

APPENDIX F

**SUMMARY STATISTICS FOR BACKGROUND MEDIA,
FORT McCLELLAN, ALABAMA**

**Table 4-12. Summary Statistics for Surface Soil (0 -1 BLS)
Fort McClellan, Alabama**

Run Time: 8:18:07 AM															
Run Date: 7/10/98															
Exposure Unit: SS															
Parameter	Units	Total Number of Samples	Total Number of Detects	Frequency of Detection	NonDetects		Detects		Arithmetic Mean ^a	Standard Deviation ^a	Distribution ^b	95% UCL of Arith. Mean ^a	Exposure Point Concentration ^c	2x Arithmetic Mean ^a	
					Min CRL	Max CRL	Minimum	Maximum							
Aluminum	ug/g	70	70	100%	--	--	2,400	39,900	8,153.00	6,095	Lognormal	11,187	11,187		16,306
Antimony	ug/g	69	47	68%	0.082	7.1	0.11	2.6	0.99	1.3	Lognormal	3.4	2.6	#	1.99
Arsenic	ug/g	66	66	100%	--	--	0.82	49	6.86	8.0	Lognormal	13	13		13.73
Barium	ug/g	70	70	100%	--	--	11	288	61.97	54	Lognormal	99	99		123.94
Beryllium	ug/g	54	54	100%	--	--	0.062	0.87	0.40	0.22	Lognormal	0.61	0.61		0.80
Cadmium	ug/g	70	45	64%	0.016	1.2	0.024	0.21	0.14	0.16	Lognormal	0.36	0.21	#	0.29
Calcium	ug/g	70	66	94%	75	100	63	17,900	861.37	2,265	Lognormal	1,942	1,942		1,723
Chromium	ug/g	70	70	100%	--	--	2.0	134	18.52	20	Lognormal	31	31		37.04
Cobalt	ug/g	70	68	97%	1.4	1.4	0.39	71	7.57	12	Lognormal	18	18		15.15
Copper	ug/g	70	69	99%	0.50	0.50	1.3	24	6.36	4.4	Lognormal	11	11		12.71
Iron	ug/g	70	70	100%	--	--	2,510	56,300	17,076.86	11,577	Lognormal	27,000	27,000		34,154
Lead	ug/g	70	70	100%	--	--	2.9	83	20.02	15	Lognormal	33	33		40.05
Magnesium	ug/g	70	70	100%	--	--	60	9,600	516.49	1,266	Lognormal	768	768		1,033
Manganese	ug/g	70	70	100%	--	--	8.0	6,850	789.46	1,192	Lognormal	3,183	3,183		1,579
Mercury	ug/g	70	23	33%	0.023	0.050	0.031	0.32	0.04	0.046	Lognormal	0.058	0.058		0.08
Nickel	ug/g	70	56	80%	1.6	2.3	1.8	22	5.17	4.2	Lognormal	9.7	9.7		10.33
Potassium	ug/g	70	60	86%	82	116	104	6,010	399.88	946	Lognormal	607	607		799.76
Selenium	ug/g	70	1	1%	0.25	0.58	1.3	1.3	0.24	0.14	Lognormal	0.29	0.29		0.48
Silver	ug/g	70	42	60%	0.016	0.80	0.019	1.9	0.18	0.34	Lognormal	0.70	0.70		0.36
Sodium	ug/g	70	66	94%	39	39	76	563	317.14	98	Lognormal	562	562		634.28
Thallium	ug/g	68	55	81%	6.6	6.6	0.015	34	1.71	5.9	Lognormal	12	12		3.43
Vanadium	ug/g	70	70	100%	--	--	4.7	158	29.42	26	Lognormal	48	48		58.84
Zinc	ug/g	70	64	91%	4.9	11	4.6	209	20.32	26	Lognormal	35	35		40.64

^aResults of duplicate analyses were averaged and nondetects were treated as one-half the detection limit in the calculation of the arithmetic mean, standard deviation, and 95% UCL.

^bFor the calculation of exposure point concentrations (EPCs):

If fewer than four samples are available, or the standard deviation of the data set is zero, the distribution is undetermined.

If the probability plot correlation coefficient of the untransformed data is > or = to the critical value, the distribution is normal.

In all other cases, the distribution assumed for the EPC calculation was lognormal.

^cThe exposure point concentration (EPC) is the 95% upper confidence (UCL) of the arithmetic mean, unless the 95% UCL exceeds the maximum detected value.

If the latter is true, the maximum detected value is substituted as the EPC (denoted by a "#" next to the EPC).

-- Parameter detected in all samples.

**Table 4-13. Summary Statistics for Subsurface Soil (>1-10 feet BLS)
Fort McClellan, Alabama**

Run Time: 8:18:07 AM															
Run Date: 7/10/98															
Exposure Unit: SD		Total	Total		NonDetects		Detects		Arithmetic	Standard			Exposure		
Parameter	Units	Number of Samples	Number of Detects	Frequency of Detection	Min CRL	Max CRL	Minimum	Maximum	Mean ^a	Deviation ^a	Distribution ^b	95% UCL of Arith. Mean ^a	Point Concentration ^c	2x Arithmetic Mean ^a	
Aluminum	ug/g	64	64	100%	--	--	1.690	24,600	6,795.47	3,552	Lognormal	9,068	9,068		13,591
Antimony	ug/g	63	46	73%	0.079	7.1	0.082	0.99	0.65	0.98	Lognormal	1.8	0.99	#	1.31
Arsenic	ug/g	64	61	95%	0.25	0.45	0.77	38	9.15	9.7	Lognormal	36	36		18.30
Barium	ug/g	64	64	100%	--	--	4.1	4,500	116.81	562	Lognormal	161	161		233.62
Beryllium	ug/g	59	57	97%	0.051	0.053	0.041	2.0	0.43	0.43	Lognormal	0.94	0.94		0.86
Cadmium	ug/g	64	35	55%	0.015	1.2	0.020	1.3	0.11	0.21	Lognormal	0.30	0.30		0.22
Calcium	ug/g	64	44	69%	57	200	67	3,650	318.58	606	Lognormal	772	772		637.17
Chromium	ug/g	64	64	100%	--	--	5.5	55	19.13	11	Lognormal	27	27		38.25
Cobalt	ug/g	64	60	94%	0.23	1.4	0.26	96	8.77	16	Lognormal	34	34		17.54
Copper	ug/g	64	64	100%	--	--	1.3	61	9.72	9.1	Lognormal	16	16		19.43
Iron	ug/g	64	64	100%	--	--	4,840	48,000	22,408.44	10,436	Normal	24,586	24,586		44,817
Lead	ug/g	64	64	100%	--	--	0.96	500	19.27	61	Lognormal	27	27		38.53
Magnesium	ug/g	64	60	94%	100	200	35	5,940	383.12	885	Lognormal	638	638		766.24
Manganese	ug/g	64	63	98%	4.1	4.1	7.3	19,000	677.67	2,417	Lognormal	3,864	3,864		1,355
Mercury	ug/g	64	31	48%	0.022	0.050	0.022	0.12	0.03	0.025	Lognormal	0.053	0.053		0.07
Nickel	ug/g	64	51	80%	1.6	2.2	2.2	38	6.45	7.8	Lognormal	13	13		12.89
Potassium	ug/g	64	52	81%	75	110	98	6,150	355.37	774	Lognormal	660	660		710.74
Selenium	ug/g	64	1	2%	0.25	0.58	0.55	0.55	0.24	0.060	Lognormal	0.27	0.27		0.47
Silver	ug/g	64	40	63%	0.016	1.2	0.021	0.66	0.12	0.15	Lognormal	0.47	0.47		0.24
Sodium	ug/g	64	63	98%	39	39	203	643	351.05	118	Lognormal	471	471		702.10
Thallium	ug/g	63	55	87%	0.0090	6.6	0.0090	24	0.70	3.0	Lognormal	2.0	2.0		1.40
Vanadium	ug/g	64	64	100%	--	--	8.7	99	32.45	20	Lognormal	47	47		64.89
Zinc	ug/g	64	50	78%	4.0	8.0	5.6	89	17.43	17	Lognormal	39	39		34.86

^aResults of duplicate analyses were averaged and nondetects were treated as one-half the detection limit in the calculation of the arithmetic mean, standard deviation, and 95% UCL.

^bFor the calculation of exposure point concentrations (EPCs):

If fewer than four samples are available, or the standard deviation of the data set is zero, the distribution is undetermined.

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^cThe exposure point concentration (EPC) is the 95% upper confidence (UCL) of the arithmetic mean, unless the 95% UCL exceeds the maximum detected value.

If the latter is true, the maximum detected value is substituted as the EPC (denoted by a "N" next to the EPC).

-- Parameter detected in all samples.