

5.28 OTHER AREAS

During the RFI-Phase I, groundwater samples were collected at all groundwater monitoring wells at TEAD-S including those wells used in previous investigations to evaluate site-wide groundwater contamination. Many of these wells are not near suspected releases SWMUs as shown on Figures 5.28-1 and 5.28-2. The analytical results for these other wells are presented in Tables 5.28-1 and 5.28-2.

Table 5.28-1 contains the RFI-Phase I results for other wells in the northwest portion of the site. Groundwater in this part of the site leaves TEAD-S at the west and northwest boundary. Table 5.28-2 summarizes the RFI-Phase I results for wells located in the southeast portion of the site. Groundwater in this part of the site leaves TEAD-S at the south or east boundaries. The complete results for all RFI-Phase I groundwater samples are also presented in Appendix F.

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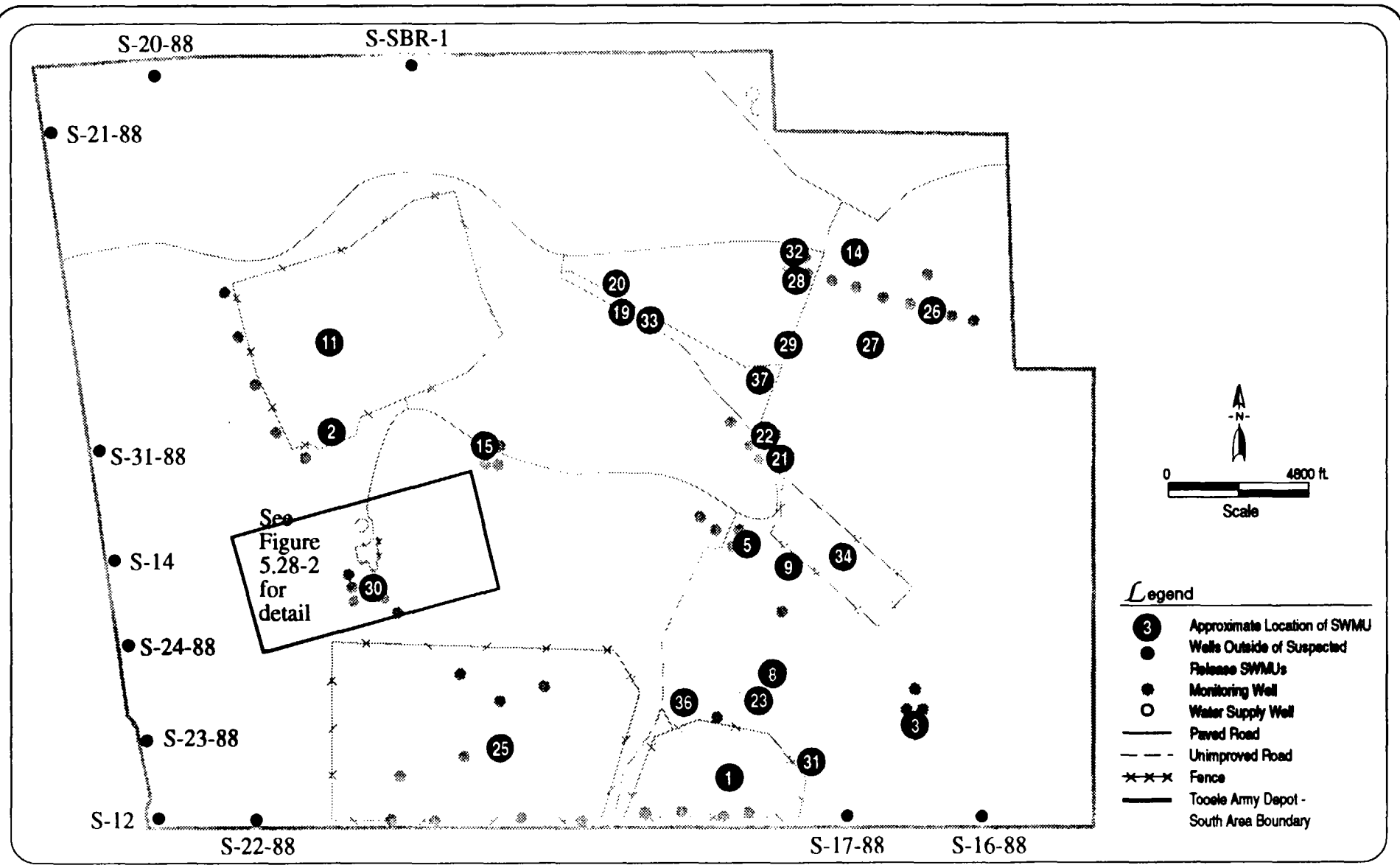
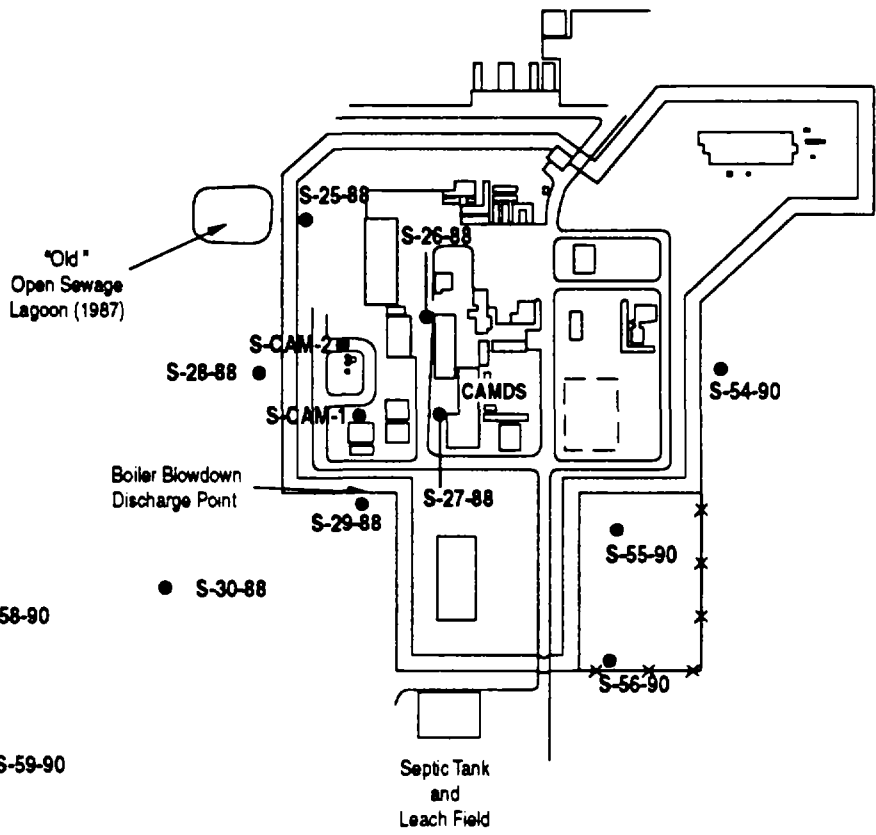


