Table 6.31
Soil Inorganic Analytical Data Exceedences for PSC SD-20
Luke AFB, Arizona

Sample Date	Location	Depth (ft bgs)	Inorganic Constituents			
			Arsenic			
			ASRL		PRG	
			Res.	Ind.	Res.	Ind.
			10.0	10.0	0.39	1.60
10/09/91	20-MW-112D	0-2	**5.40**			
		130-132	**8.70**			
		280-282	**6.40**			
		380-382	**5.30**			
12/03/91	20-MW-113	0-2	**5.50**			
		320-322	**16.0**			
			13.0			
10/10/91	20-SB-02	38-40	**5.90**			
	20-SB-03	0-2	**5.00**			
		12-14	**7.40**			
	20-SB-04	0-2	**5.70**			
		30-32	**5.20**			
03/16/93	20-SB-05	16-18	**7.00**			
		26-28	**16.0**			
03/18/93	20-SB-06	8-10	**17.0**			
03/17/93	20-SB-07	26-28	**7.00**			
03/18/93	20-SB-08	16-18	**7.00**			
03/23/93	20-SB-09	6-8	**16.0**			
		14-16	**10.0**			
		24-26	**11.0**			
03/22/93	20-SB-10	6-8	**17.0**			
		14-16	**9.00**			
		24-26	**9.00**			
	20-SB-11	6-8	**9.00**			
		24-26	**12.0**			
	20-SB-12	6-8	**12.0**			
		14-16	**26.0**			
		24-26	**14.0**			
03/23/93	20-SB-13	4-6	**16.0**			
		12-14	**7.00**			
		22-24	**14.0**			
			16.0			
10/02/91	20-SD-08	0-1	**6.10**			
		1-2	**10.9**			
	20-SD-11	0-1	**5.00**			
		1-2	**8.50**			

Notes:
- Sample results are reported in milligrams per kilogram
- Shaded results exceed a standard
- Bold results indicate compound was detected

ASRL Arizona soil remediation level
ft bgs feet below ground surface
Ind. industrial
ND not detected
PRG EPA Region 9 preliminary remediation goal
Res. residential

Table 6.32
Soil Inorganic Analytical Data
Exceedences for PSC SD-38
Luke AFB, Arizona

Sample Date	Location	Depth (ft bgs)	Inorganic Constituents							
			Arsenic				Lead			
			ASRL		PRG		ASRL		PRG	
			Res.	Ind.	Res.	Ind.	Res.	Ind.	Res.	Ind.
			10.0	10.0	0.39	1.60	400	2,000	400	800
05/04/92	38-SB-1	0-2	7.00				30.0			
			11.0				22.0			
		2-4	8.00				16.0			
		48-50	10.0				9.00			
		98-100	9.00				7.00			
05/05/92	38-SB-2	0-2	10.0				23.0			
		2-4	14.0				17.0			
		98-100	12.0				9.00			
05/04/92	38-SB-3	6-8	8.00				470			
		10-12	5.00				8.00			
		198-200	10.0				12.0			
04/06/93	38-SB-5	34-36	8.00				15.0			
04/07/93	38-SB-5	44-46	6.00				6.00			
		154-156	13.0				16.0			
		204-206	11.0				9.00			
		254-256	5.00				ND			
04/08/93	38-SB-5	304-306	8.00				11.0			
04/09/93	38-SB-7	8-10	5.00				8.00			
		18-20	6.00				11.0			
		38-40	5.00				9.00			
04/13/93	38-MW-117	206-208	8.00				18.0			
		276-278	10.0				13.0			
		306-308	12.0				10.0			
		334-336	6.00				8.00			

Notes:
- Sample results are reported in milligrams per kilogram
- Shaded results exceed a standard
- Bold results indicate compound was detected

ASRL Arizona soil remediation level
ft bgs feet below ground surface
Ind. industrial
ND not detected
PRG Environmental Protection Agency Region 9 preliminary remediation goal
Res. residential

Table 6.33
Soil Inorganic Analytical Data
Exceedences for PSC ST-18
Luke AFB, Arizona

Sample Date	Location	Depth (ft bgs)	Inorganic Constituents			
			Arsenic			
			ASRL		PRG	
			Res.	Ind.	Res.	Ind.
			10.0	10.0	0.39	1.60
02/03/92	SB-3	18-20	**7.00**			
	SB-5	0-2	**5.00**			
	SB-6	0-2	**5.00**			
		4-6	**6.00**			
06/25/92	SB-8	62-64	**6.00**			

Notes:
- Sample results are reported in milligrams per kilogram
- Shaded results exceed a standard
- Bold results indicate compound was detected

ASRL Arizona soil remediation level
ft bgs feet below ground surface
Ind. industrial
PRG Environmental Protection Agency Region 9 preliminary remediation goal
Res. residential

Table 6.34
Groundwater Organic
Applicable or Relevant and Appropriate Requirements Values
Luke AFB, Arizona

Constituent	AWQS	PRG			MCL
		1996	2000	2004	
1,2-Dibromo-3-chloropropane	0.20	NL	0.0047	0.048	NE
1,2-Dichloroethane	5.00	NL	0.12	0.12	NE
1,2-Dichloropropane	5.00	0.16	0.16	0.16	NE
Acetone	NE	610	610	5,500	NE
Benzene	5.00	NL	0.35	0.35	5.00
Benzoic Acid	NE	NL	150,000	150,000	NE
Bis(2-ethylhexyl)phthalate	NE	NL	4.80	4.80	NE
Bromodichloromethane	TTHM (100)	NL	0.18	0.18	TTHM (80.0)
Chloroform	TTHM (100)	0.16	0.16	0.17	TTHM (80.0)
Dibromochloromethane	TTHM (100)	NL	0.13	0.13	TTHM (80.0)
cis-1,2-Dichloroethene	70.0	61.0	61.0	61.0	70.0
Ethylbenzene	700	NL	1,300	1,300	700
1,2-Dibromoethane	0.05	NL	0.00076	0.0056	0.05
Methyl Ethyl Ketone	NE	NL	1,900	7,000	NE
Methylene Chloride	NE	NL	4.30	4.30	NE
Tetrachloroethene	5.00	NL	1.10	0.10	5.00
Toluene	1,000	NL	720	720	1,000
Total Petroleum Hydrocarbons - Diesel Range	NE	NE	NE	NE	NE
Total Petroleum Hydrocarbons - Gasoline Range	NE	NE	NE	NE	NE
Trichloroethene	5.00	1.60	1.60	0.028	5.00
Xylenes (Total)	10,000	1,400	1,400	210	10,000

Notes:
- Standards are listed in micrograms per liter

AWQS Arizona water quality standard
MCL Environmental Protection Agency maximum contaminant level
NE not established
NL not located
PRG Environmental Protection Agency Region 9 preliminary remediation goal
TTHM total trihalomethanes

Table 6.35
Groundwater Inorganic
Applicable or Relevant and Appropriate Requirements Values
Luke AFB, Arizona

Constituent	AWQS	PRG			MCL
		1996	2000	2004	
Arsenic	50.0	0.045	0.045	0.045	10.0
Barium	2,000	2,600	2,600	2,600	2,000
Boron	630	NL	3,300	7,300	NE
Chromium	100	NE	NE	NE	100
Copper	1,300	1,400	1,400	1,500	1,300
Lead	15.0	NL	NE	NE	15.0
Nickel	140	730	730	730	NE
Selenium	50.0	180	180	180	50.0
Zinc	2,100	11,000	11,000	11,000	5,000[a]

Notes:
- Standards are listed in micrograms per liter
- Total Chromium standard listed

a	secondary water standard reported
AWQS	Arizona water quality standard
MCL	Environmental Protection Agency maximum contaminant level
NE	not established
NL	not located
PRG	Environmental Protection Agency Region 9 preliminary remediation goal
TTHM	total trihalomethanes

Table 6.36
Soil Organic
Applicable or Relevant and
Appropriate Requirements Values
Luke AFB, Arizona

Constituents	Arizona Soil Remediation Levels				EPA Region 9 Preliminary Remediation Goals					
	2000		2002		1996		2000		2004	
	Res.	Ind.	Res.	Ind.	Res.	Ind.	Res.	Ind.	Res.	Ind.
1,1,2,2-Tetrachloroethane	NL	NL	4.40	11.0	NL	NL	0.38	0.90	0.41	0.93
1,1-Dichloroethene	NL	NL	0.36	0.80	NL	NL	0.054	0.12	120	410
2-Methylnaphthalene	NL	NL	NE	NE	NE	800	NE	190	NE	NE
Acetone	NL	NL	2,100	8,800	2,100	8,800	1,600	6,200	14,000	54,000
Anthracene	20,000	200,000	20,000	200,000	NE	NL	22,000	100,000	22,000	100,000
Benzene	0.62	1.40	0.62	1.40	1.40	NL	0.65	1.50	0.64	1.40
Benzo(a)anthracene	6.10	26.0	6.10	26.0	NE	2.60	0.62	2.90	0.62	2.10
Benzo(a)pyrene	0.61	2.60	0.61	2.60	0.061	0.26	0.062	0.29	0.062	0.21
Benzo(b)fluroanthene	6.10	26.0	6.10	26.0	8.00	2.60	0.62	2.90	0.62	2.10
Benzo(g,h,i)perylene	NL	NL	NE	NE	NE	NL	NE	NE	NE	NE
Benzo(k)fluoranthene	61.0	260	61.0	260	NL	26.0	0.61	29.0	0.38	1.30
Benzoic Acid	NE	NE	260,000	1,000,000	NL	NL	10,000	10,000	100,000	100,000
Bis(2-ehtylhexyl)phthalate	320	1,400	320	1,400	NL	140	35.0	180	35.0	120
Butylbenzylpthalate	NL	NL	13000	140,000	NL	NL	12,000	100,000	12,000	100,000
Carbon Disulfide	NL	NL	7.50	24.0	NL	NL	360	720	360	720
Chrysene	610	2,600	610	2,600	6.10	7.20	6.10	290	62.0	290
Cyanide	NE	NE	1,300	14,000	NL	NL	11.0	35.0	1,200	12,000
Di-n-butyl phthalate	2,600	27,000	NE	NE	NL	NL	6,100	88,000	6,100	62,000
Ethylbenzene	1,500	2,700	1,500	2,700	NL	NL	230	230	400	400
Fluoranthene	2,600	27,000	2,600	27,000	2,300	30,000	2,300	30,000	2,300	22,000
Indeno(1,2,3-cd)pyrene	NL	NL	6.10	26.0	0.61	2.60	0.62	2.90	0.62	2.10
Methylene Chloride	NL	NL	77.0	180	NL	NL	8.90	21.0	9.10	21.0
Naphthalene	2,600	27,000	2,600	27,000	2,400	2,400	56.0	190	56.0	190
Phenanthrene	NE	NE	NE	NE	NE	NE	NE	54,000	NE	NE
Polychlorinated Biphenyls	2.50	13.0	2.50	13.0	NE	NE	0.22	1.00	0.22	0.74
Pyrene	2,000	20,000	2,000	20,000	100	100	2,300	54,000	2,300	29,000
Tetrachloroethene	NL	NL	53.0	170	NL	NL	5.70	19.0	0.48	1.30
Toluene	790	2700	790	2,700	NL	NL	520	520	520	520
Total Petroleum Hydrocarbons	4,100	18,000	NE	NE	NL	NL	NE	NE	NE	NE
Total Recoverable Petroleum Hydrocarbons	4,100	18,000	NE	NE	NL	NL	NE	NE	NE	NE
Trichloroethene	NL	NL	27.0	70.0	3.20	7.00	2.80	6.10	0.053	0.11
Xylenes (Total)	2,800	2,800	2,800	2,800	320	320	210	210	270	420

Notes:
- The standards are reported in milligrams per kilogram
- Several organic compounds were reported as being detected by previous contractor, but were not identified. The acronyms are: 1,2-DCB, ACEN, AF, CAR, DOP and 1,2-DCE

EPA Environmental Protection Agency
Ind. industrial
NE not established
Res. residential
NL 1996 PRG or 2000 SRL not located for reporting

Table 6.37
Soil Inorganic
Applicable or Relevant and Appropriate Requirements Values
Luke AFB, Arizona

Constituent	Arizona Soil Remediation Levels				EPA Preliminary Remediation Goals					
	2000		2002		1996		2000		2004	
	Res.	Ind.	Res.	Ind.	Res.	Ind.	Res.	Ind.	Res.	Ind.
Antimony	NL	NL	31.0	680	31.0	680	31.0	820	31.0	410
Arsenic	10.0	10.0	10.0	10.0	0.38	2.40	0.39	2.70	0.39	1.60
Barium	NL	NL	5,300	110,000	5,300	100,000	5,400	100,000	5,400	67,000
Beryllium	1.40	11.0	1.4.0	11.0	NL	1.10	150	2,200	150	1,900
Cadmium	38.0	850	38.0	850	NL	NL	9.00	810	37.0	450
Chromium	2,100	4,500	2,100	4,500	210	450	210	450	210	450
Copper	2,800	63,000	2,800	63,000	2,800	63,000	2,900	76,000	3100	41,000
Lead	400	2,000	400	2,000	NL	NL	400	750	400	800
Mercury	NL	NL	6.70	180	NL	NL	23.0	610	23.0	310
Nickel	NL	NL	1,500	34,000	150	34,000	1,600	41,000	1600	20,000
Selenium	NL	NL	380	8,500	380	8,500	390	10,000	390	5,100
Silver	NL	NL	380	8,500	380	8,500	390	10,000	390	5,100
Thallium	NL	NL	NE	NE	NL	NL	5.20	130	5.20	67.0
Zinc	NL	NL	23,000	510,000	23,000	100,000	23,000	100,000	23000	100,000

Notes:
- The standards are reported in milligrams per kilogram
- Total Chromium standards listed

EPA Environmental Protection Agency
Ind. industrial
NE not established
NL 1996 PRG or 2000 SRL were not located for reporting
Res. residential