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GROUNDWATER MONITORING
VALIDATED ANALYTICAL RESULTS FOR THE THIRD QUARTER 1995
ASH LANDFILL, SENECA ARMY DEPOT

PREPARED FOR:
U.S. Army Corps of Engineers
Hunstville, Alabama

PREPARED BY:

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D#14

TABLES

TABLE 1

SENECA ARMY DEPOT ACTIVITY
1995 GROUNDWATER MONITORING PROGRAM
GROUNDWATER ELEVATION DATA

Monitoring Well	Elevation at Top of Riser (MSL)	First Quarter 1995			Second Quarter 1995			Third Quarter 1995		
		Date	Depth from Top of Riser (ft.)	Elevation of Water Level (ft.)	Date	Depth from Top of Riser (ft.)	Elevation of Water Level (ft.)	Date.	Depth from Top of Riser (ft.)	Elevation of Water Level (ft.)
Ash Landfill										
PT-10	681.52				06/05/95	10.4	671.12	09/12/95	10.5	671.02
PT-11	658.22	03/16/95	4.28	653.94	06/05/95	7.2	651.02	09/12/95	8.39	649.83
PT-12	652.15				06/05/95	Destroyed				
PT-15	637.76				06/05/95	8.2	629.56	09/12/95	9.73	628.03
PT-16	637.51				06/05/95	4.68	632.83	09/12/95	5.36	632.15
PT-17	640.14				06/05/95	7.87	632.27	09/12/95	8.66	631.48
PT-18	656.68				06/05/95	8.24	648.44	09/12/95	8.81	647.87
PT-19	645.26	03/17/95	3.1	642.16	06/05/95	6.33	638.93	09/12/95	7.57	637.69
PT-20	647.28				06/05/95	7.69	639.59	09/12/95	8.83	638.45
PT-21	647.73				06/05/95	Destroyed				
PT-22	648.61				06/05/95	8.92	639.69	09/12/95	9.74	638.87
PT-23	641.58				06/05/95	6.95	634.63	09/12/95	7.94	633.64
PT-24	636.4				06/05/95	5.41	630.99	09/12/95	5.64	630.76
PT-25	637.09				06/05/95	7.2	629.89	09/12/95	9.84	627.25
PT-26	614.64				06/05/95	7.02	607.62	09/12/95	N/A	614.64
MW-27	639.32	03/16/95	5.13	634.19	06/05/95	6.85	632.47	09/12/95	6.74	632.58
MW-28	637.21				06/05/95	5.93	631.28	09/12/95	6.12	631.09
MW-29	637.31				06/05/95	7.38	629.93	09/12/95	7.78	629.53
MW-30	640.32	03/17/95	4.1	636.22	06/05/95	Dry		09/12/95	10.42	629.9
MW-31	636.7				06/05/95	6.49	630.21	09/12/95	8.7	628.00
MW-32	641.68				06/05/95	8	633.68	09/12/95	8.9	632.78
MW-33	639.56				06/05/95	8.76	630.8	09/12/95	9.62	629.94
MW-34	632.89				06/05/95	5.93	626.96	09/12/95	8.9	623.99
MW-35D	631.82				06/05/95	4.15	627.67	09/12/95	5.43	626.39
MW-36	631.79	03/16/95	2.34	629.45	06/05/95	4.36	627.43	09/12/95	5.94	625.85
MW-37	632.89	09/23/01			06/05/95	4.58	628.31	09/12/95	5.96	626.93
MW-38D	637.9	09/28/01			06/05/95	5.23	632.67	09/12/95	8.91	628.99
MW-39	659.54	10/20/01			06/05/95	3.96	655.58	09/12/95	5.27	654.27
MW-40	659.3	10/20/01	3.61	655.69	06/05/95	6.48	652.82	09/12/95	7.46	651.84
MW-41D	694.02	11/24/01			06/05/95	8.48	685.54	09/12/95	8.76	685.26
MW-42D	683.04				06/05/95	5.97	677.07	09/12/95	8.34	674.70
MW-43	657.73				06/05/95	4.72	653.01	09/12/95	5.73	652.00
MW-44	653.85				06/05/95	Destroyed				
MW-45	650.9	03/17/95	3.05	647.85	06/05/95	5.26	645.64	09/12/95	6.34	644.56
MW-46	650.41				06/05/95	7.06	643.35	09/12/95	7.96	642.45
MW-47	628.06	03/16/95	2.84	625.22	06/05/95	6.48	621.58	09/12/95	5.96	622.10
MW-48	648.32	03/17/95	3.1	645.22	06/05/95	6.13	642.19	09/12/95	6.86	641.46
MW-49D	650.5				06/05/95	7.1	643.4	09/12/95	7.88	642.62
MW-50D	649.88				06/05/95	6.88	643	09/12/95	7.69	642.19
MW-51D	628.24				06/05/95	6.63	621.61	09/12/95	6.12	622.12
MW-52D	626.35				06/05/95	6.12	620.23	09/12/95	5.68	620.67
MW-53	639.41				06/05/95	8.45	630.96	09/12/95	8.94	630.47
MW-54D	639.11				06/05/95	8.3	630.81	09/12/95	8.76	630.35
MW-55D	639.16				06/05/95	8.18	630.98	09/12/95	8.62	630.54
MW-56	630.51	03/16/95	2.95	627.56	06/05/95	4.14	626.37	09/12/95	4.31	626.20
MW-57D	629.82				06/05/95	3.79	626.03	09/12/95	3.7	626.12
MW-58D	629.69				06/05/95	3.6	626.09	09/12/95	3.52	626.17
MW-59	656.83	03/17/95	1.9	654.93	06/05/95	3.26	653.57	09/12/95	4.58	652.25
MW-60	660.15	03/17/95	2.02	658.13	06/05/95	3.83	656.32	09/12/95	5.33	654.82

Table 2
ASH Landfill 1995 Third Quarter Groundwater Monitoring
Validated Volatile Organic Analyses Results (Method 524.2)

		MATRIX	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
		LOCATION	ASH	ASH	ASH	ASH	ASH	ASH	ASH	ASH	ASH	ASH	ASH
		SAMPLE DATE	09/14/95	09/14/95	09/14/95	09/14/95	09/14/95	09/14/95	09/14/95	09/13/95	09/13/95	09/13/95	09/14/95
		ES ID	BRNS	RRNSRE	FHD	FHS	MW27	MW27RE	MW38	MW40	MW44B	MW45	MW47
		LAB ID	270971	270971	270969	270970	271006	271006	270977	270978	270986	270979	270981
		SDG NUMBER	53766	53766	53766	53766	53766	53766	53766	53766	53766	53766	53766
	COMPOUND	UNITS									Duplicate		
CAS No.	VOLATILE ORGANICS												
75-71-8	Dichlorodifluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
74-87-3	Chloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-01-4	Vinyl Chloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
74-83-9	Bromomethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-00-3	Chloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-69-4	Trichlorofluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
67-64-1	Acetone	ug/l	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
75-35-4	1,1-Dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
156-60-5	trans-1,2-Dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-09-2	Methylene Chloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1634-04-4	Methyl-t-Butyl Ether	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-34-3	1,1-Dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
156-59-2	cis-1,2-Dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
78-93-3	2-Butanone	ug/l	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
590-20-7	2,2-Dichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
67-66-3	Chloroform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
74-97-5	Bromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
71-55-6	1,1,1-Trichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
563-58-6	1,1-Dichloropropene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
56-23-5	Carbon Tetrachloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
107-06-2	1,2-Dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
71-43-2	Benzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
79-01-6	Trichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
78-87-5	1,2-Dichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-27-4	Bromodichloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
74-95-3	Dibromomethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
108-10-1	4-Methyl-2-Pentanone	ug/l	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
10061-01-5	cis-1,3-Dichloropropene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
108-88-3	Toluene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
10061-02-6	trans-1,3-Dichloropropene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
79-00-5	1,1,2-Trichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
591-78-6	2-Hexanone	ug/l	3 U	0.5 U	0.5 U	3 U	3 U	0.5 U	3 U	3 U	3 U	0.5 U	3 U
142-28-9	1,3-Dichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
127-18-4	Tetrachloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
124-48-1	Dibromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
106-93-4	1,2-Dibromoethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
108-90-7	Chlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
630-20-6	1,1,1,2-Tetrachloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
100-41-4	Ethylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1330-20-7	Xylene (Total)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
100-42-5	Styrene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-25-2	Bromoform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
98-82-8	Isopropylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
79-34-5	1,1,2,2-Tetrachloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
96-18-4	1,2,3-Trichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
108-86-1	Bromobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
103-65-1	n-Propylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
95-49-8	2-Chlorotoluene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
108-67-8	1,3,5-Trimethylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
106-43-4	4-Chlorotoluene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
98-06-6	tert-Butylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
95-63-6	1,2,4-Trimethylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
135-98-8	sec-Butylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
99-87-6	p-Isopropyltoluene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
541-73-1	1,3-Dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
106-46-7	1,4-Dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
104-51-8	n-Butylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
95-50-1	1,2-Dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
96-12-8	1,2-Dibromo-3-Chloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
120-82-1	1,2,4-Trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
87-68-3	Hexachlorobutadiene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
91-20-3	Naphthalene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
87-61-6	1,2,3-Trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table 2
ASH Landfill 1995 Third Quarter Groundwater Monitoring
Validated Volatile Organic Analyses Results (Method 524.2)

	MATRIX	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	LOCATION	ASH	ASH	ASH	ASH	ASH	ASH	ASH	ASH	ASH	ASH
	SAMPLE DATE	09/13/95	09/13/95	09/14/95	09/19/95	09/19/95	09/14/95	09/14/95	09/13/95	09/13/95	09/14/95
	ES ID	MW48	MW48R	MW56	MW59	MW60	PT11	PT11RE	PT19	TB913	TB914
	LAB ID	270982	270983	270984	271849	271850	270987	270987	270988	270989	270990
	SDG NUMBER	53766	53766	53766	53766	53766	53766	53766	53766	53766	53766-
	COMPOUND	UNITS	Rinsate							Trip Blank	Trip Blank
CAS No.	VOLATILE ORGANICS										
75-71-8	Dichlorodifluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
74-87-3	Chloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-01-4	Vinyl Chloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
74-83-9	Bromomethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-00-3	Chloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-69-4	Trichlorofluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
67-64-1	Acetone	ug/l	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
75-35-4	1,1-Dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
156-60-5	trans-1,2-Dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-09-2	Methylene Chloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1634-04-4	Methyl-t-Butyl Ether	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-34-3	1,1-Dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
156-59-2	cis-1,2-Dichloroethene	ug/l	0.5 U	0.5 U	0.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
78-93-3	2-Butanone	ug/l	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
590-20-7	2,2-Dichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
67-66-3	Chloroform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2
74-97-5	Bromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
71-55-8	1,1,1-Trichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
563-58-6	1,1-Dichloropropene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
56-23-5	Carbon Tetrachloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
107-06-2	1,2-Dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
71-43-2	Benzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
79-01-6	Trichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
78-87-5	1,2-Dichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-27-4	Bromodichloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1
74-95-3	Dibromomethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
108-10-1	4-Methyl-2-Pentanone	ug/l	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
10061-01-5	cis-1,3-Dichloropropene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
108-88-3	Toluene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
10061-02-6	trans-1,3-Dichloropropene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
79-00-5	1,1,2-Trichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
591-78-6	2-Hexanone	ug/l	3 U	3 U	3 U	0.5 U	0.5 U	3 U	0.5 U	0.5 U	0.5 U	0.5 U
142-28-9	1,3-Dichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
127-18-4	Tetrachloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
124-48-1	Dibromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
106-93-4	1,2-Dibromoethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
108-90-7	Chlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
630-20-6	1,1,1,2-Tetrachloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
100-41-4	Ethylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1330-20-7	Xylene (Total)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
100-42-5	Styrene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-25-2	Bromoform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
98-82-8	Isopropylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
79-34-5	1,1,2,2-Tetrachloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
96-18-4	1,2,3-Trichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
108-86-1	Bromobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
103-65-1	n-Propylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
95-49-8	2-Chlorotoluene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
108-67-8	1,3,5-Trimethylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
106-43-4	4-Chlorotoluene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
98-06-6	tert-Butylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
95-63-6	1,2,4-Trimethylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
135-98-8	sec-Butylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
99-87-6	p-Isopropyltoluene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
541-73-1	1,3-Dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
106-46-7	1,4-Dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
104-51-8	n-Butylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
95-50-1	1,2-Dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
96-12-8	1,2-Dibromo-3-Chloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
120-82-1	1,2,4-Trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
87-68-3	Hexachlorobutadiene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
91-20-3	Naphthalene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
87-61-6	1,2,3-Trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

