Technical Report

Remediation Assessment

Fansteel, Inc.
Muskogee, Oklahoma

Volume 4 of 4

Earth Sciences Consultants, Inc.
One Marquis Plaza
5315 Campbells Run Road
Pittsburgh, PA 15205
412/787-3200
FAX 412/787-3208

Technical Services Headquarters
Export, Pennsylvania

Branch Offices
Akron, Ohio
Denver, Colorado
Philadelphia, Pennsylvania

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Kirkpatrick & Lockhart
Pittsburgh, Pennsylvania

Project No. 111
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Earth Sciences
Consultants, Inc.

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Appendix F

Air Monitoring Data

AIR SAMPLING DATA SHEET

Date	Unit #	Filter #	Avg. CFM	Time Hours	Time Min	Total CF	Total Wt. Gain (gms)	Grams/ft3	Wind Direction	Gross Alpha (µci/ml)	Gross Beta (µci/ml)
8/31/92	1	17	60	25	35	92,100	0.212	2.3018E-06	dw	2.71 E-17	3.47 E-15
8/31/92	2	20	63.25	24	10	91,713	0.2095	2.2843E-06	mw	7.96 E-18	2.44 E-15
8/31/92	3	18	60	24	50	89,400	0.2305	2.5783E-06	up	2.5 E-17	2.67 E-15
8/31/92	4	16	38.5	23	40	54,670	0.128	2.3413E-06	up	1.29 E-17	2.18 E-15
8/31/92	5	19	41	23	55	58,835	0.216	3.6713E-06	dw	1.08 E-17	2.58 E-15
9/3/92	1	23	60	24	35	88,500	0.0835	9.435E-07	dw	4.3 E-17	1.02 E-15
9/3/92	2	24	61.5	24	35	90,713	0.0795	8.764E-07	mw	2.36 E-17	1.65 E-15
9/3/92	3	25	60	24	55	89,700	0.083	9.2531E-07	up	4.18 E-17	1.45 E-15
9/3/92	4	22	38.5	24	15	56,018	0.0625	1.1157E-06	up	3.80 E-17	2.75 E-15
9/3/92	5	21	41	24	40	60,680	0.0545	8.9815E-07	dw	(-)1.79 E-17	8.61 E-16
9/8/92	1	33	60	24	37	88,620	0.112	1.2638E-06	dw	2.0 E-17	1.8 E-15
9/8/92	2	34	56	25	38	86,128	0.109	1.2656E-06	mw	1.86 E-17	5.81 E -16
9/8/92	3	35	60	25	22	91,320	0.1175	1.2867E-06	up	2.2E -17	5.06 E-16
9/8/92	4	32	40	24	20	58,400	0.081	1.387E-06	up	3.37 E-17	1.26 E-15
9/8/92	5	31	42.5	24	4	61,370	0.072	1.1732E-06	dw	1.77 E -17	1.03 E-15
9/10/92	1	44	60	24	10	87,000	0.0485	5.5747E-07	dw	5.79 E-17	7.48 E-16
9/10/92	2	43	56	24	10	81,200	0.0775	9.5443E-07	mw	3.91 E-17	7.72 E-16
9/10/92	3	45	60	24	15	87,300	0.1505	1.7239E-06	up	1.3 E-17	5.59 E-16
9/10/92	4	42	40	24	2	57,680	0.056	9.7087E-07	up	3.02 E-17	5.93 E-16
9/10/92	5	39	41.5	23	55	59,553	0.0375	6.297E-07	dw	5.39 E-1	7.75 E-16
9/14/92	1	48	60	26	45	96,300	0.1375	1.4278E-06	dw	5.98 E-17	9.04 E-16
9/14/92	2	49	52.5	25	13	79,433	0.16	2.0143E-06	mw	8.09 E-17	1.94 E-15
9/14/92	3	50	60	26	13	94,380	0.142	1.5046E-06	up	1.54 E-16	1.75 E-15
9/14/92	4	47	39.25	23	58	56,442	0.0895	1.5857E-06	up	4.95 E-17	7.19 E-16
9/14/92	5	46	40.5	25	54	62,937	0.0835	1.3267E-06	dw	3.77 E-17	1.49 E-15

AIR SAMPLING DATA SHEET

Date	Unit #	Filter #	Avg. CFM	Time Hours	Time Min	Total CF	Total Wt. Gain (gms)	Grams/ft3	Wind Direction	Gross Alpha (µci/ml)	Gross Beta (µci/ml)
9/16/92	1	54	56.5	24	16	82,264	0.1535	1.8659E-06	dw	1.4 E-17	3.78 E-15
9/16/92	2	53	52.5	24	12	76,230	0.172	2.2563E-06	mw	2.46 E-17	3.30 E-15
9/16/92	3	52	60	24	11	87,060	0.18	2.0675E-06	up	6.03 E-17	2.87 E-17
9/16/92	4	56	39.25	24	2	56,599	0.1105	1.9523E-06	up	0	4.59 E-15
9/16/92	5	55	41.5	24	8	60,092	0.0965	1.6059E-06	dw	3.93 E-18	3.37 E-15
9/21/92	1	58	60	25	15	90,900	0.074	8.1408E-07	up	1.49 E-16	9.57 E-16
9/21/92	2	57	52.5	26	37	83,843	0.081	9.661E-07	up	2.79 E-16	1.33E-15
9/21/92	3	59	60	26	25	95,100	0.077	8.0967E-07	up	2.38 E-16	1.62 E-15
9/21/92	4	62	40	24	10	58,000	0.063	1.0862E-06	dw	1.76 E-16	1.84 E-15
9/21/92	5	60	43	24	0	61,920	0.033	5.3295E-07	dw	4.79 E-17	9.05 E-16
9/23/92	1	66	54.25	24	0	78,120	0.065	8.3205E-07	up	(-)2.5 E-15	1.14 E-15
9/23/92	2	65	47.5	24	4	68,590	0.224	3.2658E-06	up	8.7 E-18	1.31 E-15
9/23/92	3	64	57.5	24	2	82,915	0.075	9.0454E-07	up	3.69 E-17	1.38 E-15
9/23/92	4	63	39.25	24	0	56,520	0.043	7.6079E-07	dw	0	2.53 E-15
9/23/92	5	67	40.5	24	0	58,320	0.042	7.2016E-07	dw	(-)3.2 E-17	1.24E-15
9/28/92	1	72	49.25	24	0	70,920	0.085	1.1985E-06	up	3.73 E-16	2.65 E-15
9/28/92	2	71	43.5	24	0	62,640	0.011	1.7561E-07	up	1.25 E-15	4.62 E-15
9/28/92	3	70	54.5	24	0	78,480	0.119	1.5163E-06	up	5.04 E-16	3.75 E-15
9/28/92	4	69	34.25	24	0	49,320	0.049	9.9351E-07	dw	4.55 E-16	3.16 E-15
9/28/92	5	74	34.5	24	0	49,680	0.043	8.6554E-07	dw	5.34 E-16	3.3 E-15
9/30/92	1	75	47.5	24	0	68,400	0.095	1.3889E-06	up	8.8 E-16	8.78 E-16
9/30/92	2	76	46	24	0	66,240	0.103	1.555E-06	up	1.0 E-15	5.26 E-15
9/30/92	3	77	55	24	0	79,200	0.087	1.0985E-06	up	2.62 E-15	6.66 E-16
9/30/92	4	78	32.5	24	1	46,833	0.037	7.9005E-07	dw	1.44 E-15	1.47 E-15
9/30/92	5	79	21	24	0	30,240	0.066	2.1825E-06	dw	3.98 E-15	4.61 E-15

AIR SAMPLING DATA SHEET

Date	Unit #	Filter #	Avg. CFM	Time Hours	Time Min	Total CF	Total Wt. Gain (gms)	Grams/ft3	Wind Direction	Gross Alpha (µci/ml)	Gross Beta (µci/ml)
10/5/92	1	83	56.5	24	8	81,812	0.155	1.8946E-06	up	6.14 E-16	1.74 E-15
10/5/92	2	81	46	24	18	67,068	0.192	2.8628E-06	mw	1.94 E-15	5.18 E-15
10/5/92	3	84	60	24	17	87,420	0.161	1.8417E-06	dw	2.66 E-15	5.10 E-15
10/5/92	4	80	33.75	24	2	48,668	0.085	1.7465E-06	dw	1.15 E-15	2.73 E-15
10/5/92	5	82	34	24	7	49,198	0.094	1.9106E-06	up	6.8 E-16	2.54 E-15
10/7/92	1	87	56.5	27	33	93,395	0.17	1.8202E-06	up	(-)6.8 E-18	5.63 E-16
10/7/92	2	85	46	27	22	75,532	0.233	3.0848E-06	mw	1.59 E-17	9.02 E-16
10/7/92	3	89	60	27	20	98,400	0.292	2.9675E-06	dw	0	3.81 E-16
10/7/92	4	88	33	26	25	52,305	0.16	3.059E-06	dw	4.88 E-17	7.73 E-16
10/7/92	5	86	31	26	53	50,003	0.09	1.7999E-06	up	(-)3.57 E-17	3.76 E-16
10/8/92	1	90	53	24	3	76,479	0.11	1.4383E-06	up	1.99 E-16	3.86 E-16
10/8/92	2	91	46	24	50	68,540	0.143	2.0864E-06	mw	2.07 E-16	1.34 E-15
10/8/92	3	92	60	24	10	87,000	0.123	1.4138E-06	dw	1.64 E-16	1.58 E-15
10/8/92	4	93	33.75	24	45	50,119	0.069	1.3767E-06	dw	1.56 E-16	1.44 E-15
10/8/92	5	94	33	23	55	47,355	0.082	1.7316E-06	up	4.8 E-17	1.13 E-15
10/12/92	1	95	60	24	5	86,700	0.139	1.6032E-06	up	5.33 E-16	3.60 E-15
10/12/92	2	96	41	24	10	59,450	0.125	2.1026E-06	mw	1.33 E-15	5.75 E-14
10/12/92	3	97	55	24	6	79,530	0.134	1.6849E-06	dw	2.89 E-15	1.64 E-14
10/12/92	4	98	25	23	55	35,875	0.071	1.9791E-06	dw	2.03 E-15	1.37 E-15
10/12/92	5	99	31	24	3	44,733	0.083	1.8555E-06	up	1.37 E-15	1.00 E-14
10/13/92	1	100	53	24	40	78,440	0.152	1.9378E-06	up	7.73 E-16	4.26 E-15
10/13/92	2	101	41	24	34	60,434	0.159	2.631E-06	mw	1.00 E-15	1.08 E-14
10/13/92	3	102	60	24	5	86,700	0.255	2.9412E-06	dw	7.14 E-16	4.95 E-15
10/13/92	4	103	17.75	24	5	25,649	0.078	3.0411E-06	dw	1.95 E-16	1.57 E-15
10/13/92	5	104	31	24	15	45,105	0.28	6.2077E-06	up	2.08 E-16	1.05 E-15

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Date	Unit #	Filter #	Avg. CFM	Time Hours	Time Min	Total CF	Total Wt. Gain (gms)	Grams/ft3	Wind Direction	Gross Alpha (µci/ml)	Gross Beta (µci/ml)
10/14/92	1	105	60	24	13	87,180	0.21	2.4088E-06	up	1.23 E-15	3.75 E-15
10/14/92	2	106	41	24	15	59,655	0.211	3.537E-06	mw	1.94 E-15	9.83 E-15
10/14/92	3	107	60	24	48	89,280	0.244	2.733E-06	dw	1.23 E-15	5.85 E-15
10/14/92	4	108	33.75	24	45	50,119	0.129	2.5739E-06	dw	7.88 E-16	1.22 E-15
10/14/92	5	109	31	24	0	44,640	0.17	3.8082E-06	up	1.22 E-15	4.79 E-15
10/15/92	1	110	56.5	24	13	82,095	0.294	3.5812E-06	up	1.98 E-16	1.76 E-15
10/15/92	2	111	39	24	15	56,745	0.261	4.5995E-06	mw	3.46 E-16	2.62 E-15
10/15/92	3	112	60	24	20	87,600	0.301	3.4361E-06	dw	3.48 E-16	1.92 E-15
10/15/92	4	113	31.25	24	25	45,781	0.131	2.8614E-06	dw	1.97 E-16	2.80 E-15
10/15/92	5	114	32	23	55	45,920	0.153	3.3319E-06	up	2.44 E-16	1.49 E-15
10/19/92	1	115	50.75	24	20	74,095	0.153	2.0649E-06	up	2.95 E-16	6.59 E-15
10/19/92	2	116	18.5	24	25	27,103	0.122	4.5014E-06	mw	2.01 E-16	5.72 E-15
10/19/92	3	117	30.75	24	25	45,049	0.191	4.2399E-06	dw	4.6 E-16	1.21 E-14
10/19/92	4	118	31.25	24	10	45,313	0.102	2.251E-06	dw	2.70 E-16	8.69 E-15
10/19/92	5	119	31	24	25	45,415	0.098	2.1579E-06	up	3.26 E-16	7.48 E-15
10/20/92	1	120	60	25	15	90,900	0.132	1.4521E-06	up	7.9 E-16	2.54 E-15
10/20/92	2	121	63.25	25	10	95,508	0.144	1.5077E-06	mw	5.99 E-16	2.99 E-15
10/20/92	3	122	62.5	24	40	92,500	0.131	1.4162E-06	dw	1.37 E-15	4.65 E-15
10/20/92	4	123	31.25	24	35	46,094	0.073	1.5837E-06	dw	9.55 E-16	5.21 E-15
10/20/92	5	124	32	25	5	48,160	0.013	2.6993E-07	up	7.58 E-17	3.58 E-15
10/21/92	1	126	62.5	23	55	89,688	0.146	1.6279E-06	up	2.38 E-16	2.70E-15
10/21/92	2	127	65	23	58	93,470	0.166	1.776E-06	mw	1.78 E-16	1.70E-15
10/21/92	3	128	60	24	0	86,400	0.173	2.0023E-06	dw	2.25 E-16	5.05 E-15
10/21/92	4	129	32	24	0	46,080	0.094	2.0399E-06	dw	2.40 E-16	3.62 E-15
10/21/92	5	130	35	23	35	49,525	0.102	2.0596E-06	up	9.53 E-17	2.29 E-15

AIR SAMPLING DATA SHEET

Date	Unit #	Filter #	Avg. CFM	Time Hours	Time Min	Total CF	Total Wt. Gain (gms)	Grams/ft3	Wind Direction	Gross Alpha (µci/ml)	Gross Beta (µci/ml)
10/22/92	1	131	60	23	40	85,200	0.178	2.0892E-06	up	1.03 E-16	4.19 E-15
10/22/92	2	132	65	23	40	92,300	0.178	1.9285E-06	mw	1.08 E-16	1.56 E-15
10/22/92	3	133	60	23	50	85,800	0.167	1.9464E-06	dw	3.48 E-16	2.17 E-15
10/22/92	4	134	33	23	25	46,365	0.089	1.9196E-06	dw	9.51 E-17	1.59 E-15
10/22/92	5	135	32	23	5	44,320	0.124	2.7978E-06	up	1.24 E-16	2.03 E-15
10/26/92	1	137	45	24	0	64,800	0.08	1.2346E-06	up	1.01 E-15	3.08 E-15
10/26/92	2	138	67	24	0	96,480	0.156	1.6169E-06	dw	1.78 E-15	6.69 E-15
10/26/92	3	139	57.5	24	25	84,238	0.148	1.7569E-06	dw	1.47 E-15	4.47 E-15
10/26/92	4	140	33	24	0	47,520	0.056	1.1785E-06	up	1.15 E-15	4.65 E-15
10/26/92	5	141	31	24	0	44,640	0.075	1.6801E-06	up	1.22 E-15	5.54 E-15
10/27/92	1	142	53	24	7	76,691	0.133	1.7342E-06	up	2.84 E-15	8.38 E-15
10/27/92	2	143	65	24	0	93,600	0.178	1.9017E-06	dw	2.33 E-15	8.16 E-15
10/27/92	3	144	55	24	7	79,585	0.163	2.0481E-06	dw	6.39 E-15	1.87 E-14
10/27/92	4	145	33	24	0	47,520	0.09	1.8939E-06	up	3.16 E-15	7.99 E-15
10/27/92	5	146	33	24	0	47,520	0.097	2.0412E-06	up	1.88 E-15	7.55 E-15
10/28/92	1	147	56.5	24	17	82,321	0.122	1.482E-06	up	7.84 E-17	1.77 E-15
10/28/92	2	148	67	24	17	97,619	0.155	1.5878E-06	dw	5.11 E-17	1.48 E-15
10/28/92	3	149	60	24	45	89,100	0.143	1.6049E-06	dw	6.53 E-18	1.40 E-15
10/28/92	4	150	33	24	35	48,675	0.085	1.7463E-06	up	2.68 E-17	2.02 E-15
10/28/92	5	151	32	25	28	48,896	0.088	1.7997E-06	up	(-)1.28 E-17	2.39 E-15
10/29/92	1	152	53	23	55	76,055	0.079	1.0387E-06	up	3.02 E-17	1.47 E-15
10/29/92	2	153	69	24	0	99,360	0.099	9.9638E-07	dw	7.48 E-17	7.38 E-16
10/29/92	3	154	60	24	0	86,400	0.097	1.1227E-06	dw	1.33 E-17	1.42 E-15
10/29/92	4	155	33	24	0	47,520	0.057	1.1995E-06	up	1.39 E-17	1.71 E-15
10/29/92	5	156	32	23	25	44,960	0.062	1.379E-06	up	2.70 E-17	1.89 E-15

AIR SAMPLING DATA SHEET

Date	Unit #	Filter #	Avg. CFM	Time Hours	Time Min	Total CF	Total Wt. Gain (gms)	Grams/ft3	Wind Direction	Gross Alpha (µci/ml)	Gross Beta (µci/ml)
11/2/92	1	157	56.5	23	28	79,552	0.067	8.4222E-07	up	3.26 E-16	1.52 E-15
11/2/92	2	158	67	23	30	94,470	0.069	7.3039E-07	dw	4.71 E-16	2.88 E-15
11/2/92	3	159	60	23	20	84,000	0.077	9.1667E-07	dw	4.34 E-16	2.47 E-15
11/2/92	4	160	32.25	23	10	44,828	0.035	7.8077E-07	up	3.76 E-16	2.69 E-15
11/2/92	5	161	32	23	25	44,960	0.047	1.0454E-06	up	3.28 E-15	1.78 E-15
11/3/92	1	162	54.25	23	40	77,035	0.038	4.9328E-07	up	4.44 E-16	1.34 E-15
11/3/92	2	163	65	23	5	90,025	0.057	6.3316E-07	dw	2.62 E-16	1.80 E-15
11/3/92	3	164	57.5	23	20	80,500	0.044	5.4658E-07	dw	5.98 E-16	2.19 E-15
11/3/92	4	165	33	23	10	45,870	0.033	7.1942E-07	up	4.66 E-16	1.31 E-15
11/3/92	5	166	35.5	23	5	49,168	0.029	5.8982E-07	up	5.19 E-17	1.33 E-15
11/4/92	1	167	48.5	22	55	66,688	0.023	3.4489E-07	up	2.60 E-17	5.53 E-16
11/4/92	2	168	65	24	0	93,600	0.044	4.7009E-07	dw	1.82 E-17	3.44 E-16
11/4/92	3	169	55	24	10	79,750	0.044	5.5172E-07	dw	2.17 E-17	6.94 E-16
11/4/92	4	170	33	24	0	47,520	0.026	5.4714E-07	up	4.04 E-17	4.42 E-16
11/4/92	5	171	27.5	23	30	38,775	0.015	3.8685E-07	up	6.03 E-17	1.80 E-15
11/5/92	1	174	48.5	23	55	69,598	0.039	5.6036E-07	dw	4.08 E-17	7.45 E-17
11/5/92	2	175	63.25	24	15	92,029	0.063	6.8457E-07	mw	5.70 E-17	7.27 E-16
11/5/92	3	176	55	24	50	81,950	0.053	6.4674E-07	up	2.08 E-19	7.63 E-16
11/5/92	4	177	32.25	24	20	47,085	0.028	5.9467E-07	up	3.64 E-19	8.90 E-16
11/5/92	5	178	32	23	3	44,256	0.029	6.5528E-07	dw	(-)1.37 E-17	3.76 E-16
11/9/92	1	179	56.5	24	20	82,490	0.088	1.0668E-06	dw	2.02 E-16	1.54 E-15
11/9/92	2	180	63.25	24	15	92,029	0.109	1.1844E-06	mw	1.31 E-16	1.44 E-15
11/9/92	3	181	55	24	0	79,200	0.128	1.6162E-06	up	4.09 E-16	2.12 E-15
11/9/92	4	182	32.25	23	50	46,118	0.067	1.4528E-06	up	1.13 E-16	1.35 E-15
11/9/92	5	183	32	24	25	46,880	0.065	1.3865E-06	dw	1.52 E-16	2.07 E-15

AIR SAMPLING DATA SHEET
(revised)

Date	Unit #	Filter #	Grams/ft3	Wind Direction	Gross Alpha (µci/ml)	Gross Beta (µci/ml)
8/31/92	1	17	2.3E-06	dw	2.71 E-17	3.47 E-15
8/31/92	2	20	2.28E-06	mw	7.96 E-18	2.44 E-15
8/31/92	3	18	2.58E-06	up	2.5 E-17	2.67 E-15
8/31/92	4	16	2.34E-06	up	1.29 E-17	2.18 E-15
8/31/92	5	19	3.67E-06	dw	1.08 E-17	2.58 E-15
9/3/92	1	23	9.44E-07	dw	4.3 E-17	1.02 E-15
9/3/92	2	24	8.76E-07	mw	2.36 E-17	1.65 E-15
9/3/92	3	25	9.25E-07	up	4.18 E-17	1.45 E-15
9/3/92	4	22	1.12E-06	up	3.80 E-17	2.75 E-15
9/3/92	5	21	8.98E-07	dw	(-)1.79 E-17	8.61 E-16
9/8/92	1	33	1.26E-06	dw	2.0 E-17	1.8 E-15
9/8/92	2	34	1.27E-06	mw	1.86 E-17	5.81 E -16
9/8/92	3	35	1.29E-06	up	2.2E -17	5.06 E-16
9/8/92	4	32	1.39E-06	up	3.37 E-17	1.26 E-15
9/8/92	5	31	1.17E-06	dw	1.77 E -17	1.03 E-15
9/10/92	1	44	5.57E-07	dw	5.79 E-17	7.48 E-16
9/10/92	2	43	9.54E-07	mw	3.91 E-17	7.72 E-16
9/10/92	3	45	1.72E-06	up	1.3 E-17	5.59 E-16
9/10/92	4	42	9.71E-07	up	3.02 E-17	5.93 E-16
9/10/92	5	39	6.3E-07	dw	5.39 E-1	7.75 E-16
9/14/92	1	48	1.43E-06	dw	5.98 E-17	9.04 E-16
9/14/92	2	49	2.01E-06	mw	8.09 E-17	1.94 E-15
9/14/92	3	50	1.5E-06	up	1.54 E-16	1.75 E-15
9/14/92	4	47	1.59E-06	up	4.95 E-17	7.19 E-16
9/14/92	5	46	1.33E-06	dw	3.77 E-17	1.49 E-15

AIR SAMPLING DATA SHEET
(revised)

Date	Unit #	Filter #	Grams/ft3	Wind Direction	Gross Alpha (µci/ml)	Gross Beta (µci/ml)
9/16/92	1	54	1.87E-06	dw	1.4 E-17	3.78 E-15
9/16/92	2	53	2.26E-06	mw	2.46 E-17	3.30 E-15
9/16/92	3	52	2.07E-06	up	6.03 E-17	2.87 E-17
9/16/92	4	56	1.95E-06	up	0	4.59 E-15
9/16/92	5	55	1.61E-06	dw	3.93 E-18	3.37 E-15
9/21/92	1	58	8.14E-07	up	1.49 E-16	9.57 E-16
9/21/92	2	57	9.66E-07	up	2.79 E-16	1.33E-15
9/21/92	3	59	8.1E-07	up	2.38 E-16	1.62 E-15
9/21/92	4	62	1.09E-06	dw	1.76 E-16	1.84 E-15
9/21/92	5	60	5.33E-07	dw	4.79 E-17	9.05 E-16
9/23/92	1	66	8.32E-07	up	(-)2.5 E-15	1.14 E-15
9/23/92	2	65	3.27E-06	up	8.7 E-18	1.31 E-15
9/23/92	3	64	9.05E-07	up	3.69 E-17	1.38 E-15
9/23/92	4	63	7.61E-07	dw	0	2.53 E-15
9/23/92	5	67	7.2E-07	dw	(-)3.2 E-17	1.24E-15
9/28/92	1	72	1.2E-06	up	3.73 E-16	2.65 E-15
9/28/92	2	71	1.76E-07	up	1.25 E-15	4.62 E-15
9/28/92	3	70	1.52E-06	up	5.04 E-16	3.75 E-15
9/28/92	4	69	9.94E-07	dw	4.55 E-16	3.16 E-15
9/28/92	5	74	8.66E-07	dw	5.34 E-16	3.3 E-15
9/30/92	1	75	1.39E-06	up	8.8 E-16	8.78 E-16
9/30/92	2	76	1.55E-06	up	1.0 E-15	5.26 E-15
9/30/92	3	77	1.1E-06	up	2.62 E-15	6.66 E-16
9/30/92	4	78	7.9E-07	dw	1.44 E-15	1.47 E-15
9/30/92	5	79	2.18E-06	dw	3.98 E-15	4.61 E-15

AIR SAMPLING DATA SHEET
(revised)

Date	Unit #	Filter #	Grams/ft3	Wind Direction	Gross Alpha (µci/ml)	Gross Beta (µci/ml)
10/5/92	1	83	1.89E-06	up	6.14 E-16	1.74 E-15
10/5/92	2	81	2.86E-06	mw	1.94 E-15	5.18 E-15
10/5/92	3	84	1.84E-06	dw	2.66 E-15	5.10 E-15
10/5/92	4	80	1.75E-06	dw	1.15 E-15	2.73 E-15
10/5/92	5	82	1.91E-06	up	6.8 E-16	2.54 E-15
10/7/92	1	87	1.82E-06	up	(-)6.8 E-18	5.63 E-16
10/7/92	2	85	3.08E-06	mw	1.59 E-17	9.02 E-16
10/7/92	3	89	2.97E-06	dw	0	3.81 E-16
10/7/92	4	88	3.06E-06	dw	4.88 E-17	7.73 E-16
10/7/92	5	86	1.8E-06	up	(-)3.57 E-17	3.76 E-16
10/8/92	1	90	1.44E-06	up	1.99 E-16	3.86 E-16
10/8/92	2	91	2.09E-06	mw	2.07 E-16	1.34 E-15
10/8/92	3	92	1.41E-06	dw	1.64 E-16	1.58 E-15
10/8/92	4	93	1.38E-06	dw	1.56 E-16	1.44 E-15
10/8/92	5	94	1.73E-06	up	4.8 E-17	1.13 E-15
10/12/92	1	95	1.6E-06	up	5.33 E-16	3.60 E-15
10/12/92	2	96	2.1E-06	mw	1.33 E-15	5.75 E-14
10/12/92	3	97	1.68E-06	dw	2.89 E-15	1.64 E-14
10/12/92	4	98	1.98E-06	dw	2.03 E-15	1.37 E-15
10/12/92	5	99	1.86E-06	up	1.37 E-15	1.00 E-14
10/13/92	1	100	1.94E-06	up	7.73 E-16	4.26 E-15
10/13/92	2	101	2.63E-06	mw	1.00 E-15	1.08 E-14
10/13/92	3	102	2.94E-06	dw	7.14 E-16	4.95 E-15
10/13/92	4	103	3.04E-06	dw	1.95 E-16	1.57 E-15
10/13/92	5	104	6.21E-06	up	2.08 E-16	1.05 E-15

AIR SAMPLING DATA SHEET
(revised)

Date	Unit #	Filter #	Grams/ft3	Wind Direction	Gross Alpha (µci/ml)	Gross Beta (µci/ml)
10/14/92	1	105	2.41E-06	up	1.23 E-15	3.75 E-15
10/14/92	2	106	3.54E-06	mw	1.94 E-15	9.83 E-15
10/14/92	3	107	2.73E-06	dw	1.23 E-15	5.85 E-15
10/14/92	4	108	2.57E-06	dw	7.88 E-16	1.22 E-15
10/14/92	5	109	3.81E-06	up	1.22 E-15	4.79 E-15
10/15/92	1	110	3.58E-06	up	1.98 E-16	1.76 E-15
10/15/92	2	111	4.6E-06	mw	3.46 E-16	2.62 E-15
10/15/92	3	112	3.44E-06	dw	3.48 E-16	1.92 E-15
10/15/92	4	113	2.86E-06	dw	1.97 E-16	2.80 E-15
10/15/92	5	114	3.33E-06	up	2.44 E-16	1.49 E-15
10/19/92	1	115	2.06E-06	up	2.95 E-16	6.59 E-15
10/19/92	2	116	4.5E-06	mw	2.01 E-16	5.72 E-15
10/19/92	3	117	4.24E-06	dw	4.6 E-16	1.21 E-14
10/19/92	4	118	2.25E-06	dw	2.70 E-16	8.69 E-15
10/19/92	5	119	2.16E-06	up	3.26 E-16	7.48 E-15
10/20/92	1	120	1.45E-06	up	7.9 E-16	2.54 E-15
10/20/92	2	121	1.51E-06	mw	5.99 E-16	2.99 E-15
10/20/92	3	122	1.42E-06	dw	1.37 E-15	4.65 E-15
10/20/92	4	123	1.58E-06	dw	9.55 E-16	5.21 E-15
10/20/92	5	124	2.7E-07	up	7.58 E-17	3.58 E-15
10/21/92	1	126	1.63E-06	up	2.38 E-16	2.70E-15
10/21/92	2	127	1.78E-06	mw	1.78 E-16	1.70E-15
10/21/92	3	128	2E-06	dw	2.25 E-16	5.05 E-15
10/21/92	4	129	2.04E-06	dw	2.40 E-16	3.62 E-15
10/21/92	5	130	2.06E-06	up	9.53 E-17	2.29 E-15

AIR SAMPLING DATA SHEET
(revised)

Date	Unit #	Filter #	Grams/ft3	Wind Direction	Gross Alpha (µci/ml)	Gross Beta (µci/ml)
10/22/92	1	131	2.09E-06	up	1.03 E-16	4.19 E-15
10/22/92	2	132	1.93E-06	mw	1.08 E-16	1.56 E-15
10/22/92	3	133	1.95E-06	dw	3.48 E-16	2.17 E-15
10/22/92	4	134	1.92E-06	dw	9.51 E-17	1.59 E-15
10/22/92	5	135	2.8E-06	up	1.24 E-16	2.03 E-15
10/26/92	1	137	1.23E-06	up	1.01 E-15	3.08 E-15
10/26/92	2	138	1.62E-06	dw	1.78 E-15	6.69 E-15
10/26/92	3	139	1.76E-06	dw	1.47 E-15	4.47 E-15
10/26/92	4	140	1.18E-06	up	1.15 E-15	4.65 E-15
10/26/92	5	141	1.68E-06	up	1.22 E-15	5.54 E-15
10/27/92	1	142	1.73E-06	up	2.84 E-15	8.38 E-15
10/27/92	2	143	1.9E-06	dw	2.33 E-15	8.16 E-15
10/27/92	3	144	2.05E-06	dw	6.39 E-15	1.87 E-14
10/27/92	4	145	1.89E-06	up	3.16 E-15	7.99 E-15
10/27/92	5	146	2.04E-06	up	1.88 E-15	7.55 E-15
10/28/92	1	147	1.48E-06	up	7.84 E-17	1.77 E-15
10/28/92	2	148	1.59E-06	dw	5.11 E-17	1.48 E-15
10/28/92	3	149	1.6E-06	dw	6.53 E-18	1.40 E-15
10/28/92	4	150	1.75E-06	up	2.68 E-17	2.02 E-15
10/28/92	5	151	1.8E-06	up	(-)1.28 E-17	2.39 E-15
10/29/92	1	152	1.04E-06	up	3.02 E-17	1.47 E-15
10/29/92	2	153	9.96E-07	dw	7.48 E-17	7.38 E-16
10/29/92	3	154	1.12E-06	dw	1.33 E-17	1.42 E-15
10/29/92	4	155	1.2E-06	up	1.39 E-17	1.71 E-15
10/29/92	5	156	1.38E-06	up	2.70 E-17	1.89 E-15

AIR SAMPLING DATA SHEET
(revised)

Date	Unit #	Filter #	Grams/ft3	Wind Direction	Gross Alpha (µci/ml)	Gross Beta (µci/ml)
11/2/92	1	157	8.42E-07	up	3.26 E-16	1.52 E-15
11/2/92	2	158	7.3E-07	dw	4.71 E-16	2.88 E-15
11/2/92	3	159	9.17E-07	dw	4.34 E-16	2.47 E-15
11/2/92	4	160	7.81E-07	up	3.76 E-16	2.69 E-15
11/2/92	5	161	1.05E-06	up	3.28 E-15	1.78 E-15
11/3/92	1	162	4.93E-07	up	4.44 E-16	1.34 E-15
11/3/92	2	163	6.33E-07	dw	2.62 E-16	1.80 E-15
11/3/92	3	164	5.47E-07	dw	5.98 E-16	2.19 E-15
11/3/92	4	165	7.19E-07	up	4.66 E-16	1.31 E-15
11/3/92	5	166	5.9E-07	up	5.19 E-17	1.33 E-15
11/4/92	1	167	3.45E-07	up	2.60 E-17	5.53 E-16
11/4/92	2	168	4.7E-07	dw	1.82 E-17	3.44 E-16
11/4/92	3	169	5.52E-07	dw	2.17 E-17	6.94 E-16
11/4/92	4	170	5.47E-07	up	4.04 E-17	4.42 E-16
11/4/92	5	171	3.87E-07	up	6.03 E-17	1.80 E-15
11/5/92	1	174	5.6E-07	dw	4.08 E-17	7.45 E-17
11/5/92	2	175	6.85E-07	mw	5.70 E-17	7.27 E-16
11/5/92	3	176	6.47E-07	up	2.08 E-19	7.63 E-16
11/5/92	4	177	5.95E-07	up	3.64 E-19	8.90 E-16
11/5/92	5	178	6.55E-07	dw	(-)1.37 E-17	3.76 E-16
11/9/92	1	179	1.07E-06	dw	2.02 E-16	1.54 E-15
11/9/92	2	180	1.18E-06	mw	1.31 E-16	1.44 E-15
11/9/92	3	181	1.62E-06	up	4.09 E-16	2.12 E-15
11/9/92	4	182	1.45E-06	up	1.13 E-16	1.35 E-15
11/9/92	5	183	1.39E-06	dw	1.52 E-16	2.07 E-15

AIR SAMPLING

UNIT NUMBER	#1		
DATE	Feb 2+3, 1993	FILTER DIRECTION	South
FILTER NUMBER	#1		

FILTER INSTALLED

TIME	9:15 A
DATE	2·2·93
CFM	54
WEIGHT (grams)	4.373

DAILY WEATHER INFORMATION

TIME	7:30 A
DATE	2·2·93
TEMP. °C	21°C
WIND SPEED - mph	
WIND DIR.	N
BARO. PRES - In. Hg	29.80
PRECIPITATION	0

FILTER REMOVED

TIME	9:22 A
DATE	52C 7m
CFM	2·3·93
WEIGHT (grams)	4.545

DAILY WEATHER INFORMATION

TIME	
DATE	2·3·93
TEMP. °C	11.7°C
WIND SPEED mph	
WIND DIR.	S
BARO. PRES - In. Hg	29.77
PRECIPITATION	TRACE

TOTAL TIME 24 hrs 07 min.

WEIGHT GAIN 0.172 grams

LOCATION S.E

SAMPLER S/N 19107 IV

GROSS ALPHA(µci/ml)	1.48E-16 ± .33
GROSS BETA(µci/ml)	1.87E-15 ± 1.39

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

014

UNIT NUMBER	#. 1
DATE	Feb 3rd 4, 93
FILTER NUMBER	# 6

FILTER DIRECTION	S

FILTER INSTALLED

TIME	9:25 A
DATE	2·3·93
CFM	53
WEIGHT (grams)	4.312

DAILY WEATHER INFORMATION

TIME	7:30 A
DATE	2/3/93
TEMP. °C	11.7 °C.
WIND SPEED - mph	
WIND DIR.	S
BARO. PRES - In. Hg	29.77
PRECIPITATION	Trace

FILTER REMOVED

TIME	9:25 A
DATE	2·4·93
CFM	54
WEIGHT (grams)	4.463

DAILY WEATHER INFORMATION

TIME	8:20 A
DATE	2/4/93
TEMP. °C	44 °C.
WIND SPEED mph	Almost Calm.
WIND DIR.	N.W.
BARO. PRES - In. Hg	30.33
PRECIPITATION	.030

TOTAL TIME 24 hrs

WEIGHT GAIN 0.151 grams

LOCATION S.E.

SAMPLER S/N 19107 N

GROSS ALPHA(µci/ml)	7.8E-17 ± .12
GROSS BETA(µci/ml)	2.42E-15 ± .74

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

UNIT NUMBER	# 1
DATE	Feb. 8&9, 93
FILTER NUMBER	# 16

FILTER DIRECTION	S

FILTER INSTALLED

TIME	8:05 A
DATE	2.8.93
CFM	52
WEIGHT (grams)	4.409

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2.8.93
TEMP. °C	43°C
WIND SPEED - mph	5 mph
WIND DIR.	SW
BARO. PRES - In. Hg	30.03
PRECIPITATION	0

FILTER REMOVED

TIME	8:05 A
DATE	2.9.93
CFM	54
WEIGHT (grams)	4.528

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2.9.93
TEMP. °C	8.5°C
WIND SPEED mph	7
WIND DIR.	S
BARO. PRES - In. Hg	29.99
PRECIPITATION	0

TOTAL TIME 24. hrs

WEIGHT GAIN 0.119 grams

LOCATION S.E.

SAMPLER S/ # 19107 N

GROSS ALPHA(µci/ml)	2.89E-16 ± .57
GROSS BETA(µci/ml)	2.12E-15 ± 1.78

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

016

UNIT NUMBER	# 1
DATE	Feb 9&10, 93
FILTER NUMBER	# 21

FILTER DIRECTION	S

FILTER INSTALLED

TIME	8:10 A
DATE	2.9.93
CFM	54
WEIGHT (grams)	4.387

DAILY WEATHER INFORMATION

TIME	2.9.93
DATE	6:00 A
TEMP. °C	8.5
WIND SPEED - mph	7
WIND DIR.	S
BARO. PRES - In. Hg	29.99
PRECIPITATION	0

FILTER REMOVED

TIME	8:10 A
DATE	2.10.93
CFM	58
WEIGHT (grams)	4.565

DAILY WEATHER INFORMATION

TIME	7:00 A
DATE	2.10.93
TEMP. °C	13.5
WIND SPEED mph	10
WIND DIR.	S.E.
BARO. PRES - In. Hg	29.89
PRECIPITATION	0

TOTAL TIME 24 hrs Min.

WEIGHT GAIN 0.178 grams

LOCATION S.E

SAMPLER S/N 19107 N

GROSS ALPHA(µci/ml)	2.22E-16 ± .12
GROSS BETA(µci/ml)	2.61E-15 ± .69

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

017

UNIT NUMBER	1
DATE	2·10 & 11.93
FILTER NUMBER	26

FILTER DIRECTION	S

FILTER INSTALLED

TIME	8:14 A
DATE	2·10·93
CFM	57
WEIGHT (grams)	4.429

DAILY WEATHER INFORMATION

TIME	7:00 A
DATE	2·10·93
TEMP. °C	13.5 °C
WIND SPEED - mph	10
WIND DIR.	S.E.
BARO. PRES - In. Hg	29.89
PRECIPITATION	0

FILTER REMOVED

TIME	9:45 A
DATE	2·11·93
CFM	58
WEIGHT (grams)	4.558

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2·11·93
TEMP. °C	9.4 °C
WIND SPEED mph	11
WIND DIR.	SE
BARO. PRES - In. Hg	29.73
PRECIPITATION	.30

TOTAL TIME ____ hrs. ____ min.

WEIGHT GAIN 0.129 grams

LOCATION S.E.

SAMPLER S/N 19107 N

GROSS ALPHA(µci/ml)	6.07E-17 ± .29
GROSS BETA(µci/ml)	4.47E-15 ± .71

D. Nishi

Fansteel, Inc.

R/A WORKPLAN

AIR SAMPLING

UNIT NUMBER	#1
DATE	2/11-12/93
FILTER NUMBER	32
FILTER DIRECTION	S

FILTER INSTALLED

TIME	9:50 A
DATE	2·11·93
CFM	58
WEIGHT (grams)	4.419

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2-11-93
TEMP. °C	9.4°C
WIND SPEED - mph	11
WIND DIR.	S.E.
BARO. PRES - In. Hg	29.73
PRECIPITATION	.30

FILTER REMOVED

TIME	9:35 A
DATE	2·12·93
CFM	52
WEIGHT (grams)	4.485

DAILY WEATHER INFORMATION

TIME	7:00 A
DATE	2·12-93
TEMP. °C	2.2°C
WIND SPEED mph	14
WIND DIR.	NNW
BARO. PRES - In. Hg	29.88
PRECIPITATION	.02

TOTAL TIME 23 hrs 45 min.

WEIGHT GAIN 0.066 grams

LOCATION S.E.

SAMPLER S/N 19107N

GROSS ALPHA(µci/ml)	1.87E-17 ± .24
GROSS BETA(µci/ml)	3.81E-15 ± 1.2

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

019

UNIT NUMBER	#1
DATE	2/22-23/93
FILTER NUMBER	#38

FILTER DIRECTION	S

FILTER INSTALLED

TIME	11:46 A
DATE	22
CFM	51=56
WEIGHT (grams)	4.381

DAILY WEATHER INFORMATION

TIME	8:00 A
DATE	22
TEMP. °C	8.3°
WIND SPEED - mph	13
WIND DIR.	NNW
BARO. PRES - In. Hg	29.95
PRECIPITATION	0

FILTER REMOVED

TIME	12:10 P
DATE	23
CFM	47=51
WEIGHT (grams)	4.474

DAILY WEATHER INFORMATION

TIME	7:00 A
DATE	23
TEMP. °C	-1.7°
WIND SPEED mph	8
WIND DIR.	NNE
BARO. PRES - In. Hg	30.22
PRECIPITATION	0

TOTAL TIME 24h 24m

WEIGHT GAIN 0.093 grams

LOCATION SF

SAMPLER S/N 191071N

GROSS ALPHA(µci/ml)	4.91E-17 ± .12
GROSS BETA(µci/ml)	4.33E-15 ± 1.2

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

020

UNIT NUMBER	# 1
DATE	2·23·24·93
FILTER NUMBER	# 44

FILTER DIRECTION	S

FILTER INSTALLED

TIME	12:12p
DATE	23
CFM	46 = 50
WEIGHT (grams)	4.312

DAILY WEATHER INFORMATION

TIME	7:00A
DATE	23
TEMP. °C	-1.7°
WIND SPEED - mph	8
WIND DIR.	NNE
BARO. PRES - In. Hg	30.22
PRECIPITATION	

FILTER REMOVED

TIME	11:06 A
DATE	24
CFM	46 = 50
WEIGHT (grams)	4.392

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	24
TEMP. °C	-1.7
WIND SPEED mph	SSE
WIND DIR.	20
BARO. PRES - In. Hg	30.22
PRECIPITATION	0

TOTAL TIME 22hrs 54min.

WEIGHT GAIN 0.080 grams

LOCATION SE

SAMPLER S/N 19107 N

GROSS ALPHA(µci/ml)	2.6E-17 ± .33
GROSS BETA(µci/ml)	2.39E-15 ± .41

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

021

UNIT NUMBER	#1
DATE	2/24-25/93
FILTER NUMBER	50
FILTER DIRECTION	S

FILTER INSTALLED

TIME	11:10
DATE	24
CFM	45 = 49
WEIGHT (grams)	4.380

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2-24-93
TEMP. °C	-1.7
WIND SPEED - mph	20
WIND DIR.	SSE
BARO. PRES - In. Hg	30.22
PRECIPITATION	0

FILTER REMOVED

TIME	11:37
DATE	25
CFM	52
WEIGHT (grams)	4.444

DAILY WEATHER INFORMATION

TIME	6:00 Am
DATE	2/25/93
TEMP. °C	0°C
WIND SPEED mph	16
WIND DIR.	SE
BARO. PRES - In. Hg	29.85
PRECIPITATION	1.25

TOTAL TIME 24h 27m

WEIGHT GAIN 0.064 grams

LOCATION SE

SAMPLER S/N 19107N

GROSS ALPHA(µci/ml)	1.54E-17 ± .11
GROSS BETA(µci/ml)	1.09E-15 ± 1.78

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

UNIT NUMBER	#1		
DATE	2/25-26/93	FILTER DIRECTION	S
FILTER NUMBER	#56		

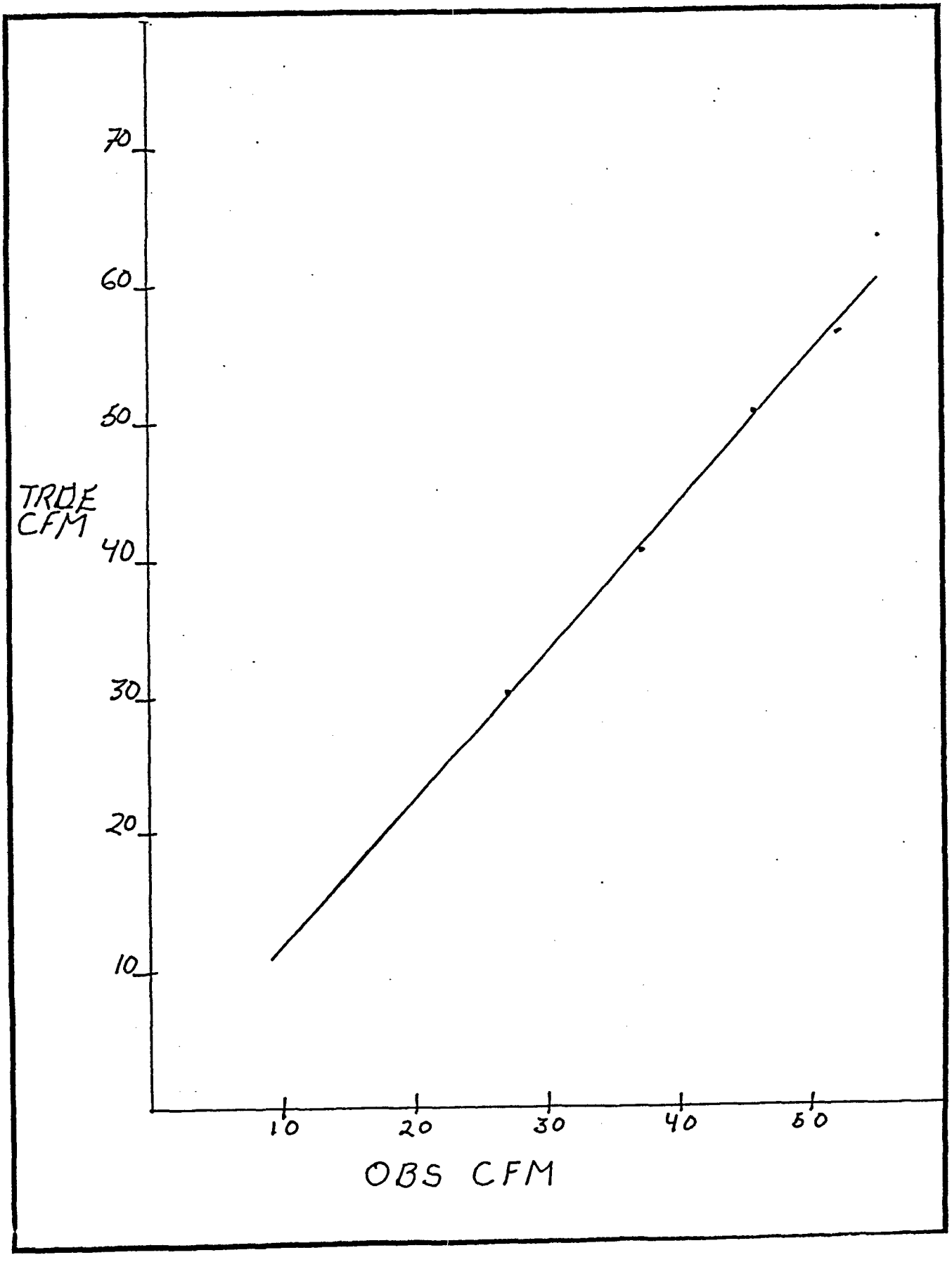
FILTER INSTALLED		DAILY WEATHER INFORMATION	
TIME	11:42 A	TIME	6:00 A
DATE	2.25.93	DATE	2.25.93
CFM	49=54	TEMP. °C	0°C
WEIGHT (grams)	4.374	WIND SPEED - mph	16
		WIND DIR.	SE
		BARO. PRES - In. Hg	29.85
		PRECIPITATION	1.25

FILTER REMOVED		DAILY WEATHER INFORMATION	
TIME	11:20	TIME	7:00 A
DATE	2.26.93	DATE	2.26.93
CFM	50	TEMP. °C	-3.9°C
WEIGHT (grams)	4.452	WIND SPEED mph	14
		WIND DIR.	N
		BARO. PRES - In. Hg	30.26
		PRECIPITATION.	.03

TOTAL TIME	23h 38m		
WEIGHT GAIN	0.078 grams	GROSS ALPHA(µci/ml)	4.04E-17 ± .29
LOCATION	SE	GROSS BETA(µci/ml)	2.43E-15 ± .23
SAMPLER	S/N 19107N		

SHEET 1 OF 1 SUBJECT CALIBRATION
PROJECT NO. 111-03 SAMPLER # 1
BY ANT DATE 2/1/93
CHECKED _____ DATE _____

Earth Sciences Consultants, Inc.



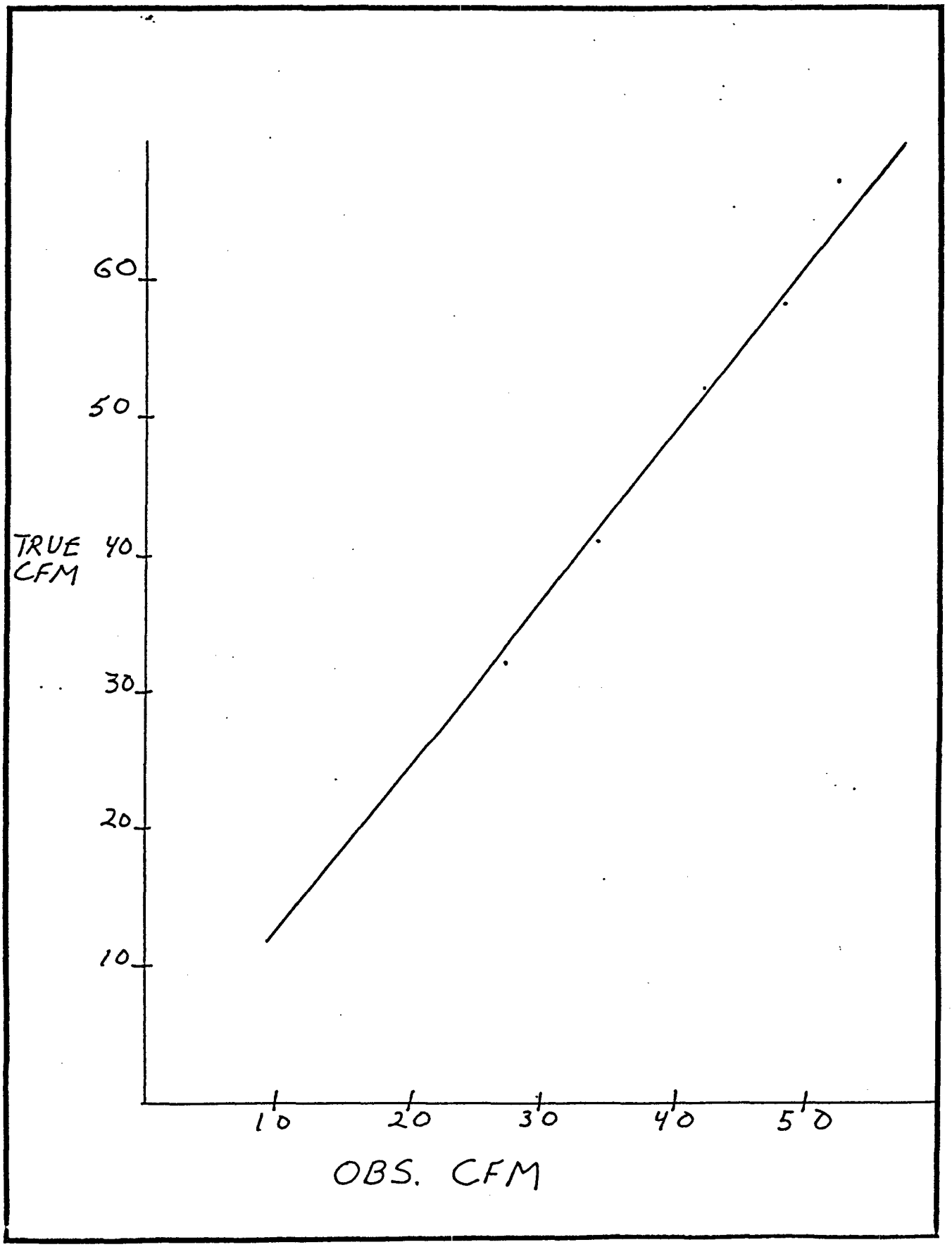
SHEET 1 OF 1 SUBJECT CALIBRATION SAMPLER # 2

PROJECT NO.

BY DATE

CHECKED DATE

Earth Sciences Consultants, Inc.



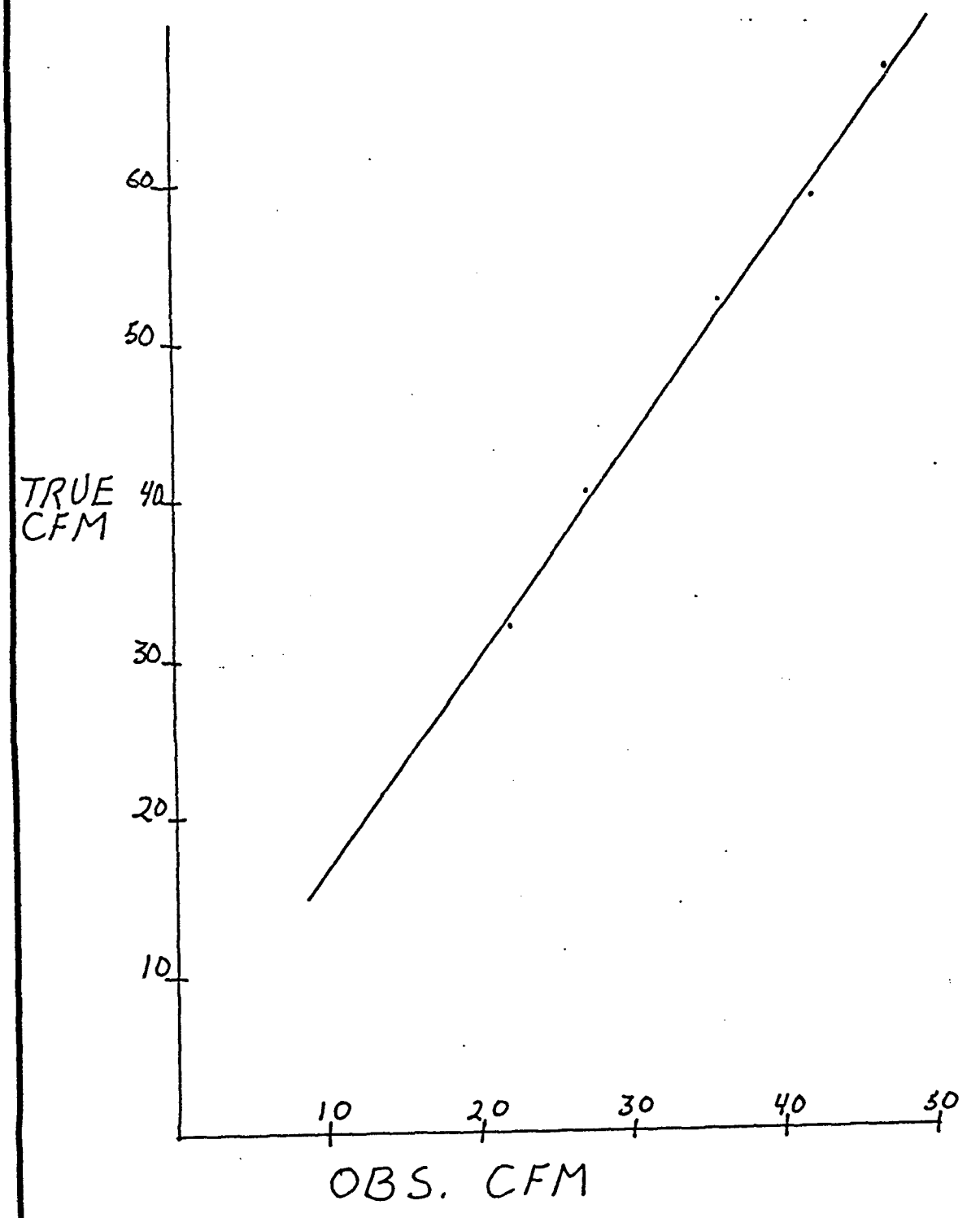
SHEET 1 OF 1 SUBJECT CALIBRATION SAMPLER # 3

PROJECT NO. 111-03

BY PNT DATE 2/1/93

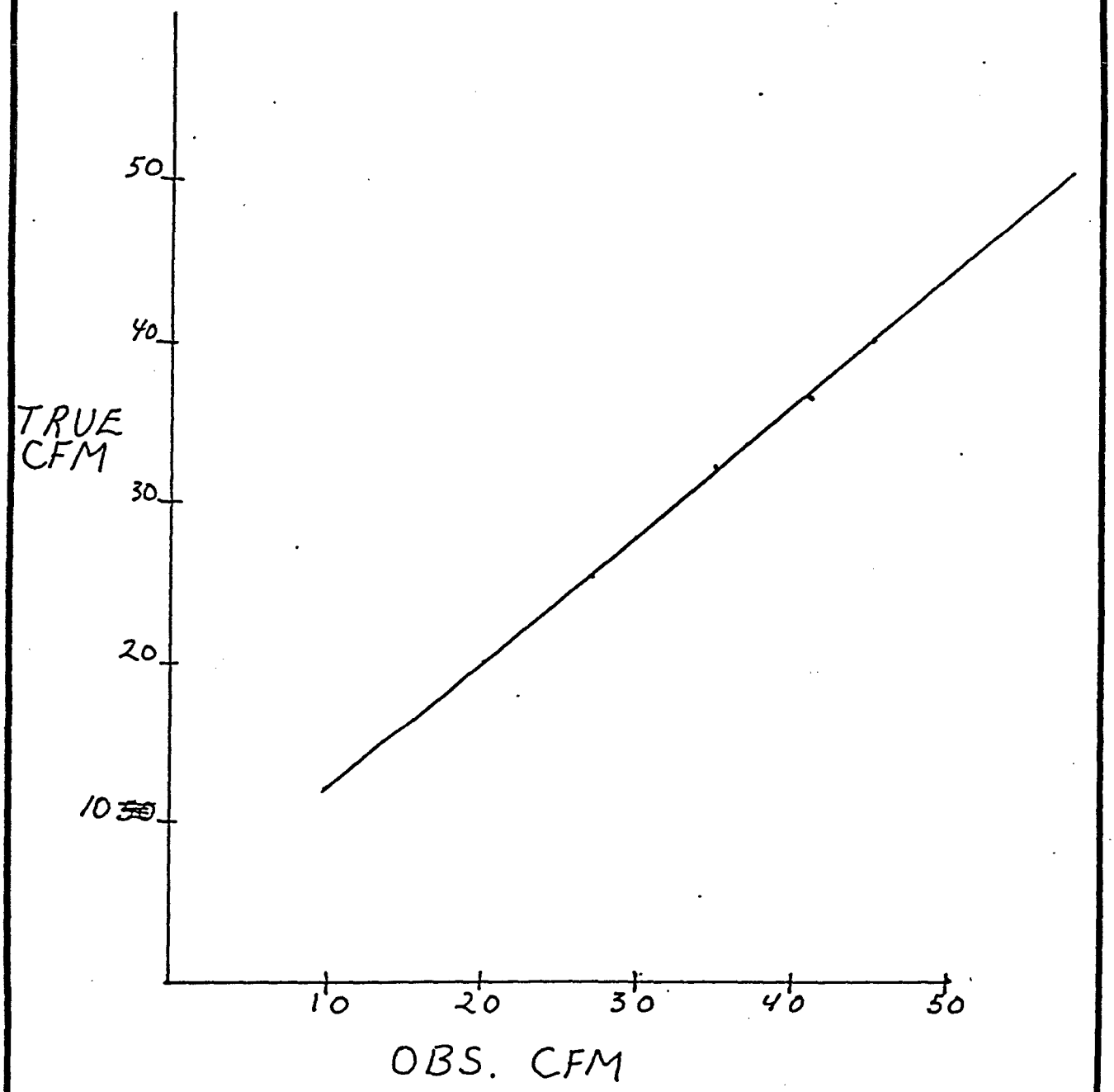
CHECKED _____ DATE _____

Earth Sciences Consultants, Inc.



SHEET 1 OF 1 SUBJECT CALIBRATION
PROJECT NO. 111-03 SAMPLER # 4
BY PNT DATE 2/11/93
CHECKED _____ DATE _____

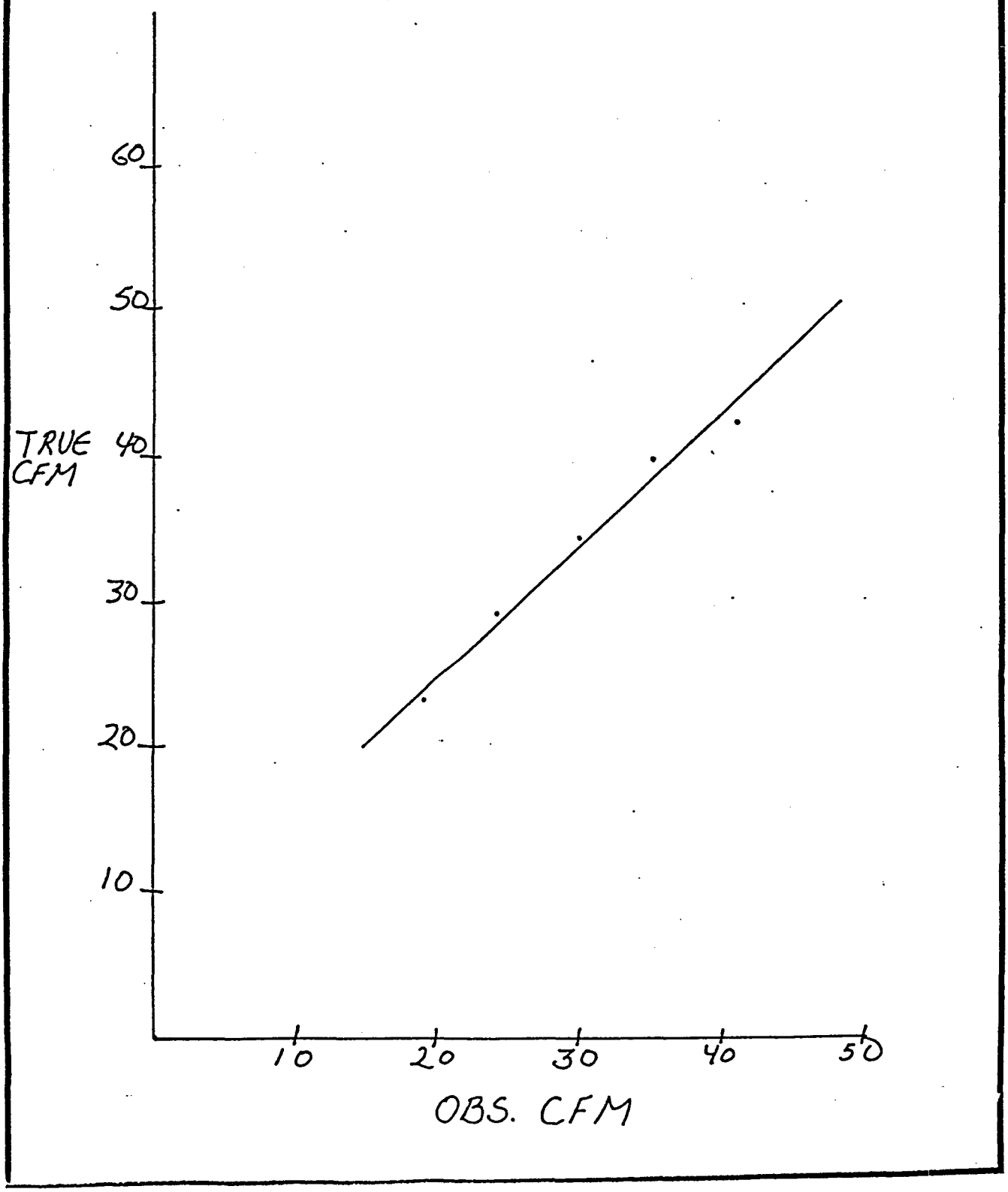
Earth Sciences Consultants, Inc.



SHEET 1 OF 1 SUBJECT CALIBRATION
PROJECT NO. 111-03 SAMPLER #5
BY PNT DATE 2/1/93
CHECKED _____ DATE _____

Earth Sciences Consultants, Inc.

027



AIR SAMPLING

028

UNIT NUMBER	#2
DATE	Feb 2+3, 1993
FILTER NUMBER	#2

FILTER DIRECTION	South

FILTER INSTALLED

TIME	9:05 A
DATE	2·2·93
CFM	70
WEIGHT (grams)	4.374

DAILY WEATHER INFORMATION

TIME	7:30 A
DATE	2·2·93
TEMP. °C	21°C
WIND SPEED - mph	
WIND DIR.	N
BARO. PRES - In. Hg	29.80
PRECIPITATION	0

FILTER REMOVED

TIME	9:15 A
DATE	2·3·93
CFM	65
WEIGHT (grams)	4.526

DAILY WEATHER INFORMATION

TIME	11:45 A
DATE	2·3·93
TEMP. °C	11.7°C
WIND SPEED mph	
WIND DIR.	S
BARO. PRES - In. Hg	29.77
PRECIPITATION	TRACE

TOTAL TIME 24 hrs 10 min

WEIGHT GAIN 0.152 grams

LOCATION East

SAMPLER S/N 19106N

GROSS ALPHA(µci/ml)	1.66E-16 ± .56
GROSS BETA(µci/ml)	1.70E-15 ± .33

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

029

UNIT NUMBER	#2
DATE	Feb 3 & 4, 93
FILTER NUMBER	# 7

FILTER DIRECTION	S

FILTER INSTALLED

TIME	9:15 A
DATE	2.3.93
CFM	65
WEIGHT (grams)	4.357

DAILY WEATHER INFORMATION

TIME	7:30 A
DATE	2/3/93
TEMP. °C	11.7°C.
WIND SPEED - mph	
WIND DIR.	S
BARO. PRES - In. Hg	29.77
PRECIPITATION	Trace

FILTER REMOVED

TIME	9:15 A
DATE	2.4.93
CFM	65
WEIGHT (grams)	4.542

DAILY WEATHER INFORMATION

TIME	8:20 A
DATE	2/4/93
TEMP. °C	44°C.
WIND SPEED mph	Almost Calm.
WIND DIR.	N.W.
BARO. PRES - In. Hg	30.33
PRECIPITATION	.030

TOTAL TIME 24 hrs

WEIGHT GAIN 0.185 grams

LOCATION East

SAMPLER S/N 19106 N

GROSS ALPHA(µci/ml)	2.12E-16 ± .41
GROSS BETA(µci/ml)	3.17E-15 ± 1.7

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

UNIT NUMBER	# 2
DATE	Feb. 8 & 9, 93
FILTER NUMBER	# 17
FILTER DIRECTION	S

FILTER INSTALLED

TIME	7:39 A
DATE	2.8.93
CFM	66
WEIGHT (grams)	4.443

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2.8.93
TEMP. °C	43°C
WIND SPEED - mph	5 mph
WIND DIR.	SW
BARO. PRES - In. Hg	30.03
PRECIPITATION	0

FILTER REMOVED

TIME	
DATE	2.9.93
CFM	Went
WEIGHT (grams)	Down

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2.9.93
TEMP. °C	8.5°C
WIND SPEED mph	7
WIND DIR.	S
BARO. PRES - In. Hg	29.99
PRECIPITATION	0

TOTAL TIME _____

WEIGHT GAIN _____ grams

LOCATION East

SAMPLER S/N 19106N

GROSS ALPHA(µci/ml)	1.09E-15 ± .63
GROSS BETA(µci/ml)	6.05E-15 ± .12

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

031

UNIT NUMBER	# 2
DATE	Feb 9&10, 93
FILTER NUMBER	# 22

FILTER DIRECTION	S

FILTER INSTALLED

TIME	11:55 A
DATE	2.9.93
CFM	61
WEIGHT (grams)	4.367

DAILY WEATHER INFORMATION

TIME	2.9.93
DATE	6:00 A
TEMP. °C	8.5
WIND SPEED - mph	7
WIND DIR.	S
BARO. PRES - In. Hg	29.99
PRECIPITATION	0

FILTER REMOVED

TIME	12:05 pm
DATE	2.10.93
CFM	65
WEIGHT (grams)	4.570

DAILY WEATHER INFORMATION

TIME	7:00 A
DATE	2.10.93
TEMP. °C	13.5
WIND SPEED mph	10
WIND DIR.	S.E.
BARO. PRES - In. Hg	29.89
PRECIPITATION	0

TOTAL TIME 24 hrs 10 Min.

WEIGHT GAIN 0.203 grams

LOCATION East

SAMPLER S/N 19106 N

GROSS ALPHA(µci/ml)	1.62E-16 ± .29
GROSS BETA(µci/ml)	3.25E-15 ± 2.45

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

032

UNIT NUMBER	2
DATE	2·10 & 11.93
FILTER NUMBER	27
FILTER DIRECTION	S

FILTER INSTALLED

TIME	12:07 p
DATE	2·10·93
CFM	65
WEIGHT (grams)	4.430

DAILY WEATHER INFORMATION

TIME	7:00 A
DATE	2·10·93
TEMP. °C	13.5 °C
WIND SPEED - mph	10
WIND DIR.	S.E.
BARO. PRES - In. Hg	29.89
PRECIPITATION	0

FILTER REMOVED

TIME	11:11 A
DATE	2·11·93
CFM	66
WEIGHT (grams)	4.508

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2·11·93
TEMP. °C	9.4 °C
WIND SPEED mph	11
WIND DIR.	SE
BARO. PRES - In. Hg	29.73
PRECIPITATION	.30

TOTAL TIME 23 hrs. 04 min.

WEIGHT GAIN 0.078 grams

LOCATION East

SAMPLER S/N 19106 N

GROSS ALPHA(µci/ml)	3.33E-17 ± .33
GROSS BETA(µci/ml)	3.01E-15 ± 1.78

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

033

UNIT NUMBER	#2
DATE	2/11-12/93
FILTER NUMBER	33

FILTER DIRECTION	S

FILTER INSTALLED

TIME	11:15A
DATE	2·11·93
CFM	65
WEIGHT (grams)	4.429

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2-11-93
TEMP. °C	9.4°C
WIND SPEED - mph	11
WIND DIR.	S.E.
BARO. PRES - In. Hg	29.73
PRECIPITATION	.30

FILTER REMOVED

TIME	10:30 A
DATE	2·12·93
CFM	65
WEIGHT (grams)	4.508

DAILY WEATHER INFORMATION

TIME	7:00A
DATE	2·12-93
TEMP. °C	2.2°C
WIND SPEED mph	14
WIND DIR.	NNW
BARO. PRES - In. Hg	29.88
PRECIPITATION	.02

TOTAL TIME 23 hrs 15 Min.

WEIGHT GAIN 0.079 grams

LOCATION East

SAMPLER S/N 19106N

GROSS ALPHA(µci/ml)	3.02E-17 ± .29
GROSS BETA(µci/ml)	3.10E-15 ± .98

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

034

UNIT NUMBER	#2
DATE	2/22-23/93
FILTER NUMBER	#39

FILTER DIRECTION	S

FILTER INSTALLED

TIME	11:38
DATE	22
CFM	53-65
WEIGHT (grams)	4.384

DAILY WEATHER INFORMATION

TIME	8:00 A
DATE	22
TEMP. °C	8.3°
WIND SPEED - mph	13
WIND DIR.	NNW
BARO. PRES - In. Hg	29.95
PRECIPITATION	0

FILTER REMOVED

TIME	
DATE	23
CFM	
WEIGHT (grams)	

DAILY WEATHER INFORMATION

TIME	7:00A
DATE	23
TEMP. °C	-1.7°
WIND SPEED mph	8
WIND DIR.	NNE
BARO. PRES - In. Hg	30.22
PRECIPITATION	0

Kept Down

TOTAL TIME	
WEIGHT GAIN	grams
LOCATION	EAST
SAMPLER	S/N 19106N

GROSS ALPHA(µci/ml)	
GROSS BETA(µci/ml)	

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

035

UNIT NUMBER	# 2
DATE	2·23·24·93
FILTER NUMBER	# 45
FILTER DIRECTION	S

FILTER INSTALLED

TIME	
DATE	23
CFM	
WEIGHT (grams)	4.331

DAILY WEATHER INFORMATION

TIME	7:00A
DATE	23
TEMP. °C	-1.7°
WIND SPEED - mph	8
WIND DIR.	NNE
BARO. PRES - In. Hg	30.22
PRECIPITATION	

FILTER REMOVED

TIME	
DATE	24
CFM	
WEIGHT (grams)	

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	24
TEMP. °C	-1.7
WIND SPEED mph	SSE
WIND DIR.	20
BARO. PRES - In. Hg	30.22
PRECIPITATION	0

TOTAL TIME	
WEIGHT GAIN	grams
LOCATION	
SAMPLER	

GROSS ALPHA(µci/ml)	
GROSS BETA(µci/ml)	

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

036

UNIT NUMBER	#2
DATE	2/24-25/93
FILTER NUMBER	51
FILTER DIRECTION	S

FILTER INSTALLED

TIME	11:45
DATE	24
CFM	62 = 74
WEIGHT (grams)	4.345

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2-24-93
TEMP. °C	-1.7
WIND SPEED - mph	20
WIND DIR.	SSE
BARO. PRES - In. Hg	30.22
PRECIPITATION	0

FILTER REMOVED

TIME	12:25 p
DATE	25
CFM	80
WEIGHT (grams)	4.418

DAILY WEATHER INFORMATION

TIME	6:00 Am
DATE	2/25/93
TEMP. °C	0°C
WIND SPEED mph	16
WIND DIR.	SE
BARO. PRES - In. Hg	29.85
PRECIPITATION	1.25

TOTAL TIME 24h 40m

WEIGHT GAIN 0.073 grams

LOCATION East

SAMPLER S/N 19106N

GROSS ALPHA(µci/ml)	4.98-17 ± .11
GROSS BETA(µci/ml)	1.20E-15 ± 1.46

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

UNIT NUMBER	#2
DATE	2/25-26/93
FILTER NUMBER	#57
FILTER DIRECTION	S

FILTER INSTALLED

TIME	12:27 AM
DATE	2.25.93
CFM	62-74
WEIGHT (grams)	4.363

DAILY WEATHER INFORMATION

TIME	6:00A
DATE	2.25.93
TEMP. °C	0°C
WIND SPEED - mph	16
WIND DIR.	SE
BARO. PRES - In. Hg	29.85
PRECIPITATION	1.25

FILTER REMOVED

TIME	11:55A
DATE	2.26.93
CFM	62-74
WEIGHT (grams)	4.564

DAILY WEATHER INFORMATION

TIME	7:00A
DATE	2.26.93
TEMP. °C	-3.9°C
WIND SPEED mph	14
WIND DIR.	N
BARO. PRES - In. Hg	30.26
PRECIPITATION.	.03

TOTAL TIME	23h 28m
WEIGHT GAIN	0.201 grams
LOCATION	EAST
SAMPLER	S/N 19106N

GROSS ALPHA(µci/ml)	1.68E-17 ± .12
GROSS BETA(µci/ml)	2.24E-15 ± 1.45

AIR SAMPLING

038

UNIT NUMBER	#3
DATE	Feb 2+3, 1993
FILTER NUMBER	#3
FILTER DIRECTION	South.

FILTER INSTALLED

TIME	9:40 A
DATE	2·2·93
CFM	75
WEIGHT (grams)	4.359

DAILY WEATHER INFORMATION

TIME	7:30 A
DATE	2·2·93
TEMP. °C	21°C
WIND SPEED - mph	
WIND DIR.	N
BARO. PRES - In. Hg	29.80
PRECIPITATION	0

FILTER REMOVED

TIME	10:00 A
DATE	2·3·93
CFM	70
WEIGHT (grams)	4.504

DAILY WEATHER INFORMATION

TIME	11:45 A
DATE	2·3·93
TEMP. °C	11.7°C
WIND SPEED mph	
WIND DIR.	S
BARO. PRES - In. Hg	29.77
PRECIPITATION	TRACE

TOTAL TIME 24 hrs 20 min.

WEIGHT GAIN 0.145 grams

LOCATION North-East

SAMPLER S/N 19108N

GROSS ALPHA(µci/ml)	8.96E-17±.51
GROSS BETA(µci/ml)	1.84E-15±.13

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

039

UNIT NUMBER	#. 3
DATE	Feb 3rd 4, 93
FILTER NUMBER	# 8

FILTER DIRECTION	S

FILTER INSTALLED

TIME	10:03 A
DATE	2·3·93
CFM	74
WEIGHT (grams)	4.361

DAILY WEATHER INFORMATION

TIME	7:30 A
DATE	2/3/93
TEMP. °C	11.7 °C.
WIND SPEED - mph	
WIND DIR.	S
BARO. PRES - In. Hg	29.77
PRECIPITATION	Trace

FILTER REMOVED

TIME	10:04 A
DATE	2·4·93
CFM	74
WEIGHT (grams)	4.522

DAILY WEATHER INFORMATION

TIME	8:20 A
DATE	2/4/93
TEMP. °C	44 °C.
WIND SPEED mph	Almost Calm.
WIND DIR.	N.W.
BARO. PRES - In. Hg	30.33
PRECIPITATION	.030

TOTAL TIME 24 hrs 01 min

WEIGHT GAIN 0.161 grams

LOCATION N.E.

SAMPLER S/N 19108 N

GROSS ALPHA(µci/ml)	2.09 E-16 ± .71
GROSS BETA(µci/ml)	2.17 E-15 ± 2.3

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

040

UNIT NUMBER	# 3
DATE	Feb. 8&9, 93
FILTER NUMBER	# 18

FILTER DIRECTION	S

FILTER INSTALLED

TIME	7:32 A
DATE	2.8.93
CFM	70
WEIGHT (grams)	4.452

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2.8.93
TEMP. °C	43°C
WIND SPEED - mph	5 mph
WIND DIR.	SW
BARO. PRES - In. Hg	30.03
PRECIPITATION	0

FILTER REMOVED

TIME	7:42 A
DATE	2.9.93
CFM	
WEIGHT (grams)	

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2.9.93
TEMP. °C	8.5°C
WIND SPEED mph	7
WIND DIR.	S
BARO. PRES - In. Hg	29.99
PRECIPITATION	0

TOTAL TIME 24hrs. 10min.

WEIGHT GAIN 0.128 grams

LOCATION N.E.

SAMPLER S/N 19108N

GROSS ALPHA(µci/ml)	9.49E-16 ± .19
GROSS BETA(µci/ml)	2.54-15 ± 1.67

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

041

UNIT NUMBER	# 3
DATE	Feb 9&10, 93
FILTER NUMBER	# 23

FILTER DIRECTION	S

FILTER INSTALLED

TIME	7:45 A
DATE	2·9·93
CFM	70
WEIGHT (grams)	4.396

DAILY WEATHER INFORMATION

TIME	2·9·93
DATE	6:00 A
TEMP. °C	8.5
WIND SPEED - mph	7
WIND DIR.	S
BARO. PRES - In. Hg	29.99
PRECIPITATION	0

FILTER REMOVED

TIME	7:47 A
DATE	2·10·93
CFM	70
WEIGHT (grams)	4.612

DAILY WEATHER INFORMATION

TIME	7:00 A
DATE	2·10·93
TEMP. °C	13.5
WIND SPEED mph	10
WIND DIR.	S.E.
BARO. PRES - In. Hg	29.89
PRECIPITATION	0

TOTAL TIME 24 hrs 02 Min.

WEIGHT GAIN 0.216 grams

LOCATION N.E

SAMPLER S/# 19108N

GROSS ALPHA(µci/ml)	8.17E-16 ± .41
GROSS BETA(µci/ml)	3.05E-15 ± 1.25

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

042

UNIT NUMBER	3
DATE	2·10 & 11.93
FILTER NUMBER	28

FILTER DIRECTION	S

FILTER INSTALLED

TIME	7:50 A
DATE	2·10·93
CFM	74
WEIGHT (grams)	4.428

DAILY WEATHER INFORMATION

TIME	7:00 A
DATE	2·10·93
TEMP. °C	13.5°C
WIND SPEED - mph	10
WIND DIR.	S.E.
BARO. PRES - In. Hg	29.89
PRECIPITATION	0

FILTER REMOVED

TIME	8:00 AM
DATE	2·11·93
CFM	74
WEIGHT (grams)	4.539

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2·11·93
TEMP. °C	9.4°C
WIND SPEED mph	11
WIND DIR.	SE
BARO. PRES - In. Hg	29.73
PRECIPITATION	.30

TOTAL TIME 24 hrs. 10 min.

WEIGHT GAIN 0.111 grams

LOCATION N.E.

SAMPLER S/N 19108N

GROSS ALPHA(µci/ml)	8.11E-17 ± .74
GROSS BETA(µci/ml)	2.72E-15 ± .61

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

UNIT NUMBER	#3
DATE	2/11-12/93
FILTER NUMBER	37

FILTER DIRECTION	S

FILTER INSTALLED

TIME	8:07A
DATE	2·11·93
CFM	74
WEIGHT (grams)	4.374

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2-11-93
TEMP. °C	9.4°C
WIND SPEED - mph	11
WIND DIR.	S.E.
BARO. PRES - In. Hg	29.73
PRECIPITATION	.30

FILTER REMOVED

TIME	8:55 A
DATE	2·12·93
CFM	74
WEIGHT (grams)	4.443

DAILY WEATHER INFORMATION

TIME	7:00A
DATE	2·12-93
TEMP. °C	2.2°C
WIND SPEED mph	14
WIND DIR.	NNW
BARO. PRES - In. Hg	29.88
PRECIPITATION	.02

TOTAL TIME 24 hrs 46 min.

WEIGHT GAIN 0.069 grams

LOCATION N.E.

SAMPLER S/N 19108N

GROSS ALPHA(µci/ml)	1.90E-17 ± .12
GROSS BETA(µci/ml)	2.55E-15 ± .41

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

044

UNIT NUMBER	# 3
DATE	2/22-23/93
FILTER NUMBER	# 40
FILTER DIRECTION	S

FILTER INSTALLED

TIME	940A
DATE	22
CFM	52-72
WEIGHT (grams)	4.329

DAILY WEATHER INFORMATION

TIME	800 A
DATE	22
TEMP. °C	8.3°
WIND SPEED - mph	13
WIND DIR.	NNW
BARO. PRES - In. Hg	29.95
PRECIPITATION	0

FILTER REMOVED

TIME	12:30p
DATE	23
CFM	52-72
WEIGHT (grams)	

DAILY WEATHER INFORMATION

TIME	700A
DATE	23
TEMP. °C	-1.7°
WIND SPEED mph	8
WIND DIR.	NNE
BARO. PRES - In. Hg	30.22
PRECIPITATION	0

TOTAL TIME 26h 50m

WEIGHT GAIN 0.112 grams

LOCATION N.E

SAMPLER S/N 19108N

GROSS ALPHA(µci/ml)	6.95E-17 ± .61
GROSS BETA(µci/ml)	3.85E-15 ± .74

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

045

UNIT NUMBER	# 3
DATE	2-23-24-93
FILTER NUMBER	# 46
FILTER DIRECTION	S

FILTER INSTALLED

TIME	12:35 p
DATE	23
CFM	53 = 75
WEIGHT (grams)	4.326

DAILY WEATHER INFORMATION

TIME	7:00 A
DATE	23
TEMP. °C	-1.7°
WIND SPEED - mph	8
WIND DIR.	NNE
BARO. PRES - In. Hg	30.22
PRECIPITATION	

FILTER REMOVED

TIME	11:50 A
DATE	24
CFM	24 = 35
WEIGHT (grams)	4.423

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	24
TEMP. °C	-1.7
WIND SPEED mph	SSE
WIND DIR.	20
BARO. PRES - In. Hg	30.22
PRECIPITATION	0

TOTAL TIME 23 hrs 45 min

WEIGHT GAIN 0.097 grams

LOCATION NE

SAMPLER S/N 19108N

GROSS ALPHA(µci/ml)	9.54E-17 ± .23
GROSS BETA(µci/ml)	4.12E-15 ± .30

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

046

UNIT NUMBER	#3
DATE	2/24-25/93
FILTER NUMBER	52

FILTER DIRECTION	S

FILTER INSTALLED

TIME	11:55
DATE	24
CFM	51=72
WEIGHT (grams)	4.365

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2-24-93
TEMP. °C	-1.7
WIND SPEED - mph	20
WIND DIR.	SSE
BARO. PRES - In. Hg	30.22
PRECIPITATION	0

FILTER REMOVED

TIME	800 A
DATE	25
CFM	71
WEIGHT (grams)	4.411

DAILY WEATHER INFORMATION

TIME	6:00 Am
DATE	2/25/93
TEMP. °C	0°C
WIND SPEED mph	16
WIND DIR.	SE
BARO. PRES - In. Hg	29.85
PRECIPITATION	1.25

TOTAL TIME 20 h 05 m

WEIGHT GAIN 0.046 grams

LOCATION NE

SAMPLER S/N 191081X

GROSS ALPHA(µci/ml)	6.90E-18 ± .11
GROSS BETA(µci/ml)	1.53E-15 ± .59

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

UNIT NUMBER	#3
DATE	2/25-26/93
FILTER NUMBER	#58
FILTER DIRECTION	S

FILTER INSTALLED

TIME	12:45
DATE	2.25.93
CFM	51=72
WEIGHT (grams)	4.358

DAILY WEATHER INFORMATION

TIME	6:00A
DATE	2.25.93
TEMP. °C	0°C
WIND SPEED - mph	16
WIND DIR.	SE
BARO. PRES - In. Hg	29.85
PRECIPITATION	1.25

FILTER REMOVED

TIME	12:05 P
DATE	2.26.93
CFM	70
WEIGHT (grams)	4.437

DAILY WEATHER INFORMATION

TIME	7:00A
DATE	2.26.93
TEMP. °C	-3.9°C
WIND SPEED mph	14
WIND DIR.	N
BARO. PRES - In. Hg	30.26
PRECIPITATION.	.03

TOTAL TIME	23h 20m
WEIGHT GAIN	0.079 grams
LOCATION	NE
SAMPLER	S/N 19108 IV

GROSS ALPHA(µci/ml)	6.06E-18 ± 0
GROSS BETA(µci/ml)	2.38E-15.74

AIR SAMPLING

UNIT NUMBER	#4
DATE	Feb 2+3, 1993
FILTER NUMBER	#4
FILTER DIRECTION	South

FILTER INSTALLED

TIME	9:35 AM
DATE	2·2·93
CFM	41
WEIGHT (grams)	4.352

DAILY WEATHER INFORMATION

TIME	7:30 A
DATE	2·2·93
TEMP. °C	21°C
WIND SPEED - mph	
WIND DIR.	N
BARO. PRES - In. Hg	29.80
PRECIPITATION	0

FILTER REMOVED

TIME	10:05 A
DATE	2·3·93
CFM	18
WEIGHT (grams)	4.463

DAILY WEATHER INFORMATION

TIME	11:45 A
DATE	2·3·93
TEMP. °C	11.7°C
WIND SPEED mph	
WIND DIR.	S
BARO. PRES - In. Hg	29.77
PRECIPITATION	TRACE

TOTAL TIME	24 hrs 30 min
WEIGHT GAIN	0.111 grams
LOCATION	N.W.
SAMPLER	S/N 3720

GROSS ALPHA(µci/ml)	3.16E-16 ± .69
GROSS BETA(µci/ml)	5.24E-15 ± 1.1

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

UNIT NUMBER	#. 4
DATE	Feb 3&4, 93
FILTER NUMBER	# 9

FILTER DIRECTION	S

FILTER INSTALLED

TIME	10:10 A
DATE	2.3.93
CFM	34
WEIGHT (grams)	4.340

DAILY WEATHER INFORMATION

TIME	7:30 A
DATE	2/3/93
TEMP. °C	11.7°C.
WIND SPEED - mph	
WIND DIR.	S
BARO. PRES - In. Hg	29.77
PRECIPITATION	Trace

FILTER REMOVED

TIME	10:10 A
DATE	2.4.93
CFM	32
WEIGHT (grams)	4.473

DAILY WEATHER INFORMATION

TIME	8:20 A
DATE	2/4/93
TEMP. °C	44°C.
WIND SPEED mph	Almost Calm.
WIND DIR.	N.W.
BARO. PRES - In. Hg	30.33
PRECIPITATION	.030

TOTAL TIME 24 hrs

WEIGHT GAIN 0.093 grams

LOCATION N.W.

SAMPLER S/N 3720

GROSS ALPHA(µci/ml)	4.07E-17 ± .19
GROSS BETA(µci/ml)	2.8E-15 ± 2.45

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

UNIT NUMBER	# 4
DATE	Feb. 8 & 9, 93
FILTER NUMBER	# 19
FILTER DIRECTION	S

FILTER INSTALLED

TIME	7:25 A
DATE	2.8.93
CFM	41
WEIGHT (grams)	4.417

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2.8.93
TEMP. °C	43°C
WIND SPEED - mph	5 mph
WIND DIR.	SW
BARO. PRES - In. Hg	30.03
PRECIPITATION	0

FILTER REMOVED

TIME	7:25 A
DATE	2.9.93
CFM	30
WEIGHT (grams)	4.473

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2.9.93
TEMP. °C	8.5°C
WIND SPEED mph	7
WIND DIR.	S
BARO. PRES - In. Hg	29.99
PRECIPITATION	0

TOTAL TIME 24 hrs.

WEIGHT GAIN 0.056 grams

LOCATION N.W.

SAMPLER S/N 3720

GROSS ALPHA(µci/ml)	3.69E-16 ± .49
GROSS BETA(µci/ml)	3.5E-15 ± .41

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

051

UNIT NUMBER	# 4
DATE	Feb 9&10, 93
FILTER NUMBER	# 24

FILTER DIRECTION	S

FILTER INSTALLED

TIME	7:27 A
DATE	2.9.93
CFM	41
WEIGHT (grams)	4.378

DAILY WEATHER INFORMATION

TIME	2.9.93
DATE	6:00 A
TEMP. °C	8.5
WIND SPEED - mph	7
WIND DIR.	S
BARO. PRES - In. Hg	29.99
PRECIPITATION	0

FILTER REMOVED

TIME	7:27 A
DATE	2.10.93
CFM	33
WEIGHT (grams)	4.483

DAILY WEATHER INFORMATION

TIME	7:00 A
DATE	2.10.93
TEMP. °C	13.5
WIND SPEED mph	10
WIND DIR.	S.E.
BARO. PRES - In. Hg	29.89
PRECIPITATION	0

TOTAL TIME 24 hrs 00 Min.

WEIGHT GAIN 0.105 grams

LOCATION N.W.

SAMPLER S/N 3720

GROSS ALPHA(µci/ml)	3.44E-16 ± .74
GROSS BETA(µci/ml)	3.69E-15 ± .71

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

052

UNIT NUMBER	4
DATE	2·10 & 11.93
FILTER NUMBER	29
FILTER DIRECTION	S

FILTER INSTALLED

TIME	7:40 A
DATE	2·10·93
CFM	41
WEIGHT (grams)	4.459

DAILY WEATHER INFORMATION

TIME	7:00 A
DATE	2·10·93
TEMP. °C	13.5°C
WIND SPEED - mph	10
WIND DIR.	S.E.
BARO. PRES - In. Hg	29.89
PRECIPITATION	0

FILTER REMOVED

TIME	7:45 A
DATE	2·11·93
CFM	29
WEIGHT (grams)	4.536

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2·11·93
TEMP. °C	9.4°C
WIND SPEED mph	11
WIND DIR.	SE
BARO. PRES - In. Hg	29.73
PRECIPITATION	.30

TOTAL TIME 24 hrs. 05 Min.

WEIGHT GAIN 0.077 grams

LOCATION N.W.

SAMPLER S/N 3720

GROSS ALPHA(µci/ml)	1.93E-16 ± .38
GROSS BETA(µci/ml)	4.44E-15 ± .74

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

053

UNIT NUMBER	#4
DATE	2/11-12/93
FILTER NUMBER	35
FILTER DIRECTION	S

FILTER INSTALLED

TIME	7:50 A
DATE	2·11·93
CFM	46
WEIGHT (grams)	4.365

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2-11-93
TEMP. °C	9.4°C
WIND SPEED - mph	11
WIND DIR.	S.E.
BARO. PRES - In. Hg	29.73
PRECIPITATION	.30

FILTER REMOVED

TIME	8:45 A
DATE	2·12·93
CFM	34
WEIGHT (grams)	4.413

DAILY WEATHER INFORMATION

TIME	7:00 A
DATE	2·12-93
TEMP. °C	2.2°C
WIND SPEED mph	14
WIND DIR.	NNW
BARO. PRES - In. Hg	29.88
PRECIPITATION	.02

TOTAL TIME 24 hrs 55 Min.

WEIGHT GAIN 0.048 grams

LOCATION N.W.

SAMPLER S/N 3720

GROSS ALPHA(µci/ml)	1.37E-17 ± .12
GROSS BETA(µci/ml)	1.65E-15 ± .24

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

UNIT NUMBER	#4
DATE	2/22-23/93
FILTER NUMBER	#41
FILTER DIRECTION	S

FILTER INSTALLED

TIME	9:30A
DATE	22
CFM	51=45
WEIGHT (grams)	4.329

DAILY WEATHER INFORMATION

TIME	8:00 A
DATE	22
TEMP. °C	8.3°
WIND SPEED - mph	13
WIND DIR.	NNW
BARO. PRES - In. Hg	29.95
PRECIPITATION	0

FILTER REMOVED

TIME	11:45
DATE	23
CFM	13 = 15
WEIGHT (grams)	4.391

DAILY WEATHER INFORMATION

TIME	7:00A
DATE	23
TEMP. °C	-1.7°
WIND SPEED mph	8
WIND DIR.	NNE
BARO. PRES - In. Hg	30.22
PRECIPITATION	0

TOTAL TIME	26 h 15 m
WEIGHT GAIN	0.062 grams
LOCATION	NW
SAMPLER	S/N 3720

GROSS ALPHA(µci/ml)	7.87E-17 ± .12
GROSS BETA(µci/ml)	9.29E-15 ± 1.45

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

055

UNIT NUMBER	# 4
DATE	2-23-24-93
FILTER NUMBER	# 47
FILTER DIRECTION	S

FILTER INSTALLED

TIME	11:46 A
DATE	23
CFM	48 = 42
WEIGHT (grams)	4.341

DAILY WEATHER INFORMATION

TIME	7:00 A
DATE	23
TEMP. °C	-1.7°
WIND SPEED - mph	8
WIND DIR.	NNE
BARO. PRES - In. Hg	30.22
PRECIPITATION	

FILTER REMOVED

TIME	11:25
DATE	24
CFM	28 = 26
WEIGHT (grams)	4.390

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	24
TEMP. °C	-1.7
WIND SPEED mph	SSE
WIND DIR.	20
BARO. PRES - In. Hg	30.22
PRECIPITATION	0

TOTAL TIME 23hrs 21 mins

WEIGHT GAIN 0.050 grams

LOCATION NW

SAMPLER S/N 3720

GROSS ALPHA(µci/ml)	5.04E-17 ± .29
GROSS BETA(µci/ml)	2.65E-15 ± 1.18

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

056

UNIT NUMBER	4
DATE	2/24-25/93
FILTER NUMBER	53

FILTER DIRECTION	S

FILTER INSTALLED

TIME	11:35 A
DATE	24
CFM	5 3=46
WEIGHT (grams)	4.350

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2·24·93
TEMP. °C	-1.7
WIND SPEED - mph	20
WIND DIR.	SSE
BARO. PRES - In. Hg	30.22
PRECIPITATION	0

FILTER REMOVED

TIME	11:55 A
DATE	25
CFM	0
WEIGHT (grams)	4.390

DAILY WEATHER INFORMATION

TIME	6:00 Am
DATE	2/25/93
TEMP. °C	0°C
WIND SPEED mph	16
WIND DIR.	SE
BARO. PRES - In. Hg	29.85
PRECIPITATION	1.25

TOTAL TIME 24 h 20 m

WEIGHT GAIN 0.040 grams

LOCATION NW

SAMPLER S/N 3720

GROSS ALPHA(µci/ml)	3.67E-17±.11
GROSS BETA(µci/ml)	6.69E-15±.61

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

UNIT NUMBER	#4
DATE	2/25-26/93
FILTER NUMBER	#60
FILTER DIRECTION	S

FILTER INSTALLED

TIME	12:00p
DATE	2.25.93
CFM	45=40
WEIGHT (grams)	4.343

DAILY WEATHER INFORMATION

TIME	6:00A
DATE	2.25.93
TEMP. °C	0°C
WIND SPEED - mph	16
WIND DIR.	SE
BARO. PRES - In. Hg	29.85
PRECIPITATION	1.25

FILTER REMOVED

TIME	11:40 A
DATE	2.26.93
CFM	23 = 22
WEIGHT (grams)	4.393

DAILY WEATHER INFORMATION

TIME	7:00A
DATE	2.26.93
TEMP. °C	-3.9°C
WIND SPEED mph	14
WIND DIR.	N
BARO. PRES - In. Hg	30.26
PRECIPITATION.	.03

TOTAL TIME	23h 40m
WEIGHT GAIN	0.050 grams
LOCATION	NW
SAMPLER	S/N 3720

GROSS ALPHA(µci/ml)	1.85E-17 ± .12
GROSS BETA(µci/ml)	6.91E-15 ± 1.08

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

058

UNIT NUMBER	# 5
DATE	Feb 2+3, 1993
FILTER NUMBER	# 5
FILTER DIRECTION	South.

FILTER INSTALLED

TIME	9:20 A
DATE	2·2·93
CFM	44
WEIGHT (grams)	4.324

DAILY WEATHER INFORMATION

TIME	7:30 A
DATE	2·2·93
TEMP. °C	21°C
WIND SPEED - mph	
WIND DIR.	N
BARO. PRES - In. Hg	29.80
PRECIPITATION	0

FILTER REMOVED

TIME	9:40 A
DATE	2·3·93
CFM	36
WEIGHT (grams)	4.448

DAILY WEATHER INFORMATION

TIME	11:45 A
DATE	2·3·93
TEMP. °C	11.7°C
WIND SPEED mph	
WIND DIR.	S
BARO. PRES - In. Hg	29.77
PRECIPITATION	TRACE

TOTAL TIME	24 hrs 20 min.
WEIGHT GAIN	0.125 grams
LOCATION	S.W.
SAMPLER	S/N 3721

GROSS ALPHA(µci/ml)	4.96E-17 ± .12
GROSS BETA(µci/ml)	2.46E-15 ± .96

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

059

UNIT NUMBER	#5
DATE	Feb 3 & 4, 93
FILTER NUMBER	# 10

FILTER DIRECTION	S

FILTER INSTALLED

TIME	9:47 A
DATE	2.3.93
CFM	41
WEIGHT (grams)	4.371

DAILY WEATHER INFORMATION

TIME	7:30 A
DATE	2/3/93
TEMP. °C	11.7 °C.
WIND SPEED - mph	
WIND DIR.	S
BARO. PRES - In. Hg	29.77
PRECIPITATION	Trace

FILTER REMOVED

TIME	9:47 A
DATE	2.4.93
CFM	31
WEIGHT (grams)	4.470

DAILY WEATHER INFORMATION

TIME	8:20 A
DATE	2/4/93
TEMP. °C	44°C.
WIND SPEED mph	Almost Calm.
WIND DIR.	NW.
BARO. PRES - In. Hg	30.33
PRECIPITATION	.030

TOTAL TIME 24 hrs

WEIGHT GAIN 0.099 grams

LOCATION S.W.

SAMPLER S/N 3721

GROSS ALPHA(µci/ml)	1.24E-17±.29
GROSS BETA(µci/ml)	2.62E-15±.49

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

060

UNIT NUMBER	# 5
DATE	Feb. 8 & 9, 93
FILTER NUMBER	# 20

FILTER DIRECTION	S

FILTER INSTALLED

TIME	7:58 A
DATE	2.8.93
CFM	41
WEIGHT (grams)	4.377

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2.8.93
TEMP. °C	43°C
WIND SPEED - mph	5 mph
WIND DIR.	SW
BARO. PRES - In. Hg	30.03
PRECIPITATION	0

FILTER REMOVED

TIME	8:12 A
DATE	2.9.93
CFM	36
WEIGHT (grams)	4.460

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2.9.93
TEMP. °C	8.5°C
WIND SPEED mph	7
WIND DIR.	S
BARO. PRES - In. Hg	29.99
PRECIPITATION	0

TOTAL TIME 24 hrs. 12 min.

WEIGHT GAIN 0.083 grams

LOCATION S.W.

SAMPLER S/N 3721

GROSS ALPHA(µci/ml)	2.29E-16 ± .29
GROSS BETA(µci/ml)	2.79E-15 ± 1.02

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

061

UNIT NUMBER	# 5
DATE	Feb 9&10, 93
FILTER NUMBER	# 25

FILTER DIRECTION	S

FILTER INSTALLED

TIME	8:17A
DATE	2·9·93
CFM	41
WEIGHT (grams)	4.422

DAILY WEATHER INFORMATION

TIME	2·9·93
DATE	6:00 A
TEMP. °C	8.5
WIND SPEED - mph	7
WIND DIR.	S
BARO. PRES - In. Hg	29.99
PRECIPITATION	0

FILTER REMOVED

TIME	8:17A
DATE	2·10·93
CFM	31
WEIGHT (grams)	4.533

DAILY WEATHER INFORMATION

TIME	7:00 A
DATE	2·10·93
TEMP. °C	13.5
WIND SPEED mph	10
WIND DIR.	S.E.
BARO. PRES - In. Hg	29.89
PRECIPITATION	0

TOTAL TIME 24 hrs min.

WEIGHT GAIN 0.111 grams

LOCATION S.W.

SAMPLER S/N 3721

GROSS ALPHA (µci/ml)	6.09E-17 ± .29
GROSS BETA (µci/ml)	4.42E-15 ± .88

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

062

UNIT NUMBER	5
DATE	2·10 & 11, 93
FILTER NUMBER	30

FILTER DIRECTION	S

FILTER INSTALLED

TIME	8:22 A
DATE	2·10·93
CFM	44
WEIGHT (grams)	4.427

DAILY WEATHER INFORMATION

TIME	7:00 A
DATE	2·10·93
TEMP. °C	13.5 °C
WIND SPEED - mph	10
WIND DIR.	S.E.
BARO. PRES - In. Hg	29.89
PRECIPITATION	0

FILTER REMOVED

TIME	9:25 A
DATE	2·11·93
CFM	36
WEIGHT (grams)	4.531

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2·11·93
TEMP. °C	9.4 °C
WIND SPEED mph	11
WIND DIR.	SE
BARO. PRES - In. Hg	29.73
PRECIPITATION	.30

TOTAL TIME 25 hrs. 03 Min.

WEIGHT GAIN 0.104 grams

LOCATION S.W.

SAMPLER S/N 3721

GROSS ALPHA(µci/ml)	7.49E-17 ± .33
GROSS BETA(µci/ml)	2.31E-15 ± .51

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

063

UNIT NUMBER	5
DATE	2/11-12/93
FILTER NUMBER	36
FILTER DIRECTION	S

FILTER INSTALLED

TIME	9:30 AM
DATE	2·11·93
CFM	42
WEIGHT (grams)	4.378

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2-11-93
TEMP. °C	9.4°C
WIND SPEED - mph	11
WIND DIR.	S.E.
BARO. PRES - In. Hg	29.73
PRECIPITATION	.30

FILTER REMOVED

TIME	9:00 AM
DATE	2·12·93
CFM	32
WEIGHT (grams)	4.424

DAILY WEATHER INFORMATION

TIME	7:00 A
DATE	2·12-93
TEMP. °C	2.2°C
WIND SPEED mph	14
WIND DIR.	N N W
BARO. PRES - In. Hg	29.88
PRECIPITATION	.02

TOTAL TIME 23 hrs 30 Min.

WEIGHT GAIN 0.046 grams

LOCATION S.W.

SAMPLER S/N 3721

GROSS ALPHA(µci/ml)	3.08E-17 ± .12
GROSS BETA(µci/ml)	3.47E-15 ± 1.39

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

UNIT NUMBER	# 5
DATE	2/22-23/93
FILTER NUMBER	# 42

FILTER DIRECTION	S

FILTER INSTALLED

TIME	10:08A
DATE	22
CFM	41=43
WEIGHT (grams)	4.296

DAILY WEATHER INFORMATION

TIME	8:00 A
DATE	22
TEMP. °C	8.3°
WIND SPEED - mph	13
WIND DIR.	NNW
BARO. PRES - In. Hg	29.95
PRECIPITATION	0

FILTER REMOVED

TIME	12:00P
DATE	23
CFM	11=17
WEIGHT (grams)	4.362

DAILY WEATHER INFORMATION

TIME	7:00A
DATE	23
TEMP. °C	-1.7°
WIND SPEED mph	8
WIND DIR.	NNE
BARO. PRES - In. Hg	30.22
PRECIPITATION	0

TOTAL TIME 25h 52m

WEIGHT GAIN 0.066 grams

LOCATION SW

SAMPLER S/N 3721

GROSS ALPHA(µci/ml)	1.18E-16 ± .33
GROSS BETA(µci/ml)	8.12E-15 ± .59

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

065

UNIT NUMBER	# 5
DATE	2·23·24·93
FILTER NUMBER	# 48
FILTER DIRECTION	S

FILTER INSTALLED

TIME	12:04p
DATE	23
CFM	42-44
WEIGHT (grams)	4.348

DAILY WEATHER INFORMATION

TIME	7:00A
DATE	23
TEMP. °C	-1.7°
WIND SPEED - mph	8
WIND DIR.	NNE
BARO. PRES - In. Hg	30.22
PRECIPITATION	

FILTER REMOVED

TIME	11:55
DATE	24
CFM	28-32
WEIGHT (grams)	4.416

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	24
TEMP. °C	-1.7
WIND SPEED mph	SSE
WIND DIR.	20
BARO. PRES - In. Hg	30.22
PRECIPITATION	0

TOTAL TIME	23 hrs 9 min
WEIGHT GAIN	0.068 grams
LOCATION	SW
SAMPLER	S/N 3721

GROSS ALPHA(µci/ml)	0
GROSS BETA(µci/ml)	3.88E-15 ± .63

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

066

UNIT NUMBER	#5
DATE	2/24-25/93
FILTER NUMBER	54

FILTER DIRECTION	S

FILTER INSTALLED

TIME	11:00 Am
DATE	24
CFM	42 = 44
WEIGHT (grams)	4.371

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2-24-93
TEMP. °C	-1.7
WIND SPEED - mph	20
WIND DIR.	SSE
BARO. PRES - In. Hg	30.22
PRECIPITATION	0

FILTER REMOVED

TIME	11:20 A
DATE	25
CFM	21
WEIGHT (grams)	4.421

DAILY WEATHER INFORMATION

TIME	6:00 Am
DATE	2/25/93
TEMP. °C	0°C
WIND SPEED mph	16
WIND DIR.	SE
BARO. PRES - In. Hg	29.85
PRECIPITATION	1.25

TOTAL TIME 24h 20m

WEIGHT GAIN 0.050 grams

LOCATION S.W.

SAMPLER S/N 3721

GROSS ALPHA(µci/ml)	1.54E-17±.11
GROSS BETA(µci/ml)	1.51E-15±.61

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

UNIT NUMBER	# 5
DATE	2/25-26/93
FILTER NUMBER	# 61
FILTER DIRECTION	S

FILTER INSTALLED

TIME	11:30A
DATE	2.25.93
CFM	40=42
WEIGHT (grams)	4.339

DAILY WEATHER INFORMATION

TIME	6:00A
DATE	2.25.93
TEMP. °C	0°C
WIND SPEED - mph	16
WIND DIR.	SE
BARO. PRES - In. Hg	29.85
PRECIPITATION	1.25

FILTER REMOVED

TIME	11:15A
DATE	2.26.93
CFM	19
WEIGHT (grams)	4.384

DAILY WEATHER INFORMATION

TIME	7:00A
DATE	2.26.93
TEMP. °C	-3.9°C
WIND SPEED mph	14
WIND DIR.	N
BARO. PRES - In. Hg	30.26
PRECIPITATION.	.03

TOTAL TIME 23h 45m

WEIGHT GAIN 0.045 grams

LOCATION S.W.

SAMPLER S/N 3721

GROSS ALPHA(µci/ml) 2.19E-17 ± 0

GROSS BETA(µci/ml) 3.31E-15 ± .88

AIR SAMPLING

068

UNIT NUMBER	#BLANK
DATE	2/22-23/93
FILTER NUMBER	# 43
FILTER DIRECTION	S

FILTER INSTALLED

TIME	
DATE	22
CFM	
WEIGHT (grams)	4.323

DAILY WEATHER INFORMATION

TIME	8:00 A
DATE	22
TEMP. °C	8.3°
WIND SPEED - mph	13
WIND DIR.	NNW
BARO. PRES - In. Hg	29.95
PRECIPITATION	0

FILTER REMOVED

TIME	
DATE	23
CFM	
WEIGHT (grams)	4.338

DAILY WEATHER INFORMATION

TIME	7:00 A
DATE	23
TEMP. °C	-1.7°
WIND SPEED mph	8
WIND DIR.	NNE
BARO. PRES - In. Hg	30.22
PRECIPITATION	0

TOTAL TIME			
WEIGHT GAIN	0.015 grams	GROSS ALPHA(µci/ml)	0
LOCATION		GROSS BETA(µci/ml)	0
SAMPLER			

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

069

UNIT NUMBER	#BLANK
DATE	2-23-24-93
FILTER NUMBER	# 49
FILTER DIRECTION	S

FILTER INSTALLED

TIME	
DATE	23
CFM	
WEIGHT (grams)	4.338

DAILY WEATHER INFORMATION

TIME	7:00 A
DATE	23
TEMP. °C	-1.7°
WIND SPEED - mph	8
WIND DIR.	NNE
BARO. PRES - In. Hg	30.22
PRECIPITATION	

FILTER REMOVED

TIME	
DATE	24
CFM	
WEIGHT (grams)	

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	24
TEMP. °C	-1.7
WIND SPEED mph	SSE
WIND DIR.	20
BARO. PRES - In. Hg	30.22
PRECIPITATION	0

TOTAL TIME _____

WEIGHT GAIN 0.012 grams

LOCATION _____

SAMPLER _____

GROSS ALPHA (µci/ml)	0
GROSS BETA (µci/ml)	0

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

070

UNIT NUMBER	BLANK
DATE	2/24-25/93
FILTER NUMBER	55
FILTER DIRECTION	S

FILTER INSTALLED

TIME	
DATE	24
CFM	
WEIGHT (grams)	4.353

DAILY WEATHER INFORMATION

TIME	6:00 A
DATE	2-24-93
TEMP. °C	-1.7
WIND SPEED - mph	20
WIND DIR.	SSE
BARO. PRES - In. Hg	30.22
PRECIPITATION	0

FILTER REMOVED

TIME	
DATE	25
CFM	
WEIGHT (grams)	4.365

DAILY WEATHER INFORMATION

TIME	6:00 Am
DATE	2/25/93
TEMP. °C	0°C
WIND SPEED mph	16
WIND DIR.	SE
BARO. PRES - In. Hg	29.85
PRECIPITATION	1.25

TOTAL TIME _____

WEIGHT GAIN 0.012 grams

LOCATION S.W.

SAMPLER S/N 3721

GROSS ALPHA(µci/ml)	0
GROSS BETA(µci/ml)	0

Fansteel, Inc. R/A WORKPLAN

AIR SAMPLING

071

UNIT NUMBER	#BLANK
DATE	2/25-26/93
FILTER NUMBER	#62
FILTER DIRECTION	S

FILTER INSTALLED	
TIME	
DATE	2.25.93
CFM	
WEIGHT (grams)	4.333

DAILY WEATHER INFORMATION	
TIME	6:00A
DATE	2.25.93
TEMP. °C	0°C
WIND SPEED - mph	16
WIND DIR.	SE
BARO. PRES - In. Hg	29.85
PRECIPITATION	1.25

FILTER REMOVED	
TIME	
DATE	2.26.93
CFM	
WEIGHT (grams)	4.341

DAILY WEATHER INFORMATION	
TIME	7:00A
DATE	2.26.93
TEMP. °C	-3.9°C
WIND SPEED mph	14
WIND DIR.	N
BARO. PRES - In. Hg	30.26
PRECIPITATION.	.03

TOTAL TIME	
WEIGHT GAIN	0.008 grams
LOCATION	
SAMPLER	

GROSS ALPHA(µci/ml)	0
GROSS BETA(µci/ml)	0

Fansteel, Inc. R/A WORKPLAN

SHEET 1 OF ____ SUBJECT CALIBRATION OF HiVol SAMPLERS

PROJECT NO. 111-03

BY PNT DATE 2/1/93

CHECKED ____ DATE ____

Earth Sciences Consultants, Inc.

072

TEMP: 16°C BAROMETER: 29.78"

SAMPLER #4. STAPLEX DC POWERED S/N 3720

PLATE	ΔH	CFM
18	2.5"x2	45
13	2.1"x2	41
10	1.6"x2	35
7	1.0"x2	27
5	0.6"x2	20

SAMPLER #~~5~~3. STAPLEX AC POWERED S/N

PLATE	ΔH	CFM
18	7.2"x2	47
13	5.7"x~~10~~2	42
10	4.4"x2	36
7	2.7"x2	27
5	1.6 x2	22

SAMPLER #2. STAPLEX AC POWERED S/N

PLATE	ΔH	CFM
18	7.1x2	50
13	5.7x2	43
10	4.3x2	34

ABORT. UNSTABLE CFM

SHEET 2 OF 4 SUBJECT

PROJECT NO.

BY DATE

CHECKED DATE

Earth Sciences Consultants, Inc.

073

SAMPLER #1 STAPLEX AC POWERED S/N

PLATE	ΔH	CFM
18	6.5	55
13	5.2	52
10	4.1	46
7	2.6	37
5	1.4	27

SAMPLER #5 STAPLEX DC POWERED S/N

PLATE	ΔH	CFM
18	2.9	41
13	2.3	35
10	1.8	30
7	1.2	24
5	0.7	19

$T_1 = 289.16°K$ $T_{STD} = 298.16°K$

$P_1 = 756.4$ mmHg $P_{STD} = 760$ mm Hg

SAMPLER #4

$\sqrt{(P_1/P_{STD})(T_{STD}/T_1)} = \sqrt{(.99)(1.03} = 1.01$

CFM	CFM (ADJ)	ΔH	$\sqrt{1.01\Delta H}$	TRUE AIRFLOW
45	45.4	5.1	2.27	~~38~~ 40
41	41.4	4.2	2.06	36 36.5
35	35.4	3.2	1.80	32
27	27.3	2.0	1.42	25.5
20	20.2	1.2	1.10	20

SHEET 3 OF 4 SUBJECT

PROJECT NO.

BY DATE

CHECKED DATE

Earth Sciences Consultants, Inc.

074

SAMPLER # 3

CFM	CFM (ADJ)	ΔH	$\sqrt{(1.01)\Delta H}$	TRUE AIRFLOW
47	47.5	14.4	3.8	67
42	42.4	11.4	3.4	59
36	36.4	8.8	3.0	52.5
27	27.3	5.4	2.3	40.5
22	22.2	3.2	1.8	32

SAMPLER # 1

55	55.6	13.0	3.6	63
52	52.5	10.4	3.2	56
46	46.5	8.2	2.9	50.5
37	37.4	5.2	2.3	40.5
27	27.3	2.8	1.7	30

SAMPLER # 5

41	41.4	5.8	2.4	42
35	35.4	4.6	2.2	39.5
30	30.3	3.6	1.9	34
24	24.2	2.4	1.6	29.5
19	19.2	1.4	1.2	23

SAMPLER # 2 RERUN, 2/2/93

PLATE	ΔH	CFM
18	7.3 x 2	52
13	5.6 x 2	48
10	4.3 x 2	42
7	2.7 x 2	34
5	1.6 x 2	27

TEMP. = 21°C BAROMETER = 29.80 in

Earth Sciences Consultants, Inc.

$$\frac{P}{P(STD)} =$$

$$\frac{TEMP\ (STD)}{T}$$

$P = 29.80'' \times 2.54\ cm/in \times 10\ mm/cm = 757\ mm$

$P_{STD} = 760\ mm$

$P/P_{STD} = 757/760 = 0.996$

$T = {}^\circ C + 273.16 = 294.16\ {}^\circ K$

$T(STD) = 298.16\ {}^\circ K \qquad (25\ {}^\circ C)$

$$\frac{T(STD)}{T} = \frac{298.16}{294.16} = 1.014$$

$CF = (\text{CORRECTION FACTOR}) = \sqrt{(P/P_{STD})(T_{STD}/T)}$

$= \sqrt{(.996)(1.014)} = \sqrt{1.01} = 1$

NO ADJUSTMENT TO CFM_{OBS} OR ΔH

SAMPLER #2

CFM	CFM (ADJ)	ΔH (in)	$\sqrt{(1.01)(\Delta H)}$	TRUE AIRFLOW
52	52	14.6	3.84	67
48	48	11.2	3.36	58
42	42	8.6	2.95	51.5
34	34	5.4	2.33	41
27	27	3.2	1.80	32

Pre-Remedial assessment air results

H 10/90

N

- PROPERTY LINE
- PERIMETER FENCE

J K Q H A B C D E M P G F N

SINTERING BUILDING

E.B. BUILDING

ELECTRIC SUBSTATION

20' DOUBLE WIDE EQUIPMENT GATE

24" CMP

POND 8

POND 9

POND 7

POND 6

POND 5

NEW WELL #1

OUTFALL 001

SODIUM REDUCTION

BULK SODIUM

COFFEE SHOP

COVERED STORAGE ACID RESIDUES

FRENCH DRAIN

B-3

B-4

B2

B1

#1

#2

#3

#4

#5

FANSTEEL METALS, MUSKOGEE

FIGURE 1

076

Appendix G

QA/QC Data

Table G-1
Chemistry Data Summary
Soil Borings and Monitoring Wells
Quality Assurance/Quality Control
Fansteel Metals
Muskingum, Oklahoma

Parameter	Units	MS B-2 (0-0.5) 2/1/93	MSD B-2 (0-0.5) 2/1/93	MS B-7 (0-0.5) 2/3/93	MSD B-7 (0-0.5) 2/3/93
Fluoride	mg/kg	1600	82%	200	86%
Ammonia	mg/kg NH3-N	<0.10	100%	<0.10	120%
Sulfate	mg/kg	3.7	100%	2.2	77%
Total Analyses:					
Silver	mg/kg	<2.1	61%	<2.3	31%
Arsenic	mg/kg	5.8	170%	1.3	83%
Barium	mg/kg	72	65%	42	79%
Cadmium	mg/kg	<2.1	68%	<2.3	87%
Chromium	mg/kg	16	40%	6.5	81%
Mercury	mg/kg	0.070	120%	<0.058	130%
Nickel	mg/kg	<11	71%	<11	79%
Lead	mg/kg	12	200%	5.0	130%
Antimony	mg/kg	<21	13%	<23	16%
Selenium	mg/kg	<0.25	160%	<0.23	61%
Tin	mg/kg	<11	NA(1)	<11	NA
Columbium	mg/kg	16	94%	4.6	91%
Tantalum	mg/kg	11	100%	4.6	94%
Gross Alpha	pCi/g	.(2)	-	-	-
Gross Beta	pCi/g	-	-	-	-
Volatile Organic Analyses:					
4-Methyl-2-pentanone	µg/kg	-	140%	-	130%

See footnotes at end of table.

Table G-1
(Continued)

Parameter	Units	MS B-9 (15.0-17.5) 2/2/93	MSD B-9 (15.0-17.5) 2/2/93	MS B-22 (0-0.5) 2/11/93	MSD B-22 (0-0.5) 2/11/93
Fluoride	mg/kg	220	74%	5400	110%
Ammonia	mg/kg NH3-N	<0.10	110%	<0.10	110%
Sulfate	mg/kg	200	120%	5.1	77%
Total Analyses:					
Silver	mg/kg	<2.3	22%	<2.6	76%
Arsenic	mg/kg	2.8	98%	2.1	6.1%
Barium	mg/kg	96	95%	150	110%
Cadmium	mg/kg	<2.3	120%	5.3	110%
Chromium	mg/kg	16	100%	37	140%
Mercury	mg/kg	<0.063	130%	0.10	100%
Nickel	mg/kg	13	110%	38	83%
Lead	mg/kg	4.2	160%	28	NC(3)
Antimony	mg/kg	<23	28%	<26	64%
Selenium	mg/kg	<0.25	65%	<0.26	4.0%
Tin	mg/kg	<12	NA	44	NA
Columbium	mg/kg	7.5	96%	54	79%
Tantalum	mg/kg	15	95%	26	91%
Gross Alpha	pCi/g	-	-	-	-
Gross Beta	pCi/g	-	-	-	-
Volatile Organic Analyses:					
4-Methyl-2-pentanone	µg/kg	-	180%	-	67%

See footnotes at end of table.

Table G-1
(Continued)

Parameter	Units	MS B-25 (23.5-26.8) 2/5/93	MSD B-25 (23.5-26.8) 2/5/93	MS B-29 (0-0.5) 2/2/93	MSD B-29 (0-0.5) 2/2/93
Fluoride	mg/kg	1000	130%	5900	110%
Ammonia	mg/kg NH3-N	<0.10	94%	2.2	100%
Sulfate	mg/kg	30	31%	6.9	98%
Total Analyses:					
Silver	mg/kg	<2.5	74%	<2.3	67%
Arsenic	mg/kg	1.1	88%	<0.24	140%
Barium	mg/kg	55	94%	180	48%
Cadmium	mg/kg	<2.5	110%	2.6	46%
Chromium	mg/kg	8.8	110%	46	0.00%
Mercury	mg/kg	<0.061	100%	0.21	87%
Nickel	mg/kg	<12	100%	13	73%
Lead	mg/kg	2.9	NC	16	0.00%
Antimony	mg/kg	<25	95%	<23	3.8%
Selenium	mg/kg	<0.25	60%	<0.24	16%
Tin	mg/kg	<12	NA	35	NA
Columbium	mg/kg	3.7	NA	38	98%
Tantalum	mg/kg	8.6	NA	17	100%
Gross Alpha	pCi/g	-	-	-	-
Gross Beta	pCi/g	-	-	-	-
Volatile Organic Analyses:					
4-Methyl-2-pentanone	µg/kg	-	66%	-	140%

See footnotes at end of table.

