

Course title:		Course no: 5.8	
Water Quality Testing in the Field using basic field kits - first draft		Date drafted: 16 August 2014	
Training purpose	<p>To train field technical staff on how to plan for field water testing including sampling, analysis, calculation of results and reporting of water quality testing using basic field equipment. This course will also be a follow up course on previously held Hydrochemistry course where the practical field tests were only demonstrated, not practiced.</p> <p>Also very important is to inform participants of the validities of the different analytical techniques using field kits, how to interpret results, apply best possible quality control for the results to be used, and expected precisions for typical field equipment.</p>		
Target group	Field staff, hydrogeologists, water engineers , environmental engineers, laboratory operators,	Participants from public and private sector laboratories	
Course details:	Course language(s) English / Dari		
	Duration (days); 3.5 Days	No. participants/ course: 12- 15	Theoretical / practical in water lab at MRRD
	Planned course location(s) Kabul /MRRD	Responsible presenter Dr. Stoveland / ProfEqar/Abrar Fredric Patigny / Jawid	Hand-outs to be prepared by: Presenters
Summary syllabus	<p>CONTENT</p> <ul style="list-style-type: none"> To make participants aware why test the water in the field is important what type of information is required for the different sectors such as hydrogeology, assessment of drinking water sources, and pollution control. Sampling: Procedures and challenges- practical work, Analysis of samples- using field kits. Practical tutorial analysing for Nitrate, phosphate, fluoride, arsenic, alkalinity, pH, Electric conductivity , bacteriological analysis using field incubators. Calculation of results , expression of result, (molar, ppm, meq/l, mg/l,) Interpretation of data. What does the results mean? Hydrogeologist?, /water engineer/ Sanitary engineer /environmentalist? How to present report? (what information should be included?) 		
Training equipment required	Field kits for water analysis, possibly alkalinity, nitrate, phosphate, Access to laboratory Distilled water, fresh reagents, test samples/ stock solutions.		
Training material	To be circulated. Field kit manuals available,		
Field/practical training.	Working in Laboratory, Protective glasses and gloves to be used.		
Time/Location	18 th September 2014 , 3,5 days duration, Laboratory in MRRD, RuWatSIP and theoretical training in RuWatSIP conference room, MRRD		
Prepared by	Prepared by: Dr. Stoveland/		