Table S1: Primer sequences used for detection of bacterial 16S rRNA gene, arsenite resistance and oxidizing genes, and corresponding annealing temperature used for PCR

Target gene	Primers	Sequences (5′→ 3′)	Amplicon size (bp)	Annealing T (^{0}C)	Reference
16S rRNA	27F	5’AGAGTTTGATCCTGGCTCAG-3’	~1400-1450	55	Lane *et al.,* 1991
	1492R	5’-GGTTACCTTGTTACGACTT-3’			
*aio*A	AOX-F-A2	5’TGC ATC GTC GGC TGY GGN TAY3’	670	57	Sultana *et al.,* 2012
	AOX-R-E2	TTC GGA GTT ATA GGC CGG NCK RTT RTG			
	aoxBM1-2F	5’CACTTCTGCATCGTGGGNTGYGGNTA-3’	1100	52	QUEMENEUR ET AL.,2008
	aoxBM3-2R	5’-TGTCGTTGCCCCAGATGADNCCYTTYTC-3’			
arsB	darsB1F	5’GGTGTGGAACATCGTCTGGAAYGCNAC-3’	750	55	Achour *et a,l.,* 2007
	darsB1R	5’CAGGCCGTACACCACCAGRTACATNCC-3’			
*acr*3P(1)	dacr1F	5’GCCATCGGCCTGATCGTNATGATGTAYCC3’	750	55	Achour *et a.l.,* 2007
	dacr1R	5’CGGCGATGGCCAGCTCYAAYTTYTT 3’			
Topo TA	T3	5' ATTAACCCTCACTAAAG 3'	Varies	48	
	T7	5' AATACGACTCACTATAG 3'			