Table G-1
(Continued)

Parameter	Units	MS B-34 (0-0.5) 2/3/93	MSD B-34 (0-0.5) 2/3/93	MS B-47 (0-0.5) 2/11/93	MSD B-47 (0-0.5) 2/11/93
Fluoride	mg/kg	230	77%	150	100%
Ammonia	mg/kg NH3-N	<0.10	110%	0.15	110%
Sulfate	mg/kg	3.8	91%	2.6	100%
Total Analyses:					
Silver	mg/kg	<2.0	72%	<2.4	59%
Arsenic	mg/kg	0.59	81%	0.72	90%
Barium	mg/kg	36	93%	29	82%
Cadmium	mg/kg	<2.0	94%	<2.4	83%
Chromium	mg/kg	5.5	110%	4.8	85%
Mercury	mg/kg	<0.057	110%	0.081	110%
Nickel	mg/kg	<10	96%	<12	87%
Lead	mg/kg	3.4	140%	3.0	120%
Antimony	mg/kg	<20	20%	<24	16%
Selenium	mg/kg	<0.23	54%	<0.24	59%
Tin	mg/kg	<10	NA	<12	NA
Columbium	mg/kg	4.6	96%	<1.2	89%
Tantalum	mg/kg	4.6	91%	2.4	95%
Gross Alpha	pCi/g	-	-	-	-
Gross Beta	pCi/g	-	-	-	-
Volatile Organic Analyses:					
4-Methyl-2-pentanone	µg/kg	-	190%	-	110%

See footnotes at end of table.

Table G-1
(Continued)

Parameter	Units	MS B-49 (0-0.5) 2/5/93	MSD B-49 (0-0.5) 2/5/93	MS B-54 (19.0-21.8) 2/5/93	MSD B-54 (19.0-21.8) 2/5/93
Fluoride	mg/kg	8600	110%	100	91%
Ammonia	mg/kg NH3-N	1.7	120%	<0.10	120%
Sulfate	mg/kg	11	100%	3.7	110%
Total Analyses:					
Silver	mg/kg	<2.4	40%	<2.4	58%
Arsenic	mg/kg	1.8	0.00%	1.0	78%
Barium	mg/kg	29	NC	44	91%
Cadmium	mg/kg	<2.4	65%	<2.4	90%
Chromium	mg/kg	30	48%	7.4	98%
Mercury	mg/kg	0.12	74%	<0.059	60%
Nickel	mg/kg	<12	68%	<12	95%
Lead	mg/kg	15	NC	4.4	120%
Antimony	mg/kg	<24	19%	<24	89%
Selenium	mg/kg	<0.24	15%	<0.24	35%
Tin	mg/kg	97	NA	<12	NA
Columbium	mg/kg	210	88%	2.4	93%
Tantalum	mg/kg	20	98%	8.3	97%
Gross Alpha	pCi/g	-	-	-	-
Gross Beta	pCi/g	-	-	-	-
Volatile Organic Analyses:					
4-Methyl-2-pentanone	µg/kg	57000	59%	72000	73%

See footnotes at end of table.

Table G-1
(Continued)

Parameter	Units	MS B-58 (0-0.5) 2/9/93	MSD B-58 (0-0.5) 2/9/93	MS MW-55 (0-0.5) 2/10/93	MSD MW-55 (0-0.5) 2/10/93
Fluoride	mg/kg	300	77%	410	78%
Ammonia	mg/kg NH3-N	<0.10	100%	<0.10	110%
Sulfate	mg/kg	12	90%	2.2	73%
Total Analyses:					
Silver	mg/kg	<2.3	17%	<2.4	82%
Arsenic	mg/kg	1.0	68%	3.0	100%
Barium	mg/kg	25	NC	71	78%
Cadmium	mg/kg	<2.3	65%	<2.4	80%
Chromium	mg/kg	4.3	0.00%	19	79%
Mercury	mg/kg	<0.058	95%	<0.060	140%
Nickel	mg/kg	<12	79%	<12	81%
Lead	mg/kg	7.1	NC	29	NC
Antimony	mg/kg	<23	12%	<24	5.5%
Selenium	mg/kg	<0.23	60%	<0.24	49%
Tin	mg/kg	<12	NA	15	NA
Columbium	mg/kg	3.5	100%	9.6	85%
Tantalum	mg/kg	3.5	110%	12	85%
Gross Alpha	pCi/g	-	-	-	-
Gross Beta	pCi/g	-	-	-	-
Volatile Organic Analyses:					
4-Methyl-2-pentanone	µg/kg	-	81%	130000	12%

See footnotes at end of table.

Table G-1
(Continued)

Parameter	Units	MS MW-58 (19.0-20.0) 2/10/93	MSD MW-58 (19.0-20.0) 2/10/93	MS TP-1 (2.0) 2/17/93	MSD TP-1 (2.0) 2/17/93
Fluoride	mg/kg	270	76%	150	27
Ammonia	mg/kg NH3-N	<0.10	110%	<0.10	110
Sulfate	mg/kg	7.0	58%	2.2	89
Total Analyses:					
Silver	mg/kg	<2.4	84%	<2.4	20
Arsenic	mg/kg	1.9	67%	1.7	71
Barium	mg/kg	35	71%	50	77
Cadmium	mg/kg	<2.4	70%	2.5	77
Chromium	mg/kg	5.4	84%	15	74
Mercury	mg/kg	<0.061	130%	0.061	130
Nickel	mg/kg	<12	78%	<12	82
Lead	mg/kg	6.5	140%	5.8	24
Antimony	mg/kg	<24	0.00%	<24	6.3
Selenium	mg/kg	<0.24	54%	0.24	69
Tin	mg/kg	<12	NA	<12	-
Columbium	mg/kg	1.2	95%	4.9	99
Tantalum	mg/kg	4.9	99%	11	100
Gross Alpha	pCi/g	-	-	-	-
Gross Beta	pCi/g	-	-	-	-
Volatile Organic Analyses:					
4-Methyl-2-pentanone	µg/kg	130000	13%	-	-

See footnotes at end of table.

Table G-1
(Continued)

Parameter	Units	B24 Equipment Blank 02/05/93(4)	B28 Equipment Blank 02/05/93(4)	B57 Equipment Blank 02/05/93(4)	MW53 Equipment Blank 2/11/93(4)
Fluoride	mg/kg	<0.010	<0.010	<0.010	0.010
Ammonia	mg/kg NH3-N	<0.10	<0.10	<2.0	0.18
Sulfate	mg/kg	2.2	2.2	2.2	44
Total Analyses:					
Silver	mg/kg	<0.010	<0.010	<0.010	<0.0073
Arsenic	mg/kg	<0.0010	<0.0010	<0.0010	-
Barium	mg/kg	<0.020	<0.020	<0.020	<0.012
Cadmium	mg/kg	<0.010	<0.010	<0.010	<0.0052
Chromium	mg/kg	<0.010	<0.010	<0.010	<0.0089
Mercury	mg/kg	<0.0002	<0.0002	<0.0002	<0.00020
Nickel	mg/kg	<0.040	<0.040	<0.040	<0.012
Lead	mg/kg	0.0040	0.0030	<0.0030	-
Antimony	mg/kg	<0.10	<0.10	<0.10	<0.044
Selenium	mg/kg	<0.0010	<0.0010	<0.0010	-
Tin	mg/kg	<0.050	<0.050	<0.050	<0.023
Columbium	mg/kg	<0.10	<0.10	<0.10	<0.10
Tantalum	mg/kg	<0.10	<0.10	<0.10	<0.10
Gross Alpha	pCi/g	-	-	-	-
Gross Beta	pCi/g	-	-	-	-
Volatile Organic Analyses:					
4-Methyl-2-pentanone	µg/kg	<10	<10	<10	<10

See footnotes at end of table.

Table G-1
(Continued)

Parameter	Units	MW55 Equipment Blank 2/10/93(4)	Equipment Blank 2/2/93(4)	Equipment Blank 2/4/93(4)	Method Blank 2/2/93
Fluoride	mg/kg	0.010	0.10	<0.010	-
Ammonia	mg/kg NH3-N	<2	<0.10	<0.10	-
Sulfate	mg/kg	44	2.2	2.2	-
Total Analyses:					
Silver	mg/kg	<0.0073	<0.010	<0.010	-
Arsenic	mg/kg	-	<0.0010	0.0010	-
Barium	mg/kg	<0.012	<0.020	<0.020	-
Cadmium	mg/kg	<0.0052	<0.0050	<0.010	-
Chromium	mg/kg	<0.0089	0.011	<0.010	-
Mercury	mg/kg	<0.00020	<0.002	<0.0002	-
Nickel	mg/kg	<0.012	<0.040	<0.040	-
Lead	mg/kg	-	0.0050	<0.0010	-
Antimony	mg/kg	<0.044	<0.060	<0.10	-
Selenium	mg/kg	-	<0.0010	<0.0010	-
Tin	mg/kg	0.027	<0.050	<0.050	-
Columbium	mg/kg	<0.10	<1.0	<0.10	-
Tantalum	mg/kg	<0.10	<1.0	<0.10	-
Gross Alpha	pCi/g	-	-	-	-
Gross Beta	pCi/g	-	-	-	-
Volatile Organic Analyses:					
4-Methyl-2-pentanone	µg/kg	<10	-	<10	<10

See footnotes at end of table.

Table G-1
(Continued)

Parameter	Units	Method Blank 2/4/93	Method Blank 1 2/5/93	Method Blank 2 2/5/93	Method Blank 2/9/93
Fluoride	mg/kg	-	-	-	-
Ammonia	mg/kg NH3-N	-	-	-	-
Sulfate	mg/kg	-	-	-	-
Total Analyses:					
Silver	mg/kg	-	-	-	-
Arsenic	mg/kg	-	-	-	-
Barium	mg/kg	-	-	-	-
Cadmium	mg/kg	-	-	-	-
Chromium	mg/kg	-	-	-	-
Mercury	mg/kg	-	-	-	-
Nickel	mg/kg	-	-	-	-
Lead	mg/kg	-	-	-	-
Antimony	mg/kg	-	-	-	-
Selenium	mg/kg	-	-	-	-
Tin	mg/kg	-	-	-	-
Columbium	mg/kg	-	-	-	-
Tantalum	mg/kg	-	-	-	-
Gross Alpha	pCi/g	-	-	-	-
Gross Beta	pCi/g	-	-	-	-
Volatile Organic Analyses:					
4-Methyl-2-pentanone	µg/kg	<10	<1300	<10	<1300

See footnotes at end of table.

Table G-1
(Continued)

Parameter	Units	Method Blank 1 2/10/93	Method Blank 2 2/10/93	Method Blank 2/17/93	Trip Blank 2/2/93
Fluoride	mg/kg	-	-	-	-
Ammonia	mg/kg NH3-N	-	-	-	-
Sulfate	mg/kg	-	-	-	-
Total Analyses:					
Silver	mg/kg	-	-	-	-
Arsenic	mg/kg	-	-	-	-
Barium	mg/kg	-	-	-	-
Cadmium	mg/kg	-	-	-	-
Chromium	mg/kg	-	-	-	-
Mercury	mg/kg	-	-	-	-
Nickel	mg/kg	-	-	-	-
Lead	mg/kg	-	-	-	-
Antimony	mg/kg	-	-	-	-
Selenium	mg/kg	-	-	-	-
Tin	mg/kg	-	-	-	-
Columbium	mg/kg	-	-	-	-
Tantalum	mg/kg	-	-	-	-
Gross Alpha	pCi/g	-	-	-	-
Gross Beta	pCi/g	-	-	-	-
Volatile Organic Analyses:					
4-Methyl-2-pentanone	µg/kg	<1300	<10	<1300	<10

(1)NA = Not applicable.
(2)Dash denotes not analyzed.
(3)NC = Not calcuable.
(4)Equipment blank results in mg/l.

Table G-2
Water Chemistry Data Summary
Quality Assurance/ Quality Control
Fansteel Metals
Muskogee, Oklahoma

Parameter	Units	Sample Identification and Date		
		MW-55S 2/26/93	MW-55S MS 2/26/93	MW-55S MSD 2/26/93
Total Analyses:				
Fluoride	mg/l	52	48	95%
Ammonia	mg/l NO_3-N	4.2	4.2	23%
Nitrate-Nitrite	mg/l NO_3^--N	1.2	1.3	150%
Sulfate	mg/l	88	91	170%
Gross Alpha	pCi/l	40±9	39±9	24±7
Gross Beta	pCi/l	36±6	38±7	29±7
Isotopes:				
Uranium-233 & 234	pCi/l	1.4±0.4	1.6±0.3	1.4±0.4
Uranium-235	pCi/l	-0.1±0.1	0.0±0.1	0.0±0.1
Uranium-238	pCi/l	1.3±0.4	1.3±0.3	1.2±0.3
Radium 226	pCi/l	2.0±0.5	2.5±0.6	2.2±0.5
Radium 228	pCi/l	3.0±1.3	3.4±1.5	3.5±1.4
Potassium-40	pCi/l	4.8	4.3	5.1
Thorium-228	pCi/l	1.9±06	2.3±0.5	1.7±0.4
Thorium-230	pCi/l	1.0±0.4	1.6±0.4	1.1±0.3
Thorium-232	pCi/l	1.6±0.5	1.8±0.4	1.4±0.3
Metals:				
Silver, Total	µg/l	<6.84	<6.84	75%
Aluminum, Total	µg/l	-(1)	-	-
Arsenic, Total	µg/l	20.6	20.4	36.5%
Barium, Total	µg/l	295	288	85%
Beryllium, Total	µg/l	-	-	-
Calcium, Total	µg/l	22500	19700	NAP
Cadmium, Total	µg/l	28.5	7.58	52%
Cobalt, Total	µg/l	-	-	-
Chromium, Total	µg/l	63.5	60.5	91%
Copper, Total	µg/l	-	-	-
Iron, Total	µg/l	-	-	-
Mercury, Total	µg/l	<0.2	<0.2	110%
Potassium, Total	µg/l	-	-	-
Magnesium, Total	µg/l	-	-	-
Manganese, Total	µg/l	-	-	-
Sodium, Total	µg/l	-	-	-
Nickel, Total	µg/l	101	78.4	87%
Lead, Total	µg/l	16.7	18.4	16%
Antimony, Total	µg/l	35.3	<29.7	83%
Selenium, Total	µg/l	<0.8	<0.8	51%
Tin, Total	µg/l	66000	65000	NAP
Thallium, Total	µg/l	-	-	-
Vanadium, Total	µg/l	-	-	-
Zinc, Total	µg/l	-	-	-
Columbium, Total	µg/l	50	30	93%
Tantalum, Total	µg/l	60	40	89%
Volatile Organics:				
Acetone	µg/l	-	-	-
Benzene	µg/l	-	-	-
Bromodichloromethane	µg/l	-	-	-
Bromoform	µg/l	-	-	-
Bromomethane	µg/l	-	-	-
2-Butanone	µg/l	-	-	-
Carbon Disulfide	µg/l	-	-	-
Carbon Tetrachloride	µg/l	-	-	-
Chlorobenzene	µg/l	-	-	-
Dibromochloromethane	µg/l	-	-	-
Chloroethane	µg/l	-	-	-
Chloromethane	µg/l	-	-	-
Chloroform	µg/l	-	-	-
1,1-Dichloroethane	µg/l	-	-	-
1,2-Dichloroethane	µg/l	-	-	-
1,1-Dichloroethene	µg/l	-	-	-
1,2-Dichloroethene	µg/l	-	-	-
1,2-Dichlorppropane	µg/l	-	-	-
Cis-1,3-Dichloropropene	µg/l	-	-	-
Trans-1,3-Dichloropropene	µg/l	-	-	-
Ethylbenzene	µg/l	-	-	-
2-Hexanone	µg/l	-	-	-
Methylene Chloride	µg/l	-	-	-
4-Methyl-2-pentanone	µg/l	<10	-	86%
Styrene	µg/l	-	-	-
1,1,2,2-Tetrachloroethane	µg/l	-	-	-
Tetrachloroethene	µg/l	-	-	-
Toluene	µg/l	-	-	-
1,1,1-Trichloroethane	µg/l	-	-	-
1,1,2-Trichloroethane	µg/l	-	-	-
Trichloroethene	µg/l	-	-	-
Vinyl Chloride	µg/l	-	-	-
Xylenes, Total	µg/l	-	-	-

See footnotes at end of table.

Table G-2
(Continued)

Parameter	Units	Sample Identification and Date		
		MW-55S 2/26/93	MW-55S MS 2/26/93	MW-55S MSD 2/26/93
Semivolatile Organics:				
Acenaphthene	µg/l	-	-	-
Acenaphthylene	µg/l	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-
Benzo(a)pyrene	µg/l	-	-	-
Benzo(a)anthracene	µg/l	-	-	-
Benzo(b)fluoranthene	µg/l	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-
Carbazole	µg/l	-	-	-
Chrysene	µg/l	-	-	-
4-Chloroaniline	µg/l	-	-	-
2-Chloronaphthalene	µg/l	-	-	-
2-Chlorophenol	µg/l	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-
o-Cresol	µg/l	-	-	-
p-Cresols	µg/l	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-
Dibenzofuran	µg/l	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-
Diethyl Phthalate	µg/l	-	-	-
Dimethyl Phthalate	µg/l	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-
Fluoranthene	µg/l	-	-	-
Fluorene	µg/l	-	-	-
Hexachlorocyclopentadiene	µg/l	-	-	-
Hexachlorobenzene	µg/l	-	-	-
Hexachlorobutadiene	µg/l	-	-	-
Hexachloroethane	µg/l	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-
Isophorone	µg/l	-	-	-
2-Methylnaphthalene	µg/l	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-
Naphthalene	µg/l	-	-	-
2-Nitroaniline	µg/l	-	-	-
3-Nitroaniline	µg/l	-	-	-
4-Nitroaniline	µg/l	-	-	-
Nitrobenzene	µg/l	-	-	-
2-Nitrophenol	µg/l	-	-	-
4-Nitrophenol	µg/l	-	-	-
p-chloro-m-cresol	µg/l	-	-	-
Pentachlorophenol	µg/l	-	-	-
Phenanthrene	µg/l	-	-	-
Phenol	µg/l	-	-	-
Pyrene	µg/l	-	-	-
2,4,5-Trichlorophenol	µg/l	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-

See footnotes at end of table.

Table G-2
(Continued)

Parameter	Units	Sample Identification and Date		
		MW-62S 2/27/93	MW-62S MS 2/27/93	MW-62S MSD 2/27/93
Total Analyses:				
Fluoride	mg/l	10	13	97%
Ammonia	mg/l NO_3-N	250	310	99%
Nitrate-Nitrite	mg/l NO_3-N	160	150	110%
Sulfate	mg/l	1000	1000	100%
Gross Alpha	pCi/l	2±11	12±9	18±11
Gross Beta	pCi/l	200±20	210±20	210±20
Isotopes:				
Uranium-233 & 234	pCi/l	4.3±0.5	-	-
Uranium-235	pCi/l	0.2±0.1	-	-
Uranium-238	pCi/l	3.6±0.5	-	-
Radium 226	pCi/l	0.6±0.4	-	-
Radium 228	pCi/l	-	-	-
Potassium-40	pCi/l	-	-	-
Thorium-228	pCi/l	0.5±0.2	-	-
Thorium-230	pCi/l	0.3±0.2	-	-
Thorium-232	pCi/l	0.1±0.1	-	-
Metals:				
Silver, Total	µg/l	<6.84	<6.84	15.1%
Aluminum, Total	µg/l	1980	3100	134%
Arsenic, Total	µg/l	538	507	-
Barium, Total	µg/l	57.3	73.6	90.9%
Beryllium, Total	µg/l	4.67	4.61	101%
Calcium, Total	µg/l	163000	155000	-
Cadmium, Total	µg/l	5.39	<4.04	98%
Cobalt, Total	µg/l	<8.54	<8.54	98.1%
Chromium, Total	µg/l	<10	<10	99.7%
Copper, Total	µg/l	18.4	13.8	94.9%
Iron, Total	µg/l	2440	3740	71.8%
Mercury, Total	µg/l	<0.2	<0.2	86%
Potassium, Total	µg/l	182000	172000	-
Magnesium, Total	µg/l	48000	47500	-
Manganese, Total	µg/l	718	738	103%
Sodium, Total	µg/l	237000	226000	-
Nickel, Total	µg/l	<11.1	<11.1	100%
Lead, Total	µg/l	3.19	3.56	94.1%
Antimony, Total	µg/l	<1.1	<3	93%
Selenium, Total	µg/l	0.8	<0.8	106%
Tin, Total	µg/l	<50	<50	-
Thallium, Total	µg/l	<4	<4	105%
Vanadium, Total	µg/l	5.41	<5.17	97.7%
Zinc, Total	µg/l	18.9	16.8	97.5%
Columbium, Total	µg/l	<100	<100	93%
Tantalum, Total	µg/l	100	<100	93%
Volatile Organics:				
Acetone	µg/l	<10	-	-
Benzene	µg/l	<10	110	110%
Bromodichloromethane	µg/l	<10	110	-
Bromoform	µg/l	<10	-	-
Bromomethane	µg/l	<10	-	-
2-Butanone	µg/l	<10	-	-
Carbon Disulfide	µg/l	<10	-	-
Carbon Tetrachloride	µg/l	<10	-	-
Chlorobenzene	µg/l	<10	110	110%
Dibromochloromethane	µg/l	<10	-	-
Chloroethane	µg/l	<10	-	-
Chloromethane	µg/l	<10	-	-
Chloroform	µg/l	<10	-	-
1,1-Dichloroethane	µg/l	<10	-	-
1,2-Dichloroethane	µg/l	<10	-	-
1,1-Dichloroethene	µg/l	<10	200	200%
1,2-Dichloroethene	µg/l	<10	-	-
1,2-Dichloropropane	µg/l	<10	-	-
Cis-1,3-Dichloropropene	µg/l	<10	-	-
Trans-1,3-Dichloropropene	µg/l	<10	-	-
Ethylbenzene	µg/l	<10	-	-
2-Hexanone	µg/l	<10	-	-
Methylene Chloride	µg/l	<10	-	-
4-Methyl-2-pentanone	µg/l	<10	-	-
Styrene	µg/l	<10	-	-
1,1,2,2-Tetrachloroethane	µg/l	<10	-	-
Tetrachloroethene	µg/l	<10	-	-
Toluene	µg/l	<10	110	110%
1,1,1-Trichloroethane	µg/l	<10	-	-
1,1,2-Trichloroethane	µg/l	<10	-	-
Trichloroethene	µg/l	<10	66	68%
Vinyl Chloride	µg/l	<10	-	-
Xylenes, Total	µg/l	<10	-	-

See footnotes at end of table.

Table G-2
(Continued)

Parameter	Units	Sample Identification and Date		
		MW-62S 2/27/93	MW-62S MS 2/27/93	MW-62S MSD 2/27/93
Semivolatile Organics:				
Acenaphthene	µg/l	<10	44	46%
Acenaphthylene	µg/l	<10	-	-
Bis(2-chloroethyl)ether	µg/l	<10	-	-
Bis(2-chloroethoxy)methane	µg/l	<10	-	-
Bis(2-chloroisopropyl)ether	µg/l	<10	-	-
Bis(2-ethylhexyl)phthalate	µg/l	<10	-	-
Benzo(a)pyrene	µg/l	<10	-	-
Benzo(a)anthracene	µg/l	<10	-	-
Benzo(b)fluoranthene	µg/l	<10	-	-
Benzo(g,h,i)perylene	µg/l	<10	-	-
Benzo(k)fluoranthene	µg/l	<10	-	-
4-Bromophenyl Phenyl Ether	µg/l	<10	-	-
Butylbenzyl Phthalate	µg/l	<10	-	-
Carbazole	µg/l	<10	-	-
Chrysene	µg/l	<10	-	-
4-Chloroaniline	µg/l	<10	-	-
2-Chloronaphthalene	µg/l	<10	-	-
2-Chlorophenol	µg/l	<10	67	54%
4-Chlorophenyl Phenyl Ether	µg/l	<10	-	-
o-Cresol	µg/l	<10	-	-
p-Cresols	µg/l	<10	-	-
Dibenzo(a,h)anthracene	µg/l	<10	-	-
Dibenzofuran	µg/l	<10	-	-
2,4-Dichlorophenol	µg/l	<10	-	-
1,2-Dichlorobenzene	µg/l	<10	-	-
1,3-Dichlorobenzene	µg/l	<10	-	-
1,4-Dichlorobenzene	µg/l	<10	52	46%
3,3-Dichlorobenzidine	µg/l	<10	-	-
Diethyl Phthalate	µg/l	<10	-	-
Dimethyl Phthalate	µg/l	<10	-	-
2,4-Dimethylphenol	µg/l	<10	-	-
Di-N-butyl Phthalate	µg/l	<10	-	-
4,6-Dinitro-o-cresol	µg/l	<50	-	-
2,4-Dinitrotoluene	µg/l	<10	76	86%
2,6-Dinitrotoluene	µg/l	<10	-	-
Di-N-octyl Phthalate	µg/l	<10	-	-
2,4-Dinitrophenol	µg/l	<50	-	-
Fluoranthene	µg/l	<10	-	-
Fluorene	µg/l	<10	-	-
Hexachlorocyclopentadiene	µg/l	<10	-	-
Hexachlorobenzene	µg/l	<10	-	-
Hexachlorobutadiene	µg/l	<10	-	-
Hexachloroethane	µg/l	<10	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	<10	-	-
Isophorone	µg/l	<10	-	-
2-Methylnaphthalene	µg/l	<10	-	-
N-Nitrosodiphenylamine	µg/l	<10	78	72%
N-Nitrosodi-n-propylamine	µg/l	<10	-	-
Naphthalene	µg/l	<10	-	-
2-Nitroaniline	µg/l	<50	-	-
3-Nitroaniline	µg/l	<50	-	-
4-Nitroaniline	µg/l	<50	-	-
Nitrobenzene	µg/l	<10	-	-
2-Nitrophenol	µg/l	<10	-	-
4-Nitrophenol	µg/l	<50	35	39%
p-chloro-m-cresol	µg/l	<10	44	37%
Pentachlorophenol	µg/l	<50	120	100%
Phenanthrene	µg/l	<10	<10	<10%
Phenol	µg/l	<10	19	18%
Pyrene	µg/l	<10	52	54%
2,4,5-Trichlorophenol	µg/l	<50	-	-
2,4,6-Trichlorophenol	µg/l	<10	-	-
1,2,4-Trichlorobenzene	µg/l	<10	57	54%

See footnotes at end of table.

Table G-2
(Continued)

Parameter	Units	Sample Identification and Date: Field Blank 2/26/93	Field Blank 2 2/27/93	Method Blank 2/26/93
Total Analyses:				
Fluoride	mg/l	0.029	0.011	-
Ammonia	mg/l NO_3-N	<0.10	<0.10	-
Nitrate-Nitrite	mg/l NO_3-N	<0.10	0.10	-
Sulfate	mg/l	2.9	2.2	-
Gross Alpha	pCi/l	-	0±1	-
Gross Beta	pCi/l	-	0±1	-
Isotopes:				
Uranium-233 & 234	pCi/l	-	-	-
Uranium-235	pCi/l	-	-	-
Uranium-238	pCi/l	-	-	-
Radium 226	pCi/l	-	-	-
Radium 228	pCi/l	-	-	-
Potassium-40	pCi/l	-	-	-
Thorium-228	pCi/l	-	-	-
Thorium-230	pCi/l	-	-	-
Thorium-232	pCi/l	-	-	-
Metals:				
Silver, Total	µg/l	<6.84	<6.84	-
Aluminum, Total	µg/l	157	<70.6	-
Arsenic, Total	µg/l	<1	<1	-
Barium, Total	µg/l	<9.84	<9.84	-
Beryllium, Total	µg/l	<0.366	<0.366	-
Calcium, Total	µg/l	280	<187	-
Cadmium, Total	µg/l	<4.04	<4.04	-
Cobalt, Total	µg/l	<8.54	<8.54	-
Chromium, Total	µg/l	<10	<10	-
Copper, Total	µg/l	<3.01	<3.01	-
Iron, Total	µg/l	16.1	27.1	-
Mercury, Total	µg/l	<0.2	<0.2	-
Potassium, Total	µg/l	<281	<281	-
Magnesium, Total	µg/l	<227	<227	-
Manganese, Total	µg/l	2.46	<2.03	-
Sodium, Total	µg/l	1760	<451	-
Nickel, Total	µg/l	<11.1	<11.1	-
Lead, Total	µg/l	3.36	<1	-
Antimony, Total	µg/l	<3	<3	-
Selenium, Total	µg/l	<0.8	<0.8	-
Tin, Total	µg/l	<50	<50	-
Thallium, Total	µg/l	<4	<4	-
Vanadium, Total	µg/l	<5.17	<5.17	-
Zinc, Total	µg/l	10.3	14.2	-
Columbium, Total	µg/l	<10	<100	-
Tantalum, Total	µg/l	10	<100	-
Volatile Organics:				
Acetone	µg/l	-	<10	-
Benzene	µg/l	-	<10	-
Bromodichloromethane	µg/l	-	<10	-
Bromoform	µg/l	-	<10	-
Bromomethane	µg/l	-	<10	-
2-Butanone	µg/l	-	<10	-
Carbon Disulfide	µg/l	-	<10	-
Carbon Tetrachloride	µg/l	-	<10	-
Chlorobenzene	µg/l	-	<10	-
Dibromochloromethane	µg/l	-	<10	-
Chloroethane	µg/l	-	<10	-
Chloromethane	µg/l	-	<10	-
Chloroform	µg/l	-	<10	-
1,1-Dichloroethane	µg/l	-	<10	-
1,2-Dichloroethane	µg/l	-	<10	-
1,1-Dichloroethene	µg/l	-	<10	-
1,2-Dichloroethene	µg/l	-	<10	-
1,2-Dichloropropane	µg/l	-	<10	-
Cis-1,3-Dichloropropene	µg/l	-	<10	-
Trans-1,3-Dichloropropene	µg/l	-	<10	-
Ethylbenzene	µg/l	-	<10	-
2-Hexanone	µg/l	-	<10	-
Methylene Chloride	µg/l	-	<10	-
4-Methyl-2-pentanone	µg/l	-	<10	<10
Styrene	µg/l	-	<10	-
1,1,2,2-Tetrachloroethane	µg/l	-	<10	-
Tetrachloroethene	µg/l	-	<10	-
Toluene	µg/l	-	<10	-
1,1,1-Trichloroethane	µg/l	-	<10	-
1,1,2-Trichloroethane	µg/l	-	<10	-
Trichloroethene	µg/l	-	<10	-
Vinyl Chloride	µg/l	-	<10	-
Xylenes, Total	µg/l	-	<10	-

See footnotes at end of table.

Table G-2
(Continued)

Parameter	Units	Sample Identification and Date: Field Blank 2/26/93	Field Blank 2 2/27/93	Method Blank 2/26/93
Semivolatile Organics:				
Acenaphthene	µg/l	-	<10	-
Acenaphthylene	µg/l	-	<10	-
Bis(2-chloroethyl)ether	µg/l	-	<10	-
Bis(2-chloroethoxy)methane	µg/l	-	<10	-
Bis(2-chloroisopropyl)ether	µg/l	-	<10	-
Bis(2-ethylhexyl)phthalate	µg/l	-	<10	-
Benzo(a)pyrene	µg/l	-	<10	-
Benzo(a)anthracene	µg/l	-	<10	-
Benzo(b)fluoranthene	µg/l	-	<10	-
Benzo(g,h,i)perylene	µg/l	-	<10	-
Benzo(k)fluoranthene	µg/l	-	<10	-
4-Bromophenyl Phenyl Ether	µg/l	-	<10	-
Butylbenzyl Phthalate	µg/l	-	<10	-
Carbazole	µg/l	-	<10	-
Chrysene	µg/l	-	<10	-
4-Chloroaniline	µg/l	-	<10	-
2-Chloronaphthalene	µg/l	-	<10	-
2-Chlorophenol	µg/l	-	<10	-
4-Chlorophenyl Phenyl Ether	µg/l	-	<10	-
o-Cresol	µg/l	-	<10	-
p-Cresols	µg/l	-	<10	-
Dibenzo(a,h)anthracene	µg/l	-	<10	-
Dibenzofuran	µg/l	-	<10	-
2,4-Dichlorophenol	µg/l	-	<10	-
1,2-Dichlorobenzene	µg/l	-	<10	-
1,3-Dichlorobenzene	µg/l	-	<10	-
1,4-Dichlorobenzene	µg/l	-	<10	-
3,3-Dichlorobenzidine	µg/l	-	<10	-
Diethyl Phthalate	µg/l	-	<10	-
Dimethyl Phthalate	µg/l	-	<10	-
2,4-Dimethylphenol	µg/l	-	<10	-
Di-N-butyl Phthalate	µg/l	-	<10	-
4,6-Dinitro-o-cresol	µg/l	-	<50	-
2,4-Dinitrotoluene	µg/l	-	<10	-
2,6-Dinitrotoluene	µg/l	-	<10	-
Di-N-octyl Phthalate	µg/l	-	<10	-
2,4-Dinitrophenol	µg/l	-	<50	-
Fluoranthene	µg/l	-	<10	-
Fluorene	µg/l	-	<10	-
Hexachlorocyclopentadiene	µg/l	-	<10	-
Hexachlorobenzene	µg/l	-	<10	-
Hexachlorobutadiene	µg/l	-	<10	-
Hexachloroethane	µg/l	-	<10	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	<10	-
Isophorone	µg/l	-	<10	-
2-Methylnaphthalene	µg/l	-	<10	-
N-Nitrosodiphenylamine	µg/l	-	<10	-
N-Nitrosodi-n-propylamine	µg/l	-	<10	-
Naphthalene	µg/l	-	<10	-
2-Nitroaniline	µg/l	-	<50	-
3-Nitroaniline	µg/l	-	<50	-
4-Nitroaniline	µg/l	-	<50	-
Nitrobenzene	µg/l	-	<10	-
2-Nitrophenol	µg/l	-	<10	-
4-Nitrophenol	µg/l	-	<50	-
p-chloro-m-cresol	µg/l	-	<10	-
Pentachlorophenol	µg/l	-	<50	-
Phenanthrene	µg/l	-	<10	-
Phenol	µg/l	-	<10	-
Pyrene	µg/l	-	<10	-
2,4,5-Trichlorophenol	µg/l	-	<50	-
2,4,6-Trichlorophenol	µg/l	-	<10	-
1,2,4-Trichlorobenzene	µg/l	-	<10	-

See footnotes at end of table.

Table G-2
(Continued)

Parameter	Units	Sample Identification and Date: Method Blank 3/2/93	Method Blank 3/4/93	Trip Blank 1 2/25/93	Trip Blank 2 2/27/93
Total Analyses:					
Fluoride	mg/l	-	-	-	-
Ammonia	mg/l NO_3-N	-	-	-	-
Nitrate-Nitrite	mg/l NO_3-N	-	-	-	-
Sulfate	mg/l	-	-	-	-
Gross Alpha	pCi/l	-	-	-	-
Gross Beta	pCi/l	-	-	-	-
Isotopes:					
Uranium-233 & 234	pCi/l	-	-	-	-
Uranium-235	pCi/l	-	-	-	-
Uranium-238	pCi/l	-	-	-	-
Radium 226	pCi/l	-	-	-	-
Radium 228	pCi/l	-	-	-	-
Potassium-40	pCi/l	-	-	-	-
Thorium-228	pCi/l	-	-	-	-
Thorium-230	pCi/l	-	-	-	-
Thorium-232	pCi/l	-	-	-	-
Metals:					
Silver, Total	µg/l	-	-	-	-
Aluminum, Total	µg/l	-	-	-	-
Arsenic, Total	µg/l	-	-	-	-
Barium, Total	µg/l	-	-	-	-
Beryllium, Total	µg/l	-	-	-	-
Calcium, Total	µg/l	-	-	-	-
Cadmium, Total	µg/l	-	-	-	-
Cobalt, Total	µg/l	-	-	-	-
Chromium, Total	µg/l	-	-	-	-
Copper, Total	µg/l	-	-	-	-
Iron, Total	µg/l	-	-	-	-
Mercury, Total	µg/l	-	-	-	-
Potassium, Total	µg/l	-	-	-	-
Magnesium, Total	µg/l	-	-	-	-
Manganese, Total	µg/l	-	-	-	-
Sodium, Total	µg/l	-	-	-	-
Nickel, Total	µg/l	-	-	-	-
Lead, Total	µg/l	-	-	-	-
Antimony, Total	µg/l	-	-	-	-
Selenium, Total	µg/l	-	-	-	-
Tin, Total	µg/l	-	-	-	-
Thallium, Total	µg/l	-	-	-	-
Vanadium, Total	µg/l	-	-	-	-
Zinc, Total	µg/l	-	-	-	-
Columbium, Total	µg/l	-	-	-	-
Tantalum, Total	µg/l	-	-	-	-
Volatile Organics:					
Acetone	µg/l	-	-	<10	<10
Benzene	µg/l	-	-	<10	<10
Bromodichloromethane	µg/l	-	-	<10	<10
Bromoform	µg/l	-	-	<10	<10
Bromomethane	µg/l	-	-	<10	<10
2-Butanone	µg/l	-	-	<10	<10
Carbon Disulfide	µg/l	-	-	<10	<10
Carbon Tetrachloride	µg/l	-	-	<10	<10
Chlorobenzene	µg/l	-	-	<10	<10
Dibromochloromethane	µg/l	-	-	<10	<10
Chloroethane	µg/l	-	-	<10	<10
Chloromethane	µg/l	-	-	<10	<10
Chloroform	µg/l	-	-	<10	<10
1,1-Dichloroethane	µg/l	-	-	<10	<10
1,2-Dichloroethane	µg/l	-	-	<10	<10
1,1-Dichloroethene	µg/l	-	-	<10	<10
1,2-Dichloroethene	µg/l	-	-	<10	<10
1,2-Dichloropropane	µg/l	-	-	<10	<10
Cis-1,3-Dichloropropene	µg/l	-	-	<10	<10
Trans-1,3-Dichloropropene	µg/l	-	-	<10	<10
Ethylbenzene	µg/l	-	-	<10	<10
2-Hexanone	µg/l	-	-	<10	<10
Methylene Chloride	µg/l	-	-	<10	<10
4-Methyl-2-pentanone	µg/l	<10	<10	<10	<10
Styrene	µg/l	-	-	<10	<10
1,1,2,2-Tetrachloroethane	µg/l	-	-	<10	<10
Tetrachloroethene	µg/l	-	-	<10	<10
Toluene	µg/l	-	-	<10	<10
1,1,1-Trichloroethane	µg/l	-	-	<10	<10
1,1,2-Trichloroethane	µg/l	-	-	<10	<10
Trichloroethene	µg/l	-	-	<10	<10
Vinyl Chloride	µg/l	-	-	<10	<10
Xylenes, Total	µg/l	-	-	<10	<10

See footnotes at end of table.

Table G-2
(Continued)

Parameter	Units	Sample Identification and Date			
		Method Blank 3/2/93	Method Blank 3/4/93	Trip Blank 1 2/25/93	Trip Blank 2 2/27/93
Semivolatile Organics:					
Acenaphthene	µg/l	-	-	-	<10
Acenaphthylene	µg/l	-	-	-	<10
Bis(2-chloroethyl)ether	µg/l	-	-	-	<10
Bis(2-chloroethoxy)methane	µg/l	-	-	-	<10
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	<10
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	<10
Benzo(a)pyrene	µg/l	-	-	-	<10
Benzo(a)anthracene	µg/l	-	-	-	<10
Benzo(b)fluoranthene	µg/l	-	-	-	<10
Benzo(g,h,i)perylene	µg/l	-	-	-	<10
Benzo(k)fluoranthene	µg/l	-	-	-	<10
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	<10
Butylbenzyl Phthalate	µg/l	-	-	-	<10
Carbazole	µg/l	-	-	-	<10
Chrysene	µg/l	-	-	-	<10
4-Chloroaniline	µg/l	-	-	-	<10
2-Chloronaphthalene	µg/l	-	-	-	<10
2-Chlorophenol	µg/l	-	-	-	<10
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	<10
o-Cresol	µg/l	-	-	-	<10
p-Cresols	µg/l	-	-	-	<10
Dibenzo(a,h)anthracene	µg/l	-	-	-	<10
Dibenzofuran	µg/l	-	-	-	<10
2,4-Dichlorophenol	µg/l	-	-	-	<10
1,2-Dichlorobenzene	µg/l	-	-	-	<10
1,3-Dichlorobenzene	µg/l	-	-	-	<10
1,4-Dichlorobenzene	µg/l	-	-	-	<10
3,3-Dichlorobenzidine	µg/l	-	-	-	<10
Diethyl Phthalate	µg/l	-	-	-	<10
Dimethyl Phthalate	µg/l	-	-	-	<10
2,4-Dimethylphenol	µg/l	-	-	-	<10
Di-N-butyl Phthalate	µg/l	-	-	-	<10
4,6-Dinitro-o-cresol	µg/l	-	-	-	<50
2,4-Dinitrotoluene	µg/l	-	-	-	<10
2,6-Dinitrotoluene	µg/l	-	-	-	<10
Di-N-octyl Phthalate	µg/l	-	-	-	<10
2,4-Dinitrophenol	µg/l	-	-	-	<50
Fluoranthene	µg/l	-	-	-	<10
Fluorene	µg/l	-	-	-	<10
Hexachlorocyclopentadiene	µg/l	-	-	-	<10
Hexachlorobenzene	µg/l	-	-	-	<10
Hexachlorobutadiene	µg/l	-	-	-	<10
Hexachloroethane	µg/l	-	-	-	<10
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	<10
Isophorone	µg/l	-	-	-	<10
2-Methylnaphthalene	µg/l	-	-	-	<10
N-Nitrosodiphenylamine	µg/l	-	-	-	<10
N-Nitrosodi-n-propylamine	µg/l	-	-	-	<10
Naphthalene	µg/l	-	-	-	<10
2-Nitroaniline	µg/l	-	-	-	<50
3-Nitroaniline	µg/l	-	-	-	<50
4-Nitroaniline	µg/l	-	-	-	<50
Nitrobenzene	µg/l	-	-	-	<10
2-Nitrophenol	µg/l	-	-	-	<10
4-Nitrophenol	µg/l	-	-	-	<50
p-chloro-m-cresol	µg/l	-	-	-	<10
Pentachlorophenol	µg/l	-	-	-	<50
Phenanthrene	µg/l	-	-	-	<10
Phenol	µg/l	-	-	-	<10
Pyrene	µg/l	-	-	-	<10
2,4,5-Trichlorophenol	µg/l	-	-	-	<50
2,4,6-Trichlorophenol	µg/l	-	-	-	<10
1,2,4-Trichlorobenzene	µg/l	-	-	-	<10

See footnotes at end of table.

Table G-2
(Continued)

Parameter	Units	Sample Identification and Date: Trip Blank 3 3/2/93	Trip Blank 4 3/4/93	Water Coring Source 2/25/93
Total Analyses:				
Fluoride	mg/l	-	-	0.012
Ammonia	mg/l NO_3-N	-	-	<0.10
Nitrate-Nitrite	mg/l NO_3-N	-	-	0.87
Sulfate	mg/l	-	-	27
Gross Alpha	pCi/l	-	-	-
Gross Beta	pCi/l	-	-	-
Isotopes:				
Uranium-233 & 234	pCi/l	-	-	-
Uranium-235	pCi/l	-	-	-
Uranium-238	pCi/l	-	-	-
Radium 226	pCi/l	-	-	-
Radium 228	pCi/l	-	-	-
Potassium-40	pCi/l	-	-	-
Thorium-228	pCi/l	-	-	-
Thorium-230	pCi/l	-	-	-
Thorium-232	pCi/l	-	-	-
Metals:				
Silver, Total	µg/l	-	-	<6.84
Aluminum, Total	µg/l	-	-	-
Arsenic, Total	µg/l	-	-	2.59
Barium, Total	µg/l	-	-	48.1
Beryllium, Total	µg/l	-	-	-
Calcium, Total	µg/l	-	-	35500
Cadmium, Total	µg/l	-	-	<4.04
Cobalt, Total	µg/l	-	-	-
Chromium, Total	µg/l	-	-	<10
Copper, Total	µg/l	-	-	-
Iron, Total	µg/l	-	-	-
Mercury, Total	µg/l	-	-	<0.2
Potassium, Total	µg/l	-	-	-
Magnesium, Total	µg/l	-	-	-
Manganese, Total	µg/l	-	-	-
Sodium, Total	µg/l	-	-	-
Nickel, Total	µg/l	-	-	<11.1
Lead, Total	µg/l	-	-	17.7
Antimony, Total	µg/l	-	-	<29.7
Selenium, Total	µg/l	-	-	<0.8
Tin, Total	µg/l	-	-	<50
Thallium, Total	µg/l	-	-	-
Vanadium, Total	µg/l	-	-	-
Zinc, Total	µg/l	-	-	-
Columbium, Total	µg/l	-	-	<10
Tantalum, Total	µg/l	-	-	<10
Volatile Organics:				
Acetone	µg/l	-	-	-
Benzene	µg/l	-	-	-
Bromodichloromethane	µg/l	-	-	-
Bromoform	µg/l	-	-	-
Bromomethane	µg/l	-	-	-
2-Butanone	µg/l	-	-	-
Carbon Disulfide	µg/l	-	-	-
Carbon Tetrachloride	µg/l	-	-	-
Chlorobenzene	µg/l	-	-	-
Dibromochloromethane	µg/l	-	-	-
Chloroethane	µg/l	-	-	-
Chloromethane	µg/l	-	-	-
Chloroform	µg/l	-	-	-
1,1-Dichloroethane	µg/l	-	-	-
1,2-Dichloroethane	µg/l	-	-	-
1,1-Dichloroethene	µg/l	-	-	-
1,2-Dichloroethene	µg/l	-	-	-
1,2-Dichlorpropane	µg/l	-	-	-
Cis-1,3-Dichloropropene	µg/l	-	-	-
Trans-1,3-Dichloropropene	µg/l	-	-	-
Ethylbenzene	µg/l	-	-	-
2-Hexanone	µg/l	-	-	-
Methylene Chloride	µg/l	-	-	-
4-Methyl-2-pentanone	µg/l	<10	<10	<10
Styrene	µg/l	-	-	-
1,1,2,2-Tetrachloroethane	µg/l	-	-	-
Tetrachloroethene	µg/l	-	-	-
Toluene	µg/l	-	-	-
1,1,1-Trichloroethane	µg/l	-	-	-
1,1,2-Trichloroethane	µg/l	-	-	-
Trichloroethene	µg/l	-	-	-
Vinyl Chloride	µg/l	-	-	-
Xylenes, Total	µg/l	-	-	-

See footnotes at end of table.

Table G-2
(Continued)

Parameter	Units	Sample Identification and Date: Trip Blank 3 3/2/93	Trip Blank 4 3/4/93	Water Coring Source 2/25/93
Semivolatile Organics:				
Acenaphthene	µg/l	-	-	-
Acenaphthylene	µg/l	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-
Benzo(a)pyrene	µg/l	-	-	-
Benzo(a)anthracene	µg/l	-	-	-
Benzo(b)fluoranthene	µg/l	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-
Carbazole	µg/l	-	-	-
Chrysene	µg/l	-	-	-
4-Chloroaniline	µg/l	-	-	-
2-Chloronaphthalene	µg/l	-	-	-
2-Chlorophenol	µg/l	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-
o-Cresol	µg/l	-	-	-
p-Cresols	µg/l	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-
Dibenzofuran	µg/l	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-
Diethyl Phthalate	µg/l	-	-	-
Dimethyl Phthalate	µg/l	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-
Fluoranthene	µg/l	-	-	-
Fluorene	µg/l	-	-	-
Hexachlorocyclopentadiene	µg/l	-	-	-
Hexachlorobenzene	µg/l	-	-	-
Hexachlorobutadiene	µg/l	-	-	-
Hexachloroethane	µg/l	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-
Isophorone	µg/l	-	-	-
2-Methylnaphthalene	µg/l	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-
Naphthalene	µg/l	-	-	-
2-Nitroaniline	µg/l	-	-	-
3-Nitroaniline	µg/l	-	-	-
4-Nitroaniline	µg/l	-	-	-
Nitrobenzene	µg/l	-	-	-
2-Nitrophenol	µg/l	-	-	-
4-Nitrophenol	µg/l	-	-	-
p-chloro-m-cresol	µg/l	-	-	-
Pentachlorophenol	µg/l	-	-	-
Phenanthrene	µg/l	-	-	-
Phenol	µg/l	-	-	-
Pyrene	µg/l	-	-	-
2,4,5-Trichlorophenol	µg/l	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-

(1) Dash denotes not analyzed.

Table G-3
Pond Residue Chemistry Data Summary
Quality Assurance/ Quality Control
Fansteel Metals
Muskogee, Oklahoma

		Sample Identification and Date			
Parameter	Units	MS P3-5A (0-3.0) 2/19/93	MSD P3-5A (0-3.0) 2/19/93	MSP5-1A 2/26/93	MSDP5-1A 2/26/93
Gross Alpha	pCi/g	(1)	-	-	-
Gross Beta	pCi/g	-	-	-	-
Isotopes:					
Uranium-233 & 234	pCi/g	-	-	-	-
Uranium-235	pCi/g	-	-	-	-
Uranium-238	pCi/g	-	-	-	-
Thorium-228	pCi/g	-	-	-	-
Thorium-230	pCi/g	-	-	-	-
Thorium-232	pCi/g	-	-	-	-
Lead-210 @ 46 KeV	pCi/g	-	-	-	-
Thorium-234	pCi/g	-	-	-	-
Thorium-234 @ 92.6 KeV	pCi/g	-	-	-	-
Protactinium-234m @ 1001 KeV	pCi/g	-	-	-	-
Radium 226	pCi/g	-	-	-	-
Lead-214 @ 295.2 KeV	pCi/g	-	-	-	-
Lead-214 @ 352.0 KeV	pCi/g	-	-	-	-
Bismuth-214 @ 609.4 KeV	pCi/g	-	-	-	-
Bismuth-214 @ 1120.4 KeV	pCi/g	-	-	-	-
Bismuth-214 @ 1764.7 KeV	pCi/g	-	-	-	-
Actinium-228 @ 338 KeV	pCi/g	-	-	-	-
Actinium-228 @ 911 KeV	pCi/g	-	-	-	-
Actinium-228 @ 968 KeV	pCi/g	-	-	-	-
Lead-212 @ 238 KeV	pCi/g	-	-	-	-
Bismuth-212 @ 727 KeV	pCi/g	-	-	-	-
Thallium-208 @ 583 KeV	pCi/g	-	-	-	-
Uranium-235 @ 143 KeV	pCi/g	-	-	-	-
Potassium-40	pCi/g	-	-	-	-
Protactinium-234m @ 766.4 KeV	pCi/g	-	-	-	-
Total Analyses:					
Antimony	mg/kg	<38.0	70.3	41.5	113
Arsenic	mg/kg	<38.0	75.0	<21.9	75.7
Barium	mg/kg	335	31.8	60.1	91.0
Beryllium	mg/kg	7.90	46.7	2.40	86.3
Cadmium	mg/kg	<3.80	68.8	<2.19	72.8
Chromium	mg/kg	334	86.7	35.6	133
Lead	mg/kg	39.7	67.6	<21.9	89.6
Mercury	mg/kg	1.03	156	0.536	238
Molybdenum	mg/kg	<19	-	<11	-
Nickel	mg/kg	<19.0	73.9	<11.0	75.6
Selenium	mg/kg	<0.400	32.4	<0.260	45.2
Silver	mg/kg	8.80	-	<2.19	45.9
Tin	mg/kg	400	-	160	-
Columbium	mg/kg	580	100	2700	310
Tantalum	mg/kg	530	100	1500	240
Volatile Organic Analyses:					
Acetone	µg/kg	-	-	-	-
Benzene	µg/kg	95	94	99	110
Bromodichloromethane	µg/kg	-	-	-	-
Bromoform	µg/kg	-	-	-	-
Bromomethane	µg/kg	-	-	-	-
2-Butanone	µg/kg	-	-	-	-
Carbon Disulfide	µg/kg	-	-	-	-
Carbon Tetrachloride	µg/kg	-	-	-	-
Chlorobenzene	µg/kg	100	97	110	110
Dibromochloromethane	µg/kg	-	-	-	-
Chloroethane	µg/kg	-	-	-	-
Chloromethane	µg/kg	-	-	-	-
Chloroform	µg/kg	-	-	-	-
1,1-Dichloroethane	µg/kg	-	-	-	-
1,2-Dichloroethane	µg/kg	-	-	-	-
1,1-Dichloroethene	µg/kg	-	89	150	160
1,2-Dichloroethene	µg/kg	95	-	-	-
1,2-Dichloropropane	µg/kg	-	-	-	-
Cis-1,3-Dichloropropene	µg/kg	-	-	-	-
Trans-1,3-Dichloropropene	µg/kg	-	-	-	-
Ethylbenzene	µg/kg	-	-	-	-
2-Hexanone	µg/kg	-	-	-	-
Methylene Chloride	µg/kg	-	-	-	-
4-Methyl-2-pentanone	µg/kg	-	-	-	-
Styrene	µg/kg	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	-	-	-	-
Tetrachloroethene	µg/kg	-	-	-	-
Toluene	µg/kg	110	97	98	100
1,1,1-Trichloroethane	µg/kg	-	-	72	-
1,1,2-Trichloroethane	µg/kg	-	-	-	-
Trichloroethene	µg/kg	100	90	-	75
Vinyl Chloride	µg/kg	-	-	-	-
Xylenes, Total	µg/kg	-	-	-	-

See footnotes at end of table.

Table G-3
(Continued)

Parameter	Units	Sample Identification and Date			
		MS P3-5A (0-3.0) 2/19/93	MSD P3-5A (0-3.0) 2/19/93	MSP5-1A 2/26/93	MSDP5-1A 2/26/93
Semivolatile Organic Analyses:					
Acenaphthene	µg/kg	44	38	49	52
Acenaphthylene	µg/kg	-	-	-	-
Anthracene	µg/kg	-	-	-	-
Bis(2-chloroethyl)ether	µg/kg	-	-	-	-
Bis(2-chloroethoxy)methane	µg/kg	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/kg	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/kg	-	-	-	-
Benzo(a)pyrene	µg/kg	-	-	-	-
Benzo(a)anthracene	µg/kg	-	-	-	-
Benzo(b)fluoranthene	µg/kg	-	-	-	-
Benzo(g,h,i)perylene	µg/kg	-	-	-	-
Benzo(k)fluoranthene	µg/kg	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/kg	-	-	-	-
Butylbenzyl Phthalate	µg/kg	-	-	-	-
Carbazole	µg/kg	-	-	-	-
Chrysene	µg/kg	-	-	-	-
4-Chloroaniline	µg/kg	-	-	-	-
2-Chloronaphthalene	µg/kg	-	-	77	-
2-Chlorophenol	µg/kg	51	54	-	75
4-Chlorophenyl Phenyl Ether	µg/kg	-	-	-	-
o-Cresol	µg/kg	-	-	-	-
p-Cresols	µg/kg	-	-	-	-
Dibenzo(a,h)anthracene	µg/kg	-	-	-	-
Dibenzofuran	µg/kg	-	-	-	-
2,4-Dichlorophenol	µg/kg	-	-	-	-
1,2-Dichlorobenzene	µg/kg	-	-	-	-
1,3-Dichlorobenzene	µg/kg	-	-	-	-
1,4-Dichlorobenzene	µg/kg	53	56	70	71
3,3-Dichlorobenzidine	µg/kg	-	-	-	-
Diethyl Phthalate	µg/kg	-	-	-	-
Dimethyl Phthalate	µg/kg	-	-	-	-
2,4-Dimethylphenol	µg/kg	-	-	-	-
Di-N-butyl Phthalate	µg/kg	-	-	-	-
4,6-Dinitro-o-cresol	µg/kg	-	-	-	-
2,4-Dinitrotoluene	µg/kg	69	-	77	82
2,6-Dinitrotoluene	µg/kg	-	60	-	-
Di-N-octyl Phthalate	µg/kg	-	-	-	-
2,4-Dinitrophenol	µg/kg	-	-	-	-
Fluoranthene	µg/kg	-	-	-	-
Fluorene	µg/kg	-	-	-	-
Hexachlorocyclopentadiene	µg/kg	-	-	-	-
Hexachlorobenzene	µg/kg	-	-	-	-
Hexachlorobutadiene	µg/kg	-	-	-	-
Hexachloroethane	µg/kg	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/kg	-	-	-	-
Isophorone	µg/kg	-	-	-	-
2-Methylnaphthalene	µg/kg	-	-	-	-
N-Nitrosodiphenylamine	µg/kg	-	-	-	-
N-Nitroso-di-n-propylamine	µg/kg	63	67	80	78
Naphthalene	µg/kg	-	-	-	-
2-Nitroaniline	µg/kg	-	-	-	-
3-Nitroaniline	µg/kg	-	-	-	-
4-Nitroaniline	µg/kg	-	-	-	-
Nitrobenzene	µg/kg	-	-	-	-
2-Nitrophenol	µg/kg	-	-	-	-
4-Nitrophenol	µg/kg	73	63	70	82
p-chloro-m-cresol	µg/kg	67	67	80	82
Pentachlorophenol	µg/kg	80	73	69	77
Phenanthrene	µg/kg	-	-	-	-
Phenol	µg/kg	53	55	77	80
Pyrene	µg/kg	44	40	52	52
2,4,5-Trichlorophenol	µg/kg	-	-	-	-
2,4,6-Trichlorophenol	µg/kg	-	-	-	-
1,2,4-Trichlorobenzene	µg/kg	58	60	75	73

See footnotes at end of table.

Table G-3
(Continued)

Parameter	Units	Sample Identification and Date			
		MSP8-2A (0-9) 02/22/93	MSDP8-2A (0-9) 02/22/93	MSP9-2A (0-8) 2/20/93	MSDP9-2A (0-8) 2/20/93
Gross Alpha	pCi/g	120±20	110±20	86±12	120±10
Gross Beta	pCi/g	63±7	50±7	81±8	86±8
Isotopes:					
Uranium-233 & 234	pCi/g	18±2	12±1	45±2	44±1
Uranium-235	pCi/g	0.7±0.3	1.4±0.3	2.4±0.3	2.5±0.3
Uranium-238	pCi/g	19±2	14±1	46±2	48±2
Thorium-228	pCi/g	-	-	-	-
Thorium-230	pCi/g	9.9±0.9	9.2±0.9	12±1	13±2
Thorium-232	pCi/g	-	-	-	-
Lead-210 @ 46 KeV	pCi/g	4.5±0.9	3.9±0.9	6.2±3.4	3.4±2.0
Thorium-234	pCi/g	13±2	9.0±1.0	28±3	30±3
Thorium-234 @ 92.6 KeV	pCi/g	13±2	8.0±1.0	23±2	19±2
Protactinium-234m @ 1001 KeV	pCi/g	25±9	28±10	110±40	110±40
Radium 226	pCi/g	20±1	14±1	27±3	28±3
Lead-214 @ 295.2 KeV	pCi/g	7.0±0.5	5.2±0.4	2.3±1.0	2.4±0.9
Lead-214 @ 352.0 KeV	pCi/g	7.2±0.3	5.7±0.2	2.4±0.4	3.1±0.5
Bismuth-214 @ 609.4 KeV	pCi/g	6.9±0.3	5.4±0.3	2.8±0.6	3.2±0.7
Bismuth-214 @ 1120.4 KeV	pCi/g	7.2±0.6	5.2±0.7	0.0±1.3	3.1±0.3
Bismuth-214 @ 1764.7 KeV	pCi/g	6.0±0.6	4.8±0.6	2.8±1.4	3.4±1.4
Actinium-228 @ 338 KeV	pCi/g	5.3±0.4	4.2±0.5	3.5±0.9	3.4±1.3
Actinium-228 @ 911 KeV	pCi/g	5.6±0.4	4.4±0.4	4.0±1.2	3.6±1.1
Actinium-228 @ 968 KeV	pCi/g	6.3±0.6	4.3±0.5	4.7±1.7	3.7±1.4
Lead-212 @ 238 KeV	pCi/g	4.4±0.2	4.2±0.3	2.3±0.3	2.1±0.3
Bismuth-212 @ 727 KeV	pCi/g	6.9±1.0	5.9±0.9	6.3±3.2	5.5±2.8
Thallium-208 @ 583 KeV	pCi/g	5.4±0.3	4.7±0.3	2.9±0.8	3.0±0.8
Uranium-235 @ 143 KeV	pCi/g	0.77±0.20	0.54±0.18	1.3±0.5	1.2±0.6
Potassium-40	pCi/g	4.8±0.8	4.1±0.8	3.6±3.2	0.0±2.0
Protactinium-234m @ 766.4 KeV	pCi/g	160±40	130±30	0±93	0±94
Total Analyses:					
Antimony	mg/kg	-	-	118	76.6
Arsenic	mg/kg	-	-	<89.7	70.2
Barium	mg/kg	-	-	22.0	69.8
Beryllium	mg/kg	-	-	14.7	62.7
Cadmium	mg/kg	-	-	<8.97	70.5
Chromium	mg/kg	-	-	580	1.70
Lead	mg/kg	-	-	<89.7	71.8
Mercury	mg/kg	-	-	0.325	122
Molybdenum	mg/kg	-	-	<45	-
Nickel	mg/kg	-	-	47.2	70.0
Selenium	mg/kg	-	-	<1.02	48.4
Silver	mg/kg	-	-	<8.97	8.81
Tin	mg/kg	-	-	760	-
Columbium	mg/kg	-	-	2400	110
Tantalum	mg/kg	-	-	1000	100
Volatile Organic Analyses:					
Acetone	µg/kg	-	-	-	-
Benzene	µg/kg	-	-	85	84
Bromodichloromethane	µg/kg	-	-	-	-
Bromoform	µg/kg	-	-	-	-
Bromomethane	µg/kg	-	-	-	-
2-Butanone	µg/kg	-	-	-	-
Carbon Disulfide	µg/kg	-	-	-	-
Carbon Tetrachloride	µg/kg	-	-	-	-
Chlorobenzene	µg/kg	-	-	90	89
Dibromochloromethane	µg/kg	-	-	-	-
Chloroethane	µg/kg	-	-	-	-
Chloromethane	µg/kg	-	-	-	-
Chloroform	µg/kg	-	-	-	-
1,1-Dichloroethane	µg/kg	-	-	-	-
1,2-Dichloroethane	µg/kg	-	-	-	-
1,1-Dichloroethene	µg/kg	-	-	68	68
1,2-Dichloroethene	µg/kg	-	-	-	-
1,2-Dichloropropane	µg/kg	-	-	-	-
Cis-1,3-Dichloropropene	µg/kg	-	-	-	-
Trans-1,3-Dichloropropene	µg/kg	-	-	-	-
Ethylbenzene	µg/kg	-	-	-	-
2-Hexanone	µg/kg	-	-	-	-
Methylene Chloride	µg/kg	-	-	-	-
4-Methyl-2-pentanone	µg/kg	-	-	-	-
Styrene	µg/kg	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	-	-	-	-
Tetrachloroethene	µg/kg	-	-	-	-
Toluene	µg/kg	-	-	87	85
1,1,1-Trichloroethane	µg/kg	-	-	-	-
1,1,2-Trichloroethane	µg/kg	-	-	-	-
Trichloroethene	µg/kg	-	-	71	65
Vinyl Chloride	µg/kg	-	-	-	-
Xylenes, Total	µg/kg	-	-	-	-

See footnotes at end of table.