N

SEAD RAILROAD

APPROXIMATE LOCATION OF 6" WATER MAIN

COOKING GREASE PITS DISPOSAL AREA

NON COMBUSTIBLE FILL LANDFILL

DEBRIS PILE

DEBRIS PILE

ASH LANDFILL

ABANDONED INCINERATOR BUILDING

ASPHALT PATCH

CEMETARY ROAD

WEST PATROL ROAD

CONRAIL RAILROAD

FARMHOUSE WELLS (1250 FEET)

(1250 FEET)

(625 FEET)

SEAD-1 EL.630.90'

(671.02) PT-10

MW-42D

(654.27) MW-39

(652) MW-43

(651.84) MW-40

(654.82) MW-60

MW-59

(652.25) PT-11

(649.83)

PT-18 (647.87)

MW-44

(644.56) MW-45

MW-49D

MW-50D

(642.56) MW-46

PT-12

PT-19 (637.66)

(638.45) PT-21

PT-20

(638.87) MW-22D

(641.44) MW-48

(632.78) MW-32

(629.94) MW-33

PT-17

(631.48)

(629.90) MW-36

(628.03) PT-45

(633.34) PT-23

MW-53

MW-54D

(628.00)

MW-31

(627.25) PT-25

(632.54) MW-37

MW-55D

(630.47)

(629.53) MW-29

MW-28

(631.09) MW-38D

(630.76) PT-24

(632.15) PT-16

MW-34

(623.99)

MW-36

MW-35D

(625.85)

MW-57D

(626.47) MW-56

MW-58D

W-G

PT-26

MW-37

MW-51D

MW-47

MW-52D

(622.00)

W-A W-B W-C W-D W-E W-F

ACAD\SENECA\OBRI\ASHLDGW.DWG

LEGEND:

- BURNING PAD DESIGNATION
- PAD OR GRID BORING
- GROUND CONTOUR AND ELEVATION
- WETLAND & DESIGNATION
- MONITORING WELL & DESIGNATION AND MSL ELEVATION DATUM
- UTILITY POLE
- TREE
- BRUSH

640 GROUNDWATER ELEVATION CONTOUR MSL DATUM

GENERAL GROUNDWATER FLOW DIRECTION

125 0 125 250

1" = 250'

PARSONS

PARSONS ENGINEERING SCIENCE, INC.

CLIENT/PROJECT TITLE

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL
GROUNDWATER MONITORING PROGRAM

DEPT. ENVIRONMENTAL ENGINEERING | Dwg No. 726980-01007

FIGURE 1
GROUNDWATER ELEVATION CONTOUR PLAN
SEPTEMBER 1995

SCALE 1" = 250' | DATE NOVEMBER 1995 | REV A

APPENDIX A

FIELD DATA

Ash Landfill Third Quarter 1995 Groundwater Monitoring Program

1. Groundwater Sampling Forms
2. Chain-of-Custody Forms
3. pH Meter Calibration Forms
4. Groundwater Elevation Report

1. Groundwater Sampling Forms

SAMPLING RECORD – GROUNDWATER

ENGINEERING–SCIENCE, INC.	CLIENT: USACOE	DATE: 9-17-95
PROJECT: SEAD - 3rd Quarterly Monitoring '95		INSPECTOR: KKS/BH
LOCATION: Ash Landfill		LABORATORY:
		CHAIN OF CUSTODY #:
WELL NUMBER: PT-11		MONITORING:
		INSTRUMENT: OVM 580 / DETECTOR: PID
SCREENED INTERVAL (TOC):		

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.167	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 8.39
WELL DEPTH (TOC): 19.52 (14.0)
FEET OF WATER IN WELL: 11.13
STANDING WATER VOLUME IN WELL (gallons): 1.8
THREE WELL VOLUMES (gallons):
ONE: 1.8 TWO: 3.6 THREE: 5.4

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: 1453 TIME END PURGING:

TIME:	1456	1459	1505	1530		
DEPTH TO WATER (ft)	~~14.0~~ 14.5 ICKS	15.1	15.2	16.0		
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	19.5	15.5	15.5	16.5		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	1500/250	125	125	100 ml		
VOLUME OF WATER REMOVED (gals)	1L	0.1 L	0.1 L	.6	Slow well	
TEMPERATURE (deg. C)	17.5	16.5	18.0 ←	Am temp 17.0	80° F	
SPEC. COND (umhos)	875	875	875	850		
PH	7.08	7.10	7.15	7.32		

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE	9-14-95					
TIME	0840					
DEPTH TO WATER (ft)	14.54					
"AFTER PURGE" WATER COLUMN (ft)	4.98					
"STATIC" WATER COLUMN (ft)	11.13					
% RECOVERY	45%					

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

SAMPLING INFORMATION

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOC 524.2	0840	40 ml	clear	

QA\QC:

QA/QC DUPLICATE SAMPLE COLLECTED: YES or (NO)

Duplicate Sample Name:

MRD Sample Name:

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or (NO)

INVESTIGATION DERIVED WASTE (IDW):

Date:				
Volume Transfered to Drum:				
Drum Number:				

COMMENTS:

SAMPLING RECORD – GROUNDWATER

ENGINEERING–SCIENCE, INC.	CLIENT: USACOE	DATE: 9-13-95
PROJECT: SEAD - 3rd Quarterly Monitoring '95	INSPECTOR: KRS / BH	
LOCATION: Ash Landfill	LABORATORY:	
	CHAIN OF CUSTODY #:	
WELL NUMBER: PT-19	MONITORING INSTRUMENT: OVM	DETECTOR: PID
SCREENED INTERVAL (TOC):		

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	(2)	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 7.60
WELL DEPTH (TOC): 11.7
FEET OF WATER IN WELL: 4.1
STANDING WATER VOLUME IN WELL (gallons): .67
THREE WELL VOLUMES (gallons):
ONE: .67 TWO: 1.34 THREE: 2.68

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

9.7

TIME BEGIN PURGING: 1347 TIME END PURGING: 1410

TIME:	1352	1400	1408			
DEPTH TO WATER (ft)	9.02	KRS ~~10.00~~ 9.7	9.8			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	11.7	10.7	10.5	slow well		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	550	550/~~300~~ ~~250~~ 200	100 ml			
VOLUME OF WATER REMOVED (gals)	.67	@.67	.10			
TEMPERATURE (deg. C)	15.5	16.0	17.0			
SPEC. COND (umhos)	700	700	700			
PH	7.09	7.00	7.01			

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE	9-13-95	9-13-95				
TIME	1635	1720				
DEPTH TO WATER (ft)	8.70	8.2				
"AFTER PURGE" WATER COLUMN (ft)	3.0	3.5				
"STATIC" WATER COLUMN (ft)	4.1	4.1				
% RECOVERY	73%	85%				

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

SAMPLING INFORMATION

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOC 524-2	0830	40ml	clear	

QA\QC:

QA/QC DUPLICATE SAMPLE COLLECTED: YES or NO
Duplicate Sample Name:
MRD Sample Name:

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Date:				
Volume Transfered to Drum:				
Drum Number:				

COMMENTS: ~~Well~~ light brown silt - .20 gal
slurry-like thickness
.20 gal - still silty - clearing

SAMPLING RECORD – GROUNDWATER

ENGINEERING–SCIENCE, INC.	CLIENT: USACOE	DATE: 9-13-95
PROJECT: SEAD - 3rd Quarterly Monitoring '95 LOCATION: Ash Landfill		INSPECTOR: LABORATORY: CHAIN OF CUSTODY #:
WELL NUMBER: MW-30 SCREENED INTERVAL (TOC):		MONITORING: X INSTRUMENT: OVM DETECTOR: PID

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	(2)	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 10.44
WELL DEPTH (TOC): 10.52
FEET OF WATER IN WELL: .12
STANDING WATER VOLUME IN WELL (gallons):
THREE WELL VOLUMES (gallons):
ONE: TWO: THREE:

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: TIME END PURGING:

TIME						
DEPTH TO WATER (ft)						
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)		DRY WELL				
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)						
VOLUME OF WATER REMOVED (gals)						
TEMPERATURE (deg. C)						
SPEC. COND (umhos)						
PH						

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE						
TIME						
DEPTH TO WATER (ft)						
"AFTER PURGE" WATER COLUMN (ft)						
"STATIC" WATER COLUMN (ft)						
% RECOVERY						

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

SAMPLING INFORMATION

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)

QA\QC:

QA/QC DUPLICATE SAMPLE COLLECTED: YES or NO
Duplicate Sample Name:
MRD Sample Name:

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Date:				
Volume Transfered to Drum:				
Drum Number:				

COMMENTS:

SAMPLING RECORD – GROUNDWATER

ENGINEERING–SCIENCE, INC.	CLIENT: USACOE	DATE: 9-14-95
PROJECT: SEAD - 3rd Quarterly Monitoring '95	INSPECTOR: ICRS	
LOCATION:	LABORATORY: Aquatec	
WELL NUMBER: MW-36	CHAIN OF CUSTODY #:	
SCREENED INTERVAL (TOC):	MONITORING INSTRUMENT: OVA	DETECTOR: PID

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	(2)	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.167	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

11.33

STATIC DEPTH TO WATER (TOC): 6.08
WELL DEPTH (TOC): 16.58
FEET OF WATER IN WELL: 10.5
STANDING WATER VOLUME IN WELL (gallons): 1.7
THREE WELL VOLUMES (gallons):
ONE: 1.7 TWO: 3.4 THREE: 5.1

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: 1037 TIME END PURGING:

TIME	1048 ~~1037~~ RKS	1056	1102			
DEPTH TO WATER (ft)	6.64	7.20	7.42			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	16.58	120	12.0			
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	660	~~1560 ml/min~~ 1 L/M	1560			
VOLUME OF WATER REMOVED (gals)	1.7	1.7	1.7			
TEMPERATURE (deg. C)	15	15	15			
SPEC. COND (umhos)	650	700	700			
PH	7.08	7.21	7.28			

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE	9-14-95					
TIME	1115					
DEPTH TO WATER (ft)	6.09					
"AFTER PURGE" WATER COLUMN (ft)						
"STATIC" WATER COLUMN (ft)						
% RECOVERY	100%					

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

SAMPLING INFORMATION

SAMPLING DEVICE: Teflon Bailer

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOC 524.2	1115	40ml	clear	

QA\QC:

QA/QC DUPLICATE SAMPLE COLLECTED: YES or (NO)

Duplicate Sample Name:

MRD Sample Name:

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or (NO)

INVESTIGATION DERIVED WASTE (IDW):

Date:		N/A		
Volume Transfered to Drum:				
Drum Number:				

COMMENTS:

SAMPLING RECORD – GROUNDWATER

ENGINEERING–SCIENCE, INC.	CLIENT: USACOE	DATE: 9-13-95
PROJECT: SEAD - 3rd Quarterly Monitoring '95 LOCATION: Ash Landfill	INSPECTOR: KKS / BH LABORATORY: Aquatec CHAIN OF CUSTODY #:	
WELL NUMBER: MW-40 SCREENED INTERVAL (TOC):	MONITORING INSTRUMENT: OVM DETECTOR: PID	

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 14.71
WELL DEPTH (TOC): 7.47
FEET OF WATER IN WELL: 7.24
STANDING WATER VOLUME IN WELL (gallons): 1.2
THREE WELL VOLUMES (gallons):
ONE: 1.2 TWO: 2.4 THREE: 3.6

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: 1244 TIME END PURGING: 1300

11.09

TIME:	1248	1254	1300			
DEPTH TO WATER (ft)	8.58	9.60	10.40			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	14.7	10.8	~~10.40~~ 10.8			
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	1500 ml/min	1500 ml/min	1500 ml			
VOLUME OF WATER REMOVED (gals)	1.2	1.2	1.2			
TEMPERATURE (deg. C)	16.0	16.0	15.0			
SPEC. COND (umhos)	500	500	500			
PH	7.07	7.21	7.28			

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE	9-13-95	9-13-95	9-13-95			
TIME	1416	1430	1608			
DEPTH TO WATER (ft)	8.78	8.45	8.05			
"AFTER PURGE" WATER COLUMN (ft)	5.93	6.26	6.66			
"STATIC" WATER COLUMN (ft)	7.24	7.24	92%			
% RECOVERY	82%	86%				

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

SAMPLING INFORMATION

SAMPLING DEVICE: Teflon Bailer

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOC 524.2	1610	40 ml VOA	clear	

QA\QC:

QA/QC DUPLICATE SAMPLE COLLECTED: YES or (NO)

Duplicate Sample Name:

MRD Sample Name:

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or (NO)

INVESTIGATION DERIVED WASTE (IDW):

Date:				
Volume Transfered to Drum:	N/A			
Drum Number:				

COMMENTS:

SAMPLING RECORD – GROUNDWATER

ENGINEERING–SCIENCE, INC.	CLIENT: USACOE	DATE:

PROJECT: SEAD - 3rd Quarterly Monitoring '95
LOCATION: Ash Landfill
INSPECTOR: kas / JH
LABORATORY: Aquatec
CHAIN OF CUSTODY #:

WELL NUMBER: MW-45
SCREENED INTERVAL (TOC):

MONITORING	
INSTRUMENT	DETECTOR
OVM 580	PID

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

7.34

STATIC DEPTH TO WATER (TOC): 6.34
WELL DEPTH (TOC): 8.34
FEET OF WATER IN WELL: 2.0
STANDING WATER VOLUME IN WELL (gallons): .3
THREE WELL VOLUMES (gallons):
ONE: .3 TWO: .6 THREE: .9

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: 1319 TIME END PURGING:

TIME	1321	1326	1336			
DEPTH TO WATER (ft)	7.02	7.30	7.30			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	8.3	7.5	7.5			
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	480 ml	480/350	300 ml			
VOLUME OF WATER REMOVED (gals)	.3	.3	.3			
TEMPERATURE (deg. C)	18	18	18			
SPEC. COND (umhos)	600	600	600			
PH	7.08	7.09	7.13			

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE	9-13-95					
TIME	1423					
DEPTH TO WATER (ft)	6.50					
"AFTER PURGE" WATER COLUMN (ft)	1.84					
"STATIC" WATER COLUMN (ft)	2.0					
% RECOVERY	92%					

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

SAMPLING INFORMATION

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOC 524.2	1430	40-1 VOA	clear	

QA\QC:

QA/QC DUPLICATE SAMPLE COLLECTED: YES or NO

Duplicate Sample Name:

MRD Sample Name: ~~MW-85~~ KKS

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: (YES) or NO

INVESTIGATION DERIVED WASTE (IDW):

Date:				
Volume Transfered to Drum:	N/A			
Drum Number:				

COMMENTS:

SAMPLING RECORD – GROUNDWATER

ENGINEERING–SCIENCE, INC.	CLIENT: USACOE	DATE: 9-14-95
PROJECT: SEAD - 3rd Quarterly Monitoring '95	INSPECTOR: ICKS/BH	
LOCATION:	LABORATORY:	
WELL NUMBER: MW-47	CHAIN OF CUSTODY #:	
SCREENED INTERVAL (TOC):	MONITORING INSTRUMENT: OVM 580 DETECTOR: PID	

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.167	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 6.06
WELL DEPTH (TOC): 8.56
FEET OF WATER IN WELL: 2.5
STANDING WATER VOLUME IN WELL (gallons): .4
THREE WELL VOLUMES (gallons):
ONE: .4 TWO: .8 THREE: 1.2

1.3

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: 0947 TIME END PURGING:

TIME	0950	0956	1003	1012	~~1028~~	
DEPTH TO WATER (ft)	6.48	6.62	7.18	7.10		
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	6.06	6.06/7.5	7.5	7.5/7.9		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	200/100	180/~~250~~ 250 KKS	250/318	318		
VOLUME OF WATER REMOVED (gals)	.15	.25	.4	.4		
TEMPERATURE (deg. C)	18	18	18	18		
SPEC. COND (umhos)	600	550	550	~~55~~ 550		
PH	7.23	7.14	7.09	7.08		

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE	9-14-95					
TIME	1025					
DEPTH TO WATER (ft)	6.06					
"AFTER PURGE" WATER COLUMN (ft)						
"STATIC" WATER COLUMN (ft)						
% RECOVERY	100%					

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

SAMPLING INFORMATION

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOC 524.2	1030	40ml	clear	

QA\QC:

QA/QC DUPLICATE SAMPLE COLLECTED: YES or (NO)

Duplicate Sample Name:

MRD Sample Name:

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or (NO)

INVESTIGATION DERIVED WASTE (IDW):

Date:				
Volume Transfered to Drum:	N/A			
Drum Number:				

COMMENTS: Thick light-brown silt on bottom - cleared in .2 gallons

SAMPLING RECORD – GROUNDWATER

ENGINEERING – SCIENCE, INC.	CLIENT: USACOE	DATE: 9-13-95
PROJECT: SEAD - 3rd Quarterly Monitoring '95		INSPECTOR: KRS / B
LOCATION: Ash Landfill		LABORATORY:
		CHAIN OF CUSTODY #:
WELL NUMBER: MW-48		MONITORING
		INSTRUMENT: OVM / DETECTOR: PID
SCREENED INTERVAL (TOC):		

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 6.88
WELL DEPTH (TOC): 11.50
FEET OF WATER IN WELL: 4.62
STANDING WATER VOLUME IN WELL (gallons): .75
THREE WELL VOLUMES (gallons):
ONE: .75 TWO: 1.50 THREE: 2.25

9.2

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: 1023 TIME END PURGING:

TIME:	1027	1030	1035	1040		
DEPTH TO WATER (ft)	7.22	7.26	7.26	7.26		
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	11.50	8.5	8.5	8.5		
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	1L	1L	1L	1L		
VOLUME OF WATER REMOVED (gals)	.75	.75	.75	.75		
TEMPERATURE (deg. C)	17.5	18.0	18.0	18.0		
SPEC. COND (umhos)	600	600	~~600~~ 550 µS	600		
PH	6.31	6.60	6.77	6.80		

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE	9-13-95					
TIME	1050					
DEPTH TO WATER (ft)	6.88					
"AFTER PURGE" WATER COLUMN (ft)						
"STATIC" WATER COLUMN (ft)						
% RECOVERY	100%					

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

SAMPLING INFORMATION

SAMPLING DEVICE: Teflon Bailer

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOC 524.2	1055	40 ml VOA	clear	N/A

QA\QC:

QA/QC DUPLICATE SAMPLE COLLECTED: (YES) or NO
Duplicate Sample Name: MW-448
MRD Sample Name: MW-48MRD / MW-48MRD-R

QA\QC RINSATE SAMPLE NAME: MW-48-R

MATRIX SPIKE SAMPLE COLLECTED: YES or (NO)

Rinsate 1045
TB 1000

INVESTIGATION DERIVED WASTE (IDW):

Date:	N/A			
Volume Transfered to Drum:				
Drum Number:				

COMMENTS:

PAGE OF

SAMPLING RECORD – GROUNDWATER

ENGINEERING–SCIENCE, INC.	CLIENT: USACOE	DATE: 9-14-95

PROJECT: SEAD - 3rd Quarterly Monitoring '95	INSPECTOR: ICKS/BH
LOCATION:	LABORATORY: Aquatec
	CHAIN OF CUSTODY #:
WELL NUMBER: MW-56	MONITORING: INSTRUMENT: OVM 580 DETECTOR: PID
SCREENED INTERVAL (TOC):	

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.167	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 4.04
WELL DEPTH (TOC): 6.88
FEET OF WATER IN WELL: 2.84
STANDING WATER VOLUME IN WELL (gallons): .46
THREE WELL VOLUMES (gallons):
ONE: .46 TWO: .93 THREE: 1.4

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: 1132 TIME END PURGING: 1145

TIME:	1135	1141	1145			
DEPTH TO WATER (ft)	4.70	4.88	4.88			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	6.88	4.00	4.00			
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	480	870	870			
VOLUME OF WATER REMOVED (gals)	.5	.5	.5			
TEMPERATURE (deg. C)	17	17	17			
SPEC. COND (umhos)	700	700	700			
PH	7.25	7.16	7.15			

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE	9-14-95					
TIME	1200					
DEPTH TO WATER (ft)	4.04					
"AFTER PURGE" WATER COLUMN (ft)						
"STATIC" WATER COLUMN (ft)						
% RECOVERY	100%					

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

SAMPLING INFORMATION

SAMPLING DEVICE: Teflon Bailer

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOC 524.2	1200	40 ml	clear	

QA\QC:

QA/QC DUPLICATE SAMPLE COLLECTED: YES or (NO)

Duplicate Sample Name:

MRD Sample Name:

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or (NO)

INVESTIGATION DERIVED WASTE (IDW):

Date:	N/A		
Volume Transfered to Drum:			
Drum Number:			

COMMENTS:

SAMPLING RECORD – GROUNDWATER

ENGINEERING–SCIENCE, INC.	CLIENT: USACOE	DATE: Sept. 19, 1995
PROJECT: SEAD - 3rd Quarterly Monitoring '95 LOCATION: Ash Landfill		INSPECTOR: KKS, AMW LABORATORY: Aquatec CHAIN OF CUSTODY #:
WELL NUMBER: MW-59 SCREENED INTERVAL (TOC):		MONITORING INSTRUMENT: NA DETECTOR: NA

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	(2)	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.167	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 4.87
WELL DEPTH (TOC): 9.99
FEET OF WATER IN WELL: 5.12
STANDING WATER VOLUME IN WELL (gallons): 0.835 gal
THREE WELL VOLUMES (gallons): 2.5
ONE: 0.835 TWO: 1.67 THREE: 2.5

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

½ H2O column 7.43' TOC

TIME BEGIN PURGING: 10:55 TIME END PURGING: 1113

TIME:	1103	1108	1112			
DEPTH TO WATER (ft)	6.20	6.82	7.24			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	9.99	6.99	6.99			
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)	~~870~~ 480	870	870			
VOLUME OF WATER REMOVED (gals)	0.84	1.67	2.5			
TEMPERATURE (deg. C)	16	16	16			
SPEC. COND (umhos)	1200	1200	1200			
PH – Model SA 230 S.N. 1752	6.42	6.62	6.68			

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE	9-19-95					
TIME	1300					
DEPTH TO WATER (ft)	4.90					
"AFTER PURGE" WATER COLUMN (ft)	5.09					
"STATIC" WATER COLUMN (ft)	5.12					
% RECOVERY	99%					

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

Ash MW-59 pg 2 of 2

SAMPLING INFORMATION

SAMPLING DEVICE: bailers

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
3x VOA 524.2	1300	HCl 40 ml Amber	clear	NA

QA\QC:

QA/QC DUPLICATE SAMPLE COLLECTED: YES or (NO)
Duplicate Sample Name:
MRD Sample Name:

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or (NO)

INVESTIGATION DERIVED WASTE (IDW): NA: Well sampled clean already.