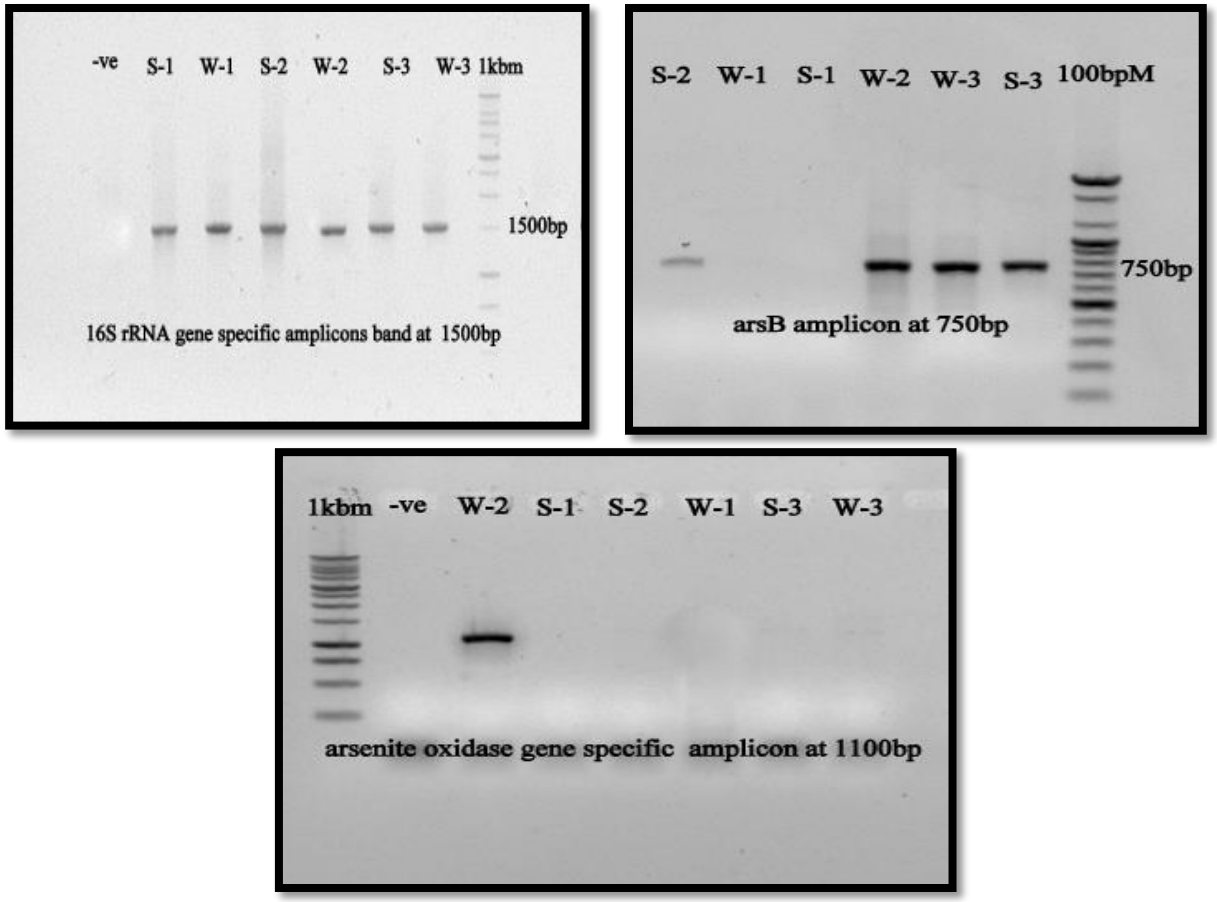


Figure S1:PCR specific amplicon of 16S rRNA (a), arsenite resistance gene *ars*B (b) and arsenite oxidizing gene *aox*B (c)of soil total DNA.

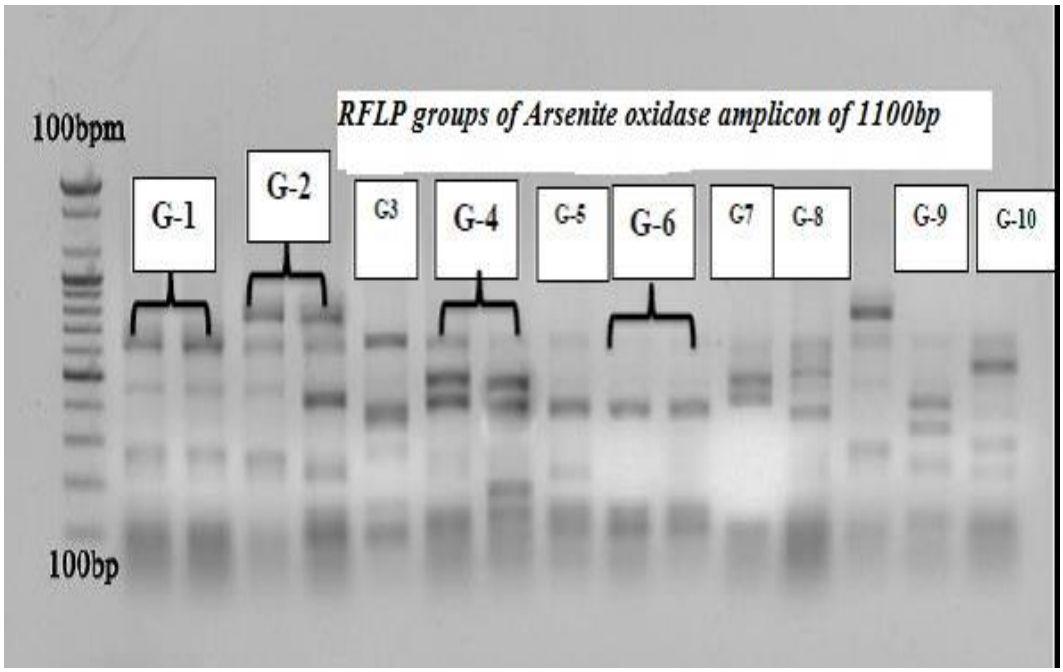


Figure S2: RFLP groups using *Alu*I restriction digestion of *aio*A gene containing clones.