Table G-3
(Continued)

Parameter	Units	Sample Identification and Date			
		MSP8-2A (0-9) 02/22/93	MSDP8-2A (0-9) 02/22/93	MSP9-2A (0-8) 2/20/93	MSDP9-2A (0-8) 2/20/93
Semivolatile Organic Analyses:					
Acenaphthene	µg/kg	-	-	49	38
Acenaphthylene	µg/kg	-	-	-	-
Anthracene	µg/kg	-	-	-	-
Bis(2-chloroethyl)ether	µg/kg	-	-	-	-
Bis(2-chloroethoxy)methane	µg/kg	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/kg	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/kg	-	-	-	-
Benzo(a)pyrene	µg/kg	-	-	-	-
Benzo(a)anthracene	µg/kg	-	-	-	-
Benzo(b)fluoranthene	µg/kg	-	-	-	-
Benzo(g,h,i)perylene	µg/kg	-	-	-	-
Benzo(k)fluoranthene	µg/kg	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/kg	-	-	-	-
Butylbenzyl Phthalate	µg/kg	-	-	-	-
Carbazole	µg/kg	-	-	-	-
Chrysene	µg/kg	-	-	-	-
4-Chloroaniline	µg/kg	-	-	-	-
2-Chloronaphthalene	µg/kg	-	-	-	-
2-Chlorophenol	µg/kg	-	-	66	49
4-Chlorophenyl Phenyl Ether	µg/kg	-	-	-	-
o-Cresol	µg/kg	-	-	-	-
p-Cresols	µg/kg	-	-	-	-
Dibenzo(a,h)anthracene	µg/kg	-	-	-	-
Dibenzofuran	µg/kg	-	-	-	-
2,4-Dichlorophenol	µg/kg	-	-	-	-
1,2-Dichlorobenzene	µg/kg	-	-	-	-
1,3-Dichlorobenzene	µg/kg	-	-	-	-
1,4-Dichlorobenzene	µg/kg	-	-	67	49
3,3-Dichlorobenzidine	µg/kg	-	-	-	-
Diethyl Phthalate	µg/kg	-	-	-	-
Dimethyl Phthalate	µg/kg	-	-	-	-
2,4-Dimethylphenol	µg/kg	-	-	-	-
Di-N-butyl Phthalate	µg/kg	-	-	-	-
4,6-Dinitro-o-cresol	µg/kg	-	-	-	-
2,4-Dinitrotoluene	µg/kg	-	-	85	62
2,6-Dinitrotoluene	µg/kg	-	-	-	-
Di-N-octyl Phthalate	µg/kg	-	-	-	-
2,4-Dinitrophenol	µg/kg	-	-	-	-
Fluoranthene	µg/kg	-	-	-	-
Fluorene	µg/kg	-	-	-	-
Hexachlorocyclopentadiene	µg/kg	-	-	-	-
Hexachlorobenzene	µg/kg	-	-	-	-
Hexachlorobutadiene	µg/kg	-	-	-	-
Hexachloroethane	µg/kg	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/kg	-	-	-	-
Isophorone	µg/kg	-	-	-	-
2-Methylnaphthalene	µg/kg	-	-	-	-
N-Nitrosodiphenylamine	µg/kg	-	-	-	-
N-Nitroso-di-n-propylamine	µg/kg	-	-	76	56
Naphthalene	µg/kg	-	-	-	-
2-Nitroaniline	µg/kg	-	-	-	-
3-Nitroaniline	µg/kg	-	-	-	-
4-Nitroaniline	µg/kg	-	-	-	-
Nitrobenzene	µg/kg	-	-	-	-
2-Nitrophenol	µg/kg	-	-	-	-
4-Nitrophenol	µg/kg	-	-	46	21
p-chloro-m-cresol	µg/kg	-	-	83	63
Pentachlorophenol	µg/kg	-	-	15	25
Phenanthrene	µg/kg	-	-	-	-
Phenol	µg/kg	-	-	72	53
Pyrene	µg/kg	-	-	55	40
2,4,5-Trichlorophenol	µg/kg	-	-	-	-
2,4,6-Trichlorophenol	µg/kg	-	-	-	-
1,2,4-Trichlorobenzene	µg/kg	-	-	75	58

See footnotes at end of table.

Table G-3
(Continued)

Parameter	Units	Sample Identification and Date: Trip Blank 2/20/93	Equipment Blank 2/20/93	Equipment Blank 2/20/93	Method Blank 2/19/93
Gross Alpha	pCi/g	-	-	-	-
Gross Beta	pCi/g	-	-	-	-
Isotopes:					
Uranium-233 & 234	pCi/g	-	-	-	-
Uranium-235	pCi/g	-	-	-	-
Uranium-238	pCi/g	-	-	-	-
Thorium-228	pCi/g	-	-	-	-
Thorium-230	pCi/g	-	-	-	-
Thorium-232	pCi/g	-	-	-	-
Lead-210 @ 46 KeV	pCi/g	-	-	-	-
Thorium-234	pCi/g	-	-	-	-
Thorium-234 @ 92.6 KeV	pCi/g	-	-	-	-
Protactinium-234m @ 1001 KeV	pCi/g	-	-	-	-
Radium 226	pCi/g	-	-	-	-
Lead-214 @ 295.2 KeV	pCi/g	-	-	-	-
Lead-214 @ 352.0 KeV	pCi/g	-	-	-	-
Bismuth-214 @ 609.4 KeV	pCi/g	-	-	-	-
Bismuth-214 @ 1120.4 KeV	pCi/g	-	-	-	-
Bismuth-214 @ 1764.7 KeV	pCi/g	-	-	-	-
Actinium-228 @ 338 KeV	pCi/g	-	-	-	-
Actinium-228 @ 911 KeV	pCi/g	-	-	-	-
Actinium-228 @ 968 KeV	pCi/g	-	-	-	-
Lead-212 @ 238 KeV	pCi/g	-	-	-	-
Bismuth-212 @ 727 KeV	pCi/g	-	-	-	-
Thallium-208 @ 583 KeV	pCi/g	-	-	-	-
Uranium-235 @ 143 KeV	pCi/g	-	-	-	-
Potassium-40	pCi/g	-	-	-	-
Protactinium-234m @ 766.4 KeV	pCi/g	-	-	-	-
Total Analyses:					
Antimony	mg/kg	-	<100	-	-
Arsenic	mg/kg	-	<100	-	-
Barium	mg/kg	-	24.8	-	-
Beryllium	mg/kg	-	<2.00	-	-
Cadmium	mg/kg	-	<10.0	-	-
Chromium	mg/kg	-	<10.0	-	-
Lead	mg/kg	-	<100	-	-
Mercury	mg/kg	-	<0.0002	-	-
Molybdenum	mg/kg	-	<0.050	-	-
Nickel	mg/kg	-	<40.0	-	-
Selenium	mg/kg	-	<0.001	-	-
Silver	mg/kg	-	<10.0	-	-
Tin	mg/kg	-	<0.050	-	-
Columbium	mg/kg	-	<0.10	-	-
Tantalum	mg/kg	-	<0.10	-	-
Volatile Organic Analyses:					
Acetone	µg/kg	-	-	-	<1250
Benzene	µg/kg	-	-	-	<1250
Bromodichloromethane	µg/kg	-	-	-	<1250
Bromoform	µg/kg	-	-	-	<1250
Bromomethane	µg/kg	-	-	-	<1250
2-Butanone	µg/kg	-	-	-	<1250
Carbon Disulfide	µg/kg	-	-	-	<1250
Carbon Tetrachloride	µg/kg	-	-	-	<1250
Chlorobenzene	µg/kg	-	-	-	<1250
Dibromochloromethane	µg/kg	-	-	-	<1250
Chloroethane	µg/kg	-	-	-	<1250
Chloromethane	µg/kg	-	-	-	<1250
Chloroform	µg/kg	-	-	-	<1250
1,1-Dichloroethane	µg/kg	-	-	-	<1250
1,2-Dichloroethane	µg/kg	-	-	-	<1250
1,1-Dichloroethene	µg/kg	-	-	-	<1250
1,2-Dichloroethene	µg/kg	-	-	-	<1250
1,2-Dichloropropane	µg/kg	-	-	-	<1250
Cis-1,3-Dichloropropene	µg/kg	-	-	-	<1250
Trans-1,3-Dichloropropene	µg/kg	-	-	-	<1250
Ethylbenzene	µg/kg	-	-	-	<1250
2-Hexanone	µg/kg	-	-	-	<1250
Methylene Chloride	µg/kg	-	-	-	<1250
4-Methyl-2-pentanone	µg/kg	-	-	-	<1250
Styrene	µg/kg	-	-	-	<1250
1,1,2,2-Tetrachloroethane	µg/kg	-	-	-	<1250
Tetrachloroethene	µg/kg	-	-	-	<1250
Toluene	µg/kg	-	-	-	<1250
1,1,1-Trichloroethane	µg/kg	-	-	-	<1250
1,1,2-Trichloroethane	µg/kg	-	-	-	<1250
Trichloroethene	µg/kg	-	-	-	<1250
Vinyl Chloride	µg/kg	-	-	-	<1250
Xylenes, Total	µg/kg	-	-	-	<1250

See footnotes at end of table.

Table G-3
(Continued)

Parameter	Units	Sample Identification and Date			
		Trip Blank 2/20/93	Equipment Blank 2/20/93	Equipment Blank 2/20/93	Method Blank 2/19/93
Semivolatile Organic Analyses:					
Acenaphthene	µg/kg	<10	-	<10	<320
Acenaphthylene	µg/kg	<10	-	<10	<320
Anthracene	µg/kg	<10	-	<10	<320
Bis(2-chloroethyl)ether	µg/kg	<10	-	<10	<320
Bis(2-chloroethoxy)methane	µg/kg	<10	-	<10	<320
Bis(2-chloroisopropyl)ether	µg/kg	<10	-	<10	<320
Bis(2-ethylhexyl)phthalate	µg/kg	<10	-	<10	<320
Benzo(a)pyrene	µg/kg	<10	-	<10	<320
Benzo(a)anthracene	µg/kg	<10	-	<10	<320
Benzo(b)fluoranthene	µg/kg	<10	-	<10	<320
Benzo(g,h,i)perylene	µg/kg	<10	-	<10	<320
Benzo(k)fluoranthene	µg/kg	<10	-	<10	<320
4-Bromophenyl Phenyl Ether	µg/kg	<10	-	<10	<320
Butylbenzyl Phthalate	µg/kg	<10	-	<10	<320
Carbazole	µg/kg	<10	-	<10	<320
Chrysene	µg/kg	<10	-	<10	<320
4-Chloroaniline	µg/kg	<10	-	<10	<320
2-Chloronaphthalene	µg/kg	<10	-	<10	<320
2-Chlorophenol	µg/kg	<10	-	<10	<320
4-Chlorophenyl Phenyl Ether	µg/kg	<10	-	<10	<320
o-Cresol	µg/kg	<10	-	<10	<320
p-Cresols	µg/kg	<10	-	<10	<320
Dibenzo(a,h)anthracene	µg/kg	<10	-	<10	<320
Dibenzofuran	µg/kg	<10	-	<10	<320
2,4-Dichlorophenol	µg/kg	<10	-	<10	<320
1,2-Dichlorobenzene	µg/kg	<10	-	<10	<320
1,3-Dichlorobenzene	µg/kg	<10	-	<10	<320
1,4-Dichlorobenzene	µg/kg	<10	-	<10	<320
3,3-Dichlorobenzidine	µg/kg	<10	-	<10	<320
Diethyl Phthalate	µg/kg	<10	-	<10	<320
Dimethyl Phthalate	µg/kg	<10	-	<10	<320
2,4-Dimethylphenol	µg/kg	<10	-	<10	<320
Di-N-butyl Phthalate	µg/kg	<10	-	11	<320
4,6-Dinitro-o-cresol	µg/kg	<50	-	<50	<640
2,4-Dinitrotoluene	µg/kg	<10	-	<10	<320
2,6-Dinitrotoluene	µg/kg	<10	-	<10	<320
Di-N-octyl Phthalate	µg/kg	<10	-	<10	<320
2,4-Dinitrophenol	µg/kg	<50	-	<50	<320
Fluoranthene	µg/kg	<10	-	<10	<320
Fluorene	µg/kg	<10	-	<10	<320
Hexachlorocyclopentadiene	µg/kg	<10	-	<10	<320
Hexachlorobenzene	µg/kg	<10	-	<10	<320
Hexachlorobutadiene	µg/kg	<10	-	<10	<320
Hexachloroethane	µg/kg	<10	-	<10	<320
Indeno(1,2,3-c,d)pyrene	µg/kg	<10	-	<10	<320
Isophorone	µg/kg	<10	-	<10	<320
2-Methylnaphthalene	µg/kg	<10	-	<10	<320
N-Nitrosodiphenylamine	µg/kg	<10	-	<10	<320
N-Nitroso-di-n-propylamine	µg/kg	<10	-	<10	<320
Naphthalene	µg/kg	<10	-	<10	<320
2-Nitroaniline	µg/kg	<50	-	<50	<320
3-Nitroaniline	µg/kg	<50	-	<50	<320
4-Nitroaniline	µg/kg	<50	-	<50	<320
Nitrobenzene	µg/kg	<10	-	<10	<320
2-Nitrophenol	µg/kg	<10	-	<10	<640
4-Nitrophenol	µg/kg	<50	-	<50	<640
p-chloro-m-cresol	µg/kg	<10	-	<10	<320
Pentachlorophenol	µg/kg	<50	-	<50	<640
Phenanthrene	µg/kg	<10	-	<10	<320
Phenol	µg/kg	<10	-	<10	<320
Pyrene	µg/kg	<10	-	<10	<320
2,4,5-Trichlorophenol	µg/kg	<50	-	<50	<320
2,4,6-Trichlorophenol	µg/kg	<10	-	<10	<320
1,2,4-Trichlorobenzene	µg/kg	<10	-	<10	<320

See footnotes at end of table.

Table G-3
(Continued)

Parameter	Units	Sample Identification and Date				
		Method Blank 2/22/93	Method Blank 2/26/93	Method Blank Low 2/19/93	Method Blank Medium 2/19/93	Method Blank High 2/19/93
Gross Alpha	pCi/g	-	-	-	-	-
Gross Beta	pCi/g	-	-	-	-	-
Isotopes:						
Uranium-233 & 234	pCi/g	-	-	-	-	-
Uranium-235	pCi/g	-	-	-	-	-
Uranium-238	pCi/g	-	-	-	-	-
Thorium-228	pCi/g	-	-	-	-	-
Thorium-230	pCi/g	-	-	-	-	-
Thorium-232	pCi/g	-	-	-	-	-
Lead-210 @ 46 KeV	pCi/g	-	-	-	-	-
Thorium-234	pCi/g	-	-	-	-	-
Thorium-234 @ 92.6 KeV	pCi/g	-	-	-	-	-
Protactinium-234m @ 1001 KeV	pCi/g	-	-	-	-	-
Radium 226	pCi/g	-	-	-	-	-
Lead-214 @ 295.2 KeV	pCi/g	-	-	-	-	-
Lead-214 @ 352.0 KeV	pCi/g	-	-	-	-	-
Bismuth-214 @ 609.4 KeV	pCi/g	-	-	-	-	-
Bismuth-214 @ 1120.4 KeV	pCi/g	-	-	-	-	-
Bismuth-214 @ 1764.7 KeV	pCi/g	-	-	-	-	-
Actinium-228 @ 338 KeV	pCi/g	-	-	-	-	-
Actinium-228 @ 911 KeV	pCi/g	-	-	-	-	-
Actinium-228 @ 968 KeV	pCi/g	-	-	-	-	-
Lead-212 @ 238 KeV	pCi/g	-	-	-	-	-
Bismuth-212 @ 727 KeV	pCi/g	-	-	-	-	-
Thallium-208 @ 583 KeV	pCi/g	-	-	-	-	-
Uranium-235 @ 143 KeV	pCi/g	-	-	-	-	-
Potassium-40	pCi/g	-	-	-	-	-
Protactinium-234m @ 766.4 KeV	pCi/g	-	-	-	-	-
Total Analyses:						
Antimony	mg/kg	-	-	-	-	-
Arsenic	mg/kg	-	-	-	-	-
Barium	mg/kg	-	-	-	-	-
Beryllium	mg/kg	-	-	-	-	-
Cadmium	mg/kg	-	-	-	-	-
Chromium	mg/kg	-	-	-	-	-
Lead	mg/kg	-	-	-	-	-
Mercury	mg/kg	-	-	-	-	-
Molybdenum	mg/kg	-	-	-	-	-
Nickel	mg/kg	-	-	-	-	-
Selenium	mg/kg	-	-	-	-	-
Silver	mg/kg	-	-	-	-	-
Tin	mg/kg	-	-	-	-	-
Columbium	mg/kg	-	-	-	-	-
Tantalum	mg/kg	-	-	-	-	-
Volatile Organic Analyses:						
Acetone	µg/kg	<1250	<1250	<1250	<12500	<125000
Benzene	µg/kg	<1250	<1250	<1250	<12500	<125000
Bromodichloromethane	µg/kg	<1250	<1250	<1250	<12500	<125000
Bromoform	µg/kg	<1250	<1250	<1250	<12500	<125000
Bromomethane	µg/kg	<1250	<1250	<1250	<12500	<125000
2-Butanone	µg/kg	<1250	<1250	<1250	<12500	<125000
Carbon Disulfide	µg/kg	<1250	<1250	<1250	<12500	<125000
Carbon Tetrachloride	µg/kg	<1250	<1250	<1250	<12500	<125000
Chlorobenzene	µg/kg	<1250	<1250	<1250	<12500	<125000
Dibromochloromethane	µg/kg	<1250	<1250	<1250	<12500	<125000
Chloroethane	µg/kg	<1250	<1250	<1250	<12500	<125000
Chloromethane	µg/kg	<1250	<1250	<1250	<12500	<125000
Chloroform	µg/kg	<1250	<1250	<1250	<12500	<125000
1,1-Dichloroethane	µg/kg	<1250	<1250	<1250	<12500	<125000
1,2-Dichloroethane	µg/kg	<1250	<1250	<1250	<12500	<125000
1,1-Dichloroethene	µg/kg	<1250	<1250	<1250	<12500	<125000
1,2-Dichloroethene	µg/kg	<1250	<1250	<1250	<12500	<125000
1,2-Dichloropropane	µg/kg	<1250	<1250	<1250	<12500	<125000
Cis-1,3-Dichloropropene	µg/kg	<1250	<1250	<1250	<12500	<125000
Trans-1,3-Dichloropropene	µg/kg	<1250	<1250	<1250	<12500	<125000
Ethylbenzene	µg/kg	<1250	<1250	<1250	<12500	<125000
2-Hexanone	µg/kg	<1250	<1250	<1250	<12500	<125000
Methylene Chloride	µg/kg	<1250	<1250	<1250	<12500	<125000
4-Methyl-2-pentanone	µg/kg	<1250	<1250	<1250	<12500	<125000
Styrene	µg/kg	<1250	<1250	<1250	<12500	<125000
1,1,2,2-Tetrachloroethane	µg/kg	<1250	<1250	<1250	<12500	<125000
Tetrachloroethene	µg/kg	<1250	<1250	<1250	<12500	<125000
Toluene	µg/kg	<1250	<1250	<1250	<12500	<125000
1,1,1-Trichloroethane	µg/kg	<1250	<1250	<1250	<12500	<125000
1,1,2-Trichloroethane	µg/kg	<1250	<1250	<1250	<12500	<125000
Trichloroethene	µg/kg	<1250	<1250	<1250	<12500	<125000
Vinyl Chloride	µg/kg	<1250	<1250	<1250	<12500	<125000
Xylenes, Total	µg/kg	<1250	<1250	<1250	<12500	<125000

See footnotes at end of table.

Table G-3
(Continued)

Parameter	Units	Sample Identification and Date				
		Method Blank 2/22/93	Method Blank 2/26/93	Method Blank Low 2/19/93	Method Blank Medium 2/19/93	Method Blank High 2/19/93
Semivolatile Organic Analyses:						
Acenaphthene	µg/kg	<10	<10	-	-	-
Acenaphthylene	µg/kg	<10	<10	-	-	-
Anthracene	µg/kg	<10	<10	-	-	-
Bis(2-chloroethyl)ether	µg/kg	<10	<10	-	-	-
Bis(2-chloroethoxy)methane	µg/kg	<10	<10	-	-	-
Bis(2-chloroisopropyl)ether	µg/kg	<10	<10	-	-	-
Bis(2-ethylhexyl)phthalate	µg/kg	<10	<10	-	-	-
Benzo(a)pyrene	µg/kg	<10	<10	-	-	-
Benzo(a)anthracene	µg/kg	<10	<10	-	-	-
Benzo(b)fluoranthene	µg/kg	<10	<10	-	-	-
Benzo(g,h,i)perylene	µg/kg	<10	<10	-	-	-
Benzo(k)fluoranthene	µg/kg	<10	<10	-	-	-
4-Bromophenyl Phenyl Ether	µg/kg	<10	<10	-	-	-
Butylbenzyl Phthalate	µg/kg	<10	<10	-	-	-
Carbazole	µg/kg	<10	<10	-	-	-
Chrysene	µg/kg	<10	<10	-	-	-
4-Chloroaniline	µg/kg	<10	<10	-	-	-
2-Chloronaphthalene	µg/kg	<10	<10	-	-	-
2-Chlorophenol	µg/kg	<10	<10	-	-	-
4-Chlorophenyl Phenyl Ether	µg/kg	<10	<10	-	-	-
o-Cresol	µg/kg	<10	<10	-	-	-
p-Cresols	µg/kg	<10	<10	-	-	-
Dibenzo(a,h)anthracene	µg/kg	<10	<10	-	-	-
Dibenzofuran	µg/kg	<10	<10	-	-	-
2,4-Dichlorophenol	µg/kg	<10	<10	-	-	-
1,2-Dichlorobenzene	µg/kg	<10	<10	-	-	-
1,3-Dichlorobenzene	µg/kg	<10	<10	-	-	-
1,4-Dichlorobenzene	µg/kg	<10	<10	-	-	-
3,3-Dichlorobenzidine	µg/kg	<10	<10	-	-	-
Diethyl Phthalate	µg/kg	<10	<10	-	-	-
Dimethyl Phthalate	µg/kg	<10	<10	-	-	-
2,4-Dimethylphenol	µg/kg	<10	<10	-	-	-
Di-N-butyl Phthalate	µg/kg	<10	<10	-	-	-
4,6-Dinitro-o-cresol	µg/kg	<50	<50	-	-	-
2,4-Dinitrotoluene	µg/kg	<10	<10	-	-	-
2,6-Dinitrotoluene	µg/kg	<10	<10	-	-	-
Di-N-octyl Phthalate	µg/kg	<10	<10	-	-	-
2,4-Dinitrophenol	µg/kg	<10	<10	-	-	-
Fluoranthene	µg/kg	<10	<10	-	-	-
Fluorene	µg/kg	<10	<10	-	-	-
Hexachlorocyclopentadiene	µg/kg	<10	<10	-	-	-
Hexachlorobenzene	µg/kg	<10	<10	-	-	-
Hexachlorobutadiene	µg/kg	<10	<10	-	-	-
Hexachloroethane	µg/kg	<10	<10	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/kg	<10	<10	-	-	-
Isophorone	µg/kg	<10	<10	-	-	-
2-Methylnaphthalene	µg/kg	<10	<10	-	-	-
N-Nitrosodiphenylamine	µg/kg	<10	<10	-	-	-
N-Nitroso-di-n-propylamine	µg/kg	<10	<10	-	-	-
Naphthalene	µg/kg	<10	<10	-	-	-
2-Nitroaniline	µg/kg	<10	<10	-	-	-
3-Nitroaniline	µg/kg	<10	<10	-	-	-
4-Nitroaniline	µg/kg	<10	<10	-	-	-
Nitrobenzene	µg/kg	<10	<10	-	-	-
2-Nitrophenol	µg/kg	<50	<50	-	-	-
4-Nitrophenol	µg/kg	<50	<50	-	-	-
p-chloro-m-cresol	µg/kg	<10	<10	-	-	-
Pentachlorophenol	µg/kg	<50	<50	-	-	-
Phenanthrene	µg/kg	<10	<10	-	-	-
Phenol	µg/kg	<10	<10	-	-	-
Pyrene	µg/kg	<10	<10	-	-	-
2,4,5-Trichlorophenol	µg/kg	<10	<10	-	-	-
2,4,6-Trichlorophenol	µg/kg	<10	<10	-	-	-
1,2,4-Trichlorobenzene	µg/kg	<10	<10	-	-	-

(1) Dash denotes not analyzed.

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COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

SOW No.: 3/90

EPA Sample No.	Lab Sample ID.
FIELDB	03-0024
FLDBLK	03-0023
MW-51S	03-0019
MW-52S	03-0020
MW-60S	03-0021
MW-61S	03-0022
MW-62S	03-0087
MW-62SD	03-0088
MW-62SS	03-0089
MW-66S	03-0090
MW-67S	03-0091
MW-71S	03-0092
MW-74S	03-0093

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: William Reinheimer Name: Bill Reinheimer

Date: 4/7/93 Title: Group Leader

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDBLANK

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Lab Sample ID: 03-0094

Level (low/med): MED Date Received: 03/02/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	70.6	U	IN*	P
7440-36-0	Antimony	1.1	U	IN	P
7440-38-2	Arsenic	1.0	U	I	P
7440-39-3	Barium	9.8	U	I	P
7440-41-7	Beryllium	0.40	U	I	P
7440-43-9	Cadmium	4.0	U	I*	P
7440-70-2	Calcium	187	U	I	P
7440-47-3	Chromium	10.0	U	I	P
7440-48-4	Cobalt	8.5	U	I	P
7440-50-8	Copper	3.0	U	I	P
7439-89-6	Iron	27.1	B	IN*	P
7439-92-1	Lead	1.0	U	I	P
7439-95-4	Magnesium	227	U	I	P
7439-96-5	Manganese	2.0	U	I	P
7439-97-6	Mercury	0.12		I	CV
7440-02-0	Nickel	11.1	U	I	P
7440-09-7	Potassium	281	U	I	P
7782-49-2	Selenium	0.80	U	I	P
7440-22-4	Silver	6.8	U	IN	P
7440-23-5	Sodium	451	U	I	P
7440-28-0	Thallium	4.3	U	I	P
7440-62-2	Vanadium	5.2	U	I	P
7440-66-6	Zinc	14.2	B	I	P
	Cyanide			I	NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Field Blank
FLDBLK

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Lab Sample ID: 03-0022

Level (low/med): MED Date Received: 03/01/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	157	B	N*	P
7440-36-0	Antimony	1.1	U	N	F
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	9.8	U		P
7440-41-7	Beryllium	0.40	U		P
7440-43-9	Cadmium	4.0	U	*	P
7440-70-2	Calcium	281	B		P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	8.5	U		P
7440-50-8	Copper	3.0	U		P
7439-89-6	Iron	16.1	B	N*	P
7439-92-1	Lead	3.4			F
7439-95-4	Magnesium	227	U		P
7439-96-5	Manganese	2.5	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	11.1	U		P
7440-09-7	Potassium	281	U		P
7782-49-2	Selenium	0.80	U		F
7440-22-4	Silver	6.8	U	N	P
7440-23-5	Sodium	1760	B		P
7440-28-0	Thallium	4.3	U		F
7440-62-2	Vanadium	5.2	U		P
7440-66-6	Zinc	10.3	B		P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-51S

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Lab Sample ID: 02-0019

Level (low/med): MED Date Received: 03/01/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	968		N*	P
7440-36-0	Antimony	1.1	U	N	P
7440-38-2	Arsenic	1.0	U		P
7440-39-3	Barium	77.8	B		P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	17.4		*	P
7440-70-2	Calcium	33000			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	8.5	U		P
7440-50-8	Copper	13.1	B		P
7439-89-6	Iron	932		N*	P
7439-92-1	Lead	6.8			P
7439-95-4	Magnesium	11800			P
7439-96-5	Manganese	206			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	11.1	U		P
7440-09-7	Potassium	1760	B		P
7782-49-2	Selenium	2.7	B		P
7440-22-4	Silver	6.8	U	N	P
7440-23-5	Sodium	69700			P
7440-28-0	Thallium	4.3	U		P
7440-62-2	Vanadium	5.2	U		P
7440-66-6	Zinc	21.0			P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5SS

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Lab Sample ID: 03-0020

Level (low/med): MED Date Received: 03/01/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5650		N*	P
7440-36-0	Antimony	1.1	U	N	F
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	173	B		P
7440-41-7	Beryllium	1.2	B		P
7440-43-9	Cadmium	10.1		*	P
7440-70-2	Calcium	14400			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	10.0	B		P
7440-50-8	Copper	20.5	B		P
7439-89-6	Iron	9180		EN*	P
7439-92-1	Lead	11.8			F
7439-95-4	Magnesium	5780			P
7439-96-5	Manganese	619			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	11.1	U		P
7440-09-7	Potassium	6490			P
7782-49-2	Selenium	3.2	B		F
7440-22-4	Silver	6.8	U	N	P
7440-23-5	Sodium	32400			P
7440-28-0	Thallium	4.3	U		F
7440-62-2	Vanadium	18.0	B		P
7440-66-6	Zinc	56.7			P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments: E: Due to 1:10 dilution for Fe.

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-60S

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Lab Sample ID: 03-0021

Level (low/med): MED Date Received: 03/01/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5240		N*	P
7440-36-0	Antimony	1.1	U	N	F
7440-38-2	Arsenic	391			F
7440-39-3	Barium	177	B		P
7440-41-7	Beryllium	7.0			P
7440-43-9	Cadmium	7.2		*	P
7440-70-2	Calcium	195000			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	28.6	B		P
7440-50-8	Copper	29.0			P
7439-89-6	Iron	8300		N*	P
7439-92-1	Lead	11.9			F
7439-95-4	Magnesium	41600			P
7439-96-5	Manganese	6290			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	73.6			P
7440-09-7	Potassium	235000			P
7782-49-2	Selenium	0.80	U		F
7440-22-4	Silver	6.8	U	N	P
7440-23-5	Sodium	696000			P
7440-28-0	Thallium	4.3	U		F
7440-62-2	Vanadium	18.8	B		P
7440-66-6	Zinc	45.2			P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-61S

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Lab Sample ID: 03-0022

Level (low/med): MED Date Received: 03/01/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6040		N*	P
7440-36-0	Antimony	1.1	U	N	P
7440-38-2	Arsenic	405			P
7440-39-3	Barium	85.4	B		P
7440-41-7	Beryllium	4.1	B		P
7440-43-9	Cadmium	6.4		*	P
7440-70-2	Calcium	73800			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	12.7	B		P
7440-50-8	Copper	11.0	B		P
7439-89-6	Iron	2540		N*	P
7439-92-1	Lead	6.7			P
7439-95-4	Magnesium	18600			P
7439-96-5	Manganese	1370			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	17.4	B		P
7440-09-7	Potassium	121000			P
7782-49-2	Selenium	0.80	U		P
7440-22-4	Silver	6.8	U	N	P
7440-23-5	Sodium	181000			P
7440-28-0	Thallium	4.3	U		P
7440-62-2	Vanadium	9.4	B		P
7440-66-6	Zinc	18.3	B		P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-62S

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Lab Sample ID: 03-0007

Level (low/med): MED Date Received: 03/02/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1980		N*	P
7440-36-0	Antimony	1.1	U	N	F
7440-38-2	Arsenic	269			F
7440-39-3	Barium	57.3	B		P
7440-41-7	Beryllium	4.7	B		P
7440-43-9	Cadmium	5.4		*	P
7440-70-2	Calcium	163000			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	8.5	U		P
7440-50-8	Copper	18.4	B		P
7439-89-6	Iron	2440		N*	P
7439-92-1	Lead	3.2			F
7439-95-4	Magnesium	48000			P
7439-96-5	Manganese	718			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	11.1	U		P
7440-09-7	Potassium	182000			P
7782-49-2	Selenium	0.80	U		F
7440-22-4	Silver	6.8	U	N	P
7440-23-5	Sodium	237000			P
7440-28-0	Thallium	4.3	U		F
7440-62-2	Vanadium	5.4	B		P
7440-66-6	Zinc	18.9	B		P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-66S

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Lab Sample ID: 02-0090

Level (low/med): MED Date Received: 03/02/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13200		N*	P
7440-36-0	Antimony	1.1	U	N	F
7440-38-2	Arsenic	205			F
7440-39-3	Barium	99.9	B		P
7440-41-7	Beryllium	11.0			P
7440-43-9	Cadmium	6.0		*	P
7440-70-2	Calcium	69500			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	13.7	B		P
7440-50-8	Copper	20.0	B		P
7439-89-6	Iron	6170		N*	P
7439-92-1	Lead	8.2			F
7439-95-4	Magnesium	39000			P
7439-96-5	Manganese	17200			P
7439-97-6	Mercury	0.13			
7440-02-0	Nickel	110			P
7440-09-7	Potassium	68300			P
7782-49-2	Selenium	0.80	U		F
7440-22-4	Silver	6.8	U	N	P
7440-23-5	Sodium	211000			P
7440-28-0	Thallium	4.3	U		F
7440-62-2	Vanadium	13.4	B		P
7440-66-6	Zinc	39.8			P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-67S

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Lab Sample ID: 03-0091

Level (low/med): MED Date Received: 03/02/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	37900		N*	P
7440-36-0	Antimony	3.1	B	N	P
7440-38-2	Arsenic	2830			P
7440-39-3	Barium	23.8	B		P
7440-41-7	Beryllium	16.6			P
7440-43-9	Cadmium	6.7		*	P
7440-70-2	Calcium	1070	B		P
7440-47-3	Chromium	23.0			P
7440-48-4	Cobalt	8.5	U		P
7440-50-8	Copper	7.9	B		P
7439-89-6	Iron	12200		N*	P
7439-92-1	Lead	1.6	B		P
7439-95-4	Magnesium	638	B		P
7439-96-5	Manganese	321			P
7439-97-6	Mercury	0.13			CV
7440-02-0	Nickel	33.3	B		P
7440-09-7	Potassium	11700			P
7782-49-2	Selenium	0.80	U		P
7440-22-4	Silver	6.8	U	N	P
7440-23-5	Sodium	43200			P
7440-28-0	Thallium	4.3	U		P
7440-62-2	Vanadium	23.3	B		P
7440-66-6	Zinc	25.6			P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-71S

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Lab Sample ID: 03-0092

Level (low/med): MED Date Received: 03/02/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	26700		N*	P
7440-36-0	Antimony	1.1	U	N	P
7440-38-2	Arsenic	494			P
7440-39-3	Barium	257			P
7440-41-7	Beryllium	11.6			P
7440-43-9	Cadmium	12.8		*	P
7440-70-2	Calcium	48300			P
7440-47-3	Chromium	71.2			P
7440-48-4	Cobalt	15.0	B		P
7440-50-8	Copper	22.8	B		P
7439-89-6	Iron	59600		N*	P
7439-92-1	Lead	13.6			P
7439-95-4	Magnesium	31300			P
7439-96-5	Manganese	20000			P
7439-97-6	Mercury	0.13			CV
7440-02-0	Nickel	107			P
7440-09-7	Potassium	97300			P
7782-49-2	Selenium	0.80	U		P
7440-22-4	Silver	6.8	U	N	P
7440-23-5	Sodium	324000			P
7440-28-0	Thallium	4.3	U		P
7440-62-2	Vanadium	71.5			P
7440-66-6	Zinc	72.3			P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-74S

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Lab Sample ID: 03 0070

Level (low/med): MED Date Received: 03/02/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	394000		N*	P
7440-36-0	Antimony	1.5	B	N	F
7440-38-2	Arsenic	149			F
7440-39-3	Barium	152	B		P
7440-41-7	Beryllium	253			P
7440-43-9	Cadmium	119		*	P
7440-70-2	Calcium	9080			P
7440-47-3	Chromium	1580			P
7440-48-4	Cobalt	290			P
7440-50-8	Copper	82.2			P
7439-89-6	Iron	832000		N*	P
7439-92-1	Lead	3.8			F
7439-95-4	Magnesium	10000			P
7439-96-5	Manganese	266000			P
7439-97-6	Mercury	0.13			CV
7440-02-0	Nickel	2380			P
7440-09-7	Potassium	35100			P
7782-49-2	Selenium	0.80	U		F
7440-22-4	Silver	23.8		N	P
7440-23-5	Sodium	201000			P
7440-28-0	Thallium	4.3	U		F
7440-62-2	Vanadium	2640			P
7440-66-6	Zinc	1480			P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

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2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Initial Calibration Source: SPEX ICV

Continuing Calibration Source: SPEX QC7&19

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum	2000.0	1853.46	92.7	10000.0	9803.59	98.0	9924.46	99.2	P
Antimony	20.0	20.82	104.1	20.0	20.97	104.8	21.48	107.4	F
Arsenic	20.0	19.05	95.2	20.0	20.80	104.0	18.82	94.1	F
Barium	2000.0	2015.23	100.8	10000.0	10088.61	100.9	10361.66	103.6	P
Beryllium	500.0	486.08	97.2	600.0	587.17	97.9	606.15	101.0	P
Cadmium	500.0	474.65	94.9	1000.0	1000.22	100.0	1039.06	103.9	P
Calcium	50000.0	49967.19	99.9	60000.0	59747.30	99.6	62017.44	103.4	P
Chromium	1000.0	984.25	98.4	1000.0	1035.09	103.5	1080.92	108.1	P
Cobalt	5000.0	4684.56	93.7	1000.0	995.18	99.5	1035.65	103.6	P
Copper	2500.0	2405.17	96.2	1000.0	996.68	99.7	1009.33	100.9	P
Iron	10000.0	9403.40	94.0	1000.0	988.15	98.8	1053.44	105.3	P
Lead	20.0	21.56	107.8	20.0	20.28	101.4	20.49	102.4	F
Magnesium	50000.0	50680.43	101.4	60000.0	60812.64	101.4	61616.79	102.7	P
Manganese	1500.0	1467.13	97.8	1000.0	1031.21	103.1	1058.59	105.9	P
Mercury	5.0	4.98	99.6	5.0	4.92	98.4	4.84	96.8	CV
Nickel	4000.0	3876.83	96.9	1000.0	1046.42	104.6	1083.27	108.3	P
Potassium	50000.0	51247.49	102.5	60000.0	61711.31	102.9	61949.49	103.2	P
Selenium	10.0	9.82	98.2	10.0	9.61	96.1	10.75	107.5	F
Silver	1000.0	972.53	97.3	1000.0	1031.93	103.2	1046.15	104.6	P
Sodium	50000.0	52220.56	104.6	60000.0	62381.64	104.0	62314.55	103.9	P
Thallium	20.0	20.35	101.8	20.0	18.65	93.2	18.45	92.2	F
Vanadium	5000.0	4913.68	98.3	1000.0	996.90	99.7	1020.64	102.1	P
Zinc	2000.0	1955.01	97.8	1000.0	1008.44	100.8	1029.47	102.9	P
Cyanide	0.0			0.0					NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Initial Calibration Source: SPEX ICV

Continuing Calibration Source: SPEX QC7&19

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead				20.0	19.02	95.1			F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium				10.0	10.59	105.9			F
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide	0.0			0.0					NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

AA CRDL Standard Source: SPEX CRDL-1

ICP CRDL Standard Source: SPEX CRDL-1

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum				0.0	-122.67	0.0	110.47	0.0
Antimony								
Arsenic	20.0	17.85	89.2					
Barium					-2.67		4.58	
Beryllium				10.0	9.73	97.3	10.37	103.7
Cadmium				10.0	14.41	144.1	12.41	124.1
Calcium					0.50		54.68	
Chromium				20.0	7.93	39.6	20.62	103.1
Cobalt				100.0	97.80	97.8	100.80	100.8
Copper				50.0	48.81	97.6	49.61	99.2
Iron					8.70		3.00	
Lead	6.0	7.74	129.0					
Magnesium					-59.79		21.32	
Manganese				30.0	31.62	105.4	33.33	111.1
Mercury								
Nickel				80.0	82.91	103.6	79.55	99.4
Potassium					-186.50		82.86	
Selenium	10.0	9.45	94.5					
Silver				20.0	7.06	35.3	10.47	52.4
Sodium					-268.10		208.18	
Thallium	20.0	19.10	95.5					
Vanadium				100.0	101.53	101.5	102.16	102.2
Zinc				40.0	38.77	96.9	42.27	105.7

U.S. EPA - CLP

3
BLANKS

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	-85.9	B	-149.9	B					123.828	B	P
Antimony	1.1	U	1.1	U	1.1	U			1.100	U	F
Arsenic	1.0	U	1.0	U	1.0	U			-1.925	B	F
Barium	9.8	U	9.8	U					9.800	U	F
Beryllium	0.4	U	0.9	B					0.400	U	P
Cadmium	4.0	U	4.1	B					4.000	U	P
Calcium	187.0	U	187.0	U					187.000	U	P
Chromium	10.0	U	10.0	U					10.000	U	P
Cobalt	-8.5	B	8.5	U					8.500	U	P
Copper	-4.5	B	3.0	U					3.000	U	P
Iron	12.2	U	40.0	B					85.041	B	P
Lead	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	F
Magnesium	227.0	U	227.0	U					227.000	U	P
Manganese	2.0	U	3.2	B					2.000	U	P
Mercury	0.2	U	0.2	U					0.200	U	CV
Nickel	-14.6	B	11.1	U					-11.552	B	P
Potassium	281.0	U	281.0	U					281.000	U	P
Selenium	0.8	U	0.8	U	0.8	U	0.8	U	-0.925	B	F
Silver	6.8	U	6.8	U					6.800	U	P
Sodium	451.0	U	-850.5	B					451.000	U	P
Thallium	4.3	U	4.3	U	4.3	U			4.300	U	F
Vanadium	5.2	U	5.2	U					5.200	U	P
Zinc	2.1	U	2.1	U					2.100	U	P
Cyanide											NR

U.S. EPA - CLP

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Antech Ltd | Contract: FANSTEEL

Lab Code: ANT | Case No.: | SAS No.: | SDG No.: 0636FN

ICP ID Number: ICP-1 | ICS Source: SPEX

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	500000	477068	481893.3	96.4	473975	473661.1	94.7
Antimony								
Arsenic								
Barium		500	1	501.2	100.2	6	495.0	99.0
Beryllium		500	14	467.3	93.5	14	474.1	94.8
Cadmium		1000	39	980.2	98.0	37	1004.4	100.4
Calcium	500000	500000	473391	478295.1	95.7	484226	485983.0	97.2
Chromium		500	14	508.4	101.7	5	528.6	105.7
Cobalt		500	33	499.4	99.9	34	508.8	101.8
Copper		500	31	517.3	103.5	33	509.3	101.9
Iron	200000	200000	183683	185928.8	93.0	185979	186709.4	93.4
Lead								
Magnesium	500000	500000	496807	501304.9	100.3	495260	494449.3	98.9
Manganese		500	48	531.4	106.3	45	535.8	107.2
Mercury								
Nickel		1000	0	957.5	95.8	2	985.4	98.5
Potassium			-132	-118.9		34	88.3	
Selenium								
Silver		1000	2	1015.0	101.5	3	1003.3	100.3
Sodium			-102	173.9		362	318.2	
Thallium								
Vanadium		500	42	534.6	106.9	40	531.8	106.4
Zinc		1000	85	1033.9	103.4	73	1053.2	105.3

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MW-62SS

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Level (low/med): MED

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	4666.8442		1979.0759		2000.00	134.4	N	P
Antimony	75-125	9.2630	B	1.1000	U	10.00	92.6		F
Arsenic		283.5500		268.8750		20.00	73.4		F
Barium	75-125	1875.0242		57.3213	B	2000.00	90.9		P
Beryllium	75-125	55.2994		4.6705	B	50.00	101.3		P
Cadmium	75-125	54.4357		5.3862		50.00	98.1		P
Calcium									NR
Chromium	75-125	209.0213		10.0000	U	200.00	104.5		P
Cobalt	75-125	490.4949		8.5000	U	500.00	98.1		P
Copper	75-125	255.6456		18.3784	B	250.00	94.9		P
Iron	75-125	3159.8676		2441.8953		1000.00	71.8	N	P
Lead	75-125	12.6050		3.1900		10.00	94.2		F
Magnesium									NR
Manganese	75-125	1234.7847		717.6948		500.00	103.4		P
Mercury	75-125	0.9235		0.2000	U	1.00	92.4		CV
Nickel	75-125	501.7130		11.1000	U	500.00	100.3		P
Potassium									NR
Selenium	75-125	11.4700		0.8000	U	10.00	114.7		F
Silver	75-125	7.5745	B	6.8000	U	50.00	15.1	N	P
Sodium									NR
Thallium	75-125	20.9000		4.3000	U	20.00	104.5		F
Vanadium	75-125	494.1204		5.4151	B	500.00	97.7		P
Zinc	75-125	506.3689		18.9381	B	500.00	97.5		P
Cyanide									NR

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

FIELDBA
blank

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		8.90	B	1.10	U	10.0	89.0		F
Arsenic		28.50		1.00	U	20.0	142.5	W	F
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		10.92		1.00	U	10.0	109.2		F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium		10.98		0.80	U	10.0	109.8		F
Silver									NR
Sodium									NR
Thallium		16.95		4.30	U	20.0	84.8		F
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

SB
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
FLDBLKA
Field Blank

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		10.76	B	1.10	U	10.0	107.6		F
Arsenic		16.98		1.00	U	20.0	84.9		F
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		13.72		3.36		10.0	103.6		F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium		7.08		0.80	U	10.0	90.8		F
Silver									NR
Sodium									NR
Thallium		16.95		4.30	U	20.0	84.8		F
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
MW-51SA

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		9.46	B	1.10	U	10.0	94.6		F
Arsenic		18.78		1.00	U	20.0	93.9		F
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		17.04		6.84		10.0	102.0		F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium		12.66		2.92	B	10.0	97.4		F
Silver									NR
Sodium									NR
Thallium		18.65		4.30	U	20.0	93.2		F
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
MW-52SA

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		9.66	B	1.10	U	10.0	96.6		F
Arsenic		19.26		1.00	U	20.0	96.3		F
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		22.12		11.78		10.0	103.4		F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium		10.84		3.22	B	10.0	76.2	W	F
Silver									NR
Sodium									NR
Thallium		19.55		4.30	U	20.0	97.8		F
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
MW-60SA

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		4.50	B	1.10	U	10.0	45.0	W	F
Arsenic		97.89		78.18		20.0	98.6		F
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		22.35		11.88		10.0	104.7		F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium		6.78		0.80	U	10.0	67.8	W	F
Silver									NR
Sodium									NR
Thallium		14.95		4.30	U	20.0	74.8	W	F
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
MW-61SA

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		4.40	B	1.10	U	10.0	44.0	W	F
Arsenic		103.60		80.96		20.0	113.2		F
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		17.39		6.69		10.0	107.0		F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium		4.98	B	0.80	U	10.0	49.8	W	F
Silver									NR
Sodium									NR
Thallium		18.00		4.30	U	20.0	90.0		F
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
MW-62SA

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		3.99	B	1.10	U	10.0	39.9	W	F
Arsenic		72.54		53.78		20.0	93.8		F
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		13.28		3.19		10.0	100.9		F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium		7.24		0.80	U	10.0	72.4	W	F
Silver									NR
Sodium									NR
Thallium		17.65		4.30	U	20.0	88.2		F
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
MW-66SA

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		4.56	B	1.10	U	10.0	45.6	W	F
Arsenic		62.58		40.96		20.0	108.1		F
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		18.46		8.24		10.0	102.2		F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium		6.08		0.80	U	10.0	60.8	W	F
Silver									NR
Sodium									NR
Thallium		20.60		4.30	U	20.0	103.0		F
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
MW-67SA

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		11.02	B	3.06	B	10.0	79.6	W	F
Arsenic		49.31		28.30		20.0	105.0		F
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		12.52		1.60	B	10.0	109.2		F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium		4.01	B	0.80	U	10.0	40.1	W	F
Silver									NR
Sodium									NR
Thallium		19.00		4.30	U	20.0	95.0		F
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
MW-71SA

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		4.78	B	1.10	U	10.0	47.8	W	F
Arsenic		71.60		49.36		20.0	111.2		F
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		23.32		13.62		10.0	97.0		F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium		5.32		0.80	U	10.0	53.2	W	F
Silver									NR
Sodium									NR
Thallium		19.35		4.30	U	20.0	96.8		F
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

SB
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
MW-74SA

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		9.70	B	1.54	B	10.0	81.6	W	F
Arsenic		37.70		14.86		20.0	114.2		F
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		10.96		3.76		10.0	72.0	W	F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium		6.38		0.80	U	10.0	63.8	W	F
Silver									NR
Sodium									NR
Thallium		17.30		4.30	U	20.0	86.5		F
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

MW-62SD

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Level (low/med): MED

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		1979.0759		3101.9421		44.2	*	P
Antimony		1.1000	U	1.1000	U			F
Arsenic		268.8750		253.4500		5.9		F
Barium		57.3213	B	73.6273	B	24.9		P
Beryllium		4.6705	B	4.6129	B	1.2		P
Cadmium	5.0	5.3862		4.0000	U	200.0	*	P
Calcium		163431.8200		154646.4500		5.5		P
Chromium		10.0000	U	10.0000	U			P
Cobalt		8.5000	U	8.5000	U			P
Copper		18.3784	B	13.7835	B	28.6		P
Iron		2441.8953		3737.5148		41.9	*	P
Lead	3.0	3.1900		3.5600		11.0		F
Magnesium		48029.8760		47548.9050		1.0		P
Manganese		717.6948		738.0464		2.8		P
Mercury		0.2000	U	0.2000	U			CV
Nickel		11.1000	U	11.1000	U			P
Potassium		181708.9200		171563.7400		5.7		P
Selenium		0.8000	U	0.8000	U			F
Silver		6.8000	U	6.8000	U			P
Sodium		237389.3800		226445.0400		4.7		P
Thallium		4.3000	U	4.3000	U			F
Vanadium		5.4151	B	5.2000	U	200.0		P
Zinc		18.9381	B	16.7947	B	12.0		P
Cyanide								NR

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LABORATORY CONTROL SAMPLE

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Solid LCS Source: SPEX

Aqueous LCS Source: SPEX

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits	%R
Aluminum	2000.0	1881.90	94.1					
Antimony								
Arsenic	20.0	20.23	101.2					
Barium	2000.0	1996.75	99.8					
Beryllium	50.0	50.12	100.2					
Cadmium	50.0	53.99	108.0					
Calcium		244.71						
Chromium	200.0	212.03	106.0					
Cobalt	500.0	496.90	99.4					
Copper	250.0	254.91	102.0					
Iron	1000.0	1035.36	103.5					
Lead	10.0	11.71	117.1					
Magnesium		9.46						
Manganese	500.0	514.30	102.9					
Mercury	1.0	1.16	116.0					
Nickel	500.0	527.74	105.5					
Potassium		90.31						
Selenium	10.0	8.96	89.6					
Silver	50.0	52.00	104.0					
Sodium		296.51						
Thallium	20.0	21.80	109.0					
Vanadium	500.0	497.01	99.4					
Zinc	500.0	517.40	103.5					
Cyanide								

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ICP SERIAL DILUTIONS

EPA SAMPLE NO.

MW-51SL

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	967.88		1827.96		88.9		P
Antimony							P
Arsenic							P
Barium	77.80	B	90.10	B	15.8		P
Beryllium	1.09	B	2.00	U	100.0		P
Cadmium	17.41		20.00	U	100.0		P
Calcium	33049.10		33833.99		2.4		P
Chromium	10.00	U	50.00	U			P
Cobalt	8.50	U	42.50	U			P
Copper	13.13	B	27.18	B	107.0		P
Iron	932.05		1026.97		10.2	E	P
Lead							P
Magnesium	11788.12		12230.78	B	3.8		P
Manganese	205.52		215.68		4.9		P
Mercury							CV
Nickel	11.10	U	55.50	U			P
Potassium	1762.12	B	2374.79	B	34.8		P
Selenium							P
Silver	6.80	U	34.00	U			P
Sodium	69650.95		73190.76		5.1		P
Thallium							P
Vanadium	5.20	U	26.00	U			P
Zinc	20.97		34.37	B	63.9		P

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ICP SERIAL DILUTIONS

EPA SAMPLE NO.

MW-623L

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	1979.08		1605.72		18.9		P
Antimony							P
Arsenic							P
Barium	57.32	B	49.00	U	100.0		P
Beryllium	4.67	B	3.20	B	31.5		P
Cadmium	5.39		25.24		368.3		P
Calcium	163431.83		171242.66		4.8		P
Chromium	10.00	U	50.00	U			P
Cobalt	8.50	U	42.50	U			P
Copper	18.38	B	15.00	U	100.0		P
Iron	2441.90		2546.12		4.3		P
Lead							P
Magnesium	48029.88		49599.24		3.3		P
Manganese	717.69		741.60		3.3		P
Mercury							CV
Nickel	11.10	U	55.50	U			P
Potassium	181708.93		182900.57		0.7		P
Selenium							P
Silver	6.80	U	34.00	U			P
Sodium	237389.39		241088.27		1.6		P
Thallium							P
Vanadium	5.42	B	26.00	U	100.0		P
Zinc	18.94	B	22.39	B	18.2		P

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

ICP ID Number: ICP-1 Date: 07/02/92

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200.0	70.6	P
Antimony	217.59		60.0	29.7	P
Arsenic	189.04		10.0	25.2	P
Barium	455.40		200.0	9.8	P
Beryllium	313.04		5.0	0.4	P
Cadmium	226.50		5.0	4.0	P
Calcium	317.90		5000.0	187.0	P
Chromium	267.70		10.0	10.0	P
Cobalt	228.62		50.0	8.5	P
Copper	324.75		25.0	3.0	P
Iron	259.94		100.0	12.2	P
Lead	220.35		3.0	19.1	P
Magnesium	279.08		5000.0	227.0	P
Manganese	257.61		15.0	2.0	P
Mercury			0.2		
Nickel	231.60		40.0	11.1	P
Potassium	766.49		5000.0	281.0	P
Selenium	203.98		5.0	54.0	P
Silver	328.07		10.0	6.8	P
Sodium	589.59		5000.0	451.0	P
Thallium	190.86		10.0	46.6	P
Vanadium	292.40		50.0	5.2	P
Zinc	213.86		20.0	2.1	P

Comments:
ARL 3560 SIMULTANEOUS ICP-AES

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

ICP ID Number: Date: 07/02/92

Flame AA ID Number: HGCV-1

Furnace AA ID Number: 5100A

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200.0		
Antimony			60.0		
Arsenic	193.70	BZ	10.0	1.0	F
Barium			200.0		
Beryllium			5.0		
Cadmium	228.80	BZ	5.0	0.4	F
Calcium			5000.0		
Chromium	357.90	BZ	10.0	0.4	F
Cobalt			50.0		
Copper	324.80	BZ	25.0	1.6	F
Iron			100.0		
Lead	283.30	BZ	3.0	1.0	F
Magnesium			5000.0		
Manganese			15.0		
Mercury	253.70		0.2	0.2	CV
Nickel			40.0		
Potassium			5000.0		
Selenium	196.00	BZ	5.0	0.8	F
Silver	328.10	BZ	10.0	1.4	F
Sodium			5000.0		
Thallium	276.80	BZ	10.0	4.3	F
Vanadium			50.0		
Zinc			20.0		

Comments:
PERKIN ELMER 5100 WITH AS60 AUTOSAMPLER WITH ZEEMAN BACKGROUND CORRECT ION.

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

ICP ID Number: Date: 07/02/92

Flame AA ID Number:

Furnace AA ID Number: 5100B

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200.0		
Antimony	217.60	BZ	60.0	1.1	F
Arsenic	193.70	BZ	10.0	0.9	F
Barium			200.0		
Beryllium			5.0		
Cadmium	228.80	BZ	5.0	0.3	F
Calcium			5000.0		
Chromium	357.90	BZ	10.0	1.0	F
Cobalt			50.0		
Copper			25.0		
Iron			100.0		
Lead	283.30	BZ	3.0	1.0	F
Magnesium			5000.0		
Manganese			15.0		
Mercury			0.2		
Nickel			40.0		
Potassium			5000.0		
Selenium	196.00	BZ	5.0	0.7	F
Silver	328.10	BZ	10.0	0.3	F
Sodium			5000.0		
Thallium	276.80	BZ	10.0	3.6	F
Vanadium			50.0		
Zinc			20.0		

Comments:
PERKIN ELMER 5100 WITH AS60 AUTOSAMPLER WITH ZEEMAN BACKGROUND CORRECT ION.

11A

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

ICP ID Number: ICP-1 Date: 07/02/92

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg		
Aluminum	308.22						
Antimony	206.83	0.0001392					
Arsenic	189.04						
Barium	455.40						
Beryllium	313.04						
Cadmium	226.50						
Calcium	317.93						
Chromium	267.72						
Cobalt	228.62						
Copper	324.75						
Iron	259.94						
Lead	220.35	-0.0006008					
Magnesium	279.08		0.0002958				
Manganese	257.61	0.0000021					
Mercury	184.95						
Nickel	231.60						
Potassium	766.49						
Selenium	203.99						
Silver	328.07						
Sodium	589.59						
Thallium	190.86						
Vanadium	292.40						
Zinc	213.86						

Comments:
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11B

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

ICP ID Number: ICP-1 Date: 07/02/92

Analyte	Wave-length (nm)	Interelement Correction Factors for: CU	CR	NI		
Aluminum	308.22					
Antimony	217.90					
Arsenic	189.04					
Barium	455.40					
Beryllium	313.04					
Cadmium	226.50			0.0004134		
Calcium	317.93					
Chromium	267.72					
Cobalt	228.62			0.0004823		
Copper	324.75					
Iron	259.94					
Lead	220.35					
Magnesium	279.08					
Manganese	257.61					
Mercury	184.95					
Nickel	231.60					
Potassium	766.49					
Selenium	203.98		0.0859378			
Silver	328.07					
Sodium	589.59					
Thallium	190.86					
Vanadium	292.40					
Zinc	213.86	0.0026266				

Comments:
ARL 3560 SIMULTANEOUS ICP-AES

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ICP LINEAR RANGES (QUARTERLY)

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

ICP ID Number: ICP-1 Date: 03/02/93

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Aluminum	5.00	1000000.0	P
Antimony	5.00	100000.0	P
Arsenic	5.00	100000.0	P
Barium	5.00	100000.0	P
Beryllium	5.00	10000.0	P
Cadmium	5.00	100000.0	P
Calcium	5.00	1000000.0	P
Chromium	5.00	500000.0	P
Cobalt	5.00	100000.0	P
Copper	5.00	100000.0	P
Iron	5.00	100000.0	P
Lead	5.00	100000.0	P
Magnesium	5.00	1000000.0	P
Manganese	5.00	20000.0	P
Mercury	5.00	100000.0	P
Nickel	5.00	100000.0	P
Potassium	5.00	500000.0	P
Selenium	5.00	100000.0	P
Silver	5.00	100000.0	P
Sodium	5.00	500000.0	P
Thallium	5.00	100000.0	P
Vanadium	5.00	100000.0	P
Zinc	5.00	20000.0	P

Comments:
ARL 3560 SIMULTANEOUS ICP-AES

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PREPARATION LOG

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Method: CV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (ml)
CCB1	03/04/93		100
CCV1	03/04/93		100
FLDBLK	03/04/93		100
ICB	03/04/93		100
ICV	03/04/93		100
LCSW	03/04/93		100
MW-51S	03/04/93		100
MW-52S	03/04/93		100
MW-60S	03/04/93		100
MW-61S	03/04/93		100
MW-62S	03/04/93		100
MW-62SD	03/04/93		100
MW-62SS	03/04/93		100
PBW	03/04/93		100

13
PREPARATION LOG

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Method: F

EPA Sample No.	Preparation Date	Weight (gram)	Volume (ml)
CCB1	03/04/93		100
CCB2	03/04/93		100
CCB3	03/04/93		100
CCV1	03/04/93		100
CCV2	03/04/93		100
CCV3	03/04/93		100
CRA	03/04/93		100
FIELDB	03/04/93		100
FIELDBP	03/04/93		100
FIELDBS	03/04/93		100
FLDBLK	03/04/93		100
FLDBLKP	03/04/93		100
ICB	03/04/93		100
ICV	03/04/93		100
LCSW	03/04/93		100
MW-51S	03/04/93		100
MW-51SP	03/04/93		100
MW-52S	03/04/93		100
MW-52SP	03/04/93		100
MW-60S	03/04/93		100
MW-60SP	03/04/93		100
MW-61S	03/04/93		100
MW-61SP	03/04/93		100
MW-62S	03/04/93		100
MW-62SD	03/04/93		100
MW-62SP	03/04/93		100
MW-62SS	03/04/93		100
MW-66S	03/04/93		100
MW-66SP	03/04/93		100
MW-67S	03/04/93		100
MW-67SP	03/04/93		100
MW-71S	03/04/93		100

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PREPARATION LOG

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Method: F

EPA Sample No.	Preparation Date	Weight (gram)	Volume (ml)
MW-71SP	03/04/93		100
MW-74S	03/04/93		100
MW-74SP	03/04/93		100
PBW	03/04/93		100

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PREPARATION LOG

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 0636FN

Method: P

EPA Sample No.	Preparation Date	Weight (gram)	Volume (ml)
CCB1	03/04/93		100
CCV1	03/04/93		100
CCV2	03/04/93		100
CRIF	03/04/93		100
CRII	03/04/93		100
FIELDB	03/04/93		100
ICB	03/04/93		100
ICSABF	03/04/93		100
ICSABI	03/04/93		100
ICSAF	03/04/93		100
ICSAI	03/04/93		100
ICV	03/04/93		100
LCSW	03/04/93		100
MW-62S	03/04/93		100
MW-62SD	03/04/93		100
MW-62SL	03/04/93		100
MW-62SS	03/04/93		100
MW-66S	03/04/93		100
MW-67S	03/04/93		100
MW-71S	03/04/93		100
MW-74S	03/04/93		100
PBW	03/04/93		100

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ANALYSIS RUN LOG

Lab Name: Antech Ltd
Lab Code: ANT Case No.:
Instrument ID Number: ICP-1
Start Date: 03/15/93

Contract: FANSTEEL
SAS No.: SDG No.: 0636FN
Method: P
End Date: 03/15/93

EPA Sample No.	D/F	Time	% R	Analytes																									
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ICV	1.00	1814		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
ICV	1.00	1824		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCV1	1.00	1826		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCV1	1.00	1829		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CRII	1.00	1831		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
ICB	1.00	1833		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
ICSAI	1.00	1836		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
ICSABI	1.00	1838		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
PBW	1.00	1841		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
LCSW	1.00	1843		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MW-51S	1.00	1846		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MW-51S	1.00	1848		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MW-51SL	5.00	1851		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MW-52S	1.00	1853		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MW-60S	1.00	1856		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
MW-61S	1.00	1858		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
FLDBLK	1.00	19 1		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCV2	1.00	1915		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCV2	1.00	1918		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CCB1	1.00	1920		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
CRIF	1.00	1945		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
ICSAF	1.00	1950		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	
ICSABF	1.00	1952		X			X	X	X	X	X	X	X	X		X	X		X	X		X	X		X	X	

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ANALYSIS RUN LOG

Lab Name: Antech Ltd
Lab Code: ANT Case No.:
Instrument ID Number: HGCV-1
Start Date: 03/04/93

Contract: FANSTEEL
SAS No.: SDG No.: 0636FN
Method: CV
End Date: 03/08/93

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ICV	1.00																	X									
MW-62SD	1.00																	X									

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ANALYSIS RUN LOG

Lab Name: Antech Ltd
Lab Code: ANT Case No.:
Instrument ID Number: 5100B
Start Date: 03/22/93

Contract: FANSTEEL
SAS No.: SDG No.: 0636FN
Method: F
End Date: 03/22/93

EPA Sample No.	D/F	Time	% R	Analytes																											
				ALK	BSA	ABE	BDA	CAR	CIO	CUE	CBG	FNI	FIG	MII	MHE	HIG	NIA	KIL	SIE	AIG	NAL	TIT	VIN	ZIN	CIN
ICV	1.00	1248																						X	
CRA	1.00	1253																						X	
ICB	1.00	1258																						X	
PBW	1.00	1514																						X	
LCSW	1.00	1519																						X	
MW-62S	1.00	1530																						X	
MW-62SA	1.00	1535																						X	
MW-62SD	1.00	1540																						X	
MW-62SS	1.00	1550																						X	
MW-66S	1.00	1555																						X	
MW-66SA	1.00	1600																						X	
MW-67S	1.00	1611																						X	
MW-67SA	1.00	1616																						X	
CCV2	1.00	1621																						X	
CCB2	1.00	1626																						X	
MW-71S	1.00	1631																						X	
MW-71SA	1.00	1636																						X	
MW-74S	1.00	1648																						X	
MW-74SA	1.00	1653																						X	
FIELDB	1.00	1658																						X	
FIELDBA	1.00	1704																						X	
MW-51S	1.00	1709																						X	
MW-51SA	1.00	1714																						X	
MW-52S	1.00	1720																						X	
MW-52SA	1.00	1725																						X	
CCV1	1.00	1730																						X	
CCB1	1.00	1749																						X	
MW-60S	1.00	1755																						X	
MW-60SA	1.00	1800																						X	
MW-61S	1.00	1805																						X	
MW-61SA	1.00	1810																						X	
FLDBLK	1.00	1815																						X	

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14
ANALYSIS RUN LOG

Lab Name: Antech Ltd
Lab Code: ANT Case No.:
Instrument ID Number: 5100B
Start Date: 03/22/93

Contract: FANSTEEL
SAS No.: SDG No.: 0636FN
Method: F
End Date: 03/22/93

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
FLDBLKA	1.00	1821																						X			

ANALYSIS RUN LOG

Lab Name: Antech Ltd
Lab Code: ANT Case No.:
Instrument ID Number: ICP-1
Start Date: 03/21/93

Contract: FANSTEEL
SAS No.: SDG No.: 0636FN
Method: P
End Date: 03/21/93

EPA Sample No.	D/F	Time	% R	Analytes																											
				ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CALCIUM	CHROMIUM	COBALT	COPPER	IRON	LEAD	MAGNESIUM	MANGANESE	MERCURY	NICKEL	POTASSIUM	SELENIUM	SILVER	SODIUM	THALLIUM	VANADIUM	ZINC	CYANIDE
ICV	1.00	1141		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
ICV	1.00	1143		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
CCV1	1.00	1145		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
CCV1	1.00	1148		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
ICB	1.00	1151		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
CRII	1.00	1153		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
ICSAI	1.00	1155		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
ICSABI	1.00	1158		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
PBW	1.00	12 0		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
LCSW	1.00	12-3		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
MW-62S	1.00	12 5		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
MW-62SL	5.00	12 8		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
MW-62SD	1.00	1210		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
MW-62SS	1.00	1213		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
MW-66S	1.00	1216		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
MW-67S	1.00	1218		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
MW-71S	1.00	1221		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
MW-74S	1.00	1224		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
FIELDB	1.00	1226		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
CCV2	1.00	1234		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
CCV2	1.00	1237		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
CCB1	1.00	1239		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
CRIF	1.00	1409		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
ICSAF	1.00	1412		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
ICSABF	1.00	1415		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
MW-71S	1.00	1418		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
MW-66S	1.00	1421		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	
MW-74S	1.00	1424		X			X	X	X	X	X	X	X		X	X		X	X		X	X		X	X		X	X	

ANALYSIS RUN LOG

Lab Name: Antech Ltd
Lab Code: ANT Case No.:
Instrument ID Number: 5100B
Start Date: 03/23/93

Contract: FANSTEEL
SAS No.: SDG No.: 0636FN
Method: F
End Date: 03/23/93

EPA Sample No.	D/F	Time	% R	Analytes																										
				ALK	BS	ASA	BE	BEI	CDA	CAR	CRO	CIU	CEI	FBI	PBG	MIN	MIG	HNI	NIT	KEI	SEI	ANG	NIA	TIL	VIN	ZIN	CIN
ICV	1.00	1845			X																									
ICB	1.00	1850			X																									
PBW	1.00	1855			X																									
MW-51S	1.00	1907			X																									
MW-51SA	1.00	1912			X																									
MW-52S	1.00	1917			X																									
MW-52SA	1.00	1922			X																									
MW-60S	1.00	1927			X																									
MW-60SA	1.00	1935			X																									
MW-61S	1.00	1940			X																									
MW-61SA	1.00	1946			X																									
FLDBLK	1.00	1951			X																									
FLDBLKA	1.00	1957			X																									
CCV1	1.00	2003			X																									
CCB1	1.00	2008			X																									
MW-62S	1.00	2013			X																									
MW-62SA	1.00	2019			X																									
MW-62SD	1.00	2024			X																									
MW-62SS	1.00	2036			X																									
MW-66S	1.00	2047			X																									
MW-66SA	1.00	2052			X																									
MW-67S	1.00	2058			X																									
MW-67SA	1.00	2104			X																									
CCV2	1.00	2109			X																									
CCB2	1.00	2115			X																									
MW-71S	1.00	2120			X																									
MW-71SA	1.00	2126			X																									
MW-74S	1.00	2131			X																									
MW-74SA	1.00	2137			X																									
FIELDB	1.00	2143			X																									
FIELDBA	1.00	2149			X																									

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ANALYSIS RUN LOG

Lab Name: Antech Ltd
Lab Code: ANT Case No.:
Instrument ID Number: 5100B
Start Date: 03/15/93

Contract: FANSTEEL
SAS No.: SDG No.: 0636FN
Method: F
End Date: 03/20/93

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ICV	1.00	1243																			X						
CRA	1.00	1248																			X						
ICB	1.00	1253																			X						
PBW	1.00	1258																			X						
LCSW	1.00	1300																			X						
MW-51S	1.00	1319																			X						
MW-51SA	1.00	1324																			X						
MW-52S	1.00	1329																			X						
MW-52SA	1.00	1335																			X						
MW-60S	1.00	1340																			X						
MW-60SA	1.00	1345																			X						
CCV1	1.00	1409																			X						
CCB1	1.00	1415																			X						
MW-61S	1.00	1420																			X						
MW-61SA	1.00	1425																			X						
FLDBLK	1.00	1430																			X						
FLDBLKA	1.00	1436																			X						
MW-62S	1.00	0707																			X						
MW-62SA	1.00	0712																			X						
MW-62SD	1.00	0717																			X						
MW-67S	1.00	0738																			X						
MW-67SA	1.00	0743																			X						
MW-74S	1.00	0754																			X						
MW-74SA	1.00	0759																			X						
MW-62SS	1.00	1018																			X						
CCV2	1.00	1610																			X						
CCB2	1.00	1620																			X						
MW-71S	1.00	1625																			X						
FIELDB	1.00	1646																			X						
FIELDBA	1.00	1651																			X						
CCV3	1.00	1718																			X						
CCB3	1.00	1729																			X						

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ANALYSIS RUN LOG

Lab Name: Antech Ltd
Lab Code: ANT Case No.:
Instrument ID Number: 5100A
Start Date: 03/24/93

Contract: FANSTEEL
SAS No.: SDG No.: 0636FN
Method: F
End Date: 03/28/93

EPA Sample No.	D/F	Time	% R	Analytes																											
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ICV	1.00	2229				X																					
CRA	1.00	2232				X																					
ICB	1.00	2241				X																					
PBW	1.00	2246				X																					
LCSW	1.00	2256				X																					
MW-51S	1.00	2322				X																					
MW-51SA	1.00	2327				X																					
MW-52S	1.00	2332				X																					
MW-52SA	1.00	2337				X																					
MW-60S	5.00	2342				X																					
MW-60SA	5.00	2347				X																					
MW-61S	5.00	2352				X																					
MW-61SA	5.00	2357				X																					
FLDBLK	1.00	0002				X																					
FLDBLKA	1.00	0007				X																					
CCV1	1.00	0024				X																					
CCB1	1.00	0029				X																					
MW-62S	5.00	1227				X																					
MW-62SA	5.00	1232				X																					
MW-62SD	5.00	1244				X																					
MW-62SS	5.00	1254				X																					
MW-66S	5.00	1304				X																					
MW-66SA	5.00	1309				X																					
MW-67S	100.00	1314				X																					
MW-67SA	100.00	1319				X																					
MW-71S	10.00	1325				X																					
MW-71SA	10.00	1330				X																					
CCV2	1.00	1335				X																					
CCB2	1.00	1348				X																					
FIELDB	1.00	1401				X																					
FIELDBS	1.00	1406				X																					
MW-74S	10.00	0858				X																					

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ANALYSIS RUN LOG

Lab Name: Antech Ltd
Lab Code: ANT Case No.:
Instrument ID Number: 5100A
Start Date: 03/15/93

Contract: FANSTEEL
SAS No.: SDG No.: 0636FN
Method: F
End Date: 03/25/93

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ICV	1.00	2337													X												
CRA	1.00	2342													X												
ICB	1.00	2347													X												
PBW	1.00	2350													X												
MW-51S	1.00	0013													X												
MW-51SA	1.00	0018													X												
MW-52S	1.00	0024													X												
MW-52SA	1.00	0029													X												
MW-61S	1.00	0101													X												
MW-61SA	1.00	0106													X												
FLDBLK	1.00	0112													X												
FLDBLKA	1.00	0117													X												
LCSW	1.00	1046													X												
MW-60S	1.00	1107													X												
MW-60SA	1.00	1113													X												
CCV1	1.00	1150													X												
CCB1	1.00	1200													X												
MW-62S	1.00	2228													X												
MW-62SA	1.00	2233													X												
MW-62SD	1.00	2239													X												
MW-62SS	1.00	2249													X												
MW-66S	1.00	2259													X												
MW-66SA	1.00	2304													X												
MW-67S	1.00	2310													X												
MW-67SA	1.00	2315													X												
CCV2	1.00	2320													X												
CCB2	1.00	2330													X												
MW-74S	1.00	2346													X												
MW-74SA	1.00	2351													X												
FIELDB	1.00	2357													X												
FIELDBA	1.00	0002													X												
CCV3	1.00	0029													X												

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ANALYSIS RUN LOG

Lab Name: Antech Ltd
Lab Code: ANT Case No.:
Instrument ID Number: 5100A
Start Date: 03/15/93

Contract: FANSTEEL
SAS No.: SDG No.: 0636FN
Method: F
End Date: 03/25/93

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB3	1.00	0039													X												
MW-71S	1.00	1256													X												
MW-71SA	1.00	1301													X												

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK10

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0636 SAS No.: SDG No.: 0636

Matrix: (soil/water) WATER Lab Sample ID: VBLK10

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR145S

Level: (low/med) Date Received: 00/00/00

% Moisture: not dec. Date Analyzed: 03/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	Trans-1,2-Dichloroethene	10.	U
156-59-2	Cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	Cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	Trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl Benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW51S

Lab Name: Anteon Inc. Contract:

Lab Code: ANTECH Case No.: 0636 SAS No.: SDG No.: 0636

Matrix: (soil/water) WATER Lab Sample ID: 030019

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR152S

Level: (low/med) Date Received: 03/01/93

% Moisture: not dec. Date Analyzed: 03/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	Trans-1,2-Dichloroethene	10.	U
156-59-2	Cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	Cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	Trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl Benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW52S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0636 SAS No.: SDG No.: 0636

Matrix: (soil/water) WATER Lab Sample ID: 050020

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR153S

Level: (low/med) Date Received: 03/01/93

% Moisture: not dec. Date Analyzed: 03/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	Trans-1,2-Dichloroethene	10.	U
156-59-2	Cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	Cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2 Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	Trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl Benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW605

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0636 SAS No.: SDG No.: 0636

Matrix: (soil/water) WATER Lab Sample ID: 030021

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR154S

Level: (low/med) Date Received: 03/01/93

% Moisture: not dec. Date Analyzed: 03/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	Trans-1,2-Dichloroethene	10.	U
156-59-2	Cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	Cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	Trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl Benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW61S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0636 SAS No.: SDG No.: 0636

Matrix: (soil/water) WATER Lab Sample ID: 030022

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR155S

Level: (low/med) Date Received: 03/01/93

% Moisture: not dec. Date Analyzed: 03/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	Trans-1,2-Dichloroethene	10.	U
156-59-2	Cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	Cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	Trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl Benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FLDBLK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0636 SAS No.: SDG No.: 0636

Matrix: (soil/water) WATER Lab Sample ID: 030023

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR156S

Level: (low/med) Date Received: 03/01/93

% Moisture: not dec. Date Analyzed: 03/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	Trans-1,2-Dichloroethene	10.	U
156-59-2	Cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	Cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	Trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl Benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TRPBLK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0636 SAS No.: SDG No.: 0636

Matrix: (soil/water) WATER Lab Sample ID: 030024

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR157S

Level: (low/med) Date Received: 03/01/93

% Moisture: not dec. Date Analyzed: 03/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	Trans-1,2-Dichloroethene	10.	U
156-59-2	Cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	Cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	Trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl Benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0636 SAS No.: SDG No.: 0636

	EPA SAMPLE NO	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
1	VBLK10	97	97	112		0
2	MW51S	96	98	111		0
3	MW52S	99	100	113		0
4	MW60S	97	96	110		0
5	MW61S	97	97	108		0
6	FLDBLK	98	96	108		0
7	TRPBLK	96	96	109		0
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28						
29						
30						

	QC LIMITS
SMC1 (TOL) = Toluene-d8	(88-110)
SMC2 (BFB) = 4-Bromofluorobenzene	(86-115)
SMC3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO. 062

VBLK10

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0636 SAS No.: SDG No.: 0636

Lab File ID: MAR145S Lab Sample ID: VBLK10

Date Analyzed: 03/06/93 Time Analyzed: 11:54

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

Instrument ID: EXTRELEL

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	MW51S	030019	MAR152S	16:11
2	MW52S	030020	MAR153S	16:45
3	MW60S	030021	MAR154S	17:20
4	MW61S	030022	MAR155S	17:54
5	FLDBLK	030023	MAR156S	18:28
6	TRPBLK	030024	MAR157S	19:02
7				
8				
9				
10				
11				
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30				

COMMENTS:

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

063

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0636 SAS No.: SDG No.: 0636

Lab File ID: MAR143S BFB Injection Date: 03/06/93

Instrument ID.: EXTRELEL BFB Injection Time: 10:41

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	14.5
75	30.0 - 66.0% of mass 95	41.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.1
173	Less than 2.0% of mass 174	.0 (.0)1
174	50.0 - 120.0% of mass 95	54.3
175	4.0 - 9.0 % of mass 174	4.0 (7.4)1
176	93.0 - 101.0% of mass 174	53.1 (97.8)1
177	5.0 - 9.0% of mass 176	3.9 (7.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD50.		MAR144S	03/06/93	11:13
2	VBLK10	VBLK10	MAR145S	03/06/93	11:54
3	MW51S	030019	MAR152S	03/06/93	16:11
4	MW52S	030020	MAR153S	03/06/93	16:45
5	MW60S	030021	MAR154S	03/06/93	17:20
6	MW61S	030022	MAR155S	03/06/93	17:54
7	FLDBLK	030023	MAR156S	03/06/93	18:28
8	TRPBLK	030024	MAR157S	03/06/93	19:02
9					
10					
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22					

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0636 SAS No.: SDG No.: 0636

Lab File ID: FEB441S BFB Injection Date: 02/24/93

Instrument ID.: EXTRELEL BFB Injection Time: 15:00

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	19.7
75	30.0 - 66.0% of mass 95	45.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	.1 (.2)1
174	50.0 - 120.0% of mass 95	52.7
175	4.0 - 9.0 % of mass 174	3.1 (5.9)1
176	93.0 - 101.0% of mass 174	53.1 (100.8)1
177	5.0 - 9.0% of mass 176	3.2 (6.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD200		FEB443S	02/24/93	17:39
2	VSTD100		FEB444S	02/24/93	18:27
3	VSTD50		FEB445S	02/24/93	19:12
4	VSTD20		FEB446S	02/24/93	19:57
5	VSTD10		FEB447S	02/24/93	20:43
6					
7					
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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0636 SAS No.: SDG No.: 0636

Instrument ID: EXTRELEL Calibration Date(s): 02/24/93 02/24/93

Heated Purge: (Y/N) N Calibration Times: 17:39 20:43

GC Column: RTX502.2 ID: .53 (mm)

LAB FILE ID: RRF10 = FEB447S RRF20 = FEB446S
RRF50 = FEB445S RRF100= FEB444S RRF200= FEB443S

COMPOUND		RRF10	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
Chloromethane		3.010	2.606	2.575	2.309	2.196	2.539	12.4
Bromomethane	*	2.074	1.937	1.850	1.497	1.598	1.791	13.3*
Vinyl Chloride	*	2.980	2.594	2.750	2.479	2.321	2.625	9.7*
Chloroethane		1.520	1.311	1.281	1.222	1.231	1.313	9.2
Methylene Chloride		2.816	2.469	2.324	2.031	1.794	2.287	17.2
Acetone		1.196	.689	.580	.479	.310	.651	51.5
Carbon Disulfide		7.713	5.427	6.952	6.451	5.955	6.500	13.6
1,1-Dichloroethene	*	1.358	1.240	1.179	1.143	.999	1.184	11.1*
1,1-Dichloroethane	*	4.677	4.132	3.991	3.341	2.919	3.812	18.1*
Trans-1,2-Dichloroethane		1.962	1.809	1.732	1.585	1.316	1.681	14.6
Cis-1,2-Dichloroethene		1.874	1.756	1.707	1.487	1.259	1.617	15.1
Chloroform	*	3.990	3.767	3.575	3.152	2.641	3.425	15.6*
1,2-Dichloroethane	*	2.670	2.432	2.364	2.085	1.874	2.255	17.5*
2-Butanone		1.196	1.048	1.083	.955	.788	1.014	15.1
1,1,1-Trichloroethane	*	.573	.581	.452	.395	.385	.477	19.8*
Carbon Tetrachloride	*	.199	.173	.181	.193	.200	.189	6.1*
Bromodichloromethane	*	.465	.453	.492	.500	.512	.484	5.1*
1,2-Dichloropropane		.539	.508	.545	.540	.542	.535	2.9
Cis-1,3-Dichloropropene	*	.615	.617	.658	.651	.686	.646	4.6*
Trichloroethene	*	.510	.492	.452	.451	.467	.474	5.5*
Dibromochloromethane	*	.112	.099	.113	.116	.118	.111	6.6*
1,1,2-Trichloroethane	*	.320	.304	.318	.322	.322	.317	2.4*
Benzene	*	1.293	1.223	1.300	1.285	1.340	1.288	3.2*
Trans-1,3-Dichloropropene	*	.448	.433	.468	.472	.482	.461	4.3*
Bromoform	*	.158	.140	.166	.171	.182	.163	9.7*
4-Methyl-2-Pentanone		.528	.523	.557	.545	.521	.535	3.0
2-Hexanone		.378	.374	.391	.394	.384	.384	2.2
Tetrachloroethene	*	.325	.318	.260	.211	.207	.264	21.4*
1,1,2,2-Tetrachloroethane	*	.591	.582	.612	.636	.621	.609	3.6*
Toluene	*	1.489	1.425	1.471	1.461	1.561	1.482	3.4*
Chlorobenzene	*	.916	.906	.960	.902	.957	.928	3.0*
Ethyl Benzene	*	.473	.447	.482	.480	.499	.476	3.9*
Styrene	*	1.059	.937	1.097	1.078	1.181	1.070	8.2*
m,p-Xylene	*	.586	.553	.599	.616	.641	.599	5.5*
o-Xylene	*	.592	.529	.636	.629	.677	.613	9.1*
Toluene-d8		1.261	1.145	1.187	1.197	1.292	1.216	4.9
4-Bromofluorobenzene	*	.675	.630	.637	.639	.676	.651	3.4*
1,2-Dichloroethane-d4		2.203	1.968	1.824	1.615	1.335	1.789	18.6

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of .010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0636 SAS No.: SDG No.: 0636

Instrument ID: EXTRELEL Calibration Date: 03/06/93 Time: 11:13

Lab File ID: MAR144S Init. Calib. Date(s): 02/24/93 02/24/93

Heated Purge: (Y/N) N Init. Calib. Times: 17:39 20:43

GC Column: RTX502.2 ID: .53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	2.539	1.514		40.4	
Bromomethane	1.791	1.417	.100	20.9	25.0
Vinyl Chloride	2.625	2.174	.100	17.2	25.0
Chloroethane	1.313	1.215		7.5	
Methylene Chloride	2.287	2.267		.9	
Acetone	.651	.453		30.4	
Carbon Disulfide	6.500	5.701		12.3	
1,1-Dichloroethene	1.184	1.180	.100	.3	25.0
1,1-Dichloroethane	3.812	3.583	.200	6.0	25.0
Trans-1,2-Dichloroethene	1.681	1.788		-6.4	
Cis-1,2-Dichloroethene	1.617	1.666		-3.0	
Chloroform	3.425	3.419	.200	.2	25.0
1,2-Dichloroethane	2.255	2.178	.100	3.3	25.0
2-Butanone	1.014	1.089		-7.4	
1,1,1-Trichloroethane	.477	.372	.100	22.0	25.0
Carbon Tetrachloride	.189	.203	.100	-7.4	25.0
Bromodichloromethane	.484	.427	.200	11.8	25.0
1,2-Dichloropropane	.535	.533		.4	
Cis-1,3-Dichloropropene	.646	.652	.200	-.9	25.0
Trichloroethene	.474	.517	.300	-9.1	25.0
Dibromochloromethane	.111	.100	.100	9.9	25.0
1,1,2-Trichloroethane	.317	.336	.100	-6.0	25.0
Benzene	1.288	1.300	.500	-.9	25.0
Trans-1,3-Dichloropropene	.461	.463	.100	-.4	25.0
Bromoform	.163	.146	.100	10.4	25.0
4-Methyl-2-Pentanone	.338	.302		12.5	
2-Hexanone	.384	.395		-2.9	
Tetrachloroethene	.264	.183	.200	30.7	25.0
1,1,2,2-Tetrachloroethane	.609	.613	.500	-.7	25.0
Toluene	1.482	1.542	.400	-4.0	25.0
Chlorobenzene	.928	.927	.500	.1	25.0
Ethyl Benzene	.476	.478	.100	-.4	25.0
Styrene	1.070	1.070	.300	.0	25.0
m,p-Xylene	.599	642	.300	-7.2	25.0
o-Xylene	.613	.621	.300	-1.3	25.0
Toluene-d8	1.216	1.387		-14.1	
4-Bromofluorobenzene	.651	.709	.200	-8.9	25.0
1,2-Dichloroethane-d4	1.789	1.861		-4.0	

All other compounds must meet a minimum RRF of .010.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0636 SAS No.: SDG No.: 0636

Lab File ID (Standard): MAR1445 Date Analyzed: 03/06/93

Instrument ID: EXTRELEL Time Analyzed: 11:13

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	30824.	13.77	144169.	16.75	123494.	24.85
	UPPER LIMIT	61648.	14.27	288338.	17.25	246988.	25.35
	LOWER LIMIT	15412.	13.27	72085.	16.25	61747.	24.35
	EPA SAMPLE NO.						
1	VBLK10	25407.	13.68	138897.	16.72	119164.	24.87
2	MW51S	27719.	13.63	150662.	16.68	135163.	24.83
3	MW52S	28580.	13.63	163157.	16.68	142508.	24.82
4	MW60S	29935.	13.62	165087.	16.67	146494.	24.82
5	MW61S	31397.	13.63	173083.	16.68	151924.	24.82
6	FLDBLK	31893.	13.60	175070.	16.67	153146.	24.83
7	TRPBLK	31063.	13.63	166277.	16.68	149222.	24.83
8							
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18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + .50 minutes of internal standard RT
RT LOWER LIMIT = - .50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK11

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Matrix: (soil/water) WATER Lab Sample ID: VBLK11

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR168S

Level: (low/med) Date Received: 00/00/00

% Moisture: not dec. Date Analyzed: 03/08/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	4.	J
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	Trans-1,2-Dichloroethene	10.	U
156-59-2	Cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	Cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	Trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl Benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW66S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Matrix: (soil/water) WATER Lab Sample ID: 030090

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR173S

Level: (low/med) Date Received: 03/02/93

% Moisture: not dec. Date Analyzed: 03/08/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	Trans-1,2-Dichloroethene	10.	U
156-59-2	Cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	Cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	Trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl Benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW67S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Matrix: (soil/water) WATER Lab Sample ID: 030091

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR174S

Level: (low/med) Date Received: 03/02/93

% Moisture: not dec. Date Analyzed: 03/08/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: ~~1.0~~ 10 CAM 3/25/93

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	100 ~~10~~.	U
74-83-9	Bromomethane	100 ~~10~~.	U
75-01-4	Vinyl Chloride	100 ~~10~~.	U
75-00-3	Chloroethane	100 ~~10~~.	U
75-09-2	Methylene Chloride	100 ~~10~~.	U
67-64-1	Acetone	100 ~~10~~.	U
75-15-0	Carbon Disulfide	100 ~~10~~.	U
75-35-4	1,1-Dichloroethene	100 ~~10~~.	U
75-34-3	1,1-Dichloroethane	100 ~~10~~.	U
156-60-5	Trans-1,2-Dichloroethene	100 ~~10~~.	U
156-59-2	Cis-1,2-Dichloroethene	100 ~~10~~.	U
67-66-3	Chloroform	100 ~~10~~.	U
107-06-2	1,2-Dichloroethane	100 ~~10~~.	U
78-93-3	2-Butanone	100 ~~10~~.	U
71-55-6	1,1,1-Trichloroethane	100 ~~10~~.	U
56-23-5	Carbon Tetrachloride	100 ~~10~~.	U
75-27-4	Bromodichloromethane	100 ~~10~~.	U
78-87-5	1,2-Dichloropropane	100 ~~10~~.	U
10061-01-5	Cis-1,3-Dichloropropene	100 ~~10~~.	U
79-01-6	Trichloroethene	100 ~~10~~.	U
124-48-1	Dibromochloromethane	100 ~~10~~.	U
79-00-5	1,1,2-Trichloroethane	100 ~~10~~.	U
71-43-2	Benzene	100 ~~10~~.	U
10061-02-6	Trans-1,3-Dichloropropene	100 ~~10~~.	U
75-25-2	Bromoform	100 ~~10~~.	U
108-10-1	4-Methyl-2-Pentanone	820 ~~52~~.	
591-78-6	2-Hexanone	100 ~~10~~.	U
127-18-4	Tetrachloroethene	100 ~~10~~.	U
79-34-5	1,1,2,2-Tetrachloroethane	100 ~~10~~.	U
108-88-3	Toluene	100 ~~10~~.	U
108-90-7	Chlorobenzene	100 ~~10~~.	U
100-41-4	Ethyl Benzene	100 ~~10~~.	U
100-42-5	Styrene	100 ~~10~~.	U
1330-20-7	m,p-Xylene	100 ~~10~~.	U
95-47-6	o-Xylene	100 ~~10~~.	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW71S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Matrix: (soil/water) WATER Lab Sample ID: 030092

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR175S

Level: (low/med) Date Received: 03/02/93

% Moisture: not dec. Date Analyzed: 03/08/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10.	U	
74-83-9	Bromomethane	10.	U	
75-01-4	Vinyl Chloride	10.	U	
75-00-3	Chloroethane	10.	U	
75-09-2	Methylene Chloride	10.	U	
67-64-1	Acetone	10.	U	
75-15-0	Carbon Disulfide	10.	U	
75-35-4	1,1-Dichloroethene	10.	U	
75-34-3	1,1-Dichloroethane	10.	U	
156-60-5	Trans-1,2-Dichloroethene	10.	U	
156-59-2	Cis-1,2-Dichloroethene	4. ~~10.~~	~~U~~ J	CKM 3/25/94
67-66-3	Chloroform	10.	U	
107-06-2	1,2-Dichloroethane	10.	U	
78-93-3	2-Butanone	10.	U	
71-55-6	1,1,1-Trichloroethane	10.	U	
56-23-5	Carbon Tetrachloride	10.	U	
75-27-4	Bromodichloromethane	10.	U	
78-87-5	1,2-Dichloropropane	10.	U	
10061-01-5	Cis-1,3-Dichloropropene	10.	U	
79-01-6	Trichloroethene	7.	J	
124-48-1	Dibromochloromethane	10.	U	
79-00-5	1,1,2-Trichloroethane	10.	U	
71-43-2	Benzene	10.	U	
10061-02-6	Trans-1,3-Dichloropropene	10.	U	
75-25-2	Bromoform	10.	U	
108-10-1	4-Methyl-2-Pentanone	37.		
591-78-6	2-Hexanone	10.	U	
127-18-4	Tetrachloroethene	10.	U	
79-34-5	1,1,2,2-Tetrachloroethane	10.	U	
108-88-3	Toluene	10.	U	
108-90-7	Chlorobenzene	10.	U	
100-41-4	Ethyl Benzene	10.	U	
100-42-5	Styrene	10.	U	
1330-20-7	m,p-Xylene	10.	U	
95-47-6	o-Xylene	10.	U	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VLBK12

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Matrix: (soil/water) WATER Lab Sample ID: VBLK12

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR200S

Level: (low/med) Date Received: 00/00/00

% Moisture: not dec. Date Analyzed: 03/09/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	Trans-1,2-Dichloroethene	10.	U
156-59-2	Cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	Cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	Trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl Benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MN62S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Matrix: (soil/water) WATER Lab Sample ID: 030087

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR201S

Level: (low/med) Date Received: 03/02/93

% Moisture: not dec. Date Analyzed: 03/09/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	Trans-1,2-Dichloroethene	10.	U
156-59-2	Cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	Cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	Trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl Benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW62SMS

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Matrix: (soil/water) WATER Lab Sample ID: 030088

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR202S

Level: (low/med) Date Received: 03/02/93

% Moisture: not dec. Date Analyzed: 03/09/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	100.	
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	Trans-1,2-Dichloroethene	10.	U
156-59-2	Cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	Cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	53.	
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	54.	
10061-02-6	Trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	53.	
108-90-7	Chlorobenzene	56.	
100-41-4	Ethyl Benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW62SMSD

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Matrix: (soil/water) WATER Lab Sample ID: 030089

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR203S

Level: (low/med) Date Received: 03/02/93

% Moisture: not dec. Date Analyzed: 03/09/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	100.	
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	Trans-1,2-Dichloroethene	10.	U
156-59-2	Cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	Cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	34.	
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	55.	
10061-02-6	Trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	53.	
108-90-7	Chlorobenzene	55.	
100-41-4	Ethyl Benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRPBLK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Matrix: (soil/water) WATER Lab Sample ID: 030095

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR204S

Level: (low/med) Date Received: 03/02/93

% Moisture: not dec. Date Analyzed: 03/09/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	Trans-1,2-Dichloroethene	10.	U
156-59-2	Cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	Cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	Trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl Benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK14

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Matrix: (soil/water) WATER Lab Sample ID: VBLK14

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR258S

Level: (low/med) Date Received: 00/00/00

% Moisture: not dec. Date Analyzed: 03/11/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	2.	J
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	Trans-1,2-Dichloroethene	10.	U
156-59-2	Cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	Cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	Trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl Benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FLDBLK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Matrix: (soil/water) WATER Lab Sample ID: 030094

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR259S

Level: (low/med) Date Received: 03/02/93

% Moisture: not dec. Date Analyzed: 03/11/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	Trans-1,2-Dichloroethene	10.	U
156-59-2	Cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon Tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	Cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	Trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl Benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW74S DIL CAM3/25/93

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Matrix: (soil/water) WATER Lab Sample ID: 030093

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR261S

Level: (low/med) Date Received: 03/02/93

% Moisture: not dec. Date Analyzed: 03/11/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1000.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10000.	U
74-83-9	Bromomethane	10000.	U
75-01-4	Vinyl Chloride	10000.	U
75-00-3	Chloroethane	10000.	U
75-09-2	Methylene Chloride	3000.	BJ
67-64-1	Acetone	10000.	U
75-15-0	Carbon Disulfide	10000.	U
75-35-4	1,1-Dichloroethene	10000.	U
75-34-3	1,1-Dichloroethane	10000.	U
156-60-5	Trans-1,2-Dichloroethene	10000.	U
156-59-2	Cis-1,2-Dichloroethene	10000.	U
67-66-3	Chloroform	10000.	U
107-06-2	1,2-Dichloroethane	10000.	U
78-93-3	2-Butanone	10000.	U
71-55-6	1,1,1-Trichloroethane	10000.	U
56-23-5	Carbon Tetrachloride	10000.	U
75-27-4	Bromodichloromethane	10000.	U
78-87-5	1,2-Dichloropropane	10000.	U
10061-01-5	Cis-1,3-Dichloropropene	10000.	U
79-01-6	Trichloroethene	10000.	U
124-48-1	Dibromochloromethane	10000.	U
79-00-5	1,1,2-Trichloroethane	10000.	U
71-43-2	Benzene	10000.	U
10061-02-6	Trans-1,3-Dichloropropene	10000.	U
75-25-2	Bromoform	10000.	U
108-10-1	4-Methyl-2-Pentanone	83000.	
591-78-6	2-Hexanone	10000.	U
127-18-4	Tetrachloroethene	10000.	U
79-34-5	1,1,2,2-Tetrachloroethane	10000.	U
108-88-3	Toluene	10000.	U
108-90-7	Chlorobenzene	10000.	U
100-41-4	Ethyl Benzene	10000.	U
100-42-5	Styrene	10000.	U
1330-20-7	m,p-Xylene	10000.	U
95-47-6	o-Xylene	10000.	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

080

EPA SAMPLE

MW-74S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: SAS No.: SDG N 653

Matrix (soil/water) WATER Lab Sample ID: 030093

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAR176S

Level: (low/med) LOW Date Received: 02/27/93

% Moisture: N/A Date Analyzed: 030893

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: N/A (uL) Soil Aliquot Volume: N/A (uL

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	ug/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	Trans-1,2-Dichloroethene	10	U
156-59-2	Cis-1,2-Dichloroethene	64	
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	21	
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	Cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	3	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	9200	E
591-78-6	2-Hexanone	33	
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethyl Benzene	10	U
100-42-5	Styrene	10	U
1330-20-7	m,p-Xylene	10	U
95-47-6	o-Xylene	10	U
		10	U

081

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
1	VBLK11	100	99	108		0
2	MW66S	103	101	114		0
3	MW67S	101	101	110		0
4	MW71S	100	100	107		0
5	VLBK12	105	103	105		0
6	MW62S	105	100	110		0
7	MW62SMS	101	101	114		0
8	MW62SMSD	102	101	113		0
9	TRPBLK	103	102	110		0
10	VBLK14	89	90	92		0
11	FLDBLK	91	88	98		0
CAn 3/25/91 12	MW74S DIL	91	91	101		0
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	QC LIMITS
SMC1 (TOL) = Toluene-d8	(88-110)
SMC2 (BFB) = 4-Bromofluorobenzene	(86-115)
SMC3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0050 SAS No.: SDG No.: 0050

Matrix Spike - EPA Sample No.: MW62S

COMPOUND	SPIKE ADDED (UG/L)	SAMPLE CONCENTRATION (UG/L)	MS CONCENTRATION (UG/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.	0.	100.	200 *	61-145
Trichloroethene	50.	0.	33.	66 *	71-120
Benzene	50.	0.	54.	108	76-127
Toluene	50.	0.	53.	106	76-125
Chlorobenzene	50.	0.	56.	112	75-130

COMPOUND	SPIKE ADDED (UG/L)	MSD CONCENTRATION (UG/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.	100.	200 *	0	14	61-145
Trichloroethene	50.	34.	68 *	3	14	71-120
Benzene	50.	55.	110	2	11	76-127
Toluene	50.	53.	106	0	13	76-125
Chlorobenzene	50.	55.	110	2	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 4 out of 10 outside limits

COMMENTS:

083

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK11

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Lab File ID: MAR168S Lab Sample ID: VBLK11

Date Analyzed: 07/08/07 Time Analyzed: 17:27

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

Instrument ID: EXTRELEL

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	MW66S	030090	MAR173S	20:25
2	MW67S	030091	MAR174S	21:00
3	MW71S	030092	MAR175S	21:35
4				
5				
6				
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COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK12

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Lab File ID: MAR200S Lab Sample ID: VBLK12

Date Analyzed: 03/09/93 Time Analyzed: 17:12

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

Instrument ID: EXTPELEL

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	MW62S	030087	MAR201S	18:17
2	MW62SMS	030088	MAR202S	18:52
3	MW62SMSD	030089	MAR203S	19:27
4	TRPBLK	030095	MAR204S	20:02
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COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK14

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Lab File ID: MAR258S Lab Sample ID: VBLK14

Date Analyzed: 03/11/93 Time Analyzed: 09:59

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

Instrument ID: EXTRELEL

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	FLDBLK	030094	MAR259S	11:02
CAM 3/25/93 2	MW74S DJL	030093	MAR261S	12:13
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COMMENTS:

EA
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Lab File ID: FEB441S BFB Injection Date: 02/24/93

Instrument ID.: EXTRELEL BFB Injection Time: 15:00

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	19.7
75	30.0 - 66.0% of mass 95	45.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	.1 (.2)1
174	50.0 - 120.0% of mass 95	52.7
175	4.0 - 9.0 % of mass 174	3.1 (5.9)1
176	93.0 - 101.0% of mass 174	53.1 (100.8)1
177	5.0 - 9.0% of mass 176	3.2 (6.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD200		FEB443S	02/24/93	17:30
2	VSTD100		FEB444S	02/24/93	18:27
3	VSTD50		FEB445S	02/24/93	19:12
4	VSTD20		FEB446S	02/24/93	19:57
5	VSTD10		FEB447S	02/24/93	20:43
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5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Lab File ID: MAR164S BFB Injection Date: 03/08/93

Instrument ID.: EXTRELEL BFB Injection Time: 14:21

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	17.6
75	30.0 - 66.0% of mass 95	41.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.9
173	Less than 2.0% of mass 174	.5 (.9)1
174	50.0 - 120.0% of mass 95	55.2
175	4.0 - 9.0 % of mass 174	3.0 (5.4)1
176	93.0 - 101.0% of mass 174	53.2 (96.4)1
177	5.0 - 9.0% of mass 176	3.2 (6.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD501		MAR167S	03/08/93	16:21
2	VBLK11	VBLK11	MAR168S	03/08/93	17:27
3	MW66S	030090	MAR173S	03/08/93	20:25
4	MW67S	030091	MAR174S	03/08/93	21:00
5	MW71S	030092	MAR175S	03/08/93	21:35
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088

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Lab File ID: MAR197S BFB Injection Date: 03/09/93

Instrument ID.: EXTRELEL BFB Injection Time: 15:02

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	14.3
75	30.0 - 66.0% of mass 95	42.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	.0 (0)1
174	50.0 - 120.0% of mass 95	55.4
175	4.0 - 9.0 % of mass 174	3.7 (6.7)1
176	93.0 - 101.0% of mass 174	55.5 (100.2)1
177	5.0 - 9.0% of mass 176	3.3 (5.9)2

1-value is % mass 174 2-value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD501		MAR198S	03/09/93	15:34
2	VLBK12	VBLK12	MAR200S	03/09/93	17:43
3	MW62S	030087	MAR201S	03/09/93	18:17
4	MW62SMS	030088	MAR202S	03/09/93	18:52
5	MW62SMSD	030089	MAR203S	03/09/93	19:27
6	TRPBLK	030095	MAR204S	03/09/93	20:02
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089

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Lab File ID: MAR256S BFB Injection Date: 03/11/93

Instrument ID.: EXTRELEL BFB Injection Time: 08:32

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	16.1
75	30.0 - 66.0% of mass 95	41.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	.0 (.0)1
174	50.0 - 120.0% of mass 95	52.0
175	4.0 - 9.0 % of mass 174	2.7 (5.2)1
176	93.0 - 101.0% of mass 174	52.2 (100.4)1
177	5.0 - 9.0% of mass 176	2.9 (5.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD501		MAR257S	03/11/93	09:18
2	VBLK14	VBLK14	MAR258S	03/11/93	09:59
3	FLDBLK	030094	MAR259S	03/11/93	11:02
4	MW74S DIL	030093	MAR261S	03/11/93	12:13
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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Instrument ID: EXTRELEL Calibration Date(s): 02/24/93 02/24/93

Heated Purge: (Y/N) N Calibration Times: 17:39 20:43

GC Column: RTX502.2 ID: .53 (mm)

LAB FILE ID: RRF10 = FEB447S RRF20 = FEB446S
RRF50 = FEB445S RRF100= FEB444S RRF200= FEB443S

COMPOUND		RRF10	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
Chloromethane		3.010	2.606	2.575	2.309	2.196	2.539	12.4
Bromomethane	*	2.074	1.937	1.850	1.497	1.598	1.791	13.3*
Vinyl Chloride	*	2.980	2.594	2.750	2.479	2.321	2.625	9.7*
Chloroethane		1.520	1.311	1.281	1.222	1.231	1.313	9.2
Methylene Chloride		2.816	2.469	2.324	2.031	1.794	2.287	17.2
Acetone		1.196	.689	.580	.479	.310	.651	51.5
Carbon Disulfide		7.713	5.427	6.952	6.451	5.955	6.500	13.6
1,1-Dichloroethene	*	1.358	1.240	1.179	1.143	.999	1.184	11.1*
1,1-Dichloroethane	*	4.677	4.132	3.991	3.341	2.919	3.812	18.1*
Trans-1,2-Dichloroethene		1.962	1.809	1.732	1.585	1.316	1.681	14.6
Cis-1.2-Dichloroethene		1.874	1.756	1.707	1.487	1.259	1.617	15.1
Chloroform	*	3.990	3.767	3.575	3.152	2.641	3.425	15.6*
1,2-Dichloroethane	*	2.690	2.452	2.364	2.083	1.674	2.253	17.3*
2-Butanone		1.196	1.048	1.083	.955	.788	1.014	15.1
1,1,1-Trichloroethane	*	.573	.581	.452	.395	.385	.477	19.8*
Carbon Tetrachloride	*	.199	.173	.181	.193	.200	.189	6.1*
Bromodichloromethane	*	.465	.453	.492	.500	.512	.484	5.1*
1,2-Dichloropropane		.539	.508	.545	.540	.542	.535	2.9
Cis-1,3-Dichloropropene	*	.615	.617	.658	.651	.686	.646	4.6*
Trichloroethene	*	.510	.492	.452	.451	.467	.474	5.5*
Dibromochloromethane	*	.112	.099	.113	.116	.118	.111	6.6*
1,1,2-Trichloroethane	*	.320	.304	.318	.322	.322	.317	2.4*
Benzene	*	1.293	1.223	1.300	1.285	1.340	1.288	3.2*
Trans-1,3-Dichloropropene	*	.448	.433	.468	.472	.482	.461	4.3*
Bromoform	*	.158	.140	.166	.171	.182	.163	9.7*
4-Methyl-2-Pentanone		.528	.523	.557	.545	.521	.535	3.0
2-Hexanone		.378	.374	.391	.394	.384	.384	2.2
Tetrachloroethene	*	.325	.318	.260	.211	.207	.264	21.4*
1,1,2,2-Tetrachloroethane	*	.591	.582	.612	.636	.621	.609	3.6*
Toluene	*	1.489	1.425	1.471	1.461	1.561	1.482	3.4*
Chlorobenzene	*	.916	.906	.960	.902	.957	.928	3.0*
Ethyl Benzene	*	.473	.447	.482	.480	.499	.476	3.9*
Styrene	*	1.059	.937	1.097	1.078	1.181	1.070	8.2*
m,p-Xylene	*	.586	.553	.599	.616	.641	.599	5.5*
o-Xylene	*	.592	.529	.636	.629	.677	.613	9.1*
Toluene-d8		1.261	1.145	1.187	1.197	1.292	1.216	4.9
4-Bromofluorobenzene	*	.675	.630	.637	.639	.676	.651	3.4*
1,2-Dichloroethane-d4		2.203	1.968	1.824	1.615	1.335	1.789	18.6

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of .010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Instrument ID: EXTRELEL Calibration Date: 03/08/93 Time: 16:21

Lab File ID: MAR167S Init. Calib. Date(s): 02/24/93 02/24/93

Heated Purge: (Y/N) N Init. Calib. Times: 17:39 20:43

GC Column: RTX502.2 ID: .53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	2.539	2.047		19.4	
Bromomethane	1.791	1.297	.100	27.6	25.0
Vinyl Chloride	2.625	2.251	.100	14.2	25.0
Chloroethane	1.313	1.198		8.8	
Methylene Chloride	2.287	2.224		2.8	
Acetone	.651	.590		9.4	
Carbon Disulfide	6.500	7.347		-13.0	
1,1-Dichloroethene	1.184	1.177	.100	.6	25.0
1,1-Dichloroethane	3.812	3.514	.200	7.8	25.0
Trans-1,2-Dichloroethene	1.681	1.609		4.3	
Cis-1,2-Dichloroethene	1.617	1.699		-5.1	
Chloroform	3.425	3.429	.200	-.1	25.0
1,2-Dichloroethane	2.253	2.238	.100	.7	25.0
2-Butanone	1.014	.640		36.9	
1,1,1-Trichloroethane	.477	.382	.100	19.9	25.0
Carbon Tetrachloride	.189	.209	.100	-10.6	25.0
Bromodichloromethane	.484	.412	.200	14.9	25.0
1,2-Dichloropropane	.535	.533		.4	
Cis-1,3-Dichloropropene	.646	.650	.200	-.6	25.0
Trichloroethene	.474	.477	.300	-.6	25.0
Dibromochloromethane	.111	.096	.100	13.5	25.0
1,1,2-Trichloroethane	.317	.326	.100	-2.8	25.0
Benzene	1.288	1.363	.500	-5.8	25.0
Trans-1,3-Dichloropropene	.461	.461	.100	.0	25.0
Bromoform	.163	.143	.100	12.3	25.0
4-Methyl-2-Pentanone	.535	.466		12.9	
2-Hexanone	.384	.307		20.1	
Tetrachloroethene	.264	.201	.200	23.9	25.0
1,1,2,2-Tetrachloroethane	.609	.566	.500	7.1	25.0
Toluene	1.482	1.580	.400	-6.6	25.0
Chlorobenzene	.928	.939	.500	-1.2	25.0
Ethyl Benzene	.476	.484	.100	-1.7	25.0
Styrene	1.070	1.137	.300	-6.3	25.0
m,p-Xylene	.599	.671	.300	-12.0	25.0
o-Xylene	.613	.657	.300	-7.2	25.0
Toluene-d8	1.216	1.354		-11.3	
4-Bromofluorobenzene	.651	.686	.200	-5.4	25.0
1,2-Dichloroethane-d4	1.789	1.846		-3.2	

All other compounds must meet a minimum RRF of .010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

092

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Instrument ID: EXTRELEL Calibration Date: 03/09/93 Time: 15:34

Lab File ID: MAR198S Init. Calib. Date(s): 02/24/93 02/24/93

Heated Purge: (Y/N) N Init. Calib. Times: 17:39 20:43

GC Column: RTX502.2 ID: .53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	2.539	1.978		22.1	
Bromomethane	1.791	1.521	.100	15.1	25.0
Vinyl Chloride	2.625	2.066	.100	21.3	25.0
Chloroethane	1.313	1.123		14.5	
Methylene Chloride	2.287	2.069		9.5	
Acetone	.651	.580		10.9	
Carbon Disulfide	6.500	7.061		-8.6	
1,1-Dichloroethene	1.184	1.067	.100	9.9	25.0
1,1-Dichloroethane	3.812	3.394	.200	11.0	25.0
Trans-1,2-Dichloroethene	1.681	1.617		3.8	
Cis-1,2-Dichloroethene	1.617	1.664		-2.9	
Chloroform	3.425	3.329	.200	2.8	25.0
1,2-Dichloroethane	2.253	2.151	.100	4.5	25.0
2-Butanone	1.014	.717		29.3	
1,1,1-Trichloroethane	.477	.371	.100	22.2	25.0
Carbon Tetrachloride	.189	.202	.100	-6.9	25.0
Bromodichloromethane	.484	.415	.200	14.3	25.0
1,2-Dichloropropane	.535	.529		1.1	
Cis-1,3-Dichloropropene	.646	.642	.200	.6	25.0
Trichloroethene	.474	.505	.300	-6.5	25.0
Dibromochloromethane	.111	.094	.100	15.3	25.0
1,1,2-Trichloroethane	.317	.316	.100	.3	25.0
Benzene	1.288	1.347	.500	-4.6	25.0
Trans-1,3-Dichloropropene	.461	.440	.100	4.6	25.0
Bromoform	.163	.134	.100	17.8	25.0
4-Methyl-2-Pentanone	.535	.530		.9	
2-Hexanone	.384	.288		25.0	
Tetrachloroethene	.264	.202	.200	23.5	25.0
1,1,2,2-Tetrachloroethane	.609	.504	.500	17.2	25.0
Toluene	1.482	1.555	.400	-4.9	25.0
Chlorobenzene	.928	.942	.500	-1.5	25.0
Ethyl Benzene	.476	.495	.100	-4.0	25.0
Styrene	1.070	1.136	.300	-6.2	25.0
m,p-Xylene	.599	.685	.300	-14.4	25.0
o-Xylene	.613	.670	.300	-9.3	25.0
Toluene-d8	1.216	1.339		-10.1	
4-Bromofluorobenzene	.651	.680	.200	-4.5	25.0
1,2-Dichloroethane-d4	1.789	1.888		-5.5	

All other compounds must meet a minimum RRF of .010.

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Instrument ID: EXTRELEL Calibration Date: 03/11/93 Time: 09:18

Lab File ID: MAR2578 Init. Calib. Date(s): 02/24/93 02/24/93

Heated Purge: (Y/N) N Init. Calib. Times: 17:39 20:43

GC Column: RTX502.2 ID: .53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	2.539	1.806		28.9	
Bromomethane	1.791	1.251	.100	30.2	25.0
Vinyl Chloride	2.625	1.622	.100	38.2	25.0
Chloroethane	1.313	1.606		-22.3	
Methylene Chloride	2.287	2.335		-2.1	
Acetone	.651	.469		28.0	
Carbon Disulfide	6.300	6.553		-.8	
1,1-Dichloroethene	1.184	1.321	.100	-11.6	25.0
1,1-Dichloroethane	3.812	3.532	.200	7.3	25.0
Trans-1,2-Dichloroethene	1.681	1.658		1.4	
Cis-1,2-Dichloroethene	1.617	1.799		-11.3	
Chloroform	3.425	3.614	.200	-5.5	25.0
1,2-Dichloroethane	2.253	1.935	.100	14.1	25.0
2-Butanone	1.014	.625		38.4	
1,1,1-Trichloroethane	.477	.391	.100	18.0	25.0
Carbon Tetrachloride	.189	.183	.100	3.2	25.0
Bromodichloromethane	.484	.479	.200	1.0	25.0
1,2-Dichloropropane	.535	.533		.4	
Cis-1,3-Dichloropropene	.646	.653	.200	-1.1	25.0
Trichloroethene	.474	.424	.300	10.5	25.0
Dibromochloromethane	.111	.129	.100	-16.2	25.0
1,1,2-Trichloroethane	.317	.323	.100	-1.9	25.0
Benzene	1.288	1.352	.500	-5.0	25.0
Trans-1,3-Dichloropropene	.461	.447	.100	3.0	25.0
Bromoform	.163	.191	.100	-17.2	25.0
4-Methyl-2-Pentanone	.535	.609		-13.8	
2-Hexanone	.384	.332		13.5	
Tetrachloroethene	.264	.203	.200	23.1	25.0
1,1,2,2-Tetrachloroethane	.609	.667	.500	-9.5	25.0
Toluene	1.482	1.660	.400	-12.0	25.0
Chlorobenzene	.928	.979	.500	-5.5	25.0
Ethyl Benzene	.476	.506	.100	-6.3	25.0
Styrene	1.070	1.129	.300	-5.5	25.0
m,p-Xylene	.599	.686	.300	-14.5	25.0
o-Xylene	.613	.698	.300	-13.9	25.0
Toluene-d8	1.216	1.550		-27.5	
4-Bromofluorobenzene	.651	.792	.200	-21.7	25.0
1,2-Dichloroethane-d4	1.789	1.908		-6.7	

All other compounds must meet a minimum RRF of .010.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

094

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Lab File ID (Standard): MAR167S Date Analyzed: 03/08/93

Instrument ID: EXTRELEL Time Analyzed: 16:21

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	36750.	13.65	175452.	16.70	153100.	24.87
	UPPER LIMIT	73500.	14.15	350904.	17.20	306200.	25.37
	LOWER LIMIT	18375.	13.15	87726.	16.20	76550.	24.37
	EPA SAMPLE NO.						
1	VBLK11	30747.	13.67	164115.	16.70	143806.	24.87
2	MW66S	26055.	13.75	149464.	16.75	127864.	24.88
3	MW67S	25792.	13.73	142579.	16.75	123581.	24.87
4	MW71S	26485.	13.73	142621.	16.75	121851.	24.90
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IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + .50 minutes of internal standard RT
RT LOWER LIMIT = - .50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.. SDG No.: 0653

Lab File ID (Standard): MAR198S Date Analyzed: 03/09/93

Instrument ID: EXTRELEL Time Analyzed: 15:34

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	40229.	13.68	187969.	16.72	162486.	24.88
	UPPER LIMIT	80458.	14.18	375938.	17.22	324972.	25.38
	LOWER LIMIT	20115.	13.18	93985.	16.22	81243.	24.38
	EPA SAMPLE NO.						
1	VLBK12	31915.	13.65	169239.	16.72	141873.	24.90
2	MW62S	27421.	13.70	150944.	16.73	128262.	24.88
3	MW62SMS	25682.	13.70	142136.	16.73	122692.	24.87
4	MW62SMSD	24115.	13.73	135039.	16.73	116289.	24.87
5	TRPBLK	23614.	13.68	128597.	16.72	112762.	24.85
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IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + .50 minutes of internal standard RT
RT LOWER LIMIT = - .50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

096

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 0653 SAS No.: SDG No.: 0653

Lab File ID (Standard): MAR257S Date Analyzed: 03/11/93

Instrument ID: EXTRELEL Time Analyzed: 09:18

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	32800.	13.62	158326.	16.65	128016.	24.85
	UPPER LIMIT	65600.	14.12	316652.	17.15	256032.	25.35
	LOWER LIMIT	16400.	13.12	79163.	16.15	64008.	24.35
	EPA SAMPLE NO.						
1	VBLK14	25514.	13.63	136360.	16.67	118042.	24.87
2	FLDBLK	23059.	13.60	132386.	16.65	112365.	24.85
3	MW74S DIL	20905.	13.62	120691.	16.65	103199.	24.85
4							
5							
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IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Diflucrobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + .50 minutes of internal standard RT
RT LOWER LIMIT = - .50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII VOA 3/90

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Matrix: (soil/water) WATER Lab Sample ID: BLANK

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: [illegible]

Level: (low/med) Date Received: 00/00/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/04/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO: 098

RBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Matrix: (soil/water) WATER Lab Sample ID: BLANK

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1304A1

Level: (low/med) Date Received: 00/00/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/04/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine(1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	3.	J
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

099

RBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Matrix: (soil/water) WATER Lab Sample ID: BLANK

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1304A1

Level: (low/med) Date Received: 00/00/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/04/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 9

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	26.70	5.	J
2. - -	UNKNOWN HYDROCARBON	26.93	30.	J
3. - -	UNKNOWN HYDROCARBON	27.43	20.	J
4. - -	UNKNOWN HYDROCARBON	29.40	20.	J
5. - -	UNKNOWN HYDROCARBON	29.88	80.	J
6. - -	UNKNOWN HYDROCARBON	31.88	10.	J
7. - -	UNKNOWN HYDROCARBON	31.97	20.	J
8. - -	UNKNOWN HYDROCARBON	32.55	30.	J
9. - -	UNKNOWN HYDROCARBON	33.70	40.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

[illegible]

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Matrix: (soil/water) WATER Lab Sample ID: 9303-0019

Sample wt/vol: 1000.0 (g/mL) mL Lab File ID: [illegible]

Level: (low/med) Date Received: 03/01/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/04/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2.4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1.2.4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2.4.6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-51S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Matrix: (soil/water) WATER Lab Sample ID: 9306-0019

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1304A2

Level: (low/med) Date Received: 03/01/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/04/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine(1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	5.	BJ
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. 102

MW-51S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: S30636 SAS No.: SDG No.: 636

Matrix: (soil/water) WATER Lab Sample ID: S3063-0013

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1304A2

Level: (low/med) Date Received: 03/01/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/04/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 8

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	12.70	40.	J
2. - -	UNKNOWN HYDROCARBON	27.42	10.	J
3. - -	UNKNOWN HYDROCARBON	29.43	10.	J
4. - -	UNKNOWN HYDROCARBON	29.50	7.	J
5. - -	UNKNOWN HYDROCARBON	29.90	70.	J
6. - -	UNKNOWN HYDROCARBON	32.00	20.	J
7. - -	UNKNOWN HYDROCARBON	32.58	30.	J
8. - -	UNKNOWN HYDROCARBON	33.75	9.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-523

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Matrix: (soil/water) WATER Lab Sample ID: 9303-0020

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M130443

Level: (low/med) Date Received: 03/01/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/04/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) Ug/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-52S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Matrix: (soil/water) WATER Lab Sample ID: 9303-0020

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1304A3

Level: (low/med) Date Received: 03/01/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/04/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine(1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-52S

Lab Name: Antech Lab. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Matrix: (soil/water) WATER Lab Sample ID: 9306-0020

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1304A3

Level: (low/med) Date Received: 03/01/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/04/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 3

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	27.28	9.	J
2. - -	UNKNOWN HYDROCARBON	29.85	20.	J
3. - -	UNKNOWN HYDROCARBON	31.85	8.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-30S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Matrix: (soil/water) WATER Lab Sample ID: 9303-0021

Sample Wt/Vol: 1000.0 (g/mL) mL Lab File ID: M160-A4

Level: (low/med) Date Received: 03/01/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/04/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m,p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1.2.4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-60S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 836

Matrix: (soil/water) WATER Lab Sample ID: 9303-0021

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1304A4

Level: (low/med) Date Received: 03/01/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/04/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	9.	BJ
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-80S

Lab Name: Antech Lab. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 656

Matrix: (soil/water) WATER Lab Sample ID: 9306-0021

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1304A4

Level: (low/med) Date Received: 03/01/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/04/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: __(Y/N) N_____ pH: 7.0

Number TICs found: 6

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	26.83	7.	J
2.	UNKNOWN HYDROCARBON	27.35	40	J
3. - -	UNKNOWN HYDROCARBON	29.33	30.	J
4.	UNKNOWN HYDROCARBON	29.83	100	J
5. - -	UNKNOWN HYDROCARBON	32.43	30.	J
6. - -	UNKNOWN HYDROCARBON	33.58	20.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-615

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Matrix: (soil/water) WATER Lab Sample ID: 9303-0022

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1304A5

Level: (low/med) Date Received: 03/01/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/04/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-61S

110

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Matrix: (soil/water) WATER Lab Sample ID: 9303-0022

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1304A5

Level: (low/med) Date Received: 03/01/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/04/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-61S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Matrix: (soil/water) WATER Lab Sample ID: 9303-0022

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1304A5

Level: (low/med) Date Received: 03/01/93

% Moisture: ____ decanted: (Y/N)___ Date Extracted: 03/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/04/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	26.82	7.	J
2.	UNKNOWN HYDROCARBON	27.33	20.	J
3. - -	UNKNOWN HYDROCARBON	29.32	20.	J
4.	UNKNOWN HYDROCARBON	[illegible]	50.	J
5.	UNKNOWN HYDROCARBON	32.43	20.	J
6. - -	UNKNOWN HYDROCARBON	33.53	6.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Matrix: (soil/water) WATER Lab Sample ID: 9303-0023

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M[illegible]

Level: (low/med) Date Received: 03/01/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/11/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Matrix: (soil/water) WATER Lab Sample ID: 9306-0026

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1304A6

Level: (low/med) Date Received: 03/01/93

% Moisture: ____ decanted: (Y/N)___ Date Extracted: 03/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/04/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine(1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	3.	BJ
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Matrix: (soil/water) WATER Lab Sample ID: 8603-0026

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1304A6

Level: (low/med) Date Received: 03/01/93

% Moisture: ____ decanted: (Y/N)___ Date Extracted: 03/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/04/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 4

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN HYDROCARBON	27.32	8.	J
2.	-	UNKNOWN HYDROCARBON	27.37	5	J
3.	- -	UNKNOWN HYDROCARBON	29.77	30.	J
4.	- -	UNKNOWN HYDROCARBON	32.40	10.	J
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2C

SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: S30636 SAS No.: SDG No.: 636

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	S7 (2CP)#	S8 (DCB)#	TOT OUT
1	RBLANK	77	84	118	41	65	172 *	0 *	0 *	3
2	MW-51S	67	67	92	27	42	118	69	51	0
3	MW-52S	35	36 *	36	17	25	58	39	32	1
4	MW-60S	47	46	56	22	32	79	51	34	0
5	MW-61S	73	74	101	33	46	131 *	62	57	1
6	FBLANK	55	57	89	26	38	105	63	41	0
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		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(35-114)	
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)	
S3 (TPH)	= Terphenyl-d14	(33-141)	
S4 (PHL)	= Phenol-d5	(10-110)	
S5 (2FP)	= 2-Fluorophenol	(21-110)	
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)	
S7 (2CP)	= 2-Chlorophenol-d4	(33-110)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(16-110)	(advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

4B

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

FBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Lab File ID: M1304A1 Lab Sample ID: BLANK

Instrument ID: [illegible] Date Extracted: [illegible]

Matrix: (soil/water) WATER Date Analyzed: 03/04/93

Level:(low/med) Time Analyzed: 15:00

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	MW-51S	9303-0019	M1304A2	03/04/93
2	MW-52S	9303-0020	M1304A3	03/04/93
3	MW-80S	9303-0021	M1304A4	03/04/93
4	MW-81S	9303-0022	M1304A5	03/04/93
5	FBLANK	9303-0023	M1304A6	03/04/93
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COMMENTS:

52

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 88088 SAS No.: SDG No.: 000

Lab File ID: M1302T1 DFTPP Injection Date: 03/02/93

Instrument ID.: EXTRELM1 DFTPP Injection Time: 15:02

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	48.8
68	Less than 2.0% of mass 69	.8 (1.4)1
69	Mass 69 relative abundance	56.1
70	Less than 2.0% of mass 69	.5 (.9)1
127	25.0 - 75.0% of mass 198	54.0
197	Less than 1.0% of mass 198	.4
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	25.8
365	Greater than 0.75% of mass 198	2.68
441	Present, but less than mass 443	11.5
442	40.0 - 110.0% of mass 198	84.5
443	15.0 - 24.0% of mass 442	16.5 (19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	STD160		M1302P1	03/02/93	15:37
2	STD120		M1302P2	03/02/93	17:27
3	STD080		M1302P3	03/02/93	18:24
4	STD051		M1302P4	03/02/93	19:22
5	STD020		M1302P5	03/02/93	20:19
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FORM V SV 3/90

SB
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: [illegible] SAS No.: SDG No.: [illegible]

Lab File ID: M1304T2 DFTPP Injection Date: 03/04/93

Instrument ID.: [illegible] DFTPP Injection Time: 13:47

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	59.5
68	Less than 2.0% of mass 69	1.2 (1.8)1
69	Mass 69 relative abundance	66.5
70	Less than 2.0% of mass 69	.6 (.9)1
127	25.0 - 75.0% of mass 198	71.7
197	Less than 1.0% of mass 198	.4
198	Base peak, 100% relative abundance	99.5
199	5.0 to 9.0% of mass 198	6.3
275	10.0 - 30.0% of mass 198	29.0
365	Greater than 0.75% of mass 198	3.22
441	Present, but less than mass 443	13.7
442	40.0 - 110.0% of mass 198	100.0
443	15.0 - 24.0% of mass 442	18.3 (18.3)2

1 Value is % mass 69 2 Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	SDT052		M1304C2	03/04/93	14:08
2	RBLANK	BLANK	M1304A1	03/04/93	15:00
3	MW-51S	9303-0019	M1304A2	03/04/93	16:47
4	MW-52S	9303-0020	M1304A3	03/04/93	18:05
5	MW-60S	9303-0021	M1304A4	03/04/93	19:02
6	MW-61S	9303-0022	M1304A5	03/04/93	20:00
7	FBLANK	9303-0023	M1304A6	03/04/93	20:58
8					
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6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: [illegible] SAS No.: SDG No.: [illegible]

Instrument ID: EXTRELM1 Calibration Date(s): 03/02/93 03/02/93

Calibration Times: 15:37 20:19

LAB FILE ID: RRF20 = M1302P5 RRF51 = M1302P4
RRF80 = M1302P3 RRF20 = M1302P2 RRF60 = M1302P1

COMPOUND	RRF20	RRF51	RRF80	RRF20	RRF60	RRF	% RSD
Phenol *	1.496	1.645	1.646	1.676	1.776	1.648	6.1*
bis(2-Chloroethyl)ether *	1.203	1.366	1.294	1.292	1.456	1.322	7.2*
2-Chlorophenol *	1.161	1.262	1.299	1.311	1.374	1.281	6.1*
1,3-Dichlorobenzene *	1.125	1.226	1.273	1.224	1.378	1.245	7.4*
1,4-Dichlorobenzene *	1.219	1.286	1.359	1.239	1.393	1.299	5.8*
1,2-Dichlorobenzene *	1.019	1.191	1.233	1.216	1.252	1.182	8.0*
o-Cresol *	1.037	1.104	1.138	1.172	1.322	1.155	9.2*
Bis(2-chloroisopropyl)ether	1.028	1.182	1.227	1.365	1.472	1.255	13.5
m/p-Cresol *	1.072	1.220	1.257	1.289	1.355	1.239	8.5*
N-Nitroso-di-n-propylamine *	.874	.931	.907	.953	.964	.926	3.9*
Hexachloroethane *	.539	.551	.617	.574	.610	.578	6.0*
Nitrobenzene *	.288	.294	.298	.293	.339	.302	6.8*
Isophorone *	.527	.563	.555	.577	.582	.561	3.9*
2-Nitrophenol *	.118	.137	.134	.131	.154	.135	9.5*
2,4-Dimethylphenol	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
bis(2-Chloroethoxy)methane *	.364	.373	.372	.394	.442	.389	8.1*
2,4-Dichlorophenol *	.168	.189	.201	.207	.225	.198	10.7*
1,2,4-Trichlorobenzene *	.178	.202	.209	.199	.223	.202	8.2*
Naphthalene *	1.482	1.648	1.645	1.575	1.522	1.574	4.7*
4-Chloroaniline	.295	.306	.319	.347	.290	.312	7.3
Hexachlorobutadiene	.085	.087	.087	.084	.093	.087	3.7
4-Chloro-3-methylphenol *	.211	.220	.241	.240	.254	.233	7.5*
2-Methylnaphthalene *	.449	.491	.540	.549	.571	.520	9.5*
Hexachlorocyclopentadiene	.204	.262	.256	.267	.273	.253	11.0
2,4,6-Trichlorophenol *	.215	.246	.243	.269	.277	.250	9.8*
2,4,5-Trichlorophenol *	.226	.256	.269	.298	.316	.273	12.9*
2-Chloronaphthalene *	.801	.951	.975	1.026	1.127	.978	12.2*
2-Nitroaniline	.308	.339	.332	.357	.346	.336	5.4
Dimethylphthalate	.924	1.066	1.028	1.115	1.150	1.057	8.3
Acenaphthylene *	2.644	3.081	3.279	3.402	3.088	3.099	9.3*
2,6-Dinitrotoluene *	.178	.215	.220	.244	.276	.227	15.3*
3-Nitroaniline	.252	.291	.281	.295	.280	.280	6.0
Acenaphthene *	1.554	1.825	1.936	1.911	1.818	1.809	8.4*
2,4-Dinitrophenol	.068	.094	.100	.108	.139	.102	25.3
4-Nitrophenol	.159	.178	.185	.179	.169	.174	5.7
Dibenzofuran *	1.216	1.175	1.400	1.435	1.446	1.334	9.6*
2,4-Dinitrotoluene *	.241	.294	.284	.308	.337	.293	11.9*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of .010.

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Instrument ID: EXTRELM1 Calibration Date(s): 03/02/93 03/02/93

Calibration Times: 15:37 20:19

LAB FILE ID: RRF20 = M1302P5 RRF51 = M1302P4
RRF80 = M1302P3 RRF20 = M1302P2 RRF60 = M1302P1

COMPOUND	RRF20	RRF51	RRF80	RRF20	RRF60	RRF	% RSD
Diethylphthalate	.916	1.022	1.037	1.062	1.225	1.052	10.6
4-Chlorophenyl-phenylether *	.378	.493	.475	.465	.456	.453	9.7*
Fluorene *	1.620	2.163	2.107	1.942	2.044	1.975	10.9*
4-Nitroaniline	.244	.269	.274	.270	.297	.271	6.9
2-Methyl-4,6-dinitrophenol	.070	.085	.096	.102	.126	.096	21.6
N-Nitrosodiphenylamine	.460	.463	.521	.570	.589	.520	11.4
4-Bromophenyl-phenylether *	.179	.180	.190	.191	.202	.188	5.0*
Hexachlorobenzene *	.238	.224	.246	.257	.244	.242	5.0*
Pentachlorophenol *	.090	.109	.138	.143	.147	.126	19.8*
Phenanthrene *	1.683	1.715	1.987	1.948	1.837	1.830	7.7*
Anthracene *	1.569	1.657	1.874	1.880	1.778	1.751	7.8*
Carbazole	.783	.908	.984	1.027	1.143	.969	13.9
Di-n-butylphthalate	1.129	1.130	1.267	1.387	1.415	1.265	10.7
Fluoranthene *	1.257	1.560	1.703	1.603	1.678	1.560	11.5*
Pyrene *	1.321	1.721	1.596	1.414	1.514	1.513	10.3*
Butylbenzylphthalate	.419	.467	.458	.503	.537	.477	9.4
3,3'-Dichlorobenzidine	.230	.302	.281	.293	.304	.282	10.8
Benzo(a)anthracene *	1.201	1.478	1.444	1.367	1.483	1.395	8.4*
Chrysene *	1.264	1.546	1.462	1.365	1.406	1.409	7.5*
bis(2-Ethylhexyl)phthalate	.682	.792	.820	.795	.845	.787	7.9
Di-n-octylphthalate	.750	1.056	1.218	1.496	1.542	1.212	26.9
Benzo(b)fluoranthene *	1.361	1.602	1.627	1.797	1.677	1.613	9.9*
Benzo(k)fluoranthene *	1.335	1.786	1.736	1.687	1.669	1.643	10.8*
Benzo(a)pyrene *	1.094	1.497	1.493	1.510	1.652	1.449	14.4*
Indeno(1,2,3-cd)pyrene *	1.173	1.546	1.554	1.605	1.531	1.492	12.0*
Dibenz(a,h)anthracene *	.962	1.243	1.387	1.542	1.474	1.322	17.4*
Benzo(g,h,i)perylene *	.948	1.197	1.256	1.220	.594	1.043	26.7*
Nitrobenzene-d5	.291	.303	.316	.309	.329	.310	4.6
2-Fluorobiphenyl *	.873	1.033	1.032	1.094	1.181	1.043	10.8*
Terphenyl-d14 *	.554	.665	.682	.703	.710	.669	7.5*
Phenol-d5 *	1.346	1.507	1.512	1.523	1.706	1.519	8.4*
2-Fluorophenol *	1.112	1.214	1.258	1.219	1.388	1.238	8.0*
2,4,6-Tribromophenol	.141	.171	.189	.200	.198	.180	13.6
2-Chlorophenol-d4 *	1.022	1.202	1.152	1.168	1.300	1.169	8.6*
1,2-Dichlorobenzene-d4 *	.686	.778	.799	.785	.795	.769	6.1*

(1) Cannot be separated from Diphenylamine

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of .010.

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Instrument ID: EXTRELM1 Calibration Date: 03/04/93 Time: 14:08

Lab File ID: M1304C2 Init. Calib. Date(s): 03/02/93 03/02/93

Init. Calib. Times: 15:37 20:10

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Phenol	1.648	1.696	.800	-2.9	25.0
bis(2-Chloroethyl)ether	1.322	1.376	.700	-4.1	25.0
2-Chlorophenol	1.281	1.296	.800	-1.2	25.0
1,3-Dichlorobenzene	1.245	1.281	.600	-2.9	25.0
1,4-Dichlorobenzene	1.299	1.264	.500	2.7	25.0
1,2-Dichlorobenzene	1.162	1.163	.400	1.6	25.0
o-Cresol	1.155	1.214	.700	-5.1	25.0
Bis(2-chloroisopropyl)ether	1.255	1.389		-10.7	
m/p-Cresol	1.239	1.396	.600	-12.7	25.0
N-Nitroso-di-n-propylamine	.926	1.026	.500	10.8	25.0
Hexachloroethane	.578	.572	.300	1.0	25.0
Nitrobenzene	[illegible]	[illegible]	[illegible]	[illegible]	25.0
Isophorone	.561	.551	.400	1.8	25.0
2-Nitrophenol	.135	.119	.100	11.9	25.0
2,4-Dimethylphenol	.279	.237	.200	15.1	25.0
bis(2-Chloroethoxy)methane	.389	.353	.300	9.3	25.0
2,4-Dichlorophenol	.198	.176	.200	11.1	25.0
1,2,4-Trichlorobenzene	.202	.185	.200	8.4	25.0
Naphthalene	1.574	1.663	.700	-5.7	25.0
4-Chloroaniline	.312	.206		34.0	
Hexachlorobutadiene	.087	.079		9.2	
4-Chloro-3-methylphenol	.233	.204	.200	12.4	25.0
2-Methylnaphthalene	.520	.477	.400	8.3	25.0
Hexachlorocyclopentadiene	.253	.235		7.1	
2,4,6-Trichlorophenol	.250	.241	.200	3.6	25.0
2,4,5-Trichlorophenol	.273	.261	.200	4.4	25.0
2-Chloronaphthalene	.976	1.000	.800	-2.5	25.0
2-Nitroaniline	.336	.342		-1.8	
Dimethylphthalate	1.057	1.084		-2.6	
Acenaphthylene	3.099	3.182	1.300	-2.7	25.0
2,6-Dinitrotoluene	.227	.220	.200	3.1	25.0
3-Nitroaniline	.280	.268		4.3	
Acenaphthene	1.809	2.013	.800	-11.3	25.0
2,4-Dinitrophenol	.102	.087		14.7	
4-Nitrophenol	.174	.172		1.1	
Dibenzofuran	1.334	1.262	.800	5.4	25.0
2,4-Dinitrotoluene	.293	.282	.200	3.8	25.0

All other compounds must meet a minimum RRF of .010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Instrument ID: EXTRELM1 Calibration Date: 03/04/93 Time: 14:08

Lab File ID: [illegible] Init. Calib. Date(s): 03/02/93 03/02/93

Init. Calib. Times: 15:37 20:19

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Diethylphthalate	1.052	1.100		-4.6	
4-Chlorophenyl-phenylether	.450	.462	.400	-2.0	25.0
Fluorene	1.975	2.269	.900	-14.9	25.0
4-Nitroaniline	.271	.258		4.8	
2-Methyl-4,6-dinitrophenol	.096	.079		17.7	
N-Nitrosodiphenylamine	.520	.448		13.8	
4-Bromophenyl-phenylether	.188	.180	.100	4.3	25.0
Hexachlorobenzene	.242	.224	.100	7.4	25.0
Pentachlorophenol	.126	.115	.050	8.7	25.0
Phenanthrene	1.830	1.654	.700	9.6	25.0
Anthracene	1.751	1.564	.700	10.7	25.0
Carbazole	.969	.916		5.6	
Di-n-butylphthalate	1.265	1.215		4.0	
Fluoranthene	1.560	1.555	.600	.3	25.0
Pyrene	1.513	1.798	.600	-18.8	25.0
Butylbenzylphthalate	.477	.541		-13.4	
3,3'-Dichlorobenzidine	.282	.310		-9.9	
Benzo(a)anthracene	1.395	1.583	.800	-13.5	25.0
Chrysene	1.409	1.638	.700	-16.3	25.0
bis(2-Ethylhexyl)phthalate	.787	.925		-17.5	
Di-n-octylphthalate	[illegible]	[illegible]		-1.4	
Benzo(b)fluoranthene	1.613	1.837	.700	-13.9	25.0
Benzo(k)fluoranthene	1.643	1.909	.700	-16.2	25.0
Benzo(a)pyrene	1.449	1.569	.700	-8.3	25.0
Indeno(1,2,3-cd)pyrene	1.492	1.813	.500	-21.5	25.0
Dibenz(a,h)anthracene	1.322	1.386	.400	-4.8	25.0
Benzo(g,h,i)perylene	[illegible]	[illegible]	.500	[illegible]	25.0
Nitrobenzene-d5	.310	.312		-.6	
2-Fluorobiphenyl	1.043	1.057	.700	-1.3	25.0
Terphenyl-d14	.669	.672	.500	-.4	25.0
Phenol-d5	1.519	1.594	.500	-4.9	25.0
2-Fluorophenol	1.238	1.338	.600	-8.1	25.0
2,4,6-Tribromophenol	.180	.163		9.4	
2-Chlorophenol-d4	1.169	1.245	.800	-6.5	25.0
1,2-Dichlorobenzene-d4	.769	.793	.400	-3.1	25.0

(1) Cannot be separated from Diphenylamine
All other compounds must meet a minimum RRF of .010.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Lab File ID (Standard): M1304C2 Date Analyzed: 03/04/93

Instrument ID: ENTRELM1 Time Analyzed: 14:08

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	95971.	12.20	426184.	15.42	164016.	20.02
UPPER LIMIT	191942.	12.70	852368.	15.92	328032.	20.52
LOWER LIMIT	47985.	11.70	213092.	14.92	82008.	19.52
EPA SAMPLE NO.						
1 RBLANK	71213.	12.18	294666.	15.40	110064.	20.00
2 MW-51S	80333.	12.23	351168.	15.43	152258.	20.03
3 MW-52S	93462.	12.20	413280.	15.38	158020.	19.98
4 MW-60S	75357.	12.15	287800.	15.35	121914.	19.93
5 MW-61S	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6 FBLANK	54531.	12.12	236104.	15.33	96968.	19.90
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + .50 minutes of internal standard RT
RT LOWER LIMIT = - .50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930636 SAS No.: SDG No.: 636

Lab File ID (Standard): M1304C2 Date Analyzed: 03/04/93

Instrument ID: EXTREL1 Time Analyzed: 14:05

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	241630.	23.88	213992.	30.98	178693.	36.78
	UPPER LIMIT	483260.	24.38	427984.	31.48	357386.	37.28
	LOWER LIMIT	120815.	23.38	106996.	30.48	89347.	36.28
	EPA SAMPLE NO.						
1	RBLANK	165046.	23.85	141056.	30.93	147518.	36.72
2	MW-51S	219164.	23.88	200776.	30.98	198590.	36.82
3	MW-52S	230268.	23.83	186846.	30.90	175490.	36.67
4	MW-60S	174018.	23.80	169654.	30.85	167729.	36.57
5	MW-61S	146150.	23.78	150476.	30.83	149163.	36.53
6	FBLANK	140764.	23.77	133235.	30.83	131704.	36.48
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + .50 minutes of internal standard RT
RT LOWER LIMIT = - .50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

ANTECH LTD.
INTERNAL SAMPLE TRACKING INFORMATION

PROJECT NUMBER: 93-636 DATE: 3-2-93 TECHNICIAN: MBE

EXTRACTION:
- [ ] PCB
- [ ] Pesticide
- [ ] Herbicide
- [ ] BOIS
- [ ] OTHER
- [x] Base Neutral
- [x] Acid Extractable H_2O
- [ ] PAH

[ ] TCLP Extraction

SURROGATE: VIII 20-3 150/100 (CLP)

SAMPLE ID	INITIAL VOL/WT	FINAL VOL	COMMENTS
W/ BLANK 642	9.00	1mL	
QC			
03-0019	900	1mL	ph 7.6 - 2.0
03-0020			
03-0021			
03-0022			
03-0023			
			B/A

RELINQUISHED BY: MBE DATE: 3-2-93 TIME: 2:50P

RECEIVED BY: BLM DATE: 3-2-93 TIME: 3:25P

Sample Prep
Chain of Custody Record (Internal)
Prep Type: ~~Post/PCB Extract~~ BNA H2O

Project Number 93-636 Originator MBE Date Originated 3-2-93

Sample I.D.	Initials	Date/Time OUT	Date/Time IN	Initials	Date/Time OUT	Date/Time IN	Initials	Date/Time OUT	Date/Time IN	Initials	Date/Time OUT	Date/Time IN
03-0019	MBE		3-2-93 2:50p	NJM	3-4-93 8:00AM							
03-0020	MBE		3-2-93 2:60p	NJM	3-4-93 8:00AM							
03-0021	MBE		3-2-93 2:50p	NJM	3-4-93 8:00AM							
03-0022	MBE		3-2-93 2:60p	NJM	3-4-93 8:00AM							
03-0023	MBE		3-2-93 2:50p	NJM	3-4-93 8:00AM							
~~03~~												

1/8/91

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

127

Matrix: (soil/water) WATER Lab Sample ID: BLANK

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1316B3

Level: (low/med) Date Received: 00/00/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/17/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930853 SAS No.: SDG No.: 853

128

Matrix: (soil/water) WATER Lab Sample ID: BLANK

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1316B3

Level: (low/med) Date Received: 00/00/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/17/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653 129

Matrix: (soil/water) WATER Lab Sample ID: BLANK

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1316B3

Level: (low/med) Date Received: 00/00/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/17/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BPLANK2

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

130

Matrix: (soil/water) WATER Lab Sample ID: BLANK2

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1317S3

Level: (low/med) Date Received: 00/00/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/16/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/17/93

Injection Volume: 1.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	50.	U
111-44-4	bis(2-Chloroethyl)ether	50.	U
95-57-8	2-Chlorophenol	50.	U
541-73-1	1,3-Dichlorobenzene	50.	U
106-46-7	1.4-Dichlorobenzene	50.	U
95-50-1	1,2-Dichlorobenzene	50.	U
95-48-7	o-Cresol	50.	U
108-60-1	Bis(2-chloroisopropyl)ether	50.	U
106-44-5	m/p-Cresol	50.	U
621-64-7	N-Nitroso-di-n-propylamine	50.	U
67-72-1	Hexachloroethane	50.	U
98-95-3	Nitrobenzene	50.	U
78-59-1	Isophorone	50.	U
88-75-5	2-Nitrophenol	50.	U
105-67-9	2,4-Dimethylphenol	50.	U
111-91-1	bis(2-Chloroethoxy)methane	50.	U
120-83-2	2,4-Dichlorophenol	50.	U
120-82-1	1.2,4-Trichlorobenzene	50.	U
91-20-3	Naphthalene	50.	U
106-47-8	4-Chloroaniline	50.	U
87-68-3	Hexachlorobutadiene	50.	U
59-50-7	4-Chloro-3-methylphenol	50.	U
91-57-6	2-Methylnaphthalene	50.	U
77-47-4	Hexachlorocyclopentadiene	50.	U
88-06-2	2,4,6-Trichlorophenol	50.	U
95-95-4	2,4,5-Trichlorophenol	250.	U
91-58-7	2-Chloronaphthalene	50.	U
88-74-4	2-Nitroaniline	250.	U
131-11-3	Dimethylphthalate	50.	U
208-96-8	Acenaphthylene	50.	U
606-20-2	2,6-Dinitrotoluene	50.	U
99-09-2	3-Nitroaniline	250.	U
83-32-9	Acenaphthene	50.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE No.

RBLANK2

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930853 SAS No.: SDG No.: 653

131

Matrix: (soil/water) WATER Lab Sample ID: BLANK2

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M131753

Level: (low/med) Date Received: 00/00/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/16/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/17/93

Injection Volume: 1.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	250.	U
100-02-7	4-Nitrophenol	250.	U
132-64-9	Dibenzofuran	50.	U
121-14-2	2,4-Dinitrotoluene	50.	U
84-66-2	Diethylphthalate	50.	U
7005-72-3	4-Chlorophenyl-phenylether	50.	U
86-73-7	Fluorene	50.	U
100-01-6	4-Nitroaniline	250.	U
534-52-1	2-Methyl-4,6-dinitrophenol	250.	U
86-30-6	N-Nitrosodiphenylamine	50.	U
101-55-3	4-Bromophenyl-phenylether	50.	U
118-74-1	Hexachlorobenzene	50.	U
87-86-5	Pentachlorophenol	250.	U
85-01-8	Phenanthrene	50.	U
120-12-7	Anthracene	50.	U
86-74-8	Carbazole	50.	U
84-74-2	Di-n-butylphthalate	50.	U
206-44-0	Fluoranthene	50.	U
129-00-0	Pyrene	50.	U
85-68-7	Butylbenzylphthalate	50.	U
91-94-1	3,3'-Dichlorobenzidine	50.	U
56-55-3	Benzo(a)anthracene	50.	U
218-01-9	Chrysene	50.	U
117-81-7	bis(2-Ethylhexyl)phthalate	50.	U
117-84-0	Di-n-octylphthalate	50.	U
205-99-2	Benzo(b)fluoranthene	50.	U
207-08-9	Benzo(k)fluoranthene	50.	U
50-32-8	Benzo(a)pyrene	50.	U
193-39-5	Indeno(1,2,3-cd)pyrene	50.	U
53-70-3	Dibenz(a,h)anthracene	50.	U
191-24-2	Benzo(g,h,i)perylene	50.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RBLANK2

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930858 SAS No.: SDG No.: 858

132

Matrix: (soil/water) WATER Lab Sample ID: BLANK2

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1317S3

Level: (low/med) Date Received: 00/00/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/16/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/17/93

Injection Volume: 1.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	5.97	60.	J
2. - -	UNKNOWN HYDROCARBON	8.18	90.	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-62S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

133

Matrix: (soil/water) WATER Lab Sample ID: 9303-0087

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1319S1

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/19/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)etner	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-62S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

134

Matrix: (soil/water) WATER Lab Sample ID: 9303-0087

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1319S1

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/19/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	8.	J
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-62S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

135

Matrix: (soil/water) WATER Lab Sample ID: 9303-0087

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M131981

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/19/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 17

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	5.58	10.	J
2. - -	UNKNOWN HYDROCARBON	7.17	6.	J
3. - -	UNKNOWN HYDROCARBON	10.10	30.	J
4. - -	UNKNOWN HYDROCARBON	10.77	40.	J
5. - -	UNKNOWN HYDROCARBON	12.02	20.	J
6. - -	UNKNOWN HYDROCARBON	14.05	8.	J
7. - -	UNKNOWN HYDROCARBON	14.37	4.	J
8. - -	UNKNOWN HYDROCARBON	20.05	7.	J
9. - -	UNKNOWN HYDROCARBON	24.22	7.	J
10. - -	UNKNOWN HYDROCARBON	26.55	20.	J
11. - -	UNKNOWN HYDROCARBON	27.03	100.	J
12. - -	UNKNOWN HYDROCARBON	29.07	50.	J
13. - -	UNKNOWN HYDROCARBON	29.55	100.	J
14. - -	UNKNOWN HYDROCARBON	31.47	40.	J
15. - -	UNKNOWN HYDROCARBON	32.08	40.	J
16. - -	UNKNOWN HYDROCARBON	33.13	10.	J
17. - -	UNKNOWN HYDROCARBON	34.82	10.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-62MS

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930853 SAS No.: SDG No.: 653

136

Matrix: (soil/water) WATER Lab Sample ID: 9303-0088

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1319S2

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/19/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	28.	
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	100.	
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1.4-Dichlorobenzene	52.	
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	78.	
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	57.	
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	66.	
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	44.	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-62MS

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930853 SAS No.: SDG No.: 853

137

Matrix: (soil/water) WATER Lab Sample ID: 9303-0088

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1319S2

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/19/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	53.	
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	76.	
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	180.	E
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	52.	
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-62MSD

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653 138

Matrix: (soil/water) WATER Lab Sample ID: 9303-0089

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1319S3

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/19/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	27.	
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	81.	
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1.4-Dichlorobenzene	46.	
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	72.	
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	54.	
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	56.	
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	46.	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-62MSD

Lab Name: Antech, Inc. Contract:

Lab Code: ANTECH Case No.: 930853 SAS No.: SDG No.: 853

139

Matrix: (soil/water) WATER Lab Sample ID: 9303-0089

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1319S3

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/19/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	59.	
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	66.	
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	150.	
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	54.	
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-668

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

146

Matrix: (soil/water) WATER Lab Sample ID: 9303-0090

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1319S4

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/16/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/19/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1.4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2.4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-66S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 980653 SAS No.: SDG No.: 653

Matrix: (soil/water) WATER Lab Sample ID: 9303-0090

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1319S4

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/16/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/19/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-66S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

142

Matrix: (soil/water) WATER Lab Sample ID: 9303-0090

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M131994

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/16/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/19/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 7

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN HYDROCARBON	25.17	5.	J
2.	- -	UNKNOWN HYDROCARBON	26.58	60.	J
3.	- -	UNKNOWN HYDROCARBON	29.07	30.	J
4.	- -	UNKNOWN HYDROCARBON	29.55	90.	J
5.	- -	UNKNOWN HYDROCARBON	31.47	20.	J
6.	- -	UNKNOWN HYDROCARBON	32.07	30.	J
7.	- -	UNKNOWN HYDROCARBON	33.12	6.	J
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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16.					
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28.					
29.					
30.					

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-67S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 950653 SAS No.: SDG No.: 653

143

Matrix: (soil/water) WATER Lab Sample ID: 9303-0091

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1319S5

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/19/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	7.	J
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-67S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

144

Matrix: (soil/water) WATER Lab Sample ID: 9303-0091

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M131985

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/19/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	14.	
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-67S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 853

145

Matrix: (soil/water) WATER Lab Sample ID: 9303-0091

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1319S5

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/19/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 18

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	5.38	200.	J
2. - -	UNKNOWN HYDROCARBON	5.88	20.	J
3. - -	UNKNOWN HYDROCARBON	10.10	20.	J
4. - -	UNKNOWN HYDROCARBON	15.95	30.	J
5. - -	UNKNOWN HYDROCARBON	16.88	10.	J
6. - -	UNKNOWN HYDROCARBON	18.98	30.	J
7. - -	UNKNOWN HYDROCARBON	24.96	7.	J
8. - -	UNKNOWN HYDROCARBON	25.20	20.	J
9. - -	UNKNOWN HYDROCARBON	25.47	8.	J
10. - -	UNKNOWN HYDROCARBON	26.57	20.	J
11. - -	UNKNOWN HYDROCARBON	29.07	60.	J
12. - -	UNKNOWN HYDROCARBON	29.55	100.	J
13. - -	UNKNOWN HYDROCARBON	31.45	30.	J
14. - -	UNKNOWN HYDROCARBON	31.52	30.	J
15. - -	UNKNOWN HYDROCARBON	32.05	30.	J
16. - -	UNKNOWN HYDROCARBON	32.15	20.	J
17. - -	UNKNOWN HYDROCARBON	33.13	40.	J
18. - -	UNKNOWN HYDROCARBON	34.88	20.	J
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
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29.				
30.				

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-74S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

146

Matrix: (soil/water) WATER Lab Sample ID: 9303-0093

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1319S7

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/19/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	3.	J
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1.4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-74S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

147

Matrix: (soil/water) WATER Lab Sample ID: 9303-0093

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1319S7

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/19/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	36.	
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-74S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653 148

Matrix: (soil/water) WATER Lab Sample ID: 9303-0093

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M131987

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/19/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 17

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	5.67	3000.	J
2. - -	UNKNOWN HYDROCARBON	5.82	3000.	J
3. - -	UNKNOWN HYDROCARBON	6.13	2000.	J
4. - -	UNKNOWN HYDROCARBON	6.23	600.	J
5. - -	UNKNOWN HYDROCARBON	6.35	200.	J
6. - -	UNKNOWN HYDROCARBON	8.13	70.	J
7. - -	UNKNOWN HYDROCARBON	15.67	10.	J
8. - -	UNKNOWN HYDROCARBON	16.13	40.	J
9. - -	UNKNOWN HYDROCARBON	16.95	10.	J
10. - -	UNKNOWN HYDROCARBON	17.05	20.	J
11. - -	UNKNOWN HYDROCARBON	19.03	20.	J
12. - -	UNKNOWN HYDROCARBON	26.60	10.	J
13. - -	UNKNOWN HYDROCARBON	27.08	20.	J
14. - -	UNKNOWN HYDROCARBON	28.12	20.	J
15. - -	UNKNOWN HYDROCARBON	29.58	50.	J
16. - -	UNKNOWN HYDROCARBON	31.50	10.	J
17. - -	UNKNOWN HYDROCARBON	33.22	70.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

149

Matrix: (soil/water) WATER Lab Sample ID: 9303-0094

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1319S8

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/19/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1.4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

150

Matrix: (soil/water) WATER Lab Sample ID: 9303-0094

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M131983

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/19/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	J
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653 151

Matrix: (soil/water) WATER Lab Sample ID: 9303-0094

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1319S3

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/19/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 8

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	5.38	20.	J
2. - -	UNKNOWN HYDROCARBON	9.85	7.	J
3. - -	UNKNOWN HYDROCARBON	26.60	10.	J
4. - -	UNKNOWN HYDROCARBON	27.07	60.	J
5. - -	UNKNOWN HYDROCARBON	29.12	40.	J
6. - -	UNKNOWN HYDROCARBON	29.58	100.	J
7. - -	UNKNOWN HYDROCARBON	33.23	40.	J
8. - -	UNKNOWN HYDROCARBON	35.07	30.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-71S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

152

Matrix: (soil/water) WATER Lab Sample ID: 9303-0092

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1322S1

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-71S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653 153

Matrix: (soil/water) WATER Lab Sample ID: 9303-0092

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1322S1

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	5.	J
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-71S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

154

Matrix: (soil/water) WATER Lab Sample ID: 9303-0092

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M132231

Level: (low/med) Date Received: 03/02/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/05/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 03/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 14

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	5.37	4.	J
2. - -	UNKNOWN HYDROCARBON	7.03	6.	J
3. - -	UNKNOWN HYDROCARBON	15.27	7.	J
4. - -	UNKNOWN HYDROCARBON	17.05	10.	J
5. - -	UNKNOWN HYDROCARBON	19.00	5.	J
6. - -	UNKNOWN HYDROCARBON	24.20	4.	J
7. - -	UNKNOWN HYDROCARBON	25.18	5.	J
8. - -	UNKNOWN HYDROCARBON	26.57	10.	J
9. - -	UNKNOWN HYDROCARBON	27.10	40.	J
10. - -	UNKNOWN HYDROCARBON	29.08	30.	J
11. - -	UNKNOWN HYDROCARBON	29.55	70.	J
12. - -	UNKNOWN HYDROCARBON	31.55	20.	J
13. - -	UNKNOWN HYDROCARBON	33.15	20.	J
14. - -	UNKNOWN HYDROCARBON	34.95	6.	J
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WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	S7 (2CP)#	S8 (DCB)#	TOT OUT
1	RBLANK	60	62	66	56	53	62	53	55	0
2	RBLANK2	85	85	89	47	59	100	71	73	0
3	MW-62S	53	60	77	4 *	21	66	45	45	1
4	MW-62MS	63	71	92	16	27	85	57	56	0
5	MW-62MSD	59	71	89	17	26	89	52	50	0
6	MW-66S	48	58	85	25	32	89	54	43	0
7	MW-67S	51	52	72	30	36	77	54	43	0
8	MW-74S	74	76	91	33	47	95	72	68	0
9	FBLANK	59	65	76	24	36	82	59	56	0
10	MW-71S	57	57	66	30	42	73	63	50	0
11										
12										
13										
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		QC LIMITS	
S1 (NBZ) =	Nitrobenzene-d5	(35-114)	
S2 (FBP) =	2-Fluorobiphenyl	(43-116)	
S3 (TPH) =	Terphenyl-d14	(33-141)	
S4 (PHL) =	Phenol-d5	(10-110)	
S5 (2FP) =	2-Fluorophenol	(21-110)	
S6 (TBP) =	2,4,6-Tribromophenol	(10-123)	
S7 (2CP) =	2-Chlorophenol-d4	(33-110)	(advisory)
S8 (DCB) =	1,2-Dichlorobenzene-d4	(15-110)	(advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Matrix Spike - EPA Sample No.: MW-62S

COMPOUND	SPIKE ADDED (UG/L)	SAMPLE CONCENTRATION (UG/L)	MS CONCENTRATION (UG/L)	MS % REC #	QC LIMITS REC.
Phenol	150.	0.	28.	19	12-110
2-Chlorophenol	150.	0.	100.	67	27-123
1,4-Dichlorobenzene	100.	0.	52.	52	36- 97
N-Nitroso-di-n-prop.(1)	100.	0.	78.	78	41-116
1,2,4-Trichlorobenzene	100.	0.	57.	57	39- 98
4-Chloro-3-methylphenol	150.	0.	66.	44	23- 97
Acenaphthene	100.	0.	44.	44 *	46-118
4-Nitrophenol	150.	0.	53.	35	10- 80
2,4-Dinitrotoluene	100.	0.	76.	76	24- 96
Pentachlorophenol	150.	0.	180.	120 *	9-103
Pyrene	100.	0.	52.	52	26-127

COMPOUND	SPIKE ADDED (UG/L)	MSD CONCENTRATION (UG/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	150.	27.	18	5	42	12-110
2-Chlorophenol	150.	81.	54	21	40	27-123
1,4-Dichlorobenzene	100.	46.	46	12	28	36- 97
N-Nitroso-di-n-prop.(1)	100.	72.	72	8	38	41-116
1,2,4-Trichlorobenzene	100.	54.	54	5	28	39- 98
4-Chloro-3-methylphenol	150.	56.	37	17	42	23- 97
Acenaphthene	100.	46.	46	4	31	46-118
4-Nitrophenol	150.	59.	39	11	50	10- 80
2,4-Dinitrotoluene	100.	86.	86	12	38	24- 96
Pentachlorophenol	150.	150.	100	18	50	9-103
Pyrene	100.	54.	54	4	31	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 2 out of 22 outside limits

COMMENTS:

4b

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

RBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

157

Lab File ID: M1316B3 Lab Sample ID: BLANK

Instrument ID: EXTRELM1 Date Extracted: 03/05/93

Matrix: (soil/water) WATER Date Analyzed: 03/17/93

Level:(low/med) Time Analyzed: 05:55

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	MW-62S	9303-0087	M1319S1	03/19/93
2	MW-62MS	9303-0088	M1319S2	03/19/93
3	MW-62MSD	9303-0089	M1319S3	03/19/93
4	MW-67S	9303-0091	M1319S5	03/19/93
5	MW-74S	9303-0093	M1319S7	03/19/93
6	FBLANK	9303-0094	M1319S8	03/19/93
7	MW-71S	9303-0092	M1322S1	03/22/93
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30				

COMMENTS:

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

RBLANK2

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

158

Lab File ID: M1317S3 Lab Sample ID: BLANK2

Instrument ID: EXTRELM1 Date Extracted: 03/16/93

Matrix: (soil/water) WATER Date Analyzed: 03/17/93

Level:(low/med) Time Analyzed: 11:28

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	MW-66S	9303-0090	M1319S4	03/19/93
2				
3				
4				
5				
6				
7				
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COMMENTS:

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Lab File ID: M1312T4 DFTPP Injection Date: 03/12/93

Instrument ID.: EXTRELM1 DFTPP Injection Time: 11:32

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	36.8
68	Less than 2.0% of mass 69	.6 (1.5)1
69	Mass 69 relative abundance	40.3
70	Less than 2.0% of mass 69	.3 (.7)1
127	25.0 - 75.0% of mass 198	48.2
197	Less than 1.0% of mass 198	.3
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.3
275	10.0 - 30.0% of mass 198	23.9
365	Greater than 0.75% of mass 198	2.50
441	Present, but less than mass 443	10.3
442	40.0 - 110.0% of mass 198	68.7
443	15.0 - 24.0% of mass 442	13.2 (19.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	STD020		M1312P1	03/12/93	11:44
2	STD160		M1312P5	03/12/93	12:43
3	STD050		M1312P2	03/12/93	14:03
4	STD080		M1312P3	03/12/93	15:10
5	STD120		M1312P4	03/12/93	16:04
6					
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5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Anteon Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Lab File ID: M1316T2 DFTPP Injection Date: 03/16/93

Instrument ID.: EXTRELM1 DFTPP Injection Time: 19:38

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	31.5
68	Less than 2.0% of mass 69	.8 (1.8)1
69	Mass 69 relative abundance	43.5
70	Less than 2.0% of mass 69	.4 (.9)1
127	25.0 - 75.0% of mass 198	58.5
197	Less than 1.0% of mass 198	.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	8.9
275	10.0 - 30.0% of mass 198	25.3
365	Greater than 0.75% of mass 198	2.96
441	Present, but less than mass 443	9.6
442	40.0 - 110.0% of mass 198	67.4
443	15.0 - 24.0% of mass 442	11.6 (17.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	FPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	STD054		M1316C2	03/16/93	20:35
2	RBLANK	BLANK	M1316B3	03/17/93	05:55
3					
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SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Lab File ID: M1317T1 DFTPP Injection Date: 03/17/93

Instrument ID.: EXTRELM1 DFTPP Injection Time: 07:47

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	31.8
68	Less than 2.0% of mass 69	.6 (1.4)1
69	Mass 69 relative abundance	44.0
70	Less than 2.0% of mass 69	.4 (.9)1
127	25.0 - 75.0% of mass 198	52.6
197	Less than 1.0% of mass 198	.4
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	21.5
365	Greater than 0.75% of mass 198	1.93
441	Present, but less than mass 443	6.8
442	40.0 - 110.0% of mass 198	47.9
443	15.0 - 24.0% of mass 442	8.5 (17.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	STD052		M1317C1	03/17/93	09:39
2	RBLANK2	BLANK2	M1317S3	03/17/93	11:28
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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Lab File ID: M1319T1 DFTPP Injection Date: 03/19/93

Instrument ID.: EXTRELM1 DFTPP Injection Time: 07:48

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	67.0
68	Less than 2.0% of mass 69	.0 (.0)1
69	Mass 69 relative abundance	70.2
70	Less than 2.0% of mass 69	.6 (.9)1
127	25.0 - 75.0% of mass 198	63.6
197	Less than 1.0% of mass 198	.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.5
275	10.0 - 30.0% of mass 198	25.0
365	Greater than 0.75% of mass 198	3.38
441	Present, but less than mass 443	9.3
442	40.0 - 110.0% of mass 198	68.3
443	15.0 - 24.0% of mass 442	13.0 (19.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	STD051		M1319C1	03/19/93	08:14
2	MW-62S	9303-0087	M1319S1	03/19/93	09:07
3	MW-62MS	9303-0088	M1319S2	03/19/93	10:03
4	MW-62MSD	9303-0089	M1319S3	03/19/93	10:58
5	MW-66S	9303-0090	M1319S4	03/19/93	11:54
6	MW-67S	9303-0091	M1319S5	03/19/93	12:49
7	MW-74S	9303-0093	M1319S7	03/19/93	14:42
8	FBLANK	9303-0094	M1319S8	03/19/93	15:37
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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Lab File ID: M1322T1 DFTPP Injection Date: 03/22/93

Instrument ID.: EXTRELM1 DFTPP Injection Time: 10:46

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	56.5
68	Less than 2.0% of mass 69	1.0 (1.4)1
69	Mass 69 relative abundance	69.6
70	Less than 2.0% of mass 69	.3 (.4)1
127	25.0 - 75.0% of mass 198	66.6
197	Less than 1.0% of mass 198	.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.3
275	10.0 - 30.0% of mass 198	25.5
365	Greater than 0.75% of mass 198	3.78
441	Present, but less than mass 443	10.9
442	40.0 - 110.0% of mass 198	79.1
443	15.0 - 24.0% of mass 442	13.9 (17.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	STD081		M132201	03/22/93	11:06
2	MW-71S	9303-0092	M132251	03/22/93	12:30
3					
4					
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SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Instrument ID: EXTRELM1 Calibration Date(s): 03/12/93 03/12/93

Calibration Times: 11:44 16:04

LAB FILE ID: RRF20 = M1312P1 RRF50 = M1312P2
RRF80 = M1312P3 RRF20 = M1312P4 RRF60 = M1312P5

COMPOUND	RRF20	RRF50	RRF80	RRF20	RRF60	$\overline{RRF}$	% RSD
Phenol *	2.248	1.939	1.986	2.259	1.910	2.068	8.3*
bis(2-Chloroethyl)ether *	1.881	1.735	1.758	1.810	1.832	1.803	3.2*
2-Chlorophenol *	1.604	1.524	1.508	1.669	1.440	1.549	5.7*
1,3-Dichlorobenzene *	1.622	1.528	1.493	1.643	1.452	1.548	5.3*
1,4-Dichlorobenzene *	1.644	1.471	1.497	1.635	1.449	1.539	6.1*
1,2-Dichlorobenzene *	1.525	1.381	1.339	1.490	1.267	1.400	7.6*
o-Cresol *	1.495	1.456	1.432	1.550	1.344	1.455	5.3*
Bis(2-chloroisopropyl)ether	1.846	1.675	1.735	1.664	1.821	1.748	4.7
m/p-Cresol *	1.648	1.525	1.497	1.645	1.462	1.555	5.5*
N-Nitroso-di-n-propylamine *	1.223	1.198	1.180	1.252	1.198	1.210	2.3*
Hexachloroethane *	.728	.710	.732	.830	.752	.751	6.3*
Nitrobenzene *	.373	.400	.367	.422	.403	.393	5.8*
Isophorone *	.677	.752	.725	.804	.832	.758	6.1*
2-Nitrophenol *	.178	.195	.187	.192	.207	.192	5.5*
2,4-Dimethylphenol *	.324	.346	.333	.388	.370	.352	7.5*
bis(2-Chloroethoxy)methane *	.541	.516	.496	.522	.513	.518	3.1*
2,4-Dichlorophenol *	.270	.247	.233	.251	.234	.247	6.1*
1,2,4-Trichlorobenzene *	.277	.257	.233	.258	.249	.255	6.2*
Naphthalene *	1.850	1.735	1.596	1.655	1.550	1.677	7.1*
4-Chloroaniline	.396	.382	.392	.427	.412	.402	4.4
Hexachlorobutadiene	.125	.114	.110	.123	.119	.118	5.4
4-Chloro-3-methylphenol *	.320	.342	.340	.375	.368	.349	6.4*
2-Methylnaphthalene *	.652	.669	.613	.632	.628	.639	3.4*
Hexachlorocyclopentadiene	.294	.297	.309	.352	.367	.324	10.4
2,4,6-Trichlorophenol *	.355	.342	.349	.375	.395	.363	5.9*
2,4,5-Trichlorophenol *	.385	.366	.384	.406	.418	.392	5.2*
2-Chloronaphthalene *	1.331	1.276	1.292	1.267	1.320	1.297	2.1*
2-Nitroaniline	.457	.512	.520	.548	.633	.534	12.0
Dimethylphthalate	1.433	1.415	1.473	1.473	1.580	1.475	4.4
Acenaphthylene *	3.685	3.332	3.114	3.315	3.267	3.342	6.3*
2,6-Dinitrotoluene *	.307	.336	.310	.320	.323	.319	3.6*
3-Nitroaniline	.384	.461	.465	.478	.526	.463	11.1
Acenaphthene *	2.324	2.007	1.980	2.001	2.072	2.077	6.9*
2,4-Dinitrophenol	.122	.174	.179	.186	.227	.178	21.1
4-Nitrophenol	.201	.235	.264	.273	.293	.253	14.2
Dibenzofuran *	1.686	1.672	1.642	1.719	1.820	1.708	4.0*
2,4-Dinitrotoluene *	.431	.452	.450	.461	.533	.465	8.4*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of .010.

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Instrument ID: EXTRELM1 Calibration Date(s): 03/12/93 03/12/93

Calibration Times: 11:44 16:04

LAB FILE ID: RRF20 = M1312P1 RRF50 = M1312P2
RRF80 = M1312P3 RRF20 = M1312P4 RRF60 = M1312P5

COMPOUND	RRF20	RRF50	RRF80	RRF20	RRF60	RRF	% RSD
Diethylphthalate	1.367	1.549	1.499	1.528	1.708	1.534	7.5
4-Chlorophenyl-phenylether *	.578	.515	.490	.538	.521	.528	6.1*
Fluorene *	2.378	2.068	1.978	2.108	2.180	2.142	7.0*
4-Nitroaniline	.407	.443	.472	.463	.577	.472	13.5
2-Methyl-4,6-dinitrophenol	.106	.138	.144	.150	.160	.140	14.6
N-Nitrosodiphenylamine	.657	.629	.632	.657	.624	.640	2.5
4-Bromophenyl-phenylether *	.232	.230	.235	.249	.237	.236	3.1*
Hexachlorobenzene *	.277	.288	.281	.305	.286	.288	3.7*
Pentachlorophenol *	.148	.164	.176	.196	.206	.178	13.2*
Phenanthrene *	2.107	1.911	1.933	2.060	1.976	1.998	4.2*
Anthracene *	1.971	1.806	1.818	1.945	1.854	1.879	4.0*
Carbazole	1.230	1.334	1.246	1.281	1.343	1.287	4.0
Di-n-butylphthalate	1.703	1.781	1.827	1.834	1.827	1.795	3.1
Fluoranthene *	1.994	1.909	1.987	2.153	2.096	2.028	4.6*
Pyrene *	2.281	2.085	2.208	2.113	2.362	2.210	5.2*
Butylbenzylphthalate	.749	.787	.868	.814	.958	.835	9.7
3,3'-Dichlorobenzidine	.354	.438	.452	.482	.531	.451	14.4
Benzo(a)anthracene *	1.967	1.889	1.899	1.880	2.033	1.934	3.4*
Chrysene *	1.925	1.701	1.659	1.588	1.866	1.748	8.1*
bis(2-Ethylhexyl)phthalate	.970	1.018	1.065	1.025	1.206	1.057	8.5
Di-n-octylphthalate	1.363	1.673	1.970	2.059	2.126	1.838	17.3
Benzo(b)fluoranthene *	2.080	2.050	2.229	2.317	2.389	2.213	6.6*
Benzo(k)fluoranthene *	2.105	1.975	2.031	2.193	1.962	2.051	4.5*
Benzo(a)pyrene *	1.791	1.798	1.940	2.075	2.118	1.944	7.8*
Indeno(1,2,3-cd)pyrene *	1.840	2.042	2.301	2.421	2.602	2.241	13.5*
Dibenz(a,h)anthracene *	1.369	1.535	1.586	1.846	1.939	1.655	14.1*
Benzo(g,h,i)perylene *	1.493	1.683	1.812	1.937	2.172	1.819	14.1*
Nitrobenzene-d5	.409	.416	.434	.462	.461	.437	5.7
2-Fluorobiphenyl *	1.560	1.291	1.334	1.360	1.311	1.371	7.9*
Terphenyl-d14 *	1.032	.938	.990	.991	1.038	.998	4.0*
Phenol-d5 *	2.094	1.950	2.029	2.214	2.012	2.060	4.9*
2-Fluorophenol *	1.548	1.509	1.511	1.726	1.551	1.569	5.7*
2,4,6-Tribromophenol	.210	.228	.235	.258	.275	.241	10.7
2-Chlorophenol-d4 *	1.587	1.462	1.451	1.714	1.439	1.530	7.7*
1,2-Dichlorobenzene-d4 *	1.078	.930	.927	.983	.849	.953	8.8*

(1) Cannot be separated from Diphenylamine

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of .010.

7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Instrument ID: EXTRELM1 Calibration Date: 03/16/93 Time: 20:35

Lab File ID: M1316C2 Init. Calib. Date(s): 03/12/93 03/12/93

Init. Calib. Times: 11:44 16:04

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Phenol	2.068	2.081	.800	-.6	25.0
bis(2-Chloroethyl)ether	1.803	1.595	.700	11.5	25.0
2-Chlorophenol	1.549	1.543	.800	.4	25.0
1,3-Dichlorobenzene	1.548	1.596	.600	-3.1	25.0
1,4-Dichlorobenzene	1.539	1.594	.500	-3.6	25.0
1,2-Dichlorobenzene	1.400	1.477	.400	-5.5	25.0
o-Cresol	1.455	1.419	.700	2.5	25.0
Bis(2-chloroisopropyl)ether	1.748	1.229		29.7	
m/p-Cresol	1.555	1.455	.600	6.4	25.0
N-Nitroso-di-n-propylamine	1.210	1.140	.500	5.8	25.0
Hexachloroethane	.751	.748	.300	.4	25.0
Nitrobenzene	.393	.374	.200	4.8	25.0
Isophorone	.758	.714	.400	5.8	25.0
2-Nitrophenol	.192	.164	.100	14.6	25.0
2,4-Dimethylphenol	.352	.325	.200	7.7	25.0
bis(2-Chloroethoxy)methane	.518	.442	.300	14.7	25.0
2,4-Dichlorophenol	.247	.247	.200	.0	25.0
1,2,4-Trichlorobenzene	.255	.261	.200	-2.4	25.0
Naphthalene	1.677	1.664	.700	.8	25.0
4-Chloroaniline	.402	.194		51.7	
Hexachlorobutadiene	.118	.133		-12.7	
4-Chloro-3-methylphenol	.349	.354	.200	-1.4	25.0
2-Methylnaphthalene	.639	.651	.400	-1.9	25.0
Hexachlorocyclopentadiene	.324	.234		27.8	
2,4,6-Trichlorophenol	.363	.354	.200	2.5	25.0
2,4,5-Trichlorophenol	.392	.377	.200	3.8	25.0
2-Chloronaphthalene	1.297	1.217	.800	6.2	25.0
2-Nitroaniline	.534	.423		20.8	
Dimethylphthalate	1.475	1.378		6.6	
Acenaphthylene	3.342	3.233	1.300	3.3	25.0
2,6-Dinitrotoluene	.319	.307	.200	3.8	25.0
3-Nitroaniline	.463	.360		22.2	
Acenaphthene	2.077	2.058	.800	.9	25.0
2,4-Dinitrophenol	.178	.093		47.8	
4-Nitrophenol	.253	.235		7.1	
Dibenzofuran	1.708	1.717	.800	-.5	25.0
2,4-Dinitrotoluene	.465	.443	.200	4.7	25.0

All other compounds must meet a minimum RRF of .010.

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Instrument ID: EXTRELM1 Calibration Date: 03/16/93 Time: 20:35

Lab File ID: M131602 Init. Calib. Date(s): 03/12/93 03/12/93

Init. Calib. Times: 11:44 16:04

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Diethylphthalate	1.534	1.471		4.1	
4-Chlorophenyl-phenylether	.528	.535	.400	-1.3	25.0
Fluorene	2.142	2.088	.900	2.5	25.0
4-Nitroaniline	.472	.360		23.7	
2-Methyl-4,6-dinitrophenol	.140	.105		25.0	
N-Nitrosodiphenylamine	.640	.602		5.9	
4-Bromophenyl-phenylether	.236	.229	.100	3.0	25.0
Hexachlorobenzene	.288	.303	.100	-5.2	25.0
Pentachlorophenol	.178	.170	.050	4.5	25.0
Phenanthrene	1.998	1.976	.700	1.1	25.0
Anthracene	1.879	1.779	.700	5.3	25.0
Carbazole	1.287	1.189		7.8	
Di-n-butylphthalate	1.795	1.671		6.9	
Fluoranthene	2.028	2.063	.600	-1.7	25.0
Pyrene	2.210	1.954	.600	11.6	25.0
Butylbenzylphthalate	.835	.660		21.0	
3,3'-Dichlorobenzidine	.451	.341		24.4	
Benzo(a)anthracene	1.934	1.818	.800	6.0	25.0
Chrysene	1.748	1.707	.700	2.3	25.0
bis(2-Ethylhexyl)phthalate	1.057	.884		16.4	
Di-n-octylphthalate	1.838	1.601		12.9	
Benzo(b)fluoranthene	2.213	2.001	.700	9.6	25.0
Benzo(k)fluoranthene	2.051	2.169	.700	-5.8	25.0
Benzo(a)pyrene	1.944	1.820	.700	6.4	25.0
Indeno(1,2,3-cd)pyrene	2.241	2.179	.500	2.8	25.0
Dibenz(a,h)anthracene	1.655	1.651	.400	.2	25.0
Benzo(g,h,i)perylene	1.819	1.786	.500	1.8	25.0
Nitrobenzene-d5	.437	.369		15.6	
2-Fluorobiphenyl	1.371	1.274	.700	7.1	25.0
Terphenyl-d14	.998	.868	.500	13.0	25.0
Phenol-d5	2.060	1.975	.800	4.1	25.0
2-Fluorophenol	1.569	1.447	.600	7.8	25.0
2,4,6-Tribromophenol	.241	.238		1.2	
2-Chlorophenol-d4	1.530	1.512	.800	1.2	25.0
1,2-Dichlorobenzene-d4	.953	.957	.400	-.4	25.0

(1) Cannot be separated from Diphenylamine
All other compounds must meet a minimum RRF of .010.