Date:				
Volume Transfered to Drum:				
Drum Number:				

COMMENTS:

Black silt ~~on~~ pumped up from well bottom. Smell of sulfur. Bugs

Pad & protective riser is loose

SAMPLING RECORD – GROUNDWATER

ENGINEERING–SCIENCE, INC.	CLIENT: USACOE	DATE: Sept. 19, 1995
PROJECT: SEAD - 3rd Quarterly Monitoring '95 LOCATION: ASP Landfill	INSPECTOR: KKS, AMW LABORATORY: Aquatec CHAIN OF CUSTODY #:	
WELL NUMBER: MW-60 SCREENED INTERVAL (TOC):	MONITORING INSTRUMENT: NA DETECTOR: NA	

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	(2)	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): 5.62
WELL DEPTH (TOC): 10.29
FEET OF WATER IN WELL: 4.67

STANDING WATER VOLUME IN WELL (gallons): 0.76
THREE WELL VOLUMES (gallons): 2.28
ONE: 0.76 TWO: 1.5 THREE: 2.3

1/- H_2O column = 1.95' (TOC)

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: 1124 TIME END PURGING: 1140

TIME:	1127	1133	1140			
DEPTH TO WATER (ft)	6.85	7.80	7.95			
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)	10.29	8.29	8.29			
FLOW RATE ~~(ml/min.)~~ or VOL. OF BAILER (gal.)	660	660	200/100			
VOLUME OF WATER REMOVED (gals)	0.76	~~1.5~~ 0.76	~~2.5~~ 0.3			
TEMPERATURE (deg. C)	16	16	16			
SPEC. COND (umhos)	900	900	900			
PH – Model SA 230 SN 1752	6.85	6.91	6.90			

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE	9-19-95					
TIME	1305					
DEPTH TO WATER (ft)	5.75					
"AFTER PURGE" WATER COLUMN (ft)	4.54					
"STATIC" WATER COLUMN (ft)	4.67					
% RECOVERY	98%					

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

Ash

MW-60

SAMPLING INFORMATION

SAMPLING DEVICE: bailers

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
3x VOC 524.2	1310	40ml HCl Amber	clear	NA

arrow arrow arrow arrow arrow

QA\QC:

QA/QC DUPLICATE SAMPLE COLLECTED: YES or (NO)

Duplicate Sample Name:

MRD Sample Name:

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or (NO)

INVESTIGATION DERIVED WASTE (IDW): NA: well already sampled clean.

Date:				
Volume Transfered to Drum:				
Drum Number:				

COMMENTS:

Slow well.

SAMPLING RECORD – GROUNDWATER

ENGINEERING–SCIENCE, INC.	CLIENT: USACOE	DATE: 1-14-95
PROJECT: SEAD - 3rd Quarterly Monitoring '95 LOCATION:		INSPECTOR: KS/BW LABORATORY: CHAIN OF CUSTODY #:
WELL NUMBER: FH-5 SCREENED INTERVAL (TOC):		MONITORING INSTRUMENT / DETECTOR

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.167	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): STANDING WATER VOLUME IN WELL (gallons):

WELL DEPTH (TOC): THREE WELL VOLUMES (gallons):

FEET OF WATER IN WELL: ONE: TWO: THREE:

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: TIME END PURGING:

TIME:	1135	1140	1145			
DEPTH TO WATER (ft)						
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)		Ran water until temp stabilized				
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)		Tried to minimize running water				
VOLUME OF WATER REMOVED (gals)	10 gal/min	because of drought.				
TEMPERATURE (deg. C)	18.0	17.5	17.5			
SPEC. COND (umhos)						
PH						

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE						
TIME						
DEPTH TO WATER (ft)						
"AFTER PURGE" WATER COLUMN (ft)						
"STATIC" WATER COLUMN (ft)						
% RECOVERY						

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

SAMPLING INFORMATION

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOC 524.6	1155	40 ml	clear	

QA\QC:

QA/QC DUPLICATE SAMPLE COLLECTED: YES or (NO)

Duplicate Sample Name:

MRD Sample Name:

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or (NO)

INVESTIGATION DERIVED WASTE (IDW):

Date:	N/A			
Volume Transfered to Drum:				
Drum Number:				

COMMENTS:

Took sample from holding tank spigot

SAMPLING RECORD – GROUNDWATER

ENGINEERING–SCIENCE, INC.	CLIENT: USACOE	DATE: 9-14-95
PROJECT: SEAD - 3rd Quarterly Monitoring '95 LOCATION:	INSPECTOR: ICKS/BH LABORATORY: CHAIN OF CUSTODY #:	
WELL NUMBER: FH-D SCREENED INTERVAL (TOC):	MONITORING INSTRUMENT / DETECTOR	

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): STANDING WATER VOLUME IN WELL (gallons):

WELL DEPTH (TOC): THREE WELL VOLUMES (gallons):

FEET OF WATER IN WELL: ONE: TWO: THREE:

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: TIME END PURGING:

TIME:	1135	1150				
DEPTH TO WATER (ft)						
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)						
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)						
VOLUME OF WATER REMOVED (gals)	105 l/min					
TEMPERATURE (deg. C)	18.5	15.5				
SPEC. COND (umhos)						
PH						

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE						
TIME						
DEPTH TO WATER (ft)						
"AFTER PURGE" WATER COLUMN (ft)						
"STATIC" WATER COLUMN (ft)						
% RECOVERY						

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

SAMPLING INFORMATION

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOC 524.6	1155	40 ml	clear	

QA\QC:

QA/QC DUPLICATE SAMPLE COLLECTED: YES or NO

Duplicate Sample Name:

MRD Sample Name:

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or NO

INVESTIGATION DERIVED WASTE (IDW):

Date:				
Volume Transfered to Drum:				
Drum Number:				

COMMENTS:

Water bubbly - Sulfur smell

SAMPLING RECORD – GROUNDWATER

ENGINEERING–SCIENCE, INC.	CLIENT: USACOE	DATE: 9-14-95
PROJECT: SEAD - 3rd Quarterly Monitoring '95		INSPECTOR:
LOCATION:		LABORATORY:
		CHAIN OF CUSTODY #:
WELL NUMBER: BRN-S.		MONITORING INSTRUMENT / DETECTOR
SCREENED INTERVAL (TOC):		

WELL DIAMETER FACTORS

DIAMETER (INCHES):	1	1.5	2	3	4	5	6	7	8	9	10
GALLONS/FOOT:	0.041	0.092	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	5.87

PURGE INFORMATION:

STATIC DEPTH TO WATER (TOC): STANDING WATER VOLUME IN WELL (gallons):

WELL DEPTH (TOC): THREE WELL VOLUMES (gallons):

FEET OF WATER IN WELL: ONE: TWO: THREE:

PURGING WITH A PERISTALTIC PUMP OR BAILER

(measure indicator parameters at one, two and three well volumes)

TIME BEGIN PURGING: TIME END PURGING:

TIME						
DEPTH TO WATER (ft)						
DEPTH TO BOTTOM OPENING OF TEFLON TUBE (TOC)		N/A				
FLOW RATE (ml/min.) or VOL. OF BAILER (gal.)						
VOLUME OF WATER REMOVED (gals)						
TEMPERATURE (deg. C)						
SPEC. COND (umhos)						
PH						

DEPTH TO WATER MEASUREMENTS AFTER PURGING

DATE						
TIME						
DEPTH TO WATER (ft)		N/A				
"AFTER PURGE" WATER COLUMN (ft)						
"STATIC" WATER COLUMN (ft)						
% RECOVERY						

Notes:

(1) Determine water column in the well (for both "after purge" and "static" conditions) by subtracting the measured water level from the well point.

(2) Divide the "after purge" water column by the "static" water column and multiply by 100 to determine the percent of recovery for the well.

SAMPLING INFORMATION

SAMPLING DEVICE:

SAMPLE PARAMETER	TIME	CONTAINER	COLOR	TURBIDITY SAMPLE TAKEN AFTER (CHECK ONE)
VOC 524.2	1050	40 ml	clear	

QA\QC:

QA/QC DUPLICATE SAMPLE COLLECTED: YES or (NO)

Duplicate Sample Name:

MRD Sample Name:

QA\QC RINSATE SAMPLE NAME:

MATRIX SPIKE SAMPLE COLLECTED: YES or (NO)

INVESTIGATION DERIVED WASTE (IDW):

Date:		N/A		
Volume Transfered to Drum:				
Drum Number:				

COMMENTS:

2. Chain-of-Custody Forms

CHAIN-OF-CUSTODY RECORD

PAGE 1 OF 1

SONS
ING-SCIENCE, INC.
Phone: 617-859-2000
99 Fax: 617-859-2043

JOB NO. 725980-01007
PROJECT SEAD - 3rd Quarterly Monitoring '95
CONTACT Mike Dutkewych

LABORATORY Aquatec
ADDRESS Colchester, VT
CONTACT Lori Arnold

NO.	LABORATORY SAMPLE NO.	SAMPLING DATE	SAMPLING TIME	SAMPLE DEPTH	SAMPLE MATRIX	ANALYSES: VOA 524.2	SVOC	METALS	PESTPCB	CN	HERB	TPH	Mercury	NO. OF CONTAINERS	COMMENT (Special instructions, c
R		9-12-95	1040	N/A	water			1		1			1	3	Rinsate Rinse
		9-12-95	1100					1		1			1	3	
		9-12-95	1100					1		1			1	3	
		9-14-95	0840												
7		9-14-95	0830												
		9-13-95	1725			3								3	
0		9-13-95	1610			3	X		X			X		3	
5		9-13-95	1430			6			X			X		6	Matrix Spik
18		9-13-95	1055			3								3	
148		9-13-95	1053			3								3	
8-R		9-13-95	1045			3								3	Rinsate
3		9-13-95	1000			3		1						3	Trip Blank

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Date Time

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Time

mples tampered with? ☐ No ☐ Yes
in in remarks.

	VOA Vial	Glass Bottle	Plastic Bottle	Preservative	Container Volume
	X		X	A C	40 ml

PRESERVATION KEY:
A - Ice
B - Filtered
C - Acidified with HCl
D - Acidified with HNO_3
E - Acidified with H_2SO_4
F - NaOH + Ascorbic
G - Other

REMARKS: (Samp
nonstandard sampl
Note: Metal
listed Do N
require HNO
preservative
added.
Mercury sampl
HNO_3 to be

Cooler #: 894

C1 White - return with data Yellow - lab copy Pink - Sampler copy

CHAIN-OF-CUSTODY RECORD

PAGE 1 OF 2

SONS
ING-SCIENCE, INC.
Phone: 617-859-2000
99 Fax: 617-859-2043

JOB NO. 725980-01007
PROJECT SEAD - 3rd Quarterly Monitoring - '95
CONTACT M. Duchesneau

LABORATORY Aquatec
ADDRESS Colchester VT
CONTACT Lori Arnold

NO.	LABORATORY SAMPLE NO.	SAMPLING DATE	SAMPLING TIME	SAMPLE DEPTH	SAMPLE MATRIX	ANALYSES VOA 524.2	SVOC	METALS	PEST/PCB	CN	HERB	TPH	NO. OF CONTAINERS	COMMENT (Special instructions, c
-14		9-14-95	0800	N/A	water	3							3	Trip Blank
			KES ~~1140~~ 1155			3							3	
			1155			3							3	
			1050			3							3	
			1115			3							3	
7			1030			3							3	
6			1200			3							3	
										KKS				
		KKS												

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Time

mples tampered with? ☐ No ☐ Yes
in in remarks.

	VOA Vial	Glass Bottle	Plastic Bottle	Preservative	Container Volume

PRESERVATION KEY:
A - Ice
B - Filtered
C - Acidified with HCl
D - Acidified with HNO_3
E - Acidified with H_2SO_4
F - NaOH + Ascorbic
G - Other

REMARKS: (Sampl nonstandard sampl
~~SDG Comp~~
SDG Incom
sending MW-
next week

Cooler #: 08

C1 White - return with data Yellow - lab copy Pink - Sampler copy

LIMS # 3533

CHAIN-OF-CUSTODY RECORD

PAGE 1 OF 1

SONS
NG-SCIENCE, INC.
Phone: 617-859-2000
Fax: 617-859-2043

JOB NO. ~~720~~ 725980-01007
PROJECT SEAD - 3rd Quarterly Monitoring '95
CONTACT Mike Duchesneau

LABORATORY MRD
ADDRESS Omaha, NB
CONTACT Sample Custodian

NO.	LABORATORY SAMPLE NO.	SAMPLING DATE	SAMPLING TIME	SAMPLE DEPTH	SAMPLE MATRIX	ANALYSES VOA 8240	SVOC	METALS TAL	PEST/PCB	CN	HERB	TPH			NO. OF CONTAINERS	COMMENT (Special instructions, ca
RD		9-12-95	1100	N/A	Water			1		1					2	
D-R		9-12-95	1040	↓	↓			1		1					2	Rinsate
BMRD		9-13-95	1000			3	KKS								3	Trip Blank
D-R		9-13-95	1045			3			KKS						3	Rinsate
MRD		9-13-95	1055			3									3	
												KKS				
		KKS														

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Date Time

Samples tampered with? ☐ No ☐ Yes
Mark in remarks.

	VOA Vial	Glass Bottle	Plastic Bottle	Preservative	Container Volume
	X			A C	40 ml
			X	A D	1 L
				A F	1 L

PRESERVATION KEY:
A - Ice
B - Filtered
C - Acidified with HCl
D - Acidified with HNO_3
E - Acidified with H_2SO_4
F - NaOH + Ascorbic
G - Other

REMARKS: (Sample nonstandard sample
LIMS # 35
Sampling co
For MRD
Return cooler
Parsons Engine

Cooler #: ES -

1 White - return with data Yellow - lab copy Pink - Sampler copy

extra

CHAIN-OF-CUSTODY RECORD

PAGE 1 OF

SONS
ING-SCIENCE, INC.
Phone: 617-859-2000
99 Fax: 617-859-2043

JOB NO. 725980-01007
PROJECT 3rd Quarterly Monitoring 1995
CONTACT Mike Duchesneau

LABORATORY Aquatec Laborator
ADDRESS 55 South Park D
CONTACT Lori Arnold

NO.	LABORATORY SAMPLE NO.	SAMPLING DATE	SAMPLING TIME	SAMPLE DEPTH	SAMPLE MATRIX	ANALYSES VOA 524.2	SVOC	METALS	PEST/PCB	CN	HERB	TPH	NO. OF CONTAINERS	COMMENT (Special instructions, c
OB		9-19-95	1230	NA	water			3		3			6	
ASH		9-19-95	1300	NA	water	3							3	
ASH		9-19-95	1310	NA	water	3							3	

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ons Engineering Sci.
1-95 Time

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Date Time

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Received by
Sign
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Firm
Time Date Time

mples tampered with? ☐ No ☐ Yes
in in remarks.

VOA Vial	X				
Glass Bottle			X		
Plastic Bottle			X	X	
Preservative	A C		A D	A F	
Container Volume	40 ML		1 L	1 L	

PRESERVATION KEY: C - Acidified with HCl; F - NaOH + Ascorbic; A - Ice; D - Acidified with HNO_3; G - Other; B - Filtered; E - Acidified with H_2SO_4

REMARKS: (Sampl nonstandard sampl
Please re
bubble
and coo

Cooler #: 36

C1 White - return with data Yellow - lab copy Pink - Sampler copy

3. pH Meter Calibration Forms

pH Meter Calibration Form

3rd Quarterly Monitoring

Project: ~~RI/FS Field Investigation~~ Date: Sept. 19, 1995

Meter: Orion model SA 230
S.N. 1752

	Time (24 hour system)	Meter Reading	Buffer Solution 7	Buffer Solution 10	Buffer Temp. °C	% Slope	Operator
Initial Calibration	0930	Unadjusted	7.12	10.08	15		AMW
		Adjusted	7.00	10.00	15		AMW
		Unadjusted					
		Adjusted					
Intermediate Calibration		Unadjusted					
		Adjusted					
		Unadjusted					
		Adjusted					
		Unadjusted					
		Adjusted					
		Unadjusted					
		Adjusted					
		Unadjusted					
		Adjusted					
		Unadjusted					
		Adjusted					
Final Calibration		Unadjusted					
		Adjusted					

Intermediate checks may be made with one buffer (unadjusted reading), if readings are within one unit of the standard no calibration adjustment is made, if greater than 0.1 a complete calibration is necessary (adjusted readings), if greater than 0.2 increase frequency of intermediate checks.

Signature: _____

Field Team Leader

Figure 6.1-2
pH METER CALIBRATION FORM

SOURCE: ESE.

U.S. ARMY CORPS
OF ENGINEERS
HUNTSVILLE, ALABAMA

PARSONS MAIN, INC.

PARSONS

CLIENT _____ JOB NO. _____ SHEET _____ OF _____

SUBJECT Calibration BY _____ DATE 9-12

_____ CKD. _____ REVISION _____

9/12/95 0800 pH Meter # 1752 adjusted to 7.00 with buffer
9.83 with 10.00 buffer

Turbidimeter # 930900003760

Standard	Reading
48.8	49.3
5.0	~~5~~ 4.43

9/13/95 0830 pH Meter # 1752 adjusted to 7.00 w/ 7.0 buffer
10.14 w/ 10.0 buffer

0835 OVM-580B # 35383 calibrated w/ 100 span Isobut.
reading 97 ppm

9/14/95 0724 Turbidimeter #930900003760 Std. 48.8 / 49.1
5.0 / 4.49

0735 pH Meter #1752 7.0 Buffer 7.02 Reading
10.0 Buffer 10.14 Reading

0740 OVM-580B #35383 calibrated w/100 span Isobutylene
Reading 96 ppm

4. Groundwater Elevation Report

GROUNDWATER ELEVATION REPORT

ERING-SCIENCE, INC. | CLIENT: ACOE. | DATE: 9-12-95

SEAD - 3rd Quarterly Monitoring '95
Ash Landfill | PROJECT NO: 725980-01007
INSPECTOR: KKS / BH

EQUIPMENT:

TECTOR	BGD	TIME	REMARKS

WATER LEVEL INDICATOR:

INSTRUMENT	CORRECTION FACTOR

COMMENTS:

TIME	DEPTH TO WATER	DEPTH TO PRODUCT	CORRECTED WATER LEVEL	MEASURED POW	INSTALLED POW	PRODUCT SPEC. GRAV.	WELL STATUS / COMMENTS (Lock?, Well #?, Surface Disturbance?, Riser marked?, Condition of: riser, concrete, protective casing,
50	10.50			46.36			~~OK~~ Well casing loose
43	8.35			19.55			No pad - protective casing + riser is loos~~sla~~
12	N/A			13.38			Crushed by heavy equipment. I.T. attempted to straighten - ~~riser~~ is crushed
528	9.73			19.50			Good
504	5.36			11.04			Good
555	8.66			11.65			OK
40	8.81			11.70			Good
536	7.57			11.70			Riser broken at coupling (separated or) .5' below G.S.
636	8.83			11.80			Good
	N/A			19.46			Previously filled with dirt - IT cleared top of riser - dirt still deep in well - re-develop p
28	9.74			11.81			OK
500	7.94			12.08			~~Good~~
1600	5.64			11.88			OK
535	9.84			12.03			OK
	N/A			14.00			Airpot well - not measured

L DEPTH MEASUREMENTS FROM MARKED LOCATION ON RISER)

GROUNDWATER ELEVATION REPORT

EERING–SCIENCE, INC. | CLIENT: | DATE: 9-12-95

PROJECT NO:

Ash Land Fill | INSPECTOR: KKS / BH

G EQUIPMENT: ECTECTOR	BGD	TIME	REMARKS	WATER LEVEL INDICATOR: INSTRUMENT	CORRECTION FACTOR	COMMENTS:

TIME	DEPTH TO WATER	DEPTH TO PRODUCT	CORRECTED WATER LEVEL	MEASURED POW	INSTALLED POW	PRODUCT SPEC. GRAV.	WELL STATUS / COMMENTS (Lock?, Well #?, Surface Disturbance?, Riser marked?, Condition of: riser, concrete, protective ca
1512	6.74			10.54			Good
	6.12			10.39			Good
1605	7.78			10.54			OK
1545	10.42			10.52			OK
1548	8.70			10.34			OK
519	8.90			10.37			Good - No tubing
525	9.62			10.39			OK - No pad - casing slightly loose
1525	8.90			18.15			OK
1815	5.43			56.64			Pad heaved + cracked Roll #2 Exp 6
1810	5.94			16.58			OK
1640	5.96			13.62			Pad heaved Roll #2 Exp #1
1509	8.91			32.24			Pad heaved .20' - Broken up ground Roll #1 - Exp #16 cs
1700 ~~1600~~	5.27 ~~5.46~~			11.89			Pad heaved Exp #2 Roll #2
1600	7.46			14.71			Pad heaved .40'
1425	8.76			47.02			OK

(ALL DEPTH MEASUREMENTS FROM MARKED LOCATION ON RISER)

GROUNDWATER ELEVATION REPORT

ERING-SCIENCE, INC.	CLIENT:	DATE: 9-12-95
		PROJECT NO:
		INSPECTOR:

EQUIPMENT:				WATER LEVEL INDICATOR:		COMMENTS:
CTECTOR	BOD	TIME	REMARKS	INSTRUMENT	CORRECTION FACTOR	

TIME	DEPTH TO WATER	DEPTH TO PRODUCT	CORRECTED WATER LEVEL	MEASURED POW	INSTALLED POW	PRODUCT SPEC. GRAV.	WELL STATUS / COMMENTS (Lock?, Well #?, Surface Disturbance?, Riser marked?, Condition of: riser, concrete, protective casi
648	8.34			47.38			
1607	5.73			7.47			~~No lock~~ Pad Leaved .3 and 1/3 broken off
	N/A			N/A			Destroyed during remedial activities
450	6.34	~~1450~~ KKS		8.34			Pad Leaved .25' Roll #1 Exp # 13+14
436	7.96	~~1445~~ KKS	~~7.96~~ KKS	11.45			Good
756	5.96			8.56			1/4 pad left - casing sturdy Roll #2 E
1456	6.86	~~1456~~ KKS		11.50			Pad Leaved .20' Roll #1 Exp 15
446	7.88	~~1446~~ KKS		37.54			Good
447	7.69	~~1447~~ KKS		59.66			Cracked/Split Pad Roll #1 Exp #12
753	6.12			36.87			Pad Leaved + cracked Roll #2 Exp #4
1750	5.68			59.36			1/2 pad left - crumbling Roll #2 Exp #3
610	8.94			10.35			OK
615	8.76			34.99			OK
612	8.62			58.18			OK
757	4.31			6.88			Pad Leaved slightly - casing loose

(ALL DEPTH MEASUREMENTS FROM MARKED LOCATION ON RISER)

GROUNDWATER ELEVATION REPORT

EERING–SCIENCE, INC. | CLIENT: | DATE: 9-12-95

PROJECT NO:

INSPECTOR:

EQUIPMENT: ECTECTOR	BGD	TIME	REMARKS

WATER LEVEL INDICATOR: INSTRUMENT	CORRECTION FACTOR

COMMENTS:

TIME	DEPTH TO WATER	DEPTH TO PRODUCT	CORRECTED WATER LEVEL	MEASURED POW	INSTALLED POW	PRODUCT SPEC. GRAV.	WELL STATUS / COMMENTS (Lock?, Well #?, Surface Disturbance?, Riser marked?, Condition of: riser, concrete, protective cas
1755	3.70			35.09			Pad badly cracked - separated from casing
1800	3.52			57.29			No Lock - Pad totally fragmented
546	4.58			9.99			Good - Water Drum # ASH 2
1548	5.33			10.29			Good - Soils Drum 3-21-94 No # FU

(ALL DEPTH MEASUREMENTS FROM MARKED LOCATION ON RISER)

APPENDIX B

1. Sample Delivery Group No. 53766

   A. Volatile Organics QA/QC Data

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AQUATEC, INC. Contract: 93206

Lab Code: AQUAI Case No.: 93206 SAS No.: SDG No.: 53766

	EPA SAMPLE NO.	SMC1 (DCE)#	SMC2 (BFB)#	SMC3 (DCB)#	OTHER	TOT OUT
01	LFBLDUJ	99	97	97		0
02	VBLKM7	92	92	86		0
03	MW59	98	92	90		0
04	MW60	92	91	87		0
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

	QC LIMITS
SMC1 (DCE) = 1,2-Dichloroethane-d4	(83-143)
SMC2 (BFB) = Bromofluorobenzene	(86-115)
SMC3 (DCB) = 1,2-Dichlorobenzene-d4	(80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AQUATEC, INC. Contract: 93206

Lab Code: AQUAI Case No.: 93206 SAS No.: SDG No.: 53766

	EPA SAMPLE NO.	SMC1 (DCE) #	SMC2 (BFB) #	SMC3 (DCB) #	OTHER	TOT OUT
01	LFBLDUA	111	109	114		0
02	VBLKJ2	99	94	93		0
03	FHS	91	94	89		0
04	BRNS	85	84*	81		1
05	MW27	76*	79*	75*		3
06	MW36	97	97	97		0
07	MW40	91	94	89		0
08	MW47	93	96	90		0
09	MW48	99	97	90		0
10	MW48R	97	100	93		0
11	MW56	104	110	96		0
12	PT11	106	116*	96		1
13	MW448	102	96	93		0
14	MSB	102	104	100		0
15	LFBLDUC	94	93	93		0
16	VBLKJ8	102	100	98		0
17	BRNSRE	103	99	103		0
18	MW27RE	96	99	94		0
19	PT11RE	100	99	100		0
20	MW45	100	104	100		0
21	MW45MS	110	106	105		0
22	MW45MSD	112	110	102		0
23	LFBLDUF	88	96	95		0
24	VBLKK5	95	95	94		0
25	PT19	100	99	98		0
26	FHD	92	92	91		0
27	LFBLDUG	114	111	110		0
28	VBLKK6	109	105	102		0
29	TB913	111	111	107		0
30	TB914	102	98	99		0

	QC LIMITS
SMC1 (DCE) = 1,2-Dichloroethane-d4	(83-143)
SMC2 (BFB) = Bromofluorobenzene	(86-115)
SMC3 (DCB) = 1,2-Dichlorobenzene-d4	(80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

LFB RECOVERY REPORT

Client Name: ENGSC2
Sample Matrix: LIQUID
Lab Smp Id: LFBLDUJ
Level: LOW
Data Type: MS DATA
SpikeList File: lfbver3ketMTBE.spk

Client SDG: 53766
Fraction: VOA
Client Smp ID: LFBLDUJ
Operator: GWG
SampleType: MS
Quant Type: ISTD

	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
	43 Chlorobenzene	1	1.0	98.78	60-140
	44 1,1,1,2-Tetrachlor	1	1.0	95.84	60-140
	45 Ethylbenzene	1	1	100.76	60-140
	46 m- & p-Xylene	2	2	101.61	60-140
	47 o-Xylene	1	1.0	98.36	60-140
M	48 Xylene (total)	3	3	103.82	60-140
	49 Styrene	1	0.9	94.18	60-140
	50 Bromoform	1	0.9	89.35	60-140
	51 Isopropylbenzene	1	1.0	99.64	60-140
	53 Bromobenzene	1	1.0	98.32	60-140
	54 1,1,2,2-Tetrachlor	1	1	106.75	60-140
	55 1,2,3-Trichloropro	1	1	104.30	60-140
	56 n-Propylbenzene	1	1.0	99.51	60-140
	57 2-Chlorotoluene	1	1	102.09	60-140
	58 4-Chlorotoluene	1	1.0	96.36	60-140
	59 1,3,5-Trimethylben	1	1	104.58	60-140
	60 tert-Butylbenzene	1	1	102.84	60-140
	61 1,2,4-Trimethylben	1	1	102.74	60-140
	62 sec-Butylbenzene	1	1	103.76	60-140
	63 1,3-Dichlorobenzen	1	1	106.18	60-140
	65 p-Isopropyltoluene	1	1	101.02	60-140
	66 1,4-Dichlorobenzen	1	1	105.11	60-140
	68 1,2-Dichlorobenzen	1	1	101.17	60-140
	69 n-Butylbenzene	1	1	109.36	60-140
	70 1,2-Dibromo-3-Chlo	1	1	116.63	60-140
	71 1,2,4-Trichloroben	1	1	111.91	60-140
	72 Hexachlorobutadien	1	1	107.44	60-140
	73 Naphthalene	1	1	118.49	60-140
	74 1,2,3-Trichloroben	1	1	113.69	60-140

	SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$	23 1,2-Dichloroethane	2	2	98.77	83-143
$	52 Bromofluorobenzene	2	2	96.75	86-115
$	67 1,2-Dichlorobenzen	2	2	96.96	80-120

LFB RECOVERY REPORT

Client Name: ENGSC2
Sample Matrix: LIQUID
Lab Smp Id: LFBLDUJ
Level: LOW
Data Type: MS DATA
SpikeList File: lfbver3ketMTBE.spk

Client SDG: 53766
Fraction: VOA
Client Smp ID: LFBLDUJ
Operator: GWG
SampleType: MS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	1	0.8	83.02	60-140
2 Chloromethane	1	0.9	94.51	60-140
3 Vinyl Chloride	1	0.9	91.68	60-140
4 Bromomethane	1	1	110.22	60-140
5 Chloroethane	1	1	113.43	60-140
6 Trichlorofluoromet	1	1.0	97.07	60-140
7 1,1-Dichloroethene	1	0.9	89.99	60-140
8 Acetone	5	6	113.92	60-140
10 Methylene Chloride	1	1	102.28	60-140
11 trans-1,2-Dichloro	1	0.9	89.77	60-140
12 Methyl-t-Butyl Eth	1	1.0	98.43	60-140
13 1,1-Dichloroethane	1	1.0	99.90	60-140
14 2,2-Dichloropropan	1	1.0	95.42	60-140
15 cis-1,2-Dichloroet	1	0.9	94.11	60-140
16 2-Butanone	5	5	93.60	60-140
17 Bromochloromethane	1	0.8	85.23	60-140
19 Chloroform	1	1.0	97.49	60-140
20 1,1,1-Trichloroeth	1	0.9	93.32	60-140
21 Carbon Tetrachlori	1	0.9	87.32	60-140
22 1,1-Dichloropropen	1	1.0	95.04	60-140
24 Benzene	1	1	106.03	60-140
25 1,2-Dichloroethane	1	0.9	93.67	60-140
27 Trichloroethene	1	1.0	97.24	60-140
28 1,2-Dichloropropan	1	1	102.81	60-140
29 Dibromomethane	1	0.9	93.85	60-140
31 Bromodichlorometha	1	1.0	95.85	60-140
32 cis-1,3-Dichloropr	1	0.9	89.98	60-140
33 4-Methyl-2-Pentano	5	5	100.81	60-140
34 Toluene	1	1	109.54	60-140
35 trans-1,3-Dichloro	1	0.9	88.36	60-140
36 1,1,2-Trichloroeth	1	1	101.40	60-140
37 Tetrachloroethene	1	1.0	95.18	60-140
38 1,3-Dichloropropan	1	1.0	95.79	60-140
39 2-Hexanone	5	5	103.69	60-140
40 Dibromochlorometha	1	1.0	96.14	60-140
41 1,2-Dibromoethane	1	1.0	99.23	60-140

LFB RECOVERY REPORT

Client Name: ENGSC2
Sample Matrix: LIQUID
Lab Smp Id: LFBLDUG
Level: LOW
Data Type: MS DATA
SpikeList File: lfbver3ketMTBE.spk

Client SDG: 53766
Fraction: VOA
Client Smp ID: LFBLDUG
Operator: CMP
SampleType: MS
Quant Type: ISTD

	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
	43 Chlorobenzene	1	1.0	97.82	60-140
	44 1,1,1,2-Tetrachlor	1	0.9	91.45	60-140
	45 Ethylbenzene	1	1	102.59	60-140
	46 m- & p-Xylene	2	2	98.75	60-140
	47 o-Xylene	1	1.0	98.26	60-140
M	48 Xylene (total)	3	3	101.17	60-140
	49 Styrene	1	1.0	95.10	60-140
	50 Bromoform	1	0.9	90.93	60-140
	51 Isopropylbenzene	1	1.0	99.35	60-140
	53 Bromobenzene	1	1	100.11	60-140
	54 1,1,2,2-Tetrachlor	1	0.9	94.15	60-140
	55 1,2,3-Trichloropro	1	1	113.93	60-140
	56 n-Propylbenzene	1	1.0	96.73	60-140
	57 2-Chlorotoluene	1	0.9	94.31	60-140
	58 4-Chlorotoluene	1	1.0	98.06	60-140
	59 1,3,5-Trimethylben	1	1	102.85	60-140
	60 tert-Butylbenzene	1	1	100.57	60-140
	61 1,2,4-Trimethylben	1	1.0	98.84	60-140
	62 sec-Butylbenzene	1	1.0	97.66	60-140
	63 1,3-Dichlorobenzen	1	1	102.20	60-140
	65 p-Isopropyltoluene	1	1.0	98.21	60-140
	66 1,4-Dichlorobenzen	1	1	101.69	60-140
	68 1,2-Dichlorobenzen	1	1	102.04	60-140
	69 n-Butylbenzene	1	1.0	98.66	60-140
	70 1,2-Dibromo-3-Chlo	1	1	100.28	60-140
	71 1,2,4-Trichloroben	1	1	107.98	60-140
	72 Hexachlorobutadien	1	1	103.38	60-140
	73 Naphthalene	1	1	107.66	60-140
	74 1,2,3-Trichloroben	1	1	108.13	60-140

	SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$	23 1,2-Dichloroethane	2	2	113.96	83-143
$	52 Bromofluorobenzene	2	2	111.07	86-115
$	67 1,2-Dichlorobenzen	2	2	110.53	80-120

LFB RECOVERY REPORT

Client Name: ENGSC2
Sample Matrix: LIQUID
Lab Smp Id: LFBLDUG
Level: LOW
Data Type: MS DATA
SpikeList File: lfbver3ketMTBE.spk

Client SDG: 53766
Fraction: VOA
Client Smp ID: LFBLDUG
Operator: CMP
SampleType: MS
Quant Type: ISTD

