

**Table B.7**  
**Extreme Studentized Deviate Outlier Test**  
**Arsenic Concentrations Detected in All Soils**  
**Camp Stanley Storage Activity, Texas**

Sample ID	Concentration mg/kg	Concentration ln mg/kg	Flag	Soil type	Tsi
BKGR-SS29	4.4	1.48	U	BtE	
BKGR-SS30	4.4	1.48	U	BtE	
BKGR-SS19	4.6	1.53	U	BtE	
BKGR-SS28	4.6	1.53	U	BtE	
BKGR-SS21	4.8	1.57	U	BtE	
BKGR-SS24	4.8	1.57	U	Kr	
BKGR-SS27	4.8	1.57	U	BtE	
BKGR-SS34	4.8	1.57	U	Cb	
BKGR-SS20	5	1.61	U	Cb	
BKGR-SS32	5	1.61	U	BtE	
BKGR-SS33	5	1.61	U	Cb	
BKGR-SS35	5	1.61	U	Cb	
BKGR-SS23	5.2	1.65	U	Kr	
BKGR-SS31	5.2	1.65	U	Kr	
BKGR-SS25	5.4	1.69	U	Kr	
BKGR-SS8	11	2.40	U	BtE	
BKGR-SS7	12	2.48	U	BtE	
BKGR-SS4	26	3.26	U	Kr	
All Nondetects Were Not Included in the Arsenic Outlier Tests					
BKGR-SS67	2.12	0.75	M	LvB	2.01
BKGR-SS26	2.6	0.96	D	BtE	1.64
BKGR-SS54	2.64	0.97	M	Tf	1.61
BKGR-SS22	2.7	0.99	D	Kr	1.57
BKGR-SS11	3	1.10	D	Kr	1.38
BKGR-SS70	3.2	1.16	M	LvB	1.26
BKGR-SS42	3.79	1.33	M	BrE	0.96
BKGR-SS68	3.8	1.34	M	LvB	0.96
BKGR-SS69	3.87	1.35	M	LvB	0.92
BKGR-SS17	4	1.39	D	Cb	0.86
BKGR-SS12	4.3	1.46	D	Kr	0.73
BKGR-SS14	4.3	1.46	D	Kr	0.73
BKGR-SS66	4.31	1.46	M	LvB	0.73
BKGR-SS47	4.36	1.47	M	TaC	0.71
BKGR-SS13	4.4	1.48	D	Cb	0.69
BKGR-SS18	4.6	1.53	D	Kr	0.61
BKGR-SS10	4.7	1.55	D	TaC	0.57
BKGR-SS53	4.71	1.55	M	TaC	0.57
BKGR-SS80	4.88	1.59	M	TaE	0.51
BKGR-SS43	4.98	1.61	M	BrE	0.47
BKGR-SS58	5.05	1.62	M	Tf	0.44
BKGR-SS16	5.3	1.67	D	Cb	0.36
BKGR-SS55	5.35	1.68	M	Tf	0.34
BKGR-SS36	5.38	1.68	M	BrE	0.33

Sample ID	Concentration mg/kg	Concentration ln mg/kg	Flag	Soil type	Tsi
BKGR-SS50	5.38	1.68	M	TaC	0.33
BKGR-SS44	5.39	1.68	M	BrE	0.33
BKGR-SS15	5.66	1.73	M	Cb	0.24
BKGR-SS79	5.73	1.75	M	TaE	0.22
BKGR-SS51	5.74	1.75	M	TaC	0.21
BKGR-SS64	5.89	1.77	M	LvB	0.17
BKGR-SS56	6.18	1.82	M	Tf	0.08
BKGR-SS49	6.2	1.82	M	TaC	0.07
BKGR-SS72	6.26	1.83	M	TaE	0.06
BKGR-SS59	6.6	1.89	M	Tf	0.04
BKGR-SS61	6.84	1.92	M	Tf	0.10
BKGR-SS65	6.84	1.92	M	LvB	0.10
BKGR-SS62	6.88	1.93	M	Tf	0.11
BKGR-SS40	6.95	1.94	M	BrE	0.13
BKGR-SS38	7	1.95	M	BrE	0.14
BKGR-SS75	7.08	1.96	M	TaE	0.16
BKGR-SS46	7.13	1.96	J	TaC	0.18
BKGR-SS57	7.14	1.97	M	Tf	0.18
BKGR-SS63	7.15	1.97	M	LvB	0.18
BKGR-SS78	7.47	2.01	M	TaE	0.26
BKGR-SS74	7.8	2.05	M	TaE	0.34
BKGR-SS76	9.53	2.25	M	TaE	0.70
BKGR-SS73	9.88	2.29	M	TaE	0.76
BKGR-SS48	9.89	2.29	M	TaC	0.77
BKGR-SS41	9.96	2.30	M	BrE	0.78
BKGR-SS71	10.04	2.31	M	LvB	0.79
BKGR-SS77	11.12	2.41	M	TaE	0.98
BKGR-SS45	11.17	2.41	M	TaC	0.98
BKGR-SS37	11.63	2.45	M	BrE	1.06
BKGR-SS52	12.56	2.53	M	TaC	1.20
BKGR-SS6	15.8	2.76	D	LvB	1.61
BKGR-SS3	20	3.00	D	TaE	2.03
BKGR-SS5	20	3.00	D	Cb	2.03
BKGR-SS1	21	3.04	D	BrE	2.12
BKGR-SS9	25	3.22	D	Tf	2.43
BKGR-SS2	26	3.26	D	Cb	2.50
mean	1.87				
standard deviation	0.56				
sample size	60				

Notes:

Box plots identified the two greatest values were outliers.

$$T_s = \max[(x_i - \text{mean})/s; i=1,2,\dots,n]$$

critical value = 3.25, critical values from Rosner's generalized ESD many outlier procedure  $\alpha=0.05$  (test of two outliers).

Decision Rule: If  $T_s >$  than  $T_{\text{crit}}$  then the observation is an outlier