

Paper Number: 1491

## **The Jinami by 2011 Tohoku earthquake occurred Remobilization of Diphenylarsinic acid pollution at a site in Kamisu City, Japan**

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Japan has a limited amount of readily developable land. Therefore sites tend to be used and reused fairly frequently, with alternating phases of excavation and deposition. Deposition creates man-made (anthropogenic) strata (MMS) which are often associated with geopollution and stability problems. The Great East Japan earthquake of 11<sup>th</sup> March 2011, with an epicenter off the coast of Tohoku, caused widespread damage due to ground waves (known in Japan as Jinami[1]) and associated liquefaction-fluidization of MMS. Kamisu City, Ibaraki Prefecture, East Kanto Region, was significantly affected. The City had a number of former gravel extraction sites that, after extraction, had been backfilled for new uses. It was revealed on March 20th, 2003, that drinking water from a well used by occupants of collective housing at Kizaki, Kamisu City, close to a former gravel pit, was contaminated by arsenic. The concentration in the water was 450 times greater than that of the upper limit of the drinking water standard (0.01mg/l). Some citizens had used this water suffered health damage including cranial nerve disorders or mobility disorders[2][3]. The site was severely disturbed by the 2011 earthquake during which the contaminant was mobilized by liquefaction-fluidization processes and extruded with sand onto the land surface. This paper reviews the history of the site and reports results of observations and analyses.

### ***References :***

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