NOTICE

All drawings located at the end of the document

LETTER REPORT

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT SOURCE AREA DELINEATION AND RISK-BASED CONSERVATIVE SCREEN AND ENVIRONMENTAL PROTECTION AGENCY AREA OF CONCERN DELINEATION

HUMAN HEALTH RISK ASSESSMENT 903 PAD, MOUND, AND EAST TRENCHES AREAS OPERABLE UNIT NO 2

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

VOLUME 2 (APPENDIXES A-D)

U S DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado

ENVIRONMENTAL RESTORATION PROGRAM
September 27, 1994

(4040-1315-0080-872) (OU2COVER) (09/22/94 12:29pm)(1)

TABLE OF CONTENTS

VOLUME I

Section			Page
EXECUTIVE SUMMARY			ES 1
1 0	INTRODUCTION		1 1
2 0	IDENTIFICATION OF POTENTIAL CHEMICALS OF CONCERN		2 1
	2 1	DATA USED FOR EVALUATION	2 1
		2 1 1 Surface Soil	2 1
		2 1 2 Subsurface Soil	2 2
		2 1 3 Groundwater	2 3
		2 1 4 Data Review and Editing	2-4
	2 2	BACKGROUND COMPARISON FOR INORGANIC CONSTITUENTS	2-4
		2 2 1 Surface Soil Background Comparison	2 6
		2 2 2 Subsurface Soil Background Comparison	2 7
		2 2 3 Groundwater Background Comparison	2 7
	2 3	SUMMARY OF PCOCs	2 8
3 0	DELINEATION OF CONTAMINANT SOURCE AREAS		3 1
	3 1	RATIONALE FOR SOURCE AREAS	3 1
	3 2	SURFACE SOIL	3 3
	3 3	903 PAD SOURCE AREA	3 3
	3 4	MOUND SOURCE AREA	3 5
	3 5	NORTHEAST TRENCHES SOURCE AREA	3-6
	3 6	SOUTHEAST TRENCHES SOURCE AREA	3 8
	3 7	EAST OF IHSSs SOURCE AREA	3 9
4 0	CALCULATION OF RISK BASED CONCENTRATIONS		4-1
	4 1	RESIDENTIAL EXPOSURE TO SOIL	4-2
	4 2	RESIDENTIAL EXPOSURE TO GROUNDWATER	4-3
	4 3	CHEMICAL-SPECIFIC RBCs	4-3

Section		Page
5 0	RISK BASED SCREENING EVALUATION FOR SOURCE AREAS	5 1
5 1	RISK BASED SCREENING PROCESS	5 1
5 2	RATIO SUMS FOR SOURCE AREAS	5 2
5 2 1	903 Pad Source Area	5 2
5 2 2	Mound Source Area	5 3
5 2 3	Northeast Trenches Source Area	5 3
5 2 4	Southeast Trenches Source Area	5-4
5 2 5	East of IHSSs Source Area	5-4
6 0	CDPHE CONSERVATIVE SCREENING DECISION CRITERIA	6-1
7 0	DETERMINATION OF AREAS OF CONCERN	7 1
8 0	REFERENCES	8 1

LIST OF TABLES

TABLE ES-1	SUMMARY OF TOTAL RATIO SUMS BY SOURCE AREA
TABLE 2 1	ANALYTICAL DATA SUMMARY
TABLE 2-2	POTENTIAL CHEMICALS OF CONCERN IN SURFACE SOIL
TABLE 2 3	POTENTIAL CHEMICALS OF CONCERN IN SUBSURFACE SOIL DETECTED AT 5% OR GREATER FREQUENCY
TABLE 2-4	ORGANIC POTENTIAL CHEMICALS OF CONCERN IN SUBSURFACE SOIL DETECTED AT LESS THAN 5% FREQUENCY
TABLE 2 5	POTENTIAL CHEMICALS OF CONCERN IN GROUNDWATER DETECTED AT 5% OR GREATER FREQUENCY
TABLE 2 6	ORGANIC POTENTIAL CHEMICALS OF CONCERN IN GROUNDWATER DETECTED AT LESS THAN 5% FREQUENCY
TABLE 5 1	RBC SCREEN FOR THE 903 PAD SOURCE AREA SOIL TO 12 FEET (RESIDENT)
TABLE 5 2	RBC SCREEN FOR THE 903 PAD SOURCE AREA UHSU GROUNDWATER
TABLE 5 3	RBC SCREEN FOR THE MOUND SOURCE AREA SOIL TO 12 FEET (RESIDENT)
TABLE 5-4	RBC SCREEN FOR THE MOUND SOURCE AREA UHSU GROUNDWATER
TABLE 5 5	RBC SCREEN FOR THE NORTHEAST TRENCHES SOURCE AREA SOIL TO 12 FEET (RESIDENT)
TABLE 5 6	RBC SCREEN FOR THE NORTHEAST TRENCHES SOURCE AREA UHSU GROUNDWATER
TABLE 5 7	RBC SCREEN FOR THE SOUTHEAST TRENCHES SOURCE AREA SOIL TO 12 FEET (RESIDENT)
TABLE 5 8	RBC SCREEN FOR THE EAST OF IHSSs SOURCE AREA SOIL TO 12 FEET (RESIDENT)
TABLE 5 9	RBC SCREEN FOR THE EAST OF THE IHSSs SOURCE AREA UHSU GROUNDWATER
TABLE 5 10	SUMMARY OF TOTAL RATIO SUMS BY SOURCE AREA

LIST OF FIGURES

FIGURE 1-1 LOCATION AND IDENTIFICATION OF IHSSs
FIGURE 1-2 AREA OF CONCERN IDENTIFICATION PROCESS
FIGURE 1-3 CDPHE CONSERVATIVE SCREEN PROCESS
FIGURE 2-1 BACKGROUND COMPARISON PROCESS
FIGURE 3 1 SOURCE AREA BOUNDARIES

LIST OF ATTACHMENTS

ATTACHMENT 1 BACKGROUND COMPARISON SUMMARY TABLES

VOLUME 2

APPENDIX A	MAP LEGEND AND SOURCE AREA MAP
FIGURE A 1	ANALYTE ABBREVIATIONS LABORATORY AND VALIDATION QUALIFIERS
FIGURE A-2	SOURCE AREAS
APPENDIX B	SURFACE SOIL MAPS
FIGURE B-1	SEMIVOLATILE ORGANIC COMPOUNDS SURFACE SOILS
FIGURE B-2	PESTICIDES/PCBs SURFACE SOILS
FIGURE B 3	PCOC METALS (BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS) SURFACE SOILS
FIGURE B-4	PCOC ACTINIDES (BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS) SURFACE SOILS
FIGURE B 5	PCOC RADIONUCLIDES (NON ACTINIDES) (BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS) SURFACE SOILS
APPENDIX C	SUBSURFACE SOIL MAPS
FIGURE C 1	VOLATILE ORGANIC COMPOUNDS 903 PAD AREA SUBSURFACE SOILS (2 PAGES)
FIGURE C 2	TOLUENE 903 PAD AREA SUBSURFACE SOILS
FIGURE C 3	SEMIVOLATILE ORGANIC COMPOUNDS 903 PAD AREA SUBSURFACE SOILS
FIGURE C-4	PESTICIDES/PCBs 903 PAD AREA SUBSURFACE SOILS
FIGURE C 5	PCOC METALS 903 PAD AREA SUBSURFACE SOILS
FIGURE C 6	PCOC ACTINIDES 903 PAD AREA SUBSURFACE SOILS
FIGURE C 7	PCOC RADIONUCLIDES (NON ACTINIDES) 903 PAD AREA SUBSURFACE SOILS
FIGURE C 8	VOLATILE ORGANIC COMPOUNDS MOUND AREA SUBSURFACE SOILS
FIGURE C 9	TOLUENE MOUND AREA SUBSURFACE SOILS
FIGURE C 10	SEMIVOLATILE ORGANIC COMPOUNDS MOUND AREA SUBSURFACE SOILS
FIGURE C 11	PESTICIDES/PCBs MOUND AREA SUBSURFACE SOILS
FIGURE C 12	PCOC METALS MOUND AREA SUBSURFACE SOILS
FIGURE C 13	PCOC ACTINIDES MOUND AREA SUBSURFACE SOILS
FIGURE C 14	PCOC RADIONUCLIDES (NON ACTINIDES) MOUND AREA SUBSURFACE SOILS

FIGURE C 15	VOLATILE ORGANIC COMPOUNDS N E TRENCHES AREA SUBSURFACE SOILS (2 PAGES)
FIGURE C-16	TOLUENE N E TRENCHES AREA SUBSURFACE SOILS (2 PAGES)
FIGURE C 17	SEMIVOLATILE ORGANIC COMPOUNDS N E TRENCHES AREA SUBSURFACE SOILS
FIGURE C 18	PESTICIDES/PCBs N E TRENCHES AREA SUBSURFACE SOILS
FIGURE C 19	PCOC METALS N E TRENCHES AREA SUBSURFACE SOILS
FIGURE C 20	PCOC ACTINIDES N E TRENCHES AREA SUBSURFACE SOILS
FIGURE C 21	PCOC RADIONUCLIDES (NON ACTINIDES) N E TRENCHES AREA SUBSURFACE SOILS
FIGURE C 22	VOLATILE ORGANIC COMPOUNDS S E TRENCHES AREA SUBSURFACE SOILS
FIGURE C 23	TOLUENE S E TRENCHES AREA SUBSURFACE SOILS
FIGURE C 24	SEMIVOLATILE ORGANIC COMPOUNDS S E TRENCHES AREA SUBSURFACE SOILS
FIGURE C 25	PESTICIDES/PCBs S E TRENCHES AREA SUBSURFACE SOILS
FIGURE C 26	PCOC METALS S E TRENCHES AREA SUBSURFACE SOILS
FIGURE C 27	PCOC ACTINIDES S E TRENCHES AREA SUBSURFACE SOILS
FIGURE C 28	PCOC RADIONUCLIDES (NON ACTINIDES) S E TRENCHES AREA SUBSURFACE SOILS
FIGURE C 29	VOLATILE ORGANIC COMPOUNDS EAST OF IHSSs AREA SUBSURFACE SOILS
FIGURE C 30	TOLUENE EAST OF IHSSs AREA SUBSURFACE SOILS
FIGURE C 31	PCOC METALS EAST OF IHSSs AREA SUBSURFACE SOILS
FIGURE C 32	PCOC ACTINIDES EAST OF IHSSs AREA SUBSURFACE SOILS
APPENDIX D	UHSU GROUNDWATER MAPS
FIGURE D-1	VOLATILE ORGANIC COMPOUNDS COCs (1 1 DCE CHCl3) UHSU GROUNDWATER
FIGURE D-2	VOLATILE ORGANIC COMPOUNDS COCs (METHYLENE CHLORIDE TRICHLOROETHENE) UHSU GROUNDWATER
FIGURE D-3	VOLATILE ORGANIC COMPOUNDS CHLORINATED HYDROCARBONS (NON COCs) UHSU GROUNDWATER

FIGURE D-4	VOLATILE ORGANIC COMPOUNDS (NON-CHCs AND NON COCs) UHSU GROUNDWATER
FIGURE D-5	SEMIVOLATILE ORGANIC COMPOUNDS UHSU GROUNDWATER
FIGURE D-6	PESTICIDES/PCBs UHSU GROUNDWATER
FIGURE D-7	PCOC UNFILTERED METALS (BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS) ALUMINUM-COPPER UHSU GROUNDWATER
FIGURE D-8	PCOC UNFILTERED METALS (BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS) LEAD-MOLYBDENUM UHSU GROUNDWATER
FIGURE D 9	PCOC UNFILTERED METALS (BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS) NICKEL-ZINC UHSU GROUNDWATER
FIGURE D-10	PCOC UNFILTERED METALS (BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS) Ba Ca AND Sr UHSU GROUNDWATER
FIGURE D 11	PCOC UNFILTERED ACTINIDES (BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS) UHSU GROUNDWATER
FIGURE D-12	PCOC UNFILTERED RADIONUCLIDES (NON ACTINIDES) (BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS) UHSU GROUNDWATER
FIGURE D 13	NITRATE/NITRITE UHSU GROUNDWATER

APPENDIX A
MAP LEGEND AND SOURCE AREA MAP

APPENDIX B
SURFACE SOIL MAPS

APPENDIX C
SUBSURFACE SOIL MAPS

APPENDIX D
UHSU GROUNDWATER MAPS

ANALYTE ABBREVIATIONS

VOLATILE ORGANIC COMPOUNDS

1 1 1 2-PCA	1 1 1 2-TETRACHLOROETHANE
1 1 2 2-PCA	1 1 2 2-TETRACHLOROETHANE
1 1 1-TCA	1 1 1-TRICHLOROETHANE
1 1-DCA	1 1-DICHLOROETHANE
1 1-DCE	1 1-DICHLOROETHENE
1 2-DCA	1 2-DICHLOROETHANE
1 2-DCE	1 2-DICHLOROETHENE
CCL_4	CARBON TETRACHLORIDE
$CHCL_3$	CHLOROFORM
cis-1 2-DCE	Cis-1 2-DICHLOROETHENE
PCE	TETRACHLOROETHENE
TCE	TRICHLOROETHENE
1 2 3-TCB	1 2 3-TRICHLOROBENZENE
1 2 4-TCB	1 2 4-TRICHLOROBENZENE
TRANS-1 2-DCE	TRANS-1 2-DICHLOROETHENE
1 3-DCB	1 3-DICHLOROBENZENE
1 4-DCB	1 4-DICHLOROBENZENE
cis-1 3-DCP	cis-1 3-DICHLOROPROPANE
1 2 3-TCP	1 2 3-TRICHLOROPROPANE
COC	CHEMICAL OF CONCERN
CHC	CHLORINATED HYDROCARBON

METALS AND OTHER COMPOUNDS

Al	ALUMINUM
As	ARSENIC
Ba	BARIUM
Be	BERYLLIUM
Cd	CADMIUM
Ca	CALCIUM
CN	CYANIDE
Cr	CHROMIUM
Co	COBALT
Cu	COPPER
Hg	MERCURY
Fe	IRON
K	POTASSIUM
Li	LITHIUM
Mg	MAGNESIUM
Mn	MANGANESE
Mo	MOLYBDENUM
Na	SODIUM
Ni	NICKEL
Pb	LEAD
Sb	ANTIMONY
Se	SELENIUM
Si	SILICON
Sn	TIN
Sr	STRONTIUM
V	VANADIUM
Zn	ZINC

RADIONUCLIDES

Am-241	AMERICIUM-241
Cs-137	CESIUM-137
Pu-239	PLUTONIUM-239
Pu-239/240	PLUTONIUM-239/240
Ra-226	RADIUM-226
Ra-228	RADIUM-228
Sr-89 90	STRONTIUM-89 90
Sr-90	STRONTIUM-90
U-233 234	URANIUM-233 234
U-235	URANIUM-235
U-238	URANIUM-238

OTHER ABBREVIATIONS

(D) DISSOLVED (FILTERED SAMPLE)
(T) TOTAL (UNFILTERED SAMPLE)

LABORATORY QUALIFIERS

B = ORGANICS (VOLATILES SEMIVOLATILES PESTICIDES) INDICATES CHEMICAL WAS IN BOTH THE SAMPLE AND METHOD BLANK

B-RV = INDICATES CHEMICAL WAS IN BOTH THE SAMPLE AND METHOD BLANK BUT IS CONSIDERED TO BE A REAL VALUE

B-ND = INDICATES CHEMICAL WAS IN BOTH THE SAMPLE AND METHOD BLANK BUT IS CONSIDERED TO BE A NON-DETECTED RESULT

B = INORGANIC (METALS & INORGANICS) DETECTED CONCENTRATION WAS LESS THAN CRQL

B = RADIONUCLIDES - THE ACTIVITY IN THE METHOD BLANK EXCEEDED THE MDA

C = PESTICIDE RESULT WHERE IDENTIFICATION WAS CONFIRMED BY GC/MS

C = RADIONUCLIDES INDICATED ELEVATED TDS

E = ORGANICS - CHEMICAL EXCEEDS CALIBRATION RANGE OF THE INSTRUMENT

E = INORGANIC - REPORTED VALUE IS ESTIMATED DUE TO INTERFERENCE

F = ALPHA SPECTROMETRY - FWHM EXCEEDED ACCEPTANCE LIMITS

D = ORGANICS - ANALYSIS WAS PERFORMED AT A DILUTION

J = ORGANICS - POSITIVELY IDENTIFIED - RESULT IS CONSIDERED TO BE ESTIMATED

J = INORGANICS & RADIONUCLIDES - ESTIMATED QUANTIFICATION

N = METALS - SPIKE RECOVERIES IN THE MATRIX SPIKE SAMPLE DID NOT MEET ADVISORY LIMITS

S = METALS - THE REPORTED VALUE WAS DETERMINED BY THE METHOD OF STANDARD ADDITION (MSA)

U = ALL ANALYSES - ANALYZED CHEMICAL WAS NOT DETECTED ABOVE THE SAMPLE QUANTITATION LIMIT

W = METALS - POST DIGESTION SPIKE DID NOT MEET CONTROL LIMITS

X = OPEN AND DEFINED BY LABORATORY

Y = RADIONUCLIDES - CHEMICAL YIELD EXCEEDED ACCEPTANCE LIMITS

= METALS - MATRIX DUPLICATE ANALYSIS DO NOT MEET ADVISORY LIMITS

VALIDATION CODES AND QUALIFIERS

A = RESULT ACCEPTED WITH QUALIFICATIONS

AJ = RESULT ACCEPTED BUT WAS ESTIMATED

J = ESTIMATED RESULT DUE TO OUTSIDE HOLDING TIME IMPROPERLY PRESERVED QUALITY CONTROL PARAMETER OUTSIDE CONTROL LIMIT

R = REJECTED RESULT

U = ALL ANALYSES - ANALYZED CHEMICAL WAS NOT DETECTED ABOVE THE SAMPLE QUANTITATION LIMIT

V = VALID RESULT

VA = VALID RESULT WITH QUALIFICATIONS

DRAFT

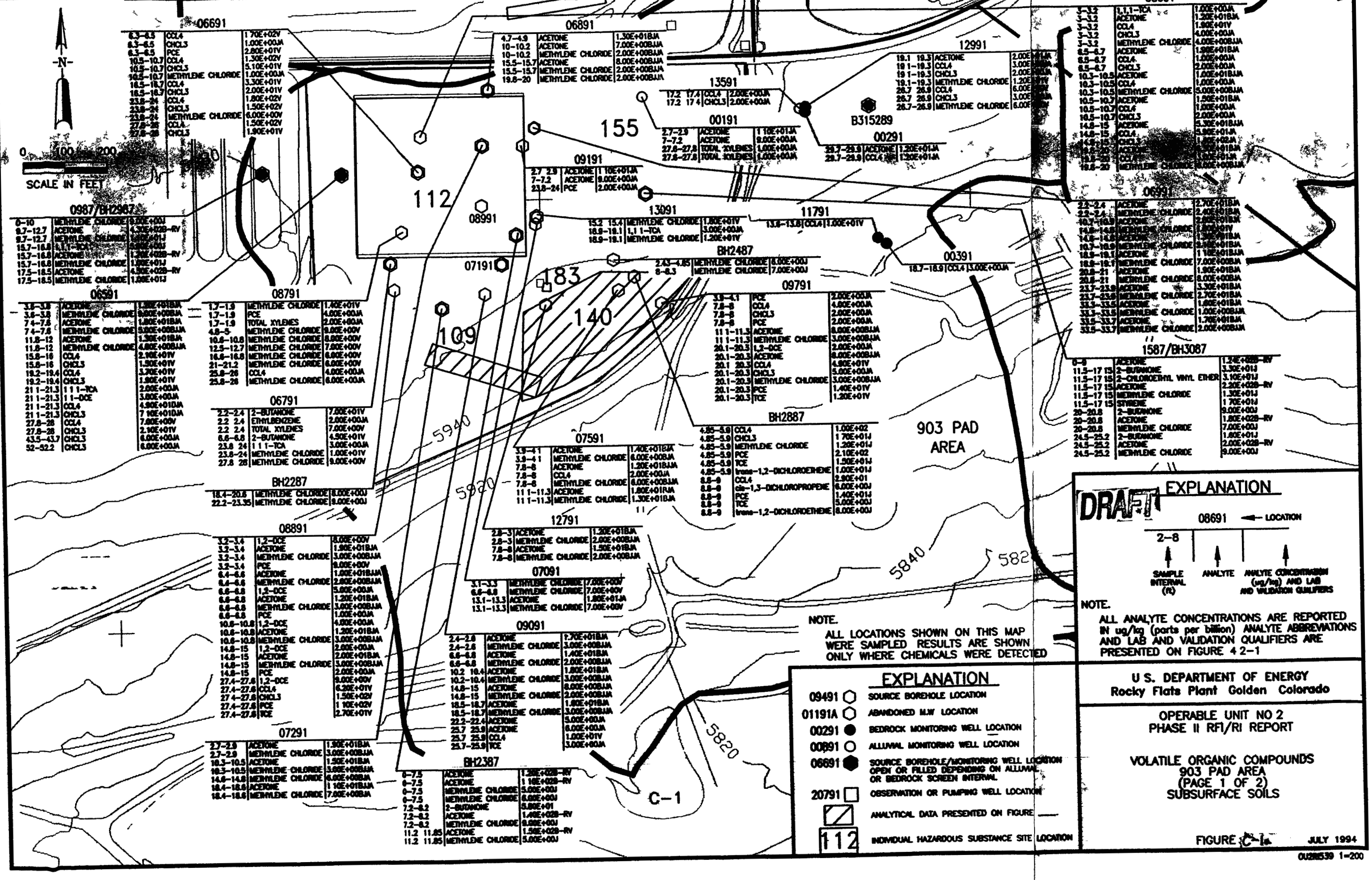
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT 2
PHASE II RFI/RI REPORT

ANALYTE ABBREVIATIONS, LABORATORY AND VALIDATION QUALIFIERS

FIGURE A-1

JULY 1994


06691
6.3–6.5 CCL4 1.70E+02V
6.3–6.5 CHCL3 1.00E+00JA
6.3–6.5 PCE 2.80E+01V
10.5–10.7 CCL4 1.30E+02V
10.5–10.7 CHCL3 5.10E+01V
10.5–10.7 METHYLENE CHLORIDE 1.00E+00JA
18.5–18.7 CCL4 3.30E+01V
18.5–18.7 CHCL3 2.00E+01V
23.8–24 CCL4 1.80E+02V
23.8–24 CHCL3 1.50E+02V
23.8–24 METHYLENE CHLORIDE 6.00E+00V
27.8–28 CCL4 1.50E+02V
27.8–28 CHCL3 1.90E+01V
06891
4.7–4.9 ACETONE 1.30E+01BJA
10–10.2 ACETONE 7.00E+00BJA
10–10.2 METHYLENE CHLORIDE 2.00E+00BJA
15.5–15.7 ACETONE 8.00E+00BJA
15.5–15.7 METHYLENE CHLORIDE 2.00E+00BJA
19.8–20 METHYLENE CHLORIDE 2.00E+00BJA
13591
17.2 17.4 CCL4 2.00E+00JA
17.2 17.4 CHCL3 2.00E+00JA
12991
19.1 19.3 ACETONE 2.00E+00JA
19.1–19.3 CCL4 3.00E+00JA
19.1–19.3 CHCL3 2.00E+00JA
19.1–19.3 METHYLENE CHLORIDE 1.20E+01V
26.7 26.9 CCL4 6.00E+00V
26.7 26.9 CHCL3 3.00E+00JA
26.7–26.9 METHYLENE CHLORIDE 6.00E+00V
B315289
00191
2.7–2.9 ACETONE 1.10E+01JA
7–7.2 ACETONE 9.00E+00JA
27.6–27.8 TOTAL XYLENES 1.60E+00JA
27.6–27.8 TOTAL XYLENES 1.40E+00JA
00291
28.7–28.9 ACETONE 1.20E+01JA
28.7–28.9 CCL4 1.20E+01JA
09191
2.7 2.9 ACETONE 1.10E+01JA
7–7.2 ACETONE 9.00E+00JA
23.8–24 PCE 2.00E+00JA
13091
15.2 15.4 METHYLENE CHLORIDE 1.80E+01V
18.9–19.1 1,1,1–TCA 3.00E+00JA
18.9–19.1 METHYLENE CHLORIDE 1.20E+01V
11791
13.6–13.8 CCL4 1.00E+01V
00391
18.7–18.9 CCL4 3.00E+00JA
BH2487
2.45–4.85 METHYLENE CHLORIDE 6.00E+00J
6–6.3 METHYLENE CHLORIDE 7.00E+00J
08691
1–3.2 1,1,1–TCA 1.00E+00JA
1–3.2 ACETONE 1.20E+01BJA
1–3.2 CCL4 1.90E+01V
1–3.2 CHCL3 4.00E+00JA
1–3.2 METHYLENE CHLORIDE 4.00E+00BJA
6.5–6.7 ACETONE 1.90E+01BJA
6.5–6.7 CCL4 1.00E+00JA
6.5–6.7 CHCL3 2.00E+00JA
10.3–10.5 ACETONE 1.00E+01BJA
10.3–10.5 CCL4 1.00E+00JA
10.3–10.5 METHYLENE CHLORIDE 5.00E+00BJA
10.5–10.7 ACETONE 1.50E+01BJA
10.5–10.7 CCL4 1.00E+00JA
10.5–10.7 CHCL3 2.00E+00JA
14.8–15 ACETONE 5.30E+01BJA
14.8–15 CCL4 5.90E+01JA
14.8–15 CHCL3 1.40E+00JA
14.8–15 ACETONE 1.80E+01BJA
14.8–15 CCL4 1.90E+01JA
19.8–20 METHYLENE CHLORIDE 6.00E+00BJA
06991
2.3–2.4 ACETONE 2.70E+01BJA
2.3–2.4 METHYLENE CHLORIDE 2.40E+01BJA
10.7–10.9 ACETONE 2.00E+01BJA
14.8–14.9 METHYLENE CHLORIDE 1.30E+01V
14.8–14.9 ACETONE 1.30E+01BJA
18.7–18.9 METHYLENE CHLORIDE 3.00E+01BJA
18.9–19.1 ACETONE 1.10E+01BJA
18.9–19.1 METHYLENE CHLORIDE 7.00E+00BJA
20.8–21 ACETONE 1.90E+01BJA
20.8–21 METHYLENE CHLORIDE 8.00E+00BJA
23.7–23.9 ACETONE 3.30E+01BJA
23.7–23.9 METHYLENE CHLORIDE 2.70E+01BJA
33.5–33.6 ACETONE 1.60E+01BJA
33.5–33.6 METHYLENE CHLORIDE 1.00E+00BJA
33.5–33.7 ACETONE 1.70E+01BJA
33.5–33.7 METHYLENE CHLORIDE 2.00E+00BJA
1587/BH3087
0–8 ACETONE 1.20E+02B–RV
11.5–17.15 2–BUTANONE 3.30E+01J
11.5–17.15 2–CHLOROETHYL VINYL ETHER 3.10E+01J
11.5–17.15 ACETONE 2.20E+02B–RV
11.5–17.15 METHYLENE CHLORIDE 1.30E+01J
11.5–17.15 STYRENE 1.70E+01J
20–20.8 2–BUTANONE 9.00E+00J
20–20.8 ACETONE 1.80E+02B–RV
20–20.8 METHYLENE CHLORIDE 7.00E+00J
24.5–25.2 2–BUTANONE 1.80E+01J
24.5–25.2 ACETONE 2.00E+02B–RV
24.5–25.2 METHYLENE CHLORIDE 9.00E+00J
0987/BH2987
0–10 METHYLENE CHLORIDE 9.00E+00J
9.7–12.7 ACETONE 4.30E+02B–RV
9.7–12.7 METHYLENE CHLORIDE 6.80E+01J
15.7–16.8 1,1,1–TCA 8.00E+00J
15.7–16.8 ACETONE 1.30E+02B–RV
15.7–16.8 METHYLENE CHLORIDE 1.80E+01J
17.5–18.5 ACETONE 4.30E+02B–RV
17.5–18.5 METHYLENE CHLORIDE 1.00E+01J
06591
3.8–3.8 ACETONE 1.20E+01BJA
3.8–3.8 METHYLENE CHLORIDE 9.00E+00BJA
7.4–7.8 ACETONE 1.80E+01BJA
7.4–7.8 METHYLENE CHLORIDE 5.00E+00BJA
11.8–12 ACETONE 1.30E+01BJA
11.8–12 METHYLENE CHLORIDE 4.80E+00BJA
15.8–16 CCL4 2.10E+01V
15.8–16 CHCL3 1.50E+01V
19.2–19.4 CCL4 3.30E+01V
19.2–19.4 CHCL3 1.80E+01V
21 1–21.3 1 1 1–TCA 2.00E+00JA
21 1–21.3 1 1–DCE 3.80E+00JA
21 1–21.3 CCL4 4.90E+01BJA
21 1–21.3 CHCL3 7.10E+01BJA
27.8–28 CCL4 7.80E+00V
27.8–28 CHCL3 2.10E+01V
43.5–43.7 CHCL3 6.00E+00JA
52–52.2 CHCL3 6.00E+00JA
08791
1.7–1.9 METHYLENE CHLORIDE 1.40E+01V
1.7–1.9 PCE 4.00E+00JA
1.7–1.9 TOTAL XYLENES 2.00E+00JA
4.8–5 METHYLENE CHLORIDE 9.00E+00V
10.8–10.8 METHYLENE CHLORIDE 8.00E+00V
12.5–12.7 METHYLENE CHLORIDE 7.90E+00V
16.6–16.8 METHYLENE CHLORIDE 6.00E+00V
21–21.2 METHYLENE CHLORIDE 6.00E+00V
25.8–26 CCL4 4.00E+00JA
25.8–26 METHYLENE CHLORIDE 6.00E+00JA
06791
2.2–2.4 2–BUTANONE 7.00E+01V
2.2 2.4 ETHYLBENZENE 2.00E+00JA
2.2 2.4 TOTAL XYLENES 7.00E+00V
6.6–6.8 2–BUTANONE 4.90E+01V
23.8 24 1 1 1–TCA 3.00E+00JA
23.8–24 METHYLENE CHLORIDE 1.00E+01V
27.8 28 METHYLENE CHLORIDE 9.00E+00V
BH2287
18.4–20.6 METHYLENE CHLORIDE 8.00E+00J
22.2–23.35 METHYLENE CHLORIDE 9.00E+00J
08891
3.2–3.4 1,2–DCE 8.00E+00V
3.2–3.4 ACETONE 1.90E+01BJA
3.2–3.4 METHYLENE CHLORIDE 3.00E+00BJA
3.2–3.4 PCE 9.00E+00V
6.4–6.6 ACETONE 1.00E+01BJA
6.4–6.6 METHYLENE CHLORIDE 2.80E+00BJA
6.6–6.8 1,2–DCE 5.00E+00JA
6.6–6.8 ACETONE 1.20E+01BJA
6.6–6.8 METHYLENE CHLORIDE 3.00E+00BJA
6.6–6.8 PCE 1.00E+00JA
10.8–10.8 1,2–DCE 4.00E+00JA
10.8–10.8 ACETONE 1.20E+01BJA
10.8–10.8 METHYLENE CHLORIDE 3.00E+00BJA
14.8–15 1,2–DCE 2.00E+00JA
14.8–15 ACETONE 2.00E+01BJA
14.8–15 METHYLENE CHLORIDE 3.00E+00BJA
14.8–15 PCE 2.00E+00JA
27.4–27.6 1,2–DCE 9.00E+00V
27.4–27.6 CCL4 6.30E+01V
27.4–27.6 CHCL3 1.50E+02V
27.4–27.6 PCE 1.10E+02V
27.4–27.6 TCE 2.70E+01V
07291
2.7–2.9 ACETONE 1.90E+01BJA
2.7–2.9 METHYLENE CHLORIDE 3.00E+00BJA
10.3–10.5 ACETONE 1.50E+01BJA
10.3–10.5 METHYLENE CHLORIDE 3.00E+00BJA
14.6–14.8 METHYLENE CHLORIDE 6.00E+00BJA
18.4–18.6 ACETONE 1.10E+01BJA
18.4–18.6 METHYLENE CHLORIDE 7.00E+00BJA
07591
3.9–4.1 ACETONE 1.40E+01BJA
3.9–4.1 METHYLENE CHLORIDE 6.00E+00BJA
7.8–8 ACETONE 1.20E+01BJA
7.8–8 CCL4 2.00E+00JA
7.8–8 METHYLENE CHLORIDE 6.00E+00BJA
11 1–11.3 ACETONE 1.80E+01BJA
11 1–11.3 METHYLENE CHLORIDE 1.30E+01BJA
12791
2.8–3 ACETONE 1.20E+01BJA
2.8–3 METHYLENE CHLORIDE 2.00E+00BJA
7.8–8 ACETONE 1.50E+01BJA
7.8–8 METHYLENE CHLORIDE 2.00E+00BJA
07091
3.1–3.3 METHYLENE CHLORIDE 7.00E+00V
6.6–6.8 METHYLENE CHLORIDE 7.00E+00V
13.1–13.3 ACETONE 1.80E+01JA
13.1–13.3 METHYLENE CHLORIDE 7.00E+00V
09091
2.4–2.6 ACETONE 7.70E+01BJA
2.4–2.6 METHYLENE CHLORIDE 3.00E+00BJA
6.6–6.8 ACETONE 1.40E+01BJA
6.6–6.8 METHYLENE CHLORIDE 2.00E+00BJA
10.2 10.4 ACETONE 1.80E+01BJA
10.2–10.4 METHYLENE CHLORIDE 3.00E+00BJA
14.8–15 ACETONE 8.00E+00BJA
14.8–15 METHYLENE CHLORIDE 2.00E+00BJA
18.5–18.7 ACETONE 1.80E+01BJA
18.5–18.7 METHYLENE CHLORIDE 3.00E+00BJA
22.2–22.4 ACETONE 5.00E+00JA
25.7 25.9 ACETONE 8.00E+00JA
25.7 25.9 CCL4 1.00E+01V
25.7–25.9 TCE 3.00E+00JA
BH2387
0–7.5 ACETONE 1.30E+02B–RV
0–7.5 ACETONE 1.10E+02B–RV
0–7.5 METHYLENE CHLORIDE 5.00E+00J
0–7.5 METHYLENE CHLORIDE 8.00E+00J
7.2–8.2 2–BUTANONE 5.80E+01
7.2–8.2 ACETONE 1.40E+02B–RV
7.2–8.2 METHYLENE CHLORIDE 9.00E+00J
11.2 11.85 ACETONE 1.50E+02B–RV
11.2 11.85 METHYLENE CHLORIDE 5.00E+00J
09791
3.9–4.1 PCE 2.60E+00JA
7.8–8 CCL4 4.00E+00JA
7.8–8 CHCL3 2.00E+00JA
7.8–8 PCE 2.00E+00JA
11 1–11.3 ACETONE 8.00E+00BJA
11 1–11.3 METHYLENE CHLORIDE 3.00E+00BJA
20.1–20.3 1,3–DCE 2.00E+00JA
20.1–20.3 ACETONE 8.00E+00BJA
20.1 20.3 CCL4 4.90E+01V
20.1–20.3 CHCL3 5.00E+00JA
20.1–20.3 METHYLENE CHLORIDE 3.00E+00BJA
20.1–20.3 PCE 1.40E+01V
20.1–20.3 TCE 1.20E+01V
BH2887
4.85–5.9 CCL4 1.00E+02
4.85–5.9 CHCL3 1.70E+01J
4.85–5.9 METHYLENE CHLORIDE 1.20E+01J
4.85–5.9 PCE 2.10E+02
4.85–5.9 TCE 1.50E+01J
4.85–5.9 trans–1,2–DICHLOROETHENE 1.00E+01J
8.8–9 CCL4 2.90E+01
8.8–9 cis–1,3–DICHLOROPROPENE 6.00E+00J
8.8–9 PCE 1.40E+01J
8.8–9 TCE 5.00E+00J
8.8–9 trans–1,2–DICHLOROETHENE 8.00E+00J
903 PAD AREA
155
112
08991
07191
183
140
109
5940
5920
5840
5820
582
C–1
SCALE IN FEET
0 100 200
N
NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00991 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREEN INTERVAL
20791 OBSERVATION OR PUMPING WELL LOCATION
ANALYTICAL DATA PRESENTED ON FIGURE
112 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
DRAFT
EXPLANATION
08691 LOCATION
2–8 SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg) AND LAB AND VALIDATION QUALIFIERS
NOTE.
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4 2–1
U S. DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado
OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT
VOLATILE ORGANIC COMPOUNDS
903 PAD AREA
(PAGE 1 OF 2)
SUBSURFACE SOILS
FIGURE C–1a JULY 1994
0028539 1–200

-N-

0 100 200

SCALE IN FEET

155

112

183

140

109

BH2587

0-8	ACETONE	1.10E+02B-RV
0-8	ACETONE	4.40E+01J
0-8	CHLOROETHANE	7.00E+00J
0-8	ETHYLBENZENE	1.10E+01J
0-8	METHYLENE CHLORIDE	1.50E+01J
0-8	METHYLENE CHLORIDE	1.90E+01J
0-8	PCE	8.00E+00J
0-8	PCE	1.30E+02
0-8	TCE	1.00E+02
0-8	TCE	8.70E+01
0-8	TOTAL XYLENES	6.00E+01
8.4-8.85	2-BUTANONE	1.60E+01J
8.4-8.85	ACETONE	3.40E+02
8.4-8.85	METHYLENE CHLORIDE	1.20E+01J
8.4-8.85	TCE	9.30E+01
9.5-10.4	2-BUTANONE	6.00E+00J
9.5-10.4	PCE	2.80E+01
9.5-10.4	TCE 5.10E+01	5.10E+01
14.5-15.7	2 Butanone	2.10E+02J
14.5-15.7	ACETONE	1.10E+03B-RV
14.5-15.7	ETHYLBENZENE	7.80E+02
14.5-15.7	PCE	1.00E+04
14.5-15.7	TCE	7.00E+03
14.5-15.7	TOTAL XYLENES	3.30E+03
18.5-19.3	1 1 1-TCA	7.50E+01J
18.5-19.3	4-METHYL-2-PENTANONE	1.30E+02J
18.5-19.3	ACETONE	7.80E+02B-RV
18.5-19.3	CHCL3	1.30E+02J
18.5-19.3	CHLOROETHANE	5.00E+01J
18.5-19.3	ETHYLBENZENE	2.90E+02
18.5-19.3	METHYLENE CHLORIDE	1.50E+02JB-RV
18.5-19.3	PCE	3.80E+03
18.5-19.3	TCE	1.80E+04
18.5-19.3	TOTAL XYLENES	4.80E+02

07191

23.8-24	1,1-DCE	1.00E+00JA
23.8-24	PCE	1.40E+01V
23.8-24	TCE	1.20E+01V

BH2787

0-4.8	ACETONE	1.40E+02B-RV
0-4.8	METHYLENE CHLORIDE	7.00E+00J
4.8-10	ACETONE	1.40E+02B-RV
4.8-10	METHYLENE CHLORIDE	5.00E+00J
13-14.4	ACETONE	1.70E+02B-RV
13-14.4	METHYLENE CHLORIDE	6.00E+00J

09491

3.8-4	ACETONE	1.40E+01BJA
3.8-4	TCE	5.00E+00JA
7.8-8	ACETONE	8.00E+00BJA
7.8-8	METHYLENE CHLORIDE	3.00E+00BJA

13091

15.2-15.4	METHYLENE CHLORIDE	1.80E+01V
18.9-19.1	1 1 1-TCA	3.00E+00JA
18.9-19.1	METHYLENE CHLORIDE	1.20E+01V

07491

2.8-3	ACETONE	2.50E+01BJA
2.8-3	METHYLENE CHLORIDE	2.60E+01BJA
7.3-7.5	ACETONE	1.50E+01BJA
7.3-7.5	METHYLENE CHLORIDE	2.00E+00BJJA
11.5-11.7	ACETONE	3.50E+01BJA
11.5-11.7	CHCL3	4.00E+00JA
11.5-11.7	METHYLENE CHLORIDE	3.20E+01BJA

09291

7.5-7.8 | TCE | 4.00E+01V

07691

3.7-3.9	METHYLENE CHLORIDE	8.00E+00JA
7.8-8	CHCL3	2.00E+00JA
7.8-8	METHYLENE CHLORIDE	4.00E+00JA
7.8-8	TCE	4.00E+00JA

00491

18.3-18.5	CCL4	6.00E+00V
18.3-18.5	CHCL3	2.00E+00JA

00891

18.7-18.9 | ACETONE | 9.00E+00J

00591

5.5-5.7 | TOTAL XYLENES | 8.90E+01V

BH2687

0.3-2.5	ACETONE	2.30E+01
4.85-5.9	CCL4	1.00E+02
6-6.9	ACETONE	1.20E+02
6-6.9	METHYLENE CHLORIDE	8.00E+00J
8.8-9	CCL4	2.9E+01

09391

34591

09591

34791

21893

10.4-10.7	TCE	1.80E+01V
10.7-11	TCE	4.20E+01V
23.1-23.4	TCE	5.70E+03JA
26.9-27.2	TCE	3.00E+00JA
29.2-29.5	TCE	7.00E+00V

07391

2.4-2.6	TCE	5.00E+00JA
2.4-2.6	TOTAL XYLENES	4.00E+00JA
2.6-2.8	METHYLENE CHLORIDE	3.00E+00JA
2.6-2.8	PCE	2.00E+00JA
2.6-2.8	TCE	1.90E+01V
6.8-7	METHYLENE CHLORIDE	4.00E+00JA
6.8-7	PCE	4.00E+00JA
6.8-7	TCE	1.10E+02V
6.8-7	TOTAL XYLENES	2.00E+00JA
11-11.2	CHCL3	1.90E+01JA
11-11.2	METHYLENE CHLORIDE	1.80E+01JA
11-11.2	TCE	4.20E+02V
15.8-16	CHCL3	4.80E+00JA
15.8-16	METHYLENE CHLORIDE	4.00E+00JA
15.8-16	TCE	2.90E+02V

00791

09691

8.2-8.4	TCE	1.00E+01V
11.8-12	PCE	3.00E+00JA
11.8-12	TCE	4.40E+01V
15.8-16	CHCL3	2.00E+00JA
15.8-16	TCE	2.20E+01V
19.8-19.8	TCE	1.00E+00JA

00691

00991

13.3-13.5	ACETONE	1.40E+01JA
13.3-13.5	TOTAL XYLENES	3.00E+00JA

01191A

01291

14.3-14.5	1 1 1-TCA	1.00E+01V
14.3-14.5	CHCL3	2.00E+00JA
14.3-14.5	METHYLENE CHLORIDE	6.00E+00JA

01091A

5980 5960 5940 5920 5900 5880 5860 5840 5820 5800

C-1

NOTE.

ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED

DRAFT

EXPLANATION

08691 ← LOCATION

2-8

↑ SAMPLE INTERVAL (ft) | ↑ ANALYTE | ↑ ANALYTE CONCENTRATION (ug/kg) AND LAB AND VALIDATION QUALIFIERS

NOTE.

ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4 2-1

EXPLANATION

09491 ⬡	SOURCE BOREHOLE LOCATION
01191A ⬡	ABANDONED M.W LOCATION
00291 ●	BEDROCK MONITORING WELL LOCATION
00691 ○	ALLUVIAL MONITORING WELL LOCATION
06691 ⬢	SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREEN INTERVAL
20791 □	OBSERVATION OR PUMPING WELL LOCATION
▨	ANALYTICAL DATA PRESENTED ON FIGURE ___
112	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

VOLATILE ORGANIC COMPOUNDS
903 PAD AREA
(PAGE 2 OF 2)
SUBSURFACE SOILS

FIGURE C-1b JULY 1994

OU2R601 1=200

-N-

0 100 200

SCALE IN FEET

08691

3–3.2	TOLUENE	9.10E+01V
6.5–6.7	TOLUENE	1.30E+01V
10.3–10.5	TOLUENE	8.00E+00V
10.5–10.7	TOLUENE	5.00E+00JA
14.8–15	TOLUENE	1.00E+01JA
19.8–20	TOLUENE	1.00E+01JA

06891

4.7–4.9	TOLUENE	1.00E+01V
10–10.2	TOLUENE	1.20E+01V
15.5–15.7	TOLUENE	8.50E+01V
19.8–20	TOLUENE	7.90E+01V

08891

3.2–3.4	TOLUENE	2.30E+02V
6.4–6.6	TOLUENE	1.70E+01V
6.6–6.8	TOLUENE	6.00E+01V
10.6–10.8	TOLUENE	9.90E+01V
14.8–15	TOLUENE	3.00E+01V
19.2–19.4	TOLUENE	5.50E+01V
27.4–27.6	TOLUENE	1.50E+02V
27.6–28	TOLUENE	1.40E+02V

00191

27.6–27.8	TOLUENE	4.00E+00JA

13591

17.2–17.4	TOLUENE	2.60E+01V

06691

2.4–2.6	TOLUENE	3.30E+01V
6.3–6.5	TOLUENE	2.20E+02V
10.5–10.7	TOLUENE	5.80E+01V
16.5–16.7	TOLUENE	5.90E+01V
23.8–24	TOLUENE	6.80E+01V
27.8–28	TOLUENE	1.00E+02V

09191

2.5–2.7	TOLUENE	1.50E+02V
2.7–2.9	TOLUENE	1.50E+02V
7–7.2	TOLUENE	1.10E+02V
11.5–11.7	TOLUENE	1.30E+01V
15.8–16	TOLUENE	1.70E+01V
18–18.2	TOLUENE	6.80E+01V
21.2–21.4	TOLUENE	3.30E+01V
23.8–24	TOLUENE	7.80E+01V
27.8–28	TOLUENE	6.10E+01V

12991

B315289

00291

55.7–55.9	TOLUENE	3.00E+00JA

06991

155

06691

112

08991

2.4–2.6	TOLUENE	1.00E+00JA
29.7–29.9	TOLUENE	2.00E+00JA

13091

1587/BH3087

1587/BH2987

06591

7.4–7.6	TOLUENE	8.00E+00V
11.8–12	TOLUENE	6.00E+00V
15.8–16	TOLUENE	5.40E+01V
19.2–19.4	TOLUENE	3.30E+01V
21.1–21.3	TOLUENE	6.80E+01V
27.6–28	TOLUENE	2.80E+01V
31.8–32	TOLUENE	3.50E+01V
36.4–36.6	TOLUENE	3.90E+02V
39.2–39.4	TOLUENE	8.90E+01V
43.5–43.7	TOLUENE	1.10E+03EJA
47.3–47.5	TOLUENE	3.80E+02V
52–52.2	TOLUENE	3.50E+02JA

08791

1.7–1.9	TOLUENE	5.50E+02DV
4.8–5	TOLUENE	2.90E+01V
10.6–10.8	TOLUENE	8.80E+01V
12.5–12.7	TOLUENE	4.40E+01V
16.6–16.8	TOLUENE	1.90E+01V
21–21.2	TOLUENE	6.80E+01V
25.8–26	TOLUENE	1.20E+02V

09091

2.4–2.6	TOLUENE	2.00E+00JA

07091

3.1–3.3	TOLUENE	1.10E+01V
6.6–6.8	TOLUENE	1.80E+01V
13.1–13.3	TOLUENE	7.00E+00V

1179

13.6–13.8	TOLUENE	3.50E+02DV

0039

18.7–18.9	TOLUENE	6.60E+01V

BH2487

BH2687

183

140

07591

3.9–4.1	TOLUENE	7.80E+01V
7.8–8	TOLUENE	1.50E+02V
11.1–11.3	TOLUENE	1.00E+02V

09791

3.9–4.1	TOLUENE	5.00E+00JA
11.1–11.3	TOLUENE	2.00E+00JA
20.1–20.3	TOLUENE	2.00E+00JA

12791

2.8–3	TOLUENE	7.80E+01V
7.8–8	TOLUENE	1.30E+02V

00491

18.3–18.5	TOLUENE	1.30E+02V

BH2287

07291

BH2387

BH2787

07491

07691

1087A/BH2687

00591A

07491

2.8–3	TOLUENE	5.30E+01DJA
7.3–7.5	TOLUENE	9.10E+01V
11.5–11.7	TOLUENE	2.40E+02DV

05991

22.8–23	TOLUENE	2.80E+01V

09691

15.8–16	TOLUENE	1.80E+00JA

09491

3.8–4	TOLUENE	1.80E+02V
7.8–8	TOLUENE	1.00E+02V

00891

18.7–18.9	TOLUENE	5.80E+01

06791

2.2–2.4	TOLUENE	4.80E+02DV
6.6–6.8	TOLUENE	2.50E+01V
11–11.2	TOLUENE	2.90E+01V
15.7–15.9	TOLUENE	5.90E+01V
18.4–18.6	TOLUENE	2.00E+01V
23.8–24	TOLUENE	1.00E+02V
27.8–28	TOLUENE	1.00E+02V

07191

2.7–2.9	TOLUENE	8.20E+01V
7.1–7.3	TOLUENE	2.10E+01V
10.5–10.7	TOLUENE	3.00E+00JV
15.2–15.4	TOLUENE	1.30E+01V
19.3–19.5	TOLUENE	1.10E+01V
23.8–24	TOLUENE	5.30E+01V

09391

2.8–3	TOLUENE	3.10E+01V
7.5–7.7	TOLUENE	4.70E+01V

09591

2.8–3	TOLUENE	1.60E+02V

34591

0–6	TOLUENE	9.50E+01V

34791

09

903 PAD AREA

01191

8.7–8.9	TOLUENE	8.00E+01

01291

01091

5.8–6.8	TOLUENE	1.10E+01V

01091A

00991

13.3–13.5	TOLUENE	3.60E+01V

00791

15.8–16	TOLUENE	6.60E+01V
19.4–19.6	TOLUENE	7.10E+01V

00691

13.9–14.1	TOLUENE	1.50E+01V

09291

3.5–3.7	TOLUENE	4.30E+01V
7.8–7.8	TOLUENE	8.70E+01V

BH2587

0–8	TOLUENE	4.00E+00J
9.5–10.4	TOLUENE	8.00E+00J
14.5–15.7	TOLUENE	6.40E+02
16.5–19.3	TOLUENE	3.30E+02

07391

2.4–2.8	TOLUENE	1.40E+02V
2.6–2.8	TOLUENE	8.50E+01V
6.8–7	TOLUENE	7.40E+01V
11–11.2	TOLUENE	3.90E+01V
15.8–16	TOLUENE	3.10E+01V

21891

10.4–10.7	TOLUENE	6.50E+01V
10.7–11	TOLUENE	8.10E+01V
26.9–27.2	TOLUENE	2.70E+01V
29.2–29.5	TOLUENE	4.30E+01V
33.9–34.2	TOLUENE	1.40E+02V
37.5–37.8	TOLUENE	1.70E+02V
40.8–41.1	TOLUENE	1.80E+02V
43.8–44.1	TOLUENE	2.00E+03V
48.6–48.9	TOLUENE	4.00E+02V

5960 5940 5920 5900 5880 5860 5840 5820 5800

C-1

NOTE

ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED

DRAFT

EXPLANATION

08691 ← LOCATION

2–8

- 2–8: SAMPLE INTERVAL (ft)
- TOLUENE: ANALYTE
- 6.80E+01V: ANALYTE CONCENTRATION (ug/kg) AND LAB AND VALIDATION QUALIFIERS

NOTE

ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4 2-1

EXPLANATION

09491 ⬡ SOURCE BOREHOLE LOCATION

06691 ⬢ SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL

112 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

NOTE

ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED

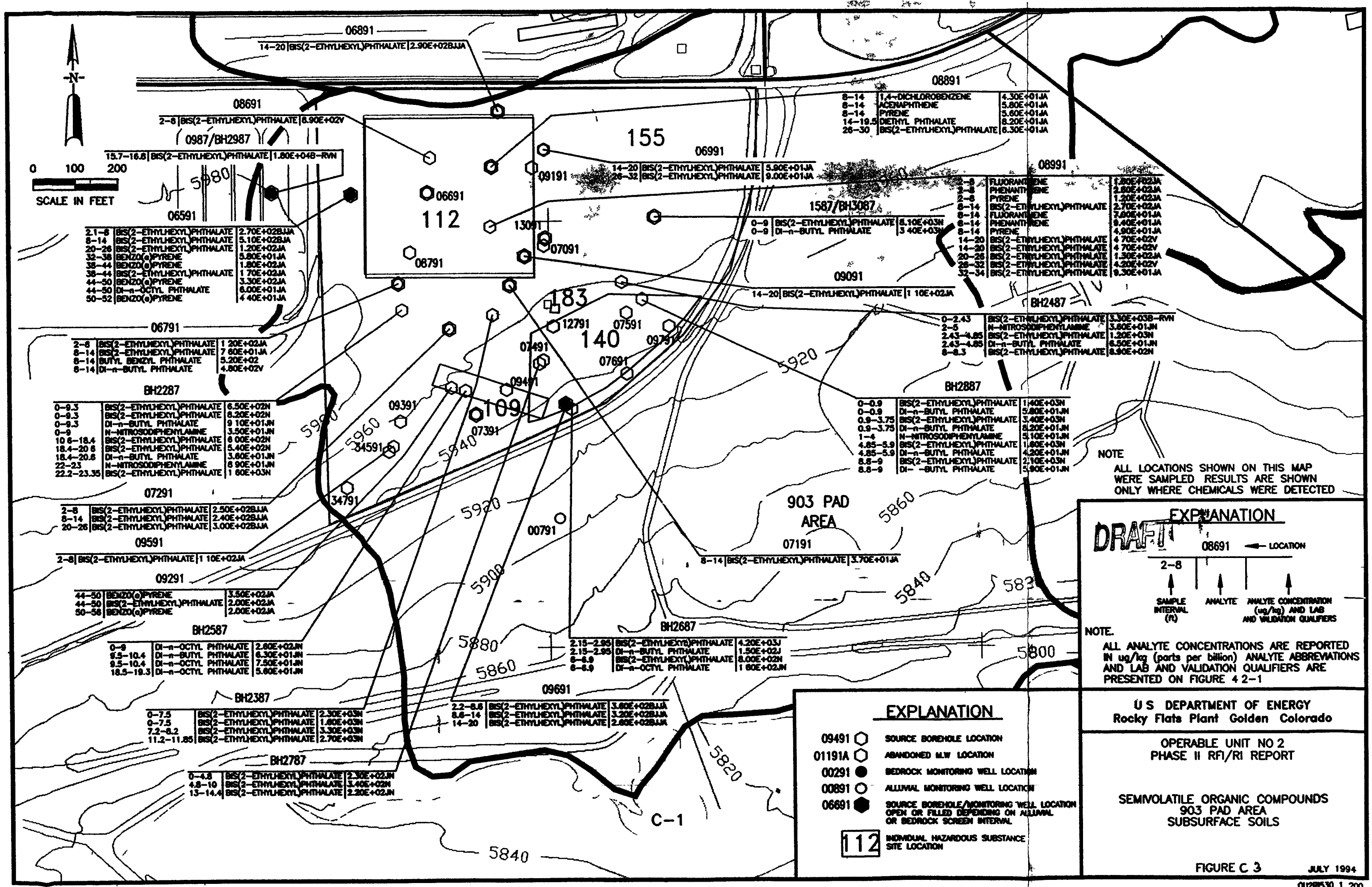
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

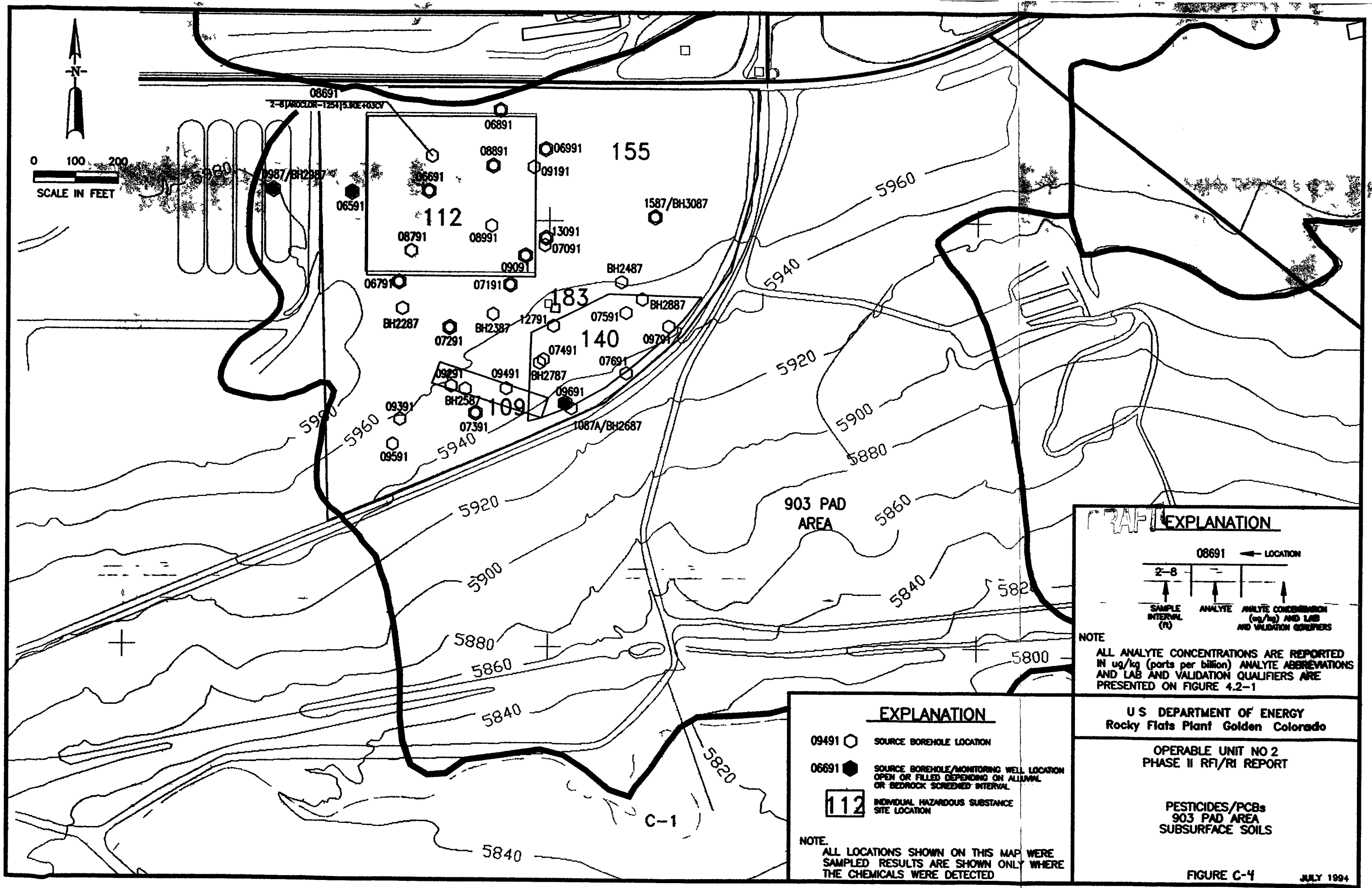
OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

TOLUENE
903 PAD AREA
SUBSURFACE SOILS

FIGURE C-2 JULY 1994

0U2R534 1=200


-N-
0 100 200
SCALE IN FEET
06891
14-20 BIS(2-ETHYLHEXYL)PHTHALATE 2.90E+02BJJA
08691
2-8 BIS(2-ETHYLHEXYL)PHTHALATE 8.90E+02V
0987/BH2987
15.7-16.8 BIS(2-ETHYLHEXYL)PHTHALATE 1.80E+04B-RVN
5980
06591
2.1-8 BIS(2-ETHYLHEXYL)PHTHALATE 2.70E+02BJJA
8-14 BIS(2-ETHYLHEXYL)PHTHALATE 5.10E+02BJJA
20-26 BIS(2-ETHYLHEXYL)PHTHALATE 1.20E+02JA
32-38 BENZO(e)PYRENE 5.80E+01JA
38-44 BENZO(e)PYRENE 1.80E+02JA
38-44 BIS(2-ETHYLHEXYL)PHTHALATE 1 70E+02JA
44-50 BENZO(e)PYRENE 3.30E+02JA
44-50 DI-n-OCTYL PHTHALATE 6.00E+01JA
50-52 BENZO(e)PYRENE 4 40E+01JA
06791
2-8 BIS(2-ETHYLHEXYL)PHTHALATE 1 20E+02JA
8-14 BIS(2-ETHYLHEXYL)PHTHALATE 7 60E+01JA
8-14 BUTYL BENZYL PHTHALATE 5.20E+02
8-14 DI-n-BUTYL PHTHALATE 4.80E+02V
BH2287
0-9.3 BIS(2-ETHYLHEXYL)PHTHALATE 6.50E+02N
0-9.3 BIS(2-ETHYLHEXYL)PHTHALATE 8.20E+02N
0-9.3 DI-n-BUTYL PHTHALATE 9 10E+01JN
0-9 N-NITROSODIPHENYLAMINE 3.50E+01JN
10 8-18.4 BIS(2-ETHYLHEXYL)PHTHALATE 6 00E+02N
18.4-20 8 BIS(2-ETHYLHEXYL)PHTHALATE 5.40E+02N
18.4-20.8 DI-n-BUTYL PHTHALATE 3.60E+01JN
22-23 N-NITROSODIPHENYLAMINE 6 90E+01JN
22.2-23.35 BIS(2-ETHYLHEXYL)PHTHALATE 1 60E+03N
07291
2-8 BIS(2-ETHYLHEXYL)PHTHALATE 2.50E+02BJJA
8-14 BIS(2-ETHYLHEXYL)PHTHALATE 2.40E+02BJJA
20-26 BIS(2-ETHYLHEXYL)PHTHALATE 3.00E+02BJJA
09591
2-8 BIS(2-ETHYLHEXYL)PHTHALATE 1 10E+02JA
09291
44-50 BENZO(a)PYRENE 3.50E+02JA
44-50 BIS(2-ETHYLHEXYL)PHTHALATE 2.00E+02JA
50-56 BENZO(a)PYRENE 2.00E+02JA
BH2587
0-9 DI-n-OCTYL PHTHALATE 2.60E+02JN
9.5-10.4 DI-n-BUTYL PHTHALATE 6.30E+01JN
9.5-10.4 DI-n-OCTYL PHTHALATE 7.50E+01JN
18.5-19.3 DI-n-OCTYL PHTHALATE 5.60E+01JN
BH2387
0-7.5 BIS(2-ETHYLHEXYL)PHTHALATE 2.30E+03N
0-7.5 BIS(2-ETHYLHEXYL)PHTHALATE 1.80E+03N
7.2-8.2 BIS(2-ETHYLHEXYL)PHTHALATE 3.30E+03N
11.2-11.85 BIS(2-ETHYLHEXYL)PHTHALATE 2.70E+03N
BH2787
0-4.8 BIS(2-ETHYLHEXYL)PHTHALATE 2.30E+02JN
4.8-10 BIS(2-ETHYLHEXYL)PHTHALATE 3.40E+02N
13-14.4 BIS(2-ETHYLHEXYL)PHTHALATE 2.20E+02JN
155
06991
14-20 BIS(2-ETHYLHEXYL)PHTHALATE 5.90E+01JA
26-32 BIS(2-ETHYLHEXYL)PHTHALATE 9.00E+01JA
09191
06691
112
13091
07091
06791
1587/BH3087
0-9 BIS(2-ETHYLHEXYL)PHTHALATE 8.10E+03N
0-9 DI-n-BUTYL PHTHALATE 3 40E+03N
09091
14-20 BIS(2-ETHYLHEXYL)PHTHALATE 1 10E+02JA
183
12791
07591
140
07491
07691
09491
09391
109
07391
34591
34791
00791
07191
8-14 BIS(2-ETHYLHEXYL)PHTHALATE 3.70E+01JA
09691
2.2-8.6 BIS(2-ETHYLHEXYL)PHTHALATE 3.60E+02BJJA
8.6-14 BIS(2-ETHYLHEXYL)PHTHALATE 3.20E+02BJJA
14-20 BIS(2-ETHYLHEXYL)PHTHALATE 2.60E+02BJJA
BH2687
2.15-2.95 BIS(2-ETHYLHEXYL)PHTHALATE 4.20E+03J
2.15-2.95 DI-n-BUTYL PHTHALATE 1.50E+02J
6-6.9 BIS(2-ETHYLHEXYL)PHTHALATE 8.00E+02N
6-6.9 DI-n-OCTYL PHTHALATE 1 60E+02JN
08891
8-14 1,4-DICHLOROBENZENE 4.30E+01JA
8-14 ACENAPHTHENE 5.80E+01JA
8-14 PYRENE 5.60E+01JA
14-19.5 DIETHYL PHTHALATE 8.20E+01JA
26-30 BIS(2-ETHYLHEXYL)PHTHALATE 6.30E+01JA
08991
2-8 FLUORANTHENE 1.80E+02JA
2-8 PHENANTHRENE 2.80E+02JA
2-8 PYRENE 1.20E+02JA
8-14 BIS(2-ETHYLHEXYL)PHTHALATE 2.70E+02JA
8-14 FLUORANTHENE 7.60E+01JA
8-14 PHENANTHRENE 9.40E+01JA
8-14 PYRENE 4.90E+01JA
14-20 BIS(2-ETHYLHEXYL)PHTHALATE 4 70E+02V
14-20 BIS(2-ETHYLHEXYL)PHTHALATE 4 70E+02V
20-26 BIS(2-ETHYLHEXYL)PHTHALATE 1.30E+02JA
26-32 BIS(2-ETHYLHEXYL)PHTHALATE 4.20E+02V
32-34 BIS(2-ETHYLHEXYL)PHTHALATE 9.30E+01JA
BH2487
0-2.43 BIS(2-ETHYLHEXYL)PHTHALATE 3.30E+03B-RVN
2-5 N-NITROSODIPHENYLAMINE 3.60E+01JN
2.43-4.85 BIS(2-ETHYLHEXYL)PHTHALATE 1.20E+03N
2.43-4.85 DI-n-BUTYL PHTHALATE 6.50E+01JN
8-8.3 BIS(2-ETHYLHEXYL)PHTHALATE 8.90E+02N
BH2887
0-0.9 BIS(2-ETHYLHEXYL)PHTHALATE 1.40E+03N
0-0.9 DI-n-BUTYL PHTHALATE 5.80E+01JN
0.9-3.75 BIS(2-ETHYLHEXYL)PHTHALATE 3.40E+03N
0.9-3.75 DI-n-BUTYL PHTHALATE 8.20E+01JN
1-4 N-NITROSODIPHENYLAMINE 5.10E+01JN
4.85-5.9 BIS(2-ETHYLHEXYL)PHTHALATE 1.60E+03N
4.85-5.9 DI-n-BUTYL PHTHALATE 4.20E+01JN
8.8-9 BIS(2-ETHYLHEXYL)PHTHALATE 2.10E+03N
8.8-9 DI- -BUTYL PHTHALATE 5.90E+01JN
903 PAD AREA
C-1
5920
5900
5880
5860
5840
5820
5800
NOTE
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED
EXPLANATION
DRAFT
08691 ← LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg) AND LAB AND VALIDATION QUALIFIERS
NOTE.
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4 2-1
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M W LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREEN INTERVAL
112 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado
OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT
SEMIVOLATILE ORGANIC COMPOUNDS
903 PAD AREA
SUBSURFACE SOILS
FIGURE C 3
JULY 1994
0028530 1 200



EXPLANATION

09491 ⬡ SOURCE BOREHOLE LOCATION

06691 ⬢ SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL

112 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED

DRAFT

EXPLANATION

08691 ← LOCATION

2-8 (SAMPLE INTERVAL (ft)) | – (ANALYTE) | (ANALYTE CONCENTRATION (ug/kg) AND LAB AND VALIDATION QUALIFIERS)

NOTE
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1

U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

PESTICIDES/PCBs
903 PAD AREA
SUBSURFACE SOILS

FIGURE C-4 JULY 1994

0026544 1=200

-N-

0 100 200

SCALE IN FEET

06591
50-52 Pb 3.36E+01V
50-52 Zn 2.00E+02JA

08991
26-32 Pb 2.61E+01V

06991
14-20 Ba 3.55E+02JA

0987/BH2987
0-10 Cd 1.90E+00N
0-10 Hg 1.14E+02N
18-19 Cd 2.00E+00N

06891
08691
08891
09191
06691
112
08991
06791

13C91
26-28 Pb 3.79E+01JA
26-28 Zn 1.70E+02V

155
07091
8-14 Cr 7.31E+01V
1587/BH3087
09091
2-8 Cr 6.92E+01V
26-30 Pb 2.58E+01V

B315289
11-15 Co 3.85E+01V

BH2487
8-8 Cd 2.60E+00N

0879
12-18 Cu 5.[illegible]E+01V

BH2287
11-18 As 1.36E+01N
11-18 Cd 2.00E+00N

07191
14-20 Co 7.81E+01V
20-26 Co 3.33E+01V
20-26 Mn 9.63E+02JA

183
12791
07591
140
07691
07291

BH2887
1-4 Cd 2.10E+00N
5-6 Cd 3.70E+00N
9-9 Cd 2.10E+00N
09791
2-8 Ba 3.37E+02JA

09491
09691
109
07491
8-12 Pb 2.58E+01JA

BH2387
0-8 Cd 3.20E+00N
0-8 Cd 4.00E+00N
0-8 Mn 1.06E+03N
0-8 Mn 1.06E+03N
7-8 Cd 3.80E+00N

09591

BH2587
0-9 As 1.57E+01N
0-9 Ba 1.90E+03N
0-9 Cd 4.60E+00N
0-9 Cd 5.20E+00N
8-9 Cd 3.50E+00N
10-10 Cd 4.40E+00N
15-16 Cd 1.90E+00N
19-19 Cd 3.80E+00N

BH2687
0-3 As 1.78E+01N
6-7 Cd 1.60E+00N

09391
8-10 Zn 1.84E+02V

BH2787
0-5 Cd 5.40E+00N
5-10 Cd 2.20E+00N
13-14 Cd 2.00E+00N

21893
38-45 Co 2.04E+02V
38-45 Zn 1.58E+02JA

09291
2-8 Ba 4.66E+02JA
14-20 Pb 2.49E+01JA
26-30 As 1.40E+01JA

07391
8-14 Ba 3.84E+02V

903 PAD
AREA

5960
5900
5880
5860
5840
5820
5800
C-1

EXPLANATION

08691 ← LOCATION

2-8 ← SAMPLE INTERVAL (ft)

ANALYTE

ANALYTE CONCENTRATION (mg/kg) AND LAB AND VALIDATION QUALIFIERS

NOTE

ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/kg (parts per million) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

EXPLANATION

09491 ⬡ SOURCE BOREHOLE LOCATION

06691 ⬢ SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL

112 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS

U S DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden Colorado

OPERABLE UNIT NO 2
CDPHE CONSERVATIVE SCREEN

PCOC METALS
903 PAD AREA
SUBSURFACE SOILS

FIGURE C-5 SEPTEMBER 1994

CDPHE003 1=200

-N-

0 100 200

SCALE IN FEET

06591

14-20	Pu-239/240	3.30E-02V
20-28	Am-241	1.40E-01V
28-28	Pu-239/240	2.40E+00A
28-32	Am-241	2.80E-02V
28-32	Pu-239/240	1.80E-02JV
32-38	Pu-239/240	3.00E-02V
38-44	Am-241	1.50E-02JV
44-50	Pu-239/240	2.50E-02JV

08691

2-8	Am-241	1.80E+00BA
2-8	Pu-239/240	1.10E+01A
8-14	Am-241	1.30E-02BJA
8-14	Pu-239/240	7.70E-02A
14-20	Am 241	1.80E-01BA
14-20	Pu-239/240	2.30E+00A

0987/BH2987

6-10	Am-241	9.00E-02N
6-10	Pu-239/240	5.90E-01
10-13	Am-241	1.50E-01N
10-13	Pu-239/240	6.00E-02
16-17	Am-241	5.00E-02N
16-17	Pu-239/240	2.00E-02
18-19	Am-241	6.00E-02N

08891

2-8	Am-241	8.80E-01BA
2-8	Pu-239/240	2.70E+01A
2-8	U 235	2.10E+00BA
8-14	Am-241	4.70E-01BA
8-14	Pu-239/240	1.40E+01A
14-20	Am-241	2.00E-01BA
14 20	Pu-239/240	1.50E+00A
20-26	Am-241	2.80E-02BA
20-28	Pu-239/240	1.40E-01A
28-30	Pu-239/240	2.00E-02JA

08991

2-8	Pu-239/240	8.91E+00A
8-14	Pu-239/240	7.57E-01A
14-20	Am-241	9.12E-02A
14-20	Pu-239/240	4.76E-01A
20-26	Am-241	2.00E-02BV

08791

1-6	Am 241	2.70E-01V
1-6	Pu-239/240	3.50E-02V
6-12	Pu-239/240	3.70E-02V

06791

2-8	Am-241	1.20E-01V
2-8	Pu-239/240	8.30E-01A
8-14	Am-241	1.40E-02JA
8-14	Pu-239/240	5.80E-02V

BH2287

0-8	Am-241	2.00E-02N
0-9	Am-241	9.30E-01N
0-9	Pu-239/240	6.00E-02
0-9	Pu-239/240	6.30E+00
11-18	Pu-239/240	4.00E-02
18-21	Pu-239/240	3.00E-02
22 23	Pu-239/240	6.00E-02

07291

2-8	Am-241	4.60E-01BA
2-8	Pu-239/240	3.40E+00V
8 14	Pu-239/240	3.10E-02V

09291

14-20	Pu-239/240	1.10E-01V
32 38	U-238	1.70E+00BA

BH2587

0-9	Am-241	2.30E-01N
0-9	Pu-239/240	6.00E-02
0-8	Pu-239/240	3.20E+00
0-9	U-238	1.50E+00N
8-9	Pu-239/240	8.00E-02
9.5-10.4	Pu-239/240	1.30E-01
15-16	Pu-239/240	4.00E-02
19-19	Pu-239/240	1.00E-01

09391

09591

07391

2-8	Am-241	3.10E-02V
2-8	Pu 239/240	1.40E-01V

21893

26-32	U-235	1.85E-01
32-38	U-235	1.10E-01
32-38	U-238	1.53E+00
38-45	Am-241	1.37E-02
38-45	Pu-239/240	4.46E-02

BH2387

0-8	Am-241	1.00E-01N
0-8	Am-241	1.30E-01N
0-8	Pu-239/240	8.50E-01
0-8	Pu-239/240	1.10E+00
7-8	Am-241	1.00E-01N
7-8	Pu-239/240	9.00E-02
11-12	Pu-239/240	3.00E-02

06891

2-8	Pu 239/240	2.00E-02JA

06991

2-8	Am 241	1.81E-02A
2-8	Pu-239/240	6.05E-02A
14-20	U-235	1.18E-01A
32 35	Pu 239/240	2.10E-02JV

09191

2-8	Am-241	6.80E+00A
2-8	Am-241	2.50E+01A
2-8	Pu 239/240	5.00E+01A
2-8	U-238	1.50E+00V
2-8	U-238	2.90E+00BA
6-12	Am-241	5.20E-01V
8-12	Pu-239/240	2.20E+00V
14-20	Am-241	2.00E-02A
14-20	Pu-239/240	6.30E-02V
22-28	Pu-239/240	9.00E-02A
28-30	Pu-239/240	3.80E-02A
28-30	U-235	1.50E-01JA

00291

8.5-8.5	Pu 239/240	5.70E+00V

B315289

155

13091

14-20	Pu-239/240	4.20E-02V
26-28	Am-241	1.40E-02JA

1587/BH3087

0-8	Am-241	2.20E+01N
0-9	Pu-239/240	1.80E+02
12-17	Pu-239/240	6.00E-02
20-21	Pu-239/240	1.50E-01
24.5-25.2	Am-241	2.00E-02N
24.5-25.2	Pu-239/240	8.00E-02

07091

2-8	Am-241	2.40E-02V
2-8	Pu-239/240	5.50E-01V
8-14	Pu-239/240	4.90E+00V

112

183

140

109

09491

09791

07691

2-8	Pu-239/240	6.20E-02V

BH2687

0-3	Am 241	1.20E+01N
0-3	Pu-239/240	8.30E+01
2-3	Am 241	9.00E-02N
6-7	Am-241	3.00E-02N

09691

14-20	Am-241	1.90E-02JV
14-20	U-233 234	3.00E+00BA
14-20	U-238	2.40E+00BA

07491

8 12	U 238	1.90E+00BA

BH2787

0-5	Am-241	4.40E-01N
0-5	Pu-239/240	3.80E+00
5-10	Pu-239/240	8.00E-02
13-14	Am-241	2.00E-02N
13-14	Pu-239/240	2.10E-01

07191

14-20	Pu-239/240	4.10E-02V
2-8	Am-241	3.90E-02A
2-8	Pu-239/240	1.00E-01V
8-14	Am-241	1.30E-02JA
8-14	Pu-239/240	4.80E-02A

BH2887

0-1	Am-241	2.40E-01N
0-1	Pu-239/240	2.00E+00
1-4	Am-241	2.00E-02N
5-6	Pu-239/240	3.00E-02
8.8-9	Am-241	1.80E-01N
8.8-9	Pu-239/240	8.20E-01
8.8-9	U-235 234	2.80E+00N
8.8-9	U 238	1.80E+00N

07591

8-14	U-233 234	5.50E+01BA
8-14	U 235	2.10E+00BA
8-14	U 238	1.50E+01BA

BH2487

0-2	Am-241	1.10E+01N
0-2	Pu 239/240	9.40E+01
8-8.3	Am-241	2.00E-02N
8-8.3	Pu-239/240	9.00E-02

09091

2-8	Am-241	2.90E-01V
2-8	Pu-239/240	3.00E+00V
8-14	Am-241	2.10E-02V
8-14	Pu-239/240	3.00E-02V
20-28	Pu-239/240	8.70E-02A
28-30	Pu-239/240	5.00E-02A

3960

5900

5880

5860

5840

5820

5800

5940

5960

5980

903 PAD AREA

C-1

NOTE

ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

DRAFT

EXPLANATION

08691 ← LOCATION

0-11

SAMPLE INTERVAL (ft) | ANALYTE | ANALYTE ACTIVITY (pCi/g) AND LAB AND VALIDATION QUALIFIERS

NOTE.

ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g
ANALYTE ABBREVIATIONS AND LAB VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4 2-1

EXPLANATION

09491 ⬡	SOURCE BOREHOLE LOCATION
01191A ⬡	ABANDONED M.W LOCATION
00291 ●	BEDROCK MONITORING WELL LOCATION
00891 ○	ALLUVIAL MONITORING WELL LOCATION
06691 ⬢	SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREEN INTERVAL
112	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

PCOC ACTINIDES
903 PAD AREA
SUBSURFACE SOILS

FIGURE C-6 JULY 1994

0U2R1562 1=200

-N-

0 100 200
SCALE IN FEET

08691
2-8 | TRITIUM | 5.60E+02V
14-20 | TRITIUM | 5.50E+02V

08891
2-8 | GROSS ALPHA | 5.90E+01BV
8-14 | GROSS ALPHA | 7.00E+01BV

09191
2-8 | GROSS ALPHA | 2.70E+02A
2-8 | GROSS ALPHA | 3.80E+02A

06691
2-8 | GROSS ALPHA | 1.70E+02A
8 14 | GROSS ALPHA | 4.50E+01A

06591
20-26 | TRITIUM | 5.30E+02V
44-50 | Ra-226 | 1.30E+00V
50-62 | GROSS ALPHA | 4.40E+01A

0987/BH2987
0-10 | Cs-137 | 1.60E+00N
10-13 | Cs-137 | 5.00E-01N
16-17 | Cs-137 | 7.80E-01N

08791
1-6 | GROSS ALPHA | 5.60E+01A
1-6 | GROSS BETA | 3.30E+01A
6-12 | GROSS ALPHA | 4.60E+01A
12-16 | TRITIUM | 4.40E+02V

BH2287
0-8 | Cs-137 | 2.00E-01N
0-8 | GROSS ALPHA | 4.40E+01N
22-25 | Cs-137 | 1.20E+00N

09091
2-8 | GROSS ALPHA | 4.70E+01A
2-8 | GROSS BETA | 3.90E+01V
2-8 | TRITIUM | 5.80E+02V
26-30 | Ra-228 | 2.10E+00

BH2387
0-8 | Sr-89,90 | 1.10E+00
7-8 | Cs-137 | 1.00E-01N

09291
2-8 | GROSS ALPHA | 4.50E+01A
14-20 | Ra-228 | 2.20E+00V
32-38 | GROSS ALPHA | 4.80E+01A

BH2587
0-9 | Cs-137 | 1.40E+00N
0-9 | GROSS ALPHA | 4.80E+01N
0-9 | GROSS BETA | 3.70E+01N
8.5-10.4 | Cs-137 | 1.00E-01N

06891
06991
06791
07091
07191
07291
07391
09391
09591
09491
09691
09791
07491
07591
07691
07791
12791
13091
21893
09191

112
155
183
140
109

08991
32-34 | Ra-228 | 2.10E+00V

1587/BH3087
0-8 | Cs-137 | 5.00E-01N
0-8 | GROSS ALPHA | 4.80E+02N
24.5-25.2 | Cs-137 | 4.00E-01N

BH2487
0-2 | GROSS ALPHA | 3.00E+02N
8-8.3 | Cs-137 | 1.10E+00N

BH2887
0-1 | Cs-137 | 3.00E-01N
1-4 | Cs-137 | 1.00E-01N
5-6 | Cs-137 | 1.00E-01N
8.8-9 | Cs-137 | 5.00E-01N
8.8-9 | Sr-89/90 | 1.00E+00

BH2687
8-12 | Ra-226 | 1.50E+00V
0-3 | Cs-137 | 1.30E+00N
0-3 | GROSS ALPHA | 1.90E+02N
2 3 | Cs-137 | 6.00E-01N

09691
2-9 | GROSS ALPHA | 5.70E+01A
2-9 | GROSS BETA | 3.80E+01A
2-9 | GROSS ALPHA | 6.00E+02BV
14-20 | TRITIUM | 5.30E+01A
14-20 | GROSS BETA | 3.90E+01A
14-20 | Ra-226 | 1.40E+00V
14-20 | TRITIUM | 4.30E+02BV

09791
2-8 | GROSS ALPHA | 5.80E+01A
2-8 | GROSS ALPHA | 5.90E+01A
2-8 | GROSS BETA | 3.70E+01A
2-8 | GROSS BETA | 3.90E+01A
2-8 | Ra-226 | 1.40E+00V
2-8 | Ra-226 | 1.50E+00V
2-8 | Ra-228 | 2.80E+00V
2-8 | Ra-228 | 2.80E+00V
2-8 | TRITIUM | 4.10E+02BV
8-14 | TRITIUM | 4.90E+02BV

07391
14-16 | TRITIUM | 8.70E+02V

09491
2-8 | TRITIUM | 6.40E+02A

BH2787
0-5 | Cs-137 | 1.00E-01N
0-5 | Sr-89/90 | 8.00E-01

00291
8.3-8.5 | GROSS ALPHA | 8.00E+01A
8.3-8.5 | GROSS BETA | 3.70E+01A
8.3-8.5 | Ra-228 | 2.60E+00V

B315289
0-3 | Cs-137 | 1.70E-01JA
0-3 | Sr-90 | 1.50E-01
0-3 | TRITIUM | 3.85E+04
2-4 | Ra-226 | 1.80E+00A
2-4 | Ra-228 | 6.32E+00A
2-4 | Sr-90 | 3.70E-01
7 11 | Sr-90 | 5.30E-01
7 11 | TRITIUM | 4.10E+02
11-15 | Ra-226 | 1.80E+00A
11-15 | Sr-90 | 3.70E-01
15-18 | Sr-90 | 6.80E-01

5960 5940 5900 5880 5860 5840 5820 5800

903 PAD AREA

C-1

NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS

DRAFT

EXPLANATION

08691 ← LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE ACTIVITY (pCi/g) AND LAB AND VALIDATION QUALIFIERS

NOTE
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g TRITIUM IS REPORTED IN pCi/l ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4 2-1

EXPLANATION

09491 ⬡ SOURCE BOREHOLE LOCATION
01191A ⬡ ABANDONED M.W LOCATION
00291 ● BEDROCK MONITORING WELL LOCATION
00891 ○ ALLUVIAL MONITORING WELL LOCATION
06691 ⬢ SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREEN INTERVAL
112 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

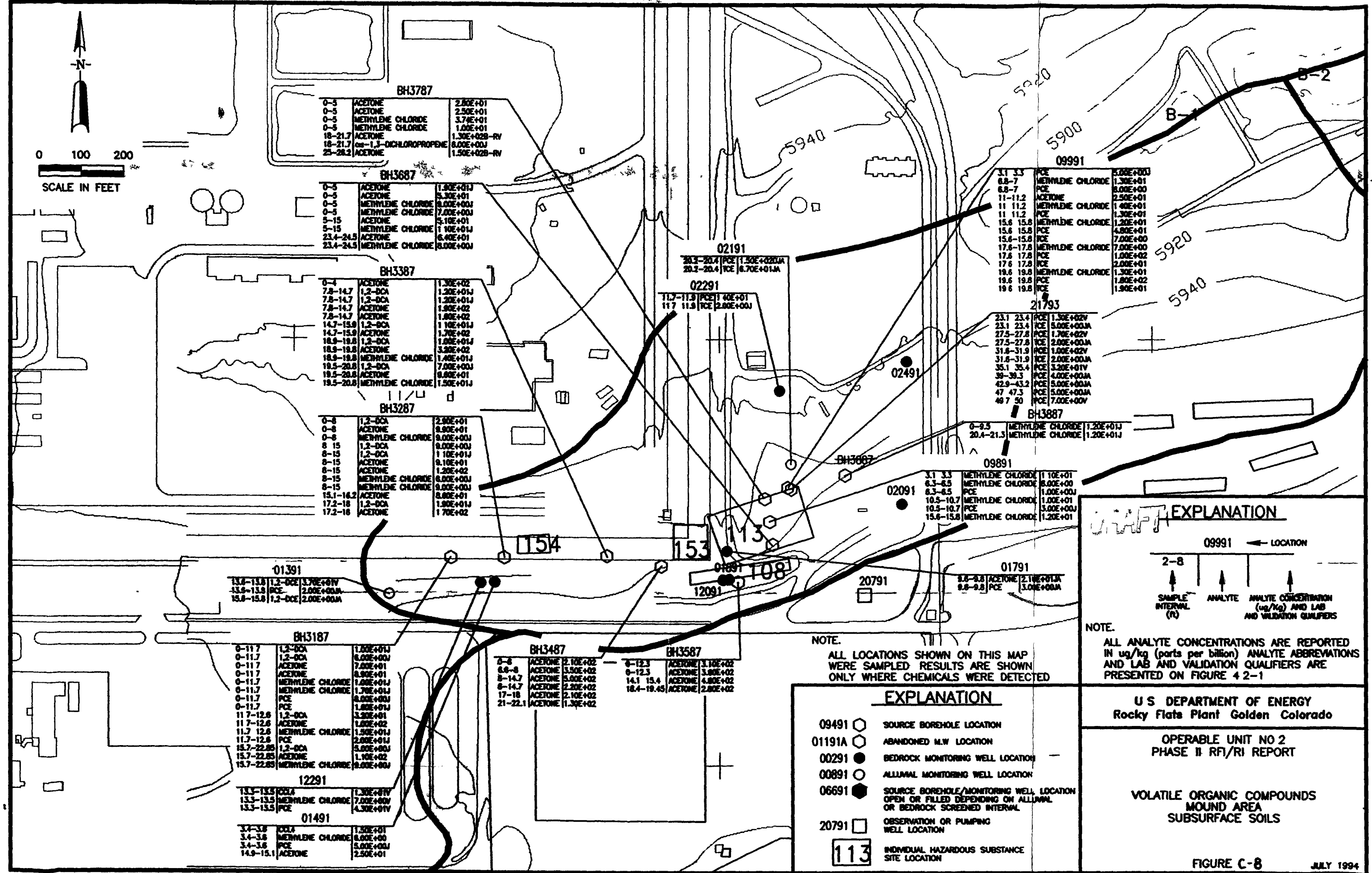
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

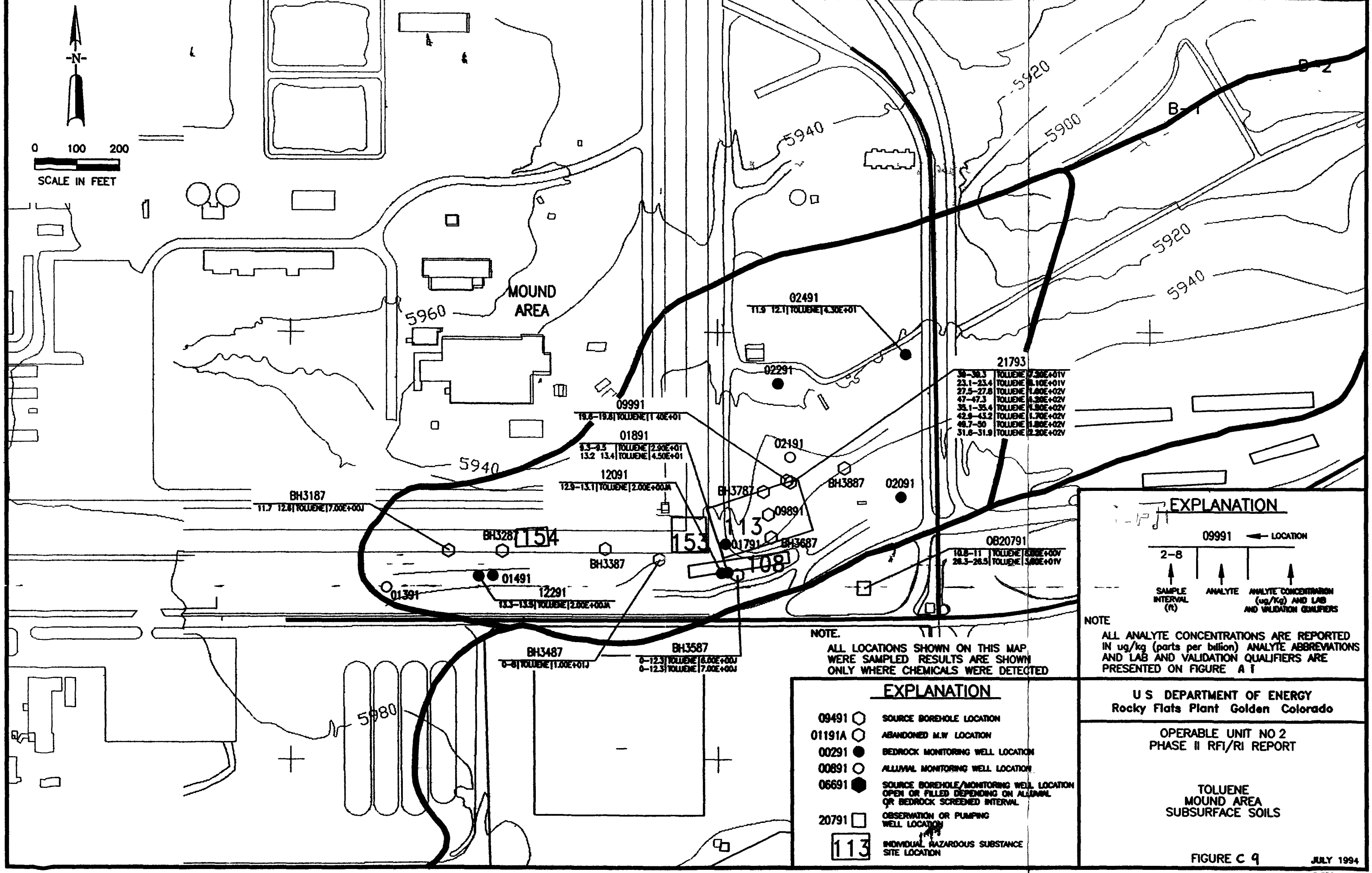
OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

PCOC RADIONUCLIDES
(NON-ACTINIDES)
903 PAD AREA
SUBSURFACE SOILS

FIGURE C 7 JULY 1994

0U2R1557 1=200


-N-
0 100 200
SCALE IN FEET
BH3787
0-5 ACETONE 2.80E+01
0-5 ACETONE 2.50E+01
0-5 METHYLENE CHLORIDE 3.74E+01
0-5 METHYLENE CHLORIDE 1.00E+01
18-21.7 ACETONE 1.30E+02B-RV
18-21.7 cis-1,3-DICHLOROPROPENE 8.00E+00J
25-28.2 ACETONE 1.50E+02B-RV
BH3687
0-5 ACETONE 1.90E+01J
0-5 ACETONE 5.30E+01
0-5 METHYLENE CHLORIDE 8.00E+00J
0-5 METHYLENE CHLORIDE 7.00E+00J
5-15 ACETONE 5.10E+01
5-15 METHYLENE CHLORIDE 1.10E+01J
23.4-24.5 ACETONE 6.40E+01
23.4-24.5 METHYLENE CHLORIDE 8.00E+00J
BH3387
0-4 ACETONE 1.30E+02
7.8-14.7 1,2-DCA 1.20E+01J
7.8-14.7 1,2-DCA 1.20E+01J
7.8-14.7 ACETONE 1.90E+02
7.8-14.7 ACETONE 1.80E+02
14.7-15.9 1,2-DCA 1.10E+01J
14.7-15.9 ACETONE 1.70E+02
18.9-19.8 1,2-DCA 1.00E+01J
18.9-19.8 ACETONE 3.30E+02
18.9-19.8 METHYLENE CHLORIDE 1.40E+01J
19.5-20.8 1,2-DCA 7.00E+00J
19.5-20.8 ACETONE 6.80E+01
19.5-20.8 METHYLENE CHLORIDE 1.50E+01J
BH3287
0-8 1,2-DCA 2.90E+01
0-8 ACETONE 8.80E+01
0-8 METHYLENE CHLORIDE 9.00E+00J
8 15 1,2-DCA 9.00E+00J
8-15 1,2-DCA 1.10E+01J
8-15 ACETONE 9.10E+01
8-15 ACETONE 1.20E+02
8-15 METHYLENE CHLORIDE 6.00E+00J
8-15 METHYLENE CHLORIDE 9.00E+00J
15.1-16.2 ACETONE 8.80E+01
17.2-18 1,2-DCA 1.90E+01J
17.2-18 ACETONE 1.70E+02
02191
20.2-20.4 PCE 1.50E+02DJA
20.2-20.4 TCE 6.70E+01JA
02291
11.7-11.9 PCE 1.40E+01
11.7 11.9 TCE 2.00E+00J
02491
09991
3.1 3.3 PCE 5.00E+00J
6.8-7 METHYLENE CHLORIDE 1.30E+01
6.8-7 PCE 8.00E+00
11-11.2 ACETONE 2.50E+01
11 11.2 METHYLENE CHLORIDE 1.40E+01
11 11.2 PCE 1.30E+01
15.6 15.8 METHYLENE CHLORIDE 1.20E+01
15.6 15.8 PCE 4.80E+01
15.6-15.8 TCE 7.00E+00
17.6-17.8 METHYLENE CHLORIDE 7.00E+00
17.6 17.8 PCE 1.00E+02
17.6 17.8 TCE 2.00E+01
19.6 19.8 METHYLENE CHLORIDE 1.30E+01
19.6 19.8 PCE 1.80E+02
19.6 19.8 TCE 1.90E+01
21793
23.1 23.4 PCE 1.30E+02V
23.1 23.4 TCE 5.00E+00JA
27.5-27.8 PCE 1.70E+02V
27.5-27.8 TCE 2.00E+00JA
31.6-31.9 PCE 1.00E+02V
31.6-31.9 TCE 2.00E+00JA
35.1 35.4 PCE 3.20E+01V
39-39.3 PCE 4.00E+00JA
42.9-43.2 PCE 5.00E+00JA
47 47.3 PCE 5.00E+00JA
49.7 50 PCE 7.00E+00V
BH3887
0-9.5 METHYLENE CHLORIDE 1.20E+01J
20.4-21.3 METHYLENE CHLORIDE 1.20E+01J
09891
3.1 3.3 METHYLENE CHLORIDE 1.10E+01
6.3-6.5 METHYLENE CHLORIDE 8.00E+00
6.3-6.5 PCE 1.00E+00J
10.5-10.7 METHYLENE CHLORIDE 1.00E+01
10.5-10.7 PCE 3.00E+00J
15.6-15.8 METHYLENE CHLORIDE 1.20E+01
02091
01791
8.6-8.8 ACETONE 2.10E+01JA
8.6-8.8 PCE 3.00E+00JA
20791
12091
01891
01391
13.6-13.8 1,2-DCE 3.70E+01V
13.6-13.8 PCE 2.00E+00JA
15.8-15.8 1,2-DCE 2.00E+00JA
BH3187
0-11.7 1,2-DCA 1.00E+01J
0-11.7 1,2-DCA 6.00E+00J
0-11.7 ACETONE 7.00E+01
0-11.7 ACETONE 8.90E+01
0-11.7 METHYLENE CHLORIDE 1.00E+01J
0-11.7 METHYLENE CHLORIDE 1.70E+01J
0-11.7 PCE 8.00E+00J
0-11.7 PCE 1.80E+01J
11.7-12.6 1,2-DCA 3.30E+01
11.7-12.6 ACETONE 1.00E+02
11.7 12.6 METHYLENE CHLORIDE 1.50E+01J
11.7-12.6 PCE 2.00E+01J
15.7-22.85 1,2-DCA 5.00E+00J
15.7-22.85 ACETONE 1.10E+02
15.7-22.85 METHYLENE CHLORIDE 9.00E+00J
12291
13.3-13.5 CCL4 1.30E+01V
13.3-13.5 METHYLENE CHLORIDE 7.00E+00V
13.3-13.5 PCE 4.30E+01V
01491
3.4-3.6 CCL4 1.50E+01
3.4-3.6 METHYLENE CHLORIDE 6.00E+00
3.4-3.6 PCE 5.00E+00J
14.9-15.1 ACETONE 2.50E+01
BH3487
0-6 ACETONE 2.10E+02
6.6-8 ACETONE 3.50E+02
8-14.7 ACETONE 5.00E+02
8-14.7 ACETONE 2.20E+02
17-18 ACETONE 2.10E+02
21-22.1 ACETONE 1.30E+02
BH3587
0-12.3 ACETONE 3.10E+02
0-12.3 ACETONE 3.90E+02
14.1 15.4 ACETONE 4.80E+02
18.4-19.45 ACETONE 2.80E+02
5920
5940
5900
B-1
B-2
154
153
113
108
NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
20791 OBSERVATION OR PUMPING WELL LOCATION
113 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
DRAFT
EXPLANATION
09991 ← LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg) AND LAB AND VALIDATION QUALIFIERS
NOTE.
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4 2-1
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado
OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT
VOLATILE ORGANIC COMPOUNDS
MOUND AREA
SUBSURFACE SOILS
FIGURE C-8
JULY 1994
0U2R540 1=200



NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED

EXPLANATION

09491 ⬡	SOURCE BOREHOLE LOCATION
01191A ⬡	ABANDONED M.W LOCATION
00291 ●	BEDROCK MONITORING WELL LOCATION
00891 ○	ALLUVIAL MONITORING WELL LOCATION
06691 ⬢	SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
20791 □	OBSERVATION OR PUMPING WELL LOCATION
113	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

EXPLANATION

09991 ← LOCATION

2–8 ↑ SAMPLE INTERVAL (ft)

↑ ANALYTE

↑ ANALYTE CONCENTRATION (ug/Kg) AND LAB AND VALIDATION QUALIFIERS

NOTE
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A 1

U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

TOLUENE
MOUND AREA
SUBSURFACE SOILS

FIGURE C 9 JULY 1994

OU2RI535 1=200

-N-

0 100 200

SCALE IN FEET

09991

2–8	BIS(2–ETHYLHEXYL)PHTHALATE	6.00E+01JA
8–14	BIS(2–ETHYLHEXYL)PHTHALATE	5.60E+01JA
14–20	BIS(2–ETHYLHEXYL)PHTHALATE	5.90E+01JA

BH3787

0–5	BIS(2–ETHYLHEXYL)PHTHALATE	8.70E+03B–RV
0–5	BIS(2–ETHYLHEXYL)PHTHALATE	4.90E+03B–RV
0–5	DI–n–BUTYL PHTHALATE	1.60E+02J
0–5	DI–n–BUTYL PHTHALATE	1.70E+02J
0–5	FLUORANTHENE	1.10E+02J
11–12.3	BIS(2–ETHYLHEXYL)PHTHALATE	2.80E+02JN
18–21.7	BIS(2–ETHYLHEXYL)PHTHALATE	5.50E+02N
25–26.2	BIS(2–ETHYLHEXYL)PHTHALATE	4.20E+02N
25–26.2	DI–n–BUTYL PHTHALATE	4.10E+01JN

MOUND AREA

BH3587

0–12.3	BIS(2–ETHYLHEXYL)PHTHALATE	6.80E+02N
0–12.3	BIS(2–ETHYLHEXYL)PHTHALATE	5.00E+02N
0–12.3	DI–n–BUTYL PHTHALATE	9.20E+01JN
12–15	BIS(2–ETHYLHEXYL)PHTHALATE	2.20E+02JN
14.1–15.4	BIS(2–ETHYLHEXYL)PHTHALATE	3.80E+02N
18.4–19.45	BIS(2–ETHYLHEXYL)PHTHALATE	3.20E+02JN

BH3287

0–6	BIS(2–ETHYLHEXYL)PHTHALATE	3.10E+02JN
8–15	BIS(2–ETHYLHEXYL)PHTHALATE	2.80E+02JN
8–15	BIS(2–ETHYLHEXYL)PHTHALATE	3.10E+02JN
15.1–16.2	BIS(2–ETHYLHEXYL)PHTHALATE	2.70E+02JN
17.2–18	BIS(2–ETHYLHEXYL)PHTHALATE	9.00E+00JN

BH3187

0–11.7	BIS(2–ETHYLHEXYL)PHTHALATE	4.90E+02N
0–11.7	BIS(2–ETHYLHEXYL)PHTHALATE	5.80E+02N
0–12	N–NITROSODIPHENYLAMINE	3.70E+01JN
0–12	N–NITROSODIPHENYLAMINE	4.10E+01JN
11.7–12.8	BIS(2–ETHYLHEXYL)PHTHALATE	4.70E+02N
15.7–22.85	BIS(2–ETHYLHEXYL)PHTHALATE	4.30E+02N
16–23	N–NITROSODIPHENYLAMINE	4.00E+01JN

BH3387

0–4	BIS(2–ETHYLHEXYL)PHTHALATE	2.70E+02JN
0–4	N–NITROSODIPHENYLAMINE	3.70E+01JN
7.8–14.7	BIS(2–ETHYLHEXYL)PHTHALATE	6.30E+02N
7.8–14.7	BIS(2–ETHYLHEXYL)PHTHALATE	3.70E+02N
8–15	N–NITROSODIPHENYLAMINE	4.00E+01JN
8–15	N–NITROSODIPHENYLAMINE	4.10E+01JN
14.7–15.8	BIS(2–ETHYLHEXYL)PHTHALATE	1.60E+02JN
15–16	N–NITROSODIPHENYLAMINE	3.70E+01JN
18.8–19.8	BIS(2–ETHYLHEXYL)PHTHALATE	2.40E+02JN
19–20	N–NITROSODIPHENYLAMINE	4.20E+01JN
19.5–20.8	BIS(2–ETHYLHEXYL)PHTHALATE	4.50E+02N
20–21	N–NITROSODIPHENYLAMINE	4.90E+01JN

BH3487

0–8	BIS(2–ETHYLHEXYL)PHTHALATE	4.50E+02N
0–8	N–NITROSODIPHENYLAMINE	4.20E+01JN
6.6–8	BIS(2–ETHYLHEXYL)PHTHALATE	4.30E+02N
6.6–8	DI–n–BUTYL PHTHALATE	4.20E+01JN
7–8	N–NITROSODIPHENYLAMINE	4.70E+01JN
8–14.7	BIS(2–ETHYLHEXYL)PHTHALATE	2.20E+02JN
8–14.7	BIS(2–ETHYLHEXYL)PHTHALATE	2.50E+02JN
8–15	N–NITROSODIPHENYLAMINE	4.40E+01JN
8–15	N–NITROSODIPHENYLAMINE	4.30E+01JN
17–18	BIS(2–ETHYLHEXYL)PHTHALATE	2.50E+02JN
17–18	N–NITROSODIPHENYLAMINE	3.50E+01JN
21–22.1	BIS(2–ETHYLHEXYL)PHTHALATE	2.20E+02JN
21–22.1	DI–n–BUTYL PHTHALATE	3.50E+01JN

09891

3–8.2	BIS(2–ETHYLHEXYL)PHTHALATE	6.70E+01JA
8.2–14.2	BIS(2–ETHYLHEXYL)PHTHALATE	4.70E+01JA
14.2–20	BIS(2–ETHYLHEXYL)PHTHALATE	6.30E+01JA

BH3887

0–9.5	BIS(2–ETHYLHEXYL)PHTHALATE	4.60E+03N
0–9.5	DI–n–BUTYL PHTHALATE	4.10E+01JN
20.4–21.3	BIS(2–ETHYLHEXYL)PHTHALATE	1.20E+04N
20.4–21.3	DI–n–BUTYL PHTHALATE	1.00E+02JN

BH3687

0–5	BIS(2–ETHYLHEXYL)PHTHALATE	3.30E+02N
0–5	BIS(2–ETHYLHEXYL)PHTHALATE	3.40E+02N
0–5	DI–n–BUTYL PHTHALATE	4.80E+01JN
0–5	DI–n–BUTYL PHTHALATE	4.20E+01JN
0–5	FLUORANTHENE	3.70E+01JN
8–15	BIS(2–ETHYLHEXYL)PHTHALATE	4.80E+02N
8–15	DI–n–BUTYL PHTHALATE	8.30E+01JN
17.7–20.4	BIS(2–ETHYLHEXYL)PHTHALATE	2.60E+02JN
17.7–20.4	DI–n–BUTYL PHTHALATE	4.00E+01JN
23.4–24.8	BIS(2–ETHYLHEXYL)PHTHALATE	3.60E+02N
23.4–24.5	DI–n–BUTYL PHTHALATE	3.80E+01JN

5920 5900 5940 5960 5940 5920

B-1 B-2

T54 153 13 T08

NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED

EXPLANATION

09491 ⬡	SOURCE BOREHOLE LOCATION
01191A ⬡	ABANDONED M.W LOCATION
00291 ●	BEDROCK MONITORING WELL LOCATION
00691 ○	ALLUVIAL MONITORING WELL LOCATION
06691 ⬢	SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
113	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

EXPLANATION

09991 ← LOCATION

2–8

SAMPLE INTERVAL (ft)

ANALYTE

ANALYTE CONCENTRATION (ug/kg) AND LAB AND VALIDATION QUALIFIERS

NOTE.
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A 1

U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

SEMIVOLATILE ORGANIC COMPOUNDS
MOUND AREA
SUBSURFACE SOILS

FIGURE C-10 JULY 1994

0128529 1=200

-N-

0 100 200

SCALE IN FEET

MOUND AREA

5960

5940

5920

5900

5940

5920

5940

5980

B-2

B-1

BH3287

0-8|AROCLOR 1254|7.20E+01N

BH3187

154

BH3387

BH3487

153

113

108

09991

09891

BH3787

BH3887

BH3687

0-5|AROCLOR-1254|1.10E+01JN

0-5|AROCLOR-1254|2.10E+01JN

NOTE

ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED

EXPLANATION

09491 ⬡ SOURCE BOREHOLE LOCATION

06691 ⬢ SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL

113 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

DRAFT

EXPLANATION

09991 ← LOCATION

2-8 ↑ SAMPLE INTERVAL (ft)

↑ ANALYTE

↑ ANALYTE CONCENTRATION (ug/kg) AND LAB AND VALIDATION QUALIFIERS

NOTE

ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A I

U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

PESTICIDES/PCBs
MOUND AREA
SUBSURFACE SOILS

FIGURE C-II JULY 1994

OU2B546 1=200

-N-

0 100 200

SCALE IN FEET

MOUND AREA

5960

5940

5920

5900

5940

5920

5940

5980

B-2

B-1

BH3587

12-15	Cd	2.20E+00N
14-15	Cd	2.60E+00N
18-19	As	1.40E+01N
18-19	Cd	3.30E+00N

BH3687

0-5	Cd	2.30E+00N
5-15	Cd	2.40E+00N
18-20	Cd	2.00E+00N
23-25	Cd	2.20E+00N

BH3787

11-12	Cd	3.20E+00N
18-22	Cd	2.90E+00N
25-26	As	2.00E+01N
25-26	Be	3.90E+02N
25-26	Cd	3.30E+00N
25-26	Mn	1.61E+03N

09991

14-20	As	1.35E+01JA

21793

09891

113

153

154

108

BH3287

BH3187

12-13	As	1.40E+01N

BH3887

0-10	Cd	2.20E+00N
20-21	Cd	1.80E+00N

BH3487

7-8	Cd	2.00E+00N
8-15	Cd	3.10E+00N
8-15	Cd	3.10E+00N
17-18	Cd	2.10E+00N

BH3387

0-4	Cd	3.70E+00N
8-15	As	1.50E+01N
20-21	As	1.50E+01N
20-21	Cd	3.20E+00N

NOTE

ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS

EXPLANATION

09491 ⬡	SOURCE BOREHOLE LOCATION
01191A ⬡	ABANDONED M.W LOCATION
00291 ●	BEDROCK MONITORING WELL LOCATION
00891 ○	ALLUVIAL MONITORING WELL LOCATION
06691 ⬢	SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
113	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

DRAFT

EXPLANATION

09991 ← LOCATION

2-8 ↑ SAMPLE INTERVAL (ft)

↑ ANALYTE

↑ (mg/kg) AND LAB AND VALIDATION QUALIFIERS

NOTE

ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/kg (parts per million) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

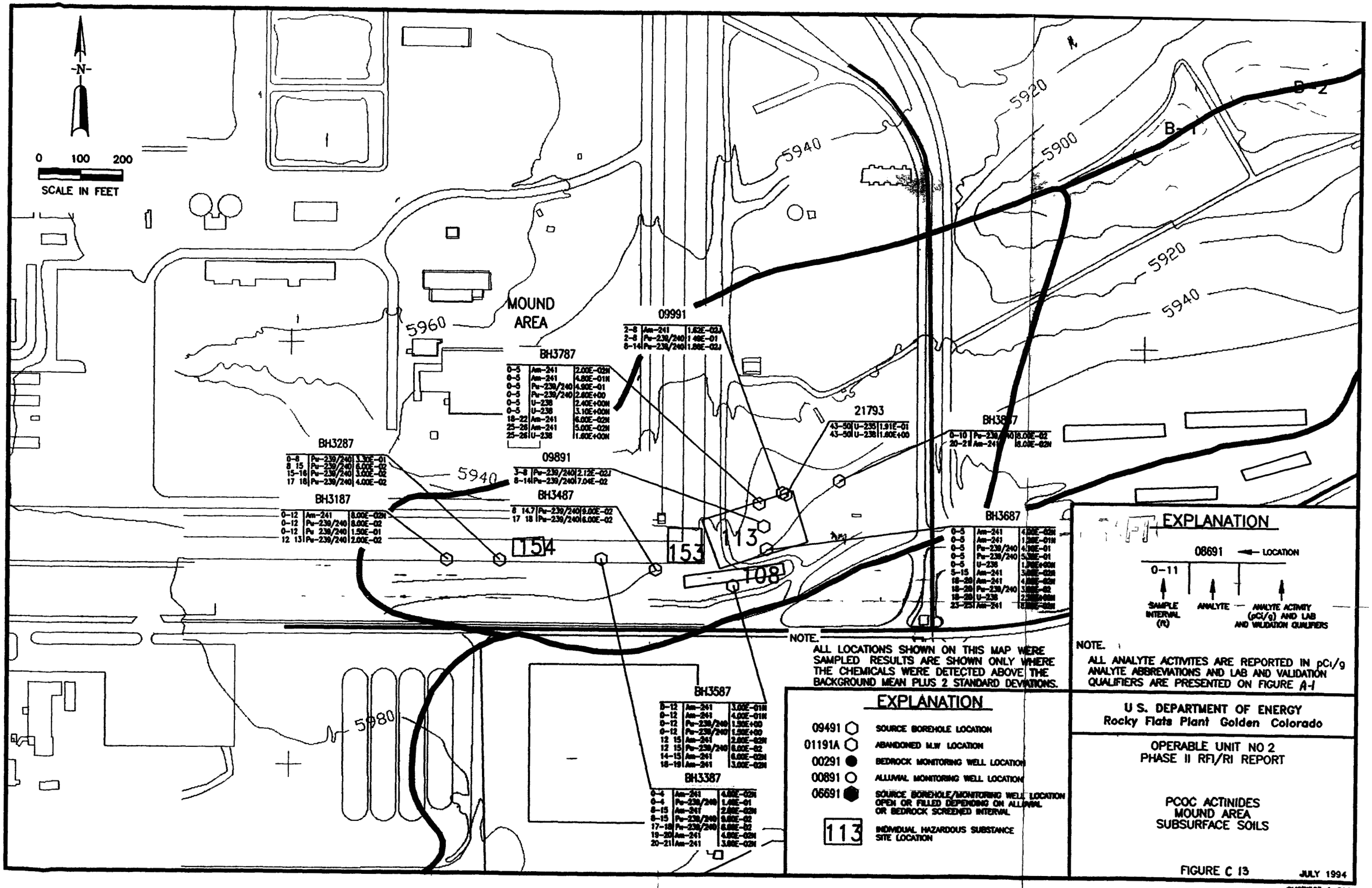
U S DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden Colorado

OPERABLE UNIT NO 2
CDPHE CONSERVATIVE SCREEN

PCOC METALS
MOUND AREA
SUBSURFACE SOILS

FIGURE C-12 SEPTEMBER 1994

CDPHE004 1 200



N
0 100 200
SCALE IN FEET
MOUND AREA
5960
5940
5920
5900
5980
B-1
B-2
09991
2-8 Am-241 1.62E-02J
2-8 Pu-239/240 1.48E-01
8-14 Pu-239/240 1.86E-02J
BH3787
0-5 Am-241 2.00E-02N
0-5 Am-241 4.80E-01N
0-5 Pu-239/240 4.90E-01
0-5 Pu-239/240 2.60E+00
0-5 U-238 2.40E+00N
0-5 U-238 3.10E+00N
18-22 Am-241 6.00E-02N
25-26 Am-241 5.00E-02N
25-26 U-238 1.60E+00N
21793
43-50 U-235 1.91E-01
43-50 U-238 1.60E+00
BH3287
0-8 Pu-239/240 3.30E-01
8 15 Pu-239/240 6.00E-02
15-16 Pu-239/240 3.00E-02
17 18 Pu-239/240 4.00E-02
09891
3-8 Pu-239/240 2.12E-02J
8-14 Pu-239/240 7.04E-02
BH3187
0-12 Am-241 8.00E-02N
0-12 Pu-239/240 8.00E-02
0-12 Pu 239/240 1.50E-01
12 13 Pu-239/240 2.00E-02
BH3487
8 14.7 Pu-239/240 9.00E-02
17 18 Pu-239/240 6.00E-02
BH3687
0-5 Am-241 4.00E-02N
0-5 Am-241 1.20E-01N
0-5 Pu-239/240 4.10E-01
0-5 Pu-239/240 5.30E-01
0-5 U-238 1.70E+00N
5-15 Am-241 3.00E-02N
18-20 Am-241 4.00E-02N
18-20 Pu-239/240 3.00E-02
18-20 U-238 2.20E+00N
23-25 Am-241 8.00E-02N
154
153
113
108
BH3587
0-12 Am-241 3.00E-01N
0-12 Am-241 4.00E-01N
0-12 Pu-239/240 1.50E+00
0-12 Pu-239/240 1.50E+00
12 15 Am-241 2.00E-02N
12 15 Pu-239/240 6.00E-02
14-15 Am-241 6.00E-02N
18-19 Am-241 3.00E-02N
BH3387
0-4 Am-241 4.00E-02N
0-4 Pu-239/240 1.40E-01
8-15 Am-241 2.00E-02N
8-15 Pu-239/240 9.00E-02
17-18 Pu-239/240 6.00E-02
19-20 Am-241 4.00E-02N
20-21 Am-241 3.00E-02N
NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
113 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
EXPLANATION
08691 LOCATION
0-11
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE ACTIVITY (pCi/g) AND LAB AND VALIDATION QUALIFIERS
NOTE.
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1
U S. DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado
OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT
PCOC ACTINIDES
MOUND AREA
SUBSURFACE SOILS
FIGURE C 13
JULY 1994
OU2RI563 1=200

-N-

0 100 200

SCALE IN FEET

MOUND AREA

5960

5940

5920

5900

5920

5940

B-2

B-1

BH3487

0-5	Cs-137	8.00E-01N
7-8	Cs-137	1.10E+00N
8-15	Cs-137	1.00E+00N
8-15	Cs-137	1.50E+00N
8-15	GROSS BETA	3.70E+01N
8-15	GROSS BETA	3.70E+01N
17-18	Cs-137	4.00E-01N
21-22	Cs-137	4.00E-01N

BH3287

8-15	TRITIUM	6.50E+02N
8-15	TRITIUM	6.50E+02N
15-16	TRITIUM	6.00E+02N
17-18	TRITIUM	4.80E+02N

BH3787

11-12	Cs-137	6.00E-01N
18-22	Cs-137	4.70E+00N
18-22	TRITIUM	5.20E+02N

BH3887

20-21	Cs-137	3.00E-01N

09991

21793

09891

BH3687

0-5	Cs-137	4.00E-[illegible]
5-15	Cs-137	2.10E+[illegible]
5-15	TRITIUM	4.00E+[illegible]
18-20	Cs-137	1.00E+[illegible]
23-25	Cs-137	2.30E+[illegible]

BH3187

154

153

113

108

BH3387

0-4	Cs-137	1.30E+00N
8-15	Cs-137	3.00E-01N
8-15	Cs-137	9.00E-01N
15-16	Cs-137	5.00E-01N
19-20	Cs-137	4.00E-01N
20-21	Cs-137	7.00E-01N

BH3587

0-12	Cs-137	6.00E-01N
0-12	Cs-137	1.00E+00N
12-13	Cs-137	8.00E-01N
14-15	Cs-137	6.00E-01N
16-19	Cs-137	1.00E-01N

5880

NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

EXPLANATION

09491 ⬡ SOURCE BOREHOLE LOCATION

01191A ⬡ ABANDONED M.W LOCATION

00291 ● BEDROCK MONITORING WELL LOCATION

00891 ○ ALLUVIAL MONITORING WELL LOCATION

06691 ⬢ SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL

113 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

DRAFT

EXPLANATION

09991 ← LOCATION

2-8 ↑ SAMPLE INTERVAL (ft)

↑ ANALYTE

↑ ANALYTE ACTIVITY (pCi/g) AND LAB AND VALIDATION QUALIFIERS

NOTE.
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g TRITIUM IS REPORTED IN pCi/l ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A 1

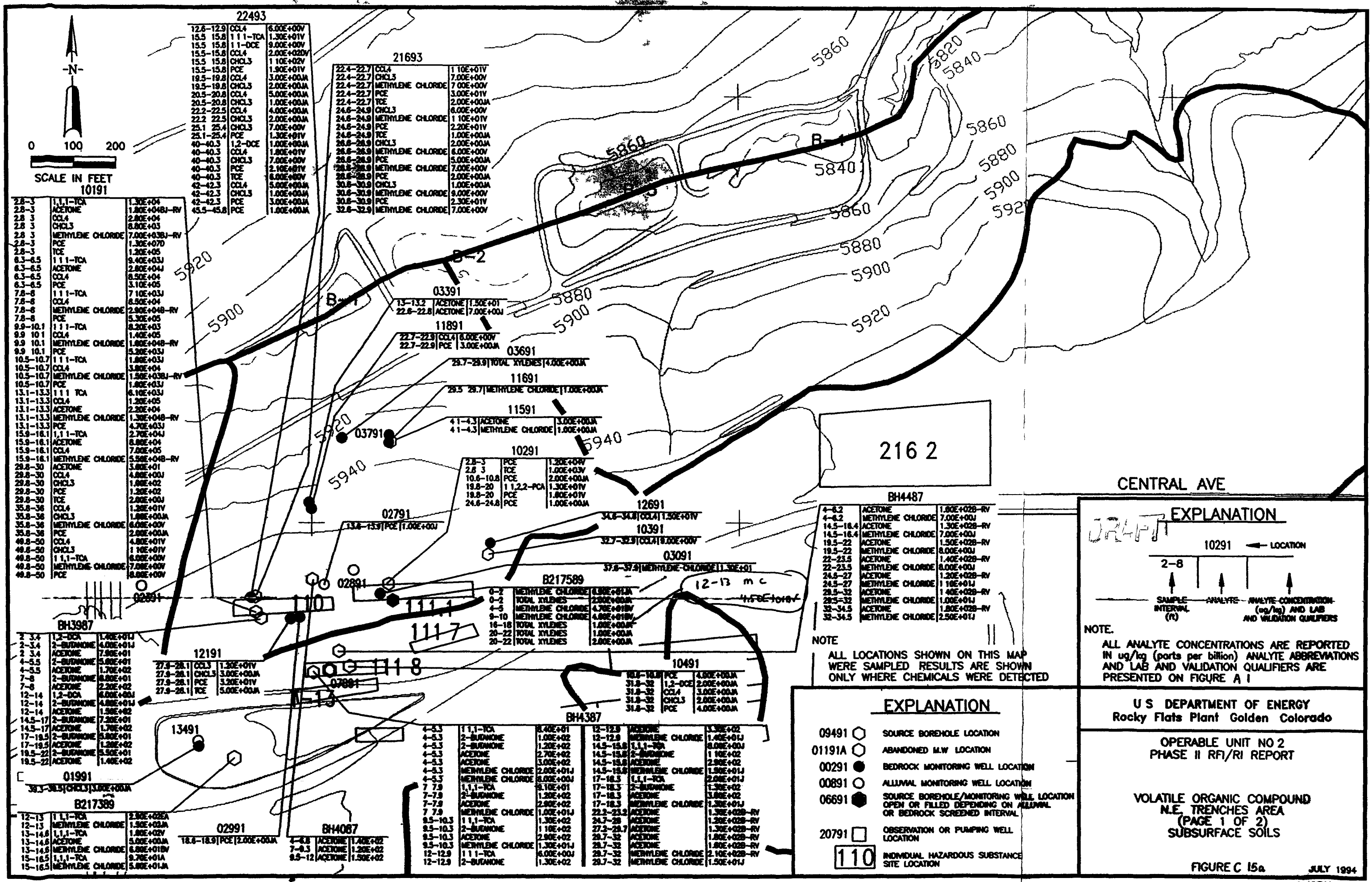
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

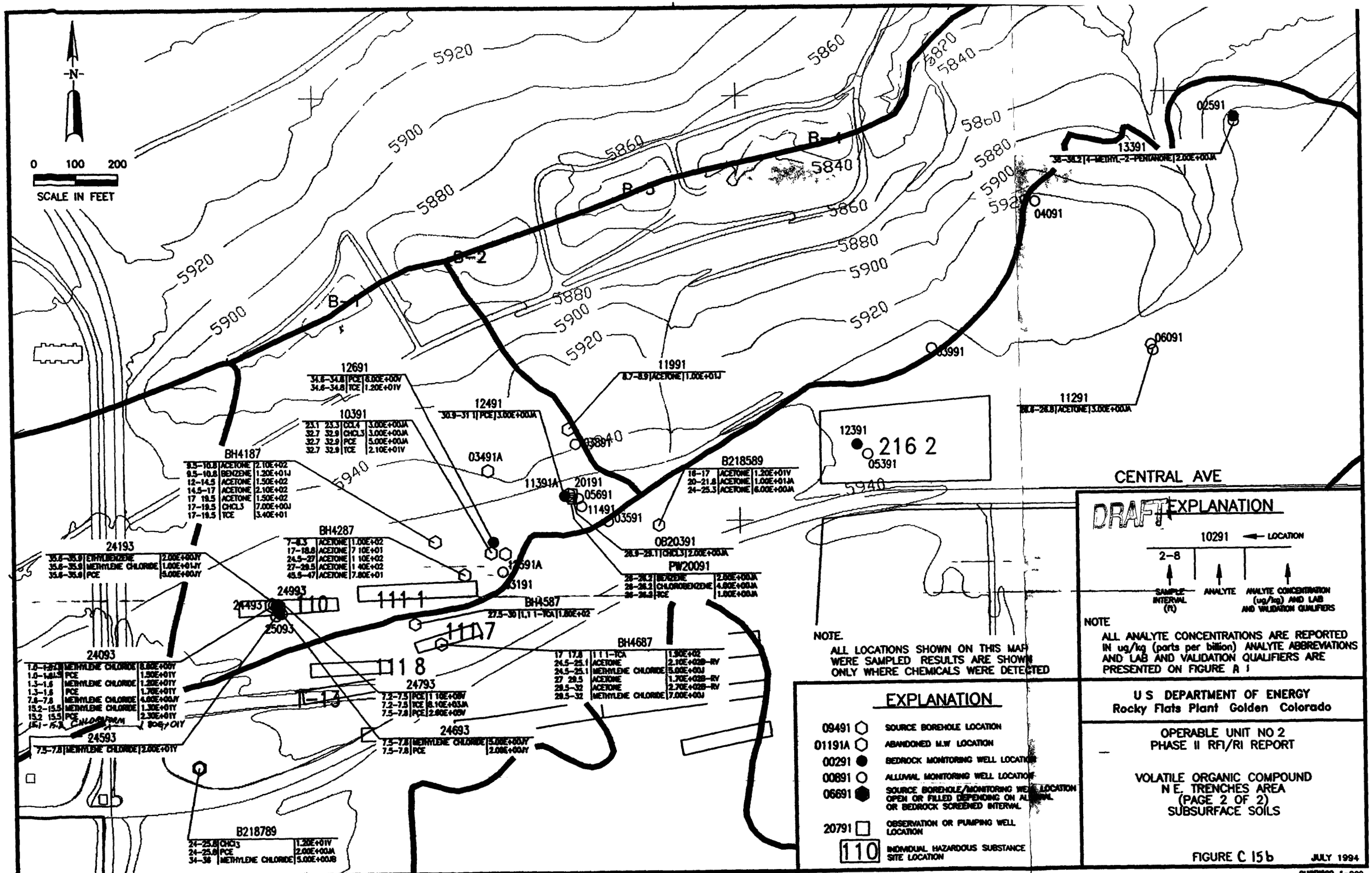
OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

PCOC RADIONUCLIDES
(NON-ACTINIDES)
MOUND AREA
SUBSURFACE SOILS

FIGURE C 14 JULY 1994

OU2R556 1=200


-N-
0 100 200
SCALE IN FEET
22493
12.6–12.9 CCL4 6.00E+00V
15.5 15.8 1 1 1–TCA 1.30E+01V
15.5 15.8 1 1–DCE 9.00E+00V
15.5–15.8 CCL4 2.00E+02DV
15.5 15.8 CHCL3 1 10E+02V
15.5–15.8 PCE 1.90E+01V
19.5–19.8 CCL4 3.00E+00JA
19.5–19.8 CHCL3 2.00E+00JA
20.5–20.8 CCL4 5.00E+00JA
20.5–20.8 CHCL3 1.00E+00JA
22.2–22.5 CCL4 4.00E+00JA
22.2 22.5 CHCL3 2.00E+00JA
25.1 25.4 CHCL3 7.00E+00V
25.1–25.4 PCE 1.30E+01V
40–40.3 1,2–DCE 1.00E+00JA
40–40.3 CCL4 1.80E+01V
40–40.3 CHCL3 7.00E+00V
40–40.3 PCE 2.10E+01V
40–40.3 TCE 6.00E+00V
42–42.3 CCL4 5.00E+00JA
42–42.3 CHCL3 1.00E+00JA
42–42.3 PCE 3.00E+00JA
45.5–45.8 PCE 1.00E+00JA
21693
22.4–22.7 CCL4 1 10E+01V
22.4–22.7 CHCL3 7.00E+00V
22.4–22.7 METHYLENE CHLORIDE 7 00E+00V
22.4–22.7 PCE 3.00E+01V
22.4–22.7 TCE 2.00E+00JA
24.6–24.9 CHCL3 6.00E+00V
24.6–24.9 METHYLENE CHLORIDE 1 10E+01V
24.6–24.9 PCE 2.20E+01V
24.6–24.9 TCE 1.00E+00JA
26.6–26.9 CHCL3 2.00E+00JA
26.6–26.9 METHYLENE CHLORIDE 6.00E+00V
26.6–26.9 PCE 5.00E+00JA
28.6–28.9 METHYLENE CHLORIDE 7.00E+00V
28.6–28.9 PCE 2.00E+00JA
30.6–30.9 CHCL3 1.00E+00JA
30.6–30.9 METHYLENE CHLORIDE 9.00E+00V
30.6–30.9 PCE 2.30E+01V
32.6–32.9 METHYLENE CHLORIDE 7.00E+00V
10191
2.8–3 1,1,1–TCA 1.30E+04
2.8–3 ACETONE 1.80E+04BJ–RV
2.8 3 CCL4 2.80E+04
2.8 3 CHCL3 8.80E+03
2.8 3 METHYLENE CHLORIDE 7.00E+03BJ–RV
2.8–3 PCE 1.30E+07D
2.8–3 TCE 1.20E+05
6.3–6.5 1 1 1–TCA 9.40E+03J
6.3–6.5 ACETONE 2.80E+04J
6.3–6.5 CCL4 8.50E+04
6.3–6.5 PCE 3.10E+05
7.8–8 1 1 1–TCA 7 10E+03J
7.8–8 CCL4 8.50E+04
7.8–8 METHYLENE CHLORIDE 2.90E+04B–RV
7.8–8 PCE 5.30E+05
9.9–10.1 1 1 1–TCA 8.20E+03
9.9 10 1 CCL4 1.40E+05
9.9 10.1 METHYLENE CHLORIDE 1.80E+04B–RV
9.9 10.1 PCE 5.30E+03J
10.5–10.7 1 1 1–TCA 1.80E+03J
10.5–10.7 CCL4 3.80E+04
10.5–10.7 METHYLENE CHLORIDE 1.50E+03BJ–RV
10.5–10.7 PCE 1.80E+03J
13.1–13.3 1 1 1 TCA 6.10E+03J
13.1–13.3 CCL4 1.20E+05
13.1–13.3 ACETONE 2.20E+04
13.1–13.3 METHYLENE CHLORIDE 1.30E+04B–RV
13.1–13.3 PCE 4.70E+03J
15.9–16.1 1,1 1–TCA 2.70E+04J
15.9–16.1 ACETONE 8.80E+04
15.9–16.1 CCL4 7.00E+05
15.9–16.1 METHYLENE CHLORIDE 5.50E+04B–RV
29.8–30 ACETONE 3.80E+01
29.8–30 CCL4 4.80E+00J
29.8–30 CHCL3 1.80E+02
29.8–30 PCE 1.20E+02
29.8–30 TCE 2.80E+00J
35.8–36 CCL4 1.30E+01V
35.8–36 CHCL3 1.80E+00JA
35.8–36 METHYLENE CHLORIDE 6.00E+00V
35.8–36 PCE 2.00E+00JA
49.8–50 CCL4 4.80E+01V
49.8–50 CHCL3 1 10E+01V
49.8–50 1 1,1–TCA 6.00E+00V
49.8–50 METHYLENE CHLORIDE 7.00E+00V
49.8–50 PCE 8.80E+00V
03391
1.5–13.2 ACETONE 1.50E+01
22.6–22.8 ACETONE 7.00E+00J
11891
22.7–22.9 CCL4 6.00E+00V
22.7–22.9 PCE 3.00E+00JA
03691
29.7–29.9 TOTAL XYLENES 4.00E+00JA
11691
29.5 29.7 METHYLENE CHLORIDE 1.00E+00JA
11591
4 1–4.3 ACETONE 3.00E+00JA
4 1–4.3 METHYLENE CHLORIDE 1.00E+00JA
10291
2.8–3 PCE 1.30E+04V
2.8 3 TCE 1.00E+03V
10.6–10.8 PCE 2.00E+00JA
19.8–20 1 1,2,2–PCA 1.30E+01V
19.8–20 PCE 1.80E+01V
24.6–24.8 PCE 1.00E+00JA
12691
34.6–34.8 CCL4 1.50E+01V
10391
32.7–32.9 CCL4 8.00E+00V
03091
37.6–37.9 METHYLENE CHLORIDE 1.30E+01
B217589
0–2 METHYLENE CHLORIDE 4.80E+01JA
0–2 TOTAL XYLENES 2.50E+00JA
4–6 METHYLENE CHLORIDE 4.70E+01BV
9–10 METHYLENE CHLORIDE 4.60E+01BV
16–18 TOTAL XYLENES 1.00E+00JA
20–22 TOTAL XYLENES 1.00E+00JA
20–22 TOTAL XYLENES 2.00E+00JA
12-13 mc
1.50E+01BV
BH3987
2 3.4 1,2–DCA 1.40E+01J
2–3.4 2–BUTANONE 4.00E+01J
2 3.4 ACETONE 7.90E+01
4–5.5 2–BUTANONE 5.80E+01
4–5.5 ACETONE 1.70E+02
7–8 2–BUTANONE 8.80E+01
7–8 ACETONE 2.20E+02
12–14 1,2–DCA 6.00E+00J
12–14 2–BUTANONE 4.80E+01J
12–14 ACETONE 1.50E+02
14.5–17 2–BUTANONE 7.20E+01
14.5–17 ACETONE 1.70E+02
17–19.5 2–BUTANONE 5.80E+01
17–19.5 ACETONE 1.20E+02
19.5–22 2–BUTANONE 5.50E+01
19.5–22 ACETONE 1.40E+02
12191
27.6–28.1 CCL3 1.30E+01V
27.9–28.1 CHCL3 3.00E+00JA
27.9–28.1 PCE 3.20E+01V
27.9–28.1 TCE 5.00E+00JA
10491
10.6–10.8 PCE 4.80E+00JA
31.8–32 1,2–DCE 2.00E+00JA
31.8–32 CCL4 3.00E+00JA
31.8–32 CHCL3 2.00E+00JA
31.8–32 PCE 4.00E+00JA
01991
39.3–39.5 CHCL3 3.80E+00JA
B217389
12–13 1 1,1–TCA 2.50E+02EA
12–13 METHYLENE CHLORIDE 1.50E+02JA
13–14.8 1,1,1–TCA 1.80E+02V
13–14.8 ACETONE 5.00E+00JA
13–14.8 METHYLENE CHLORIDE 6.80E+01BV
15–16.5 1,1,1–TCA 9.70E+01A
15–16.5 METHYLENE CHLORIDE 5.80E+01JA
02991
18.6–18.9 PCE 2.00E+00JA
BH4087
4–6.8 ACETONE 1.40E+02
7–8.3 ACETONE 1.20E+02
9.5–12 ACETONE 1.50E+02
BH4387
4–5.3 1 1,1–TCA 8.40E+01
4–5.3 2–BUTANONE 1.00E+02
4–5.3 2–BUTANONE 1.20E+02
4–5.3 ACETONE 2.70E+02
4–5.3 ACETONE 3.00E+02
4–5.3 METHYLENE CHLORIDE 2.00E+01J
4–5.3 METHYLENE CHLORIDE 8.00E+00J
7 7.9 1,1,1–TCA 8.10E+01
7–7.9 2–BUTANONE 1.20E+02
7–7.9 ACETONE 2.60E+02
7 7.9 METHYLENE CHLORIDE 1.00E+01J
9.5–10.3 1 1,1–TCA 1.30E+02
9.5–10.3 2–BUTANONE 1 10E+02
9.5–10.3 ACETONE 2.90E+02
9.5–10.3 METHYLENE CHLORIDE 1.30E+01J
12–12.9 1 1 1–TCA 6.00E+00J
12–12.9 2–BUTANONE 1.30E+02
12–12.9 ACETONE 1.30E+02
12–12.9 METHYLENE CHLORIDE 1.40E+01J
14.5–15.8 1,1,1–TCA 6.00E+00J
14.5–15.8 2–BUTANONE 1 10E+02
14.5–15.8 ACETONE 2.90E+02
14.5–15.8 METHYLENE CHLORIDE 1.50E+01J
17–18.3 1,1,1–TCA 2.00E+01J
17–18.3 2–BUTANONE 1.30E+02
17–18.3 ACETONE 3.80E+02
17–18.3 METHYLENE CHLORIDE 1.30E+01J
22.2–23.2 ACETONE 1.30E+02B–RV
24.7–28 ACETONE 1.20E+02B–RV
27.2–28.7 ACETONE 1.30E+02B–RV
28.7–32 ACETONE 1.80E+02B–RV
28.7–32 ACETONE 1.80E+02B–RV
28.7–32 METHYLENE CHLORIDE 2.10E+02B–RV
29.7–32 METHYLENE CHLORIDE 1.50E+01J
BH4487
4–6.2 ACETONE 1.80E+02B–RV
4–6.2 METHYLENE CHLORIDE 7.00E+00J
14.5–16.4 ACETONE 1.30E+02B–RV
14.5–16.4 METHYLENE CHLORIDE 7.00E+00J
19.5–22 ACETONE 1.50E+02B–RV
19.5–22 METHYLENE CHLORIDE 8.00E+00J
22–23.5 ACETONE 1.40E+02B–RV
22–23.5 METHYLENE CHLORIDE 8.00E+00J
24.5–27 ACETONE 1.20E+02B–RV
24.5–27 METHYLENE CHLORIDE 1 10E+01J
28.5–32 ACETONE 1 40E+02B–RV
28.5–32 METHYLENE CHLORIDE 1.00E+01J
33–34.5 ACETONE 1.80E+02B–RV
32–34.5 METHYLENE CHLORIDE 2.50E+01J
B-1
B-2
B-3
B-4
5820
5840
5860
5880
5900
5920
5940
02791
13.6–13.9 PCE 1.00E+00J
02891
07891
13491
1110
1111
1117
1118
216 2
CENTRAL AVE
NOTE
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00691 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
20791 OBSERVATION OR PUMPING WELL LOCATION
110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
DRAFT
EXPLANATION
10291 ← LOCATION
2–8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg) AND LAB AND VALIDATION QUALIFIERS
NOTE.
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A I
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado
OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT
VOLATILE ORGANIC COMPOUND
N.E. TRENCHES AREA
(PAGE 1 OF 2)
SUBSURFACE SOILS
FIGURE C 15a
JULY 1994
0U2R541 1=200



NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED

EXPLANATION

- 09491 ⬡ SOURCE BOREHOLE LOCATION
- 01191A ⬡ ABANDONED M.W LOCATION
- 00291 ● BEDROCK MONITORING WELL LOCATION
- 00891 ○ ALLUVIAL MONITORING WELL LOCATION
- 06691 ⬢ SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
- 20791 □ OBSERVATION OR PUMPING WELL LOCATION
- 110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

DRAFT

EXPLANATION

10291 ← LOCATION

2–8 ↑ SAMPLE INTERVAL (ft) | ANALYTE | ANALYTE CONCENTRATION (ug/kg) AND LAB AND VALIDATION QUALIFIERS

NOTE
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A 1

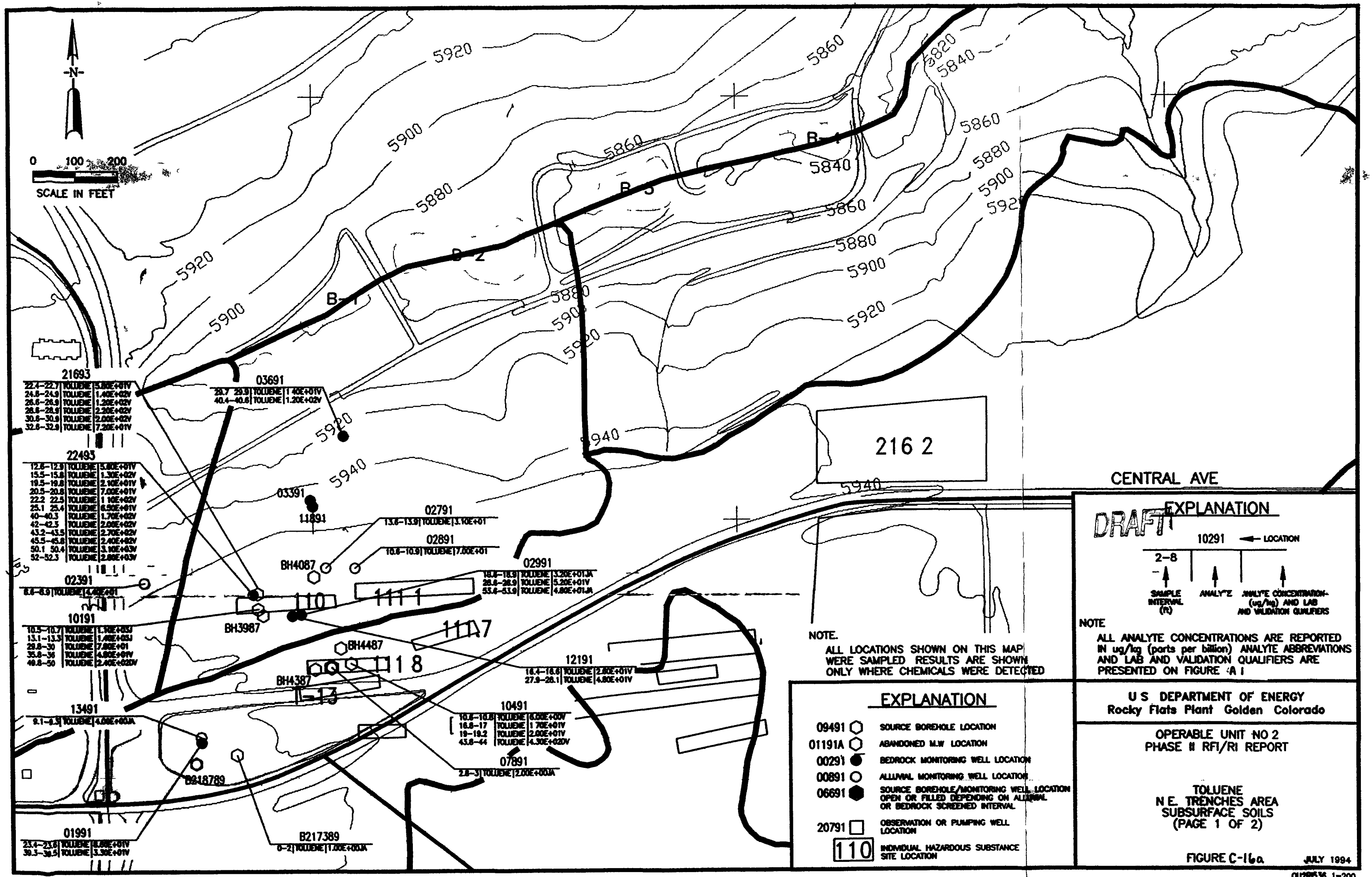
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

VOLATILE ORGANIC COMPOUND
N E. TRENCHES AREA
(PAGE 2 OF 2)
SUBSURFACE SOILS

FIGURE C 15b JULY 1994

OU2R802 1=200



NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED

EXPLANATION

- 09491 ⬡ SOURCE BOREHOLE LOCATION
- 01191A ⬡ ABANDONED M.W LOCATION
- 00291 ● BEDROCK MONITORING WELL LOCATION
- 00891 ○ ALLUVIAL MONITORING WELL LOCATION
- 06691 ⬢ SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
- 20791 □ OBSERVATION OR PUMPING WELL LOCATION
- 110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

DRAFT

EXPLANATION

10291 ← LOCATION

2–8 ← SAMPLE INTERVAL (ft)

ANALYTE

ANALYTE CONCENTRATION-(ug/kg) AND LAB AND VALIDATION QUALIFIERS

NOTE

ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A 1

U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

TOLUENE
N E TRENCHES AREA
SUBSURFACE SOILS
(PAGE 1 OF 2)

FIGURE C-16a JULY 1994

OU2R536 1=200

-N-

0 100 200

SCALE IN FEET

B-1 B-2 B-3 B-4

5920 5900 5880 5860 5840 5820

03791
5.6–5.8 | TOLUENE | 2.30E+01V
29.2–29.4 | TOLUENE | 1.00E+01V
51.8–52 | TOLUENE | 1.80E+02V

03091
18.6–18.9 | TOLUENE | 3.10E+01
37.6–37.9 | TOLUENE | 2.90E+01
41.4–41.7 | TOLUENE | 1.10E+02
51.4–51.7 | TOLUENE | 8.60E+01

11591
41–43 | TOLUENE | 4.00E+01V

11691

24993
44.2–44.5 | TOLUENE | 4.10E+01V

24193
7.5–7.8 | TOLUENE | 1.80E+01Y
35.6–36.9 | TOLUENE | 3.20E+01Y
65.6–65.9 | TOLUENE | 5.20E+01Y

24693
7.5–7.8 | TOLUENE | 1.80E+02Y

24093
1.8–1.8 | TOLUENE | 1.90E+01Y
1.8–1.8 | TOLUENE | 4.00E+02Y
7.8–7.8 | TOLUENE | 2.40E+01Y
13.1–13.3 | TOLUENE | 1.00E+02Y

24493
7.4–7.7 | TOLUENE | 1.30E+02Y

25093
34.6–34.9 | TOLUENE | 5.00E+00JY

24793

110

111.1

111.7

111.8

I-10

BH4187
BH4287
BH4587
BH4687

12691
12591

03491
6.1–6.3 | TOLUENE | 3.70E+01

11991
8.7–8.9 | TOLUENE | 1.60E+01

03891
7.8–8.1 | TOLUENE | 2.70E+01

0820191
27.5–27.7 | TOLUENE | 2.00E+00JA

05691
28–28.2 | TOLUENE | 4.00E+00JA

PW20091
28–28.2 | TOLUENE | 4.00E+00JA
56–56.2 | TOLUENE | 1.10E+01JA

11391A
11491

B218589

03591
33.5–33.7 | TOLUENE | 4.50E+01

11391
27.7–27.9 | TOLUENE | 5.00E+01
37.5–37.7 | TOLUENE | 2.00E+01V

12491
30.8–31.1 | TOLUENE | 1.70E+01V

10391
58.5–58.7 | TOLUENE | 8.00E+00V
58.8–60 | TOLUENE | 7.00E+00V

03191
22.6–22.9 | TOLUENE | 7.00E+00

10291
2.8–3 | TOLUENE | 8.70E+00JA
7.1–7.3 | TOLUENE | 9.80E+00V
10.6–10.8 | TOLUENE | 4.70E+01V
15.8–16 | TOLUENE | 4.40E+01V
24.6–24.8 | TOLUENE | 1.50E+01V
27.8–28 | TOLUENE | 3.60E+00JA
31.8–32 | TOLUENE | 1.50E+01V
55.8–56 | TOLUENE | 1.80E+01V

B217589
0–2 | TOLUENE | 2.00E+00JA
16–18 | TOLUENE | 1.00E+00JA
20–22 | TOLUENE | 2.00E+00JA
20–22 | TOLUENE | 2.00E+00JA

24593
7.5–7.8 | TOLUENE | 1.30E+02Y

03991

04091
39.6–39.8 | TOLUENE | 3.90E+01V
39.8–40 | TOLUENE | 2.00E+01V

02591
13391

06091
37.7–37.9 | TOLUENE | 5.00E+00JA

05391
26.6–26.8 | TOLUENE | 3.20E+01V
27–27.2 | TOLUENE | 1.30E+01V
34.7–34.9 | TOLUENE | 3.40E+01V

11291
26.6–26.8 | TOLUENE | 4.00E+01V

2162

CENTRAL AVE

12391
26.1–26.3 | TOLUENE | 6.00E+00V
26.4–26.6 | TOLUENE | 1.00E+01V
42.5–42.7 | TOLUENE | 5.40E+01V
45.6–45.8 | TOLUENE | 3.40E+01V
75.3–75.5 | TOLUENE | 1.40E+02JA
75.6–75.8 | TOLUENE | 8.90E+01JA

NOTE
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED

EXPLANATION

09491 ⬡	SOURCE BOREHOLE LOCATION
01191A ⬡	ABANDONED M.W LOCATION
00291 ●	BEDROCK MONITORING WELL LOCATION
00891 ○	ALLUVIAL MONITORING WELL LOCATION
06691 ⬢	SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
20791 □	OBSERVATION OR PUMPING WELL LOCATION
110	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

DRAFT

EXPLANATION

10291 ← LOCATION

2–8 ↑ SAMPLE INTERVAL (ft)

↑ ANALYTE

↑ ANALYTE CONCENTRATION (ug/kg) AND LAB AND VALIDATION QUALIFIERS

NOTE
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A.1

U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

TOLUENE
N E. TRENCHES AREA
SUBSURFACE SOILS
(PAGE 2 OF 2)

FIGURE C 16b JULY 1994

OU2R8603 1=200

-N-

0 100 200

SCALE IN FEET

10291

2-8	2-METHYLNAPHTHALENE	5.10E+01JA
2-8	ACENAPHTHENE	2.80E+02JA
2-8	ANTHRACENE	2.60E+02JA
2-8	BENZO(a)ANTHRACENE	5.30E+02JA
2-8	BENZO( )PYRENE	4.80E+02JA
2-8	BENZO(b)FLUORANTHENE	6.20E+02JA
2-8	BENZO(ghi)PERYLENE	3.60E+02JUA
2-8	BENZOIC ACID	4.00E+02JA
2-8	BIS(2-ETHYLHEXYL)PHTHALATE	7.30E+02JA
2-8	CHRYSENE	4.20E+02JA
2-8	FLUORANTHENE	1.00E+03V
2-8	FLUORENE	1.90E+02JA
2-8	INDENO(1,2,3-cd)PYRENE	3.30E+02JA
2-8	NAPHTHALENE	1.50E+02JA
2-8	PHENANTHRENE	1.10E+03V
2-8	PYRENE	1.30E+03JA
14-20	BIS(2-ETHYLHEXYL)PHTHALATE	1.50E+02JA
20-26	BIS(2-ETHYLHEXYL)PHTHALATE	1.40E+02JA
26-32	BIS(2-ETHYLHEXYL)PHTHALATE	1.60E+02JA
32-38	BIS(2-ETHYLHEXYL)PHTHALATE	1.50E+02JA

BH4087

4-6.8	BIS(2-ETHYLHEXYL)PHTHALATE	2.80E+02J
7-9.3	BIS(2-ETHYLHEXYL)PHTHALATE	1.60E+02J
9.5-12	BIS(2-ETHYLHEXYL)PHTHALATE	2.00E+02J

10191

4.2-6	NAPHTHALENE	2.00E+03V
4.2-6	PHENANTHRENE	2.70E+03JA
4.2-6	2-METHYLNAPHTHALENE	8.10E+03DV
4.2-6	2-METHYLPHENOL	4.50E+02V
4.2-6	4-METHYLPHENOL	2.90E+03V
4.2-6	BIS(2-ETHYLHEXYL)PHTHALATE	5.50E+03JA
4.2-6	DI-n-BUTYL PHTHALATE	1.30E+03JA
8-14	HEXACHLOROBUTADIENE	1.70E+02JA
8-14	HEXACHLOROETHANE	1.10E+03V
14-20	HEXACHLOROETHANE	3.70E+02V
14.1-20.1	BIS(2-ETHYLHEXYL)PHTHALATE	9.40E+02V
20.1-26	BIS(2-ETHYLHEXYL)PHTHALATE	7.20E+01JA
26-32	BIS(2-ETHYLHEXYL)PHTHALATE	2.00E+02JA
32 38	BIS(2-ETHYLHEXYL)PHTHALATE	8.70E+01JA
38-44	BIS(2-ETHYLHEXYL)PHTHALATE	7.90E+01JA
44-50	BIS(2-ETHYLHEXYL)PHTHALATE	7.60E+01JA
50-54	BIS(2-ETHYLHEXYL)PHTHALATE	5.10E+01JA

BH4187

0-12	BIS(2-ETHYLHEXYL)PHTHALATE	1.60E+02JN
0-10.8	BIS(2-ETHYLHEXYL)PHTHALATE	1.50E+02JN
12 14.5	BIS(2-ETHYLHEXYL)PHTHALATE	3.80E+02N
14.5-17	BIS(2-ETHYLHEXYL)PHTHALATE	1.50E+02JN
17-19.5	BIS(2-ETHYLHEXYL)PHTHALATE	1.90E+02JN

10391

2.2-8.1	BIS(2-ETHYLHEXYL)PHTHALATE	2.00E+02JA
8.1-14	BIS(2-ETHYLHEXYL)PHTHALATE	2.10E+02JA
14-20	BIS(2-ETHYLHEXYL)PHTHALATE	1.90E+02JA
20-26	BIS(2-ETHYLHEXYL)PHTHALATE	2.00E+02JA
26-26	BIS(2-ETHYLHEXYL)PHTHALATE	1.90E+02JA
26-32	BIS(2-ETHYLHEXYL)PHTHALATE	1.80E+02JA
32-38	BIS(2-ETHYLHEXYL)PHTHALATE	2.10E+02JA
38-44	BIS(2-ETHYLHEXYL)PHTHALATE	2.00E+02JA
44-50	BIS(2-ETHYLHEXYL)PHTHALATE	1.00E+02JA
50-56	BIS(2-ETHYLHEXYL)PHTHALATE	8.40E+01JA
56-62	BIS(2-ETHYLHEXYL)PHTHALATE	6.50E+01JA

BH4287

0-8.3	BIS(2-ETHYLHEXYL)PHTHALATE	1.70E+02JN
0-8.3	BIS(2-ETHYLHEXYL)PHTHALATE	2.20E+02JN
17-18.8	BIS(2-ETHYLHEXYL)PHTHALATE	1.4E+02JN
22-24.5	DI-n-BUTYL PHTHALATE	1.70E+02JN
22-24.5	BIS(2-ETHYLHEXYL)PHTHALATE	5.00E+02N
24.5-27	DI-n-BUTYL PHTHALATE	3.90E+01JN
24.5-27	BIS(2-ETHYLHEXYL)PHTHALATE	5.20E+02N
27-29.5	BIS(2-ETHYLHEXYL)PHTHALATE	4.80E+02N
29.5-32	DI-n-BUTYL PHTHALATE	3.40E+01JN
29.5-32	BIS(2-ETHYLHEXYL)PHTHALATE	7.20E+02N
45.5-47	BIS(2-ETHYLHEXYL)PHTHALATE	1.80E+02JN

BH4587

0-9.5	BIS(2-ETHYLHEXYL)PHTHALATE	8.80E+02N
9.5-17	BIS(2-ETHYLHEXYL)PHTHALATE	7.70E+02N
17.5-19.9	BIS(2-ETHYLHEXYL)PHTHALATE	1.80E+02JN
20-22.3	BIS(2-ETHYLHEXYL)PHTHALATE	1.80E+02JN
22.5-25	BIS(2-ETHYLHEXYL)PHTHALATE	1.20E+02JN
27.5-30	BIS(2-ETHYLHEXYL)PHTHALATE	1.30E+02JN
30-32.5	BIS(2-ETHYLHEXYL)PHTHALATE	1.50E+02JN

BH4687

0-8	BIS(2-ETHYLHEXYL)PHTHALATE	2.50E+02JN
9.5-17.8	BIS(2-ETHYLHEXYL)PHTHALATE	2.10E+02JN
27-29.5	BIS(2-ETHYLHEXYL)PHTHALATE	2.30E+02JN
29.5-32	BIS(2-ETHYLHEXYL)PHTHALATE	3.50E+02N

BH3987

2-3.4	BIS(2-ETHYLHEXYL)PHTHALATE	3.70E+02N
4-5.5	BIS(2-ETHYLHEXYL)PHTHALATE	2.60E+02JN
7-8	BIS(2-ETHYLHEXYL)PHTHALATE	1.80E+02JN
12 14	BIS(2-ETHYLHEXYL)PHTHALATE	2.40E+02JN
14.5-17	BIS(2-ETHYLHEXYL)PHTHALATE	2.50E+02JN
17-19.5	BIS(2-ETHYLHEXYL)PHTHALATE	2.50E+02JN
19.5-22	BIS(2-ETHYLHEXYL)PHTHALATE	2.10E+02JN

BH4487

4-6.2	BIS(2-ETHYLHEXYL)PHTHALATE	3.00E+02JBN
4-6	N-NITROSODIPHENYLAMINE	4.00E+01JBN
20-22	N-NITROSODIPHENYLAMINE	3.80E+01JBN
22-24	N-NITROSODIPHENYLAMINE	3.80E+01JBN
29.5-32	DI-n-BUTYL PHTHALATE	3.80E+01JBN
32-34.5	DI-n-BUTYL PHTHALATE	3.80E+01JBN

10491

32-38	DI-n-BUTYL PHTHALATE	1.80E+02J

BH4387

4-8.3	BIS(2-ETHYLHEXYL)PHTHALATE	4.50E+03BN
9.5-10.3	BIS(2-ETHYLHEXYL)PHTHALATE	6.30E+03N
9.5-10.3	DI-n-BUTYL PHTHALATE	4.80E+04JN
12-12.9	BIS(2-ETHYLHEXYL)PHTHALATE	5.10E+03N
14.5-15.9	BIS(2-ETHYLHEXYL)PHTHALATE	3.60E+03N
17-18.3	BIS(2-ETHYLHEXYL)PHTHALATE	4.30E+03N
22.2-23.2	DI-n-BUTYL PHTHALATE	4.30E+01JBN
24.7-28	DI-n-BUTYL PHTHALATE	3.80E+01JBN
27-30	N-NITROSODIPHENYLAMINE	3.70E+01JBN
27.2-29.7	BIS(2-ETHYLHEXYL)PHTHALATE	3.10E+02JBN
29.7-32	BIS(2-ETHYLHEXYL)PHTHALATE	2.90E+02JBN
29.7-32	DI-n-BUTYL PHTHALATE	3.40E+01JBN

07891

16-22	BIS(2-ETHYLHEXYL)PHTHALATE	4.70E+01J

B-1 B-2 B-3 B-4

T-13

110 111 1111 1117 118

216 2

CENTRAL AVE

5820 5840 5860 5880 5900 5920 5940

NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED

EXPLANATION

09491 ⬡	SOURCE BOREHOLE LOCATION
01191A ⬡	ABANDONED M.W LOCATION
00291 ●	BEDROCK MONITORING WELL LOCATION
00891 ○	ALLUVIAL MONITORING WELL LOCATION
06691 ⬢	SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
110	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

DRAFT

EXPLANATION

10291 ← LOCATION

2-8

- 2-8: SAMPLE INTERVAL (ft)
- ANALYTE
- ANALYTE CONCENTRATION (ug/kg) AND LAB AND VALIDATION QUALIFIERS

NOTE.
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

SEMIVOLATILE ORGANIC COMPOUNDS
N E. TRENCHES AREA
SUBSURFACE SOILS

FIGURE C 17 JULY 1994

OU2RI531 1=200

N

0 100 200

SCALE IN FEET

5920 5900 5880 5860 5840 5820

B-1 B-2 B-3 B-4

5940

10291
2-8 | 4,4'-DDT | 1 40E+02 UA
2-8 | AROCLOR-1254 | 8 90E+03 UA

10191
4 2-8 | AROCLOR-1254 | 8 90E+03 UA

BH4087 BH4187 BH4287
BH3987 BH4587 BH4687
BH4487 BH4387

10391 10491 07891

110 1111 1117 118 113

216 2

CENTRAL AVE

DRAFT

EXPLANATION

10291 ← LOCATION

2-8 ↑ SAMPLE INTERVAL (ft)

↑ ANALYTE

↑ ANALYTE CONCENTRATION (ug/kg) AND LAB AND VALIDATION QUALIFIERS

NOTE

ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

EXPLANATION

09491 ○ SOURCE BOREHOLE LOCATION

06691 ● SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL

110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

NOTE

ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED

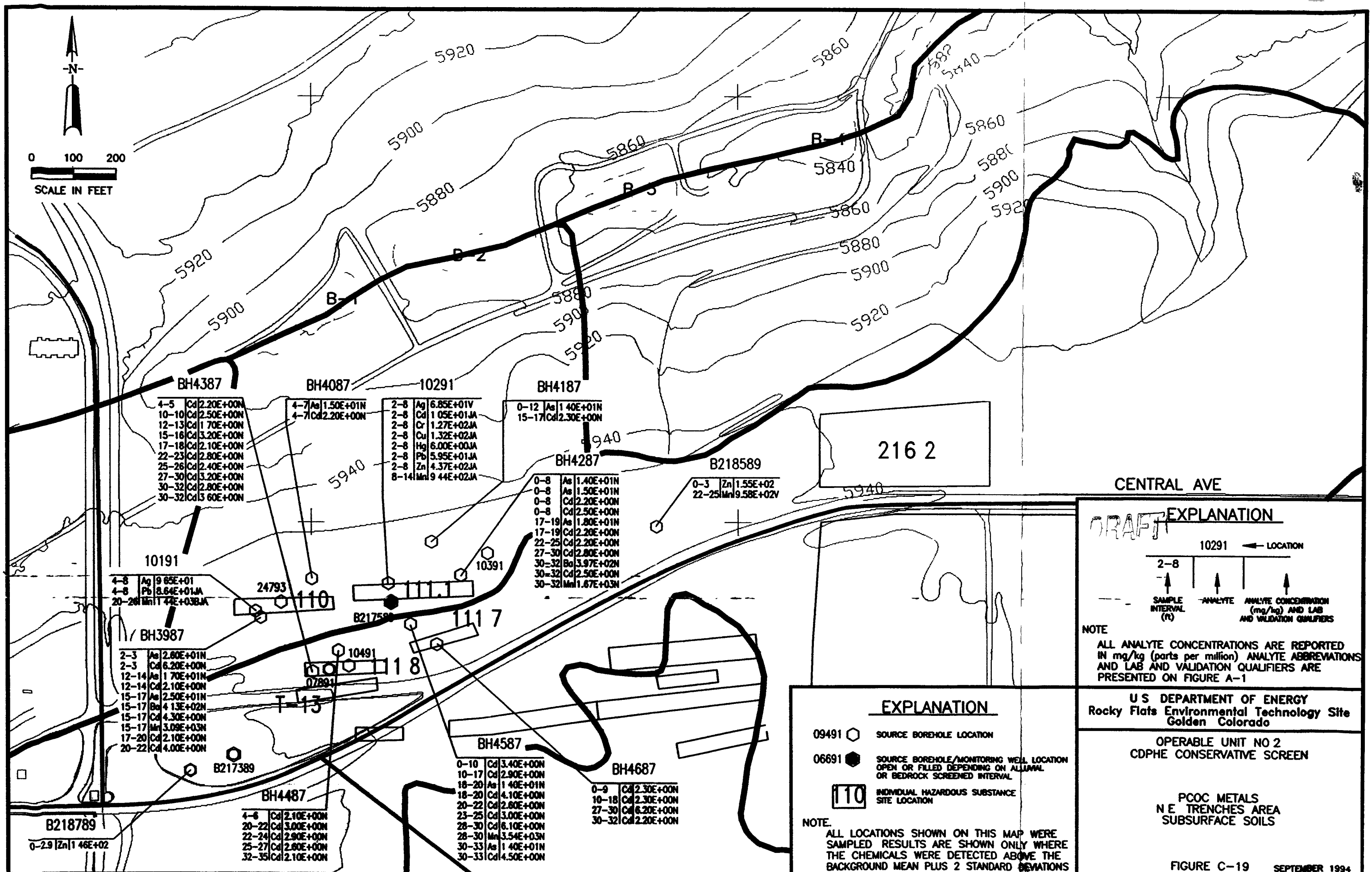
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

PESTICIDES/PCBs
N E TRENCHES AREA
SUBSURFACE SOILS

FIGURE C 18 JULY 1994

0028545 1=200



DRAFT

EXPLANATION

10291 ← LOCATION

2-8

- SAMPLE INTERVAL (ft)
- ANALYTE
- ANALYTE CONCENTRATION (mg/kg) AND LAB AND VALIDATION QUALIFIERS

NOTE

ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/kg (parts per million) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

EXPLANATION

09491 ⬡ SOURCE BOREHOLE LOCATION

06691 ⬢ SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL

110 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

NOTE.

ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS

U S DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden Colorado

OPERABLE UNIT NO 2
CDPHE CONSERVATIVE SCREEN

PCOC METALS
N E TRENCHES AREA
SUBSURFACE SOILS

FIGURE C-19 SEPTEMBER 1994

CDPHE005 1=200

-N-

0 100 200

SCALE IN FEET

5920 5900 5880 5860 5840 5820

B-1 B-2 B-3

10191

4-8	Am-241	5.98E-01A
4-8	Pu-239/240	3.12E+00A
4-8	U-233,234	1.44E+01A
4-8	U-235	7.51E-01A
4-8	U-238	2.84E+01A
8-14	Pu-239/240	6.72E-02A
14 20	Pu-239/240	3.73E-02A
20-26	Pu-239/240	2.88E-02JA
26-32	Pu-239/240	1.83E-01A
32 38	Pu-239/240	4.18E-02A
38-44	Am-241	3.58E-02A
38-44	Pu-239/240	2.28E-01A
50-54	Am 241	1.52E-02JA
50-54	Pu-239/240	4.36E-02A
50-54	U-235	1.61E+00A

BH4087

4-7	Am-241	1.20E-01N
10-12	Am-241	6.00E-02N
10-12	Pu-239/240	7.00E-02

10291

2-8	Am-241	3.29E+00
2-8	Pu-239/240	1.51E+01
2-8	U-233 234	1.92E+02
2-8	U-235	1.15E+01
2-8	U-238	1.13E+02
8-14	Pu-239/240	2.12E-02J
14-20	Pu-239/240	2.23E-02JA
32-38	Pu-239/240	1.94E-02JA
38-44	Am-241	2.45E-02
38-44	Pu-239/240	1.65E-01
44-50	Am-241	1.43E-02J
44-50	Pu-239/240	1.06E-01
50-56	Am-241	1.50E-02J
50-56	Pu-239/240	2.46E-02J
56-60	Am-241	1.82E-02J
56-60	Pu-239/240	6.11E-02

BH4187

0-11	Pu-239/240	1.70E-01
0-12	Am-241	6.00E-02N
0-12	Pu-239/240	5.00E-02
12-15	Am-241	5.00E-02N
17 20	Am-241	2.00E-02N

B218589

0-3	Am-241	1.00E-01V
0-3	Pu-239/240	8.33E-01A
3-8	Pu-239/240	3.00E-02A

BH3987

2-3	Pu-239/240	3.00E-02
7-8	Am-241	2.00E-02N
12 14	Am-241	6.00E-02N
12 14	Pu-239/240	2.00E-02
15-17	Am-241	6.00E-02N
15-17	U 238	1.80E+00N
17 20	Pu-239/240	4.00E-02
20-22	Pu-239/240	8.00E-02

BH4487

4-6	Pu-239/240	7.00E-02
22 24	Am-241	7.00E-02N
32-35	Am-241	7.00E-02N

BH4387

4-5	Am-241	3.00E-02N
4-5	Pu-239/240	9.00E-02
7-8	Pu-239/240	5.00E-02
15-16	Pu-239/240	1.00E-01
22-23	Am 241	4.60E-02N
25-26	Am-241	3.00E-02N
25-26	Pu-239/240	3.00E-02
27 30	Am-241	2.00E-02N
30-32	Am-241	5.00E-02N
30-32	Pu-239/240	4.00E-02

B218789

0-2.9	Am-241	2.56E-01A
0-2.9	Pu-239/240	1.80E+00A
4-7.5	Am-241	1.80E-02A
4-7.5	Am-241	2.10E-02A
4-7.5	Pu-239/240	6.26E-02A
4-7.5	Pu-239/240	6.30E-02A
8-11	Am-241	2.30E-02A
8 11	Pu-239/240	3.10E-02A
8-11	U-233,234	2.40E+01A
12-16.7	Am-241	3.80E-02A

B217389

0-3	Pu-239/240	3.64E-01
7 11	Pu-239/240	3.20E-02

07891

2-8	Am-241	3.60E-02A
2-8	Am-241	4.90E-02A
2-8	Pu-239/240	2.14E-01A
2-8	Pu-239/240	2.53E-01A
8-14	Pu-239/240	3.30E-02A
16-22	Pu-239/240	3.44E-02A

B217589

0-3	Pu-239/240	6.45E-01
17.3-22	U-235	1.80E-01A

10491

2-8	Am-241	2.68E-02A
2-8	Pu-239/240	3.10E-02A
8-14	Am-241	2.00E-02A
14-20	Pu-239/240	3.40E-02A
26-32	Pu-239/240	1.90E-02A

10391

2-8	Pu-239/240	2.81E-02J
8-14	Pu-239/240	9.40E-02
14-20	Am-241	1.78E-02J
20-26	Am-241	1.80E-02J
20-26	Am-241	2.22E-02
26-32	Pu-239/240	3.14E-02
26-32	Am-241	2.33E-02
26-32	Pu-239/240	2.70E-02J
32-38	Am-241	4.73E-01
32-38	Pu-239/240	3.11E+00
38-44	Am-241	6.16E-02
38-44	Pu-239/240	2.92E-01
44-50	Am-241	2.14E-02
44-50	Pu-239/240	2.14E-01
50-56	Am-241	2.30E-02
50-56	Am-241	2.77E-02
50-56	Pu-239/240	7.88E-02
50-56	Pu-239/240	1.28E-01
56-62	Am-241	3.75E-02
56-62	Pu-239/240	8.47E-02

BH4287

0-8	Am-241	1.00E-02N
0-8	Am-241	7.00E-02N
0-8	Pu-239/240	1.80E-01
17-19	Am-241	2.00E-02N
22-25	Am-241	5.00E-02N
27 30	Am-241	3.00E-02N
30-32	Am-241	8.00E-02N

BH4587

0-10	Am-241	3.00E-02N
0-10	Pu-239/240	9.80E-02
10-17	U-238	1.50E+00N
18-20	Am-241	2.00E-02N
20-22	Pu-239/240	4.80E-02
23-25	Am-241	8.80E-02N
23-25	Pu-239/240	4.80E-02

BH4687

6-9	Pu-239/240	4.80E-02
16-18	Pu-239/240	2.80E-01
25-25	Am-241	3.00E-02N
25-25	Pu-239/240	9.00E-02
27-30	Am-241	2.00E-02N
27 30	Pu-239/240	5.00E-02
27-30	U-238	1.50E+00N

111 1 111 7 111 8 110 111 3

216 2

CENTRAL AVE.

NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

EXPLANATION

09491 ⬡	SOURCE BOREHOLE LOCATION
01191A ⬡	ABANDONED M.W LOCATION
00291 ●	BEDROCK MONITORING WELL LOCATION
○	ALLUVIAL MONITORING WELL LOCATION
06691 ⬢	SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
110	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

DRAFT

EXPLANATION

10291 ← LOCATION

2-8

SAMPLE INTERVAL (ft) | ANALYTE | ANALYTE CONCENTRATION (pCi/g) AND LAB AND VALIDATION QUALIFIERS

NOTE.
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN pCi/g. ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A 1

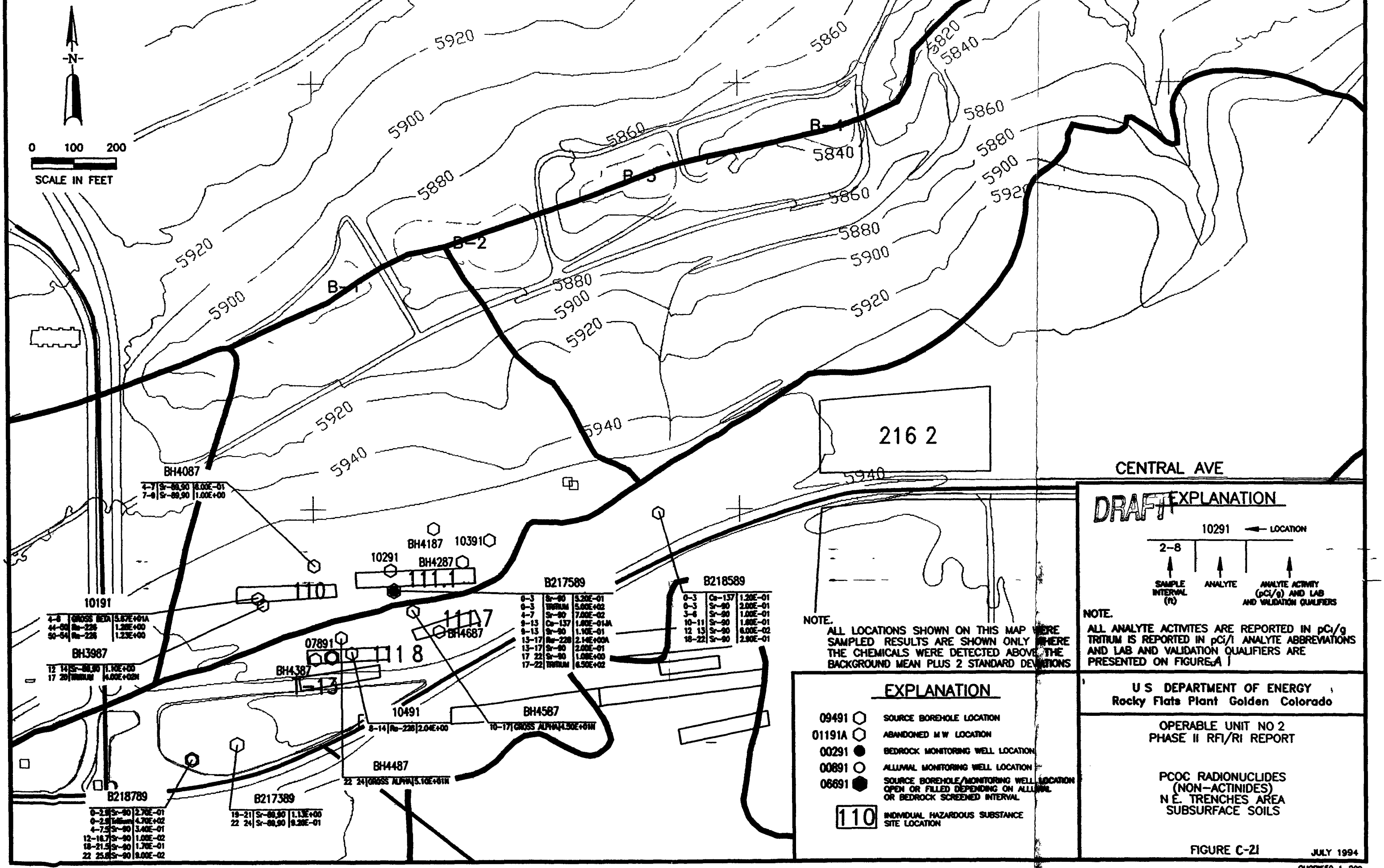
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

PCOC ACTINIDES
N E. TRENCHES AREA
SUBSURFACE SOILS

FIGURE C 20 JULY 1994

0U2R564 1=200



NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS

EXPLANATION

09491 ⬡	SOURCE BOREHOLE LOCATION
01191A ⬡	ABANDONED M W LOCATION
00291 ●	BEDROCK MONITORING WELL LOCATION
00691 ○	ALLUVIAL MONITORING WELL LOCATION
06691 ⬢	SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
110	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

DRAFT

EXPLANATION

10291 ← LOCATION

2-8 ↑ SAMPLE INTERVAL (ft)

↑ ANALYTE

↑ ANALYTE ACTIVITY (pCi/g) AND LAB AND VALIDATION QUALIFIERS

NOTE.
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g TRITIUM IS REPORTED IN pCi/l ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A 1

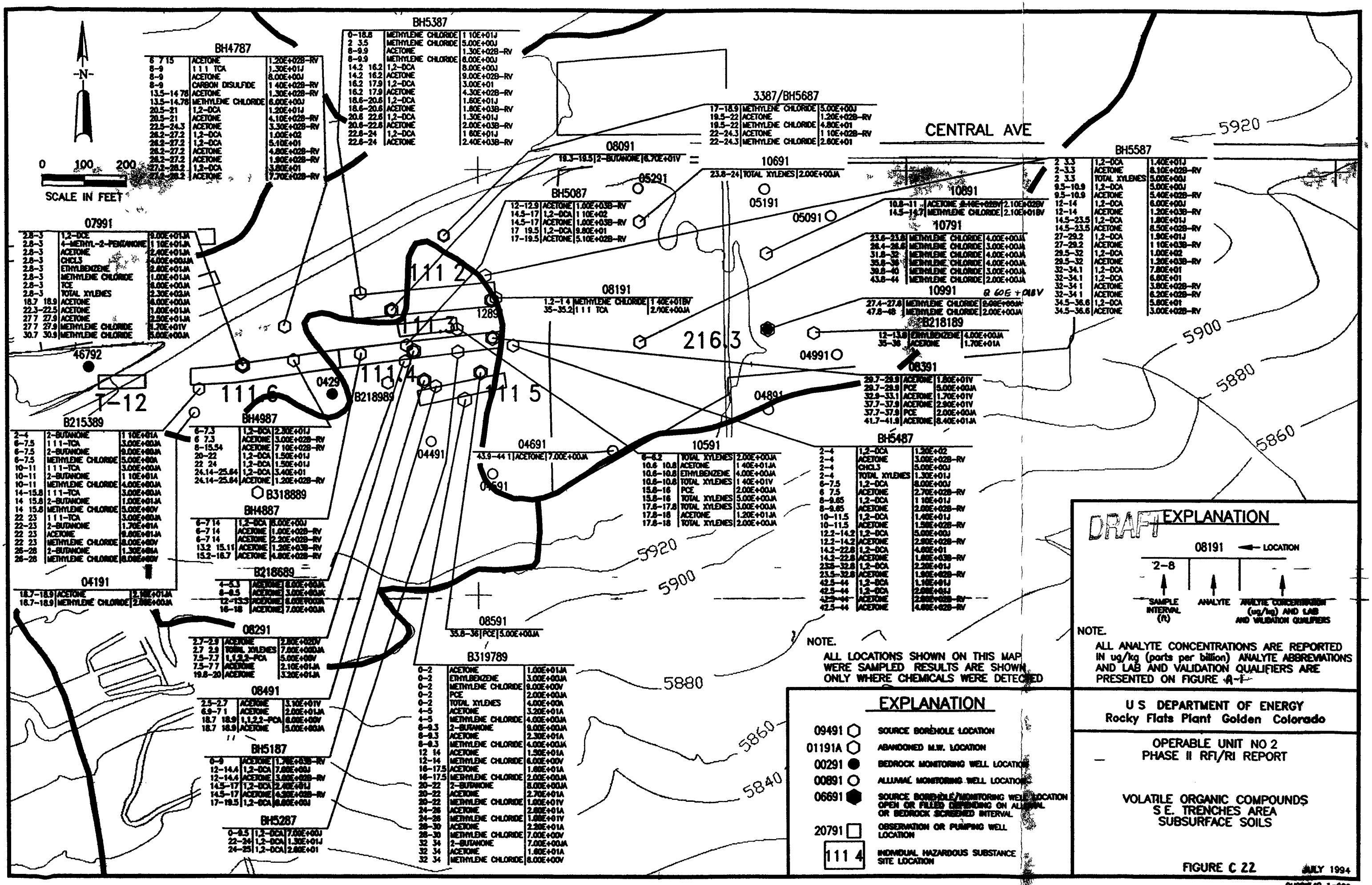
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

PCOC RADIONUCLIDES
(NON-ACTINIDES)
N E. TRENCHES AREA
SUBSURFACE SOILS

FIGURE C-21 JULY 1994

0U2R559 1=200



6 7 15	ACETONE	1.20E+02B-RV
8-9	1 1 1 TCA	1.30E+01J
8-9	ACETONE	8.00E+00J
8-9	CARBON DISULFIDE	1.40E+02B-RV
13.5-14.78	ACETONE	1.30E+02B-RV
13.5-14.78	METHYLENE CHLORIDE	6.00E+00J
20.5-21	1,2-DCA	1.20E+01J
20.5-21	ACETONE	4.10E+02B-RV
22.5-24.3	ACETONE	3.30E+02B-RV
24.2-27.2	1,2-DCA	1.00E+02
24.2-27.2	1,2-DCA	5.10E+01
24.2-27.2	ACETONE	4.80E+02B-RV
24.2-27.2	ACETONE	1.90E+02B-RV
27.2-28.2	1,2-DCA	3.80E+01
27.2-28.2	ACETONE	7.70E+02B-RV

0-18.8	METHYLENE CHLORIDE	1.10E+01J
2 3.5	METHYLENE CHLORIDE	5.00E+00J
8-9.9	ACETONE	1.30E+02B-RV
8-9.9	METHYLENE CHLORIDE	6.00E+00J
14.2 16.2	1,2-DCA	8.00E+00J
14.2 16.2	ACETONE	9.00E+02B-RV
16.2 17.9	1,2-DCA	3.00E+01
16.2 17.9	ACETONE	4.30E+02B-RV
18.6-20.6	1,2-DCA	1.60E+01J
18.6-20.6	ACETONE	1.80E+03B-RV
20.6 22.6	1,2-DCA	1.30E+01J
20.6-22.6	ACETONE	2.00E+03B-RV
22.6-24	1,2-DCA	1.60E+01J
22.6-24	ACETONE	2.40E+03B-RV

17-18.9	METHYLENE CHLORIDE	5.00E+00J
19.5-22	ACETONE	1.20E+02B-RV
19.5-22	METHYLENE CHLORIDE	4.80E+01
22-24.3	ACETONE	1.10E+02B-RV
22-24.3	METHYLENE CHLORIDE	2.60E+01

19.3-19.5	2-BUTANONE	6.70E+01V

23.6-24	TOTAL XYLENES	2.00E+00JA

12-12.9	ACETONE	1.00E+03B-RV
14.5-17	1,2-DCA	1.10E+02
14.5-17	ACETONE	1.00E+03B-RV
17 19.5	1,2-DCA	9.80E+01
17-19.5	ACETONE	5.10E+02B-RV

10.8-11	ACETONE	2.10E+02BV
14.5-15.7	METHYLENE CHLORIDE	2.10E+01BV

23.6-23.8	METHYLENE CHLORIDE	4.00E+00JA
26.4-26.6	METHYLENE CHLORIDE	3.00E+00JA
31.8-32	METHYLENE CHLORIDE	4.00E+00JA
35.8-36	METHYLENE CHLORIDE	4.00E+00JA
39.8-40	METHYLENE CHLORIDE	3.00E+00JA
43.8-44	METHYLENE CHLORIDE	2.00E+00JA

27.4-27.6	METHYLENE CHLORIDE	9.60E+00JA
47.8-48	METHYLENE CHLORIDE	2.00E+00JA

12-13.8	ETHYLBENZENE	4.00E+00JA
35-36	ACETONE	1.70E+01A

29.7-29.9	ACETONE	1.80E+01V
29.7-29.9	PCE	5.00E+00JA
32.9-33.1	ACETONE	1.70E+01V
37.7-37.9	ACETONE	2.90E+01V
37.7-37.9	PCE	2.00E+00JA
41.7-41.9	ACETONE	8.40E+01JA

43.9-44.1	ACETONE	7.00E+00JA

35-35.2	1,2-1,4 METHYLENE CHLORIDE	1.40E+01BV
	1,1,1 TCA	2.90E+00JA

2-4	2-BUTANONE	1.10E+01A
6-7.5	1,1,1-TCA	3.00E+00JA
6-7.5	2-BUTANONE	9.00E+00JA
6-7.5	METHYLENE CHLORIDE	5.00E+00A
10-11	1,1,1-TCA	3.00E+00JA
10-11	2-BUTANONE	1.10E+01A
10-11	METHYLENE CHLORIDE	4.00E+00JA
14-15.8	1,1,1-TCA	3.00E+00JA
14 15.8	2-BUTANONE	1.00E+01JA
14 15.8	METHYLENE CHLORIDE	5.00E+00V
22 23	1,1,1-TCA	3.00E+00JA
22-23	2-BUTANONE	1.70E+01A
22 23	ACETONE	9.80E+01JA
22 23	METHYLENE CHLORIDE	8.00E+00V
26-28	2-BUTANONE	1.30E+01A
26-28	METHYLENE CHLORIDE	8.00E+00V

6-7.3	1,2-DCA	2.30E+01J
6 7.3	ACETONE	3.00E+02B-RV
8-15.54	ACETONE	7.10E+02B-RV
20-22	1,2-DCA	1.50E+01J
22 24	1,2-DCA	1.50E+01J
24.14-25.64	1,2-DCA	3.40E+01
24.14-25.64	ACETONE	1.20E+02B-RV

6-7.14	1,2-DCA	8.00E+00J
6-7.14	ACETONE	1.00E+02B-RV
6-7.14	ACETONE	2.20E+02B-RV
13.2 15.11	ACETONE	1.20E+03B-RV
15.2-16.7	ACETONE	4.80E+02B-RV

4-5.3	ACETONE	8.00E+00JA
8-8.5	ACETONE	3.00E+00JA
12-13.3	ACETONE	8.00E+00JA
16-18	ACETONE	7.00E+00JA

2.7-2.9	ACETONE	2.80E+02DV
2.7 2.9	TOTAL XYLENES	7.00E+00DJA
7.5-7.7	1,1,2,2-PCA	5.00E+00DV
7.5-7.7	ACETONE	2.10E+01JA
19.8-20	ACETONE	3.20E+01JA

2.5-2.7	ACETONE	3.10E+01V
6.9-7.1	ACETONE	2.00E+01JA
18.7 18.9	1,1,2,2-PCA	6.00E+00DV
18.7 18.9	ACETONE	5.00E+00JA

0-8	ACETONE	1.70E+03B-RV
12-14.4	1,2-DCA	7.00E+00J
12-14.4	ACETONE	3.80E+02B-RV
14.5-17	1,2-DCA	2.40E+01J
14.5-17	ACETONE	4.30E+02B-RV
17-19.5	1,2-DCA	8.00E+00J

0-8.5	1,2-DCA	7.00E+00J
22-24	1,2-DCA	1.30E+01J
24-25	1,2-DCA	2.60E+01

0-2	ACETONE	1.00E+01JA
0-2	ETHYLBENZENE	3.00E+00JA
0-2	METHYLENE CHLORIDE	9.00E+00V
0-2	PCE	2.00E+00JA
0-2	TOTAL XYLENES	4.00E+00A
4-5	ACETONE	3.20E+01A
4-5	METHYLENE CHLORIDE	4.00E+00JA
8-8.3	2-BUTANONE	9.00E+00JA
8-8.3	ACETONE	2.30E+01A
8-8.3	METHYLENE CHLORIDE	4.00E+00JA
12 14	ACETONE	1.50E+01A
12-14	METHYLENE CHLORIDE	6.00E+00V
16-17.5	ACETONE	1.60E+01A
16-17.5	METHYLENE CHLORIDE	2.00E+00JA
20-22	2-BUTANONE	8.00E+00JA
20-22	ACETONE	2.70E+01A
20-22	METHYLENE CHLORIDE	1.00E+01V
24-26	ACETONE	2.80E+01A
24-26	METHYLENE CHLORIDE	1.00E+01V
28-30	ACETONE	2.20E+01A
28-30	METHYLENE CHLORIDE	7.00E+00V
32 34	2-BUTANONE	7.00E+00JA
32 34	ACETONE	1.80E+01A
32 34	METHYLENE CHLORIDE	8.00E+00V

6-6.2	TOTAL XYLENES	2.00E+00JA
10.6 10.8	ACETONE	1.40E+01JA
10.6-10.8	ETHYLBENZENE	4.00E+00JA
10.6-10.8	TOTAL XYLENES	1.40E+01V
15.8-16	PCE	2.00E+00JA
15.8-16	TOTAL XYLENES	5.00E+00JA
17.8-17.8	TOTAL XYLENES	3.00E+00JA
17.8-18	ACETONE	1.20E+01JA
17.8-18	TOTAL XYLENES	2.00E+00JA

2-3.3	1,2-DCA	1.40E+01J
2-3.3	ACETONE	8.10E+02B-RV
2 3.3	TOTAL XYLENES	5.00E+00JA
9.5-10.9	1,2-DCA	5.00E+00J
9.5-10.9	ACETONE	5.40E+02B-RV
12-14	1,2-DCA	6.00E+00J
12-14	ACETONE	1.20E+03B-RV
14.5-23.5	1,2-DCA	1.80E+01J
14.5-23.5	ACETONE	8.50E+02B-RV
27-29.2	1,2-DCA	1.90E+01J
27-29.2	ACETONE	1.10E+03B-RV
29.5-32	1,2-DCA	1.00E+02
29.5-32	ACETONE	1.20E+03B-RV
32-34.1	1,2-DCA	7.80E+01
32-34.1	1,2-DCA	6.80E+01
32-34.1	ACETONE	3.80E+02B-RV
32-34.1	ACETONE	6.20E+02B-RV
34.5-36.6	1,2-DCA	5.60E+01
34.5-36.6	ACETONE	3.00E+02B-RV

2-4	1,2-DCA	1.20E+02
2-4	ACETONE	3.00E+02B-RV
2-4	CHCL3	5.00E+00J
2-4	TOTAL XYLENES	1.30E+01J
6-7.5	1,2-DCA	8.00E+00J
6 7.5	ACETONE	2.70E+02B-RV
8-8.85	1,2-DCA	1.10E+01J
8-8.85	ACETONE	2.00E+02B-RV
10-11.5	1,2-DCA	1.40E+01J
10-11.5	ACETONE	1.50E+02B-RV
12.2-14.2	1,2-DCA	5.00E+00J
12.2-14.2	ACETONE	2.90E+02B-RV
14.2-22.8	1,2-DCA	4.60E+01
14.2-22.8	ACETONE	1.80E+03B-RV
23.8-32.8	1,2-DCA	2.20E+01J
23.5-32.8	ACETONE	1.90E+02B-RV
42.5-44	1,2-DCA	1.10E+01J
42.5-44	1,2-DCA	2.00E+01J
42.5-44	ACETONE	2.00E+02B-RV
42.5-44	ACETONE	4.00E+02B-RV

18.7-18.9	ACETONE	2.10E+01JA
18.7-18.9	METHYLENE CHLORIDE	2.00E+00JA

NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED

DRAFT

EXPLANATION

08191 ← LOCATION

2-8 ↑ SAMPLE INTERVAL (ft) | ↑ ANALYTE | ↑ ANALYTE CONCENTRATION (ug/kg) AND LAB AND VALIDATION QUALIFIERS

NOTE.
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-F

EXPLANATION

- 09491 ⬡ SOURCE BOREHOLE LOCATION
- 01191A ⬡ ABANDONED M.W. LOCATION
- 00291 ● BEDROCK MONITORING WELL LOCATION
- 00891 ○ ALLUVIAL MONITORING WELL LOCATION
- 06691 ⬢ SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
- 20791 □ OBSERVATION OR PUMPING WELL LOCATION
- 111 4 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

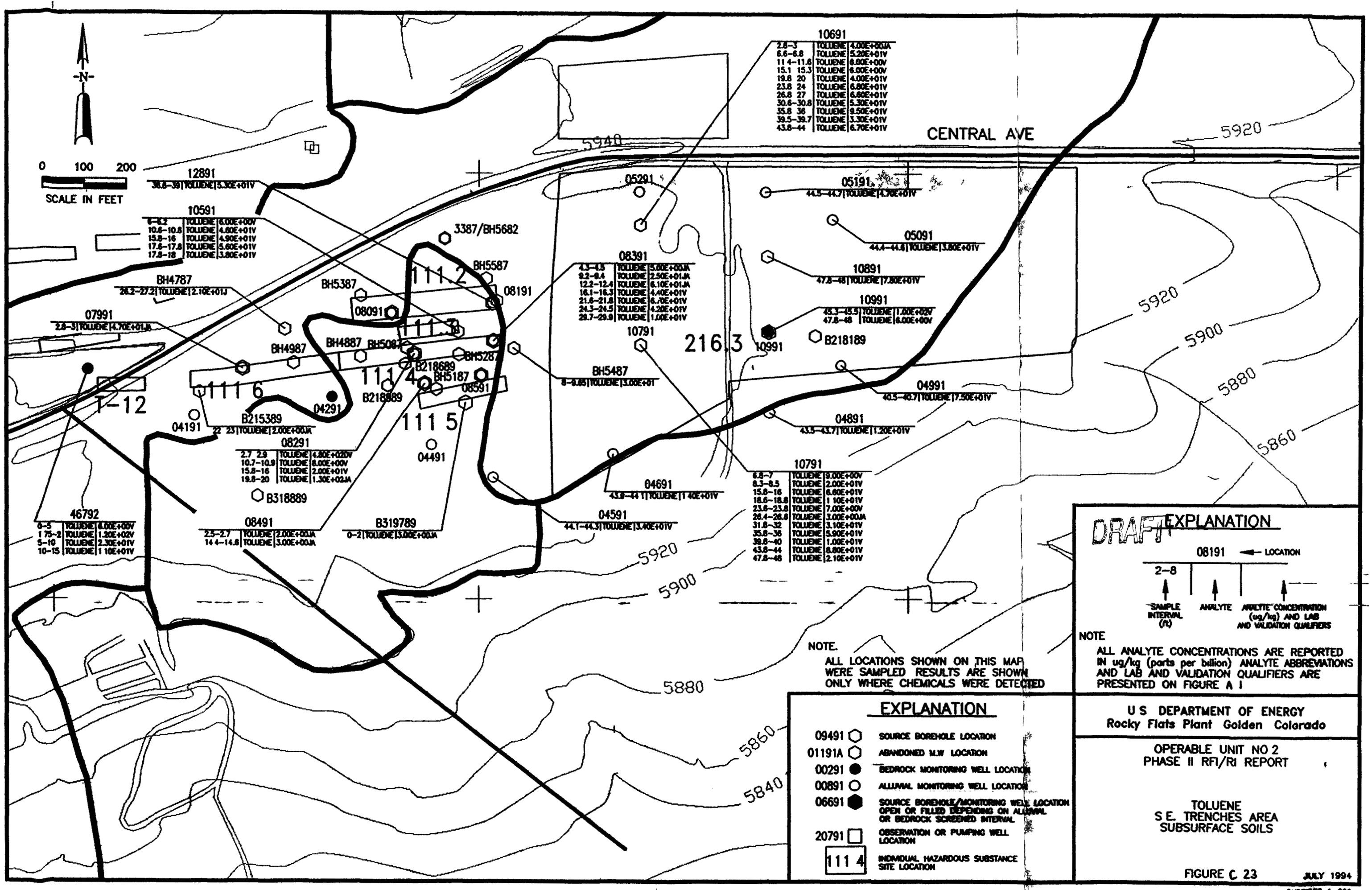
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

VOLATILE ORGANIC COMPOUNDS
S E. TRENCHES AREA
SUBSURFACE SOILS

FIGURE C 22 JULY 1994

OU2#542 1=200



-N-
0 100 200
SCALE IN FEET
CENTRAL AVE
5940
5920
5900
5880
5860
5840
12891
36.8-39 | TOLUENE | 5.30E+01V
10591
6-6.2 | TOLUENE | 6.00E+00V
10.6-10.8 | TOLUENE | 4.60E+01V
15.8-16 | TOLUENE | 4.90E+01V
17.6-17.8 | TOLUENE | 5.60E+01V
17.8-18 | TOLUENE | 3.80E+01V
BH4787
26.2-27.2 | TOLUENE | 2.10E+01J
07991
2.8-3 | TOLUENE | 4.70E+01JA
3387/BH5682
BH5587
08191
BH5387
08091
111.2
111.3
111.4
111.5
111.6
BH4987
BH4887
BH5087
BH5287
BH5187
B218689
B218989
08591
04291
04191
T-12
B215389
22 23 | TOLUENE | 2.00E+00JA
08291
2.7 2.9 | TOLUENE | 4.80E+02DV
10.7-10.9 | TOLUENE | 8.00E+00V
15.8-16 | TOLUENE | 2.00E+01V
19.8-20 | TOLUENE | 1.30E+02JA
B318889
04491
46792
0-5 | TOLUENE | 6.00E+00V
1 75-2 | TOLUENE | 1.20E+02V
5-10 | TOLUENE | 2.30E+01V
10-15 | TOLUENE | 1 10E+01V
08491
2.5-2.7 | TOLUENE | 2.00E+00JA
14 4-14.8 | TOLUENE | 3.00E+00JA
B319789
0-2 | TOLUENE | 3.00E+00JA
05291
08391
4.3-4.5 | TOLUENE | 5.00E+00JA
9.2-9.4 | TOLUENE | 2.50E+01JA
12.2-12.4 | TOLUENE | 6.10E+01JA
16.1-16.3 | TOLUENE | 4.40E+01V
21.6-21.8 | TOLUENE | 6.70E+01V
24.3-24.5 | TOLUENE | 4.20E+01V
29.7-29.9 | TOLUENE | 1.00E+01V
10791
BH5487
8-9.65 | TOLUENE | 3.00E+01
04691
43.9-44 1 | TOLUENE | 1 40E+01V
04591
44.1-44.3 | TOLUENE | 3.40E+01V
10691
2.8-3 | TOLUENE | 4.00E+00JA
6.6-6.8 | TOLUENE | 5.20E+01V
11 4-11.6 | TOLUENE | 6.00E+00V
15.1 15.3 | TOLUENE | 6.00E+00V
19.8 20 | TOLUENE | 4.00E+01V
23.8 24 | TOLUENE | 6.80E+01V
26.8 27 | TOLUENE | 6.60E+01V
30.6-30.8 | TOLUENE | 5.30E+01V
35.8 36 | TOLUENE | 9.50E+01V
39.5-39.7 | TOLUENE | 3.30E+01V
43.8-44 | TOLUENE | 6.70E+01V
05191
44.5-44.7 | TOLUENE | 4.70E+01V
05091
44.4-44.6 | TOLUENE | 3.80E+01V
10891
47.8-48 | TOLUENE | 7.80E+01V
10991
45.3-45.5 | TOLUENE | 1.00E+02V
47.8-48 | TOLUENE | 6.00E+00V
216.3
10991
B218189
04991
40.5-40.7 | TOLUENE | 7.50E+01V
04891
43.5-43.7 | TOLUENE | 1.20E+01V
10791
6.8-7 | TOLUENE | 9.00E+00V
8.3-8.5 | TOLUENE | 2.00E+01V
15.8-16 | TOLUENE | 6.60E+01V
18.6-18.8 | TOLUENE | 1 10E+01V
23.6-23.8 | TOLUENE | 7.00E+00V
26.4-26.6 | TOLUENE | 3.00E+00JA
31.8-32 | TOLUENE | 3.10E+01V
35.8-36 | TOLUENE | 5.90E+01V
39.8-40 | TOLUENE | 1.00E+01V
43.8-44 | TOLUENE | 8.80E+01V
47.8-48 | TOLUENE | 2.10E+01V
DRAFT
EXPLANATION
08191 ← LOCATION
2-8
SAMPLE INTERVAL (ft)
ANALYTE
ANALYTE CONCENTRATION (ug/kg) AND LAB AND VALIDATION QUALIFIERS
NOTE
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A 1
NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED
EXPLANATION
09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M.W LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
20791 OBSERVATION OR PUMPING WELL LOCATION
111 4 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado
OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT
TOLUENE
S E. TRENCHES AREA
SUBSURFACE SOILS
FIGURE C 23
JULY 1994
OU2RI537 1=200

N

0 100 200

SCALE IN FEET

CENTRAL AVE

5940

5920

5900

5880

5860

5840

BH4787

4–5.32	DI-n-BUTYL PHTHALATE	4.70E+01JBN
4 5	N-NITROSODIPHENYLAMINE	3.80E+01JBN
6–7 15	DI-n-BUTYL PHTHALATE	3.90E+01JBN
6 7	N-NITROSODIPHENYLAMINE	3.70E+01JBN
9.5–10.52	DI-n-BUTYL PHTHALATE	3.60E+01JBN
11.5–12.66	DI-n-BUTYL PHTHALATE	3.60E+01JBN
20.5–21	DI-n-BUTYL PHTHALATE	4.80E+01JBN
22.5–24.3	DI-n-BUTYL PHTHALATE	2.60E+02JBN
23–24	N-NITROSODIPHENYLAMINE	1.20E+02JBN
26–27	PENTACHLOROPHENOL	9.50E+01JN
26.2 27.2	DI-n-BUTYL PHTHALATE	5.90E+01JBN
26.2 27.2	DI-n-BUTYL PHTHALATE	4.40E+01JBN
27.2–28.2	DI-n-BUTYL PHTHALATE	4.40E+01JBN

BH5387

0–19	N-NITROSODIPHENYLAMINE	3.60E+01JBN
2 3.5	DI-n-BUTYL PHTHALATE	3.30E+01JBN
2–4	N-NITROSODIPHENYLAMINE	3.80E+01JBN
6–7.8	DI-n-BUTYL PHTHALATE	4 40E+01JBN
8–9.9	DI-n-BUTYL PHTHALATE	4.20E+01JBN
14.2 16.2	DI-n-BUTYL PHTHALATE	8.70E+01JBN
16.2 17.9	DI-n-BUTYL PHTHALATE	4.90E+01JBN
18.6–20.6	DI-n-BUTYL PHTHALATE	5.90E+01JBN
20.6–22.6	DI-n-BUTYL PHTHALATE	6.10E+01JBN
22.6–24	DI-n-BUTYL PHTHALATE	5.80E+01JBN

3387/BH5687

17–18.9	DI-n-BUTYL PHTHALATE	5.00E+01JBN
19.5–22	BUTYL BENZYL PHTHALATE	6.90E+01J
19.5–22	DI-n-BUTYL PHTHALATE	5.00E+01JBN
22 24.3	DI-n-BUTYL PHTHALATE	4.70E+01JBN
22–24	N-NITROSODIPHENYLAMINE	4.20E+01JBN

BH5587

2–3.3	DI-n-BUTYL PHTHALATE	4.30E+01JBN
9.5–10.9	DI-n-BUTYL PHTHALATE	4.50E+01JBN
12–14	DI-n-BUTYL PHTHALATE	5.40E+01JBN
14.5–23.5	DI-n-BUTYL PHTHALATE	9.40E+01JBN
27–29.2	DI-n-BUTYL PHTHALATE	4.80E+01JBN
30–32	N-NITROSODIPHENYLAMINE	1.60E+02JBN
32–34.1	DI-n-BUTYL PHTHALATE	4.90E+01JBN
32–34.1	DI-n-BUTYL PHTHALATE	5.60E+01JBN
34.5–36.6	DI-n-BUTYL PHTHALATE	8.00E+01JBN

07991

2–8	2-METHYLNAPHTHALENE	1.80E+02JA
2–8	BENZO(a)PYRENE	2.50E+02JA
2–8	CHRYSENE	2.10E+02JA
2–8	PHENANTHRENE	3.00E+02JA
2–8	PYRENE	5.70E+02V
12–14	DI-n-BUTYL PHTHALATE	3.70E+01JA
14–20	BIS(2-ETHYLHEXYL)PHTHALATE	9.50E+01JA
14 20	DI-n-BUTYL PHTHALATE	3.80E+01JA
20–26	BIS(2-ETHYLHEXYL)PHTHALATE	8.60E+01JA
26–32	DI-n-BUTYL PHTHALATE	4.30E+01JA

BH5587

8 14	BIS(2-ETHYLHEXYL)PHTHALATE	6.60E+01JA

BH4887

6–7 14	DI-n-BUTYL PHTHALATE	4.20E+01JBN
13.2–15.11	DI-n-BUTYL PHTHALATE	4.20E+01JBN
15.2 16.7	DI-n-BUTYL PHTHALATE	3.50E+01JBN

BH5087

12–12.9	DI-n-BUTYL PHTHALATE	3.80E+01JBN
14.5–17	DI-n-BUTYL PHTHALATE	5.50E+01JBN
17–19.5	DI-n-BUTYL PHTHALATE	3.50E+01JBN

BH4987

6–7.3	DI-n-BUTYL PHTHALATE	5.00E+01JBN
6–7	N-NITROSODIPHENYLAMINE	4.80E+01JN
8–15.54	DI-n-BUTYL PHTHALATE	6.80E+01JBN
8–14	N-NITROSODIPHENYLAMINE	4.10E+01JN

BH5187

0–9	DI-n-BUTYL PHTHALATE	1.20E+02JBN
0–9	N-NITROSODIPHENYLAMINE	5.20E+01JN
12–14.4	DI-n-BUTYL PHTHALATE	7.20E+01JBN
14.5–17	DI-n-BUTYL PHTHALATE	7.00E+01JBN
17–19.5	DI-n-BUTYL PHTHALATE	8.60E+01JBN

BH5287

0–9.5	DI-n-BUTYL PHTHALATE	1.20E+02JBN
12–13	DI-n-BUTYL PHTHALATE	6.70E+01JBN
12–13	N-NITROSODIPHENYLAMINE	2.10E+02JBN
22–24	DI-n-BUTYL PHTHALATE	3.90E+01JBN
22–24	N-NITROSODIPHENYLAMINE	1.40E+02JBN
24–25	DI-n-BUTYL PHTHALATE	8.40E+01JBN
24–25	N-NITROSODIPHENYLAMINE	2.80E+02JBN

08391

40–44	BIS(2-ETHYLHEXYL)PHTHALATE	4.70E+01JA

BH5487

2–4	DI-n-BUTYL PHTHALATE	5.50E+01JBN
2–4	N-NITROSODIPHENYLAMINE	2.50E+02JBN
2–4	PENTACHLOROPHENOL	4.10E+01JN
6–7.5	DI-n-BUTYL PHTHALATE	9.00E+01JBN
6–8	N-NITROSODIPHENYLAMINE	4.80E+01JN
8–8.85	DI-n-BUTYL PHTHALATE	5.00E+01JBN
8–10	N-NITROSODIPHENYLAMINE	5.50E+01JN
10–11.5	DI-n-BUTYL PHTHALATE	5.30E+01JBN
10–12	N-NITROSODIPHENYLAMINE	3.70E+01JN
12.2–14.2	DI-n-BUTYL PHTHALATE	4.50E+01JBN
14–23	N-NITROSODIPHENYLAMINE	6.30E+01JN
14.2–22.8	DI-n-BUTYL PHTHALATE	4.80E+01JBN
38.5–39	DI-n-BUTYL PHTHALATE	3.80E+01JBN
39–39	N-NITROSODIPHENYLAMINE	8.40E+01JBN
40.5–41	DI-n-BUTYL PHTHALATE	5.50E+01JBN
42.5–44	DI-n-BUTYL PHTHALATE	3.40E+01JBN

BH5687

8 14	BIS(2-ETHYLHEXYL)PHTHALATE	6.40E+01JA
8–14	BIS(2-ETHYLHEXYL)PHTHALATE	5.20E+01JA
14–20	BIS(2-ETHYLHEXYL)PHTHALATE	6.30E+01JA
20–26	BIS(2-ETHYLHEXYL)PHTHALATE	4.10E+01JA

10691 10891 10591 10791 10991

08091 12891 08191 08291 08491 08591

111.2 11.3 111.6 111.4 111.5 216.3

T-12

NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED

DRAFT

EXPLANATION

08191 ← LOCATION

2–8 ← SAMPLE INTERVAL (ft)

ANALYTE

ANALYTE CONCENTRATION (ug/kg) AND LAB AND VALIDATION QUALIFIERS

NOTE.
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A 1

EXPLANATION

09491 ⬡ SOURCE BOREHOLE LOCATION

01191A ⬡ ABANDONED M.W LOCATION

09291 ● BEDROCK MONITORING WELL LOCATION

00891 ○ ALLUVIAL MONITORING WELL LOCATION

06691 ⬢ SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL

111 4 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

U S. DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

SEMIVOLATILE ORGANIC COMPOUNDS
S E. TRENCHES AREA
SUBSURFACE SOILS

FIGURE C 24 JULY 1994

00281532 1=200

-N-

0 100 200

SCALE IN FEET

CENTRAL AVE

5940

5920

5900

5880

5860

5840

3387/BH5687

BH5587

BH5387

08091

12891

08191

BH4787

10591

08391

BH4987

BH5087

08291

BH5287

BH5487

08491

BH4687

08591

BH5187

10691

10891

10791

10991

1112

1113

1114

1115

1116

1213

2163

07991

2-8|AROCLOR-1254|2.50E+02V

NOTE.

ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE CHEMICALS WERE DETECTED

EXPLANATION

09491 ⬡	SOURCE BOREHOLE LOCATION
01191A ⬡	ABANDONED M.W LOCATION
00291 ●	BEDROCK MONITORING WELL LOCATION
00691 ○	ALLUVIAL MONITORING WELL LOCATION
06691 ⬢	SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
111 4	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

DRAFT

EXPLANATION

08191 ← LOCATION

2–8

- 2–8: SAMPLE INTERVAL (ft)
- ANALYTE
- ANALYTE CONCENTRATION (ug/kg) AND LAB AND VALIDATION QUALIFIERS

NOTE

ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/kg (parts per billion) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A 1.

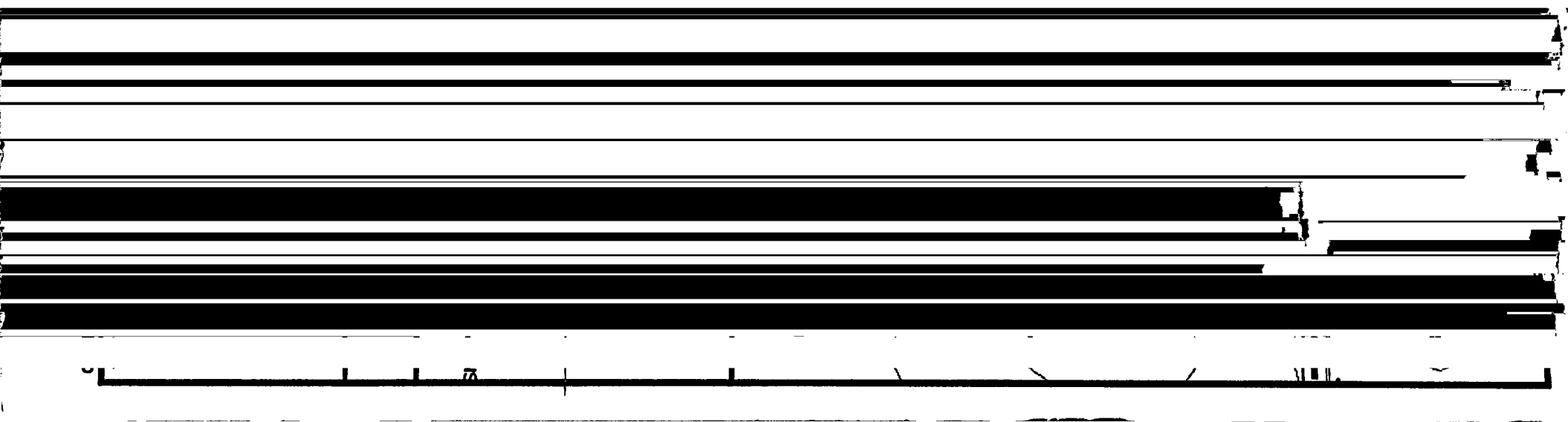
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

PESTICIDES/PCBs
S E. TRENCHES AREA
SUBSURFACE SOILS

FIGURE C 25 JULY 1994

0028G543 1=200



-N-

0 100 200

SCALE IN FEET

CENTRAL AVE

5920

5900

5880

5860

5840

111 2

111 3

111 4

111 5

111 6

216.3

T-12

46792

0-3	Am-241	4.85E+00V
0-3	Pu-239/240	3.14E+01A
0-3	U-235	1.52E-01JV

46892

B215389

0-3	Am-241	3.10E-02
0-3	Pu-239/240	1.31E-01
3-7	Pu-239/240	4.80E-02
15-19	Pu-239/240	2.10E-02
23-26	U-235	1.80E-01

07991

2-6	Pu-239/240	1.22E-01A
2-6	U-233,234	2.88E+00A
2-6	U-235	1.27E-01A
2-6	U-238	2.93E+00A
14-20	U-235	1.35E-01A

BH4787

4-5	Am-241	6.00E-02N
6-7	Am-241	6.00E-02N
6-7	Pu-239/240	2.00E-02
6-8	Pu-239/240	6.00E-02
10-11	Am-241	4.00E-02N
12-13	Am-241	1.00E-01N
15-16	Am-241	6.00E-02N
15-16	Pu-239/240	2.00E-02
21-21	Am-241	9.00E-02N
21-21	Pu-239/240	3.00E-02
23-24	Am-241	5.00E-02N
26-27	Pu-239/240	4.00E-02
27 28	Am-241	1.00E-01N
27 28	Pu-239/240	1 10E-01

B318889

11 14 Pu-239/240 2.00E-02

BH5387

0-19	Am 241	5.30E-01N
0-19	Pu-239/240	6.00E+00
2-4	Am-241	6.00E-02N
2-4	Pu-239/240	9.80E-01
6-8	Am-241	2.00E-02N
6-8	Pu-239/240	1 40E-01
8-10	Am-241	4.00E-02N
8-10	Pu-239/240	1.30E-01
14-16	Am-241	3.00E-02N
14-16	Pu-239/240	3.00E-02
16-18	Am-241	7.00E-02N
19-21	Am-241	1.00E-01N
21 23	Am-241	7.00E-02N

BH4887

6-7	Am-241	2.00E-02N
6-7	Am-241	3.00E-02N
6-7	Pu-239/240	3.00E-02
6-7	Pu-239/240	1.50E-01
13-15	Pu-239/240	2.00E-02

08091

2-8 Pu-239/240 1 90E-02A

3387/BH5687

10-10	Am-241	4.00E-02N
12 14	Am-241	9.00E-02N
17 19	Am-241	8.00E-02N
17-19	U-233,234	3.40E+00N
17 19	U-238	3.90E+00N
20-22	Am-241	3.00E-02N
20-22	Pu 239/240	2.00E-02
22 24	Pu 239/240	2.00E-02

BH5587

2-3	Pu 239/240	6.00E-02
10-11	Pu-239/240	9.00E-02
12 14	Pu 239/240	7.00E-02
15-24	Am-241	1.00E-01N
15-24	Pu 239/240	7.00E-02
27-29	Pu 239/240	8.00E-02
30-32	Pu-239/240	3.00E-02
32 34	Pu 239/240	5.00E-02
35-37	Pu 239/240	5.00E-02

08191

1-8	Pu-239/240	2.20E-02JA
26-32	Am-241	4.80E-02V
32 38	Am-241	1.30E-02JA
32 38	Pu-239/240	2.30E-02JV

10691

2-8	Pu-239/240	2.70E-02JA
14-20	Am-241	1.30E-02JA
14-20	Pu-239/240	5.10E-02A
20-26	Am-241	2.60E-02A
20-26	Pu-239/240	1.00E-01A
26-32	Pu-239/240	2.00E-02JA
32-38	Am-241	4.20E-02A
32-38	Pu-239/240	3.40E-01A
38-44	Pu-239/240	1.50E-01A

12891

08291

0-3	Am-241	8.80E-01V
0-3	Pu-239/240	2.80E+00A
3-7	Pu-239/240	4.12E-01A
7-17	Pu-239/240	1.80E-02A

B319789

0-3 Pu-239/240 1.80E-02

10891

2-8	Am-241	1.53E-02JA
2-8	Pu-239/240	5.36E-01A
14-20	Pu-239/240	5.50E-02A
14-20	U-238	1.66E+00A
26-32	Pu-239/240	2.20E-02A
26-32	U-235	1.38E-01A

B218189

0-3	Am-241	6.80E-02
0-3	Pu-239/240	1.18E-01A
3-5	Pu-239/240	1.80E-02A
5-6	Am-241	2.80E-02
21-26	Am-241	1.28E-02
21-26	Pu-239/240	2.10E-02
30-34	Am-241	1.68E-02
35-40	Am-241	3.00E-02
48-52	U-235	2.40E-01

10791

14-20	Pu-239/240	1.20E-01A
20-26	Pu-239/240	2.20E-02JV
20-26	U-235	1.80E-01JV
26-32	Am-241	1.20E-02JA
32 38	U 235	1.50E-01JV

10991

2-8	Am-241	5.45E-02A
2-8	Pu-239/240	2.23E-01A
8-14	Am-241	3.80E-02A
8-14	Pu-239/240	3.46E-01A
14-20	Pu-239/240	2.78E-02JA
32 38	Pu-239/240	1.80E-02BJV
38-44	Pu-239/240	4.00E-02BV
50-56	Am-241	2.10E-02A

BH5487

2-4	Am-241	5.00E-02N
2-4	Pu-239/240	3.10E-01
6-8	Pu-239/240	2.00E-02
8-10	Am-241	3.00E-02N
10-12	Pu-239/240	1 10E-01
12 14	Pu-239/240	1 10E-01
24-33	Am-241	6.00E-02N
38-39	Am-241	6.00E-02N
41-41	Am-241	4.00E-02N
43-44	Am-241	2.00E-02N
43-44	Pu-239/240	4.00E-02

10591

8-14	Am-241	4.20E-02A
8-14	Pu-239/240	3.90E-01A
14-18	Pu-239/240	1.80E-01A

08591

20-26 U-235 1.30E-01JA

BH5287

0-10	Am-241	1.40E-01N
0-10	Pu-239/240	5.80E-01
12-13	Am-241	1.00E-01N
22 24	Am-241	3.00E-02N
24-25	Pu-239/240	2.00E-02

BH4987

6-7	Am-241	2.00E-02N
6-7	Pu-239/240	1.00E-01
20-22	Am-241	4.00E-02N

B216989

7 11 Pu-239/240 2.00E-02

BH5087

12 13	Am-241	2.00E-02N
15-17	Pu-239/240	1.30E-01
17 20	Am-241	2.00E-02N

B218689

0-3	Am-241	8.80E-01V
0-3	Pu-239/240	2.80E+00A
3-7	Pu-239/240	4.12E-01A
7-17	Pu-239/240	1.80E-02A

08491

2-8	Pu-239/240	8.40E-02V
8-14	Pu-239/240	2.40E-01V

BH5187

12-14	Am-241	5.00E-02N
17 20	Pu-239/240	4.00E-02

NOTE

ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

EXPLANATION

09491 ⬡	SOURCE BOREHOLE LOCATION
01191A ⬡	ABANDONED M.W LOCATION
00291 ●	BEDROCK MONITORING WELL LOCATION
00891 ○	ALLUVIAL MONITORING WELL LOCATION
06691 ⬢	SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
111 4	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

DRAFT

EXPLANATION

08691 ← LOCATION

0-11

- 0-11: SAMPLE INTERVAL (ft)
- ANALYTE
- ANALYTE ACTIVITY (pCi/g) AND LAB AND VALIDATION QUALIFIERS

NOTE

ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g ABBREVIATIONS AND LAB VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A 1

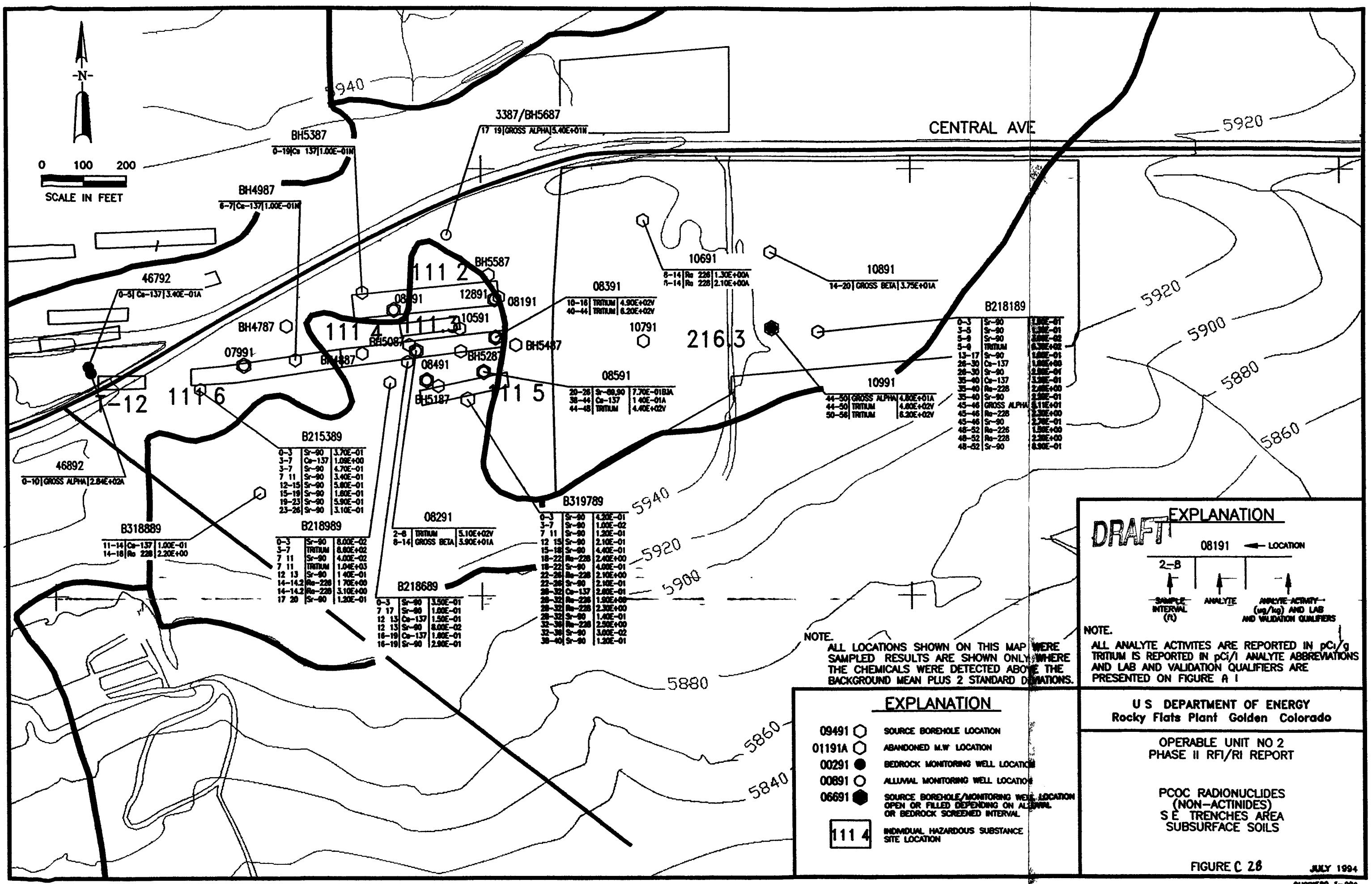
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

PCOC ACTINIDES
S E TRENCHES AREA
SUBSURFACE SOILS

FIGURE C 27 JULY 1994

OU2R985 1=200



DRAFT

EXPLANATION

08191 ← LOCATION

2-8

SAMPLE INTERVAL (ft) | ANALYTE | ANALYTE ACTIVITY (wg/kg) AND LAB AND VALIDATION QUALIFIERS

NOTE.
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g TRITIUM IS REPORTED IN pCi/l ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A 1

NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

EXPLANATION

09491 ⬡ SOURCE BOREHOLE LOCATION

01191A ⬡ ABANDONED M.W LOCATION

00291 ● BEDROCK MONITORING WELL LOCATION

00891 ○ ALLUVIAL MONITORING WELL LOCATION

06691 ⬢ SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL

111 4 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

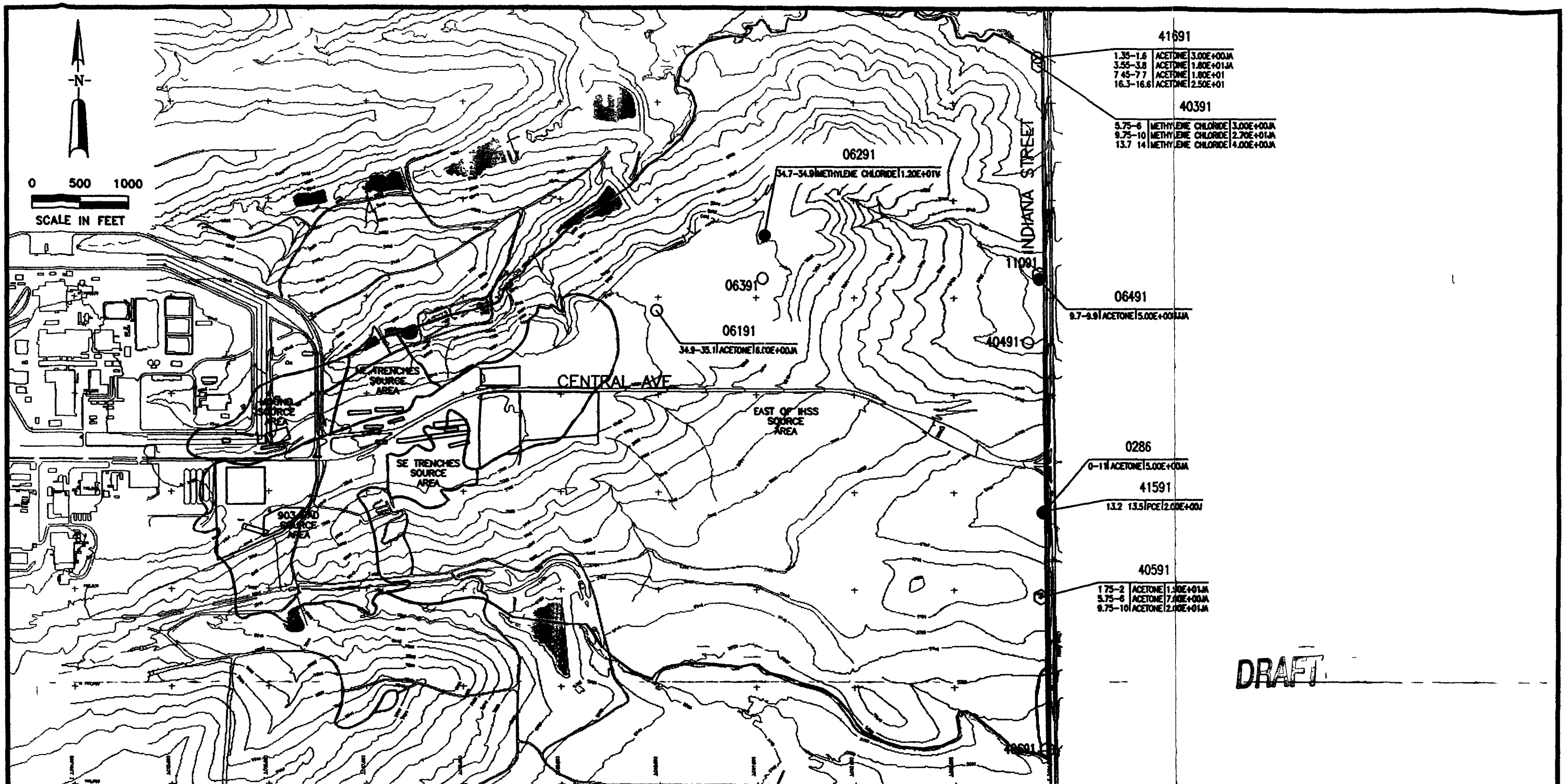
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

PCOC RADIONUCLIDES
(NON-ACTINIDES)
S E TRENCHES AREA
SUBSURFACE SOILS

FIGURE C 28 JULY 1994

OU2RI580 T=200



NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED

EXPLANATION

08691 ← LOCATION

0-11 ↑ SAMPLE INTERVAL (ft)

ANALYTE

ANALYTE ACTIVITY (Mg/kg) AND LAB AND VALIDATION QUALIFIERS

NOTE.
ALL ANALYTE ACTIVITES ARE REPORTED IN g/kg (parts per billion) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A 1

EXPLANATION

09491 ⬡	SOURCE BOREHOLE LOCATION
01191A ⬡	ABANDONED M W LOCATION
00291 ●	BEDROCK MONITORING WELL LOCATION
00891 ○	ALLUVIAL MONITORING WELL LOCATION
06691 ⬢	SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
111 4	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

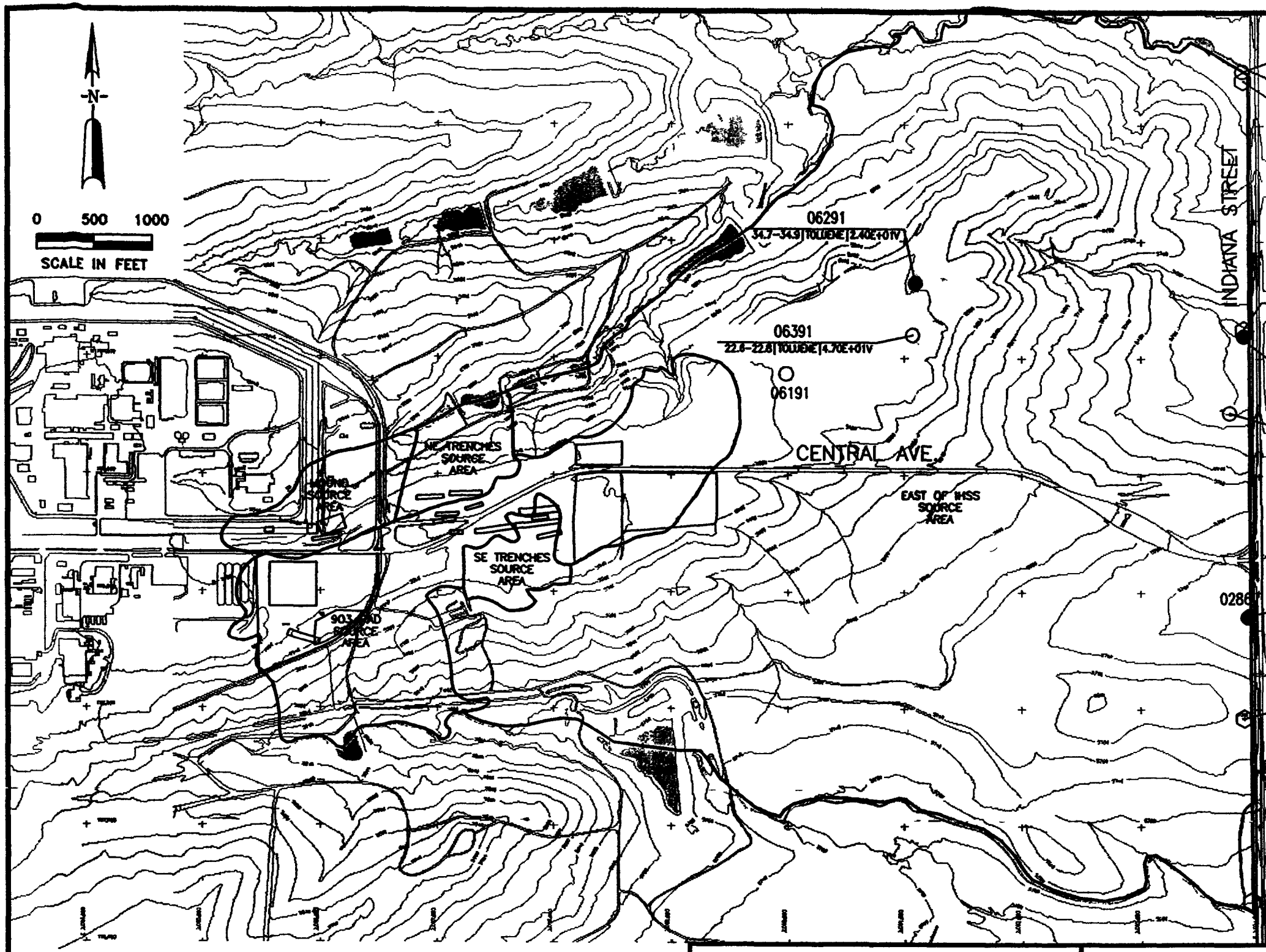
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

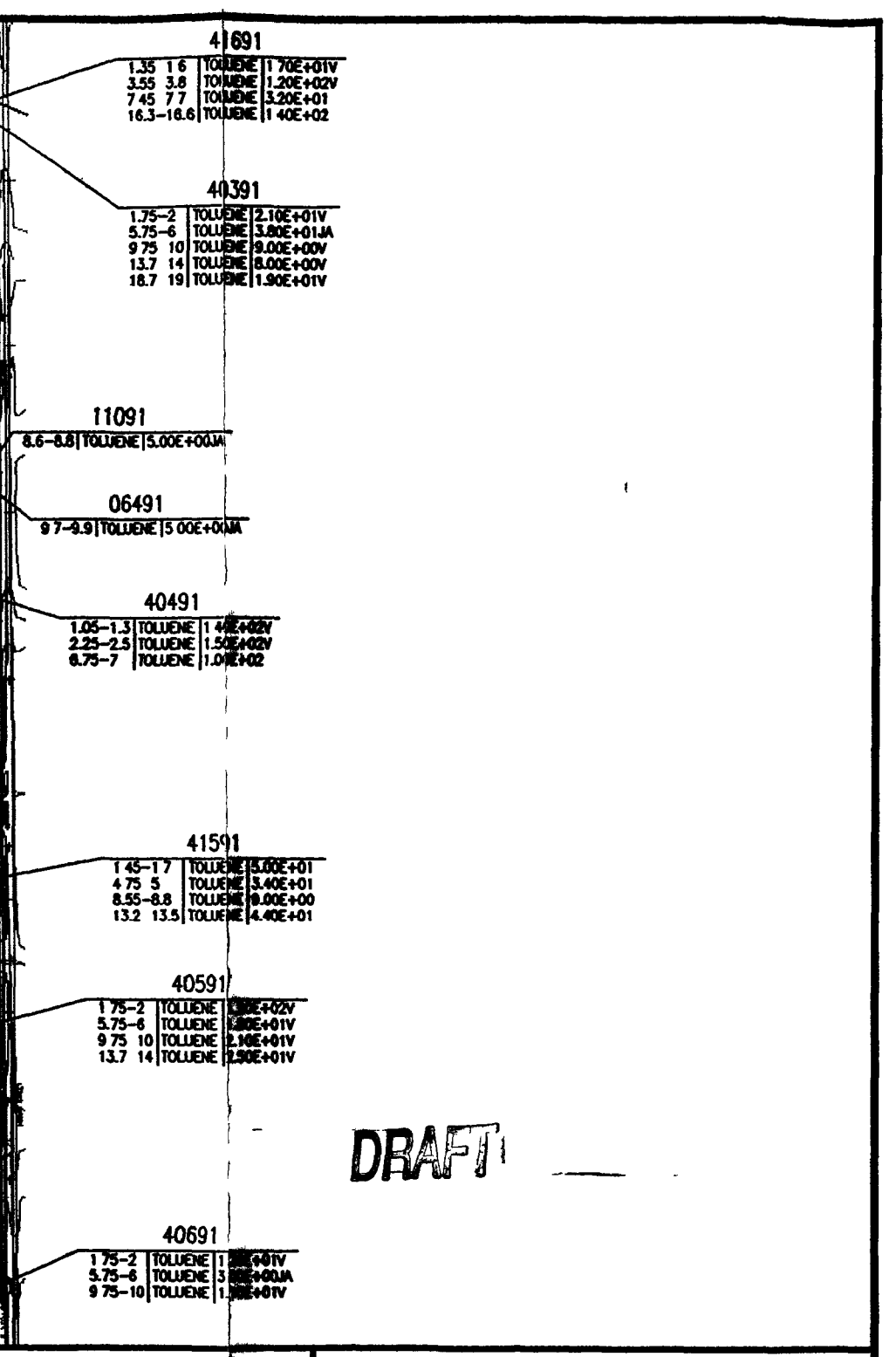
OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

VOLITILE ORGANIC COMPOUNDS
EAST OF IHSSs AREA
SUBSURFACE SOILS

FIGURE C-29 JULY 1994

OU2RI533 1=1000

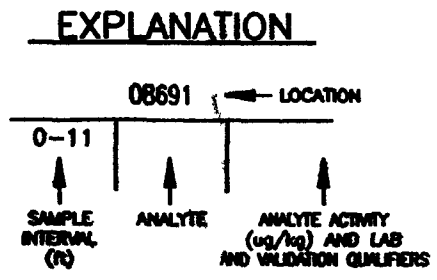




DRAFT

NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED

EXPLANATION



NOTE.
ALL ANALYTE ACTIVITES ARE REPORTED IN ug/kg (parts per billion) ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

EXPLANATION

09491 SOURCE BOREHOLE LOCATION
01191A ABANDONED M W LOCATION
00291 BEDROCK MONITORING WELL LOCATION
00891 ALLUVIAL MONITORING WELL LOCATION
06691 SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
111 4 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

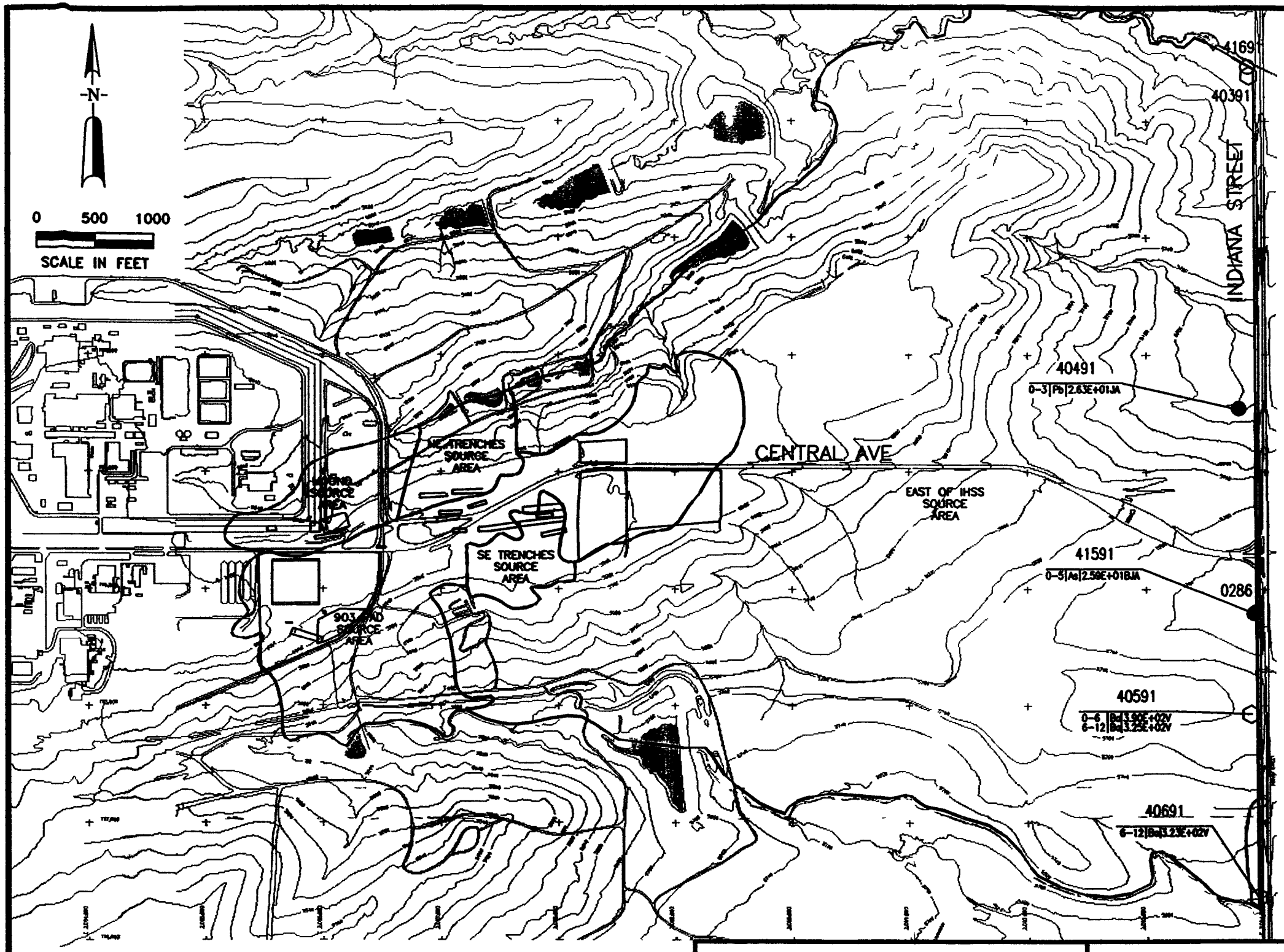
U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

TOLUENE
EAST OF IHSSs AREA
SUBSURFACE SOILS

FIGURE C-30 JULY 1994

OU2R538 1=1000



DRAFT

NOTE.
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS

EXPLANATION

08691 ← LOCATION

0-11

- SAMPLE INTERVAL (ft)
- ANALYTE
- ANALYTE CONCENTRATION (mg/kg) AND LAB AND VALIDATION QUALIFIERS

NOTE
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/kg (parts per million) ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

EXPLANATION

- 09491 ⬡ SOURCE BOREHOLE LOCATION
- 01191A ⬡ ABANDONED M.W LOCATION
- 00291 ● BEDROCK MONITORING WELL LOCATION
- 00891 ○ ALLUVIAL MONITORING WELL LOCATION
- 06691 ⬢ SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALL OR BEDROCK SCREENED INTERVAL
- 111 4 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

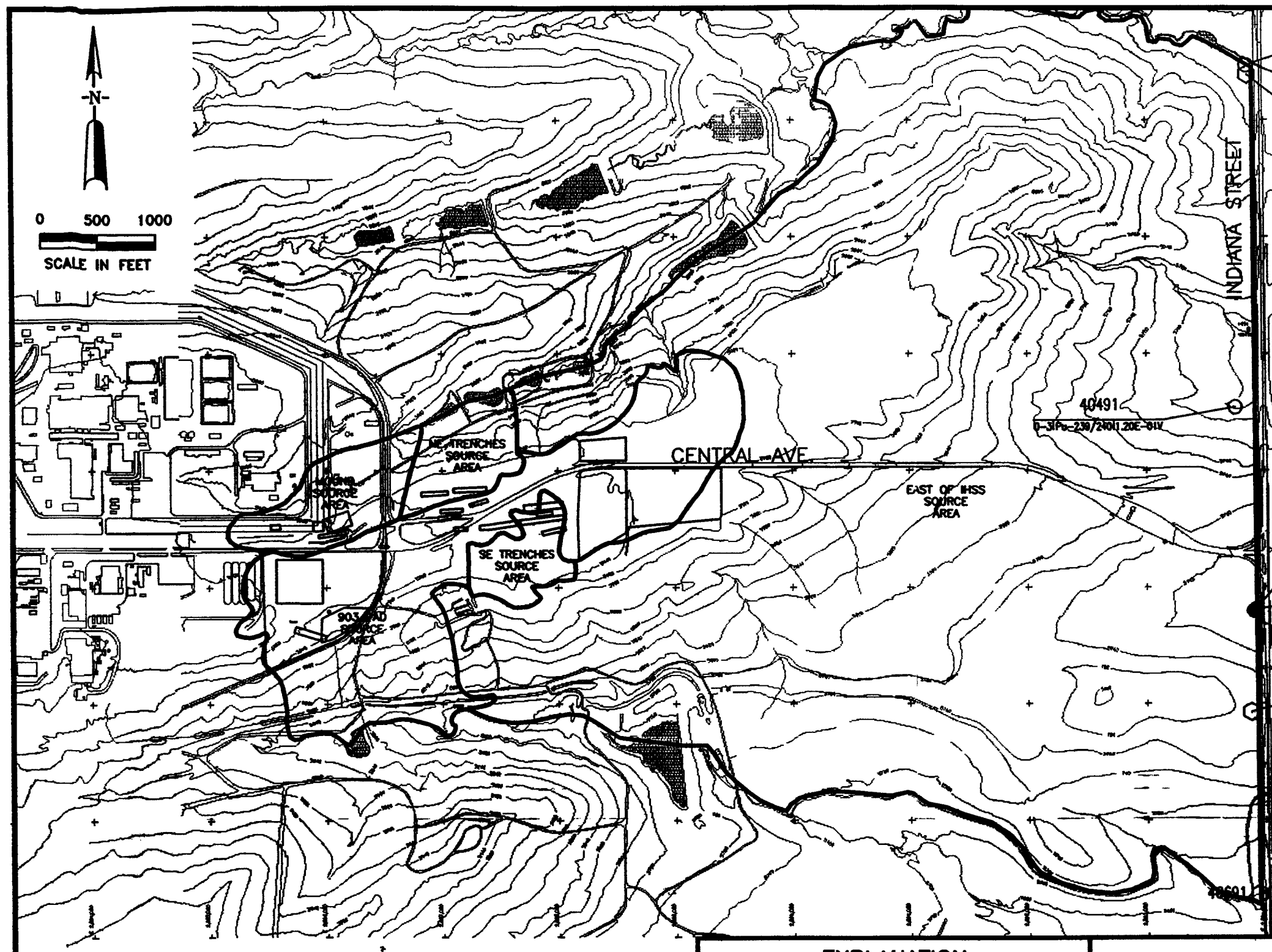
U S DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden Colorado

OPERABLE UNIT NO 2
CDPHE CONSERVATIVE SCREEN

PCOC METALS
EAST OF IHSSs AREA
SUBSURFACE SOILS

FIGURE C-31 SEPTEMBER 1994

CDPHE007 1=1000



DRAFT

EXPLANATION

08691 ← LOCATION

0-11

- 0-11: SAMPLE INTERVAL (ft)
- ANALYTE
- ANALYTE ACTIVITY (pCi/g) AND LAB AND VALIDATION QUALIFIERS

NOTE.
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/g
ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A 1

EXPLANATION

- 09491 ⬡ SOURCE BOREHOLE LOCATION
- 01191A ⬡ ABANDONED M W LOCATION
- 00291 ● BEDROCK MONITORING WELL LOCATION
- 00891 ○ ALLUVIAL MONITORING WELL LOCATION
- 06691 ⬢ SOURCE BOREHOLE/MONITORING WELL LOCATION OPEN OR FILLED DEPENDING ON ALLUVIAL OR BEDROCK SCREENED INTERVAL
- 111 4 INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

NOTE
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS

U S DEPARTMENT OF ENERGY
Rocky Flats Plant Golden Colorado

OPERABLE UNIT NO 2
PHASE II RFI/RI REPORT

PCOC ACTINIDES
EAST OF IHSS AREAS
SUBSURFACE SOILS

FIGURE C-32 JULY 1994

0028366 1=1000

EXPLANATION

- 3786 ○ ALLUVIAL MONITORING WELL
- 3087 ● BEDROCK MONITORING WELL
- 4286A ○ ABANDONED MONITORING WELL
- INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

76292 ← LOCATION

2/26/92 — SAMPLE DATE; ANALYTE; ANALYTE CONCENTRATION (mg/l), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/l (parts per million). ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED.

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

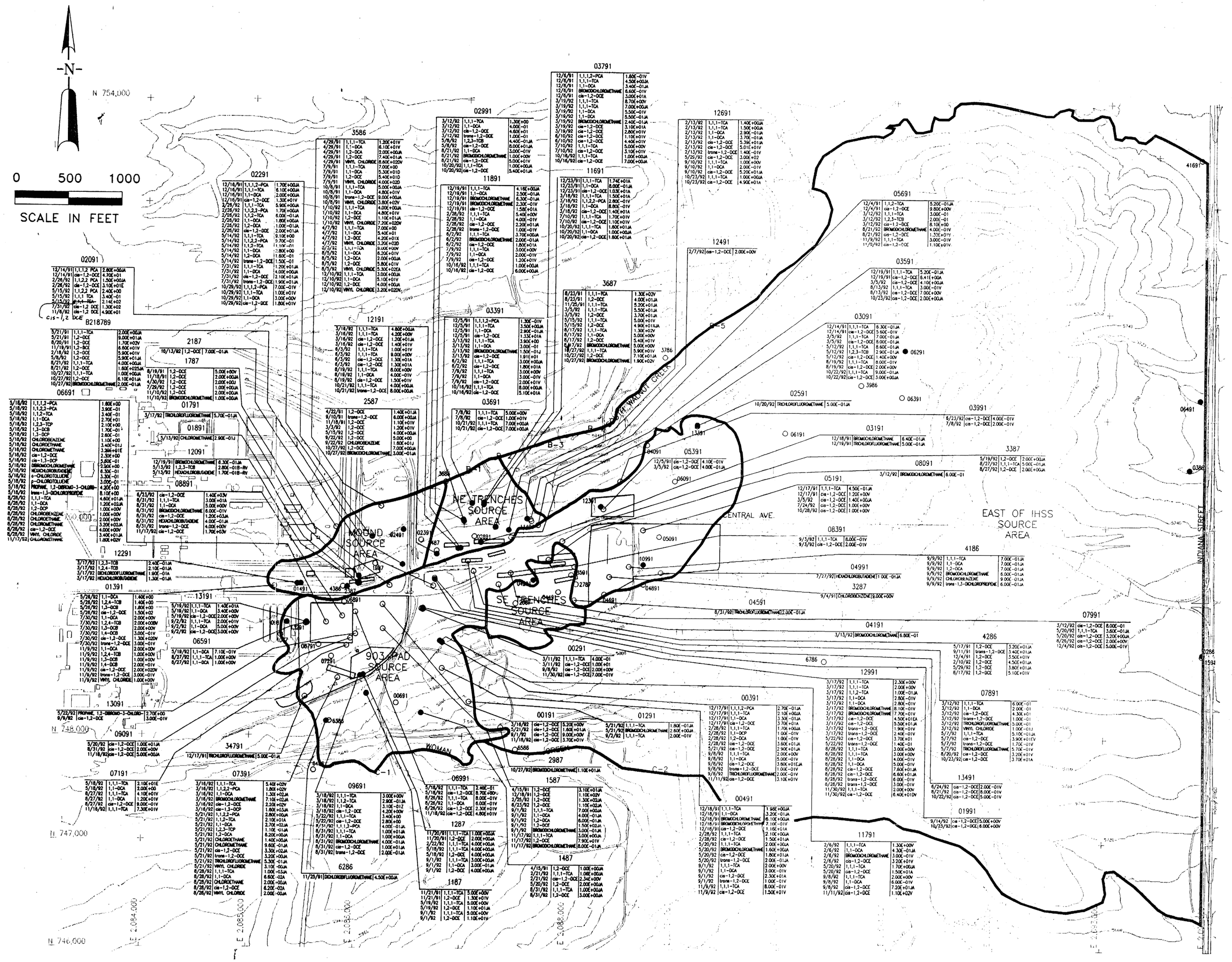
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

DRAFT

NITRATE/NITRITE
USHU GROUNDWATER
(SECOND QUARTER 1991 – FOURTH QUARTER 1992)

PLATE – D-13 JULY 1994

OU2RI642 1=500



EXPLANATION

- 3786 ○ ALLUVIAL MONITORING WELL
- 3087 ● BEDROCK MONITORING WELL
- 4286A ○ ABANDONED MONITORING WELL
- INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

76292 ← LOCATION
2/26/92
SAMPLE DATE | ANALYTE | ANALYTE CONCENTRATION (ug/l), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/l (parts per billion). ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

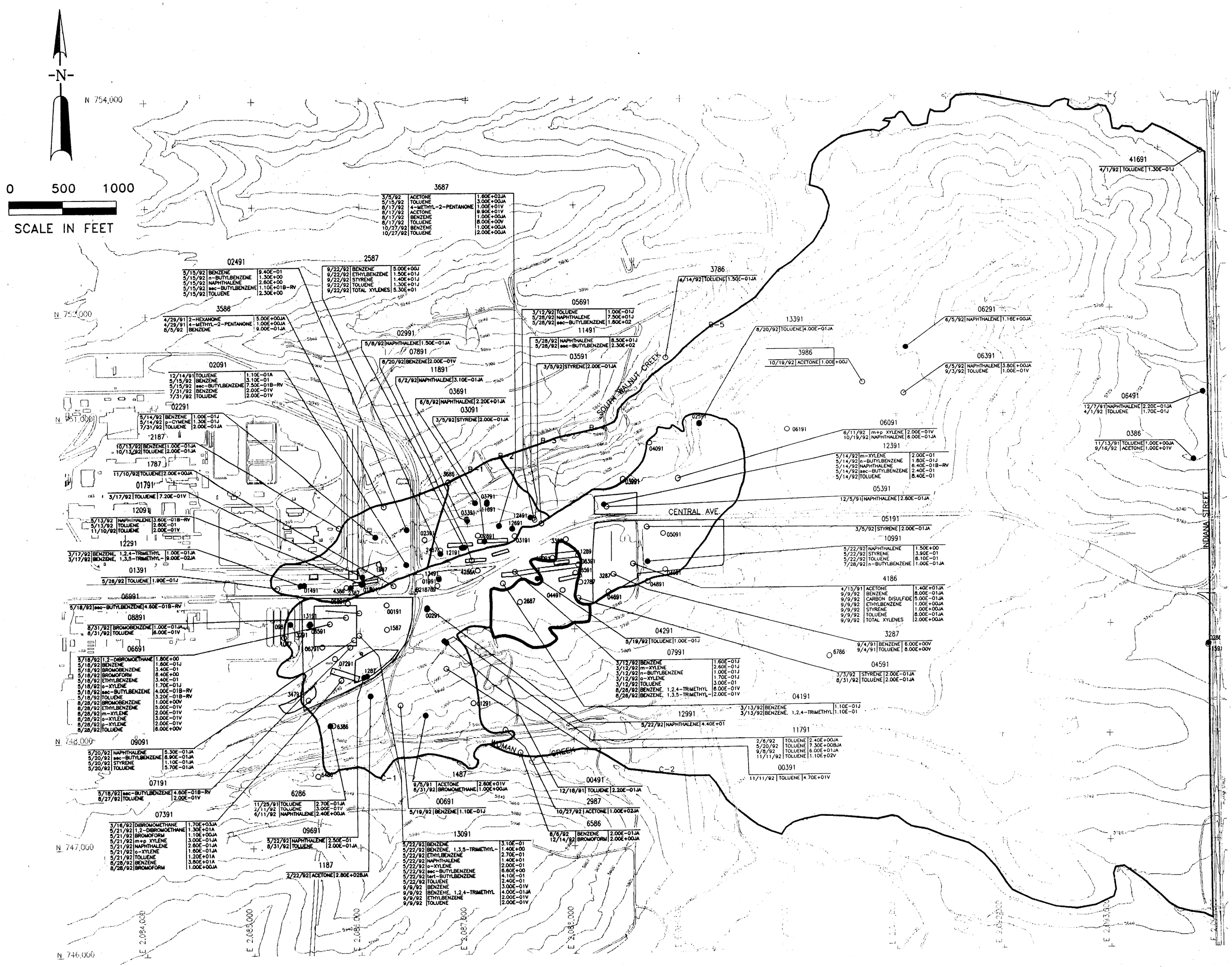
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED.

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT DRAFT

VOLATILE ORGANIC COMPOUNDS CHLORINATED HYDROCARBONS (NON – COCs) UHSU GROUNDAWATER (SECOND QUARTER 1991–FOURTH QUARTER 1992)

PLATE – D-3 JULY 1994



EXPLANATION

- 3786 ○ ALLUVIAL MONITORING WELL
- 3087 ● BEDROCK MONITORING WELL
- 4286A ○ ABANDONED MONITORING WELL
- INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

76292 ← LOCATION

2/26/92 | ANALYTE | ANALYTE CONCENTRATION (ug/l), LAB QUALIFIERS, AND VALIDATION CODES

SAMPLE DATE

NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/l (parts per billion). ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

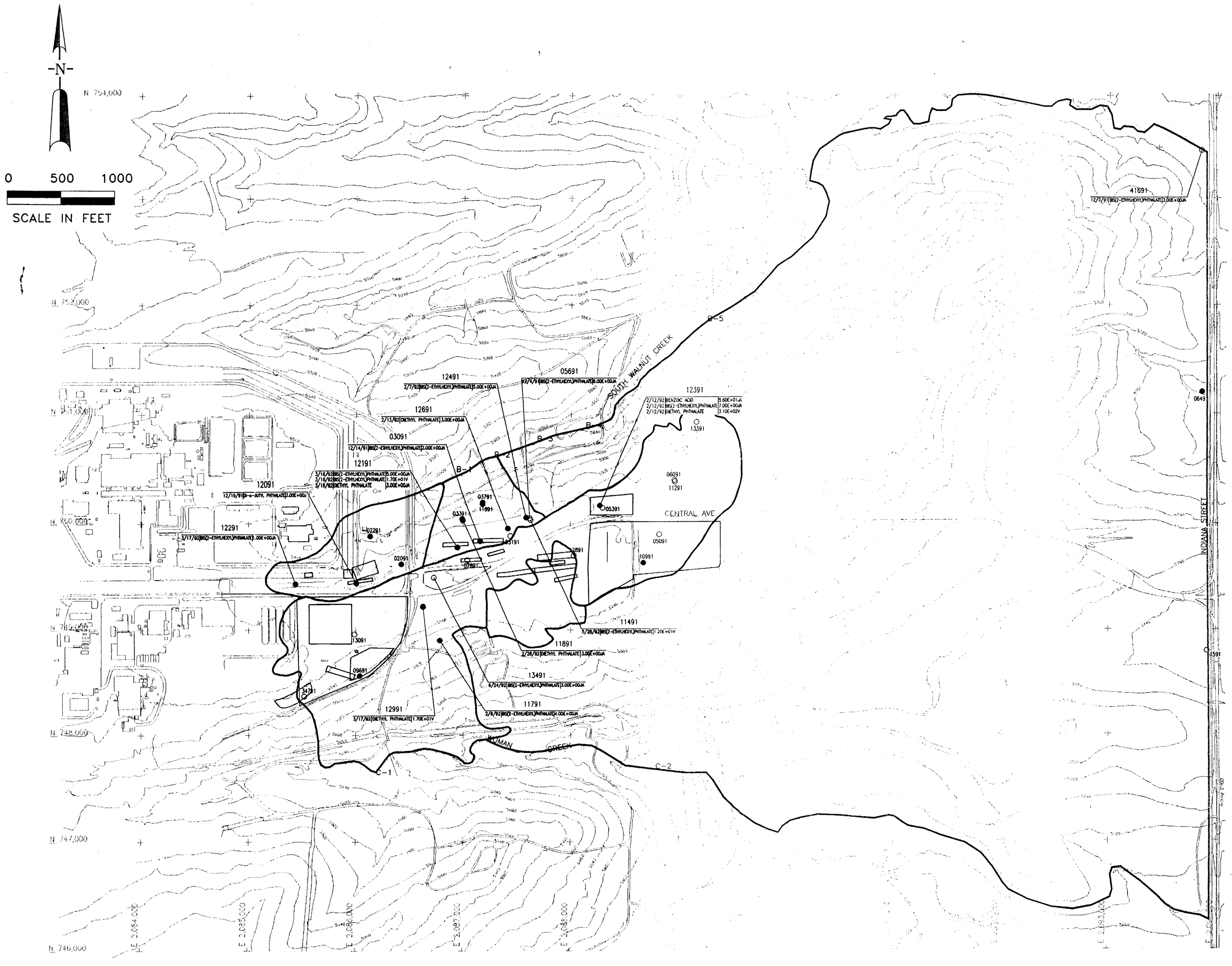
NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED.

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT DRAFT

VOLATILE ORGANIC COMPOUNDS (NON-CHCs AND NON-COCs) UHSU GROUNDWATER (SECOND QUARTER 1991-FOURTH QUARTER 1992)

PLATE - D-4 JULY 1994



EXPLANATION

- 3786 ○ ALLUVIAL MONITORING WELL
- 3087 ● BEDROCK MONITORING WELL
- 4286A ○ ABANDONED MONITORING WELL
- INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

03091 ← LOCATION
2/26/92
↑ SAMPLE DATE
↑ ANALYTE
↑ ANALYTE CONCENTRATION (ug/l), LAB QUALIFIERS, AND VALIDATION CODES

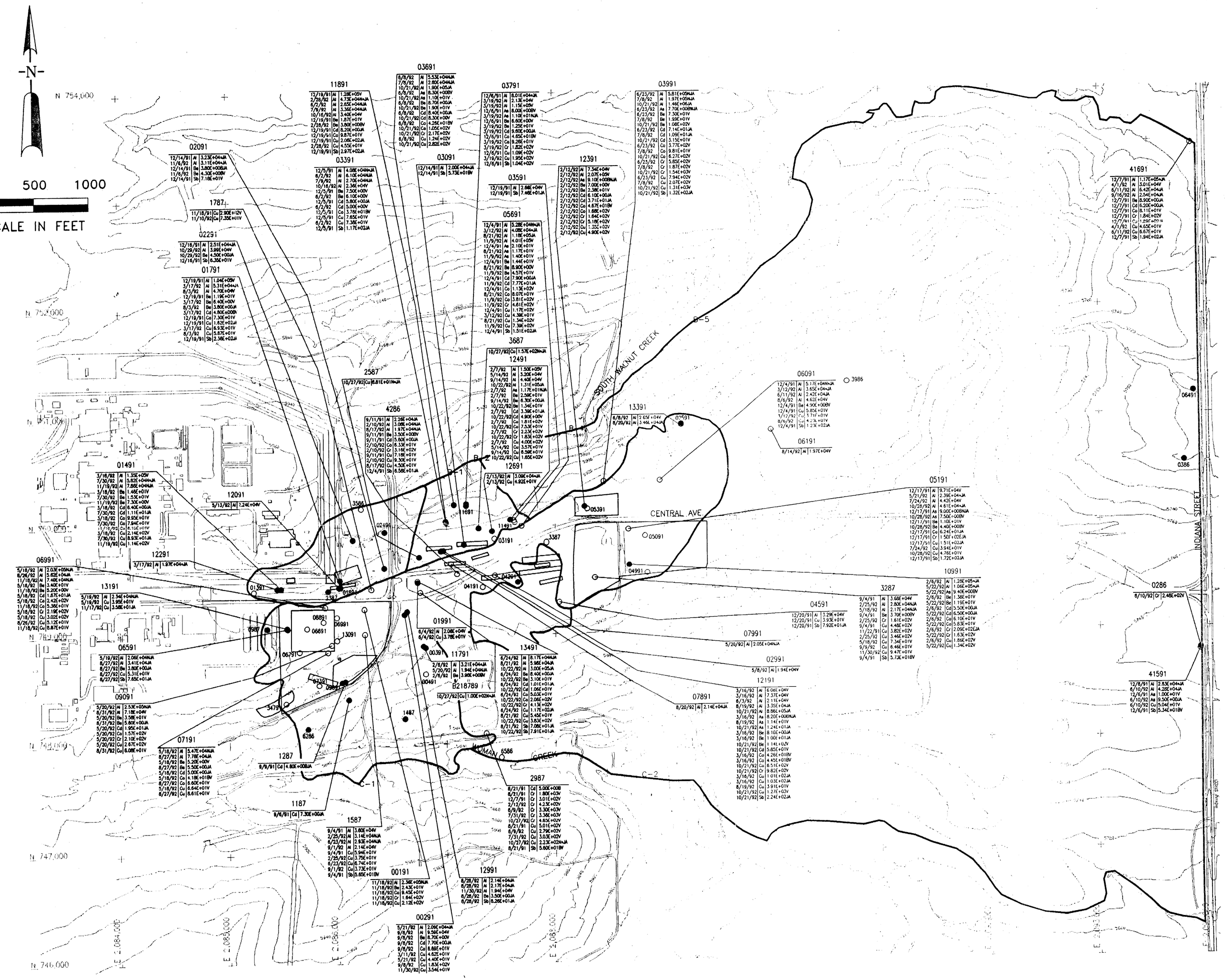
NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/l (parts per billion). ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT DRAFT

SEMIVOLATILE ORGANIC COMPOUNDS UHSU GROUNDWATER (SECOND QUARTER 1991 - FOURTH QUARTER 1992)

PLATE - D-5 JULY 1994



EXPLANATION

- 3786 ○ ALLUVIAL MONITORING WELL
- 3087 ● BEDROCK MONITORING WELL
- 4286A ○ ABANDONED MONITORING WELL
- INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

00191 ← LOCATION

2/26/92 ← SAMPLE DATE; ANALYTE; ANALYTE CONCENTRATION (ug/l), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/l (parts per billion). ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

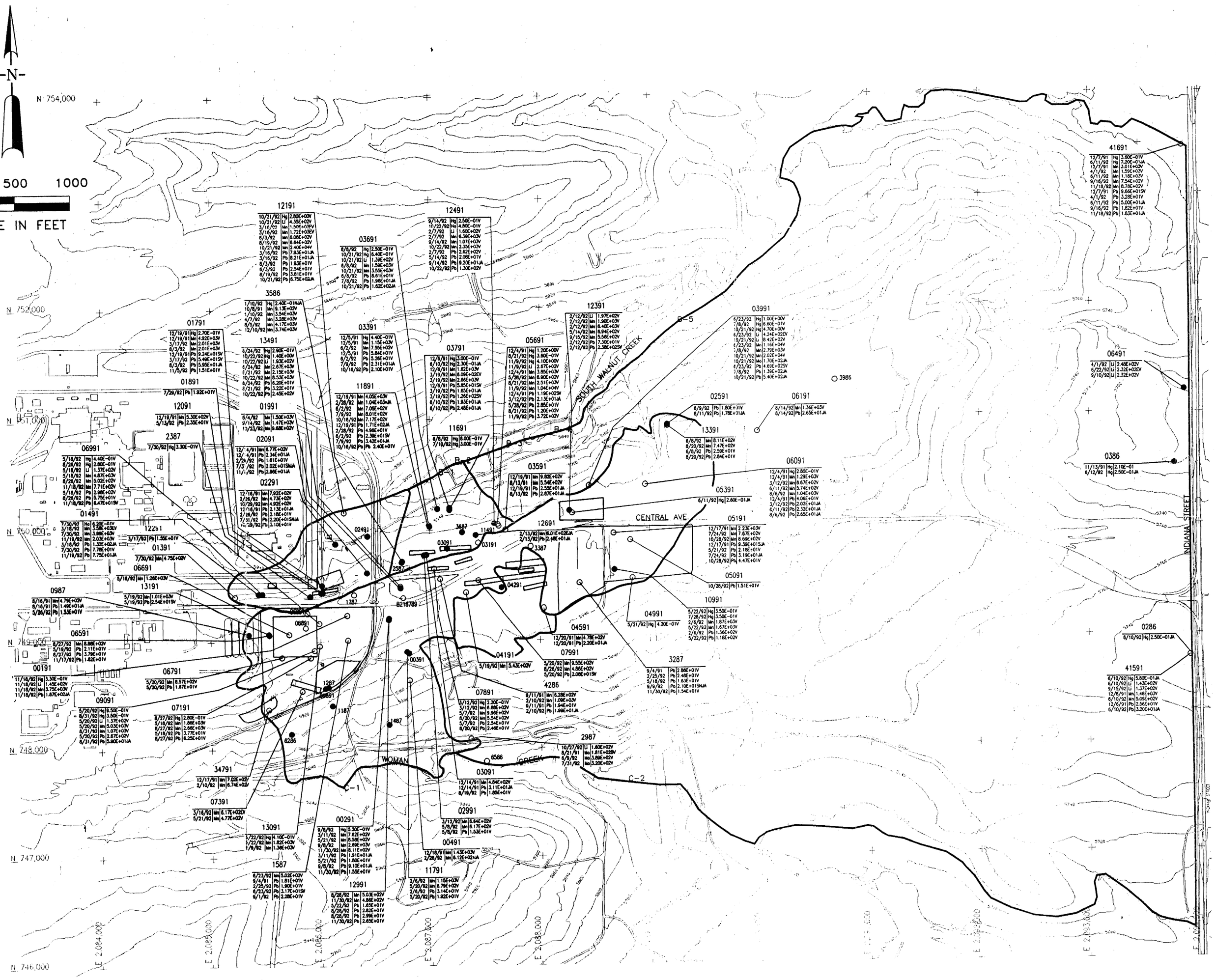
U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

DRAFT

PCOC UNFILTERED METALS (BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS) ALUMINUM – COPPER UHSU GROUNDWATER (SECOND QUARTER 1991 – FOURTH QUARTER 1992)

PLATE – D-7 JULY 1994



EXPLANATION

- 3786 ○ ALLUVIAL MONITORING WELL
- 3087 ● BEDROCK MONITORING WELL
- 4286A ○ ABANDONED MONITORING WELL
- INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

76292 ← LOCATION

3/26/92 ↑ SAMPLE DATE; ANALYTE; ANALYTE CONCENTRATION (ug/l), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/l (parts per billion). ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

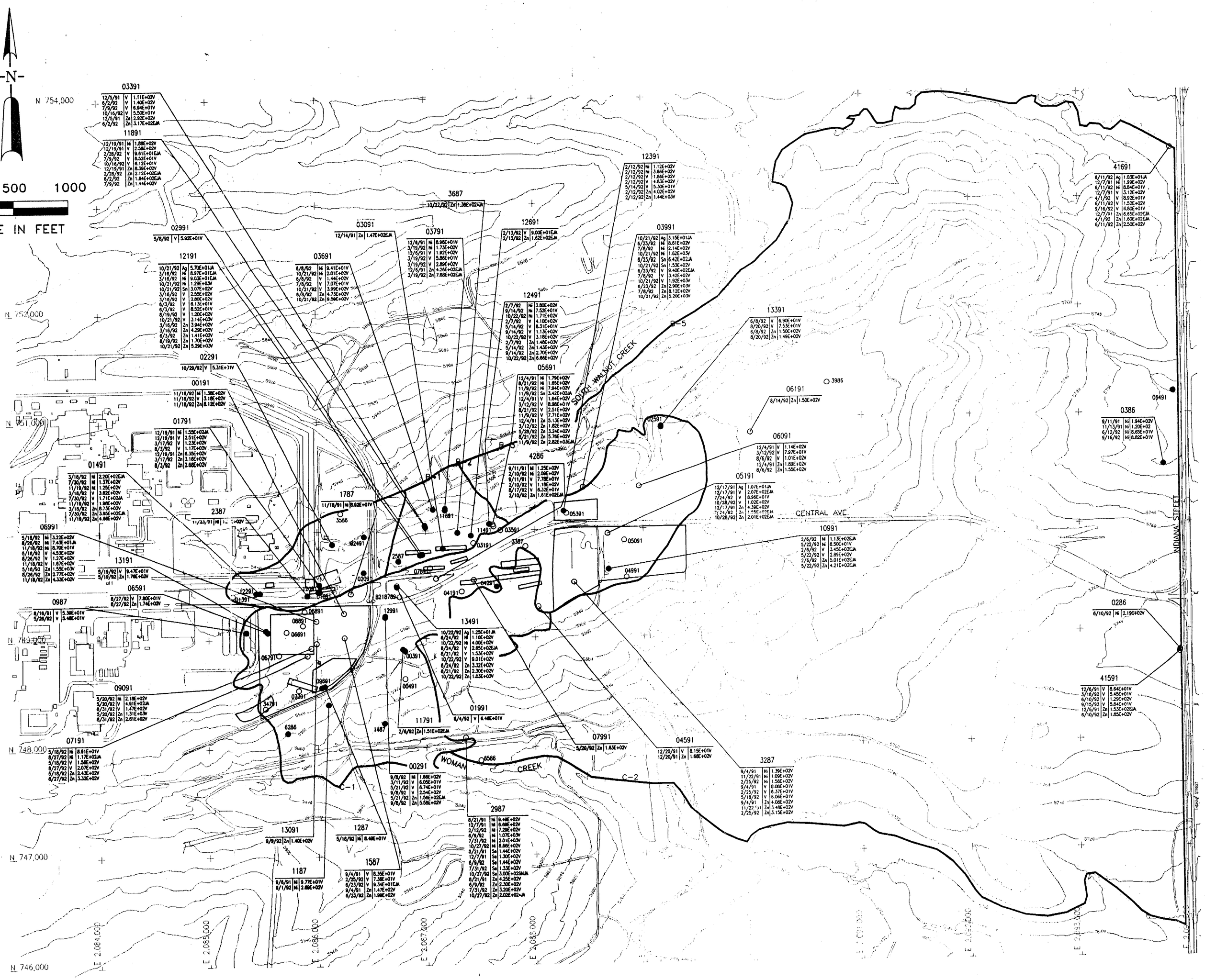
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

DRAFT

PCOC UNFILTERED METALS (BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS) LEAD – MOLYBDENUM UHSU GROUNDWATER (SECOND QUARTER 1991 – FOURTH QUARTER 1992)

PLATE – D-8 JULY 1994

0U2RI501 1=500



EXPLANATION

- 3786 ○ ALLUVIAL MONITORING WELL
- 3087 ● BEDROCK MONITORING WELL
- 4286A ○ ABANDONED MONITORING WELL
- INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

00191 ← LOCATION

2/26/92 ← SAMPLE DATE; ANALYTE; ANALYTE CONCENTRATION (ug/l), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/l (parts per billion). ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

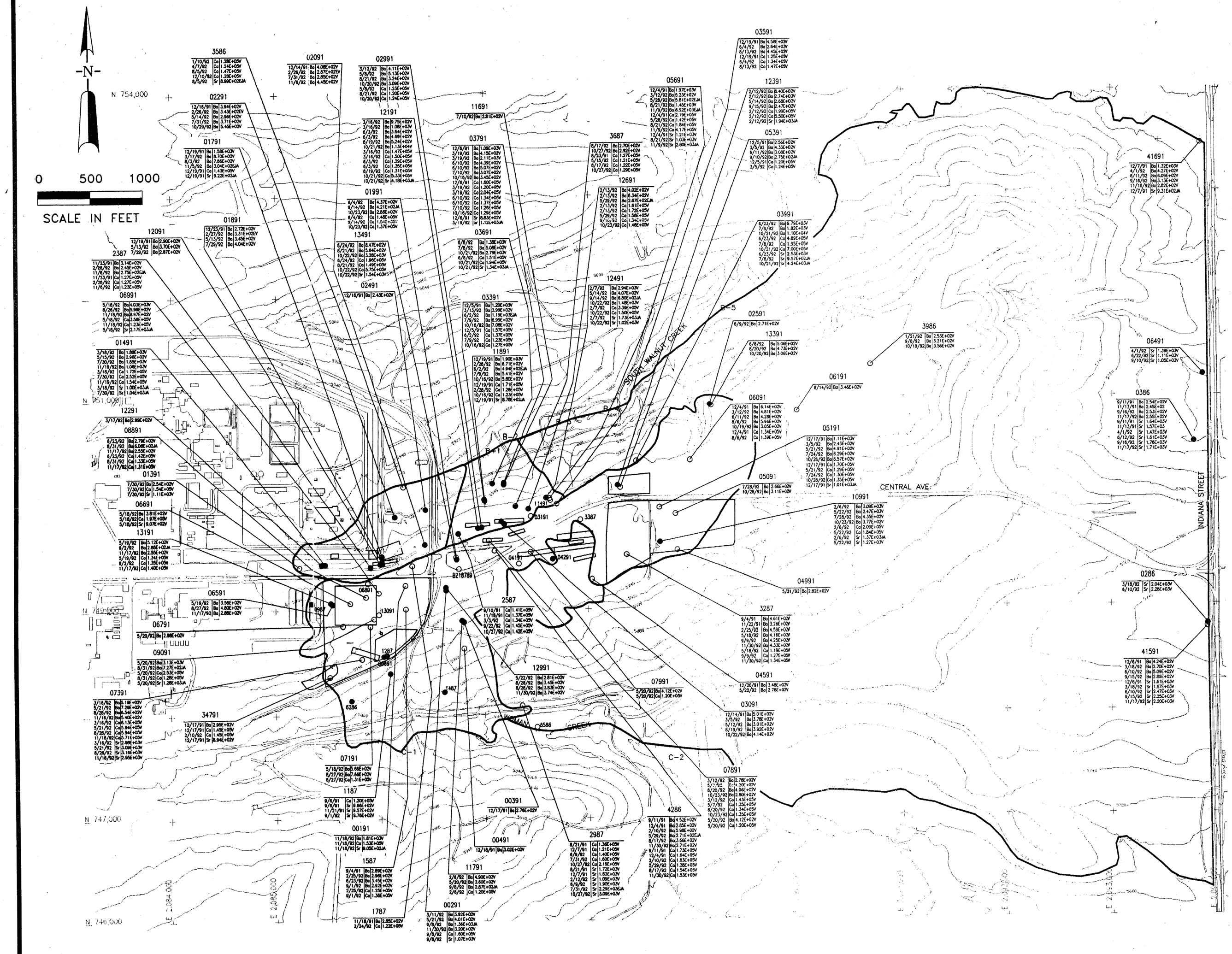
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

DRAFT

PCOC UNFILTERED METALS (BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS) NICKEL – ZINC UHSU GROUNDWATER (SECOND QUARTER 1991 – FOURTH QUARTER 1992)

PLATE – D-9 JULY 1994

0U2RI502 1=500



EXPLANATION

- 3786 ○ ALLUVIAL MONITORING WELL
- 3087 ● BEDROCK MONITORING WELL
- 4286A ○ ABANDONED MONITORING WELL
- INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

76292 ← LOCATION

2/26/92 ← SAMPLE DATE | ANALYTE | ANALYTE CONCENTRATION (ug/l), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/l (parts per billion). ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

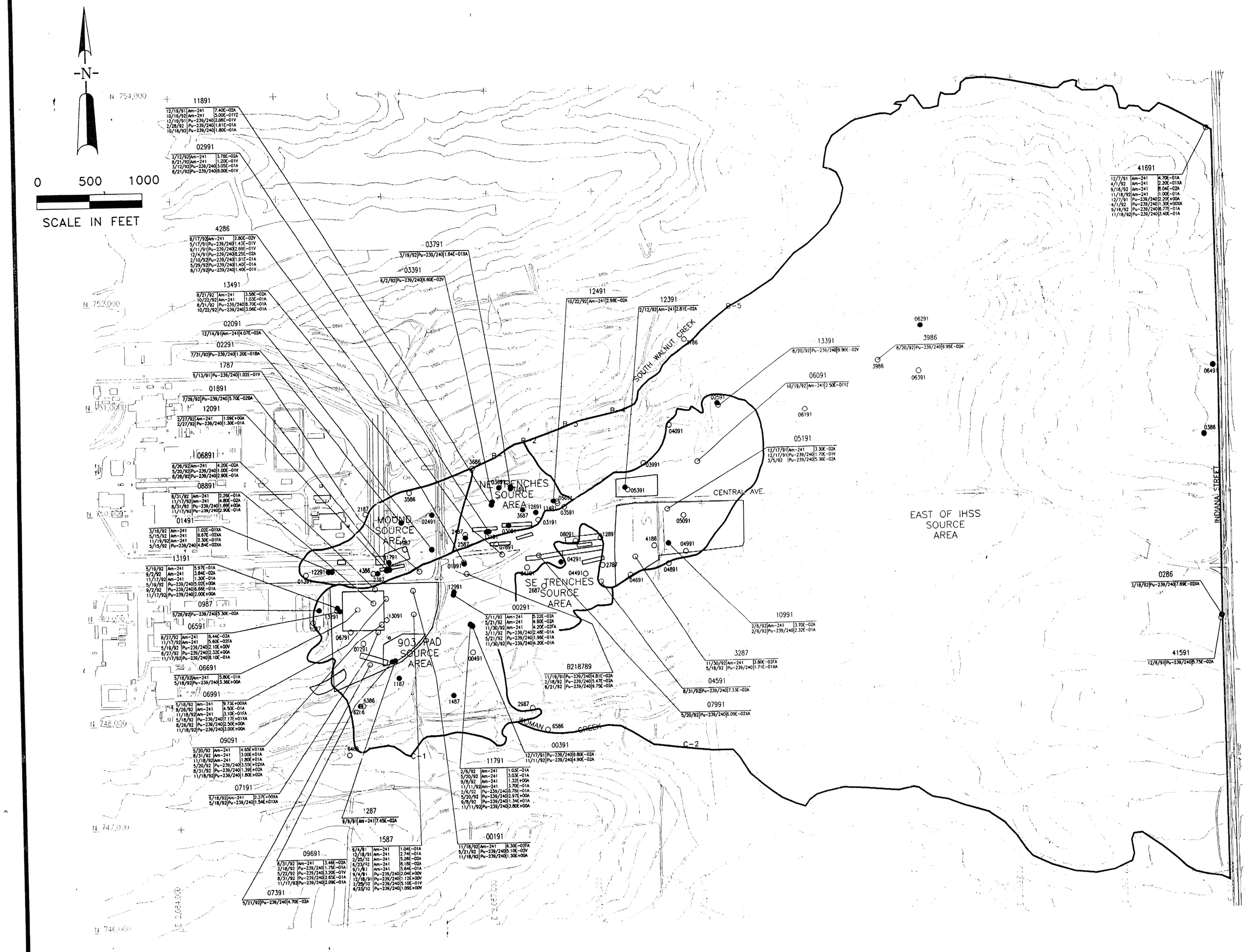
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

DRAFT

PCOC UNFILTERED METALS (BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS) Ba, Ca & Sr UHSU GROUNDWATER (SECOND QUARTER 1991 - FOURTH QUARTER 1992)

PLATE - D-10 JULY 1994

0U2RI503 1=500



EXPLANATION

- 3786 ○ ALLUVIAL MONITORING WELL
- 3087 ● BEDROCK MONITORING WELL
- 4286A ○ ABANDONED MONITORING WELL
- INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

12091 ← LOCATION
2/26/92 ← SAMPLE DATE
ANALYTE
ANALYTE ACTIVITY (pCi/l), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE ACTIVITES ARE REPORTED IN pCi/l. ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE 4.2-1.

NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

DRAFT

PCOC UNFILTERED ACTINIDES (BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS) (SECOND QUARTER 1991 - FOURTH QUARTER 1992) UHSU GROUNDWATER

PLATE D-11

JULY 1994

OU2RI516 1=500

EXPLANATION

- 3786 ○ ALLUVIAL MONITORING WELL
- 3087 ● BEDROCK MONITORING WELL
- 4286A ○ ABANDONED MONITORING WELL
- INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

05391 ← LOCATION

2/26/92 — SAMPLE DATE; ANALYTE; ANALYTE ACTIVITY (pCi/l), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE ACTIVITIES ARE REPORTED IN pCi/l. ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT DRAFT

PCOC UNFILTERED RADIONUCLIDES (NON-ACTINIDES) (BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS) UHSU GROUNDWATER (SECOND QUARTER 1991 – FOURTH QUARTER 1992)

PLATE – D-12 JULY 1994

OU2RI517 1=500

EXPLANATION

3786 ○ ALLUVIAL MONITORING WELL

3087 ● BEDROCK MONITORING WELL

4286A ○ ABANDONED MONITORING WELL

INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

2/26/92 — SAMPLE DATE; 76292 — LOCATION; ANALYTE; ANALYTE CONCENTRATION (ug/l), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/l (parts per billion). ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED.

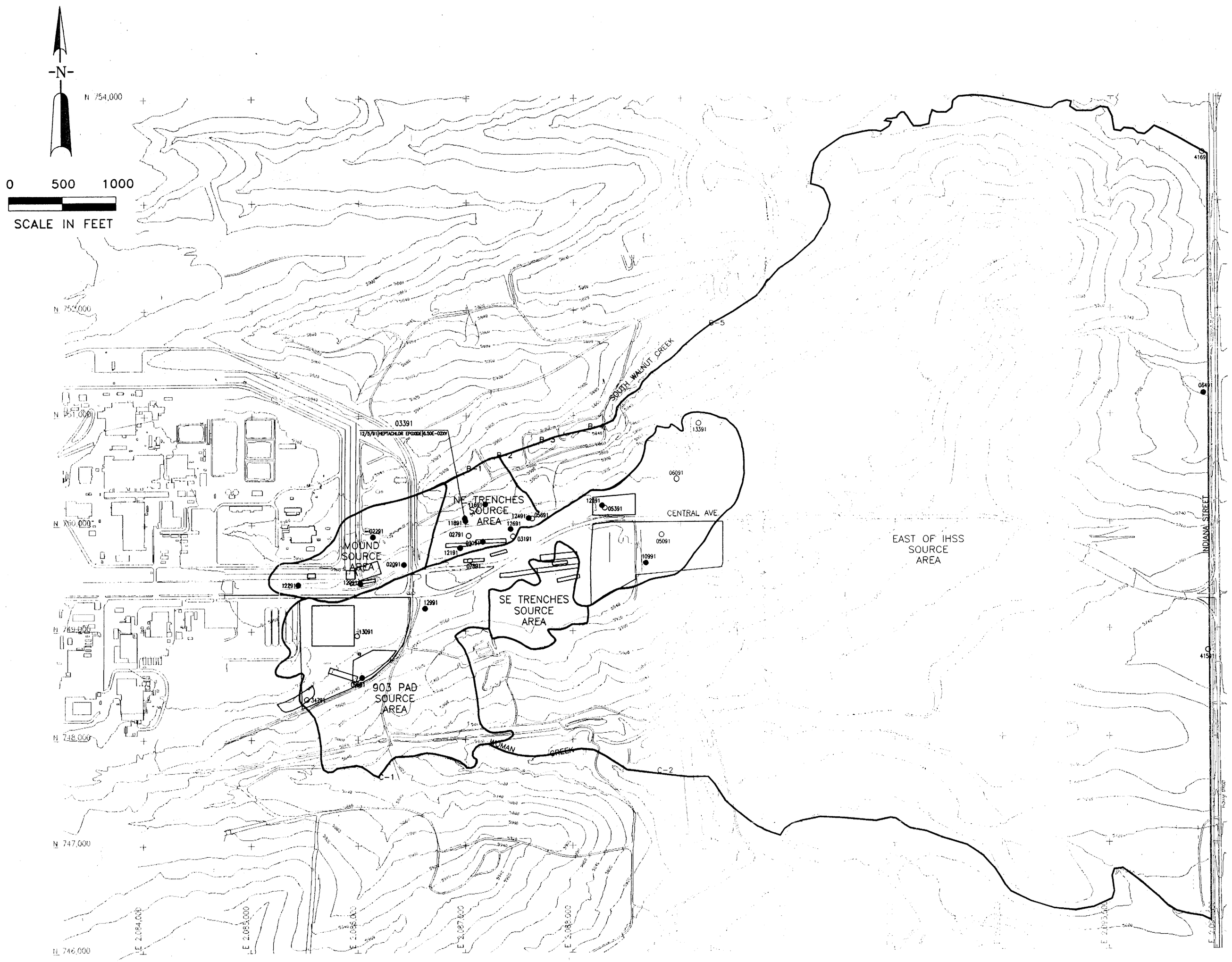
U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

VOLATILE ORGANIC COMPOUNDS COCs (1,1-DCE – CHCl3) UHSU GROUNDWATER (SECOND QUARTER 1991 – FOURTH QUARTER 1993)

PLATE – D-1 JULY 1994

OU2RI622 1=500



EXPLANATION

3786 ○	ALLUVIAL MONITORING WELL
3087 ●	BEDROCK MONITORING WELL
4286A ○	ABANDONED MONITORING WELL
⬠	INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

03391 ← LOCATION

2/26/92 ↑ SAMPLE DATE | ↑ ANALYTE | ↑ ANALYTE CONCENTRATION (ug/l), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/l (parts per billion). ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

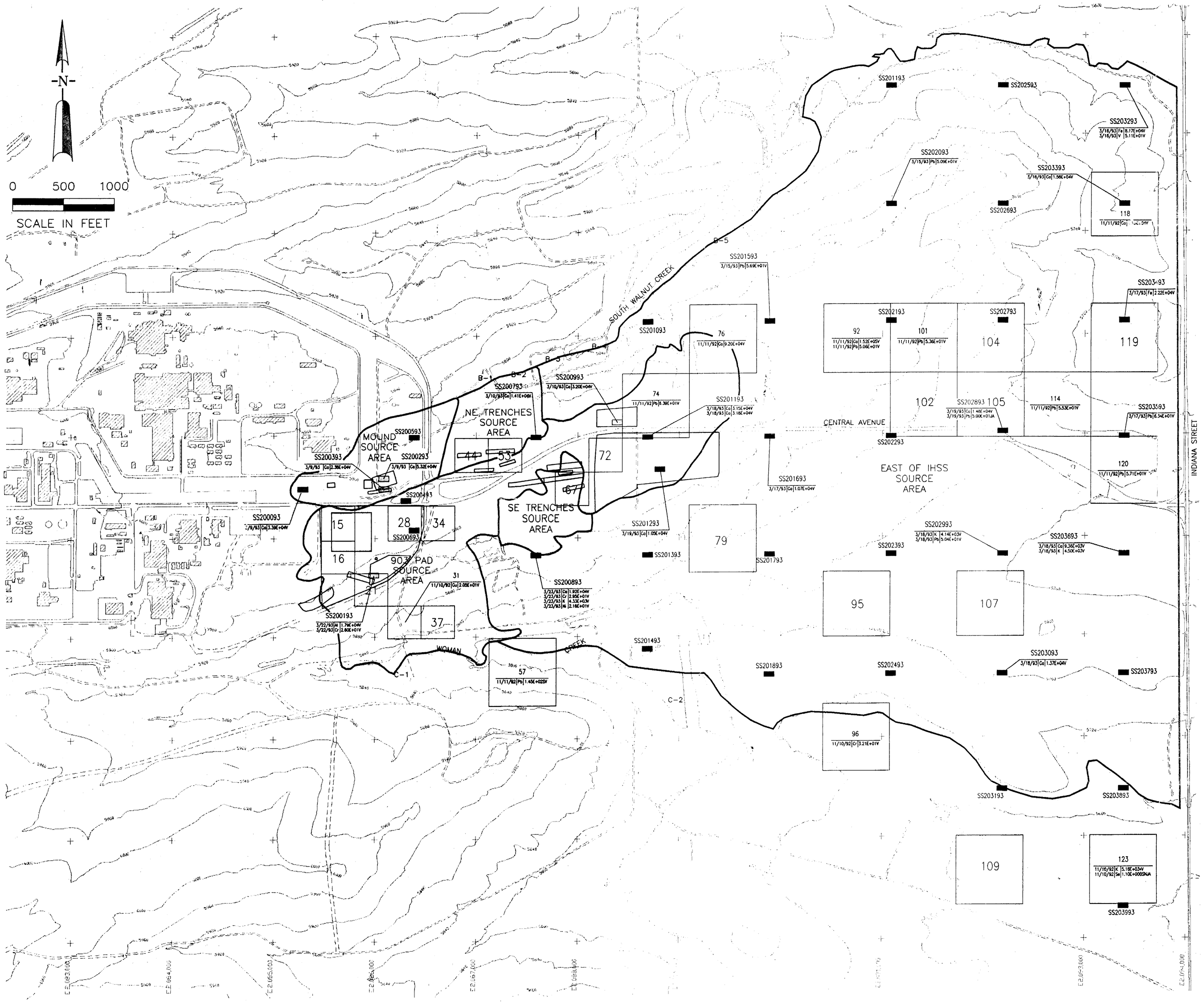
U.S. DEPARTMENT OF ENERGY .
Rocky Flats Plant, Golden, Colorado

OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

DRAFT

PESTICIDES/PCBs UHSU GROUNDWATER (SECOND QUARTER 1991 - FOURTH QUARTER 1992)

PLATE - D-6 JULY 1994



EXPLANATION

SS200193 — BIASED SURFACE SOIL SAMPLING PLOT LOCATION 50'x100' PLOT (1993 RFP SAMPLING)

SS200093 — GRID-BASED SURFACE SOIL SAMPLING PLOT LOCATION 50'x100' PLOT (1993 RFP SAMPLING)

108 — 10 ACRE SURFACE SOIL SAMPLING PLOT LOCATIONS (1992 RFP SAMPLING)

9 — 2.5 ACRE SURFACE SOIL SAMPLING PLOT LOCATIONS (1992 RFP SAMPLING)

120 ← LOCATION

3/18/93 — SAMPLE DATE; ANALYTE; ANALYTE CONCENTRATION (mg/kg), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN mg/kg (parts per million). ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

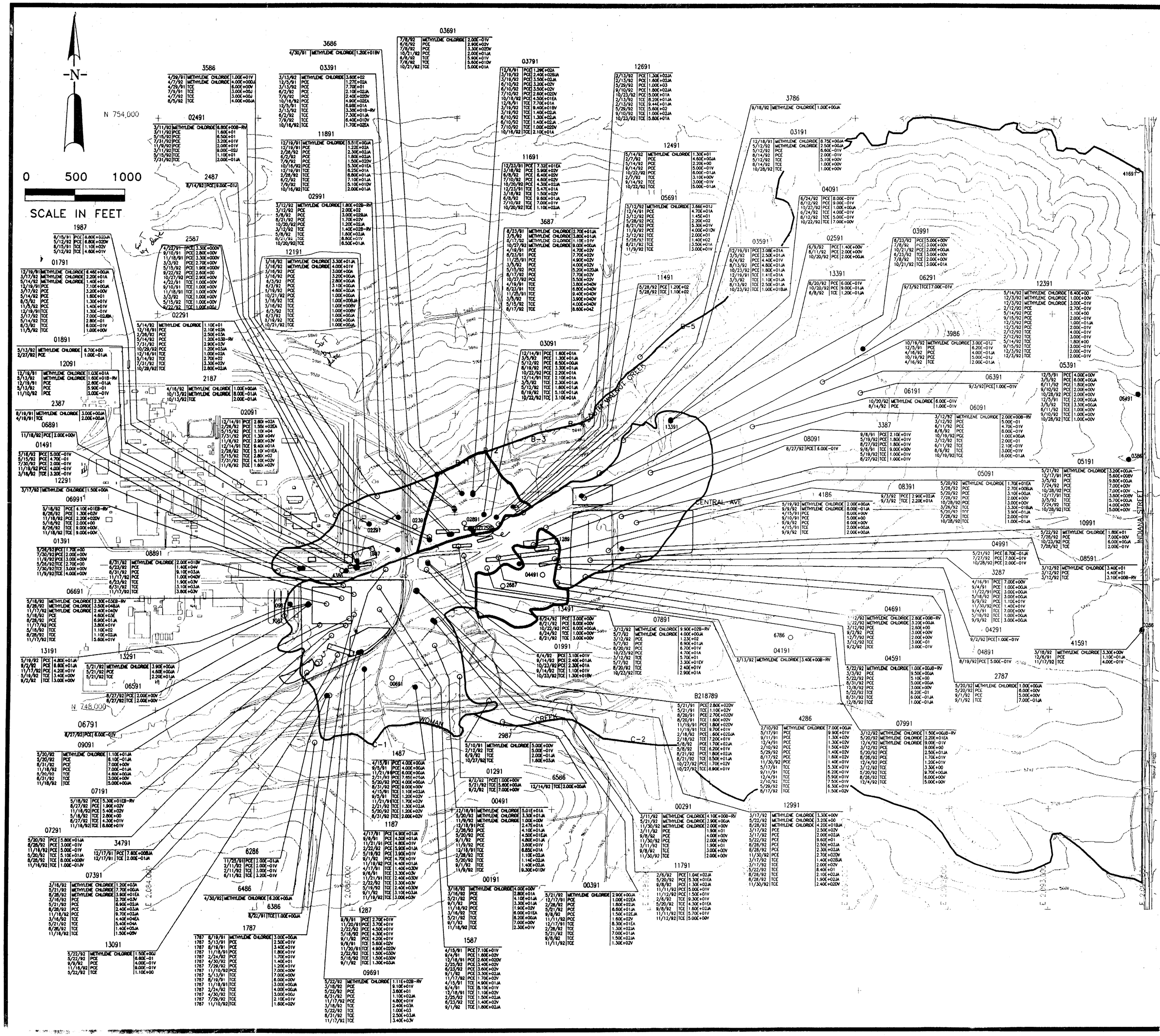
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

PCOC METALS
(BACKGROUND MEAN PLUS 2 STANDARD DEVIATION)
SURFACE SOILS

DRAFT

FIGURE B-3 JULY 1994

OU2R1510 1=500



EXPLANATION

- 3786 ○ ALLUVIAL MONITORING WELL
- 3087 ● BEDROCK MONITORING WELL
- 4286A ○ ABANDONED MONITORING WELL
- INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION

76292 ← LOCATION

2/26/92 — SAMPLE DATE; ANALYTE; ANALYTE CONCENTRATION (ug/l), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE CONCENTRATIONS ARE REPORTED IN ug/l (parts per billion). ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED.

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

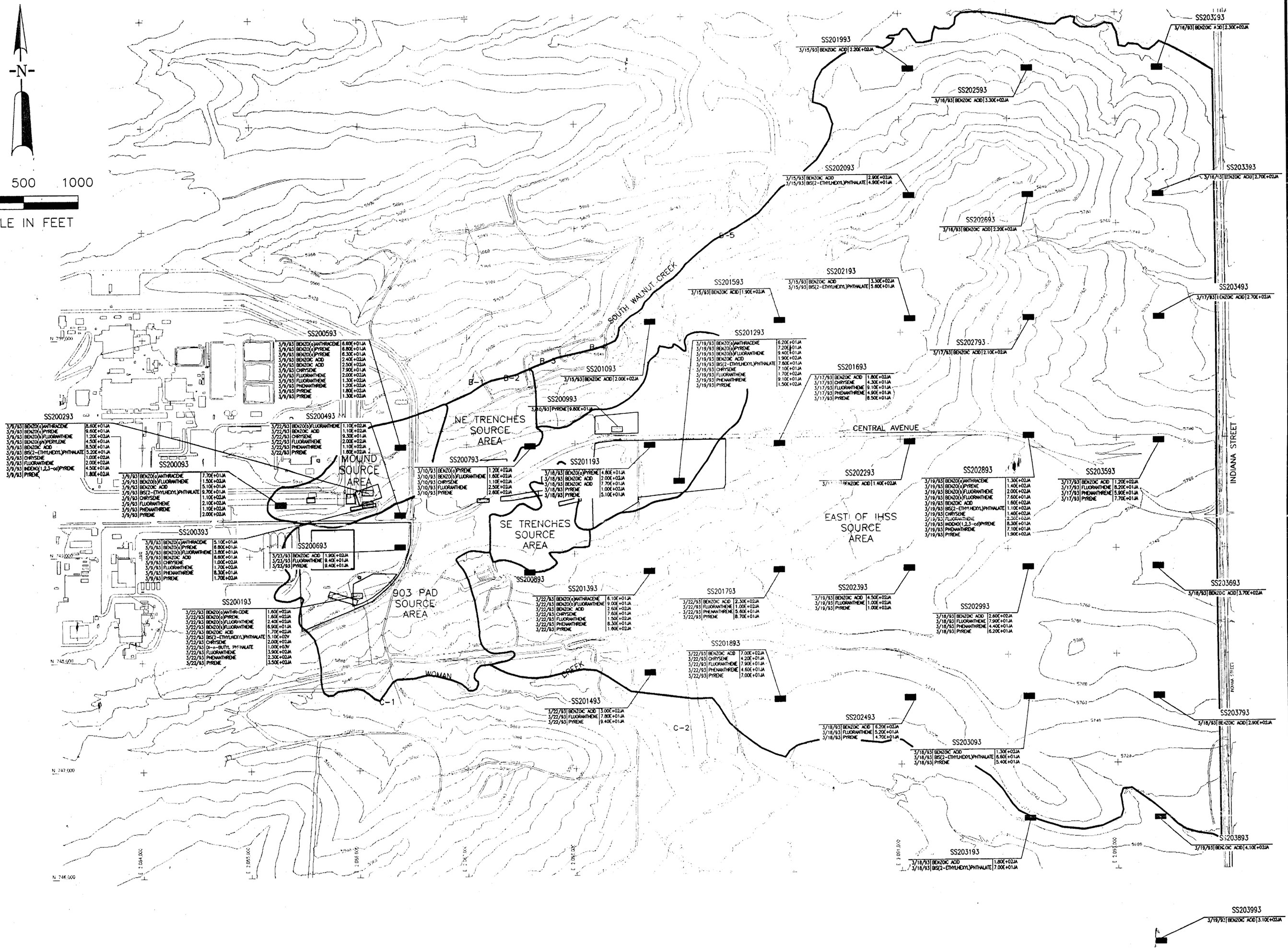
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

DRAFT

VOLATILE ORGANIC COMPOUNDS
COCs (METHYLENE CHLORIDE – TRICHLOROETHENE)
UHSU GROUNDWATER
(SECOND QUARTER 1991 – FOURTH QUARTER 1992)

PLATE – D-2 JULY 1994

OU2R1623 1=500



EXPLANATION

SS200193 — BIASED SURFACE SOIL SAMPLING PLOT LOCATION 50'x100' PLOT (1993 RFP SAMPLING)

SS200093 — GRID-BASED SURFACE SOIL SAMPLING PLOT LOCATION 50'x100' PLOT (1993 RFP SAMPLING)

120 ← LOCATION
3/16/93 ← SAMPLE DATE
ANALYTE
ANALYTE ACTIVITY (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE ACTIVITIES ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED.

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

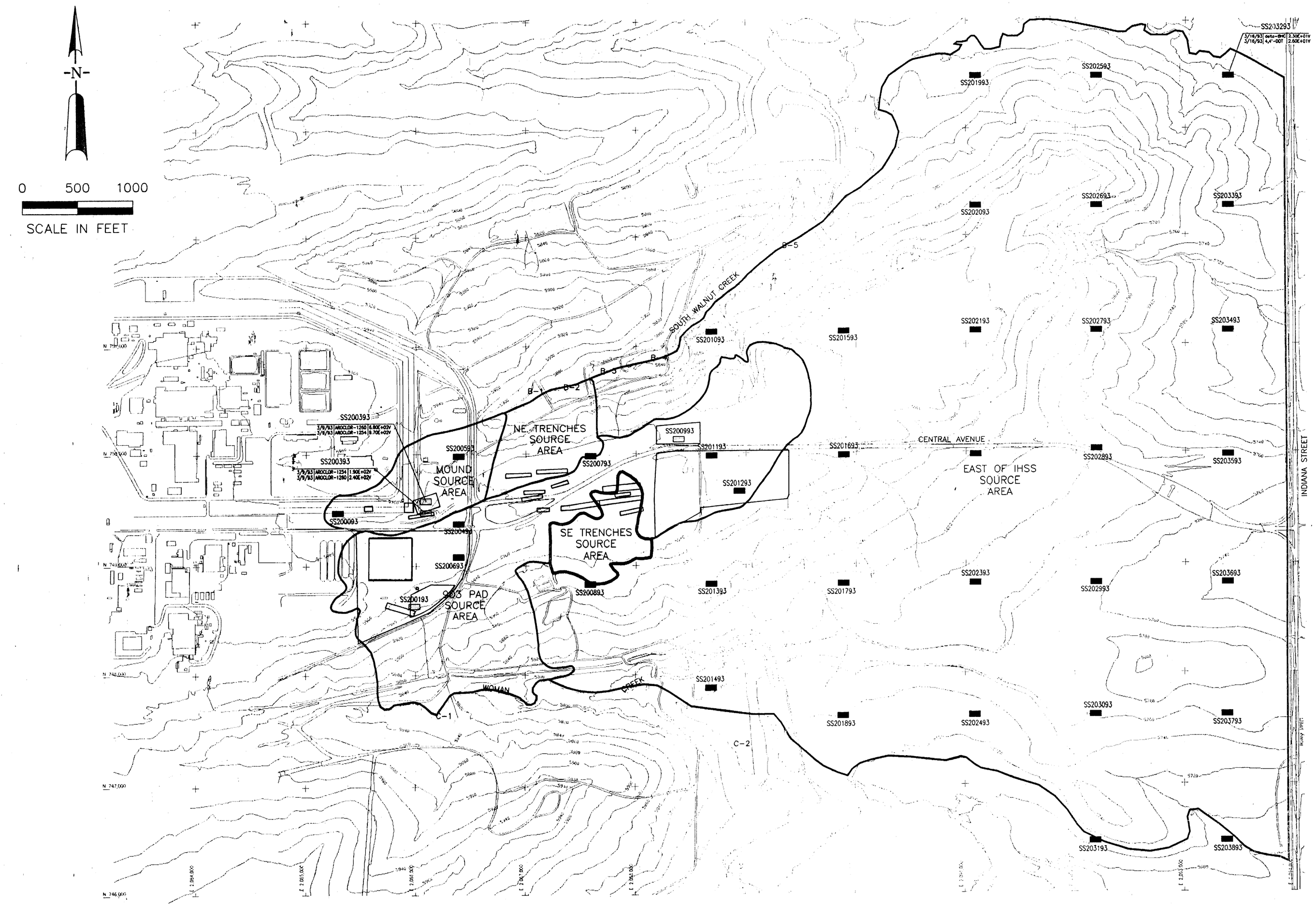
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

SEMIVOLATILE ORGANIC COMPOUNDS
SURFACE SOILS

DRAFT DRAFT

FIGURE B-1 JULY 1994

0U2RI625 1=500



EXPLANATION

SS200193 — BIASED SURFACE SOIL SAMPLING PLOT LOCATION 50'x100' PLOT (1993 RFP SAMPLING)

SS200093 — GRID-BASED SURFACE SOIL SAMPLING PLOT LOCATION 50'x100' PLOT (1993 RFP SAMPLING)

120 ← LOCATION
3/18/93 — SAMPLE DATE; ANALYTE; ANALYTE ACTIVITY (ug/kg), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE ACTIVITIES ARE REPORTED IN ug/kg (parts per billion). ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED.

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

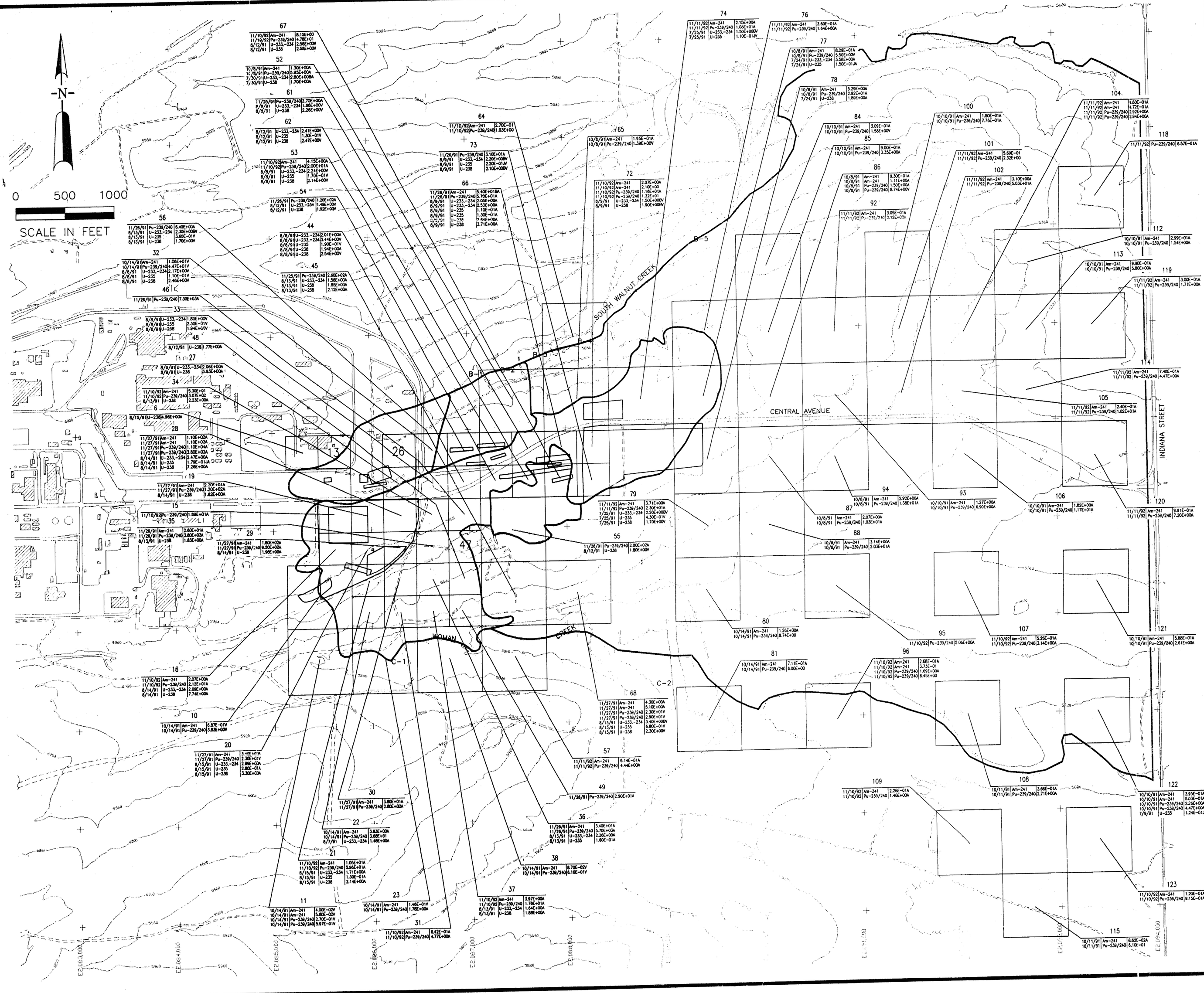
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

PESTICIDES/PCBs
SURFACE SOILS

DRAFT

FIGURE B-2 JULY 1994

OU2RI604 1=500



EXPLANATION

108 — 10 ACRE SURFACE SOIL SAMPLING PLOT LOCATIONS (1991 CDH AND RFP SAMPLING METHOD)

9 — 2.5 ACRE SURFACE SOIL SAMPLING PLOT LOCATIONS (1991 CDH AND RFP SAMPLING METHOD)

100 ← LOCATION

3/15/91 ← SAMPLE DATE; ANALYTE; ANALYTE ACTIVITY (pCi/g), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE ACTIVITIES ARE REPORTED IN pCi/g. ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

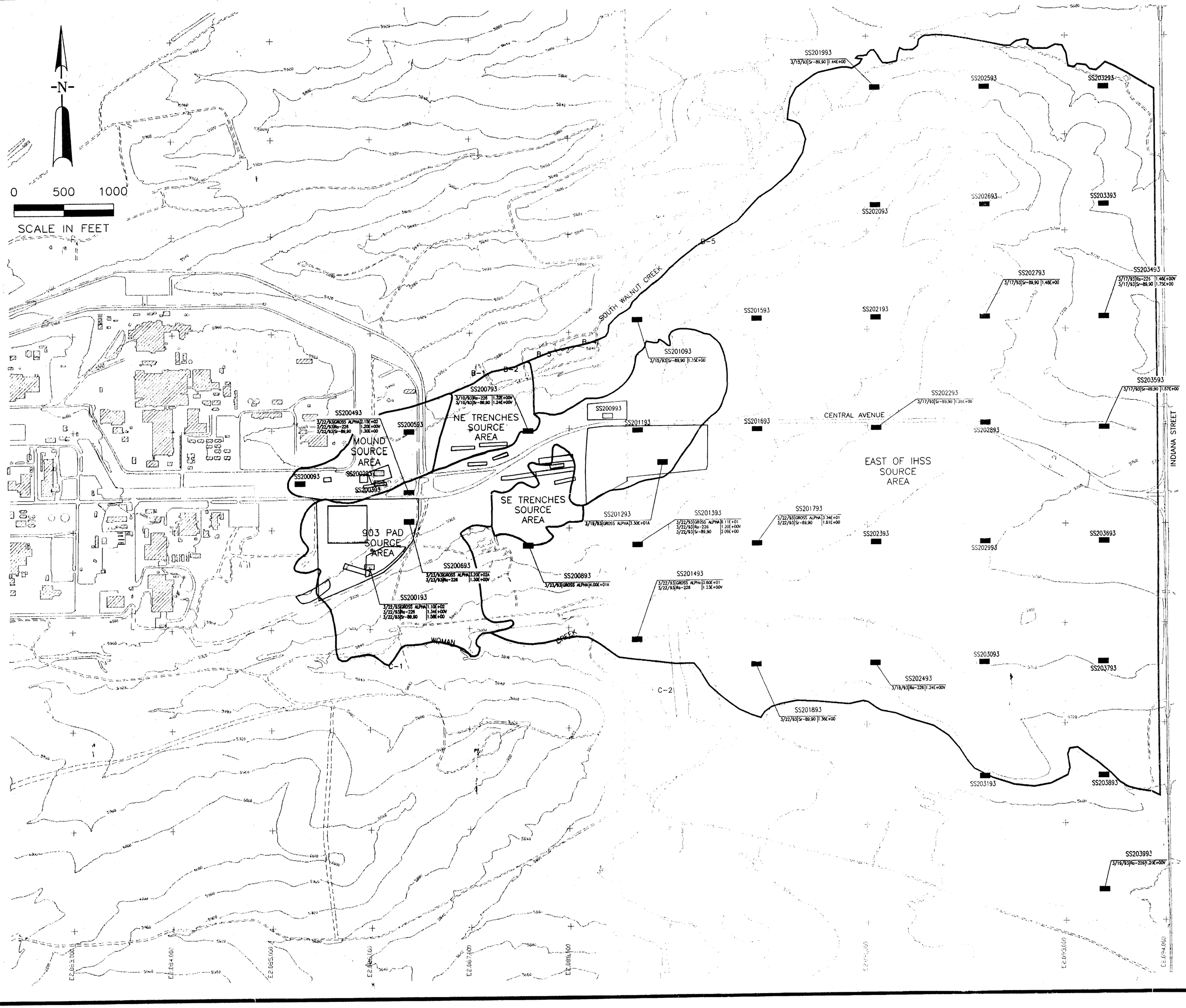
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

PCOC ACTINIDES
(BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS)
SURFACE SOILS

DRAFT

FIGURE B-4 JULY 1994

0U2RI511 1=500



EXPLANATION

SS200193 — BIASED SURFACE SOIL SAMPLING PLOT LOCATION 50'x100' PLOT (1993 RFP SAMPLING)

SS200093 — GRID-BASED SURFACE SOIL SAMPLING PLOT LOCATION 50'x100' PLOT (1993 RFP SAMPLING)

120 ← LOCATION
3/18/93 ← SAMPLE DATE
ANALYTE
ANALYTE ACTIVITY (pCi/g), LAB QUALIFIERS, AND VALIDATION CODES

NOTE:
ALL ANALYTE ACTIVITIES ARE REPORTED IN pCi/g. ANALYTE ABBREVIATIONS AND LAB AND VALIDATION QUALIFIERS ARE PRESENTED ON FIGURE A-1

NOTE:
ALL LOCATIONS SHOWN ON THIS MAP WERE SAMPLED. RESULTS ARE SHOWN ONLY WHERE THE CHEMICALS WERE DETECTED ABOVE THE BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS.

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado

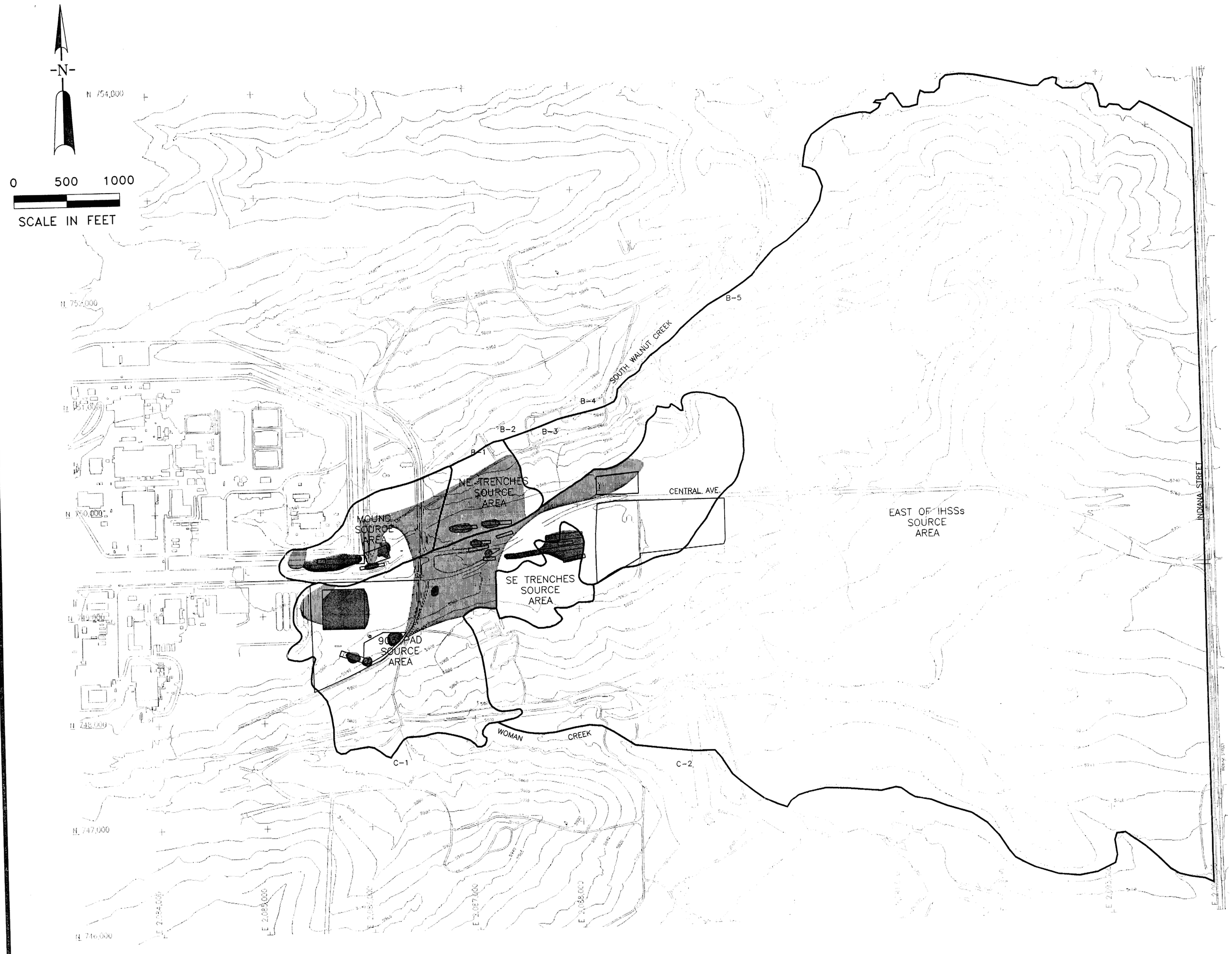
OPERABLE UNIT NO.2
PHASE II RFI/RI REPORT

PCOC RADIONUCLIDES (NON-ACTINIDES)
(BACKGROUND MEAN PLUS 2 STANDARD DEVIATIONS)
SURFACE SOILS

DRAFT

FIGURE B-5 JULY 1994

OU2RI512 1=500



EXPLANATION

- INDIVIDUAL HAZARDOUS SUBSTANCE SITE LOCATION
- APPROXIMATE AREAL EXTENT OF SUBSURFACE SOIL CONTAMINATION
- APPROXIMATE AREAL EXTENT OF CONTAMINATION IN THE ALLUVIAL AND COLLUVIAL UHSU FLOW SYSTEM
- APPROXIMATE AREAL EXTENT OF CONTAMINATION IN THE ARAPAHOE (NO. 1) SANDSTONE UHSU FLOW SYSTEM

U.S. DEPARTMENT OF ENERGY
Rocky Flats Environmental Technology Site
Golden, Colorado

OPERABLE UNIT NO.2
CDPHE LETTER REPORT

SOURCE AREA BOUNDARIES

FIGURE A-2 SEPTEMBER 1994

CDPHE001 1=500