

Supplementary Information

Onsite arsenic detection with a low cost portable microvolume kit

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Table S1 — Evaluation of the performance of a portable micro-volume kit (sponge) in relation to temperature and time.

(A) From February to May				(B) From May to August			
Temp (°C)	February - May			Temp (°C)	May-August		
	Response Yes/No				Response Yes/No		
	10 ppb	50 ppb	100 ppb		10 ppb	50 ppb	100 ppb
10	Yes	Yes	Yes	10	Yes	Yes	Yes
15	Yes	Yes	Yes	15	Yes	Yes	Yes
20	Yes	Yes	Yes	20	Yes	Yes	Yes
25	Yes	Yes	Yes	25	Yes	Yes	Yes
30	Yes	Yes	Yes	30	Yes	Yes	Yes
35	Yes	Yes	Yes	35	No	Yes	Yes
40	Yes	Yes	Yes	40	No	No	No
45	No	No	No	45	No	No	No
50	No	No	No	50	No	No	No
	Response at (40°C)-After				Response at (35°C)-After		
1_Month	Yes	Yes	Yes	1_Month	Yes	Yes	Yes
2_Month	Yes	Yes	Yes	2_Month	Yes	Yes	Yes
3_Month	Yes	Yes	Yes	3_Month	No	No	Yes
4_Month	No	No	No	4_Month	No	No	No

(C) From August to November				(D) From November - February			
Temp (°C)	May- November			Temp (°C)	November - February		
	Response Yes/No				Response Yes/No		
	10 ppb	50 ppb	100 ppb		10 ppb	50 ppb	100 ppb
10	Yes	Yes	Yes	10	Yes	Yes	Yes
15	Yes	Yes	Yes	15	Yes	Yes	Yes
20	Yes	Yes	Yes	20	Yes	Yes	Yes
25	Yes	Yes	Yes	25	Yes	Yes	Yes
30	Yes	Yes	Yes	30	Yes	Yes	Yes
35	Yes	Yes	Yes	35	Yes	Yes	Yes
40	Yes	Yes	Yes	40	Yes	Yes	Yes
45	No	No	No	45	No	No	No
50	No	No	No	50	No	No	No
	Response at (40°C)-After				Response at (40°C)-After		
1_Month	Yes	Yes	Yes	1_Month	Yes	Yes	Yes
2_Month	Yes	Yes	Yes	2_Month	Yes	Yes	Yes
3_Month	Yes	Yes	Yes	3_Month	Yes	Yes	Yes
4_Month	Yes	Yes	Yes	4_Month	Yes	Yes	Yes

P- μ V Kit	Table S2 — Evaluation of the performance of a portable micro-volume kit (sponge) in field samples.											
	Response											
	Sample 1 (ppb)			Sample 2 (ppb)			Sample 3 (ppb)			Sample 4 (ppb)		
	10	50	100	10	50	100	10	50	100	10	50	100
0 month	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
1 month	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2 month	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3 month	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4 month	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes