

## Results of Research

*The following data were received in the course of performed research:*

1. Results of GDV measurements.
2. Decision of laboratory of Hemmology of Geological Faculty of St. Petersburg State University on the identification and basic physical properties of minerals (1,5 pages, hard copy).
3. Research of chemical contents of samples of distilled water before and after applying minerals.
4. Research by the method of registration of ultra-weak photons stimulating the water with iron salts.

### *Influence of time interval of keeping the stones in the water on their gas-discharge fluorescence picture*

The minerals were placed into water and samples of water being influenced by the minerals were taken. Thus, change in GDV dynamics was found to be different for various types of water.

For distilled water [7\_01] increase of glow area by 20-30 pixels relative to the control sample was found in 1 hour after placing the stones into water. Glow area of distillate drops characteristic for this time interval was kept practically unchanged both in 4 and in 8 hours after placing the stones into water. Form coefficient for averaged GDV-grams [7\_03] did not change, as compared to the control.

Increase of glow area of drops within the first 7 hours of keeping in the water was observed for waters «Evian» [4\_02] and «Holy spring» [5\_01]. Moreover, straightening of trend lines of dynamic curves (smoothing of «Energy hole») was found. For water «Oxi» [4\_03] only change of character of trend of the dynamic curve was demonstrated.

Thus, in order to receive maximal effect, the stones should be kept in the water for not less than 7 hours, as indicated by the obtained data.

### *Change of mineral contents of water under the influence of minerals*

Analysis of chemical contents of distilled water was made before and after placing the minerals within 12 hours.

The research demonstrated that minerals brought in admixtures, however only in track quantity. Neither significant mineralization of water, nor significant change of conductivity of water was found. As shown in (Korotkov 2002), change of conductivity within such limits does not cause significant change of glow parameters. **This fact indicates that minerals mainly influence structural, but not chemical properties of water.**



Dr. Korotkov  
GDV Technique  
Saint Petersburg, Russia

**Ministry of Health of Russian Federation**  
**State Department of sanitary-and-epidemiologic control of Russia**  


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**City center of State sanitary-and-epidemiologic control of St. Petersburg**  
**Laboratory of research of environmental factors (LREF)**

**Accreditation certificate NГCЭЛ.RU.ЦОА.009 dating 17.12.1997.**  
**Registered in public register N ПОСС.RU.0001.510151 dating 17.12.1997.**

**Protocol N 250 dating 15.08.2002.**  
**On Results of investigation of water samples (reg. N 873-874).**

Client: Priyatkin N.S.

The sample is selected and brought to the laboratory by the client on 12.08.2002.

Research results are presented in table:

| N  | Name of index         | Units                 | Contents |         | ND                    |
|----|-----------------------|-----------------------|----------|---------|-----------------------|
|    |                       |                       | 1        | 2       |                       |
| 1  | pH                    | Unit pH               | 5,63     | 6,6     | ИСО 10523             |
| 2  | Chlorides             | mg/dm <sup>3</sup>    | 2,7      | 2,5     | ГОСТ 4245-72          |
| 3  | Sulphates             | mg/dm <sup>3</sup>    | 4,1      | 4,4     | ГОСТ 4389-72          |
| 4  | Hardness              | mgeqv/dm <sup>3</sup> | 0,05     | 0,05    | ГОСТ-4151-72          |
| 5  | Fluorine              | mg/dm <sup>3</sup>    | <0,02    | 0,03    | ГОСТ-4386-89          |
| 6  | Potassium             | mg/dm <sup>3</sup>    | <0,01    | 0,268   | ГОСТ Р 51309          |
| 7  | Sodium                | mg/dm <sup>3</sup>    | 0,353    | 0,508   | ГОСТ Р 51309          |
| 8  | Mineralization        | mg/dm <sup>3</sup>    | 15,8     | 25,5    | ГОСТ 18164-72         |
| 9  | Electric Conductivity | cm/m                  | 0,00052  | 0,00065 | ГОСТ 6709-72          |
| 10 | Hydrocarbonates       | mg/dm <sup>3</sup>    | 15,2     | 18,3    | ПНД Ф<br>14.1:2.99-97 |

Manager of laboratory of REF

G.N. Dyakova

Doctor in sanitary-hygienic research of LREF

M.A. Andreeva

***Dependence of GDV glow on the type of water***

Research on the influence of minerals on the six samples of water: distilled water, water "Oxi", "Evian", and "Holy spring", and two samples from Colorado, was carried out.

The samples were arranged by absolute value of glow as follows:

Distilled water was characterized by minimal glow area (90-110 pixels) [7\_01],  
 Blue bottle from Colorado (160-180 pxl) [8\_02],  
 White bottle from Colorado (200-220 pxl) [8\_01],  
 «Holy spring» (200-260 pxl) [5\_01; 6\_01],  
 «Evian» (240-290 pxl) [4\_02; 3\_01],  
 «Oxi-water» (300-350 pxl) [3\_02; 4\_03].

At the same time, the order of samples was different by relative effect as compared with the initial level of glow (as the effect decreased):

White bottle from Colorado;  
“Evian” water;  
Blue bottle from Colorado;  
“Oxi” water;  
“Holy spring” water, and distillate.

It is worth mentioning that “Holy spring” demonstrated high photon activity, but relatively weak reaction to the application of stones. This is probably connected with the fact that this water has such high activity that it is difficult to increase it. However, even in this case positive effect of applying stones was observed.

Two main effects of influence of stones on water were registered depending on the type of water for all variants:

- 1) Increase of glow area.
- 2) Change of trend line of dynamic curves.

No decrease of glow area lower than the level of glow of control water without minerals was observed in either case.

Various pictures of dynamic GDV for each type of water were demonstrated. Particularly, the increase of glow area was insignificant for “oxi” water. However, the change of trend line both within the process of charging “oxi” water under the influence of stones [4\_03] and under durable action of influence of minerals [3\_05] was found.

### *Change of GDV glow of stones depending on the moment of removal from water*

Changes in GDV glow of water drops after removing the minerals were different for various types of water.

For “Evian” water the following process was observed: maximal effect of increase of area was registered in 1.5 hour after removing the stones, in 4-5 hours this effect practically disappeared, and in 9.5 hours the investigated water sample did not differ from the control sample [3\_01].

For “Holy spring” water, glow area increased by 20-40 units in the first second, right after and in 8 hours after removing the stones. Increase of glow area was demonstrated for the whole period of taking GDV-grams [6\_01]. Thus, changes of GDV glow of “Holy spring” water in dynamics after the influence of stones had periodical and, on the whole, longer character as compared to “Evian” water.

Influence of stones on “Oxi” water did not show increase of glow area of the latter. Change of the trend line of dynamic curves, taking oscillatory character [3\_05], was observed for 40% repeatability while investigating prolongation of the effect of influence of minerals on “Oxi” water.

Data on entropy and fractality of the phase space of dynamic curves are represented in [3\_03; 6\_01].

For "Evian" water maximal value of entropy was observed within 1.5 hour after removing the minerals from water. In 4 hours parameters of entropy and fractality did not significantly differ from control samples.

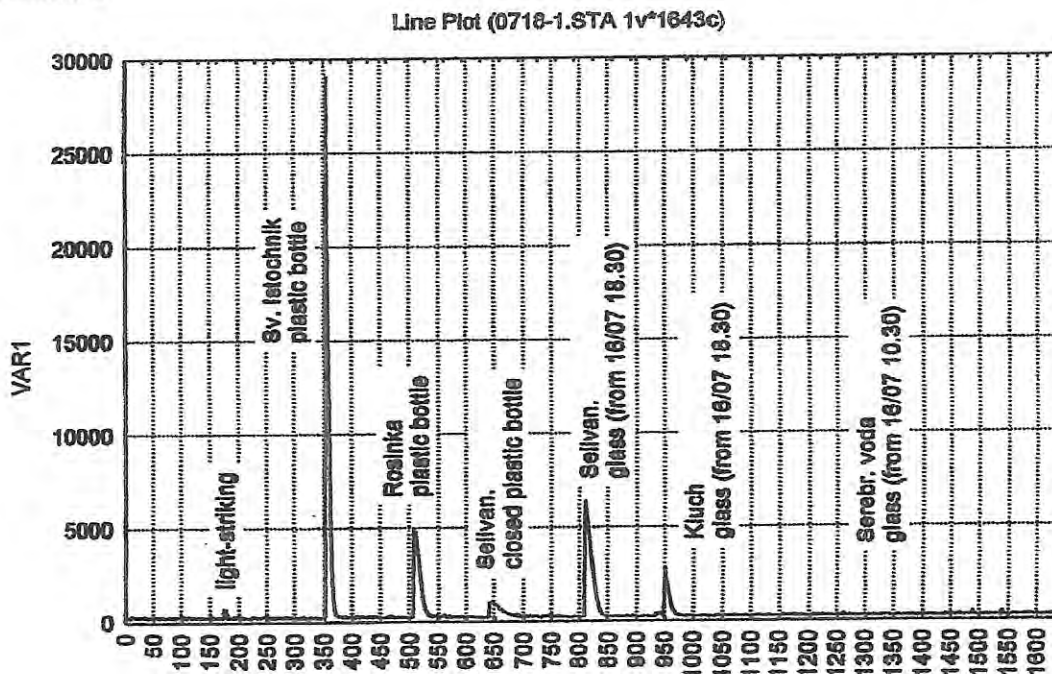
The same regularity was observed for "Oxi" water [3\_03].

For "Holy spring" water another dynamics of change of entropy and fractality of the phase space of dynamic curves of glow area was observed [6\_01]. In 1 and 4 hours after removing the minerals from the water reliable decrease of entropy and increase of fractality of the phase space relative to the values received for the control sample of waters was registered.

The effect of increase of glow area of drops of "Evian" water was demonstrated with the stones of previous experiment used second time. However this effect was less pronounced as compared to the primary application of minerals. What is more, the increase of glow area was observed not in 1-1.5 hour, but in 5 hours [2\_01]. For "Oxi" water no increase of area was found [2\_02].

### Investigation of water with stones by the method of registration of ultra-weak photons, stimulating water with iron salts.

Research was carried out by Prof. V.L. Voeikov from Moscow State University by the method of registration of ultra-weak photons using photomultiplier with the stimulation of glow by iron salts (Voeikov et al.). Results of testing various samples of water are shown in fig. 2. Intensity of photon emission is represented on abscissa axis, time from the moment of start of measurements – on ordinate axis. As shown in the figure, the samples strongly differ in the character of photon emission.



As demonstrated by the given figures, addition of minerals brought to the increase of photon emission in all cases. This effect depended on the initial water, but in all cases amounted to not less than 100-150%.