1988 ANNUAL RCRA GROUND-WATER MONITORING REPORT FOR REGULATED UNITS AT ROCKY FLATS PLANT

Rockwell International

1 MARCH 1989

VOLUME II - APPENDICES

ADMIN RECORD

A-SW-000248

REVIEWED FOR CLASSIFICATION/UC
By V. A. Muenchow
2/25/91

APPENDIX D

PRESENT LANDFILL
GROUND-WATER QUALITY DATA

ADMIN RECORD

REVIEWED FOR CLASSIFICATION/UCNI
By V. A. Muenchow
Date 2/25/92

APPENDIX D-1

PRESENT LANDFILL
ALLUVIAL GROUND-WATER QUALITY DATA

VOLATILE ORGANICS

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Chloro methane uG/L	Bromo methane uG/L	Vinyl Chloride uG/L	Chloro ethane uG/L	Methylene Chloride uG/L	Acetone uG/L	Carbon Disulfide uG/L
10-86	05/14/87	1	NR	NR	NR	NR	NR	NR	NR
10-86	06/15/87	2	NR	NR	NR	NR	NR	NR	NR
10-86	08/10/87	3	NR	NR	NR	NR	NR	NR	NR
10-86	12/15/87	4	10 U	10 U	10 U	10 U	9	10 U	5 U
10-86	02/02/88	1	10 U	10 U	10 U	10 U	5 U	10 U	5 U
10-86	06/06/88	2	10 U	10 U	10 U	10 U	5 U	10 U	5 U
10-86	09/20/88	3	10 U	10 U	10 U	10 U	31	10 U	5 U
10-86	09/20/88	3	10 U	10 U	10 U	10 U	30	10 U	5 U
10-86	12/07/88	4	10 U	10 U	10 U	10 U	4 BJ	10 U	5 U
58-87	01/22/88	1	10 U	10 U	10 U	10 U	5 U	13	5 U
58-87	06/06/88	2	10 U	10 U	10 U	10 U	5 U	10 U	5 U
58-87	09/16/88	3	10 U	10 U	10 U	10 U	33	10 U	5 U
58-87	12/14/88	4	10 U	10 U	10 U	10 U	4 BJ	10 U	5 U
59-87	01/22/88	1	10 U	10 U	10 U	10 U	5 U	10 U	5 U
59-87	06/06/88	2	10 U	10 U	10 U	10 U	5 U	10 U	5 U
59-87	09/16/88	3	10 U	10 U	10 U	10 U	41	10 U	5 U
59-87	12/06/88	4	10 U	10 U	10 U	10 U	5 B	10 U	5 U
60-87	01/22/88	1	10 U	10 U	10 U	10 U	5 U	10 U	5 U

NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
E = Estimated value
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% range

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	1,1-Dichloro ethene uG/L	1,1-Dichloro ethane uG/L	Trans-1,2-Di chloroethene uG/L	Chloroform uG/L	1,2-Dichloro ethane uG/L	2-Butanone uG/L	1,1,1-Tri chloroethane uG/L
10-86	05/14/87	1	4 U	NR	4 U	4 U	4 U	NR	4 U
10-86	06/15/87	2	4 U	NR	4 U	4 U	4 U	NR	4 U
10-86	08/10/87	3	5 U	NR	5 U	5 U	5 U	NR	5 U
10-86	12/15/87	4	5 U	5 U	5 U	5 U	5 U	10 U	5 U
10-86	02/02/88	1	5 U	5 U	5 U	5 U	5 U	10 U	5 U
10-86	06/06/88	2	5 U	5 U	5 U	5 U	5 U	10 U	5 U
10-86	09/20/88	3	5 U	5 U	5 U	5 U	5 U	10 U	5 U
10-86	09/20/88	3	5 U	5 U	5 U	5 U	5 U	10 U	5 U
10-86	12/07/88	4	5 U	5 U	5 U	2 BJ	5 U	10 U	5 U
58-87	01/22/88	1	5 U	5 U	5 U	5 U	5 U	10 U	5 U
58-87	06/06/88	2	5 U	5 U	5 U	5 U	5 U	10 U	5 U
58-87	09/16/88	3	5 U	5 U	5 U	5 U	5 U	10 U	5 U
58-87	12/14/88	4	5 U	5 U	5 U	2 BJ	5 U	10 U	5 U
59-87	01/22/88	1	5 U	5 U	5 U	5 U	5 U	10 U	5 U
59-87	06/06/88	2	5 U	5 U	5 U	5 U	5 U	10 U	5 U
59-87	09/16/88	3	5 U	5 U	5 U	5 U	5 U	10 U	5 U
59-87	12/06/88	4	5 U	5 U	5 U	5 U	5 U	10 U	5 U
60-87	01/22/88	1	5 U	5 U	5 U	5 U	5 U	10 U	5 U

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B = Present in laboratory blank
N = Batch spike not in 80-120% range

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Carbon Tetra chloride uG/L	Vinyl Acetate uG/L	Bromodichlo-romethane uG/L	1,2-Dichloro propane uG/L	Trans-1,3-Di chloropro-pene (uG/L)	Trichloro ethene uG/L	Dibromochlo-romethane uG/L
10-86	05/14/87	1	4 U	NR	NR	NR	NR	4 U	NR
10-86	06/15/87	2	4 U	NR	NR	NR	NR	4 U	NR
10-86	08/10/87	3	5 U	NR	NR	NR	NR	5 U	NR
10-86	12/15/87	4	5 U	10 U	5 U	5 U	5 U	5 U	5 U
10-86	02/02/88	1	5 U	10 U	5 U	5 U	5 U	5 U	5 U
10-86	06/06/88	2	5 U	10 U	5 U	5 U	5 U	5 U	5 U
10-86	09/20/88	3	5 U	10 U	5 U	5 U	5 U	5 U	5 U
10-86	09/20/88	3	5 U	10 U	5 U	5 U	5 U	5 U	5 U
10-86	12/07/88	4	5 U	10 U	5 U	5 U	5 U	5 U	5 U
58-87	01/22/88	1	8	10 U	5 U	5 U	5 U	5 U	5 U
58-87	06/06/88	2	5 U	10 U	5 U	5 U	5 U	5 U	5 U
58-87	09/16/88	3	5 U	10 U	5 U	5 U	5 U	5 U	5 U
58-87	12/14/88	4	5 U	10 U	5 U	5 U	5 U	5 U	5 U
59-87	01/22/88	1	5 U	10 U	5 U	5 U	5 U	5 U	5 U
59-87	06/06/88	2	5 U	10 U	5 U	5 U	5 U	5 U	5 U
59-87	09/16/88	3	5 U	10 U	5 U	5 U	5 U	5 U	5 U
59-87	12/06/88	4	5 U	10 U	5 U	5 U	5 U	5 U	5 U
60-87	01/22/88	1	6	10 U	5 U	5 U	5 U	5 U	5 U

NR = Analyte not reported
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B = Present in laboratory blank
N = Batch spike not in 80-120% range

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	1,1,2-Tri chloroethane uG/L	Benzene uG/L	Cis-1,3-Di chloropro-pene (uG/L)	2-Chloro ethylvinyl ether (uG/L)	Bromoform uG/L	4-Methyl-2-pentanone uG/L	2-Hexanone uG/L
10-86	05/14/87	1	4 U	NR	NR	NR	NR	NR	NR
10-86	06/15/87	2	4 U	NR	NR	NR	NR	NR	NR
10-86	08/10/87	3	5 U	NR	NR	NR	NR	NR	NR
10-86	12/15/87	4	5 U	5 U	5 U	NR	5 U	10 U	10 U
10-86	02/02/88	1	5 U	5 U	5 U	NR	5 U	10 U	10 U
10-86	06/06/88	2	5 U	5 U	5 U	10 U	5 U	10 U	10 U
10-86	09/20/88	3	5 U	5 U	5 U	NR	5 U	10 U	10 U
10-86	09/20/88	3	5 U	5 U	5 U	NR	5 U	10 U	10 U
10-86	12/07/88	4	5 U	5 U	5 U	NR	5 U	10 U	10 U
58-87	01/22/88	1	5 U	5 U	5 U	NR	5 U	10 U	10 U
58-87	06/06/88	2	5 U	5 U	5 U	10 U	5 U	10 U	10 U
58-87	09/16/88	3	5 U	5 U	5 U	NR	5 U	10 U	10 U
58-87	12/14/88	4	5 U	5 U	5 U	NR	5 U	10 U	10 U
59-87	01/22/88	1	5 U	5 U	5 U	NR	5 U	10 U	10 U
59-87	06/06/88	2	5 U	5 U	5 U	10 U	5 U	10 U	10 U
59-87	09/16/88	3	5 U	5 U	5 U	NR	5 U	10 U	10 U
59-87	12/06/88	4	5 U	5 U	5 U	NR	5 U	10 U	10 U
60-87	01/22/88	1	5 U	5 U	5 U	NR	5 U	10 U	10 U

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U = Analyzed but not detected
* = Holding time not met
E = Estimated value
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% range

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Tetrachloro ethene uG/L	1,1,2,2-Tetrachloro ethane(uG/L)	Toluene uG/L	Chloro benzene uG/L	Ethyl benzene uG/L	Styrene uG/L	Total Xylenes uG/L
10-86	05/14/87	1	4 U	NR	NR	NR	NR	NR	NR
10-86	06/15/87	2	4 U	NR	NR	NR	NR	NR	NR
10-86	08/10/87	3	5 U	NR	NR	NR	NR	NR	NR
10-86	12/15/87	4	5 U	5 U	5 U	5 U	5 U	5 U	5 U
10-86	02/02/88	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U
10-86	06/06/88	2	5 U	5 U	5 U	5 U	5 U	5 U	5 U
10-86	09/20/88	3	5 U	5 U	5 U	5 U	5 U	5 U	5 U
10-86	09/20/88	3	5 U	5 U	5 U	5 U	5 U	5 U	5 U
10-86	12/07/88	4	5 U	5 U	4 BJ	5 U	5 U	5 U	5 U
58-87	01/22/88	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U
58-87	06/06/88	2	5 U	5 U	5 U	5 U	5 U	5 U	5 U
58-87	09/16/88	3	5 U	5 U	5 U	5 U	5 U	5 U	5 U
58-87	12/14/88	4	5 U	5 U	4 BJ	5 U	5 U	5 U	5 U
59-87	01/22/88	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U
59-87	06/06/88	2	5 U	5 U	5 U	5 U	5 U	5 U	5 U
59-87	09/16/88	3	6	5 U	5 U	5 U	5 U	5 U	5 U
59-87	12/06/88	4	5 U	5 U	4 BJ	5 U	5 U	5 U	5 U
60-87	01/22/88	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U

NR = Analyte not reported
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* = Holding time not met
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J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% range

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Chloro methane uG/L	Bromo methane uG/L	Vinyl Chloride uG/L	Chloro ethane uG/L	Methylene Chloride uG/L	Acetone uG/L	Carbon Disulfide uG/L
60-87	06/06/88	2	10 U	10 U	10 U	10 U	5 U	10 U	5 U
60-87	09/22/88	3	10 U	10 U	10 U	10 U	37	10 U	5 U
60-87	12/06/88	4	Data not yet received						
61-87	01/26/88	1	10 U	10 U	10 U	10 U	5 U	10 U	5 U
61-87	06/08/88	2	10 U	10 U	10 U	10 U	5 U	10 U	5 U
61-87	09/23/88	3	10 U	10 U	10 U	10 U	5 U	10 U	5 U
61-87	12/09/88	4	10 U	10 U	10 U	10 U	4 BJ	10 U	5 U
62-87	01/25/88	1	10 U	10 U	10 U	10 U	6	10 U	5 U
62-87	06/08/88	2	10 U	10 U	10 U	10 U	5 U	10 U	5 U
62-87	09/23/88	3	10 U	10 U	10 U	10 U	5 U	10 U	5 U
62-87	12/09/88	4	10 U	10 U	10 U	10 U	4 BJ	10 U	5 U
63-87	01/26/88	1	10 U	10 U	10 U	10 U	5 U	10 U	5 U
63-87	06/08/88	2	10 U	10 U	10 U	10 U	5 U	10 U	5 U
63-87	09/23/88	3	10 U	10 U	10 U	10 U	5 U	10 U	5 U
63-87	12/09/88	4	10 U	10 U	10 U	10 U	5 B	10 U	5 U
67-87	01/28/88	1	10 U	10 U	10 U	10 U	5 U	10 U	5 U
67-87	06/16/88	2	10 U	10 U	10 U	10 U	5 U	10 U	5 U

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U = Analyzed but not detected
* = Holding time not met
E = Estimated value
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% range

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	1,1-Dichloro ethene uG/L	1,1-Dichloro ethane uG/L	Trans-1,2-Di chloroethene uG/L	Chloroform uG/L	1,2-Dichloro ethane uG/L	2-Butanone uG/L	1,1,1-Tri chloroethane uG/L
60-87	06/06/88	2	5 U	5 U	5 U	5 U	5 U	10 U	5 U
60-87	09/22/88	3	5 U	5 U	5 U	5 U	5 U	10 U	5 U
60-87	12/06/88	4	Data not yet received						
61-87	01/26/88	1	5 U	5 U	5 U	5 U	5 U	10 U	5 U
61-87	06/08/88	2	5 U	5 U	5 U	5 U	5 U	10 U	5 U
61-87	09/23/88	3	5 U	5 U	5 U	5 U	5 U	10 U	5 U
61-87	12/09/88	4	5 U	5 U	5 U	2 BJ	5 U	10 U	5 U
62-87	01/25/88	1	5 U	5 U	5 U	5 U	5 U	10 U	5 U
62-87	06/08/88	2	5 U	5 U	5 U	5 U	5 U	10 U	5 U
62-87	09/23/88	3	5 U	5 U	5 U	5 U	5 U	10 U	5 U
62-87	12/09/88	4	5 U	5 U	5 U	2 BJ	5 U	10 U	5 U
63-87	01/26/88	1	5 U	5 U	5 U	5 U	5 U	10 U	5 U
63-87	06/08/88	2	5 U	5 U	5 U	5 U	5 U	10 U	5 U
63-87	09/23/88	3	5 U	5 U	5 U	5 U	5 U	10 U	5 U
63-87	12/09/88	4	5 U	5	5 U	5 U	5 U	10 U	5 U
67-87	01/28/88	1	5 U	5 U	5 U	5 U	5 U	10 U	5 U
67-87	06/16/88	2	5 U	5 U	5 U	5 U	5 U	10 U	5 U

NR = Analyte not reported
J = Present below detection limit
U = Analyzed but not detected
B = Present in laboratory blank
* = Holding time not met
N = Batch spike not in 80-120% range
E = Estimated value

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Carbon Tetra chloride uG/L	Vinyl Acetate uG/L	Bromodichlo-romethane uG/L	1,2-Dichloro propane uG/L	Trans-1,3-Di chloropro-pene (uG/L)	Trichloro ethene uG/L	Dibromochlo-romethane uG/L
60-87	06/06/88	2	5 U	10 U	5 U	5 U	5 U	5 U	5 U
60-87	09/22/88	3	5 U	10 U	5 U	5 U	5 U	5 U	5 U
60-87	12/06/88	4	Data not yet received						
61-87	01/26/88	1	7	10 U	5 U	5 U	5 U	5 U	5 U
61-87	06/08/88	2	5 U	10 U	5 U	5 U	5 U	5 U	5 U
61-87	09/23/88	3	5 U	10 U	5 U	5 U	5 U	5 U	5 U
61-87	12/09/88	4	5 U	10 U	5 U	5 U	5 U	5 U	5 U
62-87	01/25/88	1	8	10 U	5 U	5 U	5 U	5 U	5 U
62-87	06/08/88	2	5 U	10 U	5 U	5 U	5 U	5 U	5 U
62-87	09/23/88	3	5 U	10 U	5 U	5 U	5 U	5 U	5 U
62-87	12/09/88	4	5 U	10 U	5 U	5 U	5 U	5 U	5 U
63-87	01/26/88	1	5 U	10 U	5 U	5 U	5 U	5 U	5 U
63-87	06/08/88	2	5 U	10 U	5 U	5 U	5 U	5 U	5 U
63-87	09/23/88	3	5 U	10 U	5 U	5 U	5 U	5 U	5 U
63-87	12/09/88	4	5 U	10 U	5 U	5 U	5 U	5 U	5 U
67-87	01/28/88	1	5 U	10 U	5 U	5 U	5 U	5 U	5 U
67-87	06/16/88	2	5 U	10 U	5 U	5 U	5 U	5 U	5 U

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J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% range

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	1,1,2-Tri chloroethane uG/L	Benzene uG/L	Cis-1,3-Di chloropro-pene (uG/L)	2-Chloro ethylvinyl ether (uG/L)	Bromoform uG/L	4-Methyl-2-pentanone uG/L	2-Hexanone uG/L
60-87	06/06/88	2	5 U	5 U	5 U	10 U	5 U	10 U	10 U
60-87	09/22/88	3	5 U	5 U	5 U	NR	5 U	10 U	10 U
60-87	12/06/88	4	Data not yet received						
61-87	01/26/88	1	5 U	5 U	5 U	NR	5 U	10 U	10 U
61-87	06/08/88	2	5 U	5 U	5 U	10 U	5 U	10 U	10 U
61-87	09/23/88	3	5 U	5 U	5 U	NR	5 U	10 U	10 U
61-87	12/09/88	4	5 U	5 U	5 U	NR	5 U	10 U	10 U
62-87	01/25/88	1	5 U	5 U	5 U	NR	5 U	10 U	10 U
62-87	06/08/88	2	5 U	5 U	5 U	10 U	5 U	10 U	10 U
62-87	09/23/88	3	5 U	5 U	5 U	NR	5 U	10 U	10 U
62-87	12/09/88	4	5 U	5 U	5 U	NR	5 U	10 U	10 U
63-87	01/26/88	1	5 U	5 U	5 U	NR	5 U	10 U	10 U
63-87	06/08/88	2	5 U	5 U	5 U	10 U	5 U	10 U	10 U
63-87	09/23/88	3	5 U	5 U	5 U	NR	5 U	10 U	10 U
63-87	12/09/88	4	5 U	5 U	5 U	NR	5 U	10 U	10 U
67-87	01/28/88	1	5 U	5 U	5 U	NR	5 U	10 U	10 U
67-87	06/16/88	2	5 U	5 U	5 U	10 U	5 U	10 U	10 U

NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
E = Estimated value
J = Present below detection limit
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Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Tetrachloro ethene uG/L	1,1,2,2-Tetrachloro ethane(uG/L)	Toluene uG/L	Chloro benzene uG/L	Ethyl benzene uG/L	Styrene uG/L	Total Xylenes uG/L
60-87	06/06/88	2	5 U	5 U	5 U	5 U	5 U	5 U	5 U
60-87	09/22/88	3	5 U	5 U	5 U	5 U	5 U	5 U	5 U
60-87	12/06/88	4	Data not yet received						
61-87	01/26/88	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U
61-87	06/08/88	2	5 U	5 U	5 U	5 U	5 U	5 U	5 U
61-87	09/23/88	3	5 U	5 U	5 U	5 U	5 U	5 U	5 U
61-87	12/09/88	4	5 U	5 U	4 BJ	5 U	5 U	5 U	5 U
62-87	01/25/88	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U
62-87	06/08/88	2	5 U	5 U	5 U	5 U	5 U	5 U	5 U
62-87	09/23/88	3	5 U	5 U	5 U	5 U	5 U	5 U	5 U
62-87	12/09/88	4	5 U	5 U	4 BJ	5 U	5 U	5 U	5 U
63-87	01/26/88	1	5 U	5 U	5 U.	5 U	5 U	5 U	5 U
63-87	06/08/88	2	5 U	5 U	5 U	5 U	5 U	5 U	5 U
63-87	09/23/88	3	5 U	5 U	5 U	5 U	5 U	5 U	5 U
63-87	12/09/88	4	5 U	5 U	5 BJ	5 U	5 U	5 U	5 U
67-87	01/28/88	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U
67-87	06/16/88	2	5 U	5 U	5 U	5 U	5 U	5 U	5 U

NR = Analyte not reported
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Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Chloro methane uG/L	Bromo methane uG/L	Vinyl Chloride uG/L	Chloro ethane uG/L	Methylene Chloride uG/L	Acetone uG/L	Carbon Disulfide uG/L
67-87	08/18/88	3	DRY						
67-87	09/22/88	3	10 U	10 U	10 U	10 U	36	10 U	5 U
67-87	12/14/88	4	10 U	10 U	10 U	10 U	4 BJ	10 U	5 U
68-87	01/28/88	1	10 U	10 U	10 U	10 U	5 U	10 U	5 U
68-87	06/16/88	2	10 U	10 U	10 U	10 U	5 U	10 U	5 U
68-87	06/17/88	2	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
68-87	09/22/88	3	10 U	10 U	10 U	10 U	36	10 U	5 U
68-87	12/14/88	4	10 U	10 U	10 U	10 U	4 BJ	10 U	5 U
71-87	01/29/88	1	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
71-87	06/08/88	2	10 U	10 U	10 U	10 U	5 U	10 U	5 U
71-87	09/20/88	3	10 U	10 U	10 U	10 U	31	10 U	28
71-87	12/06/88	4	10 U	10 U	10 U	10 U	3 BJ	10 U	5 U
71-87	12/06/88	4	10 U	10 U	10 U	10 U	4 BJ	10 U	5 U
66-87	01/29/88	1	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
66-87	06/14/88	2	10 U	10 U	10 U	10 U	5 U	10 U	5 U
66-87	09/16/88	3	10 U	10 U	10 U	10 U	32	10 U	5 U
66-87	12/07/88	4	10 U	10 U	10 U	10 U	3 BJ	10 U	5 U

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B = Present in laboratory blank
N = Batch spike not in 80-120% range

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	1,1-Dichloro ethene uG/L	1,1-Dichloro ethane uG/L	Trans-1,2-Di chloroethene uG/L	Chloroform uG/L	1,2-Dichloro ethane uG/L	2-Butanone uG/L	1,1,1-Tri chloroethane uG/L
67-87	08/18/88	3	DRY						
67-87	09/22/88	3	5 U	5 U	5 U	5 U	5 U	10 U	5 U
67-87	12/14/88	4	5 U	5 U	5 U	2 BJ	5 U	10 U	5 U
68-87	01/28/88	1	5 U	5 U	5 U	5 U	5 U	10 U	5 U
68-87	06/16/88	2	5 U	5 U	5 U	5 U	5 U	10 U	5 U
68-87	06/17/88	2	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
68-87	09/22/88	3	5 U	5 U	5 U	5 U	5 U	10 U	5 U
68-87	12/14/88	4	5 U	5 U	5 U	2 BJ	5 U	10 U	5 U
71-87	01/29/88	1	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
71-87	06/08/88	2	5 U	5 U	5 U	5 U	5 U	10 U	5 U
71-87	09/20/88	3	5 U	5 U	5 U	5 U	5 U	10 U	5 U
71-87	12/06/88	4	5 U	5 U	5 U	5 U	5 U	10 U	5 U
71-87	12/06/88	4	5 U	5 U	5 U	5 U	5 U	10 U	5 U
66-87	01/29/88	1	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
66-87	06/14/88	2	5 U	5 U	5 U	5 U	5 U	10 U	5 U
66-87	09/16/88	3	5 U	5 U	5 U	5 U	5 U	10 U	6
66-87	12/07/88	4	5 U	5 U	5 U	2 BJ	5 U	10 U	5 U

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Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Carbon Tetra chloride uG/L	Vinyl Acetate uG/L	Bromodichlo-romethane uG/L	1,2-Dichloro propane uG/L	Trans-1,3-Di chloropro-pene (uG/L)	Trichloro ethene uG/L	Dibromochlo-romethane uG/L
67-87	08/18/88	3	DRY						
67-87	09/22/88	3	5 U	10 U	5 U	5 U	5 U	5 U	5 U
67-87	12/14/88	4	5 U	10 U	5 U	5 U	5 U	5 U	5 U
68-87	01/28/88	1	5 U	10 U	5 U	5 U	5 U	5 U	5 U
68-87	06/16/88	2	5 U	10 U	5 U	5 U	5 U	5 U	5 U
68-87	06/17/88	2	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
68-87	09/22/88	3	5 U	10 U	5 U	5 U	5 U	5 U	5 U
68-87	12/14/88	4	5 U	10 U	5 U	5 U	5 U	5 U	5 U
71-87	01/29/88	1	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
71-87	06/08/88	2	5 U	10 U	5 U	5 U	5 U	5 U	5 U
71-87	09/20/88	3	5 U	10 U	5 U	5 U	5 U	5 U	5 U
71-87	12/06/88	4	5 U	10 U	5 U	5 U	5 U	5 U	5 U
71-87	12/06/88	4	5 U	10 U	5 U	5 U	5 U	5 U	5 U
66-87	01/29/88	1	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
66-87	06/14/88	2	5 U	10 U	5 U	5 U	5 U	4 J	5 U
66-87	09/16/88	3	5 U	10 U	5 U	5 U	5 U	14	5 U
66-87	12/07/88	4	5 U	10 U	5 U	5 U	5 U	5	5 U

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Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	1,1,2-Tri chloroethane uG/L	Benzene uG/L	Cis-1,3-Di chloropro-pene (uG/L)	2-Chloro ethylvinyl ether (uG/L)	Bromoform uG/L	4-Methyl-2-pentanone uG/L	2-Hexanone uG/L
67-87	08/18/88	3	DRY						
67-87	09/22/88	3	5 U	5 U	5 U	NR	5 U	10 U	10 U
67-87	12/14/88	4	5 U	5 U	5 U	NR	5 U	10 U	10 U
68-87	01/28/88	1	5 U	5 U	5 U	NR	5 U	10 U	10 U
68-87	06/16/88	2	5 U	5 U	5 U	10 U	5 U	10 U	10 U
68-87	06/17/88	2	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
68-87	09/22/88	3	5 U	5 U	5 U	NR	5 U	10 U	10 U
68-87	12/14/88	4	5 U	5 U	5 U	NR	5 U	10 U	10 U
71-87	01/29/88	1	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
71-87	06/08/88	2	5 U	5 U	5 U	10 U	5 U	10 U	10 U
71-87	09/20/88	3	5 U	5 U	5 U	NR	5 U	10 U	10 U
71-87	12/06/88	4	5 U	5 U	5 U	NR	5 U	10 U	10 U
71-87	12/06/88	4	5 U	5 U	5 U	NR	5 U	10 U	10 U
66-87	01/29/88	1	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
66-87	06/14/88	2	5 U	5 U	5 U	10 U	5 U	10 U	10 U
66-87	09/16/88	3	5 U	5 U	5 U	NR	5 U	10 U	10 U
66-87	12/07/88	4	5 U	5 U	5 U	NR	5 U	10 U	10 U

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Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Tetrachloro ethene uG/L	1,1,2,2-Tetrachloro ethane(uG/L)	Toluene uG/L	Chloro benzene uG/L	Ethyl benzene uG/L	Styrene uG/L	Total Xylenes uG/L
67-87	08/18/88	3	DRY						
67-87	09/22/88	3	5 U	5 U	5 U	5 U	5 U	5 U	5 U
67-87	12/14/88	4	5 U	5 U	4 BJ	5 U	5 U	5 U	5 U
68-87	01/28/88	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U
68-87	06/16/88	2	5 U	5 U	5 U	5 U	5 U	5 U	5 U
68-87	06/17/88	2	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
68-87	09/22/88	3	5 U	5 U	5 U	5 U	5 U	5 U	5 U
68-87	12/14/88	4	5 U	5 U	4 BJ	5 U	5 U	5 U	5 U
71-87	01/29/88	1	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
71-87	06/08/88	2	5 U	5 U	5 U	5 U	5 U	5 U	5 U
71-87	09/20/88	3	5 U	5 U	5 U	5 U	5 U	5 U	5 U
71-87	12/06/88	4	5 U	5 U	4 BJ	5 U	5 U	5 U	5 U
71-87	12/06/88	4	5 U	5 U	4 BJ	5 U	5 U	5 U	5 U
66-87	01/29/88	1	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
66-87	06/14/88	2	5 U	5 U	5 U	5 U	5 U	5 U	5 U
66-87	09/16/88	3	5 U	5 U	5 U	5 U	5 U	5 U	5 U
66-87	12/07/88	4	5 U	5 U	4 BJ	5 U	5 U	5 U	5 U

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Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	1,1,2-Tri chloroethane uG/L	Benzene uG/L	Cis-1,3-Di chloropro-pene (uG/L)	2-Chloro ethylvinyl ether (uG/L)	Bromoform uG/L	4-Methyl-2-pentanone uG/L	2-Hexanone uG/L
42-87	09/21/88	3	DRY						
42-87	12/12/88	4	DRY						
06-86	05/13/87	1	4 U	NR	NR	NR	NR	NR	NR
06-86	06/09/87	2	4 U	NR	NR	NR	NR	NR	NR
06-86	08/10/87	3	5 U	NR	NR	NR	NR	NR	NR
06-86	12/04/87	4	DRY						
06-86	02/01/88	1	5 U	5 U	5 U	NR	5 U	10 U	10 U
06-86	06/14/88	2	DRY						
06-86	09/21/88	3	DRY						
06-86	12/15/88	4	DRY						
05-86	05/05/87	1	4 U	NR	NR	NR	NR	NR	NR
05-86	06/09/87	2	4 U	NR	NR	NR	NR	NR	NR
05-86	07/31/87	3	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
05-86	12/04/87	4	DRY						
05-86	03/29/88	1	5 U	5 U	5 U	NR	5 U	10 U	10 U
05-86	06/01/88	2	5 U	5 U	5 U	10 U	5 U	10 U	10 U

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N = Batch spike not in 80-120% range

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Tetrachloro ethene uG/L	1,1,2,2-Tetrachloro ethane(uG/L)	Toluene uG/L	Chloro benzene uG/L	Ethyl benzene uG/L	Styrene uG/L	Total Xylenes uG/L
42-87	09/21/88	3	DRY						
42-87	12/12/88	4	DRY						
06-86	05/13/87	1	4 U	NR	NR	NR	NR	NR	NR
06-86	06/09/87	2	4 U	NR	NR	NR	NR	NR	NR
06-86	08/10/87	3	5 U	NR	NR	NR	NR	NR	NR
06-86	12/04/87	4	DRY						
06-86	02/01/88	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U
06-86	06/14/88	2	DRY						
06-86	09/21/88	3	DRY						
06-86	12/15/88	4	DRY						
05-86	05/05/87	1	4 U	NR	NR	NR	NR	NR	NR
05-86	06/09/87	2	4 U	NR	NR	NR	NR	NR	NR
05-86	07/31/87	3	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
05-86	12/04/87	4	DRY						
05-86	03/29/88	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U
05-86	06/01/88	2	5 U	5 U	5 U	5 U	5 U	5 U	5 U

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B = Present in laboratory blank
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Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Chloro methane uG/L	Bromo methane uG/L	Vinyl Chloride uG/L	Chloro ethane uG/L	Methylene Chloride uG/L	Acetone uG/L	Carbon Disulfide uG/L
65-87	01/27/88	1	10 U	10 U	10 U	10 U	5 U	10 U	5 U
65-87	06/14/88	2	10 U	10 U	10 U	10 U	5 U	10 U	5 U
65-87	09/23/88	3	10 U	10 U	10 U	10 U	5 U	10 U	5 U
65-87	12/09/88	4	10 U	10 U	10 U	10 U	4 BJ	10 U	5 U
64-87	01/29/88	1	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
64-87	06/14/88	2	10 U	10 U	10 U	10 U	5 U	10 U	5 U
64-87	09/23/88	3	10 U	10 U	10 U	10 U	5 U	10 U	5 U
64-87	12/08/88	4	10 U	10 U	10 U	10 U	5 BJ	10 U	5 U
72-87	01/28/88	1	10 U	10 U	10 U	10 U	5 U	10 U	5 U
72-87	06/16/88	2	DRY						
72-87	09/21/88	3	DRY						
72-87	12/15/88	4	DRY						
70-87	02/03/88	1	DRY						
70-87	06/16/88	2	10 U	10 U	10 U	10 U	5 U	10 U	5 U
70-87	09/22/88	3	10 U	10 U	10 U	10 U	36	10 U	5 U
70-87	12/14/88	4	10 U	10 U	10 U	10 U	4 BJ	10 U	5 U
07-86	08/10/87	3	DRY						

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Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	1,1-Dichloro ethene uG/L	1,1-Dichloro ethane uG/L	Trans-1,2-Di chloroethene uG/L	Chloroform uG/L	1,2-Dichloro ethane uG/L	2-Butanone uG/L	1,1,1-Tri chloroethane uG/L
65-87	01/27/88	1	5 U	5 U	5 U	5 U	5 U	10 U	5 U
65-87	06/14/88	2	5 U	5 U	5 U	5 U	5 U	10 U	5 U
65-87	09/23/88	3	5 U	5 U	5 U	5 U	5 U	10 U	5 U
65-87	12/09/88	4	5 U	5 U	5 U	2 BJ	5 U	10 U	5 U
64-87	01/29/88	1	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
64-87	06/14/88	2	5 U	5 U	5 U	5 U	5 U	10 U	5 U
64-87	09/23/88	3	5 U	5 U	5 U	5 U	5 U	10 U	5 U
64-87	12/08/88	4	5 U	5 J	5 U	5 U	5 U	10 U	5 U
72-87	01/28/88	1	5 U	5 U	5 U	5 U	5 U	10 U	5 U
72-87	06/16/88	2	DRY						
72-87	09/21/88	3	DRY						
72-87	12/15/88	4	DRY						
70-87	02/03/88	1	DRY						
70-87	06/16/88	2	5 U	5 U	5 U	5 U	5 U	10 U	5 U
70-87	09/22/88	3	5 U	5 U	5 U	5 U	5 U	10 U	5 U
70-87	12/14/88	4	5 U	5 U	5 U	2 BJ	5 U	10 U	5 U
07-86	08/10/87	3	DRY						

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Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Carbon Tetra chloride uG/L	Vinyl Acetate uG/L	Bromodichlo-romethane uG/L	1,2-Dichloro propane uG/L	Trans-1,3-Di chloropro-pene (uG/L)	Trichloro ethene uG/L	Dibromochlo-romethane uG/L
65-87	01/27/88	1	5 U	10 U	5 U	5 U	5 U	5 U	5 U
65-87	06/14/88	2	5 U	10 U	5 U	5 U	5 U	19 U	5 U
65-87	09/23/88	3	5 U	10 U	5 U	5 U	5 U	18	5 U
65-87	12/09/88	4	5 U	10 U	5 U	5 U	5 U	20	5 U
64-87	01/29/88	1	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
64-87	06/14/88	2	5 U	10 U	5 U	5 U	5 U	5 U	5 U
64-87	09/23/88	3	5 U	10 U	5 U	5 U	5 U	5 U	5 U
64-87	12/08/88	4	5 U	10 U	5 U	3 J	5 U	4 J	5 U
72-87	01/28/88	1	5 U	10 U	5 U	5 U	5 U	17	5 U
72-87	06/16/88	2	DRY						
72-87	09/21/88	3	DRY						
72-87	12/15/88	4	DRY						
70-87	02/03/88	1	DRY						
70-87	06/16/88	2	5 U	10 U	5 U	5 U	5 U	5 U	5 U
70-87	09/22/88	3	5 U	10 U	5 U	5 U	5 U	5 U	5 U
70-87	12/14/88	4	5 U	10 U	5 U	5 U	5 U	5 U	5 U
07-86	08/10/87	3	DRY						

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Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	1,1,2-Tri chloroethane uG/L	Benzene uG/L	Cis-1,3-Di chloropro-pene (uG/L)	2-Chloro ethylvinyl ether (uG/L)	Bromoform uG/L	4-Methyl-2-pentanone uG/L	2-Hexanone uG/L
65-87	01/27/88	1	5 U	5 U	5 U	NR	5 U	10 U	10 U
65-87	06/14/88	2	5 U	5 U	5 U	10 U	5 U	10 U	10 U
65-87	09/23/88	3	5 U	5 U	5 U	NR	5 U	10 U	10 U
65-87	12/09/88	4	5 U	5 U	5 U	NR	5 U	10 U	10 U
64-87	01/29/88	1	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
64-87	06/14/88	2	5 U	5 U	5 U	10 U	5 U	10 U	10 U
64-87	09/23/88	3	5 U	5 U	5 U	NR	5 U	10 U	10 U
64-87	12/08/88	4	5 U	4 J	5 U	NR	5 U	10 U	10 U
72-87	01/28/88	1	5 U	5 U	5 U	NR	5 U	10 U	10 U
72-87	06/16/88	2	DRY						
72-87	09/21/88	3	DRY						
72-87	12/15/88	4	DRY						
70-87	02/03/88	1	DRY						
70-87	06/16/88	2	5 U	5 U	5 U	10 U	5 U	10 U	10 U
70-87	09/22/88	3	5 U	5 U	5 U	NR	5 U	10 U	10 U
70-87	12/14/88	4	5 U	5 U	5 U	NR	5 U	10 U	10 U
07-86	08/10/87	3	DRY						

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Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Tetrachloro ethene uG/L	1,1,2,2-Tetrachloro ethane(uG/L)	Toluene uG/L	Chloro benzene uG/L	Ethyl benzene uG/L	Styrene uG/L	Total Xylenes uG/L
65-87	01/27/88	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U
65-87	06/14/88	2	5 U	5 U	5 U	5 U	5 U	5 U	5 U
65-87	09/23/88	3	5 U	5 U	5 U	5 U	5 U	5 U	5 U
65-87	12/09/88	4	2 J	5 U	5 BJ	5 U	5 U	5 U	5 U
64-87	01/29/88	1	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
64-87	06/14/88	2	4 J	5 U	5 U	5 U	5 U	5 U	5 U
64-87	09/23/88	3	5 U	5 U	5 U	5 U	5 U	5 U	5 U
64-87	12/08/88	4	5	5 U	5 BJ	5 U	5 U	5 U	5 U
72-87	01/28/88	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U
72-87	06/16/88	2	DRY						
72-87	09/21/88	3	DRY						
72-87	12/15/88	4	DRY						
70-87	02/03/88	1	DRY						
70-87	06/16/88	2	5 U	5 U	5 U	5 U	5 U	5 U	5 U
70-87	09/22/88	3	5 U	5 U	5 U	5 U	5 U	5 U	5 U
70-87	12/14/88	4	5 U	5 U	5 BJ	5 U	5 U	5 U	5 U
07-86	08/10/87	3	DRY						

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B = Present in laboratory blank
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Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Chloro methane UG/L	Bromo methane UG/L	Vinyl Chloride UG/L	Chloro ethane UG/L	Methylene Chloride UG/L	Acetone UG/L	Carbon Disulfide UG/L
07-86	12/04/87	4	DRY						
07-86	02/01/88	1	10 U	10 U	10 U	10 U	5 U	10 U	5 U
07-86	06/16/88	2	DRY						
07-86	09/14/88	3	DRY						
07-86	12/15/88	4	DRY						
40-87	08/10/87	3	DRY						
40-87	12/03/87	4	DRY						
40-87	02/01/88	1	DRY						
40-87	06/14/88	2	10 U	10 U	10 U	10 U	5 U	10 U	5 U
40-87	09/14/88	3	DRY						
40-87	12/13/88	4	DRY						
42-87	06/24/87	2	10U	10U	10U	10U	5U	26 B	5U
42-87	08/10/87	3	DRY						
42-87	12/16/87	4	10 U	10 U	10 U	10 U	12	10 U	5 U
42-87	02/04/88	1	10 U	10 U	10 U	10 U	5 U	10 U	5 U
42-87	06/16/88	2	DRY						

NR = Analyte not reported
J = Present below detection limit
U = Analyzed but not detected
B = Present in laboratory blank
* = Holding time not met
N = Batch spike not in 80-120% range
E = Estimated value

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	1,1-Dichloro ethene UG/L	1,1-Dichloro ethane UG/L	Trans-1,2-Di chloroethene UG/L	Chloroform UG/L	1,2-Dichloro ethane UG/L	2-Butanone UG/L	1,1,1-Tri chloroethane UG/L
07-86	12/04/87	4	DRY						
07-86	02/01/88	1	5 U	5 U	5 U	5 U	5 U	10 U	5 U
07-86	06/16/88	2	DRY						
07-86	09/14/88	3	DRY						
07-86	12/15/88	4	DRY						
40-87	08/10/87	3	DRY						
40-87	12/03/87	4	DRY						
40-87	02/01/88	1	DRY						
40-87	06/14/88	2	5 U	5 U	5 U	5 U	5 U	10 U	5 U
40-87	09/14/88	3	DRY						
40-87	12/13/88	4	DRY						
42-87	06/24/87	2	5U	5U	5U	5U	5U	2.0 J	5U
42-87	08/10/87	3	DRY						
42-87	12/16/87	4	5 U	5 U	5 U	5 U	5 U	10 U	5 U
42-87	02/04/88	1	5 U	5 U	5 U	5 U	5 U	10 U	5 U
42-87	06/16/88	2	DRY						

NR = Analyte not reported
J = Present below detection limit
U = Analyzed but not detected
B = Present in laboratory blank
* = Holding time not met
N = Batch spike not in 80-120% range
E = Estimated value

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Carbon Tetra chloride uG/L	Vinyl Acetate uG/L	Bromodichlo-romethane uG/L	1,2-Dichloro propane uG/L	Trans-1,3-Di chloropro-pene (uG/L)	Trichloro ethene uG/L	Dibromochlo-romethane uG/L
07-86	12/04/87	4	DRY						
07-86	02/01/88	1	5 U	10 U	5 U	5 U	5 U	5 U	5 U
07-86	06/16/88	2	DRY						
07-86	09/14/88	3	DRY						
07-86	12/15/88	4	DRY						
40-87	08/10/87	3	DRY						
40-87	12/03/87	4	DRY						
40-87	02/01/88	1	DRY						
40-87	06/14/88	2	5 U	10 U	5 U	5 U	5 U	5 U	5 U
40-87	09/14/88	3	DRY						
40-87	12/13/88	4	DRY						
42-87	06/24/87	2	5U	10U	5U	5U	5U	5U	5U
42-87	08/10/87	3	DRY						
42-87	12/16/87	4	5 U	10 U	5 U	5 U	5 U	5 U	5 U
42-87	02/04/88	1	5 U	10 U	5 U	5 U	5 U	5 U	5 U
42-87	06/16/88	2	DRY						

NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
E = Estimated value
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% range

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	1,1,2-Tri chloroethane uG/L	Benzene uG/L	Cis-1,3-Di chloropro-pene (uG/L)	2-Chloro ethylvinyl ether (uG/L)	Bromoform uG/L	4-Methyl-2-pentanone uG/L	2-Hexanone uG/L
07-86	12/04/87	4	DRY						
07-86	02/01/88	1	5 U	5 U	5 U	NR	5 U	10 U	10 U
07-86	06/16/88	2	DRY						
07-86	09/14/88	3	DRY						
07-86	12/15/88	4	DRY						
40-87	08/10/87	3	DRY						
40-87	12/03/87	4	DRY						
40-87	02/01/88	1	DRY						
40-87	06/14/88	2	5 U	5 U	5 U	10 U	5 U	10 U	10 U
40-87	09/14/88	3	DRY						
40-87	12/13/88	4	DRY						
42-87	06/24/87	2	5U	5U	5U	10U	5U	10U	10U
42-87	08/10/87	3	DRY						
42-87	12/16/87	4	5 U	5 U	5 U	NR	5 U	10 U	10 U
42-87	02/04/88	1	5 U	5 U	5 U	NR	5 U	10 U	10 U
42-87	06/16/88	2	DRY						

NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
E = Estimated value
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% range

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Tetrachloro ethene uG/L	1,1,2,2-Tetrachloro ethane(uG/L)	Toluene uG/L	Chloro benzene uG/L	Ethyl benzene uG/L	Styrene uG/L	Total Xylenes uG/L
07-86	12/04/87	4	DRY						
07-86	02/01/88	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U
07-86	06/16/88	2	DRY						
07-86	09/14/88	3	DRY						
07-86	12/15/88	4	DRY						
40-87	08/10/87	3	DRY						
40-87	12/03/87	4	DRY						
40-87	02/01/88	1	DRY						
40-87	06/14/88	2	5 U	5 U	5 U	5 U	5 U	5 U	5 U
40-87	09/14/88	3	DRY						
40-87	12/13/88	4	DRY						
42-87	06/24/87	2	5U	5U	5U	5U	5U	5U	5U
42-87	08/10/87	3	DRY						
42-87	12/16/87	4	5 U	5 U	5 U	5 U	5 U	5 U	5 U
42-87	02/04/88	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U
42-87	06/16/88	2	DRY						

NR = Analyte not reported
J = Present below detection limit
U = Analyzed but not detected
B = Present in laboratory blank
* = Holding time not met
N = Batch spike not in 80-120% range
E = Estimated value

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Chloro methane uG/L	Bromo methane uG/L	Vinyl Chloride uG/L	Chloro ethane uG/L	Methylene Chloride uG/L	Acetone uG/L	Carbon Disulfide uG/L
42-87	09/21/88	3	DRY						
42-87	12/12/88	4	DRY						
06-86	05/13/87	1	NR	NR	NR	NR	NR	NR	NR
06-86	06/09/87	2	NR	NR	NR	NR	NR	NR	NR
06-86	08/10/87	3	NR	NR	NR	NR	NR	NR	NR
06-86	12/04/87	4	DRY						
06-86	02/01/88	1	10 U	10 U	10 U	10 U	5 U	10 U	5 U
06-86	06/14/88	2	DRY						
06-86	09/21/88	3	DRY						
06-86	12/15/88	4	DRY						
05-86	05/05/87	1	NR	NR	NR	NR	NR	NR	NR
05-86	06/09/87	2	NR	NR	NR	NR	NR	NR	NR
05-86	07/31/87	3	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
05-86	12/04/87	4	DRY						
05-86	03/29/88	1	10 U	10 U	10 U	10 U	25	10 U	5 U
05-86	06/01/88	2	10 U	10 U	10 U	10 U	5 U	10 U	5 U

NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
E = Estimated value
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% range

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	1,1-Dichloro ethene uG/L	1,1-Dichloro ethane uG/L	Trans-1,2-Di chloroethene uG/L	Chloroform uG/L	1,2-Dichloro ethane uG/L	2-Butanone uG/L	1,1,1-Tri chloroethane uG/L
42-87	09/21/88	3	DRY						
42-87	12/12/88	4	DRY						
06-86	05/13/87	1	4 U	NR	4 U	4 U	4 U	NR	4 U
06-86	06/09/87	2	4 U	NR	4 U	4 U	4 U	NR	4 U
06-86	08/10/87	3	5 U	NR	5 U	5 U	5 U	NR	5 U
06-86	12/04/87	4	DRY						
06-86	02/01/88	1	5 U	5 U	5 U	5 U	5 U	10 U	5 U
06-86	06/14/88	2	DRY						
06-86	09/21/88	3	DRY						
06-86	12/15/88	4	DRY						
05-86	05/05/87	1	4 U	NR	4 U	4 U	4 U	NR	4 U
05-86	06/09/87	2	4 U	NR	4 U	4 U	4 U	NR	4 U
05-86	07/31/87	3	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
05-86	12/04/87	4	DRY						
05-86	03/29/88	1	5 U	5 U	5 U	5 U	5 U	10 U	5 U
05-86	06/01/88	2	5 U	5 U	5 U	5 U	5 U	10 U	5 U

NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
E = Estimated value
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% range

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Carbon Tetra chloride uG/L	Vinyl Acetate uG/L	Bromodichlo-romethane uG/L	1,2-Dichloro propane uG/L	Trans-1,3-Di chloropro-pene (uG/L)	Trichloro ethene uG/L	Dibromochlo-romethane uG/L
42-87	09/21/88	3	DRY						
42-87	12/12/88	4	DRY						
06-86	05/13/87	1	4 U	NR	NR	NR	NR	4 U	NR
06-86	06/09/87	2	4 U	NR	NR	NR	NR	4 U	NR
06-86	08/10/87	3	5 U	NR	NR	NR	NR	5 U	NR
06-86	12/04/87	4	DRY						
06-86	02/01/88	1	5 U	10 U	5 U	5 U	5 U	5 U	5 U
06-86	06/14/88	2	DRY						
06-86	09/21/88	3	DRY						
06-86	12/15/88	4	DRY						
05-86	05/05/87	1	4 U	NR	NR	NR	NR	4 U	NR
05-86	06/09/87	2	4 U	NR	NR	NR	NR	4 U	NR
05-86	07/31/87	3	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
05-86	12/04/87	4	DRY						
05-86	03/29/88	1	5 U	10 U	5 U	5 U	5 U	5 U	5 U
05-86	06/01/88	2	5 U	10 U	5 U	5 U	5 U	5 U	5 U

NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
E = Estimated value
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% range

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	1,1,2-Tri chloroethane uG/L	Benzene uG/L	Cis-1,3-Di chloropro-pene (uG/L)	2-Chloro ethylvinyl ether (uG/L)	Bromoform uG/L	4-Methyl-2-pentanone uG/L	2-Hexanone uG/L
42-87	09/21/88	3	DRY						
42-87	12/12/88	4	DRY						
06-86	05/13/87	1	4 U	NR	NR	NR	NR	NR	NR
06-86	06/09/87	2	4 U	NR	NR	NR	NR	NR	NR
06-86	08/10/87	3	5 U	NR	NR	NR	NR	NR	NR
06-86	12/04/87	4	DRY						
06-86	02/01/88	1	5 U	5 U	5 U	NR	5 U	10 U	10 U
06-86	06/14/88	2	DRY						
06-86	09/21/88	3	DRY						
06-86	12/15/88	4	DRY						
05-86	05/05/87	1	4 U	NR	NR	NR	NR	NR	NR
05-86	06/09/87	2	4 U	NR	NR	NR	NR	NR	NR
05-86	07/31/87	3	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
05-86	12/04/87	4	DRY						
05-86	03/29/88	1	5 U	5 U	5 U	NR	5 U	10 U	10 U
05-86	06/01/88	2	5 U	5 U	5 U	10 U	5 U	10 U	10 U

NR = Analyte not reported
J = Present below detection limit
U = Analyzed but not detected
B = Present in laboratory blank
* = Holding time not met
N = Batch spike not in 80-120% range
E = Estimated value

Groundwater Volatile Organic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Tetrachloro ethene uG/L	1,1,2,2-Tetrachloro ethane(uG/L)	Toluene uG/L	Chloro benzene uG/L	Ethyl benzene uG/L	Styrene uG/L	Total Xylenes uG/L
42-87	09/21/88	3	DRY						
42-87	12/12/88	4	DRY						
06-86	05/13/87	1	4 U	NR	NR	NR	NR	NR	NR
06-86	06/09/87	2	4 U	NR	NR	NR	NR	NR	NR
06-86	08/10/87	3	5 U	NR	NR	NR	NR	NR	NR
06-86	12/04/87	4	DRY						
06-86	02/01/88	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U
06-86	06/14/88	2	DRY						
06-86	09/21/88	3	DRY						
06-86	12/15/88	4	DRY						
05-86	05/05/87	1	4 U	NR	NR	NR	NR	NR	NR
05-86	06/09/87	2	4 U	NR	NR	NR	NR	NR	NR
05-86	07/31/87	3	INSUFFICIENT SAMPLE FOR VOLATILE ORGANIC ANALYSIS						
05-86	12/04/87	4	DRY						
05-86	03/29/88	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U
05-86	06/01/88	2	5 U	5 U	5 U	5 U	5 U	5 U	5 U

NR = Analyte not reported
J = Present below detection limit
U = Analyzed but not detected
B = Present in laboratory blank
* = Holding time not met
N = Batch spike not in 80-120% range
E = Estimated value

INORGANICS

Groundwater Inorganic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Total Dissolved Solids (mg/l)	Chloride (mg/l)	Nitrate+ Nitrite-Nitrogen (mg/l)	Sulfate (mg/l)	Bicarbonate (mg/l)
10-86	05/14/87	1	145	6.30	3.40	42.0	30.0
10-86	06/15/87	2	161	4.91	4.50	40.0	27.5
10-86	08/10/87	3	125	72.0	4.95	36.0	30.2
10-86	12/15/87	4	134	2.91	3.04	49.0	47.1
10-86	02/02/88	1	131	3.02	3.37	23.8	40.5
10-86	06/06/88	2	144	3.44	2.52	32.5	26.2
10-86	09/20/88	3	129	3.60	4.20	24.8	30.5
10-86	09/20/88	3	144	2.63	4.83	23.8	31.6
10-86	12/07/88	4	123	3.61	3.32	15.9	34.9
58-87	01/22/88	1	233	13.8	3.38	34.2	97.3
58-87	06/06/88	2	188	4.26	1.59	38.5	86.3
58-87	09/16/88	3	200	5.09	3.29	32.6	120
58-87	12/14/88	4	201	6.42	3.04	25.1	89.8
59-87	01/22/88	1	406	24.3	0.02 U	31.8	306
59-87	06/06/88	2	464	17.9	0.08	41.5	312
59-87	09/16/88	3	645	23.7	0.02 U	129	438
59-87	12/06/88	4	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS				
60-87	01/22/88	1	160	4.33	2.62	57.1	75.7

Notes: NR = Analyte not reported
J = Present below detection limit
U = Analyzed but not detected
B = Present in laboratory blank

Groundwater Inorganic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Total Dissolved Solids (mg/l)	Chloride (mg/l)	Nitrate+ Nitrite-Nitrogen (mg/l)	Sulfate (mg/l)	Bicarbonate (mg/l)
60-87	06/06/88	2	135	2.55	2.68	21.0	59.4
60-87	09/22/88	3	147	2.24	3.10	25.0	61.6
60-87	12/06/88	4	148	3.24	3.11	25.0	56.2
61-87	01/26/88	1	153	2.87	2.58	59.2	88.0
61-87	06/08/88	2	261	2.26	3.09	40.0	54.5
61-87	09/23/88	3	128	1.78	1.65	22.3	50.2
61-87	12/09/88	4	133	2.64	3.06	23.8	47.8
62-87	01/25/88	1	154	3.89	2.55	35.0	75.4
62-87	06/08/88	2	145	2.44	2.64	19.0	66.4
62-87	09/23/88	3	157	1.88	1.48	32.5	62.3
62-87	12/09/88	4	133	2.87	2.90	25.9	55.7
63-87	01/26/88	1	519	26.3	0.02 U	54.5	392
63-87	06/08/88	2	597	34.4	0.02 U	27.3	426
63-87	09/23/88	3	483	39.4	0.07	23.6	487
63-87	12/09/88	4	554	33.1	0.02 U	27.0	393
67-87	01/28/88	1	191	4.32	1.81	39.8	101
67-87	06/16/88	2	198	3.67	1.66	33.5	94.9

Notes: NR = Analyte not reported
J = Present below detection limit
U = Analyzed but not detected
B = Present in laboratory blank

Groundwater Inorganic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Total Dissolved Solids (mg/l)	Chloride (mg/l)	Nitrate+ Nitrite-Nitrogen (mg/l)	Sulfate (mg/l)	Bicarbonate (mg/l)
67-87	08/18/88	3	DRY				
67-87	09/22/88	3	253	3.49	1.83	47.3	125
67-87	12/14/88	4	199	4.11	1.69	46.2	93.9
68-87	01/28/88	1	226	5.03	2.12	139	107
68-87	06/16/88	2	174	3.58	2.38	26.5	76.9
68-87	06/17/88	2	175	3.62	2.77	27.5	78.7
68-87	09/22/88	3	177	3.58	2.24	37.6	88.3
68-87	12/14/88	4	175	3.99	1.39	36.2	73.9
71-87	01/29/88	1	262	2.15	1.02	67.0	219
71-87	06/08/88	2	267	2.22	1.02	29.8	188
71-87	09/20/88	3	285	2.73	1.40	27.0	219
71-87	12/06/88	4	265	2.70	1.32	27.0	172
71-87	12/06/88	4	238	2.68	1.26	27.7	154
66-87	01/29/88	1	405	4.50	3.22	29.0	127
66-87	06/14/88	2	618	4.91	3.14	220	104
66-87	09/16/88	3	342	3.95	4.29	157	111
66-87	12/07/88	4	249	3.08	3.58	101	74.3

Notes: NR = Analyte not reported
J = Present below detection limit
U = Analyzed but not detected
B = Present in laboratory blank

Groundwater Inorganic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Total Dissolved Solids (mg/l)	Chloride (mg/l)	Nitrate+ Nitrite-Nitrogen (mg/l)	Sulfate (mg/l)	Bicarbonate (mg/l)
65-87	01/27/88	1	491	6.38	2.00	153	208
65-87	06/14/88	2	338	4.57	2.37	62.0	174
65-87	09/23/88	3	301	3.53	1.39	75.8	177
65-87	12/09/88	4	252	3.78	3.03	52.4	124
64-87	01/29/88	1	255	19.9	0.02	8.4	179
64-87	06/14/88	2	246	25.4	0.03	16.3	139
64-87	09/23/88	3	345	28.2	0.12	81.6	183
64-87	12/08/88	4	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS				
72-87	01/28/88	1	395	8.42	0.33	90.4	276
72-87	06/16/88	2	DRY				
72-87	09/21/88	3	DRY				
72-87	12/15/88	4	DRY				
70-87	02/03/88	1	DRY				
70-87	06/16/88	2	581	47.8	0.49	82.5	238
70-87	09/22/88	3	552	48.4	0.17	121	356
70-87	12/14/88	4	566	56.3	0.42	99.4	318
07-86	08/10/87	3	DRY				

Notes: NR = Analyte not reported
J = Present below detection limit
U = Analyzed but not detected
B = Present in laboratory blank

Groundwater Inorganic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Total Dissolved Solids (mg/l)	Chloride (mg/l)	Nitrate+ Nitrite-Nitrogen (mg/l)	Sulfate (mg/l)	Bicarbonate (mg/l)
07-86	12/04/87	4	DRY				
07-86	02/01/88	1	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS				
07-86	06/16/88	2	DRY				
07-86	09/14/88	3	DRY				
07-86	12/15/88	4	DRY				
40-87	08/10/87	3	DRY				
40-87	12/03/87	4	DRY				
40-87	02/01/88	1	DRY				
40-87	06/14/88	2	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS				
40-87	09/14/88	3	DRY				
40-87	12/13/88	4	DRY				
42-87	06/24/87	2	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS				
42-87	08/10/87	3	DRY				
42-87	12/16/87	4	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS				
42-87	02/04/88	1	355	13.9	0.02 U	74.2	259
42-87	06/16/88	2	DRY				

Notes: NR = Analyte not reported
J = Present below detection limit
U = Analyzed but not detected
B = Present in laboratory blank

Groundwater Inorganic Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Total Dissolved Solids (mg/l)	Chloride (mg/l)	Nitrate+ Nitrite-Nitrogen (mg/l)	Sulfate (mg/l)	Bicarbonate (mg/l)
42-87	09/21/88	3	DRY				
42-87	12/12/88	4	DRY				
06-86	05/13/87	1	4542	826	0.44	1710	227
06-86	06/09/87	2	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS				
06-86	08/10/87	3	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS				
06-86	12/04/87	4	DRY				
06-86	02/01/88	1	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS				
06-86	06/14/88	2	DRY				
06-86	09/21/88	3	DRY				
06-86	12/15/88	4	DRY				
05-86	05/05/87	1	3517	150	2.75	1780	366
05-86	06/09/87	2	7363	264	1.26	725	388
05-86	07/31/87	3	6747	270	1.20	4600	459
05-86	12/04/87	4	DRY				
05-86	03/29/88	1	7430	271	0.04	4125	192
05-86	06/01/88	2	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS				

Notes: NR = Analyte not reported
U = Analyzed but not detected
J = Present below detection limit
B = Present in laboratory blank

METALS

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Aluminum (Al), diss. mg/l	Antimony (Sb), diss. mg/l	Arsenic (As), diss. mg/l	Barium (Ba), diss. mg/l	Beryllium (Be), diss. mg/l	Cadmium (Cd), diss. mg/l	Calcium (Ca), diss. mg/l
10-86	05/14/87	1	0.1323	0.0600 U	0.01 U	0.0326	0.005 U	0.005 U	25.6217
10-86	06/15/87	2	0.0290 U	0.06 U	0.01 U	0.0330	0.005 U	0.005 U	20.1122
10-86	08/10/87	3	0.0320	0.02 U	0.005 U	0.0805	0.005 U	0.001 U	20.5573
10-86	12/15/87	4	0.1504	0.02 U	0.005 U	0.0838	0.005 U	0.0008 J	16.1526
10-86	02/02/88	1	0.0290 U	0.02 U	0.005 U	0.0722	0.005 U	0.001 U	17.0370
10-86	06/06/88	2	0.0423	0.0340 U	0.005 U	0.0400	0.0010 U	0.0050 U	17.4544
10-86	09/20/88	3	0.0815	0.0340 U	0.005 U	0.0994	0.0010 U	0.0050 U	15.1395
10-86	09/20/88	3	0.1109	0.0340 U	0.005 U	0.1091	0.0010 U	0.0050 U	15.5179
10-86	12/07/88	4	0.1458	0.0340 U	NR	0.0412	0.0010 U	0.0050 U	15.1162
58-87	01/22/88	1	0.0443	0.02 U	0.005 U	0.1067	0.005 U	0.001 U	27.8264
58-87	06/06/88	2	0.0324	0.0340 U	0.005 U	0.0570	0.0010 U	0.0050 U	28.5281
58-87	09/16/88	3	0.0290 U	0.0340 U	0.005 U	0.0790	0.0010 U	0.0050 U	33.0909
58-87	12/14/88	4	0.0290 U	0.0340 U	NR	0.0666	0.0010 U	0.0050 U	28.1299
59-87	01/22/88	1	0.0737	0.02 U	0.005 U	0.2532	0.005 U	0.001	78.5587
59-87	06/06/88	2	0.0686	0.0340 U	0.005 U	0.2720	0.0010 U	0.0050 U	94.1129
59-87	09/16/88	3	0.0417	0.0340 U	0.003 J	0.3622	0.0010 U	0.0050 U	129.6400
59-87	12/06/88	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
60-87	01/22/88	1	0.0769	0.02 U	0.005 U	0.1434	0.005 U	0.001 U	26.9666

Notes: NR = Analyte not reported
J = Present below detection limit
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B = Present in laboratory blank
* = Holding time not met
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Cesium (Cs), diss. mg/l	Chromium (Cr), diss. mg/l	Cobalt (Co), diss. mg/l	Copper (Cu), diss. mg/l	Iron (Fe), diss. mg/l	Lead (Pb), diss. mg/l	Lithium (Li), diss. mg/l
10-86	05/14/87	1	0.2 U	0.0100 U	0.0220 U	0.0063 U	0.0469	0.005 U	NR
10-86	06/15/87	2	0.2 U	0.0105	0.0220 U	0.0080	0.0481	0.009	NR
10-86	08/10/87	3	0.02 U	0.0188	0.0220 U	0.0063 U	0.0640	0.005 U	NR
10-86	12/15/87	4	0.02 U	0.0100 U	0.0220 U	0.0086	0.1329	0.004 J	0.1 U
10-86	02/02/88	1	0.02 U	0.0214	0.0220 U	0.0070	0.0868	0.005 U	0.1 U
10-86	06/06/88	2	0.02 U	0.0106	0.0220 U	0.0063 U	0.0644	0.005 U	NR
10-86	09/20/88	3	0.020 U	0.0100 U	0.0220 U	0.0063 U	0.0501	0.005 U	NR
10-86	09/20/88	3	0.020 U	0.0100 U	0.0220 U	0.0063 U	0.0980	0.005 U	NR
10-86	12/07/88	4	NR	0.0100 U	0.0220 U	0.0063 U	0.0589	NR	NR
58-87	01/22/88	1	0.02 U	0.0191	0.0220 U	0.0437	0.0999	0.005 U	0.1 U
58-87	06/06/88	2	0.02 U	0.0100 U	0.0220 U	0.0207	0.0765	0.005 U	NR
58-87	09/16/88	3	0.020 U	0.0100 U	0.0220 U	0.0575	0.0593	0.005 U	NR
58-87	12/14/88	4	NR	0.0100 U	0.0220 U	0.1002	0.0121	NR	NR
59-87	01/22/88	1	0.02 U	0.0154	0.0220 U	0.0154	0.1716	0.010	0.1 U
59-87	06/06/88	2	0.02 U	0.0100 U	0.0220 U	0.0094	0.8091	0.005 U	NR
59-87	09/16/88	3	0.020 U	0.0100 U	0.0235	0.0068	25.9293	0.005 U	NR
59-87	12/06/88	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
60-87	01/22/88	1	0.02 U	0.0100 U	0.0220 U	0.0365	0.0813	0.005 U	0.1 U

Notes: NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Magnesium (Mg), diss. mg/l	Manganese (Mn), diss. mg/l	Mercury (Hg), diss. mg/l	Molybdenum (Mo), diss. mg/l	Nickel (Ni), diss. mg/l	Potassium (K), diss. mg/l	Selenium (Se), diss. mg/l
10-86	05/14/87	1	4.9638	0.1339	0.0002 U	0.0220 U	0.0370 U	5.0 U	0.0050 U
10-86	06/15/87	2	3.7433	0.1113	0.0002 U	0.0220 U	0.0370 U	5.0 U	0.005 U
10-86	08/10/87	3	4.0182	0.0979	0.0002 U	0.0220 U	0.0370 U	5.9	0.005 U
10-86	12/15/87	4	3.4896	0.0901	0.0002 U	0.0220 U	0.0370 U	0.9	0.005 U
10-86	02/02/88	1	3.2011	0.0835	0.0002 U	0.0220 U	0.0693	0.6	0.005 U
10-86	06/06/88	2	3.5379	0.0126	0.0002 U	0.0220 U	0.0370 U	0.5 U	0.005 U
10-86	09/20/88	3	2.9916	0.0690	0.0002 U	0.0220 U	0.0370 U	0.6	0.005 U
10-86	09/20/88	3	3.0735	0.0576	0.0002 U	0.0220 U	0.0370 U	0.6	0.005 U
10-86	12/07/88	4	2.9265	0.0438	0.0002 U	0.0220 U	0.0370 U	1.0 U	NR
58-87	01/22/88	1	5.4896	0.5217	0.0002	0.0220 U	0.1425	5.2	0.005 U
58-87	06/06/88	2	5.8342	0.5637	0.0002 U	0.0220 U	0.0427	3.6	0.005 U
58-87	09/16/88	3	7.0809	0.5503	0.0002 U	0.0220 U	0.1027	4.0	0.005 U
58-87	12/14/88	4	5.7958	0.0931	0.0002 U	0.0220 U	0.1884	2.5	NR
59-87	01/22/88	1	14.8116	2.1310	0.0002 U	0.0220 U	0.2035	11	0.002 J
59-87	06/06/88	2	19.0657	3.5236	0.0002 U	0.0220 U	0.3204	7.0	0.005 U
59-87	09/16/88	3	26.4174	11.3410	0.001	0.0366	0.1506	7.3	0.005 U
59-87	12/06/88	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
60-87	01/22/88	1	4.7603	0.3136	0.0002 U	0.0220 U	0.0370 U	1.0	0.005 U

Notes: NR = Analyte not reported
J = Present below detection limit
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B = Present in laboratory blank
* = Holding time not met
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Silver (Ag), diss. mg/l	Sodium (Na), diss. mg/l	Strontium (Sr), diss. mg/l	Thallium (Tl), diss. mg/l	Vanadium (V), diss. mg/l	Zinc (Zn), diss. mg/l
10-86	05/14/87	1	0.0076 U	13.2611	0.1292	0.01 U	0.0240 U	0.02 U
10-86	06/15/87	2	0.0076 U	9.7672	0.1014	0.01 U	0.0240 U	0.0295
10-86	08/10/87	3	0.0076 U	13.7014	0.1145	0.01 U	0.0240 U	0.0581
10-86	12/15/87	4	0.0076 U	12.9361	0.0975	0.01 U	0.0240 U	0.0200 U
10-86	02/02/88	1	0.0076 U	9.9138	0.0971	0.01 U	0.0292	0.0884
10-86	06/06/88	2	0.0076 U	11.1890	0.0949	0.01 U	0.0360 U	0.0556
10-86	09/20/88	3	0.0076 U	14.4256 U	0.0942	0.010 U	0.0360 U	0.0742
10-86	09/20/88	3	0.0076 U	13.5346 U	0.0979	0.010 U	0.0360 U	0.0819
10-86	12/07/88	4	0.0076 U	10.4556	0.0941	NR	0.0360 U	0.0457
58-87	01/22/88	1	0.0085	24.6325	0.2273	0.01 U	0.0240 U	0.4270
58-87	06/06/88	2	0.0076 U	12.1867	0.2042	0.01 U	0.0360 U	0.1413
58-87	09/16/88	3	0.0076 U	16.8505	0.2692	0.010 U	0.0360 U	0.2967
58-87	12/14/88	4	0.0076 U	15.4415	0.2155	NR	0.0360 U	0.5806
59-87	01/22/88	1	0.0076 U	31.5072	0.6235	0.01 U	0.0240 U	0.5840
59-87	06/06/88	2	0.0076 U	32.9350	0.6378	0.01 U	0.0360 U	0.5621
59-87	09/16/88	3	0.0076 U	43.0228	0.9687	0.010 U	0.0360 U	0.0687
59-87	12/06/88	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					
60-87	01/22/88	1	0.0076 U	14.1688	0.1399	0.01 U	0.0240 U	0.2418

Notes: NR = Analyte not reported
J = Present below detection limit
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B = Present in laboratory blank
* = Holding time not met
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Aluminum (Al), diss. mg/l	Antimony (Sb), diss. mg/l	Arsenic (As), diss. mg/l	Barium (Ba), diss. mg/l	Beryllium (Be), diss. mg/l	Cadmium (Cd), diss. mg/l	Calcium (Ca), diss. mg/l
60-87	06/06/88	2	0.0452	0.0340 U	0.005 U	0.1076	0.0010 U	0.0050 U	22.3180
60-87	09/22/88	3	0.1486	0.0340 U	0.005 U	0.1202	0.0010 U	0.0050 U	24.5315
60-87	12/06/88	4	0.3786	0.0340 U	NR	0.0745	0.0010 U	0.0050 U	26.5401
61-87	01/26/88	1	0.1453	0.02 U	0.005 U	0.1307	0.005 U	0.001 U	24.2757
61-87	06/08/88	2	0.0585	0.0340 U	0.005 U	0.0975	0.0010 U	0.0050 U	20.1433
61-87	09/23/88	3	0.0294	0.0340 U	0.005 U	0.0805	0.0010 U	0.0050 U	20.6436
61-87	12/09/88	4	0.0290 U	0.0340 U	NR	0.0522	0.0010 U	0.0050 U	21.2799
62-87	01/25/88	1	0.1130	0.02 U	0.005 U	0.1538	0.005 U	0.001 U	26.8479
62-87	06/08/88	2	0.0294	0.0340 U	0.005 U	0.1068	0.0010 U	0.0050 U	24.4009
62-87	09/23/88	3	0.0291	0.0340 U	0.005 U	0.1021	0.0010 U	0.0050 U	24.3289
62-87	12/09/88	4	NR	NR	NR	NR	NR	NR	NR
63-87	01/26/88	1	0.0506	0.02 U	0.005 U	0.2462	0.005 U	0.001 U	122.5689
63-87	06/08/88	2	0.0420	0.0340 U	0.005 U	0.4471	0.0010 U	0.0050 U	135.3114
63-87	09/23/88	3	0.0290 U	0.0340 U	0.005 U	0.6414	0.0010 U	0.0050 U	144.1384
63-87	12/09/88	4	NR	NR	NR	NR	NR	NR	NR
67-87	01/28/88	1	0.0290 U	0.02 U	0.005 U	0.1034	0.005 U	0.001	40.1314
67-87	06/16/88	2	0.0290 U	0.0340 U	0.005 U	0.0678	0.0010 U	0.0050 U	35.2167

Notes: NR = Analyte not reported
U = Analyzed but not detected
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J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Cesium (Cs), diss. mg/l	Chromium (Cr), diss. mg/l	Cobalt (Co), diss. mg/l	Copper (Cu), diss. mg/l	Iron (Fe), diss. mg/l	Lead (Pb), diss. mg/l	Lithium (Li), diss. mg/l
60-87	06/06/88	2	0.02 U	0.0100 U	0.0220 U	0.0072	0.0650	0.005 U	NR
60-87	09/22/88	3	0.020 U	0.0100 U	0.0220 U	0.0063 U	0.1445	0.005 U	NR
60-87	12/06/88	4	NR	0.0100 U	0.0220 U	0.0063 U	0.3608	NR	NR
61-87	01/26/88	1	0.02 U	0.0282	0.0220 U	0.0085	0.1863	0.005 U	0.1 U
61-87	06/08/88	2	0.02 U	0.0119	0.0220 U	0.0091	0.0557	0.005 U	NR
61-87	09/23/88	3	0.020 U	0.0100 U	0.0220 U	0.0067	0.0235	0.005 U	NR
61-87	12/09/88	4	NR	0.0100 U	0.0220 U	0.0063 U	0.0159	NR	NR
62-87	01/25/88	1	0.02 U	0.0193	0.0220 U	0.0118	0.1015	0.005 U	0.1 U
62-87	06/08/88	2	0.02 U	0.0125	0.0220 U	0.0066	0.0318	0.005 U	NR
62-87	09/23/88	3	0.020 U	0.0100 U	0.0220 U	0.1908	0.0215	0.005 U	NR
62-87	12/09/88	4	NR	NR	NR	NR	NR	NR	NR
63-87	01/26/88	1	0.02 U	0.0296	0.0220 U	0.0105	0.1137	0.005 U	0.1 U
63-87	06/08/88	2	0.02 U	0.0100 U	0.0220 U	0.0063 U	7.3837	0.005 U	NR
63-87	09/23/88	3	0.020 U	0.0100 U	0.0220 U	0.0063 U	14.5883	0.005 U	NR
63-87	12/09/88	4	NR	NR	NR	NR	NR	NR	NR
67-87	01/28/88	1	0.02 U	0.0114	0.0220 U	0.0063 U	0.0419	0.005 U	0.1 U
67-87	06/16/88	2	0.02 U	0.0100 U	0.0220 U	0.0543	0.0450	0.005 U	NR

Notes: NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Magnesium (Mg), diss. mg/l	Manganese (Mn), diss. mg/l	Mercury (Hg), diss. mg/l	Molybdenum (Mo), diss. mg/l	Nickel (Ni), diss. mg/l	Potassium (K), diss. mg/l	Selenium (Se), diss. mg/l
60-87	06/06/88	2	3.8518	0.0235	0.0002 U	0.0220 U	0.0370 U	0.6	0.005 U
60-87	09/22/88	3	3.9922	0.0782	0.0002 U	0.0220 U	0.0370 U	0.6	0.005 U
60-87	12/06/88	4	4.0363	0.1075	0.0002 U	0.0220 U	0.0370 U	1.0 U	NR
61-87	01/26/88	1	4.5329	0.2702	0.0002 U	0.0220 U	0.0370 U	2.1	0.005 U
61-87	06/08/88	2	3.8054	0.0806	0.0002 U	0.0220 U	0.0370 U	0.8	0.005 U
61-87	09/23/88	3	3.6208	0.0818	0.0002 U	0.0220 U	0.0370 U	0.8	0.005 U
61-87	12/09/88	4	3.5121	0.0615	0.0002 U	0.0220 U	0.0370 U	1.0 U	NR
62-87	01/25/88	1	4.8600	0.4100	0.0002 U	0.0220 U	0.0416	3.0	0.005 U
62-87	06/08/88	2	4.2744	0.2307	0.0002 U	0.0220 U	0.0370 U	0.9	0.005 U
62-87	09/23/88	3	4.0224	0.1453	0.0002 U	0.0220 U	0.1430	0.7	0.005 U
62-87	12/09/88	4	NR	NR	0.0002 U	NR	NR	1.0 U	NR
63-87	01/26/88	1	15.3287	0.6425	0.0002 U	0.0220 U	0.0370 U	3.8	0.005 U
63-87	06/08/88	2	24.0563	3.9497	0.0002 U	0.0220 U	0.0448	1.7	0.005 U
63-87	09/23/88	3	22.2971	4.9830	0.0004	0.0220 U	0.0370 U	1.6	0.005 U
63-87	12/09/88	4	NR	NR	0.0002 U	NR	NR	1.2	NR
67-87	01/28/88	1	5.5284	0.6670	0.0002 U	0.0220 U	0.0748	4.9	0.005 U
67-87	06/16/88	2	5.0830	0.3084	0.0002 U	0.0220 U	0.0810	1.8	0.005 U

Notes: NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Silver (Ag), diss. mg/l	Sodium (Na), diss. mg/l	Strontium (Sr), diss. mg/l	Thallium (Tl), diss. mg/l	Vanadium (V), diss. mg/l	Zinc (Zn), diss. mg/l
60-87	06/06/88	2	0.0076 U	13.1769	0.0982	0.01 U	0.0360 U	0.0612
60-87	09/22/88	3	0.0076 U	14.9083	0.1193	0.010 U	0.0360 U	0.1143
60-87	12/06/88	4	0.0076 U	11.7976	0.1208	NR	0.0360 U	0.0329
61-87	01/26/88	1	0.0076 U	14.9011	0.1619	0.01 U	0.0264	0.0755
61-87	06/08/88	2	0.0076 U	12.1909	0.1045	0.01 U	0.0360 U	0.0737
61-87	09/23/88	3	0.0076 U	10.4843	0.1105	0.010 U	0.0360 U	0.0553
61-87	12/09/88	4	0.0076 U	9.4844	0.1077	NR	0.0360 U	0.0301
62-87	01/25/88	1	0.0076 U	13.4639	0.1716	0.01 U	0.0240 U	0.0714
62-87	06/08/88	2	0.0076 U	10.5731	0.1239	0.01 U	0.0360 U	0.1040
62-87	09/23/88	3	0.0076 U	13.1217	0.1357	0.010 U	0.0360 U	0.4303
62-87	12/09/88	4	NR	NR	NR	NR	NR	NR
63-87	01/26/88	1	0.0076 U	33.6016	0.6899	0.01 U	0.0240 U	0.0608
63-87	06/08/88	2	0.0076 U	30.5785	0.6700	0.01 U	0.0360 U	0.0409
63-87	09/23/88	3	0.0076 U	34.3129	0.7538	0.010 U	0.0360 U	0.0440
63-87	12/09/88	4	NR	NR	NR	NR	NR	NR
67-87	01/28/88	1	0.0076 U	17.3672	0.2425	0.01 U	0.0240 U	0.1893
67-87	06/16/88	2	0.0076 U	15.5148	0.1646	0.01 U	0.0360 U	0.4941

Notes: NR = Analyte not reported
U = Analyzed but not detected
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B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Aluminum (Al), diss. mg/l	Antimony (Sb), diss. mg/l	Arsenic (As), diss. mg/l	Barium (Ba), diss. mg/l	Beryllium (Be), diss. mg/l	Cadmium (Cd), diss. mg/l	Calcium (Ca), diss. mg/l
67-87	08/18/88	3	DRY						
67-87	09/22/88	3	0.0484	0.0340 U	0.005 U	0.0970	0.0010 U	0.0050 U	39.9893
67-87	12/14/88	4	0.0481	0.0340 U	NR	0.0782	0.0010 U	0.0050 U	37.3885
68-87	01/28/88	1	0.0290	0.02 U	0.005 U	0.1528	0.005 U	0.001 U	32.4063
68-87	06/16/88	2	0.0290 U	0.0340 U	0.005 U	0.1158	0.0010 U	0.0050 U	32.3495
68-87	06/17/88	2	0.0314	0.0340 U	0.005 U	0.1142	0.0010 U	0.0050 U	32.7580
68-87	09/22/88	3	0.0290 U	0.0340 U	0.005 U	0.1290	0.0010 U	0.0050 U	34.1371
68-87	12/14/88	4	0.0303	0.0340 U	NR	0.1072	0.0015	0.0050 U	30.3928
71-87	01/29/88	1	0.0308	0.02 U	0.005 U	0.0841	0.005 U	0.001 U	71.2977
71-87	06/08/88	2	0.0390	0.0340 U	0.005 U	0.0991	0.0010 U	0.0050 U	74.8243
71-87	09/20/88	3	0.0306	0.0340 U	0.005 U	0.1048	0.0010 U	0.0050 U	77.3356
71-87	12/06/88	4	0.0290 U	0.0340 U	NR	0.1096	0.0010 U	0.0050 U	82.1944
71-87	12/06/88	4	0.0290 U	0.0340 U	NR	0.1077	0.0010 U	0.0050 U	81.2287
66-87	01/29/88	1	0.0769	0.02 U	0.005 U	0.1020	0.005 U	0.001 U	34.0248
66-87	06/14/88	2	0.0290 U	0.0340 U	0.005 U	0.0392	0.0010 U	0.0050 U	66.1657
66-87	09/16/88	3	0.1574	0.0340 U	0.005 U	0.0895	0.0010 U	0.0050 U	32.4091
66-87	12/07/88	4	0.1274	0.0340 U	NR	0.0219	0.0010 U	0.0050 U	24.9380

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N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Cesium (Cs), diss. mg/l	Chromium (Cr), diss. mg/l	Cobalt (Co), diss. mg/l	Copper (Cu), diss. mg/l	Iron (Fe), diss. mg/l	Lead (Pb), diss. mg/l	Lithium (Li), diss. mg/l
67-87	08/18/88	3	DRY						
67-87	09/22/88	3	0.020 U	0.0100 U	0.0220 U	0.2017	0.0226	0.005 U	NR
67-87	12/14/88	4	NR	0.0100 U	0.0220 U	0.4828	0.0225	NR	NR
68-87	01/28/88	1	0.02 U	0.0100 U	0.0220 U	0.0063 U	0.9498	0.005 U	0.1 U
68-87	06/16/88	2	0.02 U	0.0100 U	0.0220 U	0.0063 U	0.1062	0.005 U	NR
68-87	06/17/88	2	0.02 U	0.0100 U	0.0220 U	0.0067	0.1389	0.005 U	NR
68-87	09/22/88	3	0.020 U	0.0100 U	0.0220 U	0.0073	0.0202	0.005 U	NR
68-87	12/14/88	4	NR	0.0100 U	0.0220 U	0.0065	0.0069 U	NR	NR
71-87	01/29/88	1	0.02 U	0.0135	0.0220 U	0.0070	0.0344	0.005 U	0.1 U
71-87	06/08/88	2	0.02 U	0.0100 U	0.0220 U	0.0079	0.0217	0.005 U	NR
71-87	09/20/88	3	0.020 U	0.0100 U	0.0220 U	0.0063 U	0.0126	0.005 U	NR
71-87	12/06/88	4	NR	0.0667	0.0220 U	0.0063 U	0.0951	NR	NR
71-87	12/06/88	4	NR	0.0100 U	0.0220 U	0.0063 U	0.0290	NR	NR
66-87	01/29/88	1	0.02 U	0.0236	0.0220 U	0.0545	0.1182	0.005 U	0.1 U
66-87	06/14/88	2	0.02 U	0.0168	0.0220 U	0.1430	0.0667	0.005 U	NR
66-87	09/16/88	3	0.020 U	0.0116	0.0220 U	0.0549	0.1171	0.005 U	NR
66-87	12/07/88	4	NR	0.0100 U	0.0220 U	0.0442	0.1163	NR	NR

Notes: NR = Analyte not reported
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J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Magnesium (Mg), diss. mg/l	Manganese (Mn), diss. mg/l	Mercury (Hg), diss. mg/l	Molybdenum (Mo), diss. mg/l	Nickel (Ni), diss. mg/l	Potassium (K), diss. mg/l	Selenium (Se), diss. mg/l
67-87	08/18/88	3	DRY						
67-87	09/22/88	3	5.3041	0.4717	0.0002 U	0.0220 U	0.1701	1.8	0.005 U
67-87	12/14/88	4	5.0619	0.3793	0.0002 U	0.0220 U	0.2400	1.1	NR
68-87	01/28/88	1	5.3604	1.6145	0.0002 U	0.0220 U	0.0370	3.0	0.005 U
68-87	06/16/88	2	4.8924	0.6016	0.0002 U	0.0220 U	0.0370 U	0.8	0.005 U
68-87	06/17/88	2	4.9874	0.6127	0.0002 U	0.0220 U	0.0370 U	0.8	0.005 U
68-87	09/22/88	3	4.8263	0.3836	0.0002 U	0.0220 U	0.0370 U	0.7	0.005 U
68-87	12/14/88	4	4.3778	0.3015	0.0002 U	0.0220 U	0.0370 U	1.0 U	NR
71-87	01/29/88	1	9.3802	0.0590	0.0002	0.0220 U	0.0370 U	1.7	0.005 U
71-87	06/08/88	2	9.5536	0.0189	0.0002 U	0.0220 U	0.0370 U	1.1	0.005 U
71-87	09/20/88	3	9.0967	0.0909	0.0002 U	0.0220 U	0.0370 U	0.8	0.005 U
71-87	12/06/88	4	9.0835	0.0668	0.0002 U	0.0220 U	0.0370 U	1.0 U	NR
71-87	12/06/88	4	8.9679	0.0565	0.0002 U	0.0220 U	0.0370 U	1.0 U	NR
66-87	01/29/88	1	7.2507	0.1784	0.0002	0.0299	0.1863	6.1	0.005 U
66-87	06/14/88	2	16.5880	0.2241	0.0002 U	0.0220 U	0.1708	5.4	0.005 U
66-87	09/16/88	3	6.8578	0.1188	0.0002 U	0.0262	0.0534	3.7	0.005 U
66-87	12/07/88	4	4.7791	0.0546	0.0002 U	0.0220 U	0.0370 U	1.7	NR

Notes: NR = Analyte not reported
J = Present below detection limit
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* = Holding time not met
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Silver (Ag), diss. mg/l	Sodium (Na), diss. mg/l	Strontium (Sr), diss. mg/l	Thallium (Tl), diss. mg/l	Vanadium (V), diss. mg/l	Zinc (Zn), diss. mg/l
67-87	08/18/88	3	DRY					
67-87	09/22/88	3	0.0076 U	18.2311	0.2060	0.010 U	0.0360 U	1.2204
67-87	12/14/88	4	0.0076 U	15.8873	0.1878	NR	0.0360 U	1.6983
68-87	01/28/88	1	0.0076 U	19.3733	0.1964	0.01 U	0.0240 U	0.1062
68-87	06/16/88	2	0.0076 U	12.8824	0.1531	0.01 U	0.0360 U	0.0331
68-87	06/17/88	2	0.0076 U	13.4570	0.1573	0.01 U	0.0360 U	0.0358
68-87	09/22/88	3	0.0076 U	14.1991	0.1684	0.010 U	0.0360 U	0.0465
68-87	12/14/88	4	0.0076 U	12.1980	0.1517	NR	0.0360 U	0.0384
71-87	01/29/88	1	0.0076 U	9.5292	0.4217	0.01 U	0.0364	0.0572
71-87	06/08/88	2	0.0076 U	9.2179	0.4186	0.01 U	0.0360 U	0.0458
71-87	09/20/88	3	0.0076 U	10.7513	0.4670	0.010 U	0.0360 U	0.0349
71-87	12/06/88	4	0.0181	9.1326	0.4551	NR	0.0360 U	0.0263
71-87	12/06/88	4	0.0076 U	8.7259	0.4501	NR	0.0360 U	0.0200 U
66-87	01/29/88	1	0.0076 U	94.6908	0.3011	0.01 U	0.1004	0.4714
66-87	06/14/88	2	0.0076 U	78.5184	0.4537	0.01 U	0.0360 U	0.5941
66-87	09/16/88	3	0.0076 U	62.2938	0.2811	0.010 U	0.0360 U	0.2462
66-87	12/07/88	4	0.0076 U	37.9055	0.1976	NR	0.0360 U	0.1966

Notes: NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Aluminum (Al), diss. mg/l	Antimony (Sb), diss. mg/l	Arsenic (As), diss. mg/l	Barium (Ba), diss. mg/l	Beryllium (Be), diss. mg/l	Cadmium (Cd), diss. mg/l	Calcium (Ca), diss. mg/l
65-87	01/27/88	1	0.0346	0.02 U	0.005 U	0.1291	0.005 U	0.001 U	74.4528
65-87	06/14/88	2	0.0290 U	0.0340 U	0.005 U	0.0949	0.0010 U	0.0050 U	59.9982
65-87	09/23/88	3	0.0290 U	0.0340 U	0.005 U	0.1102	0.0010 U	0.0050 U	62.0198
65-87	12/09/88	4	0.0355	0.0340 U	NR	0.1010	0.0012	0.0050 U	57.4213
64-87	01/29/88	1	0.0353	0.02 U	0.005 U	0.1826	0.005 U	0.001 U	47.2474
64-87	06/14/88	2	0.0290 U	0.0340 U	0.005 U	0.1811	0.0010 U	0.0050 U	47.1222
64-87	09/23/88	3	0.0290 U	0.0340 U	0.005 U	0.1507	0.0010 U	0.0050 U	57.6619
64-87	12/08/88	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
72-87	01/28/88	1	0.0516	0.02 U	0.005 U	0.1574	0.005 U	0.001 U	88.9694
72-87	06/16/88	2	DRY						
72-87	09/21/88	3	DRY						
72-87	12/15/88	4	DRY						
70-87	02/03/88	1	DRY						
70-87	06/16/88	2	0.0326	0.0452	0.005 U	0.0924	0.0010 U	0.0050 U	89.6093
70-87	09/22/88	3	0.0425	0.0375	0.005 U	0.1173	0.0010 U	0.0050 U	102.6069
70-87	12/14/88	4	0.0452	0.0445	NR	0.1058	0.0010 U	0.0050 U	93.7639
07-86	08/10/87	3	DRY						

Notes: NR = Analyte not reported
U = Analyzed but not detected
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J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Cesium (Cs), diss. mg/l	Chromium (Cr), diss. mg/l	Cobalt (Co), diss. mg/l	Copper (Cu), diss. mg/l	Iron (Fe), diss. mg/l	Lead (Pb), diss. mg/l	Lithium (Li), diss. mg/l
65-87	01/27/88	1	0.02 U	0.0131	0.0220 U	0.0063 U	0.0401	0.005 U	0.1 U
65-87	06/14/88	2	0.02 U	0.0100 U	0.0220 U	0.0063 U	0.0456	0.005 U	NR
65-87	09/23/88	3	0.020 U	0.0100 U	0.0220 U	0.0070	0.0195	0.005 U	NR
65-87	12/09/88	4	NR	0.0100 U	0.0220 U	0.0092	0.0540	NR	NR
64-87	01/29/88	1	0.02 U	0.0136	0.0313	0.0568	0.0471	0.005 U	0.1 U
64-87	06/14/88	2	0.02 U	0.0100 U	0.0220 U	0.0063 U	0.3243	0.005 U	NR
64-87	09/23/88	3	0.020 U	0.0100 U	0.0220 U	0.0063 U	0.7785	0.005 U	NR
64-87	12/08/88	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
72-87	01/28/88	1	0.02 U	0.0111	0.0220 U	0.0069	0.0344	0.005 U	0.1 U
72-87	06/16/88	2	DRY						
72-87	09/21/88	3	DRY						
72-87	12/15/88	4	DRY						
70-87	02/03/88	1	DRY						
70-87	06/16/88	2	0.02 U	0.0100 U	0.0220 U	0.0520	0.0827	0.005 U	NR
70-87	09/22/88	3	0.020 U	0.0100 U	0.0220 U	0.0862	0.0176	0.005 U	NR
70-87	12/14/88	4	NR	0.0100 U	0.0220 U	0.1446	0.0190	NR	NR
07-86	08/10/87	3	DRY						

Notes: NR = Analyte not reported
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* = Holding time not met
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Silver (Ag), diss. mg/l	Sodium (Na), diss. mg/l	Strontium (Sr), diss. mg/l	Thallium (Tl), diss. mg/l	Vanadium (V), diss. mg/l	Zinc (Zn), diss. mg/l
42-87	09/21/88	3	DRY					
42-87	12/12/88	4	DRY					
06-86	05/13/87	1	0.0076 U	801.8515	5.1181	0.01 U	0.0240 U	0.02 U
06-86	06/09/87	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					
06-86	08/10/87	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					
06-86	12/04/87	4	DRY					
06-86	02/01/88	1	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					
06-86	06/14/88	2	DRY					
06-86	09/21/88	3	DRY					
06-86	12/15/88	4	DRY					
05-86	05/05/87	1	0.0076 U	720.3239	5.2430	0.01 U	0.0240 U	0.02 U
05-86	06/09/87	2	0.0076 U	21.7350	0.1721	0.01 U	0.0240 U	0.0236
05-86	07/31/87	3	0.0076 U	1179.3182	9.4688	0.01 U	0.0240 U	0.0212
05-86	12/04/87	4	DRY					
05-86	03/29/88	1	0.0076 U	1136.3934	7.8946	0.010 U	0.0240 U	0.0332
05-86	06/01/88	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					

Notes: NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Magnesium (Mg), diss. mg/l	Manganese (Mn), diss. mg/l	Mercury (Hg), diss. mg/l	Molybdenum (Mo), diss. mg/l	Nickel (Ni), diss. mg/l	Potassium (K), diss. mg/l	Selenium (Se), diss. mg/l
65-87	01/27/88	1	13.2047	1.0484	0.0002 U	0.0220 U	0.0370 U	6.2	0.005 U
65-87	06/14/88	2	11.4239	1.5648	0.0002 U	0.0220 U	0.0370 U	3.3	0.005 U
65-87	09/23/88	3	8.2394	1.1318	0.0002 U	0.0220 U	0.0370 U	2.3	0.005 U
65-87	12/09/88	4	7.6964	0.9148	0.0002 U	0.0220 U	0.0370 U	1.8	NR
64-87	01/29/88	1	8.2194	1.2001	0.0002 U	0.3551	0.0444	4.2	0.005 U
64-87	06/14/88	2	8.8600	1.0841	0.0002 U	0.0220 U	0.0772	1.6	0.005 U
64-87	09/23/88	3	9.4736	1.3530	0.0002 U	0.0220 U	0.0473	1.9	0.005 U
64-87	12/08/88	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
72-87	01/28/88	1	16.7782	0.5105	0.0002 U	0.0220 U	0.0370 U	3.1	0.005 U
72-87	06/16/88	2	DRY						
72-87	09/21/88	3	DRY						
72-87	12/15/88	4	DRY						
70-87	02/03/88	1	DRY						
70-87	06/16/88	2	29.6283	0.2745	0.0002 U	0.0220 U	0.0468	5.3	0.005 U
70-87	09/22/88	3	24.5799	0.4034	0.0002 U	0.0220 U	0.0844	3.8	0.005 U
70-87	12/14/88	4	24.6005	0.3388	0.0002 U	0.0220 U	0.1164	2.4	NR
07-86	08/10/87	3	DRY						

Notes: NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Silver (Ag), diss. mg/l	Sodium (Na), diss. mg/l	Strontium (Sr), diss. mg/l	Thallium (Tl), diss. mg/l	Vanadium (V), diss. mg/l	Zinc (Zn), diss. mg/l
65-87	01/27/88	1	0.0076 U	71.3146	0.5041	0.01 U	0.0240 U	0.0598
65-87	06/14/88	2	0.0076 U	29.2162	0.3617	0.01 U	0.0360 U	0.0470
65-87	09/23/88	3	0.0076 U	26.8966	0.3348	0.010 U	0.0360 U	0.0770
65-87	12/09/88	4	0.0076 U	20.2528	0.3046	NR	0.0360 U	0.0898
64-87	01/29/88	1	0.0085	18.7309	0.3320	0.01 U	0.0572	0.0486
64-87	06/14/88	2	0.0076 U	15.9728	0.2599	0.01 U	0.0360 U	0.0324
64-87	09/23/88	3	0.0076 U	39.8102	0.3676	0.010 U	0.0360 U	0.2280
64-87	12/08/88	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					
72-87	01/28/88	1	0.0076 U	23.4236	0.5986	0.01 U	0.0240 U	0.0353
72-87	06/16/88	2	DRY					
72-87	09/21/88	3	DRY					
72-87	12/15/88	4	DRY					
70-87	02/03/88	1	DRY					
70-87	06/16/88	2	0.0076 U	60.2105	0.7165	0.01 U	0.0360 U	0.3984
70-87	09/22/88	3	0.0076 U	70.6246	0.8998	0.010 U	0.0360 U	0.6667
70-87	12/14/88	4	0.0076 U	72.0339	0.8525	NR	0.0360 U	0.7962
07-86	08/10/87	3	DRY					

Notes: NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Aluminum (Al), diss. mg/l	Antimony (Sb), diss. mg/l	Arsenic (As), diss. mg/l	Barium (Ba), diss. mg/l	Beryllium (Be), diss. mg/l	Cadmium (Cd), diss. mg/l	Calcium (Ca), diss. mg/l
07-86	12/04/87	4	DRY						
07-86	02/01/88	1	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
07-86	06/16/88	2	DRY						
07-86	09/14/88	3	DRY						
07-86	12/15/88	4	DRY						
40-87	08/10/87	3	DRY						
40-87	12/03/87	4	DRY						
40-87	02/01/88	1	DRY						
40-87	06/14/88	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
40-87	09/14/88	3	DRY						
40-87	12/13/88	4	DRY						
42-87	06/24/87	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
42-87	08/10/87	3	DRY						
42-87	12/16/87	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
42-87	02/04/88	1	0.0463	0.02 U	0.005 U	0.1437	0.005 U	0.001 U	71.3661
42-87	06/16/88	2	DRY						

Notes: NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Cesium (Cs), diss. mg/l	Chromium (Cr), diss. mg/l	Cobalt (Co), diss. mg/l	Copper (Cu), diss. mg/l	Iron (Fe), diss. mg/l	Lead (Pb), diss. mg/l	Lithium (Li), diss. mg/l
07-86	12/04/87	4	DRY						
07-86	02/01/88	1	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
07-86	06/16/88	2	DRY						
07-86	09/14/88	3	DRY						
07-86	12/15/88	4	DRY						
40-87	08/10/87	3	DRY						
40-87	12/03/87	4	DRY						
40-87	02/01/88	1	DRY						
40-87	06/14/88	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
40-87	09/14/88	3	DRY						
40-87	12/13/88	4	DRY						
42-87	06/24/87	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
42-87	08/10/87	3	DRY						
42-87	12/16/87	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
42-87	02/04/88	1	0.02 U	0.0100 U	0.0220 U	0.0065	0.4066	0.005 U	0.05 J
42-87	06/16/88	2	DRY						

Notes: NR = Analyte not reported
J = Present below detection limit
U = Analyzed but not detected
B = Present in laboratory blank
* = Holding time not met
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Magnesium (Mg), diss. mg/l	Manganese (Mn), diss. mg/l	Mercury (Hg), diss. mg/l	Molybdenum (Mo), diss. mg/l	Nickel (Ni), diss. mg/l	Potassium (K), diss. mg/l	Selenium (Se), diss. mg/l
07-86	12/04/87	4	DRY						
07-86	02/01/88	1	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
07-86	06/16/88	2	DRY						
07-86	09/14/88	3	DRY						
07-86	12/15/88	4	DRY						
40-87	08/10/87	3	DRY						
40-87	12/03/87	4	DRY						
40-87	02/01/88	1	DRY						
40-87	06/14/88	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
40-87	09/14/88	3	DRY						
40-87	12/13/88	4	DRY						
42-87	06/24/87	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
42-87	08/10/87	3	DRY						
42-87	12/16/87	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
42-87	02/04/88	1	12.9761	0.5674	0.0002 U	0.0220 U	0.0370 U	9.4	0.005 U
42-87	06/16/88	2	DRY						

Notes: NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Silver (Ag), diss. mg/l	Sodium (Na), diss. mg/l	Strontium (Sr), diss. mg/l	Thallium (Tl), diss. mg/l	Vanadium (V), diss. mg/l	Zinc (Zn), diss. mg/l
07-86	12/04/87	4	DRY					
07-86	02/01/88	1	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					
07-86	06/16/88	2	DRY					
07-86	09/14/88	3	DRY					
07-86	12/15/88	4	DRY					
40-87	08/10/87	3	DRY					
40-87	12/03/87	4	DRY					
40-87	02/01/88	1	DRY					
40-87	06/14/88	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					
40-87	09/14/88	3	DRY					
40-87	12/13/88	4	DRY					
42-87	06/24/87	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					
42-87	08/10/87	3	DRY					
42-87	12/16/87	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					
42-87	02/04/88	1	0.0076 U	52.5685	1.2777	0.01 U	0.0240 U	0.0352
42-87	06/16/88	2	DRY					

Notes: NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Aluminum (Al), diss. mg/l	Antimony (Sb), diss. mg/l	Arsenic (As), diss. mg/l	Barium (Ba), diss. mg/l	Beryllium (Be), diss. mg/l	Cadmium (Cd), diss. mg/l	Calcium (Ca), diss. mg/l
42-87	09/21/88	3	DRY						
42-87	12/12/88	4	DRY						
06-86	05/13/87	1	0.0554	0.0600 U	0.01 U	0.0463	0.005 U	0.005 U	443.5891
06-86	06/09/87	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
06-86	08/10/87	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
06-86	12/04/87	4	DRY						
06-86	02/01/88	1	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
06-86	06/14/88	2	DRY						
06-86	09/21/88	3	DRY						
06-86	12/15/88	4	DRY						
05-86	05/05/87	1	0.0290 U	0.0600 U	0.01 U	0.0416	0.005 U	0.005 U	325.9938
05-86	06/09/87	2	0.4102	0.06 U	0.01 U	0.0758	0.005 U	0.005 U	31.6307
05-86	07/31/87	3	0.0372	0.007 J	0.005 U	0.0656	0.005 U	0.001 U	473.0916
05-86	12/04/87	4	DRY						
05-86	03/29/88	1	0.0974	0.02 U	0.005 U	0.0209	0.005 U	0.001 U	270.6428
05-86	06/01/88	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						

Notes: NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Cesium (Cs), diss. mg/l	Chromium (Cr), diss. mg/l	Cobalt (Co), diss. mg/l	Copper (Cu), diss. mg/l	Iron (Fe), diss. mg/l	Lead (Pb), diss. mg/l	Lithium (Li), diss. mg/l
42-87	09/21/88	3	DRY						
42-87	12/12/88	4	DRY						
06-86	05/13/87	1	0.2 U	0.0100 U	0.0220 U	0.0063 U	0.0069 U	0.005 U	NR
06-86	06/09/87	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
06-86	08/10/87	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
06-86	12/04/87	4	DRY						
06-86	02/01/88	1	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
06-86	06/14/88	2	DRY						
06-86	09/21/88	3	DRY						
06-86	12/15/88	4	DRY						
05-86	05/05/87	1	0.2 U	0.0100 U	0.0220 U	0.0799	0.0069 U	0.005 U	NR
05-86	06/09/87	2	0.2 U	0.0120	0.0220 U	0.0063 U	0.4246	0.005 U	NR
05-86	07/31/87	3	0.02 U	0.0100 U	0.0220 U	0.0154	0.0069 U	0.005	NR
05-86	12/04/87	4	DRY						
05-86	03/29/88	1	0.020 U	0.0134	0.0220 U	0.0094	0.0069 U	0.005 U	0.1 U
05-86	06/01/88	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						

Notes: NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Magnesium (Mg), diss. mg/l	Manganese (Mn), diss. mg/l	Mercury (Hg), diss. mg/l	Molybdenum (Mo), diss. mg/l	Nickel (Ni), diss. mg/l	Potassium (K), diss. mg/l	Selenium (Se), diss. mg/l
42-87	09/21/88	3	DRY						
42-87	12/12/88	4	DRY						
06-86	05/13/87	1	179.9157	1.2989	0.0002 U	0.0220 U	1.4027	10.9	0.089
06-86	06/09/87	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
06-86	08/10/87	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
06-86	12/04/87	4	DRY						
06-86	02/01/88	1	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
06-86	06/14/88	2	DRY						
06-86	09/21/88	3	DRY						
06-86	12/15/88	4	DRY						
05-86	05/05/87	1	264.1889	0.0624	0.0002 U	0.0220 U	0.1912	5.0	0.011
05-86	06/09/87	2	6.4399	0.0234	0.0002 U	0.0220 U	0.0370 U	5.7	0.005 U
05-86	07/31/87	3	291.7351	0.0479	0.0002 U	0.0291	0.1751	3.1	0.009
05-86	12/04/87	4	DRY						
05-86	03/29/88	1	319.2762	0.0051 U	0.0002 U	0.0220 U	0.0434	5.0	0.008
05-86	06/01/88	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						

Notes: NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Silver (Ag), diss. mg/l	Sodium (Na), diss. mg/l	Strontium (Sr), diss. mg/l	Thallium (Tl), diss. mg/l	Vanadium (V), diss. mg/l	Zinc (Zn), diss. mg/l
42-87	09/21/88	3	DRY					
42-87	12/12/88	4	DRY					
06-86	05/13/87	1	0.0076 U	801.8515	5.1181	0.01 U	0.0240 U	0.02 U
06-86	06/09/87	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					
06-86	08/10/87	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					
06-86	12/04/87	4	DRY					
06-86	02/01/88	1	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					
06-86	06/14/88	2	DRY					
06-86	09/21/88	3	DRY					
06-86	12/15/88	4	DRY					
05-86	05/05/87	1	0.0076 U	720.3239	5.2430	0.01 U	0.0240 U	0.02 U
05-86	06/09/87	2	0.0076 U	21.7350	0.1721	0.01 U	0.0240 U	0.0236
05-86	07/31/87	3	0.0076 U	1179.3182	9.4688	0.01 U	0.0240 U	0.0212
05-86	12/04/87	4	DRY					
05-86	03/29/88	1	0.0076 U	1136.3934	7.8946	0.010 U	0.0240 U	0.0332
05-86	06/01/88	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					

Notes: NR = Analyte not reported
J = Present below detection limit
U = Analyzed but not detected
B = Present in laboratory blank
* = Holding time not met
N = Batch spike not in 80-120% recovery range

DISSOLVED RADIONUCLIDES

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Gross Alpha pCi/l	(mda)	Gross Beta pCi/l	(mda)	Uranium 233, 234 pCi/l	(mda)	Uranium 235 pCi/l	(mda)
10-86	05/14/87	1	***							
10-86	06/15/87	2	***							
10-86	08/10/87	3	69 ± 33		62 ± 45		0.4 ± 1.3		2.6 ± 0.9	
10-86	12/15/87	4	29 ± 8		35 ± 13		.11 ± .09	.33	0.00 ± .02	.10
10-86	02/02/88	1	2 ± 4		-9 ± 11		6.3 ± 0.6		0.24 ± 0.09	
10-86	06/06/88	2	6 ± 5	9	3 ± 7	17	0.00 ± 0.23	0.90	0.00 ± 0.03	0.10
10-86	09/20/88	3	Data not yet received							
10-86	09/20/88	3	NR		NR		NR		NR	
10-86	12/07/88	4	NR		NR		NR		NR	
58-87	01/22/88	1	9 ± 6		3 ± 12		0.49 ± 0.23		0.07 ± 0.07	
58-87	06/06/88	2	4 ± 4	10	7 ± 7	17	0.22 ± 0.24	1.2	0.02 ± 0.03	0.14
58-87	09/16/88	3	NR		NR		NR		NR	
58-87	12/14/88	4	NR		NR		NR		NR	
59-87	01/22/88	1	14 ± 7		5 ± 12		5.3 ± 0.6		0.22 ± 0.10	
59-87	06/06/88	2	23 ± 7		19 ± 8		4.8 ± 0.5		0.12 ± 0.05	
59-87	09/16/88	3	NR		NR		NR		NR	
59-87	12/06/88	4	***							
60-87	01/22/88	1	10 ± 8		-9 ± 12		0.00 ± 0.11		0.00 ± 0.05	
60-87	06/06/88	2	4 ± 6	12	6 ± 7	17	0.00 ± 0.23	0.65	0.00 ± 0.03	0.07
60-87	09/22/88	3	NR		NR		NR		NR	

Notes: NR = Analyte not reported

*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Uranium 238 pCi/l	(mda)	Plutonium 239, 240 pCi/l	(mda)	Americium 241 pCi/l	(mda)	Tritium pCi/l	(mda)
10-86	05/14/87	1	***							
10-86	06/15/87	2	***							
10-86	08/10/87	3	4.5 ± 1.5		-.32 ± .61	0.9	0.0 ± 1.4	2.8	<540	
10-86	12/15/87	4	.02 ± .07	.26	0.00 ± .15	.84	0.00 ± .10	.39	<220	
10-86	02/02/88	1	5.1 ± 0.5		0.00 ± 0.32		NR		<210	
10-86	06/06/88	2	0.00 ± 0.22	0.87	0.00 ± 0.04	0.13	0.01 ± 0.10	0.44	<220	
10-86	09/20/88	3	Data not yet received							
10-86	09/20/88	3	NR		NR		NR		<200	
10-86	12/07/88	4	NR		NR		NR		<230	
58-87	01/22/88	1	0.48 ± 0.20		0.00 ± 0.27		0.00 ± 0.44		<210	
58-87	06/06/88	2	0.24 ± 0.23	1.2	0.00 ± 0.04	0.13	0.04 ± 0.10	0.38	<220	
58-87	09/16/88	3	NR		NR		NR		<200	
58-87	12/14/88	4	NR		NR		NR		<240	
59-87	01/22/88	1	4.4 ± 0.6		0.00 ± 0.24		0.00 ± 0.14		<220	
59-87	06/06/88	2	4.0 ± 0.5		0.00 ± 0.04	0.19	0.00 ± 0.07	0.41	<210	
59-87	09/16/88	3	NR		NR		NR		<200	
59-87	12/06/88	4	***							
60-87	01/22/88	1	0.01 ± 0.09		0.00 ± 0.27		0.00 ± 0.10		<220	
60-87	06/06/88	2	0.00 ± 0.22	0.63	0.00 ± 0.04	0.12	0.00 ± 0.10	0.44	<210	
60-87	09/22/88	3	NR		NR		NR		<190	

Notes: NR = Analyte not reported

*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Strontium 89, 90 pCi/l (mda)
10-86	05/14/87	1	***
10-86	06/15/87	2	***
10-86	08/10/87	3	2.7
10-86	12/15/87	4	<1.0
10-86	02/02/88	1	NR
10-86	06/06/88	2	NR
10-86	09/20/88	3	Data not yet received
10-86	09/20/88	3	NR
10-86	12/07/88	4	NR
58-87	01/22/88	1	NR
58-87	06/06/88	2	NR
58-87	09/16/88	3	NR
58-87	12/14/88	4	NR
59-87	01/22/88	1	NR
59-87	06/06/88	2	NR
59-87	09/16/88	3	NR
59-87	12/06/88	4	***
60-87	01/22/88	1	NR
60-87	06/06/88	2	NR
60-87	09/22/88	3	NR

Notes: NR = Analyte not reported
*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Gross Alpha pCi/l	(mda)	Gross Beta pCi/l	(mda)	Uranium 233, 234 pCi/l	(mda)	Uranium 235 pCi/l	(mda)
60-87	12/06/88	4	NR		NR		NR		NR	
61-87	01/26/88	1	0 ± 7		-4 ± 11		0.00 ± 0.07		0.01 ± 0.05	
61-87	06/08/88	2	1 ± 4	8	2 ± 7	17	0.00 ± 0.23	1.5	0.00 ± 0.03	0.17
61-87	09/23/88	3	NR		NR		NR		NR	
61-87	12/09/88	4	NR		NR		NR		NR	
62-87	01/25/88	1	8 ± 6		1 ± 12		0.01 ± 0.10		0.02 ± 0.05	
62-87	06/08/88	2	9 ± 4		14 ± 7		0.04 ± 0.23	1.8	0.05 ± 0.03	0.20
62-87	09/23/88	3	Data not yet received							
62-87	12/09/88	4	NR		NR		NR		NR	
63-87	01/26/88	1	17 ± 7		8 ± 15		4.6 ± 0.4		0.18 ± 0.07	
63-87	06/08/88	2	8 ± 5	10	15 ± 8	18	4.0 ± 0.5		0.10 ± 0.04	0.29
63-87	09/23/88	3	NR		NR		NR		NR	
63-87	12/09/88	4	NR		NR		NR		NR	
67-87	01/28/88	1	19 ± 7		3 ± 13		0.57 ± 0.18		0.00 ± 0.05	
67-87	06/16/88	2	4 ± 5	11	5 ± 8	18	0.07 ± 0.24	0.55	0.00 ± 0.03	0.06
67-87	08/18/88	3	DRY							
67-87	09/22/88	3	NR		NR		NR		NR	
67-87	12/14/88	4	NR		NR		NR		NR	
68-87	01/28/88	1	1 ± 4		-1 ± 12		0.05 ± 0.10		0.00 ± 0.04	

Notes: NR = Analyte not reported

*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Uranium 238 pCi/l	(mda)	Plutonium 239, 240 pCi/l	(mda)	Americium 241 pCi/l	(mda)	Tritium pCi/l	(mda)
60-87	12/06/88	4	NR		NR		NR		<240	
61-87	01/26/88	1	0.08 ± 0.08		0.00 ± 0.24		0.02 ± 0.10		<220	
61-87	06/08/88	2	0.00 ± 0.22	1.5	0.00 ± 0.04	0.12	0.00 ± 0.10	0.32	<220	
61-87	09/23/88	3	NR		NR		NR		<200	
61-87	12/09/88	4	NR		NR		NR		<210	
62-87	01/25/88	1	0.01 ± 0.08		0.01 ± 0.19		0.00 ± 0.16		<220	
62-87	06/08/88	2	0.06 ± 0.22	1.7	0.00 ± 0.04	0.13	0.00 ± 0.10	0.30	<200	
62-87	09/23/88	3	Data not yet received							
62-87	12/09/88	4	NR		NR		NR		<240	
63-87	01/26/88	1	3.6 ± 0.3		0.21 ± 0.22		0.00 ± 0.24		1900 ± 100	
63-87	06/08/88	2	2.5 ± 0.4		0.00 ± 0.04	0.12	0.00 ± 0.10	0.32	<200	
63-87	09/23/88	3	NR		NR		NR		2100 ± 100	
63-87	12/09/88	4	NR		NR		NR		1800 ± 100	
67-87	01/28/88	1	0.48 ± 0.13		0.02 ± 0.14		0.03 ± 0.06		<220	
67-87	06/16/88	2	0.05 ± 0.23	0.53	0.00 ± 0.03	0.15	0.02 ± 0.08	0.79	<220	
67-87	08/18/88	3	DRY							
67-87	09/22/88	3	NR		NR		NR		<200	
67-87	12/14/88	4	NR		NR		NR		<240	
68-87	01/28/88	1	0.16 ± 0.10		0.00 ± 0.16		0.00 ± 0.09		<220	

Notes: NR = Analyte not reported

*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Strontium 89, 90 pCi/l (mda)
60-87	12/06/88	4	NR
61-87	01/26/88	1	NR
61-87	06/08/88	2	NR
61-87	09/23/88	3	NR
61-87	12/09/88	4	NR
62-87	01/25/88	1	NR
62-87	06/08/88	2	NR
62-87	09/23/88	3	Data not yet received
62-87	12/09/88	4	NR
63-87	01/26/88	1	NR
63-87	06/08/88	2	NR
63-87	09/23/88	3	NR
63-87	12/09/88	4	NR
67-87	01/28/88	1	NR
67-87	06/16/88	2	NR
67-87	08/18/88	3	DRY
67-87	09/22/88	3	NR
67-87	12/14/88	4	NR
68-87	01/28/88	1	NR

Notes: NR = Analyte not reported

*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Gross Alpha pCi/l	(mda)	Gross Beta pCi/l	(mda)	Uranium 233, 234 pCi/l	(mda)	Uranium 235 pCi/l	(mda)
68-87	06/16/88	2	5 ± 6	13	9 ± 7	17	0.00 ± 0.23	0.61	0.00 ± 0.03	0.07
68-87	06/17/88	2	3 ± 5	11	3 ± 7	18	0.08 ± 0.24	0.57	0.00 ± 0.03	0.07
68-87	09/22/88	3	NR		NR		NR		NR	
68-87	12/14/88	4	NR		NR		NR		NR	
71-87	01/29/88	1	5 ± 5		17 ± 10		0.22 ± 0.13		0.07 ± 0.08	
71-87	06/08/88	2	3 ± 5	11	4 ± 8	17	1.1 ± 0.3	1.2	0.06 ± 0.04	0.13
71-87	09/20/88	3	Data not yet received							
71-87	12/06/88	4	NR		NR		NR		NR	
71-87	12/06/88	4	NR		NR		NR		NR	
66-87	01/29/88	1	2 ± 4		15 ± 11		0.80 ± 0.16		0.01 ± 0.04	
66-87	06/14/88	2	3 ± 6	13	6 ± 8	18	0.84 ± 0.27		0.00 ± 0.03	0.09
66-87	09/16/88	3	NR		NR		NR		NR	
66-87	12/07/88	4	NR		NR		NR		NR	
65-87	01/27/88	1	10 ± 6		8 ± 11		5.4 ± 1.9		0.27 ± 0.39	
65-87	06/14/88	2	6 ± 6	14	10 ± 8	19	2.5 ± 0.4		0.06 ± 0.05	0.07
65-87	09/23/88	3	Data not yet received							
65-87	12/09/88	4	NR		NR		NR		NR	
64-87	01/29/88	1	2 ± 4		16 ± 11		0.62 ± 0.37		0.02 ± 0.11	
64-87	06/14/88	2	0 ± 4	9	4 ± 8	17	0.34 ± 0.25	0.59	0.01 ± 0.03	0.07
64-87	09/23/88	3	NR		NR		NR		NR	

Notes: NR = Analyte not reported

*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Uranium 238 pCi/l	(mda)	Plutonium 239, 240 pCi/l	(mda)	Americium 241 pCi/l	(mda)	Tritium pCi/l	(mda)
68-87	06/16/88	2	0.02 ± 0.23	0.58	0.00 ± 0.03	0.14	0.05 ± 0.12	0.47	<210	
68-87	06/17/88	2	0.05 ± 0.23	0.55	0.00 ± 0.03	0.13	0.05 ± 0.08	1.2	<210	
68-87	09/22/88	3	NR		NR		NR		<200	
68-87	12/14/88	4	NR		NR		NR		<240	
71-87	01/29/88	1	0.08 ± 0.10		0.00 ± 0.15		0.00 ± 0.69		<210	
71-87	06/08/88	2	0.94 ± 0.25	1.1	0.00 ± 0.04	0.12	0.00 ± 0.10	0.29	<200	
71-87	09/20/88	3	Data not yet received							
71-87	12/06/88	4	NR		NR		NR		<240	
71-87	12/06/88	4	NR		NR		NR		<240	
66-87	01/29/88	1	0.50 ± 0.13		0.01 ± 0.18		0.00 ± 0.50		<210	
66-87	06/14/88	2	0.28 ± 0.23	0.73	0.00 ± 0.04	0.12	0.00 ± 0.10	0.36	<220	
66-87	09/16/88	3	NR		NR		NR		<200	
66-87	12/07/88	4	NR		NR		NR		<240	
65-87	01/27/88	1	4.3 ± 1.6		0.01 ± 0.14		0.00 ± 0.50		<210	
65-87	06/14/88	2	2.0 ± 0.3		0.01 ± 0.04	0.13	0.00 ± 0.10	0.34	<220	
65-87	09/23/88	3	Data not yet received							
65-87	12/09/88	4	NR		NR		NR		<220	
64-87	01/29/88	1	0.84 ± 0.44		0.00 ± 0.40		0.00 ± 0.71		<210	
64-87	06/14/88	2	0.23 ± 0.24	0.57	0.00 ± 0.04	0.12	0.00 ± 0.10	0.28	<220	
64-87	09/23/88	3	NR		NR		NR		<200	

Notes: NR = Analyte not reported

*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Strontium 89, 90 pCi/l (mda)
68-87	06/16/88	2	NR
68-87	06/17/88	2	NR
68-87	09/22/88	3	NR
68-87	12/14/88	4	NR
71-87	01/29/88	1	NR
71-87	06/08/88	2	NR
71-87	09/20/88	3	Data not yet received
71-87	12/06/88	4	NR
71-87	12/06/88	4	NR
66-87	01/29/88	1	NR
66-87	06/14/88	2	NR
66-87	09/16/88	3	NR
66-87	12/07/88	4	NR
65-87	01/27/88	1	NR
65-87	06/14/88	2	NR
65-87	09/23/88	3	Data not yet received
65-87	12/09/88	4	NR
64-87	01/29/88	1	NR
64-87	06/14/88	2	NR
64-87	09/23/88	3	NR

Notes: NR = Analyte not reported
*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Gross Alpha pCi/l	(mda)	Gross Beta pCi/l	(mda)	Uranium 233, 234 pCi/l	(mda)	Uranium 235 pCi/l	(mda)
64-87	12/08/88	4	***							
72-87	01/28/88	1	6 ± 5		-3 ± 13		5.8 ± 0.9		0.27 ± 0.15	
72-87	06/16/88	2	DRY							
72-87	09/21/88	3	DRY							
72-87	12/15/88	4	DRY							
70-87	02/03/88	1	DRY							
70-87	06/16/88	2	21 ± 9		19 ± 8		10 ± 1		0.28 ± 0.08	
70-87	09/22/88	3	NR		NR		NR		NR	
70-87	12/14/88	4	NR		NR		NR		NR	
07-86	08/10/87	3	DRY							
07-86	12/04/87	4	DRY							
07-86	02/01/88	1	***							
07-86	06/16/88	2	DRY							
07-86	09/14/88	3	DRY							
07-86	12/15/88	4	DRY							
40-87	08/10/87	3	DRY							
40-87	12/03/87	4	DRY							

Notes: NR = Analyte not reported

*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Uranium 238 pCi/l	(mda)	Plutonium 239, 240 pCi/l	(mda)	Americium 241 pCi/l	(mda)	Tritium pCi/l	(mda)
64-87	12/08/88	4	***							
72-87	01/28/88	1	4.2 ± 0.7		0.00 ± 0.19		0.00 ± 0.11		<210	
72-87	06/16/88	2	DRY							
72-87	09/21/88	3	DRY							
72-87	12/15/88	4	DRY							
70-87	02/03/88	1	DRY							
70-87	06/16/88	2	8.4 ± 0.9		0.00 ± 0.04	0.18	0.00 ± 0.09	1.4	<220	
70-87	09/22/88	3	NR		NR		NR		<200	
70-87	12/14/88	4	NR		NR		NR		<240	
07-86	08/10/87	3	DRY							
07-86	12/04/87	4	DRY							
07-86	02/01/88	1	***							
07-86	06/16/88	2	DRY							
07-86	09/14/88	3	DRY							
07-86	12/15/88	4	DRY							
40-87	08/10/87	3	DRY							
40-87	12/03/87	4	DRY							

Notes: NR = Analyte not reported

*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Strontium 89, 90 pCi/l (mda)
64-87	12/08/88	4	***
72-87	01/28/88	1	NR
72-87	06/16/88	2	DRY
72-87	09/21/88	3	DRY
72-87	12/15/88	4	DRY
70-87	02/03/88	1	DRY
70-87	06/16/88	2	NR
70-87	09/22/88	3	NR
70-87	12/14/88	4	NR
07-86	08/10/87	3	DRY
07-86	12/04/87	4	DRY
07-86	02/01/88	1	***
07-86	06/16/88	2	DRY
07-86	09/14/88	3	DRY
07-86	12/15/88	4	DRY
40-87	08/10/87	3	DRY
40-87	12/03/87	4	DRY

Notes: NR = Analyte not reported
*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Gross Alpha pCi/l	(mda)	Gross Beta pCi/l	(mda)	Uranium 233, 234 pCi/l	(mda)	Uranium 235 pCi/l	(mda)
40-87	02/01/88	1	DRY							
40-87	06/14/88	2	***							
40-87	09/14/88	3	DRY							
40-87	12/13/88	4	DRY							
42-87	06/24/87	2	***							
42-87	08/10/87	3	DRY							
42-87	12/16/87	4	***							
42-87	02/04/88	1	8 ± 5		5 ± 13		0.08 ± 0.11		0.02 ± 0.07	
42-87	06/16/88	2	DRY							
42-87	09/21/88	3	DRY							
42-87	12/12/88	4	DRY							
06-86	05/13/87	1	***							
06-86	06/09/87	2	***							
06-86	08/10/87	3	***							
06-86	12/04/87	4	DRY							
06-86	02/01/88	1	***							
06-86	06/14/88	2	DRY							
06-86	09/21/88	3	DRY							

