

ROCKY FLATS PLANT
NEPA DIVISION, PLANT REVIEW
CATEGORICAL EXCLUSION WORKSHEET

1. Date: 10/1/91
2. Activity/Project Name: IAG Site Characterization Activities in Floodplains/Wetlands for OUs 1, 2, 5 and 6 and the Geologic Characterization Program
3. Authorization or EJO:
5. NEPA Division Reviewer: Bill Moore
6. Categorical Exclusion Proposed:

"Site characterization and environmental monitoring, including siting, construction or operation of characterization and monitoring devices, under CERCLA and RCRA, if the activities would not . . . adversely affect environmentally sensitive areas . . ."

NOTE: EC 59-91, ("IAG Site Characterization Activities") was reviewed by NCC on May 22, 1991. That project was recommended for a CX under the same exclusion proposed here. The current activities are a sub-set of the activities included in the earlier EC. In reviewing the proposed CX, DOE HQ determined (in RFO/CX-017-91, copy attached) that the CX would only apply to site characterization activities outside floodplains and wetlands. HQ directed that another proposed CX be prepared for the work in floodplains, describing what effects, if any, such work would have on the floodplain/wetlands so it could be determined if a CX were applicable to the floodplain/wetland work. The present document is that second proposed CX

Would the proposed action:

7. Adversely affect federally-listed endangered, threatened, or proposed candidate species, or state-listed endangered or threatened species or their habitat?
No.
8. Adversely affect floodplains or wetlands?
No
9. Threaten public health or safety?
No
10. Have possible effects on the environment which are likely to be highly controversial?
No

11. Have possible effects on the environment which are highly uncertain or involve unique or unknown risks?

No

12. Establish a precedent for future actions that will have significant effects, or represent a decision in principle about a future consideration?

No

13. Be substantially related to other actions that have individually insignificant but cumulatively significant impacts?

No

14. Adversely effect federal, state, or locally designated natural areas, prime agricultural land, special water sources, or historic, archeological, or architectural sites?

No

15. Other comments.

Of the various aspects of the project, drilling is the most disruptive. Drilling will take place in, but have no adverse effects on, the 100-year floodplain. It is possible that some drilling may also take place in wetlands but the activity is of such a nature as to cause no adverse effects to wetlands.

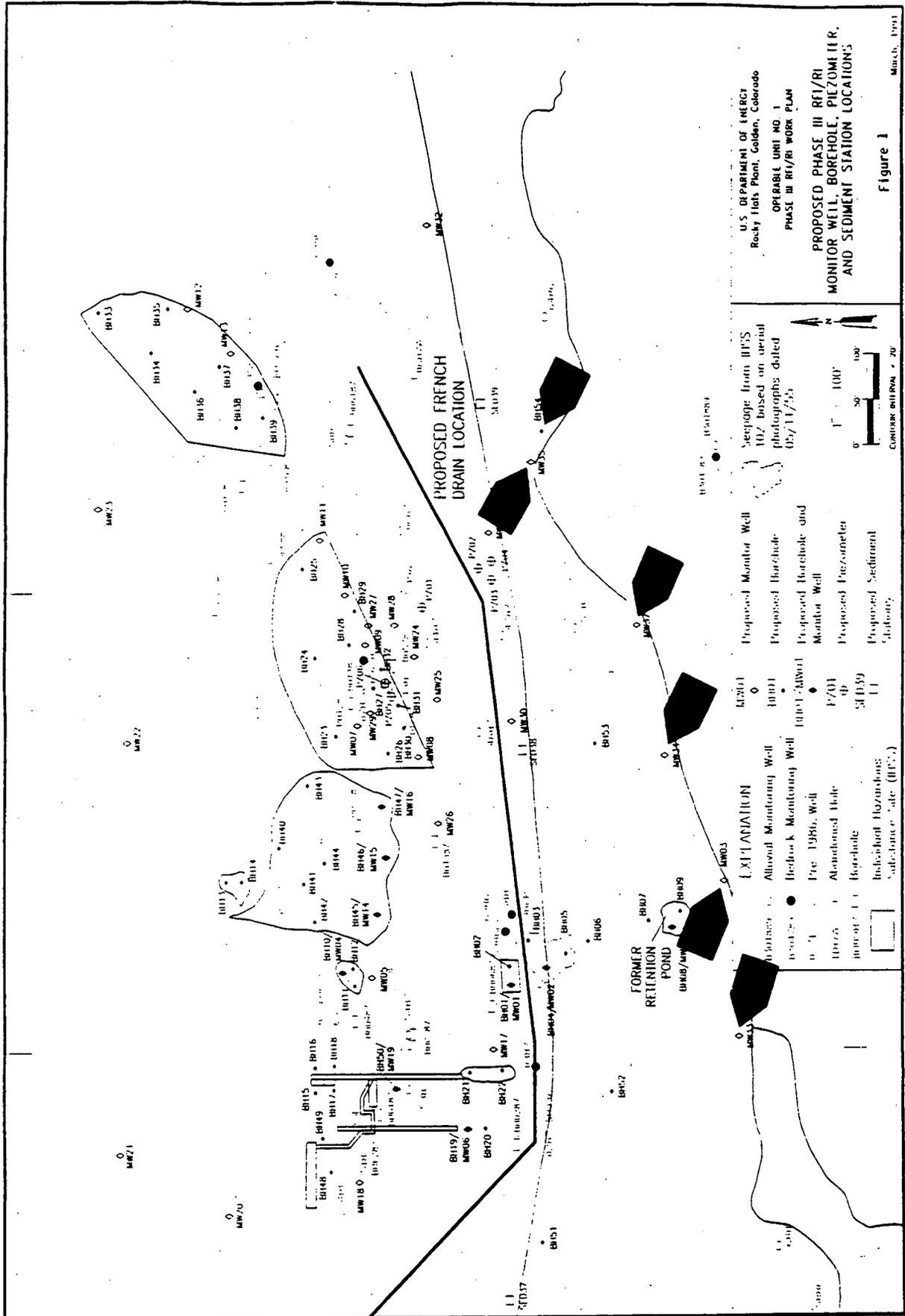


Figure 1

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

OPERABLE UNIT NO. 1
PHASE III RTI/RI WORK PLAN

PROPOSED PHASE III RTI/RI
MONITOR WELL, BOREHOLE, PIEZOMETER,
AND SEDIMENT STATION LOCATIONS

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

OPERABLE UNIT NO. 1
PHASE III RTI/RI WORK PLAN

PROPOSED PHASE III RTI/RI
MONITOR WELL, BOREHOLE, PIEZOMETER,
AND SEDIMENT STATION LOCATIONS

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

OPERABLE UNIT NO. 1
PHASE III RTI/RI WORK PLAN

PROPOSED PHASE III RTI/RI
MONITOR WELL, BOREHOLE, PIEZOMETER,
AND SEDIMENT STATION LOCATIONS

Scenepage from BIFS
107 based on aerial
photographs dated
05/11/55

Proposed Monitor Well
Proposed Borehole
Proposed Borehole and
Monitor Well
Proposed Piezometer
Proposed Sediment
Station

EXPLANATION
Allow Monitoring Well
Bedrock Monitoring Well
Pre 1980s Well
Abandoned Hole
Borehole
Individual Boreholes
Substance Date (BIFS)

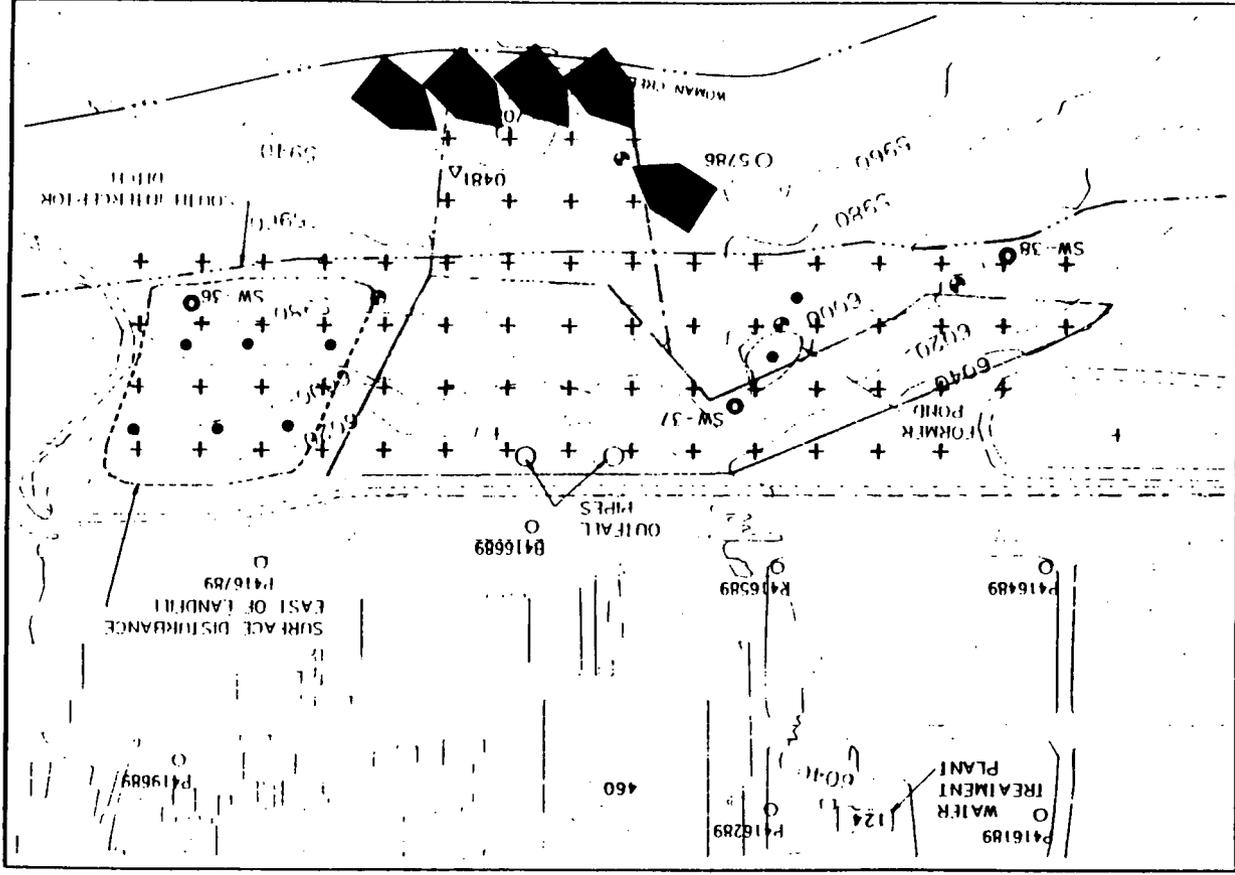
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Allow Monitoring Well
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Proposed Sediment
Station



U.S. DEPARTMENT OF ENERGY
 Rocky Flats Plant, Golden, Colorado
 OPERABLE UNIT 5
 PHASE I RI/RI WORK PLAN
 PROPOSED SAMPLING AND
 WELL LOCATIONS
 IHS 115
 ORIGINAL LANDFILL

- INDIVIDUAL HAZARDOUS SUBSTANCE SITE
 SW-1 ● EXISTING SURFACE WATER SAMPLING LOCATION
 5/86 ○ EXISTING ATURAL GROUNDWATER MONITORING WELL
 0481 △ PRE-1986 MONITORING WELL
 INTERMITTENT STREAM
 DRI ROAD
 ROCKY FLATS BLDG. NO. 1124
 PRELIMINARY EXTENSION OF THE
 LANDFILL BASED ON A SITE
 RECONNAISSANCE
 PROPOSED WELL LOCATION ●
 PROPOSED SOIL BORING LOCATION ●
 PROPOSED SOIL GAS SAMPLES +
 ALL PROPOSED LOCATIONS ARE APPROXIMATE

EXPLANATION

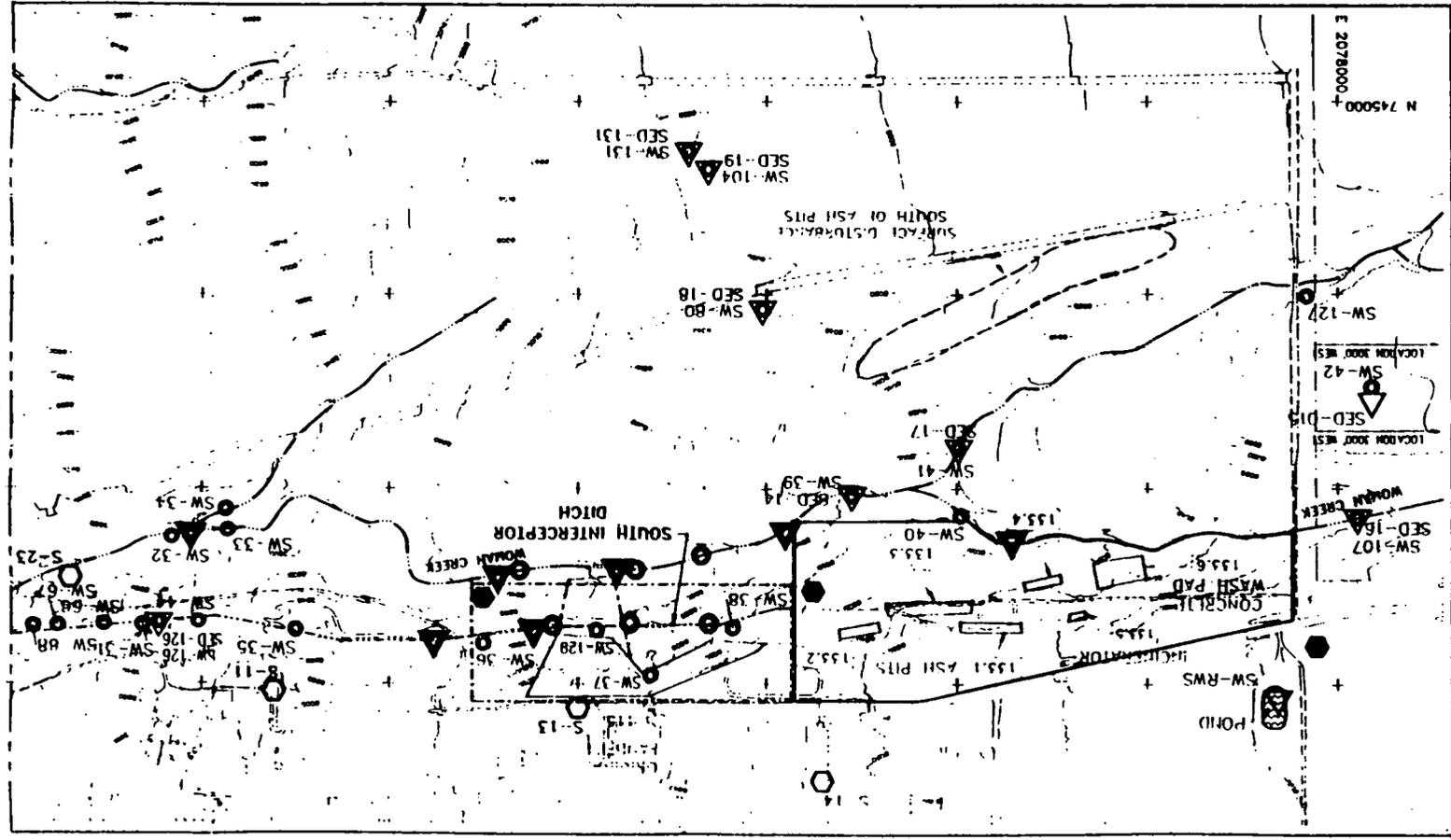
SCALE 1" = 200'



U.S. DEPARTMENT OF ENERGY
 Rocky Flats Plant, Golden, Colorado
 OPERABLE UNIT 3
 PHASE I RFI/RI WORK PLAN
 SEDIMENT & SURFACE WATER
 SAMPLING SITES & AIR MONITORING
 STATIONS ALONG WOMAN CREEK AND
 THE SOUTH INTERCEPTOR DITCH
 REV. AUGUST 1991
 MARCH 1991
 Figure 4

EXPLANATION

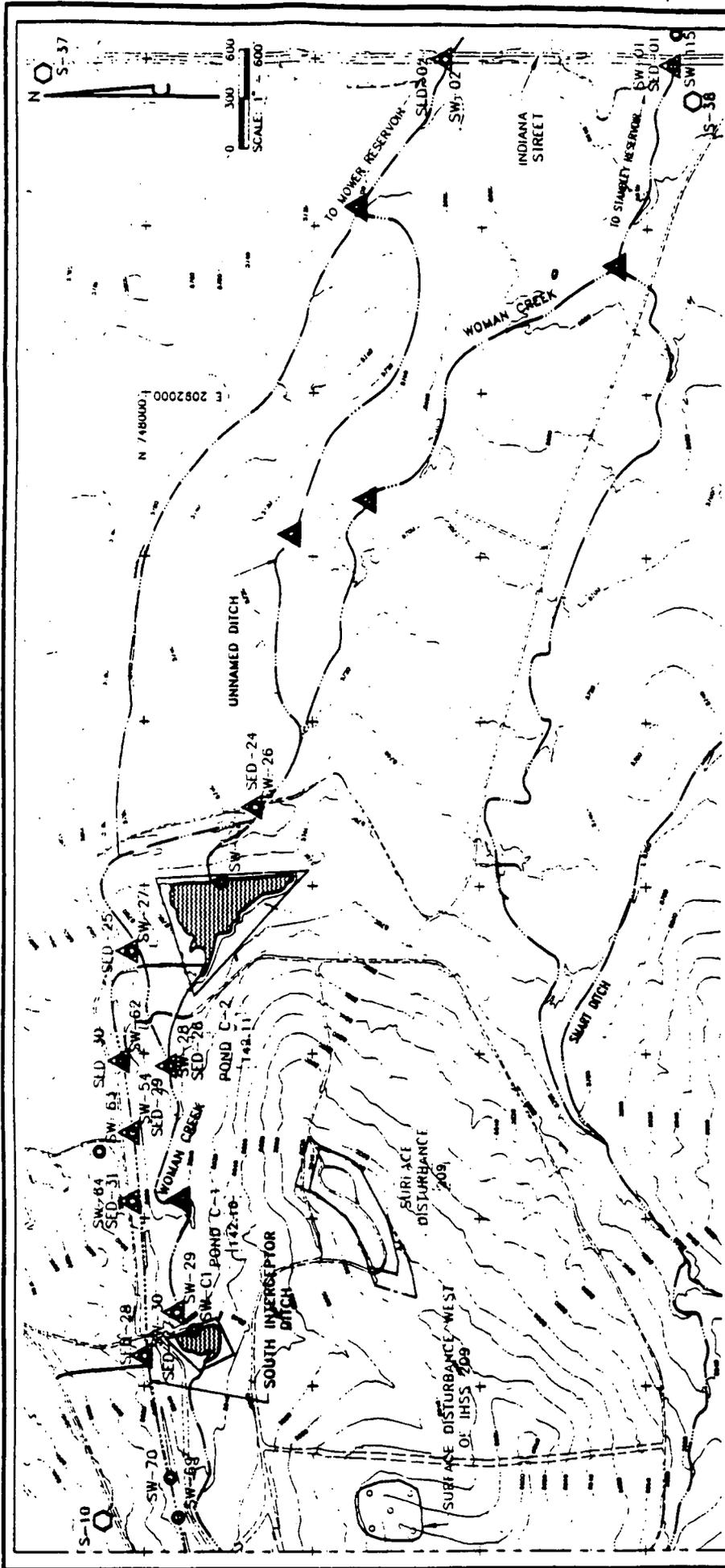
○	EXISTING HAZARDOUS SUBSTANCE SITE
●	EXISTING SURFACE WATER LOCATION
○	EXISTING SEDIMENT SAMPLING LOCATION
○	INTERMITTENT STREAM
○	DIRT ROAD
---	PRELIMINARY EXTENSION OF THE SURFACE DISTURBANCE BASED ON A RECONSTRUCTION MONITORING PROGRAM EVALUATION
○	EXISTING RADIOACTIVE AMBIENT AIR MONITORING PROGRAM LOCATION
○	PROPOSED RADIOACTIVE AMBIENT AIR MONITORING PROGRAM LOCATION
○	PROPOSED SURFACE WATER LOCATION
○	PROPOSED RADIOACTIVE SURVEY LOCATION FOR ASH PIT AREA
---	1990 EXISTING SURFACE WATER BOUNDARY AROUND OLD LANDFILL



MATCHLINE
 (SEE FIGURE 7-2 (2 OF 2))



N 745000
 E 2078000



MATCHLINE
(SEE FIGURE 7-2 [1 OF 2])

EXPLANATION

(115) [Symbol]	INDIVIDUAL HAZARDOUS SUBSTANCE SITE	S-23 [Symbol]	EXISTING RADIOACTIVE AIRBORNE AIR MONITORING PROGRAM LOCATION
[Symbol]	EXISTING SURFACE WATER LOCATION	[Symbol]	PROPOSED SEDIMENT SAMPLE LOCATION
[Symbol]	EXISTING SEDIMENT SAMPLING LOCATION	[Symbol]	
[Symbol]	INTERMITTENT STREAM		
[Symbol]	DIRT ROAD		
[Symbol]	PRELIMINARY EXTENSION OF THE SURFACE DISTURBANCE BASED ON A RECONNAISSANCE		
[Symbol]	ORIGINAL STREAM CHANNEL REAR		
[Symbol]	POND C-2		

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

OPERABLE UNIT 5
PHASE I RFI/RI WORK PLAN

**SEDIMENT & SURFACE WATER
SAMPLING SITES & AIR MONITORING
STATIONS ALONG WOMAN CREEK AND
THE SOUTH INTERCEPTOR DITCH**

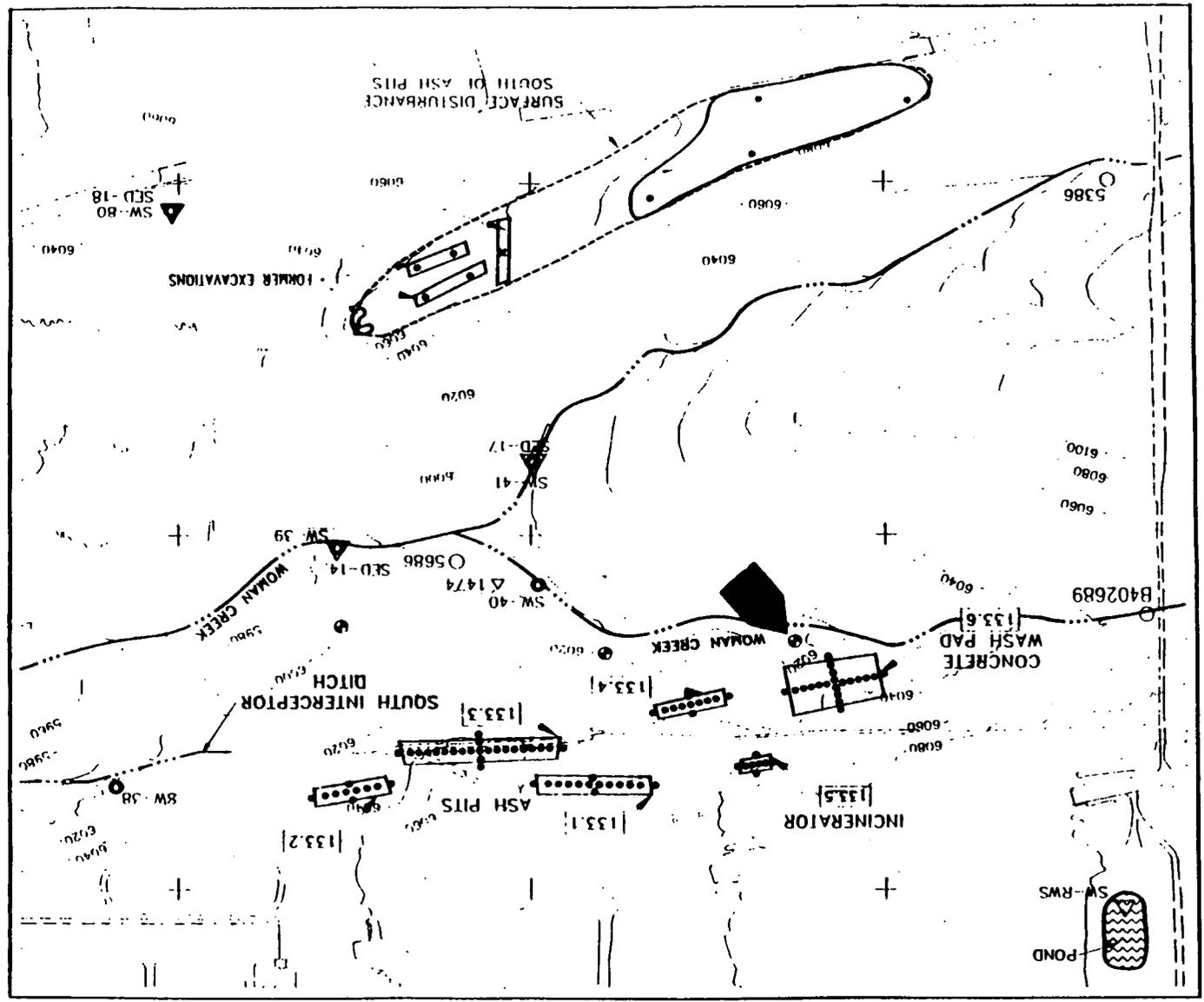
REV. AUGUST 1991
MARCH 1991

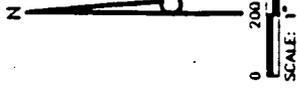
Figure 5

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado
OPERABLE UNIT 5
PHASE I RFI/RI WORK PLAN
PROPOSED SAMPLING & WELL LOCATIONS,
ASH PITS 1-4, INCINERATOR,
CONCRETE WASH PAD (HSS 133.1-6),
AND ADDITIONAL SURFACE DISTURBANCE

*ALL PROPOSED LOCATIONS ARE APPROXIMATE

- EXPLANATION
- SCALE: 1" = 300'
- 0 150 300
- N
- INDIVIDUAL HAZARDOUS SUBSTANCE SITE (115)
 - EXISTING SURFACE WATER SAMPLING LOCATION (SW-1)
 - EXISTING ATLAS GROUNDWATER MONITORING WELL (5786)
 - EXISTING SEWAGE SAMPLING LOCATION (SLD-17)
 - PRE-1986 MONITORING WELL (1474)
 - PROPOSED SO2 BORING LOCATION (●)
 - PROPOSED WELL LOCATION (⊕)
 - PROPOSED SURFACE SAMPLING LOCATION (⊗)
 - INTERMITTENT STREAM (---)
 - DIRT ROAD (---)



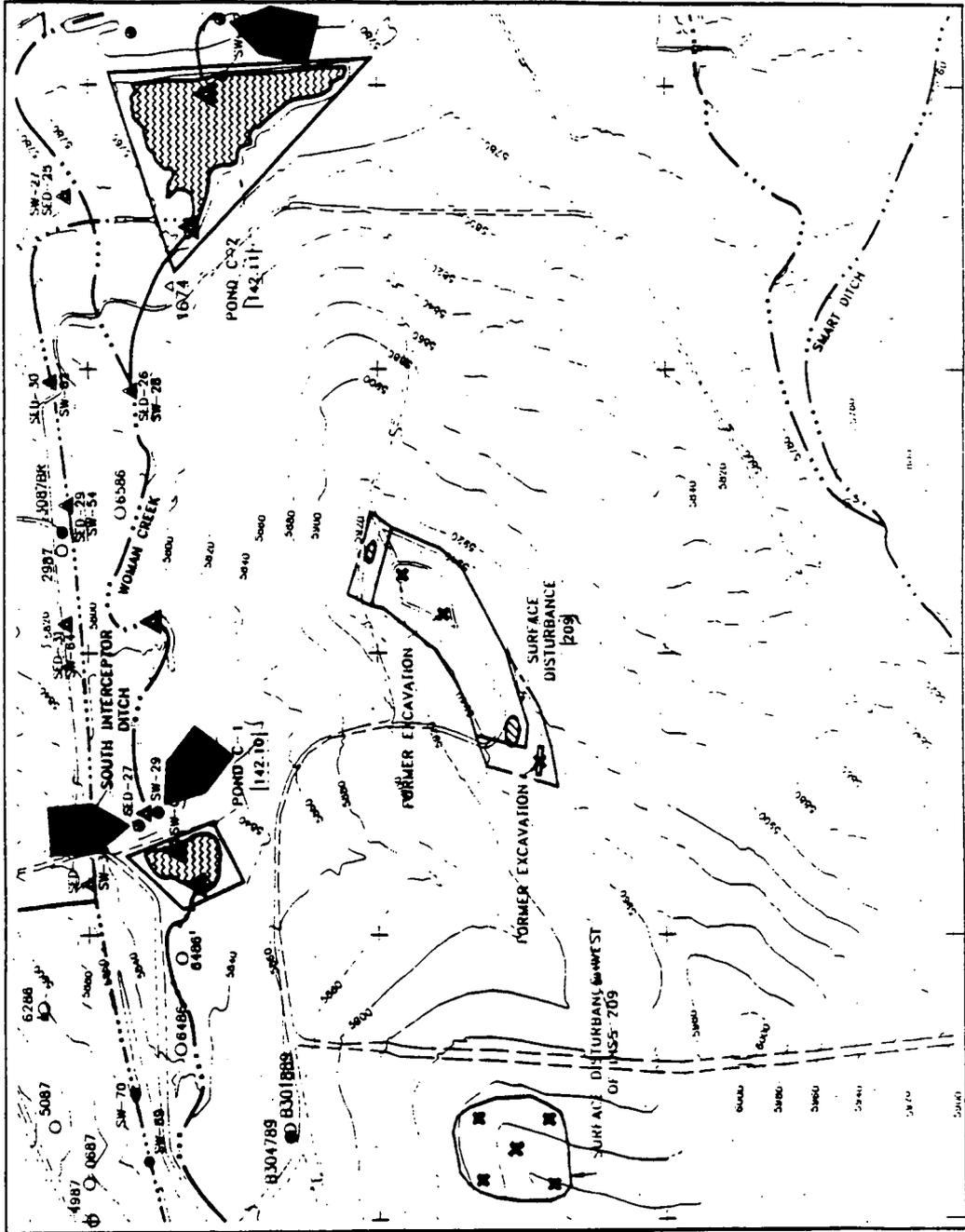


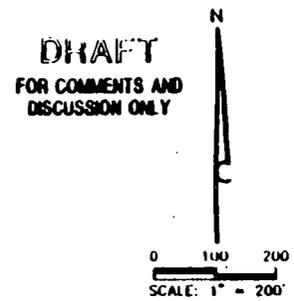
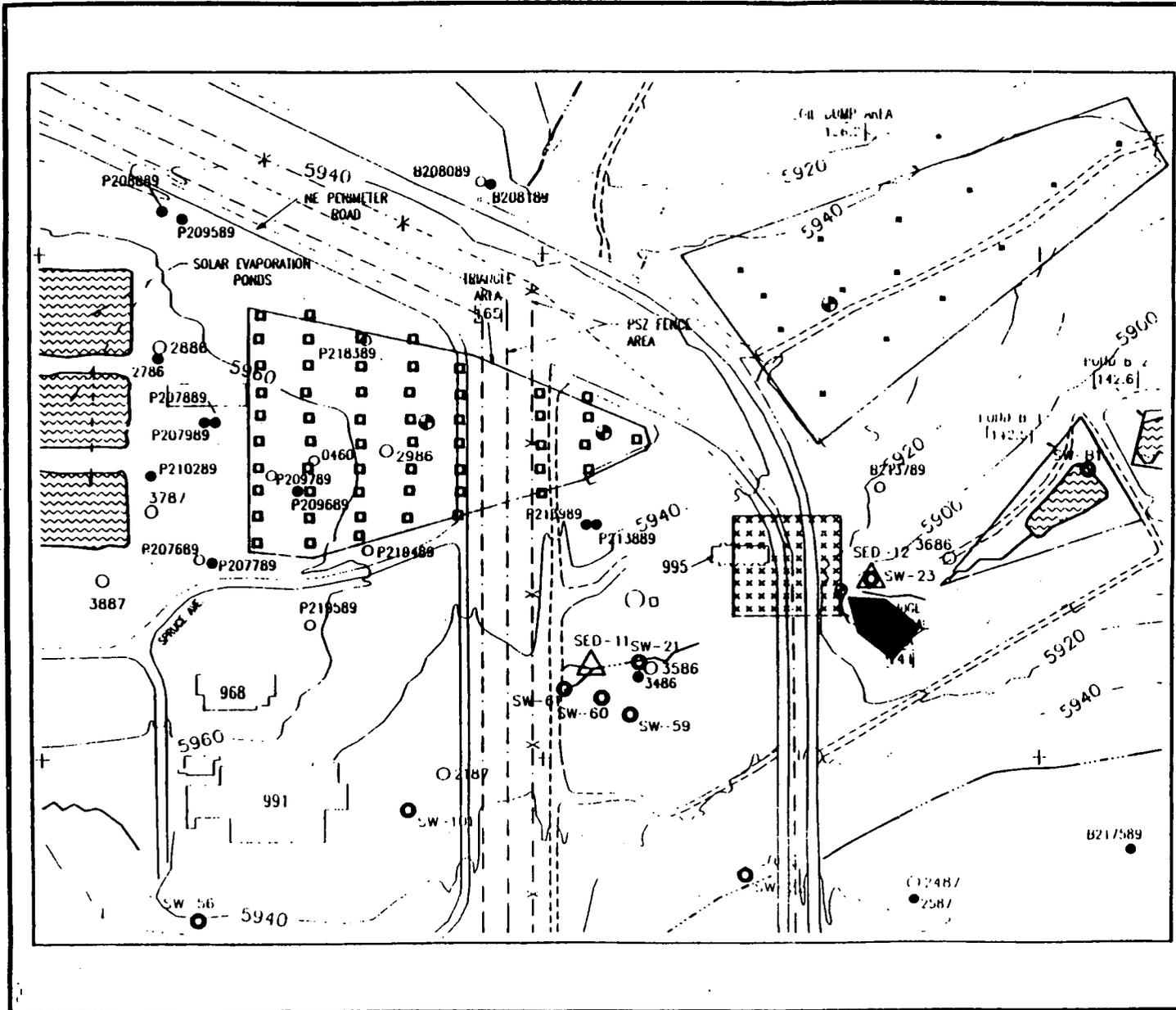
EXPLANATION

- [115] INDIVIDUAL HAZARDOUS SUBSTANCE SITE
- SW-1 ● EXISTING SURFACE WATER SAMPLING LOCATION
- 5/86 ○ EXISTING ALLUVIAL CHANNEL MONITORING WELL
- SED-17 △ EXISTING SEDIMENT SAMPLING LOCATION
- 3/87 ● EXISTING BEDROCK CHANNEL MONITORING WELL
- POND/LAKE DEPRESSION
- INTERMITTENT STREAM
- DIRT ROAD
- PRELIMINARY EXTENSION OF THE SURFACE DISTURBANCE BASED ON A SITE RECONNAISSANCE
- ORIGINAL STREAM CHANNEL NEAR POND C-2
- ✕ PROPOSED SURFACE SAMPLE LOCATION
- PROPOSED WELL LOCATION*
- ▲ PROPOSED SEDIMENT SAMPLING LOCATION**

**3 OTHER LOCATIONS IN EACH POND WILL BE SELECTED AT RANDOM
 *ALL PROPOSED LOCATIONS ARE APPROXIMATE

U.S. DEPARTMENT OF ENERGY
 Rocky Flats Plant, Golden, Colorado
 OPERABLE UNIT 5
 PHASE 1 RFI/RI WORK PLAN
 PROPOSED SAMPLING & WELL LOCATIONS,
 IHSS 142.10-11, PONDS C-1 & C-2,
 IHSS 209 SURFACE DISTURBANCE, & IHSS
 SURFACE DISTURBANCE WEST OF
 IHSS 209





EXPLANATION

- INDIVIDUAL HAZARDOUS SUBSTANCE SITE
 - EXISTING SURFACE WATER SAMPLING LOCATION
 - EXISTING ALLUVIAL GROUNDWATER MONITORING WELL
 - EXISTING SEDIMENT SAMPLING LOCATION
 - EXISTING BEDROCK GROUNDWATER MONITORING WELL
 - DIRT ROAD
 - INTERMITTENT STREAM
 - ROCKY FLATS BLDG NO.
 - PROPOSED SOIL GAS SURVEY LOCATION¹
 - PROPOSED WELL LOCATION¹
 - PROPOSED SURFACE SAMPLING LOCATION¹
 - PROPOSED BORING AND SURFACE SAMPLING LOCATION¹
- ¹ ALL PROPOSED LOCATIONS ARE APPROXIMATE

U.S. DEPARTMENT OF ENERGY
Rocky Flats Plant, Golden, Colorado
OPERABLE UNIT 6
PHASE I RFI/RI WORK PLAN

PROPOSED SAMPLING AND
WELL LOCATIONS
IHS 141 SLUDGE DISPERSAL
IHS 165 TRIANGLE AREA
IHS 156.2 SOIL DUMP AREA

U.S. DEPARTMENT OF ENERGY
 Rocky Flats Plant, Golden, Colorado
 OPERABLE UNIT 6
 PHASE I RI/RI WORK PLAN
 PROPOSED SAMPLING & WELL LOCATIONS
 A-SERIES DETENTION PONDS
 IHSSs 142.1-4
 ALONG NORTH WALNUT CREEK

- INDIVIDUAL HAZARDOUS SUBSTANCE SITE
 SW-1
- EXISTING SURFACE WATER SAMPLING LOCATION
 5786
- EXISTING ATWAL GROUNDWATER MONITORING WELL
 SED-17
- EXISTING SEDIMENT SAMPLING LOCATION
 3087
- EXISTING BEDROCK GROUNDWATER MONITORING WELL
 0181
- EXISTING PRE-1986 WELL
- INTERMITTENT STREAM
- DIRT ROAD
- PROPOSED WELL LOCATION
- PROPOSED SEDIMENT SAMPLE LOCATION
- PROPOSED BEDROCK WELL LOCATIONS FOR
 SITE-LOG GEOLOGICAL CHARACTERIZATION
 PROGRAM (these wells are shown
 in figure 11.)
- ALL PROPOSED LOCATIONS ARE APPROXIMATE

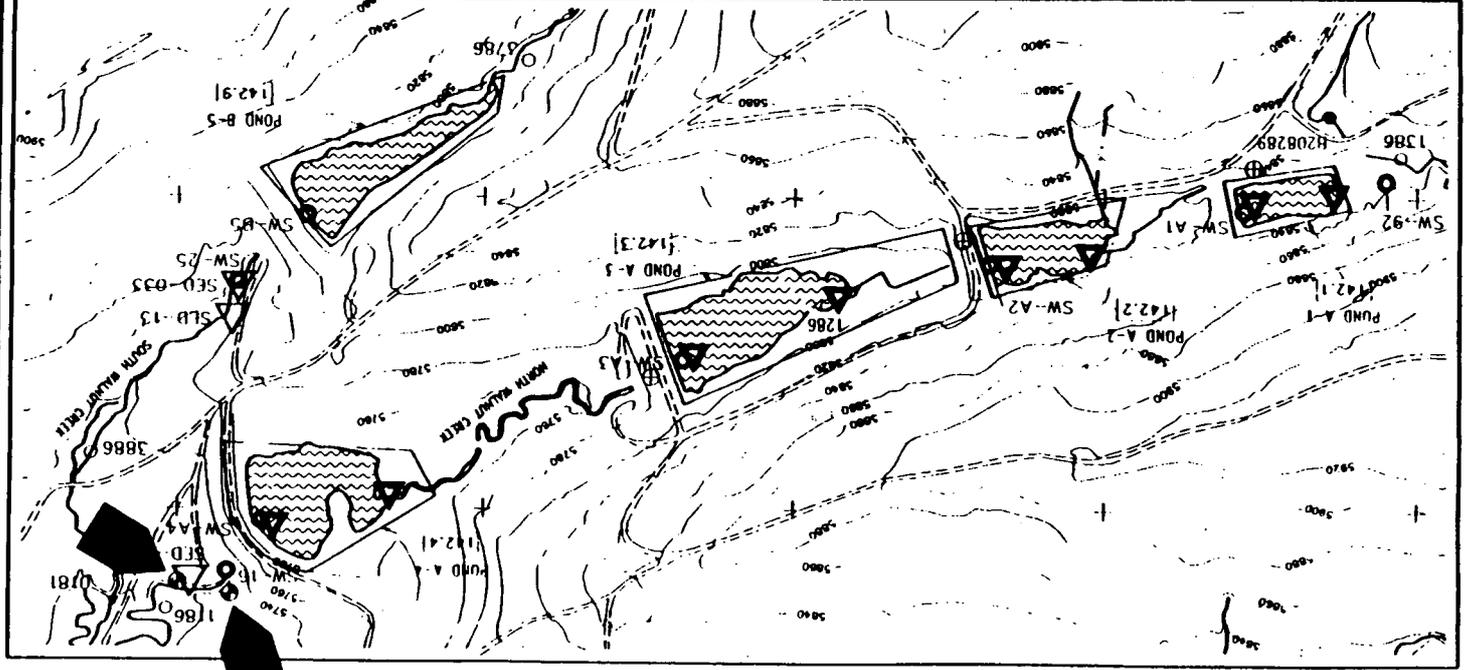
EXPLANATION

SCALE 1" = 400'

0 200 400



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 DISCUSSION ONLY



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 Rocky Flats Plant, Golden, Colorado
 OPERABLE UNIT 6
 PHASE I RFI/RI WORK PLAN
 PROPOSED SAMPLING & WELL LOCATIONS
 B-SERIES DETENTION PONDS
 ALONG SOUTH WALNUT CREEK
 IHS 216.1 EAST AREA SPRAY FIELD
 APRIL 1991

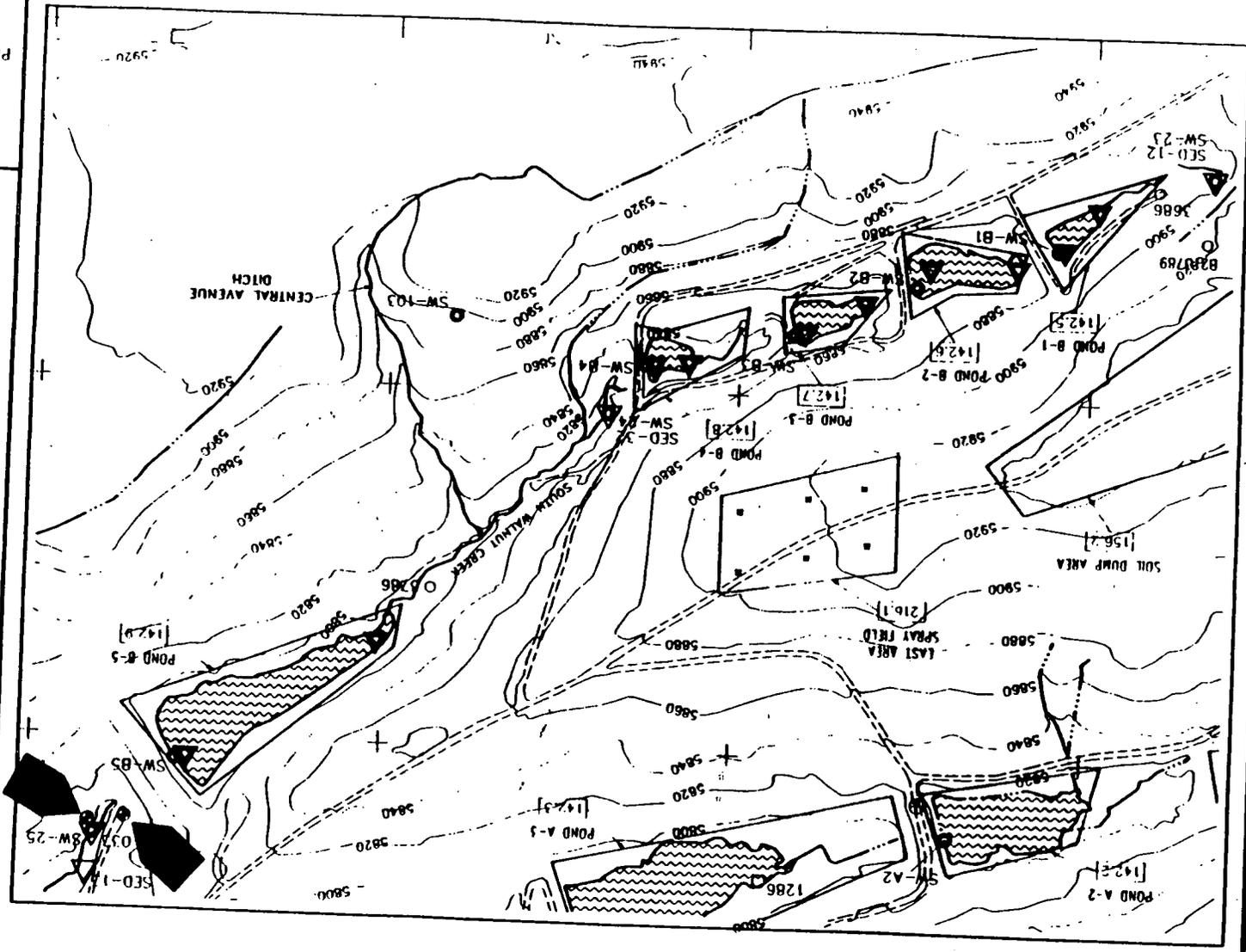
1. ALL PROPOSED LOCATIONS ARE APPROXIMATE
 2. THREE OTHER LOCATIONS IN EACH POND
 WILL BE SELECTED AT RANDOM
- ⊕ PROPOSED GROUNDWATER MONITORING WELL LOCATION
 - ⊖ PROPOSED SURFACE WATER SAMPLING LOCATION
 - EXISTING SURFACE WATER SAMPLING LOCATION
 - EXISTING ALLUVA GROUNDWATER MONITORING WELL
 - SW-1
 - SW-17
 - EXISTING SEDIMENT SAMPLING LOCATION
 - INTERMITTENT STREAM
 - DIRT ROAD
 - ROCKY FLATS BLDG NO.
 - ⊙ PROPOSED WELL LOCATION
 - ⊙ PROPOSED BORING AND SURFACE SAMPLE LOCATION
 - ⊙ PROPOSED SEDIMENT SAMPLE LOCATION
 - ⊙ SITE-WIDE GEOLOGICAL CHARACTERIZATION PROGRAM

EXPLANATION

SCALE: 1" = 300'



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Rocky Flats Plant, Golden, Colorado
OPERABLE UNIT 6
PHASE I RI/RI WORK PLAN
SEDIMENT SAMPLING SITES AND
ON NORTH AND SOUTH
WALNUT CREEKS

ALL PROPOSED LOCATIONS ARE APPROXIMATE

- ⊕ PROPOSED BEDROCK WELL LOCATIONS FOR SITE-WIDE GEOLOGICAL CHARACTERIZATION PROGRAM
- ▽ PROPOSED LOCATIONS FOR SEDIMENT SAMPLES
- DIRT ROAD
- - - PERIMETER SECURITY ZONE
- ▽ SED-17 EXISTING SEDIMENT SAMPLE LOCATION
- SW-1 EXISTING SURFACE WATER SAMPLING LOCATION
- 114 RISS REFERENCE NUMBER
- INDIVIDUAL HAZARDOUS SUBSTANCE SITE (RISS) IN OPERABLE UNIT 6

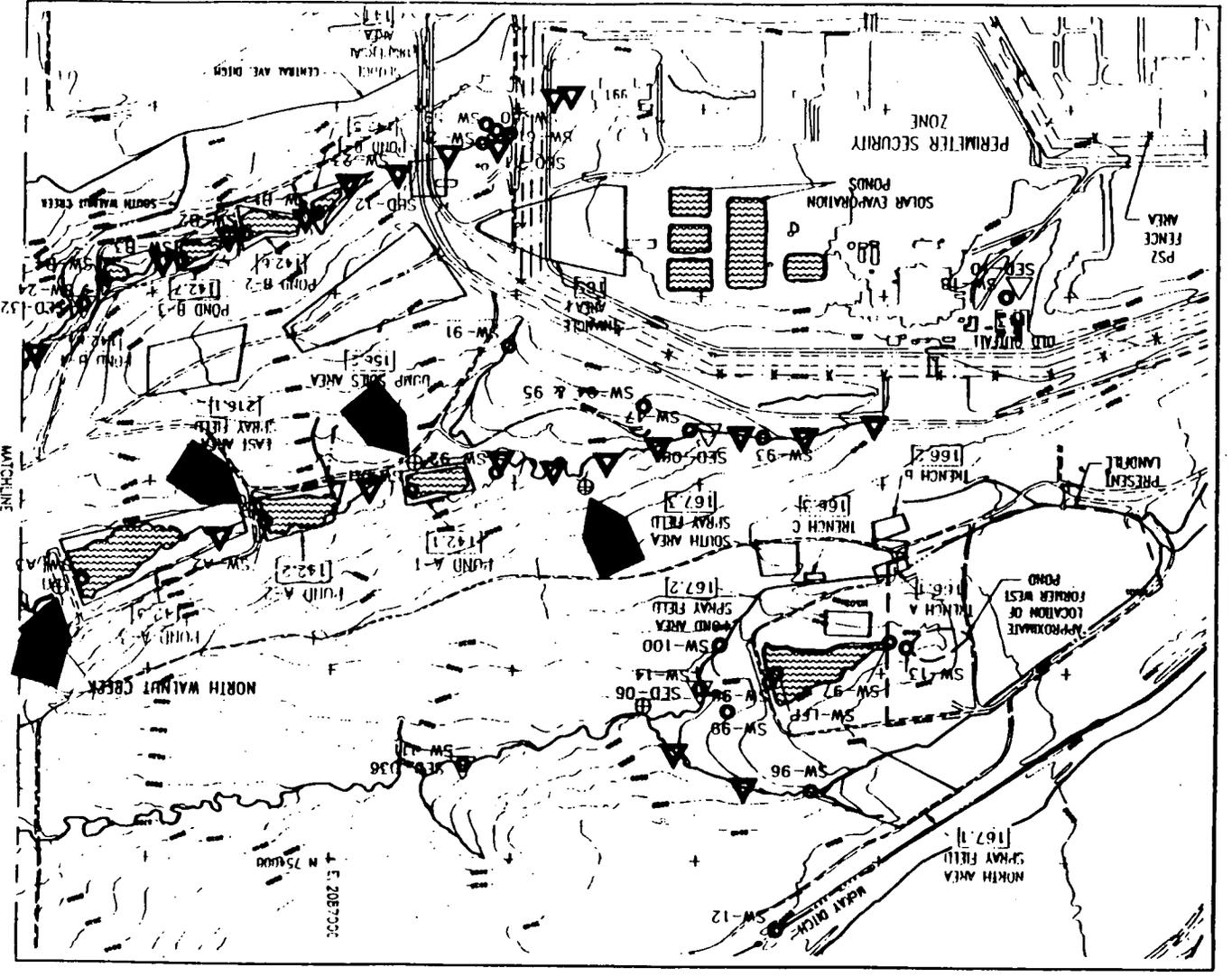
EXPLANATION

SCALE 1" = 600'
0 300 600



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(SEE FIGURE 7-4 [2 OF 2])
MATCHLINE



U.S. DEPARTMENT OF ENERGY
 Rocky Flats Plant, Golden, Colorado
 OPERABLE UNIT 6
 PHASE I RI/RI WORK PLAN
 SEDIMENT SAMPLING SITES AND
 SITE-WIDE PROGRAM BEDROCK WELLS
 ON NORTH AND SOUTH
 WALNUT CREEKS

ALL PROPOSED LOCATIONS ARE APPROXIMATE

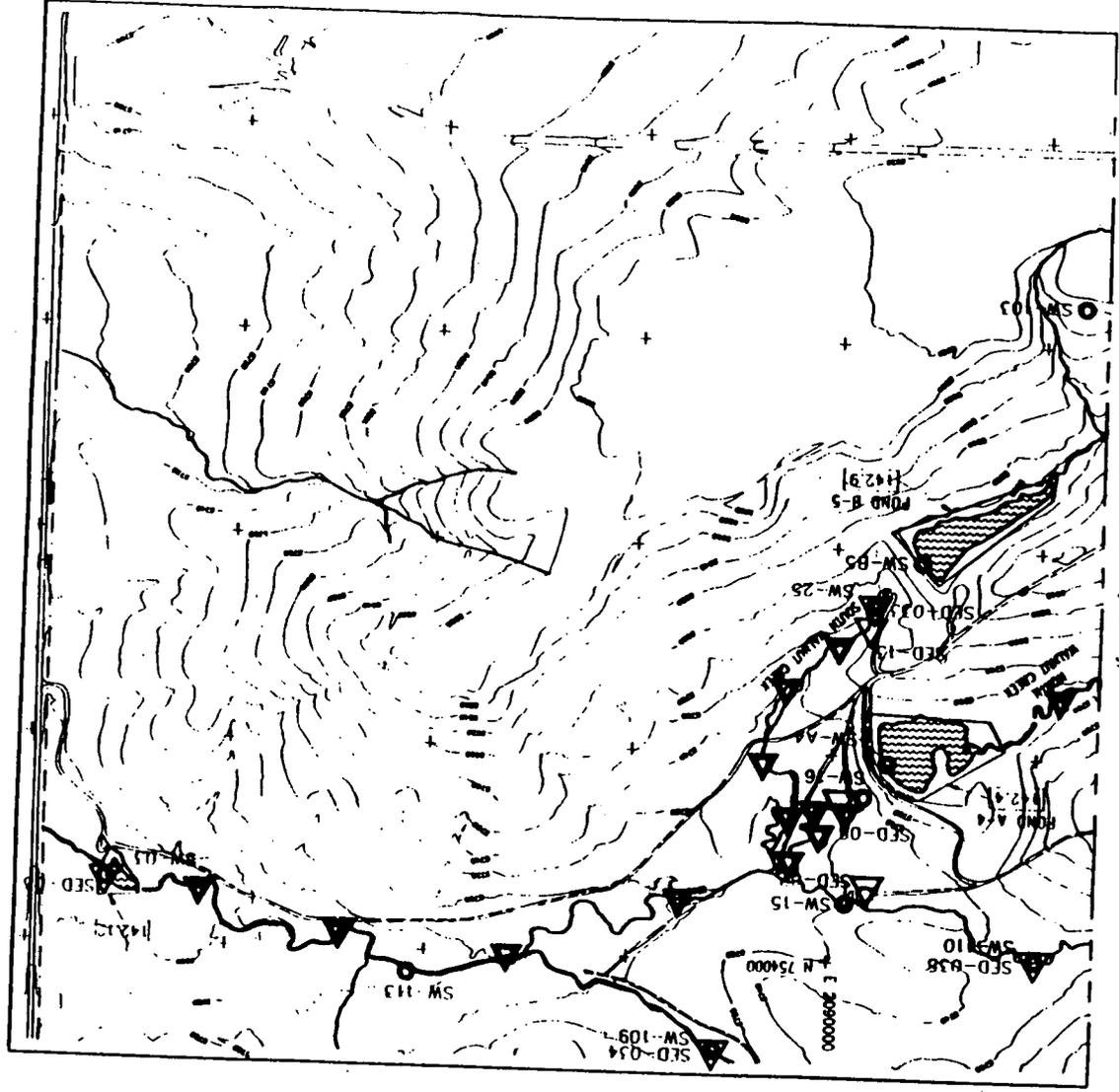
- EXPLANATION
- INDIVIDUAL HAZARDOUS SUBSTANCE SITE (HSS) IN OPERABLE UNIT 6
 - 115: HSS REFERENCE NUMBER
 - SW-1 EXISTING SURFACE WATER SAMPLING LOCATION
 - ▽ S.D.-17 EXISTING SEDIMENT SAMPLE LOCATION
 - DIRT ROAD
 - ▽ PROPOSED LOCATIONS FOR SEDIMENT SAMPLING

SCALE: 1" = 600'

0 300 600



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MATCHLINE
 (SEE FIGURE 7-4 (2 OF 2))

PROPOSED SAMPLING & WELL LOCATIONS
 HSSS 166.1-3 NORTH AREA,
 HSSS 166.1-3, TRENCHES A, B, & C
 POND AREA AND SOUTH AREA

U.S. DEPARTMENT OF ENERGY
 Rocky Flats Plant, Golden, Colorado
 OPERABLE UNIT 6
 PHASE I RI/RI WORK PLAN

ALL PROPOSED LOCATIONS ARE APPROXIMATE

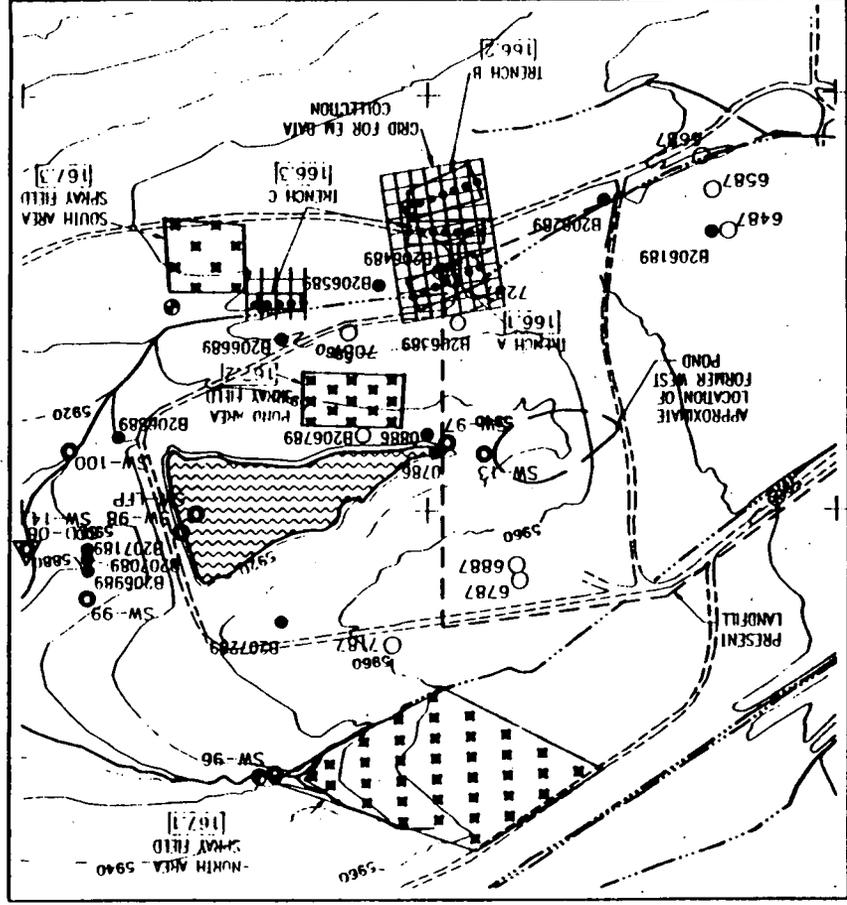
- EXPLANATION**
- INDIVIDUAL HAZARDOUS SUBSTANCE SITE [115]
 - EXISTING SURFACE WATER SAMPLING LOCATION SW-1
 - EXISTING ATURAL GROUNDWATER MONITORING WELL 5766
 - EXISTING SEDIMENT SAMPLING LOCATION SED-17
 - EXISTING BERKOW GROUNDWATER MONITORING WELL 3087
 - INTERMITTENT STREAM
 - DIRT ROAD
 - PROPOSED SOIL BORING LOCATION
 - PROPOSED WELL LOCATION
 - PROPOSED BORING AND SURFACE SAMPLI LOCATION
 - PROPOSED ELECTROMAGNETIC SURVEY LINE LOCATION

SCALE: 1" = 300'

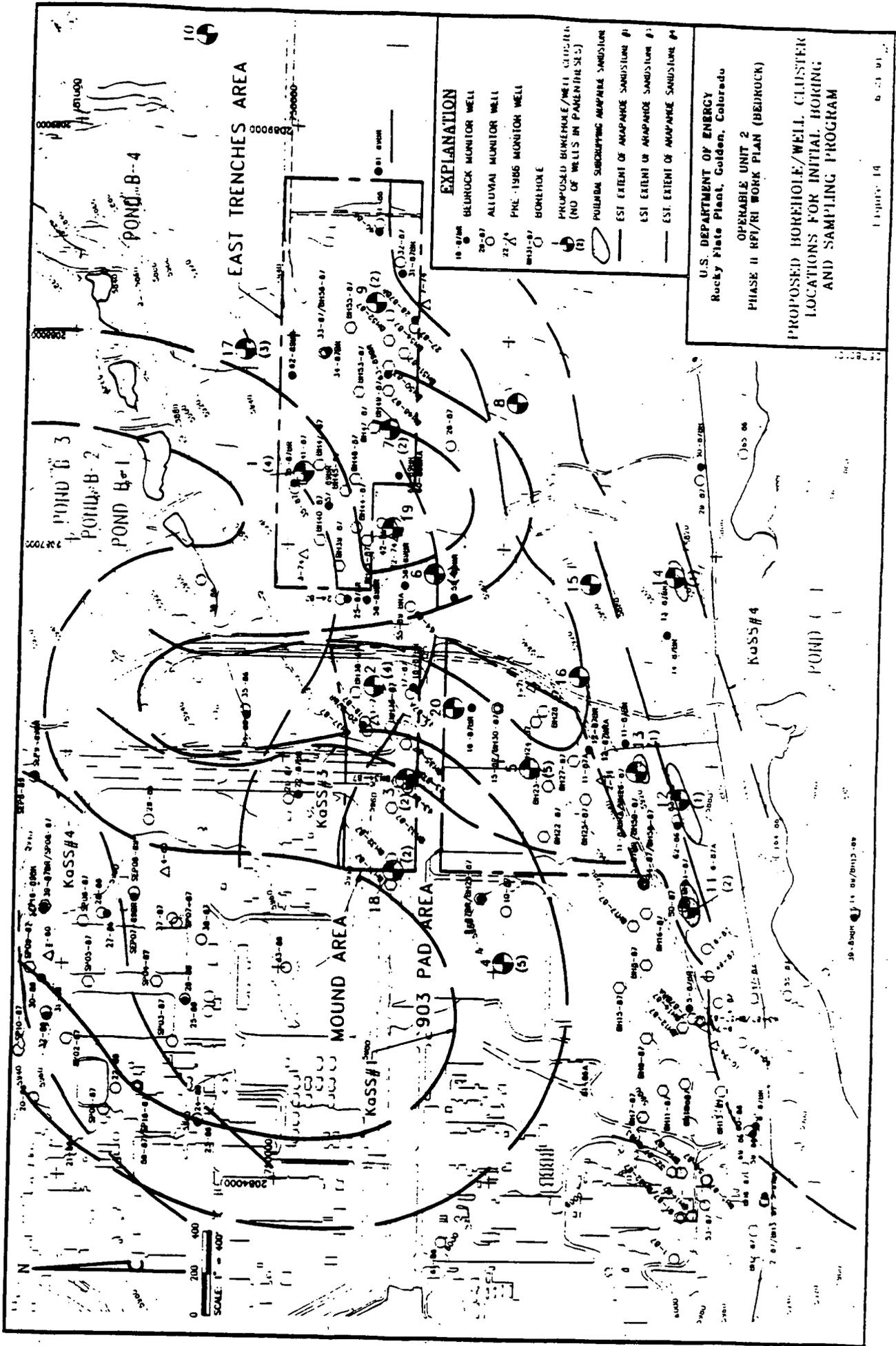
0 150 300



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Preliminary information from the U.S. Army Corps of Engineers shows no flood plain for the drainageways on this map.



EXPLANATION

- 10-07/08 BEDROCK MONITOR WELL
- 20-07 ALLUVIAL MONITOR WELL
- 22-07 PNE. 1986 MONITOR WELL
- 23-07 BOREHOLE
- PROPOSED BOREHOLE/WELL CLUSTER (NO. OF WELLS IN PARENTHESIS)
- POLLING SUCROPPING ANAPHASE SANDSTONE
- EST. EXTENT OF ANAPHASE SANDSTONE #1
- EST. EXTENT OF ANAPHASE SANDSTONE #2
- EST. EXTENT OF ANAPHASE SANDSTONE #3

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

OPERABLE UNIT 2
 PHASE II RFI/RI WORK PLAN (BEDROCK)

PROPOSED BOREHOLE/WELL CLUSTER
 LOCATIONS FOR INITIAL BORING
 AND SAMPLING PROGRAM