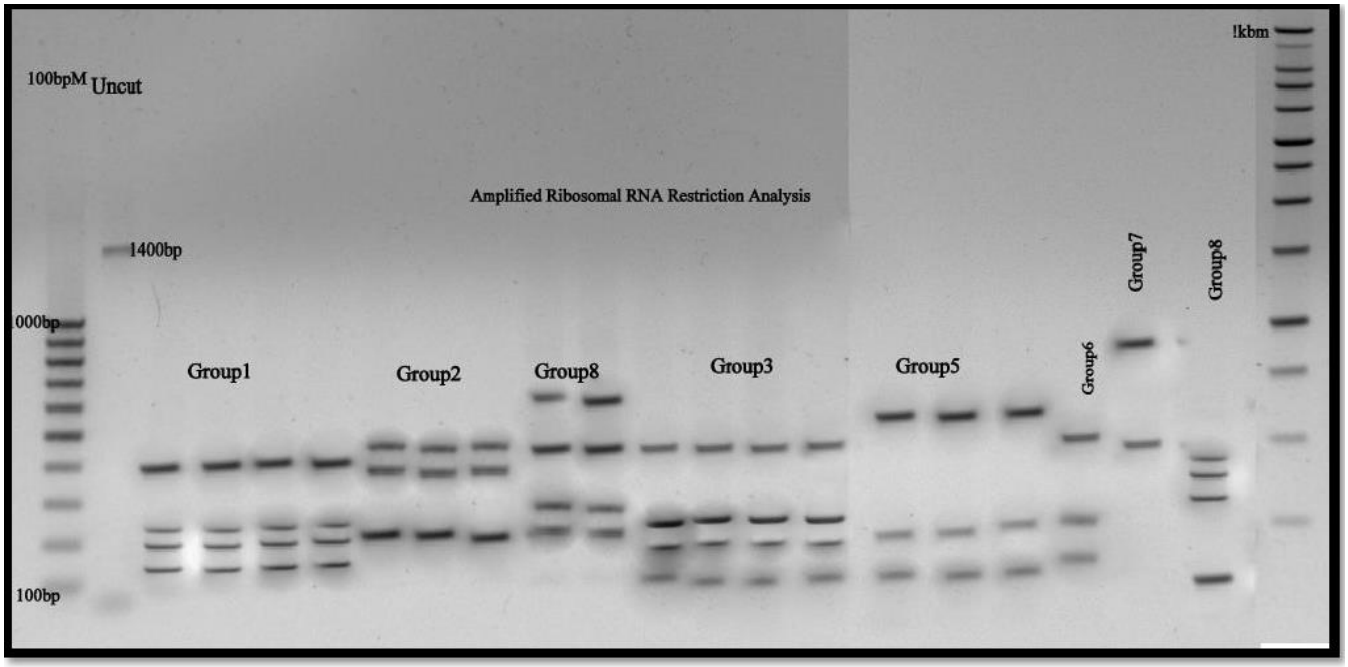


Fig. S3: Different fragments obtained from *Alu*1enzyme digestion of the 16S rRNA gene PCR product (approx. 1400-1450 bp) of arsenite resistant isolates. Representative groups are shown here. Uncut experimental DNA incubated under same condition was used as control. Marker used was 1 kb and 100 bp

