

Development Of An Integrated Environmental Control System For Identification And Evaluation Of Surface And Groundwater Contamination.

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An integrated environmental control system was developed for monitoring and modeling of surface and ground water contamination. The main objectives of this Integrated environmental control system (IECS) is to provide standard possible reasons for contamination due to physicochemical and hydro-chemical changes and to determine their impact on surface and groundwater, and on surrounding biophysical resources. IECS would be able to identify and analyze major environmental impacts in terms of magnitude, direction, duration, location, and also provide preventive measures to minimize these impacts. Concisely this system comprises of collection of data, productive and reliable water analysis, prediction of hazardous impacts, reasons for contamination, evaluation of preventives and framing of recommendations.

Water quality analysis module (Envision) was formulated after consulting environmental quality standards of different developed and developing countries including WHO, and can be utilized in any country. This system is very useful for universities, environmental research institutes and water resources management organizations. IECS would contribute constructively in petroleum industry at exploration and production locations for evaluation of groundwater contamination and its related health hazards, and thus useful for improvement in safety regulation and policies.