Chrey is located in the district of Kampong Trabaek. The population of this commune is approximately 5729 (2004). Groundwater sample collection occurred in June 2007 and consisted of the sampling of 20 tube wells throughout the commune. The attached figure presents the location of Chrey within Prey Veng as well as groundwater sample locations and exceedances of health-impacting contaminants (when applicable).

**Groundwater Quality Rating**

The groundwater quality rating for Chrey is 94A. Therefore, the general safety of deep aquifer groundwater is excellent and the aesthetic quality of the water is excellent, according to the contaminants measured and samples collected. The following two sections describe all major health and aesthetic contaminants that exceeded drinking water standards in at least one sample within the commune.

**Contaminants of Potential Concern – Health**

Arsenic - Elevated concentrations of Arsenic were observed within the commune. The estimated probability of encountering unacceptable concentrations of Arsenic (>50 ppb) in tube wells is 1%, based on the observed data. Long-term (5 to 10 year) exposure to elevated concentrations of Arsenic can cause arsenicosis (debilitating skin disease), increased risks of contracting cancer, as well as other negative health impacts.

Fluoride - Elevated concentrations of Fluoride were observed within the commune. The estimated probability of encountering unacceptable concentrations of Fluoride (>1.5 mg/L) in tube wells is 2%, based on the observed data. At concentrations greater than 1.5 mg/L, Fluoride can cause dental fluorosis and at concentrations greater than 4 mg/L, skeletal fluorosis can occur.

**Contaminants of Potential Concern – Aesthetic**

Turbidity - Elevated levels of Turbidity were observed within the commune. The estimated probability of encountering potentially unacceptable levels of Turbidity (>20 ntu) in tube wells is 7%, based on the observed data. Turbid or cloudy water appears unpleasant to the eye and is more likely have an unpleasant taste or odor. Turbidity can be reduced by filtration.
Tube Well Sample Locations and Health-Based Exceedances

Chrey - Kampong Trabaek - Prey Veng - Cambodia

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Locations exceeding the Cambodian water quality standards for major health-impacting contaminants have been color-coded and arranged such that they do not overlap.