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Instrument ID: EXTRELM1 Calibration Date: 03/17/93 Time: 09:39

Lab File ID: M1317C1 Init. Calib. Date(s): 03/12/93 03/12/93

Init. Calib. Times: 11:44 16:04

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Phenol	2.068	2.005	.800	3.0	25.0
bis(2-Chloroethyl)ether	1.803	1.630	.700	9.6	25.0
2-Chlorophenol	1.549	1.593	.800	-2.8	25.0
1,3-Dichlorobenzene	1.548	1.579	.600	-2.0	25.0
1,4-Dichlorobenzene	1.533	1.616	.500	-5.0	25.0
1,2-Dichlorobenzene	1.400	1.460	.400	-4.3	25.0
o-Cresol	1.455	1.468	.700	-.9	25.0
Bis(2-chloroisopropyl)ether	1.748	1.383		20.9	
m/p-Cresol	1.555	1.563	.600	-.5	25.0
N-Nitroso-di-n-propylamine	1.210	1.059	.500	12.5	25.0
Hexachloroethane	.751	.714	.300	4.9	25.0
Nitrobenzene	.393	.340	.200	13.5	25.0
Isophorone	.758	.661	.400	12.8	25.0
2-Nitrophenol	.192	.173	.100	9.9	25.0
2,4-Dimethylphenol	.352	.302	.200	14.2	25.0
bis(2-Chloroethoxy)methane	.518	.449	.300	13.3	25.0
2,4-Dichlorophenol	.247	.260	.200	-5.3	25.0
1,2,4-Trichlorobenzene	.255	.264	.200	-3.5	25.0
Naphthalene	1.677	1.586	.700	5.4	25.0
4-Chloroaniline	.402	.138		65.7	
Hexachlorobutadiene	.118	.123		-4.2	
4-Chloro-3-methylphenol	.349	.336	.200	3.7	25.0
2-Methylnaphthalene	.639	.670	.400	-4.9	25.0
Hexachlorocyclopentadiene	.324	.197		33.2	
2,4,6-Trichlorophenol	.363	.327	.200	9.9	25.0
2,4,5-Trichlorophenol	.392	.362	.200	7.7	25.0
2-Chloronaphthalene	1.297	1.153	.800	11.1	25.0
2-Nitroaniline	.534	.411		23.0	
Dimethylphthalate	1.475	1.382		6.3	
Acenaphthylene	3.342	3.187	1.300	4.6	25.0
2,6-Dinitrotoluene	.319	.292	.200	8.5	25.0
3-Nitroaniline	.463	.313		32.4	
Acenaphthene	2.077	1.861	.800	10.4	25.0
2,4-Dinitrophenol	.178	.100		43.8	
4-Nitrophenol	.253	.208		17.8	
Dibenzofuran	1.708	1.584	.800	7.3	25.0
2,4-Dinitrotoluene	.465	.401	.200	13.8	25.0

All other compounds must meet a minimum RRF of .010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Instrument ID: EXTRELM1 Calibration Date: 03/17/93 Time: 09:39

Lab File ID: M1317C1 Init. Calib. Date(s): 03/12/93 03/12/93

Init. Calib. Times: 11:44 16:04

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Diethylphthalate	1.534	1.361		11.3	
4-Chlorophenyl-phenylether	.528	.501	.400	5.1	25.0
Fluorene	2.142	1.973	.900	7.9	25.0
4-Nitroaniline	.472	.333		29.4	
2-Methyl-4,6-dinitrophenol	.140	.094		32.9	
N-Nitrosodiphenylamine	.640	.626		2.2	
4-Bromophenyl-phenylether	.236	.226	.100	4.2	25.0
Hexachlorobenzene	.288	.273	.100	5.2	25.0
Pentachlorophenol	.178	.174	.050	2.2	25.0
Phenanthrene	1.998	1.906	.700	4.6	25.0
Anthracene	1.879	1.783	.700	5.1	25.0
Carbazole	1.287	1.175		8.7	
Di-n-butylphthalate	1.795	1.676		6.6	
Fluoranthene	2.028	1.939	.600	4.4	25.0
Pyrene	2.210	1.993	.600	9.8	25.0
Butylbenzylphthalate	.835	.805		3.6	
3,3'-Dichlorobenzidine	.451	.374		17.1	
Benzo(a)anthracene	1.934	1.808	.800	6.5	25.0
Chrysene	1.748	1.626	.700	7.0	25.0
bis(2-Ethylhexyl)phthalate	1.057	.991		6.2	
Di-n-octylphthalate	1.838	1.722		6.3	
Benzo(b)fluoranthene	2.213	1.802	.700	18.6	25.0
Benzo(k)fluoranthene	2.051	1.785	.700	13.0	25.0
Benzo(a)pyrene	1.944	1.693	.700	12.9	25.0
Indeno(1,2,3-cd)pyrene	2.241	2.110	.500	5.8	25.0
Dibenz(a,h)anthracene	1.655	1.591	.400	3.9	25.0
Benzo(g,h,i)perylene	1.819	1.868	.500	-2.7	25.0
Nitrobenzene-d5	.437	.351		19.7	
2-Fluorobiphenyl	1.371	1.255	.700	8.5	25.0
Terphenyl-d14	.998	.915	.500	8.3	25.0
Phenol-d5	2.060	1.917	.800	6.9	25.0
2-Fluorophenol	1.569	1.518	.600	3.3	25.0
2,4,6-Tribromophenol	.241	.203		15.8	
2-Chlorophenol-d4	1.530	1.562	.800	-2.1	25.0
1,2-Dichlorobenzene-d4	.953	.935	.400	1.9	25.0

(1) Cannot be separated from Diphenylamine
All other compounds must meet a minimum RRF of .010.

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Instrument ID: EXTRELM1 Calibration Date: 03/19/93 Time: 08:14

Lab File ID: M1319C1 Init. Calib. Date(s): 03/12/93 03/12/93

Init. Calib. Times: 11:44 16:04

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Phenol	2.068	2.268	.800	-9.7	25.0
bis(2-Chloroethyl)ether	1.803	1.704	.700	5.5	25.0
2-Chlorophenol	1.549	1.614	.800	-4.2	25.0
1,3-Dichlorobenzene	1.548	1.607	.600	-3.8	25.0
1,4-Dichlorobenzene	1.539	1.676	.500	-8.9	25.0
1,2-Dichlorobenzene	1.400	1.503	.400	-7.4	25.0
o-Cresol	1.455	1.516	.700	-4.2	25.0
Bis(2-chloroisopropyl)ether	1.748	1.782		-1.9	
m/p-Cresol	1.555	1.655	.600	-6.4	25.0
N-Nitroso-di-n-propylamine	1.210	1.211	.500	-.1	25.0
Hexachloroethane	.751	.778	.300	-3.6	25.0
Nitrobenzene	.393	.431	.200	-9.7	25.0
Isophorone	.758	.771	.400	-1.7	25.0
2-Nitrophenol	.192	.182	.100	5.2	25.0
2,4-Dimethylphenol	.352	.320	.200	9.1	25.0
bis(2-Chloroethoxy)methane	.518	.509	.300	1.7	25.0
2,4-Dichlorophenol	.247	.266	.200	-7.7	25.0
1,2,4-Trichlorobenzene	.255	.276	.200	-8.2	25.0
Naphthalene	1.677	1.832	.700	-9.2	25.0
4-Chloroaniline	.402	.324		19.4	
Hexachlorobutadiene	.118	.138		-16.9	
4-Chloro-3-methylphenol	.349	.341	.200	2.3	25.0
2-Methylnaphthalene	.639	.680	.400	-6.4	25.0
Hexachlorocyclopentadiene	.324	.185		42.3	
2,4,6-Trichlorophenol	.363	.348	.200	4.1	25.0
2,4,5-Trichlorophenol	.392	.367	.200	6.4	25.0
2-Chloronaphthalene	1.297	1.221	.800	5.9	25.0
2-Nitroaniline	.534	.495		7.3	
Dimethylphthalate	1.475	1.313		11.0	
Acenaphthylene	3.342	3.230	1.300	3.4	25.0
2,6-Dinitrotoluene	.319	.307	.200	3.8	25.0
3-Nitroaniline	.463	.396		14.5	
Acenaphthene	2.077	2.006	.800	3.4	25.0
2,4-Dinitrophenol	.178	.122		31.5	
4-Nitrophenol	.253	.254		-.4	
Dibenzofuran	1.708	1.661	.800	2.8	25.0
2,4-Dinitrotoluene	.465	.435	.200	6.5	25.0

All other compounds must meet a minimum RRF of .010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Instrument ID: EXTRELM1 Calibration Date: 03/19/93 Time: 08:14

Lab File ID: M131901 Init. Calib. Date(s): 03/12/93 03/12/93

Init. Calib. Times: 11:44 16:04

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Diethylphthalate	1.534	1.447		5.7	
4-Chlorophenyl-phenylether	.528	.573	.400	-8.5	25.0
Fluorene	2.142	2.334	.900	-9.0	25.0
4-Nitroaniline	.472	.387		18.0	
2-Methyl-4,6-dinitrophenol	.140	.109		22.1	
N-Nitrosodiphenylamine	.640	.655		-2.3	
4-Bromophenyl-phenylether	.236	.222	.100	5.9	25.0
Hexachlorobenzene	.288	.280	.100	2.8	25.0
Pentachlorophenol	.178	.154	.050	13.5	25.0
Phenanthrene	1.998	2.126	.700	-6.4	25.0
Anthracene	1.879	1.919	.700	-2.1	25.0
Carbazole	1.287	1.218		5.4	
Di-n-butylphthalate	1.795	1.669		7.0	
Fluoranthene	2.028	2.074	.600	-2.3	25.0
Pyrene	2.210	2.118	.600	4.2	25.0
Butylbenzylphthalate	.835	.734		12.1	
3,3'-Dichlorobenzidine	.451	.352		22.0	
Benzo(a)anthracene	1.934	1.893	.800	2.1	25.0
Chrysene	1.748	1.915	.700	-9.6	25.0
bis(2-Ethylhexyl)phthalate	1.057	1.059		-.2	
Di-n-octylphthalate	1.838	1.777		3.3	
Benzo(b)fluoranthene	2.213	1.993	.700	9.9	25.0
Benzo(k)fluoranthene	2.051	2.176	.700	-6.1	25.0
Benzo(a)pyrene	1.944	1.797	.700	7.6	25.0
Indeno(1,2,3-cd)pyrene	2.241	2.104	.500	6.1	25.0
Dibenz(a,h)anthracene	1.655	1.633	.400	1.3	25.0
Benzo(g,h,i)perylene	1.819	1.685	.500	7.4	25.0
Nitrobenzene-d5	.437	.452		-3.4	
2-Fluorobiphenyl	1.371	1.328	.700	3.3	25.0
Terphenyl-d14	.998	.894	.500	10.4	25.0
Phenol-d5	2.060	2.068	.800	-.4	25.0
2-Fluorophenol	1.569	1.572	.600	-.2	25.0
2,4,6-Tribromophenol	.241	.210		12.9	
2-Chlorophenol-d4	1.530	1.574	.800	-2.9	25.0
1,2-Dichlorobenzene-d4	.953	.964	.400	-1.2	25.0

(1) Cannot be separated from Diphenylamine
All other compounds must meet a minimum RRF of .010.

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Instrument ID: EXTRELM1 Calibration Date: 03/22/93 Time: 11:06

Lab File ID: M132201 Init. Calib. Date(s): 03/12/93 03/12/93

Init. Calib. Times: 11:44 16:04

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Phenol	2.068	2.085	.800	-.8	25.0
bis(2-Chloroethyl)ether	1.803	1.694	.700	6.0	25.0
2-Chlorophenol	1.549	1.536	.800	.8	25.0
1,3-Dichlorobenzene	1.548	1.547	.600	.1	25.0
1,4-Dichlorobenzene	1.539	1.575	.500	-2.3	25.0
1,2-Dichlorobenzene	1.400	1.473	.400	-5.2	25.0
o-Cresol	1.455	1.374	.700	5.6	25.0
Bis(2-chloroisopropyl)ether	1.748	1.671		4.4	
m/p-Cresol	1.555	1.558	.600	-.2	25.0
N-Nitroso-di-n-propylamine	1.210	1.149	.500	5.0	25.0
Hexachloroethane	.751	.733	.300	2.4	25.0
Nitrobenzene	.393	.417	.200	-6.1	25.0
Isophorone	.758	.716	.400	5.5	25.0
2-Nitrophenol	.192	.184	.100	4.2	25.0
2,4-Dimethylphenol	.352	.337	.200	4.3	25.0
bis(2-Chloroethoxy)methane	.518	.533	.300	-2.9	25.0
2,4-Dichlorophenol	.247	.271	.200	-9.7	25.0
1,2,4-Trichlorobenzene	.255	.279	.200	-9.4	25.0
Naphthalene	1.677	1.938	.700	-15.6	25.0
4-Chloroaniline	.402	.306		23.9	
Hexachlorobutadiene	.118	.142		-20.3	
4-Chloro-3-methylphenol	.349	.345	.200	1.1	25.0
2-Methylnaphthalene	.639	.678	.400	-6.1	25.0
Hexachlorocyclopentadiene	.324	.203		37.3	
2,4,6-Trichlorophenol	.363	.334	.200	8.0	25.0
2,4,5-Trichlorophenol	.392	.359	.200	8.4	25.0
2-Chloronaphthalene	1.297	1.231	.800	5.1	25.0
2-Nitroaniline	.534	.457		14.4	
Dimethylphthalate	1.475	1.388		5.9	
Acenaphthylene	3.342	3.412	1.300	-2.1	25.0
2,6-Dinitrotoluene	.319	.293	.200	8.2	25.0
3-Nitroaniline	.463	.386		16.6	
Acenaphthene	2.077	2.122	.800	-2.2	25.0
2,4-Dinitrophenol	.178	.143		19.7	
4-Nitrophenol	.253	.240		5.1	
Dibenzofuran	1.708	1.618	.800	5.3	25.0
2,4-Dinitrotoluene	.465	.419	.200	9.9	25.0

All other compounds must meet a minimum RRF of .010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Instrument ID: EXTRELM1 Calibration Date: 03/22/93 Time: 11:06

Lab File ID: M1322C1 Init. Calib. Date(s): 03/12/93 03/12/93

Init. Calib. Times: 11:44 16:04

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Diethylphthalate	1.534	1.397		8.9	
4-Chlorophenyl-phenylether	.528	.595	.400	-12.7	25.0
Fluorene	2.142	2.431	.900	-13.5	25.0
4-Nitroaniline	.472	.357		24.4	
2-Methyl-4,6-dinitrophenol	.140	.119		15.0	
N-Nitrosodiphenylamine	.640	.642		-.3	
4-Bromophenyl-phenylether	.236	.219	.100	7.2	25.0
Hexachlorobenzene	.288	.266	.100	7.6	25.0
Pentachlorophenol	.178	.154	.050	13.5	25.0
Phenanthrene	1.998	2.232	.700	-11.7	25.0
Anthracene	1.879	1.992	.700	-6.0	25.0
Carbazole	1.287	1.095		14.9	
Di-n-butylphthalate	1.795	1.635		8.9	
Fluoranthene	2.028	2.054	.600	-1.3	25.0
Pyrene	2.210	2.285	.600	-3.4	25.0
Butylbenzylphthalate	.835	.758		9.2	
3,3'-Dichlorobenzidine	.451	.333		26.2	
Benzo(a)anthracene	1.934	2.054	.800	-6.2	25.0
Chrysene	1.748	2.059	.700	-17.8	25.0
bis(2-Ethylhexyl)phthalate	1.057	1.105		-4.5	
Di-n-octylphthalate	1.838	1.909		-3.9	
Benzo(b)fluoranthene	2.213	2.373	.700	-7.2	25.0
Benzo(k)fluoranthene	2.051	2.475	.700	-20.7	25.0
Benzo(a)pyrene	1.944	2.042	.700	-5.0	25.0
Indeno(1,2,3-cd)pyrene	2.241	2.387	.500	-6.5	25.0
Dibenz(a,h)anthracene	1.655	1.868	.400	-12.9	25.0
Benzo(g,h,i)perylene	1.819	1.934	.500	-6.3	25.0
Nitrobenzene-d5	.437	.460		-5.3	
2-Fluorobiphenyl	1.371	1.403	.700	-2.3	25.0
Terphenyl-d14	.998	1.022	.500	-2.4	25.0
Phenol-d5	2.060	1.891	.800	8.2	25.0
2-Fluorophenol	1.569	1.455	.600	7.3	25.0
2,4,6-Tribromophenol	.241	.222		7.9	
2-Chlorophenol-d4	1.530	1.456	.600	4.8	25.0
1,2-Dichlorobenzene-d4	.953	.957	.400	-.4	25.0

(1) Cannot be separated from Diphenylamine
All other compounds must meet a minimum RRF of .010.

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Lab File ID (Standard): M1316C2 Date Analyzed: 03/16/93

Instrument ID: EXTRELM1 Time Analyzed: 20:35

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	24140.	11.90	110580.	15.10	51090.	19.88
UPPER LIMIT	48280.	12.40	221160.	15.60	102180.	20.18
LOWER LIMIT	12070.	11.40	55290.	14.60	25545.	19.18
EPA SAMPLE NO.						
1 RBLANK	34802.	11.92	156430.	15.12	73901.	19.72
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22						

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + .50 minutes of internal standard RT
RT LOWER LIMIT = - .50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Lab File ID (Standard): M1316C2 Date Analyzed: 03/16/93

Instrument ID: EXTRELM1 Time Analyzed: 20:35

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	80022.	23.55	86297.	30.60	75979.	36.07
	UPPER LIMIT	160044.	24.05	172594.	31.10	151958.	36.57
	LOWER LIMIT	40011.	23.05	43149.	30.10	37990.	35.57
	EPA SAMPLE NO.						
1	RBLANK	110963.	23.57	122983.	30.62	117959.	36.13
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + .50 minutes of internal standard RT
RT LOWER LIMIT = - .50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Lab File ID (Standard): M1317C1 Date Analyzed: 03/17/93

Instrument ID: EXTRELM1 Time Analyzed: 09:39

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	66220.	23.70	85777.	30.78	72434.	36.40
	UPPER LIMIT	132440.	24.20	131554.	31.28	144868.	36.90
	LOWER LIMIT	33110.	23.20	32389.	30.28	36217.	35.90
	EPA SAMPLE NO.						
1	RBLANK2	72350.	23.57	81845.	30.60	83597.	36.12
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + .50 minutes of internal standard RT
RT LOWER LIMIT = - .50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Lab File ID (Standard): M1317C1 Date Analyzed: 03/17/93

Instrument ID: EXTRELM1 Time Analyzed: 09:39

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	20632.	12.02	94220.	15.23	45294.	19.83
	UPPER LIMIT	41664.	12.52	188440.	15.73	90588.	20.33
	LOWER LIMIT	10416.	11.52	47110.	14.73	22647.	19.33
	EPA SAMPLE NO.						
1	RBLANK2	21637.	11.92	97101.	15.12	45358.	19.72
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + .50 minutes of internal standard RT
RT LOWER LIMIT = - .50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

5B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Lab File ID (Standard): M1319C1 Date Analyzed: 03/19/93

Instrument ID: EXTRELM1 Time Analyzed: 08:14

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	63841.	11.80	276216.	15.03	136936.	19.63
	UPPER LIMIT	127682.	12.30	552432.	15.53	273872.	20.13
	LOWER LIMIT	31921.	11.30	138108.	14.53	68468.	19.13
	EPA SAMPLE NO.						
1	MW-62S	38027.	11.80	161810.	15.02	75594.	19.62
2	MW-62MS	47607.	11.80	212656.	15.02	103359.	19.63
3	MW-62MSD	44484.	11.80	188732.	15.02	89032.	19.63
4	MW-66S	36360.	11.80	159808.	15.02	73466.	19.62
5	MW-67S	44627.	11.78	193520.	15.00	91815.	19.62
6	MW-74S	51088.	11.83	218620.	15.05	106449.	19.65
7	FBLANK	52211.	11.83	218716.	15.05	108683.	19.67
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + .50 minutes of internal standard RT
RT LOWER LIMIT = - .50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Lab File ID (Standard): M1319C1 Date Analyzed: 03/19/93

Instrument ID: EXTRELM1 Time Analyzed: 08:14

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	206508.	23.48	210232.	30.53	186910.	35.97
	UPPER LIMIT	413016.	23.98	420464.	31.03	373820.	36.47
	LOWER LIMIT	103254.	22.98	105116.	30.03	93455.	35.47
	EPA SAMPLE NO.						
1	MW-62S	114098.	23.48	113026.	30.50	109082.	35.90
2	MW-62MS	158166.	23.48	159980.	30.52	156487.	35.92
3	MW-62MSD	142478.	23.48	143968.	30.52	139118.	35.92
4	MW-66S	111842.	23.48	111853.	30.50	108366.	35.88
5	MW-67S	140890.	23.48	143730.	30.50	141643.	35.88
6	MW-74S	159346.	23.52	160816.	30.55	147019.	36.00
7	FBLANK	164448.	23.52	167422.	30.57	164844.	36.02
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + .50 minutes of internal standard RT
RT LOWER LIMIT = - .50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Lab File ID (Standard): M1322C1 Date Analyzed: 03/22/93

Instrument ID: EXTRELM1 Time Analyzed: 11:06

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	44523.	11.83	179622.	15.03	91081.	19.65
	UPPER LIMIT	89046.	12.33	359244.	15.53	182162.	20.15
	LOWER LIMIT	22262.	11.33	89811.	14.53	45541.	19.15
	EPA SAMPLE NO.						
1	MW-71S	49232.	11.82	202640.	15.03	99216.	19.63
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22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + .50 minutes of internal standard RT
RT LOWER LIMIT = - .50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 930653 SAS No.: SDG No.: 653

Lab File ID (Standard): M1322C1 Date Analyzed: 03/22/93

Instrument ID: EXTRELM1 Time Analyzed: 11:06

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	147696.	23.52	140602.	30.57	117297.	35.98
	UPPER LIMIT	295392.	24.02	281204.	31.07	234594.	36.48
	LOWER LIMIT	73848.	23.02	70301.	30.07	58649.	35.48
	EPA SAMPLE NO.						
1	MW-71S	150168.	23.48	147566.	30.52	139641.	35.93
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22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + .50 minutes of internal standard RT
RT LOWER LIMIT = - .50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII VOA 3/90

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COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

SOW No.: 3/90

EPA Sample No.	Lab Sample ID.
MW-151	05-0038
MW-161	05-0039
MW-167	05-0040
MW-174	05-0041
MW-62S	03-0087
MW-62SD	03-0088
MW-62SS	03-0089
MW-73S	05-0037

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments: MW-62S, -62SD & 62SS are from Antech project 93-0653

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: [signature] Name: Bill Reinheimer

Date: 5/20/93 Title: Group Leader

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-151

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Matrix (soil/water): WATER Lab Sample ID: 05-0038

Level (low/med): MED Date Received: 03/04/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3980		N*	P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	120			P
7440-39-3	Barium	75.5	B		P
7440-41-7	Beryllium	1.4	B		P
7440-43-9	Cadmium	6.3		*	P
7440-70-2	Calcium	20100			P
7440-47-3	Chromium	15.1			P
7440-48-4	Cobalt	8.5	U		P
7440-50-8	Copper	26.3			P
7439-89-6	Iron	6440		N*	P
7439-92-1	Lead	38.8			P
7439-95-4	Magnesium	2220	B		P
7439-96-5	Manganese	144			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	11.1	U		P
7440-09-7	Potassium	6550			P
7782-49-2	Selenium	4.8	B		P
7440-22-4	Silver	6.8	U	N	P
7440-23-5	Sodium	130000			P
7440-28-0	Thallium	4.0	U		P
7440-62-2	Vanadium	15.0	B		P
7440-66-6	Zinc	31.8			P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-161

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Matrix (soil/water): WATER Lab Sample ID: 05-0039

Level (low/med): MED Date Received: 03/04/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1500		N*	P
7440-36-0	Antimony	3.0	U		F
7440-38-2	Arsenic	4.6	B		F
7440-39-3	Barium	80.6	B		P
7440-41-7	Beryllium	1.8	B		P
7440-43-9	Cadmium	4.0	U	*	P
7440-70-2	Calcium	43000			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	8.5	U		P
7440-50-8	Copper	3.0	U		P
7439-89-6	Iron	1500		N*	P
7439-92-1	Lead	122			F
7439-95-4	Magnesium	7900			P
7439-96-5	Manganese	93.7			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	11.1	U		P
7440-09-7	Potassium	5680			P
7782-49-2	Selenium	1.0	B		F
7440-22-4	Silver	6.8	U	N	P
7440-23-5	Sodium	154000			P
7440-28-0	Thallium	4.0	U		F
7440-62-2	Vanadium	5.2	U		P
7440-66-6	Zinc	13.5	B		P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-167

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Matrix (soil/water): WATER Lab Sample ID: 05-0040

Level (low/med): MED Date Received: 03/04/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1170		N*	P
7440-36-0	Antimony	3.0	U		F
7440-38-2	Arsenic	3.9	B		F
7440-39-3	Barium	350			P
7440-41-7	Beryllium	2.9	B		P
7440-43-9	Cadmium	4.0	U	*	P
7440-70-2	Calcium	83600			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	8.5	U		P
7440-50-8	Copper	13.8	B		P
7439-89-6	Iron	1190		N*	P
7439-92-1	Lead	8.7			F
7439-95-4	Magnesium	21200			P
7439-96-5	Manganese	448			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	11.1	U		P
7440-09-7	Potassium	9860			P
7782-49-2	Selenium	0.80	U		F
7440-22-4	Silver	6.8	U	N	P
7440-23-5	Sodium	83200			P
7440-28-0	Thallium	4.0	U		F
7440-62-2	Vanadium	5.2	U		P
7440-66-6	Zinc	17.0	B		P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-174

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Matrix (soil/water): WATER Lab Sample ID: 05-0041

Level (low/med): MED Date Received: 03/04/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5140		N*	P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	11.3			P
7440-39-3	Barium	85.4	B		P
7440-41-7	Beryllium	1.6	B		P
7440-43-9	Cadmium	4.0	U	*	P
7440-70-2	Calcium	24000			P
7440-47-3	Chromium	11.0			P
7440-48-4	Cobalt	8.5	U		P
7440-50-8	Copper	17.2	B		P
7439-89-6	Iron	7660		N*	P
7439-92-1	Lead	9.2			P
7439-95-4	Magnesium	4450	B		P
7439-96-5	Manganese	166			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	11.1	U		P
7440-09-7	Potassium	3150	B		P
7782-49-2	Selenium	3.0	B		P
7440-22-4	Silver	6.8	U	N	P
7440-23-5	Sodium	171000			P
7440-28-0	Thallium	4.0	U		P
7440-62-2	Vanadium	23.4	B		P
7440-66-6	Zinc	52.7			P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-62S

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Matrix (soil/water): WATER Lab Sample ID: 03-0087

Level (low/med): MED Date Received: 03/04/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1980		N*	P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	538			P
7440-39-3	Barium	57.3	B		P
7440-41-7	Beryllium	4.7	B		P
7440-43-9	Cadmium	5.4		*	P
7440-70-2	Calcium	163000			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	8.5	U		P
7440-50-8	Copper	18.4	B		P
7439-89-6	Iron	2440		N*	P
7439-92-1	Lead	3.2			P
7439-95-4	Magnesium	48000			P
7439-96-5	Manganese	718			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	11.1	U		P
7440-09-7	Potassium	182000			P
7782-49-2	Selenium	0.80	B		P
7440-22-4	Silver	6.8	U	N	P
7440-23-5	Sodium	237000			P
7440-28-0	Thallium	4.0	U		P
7440-62-2	Vanadium	5.4	B		P
7440-66-6	Zinc	18.9	B		P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-73S

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Matrix (soil/water): WATER Lab Sample ID: 05-0037

Level (low/med): MED Date Received: 03/04/93

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	870000		N*	P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	16.0			P
7440-39-3	Barium	173	B		P
7440-41-7	Beryllium	567			P
7440-43-9	Cadmium	79.0		*	P
7440-70-2	Calcium	5050			P
7440-47-3	Chromium	126			P
7440-48-4	Cobalt	117			P
7440-50-8	Copper	66.2			P
7439-89-6	Iron	418000		N*	P
7439-92-1	Lead	110			P
7439-95-4	Magnesium	1360	B		P
7439-96-5	Manganese	155000			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	935			P
7440-09-7	Potassium	21600			P
7782-49-2	Selenium	0.80	U		P
7440-22-4	Silver	16.1		N	P
7440-23-5	Sodium	39800			P
7440-28-0	Thallium	4.0	U		P
7440-62-2	Vanadium	214			P
7440-66-6	Zinc	351			P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Initial Calibration Source: SPEX ICV

Continuing Calibration Source: SPEX QC7&19

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum	2000.0	1853.46	92.7	10000.0	9782.80	97.8			P
Antimony	20.0	20.86	104.3	20.0	18.56	92.8			F
Arsenic	20.0	18.28	91.4	20.0	18.51	92.6			F
Barium	2000.0	2015.23	100.8	10000.0	10158.22	101.6			P
Beryllium	500.0	486.08	97.2	1000.0	955.22	95.5			P
Cadmium	500.0	474.65	94.9	1000.0	1026.15	102.6			P
Calcium	50000.0	49967.19	99.9	60000.0	60830.90	101.4			P
Chromium	1000.0	984.25	98.4	1000.0	1066.64	106.7			P
Cobalt	5000.0	4684.55	93.7	1000.0	1017.41	101.7			P
Copper	2500.0	2405.17	96.2	1000.0	1016.79	101.7			P
Iron	10000.0	9403.40	94.0	1000.0	1131.10	113.1			P
Lead	20.0	20.12	100.6	20.0	20.48	102.4			F
Magnesium	50000.0	50680.43	101.4	60000.0	60924.25	101.5			P
Manganese	1500.0	1467.13	97.8	1000.0	1043.44	104.3			P
Mercury	5.0	5.00	100.0	5.0	5.02	100.4			CV
Nickel	4000.0	3876.83	96.9	1000.0	1075.08	107.5			P
Potassium	50000.0	51247.49	102.5	60000.0	61128.70	101.9			P
Selenium	10.0	10.70	107.0	10.0	10.59	105.9			F
Silver	1000.0	972.53	97.3	1000.0	1051.90	105.2			P
Sodium	50000.0	52320.56	104.6	60000.0	61505.71	102.5			P
Thallium	20.0	18.85	94.2	20.0	20.75	103.8			F
Vanadium	5000.0	4913.68	98.3	1000.0	1006.11	100.6			P
Zinc	2000.0	1955.01	97.8	1000.0	1024.83	102.5			P
Cyanide	0.0			0.0					NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

AA CRDL Standard Source: SPEX CRDL-1

ICP CRDL Standard Source: SPEX CRDL-1

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Aluminum								
Antimony								
Arsenic	20.0	19.38	96.9					
Barium								
Beryllium				10.0	9.72	97.2	10.37	103.7
Cadmium				10.0	14.41	144.1	12.41	124.1
Calcium								
Chromium				20.0	7.93	39.6	20.62	103.1
Cobalt				100.0	97.80	97.8	100.80	100.8
Copper				50.0	48.81	97.6	49.61	99.2
Iron								
Lead	6.0	6.28	104.7					
Magnesium								
Manganese				30.0	31.62	105.4	33.33	111.1
Mercury								
Nickel				80.0	82.91	103.6	79.55	99.4
Potassium								
Selenium	10.0	11.60	116.0					
Silver				20.0	7.06	35.3	10.47	52.4
Sodium								
Thallium	20.0	16.85	84.2					
Vanadium				100.0	101.53	101.5	102.16	102.2
Zinc				40.0	38.77	96.9	42.27	105.7

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3
BLANKS

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	-85.9	B	-95.6	B					123.829	B	P
Antimony	3.0	U	3.0	U					3.000	U	F
Arsenic	1.0	U	1.0	U					1.000	U	F
Barium	9.8	U	9.8	U					9.800	U	P
Beryllium	0.4	U	0.4	U					0.400	U	P
Cadmium	4.0	U	4.0	U					4.000	U	P
Calcium	187.0	U	187.0	U					187.000	U	P
Chromium	10.0	U	10.0	U					10.000	U	P
Cobalt	-8.5	B	8.5	U					8.500	U	P
Copper	-4.5	B	-3.3	B					3.000	U	P
Iron	12.2	U	12.2	U					85.041	B	P
Lead	1.0	U	1.0	U					1.000	U	F
Magnesium	227.0	U	227.0	U					227.000	U	P
Manganese	2.0	U	2.0	U					2.000	U	P
Mercury	0.2	U	0.2	U					0.200	U	CV
Nickel	-14.6	B	11.1	U					-11.552	B	P
Potassium	281.0	U	281.0	U					281.000	U	P
Selenium	0.8	U	0.8	U					0.800	U	F
Silver	6.8	U	6.8	U					6.800	U	P
Sodium	451.0	U	-943.0	B					451.000	U	P
Thallium	4.0	U	4.0	U					4.000	U	F
Vanadium	5.2	U	5.2	U					5.200	U	P
Zinc	2.1	U	2.1	U					2.100	U	P
Cyanide											NR

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4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

ICP ID Number: ICP-1 ICS Source: SPEX

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	500000	477068	481893.0	96.4	473975	473661.0	94.7
Antimony								
Arsenic								
Barium		500	1	501.2	100.2	0	495.0	99.0
Beryllium		500	14	467.3	93.5	15	474.1	94.8
Cadmium		1000	4	980.2	98.0	4	1004.4	100.4
Calcium	500000	500000	473391	479295.1	95.7	484226	485983.0	97.2
Chromium		500	14	508.4	101.7	24	528.6	105.7
Cobalt		500	33	499.4	99.9	35	508.8	101.8
Copper		500	31	517.3	103.5		509.3	101.9
Iron	200000	200000	184	185928.8	93.0	185979	186709.0	93.4
Lead								
Magnesium	500000	500000	496807	501304.9	100.3	495260	494449.0	98.9
Manganese		500	48	531.4	106.3	50	535.8	107.2
Mercury								
Nickel		1000	0	957.5	95.8	-4	985.4	98.5
Potassium			-132	-118.9		-231	-180.0	
Selenium								
Silver		1000	2	1015.0	101.5	1	1003.2	100.3
Sodium			-102	173.9		-633	-458.0	
Thallium								
Vanadium		500	42	534.6	106.9	42	531.8	106.4
Zinc		1000	85	1033.9	103.4	9	1053.2	105.3

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5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MW-62SS

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Matrix (soil/water): WATER Level (low/med): MED
% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	4666.8440		1980.0000		2000.00	134.3	N	P
Antimony	75-125	6.3500	B	3.0000	U	6.00	105.8		P
Arsenic		567.1000		537.7500		20.00	146.7		P
Barium	75-125	1875.0240		57.3000	B	2000.00	90.9		P
Beryllium	75-125	55.2990		4.6700	B	50.00	101.3		P
Cadmium	75-125	54.4000		5.3900		50.00	98.0		P
Calcium									NR
Chromium	75-125	209.0210		10.0000	U	200.00	104.5		P
Cobalt	75-125	490.4950		8.5000	U	500.00	98.1		P
Copper	75-125	255.6460		18.4000	B	250.00	94.9		P
Iron	75-125	3159.8680		2440.0000		1000.00	72.0	N	P
Lead	75-125	13.7800		3.1900		10.00	105.9		P
Magnesium									NR
Manganese	75-125	1234.7850		718.0000		500.00	103.4		P
Mercury									NR
Nickel	75-125	501.7130		11.1000	U	500.00	100.3		P
Potassium									NR
Selenium	75-125	11.4000		0.8000	B	10.00	106.0		P
Silver	75-125	7.5740	B	6.8000	U	50.00	15.1	N	P
Sodium									NR
Thallium	75-125	21.0250		4.0000	U	20.00	105.1		P
Vanadium	75-125	494.1200		5.4100	B	500.00	97.7		P
Zinc	75-125	506.3690		18.9000	B	500.00	97.5		P
Cyanide									NR

Comments: N: matrix spike outside of criteria; Due to matrix effect

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5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
MW-73SA

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		6.58	B	3.00	U	10.0	65.8	W	F
Arsenic		35.47		16.00		20.0	97.4		F
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		33.06		21.98		10.0	110.8		F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium		8.70		0.80	U	10.0	87.0		F
Silver									NR
Sodium									NR
Thallium		17.95		4.00	U	20.0	89.8		F
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
MW-151A

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		11.38	B	3.00	U	10.0	113.8		F
Arsenic		34.82		11.96		20.0	114.3		F
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		17.92		7.76		10.0	101.6		F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium		12.65		4.78	B	10.0	78.7	W	F
Silver									NR
Sodium									NR
Thallium		20.35		4.00	U	20.0	101.8		F
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
MW-161A

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		10.44	B	3.00	U	10.0	104.4		F
Arsenic		23.76		4.60	B	20.0	95.8		F
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		35.30		24.40		10.0	109.0		F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium		11.70		1.02	B	10.0	106.8		F
Silver									NR
Sodium									NR
Thallium		18.40		4.00	U	20.0	92.0		F
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
MW-167A

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		9.98	B	3.00	U	10.0	99.8		F
Arsenic		24.55		3.88	B	20.0	103.4		F
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		18.15		8.71		10.0	94.4		F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium		10.09		0.80	U	10.0	100.9		F
Silver									NR
Sodium									NR
Thallium		17.25		4.00	U	20.0	86.2		F
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
MW-174A

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		10.82	B	3.00	U	10.0	108.2		F
Arsenic		31.55		11.30		20.0	101.2		F
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		19.80		9.20		10.0	106.0		F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium		13.38		3.02	B	10.0	103.6		F
Silver									NR
Sodium									NR
Thallium		22.95		4.00	U	20.0	114.8		F
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

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6
DUPLICATES

EPA SAMPLE NO.

MW-62SD

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Matrix (soil/water): WATER Level (low/med): MED

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		1980.0000		3100.0000		44.1	*	P
Antimony		3.0000	U	3.0000	U			F
Arsenic		537.7500		506.9000		5.9		F
Barium		57.3000	B	73.6000	B	24.9		P
Beryllium		4.6700	B	4.6100	B	1.3		P
Cadmium	5.0	5.3900		4.0000	U	200.0	*	P
Calcium		163000.0000		155000.0000		5.0		P
Chromium		10.0000	U	10.0000	U			P
Cobalt		8.5000	U	8.5000	U			P
Copper		18.4000	B	13.8000	B	28.6		P
Iron		2440.0000		3740.0000		42.1	*	P
Lead	3.0	3.1900		3.5600		11.0		F
Magnesium		48000.0000		47500.0000		1.0		P
Manganese		718.0000		738.0000		2.7		P
Mercury		0.2000	U	0.2000	U			CV
Nickel		11.1000	U	11.1000	U			P
Potassium		182000.0000		172000.0000		5.6		P
Selenium		0.8000	B	0.8000	U	200.0		F
Silver		6.8000	U	6.8000	U			P
Sodium		237000.0000		226000.0000		4.8		P
Thallium		4.0000	U	4.0000	U			F
Vanadium		5.4100	B	5.2000	U	200.0		P
Zinc		18.9000	B	16.8000	B	11.8		P
Cyanide								NR

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7

LABORATORY CONTROL SAMPLE*

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Solid LCS Source: SPEX

Aqueous LCS Source: SPEX

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits	%R
Aluminum	2000.01	1881.90	94.1					
Antimony								
Arsenic	20.01	23.04	115.2					
Barium	2000.01	1996.75	99.8					
Beryllium	50.01	50.12	100.2					
Cadmium	50.01	53.99	108.0					
Calcium								
Chromium	200.01	212.03	106.0					
Cobalt	500.01	496.90	99.4					
Copper	250.01	254.90	102.0					
Iron	1000.01	1035.36	103.5					
Lead	10.01	9.24	92.4					
Magnesium								
Manganese	500.01	514.30	102.9					
Mercury	1.01	1.04	104.0					
Nickel	500.01	527.74	105.5					
Potassium								
Selenium	10.01	11.38	113.8					
Silver	50.01	52.00	104.0					
Sodium								
Thallium	20.01	21.55	107.8					
Vanadium	500.01	497.00	99.4					
Zinc	500.01	517.40	103.5					
Cyanide								

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9

ICP SERIAL DILUTIONS

EPA SAMPLE NO.

MW-62SL

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	1980.00		1605.72		18.9		P
Antimony							P
Arsenic							P
Barium	57.30	B	49.00	U	100.0		P
Beryllium	4.67	B	3.20	B	31.5		P
Cadmium	5.39		25.24		368.3		P
Calcium	163000.00		171240.00		5.1		P
Chromium	10.00	U	50.00	U			P
Cobalt	8.50	U	42.50	U			P
Copper	18.40	B	15.00	U	100.0		P
Iron	2440.00		2546.10		4.3		P
Lead							P
Magnesium	48000.00		49595.00		3.3		P
Manganese	718.00		741.60		3.3		P
Mercury							CV
Nickel	11.10	U	55.50	U			P
Potassium	182000.00		182900.00		0.5		P
Selenium							P
Silver	6.80	U	34.00	U			P
Sodium	237000.00		241085.00		1.7		P
Thallium							P
Vanadium	5.41	B	26.00	U	100.0		P
Zinc	18.90	B	22.39	B	18.5		P

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

ICP ID Number: ICP-1 Date: 07/02/92

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200.0	70.6	P
Antimony	217.59		60.0	29.7	P
Arsenic	189.04		10.0	25.4	P
Barium	455.40		200.0	9.8	P
Beryllium	313.04		5.0	0.4	P
Cadmium	226.50		5.0	4.0	P
Calcium	317.90		5000.0	187.0	P
Chromium	267.70		10.0	10.0	P
Cobalt	228.62		50.0	8.5	P
Copper	324.75		25.0	3.0	P
Iron	259.94		100.0	12.2	P
Lead	220.35		3.0	22.7	P
Magnesium	279.08		5000.0	227.0	P
Manganese	257.61		15.0	2.0	P
Mercury			0.2		
Nickel	231.60		40.0	11.1	P
Potassium	766.49		5000.0	281.0	P
Selenium	203.98		5.0	54.0	P
Silver	328.07		10.0	6.8	P
Sodium	589.59		5000.0	451.0	P
Thallium	190.86		10.0	46.6	P
Vanadium	292.40		50.0	5.2	P
Zinc	213.86		20.0	2.1	P

Comments:
ARL 3560 SIMULTANEOUS ICP-AES

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

ICP ID Number: Date: 07/02/92

Flame AA ID Number: HGCV-1

Furnace AA ID Number: 5100A

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200.0		
Antimony		BZ	60.0	3.0	F
Arsenic	193.70	BZ	10.0	1.0	F
Barium			200.0		
Beryllium			5.0		
Cadmium	228.80	BZ	5.0	0.4	F
Calcium			5000.0		
Chromium	357.90	BZ	10.0	0.4	F
Cobalt			50.0		
Copper	324.80	BZ	25.0	1.6	F
Iron			100.0		
Lead	283.30	BZ	3.0	1.0	F
Magnesium			5000.0		
Manganese			15.0		
Mercury	253.70		0.2	0.2	CV
Nickel			40.0		
Potassium			5000.0		
Selenium	196.00	BZ	5.0	0.8	F
Silver	328.10	BZ	10.0	1.4	F
Sodium			5000.0		
Thallium	276.80	BZ	10.0	4.0	F
Vanadium			50.0		
Zinc			20.0		

Comments:
PERKIN ELMER 5100 WITH AS60 AUTOSAMPLER WITH ZEEMAN BACKGROUND CORRECT ION.

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10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

ICP ID Number: Date: 07/02/92

Flame AA ID Number:

Furnace AA ID Number: 5100B

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200.0		
Antimony	217.60	BZ	60.0	3.0	F
Arsenic	193.70	BZ	10.0	1.0	F
Barium			200.0		
Beryllium			5.0		
Cadmium	228.80	BZ	5.0	0.3	F
Calcium			5000.0		
Chromium	357.90	BZ	10.0	1.0	F
Cobalt			50.0		
Copper			25.0		
Iron			100.0		
Lead	283.30	BZ	3.0	1.0	F
Magnesium			5000.0		
Manganese			15.0		
Mercury			0.2		
Nickel			40.0		
Potassium			5000.0		
Selenium	196.00	BZ	5.0	0.8	F
Silver	328.10	BZ	10.0	0.3	F
Sodium			5000.0		
Thallium	276.80	BZ	10.0	4.0	F
Vanadium			50.0		
Zinc			20.0		

Comments:
PERKIN ELMER 5100 WITH AS60 AUTOSAMPLER WITH ZEEMAN BACKGROUND CORRECT ION.

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ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

ICP ID Number: ICP-1 Date: 07/02/92

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	
Aluminum	308.22					
Antimony	206.83	0.0001392				
Arsenic	189.04					
Barium	455.40					
Beryllium	313.04					
Cadmium	226.50					
Calcium	317.93					
Chromium	267.72					
Cobalt	228.62					
Copper	324.75					
Iron	259.94					
Lead	220.35	-0.0006008				
Magnesium	279.08		0.0002958			
Manganese	257.61	0.0000021				
Mercury	184.95					
Nickel	231.60					
Potassium	766.49					
Selenium	203.98					
Silver	328.07					
Sodium	589.59					
Thallium	190.86					
Vanadium	292.40					
Zinc	213.86					

Comments:
ARL 3560 SIMULTANEOUS ICP-AES

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ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

ICP ID Number: ICP-1 Date: 07/02/92

Analyte	Wave-length (nm)	Interelement Correction Factors for: CU	CR	NI		
Aluminum	308.22					
Antimony	217.90					
Arsenic	189.04					
Barium	455.40					
Beryllium	313.04					
Cadmium	226.50			0.0004134		
Calcium	317.93					
Chromium	267.72					
Cobalt	228.62			0.0004823		
Copper	324.75					
Iron	259.94					
Lead	220.35					
Magnesium	279.08					
Manganese	257.61					
Mercury	184.95					
Nickel	231.60					
Potassium	766.49					
Selenium	203.98		0.0859378			
Silver	328.07					
Sodium	589.59					
Thallium	190.86					
Vanadium	292.40					
Zinc	213.86	0.0026266				

Comments:
ARL 3560 SIMULTANEOUS ICP-AES

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ICP LINEAR RANGES (QUARTERLY)

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

ICP ID Number: ICP-1 Date: 07/02/92

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Aluminum	5.00	1000000.0	P
Antimony	5.00	100000.0	P
Arsenic	5.00	100000.0	P
Barium	5.00	100000.0	P
Beryllium	5.00	10000.0	P
Cadmium	5.00	100000.0	P
Calcium	5.00	1000000.0	P
Chromium	5.00	500000.0	P
Cobalt	5.00	100000.0	P
Copper	5.00	100000.0	P
Iron	5.00	100000.0	P
Lead	5.00	100000.0	P
Magnesium	5.00	1000000.0	P
Manganese	5.00	20000.0	P
Mercury	5.00	100000.0	P
Nickel	5.00	100000.0	P
Potassium	5.00	500000.0	P
Selenium	5.00	100000.0	P
Silver	5.00	100000.0	P
Sodium	5.00	500000.0	P
Thallium	5.00	100000.0	P
Vanadium	5.00	100000.0	P
Zinc	5.00	20000.0	P

Comments:
ARL 3560 SIMULTANEOUS ICP-AES

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PREPARATION LOG

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Method: CV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (ml)
CCB1	03/09/93		100
CCV1	03/09/93		100
ICB	03/09/93		100
ICV	03/09/93		100
LCSW	03/09/93		100
MW-151	03/09/93		100
MW-161	03/09/93		100
MW-167	03/09/93		100
MW-174	03/09/93		100
MW-62S	03/09/93		100
MW-62SD	03/09/93		100
MW-62SS	03/09/93		100
MW-73S	03/09/93		100
PBW	03/09/93		100

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PREPARATION LOG

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Method: F

EPA Sample No.	Preparation Date	Weight (gram)	Volume (ml)
CCB1	03/09/93		100
CCV1	03/09/93		100
CRA	03/09/93		100
ICB	03/09/93		100
ICV	03/09/93		100
LCSW	03/09/93		100
MW-151	03/09/93		100
MW-151P	03/09/93		100
MW-161	03/09/93		100
MW-161P	03/09/93		100
MW-167	03/09/93		100
MW-167P	03/09/93		100
MW-174	03/09/93		100
MW-174P	03/09/93		100
MW-62S	03/05/93		100
MW-62SD	03/05/93		100
MW-62SS	03/05/93		100
MW-73S	03/09/93		100
MW-73SP	03/09/93		100
PBW	03/09/93		100

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PREPARATION LOG

Lab Name: Antech Ltd Contract: FANSTEEL

Lab Code: ANT Case No.: SAS No.: SDG No.: 1290fn

Method: P

EPA Sample No.	Preparation Date	Weight (gram)	Volume (ml)
CCB1	03/09/93		100
CCV1	03/05/93		100
CCV1	03/09/93		100
CRIF	03/09/93		100
CRII	03/09/93		100
ICB	03/09/93		100
ICSABF	03/09/93		100
ICSABI	03/09/93		100
ICSAF	03/09/93		100
ICSAI	03/09/93		100
ICV	03/09/93		100
LCSW	03/09/93		100
MW-151	03/09/93		100
MW-161	03/09/93		100
MW-167	03/09/93		100
MW-174	03/09/93		100
MW-62S	03/05/93		100
MW-62SD	03/05/93		100
MW-62SL	03/05/93		100
MW-62SS	03/05/93		100
MW-73S	03/09/93		100
PBW	03/09/93		100

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ANALYSIS RUN LOG

Lab Name: Antech Ltd
Lab Code: ANT Case No.:
Instrument ID Number: ICP-1
Start Date: 03/21/93

Contract: FANSTEEL
SAS No.: SDG No.: 1290fn
Method: P
End Date: 03/21/93

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ICV	1.00	1141		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
ICB	1.00	1151		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
CRII	1.00	1154		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
ICSAI	1.00	1156		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
ICSABI	1.00	1159		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
PBW	1.00	1201		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
LCSW	1.00	1203		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
MW-62S	1.00	1206		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
MW-62SL	5.00	1209		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
MW-62SD	1.00	1210		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
MW-62SS	1.00	1213		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
MW-161	1.00	1300		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
MW-167	1.00	1303		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
MW-174	1.00	1305		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
MW-73S	1.00	1335		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
MW-151	1.00	1337		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
CCV1	1.00	1402		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
CCB1	1.00	1407		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
CRIF	1.00	1409		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
ICSAF	1.00	1412		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	
ICSABF	1.00	1414		x			x	x	x	x	x	x	x	x		x	x		x	x		x	x		x	x	

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ANALYSIS RUN LOG

Lab Name: Antech Ltd
Lab Code: ANT Case No.:
Instrument ID Number: 5100B
Start Date: 03/23/00

Contract: FANSTEEL
SAS No.: SDG No.: 1290fn
Method: F
End Date: 05/06/93

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
MW-62SD	1.00				x																						
ICV	1.00	1531			x																						
ICB	1.00	1537			x																						
PBW	1.00	1542			x																						
MW-73S	1.00	1554			x																						
MW-73SA	1.00	1559			x																						
MW-151	1.00	1605			x																						
MW-151A	1.00	1610			x																						
MW-161	1.00	1615			x																						
MW-161A	1.00	1620			x																						
MW-167	1.00	1625			x																						
MW-167A	1.00	1631			x																						
MW-174	1.00	1637			x																						
MW-174A	1.00	1643			x																						
CCV1	1.00	1649			x																						
CCB1	1.00	1654			x																						

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ANALYSIS RUN LOG

Lab Name: Antech Ltd
Lab Code: ANT Case No.:
Instrument ID Number: 5100B
Start Date: 03/23/00

Contract: FANSTEEL
SAS No.: SDG No.: 1290fn
Method: F
End Date: 05/07/93

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
MW-62SS	1.00																							x			
ICV	1.00	1634																						x			
CRA	1.00	1639																						x			
ICB	1.00	1644																						x			
PBW	1.00	1649																						x			
LCSW	1.00	1655																						x			
MW-73S	1.00	1700																						x			
MW-73SA	1.00	1705																						x			
MW-151A	1.00	1710																						x			
MW-161	1.00	1720																						x			
MW-161A	1.00	1730																						x			
MW-167	1.00	1824																						x			
MW-167A	1.00	1829																						x			
MW-174	1.00	1834																						x			
MW-174A	1.00	1839																						x			
CCB1	1.00	1912																						x			

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ANALYSIS RUN LOG

Lab Name: Antech Ltd
Lab Code: ANT Case No.:
Instrument ID Number: 5100B
Start Date: 03/20/00

Contract: FANSTEEL
SAS No.: SDG No.: 1290fn
Method: F
End Date: 03/20/93

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
MW-62SS	1.00																				x						
CRA	1.00	1249																			x						
ICV	1.00	1255																			x						
ICB	1.00	1256																			x						
PBW	1.00	1301																			x						
LCSW	1.00	1306																			x						
MW-73S	1.00	1311																			x						
MW-73SA	1.00	1316																			x						
MW-151	1.00	1322																			x						
MW-151A	1.00	1327																			x						
MW-161	1.00	1332																			x						
MW-161A	1.00	1338																			x						
MW-167	1.00	1343																			x						
MW-167A	1.00	1348																			x						
MW-174	1.00	1355																			x						
MW-174A	1.00	1400																			x						
CCV1	1.00	1405																			x						
CCB1	1.00	1410																			x						

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ANALYSIS RUN LOG

Lab Name: Antech Ltd
Lab Code: ANT Case No.:
Instrument ID Number: 5100A
Start Date: 03/24/93

Contract: FANSTEEL
SAS No.: SDG No.: 1290fn
Method: F
End Date: 03/24/93

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
MW-62SS	1.00														x												
ICV	1.00	2138													x												
CRA	1.00	2146													x												
ICB	1.00	2151													x												
PBW	1.00	2156													x												
LCSW	1.00	2218													x												
MW-73S	5.00	2223													x												
MW-73SA	5.00	2228													x												
MW-151	5.00	2233													x												
MW-151A	5.00	2239													x												
MW-161	5.00	2244													x												
MW-161A	5.00	2249													x												
MW-167	1.00	2255													x												
MW-167A	1.00	2300													x												
MW-174	1.00	2306													x												
MW-174A	1.00	2311													x												
CCV1	1.00	2316													x												
CCB1	1.00	2321													x												

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ANALYSIS RUN LOG

Lab Name: Antech Ltd
Lab Code: ANT Case No.:
Instrument ID Number: 5100A
Start Date: 03/27/93

Contract: FANSTEEL
SAS No.: SDG No.: 1290fn
Method: F
End Date: 03/27/93

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
MW-62SS	10.00					x																					
ICV	1.00	1042				x																					
CRA	1.00	1047				x																					
ICB	1.00	1052				x																					
PBW	1.00	1058				x																					
LCSW	1.00	1108				x																					
MW-73S	1.00	1113				x																					
MW-73SA	1.00	1118				x																					
MW-151	10.00	1133				x																					
MW-151A	10.00	1138				x																					
MW-161	1.00	1143				x																					
MW-161A	1.00	1149				x																					
MW-167	1.00	1155				x																					
MW-167A	1.00	1200				x																					
MW-174	1.00	1206				x																					
MW-174A	1.00	1211				x																					
CCV1	1.00	1216				x																					
CCB1	1.00	1222				x																					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK8

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290 217

Matrix: (soil/water) WATER Lab Sample ID: VBLK8

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY046S

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. Date Analyzed: 05/05/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	2.	J
67-64-1	Acetone	10.	U
75-15-0	Carbon disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK8

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

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Matrix: (soil/water) WATER Lab Sample ID: VBLK8

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY046S

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. Date Analyzed: 05/05/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK9

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

219

Matrix: (soil/water) WATER Lab Sample ID: VBLK9

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY065S

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. Date Analyzed: 05/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK9

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

Matrix: (soil/water) WATER Lab Sample ID: VBLK9 220

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY065S

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. Date Analyzed: 05/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

221

Matrix: (soil/water) WATER Lab Sample ID: VBLK1

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY088S

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. Date Analyzed: 05/07/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	2.	J
67-64-1	Acetone	10.	U
75-15-0	Carbon disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK1

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

222

Matrix: (soil/water) WATER Lab Sample ID: VBLK1

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY088S

Level: (low/med) LOW Date Received: 00/00/00

% Moisture: not dec. Date Analyzed: 05/07/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW73S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

223

Matrix: (soil/water) WATER Lab Sample ID: 050028

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY047S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/05/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	260.	E
75-15-0	Carbon disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-pentanone	11000.	E
591-78-6	2-Hexanone	11.	
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW73S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290 224

Matrix: (soil/water) WATER Lab Sample ID: 050028

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY047S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/05/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW73S RE

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

225

Matrix: (soil/water) WATER Lab Sample ID: 050028

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY089S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/07/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1000.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10000.	U
74-83-9	Bromomethane	10000.	U
75-01-4	Vinyl chloride	10000.	U
75-00-3	Chloroethane	10000.	U
75-09-2	Methylene chloride	10000.	U
67-64-1	Acetone	10000.	U
75-15-0	Carbon disulfide	10000.	U
75-35-4	1,1-Dichloroethene	10000.	U
75-34-3	1,1-Dichloroethane	10000.	U
156-60-5	trans-1,2-Dichloroethene	10000.	U
156-59-2	cis-1,2-Dichloroethene	10000.	U
67-66-3	Chloroform	10000.	U
107-06-2	1,2-Dichloroethane	10000.	U
78-93-3	2-Butanone	10000.	U
71-55-6	1,1,1-Trichloroethane	10000.	U
56-23-5	Carbon tetrachloride	10000.	U
75-27-4	Bromodichloromethane	10000.	U
78-87-5	1,2-Dichloropropane	10000.	U
10061-01-5	cis-1,3-Dichloropropene	10000.	U
79-01-6	Trichloroethene	10000.	U
124-48-1	Dibromochloromethane	10000.	U
79-00-5	1,1,2-Trichloroethane	10000.	U
71-43-2	Benzene	10000.	U
10061-02-6	trans-1,3-Dichloropropene	10000.	U
75-25-2	Bromoform	10000.	U
108-10-1	4-Methyl-2-pentanone	41000.	
591-78-6	2-Hexanone	10000.	U
127-18-4	Tetrachloroethene	10000.	U
79-34-5	1,1,2,2-Tetrachloroethane	10000.	U
108-88-3	Toluene	10000.	U
108-90-7	Chlorobenzene	10000.	U
100-41-4	Ethyl benzene	10000.	U
100-42-5	Styrene	10000.	U
1330-20-7	m,p-Xylene	10000.	U
95-47-6	o-Xylene	10000.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW73S RE

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

226

Matrix: (soil/water) WATER Lab Sample ID: 050028

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY089S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/07/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1000.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW151D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

227

Matrix: (soil/water) WATER Lab Sample ID: 050029

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY066S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW151D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

228

Matrix: (soil/water) WATER Lab Sample ID: 050029

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY066S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW161D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

229

Matrix: (soil/water) WATER Lab Sample ID: 050030

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY067S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW161D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

230

Matrix: (soil/water) WATER Lab Sample ID: 050030

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY067S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW167D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

231

Matrix: (soil/water) WATER Lab Sample ID: 050031

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY06BS

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW167D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

Matrix: (soil/water) WATER Lab Sample ID: 050031 232

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY068S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW167MS

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

233

Matrix: (soil/water) WATER Lab Sample ID: 050032

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY069S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon disulfide	10.	U
75-35-4	1,1-Dichloroethene	45.	
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	44.	
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	46.	
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	50.	
108-90-7	Chlorobenzene	55.	
100-41-4	Ethyl benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	1.	J
95-47-6	o-Xylene	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW167MS

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

234

Matrix: (soil/water) WATER Lab Sample ID: 050032

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY069S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW167MSD

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

235

Matrix: (soil/water) WATER Lab Sample ID: 050033

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY070S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon disulfide	10.	U
75-35-4	1,1-Dichloroethene	43.	
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	42.	
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	45.	
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	47.	
108-90-7	Chlorobenzene	51.	
100-41-4	Ethyl benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	1.	J
95-47-6	o-Xylene	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW167MSD

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

236

Matrix: (soil/water) WATER Lab Sample ID: 050033

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY070S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW174D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

Matrix: (soil/water) WATER Lab Sample ID: 050034 237

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY071S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	.6	J
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW174D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

Matrix: (soil/water) WATER Lab Sample ID: 050034 238

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY071S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRPBLK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

Matrix: (soil/water) WATER Lab Sample ID: 050036 239

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY072S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	10.	U
67-64-1	Acetone	10.	U
75-15-0	Carbon disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	10.	U
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

TRPBLK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

Matrix: (soil/water) WATER Lab Sample ID: 050036 240

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY072S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/06/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FLDBLK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

241

Matrix: (soil/water) WATER Lab Sample ID: 050035

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY054S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/05/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene chloride	2.	BJ
67-64-1	Acetone	930.	E
75-15-0	Carbon disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
156-60-5	trans-1,2-Dichloroethene	10.	U
156-59-2	cis-1,2-Dichloroethene	10.	U
67-66-3	Chloroform	10.	U
107-06-2	1,2-Dichloroethane	10.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	10.	U
56-23-5	Carbon tetrachloride	10.	U
75-27-4	Bromodichloromethane	10.	U
78-87-5	1,2-Dichloropropane	10.	U
10061-01-5	cis-1,3-Dichloropropene	10.	U
79-01-6	Trichloroethene	10.	U
124-48-1	Dibromochloromethane	10.	U
79-00-5	1,1,2-Trichloroethane	10.	U
71-43-2	Benzene	10.	U
10061-02-6	trans-1,3-Dichloropropene	10.	U
75-25-2	Bromoform	10.	U
108-10-1	4-Methyl-2-pentanone	10 ~~J~~	~~J~~U CAm 5/12/93
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	10.	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	U
108-88-3	Toluene	.5	J
108-90-7	Chlorobenzene	10.	U
100-41-4	Ethyl benzene	10.	U
100-42-5	Styrene	10.	U
1330-20-7	m,p-Xylene	10.	U
95-47-6	o-Xylene	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FLDBLK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

Matrix: (soil/water) WATER Lab Sample ID: 050035 242

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY054S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/05/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FLDBLK RE

