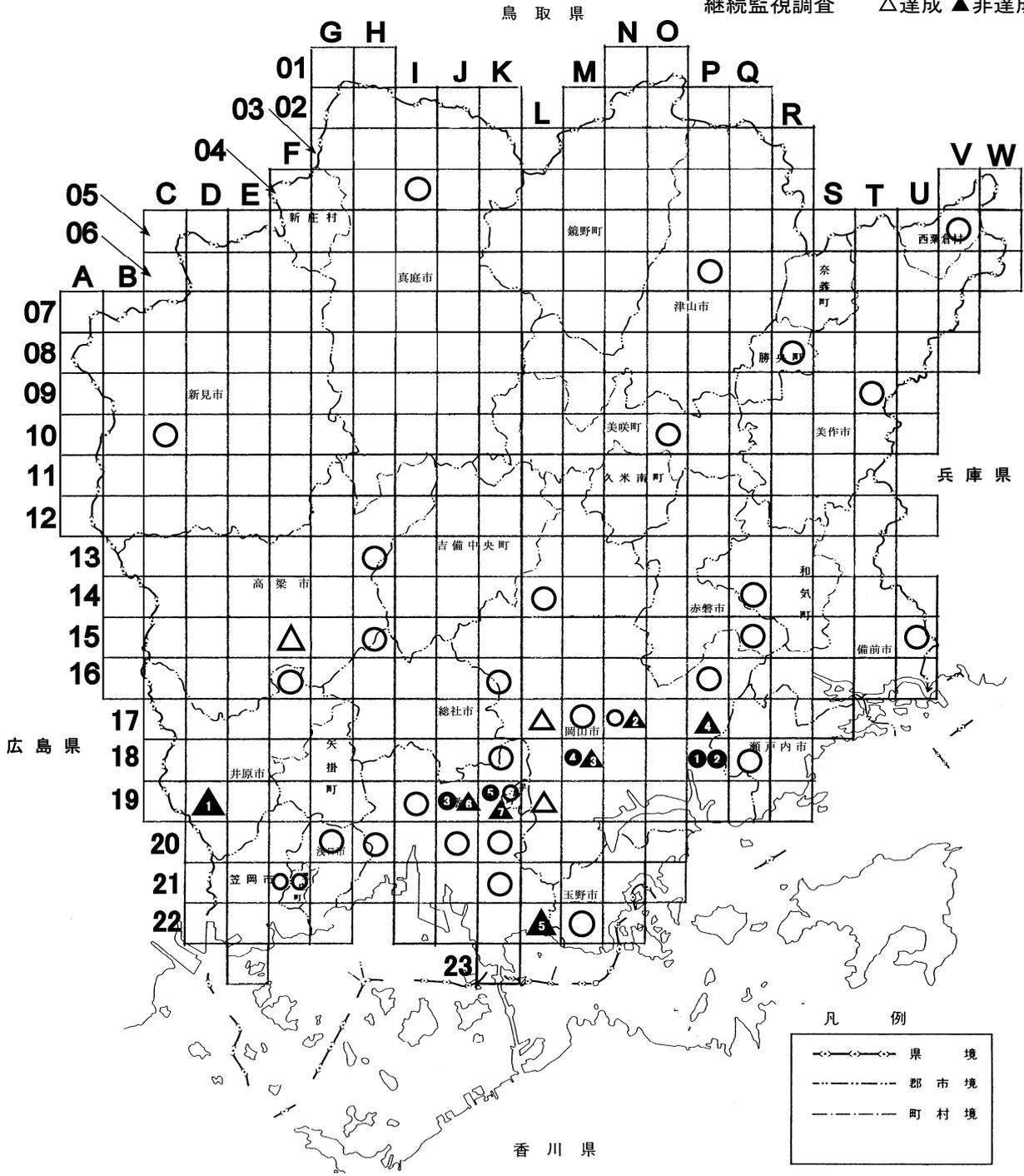
35 地点のうち 5 地点で環境基準を達成しなかった。環境基準値を超過した 3 項目のうち、鉛及びヒ素は自然由来と推定される。ふっ素については現在調査中である。

また、要監視項目は 2 地点で測定を行ったが、いずれの項目も問題のない値であった。

#### イ 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 10 地点のうち 7 地点で環境基準を達成せず、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、生活排水由来と検証されている。

概況調査 ○達成 ●非達成  
 継続監視調査 △達成 ▲非達成



地下水環境基準達成状況図

概況調査の測定結果(1)

(単位:mg/l)

番号	調査地点	用途	測定機関	環境基準項目																													
				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-ジクロロエチレン	1,1-ジクロロエチレン	1,2-ジクロロエチレン	シス-1,2-ジクロロエチレン	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	
				0.01	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	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	玉野市長尾	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.	0.24	0.16	N.D.		
2	瀬戸内市牛窓町長浜	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.	0.21	0.35		
3	備前市三石	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.	2.7	N.D.	N.D.		
4	赤磐市吉原	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.	1.7	N.D.	N.D.		
5	和気町原	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.	0.11	0.22	N.D.		
6	総社市橋	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.	6.8	0.12	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.	0.05	N.D.	N.D.		
8	笠岡市園井	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.	N.D.	N.D.	0.95	0.09	N.D.		
9	浅口市鞆方町本庄	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.	7.5	0.20	N.D.		
10	高梁市巨瀬町	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.	N.D.	N.D.	1.9	0.16	N.D.		
11	新見市神郷下神代	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.	1.5	N.D.	N.D.		
12	早島町早島	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.	7.7	0.09	N.D.	N.D.	
13	里庄町里見	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.	8.3	0.15	N.D.	N.D.	
14	津山市加茂町中原	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.	0.95	0.11	N.D.		
15	真庭市栗谷	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.	1.7	N.D.	N.D.		
16	美作市江見	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.	2.3	0.09	N.D.		
17	勝央町植月東	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.	5.6	N.D.	N.D.		
18	美咲町金堀	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.	0.65	N.D.	N.D.		
19	西粟倉村影石	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.	0.64	0.35	N.D.		

(備考) 1) 地下水環境基準値を測定項目下欄に示す。 2) N.D.は不検出であることを示す。 3) 環境基準値または指針値を超えている検体値は太字(太枠)で示す。 4) 表右の「●(数字)」は、地下水環境基準達成状況図中の「●(数字)」に対応している。

5) 1, 2-ジクロロエチレンについては、平成21年11月からシス体、トランス体を合わせて一つの環境基準項目とされたが、平成22年度は準備期間であるため、暫定的に、シス体についても環境基準値(0.04mg/L)で達成状況を評価する。

概況調査の測定結果(2)

(単位:mg/l)

番号	調査地点	用途	測定機関	環境基準項目																															
				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	シス-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			
				0.01	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	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	岡山市東区金岡東町	その他	国交省	N.D.	N.D.	0.11	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.		
21	岡山市東区金岡東町	その他	"	N.D.	N.D.	0.21	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.		
22	岡山市中区藤原西町	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.		
23	倉敷市安江	その他	"	N.D.	N.D.	0.012	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.		
24	岡山市北区粟井	その他	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.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
25	岡山市北区御津紙工	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.	N.D.	
26	岡山市北区立田	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.	N.D.	
27	岡山市北区伊福町	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.	N.D.	
28	岡山市北区野田	その他	"	N.D.	N.D.	N.D.	N.D.	0.034	N.D.	N.D.	N.D.	N.D.	0.0019	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
29	岡山市東区瀬戸町寺地	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.	N.D.	
30	倉敷市真備町上二万	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.	0.003	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	
31	倉敷市福島	生活用水	"	N.D.	N.D.	N.D.	N.D.	0.009	N.D.	N.D.	N.D.	N.D.	0.003	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.90
32	倉敷市玉島道口	生活用水	"	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.002	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.41
33	倉敷市北畝	その他	"	N.D.	N.D.	N.D.	N.D.	0.008	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.78
34	倉敷市粒江	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.	N.D.	0.13
35	倉敷市児島神田町	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.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.18

1  
2  
3  
4  
5

(単位:mg/l)

番号	調査地点	用途	測定機関	要監視項目																							
				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	オキシシン銅	クロロタロニル	プロピザミド	EPN	ジクロロルボス	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	エビクロロヒドリン	全マンガ	ウラ
				0.06	0.06	0.2	0.008	0.005	0.003	0.04	0.04	0.05	0.008	0.006	0.008	0.03	0.008	-	0.6	0.4	0.06	-	0.07	0.02	0.0004	0.2	0.002
12	早島町早島	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.	0.02	N.D.	
13	里庄町里見	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.	

(備考) 1) 地下水環境基準値を測定項目下欄に示す。 2) N.D.は不検出であることを示す。 3) 環境基準値または指針値を超えている検体値は太字(太枠)で示す。 4) 表右の「●(数字)」は、地下水環境基準達成状況図中の「●(数字)」に対応している。  
5) 1,2-ジクロロエチレンについては、平成21年11月からシス体、トランス体を合わせて一つの環境基準項目とされたが、平成22年度は準備期間であるため、暫定的に、シス体についても環境基準値(0.04mg/L)で達成状況を評価する。

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																													
				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	シス-1,2-ジクロロエチレン	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	
				0.01	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	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.	0.003	N.D.	N.D.				N.D.						
2	井原市高屋町	生活用水	"																		0.034												
3	岡山市中区藤原西町	その他	国交省	N.D.	N.D.	N.D.	N.D.	0.041	N.D.	N.D.	N.D.	N.D.	N.D.		N.D.	N.D.		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	0.20	N.D.		
4	岡山市北区野田	工業用水	岡山市					0.038																									
5	岡山市東区西隆寺	生活用水	"																														
6	岡山市南区箕島	生活用水	"																														
7	岡山市北区立田	その他	"																														
8	倉敷市児島唐琴	生活用水	倉敷市									N.D.	N.D.		N.D.	0.003		0.004	N.D.	N.D.	0.003	0.098	N.D.				N.D.						
9	倉敷市沖	生活用水	"									N.D.	N.D.		N.D.	N.D.		N.D.	N.D.	N.D.	0.002	0.022	N.D.				N.D.						
10	倉敷市中帯江	生活用水	"					N.D.																									



(備考) 1) 地下水環境基準値を測定項目下欄に示す。 2) N.D.は不検出であることを示す。 3) 環境基準値または指針値を超えている検体値は太字(太枠)で示す。 4) 表右の「▲(数字)」は、地下水環境基準達成状況図中の「▲(数字)」に対応している。

5) 1, 2-ジクロロエチレンについては、平成21年11月からシス体、トランス体を合わせて一つの環境基準項目とされたが、平成22年度は準備期間であるため、暫定的に、シス体についても環境基準値(0.04mg/L)で達成状況を評価する。

## 地下水の水質測定項目について

<b>環境基準項目</b>	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、砒素、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>	

<b>要監視項目</b>	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、オキシシン銅、クロロタロニル、プロピザミド、EPN、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>	