



STATE OF ARKANSAS
DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
 SOLID WASTE MANAGEMENT DIVISION
 8017 I-30, P.O. BOX 8913
 LITTLE ROCK, ARKANSAS 72219-8913
 PHONE: (501) 682-0580
 FAX: (501) 682-0611



45482 - 0162-SR-2
 45483 - 0123-SR-2

February 20, 1996

Kevin Hodges, P.E.
 Project Engineer
 Sunray Services, Inc.
 P.O. Box 1310
 Springdale, AR 72765-1310

Re: Groundwater Monitoring at Sunray Class I Tontitown Landfill
 CSN: 72-0144 Permit No.: 123-SR-2 and 162-SR-2

Dear Kevin:

Enclosed are the States results from the December, 1995 sampling event. The Department split samples with Environmental Services Company, Inc. (ESC) because of past quality assurance problems. The inorganic and metals were analyzed by Environmental Services Company, and the organic analyses portion of the samples were subcontracted out to Sorrell's Research. ESC was not certified to analyze organics at time of the December, 1995 sampling event; however, ESC collected VOC samples in the field and explained to the staff geologists that they were also going to run the organic analyses for comparison. The Department would like a copy of this data if it is available.

Due to a data record loss at Environmental Services (Little Rock) the Department considers all organic data generated between January 1, 1995 and October 11, 1995 "tentative", and should not be used for regulatory decision making. During this period of time, sample data provided by the ESC lab does not correspond with historical data; therefore, the organic data should not be used in Sunray's statistics. The State's organic results from the June, 1995 sampling event can be used in the statistics, and the Sorrell's data can be used for the December, 1995 event since results were comparable.

Sunray must start over on assessment monitoring due to quality assurance problems with ESC. The State has split samples twice during the assessment monitoring period, and has shown VOCs that have been historically confirmed by other labs and recently confirmed by Sorrell's.

	ENGR	GEO	GEO SUP	ENFORCE	INS SUP	OTHER	TEC MNG	CHIEF
INIT	<u>SP</u>	<u>DP</u>	_____	_____	_____	_____	<u>MA</u>	_____
DATE	<u>2/23</u>	<u>2/23/96</u>	_____	_____	_____	_____	<u>2/23</u>	_____

If you have any questions concerning this project, please contact me at 682-0606.

Sincerely,

Dave Ann Pennington
Solid Waste Division Geologist

cc: Tom Coleman, District Field Inspector
Dan McCullough, Genesis Environmental



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P.O. Box 1310
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Re: Groundwater Monitoring at Sunray Class I Tontitown Landfill
CSN: 72-0144 Permit No.: 123-SR-2 and 162-SR-2

Dear Kevin:

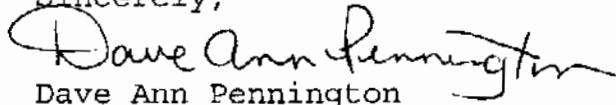
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If you have any questions concerning this project, please contact me at 682-0606.

Sincerely,

A handwritten signature in cursive script that reads "Dave Ann Pennington". The signature is written in black ink and is positioned above the typed name.

Dave Ann Pennington
Solid Waste Division Geologist

cc: Tom Coleman, District Field Inspector
Dan McCullough, Genesis Environmental

***** Se h Criteria *****
 * Log # : 71129 to 71136 *
 * Station Num : ??????? to ??????? *
 * Date : 000000 to 999999 *
 * Type : ?????,????,???? *
 * Collector : ? *
 * Description : ? *

Log #: 71129 Station: Type: WWX Gauge:
 SUNRAY TONTITOWN MW-1
 Collected: 951205 Time: 0830 Collector: PENNINGTON
 Received: 951206 Time: 0850 Receiver: RT

ROUTINE

Parameter	Data	Units	D.L.	Code
NH3-N	0.195	MG/L	0.05	00610
CL	37.829	MG/L	1.20	00940
NO3-N	70.690	MG/L	0.02	00630
O-PHOS	?<0.03	MG/L	0.03	70507
SO4	7.9	MG/L	1.0	00945
TOC	3.9	MG/L	1.0	00680
TSS	5.0	MG/L	1	00530
TDS	586	MG/L	1	70300

FIELD

Parameter	Data	Units	D.L.	Code
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ICAP

Parameter	Data	Units	D.L.	Code
Al	<16	UG/L	16	01106
Cu	2.8	UG/L	2	01040
Ca	181.0	MG/L	0.02	00915
Fe	1290	UG/L	1.8	01046
K	2.4	MG/L	0.02	00935
Mg	3.8	MG/L	0.06	00925
Mn	6680	UG/L	2.0	01056
Na	20.7	MG/L	0.04	00930
Zn	607.0	UG/L	2.0	01090
Hardness	467	MG/L		00900
Ni	194.4	UG/L	5	01065
B	12.4	UG/L	3	01020
Be	<2	UG/L	2	01010
Ba	173.7	UG/L	4	01005
Co	87.3	UG/L	3	01035
V	<5	UG/L	5	01085

AA

Parameter	Data	Units	D.L.	Code
Cd	<0.5	UG/L	0.5	01025
Cr	<1	UG/L	1	01030
Pb	<2	UG/L	2	01049

HWVOLS

Parameter	Data	Units	D.L.	Code
Chloromethane	<1	ug/l	2.00	
1,1-Dichloroethane	17.09	ug/l	2.00	
Chlorobenzene	0.94	ug/l	2.00	
Bromoform	<1	ug/l	2.00	
1,1,2,2-Tetrachloroethane	<1	ug/l	2.00	
Vinyl_Chloride	7.97	ug/L	2.00	
Bromomethane	<1	ug/L	2.00	
Chloroethane	4.41	ug/L	2.00	
Trichlorofluoromethane	<1	ug/L	2.00	
1,1-Dichloroethene	<1	ug/L	2.00	
Methylene_Chloride	1.94	ug/L	2.00	
Trans-1,2-Dichloroethene	<1	ug/L	2.00	
Cis-1,2-Dichloroethene	7.39	ug/L	2.00	
2,2-Dichloropropane	<1	ug/L	2.00	
Bromochloromethane	<1	ug/L	2.00	
Chloroform	<1	ug/L	2.00	
1,1,1-Trichloroethane	<1	ug/L	2.00	
1,2-Dichloroethane	<1	ug/L	2.00	
1,1-Dichloropropene	<1	ug/L	2.00	
Benzene	3.09	ug/L	2.00	
Carbon_Tetrachloride	<1	ug/L	2.00	
1,2-Dichloropropane	<1	ug/L	2.00	

Trichloroethene	6	ug/L	2.00
Dibromomethane	<1	ug/L	2.00
Bromodichloromethane	<1	ug/L	2.00
Cis-1,3-Dichloropropene	<1	ug/L	2.00
Toluene	<1	ug/L	2.00
Trans-1,3-Dichloropropene	<1	ug/L	2.00
1,1,2-Trichloroethane	<1	ug/L	2.00
1,3-Dichloropropane	<1	ug/L	2.00
Dibromochloromethane	<1	ug/L	2.00
1,2-Dibromoethane	<1	ug/L	2.00
Tetrachloroethene	0.64	ug/L	2.00
1,1,1,2-Tetrachloroethane	<1	ug/L	2.00
Ethyl_Benzene	<1	ug/L	2.00
Styrene	<1	ug/L	2.00
Ortho_Xylene	<1	ug/L	2.00
1,2,3-Trichloropropane	<1	ug/L	2.00
Isopropylbenzene	<1	ug/L	2.00
Bromobenzene	<1	ug/L	2.00
2-Chlorotoluene	<1	ug/L	2.00
N-Propyl_Benzene	<1	ug/L	2.00
4-Chlorotoluene	<1	ug/L	2.00
1,3,5-Trimethylbenzene	<1	ug/L	2.00
Tert-Butyl_benzene	<1	ug/L	2.00
1,2,4-Trimethylbenzene	<1	ug/L	2.00
1,3-Dichlorobenzene	<1	ug/L	2.00
Sec-Butyl_Benzene	<1	ug/L	2.00
1,4-Dichlorobenzene	8.95	ug/L	2.00
P-Isopropyl_Toluene	<1	ug/L	2.00
1,2-Dichlorobenzene	<1	ug/L	2.00
N-Butyl_Benzene	<1	ug/L	2.00
1,2-Dibromo-3-Chloropropane	<1	ug/L	2.00
1,2,4-Trichlorobenzene	<1	ug/L	2.00
Naphthalene	<1	ug/L	2.00
1,2,3-Trichlorobenzene	<1	ug/L	2.00
Hexachlorobutadiene	<1	ug/L	2.00
Para_Xylene	<1	ug/L	2.00
Meta_Xylene	<1	ug/L	2.00
Acetone	<1	ug/L	2.00
Methyl_Ethyl_Ketone	<1	ug/L	2.00
Dibromofluoromethane	81	%REC	2.00
Toluene-D8	102	%REC	2.00
4-Bromofluorobenzene	106	%REC	2.00

MISCELLANEOUS

Parameter	Data	Units	D.L.	Code
Chlorofluoromethane		7.9 ug/L	(1)	
Dichlorofluoromethane		17 ug/L	(1)	
Diethyl Ether		38 ug/L	(1)	

(1) Denotes an compound that has been tentatively identified and whose concentration has been estimated.

Log #: 71130 Station: Type: WWX Gauge:
 SUNRAY TONTITOWN MW-5
 Collected: 951205 Time: 0915 Collector: PENNINGTON
 Received: 951206 Time: 0850 Receiver: RT

ROUTINE

Parameter	Data	Units	D.L.	Code
NH3-N	<0.05	MG/L	0.05	00610
CL	33.823	MG/L	1.20	00940
NO3-N	70.995	MG/L	0.02	00630
O-PHOS	7<0.03	MG/L	0.03	70507
SO4	4.3	MG/L	1.0	00945
TOC	5.8	MG/L	1.0	00680
TSS	6.0	MG/L	1	00530
TDS	435	MG/L	1	70300

FIELD

Parameter	Data	Units	D.L.	Code
ICAP				
Parameter	Data	Units	D.L.	Code
Al	<16	UG/L	16	01106
Cu	3.3	UG/L	2	01040
Ca	135.0	MG/L	0.02	00915

Fe	--	UG/L	1.8	01046
K	1.2	MG/L	0.02	00935
Mg	1.9	MG/L	0.06	00925
Mn	4	UG/L	2.0	01056
Na	9.3	MG/L	0.04	00930
Zn	78.1	UG/L	2.0	01090
Hardness	345	MG/L		00900
Ni	8.5	UG/L	5	01065
B	7.1	UG/L	3	01020
Be	<2	UG/L	2	01010
Ba	42.9	UG/L	4	01005
Co	3.5	UG/L	3	01035
V	<5	UG/L	5	01085

AA				
Parameter	Data	Units	D.L.	Code
Cd	<0.5	UG/L	0.5	01025
Cr	<1	UG/L	1	01030
Pb	<2	UG/L	2	01049

HWVOLS				
Parameter	Data	Units	D.L.	Code
Chloromethane	<1	ug/L	2.00	
1,1-Dichloroethane	4.24	ug/L	2.00	
Chlorobenzene	<1	ug/L	2.00	
Bromoform	<1	ug/L	2.00	
1,1,2,2-Tetrachloroethane	<1	ug/L	2.00	
Vinyl_Chloride	<1	ug/L	2.00	
Bromomethane	<1	ug/L	2.00	
Chloroethane	<1	ug/L	2.00	
Trichlorofluoromethane	2.97	ug/L	2.00	
1,1-Dichloroethene	<1	ug/L	2.00	
Methylene Chloride	1.87	ug/L	2.00	
Trans-1,2-Dichloroethene	<1	ug/L	2.00	
Cis-1,2-Dichloroethene	1.28	ug/L	2.00	
2,2-Dichloropropane	<1	ug/L	2.00	
Bromochloromethane	<1	ug/L	2.00	
Chloroform	<1	ug/L	2.00	
1,1,1-Trichloroethane	1.06	ug/L	2.00	
1,2-Dichloroethane	<1	ug/L	2.00	
1,1-Dichloropropene	<1	ug/L	2.00	
Benzene	<1	ug/L	2.00	
Carbon Tetrachloride	<1	ug/L	2.00	
1,2-Dichloropropane	<1	ug/L	2.00	
Trichloroethene	1.57	ug/L	2.00	
Dibromomethane	<1	ug/L	2.00	
Bromodichloromethane	<1	ug/L	2.00	
Cis-1,3-Dichloropropene	<1	ug/L	2.00	
Toluene	<1	ug/L	2.00	
Trans-1,3-Dichloropropene	<1	ug/L	2.00	
1,1,2-Trichloroethane	<1	ug/L	2.00	
1,3-Dichloropropane	<1	ug/L	2.00	
Dibromochloromethane	<1	ug/L	2.00	
1,2-Dibromoethane	<1	ug/L	2.00	
Tetrachloroethene	4.22	ug/L	2.00	
1,1,1,2-Tetrachloroethane	<1	ug/L	2.00	
Ethyl_Benzene	<1	ug/L	2.00	
Styrene	<1	ug/L	2.00	
Ortho_Xylene	<1	ug/L	2.00	
1,2,3-Trichloropropane	<1	ug/L	2.00	
Isopropylbenzene	<1	ug/L	2.00	
Bromobenzene	<1	ug/L	2.00	
2-Chlorotoluene	<1	ug/L	2.00	
N-Propyl_Benzene	<1	ug/L	2.00	
4-Chlorotoluene	<1	ug/L	2.00	
1,3,5-Trimethylbenzene	<1	ug/L	2.00	
Tert-Butyl_benzene	<1	ug/L	2.00	
1,2,4-Trimethylbenzene	<1	ug/L	2.00	
1,3-Dichlorobenzene	<1	ug/L	2.00	
Sec-Butyl_Benzene	<1	ug/L	2.00	
1,4-Dichlorobenzene	<1	ug/L	2.00	
P-Isopropyl_Toluene	<1	ug/L	2.00	
1,2-Dichlorobenzene	<1	ug/L	2.00	
N-Butyl_Benzene	<1	ug/L	2.00	
1,2-Dibromo-3-Chloropropane	<1	ug/L	2.00	

1,2,4-Trichlorobenzene		ug/L	2.00
Naphthalene	<1	ug/L	2.00
1,2,3-Trichlorobenzene	<1	ug/L	2.00
Hexachlorobutadiene	<1	ug/L	2.00
Para_Xylene	<1	ug/L	2.00
Meta_Xylene	<1	ug/L	2.00
Acetone	2.63	ug/L	2.00
Methyl_Ethyl_Ketone	<1	ug/L	2.00
Dibromofluoromethane	82	%REC	2.00
Toluene-D8	101	%REC	2.00
4-Bromofluorobenzene	105	%REC	2.00

MISCELLANEOUS

Parameter	Data	Units	D.L.	Code
Dichlorofluoromethane	28	ug/L (1)		

(1) Denotes an compound that has been tentatively identified and whose concentration has been estimated.

Log #: 71131 Station: Type: WWXO Gauge:
 SUNRAY TONTITOWN MW-6
 Collected: 951205 Time: 0950 Collector: PENNINGTON
 Received: 951206 Time: 0850 Receiver: RT

ROUTINE

Parameter	Data	Units	D.L.	Code
NH3-N	<0.05	MG/L	0.05	00610
CL	18.282	MG/L	1.20	00940
NO3-N	72.638	MG/L	0.02	00630
O-PHOS	?<0.03	MG/L	0.03	70507
SO4	3.0	MG/L	1.0	00945
TOC	2.9	MG/L	1.0	00680
TSS	1.5	MG/L	1	00530
TDS	315	MG/L	1	70300

FIELD

Parameter	Data	Units	D.L.	Code
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ICAP

Parameter	Data	Units	D.L.	Code
Al	<16	UG/L	16	01106
Cu	2.0	UG/L	2	01040
Ca	102.0	MG/L	0.02	00915
Fe	2	UG/L	1.8	01046
K	1.0	MG/L	0.02	00935
Mg	2.4	MG/L	0.06	00925
Mn	86	UG/L	2.0	01056
Na	5.2	MG/L	0.04	00930
Zn	38.9	UG/L	2.0	01090
Hardness	264	MG/L		00900
Ni	6.1	UG/L	5	01065
B	7.0	UG/L	3	01020
Be	<2	UG/L	2	01010
Ba	67.8	UG/L	4	01005
Co	<3	UG/L	3	01035
V	<5	UG/L	5	01085

AA

Parameter	Data	Units	D.L.	Code
Cd	2	UG/L	0.5	01025
Cr	<1	UG/L	1	01030
Pb	<2	UG/L	2	01049

HWVOLS

Parameter	Data	Units	D.L.	Code
Chloromethane	<1	ug/L	2.00	
1,1-Dichloroethane	2.64	ug/L	2.00	
Chlorobenzene	<1	ug/L	2.00	
Bromoform	<1	ug/L	2.00	
1,1,2,2-Tetrachloroethane	<1	ug/L	2.00	
Vinyl_Chloride	2.49	ug/L	2.00	
Bromomethane	<1	ug/L	2.00	
Chloroethane	1.03	ug/L	2.00	
Trichlorofluoromethane	1.35	ug/L	2.00	
1,1-Dichloroethene	<1	ug/L	2.00	
Methylene_Chloride	1.75	ug/L	2.00	
Trans-1,2-Dichloroethene	<1	ug/L	2.00	

Cis-1,2-Dichloroethene	8	ug/L	2.00
2,2-Dichloropropane	<1	ug/L	2.00
Bromochloromethane	<1	ug/L	2.00
Chloroform	<1	ug/L	2.00
1,1,1-Trichloroethane	0.78	ug/L	2.00
1,2-Dichloroethane	<1	ug/L	2.00
1,1-Dichloropropene	<1	ug/L	2.00
Benzene	<1	ug/L	2.00
Carbon Tetrachloride	<1	ug/L	2.00
1,2-Dichloropropane	<1	ug/L	2.00
Trichloroethene	1.49	ug/L	2.00
Dibromomethane	<1	ug/L	2.00
Bromodichloromethane	<1	ug/L	2.00
Cis-1,3-Dichloropropene	<1	ug/L	2.00
Toluene	<1	ug/L	2.00
Trans-1,3-Dichloropropene	<1	ug/L	2.00
1,1,2-Trichloroethane	<1	ug/L	2.00
1,3-Dichloropropane	<1	ug/L	2.00
Dibromochloromethane	<1	ug/L	2.00
1,2-Dibromoethane	<1	ug/L	2.00
Tetrachloroethene	2.92	ug/L	2.00
1,1,1,2-Tetrachloroethane	<1	ug/L	2.00
Ethyl Benzene	<1	ug/L	2.00
Styrene	<1	ug/L	2.00
Ortho Xylene	<1	ug/L	2.00
1,2,3-Trichloropropane	<1	ug/L	2.00
Isopropylbenzene	<1	ug/L	2.00
Bromobenzene	<1	ug/L	2.00
2-Chlorotoluene	<1	ug/L	2.00
N-Propyl Benzene	<1	ug/L	2.00
4-Chlorotoluene	<1	ug/L	2.00
1,3,5-Trimethylbenzene	<1	ug/L	2.00
Tert-Butyl benzene	<1	ug/L	2.00
1,2,4-Trimethylbenzene	<1	ug/L	2.00
1,3-Dichlorobenzene	<1	ug/L	2.00
Sec-Butyl Benzene	<1	ug/L	2.00
1,4-Dichlorobenzene	<1	ug/L	2.00
P-Isopropyl Toluene	<1	ug/L	2.00
1,2-Dichlorobenzene	<1	ug/L	2.00
N-Butyl Benzene	<1	ug/L	2.00
1,2-Dibromo-3-Chloropropane	<1	ug/L	2.00
1,2,4-Trichlorobenzene	<1	ug/L	2.00
Naphthalene	<1	ug/L	2.00
1,2,3-Trichlorobenzene	<1	ug/L	2.00
Hexachlorobutadiene	<1	ug/L	2.00
Para Xylene	<1	ug/L	2.00
Meta Xylene	<1	ug/L	2.00
Acetone	<1	ug/L	2.00
Methyl Ethyl Ketone	<1	ug/L	2.00
Dibromofluoromethane	81	%REC	2.00
Toluene-D8	101	%REC	2.00
4-Bromofluorobenzene	106	%REC	2.00

MISCELLANEOUS				
Parameter	Data	Units	D.L.	Code
Chlorofluoromethane		1 ug/L	(1)	
Dichlorofluoromethane		18 ug/L	(1)	

(1) Denotes an compound that has been tentatively identified and whose concentration has been estimated.

Log #: 71132 Station: Type: WWX Gauge:
 SUNRAY TONTITOWN MW-7
 Collected: 951205 Time: 1030 Collector: PENNINGTON
 Received: 951206 Time: 0850 Receiver: RT

ROUTINE				
Parameter	Data	Units	D.L.	Code
NH3-N	<0.05	MG/L	0.05	00610
CL	10.317	MG/L	1.20	00940
NO3-N	70.788	MG/L	0.02	00630
O-PHOS	7<0.03	MG/L	0.03	70507
SO4	4.3	MG/L	1.0	00945

TPC		MG/L	1.0	00680
TSS	25.0	MG/L	1	00530
TDS	423	MG/L	1	70300

FIELD

Parameter	Data	Units	D.L.	Code
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ICAP

Parameter	Data	Units	D.L.	Code
Al	156.2	UG/L	16	01106
Cu	4.0	UG/L	2	01040
Ca	145.0	MG/L	0.02	00915
Fe	180	UG/L	1.8	01046
K	1.4	MG/L	0.02	00935
Mg	2.8	MG/L	0.06	00925
Mn	1250	UG/L	2.0	01056
Na	3.6	MG/L	0.04	00930
Zn	114.0	UG/L	2.0	01090
Hardness	374	MG/L		00900
Ni	29.8	UG/L	5	01065
B	9.3	UG/L	3	01020
Be	<2	UG/L	2	01010
Ba	54.5	UG/L	4	01005
Co	3.6	UG/L	3	01035
V	<5	UG/L	5	01085

AA

Parameter	Data	Units	D.L.	Code
Cd	<0.5	UG/L	0.5	01025
Cr	<1	UG/L	1	01030
Pb	<2	UG/L	2	01049

HWVOLS

Parameter	Data	Units	D.L.	Code
Chloromethane	<1	ug/L	2.00	
1,1-Dichloroethane	3.30	ug/L	2.00	
Chlorobenzene	<1	ug/L	2.00	
Bromoform	<1	ug/L	2.00	
1,1,2,2-Tetrachloroethane	<1	ug/L	2.00	
Vinyl_Chloride	1.71	ug/L	2.00	
Bromomethane	<1	ug/L	2.00	
Chloroethane	0.82	ug/L	2.00	
Trichlorofluoromethane	<1	ug/L	2.00	
1,1-Dichloroethene	<1	ug/L	2.00	
Methylene_Chloride	2.89	ug/L	2.00	
Trans-1,2-Dichloroethene	<1	ug/L	2.00	
Cis-1,2-Dichloroethene	6.85	ug/L	2.00	
2,2-Dichloropropane	<1	ug/L	2.00	
Bromochloromethane	<1	ug/L	2.00	
Chloroform	<1	ug/L	2.00	
1,1,1-Trichloroethane	<1	ug/L	2.00	
1,2-Dichloroethane	<1	ug/L	2.00	
1,1-Dichloropropene	<1	ug/L	2.00	
Benzene	1.43	ug/L	2.00	
Carbon_Tetrachloride	<1	ug/L	2.00	
1,2-Dichloropropane	<1	ug/L	2.00	
Trichloroethene	0.79	ug/L	2.00	
Dibromomethane	<1	ug/L	2.00	
Bromodichloromethane	<1	ug/L	2.00	
Cis-1,3-Dichloropropene	<1	ug/L	2.00	
Toluene	<1	ug/L	2.00	
Trans-1,3-Dichloropropene	<1	ug/L	2.00	
1,1,2-Trichloroethane	<1	ug/L	2.00	
1,3-Dichloropropane	<1	ug/L	2.00	
Dibromochloromethane	<1	ug/L	2.00	
1,2-Dibromoethane	<1	ug/L	2.00	
Tetrachloroethene	<1	ug/L	2.00	
1,1,1,2-Tetrachloroethane	<1	ug/L	2.00	
Ethyl_Benzene	<1	ug/L	2.00	
Styrene	<1	ug/L	2.00	
Ortho_Xylene	<1	ug/L	2.00	
1,2,3-Trichloropropane	<1	ug/L	2.00	
Isopropylbenzene	<1	ug/L	2.00	
Bromobenzene	<1	ug/L	2.00	
2-Chlorotoluene	<1	ug/L	2.00	
N-Propyl_Benzene	<1	ug/L	2.00	
4-Chlorotoluene	<1	ug/L	2.00	

1,3,5-Trimethylbenzene		ug/L	2.00
Tert-Butyl_benzene	<1	ug/L	2.00
1,2,4-Trimethylbenzene	<1	ug/L	2.00
1,3-Dichlorobenzene	<1	ug/L	2.00
Sec-Butyl_Benzene	<1	ug/L	2.00
1,4-Dichlorobenzene	<1	ug/L	2.00
P-Isopropyl_Toluene	<1	ug/L	2.00
1,2-Dichlorobenzene	<1	ug/L	2.00
N-Butyl_Benzene	<1	ug/L	2.00
1,2-Dibromo-3-Chloropropane	<1	ug/L	2.00
1,2,4-Trichlorobenzene	<1	ug/L	2.00
Naphthalene	<1	ug/L	2.00
1,2,3-Trichlorobenzene	<1	ug/L	2.00
Hexachlorobutadiene	<1	ug/L	2.00
Para_Xylene	<1	ug/L	2.00
Meta_Xylene	<1	ug/L	2.00
Acetone	<1	ug/L	2.00
Methyl_Ethyl_Ketone	<1	ug/L	2.00
Dibromofluoromethane	83	%REC	2.00
Toluene-D8	104	%REC	2.00
4-Bromofluorobenzene	104	%REC	2.00

MISCELLANEOUS

Parameter	Data	Units	D.L.	Code
Chlorofluoromethane		2.7 ug/L	(1)	
Dichlorofluoromethane		5.8 ug/L	(1)	
Diethyl Ether		1.4 ug/L	(1)	

(1) Denotes an compound that has been tentatively identified and whose concentration has been estimated.

Log #: 71133 Station: SUNRAY TONTITOWN MW-4 Type: WWX Gauge:
 Collected: 951205 Time: 1210 Collector: PENNINGTON
 Received: 951206 Time: 0850 Receiver: RT

ROUTINE

Parameter	Data	Units	D.L.	Code
NH3-N	0.104	MG/L	0.05	00610
CL	9.993	MG/L	1.20	00940
NO3-N	?<0.02	MG/L	0.02	00630
O-PHOS	?<0.03	MG/L	0.03	70507
SO4	5.6	MG/L	1.0	00945
TOC	3.1	MG/L	1.0	00680
TSS	11.5	MG/L	1	00530
TDS	636	MG/L	1	70300

FIELD

Parameter	Data	Units	D.L.	Code
ICAP				
Al	<16	UG/L	16	01106
Cu	2.0	UG/L	2	01040
Ca	215.0	MG/L	0.02	00915
Fe	378	UG/L	1.8	01046
K	1.1	MG/L	0.02	00935
Mg	3.4	MG/L	0.06	00925
Mn	13800	UG/L	2.0	01056
Na	4.3	MG/L	0.04	00930
Zn	168.0	UG/L	2.0	01090
Hardness	551	MG/L		00900
Ni	265.8	UG/L	5	01065
B	10.7	UG/L	3	01020
Ee	<2	UG/L	2	01010
Ba	147.4	UG/L	4	01005
Co	19.5	UG/L	3	01035
V	<5	UG/L	5	01085

AA

Parameter	Data	Units	D.L.	Code
Cd	<0.5	UG/L	0.5	01025
Cr	<1	UG/L	1	01030
Pb	<2	UG/L	2	01049

HWVOLS

Parameter	Data	Units	D.L.	Code
Chloromethane	<1	ug/L	2.00	

1,1-Dichloroethane	.3	ug/L	2.00
Chlorobenzene	<1	ug/L	2.00
Bromoform	<1	ug/L	2.00
1,1,2,2-Tetrachloroethane	<1	ug/L	2.00
ide	4.47	ug/L	2.00
Bromomethane	<1	ug/L	2.00
Chloroethane	2.38	ug/L	2.00
Trichlorofluoromethane	<1	ug/L	2.00
1,1-Dichloroethene	<1	ug/L	2.00
Methylene_Chloride	1.90	ug/L	2.00
Trans-1,2-Dichloroethene	<1	ug/L	2.00
Cis-1,2-Dichloroethene	12.39	ug/L	2.00
2,2-Dichloropropane	<1	ug/L	2.00
Bromochloromethane	<1	ug/L	2.00
Chloroform	<1	ug/L	2.00
1,1,1-Trichloroethane	<1	ug/L	2.00
1,2-Dichloroethane	<1	ug/L	2.00
1,1-Dichloropropene	<1	ug/L	2.00
Benzene	1.38	ug/L	2.00
Carbon_Tetrachloride	<1	ug/L	2.00
1,2-Dichloropropane	<1	ug/L	2.00
Trichloroethene	4.59	ug/L	2.00
Dibromomethane	<1	ug/L	2.00
Bromodichloromethane	<1	ug/L	2.00
Cis-1,3-Dichloropropene	<1	ug/L	2.00
Toluene	<1	ug/L	2.00
Trans-1,3-Dichloropropene	<1	ug/L	2.00
1,1,2-Trichloroethane	<1	ug/L	2.00
1,3-Dichloropropene	<1	ug/L	2.00
Dibromochloromethane	<1	ug/L	2.00
1,2-Dibromoethane	<1	ug/L	2.00
Tetrachloroethene	1.14	ug/L	2.00
1,1,1,2-Tetrachloroethane	<1	ug/L	2.00
Ethyl_Benzene	<1	ug/L	2.00
Styrene	<1	ug/L	2.00
Ortho_Xylene	<1	ug/L	2.00
1,2,3-Trichloropropane	<1	ug/L	2.00
Isopropylbenzene	<1	ug/L	2.00
Bromobenzene	<1	ug/L	2.00
2-Chlorotoluene	<1	ug/L	2.00
N-Propyl_Benzene	<1	ug/L	2.00
4-Chlorotoluene	<1	ug/L	2.00
1,3,5-Trimethylbenzene	<1	ug/L	2.00
Tert-Butyl_benzene	<1	ug/L	2.00
1,2,4-Trimethylbenzene	<1	ug/L	2.00
1,3-Dichlorobenzene	<1	ug/L	2.00
Sec-Butyl_Benzene	<1	ug/L	2.00
1,4-Dichlorobenzene	1	ug/L	2.00
P-Isopropyl_Toluene	<1	ug/L	2.00
1,2-Dichlorobenzene	<1	ug/L	2.00
N-Butyl_Benzene	<1	ug/L	2.00
1,2-Dibromo-3-Chloropropane	<1	ug/L	2.00
1,2,4-Trichlorobenzene	<1	ug/L	2.00
Naphthalene	<1	ug/L	2.00
1,2,3-Trichlorobenzene	<1	ug/L	2.00
Hexachlorobutadiene	<1	ug/L	2.00
Para_Xylene	<1	ug/L	2.00
Meta_Xylene	<1	ug/L	2.00
Acetone	2.80	ug/L	2.00
Methyl_Ethyl_Ketone	<1	ug/L	2.00
Dibromofluoromethane	80	%REC	2.00
Toluene-D8	104	%REC	2.00
4-Bromofluorobenzene	106	%REC	2.00

MISCELLANEOUS

Parameter	Data	Units	D.L.	Code
Chlorofluoromethane		5.8 ug/L	(1)	
Dichlorofluoromethane		15 ug/L	(1)	
Diethyl Ether		2.3 ug/L	(1)	

(1) Denotes an compound that has been tentatively identified and whose concentration has been estimated.

Duplicate

SUNRAY-TONTITOWN MW-6

Collected: 951205 Time: 0950

Collector: PENNINGTON

Received: 951206 Time: 0850

Receiver: RT

ROUTINE

Parameter	Data	Units	D.L.	Code
NH3-N	0.051	MG/L	0.05	00610
CL	18.564	MG/L	1.20	00940
NO3-N	?2.477	MG/L	0.02	00630
O-PHOS	?<0.03	MG/L	0.03	70507
SO4	3.0	MG/L	1.0	00945
TOC	2.4	MG/L	1.0	00680
TSS	1.0	MG/L	1	00530
TDS	311	MG/L	1	70300

FIELD

Parameter	Data	Units	D.L.	Code
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ICAP

Parameter	Data	Units	D.L.	Code
Al	<16	UG/L	16	01106
Cu	<2	UG/L	2	01040
Ca	102.0	MG/L	0.02	00915
Fe	6	UG/L	1.8	01046
K	1.1	MG/L	0.02	00935
Mg	2.6	MG/L	0.06	00925
Mn	105	UG/L	2.0	01056
Na	5.3	MG/L	0.04	00930
Zn	45.2	UG/L	2.0	01090
Hardness	265	MG/L		00900
Ni	7.4	UG/L	5	01065
B	6.6	UG/L	3	01020
Be	<2	UG/L	2	01010
Ba	76.0	UG/L	4	01005
Co	<3	UG/L	3	01035
V	<5	UG/L	5	01085

AA

Parameter	Data	Units	D.L.	Code
Cd	2.4	UG/L	0.5	01025
Cr	<1	UG/L	1	01030
Pb	<2	UG/L	2	01049

HWVOLS

Parameter	Data	Units	D.L.	Code
Chloromethane	<1	ug/L	2.00	
1,1-Dichloroethane	2.83	ug/L	2.00	
Chlorobenzene	<1	ug/L	2.00	
Bromoform	<1	ug/L	2.00	
1,1,2,2-Tetrachloroethane	<1	ug/L	2.00	
Vinyl Chloride	2.96	ug/L	2.00	
Bromomethane	<1	ug/L	2.00	
Chloroethane	1.16	ug/L	2.00	
Trichlorofluoromethane	1.49	ug/L	2.00	
1,1-Dichloroethene	<1	ug/L	2.00	
Methylene Chloride	2.26	ug/L	2.00	
Trans-1,2-Dichloroethene	<1	ug/L	2.00	
Cis-1,2-Dichloroethene	0.94	ug/L	2.00	
2,2-Dichloropropane	<1	ug/L	2.00	
Bromochloromethane	<1	ug/L	2.00	
Chloroform	<1	ug/L	2.00	
1,1,1-Trichloroethane	0.84	ug/L	2.00	
1,2-Dichloroethane	<1	ug/L	2.00	
1,1-Dichloropropene	<1	ug/L	2.00	
Benzene	<1	ug/L	2.00	
Carbon Tetrachloride	<1	ug/L	2.00	
1,2-Dichloropropane	<1	ug/L	2.00	
Trichloroethene	1.60	ug/L	2.00	
Dibromomethane	<1	ug/L	2.00	
Bromodichloromethane	<1	ug/L	2.00	
Cis-1,3-Dichloropropene	<1	ug/L	2.00	
Toluene	<1	ug/L	2.00	
Trans-1,3-Dichloropropene	<1	ug/L	2.00	
1,1,2-Trichloroethane	<1	ug/L	2.00	
1,3-Dichloropropane	<1	ug/L	2.00	
Dibromochloromethane	<1	ug/L	2.00	
1,2-Dibromoethane	<1	ug/L	2.00	

Tetrachloroethene	8	ug/L	2.00
1,1,1,2-Tetrachloroethane	--	ug/L	2.00
Ethyl_Benzene	<1	ug/L	2.00
Styrene	<1	ug/L	2.00
Ortho_Xylene	<1	ug/L	2.00
1,2,3-Trichloropropane	<1	ug/L	2.00
Isopropylbenzene	<1	ug/L	2.00
Bromobenzene	<1	ug/L	2.00
2-Chlorotoluene	<1	ug/L	2.00
N-Propyl_Benzene	<1	ug/L	2.00
4-Chlorotoluene	<1	ug/L	2.00
1,3,5-Trimethylbenzene	<1	ug/L	2.00
Tert-Butyl_benzene	<1	ug/L	2.00
1,2,4-Trimethylbenzene	<1	ug/L	2.00
1,3-Dichlorobenzene	<1	ug/L	2.00
Sec-Butyl_Benzene	<1	ug/L	2.00
1,4-Dichlorobenzene	<1	ug/L	2.00
P-Isopropyl_Toluene	<1	ug/L	2.00
1,2-Dichlorobenzene	<1	ug/L	2.00
N-Butyl_Benzene	<1	ug/L	2.00
1,2-Dibromo-3-Chloropropane	<1	ug/L	2.00
1,2,4-Trichlorobenzene	<1	ug/L	2.00
Naphthalene	<1	ug/L	2.00
1,2,3-Trichlorobenzene	<1	ug/L	2.00
Hexachlorobutadiene	<1	ug/L	2.00
Para_Xylene	<1	ug/L	2.00
Meta_Xylene	<1	ug/L	2.00
Acetone	1.95	ug/L	2.00
Methyl_Ethyl_Ketone	<1	ug/L	2.00
Dibromofluoromethane	86	%REC	2.00
Toluene-D8	102	%REC	2.00
4-Bromofluorobenzene	98	%REC	2.00

MISCELLANEOUS

Parameter	Data	Units	D.L.	Code
Chlorofluoromethane		<1 ug/L	(1)	
Dichlorofluoromethane		20 ug/L	(1)	
Diethyl Ether		<1 ug/L	(1)	

(1) Denotes an compound that has been tentatively identified and whose concentration has been estimated.

Log #: 71135 Station: Type: WWXS Gauge: *Spike*
 SUNRAY TONTITOWN MW-6
 Collected: 951205 Time: 0950 Collector: PENNINGTON
 Received: 951206 Time: 0850 Receiver: RT

ROUTINE

Parameter	Data	Units	D.L.	Code
NH3-N	0.584	MG/L	0.05	00610
CL	70.307	MG/L	1.20	00940
NO3-N	72.905	MG/L	0.02	00630
O-PHOS	70.508	MG/L	0.03	70507
SO4	54.2	MG/L	1.0	00945
TOC	7.8	MG/L	1.0	00680

FIELD

Parameter	Data	Units	D.L.	Code
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ICAP

Parameter	Data	Units	D.L.	Code
Al	777.5	UG/L	16	01106
Cu	105.0	UG/L	2	01040
Ca	119.0	MG/L	0.02	00915
Fe	410	UG/L	1.8	01046
K	18.4	MG/L	0.02	00935
Mg	23.1	MG/L	0.06	00925
Mn	165	UG/L	2.0	01056
Na	28.3	MG/L	0.04	00930
Zn	126.0	UG/L	2.0	01090
Hardness	392	MG/L		00900
Ni	170.6	UG/L	5	01065
B	190.7	UG/L	3	01020
Be	20.2	UG/L	2	01010
Ba	865.8	UG/L	4	01005
Co	203.6	UG/L	3	01035

Parameter	Data	Units	D.L.	Code
Cd	2.9	UG/L	0.5	01025
Cr	22.2	UG/L	1	01030
Pb	23.8	UG/L	2	01049

HWVOLS				
Parameter	Data	Units	D.L.	Code
Chlorobenzene	105	%REC	2.00	
1,1-Dichloroethene	95	%REC	2.00	
Benzene	100	%REC	2.00	
Trichloroethene	96	%REC	2.00	
Toluene	108	%REC	2.00	
Dibromofluoromethane	87	%REC	2.00	
Toluene-DB	102	%REC	2.00	
4-Bromofluorobenzene	98	%REC	2.00	

Log #: 71136 Station: Type: KWYS *Op. Le* Gauge:
 SUNRAY TONTITOWN MW-6
 Collected: 951205 Time: 0950 Collector: PENNINGTON
 Received: 951206 Time: 0850 Receiver: RT

ROUTINE				
Parameter	Data	Units	D.L.	Code
NH3-N	0.579	MG/L	0.05	00610
CL	68.766	MG/L	1.20	00940
NO3-N	72.924	MG/L	0.02	00630
O-PHOS	70.572	MG/L	0.03	70507
SO4	56.7	MG/L	1.0	00945
TOC	8.0	MG/L	1.0	00680

FIELD				
Parameter	Data	Units	D.L.	Code
ICAP				
Al	786.6	UG/L	16	01106
Cu	105.0	UG/L	2	01040
Ca	120.0	MG/L	0.02	00915
Fe	411	UG/L	1.8	01046
K	18.5	MG/L	0.02	00935
Mg	23.2	MG/L	0.06	00925
Mn	165	UG/L	2.0	01056
Na	28.6	MG/L	0.04	00930
Zn	126.0	UG/L	2.0	01090
Hardness	395	MG/L		00900
Ni	170.8	UG/L	5	01065
B	188.6	UG/L	3	01020
Se	20.2	UG/L	2	01010
Ba	867.7	UG/L	4	01005
Co	203.2	UG/L	3	01035
V	205.1	UG/L	5	01085

AA				
Parameter	Data	Units	D.L.	Code
Cd	3	UG/L	0.5	01025
Cr	23.1	UG/L	1	01030
Pb	23.5	UG/L	2	01049

HWVOLS				
Parameter	Data	Units	D.L.	Code
Chlorobenzene	105	%REC	2.00	
1,1-Dichloroethene	92	%REC	2.00	
Benzene	100	%REC	2.00	
Trichloroethene	95	%REC	2.00	
Toluene	109	%REC	2.00	
Dibromofluoromethane	88	%REC	2.00	
Toluene-DB	103	%REC	2.00	
4-Bromofluorobenzene	101	%REC	2.00	