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1	Dichlorodifluorome	1	0.9	88.57	60-140
2	Chloromethane	1	0.9	94.78	60-140
3	Vinyl Chloride	1	1.0	97.98	60-140
4	Bromomethane	1	1	109.93	60-140
5	Chloroethane	1	1	106.71	60-140
6	Trichlorofluoromet	1	1	103.06	60-140
7	1,1-Dichloroethene	1	1	101.94	60-140
8	Acetone	5	5	101.55	60-140
10	Methylene Chloride	1	1	110.21	60-140
11	trans-1,2-Dichloro	1	1	100.45	60-140
12	Methyl-t-Butyl Eth	1	1	104.18	60-140
13	1,1-Dichloroethane	1	1	105.75	60-140
14	2,2-Dichloropropan	1	1.0	99.36	60-140
15	cis-1,2-Dichloroet	1	1.0	96.96	60-140
16	2-Butanone	5	4	76.95	60-140
17	Bromochloromethane	1	1.0	97.53	60-140
19	Chloroform	1	1.0	99.12	60-140
20	1,1,1-Trichloroeth	1	1.0	96.15	60-140
21	Carbon Tetrachlori	1	0.9	93.25	60-140
22	1,1-Dichloropropen	1	1	102.29	60-140
24	Benzene	1	1	105.22	60-140
25	1,2-Dichloroethane	1	1	101.88	60-140
27	Trichloroethene	1	1.0	99.91	60-140
28	1,2-Dichloropropan	1	1	101.43	60-140
29	Dibromomethane	1	1	102.05	60-140
31	Bromodichlorometha	1	1.0	97.57	60-140
32	cis-1,3-Dichloropr	1	1.0	99.55	60-140
33	4-Methyl-2-Pentano	5	4	91.66	60-140
34	Toluene	1	1	101.91	60-140
35	trans-1,3-Dichloro	1	1	101.01	60-140
36	1,1,2-Trichloroeth	1	1	102.67	60-140
37	Tetrachloroethene	1	1	102.55	60-140
38	1,3-Dichloropropan	1	1	103.95	60-140
39	2-Hexanone	5	5	94.52	60-140
40	Dibromochlorometha	1	0.9	93.26	60-140
41	1,2-Dibromoethane	1	1.0	99.18	60-140

LFB RECOVERY REPORT

Client Name: ENGSC2
Sample Matrix: LIQUID
Lab Smp Id: LFBLDUF
Level: LOW
Data Type: MS DATA
SpikeList File: lfbver3ketMTBE.spk

Client SDG: 53766
Fraction: VOA
Client Smp ID: LFBLDUF
Operator: CMP
SampleType: MS
Quant Type: ISTD

	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
	43 Chlorobenzene	1	0.7	72.87	60-140
	44 1,1,1,2-Tetrachlor	1	0.7	68.96	60-140
	45 Ethylbenzene	1	0.8	77.39	60-140
	46 m- & p-Xylene	2	2	80.80	60-140
	47 o-Xylene	1	0.8	80.26	60-140
M	48 Xylene (total)	3	2	83.46	60-140
	49 Styrene	1	0.7	68.62	60-140
	50 Bromoform	1	0.7	73.86	60-140
	51 Isopropylbenzene	1	0.8	76.44	60-140
	53 Bromobenzene	1	0.7	69.70	60-140
	54 1,1,2,2-Tetrachlor	1	0.8	78.71	60-140
	55 1,2,3-Trichloropro	1	0.8	77.38	60-140
	56 n-Propylbenzene	1	0.7	68.88	60-140
	57 2-Chlorotoluene	1	0.7	70.63	60-140
	58 4-Chlorotoluene	1	0.7	71.33	60-140
	59 1,3,5-Trimethylben	1	0.8	78.20	60-140
	60 tert-Butylbenzene	1	0.7	74.47	60-140
	61 1,2,4-Trimethylben	1	0.9	89.40	60-140
	62 sec-Butylbenzene	1	0.7	74.43	60-140
	63 1,3-Dichlorobenzen	1	0.7	71.10	60-140
	65 p-Isopropyltoluene	1	0.7	72.36	60-140
	66 1,4-Dichlorobenzen	1	0.7	72.42	60-140
	68 1,2-Dichlorobenzen	1	0.7	70.01	60-140
	69 n-Butylbenzene	1	0.7	73.58	60-140
	70 1,2-Dibromo-3-Chlo	1	0.9	86.82	60-140
	71 1,2,4-Trichloroben	1	0.8	75.45	60-140
	72 Hexachlorobutadien	1	0.8	78.55	60-140
	73 Naphthalene	1	0.8	81.74	60-140
	74 1,2,3-Trichloroben	1	0.8	79.50	60-140

	SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$	23 1,2-Dichloroethane	2	2	88.51	83-143
$	52 Bromofluorobenzene	2	2	96.49	86-115
$	67 1,2-Dichlorobenzen	2	2	95.17	80-120

LFB RECOVERY REPORT

Client Name: ENGSC2
Sample Matrix: LIQUID
Lab Smp Id: LFBLDUF
Level: LOW
Data Type: MS DATA
SpikeList File: lfbver3ketMTBE.spk

Client SDG: 53766
Fraction: VOA
Client Smp ID: LFBLDUF
Operator: CMP
SampleType: MS
Quant Type: ISTD

SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1	Dichlorodifluorome	1	1.0	97.17	60-140
2	Chloromethane	1	0.9	90.59	60-140
3	Vinyl Chloride	1	0.8	83.25	60-140
4	Bromomethane	1	0.8	83.78	60-140
5	Chloroethane	1	1	101.91	60-140
6	Trichlorofluoromet	1	0.8	83.25	60-140
7	1,1-Dichloroethene	1	0.7	71.37	60-140
8	Acetone	5	7	134.93	60-140
10	Methylene Chloride	1	1	112.31	60-140
11	trans-1,2-Dichloro	1	0.7	73.61	60-140
12	Methyl-t-Butyl Eth	1	0.8	76.10	60-140
13	1,1-Dichloroethane	1	0.7	72.03	60-140
14	2,2-Dichloropropan	1	0.8	79.55	60-140
15	cis-1,2-Dichloroet	1	0.7	68.58	60-140
16	2-Butanone	5	5	98.00	60-140
17	Bromochloromethane	1	0.6	62.51	60-140
19	Chloroform	1	0.8	77.30	60-140
20	1,1,1-Trichloroeth	1	0.7	70.93	60-140
21	Carbon Tetrachlori	1	0.7	70.65	60-140
22	1,1-Dichloropropen	1	0.7	69.56	60-140
24	Benzene	1	0.8	78.88	60-140
25	1,2-Dichloroethane	1	0.7	67.79	60-140
27	Trichloroethene	1	0.7	70.61	60-140
28	1,2-Dichloropropan	1	0.7	67.14	60-140
29	Dibromomethane	1	0.6	65.49	60-140
31	Bromodichlorometha	1	0.7	67.49	60-140
32	cis-1,3-Dichloropr	1	0.7	69.49	60-140
33	4-Methyl-2-Pentano	5	6	113.14	60-140
34	Toluene	1	0.8	77.94	60-140
35	trans-1,3-Dichloro	1	0.7	71.70	60-140
36	1,1,2-Trichloroeth	1	0.7	70.08	60-140
37	Tetrachloroethene	1	0.8	79.78	60-140
38	1,3-Dichloropropan	1	0.8	75.83	60-140
39	2-Hexanone	5	6	115.46	60-140
40	Dibromochlorometha	1	0.7	69.13	60-140
41	1,2-Dibromoethane	1	0.7	68.74	60-140

LFB RECOVERY REPORT

Client Name: ENGSC2
Sample Matrix: LIQUID
Lab Smp Id: LFBLDUC
Level: LOW
Data Type: MS DATA
SpikeList File: lfbver3ketMTBE.spk

Client SDG: 53766
Fraction: VOA
Client Smp ID: LFBLDUC
Operator: GWG
SampleType: MS
Quant Type: ISTD

	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
	43 Chlorobenzene	1	1	101.68	60-140
	44 1,1,1,2-Tetrachlor	1	1.0	98.87	60-140
	45 Ethylbenzene	1	1	109.98	60-140
	46 m- & p-Xylene	2	2	110.45	60-140
	47 o-Xylene	1	1	100.87	60-140
M	48 Xylene (total)	3	3	111.67	60-140
	49 Styrene	1	1	101.74	60-140
	50 Bromoform	1	0.9	89.32	60-140
	51 Isopropylbenzene	1	1	109.40	60-140
	53 Bromobenzene	1	1	102.75	60-140
	54 1,1,2,2-Tetrachlor	1	1.0	99.33	60-140
	55 1,2,3-Trichloropro	1	1	109.08	60-140
	56 n-Propylbenzene	1	1	106.24	60-140
	57 2-Chlorotoluene	1	1	103.45	60-140
	58 4-Chlorotoluene	1	1	108.52	60-140
	59 1,3,5-Trimethylben	1	1	107.01	60-140
	60 tert-Butylbenzene	1	1	106.95	60-140
	61 1,2,4-Trimethylben	1	1	109.46	60-140
	62 sec-Butylbenzene	1	1	108.67	60-140
	63 1,3-Dichlorobenzen	1	1	110.85	60-140
	65 p-Isopropyltoluene	1	1	108.16	60-140
	66 1,4-Dichlorobenzen	1	1	111.27	60-140
	68 1,2-Dichlorobenzen	1	1	105.91	60-140
	69 n-Butylbenzene	1	1	115.31	60-140
	70 1,2-Dibromo-3-Chlo	1	1	124.29	60-140
	71 1,2,4-Trichloroben	1	1	123.57	60-140
	72 Hexachlorobutadien	1	1	125.03	60-140
	73 Naphthalene	1	1	117.73	60-140
	74 1,2,3-Trichloroben	1	1	119.78	60-140

	SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$	23 1,2-Dichloroethane	2	2	94.47	83-143
$	52 Bromofluorobenzene	2	2	93.44	86-115
$	67 1,2-Dichlorobenzen	2	2	93.38	80-120

LFB RECOVERY REPORT

Client Name: ENGSC2
Sample Matrix: LIQUID
Lab Smp Id: LFBLDUC
Level: LOW
Data Type: MS DATA
SpikeList File: lfbver3ketMTBE.spk

Client SDG: 53766
Fraction: VOA
Client Smp ID: LFBLDUC
Operator: GWG
SampleType: MS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	1	1	104.77	60-140
2 Chloromethane	1	1	110.41	60-140
3 Vinyl Chloride	1	1.0	98.57	60-140
4 Bromomethane	1	1	110.48	60-140
5 Chloroethane	1	1	119.32	60-140
6 Trichlorofluoromet	1	1	106.24	60-140
7 1,1-Dichloroethene	1	1	108.02	60-140
8 Acetone	5	6	111.22	60-140
10 Methylene Chloride	1	1	104.27	60-140
11 trans-1,2-Dichloro	1	1	106.97	60-140
12 Methyl-t-Butyl Eth	1	1	116.83	60-140
13 1,1-Dichloroethane	1	1	108.75	60-140
14 2,2-Dichloropropan	1	1	116.60	60-140
15 cis-1,2-Dichloroet	1	1	104.25	60-140
16 2-Butanone	5	4	85.07	60-140
17 Bromochloromethane	1	1.0	96.08	60-140
19 Chloroform	1	1	111.47	60-140
20 1,1,1-Trichloroeth	1	1	103.75	60-140
21 Carbon Tetrachlori	1	1	100.52	60-140
22 1,1-Dichloropropen	1	1	104.24	60-140
24 Benzene	1	1	108.26	60-140
25 1,2-Dichloroethane	1	1.0	97.00	60-140
27 Trichloroethene	1	1.0	95.86	60-140
28 1,2-Dichloropropan	1	1	107.41	60-140
29 Dibromomethane	1	0.9	91.38	60-140
31 Bromodichlorometha	1	1.0	96.45	60-140
32 cis-1,3-Dichloropr	1	1	104.11	60-140
33 4-Methyl-2-Pentano	5	5	100.99	60-140
34 Toluene	1	1	107.47	60-140
35 trans-1,3-Dichloro	1	1	101.19	60-140
36 1,1,2-Trichloroeth	1	1	106.95	60-140
37 Tetrachloroethene	1	1	103.36	60-140
38 1,3-Dichloropropan	1	1	101.44	60-140
39 2-Hexanone	5	5	97.02	60-140
40 Dibromochlorometha	1	1	102.17	60-140
41 1,2-Dibromoethane	1	1.0	95.76	60-140

LFB RECOVERY REPORT

Client Name: ENGSC2
Sample Matrix: LIQUID
Lab Smp Id: LFBLDUA
Level: LOW
Data Type: MS DATA
SpikeList File: lfbver3ketMTBE.spk

Client SDG: 53766
Fraction: VOA
Client Smp ID: LFBLDUA
Operator: GWG
SampleType: MS
Quant Type: ISTD

	SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
	43 Chlorobenzene	1	1.0	99.59	60-140
	44 1,1,1,2-Tetrachlor	1	1.0	96.40	60-140
	45 Ethylbenzene	1	1.0	98.70	60-140
	46 m- & p-Xylene	2	2	101.04	60-140
	47 o-Xylene	1	0.9	90.53	60-140
M	48 Xylene (total)	3	3	100.18	60-140
	49 Styrene	1	0.9	91.32	60-140
	50 Bromoform	1	0.9	86.70	60-140
	51 Isopropylbenzene	1	1.0	97.75	60-140
	53 Bromobenzene	1	1.0	95.72	60-140
	54 1,1,2,2-Tetrachlor	1	0.9	93.38	60-140
	55 1,2,3-Trichloropro	1	1.0	98.77	60-140
	56 n-Propylbenzene	1	0.9	89.94	60-140
	57 2-Chlorotoluene	1	1	100.45	60-140
	58 4-Chlorotoluene	1	1	106.93	60-140
	59 1,3,5-Trimethylben	1	1.0	98.53	60-140
	60 tert-Butylbenzene	1	1.0	99.06	60-140
	61 1,2,4-Trimethylben	1	1.0	99.22	60-140
	62 sec-Butylbenzene	1	1.0	99.88	60-140
	63 1,3-Dichlorobenzen	1	1.0	99.08	60-140
	65 p-Isopropyltoluene	1	1	104.65	60-140
	66 1,4-Dichlorobenzen	1	1	105.65	60-140
	68 1,2-Dichlorobenzen	1	0.9	94.40	60-140
	69 n-Butylbenzene	1	1	102.07	60-140
	70 1,2-Dibromo-3-Chlo	1	1	103.44	60-140
	71 1,2,4-Trichloroben	1	1	108.90	60-140
	72 Hexachlorobutadien	1	1	112.16	60-140
	73 Naphthalene	1	1	102.37	60-140
	74 1,2,3-Trichloroben	1	1	104.94	60-140

	SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$	23 1,2-Dichloroethane	2	2	111.19	83-143
$	52 Bromofluorobenzene	2	2	109.41	86-115
$	67 1,2-Dichlorobenzen	2	2	114.13	80-120

LFB RECOVERY REPORT

Client Name: ENGSC2
Sample Matrix: LIQUID
Lab Smp Id: LFBLDUA
Level: LOW
Data Type: MS DATA
SpikeList File: lfbver3ketMTBE.spk

Client SDG: 53766
Fraction: VOA
Client Smp ID: LFBLDUA
Operator: GWG
SampleType: MS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 Dichlorodifluorome	1	0.9	94.46	60-140
2 Chloromethane	1	1.0	98.53	60-140
3 Vinyl Chloride	1	1.0	95.86	60-140
4 Bromomethane	1	1	108.90	60-140
5 Chloroethane	1	1	112.45	60-140
6 Trichlorofluoromet	1	1	103.28	60-140
7 1,1-Dichloroethene	1	1.0	97.25	60-140
8 Acetone	5	6	111.74	60-140
10 Methylene Chloride	1	1.0	99.66	60-140
11 trans-1,2-Dichloro	1	1	102.83	60-140
12 Methyl-t-Butyl Eth	1	1	101.60	60-140
13 1,1-Dichloroethane	1	1	108.17	60-140
14 2,2-Dichloropropan	1	1	109.95	60-140
15 cis-1,2-Dichloroet	1	0.9	91.87	60-140
16 2-Butanone	5	4	81.97	60-140
17 Bromochloromethane	1	1.0	96.46	60-140
19 Chloroform	1	1	101.77	60-140
20 1,1,1-Trichloroeth	1	1.0	96.17	60-140
21 Carbon Tetrachlori	1	1.0	97.79	60-140
22 1,1-Dichloropropen	1	1	100.62	60-140
24 Benzene	1	1	105.66	60-140
25 1,2-Dichloroethane	1	1	105.98	60-140
27 Trichloroethene	1	1	105.26	60-140
28 1,2-Dichloropropan	1	1	101.85	60-140
29 Dibromomethane	1	1.0	95.27	60-140
31 Bromodichlorometha	1	1.0	98.09	60-140
32 cis-1,3-Dichloropr	1	1	100.76	60-140
33 4-Methyl-2-Pentano	5	5	101.40	60-140
34 Toluene	1	1.0	98.59	60-140
35 trans-1,3-Dichloro	1	1	100.19	60-140
36 1,1,2-Trichloroeth	1	1	100.39	60-140
37 Tetrachloroethene	1	1.0	99.20	60-140
38 1,3-Dichloropropan	1	1	101.60	60-140
39 2-Hexanone	5	5	98.24	60-140
40 Dibromochlorometha	1	0.9	90.49	60-140
41 1,2-Dibromoethane	1	1.0	96.61	60-140

3A
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AQUATEC, INC. Contract: 93206

Lab Code: AQUAI Case No.: 93206 SAS No.: SDG No.: 53766

Matrix Spike - EPA Sample No.: MSB

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Vinyl Chloride	10		10	101	80-120
Carbon Tetrachloride	10		10	112	80-120
1,2-Dichloroethane	10		11	103	80-120
Benzene	10		10	106	80-120
Trichloroethene	10		10	104	80-120
1,2-Dichloropropane	10		11	108	80-120
cis-1,3-Dichloropropene	10		10	102	80-120
1,1,2-Trichloroethane	10		11	101	80-120
2-Hexanone	25		25	97	80-120
Tetrachloroethene	10		10	98	80-120
1,2-Dibromoethane	10		10	105	80-120
Bromoform	10		10	99	80-120
1,4-Dichlorobenzene	10		10	102	80-120

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 13 outside limits

COMMENTS: _____

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AQUATEC, INC. Contract: 93206

Lab Code: AQUAI Case No.: 93206 SAS No.: SDG No.: 53766

Matrix Spike - EPA Sample No.: MW45

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Vinyl Chloride	10	0	10	100	80-120
Carbon Tetrachloride	10	0	10	100	80-120
1,2-Dichloroethane	10	0	10	100	80-120
Benzene	10	0	10	100	80-120
Trichloroethene	10	0	10	100	80-120
1,2-Dichloropropane	10	0	11	110	80-120
cis-1,3-Dichloropropene	10	0	10	100	80-120
1,1,2-Trichloroethane	10	0	10	100	80-120
2-Hexanone	25	0	23	92	80-120
Tetrachloroethene	10	0	10	100	80-120
1,2-Dibromoethane	10	0	10	100	80-120
Bromoform	10	0	9	90	80-120
1,4-Dichlorobenzene	10	0	10	100	80-120

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Vinyl Chloride	10	10	100	0	13	80-120
Carbon Tetrachloride	10	10	100	0	13	80-120
1,2-Dichloroethane	10	10	100	0	13	80-120
Benzene	10	10	100	0	13	80-120
Trichloroethene	10	10	100	0	13	80-120
1,2-Dichloropropane	10	10	100	10	13	80-120
cis-1,3-Dichloropropene	10	10	100	0	13	80-120
1,1,2-Trichloroethane	10	10	100	0	13	80-120
2-Hexanone	25	23	92	0	13	80-120
Tetrachloroethene	10	10	100	0	13	80-120
1,2-Dibromoethane	10	10	100	0	13	80-120
Bromoform	10	9	90	0	13	80-120
1,4-Dichlorobenzene	10	10	100	0	13	80-120

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 13 outside limits
Spike Recovery: 0 out of 26 outside limits

COMMENTS: _____

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKM7

Lab Name: AQUATEC, INC. Contract: 93206

Lab Code: AQUAI Case No.: 93206 SAS No.: SDG No.: 53766

Lab File ID: LDUB001JV.D Lab Sample ID: VBLKM7

Date Analyzed: 09/29/95 Time Analyzed: 1349

GC Column:CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: L

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LFBLDUJ	LFBLDUJ	LDU001J2QV.D	1307
02	MW59	271849	L271849I2V.D	1842
03	MW60	271850	L271850I2V.D	1915
04				
05				
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COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKK6

Lab Name: AQUATEC, INC. Contract: 93206

Lab Code: AQUAI Case No.: 93206 SAS No.: SDG No.: 53766

Lab File ID: LDUB001GV.D Lab Sample ID: VBLKK6

Date Analyzed: 09/22/95 Time Analyzed: 1950

GC Column:CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: L

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LFBLDUG	LFBLDUG	LDU002GQV.D	1918
02	TB913	270989	L270989I2V.D	2129
03	TB914	270990	L270990I2V.D	2202
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COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKK5

Lab Name: AQUATEC, INC. Contract: 93206

Lab Code: AQUAI Case No.: 93206 SAS No.: SDG No.: 53766

Lab File ID: LDUB002FV.D Lab Sample ID: VBLKK5

Date Analyzed: 09/22/95 Time Analyzed: 0958

GC Column:CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: L

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LFBLDUF	LFBLDUF	LDUB001FV.D	0908
02	PT19	270988	L270988I2V.D	1603
03	FHD	270969	L270969I4V.D	1630
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COMMENTS:

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4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKJ8

Lab Name: AQUATEC, INC. Contract: 93206

Lab Code: AQUAI Case No.: 93206 SAS No.: SDG No.: 53766

Lab File ID: LDUB001CV.D Lab Sample ID: VBLKJ8

Date Analyzed: 09/20/95 Time Analyzed: 2023

GC Column:CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: L

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LFBLDUC	LFBLDUC	LDU001CQV.D	1941
02	BRNSRE	270971R1	L270971I3V.D	0056
03	MW27RE	271006R1	L271006I3V.D	0128
04	PT11RE	270987R1	L270987I3V.D	0200
05	MW45	270979	L270979I2V.D	0409
06	MW45MS	270979MS	L270979MSI2V.D	0441
07	MW45MSD	270979MD	L270979MDI2V.D	0512
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COMMENTS:

4A

EPA SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

VBLKJ2

Lab Name: AQUATEC, INC. Contract: 93206

Lab Code: AQUAI Case No.: 93206 SAS No.: SDG No.: 53766

Lab File ID: LDUB001AV.D Lab Sample ID: VBLKJ2

Date Analyzed: 09/20/95 Time Analyzed: 0035

GC Column:CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: L

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LFBLDUA	LFBLDUA	LDU004AQV.D	2339
02	FHS	270970	L270970I2V.D	0140
03	BRNS	270971	L270971I2V.D	0213
04	MW27	271006	L271006I2V.D	0245
05	MW36	270977	L270977I2V.D	0317
06	MW40	270978	L270978I2V.D	0349
07	MW47	270981	L270981I2V.D	0422
08	MW48	270982	L270982I2V.D	0454
09	MW48R	270983	L270983I2V.D	0526
10	MW56	270984	L270984I2V.D	0557
11	PT11	270987	L270987I2V.D	0629
12	MW448	270986	L270986I2V.D	0702
13	MSB	270991	L270991V.D	0804
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COMMENTS: