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## Results of Year Long Study of Fairbanks Water Released

The results of a year-long study of arsenic in the water supplies of in private homes in the Fairbanks area, conducted by the Environmental Protection Agency, the Center for Disease Control, and the state departments of Environmental Conservation and Health and Social Services, were released at a meeting in Juneau on August 23. The central recommendation issuing from the study is that all Fairbanks residents who obtain their water from private wells should contact the Alaska Department of Environmental Conservation to have their water tested; and if the test reveals a concentration of arsenic greater than 50 parts per billion (ppb), then that water should neither be consumed nor used in cooking. Serious long-term effects could result from the continued drinking of water with excessively high levels of arsenic.

Sixty families were studied by the federal and state agencies, and biological samples from these families were analyzed by the Stewart laboratories in Knoxville, Tennessee. The central findings are that 1) the population investigated has a documented exposure to abnormally high levels of arsenic in drinking water; 2) biological data from the population studied document increased arsenic levels, indicating absorption of increased amounts of arsenic by the body; 3) biological data indicate that accumulation of arsenic in body tissues is greatly increased in those consuming water with arsenic in amounts greater than 100 micrograms per liter; and 4) after very thorough examination and observation, no obvious clinical abnormalities have been discovered in the population under study.

Dr. John Middaugh, Epidemiologist for the National Center for Disease Control, who supervised the study discussed these conclusions in detail. At the moment, there is no cause for alarm, but the situation is serious and calls for action by Fairbanks residents. Dr. Middaugh emphasized that no evidence of disease attributable to arsenic was discovered in the families studied; however, this is not a cause for complacency. The people studied have not been exposed to arsenic for extensive periods of time, and long-term exposure could be harmful. Arsenic is a proven carcinogen (cancer-causing agent), but it has a latent factor of 10 to 40 years. This means that although a person may not at present demonstrate any harmful effects of drinking water with high levels of arsenic, if the practice is continued, the person could become very ill in the future. Arsenic can be deadly when it is concentrated in body tissue, which could result from continued ingestion.

Residents of Fairbanks should also be aware of preliminary findings by the Coast and Geodetic Survey, studying the occurrence of arsenic in water. Two central findings so far are that the arsenic does not necessarily occur in water at any particular depth in the earth; and in studying adjacent homes, it was found that there may be arsenic in the water of one well and not in the one next door.

The complete report is being published and will be available soon. In the meantime, you are urged to have your water tested!