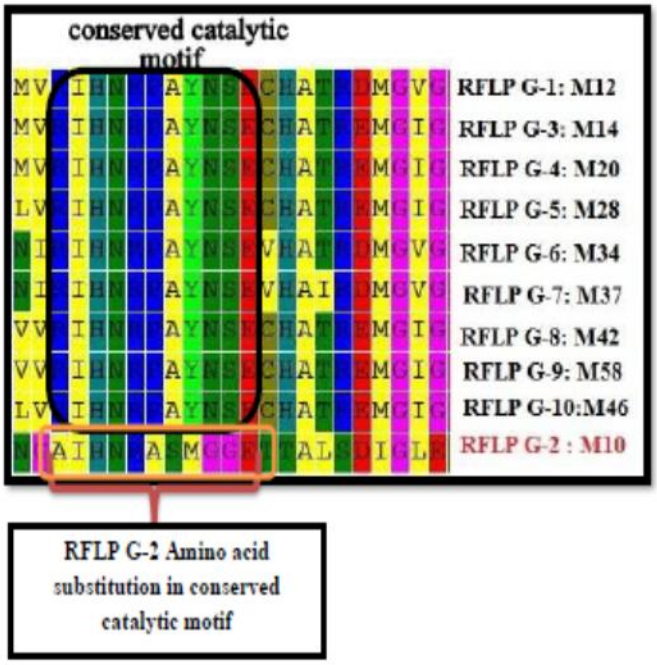
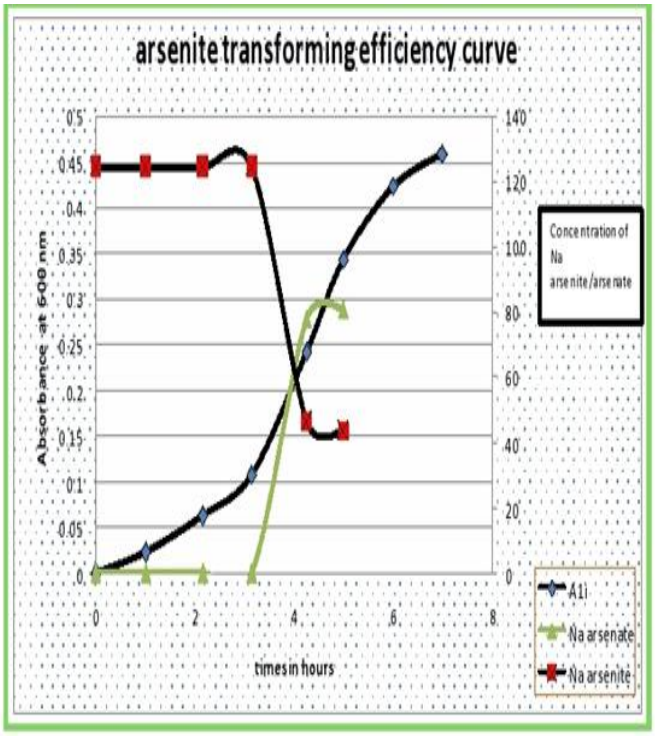


Fig.S4: Amino acid sequence alignment (MEGA 5) of ten RFLP groups representative cloned arsenite oxidase genes from WFDSL-2 soil sample showing conserved catalytic motif.



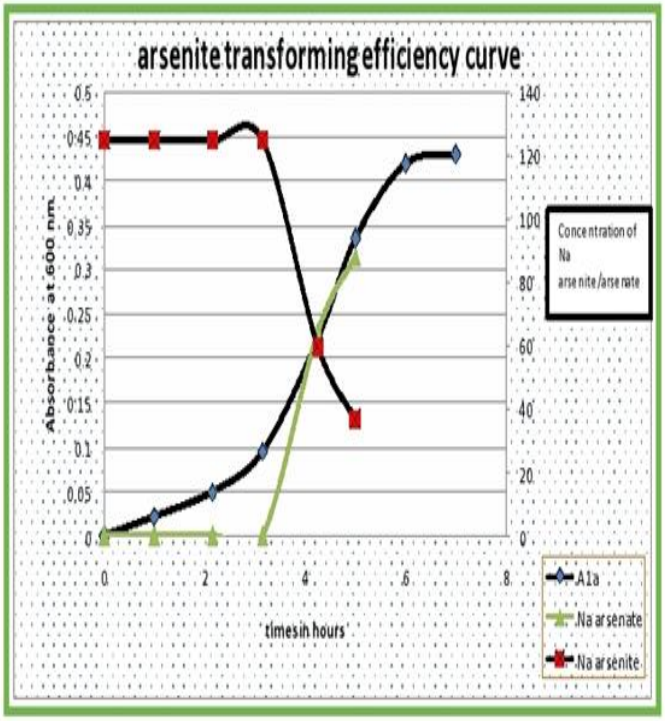


Fig. S5: Growth kinetics and corresponding oxidation of arsenite, As (III) to arsenate, As (V) by isolate (a) A1a (b) A1i