Figure 5.28-1
Location of Wells Outside of Suspected Releases SWMUs
 Tooele Army Depot - South Area
 Prepared by: Ebasco Services Incorporated



Legend

- Monitoring Well
- ← Groundwater Flow Direction, July 1990
- xxx Fence

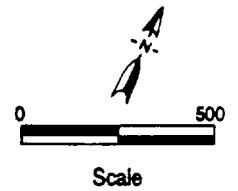


Figure 5.28-2
SWMU 30 - Location of Wells
Outside of Suspected Releases
 Tooele Army Depot - South Area
 Prepared by: Ebasco Services Incorporated

TABLE 5.28-1

**Summary of RFI-Phase I Investigations for
Other Areas Northwest**

GROUNDWATER (µg/l)

Analytical Groups and Analytes Detected	S-12	S-14	S-20-88	S-21-88	S-23-88	S-24-88	S-25-88	S-26-88	S-27-88	S-28-88	S-29-88
Volatile Organics:											
1,2-Dimethylbenzene (12DMB)	LT 2.0	LT 2.0	LT 2.0	LT 2.0	LT 2.0	LT 2.0	LT 2.0	LT 2.0	310	200	LT 2.0
1,3-Dimethylbenzene (13DMB)	LT 2.0	LT 2.0	LT 2.0	LT 2.0	LT 2.0	LT 2.0	LT 2.0	LT 2.0	63	100	LT 2.0
1-Methylnaphthalene (1MNAP)	NA	NA	NA	NA	NA	NA	NA	100	400	NA	NA
Acetone (ACET)	LT 10	LT 10	LT 10	LT 10	LT 10	LT 10	LT 10	LT 10	LT 10	LT 10	LT 10
Benzene (C6H6)	LT 2.4	LT 2.4	LT 2.4	LT 2.4	LT 2.4	LT 2.4	LT 2.4	LT 2.4	77	91	LT 2.4
Chloroform (CHCL3)	LT 0.83	LT 0.83	LT 0.83	LT 0.83	LT 0.83	LT 0.83	LT 0.83	2.0	3.1	28	3.5
Chloromethane(CH3CL)	LT 1.6	LT 1.6		LT 1.6	LT 1.6	LT 1.6	LT 1.6	LT 1.6	LT 1.6	LT 1.6	LT 1.6
Dimethylnaphthalenes (ME2NAP)	NA	NA	NA	NA	6.0	NA	NA	NA	NA	NA	NA
Ethylbenzene (ETC6H5)										88	
Methylene chloride(CH2CL2)	LT 5.4	LT 5.4	LT 5.4	LT 5.4	LT 5.4	6.2	LT 5.4	LT 5.4	LT 5.4	LT 5.4	LT 5.4
Xylenes (XYLEN)										2,000	
Unknowns				3.0			83	300	4,100	3,100	
Semivolatile Organics:											
2-Methylnaphthalene (2MNAP)	LT 10	LT 10	LT 10	LT 10	LT 10	LT 10	LT 10	17	1,000	12,000	LT 10
Acenaphthene (ANAPNE)	LT 14	LT 14	LT 14	LT 14	LT 14	LT 14	LT 14	LT 14	56	750	LT 14
Anthracene (ANTRC)	LT 20	LT 20	LT 20	LT 20	LT 20	LT 20	LT 20	LT 20	49	870	LT 20
Butylbenzyl phthalate (BBZP)	LT 10	LT 10	LT 10	LT 10	LT 10	LT 10	82	LT 10	LT 10	LT 50	LT 10
Dibenzofuran (DBZFUR)	LT 10	LT 10	LT 10	LT 10	LT 10	LT 10	LT 10	LT 10	29	250	LT 10
Dimethylnaphthalenes (ME2NAP)									700		50
Fluorene (FLRENE)	LT 10	LT 10	LT 10	LT 10	LT 10	LT 10	LT 10	LT 10	42	1,200	LT 10
Fluoranthene (FANT)	LT 20	LT 20	LT 20	LT 20	LT 20	LT 20	LT 20	LT 20	5.1	77	LT 20
Methylnaphthalenes (METLAP)								200	700		5.0
Naphthalene (NAP)	LT 17	LT 17	LT 17	LT 17	LT 17	LT 17	LT 17	LT 17	31	1,000	3,700
Pentachlorophenol	LT 50	LT 50	LT 50	LT 50	LT 50	LT 50	LT 50	LT 50	LT 50	LT 50	58
Phenanthrene (PHANTR)	LT 22	LT 22	LT 22	LT 22	LT 22	LT 22	LT 22	LT 22	420	8,100	LT 22
Unknowns	9.0*	90*		120			390	150	8,300	10,000	180

* Detected in associated method blank

NA Not analyzed

LT Less than

µg/l Microgram per liter

GROUNDWATER (µg/l)

Analytical Groups and Analytes Detected	S-12	S-14	S-20-88	S-21-88	S-23-88	S-24-88	S-25-88	S-26-88	S-27-88	S-28-88	S-29-88
Agent Breakdown Products: Isopropylmethyl phosphonic acid (IMPA)	LT 1,000	LT 1,000	LT 1,000	LT 1,000	LT 1,000	LT 1,000	1,300	LT 1,000	LT 1,000	LT 1,000	LT 1,000
Metals:											
Antimony (Sb)	66	65	LT 38	LT 38	60	LT 38	LT 38	LT 38	46	LT 38	LT 38
Arsenic (As)	160	130	5.1	420	17	60	1,300	260	1,300	420	430
Chromium (Cr)	LT 6.0	LT 6.0	LT 6.0	9.3	LT 6.0	LT 6.0	LT 6.0	LT 6.0	LT 6.0	10	LT 6.0
Copper (Cu)	LT 8.1	LT 8.1	LT 8.1	20	LT 8.1	LT 8.1	14	LT 8.1	LT 8.1	49	LT 8.1
Lead (Pb)	1.6*	LT 5.0	LT 1.3	24*	LT 1.3	3.5*	LT 1.3	1.4	LT 1.3	LT 1.3	LT 1.3
Selenium (Se)	13	78	LT 30	LT 30	23	LT 18	4.5	LT 3.0	28	7.0	6.0
Sodium (Na)	1,900,000	21,000,000	55,000	11,000,000	4,800,000	5,100,000	1,800,000	870,000	4,800,000	2,900,000	3,400,000
Zinc (Zn)	LT 21	LT 21	LT 21	40	LT 21	LT 21	LT 21	LT 21	LT 21	LT 21	LT 21
Anions:											
Bromide (Br)	2,700	23,000	300	20,000	5,400	11,000	LT 1,000	540	2,300	1,500	2,000
Chloride (Cl)	4,800,000	10,000,000	690,000	36,000,000	700,000	13,000,000	2,100,000	290,000	7,700,000	4,100,000	2,000,000
Fluoride (F)	LT 140,000	52,000	LT 1,400	LT 360,000	LT 140,000	LT 360,000	LT 1,400	3,200	LT 14,000	LT 14,000	LT 14,000
Radionuclides (pCi/l):											
Gross alpha (ALPHAG)	90*	710	240*	180*	200	360*	240	140	280	1,100	330
Gross beta (BETAG)	LT 0.30	500*	LT 0.30	41	55*	LT 0.30	LT 0.30	LT 0.30	47	93	7.8
Uranium (U)	12	120	18*	29	14	11	10	46	94	82	55

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* Detected in method blank
 LT Less than
 pCi/l Picocurie per liter
 NA Not analyzed
 µg/l Microgram per liter

GROUNDWATER (µg/l)

Analytical Groups and Analytes Detected	S-30-88	S-31-88	S-CAM-1	S-CAM-2	S-SBR-1	S-SBR-1-RB
Volatile Organics:						
1-Methylnaphthalene (1MNAP)	NA	NA	NA	200	NA	NA
Acetone (ACET)	LT 10	LT 10	LT 10	LT 10	30	22
Benzene (C ₆ H ₆)	LT 2.4	LT 2.4	50	LT 2.4	LT 2.4	LT 2.4
Chloroform (CHCL ₃)	6.7					
Chloromethane(CH ₃ CL)	LT 1.6	LT 1.6	2.6	LT 1.6	LT 1.6	LT 1.6
Dimethylnaphthalenes (ME2NAP)	NA	NA	NA	90	NA	NA
Methylene Chloride(CH ₂ CL ₂)	LT 5.4	LT 5.4	LT 5.4	LT 5.4	8.1	27
Unknowns	19		1100	1400		
Semivolatile Organics:						
2-Methylnaphthalene (2MNAP)	LT 10	LT 10	130	300	LT 10	LT 10
Acenaphthene (ANAPNE)	LT 14	LT 14	29	41	LT 14	LT 14
Butylbenzyl phthalate (BBZP)	LT 10	LT 10	LT 10	11	LT 10	LT 10
Fluorene (FLRENE)	LT 10	LT 10	20	24	LT 10	LT 10
Naphthalene (NAP)	LT 17	LT 17	150	81	LT 17	LT 17
Phenanthrene (PHANTR)	LT 22	LT 22	98	120	LT 22	LT 22
Unknowns	110		4,700	4,700		

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NA Not analyzed
 LT Less than
 pCi/l Picocuries per liter
 µg/l Microgram per liter

GROUNDWATER ($\mu\text{g/l}$)

Analytical Groups and Analytes Detected	S-30-88	S-31-88	S-CAM-1	S-CAM-2	S-SBR-1	S-SBR-1-RB
Metals:						
Antimony (Sb)	110	120	61	LT 38	LT 38	LT 38
Arsenic (As)	92	180	680	840	LT 2.5	LT 2.5
Chromium (Cr)	7.4	LT 6.0	LT 6.0	LT 6.0	LT 6.0	LT 6.0
Copper (Cu)	LT 8.1	LT 8.1	LT 8.1	13	LT 8.1	LT 8.1
Lead (Pb)	3.7	LT 1.3	LT 1.3	5.5	1.5	LT 1.3
Selenium (Se)	LT 12	LT 6.0	9.2	LT 3.0	LT 3.0	LT 3.0
Sodium (Na)	3,600,000	4,600,000	2,800,000	1,500,000	16,000	24,000
Zinc (Zn)	LT 21	LT 21	LT 21	23	LT 21	8.4
Anions:						
Bromide (Br)	3,200	4,000	1,100	580	LT 50	78
Chloride (Cl)	7,200,000	6,600,000	1,800,000	750,000	33,000	76,000
Fluoride (F)	LT 360,000	LT 360,000	LT 36,000	LT 14,000	480	160
Radionuclides (pCi/l):						
Gross alpha (ALPHAG)	1,100	LT 0.10	72	83	57*	72
Gross beta (BETAG)	LT 0.30	190	73*	11*	LT 0.30	LT 0.30
Uranium (U)	74	4.0	53	31	5.2*	5.2

* Detected in associated method blank

LT Less than

pCi/l Picocurie per liter

 $\mu\text{g/l}$ Microgram per liter

GROUNDWATER (µg/l)

Analytical Groups and Analytes Detected	S-16-88	S-17-88	S-22-88
Semivolatile Organics:			
Unknowns			8.0*
Metals:			
Arsenic (As)	17	50	25
Lead (Pb)	LT 1.3	LT 1.3	2.1
Selenium (Se)	LT 3.0	37	LT 3.0
Sodium (Na)	32,000	270,000	430,000
Anions:			
Bromide (Br)	LT 50	330	LT 1,100
Chloride (Cl)	21,000	280,000	1,400,000
Fluoride (F)	300	2,800	LT 140,000
Radionuclides (pCi/l):			
Gross alpha (ALPHAG)	22*	130*	28*
Gross beta (BETAG)	LT 0.30	LT 0.30	32
Uranium (U)	4.2	14	6.1

* Detected in associated method blank

LT Less than

µg/l Microgram per liter

pCi/l Picocurie per liter

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