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

243

Matrix: (soil/water) WATER Lab Sample ID: 050035

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY090S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/07/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 20.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	200.	U
74-83-9	Bromomethane	200.	U
75-01-4	Vinyl chloride	200.	U
75-00-3	Chloroethane	200.	U
75-09-2	Methylene chloride	200.	U
67-64-1	Acetone	2000.	
75-15-0	Carbon disulfide	200.	U
75-35-4	1,1-Dichloroethene	200.	U
75-34-3	1,1-Dichloroethane	200.	U
156-60-5	trans-1,2-Dichloroethene	200.	U
156-59-2	cis-1,2-Dichloroethene	200.	U
67-66-3	Chloroform	200.	U
107-06-2	1,2-Dichloroethane	200.	U
78-93-3	2-Butanone	200.	U
71-55-6	1,1,1-Trichloroethane	200.	U
56-23-5	Carbon tetrachloride	200.	U
75-27-4	Bromodichloromethane	200.	U
78-87-5	1,2-Dichloropropane	200.	U
10061-01-5	cis-1,3-Dichloropropene	200.	U
79-01-6	Trichloroethene	200.	U
124-48-1	Dibromochloromethane	200.	U
79-00-5	1,1,2-Trichloroethane	200.	U
71-43-2	Benzene	200.	U
10061-02-6	trans-1,3-Dichloropropene	200.	U
75-25-2	Bromoform	200.	U
108-10-1	4-Methyl-2-pentanone	200.	U
591-78-6	2-Hexanone	200.	U
127-18-4	Tetrachloroethene	200.	U
79-34-5	1,1,2,2-Tetrachloroethane	200.	U
108-88-3	Toluene	200.	U
108-90-7	Chlorobenzene	200.	U
100-41-4	Ethyl benzene	200.	U
100-42-5	Styrene	200.	U
1330-20-7	m,p-Xylene	200.	U
95-47-6	o-Xylene	200.	U

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FLDBLK RE

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

244

Matrix: (soil/water) WATER Lab Sample ID: 050035

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: MAY090S

Level: (low/med) LOW Date Received: 05/03/93

% Moisture: not dec. Date Analyzed: 05/07/93

GC Column: RTX502.2 ID: .53 (mm) Dilution Factor: 20.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
1	VBLK8	101	105	96		0
2	MW73S	91	101	96		0
3	FLDBLK	105	103	97		0
4	VBLK9	97	100	99		0
5	MW151D	98	99	106		0
6	MW161D	99	98	100		0
7	MW167D	98	101	103		0
8	MW167MS	98	99	101		0
9	MW167MSD	98	96	99		0
10	MW174D	98	96	99		0
11	TRPBLK	99	99	98		0
12	~~FLDBLK RE~~	~~99~~	~~97~~	~~109~~		~~0~~ CAM 5/12/93
13	VBLK1	101	99	100		0
14	MW73S RE	102	97	100		0
15	FLDBLK RE	99	99	97		0
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	QC LIMITS
SMC1 (TOL) = Toluene-d8	(88-110)
SMC2 (BFB) = 4-Bromofluorobenzene	(86-115)
SMC3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

Matrix Spike - EPA Sample No.: MW167D

COMPOUND	SPIKE ADDED (UG/L)	SAMPLE CONCENTRATION (UG/L)	MS CONCENTRATION (UG/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.	0.	45.	90	61-145
Trichloroethene	50.	0.	44.	88	71-120
Benzene	50.	0.	46.	92	76-127
Toluene	50.	0.	50.	100	76-125
Chlorobenzene	50.	0.	55.	110	75-130

COMPOUND	SPIKE ADDED (UG/L)	MSD CONCENTRATION (UG/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.	43.	86	5	14	61-145
Trichloroethene	50.	42.	84	5	14	71-120
Benzene	50.	45.	90	2	11	76-127
Toluene	50.	47.	94	6	13	76-125
Chlorobenzene	50.	51.	102	8	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS:

4A

EPA SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

VBLK8

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290 247

Lab File ID: MAY046S Lab Sample ID: VBLK8

Date Analyzed: 05/05/93 Time Analyzed: 16:58

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

Instrument ID: EXTRELEL

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	MW73S	050028	MAY047S	17:39
2	FLDBLK	050035	MAY054S	21:35
3				
4				
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COMMENTS:

4A

EPA SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

VBLK9

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

248

Lab File ID: MAY065S Lab Sample ID: VBLK9

Date Analyzed: 05/06/93 Time Analyzed: 16:47

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

Instrument ID: EXTRELEL

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED	
1	MW151D	050029	MAY066S	17:28	
2	MW161D	050030	MAY067S	18:02	
3	MW167D	050031	MAY068S	18:35	
4	MW167MS	050032	MAY069S	19:09	
5	MW167MSD	050033	MAY070S	19:43	
6	MW174D	050034	MAY071S	20:17	
7	TRPBLK	050036	MAY072S	20:50	
8	~~FLDBLK~~ ~~RE~~	~~050035~~	~~MAY074S~~	~~21:58~~	CAM 5/12/93
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COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK1

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

249

Lab File ID: MAY088S Lab Sample ID: VBLK1

Date Analyzed: 05/07/93 Time Analyzed: 14:51

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

Instrument ID: EXTRELEL

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	MW73S RE	050028	MAY089S	15:46
2	FLDBLK RE	050035	MAY090S	16:34
3				
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COMMENTS:

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

250

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

Lab File ID: MAR382S BFB Injection Date: 03/22/93

Instrument ID.: EXTRELEL BFB Injection Time: 11:39

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	27.4
75	30.0 - 66.0% of mass 95	58.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	.4 (.8)1
174	50.0 - 120.0% of mass 95	50.9
175	4.0 - 9.0 % of mass 174	3.3 (6.5)1
176	93.0 - 101.0% of mass 174	49.6 (97.4)1
177	5.0 - 9.0% of mass 176	2.9 (5.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD200		MAR384S	03/22/93	13:56
2	VSTD100		MAR385S	03/22/93	14:43
3	VSTD50		MAR386S	03/22/93	15:30
4	VSTD20		MAR387S	03/22/93	16:14
5	VSTD10		MAR388S	03/22/93	17:06
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5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

Lab File ID: MAY039S BFB Injection Date: 05/05/93

Instrument ID.: EXTRELEL BFB Injection Time: 10:33

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	16.9
75	30.0 - 66.0% of mass 95	43.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.0
173	Less than 2.0% of mass 174	.9 (1.8)1
174	50.0 - 120.0% of mass 95	50.4
175	4.0 - 9.0 % of mass 174	4.1 (8.1)1
176	93.0 - 101.0% of mass 174	49.9 (99.0)1
177	5.0 - 9.0% of mass 176	3.1 (6.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD50B		MAY040S	05/05/93	10:58
2	VBLK8	VBLK8	MAY046S	05/05/93	16:58
3	MW73S	050028	MAY047S	05/05/93	17:39
4	FLDBLK	050035	MAY054S	05/05/93	21:35
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

Lab File ID: MAY063S BFB Injection Date: 05/06/93

Instrument ID.: EXTRELEL BFB Injection Time: 15:17

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	14.6
75	30.0 - 66.0% of mass 95	41.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.0
173	Less than 2.0% of mass 174	.0 (.0)1
174	50.0 - 120.0% of mass 95	53.5
175	4.0 - 9.0 % of mass 174	4.5 (8.4)1
176	93.0 - 101.0% of mass 174	50.8 (95.0)1
177	5.0 - 9.0% of mass 176	3.2 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD509		MAY064S	05/06/93	15:43
2	VBLK9	VBLK9	MAY065S	05/06/93	16:47
3	MW151D	050029	MAY066S	05/06/93	17:28
4	MW161D	050030	MAY067S	05/06/93	18:02
5	MW167D	050031	MAY068S	05/06/93	18:35
6	MW167MS	050032	MAY069S	05/06/93	19:09
7	MW167MSD	050033	MAY070S	05/06/93	19:43
8	MW174D	050034	MAY071S	05/06/93	20:17
9	TRPBLK	050036	MAY072S	05/06/93	20:50
10	~~FLDBLK~~ ~~RE~~	~~050035~~	~~MAY074S~~	~~05/06/93~~	~~21:58~~ CMS 5/10/93
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5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

Lab File ID: MAY085S BFB Injection Date: 05/07/93

Instrument ID.: EXTRELEL BFB Injection Time: 10:18

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	15.7
75	30.0 - 66.0% of mass 95	41.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	.0 (.0)1
174	50.0 - 120.0% of mass 95	51.2
175	4.0 - 9.0 % of mass 174	4.6 (9.0)1
176	93.0 - 101.0% of mass 174	51.7 (101.0)1
177	5.0 - 9.0% of mass 176	3.3 (6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD501		MAY087S	05/07/93	13:39
2	VBLK1	VBLK1	MAY088S	05/07/93	14:51
3	MW73S RE	050028	MAY089S	05/07/93	15:46
4	FLDBLK RE	050035	MAY090S	05/07/93	16:34
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6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

Instrument ID: EXTRELEL Calibration Date(s): 03/22/93 03/22/93

Heated Purge: (Y/N) N Calibration Times: 13:56 17:06

GC Column: RTX502.2 ID: .53 (mm)

LAB FILE ID: RRF10 = MAR388S RRF20 = MAR387S
RRF50 = MAR386S RRF100= MAR385S RRF200= MAR384S

COMPOUND	RRF10	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
Chloromethane	2.692	2.144	2.437	2.321	2.702	2.459	9.8
Bromomethane	* 1.794	1.548	1.698	1.611	1.776	1.685	6.3*
Vinyl chloride	* 2.411	2.073	2.299	2.087	2.405	2.255	7.4*
Chloroethane	1.537	1.034	1.369	1.251	1.166	1.271	15.1
Methylene chloride	2.188	2.166	2.155	1.916	2.106	2.106	5.3
Acetone	1.266	1.091	.548	.398	.376	.736	56.3
Carbon disulfide	8.244	6.722	7.218	7.254	8.084	7.504	8.5
1,1-Dichloroethene	* 1.503	1.536	1.557	1.499	1.657	1.550	4.2*
1,1-Dichloroethane	* 3.555	3.415	3.638	3.364	3.237	3.442	4.6*
trans-1,2-Dichloroethene	1.729	1.670	1.592	1.621	1.622	1.647	3.3
cis-1,2-Dichloroethene	1.626	1.692	1.620	1.541	1.579	1.612	3.5
Chloroform	* 3.312	3.289	3.209	3.005	3.057	3.174	4.3*
1,2-Dichloroethane	* 2.170	2.225	2.203	2.101	2.144	2.169	2.2*
2-Butanone	.937	.824	.586	.763	.764	.775	16.4
1,1,1-Trichloroethane	* .484	.464	.449	.409	.447	.450	6.1*
Carbon tetrachloride	* .372	.358	.351	.342	.350	.355	3.1*
Bromodichloromethane	* .553	.487	.502	.483	.504	.506	5.6*
1,2-Dichloropropane	.498	.453	.468	.431	.453	.461	5.4
cis-1,3-Dichloropropene	* .616	.582	.589	.568	.617	.595	3.7*
Trichloroethene	* .368	.318	.321	.308	.313	.326	7.4*
Dibromochloromethane	* .342	.300	.318	.294	.313	.313	6.0*
1,1,2-Trichloroethane	* .331	.303	.304	.283	.294	.303	5.9*
Benzene	* 1.351	1.270	1.229	1.182	1.235	1.253	5.0*
trans-1,3-Dichloropropene	* .422	.421	.428	.404	.412	.417	2.2*
Bromoform	* .185	.202	.210	.225	.225	.209	8.1*
4-Methyl-2-pentanone	.522	.421	.374	.374	.335	.405	17.8
2-Hexanone	.280	.293	.255	.247	.217	.259	11.4
Tetrachloroethene	* .227	.210	.203	.205	.212	.212	4.4*
1,1,2,2-Tetrachloroethane	* .631	.635	.629	.591	.586	.614	3.9*
Toluene	* 1.227	1.192	1.159	1.134	1.191	1.181	3.0*
Chlorobenzene	* .955	.868	.896	.830	.885	.887	5.2*
Ethyl benzene	* .473	.444	.439	.424	.442	.444	4.0*
Styrene	* 1.081	.975	1.033	1.004	1.108	1.040	5.2*
m,p-Xylene	* .637	.573	.580	.559	.608	.591	5.2*
o-Xylene	* .709	.630	.630	.619	.668	.651	5.7*
Toluene-d8	1.098	.988	1.043	1.020	1.075	1.045	4.1
4-Bromofluorobenzene	* .571	.536	.553	.511	.546	.543	4.1*
1,2-Dichloroethane-d4	1.733	1.835	1.860	1.757	1.754	1.788	3.1

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of .010.

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

Instrument ID: EXTRELEL Calibration Date: 05/05/93 Time: 10:58

Lab File ID: MAY040S Init. Calib. Date(s): 03/22/93 03/22/93

Heated Purge: (Y/N) N Init. Calib. Times: 13:56 17:06

GC Column: RTX502.2 ID: .53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	2.459	2.671		-8.6	
Bromomethane	1.685	2.094	.100	-24.3	25.0
Vinyl chloride	2.255	2.565	.100	-13.7	25.0
Chloroethane	1.271	1.548		-21.8	
Methylene chloride	2.106	2.369		-12.5	
Acetone	.736	.804		-9.2	
Carbon disulfide	7.504	5.226		30.4	
1,1-Dichloroethene	1.550	1.735	.100	-11.9	25.0
1,1-Dichloroethane	3.442	3.117	.200	9.4	25.0
trans-1,2-Dichloroethene	1.647	1.885		-14.5	
cis-1,2-Dichloroethene	1.612	1.923		-19.3	
Chloroform	3.174	3.010	.200	5.2	25.0
1,2-Dichloroethane	2.169	1.812	.100	16.5	25.0
2-Butanone	.775	.856		-10.5	
1,1,1-Trichloroethane	.450	.340	.100	24.4	25.0
Carbon tetrachloride	.355	.268	.100	24.5	25.0
Bromodichloromethane	.506	.413	.200	18.4	25.0
1,2-Dichloropropane	.461	.424		8.0	
cis-1,3-Dichloropropene	.595	.541	.200	9.1	25.0
Trichloroethene	.326	.306	.300	6.1	25.0
Dibromochloromethane	.313	.263	.100	16.0	25.0
1,1,2-Trichloroethane	.303	.305	.100	-.7	25.0
Benzene	1.253	1.254	.500	-.1	25.0
trans-1,3-Dichloropropene	.417	.351	.100	15.8	25.0
Bromoform	.209	.150	.100	28.2	25.0
4-Methyl-2-pentanone	.405	.280		30.9	
2-Hexanone	.259	.225		13.1	
Tetrachloroethene	.212	.160	.200	24.5	25.0
1,1,2,2-Tetrachloroethane	.614	.533	.500	13.2	25.0
Toluene	1.181	1.243	.400	-5.2	25.0
Chlorobenzene	.887	.875	.500	1.4	25.0
Ethyl benzene	.444	.446	.100	-.5	25.0
Styrene	1.040	1.012	.300	2.7	25.0
m,p-Xylene	.591	.606	.300	-2.5	25.0
o-Xylene	.651	.577	.300	11.4	25.0
Toluene-d8	1.045	1.124		-7.6	
4-Bromofluorobenzene	.543	.570	.200	-5.0	25.0
1,2-Dichloroethane-d4	1.788	1.508		15.7	

All other compounds must meet a minimum RRF of .010.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

Instrument ID: EXTRELEL Calibration Date: 05/06/93 Time: 15:43

Lab File ID: MAY064S Init. Calib. Date(s): 03/22/93 03/22/93

Heated Purge: (Y/N) N Init. Calib. Times: 13:56 17:06

GC Column: RTX502.2 ID: .53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	2.459	2.148		12.6	
Bromomethane	1.685	1.668	.100	1.0	25.0
Vinyl chloride	2.255	2.078	.100	7.8	25.0
Chloroethane	1.271	1.263		.6	
Methylene chloride	2.106	2.110		-.2	
Acetone	.736	.484		34.2	
Carbon disulfide	7.504	4.512		39.9	
1,1-Dichloroethene	1.550	1.586	.100	-2.3	25.0
1,1-Dichloroethane	3.442	3.186	.200	7.4	25.0
trans-1,2-Dichloroethene	1.647	1.680		-2.0	
cis-1,2-Dichloroethene	1.612	1.921		-19.2	
Chloroform	3.174	2.920	.200	8.0	25.0
1,2-Dichloroethane	2.169	1.798	.100	17.1	25.0
2-Butanone	.775	.867		-11.9	
1,1,1-Trichloroethane	.450	.340	.100	24.4	25.0
Carbon tetrachloride	.355	.267	.100	24.8	25.0
Bromodichloromethane	.506	.421	.200	16.8	25.0
1,2-Dichloropropane	.461	.425		7.8	
cis-1,3-Dichloropropene	.595	.559	.200	6.1	25.0
Trichloroethene	.326	.280	.300	14.1	25.0
Dibromochloromethane	.313	.269	.100	14.1	25.0
1,1,2-Trichloroethane	.303	.296	.100	2.3	25.0
Benzene	1.253	1.194	.500	4.7	25.0
trans-1,3-Dichloropropene	.417	.375	.100	10.1	25.0
Bromoform	.209	.159	.100	23.9	25.0
4-Methyl-2-pentanone	.405	.365		9.9	
2-Hexanone	.259	.242		6.6	
Tetrachloroethene	.212	.162	.200	23.6	25.0
1,1,2,2-Tetrachloroethane	.614	.590	.500	3.9	25.0
Toluene	1.181	1.233	.400	-4.4	25.0
Chlorobenzene	.887	.844	.500	4.8	25.0
Ethyl benzene	.444	.439	.100	1.1	25.0
Styrene	1.040	.977	.300	6.1	25.0
m,p-Xylene	.591	.559	.300	5.4	25.0
o-Xylene	.651	.570	.300	12.4	25.0
Toluene-d8	1.045	1.175		-12.4	
4-Bromofluorobenzene	.543	.621	.200	-14.4	25.0
1,2-Dichloroethane-d4	1.788	1.515		15.3	

All other compounds must meet a minimum RRF of .010.

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

Instrument ID: EXTRELEL Calibration Date: 05/07/93 Time: 13:39

Lab File ID: MAY087S Init. Calib. Date(s): 03/22/93 03/22/93

Heated Purge: (Y/N) N Init. Calib. Times: 13:56 17:06

GC Column: RTX502.2 ID: .53 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	2.459	2.239		8.9	
Bromomethane	1.685	1.680	.100	.3	25.0
Vinyl chloride	2.255	2.145	.100	4.9	25.0
Chloroethane	1.271	1.237		2.7	
Methylene chloride	2.106	2.439		-15.8	
Acetone	.736	.527		28.4	
Carbon disulfide	7.504	4.972		33.7	
1,1-Dichloroethene	1.550	1.705	.100	-10.0	25.0
1,1-Dichloroethane	3.442	3.316	.200	3.7	25.0
trans-1,2-Dichloroethene	1.647	1.839		-11.7	
cis-1,2-Dichloroethene	1.612	2.014		-24.9	
Chloroform	3.174	3.022	.200	4.8	25.0
1,2-Dichloroethane	2.169	1.855	.100	14.5	25.0
2-Butanone	.775	.886		-14.3	
1,1,1-Trichloroethane	.450	.347	.100	22.9	25.0
Carbon tetrachloride	.355	.289	.100	18.6	25.0
Bromodichloromethane	.506	.433	.200	14.4	25.0
1,2-Dichloropropane	.461	.476		-3.3	
cis-1,3-Dichloropropene	.595	.577	.200	3.0	25.0
Trichloroethene	.326	.325	.300	.3	25.0
Dibromochloromethane	.313	.279	.100	10.9	25.0
1,1,2-Trichloroethane	.303	.332	.100	-9.6	25.0
Benzene	1.253	1.390	.500	-10.9	25.0
trans-1,3-Dichloropropene	.417	.373	.100	10.6	25.0
Bromoform	.209	.158	.100	24.4	25.0
4-Methyl-2-pentanone	.405	.261		35.6	
2-Hexanone	.259	.200		22.8	
Tetrachloroethene	.212	.168	.200	20.8	25.0
1,1,2,2-Tetrachloroethane	.614	.603	.500	1.8	25.0
Toluene	1.181	1.357	.400	-14.9	25.0
Chlorobenzene	.887	.943	.500	-6.3	25.0
Ethyl benzene	.444	.472	.100	-6.3	25.0
Styrene	1.040	1.053	.300	-1.3	25.0
m,p-Xylene	.591	.589	.300	.3	25.0
o-Xylene	.651	.585	.300	10.1	25.0
Toluene-d8	1.045	1.130		-8.1	
4-Bromofluorobenzene	.543	.598	.200	-10.1	25.0
1,2-Dichloroethane-d4	1.788	1.419		20.6	

All other compounds must meet a minimum RRF of .010.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

258

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

Lab File ID (Standard): MAY040S Date Analyzed: 05/05/93

Instrument ID: EXTRELEL Time Analyzed: 10:58

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	24228.	12.97	130666.	16.05	122163.	24.20
	UPPER LIMIT	48456.	13.47	261332.	16.55	244326.	24.70
	LOWER LIMIT	12114.	12.47	65333.	15.55	61082.	23.70
	EPA SAMPLE NO.						
1	VBLK8	25326.	12.92	124201.	16.03	118811.	24.18
2	MW73S	24118.	13.07	122947.	16.13	131271.	24.20
3	FLDBLK	24836.	12.98	127460.	16.05	118485.	24.18
4							
5							
6							
7							
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12							
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17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + .50 minutes of internal standard RT
RT LOWER LIMIT = - .50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

Lab File ID (Standard): MAY064S Date Analyzed: 05/06/93

Instrument ID: EXTRELEL Time Analyzed: 15:43

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #	
	12 HOUR STD	28425.	13.05	154114.	16.12	137973.	24.22	
	UPPER LIMIT	56850.	13.55	308228.	16.62	275946.	24.72	
	LOWER LIMIT	14213.	12.55	77057.	15.62	68987.	23.72	
	EPA SAMPLE NO.							
1	VBLK9	26855.	13.00	140189.	16.08	129260.	24.18	
2	MW151D	27910.	13.02	151574.	16.10	137505.	24.22	
3	MW161D	28586.	13.07	149858.	16.13	135739.	24.22	
4	MW167D	27740.	13.03	147631.	16.12	135101.	24.22	
5	MW167MS	28080.	13.02	150742.	16.12	139634.	24.22	
6	MW167MSD	28850.	13.02	151931.	16.08	141188.	24.18	
7	MW174D	28870.	13.05	149765.	16.12	140176.	24.20	
8	TRPBLK	28532.	13.03	149585.	16.10	139539.	24.18	
9	~~FLDBLK RE~~	~~26177.~~	~~13.00~~	~~146153.~~	~~16.08~~	~~136492.~~	~~24.22~~	GMS/L
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + .50 minutes of internal standard RT
RT LOWER LIMIT = - .50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 1290 SAS No.: SDG No.: 1290

Lab File ID (Standard): MAY087S Date Analyzed: 05/07/93

Instrument ID: EXTRELEL Time Analyzed: 13:39

GC Column: RTX502.2 ID: .53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	27955.	12.98	146621.	16.08	137546.	24.23
	UPPER LIMIT	55910.	13.48	293242.	16.58	275092.	24.73
	LOWER LIMIT	13978.	12.48	73311.	15.58	68773.	23.73
	EPA SAMPLE NO.						
1	VBLK1	29604.	12.97	148654.	16.07	135906.	24.22
2	MW73S RE	29229.	12.93	142387.	16.05	132392.	24.20
3	FLDBLK RE	29400.	12.97	143671.	16.07	136853.	24.20
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20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + .50 minutes of internal standard RT
RT LOWER LIMIT = - .50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

U.S. EPA - CLP

13
PREPARATION LOG

Lab Name: ANTECH LTD Contract:

Lab Code: ANT Case No.: SAS No.: SDG No.: XX1628

Method: P

EPA Sample No.	Preparation Date	Weight (gram)	Volume (ml)
141216	06/22/92		100
141216D	06/22/92		100
141216L	06/22/92		100
141216P	06/22/92		100
144178	06/22/92		100
148206	06/22/92		100
149163	06/22/92		100
150186	06/22/92		100
151361	06/22/92		100
CCB1	06/22/92		100
CCV1	06/22/92		100
CCV2	06/22/92		100
CCV3	06/22/92		100
CCV4	06/22/92		100
CCVI2	06/22/92		100
ICB1	06/22/92		100
ICSABF	06/22/92		100
ICSABI	06/22/92		100
ICSAF	06/22/92		100
ICSAI	06/22/92		100
ICV1	06/22/92		100
LCSW	06/22/92		100
PBW	06/22/92		100

U.S. EPA - CLP

13
PREPARATION LOG

Lab Name: ANTECH LTD Contract:

Lab Code: ANT Case No.: SAS No.: SDG No.: XX1628

Method: F

EPA Sample No.	Preparation Date	Weight (gram)	Volume (ml)
CCB1	06/22/92		100
CCB2	06/22/92		100
CCB3	06/22/92		100
CCB4	06/22/92		100
CCV1	06/22/92		100
CCV2	06/22/92		100
CCV3	06/22/92		100
CCV4	06/22/92		100
CRA1	06/22/92		100
CRA2	06/22/92		100
CRA3	06/22/92		100
CRA4	06/22/92		100
CRA5	06/22/92		100
ICB1	06/22/92		100
ICV1	06/22/92		100
LCSW	06/22/92		100
LCSWP	06/22/92		100
PBW	06/22/92		100
PBWP	06/22/92		100
S0	06/22/92		100
S10	06/22/92		100
S100	06/22/92		100
S15	06/22/92		100
S25	06/22/92		100
S3	06/22/92		100
S30	06/22/92		100
S5	06/22/92		100
S50	06/22/92		100

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

263

Matrix: (soil/water) WATER Lab Sample ID: 9305-0042

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S1

Level: (low/med) Date Received: 00/00/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: S31290 SAS No.: SDG No.: 1290

264

Matrix: (soil/water) WATER Lab Sample ID: 9305-0042

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S1

Level: (low/med) Date Received: 00/00/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	4.	J
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

265

Matrix: (soil/water) WATER Lab Sample ID: 9305-0042

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S1

Level: (low/med) Date Received: 00/00/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 13

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN HYDROCARBON	23.97	6.	J
2.	- -	UNKNOWN HYDROCARBON	24.27	40.	J
3.	- -	UNKNOWN HYDROCARBON	24.30	20.	J
4.	- -	UNKNOWN HYDROCARBON	24.33	30.	J
5.	- -	UNKNOWN HYDROCARBON	26.32	20.	J
6.	- -	UNKNOWN HYDROCARBON	26.37	5.	J
7.	- -	UNKNOWN HYDROCARBON	26.68	70.	J
8.	- -	UNKNOWN HYDROCARBON	28.40	10.	J
9.	- -	UNKNOWN HYDROCARBON	28.48	10.	J
10.	- -	UNKNOWN HYDROCARBON	28.57	8.	J
11.	- -	UNKNOWN HYDROCARBON	28.73	30.	J
12.	- -	UNKNOWN HYDROCARBON	29.90	20.	J
13.	- -	UNKNOWN HYDROCARBON	30.45	10.	J
14.					
15.					
16.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-167D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290 266

Matrix: (soil/water) WATER Lab Sample ID: 9305-0031

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S2

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-167D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

267

Matrix: (soil/water) WATER Lab Sample ID: 9305-0031

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S2

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	3.	BJ
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-167D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

268

Matrix: (soil/water) WATER Lab Sample ID: 9305-0031

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S2

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 17

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	23.97	20.	J
2. - -	UNKNOWN HYDROCARBON	24.27	30.	J
3. - -	UNKNOWN HYDROCARBON	24.30	20.	J
4. - -	UNKNOWN HYDROCARBON	24.33	30.	J
5. - -	UNKNOWN HYDROCARBON	26.32	30.	J
6. - -	UNKNOWN HYDROCARBON	26.40	40.	J
7. - -	UNKNOWN HYDROCARBON	26.67	80.	J
8. - -	UNKNOWN HYDROCARBON	28.42	20.	J
9. - -	UNKNOWN HYDROCARBON	28.50	10.	J
10. - -	UNKNOWN HYDROCARBON	28.57	20.	J
11. - -	UNKNOWN HYDROCARBON	28.75	20.	J
12. - -	UNKNOWN HYDROCARBON	28.80	20.	J
13. - -	UNKNOWN HYDROCARBON	28.98	4.	J
14. - -	UNKNOWN HYDROCARBON	29.67	90.	J
15. - -	UNKNOWN HYDROCARBON	29.87	6.	J
16. - -	UNKNOWN HYDROCARBON	30.37	10.	J
17. - -	UNKNOWN HYDROCARBON	32.92	5.	J
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-16MS

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

269

Matrix: (soil/water) WATER Lab Sample ID: 9305-0032

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S3

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	46.	
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	98.	
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	59.	
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	76.	
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1.2,4-Trichlorobenzene	67.	
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	130.	
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	80.	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-16MS

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

270

Matrix: (soil/water) WATER Lab Sample ID: 9305-0032

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S3

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	53.	
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	80.	
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	190.	E
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	3.	BJ
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	84.	
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-16MSD

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

271

Matrix: (soil/water) WATER Lab Sample ID: 9305-0033

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S4

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	47.	
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	98.	
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	55.	
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	77.	
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	61.	
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	130.	
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	79.	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-16MSD

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

272

Matrix: (soil/water) WATER Lab Sample ID: 9305-0033

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S4

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	56.	
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	78.	
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	200.	E
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	3.	BJ
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	81.	
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-73S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

273

Matrix: (soil/water) WATER Lab Sample ID: 9305-0028

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S5

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-73S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

Matrix: (soil/water) WATER Lab Sample ID: 9305-0028

274

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S5

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	4.	BJ
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-73S

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

275

Matrix: (soil/water) WATER Lab Sample ID: 9305-0028

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S5

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 19

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN HYDROCARBON	3.63	4000.	J
2.	- -	UNKNOWN HYDROCARBON	3.87	300.	J
3.	- -	UNKNOWN HYDROCARBON	4.10	100.	J
4.	- -	UNKNOWN HYDROCARBON	6.05	80.	J
5.	- -	UNKNOWN HYDROCARBON	6.48	10.	J
6.	- -	UNKNOWN HYDROCARBON	9.30	40.	J
7.	- -	UNKNOWN HYDROCARBON	23.98	50.	J
8.	- -	UNKNOWN HYDROCARBON	24.33	20.	J
9.	- -	UNKNOWN HYDROCARBON	24.38	20.	J
10.	- -	UNKNOWN HYDROCARBON	26.28	10.	J
11.	- -	UNKNOWN HYDROCARBON	26.35	20.	J
12.	- -	UNKNOWN HYDROCARBON	26.43	40.	J
13.	- -	UNKNOWN HYDROCARBON	26.70	70.	J
14.	- -	UNKNOWN HYDROCARBON	28.45	20.	J
15.	- -	UNKNOWN HYDROCARBON	28.52	9.	J
16.	- -	UNKNOWN HYDROCARBON	28.77	30.	J
17.	- -	UNKNOWN HYDROCARBON	28.83	20.	J
18.	- -	UNKNOWN HYDROCARBON	29.70	90.	J
19.	- -	UNKNOWN HYDROCARBON	30.40	10.	J
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
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30.					

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-151D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

276

Matrix: (soil/water) WATER Lab Sample ID: 9305-0029

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S6

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-151D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: S31290 SAS No.: SDG No.: 1290

277

Matrix: (soil/water) WATER Lab Sample ID: 9305-0029

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S6

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	3.	BJ
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-151D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

278

Matrix: (soil/water) WATER Lab Sample ID: 9305-0029

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S6

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 18

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	3.23	20.	J
2. - -	UNKNOWN HYDROCARBON	21.62	4.	J
3. - -	UNKNOWN HYDROCARBON	23.92	8.	J
4. - -	UNKNOWN HYDROCARBON	23.98	5.	J
5. - -	UNKNOWN HYDROCARBON	24.28	30.	J
6. - -	UNKNOWN HYDROCARBON	24.32	10.	J
7. - -	UNKNOWN HYDROCARBON	24.37	20.	J
8. - -	UNKNOWN HYDROCARBON	26.35	20.	J
9. - -	UNKNOWN HYDROCARBON	26.70	60.	J
10. - -	UNKNOWN HYDROCARBON	26.45	10.	J
11. - -	UNKNOWN HYDROCARBON	28.52	9.	J
12. - -	UNKNOWN HYDROCARBON	28.60	6.	J
13. - -	UNKNOWN HYDROCARBON	28.78	40.	J
14. - -	UNKNOWN HYDROCARBON	29.70	100.	J
15. - -	UNKNOWN HYDROCARBON	30.42	10.	J
16. - -	UNKNOWN HYDROCARBON	30.48	20.	J
17. - -	UNKNOWN HYDROCARBON	32.88	6.	J
18. - -	UNKNOWN HYDROCARBON	32.98	10.	J
19.				
20.				
21.				
22.				
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-161D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

279

Matrix: (soil/water) WATER Lab Sample ID: 9305-0030

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S7

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-161D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

280

Matrix: (soil/water) WATER Lab Sample ID: 9305-0030

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S7

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-161D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

281

Matrix: (soil/water) WATER Lab Sample ID: 9305-0030

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S7

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 19

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	3.23	20.	J
2. - -	UNKNOWN HYDROCARBON	23.98	6.	J
3. - -	UNKNOWN HYDROCARBON	24.28	30.	J
4. - -	UNKNOWN HYDROCARBON	24.33	10.	J
5. - -	UNKNOWN HYDROCARBON	24.37	20.	J
6. - -	UNKNOWN HYDROCARBON	26.27	7.	J
7. - -	UNKNOWN HYDROCARBON	26.35	10.	J
8. - -	UNKNOWN HYDROCARBON	26.40	50.	J
9. - -	UNKNOWN HYDROCARBON	26.70	60.	J
10. - -	UNKNOWN HYDROCARBON	28.45	10.	J
11. - -	UNKNOWN HYDROCARBON	28.52	9.	J
12. - -	UNKNOWN HYDROCARBON	28.60	20.	J
13. - -	UNKNOWN HYDROCARBON	28.78	20.	J
14. - -	UNKNOWN HYDROCARBON	28.83	20.	J
15. - -	UNKNOWN HYDROCARBON	29.70	80.	J
16. - -	UNKNOWN HYDROCARBON	30.42	10.	J
17. - -	UNKNOWN HYDROCARBON	30.48	20.	J
18. - -	UNKNOWN HYDROCARBON	32.87	5.	J
19. - -	UNKNOWN HYDROCARBON	33.00	10.	J
20.				
21.				
22.				
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-174D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290 282

Matrix: (soil/water) WATER Lab Sample ID: 9305-0034

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S8

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-174D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

283

Matrix: (soil/water) WATER Lab Sample ID: 9305-0034

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S8

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-174D

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

284

Matrix: (soil/water) WATER Lab Sample ID: 9305-0034

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S8

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 17

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	3.23	10.	J
2. - -	UNKNOWN HYDROCARBON	24.00	5.	J
3. - -	UNKNOWN HYDROCARBON	24.30	30.	J
4. - -	UNKNOWN HYDROCARBON	24.33	10.	J
5. - -	UNKNOWN HYDROCARBON	24.38	20.	J
6. - -	UNKNOWN HYDROCARBON	26.35	20.	J
7. - -	UNKNOWN HYDROCARBON	26.70	50.	J
8. - -	UNKNOWN HYDROCARBON	28.45	10.	J
9. - -	UNKNOWN HYDROCARBON	28.53	7.	J
10. - -	UNKNOWN HYDROCARBON	28.60	6.	J
11. - -	UNKNOWN HYDROCARBON	28.78	30.	J
12. - -	UNKNOWN HYDROCARBON	28.85	10.	J
13. - -	UNKNOWN HYDROCARBON	29.72	100.	J
14. - -	UNKNOWN HYDROCARBON	29.90	20.	J
15. - -	UNKNOWN HYDROCARBON	32.87	4.	J
16. - -	UNKNOWN HYDROCARBON	33.00	5.	J
17. - -	UNKNOWN HYDROCARBON	33.15	4.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

285

Matrix: (soil/water) WATER Lab Sample ID: 9305-0035

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S9

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

286

Matrix: (soil/water) WATER Lab Sample ID: 9305-0035

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S9

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	3.	BJ
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

287

Matrix: (soil/water) WATER Lab Sample ID: 9305-0035

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510S9

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 18

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	24.00	30.	J
2. - -	UNKNOWN HYDROCARBON	24.30	30.	J
3. - -	UNKNOWN HYDROCARBON	24.35	20.	J
4. - -	UNKNOWN HYDROCARBON	24.38	30.	J
5. - -	UNKNOWN HYDROCARBON	26.28	10.	J
6. - -	UNKNOWN HYDROCARBON	26.35	20.	J
7. - -	UNKNOWN HYDROCARBON	26.43	50.	J
8. - -	UNKNOWN HYDROCARBON	26.72	90.	J
9. - -	UNKNOWN HYDROCARBON	28.47	30.	J
10. - -	UNKNOWN HYDROCARBON	28.53	10.	J
11. - -	UNKNOWN HYDROCARBON	28.62	10.	J
12. - -	UNKNOWN HYDROCARBON	28.80	70.	J
13. - -	UNKNOWN HYDROCARBON	29.73	100.	J
14. - -	UNKNOWN HYDROCARBON	30.43	20.	J
15. - -	UNKNOWN HYDROCARBON	30.50	20.	J
16. - -	UNKNOWN HYDROCARBON	32.88	8.	J
17. - -	UNKNOWN HYDROCARBON	33.02	8.	J
18. - -	UNKNOWN HYDROCARBON	33.17	8.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290 288

Matrix: (soil/water) WATER Lab Sample ID: 9305-0036

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510B1

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	o-Cresol	10.	U
108-60-1	Bis(2-chloroisopropyl)ether	10.	U
106-44-5	m/p-Cresol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	50.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	50.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	50.	U
83-32-9	Acenaphthene	10.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

289

Matrix: (soil/water) WATER Lab Sample ID: 9305-0036

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510B1

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50.	U
100-02-7	4-Nitrophenol	50.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	50.	U
534-52-1	2-Methyl-4,6-dinitrophenol	50.	U
86-30-6	N-Nitrosodiphenylamine	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	50.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	3.	BJ
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

290

Matrix: (soil/water) WATER Lab Sample ID: 9305-0036

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: M1510B1

Level: (low/med) Date Received: 05/03/93

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/04/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 05/10/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 18

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	UNKNOWN HYDROCARBON	24.30	30.	J
2. - -	UNKNOWN HYDROCARBON	24.33	10.	J
3. - -	UNKNOWN HYDROCARBON	24.38	20.	J
4. - -	UNKNOWN HYDROCARBON	26.30	7.	J
5. - -	UNKNOWN HYDROCARBON	26.37	10.	J
6. - -	UNKNOWN HYDROCARBON	26.63	30.	J
7. - -	UNKNOWN HYDROCARBON	26.72	70.	J
8. - -	UNKNOWN HYDROCARBON	28.47	10.	J
9. - -	UNKNOWN HYDROCARBON	28.53	10.	J
10. - -	UNKNOWN HYDROCARBON	28.62	6.	J
11. - -	UNKNOWN HYDROCARBON	28.80	30.	J
12. - -	UNKNOWN HYDROCARBON	28.87	20.	J
13. - -	UNKNOWN HYDROCARBON	29.03	5.	J
14. - -	UNKNOWN HYDROCARBON	29.23	5.	J
15. - -	UNKNOWN HYDROCARBON	30.45	10.	J
16. - -	UNKNOWN HYDROCARBON	30.52	10.	J
17. - -	UNKNOWN HYDROCARBON	32.90	4.	J
18. - -	UNKNOWN HYDROCARBON	33.05	6.	J
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2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	S7 (2CP)#	S8 (DCB)#	TOT OUT
1	MBLANK	74	82	96	42	60	110	77	68	0
2	MW-167D	78	88	95	39	57	115	78	70	0
3	MW-16MS	74	85	88	39	48	103	72	64	0
4	MW-16MSD	68	80	86	40	46	104	69	60	0
5	MW-73S	83	92	95	46	60	114	84	78	0
6	MW-151D	72	87	88	38	52	108	76	72	0
7	MW-161D	69	82	88	32	45	104	69	61	0
8	MW-174D	63	74	82	33	40	92	67	62	0
9	FBLANK	64	83	86	32	46	103	69	58	0
10	TBLANK	70	81	92	38	50	103	73	63	0
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		QC LIMITS	
S1 (NBZ) =	Nitrobenzene-d5	(35-114)	
S2 (FBP) =	2-Fluorobiphenyl	(43-116)	
S3 (TPH) =	Terphenyl-d14	(33-141)	
S4 (PHL) =	Phenol-d5	(10-110)	
S5 (2FP) =	2-Fluorophenol	(21-110)	
S6 (TBP) =	2,4,6-Tribromophenol	(10-123)	
S7 (2CP) =	2-Chlorophenol-d4	(33-110)	(advisory)
S8 (DCB) =	1,2-Dichlorobenzene-d4	(16-110)	(advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

3C
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

Matrix Spike - EPA Sample No.: MW-167D

COMPOUND	SPIKE ADDED (UG/L)	SAMPLE CONCENTRATION (UG/L)	MS CONCENTRATION (UG/L)	MS % REC #	QC LIMITS REC.
Phenol	150.	0.	46.	31	12-110
2-Chlorophenol	150.	0.	98.	65	27-123
1,4-Dichlorobenzene	100.	0.	59.	59	36- 97
N-Nitroso-di-n-prop.(1)	100.	0.	76.	76	41-116
1,2,4-Trichlorobenzene	100.	0.	67.	67	39- 98
4-Chloro-3-methylphenol	150.	0.	130.	87	23- 97
Acenaphthene	100.	0.	80.	80	46-118
4-Nitrophenol	150.	0.	53.	35	10- 80
2,4-Dinitrotoluene	100.	0.	80.	80	24- 96
Pentachlorophenol	150.	0.	190.	127 *	9-103
Pyrene	100.	0.	84.	84	26-127

COMPOUND	SPIKE ADDED (UG/L)	MSD CONCENTRATION (UG/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	150.	47.	31	0	42	12-110
2-Chlorophenol	150.	98.	65	0	40	27-123
1,4-Dichlorobenzene	100.	55.	55	7	28	36- 97
N-Nitroso-di-n-prop.(1)	100.	77.	77	1	38	41-116
1,2,4-Trichlorobenzene	100.	61.	61	9	28	39- 98
4-Chloro-3-methylphenol	150.	130.	87	0	42	23- 97
Acenaphthene	100.	79.	79	1	31	46-118
4-Nitrophenol	150.	56.	37	6	50	10- 80
2,4-Dinitrotoluene	100.	78.	78	3	38	24- 96
Pentachlorophenol	150.	200.	133 *	5	50	9-103
Pyrene	100.	81.	81	4	31	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 2 out of 22 outside limits

COMMENTS:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MBLANK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

293

Lab File ID: M1510S1 Lab Sample ID: 9305-0042

Instrument ID: EXTRELM1 Date Extracted: 05/04/93

Matrix: (soil/water) WATER Date Analyzed: 05/10/93

Level:(low/med) Time Analyzed: 16:02

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	MW-167D	9305-0031	M1510S2	05/10/93
2	MW-16MS	9305-0032	M1510S3	05/10/93
3	MW-16MSD	9305-0033	M1510S4	05/10/93
4	MW-73S	9305-0028	M1510S5	05/10/93
5	MW-151D	9305-0029	M1510S6	05/10/93
6	MW-161D	9305-0030	M1510S7	05/10/93
7	MW-174D	9305-0034	M1510S8	05/10/93
8	FBLANK	9305-0035	M1510S9	05/10/93
9	TBLANK	9305-0036	M1510B1	05/10/93
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COMMENTS:

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

Lab File ID: M1415T2 DFTPP Injection Date: 04/15/93

Instrument ID.: EXTRELM1 DFTPP Injection Time: 10:58

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	59.0
68	Less than 2.0% of mass 69	1.2 (1.9)1
69	Mass 69 relative abundance	63.3
70	Less than 2.0% of mass 69	.5 (.8)1
127	25.0 - 75.0% of mass 198	61.5
197	Less than 1.0% of mass 198	.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	24.2
365	Greater than 0.75% of mass 198	2.69
441	Present, but less than mass 443	12.2
442	40.0 - 110.0% of mass 198	85.7
443	15.0 - 24.0% of mass 442	17.0 (19.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	STD020		M1415P1	04/15/93	14:23
2	STD050		M1415P2	04/15/93	15:05
3	STD080		M1415P3	04/15/93	15:53
4	STD120		M1415P4	04/15/93	16:42
5	STD160		M1415P5	04/15/93	17:30
6					
7					
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FORM V SV 3/90

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

Lab File ID: M1510T1 DFTPP Injection Date: 05/10/93

Instrument ID.: EXTRELM1 DFTPP Injection Time: 14:54

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	48.5
68	Less than 2.0% of mass 69	.9 (1.6)1
69	Mass 69 relative abundance	57.6
70	Less than 2.0% of mass 69	.4 (.7)1
127	25.0 - 75.0% of mass 198	60.1
197	Less than 1.0% of mass 198	.3
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	24.2
365	Greater than 0.75% of mass 198	2.68
441	Present, but less than mass 443	12.5
442	40.0 - 110.0% of mass 198	85.3
443	15.0 - 24.0% of mass 442	15.2 (17.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	STD051		M1510C2	05/10/93	15:03
2	MBLANK	9305-0042	M1510S1	05/10/93	16:02
3	MW-167D	9305-0031	M1510S2	05/10/93	16:43
4	MW-16MS	9305-0032	M1510S3	05/10/93	17:32
5	MW-16MSD	9305-0033	M1510S4	05/10/93	18:20
6	MW-73S	9305-0028	M1510S5	05/10/93	19:08
7	MW-151D	9305-0029	M1510S6	05/10/93	19:55
8	MW-161D	9305-0030	M1510S7	05/10/93	20:43
9	MW-174D	9305-0034	M1510S8	05/10/93	21:31
10	FBLANK	9305-0035	M1510S9	05/10/93	22:18
11	TBLANK	9305-0036	M1510B1	05/10/93	23:06
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SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

Instrument ID: EXTRELM1 Calibration Date(s): 04/15/93 04/15/93

Calibration Times: 14:23 17:30

LAB FILE ID: RRF20 = M1415P1 RRF50 = M1415P2
RRF80 = M1415P3 RRF20 = M1415P4 RRF60 = M1415P5

COMPOUND	RRF20	RRF50	RRF80	RRF20	RRF60	RRF	% RSD
Phenol *	1.820	2.077	2.240	2.336	2.478	2.190	11.5*
bis(2-Chloroethyl)ether *	1.695	1.688	1.713	1.736	1.812	1.729	2.9*
2-Chlorophenol *	1.344	1.509	1.654	1.657	1.746	1.582	10.0*
1,3-Dichlorobenzene *	1.575	1.549	1.609	1.640	1.718	1.618	4.1*
1,4-Dichlorobenzene *	1.618	1.677	1.721	1.702	1.771	1.698	3.3*
1,2-Dichlorobenzene *	1.472	1.490	1.636	1.603	1.690	1.578	6.0*
o-Cresol *	1.169	1.327	1.490	1.489	1.656	1.426	13.0*
Bis(2-chloroisopropyl)ether	2.167	2.159	2.352	2.357	2.481	2.303	6.0
m/p-Cresol *	1.124	1.395	1.665	1.719	1.869	1.554	19.0*
N-Nitroso-di-n-propylamine *	1.131	1.168	1.248	1.277	1.360	1.237	7.3*
Hexachloroethane *	.660	.670	.755	.748	.721	.711	6.2*
Nitrobenzene *	.386	.409	.435	.440	.450	.424	6.2*
Isophorone *	.661	.716	.754	.719	.772	.724	5.9*
2-Nitrophenol *	.135	.148	.168	.170	.177	.160	10.9*
2,4-Dimethylphenol *	.259	.304	.335	.348	.346	.318	11.7*
bis(2-Chloroethoxy)methane *	.464	.478	.526	.525	.542	.507	6.7*
2,4-Dichlorophenol *	.201	.237	.268	.273	.288	.254	13.7*
1,2,4-Trichlorobenzene *	.239	.253	.287	.283	.288	.270	8.4*
Naphthalene *	.983	1.021	1.109	1.092	1.107	1.062	5.4*
4-Chloroaniline	.320	.371	.416	.412	.433	.390	11.6
Hexachlorobutadiene	.103	.113	.123	.124	.127	.118	8.3
4-Chloro-3-methylphenol *	.233	.271	.312	.318	.332	.293	13.8*
2-Methylnaphthalene *	.570	.614	.696	.691	.708	.656	9.2*
Hexachlorocyclopentadiene	.108	.148	.170	.161	.205	.158	22.0
2,4,6-Trichlorophenol *	.268	.301	.321	.317	.349	.311	9.6*
2,4,5-Trichlorophenol *	.260	.311	.324	.338	.371	.321	12.7*
2-Chloronaphthalene *	1.108	1.129	1.126	1.117	1.184	1.133	2.6*
2-Nitroaniline	.420	.434	.450	.440	.476	.444	4.8
Dimethylphthalate	1.119	1.160	1.156	1.140	1.233	1.162	3.7
Acenaphthylene *	1.734	1.826	1.871	1.805	1.937	1.835	4.1*
2,6-Dinitrotoluene *	.246	.253	.262	.253	.283	.259	5.5*
3-Nitroaniline	.296	.336	.359	.361	.384	.347	9.6
Acenaphthene *	1.089	1.150	1.171	1.144	1.204	1.152	3.7*
2,4-Dinitrophenol	.079	.114	.112	.121	.132	.111	17.8
4-Nitrophenol	.169	.194	.184	.174	.183	.181	5.2
Dibenzofuran *	1.524	1.700	1.709	1.679	1.691	1.661	4.7*
2,4-Dinitrotoluene *	.351	.418	.430	.420	.447	.413	8.9*

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of .010.

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

Instrument ID: EXTRELM1 Calibration Date(s): 04/15/93 04/15/93

Calibration Times: 14:23 17:30

LAB FILE ID: RRF20 = M1415P1 RRF50 = M1415P2
RRF80 = M1415P3 RRF20 = M1415P4 RRF60 = M1415P5

COMPOUND	RRF20	RRF50	RRF80	RRF20	RRF60	$\overline{RRF}$	% RSD
Diethylphthalate	1.121	1.232	1.257	1.252	1.356	1.244	6.7
4-Chlorophenyl-phenylether *	.471	.510	.556	.544	.594	.535	8.8*
Fluorene *	1.141	1.211	1.303	1.273	1.333	1.252	6.1*
4-Nitroaniline	.298	.321	.345	.350	.407	.344	11.9
2-Methyl-4,6-dinitrophenol	.087	.115	.129	.139	.153	.125	20.3
N-Nitrosodiphenylamine	.572	.651	.706	.735	.800	.693	12.4
4-Bromophenyl-phenylether *	.188	.207	.232	.248	.271	.229	14.2*
Hexachlorobenzene *	.222	.254	.275	.280	.309	.268	12.1*
Pentachlorophenol *	.075	.118	.147	.150	.183	.135	29.9*
Phenanthrene *	1.104	1.245	1.369	1.369	1.458	1.309	10.5*
Anthracene *	1.030	1.193	1.347	1.352	1.456	1.275	13.0*
Carbazole	.969	1.138	1.333	1.352	1.445	1.247	15.3
Di-n-butylphthalate	1.280	1.579	1.759	1.776	1.917	1.662	14.7
Fluoranthene *	.919	1.091	1.197	1.226	1.338	1.154	13.7*
Pyrene *	1.124	1.165	1.179	1.170	1.239	1.175	3.5*
Butylbenzylphthalate	.512	.617	.666	.657	.717	.634	12.1
3,3'-Dichlorobenzidine	.280	.367	.434	.426	.432	.388	17.2
Benzo(a)anthracene *	1.065	1.137	1.209	1.156	1.126	1.139	4.6*
Chrysene *	.980	1.015	1.088	1.044	1.151	1.056	6.3*
bis(2-Ethylhexyl)phthalate	.724	.934	1.070	1.114	1.170	1.002	17.8
Di-n-octylphthalate	1.206	1.747	2.085	2.154	2.398	1.918	24.0
Benzo(b)fluoranthene *	.973	1.183	1.253	1.330	1.547	1.257	16.7*
Benzo(k)fluoranthene *	1.071	1.225	1.447	1.400	1.412	1.311	12.1*
Benzo(a)pyrene *	.827	.994	1.108	1.135	1.329	1.079	17.2*
Indeno(1,2,3-cd)pyrene *	.789	.970	1.083	1.080	1.189	1.022	14.8*
Dibenz(a,h)anthracene *	.664	.791	.892	.903	1.005	.851	15.2*
Benzo(g,h,i)perylene *	.672	.776	.786	.800	.931	.793	11.6*
Nitrobenzene-d5	.384	.401	.421	.427	.439	.414	5.3
2-Fluorobiphenyl *	1.184	1.240	1.242	1.254	1.287	1.241	3.0*
Terphenyl-d14 *	.743	.796	.839	.856	.891	.825	6.9*
Phenol-d5 *	1.575	1.795	1.994	1.968	2.119	1.890	11.1*
2-Fluorophenol *	1.180	1.349	1.366	1.414	1.588	1.379	10.6*
2,4,6-Tribromophenol	.123	.149	.164	.168	.193	.160	16.3
2-Chlorophenol-d4 *	1.300	1.419	1.522	1.527	1.678	1.489	9.4*
1,2-Dichlorobenzene-d4 *	.920	.930	.988	.970	1.069	.975	6.1*

(1) Cannot be separated from Diphenylamine
* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of .010.

SEMIVOLATILE CONTINUING CALIBRATION CHECK

298

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

Instrument ID: EXTRELM1 Calibration Date: 05/10/93 Time: 15:03

Lab File ID: M1510C2 Init. Calib. Date(s): 04/15/93 04/15/93

Init. Calib. Times: 14:23 17:30

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Phenol	2.190	1.879	.800	14.2	25.0
bis(2-Chloroethyl)ether	1.729	1.412	.700	18.3	25.0
2-Chlorophenol	1.582	1.478	.800	6.6	25.0
1,3-Dichlorobenzene	1.618	1.495	.600	7.6	25.0
1,4-Dichlorobenzene	1.698	1.572	.500	7.4	25.0
1,2-Dichlorobenzene	1.578	1.426	.400	9.6	25.0
o-Cresol	1.426	1.260	.700	11.6	25.0
Bis(2-chloroisopropyl)ether	2.303	1.402		39.1	
m/p-Cresol	1.554	1.365	.600	12.2	25.0
N-Nitroso-di-n-propylamine	1.237	.922	.500	25.5	25.0
Hexachloroethane	.711	.644	.300	9.4	25.0
Nitrobenzene	.424	.317	.200	25.2	25.0
Isophorone	.724	.624	.400	13.8	25.0
2-Nitrophenol	.160	.165	.100	-3.1	25.0
2,4-Dimethylphenol	.318	.291	.200	8.5	25.0
bis(2-Chloroethoxy)methane	.507	.423	.300	16.6	25.0
2,4-Dichlorophenol	.254	.244	.200	3.9	25.0
1,2,4-Trichlorobenzene	.270	.267	.200	1.1	25.0
Naphthalene	1.062	1.025	.700	3.5	25.0
4-Chloroaniline	.390	.333		14.6	
Hexachlorobutadiene	.118	.109		7.6	
4-Chloro-3-methylphenol	.293	.266	.200	9.2	25.0
2-Methylnaphthalene	.656	.621	.400	5.3	25.0
Hexachlorocyclopentadiene	.158	.264		-67.1	
2,4,6-Trichlorophenol	.311	.312	.200	-.3	25.0
2,4,5-Trichlorophenol	.321	.343	.200	-6.9	25.0
2-Chloronaphthalene	1.133	1.134	.800	-.1	25.0
2-Nitroaniline	.444	.363		18.2	
Dimethylphthalate	1.162	1.239		-6.6	
Acenaphthylene	1.835	2.037	1.300	-11.0	25.0
2,6-Dinitrotoluene	.259	.287	.200	-10.8	25.0
3-Nitroaniline	.347	.339		2.3	
Acenaphthene	1.152	1.214	.800	-5.4	25.0
2,4-Dinitrophenol	.111	.081		27.0	
4-Nitrophenol	.181	.159		12.2	
Dibenzofuran	1.661	1.645	.800	1.0	25.0
2,4-Dinitrotoluene	.413	.392	.200	5.1	25.0

All other compounds must meet a minimum RRF of .010.

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

Instrument ID: EXTRELM1 Calibration Date: 05/10/93 Time: 15:03

Lab File ID: M1510C2 Init. Calib. Date(s): 04/15/93 04/15/93

Init. Calib. Times: 14:23 17:30

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Diethylphthalate	1.244	1.304		-4.8	
4-Chlorophenyl-phenylether	.535	.483	.400	9.7	25.0
Fluorene	1.252	1.238	.900	1.1	25.0
4-Nitroaniline	.344	.345		-.3	
2-Methyl-4,6-dinitrophenol	.125	.091		27.2	
N-Nitrosodiphenylamine	.693	.593		14.4	
4-Bromophenyl-phenylether	.229	.201	.100	12.2	25.0
Hexachlorobenzene	.268	.262	.100	2.2	25.0
Pentachlorophenol	.135	.084	.050	37.8	25.0
Phenanthrene	1.309	1.114	.700	14.9	25.0
Anthracene	1.275	1.136	.700	10.9	25.0
Carbazole	1.247	1.113		10.7	
Di-n-butylphthalate	1.662	1.558		6.3	
Fluoranthene	1.154	1.048	.600	9.2	25.0
Pyrene	1.175	1.269	.600	-8.0	25.0
Butylbenzylphthalate	.634	.709		-11.8	
3,3'-Dichlorobenzidine	.388	.395		-1.8	
Benzo(a)anthracene	1.139	.915	.800	19.7	25.0
Chrysene	1.056	.861	.700	18.5	25.0
bis(2-Ethylhexyl)phthalate	1.002	1.038		-3.6	
Di-n-octylphthalate	1.918	1.752		8.7	
Benzo(b)fluoranthene	1.257	1.081	.700	14.0	25.0
Benzo(k)fluoranthene	1.311	1.183	.700	9.8	25.0
Benzo(a)pyrene	1.079	1.008	.700	6.6	25.0
Indeno(1,2,3-cd)pyrene	1.022	1.111	.500	-8.7	25.0
Dibenz(a,h)anthracene	.851	.889	.400	-4.5	25.0
Benzo(g,h,i)perylene	.793	.889	.500	-12.1	25.0
Nitrobenzene-d5	.414	.333		19.6	
2-Fluorobiphenyl	1.241	1.217	.700	1.9	25.0
Terphenyl-d14	.825	.857	.500	-3.9	25.0
Phenol-d5	1.890	1.538	.800	18.6	25.0
2-Fluorophenol	1.379	1.202	.600	12.8	25.0
2,4,6-Tribromophenol	.160	.177		-10.6	
2-Chlorophenol-d4	1.489	1.352	.800	9.2	25.0
1,2-Dichlorobenzene-d4	.975	.899	.400	7.8	25.0

(1) Cannot be separated from Diphenylamine
All other compounds must meet a minimum RRF of .010.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

Lab File ID (Standard): M1510C2 Date Analyzed: 05/10/93

Instrument ID: EXTRELM1 Time Analyzed: 15:03

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	111920.	9.78	454880.	12.85	204904.	17.17
	UPPER LIMIT	223840.	10.28	909760.	13.35	409808.	17.67
	LOWER LIMIT	55960.	9.28	227440.	12.35	102452.	16.67
	EPA SAMPLE NO.						
1	MBLANK	111604.	9.78	464760.	12.83	202924.	17.17
2	MW-167D	116564.	9.78	477600.	12.83	213520.	17.17
3	MW-16MS	116732.	9.80	486400.	12.85	234528.	17.17
4	MW-16MSD	124798.	9.82	510648.	12.85	246840.	17.18
5	MW-73S	142384.	9.82	558440.	12.85	270140.	17.18
6	MW-151D	103074.	9.82	420728.	12.85	192708.	17.18
7	MW-161D	131528.	9.82	524680.	12.85	252960.	17.18
8	MW-174D	132128.	9.82	550120.	12.85	261032.	17.18
9	FBLANK	141924.	9.82	575328.	12.87	267504.	17.18
10	TBLANK	139268.	9.82	549248.	12.85	263696.	17.20
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + .50 minutes of internal standard RT
RT LOWER LIMIT = - .50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Antech Ltd. Contract:

Lab Code: ANTECH Case No.: 931290 SAS No.: SDG No.: 1290

Lab File ID (Standard): M1510C2 Date Analyzed: 05/10/93

Instrument ID: EXTRELM1 Time Analyzed: 15:03

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	299156.	20.83	264324.	27.42	229948.	30.73
	UPPER LIMIT	598312.	21.33	528648.	27.92	459896.	31.23
	LOWER LIMIT	149578.	20.33	132162.	26.92	114974.	30.23
	EPA SAMPLE NO.						
1	MBLANK	304504.	20.83	279636.	27.40	306696.	30.73
2	MW-167D	324028.	20.83	307716.	27.40	326388.	30.73
3	MW-16MS	355660.	20.85	322828.	27.42	347620.	30.77
4	MW-16MSD	365624.	20.87	344408.	27.42	374156.	30.78
5	MW-73S	401232.	20.87	377740.	27.43	413080.	30.78
6	MW-151D	303868.	20.87	277240.	27.43	293028.	30.78
7	MW-161D	403440.	20.85	377188.	27.43	402920.	30.78
8	MW-174D	403480.	20.87	379336.	27.43	408804.	30.78
9	FBLANK	436992.	20.87	402364.	27.43	442308.	30.80
10	TBLANK	423376.	20.87	379764.	27.45	404756.	30.80
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + .50 minutes of internal standard RT
RT LOWER LIMIT = - .50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.