Notes: NR = Analyte not reported

*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Uranium 238 pCi/l	(mda)	Plutonium 239, 240 pCi/l	(mda)	Americium 241 pCi/l	(mda)	Tritium pCi/l	(mda)
40-87	02/01/88	1	DRY							
40-87	06/14/88	2	***							
40-87	09/14/88	3	DRY							
40-87	12/13/88	4	DRY							
42-87	06/24/87	2	***							
42-87	08/10/87	3	DRY							
42-87	12/16/87	4	***							
42-87	02/04/88	1	0.00 ± 0.09		0.02 ± 0.24		NR		<220	
42-87	06/16/88	2	DRY							
42-87	09/21/88	3	DRY							
42-87	12/12/88	4	DRY							
06-86	05/13/87	1	***							
06-86	06/09/87	2	***							
06-86	08/10/87	3	***							
06-86	12/04/87	4	DRY							
06-86	02/01/88	1	***							
06-86	06/14/88	2	DRY							
06-86	09/21/88	3	DRY							

Notes: NR = Analyte not reported

*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Strontium 89, 90 pCi/l (mda)
40-87	02/01/88	1	DRY
40-87	06/14/88	2	***
40-87	09/14/88	3	DRY
40-87	12/13/88	4	DRY
42-87	06/24/87	2	***
42-87	08/10/87	3	DRY
42-87	12/16/87	4	***
42-87	02/04/88	1	NR
42-87	06/16/88	2	DRY
42-87	09/21/88	3	DRY
42-87	12/12/88	4	DRY
06-86	05/13/87	1	***
06-86	06/09/87	2	***
06-86	08/10/87	3	***
06-86	12/04/87	4	DRY
06-86	02/01/88	1	***
06-86	06/14/88	2	DRY
06-86	09/21/88	3	DRY

Notes: NR = Analyte not reported
*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Gross Alpha pCi/l	(mda)	Gross Beta pCi/l	(mda)	Uranium 233, 234 pCi/l	(mda)	Uranium 235 pCi/l	(mda)
06-86	12/15/88	4	DRY							
05-86	05/05/87	1	***							
05-86	06/09/87	2	***							
05-86	07/31/87	3	NR		NR		NR		NR	
05-86	12/04/87	4	DRY							
05-86	03/29/88	1	110 ± 35		54 ± 50	110	102 ± 8		3.4 ± 0.4	
05-86	06/01/88	2	***							

Notes: NR = Analyte not reported

*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Uranium 238 pCi/l	(mda)	Plutonium 239, 240 pCi/l	(mda)	Americium 241 pCi/l	(mda)	Tritium pCi/l	(mda)
06-86	12/15/88	4	DRY							
05-86	05/05/87	1	***							
05-86	06/09/87	2	***							
05-86	07/31/87	3	NR		-.32 ± .97	1.5	NR		<540	
05-86	12/04/87	4	DRY							
05-86	03/29/88	1	64 ± 6		0.00 ± 1.5	5.1	0.00 ± 0.80	4.0	<210	
05-86	06/01/88	2	***							

Notes: NR = Analyte not reported

*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Alluvial Wells

Well Number	Date Sampled	Qtr.	Strontium 89, 90 pCi/l	(mda)
06-86	12/15/88	4	DRY	
05-86	05/05/87	1	***	
05-86	06/09/87	2	***	
05-86	07/31/87	3	NR	
05-86	12/04/87	4	DRY	
05-86	03/29/88	1	NR	
05-86	06/01/88	2	***	

Notes: NR = Analyte not reported
*** = Insufficient Sample for Radiochemistry Analyses

FIELD PARAMETER DATA

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: **5-86**

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
05/05/87	1	3500.0	7.10	1.0
06/09/87	2	6260.0	7.20	12.6
07/31/87	3	N	7.20	16.9
12/04/87	4	DRY		
03/29/88	1	7300.0	7.30	7.3
06/01/88	2	N	N	N

N = Field parameter not measured

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: **6-86**

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
05/13/87	1	6630.0	6.90	11.9
06/09/87	2	4380.0	7.20	11.3
08/10/87	3	N	7.00	16.0
12/04/87	4	DRY		
02/01/88	1	N	N	N
06/14/88	2	DRY		
09/21/88	3	DRY		
12/15/88	4	DRY		

N = Field parameter not measured

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: **7-86**

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
08/10/87	3	DRY		
12/04/87	4	DRY		
02/01/88	1	N	N	N
06/16/88	2	DRY		
09/14/88	3	DRY		
12/15/88	4	DRY		

N = Field parameter not measured

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: **10-86**

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
05/14/87	1	203.0	5.90	12.0
06/15/87	2	164.0	7.50	13.9
08/10/87	3	N	6.90	16.0
12/15/87	4	154.0	5.80	11.0
02/02/88	1	N	8.20	9.2
06/06/88	2	181.0	6.90	15.5
09/20/88	3	N	N	N
09/20/88	3	160.0	6.20	16.0
12/07/88	4	150.0	5.10	10.6

N = Field parameter not measured

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: **40-87**

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
08/10/87	3	DRY		
12/03/87	4	DRY		
02/01/88	1	DRY		
06/14/88	2	N	N	N
09/14/88	3	DRY		
12/13/88	4	DRY		

N = Field parameter not measured

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: **42-87**

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
06/24/87	2	N	N	N
08/10/87	3	DRY		
12/16/87	4	N	N	N
02/04/88	1	N	7.00	5.0
06/16/88	2	DRY		
09/21/88	3	DRY		
12/12/88	4	DRY		

N = Field parameter not measured

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: **58-87**

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
01/22/88	1	N	8.10	10.0
06/06/88	2	241.0	7.20	13.9
09/16/88	3	290.0	6.90	18.4
12/14/88	4	250.0	7.00	10.0

N = Field parameter not measured

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: **59-87**

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
01/22/88	1	N	7.20	12.2
06/06/88	2	690.0	6.50	15.3
09/16/88	3	1200.0	6.50	15.8
12/06/88	4	N	N	N

N = Field parameter not measured

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: **60-87**

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
01/22/88	1	N	7.10	10.9
06/06/88	2	194.0	8.00	14.1
09/22/88	3	211.0	6.10	17.8
12/06/88	4	200.0	7.10	13.2

N = Field parameter not measured

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: **61-87**

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
01/26/88	1	N	7.50	13.3
06/08/88	2	171.0	6.20	14.2
09/23/88	3	190.0	5.80	15.9
12/09/88	4	170.0	6.70	13.5

N = Field parameter not measured

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: **62-87**

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
01/25/88	1	N	7.30	12.3
06/08/88	2	197.0	6.80	12.2
09/23/88	3	220.0	5.90	15.7
12/09/88	4	180.0	6.60	13.8

N = Field parameter not measured

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: 63-87

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
01/26/88	1	N	7.00	13.4
06/08/88	2	861.0	6.80	12.2
09/23/88	3	940.0	6.20	16.4
12/09/88	4	850.0	6.30	12.4

N = Field parameter not measured

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: **64-87**

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
01/29/88	1	N	7.00	11.4
06/14/88	2	416.0	5.90	13.8
09/23/88	3	370.0	6.50	14.6
12/08/88	4	N	N	N

N = Field parameter not measured

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: **65-87**

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
01/27/88	1	N	7.20	13.3
06/14/88	2	550.0	7.40	14.1
09/23/88	3	450.0	7.00	17.0
12/09/88	4	370.0	7.10	15.1

N = Field parameter not measured

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: **66-87**

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
01/29/88	1	N	7.30	9.8
06/14/88	2	585.0	7.30	15.3
09/16/88	3	430.0	6.10	17.1
12/07/88	4	350.0	6.70	10.8

N = Field parameter not measured

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: **67-87**

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
01/28/88	1	N	7.00	10.8
06/16/88	2	273.0	6.10	14.6
08/18/88	3	DRY		
09/22/88	3	290.0	6.50	18.1
12/14/88	4	270.0	6.60	9.6

N = Field parameter not measured

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: 68-87

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
01/28/88	1	N	7.00	10.4
06/16/88	2	266.0	7.00	16.5
06/17/88	2	N	N	N
09/22/88	3	270.0	6.30	19.1
12/14/88	4	250.0	6.40	10.6

N = Field parameter not measured

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: 70-87

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
02/03/88	1	DRY		
06/16/88	2	759.0	7.30	14.8
09/22/88	3	880.0	7.10	16.7
12/14/88	4	890.0	7.00	10.1

N = Field parameter not measured

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: 71-87

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
01/29/88	1	N	7.50	7.8
06/08/88	2	383.0	6.80	13.4
09/20/88	3	444.0	7.40	19.6
12/06/88	4	300.0	7.40	11.3
12/06/88	4	300.0	7.40	11.3

N = Field parameter not measured

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: 72-87

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
01/28/88	1	N	7.20	7.9
06/16/88	2	DRY		
09/21/88	3	DRY		
12/15/88	4	DRY		

N = Field parameter not measured

APPENDIX D-2

PRESENT LANDFILL
BEDROCK GROUND-WATER QUALITY

VOLATILE ORGANICS

VOLATILE ORGANICS

INORGANICS

Groundwater Inorganic Results

For Wells at Rockwell (Rocky Flats)

Landfill Bedrock Wells

Well Number	Date Sampled	Qtr.	Total Dissolved Solids (mg/l)	Chloride (mg/l)	Nitrate+ Nitrite-Nitrogen (mg/l)	Sulfate (mg/l)	Bicarbonate (mg/l)
09-86	05/14/87	1	217	13.2	0.20 U	10.0	172
09-86	06/15/87	2	255	10.5	0.20 U	7.80	192
09-86	08/12/87	3	220	10.5	0.20 U	8.5	187
09-86	01/18/88	4	224	11.23	0.02 U	10.3	201
09-86	02/04/88	1	238	8.44	0.02 U	151	205
09-86	06/06/88	2	238	9.24	0.02 U	5.50	182
09-86	06/07/88	2	240	9.56	0.02 U	5.00	181
09-86	09/20/88	3	221	9.20	0.04	4.84	216
09-86	12/16/88	4	231	9.66	0.04	5.76	179
08-86	04/13/87	1	402	872	2.10	200	21.4
08-86	06/11/87	2	380	9.50	0.20 U	225	36.6
08-86	08/12/87	3	358	9.7	NR	178	61.5
08-86	12/16/87	4	330	7.93	1.47	151	57.7
08-86	02/04/88	1	307	8.19	0.34	125	80.2
08-86	06/14/88	2	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS				
08-86	09/14/88	3	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS				
08-86	12/15/88	4	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS				
41-87	09/21/87	3	NF	NF	NF	NF	NF

Notes: NR = Analyte not reported
U = Analyzed but not detected
J = Present below detection limit
B = Present in laboratory blank

Groundwater Inorganic Results

For Wells at Rockwell (Rocky Flats)

Landfill Bedrock Wells

Well Number	Date Sampled	Qtr.	Carbonate (mg/l)
09-86	05/14/87	1	NR
09-86	06/15/87	2	NR
09-86	08/12/87	3	NR
09-86	01/18/88	4	NR
09-86	02/04/88	1	NR
09-86	06/06/88	2	NR
09-86	06/07/88	2	NR
09-86	09/20/88	3	NR
09-86	12/16/88	4	NR
08-86	04/13/87	1	NR
08-86	06/11/87	2	12.4
08-86	08/12/87	3	NR
08-86	12/16/87	4	NR
08-86	02/04/88	1	NR
08-86	06/14/88	2	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS
08-86	09/14/88	3	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS
08-86	12/15/88	4	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS
41-87	09/21/87	3	NF

Notes: NR = Analyte not reported
U = Analyzed but not detected
J = Present below detection limit
B = Present in laboratory blank

Groundwater Inorganic Results

For Wells at Rockwell (Rocky Flats)

Landfill Bedrock Wells

Well Number	Date Sampled	Qtr.	Total Dissolved Solids (mg/l)	Chloride (mg/l)	Nitrate+ Nitrite-Nitrogen (mg/l)	Sulfate (mg/l)	Bicarbonate (mg/l)
41-87	09/21/87	3	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS				
41-87	12/17/87	4	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS				
41-87	02/03/88	1	1880	928	0.02 U	44.3	114
41-87	06/14/88	2	NR	NR	0.02 U	NR	NR
41-87	09/14/88	3	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS				
41-87	12/13/88	4	INSUFFICIENT SAMPLE FOR INORGANIC ANALYSIS				

Notes: NR = Analyte not reported
U = Analyzed but not detected
J = Present below detection limit
B = Present in laboratory blank

METALS

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Bedrock Wells

Well Number	Date Sampled	Qtr.	Aluminum (Al), diss. mg/l	Antimony (Sb), diss. mg/l	Arsenic (As), diss. mg/l	Barium (Ba), diss. mg/l	Beryllium (Be), diss. mg/l	Cadmium (Cd), diss. mg/l	Calcium (Ca), diss. mg/l
09-86	05/14/87	1	0.0421	0.0600 U	0.01 U	0.0907	0.005 U	0.005 U	25.8270
09-86	06/15/87	2	0.0290 U	0.06 U	0.01 U	0.0279	0.005 U	0.005 U	25.6395
09-86	08/12/87	3	0.0487	0.02 U	0.004 J	0.1303	0.005 U	0.0004 J	22.8456
09-86	01/18/88	4	0.0551	0.02 U	0.015	0.1323	0.005 U	0.001 U	24.6412
09-86	02/04/88	1	0.0290 U	0.02 U	0.005 U	0.1067	0.005 U	0.001 U	21.8304
09-86	06/06/88	2	0.0300	0.0340 U	0.005 U	0.1091	0.0010 U	0.0050 U	22.6004
09-86	06/07/88	2	0.0290 U	0.0340 U	0.005 U	0.1110	0.0010 U	0.0050 U	23.4496
09-86	09/20/88	3	0.0337	0.0340 U	0.005 U	0.1315	0.0010 U	0.0050 U	24.5644
09-86	12/16/88	4	0.2427	0.0340 U	NR	0.1128	0.0010 U	0.0050 U	24.3174
08-86	04/13/87	1	0.1209	0.0600 U	0.01 U	0.0338	0.005 U	0.005 U	32.2310
08-86	06/11/87	2	0.1254	0.06 U	0.01 U	0.0135	0.005 U	0.005 U	26.0747
08-86	08/12/87	3	0.0730	0.02 U	0.01	0.0478	0.005 U	0.001 U	25.6007
08-86	12/16/87	4	0.0722	0.02 U	0.007	0.0268	0.005 U	0.001 U	19.3936
08-86	02/04/88	1	0.0416	0.02 U	0.005 U	0.0164	0.005 U	0.001 U	16.0180
08-86	06/14/88	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
08-86	09/14/88	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
08-86	12/15/88	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
41-87	09/21/87	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						

Notes: NR = Analyte not reported
J = Present below detection limit
U = Analyzed but not detected
B = Present in laboratory blank
* = Holding time not met
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Bedrock Wells

Well Number	Date Sampled	Qtr.	Cesium (Cs), diss. mg/l	Chromium (Cr), diss. mg/l	Cobalt (Co), diss. mg/l	Copper (Cu), diss. mg/l	Iron (Fe), diss. mg/l	Lead (Pb), diss. mg/l	Lithium (Li), diss. mg/l
09-86	05/14/87	1	0.2 U	0.0100 U	0.0220 U	0.0068	0.0207	0.005 U	NR
09-86	06/15/87	2	0.2 U	0.0100 U	0.0220 U	0.0063 U	0.0131	0.015	NR
09-86	08/12/87	3	0.02 U	0.0178	0.0220 U	0.0071	0.2267	0.001 J	NR
09-86	01/18/88	4	0.02 U	0.0100 U	0.0220 U	0.0257	0.0519	0.002 J	0.1 U
09-86	02/04/88	1	0.02 U	0.0137	0.0220 U	0.0063 U	0.0825	0.005 U	0.1 U
09-86	06/06/88	2	0.02 U	0.0171	0.0220 U	0.0063 U	0.3175	0.005 U	NR
09-86	06/07/88	2	0.02 U	0.0100 U	0.0220 U	0.0063 U	0.0728	0.005 U	NR
09-86	09/20/88	3	0.020 U	0.0100 U	0.0220 U	0.0063 U	0.0225	0.005 U	NR
09-86	12/16/88	4	NR	0.0100 U	0.0220 U	0.0099	0.2530 N	NR	NR
08-86	04/13/87	1	0.2 U	0.0100 U	0.0220 U	0.0063 U	0.0069 U	0.005 U	NR
08-86	06/11/87	2	0.2 U	0.0100 U	0.0220 U	0.0079	0.0447	0.008	NR
08-86	08/12/87	3	0.02 U	0.0103	0.0220 U	0.0074	0.0294	0.005 U	NR
08-86	12/16/87	4	0.02 U	0.0100 U	0.0220 U	0.0330	0.0384	0.005 U	0.1 U
08-86	02/04/88	1	0.02 U	0.0100 U	0.0220 U	0.0092	0.0320	0.005 U	0.06 J
08-86	06/14/88	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
08-86	09/14/88	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
08-86	12/15/88	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
41-87	09/21/87	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						

Notes: NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Bedrock Wells

Well Number	Date Sampled	Qtr.	Magnesium (Mg), diss. mg/l	Manganese (Mn), diss. mg/l	Mercury (Hg), diss. mg/l	Molybdenum (Mo), diss. mg/l	Nickel (Ni), diss. mg/l	Potassium (K), diss. mg/l	Selenium (Se), diss. mg/l
09-86	05/14/87	1	6.1611	0.0127	0.0002 U	0.0220 U	0.0370 U	5.0 U	0.0050 U
09-86	06/15/87	2	5.5015	0.0312	0.0002 U	0.0220 U	0.0370 U	5.0 U	0.005 U
09-86	08/12/87	3	5.1208	0.0212	0.0002 U	0.0290	0.0370 U	3.9	0.004
09-86	01/18/88	4	5.6543	0.0338	0.0002 U	0.0220 U	0.0370 U	3.6	0.002 J
09-86	02/04/88	1	5.4654	0.0236	0.0002	0.0220 U	0.0370 U	3.5	0.005 U
09-86	06/06/88	2	5.6371	0.0234	0.0002 U	0.0220 U	0.0370 U	2.8	0.005 U
09-86	06/07/88	2	5.8510	0.0215	0.0002 U	0.0220 U	0.0370 U	3.1	0.005 U
09-86	09/20/88	3	5.7009	0.0354	0.0002 U	0.0220 U	0.0370 U	2.9	0.005 U
09-86	12/16/88	4	5.6228	0.0206	0.0002 U	0.0220 U	0.0381	2.0	NR
08-86	04/13/87	1	1.2284	0.0051 U	0.0002 U	0.1247	0.0370 U	10.0	0.006
08-86	06/11/87	2	0.3173	0.0051 U	0.0002 U	0.1241	0.0370 U	7.6	0.005 U
08-86	08/12/87	3	1.1104	0.0051 U	0.0002 U	0.1332	0.0370 U	5.9	0.005 U
08-86	12/16/87	4	1.2793	0.0051 U	0.0002 U	0.0732	0.0370 U	6.2	0.006
08-86	02/04/88	1	1.4480	0.0051 U	0.0002 U	0.0410	0.0370 U	4.9	0.005 U
08-86	06/14/88	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
08-86	09/14/88	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
08-86	12/15/88	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
41-87	09/21/87	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						

Notes: NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Bedrock Wells

Well Number	Date Sampled	Qtr.	Silver (Ag), diss. mg/l	Sodium (Na), diss. mg/l	Strontium (Sr), diss. mg/l	Thallium (Tl), diss. mg/l	Vanadium (V), diss. mg/l	Zinc (Zn), diss. mg/l
09-86	05/14/87	1	0.0076 U	61.5676	0.2726	0.01 U	0.0240 U	0.02 U
09-86	06/15/87	2	0.0076 U	60.6963	0.2263	0.01 U	0.0295	0.0200 U
09-86	08/12/87	3	0.0076 U	72.1430	0.2387	0.01 U	0.0240 U	0.2433
09-86	01/18/88	4	0.0076 U	60.9950	0.2800	0.01 U	0.0240 U	0.0200 U
09-86	02/04/88	1	0.0076 U	57.6813	0.2572	0.01 U	0.0240 U	0.0423
09-86	06/06/88	2	0.0076 U	55.2997	0.2602	0.01 U	0.0360 U	0.0875
09-86	06/07/88	2	0.0076 U	57.8560	0.2692	0.01 U	0.0360 U	0.0587
09-86	09/20/88	3	0.0076 U	61.3000	0.2995	0.010 U	0.0360 U	0.0242
09-86	12/16/88	4	0.0076 U	59.5617	0.2935	NR	0.0360 U	0.1070
08-86	04/13/87	1	0.0076 U	101.4100	0.3843	0.01 U	0.0324	0.02
08-86	06/11/87	2	0.0076 U	89.6748	0.3013	0.01 U	0.0333	0.0200 U
08-86	08/12/87	3	0.0076 U	88.3283	0.2818	0.01 U	0.0240 U	0.0200 U
08-86	12/16/87	4	0.0076 U	78.2412	0.2535	0.01 U	0.0240 U	0.0200 U
08-86	02/04/88	1	0.0076 U	71.9646	0.1896	0.01 U	0.0240 U	0.0200 U
08-86	06/14/88	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					
08-86	09/14/88	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					
08-86	12/15/88	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					
41-87	09/21/87	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					

Notes: NR = Analyte not reported
U = Analyzed but not detected
* = Holding time not met
J = Present below detection limit
B = Present in laboratory blank
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Bedrock Wells

Well Number	Date Sampled	Qtr.	Aluminum (Al), diss. mg/l	Antimony (Sb), diss. mg/l	Arsenic (As), diss. mg/l	Barium (Ba), diss. mg/l	Beryllium (Be), diss. mg/l	Cadmium (Cd), diss. mg/l	Calcium (Ca), diss. mg/l
41-87	09/21/87	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
41-87	12/17/87	4	0.0699	0.02 U	0.002 J	0.1813	0.005 U	0.001 U	96.1860
41-87	02/03/88	1	0.0350	0.02 U	0.003 J	0.2899	0.005 U	0.001	96.0820
41-87	06/14/88	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
41-87	09/14/88	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
41-87	12/13/88	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						

Notes: NR = Analyte not reported
J = Present below detection limit
U = Analyzed but not detected
B = Present in laboratory blank
* = Holding time not met
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Bedrock Wells

Well Number	Date Sampled	Qtr.	Cesium (Cs), diss. mg/l	Chromium (Cr), diss. mg/l	Cobalt (Co), diss. mg/l	Copper (Cu), diss. mg/l	Iron (Fe), diss. mg/l	Lead (Pb), diss. mg/l	Lithium (Li), diss. mg/l
41-87	09/21/87	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
41-87	12/17/87	4	0.02 U	0.0100 U	0.0220 U	0.0246	0.0532	0.005 U	0.10
41-87	02/03/88	1	0.02 U	0.0100 U	0.0220 U	0.0063 U	0.0372	0.005 U	0.13
41-87	06/14/88	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
41-87	09/14/88	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
41-87	12/13/88	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						

Notes: NR = Analyte not reported
J = Present below detection limit
U = Analyzed but not detected
B = Present in laboratory blank
* = Holding time not met
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Bedrock Wells

Well Number	Date Sampled	Qtr.	Magnesium (Mg), diss. mg/l	Manganese (Mn), diss. mg/l	Mercury (Hg), diss. mg/l	Molybdenum (Mo), diss. mg/l	Nickel (Ni), diss. mg/l	Potassium (K), diss. mg/l	Selenium (Se), diss. mg/l
41-87	09/21/87	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
41-87	12/17/87	4	24.1295	0.0653	0.0002 U	0.0456	0.0370 U	9.9	0.005
41-87	02/03/88	1	25.5941	0.0821	0.0002 U	0.0343	0.0370 U	8.6	0.004 J
41-87	06/14/88	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
41-87	09/14/88	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						
41-87	12/13/88	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS						

Notes: NR = Analyte not reported
J = Present below detection limit
U = Analyzed but not detected
B = Present in laboratory blank
* = Holding time not met
N = Batch spike not in 80-120% recovery range

Groundwater Dissolved Metals Results

For Wells at Rockwell (Rocky Flats)

Landfill Bedrock Wells

Well Number	Date Sampled	Qtr.	Silver (Ag), diss. mg/l	Sodium (Na), diss. mg/l	Strontium (Sr), diss. mg/l	Thallium (Tl), diss. mg/l	Vanadium (V), diss. mg/l	Zinc (Zn), diss. mg/l
41-87	09/21/87	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					
41-87	12/17/87	4	0.0076 U	4447.3764	1.3371	0.01 U	0.0240 U	0.0242
41-87	02/03/88	1	0.0076 U	442.8450	1.3304	0.01 U	0.0240 U	0.0263
41-87	06/14/88	2	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					
41-87	09/14/88	3	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					
41-87	12/13/88	4	INSUFFICIENT SAMPLE FOR METALS ANALYSIS					

Notes: NR = Analyte not reported
J = Present below detection limit
U = Analyzed but not detected
B = Present in laboratory blank
* = Holding time not met
N = Batch spike not in 80-120% recovery range

DISSOLVED RADIONUCLIDES

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Bedrock Wells

Well Number	Date Sampled	Qtr.	Gross Alpha pCi/l	(mda)	Gross Beta pCi/l	(mda)	Uranium 233, 234 pCi/l	(mda)	Uranium 235 pCi/l	(mda)
09-86	05/14/87	1	***							
09-86	06/15/87	2	***							
09-86	08/12/87	3	12 ± 20	32	12 ± 39	72	1.9 ± 1.5		-0.2 ± 0.2	
09-86	01/18/88	4	2 ± 5	9	-1 ± 11	22	3.0 ± 0.5		.06 ± .10	.23
09-86	02/04/88	1	1 ± 5		-4 ± 11		1.1 ± 0.24		0.09 ± 0.07	
09-86	06/06/88	2	11 ± 5		5 ± 7	17	0.80 ± 0.26	0.85	0.00 ± 0.03	0.10
09-86	06/07/88	2	2 ± 5	12	6 ± 8	17	1.1 ± 0.3		0.00 ± 0.03	0.07
09-86	09/20/88	3	NR		NR		NR		NR	
09-86	12/16/88	4	NR		NR		NR		NR	
08-86	04/13/87	1	***							
08-86	06/11/87	2	***							
08-86	08/12/87	3	***							
08-86	12/16/87	4	4 ± 17	12	4 ± 11	20	.98 ± .21		.03 ± .04	.10
08-86	02/04/88	1	3 ± 5		-7 ± 12		2.9 ± 0.63		0.08 ± 0.12	
08-86	06/14/88	2	***							
08-86	09/14/88	3	***							
08-86	12/15/88	4	***							
41-87	09/21/87	3	***							

Notes: NR = Analyte not reported

*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Bedrock Wells

Well Number	Date Sampled	Qtr.	Uranium 238 pCi/l	(mda)	Plutonium 239, 240 pCi/l	(mda)	Americium 241 pCi/l	(mda)	Tritium pCi/l	(mda)
09-86	05/14/87	1	***							
09-86	06/15/87	2	***							
09-86	08/12/87	3	5.3 ± 2.0		-0.3 ± 1.4	2.5	.19 ± .29		<492	
09-86	01/18/88	4	.98 ± .28		0.00 ± .14	.59	0.00 ± .12	.69	<220	
09-86	02/04/88	1	0.24 ± 0.12		0.0 ± 0.58		NR		<210	
09-86	06/06/88	2	0.17 ± 0.23	0.82	0.00 ± 0.05	0.10	0.01 ± 0.10	0.66	<220	
09-86	06/07/88	2	0.35 ± 0.24	0.57	0.00 ± 0.04	0.10	0.00 ± 0.10	0.42	<210	
09-86	09/20/88	3	NR		NR		NR		<200	
09-86	12/16/88	4	NR		NR		NR		<240	
08-86	04/13/87	1	***							
08-86	06/11/87	2	***							
08-86	08/12/87	3	***							
08-86	12/16/87	4	.45 ± .14		0.00 ± .16	.85	.02 ± .10	.51	<210	
08-86	02/04/88	1	0.90 ± 0.30		0.0 ± 0.31		NR		<210	
08-86	06/14/88	2	***							
08-86	09/14/88	3	***							
08-86	12/15/88	4	***							
41-87	09/21/87	3	***							

Notes: NR = Analyte not reported

*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Bedrock Wells

Well Number	Date Sampled	Qtr.	Strontium 89, 90 pCi/l (mda)
09-86	05/14/87	1	***
09-86	06/15/87	2	***
09-86	08/12/87	3	<1.0
09-86	01/18/88	4	<1.0
09-86	02/04/88	1	NR
09-86	06/06/88	2	NR
09-86	06/07/88	2	NR
09-86	09/20/88	3	NR
09-86	12/16/88	4	NR
08-86	04/13/87	1	***
08-86	06/11/87	2	***
08-86	08/12/87	3	***
08-86	12/16/87	4	<1.0
08-86	02/04/88	1	NR
08-86	06/14/88	2	***
08-86	09/14/88	3	***
08-86	12/15/88	4	***
41-87	09/21/87	3	***

Notes: NR = Analyte not reported

*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Bedrock Wells

Well Number	Date Sampled	Qtr.	Gross Alpha pCi/l	(mda)	Gross Beta pCi/l	(mda)	Uranium 233, 234 pCi/l	(mda)	Uranium 235 pCi/l	(mda)
41-87	09/21/87	3	***							
41-87	12/17/87	4	109 ± 22		123 ± 15		NR		NR	
41-87	02/03/88	1	3 ± 6		-4 ± 13		0.26 ± 0.18		0.01 ± 0.06	
41-87	06/14/88	2	27 ± 17	34	33 ± 12		5.2 ± 0.6		0.04 ± 0.05	0.06
41-87	09/14/88	3	***							
41-87	12/13/88	4	***							

Notes: NR = Analyte not reported
*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Bedrock Wells

Well Number	Date Sampled	Qtr.	Uranium 238 pCi/l	(mda)	Plutonium 239, 240 pCi/l	(mda)	Americium 241 pCi/l	(mda)	Tritium pCi/l	(mda)
41-87	09/21/87	3	***							
41-87	12/17/87	4	NR		0.00 ± .14	.78	0.00 ± .32	1.9	<210	
41-87	02/03/88	1	0.15 ± 0.17		0.0 ± 2.0		NR		<210	
41-87	06/14/88	2	2.2 ± 0.4		0.00 ± 0.04	0.11	0.00 ± 0.10	0.33	NR	
41-87	09/14/88	3	***							
41-87	12/13/88	4	***							

Notes: NR = Analyte not reported

*** = Insufficient Sample for Radiochemistry Analyses

Groundwater Dissolved Radiochemistry Results

for Regulated Units at Rocky Flats Plant

Landfill Bedrock Wells

Well Number	Date Sampled	Qtr.	Strontium 89, 90 pCi/l	(mda)
41-87	09/21/87	3	***	
41-87	12/17/87	4	<1.0	
41-87	02/03/88	1	NR	
41-87	06/14/88	2	NR	
41-87	09/14/88	3	***	
41-87	12/13/88	4	***	

Notes: NR = Analyte not reported
*** = Insufficient Sample for Radiochemistry Analyses

FIELD PARAMETER DATA

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: **8-86**

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
04/13/87	1	N	N	N
06/11/87	2	569.0	10.20	13.0
08/12/87	3	N	9.80	15.0
12/16/87	4	540.0	10.50	9.6
02/04/88	1	N	9.30	9.7
06/14/88	2	427.0	8.40	13.3
09/14/88	3	N	N	N
12/15/88	4	N	N	N

N = Field parameter not measured

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: **9-86**

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
05/14/87	1	398.0	7.40	14.0
06/15/87	2	396.0	7.90	14.5
08/12/87	3	N	8.00	17.2
01/18/88	4	N	7.60	9.6
02/04/88	1	N	8.40	10.1
06/06/88	2	383.0	6.60	13.6
06/07/88	2	N	N	N
09/20/88	3	410.0	7.60	15.5
12/16/88	4	410.0	7.80	12.6

N = Field parameter not measured

02/24/89

GROUND-WATER FIELD DATA
ROCKY FLATS PLANT

WELL NUMBER: **41-87**

DATE MEASURED	QUARTER	SPECIFIC CONDUCTIVITY (uMHOS/cm)	pH	FIELD TEMPERATURE (degrees C)
09/21/87	3	N	N	N
09/21/87	3	N	N	N
12/17/87	4	2940.0	6.80	9.6
02/03/88	1	N	7.70	10.1
06/14/88	2	2240.0	6.90	15.0
09/14/88	3	N	N	N
12/13/88	4	N	N	N

N = Field parameter not measured

APPENDIX E

GROUND-WATER LEVEL DATA

APPENDIX E-1

SOLAR EVAPORATION PONDS
ALLUVIAL GROUND-WATER LEVEL DATA

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: 2-60
SURFACE ELEVATION: 5934.60 FEET
ELEVATION - TOP OF CASING (TOC): 5935.01 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
February	1	1982	17.00	5918.01
May	1	1982	16.00	5919.01
August	1	1982	20.00	5915.01
December	1	1982	18.00	5917.01
February	1	1983	16.00	5919.01
June	1	1983	3.00	5932.01
August	12	1983	15.00	5920.01
November	15	1983	18.00	5917.01
June	1	1984	DRY	
March	1	1985	DRY	
March	27	1985	3.43	5931.58
August	28	1986	5.81	5929.20
August	29	1986	19.05	5915.96
September	2	1986	20.65	5914.36
September	3	1986	21.71	5913.30
September	4	1986	21.57	5913.44
September	6	1986	21.16	5913.85
September	10	1986	20.49	5914.52
January	1	1987	8.25	5926.76
February	1	1987	6.77	5928.24
March	19	1987	1.50	5933.51
May	8	1987	2.60	5932.41
July	8	1987	12.40	5922.61
September	23	1987	5.70	5929.31
October	21	1987	15.00	5920.01
November	9	1987	12.50	5922.51
December	22	1987	12.30	5922.71
February	1	1988	15.10	5919.91
February	29	1988	12.10	5922.91
March	21	1988	17.30	5917.71
April	18	1988	12.50	5922.51
May	16	1988	7.20	5927.81
June		1988	6.00	5929.01
July		1988	5.50	5929.51
August		1988	5.60	5929.41
September		1988	15.30	5919.71
October		1988	11.80	5923.21
November		1988	7.00	5928.01
December		1988	18.00	5917.01

02/07/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **4-60**
SURFACE ELEVATION: 5962.00 FEET
ELEVATION - TOP OF CASING (TOC): 5972.72 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
February	1	1982	8.00	5964.72
May	1	1982	2.00	5970.72
August	1	1982	4.00	5968.72
December	1	1982	5.00	5967.72
June	1	1983	2.00	5970.72
August	10	1983	4.50	5968.22
September	1	1983	5.00	5967.72
November	1	1983	6.00	5966.72
May	1	1984	2.00	5970.72
June	1	1984	4.00	5968.72
March	1	1985	4.00	5968.72
March	27	1985	6.31	5966.41
July	1	1985	5.50	5967.22
August	28	1986	7.80	5964.92
August	29	1986	8.01	5964.71
September	2	1986	8.05	5964.67
September	3	1986	8.29	5964.43
January	1	1987	7.25	5965.47
February	1	1987	8.94	5963.78
March	19	1987	1.67	5971.05
May	8	1987	1.54	5971.18
July	8	1987	2.90	5969.82
September	10	1987	6.20	5966.52
October	21	1987	7.30	5965.42
November	9	1987	7.50	5965.22
December	22	1987	7.40	5965.32
January	27	1988	7.40	5965.32
February	29	1988	6.40	5966.32
March	21	1988	5.80	5966.92
April	18	1988	4.60	5968.12
May	17	1988	4.90	5967.82

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **13-86**
SURFACE ELEVATION: 5837.22 FEET
ELEVATION - TOP OF CASING (TOC): 5839.94 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
August 27	1986	DRY	
September 3	1986	DRY	
October 13	1986	DRY	
November 26	1986	11.15	5828.79
January 1	1987	9.71	5830.23
March 2	1987	9.00	5830.94
April 1	1987	9.67	5830.27
May 6	1987	9.67	5830.27
June 1	1987	9.04	5830.90
July 8	1987	9.60	5830.34
August 4	1987	9.10	5830.84
September 1	1987	10.00	5829.94
September 28	1987	9.40	5830.54
November 3	1987	8.80	5831.14
December 8	1987	9.70	5830.24
January 7	1988	7.80	5832.14
February 4	1988	7.70	5832.24
March 14	1988	7.20	5832.74
April 11	1988	8.40	5831.54
May 12	1988	7.90	5832.04
June	1988	8.70	5831.24
July	1988	8.40	5831.54
August	1988	8.30	5831.64
September	1988	9.40	5830.54
October	1988	9.00	5830.94
November	1988	7.20	5832.74
December	1988	6.60	5833.34

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **15-86**
SURFACE ELEVATION: 5845.61 FEET
ELEVATION - TOP OF CASING (TOC): 5847.93 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 4	1986	7.05	5840.88
September 5	1986	7.17	5840.76
September 6	1986	7.05	5840.88
September 8	1986	6.67	5841.26
October 13	1986	6.60	5841.33
November 26	1986	6.89	5841.04
January 1	1987	6.67	5841.26
February 1	1987	6.40	5841.53
April 1	1987	4.96	5842.97
May 6	1987	5.44	5842.49
June 1	1987	6.71	5841.22
July 8	1987	6.70	5841.23
August 4	1987	7.10	5840.83
August 5	1987	7.00	5840.93
September 1	1987	6.80	5841.13
September 28	1987	7.10	5840.83
November 3	1987	6.80	5841.13
December 8	1987	6.70	5841.23
January 7	1988	6.70	5841.23
February 4	1988	6.70	5841.23
March 14	1988	6.60	5841.33
April 11	1988	6.70	5841.23
May 12	1988	6.80	5841.13
June	1988	7.00	5840.93
July	1988	7.00	5840.93
August	1988	7.40	5840.53
September	1988	7.30	5840.63
October	1988	7.10	5840.83
November	1988	7.00	5840.93
December	1988	7.00	5840.93

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **17-86**
SURFACE ELEVATION: 5865.26 FEET
ELEVATION - TOP OF CASING (TOC): 5866.55 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 2	1986	6.49	5860.06
September 5	1986	6.54	5860.01
September 6	1986	6.50	5860.05
September 8	1986	6.22	5860.33
September 9	1986	6.31	5860.24
September 17	1986	6.46	5860.09
September 19	1986	6.50	5860.05
September 22	1986	6.33	5860.22
September 25	1986	6.43	5860.12
October 13	1986	6.10	5860.45
November 26	1986	6.35	5860.20
January 1	1987	6.42	5860.13
February 1	1987	6.35	5860.20
April 1	1987	4.54	5862.01
May 6	1987	5.10	5861.45
June 1	1987	5.84	5860.71
July 8	1987	5.70	5860.85
August 5	1987	6.10	5860.45
September 1	1987	6.00	5860.55
September 28	1987	6.30	5860.25
November 3	1987	6.10	5860.45
December 8	1987	6.40	5860.15
January 7	1988	6.40	5860.15
February 4	1988	6.30	5860.25
March 14	1988	6.20	5860.35
April 11	1988	5.20	5861.35
May 12	1988	6.30	5860.25
June	1988	6.30	5860.25
July	1988	6.40	5860.15
August	1988	6.40	5860.15
September	1988	6.20	5860.35
October	1988	6.30	5860.25
November	1988	6.30	5860.25
December	1988	6.30	5860.25

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **18-86**
SURFACE ELEVATION: 5882.82 FEET
ELEVATION - TOP OF CASING (TOC): 5885.49 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 3	1986	DRY	
October 13	1986	DRY	
November 26	1986	DRY	
January 1	1987	DRY	
February 1	1987	DRY	
April 1	1987	DRY	
May 6	1987	DRY	
June 1	1987	DRY	
July 8	1987	DRY	
August 6	1987	DRY	
September 1	1987	DRY	
September 28	1987	DRY	
November 3	1987	DRY	
December 8	1987	DRY	
January 7	1988	DRY	
February 4	1988	DRY	
March 14	1988	DRY	
April 11	1988	DRY	
June	1988	9.30	5876.19
July	1988	DRY	
August	1988	9.80	5875.69
September	1988	DRY	
October	1988	DRY	
November	1988	9.80	5875.69
December	1988	DRY	

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **20-86**
SURFACE ELEVATION: 5960.47 FEET
ELEVATION - TOP OF CASING (TOC): 5962.12 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 12	1986	DRY	
October 13	1986	DRY	
November 26	1986	DRY	
January 1	1987	DRY	
February 25	1987	DRY	
March 24	1987	DRY	
May 8	1987	DRY	
June 3	1987	DRY	
July 8	1987	11.80	5950.32
August 4	1987	12.00	5950.12
September 3	1987	DRY	
September 24	1987	DRY	
October 21	1987	DRY	
November 9	1987	DRY	
November 17	1987	DRY	
December 22	1987	DRY	
February 1	1988	DRY	
February 29	1988	DRY	
March 21	1988	DRY	
April 18	1988	DRY	
May 16	1988	DRY	
June	1988	10.60	5951.52
July	1988	DRY	
August	1988	DRY	
September	1988	DRY	
October	1988	DRY	
November	1988	DRY	
December	1988	12.00	5950.12

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **22-86**
SURFACE ELEVATION: 5976.81 FEET
ELEVATION - TOP OF CASING (TOC): 5978.05 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 12	1986	8.38	5969.67
September 13	1986	8.52	5969.53
September 15	1986	8.25	5969.80
September 16	1986	8.22	5969.83
September 17	1986	8.28	5969.77
September 19	1986	8.22	5969.83
October 13	1986	7.22	5970.83
November 26	1986	7.35	5970.70
January 1	1987	8.50	5969.55
February 25	1987	7.29	5970.76
March 24	1987	6.17	5971.88
May 8	1987	5.71	5972.34
June 3	1987	6.80	5971.25
July 8	1987	6.25	5971.80
August 4	1987	6.80	5971.25
August 27	1987	5.60	5972.45
September 3	1987	5.90	5972.15
October 21	1987	8.00	5970.05
November 9	1987	8.40	5969.65
December 21	1987	8.00	5970.05
January 11	1988	6.60	5971.45
February 29	1988	7.30	5970.75
March 21	1988	7.20	5970.85
April 18	1988	6.70	5971.35
May 17	1988	7.00	5971.05
June	1988	6.70	5971.35
July	1988	7.00	5971.05
August	1988	7.70	5970.35
September	1988	7.70	5970.35
October	1988	8.10	5969.95
November	1988	9.40	5968.65
December	1988	9.50	5968.55

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **24-86**
SURFACE ELEVATION: 5980.45 FEET
ELEVATION - TOP OF CASING (TOC): 5982.07 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 16	1986	DRY	
October 13	1986	DRY	
November 26	1986	DRY	
January 1	1987	DRY	
February 25	1987	DRY	
March 18	1987	DRY	
May 8	1987	DRY	
June 3	1987	DRY	
July 8	1987	8.65	5973.42
August 4	1987	DRY	
September 3	1987	DRY	
September 24	1987	DRY	
October 28	1987	DRY	
November 9	1987	DRY	
December 21	1987	DRY	
January 11	1988	DRY	
February 29	1988	DRY	
March 21	1988	DRY	
April 18	1988	8.70	5973.37
June	1988	8.20	5973.87
July	1988	DRY	
August	1988	8.70	5973.37
September	1988	8.70	5973.37
October	1988	DRY	
November	1988	DRY	
December	1988	8.70	5973.37

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **26-86**
SURFACE ELEVATION: 5974.48 FEET
ELEVATION - TOP OF CASING (TOC): 5976.49 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
January 27	1986	11.60	5964.89
September 12	1986	11.34	5965.15
September 13	1986	11.54	5964.95
September 15	1986	11.45	5965.04
September 16	1986	11.63	5964.86
September 17	1986	11.64	5964.85
September 18	1986	11.67	5964.82
October 13	1986	11.86	5964.63
November 12	1986	11.60	5964.89
November 26	1986	11.32	5965.17
January 1	1987	10.71	5965.78
February 25	1987	10.54	5965.95
May 8	1987	9.48	5967.01
June 3	1987	10.25	5966.24
July 8	1987	10.20	5966.29
August 4	1987	10.80	5965.69
August 27	1987	10.70	5965.79
September 3	1987	10.20	5966.29
October 21	1987	11.50	5964.99
November 9	1987	11.60	5964.89
December 21	1987	11.60	5964.89
January 27	1988	11.60	5964.89
February 29	1988	10.80	5965.69
March 21	1988	10.70	5965.79
April 18	1988	10.40	5966.09
May 17	1988	10.80	5965.69
June	1988	10.80	5965.69
July	1988	11.00	5965.49
August	1988	11.10	5965.39
September	1988	11.10	5965.39
October	1988	11.40	5965.09
November	1988	11.60	5964.89
December	1988	11.00	5965.49

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **28-86**
SURFACE ELEVATION: 5961.23 FEET
ELEVATION - TOP OF CASING (TOC): 5963.77 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 12	1986	10.54	5953.23
September 13	1986	10.67	5953.10
September 15	1986	10.36	5953.41
September 16	1986	10.78	5952.99
September 17	1986	10.80	5952.97
September 18	1986	10.63	5953.14
October 13	1986	9.10	5954.67
November 26	1986	8.51	5955.26
January 1	1987	8.79	5954.98
February 25	1987	7.00	5956.77
March 19	1987	3.25	5960.52
May 8	1987	4.38	5959.39
June 3	1987	5.73	5958.04
July 8	1987	5.65	5958.12
August 4	1987	7.40	5956.37
September 3	1987	8.00	5955.77
October 21	1987	8.90	5954.87
November 9	1987	8.70	5955.07
December 22	1987	8.70	5955.07
January 27	1988	5.80	5957.97
February 29	1988	5.60	5958.17
March 21	1988	5.80	5957.97
April 18	1988	5.70	5958.07
May 17	1988	6.30	5957.47
June	1988	6.10	5957.67
July	1988	6.20	5957.57
August	1988	6.50	5957.27
September	1988	6.80	5956.97
October	1988	7.50	5956.27
November	1988	8.40	5955.37
December	1988	8.50	5955.27

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **29-86**
SURFACE ELEVATION: 5958.26 FEET
ELEVATION - TOP OF CASING (TOC): 5959.95 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 12	1986	DRY	
September 24	1986	DRY	
October 13	1986	DRY	
November 26	1986	DRY	
January 1	1987	DRY	
February 25	1987	DRY	
March 19	1987	DRY	
May 8	1987	8.85	5951.10
June 3	1987	9.82	5950.13
July 8	1987	DRY	
August 4	1987	DRY	
September 3	1987	DRY	
October 21	1987	DRY	
November 9	1987	DRY	
December 22	1987	DRY	
January 27	1988	DRY	
February 29	1988	DRY	
March 21	1988	DRY	
April 18	1988	DRY	
June	1988	8.30	5951.65
July	1988	10.20	5949.75
August	1988	DRY	
September	1988	10.20	5949.75
October	1988	DRY	
November	1988	DRY	
December	1988	DRY	

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **30-86**
SURFACE ELEVATION: 5956.21 FEET
ELEVATION - TOP OF CASING (TOC): 5957.62 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 12	1986	12.33	5945.29
September 13	1986	11.94	5945.68
September 15	1986	8.67	5948.95
September 16	1986	9.67	5947.95
September 17	1986	8.87	5948.75
September 18	1986	8.66	5948.96
September 19	1986	8.14	5949.48
October 13	1986	5.07	5952.55
November 26	1986	6.21	5951.41
January 1	1987	9.33	5948.29
February 25	1987	5.90	5951.72
March 23	1987	4.58	5953.04
May 8	1987	4.79	5952.83
June 3	1987	5.62	5952.00
July 8	1987	5.70	5951.92
August 4	1987	6.50	5951.12
September 3	1987	6.10	5951.52
September 23	1987	6.10	5951.52
October 21	1987	6.40	5951.22
November 9	1987	6.50	5951.12
November 17	1987	6.50	5951.12
December 22	1987	6.40	5951.22
February 1	1988	5.90	5951.72
February 29	1988	5.10	5952.52
March 21	1988	5.00	5952.62
April 18	1988	4.90	5952.72

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **33-86**
SURFACE ELEVATION: 5949.28 FEET
ELEVATION - TOP OF CASING (TOC): 5950.70 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 12	1986	DRY	
October 13	1986	DRY	
November 26	1986	DRY	
January 1	1987	DRY	
February 25	1987	DRY	
March 24	1987	DRY	
May 8	1987	DRY	
June 3	1987	DRY	
July 8	1987	DRY	
August 4	1987	DRY	
September 3	1987	DRY	
September 24	1987	DRY	
October 21	1987	DRY	
November 9	1987	DRY	
December 1	1987	DRY	
December 21	1987	DRY	
January 11	1988	DRY	
February 29	1988	DRY	
March 21	1988	DRY	
April 18	1988	DRY	
June	1988	DRY	
July	1988	8.50	5942.20
August	1988	DRY	
September	1988	DRY	
October	1988	DRY	
November	1988	DRY	
December	1988	DRY	

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **21-87**
SURFACE ELEVATION: 5927.58 FEET
ELEVATION - TOP OF CASING (TOC): 5929.36 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
November 12	1987	7.30	5922.06
December 1	1987	DRY	
December 22	1987	7.20	5922.16
January 27	1988	7.40	5921.96
February 29	1988	7.10	5922.26
March 21	1988	8.40	5920.96
April 18	1988	7.80	5921.56
May 17	1988	8.80	5920.56
June	1988	9.70	5919.66
July	1988	8.50	5920.86
August	1988	8.00	5921.36
September	1988	7.90	5921.46
October	1988	7.60	5921.76
November	1988	9.50	5919.86
December	1988	9.40	5919.96

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **38-87**
SURFACE ELEVATION: 5971.79 FEET
ELEVATION - TOP OF CASING (TOC): 5973.95 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
November	12	1987	8.30	5965.65
December	21	1987	8.20	5965.75
January	27	1988	DRY	
February	29	1988	DRY	
March	21	1988	DRY	
April	18	1988	DRY	
May	17	1988	DRY	
July		1988	9.70	5964.25
August		1988	9.70	5964.25
September		1988	9.40	5964.55
October		1988	9.80	5964.15
November		1988	10.40	5963.55
December		1988	10.60	5963.35

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **56-87**
SURFACE ELEVATION: 5978.51 FEET
ELEVATION - TOP OF CASING (TOC): 5979.89 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
February	29	1988	6.70	5973.19
March	21	1988	7.80	5972.09
April	18	1988	6.70	5973.19
May	17	1988	6.20	5973.69
June		1988	6.40	5973.49
July		1988	6.40	5973.49
August		1988	6.50	5973.39
September		1988	7.80	5972.09
October		1988	7.70	5972.19
November		1988	8.10	5971.79
December		1988	8.20	5971.69

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **35-86**
SURFACE ELEVATION: 5909.20 FEET
ELEVATION - TOP OF CASING (TOC): 5911.54 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 3	1986	9.35	5902.19
September 8	1986	9.04	5902.50
September 9	1986	9.14	5902.40
September 10	1986	9.16	5902.38
September 11	1986	9.24	5902.30
September 12	1986	9.29	5902.25
October 13	1986	9.13	5902.41
November 26	1986	9.47	5902.07
January 1	1987	9.38	5902.16
February 1	1987	8.96	5902.58
March 17	1987	6.50	5905.04
May 8	1987	6.00	5905.54
June 2	1987	7.90	5903.64
July 7	1987	6.70	5904.84
July 27	1987	8.10	5903.44
August 4	1987	6.40	5905.14
September 1	1987	8.60	5902.94
September 29	1987	9.00	5902.54
November 3	1987	8.80	5902.74
December 1	1987	8.40	5903.14
December 21	1987	8.50	5903.04
January 11	1988	8.30	5903.24
February 29	1988	7.10	5904.44
March 21	1988	6.80	5904.74
April 18	1988	7.00	5904.54
May 16	1988	8.10	5903.44
June	1988	8.10	5903.44
July	1988	8.60	5902.94
August	1988	8.80	5902.74
September	1988	9.20	5902.34
October	1988	9.20	5902.34
November	1988	9.50	5902.04
December	1988	9.50	5902.04

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **36-86**
SURFACE ELEVATION: 5881.94 FEET
ELEVATION - TOP OF CASING (TOC): 5883.78 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
August	27	1986	9.28	5874.50
September	3	1986	DRY	
October	13	1986	DRY	
November	26	1986	DRY	
January	1	1987	7.02	5876.76
February	1	1987	6.17	5877.61
May	6	1987	6.08	5877.70
June	1	1987	5.83	5877.95
July	8	1987	5.65	5878.13
July	27	1987	5.80	5877.98
August	4	1987	7.00	5876.78
September	1	1987	5.80	5877.98
September	28	1987	7.60	5876.18
November	3	1987	7.70	5876.08
December	1	1987	7.65	5876.13
December	8	1987	7.30	5876.48
January	7	1988	7.50	5876.28
February	24	1988	7.40	5876.38
March	14	1988	7.30	5876.48
April	11	1988	5.80	5877.98
May	12	1988	6.10	5877.68

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **37-87**
SURFACE ELEVATION: 5967.03 FEET
ELEVATION - TOP OF CASING (TOC): 5969.02 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
November	12	1987	6.90	5962.12
December	22	1987	6.60	5962.42
January	27	1988	6.80	5962.22
February	29	1988	6.30	5962.72
March	21	1988	7.00	5962.02
April	18	1988	6.60	5962.42
May	17	1988	7.00	5962.02
June		1988	6.70	5962.32
June		1988	9.30	5959.72
July		1988	6.50	5962.52
August		1988	6.70	5962.32
September		1988	7.00	5962.02
October		1988	7.50	5961.52
November		1988	8.40	5960.62
December		1988	8.60	5960.42

APPENDIX E-2

SOLAR EVAPORATION PONDS
BEDROCK GROUND-WATER LEVEL DATA

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **14-86**
SURFACE ELEVATION: 5844.71 FEET
ELEVATION - TOP OF CASING (TOC): 5846.71 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 5	1986	20.90	5825.81
September 8	1986	18.79	5827.92
September 9	1986	25.22	5821.49
September 11	1986	31.12	5815.59
September 12	1986	34.23	5812.48
September 13	1986	32.84	5813.87
September 17	1986	25.68	5821.03
October 13	1986	12.91	5833.80
November 26	1986	10.64	5836.07
January 1	1987	9.67	5837.04
March 2	1987	9.67	5837.04
April 1	1987	9.85	5836.86
May 6	1987	10.77	5835.94
June 1	1987	10.39	5836.32
July 8	1987	10.90	5835.81
August 5	1987	10.90	5835.81
September 28	1987	10.50	5836.21
November 3	1987	10.20	5836.51
December 8	1987	9.70	5837.01
January 7	1988	9.30	5837.41
February 4	1988	9.40	5837.31
March 14	1988	9.60	5837.11
April 11	1988	10.10	5836.61
May 12	1988	10.20	5836.51
June	1988	57.40	5789.31
July	1988	10.90	5835.81
August	1988	10.90	5835.81
September	1988	10.80	5835.91
October	1988	10.40	5836.31
November	1988	10.00	5836.71
December	1988	18.00	5828.71

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **16-86**
SURFACE ELEVATION: 5864.74 FEET
ELEVATION - TOP OF CASING (TOC): 5866.60 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 2	1986	12.66	5853.94
September 3	1986	38.94	5827.66
September 4	1986	34.75	5831.85
September 5	1986	34.04	5832.56
September 6	1986	36.26	5830.34
September 8	1986	29.50	5837.10
September 9	1986	37.92	5828.68
September 10	1986	37.80	5828.80
September 11	1986	37.34	5829.26
September 12	1986	39.14	5827.46
September 13	1986	39.23	5827.37
September 13	1986	45.35	5821.25
September 18	1986	30.71	5835.89
October 13	1986	7.19	5859.41
November 26	1986	5.68	5860.92
January 1	1987	5.04	5861.56
February 1	1987	5.15	5861.45
April 1	1987	5.10	5861.50
May 6	1987	9.79	5856.81
June 1	1987	5.81	5860.79
July 8	1987	6.40	5860.20
August 6	1987	6.60	5860.00
September 1	1987	6.80	5859.80
September 28	1987	6.40	5860.20
November 3	1987	6.00	5860.60
December 8	1987	5.50	5861.10
January 7	1988	5.30	5861.30
February 4	1988	5.20	5861.40
March 14	1988	5.30	5861.30
April 11	1988	5.60	5861.00
May 12	1988	5.80	5860.80
June	1988	6.50	5860.10
July	1988	6.80	5859.80
August	1988	6.80	5859.80
August	1988	76.90	5789.70
September	1988	6.80	5859.80
October	1988	6.60	5860.00
November	1988	5.90	5860.70
December	1988	35.00	5831.60

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **23-86**
SURFACE ELEVATION: 5981.18 FEET
ELEVATION - TOP OF CASING (TOC): 5981.91 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
October 1	1986	107.75	5874.16
November 17	1986	91.79	5890.12
November 18	1986	113.25	5868.66
November 19	1986	115.61	5866.30
November 25	1986	113.22	5868.69
January 1	1987	93.92	5887.99
February 25	1987	79.25	5902.66
March 18	1987	73.00	5908.91
May 8	1987	104.38	5877.53
June 3	1987	94.02	5887.89
July 8	1987	113.05	5868.86
August 4	1987	98.60	5883.31
September 3	1987	87.80	5894.11
September 23	1987	87.80	5894.11
October 28	1987	95.10	5886.81
November 9	1987	94.90	5887.01
December 21	1987	94.50	5887.41
February 29	1988	95.00	5886.91
March 21	1988	89.70	5892.21
April 18	1988	104.90	5877.01
May 17	1988	93.60	5888.31
June	1988	103.60	5878.31
July	1988	93.00	5888.91
August	1988	88.50	5893.41
September	1988	105.90	5876.01
October	1988	98.10	5883.81
November	1988	26.10	5955.81
December	1988	105.00	5876.91

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **25-86**
SURFACE ELEVATION: 5974.45 FEET
ELEVATION - TOP OF CASING (TOC): 5976.55 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 30	1986	71.05	5905.50
October 1	1986	77.93	5898.62
October 13	1986	71.42	5905.13
October 21	1986	76.73	5899.82
October 28	1986	74.59	5901.96
November 5	1986	74.24	5902.31
November 6	1986	78.65	5897.90
November 7	1986	79.52	5897.03
November 26	1986	71.94	5904.61
January 1	1987	31.83	5944.72
February 25	1987	23.92	5952.63
March 18	1987	21.75	5954.80
May 8	1987	35.38	5941.17
June 3	1987	27.25	5949.30
July 8	1987	71.70	5904.85
August 4	1987	24.70	5951.85
August 27	1987	32.60	5943.95
September 3	1987	31.40	5945.15
November 9	1987	28.60	5947.95
December 21	1987	28.40	5948.15
January 11	1988	21.00	5955.55
February 29	1988	34.60	5941.95
March 21	1988	27.80	5948.75
April 18	1988	40.70	5935.85
May 17	1988	28.60	5947.95
June	1988	45.20	5931.35
July	1988	31.00	5945.55
August	1988	27.30	5949.25
September	1988	58.10	5918.45
October	1988	41.60	5934.95
November	1988	27.80	5948.75
December	1988	72.60	5903.95

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **27-86**
SURFACE ELEVATION: 5961.86 FEET
ELEVATION - TOP OF CASING (TOC): 5963.26 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 30	1986	111.22	5852.04
October 1	1986	130.60	5832.66
October 13	1986	130.48	5832.78
October 17	1986	129.41	5833.85
October 21	1986	127.50	5835.76
October 28	1986	124.17	5839.09
November 5	1986	123.10	5840.16
November 7	1986	131.60	5831.66
November 26	1986	115.94	5847.32
January 1	1987	78.71	5884.55
February 25	1987	99.04	5864.22
March 19	1987	61.25	5902.01
May 8	1987	107.04	5856.22
June 3	1987	88.22	5875.04
July 8	1987	115.15	5848.11
August 4	1987	92.40	5870.86
September 3	1987	74.50	5888.76
September 22	1987	67.60	5895.66
October 21	1987	100.70	5862.56
November 9	1987	87.10	5876.16
December 22	1987	70.10	5893.16
January 27	1988	82.80	5880.46
February 29	1988	70.50	5892.76
March 21	1988	64.40	5898.86
April 18	1988	99.30	5863.96
May 17	1988	79.40	5883.86
June	1988	95.00	5868.26
July	1988	77.10	5886.16
August	1988	71.80	5891.46
September	1988	109.60	5853.66
October	1988	91.50	5871.76
November	1988	73.90	5889.36
December	1988	123.50	5839.76

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **30-86**
SURFACE ELEVATION: 5956.21 FEET
ELEVATION - TOP OF CASING (TOC): 5957.62 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 12	1986	12.33	5945.29
September 13	1986	11.94	5945.68
September 15	1986	8.67	5948.95
September 16	1986	9.67	5947.95
September 17	1986	8.87	5948.75
September 18	1986	8.66	5948.96
September 19	1986	8.14	5949.48
October 13	1986	5.07	5952.55
November 26	1986	6.21	5951.41
January 1	1987	9.33	5948.29
February 25	1987	5.90	5951.72
March 23	1987	4.58	5953.04
May 8	1987	4.79	5952.83
June 3	1987	5.62	5952.00
July 8	1987	5.70	5951.92
August 4	1987	6.50	5951.12
September 3	1987	6.10	5951.52
September 23	1987	6.10	5951.52
October 21	1987	6.40	5951.22
November 9	1987	6.50	5951.12
November 17	1987	6.50	5951.12
December 22	1987	6.40	5951.22
February 1	1988	5.90	5951.72
February 29	1988	5.10	5952.52
March 21	1988	5.00	5952.62
April 18	1988	4.90	5952.72
June	1988	5.30	5952.32
July	1988	5.80	5951.82
August	1988	5.90	5951.72
September	1988	5.70	5951.92
October	1988	5.60	5952.02
November	1988	5.80	5951.82
December	1988	5.40	5952.22

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **31-86**
SURFACE ELEVATION: 5964.21 FEET
ELEVATION - TOP OF CASING (TOC): 5966.67 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 12	1986	DRY	
October 13	1986	DRY	
November 9	1986	DRY	
November 26	1986	DRY	
January 1	1987	DRY	
February 25	1987	DRY	
March 23	1987	DRY	
May 8	1987	DRY	
June 3	1987	DRY	
July 8	1987	DRY	
August 4	1987	DRY	
September 3	1987	DRY	
September 24	1987	DRY	
October 21	1987	DRY	
November 9	1987	DRY	
December 22	1987	DRY	
February 1	1988	DRY	
February 29	1988	DRY	
March 21	1988	DRY	
April 18	1988	DRY	
June	1988	16.90	5949.77
July	1988	DRY	
August	1988	DRY	
September	1988	DRY	
October	1988	DRY	
November	1988	DRY	
December	1988	DRY	

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **32-86**
SURFACE ELEVATION: 5964.46 FEET
ELEVATION - TOP OF CASING (TOC): 5966.96 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 22	1986	54.00	5912.96
October 13	1986	66.34	5900.62
October 17	1986	103.50	5863.46
October 21	1986	101.52	5865.44
October 28	1986	89.67	5877.29
November 4	1986	89.20	5877.76
November 5	1986	112.60	5854.36
November 6	1986	119.77	5847.19
November 7	1986	115.89	5851.07
November 26	1986	72.32	5894.64
January 1	1987	54.92	5912.04
February 25	1987	53.77	5913.19
March 23	1987	53.33	5913.63
March 24	1987	110.00	5856.96
May 8	1987	64.33	5902.63
June 3	1987	55.74	5911.22
July 8	1987	82.10	5884.86
August 4	1987	57.00	5909.96
September 3	1987	54.40	5912.56
October 21	1987	58.30	5908.66
November 9	1987	54.40	5912.56
November 17	1987	54.40	5912.56
December 22	1987	54.10	5912.86
February 1	1988	54.80	5912.16
February 29	1988	54.00	5912.96
March 21	1988	54.70	5912.26
April 18	1988	57.20	5909.76
June	1988	55.70	5911.26
July	1988	54.30	5912.66
August	1988	53.80	5913.16
September	1988	61.70	5905.26
October	1988	55.80	5911.16
November	1988	54.10	5912.86
December	1988	74.50	5892.46

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **34-86**
SURFACE ELEVATION: 5910.44 FEET
ELEVATION - TOP OF CASING (TOC): 5912.78 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 5	1986	22.38	5890.40
September 8	1986	22.40	5890.38
September 9	1986	22.63	5890.15
September 10	1986	22.77	5890.01
September 11	1986	23.48	5889.30
September 12	1986	24.25	5888.53
October 13	1986	22.96	5889.82
November 26	1986	22.77	5890.01
January 1	1987	22.38	5890.40
February 1	1987	22.17	5890.61
March 17	1987	22.05	5890.73
May 8	1987	21.98	5890.80
June 2	1987	22.80	5889.98
July 7	1987	21.65	5891.13
July 27	1987	22.10	5890.68
August 4	1987	22.40	5890.38
September 1	1987	22.20	5890.58
September 29	1987	22.40	5890.38
November 3	1987	23.50	5889.28
December 1	1987	22.26	5890.52
December 21	1987	23.30	5889.48
January 11	1988	22.10	5890.68
February 29	1988	22.00	5890.78
March 21	1988	22.00	5890.78
April 18	1988	21.90	5890.88
May 16	1988	22.20	5890.58
June	1988	21.90	5890.88
July	1988	21.90	5890.88
August	1988	22.00	5890.78
September	1988	22.10	5890.68
October	1988	22.20	5890.58
November	1988	22.30	5890.48
December	1988	22.20	5890.58

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **22-87**
SURFACE ELEVATION: 5930.70 FEET
ELEVATION - TOP OF CASING (TOC): 5932.49 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
November 12	1987	50.70	5881.79
December 1	1987	80.45	5852.04
December 22	1987	50.50	5881.99
January 27	1988	80.50	5851.99
February 29	1988	80.70	5851.79
March 21	1988	80.60	5851.89
April 18	1988	80.50	5851.99
May 17	1988	80.70	5851.79
June	1988	80.80	5851.69
July	1988	81.00	5851.49
August	1988	80.80	5851.69
September	1988	80.70	5851.79
October	1988	80.50	5851.99
November	1988	80.40	5852.09
December	1988	80.50	5851.99

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **39-87**
SURFACE ELEVATION: 5947.10 FEET
ELEVATION - TOP OF CASING (TOC): 5949.12 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
November	12	1987	23.90	5925.22
December	22	1987	23.60	5925.52
February	1	1988	40.20	5908.92
February	29	1988	46.60	5902.52
March	21	1988	108.60	5840.52
April	18	1988	86.00	5863.12
May	16	1988	86.50	5862.62
June		1988	101.60	5847.52
July		1988	99.10	5850.02
August		1988	86.80	5862.32
September		1988	102.50	5846.62
October		1988	95.00	5854.12
November		1988	83.90	5865.22
December		1988	109.80	5839.32

APPENDIX E-3

WEST SPRAY FIELD
ALLUVIAL GROUND-WATER LEVEL DATA

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **7-82**
SURFACE ELEVATION: 6143.30 FEET
ELEVATION - TOP OF CASING (TOC): 6145.83 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
January	1	1987	22.38	6123.45
February	1	1987	21.88	6123.95
March	31	1987	21.10	6124.73
May	6	1987	20.33	6125.50
June	1	1987	23.90	6121.93
July	8	1987	23.85	6121.98
August	20	1987	DRY	
August	31	1987	DRY	
September	29	1987	23.80	6122.03
November	2	1987	23.70	6122.13
December	7	1987	23.40	6122.43
January	5	1988	23.40	6122.43
February	3	1988	23.20	6122.63
March	14	1988	23.10	6122.73
April	11	1988	23.80	6122.03
May	12	1988	23.10	6122.73
June		1988	22.20	6123.63
July		1988	23.70	6122.13
August		1988	23.50	6122.33
September		1988	23.00	6122.83
October		1988	24.20	6121.63
November		1988	24.20	6121.63
December		1988	DRY	

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **6-82**
SURFACE ELEVATION: 6097.40 FEET
ELEVATION - TOP OF CASING (TOC): 6098.58 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
January	1	1987	13.79	6084.79
February	1	1987	8.44	6090.14
March	31	1987	2.21	6096.37
May	6	1987	2.25	6096.33
June	1	1987	12.05	6086.53
July	8	1987	16.00	6082.58
August	18	1987	22.30	6076.28
August	31	1987	22.60	6075.98
September	28	1987	22.60	6075.98
November	2	1987	22.80	6075.78
December	7	1987	22.70	6075.88
January	5	1988	23.70	6074.88
February	3	1988	22.90	6075.68
March	14	1988	9.80	6088.78
April	11	1988	2.60	6095.98
May	12	1988	19.70	6078.88
June		1988	23.00	6075.58
July		1988	23.10	6075.48
August		1988	23.10	6075.48
September		1988	23.20	6075.38
October		1988	23.60	6074.98
November		1988	23.30	6075.28
December		1988	23.70	6074.88

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **5-82**
SURFACE ELEVATION: 6096.10 FEET
ELEVATION - TOP OF CASING (TOC): 6097.69 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
January	1	1987	2.35	6095.34
February	1	1987	2.25	6095.44
March	31	1987	1.85	6095.84
May	6	1987	1.88	6095.81
June	1	1987	3.50	6094.19
July	8	1987	4.00	6093.69
August	31	1987	7.40	6090.29
September	16	1987	8.50	6089.19
September	28	1987	20.50	6077.19
November	2	1987	20.80	6076.89
December	7	1987	19.90	6077.79
January	5	1988	14.50	6083.19
February	3	1988	1.30	6096.39
March	14	1988	2.50	6095.19
April	11	1988	1.90	6095.79
May	12	1988	4.30	6093.39
June		1988	6.40	6091.29
July		1988	6.90	6090.79
August		1988	7.50	6090.19
September		1988	15.90	6081.79
October		1988	21.30	6076.39
November		1988	21.60	6076.09
December		1988	22.20	6075.49

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **3-82**
SURFACE ELEVATION: 6047.90 FEET
ELEVATION - TOP OF CASING (TOC): 6049.56 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
January	1	1987	12.48	6037.08
February	1	1987	11.10	6038.46
March	14	1987	11.00	6038.56
April	1	1987	3.40	6046.16
May	6	1987	4.13	6045.43
July	8	1987	8.90	6040.66
August	24	1987	12.70	6036.86
August	31	1987	17.40	6032.16
September	28	1987	13.80	6035.76
November	2	1987	15.60	6033.96
December	7	1987	15.50	6034.06
January	5	1988	14.70	6034.86
February	3	1988	13.00	6036.56
March	14	1988	11.00	6038.56
April	11	1988	8.10	6041.46
May	12	1988	10.30	6039.26
June		1988	9.90	6039.66
July		1988	11.20	6038.36
August		1988	12.10	6037.46
September		1988	13.30	6036.26
October		1988	13.90	6035.66
November		1988	14.80	6034.76
December		1988	20.90	6028.66

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **10-81**
SURFACE ELEVATION: 6142.60 FEET
ELEVATION - TOP OF CASING (TOC): 6144.71 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
January	1	1987	20.13	6124.58
February	1	1987	19.67	6125.04
March	31	1987	19.06	6125.65
May	6	1987	18.29	6126.42
June	1	1987	17.80	6126.91
July	8	1987	17.30	6127.41
August	20	1987	17.40	6127.31
August	31	1987	17.80	6126.91
September	28	1987	18.40	6126.31
November	2	1987	19.10	6125.61
December	7	1987	19.20	6125.51
January	5	1988	20.40	6124.31
February	3	1988	21.20	6123.51
March	14	1988	21.40	6123.31
April	11	1988	21.40	6123.31
May	12	1988	21.20	6123.51
June		1988	20.30	6124.41
July		1988	20.10	6124.61
August		1988	19.80	6124.91
September		1988	20.30	6124.41
October		1988	21.60	6123.11
November		1988	20.70	6124.01
December		1988	21.60	6123.11

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **9-81**
SURFACE ELEVATION: 6063.50 FEET
ELEVATION - TOP OF CASING (TOC): 6065.18 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
January	1	1987	5.50	6059.68
February	1	1987	4.79	6060.39
March	31	1987	2.27	6062.91
May	6	1987	2.23	6062.95
July	8	1987	4.80	6060.38
August	17	1987	7.70	6057.48
August	31	1987	8.40	6056.78
September	28	1987	9.20	6055.98
November	3	1987	10.50	6054.68
December	7	1987	10.50	6054.68
January	5	1988	19.20	6045.98
February	3	1988	10.80	6054.38
March	14	1988	6.50	6058.68
April	11	1988	9.20	6055.98
May	12	1988	5.10	6060.08
June		1988	6.50	6058.68
July		1988	7.30	6057.88
August		1988	7.60	6057.58
September		1988	9.50	6055.68
October		1988	10.40	6054.78
November		1988	10.70	6054.48
December		1988	12.80	6052.38

02/07/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **8-81**
SURFACE ELEVATION: 6064.50 FEET
ELEVATION - TOP OF CASING (TOC): 6065.89 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
January	1	1987	33.73	6032.16
February	1	1987	33.77	6032.12
March	25	1987	18.58	6047.31
May	6	1987	28.21	6037.68
July	8	1987	46.50	6019.39
August	17	1987	29.20	6036.69
August	31	1987	50.20	6015.69
September	28	1987	31.70	6034.19
November	2	1987	30.50	6035.39
December	7	1987	28.00	6037.89
January	5	1988	23.20	6042.69
February	3	1988	42.20	6023.69
March	14	1988	32.80	6033.09
April	11	1988	38.80	6027.09
May	12	1988	31.90	6033.99

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **45-86**
SURFACE ELEVATION: 6049.74 FEET
ELEVATION - TOP OF CASING (TOC): 6051.72 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
October 7	1986	24.15	6027.57
October 8	1986	24.15	6027.57
October 10	1986	23.62	6028.10
October 13	1986	23.81	6027.91
October 15	1986	24.13	6027.59
October 16	1986	24.05	6027.67
November 26	1986	9.03	6042.69
January 1	1987	6.75	6044.97
February 1	1987	8.90	6042.82
March 31	1987	4.31	6047.41
May 6	1987	4.52	6047.20
June 1	1987	4.83	6046.89
July 8	1987	5.35	6046.37
August 3	1987	8.00	6043.72
August 14	1987	21.10	6030.62
August 31	1987	20.40	6031.32
September 28	1987	43.50	6008.22
November 3	1987	21.60	6030.12
December 7	1987	20.20	6031.52
January 5	1988	23.10	6028.62
February 3	1988	6.50	6045.22
March 14	1988	5.80	6045.92
April 11	1988	6.70	6045.02
May 12	1988	5.20	6046.52
June	1988	5.70	6046.02
July	1988	7.40	6044.32
August	1988	18.70	6033.02
September	1988	20.80	6030.92
October	1988	22.90	6028.82
November	1988	23.10	6028.62
December	1988	24.00	6027.72

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **47-86**
SURFACE ELEVATION: 6081.92 FEET
ELEVATION - TOP OF CASING (TOC): 6084.08 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
October	30	1986	58.67	6025.41
November	3	1986	58.74	6025.34
November	5	1986	58.30	6025.78
November	6	1986	58.68	6025.40
November	7	1986	58.68	6025.40
November	26	1986	58.91	6025.17
January	1	1987	59.50	6024.58
February	23	1987	59.42	6024.66
March	31	1987	59.23	6024.85
May	6	1987	56.67	6027.41
June	1	1987	54.43	6029.65
July	8	1987	53.90	6030.18
August	3	1987	54.20	6029.88
August	13	1987	54.10	6029.98
August	31	1987	54.70	6029.38
September	28	1987	55.00	6029.08
November	2	1987	55.10	6028.98
December	7	1987	55.00	6029.08
January	5	1988	56.30	6027.78
February	3	1988	56.40	6027.68
February	4	1988	56.40	6027.68
March	14	1988	56.80	6027.28
April	11	1988	57.30	6026.78
May	12	1988	57.40	6026.68
June		1988	56.90	6027.18
July		1988	56.70	6027.38
August		1988	56.50	6027.58
September		1988	56.90	6027.18
October		1988	57.20	6026.88
November		1988	57.00	6027.08
December		1988	57.60	6026.48

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **49-86**
SURFACE ELEVATION: 6096.92 FEET
ELEVATION - TOP OF CASING (TOC): 6098.90 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
November	19	1986	46.87	6052.03
November	21	1986	48.35	6050.55
November	24	1986	49.00	6049.90
January	1	1987	49.46	6049.44
February	1	1987	49.50	6049.40
March	31	1987	49.02	6049.88
May	6	1987	47.15	6051.75
June	1	1987	45.27	6053.63
July	8	1987	41.40	6057.50
August	3	1987	54.00	6044.90
August	24	1987	44.00	6054.90
August	31	1987	44.60	6054.30
September	28	1987	44.90	6054.00
November	2	1987	44.60	6054.30
December	7	1987	45.60	6053.30
January	5	1988	46.00	6052.90
February	3	1988	46.80	6052.10
March	14	1988	47.20	6051.70
April	11	1988	47.00	6051.90
May	12	1988	46.70	6052.20
June		1988	45.70	6053.20
July		1988	45.50	6053.40
September		1988	46.00	6052.90
October		1988	46.40	6052.50
November		1988	46.40	6052.50
December		1988	49.20	6049.70

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **50-86**
SURFACE ELEVATION: 6121.98 FEET
ELEVATION - TOP OF CASING (TOC): 6123.25 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
October 23	1986	49.50	6073.75
October 27	1986	49.25	6074.00
October 28	1986	49.46	6073.79
October 31	1986	49.35	6073.90
November 26	1986	49.32	6073.93
January 1	1987	49.33	6073.92
March 31	1987	49.52	6073.73
May 6	1987	49.08	6074.17
June 1	1987	47.65	6075.60
July 8	1987	47.00	6076.25
August 3	1987	47.60	6075.65
August 14	1987	46.40	6076.85
August 31	1987	46.60	6076.65
September 28	1987	46.50	6076.75
November 2	1987	46.00	6077.25
December 7	1987	46.60	6076.65
January 5	1988	47.20	6076.05
February 3	1988	47.00	6076.25
March 14	1988	47.30	6075.95
April 11	1988	47.70	6075.55
May 12	1988	47.80	6075.45
June	1988	47.30	6075.95
July	1988	47.40	6075.85
August	1988	47.20	6076.05
September	1988	66.70	6056.55
October	1988	47.60	6075.65
November	1988	47.50	6075.75
December	1988	48.00	6075.25

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **51-86**
SURFACE ELEVATION: 6142.29 FEET
ELEVATION - TOP OF CASING (TOC): 6144.52 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
October 27	1986	58.17	6086.35
October 29	1986	52.89	6091.63
October 30	1986	47.50	6097.02
November 3	1986	55.83	6088.69
November 5	1986	60.73	6083.79
November 6	1986	61.88	6082.64
November 7	1986	61.10	6083.42
November 26	1986	60.88	6083.64
January 1	1987	62.69	6081.83
February 23	1987	61.60	6082.92
March 31	1987	56.85	6087.67
May 6	1987	53.75	6090.77
June 1	1987	46.90	6097.62
July 8	1987	47.50	6097.02
August 3	1987	50.00	6094.52
August 19	1987	50.80	6093.72
August 31	1987	54.60	6089.92
September 28	1987	56.10	6088.42
November 2	1987	58.90	6085.62
December 7	1987	59.00	6085.52
January 5	1988	64.10	6080.42
February 3	1988	63.40	6081.12
March 14	1988	63.40	6081.12
April 11	1988	57.80	6086.72
May 12	1988	57.60	6086.92
June	1988	54.50	6090.02
July	1988	55.00	6089.52
August	1988	55.30	6089.22
September	1988	58.90	6085.62
October	1988	59.80	6084.72
November	1988	59.90	6084.62
December	1988	62.50	6082.02

APPENDIX E-4

PRESENT LANDFILL
ALLUVIAL GROUND-WATER LEVEL DATA

01/25/89

WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **5-86**
SURFACE ELEVATION: 5720.07 FEET
ELEVATION - TOP OF CASING (TOC): 5722.61 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 8	1986	DRY	
October 13	1986	DRY	
November 26	1986	DRY	
January 1	1987	11.19	5711.42
February 1	1987	9.52	5713.09
April 1	1987	2.88	5719.73
May 7	1987	4.10	5718.51
June 1	1987	6.98	5715.63
July 8	1987	6.75	5715.86
July 30	1987	8.90	5713.71
August 3	1987	11.40	5711.21
September 28	1987	10.20	5712.41
November 3	1987	10.30	5712.31
December 8	1987	10.50	5712.11
January 6	1988	10.50	5712.11
February 24	1988	6.60	5716.01
March 14	1988	4.90	5717.71
April 11	1988	4.70	5717.91
May 12	1988	7.90	5714.71
June	1988	9.00	5713.61
July	1988	9.70	5712.91
August	1988	9.90	5712.71
September	1988	10.40	5712.21
October	1988	10.50	5712.11
November	1988	10.80	5711.81
December	1988	10.80	5711.81

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **6-86**
SURFACE ELEVATION: 5806.10 FEET
ELEVATION - TOP OF CASING (TOC): 5808.58 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
October	13	1986	11.13	5797.45
November	26	1986	10.99	5797.59
January	1	1987	10.92	5797.66
February	1	1987	10.83	5797.75
April	1	1987	3.29	5805.29
May	7	1987	3.88	5804.70
June	1	1987	7.22	5801.36
July	8	1987	9.20	5799.38
August	3	1987	8.90	5799.68
August	10	1987	8.60	5799.98
September	28	1987	9.70	5798.88
November	3	1987	9.70	5798.88
December	8	1987	9.70	5798.88
January	6	1988	3.30	5805.28
February	4	1988	10.20	5798.38
March	14	1988	10.10	5798.48
April	11	1988	4.50	5804.08
May	12	1988	5.40	5803.18
June		1988	7.90	5800.68
July		1988	8.00	5800.58
August		1988	8.20	5800.38
September		1988	8.70	5799.88
October		1988	8.90	5799.68
November		1988	9.30	5799.28
December		1988	9.30	5799.28

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **7-86**
SURFACE ELEVATION: 5924.46 FEET
ELEVATION - TOP OF CASING (TOC): 5926.52 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 29	1986	DRY	
October 13	1986	DRY	
November 26	1986	7.10	5919.42
January 1	1987	6.38	5920.14
February 1	1987	6.00	5920.52
April 1	1987	5.63	5920.89
May 6	1987	6.29	5920.23
June 1	1987	5.80	5920.72
July 8	1987	5.10	5921.42
August 4	1987	5.30	5921.22
August 10	1987	DRY	
August 31	1987	DRY	
September 28	1987	DRY	
November 3	1987	6.90	5919.62
December 8	1987	7.00	5919.52
January 6	1988	4.80	5921.72
February 4	1988	4.80	5921.72
March 21	1988	4.70	5921.82
April 11	1988	4.90	5921.62
May 12	1988	5.20	5921.32
June	1988	6.50	5920.02
July	1988	7.00	5919.52
August	1988	DRY	
September	1988	DRY	
October	1988	DRY	
November	1988	DRY	
December	1988	DRY	

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **10-86**
SURFACE ELEVATION: 5996.20 FEET
ELEVATION - TOP OF CASING (TOC): 5998.21 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
September 29	1986	10.35	5987.86
October 2	1986	11.53	5986.68
October 3	1986	12.71	5985.50
October 7	1986	10.30	5987.91
October 8	1986	14.43	5983.78
October 10	1986	16.90	5981.31
October 13	1986	14.09	5984.12
October 16	1986	13.59	5984.62
November 26	1986	11.56	5986.65
January 1	1987	12.19	5986.02
February 1	1987	9.56	5988.65
March 14	1987	9.50	5988.71
April 1	1987	2.90	5995.31
May 6	1987	2.44	5995.77
June 1	1987	4.71	5993.50
July 8	1987	5.50	5992.71
August 3	1987	8.60	5989.61
August 10	1987	9.10	5989.11
August 31	1987	9.70	5988.51
September 28	1987	11.70	5986.51
November 2	1987	13.00	5985.21
November 3	1987	13.00	5985.21
December 7	1987	13.50	5984.71
January 5	1988	13.50	5984.71
February 4	1988	11.60	5986.61
March 14	1988	9.50	5988.71
April 11	1988	8.70	5989.51
May 12	1988	10.20	5988.01
June	1988	8.70	5989.51
July	1988	9.70	5988.51
August	1988	10.50	5987.71
September	1988	12.50	5985.71
October	1988	13.00	5985.21
November	1988	13.70	5984.51
December	1988	14.40	5983.81

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **40-87**
SURFACE ELEVATION: 5882.69 FEET
ELEVATION - TOP OF CASING (TOC): 5884.69 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
March 14	1987	6.20	5878.49
August 10	1987	DRY	
September 28	1987	DRY	
November 3	1987	8.00	5876.69
December 8	1987	8.00	5876.69
January 6	1988	7.60	5877.09
February 4	1988	7.50	5877.19
March 14	1988	6.20	5878.49
April 11	1988	5.30	5879.39
May 12	1988	4.40	5880.29
June	1988	7.20	5877.49
July	1988	6.80	5877.89
August	1988	7.20	5877.49
September	1988	DRY	
October	1988	DRY	
November	1988	DRY	
December	1988	DRY	

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **42-87**
SURFACE ELEVATION: 5854.05 FEET
ELEVATION - TOP OF CASING (TOC): 5855.93 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
August 10	1987	DRY	
September 28	1987	DRY	
November 4	1987	3.50	5852.43
December 8	1987	4.40	5851.53
January 6	1988	3.20	5852.73
February 4	1988	3.30	5852.63
March 14	1988	3.30	5852.63
April 11	1988	3.50	5852.43
May 12	1988	4.10	5851.83
June	1988	6.10	5849.83
July	1988	DRY	
August	1988	DRY	
September	1988	DRY	
October	1988	DRY	
November	1988	DRY	
December	1988	DRY	

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **58-87**
SURFACE ELEVATION: 5995.10 FEET
ELEVATION - TOP OF CASING (TOC): 5996.75 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
March	14	1987	9.50	5987.25
January	5	1988	13.00	5983.75
February	4	1988	10.90	5985.85
March	14	1988	9.50	5987.25
April	11	1988	9.20	5987.55
June		1988	9.50	5987.25
July		1988	10.20	5986.55
August		1988	11.00	5985.75
September		1988	12.30	5984.45
October		1988	13.00	5983.75
November		1988	13.60	5983.15
December		1988	14.10	5982.65

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **66-87**
SURFACE ELEVATION: 5981.90 FEET
ELEVATION - TOP OF CASING (TOC): 5983.64 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
March	14	1987	11.50	5972.14
January	5	1988	13.00	5970.64
February	4	1988	11.90	5971.74
March	14	1988	11.50	5972.14
April	11	1988	10.90	5972.74
May	12	1988	11.70	5971.94
June		1988	11.00	5972.64
July		1988	11.50	5972.14
August		1988	11.90	5971.74
September		1988	12.30	5971.34
October		1988	12.90	5970.74
November		1988	13.90	5969.74
December		1988	14.00	5969.64

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **65-87**
SURFACE ELEVATION: 5983.08 FEET
ELEVATION - TOP OF CASING (TOC): 5985.02 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
January	6	1988	14.50	5970.52
February	4	1988	13.20	5971.82
March	21	1988	13.10	5971.92
April	11	1988	12.40	5972.62
May	12	1988	13.00	5972.02
June		1988	12.40	5972.62
July		1988	12.80	5972.22
August		1988	13.20	5971.82
October		1988	14.30	5970.72
November		1988	15.30	5969.72
December		1988	15.30	5969.72

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **64-87**
SURFACE ELEVATION: 5985.89 FEET
ELEVATION - TOP OF CASING (TOC): 5987.33 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
December	16	1987	9.00	5978.33
January	9	1988	7.50	5979.83
February	4	1988	17.60	5969.73
February	24	1988	6.90	5980.43
March	7	1988	6.80	5980.53
March	21	1988	17.90	5969.43
April	4	1988	6.70	5980.63
April	11	1988	18.20	5969.13
May	2	1988	6.90	5980.43
May	12	1988	18.40	5968.93
June		1988	17.10	5970.23
July		1988	17.10	5970.23
August		1988	17.40	5969.93
September		1988	20.80	5966.53
September		1988	13.60	5973.73
October		1988	19.20	5968.13
November		1988	19.70	5967.63
December		1988	19.70	5967.63

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **63-87**
SURFACE ELEVATION: 5985.42 FEET
ELEVATION - TOP OF CASING (TOC): 5987.06 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
January	6	1988	DRY	
February	4	1988	15.30	5971.76
March	21	1988	15.10	5971.96
April	11	1988	15.20	5971.86
May	12	1988	15.00	5972.06
June		1988	15.00	5972.06
August		1988	15.30	5971.76
September		1988	15.60	5971.46
December		1988	16.00	5971.06

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **62-87**
SURFACE ELEVATION: 5984.16 FEET
ELEVATION - TOP OF CASING (TOC): 5986.36 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
January	6	1988	14.10	5972.26
February	4	1988	13.60	5972.76
March	21	1988	13.20	5973.16
April	11	1988	13.70	5972.66
May	12	1988	2.00	5984.36
June		1988	12.70	5973.66
July		1988	13.20	5973.16
July		1988	15.20	5971.16
August		1988	13.60	5972.76
September		1988	14.10	5972.26
October		1988	14.30	5972.06
October		1988	15.60	5970.76
November		1988	14.70	5971.66
November		1988	15.90	5970.46
December		1988	14.60	5971.76

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **61-87**
SURFACE ELEVATION: 5984.00 FEET
ELEVATION - TOP OF CASING (TOC): 5985.75 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
January 6	1988	13.00	5972.75
February 4	1988	12.30	5973.45
March 21	1988	11.80	5973.95
April 11	1988	12.70	5973.05
May 12	1988	11.80	5973.95
June	1988	11.30	5974.45
July	1988	11.90	5973.85
August	1988	12.30	5973.45
September	1988	12.90	5972.85
October	1988	13.00	5972.75
November	1988	13.50	5972.25
December	1988	13.60	5972.15

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **60-87**
SURFACE ELEVATION: 5984.03 FEET
ELEVATION - TOP OF CASING (TOC): 5985.96 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
March	14	1987	11.40	5974.56
January	5	1988	12.10	5973.86
February	4	1988	12.20	5973.76
March	14	1988	11.40	5974.56
April	11	1988	10.30	5975.66
May	12	1988	11.60	5974.36
June		1988	11.20	5974.76
July		1988	12.00	5973.96
August		1988	12.40	5973.56
September		1988	13.10	5972.86
October		1988	13.30	5972.66
November		1988	13.70	5972.26
December		1988	13.80	5972.16

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **59-87**
SURFACE ELEVATION: 5992.90 FEET
ELEVATION - TOP OF CASING (TOC): 5994.67 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
March	14	1987	17.00	5977.67
January	5	1988	17.10	5977.57
February	4	1988	18.50	5976.17
March	14	1988	17.00	5977.67
April	11	1988	16.90	5977.77
May	12	1988	16.90	5977.77
June		1988	15.00	5979.67
July		1988	16.30	5978.37
August		1988	16.50	5978.17
September		1988	18.90	5975.77
October		1988	17.40	5977.27
November		1988	17.30	5977.37
December		1988	17.40	5977.27

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **67-87**
SURFACE ELEVATION: 5969.50 FEET
ELEVATION - TOP OF CASING (TOC): 5971.72 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
January	6	1988	4.30	5967.42
February	4	1988	10.40	5961.32
March	21	1988	10.00	5961.72
April	11	1988	9.90	5961.82
May	12	1988	10.10	5961.62
June		1988	10.20	5961.52
July		1988	10.70	5961.02
August		1988	11.00	5960.72
September		1988	11.50	5960.22
October		1988	11.50	5960.22
November		1988	11.70	5960.02
December		1988	11.70	5960.02

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **68-87**
SURFACE ELEVATION: 5968.48 FEET
ELEVATION - TOP OF CASING (TOC): 5970.31 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
January	6	1988	9.80	5960.51
February	4	1988	9.10	5961.21
March	21	1988	8.80	5961.51
April	11	1988	8.20	5962.11
May	12	1988	8.80	5961.51
June		1988	8.80	5961.51
July		1988	9.40	5960.91
August		1988	9.70	5960.61
September		1988	10.20	5960.11
October		1988	10.10	5960.21
November		1988	10.40	5959.91
December		1988	10.40	5959.91

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **70-87**
SURFACE ELEVATION: 5966.30 FEET
ELEVATION - TOP OF CASING (TOC): 5968.35 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
January	6	1988	DRY	
February	4	1988	DRY	
March	21	1988	DRY	
April	11	1988	9.40	5958.95
May	12	1988	8.10	5960.25
June		1988	8.50	5959.85
July		1988	8.80	5959.55
August		1988	9.20	5959.15
October		1988	9.80	5958.55
November		1988	10.70	5957.65
December		1988	10.80	5957.55

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **71-87**
SURFACE ELEVATION: 5963.39 FEET
ELEVATION - TOP OF CASING (TOC): 5965.47 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
March	14	1987	6.40	5959.07
January	5	1988	7.10	5958.37
February	4	1988	6.70	5958.77
March	14	1988	6.40	5959.07
April	11	1988	6.00	5959.47
May	12	1988	7.10	5958.37
June		1988	7.80	5957.67
July		1988	8.00	5957.47
August		1988	8.50	5956.97
September		1988	8.50	5956.97
October		1988	8.40	5957.07
November		1988	8.20	5957.27
December		1988	8.10	5957.37

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **72-87**
SURFACE ELEVATION: 5969.11 FEET
ELEVATION - TOP OF CASING (TOC): 5971.18 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
March	14	1987	4.70	5966.48
January	6	1988	6.00	5965.18
February	4	1988	5.00	5966.18
March	14	1988	4.70	5966.48
April	11	1988	4.20	5966.98
May	12	1988	57.00	5914.18
June		1988	6.20	5964.98
July		1988	6.80	5964.38
August		1988	7.50	5963.68
September		1988	7.60	5963.58
October		1988	7.90	5963.28
November		1988	DRY	
December		1988	8.30	5962.88

APPENDIX E-5

PRESENT LANDFILL
BEDROCK GROUND-WATER LEVEL DATA

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **8-86**
SURFACE ELEVATION: 5925.03 FEET
ELEVATION - TOP OF CASING (TOC): 5926.83 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
November	10	1986	7.15	5919.68
November	12	1986	20.80	5906.03
November	13	1986	51.81	5875.02
November	26	1986	7.00	5919.83
January	1	1987	5.13	5921.70
February	1	1987	5.08	5921.75
April	1	1987	4.67	5922.16
May	6	1987	4.77	5922.06
June	1	1987	4.53	5922.30
July	8	1987	33.20	5893.63
August	4	1987	14.50	5912.33
August	11	1987	12.50	5914.33
August	31	1987	38.40	5888.43
September	28	1987	19.10	5907.73
November	3	1987	11.70	5915.13
December	8	1987	8.90	5917.93
January	6	1988	32.20	5894.63
February	4	1988	59.50	5867.33
March	21	1988	30.30	5896.53
April	11	1988	23.80	5903.03
May	12	1988	18.00	5908.83
June		1988	60.00	5866.83
July		1988	47.30	5879.53
August		1988	39.20	5887.63
September		1988	56.80	5870.03
October		1988	46.90	5879.93
November		1988	32.40	5894.43
December		1988	30.70	5896.13

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **9-86**
SURFACE ELEVATION: 5996.39 FEET
ELEVATION - TOP OF CASING (TOC): 5998.23 FEET

MONTH/DAY MEASURED		YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
October	14	1986	69.30	5928.93
October	20	1986	84.14	5914.09
October	22	1986	119.91	5878.32
October	23	1986	128.81	5869.42
October	24	1986	126.94	5871.29
October	27	1986	116.63	5881.60
October	30	1986	116.12	5882.11
October	31	1986	128.24	5869.99
November	26	1986	62.56	5935.67
January	1	1987	30.13	5968.10
February	1	1987	28.75	5969.48
March	14	1987	30.60	5967.63
April	1	1987	27.60	5970.63
May	6	1987	27.04	5971.19
June	1	1987	43.10	5955.13
July	8	1987	43.90	5954.33
August	3	1987	31.70	5966.53
August	11	1987	30.80	5967.43
August	31	1987	41.90	5956.33
September	28	1987	31.40	5966.83
November	2	1987	29.40	5968.83
December	7	1987	28.60	5969.63
January	5	1988	28.20	5970.03
February	24	1988	37.00	5961.23
March	14	1988	30.60	5967.63
April	11	1988	28.80	5969.43
May	12	1988	28.20	5970.03
June		1988	45.10	5953.13
July		1988	31.30	5966.93
August		1988	29.40	5968.83
September		1988	68.90	5929.33
October		1988	34.10	5964.13
November		1988	29.70	5968.53
December		1988	28.60	5969.63

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WATER LEVEL DATA
ROCKY FLATS PLANT

WELL NUMBER: **41-87**
SURFACE ELEVATION: 5882.78 FEET
ELEVATION - TOP OF CASING (TOC): 5884.55 FEET

MONTH/DAY MEASURED	YEAR MEASURED	DEPTH TOC TO WATER (FEET)	WATER ELEVATION (FEET)
March 14	1987	55.40	5829.15
September 28	1987	86.60	5797.95
November 4	1987	42.40	5842.15
December 8	1987	39.50	5845.05
January 6	1988	60.20	5824.35
February 4	1988	88.80	5795.75
March 14	1988	55.40	5829.15
April 11	1988	43.60	5840.95
May 12	1988	36.20	5848.35
June	1988	86.10	5798.45
July	1988	64.80	5819.75
August	1988	52.60	5831.95
September	1988	73.70	5810.85
October	1988	57.80	5826.75
November	1988	51.20	5833.35
December	1988	47.30	5837.25

APPENDIX F

GROUND-WATER QUALITY DATA
FIRST QUARTER 1988

APPENDIX F-1

VOLATILE ORGANICS

FIRST QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 1

Sample Information

Batch ID:	0188-881-190	0188-881-127	0188-881-191	0188-881-128
Field ID:	01-71-02-25-88	01-87-02-10-87	02-71-02-25-88	02-87-02-10-87
Collection Date:	02/25/88	02/10/87	02/25/88	02/10/87
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	116 %	104 %	121 %	108 %
Bromofluorobenzene:	102 %	96 %	108 %	102 %
1,2-Dichloroethane-d4:	96 %	94 %	108 %	100 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	14	5 U	12	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	12	5 U	8	5 U
1,1-Dichloroethane	5 U	5 U	12	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	634	5 U	231	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	467	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	326	5 U	7750	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	51	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	47	10 U
Tetrachloroethene	100	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

FIRST QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0188-881-215	0188-881-149	0188-881-161	0188-881-160
Field ID:	03-74-03-07-88	03-87-02-22-88	03-87-02-22-88S	03-87-02-22-88SD
Collection Date:	03/07/88	02/22/88	02/22/88	02/22/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	102 %	111 %	99 %	115 %
Bromofluorobenzene:	86 %	107 %	94 %	118 %
1,2-Dichloroethane-d4:	20 %	112 %	99 %	117 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	4 J	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	94 %	108 %
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	20	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	25	5 U	5 U	5 U
Carbon Tetrachloride	461	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	55	5 U	95 %	114 %
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	95 %	113 %
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	103	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	98 %	115 %
Chlorobenzene	5 U	5 U	95 %	112 %
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

Client: ROCKWELL (ROCKY FLATS) Page: 3

Sample Information

Batch ID:	0188-881-140	0188-881-141	0188-881-142	0188-881-151
Field ID:	04-87-02-15-88	04-87-02-15-88S	04-87-02-15-88SD	05-87-02-22-88
Collection Date:	02/15/88	02/15/88	02/15/88	02/22/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	107 %	92 %	102 %	111 %
Bromofluorobenzene:	94 %	81 %	92 %	105 %
1,2-Dichloroethane-d4:	94 %	85 %	96 %	116 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	4 J
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	94 %	100 %	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	11	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	32	177 %	190 %	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	99 %	107 %	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	98 %	109 %	5 U
Chlorobenzene	5 U	96 %	108 %	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

FIRST QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 4

Sample Information

Batch ID:	0188-881-020	0188-881-143	0188-881-101	0188-881-021
Field ID:	06-86-02-01-88	06-87-02-17-88	07-82-02-04-88	07-86-02-01-88
Collection Date:	02/01/88	02/17/88	02/04/88	02/01/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	102 %	107 %	96 %	100 %
Bromofluorobenzene:	94 %	91 %	88 %	92 %
1,2-Dichloroethane-d4:	86 %	86 %	74 %	82 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	14	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

FIRST QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0188-881-019	0188-881-150	0188-881-156	0188-881-157
Field ID:	08-86-02-03-88	08-87-02-22-88	09-74-02-25-88	09-74-02-25-88FD
Collection Date:	02/03/88	02/22/88	02/25/88	02/25/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	100 %	111 %	117 %	118 %
Bromofluorobenzene:	92 %	108 %	112 %	112 %
1,2-Dichloroethane-d4:	76 %	113 %	116 %	119 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	4 J	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	4470	4360
1,1-Dichloroethane	5 U	5 U	15	15
Trans-1,2-Dichloroethene	5 U	5 U	7	6
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	15	13
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	3020	3190
Carbon Tetrachloride	5 U	5 U	990	1120
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	6810	6960
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	1800	1840
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

FIRST QUARTER 1988 GROUNDWATER
VOLATILE
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Client: ROCKWELL (ROCKY FLATS) Page: 6

Sample Information

Batch ID:	0188-881-018	0188-881-193	0188-881-406	0188-881-469
Field ID:	09-86-02-03-88	09-87-02-25-88	1-74-03-03-88	1-86-03-31-88
Collection Date:	02/03/88	02/25/88	03/03/88	03/31/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	100 %	116 %	98 %	91 %
Bromofluorobenzene:	94 %	112 %	92 %	98 %
1,2-Dichloroethane-d4:	78 %	114 %	100 %	75 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	10	5 U	23
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropene	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	4405	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	33600	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

FIRST QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 7

Sample Information

Batch ID:	0188-881-158	0188-881-100	0188-881-015	0188-881-473
Field ID:	10-74-02-25-88	10-81-02-04-88	10-86-02-01-88	11-86-03-29-88
Collection Date:	02/25/88	02/04/88	02/01/88	03/29/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	118 %	98 %	102 %	94 %
Bromofluorobenzene:	113 %	90 %	94 %	98 %
1,2-Dichloroethane-d4:	119 %	76 %	82 %	79 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	24
Acetone	10 U	10 U	10 U	7 J
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	42	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	312	5 U	5 U	5 U
Carbon Tetrachloride	1219	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	625	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	17	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

FIRST QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 8

Sample Information

Batch ID:	0188-881-146	0188-881-192	0188-881-038	0188-881-022
Field ID:	11-87-02-17-88	12-87-02-25-88	13-86-03-14-88	14-86-03-14-88
Collection Date:	02/17/88	02/25/88	03/14/88	03/14/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	104 %	114 %	106 %	108 %
Bromofluorobenzene:	93 %	114 %	116 %	118 %
1,2-Dichloroethane-d4:	92 %	110 %	94 %	94 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	9	5 U	5 U
Acetone	10 U	10 U	10 U	5 J
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	129	17	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	277	5 U	5 U	5 U
Carbon Tetrachloride	495	20	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	824	547	55	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	5 U	10 U	10 U
Tetrachloroethene	20	34	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

Sample Information

Batch ID:	0188-881-196	0188-881-023	0188-881-197	0188-881-024
Field ID:	14-87-02-29-88	15-86-03-14-88	15-87-02-29-88	16-86-03-14-88
Collection Date:	02/29/88	03/14/88	02/29/88	03/14/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	116 %	106 %	114 %	104 %
Bromofluorobenzene:	116 %	118 %	110 %	116 %
1,2-Dichloroethane-d4:	118 %	96 %	108 %	94 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	7	5 U	8	5 U
Acetone	26	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	7	5 U	35	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	38	5 U	1591	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	28	5 U	96	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	NR	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	212	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

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Sample Information

Batch ID:	0188-881-198	0188-881-025	0188-881-088	0188-881-405
Field ID:	16-87-02-29-88	17-86-03-14-88	17-86-03-14-88D	17-87-03-03-88
Collection Date:	02/29/88	03/14/88	03/14/86	03/03/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	116 %	106 %	120 %	104 %
Bromofluorobenzene:	116 %	114 %	104 %	88 %
1,2-Dichloroethane-d4:	122 %	102 %	92 %	92 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	8	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	17
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	32
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	14
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	NR	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	3 J	5 U	111
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

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Sample Information

Batch ID:	0188-881-410	0188-881-031	0188-881-028	0188-881-470
Field ID:	18-87-03-07-88	19-86-03-16-88	2-60-03-16-88	2-86-03-31-88
Collection Date:	03/07/88	03/16/88	03/16/88	03/31/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	100 %	104 %	100 %	98 %
Bromofluorobenzene:	102 %	120 %	105 %	94 %
1,2-Dichloroethane-d4:	106 %	100 %	80 %	73 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	17	24
Acetone	10 U	5 J	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	29	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	16	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

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Sample Information

Batch ID:	0188-881-409	0188-881-036	0188-881-431	0188-881-411
Field ID:	20-87-03-03-88	21-86-03-21-88	21-87-03-07-88	22-87-03-07-88
Collection Date:	03/03/88	03/21/88	03/07/88	03/07/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	100 %	95 %	102 %	100 %
Bromofluorobenzene:	98 %	101 %	102 %	108 %
1,2-Dichloroethane-d4:	98 %	79 %	98 %	112 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	17	5 U	5 U
Acetone	13	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	9 J
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	NR	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	70	5 U	6	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

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Sample Information

Batch ID:	0188-881-432	0188-881-433	0188-881-434	0188-881-037
Field ID:	22-87-03-07-88-LD	22-87-03-07-88-S	22-87-03-07-88-SD	23-86-03-21-88
Collection Date:	03/07/88	03/07/88	03/07/88	03/21/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	100 %	100 %	104 %	97 %
Bromofluorobenzene:	108 %	94 %	116 %	110 %
1,2-Dichloroethane-d4:	110 %	92 %	124 %	80 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	16
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	102 %	106 %	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	97 %	110 %	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	95 %	106 %	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	6	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	104 %	110 %	5 U
Chlorobenzene	5 U	96 %	105 %	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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Sample Information

Batch ID:	0188-881-090	0188-881-084	0188-881-085	0188-881-402
Field ID:	23-86-03-21-88D	23-86-03-21-88S	23-86-03-21-88SD	23-87-03-02-88
Collection Date:	03/21/88	03/21/88	03/21/88	03/02/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	96 %	86 %	80 %	120 %
Bromofluorobenzene:	107 %	93 %	87 %	112 %
1,2-Dichloroethane-d4:	79 %	76 %	70 %	112 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	16	5 U	5 U	8
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	60 %	60 %	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	94 %	93 %	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	80 %	77 %	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	82 %	79 %	5 U
Chlorobenzene	5 U	92 %	87 %	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

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Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0188-881-033	0188-881-407	0188-881-034	0188-881-029
Field ID:	25-86-03-21-88	25-87-03-03-88	27-86-03-21-88	28-86-03-16-88
Collection Date:	03/21/88	03/03/88	03/21/88	03/16/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	100 %	100 %	97 %	106 %
Bromofluorobenzene:	104 %	94 %	102 %	118 %
1,2-Dichloroethane-d4:	76 %	110 %	79 %	100 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	17	5 U	17	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	4 J	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	110	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	83	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	598	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

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Client: ROCKWELL (ROCKY FLATS) Page: 16

Sample Information

Batch ID:	0188-881-089	0188-881-086	0188-881-087	0188-881-226
Field ID:	28-86-03-16-88D	28-86-03-16-88S	28-86-03-16-88SD	28-87-03-14-88
Collection Date:	03/16/88	03/16/88	03/16/88	03/14/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	116 %	96 %	98 %	102 %
Bromofluorobenzene:	112 %	116 %	114 %	106 %
1,2-Dichloroethane-d4:	98 %	108 %	104 %	90 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	77 %	78 %	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	27
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	38	105 %	101 %	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	89 %	92 %	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	4 J
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	89 %	92 %	5 U
Chlorobenzene	5 U	95 %	97 %	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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Sample Information

Batch ID:	0188-881-195	0188-881-446	0188-881-471	0188-881-032
Field ID:	29-87-02-29-88	3-82-03-29-88	3-86-03-31-88	30-86-03-16-88
Collection Date:	02/29/88	03/29/88	03/31/88	03/16/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	128 %	103 %	92 %	118 %
Bromofluorobenzene:	108 %	91 %	94 %	134 %
1,2-Dichloroethane-d4:	114 %	73 %	72 %	102 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	8	27	24	14
Acetone	10 U	11	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	4 J	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	4 J	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

FIRST QUARTER 1988 GROUNDWATER

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ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0188-881-199	0188-881-200	0188-881-201	0188-881-221
Field ID:	30-87-03-02-88	30-87-03-02-88S	30-87-03-02-88SD	31-87-03-10-88
Collection Date:	03/02/88	03/02/88	03/02/88	03/10/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	116 %	120 %	102 %	104 %
Bromofluorobenzene:	114 %	114 %	110 %	106 %
1,2-Dichloroethane-d4:	116 %	124 %	112 %	108 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	8	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	128 %	99 %	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5	134 %	118 %	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	124 %	99 %	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	121 %	100 %	5 U
Chlorobenzene	5 U	119 %	101 %	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

FIRST QUARTER 1988 GROUNDWATER
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Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0188-881-035	0188-881-216	0188-881-403	0188-881-217
Field ID:	32-86-03-21-88	32-87-03-09-88	34-86-03-02-88	34-87-03-09-88
Collection Date:	03/21/86	03/09/88	03/02/88	03/09/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	97 %	102 %	116 %	96 %
Bromofluorobenzene:	104 %	98 %	114 %	96 %
1,2-Dichloroethane-d4:	80 %	112 %	108 %	106 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	17	5 U	6	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	44	5 U	3 J
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	35	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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Sample Information

Batch ID:	0188-881-404	0188-881-218	0188-881-430	0188-881-039
Field ID:	35-86-03-02-88	36-87-03-09-88	37-86-03-07-88	37-87-03-16-88
Collection Date:	03/02/88	03/09/88	03/07/88	03/16/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	116 %	100 %	100 %	104 %
Bromofluorobenzene:	110 %	98 %	96 %	120 %
1,2-Dichloroethane-d4:	100 %	108 %	104 %	98 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	492	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	6	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	12	5 U	5 U	5 U
1,1-Dichloroethane	49	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	1370	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	545	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	10	131820	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	975	10 U	10 U
Tetrachloroethene	5 U	5 U	6	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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Client: ROCKWELL (ROCKY FLATS) Page: 21

Sample Information

Batch ID:	0188-881-467	0188-881-219	0188-881-220	0188-881-027
Field ID:	38-86-03-31-88	39-86-03-09-88	39-86-03-09-88D	39-87-03-16-88
Collection Date:	03/31/88	03/09/88	03/09/88	03/16/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	98 %	100 %	96 %	99 %
Bromofluorobenzene:	96 %	100 %	98 %	105 %
1,2-Dichloroethane-d4:	69 %	112 %	112 %	81 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	22	5 U	5 U	13
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	3 J	4 J	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	4 J	3 J	5 U

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Sample Information

Batch ID:	0188-881-083	0188-881-091	0188-881-092	0188-881-030
Field ID:	39-87-03-16-88D	39-87-03-16-88S	39-87-03-16-88SD	4-60-03-16-88
Collection Date:	03/16/88	03/16/88	03/16/88	03/16/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	99 %	82 %	85 %	100 %
Bromofluorobenzene:	105 %	85 %	92 %	103 %
1,2-Dichloroethane-d4:	79 %	70 %	75 %	81 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	16	5 U	5 U	17
Acetone	10 U	10 U	10 U	12
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	61 %	57 %	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	87 %	97 %	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	70 %	78 %	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	73 %	79 %	5 U
Chlorobenzene	5 U	82 %	90 %	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0188-881-222	0188-881-223	0188-881-239	0188-881-240
Field ID:	40-86-03-10-88	41-86-03-10-88	41-86-03-10-88S	41-86-03-10-88SD
Collection Date:	03/10/88	03/10/88	03/10/88	03/10/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	100 %	104 %	86 %	100 %
Bromofluorobenzene:	108 %	106 %	90 %	92 %
1,2-Dichloroethane-d4:	108 %	108 %	100 %	104 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	85 %	11 %
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	100 %	108 %
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	91 %	98 %
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	93 %	5 U
Toluene	5 U	5 U	89 %	106 %
Chlorobenzene	5 U	5 U	5 U	96 %
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

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Client: ROCKWELL (ROCKY FLATS) Page: 24

Sample Information

Batch ID:	0188-881-016	0188-881-408	0188-881-017	0188-881-155
Field ID:	41-87-02-02-88	42-86-03-03-88	42-87-02-02-88	43-87-02-22-88
Collection Date:	02/02/88	03/03/88	02/02/88	02/22/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	108 %	98 %	108 %	121 %
Bromofluorobenzene:	98 %	96 %	92 %	102 %
1,2-Dichloroethane-d4:	84 %	112 %	116 %	104 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	40
Acetone	10 U	10 U	10 U	25
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	4 J	5 U	8855
1,1-Dichloroethane	5 U	5 U	5 U	192
Trans-1,2-Dichloroethene	5 U	5 U	5 U	9
Chloroform	5 U	43	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	18
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5920
Carbon Tetrachloride	5 U	1741	5 U	2995
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	274	5 U	12920
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	NR	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	516	5 U	7590
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	24
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

FIRST QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0188-881-445	0188-881-152	0188-881-112	0188-881-108
Field ID:	44-86-03-29-88	45-87-02-25-88	46-86-02-12-88	47-86-02-08-88
Collection Date:	03/29/88	02/25/88	02/12/88	02/08/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	92 %	119 %	120 %	96 %
Bromofluorobenzene:	98 %	107 %	112 %	90 %
1,2-Dichloroethane-d4:	100 %	114 %	108 %	76 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	28	12	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	6	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	19	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

FIRST QUARTER 1988 GROUNDWATER
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ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0188-881-109	0188-881-110	0188-881-111	0188-881-463
Field ID:	47-86-02-08-88D	47-86-02-08-88S	47-86-02-08-88SD	48-86-03-23-88S
Collection Date:	02/08/88	02/08/88	02/08/88	03/23/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	94 %	0 %	0 %	130 %
Bromofluorobenzene:	88 %	0 %	0 %	136 %
1,2-Dichloroethane-d4:	72 %	0 %	0 %	120 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	89 %	112 %	93 %
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	109 %	136 %	120 %
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	87 %	106 %	107 %
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	92 %	113 %	108 %
Chlorobenzene	5 U	93 %	114 %	121 %
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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FIRST QUARTER 1988 GROUNDWATER
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Client: ROCKWELL (ROCKY FLATS) Page: 27

Sample Information

Batch ID:	0188-881-464	0188-881-443	0188-881-139	0188-881-447
Field ID:	48-86-03-23-88SD	48-86-03-25-88	48-87-02-15-88	49-86-03-29-88
Collection Date:	03/23/88	03/25/88	02/15/88	03/29/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	110 %	108 %	108 %	97 %
Bromofluorobenzene:	118 %	110 %	90 %	101 %
1,2-Dichloroethane-d4:	104 %	88 %	91 %	96 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	17	5 U	27
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	77 %	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	107 %	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	95 %	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	92 %	5 U	5 U	5 U
Chlorobenzene	106 %	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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FIRST QUARTER 1988 GROUNDWATER
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Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0188-881-440	0188-881-472	0188-881-444	0188-881-105
Field ID:	5-82-03-24-88	5-86-03-29-88	50-86-03-25-88	51-86-02-08-88
Collection Date:	03/24/88	03/29/88	03/25/88	02/08/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	108 %	92 %	96 %	100 %
Bromofluorobenzene:	114 %	101 %	92 %	90 %
1,2-Dichloroethane-d4:	88 %	98 %	81 %	82 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	16	25	26	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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Sample Information

Batch ID:	0188-881-104	0188-881-131	0188-881-106	0188-881-107
Field ID:	52-86-02-08-88	52-87-02-12-88	54-86-02-08-88	55-86-02-08-88
Collection Date:	02/08/88	02/12/88	02/08/88	02/08/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	102 %	124 %	104 %	96 %
Bromofluorobenzene:	92 %	116 %	88 %	90 %
1,2-Dichloroethane-d4:	84 %	118 %	80 %	80 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	8	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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FIRST QUARTER 1988 GROUNDWATER
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Client: ROCKWELL (ROCKY FLATS) Page: 30

Sample Information

Batch ID:	0188-881-136	0188-881-040	0188-881-001	0188-881-137
Field ID:	56-86-02-15-88	56-87-03-16-88	58-87-01-22-88	59-86-02-15-88
Collection Date:	02/15/88	03/16/88	01/22/88	02/15/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	106 %	104 %	113 %	107 %
Bromofluorobenzene:	90 %	118 %	124 %	93 %
1,2-Dichloroethane-d4:	95 %	96 %	148 %	94 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	13	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	4 J	5 U	5 U
1,1-Dichloroethane	5 U	6	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	6	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	29	5 U	5 U
Carbon Tetrachloride	5 U	5 U	8	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	57	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	NR	NR	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	4 J	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

FIRST QUARTER 1988 GROUNDWATER
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ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 31

Sample Information

Batch ID:	0188-881-002	0188-881-441	0188-881-003	0188-881-130
Field ID:	59-87-01-22-88	6-82-03-24-88	60-87-01-22-88	61-86-02-12-88
Collection Date:	01/22/88	03/24/88	01/22/88	02/12/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	124 %	106 %	197 %	124 %
Bromofluorobenzene:	127 %	112 %	116 %	118 %
1,2-Dichloroethane-d4:	148 %	86 %	151 %	116 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	17	5 U	5 U
Acetone	10 U	8 J	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	6	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

Sample Information

Batch ID:	0188-881-006	0188-881-007	0188-881-145	0188-881-004
Field ID:	61-87-01-26-88	61-870-01-26-88	62-86-02-17-88	62-87-01-25-88
Collection Date:	01/26/88	01/26/88	02/17/88	01/25/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	111 %	104 %	92 %	86 %
Bromofluorobenzene:	122 %	121 %	116 %	114 %
1,2-Dichloroethane-d4:	157 %	162 %	8 %	131 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	6
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	7	7	5 U	8
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropene	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

Sample Information

Batch ID:	0188-881-005	0188-881-144	0188-881-194	0188-881-010
Field ID:	63-87-01-26-88	64-86-02-17-88	65-86-02-29-88	65-87-01-27-88
Collection Date:	01/26/88	02/17/88	02/29/88	01/27/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	105 %	112 %	118 %	21 %
Bromofluorobenzene:	132 %	88 %	116 %	32 %
1,2-Dichloroethane-d4:	164 %	86 %	122 %	73 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	8	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

FIRST QUARTER 1988 GROUNDWATER
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Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0188-881-468	0188-881-008	0188-881-009	0188-881-129
Field ID:	66-86-03-31-88	67-87-01-27-88	68-87-01-27-88	69-86-02-10-87
Collection Date:	03/31/88	01/27/88	01/27/88	02/10/87
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	92 %	19 %	20 %	114 %
Bromofluorobenzene:	99 %	33 %	32 %	106 %
1,2-Dichloroethane-d4:	74 %	88 %	74 %	100 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	23	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

Sample Information

Batch ID:	0188-881-138	0188-881-011	0188-881-437	0188-881-438
Field ID:	70-86-02-15-88	72-87-01-27-88	8-81-03-24-88	9-81-03-24-88
Collection Date:	02/15/88	01/27/88	03/24/88	03/24/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	103 %	21 %	106 %	112 %
Bromofluorobenzene:	100 %	32 %	110 %	110 %
1,2-Dichloroethane-d4:	97 %	75 %	90 %	90 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	17	17
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	17	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

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Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0188-881-439	0188-881-103	0188-881-133	0188-881-148
Field ID:	9-81-03-24-88FD	FB-02-05-88	FB-02-13-88	FB-02-19-88
Collection Date:	03/24/88	02/05/88	02/13/88	02/19/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	108 %	102 %	124 %	110 %
Bromofluorobenzene:	110 %	92 %	116 %	102 %
1,2-Dichloroethane-d4:	90 %	84 %	120 %	108 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	17	5 U	5 U	5
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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Sample Information

Batch ID:	0188-881-154	0188-881-401	0188-881-225	0188-881-057
Field ID:	FB-02-26-88	FB-03-02-88	FB-03-14-88	FB-03-15-88
Collection Date:	02/26/88	03/02/88	03/14/88	03/15/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	112 %	114 %	106 %	101 %
Bromofluorobenzene:	111 %	114 %	116 %	97 %
1,2-Dichloroethane-d4:	118 %	122 %	92 %	76 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	17	5 U	20
Acetone	10 U	10 U	11	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

FIRST QUARTER 1988 GROUNDWATER
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Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0188-881-436	0188-881-466	0188-881-055	0188-881-134
Field ID:	FB-03-23-88	FB-03-31-88	LB-02-15-88	LB-02-17-88
Collection Date:	03/23/88	03/31/88	02/15/88	02/17/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	106 %	98 %	104 %	120 %
Bromofluorobenzene:	108 %	99 %	96 %	118 %
1,2-Dichloroethane-d4:	90 %	78 %	84 %	120 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	19	25	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

FIRST QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0188-881-135	0188-881-159	0188-881-102	0188-881-132
Field ID:	LB-02-18-88	LB-03-05-88	TB-02-05-88	TB-02-13-88
Collection Date:	02/18/88	03/05/88	02/05/88	02/13/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	107 %	116 %	98 %	122 %
Bromofluorobenzene:	90 %	114 %	92 %	120 %
1,2-Dichloroethane-d4:	95 %	117 %	84 %	120 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	6	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

Sample Information

Batch ID:	0188-881-147	0188-881-153	0188-881-400	0188-881-224
Field ID:	TB-02-19-88	TB-02-26-88	TB-03-02-88	TB-03-14-88
Collection Date:	02/19/88	02/26/88	03/02/88	03/14/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	110 %	111 %	114 %	104 %
Bromofluorobenzene:	99 %	109 %	114 %	112 %
1,2-Dichloroethane-d4:	103 %	115 %	118 %	96 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	20	5 U
Acetone	10 U	10 U	34	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	12	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

Sample Information

Batch ID:	0188-881-056	0188-881-435	0188-881-465
Field ID:	TB-03-15-88	TB-03-23-88	TB-03-31-88
Collection Date:	03/15/88	03/23/88	03/31/88
Units:	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	95 %	114 %	98 %
Bromofluorobenzene:	99 %	100 %	94 %
1,2-Dichloroethane-d4:	78 %	84 %	73 %

Analytes

Chloromethane	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U
Methylene Chloride	18	45	26
Acetone	10 U	59	10
Carbon Disulfide	5 U	5 U	5 U
1,1-Dichloroethene	5 U	4 J	5 U
1,1-Dichloroethane	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U
Benzene	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	NR	NR
Bromoform	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U
Toluene	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U
Styrene	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

APPENDIX F-2

INORGANICS

02/23/89

FIRST QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 1

Sample Information

RFW Batch ID:	0188-881-190	0188-881-191	0188-881-128
Customer ID:	01-71-02-26-88	02-71-02-26-88	02-87-02-11-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	297		mg/l	1247	mg/l	558	mg/l
Chloride	19.4		mg/l	363	mg/l	73.0	mg/l
Nitrate-Nitrite as N	2.60		mg/l	1.93	mg/l	0.02	U mg/l
Sulfate	16.5		mg/l	278	mg/l	81.0	mg/l
HCO3- as CaCO3	123		mg/l	81.0	mg/l	387	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-162	0188-881-215	0188-881-149
Customer ID:	02-87-02-11-880	03-74-03-08-88	03-87-02-23-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	553		mg/l	478	mg/l	396	mg/l
Chloride	71.6		mg/l	48.7	mg/l	104	mg/l
Nitrate-Nitrite as N	0.02	U	mg/l	7.35	mg/l	0.02	U mg/l
Sulfate	78.5		mg/l	19.8	mg/l	10.0	mg/l
HCO3- as CaCO3	386		mg/l	156	mg/l	218	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-140		0188-881-151		0188-881-143	
	Customer ID:	04-87-02-16-88		05-87-02-23-88		06-87-02-19-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		1756	mg/l	1170	mg/l	1430	mg/l
Chloride		313	mg/l	267	mg/l	332	mg/l
Nitrate-Nitrite as N		2.60	mg/l	8.70	mg/l	0.02 U	mg/l
Sulfate		500	mg/l	485	mg/l	285	mg/l
HCO3- as CaCO3		456	mg/l	311	mg/l	413	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-019		0188-881-150		0188-881-156	
	Customer ID:	08-86-02-04-88		08-87-02-03-88		09-74-02-26-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		307	mg/l	1240	mg/l	1253	mg/l
Chloride		8.19	mg/l	44.0	mg/l	250	mg/l
Nitrate-Nitrite as N		0.34	mg/l	0.02 U	mg/l	8.67	mg/l
Sulfate		125	mg/l	603	mg/l	230	mg/l
HCO3- as CaCO3		80.2	mg/l	186	mg/l	161	mg/l
CO3= as CaCO3							

FIRST QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 3

Sample Information

RFW Batch ID:	0188-881-157	0188-881-018	0188-881-193
Customer ID:	09-74-02-26-88D	09-86-02-04-88	09-87-02-26-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	1109	mg/l	238	mg/l		271	mg/l
Chloride.....	266	mg/l	8.44	mg/l		5.82	mg/l
Nitrate-Nitrite as N.....	7.26	mg/l	0.02	mg/l	U	1.85	mg/l
Sulfate.....	247	mg/l	151	mg/l		51.7	mg/l
HCO3- as CaCO3.....	160	mg/l	205	mg/l		109	mg/l
CO3= as CaCO3.....							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-406	0188-881-469	0188-881-158
Customer ID:	1-74-03-04-88	1-86-03-31-88	10-74-02-26-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	421	mg/l	209	mg/l		1646	mg/l
Chloride.....	21.7	mg/l	41.9	mg/l		314	mg/l
Nitrate-Nitrite as N.....	7.22	mg/l	0.05	mg/l		36.7	mg/l
Sulfate.....	27.5	mg/l	24.5	mg/l		311	mg/l
HCO3- as CaCO3.....	129	mg/l	77.8	mg/l		165	mg/l
CO3= as CaCO3.....							

Client: ROCKWELL (ROCKY FLATS) Page: 4

Sample Information

	RFW Batch ID:	0188-881-100		0188-881-015		0188-881-473	
	Customer ID:	10-81-02-05-88		10-86-02-02-88		11-86-03-29-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		143	mg/l	131	mg/l	577	mg/l
Chloride		3.15	mg/l	3.02	mg/l	37.0	mg/l
Nitrate-Nitrite as N		5.98	mg/l	3.37	mg/l	37.0	mg/l
Sulfate		19.6	mg/l	23.8	mg/l	160	mg/l
HCO3- as CaCO3		46.1	mg/l	40.5	mg/l	135	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-146		0188-881-192		0188-881-022		
	Customer ID:	11-87-02-18-88		12-87-02-26-88		14-86-03-15-88		
	Matrix:	Water		Water		Water		
Inorganics								
Total Dissolved Solids		556	mg/l	617	mg/l	1367		mg/l
Chloride		92.4	mg/l	38.8	mg/l	80.5		mg/l
Nitrate-Nitrite as N		1.60	mg/l	0.71	mg/l	0.02	U	mg/l
Sulfate		60.0	mg/l	46.2	mg/l	480		mg/l
HCO3- as CaCO3		280	mg/l	212	mg/l	206		mg/l
CO3= as CaCO3								

FIRST QUARTER 1988 GROUNDWATER

INORGANIC

DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 5

Sample Information

RFW Batch ID:	0188-881-196	0188-881-023	0188-881-197
Customer ID:	14-87-03-01-88	15-86-03-15-88	15-87-03-01-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	265	mg/l	1022	mg/l	456	mg/l
Chloride.....	28.0	mg/l	76.3	mg/l	58.8	mg/l
Nitrate-Nitrite as N.....	1.59	mg/l	44.0	mg/l	3.88	mg/l
Sulfate.....	43.1	mg/l	125	mg/l	24.6	mg/l
HCO3- as CaCO3.....	36.3	mg/l	241	mg/l	138	mg/l
CO3= as CaCO3.....	35.9	mg/l				

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-024	0188-881-198	0188-881-025
Customer ID:	16-86-03-15-88	16-87-03-01-88	17-86-03-15-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	1462	mg/l	287	mg/l	4392	mg/l
Chloride.....	208	mg/l	7.46	mg/l	130	mg/l
Nitrate-Nitrite as N.....	0.06	mg/l	0.35	mg/l	540	mg/l
Sulfate.....	430	mg/l	93.8	mg/l	240	mg/l
HCO3- as CaCO3.....	210	mg/l	83.1	mg/l	146	mg/l
CO3= as CaCO3.....			5.50	mg/l		

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-405		0188-881-410		0188-881-031	
	Customer ID:	17-87-03-04-88		18-87-03-08-88		19-86-03-17-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		439	mg/l	163	mg/l	1172	mg/l
Chloride		42.5	mg/l	5.85	mg/l	120	mg/l
Nitrate-Nitrite as N		0.97	mg/l	0.02 U	mg/l	0.02 U	mg/l
Sulfate		26.9	mg/l	28.9	mg/l	150	mg/l
HCO3- as CaCO3		166	mg/l	41.4	mg/l	386	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-028		0188-881-470		0188-881-409	
	Customer ID:	2-60-03-17-88		2-86-03-31-88		20-87-03-07-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		2453	mg/l	1425	mg/l	373	mg/l
Chloride		809	mg/l	290	mg/l	11.1	mg/l
Nitrate-Nitrite as N		15.1	mg/l	0.02 U	mg/l	0.05	mg/l
Sulfate		570	mg/l	385	mg/l	261	mg/l
HCO3- as CaCO3		500	mg/l	357	mg/l	31.0	mg/l
CO3= as CaCO3						35.9	mg/l

FIRST QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 7

Sample Information

	RFW Batch ID:	0188-881-036		0188-881-026		0188-881-411		
	Customer ID:	21-86-03-22-88		22-86-03-17-88		22-87-03-08-88		
	Matrix:	Water		Water		Water		
Inorganics								
Total Dissolved Solids		280	mg/l	477	mg/l	465		mg/l
Chloride		2.46	mg/l	43.6	mg/l	8.22		mg/l
Nitrate-Nitrite as N		0.07	mg/l	2.74	mg/l	0.02	U	mg/l
Sulfate		24.0	mg/l	42.0	mg/l	121		mg/l
HCO3- as CaCO3		132	mg/l	170	mg/l	54.0		mg/l
CO3= as CaCO3								

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-037		0188-881-402		0188-881-033		
	Customer ID:	23-86-03-22-88		23-87-03-03-88		25-86-03-22-88		
	Matrix:	Water		Water		Water		
Inorganics								
Total Dissolved Solids		1040	mg/l	431	mg/l	2293		mg/l
Chloride		172	mg/l	62.8	mg/l	43.2		mg/l
Nitrate-Nitrite as N		0.07	mg/l	2.82	mg/l	0.12		mg/l
Sulfate		290	mg/l	17.1	mg/l	1050		mg/l
HCO3- as CaCO3		114	mg/l	146	mg/l	104		mg/l
CO3= as CaCO3								

Client: ROCKWELL (ROCKY FLATS) Page: 8

Sample Information

	RFW Batch ID:	0188-881-407		0188-881-034		0188-881-029	
	Customer ID:	25-87-03-04-88		27-86-03-22-88		28-86-03-17-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		466	mg/l	818	mg/l	12052	mg/l
Chloride		37.3	mg/l	163	mg/l	336	mg/l
Nitrate-Nitrite as N		7.69	mg/l	0.43	mg/l	1670	mg/l
Sulfate		32.5	mg/l	220	mg/l	335	mg/l
HCO3- as CaCO3		152	mg/l	102	mg/l	314	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-226		0188-881-195		0188-881-446	
	Customer ID:	28-87-03-15-88		29-87-03-01-88		3-82-03-29-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		137	mg/l	3219	mg/l	129	mg/l
Chloride		6.27	mg/l	819	mg/l	10.8	mg/l
Nitrate-Nitrite as N		0.09	mg/l	0.74	mg/l	3.91	mg/l
Sulfate		32.0	mg/l	891	mg/l	28.1	mg/l
HCO3- as CaCO3		38.1	mg/l	138	mg/l	13.6	mg/l
CO3= as CaCO3							mg/l

FIRST QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 9

Sample Information

RFW Batch ID:	0188-881-471	0188-881-032	0188-881-199
Customer ID:	3-86-03-31-88	30-86-03-17-88	30-87-03-03-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	486	mg/l		10571	mg/l		376	mg/l
Chloride.....	63.3	mg/l		210	mg/l		114	mg/l
Nitrate-Nitrite as N.....	1.04	mg/l		1410	mg/l		0.02	U mg/l
Sulfate.....	69.0	mg/l		205	mg/l		16.1	mg/l
HCO3- as CaCO3.....	24.5	mg/l		180	mg/l		84.0	mg/l
CO3= as CaCO3.....								

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-221	0188-881-035	0188-881-216
Customer ID:	31-87-03-11-88	32-86-03-22-88	32-87-03-10-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	293	mg/l		501	mg/l		564	mg/l
Chloride.....	9.45	mg/l		121	mg/l		32.5	mg/l
Nitrate-Nitrite as N.....	0.07	mg/l		0.04	mg/l		14.4	mg/l
Sulfate.....	176	mg/l		65.0	mg/l		103	mg/l
HCO3- as CaCO3.....	35.3	mg/l		104	mg/l		140	mg/l
CO3= as CaCO3.....	6.86	mg/l						

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-403		0188-881-217		0188-881-404	
	Customer ID:	34-86-03-03-88		34-87-03-10-88		35-86-03-03-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		1700	mg/l	288	mg/l	1011	mg/l
Chloride		59.6	mg/l	5.37	mg/l	97.0	mg/l
Nitrate-Nitrite as N		0.02 U	mg/l	0.17	mg/l	0.02 U	mg/l
Sulfate		763	mg/l	114	mg/l	134	mg/l
HCO3- as CaCO3		111	mg/l	61.4	mg/l	349	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-218		0188-881-467		0188-881-219	
	Customer ID:	36-87-03-10-88		38-86-03-31-88		39-86-03-10-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		395	mg/l	1715	mg/l	429	mg/l
Chloride		29.6	mg/l	138	mg/l	33.5	mg/l
Nitrate-Nitrite as N		4.78	mg/l	0.02 U	mg/l	7.11	mg/l
Sulfate		34.4	mg/l	540	mg/l	42.4	mg/l
HCO3- as CaCO3		133	mg/l	292	mg/l	134	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS) Page: 23

Sample Information

RFW Batch ID:	0188-881-246	0188-881-245	0188-881-244
Customer ID:	WSF0201	WSF0202	WSF0204
Matrix:	Soil	Soil	Soil

Inorganics

Total Dissolved Solids.....			
Chloride.....			
Nitrate-Nitrite as N.....	20 U mg/kg	20 U mg/kg	30 mg/kg
Sulfate.....			
HCO3- as CaCO3.....			
CO3= as CaCO3.....			

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-249	0188-881-248	0188-881-247
Customer ID:	WSF0301	WSF0302	WSF0305
Matrix:	Soil	Soil	Soil

Inorganics

Total Dissolved Solids.....			
Chloride.....			
Nitrate-Nitrite as N.....	20 U mg/kg	20 U mg/kg	20 U mg/kg
Sulfate.....			
HCO3- as CaCO3.....			
CO3= as CaCO3.....			

Client: ROCKWELL (ROCKY FLATS) Page: 11

Sample Information

	RFW Batch ID:	0188-881-220		0188-881-027		0188-881-030	
	Customer ID:	39-86-03-10-88D		39-87-03-17-88		4-60-03-17-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		427	mg/l	296	mg/l	615	mg/l
Chloride		33.5	mg/l	6.98	mg/l	12.4	mg/l
Nitrate-Nitrite as N		7.25	mg/l	0.10	mg/l	37.1	mg/l
Sulfate		42.8	mg/l	134	mg/l	42.0	mg/l
HCO3- as CaCO3		136	mg/l	46.3	mg/l	149	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-222		0188-881-223		0188-881-016		
	Customer ID:	40-86-03-11-88		41-86-03-11-88		41-87-02-03-88		
	Matrix:	Water		Water		Water		
Inorganics								
Total Dissolved Solids		598	mg/l	460	mg/l	1880		mg/l
Chloride		7.56	mg/l	32.1	mg/l	928		mg/l
Nitrate-Nitrite as N		3.77	mg/l	13.6	mg/l	0.02	U	mg/l
Sulfate		131	mg/l	78.5	mg/l	44.3		mg/l
HCO3- as CaCO3		180	mg/l	126	mg/l	114		mg/l
CO3= as CaCO3								

Client: ROCKWELL (ROCKY FLATS) Page: 12

Sample Information

	RFW Batch ID:	0188-881-408		0188-881-017		0188-881-155	
	Customer ID:	42-86-03-04-88		42-87-02-03-88		43-87-02-23-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		465	mg/l	355	mg/l	1770	mg/l
Chloride		37.0	mg/l	13.9	mg/l	259	mg/l
Nitrate-Nitrite as N		4.76	mg/l	0.02 U	mg/l	3.00	mg/l
Sulfate		26.6	mg/l	74.2	mg/l	243	mg/l
HCO3- as CaCO3		183	mg/l	259	mg/l	139	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-445		0188-881-442		0188-881-152	
	Customer ID:	44-86-03-29-88		45-86-03-25-88		45-87-02-26-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		623	mg/l	81	mg/l	342	mg/l
Chloride		101	mg/l	14.0	mg/l	8.33	mg/l
Nitrate-Nitrite as N		22.0	mg/l	1.09	mg/l	0.02 U	mg/l
Sulfate		37.6	mg/l	10.9	mg/l	55.0	mg/l
HCO3- as CaCO3		97.0	mg/l	39.7	mg/l	114	mg/l
CO3= as CaCO3			mg/l		mg/l		

FIRST QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 13

Sample Information

RFW Batch ID:	0188-881-112	0188-881-108	0188-881-443
Customer ID:	46-86-02-13-88	47-86-02-09-88	48-86-03-25-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	245	mg/l	119	mg/l	156	mg/l
Chloride.....	2.80	mg/l	5.90	mg/l	10.7	mg/l
Nitrate-Nitrite as N.....	0.07	mg/l	1.05	mg/l	0.04	mg/l
Sulfate.....	17.0	mg/l	11.7	mg/l	8.50	mg/l
HCO3- as CaCO3.....	237	mg/l	87.3	mg/l	103	mg/l
CO3= as CaCO3.....						mg/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-139	0188-881-447	0188-881-440
Customer ID:	48-87-02-16-88	49-86-03-29-88	5-82-03-24-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	2081	mg/l	212	mg/l	251	mg/l
Chloride.....	838	mg/l	21.1	mg/l	16.4	mg/l
Nitrate-Nitrite as N.....	0.32	mg/l	10.0	mg/l	0.94	mg/l
Sulfate.....	218	mg/l	56.2	mg/l	68.8	mg/l
HCO3- as CaCO3.....	198	mg/l	17.9	mg/l	15.8	mg/l
CO3= as CaCO3.....				mg/l		mg/l

Client: ROCKWELL (ROCKY FLATS) Page: 14

Sample Information

RFW Batch ID:	0188-881-472	0188-881-444	0188-881-105
Customer ID:	5-86-03-29-88	50-86-03-25-88	51-86-02-09-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	7430	mg/l	164	mg/l	163	mg/l
Chloride.....	271	mg/l	9.31	mg/l	8.86	mg/l
Nitrate-Nitrite as N.....	0.04	mg/l	0.79	mg/l	4.91	mg/l
Sulfate.....	4125	mg/l	15.6	mg/l	56.0	mg/l
HCO3- as CaCO3.....	192	mg/l	89.7	mg/l	40.2	mg/l
CO3= as CaCO3.....				mg/l		

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-104	0188-881-131	0188-881-106
Customer ID:	52-86-02-09-88	52-87-02-13-88	54-86-02-09-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	115	mg/l	814	mg/l	467	mg/l
Chloride.....	5.19	mg/l	67.3	mg/l	8.28	mg/l
Nitrate-Nitrite as N.....	0.05	mg/l	0.02 U	mg/l	0.02 U	mg/l
Sulfate.....	43.4	mg/l	186	mg/l	92.0	mg/l
HCO3- as CaCO3.....	33.4	mg/l	502	mg/l	347	mg/l
CO3= as CaCO3.....						

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-107		0188-881-136		0188-881-001	
	Customer ID:	55-86-02-09-88		56-86-02-16-88		58-87-01-23-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		134	mg/l	213	mg/l	233	mg/l
Chloride		19.3	mg/l	49.5	mg/l	13.8	mg/l
Nitrate-Nitrite as N		1.32	mg/l	1.66	mg/l	3.38	mg/l
Sulfate		21.7	mg/l	39.5	mg/l	34.2	mg/l
HCO3- as CaCO3		79.4	mg/l	91.7	mg/l	97.3	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-002		0188-881-441		0188-881-003	
	Customer ID:	59-87-01-23-88		6-82-03-24-88		60-87-01-23-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		406	mg/l	151	mg/l	160	mg/l
Chloride		24.3	mg/l	4.72	mg/l	4.33	mg/l
Nitrate-Nitrite as N		0.02 U	mg/l	0.09	mg/l	2.62	mg/l
Sulfate		31.8	mg/l	32.8	mg/l	57.1	mg/l
HCO3- as CaCO3		306	mg/l	9.80	mg/l	75.7	mg/l
CO3= as CaCO3					mg/l		

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-130	0188-881-006	0188-881-007
	Customer ID:	61-86-02-13-88	61-87-01-27-88	61-87D-01-27-88
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		268 mg/l	153 mg/l	156 mg/l
Chloride		2.27 mg/l	2.87 mg/l	3.08 mg/l
Nitrate-Nitrite as N		0.88 mg/l	2.58 mg/l	2.63 mg/l
Sulfate		25.5 mg/l	59.2 mg/l	31.1 mg/l
HCO3- as CaCO3		220 mg/l	88.0 mg/l	89.1 mg/l
CO3= as CaCO3				

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-145	0188-881-004	0188-881-005
	Customer ID:	62-86-02-18-88	62-87-01-26-88	63-87-01-27-88
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		275 mg/l	154 mg/l	519 mg/l
Chloride		29.7 mg/l	3.89 mg/l	26.3 mg/l
Nitrate-Nitrite as N		1.60 mg/l	2.55 mg/l	0.02 U mg/l
Sulfate		39.0 mg/l	35.0 mg/l	54.5 mg/l
HCO3- as CaCO3		172 mg/l	75.4 mg/l	392 mg/l
CO3= as CaCO3				

Client: ROCKWELL (ROCKY FLATS) Page: 17

Sample Information

	RFW Batch ID:	0188-881-144		0188-881-014		0188-881-194	
	Customer ID:	64-86-02-18-88		64-87-01-29-88		65-86-03-01-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		616	mg/l	255	mg/l	529	mg/l
Chloride		54.1	mg/l	19.9	mg/l	62.0	mg/l
Nitrate-Nitrite as N		0.18	mg/l	0.02	mg/l	0.08	mg/l
Sulfate		168	mg/l	8.4	mg/l	116	mg/l
HCO3- as CaCO3		235	mg/l	179	mg/l	134	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-010		0188-881-468		0188-881-012	
	Customer ID:	65-87-01-28-88		66-86-03-31-88		66-87-01-29-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		491	mg/l	209	mg/l	405	mg/l
Chloride		6.38	mg/l	42.6	mg/l	4.50	mg/l
Nitrate-Nitrite as N		2.00	mg/l	0.09	mg/l	3.22	mg/l
Sulfate		153	mg/l	27.0	mg/l	29.0	mg/l
HCO3- as CaCO3		208	mg/l	73.9	mg/l	127	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-008		0188-881-009		0188-881-129	
	Customer ID:	67-87-01-28-88		68-87-01-28-88		69-86-02-11-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		191	mg/l	226	mg/l	997	mg/l
Chloride		4.32	mg/l	5.03	mg/l	113	mg/l
Nitrate-Nitrite as N		1.81	mg/l	2.12	mg/l	1.66	mg/l
Sulfate		39.8	mg/l	139	mg/l	260	mg/l
HCO3- as CaCO3		101	mg/l	107	mg/l	401	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-138		0188-881-013		0188-881-011	
	Customer ID:	70-86-02-16-88		71-87-01-29-88		72-87-01-28-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		188	mg/l	262	mg/l	395	mg/l
Chloride		30.1	mg/l	2.15	mg/l	8.42	mg/l
Nitrate-Nitrite as N		0.02 U	mg/l	1.02	mg/l	0.33	mg/l
Sulfate		54.3	mg/l	67.0	mg/l	90.4	mg/l
HCO3- as CaCO3		71.3	mg/l	219	mg/l	276	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS) Page: 19

Sample Information

	RFW Batch ID:	0188-881-437		0188-881-438		0188-881-439	
	Customer ID:	8-81-03-24-88		9-81-03-24-88		9-81-03-24-88FD	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		199	mg/l	247	mg/l	242	mg/l
Chloride		4.78	mg/l	47.1	mg/l	47.0	mg/l
Nitrate-Nitrite as N		0.12	mg/l	0.52	mg/l	0.50	mg/l
Sulfate		10.0	mg/l	36.2	mg/l	36.2	mg/l
HCO3- as CaCO3		80.7	mg/l	40.5	mg/l	40.4	mg/l
CO3= as CaCO3			mg/l		mg/l		mg/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-133		0188-881-103		0188-881-148	
	Customer ID:	FB-02-03-88		FB-02-05-88		FB-02-19-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		1.0 U	mg/l	22	mg/l	8	mg/l
Chloride		5.70	mg/l	2.0 U	mg/l	2.0 U	mg/l
Nitrate-Nitrite as N		0.02 U	mg/l	0.02 U	mg/l	0.02 U	mg/l
Sulfate		1.0 U	mg/l	1.0 U	mg/l	1.0 U	mg/l
HCO3- as CaCO3		16.2	mg/l	1.0 U	mg/l	1.70	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS) Page: 20

Sample Information

	RFW Batch ID:	0188-881-154			0188-881-401			0188-881-225		
	Customer ID:	FB-02-26-88			FB-03-02-88			FB-03-11-88		
	Matrix:	Water			Water			Water		
Inorganics										
Total Dissolved Solids		79		mg/l	1		mg/l	1		mg/l
Chloride		20.2		mg/l	2.0	U	mg/l	2.0	U	mg/l
Nitrate-Nitrite as N		0.02	U	mg/l	0.02	U	mg/l	0.02		mg/l
Sulfate		1.0	U	mg/l	1.0	U	mg/l	1.0	U	mg/l
HCO3- as CaCO3		18.4		mg/l	1.0	U	mg/l	1.0	U	mg/l
CO3= as CaCO3										

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-057			0188-881-436			0188-881-466		
	Customer ID:	FB-03-15-88			FB-03-23-88			FB-03-31-88		
	Matrix:	Water			Water			Water		
Inorganics										
Total Dissolved Solids		3		mg/l	6		mg/l	2		mg/l
Chloride		2.0	U	mg/l	2.0	U	mg/l	2.0	U	mg/l
Nitrate-Nitrite as N		0.02	U	mg/l	0.07		mg/l	0.02	U	mg/l
Sulfate		2.0	U	mg/l	1.0	U	mg/l	1.0	U	mg/l
HCO3- as CaCO3		1.0	U	mg/l	1.0	U	mg/l	0.52		mg/l
CO3= as CaCO3							mg/l			

Client: ROCKWELL (ROCKY FLATS) Page: 21

Sample Information

	RFW Batch ID:	0188-881-102		0188-881-132		0188-881-147	
	Customer ID:	TB-02-05-88		TB-02-13-88		TB-02-19-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		40	mg/l	1.0 U	mg/l	60	mg/l
Chloride		2.0 U	mg/l	5.73	mg/l	6.20	mg/l
Nitrate-Nitrite as N		0.02 U	mg/l	0.02 U	mg/l	0.02 U	mg/l
Sulfate		1.0 U	mg/l	1.0 U	mg/l	1.0 U	mg/l
HCO3- as CaCO3		2.01	mg/l	15.5	mg/l	15.7	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-153		0188-881-400		0188-881-224	
	Customer ID:	TB-02-26-88		TB-03-02-88		TB-03-11-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		83	mg/l	0	mg/l	1	mg/l
Chloride		20.1	mg/l	2.0 U	mg/l	2.0 U	mg/l
Nitrate-Nitrite as N		0.02 U	mg/l	0.02 U	mg/l	0.10	mg/l
Sulfate		1.0 U	mg/l	1.0 U	mg/l	1.0 U	mg/l
HCO3- as CaCO3		18.6	mg/l	1.0 U	mg/l	1.0 U	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-056	0188-881-435	0188-881-465
	Customer ID:	TB-03-15-88	TB-03-23-88	TB-03-31-88
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		1 mg/l	2 mg/l	0 mg/l
Chloride		2.0 U mg/l	2.0 U mg/l	2.0 U mg/l
Nitrate-Nitrite as N		0.02 U mg/l	0.12 mg/l	0.02 U mg/l
Sulfate		2.0 U mg/l	1.0 U mg/l	1.0 U mg/l
HCO3- as CaCO3		1.0 U mg/l	1.0 U mg/l	0.38 mg/l
CO3= as CaCO3			mg/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-243	0188-881-242	0188-881-241
	Customer ID:	WSF0101	WSF0102	WSF0104
	Matrix:	Soil	Soil	Soil
Inorganics				
Total Dissolved Solids				
Chloride				
Nitrate-Nitrite as N		20 U mg/kg	20 U mg/kg	30 mg/kg
Sulfate				
HCO3- as CaCO3				
CO3= as CaCO3				

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-246	0188-881-245	0188-881-244
	Customer ID:	WSF0201	WSF0202	WSF0204
	Matrix:	Soil	Soil	Soil
Inorganics				
Total Dissolved Solids				
Chloride				
Nitrate-Nitrite as N		20 U mg/kg	20 U mg/kg	30 mg/kg
Sulfate				
HCO3- as CaCO3				
CO3= as CaCO3				

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-249	0188-881-248	0188-881-247
	Customer ID:	WSF0301	WSF0302	WSF0305
	Matrix:	Soil	Soil	Soil
Inorganics				
Total Dissolved Solids				
Chloride				
Nitrate-Nitrite as N		20 U mg/kg	20 U mg/kg	20 U mg/kg
Sulfate				
HCO3- as CaCO3				
CO3= as CaCO3				

APPENDIX F-3

DISSOLVED METALS

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 1

Sample Information

RFW Batch ID:	0188-881-190	0188-881-071	0188-881-072	0188-881-191
Customer ID:	01-71-02-26-88	02-60-03-17-88LD	02-60-03-17-88S	02-71-02-26-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	% RECOVERY	MG/L

Metals

Aluminum	(Al), dissolved.....	0.0290	U	NR		NR		0.0290 U
Antimony	(Sb), dissolved.....	0.022		0.016	J	NR		0.02 U
Arsenic	(As), dissolved.....	0.005	U	0.003	J	NR		0.005 U
Barium	(Ba), dissolved.....	0.2707		NR		NR		0.1105
Beryllium	(Be), dissolved.....	0.005	U	NR		93	%	0.005 U
Cadmium	(Cd), dissolved.....	0.001	U	NR		NR		0.001 U
Calcium	(Ca), dissolved.....	62.7340		NR		NR		116.9765
Cesium	(Cs), dissolved.....	0.02	U	NR		NR		0.02 U
Chromium	(Cr), dissolved.....	0.0100	U	NR		NR		0.0100 U
Cobalt	(Co), dissolved.....	0.0220	U	NR		NR		0.0220 U
Copper	(Cu), dissolved.....	0.0063	U	NR		NR		0.0063 U
Iron	(Fe), dissolved.....	0.2209		NR		NR		0.0172
Lead	(Pb), dissolved.....	0.005	U	NR		NR		0.005 U
Lithium	(Li), dissolved.....	0.1	U	NR		NR		0.07 J
Magnesium	(Mg), dissolved.....	14.4334		NR		NR		34.9517
Manganese	(Mn), dissolved.....	0.0953		NR		NR		0.1469
Mercury	(Hg), dissolved.....	0.0002	U	NR		NR		0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220	U	NR		NR		0.0220 U
Nickel	(Ni), dissolved.....	0.0370	U	NR		NR		0.0478
Potassium	(K), dissolved.....	1.5		NR		NR		2.7
Selenium	(Se), dissolved.....	0.005	U	0.38		100	%	0.030
Silver	(Ag), dissolved.....	0.0076	U	NR		NR		0.0076 U
Sodium	(Na), dissolved.....	17.8310		NR		NR		213.6941
Strontium	(Sr), dissolved.....	0.4952		NR		NR		1.0162
Thallium	(Tl), dissolved.....	0.01	U	NR		NR		0.01 U
Vanadium	(V), dissolved.....	0.0240	U	NR		NR		0.0240 U
Zinc	(Zn), dissolved.....	0.0268		NR		NR		0.0209

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 2

Sample Information

	RFW Batch ID:	0188-881-202	0188-881-164	0188-881-163	0188-881-215
	Customer ID:	02-71-02-26-88LD	02-87-02-11-88FD-LD	02-87-02-11-88LD	03-74-03-08-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		NR	NR	NR	0.0909
Antimony (Sb), dissolved.....		NR	NR	NR	0.02 U
Arsenic (As), dissolved.....		0.005 U	NR	NR	0.005 U
Barium (Ba), dissolved.....		NR	NR	NR	0.1971
Beryllium (Be), dissolved.....		NR	0.005 U	0.001 J	0.005 U
Cadmium (Cd), dissolved.....		NR	0.001 U	0.001 U	0.001 U
Calcium (Ca), dissolved.....		NR	NR	NR	115.2379
Cesium (Cs), dissolved.....		NR	0.02 U	0.02 U	0.02 U
Chromium (Cr), dissolved.....		NR	NR	NR	0.0100 U
Cobalt (Co), dissolved.....		NR	NR	NR	0.0220 U
Copper (Cu), dissolved.....		NR	NR	NR	0.0242
Iron (Fe), dissolved.....		NR	NR	NR	0.0513
Lead (Pb), dissolved.....		NR	NR	NR	0.005 U
Lithium (Li), dissolved.....		NR	NR	NR	0.1 U
Magnesium (Mg), dissolved.....		NR	NR	NR	10.8145
Manganese (Mn), dissolved.....		NR	NR	NR	0.0051 U
Mercury (Hg), dissolved.....		NR	NR	NR	0.0002 U
Molybdenum(Mo), dissolved.....		NR	NR	NR	0.0220 U
Nickel (Ni), dissolved.....		NR	NR	NR	0.0370 U
Potassium (K), dissolved.....		NR	NR	NR	0.9
Selenium (Se), dissolved.....		0.033	NR	NR	0.005 U
Silver (Ag), dissolved.....		NR	NR	NR	0.0076 U
Sodium (Na), dissolved.....		NR	NR	NR	22.4269
Strontium (Sr), dissolved.....		NR	NR	NR	0.3905
Thallium (Tl), dissolved.....		NR	0.01 U	0.01 U	0.01 U
Vanadium (V), dissolved.....		NR	NR	NR	0.0240 U
Zinc (Zn), dissolved.....		NR	NR	NR	0.0233

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-227	0188-881-230	0188-881-231	0188-881-149
Customer ID:	03-74-03-08-88-D	03-74-03-08-88-LD	03-74-03-08-88-S	03-87-02-23-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	% RECOVERY	MG/L

Metals

Aluminum	(Al), dissolved.....	0.0290	U	NR		NR		0.0394	
Antimony	(Sb), dissolved.....	NR		0.02	U	NR		0.02	U
Arsenic	(As), dissolved.....	NR		NR		NR		0.003	J
Barium	(Ba), dissolved.....	0.1898		NR		NR		0.0844	
Beryllium	(Be), dissolved.....	NR		0.005	U	82	%	0.005	U
Cadmium	(Cd), dissolved.....	NR		0.001	U	99	%	0.001	U
Calcium	(Ca), dissolved.....	110.3671		NR		NR		21.3898	
Cesium	(Cs), dissolved.....	NR		0.02	U	77	%	0.02	U
Chromium	(Cr), dissolved.....	0.0100	U	NR		NR		0.0100	U
Cobalt	(Co), dissolved.....	0.0220	U	NR		NR		0.0220	U
Copper	(Cu), dissolved.....	0.0063	U	NR		NR		0.0063	U
Iron	(Fe), dissolved.....	0.0104		NR		NR		0.0069	U
Lead	(Pb), dissolved.....	NR		0.005	U	109	%	0.005	U
Lithium	(Li), dissolved.....	NR		0.1	U	100	%	0.1	U
Magnesium	(Mg), dissolved.....	10.1601		NR		NR		6.5787	
Manganese	(Mn), dissolved.....	0.0051	U	NR		NR		0.0280	
Mercury	(Hg), dissolved.....	NR		NR		NR		0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	NR		NR		0.0220	U
Nickel	(Ni), dissolved.....	0.0370	U	NR		NR		0.0370	U
Potassium	(K), dissolved.....	NR		0.8		98	%	6.8	
Selenium	(Se), dissolved.....	NR		NR		NR		0.005	U
Silver	(Ag), dissolved.....	0.0076	U	NR		NR		0.0076	U
Sodium	(Na), dissolved.....	21.4827		NR		NR		118.5728	
Strontium	(Sr), dissolved.....	0.3736		NR		NR		0.3721	
Thallium	(Tl), dissolved.....	NR		0.01	U	107	%	0.01	U
Vanadium	(V), dissolved.....	0.0240	U	NR		NR		0.0240	U
Zinc	(Zn), dissolved.....	0.0208		NR		NR		0.0200	U

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: | Client: ROCKWELL (ROCKY FLATS) |

Sample Information

RFW Batch ID:	0188-881-179	0188-881-180	0188-881-140	0188-881-174
Customer ID:	03-87-02-23-88LD	03-87-02-23-88S	04-87-02-15-88	04-87-02-16-88L
Matrix:	Water	Water	Water	Water
Units:	MG/L	% RECOVERY	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		NR		0.0290	U	NR
Antimony	(Sb), dissolved.....	NR		NR		0.02	U	NR
Arsenic	(As), dissolved.....	0.003	J	NR		0.003	J	NR
Barium	(Ba), dissolved.....	NR		NR		0.0579		NR
Beryllium	(Be), dissolved.....	0.005	U	118	%	0.005	U	0.005 U
Cadmium	(Cd), dissolved.....	0.001	U	108	%	0.001		0.001 U
Calcium	(Ca), dissolved.....	NR		NR		229.9842		NR
Cesium	(Cs), dissolved.....	0.02	U	136	%	0.02	U	0.02 U
Chromium	(Cr), dissolved.....	NR		NR		0.0114		NR
Cobalt	(Co), dissolved.....	NR		NR		0.0220	U	NR
Copper	(Cu), dissolved.....	NR		NR		0.0069		NR
Iron	(Fe), dissolved.....	NR		NR		0.0069	U	NR
Lead	(Pb), dissolved.....	NR		121	%	0.005	U	0.005 U
Lithium	(Li), dissolved.....	NR		NR		0.1	U	0.1 U
Magnesium	(Mg), dissolved.....	NR		NR		52.0792		NR
Manganese	(Mn), dissolved.....	NR		NR		0.3658		NR
Mercury	(Hg), dissolved.....	0.0002	U	NR		0.0002	U	0.0002 U
Molybdenum	(Mo), dissolved.....	NR		NR		0.0220	U	NR
Nickel	(Ni), dissolved.....	NR		NR		0.2025		NR
Potassium	(K), dissolved.....	NR		NR		0.8		NR
Selenium	(Se), dissolved.....	0.005	U	NR		0.22		NR
Silver	(Ag), dissolved.....	NR		NR		0.0076	U	NR
Sodium	(Na), dissolved.....	NR		NR		265.3521		NR
Strontium	(Sr), dissolved.....	NR		NR		1.6772		NR
Thallium	(Tl), dissolved.....	0.01	U	77	%	0.01	U	0.01 U
Vanadium	(V), dissolved.....	NR		NR		0.0240	U	NR
Zinc	(Zn), dissolved.....	NR		NR		0.0359		NR

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-151	0188-881-182	0188-881-143	0188-881-177
Customer ID:	05-87-02-23-88	05-87-02-23-88LD	06-87-02-18-88	06-87-02-18-88L
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	0.0357		NR		0.0304		NR	
Antimony	(Sb), dissolved.....	0.02	U	NR		0.02	U	NR	
Arsenic	(As), dissolved.....	0.005	U	0.005	U	0.005	U	NR	
Barium	(Ba), dissolved.....	0.0282		NR		0.1047		NR	
Beryllium	(Be), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Cadmium	(Cd), dissolved.....	0.002		0.002		0.001	U	0.001	U
Calcium	(Ca), dissolved.....	133.7485		NR		156.2052		NR	
Cesium	(Cs), dissolved.....	0.02	U	0.02	U	0.02	U	0.02	U
Chromium	(Cr), dissolved.....	0.0128		NR		0.0100	U	NR	
Cobalt	(Co), dissolved.....	0.0220	U	NR		0.0220	U	NR	
Copper	(Cu), dissolved.....	0.0063	U	NR		0.0081		NR	
Iron	(Fe), dissolved.....	0.0069	U	NR		0.0069	U	NR	
Lead	(Pb), dissolved.....	0.005	U	0.005	U	0.005	U	0.003	J
Lithium	(Li), dissolved.....	0.25		NR		0.06	J	NR	
Magnesium	(Mg), dissolved.....	10.9588		NR		48.0232		NR	
Manganese	(Mn), dissolved.....	0.0051	U	NR		0.2698		NR	
Mercury	(Hg), dissolved.....	0.0002	U	NR		0.0002	U	NR	
Molybdenum	(Mo), dissolved.....	0.0220	U	NR		0.0220	U	NR	
Nickel	(Ni), dissolved.....	0.0370	U	NR		0.2847		NR	
Potassium	(K), dissolved.....	5.5		NR		2.5		NR	
Selenium	(Se), dissolved.....	0.23		0.24		0.015		NR	
Silver	(Ag), dissolved.....	0.0076	U	NR		0.0076	U	NR	
Sodium	(Na), dissolved.....	83.9007		NR		218.7943		NR	
Strontium	(Sr), dissolved.....	1.6856		NR		1.5303		NR	
Thallium	(Tl), dissolved.....	0.01	U	0.01	U	0.01	U	0.01	U
Vanadium	(V), dissolved.....	0.0240	U	NR		0.0240	U	NR	
Zinc	(Zn), dissolved.....	0.0223		NR		0.0200		NR	

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 6

Sample Information

	RFW Batch ID:	0188-881-019	0188-881-150	0188-881-181	0188-881-156
	Customer ID:	08-86-02-04-88	08-87-02-23-88	08-87-02-23-88S	09-74-02-26-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	% RECOVERY	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0416	0.0463	NR	0.0290 U
Antimony	(Sb), dissolved.....	0.02 U	0.02 U	NR	0.02 U
Arsenic	(As), dissolved.....	0.005 U	0.005 U	108 %	0.005
Barium	(Ba), dissolved.....	0.0164	0.0343	NR	0.0707
Beryllium	(Be), dissolved.....	0.005 U	0.005 U	NR	0.005 U
Cadmium	(Cd), dissolved.....	0.001 U	0.001 U	NR	0.001 U
Calcium	(Ca), dissolved.....	16.0180	61.5562	NR	168.2300
Cesium	(Cs), dissolved.....	0.02 U	0.02 U	NR	0.02 U
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	NR	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	NR	0.0220 U
Copper	(Cu), dissolved.....	0.0092	0.0063 U	NR	0.0063 U
Iron	(Fe), dissolved.....	0.0320	0.0069 U	NR	0.0069 U
Lead	(Pb), dissolved.....	0.005 U	0.005 U	NR	0.005 U
Lithium	(Li), dissolved.....	0.06 J	0.13	NR	0.44
Magnesium	(Mg), dissolved.....	1.4480	35.7328	NR	33.0280
Manganese	(Mn), dissolved.....	0.0051 U	0.0711	NR	0.0051 U
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	NR	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0410	0.0220 U	NR	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	0.0429	NR	0.0370 U
Potassium	(K), dissolved.....	4.9	9.6	NR	1.1
Selenium	(Se), dissolved.....	0.005 U	0.005 U	102 %	0.65
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	NR	0.0076 U
Sodium	(Na), dissolved.....	71.9646	224.7841	NR	169.7297
Strontium	(Sr), dissolved.....	0.1896	1.7680	NR	1.2577
Thallium	(Tl), dissolved.....	0.01 U	0.01 U	NR	0.01 U
Vanadium	(V), dissolved.....	0.0240 U	0.0240 U	NR	0.0240 U
Zinc	(Zn), dissolved.....	0.0200 U	0.0206	NR	0.0200 U

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-157	0188-881-184	0188-881-183	0188-881-018
	Customer ID:	09-74-02-26-88FD	09-74-02-26-88LD	09-74-02-26-88S	09-86-02-04-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	% RECOVERY	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0292	NR	NR	0.0290 U
Antimony	(Sb), dissolved.....	0.02 U	NR	NR	0.02 U
Arsenic	(As), dissolved.....	0.005	NR	89 %	0.005 U
Barium	(Ba), dissolved.....	0.0692	NR	NR	0.1067
Beryllium	(Be), dissolved.....	0.001	0.005 U	NR	0.005 U
Cadmium	(Cd), dissolved.....	0.001 U	0.001 U	NR	0.001 U
Calcium	(Ca), dissolved.....	164.2334	NR	NR	21.8304
Cesium	(Cs), dissolved.....	0.02 U	0.02 U	NR	0.02 U
Chromium	(Cr), dissolved.....	0.0100 U	NR	NR	0.0137
Cobalt	(Co), dissolved.....	0.0220 U	NR	NR	0.0220 U
Copper	(Cu), dissolved.....	0.0063 U	NR	NR	0.0063 U
Iron	(Fe), dissolved.....	0.0069 U	NR	NR	0.0825
Lead	(Pb), dissolved.....	0.005 U	NR	NR	0.005 U
Lithium	(Li), dissolved.....	0.46	NR	NR	0.1 U
Magnesium	(Mg), dissolved.....	33.9280	NR	NR	5.4654
Manganese	(Mn), dissolved.....	0.0051 U	NR	NR	0.0236
Mercury	(Hg), dissolved.....	0.0002 U	NR	95 %	0.0002
Molybdenum	(Mo), dissolved.....	0.0220 U	NR	NR	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	NR	NR	0.0370 U
Potassium	(K), dissolved.....	1.2	NR	NR	3.5
Selenium	(Se), dissolved.....	0.60	0.72	NR	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	NR	NR	0.0076 U
Sodium	(Na), dissolved.....	161.9326	NR	NR	57.6813
Strontium	(Sr), dissolved.....	1.2659	NR	NR	0.2572
Thallium	(Tl), dissolved.....	0.01 U	0.01 U	NR	0.01 U
Vanadium	(V), dissolved.....	0.0245	NR	NR	0.0240 U
Zinc	(Zn), dissolved.....	0.0286	NR	NR	0.0423

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-193	0188-881-211	0188-881-204	0188-881-205
	Customer ID:	09-87-02-26-88	09-87-02-26-88D	09-87-02-26-88LD	09-87-02-26-88S
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	% RECOVERY
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	0.0290 U	NR	NR
Antimony	(Sb), dissolved.....	0.02 U	NR	0.02 U	NR
Arsenic	(As), dissolved.....	0.005 U	NR	NR	NR
Barium	(Ba), dissolved.....	0.0830	0.0846	NR	NR
Beryllium	(Be), dissolved.....	0.005 U	NR	0.005 U	80 %
Cadmium	(Cd), dissolved.....	0.001 U	NR	0.001 U	88 %
Calcium	(Ca), dissolved.....	71.9505	72.7432	NR	NR
Cesium	(Cs), dissolved.....	0.02 U	NR	0.02 U	97 %
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	NR	NR
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	NR	NR
Copper	(Cu), dissolved.....	0.0063 U	0.0063 U	NR	NR
Iron	(Fe), dissolved.....	0.0069 U	0.0069 U	NR	NR
Lead	(Pb), dissolved.....	0.005 U	NR	0.005 U	82 %
Lithium	(Li), dissolved.....	0.1 U	NR	0.1 U	90 %
Magnesium	(Mg), dissolved.....	6.7475	7.3920	NR	NR
Manganese	(Mn), dissolved.....	0.0051 U	0.0051 U	NR	NR
Mercury	(Hg), dissolved.....	0.0002 U	NR	0.0002 U	92 %
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	NR	NR
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	NR	NR
Potassium	(K), dissolved.....	0.7	NR	0.7	99 %
Selenium	(Se), dissolved.....	0.002 J	NR	NR	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	NR	NR
Sodium	(Na), dissolved.....	6.9667	8.4168	NR	NR
Strontium	(Sr), dissolved.....	0.2675	0.2862	NR	NR
Thallium	(Tl), dissolved.....	0.01 U	NR	0.01 U	92 %
Vanadium	(V), dissolved.....	0.0240 U	0.0240 U	NR	NR
Zinc	(Zn), dissolved.....	0.0200 U	0.0200 U	NR	NR

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 9

Sample Information

	RFW Batch ID:	0188-881-406		0188-881-469		0188-881-481		0188-881-158	
	Customer ID:	1-74-03-04-88		1-86-03-31-88		1-86-03-31-88-S		10-74-02-26-88	
	Matrix:	Water		Water		Water		Water	
	Units:	MG/L		MG/L		%		MG/L	
Metals									
Aluminum	(Al), dissolved.....	0.0290	U	0.0296		NR		0.0290	U
Antimony	(Sb), dissolved.....	0.02	U	0.0340	U	NR		0.02	U
Arsenic	(As), dissolved.....	0.005	U	0.005	U	NR		0.005	U
Barium	(Ba), dissolved.....	0.1743		0.0467		NR		0.0451	
Beryllium	(Be), dissolved.....	0.005	U	0.0010	U	NR		0.005	U
Cadmium	(Cd), dissolved.....	0.001	U	0.0050	U	NR		0.001	U
Calcium	(Ca), dissolved.....	93.5185		28.6025		NR		221.8247	
Cesium	(Cs), dissolved.....	0.020	U	0.020	U	NR		0.02	U
Chromium	(Cr), dissolved.....	0.0100	U	0.0100	U	NR		0.0118	
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	NR		0.0220	U
Copper	(Cu), dissolved.....	0.0063	U	0.0076		NR		0.0063	U
Iron	(Fe), dissolved.....	0.0148		0.0471		NR		0.0069	U
Lead	(Pb), dissolved.....	0.005	U	0.005	U	NR		0.005	U
Lithium	(Li), dissolved.....	0.1	U	0.1	U	NR		0.1	U
Magnesium	(Mg), dissolved.....	12.7267		8.2955		NR		55.9821	
Manganese	(Mn), dissolved.....	0.0059		0.0091		NR		0.0051	U
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	85	%	0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	NR		0.0220	U
Nickel	(Ni), dissolved.....	0.0370	U	0.0370	U	NR		0.0370	U
Potassium	(K), dissolved.....	0.6		0.7		NR		0.8	
Selenium	(Se), dissolved.....	0.005	U	0.005	U	NR		1.94	
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	NR		0.0076	U
Sodium	(Na), dissolved.....	8.1078		31.5436		NR		178.2349	
Strontium	(Sr), dissolved.....	0.4881		0.2206		NR		1.7584	
Thallium	(Tl), dissolved.....	0.010	U	0.010	U	NR		0.01	U
Vanadium	(V), dissolved.....	0.0240	U	0.0360	U	NR		0.0240	U
Zinc	(Zn), dissolved.....	0.0824		0.0403		NR		0.0851	

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 10

Sample Information

RFW Batch ID:	0188-881-185	0188-881-186	0188-881-100	0188-881-113
Customer ID:	10-74-02-26-88LD	10-74-02-26-88S	10-81-02-05-88	10-81-02-05-88L
Matrix:	Water	Water	Water	Water
Units:	MG/L	% RECOVERY	MG/L	MG/L

Metals

Aluminum (Al), dissolved.....	NR	NR	0.0476	NR
Antimony (Sb), dissolved.....	NR	NR	0.02 U	NR
Arsenic (As), dissolved.....	0.002 J	NR	0.005 U	NR
Barium (Ba), dissolved.....	NR	NR	0.0866	NR
Beryllium (Be), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Cadmium (Cd), dissolved.....	NR	NR	0.001 U	0.001 U
Calcium (Ca), dissolved.....	NR	NR	16.2702	NR
Cesium (Cs), dissolved.....	0.02 U	NR	0.02 U	0.02 U
Chromium (Cr), dissolved.....	NR	NR	0.0100 U	NR
Cobalt (Co), dissolved.....	NR	NR	0.0220 U	NR
Copper (Cu), dissolved.....	NR	NR	0.0063 U	NR
Iron (Fe), dissolved.....	NR	NR	0.0348	NR
Lead (Pb), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Lithium (Li), dissolved.....	NR	NR	0.1 U	NR
Magnesium (Mg), dissolved.....	NR	NR	3.3184	NR
Manganese (Mn), dissolved.....	NR	NR	0.0051	NR
Mercury (Hg), dissolved.....	0.0002 U	87 %	0.0002 U	NR
Molybdenum(Mo), dissolved.....	NR	NR	0.0220 U	NR
Nickel (Ni), dissolved.....	NR	NR	0.0370 U	NR
Potassium (K), dissolved.....	NR	NR	0.5	NR
Selenium (Se), dissolved.....	2.27	NR	0.005 U	NR
Silver (Ag), dissolved.....	NR	NR	0.0076 U	NR
Sodium (Na), dissolved.....	NR	NR	13.0288	NR
Strontium (Sr), dissolved.....	NR	NR	0.0938	NR
Thallium (Tl), dissolved.....	0.01 U	NR	0.01 U	0.01 U
Vanadium (V), dissolved.....	NR	NR	0.0240 U	NR
Zinc (Zn), dissolved.....	NR	NR	0.0303	NR

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 11

Sample Information

	RFW Batch ID:	0188-881-114	0188-881-015	0188-881-051	0188-881-473
	Customer ID:	10-81-02-05-88S	10-86-02-02-88	10-86-02-02-88-S	11-86-03-29-88
	Matrix:	Water	Water	Water	Water
	Units:	% RECOVERY	MG/L	% RECOVERY	MG/L
Metals					
Aluminum	(Al), dissolved.....	NR	0.0290 U	NR	0.0353
Antimony	(Sb), dissolved.....	NR	0.02 U	NR	0.02 U
Arsenic	(As), dissolved.....	NR	0.005 U	NR	0.005 U
Barium	(Ba), dissolved.....	NR	0.0722	NR	0.0929
Beryllium	(Be), dissolved.....	93 %	0.005 U	NR	0.005 U
Cadmium	(Cd), dissolved.....	108 %	0.001 U	NR	0.001 U
Calcium	(Ca), dissolved.....	NR	17.0370	NR	90.9487
Cesium	(Cs), dissolved.....	111 %	0.02 U	NR	0.020 U
Chromium	(Cr), dissolved.....	NR	0.0214	NR	0.0100 U
Cobalt	(Co), dissolved.....	NR	0.0220 U	NR	0.0220 U
Copper	(Cu), dissolved.....	NR	0.0070	NR	0.0063 U
Iron	(Fe), dissolved.....	NR	0.0868	NR	0.0493
Lead	(Pb), dissolved.....	NR	0.005 U	NR	0.005 U
Lithium	(Li), dissolved.....	NR	0.1 U	NR	0.1 U
Magnesium	(Mg), dissolved.....	NR	3.2011	NR	27.6395
Manganese	(Mn), dissolved.....	130 %	0.0835	NR	0.0051 U
Mercury	(Hg), dissolved.....	NR	0.0002 U	121 %	0.0002 U
Molybdenum	(Mo), dissolved.....	NR	0.0220 U	NR	0.0220 U
Nickel	(Ni), dissolved.....	NR	0.0693	NR	0.0526
Potassium	(K), dissolved.....	NR	0.6	NR	1.6
Selenium	(Se), dissolved.....	NR	0.005 U	NR	0.007
Silver	(Ag), dissolved.....	NR	0.0076 U	NR	0.0076 U
Sodium	(Na), dissolved.....	NR	9.9138	NR	50.7740
Strontium	(Sr), dissolved.....	NR	0.0971	NR	0.6966
Thallium	(Tl), dissolved.....	110 %	0.01 U	NR	0.010 U
Vanadium	(V), dissolved.....	NR	0.0292	NR	0.0240 U
Zinc	(Zn), dissolved.....	NR	0.0884	NR	0.0383

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 12

Sample Information

	RFW Batch ID:	0188-881-478	0188-881-146	0188-881-192	0188-881-203
	Customer ID:	11-86-03-29-88-LD	11-87-02-18-88	12-87-02-26-88	12-87-02-26-881
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		NR	0.0290 U	0.0290 U	NR
Antimony (Sb), dissolved.....		NR	0.02 U	0.02 U	NR
Arsenic (As), dissolved.....		0.005 U	0.005 U	0.005 U	NR
Barium (Ba), dissolved.....		NR	0.1049	0.0434	NR
Beryllium (Be), dissolved.....		NR	0.005 U	0.005 U	0.005 U
Cadmium (Cd), dissolved.....		NR	0.001 U	0.001 U	0.001 U
Calcium (Ca), dissolved.....		NR	98.4283	31.0631	NR
Cesium (Cs), dissolved.....		0.02 U	0.02 U	0.02 U	0.02 U
Chromium (Cr), dissolved.....		NR	0.0100 U	0.0100 U	NR
Cobalt (Co), dissolved.....		NR	0.0220 U	0.0220 U	NR
Copper (Cu), dissolved.....		NR	0.0063 U	0.0088	NR
Iron (Fe), dissolved.....		NR	0.0224	0.0169	NR
Lead (Pb), dissolved.....		NR	0.005 U	0.005 U	0.005 U
Lithium (Li), dissolved.....		NR	0.06 J	0.11	NR
Magnesium (Mg), dissolved.....		NR	28.3999	7.1516	NR
Manganese (Mn), dissolved.....		NR	0.3933	0.0447	NR
Mercury (Hg), dissolved.....		NR	0.0002 U	0.0002 U	NR
Molybdenum(Mo), dissolved.....		NR	0.0220 U	0.0220 U	NR
Nickel (Ni), dissolved.....		NR	0.2561	0.1154	NR
Potassium (K), dissolved.....		NR	4.5	1.3	NR
Selenium (Se), dissolved.....		0.010	0.010	0.002 J	NR
Silver (Ag), dissolved.....		NR	0.0076 U	0.0076 U	NR
Sodium (Na), dissolved.....		NR	42.4341	172.5999	NR
Strontium (Sr), dissolved.....		NR	0.9228	0.2467	NR
Thallium (Tl), dissolved.....		NR	0.01 U	0.01 U	0.01 U
Vanadium (V), dissolved.....		NR	0.0240 U	0.0240 U	NR
Zinc (Zn), dissolved.....		NR	0.0200 U	0.0200 U	NR

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-022	0188-881-063	0188-881-196	0188-881-206
	Customer ID:	14-86-03-15-88	14-86-03-15-88-S	14-87-03-01-88	14-87-03-01-88S
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	% RECOVERY	MG/L	% RECOVERY
Metals					
Aluminum (Al), dissolved.....		0.0600	NR	0.1598	NR
Antimony (Sb), dissolved.....		0.02 U	NR	0.02 U	NR
Arsenic (As), dissolved.....		0.005 U	99 %	0.005 U	95 %
Barium (Ba), dissolved.....		0.0432	NR	0.0297	NR
Beryllium (Be), dissolved.....		0.005 U	104 %	0.005 U	NR
Cadmium (Cd), dissolved.....		0.001 U	120 %	0.001 U	NR
Calcium (Ca), dissolved.....		154.9583	NR	7.5573	NR
Cesium (Cs), dissolved.....		0.02 U	128 %	0.02 U	NR
Chromium (Cr), dissolved.....		0.0204	NR	0.0207	NR
Cobalt (Co), dissolved.....		0.0220 U	NR	0.0220 U	NR
Copper (Cu), dissolved.....		0.0113	NR	0.0118	NR
Iron (Fe), dissolved.....		0.1385	NR	0.0366	NR
Lead (Pb), dissolved.....		0.005 U	NR	0.005 U	NR
Lithium (Li), dissolved.....		0.09 J	NR	0.06 J	NR
Magnesium (Mg), dissolved.....		47.3450	NR	1.3191	NR
Manganese (Mn), dissolved.....		0.1393	NR	0.0051 U	NR
Mercury (Hg), dissolved.....		0.0002 U	NR	0.0002 U	NR
Molybdenum(Mo), dissolved.....		0.220 U	NR	0.0220 U	NR
Nickel (Ni), dissolved.....		0.0370 U	NR	0.0370 U	NR
Potassium (K), dissolved.....		5.3	NR	8.0	NR
Selenium (Se), dissolved.....		0.005 U	95 %	0.012	91 %
Silver (Ag), dissolved.....		0.0076 U	NR	0.0076 U	NR
Sodium (Na), dissolved.....		266.6864	NR	77.9638	NR
Strontium (Sr), dissolved.....		2.4226	NR	0.3449	NR
Thallium (Tl), dissolved.....		0.01 U	54 %	0.01 U	NR
Vanadium (V), dissolved.....		0.0240 U	NR	0.0686	NR
Zinc (Zn), dissolved.....		0.0321	NR	0.0295	NR

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Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-023	0188-881-064	0188-881-197	0188-881-207
Customer ID:	15-86-03-15-88	15-86-03-15-88-LD	15-87-03-01-88	15-87-03-01-88L
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	0.0742		NR		0.0449		NR	
Antimony	(Sb), dissolved.....	0.016	J	NR		0.019		NR	
Arsenic	(As), dissolved.....	0.005	U	0.005	U	0.005	U	NR	
Barium	(Ba), dissolved.....	0.4361		NR		0.1807		NR	
Beryllium	(Be), dissolved.....	0.005	U	0.005	U	0.003	J	0.005	U
Cadmium	(Cd), dissolved.....	0.001		0.001		0.001	U	0.002	
Calcium	(Ca), dissolved.....	301.1328		NR		117.2322		NR	
Cesium	(Cs), dissolved.....	0.02	U	0.02	U	0.02	U	0.02	U
Chromium	(Cr), dissolved.....	0.0218		NR		0.0380		NR	
Cobalt	(Co), dissolved.....	0.0220	U	NR		0.0220	U	NR	
Copper	(Cu), dissolved.....	0.0121		NR		0.0063	U	NR	
Iron	(Fe), dissolved.....	0.3684		NR		0.0285		NR	
Lead	(Pb), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Lithium	(Li), dissolved.....	0.1	U	0.1	U	0.1	U	NR	
Magnesium	(Mg), dissolved.....	72.3529		NR		11.1265		NR	
Manganese	(Mn), dissolved.....	0.0119		NR		0.0394		NR	
Mercury	(Hg), dissolved.....	0.0002	U	NR		0.0002	U	NR	
Molybdenum	(Mo), dissolved.....	0.0220	U	NR		0.0220	U	NR	
Nickel	(Ni), dissolved.....	0.0458		NR		0.0370	U	NR	
Potassium	(K), dissolved.....	2.1		NR		0.8		NR	
Selenium	(Se), dissolved.....	0.039		0.040		0.005	U	NR	
Silver	(Ag), dissolved.....	0.0076	U	NR		0.0424		NR	
Sodium	(Na), dissolved.....	187.2783		NR		11.9562		NR	
Strontium	(Sr), dissolved.....	2.3490		NR		0.4859		NR	
Thallium	(Tl), dissolved.....	0.01	U	0.01	U	0.01	U	0.01	U
Vanadium	(V), dissolved.....	0.0240	U	NR		0.0240	U	NR	
Zinc	(Zn), dissolved.....	0.1261		NR		0.0361		NR	

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: | Client: ROCKWELL (ROCKY FLATS) |

Sample Information

RFW Batch ID:	0188-881-208	0188-881-024	0188-881-065	0188-881-198
Customer ID:	15-87-03-01-88S	16-86-03-15-88	16-86-03-15-88-LD	16-87-03-01-88
Matrix:	Water	Water	Water	Water
Units:	% RECOVERY	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		0.1211		NR		0.0814	
Antimony	(Sb), dissolved.....	NR		0.015	J	NR		0.02	U
Arsenic	(As), dissolved.....	NR		0.002	J	NR		0.004	J
Barium	(Ba), dissolved.....	NR		0.0989		NR		0.0786	
Beryllium	(Be), dissolved.....	84	%	0.002	J	0.005	U	0.005	U
Cadmium	(Cd), dissolved.....	94	%	0.001	U	0.001	U	0.001	U
Calcium	(Ca), dissolved.....	NR		421.0941		NR		18.4820	
Cesium	(Cs), dissolved.....	103	%	0.02	U	NR		0.02	U
Chromium	(Cr), dissolved.....	NR		0.0452		0.02	U	0.0100	U
Cobalt	(Co), dissolved.....	NR		0.0220	U	NR		0.0220	U
Copper	(Cu), dissolved.....	NR		0.0510		NR		0.0074	
Iron	(Fe), dissolved.....	NR		0.2093		NR		0.0644	
Lead	(Pb), dissolved.....	81	%	0.005	U	0.005	U	0.005	U
Lithium	(Li), dissolved.....	NR		0.11		NR		0.05	J
Magnesium	(Mg), dissolved.....	NR		130.1180		NR		3.5174	
Manganese	(Mn), dissolved.....	NR		0.3758		NR		0.0051	U
Mercury	(Hg), dissolved.....	NR		0.0002	U	NR		0.0002	U
Molybdenum	(Mo), dissolved.....	NR		0.0220	U	NR		0.0295	
Nickel	(Ni), dissolved.....	NR		0.0512		NR		0.0370	U
Potassium	(K), dissolved.....	NR		9.9		NR		8.1	
Selenium	(Se), dissolved.....	NR		0.003	J	NR		0.002	J
Silver	(Ag), dissolved.....	NR		0.0076	U	NR		0.0076	U
Sodium	(Na), dissolved.....	NR		706.6186		NR		67.6220	
Strontium	(Sr), dissolved.....	NR		6.1678		NR		0.2834	
Thallium	(Tl), dissolved.....	103	%	0.01	U	0.01	U	0.01	U
Vanadium	(V), dissolved.....	NR		0.0240	U	NR		0.0240	U
Zinc	(Zn), dissolved.....	NR		0.1149		NR		0.0200	U

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 16

Sample Information

	RFW Batch ID:	0188-881-025	0188-881-058	0188-881-066	0188-881-067
	Customer ID:	17-86-03-15-88	17-86-03-15-88-D	17-86-03-15-88-LD	17-86-03-15-88-
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	% RECOVERY
Metals					
Aluminum	(Al), dissolved.....	0.0602	0.0632	NR	NR
Antimony	(Sb), dissolved.....	0.02 U	NR	0.017 J	NR
Arsenic	(As), dissolved.....	0.003 J	NR	0.003 J	NR
Barium	(Ba), dissolved.....	0.3887	0.2633	NR	NR
Beryllium	(Be), dissolved.....	0.005 U	NR	0.005 U	NR
Cadmium	(Cd), dissolved.....	0.001 U	NR	0.001 U	NR
Calcium	(Ca), dissolved.....	826.6744	559.8796	NR	NR
Cesium	(Cs), dissolved.....	0.02 U	NR	0.02 U	NR
Chromium	(Cr), dissolved.....	0.0289	0.0281	NR	NR
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	NR	NR
Copper	(Cu), dissolved.....	0.0063 U	0.0063 U	NR	NR
Iron	(Fe), dissolved.....	0.1805	0.1637	NR	NR
Lead	(Pb), dissolved.....	0.005 U	NR	0.005 U	NR
Lithium	(Li), dissolved.....	0.27	NR	0.27	96 %
Magnesium	(Mg), dissolved.....	253.8005	168.7304	NR	90 %
Manganese	(Mn), dissolved.....	0.0051 U	0.0051 U	NR	NR
Mercury	(Hg), dissolved.....	0.0002 U	NR	0.0002 U	NR
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	NR	NR
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	NR	NR
Potassium	(K), dissolved.....	4.3	NR	4.3	NR
Selenium	(Se), dissolved.....	0.29	NR	0.30	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076	NR	NR
Sodium	(Na), dissolved.....	369.0358	268.7690	NR	NR
Strontium	(Sr), dissolved.....	7.6571	5.1805	NR	NR
Thallium	(Tl), dissolved.....	0.01 U	NR	0.01 U	NR
Vanadium	(V), dissolved.....	0.0240 U	0.0312	NR	NR
Zinc	(Zn), dissolved.....	0.0476	0.0479	NR	NR

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-405	0188-881-424	0188-881-410	0188-881-031
Customer ID:	17-87-03-04-88	17-87-03-04-88LD	18-87-03-08-88	19-86-03-17-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	0.0386		NR		0.0879		0.0517	
Antimony	(Sb), dissolved.....	0.02	U	NR		0.02	U	0.02	U
Arsenic	(As), dissolved.....	0.005	U	NR		0.003	J	0.004	J
Barium	(Ba), dissolved.....	0.1539		NR		0.1084		0.1759	
Beryllium	(Be), dissolved.....	0.005	U	NR		0.005	U	0.005	U
Cadmium	(Cd), dissolved.....	0.001	U	NR		0.001	U	0.001	U
Calcium	(Ca), dissolved.....	112.4856		NR		12.3260		167.0982	
Cesium	(Cs), dissolved.....	0.020	U	NR		0.020	U	0.02	U
Chromium	(Cr), dissolved.....	0.0100	U	NR		0.0118		0.0202	
Cobalt	(Co), dissolved.....	0.0220	U	NR		0.0220	U	0.0220	U
Copper	(Cu), dissolved.....	0.4122		NR		0.0379		0.0063	U
Iron	(Fe), dissolved.....	0.0229		NR		0.0631		8.4953	
Lead	(Pb), dissolved.....	0.005	U	NR		0.005	U	0.005	U
Lithium	(Li), dissolved.....	0.1	U	NR		0.1	U	0.1	U
Magnesium	(Mg), dissolved.....	12.7983		NR		1.1415		48.1747	
Manganese	(Mn), dissolved.....	0.1831		NR		0.1154		3.4966	
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	NR		0.0286		0.0220	U
Nickel	(Ni), dissolved.....	0.5210		NR		0.0661		0.0537	
Potassium	(K), dissolved.....	7.0		NR		0.8		2.9	
Selenium	(Se), dissolved.....	0.005	U	NR		0.003	J	0.004	J
Silver	(Ag), dissolved.....	0.0076	U	NR		0.0103		0.0076	U
Sodium	(Na), dissolved.....	22.3610		NR		22.8139		221.0428	
Strontium	(Sr), dissolved.....	0.5903		NR		0.1107		1.3206	
Thallium	(Tl), dissolved.....	0.010	U	NR		0.010	U	0.01	U
Vanadium	(V), dissolved.....	0.0240	U	NR		0.0240	U	0.0240	U
Zinc	(Zn), dissolved.....	1.5316		NR		0.0279		0.0814	

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-028	0188-881-470	0188-881-128	0188-881-162
Customer ID:	2-60-03-17-88	2-86-03-31-88	2-87-02-11-88	2-87-02-11-88D
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	0.0290	U	0.0290	U	0.0847		0.0632	
Antimony	(Sb), dissolved.....	0.02	U	0.0373		0.0340	U	0.0340	U
Arsenic	(As), dissolved.....	0.003	J	0.005	U	0.005	U	0.002	J
Barium	(Ba), dissolved.....	0.1732		0.0695		0.0953		0.0807	
Beryllium	(Be), dissolved.....	0.005	U	0.0010	U	0.005	U	0.005	U
Cadmium	(Cd), dissolved.....	0.001		0.0050	U	0.001	U	0.001	U
Calcium	(Ca), dissolved.....	1186.8484		69.5858		54.1928		53.3520	
Cesium	(Cs), dissolved.....	0.02	U	0.020	U	0.02	U	0.02	U
Chromium	(Cr), dissolved.....	0.0100	U	0.0100	U	0.0100	U	0.0100	U
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	0.0220	U	0.0220	U
Copper	(Cu), dissolved.....	0.0063	U	0.0063	U	0.0064		0.0063	U
Iron	(Fe), dissolved.....	0.0069	U	0.0069	U	0.0470		0.0254	
Lead	(Pb), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Lithium	(Li), dissolved.....	0.37		0.12		0.1	U	0.1	U
Magnesium	(Mg), dissolved.....	338.0800		147.4723		17.0658		17.0052	
Manganese	(Mn), dissolved.....	0.1451		0.0801		0.3739		0.3695	
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	0.0220	U	0.0220	U
Nickel	(Ni), dissolved.....	0.0370	U	0.0773		0.0370	U	0.0370	U
Potassium	(K), dissolved.....	0.5		0.5	U	2.3		2.3	
Selenium	(Se), dissolved.....	0.39		0.005	U	0.005	U	0.005	U
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	0.0076	U	0.0076	U
Sodium	(Na), dissolved.....	880.9340		201.2186		123.2256		123.2256	
Strontium	(Sr), dissolved.....	14.0365		3.2190		0.6156		0.6071	
Thallium	(Tl), dissolved.....	0.01	U	0.010	U	0.01	U	0.01	U
Vanadium	(V), dissolved.....	0.0240	U	0.0360	U	0.0360	U	0.0360	U
Zinc	(Zn), dissolved.....	3.7679		0.0350		0.0261		0.0322	

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 19

Sample Information

RFW Batch ID:	0188-881-426	0188-881-415	0188-881-427	0188-881-409
Customer ID:	20-87-03-03-88LD	20-87-03-04-88LD	20-87-03-04-88S	20-87-03-07-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	%	MG/L

Metals

Aluminum (Al), dissolved.....	NR	0.2567	NR	0.2556
Antimony (Sb), dissolved.....	0.02 U	NR	NR	0.02 U
Arsenic (As), dissolved.....	0.006	NR	NR	0.007
Barium (Ba), dissolved.....	NR	0.0245	NR	0.0246
Beryllium (Be), dissolved.....	NR	NR	NR	0.005 U
Cadmium (Cd), dissolved.....	NR	NR	NR	0.001 U
Calcium (Ca), dissolved.....	NR	19.5173	NR	18.8844
Cesium (Cs), dissolved.....	NR	NR	NR	0.020 U
Chromium (Cr), dissolved.....	NR	0.0144	NR	0.0100 U
Cobalt (Co), dissolved.....	NR	0.0220 U	NR	0.0220 U
Copper (Cu), dissolved.....	NR	0.0063 U	NR	0.0070
Iron (Fe), dissolved.....	NR	0.0391	NR	0.0344
Lead (Pb), dissolved.....	NR	NR	NR	0.005 U
Lithium (Li), dissolved.....	0.1 U	NR	100 %	0.1 U
Magnesium (Mg), dissolved.....	NR	0.0691	NR	0.0342
Manganese (Mn), dissolved.....	NR	0.0051 U	NR	0.0051 U
Mercury (Hg), dissolved.....	NR	NR	NR	0.0002 U
Molybdenum(Mo), dissolved.....	NR	0.0508	NR	0.0570
Nickel (Ni), dissolved.....	NR	0.0370 U	NR	0.0370 U
Potassium (K), dissolved.....	27	NR	90 %	28
Selenium (Se), dissolved.....	0.005 U	NR	NR	0.004 J
Silver (Ag), dissolved.....	NR	0.0076 U	NR	0.0076 U
Sodium (Na), dissolved.....	NR	85.2580	NR	84.4416
Strontium (Sr), dissolved.....	NR	0.4430	NR	0.4473
Thallium (Tl), dissolved.....	NR	NR	NR	0.010 U
Vanadium (V), dissolved.....	NR	0.0370	NR	0.0377
Zinc (Zn), dissolved.....	NR	0.0288	NR	0.0252

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-036	0188-881-026	0188-881-069	0188-881-411
	Customer ID:	21-86-03-22-88	22-86-03-17-88	22-86-03-17-88-LD	22-87-03-08-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0454	0.0319	NR	0.0406
Antimony	(Sb), dissolved.....	0.02 U	0.02 U	NR	0.02 U
Arsenic	(As), dissolved.....	0.005 U	0.005 U	0.002 J	0.004 J
Barium	(Ba), dissolved.....	0.1019	0.0924	NR	0.0594
Beryllium	(Be), dissolved.....	0.005 U	0.005 U	NR	0.005 U
Cadmium	(Cd), dissolved.....	0.001 U	0.001	NR	0.001 U
Calcium	(Ca), dissolved.....	45.8934	63.0093	NR	30.2374
Cesium	(Cs), dissolved.....	0.02 U	0.02 U	NR	0.020 U
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	NR	0.0115
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	NR	0.0220 U
Copper	(Cu), dissolved.....	0.0066	0.0063 U	NR	0.0063 U
Iron	(Fe), dissolved.....	0.0740	0.0697	NR	0.0230
Lead	(Pb), dissolved.....	0.005 U	0.001 J	NR	0.005 U
Lithium	(Li), dissolved.....	0.1 U	1.3	NR	0.1 U
Magnesium	(Mg), dissolved.....	10.9055	9.0908	NR	6.4239
Manganese	(Mn), dissolved.....	0.2819	0.1930	NR	0.0319
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	NR	0.0843
Nickel	(Ni), dissolved.....	0.0370 U	0.1695	NR	0.0372
Potassium	(K), dissolved.....	2.5	2.2	NR	14
Selenium	(Se), dissolved.....	0.005 U	0.003 J	0.003 J	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	NR	0.0076 U
Sodium	(Na), dissolved.....	30.6806	87.0659	NR	88.6237
Strontium	(Sr), dissolved.....	0.3875	0.3745	NR	0.4659
Thallium	(Tl), dissolved.....	0.01 U	0.01 U	NR	0.010 U
Vanadium	(V), dissolved.....	0.0240 U	0.240 U	NR	0.0261
Zinc	(Zn), dissolved.....	0.0448	0.0380	NR	0.0339

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-428	0188-881-429	0188-881-082	0188-881-402
Customer ID:	22-87-03-08-88LD	22-87-03-08-88S	23-86-03-22-88LD	23-87-03-03-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	%	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		NR		NR		0.0969	
Antimony	(Sb), dissolved.....	NR		NR		NR		0.02	U
Arsenic	(As), dissolved.....	NR		NR		NR		0.005	U
Barium	(Ba), dissolved.....	NR		NR		NR		0.1949	
Beryllium	(Be), dissolved.....	0.005	U	96	%	0.005	U	0.005	U
Cadmium	(Cd), dissolved.....	0.001	U	102	%	0.001	U	0.001	U
Calcium	(Ca), dissolved.....	NR		NR		NR		130.1240	
Cesium	(Cs), dissolved.....	0.020	U	111	%	0.02	U	0.020	U
Chromium	(Cr), dissolved.....	NR		NR		NR		0.0100	U
Cobalt	(Co), dissolved.....	NR		NR		NR		0.0220	U
Copper	(Cu), dissolved.....	NR		NR		NR		0.0063	U
Iron	(Fe), dissolved.....	NR		NR		NR		0.0333	
Lead	(Pb), dissolved.....	0.005	U	114		0.005	U	0.005	
Lithium	(Li), dissolved.....	NR		NR		NR		0.1	U
Magnesium	(Mg), dissolved.....	NR		NR		NR		13.8849	
Manganese	(Mn), dissolved.....	NR		NR		NR		0.1289	
Mercury	(Hg), dissolved.....	0.0002	U	NR		NR		0.0002	U
Molybdenum	(Mo), dissolved.....	NR		NR		NR		0.0220	U
Nickel	(Ni), dissolved.....	NR		NR		NR		0.0370	U
Potassium	(K), dissolved.....	NR		NR		NR		1.7	
Selenium	(Se), dissolved.....	NR		NR		NR		0.005	U
Silver	(Ag), dissolved.....	NR		NR		NR		0.0076	U
Sodium	(Na), dissolved.....	NR		NR		NR		9.6792	
Strontium	(Sr), dissolved.....	NR		NR		NR		0.6205	
Thallium	(Tl), dissolved.....	0.010	U	50		0.01	U	0.010	U
Vanadium	(V), dissolved.....	NR		NR		NR		0.0240	U
Zinc	(Zn), dissolved.....	NR		NR		NR		0.0200	U

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-419	0188-881-420	0188-881-037	0188-881-033
Customer ID:	23-87-03-03-88LD	23-87-03-03-88S	23-88-03-22-88	25-86-03-22-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	%	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		NR		0.0773		0.0446	
Antimony	(Sb), dissolved.....	NR		NR		0.02	U	0.02	U
Arsenic	(As), dissolved.....	0.005	U	NR		0.005	U	0.005	U
Barium	(Ba), dissolved.....	NR		NR		0.0308		0.0223	
Beryllium	(Be), dissolved.....	0.005	U	82	%	0.005	U	0.005	U
Cadmium	(Cd), dissolved.....	0.003		100	%	0.001	U	0.001	U
Calcium	(Ca), dissolved.....	NR		NR		98.7690		206.6097	
Cesium	(Cs), dissolved.....	0.020	U	93	%	0.02	U	0.02	U
Chromium	(Cr), dissolved.....	NR		NR		0.0146		0.0161	
Cobalt	(Co), dissolved.....	NR		NR		0.0220	U	0.0220	U
Copper	(Cu), dissolved.....	NR		NR		0.0101		0.0108	
Iron	(Fe), dissolved.....	NR		NR		0.1262		0.0785	
Lead	(Pb), dissolved.....	0.004	J	92	%	0.005	U	0.005	U
Lithium	(Li), dissolved.....	NR		NR		0.07	J	0.18	
Magnesium	(Mg), dissolved.....	NR		NR		26.1184		85.1800	
Manganese	(Mn), dissolved.....	NR		NR		0.1349		0.1504	
Mercury	(Hg), dissolved.....	NR		NR		0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	NR		NR		0.0301		0.0220	U
Nickel	(Ni), dissolved.....	NR		NR		0.0370	U	0.0370	U
Potassium	(K), dissolved.....	NR		NR		11		15	
Selenium	(Se), dissolved.....	0.005	U	NR		0.005	U	0.005	U
Silver	(Ag), dissolved.....	NR		NR		0.0076	U	0.0076	U
Sodium	(Na), dissolved.....	NR		NR		180.2115		259.1834	
Strontium	(Sr), dissolved.....	NR		NR		1.2860		3.0430	
Thallium	(Tl), dissolved.....	0.010	U	97	%	0.01	U	0.01	U
Vanadium	(V), dissolved.....	NR		NR		0.0240	U	0.0240	U
Zinc	(Zn), dissolved.....	NR		NR		0.1830		0.0635	

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-077	0188-881-078	0188-881-407	0188-881-034
	Customer ID:	25-86-03-22-88LD	25-86-03-22-88S	25-87-03-04-88	27-86-03-22-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	% RECOVERY	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	NR	NR	0.0290 U	0.0362
Antimony	(Sb), dissolved.....	NR	NR	0.02 U	0.02 U
Arsenic	(As), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Barium	(Ba), dissolved.....	NR	NR	0.1128	0.0268
Beryllium	(Be), dissolved.....	NR	NR	0.005 U	0.005 U
Cadmium	(Cd), dissolved.....	0.001 U	NR	0.001 U	0.001 U
Calcium	(Ca), dissolved.....	NR	NR	116.7854	44.4459
Cesium	(Cs), dissolved.....	0.02 U	NR	0.020 U	0.02 U
Chromium	(Cr), dissolved.....	NR	NR	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	NR	NR	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	NR	NR	0.0063 U	0.0477
Iron	(Fe), dissolved.....	NR	NR	0.0171	0.0806
Lead	(Pb), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Lithium	(Li), dissolved.....	NR	NR	0.1 U	0.06 J
Magnesium	(Mg), dissolved.....	NR	NR	7.8072	12.7476
Manganese	(Mn), dissolved.....	NR	NR	0.0051 U	0.0841
Mercury	(Hg), dissolved.....	NR	108 %	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	NR	NR	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	NR	NR	0.0370 U	0.0415
Potassium	(K), dissolved.....	NR	NR	1.1	1.0
Selenium	(Se), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Silver	(Ag), dissolved.....	NR	NR	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	NR	NR	11.7683	201.6286
Strontium	(Sr), dissolved.....	NR	NR	0.2998	0.6457
Thallium	(Tl), dissolved.....	0.01 U	NR	0.010 U	0.01 U
Vanadium	(V), dissolved.....	NR	NR	0.0240 U	0.0240 U
Zinc	(Zn), dissolved.....	NR	NR	0.0200 U	0.0507

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-079	0188-881-029	0188-881-073	0188-881-074
	Customer ID:	27-86-03-22-88S	28-86-03-17-88	28-86-03-17-88LD	28-86-03-17-88S
	Matrix:	Water	Water	Water	Water
	Units:	% RECOVERY	MG/L	MG/L	% RECOVERY
Metals					
Aluminum	(Al), dissolved.....	NR	0.0290 U	NR	NR
Antimony	(Sb), dissolved.....	NR	0.02 U	0.02 U	120 %
Arsenic	(As), dissolved.....	88 %	0.003 J	0.005 U	81 %
Barium	(Ba), dissolved.....	NR	0.1665	NR	NR
Beryllium	(Be), dissolved.....	NR	0.005 U	0.005 U	164 %
Cadmium	(Cd), dissolved.....	NR	0.001	0.002	69 %
Calcium	(Ca), dissolved.....	NR	479.1007	NR	NR
Cesium	(Cs), dissolved.....	NR	0.02 U	0.02 U	133 %
Chromium	(Cr), dissolved.....	NR	0.0122	NR	NR
Cobalt	(Co), dissolved.....	NR	0.0502	NR	NR
Copper	(Cu), dissolved.....	NR	0.0063 U	NR	NR
Iron	(Fe), dissolved.....	NR	0.0069 U	NR	NR
Lead	(Pb), dissolved.....	NR	0.005 U	0.005 U	79 %
Lithium	(Li), dissolved.....	NR	1.4	NR	NR
Magnesium	(Mg), dissolved.....	NR	151.2661	NR	NR
Manganese	(Mn), dissolved.....	NR	1.2420	NR	NR
Mercury	(Hg), dissolved.....	NR	0.0002 U	NR	95 %
Molybdenum	(Mo), dissolved.....	NR	0.0477	NR	NR
Nickel	(Ni), dissolved.....	NR	0.1512	NR	NR
Potassium	(K), dissolved.....	NR	0.5	NR	NR
Selenium	(Se), dissolved.....	74 %	0.005	0.006	100 %
Silver	(Ag), dissolved.....	NR	0.0076 U	NR	NR
Sodium	(Na), dissolved.....	NR	1800.9309	NR	NR
Strontium	(Sr), dissolved.....	NR	4.4360	NR	NR
Thallium	(Tl), dissolved.....	NR	0.01 U	0.01 U	64 %
Vanadium	(V), dissolved.....	NR	0.0240 U	NR	NR
Zinc	(Zn), dissolved.....	NR	0.0657	NR	NR

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 25

Sample Information

RFW Batch ID:	0188-881-226	0188-881-237	0188-881-238	0188-881-195
Customer ID:	28-87-03-15-88	28-87-03-15-88-LD	28-87-03-15-88-S	29-87-03-01-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	% RECOVERY	MG/L

Metals

Aluminum	(Al), dissolved.....	0.0290	U	NR		NR		0.0529	
Antimony	(Sb), dissolved.....	0.02	U	NR		NR		0.02	U
Arsenic	(As), dissolved.....	0.004	J	0.004	J	NR		0.005	U
Barium	(Ba), dissolved.....	0.0238		NR		NR		0.0631	
Beryllium	(Be), dissolved.....	0.005	U	0.005	U	106	%	0.005	U
Cadmium	(Cd), dissolved.....	0.001		0.001		116	%	0.001	U
Calcium	(Ca), dissolved.....	13.1315		NR		NR		355.1286	
Cesium	(Cs), dissolved.....	0.02	U	0.02	U	100	%	0.02	U
Chromium	(Cr), dissolved.....	0.0100	U	NR		NR		0.0227	
Cobalt	(Co), dissolved.....	0.0220	U	NR		NR		0.0220	U
Copper	(Cu), dissolved.....	0.0063	U	NR		NR		0.0994	
Iron	(Fe), dissolved.....	0.0143		NR		NR		0.0069	U
Lead	(Pb), dissolved.....	0.005	U	0.005	U	98	%	0.005	U
Lithium	(Li), dissolved.....	0.1	U	NR		NR		0.16	
Magnesium	(Mg), dissolved.....	1.7166		NR		NR		135.7172	
Manganese	(Mn), dissolved.....	0.0092		NR		NR		0.3116	
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	NR		0.0002	U
Molybdenum	(Mo), dissolved.....	0.0251		NR		NR		0.0220	U
Nickel	(Ni), dissolved.....	0.0370	U	NR		NR		0.4764	
Potassium	(K), dissolved.....	14		NR		NR		5.2	
Selenium	(Se), dissolved.....	0.003	J	0.003	J	NR		0.37	
Silver	(Ag), dissolved.....	0.0076	U	NR		NR		0.0076	U
Sodium	(Na), dissolved.....	19.3060		NR		NR		395.3797	
Strontium	(Sr), dissolved.....	0.1373		NR		NR		4.9549	
Thallium	(Tl), dissolved.....	0.01	U	0.01	U	66	%	0.01	U
Vanadium	(V), dissolved.....	0.0240	U	NR		NR		0.0240	U
Zinc	(Zn), dissolved.....	0.0200	U	NR		NR		0.6236	

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 26

Sample Information

RFW Batch ID:	0188-881-446	0188-881-453	0188-881-459	0188-881-460
Customer ID:	3-82-03-29-88	3-82-03-29-88LD	3-82-03-29-88LD	3-82-03-29-88S
Matrix:	Water	Water	Water	
Units:	MG/L	MG/L	MG/L	%

Metals

Aluminum	(Al), dissolved.....	0.0449		0.0306		NR		NR
Antimony	(Sb), dissolved.....	0.02	U	NR		0.02	U	94
Arsenic	(As), dissolved.....	0.005	U	NR		NR		NR
Barium	(Ba), dissolved.....	0.0464		0.0469		NR		NR
Beryllium	(Be), dissolved.....	0.005	U	NR		NR		NR
Cadmium	(Cd), dissolved.....	0.001	U	NR		NR		NR
Calcium	(Ca), dissolved.....	14.3734		14.5216		NR		NR
Cesium	(Cs), dissolved.....	0.020	U	NR		NR		NR
Chromium	(Cr), dissolved.....	0.0100	U	0.0100	U	NR		NR
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	NR		NR
Copper	(Cu), dissolved.....	0.0063	U	0.0074		NR		NR
Iron	(Fe), dissolved.....	0.0783		0.1026		NR		NR
Lead	(Pb), dissolved.....	0.005	U	NR		NR		NR
Lithium	(Li), dissolved.....	0.1	U	NR		0.1	U	90
Magnesium	(Mg), dissolved.....	3.0936		3.1326		NR		NR
Manganese	(Mn), dissolved.....	0.0087		0.0085		NR		NR
Mercury	(Hg), dissolved.....	0.0002	U	NR		0.0002	U	NR
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	NR		NR
Nickel	(Ni), dissolved.....	0.0370	U	0.0370	U	NR		NR
Potassium	(K), dissolved.....	0.9		NR		0.9		102
Selenium	(Se), dissolved.....	0.005	U	NR		NR		NR
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	NR		NR
Sodium	(Na), dissolved.....	9.4690		9.3621		NR		NR
Strontium	(Sr), dissolved.....	0.0790		0.0796		NR		NR
Thallium	(Tl), dissolved.....	0.010	U	NR		NR		NR
Vanadium	(V), dissolved.....	0.0240	U	0.0240	U	NR		NR
Zinc	(Zn), dissolved.....	0.0563		0.0582		NR		NR

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 27

Sample Information

	RFW Batch ID:	0188-881-471		0188-881-482		0188-881-483		0188-881-032	
	Customer ID:	3-86-03-31-88		3-86-03-31-88-LD		3-86-03-31-88-S		30-86-03-17-88	
	Matrix:	Water		Water		Water		Water	
	Units:	MG/L		MG/L		%		MG/L	
Metals									
Aluminum	(Al), dissolved.....	0.0352		NR		NR		0.0311	
Antimony	(Sb), dissolved.....	0.0340	U	NR		NR		0.02	U
Arsenic	(As), dissolved.....	0.005	U	0.005	U	97	%	0.002	J
Barium	(Ba), dissolved.....	0.1235		NR		NR		0.2364	
Beryllium	(Be), dissolved.....	0.0010	U	0.005	U	98	%	0.005	U
Cadmium	(Cd), dissolved.....	0.0050	U	0.001	U	98	%	0.001	U
Calcium	(Ca), dissolved.....	79.0150		NR		NR		845.0279	
Cesium	(Cs), dissolved.....	0.020	U	0.02	U	99	%	0.02	U
Chromium	(Cr), dissolved.....	0.0112		NR		NR		0.0188	
Cobalt	(Co), dissolved.....	0.0220	U	NR		NR		0.0220	U
Copper	(Cu), dissolved.....	0.0063	U	NR		NR		0.0063	U
Iron	(Fe), dissolved.....	0.0149		NR		NR		0.0834	
Lead	(Pb), dissolved.....	0.005	U	0.005	U	81	%	0.005	U
Lithium	(Li), dissolved.....	0.1	U	NR		100	%	0.82	
Magnesium	(Mg), dissolved.....	29.3416		NR		NR		229.4845	
Manganese	(Mn), dissolved.....	0.0779		NR		NR		0.0051	U
Mercury	(Hg), dissolved.....	0.0002	U	NR		NR		0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	NR		NR		0.0220	U
Nickel	(Ni), dissolved.....	0.3791		NR		NR		0.0433	
Potassium	(K), dissolved.....	1.7		NR		NR		146	
Selenium	(Se), dissolved.....	0.016		0.016		107	%	0.005	
Silver	(Ag), dissolved.....	0.0076	U	NR		NR		0.0076	U
Sodium	(Na), dissolved.....	48.1063		NR		NR		1263.3406	
Strontium	(Sr), dissolved.....	1.3701		NR		NR		7.7581	
Thallium	(Tl), dissolved.....	0.010	U	0.01	U	77	%	0.01	U
Vanadium	(V), dissolved.....	0.0360	U	NR		NR		0.0240	U
Zinc	(Zn), dissolved.....	0.0200	U	NR		NR		0.0360	

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-075	0188-881-076	0188-881-199	0188-881-209
	Customer ID:	30-86-03-17-88LD	30-86-03-17-88S	30-87-03-03-88	30-87-03-03-88L
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	% RECOVERY	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	NR	NR	0.0646	NR
Antimony	(Sb), dissolved.....	NR	NR	0.02 U	NR
Arsenic	(As), dissolved.....	NR	NR	0.013	0.013
Barium	(Ba), dissolved.....	NR	NR	0.0626	NR
Beryllium	(Be), dissolved.....	0.005 U	114 %	0.005 U	0.005 U
Cadmium	(Cd), dissolved.....	0.001 U	93 %	0.001 U	0.001 U
Calcium	(Ca), dissolved.....	NR	NR	16.8116	NR
Cesium	(Cs), dissolved.....	0.02 U	122 %	0.02 U	0.02 U
Chromium	(Cr), dissolved.....	NR	NR	0.0100 U	NR
Cobalt	(Co), dissolved.....	NR	NR	0.0220 U	NR
Copper	(Cu), dissolved.....	NR	NR	0.0063 U	NR
Iron	(Fe), dissolved.....	NR	NR	0.0167	NR
Lead	(Pb), dissolved.....	0.005 U	59 %	0.005 U	0.005 U
Lithium	(Li), dissolved.....	0.82	NR	0.1 U	NR
Magnesium	(Mg), dissolved.....	NR	NR	1.9955	NR
Manganese	(Mn), dissolved.....	NR	NR	0.0071	NR
Mercury	(Hg), dissolved.....	NR	NR	0.0002 U	NR
Molybdenum	(Mo), dissolved.....	NR	NR	0.0248	NR
Nickel	(Ni), dissolved.....	NR	NR	0.0370 U	NR
Potassium	(K), dissolved.....	NR	NR	4.9	NR
Selenium	(Se), dissolved.....	NR	NR	0.005 U	0.003 J
Silver	(Ag), dissolved.....	NR	NR	0.0076 U	NR
Sodium	(Na), dissolved.....	NR	NR	120.1536	NR
Strontium	(Sr), dissolved.....	NR	NR	0.2415	NR
Thallium	(Tl), dissolved.....	0.01 U	56 %	0.01 U	0.005 J
Vanadium	(V), dissolved.....	NR	NR	0.0244	NR
Zinc	(Zn), dissolved.....	NR	NR	0.0224	NR

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-210	0188-881-221	0188-881-229	0188-881-234
Customer ID:	30-87-03-03-88S	31-87-03-11-88	31-87-03-11-88-D	31-87-03-11-88-
Matrix:	Water	Water	Water	Water
Units:	% RECOVERY	MG/L	MG/L	MG/L

Metals

Aluminum (Al), dissolved.....	NR	0.0864	0.0973	NR
Antimony (Sb), dissolved.....	NR	0.02 U	NR	0.02 U
Arsenic (As), dissolved.....	NR	0.019	NR	0.021
Barium (Ba), dissolved.....	NR	0.0146	0.0145	NR
Beryllium (Be), dissolved.....	97 %	0.005 U	NR	0.005 U
Cadmium (Cd), dissolved.....	114 %	0.0025	NR	0.001 U
Calcium (Ca), dissolved.....	NR	21.9756	22.4215	NR
Cesium (Cs), dissolved.....	107 %	0.02 U	NR	0.02 U
Chromium (Cr), dissolved.....	NR	0.0100 U	0.0100 U	NR
Cobalt (Co), dissolved.....	NR	0.0220 U	0.0220 U	NR
Copper (Cu), dissolved.....	NR	0.0063 U	0.0063 U	NR
Iron (Fe), dissolved.....	NR	0.0371	0.0151	NR
Lead (Pb), dissolved.....	134 %	0.005 U	NR	0.005 U
Lithium (Li), dissolved.....	NR	0.1 U	NR	0.1 U
Magnesium (Mg), dissolved.....	NR	0.1307	0.1284	NR
Manganese (Mn), dissolved.....	NR	0.0051 U	0.0051 U	NR
Mercury (Hg), dissolved.....	NR	0.0002 U	NR	NR
Molybdenum(Mo), dissolved.....	NR	0.0464	0.0456	NR
Nickel (Ni), dissolved.....	NR	0.0370 U	0.0370 U	NR
Potassium (K), dissolved.....	NR	4.3	NR	4.4
Selenium (Se), dissolved.....	NR	0.005 U	NR	0.003 J
Silver (Ag), dissolved.....	NR	0.0076 U	0.0076 U	NR
Sodium (Na), dissolved.....	NR	67.1358	68.1516	NR
Strontium (Sr), dissolved.....	NR	0.1962	0.1988	NR
Thallium (Tl), dissolved.....	52 %	0.01 U	NR	0.01 U
Vanadium (V), dissolved.....	NR	0.0240 U	0.0240 U	NR
Zinc (Zn), dissolved.....	NR	0.0200 U	0.0200 U	NR

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 30

Sample Information

RFW Batch ID:	0188-881-235	0188-881-080	0188-881-081	0188-881-035
Customer ID:	31-87-03-11-88-S	32-86-03-15-88LD	32-86-03-15-88S	32-86-03-22-88
Matrix:	Water	Water	Water	Water
Units:	% RECOVERY	MG/L	% RECOVERY	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		NR		NR		0.0560	
Antimony	(Sb), dissolved.....	121	%	0.02	U	93	%	0.02	U
Arsenic	(As), dissolved.....	NR		NR		NR		0.005	U
Barium	(Ba), dissolved.....	NR		NR		NR		0.1159	
Beryllium	(Be), dissolved.....	85	%	NR		NR		0.005	U
Cadmium	(Cd), dissolved.....	96	%	NR		NR		0.001	U
Calcium	(Ca), dissolved.....	NR		NR		NR		37.0507	
Cesium	(Cs), dissolved.....	92	%	0.02	U	NR		0.02	U
Chromium	(Cr), dissolved.....	NR		NR		NR		0.0100	U
Cobalt	(Co), dissolved.....	NR		NR		NR		0.0220	U
Copper	(Cu), dissolved.....	NR		NR		NR		0.0063	U
Iron	(Fe), dissolved.....	NR		NR		NR		0.1414	
Lead	(Pb), dissolved.....	91	%	NR		NR		0.005	U
Lithium	(Li), dissolved.....	98	%	0.1	U	90	%	0.1	U
Magnesium	(Mg), dissolved.....	NR		NR		NR		9.5568	
Manganese	(Mn), dissolved.....	NR		NR		NR		0.1557	
Mercury	(Hg), dissolved.....	NR		NR		NR		0.0002	U
Molybdenum	(Mo), dissolved.....	NR		NR		NR		0.0220	U
Nickel	(Ni), dissolved.....	NR		NR		NR		0.0370	U
Potassium	(K), dissolved.....	92	%	5.2		124	%	5.4	
Selenium	(Se), dissolved.....	NR		NR		NR		0.005	U
Silver	(Ag), dissolved.....	NR		NR		NR		0.0076	U
Sodium	(Na), dissolved.....	NR		NR		NR		121.7173	
Strontium	(Sr), dissolved.....	NR		NR		NR		0.4892	
Thallium	(Tl), dissolved.....	83	%	0.01	U	NR		0.01	U
Vanadium	(V), dissolved.....	NR		NR		NR		0.0240	U
Zinc	(Zn), dissolved.....	NR		NR		NR		0.2735	

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-061		0188-881-216		0188-881-232		0188-881-403	
	Customer ID:	32-86-03-22-88-D		32-87-03-10-88		32-87-03-10-88-LD		34-86-03-03-88	
	Matrix:	Water		Water		Water		Water	
	Units:	MG/L		MG/L		MG/L		MG/L	
Metals									
Aluminum	(Al), dissolved.....	0.0390		0.0290	U	NR		0.1729	
Antimony	(Sb), dissolved.....	NR		0.014		NR		0.02	U
Arsenic	(As), dissolved.....	NR		0.005	U	0.005	U	0.004	J
Barium	(Ba), dissolved.....	0.1108		0.1972		NR		0.1216	
Beryllium	(Be), dissolved.....	NR		0.005	U	0.005	U	0.005	U
Cadmium	(Cd), dissolved.....	NR		0.001	U	0.001	U	0.001	U
Calcium	(Ca), dissolved.....	34.9794		114.4551		NR		18.6393	
Cesium	(Cs), dissolved.....	NR		0.02	U	0.02	U	0.020	U
Chromium	(Cr), dissolved.....	0.0100	U	0.0100	U	NR		0.0100	U
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	NR		0.0220	U
Copper	(Cu), dissolved.....	0.0063	U	0.2227		NR		0.0092	
Iron	(Fe), dissolved.....	0.0717		0.0106		NR		0.1353	
Lead	(Pb), dissolved.....	NR		0.005	U	0.005	U	0.005	U
Lithium	(Li), dissolved.....	NR		0.1	U	NR		0.1	U
Magnesium	(Mg), dissolved.....	9.1828		16.0040		NR		2.0699	
Manganese	(Mn), dissolved.....	0.1530		0.4679		NR		0.0070	
Mercury	(Hg), dissolved.....	NR		0.0002	U	NR		0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	NR		0.0509	
Nickel	(Ni), dissolved.....	0.0370	U	0.3783		NR		0.0370	U
Potassium	(K), dissolved.....	NR		3.2		NR		3.1	
Selenium	(Se), dissolved.....	NR		0.005	U	0.005	U	0.005	U
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	NR		0.0076	U
Sodium	(Na), dissolved.....	115.9687		25.0755		NR		76.7449	
Strontium	(Sr), dissolved.....	0.4736		0.5935		NR		0.2005	
Thallium	(Tl), dissolved.....	NR		0.01	U	0.01	U	0.010	U
Vanadium	(V), dissolved.....	0.0240	U	0.0240	U	NR		0.0240	U
Zinc	(Zn), dissolved.....	0.0283		0.9800		NR		0.0340	

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 32

Sample Information

	RFW Batch ID:	0188-881-421	0188-881-217	0188-881-233	0188-881-404
	Customer ID:	34-86-03-03-88S	34-87-03-10-88	34-87-03-10-88-S	35-86-03-03-88
	Matrix:	Water	Water	Water	Water
	Units:	%	MG/L	% RECOVERY	MG/L
Metals					
Aluminum (Al), dissolved.....		NR	0.0290 U	NR	0.0486
Antimony (Sb), dissolved.....		NR	0.02 U	NR	0.02 U
Arsenic (As), dissolved.....		95 %	0.007	115 %	0.004 J
Barium (Ba), dissolved.....		NR	0.0424	NR	0.0821
Beryllium (Be), dissolved.....		NR	0.005 U	NR	0.005 U
Cadmium (Cd), dissolved.....		NR	0.001 U	NR	0.001 U
Calcium (Ca), dissolved.....		NR	192.5822	NR	143.1915
Cesium (Cs), dissolved.....		NR	0.02 U	NR	0.020 U
Chromium (Cr), dissolved.....		NR	0.0123	NR	0.0100 U
Cobalt (Co), dissolved.....		NR	0.0220 U	NR	0.0220 U
Copper (Cu), dissolved.....		NR	0.0063 U	NR	0.0066
Iron (Fe), dissolved.....		NR	0.9745	NR	0.6891
Lead (Pb), dissolved.....		NR	0.005 U	NR	0.005 U
Lithium (Li), dissolved.....		NR	0.22	NR	0.1 U
Magnesium (Mg), dissolved.....		NR	63.8066	NR	29.3745
Manganese (Mn), dissolved.....		NR	0.1477	NR	4.0113
Mercury (Hg), dissolved.....		NR	0.0002 U	NR	0.0002 U
Molybdenum(Mo), dissolved.....		NR	0.0243	NR	0.0220 U
Nickel (Ni), dissolved.....		NR	0.0370 U	NR	0.0370 U
Potassium (K), dissolved.....		NR	7.6	NR	0.8
Selenium (Se), dissolved.....		83	0.005 U	88 %	0.005 U
Silver (Ag), dissolved.....		NR	0.0076 U	NR	0.0076 U
Sodium (Na), dissolved.....		NR	219.1568	NR	183.9421
Strontium (Sr), dissolved.....		NR	2.5972	NR	0.8311
Thallium (Tl), dissolved.....		NR	0.01 U	NR	0.010 U
Vanadium (V), dissolved.....		NR	0.0240 U	NR	0.0240 U
Zinc (Zn), dissolved.....		NR	0.0200 U	NR	0.0275

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: | Client: ROCKWELL (ROCKY FLATS) |

Sample Information

	RFW Batch ID:	0188-881-417	0188-881-422	0188-881-423	0188-881-218
	Customer ID:	35-86-03-03-88LD	35-86-03-04-88LD	35-86-03-04-88S	36-87-03-10-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	%	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0509	NR	NR	0.0290 U
Antimony	(Sb), dissolved.....	NR	0.02 U	NR	0.02 U
Arsenic	(As), dissolved.....	NR	NR	NR	0.005 U
Barium	(Ba), dissolved.....	0.0754	NR	NR	0.1700
Beryllium	(Be), dissolved.....	NR	NR	54 %	0.005 U
Cadmium	(Cd), dissolved.....	NR	NR	95 %	0.001 U
Calcium	(Ca), dissolved.....	125.6222	NR	NR	110.3891
Cesium	(Cs), dissolved.....	NR	NR	123 %	0.02 U
Chromium	(Cr), dissolved.....	0.0100 U	NR	NR	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	NR	NR	0.0220 U
Copper	(Cu), dissolved.....	0.0080	NR	NR	0.0063 U
Iron	(Fe), dissolved.....	0.6757	NR	NR	0.0122
Lead	(Pb), dissolved.....	NR	NR	111 %	0.005 U
Lithium	(Li), dissolved.....	NR	0.1 U	90 %	0.1 U
Magnesium	(Mg), dissolved.....	30.9737	NR	NR	8.5566
Manganese	(Mn), dissolved.....	4.0498	NR	NR	0.0916
Mercury	(Hg), dissolved.....	NR	NR	108 %	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	NR	NR	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	NR	NR	0.0370 U
Potassium	(K), dissolved.....	NR	0.8	115 %	0.7
Selenium	(Se), dissolved.....	NR	NR	NR	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	NR	NR	0.0076 U
Sodium	(Na), dissolved.....	167.4744	NR	NR	9.3131
Strontium	(Sr), dissolved.....	0.7604	NR	NR	0.2984
Thallium	(Tl), dissolved.....	NR	NR	57 %	0.01 U
Vanadium	(V), dissolved.....	0.0240 U	NR	NR	0.0240 U
Zinc	(Zn), dissolved.....	0.0377	NR	NR	0.0225

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 34

Sample Information

	RFW Batch ID:	0188-881-467	0188-881-475	0188-881-479	0188-881-480
	Customer ID:	38-86-03-31-88	38-86-03-31-88-LD	38-86-03-31-88-LD	38-86-03-31-88-
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	%
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	0.0362	NR	NR
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	NR	NR
Arsenic	(As), dissolved.....	0.005 U	NR	NR	NR
Barium	(Ba), dissolved.....	0.0473	0.0497	NR	NR
Beryllium	(Be), dissolved.....	0.0010 U	0.001 U	NR	NR
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	NR	NR
Calcium	(Ca), dissolved.....	231.7949	237.9548	NR	NR
Cesium	(Cs), dissolved.....	0.020 U	NR	NR	NR
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	NR	NR
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	NR	NR
Copper	(Cu), dissolved.....	0.0124	0.0153	NR	NR
Iron	(Fe), dissolved.....	0.1255	0.1472	NR	NR
Lead	(Pb), dissolved.....	0.005 U	NR	NR	NR
Lithium	(Li), dissolved.....	0.15	NR	0.15	86 %
Magnesium	(Mg), dissolved.....	73.4006	74.4163	NR	NR
Manganese	(Mn), dissolved.....	1.0614	1.0659	NR	NR
Mercury	(Hg), dissolved.....	0.0002 U	NR	NR	NR
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	NR	NR
Nickel	(Ni), dissolved.....	0.7804	0.8228	NR	NR
Potassium	(K), dissolved.....	2.9	NR	3.2	101 %
Selenium	(Se), dissolved.....	0.005 U	NR	NR	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	NR	NR
Sodium	(Na), dissolved.....	181.6792	186.6528	NR	NR
Strontium	(Sr), dissolved.....	2.2999	2.3760	NR	NR
Thallium	(Tl), dissolved.....	0.010 U	NR	NR	NR
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	NR	NR
Zinc	(Zn), dissolved.....	0.0494	0.1234	NR	NR

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-219	0188-881-220	0188-881-027	0188-881-070
Customer ID:	39-86-03-10-88	39-86-03-10-88-D	39-87-03-17-88	39-87-03-17-88-
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	% RECOVERY

Metals

Aluminum	(Al), dissolved.....	0.0290	U	0.0290	U	0.0297		NR	
Antimony	(Sb), dissolved.....	0.02	U	0.02	U	0.02	U	NR	
Arsenic	(As), dissolved.....	0.005	U	0.005	U	0.002	J	113	%
Barium	(Ba), dissolved.....	0.2576		0.2718		0.0202		NR	
Beryllium	(Be), dissolved.....	0.005	U	0.005	U	0.005	U	NR	
Cadmium	(Cd), dissolved.....	0.001	U	0.001	U	0.001		NR	
Calcium	(Ca), dissolved.....	111.6517		103.8443		8.9522		NR	
Cesium	(Cs), dissolved.....	0.02	U	0.02	U	0.02	U	NR	
Chromium	(Cr), dissolved.....	0.0100	U	0.0100	U	0.0100	U	NR	
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	0.0220	U	NR	
Copper	(Cu), dissolved.....	0.0063	U	0.0063	U	0.0063	U	NR	
Iron	(Fe), dissolved.....	0.0122		0.0094		0.0276		NR	
Lead	(Pb), dissolved.....	0.005	U	0.005	U	0.005	U	NR	
Lithium	(Li), dissolved.....	0.1	U	0.1	U	0.1	U	NR	
Magnesium	(Mg), dissolved.....	11.4966		11.8087		1.4221		NR	
Manganese	(Mn), dissolved.....	0.0054		0.0165		0.0075		NR	
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	0.0002	U	NR	
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	0.0220	U	NR	
Nickel	(Ni), dissolved.....	0.0370	U	0.0370	U	0.0370	U	NR	
Potassium	(K), dissolved.....	0.9		0.8		5.0		NR	
Selenium	(Se), dissolved..,.....	0.005	U	0.005	U	0.003	J	105	%
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	0.0076	U	NR	
Sodium	(Na), dissolved.....	16.2557		18.5542		19.6097		NR	
Strontium	(Sr), dissolved.....	0.5017		0.4502		0.0869		NR	
Thallium	(Tl), dissolved.....	0.01	U	0.01		0.01	U	NR	
Vanadium	(V), dissolved.....	0.0258		0.0288		0.0240	U	NR	
Zinc	(Zn), dissolved.....	0.0200	U	0.0252		0.0200	U	NR	

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	Customer ID:	Matrix:	Units:
Aluminum (Al), dissolved.....	0188-881-030	4-60-03-17-88	Water	MG/L	0.0411		0188-881-222	40-86-03-11-88	Water	MG/L	0.0290	U	0188-881-223	41-86-03-11-88	Water	MG/L	0.0290	U	0188-881-236	41-86-03-11-88-	Water	% RECOVERY	NR	
Antimony (Sb), dissolved.....					0.02	U					0.02	U					0.02	U					0.016	J
Arsenic (As), dissolved.....					0.002	J					0.005	U					0.005	U					NR	
Barium (Ba), dissolved.....					0.0800						0.0540						0.1973						NR	
Beryllium (Be), dissolved.....					0.005	U					0.005	U					0.005	U					0.005	U
Cadmium (Cd), dissolved.....					0.001						0.004						0.001						0.001	U
Calcium (Ca), dissolved.....					67.3504						76.2347						104.4861						NR	
Cesium (Cs), dissolved.....					0.02	U					0.02	U					0.02	U					0.02	U
Chromium (Cr), dissolved.....					0.0172						0.0100	U					0.0100	U					NR	
Cobalt (Co), dissolved.....					0.0220	U					0.0220	U					0.0220	U					NR	
Copper (Cu), dissolved.....					0.0063	U					0.0063	U					0.0063	U					NR	
Iron (Fe), dissolved.....					0.2336						0.0227						0.0107						NR	
Lead (Pb), dissolved.....					0.005	U					0.005	U					0.005	U					0.005	U
Lithium (Li), dissolved.....					0.09	J					0.1	U					0.1	U					NR	
Magnesium (Mg), dissolved.....					27.2724						17.6838						15.6787						NR	
Manganese (Mn), dissolved.....					0.0051	U					0.0432						0.0051	U					NR	
Mercury (Hg), dissolved.....					0.0002	U					0.0002	U					0.0002	U					NR	
Molybdenum(Mo), dissolved.....					0.0220	U					0.0256						0.0220	U					NR	
Nickel (Ni), dissolved.....					0.0370	U					0.0370	U					0.0370	U					NR	
Potassium (K), dissolved.....					77						5.3						1.9						NR	
Selenium (Se), dissolved.....					0.005						0.004	J					0.005	U					NR	
Silver (Ag), dissolved.....					0.0076	U					0.0291						0.0076	U					NR	
Sodium (Na), dissolved.....					93.3555						99.9352						16.3165						NR	
Strontium (Sr), dissolved.....					0.7908						0.8327						0.5817						NR	
Thallium (Tl), dissolved.....					0.01	U					0.01	U					0.01	U					0.01	U
Vanadium (V), dissolved.....					0.0240	U					0.0240	U					0.0240	U					NR	
Zinc (Zn), dissolved.....					0.3583						0.0269						0.0200	U					NR	

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-016	0188-881-052	0188-881-425	0188-881-408
	Customer ID:	41-87-02-03-88	41-87-02-03-88-LD	42-86-03-03-88S	42-86-03-04-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	%	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0350	NR	NR	0.0290 U
Antimony	(Sb), dissolved.....	0.02 U	NR	NR	0.02 U
Arsenic	(As), dissolved.....	0.003 J	0.002 J	NR	0.005 U
Barium	(Ba), dissolved.....	0.2899	NR	NR	0.2023
Beryllium	(Be), dissolved.....	0.005 U	NR	NR	0.005 U
Cadmium	(Cd), dissolved.....	0.001	NR	NR	0.001 U
Calcium	(Ca), dissolved.....	96.0820	NR	NR	126.4858
Cesium	(Cs), dissolved.....	0.02 U	NR	NR	0.020 U
Chromium	(Cr), dissolved.....	0.0100 U	NR	NR	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	NR	NR	0.0220 U
Copper	(Cu), dissolved.....	0.0063 U	NR	NR	0.0063 U
Iron	(Fe), dissolved.....	0.0372	NR	NR	0.0195
Lead	(Pb), dissolved.....	0.005 U	NR	NR	0.005 U
Lithium	(Li), dissolved.....	0.13	NR	NR	0.1 U
Magnesium	(Mg), dissolved.....	25.5941	NR	NR	10.8989
Manganese	(Mn), dissolved.....	0.0821	NR	NR	0.0051 U
Mercury	(Hg), dissolved.....	0.0002 U	NR	92 %	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0343	NR	NR	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	NR	NR	0.0370 U
Potassium	(K), dissolved.....	8.6	NR	NR	0.8
Selenium	(Se), dissolved.....	0.004 J	0.004 J	NR	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	NR	NR	0.0076 U
Sodium	(Na), dissolved.....	442.8450	NR	NR	14.7025
Strontium	(Sr), dissolved.....	1.3304	NR	NR	0.4405
Thallium	(Tl), dissolved.....	0.01 U	NR	NR	0.010 U
Vanadium	(V), dissolved.....	0.0240 U	NR	NR	0.0240 U
Zinc	(Zn), dissolved.....	0.0263	NR	NR	0.0200 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-017	0188-881-053	0188-881-155	0188-881-445
Customer ID:	42-87-02-03-88	42-87-02-03-88-LD	43-87-02-23-88	44-86-03-29-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	0.0463		NR		0.0290	U	0.0290 U
Antimony	(Sb), dissolved.....	0.02	U	NR		0.02	U	0.02 U
Arsenic	(As), dissolved.....	0.005	U	NR		0.003	J	0.005 U
Barium	(Ba), dissolved.....	0.1437		NR		0.0898		0.1565
Beryllium	(Be), dissolved.....	0.005	U	NR		0.005	U	0.005 U
Cadmium	(Cd), dissolved.....	0.001	U	NR		0.001	U	0.001 U
Calcium	(Ca), dissolved.....	71.3661		NR		168.2474		103.6577
Cesium	(Cs), dissolved.....	0.02	U	NR		0.02	U	0.020 U
Chromium	(Cr), dissolved.....	0.0100	U	NR		0.0100	U	0.0100 U
Cobalt	(Co), dissolved.....	0.0220	U	NR		0.0220	U	0.0220 U
Copper	(Cu), dissolved.....	0.0065		NR		0.9515		0.0063 U
Iron	(Fe), dissolved.....	0.4066		NR		0.0181		0.0694
Lead	(Pb), dissolved.....	0.005	U	NR		0.003	J	0.005 U
Lithium	(Li), dissolved.....	0.05	J	NR		0.05	J	0.1 U
Magnesium	(Mg), dissolved.....	12.9761		NR		35.2978		11.2382
Manganese	(Mn), dissolved.....	0.5674		NR		0.0918		0.0350
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	0.0002	U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220	U	NR		0.0220	U	0.0220 U
Nickel	(Ni), dissolved.....	0.0370	U	NR		0.6079		0.0370 U
Potassium	(K), dissolved.....	9.4		NR		5.5		3.5
Selenium	(Se), dissolved.....	0.005	U	NR		0.5		0.005 U
Silver	(Ag), dissolved.....	0.0076	U	NR		0.0076	U	0.0076 U
Sodium	(Na), dissolved.....	52.5685		NR		191.2084		41.7573
Strontium	(Sr), dissolved.....	1.2777		NR		1.4910		0.4650
Thallium	(Tl), dissolved.....	0.01	U	NR		0.01	U	0.010 U
Vanadium	(V), dissolved.....	0.0240	U	NR		0.0240	U	0.0240 U
Zinc	(Zn), dissolved.....	0.0352		NR		2.1306		0.0235

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-442	0188-881-457	0188-881-152	0188-881-112
	Customer ID:	45-86-03-25-88	45-86-03-25-88LD	45-87-02-26-88	46-86-02-13-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.1279	NR	0.0357	0.0290 U
Antimony	(Sb), dissolved.....	0.02 U	NR	0.02 U	0.02 U
Arsenic	(As), dissolved.....	0.005 U	0.005 U	0.003 J	0.002 J
Barium	(Ba), dissolved.....	0.0616	NR	0.0829	0.1642
Beryllium	(Be), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Cadmium	(Cd), dissolved.....	0.001 U	NR	0.001 U	0.001 U
Calcium	(Ca), dissolved.....	7.7460	NR	26.9376	38.8745
Cesium	(Cs), dissolved.....	0.020 U	NR	0.02 U	0.02 U
Chromium	(Cr), dissolved.....	0.0100 U	NR	0.0100 U	0.0116
Cobalt	(Co), dissolved.....	0.0220 U	NR	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0086	NR	0.0063	0.0063 U
Iron	(Fe), dissolved.....	0.2948	NR	0.0286	0.0069 U
Lead	(Pb), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Lithium	(Li), dissolved.....	0.1 U	NR	0.06 J	0.1 U
Magnesium	(Mg), dissolved.....	2.0558	NR	5.2957	10.5546
Manganese	(Mn), dissolved.....	0.0051 U	NR	0.1277	0.0579
Mercury	(Hg), dissolved.....	0.0002 U	NR	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	NR	0.0582	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	NR	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	0.5 U	NR	30	4.6
Selenium	(Se), dissolved.....	0.005 U	0.005 U	0.004 J	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	NR	0.00764	0.0076 U
Sodium	(Na), dissolved.....	9.2472	NR	60.7991	31.8506
Strontium	(Sr), dissolved.....	0.0556	NR	0.3238	0.4510
Thallium	(Tl), dissolved.....	0.010 U	NR	0.01 U	0.01 U
Vanadium	(V), dissolved.....	0.0240 U	NR	0.0240 U	0.0240 U
Zinc	(Zn), dissolved.....	0.0294	NR	0.0200 U	0.0200 U

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 40

Sample Information

RFW Batch ID:	0188-881-122	0188-881-123	0188-881-108	0188-881-115
Customer ID:	46-86-02-13-88LD	46-86-02-13-88S	47-86-02-09-88	47-86-02-09-88L
Matrix:	Water	Water	Water	Water
Units:	MG/L	% RECOVERY	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		NR		0.0290	U	NR	
Antimony	(Sb), dissolved.....	NR		NR		0.02	U	NR	
Arsenic	(As), dissolved.....	NR		NR		0.005	U	NR	
Barium	(Ba), dissolved.....	NR		NR		0.0554		NR	
Beryllium	(Be), dissolved.....	0.005	U	78	%	0.005	U	0.001	J
Cadmium	(Cd), dissolved.....	0.001	U	98	%	0.001	U	0.001	U
Calcium	(Ca), dissolved.....	NR		NR		17.1793		NR	
Cesium	(Cs), dissolved.....	0.02	U	NR		0.02	U	0.02	U
Chromium	(Cr), dissolved.....	NR		144	%	0.0100	U	NR	
Cobalt	(Co), dissolved.....	NR		NR		0.0220	U	NR	
Copper	(Cu), dissolved.....	NR		NR		0.0063	U	NR	
Iron	(Fe), dissolved.....	NR		NR		0.0162		NR	
Lead	(Pb), dissolved.....	0.005	U	NR		0.005	U	NR	
Lithium	(Li), dissolved.....	NR		NR		0.1	U	NR	
Magnesium	(Mg), dissolved.....	NR		121	%	3.1210		NR	
Manganese	(Mn), dissolved.....	NR		NR		0.0051	U	NR	
Mercury	(Hg), dissolved.....	0.0002	U	NR		0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	NR		NR		0.0220	U	NR	
Nickel	(Ni), dissolved.....	NR		NR		0.0370	U	NR	
Potassium	(K), dissolved.....	NR		NR		0.6		NR	
Selenium	(Se), dissolved.....	NR		NR		0.005	U	NR	
Silver	(Ag), dissolved.....	NR		NR		0.0076	U	NR	
Sodium	(Na), dissolved.....	NR		NR		13.0176		NR	
Strontium	(Sr), dissolved.....	NR		NR		0.1006		NR	
Thallium	(Tl), dissolved.....	0.01	U	56	%	0.01	U	0.01	U
Vanadium	(V), dissolved.....	NR		NR		0.0240	U	NR	
Zinc	(Zn), dissolved.....	NR		NR		0.1072		NR	

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-116	0188-881-443	0188-188-458	0188-881-458
Customer ID:	47-86-02-09-88S	48-86-03-25-88	48-86-03-25-88-S	48-86-03-25-88-
Matrix:	Water	Water	Water	Water
Units:	% RECOVERY	MG/L	MG/L	%

Metals

Aluminum	(Al), dissolved.....	NR		0.0742		NR	NR	
Antimony	(Sb), dissolved.....	NR		0.02	U	NR	NR	
Arsenic	(As), dissolved.....	89	%	0.005	U	80	80	%
Barium	(Ba), dissolved.....	NR		0.0498		NR	NR	
Beryllium	(Be), dissolved.....	NR		0.005	U	NR	NR	
Cadmium	(Cd), dissolved.....	NR		0.001	U	NR	NR	
Calcium	(Ca), dissolved.....	NR		9.1810		NR	NR	
Cesium	(Cs), dissolved.....	NR		0.020	U	NR	NR	
Chromium	(Cr), dissolved.....	NR		0.0100	U	NR	NR	
Cobalt	(Co), dissolved.....	NR		0.0220	U	NR	NR	
Copper	(Cu), dissolved.....	NR		0.0063	U	NR	NR	
Iron	(Fe), dissolved.....	NR		0.0541		NR	NR	
Lead	(Pb), dissolved.....	NR		0.005	U	NR	NR	
Lithium	(Li), dissolved.....	NR		0.1	U	NR	NR	
Magnesium	(Mg), dissolved.....	NR		2.9442		NR	NR	
Manganese	(Mn), dissolved.....	NR		0.0210		NR	NR	
Mercury	(Hg), dissolved.....	NR		0.0002	U	NR	NR	
Molybdenum	(Mo), dissolved.....	NR		0.0220	U	NR	NR	
Nickel	(Ni), dissolved.....	NR		0.0370	U	NR	NR	
Potassium	(K), dissolved.....	NR		4.8		NR	NR	
Selenium	(Se), dissolved.....	89	%	0.005	U	81	81	%
Silver	(Ag), dissolved.....	NR		0.0076	U	NR	NR	
Sodium	(Na), dissolved.....	NR		38.8120		NR	NR	
Strontium	(Sr), dissolved.....	NR		0.2569		NR	NR	
Thallium	(Tl), dissolved.....	NR		0.010	U	NR	NR	
Vanadium	(V), dissolved.....	NR		0.0242		NR	NR	
Zinc	(Zn), dissolved.....	NR		0.0200	U	NR	NR	

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 42

Sample Information

	RFW Batch ID:	0188-881-139	0188-881-447	0188-881-461	0188-881-462
	Customer ID:	48-87-02-16-88	49-86-03-29-88	49-86-03-29-88LD	49-86-03-29-88S
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	%
Metals					
Aluminum (Al), dissolved.....		0.0290 U	0.0333	NR	NR
Antimony (Sb), dissolved.....		0.02 U	0.02 U	NR	NR
Arsenic (As), dissolved.....		0.003 J	0.005 U	NR	NR
Barium (Ba), dissolved.....		0.3110	0.0934	NR	NR
Beryllium (Be), dissolved.....		0.005 U	0.005 U	NR	126
Cadmium (Cd), dissolved.....		0.001 U	0.001 U	0.001 U	127
Calcium (Ca), dissolved.....		299.3337	21.2668	NR	NR
Cesium (Cs), dissolved.....		0.02 U	0.020 U	0.020 U	85
Chromium (Cr), dissolved.....		0.0100 U	0.0100 U	NR	NR
Cobalt (Co), dissolved.....		0.0220 U	0.0220 U	NR	NR
Copper (Cu), dissolved.....		0.3270	0.0063 U	NR	NR
Iron (Fe), dissolved.....		0.0069 U	0.0726	NR	NR
Lead (Pb), dissolved.....		0.005 U	0.005 U	0.005 U	106
Lithium (Li), dissolved.....		0.1 U	0.1 U	NR	NR
Magnesium (Mg), dissolved.....		95.5074	4.6769	NR	NR
Manganese (Mn), dissolved.....		0.4340	0.0051 U	NR	NR
Mercury (Hg), dissolved.....		0.0002 U	0.0002 U	NR	NR
Molybdenum(Mo), dissolved.....		0.0495	0.0220 U	NR	NR
Nickel (Ni), dissolved.....		1.1827	0.0370 U	NR	NR
Potassium (K), dissolved.....		7.0	0.5 U	NR	NR
Selenium (Se), dissolved.....		0.033	0.005 U	NR	NR
Silver (Ag), dissolved.....		0.0076 U	0.0076 U	NR	NR
Sodium (Na), dissolved.....		211.3462	25.8141	NR	NR
Strontium (Sr), dissolved.....		2.9066	0.1261	NR	NR
Thallium (Tl), dissolved.....		0.01 U	0.010 U	0.01 U	103
Vanadium (V), dissolved.....		0.0240 U	0.0240 U	NR	NR
Zinc (Zn), dissolved.....		2.4559	0.0227	NR	NR

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 43

Sample Information

	RFW Batch ID:	0188-881-440	0188-881-472	0188-881-476	0188-881-477
	Customer ID:	5-82-03-24-88	5-86-03-29-88	5-86-03-29-88-LD	5-86-03-29-88-S
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	%
Metals					
Aluminum	(Al), dissolved.....	0.2063	0.0974	NR	NR
Antimony	(Sb), dissolved.....	0.02 U	0.02 U	NR	NR
Arsenic	(As), dissolved.....	0.005 U	0.005 U	0.005 U	NR
Barium	(Ba), dissolved.....	0.1083	0.0209	NR	NR
Beryllium	(Be), dissolved.....	0.005 U	0.005 U	0.005 U	83 %
Cadmium	(Cd), dissolved.....	0.001	0.001 U	0.001 U	100 %
Calcium	(Ca), dissolved.....	14.0696	270.6428	NR	NR
Cesium	(Cs), dissolved.....	0.020 U	0.020 U	0.02 U	93 %
Chromium	(Cr), dissolved.....	0.0100 U	0.0134	NR	NR
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	NR	NR
Copper	(Cu), dissolved.....	0.0118	0.0094	NR	NR
Iron	(Fe), dissolved.....	0.1778	0.0069 U	NR	NR
Lead	(Pb), dissolved.....	0.005 U	0.005 U	0.005 U	92 %
Lithium	(Li), dissolved.....	0.1 U	0.1 U	NR	NR
Magnesium	(Mg), dissolved.....	2.8276	319.2762	NR	NR
Manganese	(Mn), dissolved.....	0.0078	0.0051 U	NR	NR
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	91 %
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	NR	NR
Nickel	(Ni), dissolved.....	0.0370 U	0.0434	NR	NR
Potassium	(K), dissolved.....	0.5	5.0	NR	NR
Selenium	(Se), dissolved.....	0.005 U	0.008	0.007	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	NR	NR
Sodium	(Na), dissolved.....	14.4226	1136.3934	NR	NR
Strontium	(Sr), dissolved.....	0.0933	7.8946	NR	NR
Thallium	(Tl), dissolved.....	0.010 U	0.010 U	0.01 U	105 %
Vanadium	(V), dissolved.....	0.0240 U	0.0240 U	NR	NR
Zinc	(Zn), dissolved.....	1.8396	0.0332	NR	NR

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-444		0188-881-105		0188-881-117		0188-881-104	
	Customer ID:	50-86-03-25-88		51-86-02-09-88		51-86-02-09-88LD		52-86-02-09-88	
	Matrix:	Water		Water		Water		Water	
	Units:	MG/L		MG/L		MG/L		MG/L	
Metals									
Aluminum	(Al), dissolved.....	0.0434		0.0429		NR		0.0810	
Antimony	(Sb), dissolved.....	0.02	U	0.02	U	NR		0.02	U
Arsenic	(As), dissolved.....	0.005	U	0.005	U	NR		0.004	J
Barium	(Ba), dissolved.....	0.0648		0.0997		NR		0.0622	
Beryllium	(Be), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Cadmium	(Cd), dissolved.....	0.001	U	0.001	U	0.001	U	0.001	U
Calcium	(Ca), dissolved.....	28.0055		15.6339		NR		17.7181	
Cesium	(Cs), dissolved.....	0.020	U	0.02	U	0.02	U	0.02	U
Chromium	(Cr), dissolved.....	0.0100	U	0.0100	U	NR		0.0100	U
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	NR		0.0220	U
Copper	(Cu), dissolved.....	0.0116		0.0063	U	NR		0.0063	U
Iron	(Fe), dissolved.....	0.1054		0.0316		NR		0.0395	
Lead	(Pb), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Lithium	(Li), dissolved.....	0.1	U	0.1	U	NR		0.1	U
Magnesium	(Mg), dissolved.....	4.8259		3.1273		NR		0.4424	
Manganese	(Mn), dissolved.....	0.0051	U	0.0051	U	NR		0.0051	U
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	NR		0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	NR		0.0398	
Nickel	(Ni), dissolved.....	0.0370	U	0.0370	U	NR		0.0370	U
Potassium	(K), dissolved.....	0.3	J	0.8		NR		1.9	
Selenium	(Se), dissolved.....	0.005	U	0.005	U	NR		0.005	U
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	NR		0.0076	U
Sodium	(Na), dissolved.....	10.2593		11.4788		NR		15.8001	
Strontium	(Sr), dissolved.....	0.1750		0.0948		NR		0.1702	
Thallium	(Tl), dissolved.....	0.010	U	0.01	U	0.01	U	0.01	U
Vanadium	(V), dissolved.....	0.0240	U	0.0240	U	NR		0.0379	
Zinc	(Zn), dissolved.....	0.0378		0.1683		NR		0.0947	

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 45

Sample Information

RFW Batch ID:	0188-881-118	0188-881-119	0188-881-131	0188-881-166
Customer ID:	52-86-02-09-88LD	52-86-02-09-88S	52-87-02-13-88	52-87-02-13-88L
Matrix:	Water	Water	Water	Water
Units:	MG/L	% RECOVERY	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		NR		0.0290	U	NR		
Antimony	(Sb), dissolved.....	NR		NR		0.02	U	NR		
Arsenic	(As), dissolved.....	NR		NR		0.003	J	NR		
Barium	(Ba), dissolved.....	NR		NR		0.1561		NR		
Beryllium	(Be), dissolved.....	0.005	U	NR		0.005	U	0.005	U	
Cadmium	(Cd), dissolved.....	0.001	U	NR		0.001	U	0.0013		
Calcium	(Ca), dissolved.....	NR		NR		104.3593		NR		
Cesium	(Cs), dissolved.....	0.02	U	NR		0.02	U	0.02	U	
Chromium	(Cr), dissolved.....	NR		NR		0.0100	U	NR		
Cobalt	(Co), dissolved.....	NR		NR		0.0220	U	NR		
Copper	(Cu), dissolved.....	NR		NR		0.0063	U	NR		
Iron	(Fe), dissolved.....	NR		NR		0.0069	U	NR		
Lead	(Pb), dissolved.....	0.005	U	NR		0.005	U	0.005	U	
Lithium	(Li), dissolved.....	NR		NR		0.1	U	NR		
Magnesium	(Mg), dissolved.....	NR		NR		25.0742		NR		
Manganese	(Mn), dissolved.....	NR		NR		0.7556		NR		
Mercury	(Hg), dissolved.....	NR		107	%	0.0002	U	0.0002	U	
Molybdenum	(Mo), dissolved.....	NR		NR		0.0220	U	NR		
Nickel	(Ni), dissolved.....	NR		NR		0.0370	U	NR		
Potassium	(K), dissolved.....	NR		NR		3.2		NR		
Selenium	(Se), dissolved.....	NR		NR		0.005	U	NR		
Silver	(Ag), dissolved.....	NR		NR		0.0076	U	NR		
Sodium	(Na), dissolved.....	NR		NR		166.3747		NR		
Strontium	(Sr), dissolved.....	NR		NR		0.8222		NR		
Thallium	(Tl), dissolved.....	NR		NR		0.01	U	0.01	U	
Vanadium	(V), dissolved.....	NR		NR		0.0240	U	NR		
Zinc	(Zn), dissolved.....	NR		NR		0.0414		NR		

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 46

Sample Information

	RFW Batch ID:	0188-881-167	0188-881-106	0188-881-107	0188-881-124
	Customer ID:	52-87-02-13-88S	54-86-02-09-88	55-86-02-09-88	55-86-02-09-88[illegible]
	Matrix:	Water	Water	Water	Water
	Units:	% RECOVERY	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	NR	0.0290 U	0.0290 U	0.0290 U
Antimony	(Sb), dissolved.....	NR	0.02 U	0.02 U	NR
Arsenic	(As), dissolved.....	89 %	0.002 J	0.002 J	NR
Barium	(Ba), dissolved.....	NR	0.0882	0.0706	0.0691
Beryllium	(Be), dissolved.....	NR	0.005 U	0.005 U	NR
Cadmium	(Cd), dissolved.....	NR	0.001 U	0.001	NR
Calcium	(Ca), dissolved.....	NR	88.7073	22.3516	22.0498
Cesium	(Cs), dissolved.....	NR	0.02 U	0.02 U	NR
Chromium	(Cr), dissolved.....	NR	0.100 U	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	NR	0.0220 U	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	NR	0.0072	0.0063 U	0.0063 U
Iron	(Fe), dissolved.....	NR	0.0113	0.0189	0.0069 U
Lead	(Pb), dissolved.....	NR	0.005 U	0.016	NR
Lithium	(Li), dissolved.....	NR	0.06 J	0.1 U	NR
Magnesium	(Mg), dissolved.....	NR	21.2245	4.2392	4.1980
Manganese	(Mn), dissolved.....	NR	0.1770	0.0051 U	0.0051 U
Mercury	(Hg), dissolved.....	111 %	0.0002 U	0.0002 U	NR
Molybdenum	(Mo), dissolved.....	NR	0.0220 U	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	NR	0.0370 U	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	NR	5.2	0.8	NR
Selenium	(Se), dissolved.....	82 %	0.005 U	0.005 U	NR
Silver	(Ag), dissolved.....	NR	0.0076 U	0.0076 U	00076 U
Sodium	(Na), dissolved.....	NR	32.8532	8.5461	8.3681
Strontium	(Sr), dissolved.....	NR	0.8118	0.1201	0.1211
Thallium	(Tl), dissolved.....	NR	0.01 U	0.01 U	NR
Vanadium	(V), dissolved.....	NR	0.0240 U	0.0240 U	0.0240 U
Zinc	(Zn), dissolved.....	NR	0.0398	0.0623	0.0295

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 47

Sample Information

	RFW Batch ID:	0188-881-125	0188-881-126	0188-881-120	0188-881-121
	Customer ID:	55-86-02-09-88S	55-86-02-09-88S	55-86-03-15-88LD	55-86-03-15-88S
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	% RECOVERY
Metals					
Aluminum	(Al), dissolved.....	1.0480	1.0619	NR	NR
Antimony	(Sb), dissolved.....	NR	NR	0.02 U	123 %
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	0.1705	0.1714	NR	NR
Beryllium	(Be), dissolved.....	NR	NR	0.001 J	NR
Cadmium	(Cd), dissolved.....	NR	NR	0.001 U	NR
Calcium	(Ca), dissolved.....	30.2134	31.5375	NR	NR
Cesium	(Cs), dissolved.....	NR	NR	0.02 U	NR
Chromium	(Cr), dissolved.....	0.9540	0.9604	NR	NR
Cobalt	(Co), dissolved.....	0.9309	0.9360	NR	NR
Copper	(Cu), dissolved.....	1.0114	1.0176	NR	NR
Iron	(Fe), dissolved.....	0.1046	0.1028	NR	NR
Lead	(Pb), dissolved.....	NR	NR	0.005 U	NR
Lithium	(Li), dissolved.....	NR	NR	0.1 U	98 %
Magnesium	(Mg), dissolved.....	4.1698	4.3086	NR	NR
Manganese	(Mn), dissolved.....	0.9164	0.9183	NR	NR
Mercury	(Hg), dissolved.....	NR	NR	NR	NR
Molybdenum	(Mo), dissolved.....	0.9324	0.9180	NR	NR
Nickel	(Ni), dissolved.....	0.9978	0.9610	NR	NR
Potassium	(K), dissolved.....	NR	NR	0.8	120 %
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	1.0880	1.1065	NR	NR
Sodium	(Na), dissolved.....	21.5708	19.1539	NR	NR
Strontium	(Sr), dissolved.....	1.1897	1.1924	NR	NR
Thallium	(Tl), dissolved.....	NR	NR	0.01 U	NR
Vanadium	(V), dissolved.....	0.9991	0.9938	NR	NR
Zinc	(Zn), dissolved.....	0.1515	0.1583	NR	NR

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-136	0188-881-188	0188-881-171	0188-881-172
Customer ID:	56-86-02-16-88	56-86-02-16-88D	56-86-02-16-88LD	56-86-02-16-88S
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	% RECOVERY

Metals

Aluminum	(Al), dissolved.....	0.0400		0.0468		NR		NR	
Antimony	(Sb), dissolved.....	0.02	U	NR		0.02	U	NR	
Arsenic	(As), dissolved.....	0.005	U	NR		0.005	U	NR	
Barium	(Ba), dissolved.....	0.1220		0.1201		NR		NR	
Beryllium	(Be), dissolved.....	0.005	U	NR		0.005	U	73	%
Cadmium	(Cd), dissolved.....	0.001	U	NR		0.001	U	135	%
Calcium	(Ca), dissolved.....	27.4721		26.3685		NR		NR	
Cesium	(Cs), dissolved.....	0.02	U	NR		0.02	U	NR	
Chromium	(Cr), dissolved.....	0.0100	U	0.0100	U	NR		NR	
Cobalt	(Co), dissolved.....	0.02204	U	0.0220	U	NR		NR	
Copper	(Cu), dissolved.....	0.0063	U	0.0063	U	NR		NR	
Iron	(Fe), dissolved.....	0.0312		0.0253		NR		NR	
Lead	(Pb), dissolved.....	0.005	U	NR		0.005	U	103	%
Lithium	(Li), dissolved.....	0.1	U	NR		0.1	U	106	%
Magnesium	(Mg), dissolved.....	6.8235		6.6928		NR		NR	
Manganese	(Mn), dissolved.....	0.0071		0.0069		NR		NR	
Mercury	(Hg), dissolved.....	0.0002	U	NR		0.0002	U	104	%
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	NR		NR	
Nickel	(Ni), dissolved.....	0.0370	U	0.0370	U	NR		NR	
Potassium	(K), dissolved.....	1.7		NR		1.6		122	%
Selenium	(Se), dissolved.....	0.005	U	NR		0.005	U	NR	
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	NR		NR	
Sodium	(Na), dissolved.....	24.6484		23.4455		NR		NR	
Strontium	(Sr), dissolved.....	0.1697		0.1650		NR		NR	
Thallium	(Tl), dissolved.....	0.01	U	NR		0.01	U	64	%
Vanadium	(V), dissolved.....	0.0240	U	0.0240	U	NR		NR	
Zinc	(Zn), dissolved.....	0.0261		0.0231		NR		NR	

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

APPENDIX F-4

DISSOLVED RADIONUCLIDES

FIRST QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 7

Sample Information

RFW Batch ID:	0188-881-405	0188-881-410	0188-881-031
Customer ID:	17-87-03-04-88	18-87-03-08-88	19-86-03-17-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	10 ± 5	pci/l		7 ± 9	pci/l	16	12 ± 6	pci/l	
Gross Beta	11 ± 9	pci/l	20	24 ± 15	pci/l	34	9 ± 12	pci/l	
Uranium 233, 234	5.2 ± 0.5	pci/l		0.23 ± 0.30	pci/l	1.1	5.8 ± 0.6	pci/l	
Uranium 235	0.25 ± 0.10	pci/l	0.31	0.09 ± 0.12	pci/l	0.9	0.26 ± 0.11	pci/l	
Uranium 238	4.1 ± 0.42	pci/l		0.21 ± 0.24	pci/l	1.2	3.9 ± 0.5	pci/l	
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.12	pci/l	0.38	0.02 ± 0.09	pci/l	0.4	0.03 ± 0.12	pci/l	
Americium 241	0.0 ± 1.6	pci/l	4.4	0.00 ± 0.24	pci/l	1.2	0.00 ± 0.20	pci/l	
Tritium	<200	pci/l		<220	pci/l		< 210	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-028	0188-881-470	0188-881-409
Customer ID:	2-60-03-17-88	2-86-03-31-88	20-87-03-04-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	16 ± 50	pci/l		30 ± 7	pci/l		8 ± 12	pci/l	27
Gross Beta	29 ± 66	pci/l		11 ± 11	pci/l	25	37 ± 22	pci/l	47
Uranium 233, 234	5.0 ± 1.7	pci/l		14 ± 2	pci/l				
Uranium 235	0.28 ± 0.28	pci/l		0.41 ± 0.06	pci/l				
Uranium 238	4.1 ± 1.5	pci/l		13 ± 2	pci/l				
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.22	pci/l		0.00 ± 0.15	pci/l	0.96	0.00 ± 0.18	pci/l	0.68
Americium 241	0.00 ± 1.1	pci/l		0.00 ± 0.34	pci/l	2.6	0.00 ± 0.24	pci/l	1.1
Tritium	710 ± 110	pci/l		<200	pci/l		<200	pci/l	

Client: ROCKWELL (ROCKY FLATS) Page: 24

Sample Information

RFW Batch ID:	0188-881-251	0188-881-252	0188-881-250
Customer ID:	WSF0402	WSF0402	WSF0404
Matrix:	Soil	Soil	Soil

Inorganics

Total Dissolved Solids.....							
Chloride.....							
Nitrate-Nitrite as N.....	60	mg/kg	20	U	mg/kg	60	mg/kg
Sulfate.....							
HCO3- as CaCO3.....							
CO3= as CaCO3.....							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-255	0188-881-254	0188-881-253
Customer ID:	WSF0501	WSF0502	WSF0504
Matrix:	Soil	Soil	Soil

Inorganics

Total Dissolved Solids.....							
Chloride.....							
Nitrate-Nitrite as N.....	60	mg/kg	40		mg/kg	60	mg/kg
Sulfate.....							
HCO3- as CaCO3.....							
CO3= as CaCO3.....							

Client: ROCKWELL (ROCKY FLATS) Page: 25

Sample Information

RFW Batch ID:	0188-881-258	0188-881-257	0188-881-256
Customer ID:	WSF0601	WSF0602	WSF0605
Matrix:	Soil	Soil	Soil
Inorganics			
Total Dissolved Solids.....			
Chloride.....			
Nitrate-Nitrite as N.....	20 U mg/kg	20 U mg/kg	20 U mg/kg
Sulfate.....			
HCO3- as CaCO3.....			
CO3= as CaCO3.....			

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-261	0188-881-260	0188-881-259
Customer ID:	WSF0701	WSF0702	WSF0704
Matrix:	Soil	Soil	Soil
Inorganics			
Total Dissolved Solids.....			
Chloride.....			
Nitrate-Nitrite as N.....	20 U mg/kg	150 mg/kg	140 mg/kg
Sulfate.....			
HCO3- as CaCO3.....			
CO3= as CaCO3.....			

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-264	0188-881-263	0188-881-262
Customer ID:	WSF0801	WSF0802	WSF0805
Matrix:	Soil	Soil	Soil

Inorganics

Total Dissolved Solids.....			
Chloride.....			
Nitrate-Nitrite as N.....	20 U mg/kg	20 U mg/kg	20 U mg/kg
Sulfate.....			
HCO3- as CaCO3.....			
CO3= as CaCO3.....			

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-267	0188-881-266	0188-881-265
Customer ID:	WSF0901	WSF0902	WSF0904
Matrix:	Soil	Soil	Soil

Inorganics

Total Dissolved Solids.....			
Chloride.....			
Nitrate-Nitrite as N.....	20 U mg/kg	20 U mg/kg	20 U mg/kg
Sulfate.....			
HCO3- as CaCO3.....			
CO3= as CaCO3.....			

Client: ROCKWELL (ROCKY FLATS) Page: 27

Sample Information

RFW Batch ID:	0188-881-270	0188-881-269	0188-881-268
Customer ID:	WSF1001	WSF1002	WSF1004
Matrix:	Soil	Soil	Soil

Inorganics

Total Dissolved Solids.....			
Chloride.....			
Nitrate-Nitrite as N.....	20 U mg/kg	110* mg/kg	20 U mg/kg
Sulfate.....			
HCO3- as CaCO3.....			
CO3= as CaCO3.....			

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-273	0188-881-272	0188-881-271
Customer ID:	WSF1101	WSF1102	WSF1105
Matrix:	Soil	Soil	Soil

Inorganics

Total Dissolved Solids.....			
Chloride.....			
Nitrate-Nitrite as N.....	20 U mg/kg	30 mg/kg	80 mg/kg
Sulfate.....			
HCO3- as CaCO3.....			
CO3= as CaCO3.....			

Sample Information

RFW Batch ID:	0188-881-276	0188-881-275	0188-881-274
Customer ID:	WSF1201	WSF1202	WSF1204
Matrix:	Soil	Soil	Soil

Inorganics

Total Dissolved Solids.....			
Chloride.....			
Nitrate-Nitrite as N.....	20 U mg/kg	20 U mg/kg	420* mg/kg
Sulfate.....			
HCO3- as CaCO3.....			
CO3= as CaCO3.....			

FIRST QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 1

Sample Information

RFW Batch ID:	0188-881-190	0188-881-127	0188-881-191
Customer ID:	01-71-02-26-88	01-87-02-11-88	02-71-02-26-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	5 ± 4	pci/l	15 ± 11	pci/l	9 ± 17	pci/l
Gross Beta	12 ± 11	pci/l	15 ± 30	pci/l	-12 ± 59	pci/l
Uranium 233, 234	2.3 ± 0.3	pci/l	8.4 ± 0.7	pci/l	7.3 ± 0.7	pci/l
Uranium 235	0.06 ± 0.07	pci/l	0.34 ± 0.11	pci/l	0.23 ± 0.10	pci/l
Uranium 238	1.4 ± 0.3	pci/l	5.5 ± 0.5	pci/l	5.6 ± 0.6	pci/l
Strontium 89, 90						
Plutonium 239, 240	0.00 ± 0.18	pci/l	0.00 ± 0.26	pci/l	0.00 ± 0.17	pci/l
Americium 241	0.00 ± 0.18	pci/l	0.03 ± 0.25	pci/l	0.00 ± 0.33	pci/l
Tritium	<200	pci/l			<200	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-240		0188-881-128		0188-881-162	
Customer ID:	02-71-02-26-88LD		02-87-02-11-88		02-87-02-11-88D	
Matrix:	Water		Water		Water	

Radio Chemistry

Gross Alpha			19 ± 12	pci/l	1 ± 10	pci/l
Gross Beta			6 ± 23	pci/l	16 ± 23	pci/l
Uranium 233, 234			7.4 ± 0.6	pci/l	7.5 ± 1.1	pci/l
Uranium 235			0.26 ± 0.09	pci/l	0.11 ± 0.11	pci/l
Uranium 238			3.5 ± 0.4	pci/l	3.4 ± 0.6	pci/l
Strontium 89, 90						
Plutonium 239, 240			0.13 ± 0.12	pci/l	0.03 ± 0.11	pci/l
Americium 241			0.0 ± 3.3	pci/l		
Tritium	<200	pci/l	<220	pci/l	<210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-215	0188-881-149	0188-881-140
Customer ID:	03-74-03-08-88	03-87-02-23-88	04-87-02-16-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....	10 ± 7	pci/l	5 ± 5	pci/l	50 ± 13	pci/l
Gross Beta.....	9 ± 15	pci/l	11 ± 10	pci/l	16 ± 13	pci/l
Uranium 233, 234.....	2.4 ± 0.3	pci/l	1.0 ± 0.3	pci/l	19 ± 2	pci/l
Uranium 235.....	0.07 ± 0.07	pci/l	0.05 ± 0.07	pci/l	1.1 ± 0.2	pci/l
Uranium 238.....	1.6 ± 0.3	pci/l	1.5 ± 0.3	pci/l	15 ± 2	pci/l
Strontium 89, 90.....						
Plutonium 239, 240.....	0.00 ± 0.16	pci/l	0.00 ± 0.19	pci/l	0.00 ± 0.24	pci/l
Americium 241.....	0.00 ± 0.25	pci/l			0.00 ± 0.14	pci/l
Tritium.....	210	pci/l	<220	pci/l	<210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-151	0188-881-143	0188-881-019
Customer ID:	05-87-02-23-88	06-87-02-19-88	08-86-02-04-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....	23 ± 14	pci/l	48 ± 10	pci/l	3 ± 5	pci/l
Gross Beta.....	14 ± 25	pci/l	25 ± 13	pci/l	-7 ± 12	pci/l
Uranium 233, 234.....	14 ± 1	pci/l	28 ± 3	pci/l	2.9 ± 0.63	pci/l
Uranium 235.....	0.77 ± 0.16	pci/l	0.93 ± 0.23	pci/l	0.08 ± 0.12	pci/l
Uranium 238.....	9 ± 1	pci/l	24 ± 3	pci/l	0.90 ± 0.30	pci/l
Strontium 89, 90.....						
Plutonium 239, 240.....	0.00 ± 0.27	pci/l	0.00 ± 0.20	pci/l	0.0 ± 0.31	pci/l
Americium 241.....			0.00 ± 0.11	pci/l		
Tritium.....	<220	pci/l	<210	pci/l	<210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-150	0188-881-156	0188-881-157
Customer ID:	08-87-02-23-88	09-74-02-26-88	09-74-02-26-88D
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	13 ± 11	pci/l		20 ± 11	pci/l		22 ± 12	pci/l	
Gross Beta	16 ± 23	pci/l		14 ± 27	pci/l		10 ± 26	pci/l	
Uranium 233, 234	4.8 ± 1.2	pci/l		15 ± 2	pci/l		12 ± 1	pci/l	
Uranium 235	0.37 ± 0.26	pci/l		0.53 ± 0.16	pci/l		0.64 ± 0.16	pci/l	
Uranium 238	1.9 ± 0.6	pci/l		11 ± 1	pci/l		10 ± 1	pci/l	
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.61	pci/l		0.00 ± 0.41	pci/l		0.00 ± 0.77	pci/l	
Americium 241									
Tritium	<210	pci/l		<210	pci/l		<200	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-018	0188-881-193	0188-881-406
Customer ID:	09-86-02-04-88	09-87-02-26-88	1-74-03-04-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	1 ± 5	pci/l		2 ± 4	pci/l		5 ± 4	pci/l	14
Gross Beta	-4 ± 11	pci/l		3 ± 12	pci/l		0 ± 10	pci/l	22
Uranium 233, 234	1.1 ± 0.24	pci/l					2.5 ± 0.4	pci/l	
Uranium 235	0.09 ± 0.07	pci/l					0.02 ± 0.07	pci/l	0.40
Uranium 238	0.24 ± 0.12	pci/l					2.1 ± 0.4	pci/l	
Strontium 89, 90									
Plutonium 239, 240	0.0 ± 0.58	pci/l		0.00 ± 0.35	pci/l		0.09 ± 0.11	pci/l	0.43
Americium 241							0.05 ± 0.42	pci/l	1.8
Tritium	<210	pci/l		350 ± 80	pci/l		<210	pci/l	

FIRST QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 4

Sample Information

RFW Batch ID:	0188-881-469			0188-881-158			0188-881-239	
Customer ID:	1-86-03-31-88			10-74-02-26-88			10-74-02-26-88LD	
Matrix:	Water			Water			Water	
Radio Chemistry								
Gross Alpha	0 ± 3	pci/l	6	13 ± 11	pci/l		10 ± 10	pci/l
Gross Beta	-3 ± 10	pci/l	23	-8 ± 27	pci/l		6 ± 28	pci/l
Uranium 233, 234	0.78 ± 0.14	pci/l		7.3 ± 0.7	pci/l			
Uranium 235	0.07 ± 0.04	pci/l		0.37 ± 0.12	pci/l			
Uranium 238	1.1 ± 0.2	pci/l		5.1 ± 0.5	pci/l			
Strontium 89, 90								
Plutonium 239, 240	0.00 ± 0.14	pci/l	0.53	0.00 ± 0.25	pci/l			
Americium 241	0.07 ± 0.23	pci/l	1.0					
Tritium	<200	pci/l		<220	pci/l		<220	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-100			0188-881-228			0188-881-015	
Customer ID:	10-81-02-05-88			10-81-02-05-88LD			10-86-02-02-88	
Matrix:	Water			Water			Water	
Radio Chemistry								
Gross Alpha	-2 ± 4	pci/l					2 ± 4	pci/l
Gross Beta	-9 ± 11	pci/l					-9 ± 11	pci/l
Uranium 233, 234	0.02 ± 0.08	pci/l					6.3 ± 0.6	pci/l
Uranium 235	0.01 ± 0.06	pci/l					0.24 ± 0.09	pci/l
Uranium 238	0.12 ± 0.08	pci/l					5.1 ± 0.5	pci/l
Strontium 89, 90								
Plutonium 239, 240	0.00 ± 0.21	pci/l					0.00 ± 0.32	pci/l
Americium 241	0.00 ± 0.32	pci/l						
Tritium	230 ± 100	pci/l		340 ± 100	pci/l		<210	pci/l

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Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-473			0188-881-146			0188-881-238	
Customer ID:	11-86-03-29-88			11-87-02-18-88			11-87-02-18-88LD	
Matrix:	Water			Water			Water	
Radio Chemistry								
Gross Alpha	17 ± 6	pci/l		15 ± 5	pci/l		17 ± 5	pci/l
Gross Beta	9 ± 10	pci/l		-1 ± 11	pci/l		2 ± 12	pci/l
Uranium 233, 234	0.42 ± 0.24	pci/l	0.77	2.0 ± 0.4	pci/l			
Uranium 235	0.10 ± 0.11	pci/l	0.73	0.05 ± 0.09	pci/l			
Uranium 238	0.19 ± 0.15	pci/l	0.70	1.1 ± 0.3	pci/l			
Strontium 89, 90								
Plutonium 239, 240	0.00 ± 0.33	pci/l	2.0	0.00 ± 0.20	pci/l			
Americium 241	0.09 ± 0.17	pci/l	1.0	0.00 ± 0.12	pci/l			
Tritium	<210	pci/l		<220	pci/l			

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-192			0188-881-022			0188-881-196	
Customer ID:	12-87-02-26-88			14-86-03-15-88			14-87-03-01-88	
Matrix:	Water			Water			Water	
Radio Chemistry								
Gross Alpha	47 ± 12	pci/l		0 ± 5	pci/l		10 ± 7	pci/l
Gross Beta	46 ± 16	pci/l		7 ± 11	pci/l		19 ± 13	pci/l
Uranium 233, 234	34 ± 3	pci/l		1.1 ± 0.2	pci/l		0.03 ± 0.09	pci/l
Uranium 235	1.7 ± 0.3	pci/l		0.00 ± 0.06	pci/l		0.00 ± 0.04	pci/l
Uranium 238	28 ± 2	pci/l		0.30 ± 0.12	pci/l		0.12 ± 0.09	pci/l
Strontium 89, 90								
Plutonium 239, 240				0.00 ± 0.40	pci/l		0.00 ± 0.19	pci/l
Americium 241	0.00 ± 0.09	pci/l		0.00 ± 0.61	pci/l		0.00 ± 0.11	pci/l
Tritium	<220	pci/l		< 210	pci/l		<210	pci/l

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Sample Information

RFW Batch ID:	0188-881-023	0188-881-233	0188-881-197
Customer ID:	15-86-03-15-88	15-86-03-15-88LD	15-87-03-01-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	26 ± 6	pci/l				14 ± 7	pci/l
Gross Beta	4 ± 11	pci/l				-5 ± 17	pci/l
Uranium 233, 234	18 ± 1	pci/l				1.4 ± 0.3	pci/l
Uranium 235	0.69 ± 0.14	pci/l				0.04 ± 0.06	pci/l
Uranium 238	14 ± 1	pci/l				0.94 ± 0.20	pci/l
Strontium 89, 90							
Plutonium 239, 240	0.00 ± 0.78	pci/l				0.00 ± 0.19	pci/l
Americium 241	0.00 ± 0.50	pci/l				0.00 ± 0.10	pci/l
Tritium	240 ± 100	pci/l	<200	pci/l		<210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-024	0188-881-198	0188-881-025
Customer ID:	16-86-03-15-88	16-87-03-01-88	17-86-03-15-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	-1 ± 6	pci/l	10 ± 4	pci/l		28 ± 12	pci/l
Gross Beta	12 ± 56	pci/l	12 ± 18	pci/l		25 ± 13	pci/l
Uranium 233, 234	1.1 ± 0.2	pci/l	4.0 ± 0.4	pci/l		28 ± 2	pci/l
Uranium 235	0.06 ± 0.07	pci/l	0.14 ± 0.07	pci/l		1.2 ± 0.2	pci/l
Uranium 238	0.52 ± 0.15	pci/l	1.8 ± 0.2	pci/l		15 ± 1	pci/l
Strontium 89, 90							
Plutonium 239, 240	0.00 ± 0.40	pci/l	0.00 ± 0.14	pci/l		0.00 ± 0.40	pci/l
Americium 241	0.03 ± 0.14	pci/l	0.03 ± 0.12	pci/l		0.00 ± 0.42	pci/l
Tritium	< 200	pci/l	<220	pci/l		700 ± 100	pci/l

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Sample Information

RFW Batch ID:	0188-881-405			0188-881-410			0188-881-031		
Customer ID:	17-87-03-04-88			18-87-03-08-88			19-86-03-17-88		
Matrix:	Water			Water			Water		
Radio Chemistry									
Gross Alpha	10 ± 5	pci/l		7 ± 9	pci/l	16	12 ± 6	pci/l	
Gross Beta	11 ± 9	pci/l	20	24 ± 15	pci/l	34	9 ± 12	pci/l	
Uranium 233, 234	5.2 ± 0.5	pci/l		0.23 ± 0.30	pci/l	1.1	5.8 ± 0.6	pci/l	
Uranium 235	0.25 ± 0.10	pci/l	0.31	0.09 ± 0.12	pci/l	0.9	0.26 ± 0.11	pci/l	
Uranium 238	4.1 ± 0.42	pci/l		0.21 ± 0.24	pci/l	1.2	3.9 ± 0.5	pci/l	
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.12	pci/l	0.38	0.02 ± 0.09	pci/l	0.4	0.03 ± 0.12	pci/l	
Americium 241	0.0 ± 1.6	pci/l	4.4	0.00 ± 0.24	pci/l	1.2	0.00 ± 0.20	pci/l	
Tritium	<200	pci/l		<220	pci/l		< 210	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-028			0188-881-470			0188-881-409		
Customer ID:	2-60-03-17-88			2-86-03-31-88			20-87-03-04-88		
Matrix:	Water			Water			Water		
Radio Chemistry									
Gross Alpha	16 ± 50	pci/l		30 ± 7	pci/l		8 ± 12	pci/l	27
Gross Beta	29 ± 66	pci/l		11 ± 11	pci/l	25	37 ± 22	pci/l	47
Uranium 233, 234	5.0 ± 1.7	pci/l		14 ± 2	pci/l				
Uranium 235	0.28 ± 0.28	pci/l		0.41 ± 0.06	pci/l				
Uranium 238	4.1 ± 1.5	pci/l		13 ± 2	pci/l				
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.22	pci/l		0.00 ± 0.15	pci/l	0.96	0.00 ± 0.18	pci/l	0.68
Americium 241	0.00 ± 1.1	pci/l		0.00 ± 0.34	pci/l	2.6	0.00 ± 0.24	pci/l	1.1
Tritium	710 ± 110	pci/l		<200	pci/l		<200	pci/l	

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Sample Information

RFW Batch ID:	0188-881-036	0188-881-236	0188-881-026
Customer ID:	21-86-03-22-88	21-86-03-22-88LD	22-86-03-17-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....	4 ± 7	pci/l				8 ± 6	pci/l
Gross Beta.....	18 ± 16	pci/l				8 ± 11	pci/l
Uranium 233, 234.....	2.0 ± 0.6	pci/l				6.3 ± 0.6	pci/l
Uranium 235.....	0.85 ± 0.31	pci/l				0.21 ± .010	pci/l
Uranium 238.....	1.7 ± 0.5	pci/l				3.0 ± 0.4	pci/l
Strontium 89, 90.....							
Plutonium 239, 240.....	0.00 ± 0.20	pci/l				0.00 ± 0.24	pci/l
Americium 241.....	0.00 ± 0.12	pci/l				0.00 ± 0.11	pci/l
Tritium.....	< 210	pci/l	<210	pci/l		340 ± 100	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-411	0188-881-414	0188-881-037
Customer ID:	22-87-03-08-88	22-87-03-08-88-LD	23-86-03-22-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....	22 ± 9	pci/l				0 ± 9	pci/l
Gross Beta.....	12 ± 16	pci/l	36			17 ± 23	pci/l
Uranium 233, 234.....	3.0 ± 0.4	pci/l				2.9 ± 0.4	pci/l
Uranium 235.....	0.18 ± 0.10	pci/l	0.30			0.14 ± 0.08	pci/l
Uranium 238.....	1.6 ± 0.3	pci/l				1.0 ± 0.2	pci/l
Strontium 89, 90.....							
Plutonium 239, 240.....	0.00 ± 0.16	pci/l	0.48			0.00 ± 0.71	pci/l
Americium 241.....	0.00 ± 0.31	pci/l	1.6			0.05 ± 0.10	pci/l
Tritium.....	<200	pci/l		<200	pci/l	< 210	pci/l

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Sample Information

RFW Batch ID:	0188-881-402			0188-881-412			0188-881-033	
Customer ID:	23-87-03-03-88			23-87-03-03-88-LD			25-86-03-22-88	
Matrix:	Water			Water			Water	
Radio Chemistry								
Gross Alpha	6 ± 4	pci/l	6				0 ± 10	pci/l
Gross Beta	11 ± 12	pci/l	26				13 ± 22	pci/l
Uranium 233, 234	3.6 ± 0.4	pci/l					4.3 ± 0.7	pci/l
Uranium 235	0.14 ± 0.07	pci/l	0.17				0.26 ± 0.14	pci/l
Uranium 238	2.2 ± 0.3	pci/l					1.1 ± 0.3	pci/l
Strontium 89, 90								
Plutonium 239, 240	0.00 ± 0.19	pci/l	0.84					
Americium 241	0.00 ± 0.17	pci/l	1.1				0.03 ± 0.30	pci/l
Tritium	<210	pci/l		<200	pci/l		< 210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-407			0188-881-034			0188-881-029	
Customer ID:	25-87-03-04-88			27-86-03-22-88			28-86-03-17-88	
Matrix:	Water			Water			Water	
Radio Chemistry								
Gross Alpha	7 ± 5	pci/l	8	-1 ± 9	pci/l		8.6 ± 1.5	pci/l
Gross Beta	-2 ± 11	pci/l	26	11 ± 22	pci/l		8.9 ± 0.6	pci/l
Uranium 233, 234	1.7 ± 0.30	pci/l					3.2 ± 0.2	pci/l
Uranium 235	0.06 ± 0.08	pci/l	0.40				12 ± 1	pci/l
Uranium 238	1.8 ± 0.32	pci/l					220 ± 20	pci/l
Strontium 89, 90								
Plutonium 239, 240	0.00 ± 0.19	pci/l	0.78	0.00 ± 0.18	pci/l		0.00 ± 0.15	pci/l
Americium 241	0.00 ± 0.46	pci/l	1.3	0.00 ± 0.51	pci/l		0.00 ± 0.49	pci/l
Tritium	<210	pci/l		< 210	pci/l		9000 ± 300	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-226	0188-881-343	0188-881-195
Customer ID:	28-87-03-15-88	28-87-03-15-88LD	29-87-03-01-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	6 ± 5	pci/l		8 ± 7	pci/l		40 ± 50	pci/l
Gross Beta	14 ± 12	pci/l		13 ± 11	pci/l		33 ± 11	pci/l
Uranium 233, 234	0.98 ± 0.20	pci/l					13 ± 1	pci/l
Uranium 235	0.01 ± 0.05	pci/l					0.43 ± 0.16	pci/l
Uranium 238	0.25 ± 0.11	pci/l					10 ± 1	pci/l
Strontium 89, 90								
Plutonium 239, 240	0.00 ± 0.23	pci/l						
Americium 241	0.00 ± 0.29	pci/l					0.06 ± 0.27	pci/l
Tritium	210	pci/l					<210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-446			0188-881-471			0188-881-032		
Customer ID:	3-82-03-29-88			3-86-03-31-88			30-86-03-17-88		
Matrix:	Water			Water			Water		

Radio Chemistry

Gross Alpha	15 ± 11	pci/l	16	17 ± 5	pci/l		320 ± 60	pci/l	
Gross Beta	-7 ± 9	pci/l	2	10 ± 11	pci/l	24	250 ± 40	pci/l	
Uranium 233, 234	6.4 ± 0.9	pci/l		7.4 ± 1.4	pci/l				
Uranium 235	0.47 ± 0.17	pci/l	0.53	0.19 ± 0.17	pci/l	0.70			
Uranium 238	5.8 ± 0.8	pci/l		6.1 ± 1.2	pci/l				
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.43	pci/l	2.0	0.00 ± 0.15	pci/l	0.89	0.00 ± 0.74	pci/l	
Americium 241	0.00 ± 0.18	pci/l	0.87	0.00 ± 0.32	pci/l	1.5			
Tritium	<200	pci/l		<200	pci/l		6300 ± 200	pci/l	

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Sample Information

RFW Batch ID:	0188-881-235	0188-881-199	0188-881-221
Customer ID:	30-86-03-17-88LD	30-87-03-03-88	31-87-03-10-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	300 ± 60	pci/l		33 ± 11	pci/l		14 ± 8	pci/l	
Gross Beta	250 ± 40	pci/l		4 ± 27	pci/l		15 ± 16	pci/l	
Uranium 233, 234									
Uranium 235									
Uranium 238									
Strontium 89, 90									
Plutonium 239, 240				0.00 ± 0.25	pci/l		0.00 ± 0.11	pci/l	
Americium 241				0.05 ± 0.13	pci/l		0.00 ± 0.17	pci/l	
Tritium				<220	pci/l		220	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-035	0188-881-216	0188-881-403
Customer ID:	32-86-03-22-88	32-87-03-10-88	34-86-03-03-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	0 ± 9	pci/l		15 ± 9	pci/l		6 ± 13	pci/l	28
Gross Beta	5 ± 22	pci/l		7 ± 19	pci/l		4 ± 21	pci/l	49
Uranium 233, 234	0.33 ± 0.15	pci/l		2.8 ± 0.3	pci/l		0.17 ± 0.16	pci/l	0.56
Uranium 235	0.14 ± 0.10	pci/l		0.03 ± 0.06	pci/l		0.00 ± 0.04	pci/l	0.28
Uranium 238	1.7 ± 0.3	pci/l		1.5 ± 0.2	pci/l		0.13 ± 0.13	pci/l	0.43
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.38	pci/l		0.00 ± 0.13	pci/l		0.00 ± 0.40	pci/l	3.6
Americium 241	0.10 ± 0.10	pci/l					0.00 ± 0.47	pci/l	3.0
Tritium	< 210	pci/l		200	pci/l		<210	pci/l	

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Sample Information

RFW Batch ID:	0188-881-413			0188-881-217			0188-881-404	
Customer ID:	34-86-03-03-88-LD			34-87-03-10-88			35-86-03-03-88	
Matrix:	Water			Water			Water	
Radio Chemistry								
Gross Alpha				4 ± 10	pci/l		16 ± 21	pci/l 44
Gross Beta				16 ± 16	pci/l		27 ± 41	pci/l 94
Uranium 233, 234				2.9 ± 0.5	pci/l		2.3 ± 0.4	pci/l
Uranium 235				0.21 ± 0.12	pci/l		0.06 ± 0.08	pci/l 0.38
Uranium 238				0.90 ± 0.23	pci/l		2.3 ± 0.4	pci/l
Strontium 89, 90								
Plutonium 239, 240				0.00 ± 0.15	pci/l		0.00 ± 0.50	pci/l 4.7
Americium 241				0.00 ± 0.24	pci/l		0.00 ± 0.18	pci/l 0.63
Tritium	<220	pci/l		200	pci/l		<210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-218			0188-881-341			0188-881-467	
Customer ID:	36-87-03-10-88			36-87-03-10-88LD			38-86-03-31-88	
Matrix:	Water			Water			Water	
Radio Chemistry								
Gross Alpha	17 ± 7	pci/l					55 ± 9	pci/l
Gross Beta	23 ± 14	pci/l					20 ± 12	pci/l 26
Uranium 233, 234	1.7 ± 0.3	pci/l					29 ± 4	pci/l
Uranium 235	0.10 ± 0.08	pci/l					0.45 ± 0.35	pci/l 1.2
Uranium 238	0.98 ± 0.22	pci/l					21 ± 3	pci/l
Strontium 89, 90								
Plutonium 239, 240	0.00 ± 0.12	pci/l					0.00 ± 0.10	pci/l 0.59
Americium 241	0.00 ± 0.15	pci/l					0.00 ± 0.15	pci/l 0.83
Tritium	210 ± 92	pci/l		<200	pci/l		<210	pci/l

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Sample Information

RFW Batch ID:	0188-881-219		0188-881-220		0188-881-342		
Customer ID:	39-86-03-10-88		39-86-03-10-88D		39-86-03-10-88LD		
Matrix:	Water		Water		Water		
Radio Chemistry							
Gross Alpha	26 ± 11	pci/l	23 ± 10	pci/l			
Gross Beta	24 ± 18	pci/l	23 ± 17	pci/l			
Uranium 233, 234	2.4 ± 3	pci/l	2.5 ± 0.4	pci/l			
Uranium 235	0.07 ± 0.07	pci/l	0.13 ± 0.10	pci/l			
Uranium 238	1.4 ± 0.2	pci/l	1.8 ± 0.3	pci/l			
Strontium 89, 90							
Plutonium 239, 240	0.00 ± 0.1	pci/l	0.00 ± 0.11	pci/l			
Americium 241	0.00 ± 0.07	pci/l					
Tritium	200	pci/l	210	pci/l	<200	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-027		0188-881-234		0188-881-030		
Customer ID:	39-87-03-17-88		39-87-03-17-88LD		4-60-03-17-88		
Matrix:	Water		Water		Water		
Radio Chemistry							
Gross Alpha	-2 ± 3	pci/l			24 ± 7	pci/l	
Gross Beta	1 ± 11	pci/l			29 ± 12	pci/l	
Uranium 233, 234	0.78 ± 0.16	pci/l			20 ± 2	pci/l	
Uranium 235	0.01 ± 0.06	pci/l			0.85 ± 0.19	pci/l	
Uranium 238	0.33 ± 0.11	pci/l			7.6 ± 0.8	pci/l	
Strontium 89, 90							
Plutonium 239, 240	0.01 ± 0.10	pci/l			0.00 ± 0.44	pci/l	
Americium 241	0.00 ± 0.11	pci/l					
Tritium	< 210	pci/l	<200 ± PCI/L		1100 ± 100	pci/l	

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Sample Information

RFW Batch ID:	0188-881-222	0188-881-223	0188-881-016
Customer ID:	40-86-03-11-88	41-86-03-11-88	41-87-02-03-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	46 ± 16	pci/l		19 ± 8	pci/l		3 ± 6	pci/l
Gross Beta	23 ± 16	pci/l		31 ± 15	pci/l		-4 ± 13	pci/l
Uranium 233, 234	6.1 ± 1.8	pci/l		3.3 ± 0.6	pci/l		0.26 ± 0.18	pci/l
Uranium 235	0.45 ± 0.39	pci/l		0.18 ± 0.14	pci/l		0.01 ± 0.06	pci/l
Uranium 238	3.9 ± 1.3	pci/l		2.4 ± 0.5	pci/l		0.15 ± 0.17	pci/l
Strontium 89, 90								
Plutonium 239, 240	0.00 ± 0.11	pci/l		0.00 ± 0.11	pci/l		0.0 ± 2.0	pci/l
Americium 241	0.00 ± 0.53	pci/l		0.00 ± 0.26	pci/l			
Tritium	220	pci/l		220	pci/l		<210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-408	0188-881-017	0188-881-155
Customer ID:	42-86-03-04-88	42-87-02-03-88	43-87-02-23-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	5 ± 5	pci/l	8	8 ± 5	pci/l		29 ± 14	pci/l	
Gross Beta	-5 ± 9	pci/l	22	5 ± 13	pci/l		14 ± 24	pci/l	
Uranium 233, 234	2.0 ± 0.30	pci/l		0.08 ± 0.11	pci/l		20 ± 3	pci/l	
Uranium 235	0.05 ± 0.07	pci/l	0.27	0.02 ± 0.07	pci/l		4.3 ± 0.9	pci/l	
Uranium 238	1.5 ± 0.24	pci/l		0.00 ± 0.09	pci/l		20 ± 3	pci/l	
Strontium 89, 90									
Plutonium 239, 240	0.18 ± 0.13	pci/l	0.52	0.02 ± 0.24	pci/l		0.00 ± 0.23	pci/l	
Americium 241	0.00 ± 1.2	pci/l	3.1						
Tritium	<200	pci/l		<220	pci/l		<210	pci/l	

Client: ROCKWELL (ROCKY FLATS) Page: 15

Sample Information

RFW Batch ID:	0188-881-445	0188-881-449	0188-881-442
Customer ID:	44-86-03-29-88	44-86-03-29-88	45-86-03-25-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	13 ± 5	pci/l					3 ± 3	pci/l	6
Gross Beta	7 ± 11	pci/l	24				-4 ± 10	pci/l	23
Uranium 233, 234	0.19 ± 0.13	pci/l	0.33				0.09 ± 0.11	pci/l	0.42
Uranium 235	0.00 ± 0.06	pci/l	0.31				0.03 ± 0.07	pci/l	0.41
Uranium 238	0.08 ± 0.09	pci/l	0.30				0.03 ± 0.08	pci/l	0.41
Strontium 89, 90									
Plutonium 239, 240	0.03 ± 0.10	pci/l	0.50				0.00 ± 0.13	pci/l	0.51
Americium 241	0.00 ± 0.53	pci/l	2.7						
Tritium	<210	pci/l		<200	pci/l		<210	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-152	0188-881-112	0188-881-108
Customer ID:	45-87-02-26-88	46-86-02-13-88	47-86-02-09-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	9 ± 5	pci/l		7 ± 4	pci/l		3 ± 4	pci/l
Gross Beta	29 ± 11	pci/l		9 ± 13	pci/l		15 ± 13	pci/l
Uranium 233, 234	2.7 ± 0.4	pci/l		1.9 ± 0.6	pci/l		0.16 ± 0.12	pci/l
Uranium 235	0.12 ± 0.10	pci/l		0.05 ± 0.15	pci/l		0.00 ± 0.06	pci/l
Uranium 238	1.2 ± 0.3	pci/l		1.3 ± 0.4	pci/l		0.05 ± 0.07	pci/l
Strontium 89, 90								
Plutonium 239, 240	0.00 ± 0.18	pci/l		0.02 ± 0.14	pci/l		0.00 ± 0.21	pci/l
Americium 241				0.00 ± 0.30	pci/l			
Tritium	<200	pci/l		<210	pci/l		<210	pci/l

Client: ROCKWELL (ROCKY FLATS) Page: 16

Sample Information

RFW Batch ID:	0188-881-443	0188-881-139	0188-881-447
Customer ID:	48-86-03-25-88	48-87-02-16-88	49-86-03-29-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	5 ± 4	pci/l	8	26 ± 8	pci/l		16 ± 5	pci/l	
Gross Beta	3 ± 16	pci/l	37	12 ± 13	pci/l		4 ± 10	pci/l	23
Uranium 233, 234	0.74 ± 0.18	pci/l		7.7 ± 1.5	pci/l		3.9 ± 0.5	pci/l	
Uranium 235	0.03 ± 0.06	pci/l	0.25	0.16 ± 0.18	pci/l		0.21 ± 0.11	pci/l	0.35
Uranium 238	0.38 ± 0.13	pci/l		6.1 ± 1.2	pci/l		4.7 ± 0.6	pci/l	
Strontium 89, 90									
Plutonium 239, 240	0.01 ± 0.15	pci/l	0.90	0.00 ± 0.18	pci/l		0.00 ± 0.18	pci/l	0.99
Americium 241				0.00 ± 0.12	pci/l		0.13 ± 0.22	pci/l	1.2
Tritium	<220	pci/l		<210	pci/l		<200	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-440	0188-881-472	0188-881-444
Customer ID:	5-82-03-24-88	5-86-03-29-88	50-86-03-25-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	1 ± 6	pci/l	12	110 ± 35	pci/l		8 ± 5	pci/l	8
Gross Beta	4 ± 18	pci/l	42	54 ± 50	pci/l	110	-14 ± 15	pci/l	37
Uranium 233, 234	0.22 ± 0.18	pci/l	0.77	102 ± 8	pci/l		0.23 ± 0.11	pci/l	0.32
Uranium 235	0.07 ± 0.12	pci/l	0.76	3.4 ± 0.4	pci/l		0.01 ± 0.06	pci/l	0.31
Uranium 238	0.00 ± 0.11	pci/l	0.74	64 ± 6	pci/l		0.16 ± 0.09	pci/l	0.29
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.39	pci/l	1.5	0.00 ± 1.5	pci/l	5.1	0.02 ± 0.33	pci/l	1.6
Americium 241				0.00 ± 0.80	pci/l	4.0			
Tritium	<200	pci/l		<210	pci/l		<220	pci/l	

Client: ROCKWELL (ROCKY FLATS) Page: 17

Sample Information

RFW Batch ID:	0188-881-448			0188-881-105			0188-881-104	
Customer ID:	50-86-03-25-88LD			51-86-02-09-88			52-86-02-09-88	
Matrix:	Water			Water			Water	
Radio Chemistry								
Gross Alpha	10 ± 4	pci/l		9 ± 5	pci/l		4 ± 4	pci/l
Gross Beta	-14 ± 15	pci/l	37	12 ± 12	pci/l		11 ± 12	pci/l
Uranium 233, 234				0.03 ± 0.12	pci/l		6.0 ± 1.5	pci/l
Uranium 235				0.02 ± 0.06	pci/l		0.25 ± 0.25	pci/l
Uranium 238				0.13 ± 0.10	pci/l		1.8 ± 0.7	pci/l
Strontium 89, 90								
Plutonium 239, 240				0.00 ± 0.18	pci/l		0.00 ± 0.16	pci/l
Americium 241								
Tritium				<210	pci/l		<210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-227			0188-881-131			0188-881-106	
Customer ID:	52-86-02-09-88LD			52-87-02-13-88			54-86-02-09-88	
Matrix:	Water			Water			Water	
Radio Chemistry								
Gross Alpha				40 ± 16	pci/l		6 ± 6	pci/l
Gross Beta				17 ± 23	pci/l		-5 ± 13	pci/l
Uranium 233, 234				4.7 ± 0.7	pci/l		0.04 ± .11	pci/l
Uranium 235				0.19 ± 0.12	pci/l		0.00 ± 0.06	pci/l
Uranium 238				4.0 ± 0.6	pci/l		0.04 ± 0.09	pci/l
Strontium 89, 90								
Plutonium 239, 240				0.00 ± 0.13	pci/l		0.00 ± .16	pci/l
Americium 241				0.00 ± 0.11	pci/l			
Tritium	<210	pci/l		<210	pci/l		<210	pci/l

Client: ROCKWELL (ROCKY FLATS) Page: 18

Sample Information

RFW Batch ID:	0188-881-107	0188-881-136	0188-881-001
Customer ID:	55-86-02-09-88	56-86-02-16-88	58-87-01-23-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	5 ± 4	pci/l		10 ± 4	pci/l		9 ± 6	pci/l
Gross Beta	14 ± 12	pci/l		4 ± 12	pci/l		3 ± 12	pci/l
Uranium 233, 234	0.00 ± 0.48	pci/l		0.00 ± 0.09	pci/l		0.49 ± 0.23	pci/l
Uranium 235	0.05 ± 0.28	pci/l		0.00 ± 0.06	pci/l		0.07 ± 0.07	pci/l
Uranium 238	0.13 ± 0.51	pci/l		0.00 ± 0.08	pci/l		0.48 ± 0.20	pci/l
Strontium 89, 90								
Plutonium 239, 240	0.00 ± 0.21	pci/l		0.00 ± 0.19	pci/l		0.00 ± 0.27	pci/l
Americium 241				0.00 ± 0.16	pci/l		0.00 ± 0.44	pci/l
Tritium	<210	pci/l		<210	pci/l		<210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-002	0188-881-441	0188-881-003
Customer ID:	59-87-01-23-88	6-82-03-24-88	60-87-01-23-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	14 ± 7	pci/l		0 ± 3	pci/l	7	10 ± 8	pci/l	
Gross Beta	5 ± 12	pci/l		-1 ± 9	pci/l	22	-9 ± 12	pci/l	
Uranium 233, 234	5.3 ± 0.6	pci/l		0.00 ± 0.12	pci/l	0.56	0.00 ± 0.11	pci/l	
Uranium 235	0.22 ± 0.10	pci/l		0.03 ± 0.07	pci/l	0.53	0.00 ± 0.05	pci/l	
Uranium 238	4.4 ± 0.6	pci/l		0.03 ± 0.07	pci/l	0.51	0.01 ± 0.09	pci/l	
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.24	pci/l		0.00 ± 0.13	pci/l	0.67	0.00 ± 0.27	pci/l	
Americium 241	0.00 ± 0.14	pci/l					0.00 ± 0.10	pci/l	
Tritium	<220	pci/l		<210	pci/l		<220	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-130	0188-881-006	0188-881-007
Customer ID:	61-86-02-13-88	61-87-01-26-88	61-87-01-26-88D
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	5 ± 5	pci/l	0 ± 7	pci/l	4 ± 3	pci/l
Gross Beta	9 ± 9	pci/l	-4 ± 11	pci/l	2 ± 14	pci/l
Uranium 233, 234	2.5 ± 0.5	pci/l	0.00 ± 0.07	pci/l	0.14 ± 0.12	pci/l
Uranium 235	0.07 ± 0.10	pci/l	0.01 ± 0.05	pci/l	0.00 ± 0.05	pci/l
Uranium 238	2.1 ± 0.4	pci/l	0.08 ± 0.08	pci/l	0.04 ± 0.08	pci/l
Strontium 89, 90						
Plutonium 239, 240	0.00 ± 0.13	pci/l	0.00 ± 0.24	pci/l	0.04 ± 0.18	pci/l
Americium 241	0.00 ± 0.16	pci/l	0.02 ± 0.10	pci/l	0.00 ± 0.10	pci/l
Tritium	<220	pci/l	<220	pci/l	<220	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-145	0188-881-004	0188-881-005
Customer ID:	62-86-02-18-88	62-87-01-26-88	63-87-01-27-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	14 ± 5	pci/l	8 ± 6	pci/l	17 ± 7	pci/l
Gross Beta	1 ± 12	pci/l	1 ± 12	pci/l	8 ± 15	pci/l
Uranium 233, 234	0.56 ± 0.21	pci/l	0.01 ± 0.10	pci/l	4.6 ± 0.4	pci/l
Uranium 235	0.00 ± 0.05	pci/l	0.02 ± 0.05	pci/l	0.18 ± 0.07	pci/l
Uranium 238	0.47 ± 0.17	pci/l	0.01 ± 0.08	pci/l	3.6 ± 0.3	pci/l
Strontium 89, 90						
Plutonium 239, 240	0.00 ± 0.18	pci/l	0.01 ± 0.19	pci/l	0.21 ± 0.22	pci/l
Americium 241	0.00 ± 0.13	pci/l	0.00 ± 0.16	pci/l	0.00 ± 0.24	pci/l
Tritium	<200	pci/l	<220	pci/l	1900 ± 100	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-230			0188-881-144		0188-881-014	
Customer ID:	63-87-01-27-88LD			64-86-02-18-88		64-87-01-29-88	
Matrix:	Water			Water		Water	
Radio Chemistry							
Gross Alpha				10 ± 8	pci/l	2 ± 4	pci/l
Gross Beta				-2 ± 12	pci/l	16 ± 11	pci/l
Uranium 233, 234				1.7 ± 0.4	pci/l	0.62 ± 0.37	pci/l
Uranium 235				0.17 ± 0.11	pci/l	0.02 ± 0.11	pci/l
Uranium 238				1.2 ± 0.3	pci/l	0.84 ± 0.44	pci/l
Strontium 89, 90							
Plutonium 239, 240				0.00 ± 0.22	pci/l	0.00 ± 0.40	pci/l
Americium 241				0.00 ± 0.13	pci/l	0.00 ± 0.71	pci/l
Tritium	1900 ± 100	pci/l		<220	pci/l	<210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-231			0188-881-194		0188-881-010	
Customer ID:	64-87-01-29-88LD			65-86-03-01-88		65-87-01-28-88	
Matrix:	Water			Water		Water	
Radio Chemistry							
Gross Alpha				4 ± 9	pci/l	10 ± 6	pci/l
Gross Beta				-4 ± 17	pci/l	8 ± 11	pci/l
Uranium 233, 234				5.5 ± 0.5	pci/l	5.4 ± 1.9	pci/l
Uranium 235				0.14 ± 0.08	pci/l	0.27 ± 0.39	pci/l
Uranium 238				4.0 ± 0.4	pci/l	4.3 ± 1.6	pci/l
Strontium 89, 90							
Plutonium 239, 240				0.00 ± 0.25	pci/l	0.01 ± 0.14	pci/l
Americium 241				0.00 ± 0.20	pci/l	0.00 ± 0.50	pci/l
Tritium	<210	pci/l		<210	pci/l	<210	pci/l

Client: ROCKWELL (ROCKY FLATS) Page: 21

Sample Information

RFW Batch ID:	0188-881-468	0188-881-012	0188-881-008
Customer ID:	66-86-03-31-88	66-87-01-29-88	67-87-01-28-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	12 ± 5	pci/l		2 ± 4	pci/l		19 ± 7	pci/l
Gross Beta	3 ± 11	pci/l	25	15 ± 11	pci/l		3 ± 13	pci/l
Uranium 233, 234	0.20 ± 0.16	pci/l	0.43	0.80 ± 0.16	pci/l		0.57 ± 0.18	pci/l
Uranium 235	0.03 ± 0.07	pci/l	0.39	0.01 ± 0.04	pci/l		0.00 ± 0.05	pci/l
Uranium 238	0.36 ± 0.13	pci/l	0.37	0.50 ± 0.13	pci/l		0.48 ± 0.13	pci/l
Strontium 89, 90								
Plutonium 239, 240	0.00 ± 0.16	pci/l	0.57	0.01 ± 0.18	pci/l		0.02 ± 0.14	pci/l
Americium 241	0.00 ± 0.40	pci/l	1.3	0.00 ± 0.50	pci/l		0.03 ± 0.06	pci/l
Tritium	<210	pci/l		<210	pci/l		<220	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-009	0188-881-129	0188-881-138
Customer ID:	68-87-01-28-88	69-86-02-11-88	70-86-02-16-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	1 ± 4	pci/l		16 ± 8	pci/l		14 ± 5	pci/l
Gross Beta	-1 ± 12	pci/l		7 ± 15	pci/l		2 ± 13	pci/l
Uranium 233, 234	0.05 ± 0.10	pci/l		9.4 ± 2.5	pci/l		0.04 ± 0.10	pci/l
Uranium 235	0.00 ± 0.04	pci/l		0.65 ± 0.46	pci/l		0.00 ± 0.05	pci/l
Uranium 238	0.16 ± 0.10	pci/l		8.1 ± 2.2	pci/l		0.00 ± 0.06	pci/l
Strontium 89, 90								
Plutonium 239, 240	0.00 ± 0.16	pci/l		0.02 ± 0.21	pci/l		0.00 ± 0.16	pci/l
Americium 241	0.00 ± 0.09	pci/l		0.00 ± 0.30	pci/l		0.00 ± 0.17	pci/l
Tritium	<220	pci/l		<210	pci/l		<210	pci/l

Client: ROCKWELL (ROCKY FLATS) Page: 22

Sample Information

RFW Batch ID:	0188-881-013	0188-881-232	0188-881-011
Customer ID:	71-87-01-29-88	71-87-01-29-88LD	72-87-01-28-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	5 ± 5	pci/l		4 ± 4	pci/l		6 ± 5	pci/l
Gross Beta	17 ± 10	pci/l		9 ± 11	pci/l		-3 ± 13	pci/l
Uranium 233, 234	0.22 ± 0.13	pci/l					5.8 ± 0.9	pci/l
Uranium 235	0.07 ± 0.08	pci/l					0.27 ± 0.15	pci/l
Uranium 238	0.08 ± 0.10	pci/l					4.2 ± 0.7	pci/l
Strontium 89, 90								
Plutonium 239, 240	0.00 ± 0.15	pci/l					0.00 ± 0.19	pci/l
Americium 241	0.00 ± 0.69	pci/l					0.00 ± 0.11	pci/l
Tritium	<210	pci/l					<210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-437			0188-881-438			0188-881-439		
Customer ID:	8-81-03-24-88			9-81-03-24-88			9-81-03-24-88FD		
Matrix:	Water			Water			Water		

Radio Chemistry

Gross Alpha	10 ± 6	pci/l	10	7 ± 6	pci/l	12	1 ± 5	pci/l	12
Gross Beta	4 ± 10	pci/l	21	-6 ± 14	pci/l	34	2 ± 16	pci/l	37
Uranium 233, 234	3.3 ± 0.4	pci/l		0.42 ± 0.26	pci/l	0.81	0.39 ± 0.14	pci/l	
Uranium 235	0.16 ± 0.09	pci/l	0.29	0.02 ± 0.10	pci/l	0.77	0.00 ± 0.06	pci/l	0.34
Uranium 238	2.0 ± 0.3	pci/l		0.24 ± 0.19	pci/l	0.75	0.29 ± 0.13	pci/l	0.33
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.18	pci/l	0.61	0.00 ± 0.23	pci/l	1.7	0.00 ± 0.21	pci/l	1.4
Americium 241									
Tritium	<200	pci/l		<200	pci/l		<200	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-103	0188-881-229	0188-881-133
Customer ID:	FB-02-05-88	FB-02-05-88LD	FB-02-13-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	-1 ± 4	pci/l	-2 ± 4	pci/l	-3 ± 3	pci/l
Gross Beta	5 ± 11	pci/l	-6 ± 11	pci/l	-1 ± 9	pci/l
Uranium 233, 234	0.07 ± 0.10	pci/l			0.00 ± 0.07	pci/l
Uranium 235	0.01 ± 0.06	pci/l			0.00 ± 0.03	pci/l
Uranium 238	0.05 ± 0.08	pci/l			0.03 ± 0.16	pci/l
Strontium 89, 90						
Plutonium 239, 240	0.00 ± 0.15	pci/l			0.00 ± 0.18	pci/l
Americium 241	0.00 ± 0.31	pci/l			0.00 ± 0.11	pci/l
Tritium	<200	pci/l			<220	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-237	0188-881-148	0188-881-154
Customer ID:	FB-02-13-88LD	FB-02-19-88	FB-02-26-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	1 ± 3	pci/l	4 ± 3	pci/l	3 ± 4	pci/l
Gross Beta	-2 ± 8	pci/l	-7 ± 11	pci/l	-2 ± 10	pci/l
Uranium 233, 234			0.06 ± 0.10	pci/l		
Uranium 235			0.02 ± 0.04	pci/l		
Uranium 238			0.04 ± 0.08	pci/l		
Strontium 89, 90						
Plutonium 239, 240			0.01 ± 0.16	pci/l	0.00 ± 0.22	pci/l
Americium 241			0.00 ± 0.12	pci/l		
Tritium			<210	pci/l	<210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-401			0188-881-225			0188-881-057	
Customer ID:	FB-03-02-88			FB-03-11-88			FB-03-15-88	
Matrix:	Water			Water			Water	
Radio Chemistry								
Gross Alpha	1 ± 3	pci/l	5	5 ± 4	pci/l		-1 ± 4	pci/l
Gross Beta	1 ± 9	pci/l	21	11 ± 11	pci/l		5 ± 10	pci/l
Uranium 233, 234	0.08 ± 0.09	pci/l	0.32	0.10 ± 0.07	pci/l		0.21 ± 0.10	pci/l
Uranium 235	0.00 ± 0.06	pci/l	0.33	0.00 ± 0.05	pci/l		0.00 ± 0.05	pci/l
Uranium 238	0.04 ± 0.09	pci/l	0.34	0.00 ± 0.06	pci/l		0.01 ± 0.07	pci/l
Strontium 89, 90								
Plutonium 239, 240	0.07 ± 0.12	pci/l	0.40	0.04 ± 0.10	pci/l		0.00 ± 0.12	pci/l
Americium 241	0.00 ± 0.40	pci/l	1.7	0.00 ± 0.88	pci/l		0.00 ± 0.08	pci/l
Tritium	<210 ± PCI/L			210	pci/l		<210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-436			0188-881-466			0188-881-102	
Customer ID:	FB-03-23-88			FB-03-31-88			TB-02-05-88	
Matrix:	Water			Water			Water	
Radio Chemistry								
Gross Alpha	0 ± 4	pci/l	8	3 ± 2	pci/l	6	-2 ± 4	pci/l
Gross Beta	6 ± 10	pci/l	21	-10 ± 11	pci/l	25	-8 ± 11	pci/l
Uranium 233, 234	0.03 ± 0.08	pci/l	0.33	0.00 ± 0.10	pci/l	0.32	0.07 ± 0.09	pci/l
Uranium 235	0.01 ± 0.06	pci/l	0.35	0.00 ± 0.05	pci/l	0.29	0.00 ± 0.06	pci/l
Uranium 238	0.07 ± 0.12	pci/l	0.38	0.00 ± 0.06	pci/l	0.28	0.00 ± 0.08	pci/l
Strontium 89, 90								
Plutonium 239, 240	0.00 ± 0.13	pci/l	0.36	0.00 ± 0.17	pci/l	0.89	0.00 ± 0.16	pci/l
Americium 241	0.00 ± 0.16	pci/l	0.87				0.00 ± 1.2	pci/l
Tritium	<200	pci/l		<210	pci/l		<210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-132	0188-881-147	0188-881-153
Customer ID:	TB-02-13-88	TB-02-19-88	TB-02-26-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	-1 ± 3	pci/l		2 ± 2	pci/l		3 ± 3	pci/l
Gross Beta	2 ± 8	pci/l		-5 ± 11	pci/l		-2 ± 10	pci/l
Uranium 233, 234	0.00 ± 0.23	pci/l		0.00 ± 0.09	pci/l		0.35 ± 0.16	pci/l
Uranium 235	0.03 ± 0.08	pci/l		0.00 ± 0.06	pci/l		0.16 ± 0.10	pci/l
Uranium 238	0.06 ± 0.22	pci/l		0.00 ± 0.08	pci/l		0.34 ± 0.14	pci/l
Strontium 89, 90								
Plutonium 239, 240	0.10 ± 0.14	pci/l		0.00 ± 0.17	pci/l		0.03 ± 0.19	pci/l
Americium 241	0.00 ± 0.08	pci/l		0.00 ± 0.32	pci/l			
Tritium	<210	pci/l		<210	pci/l		<210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-400			0188-881-224			0188-881-056	
Customer ID:	TB-03-02-88			TB-03-11-88			TB-03-15-88	
Matrix:	Water			Water			Water	

Radio Chemistry

Gross Alpha	0 ± 3	pci/l	7	14 ± 6	pci/l		-3 ± 3	pci/l
Gross Beta	16 ± 12	pci/l	28	16 ± 15	pci/l		2 ± 11	pci/l
Uranium 233, 234	0.02 ± 0.07	pci/l	0.28	0.19 ± 0.10	pci/l		0.00 ± 0.09	pci/l
Uranium 235	0.00 ± 0.08	pci/l	0.31	0.00 ± 0.04	pci/l		0.00 ± 0.05	pci/l
Uranium 238	0.02 ± 0.06	pci/l	0.29	0.09 ± 0.08	pci/l		0.00 ± 0.06	pci/l
Strontium 89, 90								
Plutonium 239, 240	0.00 ± 0.12	pci/l	0.49	0.00 ± 0.16	pci/l		0.00 ± 0.11	pci/l
Americium 241	0.00 ± 0.22	pci/l	0.82	0.00 ± 0.27	pci/l		0.00 ± 0.13	pci/l
Tritium	<210	pci/l		210	pci/l		<210	pci/l

FIRST QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-435	0188-881-465
Customer ID:	TB-03-23-88	TB-03-31-88
Matrix:	Water	Water

Radio Chemistry

Gross Alpha	0 ± 3	pci/l	8	0 ± 3	pci/l	7
Gross Beta	-1 ± 9	pci/l	22	-5 ± 11	pci/l	25
Uranium 233, 234	0.05 ± 0.07	pci/l	0.21	0.00 ± 0.08	pci/l	0.30
Uranium 235	0.01 ± 0.06	pci/l	0.21	0.01 ± 0.06	pci/l	0.28
Uranium 238	0.01 ± 0.07	pci/l	0.22	0.00 ± 0.05	pci/l	0.28
Strontium 89, 90						
Plutonium 239, 240	0.02 ± 0.10	pci/l	0.35	0.00 ± 0.14	pci/l	0.54
Americium 241	0.00 ± 0.64	pci/l	2.0			
Tritium	<200	pci/l		<210	pci/l	

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-001	0188-881-038	0188-881-002	0188-881-441
	Customer ID:	58-87-01-23-88	58-87-01-23-88-LD	59-87-01-23-88	6-82-03-24-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0443	NR	0.0737	0.0717
Antimony	(Sb), dissolved.....	0.02 U	NR	0.02 U	0.02 U
Arsenic	(As), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Barium	(Ba), dissolved.....	0.1067	NR	0.2532	0.0815
Beryllium	(Be), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Cadmium	(Cd), dissolved.....	0.001 U	NR	0.001	0.001
Calcium	(Ca), dissolved.....	27.8264	NR	78.5587	6.7013
Cesium	(Cs), dissolved.....	0.02 U	NR	0.02 U	0.020 U
Chromium	(Cr), dissolved.....	0.0191	NR	0.0154	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	NR	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0437	NR	0.0154	0.0067
Iron	(Fe), dissolved.....	0.0999	NR	0.1716	0.1377
Lead	(Pb), dissolved.....	0.005 U	NR	0.010	0.005 U
Lithium	(Li), dissolved.....	0.1 U	NR	0.1 U	0.1 U
Magnesium	(Mg), dissolved.....	5.4896	NR	14.8116	1.3903
Manganese	(Mn), dissolved.....	0.5217	NR	2.1310	0.0097
Mercury	(Hg), dissolved.....	0.0002	NR	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	NR	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	0.1425	NR	0.2035	0.0370 U
Potassium	(K), dissolved.....	5.2	NR	11	0.6
Selenium	(Se), dissolved.....	0.005 U	0.005 U	0.002 J	0.005 U
Silver	(Ag), dissolved.....	0.0085	NR	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	24.6325	NR	31.5072	6.1571
Strontium	(Sr), dissolved.....	0.2273	NR	0.6235	0.0391
Thallium	(Tl), dissolved.....	0.01 U	NR	0.01 U	0.010 U
Vanadium	(V), dissolved.....	0.0240 U	NR	0.0240 U	0.0240 U
Zinc	(Zn), dissolved.....	0.4270	NR	0.5840	0.1359

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 50

Sample Information

RFW Batch ID:	0188-881-456	0188-881-455	0188-881-003	0188-881-039
Customer ID:	6-82-03-24-88-S	6-82-03-24-88LD	60-87-01-23-88	60-87-01-23-88-
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum (Al), dissolved.....	NR	NR		0.0769		NR	
Antimony (Sb), dissolved.....	NR	NR		0.02	U	0.02	U
Arsenic (As), dissolved.....	NR	NR		0.005	U	NR	
Barium (Ba), dissolved.....	NR	NR		0.1434		NR	
Beryllium (Be), dissolved.....	142	0.001	J	0.005	U	0.005	U
Cadmium (Cd), dissolved.....	101	0.001	U	0.001	U	0.001	
Calcium (Ca), dissolved.....	NR	NR		26.9666		NR	
Cesium (Cs), dissolved.....	94	0.020	U	0.02	U	0.02	U
Chromium (Cr), dissolved.....	NR	NR		0.0100	U	NR	
Cobalt (Co), dissolved.....	NR	NR		0.0220	U	NR	
Copper (Cu), dissolved.....	NR	NR		0.0365		NR	
Iron (Fe), dissolved.....	NR	NR		0.0813		NR	
Lead (Pb), dissolved.....	130	0.005	U	0.005	U	0.005	U
Lithium (Li), dissolved.....	NR	NR		0.1	U	NR	
Magnesium (Mg), dissolved.....	NR	NR		4.7603		NR	
Manganese (Mn), dissolved.....	NR	NR		0.3136		NR	
Mercury (Hg), dissolved.....	104	NR		0.0002	U	0.0002	U
Molybdenum(Mo), dissolved.....	NR	NR		0.0220	U	NR	
Nickel (Ni), dissolved.....	NR	NR		0.0370	U	NR	
Potassium (K), dissolved.....	NR	NR		1.0		NR	
Selenium (Se), dissolved.....	NR	NR		0.005	U	0.005	U
Silver (Ag), dissolved.....	NR	NR		0.0076	U	NR	
Sodium (Na), dissolved.....	NR	NR		14.1688		NR	
Strontium (Sr), dissolved.....	NR	NR		0.1399		NR	
Thallium (Tl), dissolved.....	99	0.010	U	0.01	U	0.01	U
Vanadium (V), dissolved.....	NR	NR		0.0240	U	NR	
Zinc (Zn), dissolved.....	NR	NR		0.2418		NR	

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-040	0188-881-130	0188-881-168	0188-881-006
Customer ID:	60-87-01-23-88-S	61-86-02-13-88	61-86-02-13-88LD	61-87-01-27-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		0.0290	U	NR		0.1453	
Antimony	(Sb), dissolved.....	NR		0.02	U	0.02	U	0.02	U
Arsenic	(As), dissolved.....	NR		0.005	U	NR		0.005	U
Barium	(Ba), dissolved.....	NR		0.0965		NR		0.1307	
Beryllium	(Be), dissolved.....	NR		0.005	U	0.005	U	0.005	U
Cadmium	(Cd), dissolved.....	NR		0.001	U	0.001		0.001	U
Calcium	(Ca), dissolved.....	NR		66.9422		NR		24.2757	
Cesium	(Cs), dissolved.....	NR		0.02	U	0.02	U	0.02	U
Chromium	(Cr), dissolved.....	NR		0.0100	U	NR		0.0282	
Cobalt	(Co), dissolved.....	NR		0.0220	U	NR		0.0220	U
Copper	(Cu), dissolved.....	NR		0.0112		NR		0.0085	
Iron	(Fe), dissolved.....	NR		0.0069	U	NR		0.1863	
Lead	(Pb), dissolved.....	NR		0.005	U	0.005	U	0.005	U
Lithium	(Li), dissolved.....	NR		0.1	U	NR		0.1	U
Magnesium	(Mg), dissolved.....	NR		10.3611		NR		4.5329	
Manganese	(Mn), dissolved.....	NR		0.0051	U	NR		0.2702	
Mercury	(Hg), dissolved.....	92	%	0.0002	U	0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	NR		0.0298		NR		0.0220	U
Nickel	(Ni), dissolved.....	NR		0.0370	U	NR		0.0370	U
Potassium	(K), dissolved.....	NR		1.3		NR		2.1	
Selenium	(Se), dissolved.....	NR		0.005	U	NR		0.005	U
Silver	(Ag), dissolved.....	NR		0.0076	U	NR		0.0076	U
Sodium	(Na), dissolved.....	NR		8.7392		NR		14.9011	
Strontium	(Sr), dissolved.....	NR		0.3515		NR		0.1619	
Thallium	(Tl), dissolved.....	NR		0.01	U	0.01	U	0.01	U
Vanadium	(V), dissolved.....	NR		0.0240	U	NR		0.0264	
Zinc	(Zn), dissolved.....	NR		0.0218		NR		0.0755	

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-007	0188-881-145	0188-881-175	0188-881-004
	Customer ID:	61-87D-01-27-88	62-86-02-18-88	62-86-02-18-88S	62-87-01-26-8
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	% RECOVERY	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0296	0.0300	NR	0.1130
Antimony	(Sb), dissolved.....	0.02 U	0.02 U	NR	0.02 U
Arsenic	(As), dissolved.....	0.005 U	0.003 J	NR	0.005 U
Barium	(Ba), dissolved.....	0.1317	0.0412	NR	0.1538
Beryllium	(Be), dissolved.....	0.005 U	0.005 U	NR	0.005 U
Cadmium	(Cd), dissolved.....	0.001 U	0.001 U	NR	0.001 U
Calcium	(Ca), dissolved.....	26.4821	28.6004	NR	26.8479
Cesium	(Cs), dissolved.....	0.02 U	0.02 U	NR	0.02 U
Chromium	(Cr), dissolved.....	0.0100 U	0.0216	NR	0.0193
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	NR	0.0220 U
Copper	(Cu), dissolved.....	0.0063 U	0.0063 U	NR	0.0118
Iron	(Fe), dissolved.....	0.0520	0.0078	NR	0.1015
Lead	(Pb), dissolved.....	0.005 U	0.005 U	NR	0.005 U
Lithium	(Li), dissolved.....	0.1 U	0.1 U	NR	0.1 U
Magnesium	(Mg), dissolved.....	4.8276	9.9492	NR	4.8600
Manganese	(Mn), dissolved.....	0.3032	0.0051 U	NR	0.4100
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	96 %	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	NR	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	0.0539	NR	0.0416
Potassium	(K), dissolved.....	1.9	5.9	NR	3.0
Selenium	(Se), dissolved.....	0.005 U	0.062	NR	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	NR	0.0076 U
Sodium	(Na), dissolved.....	10.4080	49.7036	NR	13.4639
Strontium	(Sr), dissolved.....	0.1734	0.4234	NR	0.1716
Thallium	(Tl), dissolved.....	0.01 U	0.01 U	NR	0.01 U
Vanadium	(V), dissolved.....	0.0240 U	0.0240 U	NR	0.0240 U
Zinc	(Zn), dissolved.....	0.0862	0.0200 U	NR	0.0714

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: | Client: ROCKWELL (ROCKY FLATS) |

Sample Information

RFW Batch ID:	0188-881-041	0188-881-042	0188-881-005	0188-881-144
Customer ID:	62-87-01-26-88-S	63-87-01-26-88-LD	63-87-01-27-88	64-86-02-18-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		NR		0.0506		0.0290	U
Antimony	(Sb), dissolved.....	NR		NR		0.02	U	0.02	U
Arsenic	(As), dissolved.....	84	%	0.005	U	0.005	U	0.005	U
Barium	(Ba), dissolved.....	NR		NR		0.2462		0.0487	
Beryllium	(Be), dissolved.....	NR		NR		0.005	U	0.005	U
Cadmium	(Cd), dissolved.....	NR		NR		0.001	U	0.001	U
Calcium	(Ca), dissolved.....	NR		NR		122.5689		57.5364	
Cesium	(Cs), dissolved.....	NR		NR		0.02	U	0.02	U
Chromium	(Cr), dissolved.....	NR		NR		0.0296		0.0100	U
Cobalt	(Co), dissolved.....	NR		NR		0.0220	U	0.0220	U
Copper	(Cu), dissolved.....	NR		NR		0.0105		0.0097	
Iron	(Fe), dissolved.....	NR		NR		0.1137		0.0069	U
Lead	(Pb), dissolved.....	NR		NR		0.005	U	0.005	U
Lithium	(Li), dissolved.....	NR		NR		0.1	U	0.05	J
Magnesium	(Mg), dissolved.....	NR		NR		15.3287		19.9044	
Manganese	(Mn), dissolved.....	NR		NR		0.6425		0.0587	
Mercury	(Hg), dissolved.....	NR		0.0002	U	0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	NR		NR		0.0220	U	0.0234	
Nickel	(Ni), dissolved.....	NR		NR		0.0370	U	0.0492	
Potassium	(K), dissolved.....	NR		NR		3.8		1.6	
Selenium	(Se), dissolved.....	91	%	0.005	U	0.005	U	0.004	J
Silver	(Ag), dissolved.....	NR		NR		0.0076	U	0.0076	U
Sodium	(Na), dissolved.....	NR		NR		33.6016		105.6913	
Strontium	(Sr), dissolved.....	NR		NR		0.6899		0.5420	
Thallium	(Tl), dissolved.....	NR		NR		0.01	U	0.01	U
Vanadium	(V), dissolved.....	NR		NR		0.0240	U	0.0240	U
Zinc	(Zn), dissolved.....	NR		NR		0.0608		0.0200	U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 54

Sample Information

RFW Batch ID:	0188-881-176	0188-881-178	0188-881-049	0188-881-050
Customer ID:	64-86-02-18-88LD	64-86-02-18-88S	64-87-01-28-88-LD	64-87-01-28-88-
Matrix:	Water	Water	Water	Water
Units:	MG/L	% RECOVERY	MG/L	% RECOVERY

Metals

Aluminum (Al), dissolved.....	NR	NR	NR	NR
Antimony (Sb), dissolved.....	NR	NR	0.02 U	126 %
Arsenic (As), dissolved.....	NR	NR	0.005 U	NR
Barium (Ba), dissolved.....	NR	NR	NR	NR
Beryllium (Be), dissolved.....	0.005 U	117 %	0.005 U	NR
Cadmium (Cd), dissolved.....	0.001 U	94 %	0.001 U	NR
Calcium (Ca), dissolved.....	NR	NR	NR	NR
Cesium (Cs), dissolved.....	0.02 U	NR	0.02 U	NR
Chromium (Cr), dissolved.....	NR	NR	NR	NR
Cobalt (Co), dissolved.....	NR	NR	NR	NR
Copper (Cu), dissolved.....	NR	NR	NR	NR
Iron (Fe), dissolved.....	NR	NR	NR	NR
Lead (Pb), dissolved.....	0.005 U	86 %	0.003 J	NR
Lithium (Li), dissolved.....	NR	NR	0.1 U	NR
Magnesium (Mg), dissolved.....	NR	NR	NR	NR
Manganese (Mn), dissolved.....	NR	NR	NR	NR
Mercury (Hg), dissolved.....	NR	NR	NR	NR
Molybdenum(Mo), dissolved.....	NR	NR	NR	NR
Nickel (Ni), dissolved.....	NR	NR	NR	NR
Potassium (K), dissolved.....	NR	NR	4.0	106 %
Selenium (Se), dissolved.....	NR	NR	0.005 U	NR
Silver (Ag), dissolved.....	NR	NR	NR	NR
Sodium (Na), dissolved.....	NR	NR	NR	NR
Strontium (Sr), dissolved.....	NR	NR	NR	NR
Thallium (Tl), dissolved.....	0.01 U	55 %	0.01 U	NR
Vanadium (V), dissolved.....	NR	NR	NR	NR
Zinc (Zn), dissolved.....	NR	NR	NR	NR

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 55

Sample Information

	RFW Batch ID:	0188-881-014	0188-881-021	0188-881-194	0188-881-213
	Customer ID:	64-87-01-29-88	64-87D-01-29-88	65-86-03-01-88	65-86-03-01-88L
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0353	0.0290 U	0.0503	NR
Antimony	(Sb), dissolved.....	0.02 U	NR	0.02 U	NR
Arsenic	(As), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Barium	(Ba), dissolved.....	0.1826	0.1867	0.1020	NR
Beryllium	(Be), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Cadmium	(Cd), dissolved.....	0.001 U	NR	0.001 U	0.001
Calcium	(Ca), dissolved.....	47.2474	48.2627	80.8845	NR
Cesium	(Cs), dissolved.....	0.02 U	NR	0.02 U	0.02 U
Chromium	(Cr), dissolved.....	0.0136	0.0142	0.0100 U	NR
Cobalt	(Co), dissolved.....	0.0313	0.0220 U	0.0220 U	NR
Copper	(Cu), dissolved.....	0.0568	0.0235	0.0063 U	NR
Iron	(Fe), dissolved.....	0.0471	0.0371	0.0387	NR
Lead	(Pb), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Lithium	(Li), dissolved.....	0.1 U	NR	0.1 U	NR
Magnesium	(Mg), dissolved.....	8.2194	8.2755	21.9367	NR
Manganese	(Mn), dissolved.....	1.2001	1.2006	0.0060	NR
Mercury	(Hg), dissolved.....	0.0002 U	NR	0.0002 U	NR
Molybdenum	(Mo), dissolved.....	0.3551	0.0220 U	0.0220 U	NR
Nickel	(Ni), dissolved.....	0.0444	0.0439	0.0370 U	NR
Potassium	(K), dissolved.....	4.2	NR	1.3	NR
Selenium	(Se), dissolved.....	0.005 U	NR	0.005 U	NR
Silver	(Ag), dissolved.....	0.0085	0.0076 U	0.0076 U	NR
Sodium	(Na), dissolved.....	18.7309	18.6963	67.5564	NR
Strontium	(Sr), dissolved.....	0.3320	0.3359	0.6006	NR
Thallium	(Tl), dissolved.....	0.01 U	NR	0.01 U	0.01 U
Vanadium	(V), dissolved.....	0.0572	0.0306	0.0240 U	NR
Zinc	(Zn), dissolved.....	0.0486	0.0421	0.0373	NR

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-214	0188-881-010	0188-881-468	0188-881-012
Customer ID:	65-86-03-01-88S	65-87-01-28-88	66-86-03-31-88	66-87-01-29-88
Matrix:	Water	Water	Water	Water
Units:	% RECOVERY	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		0.0346		0.0305		0.0769	
Antimony	(Sb), dissolved.....	NR		0.02	U	0.0340	U	0.02	U
Arsenic	(As), dissolved.....	NR		0.005	U	0.005	U	0.005	U
Barium	(Ba), dissolved.....	NR		0.1291		0.0473		0.1020	
Beryllium	(Be), dissolved.....	82	%	0.005	U	0.0010	U	0.005	U
Cadmium	(Cd), dissolved.....	89	%	0.001	U	0.0050	U	0.001	U
Calcium	(Ca), dissolved.....	NR		74.4528		29.8451		34.0248	
Cesium	(Cs), dissolved.....	94	%	0.02	U	0.020	U	0.02	U
Chromium	(Cr), dissolved.....	NR		0.0131		0.0100	U	0.0236	
Cobalt	(Co), dissolved.....	NR		0.0220	U	0.0220	U	0.0220	U
Copper	(Cu), dissolved.....	NR		0.0063	U	0.0072		0.0545	
Iron	(Fe), dissolved.....	NR		0.0401		0.0336		0.1182	
Lead	(Pb), dissolved.....	75	%	0.005	U	0.005	U	0.005	U
Lithium	(Li), dissolved.....	NR		0.1	U	0.1	U	0.1	U
Magnesium	(Mg), dissolved.....	NR		13.2047		6.7024		7.2507	
Manganese	(Mn), dissolved.....	NR		1.0484		0.0167		0.1784	
Mercury	(Hg), dissolved.....	NR		0.0002	U	0.0002	U	0.0002	
Molybdenum	(Mo), dissolved.....	NR		0.0220	U	0.0220	U	0.0299	
Nickel	(Ni), dissolved.....	NR		0.0370	U	0.0415		0.1863	
Potassium	(K), dissolved.....	NR		6.2		1.0		6.1	
Selenium	(Se), dissolved.....	NR		0.005	U	0.005	U	0.005	U
Silver	(Ag), dissolved.....	NR		0.0076	U	0.0076	U	0.0076	U
Sodium	(Na), dissolved.....	NR		71.3146		29.4104		94.6908	
Strontium	(Sr), dissolved.....	NR		0.5041		0.1921		0.3011	
Thallium	(Tl), dissolved.....	107	%	0.01	U	0.010	U	0.01	U
Vanadium	(V), dissolved.....	NR		0.0240	U	0.0360	U	0.1004	
Zinc	(Zn), dissolved.....	NR		0.0598		0.0466		0.4714	

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-008	0188-881-043	0188-881-009	0188-881-044
Customer ID:	67-87-01-28-88	67-87-01-28-88-LD	68-87-01-28-88	68-87-01-28-88-
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum (Al), dissolved.....	0.0290	U	NR		0.0290		NR	
Antimony (Sb), dissolved.....	0.02	U	NR		0.02	U	NR	
Arsenic (As), dissolved.....	0.005	U	NR		0.005	U	NR	
Barium (Ba), dissolved.....	0.1034		NR		0.1528		NR	
Beryllium (Be), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Cadmium (Cd), dissolved.....	0.001		0.002		0.001	U	0.001	U
Calcium (Ca), dissolved.....	40.1314		NR		32.4063		NR	
Cesium (Cs), dissolved.....	0.02	U	0.02	U	0.02	U	0.02	U
Chromium (Cr), dissolved.....	0.0114		NR		0.0100	U	NR	
Cobalt (Co), dissolved.....	0.0220	U	NR		0.0220	U	NR	
Copper (Cu), dissolved.....	0.0063	U	NR		0.0063	U	NR	
Iron (Fe), dissolved.....	0.0419		NR		0.9498		NR	
Lead (Pb), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Lithium (Li), dissolved.....	0.1	U	NR		0.1	U	NR	
Magnesium (Mg), dissolved.....	5.5284		NR		5.3604		NR	
Manganese (Mn), dissolved.....	0.6670		NR		1.6145		NR	
Mercury (Hg), dissolved.....	0.0002	U	NR		0.0002	U	NR	
Molybdenum(Mo), dissolved.....	0.0220	U	NR		0.0220	U	NR	
Nickel (Ni), dissolved.....	0.0748		NR		0.0370		NR	
Potassium (K), dissolved.....	4.9		NR		3.0		NR	
Selenium (Se), dissolved.....	0.005	U	NR		0.005	U	NR	
Silver (Ag), dissolved.....	0.0076	U	NR		0.0076	U	NR	
Sodium (Na), dissolved.....	17.3672		NR		19.3733		NR	
Strontium (Sr), dissolved.....	0.2425		NR		0.1964		NR	
Thallium (Tl), dissolved.....	0.01	U	0.01	U	0.01	U	0.01	U
Vanadium (V), dissolved.....	0.0240	U	NR		0.0240	U	NR	
Zinc (Zn), dissolved.....	0.1893		NR		0.1062		NR	

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 58

Sample Information

	RFW Batch ID:	0188-881-045		0188-881-129		0188-881-165		0188-881-138	
	Customer ID:	68-87-01-28-88-S		69-86-02-11-88		69-86-02-11-88LD		70-86-02-16-88	
	Matrix:	Water		Water		Water		Water	
	Units:	% RECOVERY		MG/L		MG/L		MG/L	
Metals									
Aluminum	(Al), dissolved.....	NR		0.1216		NR		0.0344	
Antimony	(Sb), dissolved.....	NR		0.0340	U	NR		0.02	U
Arsenic	(As), dissolved.....	NR		0.002	J	0.002	J	0.005	U
Barium	(Ba), dissolved.....	NR		0.1318		NR		0.0593	
Beryllium	(Be), dissolved.....	92	%	0.001	J	0.005	U	0.005	U
Cadmium	(Cd), dissolved.....	106	%	0.0016		0.001		0.001	U
Calcium	(Ca), dissolved.....	NR		147.3161		NR		17.0033	
Cesium	(Cs), dissolved.....	112	%	0.02	U	0.02	U	0.02	U
Chromium	(Cr), dissolved.....	NR		0.0110		NR		0.0100	U
Cobalt	(Co), dissolved.....	NR		0.0220	U	NR		0.0220	U
Copper	(Cu), dissolved.....	NR		0.0063	U	NR		0.0063	U
Iron	(Fe), dissolved.....	NR		0.0615		NR		0.0069	U
Lead	(Pb), dissolved.....	109	%	0.005	U	NR		0.005	U
Lithium	(Li), dissolved.....	NR		0.1	U	NR		0.1	U
Magnesium	(Mg), dissolved.....	NR		44.1781		NR		5.9347	
Manganese	(Mn), dissolved.....	NR		0.0051	U	NR		0.0051	U
Mercury	(Hg), dissolved.....	NR		0.0002	U	NR		0.0002	U
Molybdenum	(Mo), dissolved.....	NR		0.0220	U	NR		0.0220	U
Nickel	(Ni), dissolved.....	NR		0.0370	U	NR		0.0370	U
Potassium	(K), dissolved.....	NR		0.7		NR		4.8	
Selenium	(Se), dissolved.....	NR		0.082		0.089		0.005	U
Silver	(Ag), dissolved.....	NR		0.0076	U	NR		0.0076	U
Sodium	(Na), dissolved.....	NR		134.3162		NR		31.3649	
Strontium	(Sr), dissolved.....	NR		1.1063		NR		0.2728	
Thallium	(Tl), dissolved.....	75	%	0.01	U	0.01	U	0.01	U
Vanadium	(V), dissolved.....	NR		0.0360	U	NR		0.0240	U
Zinc	(Zn), dissolved.....	NR		0.0238		NR		0.0200	U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-173	0188-881-013	0188-881-048	0188-881-011
Customer ID:	70-86-02-16-88S	71-87-01-29-88	71-87-01-29-88-S	72-87-01-28-88
Matrix:	Water	Water	Water	Water
Units:	% RECOVERY	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		0.0308		NR		0.0516	
Antimony	(Sb), dissolved.....	NR		0.02	U	NR		0.02	U
Arsenic	(As), dissolved.....	115	%	0.005	U	84	%	0.005	U
Barium	(Ba), dissolved.....	NR		0.0841		NR		0.1574	
Beryllium	(Be), dissolved.....	NR		0.005	U	NR		0.005	U
Cadmium	(Cd), dissolved.....	NR		0.001	U	NR		0.001	U
Calcium	(Ca), dissolved.....	NR		71.2977		NR		88.9694	
Cesium	(Cs), dissolved.....	NR		0.02	U	NR		0.02	U
Chromium	(Cr), dissolved.....	NR		0.0135		NR		0.0111	
Cobalt	(Co), dissolved.....	NR		0.0220	U	NR		0.0220	U
Copper	(Cu), dissolved.....	NR		0.0070		NR		0.0069	
Iron	(Fe), dissolved.....	NR		0.0344		NR		0.0344	
Lead	(Pb), dissolved.....	NR		0.005	U	NR		0.005	U
Lithium	(Li), dissolved.....	NR		0.1	U	NR		0.1	U
Magnesium	(Mg), dissolved.....	NR		9.3802		NR		16.7782	
Manganese	(Mn), dissolved.....	NR		0.0590		NR		0.5105	
Mercury	(Hg), dissolved.....	NR		0.0002		NR		0.0002	U
Molybdenum	(Mo), dissolved.....	NR		0.0220	U	NR		0.0220	U
Nickel	(Ni), dissolved.....	NR		0.0370	U	NR		0.0370	U
Potassium	(K), dissolved.....	NR		1.7		NR		3.1	
Selenium	(Se), dissolved.....	109	%	0.005	U	107	%	0.005	U
Silver	(Ag), dissolved.....	NR		0.0076	U	NR		0.0076	U
Sodium	(Na), dissolved.....	NR		9.5292		NR		23.4236	
Strontium	(Sr), dissolved.....	NR		0.4217		NR		0.5986	
Thallium	(Tl), dissolved.....	NR		0.01	U	NR		0.01	U
Vanadium	(V), dissolved.....	NR		0.0364		NR		0.0240	U
Zinc	(Zn), dissolved.....	NR		0.0572		NR		0.0353	

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 60

Sample Information

	RFW Batch ID:	0188-881-046	0188-881-047	0188-881-020	0188-881-437
	Customer ID:	72-87-01-28-88-LD	72-87-01-28-88-S	72-87D-01-28-88	8-81-03-24-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	% RECOVERY	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	NR	NR	0.0366	0.0492
Antimony	(Sb), dissolved.....	0.2 U	NR	NR	0.02 U
Arsenic	(As), dissolved.....	NR	NR	NR	0.005 U
Barium	(Ba), dissolved.....	NR	NR	0.1551	0.0919
Beryllium	(Be), dissolved.....	NR	NR	NR	0.002 J
Cadmium	(Cd), dissolved.....	NR	NR	NR	0.001
Calcium	(Ca), dissolved.....	NR	NR	88.4240	34.0653
Cesium	(Cs), dissolved.....	NR	NR	NR	0.020 U
Chromium	(Cr), dissolved.....	NR	NR	0.0113	0.0100 U
Cobalt	(Co), dissolved.....	NR	NR	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	NR	NR	0.0080	0.0065
Iron	(Fe), dissolved.....	NR	NR	0.0370	0.0633
Lead	(Pb), dissolved.....	NR	NR	NR	0.003 J
Lithium	(Li), dissolved.....	0.1 U	100 %	NR	0.1 U
Magnesium	(Mg), dissolved.....	NR	NR	16.8974	8.8369
Manganese	(Mn), dissolved.....	NR	NR	0.5120	0.0051 U
Mercury	(Hg), dissolved.....	NR	NR	NR	0.0002 U
Molybdenum	(Mo), dissolved.....	NR	NR	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	NR	NR	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	3.1	102 %	NR	1.6
Selenium	(Se), dissolved.....	NR	NR	NR	0.005 U
Silver	(Ag), dissolved.....	NR	NR	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	NR	NR	22.9722	17.0344
Strontium	(Sr), dissolved.....	NR	NR	0.5927	0.3062
Thallium	(Tl), dissolved.....	NR	NR	NR	0.010 U
Vanadium	(V), dissolved.....	NR	NR	0.0307	0.0240 U
Zinc	(Zn), dissolved.....	NR	NR	0.0357	0.0808

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-454	0188-881-438	0188-881-439	0188-881-054
Customer ID:	8-81-03-24-88LD	9-81-03-24-88	9-81-03-24-88FD	9-86-02-04-88-S
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		0.0462		0.0476		NR
Antimony	(Sb), dissolved.....	NR		0.02	U	0.02	U	NR
Arsenic	(As), dissolved.....	NR		0.003	J	0.003	J	NR
Barium	(Ba), dissolved.....	NR		0.0466		0.0308		NR
Beryllium	(Be), dissolved.....	NR		0.005	U	0.005	U	NR
Cadmium	(Cd), dissolved.....	NR		0.001		0.001		NR
Calcium	(Ca), dissolved.....	NR		41.9736		40.7740		NR
Cesium	(Cs), dissolved.....	NR		0.020	U	0.020	U	NR
Chromium	(Cr), dissolved.....	NR		0.0100	U	0.0100	U	NR
Cobalt	(Co), dissolved.....	NR		0.0220	U	0.0220	U	NR
Copper	(Cu), dissolved.....	NR		0.0079		0.0074		NR
Iron	(Fe), dissolved.....	NR		0.1054		0.0810		NR
Lead	(Pb), dissolved.....	NR		0.005	U	0.005	U	NR
Lithium	(Li), dissolved.....	NR		0.1	U	0.1	U	NR
Magnesium	(Mg), dissolved.....	NR		3.7788		3.7109		NR
Manganese	(Mn), dissolved.....	NR		0.0059		0.0051	U	NR
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	0.0002	U	74 %
Molybdenum	(Mo), dissolved.....	NR		0.0220	U	0.0220	U	NR
Nickel	(Ni), dissolved.....	NR		0.0370	U	0.0370	U	NR
Potassium	(K), dissolved.....	NR		1.5		1.5		NR
Selenium	(Se), dissolved.....	NR		0.005	U	0.005	U	NR
Silver	(Ag), dissolved.....	NR		0.0076	U	0.0076	U	NR
Sodium	(Na), dissolved.....	NR		19.0225		19.1561		NR
Strontium	(Sr), dissolved.....	NR		0.4322		0.4262		NR
Thallium	(Tl), dissolved.....	NR		0.010	U	0.010	U	NR
Vanadium	(V), dissolved.....	NR		0.0240	U	0.0240	U	NR
Zinc	(Zn), dissolved.....	NR		0.0649		0.0334		NR

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FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-103	0188-881-133	0188-881-148	0188-881-154
Customer ID:	FB-02-05-88	FB-02-13-88	FB-02-19-88	FB-02-26-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum (Al), dissolved.....	0.0290 U	0.0290 U	0.0290 U	0.0290 U
Antimony (Sb), dissolved.....	0.02 U	0.02 U	0.02 U	0.02 U
Arsenic (As), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Barium (Ba), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium (Be), dissolved.....	0.005 U	0.005 U	0.001 J	0.005 U
Cadmium (Cd), dissolved.....	0.001 U	0.001 U	0.001 U	0.001 U
Calcium (Ca), dissolved.....	0.7500 U	0.7500 U	0.7500 U	0.7500 U
Cesium (Cs), dissolved.....	0.02 U	0.02 U	0.02 U	0.02 U
Chromium (Cr), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cobalt (Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper (Cu), dissolved.....	0.0063 U	0.0063 U	0.0063 U	0.0063 U
Iron (Fe), dissolved.....	0.0398	0.0069 U	0.0085	0.0187
Lead (Pb), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Lithium (Li), dissolved.....	0.1 U	0.1 U	0.1 U	0.1 U
Magnesium (Mg), dissolved.....	0.0321	0.0431	0.0200 U	0.0405
Manganese (Mn), dissolved.....	0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury (Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....	0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium (K), dissolved.....	0.5 U	0.5 U	0.5 U	0.4 J
Selenium (Se), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Silver (Ag), dissolved.....	0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium (Na), dissolved.....	2.1000 U	11.7899	2.1000 U	28.8479
Strontium (Sr), dissolved.....	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium (Tl), dissolved.....	0.01 U	0.01 U	0.01 U	0.01 U
Vanadium (V), dissolved.....	0.0240 U	0.0240 U	0.0240 U	0.0242
Zinc (Zn), dissolved.....	0.0200 U	0.0200 U	0.0200 U	0.0259

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 63

Sample Information

	RFW Batch ID:	0188-881-401	0188-881-225	0188-881-057	0188-881-436
	Customer ID:	FB-03-02-88	FB-03-11-88	FB-03-15-88	FB-03-23-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0290 U	0.0290 U	0.0453	0.0757
Antimony (Sb), dissolved.....		0.02 U	0.02 U	0.02 U	0.02 U
Arsenic (As), dissolved.....		0.005 U	0.005 U	0.005 U	0.005 U
Barium (Ba), dissolved.....		0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium (Be), dissolved.....		0.005 U	0.005 U	0.005 U	0.001 J
Cadmium (Cd), dissolved.....		0.001 U	0.001 U	0.001 U	0.001 U
Calcium (Ca), dissolved.....		0.7500 U	0.7500 U	0.7500 U	0.7500 U
Cesium (Cs), dissolved.....		0.020 U	0.02 U	0.02 U	0.020 U
Chromium (Cr), dissolved.....		0.0100 U	0.0100 U	0.0146	0.0315
Cobalt (Co), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		0.0063 U	0.0063 U	0.0063 U	0.0138
Iron (Fe), dissolved.....		0.0242	0.0241	0.1600	0.3968
Lead (Pb), dissolved.....		0.005 U	0.005 U	0.005 U	0.005 U
Lithium (Li), dissolved.....		0.1 U	0.1 U	0.1 U	0.1 U
Magnesium (Mg), dissolved.....		0.1350	0.0223	0.0289	0.0527
Manganese (Mn), dissolved.....		0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury (Hg), dissolved.....		0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum(Mo), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium (K), dissolved.....		0.5 U	0.5 U	0.5 U	0.5 U
Selenium (Se), dissolved.....		0.005 U	0.005 U	0.005 U	0.005 U
Silver (Ag), dissolved.....		0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		2.1000 U	2.1000 U	2.1000 U	2.1000 U
Strontium (Sr), dissolved.....		0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium (Tl), dissolved.....		0.010 U	0.01 U	0.01 U	0.010 U
Vanadium (V), dissolved.....		0.0240 U	0.0240 U	0.0240 U	0.0240 U
Zinc (Zn), dissolved.....		0.0204	0.0346	0.0360	0.0867

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-466	0188-881-170	0188-881-418	0188-881-416
	Customer ID:	FB-03-31-88	FB-LD-02-13-88	REABLK 03/21	REABLK 03/24
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0307	NR	0.0494 U	0.0290 U
Antimony (Sb), dissolved.....		0.0340 U	NR	NR	NR
Arsenic (As), dissolved.....		0.005 U	NR	NR	NR
Barium (Ba), dissolved.....		0.0100 U	NR	0.0100 U	0.0100 U
Beryllium (Be), dissolved.....		0.0010 U	0.005 U	NR	NR
Cadmium (Cd), dissolved.....		0.0050 U	0.001 U	NR	NR
Calcium (Ca), dissolved.....		0.7500 U	NR	0.7500 U	0.7500 U
Cesium (Cs), dissolved.....		0.020 U	0.02 U	NR	NR
Chromium (Cr), dissolved.....		0.0100 U	NR	0.0100 U	0.0100 U
Cobalt (Co), dissolved.....		0.0220 U	NR	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		0.0064	NR	0.0063 U	0.0063 U
Iron (Fe), dissolved.....		0.0462	NR	0.0324	0.0178
Lead (Pb), dissolved.....		0.005 U	NR	NR	NR
Lithium (Li), dissolved.....		0.1 U	NR	NR	NR
Magnesium (Mg), dissolved.....		0.1597	NR	0.0347	0.0488
Manganese (Mn), dissolved.....		0.0051 U	NR	0.0051 U	0.0051 U
Mercury (Hg), dissolved.....		0.0002 U	0.0002 U	NR	NR
Molybdenum(Mo), dissolved.....		0.0220 U	NR	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		0.0370 U	NR	0.0370 U	0.0370 U
Potassium (K), dissolved.....		0.5 U	NR	NR	NR
Selenium (Se), dissolved.....		0.005 U	NR	NR	NR
Silver (Ag), dissolved.....		0.0076 U	NR	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		2.1000 U	NR	2.1000 U	2.1000 U
Strontium (Sr), dissolved.....		0.0200 U	NR	0.0200 U	0.0200 U
Thallium (Tl), dissolved.....		0.010 U	0.01 U	NR	NR
Vanadium (V), dissolved.....		0.0360 U	NR	0.0240 U	0.0240 U
Zinc (Zn), dissolved.....		0.0523	NR	0.0442	0.0200 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-450	0188-881-451	0188-881-452	0188-881-212
	Customer ID:	REABLK 03/29	REABLK 03/30	REABLK 04/05	REABLK-03-21-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0565	0.0290 U	0.0290 U	0.0494
Antimony (Sb), dissolved.....		NR	NR	NR	NR
Arsenic (As), dissolved.....		NR	NR	NR	NR
Barium (Ba), dissolved.....		0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium (Be), dissolved.....		NR	NR	NR	NR
Cadmium (Cd), dissolved.....		NR	NR	NR	NR
Calcium (Ca), dissolved.....		0.7500 U	0.7500 U	0.7500 U	0.7500 U
Cesium (Cs), dissolved.....		NR	NR	NR	NR
Chromium (Cr), dissolved.....		0.0188	0.0100 U	0.0144	0.0100 U
Cobalt (Co), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		0.0063 U	0.0066	0.0066	0.0063 U
Iron (Fe), dissolved.....		0.2643	0.1117	0.0792	0.0324
Lead (Pb), dissolved.....		NR	NR	NR	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		0.0296	0.0639	0.0289	0.0347
Manganese (Mn), dissolved.....		0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury (Hg), dissolved.....		NR	NR	NR	NR
Molybdenum(Mo), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium (K), dissolved.....		NR	NR	NR	NR
Selenium (Se), dissolved.....		NR	NR	NR	NR
Silver (Ag), dissolved.....		0.0076 U	0.0076 U	0.0465	0.0076 U
Sodium (Na), dissolved.....		2.1000 U	2.1000 U	2.1000 U	2.1000 U
Strontium (Sr), dissolved.....		0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium (Tl), dissolved.....		NR	NR	NR	NR
Vanadium (V), dissolved.....		0.0240 U	0.0240 U	0.0240 U	0.0240 U
Zinc (Zn), dissolved.....		0.0435	0.0894	0.0280	0.0442

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-060	0188-881-228	0188-881-059	0188-881-062
	Customer ID:	REABLK-03-24-88	REABLK-03-24-88	REABLK-03-29-88	REABLK-03-30-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0290 U	0.0290 U	0.0565	0.0290 U
Antimony (Sb), dissolved.....		NR	NR	NR	NR
Arsenic (As), dissolved.....		NR	NR	NR	NR
Barium (Ba), dissolved.....		0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium (Be), dissolved.....		NR	NR	NR	NR
Cadmium (Cd), dissolved.....		NR	NR	NR	0.7500 U
Calcium (Ca), dissolved.....		0.7500 U	0.7500 U	0.7500 U	NR
Cesium (Cs), dissolved.....		NR	NR	NR	NR
Chromium (Cr), dissolved.....		0.0100 U	0.0100 U	0.0188	0.0100 U
Cobalt (Co), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		0.0063 U	0.0063 U	0.0063 U	0.0066
Iron (Fe), dissolved.....		0.0178	0.0178	0.2643	0.1117
Lead (Pb), dissolved.....		NR	NR	NR	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		0.0488	0.0488	0.0296	0.0639
Manganese (Mn), dissolved.....		0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury (Hg), dissolved.....		NR	NR	NR	NR
Molybdenum(Mo), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium (K), dissolved.....		NR	NR	NR	NR
Selenium (Se), dissolved.....		NR	NR	NR	NR
Silver (Ag), dissolved.....		0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		2.1000 U	2.1000 U	2.1000 U	2.1000 U
Strontium (Sr), dissolved.....		0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium (Tl), dissolved.....		NR	NR	NR	NR
Vanadium (V), dissolved.....		0.0240 U	0.0240 U	0.0240 U	0.0240 U
Zinc (Zn), dissolved.....		0.0200 U	0.0200 U	0.0435	0.0894

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-474	0188-881-187	0188-881-102	0188-881-132
	Customer ID:	REABLK-04-05-88	REABLK-05-20-88	TB-02-05-88	TB-02-13-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0290 U	0.0290 U	0.0290 U	0.0290 U
Antimony (Sb), dissolved.....		NR	0.0340 U	0.02 U	0.02 U
Arsenic (As), dissolved.....		NR	NR	0.005 U	0.005 U
Barium (Ba), dissolved.....		0.0100 U	0.100 U	0.0100 U	0.0100 U
Beryllium (Be), dissolved.....		NR	0.0010 U	0.005 U	0.005 U
Cadmium (Cd), dissolved.....		NR	0.0050 U	0.001 U	0.001 U
Calcium (Ca), dissolved.....		0.7500 U	0.7500 U	0.7500 U	0.7500 U
Cesium (Cs), dissolved.....		NR	NR	0.02 U	0.02 U
Chromium (Cr), dissolved.....		0.0144	0.0100 U	0.0100 U	0.0100 U
Cobalt (Co), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		0.0066	0.0094	0.0063 U	0.0063 U
Iron (Fe), dissolved.....		0.0792	0.0275	0.0277	0.0180
Lead (Pb), dissolved.....		NR	NR	0.005 U	0.005 U
Lithium (Li), dissolved.....		NR	NR	0.1 U	0.1 U
Magnesium (Mg), dissolved.....		0.0289	0.0282	0.0373	0.0321
Manganese (Mn), dissolved.....		0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury (Hg), dissolved.....		NR	NR	0.0002 U	0.0002 U
Molybdenum(Mo), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium (K), dissolved.....		NR	NR	0.5 U	0.5 U
Selenium (Se), dissolved.....		NR	NR	0.005 U	0.005 U
Silver (Ag), dissolved.....		0.0465	0.0076 U	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		2.1000 U	2.1000 U	2.1000 U	11.6852
Strontium (Sr), dissolved.....		0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium (Tl), dissolved.....		NR	NR	0.01 U	0.01 U
Vanadium (V), dissolved.....		0.0240 U	0.0360 U	0.0240 U	0.0240 U
Zinc (Zn), dissolved.....		0.0280	0.0200 U	0.0240	0.0228

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0188-881-147	0188-881-153	0188-881-400	0188-881-224
	Customer ID:	TB-02-19-88	TB-02-26-88	TB-03-02-88	TB-03-11-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	0.0290 U	0.0342	0.0290 U
Antimony	(Sb), dissolved.....	0.02 U	0.02 U	0.02 U	0.02 U
Arsenic	(As), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Barium	(Ba), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium	(Be), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Cadmium	(Cd), dissolved.....	0.001 U	0.001 U	0.001	0.001 U
Calcium	(Ca), dissolved.....	0.7500 U	0.7500 U	0.7500 U	0.7500 U
Cesium	(Cs), dissolved.....	0.02 U	0.02 U	0.020 U	0.02 U
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0063 U	0.0063 U	0.0068	0.0063 U
Iron	(Fe), dissolved.....	0.0069 U	0.0159	0.0112	0.0180
Lead	(Pb), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Lithium	(Li), dissolved.....	0.1 U	0.1 U	0.1 U	0.1 U
Magnesium	(Mg), dissolved.....	0.0200 U	0.0306	0.0272	0.0215
Manganese	(Mn), dissolved.....	0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	0.5 U	0.3 J	0.5 U	0.5 U
Selenium	(Se), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	11.0382	28.1960	2.1000 U	2.1000 U
Strontium	(Sr), dissolved.....	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium	(Tl), dissolved.....	0.01 U	0.01 U	0.010 U	0.01 U
Vanadium	(V), dissolved.....	0.0240 U	0.0240 U	0.0240 U	0.0240 U
Zinc	(Zn), dissolved.....	0.0200 U	0.0200 U	0.0410	0.0200 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-056	0188-881-435	0188-881-465	0188-881-169
Customer ID:	TB-03-15-88	TB-03-23-88	TB-03-31-88	TB-LD-02-13-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum (Al), dissolved.....	0.0354	0.0654	0.0290 U	NR
Antimony (Sb), dissolved.....	0.02 U	0.02 U	0.0340 U	NR
Arsenic (As), dissolved.....	0.005 U	0.005 U	0.005 U	NR
Barium (Ba), dissolved.....	0.0100 U	0.0100 U	0.0100 U	NR
Beryllium (Be), dissolved.....	0.005 U	0.005 U	0.0010 U	0.005 U
Cadmium (Cd), dissolved.....	0.001	0.001 U	0.0050 U	0.001 U
Calcium (Ca), dissolved.....	0.7500 U	0.7500 U	0.7500 U	NR
Cesium (Cs), dissolved.....	0.02 U	0.020 U	0.020 U	0.02 U
Chromium (Cr), dissolved.....	0.0141	0.0204	0.0100 U	NR
Cobalt (Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	NR
Copper (Cu), dissolved.....	0.0063 U	0.0063 U	0.0063 U	NR
Iron (Fe), dissolved.....	0.1164	0.1792	0.0196	NR
Lead (Pb), dissolved.....	0.005 U	0.005 U	0.005 U	NR
Lithium (Li), dissolved.....	0.1 U	0.1 U	0.1 U	NR
Magnesium (Mg), dissolved.....	0.0226	0.0602	0.1289	NR
Manganese (Mn), dissolved.....	0.0051 U	0.0051 U	0.0051 U	NR
Mercury (Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	NR
Nickel (Ni), dissolved.....	0.0378	0.0370 U	0.0370 U	NR
Potassium (K), dissolved.....	0.5 U	0.5 U	0.5 U	NR
Selenium (Se), dissolved.....	0.005 U	0.005 U	0.005 U	NR
Silver (Ag), dissolved.....	0.0076 U	0.0086	0.0076 U	NR
Sodium (Na), dissolved.....	2.1000 U	2.1000 U	2.1000 U	NR
Strontium (Sr), dissolved.....	0.0200 U	0.0200 U	0.0200 U	NR
Thallium (Tl), dissolved.....	0.01 U	0.010 U	0.010 U	0.01 U
Vanadium (V), dissolved.....	0.0319	0.0317	0.0360 U	NR
Zinc (Zn), dissolved.....	0.0203	0.0941	0.0400	NR

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FIRST QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 70

Sample Information

RFW Batch ID:	0188-881-068
Customer ID:	TB-LD-03-15-88
Matrix:	Water
Units:	MG/L

Metals

Aluminum (Al), dissolved.....	NR	
Antimony (Sb), dissolved.....	NR	
Arsenic (As), dissolved.....	NR	
Barium (Ba), dissolved.....	NR	
Beryllium (Be), dissolved.....	0.005	U
Cadmium (Cd), dissolved.....	0.001	U
Calcium (Ca), dissolved.....	NR	
Cesium (Cs), dissolved.....	0.02	U
Chromium (Cr), dissolved.....	NR	
Cobalt (Co), dissolved.....	NR	
Copper (Cu), dissolved.....	NR	
Iron (Fe), dissolved.....	NR	
Lead (Pb), dissolved.....	0.005	U
Lithium (Li), dissolved.....	NR	
Magnesium (Mg), dissolved.....	NR	
Manganese (Mn), dissolved.....	NR	
Mercury (Hg), dissolved.....	NR	
Molybdenum(Mo), dissolved.....	NR	
Nickel (Ni), dissolved.....	NR	
Potassium (K), dissolved.....	NR	
Selenium (Se), dissolved.....	NR	
Silver (Ag), dissolved.....	NR	
Sodium (Na), dissolved.....	NR	
Strontium (Sr), dissolved.....	NR	
Thallium (Tl), dissolved.....	0.01	U
Vanadium (V), dissolved.....	NR	
Zinc (Zn), dissolved.....	NR	

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-403	0188-881-217	0188-881-404
Customer ID:	34-86-03-03-88	34-87-03-10-88	35-86-03-03-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	1700		mg/l	288		mg/l	1011		mg/l
Chloride.....	59.6		mg/l	5.37		mg/l	97.0		mg/l
Nitrate-Nitrite as N.....	0.02	U	mg/l	0.17		mg/l	0.02	U	mg/l
Sulfate.....	763		mg/l	114		mg/l	134		mg/l
HCO3- as CaCO3.....	111		mg/l	61.4		mg/l	349		mg/l
CO3= as CaCO3.....									

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0188-881-218	0188-881-467	0188-881-219
Customer ID:	36-87-03-10-88	38-86-03-31-88	39-86-03-10-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	395		mg/l	1715		mg/l	429		mg/l
Chloride.....	29.6		mg/l	138		mg/l	33.5		mg/l
Nitrate-Nitrite as N.....	4.78		mg/l	0.02	U	mg/l	7.11		mg/l
Sulfate.....	34.4		mg/l	540		mg/l	42.4		mg/l
HCO3- as CaCO3.....	133		mg/l	292		mg/l	134		mg/l
CO3= as CaCO3.....									

APPENDIX G

GROUND-WATER QUALITY DATA
SECOND QUARTER 1988

APPENDIX G-1

VOLATILE ORGANICS

SECOND QUARTER 1988 GROUNDWATER

VOLATILE

ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-069	0288-881-081	0288-881-082	0288-881-080
Field ID:	1-71-04-18-88	1-71-04-18-88-S	1-71-04-18-88-SD	1-71-04-18-88LD
Collection Date:	04/18/88	04/18/88	04/18/88	04/18/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	100 %	104 %	92 %	100 %
Bromofluorobenzene:	102 %	98 %	90 %	98 %
1,2-Dichloroethane-d4:	88 %	96 %	90 %	90 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	3 J
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	7	109 %	101 %	7
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	455	5 U	5 U	461
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	192	5 U	5 U	191
Carbon Tetrachloride	964	5 U	5 U	990
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	378	5 U	5 U	386
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	97 %	90 %	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	111	5 U	5 U	110
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	98 %	88 %	5 U
Chlorobenzene	5 U	100 %	90 %	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER

VOLATILE

ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-139	0288-881-231	0288-881-009	0288-881-044
Field ID:	1-74-05-09-88	1-86-06-02-88	10-74-04-14-88	10-81-04-07-88
Collection Date:	05/09/88	06/02/88	04/14/88	04/07/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	110 %	96 %	104 %	99 %
Bromofluorobenzene:	108 %	94 %	110 %	93 %
1,2-Dichloroethane-d4:	108 %	90 %	96 %	69 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	25
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	41	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	2790	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	1800	5 U	975	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	32850	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-248	0288-881-229	0288-881-038	0288-881-071
Field ID:	10-86-06-06-88	11-86-06-01-88	11-87-04-13-88	12-87-04-20-88
Collection Date:	06/06/88	06/01/88	04/13/88	04/20/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	98 %	96 %	102 %	100 %
Bromofluorobenzene:	96 %	94 %	106 %	112 %
1,2-Dichloroethane-d4:	92 %	92 %	94 %	88 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	4 J	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	121	17
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	301	5 U
Carbon Tetrachloride	5 U	5 U	436	43
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	573	751
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	28	57
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-325	0288-881-300	0288-881-079	0288-881-301
Field ID:	13-86-05-16-88	14-86-05-17-88	14-87-05-09-88	15-86-05-17-88
Collection Date:	05/16/88	05/17/88	05/09/88	05/17/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	112 %	112 %	112 %	110 %
Bromofluorobenzene:	110 %	110 %	108 %	110 %
1,2-Dichloroethane-d4:	108 %	106 %	104 %	106 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	14	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	232	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	71	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	NR	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-073	0288-881-066	0288-881-302	0288-881-076
Field ID:	15-87-04-20-88	16-74-04-18-88	16-86-05-17-88	16-87-04-20-88
Collection Date:	04/20/88	04/18/88	05/17/88	04/20/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	104 %	98 %	110 %	102 %
Bromofluorobenzene:	114 %	98 %	110 %	112 %
1,2-Dichloroethane-d4:	86 %	90 %	106 %	88 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	9	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	42	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	4305	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	269	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	NR	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	782	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 6

Sample Information

Batch ID:	0288-881-303	0288-881-141	0288-881-160	0288-881-161
Field ID:	17-86-05-17-88	17-87-05-09-88	18-87-05-05-88	18-87-05-05-88-L
Collection Date:	05/17/88	05/09/88	05/05/88	05/05/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	110 %	110 %	102 %	102 %
Bromofluorobenzene:	108 %	108 %	108 %	108 %
1,2-Dichloroethane-d4:	108 %	104 %	86 %	78 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	12	11
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	80	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	27	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	235	32	56
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-162	0288-881-163	0288-881-197	0288-881-195
Field ID:	18-87-05-05-88-S	18-87-05-05-88-SD	19-86-05-23-88	2-60-05-23-88
Collection Date:	05/05/88	05/05/88	05/23/88	05/23/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	112 %	108 %	94 %	94 %
Bromofluorobenzene:	112 %	104 %	100 %	102 %
1,2-Dichloroethane-d4:	100 %	86 %	94 %	92 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	94 %	83 %	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	121 %	118 %	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	104 %	101 %	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	100 %	99 %	5 U	5 U
Chlorobenzene	111 %	107 %	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-072	0288-881-232	0288-881-049	0288-881-140
Field ID:	2-71-04-20-88	2-86-06-02-88	2-87-04-07-88	20-87-05-09-88
Collection Date:	04/20/88	06/02/88	04/07/88	05/09/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	100 %	96 %	92 %	110 %
Bromofluorobenzene:	106 %	94 %	97 %	110 %
1,2-Dichloroethane-d4:	86 %	90 %	73 %	102 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	23	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	14	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	227	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	6837	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	30	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-192	0288-881-159	0288-881-304	0288-881-149
Field ID:	21-86-05-23-88	21-87-05-05-88	22-86-05-18-88	22-87-05-05-88
Collection Date:	05/23/88	05/05/88	05/18/88	05/05/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	98 %	102 %	96 %	98 %
Bromofluorobenzene:	96 %	106 %	98 %	126 %
1,2-Dichloroethane-d4:	90 %	86 %	90 %	80 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	103	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	233	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	173	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	NR	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	49	5 U	7
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-193	0288-881-144	0288-881-145	0288-881-146
Field ID:	23-86-05-23-88	23-87-05-09-88	23-87-05-09-88-S	23-87-05-09-88-S
Collection Date:	05/23/88	05/09/88	05/09/88	05/09/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	94 %	110 %	102 %	96 %
Bromofluorobenzene:	98 %	104 %	104 %	98 %
1,2-Dichloroethane-d4:	92 %	104 %	106 %	102 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	93 %	86 %
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	140 %	104 %
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	101 %	98 %
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	19	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	101 %	97 %
Chlorobenzene	5 U	5 U	100 %	97 %
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 11

Sample Information

Batch ID:	0288-881-308	0288-881-182	0288-881-189	0288-881-190
Field ID:	25-86-05-19-88	25-87-05-11-88	25-87-05-11-88-LD	25-87-05-11-88-S
Collection Date:	05/19/88	05/11/88	05/11/88	05/11/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	96 %	112 %	110 %	92 %
Bromofluorobenzene:	102 %	108 %	112 %	102 %
1,2-Dichloroethane-d4:	96 %	102 %	102 %	86 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	69 %
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	160	171	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	115	120	80 %
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	77 %
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	680	714	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	89 %
Chlorobenzene	5 U	5 U	5 U	98 %
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-191	0288-881-309	0288-881-327	0288-881-176
Field ID:	25-87-05-11-88-SD	27-86-05-19-88	28-86-05-17-88	28-87-05-11-88
Collection Date:	05/11/88	05/19/88	05/17/88	05/11/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	92 %	98 %	96 %	110 %
Bromofluorobenzene:	106 %	102 %	104 %	114 %
1,2-Dichloroethane-d4:	82 %	92 %	92 %	100 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	78 %	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	82 %	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	77 %	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	NR	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	89 %	5 U	5 U	5 U
Chlorobenzene	99 %	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 13

Sample Information

Batch ID:	0288-881-077	0288-881-154	0288-881-200	0288-881-233
Field ID:	29-87-04-20-88	3-74-05-04-88	3-82-05-25-88	3-86-06-02-88
Collection Date:	04/20/88	05/04/88	05/25/88	06/02/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	100 %	102 %	94 %	96 %
Bromofluorobenzene:	110 %	108 %	88 %	94 %
1,2-Dichloroethane-d4:	86 %	84 %	80 %	84 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	380	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	133	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	103	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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SECOND QUARTER 1988 GROUNDWATER

VOLATILE

ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-120	0288-881-194	0288-881-078	0288-881-180
Field ID:	3-87-04-27-88	30-86-05-23-88	30-87-05-09-88	31-87-05-11-88
Collection Date:	04/27/88	05/23/88	05/09/88	05/11/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	102 %	94 %	114 %	110 %
Bromofluorobenzene:	108 %	100 %	106 %	112 %
1,2-Dichloroethane-d4:	88 %	92 %	100 %	100 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	4 J	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-310	0288-881-181	0288-881-150	0288-881-178
Field ID:	32-86-05-19-88	32-87-05-11-88	34-86-05-05-88	34-87-05-11-88
Collection Date:	05/19/88	05/11/88	05/05/88	05/11/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	96 %	110 %	104 %	108 %
Bromofluorobenzene:	104 %	110 %	110 %	108 %
1,2-Dichloroethane-d4:	94 %	100 %	88 %	100 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	20	40	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 16

Sample Information

Batch ID:	0288-881-179	0288-881-151	0288-881-155	0288-881-138
Field ID:	34-87-05-11-88-FD	35-86-05-05-88	36-87-05-04-88	37-86-05-09-88
Collection Date:	05/11/88	05/05/88	05/04/88	05/09/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	110 %	102 %	106 %	110 %
Bromofluorobenzene:	110 %	108 %	114 %	106 %
1,2-Dichloroethane-d4:	104 %	86 %	98 %	104 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	11	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	7	230	5 U
1,1-Dichloroethane	5 U	47	5 U	5 U
Trans-1,2-Dichloroethene	5 U	2 J	5 U	5 U
Chloroform	5 U	5 U	2810	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	19	221860	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	54	5 U	2450	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER

VOLATILE

ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-326	0288-881-230	0288-881-158	0288-881-196
Field ID:	37-87-05-17-88	38-86-06-01-88	39-86-05-04-88	39-87-05-23-88
Collection Date:	05/17/88	06/01/88	05/04/88	05/23/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	96 %	98 %	102 %	96 %
Bromofluorobenzene:	102 %	98 %	104 %	102 %
1,2-Dichloroethane-d4:	92 %	90 %	86 %	90 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	2292	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	310	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	7	5 U	845	3
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-305	0288-881-006	0288-881-177	0288-881-287
Field ID:	4-60-05-18-88	4-87-04-13-88	40-86-05-11-88	40-87-06-14-88
Collection Date:	05/18/88	04/13/88	05/11/88	06/14/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	98 %	102 %	110 %	100 %
Bromofluorobenzene:	104 %	106 %	110 %	94 %
1,2-Dichloroethane-d4:	94 %	98 %	102 %	86 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	3 J	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	20	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	37	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	3 J	12	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-156	0288-881-271	0288-881-157	0288-881-002
Field ID:	41-86-05-04-88	41-87-06-14-88	42-86-05-04-88	43-87-04-11-88
Collection Date:	05/04/88	06/14/88	05/04/88	04/11/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	102 %	98 %	106 %	101 %
Bromofluorobenzene:	106 %	90 %	112 %	100 %
1,2-Dichloroethane-d4:	86 %	84 %	94 %	88 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	19
Acetone	10 U	10 U	5 J	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	3525
1,1-Dichloroethane	5 U	5 U	5 U	100
Trans-1,2-Dichloroethene	7	5 U	5 U	5 U
Chloroform	5 U	5 U	57	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	7343
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	50	5 U	5 U	4495
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. • = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
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ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-206	0288-881-207	0288-881-064	0288-881-148
Field ID:	44-86-05-27-88	45-86-05-27-88	45-87-04-18-88	46-86-05-10-88
Collection Date:	05/27/88	05/27/88	04/18/88	05/10/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	94 %	96 %	98 %	110 %
Bromofluorobenzene:	82 %	84 %	96 %	108 %
1,2-Dichloroethane-d4:	74 %	76 %	92 %	106 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	5 J	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	3 J	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
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Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-115	0288-881-226	0288-881-036	0288-881-227
Field ID:	47-86-04-25-88	48-86-05-31-88	48-87-04-13-88	49-86-05-31-88
Collection Date:	04/25/88	05/31/88	04/13/88	05/31/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	102 %	94 %	106 %	94 %
Bromofluorobenzene:	110 %	86 %	100 %	84 %
1,2-Dichloroethane-d4:	88 %	78 %	90 %	80 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	12	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
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Client: ROCKWELL (ROCKY FLATS) Page: 22

Sample Information

Batch ID:	0288-881-201	0288-881-245	0288-881-001	0288-881-228
Field ID:	5-82-05-25-88	5-86-06-01-88	5-87-04-11-88	50-86-05-31-88
Collection Date:	05/25/88	06/01/88	04/11/88	05/31/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	94 %	98 %	105 %	96 %
Bromofluorobenzene:	86 %	96 %	96 %	86 %
1,2-Dichloroethane-d4:	82 %	92 %	85 %	80 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	4 J	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
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Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-112	0288-881-113	0288-881-147	0288-881-067
Field ID:	51-86-04-25-88	51-86-04-25-88-FD	52-86-05-10-88	52-87-04-18-88
Collection Date:	04/25/88	04/25/88	05/10/88	04/18/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	104 %	100 %	110 %	102 %
Bromofluorobenzene:	108 %	110 %	108 %	102 %
1,2-Dichloroethane-d4:	86 %	86 %	104 %	90 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	3 J	2 J
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
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ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 24

Sample Information

Batch ID:	0288-881-034	0288-881-035	0288-881-118	0288-881-119
Field ID:	53-87-04-11-88	54-86-04-11-88	54-86-04-27-88	55-86-04-27-88
Collection Date:	04/11/88	04/11/88	04/27/88	04/27/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	101 %	102 %	102 %	102 %
Bromofluorobenzene:	102 %	105 %	108 %	110 %
1,2-Dichloroethane-d4:	85 %	92 %	88 %	88 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	3 J	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	3 J	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-046	0288-881-221	0288-881-249	0288-881-250
Field ID:	56-86-04-07-88	56-87-05-23-88	58-87-06-06-88	59-87-06-06-88
Collection Date:	04/07/88	05/23/88	06/06/88	06/06/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	95 %	94 %	102 %	98 %
Bromofluorobenzene:	96 %	100 %	94 %	96 %
1,2-Dichloroethane-d4:	69 %	88 %	92 %	94 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	23	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	11	5 U	5 U
1,1-Dichloroethane	5 U	15	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	124	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	7	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
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ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-202	0288-881-037	0288-881-251	0288-881-068
Field ID:	6-82-05-25-88	6-87-04-13-88	60-87-06-06-88	61-86-04-18-88
Collection Date:	05/25/88	04/13/88	06/06/88	04/18/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	94 %	102 %	100 %	102 %
Bromofluorobenzene:	88 %	108 %	96 %	102 %
1,2-Dichloroethane-d4:	80 %	98 %	94 %	90 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	16	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-254	0288-881-005	0288-881-256	0288-881-257
Field ID:	61-87-06-08-88	62-86-04-13-88	62-87-06-08-88	63-87-06-08-88
Collection Date:	06/08/88	04/13/88	06/08/88	06/08/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	98 %	102 %	100 %	96 %
Bromofluorobenzene:	94 %	106 %	96 %	94 %
1,2-Dichloroethane-d4:	94 %	104 %	94 %	90 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-265	0288-881-266	0288-881-267	0288-881-003
Field ID:	63-87-06-08-88-LD	63-87-06-08-88-S	63-87-06-08-88-SD	64-86-04-11-88
Collection Date:	06/08/88	06/08/88	06/08/88	04/11/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	102 %	94 %	114 %	100 %
Bromofluorobenzene:	100 %	94 %	114 %	106 %
1,2-Dichloroethane-d4:	90 %	100 %	118 %	100 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	85 %	107 %	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	71 %	91 %	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	84 %	99 %	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	78 %	108 %	5 U
Chlorobenzene	5 U	82 %	107 %	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-031	0288-881-029	0288-881-030	0288-881-270
Field ID:	64-86-04-11-88-SD	64-86-04-11-88D	64-86-04-11-88S	64-87-06-14-88
Collection Date:	04/11/88	04/11/88	04/11/88	06/14/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	123 %	102 %	105 %	102 %
Bromofluorobenzene:	115 %	105 %	104 %	92 %
1,2-Dichloroethane-d4:	128 %	100 %	108 %	86 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	126 %	5 U	100 %	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	125 %	5 U	100 %	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	119 %	5 U	100 %	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	4 J
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	116 %	5 U	100 %	5 U
Chlorobenzene	122 %	5 U	105 %	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-065	0288-881-269	0288-881-234	0288-881-268
Field ID:	65-86-04-18-88	65-87-06-14-88	66-86-06-02-88	66-87-06-14-88
Collection Date:	04/18/88	06/14/88	06/02/88	06/14/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	100 %	96 %	94 %	96 %
Bromofluorobenzene:	102 %	92 %	94 %	90 %
1,2-Dichloroethane-d4:	90 %	90 %	90 %	90 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	19 U	5 U	4 J
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-272	0288-881-048	0288-881-273	0288-881-004
Field ID:	67-87-06-16-88	68-86-04-07-88	68-87-06-16-88	69-86-04-11-88
Collection Date:	06/16/88	04/07/88	06/16/88	04/11/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	92 %	91 %	94 %	99 %
Bromofluorobenzene:	92 %	97 %	92 %	103 %
1,2-Dichloroethane-d4:	82 %	71 %	82 %	99 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	24	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-045	0288-881-047	0288-881-275	0288-881-255
Field ID:	7-82-04-07-88	70-86-04-07-88	70-87-06-16-88	71-87-06-06-88
Collection Date:	04/07/88	04/07/88	06/16/88	06/06/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	93 %	93 %	92 %	102 %
Bromofluorobenzene:	96 %	99 %	94 %	96 %
1,2-Dichloroethane-d4:	70 %	73 %	84 %	92 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	23	23	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. • = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 33

Sample Information

Batch ID:	0288-881-203	0288-881-286	0288-881-142	0288-881-010
Field ID:	8-81-05-25-88	8-86-06-14-88	8-87-05-09-88	9-74-04-14-88
Collection Date:	05/25/88	06/14/88	05/09/88	04/14/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	94 %	96 %	110 %	102 %
Bromofluorobenzene:	86 %	90 %	110 %	110 %
1,2-Dichloroethane-d4:	80 %	84 %	104 %	100 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	9 J
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	3820
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	3130
Carbon Tetrachloride	5 U	5 U	5 U	1200
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5840
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	14740
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	20	1940
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-011	0288-881-032	0288-881-033	0288-881-204
Field ID:	9-74-04-14-88-D	9-74-04-14-88S	9-74-04-14-88SD	9-81-05-25-88
Collection Date:	04/14/88	04/14/88	04/14/88	05/25/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	104 %	102 %	104 %	94 %
Bromofluorobenzene:	108 %	102 %	100 %	86 %
1,2-Dichloroethane-d4:	90 %	104 %	100 %	78 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	3390	99 %	109 %	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	3110	5 U	5 U	5 U
Carbon Tetrachloride	1140	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5860	93 %	95 %	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	14190	5 U	5 U	5 U
Benzene	5 U	95 %	97 %	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	1920	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	95 %	98 %	5 U
Chlorobenzene	5 U	98 %	102 %	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-205	0288-881-222	0288-881-223	0288-881-246
Field ID:	9-81-05-25-88-FD	9-81-05-25-88-S	9-81-05-25-88-SD	9-86-06-06-88
Collection Date:	05/25/88	05/25/88	05/25/88	06/06/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	94 %	82 %	86 %	96 %
Bromofluorobenzene:	86 %	74 %	78 %	90 %
1,2-Dichloroethane-d4:	76 %	76 %	84 %	88 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	97 %	109 %	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	85 %	93 %	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	78 %	83 %	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	80 %	85 %	5 U
Chlorobenzene	5 U	79 %	84 %	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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Sample Information

Batch ID:	0288-881-247	0288-881-070	0288-881-008	0288-881-075
Field ID:	9-86-06-06-88	9-87-04-19-88	FB-04-14-88	FB-04-20-88
Collection Date:	06/06/88	04/19/88	04/14/88	04/20/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	100 %	102 %	102 %	104 %
Bromofluorobenzene:	94 %	108 %	108 %	114 %
1,2-Dichloroethane-d4:	90 %	82 %	94 %	82 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 J	8
Acetone	10 U	10 U	10 U	4 J
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	6 J	8 J
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-117	0288-881-153	0288-881-175	0288-881-328
Field ID:	FB-04-27-88	FB-05-04-88	FB-05-11-88	FB-05-18-88-LD
Collection Date:	04/27/88	05/04/88	05/11/88	05/18/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	100 %	102 %	106 %	96 %
Bromofluorobenzene:	108 %	106 %	104 %	98 %
1,2-Dichloroethane-d4:	86 %	88 %	102 %	94 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	65	4 J
Acetone	10 U	10 U	10 U	6 J
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	33 J	5 J
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-329	0288-881-330	0288-881-307	0288-881-199
Field ID:	FB-05-18-88-S	FB-05-18-88-SD	FB-05-19-88	FB-05-25-88
Collection Date:	05/18/88	05/18/88	05/19/88	05/25/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	108 %	106 %	98 %	94 %
Bromofluorobenzene:	98 %	102 %	104 %	86 %
1,2-Dichloroethane-d4:	108 %	114 %	96 %	82 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	3 J	5 U
Acetone	10 U	10 U	7 J	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	93 %	5 U	5 U
1,1-Dichloroethane	106 %	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	5 J	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	101 %	107 %	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	98 %	105 %	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	NR	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	102 %	104 %	5 U	5 U
Chlorobenzene	97 %	102 %	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-225	0288-881-253	0288-881-277	0288-881-007
Field ID:	FB-05-31-88	FB-06-08-88	FB-06-16-88	TB-04-14-88
Collection Date:	05/31/88	06/08/88	06/16/88	04/14/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	96 %	100 %	90 %	118 %
Bromofluorobenzene:	86 %	96 %	92 %	96 %
1,2-Dichloroethane-d4:	78 %	90 %	82 %	88 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	18
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	12
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

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SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 40

Sample Information

Batch ID:	0288-881-074	0288-881-116	0288-881-152	0288-881-174
Field ID:	TB-04-20-88	TB-04-27-88	TB-05-04-88	TB-05-11-88
Collection Date:	04/20/88	04/27/88	05/04/88	05/11/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	104 %	102 %	102 %	110 %
Bromofluorobenzene:	112 %	104 %	104 %	106 %
1,2-Dichloroethane-d4:	90 %	78 %	80 %	106 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	10	5 U	12	5 U
Acetone	6 J	10 U	10 U	4 J
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	12	10 U	18	6 J
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	37	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

SECOND QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-306	0288-881-198	0288-881-224	0288-881-252
Field ID:	TB-05-19-88	TB-05-25-88	TB-05-31-88	TB-06-08-88
Collection Date:	05/19/88	05/25/88	05/31/88	06/08/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	96 %	96 %	98 %	98 %
Bromofluorobenzene:	102 %	84 %	84 %	94 %
1,2-Dichloroethane-d4:	94 %	80 %	82 %	94 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	9	5 U	5 U	5 U
Acetone	9 J	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	11	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
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Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0288-881-276
Field ID:	TB-06-16-88
Collection Date:	06/16/88
Units:	UG/L

Surrogate Recovery

Toluene-d8:	92 %
Bromofluorobenzene:	90 %
1,2-Dichloroethane-d4:	82 %

Analytes

Chloromethane	10	U
Bromomethane	10	U
Vinyl Chloride	10	U
Chloroethane	10	U
Methylene Chloride	5	U
Acetone	6	J
Carbon Disulfide	5	U
1,1-Dichloroethene	5	U
1,1-Dichloroethane	5	U
Trans-1,2-Dichloroethene	5	U
Chloroform	5	U
1,2-Dichloroethane	5	U
2-Butanone	10	U
1,1,1-Trichloroethane	5	U
Carbon Tetrachloride	5	U
Vinyl Acetate	10	U
Bromodichloromethane	5	U
1,2-Dichloropropane	5	U
Trans-1,3-Dichloropropene	5	U
Trichloroethene	5	U
Dibromochloromethane	5	U
1,1,2-Trichloroethane	5	U
Benzene	5	U
cis-1,3-Dichloropropene	5	U
2-Chloroethylvinylether	10	U
Bromoform	5	U
4-Methyl-2-pentanone	10	U
2-Hexanone	10	U
Tetrachloroethene	5	U
1,1,2,2-Tetrachloroethane	5	U
Toluene	5	U
Chlorobenzene	5	U
Ethylbenzene	5	U
Styrene	5	U
Total Xylenes	5	U

U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. E = Estimated value.
NS = Not Spiked. NR = Analyte not reported. * = Holding time not met N = Batch spike not in 80-120% range.

APPENDIX G-2

INORGANICS

02/23/89

SECOND QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-069		0288-881-123		0288-881-231	
	Customer ID:	1-71-04-19-88		1-74-04-29-88		1-86-06-03-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids.....		313	mg/l	419	mg/l	185	mg/l
Chloride.....		17.4	mg/l	20.8	mg/l	20.2	mg/l
Nitrate-Nitrite as N.....		3.94	mg/l	6.60	mg/l	0.02 U	mg/l
Sulfate.....		1.83	mg/l	29.3	mg/l	29.0	mg/l
HCO3- as CaCO3.....		211	mg/l	208	mg/l	89.7	mg/l
CO3= as CaCO3.....							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-009		0288-881-044		0288-881-248	
	Customer ID:	10-74-04-15-88		10-81-04-08-88		10-86-06-07-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids.....		1645	mg/l	146	mg/l	144	mg/l
Chloride.....		312	mg/l	7.20	mg/l	3.44	mg/l
Nitrate-Nitrite as N.....		61.7	mg/l	2.80	mg/l	2.52	mg/l
Sulfate.....		280	mg/l	27.0	mg/l	32.5	mg/l
HCO3- as CaCO3.....		244	mg/l	80.4	mg/l	26.2	mg/l
CO3= as CaCO3.....							

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

SECOND QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 2

Sample Information

RFW Batch ID:	0288-881-229	0288-881-071	0288-881-300
Customer ID:	11-86-06-02-88	12-87-04-21-88	14-86-05-17-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	728	mg/l		641	mg/l		1366	mg/l
Chloride	44.3	mg/l		57.0	mg/l		82.7	mg/l
Nitrate-Nitrite as N	0.39	mg/l		1.33	mg/l		0.02	U mg/l
Sulfate	161	mg/l		102	mg/l		749	mg/l
HCO3- as CaCO3	325	mg/l		354	mg/l		329	mg/l
CO3= as CaCO3								

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-079	0288-881-301	0288-881-073
Customer ID:	14-87-04-22-88	15-86-05-17-88	15-87-04-21-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	275	mg/l		1128	mg/l		437	mg/l
Chloride	24.8	mg/l		82.6	mg/l		48.1	mg/l
Nitrate-Nitrite as N	1.70	mg/l		42.8	mg/l		4.82	mg/l
Sulfate	48.8	mg/l		180	mg/l		25.8	mg/l
HCO3- as CaCO3	75.4	mg/l		382	mg/l		244	mg/l
CO3= as CaCO3	70.4	mg/l						

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

SECOND QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 3

Sample Information

	RFW Batch ID:	0288-881-302		0288-881-076		0288-881-303	
	Customer ID:	16-86-05-17-88		16-87-04-22-88		17-86-05-17-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		1461	mg/l	277	mg/l	5214	mg/l
Chloride		193	mg/l	4.04	mg/l	121	mg/l
Nitrate-Nitrite as N		0.02 U	mg/l	0.05	mg/l	577	mg/l
Sulfate		533	mg/l	84.8	mg/l	406	mg/l
HCO3- as CaCO3		328	mg/l	166	mg/l	255	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-124		0288-881-197		0288-881-195	
	Customer ID:	17-87-04-29-88		19-86-05-24-88		2-60-05-24-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		438	mg/l	1200	mg/l	17400	mg/l
Chloride		41.2	mg/l	118	mg/l	651	mg/l
Nitrate-Nitrite as N		1.50	mg/l	0.02 U	mg/l	2050	mg/l
Sulfate		28.0	mg/l	285	mg/l	821	mg/l
HCO3- as CaCO3		269	mg/l	592	mg/l	92.3	mg/l
CO3= as CaCO3							

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

SECOND QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 4

Sample Information

RFW Batch ID:	0288-881-072	0288-881-232	0288-881-049
Customer ID:	2-71-04-21-88	2-86-06-03-88	2-87-04-08-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	1473		mg/l	1537	mg/l	620	mg/l
Chloride.....	436		mg/l	149	mg/l	71.4	mg/l
Nitrate-Nitrite as N.....	5.03		mg/l	0.10	mg/l	0.02 U	mg/l
Sulfate.....	328		mg/l	335	mg/l	83.0	mg/l
HCO3- as CaCO3.....	159		mg/l	393	mg/l	371	mg/l
CO3= as CaCO3.....							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-192	0288-881-304	0288-881-149
Customer ID:	21-86-05-24-88	22-86-05-18-88	22-87-05-03-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	268		mg/l	481	mg/l	480	mg/l
Chloride.....	2.55		mg/l	57.8	mg/l	5.70	mg/l
Nitrate-Nitrite as N.....	0.02	U	mg/l	3.30	mg/l	0.04	mg/l
Sulfate.....	27.7		mg/l	61.9	mg/l	230	mg/l
HCO3- as CaCO3.....	211		mg/l	262	mg/l	99	mg/l
CO3= as CaCO3.....							

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

SECOND QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-193		0288-881-122		0288-881-308	
	Customer ID:	23-86-05-24-88		23-87-04-29-88		25-86-05-19-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		991	mg/l	392	mg/l	2293	mg/l
Chloride		156	mg/l	64.0	mg/l	43.8	mg/l
Nitrate-Nitrite as N		0.02 U	mg/l	2.70	mg/l	0.07	mg/l
Sulfate		671	mg/l	17.5	mg/l	1355	mg/l
HCO3- as CaCO3		190	mg/l	242	mg/l	373	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-182		0288-881-309		0288-881-176	
	Customer ID:	25-87-05-12-88		27-86-05-19-88		28-87-05-12-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		496	mg/l	827	mg/l	516	mg/l
Chloride		34.8	mg/l	156	mg/l	23.4	mg/l
Nitrate-Nitrite as N		6.90	mg/l	0.61	mg/l	0.04	mg/l
Sulfate		28.5	mg/l	272	mg/l	130	mg/l
HCO3- as CaCO3		235	mg/l	167	mg/l	93.6	mg/l
CO3= as CaCO3							

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

SECOND QUARTER 1988 GROUNDWATER

INORGANIC

DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 6

Sample Information

RFW Batch ID:	0288-881-077	0288-881-154	0288-881-200
Customer ID:	29-87-04-22-88	3-74-05-05-88	3-82-05-26-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	2979	mg/l	476	mg/l	144	mg/l
Chloride.....	624	mg/l	47.4	mg/l	5.77	mg/l
Nitrate-Nitrite as N.....	0.55	mg/l	6.30	mg/l	0.24	mg/l
Sulfate.....	1157	mg/l	23.5	mg/l	12.0	mg/l
HCO3- as CaCO3.....	238	mg/l	222	mg/l	30.1	mg/l
CO3= as CaCO3.....						

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-233	0288-881-120	0288-881-194
Customer ID:	3-86-06-03-88	3-87-04-28-88	30-86-05-24-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	545	mg/l	404	mg/l	1600	mg/l
Chloride.....	76.6	mg/l	100	mg/l	216	mg/l
Nitrate-Nitrite as N.....	1.15	mg/l	0.03	mg/l	12100	mg/l
Sulfate.....	69.0	mg/l	4.30	mg/l	337	mg/l
HCO3- as CaCO3.....	247	mg/l	202	mg/l	309	mg/l
CO3= as CaCO3.....						

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

SECOND QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 7

Sample Information

RFW Batch ID:	0288-881-078	0288-881-180	0288-881-310
Customer ID:	30-87-04-22-88	31-87-05-12-88	32-86-05-19-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	412	mg/l		312	mg/l	514	mg/l
Chloride.....	125	mg/l		9.01	mg/l	112	mg/l
Nitrate-Nitrite as N.....	0.04	mg/l		0.17	mg/l	0.21	mg/l
Sulfate.....	16.5	mg/l		115	mg/l	77.0	mg/l
HCO3- as CaCO3.....	157	mg/l		67.6	mg/l	180	mg/l
CO3= as CaCO3.....				21.1	mg/l		

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-181	0288-881-150	0288-881-178
Customer ID:	32-87-05-12-88	34-86-05-03-88	34-87-05-12-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	630	mg/l		1760		mg/l	314	mg/l
Chloride.....	32.4	mg/l		58.3		mg/l	3.94	mg/l
Nitrate-Nitrite as N.....	10.1	mg/l		0.02	U	mg/l	0.06	mg/l
Sulfate.....	113	mg/l		725		mg/l	97.0	mg/l
HCO3- as CaCO3.....	240	mg/l		239		mg/l	125	mg/l
CO3= as CaCO3.....								

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

SECOND QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-179	0288-881-151	0288-881-155
	Customer ID:	34-87-05-12-88-FD	35-86-05-03-88	36-87-05-05-88
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		319 mg/l	973 mg/l	405 mg/l
Chloride		4.58 mg/l	104 mg/l	29.9 mg/l
Nitrate-Nitrite as N		0.05 mg/l	0.02 U mg/l	4.40 mg/l
Sulfate		100 mg/l	125 mg/l	33.0 mg/l
HCO3- as CaCO3		127 mg/l	533 mg/l	212 mg/l
CO3= as CaCO3				

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-230	0288-881-158	0288-881-196
	Customer ID:	38-86-06-02-88	39-86-05-05-88	39-87-05-24-88
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		1942 mg/l	436 mg/l	918 mg/l
Chloride		132 mg/l	34.3 mg/l	72.4 mg/l
Nitrate-Nitrite as N		0.02 U mg/l	6.60 mg/l	0.15 mg/l
Sulfate		740 mg/l	53.0 mg/l	521 mg/l
HCO3- as CaCO3		370 mg/l	223 mg/l	128 mg/l
CO3= as CaCO3				

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-305	0288-881-006	0288-881-177
	Customer ID:	4-60-05-18-88	4-87-04-14-88	40-86-05-12-88
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		577 mg/l	1836 mg/l	576 mg/l
Chloride		10.5 mg/l	269 mg/l	7.24 mg/l
Nitrate-Nitrite as N		27.0 mg/l	3.86 mg/l	3.80 mg/l
Sulfate		63.7 mg/l	518 mg/l	135 mg/l
HCO3- as CaCO3		238 mg/l	432 mg/l	293 mg/l
CO3= as CaCO3				

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-156	0288-881-271	0288-881-157
	Customer ID:	41-86-05-05-88	41-87-06-15-88	42-86-05-05-88
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		510 mg/l		401 mg/l
Chloride		32.5 mg/l		35.6 mg/l
Nitrate-Nitrite as N		13.0 mg/l	0.02 U mg/l	4.30 mg/l
Sulfate		55.0 mg/l		16.5 mg/l
HCO3- as CaCO3		220 mg/l		209 mg/l
CO3= as CaCO3				

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

SECOND QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 10

Sample Information

	RFW Batch ID:	0288-881-002		0288-881-206		0288-881-207	
	Customer ID:	43-87-04-12-88		44-86-05-27-88		45-86-05-27-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		1251	mg/l	567	mg/l	79	mg/l
Chloride		271	mg/l	60.5	mg/l	3.97	mg/l
Nitrate-Nitrite as N		3.70	mg/l	28.4	mg/l	0.21	mg/l
Sulfate		303	mg/l	29.5	mg/l	14.8	mg/l
HCO3- as CaCO3		249	mg/l	155	mg/l	22.3	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-064		0288-881-114		0288-881-115	
	Customer ID:	45-87-04-19-88		46-86-04-26-88		47-86-04-26-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		344	mg/l	232	mg/l	64	mg/l
Chloride		10.6	mg/l	2.96	mg/l	2.94	mg/l
Nitrate-Nitrite as N		0.05	mg/l	0.07	mg/l	0.93	mg/l
Sulfate		104	mg/l	17.8	mg/l	18.6	mg/l
HCO3- as CaCO3		199	mg/l	203	mg/l	78.9	mg/l
CO3= as CaCO3							

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

SECOND QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 11

Sample Information

RFW Batch ID:	0288-881-226	0288-881-227	0288-881-201
Customer ID:	48-86-06-01-88	49-86-06-01-88	5-82-05-26-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	130	mg/l	244	mg/l	265	mg/l
Chloride	9.67	mg/l	22.9	mg/l	8.41	mg/l
Nitrate-Nitrite as N	0.02	mg/l	12.2	mg/l	0.52	mg/l
Sulfate	9.0	mg/l	45.5	mg/l	95.0	mg/l
HCO3- as CaCO3	57.0	mg/l	31.2	mg/l	36.4	mg/l
CO3= as CaCO3						

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-001	0288-881-228	0288-881-112
Customer ID:	5-87-04-12-88	50-86-06-01-88	51-86-04-26-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	1852	mg/l	176	mg/l	135	mg/l
Chloride	250	mg/l	9.52	mg/l	4.40	mg/l
Nitrate-Nitrite as N	1.90	mg/l	0.82	mg/l	5.22	mg/l
Sulfate	543	mg/l	12.5	mg/l	33.5	mg/l
HCO3- as CaCO3	515	mg/l	90.3	mg/l	35.9	mg/l
CO3= as CaCO3						

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

SECOND QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 12

Sample Information

RFW Batch ID:	0288-881-113			0288-881-111			0288-881-067	
Customer ID:	51-86-04-26-88-FD			52-86-04-26-88			52-87-04-19-88	
Matrix:	Water			Water			Water	
Inorganics								
Total Dissolved Solids	133	mg/l		114	mg/l		936	mg/l
Chloride	4.35	mg/l		2.0	U mg/l		76.9	mg/l
Nitrate-Nitrite as N	4.83	mg/l		0.10	mg/l		0.02	U mg/l
Sulfate	31.3	mg/l		44.8	mg/l		241	mg/l
HCO3- as CaCO3	39.8	mg/l		28.6	mg/l		359	mg/l
CO3= as CaCO3				30.2	mg/l			

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-118			0288-881-119			0288-881-046	
Customer ID:	54-86-04-28-88			55-86-04-28-88			56-86-04-08-88	
Matrix:	Water			Water			Water	
Inorganics								
Total Dissolved Solids	435	mg/l		141	mg/l		183	mg/l
Chloride	18.6	mg/l		5.90	mg/l		38.4	mg/l
Nitrate-Nitrite as N	0.02	mg/l		1.30	mg/l		0.57	mg/l
Sulfate	39.0	mg/l		15.5	mg/l		25.0	mg/l
HCO3- as CaCO3	306	mg/l		67.3	mg/l		74.5	mg/l
CO3= as CaCO3								

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

SECOND QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 13

Sample Information

RFW Batch ID:	0288-881-249	0288-881-250	0288-881-202
Customer ID:	58-87-06-07-88	59-87-06-07-88	6-82-05-26-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	188	mg/l	464	mg/l	180		mg/l
Chloride	4.26	mg/l	17.9	mg/l	2.0	U	mg/l
Nitrate-Nitrite as N	1.59	mg/l	0.08	mg/l	0.03		mg/l
Sulfate	38.5	mg/l	41.5	mg/l	41.0		mg/l
HCO3- as CaCO3	86.3	mg/l	312	mg/l	27.0		mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-251	0288-881-068	0288-881-254
Customer ID:	60-87-06-07-88	61-86-04-19-88	61-87-06-09-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	135	mg/l	258	mg/l	261	mg/l
Chloride	2.55	mg/l	2.86	mg/l	2.26	mg/l
Nitrate-Nitrite as N	2.68	mg/l	1.19	mg/l	3.09	mg/l
Sulfate	21.0	mg/l	46.6	mg/l	40.0	mg/l
HCO3- as CaCO3	59.4	mg/l	189	mg/l	54.5	mg/l
CO3= as CaCO3						

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

SECOND QUARTER 1988 GROUNDWATER

INORGANIC

DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 14

Sample Information

RFW Batch ID:	0288-881-005	0288-881-256	0288-881-257
Customer ID:	62-86-04-14-88	62-87-06-09-88	63-87-06-09-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	302	mg/l	145	mg/l	597		mg/l
Chloride	26.8	mg/l	2.44	mg/l	34.4		mg/l
Nitrate-Nitrite as N	2.89	mg/l	2.64	mg/l	0.02	U	mg/l
Sulfate	57.7	mg/l	19.0	mg/l	27.3		mg/l
HCO3- as CaCO3	134	mg/l	66.4	mg/l	426		mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-003	0288-881-270	0288-881-065
Customer ID:	64-86-04-12-88	64-87-06-15-88	65-86-04-19-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	593	mg/l	246	mg/l	427		mg/l
Chloride	49.7	mg/l	25.4	mg/l	47.9		mg/l
Nitrate-Nitrite as N	0.56	mg/l	0.03	mg/l	0.06		mg/l
Sulfate	180	mg/l	16.3	mg/l	148		mg/l
HCO3- as CaCO3	213	mg/l	139	mg/l	185		mg/l
CO3= as CaCO3							

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

Client: ROCKWELL (ROCKY FLATS) Page: 15

Sample Information

RFW Batch ID:	0288-881-269	0288-881-234	0288-881-268
Customer ID:	65-87-06-15-88	66-86-06-03-88	66-87-06-15-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	338	mg/l	163		mg/l	618	mg/l
Chloride.....	4.57	mg/l	20.1		mg/l	4.91	mg/l
Nitrate-Nitrite as N.....	2.37	mg/l	0.02	U	mg/l	3.14	mg/l
Sulfate.....	62.0	mg/l	24.8		mg/l	220	mg/l
HCO3- as CaCO3.....	174	mg/l	83.9		mg/l	104	mg/l
CO3= as CaCO3.....							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-272	0288-881-048	0288-881-273
Customer ID:	67-87-06-17-88	68-86-04-08-88	68-87-06-17-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	198	mg/l	153		mg/l	174	mg/l
Chloride.....	3.67	mg/l	32.2		mg/l	3.58	mg/l
Nitrate-Nitrite as N.....	1.66	mg/l	0.05		mg/l	2.38	mg/l
Sulfate.....	33.5	mg/l	20.0		mg/l	26.5	mg/l
HCO3- as CaCO3.....	94.9	mg/l	53.9		mg/l	76.9	mg/l
CO3= as CaCO3.....							

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-274		0288-881-004		0288-881-047		
	Customer ID:	68-87-06-17-88-FD		69-86-04-12-88		70-86-04-08-88		
	Matrix:	Water		Water		Water		
Inorganics								
Total Dissolved Solids		175	mg/l	960	mg/l	198		mg/l
Chloride		3.62	mg/l	102	mg/l	25.4		mg/l
Nitrate-Nitrite as N		2.77	mg/l	3.90	mg/l	0.02	U	mg/l
Sulfate		27.5	mg/l	233	mg/l	48.0		mg/l
HCO3- as CaCO3		78.7	mg/l	387	mg/l	80.4		mg/l
CO3= as CaCO3								

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-275		0288-881-255		0288-881-203		
	Customer ID:	70-87-06-17-88		71-87-06-09-88		8-81-05-26-88		
	Matrix:	Water		Water		Water		
Inorganics								
Total Dissolved Solids		581	mg/l	267	mg/l	203		mg/l
Chloride		47.8	mg/l	2.22	mg/l	4.44		mg/l
Nitrate-Nitrite as N		0.49	mg/l	1.02	mg/l	0.04		mg/l
Sulfate		82.5	mg/l	29.8	mg/l	12.5		mg/l
HCO3- as CaCO3		238	mg/l	188	mg/l	152		mg/l
CO3= as CaCO3								

SECOND QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-121	0288-881-010	0288-881-011
	Customer ID:	8-87-04-28-88	9-74-04-15-88	9-74-04-15-88-D
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		1325 mg/l	1189 mg/l	1188 mg/l
Chloride		40.3 mg/l	221 mg/l	224 mg/l
Nitrate-Nitrite as N		1.00 mg/l	7.57 mg/l	7.62 mg/l
Sulfate		540 mg/l	273 mg/l	268 mg/l
HCO3- as CaCO3		302 mg/l	264 mg/l	241 mg/l
CO3= as CaCO3				

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-204	0288-881-205	0288-881-246
	Customer ID:	9-81-05-26-88	9-81-05-26-88-FD	9-86-06-07-88
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		282 mg/l	274 mg/l	238 mg/l
Chloride		48.5 mg/l	48.9 mg/l	9.24 mg/l
Nitrate-Nitrite as N		0.79 mg/l	0.81 mg/l	0.02 U mg/l
Sulfate		42.0 mg/l	54.5 mg/l	5.50 mg/l
HCO3- as CaCO3		71.1 mg/l	70.5 mg/l	182 mg/l
CO3= as CaCO3				

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-247		0288-881-070		0288-881-008	
	Customer ID:	9-86-06-07-88-FD		9-87-04-20-88		FB-04-15-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		240	mg/l	290	mg/l	1	mg/l
Chloride		9.56	mg/l	6.38	mg/l	2.0 U	mg/l
Nitrate-Nitrite as N		0.02 U	mg/l	2.81	mg/l	0.19	mg/l
Sulfate		5.00	mg/l	56.8	mg/l	1.0 U	mg/l
HCO3- as CaCO3		181	mg/l	165	mg/l	1.0 U	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-075		0288-881-117		0288-881-153	
	Customer ID:	FB-04-21-88		FB-04-28-88		FB-05-05-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		0	mg/l	6	mg/l	11	mg/l
Chloride		2.0 U	mg/l	0.38	mg/l	2.0 U	mg/l
Nitrate-Nitrite as N		0.23	mg/l	2.30	mg/l	0.02 U	mg/l
Sulfate		1.0 U	mg/l	1.0 U	mg/l	1.0 U	mg/l
HCO3- as CaCO3		1.0 U	mg/l	1.0 U	mg/l	1.0 U	mg/l
CO3= as CaCO3							

SECOND QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 19

Sample Information

RFW Batch ID:	0288-881-175	0288-881-307	0288-881-199
Customer ID:	FB-05-12-88	FB-05-19-88	FB-05-26-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	10		mg/l	14		mg/l	0	mg/l
Chloride.....	2.0	U	mg/l	2.0	U	mg/l	2.0 U	mg/l
Nitrate-Nitrite as N.....	0.39		mg/l	0.09		mg/l	0.14	mg/l
Sulfate.....	1.0	U	mg/l	1.0	U	mg/l	1.0 U	mg/l
HCO3- as CaCO3.....	1.0	U	mg/l	1.0	U	mg/l	1.0 U	mg/l
CO3= as CaCO3.....								

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-225	0288-881-253	0288-881-277
Customer ID:	FB-06-01-88	FB-06-09-88	FB-06-17-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	5		mg/l	7		mg/l	5	mg/l
Chloride.....	2.0	U	mg/l	1.06		mg/l	5.97	mg/l
Nitrate-Nitrite as N.....	0.17		mg/l	0.26		mg/l	1.23	mg/l
Sulfate.....	1.0	U	mg/l	1.0	U	mg/l	1.0 U	mg/l
HCO3- as CaCO3.....	1.0	U	mg/l	1.0	U	mg/l	1.0 U	mg/l
CO3= as CaCO3.....								

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-007	0288-881-074	0288-881-116
	Customer ID:	TB-04-15-88	TB-04-21-88	TB-04-28-88
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		2 mg/l	1 mg/l	5 mg/l
Chloride		2.0 U mg/l	2.0 U mg/l	0.58 mg/l
Nitrate-Nitrite as N		1.26 mg/l	0.07 mg/l	2.10 mg/l
Sulfate		1.0 U mg/l	1.0 U mg/l	1.0 U mg/l
HCO3- as CaCO3		1.0 U mg/l	1.0 U mg/l	1.0 U mg/l
CO3= as CaCO3				

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-152	0288-881-174	0288-881-306
	Customer ID:	TB-05-05-88	TB-05-12-88	TB-05-19-88
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		13 mg/l	86 mg/l	63 mg/l
Chloride		2.0 U mg/l	2.0 U mg/l	2.0 U mg/l
Nitrate-Nitrite as N		0.08 mg/l	0.09 mg/l	0.02 mg/l
Sulfate		1.0 U mg/l	1.0 U mg/l	1.0 U mg/l
HCO3- as CaCO3		1.0 U mg/l	1.0 U mg/l	1.0 U mg/l
CO3= as CaCO3				

Client: ROCKWELL (ROCKY FLATS) Page: 21

Sample Information

RFW Batch ID:	0288-881-198	0288-881-224	0288-881-252
Customer ID:	TB-05-26-88	TB-06-01-88	TB-06-09-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	0		mg/l	6		mg/l	0	mg/l
Chloride	2.0	U	mg/l	2.0	U	mg/l	0.25	mg/l
Nitrate-Nitrite as N	0.12		mg/l	0.16		mg/l	0.13	mg/l
Sulfate	1.0	U	mg/l	1.0	U	mg/l	1.0 U	mg/l
HCO3- as CaCO3	1.0	U	mg/l	1.0	U	mg/l	1.0 U	mg/l
CO3= as CaCO3								

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-276
Customer ID:	TB-06-17-88
Matrix:	Water

Inorganics

Total Dissolved Solids	10		mg/l
Chloride	4.61		mg/l
Nitrate-Nitrite as N	0.39		mg/l
Sulfate	1.0	U	mg/l
HCO3- as CaCO3	1.0	U	mg/l
CO3= as CaCO3			

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

APPENDIX G-3

DISSOLVED METALS

SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 1

Sample Information

RFW Batch ID:	0288-881-006	0288-881-001	0288-881-016	0288-881-017
Customer ID:	04-87-04-14-88	05-87-04-12-88	05-87-04-12-88-LD	05-87-04-12-88-
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	0.0431		0.0290	U	NR		NR			
Antimony	(Sb), dissolved.....	0.0340	U	0.0340	U	NR		NR			
Arsenic	(As), dissolved.....	0.005	U	0.005	U	0.005	U	NR			
Barium	(Ba), dissolved.....	0.0382		0.0369		NR		NR			
Beryllium	(Be), dissolved.....	0.0010	U	0.0010	U	NR		NR			
Cadmium	(Cd), dissolved.....	0.0050	U	0.0050	U	NR		NR			
Calcium	(Ca), dissolved.....	244.3146		282.7969		NR		NR			
Cesium	(Cs), dissolved.....	0.02	U	0.02	U	NR		NR			
Chromium	(Cr), dissolved.....	0.0111		0.0116		NR		NR			
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	NR		NR			
Copper	(Cu), dissolved.....	0.0063	U	0.0116		NR		NR			
Iron	(Fe), dissolved.....	0.0238		0.0069	U	NR		NR			
Lead	(Pb), dissolved.....	0.005	U	0.005	U	NR		NR			
Lithium	(Li), dissolved.....	0.1	U	0.43		0.44		78	%		
Magnesium	(Mg), dissolved.....	61.3284		102.7981		NR		NR			
Manganese	(Mn), dissolved.....	0.2400		0.0065		NR		NR			
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	NR		NR			
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	NR		NR			
Nickel	(Ni), dissolved.....	0.1800		0.0370	U	NR		NR			
Potassium	(K), dissolved.....	0.7		11		11		100	%		
Selenium	(Se), dissolved.....	0.180		0.109		0.099		NR			
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	NR		NR			
Sodium	(Na), dissolved.....	258.3427		163.4542		NR		NR			
Strontium	(Sr), dissolved.....	1.5743		3.1424		NR		NR			
Thallium	(Tl), dissolved.....	0.01	U	0.01	U	NR		NR			
Vanadium	(V), dissolved.....	0.0360	U	0.0360	U	NR		NR			
Zinc	(Zn), dissolved.....	0.0426	U	0.0357		NR		NR			

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-014	0288-881-015	0288-881-013	0288-881-011
	Customer ID:	05-87-04-12-88-S1	05-87-04-12-88-S2	05-87-04-12-88LD	09-74-04-15-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		0.9834	0.9796	0.0290 U	0.0316
Antimony (Sb), dissolved.....		0.9339	0.9610	0.0370 U	0.0340 U
Arsenic (As), dissolved.....		NR	NR	NR	0.003 J
Barium (Ba), dissolved.....		0.1257	0.1258	0.0370	0.0564
Beryllium (Be), dissolved.....		0.0971	0.1005	0.0010 U	0.0010 U
Cadmium (Cd), dissolved.....		0.0905	0.0965	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....		291.2159	289.4234	285.5237	169.9513
Cesium (Cs), dissolved.....		NR	NR	NR	0.02 U
Chromium (Cr), dissolved.....		1.0401	1.0416	0.0130	0.0100 U
Cobalt (Co), dissolved.....		0.9406	0.9512	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		0.9297	0.9293	0.0082	0.0063 U
Iron (Fe), dissolved.....		0.0962	0.1468	0.0069 U	0.0063 U
Lead (Pb), dissolved.....		NR	NR	NR	0.005 U
Lithium (Li), dissolved.....		NR	NR	NR	0.45
Magnesium (Mg), dissolved.....		100.3454	100.6268	102.7724	40.8359
Manganese (Mn), dissolved.....		0.9845	0.9845	0.0073	0.0051 U
Mercury (Hg), dissolved.....		NR	NR	NR	0.0002 U
Molybdenum(Mo), dissolved.....		0.9536	0.9281	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		1.0506	1.0543	0.0370 U	0.0370 U
Potassium (K), dissolved.....		NR	NR	NR	1.0
Selenium (Se), dissolved.....		NR	NR	NR	0.595
Silver (Ag), dissolved.....		0.9259	0.9362	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		172.1629	171.1906	165.3982	152.4721
Strontium (Sr), dissolved.....		4.1064	4.0984	3.1733	1.2363
Thallium (Tl), dissolved.....		NR	NR	NR	0.01
Vanadium (V), dissolved.....		1.0184	1.0146	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....		0.1348	0.1382	0.0369	0.0200 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 3

Sample Information

	RFW Batch ID:	0288-881-069		0288-881-089		0288-881-123		0288-881-231	
	Customer ID:	1-71-04-19-88		1-71-04-19-88-S		1-74-04-29-88		1-86-06-03-88	
	Matrix:	Water		Water		Water		Water	
	Units:	MG/L				MG/L		MG/L	
Metals									
Aluminum (Al), dissolved.....		0.0290	U	NR		0.0293		0.0475	
Antimony (Sb), dissolved.....		0.0340	U	NR		0.0340	U	0.0340	U
Arsenic (As), dissolved.....		0.005	U	86	%	0.005	U	0.005	U
Barium (Ba), dissolved.....		0.2153		NR		0.1657		0.0647	
Beryllium (Be), dissolved.....		0.0010	U	NR		0.0010	U	0.0010	U
Cadmium (Cd), dissolved.....		0.0050	U	NR		0.0050	U	0.0050	U
Calcium (Ca), dissolved.....		62.7596		NR		94.0876		26.5416	
Cesium (Cs), dissolved.....		0.02	U	83	%	0.02	U	0.02	U
Chromium (Cr), dissolved.....		0.0100	U	NR		0.0100	U	0.0100	U
Cobalt (Co), dissolved.....		0.0220	U	NR		0.0220	U	0.0220	U
Copper (Cu), dissolved.....		0.0155		NR		0.0063	U	0.0063	U
Iron (Fe), dissolved.....		0.9135		NR		0.0096		0.0677	
Lead (Pb), dissolved.....		0.005	U	100	%	0.005	U	0.005	U
Lithium (Li), dissolved.....		0.1	U	NR		0.1	U	NR	
Magnesium (Mg), dissolved.....		14.0425		NR		13.0194		6.5985	
Manganese (Mn), dissolved.....		0.0963		NR		0.0051	U	0.0182	
Mercury (Hg), dissolved.....		0.0002	U	NR		0.0002	U	0.0002	U
Molybdenum(Mo), dissolved.....		0.0220	U	NR		0.0220	U	0.0220	U
Nickel (Ni), dissolved.....		0.0370	U	NR		0.0370	U	0.0370	U
Potassium (K), dissolved.....		1.3		NR		1.3		1.3	
Selenium (Se), dissolved.....		0.003	J	105	%	0.005	U	0.005	U
Silver (Ag), dissolved.....		0.0076	U	NR		0.0076	U	0.0076	U
Sodium (Na), dissolved.....		16.9360		NR		7.6229		24.3749	
Strontium (Sr), dissolved.....		0.4521		NR		0.4800		0.1730	
Thallium (Tl), dissolved.....		0.01	U	84	%	0.01	U	0.01	U
Vanadium (V), dissolved.....		0.0360	U	NR		0.0360	U	0.0360	U
Zinc (Zn), dissolved.....		0.0259		NR		0.0200	U	0.0264	

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 4

Sample Information

	RFW Batch ID:	0288-881-025	0288-881-009	0288-881-044	0288-881-057
	Customer ID:	10-74-01-15-88-LD	10-74-04-15-88	10-81-04-08-88	10-81-04-08-88-
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	NR	0.0335	0.4605	NR
Antimony	(Sb), dissolved.....	NR	0.0340 U	0.0340 U	NR
Arsenic	(As), dissolved.....	0.005 U	0.005 U	0.005 U	NR
Barium	(Ba), dissolved.....	NR	0.0336	0.0936	NR
Beryllium	(Be), dissolved.....	NR	0.0010 U	0.0010 U	NR
Cadmium	(Cd), dissolved.....	NR	0.0050 U	0.0050 U	NR
Calcium	(Ca), dissolved.....	NR	213.6217	11.9050	NR
Cesium	(Cs), dissolved.....	NR	0.02 U	0.02 U	NR
Chromium	(Cr), dissolved.....	NR	0.0100 U	0.0100 U	NR
Cobalt	(Co), dissolved.....	NR	0.0220 U	0.0220 U	NR
Copper	(Cu), dissolved.....	NR	0.0063 U	0.0063 U	NR
Iron	(Fe), dissolved.....	NR	0.0069 U	0.2958	NR
Lead	(Pb), dissolved.....	0.005 U	0.005 U	0.005 U	NR
Lithium	(Li), dissolved.....	NR	0.1 U	0.1 U	0.1 U
Magnesium	(Mg), dissolved.....	NR	67.5847	2.1358	NR
Manganese	(Mn), dissolved.....	NR	0.0051 U	0.0051 U	NR
Mercury	(Hg), dissolved.....	NR	0.0002 U	0.0002 U	NR
Molybdenum	(Mo), dissolved.....	NR	0.0220 U	0.0220 U	NR
Nickel	(Ni), dissolved.....	NR	0.0370 U	0.0370 U	NR
Potassium	(K), dissolved.....	NR	0.6	0.5 U	0.5 U
Selenium	(Se), dissolved.....	1.80	2.04	0.005 U	NR
Silver	(Ag), dissolved.....	NR	0.0076 U	0.0076 U	NR
Sodium	(Na), dissolved.....	NR	160.4318	11.7919	NR
Strontium	(Sr), dissolved.....	NR	1.6282	0.0733	NR
Thallium	(Tl), dissolved.....	0.01 U	0.01 U	0.01 U	NR
Vanadium	(V), dissolved.....	NR	0.0360 U	0.0360 U	NR
Zinc	(Zn), dissolved.....	NR	0.0737	0.0332	NR

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 5

Sample Information

	RFW Batch ID:	0288-881-058	0288-881-055	0288-881-056	0288-881-053
	Customer ID:	10-81-04-08-88-S	10-81-04-08-88-S1	10-81-04-08-88-S2	10-81-04-08-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	NR	1.4649	1.3955	0.5423
Antimony	(Sb), dissolved.....	NR	0.9732	0.9723	0.0340 U
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	NR	0.1874	0.1862	0.0943
Beryllium	(Be), dissolved.....	NR	0.0957	0.0956	0.0010 U
Cadmium	(Cd), dissolved.....	NR	0.0960	0.0893	0.0050 U
Calcium	(Ca), dissolved.....	NR	21.4369	21.3120	11.5219
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	NR	1.0341	1.0347	0.0100 U
Cobalt	(Co), dissolved.....	NR	0.9561	0.9617	0.0220 U
Copper	(Cu), dissolved.....	NR	0.9846	0.9857	0.0063 U
Iron	(Fe), dissolved.....	NR	0.3667	0.3518	0.3013
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	100 %	NR	NR	NR
Magnesium	(Mg), dissolved.....	NR	2.1447	2.1269	2.0833
Manganese	(Mn), dissolved.....	NR	0.9773	0.9832	0.0051 U
Mercury	(Hg), dissolved.....	NR	NR	NR	NR
Molybdenum	(Mo), dissolved.....	NR	0.9657	0.9646	0.0220 U
Nickel	(Ni), dissolved.....	NR	1.0492	1.0612	0.0417
Potassium	(K), dissolved.....	101 %	NR	NR	NR
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	NR	0.9296	0.7290	0.0376
Sodium	(Na), dissolved.....	NR	22.0690	21.8055	12.2255
Strontium	(Sr), dissolved.....	NR	1.0668	1.0695	0.0721
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	NR	1.0046	1.0082	0.0360 U
Zinc	(Zn), dissolved.....	NR	0.1291	0.1310	0.0288

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-248	0288-881-229	0288-881-071	0288-881-097
	Customer ID:	10-86-06-07-88	11-86-06-02-88	12-87-04-21-88	12-87-04-21-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0423	0.0296	0.0470	NR
Antimony	(Sb), dissolved.....	0.0340 U	0.0347	0.0340 U	NR
Arsenic	(As), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Barium	(Ba), dissolved.....	0.0400	0.1210	0.0332	NR
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	0.0010 U	NR
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	0.0050 U	NR
Calcium	(Ca), dissolved.....	17.4544	111.1048	36.1776	NR
Cesium	(Cs), dissolved.....	0.02 U	0.02 U	0.02 U	0.02 U
Chromium	(Cr), dissolved.....	0.0106	0.0198	0.0100 U	NR
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	NR
Copper	(Cu), dissolved.....	0.0063 U	0.0129	0.0098	NR
Iron	(Fe), dissolved.....	0.0644	0.0971	0.0811	NR
Lead	(Pb), dissolved.....	0.005 U	0.005 U	0.005 U	NR
Lithium	(Li), dissolved.....	NR	NR	0.1 U	NR
Magnesium	(Mg), dissolved.....	3.5379	36.1753	7.5445	NR
Manganese	(Mn), dissolved.....	0.0126	0.0051 U	0.0078	NR
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	NR
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	NR
Nickel	(Ni), dissolved.....	0.0370 U	0.0402	0.0610	NR
Potassium	(K), dissolved.....	0.5 U	3.8	0.8	NR
Selenium	(Se), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	0.0076 U	NR
Sodium	(Na), dissolved.....	11.1890	105.0948	179.5822	NR
Strontium	(Sr), dissolved.....	0.0949	0.8150	0.2582	NR
Thallium	(Tl), dissolved.....	0.01 U	0.01 U	0.005 U	0.01 U
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	0.0360 U	NR
Zinc	(Zn), dissolved.....	0.0556	0.0480	0.0553	NR

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 7

Sample Information

	RFW Batch ID:	0288-881-098	0288-881-300	0288-881-317	0288-881-079
	Customer ID:	12-87-04-21-88-S	14-86-05-17-88	14-86-05-17-88-S	14-87-04-22-88
	Matrix:	Water	Water	Water	Water
	Units:		MG/L	%	MG/L
Metals					
Aluminum	(Al), dissolved.....	NR	0.0290 U	NR	0.1141
Antimony	(Sb), dissolved.....	NR	0.0340 U	NR	0.0340 U
Arsenic	(As), dissolved.....	86 %	0.005 U	NR	0.005 U
Barium	(Ba), dissolved.....	NR	0.0291	NR	0.0269
Beryllium	(Be), dissolved.....	NR	0.0010 U	NR	0.0010 U
Cadmium	(Cd), dissolved.....	NR	0.0050 U	NR	0.0050 U
Calcium	(Ca), dissolved.....	NR	134.1674	NR	6.0019
Cesium	(Cs), dissolved.....	NR	0.020 U	91 %	0.02 U
Chromium	(Cr), dissolved.....	NR	0.0100 U	NR	0.0252
Cobalt	(Co), dissolved.....	NR	0.0220 U	NR	0.0220 U
Copper	(Cu), dissolved.....	NR	0.0099	NR	0.0064
Iron	(Fe), dissolved.....	NR	0.0069 U	NR	0.0172
Lead	(Pb), dissolved.....	NR	0.005 U	87 %	0.005 U
Lithium	(Li), dissolved.....	NR	NR	NR	0.06 J
Magnesium	(Mg), dissolved.....	NR	43.6580	NR	4.0380
Manganese	(Mn), dissolved.....	NR	0.1109	NR	0.0051 U
Mercury	(Hg), dissolved.....	94 %	0.0002 U	98 %	0.0002 U
Molybdenum	(Mo), dissolved.....	NR	0.0220 U	NR	0.0220 U
Nickel	(Ni), dissolved.....	NR	0.0370 U	NR	0.0370 U
Potassium	(K), dissolved.....	NR	6.4	NR	7.9
Selenium	(Se), dissolved.....	83 %	0.004 J	NR	0.013
Silver	(Ag), dissolved.....	NR	0.0076 U	NR	0.0076 U
Sodium	(Na), dissolved.....	NR	223.8448	NR	84.0615
Strontium	(Sr), dissolved.....	NR	1.9257	NR	0.3095
Thallium	(Tl), dissolved.....	NR	0.010 U	81 %	0.01 U
Vanadium	(V), dissolved.....	NR	0.0360 U	NR	0.0412
Zinc	(Zn), dissolved.....	NR	0.0200 U	NR	0.0200 U

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-099	0288-881-301	0288-881-318	0288-881-073
Customer ID:	14-87-04-22-88-S	15-86-05-17-88	15-86-05-17-88-LD	15-87-04-21-88
Matrix:	Water	Water	Water	Water
Units:		MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		0.0556		NR	0.0499	
Antimony	(Sb), dissolved.....	NR		0.0340	U	NR	0.0340	U
Arsenic	(As), dissolved.....	120	%	0.005	U	NR	0.005	U
Barium	(Ba), dissolved.....	NR		0.2303		NR	0.1561	
Beryllium	(Be), dissolved.....	NR		0.0010	U	NR	0.0010	U
Cadmium	(Cd), dissolved.....	NR		0.0050	U	NR	0.0050	U
Calcium	(Ca), dissolved.....	NR		170.3053		NR	125.8376	
Cesium	(Cs), dissolved.....	NR		0.020	U	NR	0.02	U
Chromium	(Cr), dissolved.....	NR		0.0100	U	NR	0.0100	U
Cobalt	(Co), dissolved.....	NR		0.0220	U	NR	0.0220	U
Copper	(Cu), dissolved.....	NR		0.0094		NR	0.0115	
Iron	(Fe), dissolved.....	NR		0.0069	U	NR	0.0487	
Lead	(Pb), dissolved.....	92	%	0.005	U	NR	0.005	U
Lithium	(Li), dissolved.....	NR		NR		NR	0.1	U
Magnesium	(Mg), dissolved.....	NR		43.7836		NR	10.5472	
Manganese	(Mn), dissolved.....	NR		0.0054		NR	0.0051	U
Mercury	(Hg), dissolved.....	NR		0.0002	U	NR	0.0002	U
Molybdenum	(Mo), dissolved.....	NR		0.0220	U	NR	0.0220	U
Nickel	(Ni), dissolved.....	NR		0.0370	U	NR	0.0370	U
Potassium	(K), dissolved.....	NR		1.6		NR	0.7	
Selenium	(Se), dissolved.....	NR		0.023		0.023	0.005	U
Silver	(Ag), dissolved.....	NR		0.0076	U	NR	0.0076	U
Sodium	(Na), dissolved.....	NR		104.4949		NR	8.5874	
Strontium	(Sr), dissolved.....	NR		1.2286		NR	0.4283	
Thallium	(Tl), dissolved.....	NR		0.010	U	NR	0.01	U
Vanadium	(V), dissolved.....	NR		0.0360	U	NR	0.0360	U
Zinc	(Zn), dissolved.....	NR		0.0246		NR	0.0712	

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-302		0288-881-076		0288-881-303		0288-881-319	
	Customer ID:	16-86-05-17-88		16-87-04-22-88		17-86-05-17-88		17-86-05-17-88	
	Matrix:	Water		Water		Water		Water	
	Units:	MG/L		MG/L		MG/L		MG/L	
Metals									
Aluminum	(Al), dissolved.....	0.0347		0.0485		0.0290	U	NR	
Antimony	(Sb), dissolved.....	0.0340	U	0.0340	U	0.0720		NR	
Arsenic	(As), dissolved.....	0.005	U	0.003	J	0.005	U	NR	
Barium	(Ba), dissolved.....	0.0247		0.0456		0.2392		NR	
Beryllium	(Be), dissolved.....	0.0010	U	0.0010	U	0.0010	U	NR	
Cadmium	(Cd), dissolved.....	0.0050	U	0.0050	U	0.0050	U	NR	
Calcium	(Ca), dissolved.....	145.9481		24.7026		523.1342		NR	
Cesium	(Cs), dissolved.....	0.020	U	0.02	U	0.020	U	0.02	U
Chromium	(Cr), dissolved.....	0.0132		0.0100	U	0.0119		NR	
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	0.0220	U	NR	
Copper	(Cu), dissolved.....	0.0200		0.0063	U	0.0080		NR	
Iron	(Fe), dissolved.....	0.0069	U	0.0186		0.0069	U	NR	
Lead	(Pb), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Lithium	(Li), dissolved.....	NR		0.1	U	NR		NR	
Magnesium	(Mg), dissolved.....	49.9932		4.7883		126.9299		NR	
Manganese	(Mn), dissolved.....	0.1122		0.0051	U	0.0051	U	NR	
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	0.0002	U	NR	
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	0.0220	U	NR	
Nickel	(Ni), dissolved.....	0.0370	U	0.0370	U	0.0370	U	NR	
Potassium	(K), dissolved.....	6.9		4.2		4.2		NR	
Selenium	(Se), dissolved.....	0.003	J	0.004	J	0.184		0.150	
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	0.0076	U	NR	
Sodium	(Na), dissolved.....	253.5057		66.4353		250.9383		NR	
Strontium	(Sr), dissolved.....	1.9640		0.3042		4.5714		NR	
Thallium	(Tl), dissolved.....	0.010	U	0.01	U	0.010	U	0.01	U
Vanadium	(V), dissolved.....	0.0360	U	0.0360	U	0.0360	U	NR	
Zinc	(Zn), dissolved.....	0.0263		0.0200	U	0.0200	U	NR	

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-320	0288-881-137	0288-881-124	0288-881-197
Customer ID:	17-86-05-17-88-S	17-87-04-28-88-S	17-87-04-29-88	19-86-05-24-88
Matrix:	Water	Water	Water	Water
Units:	%		MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		NR		0.0315		0.0564	
Antimony	(Sb), dissolved.....	NR		NR		0.0340	U	0.0340	U
Arsenic	(As), dissolved.....	NR		NR		0.005	U	0.005	U
Barium	(Ba), dissolved.....	NR		NR		0.1113		0.1514	
Beryllium	(Be), dissolved.....	NR		NR		0.0010	U	0.0010	U
Cadmium	(Cd), dissolved.....	NR		NR		0.0050	U	0.0050	U
Calcium	(Ca), dissolved.....	NR		NR		100.2637		151.9402	
Cesium	(Cs), dissolved.....	95	%	NR		0.02	U	0.02	U
Chromium	(Cr), dissolved.....	NR		NR		0.0100	U	0.0100	U
Cobalt	(Co), dissolved.....	NR		NR		0.0220	U	0.0220	U
Copper	(Cu), dissolved.....	NR		NR		0.0243		0.0081	
Iron	(Fe), dissolved.....	NR		NR		0.0120		5.4132	
Lead	(Pb), dissolved.....	80	%	NR		0.005	U	0.005	U
Lithium	(Li), dissolved.....	NR		NR		0.1	U	NR	
Magnesium	(Mg), dissolved.....	NR		NR		11.0176		46.1137	
Manganese	(Mn), dissolved.....	NR		NR		0.1274		2.8963	
Mercury	(Hg), dissolved.....	NR		105	%	0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	NR		NR		0.0220	U	0.0220	U
Nickel	(Ni), dissolved.....	NR		NR		0.2815		0.0370	U
Potassium	(K), dissolved.....	NR		NR		5.2		2.3	
Selenium	(Se), dissolved.....	NR		102	%	0.005	U	0.005	U
Silver	(Ag), dissolved.....	NR		NR		0.0076	U	0.0076	U
Sodium	(Na), dissolved.....	NR		NR		17.8911		183.1914	
Strontium	(Sr), dissolved.....	NR		NR		0.4885		1.0608	
Thallium	(Tl), dissolved.....	116	%	NR		0.01	U	0.01	U
Vanadium	(V), dissolved.....	NR		NR		0.0360	U	0.0360	U
Zinc	(Zn), dissolved.....	NR		NR		0.1802		0.0200	U

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 11

Sample Information

	RFW Batch ID:	0288-881-213		0288-881-214	0288-881-218	0288-881-215
	Customer ID:	19-86-05-24-88-LD		19-86-05-24-88-S	19-86-05-24-88-S	19-86-05-24-88
	Matrix:	Water		Water	Water	Water
	Units:	MG/L		MG/L	MG/L	MG/L
Metals						
Aluminum (Al), dissolved.....		0.0312		1.0523	NR	0.9876
Antimony (Sb), dissolved.....		0.0340	U	0.9726	NR	0.9347
Arsenic (As), dissolved.....		NR		NR	NR	NR
Barium (Ba), dissolved.....		0.1644		0.2575	NR	0.2488
Beryllium (Be), dissolved.....		0.0010	U	0.0890	NR	0.0858
Cadmium (Cd), dissolved.....		0.0050	U	0.0967	NR	0.0868
Calcium (Ca), dissolved.....		164.1922		175.9957	NR	171.0565
Cesium (Cs), dissolved.....		NR		NR	NR	NR
Chromium (Cr), dissolved.....		0.0100	U	1.0326	NR	0.9883
Cobalt (Co), dissolved.....		0.0220	U	0.9231	NR	0.8730
Copper (Cu), dissolved.....		0.0069		0.9547	NR	0.9213
Iron (Fe), dissolved.....		5.8710		6.0626	NR	5.7819
Lead (Pb), dissolved.....		NR		NR	NR	NR
Lithium (Li), dissolved.....		NR		NR	NR	NR
Magnesium (Mg), dissolved.....		50.5274		51.7765	NR	49.3202
Manganese (Mn), dissolved.....		3.1375		4.1528	NR	3.9496
Mercury (Hg), dissolved.....		NR		NR	111 %	NR
Molybdenum(Mo), dissolved.....		0.0220	U	0.9535	NR	0.9247
Nickel (Ni), dissolved.....		0.0370	U	0.9849	NR	0.9443
Potassium (K), dissolved.....		NR		NR	NR	NR
Selenium (Se), dissolved.....		NR		NR	NR	NR
Silver (Ag), dissolved.....		0.0076	U	0.9588	NR	0.9248
Sodium (Na), dissolved.....		195.7617		206.2095	NR	200.7856
Strontium (Sr), dissolved.....		1.1433		2.1471	NR	2.0743
Thallium (Tl), dissolved.....		NR		NR	NR	NR
Vanadium (V), dissolved.....		0.0360	U	0.9966	NR	0.9559
Zinc (Zn), dissolved.....		0.0200	U	0.1192	NR	0.1100

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-195		0288-881-072		0288-881-096		0288-881-232	
	Customer ID:	2-60-05-24-88		2-71-04-21-88		2-71-04-21-88-LD		2-86-06-03-88	
	Matrix:	Water		Water		Water		Water	
	Units:	MG/L		MG/L		MG/L		MG/L	
Metals									
Aluminum	(Al), dissolved.....	0.0507		0.0359		NR		0.1247	
Antimony	(Sb), dissolved.....	0.4653		0.0340	U	NR		0.1973	
Arsenic	(As), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Barium	(Ba), dissolved.....	0.2360		0.1058		NR		0.0823	
Beryllium	(Be), dissolved.....	0.0010	U	0.0010	U	NR		0.0010	U
Cadmium	(Cd), dissolved.....	0.0050	U	0.0050	U	NR		0.0050	U
Calcium	(Ca), dissolved.....	1591.4366		179.8336		NR		77.3296	
Cesium	(Cs), dissolved.....	0.02	U	0.02	U	NR		0.02	U
Chromium	(Cr), dissolved.....	0.0100	U	0.0288		NR		0.0154	
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	NR		0.0220	U
Copper	(Cu), dissolved.....	0.0092		0.0084		NR		0.0063	U
Iron	(Fe), dissolved.....	0.0069	U	0.0996		NR		0.0429	
Lead	(Pb), dissolved.....	0.005	U	0.005	U	NR		0.005	U
Lithium	(Li), dissolved.....	NR		0.07	J	NR		NR	
Magnesium	(Mg), dissolved.....	157.9515		45.8643		NR		150.2000	
Manganese	(Mn), dissolved.....	0.1266		0.0946		NR		0.0325	
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	NR		0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	NR		0.0220	U
Nickel	(Ni), dissolved.....	0.0370	U	0.0500		NR		0.0503	
Potassium	(K), dissolved.....	64		2.1		NR		0.5	U
Selenium	(Se), dissolved.....	0.06		0.040		0.040		0.012	
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	NR		0.0076	U
Sodium	(Na), dissolved.....	1043.7209		234.7011		NR		220.5761	
Strontium	(Sr), dissolved.....	17.6600		1.2316		NR		3.5613	
Thallium	(Tl), dissolved.....	0.01	U	0.01	U	NR		0.01	U
Vanadium	(V), dissolved.....	0.0360	U	0.0360	U	NR		0.0360	U
Zinc	(Zn), dissolved.....	3.9063		0.0522		NR		0.0200	U

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: | Client: ROCKWELL (ROCKY FLATS) |

Sample Information

RFW Batch ID:	0288-881-049	0288-881-062	0288-881-063	0288-881-192
Customer ID:	2-87-04-08-88	2-87-04-08-88-LD	2-87-04-08-88-S	21-86-05-24-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	0.0313		NR		NR		0.0428	
Antimony	(Sb), dissolved.....	0.0340	U	NR		NR		0.0340	U
Arsenic	(As), dissolved.....	0.005	U	0.005	U	91	%	0.005	U
Barium	(Ba), dissolved.....	0.0778		NR		NR		0.0973	
Beryllium	(Be), dissolved.....	0.0010	U	NR		NR		0.0010	U
Cadmium	(Cd), dissolved.....	0.0050	U	NR		NR		0.0050	U
Calcium	(Ca), dissolved.....	70.0849		NR		NR		48.5996	
Cesium	(Cs), dissolved.....	0.02	U	NR		NR		0.02	U
Chromium	(Cr), dissolved.....	0.0100	U	NR		NR		0.0100	U
Cobalt	(Co), dissolved.....	0.0220	U	NR		NR		0.0220	U
Copper	(Cu), dissolved.....	0.0063	U	NR		NR		0.0076	
Iron	(Fe), dissolved.....	0.0076		NR		NR		0.0145	
Lead	(Pb), dissolved.....	0.005	U	NR		NR		0.010	
Lithium	(Li), dissolved.....	0.1	U	NR		NR		NR	
Magnesium	(Mg), dissolved.....	22.9480		NR		NR		10.6011	
Manganese	(Mn), dissolved.....	0.3665		NR		NR		0.2724	
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	NR		0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	NR		NR		0.0220	U
Nickel	(Ni), dissolved.....	0.0370	U	NR		NR		0.0370	U
Potassium	(K), dissolved.....	1.9		NR		NR		2.4	
Selenium	(Se), dissolved.....	0.005	U	0.005	U	110	%	0.005	U
Silver	(Ag), dissolved.....	0.0076	U	NR		NR		0.0076	U
Sodium	(Na), dissolved.....	119.4989		NR		NR		31.5863	
Strontium	(Sr), dissolved.....	0.8552		NR		NR		0.3616	
Thallium	(Tl), dissolved.....	0.01	U	NR		NR		0.01	U
Vanadium	(V), dissolved.....	0.0360	U	NR		NR		0.0360	U
Zinc	(Zn), dissolved.....	0.0200	U	NR		NR		0.0343	

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-216	0288-881-304	0288-881-149	0288-881-193
Customer ID:	21-86-05-24-88-S	22-86-05-18-88	22-87-05-03-88	23-86-05-24-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		0.0549		0.0376		0.0380	
Antimony	(Sb), dissolved.....	NR		0.0340	U	0.0340	U	0.0340	U
Arsenic	(As), dissolved.....	NR		0.005	U	0.005	U	0.005	U
Barium	(Ba), dissolved.....	NR		0.1043		0.0343		0.0250	
Beryllium	(Be), dissolved.....	NR		0.0010	U	0.0010	U	0.0010	U
Cadmium	(Cd), dissolved.....	NR		0.0050	U	0.0050	U	0.0050	U
Calcium	(Ca), dissolved.....	NR		77.7597		34.1294		95.7839	
Cesium	(Cs), dissolved.....	NR		0.020	U	0.02	U	0.02	U
Chromium	(Cr), dissolved.....	NR		0.0100	U	0.0100	U	0.0100	U
Cobalt	(Co), dissolved.....	NR		0.0220	U	0.0220	U	0.0220	U
Copper	(Cu), dissolved.....	NR		0.0088		0.0122		0.0063	U
Iron	(Fe), dissolved.....	NR		0.2612		0.0423		0.0203	
Lead	(Pb), dissolved.....	NR		0.005	U	0.005	U	0.005	U
Lithium	(Li), dissolved.....	NR		NR		NR		NR	
Magnesium	(Mg), dissolved.....	NR		10.8744		7.8109		24.2141	
Manganese	(Mn), dissolved.....	NR		0.2318		0.0439		0.1562	
Mercury	(Hg), dissolved.....	71	%	0.0002	U	0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	NR		0.0220	U	0.0764		0.0220	U
Nickel	(Ni), dissolved.....	NR		0.1899		0.0370	U	0.0370	U
Potassium	(K), dissolved.....	NR		6.5		13.3		13.2	
Selenium	(Se), dissolved.....	NR		0.005	U	0.005	U	0.005	U
Silver	(Ag), dissolved.....	NR		0.0076	U	0.0076	U	0.0076	U
Sodium	(Na), dissolved.....	NR		76.6992		100.1605		158.2133	
Strontium	(Sr), dissolved.....	NR		0.4379		0.4906		1.0766	
Thallium	(Tl), dissolved.....	NR		0.010	U	0.01	U	0.01	U
Vanadium	(V), dissolved.....	NR		0.0360	U	0.0360	U	0.0360	U
Zinc	(Zn), dissolved.....	NR		0.0282		0.0200	U	0.0335	

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-122	0288-881-136	0288-881-308	0288-881-182
	Customer ID:	23-87-04-29-88	23-87-04-29-88-LD	25-86-05-19-88	25-87-05-12-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	NR	0.0624	0.0968
Antimony	(Sb), dissolved.....	0.0340 U	NR	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Barium	(Ba), dissolved.....	0.1625	NR	0.0193	0.0769
Beryllium	(Be), dissolved.....	0.0010 U	NR	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	NR	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	115.0052	NR	195.7517	105.3446
Cesium	(Cs), dissolved.....	0.02 U	0.02 U	0.020 U	0.02 U
Chromium	(Cr), dissolved.....	0.0100 U	NR	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	NR	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0063 U	NR	0.0069	0.0126
Iron	(Fe), dissolved.....	0.0135	NR	0.0069 U	0.0220
Lead	(Pb), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Lithium	(Li), dissolved.....	0.1 U	NR	NR	NR
Magnesium	(Mg), dissolved.....	13.4011	NR	96.1038	7.3872
Manganese	(Mn), dissolved.....	0.0720	NR	0.1316	0.0051 U
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	NR	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	0.0558	NR	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	1.6	NR	12.4	0.6
Selenium	(Se), dissolved.....	0.005 U	0.005 U	0.003 J	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	NR	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	8.0978	NR	227.6937	11.0605
Strontium	(Sr), dissolved.....	0.5278	NR	2.5199	0.2345
Thallium	(Tl), dissolved.....	0.01 U	0.01 U	0.010 U	0.01 U
Vanadium	(V), dissolved.....	0.0360 U	NR	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	0.0221	NR	0.0200 U	0.0200 U

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-184	0288-881-186	0288-881-309	0288-881-323
	Customer ID:	25-87-05-12-88-LD	25-87-05-12-88-S	27-86-05-19-88	27-86-05-19-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0379	NR	0.0290 U	NR
Antimony	(Sb), dissolved.....	0.0340 U	NR	0.0340 U	NR
Arsenic	(As), dissolved.....	NR	117 %	0.005 U	NR
Barium	(Ba), dissolved.....	0.0752	NR	0.0221	NR
Beryllium	(Be), dissolved.....	0.0010 U	NR	0.0010 U	NR
Cadmium	(Cd), dissolved.....	0.0050 U	NR	0.0050 U	NR
Calcium	(Ca), dissolved.....	102.7531	NR	50.3974	NR
Cesium	(Cs), dissolved.....	NR	113 %	0.020 U	NR
Chromium	(Cr), dissolved.....	0.0100 U	NR	0.0100 U	NR
Cobalt	(Co), dissolved.....	0.0220 U	NR	0.0220 U	NR
Copper	(Cu), dissolved.....	0.0085	NR	0.1120	NR
Iron	(Fe), dissolved.....	0.0353	NR	0.0193	NR
Lead	(Pb), dissolved.....	NR	102 %	0.005 U	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	7.4665	NR	13.8678	NR
Manganese	(Mn), dissolved.....	0.0051 U	NR	0.0814	NR
Mercury	(Hg), dissolved.....	NR	98 %	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	NR	0.0220 U	NR
Nickel	(Ni), dissolved.....	0.0370 U	NR	0.0475	NR
Potassium	(K), dissolved.....	NR	NR	4.7	NR
Selenium	(Se), dissolved.....	NR	88 %	0.005 U	NR
Silver	(Ag), dissolved.....	0.0076 U	NR	0.0076 U	NR
Sodium	(Na), dissolved.....	9.2697	NR	209.3877	NR
Strontium	(Sr), dissolved.....	0.2306	NR	0.6312	NR
Thallium	(Tl), dissolved.....	NR	78 %	0.010 U	NR
Vanadium	(V), dissolved.....	0.0360 U	NR	0.0360 U	NR
Zinc	(Zn), dissolved.....	0.0304	NR	0.0200 U	NR

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 17

Sample Information

	RFW Batch ID:	0288-881-176	0288-881-077	0288-881-105	0288-881-101
	Customer ID:	28-87-05-12-88	29-87-04-22-88	29-87-04-22-88-LD	29-87-04-22-88-
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		0.2705	0.0493	0.0427	NR
Antimony (Sb), dissolved.....		0.0340 U	0.0348	0.0340 U	NR
Arsenic (As), dissolved.....		0.005 U	0.005 U	NR	0.005 U
Barium (Ba), dissolved.....		0.0913	0.0486	0.0487	NR
Beryllium (Be), dissolved.....		0.0010 U	0.0010 U	0.0010 U	NR
Cadmium (Cd), dissolved.....		0.0050 U	0.0050 U	0.0050 U	NR
Calcium (Ca), dissolved.....		19.9311	341.3008	343.4370	NR
Cesium (Cs), dissolved.....		0.02 U	0.02 U	NR	NR
Chromium (Cr), dissolved.....		0.0100 U	0.0100 U	0.0100 U	NR
Cobalt (Co), dissolved.....		0.0220 U	0.0220 U	0.0220 U	NR
Copper (Cu), dissolved.....		0.0463	0.0224	0.0260	NR
Iron (Fe), dissolved.....		0.1786	0.0069 U	0.0069 U	NR
Lead (Pb), dissolved.....		0.005 U	0.005 U	NR	NR
Lithium (Li), dissolved.....		NR	0.14	NR	0.13
Magnesium (Mg), dissolved.....		3.1309	133.3178	132.7375	NR
Manganese (Mn), dissolved.....		0.0304	0.4425	0.4350	NR
Mercury (Hg), dissolved.....		0.0002 U	0.0002 U	NR	0.0002 U
Molybdenum(Mo), dissolved.....		0.1347	0.0808	0.0756	NR
Nickel (Ni), dissolved.....		0.0370 U	1.4097	1.4288	NR
Potassium (K), dissolved.....		5.2	4.1	NR	4.3
Selenium (Se), dissolved.....		0.005 U	0.026	NR	0.021
Silver (Ag), dissolved.....		0.0076 U	0.0076 U	0.0076 U	NR
Sodium (Na), dissolved.....		92.0039	405.0172	408.0939	NR
Strontium (Sr), dissolved.....		0.2427	4.4091	4.3923	NR
Thallium (Tl), dissolved.....		0.01 U	0.01 U	NR	NR
Vanadium (V), dissolved.....		0.0992	0.0360 U	0.0360 U	NR
Zinc (Zn), dissolved.....		0.0489	0.4604	0.4580	NR

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-102	0288-881-103	0288-881-154	0288-881-170
Customer ID:	29-87-04-22-88-S1	29-87-04-22-88-S2	3-74-05-05-88	3-74-05-05-88-
Matrix:	Water	Water	Water	Water
Units:			MG/L	

Metals

Aluminum (Al), dissolved.....	NR	NR	0.0419	NR
Antimony (Sb), dissolved.....	NR	NR	0.0340 U	NR
Arsenic (As), dissolved.....	NR	NR	0.005 U	NR
Barium (Ba), dissolved.....	NR	NR	0.1904	NR
Beryllium (Be), dissolved.....	NR	NR	0.0010 U	NR
Cadmium (Cd), dissolved.....	NR	NR	0.0050 U	NR
Calcium (Ca), dissolved.....	NR	NR	12.6524	NR
Cesium (Cs), dissolved.....	NR	NR	0.02 U	NR
Chromium (Cr), dissolved.....	NR	NR	0.0100 U	NR
Cobalt (Co), dissolved.....	NR	NR	0.0220 U	NR
Copper (Cu), dissolved.....	NR	NR	0.0118	NR
Iron (Fe), dissolved.....	NR	NR	0.0077	NR
Lead (Pb), dissolved.....	NR	NR	0.007	109 %
Lithium (Li), dissolved.....	100 %	90 %	NR	NR
Magnesium (Mg), dissolved.....	NR	NR	11.4483	NR
Manganese (Mn), dissolved.....	NR	NR	0.0051 U	NR
Mercury (Hg), dissolved.....	NR	NR	0.0002 U	NR
Molybdenum(Mo), dissolved.....	NR	NR	0.0220 U	NR
Nickel (Ni), dissolved.....	NR	NR	0.0370 U	NR
Potassium (K), dissolved.....	113 %	123 %	1.0	NR
Selenium (Se), dissolved.....	NR	NR	0.005 U	NR
Silver (Ag), dissolved.....	NR	NR	0.0161	NR
Sodium (Na), dissolved.....	NR	NR	20.8114	NR
Strontium (Sr), dissolved.....	NR	NR	0.3817	NR
Thallium (Tl), dissolved.....	NR	NR	0.01 U	NR
Vanadium (V), dissolved.....	NR	NR	0.0360 U	NR
Zinc (Zn), dissolved.....	NR	NR	0.0200 U	NR

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 19

Sample Information

RFW Batch ID:	0288-881-200	0288-881-233	0288-881-120	0288-881-194
Customer ID:	3-82-05-26-88	3-86-06-03-88	3-87-04-28-88	30-86-05-24-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum (Al), dissolved.....	0.8308	0.0816	0.0290 U	0.0435
Antimony (Sb), dissolved.....	0.0340 U	0.0813	0.0340 U	0.1770
Arsenic (As), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Barium (Ba), dissolved.....	0.0709	0.1983	0.0851	0.1926
Beryllium (Be), dissolved.....	0.0010 U	0.0010 U	0.0010 U	0.0010 U
Cadmium (Cd), dissolved.....	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....	9.1870	89.5078	24.3644	937.5723
Cesium (Cs), dissolved.....	0.02 U	0.02 U	0.02 U	0.02 U
Chromium (Cr), dissolved.....	0.0100 U	0.0106	0.0100 U	0.0100 U
Cobalt (Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper (Cu), dissolved.....	0.0066	0.0066	0.0063 U	0.0091
Iron (Fe), dissolved.....	0.6761	0.0753	0.0355	0.0069 U
Lead (Pb), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Lithium (Li), dissolved.....	NR	NR	NR	NR
Magnesium (Mg), dissolved.....	1.9978	37.8459	6.8575	144.3829
Manganese (Mn), dissolved.....	0.0082	0.0677	0.0338	0.0067
Mercury (Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....	0.0370 U	0.3148	0.0370 U	0.0449
Potassium (K), dissolved.....	2.5	2.3	7.6	159
Selenium (Se), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Silver (Ag), dissolved.....	0.0076 U	0.0256	0.0076 U	0.0076 U
Sodium (Na), dissolved.....	6.0265	49.1775	114.3269	1080.7236
Strontium (Sr), dissolved.....	0.0496	1.5757	0.3706	8.1262
Thallium (Tl), dissolved.....	0.01 U	0.01 U	0.01 U	0.01 U
Vanadium (V), dissolved.....	0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....	0.0385	0.0227	0.0548	0.0265

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-217	0288-881-100	0288-881-078	0288-881-180
	Customer ID:	30-86-05-24-88-LD	30-87-04-21-88-S	30-87-04-22-88	31-87-05-12-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L		MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	NR	NR	0.0328	0.2029
Antimony	(Sb), dissolved.....	NR	NR	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	0.005 U	NR	0.006	0.008
Barium	(Ba), dissolved.....	NR	NR	0.0534	0.0472
Beryllium	(Be), dissolved.....	NR	NR	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	NR	NR	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	NR	NR	18.9773	20.2619
Cesium	(Cs), dissolved.....	NR	NR	0.02 U	0.02 U
Chromium	(Cr), dissolved.....	NR	NR	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	NR	NR	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	NR	NR	0.0063 U	0.0121
Iron	(Fe), dissolved.....	NR	NR	0.0679	0.0906
Lead	(Pb), dissolved.....	NR	NR	0.005 U	0.005 U
Lithium	(Li), dissolved.....	NR	NR	0.1 U	NR
Magnesium	(Mg), dissolved.....	NR	NR	2.9272	0.3730
Manganese	(Mn), dissolved.....	NR	NR	0.0087	0.0051 U
Mercury	(Hg), dissolved.....	0.0002 U	NR	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	NR	NR	0.0220 U	0.0408
Nickel	(Ni), dissolved.....	NR	NR	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	NR	NR	3.7	3.0
Selenium	(Se), dissolved.....	0.005 U	98 %	0.005 U	0.005 U
Silver	(Ag), dissolved.....	NR	NR	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	NR	NR	132.7649	69.2078
Strontium	(Sr), dissolved.....	NR	NR	0.2789	0.1697
Thallium	(Tl), dissolved.....	NR	NR	0.01 U	0.01 U
Vanadium	(V), dissolved.....	NR	NR	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	NR	NR	0.0200 U	0.0258

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 21

Sample Information

	RFW Batch ID:	0288-881-187	0288-881-310	0288-881-324	0288-881-181
	Customer ID:	31-87-05-12-88-LD	32-86-05-19-88	32-86-05-19-88-S	32-87-05-12-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	%	MG/L
Metals					
Aluminum (Al), dissolved.....		NR	0.0340	NR	0.0302
Antimony (Sb), dissolved.....		NR	0.0340 U	NR	0.0340 U
Arsenic (As), dissolved.....		0.011	0.005 U	77 %	0.005 U
Barium (Ba), dissolved.....		NR	0.1037	NR	0.1074
Beryllium (Be), dissolved.....		NR	0.0010 U	NR	0.0010 U
Cadmium (Cd), dissolved.....		NR	0.0050 U	NR	0.0050 U
Calcium (Ca), dissolved.....		NR	38.7000	NR	119.8149
Cesium (Cs), dissolved.....		0.02 U	0.020 U	95 %	0.02 U
Chromium (Cr), dissolved.....		NR	0.0100 U	NR	0.0100 U
Cobalt (Co), dissolved.....		NR	0.0220 U	NR	0.0220 U
Copper (Cu), dissolved.....		NR	0.0070	NR	0.0621
Iron (Fe), dissolved.....		NR	0.0088	NR	0.0561
Lead (Pb), dissolved.....		NR	0.005 U	94 %	0.005 U
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		NR	9.0579	NR	19.4299
Manganese (Mn), dissolved.....		NR	0.1370	NR	0.1821
Mercury (Hg), dissolved.....		0.0002 U	0.0002 U	94 %	0.0002 U
Molybdenum(Mo), dissolved.....		NR	0.0220 U	NR	0.0220 U
Nickel (Ni), dissolved.....		NR	0.0370 U	NR	0.0584
Potassium (K), dissolved.....		NR	5.7	NR	3.7
Selenium (Se), dissolved.....		0.005 U	0.005 U	NR	0.005 U
Silver (Ag), dissolved.....		NR	0.0076 U	NR	0.0076 U
Sodium (Na), dissolved.....		NR	117.0861	NR	31.8007
Strontium (Sr), dissolved.....		NR	0.4508	NR	0.5876
Thallium (Tl), dissolved.....		0.01 U	0.010 U	119 %	0.01 U
Vanadium (V), dissolved.....		NR	0.0360 U	NR	0.0360 U
Zinc (Zn), dissolved.....		NR	0.0200 U	NR	0.1173

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-150	0288-881-169	0288-881-178	0288-881-179
	Customer ID:	34-86-05-03-88	34-86-05-03-88-LD	34-87-05-12-88	34-87-05-12-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	NR	0.1204	0.1194
Antimony	(Sb), dissolved.....	0.0340 U	NR	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Barium	(Ba), dissolved.....	0.0271	NR	0.0463	0.0486
Beryllium	(Be), dissolved.....	0.0010 U	NR	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	NR	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	207.6940	NR	17.8546	19.3843
Cesium	(Cs), dissolved.....	0.02 U	NR	0.02 U	0.02 U
Chromium	(Cr), dissolved.....	0.0100 U	NR	0.0111	0.0109
Cobalt	(Co), dissolved.....	0.0220 U	NR	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0124	NR	0.0128	0.0125
Iron	(Fe), dissolved.....	1.5495	NR	0.0802	0.0874
Lead	(Pb), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	92.1996	NR	2.8998	2.9255
Manganese	(Mn), dissolved.....	0.0892	NR	0.0106	0.0105
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	NR	0.0358	0.0323
Nickel	(Ni), dissolved.....	0.0370 U	NR	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	8.9	NR	2.5	2.5
Selenium	(Se), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	NR	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	232.1001	NR	67.5259	74.7950
Strontium	(Sr), dissolved.....	2.8410	NR	0.1978	0.2137
Thallium	(Tl), dissolved.....	0.01 U	NR	0.01 U	0.01 U
Vanadium	(V), dissolved.....	0.0360 U	NR	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	0.0200 U	NR	0.0294	0.0334

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 23

Sample Information

	RFW Batch ID:	0288-881-151	0288-881-173	0288-881-155	0288-881-230
	Customer ID:	35-86-05-03-88	35-86-05-03-88-S	36-87-05-05-88	38-86-06-02-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L		MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0335	NR	0.0680	0.0332
Antimony	(Sb), dissolved.....	0.0340 U	NR	0.0340 U	0.1030
Arsenic	(As), dissolved.....	0.005 U	100 %	0.005 U	0.005 U
Barium	(Ba), dissolved.....	0.0703	NR	0.1176	0.0461
Beryllium	(Be), dissolved.....	0.0010 U	NR	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	NR	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	140.6056	NR	104.1592	228.4062
Cesium	(Cs), dissolved.....	0.02 U	NR	0.02 U	0.02 U
Chromium	(Cr), dissolved.....	0.0100 U	NR	0.0220	0.0172
Cobalt	(Co), dissolved.....	0.0220 U	NR	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0100	NR	0.0065	0.0114
Iron	(Fe), dissolved.....	0.5147	NR	0.0303	0.0411
Lead	(Pb), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	33.1548	NR	8.5449	79.9000
Manganese	(Mn), dissolved.....	3.9978	NR	0.0486	0.6925
Mercury	(Hg), dissolved.....	0.0002 U	96 %	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.022 U	NR	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	NR	0.0370 U	0.3223
Potassium	(K), dissolved.....	0.5	NR	0.9	3.7
Selenium	(Se), dissolved.....	0.005 U	76 %	0.005 U	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	NR	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	178.2991	NR	9.4793	183.8775
Strontium	(Sr), dissolved.....	0.8031	NR	0.2872	2.5278
Thallium	(Tl), dissolved.....	0.01 U	NR	0.01 U	0.01 U
Vanadium	(V), dissolved.....	0.0360 U	NR	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	0.0200 U	NR	0.0200 U	0.0325

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 24

Sample Information

	RFW Batch ID:	0288-881-240		0288-881-158		0288-881-167		0288-881-172	
	Customer ID:	38-86-06-02-88-LD		39-86-05-05-88		39-86-05-05-88-LD		39-86-05-05-88-	
	Matrix:	Water		Water		Water		Water	
	Units:	MG/L		MG/L		MG/L			
Metals									
Aluminum	(Al), dissolved.....	0.0914		0.0313		0.0375		NR	
Antimony	(Sb), dissolved.....	0.0980		0.0340	U	0.0340	U	NR	
Arsenic	(As), dissolved.....	NR		0.005	U	NR		106	%
Barium	(Ba), dissolved.....	0.0491		0.2264		0.2256		NR	
Beryllium	(Be), dissolved.....	0.0010	U	0.0010	U	0.0010	U	NR	
Cadmium	(Cd), dissolved.....	0.0050	U	0.0050	U	0.0050	U	NR	
Calcium	(Ca), dissolved.....	243.4468		108.6039		110.7239		NR	
Cesium	(Cs), dissolved.....	NR		0.02	U	NR		112	%
Chromium	(Cr), dissolved.....	0.0244		0.0100	U	0.0100	U	NR	
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	0.0220	U	NR	
Copper	(Cu), dissolved.....	0.0107		0.0188		0.0133		NR	
Iron	(Fe), dissolved.....	0.0731		0.0429		0.0170		NR	
Lead	(Pb), dissolved.....	NR		0.005	U	NR		100	%
Lithium	(Li), dissolved.....	NR		NR		NR		NR	
Magnesium	(Mg), dissolved.....	84.2000		11.6715		11.8606		NR	
Manganese	(Mn), dissolved.....	0.7244		0.0051	U	0.0051	U	NR	
Mercury	(Hg), dissolved.....	NR		0.0002	U	NR		86	%
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	0.0220	U	NR	
Nickel	(Ni), dissolved.....	0.3293		0.0370	U	0.0370	U	NR	
Potassium	(K), dissolved.....	NR		1.0		NR		100	%
Selenium	(Se), dissolved.....	NR		0.005	U	NR		82	%
Silver	(Ag), dissolved.....	0.0076	U	0.0408		0.0150		NR	
Sodium	(Na), dissolved.....	197.5707		15.9310		15.2165		NR	
Strontium	(Sr), dissolved.....	2.6848		0.4938		0.4933		NR	
Thallium	(Tl), dissolved.....	NR		0.01	U	NR		77	%
Vanadium	(V), dissolved.....	0.0360	U	0.0360	U	0.0360	U	NR	
Zinc	(Zn), dissolved.....	0.0427		0.0262		0.0221		NR	

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-196	0288-881-305	0288-881-316	0288-881-321
Customer ID:	39-87-05-24-88	4-60-05-18-88	4-60-05-18-88-LD	4-60-05-18-88-
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum (Al), dissolved.....	0.0425	0.0290 U	0.0290 U	NR
Antimony (Sb), dissolved.....	0.0340 U	0.0340 U	0.0340 U	NR
Arsenic (As), dissolved.....	0.005 U	0.005 U	NR	NR
Barium (Ba), dissolved.....	0.0459	0.0739	0.0740	NR
Beryllium (Be), dissolved.....	0.0010 U	0.0010 U	0.0010 U	NR
Cadmium (Cd), dissolved.....	0.0050 U	0.0050 U	0.0050 U	NR
Calcium (Ca), dissolved.....	53.9288	63.4253	62.9336	NR
Cesium (Cs), dissolved.....	0.02 U	0.020 U	NR	0.02 U
Chromium (Cr), dissolved.....	0.0100 U	0.0100 U	0.0100 U	NR
Cobalt (Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	NR
Copper (Cu), dissolved.....	0.0068	0.0112	0.0088	NR
Iron (Fe), dissolved.....	0.0162	0.0083	0.0069 U	NR
Lead (Pb), dissolved.....	0.005 U	0.005 U	NR	0.005 U
Lithium (Li), dissolved.....	NR	NR	NR	NR
Magnesium (Mg), dissolved.....	15.6479	25.0846	24.8094	NR
Manganese (Mn), dissolved.....	0.1058	0.0051 U	0.0051 U	NR
Mercury (Hg), dissolved.....	0.0002 U	0.0002 U	NR	0.0002 U
Molybdenum(Mo), dissolved.....	0.0580	0.0220 U	0.0220 U	NR
Nickel (Ni), dissolved.....	0.0370 U	0.0370 U	0.0370 U	NR
Potassium (K), dissolved.....	11.4	18.2	NR	18.2
Selenium (Se), dissolved.....	0.003 J	0.003 J	NR	NR
Silver (Ag), dissolved.....	0.0076 U	0.0076 U	0.0076 U	NR
Sodium (Na), dissolved.....	196.4473	70.1957	69.8823	NR
Strontium (Sr), dissolved.....	0.6957	0.6705	0.6695	NR
Thallium (Tl), dissolved.....	0.01 U	0.010 U	NR	0.01 U
Vanadium (V), dissolved.....	0.0360 U	0.0360 U	0.0360 U	NR
Zinc (Zn), dissolved.....	0.0200 U	0.2862	0.2714	NR

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 26

Sample Information

	RFW Batch ID:	0288-881-322	0288-881-023	0288-881-024	0288-881-177
	Customer ID:	4-60-05-18-88-S	4-87-04-14-88-LD	4-87-04-14-88-S	40-86-05-12-88
	Matrix:	Water	Water	Water	Water
	Units:	%	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	NR	NR	NR	0.0290 U
Antimony	(Sb), dissolved.....	NR	NR	NR	0.0340 U
Arsenic	(As), dissolved.....	NR	0.005 U	NR	0.005 U
Barium	(Ba), dissolved.....	NR	NR	NR	0.0476
Beryllium	(Be), dissolved.....	NR	NR	NR	0.0010 U
Cadmium	(Cd), dissolved.....	NR	NR	NR	0.0050 U
Calcium	(Ca), dissolved.....	NR	NR	NR	67.6288
Cesium	(Cs), dissolved.....	107 %	0.02 U	NR	0.02 U
Chromium	(Cr), dissolved.....	NR	NR	NR	0.0100 U
Cobalt	(Co), dissolved.....	NR	NR	NR	0.0220 U
Copper	(Cu), dissolved.....	NR	NR	NR	0.0101
Iron	(Fe), dissolved.....	NR	NR	NR	0.0228
Lead	(Pb), dissolved.....	89 %	NR	NR	0.005 U
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	NR	NR	NR	18.6570
Manganese	(Mn), dissolved.....	NR	NR	NR	0.0125
Mercury	(Hg), dissolved.....	NR	0.0002 U	78 %	0.0002 U
Molybdenum	(Mo), dissolved.....	NR	NR	NR	0.0220 U
Nickel	(Ni), dissolved.....	NR	NR	NR	0.0378
Potassium	(K), dissolved.....	108 %	NR	NR	3.8
Selenium	(Se), dissolved.....	NR	0.187	NR	0.005 U
Silver	(Ag), dissolved.....	NR	NR	NR	0.0076 U
Sodium	(Na), dissolved.....	NR	NR	NR	90.0279
Strontium	(Sr), dissolved.....	NR	NR	NR	0.7155
Thallium	(Tl), dissolved.....	NR	NR	NR	0.01 U
Vanadium	(V), dissolved.....	NR	NR	NR	0.0360 U
Zinc	(Zn), dissolved.....	NR	NR	NR	0.0380

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-185	0288-881-156	0288-881-157	0288-881-171
Customer ID:	40-86-05-12-88-S	41-86-05-05-88	42-86-05-05-88	42-86-05-05-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		0.0516		0.0503		NR	
Antimony	(Sb), dissolved.....	NR		0.0340	U	0.0340	U	NR	
Arsenic	(As), dissolved.....	83	%	0.005	U	0.005	U	0.005	U
Barium	(Ba), dissolved.....	NR		0.1985		0.1849		NR	
Beryllium	(Be), dissolved.....	NR		0.0027		0.0010	U	NR	
Cadmium	(Cd), dissolved.....	NR		0.0050	U	0.0050	U	NR	
Calcium	(Ca), dissolved.....	NR		115.0324		121.5535		NR	
Cesium	(Cs), dissolved.....	115	%	0.02	U	0.02	U	0.02	U
Chromium	(Cr), dissolved.....	NR		0.0100	U	0.0100	U	NR	
Cobalt	(Co), dissolved.....	NR		0.0220	U	0.0220	U	NR	
Copper	(Cu), dissolved.....	NR		0.0211		0.0593		NR	
Iron	(Fe), dissolved.....	NR		0.0284		0.0275		NR	
Lead	(Pb), dissolved.....	85	%	0.005	U	0.005	U	0.005	U
Lithium	(Li), dissolved.....	NR		NR		NR		NR	
Magnesium	(Mg), dissolved.....	NR		17.1654		10.4139		NR	
Manganese	(Mn), dissolved.....	NR		0.0051	U	0.0051	U	NR	
Mercury	(Hg), dissolved.....	NR		0.0002	U	0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	NR		0.0220	U	0.0220	U	NR	
Nickel	(Ni), dissolved.....	NR		0.0370	U	0.0370	U	NR	
Potassium	(K), dissolved.....	NR		1.9		0.9		NR	
Selenium	(Se), dissolved.....	82	%	0.005	U	0.005	U	0.005	U
Silver	(Ag), dissolved.....	NR		0.0295		0.1280		NR	
Sodium	(Na), dissolved.....	NR		16.6979		14.7554		NR	
Strontium	(Sr), dissolved.....	NR		0.5893		0.4071		NR	
Thallium	(Tl), dissolved.....	78	%	0.01	U	0.01	U	0.01	U
Vanadium	(V), dissolved.....	NR		0.0360	U	0.0360	U	NR	
Zinc	(Zn), dissolved.....	NR		0.0377		0.0559		NR	

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-002	0288-881-018	0288-881-206	0288-881-207
	Customer ID:	43-87-04-12-88	43-87-04-12-88-LD	44-86-05-27-88	45-86-05-27-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0367	NR	0.0461	2.0950
Antimony (Sb), dissolved.....		0.0340 U	NR	0.0340 U	0.0340 U
Arsenic (As), dissolved.....		0.005 U	0.005 U	0.005 U	0.005 U
Barium (Ba), dissolved.....		0.0581	NR	0.1666	0.0357
Beryllium (Be), dissolved.....		0.0010 U	NR	0.0010 U	0.0010 U
Cadmium (Cd), dissolved.....		0.0050 U	NR	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....		158.8623	NR	97.1417	6.6549
Cesium (Cs), dissolved.....		0..02 U	NR	0.02 U	0.02 U
Chromium (Cr), dissolved.....		0.0100 U	NR	0.0100 U	0.0110
Cobalt (Co), dissolved.....		0.0220 U	NR	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		0.9053	NR	0.0100	0.0063 U
Iron (Fe), dissolved.....		0.0113	NR	0.1917	1.0378
Lead (Pb), dissolved.....		0.005 U	NR	0.005 U	0.005 U
Lithium (Li), dissolved.....		0.05 J	NR	NR	NR
Magnesium (Mg), dissolved.....		37.5773	NR	9.8244	1.8503
Manganese (Mn), dissolved.....		0.0843	NR	0.0604	0.0060
Mercury (Hg), dissolved.....		0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum(Mo), dissolved.....		0.0265	NR	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		0.8644	NR	0.0370 U	0.0370 U
Potassium (K), dissolved.....		4.5	NR	5.2	0.5
Selenium (Se), dissolved.....		0.424	0.451	0.005 U	0.005 U
Silver (Ag), dissolved.....		0.0076 U	NR	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		165.6124	NR	33.8819	6.5515
Strontium (Sr), dissolved.....		1.2759	NR	0.3913	0.0444
Thallium (Tl), dissolved.....		0.01 U	NR	0.01 U	0.01 U
Vanadium (V), dissolved.....		0.0360 U	NR	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....		2.4500	NR	0.0455	0.0480

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-212	0288-881-064	0288-881-090	0288-881-091
	Customer ID:	45-86-05-27-88-LD	45-87-04-19-88	45-87-04-19-88-LD	45-87-04-19-88-
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	
Metals					
Aluminum	(Al), dissolved.....	2.1379	0.0360	NR	NR
Antimony	(Sb), dissolved.....	0.0340	0.0340 U	NR	NR
Arsenic	(As), dissolved.....	NR	0.005 U	0.005 U	NR
Barium	(Ba), dissolved.....	0.0360	0.0569	NR	NR
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	NR	NR
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	NR	NR
Calcium	(Ca), dissolved.....	6.6842	29.3511	NR	NR
Cesium	(Cs), dissolved.....	NR	0.02 U	0.02 U	63 %
Chromium	(Cr), dissolved.....	0.0106	0.0109	NR	NR
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	NR	NR
Copper	(Cu), dissolved.....	0.0063 U	0.0096	NR	NR
Iron	(Fe), dissolved.....	1.0368	0.1218	NR	NR
Lead	(Pb), dissolved.....	NR	0.005 U	0.005 U	97 %
Lithium	(Li), dissolved.....	NR	0.06 J	NR	NR
Magnesium	(Mg), dissolved.....	1.8533	7.0306	NR	NR
Manganese	(Mn), dissolved.....	0.0060	0.2899	NR	NR
Mercury	(Hg), dissolved.....	NR	0.0002 U	0.0002 U	NR
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0567	NR	NR
Nickel	(Ni), dissolved.....	0.0370 U	0.0388	NR	NR
Potassium	(K), dissolved.....	NR	20.0	NR	NR
Selenium	(Se), dissolved.....	NR	0.004 J	0.005 U	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	NR	NR
Sodium	(Na), dissolved.....	6.8595	60.9966	NR	NR
Strontium	(Sr), dissolved.....	0.0439	0.3460	NR	NR
Thallium	(Tl), dissolved.....	NR	0.01 U	0.01 U	92 %
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	NR	NR
Zinc	(Zn), dissolved.....	0.0444	0.1214	NR	NR

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-114	0288-881-115	0288-881-133	0288-881-242
Customer ID:	46-86-04-26-88	47-86-04-26-88	47-86-04-26-88-S	48-86-05-18-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L		MG/L

Metals

Aluminum	(Al), dissolved.....	0.0506		0.0328		NR		NR	
Antimony	(Sb), dissolved.....	0.0340	U	0.0340	U	NR		NR	
Arsenic	(As), dissolved.....	0.005	U	0.005	U	89	%	0.005	U
Barium	(Ba), dissolved.....	0.1878		0.0559		NR		NR	
Beryllium	(Be), dissolved.....	0.0010	U	0.0010	U	NR		NR	
Cadmium	(Cd), dissolved.....	0.0050	U	0.0050	U	NR		NR	
Calcium	(Ca), dissolved.....	40.2001		17.4709		NR		NR	
Cesium	(Cs), dissolved.....	0.02	U	0.02	U	120	%	0.02	U
Chromium	(Cr), dissolved.....	0.0100	U	0.0100	U	NR		NR	
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	NR		NR	
Copper	(Cu), dissolved.....	0.0068		0.0063	U	NR		NR	
Iron	(Fe), dissolved.....	0.0934		0.0560		NR		NR	
Lead	(Pb), dissolved.....	0.005	U	0.013		90	%	0.005	U
Lithium	(Li), dissolved.....	NR		NR		NR		NR	
Magnesium	(Mg), dissolved.....	10.9208		3.0397		NR		NR	
Manganese	(Mn), dissolved.....	0.0909		0.0051	U	NR		NR	
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	NR		0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220		0.0220	U	NR		NR	
Nickel	(Ni), dissolved.....	0.0370	U	0.0370	U	NR		NR	
Potassium	(K), dissolved.....	4.4		0.6		NR		NR	
Selenium	(Se), dissolved.....	0.005	U	0.005	U	116	%	0.005	U
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	NR		NR	
Sodium	(Na), dissolved.....	32.3463		13.7898		NR		NR	
Strontium	(Sr), dissolved.....	0.4694		0.0983		NR		NR	
Thallium	(Tl), dissolved.....	0.01	U	0.01	U	109	%	0.01	U
Vanadium	(V), dissolved.....	0.0360	U	0.0360	U	NR		NR	
Zinc	(Zn), dissolved.....	0.0200	U	0.0200	U	NR		NR	

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-226	0288-881-227	0288-881-243	0288-881-201
Customer ID:	48-86-06-01-88	49-86-06-01-88	49-86-06-01-88-S	5-82-05-26-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	0.1252		0.0415		NR		3.9934	
Antimony	(Sb), dissolved.....	0.0340	U	0.0340	U	NR		0.0340	U
Arsenic	(As), dissolved.....	0.005	U	0.005	U	96	%	0.005	U
Barium	(Ba), dissolved.....	0.0355		0.0803		NR		0.1207	
Beryllium	(Be), dissolved.....	0.0010	U	0.0010	U	NR		0.0010	U
Cadmium	(Cd), dissolved.....	0.0050	U	0.0050	U	NR		0.0050	U
Calcium	(Ca), dissolved.....	4.7286		25.5903		NR		12.4798	
Cesium	(Cs), dissolved.....	0.02	U	0.02	U	101	%	0.02	U
Chromium	(Cr), dissolved.....	0.0100	U	0.0148		NR		0.0100	U
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	NR		0.0220	U
Copper	(Cu), dissolved.....	0.0085		0.0090		NR		0.0105	
Iron	(Fe), dissolved.....	0.0333		0.0314		NR		2.6688	
Lead	(Pb), dissolved.....	0.005	U	0.005	U	101	%	0.004	J
Lithium	(Li), dissolved.....	NR		NR		NR		NR	
Magnesium	(Mg), dissolved.....	0.9380		5.5208		NR		2.7187	
Manganese	(Mn), dissolved.....	0.0051	U	0.0053		NR		0.0217	
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	84	%	0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	NR		0.0220	U
Nickel	(Ni), dissolved.....	0.0370	U	0.0370	U	NR		0.0370	U
Potassium	(K), dissolved.....	6.3		0.6		NR		1.3	
Selenium	(Se), dissolved.....	0.005	U	0.005	U	90	%	0.005	U
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	NR		0.0076	U
Sodium	(Na), dissolved.....	41.2580		29.1848		NR		19.1925	
Strontium	(Sr), dissolved.....	0.3116		0.1403		NR		0.0734	
Thallium	(Tl), dissolved.....	0.01	U	0.01	U	65	%	0.01	U
Vanadium	(V), dissolved.....	0.0377		0.0360	U	NR		0.0360	U
Zinc	(Zn), dissolved.....	0.0200	U	0.0392		NR		0.0909	

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-219	0288-881-039	0288-881-228	0288-881-112
	Customer ID:	5-82-05-26-88-LD	5-87-04-12-88-SR	50-86-06-01-88	51-86-04-26-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		NR	98 %	0.0290 U	0.0372
Antimony (Sb), dissolved.....		NR	94.7 %	0.0340 U	0.0340 U
Arsenic (As), dissolved.....		0.005 U	NR	0.005 U	0.005 U
Barium (Ba), dissolved.....		NR	89 %	0.0741	0.0763
Beryllium (Be), dissolved.....		NR	99 %	0.0010 U	0.0010 U
Cadmium (Cd), dissolved.....		NR	94 %	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....		NR	62 %	30.5352	16.5195
Cesium (Cs), dissolved.....		0.02 U	NR	0.02 U	0.02 U
Chromium (Cr), dissolved.....		NR	103 %	0.0100 U	0.0100 U
Cobalt (Co), dissolved.....		NR	95 %	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		NR	92 %	0.0063 U	0.0068
Iron (Fe), dissolved.....		NR	121 %	0.0223	0.2600
Lead (Pb), dissolved.....		0.005 U	NR	0.005 U	0.005 U
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		NR	NR	5.1850	2.9980
Manganese (Mn), dissolved.....		NR	98 %	0.0051 U	0.0051 U
Mercury (Hg), dissolved.....		0.0002 U	NR	0.0002 U	0.0002 U
Molybdenum(Mo), dissolved.....		NR	94 %	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		NR	105 %	0.0370 U	0.0370 U
Potassium (K), dissolved.....		NR	NR	0.8	0.6
Selenium (Se), dissolved.....		0.005 U	NR	0.005 U	0.005 U
Silver (Ag), dissolved.....		NR	93 %	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		NR	73 %	10.6554	12.0066
Strontium (Sr), dissolved.....		NR	94 %	0.1693	0.0862
Thallium (Tl), dissolved.....		0.01 U	NR	0.01 U	0.01 U
Vanadium (V), dissolved.....		NR	102 %	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....		NR	100 %	0.0433	0.0398

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-113	0288-881-132	0288-881-111	0288-881-131
Customer ID:	51-86-04-26-88-FD	51-86-04-26-88-S	52-86-04-26-88	52-86-04-26-88
Matrix:	Water	Water	Water	Water
Units:	MG/L		MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	0.0409		NR		0.0743		NR
Antimony	(Sb), dissolved.....	0.0340	U	NR		0.0340	U	NR
Arsenic	(As), dissolved.....	0.005	U	89	%	0.005	U	0.005 U
Barium	(Ba), dissolved.....	0.0539		NR		0.0347		NR
Beryllium	(Be), dissolved.....	0.0010	U	NR		0.0010	U	NR
Cadmium	(Cd), dissolved.....	0.0050	U	NR		0.0050	U	NR
Calcium	(Ca), dissolved.....	16.5313		NR		20.4964		NR
Cesium	(Cs), dissolved.....	0.02	U	91	%	0.02	U	0.02 U
Chromium	(Cr), dissolved.....	0.0100	U	NR		0.0106		NR
Cobalt	(Co), dissolved.....	0.0220	U	NR		0.0220	U	NR
Copper	(Cu), dissolved.....	0.0063	U	NR		0.0063	U	NR
Iron	(Fe), dissolved.....	0.0374		NR		0.0503		NR
Lead	(Pb), dissolved.....	0.005	U	79	%	0.005	U	0.005 U
Lithium	(Li), dissolved.....	NR		NR		NR		NR
Magnesium	(Mg), dissolved.....	3.0911		NR		0.3541		NR
Manganese	(Mn), dissolved.....	0.0051	U	NR		0.0051	U	NR
Mercury	(Hg), dissolved.....	0.0002	U	NR		0.0002	U	NR
Molybdenum	(Mo), dissolved.....	0.0220	U	NR		0.0319		NR
Nickel	(Ni), dissolved.....	0.0370	U	NR		0.0370	U	NR
Potassium	(K), dissolved.....	0.7		NR		1.6		NR
Selenium	(Se), dissolved.....	0.005	U	95	%	0.005	U	0.005 U
Silver	(Ag), dissolved.....	0.0140		NR		0.0076	U	NR
Sodium	(Na), dissolved.....	10.7508		NR		14.9185		NR
Strontium	(Sr), dissolved.....	0.0890		NR		0.1643		NR
Thallium	(Tl), dissolved.....	0.01	U	80	%	0.01	U	0.01 U
Vanadium	(V), dissolved.....	0.0360	U	NR		0.0400		NR
Zinc	(Zn), dissolved.....	0.0230		NR		0.0200	U	NR

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-067	0288-881-118	0288-881-134	0288-881-119
Customer ID:	52-87-04-19-88	54-86-04-28-88	54-86-04-28-88-LD	55-86-04-28-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	0.0321		0.0317		NR		0.0434	
Antimony	(Sb), dissolved.....	0.0340	U	0.0340	U	NR		0.0340	U
Arsenic	(As), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Barium	(Ba), dissolved.....	0.1202		0.0710		NR		0.0554	
Beryllium	(Be), dissolved.....	0.0010	U	0.0010	U	NR		0.0010	U
Cadmium	(Cd), dissolved.....	0.0050	U	0.0050	U	NR		0.0050	U
Calcium	(Ca), dissolved.....	110.5478		89.5109		NR		24.7170	
Cesium	(Cs), dissolved.....	0.02	U	0.02	U	NR		0.02	U
Chromium	(Cr), dissolved.....	0.0100	U	0.0100	U	NR		0.0100	U
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	NR		0.0220	U
Copper	(Cu), dissolved.....	0.0087		0.0177		NR		0.0063	U
Iron	(Fe), dissolved.....	0.0187		0.1609		NR		0.1097	
Lead	(Pb), dissolved.....	0.005	U	0.005	U	NR		0.005	U
Lithium	(Li), dissolved.....	0.1	U	NR		NR		NR	
Magnesium	(Mg), dissolved.....	31.2190		20.7761		NR		4.1914	
Manganese	(Mn), dissolved.....	0.4838		0.1744		NR		0.0051	U
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	NR		0.0220	U
Nickel	(Ni), dissolved.....	0.0370	U	0.0370	U	NR		0.0370	U
Potassium	(K), dissolved.....	2.3		3.9		NR		0.7	
Selenium	(Se), dissolved.....	0.003	J	0.005	U	0.005	U	0.005	U
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	NR		0.0076	U
Sodium	(Na), dissolved.....	164.5510		32.2573		NR		9.9816	
Strontium	(Sr), dissolved.....	0.8149		0.7243		NR		0.1256	
Thallium	(Tl), dissolved.....	0.01	U	0.01	U	NR		0.01	U
Vanadium	(V), dissolved.....	0.0360	U	0.0360	U	NR		0.0360	U
Zinc	(Zn), dissolved.....	0.0717		0.0200	U	NR		0.0276	

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-046	0288-881-059	0288-881-249	0288-881-250
	Customer ID:	56-86-04-08-88	56-86-04-08-88-S	58-87-06-07-88	59-87-06-07-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	NR	0.0324	0.0686
Antimony	(Sb), dissolved.....	0.0340 U	NR	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Barium	(Ba), dissolved.....	0.0675	NR	0.0570	0.2720
Beryllium	(Be), dissolved.....	0.0010 U	NR	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	NR	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	23.5967	NR	28.5281	94.1129
Cesium	(Cs), dissolved.....	0.02 U	109 %	0.02 U	0.02 U
Chromium	(Cr), dissolved.....	0.0100 U	NR	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	NR	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0063 U	NR	0.0207	0.0094
Iron	(Fe), dissolved.....	0.0343	NR	0.0765	0.8091
Lead	(Pb), dissolved.....	0.005 U	92 %	0.005 U	0.005 U
Lithium	(Li), dissolved.....	0.1 U	NR	NR	NR
Magnesium	(Mg), dissolved.....	5.9775	NR	5.8342	19.0657
Manganese	(Mn), dissolved.....	0.0090	NR	0.5637	3.5236
Mercury	(Hg), dissolved.....	0.0002 U	NR	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	NR	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	0.0396	NR	0.0427	0.3204
Potassium	(K), dissolved.....	1.0	NR	3.6	7.0
Selenium	(Se), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	NR	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	21.8491	NR	12.1867	32.9350
Strontium	(Sr), dissolved.....	0.1380	NR	0.2042	0.6378
Thallium	(Tl), dissolved.....	0.01 U	124 %	0.01 U	0.01 U
Vanadium	(V), dissolved.....	0.0360 U	NR	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	0.0226	NR	0.1413	0.5621

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 36

Sample Information

	RFW Batch ID:	0288-881-202	0288-881-251	0288-881-263	0288-881-068
	Customer ID:	6-82-05-26-88	60-87-06-07-88	60-87-06-07-88-LD	61-86-04-19-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	2.7735	0.0452	NR	0.0295
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	NR	0.0340 U
Arsenic	(As), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Barium	(Ba), dissolved.....	0.1387	0.1076	NR	0.0633
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	NR	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	NR	0.0050 U
Calcium	(Ca), dissolved.....	9.6128	22.3180	NR	58.6321
Cesium	(Cs), dissolved.....	0.02 U	0.02 U	0.02 U	0.02 U
Chromium	(Cr), dissolved.....	0.0129	0.0100 U	NR	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	NR	0.0220 U
Copper	(Cu), dissolved.....	0.0087	0.0072	NR	0.0091
Iron	(Fe), dissolved.....	1.4855	0.0650	NR	0.0304
Lead	(Pb), dissolved.....	0.002 U	0.005 U	0.005 U	0.005 U
Lithium	(Li), dissolved.....	NR	NR	NR	0.1 U
Magnesium	(Mg), dissolved.....	2.0039	3.8518	NR	9.6002
Manganese	(Mn), dissolved.....	0.0161	0.0235	NR	0.0051 U
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	NR	0.0220 U
Nickel	(Ni), dissolved.....	0.0421	0.0370 U	NR	0.0421
Potassium	(K), dissolved.....	1.1	0.6	NR	1.0
Selenium	(Se), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	NR	0.0076 U
Sodium	(Na), dissolved.....	9.8275	13.1769	NR	10.2031
Strontium	(Sr), dissolved.....	0.0505	0.0982	NR	0.2935
Thallium	(Tl), dissolved.....	0.01 U	0.01 U	0.01 U	0.01 U
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	NR	0.0360 U
Zinc	(Zn), dissolved.....	0.0504	0.0612	NR	0.0444

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 37

Sample Information

RFW Batch ID:	0288-881-254	0288-881-264	0288-881-005	0288-881-022
Customer ID:	61-87-06-09-88	61-87-06-09-88-S	62-86-04-14-88	62-86-04-14-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum (Al), dissolved.....	0.0585	NR	0.0381	NR
Antimony (Sb), dissolved.....	0.0340 U	NR	0.0340 U	NR
Arsenic (As), dissolved.....	0.005 U	94 %	0.005 U	0.005 U
Barium (Ba), dissolved.....	0.0975	NR	0.0358	NR
Beryllium (Be), dissolved.....	0.0010 U	NR	0.0010 U	NR
Cadmium (Cd), dissolved.....	0.0050 U	NR	0.0050 U	NR
Calcium (Ca), dissolved.....	20.1433	NR	32.9081	NR
Cesium (Cs), dissolved.....	0.02 U	97 %	0.02 U	NR
Chromium (Cr), dissolved.....	0.0119	NR	0.0193	NR
Cobalt (Co), dissolved.....	0.0220 U	NR	0.0220 U	NR
Copper (Cu), dissolved.....	0.0091	NR	0.0063 U	NR
Iron (Fe), dissolved.....	0.0557	NR	0.0255	NR
Lead (Pb), dissolved.....	0.005 U	87 %	0.005 U	NR
Lithium (Li), dissolved.....	NR	NR	0.1 U	NR
Magnesium (Mg), dissolved.....	3.8054	NR	11.5102	NR
Manganese (Mn), dissolved.....	0.0806	NR	0.0051	NR
Mercury (Hg), dissolved.....	0.0002 U	86 %	0.0002 U	NR
Molybdenum(Mo), dissolved.....	0.0220 U	NR	0.0220 U	NR
Nickel (Ni), dissolved.....	0.0370 U	NR	0.0485	NR
Potassium (K), dissolved.....	0.8	NR	4.2	NR
Selenium (Se), dissolved.....	0.005 U	81 %	0.071	0.064
Silver (Ag), dissolved.....	0.0076 U	NR	0.0076 U	NR
Sodium (Na), dissolved.....	12.1909	NR	47.0577	NR
Strontium (Sr), dissolved.....	0.1045	NR	0.4104	NR
Thallium (Tl), dissolved.....	0.01 U	NR	0.01 U	NR
Vanadium (V), dissolved.....	0.0360 U	NR	0.0360 U	NR
Zinc (Zn), dissolved.....	0.0737	NR	0.0200 U	NR

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Other Codes: NS = Not Spiked. NR = Analyte not reported.

SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-256	0288-881-257	0288-881-003	0288-881-019
	Customer ID:	62-87-06-09-88	63-87-06-09-88	64-86-04-12-88	64-86-04-12-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0294	0.0420	0.0315	NR
Antimony (Sb), dissolved.....		0.0340 U	0.0340 U	0.0340 U	NR
Arsenic (As), dissolved.....		0.005 U	0.005 U	0.005 U	0.005 U
Barium (Ba), dissolved.....		0.1068	0.4471	0.0411	NR
Beryllium (Be), dissolved.....		0.0010 U	0.0010 U	0.0010 U	NR
Cadmium (Cd), dissolved.....		0.0050 U	0.0050 U	0.0050 U	NR
Calcium (Ca), dissolved.....		24.4009	135.3114	50.7763	NR
Cesium (Cs), dissolved.....		0.02 U	0.02 U	0.02 U	0.02 U
Chromium (Cr), dissolved.....		0.0125	0.0100 U	0.0100 U	NR
Cobalt (Co), dissolved.....		0.0220 U	0.0220 U	0.0220 U	NR
Copper (Cu), dissolved.....		0.0066	0.0063 U	0.0078	NR
Iron (Fe), dissolved.....		0.0318	7.3837	0.0274	NR
Lead (Pb), dissolved.....		0.005 U	0.005 U	0.005 U	0.005 U
Lithium (Li), dissolved.....		NR	NR	0.1 U	NR
Magnesium (Mg), dissolved.....		4.2744	24.0563	16.6025	NR
Manganese (Mn), dissolved.....		0.2307	3.9497	0.0331	NR
Mercury (Hg), dissolved.....		0.0002 U	0.0002 U	0.0002 U	NR
Molybdenum(Mo), dissolved.....		0.0220 U	0.0220 U	0.0271	NR
Nickel (Ni), dissolved.....		0.0370 U	0.0448	0.0370 U	NR
Potassium (K), dissolved.....		0.9	1.7	1.3	NR
Selenium (Se), dissolved.....		0.005 U	0.005 U	0.009	0.009
Silver (Ag), dissolved.....		0.0076 U	0.0076 U	0.0076 U	NR
Sodium (Na), dissolved.....		10.5731	30.5785	95.3058	NR
Strontium (Sr), dissolved.....		0.1239	0.6700	0.4397	NR
Thallium (Tl), dissolved.....		0.01 U	0.01 U	0.01 U	0.01 U
Vanadium (V), dissolved.....		0.0360 U	0.0360 U	0.0360 U	NR
Zinc (Zn), dissolved.....		0.1040	0.0409	0.0200 U	NR

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-270	0288-881-281	0288-881-282	0288-881-065
	Customer ID:	64-87-06-15-88	64-87-06-15-88-LD	64-87-06-15-88-LD	65-86-04-19-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	0.0406	NR	0.0332
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	NR	0.0340 U
Arsenic	(As), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Barium	(Ba), dissolved.....	0.1811	0.1766	NR	0.0470
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	NR	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	NR	0.0050 U
Calcium	(Ca), dissolved.....	47.1222	47.5616	NR	62.1582
Cesium	(Cs), dissolved.....	0.02 U	NR	0.02 U	0.02 U
Chromium	(Cr), dissolved.....	0.0100 U	0.0124	NR	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	NR	0.0220 U
Copper	(Cu), dissolved.....	0.0063 U	0.0074	NR	0.0102
Iron	(Fe), dissolved.....	0.3243	0.3698	NR	0.0491
Lead	(Pb), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Lithium	(Li), dissolved.....	NR	NR	NR	0.1 U
Magnesium	(Mg), dissolved.....	8.8600	8.6367	NR	16.6175
Manganese	(Mn), dissolved.....	1.0841	1.0382	NR	0.0051 U
Mercury	(Hg), dissolved.....	0.0002 U	NR	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	NR	0.0220 U
Nickel	(Ni), dissolved.....	0.0772	0.0571	NR	0.0370 U
Potassium	(K), dissolved.....	1.6	NR	1.6	1.0
Selenium	(Se), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	NR	0.0076 U
Sodium	(Na), dissolved.....	15.9728	16.1075	NR	55.3275
Strontium	(Sr), dissolved.....	0.2599	0.2615	NR	0.4262
Thallium	(Tl), dissolved.....	0.01 U	NR	0.01 U	0.01 U
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	NR	0.0360 U
Zinc	(Zn), dissolved.....	0.0324	0.0622	NR	0.1039

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-269	0288-881-234	0288-881-238	0288-881-244
	Customer ID:	65-87-06-15-88	66-86-06-03-88	66-86-06-03-88-LD	66-86-06-03-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	0.0533	0.0547	NR
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	0.0340 U	NR
Arsenic	(As), dissolved.....	0.005 U	0.005 U	NR	NR
Barium	(Ba), dissolved.....	0.0949	0.0792	0.0771	NR
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	0.0010 U	NR
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	0.0050 U	NR
Calcium	(Ca), dissolved.....	59.9982	24.1847	23.2049	NR
Cesium	(Cs), dissolved.....	0.02 U	0.02 U	NR	0.02 U
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	0.0131	NR
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	NR
Copper	(Cu), dissolved.....	0.0063 U	0.0063 U	0.0063 U	NR
Iron	(Fe), dissolved.....	0.0456	0.1015	0.1566	NR
Lead	(Pb), dissolved.....	0.005 U	0.005 U	NR	0.005 U
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	11.4239	5.4617	5.2119	NR
Manganese	(Mn), dissolved.....	1.5648	0.0092	0.0104	NR
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	NR	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	NR
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	0.0370 U	NR
Potassium	(K), dissolved.....	3.3	1.7	NR	1.6
Selenium	(Se), dissolved.....	0.005 U	0.005 U	NR	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	0.0076 U	NR
Sodium	(Na), dissolved.....	29.2162	21.1230	20.3318	NR
Strontium	(Sr), dissolved.....	0.3617	0.1450	0.1402	NR
Thallium	(Tl), dissolved.....	0.01 U	0.01 U	NR	0.01 U
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	0.0360 U	NR
Zinc	(Zn), dissolved.....	0.0470	0.0281	0.0279	NR

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-268	0288-881-272	0288-881-283	0288-881-048
	Customer ID:	66-87-06-15-88	67-87-06-17-88	67-87-06-17-88-S	68-86-04-08-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0290 U	0.0290 U	NR	0.0358
Antimony (Sb), dissolved.....		0.0340 U	0.0340 U	NR	0.0340 U
Arsenic (As), dissolved.....		0.005 U	0.005 U	NR	0.005 U
Barium (Ba), dissolved.....		0.0392	0.0678	NR	0.1046
Beryllium (Be), dissolved.....		0.0010 U	0.0010 U	NR	0.0010 U
Cadmium (Cd), dissolved.....		0.0050 U	0.0050 U	NR	0.0050 U
Calcium (Ca), dissolved.....		66.1657	35.2167	NR	16.6097
Cesium (Cs), dissolved.....		0.02 U	0.02 U	83 %	0.02 U
Chromium (Cr), dissolved.....		0.0168	0.0100 U	NR	0.0100 U
Cobalt (Co), dissolved.....		0.0220 U	0.0220 U	NR	0.0220 U
Copper (Cu), dissolved.....		0.1430	0.0543	NR	0.0066
Iron (Fe), dissolved.....		0.0667	0.0450	NR	0.0461
Lead (Pb), dissolved.....		0.005 U	0.005 U	107 %	0.005 U
Lithium (Li), dissolved.....		NR	NR	NR	0.1 U
Magnesium (Mg), dissolved.....		16.5880	5.0830	NR	3.9728
Manganese (Mn), dissolved.....		0.2241	0.3084	NR	0.0051 U
Mercury (Hg), dissolved.....		0.0002 U	0.0002 U	92 %	0.0002 U
Molybdenum(Mo), dissolved.....		0.0220 U	0.0220 U	NR	0.0220 U
Nickel (Ni), dissolved.....		0.1708	0.0810	NR	0.0370 U
Potassium (K), dissolved.....		5.4	1.8	NR	0.5
Selenium (Se), dissolved.....		0.005 U	0.005 U	NR	0.005 U
Silver (Ag), dissolved.....		0.0076 U	0.0076 U	NR	0.0076 U
Sodium (Na), dissolved.....		78.5184	15.5148	NR	21.6603
Strontium (Sr), dissolved.....		0.4537	0.1646	NR	0.1051
Thallium (Tl), dissolved.....		0.01 U	0.01 U	78 %	0.01 U
Vanadium (V), dissolved.....		0.0360 U	0.0360 U	NR	0.0360 U
Zinc (Zn), dissolved.....		0.5941	0.4941	NR	0.0322

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 42

Sample Information

	RFW Batch ID:	0288-881-061	0288-881-273	0288-881-274	0288-881-284
	Customer ID:	68-86-04-08-88-S	68-87-06-17-88	68-87-06-17-88-FD	68-87-06-17-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	NR	0.0290 U	0.0314	NR
Antimony	(Sb), dissolved.....	NR	0.0340 U	0.0340 U	NR
Arsenic	(As), dissolved.....	NR	0.005 U	0.005 U	NR
Barium	(Ba), dissolved.....	NR	0.1158	0.1142	NR
Beryllium	(Be), dissolved.....	NR	0.0010 U	0.0010 U	NR
Cadmium	(Cd), dissolved.....	NR	0.0050 U	0.0050 U	NR
Calcium	(Ca), dissolved.....	NR	32.3495	32.7580	NR
Cesium	(Cs), dissolved.....	NR	0.02 U	0.02 U	86 %
Chromium	(Cr), dissolved.....	NR	0.0100 U	0.0100 U	NR
Cobalt	(Co), dissolved.....	NR	0.0220 U	0.0220 U	NR
Copper	(Cu), dissolved.....	NR	0.0063 U	0.0067	NR
Iron	(Fe), dissolved.....	NR	0.1062	0.1389	NR
Lead	(Pb), dissolved.....	NR	0.005 U	0.005 U	101 %
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	NR	4.8924	4.9874	NR
Manganese	(Mn), dissolved.....	NR	0.6016	0.6127	NR
Mercury	(Hg), dissolved.....	85 %	0.0002 U	0.0002 U	97 %
Molybdenum	(Mo), dissolved.....	NR	0.0220 U	0.0220 U	NR
Nickel	(Ni), dissolved.....	NR	0.0370 U	0.0370 U	NR
Potassium	(K), dissolved.....	NR	0.8	0.8	NR
Selenium	(Se), dissolved.....	NR	0.005 U	0.005 U	NR
Silver	(Ag), dissolved.....	NR	0.0076 U	0.0076 U	NR
Sodium	(Na), dissolved.....	NR	12.8824	13.4570	NR
Strontium	(Sr), dissolved.....	NR	0.1531	0.1573	NR
Thallium	(Tl), dissolved.....	NR	0.01 U	0.01 U	80 %
Vanadium	(V), dissolved.....	NR	0.0360 U	0.0360 U	NR
Zinc	(Zn), dissolved.....	NR	0.0331	0.0358	NR

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-004	0288-881-020	0288-881-021	0288-881-047
	Customer ID:	69-86-04-12-88	69-86-04-12-88-LD	69-86-04-12-88-S	70-86-04-08-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	NR	NR	0.0432
Antimony	(Sb), dissolved.....	0.0340 U	NR	NR	0.0340 U
Arsenic	(As), dissolved.....	0.005 U	0.005 U	79 %	0.005 U
Barium	(Ba), dissolved.....	0.1074	NR	NR	0.0735
Beryllium	(Be), dissolved.....	0.0010 U	NR	NR	0.0053
Cadmium	(Cd), dissolved.....	0.0050 U	NR	NR	0.0050 U
Calcium	(Ca), dissolved.....	134.6656	NR	NR	23.8600
Cesium	(Cs), dissolved.....	0.02 U	NR	NR	0.02 U
Chromium	(Cr), dissolved.....	0.0100 U	NR	NR	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	NR	NR	0.0220 U
Copper	(Cu), dissolved.....	0.0063 U	NR	NR	0.0063 U
Iron	(Fe), dissolved.....	0.0069 U	NR	NR	0.0259
Lead	(Pb), dissolved.....	0.005 U	0.005 U	81 %	0.005 U
Lithium	(Li), dissolved.....	0.1 U	NR	NR	0.1 U
Magnesium	(Mg), dissolved.....	41.2807	NR	NR	7.5545
Manganese	(Mn), dissolved.....	0.0051 U	NR	NR	0.0118
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	110 %	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	NR	NR	0.0220 U
Nickel	(Ni), dissolved.....	0.0394	NR	NR	0.0370 U
Potassium	(K), dissolved.....	0.8	NR	NR	3.2
Selenium	(Se), dissolved.....	0.17	0.185	126 %	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	NR	NR	0.0076 U
Sodium	(Na), dissolved.....	121.7074	NR	NR	31.9902
Strontium	(Sr), dissolved.....	1.0063	NR	NR	0.3157
Thallium	(Tl), dissolved.....	0.01 U	0.01 U	NR	0.01 U
Vanadium	(V), dissolved.....	0.0360 U	NR	NR	0.0360 U
Zinc	(Zn), dissolved.....	0.0381	NR	NR	0.0200 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-060	0288-881-275	0288-881-285	0288-881-255
Customer ID:	70-86-04-08-88-LD	70-87-06-17-88	70-87-06-17-88-LD	71-87-06-09-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum (Al), dissolved.....	NR	0.0326	NR	0.0390
Antimony (Sb), dissolved.....	NR	0.0452	NR	0.0340 U
Arsenic (As), dissolved.....	NR	0.005 U	NR	0.005 U
Barium (Ba), dissolved.....	NR	0.0924	NR	0.0991
Beryllium (Be), dissolved.....	NR	0.0010 U	NR	0.0010 U
Cadmium (Cd), dissolved.....	NR	0.0050 U	NR	0.0050 U
Calcium (Ca), dissolved.....	NR	89.6093	NR	74.8243
Cesium (Cs), dissolved.....	0.02 U	0.02 U	0.02 U	0.02 U
Chromium (Cr), dissolved.....	NR	0.0100 U	NR	0.0100 U
Cobalt (Co), dissolved.....	NR	0.0220 U	NR	0.0220 U
Copper (Cu), dissolved.....	NR	0.0520	NR	0.0079
Iron (Fe), dissolved.....	NR	0.0827	NR	0.0217
Lead (Pb), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Lithium (Li), dissolved.....	NR	NR	NR	NR
Magnesium (Mg), dissolved.....	NR	29.6283	NR	9.5536
Manganese (Mn), dissolved.....	NR	0.2745	NR	0.0189
Mercury (Hg), dissolved.....	NR	0.0002 U	0.0002 U	0.0002 U
Molybdenum(Mo), dissolved.....	NR	0.0220 U	NR	0.0220 U
Nickel (Ni), dissolved.....	NR	0.0468	NR	0.0370 U
Potassium (K), dissolved.....	NR	5.3	NR	1.1
Selenium (Se), dissolved.....	NR	0.005 U	NR	0.005 U
Silver (Ag), dissolved.....	NR	0.0076 U	NR	0.0076 U
Sodium (Na), dissolved.....	NR	60.2105	NR	9.2179
Strontium (Sr), dissolved.....	NR	0.7165	NR	0.4186
Thallium (Tl), dissolved.....	0.01 U	0.01 U	0.01 U	0.01 U
Vanadium (V), dissolved.....	NR	0.0360 U	NR	0.0360 U
Zinc (Zn), dissolved.....	NR	0.3984	NR	0.0458

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-203	0288-881-220	0288-881-121	0288-881-129
	Customer ID:	8-81-05-26-88	8-81-05-26-88-S	8-87-04-28-88	8-87-04-28-88-I
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0393	NR	0.0309	0.0290 U
Antimony (Sb), dissolved.....		0.0340 U	NR	0.0340 U	0.0340 U
Arsenic (As), dissolved.....		0.005 U	81 %	0.005 U	NR
Barium (Ba), dissolved.....		0.0974	NR	0.0260	0.0258
Beryllium (Be), dissolved.....		0.0010 U	NR	0.0010 U	0.0010 U
Cadmium (Cd), dissolved.....		0.0050 U	NR	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....		36.2416	NR	112.7522	117.8394
Cesium (Cs), dissolved.....		0.02 U	98 %	0.02 U	NR
Chromium (Cr), dissolved.....		0.0129	NR	0.0100 U	0.0100 U
Cobalt (Co), dissolved.....		0.0220 U	NR	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		0.0063 U	NR	0.0063 U	0.0063 U
Iron (Fe), dissolved.....		0.0390	NR	0.1169	0.0248
Lead (Pb), dissolved.....		0.005 U	87 %	0.005 U	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		9.0606	NR	42.2696	42.4615
Manganese (Mn), dissolved.....		0.0164	NR	0.0618	0.0606
Mercury (Hg), dissolved.....		0.0002 U	93 %	0.0002 U	NR
Molybdenum(Mo), dissolved.....		0.0220 U	NR	0.0220 U	0.0222
Nickel (Ni), dissolved.....		0.0370 U	NR	0.0370 U	0.0370 U
Potassium (K), dissolved.....		1.7	NR	10.9	NR
Selenium (Se), dissolved.....		0.005 U	94 %	0.005 U	NR
Silver (Ag), dissolved.....		0.0076 U	NR	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		19.1913	NR	213.2676	223.4577
Strontium (Sr), dissolved.....		0.2907	NR	1.8610	1.9209
Thallium (Tl), dissolved.....		0.01 U	61 %	0.01 U	NR
Vanadium (V), dissolved.....		0.0360 U	NR	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....		0.0200 U	NR	0.0200 U	0.0260

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-135	0288-881-027	0288-881-010	0288-881-026
Customer ID:	8-87-04-28-88-S	9-74-04-14-88-FDLD	9-74-04-15-88	9-74-04-15-88-
Matrix:	Water	Water	Water	Water
Units:		MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		NR		0.0290	U	NR
Antimony	(Sb), dissolved.....	NR		NR		0.0340	U	NR
Arsenic	(As), dissolved.....	81	%	0.0046	J	0.003	J	0.0041 J
Barium	(Ba), dissolved.....	NR		NR		0.0578		NR
Beryllium	(Be), dissolved.....	NR		NR		0.0010	U	NR
Cadmium	(Cd), dissolved.....	NR		NR		0.0050	U	NR
Calcium	(Ca), dissolved.....	NR		NR		170.7388		NR
Cesium	(Cs), dissolved.....	NR		NR		0.02	U	NR
Chromium	(Cr), dissolved.....	NR		NR		0.0101		NR
Cobalt	(Co), dissolved.....	NR		NR		0.0220	U	NR
Copper	(Cu), dissolved.....	NR		NR		0.0063	U	NR
Iron	(Fe), dissolved.....	NR		NR		0.0069	U	NR
Lead	(Pb), dissolved.....	NR		NR		0.005	U	NR
Lithium	(Li), dissolved.....	NR		NR		0.44		NR
Magnesium	(Mg), dissolved.....	NR		NR		40.3688		NR
Manganese	(Mn), dissolved.....	NR		NR		0.0051	U	NR
Mercury	(Hg), dissolved.....	119	%	NR		0.0002	U	NR
Molybdenum	(Mo), dissolved.....	NR		NR		0.0220	U	NR
Nickel	(Ni), dissolved.....	NR		NR		0.0370	U	NR
Potassium	(K), dissolved.....	124	%	NR		1.0		NR
Selenium	(Se), dissolved.....	78	%	0.578		0.568		0.560
Silver	(Ag), dissolved.....	NR		NR		0.0076	U	NR
Sodium	(Na), dissolved.....	NR		NR		153.7531		NR
Strontium	(Sr), dissolved.....	NR		NR		1.2361		NR
Thallium	(Tl), dissolved.....	NR		NR		0.01	U	NR
Vanadium	(V), dissolved.....	NR		NR		0.0360	U	NR
Zinc	(Zn), dissolved.....	NR		NR		0.0200	U	NR

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 47

Sample Information

	RFW Batch ID:	0288-881-204	0288-881-205	0288-881-246	0288-881-247
	Customer ID:	9-81-05-26-88	9-81-05-26-88-FD	9-86-06-07-88	9-86-06-07-88-F
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0583	0.0874	0.0300	0.0290 U
Antimony (Sb), dissolved.....		0.0340 U	0.0340 U	0.0340 U	0.0340 U
Arsenic (As), dissolved.....		0.006	0.006	0.005 U	0.005 U
Barium (Ba), dissolved.....		0.0484	0.0500	0.1091	0.1110
Beryllium (Be), dissolved.....		0.0010 U	0.0010 U	0.0010 U	0.0010 U
Cadmium (Cd), dissolved.....		0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....		46.4877	46.7207	22.6004	23.4496
Cesium (Cs), dissolved.....		0.02 U	0.02 U	0.02 U	0.02 U
Chromium (Cr), dissolved.....		0.0102	0.0100 U	0.0171	0.0100 U
Cobalt (Co), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		0.0063 U	0.0063 U	0.0063 U	0.0063 U
Iron (Fe), dissolved.....		0.0378	0.0393	0.3175	0.0728
Lead (Pb), dissolved.....		0.005 U	0.005 U	0.005 U	0.005 U
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		3.4315	3.4350	5.6371	5.8510
Manganese (Mn), dissolved.....		0.0051 U	0.0051 U	0.0234	0.0215
Mercury (Hg), dissolved.....		0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum(Mo), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium (K), dissolved.....		1.8	1.7	2.8	3.1
Selenium (Se), dissolved.....		0.005 U	0.005 U	0.005 U	0.005 U
Silver (Ag), dissolved.....		0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		22.0677	23.8479	55.2997	57.8560
Strontium (Sr), dissolved.....		0.4281	0.4273	0.2602	0.2692
Thallium (Tl), dissolved.....		0.01 U	0.01 U	0.01 U	0.01 U
Vanadium (V), dissolved.....		0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....		0.0200 U	0.0200 U	0.0875	0.0587

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-262	0288-881-070	0288-881-107	0288-881-092
Customer ID:	9-86-06-07-88-S	9-87-04-20-88	9-87-04-20-88-LD	9-87-04-20-88-
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	NR			0.0517			0.0298		NR
Antimony	(Sb), dissolved.....	NR			0.0340	U		0.0340	U	NR
Arsenic	(As), dissolved.....	64	%		0.005	U		NR		NR
Barium	(Ba), dissolved.....	NR			0.0872			0.0650		NR
Beryllium	(Be), dissolved.....	NR			0.0015			0.0010	U	NR
Cadmium	(Cd), dissolved.....	NR			0.0050	U		0.0050	U	NR
Calcium	(Ca), dissolved.....	NR			102.5523			77.2311		NR
Cesium	(Cs), dissolved.....	97	%		0.02	U		NR		NR
Chromium	(Cr), dissolved.....	NR			0.0100	U		0.0114		NR
Cobalt	(Co), dissolved.....	NR			0.0220	U		0.0220	U	NR
Copper	(Cu), dissolved.....	NR			0.0113			0.0063	U	NR
Iron	(Fe), dissolved.....	NR			0.0261			0.0484		NR
Lead	(Pb), dissolved.....	93	%		0.005	U		NR		NR
Lithium	(Li), dissolved.....	NR			0.1	U		NR		0.1 U
Magnesium	(Mg), dissolved.....	NR			9.2144			6.9213		NR
Manganese	(Mn), dissolved.....	NR			0.0051	U		0.0051	U	NR
Mercury	(Hg), dissolved.....	86	%		0.0002	U		NR		NR
Molybdenum	(Mo), dissolved.....	NR			0.0220	U		0.0220	U	NR
Nickel	(Ni), dissolved.....	NR			0.0370	U		0.0370	U	NR
Potassium	(K), dissolved.....	NR			0.8			NR		0.7
Selenium	(Se), dissolved.....	NR			0.005	U		NR		NR
Silver	(Ag), dissolved.....	NR			0.0076	U		0.0076	U	NR
Sodium	(Na), dissolved.....	NR			9.7888			7.7626		NR
Strontium	(Sr), dissolved.....	NR			0.3559			0.2646		NR
Thallium	(Tl), dissolved.....	93	%		0.01	U		NR		NR
Vanadium	(V), dissolved.....	NR			0.0360	U		0.0360	U	NR
Zinc	(Zn), dissolved.....	NR			0.0428			0.0405		NR

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 49

Sample Information

RFW Batch ID:	0288-881-108	0288-881-093	0288-881-109	0288-881-094
Customer ID:	9-87-04-20-88-S1	9-87-04-20-88-S1	9-87-04-20-88-S2	9-87-04-20-88-
Matrix:	Water	Water	Water	Water
Units:	MG/L		MG/L	

Metals

Aluminum (Al), dissolved.....	1.0293	NR	1.0257	NR	
Antimony (Sb), dissolved.....	0.9411	NR	0.9728	NR	
Arsenic (As), dissolved.....	NR	NR	NR	NR	
Barium (Ba), dissolved.....	0.1527	NR	0.1569	NR	
Beryllium (Be), dissolved.....	0.0966	NR	0.1003	NR	
Cadmium (Cd), dissolved.....	0.0998	NR	0.1002	NR	
Calcium (Ca), dissolved.....	84.0300	NR	87.1133	NR	
Cesium (Cs), dissolved.....	NR	NR	NR	NR	
Chromium (Cr), dissolved.....	1.0793	NR	1.0986	NR	
Cobalt (Co), dissolved.....	0.9884	NR	0.9972	NR	
Copper (Cu), dissolved.....	0.9281	NR	0.9301	NR	
Iron (Fe), dissolved.....	0.1292	NR	0.1235	NR	
Lead (Pb), dissolved.....	NR	NR	NR	NR	
Lithium (Li), dissolved.....	NR	90 %	NR	90 %	
Magnesium (Mg), dissolved.....	6.7040	NR	7.1120	NR	
Manganese (Mn), dissolved.....	1.0112	NR	1.0227	NR	
Mercury (Hg), dissolved.....	NR	100 %	NR	NR	
Molybdenum(Mo), dissolved.....	0.9771	NR	0.9827	NR	
Nickel (Ni), dissolved.....	1.0442	NR	1.0547	NR	
Potassium (K), dissolved.....	NR	121 %	NR	120 %	
Selenium (Se), dissolved.....	NR	NR	NR	NR	
Silver (Ag), dissolved.....	0.9524	NR	0.9551	NR	
Sodium (Na), dissolved.....	16.8530	NR	18.0332	NR	
Strontium (Sr), dissolved.....	1.2104	NR	1.2224	NR	
Thallium (Tl), dissolved.....	NR	NR	NR	NR	
Vanadium (V), dissolved.....	1.0347	NR	1.0446	NR	
Zinc (Zn), dissolved.....	0.1429	NR	0.1720	NR	

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 50

Sample Information

	RFW Batch ID:	0288-881-028	0288-881-008	0288-881-075	0288-881-117
	Customer ID:	FB-04-14-88-S	FB-04-15-88	FB-04-21-88	FB-04-28-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	NR	0.0290 U	0.0300	0.0290 U
Antimony	(Sb), dissolved.....	NR	0.0340 U	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	112 %	0.005 U	0.005 U	0.005 U
Barium	(Ba), dissolved.....	NR	0.0100 U	0.0100 U	0.0100 U
Beryllium	(Be), dissolved.....	NR	0.0010 U	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	NR	0.0050 U	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	NR	0.7500 U	0.7500 U	0.7500 U
Cesium	(Cs), dissolved.....	NR	0.02 U	0.02 U	0.02 U
Chromium	(Cr), dissolved.....	NR	0.0100 U	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	NR	0.0220 U	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	NR	0.0063 U	0.0063 U	0.0063 U
Iron	(Fe), dissolved.....	NR	0.0210	0.0197	0.0837
Lead	(Pb), dissolved.....	NR	0.005 U	0.005 U	0.005 U
Lithium	(Li), dissolved.....	NR	0.1 U	0.1 U	NR
Magnesium	(Mg), dissolved.....	NR	0.0200 U	0.0200 U	0.0734
Manganese	(Mn), dissolved.....	NR	0.0051 U	0.0051 U	0.0051 U
Mercury	(Hg), dissolved.....	NR	0.0002 U	0.0002 U	.0.0002 U
Molybdenum	(Mo), dissolved.....	NR	0.0220 U	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	NR	0.0370 U	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	NR	0.5 U	0.5 U	0.5 U
Selenium	(Se), dissolved.....	110 %	0.005 U	0.005 U	0.005 U
Silver	(Ag), dissolved.....	NR	0.0076 U	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	NR	2.1000 U	2.1000 U	2.1000 U
Strontium	(Sr), dissolved.....	NR	0.0200 U	0.0200 U	0.0200 U
Thallium	(Tl), dissolved.....	103 %	0.01 U	0.01 U	0.01 U
Vanadium	(V), dissolved.....	NR	0.0360 U	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	NR	0.0200 U	0.0200 U	0.0200 U

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-153	0288-881-175	0288-881-307	0288-881-199
	Customer ID:	FB-05-05-88	FB-05-12-88	FB-05-19-88	FB-05-26-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	0.0290 U	0.0290 U	0.0674
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Barium	(Ba), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	0.7500 U	0.7500 U	0.7500 U	0.07500 U
Cesium	(Cs), dissolved.....	0.02 U	0.02 U	0.020 U	0.02 U
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0321	0.0505	0.0094	0.0063 U
Iron	(Fe), dissolved.....	0.0202	0.0409	0.0306	0.0261
Lead	(Pb), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	0.0200 U	0.0616	0.0324	0.0200 U
Manganese	(Mn), dissolved.....	0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	0.5 U	0.5 U	0.5 U	0.5 U
Selenium	(Se), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Silver	(Ag), dissolved.....	0.0466	0.0076 U	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	2.1000 U	2.1000 U	2.1000 U	2.1000 U
Strontium	(Sr), dissolved.....	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium	(Tl), dissolved.....	0.01 U	0.01 U	0.010 U	0.01 U
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	0.0287	0.0200 U	0.0200 U	0.0200 U

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-225	0288-881-253	0288-881-277	0288-881-054
	Customer ID:	FB-06-01-88	FB-06-09-88	FB-06-17-88	REABLK
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0372	0.0338	0.0290 U	0.0290 U
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	0.005 U	0.005 U	0.005 U	NR
Barium	(Ba), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	0.7500 U	0.7500 U	0.7500 U	0.7500 U
Cesium	(Cs), dissolved.....	0.02 U	0.02 U	0.02 U	NR
Chromium	(Cr), dissolved.....	0.0135	0.0100 U	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0070	0.0084	0.0182	0.0063 U
Iron	(Fe), dissolved.....	0.0379	0.0343	0.0354	0.0102
Lead	(Pb), dissolved.....	0.005 U	0.005 U	0.005 U	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	0.0213	0.0200 U	0.0200 U	0.0200 U
Manganese	(Mn), dissolved.....	0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	NR
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	0.05 U	0.5 U	0.5 U	NR
Selenium	(Se), dissolved.....	0.005 U	0.005 U	0.005 U	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	2.3407	2.1000 U	2.1000 U	2.1000 U
Strontium	(Sr), dissolved.....	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium	(Tl), dissolved.....	0.01 U	0.01 U	0.01 U	NR
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	0.0380	0.0312	0.0200 U	0.0200 U

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 53

Sample Information

	RFW Batch ID:	0288-881-104	0288-881-106	0288-881-168	0288-881-166
	Customer ID:	REABLK	REABLK	REABLK	REABLK
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0290 U	0.0290 U	0.0300	0.0290 U
Antimony (Sb), dissolved.....		0.0340 U	0.0340 U	0.0340 U	0.0340 U
Arsenic (As), dissolved.....		NR	NR	NR	NR
Barium (Ba), dissolved.....		0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium (Be), dissolved.....		0.0010 U	0.0010 U	0.0010 U	0.0010 U
Cadmium (Cd), dissolved.....		0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....		0.7500 U	0.7500 U	1.6853	0.7500 U
Cesium (Cs), dissolved.....		NR	NR	NR	NR
Chromium (Cr), dissolved.....		0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cobalt (Co), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		0.0094	0.0097	0.0458	0.0063 U
Iron (Fe), dissolved.....		0.0275	0.0319	0.0094	0.0268
Lead (Pb), dissolved.....		NR	NR	NR	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		0.0282	0.0286	0.3879	0.0200 U
Manganese (Mn), dissolved.....		0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury (Hg), dissolved.....		NR	NR	NR	NR
Molybdenum(Mo), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium (K), dissolved.....		NR	NR	NR	NR
Selenium (Se), dissolved.....		NR	NR	NR	NR
Silver (Ag), dissolved.....		0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		2.1000 U	2.1000 U	2.7237	2.1000 U
Strontium (Sr), dissolved.....		0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium (Tl), dissolved.....		NR	NR	NR	NR
Vanadium (V), dissolved.....		0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....		0.0200 U	0.0200 U	0.0200 U	0.0200 U

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-012	0288-881-0128	0288-881-130	0288-881-183
	Customer ID:	REABLK-04-26-88	REABLK-05-17-88	REABLK-05-20-88	REABLK-06-06-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	0.0290 U	0.0290 U	0.0290 U
Antimony	(Sb), dissolved.....	0.340 U	0.0340 U	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	0.7500 U	0.7500 U	0.7500 U	0.9164
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0063 U	0.0084	0.0094	0.1136
Iron	(Fe), dissolved.....	0.0401	0.0387	0.0275	0.0275
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	0.0264	0.0234	0.0282	0.1225
Manganese	(Mn), dissolved.....	0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury	(Hg), dissolved.....	NR	NR	NR	NR
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	0.0530	0.0370 U	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	NR	NR	NR	NR
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	2.1000 U	2.1000 U	2.1000 U	2.5306
Strontium	(Sr), dissolved.....	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	0.0200 U	0.0200 U	0.0200 U	0.0280

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Other Codes: NS = Not Spiked. NR = Analyte not reported.

SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 55

Sample Information

	RFW Batch ID:	0288-881-260	0288-881-315	0288-881-314	0288-881-211
	Customer ID:	REABLK-06-07-88	REABLK-06-08-88	REABLK-06-10-88	REABLK-06-15-8
	Matrix:.	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.1196 U	0.0300	0.0290 U	0.0592
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	0.7500 U	1.6853	0.7500 U	0.7500 U
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0066	0.0458	0.0107	0.0063 U
Iron	(Fe), dissolved.....	0.0908	0.0094	0.0158	0.0540
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	0.0270	0.3879	0.0582	0.0519
Manganese	(Mn), dissolved.....	0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury	(Hg), dissolved.....	NR	NR	NR	NR
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	NR	NR	NR	NR
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	2.3517	2.7237	2.1000 U	2.1000 U
Strontium	(Sr), dissolved.....	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	0.0200 U	0.0200 U	0.0200 U	0.0200 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-241	0288-881-239	0288-881-280	0288-881-261
	Customer ID:	REABLK-06-21-88	REABLK-06-27-88	REABLK-07-07-88	REABLK-07-22-8
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.1196	0.0300	0.0290 U	0.0496
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	0.0056	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	0.7500 U	0.7500 U	0.7500 U	0.7500 U
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	0.0100 U	0.0118	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0066	0.0063 U	0.0115	0.0091
Iron	(Fe), dissolved.....	0.0908	0.0622	0.0285	0.0573
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	0.0270	0.0216	0.0200 U	0.0250
Manganese	(Mn), dissolved.....	0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury	(Hg), dissolved.....	NR	NR	NR	NR
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	NR	NR	NR	NR
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	2.3517	2.1000 U	2.1000 U	2.1000 U
Strontium	(Sr), dissolved.....	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	0.0200 U	0.0265	0.0200 U	0.0798

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Other Codes: NS = Not Spiked. NR = Analyte not reported.

SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0288-881-007	0288-881-074	0288-881-095	0288-881-116
	Customer ID:	TB-04-15-88	TB-04-21-88	TB-04-21-88-S	TB-04-28-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L		MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	0.0298	NR	0.0290 U
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	NR	0.0340 U
Arsenic	(As), dissolved.....	0.005 U	0.005 U	102 %	0.005 U
Barium	(Ba), dissolved.....	0.0100 U	0.0100 U	NR	0.0100 U
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	NR	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	NR	0.0050 U
Calcium	(Ca), dissolved.....	0.7500 U	1.5893	NR	0.7500 U
Cesium	(Cs), dissolved.....	0.02 U	0.02 U	81 %	0.02 U
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	NR	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	NR	0.0220 U
Copper	(Cu), dissolved.....	0.0063 U	0.0063 U	NR	0.0063 U
Iron	(Fe), dissolved.....	0.0137	0.0441	NR	0.0528
Lead	(Pb), dissolved.....	0.005 U	0.005 U	91 %	0.005 U
Lithium	(Li), dissolved.....	0.1 U	0.1 U	NR	NR
Magnesium	(Mg), dissolved.....	0.0200 U	0.3679	NR	0.1095
Manganese	(Mn), dissolved.....	0.0051 U	0.0062	NR	0.0051 U
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	NR	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	NR	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	NR	0.0370 U
Potassium	(K), dissolved.....	0.05 U	0.5 U	NR	0.5 U
Selenium	(Se), dissolved.....	0.005 U	0.005 U	91 %	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	NR	0.0076 U
Sodium	(Na), dissolved.....	2.1000 U	2.4534	NR	2.2982
Strontium	(Sr), dissolved.....	0.0200 U	0.0200 U	NR	0.0200 U
Thallium	(Tl), dissolved.....	0.01 U	0.01 U	80 %	0.01 U
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	NR	0.0360 U
Zinc	(Zn), dissolved.....	0.0200 U	0.0286	NR	0.0200 U

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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-152	0288-881-174	0288-881-306	0288-881-198
Customer ID:	TB-05-05-88	TB-05-12-88	TB-05-19-88	TB-05-26-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum (Al), dissolved.....	0.0290 U	0.0290 U	0.0290 U	0.0290 U
Antimony (Sb), dissolved.....	0.0340 U	0.0340 U	0.0340 U	0.0340 U
Arsenic (As), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Barium (Ba), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium (Be), dissolved.....	0.0010 U	0.0010 U	0.0010 U	0.0010 U
Cadmium (Cd), dissolved.....	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....	0.7500 U	0.7500 U	0.7500 U	0.7500 U
Cesium (Cs), dissolved.....	0.02 U	0.02 U	0.020 U	0.02 U
Chromium (Cr), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cobalt (Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper (Cu), dissolved.....	0.0109	0.0214	0.0098	0.0063 U
Iron (Fe), dissolved.....	0.0207	0.0241	0.0082	0.0200
Lead (Pb), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Lithium (Li), dissolved.....	NR	NR	NR	NR
Magnesium (Mg), dissolved.....	0.0200	0.0764	0.0245	0.0200 U
Manganese (Mn), dissolved.....	0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury (Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....	0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium (K), dissolved.....	0.5 U	0.5 U	0.5 U	0.5 U
Selenium (Se), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Silver (Ag), dissolved.....	0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium (Na), dissolved.....	2.1000 U	2.1000 U	2.1000 U	2.1000 U
Strontium (Sr), dissolved.....	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium (Tl), dissolved.....	0.01 U	0.01 U	0.010 U	0.01 U
Vanadium (V), dissolved.....	0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....	0.0200 U	0.0763	0.0447	0.0200 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
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SECOND QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-224	0288-881-252	0288-881-276
Customer ID:	TB-06-01-88	TB-06-09-88	TB-06-17-88
Matrix:	Water	Water	Water
Units:	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	0.0290	U	0.0290	U	0.0290	U
Antimony	(Sb), dissolved.....	0.0340	U	0.0340	U	0.0340	U
Arsenic	(As), dissolved.....	0.005	U	0.005	U	0.005	U
Barium	(Ba), dissolved.....	0.0100	U	0.0100	U	0.0100	U
Beryllium	(Be), dissolved.....	0.0010	U	0.0010	U	0.0010	U
Cadmium	(Cd), dissolved.....	0.0050	U	0.0050	U	0.0050	U
Calcium	(Ca), dissolved.....	0.7500	U	0.7500	U	0.7500	U
Cesium	(Cs), dissolved.....	0.02	U	0.02	U	0.02	U
Chromium	(Cr), dissolved.....	0.0100	U	0.0100	U	0.0100	U
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	0.0220	U
Copper	(Cu), dissolved.....	0.0091		0.0063	U	0.0181	
Iron	(Fe), dissolved.....	0.0236		0.0190		0.0431	
Lead	(Pb), dissolved.....	0.005	U	0.005	U	0.005	U
Lithium	(Li), dissolved.....	NR		NR		NR	
Magnesium	(Mg), dissolved.....	0.0200	U	0.0200	U	0.0200	U
Manganese	(Mn), dissolved.....	0.0051	U	0.0051	U	0.0051	U
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	0.0220	U
Nickel	(Ni), dissolved.....	0.0370	U	0.0370	U	0.0411	
Potassium	(K), dissolved.....	0.5	U	0.5	U	0.5	U
Selenium	(Se), dissolved.....	0.005	U	0.005	U	0.005	U
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	0.0076	U
Sodium	(Na), dissolved.....	2.1000	U	2.1000	U	2.1000	U
Strontium	(Sr), dissolved.....	0.0200	U	0.0200	U	0.0200	U
Thallium	(Tl), dissolved.....	0.01	U	0.01	U	0.01	U
Vanadium	(V), dissolved.....	0.0360	U	0.0360	U	0.0360	U
Zinc	(Zn), dissolved.....	0.0317		0.0200	U	0.0831	

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

APPENDIX G-4

DISSOLVED RADIONUCLIDES

SECOND QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 1

Sample Information

RFW Batch ID:	0288-881-069	0288-881-123	0288-881-231
Customer ID:	1-71-04-19-88	1-74-04-29-88	1-86-06-03-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....	5 ± 5	pci/l	8	6 ± 3	pci/l		11 ± 4	pci/l	
Gross Beta.....	14 ± 11	pci/l	24	2 ± 9	pci/l	21	6 ± 8	pci/l	19
Uranium 233, 234.....	2.1 ± 0.3	pci/l		2.2 ± 0.4	pci/l		0.38 ± 0.25	pci/l	0.59
Uranium 235.....	0.08 ± 0.04	pci/l	0.16	0.05 ± 0.04	pci/l	0.08	0.03 ± 0.04	pci/l	0.07
Uranium 238.....	1.6 ± 0.3	pci/l		1.5 ± 0.3	pci/l		0.42 ± 0.24	pci/l	0.57
Strontium 89, 90.....									
Plutonium 239, 240.....	0.01 ± 0.03	pci/l	0.30	0.00 ± 0.4	pci/l	0.15	0.00 ± 0.04	pci/l	0.11
Americium 241.....	0.02 ± 0.19	pci/l	0.78	0.00 ± 0.10	pci/l	0.37	0.00 ± 0.10	pci/l	0.54
Tritium.....	<210	pci/l		220 ± 90	pci/l		210	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-009	0288-881-043	0288-881-044
Customer ID:	10-74-04-15-88	10-74-04-15-88-LD	10-81-04-08-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....	10 ± 7	pci/l	10				0 ± 4	pci/l	9
Gross Beta.....	-5 ± 17	pci/l	41				15 ± 10	pci/l	21
Uranium 233, 234.....	5.0 ± 0.5	pci/l					0.08 ± 0.22	pci/l	1.8
Uranium 235.....	0.13 ± 0.06	pci/l					0.02 ± 0.05	pci/l	0.20
Uranium 238.....	3.5 ± 0.4	pci/l					0.09 ± 0.26	pci/l	2.1
Strontium 89, 90.....									
Plutonium 239, 240.....	0.01 ± 0.05	pci/l	0.26				0.00 ± 0.04	pci/l	0.18
Americium 241.....	0.00 ± 0.16	pci/l	0.54				0.00 ± 0.19	pci/l	0.51
Tritium.....	<200	pci/l	200	<200	pci/l	200	380 ± 100	pci/l	

SECOND QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 2

Sample Information

RFW Batch ID:	0288-881-050	0288-881-248	0288-881-258
Customer ID:	10-81-04-08-88-LD	10-86-06-07-88	10-86-06-07-88-LD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha				6 ± 5	pci/l	9			
Gross Beta				3 ± 7	pci/l	17			
Uranium 233, 234				0.00 ± 0.23	pci/l	0.90			
Uranium 235				0.00 ± 0.03	pci/l	0.10			
Uranium 238				0.00 ± 0.22	pci/l	0.87			
Strontium 89, 90									
Plutonium 239, 240				0.00 ± 0.04	pci/l	0.13			
Americium 241				0.01 ± 0.10	pci/l	0.44			
Tritium	240 ± 90	pci/l		<220	pci/l		<220	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-229			0288-881-071			0288-881-088		
Customer ID:	11-86-06-02-88			12-87-04-21-88			12-87-04-21-88-LD		
Matrix:	Water			Water			Water		

Radio Chemistry

Gross Alpha	21 ± 10	pci/l		52 ± 14	pci/l		45 ± 14	pci/l	
Gross Beta	28 ± 15	pci/l	31	57 ± 20	pci/l		47 ± 18	pci/l	
Uranium 233, 234	10 ± 1	pci/l		32 ± 3	pci/l				
Uranium 235	0.25 ± 0.07	pci/l		0.97 ± 0.13	pci/l				
Uranium 238	6.4 ± 0.6	pci/l		25 ± 2	pci/l				
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.03	pci/l	0.22	0.00 ± 0.04	pci/l	0.17			
Americium 241	0.00 ± 0.10	pci/l	0.58	0.01 ± 0.20	pci/l	0.75			
Tritium	<210	pci/l		<210	pci/l		<190	pci/l	

SECOND QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 3

Sample Information

RFW Batch ID:	0288-881-300	0288-881-311	0288-881-079
Customer ID:	14-86-05-17-88	14-86-05-17-88-LD	14-87-04-22-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	-5 ± 11	pci/l	26				8 ± 4	pci/l		
Gross Beta	2 ± 14	pci/l	32				18 ± 11	pci/l		
Uranium 233, 234	0.84 ± 0.26	pci/l	1.7				0.33 ± 0.25	pci/l	0.86	
Uranium 235	0.04 ± 0.04	pci/l	0.20				0.01 ± 0.03	pci/l	0.09	
Uranium 238	0.17 ± 0.23	pci/l	1.7				0.37 ± 0.25	pci/l	0.84	
Strontium 89, 90										
Plutonium 239, 240	0.00 ± 0.03	pci/l	0.19				0.00 ± 0.03	pci/l	0.19	
Americium 241	0.00 ± 0.09	pci/l	0.33				0.00 ± 0.16	pci/l	0.64	
Tritium	<220	pci/l		<220	pci/l		<200	pci/l		

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-301	0288-881-073	0288-881-087
Customer ID:	15-86-05-17-88	15-87-04-21-88	15-87-04-21-88-LD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	25 ± 11	pci/l		-2 ± 5	pci/l	12				
Gross Beta	26 ± 15	pci/l	33	-8 ± 14	pci/l	34				
Uranium 233, 234	15 ± 1	pci/l		1.2 ± 0.3	pci/l					
Uranium 235	0.47 ± 0.07	pci/l		0.05 ± 0.04	pci/l	0.10				
Uranium 238	13 ± 1	pci/l		0.84 ± 0.27	pci/l	0.94				
Strontium 89, 90										
Plutonium 239, 240	0.00 ± 0.03	pci/l	0.23	0.00 ± 0.05	pci/l	0.13				
Americium 241				0.00 ± 0.16	pci/l	0.75				
Tritium	<210	pci/l		<210	pci/l		<190	pci/l		

SECOND QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 4

Sample Information

RFW Batch ID:	0288-881-302			0288-881-312			0288-881-076				
Customer ID:	16-86-05-17-88			16-86-05-17-88-LD			16-87-04-22-88				
Matrix:	Water			Water			Water				
Radio Chemistry											
Gross Alpha	-2 ± 11	pci/l	25	2 ± 11	pci/l	26	12 ± 4	pci/l			
Gross Beta	12 ± 14	pci/l	32	-6 ± 14	pci/l	32	16 ± 10	pci/l			
Uranium 233, 234	0.39 ± 0.13	pci/l	0.51				3.7 ± 0.3	pci/l			
Uranium 235	0.01 ± 0.02	pci/l	0.06				0.04 ± 0.03	pci/l	0.09		
Uranium 238	0.15 ± 0.12	pci/l	0.50				1.7 ± 0.2	pci/l			
Strontium 89, 90											
Plutonium 239, 240	0.00 ± 0.03	pci/l	0.24				0.02 ± 0.04	pci/l	0.14		
Americium 241							0.02 ± 0.16	pci/l	0.51		
Tritium	<220	pci/l					<210	pci/l			

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-303			0288-881-124			0288-881-197				
Customer ID:	17-86-05-17-88			17-87-04-29-88			19-86-05-24-88				
Matrix:	Water			Water			Water				
Radio Chemistry											
Gross Alpha	34 ± 12	pci/l		18 ± 4	pci/l		17 ± 8	pci/l			
Gross Beta	23 ± 17	pci/l	33	12 ± 11	pci/l	24	17 ± 14	pci/l	32		
Uranium 233, 234	30 ± 3	pci/l		1.3 ± 0.3	pci/l		5.0 ± 0.5	pci/l			
Uranium 235	0.89 ± 0.12	pci/l		0.03 ± 0.03	pci/l	0.11	1.7 ± 0.2	pci/l			
Uranium 238	23 ± 2	pci/l		0.90 ± 0.26	pci/l	0.95	3.3 ± 0.4	pci/l			
Strontium 89, 90											
Plutonium 239, 240	0.00 ± 0.09	pci/l	0.23				0.00 ± 0.04	pci/l	0.13		
Americium 241	0.00 ± 0.09	pci/l	0.35				0.04 ± 0.06	pci/l	0.72		
Tritium	650 ± 110	pci/l		<200	pci/l		<210	pci/l			

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Client: ROCKWELL (ROCKY FLATS) Page: 5

Sample Information

RFW Batch ID:	0288-881-195	0288-881-072	0288-881-232
Customer ID:	2-60-05-24-88	2-71-04-21-88	2-86-06-03-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	63 ± 21	pci/l		20 ± 8	pci/l		21 ± 5	pci/l		
Gross Beta	110 ± 30	pci/l		25 ± 17	pci/l	38	15 ± 9	pci/l		
Uranium 233, 234	13 ± 1	pci/l		19 ± 2	pci/l		11 ± 1	pci/l		
Uranium 235	0.56 ± 0.12	pci/l		0.58 ± 0.10	pci/l		0.43 ± 0.09	pci/l		
Uranium 238	9.3 ± 1.0	pci/l		14 ± 1	pci/l		8.8 ± 0.9	pci/l		
Strontium 89, 90										
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.12	0.00 ± 0.03	pci/l	0.16	0.00 ± 0.04	pci/l	0.11	
Americium 241	0.00 ± 0.06	pci/l	1.8	0.00 ± 0.18	pci/l	0.68	0.02 ± 0.10	pci/l	0.55	
Tritium	830 ± 100	pci/l		<210	pci/l		<210	pci/l		

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-049	0288-881-052	0288-881-192
Customer ID:	2-87-04-08-88	2-87-04-08-88-LD	21-86-05-24-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	9 ± 17	pci/l	31				6 ± 4	pci/l	7	
Gross Beta	5 ± 19	pci/l	43				5 ± 8	pci/l	18	
Uranium 233, 234	7.6 ± 0.6	pci/l					1.3 ± 0.2	pci/l		
Uranium 235	0.08 ± 0.02	pci/l	0.21				0.03 ± 0.02	pci/l	0.05	
Uranium 238	3.5 ± 0.3	pci/l					0.67 ± 0.14	pci/l		
Strontium 89, 90										
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.16				0.00 ± 0.04	pci/l	0.13	
Americium 241	0.00 ± 0.16	pci/l	0.43				0.02 ± 0.09	pci/l	0.44	
Tritium	<200	pci/l		<210	pci/l		<210	pci/l		

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Client: ROCKWELL (ROCKY FLATS) Page: 6

Sample Information

RFW Batch ID:	0288-881-304	0288-881-149	0288-881-193
Customer ID:	22-86-05-18-88	22-87-05-03-88	23-86-05-24-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	11 ± 6	pci/l		6 ± 6	pci/l	10	19 ± 8	pci/l	
Gross Beta	11 ± 11	pci/l	24	5 ± 16	pci/l	36	17 ± 15	pci/l	32
Uranium 233, 234	5.4 ± 0.5	pci/l		2.8 ± 0.4	pci/l		3.3 ± 0.4	pci/l	
Uranium 235	0.17 ± 0.03	pci/l		0.14 ± 0.05	pci/l	0.13	0.04 ± 0.04	pci/l	0.07
Uranium 238	2.4 ± 0.3	pci/l		1.0 ± 0.3	pci/l	1.1	1.5 ± 0.3	pci/l	
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.15	0.00 ± 0.04	pci/l	0.16	0.00 ± 0.04	pci/l	0.13
Americium 241	0.03 ± 0.11	pci/l	0.42	0.00 ± 0.10	pci/l	0.35	0.04 ± 0.11	pci/l	0.67
Tritium	390 ± 100	pci/l		<210	pci/l		<200	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-122	0288-881-127	0288-881-308
Customer ID:	23-87-04-29-88	23-87-04-29-88-LD	25-86-05-19-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	14 ± 5	pci/l					7 ± 7	pci/l	13
Gross Beta	5 ± 11	pci/l	24				11 ± 17	pci/l	39
Uranium 233, 234	3.6 ± 0.4	pci/l					4.3 ± 0.4	pci/l	
Uranium 235	0.13 ± 0.04	pci/l	0.16				0.08 ± 0.04	pci/l	0.14
Uranium 238	1.9 ± 0.3	pci/l					1.7 ± 0.3	pci/l	
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.03	pci/l	0.22				0.02 ± 0.05	pci/l	0.15
Americium 241	0.00 ± 0.10	pci/l	0.65						
Tritium	<200	pci/l		<200	pci/l		<200	pci/l	

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Client: ROCKWELL (ROCKY FLATS) Page: 7

Sample Information

RFW Batch ID:	0288-881-182	0288-881-188	0288-881-309
Customer ID:	25-87-05-12-88	25-87-05-12-88-LD	27-86-05-19-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....	19 ± 7	pci/l					4 ± 7	pci/l	7
Gross Beta.....	8 ± 14	pci/l	33				-4 ± 17	pci/l	40
Uranium 233, 234.....	1.4 ± 0.3	pci/l					0.56 ± 0.14	pci/l	0.72
Uranium 235.....	0.04 ± 0.04	pci/l	0.10				0.00 ± 0.02	pci/l	0.08
Uranium 238.....	0.77 ± 0.26	pci/l	0.81				0.17 ± 0.13	pci/l	0.70
Strontium 89, 90.....									
Plutonium 239, 240.....	0.01 ± 0.04	pci/l	0.29				0.02 ± 0.05	pci/l	0.15
Americium 241.....	0.00 ± 0.09	pci/l	0.41				0.01 ± 0.09	pci/l	0.31
Tritium.....	<200	pci/l		<200	pci/l		<200	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-176	0288-881-077	0288-881-154
Customer ID:	28-87-05-12-88	29-87-04-22-88	3-74-05-05-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....	4 ± 4	pci/l	8	32 ± 13	pci/l		7 ± 3	pci/l	
Gross Beta.....	-10 ± 15	pci/l	36	28 ± 17	pci/l		6 ± 10	pci/l	22
Uranium 233, 234.....	5.2 ± 0.5	pci/l		15 ± 1	pci/l		2.1 ± 0.3	pci/l	
Uranium 235.....	0.07 ± 0.04	pci/l	0.14	0.50 ± 0.09	pci/l		0.06 ± 0.04	pci/l	0.15
Uranium 238.....	1.6 ± 0.3	pci/l		11 ± 1	pci/l		1.4 ± 0.3	pci/l	
Strontium 89, 90.....									
Plutonium 239, 240.....	0.00 ± 0.03	pci/l	0.14	0.02 ± 0.05	pci/l	0.16	0.01 ± 0.04	pci/l	0.14
Americium 241.....	0.01 ± 0.07	pci/l	0.65	0.00 ± 0.16	pci/l	0.58	0.00 ± 0.10	pci/l	0.44
Tritium.....	<220	pci/l		<200	pci/l		<220	pci/l	

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Client: ROCKWELL (ROCKY FLATS) Page: 8

Sample Information

RFW Batch ID:	0288-881-200	0288-881-233	0288-881-236
Customer ID:	3-82-05-26-88	3-86-06-03-88	3-86-06-03-88-LD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	8 ± 4	pci/l		24 ± 6	pci/l		24 ± 5	pci/l	
Gross Beta	3 ± 8	pci/l	18	18 ± 8	pci/l		12 ± 8	pci/l	18
Uranium 233, 234	0.00 ± 0.23	pci/l	0.63	7.6 ± 0.7	pci/l				
Uranium 235	0.00 ± 0.03	pci/l	0.07	0.22 ± 0.06	pci/l				
Uranium 238	0.00 ± 0.22	pci/l	0.60	5.8 ± 0.5	pci/l				
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.03	pci/l	0.15	0.00 ± 0.04	pci/l	0.12			
Americium 241	0.00 ± 0.09	pci/l	0.37	0.00 ± 0.10	pci/l	0.38			
Tritium	<210	pci/l		240 ± 100	pci/l				

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-120	0288-881-194	0288-881-078
Customer ID:	3-87-04-28-88	30-86-05-24-88	30-87-04-22-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	7 ± 3	pci/l		390 ± 60	pci/l		3 ± 5	pci/l	10
Gross Beta	13 ± 10	pci/l	23	290 ± 40	pci/l		1 ± 10	pci/l	21
Uranium 233, 234	0.86 ± 0.27	pci/l	0.91	210 ± 20	pci/l		0.56 ± 0.27	pci/l	0.87
Uranium 235	0.05 ± 0.04	pci/l	0.11	7.8 ± 1.1	pci/l		0.00 ± 0.03	pci/l	0.09
Uranium 238	0.35 ± 0.24	pci/l	0.87	140 ± 10	pci/l		0.53 ± 0.26	pci/l	0.85
Strontium 89, 90									
Plutonium 239, 240	0.01 ± 0.05	pci/l	0.13	0.00 ± 0.04	pci/l	0.14	0.00 ± 0.04	pci/l	0.13
Americium 241	0.02 ± 0.10	pci/l	0.32	0.02 ± 0.07	pci/l	1.6	0.01 ± 0.16	pci/l	0.83
Tritium	<200	pci/l		6100 ± 200	pci/l		<210	pci/l	

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Client: ROCKWELL (ROCKY FLATS) Page: 9

Sample Information

RFW Batch ID:	0288-881-180	0288-881-310	0288-881-313
Customer ID:	31-87-05-12-88	32-86-05-19-88	32-86-05-19-88-LD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	12 ± 6	pci/l		3 ± 4	pci/l	7	4 ± 4	pci/l	9
Gross Beta	2 ± 14	pci/l	32	-5 ± 10	pci/l	23	-6 ± 10	pci/l	23
Uranium 233, 234	0.27 ± 0.24	pci/l	0.82	0.65 ± 0.14	pci/l	0.60			
Uranium 235	0.08 ± 0.04	pci/l	0.09	0.04 ± 0.02	pci/l	0.07			
Uranium 238	0.24 ± 0.23	pci/l	0.79	0.18 ± 0.12	pci/l	0.54			
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.19	0.00 ± 0.05	pci/l	0.21			
Americium 241	0.03 ± 0.09	pci/l	1.4	0.00 ± 0.09	pci/l	0.65			
Tritium	<200	pci/l		<200	pci/l				

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-181	0288-881-150	0288-881-178
Customer ID:	32-87-05-12-88	34-86-05-03-88	34-87-05-12-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	19 ± 6	pci/l		8 ± 9	pci/l	17	6 ± 4	pci/l	7
Gross Beta	4 ± 14	pci/l	33	5 ± 24	pci/l	55	4 ± 8	pci/l	18
Uranium 233, 234	4.6 ± 0.6	pci/l		0.06 ± 0.24	pci/l	2.1	3.5 ± 0.5	pci/l	
Uranium 235	0.28 ± 0.10	pci/l		0.01 ± 0.03	pci/l	0.24	0.04 ± 0.03	pci/l	0.25
Uranium 238	2.8 ± 0.45	pci/l		0.19 ± 0.23	pci/l	2.0	1.3 ± 0.3	pci/l	2.1
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.20	0.00 ± 0.04	pci/l	0.13	0.00 ± 0.03	pci/l	0.14
Americium 241	0.10 ± 0.09	pci/l	0.91	0.02 ± 0.10	pci/l	0.33	0.00 ± 0.09	pci/l	0.53
Tritium	<200	pci/l		<210	pci/l		<210	pci/l	

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Sample Information

RFW Batch ID:	0288-881-179	0288-881-151	0288-881-164
Customer ID:	34-87-05-12-88-FD	35-86-05-03-88	35-86-05-03-88-LD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	1 ± 5	pci/l	12	6 ± 7	pci/l	13	9 ± 7	pci/l	13
Gross Beta	7 ± 8	pci/l	19	-3 ± 16	pci/l	37	9 ± 14	pci/l	32
Uranium 233, 234	3.8 ± 0.5	pci/l		1.9 ± 0.3	pci/l	2.0			
Uranium 235	0.07 ± 0.04	pci/l	0.09	0.06 ± 0.03	pci/l	0.22			
Uranium 238	1.0 ± 0.3	pci/l		1.1 ± 0.3	pci/l	1.9			
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.03	pci/l	0.16	0.02 ± 0.04	pci/l	0.22			
Americium 241	0.03 ± 0.12	pci/l	0.72	0.00 ± 0.10	pci/l	0.45			
Tritium	<210	pci/l		<210	pci/l		270 ± 100	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-155	0288-881-230	0288-881-158
Customer ID:	36-87-05-05-88	38-86-06-02-88	39-86-05-05-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	10 ± 4	pci/l		67 ± 12	pci/l		7 ± 4	pci/l	
Gross Beta	21 ± 11	pci/l	24	41 ± 15	pci/l		9 ± 10	pci/l	23
Uranium 233, 234	1.1 ± 0.3	pci/l	1.3	29 ± 3	pci/l		2.4 ± 0.4	pci/l	
Uranium 235	0.00 ± 0.03	pci/l	0.15	0.78 ± 0.12	pci/l		0.11 ± 0.04	pci/l	0.22
Uranium 238	0.63 ± 0.25	pci/l	1.2	23 ± 2	pci/l		1.4 ± 0.3	pci/l	1.9
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.05	pci/l	0.10	0.00 ± 0.04	pci/l	0.13	0.00 ± 0.03	pci/l	0.13
Americium 241				0.00 ± 0.10	pci/l	0.50	0.03 ± 0.10	pci/l	0.62
Tritium	<220	pci/l		<210	pci/l		<220	pci/l	

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Sample Information

RFW Batch ID:	0288-881-196	0288-881-305	0288-881-006
Customer ID:	39-87-05-24-88	4-60-05-18-88	4-87-04-14-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	17 ± 8	pci/l		26 ± 11	pci/l		59 ± 16	pci/l	
Gross Beta	11 ± 16	pci/l	37	15 ± 10	pci/l	23	28 ± 18	pci/l	40
Uranium 233, 234	3.2 ± 0.3	pci/l		20 ± 2	pci/l		23 ± 2	pci/l	
Uranium 235	0.37 ± 0.05	pci/l		0.64 ± 0.08	pci/l		0.55 ± 0.09	pci/l	
Uranium 238	1.5 ± 0.2	pci/l		6.5 ± 0.6	pci/l		17 ± 1	pci/l	
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.08	pci/l	0.19	0.00 ± 0.09	pci/l	0.25	0.00 ± 0.05	pci/l	0.17
Americium 241	0.00 ± 0.16	pci/l	0.60	0.00 ± 0.09	pci/l	0.37	0.00 ± 0.16	pci/l	0.60
Tritium	<210	pci/l		790 ± 110	pci/l		<220	pci/l	220

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-177	0288-881-156	0288-881-271
Customer ID:	40-86-05-12-88	41-86-05-05-88	41-87-06-15-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	17 ± 6	pci/l		9 ± 4	pci/l		27 ± 17	pci/l	34
Gross Beta	2 ± 14	pci/l	33	16 ± 10	pci/l	23	33 ± 12	pci/l	
Uranium 233, 234	4.8 ± 0.5	pci/l		3.7 ± 0.5	pci/l		5.2 ± 0.6	pci/l	
Uranium 235	0.12 ± 0.04	pci/l	0.20	0.06 ± 0.04	pci/l	0.19	0.04 ± 0.05	pci/l	0.06
Uranium 238	2.3 ± 0.3	pci/l		2.0 ± 0.3	pci/l		2.2 ± 0.4	pci/l	
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.03	pci/l	0.18	0.00 ± 0.03	pci/l	0.19	0.00 ± 0.04	pci/l	0.11
Americium 241	0.00 ± 0.09	pci/l	0.89				0.00 ± 0.10	pci/l	0.33
Tritium	<210	pci/l		<200	pci/l				

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-157	0288-881-002	0288-881-206
Customer ID:	42-86-05-05-88	43-87-04-12-88	44-86-05-27-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	7 ± 3	pci/l		29 ± 12	pci/l		10 ± 5	pci/l	
Gross Beta	10 ± 11	pci/l	24	11 ± 18	pci/l	40	9 ± 10	pci/l	23
Uranium 233, 234	1.9 ± 0.3	pci/l		15 ± 1	pci/l		1.5 ± 0.2	pci/l	
Uranium 235	0.05 ± 0.04	pci/l	0.13	0.51 ± 0.08	pci/l		0.06 ± 0.02	pci/l	0.08
Uranium 238	1.2 ± 0.3	pci/l		12 ± 1	pci/l		1.6 ± 0.2	pci/l	
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.03	pci/l	0.13	0.01 ± 0.06	pci/l	0.17	0.00 ± 0.05	pci/l	0.24
Americium 241							0.07 ± 0.09	pci/l	0.43
Tritium	<220	pci/l		<220	pci/l	220	<210	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-207	0288-881-209	0288-881-064
Customer ID:	45-86-05-27-88	45-86-05-27-88-LD	45-87-04-19-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	8 ± 4	pci/l		8 ± 4	pci/l		7 ± 8	pci/l	14
Gross Beta	2 ± 9	pci/l	21	3 ± 9	pci/l	21	21 ± 15	pci/l	32
Uranium 233, 234	0.00 ± 0.23	pci/l	0.60				1.9 ± 0.2	pci/l	
Uranium 235	0.00 ± 0.03	pci/l	0.07				0.03 ± 0.03	pci/l	0.10
Uranium 238	0.00 ± 0.22	pci/l	0.58				1.1 ± 0.2	pci/l	
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.15				0.00 ± 0.03	pci/l	0.15
Americium 241							0.10 ± 0.16	pci/l	0.81
Tritium	<210	pci/l					<200	pci/l	

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Sample Information

RFW Batch ID:	0288-881-084			0288-881-114			0288-881-125	
Customer ID:	45-87-04-19-88-LD			46-86-04-26-88			46-86-04-26-88-LD	
Matrix:	Water			Water			Water	
Radio Chemistry								
Gross Alpha				8 ± 5	pci/l			
Gross Beta				9 ± 11	pci/l	27		
Uranium 233, 234				1.8 ± 0.3	pci/l			
Uranium 235				0.05 ± 0.04	pci/l	0.13		
Uranium 238				0.80 ± 0.26	pci/l	1.1		
Strontium 89, 90								
Plutonium 239, 240				0.00 ± 0.05	pci/l	0.12		
Americium 241				0.04 ± 0.10	pci/l	0.35		
Tritium	<200	pci/l		<220	pci/l		<200	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-115			0288-881-226			0288-881-235		
Customer ID:	47-86-04-26-88			48-86-06-01-88			48-86-06-01-88-LD		
Matrix:	Water			Water			Water		
Radio Chemistry									
Gross Alpha	2 ± 4	pci/l	11	4 ± 6	pci/l	12			
Gross Beta	-6 ± 6	pci/l	22	13 ± 14	pci/l	31			
Uranium 233, 234	0.11 ± 0.24	pci/l	1.1	0.07 ± 0.23	pci/l	0.74			
Uranium 235	0.01 ± 0.03	pci/l	0.13	0.03 ± 0.04	pci/l	0.08			
Uranium 238	0.18 ± 0.23	pci/l	1.1	0.00 ± 0.22	pci/l	0.71			
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.05	pci/l	0.13	0.00 ± 0.04	pci/l	0.14			
Americium 241	0.08 ± 0.10	pci/l	0.37	0.00 ± 0.10	pci/l	0.69			
Tritium	<200	pci/l		<210	pci/l		<210	pci/l	

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Client: ROCKWELL (ROCKY FLATS) Page: 14

Sample Information

RFW Batch ID:	0288-881-227	0288-881-201	0288-881-001
Customer ID:	49-86-06-01-88	5-82-05-26-88	5-87-04-12-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	2 ± 5	pci/l	12	3 ± 4	pci/l	7	19 ± 11	pci/l	20
Gross Beta	-6 ± 13	pci/l	31	7 ± 8	pci/l	18	14 ± 17	pci/l	39
Uranium 233, 234	0.01 ± 0.24	pci/l	0.53	0.13 ± 0.24	pci/l	0.57	7.6 ± 1.5	pci/l	
Uranium 235	0.00 ± 0.03	pci/l	0.06	0.00 ± 0.03	pci/l	0.07	0.22 ± 0.07	pci/l	0.49
Uranium 238	0.00 ± 0.22	pci/l	0.51	0.18 ± 0.23	pci/l	0.55	5.2 ± 1.1	pci/l	
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.12	0.00 ± 0.04	pci/l	0.13	0.02 ± 0.06	pci/l	0.19
Americium 241	0.00 ± 0.10	pci/l	0.39	0.06 ± 0.09	pci/l	0.40			
Tritium	<200	pci/l		<210	pci/l		<220	pci/l	220

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-228	0288-881-112	0288-881-113
Customer ID:	50-86-06-01-88	51-86-04-26-88	51-86-04-26-88-FD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	6 ± 3	pci/l		2 ± 3	pci/l	6	3 ± 3	pci/l	6
Gross Beta	3 ± 9	pci/l	20	4 ± 8	pci/l	20	-3 ± 9	pci/l	22
Uranium 233, 234	0.41 ± 0.25	pci/l	0.66	0.00 ± 0.24	pci/l	1.2	0.00 ± 0.24	pci/l	1.6
Uranium 235	0.03 ± 0.04	pci/l	0.08	0.00 ± 0.03	pci/l	0.13	0.00 ± 0.03	pci/l	0.18
Uranium 238	0.17 ± 0.23	pci/l	0.64	0.00 ± 0.23	pci/l	1.1	0.05 ± 0.23	pci/l	1.5
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.11	0.02 ± 0.05	pci/l	0.11	0.01 ± 0.05	pci/l	0.13
Americium 241	0.02 ± 0.10	pci/l	0.44	0.02 ± 0.10	pci/l	0.38	0.05 ± 0.10	pci/l	0.38
Tritium	230 ± 90	pci/l		220 ± 100	pci/l		<220	pci/l	

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Client: ROCKWELL (ROCKY FLATS) Page: 15

Sample Information

RFW Batch ID:	0288-881-111	0288-881-067	0288-881-110
Customer ID:	52-86-04-26-88	52-87-04-19-88	52-87-04-19-88-LD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	1 ± 3	pci/l	11	46 ± 13	pci/l		37 ± 12	pci/l	
Gross Beta	1 ± 6	pci/l	23	32 ± 18	pci/l	40	19 ± 17	pci/l	
Uranium 233, 234	0.01 ± 0.24	pci/l	0.85	29 ± 3	pci/l				
Uranium 235	0.00 ± 0.03	pci/l	0.09	0.80 ± 0.14	pci/l				
Uranium 238	0.03 ± 0.23	pci/l	0.81	21 ± 2	pci/l				
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.12	0.00 ± 0.03	pci/l	0.15			
Americium 241	0.05 ± 0.10	pci/l	0.32	0.02 ± 0.16	pci/l	0.79			
Tritium	<220	pci/l		<210	pci/l				

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-118	0288-881-119	0288-881-046
Customer ID:	54-86-04-28-88	55-86-04-28-88	56-86-04-08-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	4 ± 4	pci/l	8	1 ± 5	pci/l	12	1 ± 4	pci/l	10
Gross Beta	1 ± 10	pci/l	24	6 ± 10	pci/l	22	-3 ± 10	pci/l	23
Uranium 233, 234	0.97 ± 0.27	pci/l	1.3	0.00 ± 0.24	pci/l	1.3	0.13 ± 0.22	pci/l	1.3
Uranium 235	0.01 ± 0.03	pci/l	0.14	0.00 ± 0.03	pci/l	0.14	0.02 ± 0.03	pci/l	0.19
Uranium 238	0.35 ± 0.24	pci/l	1.2	0.00 ± 0.23	pci/l	1.2	0.00 ± 0.26	pci/l	1.6
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.13	0.00 ± 0.05	pci/l	0.11	0.04 ± 0.04	pci/l	0.26
Americium 241	0.00 ± 0.07	pci/l	0.64	0.02 ± 0.10	pci/l	1.1	0.00 ± 0.16	pci/l	0.47
Tritium	<220	pci/l		<220	pci/l		<220	pci/l	

SECOND QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
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Client: ROCKWELL (ROCKY FLATS) Page: 16

Sample Information

RFW Batch ID:	0288-881-249	0288-881-250	0288-881-202
Customer ID:	58-87-06-07-88	59-87-06-07-88	6-82-05-26-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	4 ± 4	pci/l	10	23 ± 7	pci/l		5 ± 3	pci/l	6
Gross Beta	7 ± 7	pci/l	17	19 ± 8	pci/l		11 ± 9	pci/l	18
Uranium 233, 234	0.22 ± 0.24	pci/l	1.2	4.8 ± 0.5	pci/l		0.04 ± 0.17	pci/l	0.72
Uranium 235	0.02 ± 0.03	pci/l	0.14	0.12 ± 0.05	pci/l		0.00 ± 0.02	pci/l	0.08
Uranium 238	0.24 ± 0.23	pci/l	1.2	4.0 ± 0.5	pci/l		0.07 ± 0.17	pci/l	0.69
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.13	0.00 ± 0.04	pci/l	0.19	0.00 ± 0.03	pci/l	0.12
Americium 241	0.04 ± 0.10	pci/l	0.38	0.00 ± 0.07	pci/l	0.41	0.00 ± 0.09	pci/l	0.63
Tritium	<220	pci/l		<210			<200	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-208	0288-881-251	0288-881-068
Customer ID:	6-82-05-26-88-LD	60-87-06-07-88	61-86-04-19-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	5 ± 3	pci/l	6	4 ± 6	pci/l	12	13 ± 6	pci/l	
Gross Beta	14 ± 8	pci/l	18	6 ± 7	pci/l	17	6 ± 10	pci/l	23
Uranium 233, 234				0.00 ± 0.23	pci/l	0.65	2.8 ± 0.4	pci/l	
Uranium 235				0.00 ± 0.03	pci/l	0.07	0.03 ± 0.03	pci/l	0.16
Uranium 238				0.00 ± 0.22	pci/l	0.63	1.5 ± 0.3	pci/l	
Strontium 89, 90									
Plutonium 239, 240				0.00 ± 0.04	pci/l	0.12	0.00 ± 0.05	pci/l	0.26
Americium 241				0.00 ± 0.10	pci/l	0.44	0.00 ± 0.16	pci/l	0.80
Tritium				<210	pci/l		<210	pci/l	

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Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-254			0288-881-005			0288-881-042		
Customer ID:	61-87-06-09-88			62-86-04-14-88			62-86-04-14-88LD		
Matrix:	Water			Water			Water		
Radio Chemistry									
Gross Alpha	1 ± 4	pci/l	8	13 ± 8	pci/l	13			
Gross Beta	2 ± 7	pci/l	17	24 ± 18	pci/l	39			
Uranium 233, 234	0.00 ± 0.23	pci/l	1.5	4.1 ± 0.7	pci/l				
Uranium 235	0.00 ± 0.03	pci/l	0.17	0.10 ± 0.06	pci/l	0.23			
Uranium 238	0.00 ± 0.22	pci/l	1.5	3.2 ± 0.6	pci/l				
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.12	0.05 ± 0.06	pci/l	0.48			
Americium 241	0.00 ± 0.10	pci/l	0.32	0.00 ± 0.16	pci/l	0.48			
Tritium	<220	pci/l		<200	pci/l	200	<220	pci/l	220

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-256			0288-881-257			0288-881-003		
Customer ID:	62-87-06-09-88			63-87-06-09-88			64-86-04-12-88		
Matrix:	Water			Water			Water		
Radio Chemistry									
Gross Alpha	9 ± 4	pci/l		8 ± 5	pci/l	10	6 ± 8	pci/l	17
Gross Beta	14 ± 7	pci/l		15 ± 8	pci/l	18	5 ± 16	pci/l	38
Uranium 233, 234	0.04 ± 0.23	pci/l	1.8	4.0 ± 0.5	pci/l		3.0 ± 0.4	pci/l	
Uranium 235	0.05 ± 0.03	pci/l	0.20	0.10 ± 0.04	pci/l	0.29	0.07 ± 0.04	pci/l	0.09
Uranium 238	0.06 ± 0.22	pci/l	1.7	2.5 ± 0.4	pci/l		2.5 ± 0.4	pci/l	
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.13	0.00 ± 0.04	pci/l	0.12	0.00 ± 0.05	pci/l	0.19
Americium 241	0.00 ± 0.10	pci/l	0.30	0.00 ± 0.10	pci/l	0.32			
Tritium	<200	pci/l		<200	pci/l		<220	pci/l	220

Client: ROCKWELL (ROCKY FLATS) Page: 18

Sample Information

RFW Batch ID:	0288-881-040	0288-881-270	0288-881-278
Customer ID:	64-86-04-12-88LD	64-87-06-15-88	64-87-06-15-88-LD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha				0 ± 4	pci/l	9			
Gross Beta				4 ± 8	pci/l	17			
Uranium 233, 234				0.34 ± 0.25	pci/l	0.59			
Uranium 235				0.01 ± 0.03	pci/l	0.07			
Uranium 238				0.23 ± 0.24	pci/l	0.57			
Strontium 89, 90									
Plutonium 239, 240				0.00 ± 0.04	pci/l	0.12			
Americium 241				0.00 ± 0.10	pci/l	0.28			
Tritium	<210	pci/l	210	<220	pci/l		<220	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-065	0288-881-083	0288-881-269
Customer ID:	65-86-04-19-88	65-86-04-19-88-LD	65-87-06-15-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	10 ± 6	pci/l					6 ± 6	pci/l	14
Gross Beta	7 ± 10	pci/l	22				10 ± 8	pci/l	19
Uranium 233, 234	2.8 ± 0.4	pci/l					2.5 ± 0.4	pci/l	
Uranium 235	0.07 ± 0.04	pci/l	0.14				0.06 ± 0.05	pci/l	0.07
Uranium 238	2.3 ± 0.4	pci/l					2.0 ± 0.3	pci/l	
Strontium 89, 90									
Plutonium 239, 240	0.02 ± 0.06	pci/l	0.15				0.01 ± 0.04	pci/l	0.13
Americium 241	0.00 ± 0.16	pci/l	0.84				0.00 ± 0.10	pci/l	0.34
Tritium	<200	pci/l		<220	pci/l		<220	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-234	0288-881-237	0288-881-268
Customer ID:	66-86-06-03-88	66-86-06-03-88-LD	66-87-06-15-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	1 ± 4	pci/l	9	0 ± 4	pci/l	10	3 ± 6	pci/l	13
Gross Beta	6 ± 8	pci/l	18	5 ± 8	pci/l	18	6 ± 8	pci/l	18
Uranium 233, 234	0.12 ± 0.24	pci/l	0.86				0.84 ± 0.27	pci/l	
Uranium 235	0.00 ± 0.03	pci/l	0.10				0.00 ± 0.03	pci/l	0.09
Uranium 238	0.03 ± 0.23	pci/l	0.83				0.28 ± 0.23	pci/l	0.73
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.11				0.00 ± 0.04	pci/l	0.12
Americium 241	0.00 ± 0.10	pci/l	0.36				0.00 ± 0.10	pci/l	0.36
Tritium	<210	pci/l					<220	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-272	0288-881-279	0288-881-048
Customer ID:	67-87-06-17-88	67-87-06-17-88-LD	68-86-04-08-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	4 ± 5	pci/l	11	4 ± 5	pci/l	12	4 ± 5	pci/l	9
Gross Beta	5 ± 8	pci/l	18	6 ± 8	pci/l	19	2 ± 10	pci/l	23
Uranium 233, 234	0.07 ± 0.24	pci/l	0.55				0.04 ± 0.21	pci/l	1.8
Uranium 235	0.00 ± 0.03	pci/l	0.06				0.03 ± 0.03	pci/l	0.23
Uranium 238	0.05 ± 0.23	pci/l	0.53				0.00 ± 0.26	pci/l	2.1
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.03	pci/l	0.15				0.01 ± 0.06	pci/l	0.13
Americium 241	0.02 ± 0.08	pci/l	0.79						
Tritium	<220	pci/l		<220	pci/l		<200	pci/l	

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Sample Information

RFW Batch ID:	0288-881-051			0288-881-273			0288-881-274	
Customer ID:	68-86-04-08-88-LD			68-87-06-17-88			68-87-06-17-88-FD	
Matrix:	Water			Water			Water	
Radio Chemistry								
Gross Alpha				5 ± 6	pci/l	13	3 ± 5	pci/l 11
Gross Beta				9 ± 7	pci/l	17	3 ± 7	pci/l 18
Uranium 233, 234				0.00 ± 0.23	pci/l	0.61	0.08 ± 0.24	pci/l 0.57
Uranium 235				0.00 ± 0.03	pci/l	0.07	0.00 ± 0.03	pci/l 0.07
Uranium 238				0.02 ± 0.23	pci/l	0.58	0.05 ± 0.23	pci/l 0.55
Strontium 89, 90								
Plutonium 239, 240				0.00 ± 0.03	pci/l	0.14	0.00 ± 0.03	pci/l 0.13
Americium 241				0.05 ± 0.12	pci/l	0.47	0.05 ± 0.08	pci/l 1.2
Tritium	<210	pci/l		<210	pci/l		<210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-004			0288-881-041			0288-881-047	
Customer ID:	69-86-04-12-88			69-86-04-12-88-LD			70-86-04-08-88	
Matrix:	Water			Water			Water	
Radio Chemistry								
Gross Alpha	14 ± 8	pci/l		13 ± 7	pci/l		0 ± 7	pci/l 15
Gross Beta	4 ± 11	pci/l	25	-5 ± 10	pci/l		-7 ± 16	pci/l 39
Uranium 233, 234	11 ± 1	pci/l					0.24 ± 0.22	pci/l 1.6
Uranium 235	0.38 ± 0.07	pci/l					0.00 ± 0.03	pci/l 0.19
Uranium 238	8.0 ± 0.9	pci/l					0.09 ± 0.41	pci/l 2.0
Strontium 89, 90								
Plutonium 239, 240							0.00 ± 0.04	pci/l 0.19
Americium 241							0.00 ± 0.16	pci/l 0.50
Tritium	<200	pci/l	200	<210	pci/l	210	<200	pci/l

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Client: ROCKWELL (ROCKY FLATS) Page: 21

Sample Information

RFW Batch ID:	0288-881-275	0288-881-255	0288-881-259
Customer ID:	70-87-06-17-88	71-87-06-09-88	71-87-06-09-88-LD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	21 ± 9	pci/l		3 ± 5	pci/l	11	8 ± 6	pci/l	11
Gross Beta	19 ± 8	pci/l		4 ± 8	pci/l	17	5 ± 8	pci/l	17
Uranium 233, 234	10 ± 1	pci/l		1.1 ± 0.3	pci/l	1.2			
Uranium 235	0.28 ± 0.08	pci/l		0.06 ± 0.04	pci/l	0.13			
Uranium 238	8.4 ± 0.9	pci/l		0.94 ± 0.25	pci/l	1.1			
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.18	0.00 ± 0.04	pci/l	0.12			
Americium 241	0.00 ± 0.09	pci/l	1.4	0.00 ± 0.10	pci/l	0.29			
Tritium	<220	pci/l		<200	pci/l				

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-203	0288-881-121	0288-881-010
Customer ID:	8-81-05-26-88	8-87-04-28-88	9-74-04-15-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	11 ± 4	pci/l		25 ± 7	pci/l		22 ± 11	pci/l	
Gross Beta	15 ± 9	pci/l	18	17 ± 16	pci/l	36	14 ± 18	pci/l	41
Uranium 233, 234	3.2 ± 0.3	pci/l		4.6 ± 0.4	pci/l		12 ± 1	pci/l	
Uranium 235	0.06 ± 0.03	pci/l	0.13	0.05 ± 0.03	pci/l	0.12	0.42 ± 0.07	pci/l	
Uranium 238	2.0 ± 0.2	pci/l		1.4 ± 0.2	pci/l		9.2 ± 1.2	pci/l	
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.03	pci/l	0.12	0.00 ± 0.04	pci/l	0.20	0.00 ± 0.04	pci/l	0.25
Americium 241	0.11 ± 0.10	pci/l	2.9	0.03 ± 0.10	pci/l	0.51	0.02 ± 0.16	pci/l	0.50
Tritium	<200	pci/l		<220	pci/l		<220	pci/l	220

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Sample Information

RFW Batch ID:	0288-881-011	0288-881-204	0288-881-205
Customer ID:	9-74-04-15-88-D	9-81-05-26-88	9-81-05-26-88-FD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	21 ± 12	pci/l		6 ± 5	pci/l	10	7 ± 5	pci/l	10
Gross Beta	19 ± 16	pci/l	35	17 ± 14	pci/l	31	17 ± 14	pci/l	31
Uranium 233, 234	12 ± 1	pci/l		0.72 ± 0.26	pci/l		0.72 ± 0.19	pci/l	
Uranium 235	0.36 ± 0.06	pci/l		0.03 ± 0.04	pci/l	0.08	0.02 ± 0.03	pci/l	0.08
Uranium 238	9.5 ± 1.0	pci/l		0.54 ± 0.25	pci/l	0.67	0.60 ± 0.18	pci/l	0.66
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.22	0.00 ± 0.03	pci/l	0.14	0.00 ± 0.03	pci/l	0.13
Americium 241	0.00 ± 0.16	pci/l	0.95						
Tritium	<220	pci/l	220	<200	pci/l		<200	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-246	0288-881-247	0288-881-070
Customer ID:	9-86-06-07-88	9-86-06-07-88-FD	9-87-04-20-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	11 ± 5	pci/l		2 ± 5	pci/l	12	5 ± 5	pci/l	8
Gross Beta	5 ± 7	pci/l	17	6 ± 8	pci/l	17	9 ± 9	pci/l	19
Uranium 233, 234	0.80 ± 0.26	pci/l	0.85	1.1 ± 0.3	pci/l		0.90 ± 0.27	pci/l	1.4
Uranium 235	0.00 ± 0.03	pci/l	0.10	0.00 ± 0.03	pci/l	0.07	0.05 ± 0.03	pci/l	0.14
Uranium 238	0.17 ± 0.23	pci/l	0.82	0.35 ± 0.24	pci/l	0.57	0.47 ± 0.25	pci/l	1.4
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.05	pci/l	0.10	0.00 ± 0.04	pci/l	0.10	0.00 ± 0.05	pci/l	0.17
Americium 241	0.01 ± 0.10	pci/l	0.66	0.00 ± 0.10	pci/l	0.42	0.04 ± 0.24	pci/l	1.2
Tritium	<220	pci/l		<210	pci/l		250 ± 90	pci/l	

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Sample Information

RFW Batch ID:	0288-881-085			0288-881-008			0288-881-075		
Customer ID:	9-87-04-20-88-LD			FB-04-15-88			FB-04-21-88		
Matrix:	Water			Water			Water		
Radio Chemistry									
Gross Alpha				3 ± 3	pci/l	4	0 ± 4	pci/l	7
Gross Beta				-2 ± 9	pci/l	21	4 ± 10	pci/l	24
Uranium 233, 234				0.00 ± 0.35	pci/l	1.1	0.21 ± 0.18	pci/l	1.8
Uranium 235				0.00 ± 0.04	pci/l	0.14	0.00 ± 0.02	pci/l	0.18
Uranium 238				0.01 ± 0.36	pci/l	1.4	0.01 ± 0.17	pci/l	1.8
Strontium 89, 90									
Plutonium 239, 240				0.00 ± 0.04	pci/l	0.32	0.00 ± 0.03	pci/l	0.15
Americium 241				0.00 ± 0.16	pci/l	0.56	0.03 ± 0.16	pci/l	0.58
Tritium	220 ± 90	pci/l		<210	pci/l	210	<210	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-086			0288-881-117			0288-881-153		
Customer ID:	FB-04-21-88-LD			FB-04-28-88			FB-05-05-88		
Matrix:	Water			Water			Water		
Radio Chemistry									
Gross Alpha				3 ± 4	pci/l	8	2 ± 2	pci/l	5
Gross Beta				11 ± 12	pci/l	27	2 ± 6	pci/l	22
Uranium 233, 234				0.00 ± 0.24	pci/l	1.6	0.00 ± 0.23	pci/l	1.5
Uranium 235				0.01 ± 0.04	pci/l	0.18	0.00 ± 0.03	pci/l	0.17
Uranium 238				0.00 ± 0.23	pci/l	1.6	0.00 ± 0.22	pci/l	1.4
Strontium 89, 90									
Plutonium 239, 240				0.00 ± 0.04	pci/l	0.19	0.00 ± 0.04	pci/l	0.23
Americium 241				0.01 ± 0.10	pci/l	0.65	0.06 ± 0.07	pci/l	0.43
Tritium	<190	pci/l		<220	pci/l		<220	pci/l	

SECOND QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 24

Sample Information

RFW Batch ID:	0288-881-165			0288-881-175			0288-881-307		
Customer ID:	FB-05-05-88-LD			FB-05-12-88			FB-05-19-88		
Matrix:	Water			Water			Water		
Radio Chemistry									
Gross Alpha				-1 ± 3	pci/l	7	14 ± 6	pci/l	
Gross Beta				-5 ± 9	pci/l	22	8 ± 9	pci/l	20
Uranium 233, 234				0.00 ± 0.27	pci/l	0.76	0.00 ± 0.11	pci/l	0.50
Uranium 235				0.00 ± 0.04	pci/l	0.09	0.00 ± 0.01	pci/l	0.06
Uranium 238				0.00 ± 0.26	pci/l	0.73	0.00 ± 0.11	pci/l	0.48
Strontium 89, 90									
Plutonium 239, 240				0.00 ± 0.03	pci/l	0.16	0.00 ± 0.08	pci/l	0.23
Americium 241				0.04 ± 0.06	pci/l	0.60	0.00 ± 0.18	pci/l	1.4
Tritium	<220	pci/l		220	pci/l		<200	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-199			0288-881-210			0288-881-225		
Customer ID:	FB-05-26-88			FB-05-26-88-LD			FB-06-01-88		
Matrix:	Water			Water			Water		
Radio Chemistry									
Gross Alpha	4 ± 3	pci/l	7				4 ± 4	pci/l	7
Gross Beta	3 ± 8	pci/l	19				4 ± 8	pci/l	19
Uranium 233, 234	0.00 ± 0.23	pci/l	0.56				0.00 ± 0.23	pci/l	0.66
Uranium 235	0.00 ± 0.03	pci/l	0.06				0.00 ± 0.03	pci/l	0.08
Uranium 238	0.00 ± 0.22	pci/l	0.54				0.00 ± 0.22	pci/l	0.64
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.03	pci/l	0.13						
Americium 241	0.10 ± 0.09	pci/l	0.40						
Tritium	<210	pci/l		<200	pci/l		<210	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-253	0288-881-277	0288-881-007
Customer ID:	FB-06-09-88	FB-06-17-88	TB-04-15-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	2 ± 4	pci/l	9	18 ± 9	pci/l		3 ± 4	pci/l	7
Gross Beta	12 ± 7	pci/l	17	20 ± 10	pci/l	21	-2 ± 10	pci/l	22
Uranium 233, 234	0.00 ± 0.23	pci/l	0.67	0.00 ± 0.23	pci/l	0.66	0.12 ± 0.31	pci/l	1.3
Uranium 235	0.00 ± 0.03	pci/l	0.08	0.00 ± 0.03	pci/l	0.08	0.00 ± 0.05	pci/l	0.16
Uranium 238	0.00 ± 0.22	pci/l	0.65	0.00 ± 0.22	pci/l	0.64	0.13 ± 0.37	pci/l	1.5
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.13	0.00 ± 0.04	pci/l	0.19	0.00 ± 0.04	pci/l	0.24
Americium 241	0.00 ± 0.10	pci/l	0.28	0.02 ± 0.10	pci/l	0.74	0.04 ± 0.16	pci/l	0.52
Tritium	<210	pci/l		<210	pci/l		<220	pci/l	220

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-074	0288-881-116	0288-881-126
Customer ID:	TB-04-21-88	TB-04-28-88	TB-04-28-88-LD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	2 ± 4	pci/l	7	3 ± 4	pci/l	11			
Gross Beta	9 ± 10	pci/l	18	5 ± 7	pci/l	27			
Uranium 233, 234	0.51 ± 0.20	pci/l	0.81	0.00 ± 0.24	pci/l	1.9			
Uranium 235	0.02 ± 0.03	pci/l	0.08	0.02 ± 0.03	pci/l	0.21			
Uranium 238	0.00 ± 0.17	pci/l	0.80	0.00 ± 0.23	pci/l	1.8			
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.03	pci/l	0.14	0.00 ± 0.04	pci/l	0.14			
Americium 241	0.02 ± 0.16	pci/l	0.76	0.02 ± 0.10	pci/l	0.49			
Tritium	<190	pci/l		<210	pci/l		<200	pci/l	

SECOND QUARTER 1988 GROUNDWATER
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Client: ROCKWELL (ROCKY FLATS) Page: 26

Sample Information

RFW Batch ID:	0288-881-152	0288-881-174	0288-881-306
Customer ID:	TB-05-05-88	TB-05-12-88	TB-05-19-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	4 ± 3	pci/l	6	2 ± 3	pci/l	6	6 ± 4	pci/l	
Gross Beta	4 ± 10	pci/l	23	4 ± 10	pci/l	23	11 ± 8	pci/l	19
Uranium 233, 234	0.00 ± 0.24	pci/l	0.93	0.00 ± 0.30	pci/l	0.89	0.00 ± 0.12	pci/l	0.41
Uranium 235	0.00 ± 0.03	pci/l	0.11	0.00 ± 0.04	pci/l	0.10	0.00 ± 0.02	pci/l	0.05
Uranium 238	0.01 ± 0.23	pci/l	0.89	0.00 ± 0.29	pci/l	0.86	0.00 ± 0.11	pci/l	0.40
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.14	0.00 ± 0.03	pci/l	0.21	0.00 ± 0.09	pci/l	0.26
Americium 241	0.00 ± 0.10	pci/l	0.41	0.04 ± 0.06	pci/l	0.81			
Tritium	<220	mg/l		<220	pci/l		<200	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0288-881-198	0288-881-224	0288-881-252
Customer ID:	TB-05-26-88	TB-06-01-88	TB-06-09-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha	7 ± 4	pci/l	7	10 ± 5	pci/l		-2 ± 5	pci/l	11
Gross Beta	-3 ± 8	pci/l	19	2 ± 8	pci/l	19	7 ± 7	pci/l	17
Uranium 233, 234	0.00 ± 0.23	pci/l	0.63	0.08 ± 0.24	pci/l	0.67	0.00 ± 0.23	pci/l	0.66
Uranium 235	0.00 ± 0.03	pci/l	0.07	0.02 ± 0.04	pci/l	0.08	0.00 ± 0.03	pci/l	0.07
Uranium 238	0.00 ± 0.22	pci/l	0.61	0.00 ± 0.22	pci/l	0.65	0.00 ± 0.22	pci/l	0.63
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.03	pci/l	0.15	0.00 ± 0.06	pci/l	0.23	0.00 ± 0.03	pci/l	0.17
Americium 241	0.00 ± 0.09	pci/l	0.30	0.03 ± 0.08	pci/l	0.63	0.00 ± 0.10	pci/l	0.82
Tritium	<200	pci/l		<210	pci/l		<200	pci/l	

SECOND QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 27

Sample Information

RFW Batch ID: 0288-881-276
Customer ID: TB-06-17-88
Matrix: Water

Radio Chemistry

Gross Alpha.....	10 ± 8	pci/l	16
Gross Beta.....	12 ± 10	pci/l	22
Uranium 233, 234.....	0.00 ± 0.23	pci/l	0.62
Uranium 235.....	0.01 ± 0.04	pci/l	0.07
Uranium 238.....	0.00 ± 0.22	pci/l	0.59
Strontium 89, 90.....			
Plutonium 239, 240.....	0.00 ± 0.04	pci/l	0.30
Americium 241.....	0.05 ± 0.10	pci/l	2.3
Tritium.....	<220	pci/l	

APPENDIX H

GROUND-WATER QUALITY DATA
THIRD QUARTER 1988

APPENDIX H-1

VOLATILE ORGANICS

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 1

Sample Information

Batch ID:	0388-881-291	0388-881-001	0388-881-157	0388-881-158
Field ID:	1-74-08-11-88	10-81-07-08-88	10-86-09-20-88	10-86-09-20-88-
Collection Date:	08/11/88	07/07/88	09/20/88	09/20/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	98 %	100 %	104 %	104 %
Bromofluorobenzene:	96 %	96 %	102 %	100 %
1,2-Dichloroethane-d4:	92 %	74 %	102 %	100 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	30	31
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	1995	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	49600 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-130	0388-881-134	0388-881-135	0388-881-136
Field ID:	13-86-08-31-88	14-86-08-30-88-LD	14-86-08-30-88-S	14-86-08-30-88
Collection Date:	08/31/88	08/30/88	08/30/88	08/30/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	106 %	104 %	90 %	88 %
Bromofluorobenzene:	102 %	100 %	94 %	82 %
1,2-Dichloroethane-d4:	92 %	94 %	88 %	80 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	8 J	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	82 %	77 %
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	92 %	80 %
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	89 %	79 %
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	94 %	85 %
Chlorobenzene	5 U	5 U	94 %	85 %
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-087	0388-881-089	0388-881-085	0388-881-086
Field ID:	14-86-08-31-88	15-86-09-01-88	16-86-08-31-88	16-86-08-31-88
Collection Date:	08/31/88	09/01/88	08/31/88	08/31/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	106 %	104 %	104 %	106 %
Bromofluorobenzene:	102 %	98 %	100 %	102 %
1,2-Dichloroethane-d4:	88 %	88 %	90 %	94 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	8 J	8 J	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-088	0388-881-290	0388-881-305	0388-881-072
Field ID:	17-86-08-31-88	17-87-08-15-88	18-87-08-15-88	19-86-09-07-88
Collection Date:	08/31/88	08/15/88	08/15/88	09/07/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	104 %	104 %	102 %	104 %
Bromofluorobenzene:	100 %	102 %	100 %	104 %
1,2-Dichloroethane-d4:	96 %	96 %	94 %	90 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	7 J	5 U	5 U	11
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	45	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	12	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	99	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-074	0388-881-303	0388-881-081	0388-881-302
Field ID:	2-60-09-09-88	20-87-08-11-88	21-86-09-15-88	21-87-08-10-88
Collection Date:	09/09/88	08/11/88	09/15/88	08/10/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	104 %	104 %	102 %	102 %
Bromofluorobenzene:	102 %	100 %	96 %	100 %
1,2-Dichloroethane-d4:	88 %	94 %	96 %	102 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	11	5 U	18	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	NR	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-137	0388-881-138	0388-881-139	0388-881-073
Field ID:	22-86-09-08-88-LD	22-86-09-08-88-S	22-86-09-08-88-SD	22-86-09-09-88
Collection Date:	09/08/88	09/08/88	09/08/88	09/09/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	102 %	106 %	98 %	124 %
Bromofluorobenzene:	102 %	102 %	94 %	102 %
1,2-Dichloroethane-d4:	92 %	92 %	92 %	92 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	10	5 U	5 U	13
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	98 %	84 %	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	65	5 U	5 U	72
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	135	5 U	5 U	146
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	263	5 U	5 U	284
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	97 %	91 %	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	104 %	94 %	5 U
Chlorobenzene	5 U	103 %	96 %	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 7

Sample Information

Batch ID:	0388-881-284	0388-881-131	0388-881-285	0388-881-077
Field ID:	22-87-08-10-88	23-86-09-08-88	23-87-08-10-88	25-86-09-13-88
Collection Date:	08/10/88	09/08/88	08/10/88	09/13/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	100 %	100 %	102 %	104 %
Bromofluorobenzene:	102 %	102 %	102 %	98 %
1,2-Dichloroethane-d4:	96 %	92 %	94 %	98 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	10	5 U	16
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	NR	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-078	0388-881-239	0388-881-240	0388-881-200
Field ID:	25-86-09-13-88-FD	25-87-08-15-88DS	25-87-08-15-88DSD	25-87-08-16-88
Collection Date:	09/13/88	08/15/88	08/15/88	08/16/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	106 %	98 %	94 %	102 %
Bromofluorobenzene:	100 %	96 %	96 %	100 %
1,2-Dichloroethane-d4:	98 %	100 %	104 %	94 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	16	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	80 %	79 %	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	121
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	115 %	114 %	123
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	97 %	98 %	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	457
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	99 %	96 %	5 U
Chlorobenzene	5 U	100 %	99 %	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-201	0388-881-079	0388-881-241	0388-881-242
Field ID:	25-87-08-16-88-FD	27-86-09-13-88	27-87-08-22-88-D	27-87-08-22-88
Collection Date:	08/16/88	09/13/88	08/22/88	08/22/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	108 %	106 %	106 %	102 %
Bromofluorobenzene:	104 %	100 %	102 %	98 %
1,2-Dichloroethane-d4:	106 %	102 %	96 %	96 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	17	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	75 %
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	82	5 U	5 J	5 U
Vinyl Acetate	10 U	10 U	5 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	72	5 U	5 U	103 %
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	97 %
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	467	5 U	30	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	102 %
Chlorobenzene	5 U	5 U	5 U	98 %
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-243	0388-881-208	0388-881-209	0388-881-094
Field ID:	27-87-08-22-88D-SD	27-87-08-23-88	27-87-08-23-88-FD	28-86-09-07-8
Collection Date:	08/22/88	08/23/88	08/23/88	09/07/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	104 %	104 %	106 %	108 %
Bromofluorobenzene:	100 %	104 %	104 %	100 %
1,2-Dichloroethane-d4:	98 %	94 %	98 %	94 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	12
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	84 %	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	8	5 J	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	108 %	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	102 %	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	44	29	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	108 %	5 U	5 U	5 U
Chlorobenzene	100 %	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-236	0388-881-202	0388-881-250	0388-881-082
Field ID:	28-87-08-22-88	3-74-08-19-88	3-82-09-29-88	30-86-09-15-88
Collection Date:	08/22/88	08/19/88	09/28/88	09/15/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	106 %	104 %	102 %	100 %
Bromofluorobenzene:	106 %	102 %	102 %	102 %
1,2-Dichloroethane-d4:	100 %	96 %	114 %	96 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	17
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	495	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	49	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	118	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-211	0388-881-140	0388-881-141	0388-881-142
Field ID:	31-87-08-25-88	32-86-09-12-88-LD	32-86-09-12-88-S	32-86-09-12-88-
Collection Date:	08/25/88	09/12/88	09/12/88	09/12/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	106 %	106 %	98 %	94 %
Bromofluorobenzene:	106 %	100 %	92 %	88 %
1,2-Dichloroethane-d4:	96 %	106 %	88 %	90 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	19	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	75 %	92 %
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	91 %	87 %
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	89 %	87 %
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	95 %	93 %
Chlorobenzene	5 U	5 U	93 %	89 %
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-080	0388-881-210	0388-881-286	0388-881-237
Field ID:	32-86-09-13-88	32-87-08-23-88	34-86-08-10-88	34-87-08-24-88
Collection Date:	09/13/88	08/23/88	08/10/88	08/24/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	104 %	106 %	100 %	106 %
Bromofluorobenzene:	98 %	104 %	100 %	100 %
1,2-Dichloroethane-d4:	104 %	100 %	98 %	92 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	18	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-000	0388-881-287	0388-881-203	0388-881-304
Field ID:	34-87-09-28-88	35-86-08-10-88	36-87-08-19-88	37-86-08-11-88
Collection Date:	09/28/88	08/10/88	08/19/88	08/11/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	NR	102 %	110 %	102 %
Bromofluorobenzene:	NR	102 %	104 %	102 %
1,2-Dichloroethane-d4:	NR	100 %	108 %	100 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	403	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	9	5 U	5 U
1,1-Dichloroethane	5 U	43	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	56	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	11	5 U	5 U
Carbon Tetrachloride	5 U	5 U	37	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	71150	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	NR	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	34	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-306	0388-881-307	0388-881-308	0388-881-204
Field ID:	37-86-08-11-88-LD	37-86-08-11-88-S	37-86-08-11-88-SD	39-86-08-19-88
Collection Date:	08/11/88	08/11/88	08/11/88	08/19/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	104 %	108 %	108 %	104 %
Bromofluorobenzene:	102 %	108 %	110 %	100 %
1,2-Dichloroethane-d4:	98 %	118 %	116 %	100 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	113 %	11 %	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	102 %	108 %	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	104 %	109 %	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	107 %	109 %	5 U
Chlorobenzene	5 U	108 %	107 %	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-132	0388-881-092	0388-881-093	0388-881-238
Field ID:	39-87-09-08-88	4-60-09-07-88	4-60-09-07-88-FD	40-86-08-24-88
Collection Date:	09/08/88	09/07/88	09/07/88	08/24/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	106 %	102 %	104 %	106 %
Bromofluorobenzene:	102 %	102 %	102 %	104 %
1,2-Dichloroethane-d4:	92 %	88 %	98 %	94 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	11	11	12	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-194	0388-881-212	0388-881-254	0388-881-251
Field ID:	41-87-09-14-88	42-86-08-25-88	44-86-09-30-88	45-86-09-29-88
Collection Date:	09/14/88	08/25/88	09/30/88	09/29/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	108 %	102 %	102 %	102 %
Bromofluorobenzene:	100 %	100 %	104 %	102 %
1,2-Dichloroethane-d4:	104 %	110 %	110 %	112 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	33	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	1353	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	153	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	382	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-010	0388-881-009	0388-881-252	0388-881-253
Field ID:	46-86-07-12-88	47-86-07-12-88	48-86-09-30-88	49-86-09-30-88
Collection Date:	07/12/88	07/11/88	09/30/88	09/30/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	110 %	84 %	102 %	104 %
Bromofluorobenzene:	112 %	86 %	104 %	104 %
1,2-Dichloroethane-d4:	104 %	82 %	108 %	110 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-248	0388-881-259	0388-881-025	0388-881-026
Field ID:	5-82-09-27-88	50-86-10-04-88	51-86-07-07-88LD	51-86-07-07-88M
Collection Date:	09/27/88	10/04/88	07/07/88	07/07/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	102 %	98 %	100 %	91 %
Bromofluorobenzene:	104 %	106 %	102 %	88 %
1,2-Dichloroethane-d4:	110 %	104 %	80 %	80 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	77 %
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	86 %
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	75 %
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	86 %
Chlorobenzene	5 U	5 U	5 U	77 %
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-027	0388-881-003	0388-881-002	0388-881-024
Field ID:	51-86-07-07-88MSD	51-86-07-08-88	52-86-07-08-88	53-86-07-11-88
Collection Date:	07/07/88	07/07/88	07/07/88	07/11/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	96 %	100 %	102 %	86 %
Bromofluorobenzene:	96 %	100 %	102 %	88 %
1,2-Dichloroethane-d4:	82 %	80 %	80 %	84 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	83 %	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	94 %	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	80 %	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	107 %	5 U	5 U	5 U
Chlorobenzene	95 %	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-005	0388-881-028	0388-881-029	0388-881-006
Field ID:	54-86-07-12-88	55-86-07-11-88MS	55-86-07-11-88MSD	55-86-07-12-88
Collection Date:	07/11/88	07/11/88	07/11/88	07/11/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	86 %	84 %	78 %	86 %
Bromofluorobenzene:	88 %	82 %	82 %	88 %
1,2-Dichloroethane-d4:	84 %	92 %	88 %	84 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	81 %	80 %	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	81 %	76 %	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	85 %	81 %	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	75 %	68 %	5 U
Chlorobenzene	5 U	82 %	77 %	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-007	0388-881-133	0388-881-143	0388-881-144
Field ID:	55-86-07-12-88-FD	56-87-09-14-88	56-87-09-14-88-LD	56-87-09-14-88-
Collection Date:	07/11/88	09/14/88	09/14/88	09/14/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	86 %	100 %	100 %	92 %
Bromofluorobenzene:	88 %	100 %	100 %	88 %
1,2-Dichloroethane-d4:	88 %	100 %	100 %	90 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	20	20	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	15	5 U	135 %
1,1-Dichloroethane	5 U	17	17	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	11	10	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	114	115	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	87 %
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	6	10 U
Tetrachloroethene	5 U	6	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	93 %
Chlorobenzene	5 U	5 U	5 U	90 %
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-145	0388-881-152	0388-881-153	0388-881-249
Field ID:	56-87-09-14-88-SD	58-87-09-16-88	59-87-09-16-88	6-82-09-27-88
Collection Date:	09/14/88	09/16/88	09/16/88	09/27/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	98 %	104 %	104 %	102 %
Bromofluorobenzene:	94 %	98 %	98 %	102 %
1,2-Dichloroethane-d4:	102 %	102 %	102 %	108 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	33	41	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	135 %	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	95 %	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	6	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	100 %	5 U	5 U	5 U
Chlorobenzene	94 %	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-161	0388-881-147	0388-881-148	0388-881-149
Field ID:	60-87-09-22-88	61-87-09-23-88	62-87-09-23-88	63-87-09-23-88
Collection Date:	09/22/88	09/23/88	09/23/88	09/23/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	106 %	114 %	112 %	114 %
Bromofluorobenzene:	102 %	112 %	112 %	112 %
1,2-Dichloroethane-d4:	98 %	108 %	108 %	104 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	37	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-150	0388-881-151	0388-881-154	0388-881-162
Field ID:	64-87-09-23-88	65-87-09-23-88	66-87-09-16-88	67-87-09-22-88
Collection Date:	09/23/88	09/23/88	09/16/88	09/22/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	112 %	112 %	104 %	108 %
Bromofluorobenzene:	116 %	112 %	98 %	102 %
1,2-Dichloroethane-d4:	110 %	110 %	104 %	100 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	32	36
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	6	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	18	14	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-163	0388-881-023	0388-881-197	0388-881-198
Field ID:	68-87-09-22-88	7-82-07-07-88	70-87-09-21-88	70-87-09-21-88-
Collection Date:	09/22/88	07/07/88	09/21/88	09/21/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	106 %	100 %	104 %	94 %
Bromofluorobenzene:	106 %	100 %	102 %	92 %
1,2-Dichloroethane-d4:	98 %	76 %	98 %	90 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	36	5 U	35	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	105 %
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	91 %
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	88 %
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	93 %
Chlorobenzene	5 U	5 U	5 U	93 %
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-199	0388-881-146	0388-881-160	0388-881-255
Field ID:	70-87-09-21-88-SD	70-87-09-22-88	71-87-09-20-88	8-81-10-04-88
Collection Date:	09/21/88	09/22/88	09/20/88	10/04/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	98 %	108 %	104 %	102 %
Bromofluorobenzene:	88 %	106 %	100 %	102 %
1,2-Dichloroethane-d4:	88 %	100 %	100 %	112 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	36	31	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	28	5 U
1,1-Dichloroethene	124 %	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	91 %	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	88 %	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	93 %	5 U	5 U	5 U
Chlorobenzene	93 %	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-256	0388-881-193	0388-881-246	0388-881-247
Field ID:	8-81-10-04-88-FD	8-86-09-14-88	9-81-09-27-88	9-81-09-27-88-I
Collection Date:	10/04/88	09/14/88	09/27/88	09/27/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	102 %	106 %	102 %	100 %
Bromofluorobenzene:	102 %	98 %	102 %	102 %
1,2-Dichloroethane-d4:	110 %	102 %	110 %	108 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	33	5 U	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-195	0388-881-196	0388-881-159	0388-881-207
Field ID:	9-86-09-19-88-S	9-86-09-19-88-S2	9-86-09-20-88	EB-08-23-88
Collection Date:	09/19/88	09/19/88	09/20/88	09/23/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	96 %	102 %	104 %	106 %
Bromofluorobenzene:	88 %	96 %	100 %	104 %
1,2-Dichloroethane-d4:	92 %	98 %	102 %	96 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	32	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	110 %	98 %	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	92 %	97 %	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	90 %	94 %	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	93 %	99 %	5 U	5 U
Chlorobenzene	89 %	97 %	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-008	0388-881-289	0388-881-206	0388-881-084
Field ID:	FB-07-12-88	FB-08-15-88	FB-08-23-88	FB-08-31-88
Collection Date:	07/11/88	08/15/88	08/23/88	08/31/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	84 %	104 %	106 %	106 %
Bromofluorobenzene:	82 %	100 %	102 %	100 %
1,2-Dichloroethane-d4:	78 %	90 %	98 %	92 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	15	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	18	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-091	0388-881-076	0388-881-156	0388-881-245
Field ID:	FB-09-07-88	FB-09-13-88	FB-09-20-88	FB-09-27-88
Collection Date:	09/07/88	09/13/88	09/20/88	09/28/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	98 %	104 %	108 %	100 %
Bromofluorobenzene:	100 %	98 %	92 %	102 %
1,2-Dichloroethane-d4:	94 %	104 %	100 %	112 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	16	21	35	5 U
Acetone	10 U	10 U	8	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	16	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-258	0388-881-004	0388-881-288	0388-881-205
Field ID:	FB-10-04-88	TB-07-12-88	TB-08-15-88	TB-08-23-88
Collection Date:	10/04/88	07/11/88	08/15/88	08/23/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	102 %	84 %	108 %	106 %
Bromofluorobenzene:	102 %	84 %	104 %	102 %
1,2-Dichloroethane-d4:	110 %	80 %	92 %	96 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	74	17
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	75	16
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-090	0388-881-075	0388-881-155	0388-881-244
Field ID:	TB-09-07-88	TB-09-13-88	TB-09-20-88	TB-09-27-88
Collection Date:	09/07/88	09/13/88	09/20/88	09/27/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	104 %	106 %	106 %	102 %
Bromofluorobenzene:	98 %	96 %	100 %	102 %
1,2-Dichloroethane-d4:	92 %	96 %	102 %	110 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	16	29	34	5 U
Acetone	4 J	10 U	8	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0388-881-257	0388-881-083
Field ID:	TB-10-04-88	TB-8-31-88
Collection Date:	10/04/88	08/31/88
Units:	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	104 %	104 %
Bromofluorobenzene:	104 %	100 %
1,2-Dichloroethane-d4:	114 %	94 %

Analytes

Chloromethane	10 U	10 U
Bromomethane	10 U	10 U
Vinyl Chloride	10 U	10 U
Chloroethane	10 U	10 U
Methylene Chloride	5 U	9 J
Acetone	10 U	10 U
Carbon Disulfide	5 U	5 U
1,1-Dichloroethene	5 U	5 U
1,1-Dichloroethane	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U
Chloroform	5 U	5 U
1,2-Dichloroethane	5 U	5 U
2-Butanone	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U
Carbon Tetrachloride	5 U	5 U
Vinyl Acetate	10 U	10 U
Bromodichloromethane	5 U	5 U
1,2-Dichloropropane	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U
Trichloroethene	5 U	5 U
Dibromochloromethane	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U
Benzene	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U
2-Chloroethylvinylether	NR	NR
Bromoform	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U
2-Hexanone	10 U	10 U
Tetrachloroethene	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U
Toluene	5 U	5 U
Chlorobenzene	5 U	5 U
Ethylbenzene	5 U	5 U
Styrene	5 U	5 U
Total Xylenes	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

APPENDIX H-2

INORGANICS

02/23/89

THIRD QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 1

Sample Information

RFW Batch ID:	0388-881-291			0388-881-001			0388-881-157	
Customer ID:	1-74-08-12-88			10-81-07-08-88			10-86-09-20-88	
Matrix:	Water			Water			Water	
Inorganics								
Total Dissolved Solids.....	392	mg/l		142	mg/l		144	mg/l
Chloride.....	22.2	mg/l		3.21	mg/l		2.63	mg/l
Nitrate-Nitrite as N.....	7.28	mg/l		6.29	mg/l		4.83	mg/l
Sulfate.....	3.29	mg/l		20.4	mg/l		23.8	mg/l
HCO3- as CaCO3.....	251	mg/l		42.5	mg/l		31.6	mg/l
CO3= as CaCO3.....					mg/l			mg/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-158			0388-881-087			0388-881-089	
Customer ID:	10-86-09-20-88-FD			14-86-08-31-88			15-86-09-01-88	
Matrix:	Water			Water			Water	
Inorganics								
Total Dissolved Solids.....	129	mg/l		1374	mg/l		1107	mg/l
Chloride.....	3.60	mg/l		79.6	mg/l		77.5	mg/l
Nitrate-Nitrite as N.....	4.20	mg/l		0.08	mg/l		58.0	mg/l
Sulfate.....	24.8	mg/l		646	mg/l		152	mg/l
HCO3- as CaCO3.....	30.5	mg/l		362	mg/l		399	mg/l
CO3= as CaCO3.....		mg/l			mg/l			mg/l

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

THIRD QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-085	0388-881-086	0388-881-088
	Customer ID:	16-86-08-31-88	16-86-08-31-88-FD	17-86-08-31-88
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		1478 mg/l	1382 mg/l	4658 mg/l
Chloride		184 mg/l	188 mg/l	114 mg/l
Nitrate-Nitrite as N		0.03 mg/l	0.02 U mg/l	635 mg/l
Sulfate		566 mg/l	569 mg/l	281 mg/l
HCO3- as CaCO3		384 mg/l	312 mg/l	301 mg/l
CO3= as CaCO3		mg/l	mg/l	mg/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-290	0388-881-072	0388-881-074
	Customer ID:	17-87-08-16-88	19-86-09-07-88	2-60-09-09-88
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		410 mg/l	1074 mg/l	14400 mg/l
Chloride		37.2 mg/l	82.1 mg/l	823 mg/l
Nitrate-Nitrite as N		1.94 mg/l	0.05 mg/l	1696 mg/l
Sulfate		33.0 mg/l	156 mg/l	779 mg/l
HCO3- as CaCO3		288 mg/l	334 mg/l	83.9 mg/l
CO3= as CaCO3			mg/l	mg/l

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

THIRD QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-081		0388-881-073		0388-881-284	
	Customer ID:	21-86-09-15-88		22-86-09-09-88		22-87-08-12-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		266	mg/l	453	mg/l	586	mg/l
Chloride		2.85	mg/l	39.0	mg/l	6.56	mg/l
Nitrate-Nitrite as N		0.74	mg/l	5.09	mg/l	0.04	mg/l
Sulfate		23.7	mg/l	52.5	mg/l	337	mg/l
HCO3- as CaCO3		213	mg/l	299	mg/l	119	mg/l
CO3= as CaCO3			mg/l		mg/l		

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-285		0388-881-077		0388-881-078	
	Customer ID:	23-87-08-12-88		25-86-09-13-88		25-86-09-13-88-FD	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		446	mg/l	95	mg/l	48	mg/l
Chloride		49.0	mg/l	26.7	mg/l	26.7	mg/l
Nitrate-Nitrite as N		2.75	mg/l	0.02 U	mg/l	0.13	mg/l
Sulfate		18.1	mg/l	0.10	mg/l	0.16	mg/l
HCO3- as CaCO3		261	mg/l	1.0 U	mg/l	1.0 U	mg/l
CO3= as CaCO3					mg/l		mg/l

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-200		0388-881-201		0388-881-079	
	Customer ID:	25-87-08-16-88		25-87-08-16-88-FD		27-86-09-13-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		457	mg/l	423	mg/l	791	mg/l
Chloride		34.6	mg/l	34.8	mg/l	196	mg/l
Nitrate-Nitrite as N		7.69	mg/l	7.54	mg/l	0.62	mg/l
Sulfate		32.4	mg/l	29.7	mg/l	255	mg/l
HCO3- as CaCO3		267	mg/l	271	mg/l	198	mg/l
CO3= as CaCO3			mg/l		mg/l		mg/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-208		0388-881-209		0388-881-094	
	Customer ID:	27-87-08-23-88		27-87-08-23-88-FD		28-86-09-07-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		396	mg/l	391	mg/l	8129	mg/l
Chloride		30.5	mg/l	31.1	mg/l	241	mg/l
Nitrate-Nitrite as N		9.92	mg/l	9.23	mg/l	1097	mg/l
Sulfate		57.9	mg/l	58.6	mg/l	288	mg/l
HCO3- as CaCO3		221	mg/l	212	mg/l	443	mg/l
CO3= as CaCO3			mg/l		mg/l		mg/l

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

THIRD QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-202	0388-881-250	0388-881-082
Customer ID:	3-74-08-19-88	3-82-09-29-88	30-86-09-15-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	409	mg/l	106	mg/l	12125	mg/l
Chloride.....	43.2	mg/l	5.06	mg/l	277	mg/l
Nitrate-Nitrite as N.....	6.47	mg/l	0.95	mg/l	1611	mg/l
Sulfate.....	20.1	mg/l	15.6	mg/l	90.7	mg/l
HCO3- as CaCO3.....	267	mg/l	41.1	mg/l	338	mg/l
CO3= as CaCO3.....		mg/l		mg/l		mg/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-211	0388-881-080	0388-881-210
Customer ID:	31-87-08-25-88	32-86-09-13-88	32-87-08-23-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	308	mg/l	504	mg/l	480	mg/l
Chloride.....	9.07	mg/l	126	mg/l	36.7	mg/l
Nitrate-Nitrite as N.....	3.55	mg/l	0.17	mg/l	4.70	mg/l
Sulfate.....	113	mg/l	77.7	mg/l	59.6	mg/l
HCO3- as CaCO3.....	94.1	mg/l	239	mg/l	289	mg/l
CO3= as CaCO3.....	6.10	mg/l		mg/l		mg/l

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

THIRD QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-286		0388-881-287		0388-881-203	
	Customer ID:	34-86-08-12-88		35-86-08-12-88		36-87-08-19-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		1700	mg/l	971	mg/l	432	mg/l
Chloride		47.9	mg/l	95.6	mg/l	34.2	mg/l
Nitrate-Nitrite as N		0.02 U	mg/l	0.02 U	mg/l	4.12	mg/l
Sulfate		1076	mg/l	143	mg/l	40.5	mg/l
HCO3- as CaCO3		348	mg/l	598	mg/l	240	mg/l
CO3= as CaCO3							mg/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-204		0388-881-092		0388-881-093	
	Customer ID:	39-86-08-19-88		4-60-09-07-88		4-60-09-07-88-FD	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		381	mg/l	772	mg/l	772	mg/l
Chloride		30.9	mg/l	22.6	mg/l	22.9	mg/l
Nitrate-Nitrite as N		5.86	mg/l	58.0	mg/l	51.8	mg/l
Sulfate		53.1	mg/l	68.4	mg/l	68.4	mg/l
HCO3- as CaCO3		241	mg/l	294	mg/l	297	mg/l
CO3= as CaCO3			mg/l		mg/l		mg/l

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

THIRD QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 7

Sample Information

RFW Batch ID:	0388-881-212			0388-881-254			0388-881-251	
Customer ID:	42-86-08-25-88			44-86-09-30-88			45-86-09-29-88	
Matrix:	Water			Water			Water	
Inorganics								
Total Dissolved Solids	268		mg/l	456		mg/l	93	mg/l
Chloride	33.3		mg/l	38.7		mg/l	11.3	mg/l
Nitrate-Nitrite as N	0.02	U	mg/l	18.6		mg/l	0.94	mg/l
Sulfate	16.8		mg/l	28.6		mg/l	8.74	mg/l
HCO3- as CaCO3	170		mg/l	210		mg/l	21.6	mg/l
CO3= as CaCO3			mg/l			mg/l		mg/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-010			0388-881-009			0388-881-252	
Customer ID:	46-86-07-13-88			47-86-07-12-88			48-86-09-30-88	
Matrix:	Water			Water			Water	
Inorganics								
Total Dissolved Solids	220		mg/l	119		mg/l	152	mg/l
Chloride	3.11		mg/l	1.94		mg/l	12.7	mg/l
Nitrate-Nitrite as N	0.02	U	mg/l	0.98		mg/l	0.11	mg/l
Sulfate	4.68		mg/l	4.40		mg/l	9.68	mg/l
HCO3- as CaCO3	217		mg/l	82.6		mg/l	107	mg/l
CO3= as CaCO3			mg/l			mg/l		mg/l

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

THIRD QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-253	0388-881-248	0388-881-259
Customer ID:	49-86-09-30-88	5-82-09-27-88	50-86-10-04-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	192		mg/l	203		mg/l	150	mg/l
Chloride.....	22.8		mg/l	36.3		mg/l	11.2	mg/l
Nitrate-Nitrite as N.....	13.2		mg/l	1.52		mg/l	0.76	mg/l
Sulfate.....	9.25		mg/l	61.6		mg/l	11.1	mg/l
HCO3- as CaCO3.....	30.6		mg/l	29.1		mg/l	86.9	mg/l
CO3= as CaCO3.....			mg/l			mg/l		mg/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-003	0388-881-002	0388-881-005
Customer ID:	51-86-07-08-88	52-86-07-08-88	54-86-07-12-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	138		mg/l	138		mg/l	431	mg/l
Chloride.....	3.92		mg/l	0.38		mg/l	18.5	mg/l
Nitrate-Nitrite as N.....	4.35		mg/l	0.02	U	mg/l	0.07	mg/l
Sulfate.....	30.1		mg/l	83.3		mg/l	54.5	mg/l
HCO3- as CaCO3.....	39.6		mg/l	32.2		mg/l	268	mg/l
CO3= as CaCO3.....			mg/l			mg/l		mg/l

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

THIRD QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-006	0388-881-007	0388-881-152
	Customer ID:	55-86-07-12-88	55-86-07-12-88-FD	58-87-09-16-88
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		136 mg/l	136 mg/l	200 mg/l
Chloride		5.17 mg/l	5.18 mg/l	5.09 mg/l
Nitrate-Nitrite as N		1.29 mg/l	1.25 mg/l	3.29 mg/l
Sulfate		17.9 mg/l	17.1 mg/l	32.6 mg/l
HCO3- as CaCO3		74.2 mg/l	73.5 mg/l	120 mg/l
CO3= as CaCO3		mg/l	mg/l	mg/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-153	0388-881-249	0388-881-161
	Customer ID:	59-87-09-16-88	6-82-09-27-88	60-87-09-22-88
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		645 mg/l	100 mg/l	147 mg/l
Chloride		23.7 mg/l	4.55 mg/l	2.24 mg/l
Nitrate-Nitrite as N		0.02 U mg/l	0.49 mg/l	3.10 mg/l
Sulfate		129 mg/l	16.9 mg/l	25.0 mg/l
HCO3- as CaCO3		438 mg/l	20.3 mg/l	61.6 mg/l
CO3= as CaCO3		mg/l	mg/l	mg/l

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

THIRD QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-147		0388-881-148		0388-881-149	
	Customer ID:	61-87-09-23-88		62-87-09-23-88		63-87-09-23-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		128	mg/l	157	mg/l	483	mg/l
Chloride		1.78	mg/l	1.88	mg/l	39.4	mg/l
Nitrate-Nitrite as N		1.65	mg/l	1.48	mg/l	0.07	mg/l
Sulfate		22.3	mg/l	32.5	mg/l	23.6	mg/l
HCO3- as CaCO3		50.2	mg/l	62.3	mg/l	487	mg/l
CO3= as CaCO3			mg/l		mg/l		mg/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-150		0388-881-151		0388-881-154	
	Customer ID:	64-87-09-23-88		65-87-09-23-88		66-87-09-16-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		345	mg/l	301	mg/l	342	mg/l
Chloride		28.2	mg/l	3.53	mg/l	3.95	mg/l
Nitrate-Nitrite as N		0.12	mg/l	1.39	mg/l	4.29	mg/l
Sulfate		81.6	mg/l	75.8	mg/l	157	mg/l
HCO3- as CaCO3		183	mg/l	177	mg/l	111	mg/l
CO3= as CaCO3			mg/l		mg/l		mg/l

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

Client: ROCKWELL (ROCKY FLATS) Page: 11

Sample Information

	RFW Batch ID:	0388-881-162		0388-881-163		0388-881-146	
	Customer ID:	67-87-09-22-88		68-87-09-22-88		70-87-09-22-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		253	mg/l	177	mg/l	552	mg/l
Chloride		3.49	mg/l	3.58	mg/l	48.4	mg/l
Nitrate-Nitrite as N		1.83	mg/l	2.24	mg/l	0.17	mg/l
Sulfate		47.3	mg/l	37.6	mg/l	121	mg/l
HCO3- as CaCO3		125	mg/l	88.3	mg/l	356	mg/l
CO3= as CaCO3			mg/l		mg/l		mg/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-160		0388-881-255		0388-881-256	
	Customer ID:	71-87-09-20-88		8-81-10-04-88		8-81-10-04-88-FD	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		285	mg/l	195	mg/l	183	mg/l
Chloride		2.73	mg/l	3.90	mg/l	3.76	mg/l
Nitrate-Nitrite as N		1.40	mg/l	0.06	mg/l	0.04	mg/l
Sulfate		27.0	mg/l	17.9	mg/l	18.0	mg/l
HCO3- as CaCO3		219	mg/l	150	mg/l	151	mg/l
CO3= as CaCO3			mg/l		mg/l		mg/l

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

THIRD QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-246		0388-881-247		0388-881-159	
	Customer ID:	9-81-09-27-88		9-81-09-27-88-FD		9-86-09-20-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		250	mg/l	241	mg/l	221	mg/l
Chloride		60.2	mg/l	60.4	mg/l	9.20	mg/l
Nitrate-Nitrite as N		0.53	mg/l	0.54	mg/l	0.04	mg/l
Sulfate		44.2	mg/l	44.5	mg/l	4.84	mg/l
HCO3- as CaCO3		95.3	mg/l	94.3	mg/l	216	mg/l
CO3= as CaCO3			mg/l		mg/l		mg/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-207		0388-881-008		0388-881-289	
	Customer ID:	EB-08-23-88		FB-07-12-88		FB-08-16-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		23	mg/l	2	mg/l	23	mg/l
Chloride		12.9	mg/l	18.0	mg/l	23.6	mg/l
Nitrate-Nitrite as N		0.18	mg/l	0.06	mg/l	0.12	mg/l
Sulfate		0.88	mg/l	2.86	mg/l	0.79	mg/l
HCO3- as CaCO3		1.0 U	mg/l	1.0 U	mg/l	1.0 U	mg/l
CO3= as CaCO3			mg/l		mg/l		

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

THIRD QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-206		0388-881-084		0388-881-091	
	Customer ID:	FB-08-23-88		FB-08-31-88		FB-09-07-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		28	mg/l	40	mg/l	58	mg/l
Chloride		21.9	mg/l	22.1	mg/l	27.8	mg/l
Nitrate-Nitrite as N		0.22	mg/l	0.07	mg/l	0.08	mg/l
Sulfate		0.09	mg/l	0.23	mg/l	0.05	mg/l
HCO3- as CaCO3		1.0 U	mg/l	1.0 U	mg/l	1.0 U	mg/l
CO3= as CaCO3			mg/l		mg/l		mg/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-076		0388-881-156		0388-881-245	
	Customer ID:	FB-09-13-88		FB-09-20-88		FB-09-27-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		2183	mg/l	1.0 U	mg/l	7	mg/l
Chloride		40.4	mg/l	2.0 U	mg/l	2.0 U	mg/l
Nitrate-Nitrite as N		0.19	mg/l	0.82	mg/l	0.15	mg/l
Sulfate		1473	mg/l	0.05	mg/l	0.26	mg/l
HCO3- as CaCO3		314	mg/l	1.0 U	mg/l	1.0 U	mg/l
CO3= as CaCO3			mg/l		mg/l		mg/l

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

THIRD QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-258	0388-881-004	0388-881-288
Customer ID:	FB-10-04-88	TB-07-12-88	TB-08-16-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	18		mg/l	4		mg/l	15	mg/l
Chloride	2.0	U	mg/l	19.1		mg/l	27.9	mg/l
Nitrate-Nitrite as N	0.18		mg/l	0.04		mg/l	0.19	mg/l
Sulfate	0.14		mg/l	0.75		mg/l	0.03	mg/l
HCO3- as CaCO3	1.0	U	mg/l	1.0	U	mg/l	1.0 U	mg/l
CO3= as CaCO3			mg/l			mg/l		

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-205	0388-881-090	0388-881-075
Customer ID:	TB-08-23-88	TB-09-07-88	TB-09-13-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	28		mg/l	42		mg/l	50	mg/l
Chloride	23.5		mg/l	16.8		mg/l	43.8	mg/l
Nitrate-Nitrite as N	0.02	U	mg/l	0.05		mg/l	0.05	mg/l
Sulfate	0.34		mg/l	0.04		mg/l	0.14	mg/l
HCO3- as CaCO3	1.0	U	mg/l	1.0	U	mg/l	1.0 U	mg/l
CO3= as CaCO3			mg/l			mg/l		mg/l

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-155	0388-881-244	0388-881-257
	Customer ID:	TB-09-20-88	TB-09-27-88	TB-10-04-88
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		1 mg/l	8 mg/l	11 mg/l
Chloride		2.0 U mg/l	2.0 U mg/l	2.0 U mg/l
Nitrate-Nitrite as N		0.19 mg/l	0.41 mg/l	0.18 mg/l
Sulfate		0.22 mg/l	0.24 mg/l	0.15 mg/l
HCO3- as CaCO3		1.0 U mg/l	1.0 U mg/l	1.0 U mg/l
CO3= as CaCO3		mg/l	mg/l	mg/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-083
	Customer ID:	TB-8-31-88
	Matrix:	Water
Inorganics		
Total Dissolved Solids		25 mg/l
Chloride		18.5 mg/l
Nitrate-Nitrite as N		0.02 U mg/l
Sulfate		0.08 mg/l
HCO3- as CaCO3		1.0 U mg/l
CO3= as CaCO3		mg/l

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

APPENDIX H-3

DISSOLVED METALS

THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 1

Sample Information

RFW Batch ID:	0388-881-293	0388-881-298	0388-881-294	0388-881-299
Customer ID:	1-74-08-12-88LD	1-74-08-12-88LD	1-74-08-12-88S	1-74-08-12-88S
Matrix:	Water		Water	
Units:	MG/L	MG/L	MG/L	%

Metals

Aluminum	(Al), dissolved.....	0.0290	U	NR		1.0873		NR
Antimony	(Sb), dissolved.....	0.1029		NR		0.9677		NR
Arsenic	(As), dissolved.....	NR		0.005	U	NR		NR
Barium	(Ba), dissolved.....	0.1771		NR		0.2798		NR
Beryllium	(Be), dissolved.....	0.0010	U	NR		0.0948		NR
Cadmium	(Cd), dissolved.....	0.0050	U	NR		0.1012		NR
Calcium	(Ca), dissolved.....	91.6757		NR		104.7954		NR
Cesium	(Cs), dissolved.....	NR		0.02	U	NR		NR
Chromium	(Cr), dissolved.....	0.0174		NR		1.0357		NR
Cobalt	(Co), dissolved.....	0.0220	U	NR		0.9076		NR
Copper	(Cu), dissolved.....	0.0071		NR		0.9602		NR
Iron	(Fe), dissolved.....	0.0286		NR		0.1270		NR
Lead	(Pb), dissolved.....	NR		0.005*	U	NR		NR
Lithium	(Li), dissolved.....	NR		NR		NR		NR
Magnesium	(Mg), dissolved.....	13.2734		NR		13.7636		NR
Manganese	(Mn), dissolved.....	0.0146		NR		0.9284		NR
Mercury	(Hg), dissolved.....	NR		NR		NR		NR
Molybdenum	(Mo), dissolved.....	0.0220	U	NR		0.9662		NR
Nickel	(Ni), dissolved.....	0.0370	U	NR		1.0099		NR
Potassium	(K), dissolved.....	NR		0.9		NR		103
Selenium	(Se), dissolved.....	NR		0.005	U	NR		NR
Silver	(Ag), dissolved.....	0.0127		NR		0.8613		NR
Sodium	(Na), dissolved.....	8.7446		NR		18.1431		NR
Strontium	(Sr), dissolved.....	0.4690		NR		1.4323		NR
Thallium	(Tl), dissolved.....	NR		0.01	U	NR		NR
Vanadium	(V), dissolved.....	0.0360	U	NR		1.0045		NR
Zinc	(Zn), dissolved.....	0.0941		NR		0.1416		NR

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 2

Sample Information

	RFW Batch ID:	0388-881-300	0388-881-295	0388-881-291	0388-881-013
	Customer ID:	1-74-08-12-88S2	1-74-08-12-88SD	1-74-08-16-88	10-31-07-08-88
	Matrix:		Water	Water	Water
	Units:	%	MG/L	MG/L	%
Metals					
Aluminum	(Al), dissolved.....	NR	1.0898	0.0290 U	NR
Antimony	(Sb), dissolved.....	NR	0.9756	0.0340 U	NR
Arsenic	(As), dissolved.....	NR	NR	0.005 U	NR
Barium	(Ba), dissolved.....	NR	0.2816	0.1872	NR
Beryllium	(Be), dissolved.....	NR	0.0919	0.0010 U	NR
Cadmium	(Cd), dissolved.....	NR	0.0954	0.0050 U	NR
Calcium	(Ca), dissolved.....	NR	106.4010	95.1219	NR
Cesium	(Cs), dissolved.....	NR	NR	0.02 U	NR
Chromium	(Cr), dissolved.....	NR	1.0359	0.0100 U	NR
Cobalt	(Co), dissolved.....	NR	0.9076	0.0220 U	NR
Copper	(Cu), dissolved.....	NR	0.9618	0.0148	NR
Iron	(Fe), dissolved.....	NR	0.1138	0.0141	NR
Lead	(Pb), dissolved.....	NR	NR	0.005 U	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	NR	13.8998	13.7248	NR
Manganese	(Mn), dissolved.....	NR	0.9368	0.0143	NR
Mercury	(Hg), dissolved.....	NR	NR	0.0002 U	97 %
Molybdenum	(Mo), dissolved.....	NR	0.9683	0.0220 U	NR
Nickel	(Ni), dissolved.....	NR	1.0224	0.0370 U	NR
Potassium	(K), dissolved.....	109	NR	0.8	NR
Selenium	(Se), dissolved.....	NR	NR	0.005 U	NR
Silver	(Ag), dissolved.....	NR	0.7416	0.0076 U	NR
Sodium	(Na), dissolved.....	NR	19.0136	9.2674	NR
Strontium	(Sr), dissolved.....	NR	1.4408	0.4925	NR
Thallium	(Tl), dissolved.....	NR	NR	0.01 U	NR
Vanadium	(V), dissolved.....	NR	1.0127	0.0360 U	NR
Zinc	(Zn), dissolved.....	NR	0.1233	0.0486	NR

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-001	0388-881-157	0388-881-158	0388-881-087
Customer ID:	10-81-07-08-88	10-86-09-20-88	10-86-09-20-88-FD	14-86-08-31-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	0.0399		0.1109		0.0815		0.0459	
Antimony	(Sb), dissolved.....	0.0340	U	0.0340	U	0.0340	U	0.0448	
Arsenic	(As), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Barium	(Ba), dissolved.....	0.0467		0.1091		0.0994		0.0360	
Beryllium	(Be), dissolved.....	0.0010	U	0.0010	U	0.0010	U	0.0010	U
Cadmium	(Cd), dissolved.....	0.0050	U	0.0050	U	0.0050	U	0.0050	U
Calcium	(Ca), dissolved.....	16.4269		15.5179		15.1395		136.0502	
Cesium	(Cs), dissolved.....	0.020	U	0.020	U	0.020	U	0.020	U
Chromium	(Cr), dissolved.....	0.0100	U	0.0100	U	0.0100	U	0.0100	U
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	0.0220	U	0.0220	U
Copper	(Cu), dissolved.....	0.0205		0.0063	U	0.0063	U	0.0070	
Iron	(Fe), dissolved.....	0.2224		0.0980		0.0501		0.0246	
Lead	(Pb), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Lithium	(Li), dissolved.....	NR		NR		NR		NR	
Magnesium	(Mg), dissolved.....	3.1045		3.0735		2.9916		40.3360	
Manganese	(Mn), dissolved.....	0.0051	U	0.0576		0.0690		0.1249	
Mercury	(Hg), dissolved.....	0.0002*	U	0.0002	U	0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	0.0220	U	0.0220	U
Nickel	(Ni), dissolved.....	0.0370	U	0.0370	U	0.0370	U	0.0370	U
Potassium	(K), dissolved.....	0.5	U	0.6		0.6		6.8	
Selenium	(Se), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Silver	(Ag), dissolved.....	0.0489		0.0076	U	0.0076	U	0.0111	
Sodium	(Na), dissolved.....	12.0209		13.5346	U	14.4256	U	231.1095	
Strontium	(Sr), dissolved.....	0.0883		0.0979		0.0942		1.8612	
Thallium	(Tl), dissolved.....	0.010	U	0.010	U	0.010	U	0.010	U
Vanadium	(V), dissolved.....	0.0360	U	0.0360	U	0.0360	U	0.0360	U
Zinc	(Zn), dissolved.....	0.1111		0.0819		0.0742		0.0576	

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-109	0388-881-110	0388-881-089	0388-881-112
Customer ID:	14-86-08-31-88-LD	14-86-08-31-88-S	15-86-09-01-88	15-86-09-01-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	%	MG/L	MG/L

Metals

Aluminum (Al), dissolved.....	NR	NR	0.0483	NR
Antimony (Sb), dissolved.....	NR	NR	0.0558	NR
Arsenic (As), dissolved.....	NR	NR	0.005 U	0.005 U
Barium (Ba), dissolved.....	NR	NR	0.2615	NR
Beryllium (Be), dissolved.....	NR	NR	0.0010	NR
Cadmium (Cd), dissolved.....	NR	NR	0.0050 U	NR
Calcium (Ca), dissolved.....	NR	NR	178.0408	NR
Cesium (Cs), dissolved.....	0.020 U	116 %	0.020 U	NR
Chromium (Cr), dissolved.....	NR	NR	0.0404	NR
Cobalt (Co), dissolved.....	NR	NR	0.0220 U	NR
Copper (Cu), dissolved.....	NR	NR	0.0063 U	NR
Iron (Fe), dissolved.....	NR	NR	0.1891	NR
Lead (Pb), dissolved.....	0.005 U	83 %	0.005 U	NR
Lithium (Li), dissolved.....	NR	NR	NR	NR
Magnesium (Mg), dissolved.....	NR	NR	42.7050	NR
Manganese (Mn), dissolved.....	NR	NR	0.0054	NR
Mercury (Hg), dissolved.....	NR	107 %	0.0002 U	NR
Molybdenum(Mo), dissolved.....	NR	NR	0.0220 U	NR
Nickel (Ni), dissolved.....	NR	NR	0.0370 U	NR
Potassium (K), dissolved.....	NR	NR	2.0	NR
Selenium (Se), dissolved.....	NR	NR	0.027	0.027*
Silver (Ag), dissolved.....	NR	NR	0.0076 U	NR
Sodium (Na), dissolved.....	NR	NR	103.8727	NR
Strontium (Sr), dissolved.....	NR	NR	1.2554	NR
Thallium (Tl), dissolved.....	0.010 U	68 %	0.010 U	NR
Vanadium (V), dissolved.....	NR	NR	0.0360 U	NR
Zinc (Zn), dissolved.....	NR	NR	0.0472	NR

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-113	0388-881-085	0388-881-086	0388-881-088
	Customer ID:	15-86-09-01-88-S	16-86-08-31-88	16-86-08-31-88-FD	17-86-08-31-88
	Matrix:	Water	Water	Water	Water
	Units:	%	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		NR	0.0315	0.0290 U	0.0290 U
Antimony (Sb), dissolved.....		NR	0.0651	0.0757	0.1946
Arsenic (As), dissolved.....		92 %	0.005 U	0.005 U	0.005 U
Barium (Ba), dissolved.....		NR	0.0269	0.0276	0.2706
Beryllium (Be), dissolved.....		NR	0.0011	0.0010 U	0.0013
Cadmium (Cd), dissolved.....		NR	0.0050 U	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....		NR	145.9260	146.3779	544.3654
Cesium (Cs), dissolved.....		NR	0.020 U	0.020 U	0.020 U
Chromium (Cr), dissolved.....		NR	0.0100 U	0.0130	0.0100 U
Cobalt (Co), dissolved.....		NR	0.0220 U	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		NR	0.0067	0.0063 U	0.0063 U
Iron (Fe), dissolved.....		NR	0.0188	0.0109	0.0168
Lead (Pb), dissolved.....		NR	0.005 U	0.005 U	0.005 U
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		NR	44.7230	46.1470	172.1500
Manganese (Mn), dissolved.....		NR	0.1289	0.1309	0.0051 U
Mercury (Hg), dissolved.....		113 %	0.0002 U	0.0002 U	0.0002 U
Molybdenum(Mo), dissolved.....		NR	0.0220 U	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		NR	0.0370 U	0.0370 U	0.0370 U
Potassium (K), dissolved.....		NR	7.5	7.5	5.2
Selenium (Se), dissolved.....		104 %	0.005 U	0.005 U	0.32*
Silver (Ag), dissolved,.....		NR	0.0129	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		NR	262.8087	263.3400	260.7015
Strontium (Sr), dissolved.....		NR	1.8809	1.9017	4.7162
Thallium (Tl), dissolved.....		NR	0.010 U	0.010 U	0.010 U
Vanadium (V), dissolved.....		NR	0.0360 U	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....		NR	0.0344	0.0585	0.0380

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-111	0388-881-290	0388-881-301	0388-881-072
	Customer ID:	17-86-08-31-88-S	17-87-08-16-88	17-87-08-16-88S	19-86-09-07-88
	Matrix:	Water	Water		Water
	Units:	%	MG/L	%	MG/L
Metals					
Aluminum (Al), dissolved.....		NR	0.0290 U	NR	0.0290 U
Antimony (Sb), dissolved.....		NR	0.0340 U	NR	0.0340 U
Arsenic (As), dissolved.....		NR	0.005 U	NR	0.003 J
Barium (Ba), dissolved.....		NR	0.1194	NR	0.1572
Beryllium (Be), dissolved.....		NR	0.0010 U	NR	0.0010 U
Cadmium (Cd), dissolved.....		NR	0.0050 U	NR	0.0050 U
Calcium (Ca), dissolved.....		NR	108.9453	NR	130.8454
Cesium (Cs), dissolved.....		122 %	0.02 U	106	0.020 U
Chromium (Cr), dissolved.....		NR	0.0100 U	NR	0.0104
Cobalt (Co), dissolved.....		NR	0.0220 U	NR	0.0220 U
Copper (Cu), dissolved.....		NR	0.0491	NR	0.0063 U
Iron (Fe), dissolved.....		NR	0.0227	NR	1.6329
Lead (Pb), dissolved.....		89 %	0.004J*	105	0.005 U
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		NR	10.0232	NR	38.1490
Manganese (Mn), dissolved.....		NR	0.0979	NR	2.6842
Mercury (Hg), dissolved.....		NR	0.0002 U	NR	0.0002 U
Molybdenum(Mo), dissolved.....		NR	0.0220 U	NR	0.0220 U
Nickel (Ni), dissolved.....		NR	0.2888	NR	0.0370 U
Potassium (K), dissolved.....		NR	3.9	NR	2.7
Selenium (Se), dissolved.....		NR	0.005 U	NR	0.005 U
Silver (Ag), dissolved.....		NR	0.0076 U	NR	0.0076 U
Sodium (Na), dissolved.....		NR	24.3427	NR	189.3525
Strontium (Sr), dissolved.....		NR	0.4557	NR	1.0742
Thallium (Tl), dissolved.....		71 %	0.01 U	108	0.010 U
Vanadium (V), dissolved.....		NR	0.0360 U	NR	0.0360 U
Zinc (Zn), dissolved.....		NR	0.1400	NR	0.0717

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 7

Sample Information

	RFW Batch ID:	0388-881-118	0388-881-074	0388-881-120	0388-881-128
	Customer ID:	19-86-09-07-88-S	2-60-09-09-88	2-60-09-09-88-S	21-86-09-13-88
	Matrix:	Water	Water	Water	Water
	Units:	%	MG/L	%	MG/L
Metals					
Aluminum	(Al), dissolved.....	NR	0.0290 U	NR	NR
Antimony	(Sb), dissolved.....	NR	0.6280	NR	NR
Arsenic	(As), dissolved.....	92 %	0.003 J	91 %	0.005 U
Barium	(Ba), dissolved.....	NR	0.2174	NR	NR
Beryllium	(Be), dissolved.....	NR	0.0017	NR	NR
Cadmium	(Cd), dissolved.....	NR	0.0050 U	NR	NR
Calcium	(Ca), dissolved.....	NR	1687.3959	NR	NR
Cesium	(Cs), dissolved.....	120 %	0.020 U	NR	0.020 U
Chromium	(Cr), dissolved.....	NR	0.0302	NR	NR
Cobalt	(Co), dissolved.....	NR	0.0220 U	NR	NR
Copper	(Cu), dissolved.....	NR	0.0194	NR	NR
Iron	(Fe), dissolved.....	NR	0.2691	NR	NR
Lead	(Pb), dissolved.....	99 %	0.005 U	NR	0.005 U
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	NR	553.2686	NR	NR
Manganese	(Mn), dissolved.....	NR	0.2395	NR	NR
Mercury	(Hg), dissolved.....	106 %	0.0002 U	103 %	0.0002 U
Molybdenum	(Mo), dissolved.....	NR	0.0220 U	NR	NR
Nickel	(Ni), dissolved.....	NR	0.0370 U	NR	NR
Potassium	(K), dissolved.....	NR	75	NR	NR
Selenium	(Se), dissolved.....	95 %	0.21*	109* %	0.005 U
Silver	(Ag), dissolved.....	NR	0.0076 U	NR	NR
Sodium	(Na), dissolved.....	NR	1173.0037	NR	NR
Strontium	(Sr), dissolved.....	NR	22.5668	NR	NR
Thallium	(Tl), dissolved.....	100 %	0.010 U	NR	0.010 U
Vanadium	(V), dissolved.....	NR	0.0360 U	NR	NR
Zinc	(Zn), dissolved.....	NR	4.8373	NR	NR

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 8

Sample Information

	RFW Batch ID:	0388-881-081		0388-881-073		0388-881-119		0388-881-284	
	Customer ID:	21-86-09-15-88		22-86-09-09-88		22-86-09-09-88-LD		22-87-08-11-88	
	Matrix:	Water		Water		Water		Water	
	Units:	MG/L		MG/L		MG/L		MG/L	
Metals									
Aluminum	(Al), dissolved.....	0.0290	U	0.0897		NR		0.0344	
Antimony	(Sb), dissolved.....	0.0340	U	0.0340	U	NR		0.0340	U
Arsenic	(As), dissolved.....	0.005	U	0.005	U	0.005	U	0.003	J
Barium	(Ba), dissolved.....	0.1294		0.1273		NR		0.0363	
Beryllium	(Be), dissolved.....	0.0010	U	0.0010	U	NR		0.0010	U
Cadmium	(Cd), dissolved.....	0.0050	U	0.0050	U	NR		0.0050	U
Calcium	(Ca), dissolved.....	49.1292		64.7091		NR		44.8694	
Cesium	(Cs), dissolved.....	0.020	U	0.020	U	0.020	U	0.02	U
Chromium	(Cr), dissolved.....	0.0100	U	0.0173		NR		0.0100	U
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	NR		0.0220	U
Copper	(Cu), dissolved.....	0.0063	U	0.0072		NR		0.0179	
Iron	(Fe), dissolved.....	0.0305		0.9180		NR		0.0151	
Lead	(Pb), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Lithium	(Li), dissolved.....	NR		NR		NR		NR	
Magnesium	(Mg), dissolved.....	11.1869		10.1261		NR		10.9422	
Manganese	(Mn), dissolved.....	0.0646		0.2858		NR		0.0372	
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	NR		0.0657	
Nickel	(Ni), dissolved.....	0.0370	U	0.2030		NR		0.0370	U
Potassium	(K), dissolved.....	2.8		6.7		NR		15	
Selenium	(Se), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	NR		0.0076	U
Sodium	(Na), dissolved.....	34.1902		85.0753		NR		126.4044	
Strontium	(Sr), dissolved.....	0.4171		0.4938		NR		0.6219	
Thallium	(Tl), dissolved.....	0.010	U	0.010	U	0.010	U	0.01	U
Vanadium	(V), dissolved.....	0.0360	U	0.0360	U	NR		0.0360	U
Zinc	(Zn), dissolved.....	0.0428		0.0331		NR		0.0309	

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 9

Sample Information

RFW Batch ID:	0388-881-296	0388-881-285	0388-881-077	0388-881-078
Customer ID:	22-87-08-11-88S	23-87-08-11-88	25-86-09-13-88	25-86-09-13-88
Matrix:		Water	Water	Water
Units:	%	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	NR	0.0290	U	0.0290	U	0.0329	
Antimony	(Sb), dissolved.....	NR	0.0340	U	0.1299		0.1189	
Arsenic	(As), dissolved.....	NR	0.005	U	0.005	U	0.005	U
Barium	(Ba), dissolved.....	NR	0.1538		0.0316		0.0210	
Beryllium	(Be), dissolved.....	NR	0.0010	U	0.0010	U	0.0010	U
Cadmium	(Cd), dissolved.....	NR	0.0050	U	0.0050	U	0.0050	U
Calcium	(Ca), dissolved.....	NR	115.5801		210.1074		240.2633	
Cesium	(Cs), dissolved.....	NR	0.02	U	0.020	U	0.020	U
Chromium	(Cr), dissolved.....	NR	0.0100	U	0.0256		0.0146	
Cobalt	(Co), dissolved.....	NR	0.0220	U	0.0220	U	0.0220	U
Copper	(Cu), dissolved.....	NR	0.0153		0.0063	U	0.0063	U
Iron	(Fe), dissolved.....	NR	0.0184		0.0171		0.0174	
Lead	(Pb), dissolved.....	NR	0.005	U	0.005	U	0.005	U
Lithium	(Li), dissolved.....	NR	NR		NR		NR	
Magnesium	(Mg), dissolved.....	NR	12.9021		95.5636		94.1822	
Manganese	(Mn), dissolved.....	NR	0.0112		0.1448		0.1434	
Mercury	(Hg), dissolved.....	102	0.0002	U	0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	NR	0.0220	U	0.0220	U	0.0220	U
Nickel	(Ni), dissolved.....	NR	0.0370	U	0.0370	U	0.0370	U
Potassium	(K), dissolved.....	NR	2.0		15		15	
Selenium	(Se), dissolved.....	NR	0.005	U	0.005	U	0.005	U
Silver	(Ag), dissolved.....	NR	0.0076	U	0.0076	U	0.0076	U
Sodium	(Na), dissolved.....	NR	9.5551		295.6885		295.3115	
Strontium	(Sr), dissolved.....	NR	0.5112		3.5788		0.3581	
Thallium	(Tl), dissolved.....	NR	0.01	U	0.010	U	0.010	U
Vanadium	(V), dissolved.....	NR	0.0360	U	0.0360	U	0.0360	U
Zinc	(Zn), dissolved.....	NR	0.0540		0.0567		0.0340	

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 10

Sample Information

	RFW Batch ID:	0388-881-126	0388-881-125	0388-881-200	0388-881-201
	Customer ID:	25-86-09-13-88-FDLD	25-86-09-13-88-LD	25-87-08-16-88	25-87-08-16-88-
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	NR	NR	0.0897	0.0290 U
Antimony	(Sb), dissolved.....	NR	NR	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	NR	NR	0.005 U	0.005 U
Barium	(Ba), dissolved.....	NR	NR	0.0937	0.0978
Beryllium	(Be), dissolved.....	NR	NR	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	NR	NR	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	NR	NR	119.8486	128.1111
Cesium	(Cs), dissolved.....	0.020 U	0.020 U	0.020 U	0.020 U
Chromium	(Cr), dissolved.....	NR	NR	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	NR	NR	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	NR	NR	0.0063 U	0.0063 U
Iron	(Fe), dissolved.....	NR	NR	0.0319	0.0189
Lead	(Pb), dissolved.....	0.005 U	0.005 U	0.005* U	0.005 U
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	NR	NR	7.1069	7.4560
Manganese	(Mn), dissolved.....	NR	NR	0.0051 U	0.0051 U
Mercury	(Hg), dissolved.....	NR	NR	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	NR	NR	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	NR	NR	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	NR	NR	0.5	NR
Selenium	(Se), dissolved.....	NR	NR	0.005 U	0.005 U
Silver	(Ag), dissolved.....	NR	NR	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	NR	NR	13.3006	12.8617
Strontium	(Sr), dissolved.....	NR	NR	0.2606	0.2766
Thallium	(Tl), dissolved.....	0.010 U	0.010 U	0.010 U	0.010 U
Vanadium	(V), dissolved.....	NR	NR	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	NR	NR	0.0264	0.0200 U

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 11

Sample Information

	RFW Batch ID:	0388-881-214	0388-881-219	0388-881-220	0388-881-223
	Customer ID:	25-87-08-16-88-FDLB	25-87-08-16-88-S	25-87-08-16-88-S	25-87-08-16-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	%
Metals					
Aluminum (Al), dissolved.....		0.0290 U	1.1032	1.0817	NR
Antimony (Sb), dissolved.....		0.0340 U	1.0090	0.5592	NR
Arsenic (As), dissolved.....		NR	NR	NR	102 %
Barium (Ba), dissolved.....		0.1015	0.1926	0.1954	NR
Beryllium (Be), dissolved.....		0.0010 U	0.0939	0.0838	NR
Cadmium (Cd), dissolved.....		0.0050 U	0.0956	0.1016	NR
Calcium (Ca), dissolved.....		130.5900	135.3159	141.0330	NR
Cesium (Cs), dissolved.....		NR	NR	NR	NR
Chromium (Cr), dissolved.....		0.0100 U	1.0336	0.9968	NR
Cobalt (Co), dissolved.....		0.0220 U	0.9282	0.9424	NR
Copper (Cu), dissolved.....		0.0063 U	0.9779	0.9730	NR
Iron (Fe), dissolved.....		0.0219	0.1230	0.1124	NR
Lead (Pb), dissolved.....		NR	NR	NR	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		7.6948	7.3960	7.8422	NR
Manganese (Mn), dissolved.....		0.0051 U	0.9615	0.9774	NR
Mercury (Hg), dissolved.....		NR	NR	NR	95 %
Molybdenum(Mo), dissolved.....		0.0220 U	1.0026	0.7479	NR
Nickel (Ni), dissolved.....		0.0370 U	1.0261	1.0146	NR
Potassium (K), dissolved.....		NR	NR	NR	96 %
Selenium (Se), dissolved.....		NR	NR	NR	96 %
Silver (Ag), dissolved.....		0.0076 U	0.8624	0.0484	NR
Sodium (Na), dissolved.....		13.2329	22.9909	23.7524	NR
Strontium (Sr), dissolved.....		0.2838	1.2279	1.2325	NR
Thallium (Tl), dissolved.....		NR	NR	NR	NR
Vanadium (V), dissolved.....		0.0360 U	1.0368	1.0134	NR
Zinc (Zn), dissolved.....		0.0200 U	0.1255	0.1265	NR

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-224	0388-881-079	0388-881-127	0388-881-208
Customer ID:	25-87-08-16-88-S	27-86-09-13-88	27-86-09-13-88-S	27-87-08-23-88
Matrix:	Water	Water	Water	Water
Units:	%	MG/L	%	MG/L

Metals

Aluminum	(Al), dissolved.....	NR	0.0296		NR	0.0522	
Antimony	(Sb), dissolved.....	NR	0.0340	U	NR	0.0340	U
Arsenic	(As), dissolved.....	NR	0.005	U	NR	0.005	U
Barium	(Ba), dissolved.....	NR	0.0315		NR	0.1117	
Beryllium	(Be), dissolved.....	NR	0.0010	U	NR	0.0010	U
Cadmium	(Cd), dissolved.....	NR	0.0050	U	NR	0.0050	U
Calcium	(Ca), dissolved.....	NR	47.3837		NR	85.0476	
Cesium	(Cs), dissolved.....	NR	0.020	U	NR	0.020	U
Chromium	(Cr), dissolved.....	NR	0.0134		NR	0.0100	U
Cobalt	(Co), dissolved.....	NR	0.0220	U	NR	0.0220	U
Copper	(Cu), dissolved.....	NR	0.0903		NR	0.0076	
Iron	(Fe), dissolved.....	NR	0.0210		NR	0.0216	
Lead	(Pb), dissolved.....	NR	0.005	U	NR	0.005	U
Lithium	(Li), dissolved.....	NR	NR		NR	NR	
Magnesium	(Mg), dissolved.....	NR	13.0227		NR	15.0260	
Manganese	(Mn), dissolved.....	NR	0.0776		NR	0.0051	U
Mercury	(Hg), dissolved.....	NR	0.0002	U	96 %	0.0002	U
Molybdenum	(Mo), dissolved.....	NR	0.0220	U	NR	0.0220	U
Nickel	(Ni), dissolved.....	NR	0.0500		NR	0.0370	U
Potassium	(K), dissolved.....	106 %	6.1		NR	4.0	
Selenium	(Se), dissolved.....	NR	0.005	U	NR	0.005	U
Silver	(Ag), dissolved.....	NR	0.0076	U	NR	0.0076	U
Sodium	(Na), dissolved.....	NR	210.8754		NR	27.5836	
Strontium	(Sr), dissolved.....	NR	0.7020		NR	0.4937	
Thallium	(Tl), dissolved.....	NR	0.010	U	NR	0.010	U
Vanadium	(V), dissolved.....	NR	0.0360	U	NR	0.0360	U
Zinc	(Zn), dissolved.....	NR	0.0375		NR	0.0200	U

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 13

Sample Information

	RFW Batch ID:	0388-881-209	0388-881-216	0388-881-228	0388-881-221
	Customer ID:	27-87-08-23-88-FD	27-87-08-23-88-LD	27-87-08-23-88-LD	27-87-08-23-88-
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	%
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	0.0349	NR	1.1012
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	NR	1.0073
Arsenic	(As), dissolved.....	0.005 U	NR	NR	NR
Barium	(Ba), dissolved.....	0.1105	0.1116	NR	0.2035
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	NR	0.0853
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	NR	0.0933
Calcium	(Ca), dissolved.....	86.4268	85.8652	NR	93.0427
Cesium	(Cs), dissolved.....	0.020 U	NR	NR	NR
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	NR	1.0388
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	NR	0.9377
Copper	(Cu), dissolved.....	0.0073	0.0063 U	NR	0.9316
Iron	(Fe), dissolved.....	0.0179	0.0069 U	NR	0.0967
Lead	(Pb), dissolved.....	0.005* U	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	14.6548	14.8892	NR	14.5138
Manganese	(Mn), dissolved.....	0.0051 U	0.0051 U	NR	0.9323
Mercury	(Hg), dissolved.....	0.0002 U	NR	0.0002 U	NR
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	NR	0.9841
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	NR	1.0326
Potassium	(K), dissolved.....	3.9	NR	4.3	NR
Selenium	(Se), dissolved.....	0.005 U	NR	NR	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	NR	0.2058
Sodium	(Na), dissolved.....	28.0970	28.1145	NR	36.2512
Strontium	(Sr), dissolved.....	0.4914	0.4932	NR	1.3977
Thallium	(Tl), dissolved.....	0.010 U	NR	NR	NR
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	NR	1.0054
Zinc	(Zn), dissolved.....	0.0397	0.0200 U	NR	0.1585

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 14

Sample Information

	RFW Batch ID:	0388-881-229	0388-881-230	0388-881-222	0388-881-094
	Customer ID:	27-87-08-23-88-S	27-87-08-23-88-S2	27-87-08-23-88-SD	28-86-09-07-88
	Matrix:	Water	Water	Water	Water
	Units:	%	%	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	NR	NR	1.0530	0.0359
Antimony	(Sb), dissolved.....	NR	NR	1.0060	0.1182
Arsenic	(As), dissolved.....	NR	NR	NR	0.005 U
Barium	(Ba), dissolved.....	NR	NR	0.2073	0.1843
Beryllium	(Be), dissolved.....	NR	NR	0.0939	0.0010 U
Cadmium	(Cd), dissolved.....	NR	NR	0.0970	0.0050 U
Calcium	(Ca), dissolved.....	NR	NR	94.8791	297.9092
Cesium	(Cs), dissolved.....	NR	NR	NR	0.020 U
Chromium	(Cr), dissolved.....	NR	NR	1.0527	0.0197
Cobalt	(Co), dissolved.....	NR	NR	0.9556	0.0220 U
Copper	(Cu), dissolved.....	NR	NR	0.9682	0.0089
Iron	(Fe), dissolved.....	NR	NR	0.0966	0.0510
Lead	(Pb), dissolved.....	NR	NR	NR	0.005 U
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	NR	NR	14.5149	89.2169
Manganese	(Mn), dissolved.....	NR	NR	0.9470	0.6903
Mercury	(Hg), dissolved.....	105 %	NR	NR	0.0002 U
Molybdenum	(Mo), dissolved.....	NR	NR	0.9808	0.0681
Nickel	(Ni), dissolved.....	NR	NR	1.0017	0.0904
Potassium	(K), dissolved.....	118 %	106 %	NR	435
Selenium	(Se), dissolved.....	NR	NR	NR	0.005 U
Silver	(Ag), dissolved.....	NR	NR	0.8729	0.0076 U
Sodium	(Na), dissolved.....	NR	NR	37.6245	1411.3809
Strontium	(Sr), dissolved.....	NR	NR	1.4324	2.9186
Thallium	(Tl), dissolved.....	NR	NR	NR	0.010 U
Vanadium	(V), dissolved.....	NR	NR	1.0127	0.0360 U
Zinc	(Zn), dissolved.....	NR	NR	0.1172	0.0577

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-202	0388-881-250	0388-881-275	0388-881-082
	Customer ID:	3-74-08-19-88	3-82-09-29-88	3-82-09-29-88LD	30-86-09-15-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	0.0605 U	NR	0.0290 U
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	NR	0.4385
Arsenic	(As), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Barium	(Ba), dissolved.....	0.1959	0.1053	NR	0.2653
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	NR	0.0016
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	NR	0.0050 U
Calcium	(Ca), dissolved.....	117.0657	14.4178	NR	1366.2809
Cesium	(Cs), dissolved.....	0.020 U	0.020 U	0.020 U	0.020* U
Chromium	(Cr), dissolved.....	0.0107	0.0100 U	NR	0.0142
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	NR	0.0220 U
Copper	(Cu), dissolved.....	0.0063 U	0.0063 U	NR	0.0063 U
Iron	(Fe), dissolved.....	0.0278	0.0596	NR	0.0499
Lead	(Pb), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	10.5830	2.7523	NR	367.3962
Manganese	(Mn), dissolved.....	0.0051 U	0.0190	NR	0.0408
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	NR	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	NR	0.0717
Potassium	(K), dissolved.....	0.9	1.5	NR	6.1
Selenium	(Se), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	NR	0.0076 U
Sodium	(Na), dissolved.....	22.0883	13.0844	NR	1268.4785
Strontium	(Sr), dissolved.....	0.3533	0.0787	NR	14.6200
Thallium	(Tl), dissolved.....	0.010 U	0.010 U	0.010 U	0.010 U
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	NR	0.0360 U
Zinc	(Zn), dissolved.....	0.0202	0.0543	NR	0.0595

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-129	0388-881-211	0388-881-233	0388-881-080
Customer ID:	30-86-09-15-88-S	31-87-08-25-88	31-87-08-25-88-LD	32-86-09-13-88
Matrix:	Water	Water	Water	Water
Units:	%	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		0.0419		NR		0.0332	
Antimony	(Sb), dissolved.....	NR		0.0340	U	NR		0.0340	U
Arsenic	(As), dissolved.....	82	%	0.0053		0.055		0.005	U
Barium	(Ba), dissolved.....	NR		0.0408		NR		0.1152	
Beryllium	(Be), dissolved.....	NR		0.0010	U	NR		0.0010	U
Cadmium	(Cd), dissolved.....	NR		0.0050	U	NR		0.0050	U
Calcium	(Ca), dissolved.....	NR		22.0879		NR		38.6739	
Cesium	(Cs), dissolved.....	106*	%	0.020	U	NR		0.020	U
Chromium	(Cr), dissolved.....	NR		0.0100	U	NR		0.0100	U
Cobalt	(Co), dissolved.....	NR		0.0220	U	NR		0.0220	U
Copper	(Cu), dissolved.....	NR		0.0106		NR		0.0063	U
Iron	(Fe), dissolved.....	NR		0.0239		NR		0.0198	
Lead	(Pb), dissolved.....	75	%	0.005	U	NR		0.005	U
Lithium	(Li), dissolved.....	NR		NR		NR		NR	
Magnesium	(Mg), dissolved.....	NR		0.7221		NR		9.6009	
Manganese	(Mn), dissolved.....	NR		0.0051	U	NR		0.1167	
Mercury	(Hg), dissolved.....	98	%	0.0002	U	0.0002		0.0002	U
Molybdenum	(Mo), dissolved.....	NR		0.0440		NR		0.0234	
Nickel	(Ni), dissolved.....	NR		0.0370	U	NR		0.0370	U
Potassium	(K), dissolved.....	NR		3.0		NR		5.6	
Selenium	(Se), dissolved.....	90	%	0.005	U	0.005	U	0.005	U
Silver	(Ag), dissolved.....	NR		0.0076	U	NR		0.0076	U
Sodium	(Na), dissolved.....	NR		72.9478		NR		127.1060	
Strontium	(Sr), dissolved.....	NR		0.2119		NR		0.5192	
Thallium	(Tl), dissolved.....	30	%	0.010	U	NR		0.010	U
Vanadium	(V), dissolved.....	NR		0.0360	U	NR		0.0360	U
Zinc	(Zn), dissolved.....	NR		0.0306		NR		0.0669	

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 17

Sample Information

	RFW Batch ID:	0388-881-210	0388-881-231	0388-881-232	0388-881-286
	Customer ID:	32-87-08-23-88	32-87-08-23-88-S1	32-87-08-23-88-S2	34-86-08-11-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	%	%	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	NR	NR	0.0290 U
Antimony	(Sb), dissolved.....	0.0340 U	NR	NR	0.1059
Arsenic	(As), dissolved.....	0.005 U	104 %	NR	0.005 U
Barium	(Ba), dissolved.....	0.1612	NR	NR	0.0234
Beryllium	(Be), dissolved.....	0.0010 U	NR	NR	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	NR	NR	0.0050 U
Calcium	(Ca), dissolved.....	115.3676	NR	NR	222.3501
Cesium	(Cs), dissolved.....	0.020 U	120 %	NR	0.02 U
Chromium	(Cr), dissolved.....	0.0100 U	NR	NR	0.0152
Cobalt	(Co), dissolved.....	0.0220 U	NR	NR	0.0220 U
Copper	(Cu), dissolved.....	0.0100	NR	NR	0.0098
Iron	(Fe), dissolved.....	0.0467	NR	NR	1.5950
Lead	(Pb), dissolved.....	0.005* U	109 %	NR	0.005 U
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	14.4738	NR	NR	70.8170
Manganese	(Mn), dissolved.....	0.0316	NR	NR	0.1059
Mercury	(Hg), dissolved.....	0.0002 U	95 %	NR	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	NR	NR	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	NR	NR	0.0370 U
Potassium	(K), dissolved.....	2.6	NR	NR	8.7
Selenium	(Se), dissolved.....	0.005 U	96 %	NR	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	NR	NR	0.0076 U
Sodium	(Na), dissolved.....	25.5758	NR	NR	223.8332
Strontium	(Sr), dissolved.....	0.5098	NR	NR	2.6631
Thallium	(Tl), dissolved.....	0.010 U	120 %	94 %	0.01 U
Vanadium	(V), dissolved.....	0.0360 U	NR	NR	0.0360 U
Zinc	(Zn), dissolved.....	0.0502	NR	NR	0.0875

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-287		0388-881-297		0388-881-203		0388-881-225	
	Customer ID:	35-86-08-11-88		35-86-08-11-88S		36-87-08-19-88		39-86-08-16-88	
	Matrix:	Water				Water		Water	
	Units:	MG/L		%		MG/L		MG/L	
Metals									
Aluminum	(Al), dissolved.....	0.0290	U	NR		0.0290	U	NR	
Antimony	(Sb), dissolved.....	0.0483		NR		0.0340	U	NR	
Arsenic	(As), dissolved.....	0.005	U	81		0.005	U	NR	
Barium	(Ba), dissolved.....	0.0824		NR		0.1435		NR	
Beryllium	(Be), dissolved.....	0.0010	U	NR		0.0010	U	NR	
Cadmium	(Cd), dissolved.....	0.0050	U	NR		0.0050	U	NR	
Calcium	(Ca), dissolved.....	145.4237		NR		112.5575		NR	
Cesium	(Cs), dissolved.....	0.02	U	97		0.020	U	0.020	U
Chromium	(Cr), dissolved.....	0.0100	U	NR		0.0154		NR	
Cobalt	(Co), dissolved.....	0.0220	U	NR		0.0220	U	NR	
Copper	(Cu), dissolved.....	0.0067		NR		0.0063	U	NR	
Iron	(Fe), dissolved.....	0.3156		NR		0.0295		NR	
Lead	(Pb), dissolved.....	0.005	U	92		0.005	U	0.005	U
Lithium	(Li), dissolved.....	NR		NR		NR		NR	
Magnesium	(Mg), dissolved.....	32.9570		NR		8.6749		NR	
Manganese	(Mn), dissolved.....	4.1966		NR		0.0499		NR	
Mercury	(Hg), dissolved.....	0.0002	U	NR		0.0002	U	NR	
Molybdenum	(Mo), dissolved.....	0.0220	U	NR		0.0220	U	NR	
Nickel	(Ni), dissolved.....	0.0370	U	NR		0.0370	U	NR	
Potassium	(K), dissolved.....	0.7		NR		0.9		NR	
Selenium	(Se), dissolved.....	0.005	U	96		0.005	U	NR	
Silver	(Ag), dissolved.....	0.0076	U	NR		0.0076	U	NR	
Sodium	(Na), dissolved.....	196.2784		NR		8.8509		NR	
Strontium	(Sr), dissolved.....	0.8015		NR		0.2950		NR	
Thallium	(Tl), dissolved.....	0.01	U	107		0.010	U	0.010	U
Vanadium	(V), dissolved.....	0.0360	U	NR		0.0360	U	NR	
Zinc	(Zn), dissolved.....	0.0200	U	NR		0.0200	U	NR	

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	Customer ID:	Matrix:	Units:
	0388-881-204	39-86-08-19-88	Water	MG/L
	0388-881-226	39-86-08-19-88-S1	Water	%
	0388-881-227	39-86-08-19-88-S2	Water	%
	0388-881-092	4-60-09-07-88	Water	MG/L

Metals

Aluminum	(Al), dissolved.....	0.0290	U		NR			NR		0.0505	U
Antimony	(Sb), dissolved.....	0.0340	U		NR			NR		0.0340	U
Arsenic	(As), dissolved.....	0.005	U		NR			NR		0.005	U
Barium	(Ba), dissolved.....	0.2536			NR			NR		0.0927	
Beryllium	(Be), dissolved.....	0.0010	U		NR			NR		0.0010	U
Cadmium	(Cd), dissolved.....	0.0050	U		NR			NR		0.0050	U
Calcium	(Ca), dissolved.....	110.9536			NR			NR		75.2725	
Cesium	(Cs), dissolved.....	0.020	U		105	%		119	%	0.020	U
Chromium	(Cr), dissolved.....	0.0117			NR			NR		0.0100	U
Cobalt	(Co), dissolved.....	0.0220	U		NR			NR		0.0220	U
Copper	(Cu), dissolved.....	0.0063	U		NR			NR		0.0063	U
Iron	(Fe), dissolved.....	0.0312			NR			NR		0.0319	
Lead	(Pb), dissolved.....	NR			110	%		93	%	0.005	U
Lithium	(Li), dissolved.....	NR			NR			NR		NR	
Magnesium	(Mg), dissolved.....	11.5095			NR			NR		30.5758	
Manganese	(Mn), dissolved.....	0.0051	U		NR			NR		0.0111	
Mercury	(Hg), dissolved.....	0.0002	U		96	%		NR		0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U		NR			NR		0.0220	U
Nickel	(Ni), dissolved.....	0.0370	U		NR			NR		0.0370	U
Potassium	(K), dissolved.....	1.0			NR			NR		25	
Selenium	(Se), dissolved.....	0.005	U		NR			NR		0.004	J
Silver	(Ag), dissolved.....	0.0076	U		NR			NR		0.0076	U
Sodium	(Na), dissolved.....	18.1539			NR			NR		105.5950	
Strontium	(Sr), dissolved.....	0.4820			NR			NR		0.9384	
Thallium	(Tl), dissolved.....	0.010	U		97	%		106	%	0.010	U
Vanadium	(V), dissolved.....	0.0360	U		NR			NR		0.0360	U
Zinc	(Zn), dissolved.....	0.0241			NR			NR		0.3824	

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
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RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 20

Sample Information

	RFW Batch ID:	0388-881-093	0388-881-212	0388-881-234	0388-881-235
	Customer ID:	4-60-09-07-88-FD	42-86-08-25-88	42-86-08-25-88-LD	42-86-08-25-88-
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	%
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	0.0290 U	NR	NR
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	NR	NR
Arsenic	(As), dissolved.....	0.005 U	0.005 U	NR	104 %
Barium	(Ba), dissolved.....	0.0913	0.2003	NR	NR
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	NR	NR
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	NR	NR
Calcium	(Ca), dissolved.....	75.4877	114.3637	NR	NR
Cesium	(Cs), dissolved.....	0.020 U	0.020 U	0.020 U	NR
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	NR	NR
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	NR	NR
Copper	(Cu), dissolved.....	0.0063 U	0.0063 U	NR	NR
Iron	(Fe), dissolved.....	0.0373	0.0166	NR	NR
Lead	(Pb), dissolved.....	0.005 U	0.005 U	0.005 U	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	30.5474	10.2137	NR	NR
Manganese	(Mn), dissolved.....	0.0104	0.0133	NR	NR
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	NR
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	NR	NR
Nickel	(Ni), dissolved.....	0.0370 U	0.0377	NR	NR
Potassium	(K), dissolved.....	25	1.2	NR	NR
Selenium	(Se), dissolved.....	0.004 J	0.005 U	NR	91 %
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	NR	NR
Sodium	(Na), dissolved.....	105.6072	17.8630	NR	NR
Strontium	(Sr), dissolved.....	0.9348	0.4498	NR	NR
Thallium	(Tl), dissolved.....	0.010 U	0.010 U	0.010 U	NR
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	NR	NR
Zinc	(Zn), dissolved.....	0.3696	0.0283	NR	NR

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
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RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 21

Sample Information

	RFW Batch ID:	0388-881-254	0388-881-265	0388-881-278	0388-881-269
	Customer ID:	44-86-09-30-88	44-86-09-30-88LD	44-86-09-30-88LD	44-86-09-30-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	0.0290 U	NR	1.0638
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	NR	0.9394
Arsenic	(As), dissolved.....	0.005 U	NR	NR	NR
Barium	(Ba), dissolved.....	0.1694	0.1804	NR	0.2595
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	NR	0.0947
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	NR	0.0982
Calcium	(Ca), dissolved.....	95.1970	0.7500 U	NR	102.6787
Cesium	(Cs), dissolved.....	0.020 U	NR	0.020 U	NR
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	NR	1.0146
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	NR	0.9381
Copper	(Cu), dissolved.....	0.0100	0.0119	NR	0.9508
Iron	(Fe), dissolved.....	0.0260	0.0367	NR	0.1169
Lead	(Pb), dissolved.....	0.005 U	NR	0.005 U	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	8.2121	8.6580	NR	7.9769
Manganese	(Mn), dissolved.....	0.1433	0.1506	NR	1.0382
Mercury	(Hg), dissolved.....	0.0002 U	NR	0.0002 U	NR
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	NR	0.9519
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	NR	0.9688
Potassium	(K), dissolved.....	7.2	NR	7.2	NR
Selenium	(Se), dissolved.....	0.005 U	NR	NR	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	NR	0.8304
Sodium	(Na), dissolved.....	35.0680	38.0878	NR	43.2080
Strontium	(Sr), dissolved.....	0.4731	0.5047	NR	1.5146
Thallium	(Tl), dissolved.....	0.010 U	NR	0.010 U	NR
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	NR	1.0014
Zinc	(Zn), dissolved.....	0.0647	0.0840	NR	0.1673

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
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RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-279	0388-881-270	0388-881-280	0388-881-251
Customer ID:	44-86-09-30-88S	44-86-09-30-88SD	44-86-09-30-88SD	45-86-09-29-88
Matrix:	Water	Water	Water	Water
Units:	%	MG/L	%	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		1.0530	NR		1.5414	
Antimony	(Sb), dissolved.....	NR		0.9366	NR		0.0340	U
Arsenic	(As), dissolved.....	NR		NR	NR		0.005	U
Barium	(Ba), dissolved.....	NR		0.2637	NR		0.1284	
Beryllium	(Be), dissolved.....	NR		0.0943	NR		0.0010	U
Cadmium	(Cd), dissolved.....	NR		0.0968	NR		0.0050	U
Calcium	(Ca), dissolved.....	NR		106.3563	NR		9.0395	
Cesium	(Cs), dissolved.....	NR		NR	NR		0.020	U
Chromium	(Cr), dissolved.....	NR		1.0163	NR		0.0100	U
Cobalt	(Co), dissolved.....	NR		0.9444	NR		0.0220	U
Copper	(Cu), dissolved.....	NR		0.9642	NR		0.0063	U
Iron	(Fe), dissolved.....	NR		0.1215	NR		0.9975	
Lead	(Pb), dissolved.....	NR		NR	NR		0.005	
Lithium	(Li), dissolved.....	NR		NR	NR		[illegible]	
Magnesium	(Mg), dissolved.....	NR		8.2646	NR		2.2715	
Manganese	(Mn), dissolved.....	NR		1.0433	NR		0.0103	
Mercury	(Hg), dissolved.....	NR		NR	NR		0.0002	U
Molybdenum	(Mo), dissolved.....	NR		0.9636	NR		0.0220	U
Nickel	(Ni), dissolved.....	NR		0.9959	NR		0.0370	U
Potassium	(K), dissolved.....	116	%	NR	112	%	1.1	
Selenium	(Se), dissolved.....	NR		NR	NR		0.005	U
Silver	(Ag), dissolved.....	NR		0.8436	NR		0.0076	U
Sodium	(Na), dissolved.....	NR		44.4038	NR		17.7234	
Strontium	(Sr), dissolved.....	NR		1.5401	NR		0.0614	
Thallium	(Tl), dissolved.....	NR		NR	NR		0.010	U
Vanadium	(V), dissolved.....	NR		1.0068	NR		0.0360	U
Zinc	(Zn), dissolved.....	NR		0.1590	NR		0.0593	

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 23

Sample Information

	RFW Batch ID:	0388-881-276	0388-881-277	0388-881-010	0388-881-011
	Customer ID:	45-86-09-29-88S	45-86-09-29-88SD	46-86-07-13-88	46-86-07-13-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	%	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	NR	NR	0.0380	0.0507
Antimony	(Sb), dissolved.....	NR	NR	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	NR	NR	0.005 U	NR
Barium	(Ba), dissolved.....	NR	NR	0.2107	0.2100
Beryllium	(Be), dissolved.....	NR	NR	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	NR	NR	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	NR	NR	39.3159	39.3651
Cesium	(Cs), dissolved.....	0.0502	125 %	0.020 U	NR
Chromium	(Cr), dissolved.....	NR	NR	0.0205	0.0787
Cobalt	(Co), dissolved.....	NR	NR	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	NR	NR	0.0135	0.0077
Iron	(Fe), dissolved.....	NR	NR	0.0944	0.3173
Lead	(Pb), dissolved.....	0.0098	98 %	0.005 U	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	NR	NR	11.9787	11.9568
Manganese	(Mn), dissolved.....	NR	NR	0.1095	0.1158
Mercury	(Hg), dissolved.....	NR	NR	0.0002 U	NR
Molybdenum	(Mo), dissolved.....	NR	NR	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	NR	NR	0.0370 U	0.0482
Potassium	(K), dissolved.....	NR	NR	3.5	NR
Selenium	(Se), dissolved.....	NR	NR	0.005 U	NR
Silver	(Ag), dissolved.....	NR	NR	0.0076 U	0.0077
Sodium	(Na), dissolved.....	NR	NR	31.2345	31.1148
Strontium	(Sr), dissolved.....	NR	NR	0.4791	0.4770
Thallium	(Tl), dissolved.....	0.0078	78 %	0.010 U	NR
Vanadium	(V), dissolved.....	NR	NR	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	NR	NR	0.0430	0.0609

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 24

Sample Information

RFW Batch ID:	0388-881-016	0388-881-017	0388-881-018	0388-881-009
Customer ID:	46-86-07-13-88-LD	46-86-07-13-88-S1	46-86-07-13-88-S2	47-86-07-12-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	%	%	MG/L

Metals

Aluminum	(Al), dissolved.....	NR		NR		NR	0.0291	
Antimony	(Sb), dissolved.....	NR		NR		NR	0.0340	U
Arsenic	(As), dissolved.....	NR		NR		NR	0.005	U
Barium	(Ba), dissolved.....	NR		NR		NR	0.0530	
Beryllium	(Be), dissolved.....	NR		NR		NR	0.0010	U
Cadmium	(Cd), dissolved.....	NR		NR		NR	0.0050	U
Calcium	(Ca), dissolved.....	NR		NR		NR	17.2913	
Cesium	(Cs), dissolved.....	NR		NR		NR	0.020	U
Chromium	(Cr), dissolved.....	NR		NR		NR	0.0126	
Cobalt	(Co), dissolved.....	NR		NR		NR	0.0220	U
Copper	(Cu), dissolved.....	NR		NR		NR	0.0063	U
Iron	(Fe), dissolved.....	NR		NR		NR	0.0809	
Lead	(Pb), dissolved.....	NR		NR		NR	0.005	U
Lithium	(Li), dissolved.....	NR		NR		NR	NR	
Magnesium	(Mg), dissolved.....	NR		NR		NR	3.3072	
Manganese	(Mn), dissolved.....	NR		NR		NR	0.0051	U
Mercury	(Hg), dissolved.....	NR		NR		NR	0.0002	U
Molybdenum	(Mo), dissolved.....	NR		NR		NR	0.0220	U
Nickel	(Ni), dissolved.....	NR		NR		NR	0.0370	U
Potassium	(K), dissolved.....	3.4		114	%	124	% 0.6	
Selenium	(Se), dissolved.....	NR		NR		NR	0.005	U
Silver	(Ag), dissolved.....	NR		NR		NR	0.0076	U
Sodium	(Na), dissolved.....	NR		NR		NR	13.5163	
Strontium	(Sr), dissolved.....	NR		NR		NR	0.1023	
Thallium	(Tl), dissolved.....	NR		NR		NR	0.010	U
Vanadium	(V), dissolved.....	NR		NR		NR	0.0360	U
Zinc	(Zn), dissolved.....	NR		NR		NR	0.0364	

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
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RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 25

Sample Information

	RFW Batch ID:	0388-881-252		0388-881-253		0388-881-248		0388-881-259	
	Customer ID:	48-86-09-30-88		49-86-09-30-88		5-82-09-27-88		50-86-10-04-88	
	Matrix:	Water		Water		Water		Water	
	Units:	MG/L		MG/L		MG/L		MG/L	
Metals									
Aluminum	(Al), dissolved.....	0.0948		0.1590		0.0393		0.0525	
Antimony	(Sb), dissolved.....	0.0340	U	0.0340	U	0.0340	U	0.0340	U
Arsenic	(As), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Barium	(Ba), dissolved.....	0.0642		0.1148		0.0880		0.1042	
Beryllium	(Be), dissolved.....	0.0010	U	0.0010	U	0.0010	U	0.0010	U
Cadmium	(Cd), dissolved.....	0.0050	U	0.0050	U	0.0050	U	0.0050	U
Calcium	(Ca), dissolved.....	6.5171		20.6904		28.9121		31.1225	
Cesium	(Cs), dissolved.....	0.020	U	0.020	U	0.020	U	0.020	U
Chromium	(Cr), dissolved.....	0.0100	U	0.0100	U	0.0100	U	0.0100	U
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	0.0220	U	0.0220	U
Copper	(Cu), dissolved.....	0.0063	U	0.0063	U	0.0063	U	0.0063	U
Iron	(Fe), dissolved.....	0.0253		0.1099		0.0457		0.0386	
Lead	(Pb), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Lithium	(Li), dissolved.....	NR		NR		NR		NR	
Magnesium	(Mg), dissolved.....	3.4550		3.7172		5.0920		5.0346	
Manganese	(Mn), dissolved.....	0.0051	U	0.0051	U	0.0209		0.0051	U
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	0.0220	U	0.0220	U
Nickel	(Ni), dissolved.....	0.0370	U	0.0370	U	0.0370	U	0.0370	U
Potassium	(K), dissolved.....	5.1		0.7		0.6		0.7	
Selenium	(Se), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	0.0076	U	0.0076	U
Sodium	(Na), dissolved.....	43.8883		22.5076		23.2478		12.5665	
Strontium	(Sr), dissolved.....	0.4684		0.1174		0.1850		0.1967	
Thallium	(Tl), dissolved.....	0.010	U	0.010	U	0.010	U	0.010	U
Vanadium	(V), dissolved.....	0.0360	U	0.0360	U	0.0360	U	0.0360	U
Zinc	(Zn), dissolved.....	0.0369		0.0362		0.4065		0.0310	

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-282	0388-881-283	0388-881-003	0388-881-014
	Customer ID:	50-86-10-04-88S	50-86-10-04-88SD	51-86-07-08-88	51-86-07-08-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	%	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		NR	NR	0.0313	NR
Antimony (Sb), dissolved.....		NR	NR	0.0340 U	NR
Arsenic (As), dissolved.....		0.0102	102 %	0.005 U	0.005 U
Barium (Ba), dissolved.....		NR	NR	0.0538	NR
Beryllium (Be), dissolved.....		NR	NR	0.0010 U	NR
Cadmium (Cd), dissolved.....		NR	NR	0.0050 U	NR
Calcium (Ca), dissolved.....		NR	NR	15.9110	NR
Cesium (Cs), dissolved.....		0.026	128 %	0.020 U	0.020 U
Chromium (Cr), dissolved.....		NR	NR	0.0100 U	NR
Cobalt (Co), dissolved.....		NR	NR	0.0220 U	NR
Copper (Cu), dissolved.....		NR	NR	0.0152	NR
Iron (Fe), dissolved.....		NR	NR	0.0766	NR
Lead (Pb), dissolved.....		0.0112	112 %	0.005 U	0.005 U
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		NR	NR	3.0868	NR
Manganese (Mn), dissolved.....		NR	NR	0.0051 U	NR
Mercury (Hg), dissolved.....		NR	94 %	0.0002* U	0.0002* U
Molybdenum(Mo), dissolved.....		NR	NR	0.0220 U	NR
Nickel (Ni), dissolved.....		NR	NR	0.0370 U	NR
Potassium (K), dissolved.....		NR	NR	0.5	NR
Selenium (Se), dissolved.....		0.116	116 %	0.005 U	0.005 U
Silver (Ag), dissolved.....		NR	NR	0.0261	NR
Sodium (Na), dissolved.....		NR	NR	11.1069	NR
Strontium (Sr), dissolved.....		NR	NR	0.0872	NR
Thallium (Tl), dissolved.....		0.0097	97 %	0.010 U	0.010 U
Vanadium (V), dissolved.....		NR	NR	0.0360 U	NR
Zinc (Zn), dissolved.....		NR	NR	0.0982	NR

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 27

Sample Information

RFW Batch ID:	0388-881-002	0388-881-005	0388-881-015	0388-881-006
Customer ID:	52-86-07-08-88	54-86-07-12-88	54-86-07-12-88-S	55-86-07-12-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	%	MG/L

Metals

Aluminum	(Al), dissolved.....	0.0703		0.0378		NR		0.0290	U
Antimony	(Sb), dissolved.....	0.0755		0.0405		NR		0.0340	U
Arsenic	(As), dissolved.....	0.005	U	0.005	U	82	%	0.005	U
Barium	(Ba), dissolved.....	0.0363		0.0748		NR		0.0534	
Beryllium	(Be), dissolved.....	0.0010	U	0.0010	U	NR		0.0010	U
Cadmium	(Cd), dissolved.....	0.0050	U	0.0050	U	NR		0.0050	U
Calcium	(Ca), dissolved.....	20.7001		86.4242		NR		22.0771	
Cesium	(Cs), dissolved.....	0.020	U	0.020	U	88	%	0.020	U
Chromium	(Cr), dissolved.....	0.0100	U	0.0327		NR		0.0262	
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	NR		0.0220	U
Copper	(Cu), dissolved.....	0.0093		0.0285		NR		0.0080	
Iron	(Fe), dissolved.....	0.1252		0.1599		NR		0.1619	
Lead	(Pb), dissolved.....	0.005	U	0.005	U	109	%	0.005	U
Lithium	(Li), dissolved.....	NR		NR		NR		NR	
Magnesium	(Mg), dissolved.....	0.05732		23.4344		NR		4.1098	
Manganese	(Mn), dissolved.....	0.0051	U	0.1855		NR		0.0051	U
Mercury	(Hg), dissolved.....	0.0002*	U	0.0002	U	NR		0.0002	U
Molybdenum	(Mo), dissolved.....	0.0582		0.0220	U	NR		0.0220	U
Nickel	(Ni), dissolved.....	0.0370	U	0.0539		NR		0.0370	U
Potassium	(K), dissolved.....	1.7		4.1		NR		0.6	
Selenium	(Se), dissolved.....	0.005	U	0.005	U	86	%	0.005	U
Silver	(Ag), dissolved.....	0.0160		0.0079		NR		0.0146	
Sodium	(Na), dissolved.....	16.2463		33.2859		NR		9.1217	
Strontium	(Sr), dissolved.....	0.1577		0.7798		NR		0.1177	
Thallium	(Tl), dissolved.....	0.010	U	0.010	U	98	%	0.010	U
Vanadium	(V), dissolved.....	0.0360	U	0.0360	U	NR		0.0360	U
Zinc	(Zn), dissolved.....	0.1040		0.0979		NR		0.0703	U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 28

Sample Information

	RFW Batch ID:	0388-881-007	0388-881-152	0388-881-177	0388-881-178
	Customer ID:	55-86-07-12-88-FD	58-87-09-16-88	58-87-09-16-88-S	59-87-09-15-88-
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	%	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0290 U	0.0290 U	NR	NR
Antimony (Sb), dissolved.....		0.0340 U	0.0340 U	NR	NR
Arsenic (As), dissolved.....		0.005 U	0.005 U	119 %	NR
Barium (Ba), dissolved.....		0.0517	0.0790	NR	NR
Beryllium (Be), dissolved.....		0.0010 U	0.0010 U	NR	NR
Cadmium (Cd), dissolved.....		0.0050 U	0.0050 U	NR	NR
Calcium (Ca), dissolved.....		22.1470	33.0909	NR	NR
Cesium (Cs), dissolved.....		0.020 U	0.020 U	99 %	NR
Chromium (Cr), dissolved.....		0.0100 U	0.0100 U	NR	NR
Cobalt (Co), dissolved.....		0.0220 U	0.0220 U	NR	NR
Copper (Cu), dissolved.....		0.0387	0.0575	NR	NR
Iron (Fe), dissolved.....		0.0523	0.0593	NR	NR
Lead (Pb), dissolved.....		0.005 U	0.005 U	89 %	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		4.1372	7.0809	NR	NR
Manganese (Mn), dissolved.....		0.0051 U	0.5503	NR	NR
Mercury (Hg), dissolved.....		0.0002 U	0.0002 U	NR	0.0009
Molybdenum(Mo), dissolved.....		0.0220 U	0.0220 U	NR	NR
Nickel (Ni), dissolved.....		0.0370 U	0.1027	NR	NR
Potassium (K), dissolved.....		0.7	4.0	NR	NR
Selenium (Se), dissolved.....		0.005 U	0.005 U	106 %	NR
Silver (Ag), dissolved.....		0.0827	0.0076 U	NR	NR
Sodium (Na), dissolved.....		8.6695	16.8505	NR	NR
Strontium (Sr), dissolved.....		0.1187	0.2692	NR	NR
Thallium (Tl), dissolved.....		0.010 U	0.010 U	113 %	NR
Vanadium (V), dissolved.....		0.0360 U	0.0360 U	NR	NR
Zinc (Zn), dissolved.....		0.1637	0.2967	NR	NR

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 29

Sample Information

	RFW Batch ID:	0388-881-153		0388-881-179		0388-881-249		0388-881-161	
	Customer ID:	59-87-09-16-88		59-87-09-16-88-LD2		6-82-09-27-88		60-87-09-22-88	
	Matrix:	Water		Water		Water		Water	
	Units:	MG/L		MG/L		MG/L		MG/L	
Metals									
Aluminum	(Al), dissolved.....	0.0417		NR		0.1822		0.1486	
Antimony	(Sb), dissolved.....	0.0340	U	NR		0.0340	U	0.0340	U
Arsenic	(As), dissolved.....	0.003	J	NR		0.005	U	0.005	U
Barium	(Ba), dissolved.....	0.3622		NR		0.0839		0.1202	
Beryllium	(Be), dissolved.....	0.0010	U	NR		0.0010	U	0.0010	U
Cadmium	(Cd), dissolved.....	0.0050	U	NR		0.0050	U	0.0050	U
Calcium	(Ca), dissolved.....	129.6400		NR		10.3409		24.5315	
Cesium	(Cs), dissolved.....	0.020	U	NR		0.020	U	0.020	U
Chromium	(Cr), dissolved.....	0.0100	U	NR		0.0100	U	0.0100	U
Cobalt	(Co), dissolved.....	0.0235		NR		0.0220	U	0.0220	U
Copper	(Cu), dissolved.....	0.0068		NR		0.0063	U	0.0063	U
Iron	(Fe), dissolved.....	25.9293		NR		0.1428		0.1445	
Lead	(Pb), dissolved.....	0.005	U	NR		0.005	U	0.005	U
Lithium	(Li), dissolved.....	NR		NR		NR		NR	
Magnesium	(Mg), dissolved.....	26.4174		NR		1.7574		3.9922	
Manganese	(Mn), dissolved.....	11.3410		NR		0.0071		0.0782	
Mercury	(Hg), dissolved.....	0.001		0.0006		0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	0.0366		NR		0.0220	U	0.0220	U
Nickel	(Ni), dissolved.....	0.1506		NR		0.0370	U	0.0370	U
Potassium	(K), dissolved.....	7.3		NR		0.8		0.6	
Selenium	(Se), dissolved.....	0.005	U	NR		0.005	U	0.005	U
Silver	(Ag), dissolved.....	0.0076	U	NR		0.0076	U	0.0076	U
Sodium	(Na), dissolved.....	43.0228		NR		9.1477		14.9083	
Strontium	(Sr), dissolved.....	0.9687		NR		0.0553		0.1193	
Thallium	(Tl), dissolved.....	0.010	U	NR		0.010	U	0.010	U
Vanadium	(V), dissolved.....	0.0360	U	NR		0.0360	U	0.0360	U
Zinc	(Zn), dissolved.....	0.0687		NR		0.0366		0.1143	

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 30

Sample Information

	RFW Batch ID:	0388-881-147	0388-881-189	0388-881-148	0388-881-190
	Customer ID:	61-87-09-23-88	61-87-09-23-88-S	62-87-09-23-88	62-87-09-23-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	%	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0294	NR	0.0291	NR
Antimony	(Sb), dissolved.....	0.0340 U	NR	0.0340 U	NR
Arsenic	(As), dissolved.....	0.005 U	82 %	0.005 U	0.005 U
Barium	(Ba), dissolved.....	0.0805	NR	0.1021	NR
Beryllium	(Be), dissolved.....	0.0010 U	NR	0.0010 U	NR
Cadmium	(Cd), dissolved.....	0.0050 U	NR	0.0050 U	NR
Calcium	(Ca), dissolved.....	20.6436	NR	24.3289	NR
Cesium	(Cs), dissolved.....	0.020 U	NR	0.020 U	0.020 U
Chromium	(Cr), dissolved.....	0.0100 U	NR	0.0100 U	NR
Cobalt	(Co), dissolved.....	0.0220 U	NR	0.0220 U	NR
Copper	(Cu), dissolved.....	0.0067	NR	0.1908	NR
Iron	(Fe), dissolved.....	0.0235	NR	0.0215	NR
Lead	(Pb), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	3.6208	NR	4.0224	NR
Manganese	(Mn), dissolved.....	0.0818	NR	0.1453	NR
Mercury	(Hg), dissolved.....	0.0002 U	NR	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	NR	0.0220 U	NR
Nickel	(Ni), dissolved.....	0.0370 U	NR	0.1430	NR
Potassium	(K), dissolved.....	0.8	NR	0.7	NR
Selenium	(Se), dissolved.....	0.005 U	76 %	0.005 U	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	NR	0.0076 U	NR
Sodium	(Na), dissolved.....	10.4843	NR	13.1217	NR
Strontium	(Sr), dissolved.....	0.1105	NR	0.1357	NR
Thallium	(Tl), dissolved.....	0.010 U	NR	0.010 U	0.010 U
Vanadium	(V), dissolved.....	0.0360 U	NR	0.0360 U	NR
Zinc	(Zn), dissolved.....	0.0553	NR	0.4303	NR

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-149	0388-881-191	0388-881-150	0388-881-151
	Customer ID:	63-87-09-23-88	63-87-09-23-88-LD	64-87-09-23-88	65-87-09-23-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	NR	0.0290 U	0.0290 U
Antimony	(Sb), dissolved.....	0.0340 U	NR	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Barium	(Ba), dissolved.....	0.6414	NR	0.1507	0.1102
Beryllium	(Be), dissolved.....	0.0010 U	NR	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	NR	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	144.1384	NR	57.6619	62.0198
Cesium	(Cs), dissolved.....	0.020 U	NR	0.020 U	0.020 U
Chromium	(Cr), dissolved.....	0.0100 U	NR	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	NR	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0063 U	NR	0.0063 U	0.0070
Iron	(Fe), dissolved.....	14.5883	NR	0.7785	0.0195
Lead	(Pb), dissolved.....	0.005 U	NR	0.005 U	0.005 U
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	22.2971	NR	9.4736	8.2394
Manganese	(Mn), dissolved.....	4.9830	NR	1.3530	1.1318
Mercury	(Hg), dissolved.....	0.0004	0.0004	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	NR	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	NR	0.0473	0.0370 U
Potassium	(K), dissolved.....	1.6	NR	1.9	2.3
Selenium	(Se), dissolved.....	0.005 U	0.005 U	0.005 U	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	NR	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	34.3129	NR	39.8102	26.8966
Strontium	(Sr), dissolved.....	0.7538	NR	0.3676	0.3348
Thallium	(Tl), dissolved.....	0.010 U	NR	0.010 U	0.010 U
Vanadium	(V), dissolved.....	0.0360 U	NR	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	0.0440	NR	0.2280	0.0770

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
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RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 32

Sample Information

	RFW Batch ID:	0388-881-192	0388-881-154	0388-881-168	0388-881-172
	Customer ID:	65-87-09-23-88-S	66-87-09-16-88	66-87-09-16-88-LD	66-87-09-16-88-
	Matrix:	Water	Water	Water	Water
	Units:	%	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		NR	0.1574	0.1123	0.1123
Antimony (Sb), dissolved.....		NR	0.0340 U	0.0340 U	0.0340 U
Arsenic (As), dissolved.....		NR	0.005 U	NR	NR
Barium (Ba), dissolved.....		NR	0.0895	0.0893	0.0893
Beryllium (Be), dissolved.....		NR	0.0010 U	0.0010 U	0.0010 U
Cadmium (Cd), dissolved.....		NR	0.0050 U	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....		NR	32.4091	32.0860	32.0860
Cesium (Cs), dissolved.....		97 %	0.020 U	NR	NR
Chromium (Cr), dissolved.....		NR	0.0116	0.0100 U	0.0100 U
Cobalt (Co), dissolved.....		NR	0.0220 U	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		NR	0.0549	0.0538	0.0538
Iron (Fe), dissolved.....		NR	0.1171	0.1006	0.1006
Lead (Pb), dissolved.....		104 %	0.005 U	NR	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		NR	6.8578	6.7833	6.7833
Manganese (Mn), dissolved.....		NR	0.1188	0.1183	0.1183
Mercury (Hg), dissolved.....		105 %	0.0002 U	NR	NR
Molybdenum(Mo), dissolved.....		NR	0.0262	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		NR	0.0534	0.0592	0.0592
Potassium (K), dissolved.....		NR	3.7	NR	NR
Selenium (Se), dissolved.....		NR	0.005 U	NR	NR
Silver (Ag), dissolved.....		NR	0.0076 U	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		NR	62.2938	60.4933	60.4933
Strontium (Sr), dissolved.....		NR	0.2811	0.2799	0.2799
Thallium (Tl), dissolved.....		85 %	0.010 U	NR	NR
Vanadium (V), dissolved.....		NR	0.0360 U	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....		NR	0.2462	0.2404	0.2404

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 33

Sample Information

	RFW Batch ID:	0388-881-180	0388-881-182	0388-881-173	0388-881-181
	Customer ID:	66-87-09-16-88-LD	66-87-09-16-88-LDS	66-87-09-16-88-S	66-87-09-16-88-
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	%	MG/L	%
Metals					
Aluminum	(Al), dissolved.....	NR	NR	1.0861	NR
Antimony	(Sb), dissolved.....	NR	NR	0.9463	NR
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	NR	NR	0.1836	NR
Beryllium	(Be), dissolved.....	NR	NR	0.0993	NR
Cadmium	(Cd), dissolved.....	NR	NR	0.1012	NR
Calcium	(Ca), dissolved.....	NR	NR	41.7554	NR
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	NR	NR	1.0667	NR
Cobalt	(Co), dissolved.....	NR	NR	1.0080	NR
Copper	(Cu), dissolved.....	NR	NR	0.9732	NR
Iron	(Fe), dissolved.....	NR	NR	0.1964	NR
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	NR	NR	6.9037	NR
Manganese	(Mn), dissolved.....	NR	NR	1.0757	NR
Mercury	(Hg), dissolved.....	0.0002 U	NR	NR	NR
Molybdenum	(Mo), dissolved.....	NR	NR	1.0086	NR
Nickel	(Ni), dissolved.....	NR	NR	1.0451	NR
Potassium	(K), dissolved.....	NR	102 %	NR	102 %
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	NR	NR	0.9667	NR
Sodium	(Na), dissolved.....	NR	NR	71.2548	NR
Strontium	(Sr), dissolved.....	NR	NR	1.3381	NR
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	NR	NR	1.0083	NR
Zinc	(Zn), dissolved.....	NR	NR	0.3487	NR

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
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RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-174	0388-881-162	0388-881-163	0388-881-146
	Customer ID:	66-87-09-16-88-S2	67-87-09-22-88	68-87-09-22-88	70-87-09-22-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	1.1863	0.0484	0.0290 U	0.0425
Antimony	(Sb), dissolved.....	0.9466	0.0340 U	0.0340 U	0.0375
Arsenic	(As), dissolved.....	NR	0.005 U	0.005 U	0.005 U
Barium	(Ba), dissolved.....	0.1834	0.0970	0.1290	0.1173
Beryllium	(Be), dissolved.....	0.1007	0.0010 U	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	0.0978	0.0050 U	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	41.6227	39.9893	34.1371	102.6069
Cesium	(Cs), dissolved.....	NR	0.020 U	0.020 U	0.020 U
Chromium	(Cr), dissolved.....	1.0566	0.0100 U	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	1.0007	0.0220 U	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.9693	0.2017	0.0073	0.0862
Iron	(Fe), dissolved.....	0.1989	0.0226	0.0202	0.0176
Lead	(Pb), dissolved.....	NR	0.005 U	0.005 U	0.005 U
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	6.8669	5.3041	4.8263	24.5799
Manganese	(Mn), dissolved.....	1.0700	0.4717	0.3836	0.4034
Mercury	(Hg), dissolved.....	NR	0.0002 U	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	1.0127	0.0220 U	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	1.0519	0.1701	0.0370 U	0.0844
Potassium	(K), dissolved.....	NR	1.8	0.7	3.8
Selenium	(Se), dissolved.....	NR	0.005 U	0.005 U	0.005 U
Silver	(Ag), dissolved.....	0.9639	0.0076 U	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	72.1864	18.2311	14.1991	70.6246
Strontium	(Sr), dissolved.....	1.3352	0.2060	0.1684	0.8998
Thallium	(Tl), dissolved.....	NR	0.010 U	0.010 U	0.010 U
Vanadium	(V), dissolved.....	1.0016	0.0360 U	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	0.3451	1.2204	0.0465	0.6667

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-170		0388-881-186	0388-881-175		0388-881-187	
	Customer ID:	70-87-09-22-88-LD		70-87-09-22-88-LD	70-87-09-22-88-S		70-87-09-22-88	
	Matrix:	Water		Water	Water		Water	
	Units:	MG/L		MG/L	MG/L		%	
Metals								
Aluminum	(Al), dissolved.....	0.0290	U	NR	1.0692		NR	
Antimony	(Sb), dissolved.....	0.0340	U	NR	1.0103		NR	
Arsenic	(As), dissolved.....	NR		NR	NR		NR	
Barium	(Ba), dissolved.....	0.1174		NR	0.2156		NR	
Beryllium	(Be), dissolved.....	0.0010	U	NR	0.0976		NR	
Cadmium	(Cd), dissolved.....	0.0050	U	NR	0.1018		NR	
Calcium	(Ca), dissolved.....	101.8179		NR	112.5442		NR	
Cesium	(Cs), dissolved.....	NR		NR	NR		102	%
Chromium	(Cr), dissolved.....	0.0100	U	NR	1.0511		NR	
Cobalt	(Co), dissolved.....	0.0220	U	NR	0.9801		NR	
Copper	(Cu), dissolved.....	0.0878		NR	1.0693		NR	
Iron	(Fe), dissolved.....	0.0224		NR	0.1117		NR	
Lead	(Pb), dissolved.....	NR		NR	NR		102	%
Lithium	(Li), dissolved.....	NR		NR	NR		NR	
Magnesium	(Mg), dissolved.....	24.3726		NR	24.4991		NR	
Manganese	(Mn), dissolved.....	0.4040		NR	1.3707		NR	
Mercury	(Hg), dissolved.....	NR		NR	NR		112	%
Molybdenum	(Mo), dissolved.....	0.0220	U	NR	1.0224		NR	
Nickel	(Ni), dissolved.....	0.1132		NR	1.0899		NR	
Potassium	(K), dissolved.....	NR		2.1	NR		102	%
Selenium	(Se), dissolved.....	NR		NR	NR		NR	
Silver	(Ag), dissolved.....	0.0076	U	NR	0.8701		NR	
Sodium	(Na), dissolved.....	70.1368		NR	80.4786		NR	
Strontium	(Sr), dissolved.....	0.8936		NR	1.9975		NR	
Thallium	(Tl), dissolved.....	NR		NR	NR		99	%
Vanadium	(V), dissolved.....	0.0360	U	NR	1.0349		NR	
Zinc	(Zn), dissolved.....	0.6713		NR	0.7690		NR	

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 36

Sample Information

	RFW Batch ID:	0388-881-176	0388-881-188	0388-881-160	0388-881-185
	Customer ID:	70-87-09-22-88-S2	70-87-09-22-88-S2	71-87-09-20-88	71-87-09-20-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	%	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		1.0653	NR	0.0306	NR
Antimony (Sb), dissolved.....		1.0030	NR	0.0340 U	NR
Arsenic (As), dissolved.....		NR	NR	0.005 U	0.005 U
Barium (Ba), dissolved.....		0.2170	NR	0.1048	NR
Beryllium (Be), dissolved.....		0.0973	NR	0.0010 U	NR
Cadmium (Cd), dissolved.....		0.1001	NR	0.0050 U	NR
Calcium (Ca), dissolved.....		111.9004	NR	77.3356	NR
Cesium (Cs), dissolved.....		NR	NR	0.020 U	0.020 U
Chromium (Cr), dissolved.....		1.0409	NR	0.0100 U	NR
Cobalt (Co), dissolved.....		0.9762	NR	0.0220 U	NR
Copper (Cu), dissolved.....		1.0739	NR	0.0063 U	NR
Iron (Fe), dissolved.....		0.1081	NR	0.0126	NR
Lead (Pb), dissolved.....		NR	NR	0.005 U	0.005 U
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		24.4899	NR	9.0967	NR
Manganese (Mn), dissolved.....		1.3658	NR	0.0909	NR
Mercury (Hg), dissolved.....		NR	NR	0.0002 U	NR
Molybdenum(Mo), dissolved.....		1.0031	NR	0.0220 U	NR
Nickel (Ni), dissolved.....		1.1126	NR	0.0370 U	NR
Potassium (K), dissolved.....		NR	113 %	0.8	NR
Selenium (Se), dissolved.....		NR	NR	0.005 U	0.005 U
Silver (Ag), dissolved.....		0.8746	NR	0.0076 U	NR
Sodium (Na), dissolved.....		80.9672	NR	10.7513	NR
Strontium (Sr), dissolved.....		2.0030	NR	0.4670	NR
Thallium (Tl), dissolved.....		NR	NR	0.010 U	0.010 U
Vanadium (V), dissolved.....		1.0358	NR	0.0360 U	NR
Zinc (Zn), dissolved.....		0.7610	NR	0.0349	NR

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-255	0388-881-256	0388-881-281	0388-881-267
	Customer ID:	8-81-10-04-88	8-81-10-04-88-FD	8-81-10-04-88FDS	8-81-10-04-88L
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	%	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0531	0.0507	NR	0.0327
Antimony (Sh), dissolved.....		0.0340 U	0.0340 U	NR	0.0340 U
Arsenic (As), dissolved.....		0.005 U	0.005 U	NR	NR
Barium (Ba), dissolved.....		0.0971	0.0919	NR	0.0959
Beryllium (Be), dissolved.....		0.0010 U	0.0010 U	NR	0.0010 U
Cadmium (Cd), dissolved.....		0.0050 U	0.0050 U	NR	0.0050 U
Calcium (Ca), dissolved.....		39.6638	39.0569	NR	39.9372
Cesium (Cs), dissolved.....		0.020 U	0.020 U	NR	NR
Chromium (Cr), dissolved.....		0.0100 U	0.0100 U	NR	0.0100 U
Cobalt (Co), dissolved.....		0.0220 U	0.0220 U	NR	0.0220 U
Copper (Cu), dissolved.....		0.0063 U	0.0063 U	NR	0.0063 U
Iron (Fe), dissolved.....		0.0177	0.0198	NR	0.0093
Lead (Pb), dissolved.....		0.005 U	0.005 U	NR	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		8.4894	8.2290	NR	8.4983
Manganese (Mn), dissolved.....		0.0078	0.0069	NR	0.0069
Mercury (Hg), dissolved.....		0.0002 U	0.0002 U	NR	NR
Molybdenum(Mo), dissolved.....		0.0220 U	0.0220 U	NR	0.0220 U
Nickel (Ni), dissolved.....		0.0370 U	0.0370 U	NR	0.0370 U
Potassium (K), dissolved.....		1.9	1.9	100 %	NR
Selenium (Se), dissolved.....		0.005 U	0.005 U	NR	NR
Silver (Ag), dissolved.....		0.0076 U	0.0076 U	NR	0.0076 U
Sodium (Na), dissolved.....		19.3266	18.4505	NR	18.6748
Strontium (Sr), dissolved.....		0.3368	0.3231	NR	0.3372
Thallium (Tl), dissolved.....		0.010 U	0.010 U	NR	NR
Vanadium (V), dissolved.....		0.0360 U	0.0360 U	NR	0.0360 U
Zinc (Zn), dissolved.....		0.0200 U	0.0200 U	NR	0.0234

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 38

Sample Information

	RFW Batch ID:	0388-881-271	0388-881-272	0388-881-246	0388-881-247
	Customer ID:	8-81-10-04-88S	8-81-10-04-88SD	9-81-09-27-88	9-81-09-27-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		1.0822	1.0956	0.0450	0.0369
Antimony (Sb), dissolved.....		0.9506	0.9689	0.0340 U	0.0340 U
Arsenic (As), dissolved.....		NR	NR	0.004* J	0.005 U
Barium (Ba), dissolved.....		0.1938	0.1933	0.0360	0.0355
Beryllium (Be), dissolved.....		0.0950	0.0953	0.0010 U	0.0010 U
Cadmium (Cd), dissolved.....		0.1004	0.0986	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....		51.3389	50.2768	46.9157	47.0098
Cesium (Cs), dissolved.....		NR	NR	0.020 U	0.020 U
Chromium (Cr), dissolved.....		1.0453	1.0433	0.0100 U	0.0100 U
Cobalt (Co), dissolved.....		0.9519	0.9621	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		0.9574	0.9582	0.0063 U	0.0063 U
Iron (Fe), dissolved.....		0.1078	0.1864	0.0220	0.0250
Lead (Pb), dissolved.....		NR	NR	0.005 U	0.005 U
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		8.6964	8.5652	4.4323	4.4347
Manganese (Mn), dissolved.....		0.9367	0.9480	0.0117	0.0125
Mercury (Hg), dissolved.....		NR	NR	0.0002 U	0.0002 U
Molybdenum(Mo), dissolved.....		0.9604	0.9863	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		1.0181	1.0412	0.0370 U	0.0370 U
Potassium (K), dissolved.....		NR	NR	1.5	1.5
Selenium (Se), dissolved.....		NR	NR	0.005 U	0.005 U
Silver (Ag), dissolved.....		0.8723	0.8952	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		29.6453	29.3293	22.7665	22.8380
Strontium (Sr), dissolved.....		1.4197	1.4105	0.4816	0.4818
Thallium (Tl), dissolved.....		NR	NR	0.010 U	0.010 U
Vanadium (V), dissolved.....		1.0354	1.0397	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....		0.1236	0.1392	0.0200 U	0.0200 U

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-273	0388-881-274	0388-881-159	0388-881-184
Customer ID:	9-81-09-27-88S	9-81-09-27-88SD	9-86-09-20-88	9-86-09-20-88-S
Matrix:	Water	Water	Water	Water
Units:	MG/L	%	MG/L	%

Metals

Aluminum	(Al), dissolved.....	NR		NR		0.0337		NR	
Antimony	(Sb), dissolved.....	NR		NR		0.0340	U	NR	
Arsenic	(As), dissolved.....	0.0093		98	%	0.005	U	106	%
Barium	(Ba), dissolved.....	NR		NR		0.1315		NR	
Beryllium	(Be), dissolved.....	NR		NR		0.0010	U	NR	
Cadmium	(Cd), dissolved.....	NR		NR		0.0050	U	NR	
Calcium	(Ca), dissolved.....	NR		NR		24.5644		NR	
Cesium	(Cs), dissolved.....	0.0536		134	%	0.020	U	102	%
Chromium	(Cr), dissolved.....	NR		NR		0.0100	U	NR	
Cobalt	(Co), dissolved.....	NR		NR		0.0220	U	NR	
Copper	(Cu), dissolved.....	NR		NR		0.0063	U	NR	
Iron	(Fe), dissolved.....	NR		NR		0.0225		NR	
Lead	(Pb), dissolved.....	0.009		86	%	0.005	U	100	%
Lithium	(Li), dissolved.....	NR		NR		NR		NR	
Magnesium	(Mg), dissolved.....	NR		NR		5.7009		NR	
Manganese	(Mn), dissolved.....	NR		NR		0.0354		NR	
Mercury	(Hg), dissolved.....	0.0002	U	NR		0.0002	U	112	%
Molybdenum	(Mo), dissolved.....	NR		NR		0.0220	U	NR	
Nickel	(Ni), dissolved.....	NR		NR		0.0370	U	NR	
Potassium	(K), dissolved.....	0.5	U	NR		2.9		NR	
Selenium	(Se), dissolved.....	0.0079		79	%	0.005	U	84	%
Silver	(Ag), dissolved.....	NR		NR		0.0076	U	NR	
Sodium	(Na), dissolved.....	NR		NR		61.3000		NR	
Strontium	(Sr), dissolved.....	NR		NR		0.2995		NR	
Thallium	(Tl), dissolved.....	0.0076		76	%	0.010	U	97	%
Vanadium	(V), dissolved.....	NR		NR		0.0360	U	NR	
Zinc	(Zn), dissolved.....	NR		NR		0.0242		NR	

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-207	0388-881-008	0388-881-289	0388-881-206
Customer ID:	EB-08-23-88	FB-07-12-88	FB-08-16-88	FB-08-23-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum	(Al), dissolved.....	0.0406		0.0311		0.0290	U	0.0489	
Antimony	(Sb), dissolved.....	0.0340	U	0.0340	U	0.0340	U	0.0340	U
Arsenic	(As), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Barium	(Ba), dissolved.....	0.0100	U	0.0100	U	0.0100	U	0.0100	U
Beryllium	(Be), dissolved.....	0.0010	U	0.0010	U	0.0010	U	0.0010	U
Cadmium	(Cd), dissolved.....	0.0050	U	0.0050	U	0.0050	U	0.0050	U
Calcium	(Ca), dissolved.....	0.7500	U	0.7500	U	0.7500	U	0.7500	U
Cesium	(Cs), dissolved.....	0.020	U	0.020	U	0.02	U	0.020	U
Chromium	(Cr), dissolved.....	0.0100	U	0.0100	U	0.0100	U	0.0100	U
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	0.0220	U	0.0220	U
Copper	(Cu), dissolved.....	0.0087		0.0080		0.0120		0.0098	
Iron	(Fe), dissolved.....	0.0419		0.0549		0.0069	U	0.0128	
Lead	(Pb), dissolved.....	0.005*	U	0.005	U	0.005*	U	0.013	
Lithium	(Li), dissolved.....	NR		NR		NR		NR	
Magnesium	(Mg), dissolved.....	0.0200	U	0.0269		0.0381		0.0200	U
Manganese	(Mn), dissolved.....	0.0051	U	0.0051	U	0.0051	U	0.0051	U
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	0.0220	U	0.0220	U
Nickel	(Ni), dissolved.....	0.0370	U	0.0370	U	0.0370	U	0.0370	U
Potassium	(K), dissolved.....	0.5	U	0.5	U	0.5	U	0.5	U
Selenium	(Se), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	0.0076	U	0.0076	U
Sodium	(Na), dissolved.....	4.3521		2.1347		5.7631		6.9085	
Strontium	(Sr), dissolved.....	0.0200	U	0.0200	U	0.0200	U	0.0200	U
Thallium	(Tl), dissolved.....	0.010	U	0.010	U	0.01	U	0.010	U
Vanadium	(V), dissolved.....	0.0360	U	0.0360	U	0.0360	U	0.0360	U
Zinc	(Zn), dissolved.....	0.0756		0.0598		0.0355		0.1233	

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-084	0388-881-108	0388-881-091	0388-881-117
	Customer ID:	FB-08-31-88	FB-08-31-88-LD	FB-09-07-88	FB-09-07-88-LD
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0290 U	NR	0.0358	NR
Antimony (Sb), dissolved.....		0.0340 U	NR	0.0340 U	NR
Arsenic (As), dissolved.....		0.005 U	NR	0.005 U	NR
Barium (Ba), dissolved.....		0.0100 U	NR	0.0100 U	NR
Beryllium (Be), dissolved.....		0.0010 U	NR	0.0010 U	NR
Cadmium (Cd), dissolved.....		0.0050 U	NR	0.0050 U	NR
Calcium (Ca), dissolved.....		0.7500 U	NR	0.7500 U	NR
Cesium (Cs), dissolved.....		0.020 U	0.020 U	0.020 U	0.02 U
Chromium (Cr), dissolved.....		0.0100 U	NR	0.0176	NR
Cobalt (Co), dissolved.....		0.0220 U	NR	0.0220 U	NR
Copper (Cu), dissolved.....		0.0063 U	NR	0.0126	NR
Iron (Fe), dissolved.....		0.0205	NR	0.1215	NR
Lead (Pb), dissolved.....		0.005 U	0.005 U	0.005 U	0.005 U
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		0.0200 U	NR	0.0755	NR
Manganese (Mn), dissolved.....		0.0051 U	NR	0.0051 U	NR
Mercury (Hg), dissolved.....		0.0002 U	NR	0.0002 U	NR
Molybdenum(Mo), dissolved.....		0.0220 U	NR	0.0220 U	NR
Nickel (Ni), dissolved.....		0.0370 U	NR	0.0608	NR
Potassium (K), dissolved.....		0.5 U	NR	0.5 U	NR
Selenium (Se), dissolved.....		0.005 U	NR	0.005 U	NR
Silver (Ag), dissolved.....		0.0076 U	NR	0.0076 U	NR
Sodium (Na), dissolved.....		10.4788	NR	16.6649	NR
Strontium (Sr), dissolved.....		0.0200 U	NR	0.0200 U	NR
Thallium (Tl), dissolved.....		0.010 U	0.010 U	0.010 U	0.010 U
Vanadium (V), dissolved.....		0.0360 U	NR	0.0360 U	NR
Zinc (Zn), dissolved.....		0.0244	NR	0.2208	NR

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-076		0388-881-124		0388-881-156		0388-881-245	
	Customer ID:	FB-09-13-88		FB-09-13-88-LD		FB-09-20-88		FB-09-27-88	
	Matrix:	Water		Water		Water		Water	
	Units:	MG/L		MG/L		MG/L		MG/L	
Metals									
Aluminum	(Al), dissolved.....	0.1430		NR		0.0290	U	0.0290	U
Antimony	(Sb), dissolved.....	0.1102		NR		0.0340	U	0.0340	U
Arsenic	(As), dissolved.....	0.005	U	NR		0.005	U	0.005	U
Barium	(Ba), dissolved.....	0.0170		NR		0.0100	U	0.0100	U
Beryllium	(Be), dissolved.....	0.0010	U	NR		0.0010	U	0.0010	U
Cadmium	(Cd), dissolved.....	0.0050	U	NR		0.0050	U	0.0050	U
Calcium	(Ca), dissolved.....	230.8333		NR		0.7500	U	0.7500	U
Cesium	(Cs), dissolved.....	0.020	U	0.02	U	0.020	U	0.020	U
Chromium	(Cr), dissolved.....	0.0208		NR		0.0100	U	0.0100	U
Cobalt	(Co), dissolved.....	0.0220	U	NR		0.0220	U	0.0220	U
Copper	(Cu), dissolved.....	0.0063	U	NR		0.0063	U	0.0063	U
Iron	(Fe), dissolved.....	0.1004		NR		0.0146		0.0153	
Lead	(Pb), dissolved.....	0.005	U	0.005	U	0.005	U	0.005	U
Lithium	(Li), dissolved.....	NR		NR		NR		NR	
Magnesium	(Mg), dissolved.....	94.1902		NR		0.0500	U	0.0500	U
Manganese	(Mn), dissolved.....	0.1138		NR		0.0051	U	0.0051	U
Mercury	(Hg), dissolved.....	0.0002	U	NR		0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	NR		0.0220	U	0.0220	U
Nickel	(Ni), dissolved.....	0.0370	U	NR		0.0370	U	0.0370	U
Potassium	(K), dissolved.....	15		NR		0.5	U	0.5	U
Selenium	(Se), dissolved.....	0.005	U	NR		0.005	U	0.005	U
Silver	(Ag), dissolved.....	0.0076	U	NR		0.0076	U	0.0076	U
Sodium	(Na), dissolved.....	280.7619		NR		2.1000	U	2.1000	U
Strontium	(Sr), dissolved.....	3.4974		NR		0.0200	U	0.0200	U
Thallium	(Tl), dissolved.....	0.010	U	0.010	U	0.010	U	0.010	U
Vanadium	(V), dissolved.....	0.0360	U	NR		0.0360	U	0.0360	U
Zinc	(Zn), dissolved.....	0.0280		NR		0.0508		0.0200	U

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-258	0388-881-183	0388-881-019	0388-881-020
	Customer ID:	FB-10-04-88	MB	MS-1	MS-2
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	%	%
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	NR	NR	NR
Antimony	(Sb), dissolved.....	0.0340 U	NR	NR	NR
Arsenic	(As), dissolved.....	0.005 U	0.005 U	79 %	74 %
Barium	(Ba), dissolved.....	0.0100 U	NR	NR	NR
Beryllium	(Be), dissolved.....	0.0010 U	NR	NR	NR
Cadmium	(Cd), dissolved.....	0.0050 U	NR	NR	NR
Calcium	(Ca), dissolved.....	0.7500 U	NR	NR	NR
Cesium	(Cs), dissolved.....	0.020 U	0.020 U	75 %	75 %
Chromium	(Cr), dissolved.....	0.0100 U	NR	NR	NR
Cobalt	(Co), dissolved.....	0.0220 U	NR	NR	NR
Copper	(Cu), dissolved.....	0.0063 U	NR	NR	NR
Iron	(Fe), dissolved.....	0.0147	NR	NR	NR
Lead	(Pb), dissolved.....	0.005 U	0.005 U	117 %	113 %
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	0.0500 U	NR	NR	NR
Manganese	(Mn), dissolved.....	0.0051 U	NR	NR	NR
Mercury	(Hg), dissolved.....	0.0002 U	NR	NR	NR
Molybdenum	(Mo), dissolved.....	0.0220 U	NR	NR	NR
Nickel	(Ni), dissolved.....	0.0370 U	NR	NR	NR
Potassium	(K), dissolved.....	0.5 U	NR	NR	NR
Selenium	(Se), dissolved.....	0.005 U	0.005 U	73 %	75 %
Silver	(Ag), dissolved.....	0.0076 U	NR	NR	NR
Sodium	(Na), dissolved.....	2.1807	NR	NR	NR
Strontium	(Sr), dissolved.....	0.0200 U	NR	NR	NR
Thallium	(Tl), dissolved.....	0.010 U	0.010 U	105 %	105 %
Vanadium	(V), dissolved.....	0.0360 U	NR	NR	NR
Zinc	(Zn), dissolved.....	0.0200 U	NR	NR	NR

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-268	0388-881-266	0388-881-292	0388-881-264
	Customer ID:	REABLK	REABLK 10/11	REABLK 09-20	REABLK 10/4
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0290 U	0.0290 U	0.0290 U	0.0290 U
Antimony (Sb), dissolved.....		0.0340 U	0.0340 U	0.0340 U	0.0340 U
Arsenic (As), dissolved.....		NR	NR	NR	NR
Barium (Ba), dissolved.....		0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium (Be), dissolved.....		0.0010 U	0.0010 U	0.0010 U	0.0010 U
Cadmium (Cd), dissolved.....		0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....		0.7500 U	0.7500 U	0.7500 U	0.7500 U
Cesium (Cs), dissolved.....		NR	NR	NR	NR
Chromium (Cr), dissolved.....		0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cobalt (Co), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		0.0063 U	0.0063 U	0.0102	0.0063 U
Iron (Fe), dissolved.....		0.0138	0.0729	0.0082	0.0281
Lead (Pb), dissolved.....		NR	NR	NR	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		0.0500 U	0.0500 U	0.0518	0.0500 U
Manganese (Mn), dissolved.....		0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury (Hg), dissolved.....		NR	NR	NR	NR
Molybdenum(Mo), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium (K), dissolved.....		NR	NR	NR	NR
Selenium (Se), dissolved.....		NR	NR	NR	NR
Silver (Ag), dissolved.....		0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		2.1000 U	2.1000 U	2.1000 U	2.1000 U
Strontium (Sr), dissolved.....		0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium (Tl), dissolved.....		NR	NR	NR	NR
Vanadium (V), dissolved.....		0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....		0.0213	0.0872	0.0741	0.0555

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-012	0388-881-215	0388-881-213	0388-881-167
	Customer ID:	REABLK-07-22-88	REABLK-08-23-88	REABLK-09-08-88	REABLK-09-16-8
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0496	0.0290 U	0.0290 U	0.0290 U
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	0.7500 U	0.7500 U	0.7500 U	0.7500 U
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0091	0.0114	0.0118	0.0063 U
Iron	(Fe), dissolved.....	0.0573	0.0219	0.0351	0.0141
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	0.0250	0.0229	0.0209	0.0298
Manganese	(Mn), dissolved.....	0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury	(Hg), dissolved.....	NR	NR	NR	NR
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	NR	NR	NR	NR
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	2.1000 U	2.1000 U	2.1000 U	2.1000 U
Strontium	(Sr), dissolved.....	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	0.0798	0.0454	0.0200 U	0.0448

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 46

Sample Information

	RFW Batch ID:	0388-881-100	0388-881-217	0388-881-101	0388-881-218
	Customer ID:	REABLK-09-23-88	REABLK-09-23-88	REABLK-10-04-88	REABLK-10-04-8
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0290 U	0.0290 U	0.0290 U	0.0290 U
Antimony (Sb), dissolved.....		0.0340 U	0.0340 U	0.0340 U	0.0340 U
Arsenic (As), dissolved.....		NR	NR	NR	NR
Barium (Ba), dissolved.....		0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium (Be), dissolved.....		0.0010 U	0.0021	0.0010 U	0.0010 U
Cadmium (Cd), dissolved.....		0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....		0.7500 U	0.7500 U	0.7500 U	0.7500 U
Cesium (Cs), dissolved.....		NR	NR	NR	NR
Chromium (Cr), dissolved.....		0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cobalt (Co), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		0.0114	0.0199	0.0063 U	0.0063 U
Iron (Fe), dissolved.....		0.0219	0.0623	0.0246	0.0246
Lead (Pb), dissolved.....		NR	NR	NR	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		0.0229	0.0478	0.0370	0.0370
Manganese (Mn), dissolved.....		0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury (Hg), dissolved.....		NR	NR	NR	NR
Molybdenum(Mo), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium (K), dissolved.....		NR	NR	NR	NR
Selenium (Se), dissolved.....		NR	NR	NR	NR
Silver (Ag), dissolved.....		0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		2.1000 U	2.1000 U	2.1000 U	2.1000 U
Strontium (Sr), dissolved.....		0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium (Tl), dissolved.....		NR	NR	NR	NR
Vanadium (V), dissolved.....		0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....		0.0454	0.0213	0.0200 U	0.0200 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 47

Sample Information

	RFW Batch ID:	0388-881-103	0388-881-169	0388-881-171	0388-881-004
	Customer ID:	REABLK-10-05-88	REABLK-10-06-88	REABLK-10-07-88	TB-07-12-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	0.0311	0.0290 U	0.0290 U
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	NR	NR	NR	0.005 U
Barium	(Ba), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	0.7500 U	0.7500 U	0.7500 U	0.7500 U
Cesium	(Cs), dissolved.....	NR	NR	NR	0.020 U
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0063 U	0.0063 U	0.0063 U	0.0106
Iron	(Fe), dissolved.....	0.0141	0.0533	0.0.0281	0.1237
Lead	(Pb), dissolved.....	NR	NR	NR	0.005 U
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	0.0298	0.0500 U	0.0500 U	0.0200 U
Manganese	(Mn), dissolved.....	0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury	(Hg), dissolved.....	NR	NR	NR	NR
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	NR	NR	NR	0.5 U
Selenium	(Se), dissolved.....	NR	NR	NR	0.005 U
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	0.0076 U	0.0110
Sodium	(Na), dissolved.....	2.1000 U	2.1000 U	2.1000 U	3.6933
Strontium	(Sr), dissolved.....	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium	(Tl), dissolved.....	NR	NR	NR	0.010 U
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	0.0448	0.0837	0.0555	0.0749

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 48

Sample Information

	RFW Batch ID:	0388-881-288	0388-881-205	0388-881-090	0388-881-114
	Customer ID:	TB-08-16-88	TB-08-23-88	TB-09-07-88	TB-09-07-88-LD
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	0.0290 U	0.0290 U	NR
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	0.0340 U	NR
Arsenic	(As), dissolved.....	0.005 U	0.005 U	0.005 U	NR
Barium	(Ba), dissolved.....	0.0100 U	0.0100 U	0.0100 U	NR
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	0.0010 U	NR
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	0.0050 U	NR
Calcium	(Ca), dissolved.....	0.7500 U	0.7500 U	0.7500 U	NR
Cesium	(Cs), dissolved.....	0.02 U	0.020 U	0.020 U	NR
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	0.0100 U	NR
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	NR
Copper	(Cu), dissolved.....	0.0177	0.0071	0.0123	NR
Iron	(Fe), dissolved.....	0.0084	0.0177	0.0218	NR
Lead	(Pb), dissolved.....	0.006*	0.005 U	0.007	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	0.0354	0.0228	0.0215	NR
Manganese	(Mn), dissolved.....	0.0051 U	0.0051 U	0.0051 U	NR
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	NR
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	NR
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	0.0370 U	NR
Potassium	(K), dissolved.....	0.5 U	0.5 U	0.5 U	0.5 U
Selenium	(Se), dissolved.....	0.005 U	0.005 U	0.005 U	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	0.0076 U	NR
Sodium	(Na), dissolved.....	4.9357	6.9572	10.1418	NR
Strontium	(Sr), dissolved.....	0.0200 U	0.0200 U	0.0200 U	NR
Thallium	(Tl), dissolved.....	0.01 U	0.010 U	0.010 U	NR
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	0.0360 U	NR
Zinc	(Zn), dissolved.....	0.0200 U	0.0257	0.0643 U	NR

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 49

Sample Information

	RFW Batch ID:	0388-881-104	0388-881-115	0388-881-116	0388-881-105
	Customer ID:	TB-09-07-88-S	TB-09-07-88-S1	TB-09-07-88-S2	TB-09-07-88-S'
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	%	%	MG/L
Metals					
Aluminum	(Al), dissolved.....	1.0735	NR	NR	1.0095
Antimony	(Sb), dissolved.....	0.9978	NR	NR	0.9719
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	0.0939	NR	NR	0.0931
Beryllium	(Be), dissolved.....	0.0853	NR	NR	0.0823
Cadmium	(Cd), dissolved.....	0.0984	NR	NR	0.0999
Calcium	(Ca), dissolved.....	9.8451	NR	NR	9.7139
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	1.0836	NR	NR	1.0730
Cobalt	(Co), dissolved.....	0.9475	NR	NR	0.9415
Copper	(Cu), dissolved.....	0.9415	NR	NR	0.9292
Iron	(Fe), dissolved.....	0.1177	NR	NR	0.1121
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	0.1047	NR	NR	0.1032
Manganese	(Mn), dissolved.....	0.9632	NR	NR	0.9441
Mercury	(Hg), dissolved.....	NR	NR	NR	NR
Molybdenum	(Mo), dissolved.....	0.9762	NR	NR	0.9893
Nickel	(Ni), dissolved.....	1.0485	NR	NR	1.0150
Potassium	(K), dissolved.....	NR	100 %	102 %	NR
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	0.5447	NR	NR	0.1546
Sodium	(Na), dissolved.....	19.6651	NR	NR	17.6218
Strontium	(Sr), dissolved.....	0.9146	NR	NR	0.9021
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	1.0163	NR	NR	1.0092
Zinc	(Zn), dissolved.....	0.1754	NR	NR	0.1723

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 50

Sample Information

	RFW Batch ID:	0388-881-075	0388-881-121	0388-881-106	0388-881-122
	Customer ID:	TB-09-13-88	TB-09-13-88-LD	TB-09-13-88-S	TB-09-13-88-SI
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	%
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	NR	1.0127	NR
Antimony	(Sb), dissolved.....	0.0340 U	NR	0.9431	NR
Arsenic	(As), dissolved.....	0.005 U	NR	NR	NR
Barium	(Ba), dissolved.....	0.0100 U	NR	0.0978	NR
Beryllium	(Be), dissolved.....	0.0010 U	NR	0.0983	NR
Cadmium	(Cd), dissolved.....	0.0050 U	NR	0.1054	NR
Calcium	(Ca), dissolved.....	0.7500 U	NR	10.0943	NR
Cesium	(Cs), dissolved.....	0.020 U	NR	NR	NR
Chromium	(Cr), dissolved.....	0.0100 U	NR	1.0724	NR
Cobalt	(Co), dissolved.....	0.0220 U	NR	1.0030	NR
Copper	(Cu), dissolved.....	0.0127	NR	0.9582	NR
Iron	(Fe), dissolved.....	0.0255	NR	0.1410	NR
Lead	(Pb), dissolved.....	0.005 U	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	0.0372	NR	0.1244	NR
Manganese	(Mn), dissolved.....	0.0051 U	NR	0.9439	NR
Mercury	(Hg), dissolved.....	0.0002 U	NR	NR	NR
Molybdenum	(Mo), dissolved.....	0.0220 U	NR	1.0092	NR
Nickel	(Ni), dissolved.....	0.0370 U	NR	1.0292	NR
Potassium	(K), dissolved.....	0.5 U	0.5 U	NR	92 %
Selenium	(Se), dissolved.....	0.005 U	NR	NR	NR
Silver	(Ag), dissolved.....	0.0076 U	NR	0.8849	NR
Sodium	(Na), dissolved.....	12.8492	NR	22.2548	NR
Strontium	(Sr), dissolved.....	0.0200 U	NR	1.0908	NR
Thallium	(Tl), dissolved.....	0.010 U	NR	NR	NR
Vanadium	(V), dissolved.....	0.0360 U	NR	1.0047	NR
Zinc	(Zn), dissolved.....	0.0217	NR	0.1328	NR

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 51

Sample Information

RFW Batch ID:	0388-881-123	0388-881-107	0388-881-155	0388-881-244
Customer ID:	TB-09-13-88-S2	TB-09-13-88-SD	TB-09-20-88	TB-09-27-88
Matrix:	Water	Water	Water	Water
Units:	%	MG/L	MG/L	MG/L

Metals

Aluminum (Al), dissolved.....	NR	1.0226	0.0290 U	0.0290 U
Antimony (Sb), dissolved.....	NR	0.9577	0.0340 U	0.0340 U
Arsenic (As), dissolved.....	NR	NR	0.005 U	0.005 U
Barium (Ba), dissolved.....	NR	0.0987	0.0100 U	0.0100 U
Beryllium (Be), dissolved.....	NR	0.0994	0.0010 U	0.0010 U
Cadmium (Cd), dissolved.....	NR	0.1028	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....	NR	10.1637	0.7500 U	0.7500 U
Cesium (Cs), dissolved.....	NR	NR	0.020 U	0.020 U
Chromium (Cr), dissolved.....	NR	1.0767	0.0100 U	0.0119
Cobalt (Co), dissolved.....	NR	1.0079	0.0220 U	0.0220 U
Copper (Cu), dissolved.....	NR	0.9626	0.0063 U	0.0063 U
Iron (Fe), dissolved.....	NR	0.1374	0.0208	0.0667
Lead (Pb), dissolved.....	NR	NR	0.005 U	0.005 U
Lithium (Li), dissolved.....	NR	NR	NR	NR
Magnesium (Mg), dissolved.....	NR	0.1142	0.0500 U	0.0500 U
Manganese (Mn), dissolved.....	NR	0.9486	0.0051 U	0.0051 U
Mercury (Hg), dissolved.....	NR	NR	0.0002 U	0.0002 U
Molybdenum(Mo), dissolved.....	NR	0.9861	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....	NR	0.0399	0.0370 U	0.0370 U
Potassium (K), dissolved.....	96 %	NR	0.5 U	0.5 U
Selenium (Se), dissolved.....	NR	NR	0.005 U	0.005 U
Silver (Ag), dissolved.....	NR	0.9725	0.0076 U	0.0076 U
Sodium (Na), dissolved.....	NR	21.1878	2.1000 U	2.1000 U
Strontium (Sr), dissolved.....	NR	1.1014	0.0200 U	0.0200 U
Thallium (Tl), dissolved.....	NR	NR	0.010 U	0.010 U
Vanadium (V), dissolved.....	NR	1.0140	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....	NR	0.1258	0.0577	0.0851

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THIRD QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0388-881-257	0388-881-083	0388-881-099	0388-881-102
	Customer ID:	TB-10-04-88	TB-8-31-88	TBL-09-07-88	TBL-09-13-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	0.0464	0.0290 U	0.0291
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	0.005 U	0.005 U	NR	NR
Barium	(Ba), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	0.7500 U	0.7500 U	0.7500 U	0.7500 U
Cesium	(Cs), dissolved.....	0.020 U	0.020 U	NR	NR
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0063 U	0.0150	0.0133	0.0071
Iron	(Fe), dissolved.....	0.0298	0.0263	0.0188	0.0486
Lead	(Pb), dissolved.....	0.005 U	0.008	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	0.0500 U	0.0200 U	0.0200 U	0.0261
Manganese	(Mn), dissolved.....	0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	NR	NR
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	0.5 U	0.5 U	NR	NR
Selenium	(Se), dissolved.....	0.005 U	0.005 U	NR	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	2.3169	9.6314	9.5872	12.9862
Strontium	(Sr), dissolved.....	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium	(Tl), dissolved.....	0.010 U	0.010 U	NR	NR
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	0.0260	0.1051	0.0686	0.0200 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

APPENDIX H-4

DISSOLVED RADIONUCLIDES

THIRD QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-001			0388-881-021			0388-881-157		
Customer ID:	10-81-07-08-88			10-81-07-08-88LD			10-86-09-20-88		
Matrix:	Water			Water			Water		
Radio Chemistry									
Gross Alpha	1 ± 1	pci/l	2	1 ± 1	pci/l	2			
Gross Beta	1 ± 1	pci/l	4	2 ± 1	pci/l	4			
Uranium 233, 234	0.00 ± 0.21	pci/l	0.54						
Uranium 235	0.00 ± 0.03	pci/l	0.07						
Uranium 238	0.00 ± 0.16	pci/l	0.40						
Strontium 89, 90									
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.09						
Americium 241	0.00 ± 0.12	pci/l	0.36						
Tritium	210	pci/l					<200	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-158			0388-881-087			0388-881-089		
Customer ID:	10-86-09-20-88-FD			14-86-08-31-88			15-86-09-01-88		
Matrix:	Water			Water			Water		
Radio Chemistry									
Gross Alpha									
Gross Beta									
Uranium 233, 234									
Uranium 235									
Uranium 238									
Strontium 89, 90									
Plutonium 239, 240									
Americium 241									
Tritium				<210	pci/l		<200	pci/l	

THIRD QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-085	0388-881-086	0388-881-088
Customer ID:	16-86-08-31-88	16-86-08-31-88-FD	17-86-08-31-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<200	pci/l	<200	pci/l	840 ± 110	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-072	0388-881-074	0388-881-081
Customer ID:	19-86-09-07-88	2-60-09-09-88	21-86-09-15-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<200	pci/l	700 ± 110	pci/l	<200	pci/l

THIRD QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-098	0388-881-073	0388-881-077
Customer ID:	21-86-09-15-88-LD	22-86-09-09-88	25-86-09-13-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<200	pci/l	360 ± 100	pci/l	<200	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-078	0388-881-079	0388-881-096
Customer ID:	25-86-09-13-88-FD	27-86-09-13-88	27-86-09-13-88-LD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<200	pci/l	<200	pci/l	<200	pci/l

THIRD QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-094	0388-881-250	0388-881-261
Customer ID:	28-86-09-07-88	3-82-09-29-88	3-82-09-29-88LD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	5900 ± 200	pci/l	<210	pci/l	<210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-082	0388-881-080	0388-881-097
Customer ID:	30-86-09-15-88	32-86-09-13-88	32-86-09-13-88-LD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	8100 ± 300	pci/l	<220	pci/l	<220	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-092	0388-881-093	0388-881-254
Customer ID:	4-60-09-07-88	4-60-09-07-88-FD	44-86-09-30-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	1300 ± 100	pci/l	1300 ± 100	pci/l	<220	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-263	0388-881-251	0388-881-262
Customer ID:	44-86-09-30-88LD	45-86-09-29-88	45-86-09-29-88LD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<220	pci/l	<200	pci/l	<210	pci/l

THIRD QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 6

Sample Information

RFW Batch ID:	0388-881-010			0388-881-009			0388-881-252			
Customer ID:	46-86-07-13-88			47-86-07-12-88			48-86-09-30-88			
Matrix:	Water			Water			Water			
Radio Chemistry										
Gross Alpha	3 ± 1	pci/l		2 ± 1	pci/l	2				
Gross Beta	8 ± 2	pci/l		0 ± 2	pci/l	4				
Uranium 233, 234	1.5 ± 0.3	pci/l		0.14 ± 0.21	pci/l	0.68				
Uranium 235	0.00 ± 0.03	pci/l	0.10	0.00 ± 0.03	pci/l	0.09				
Uranium 238	0.78 ± 0.24	pci/l		0.23 ± 0.17	pci/l	0.50				
Strontium 89, 90										
Plutonium 239, 240	0.12 ± 0.07	pci/l		0.12 ± 0.07	pci/l					
Americium 241	0.00 ± 0.09	pci/l	0.33	0.01 ± 0.17	pci/l	1.2				
Tritium				200	pci/l		<210	pci/l		

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-253			0388-881-248			0388-881-260			
Customer ID:	49-86-09-30-88			5-82-09-27-88			5-82-09-27-88LD			
Matrix:	Water			Water			Water			
Radio Chemistry										
Gross Alpha										
Gross Beta										
Uranium 233, 234										
Uranium 235										
Uranium 238										
Strontium 89, 90										
Plutonium 239, 240										
Americium 241										
Tritium	<220	pci/l		<200	pci/l		<190	pci/l		

Client: ROCKWELL (ROCKY FLATS) Page: 7

Sample Information

RFW Batch ID:	0388-881-259			0388-881-003			0388-881-002			
Customer ID:	50-86-10-04-88			51-86-07-08-88			52-86-07-08-88			
Matrix:	Water			Water			Water			
Radio Chemistry										
Gross Alpha				1 ± 1	pci/l	2	1 ± 1	pci/l	2	
Gross Beta				0 ± 1	pci/l	4	2 ± 1	pci/l	4	
Uranium 233, 234				0.00 ± 0.20	pci/l	0.69	0.00 ± 0.21	pci/l	0.75	
Uranium 235				0.00 ± 0.03	pci/l	0.09	0.00 ± 0.03	pci/l	0.10	
Uranium 238				0.00 ± 0.15	pci/l	0.51	0.00 ± 0.16	pci/l	0.56	
Strontium 89, 90										
Plutonium 239, 240				0.00 ± 0.04	pci/l	0.09	0.00 ± 0.04	pci/l	0.11	
Americium 241				0.00 ± 0.09	pci/l	0.40	0.04 ± 0.09	pci/l	0.55	
Tritium	<220	pci/l		210	pci/l		210	pci/l		

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-005			0388-881-022			0388-881-006			
Customer ID:	54-86-07-12-88			54-86-07-12-88LD			55-86-07-12-88			
Matrix:	Water			Water			Water			
Radio Chemistry										
Gross Alpha	4 ± 1	pci/l		3 ± 1	pci/l	3	1 ± 1	pci/l	2	
Gross Beta	6 ± 2	pci/l		3 ± 1	pci/l	4	2 ± 1	pci/l	4	
Uranium 233, 234	0.95 ± 0.25	pci/l					0.23 ± 0.21	pci/l	0.84	
Uranium 235	0.02 ± 0.03	pci/l	0.10				0.00 ± 0.03	pci/l	0.11	
Uranium 238	0.28 ± 0.22	pci/l	0.80				0.11 ± 0.16	pci/l	0.62	
Strontium 89, 90										
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.11				0.00 ± 0.04	pci/l	0.09	
Americium 241	0.00 ± 0.08	pci/l	0.49				0.02 ± 0.18	pci/l	0.61	
Tritium	200	pci/l					210	pci/l		

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-007			0388-881-152			0388-881-153	
Customer ID:	55-86-07-12-88-FD			58-87-09-16-88			59-87-09-16-88	
Matrix:	Water			Water			Water	
Radio Chemistry								
Gross Alpha	0 ± 1	pci/l	2					
Gross Beta	0 ± 2	pci/l	4					
Uranium 233, 234	0.00 ± 0.21	pci/l	0.64					
Uranium 235	0.00 ± 0.03	pci/l	0.09					
Uranium 238	0.00 ± 0.16	pci/l	0.47					
Strontium 89, 90								
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.10					
Americium 241	0.00 ± 0.17	pci/l	0.61					
Tritium	220 ± 90	pci/l		<200	pci/l		<200	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-249			0388-881-161			0388-881-164	
Customer ID:	6-82-09-27-88			60-87-09-22-88			60-87-09-22-88-LD	
Matrix:	Water			Water			Water	
Radio Chemistry								
Gross Alpha								
Gross Beta								
Uranium 233, 234								
Uranium 235								
Uranium 238								
Strontium 89, 90								
Plutonium 239, 240								
Americium 241								
Tritium	<190	pci/l		<190	pci/l		<200	pci/l

THIRD QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-147	0388-881-148	0388-881-149
Customer ID:	61-87-09-23-88	62-87-09-23-88	63-87-09-23-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha						
Gross Beta						
Uranium 233, 234						
Uranium 235						
Uranium 238						
Strontium 89, 90						
Plutonium 239, 240						
Americium 241						
Tritium	<200	pci/l			2100 ± 100	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-166	0388-881-150	0388-881-151
Customer ID:	63-87-09-23-88-LD	64-87-09-23-88	65-87-09-23-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha						
Gross Beta						
Uranium 233, 234						
Uranium 235						
Uranium 238						
Strontium 89, 90						
Plutonium 239, 240						
Americium 241						
Tritium	2100 ± 100	pci/l		<200	pci/l	

THIRD QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 10

Sample Information

RFW Batch ID:	0388-881-154	0388-881-162	0388-881-163
Customer ID:	66-87-09-16-88	67-87-09-22-88	68-87-09-22-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<200	pci/l	<200	pci/l	<200	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-146	0388-881-165	0388-881-160
Customer ID:	70-87-09-22-88	70-87-09-22-88-LD	71-87-09-20-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....				
Gross Beta.....				
Uranium 233, 234.....				
Uranium 235.....				
Uranium 238.....				
Strontium 89, 90.....				
Plutonium 239, 240.....				
Americium 241.....				
Tritium.....	<200	pci/l	<200	pci/l

THIRD QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-255		0388-881-256		0388-881-246	
Customer ID:	8-81-10-04-88		8-81-10-04-88-FD		9-81-09-27-88	
Matrix:	Water		Water		Water	
Radio Chemistry						
Gross Alpha						
Gross Beta						
Uranium 233, 234						
Uranium 235						
Uranium 238						
Strontium 89, 90						
Plutonium 239, 240						
Americium 241						
Tritium	<210	pci/l	<220	pci/l	<190	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-247		0388-881-159		0388-881-008		
Customer ID:	9-81-09-27-88-FD		9-86-09-20-88		FB-07-12-88		
Matrix:	Water		Water		Water		
Radio Chemistry							
Gross Alpha					1 ± 1	pci/l	2
Gross Beta					-1 ± 2	pci/l	4
Uranium 233, 234					0.00 ± 0.21	pci/l	0.56
Uranium 235					0.00 ± 0.03	pci/l	0.07
Uranium 238					0.00 ± 0.16	pci/l	0.42
Strontium 89, 90							
Plutonium 239, 240					0.00 ± 0.04	pci/l	0.09
Americium 241					0.00 ± 0.17	pci/l	0.72
Tritium	<190	pci/l	<200	pci/l	200	pci/l	

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-084	0388-881-091	0388-881-076
Customer ID:	FB-08-31-88	FB-09-07-88	FB-09-13-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<210	pci/l	<200	pci/l	<210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-156	0388-881-245	0388-881-258
Customer ID:	FB-09-20-88	FB-09-27-88	FB-10-04-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<200	pci/l	<190	pci/l	<220	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-004			0388-881-095			0388-881-090	
Customer ID:	TB-07-12-88			TB-08-31-88-LD			TB-09-07-88	
Matrix:	Water			Water			Water	
Radio Chemistry								
Gross Alpha	0 ± 1	pci/l	2					
Gross Beta	6 ± 2	pci/l						
Uranium 233, 234	0.01 ± 0.21	pci/l	0.75					
Uranium 235	0.00 ± 0.03	pci/l	0.10					
Uranium 238	0.17 ± 0.21	pci/l	0.75					
Strontium 89, 90								
Plutonium 239, 240	0.00 ± 0.04	pci/l	0.09					
Americium 241	0.00 ± 0.09	pci/l	0.28					
Tritium	210	pci/l		<200	pci/l		<200	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-075			0388-881-155			0388-881-244	
Customer ID:	TB-09-13-88			TB-09-20-88			TB-09-27-88	
Matrix:	Water			Water			Water	
Radio Chemistry								
Gross Alpha								
Gross Beta								
Uranium 233, 234								
Uranium 235								
Uranium 238								
Strontium 89, 90								
Plutonium 239, 240								
Americium 241								
Tritium	<200	pci/l		<200	pci/l		<190	pci/l

THIRD QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0388-881-257	0388-881-083
Customer ID:	TB-10-04-88	TB-8-31-88
Matrix:	Water	Water

Radio Chemistry

Gross Alpha.....				
Gross Beta.....				
Uranium 233, 234.....				
Uranium 235.....				
Uranium 238.....				
Strontium 89, 90.....				
Plutonium 239, 240.....				
Americium 241.....				
Tritium.....	<220	pci/l	<200	pci/l

APPENDIX I

GROUND-WATER QUALITY DATA
FOURTH QUARTER 1988

APPENDIX I-1

VOLATILE ORGANICS

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 1

Sample Information

Batch ID:	0488-881-166	0488-881-053	0488-881-054	0488-881-112
Field ID:	1-74-11-03-88	10-81-10-11-88	10-81-10-12-88-FD	10-86-12-07-88
Collection Date:	11/03/88	10/11/88	10/12/88	12/07/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	NR	NR	NR	95 %
Bromofluorobenzene:	NR	NR	NR	90 %
1,2-Dichloroethane-d4:	NR	NR	NR	85 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	4 JB	5 U	5 U	4 BJ
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	4 J	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	6 B	5 U	5 U	2 BJ
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5700 E	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5300 E	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 JB	5 U	5 U	4 BJ
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	9	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0488-881-042	0488-881-004	0488-881-003	0488-881-005
Field ID:	13-86-11-30-88	14-86-11-28-88-FD	14-86-11-29-88	15-86-11-28-8
Collection Date:	11/30/88	11/28/88	11/29/88	11/28/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	NR	NR	NR	NR
Bromofluorobenzene:	NR	NR	NR	NR
1,2-Dichloroethane-d4:	NR	NR	NR	NR

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	4 JB	5 J	4 J	4 JB
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	2 JB	2 J	2 J	2 JB
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	3 JB	4 J	4 J	4 JB
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0488-881-006	0488-881-007	0488-881-167	0488-881-178
Field ID:	16-86-11-28-88	17-86-11-28-88	17-87-11-03-88	18-87-11-03-88
Collection Date:	11/28/88	11/28/88	11/03/88	11/03/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	NR	NR	NR	NR
Bromofluorobenzene:	NR	NR	NR	NR
1,2-Dichloroethane-d4:	NR	NR	NR	NR

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 J	5 JB	6 B	5 B
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	2 J	2 JB	13 B	4 JB
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	77	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	2 J	26	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	190	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	4 J	4 JB	5 B	5 B
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0488-881-009	0488-881-014	0488-881-175	0488-881-008
Field ID:	19-86-11-28-88	2-60-12-01-88	20-87-11-08-88	21-86-11-28-88
Collection Date:	11/28/88	12/01/88	11/08/88	11/28/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	NR	NR	70 %	NR
Bromofluorobenzene:	NR	NR	28 %	NR
1,2-Dichloroethane-d4:	NR	NR	428 %	NR

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 JB	4 JB	5 U	4 JB
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	2 JB	4 JB	5 U	2 JB
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	3 J	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	4 JB	4 JB	5 U	4 JB
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 5

Sample Information

Batch ID:	0488-881-176	0488-881-170	0488-881-043	0488-881-165
Field ID:	21-87-11-08-88	22-87-11-08-88	23-86-11-30-88	23-87-11-03-8
Collection Date:	11/08/88	11/08/88	11/30/88	11/03/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	136 %	310 %	NR	NR
Bromofluorobenzene:	112 %	278 %	NR	NR
1,2-Dichloroethane-d4:	278 %	210 %	NR	NR

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	4 JB	6 B
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	2 JB	3 JB
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	4 J	5 U	5 U	3 J
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	4 JB	5 B
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0488-881-018	0488-881-019	0488-881-104	0488-881-012
Field ID:	25-86-12-05-88	27-86-12-05-88	3-82-12-19-88	30-86-12-01-88
Collection Date:	12/05/88	12/05/88	12/19/88	12/01/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	NR	NR	NR	NR
Bromofluorobenzene:	NR	NR	NR	NR
1,2-Dichloroethane-d4:	NR	NR	NR	NR

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	4 JB	4 JB
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	3 JB	3 JB	5 U	3 JB
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	2 J
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 JB	5 JB	5 JB	3 JB
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0488-881-013	0488-881-163	0488-881-164	0488-881-177
Field ID:	32-86-12-01-88	34-86-11-03-88	35-86-11-03-88	37-86-11-08-88
Collection Date:	12/01/88	11/03/88	11/03/88	11/08/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	NR	NR	NR	300 %
Bromofluorobenzene:	NR	NR	NR	224 %
1,2-Dichloroethane-d4:	NR	NR	NR	244 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	730 E	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	3 JB	6 B	6 B	5 U
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	62	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	2 JB	3 JB	3 JB	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	7	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	9	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	4 JB	4 JB	5 B	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0488-881-044	0488-881-015	0488-881-155	0488-881-078
Field ID:	39-87-11-30-88	4-60-12-01-88	41-87-12-13-88	44-86-12-15-88
Collection Date:	11/30/88	12/01/88	12/13/88	12/15/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	NR	NR	108 %	NR
Bromofluorobenzene:	NR	NR	97 %	NR
1,2-Dichloroethane-d4:	NR	NR	91 %	NR

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	3 JB	3 JB	5 BJ	3 JB
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	2 JB	2 JB	2 BJ	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	NR	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	2 J	5 U	29
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	3 JB	3 JB	5 BJ	3 JB
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0488-881-079	0488-881-080	0488-881-061	0488-881-062
Field ID:	44-86-12-15-88-FD	45-86-12-15-88	46-86-10-13-88	47-86-10-13-88
Collection Date:	12/15/88	12/15/88	10/13/88	10/13/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	NR	NR	NR	NR
Bromofluorobenzene:	NR	NR	NR	NR
1,2-Dichloroethane-d4:	NR	NR	NR	NR

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	3 JB	4 JB	5 U	3 JB
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	2 JB	4 JB	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	28	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	3 JB	3 JB	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0488-881-085	0488-881-086	0488-881-083	0488-881-084
Field ID:	48-86-12-19-88	49-86-12-19-88	5-82-12-19-88	50-86-12-19-88
Collection Date:	12/19/88	12/19/88	12/19/88	12/19/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	NR	NR	NR	NR
Bromofluorobenzene:	NR	NR	NR	NR
1,2-Dichloroethane-d4:	NR	NR	NR	NR

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	4 JB	5 JB	4 JB	4 JB
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	2 JB	3 JB	2 JB	2 JB
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 JB	5 JB	5 JB	5 JB
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0488-881-055	0488-881-058	0488-881-059	0488-881-124
Field ID:	52-86-10-28-88	54-86-10-13-88	55-86-10-13-88	58-87-12-14-88
Collection Date:	10/28/88	10/13/88	10/13/88	12/14/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	NR	NR	NR	105 %
Bromofluorobenzene:	NR	NR	NR	95 %
1,2-Dichloroethane-d4:	NR	NR	NR	94 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 U	5 U	4 BJ
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	3 J	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 B	2 BJ
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	4 J	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	4 J	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	1 JB	4 BJ
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0488-881-153	0488-881-103	0488-881-116	0488-881-117
Field ID:	59-87-12-06-88	6-82-12-19-88	61-87-12-09-88	62-87-12-09-88
Collection Date:	12/06/88	12/19/88	12/09/88	12/09/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	96 %	NR	92 %	94 %
Bromofluorobenzene:	91 %	NR	88 %	88 %
1,2-Dichloroethane-d4:	82 %	NR	79 %	81 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 B	5 B	4 BJ	4 BJ
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	3 JB	2 BJ	2 BJ
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	4 BJ	5 JB	4 BJ	4 BJ
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER

VOLATILE

ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0488-881-118	0488-881-154	0488-881-119	0488-881-113
Field ID:	63-87-12-09-88	64-87-12-08-88	65-87-12-09-88	66-87-12-07-88
Collection Date:	12/09/88	12/08/88	12/09/88	12/07/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	102 %	105 %	108 %	97 %
Bromofluorobenzene:	100 %	97 %	94 %	96 %
1,2-Dichloroethane-d4:	100 %	86 %	91 %	82 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 B	5 BJ	4 BJ	3 BJ
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5	5 J	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	2 BJ	2 BJ
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	3 J	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	4 J	20	5
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	4 J	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5	2 J	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 BJ	5 BJ	5 BJ	4 BJ
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.

Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0488-881-122	0488-881-123	0488-881-075	0488-881-125
Field ID:	67-87-12-14-88	68-87-12-14-88	7-82-10-28-88	70-87-12-14-88
Collection Date:	12/14/88	12/14/88	10/28/88	12/14/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	106 %	104 %	NR	107 %
Bromofluorobenzene:	93 %	98 %	NR	99 %
1,2-Dichloroethane-d4:	93 %	99 %	NR	100 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	4 BJ	4 BJ	5 U	4 BJ
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	2 BJ	2 BJ	5 U	2 BJ
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	4 BJ	4 BJ	5 U	5 BJ
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 15

Sample Information

Batch ID:	0488-881-108	0488-881-109	0488-881-090	0488-881-156
Field ID:	71-87-12-06-88	71-87-12-06-88FD	8-81-12-21-88	8-86-12-15-88
Collection Date:	12/06/88	12/06/88	12/21/88	12/15/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	93 %	98 %	NR	101 %
Bromofluorobenzene:	91 %	94 %	NR	91 %
1,2-Dichloroethane-d4:	83 %	81 %	NR	92 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	4 BJ	3 BJ	4 JB	4 BJ
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	2 JB	2 BJ
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	10 U	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	4 BJ	4 BJ	4 JB	3 BJ
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0488-881-089	0488-881-128	0488-881-052	0488-881-057
Field ID:	9-81-12-21-88	9-86-12-16-88	FB-10-11-88	FB-10-13-88
Collection Date:	12/21/88	12/16/88	10/11/88	10/13/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	NR	102 %	NR	NR
Bromofluorobenzene:	NR	94 %	NR	NR
1,2-Dichloroethane-d4:	NR	83 %	NR	NR

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	4 JB	4 BJ	5 J	6 B
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	2 BJ	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	NR	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	4 JB	3 BJ	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0488-881-162	0488-881-169	0488-881-002	0488-881-011
Field ID:	FB-11-03-88	FB-11-08-88	FB-11-28-88	FB-12-01-88
Collection Date:	11/03/88	11/08/88	11/28/88	12/01/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	NR	126 %	NR	NR
Bromofluorobenzene:	NR	114 %	NR	NR
1,2-Dichloroethane-d4:	NR	566 %	NR	NR

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	14 B	5 U	22	5 B
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	2 J	2 JB
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	23	10 U	28	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	4 JB	5 U	5 J	4 JB
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0488-881-017	0488-881-111	0488-881-115	0488-881-121
Field ID:	FB-12-05-88	FB-12-07-88	FB-12-09-88	FB-12-14-88
Collection Date:	12/05/88	12/07/88	12/09/88	12/14/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	NR	95 %	96 %	102 %
Bromofluorobenzene:	NR	93 %	89 %	102 %
1,2-Dichloroethane-d4:	NR	85 %	82 %	97 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 U	5 B	4 BJ	4 BJ
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	3 JB	2 BJ	2 BJ	2 BJ
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	22	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	NR	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 JB	4 BJ	4 BJ	5 BJ
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER

VOLATILE

ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0488-881-127	0488-881-082	0488-881-088	0488-881-051
Field ID:	FB-12-16-88	FB-12-19-88	FB-12-21-88	TB-10-12-88
Collection Date:	12/16/88	12/19/88	12/21/88	10/12/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	101 %	NR	NR	NR
Bromofluorobenzene:	94 %	NR	NR	NR
1,2-Dichloroethane-d4:	91 %	NR	NR	NR

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 B	30 B	8 B	5
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	2 BJ	3 JB	2 JB	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	23	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	3 J
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	3 J
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	3 BJ	5 JB	4 JB	5 U
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.

Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0488-881-056	0488-881-161	0488-881-168	0488-881-001
Field ID:	TB-10-13-88	TB-11-03-88	TB-11-08-88	TB-11-28-88
Collection Date:	10/13/88	11/03/88	11/08/88	11/28/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	NR	NR	96 %	NR
Bromofluorobenzene:	NR	NR	128 %	NR
1,2-Dichloroethane-d4:	NR	NR	146 %	NR

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	7 B	17 B	5 U	6
Acetone	10 U	10 U	10 U	6 J
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	5 U	3 JB	5 U	2 J
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	28	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	1 JB	4 JB	5 U	4 J
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0488-881-010	0488-881-016	0488-881-110	0488-881-114
Field ID:	TB-12-01-88	TB-12-05-88	TB-12-07-88	TB-12-09-88
Collection Date:	12/01/88	12/05/88	12/07/88	12/09/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	NR	NR	96 %	99 %
Bromofluorobenzene:	NR	NR	91 %	94 %
1,2-Dichloroethane-d4:	NR	NR	81 %	86 %

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	5 JB	8 B	10 B	4 BJ
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	2 JB	3 JB	5 U	2 BJ
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	10 U	10 U	NR	NR
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	4 JB	4 JB	5 BJ	4 BJ
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
VOLATILE
ORGANICS SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

Batch ID:	0488-881-120	0488-881-126	0488-881-081	0488-881-087
Field ID:	TB-12-14-88	TB-12-16-88	TB-12-19-88	TB-12-21-88
Collection Date:	12/14/88	12/16/88	12/19/88	12/21/88
Units:	UG/L	UG/L	UG/L	UG/L

Surrogate Recovery

Toluene-d8:	109 %	103 %	NR	NR
Bromofluorobenzene:	98 %	94 %	NR	NR
1,2-Dichloroethane-d4:	93 %	92 %	NR	NR

Analytes

Chloromethane	10 U	10 U	10 U	10 U
Bromomethane	10 U	10 U	10 U	10 U
Vinyl Chloride	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U
Methylene Chloride	6 B	5 B	7 B	8 B
Acetone	10 U	10 U	10 U	10 U
Carbon Disulfide	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U
Chloroform	2 BJ	2 BJ	5 U	2 JB
1,2-Dichloroethane	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U
Vinyl Acetate	10 U	10 U	10 U	10 U
Bromodichloromethane	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U
2-Chloroethylvinylether	NR	NR	10 U	10 U
Bromoform	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U
Toluene	5 BJ	4 BJ	5 JB	4 JB
Chlorobenzene	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U
Total Xylenes	5 U	5 U	5 U	5 U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

APPENDIX I-2

INORGANICS

02/23/89

FOURTH QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-166		0488-881-053		0488-881-054	
	Customer ID:	1-74-11-04-88		10-81-10-12-88		10-81-10-12-88-FD	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		385	mg/l	133	mg/l	133	mg/l
Chloride		19.5	mg/l	4.16	mg/l	4.17	mg/l
Nitrate-Nitrite as N		7.12	mg/l	6.78	mg/l	6.76	mg/l
Sulfate		30.4	mg/l	16.8	mg/l	16.6	mg/l
HCO3- as CaCO3		208	mg/l	31.8	mg/l	32.6	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-112		0488-881-003		0488-881-004	
	Customer ID:	10-86-12-07-88		14-86-11-29-88		14-86-11-29-88-FD	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		123	mg/l	1263	mg/l	1283	mg/l
Chloride		3.61	mg/l	84.4	mg/l	84.1	mg/l
Nitrate-Nitrite as N		3.32	mg/l	0.02 U	mg/l	0.02 U	mg/l
Sulfate		15.9	mg/l	697	mg/l	689	mg/l
HCO3- as CaCO3		34.9	mg/l	334	mg/l	338	mg/l
CO3= as CaCO3			mg/l				

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

FOURTH QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-005		0488-881-006		0488-881-007	
	Customer ID:	15-86-11-29-88		16-86-11-29-88		17-86-11-29-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		936	mg/l	1378	mg/l	4204	mg/l
Chloride		76.6	mg/l	81.9	mg/l	130	mg/l
Nitrate-Nitrite as N		56.6	mg/l	0.13	mg/l	763	mg/l
Sulfate		159	mg/l	584	mg/l	932	mg/l
HCO3- as CaCO3		354	mg/l	337	mg/l	240	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-167		0488-881-009		0488-881-014	
	Customer ID:	17-87-11-04-88		19-86-11-29-88		2-60-12-02-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		443	mg/l	896	mg/l	12580	mg/l
Chloride		40.0	mg/l	87.7	mg/l	933	mg/l
Nitrate-Nitrite as N		2.08	mg/l	0.09	mg/l	185	mg/l
Sulfate		57.1	mg/l	108	mg/l	834	mg/l
HCO3- as CaCO3		256	mg/l	578	mg/l	71.1	mg/l
CO3= as CaCO3							

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

FOURTH QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 3

Sample Information

RFW Batch ID:	0488-881-008	0488-881-170	0488-881-165
Customer ID:	21-86-11-29-88	22-87-11-09-88	23-87-11-04-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	258	mg/l	638	mg/l	344	mg/l
Chloride.....	3.87	mg/l	7.84	mg/l	65.1	mg/l
Nitrate-Nitrite as N.....	0.05	mg/l	0.11	mg/l	2.98	mg/l
Sulfate.....	18.6	mg/l	387	mg/l	16.6	mg/l
HCO3- as CaCO3.....	208	mg/l	97.0	mg/l	192	mg/l
CO3= as CaCO3.....						

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-018	0488-881-019	0488-881-012
Customer ID:	25-86-12-06-88	27-86-12-06-88	30-86-12-02-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	2126	mg/l	821	mg/l	9750	mg/l
Chloride.....	44.8	mg/l	151	mg/l	236	mg/l
Nitrate-Nitrite as N.....	0.11	mg/l	0.30	mg/l	1431	mg/l
Sulfate.....	1315	mg/l	271	mg/l	304	mg/l
HCO3- as CaCO3.....	377	mg/l	163	mg/l	271	mg/l
CO3= as CaCO3.....						

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

FOURTH QUARTER 1988 GROUNDWATER

INORGANIC

DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 4

Sample Information

RFW Batch ID:	0488-881-013	0488-881-163	0488-881-164
Customer ID:	32-86-12-02-88	34-86-11-04-88	35-86-11-04-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	499	mg/l	1750	mg/l	1003	mg/l
Chloride	117	mg/l	56.2	mg/l	97.4	mg/l
Nitrate-Nitrite as N	1.40	mg/l	0.02 U	mg/l	0.02 U	mg/l
Sulfate	77.1	mg/l	1084	mg/l	170	mg/l
HCO3- as CaCO3	167	mg/l	316	mg/l	545	mg/l
CO3= as CaCO3						

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-015	0488-881-078	0488-881-079
Customer ID:	4-60-12-02-88	44-86-12-16-88	44-86-12-16-88-FD
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	830	mg/l	366	mg/l	356	mg/l
Chloride	26.7	mg/l	63.4	mg/l	63.0	mg/l
Nitrate-Nitrite as N	73.5	mg/l	9.11	mg/l	9.07	mg/l
Sulfate	75.7	mg/l	21.0	mg/l	21.1	mg/l
HCO3- as CaCO3	259	mg/l	134	mg/l	135	mg/l
CO3= as CaCO3						

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

FOURTH QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 5

Sample Information

	RFW Batch ID:	0488-881-080		0488-881-061		0488-881-062	
	Customer ID:	45-86-12-16-88		46-86-10-14-88		47-86-10-14-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		131	mg/l	217	mg/l	127	mg/l
Chloride		8.39	mg/l	5.47	mg/l	2.0 U	mg/l
Nitrate-Nitrite as N		0.84	mg/l	0.02 U	mg/l	0.86	mg/l
Sulfate		9.06	mg/l	4.83	mg/l	4.34	mg/l
HCO3- as CaCO3		50.0	mg/l	208	mg/l	67.8	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-085		0488-881-086		0488-881-083	
	Customer ID:	48-86-12-20-88		49-86-12-20-88		5-82-12-20-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		182	mg/l	183	mg/l	176	mg/l
Chloride		11.5	mg/l	16.3	mg/l	23.8	mg/l
Nitrate-Nitrite as N		0.06	mg/l	12.4	mg/l	2.00	mg/l
Sulfate		11.7	mg/l	9.17	mg/l	61.1	mg/l
HCO3- as CaCO3		126	mg/l	39.1	mg/l	34.6	mg/l
CO3= as CaCO3							

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

Client: ROCKWELL (ROCKY FLATS) Page: 6

Sample Information

	RFW Batch ID:	0488-881-084		0488-881-060		0488-881-055	
	Customer ID:	50-86-12-20-88		51-86-10-14-88		52-86-10-12-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		170	mg/l	138	mg/l	109	mg/l
Chloride		21.2	mg/l	5.32	mg/l	1.82	mg/l
Nitrate-Nitrite as N		0.82	mg/l	3.17	mg/l	0.04	mg/l
Sulfate		11.4	mg/l	27.8	mg/l	52.6	mg/l
HCO3- as CaCO3		85.8	mg/l	28.1	mg/l	25.7	mg/l
CO3= as CaCO3							

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-058		0488-881-059		0488-881-124	
	Customer ID:	54-86-10-14-88		55-86-10-14-88		58-87-12-14-88	
	Matrix:	Water		Water		Water	
Inorganics							
Total Dissolved Solids		345	mg/l	128	mg/l	201	mg/l
Chloride		3.28	mg/l	4.74	mg/l	6.42	mg/l
Nitrate-Nitrite as N		0.02 U	mg/l	0.92	mg/l	3.04	mg/l
Sulfate		50.0	mg/l	16.5	mg/l	25.1	mg/l
HCO3- as CaCO3		313	mg/l	60.7	mg/l	89.8	mg/l
CO3= as CaCO3							mg/l

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

FOURTH QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-107	0488-881-116	0488-881-117
	Customer ID:	60-87-12-06-88	61-87-12-09-88	62-87-12-09-88
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		148 mg/l	133 mg/l	133 mg/l
Chloride		3.24 mg/l	2.64 mg/l	2.87 mg/l
Nitrate-Nitrite as N		3.11 mg/l	3.06 mg/l	2.90 mg/l
Sulfate		25.0 mg/l	23.8 mg/l	25.9 mg/l
HCO3- as CaCO3		56.2 mg/l	47.8 mg/l	55.7 mg/l
CO3= as CaCO3		mg/l	mg/l	mg/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-118	0488-881-119	0488-881-113
	Customer ID:	63-87-12-09-88	65-87-12-09-88	66-87-12-07-88
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		554 mg/l	252 mg/l	249 mg/l
Chloride		33.1 mg/l	3.78 mg/l	3.08 mg/l
Nitrate-Nitrite as N		0.02 U mg/l	3.03 mg/l	3.58 mg/l
Sulfate		27.0 mg/l	52.4 mg/l	101 mg/l
HCO3- as CaCO3		393 mg/l	124 mg/l	74.3 mg/l
CO3= as CaCO3		mg/l	mg/l	mg/l

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

FOURTH QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-122	0488-881-123	0488-881-125
	Customer ID:	67-87-12-14-88	68-87-12-14-88	70-87-12-14-88
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		199 mg/l	175 mg/l	566 mg/l
Chloride		4.11 mg/l	3.99 mg/l	56.3 mg/l
Nitrate-Nitrite as N		1.69 mg/l	1.39 mg/l	0.42 mg/l
Sulfate		46.2 mg/l	36.2 mg/l	99.4 mg/l
HCO3- as CaCO3		93.9 mg/l	73.9 mg/l	318 mg/l
CO3= as CaCO3		mg/l	mg/l	mg/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-108	0488-881-109	0488-881-090
	Customer ID:	71-87-12-06-88	71-87-12-06-88FD	8-81-12-22-88
	Matrix:	Water	Water	Water
Inorganics				
Total Dissolved Solids		238 mg/l	265 mg/l	219 mg/l
Chloride		2.68 mg/l	2.70 mg/l	4.95 mg/l
Nitrate-Nitrite as N		1.26 mg/l	1.32 mg/l	0.02 U mg/l
Sulfate		27.7 mg/l	27.0 mg/l	18.5 mg/l
HCO3- as CaCO3		154 mg/l	172 mg/l	139 mg/l
CO3= as CaCO3		mg/l	mg/l	

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

FOURTH QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 9

Sample Information

RFW Batch ID:	0488-881-089	0488-881-128	0488-881-052
Customer ID:	9-81-12-22-88	9-86-12-16-88	FB-10-12-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	257		mg/l	231		mg/l	8	mg/l
Chloride	55.5		mg/l	9.66		mg/l	2.0	U mg/l
Nitrate-Nitrite as N	0.02	U	mg/l	0.04		mg/l	0.59	mg/l
Sulfate	31.1		mg/l	5.76		mg/l	0.06	mg/l
HCO3- as CaCO3	93.2		mg/l	179		mg/l	1.0	U mg/l
CO3= as CaCO3						mg/l		

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-057	0488-881-169	0488-881-002
Customer ID:	FB-10-14-88	FB-11-09-88	FB-11-29-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	8		mg/l	1		mg/l	5	mg/l
Chloride	2.0	U	mg/l	0.37		mg/l	0.99	mg/l
Nitrate-Nitrite as N	0.11		mg/l	0.03		mg/l	0.19	mg/l
Sulfate	0.11		mg/l	0.15		mg/l	0.15	mg/l
HCO3- as CaCO3	1.0	U	mg/l	1.0	U	mg/l	1.0	U mg/l
CO3= as CaCO3								

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

Client: ROCKWELL (ROCKY FLATS) Page: 10

Sample Information

	RFW Batch ID:	0488-881-011			0488-881-017			0488-881-111		
	Customer ID:	FB-12-02-88			FB-12-06-88			FB-12-07-88		
	Matrix:	Water			Water			Water		
Inorganics										
Total Dissolved Solids		5		mg/l	10		mg/l	9		mg/l
Chloride		0.74		mg/l	0.94		mg/l	0.86		mg/l
Nitrate-Nitrite as N		0.20		mg/l	0.02	U	mg/l	0.02	U	mg/l
Sulfate		0.20		mg/l	0.15		mg/l	0.21		mg/l
HCO3- as CaCO3		1.0	U	mg/l	1.0	U	mg/l	1.0	U	mg/l
CO3= as CaCO3										mg/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-115			0488-881-121			0488-881-127		
	Customer ID:	FB-12-09-88			FB-12-14-88			FB-12-16-88		
	Matrix:	Water			Water			Water		
Inorganics										
Total Dissolved Solids		2		mg/l	17		mg/l	6		mg/l
Chloride		0.40		mg/l	0.38		mg/l	2.0	U	mg/l
Nitrate-Nitrite as N		0.02	U	mg/l	0.02	U	mg/l	0.02	U	mg/l
Sulfate		0.14		mg/l	0.17		mg/l	0.14		mg/l
HCO3- as CaCO3		1.0	U	mg/l	1.0	U	mg/l	1.32		mg/l
CO3= as CaCO3				mg/l			mg/l			mg/l

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

FOURTH QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-082	0488-881-088	0488-881-051
Customer ID:	FB-12-20-88	FB-12-22-88	TB-10-12-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	8		mg/l	15		mg/l	5	mg/l
Chloride	2.0	U	mg/l	2.0	U	mg/l	2.0	U mg/l
Nitrate-Nitrite as N	0.13		mg/l	0.02	U	mg/l	0.13	mg/l
Sulfate	0.43		mg/l	0.04		mg/l	0.10	mg/l
HCO3- as CaCO3	1.0	U	mg/l	1.0	U	mg/l	1.0	U mg/l
CO3= as CaCO3								

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-056	0488-881-161	0488-881-162
Customer ID:	TB-10-14-88	TB-11-04-88	TB-11-04-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	3		mg/l	11		mg/l	7	mg/l
Chloride	2.0	U	mg/l	0.36		mg/l	0.39	mg/l
Nitrate-Nitrite as N	0.20		mg/l	0.13		mg/l	0.10	mg/l
Sulfate	0.13		mg/l	0.17		mg/l	0.21	mg/l
HCO3- as CaCO3	1.0	U	mg/l	1.0	U	mg/l	1.0	U mg/l
CO3= as CaCO3								

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

FOURTH QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 12

Sample Information

RFW Batch ID:	0488-881-168	0488-881-001	0488-881-010
Customer ID:	TB-11-09-88	TB-11-29-88	TB-12-02-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	10		mg/l	10		mg/l	7	mg/l
Chloride	0.38		mg/l	0.96		mg/l	0.74	mg/l
Nitrate-Nitrite as N	0.02		mg/l	0.13		mg/l	0.13	mg/l
Sulfate	0.16		mg/l	0.04		mg/l	0.16	mg/l
HCO3- as CaCO3	1.05		mg/l	1.0	U	mg/l	1.0	U mg/l
CO3= as CaCO3								

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-016	0488-881-110	0488-881-114
Customer ID:	TB-12-06-88	TB-12-07-88	TB-12-09-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids	1		mg/l	1		mg/l	2	mg/l
Chloride	0.99		mg/l	0.77	U	mg/l	0.33	mg/l
Nitrate-Nitrite as N	0.09		mg/l	0.02	U	mg/l	0.02	U mg/l
Sulfate	0.13		mg/l	0.17		mg/l	0.15	mg/l
HCO3- as CaCO3	1.0	U	mg/l	1.0	U	mg/l	1.0	U mg/l
CO3= as CaCO3						mg/l		mg/l

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

FOURTH QUARTER 1988 GROUNDWATER
INORGANIC
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 13

Sample Information

RFW Batch ID:	0488-881-120	0488-881-126	0488-881-081
Customer ID:	TB-12-14-88	TB-12-16-88	TB-12-20-88
Matrix:	Water	Water	Water

Inorganics

Total Dissolved Solids.....	13		mg/l	22		mg/l	6	mg/l
Chloride.....	0.39		mg/l	2.0	U	mg/l	2.0	U mg/l
Nitrate-Nitrite as N.....	0.02	U	mg/l	0.04		mg/l	0.02	U mg/l
Sulfate.....	0.16		mg/l	0.14		mg/l	0.11	mg/l
HCO3- as CaCO3.....	1.0	U	mg/l	1.0	U	mg/l	1.0	U mg/l
CO3= as CaCO3.....			mg/l			mg/l		

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-087
Customer ID:	TB-12-22-88
Matrix:	Water

Inorganics

Total Dissolved Solids.....	15		mg/l
Chloride.....	2.0	U	mg/l
Nitrate-Nitrite as N.....	0.02	U	mg/l
Sulfate.....	0.16		mg/l
HCO3- as CaCO3.....	1.0	U	mg/l
CO3= as CaCO3.....			

Modifiers: U=Analyzed, not detected. J=Present below detection limit. B=Present in blank. NS=Not spiked. %=Percent recovery.

APPENDIX I-3

DISSOLVED METALS

FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 1

Sample Information

	RFW Batch ID:	0488-881-166	0488-881-053	0488-881-054	0488-881-112
	Customer ID:	1-74-11-04-88	10-81-10-12-88	10-81-10-12-88FD	10-86-12-07-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0336	0.0343	0.0407	0.1458
Antimony (Sb), dissolved.....		0.0342	0.0340 U	0.0340 U	0.0340 U
Arsenic (As), dissolved.....		NR	NR	NR	NR
Barium (Ba), dissolved.....		0.1762	0.0654	0.0835	0.0412
Beryllium (Be), dissolved.....		0.0010 U	0.0010 U	0.0010 U	0.0010 U
Cadmium (Cd), dissolved.....		0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....		95.6792	18.3709	18.7846	15.1162
Cesium (Cs), dissolved.....		NR	NR	NR	NR
Chromium (Cr), dissolved.....		0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cobalt (Co), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		0.0063 U	0.0063 U	0.0063 U	0.0063 U
Iron (Fe), dissolved.....		0.0114	0.0105	0.0122	0.0589
Lead (Pb), dissolved.....		NR	NR	NR	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		13.4172	3.3431	3.3279	2.9265
Manganese (Mn), dissolved.....		0.0245	0.0051 U	0.0051 U	0.0438
Mercury (Hg), dissolved.....		NR	0.0002 U	0.0002 U	0.0002 U
Molybdenum(Mo), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		0.0370 U	0.0400	0.0370 U	0.0370 U
Potassium (K), dissolved.....		NR	0.5 U	0.5 U	1.0 U
Selenium (Se), dissolved.....		NR	NR	NR	NR
Silver (Ag), dissolved.....		0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		10.6527	12.4193	14.0523	10.4556
Strontium (Sr), dissolved.....		0.5475	0.1072	0.1063	0.0941
Thallium (Tl), dissolved.....		NR	NR	NR	NR
Vanadium (V), dissolved.....		0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....		0.0207	0.0564	0.0444	0.0457

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 2

Sample Information

	RFW Batch ID:	0488-881-140	0488-881-003	0488-881-004	0488-881-005
	Customer ID:	10-86-12-07-88LD	14-86-11-29-88	14-86-11-29-88FD	15-86-11-29-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		NR	0.0330	0.0290 U	0.0657
Antimony (Sb), dissolved.....		NR	0.0383	0.0486	0.0377
Arsenic (As), dissolved.....		NR	NR	NR	NR
Barium (Ba), dissolved.....		NR	0.0295	0.0299	0.2251
Beryllium (Be), dissolved.....		NR	0.0010 U	0.0010 U	0.0010 U
Cadmium (Cd), dissolved.....		NR	0.0050 U	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....		NR	140.5247	143.4688	176.4440
Cesium (Cs), dissolved.....		NR	NR	NR	NR
Chromium (Cr), dissolved.....		NR	0.0100 U	0.0100 U	0.0100 U
Cobalt (Co), dissolved.....		NR	0.0220 U	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		NR	0.0063 U	0.0063 U	0.0063 U
Iron (Fe), dissolved.....		NR	0.0137	0.0126	0.0194
Lead (Pb), dissolved.....		NR	NR	NR	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		NR	42.1602	41.0134	40.5474
Manganese (Mn), dissolved.....		NR	0.1091	0.1084	0.0183
Mercury (Hg), dissolved.....		0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum(Mo), dissolved.....		NR	0.0220 U	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		NR	0.0370 U	0.0370 U	0.1211
Potassium (K), dissolved.....		NR	5.6	5.4	1.4
Selenium (Se), dissolved.....		NR	NR	NR	NR
Silver (Ag), dissolved.....		NR	0.0076 U	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		NR	245.5151	240.3689	105.2651
Strontium (Sr), dissolved.....		NR	2.2209	2.2266	1.4031
Thallium (Tl), dissolved.....		NR	NR	NR	NR
Vanadium (V), dissolved.....		NR	0.0360 U	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....		NR	0.0200 U	0.0200 U	0.0317

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 3

Sample Information

	RFW Batch ID:	0488-881-006	0488-881-007	0488-881-031	0488-881-167
	Customer ID:	16-86-11-29-88	17-86-11-29-88	17-86-11-29-88S	17-87-11-04-E
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	%	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0576	0.3240	NR	0.0348
Antimony (Sb), dissolved.....		0.0569	0.1976	NR	0.0340 U
Arsenic (As), dissolved.....		NR	NR	NR	NR
Barium (Ba), dissolved.....		0.0220	0.2903	NR	0.1392
Beryllium (Be), dissolved.....		0.0010 U	0.0010 U	NR	0.0010 U
Cadmium (Cd), dissolved.....		0.0050 U	0.0050 U	NR	0.0050 U
Calcium (Ca), dissolved.....		150.0788	596.6366	NR	116.4230
Cesium (Cs), dissolved.....		NR	NR	NR	NR
Chromium (Cr), dissolved.....		0.0100 U	0.0180	NR	0.0100 U
Cobalt (Co), dissolved.....		0.0220 U	0.0220 U	NR	0.0220 U
Copper (Cu), dissolved.....		0.0063 U	0.0063 U	NR	0.0311
Iron (Fe), dissolved.....		0.0101	0.2821	NR	0.0115
Lead (Pb), dissolved.....		NR	NR	NR	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		44.5895	171.4852	NR	10.1223
Manganese (Mn), dissolved.....		0.1113	0.0051 U	NR	0.0424
Mercury (Hg), dissolved.....		0.0002 U	0.0002 U	99	NR
Molybdenum(Mo), dissolved.....		0.0220 U	0.0220 U	NR	0.0220 U
Nickel (Ni), dissolved.....		0.0370 U	0.0370 U	NR	0.0767
Potassium (K), dissolved.....		5.4	3.6	NR	NR
Selenium (Se), dissolved.....		NR	NR	NR	NR
Silver (Ag), dissolved.....		0.0076 U	0.0076 U	NR	0.0076 U
Sodium (Na), dissolved.....		269.1172	289.9421	NR	24.3438
Strontium (Sr), dissolved.....		2.2065	5.8274	NR	0.5284
Thallium (Tl), dissolved.....		NR	NR	NR	NR
Vanadium (V), dissolved.....		0.0360 U	0.0360 U	NR	0.0360 U
Zinc (Zn), dissolved.....		0.0200 U	0.0368	NR	0.1056

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 4

Sample Information

	RFW Batch ID:	0488-881-025		0488-881-009		0488-881-032	0488-881-027
	Customer ID:	19-86-11-29-86LD		19-86-11-29-88		19-86-11-29-88LD	19-86-11-29-88
	Matrix:	Water		Water		Water	Water
	Units:	MG/L		MG/L		MG/L	MG/L
Metals							
Aluminum (Al), dissolved.....		0.0396		0.0787		NR	1.0900
Antimony (Sb), dissolved.....		0.0445		0.0413		NR	1.0179
Arsenic (As), dissolved.....		NR		NR		NR	NR
Barium (Ba), dissolved.....		0.1253		0.1285		NR	0.2247
Beryllium (Be), dissolved.....		0.0010	U	0.0010	U	NR	0.0969
Cadmium (Cd), dissolved.....		0.0050	U	0.0050	U	NR	0.0943
Calcium (Ca), dissolved.....		117.9451		120.8060		NR	131.5802
Cesium (Cs), dissolved.....		NR		NR		NR	NR
Chromium (Cr), dissolved.....		0.0100	U	0.0100	U	NR	1.0662
Cobalt (Co), dissolved.....		0.0220	U	0.0220	U	NR	0.9926
Copper (Cu), dissolved.....		0.0063	U	0.0063	U	NR	0.9729
Iron (Fe), dissolved.....		4.2635		4.6340		NR	4.4252
Lead (Pb), dissolved.....		NR		NR		NR	NR
Lithium (Li), dissolved.....		NR		NR		NR	NR
Magnesium (Mg), dissolved.....		32.6936		33.5490		NR	33.6209
Manganese (Mn), dissolved.....		2.3978		2.4762		NR	3.3976
Mercury (Hg), dissolved.....		NR		0.0002	U	NR	NR
Molybdenum(Mo), dissolved.....		0.0220	U	0.0220	U	NR	0.9941
Nickel (Ni), dissolved.....		0.0370	U	0.0370	U	NR	1.0144
Potassium (K), dissolved.....		NR		1.4		1.4	NR
Selenium (Se), dissolved.....		NR		NR		NR	NR
Silver (Ag), dissolved.....		0.0076	U	0.0076	U	NR	0.8899
Sodium (Na), dissolved.....		176.5282		182.4889		NR	192.1788
Strontium (Sr), dissolved.....		0.9186		0.9452		NR	2.0522
Thallium (Tl), dissolved.....		NR		NR		NR	NR
Vanadium (V), dissolved.....		0.0360	U	0.0360	U	NR	1.0069
Zinc (Zn), dissolved.....		0.0316		0.0200	U	NR	0.1121

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 5

Sample Information

RFW Batch ID:	0488-881-033	0488-881-034	0488-881-028	0488-881-014
Customer ID:	19-86-11-29-88S1	19-86-11-29-88S2	19-86-11-29-88SD	2-60-12-02-88
Matrix:	Water	Water	Water	Water
Units:	%	%	MG/L	MG/L

Metals

Aluminum (Al), dissolved.....	NR	NR	1.0820	0.0290	U
Antimony (Sb), dissolved.....	NR	NR	1.0033	0.5797	
Arsenic (As), dissolved.....	NR	NR	NR	NR	
Barium (Ba), dissolved.....	NR	NR	0.2246	0.1862	
Beryllium (Be), dissolved.....	NR	NR	0.0962	0.0010	U
Cadmium (Cd), dissolved.....	NR	NR	0.0940	0.0050	U
Calcium (Ca), dissolved.....	NR	NR	130.0660	1697.8887	
Cesium (Cs), dissolved.....	NR	NR	NR	NR	
Chromium (Cr), dissolved.....	NR	NR	1.0599	0.0100	U
Cobalt (Co), dissolved.....	NR	NR	0.9896	0.0220	U
Copper (Cu), dissolved.....	NR	NR	0.9715	0.0063	U
Iron (Fe), dissolved.....	NR	NR	4.3961	0.1934	N
Lead (Pb), dissolved.....	NR	NR	NR	NR	
Lithium (Li), dissolved.....	NR	NR	NR	NR	
Magnesium (Mg), dissolved.....	NR	NR	33.1474	548.0552	
Manganese (Mn), dissolved.....	NR	NR	3.3677	0.1683	
Mercury (Hg), dissolved.....	NR	NR	NR	0.0002	U
Molybdenum(Mo), dissolved.....	NR	NR	0.9926	0.0220	U
Nickel (Ni), dissolved.....	NR	NR	1.0067	0.0370	U
Potassium (K), dissolved.....	86	88	NR	48	
Selenium (Se), dissolved.....	NR	NR	NR	NR	
Silver (Ag), dissolved.....	NR	NR	0.8945	0.0076	U
Sodium (Na), dissolved.....	NR	NR	189.8795	1155.2202	
Strontium (Sr), dissolved.....	NR	NR	2.0426	21.2802	
Thallium (Tl), dissolved.....	NR	NR	NR	NR	
Vanadium (V), dissolved.....	NR	NR	1.0119	0.0360	U
Zinc (Zn), dissolved.....	NR	NR	0.1152	3.8915	

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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-036	0488-881-008	0488-881-170	0488-881-172
	Customer ID:	2-60-12-02-88LD	21-86-11-29-88	22-87-11-09-88	22-87-11-09-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	NR	0.0462	0.0476	0.0447
Antimony	(Sb), dissolved.....	NR	0.0340 U	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	NR	0.1068	0.0411	0.0403
Beryllium	(Be), dissolved.....	NR	0.0010 U	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	NR	0.0050 U	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	NR	50.8122	49.0811	49.0264
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	NR	0.0100 U	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	NR	0.0220 U	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	NR	0.0063 U	0.0063 U	0.0063 U
Iron	(Fe), dissolved.....	NR	0.0169	0.0080	0.0073
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	NR	11.0745	12.5151	12.5115
Manganese	(Mn), dissolved.....	NR	0.0361	0.0426	0.0431
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	NR	NR
Molybdenum	(Mo), dissolved.....	NR	0.0220 U	0.0582	0.0636
Nickel	(Ni), dissolved.....	NR	0.0370 U	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	NR	1.6	NR	NR
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	NR	0.0076 U	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	NR	35.7554	135.7162	134.9610
Strontium	(Sr), dissolved.....	NR	0.4366	0.7709	0.7687
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	NR	0.0360 U	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	NR	0.0200 U	0.0200 U	0.0200 U

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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 7

Sample Information

	RFW Batch ID:	0488-881-173	0488-881-174	0488-881-165	0488-881-018
	Customer ID:	22-87-11-09-88S	22-87-11-09-88SD	23-87-11-04-88	25-86-12-06-8
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		1.1399	1.0271	0.0290 U	0.0864
Antimony (Sb), dissolved.....		0.9772	0.9825	0.0340 U	0.1080
Arsenic (As), dissolved.....		NR	NR	NR	NR
Barium (Ba), dissolved.....		0.1359	0.1360	0.1693	0.0238
Beryllium (Be), dissolved.....		0.0946	0.0941	0.0010 U	0.0010 U
Cadmium (Cd), dissolved.....		0.0933	0.0948	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....		60.1188	59.5340	120.6239	249.0929
Cesium (Cs), dissolved.....		NR	NR	NR	NR
Chromium (Cr), dissolved.....		1.0609	1.0447	0.0100 U	0.0100 U
Cobalt (Co), dissolved.....		0.9889	0.9711	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		0.9491	0.9304	0.0063 U	0.0063 U
Iron (Fe), dissolved.....		0.1135	0.1024	0.0238	0.0892 N
Lead (Pb), dissolved.....		NR	NR	NR	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		12.7189	12.5782	12.9893	92.5963
Manganese (Mn), dissolved.....		0.9688	0.9528	0.0178	0.1633
Mercury (Hg), dissolved.....		NR	NR	NR	0.0002 U
Molybdenum(Mo), dissolved.....		1.0496	1.0201	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		1.0058	0.9844	0.0370 U	0.0370 U
Potassium (K), dissolved.....		NR	NR	NR	9.9
Selenium (Se), dissolved.....		NR	NR	NR	NR
Silver (Ag), dissolved.....		0.8831	0.8788	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		147.7027	144.5725	10.9816	295.4914
Strontium (Sr), dissolved.....		1.8570	1.8249	0.6030	3.3826
Thallium (Tl), dissolved.....		NR	NR	NR	NR
Vanadium (V), dissolved.....		1.0094	1.0000	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....		0.1093	0.1158	0.0237	0.1052

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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 8

Sample Information

	RFW Batch ID:	0488-881-019		0488-881-041	0488-881-012		0488-881-035
	Customer ID:	27-86-12-06-88		27-86-12-06-88S	30-86-12-02-88		30-86-12-02-88
	Matrix:	Water		Water	Water		Water
	Units:	MG/L		%	MG/L		%
Metals							
Aluminum	(Al), dissolved.....	0.0686		NR	0.0315		NR
Antimony	(Sb), dissolved.....	0.0340	U	NR	0.3269		NR
Arsenic	(As), dissolved.....	NR		NR	NR		NR
Barium	(Ba), dissolved.....	0.0100	U	NR	0.2179		NR
Beryllium	(Be), dissolved.....	0.0010	U	NR	0.0010	U	NR
Cadmium	(Cd), dissolved.....	0.0050	U	NR	0.0050	U	NR
Calcium	(Ca), dissolved.....	51.4527		NR	1126.6920		NR
Cesium	(Cs), dissolved.....	NR		NR	NR		NR
Chromium	(Cr), dissolved.....	0.0100	U	NR	0.0100	U	NR
Cobalt	(Co), dissolved.....	0.0220	U	NR	0.0220	U	NR
Copper	(Cu), dissolved.....	0.0175		NR	0.0063	U	NR
Iron	(Fe), dissolved.....	0.0675	N	NR	0.0509	N	NR
Lead	(Pb), dissolved.....	NR		NR	NR		NR
Lithium	(Li), dissolved.....	NR		NR	NR		NR
Magnesium	(Mg), dissolved.....	13.3373		NR	296.2248		NR
Manganese	(Mn), dissolved.....	0.1008		NR	0.0400		NR
Mercury	(Hg), dissolved.....	0.0002	U	117	0.0002	U	113
Molybdenum	(Mo), dissolved.....	0.0285		NR	0.0220	U	NR
Nickel	(Ni), dissolved.....	0.0564		NR	0.0619		NR
Potassium	(K), dissolved.....	3.6		NR	42		NR
Selenium	(Se), dissolved.....	NR		NR	NR		NR
Silver	(Ag), dissolved.....	0.0076	U	NR	0.0076	U	NR
Sodium	(Na), dissolved.....	216.2554		NR	1166.8823		NR
Strontium	(Sr), dissolved.....	0.6605		NR	11.2875		NR
Thallium	(Tl), dissolved.....	NR		NR	NR		NR
Vanadium	(V), dissolved.....	0.0360	U	NR	0.0360	U	NR
Zinc	(Zn), dissolved.....	0.0818		NR	0.1224		NR

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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
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RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 9

Sample Information

	RFW Batch ID:	0488-881-013	0488-881-163	0488-881-164	0488-881-015
	Customer ID:	32-86-12-02-88	34-86-11-04-88	35-86-11-04-88	4-60-12-02-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0583	0.0379	0.0290 U	0.0383
Antimony (Sb), dissolved.....		0.0340 U	0.0728	0.0518	0.0340 U
Arsenic (As), dissolved.....		NR	NR	NR	NR
Barium (Ba), dissolved.....		0.0776	0.0276	0.0859	0.0880
Beryllium (Be), dissolved.....		0.0010 U	0.0010 U	0.0010 U	0.0010 U
Cadmium (Cd), dissolved.....		0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....		43.5692	233.7848	146.4198	92.4241
Cesium (Cs), dissolved.....		NR	NR	NR	NR
Chromium (Cr), dissolved.....		0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cobalt (Co), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		0.0063 U	0.0063 U	0.0063 U	0.0063 U
Iron (Fe), dissolved.....		0.0523 N	2.1817	0.8573	0.0395 N
Lead (Pb), dissolved.....		NR	NR	NR	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		9.8755	68.6772	31.7132	35.3234
Manganese (Mn), dissolved.....		0.0998	0.1348	4.2350	0.0051 U
Mercury (Hg), dissolved.....		0.0002 U	NR	NR	0.0002 U
Molybdenum(Mo), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium (K), dissolved.....		3.0	NR	NR	5.3
Selenium (Se), dissolved.....		NR	NR	NR	NR
Silver (Ag), dissolved.....		0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		134.5322	224.1979	193.4550	116.7440
Strontium (Sr), dissolved.....		0.5333	3.1113	0.8984	1.0650
Thallium (Tl), dissolved.....		NR	NR	NR	NR
Vanadium (V), dissolved.....		0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....		0.0998	0.0200 U	0.0244	0.4780

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RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 10

Sample Information

	RFW Batch ID:	0488-881-024		0488-881-037	0488-881-029	0488-881-038
	Customer ID:	4-60-12-02-88LD		4-60-12-02-88LD	4-60-12-02-88S	4-60-12-02-88
	Matrix:	Water		Water	Water	Water
	Units:	MG/L		MG/L	MG/L	%
Metals						
Aluminum (Al), dissolved.....		0.0961		NR	1.1117	NR
Antimony (Sb), dissolved.....		0.0340	U	NR	0.9995	NR
Arsenic (As), dissolved.....		NR		NR	NR	NR
Barium (Ba), dissolved.....		0.0888		NR	0.1886	NR
Beryllium (Be), dissolved.....		0.0010	U	NR	0.0950	NR
Cadmium (Cd), dissolved.....		0.0050	U	NR	0.0955	NR
Calcium (Ca), dissolved.....		91.4734		NR	104.5074	NR
Cesium (Cs), dissolved.....		NR		NR	NR	NR
Chromium (Cr), dissolved.....		0.0100	U	NR	1.0576	NR
Cobalt (Co), dissolved.....		0.0220	U	NR	0.9973	NR
Copper (Cu), dissolved.....		0.0063	U	NR	0.9581	NR
Iron (Fe), dissolved.....		0.0579	N	NR	0.1731	NR
Lead (Pb), dissolved.....		NR		NR	NR	NR
Lithium (Li), dissolved.....		NR		NR	NR	NR
Magnesium (Mg), dissolved.....		35.0701		NR	35.5573	NR
Manganese (Mn), dissolved.....		0.0051	U	NR	0.9997	NR
Mercury (Hg), dissolved.....		NR		NR	NR	NR
Molybdenum(Mo), dissolved.....		0.0220	U	NR	0.9943	NR
Nickel (Ni), dissolved.....		0.0370	U	NR	1.0149	NR
Potassium (K), dissolved.....		NR		5.2	NR	39
Selenium (Se), dissolved.....		NR		NR	NR	NR
Silver (Ag), dissolved.....		0.0076	U	NR	0.9294	NR
Sodium (Na), dissolved.....		116.9636		NR	129.4035	NR
Strontium (Sr), dissolved.....		1.0604		NR	2.1823	NR
Thallium (Tl), dissolved.....		NR		NR	NR	NR
Vanadium (V), dissolved.....		0.0360	U	NR	1.0298	NR
Zinc (Zn), dissolved.....		0.4049		NR	0.5393	NR

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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-039	0488-881-030	0488-881-078	0488-881-079
	Customer ID:	4-60-12-02-88S2	4-60-12-02-88SD	44-86-12-16-88	44-86-12-16-88
	Matrix:	Water	Water	Water	Water
	Units:	%	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	NR	1.1072	0.0686	0.1196
Antimony	(Sb), dissolved.....	NR	0.9791	0.0340 U	0.0341
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	NR	0.1861	0.1159	0.1215
Beryllium	(Be), dissolved.....	NR	0.0950	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	NR	0.0962	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	NR	101.1366	67.2634	70.1626
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	NR	1.0478	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	NR	0.9887	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	NR	0.9611	0.0120	0.0179
Iron	(Fe), dissolved.....	NR	0.1790	0.1083 N	0.2549 N
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	NR	34.6302	6.0741	6.2737
Manganese	(Mn), dissolved.....	NR	0.9894	0.0051 U	0.0051 U
Mercury	(Hg), dissolved.....	NR	NR	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	NR	0.9757	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	NR	1.0228	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	43	NR	5.1	5.2
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	NR	0.9215	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	NR	123.9038	35.5236	37.5449
Strontium	(Sr), dissolved.....	NR	2.1550	0.4084	0.4244
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	NR	1.0300	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	NR	0.6185	0.0563	0.0767

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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
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RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-080	0488-881-061	0488-881-062	0488-881-074
	Customer ID:	45-86-12-16-88	46-86-10-14-88	47-86-10-14-88	47-86-10-14-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.2929	0.0327	0.0449	NR
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	0.0340 U	NR
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	0.1438	0.2215	0.0549	NR
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	0.0010 U	NR
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	0.0050 U	NR
Calcium	(Ca), dissolved.....	16.7922	41.1815	17.2175	NR
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	0.0100 U	NR
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	NR
Copper	(Cu), dissolved.....	0.0076	0.0063 U	0.0063 U	NR
Iron	(Fe), dissolved.....	0.3369 N	0.0230	0.0281	NR
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	3.7107	11.0438	3.0618	NR
Manganese	(Mn), dissolved.....	0.0075	0.1176	0.0051 U	NR
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	NR
Nickel	(Ni), dissolved.....	0.0370 U	0.0572	0.0370 U	NR
Potassium	(K), dissolved.....	1.0 U	3.5	0.6	NR
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	0.0076 U	NR
Sodium	(Na), dissolved.....	15.6076	31.9524	12.8942	NR
Strontium	(Sr), dissolved.....	0.1115	0.5160	0.1067	NR
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	0.0360 U	NR
Zinc	(Zn), dissolved.....	0.0803	0.0391	0.0283	NR

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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
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RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-085	0488-881-093	0488-881-098	0488-881-095
Customer ID:	48-86-12-20-88	48-86-12-20-88LD	48-86-12-20-88LD	48-86-12-20-88
Matrix:	Water	Water	Water	Water
Units:	MG/L	MG/L	MG/L	MG/L

Metals

Aluminum (Al), dissolved.....	0.1022	0.1249	NR	1.0435
Antimony (Sb), dissolved.....	0.0340 U	0.0340 U	NR	0.9748
Arsenic (As), dissolved.....	NR	NR	NR	NR
Barium (Ba), dissolved.....	0.1022	0.0983	NR	0.1941
Beryllium (Be), dissolved.....	0.0010 U	0.0010 U	NR	0.0983
Cadmium (Cd), dissolved.....	0.0050 U	0.0050 U	NR	0.0976
Calcium (Ca), dissolved.....	15.8002	15.0754	NR	25.1436
Cesium (Cs), dissolved.....	NR	NR	NR	NR
Chromium (Cr), dissolved.....	0.0100 U	0.0100 U	NR	1.0617
Cobalt (Co), dissolved.....	0.0220 U	0.0220 U	NR	1.0026
Copper (Cu), dissolved.....	0.0063 U	0.0063 U	NR	0.9454
Iron (Fe), dissolved.....	0.0618 N	0.1033 N	NR	0.1468
Lead (Pb), dissolved.....	NR	NR	NR	NR
Lithium (Li), dissolved.....	NR	NR	NR	NR
Magnesium (Mg), dissolved.....	5.7064	5.5054	NR	5.6467
Manganese (Mn), dissolved.....	0.0308	0.0303	NR	0.9767
Mercury (Hg), dissolved.....	0.0002 U	NR	0.0002 U	NR
Molybdenum(Mo), dissolved.....	0.0220 U	0.0231	NR	1.0151
Nickel (Ni), dissolved.....	0.0370 U	0.0370 U	NR	1.0293
Potassium (K), dissolved.....	4.2	NR	3.8	NR
Selenium (Se), dissolved.....	NR	NR	NR	NR
Silver (Ag), dissolved.....	0.0076 U	0.0076 U	NR	0.8707
Sodium (Na), dissolved.....	46.4020	43.9548	NR	53.2586
Strontium (Sr), dissolved.....	0.4716	0.4590	NR	1.5426
Thallium (Tl), dissolved.....	NR	NR	NR	NR
Vanadium (V), dissolved.....	0.0360 U	0.0360 U	NR	1.0271
Zinc (Zn), dissolved.....	0.0521	0.0361	NR	0.1367

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-099	0488-881-100	0488-881-096	0488-881-086
Customer ID:	48-86-12-20-88S1	48-86-12-20-88S2	48-86-12-20-88SD	49-86-12-20-88
Matrix:	Water	Water	Water	Water
Units:	%	%	MG/L	MG/L

Metals

Aluminum (Al), dissolved.....	NR	NR	1.0723	0.1199	
Antimony (Sb), dissolved.....	NR	NR	0.9643	0.0340	U
Arsenic (As), dissolved.....	NR	NR	NR	NR	
Barium (Ba), dissolved.....	NR	NR	0.1961	0.1077	
Beryllium (Be), dissolved.....	NR	NR	0.1002	0.0027	
Cadmium (Cd), dissolved.....	NR	NR	0.0982	0.0050	U
Calcium (Ca), dissolved.....	NR	NR	25.1707	19.8760	
Cesium (Cs), dissolved.....	NR	NR	NR	NR	
Chromium (Cr), dissolved.....	NR	NR	1.0520	0.0100	U
Cobalt (Co), dissolved.....	NR	NR	0.9899	0.0220	U
Copper (Cu), dissolved.....	NR	NR	0.9497	0.0063	U
Iron (Fe), dissolved.....	NR	NR	0.1437	0.3417	
Lead (Pb), dissolved.....	NR	NR	NR	NR	
Lithium (Li), dissolved.....	NR	NR	NR	NR	
Magnesium (Mg), dissolved.....	NR	NR	5.7221	3.5021	
Manganese (Mn), dissolved.....	NR	NR	0.9696	0.0051	U
Mercury (Hg), dissolved.....	NR	NR	NR	0.0002	U
Molybdenum(Mo), dissolved.....	NR	NR	1.0093	0.0220	U
Nickel (Ni), dissolved.....	NR	NR	1.0467	0.0370	U
Potassium (K), dissolved.....	105	92	NR	1.0	U
Selenium (Se), dissolved.....	NR	NR	NR	NR	
Silver (Ag), dissolved.....	NR	NR	0.8922	0.0076	U
Sodium (Na), dissolved.....	NR	NR	54.4236	21.9245	
Strontium (Sr), dissolved.....	NR	NR	1.5476	0.1178	
Thallium (Tl), dissolved.....	NR	NR	NR	NR	
Vanadium (V), dissolved.....	NR	NR	1.0157	0.0360	U
Zinc (Zn), dissolved.....	NR	NR	0.1590	0.0486	

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-083		0488-881-097	0488-881-084		0488-881-060	
	Customer ID:	5-82-12-20-88		5-82-12-20-88S	50-86-12-20-88		51-86-10-14-88	
	Matrix:	Water		Water	Water		Water	
	Units:	MG/L		%	MG/L		MG/L	
Metals								
Aluminum	(Al), dissolved.....	0.0847		NR	0.0385		0.0290	U
Antimony	(Sb), dissolved.....	0.0340	U	NR	0.0340	U	0.0340	U
Arsenic	(As), dissolved.....	NR		NR	NR		NR	
Barium	(Ba), dissolved.....	0.0702		NR	0.0937		0.0736	
Beryllium	(Be), dissolved.....	0.0010	U	NR	0.0010	U	0.0010	U
Cadmium	(Cd), dissolved.....	0.0050	U	NR	0.0050	U	0.0050	U
Calcium	(Ca), dissolved.....	26.4190		NR	29.6162		17.9216	
Cesium	(Cs), dissolved.....	NR		NR	NR		NR	
Chromium	(Cr), dissolved.....	0.0100	U	NR	0.0100	U	0.0100	U
Cobalt	(Co), dissolved.....	0.0220	U	NR	0.0220	U	0.0220	U
Copper	(Cu), dissolved.....	0.0074		NR	0.0063	U	0.0063	U
Iron	(Fe), dissolved.....	0.1436	N	NR	0.0874	N	0.0251	
Lead	(Pb), dissolved.....	NR		NR	NR		NR	
Lithium	(Li), dissolved.....	NR		NR	NR		NR	
Magnesium	(Mg), dissolved.....	4.5496		NR	4.6623		3.2041	
Manganese	(Mn), dissolved.....	0.0163		NR	0.0051	U	0.0051	U
Mercury	(Hg), dissolved.....	0.0002	U	107	0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	NR	0.0220	U	0.0220	U
Nickel	(Ni), dissolved.....	0.0370	U	NR	0.0370	U	0.0370	U
Potassium	(K), dissolved.....	1.0	U	NR	1.0	U	0.6	
Selenium	(Se), dissolved.....	NR		NR	NR		NR	
Silver	(Ag), dissolved.....	0.0076	U	NR	0.0076	U	0.0076	U
Sodium	(Na), dissolved.....	25.5137		NR	12.3708		11.5044	
Strontium	(Sr), dissolved.....	0.1629		NR	0.1784		0.1021	
Thallium	(Tl), dissolved.....	NR		NR	NR		NR	
Vanadium	(V), dissolved.....	0.0360	U	NR	0.0360	U	0.0360	U
Zinc	(Zn), dissolved.....	0.1162		NR	0.0598		0.0903	

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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-073	0488-881-055	0488-881-066	0488-881-069
Customer ID:	51-86-10-14-88S	52-86-10-12-88	52-86-10-12-88LD	52-86-10-12-881
Matrix:	Water	Water	Water	Water
Units:	%	MG/L	MG/L	MG/L

Metals

Aluminum (Al), dissolved.....	NR	0.0714		0.0625		NR
Antimony (Sb), dissolved.....	NR	0.0340	U	0.0340	U	NR
Arsenic (As), dissolved.....	NR	NR		NR		NR
Barium (Ba), dissolved.....	NR	0.0377		0.0367		NR
Beryllium (Be), dissolved.....	NR	0.0189		0.0010	U	NR
Cadmium (Cd), dissolved.....	NR	0.0050	U	0.0050	U	NR
Calcium (Ca), dissolved.....	NR	20.1134		19.8568		NR
Cesium (Cs), dissolved.....	NR	NR		NR		NR
Chromium (Cr), dissolved.....	NR	0.0100	U	0.0100	U	NR
Cobalt (Co), dissolved.....	NR	0.0220	U	0.0220	U	NR
Copper (Cu), dissolved.....	NR	0.0063	U	0.0063	U	NR
Iron (Fe), dissolved.....	NR	0.0113		0.0129		NR
Lead (Pb), dissolved.....	NR	NR		NR		NR
Lithium (Li), dissolved.....	NR	NR		NR		NR
Magnesium (Mg), dissolved.....	NR	0.5557		0.5477		NR
Manganese (Mn), dissolved.....	NR	0.0051	U	0.0051	U	NR
Mercury (Hg), dissolved.....	100	0.0002	U	NR		NR
Molybdenum(Mo), dissolved.....	NR	0.0382		0.0350		NR
Nickel (Ni), dissolved.....	NR	0.0370	U	0.0370	U	NR
Potassium (K), dissolved.....	NR	1.7		NR		1.7
Selenium (Se), dissolved.....	NR	NR		NR		NR
Silver (Ag), dissolved.....	NR	0.0076	U	0.0076	U	NR
Sodium (Na), dissolved.....	NR	17.5358		16.7788		NR
Strontium (Sr), dissolved.....	NR	0.1817		0.0200	U	NR
Thallium (Tl), dissolved.....	NR	NR		NR		NR
Vanadium (V), dissolved.....	NR	0.0570		0.0569		NR
Zinc (Zn), dissolved.....	NR	0.0200	U	0.0214		NR

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Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 17

Sample Information

RFW Batch ID:	0488-881-067	0488-881-070	0488-881-071	0488-881-068
Customer ID:	52-86-10-12-88S	52-86-10-12-88S1	52-86-10-12-88S2	52-86-10-12-8
Matrix:	Water	Water	Water	Water
Units:	MG/L	%	%	MG/L

Metals

Aluminum (Al), dissolved.....	1.1250	NR	NR	1.0981
Antimony (Sb), dissolved.....	0.9830	NR	NR	0.9836
Arsenic (As), dissolved.....	NR	NR	NR	NR
Barium (Ba), dissolved.....	0.1406	NR	NR	0.1407
Beryllium (Be), dissolved.....	0.0969	NR	NR	0.0927
Cadmium (Cd), dissolved.....	0.0952	NR	NR	0.0985
Calcium (Ca), dissolved.....	31.0547	NR	NR	31.2606
Cesium (Cs), dissolved.....	NR	NR	NR	NR
Chromium (Cr), dissolved.....	1.0473	NR	NR	1.0698
Cobalt (Co), dissolved.....	0.9720	NR	NR	0.9771
Copper (Cu), dissolved.....	1.0174	NR	NR	1.0166
Iron (Fe), dissolved.....	0.0962	NR	NR	0.1043
Lead (Pb), dissolved.....	NR	NR	NR	NR
Lithium (Li), dissolved.....	NR	NR	NR	NR
Magnesium (Mg), dissolved.....	0.6564	NR	NR	0.6532
Manganese (Mn), dissolved.....	0.9404	NR	NR	0.9481
Mercury (Hg), dissolved.....	NR	103	NR	NR
Molybdenum(Mo), dissolved.....	1.0407	NR	NR	1.0293
Nickel (Ni), dissolved.....	1.0189	NR	NR	1.0685
Potassium (K), dissolved.....	NR	100	108	NR
Selenium (Se), dissolved.....	NR	NR	NR	NR
Silver (Ag), dissolved.....	0.8481	NR	NR	0.8850
Sodium (Na), dissolved.....	27.6231	NR	NR	28.0498
Strontium (Sr), dissolved.....	1.3201	NR	NR	1.3200
Thallium (Tl), dissolved.....	NR	NR	NR	NR
Vanadium (V), dissolved.....	1.0556	NR	NR	1.0698
Zinc (Zn), dissolved.....	0.1134	NR	NR	0.1272

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Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 18

Sample Information

	RFW Batch ID:	0488-881-058	0488-881-072	0488-881-059	0488-881-124
	Customer ID:	54-86-10-14-88	54-86-10-14-88LD	55-86-10-14-88	58-87-12-14-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	NR	0.0290 U	0.0290 U
Antimony	(Sb), dissolved.....	0.0340 U	NR	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	0.0807	NR	0.0670	0.0666
Beryllium	(Be), dissolved.....	0.0010 U	NR	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	NR	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	92.2997	NR	23.6197	28.1299
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	0.0100 U	NR	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	NR	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0094	NR	0.0063 U	0.1002
Iron	(Fe), dissolved.....	0.0250	NR	0.0223	0.0121
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	20.9279	NR	4.0424	5.7958
Manganese	(Mn), dissolved.....	0.1755	NR	0.0051 U	0.0931
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	NR	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	NR	0.0370 U	0.1884
Potassium	(K), dissolved.....	4.5	NR	0.7	2.5
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	0.0076 U	NR	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	33.8437	NR	8.6912	15.4415
Strontium	(Sr), dissolved.....	0.8541	NR	0.1291	0.2155
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	0.0360 U	NR	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	0.0419	NR	0.0676	0.5806

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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 19

Sample Information

	RFW Batch ID:	0488-881-147	0488-881-107	0488-881-116	0488-881-132
	Customer ID:	58-87-12-14-88LD	60-87-12-06-88	61-87-12-09-88	61-87-12-09-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		NR	0.3786	0.0290 U	0.0290 U
Antimony (Sb), dissolved.....		NR	0.0340 U	0.0340 U	0.0340 U
Arsenic (As), dissolved.....		NR	NR	NR	NR
Barium (Ba), dissolved.....		NR	0.0745	0.0522	0.0513
Beryllium (Be), dissolved.....		NR	0.0010 U	0.0010 U	0.0010 U
Cadmium (Cd), dissolved.....		NR	0.0050 U	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....		NR	26.5401	21.2799	21.1349
Cesium (Cs), dissolved.....		NR	NR	NR	NR
Chromium (Cr), dissolved.....		NR	0.0100 U	0.0100 U	0.0100 U
Cobalt (Co), dissolved.....		NR	0.0220 U	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		NR	0.0063 U	0.0063 U	0.0063 U
Iron (Fe), dissolved.....		NR	0.3608	0.0159	0.0107
Lead (Pb), dissolved.....		NR	NR	NR	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		NR	4.0363	3.5121	3.5573
Manganese (Mn), dissolved.....		NR	0.1075	0.0615	0.0614
Mercury (Hg), dissolved.....		0.0002 U	0.0002 U	0.0002 U	NR
Molybdenum(Mo), dissolved.....		NR	0.0220 U	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		NR	0.0370 U	0.0370 U	0.0370 U
Potassium (K), dissolved.....		NR	1.0 U	1.0 U	NR
Selenium (Se), dissolved.....		NR	NR	NR	NR
Silver (Ag), dissolved.....		NR	0.0076 U	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		NR	11.7976	9.4844	8.8768
Strontium (Sr), dissolved.....		NR	0.1208	0.1077	0.1088
Thallium (Tl), dissolved.....		NR	NR	NR	NR
Vanadium (V), dissolved.....		NR	0.0360 U	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....		NR	0.0329	0.0301	0.0363

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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-142	0488-881-133	0488-881-143	0488-881-144
	Customer ID:	61-87-12-09-88LD	61-87-12-09-88S	61-87-12-09-88S1	61-87-12-09-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	%	%
Metals					
Aluminum (Al), dissolved.....		NR	1.0791	NR	NR
Antimony (Sb), dissolved.....		NR	0.9371	NR	NR
Arsenic (As), dissolved.....		NR	NR	NR	NR
Barium (Ba), dissolved.....		NR	0.1488	NR	NR
Beryllium (Be), dissolved.....		NR	0.0940	NR	NR
Cadmium (Cd), dissolved.....		NR	0.0965	NR	NR
Calcium (Ca), dissolved.....		NR	32.6777	NR	NR
Cesium (Cs), dissolved.....		NR	NR	NR	NR
Chromium (Cr), dissolved.....		NR	1.0790	NR	NR
Cobalt (Co), dissolved.....		NR	0.9926	NR	NR
Copper (Cu), dissolved.....		NR	0.9354	NR	NR
Iron (Fe), dissolved.....		NR	0.1134	NR	NR
Lead (Pb), dissolved.....		NR	NR	NR	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		NR	3.7030	NR	NR
Manganese (Mn), dissolved.....		NR	1.0343	NR	NR
Mercury (Hg), dissolved.....		0.0002 U	NR	NR	NR
Molybdenum(Mo), dissolved.....		NR	0.9858	NR	NR
Nickel (Ni), dissolved.....		NR	1.0402	NR	NR
Potassium (K), dissolved.....		1.0 U	NR	89	87
Selenium (Se), dissolved.....		NR	NR	NR	NR
Silver (Ag), dissolved.....		NR	0.9263	NR	NR
Sodium (Na), dissolved.....		NR	21.5840	NR	NR
Strontium (Sr), dissolved.....		NR	1.2015	NR	NR
Thallium (Tl), dissolved.....		NR	NR	NR	NR
Vanadium (V), dissolved.....		NR	1.0262	NR	NR
Zinc (Zn), dissolved.....		NR	0.1374	NR	NR

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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-134	0488-881-117	0488-881-118	0488-881-145
	Customer ID:	61-87-12-09-88SD	62-87-12-09-88	63-87-12-09-88	63-87-12-09-8
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	%
Metals					
Aluminum	(Al), dissolved.....	1.1286	NR	NR	NR
Antimony	(Sb), dissolved.....	0.9143	NR	NR	NR
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	0.1500	NR	NR	NR
Beryllium	(Be), dissolved.....	0.0960	NR	NR	NR
Cadmium	(Cd), dissolved.....	0.0971	NR	NR	NR
Calcium	(Ca), dissolved.....	32.0864	NR	NR	NR
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	1.0781	NR	NR	NR
Cobalt	(Co), dissolved.....	0.9860	NR	NR	NR
Copper	(Cu), dissolved.....	0.9489	NR	NR	NR
Iron	(Fe), dissolved.....	0.1127	NR	NR	NR
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	3.6595	NR	NR	NR
Manganese	(Mn), dissolved.....	1.0383	NR	NR	NR
Mercury	(Hg), dissolved.....	NR	0.0002 U	0.0002 U	84
Molybdenum	(Mo), dissolved.....	0.9719	NR	NR	NR
Nickel	(Ni), dissolved.....	1.0283	NR	NR	NR
Potassium	(K), dissolved.....	NR	1.0 U	1.2	NR
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	0.9166	NR	NR	NR
Sodium	(Na), dissolved.....	19.5447	NR	NR	NR
Strontium	(Sr), dissolved.....	1.2111	NR	NR	NR
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	1.0327	NR	NR	NR
Zinc	(Zn), dissolved.....	0.1411	NR	NR	NR

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 22

Sample Information

	RFW Batch ID:	0488-881-119		0488-881-113		0488-881-141		0488-881-122	
	Customer ID:	65-87-12-09-88		66-87-12-07-88		66-87-12-07-88S		67-87-12-14-88	
	Matrix:	Water		Water		Water		Water	
	Units:	MG/L		MG/L		%		MG/L	
Metals									
Aluminum	(Al), dissolved.....	0.0355		0.1274		NR		0.0481	
Antimony	(Sb), dissolved.....	0.0340	U	0.0340	U	NR		0.0340	U
Arsenic	(As), dissolved.....	NR		NR		NR		NR	
Barium	(Ba), dissolved.....	0.1010		0.0219		NR		0.0782	
Beryllium	(Be), dissolved.....	0.0012		0.0010	U	NR		0.0010	U
Cadmium	(Cd), dissolved.....	0.0050	U	0.0050	U	NR		0.0050	U
Calcium	(Ca), dissolved.....	57.4213		24.9380		NR		37.3885	
Cesium	(Cs), dissolved.....	NR		NR		NR		NR	
Chromium	(Cr), dissolved.....	0.0100	U	0.0100	U	NR		0.0100	U
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	NR		0.0220	U
Copper	(Cu), dissolved.....	0.0092		0.0442		NR		0.4828	
Iron	(Fe), dissolved.....	0.0540		0.1163		NR		0.0225	
Lead	(Pb), dissolved.....	NR		NR		NR		NR	
Lithium	(Li), dissolved.....	NR		NR		NR		NR	
Magnesium	(Mg), dissolved.....	7.6964		4.7791		NR		5.0619	
Manganese	(Mn), dissolved.....	0.9148		0.0546		NR		0.3793	
Mercury	(Hg), dissolved.....	0.0002	U	0.0002	U	114		0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	NR		0.0220	U
Nickel	(Ni), dissolved.....	0.0370	U	0.0370	U	NR		0.2400	
Potassium	(K), dissolved.....	1.8		1.7		NR		1.1	
Selenium	(Se), dissolved.....	NR		NR		NR		NR	
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	NR		0.0076	U
Sodium	(Na), dissolved.....	20.2528		37.9055		NR		15.8873	
Strontium	(Sr), dissolved.....	0.3046		0.1976		NR		0.1878	
Thallium	(Tl), dissolved.....	NR		NR		NR		NR	
Vanadium	(V), dissolved.....	0.0360	U	0.0360	U	NR		0.0360	U
Zinc	(Zn), dissolved.....	0.0898		0.1966		NR		1.6983	

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-146	0488-881-123	0488-881-125	0488-881-108
	Customer ID:	67-87-12-14-88S	68-87-12-14-88	70-87-12-14-88	71-87-12-06-8
	Matrix:	Water	Water	Water	Water
	Units:	%	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		NR	0.0303	0.0452	0.0290 U
Antimony (Sb), dissolved.....		NR	0.0340 U	0.0445	0.0340 U
Arsenic (As), dissolved.....		NR	NR	NR	NR
Barium (Ba), dissolved.....		NR	0.1072	0.1058	0.1077
Beryllium (Be), dissolved.....		NR	0.0015	0.0010 U	0.0010 U
Cadmium (Cd), dissolved.....		NR	0.0050 U	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....		NR	30.3928	93.7639	81.2287
Cesium (Cs), dissolved.....		NR	NR	NR	NR
Chromium (Cr), dissolved.....		NR	0.0100 U	0.0100 U	0.0100 U
Cobalt (Co), dissolved.....		NR	0.0220 U	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		NR	0.0065	0.1446	0.0063 U
Iron (Fe), dissolved.....		NR	0.0069 U	0.0190	0.0290
Lead (Pb), dissolved.....		NR	NR	NR	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		NR	4.3778	24.6005	8.9679
Manganese (Mn), dissolved.....		NR	0.3015	0.3388	0.0565
Mercury (Hg), dissolved.....		98	0.0002 U	0.0002 U	0.0002 U
Molybdenum(Mo), dissolved.....		NR	0.0220 U	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		NR	0.0370 U	0.1164	0.0370 U
Potassium (K), dissolved.....		NR	1.0 U	2.4	1.0 U
Selenium (Se), dissolved.....		NR	NR	NR	NR
Silver (Ag), dissolved.....		NR	0.0076 U	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		NR	12.1980	72.0339	8.7259
Strontium (Sr), dissolved.....		NR	0.1517	0.8525	0.4501
Thallium (Tl), dissolved.....		NR	NR	NR	NR
Vanadium (V), dissolved.....		NR	0.0360 U	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....		NR	0.0384	0.7962	0.0200 U

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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-109	0488-881-090	0488-881-102	0488-881-089
	Customer ID:	71-87-12-06-88FD	8-81-12-22-88	8-81-12-22-88S	9-81-12-22-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	%	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	0.0478	NR	0.0648
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	NR	0.0340 U
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	0.1096	0.1005	NR	0.0518
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	NR	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	NR	0.0050 U
Calcium	(Ca), dissolved.....	82.1944	39.8202	NR	53.2872
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	0.0667	0.0100 U	NR	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	NR	0.0220 U
Copper	(Cu), dissolved.....	0.0063 U	0.0063 U	NR	0.0063 U
Iron	(Fe), dissolved.....	0.0951	0.0140	NR	0.0286
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	9.0835	8.9205	NR	3.3925
Manganese	(Mn), dissolved.....	0.0668	0.0154	NR	0.0051 U
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	100	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	NR	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	NR	0.0370 U
Potassium	(K), dissolved.....	1.0 U	1.6	NR	1.8
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	0.0181	0.0076 U	NR	0.0076 U
Sodium	(Na), dissolved.....	9.1326	18.1307	NR	23.6533
Strontium	(Sr), dissolved.....	0.4551	0.3422	NR	0.5004
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	NR	0.0401
Zinc	(Zn), dissolved.....	0.0263	0.0200 U	NR	0.0200 U

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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-101	0488-881-128	0488-881-152	0488-881-052
	Customer ID:	9-81-12-22-88LD	9-86-12-16-88	9-86-12-16-88S	FB-10-12-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	%	MG/L
Metals					
Aluminum (Al), dissolved.....		NR	0.2427	NR	0.0331
Antimony (Sb), dissolved.....		NR	0.0340 U	NR	0.0340 U
Arsenic (As), dissolved.....		NR	NR	NR	NR
Barium (Ba), dissolved.....		NR	0.1128	NR	0.0100 U
Beryllium (Be), dissolved.....		NR	0.0010 U	NR	0.0023
Cadmium (Cd), dissolved.....		NR	0.0050 U	NR	0.0050 U
Calcium (Ca), dissolved.....		NR	24.3174	NR	0.7500 U
Cesium (Cs), dissolved.....		NR	NR	NR	NR
Chromium (Cr), dissolved.....		NR	0.0100 U	NR	0.0100 U
Cobalt (Co), dissolved.....		NR	0.0220 U	NR	0.0220 U
Copper (Cu), dissolved.....		NR	0.0099	NR	0.0063 U
Iron (Fe), dissolved.....		NR	0.2530 N	NR	0.0134
Lead (Pb), dissolved.....		NR	NR	NR	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		NR	5.6228	NR	0.0500 U
Manganese (Mn), dissolved.....		NR	0.0206	NR	0.0051 U
Mercury (Hg), dissolved.....		0.0002 U	0.0002 U	98	0.0002 U
Molybdenum(Mo), dissolved.....		NR	0.0220 U	NR	0.0220 U
Nickel (Ni), dissolved.....		NR	0.0381	NR	0.0370 U
Potassium (K), dissolved.....		NR	2.0	NR	0.5 U
Selenium (Se), dissolved.....		NR	NR	NR	NR
Silver (Ag), dissolved.....		NR	0.0076 U	NR	0.0076 U
Sodium (Na), dissolved.....		NR	59.5617	NR	2.1000 U
Strontium (Sr), dissolved.....		NR	0.2935	NR	0.0200 U
Thallium (Tl), dissolved.....		NR	NR	NR	NR
Vanadium (V), dissolved.....		NR	0.0360 U	NR	0.0360 U
Zinc (Zn), dissolved.....		NR	0.1070	NR	0.0200 U

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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 26

Sample Information

	RFW Batch ID:	0488-881-057	0488-881-162	0488-881-169	0488-881-002
	Customer ID:	FB-10-14-88	FB-11-04-88	FB-11-09-88	FB-11-29-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	0.0562	0.0491	0.0613
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	0.7500 U	0.7500 U	0.7500 U	0.7500 U
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0063 U	0.0063 U	0.0063 U	0.0063 U
Iron	(Fe), dissolved.....	0.0180	0.0152	0.0188	0.0190
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Manganese	(Mn), dissolved.....	0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury	(Hg), dissolved.....	0.0002 U	NR	NR	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	0.5 U	NR	NR	0.5 U
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	2.1000 U	2.1000 U	2.1000 U	2.1000 U
Strontium	(Sr), dissolved.....	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	0.0277	0.0200 U	0.0200 U	0.0200 U

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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 27

Sample Information

	RFW Batch ID:	0488-881-011	0488-881-017	0488-881-040	0488-881-111
	Customer ID:	FB-12-02-88	FB-12-06-88	FB-12-06-88LD	FB-12-07-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0538	0.0933	NR	0.0652
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	NR	0.0340 U
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	0.0100 U	0.0100 U	NR	0.0100 U
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	NR	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	NR	0.0050 U
Calcium	(Ca), dissolved.....	0.7500 U	1.2556	NR	0.7500 U
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	NR	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	NR	0.0220 U
Copper	(Cu), dissolved.....	0.0063 U	0.0063 U	NR	0.0063 U
Iron	(Fe), dissolved.....	0.0608 N	0.1112 N	NR	0.0543
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	0.0500 U	0.0608	NR	0.0500 U
Manganese	(Mn), dissolved.....	0.0051 U	0.0051 U	NR	0.0051 U
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	NR	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	NR	0.0370 U
Potassium	(K), dissolved.....	0.5 U	0.5 U	NR	1.0 U
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	NR	0.0076 U
Sodium	(Na), dissolved.....	2.1000 U	2.1000 U	NR	2.1000 U
Strontium	(Sr), dissolved.....	0.0200 U	0.0200 U	NR	0.0200 U
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	NR	0.0360 U
Zinc	(Zn), dissolved.....	0.0845	0.0834	NR	0.0200 U

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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-115	0488-881-121	0488-881-127	0488-881-151
	Customer ID:	FB-12-09-88	FB-12-14-88	FB-12-16-88	FB-12-16-88LD
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	0.0576	0.2054	NR
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	0.0340 U	NR
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	0.0100 U	0.0100 U	0.0100 U	NR
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	0.0010 U	NR
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	0.0050 U	NR
Calcium	(Ca), dissolved.....	0.7500 U	0.7500 U	0.7500 U	NR
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	0.0100 U	NR
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	NR
Copper	(Cu), dissolved.....	0.0063 U	0.0453	0.0079	NR
Iron	(Fe), dissolved.....	0.0189	0.0069 U	0.1668 N	NR
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	0.0500 U	0.0500 U	0.0500 U	NR
Manganese	(Mn), dissolved.....	0.0051 U	0.0051 U	0.0051 U	NR
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	NR
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	0.0370 U	NR
Potassium	(K), dissolved.....	1.0 U	1.0 U	1.0 U	NR
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	0.0076 U	NR
Sodium	(Na), dissolved.....	2.1000 U	2.1000 U	3.2587	NR
Strontium	(Sr), dissolved.....	0.0200 U	0.0200 U	0.0200 U	NR
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	0.0360 U	NR
Zinc	(Zn), dissolved.....	0.0200 U	0.2946	0.0837	NR

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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: | Client: ROCKWELL (ROCKY FLATS) |

Sample Information

	RFW Batch ID:	0488-881-082	0488-881-088	0488-881-092	0488-881-136
	Customer ID:	FB-12-20-88	FB-12-22-88	REABLK 01-03	REABLK 01-03
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0368	0.0290 U	0.0290 U	0.0290 U
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	0.0016	0.0016
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	0.7500 U	0.7500 U	0.7500 U	0.7500 U
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0075	0.0063 U	0.0063 U	0.0063 U
Iron	(Fe), dissolved.....	0.0883 N	0.0195	0.0076 N	0.0076 N
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Manganese	(Mn), dissolved.....	0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury	(Hg), dissolved.....	0.0002 U	0.0002 U	NR	NR
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium	(K), dissolved.....	1.0 U	1.0 U	NR	NR
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	2.1000 U	2.1000 U	2.1000 U	2.1000 U
Strontium	(Sr), dissolved.....	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	0.0457	0.0200 U	0.0200 U	0.0200 U

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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 30

Sample Information

	RFW Batch ID:	0488-881-094		0488-881-065		0488-881-171		0488-881-023	
	Customer ID:	REABLK 01-04		REABLK 10-24		REABLK 11-11		REABLK 12-14	
	Matrix:	Water		Water		Water		Water	
	Units:	MG/L		MG/L		MG/L		MG/L	
Metals									
Aluminum	(Al), dissolved.....	0.0290	U	0.0290	U	0.0290	U	0.0461	
Antimony	(Sb), dissolved.....	0.0340	U	0.0340	U	0.0340	U	0.0340	U
Arsenic	(As), dissolved.....	NR		NR		NR		NR	
Barium	(Ba), dissolved.....	0.0100	U	0.0100	U	0.0100	U	0.0100	U
Beryllium	(Be), dissolved.....	0.0010	U	0.0010	U	0.0010	U	0.0010	U
Cadmium	(Cd), dissolved.....	0.0050	U	0.0050	U	0.0050	U	0.0050	U
Calcium	(Ca), dissolved.....	0.7500	U	0.7500	U	0.7500	U	0.7500	U
Cesium	(Cs), dissolved.....	NR		NR		NR		NR	
Chromium	(Cr), dissolved.....	0.0100	U	0.0100	U	0.0100	U	0.0100	U
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	0.0220	U	0.0220	U
Copper	(Cu), dissolved.....	0.0063	U	0.0063	U	0.0063	U	0.0063	U
Iron	(Fe), dissolved.....	0.0076		0.0138		0.0069	U	0.0073	
Lead	(Pb), dissolved.....	NR		NR		NR		NR	
Lithium	(Li), dissolved.....	NR		NR		NR		NR	
Magnesium	(Mg), dissolved.....	0.0500	U	0.0500	U	0.0500	U	0.0500	U
Manganese	(Mn), dissolved.....	0.0051	U	0.0051	U	0.0051	U	0.0051	U
Mercury	(Hg), dissolved.....	NR		NR		NR		NR	
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	0.0220	U	0.0220	U
Nickel	(Ni), dissolved.....	0.0370	U	0.0370	U	0.0370	U	0.0370	U
Potassium	(K), dissolved.....	NR		NR		NR		NR	
Selenium	(Se), dissolved.....	NR		NR		NR		NR	
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	0.0076	U	0.0076	U
Sodium	(Na), dissolved.....	2.1000	U	2.1000	U	2.1000	U	2.1000	U
Strontium	(Sr), dissolved.....	0.0200	U	0.0200	U	0.0200	U	0.0200	U
Thallium	(Tl), dissolved.....	NR		NR		NR		NR	
Vanadium	(V), dissolved.....	0.0360	U	0.0360	U	0.0360	U	0.0360	U
Zinc	(Zn), dissolved.....	0.0324		0.0213		0.0200	U	0.0246	

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FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 31

Sample Information

	RFW Batch ID:	0488-881-026	0488-881-131	0488-881-051	0488-881-056
	Customer ID:	REABLK 12-20	REABLK 12-21	TB-10-12-88	TB-10-14-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0527	0.0564	0.0290 U	0.0290 U
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	0.0340 U	0.0340 U
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	0.0010 U	0.0010 U
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium	(Ca), dissolved.....	0.7500 U	0.7500 U	0.7500 U	0.7500 U
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper	(Cu), dissolved.....	0.0063 U	0.0063 U	0.0063 U	0.0063 U
Iron	(Fe), dissolved.....	0.0141 N	0.0189	0.0568	0.0159
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	0.0500 U	0.0500 U	0.0500 U	0.0500 U
Manganese	(Mn), dissolved.....	0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury	(Hg), dissolved.....	NR	NR	0.0002 U	0.0002 U
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	0.0405	0.0370 U
Potassium	(K), dissolved.....	NR	NR	0.5 U	0.5 U
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium	(Na), dissolved.....	2.1000 U	2.1000 U	2.1000 U	2.1000 U
Strontium	(Sr), dissolved.....	0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc	(Zn), dissolved.....	0.0200 U	0.0200 U	0.0200 U	0.0779

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 32

Sample Information

	RFW Batch ID:	0488-881-161		0488-881-168		0488-881-001		0488-881-010	
	Customer ID:	TB-11-04-88		TB-11-09-88		TB-11-29-88		TB-12-02-88	
	Matrix:	Water		Water		Water		Water	
	Units:	MG/L		MG/L		MG/L		MG/L	
Metals									
Aluminum	(Al), dissolved.....	0.0444		0.0317		0.0290	U	0.0953	
Antimony	(Sb), dissolved.....	0.0340	U	0.0340	U	0.0340	U	0.0340	U
Arsenic	(As), dissolved.....	NR		NR		NR		NR	
Barium	(Ba), dissolved.....	0.0100	U	0.0100	U	0.0100	U	0.0100	U
Beryllium	(Be), dissolved.....	0.0010	U	0.0010	U	0.0010	U	0.0010	U
Cadmium	(Cd), dissolved.....	0.0050	U	0.0050	U	0.0050	U	0.0050	U
Calcium	(Ca), dissolved.....	0.7500	U	0.7500	U	0.7500	U	0.8992	
Cesium	(Cs), dissolved.....	NR		NR		NR		NR	
Chromium	(Cr), dissolved.....	0.0100	U	0.0100	U	0.0115		0.0100	U
Cobalt	(Co), dissolved.....	0.0220	U	0.0220	U	0.0220	U	0.0220	U
Copper	(Cu), dissolved.....	0.0063	U	0.0063	U	0.0063	U	0.0063	U
Iron	(Fe), dissolved.....	0.0176		0.0199		0.0423		0.1036	N
Lead	(Pb), dissolved.....	NR		NR		NR		NR	
Lithium	(Li), dissolved.....	NR		NR		NR		NR	
Magnesium	(Mg), dissolved.....	0.0500	U	0.0500	U	0.0500	U	0.0683	
Manganese	(Mn), dissolved.....	0.0051	U	0.0051	U	0.0051	U	0.0051	U
Mercury	(Hg), dissolved.....	NR		NR		0.0002	U	0.0002	U
Molybdenum	(Mo), dissolved.....	0.0220	U	0.0220	U	0.0220	U	0.0220	U
Nickel	(Ni), dissolved.....	0.0370	U	0.0370	U	0.0370	U	0.0370	U
Potassium	(K), dissolved.....	NR		NR		0.5	U	0.5	U
Selenium	(Se), dissolved.....	NR		NR		NR		NR	
Silver	(Ag), dissolved.....	0.0076	U	0.0076	U	0.0076	U	0.0076	U
Sodium	(Na), dissolved.....	2.1000	U	2.1000	U	2.1000	U	2.1000	U
Strontium	(Sr), dissolved.....	0.0200	U	0.0200	U	0.0200	U	0.0200	U
Thallium	(Tl), dissolved.....	NR		NR		NR		NR	
Vanadium	(V), dissolved.....	0.0360	U	0.0360	U	0.0360	U	0.0360	U
Zinc	(Zn), dissolved.....	0.0200	U	0.0200	U	0.0270		0.0603	

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-016	0488-881-110	0488-881-114	0488-881-120
	Customer ID:	TB-12-06-88	TB-12-07-88	TB-12-09-88	TB-12-14-88
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum (Al), dissolved.....		0.0722	0.0290 U	0.0782	0.0296
Antimony (Sb), dissolved.....		0.0340 U	0.0340 U	0.0340 U	0.0340 U
Arsenic (As), dissolved.....		NR	NR	NR	NR
Barium (Ba), dissolved.....		0.0100 U	0.0100 U	0.0100 U	0.0100 U
Beryllium (Be), dissolved.....		0.0010 U	0.0010 U	0.0010 U	0.0014
Cadmium (Cd), dissolved.....		0.0050 U	0.0050 U	0.0050 U	0.0050 U
Calcium (Ca), dissolved.....		0.7500 U	0.7500 U	0.7500 U	0.7500 U
Cesium (Cs), dissolved.....		NR	NR	NR	NR
Chromium (Cr), dissolved.....		0.0100 U	0.0100 U	0.0100 U	0.0100 U
Cobalt (Co), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Copper (Cu), dissolved.....		0.0063 U	0.0063 U	0.0063 U	0.0183
Iron (Fe), dissolved.....		0.0838 N	0.0378	0.0104	0.0125
Lead (Pb), dissolved.....		NR	NR	NR	NR
Lithium (Li), dissolved.....		NR	NR	NR	NR
Magnesium (Mg), dissolved.....		0.0500 U	0.0500 U	0.0500 U	0.0500 U
Manganese (Mn), dissolved.....		0.0051 U	0.0051 U	0.0051 U	0.0051 U
Mercury (Hg), dissolved.....		0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum(Mo), dissolved.....		0.0220 U	0.0220 U	0.0220 U	0.0220 U
Nickel (Ni), dissolved.....		0.0370 U	0.0370 U	0.0370 U	0.0370 U
Potassium (K), dissolved.....		0.5 U	1.0 U	1.0 U	1.0 U
Selenium (Se), dissolved.....		NR	NR	NR	NR
Silver (Ag), dissolved.....		0.0076 U	0.0076 U	0.0076 U	0.0076 U
Sodium (Na), dissolved.....		2.1000 U	2.1000 U	2.1000 U	2.1000 U
Strontium (Sr), dissolved.....		0.0200 U	0.0200 U	0.0200 U	0.0200 U
Thallium (Tl), dissolved.....		NR	NR	NR	NR
Vanadium (V), dissolved.....		0.0360 U	0.0360 U	0.0360 U	0.0360 U
Zinc (Zn), dissolved.....		0.0200 U	0.0200 U	0.0200 U	0.0852

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-126	0488-881-135	0488-881-148	0488-881-137
	Customer ID:	TB-12-16-88	TB-12-16-88LD	TB-12-16-88LD	TB-12-16-88S
	Matrix:	Water	Water	Water	Water
	Units:	MG/L	MG/L	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	0.0290 U	0.0408	NR	0.9623
Antimony	(Sb), dissolved.....	0.0340 U	0.0340 U	NR	0.9182
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	0.0100 U	0.0100 U	NR	0.0856
Beryllium	(Be), dissolved.....	0.0010 U	0.0010 U	NR	0.0854
Cadmium	(Cd), dissolved.....	0.0050 U	0.0050 U	NR	0.0851
Calcium	(Ca), dissolved.....	0.7500 U	0.7500 U	NR	8.9198
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	0.0100 U	0.0100 U	NR	1.0277
Cobalt	(Co), dissolved.....	0.0220 U	0.0220 U	NR	0.9622
Copper	(Cu), dissolved.....	0.0063 U	0.0063 U	NR	0.9142
Iron	(Fe), dissolved.....	0.0114	0.0096	NR	0.1030
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	0.0500 U	0.0500 U	NR	0.0801
Manganese	(Mn), dissolved.....	0.0051 U	0.0051 U	NR	0.9398
Mercury	(Hg), dissolved.....	0.0002 U	NR	NR	NR
Molybdenum	(Mo), dissolved.....	0.0220 U	0.0220 U	NR	0.9703
Nickel	(Ni), dissolved.....	0.0370 U	0.0370 U	NR	1.0024
Potassium	(K), dissolved.....	1.0 U	NR	1.0 U	NR
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	0.0076 U	0.0076 U	NR	0.8591
Sodium	(Na), dissolved.....	2.1000 U	2.1000 U	NR	9.2774
Strontium	(Sr), dissolved.....	0.0200 U	0.0200 U	NR	1.0340
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	0.0360 U	0.0360 U	NR	0.9628
Zinc	(Zn), dissolved.....	0.0200 U	0.0200 U	NR	0.1079

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

FOURTH QUARTER 1988 GROUNDWATER
METALS - DISSOLVED
INORGANICS DATA SUMMARY REPORT

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS)

Sample Information

	RFW Batch ID:	0488-881-149	0488-881-150	0488-881-138	0488-881-081
	Customer ID:	TB-12-16-88S1	TB-12-16-88S2	TB-12-16-88SD	TB-12-20-88
	Matrix:	Water	Water	Water	Water
	Units:	%	%	MG/L	MG/L
Metals					
Aluminum	(Al), dissolved.....	NR	NR	0.9657	0.0423
Antimony	(Sb), dissolved.....	NR	NR	0.9333	0.0340 U
Arsenic	(As), dissolved.....	NR	NR	NR	NR
Barium	(Ba), dissolved.....	NR	NR	0.0858	0.0100 U
Beryllium	(Be), dissolved.....	NR	NR	0.0848	0.0010 U
Cadmium	(Cd), dissolved.....	NR	NR	0.0853	0.0050 U
Calcium	(Ca), dissolved.....	NR	NR	9.3264	0.7500 U
Cesium	(Cs), dissolved.....	NR	NR	NR	NR
Chromium	(Cr), dissolved.....	NR	NR	1.0327	0.0100 U
Cobalt	(Co), dissolved.....	NR	NR	0.9581	0.0220 U
Copper	(Cu), dissolved.....	NR	NR	0.9155	0.0063 U
Iron	(Fe), dissolved.....	NR	NR	0.1061	0.0932 N
Lead	(Pb), dissolved.....	NR	NR	NR	NR
Lithium	(Li), dissolved.....	NR	NR	NR	NR
Magnesium	(Mg), dissolved.....	NR	NR	0.0840	0.0500 U
Manganese	(Mn), dissolved.....	NR	NR	0.9415	0.0051 U
Mercury	(Hg), dissolved.....	NR	NR	NR	0.0002 U
Molybdenum	(Mo), dissolved.....	NR	NR	0.9793	0.0220 U
Nickel	(Ni), dissolved.....	NR	NR	1.0280	0.0370 U
Potassium	(K), dissolved.....	84 U	86 U	NR	1.0 U
Selenium	(Se), dissolved.....	NR	NR	NR	NR
Silver	(Ag), dissolved.....	NR	NR	0.8601	0.0076 U
Sodium	(Na), dissolved.....	NR	NR	9.9777	2.1000 U
Strontium	(Sr), dissolved.....	NR	NR	1.0323	0.0200 U
Thallium	(Tl), dissolved.....	NR	NR	NR	NR
Vanadium	(V), dissolved.....	NR	NR	0.9685	0.0360 U
Zinc	(Zn), dissolved.....	NR	NR	0.1082	0.0449

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

RFW Batch Number: Client: ROCKWELL (ROCKY FLATS) Page: 36

Sample Information

RFW Batch ID:	0488-881-087
Customer ID:	TB-12-22-88
Matrix:	Water
Units:	MG/L

Metals

Aluminum (Al), dissolved.....	0.0290	U
Antimony (Sb), dissolved.....	0.0340	U
Arsenic (As), dissolved.....	NR	
Barium (Ba), dissolved.....	0.0100	U
Beryllium (Be), dissolved.....	0.0010	U
Cadmium (Cd), dissolved.....	0.0050	U
Calcium (Ca), dissolved.....	0.7500	U
Cesium (Cs), dissolved.....	NR	
Chromium (Cr), dissolved.....	0.0100	U
Cobalt (Co), dissolved.....	0.0220	U
Copper (Cu), dissolved.....	0.0063	U
Iron (Fe), dissolved.....	0.0088	
Lead (Pb), dissolved.....	NR	
Lithium (Li), dissolved.....	NR	
Magnesium (Mg), dissolved.....	0.0500	U
Manganese (Mn), dissolved.....	0.0051	U
Mercury (Hg), dissolved.....	0.0002	U
Molybdenum(Mo), dissolved.....	0.0220	U
Nickel (Ni), dissolved.....	0.0370	U
Potassium (K), dissolved.....	1.0	U
Selenium (Se), dissolved.....	NR	
Silver (Ag), dissolved.....	0.0076	U
Sodium (Na), dissolved.....	2.1000	U
Strontium (Sr), dissolved.....	0.0200	U
Thallium (Tl), dissolved.....	NR	
Vanadium (V), dissolved.....	0.0360	U
Zinc (Zn), dissolved.....	0.0200	U

Modifiers: U = Analyzed, not detected. J = Present below detection limit. B = Present in blank. % = Percent recovery.
Other Codes: NS = Not Spiked. NR = Analyte not reported.

APPENDIX I-4

DISSOLVED RADIONUCLIDES

FOURTH QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-053	0488-881-054	0488-881-112
Customer ID:	10-81-10-12-88	10-81-10-12-88-FD	10-86-12-07-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	330 ± 100	pci/l	<220	pci/l	<230	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-003	0488-881-003	0488-881-004
Customer ID:	14-86-11-29-88	14-86-11-29-88	14-86-11-29-88-FD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<230	pci/l	<230	pci/l	<240	pci/l

FOURTH QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-004	0488-881-115	0488-881-115
Customer ID:	14-86-11-29-88-FD	15-86-11-29-88	15-86-11-29-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<240	pci/l	<230	pci/l	<230	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-005	0488-881-006	0488-881-006
Customer ID:	15-86-11-29-88	16-86-11-29-88	16-86-11-29-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<230	pci/l	<220	pci/l	<220	pci/l

FOURTH QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-007	0488-881-007	0488-881-009
Customer ID:	17-86-11-29-88	17-86-11-29-88	19-86-11-29-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	960 ± 120	pci/l	960 ± 120	pci/l	<220	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-009	0488-881-021	0488-881-021
Customer ID:	19-86-11-29-88	19-86-11-29-88-LD	19-86-11-29-88-LD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<220	pci/l	<230	pci/l	<230	pci/l

FOURTH QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 4

Sample Information

RFW Batch ID:	0488-881-014	0488-881-014	0488-881-008
Customer ID:	2-60-12-06-88	2-60-12-06-88	21-86-11-29-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	470 ± 110	pci/l	470 ± 110	pci/l	<240	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-008	0488-881-018	0488-881-018
Customer ID:	21-86-11-29-88	25-86-12-06-88	25-86-12-06-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<240	pci/l	<220	pci/l	<220	pci/l

FOURTH QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 5

Sample Information

RFW Batch ID:	0488-881-019	0488-881-019	0488-881-012
Customer ID:	27-86-12-06-88	27-86-12-06-88	30-86-12-06-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<220	pci/l	<220	pci/l	5900 ± 200	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-012	0488-881-013	0488-881-013
Customer ID:	30-86-12-06-88	32-86-12-06-88	32-86-12-06-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	5900 ± 200	pci/l	<230	pci/l	<230	pci/l

FOURTH QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 6

Sample Information

RFW Batch ID:	0488-881-015	0488-881-015	0488-881-078
Customer ID:	4-60-12-06-88	4-60-12-06-88	44-86-12-16-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	1300 ± 100	pci/l	1300 ± 100	pci/l	<240	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-079	0488-881-080	0488-881-061
Customer ID:	44-86-12-16-88-FD	45-86-12-16-88	46-86-10-14-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<240	pci/l	<240	pci/l	<200	pci/l

FOURTH QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 7

Sample Information

RFW Batch ID:	0488-881-064	0488-881-062	0488-881-085
Customer ID:	46-86-10-14-88-LD	47-86-10-14-88	48-86-12-20-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<210	pci/l	<220	pci/l	<240	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-086	0488-882-083	0488-881-083
Customer ID:	49-86-12-20-88	5-82-12-20-88	5-82-12-20-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<240	pci/l	<240	pci/l	<240	pci/l

FOURTH QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 8

Sample Information

RFW Batch ID:	0488-881-084	0488-881-060	0488-881-055
Customer ID:	50-86-12-20-88	51-86-10-14-88	52-86-10-12-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<240	pci/l	270 ± 90	pci/l	<210	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-058	0488-881-059	0488-881-124
Customer ID:	54-86-10-14-88	55-86-10-14-88	58-87-12-14-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<200	pci/l	310 ± 90	pci/l	<240	pci/l

FOURTH QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-107	0488-881-116	0488-881-117
Customer ID:	60-87-12-06-88	61-87-12-09-88	62-87-12-09-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<240	pci/l	<210	pci/l	<240	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-118	0488-881-119	0488-881-130
Customer ID:	63-87-12-09-88	65-87-12-09-88	65-87-12-09-88LD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	1800 ± 100	pci/l	<220	pci/l	<230	pci/l

FOURTH QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-113	0488-881-129	0488-881-122
Customer ID:	66-87-12-07-88	66-87-12-07-88LD	67-87-12-14-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<240	pci/l	<230	pci/l	<240	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-123	0488-881-125	0488-881-108
Customer ID:	68-87-12-14-88	70-87-12-14-88	71-87-12-06-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<240	pci/l	<240	pci/l	<240	pci/l

FOURTH QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-109	0488-881-090	0488-881-089
Customer ID:	71-87-12-06-88FD	8-81-12-22-88	9-81-12-22-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<240	pci/l	<220	pci/l	<240	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-128	0488-881-052	0488-881-057
Customer ID:	9-86-12-16-88	FB-10-12-88	FB-10-14-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<240	pci/l	<220	pci/l	<200	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-002	0488-881-002	0488-881-020
Customer ID:	FB-11-29-88	FB-11-29-88	FB-11-29-88-LD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<220	pci/l	<220	pci/l	<230	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-020	0488-881-011	0488-881-011
Customer ID:	FB-11-29-88-LD	FB-12-02-88	FB-12-02-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<230	pci/l	<240	pci/l	<240	pci/l

FOURTH QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-017	0488-881-017	0488-881-022
Customer ID:	FB-12-06-88	FB-12-06-88	FB-12-06-88-LD
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<220	pci/l	<220	pci/l	<240	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-022	0488-881-111	0488-881-115
Customer ID:	FB-12-06-88-LD	FB-12-07-88	FB-12-09-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<240	pci/l	<230	pci/l	<230	pci/l

FOURTH QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
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Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-121	0488-881-127	0488-881-082
Customer ID:	FB-12-14-88	FB-12-16-88	FB-12-20-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<220	pci/l	<240	pci/l	<220	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-091	0488-881-088	0488-881-051
Customer ID:	FB-12-20-88-LD	FB-12-22-88	TB-10-12-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<230	pci/l	<220	pci/l	<220	pci/l

FOURTH QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-056	0488-881-063	0488-881-001
Customer ID:	TB-10-14-88	TB-10-14-88-LD	TB-11-29-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<200	pci/l	<210	pci/l	<230	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-001	0488-881-010	0488-881-010
Customer ID:	TB-11-29-88	TB-12-02-88	TB-12-02-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<230	pci/l	<240	pci/l	<240	pci/l

FOURTH QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
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Client: ROCKWELL (ROCKY FLATS) Page: 16

Sample Information

RFW Batch ID:	0488-881-016	0488-881-016	0488-881-110
Customer ID:	TB-12-06-88	TB-12-06-88	TB-12-07-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<230	pci/l	<230	pci/l	<230	pci/l

Client: ROCKWELL (ROCKY FLATS)

Sample Information

RFW Batch ID:	0488-881-114	0488-881-120	0488-881-126
Customer ID:	TB-12-09-88	TB-12-14-88	TB-12-16-88
Matrix:	Water	Water	Water

Radio Chemistry

Gross Alpha.....						
Gross Beta.....						
Uranium 233, 234.....						
Uranium 235.....						
Uranium 238.....						
Strontium 89, 90.....						
Plutonium 239, 240.....						
Americium 241.....						
Tritium.....	<210	pci/l	<220	pci/l	<240	pci/l

FOURTH QUARTER 1988 GROUNDWATER
DISSOLVED RADIOCHEMISTY
DATA SUMMARY REPORT

Client: ROCKWELL (ROCKY FLATS) Page: 17

Sample Information

RFW Batch ID:	0488-881-081	0488-881-087
Customer ID:	TB-12-20-88	TB-12-22-88
Matrix:	Water	Water

Radio Chemistry

Gross Alpha.....				
Gross Beta.....				
Uranium 233, 234.....				
Uranium 235.....				
Uranium 238.....				
Strontium 89, 90.....				
Plutonium 239, 240.....				
Americium 241.....				
Tritium.....	<240	pci/l	<220	pci/l