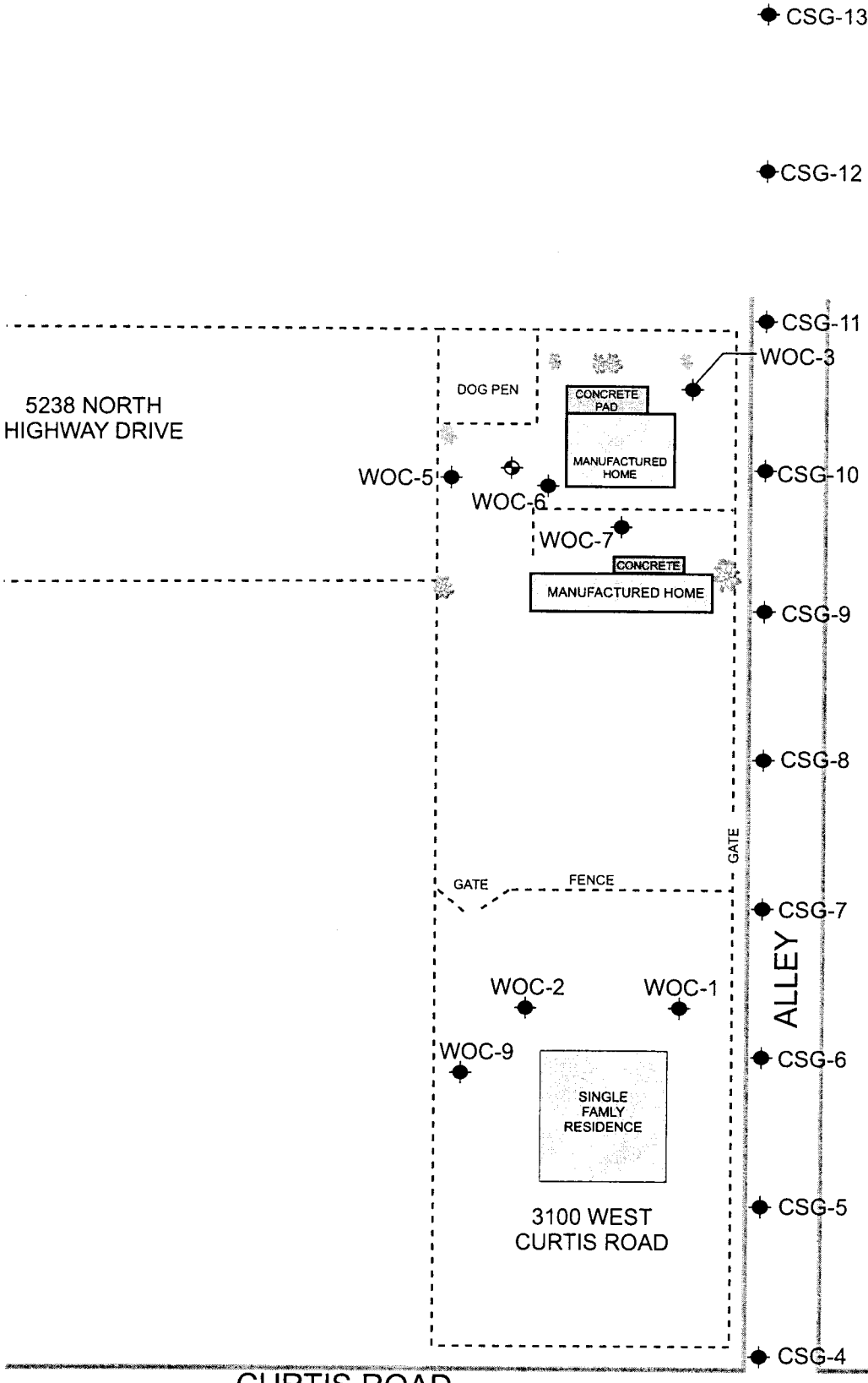
APPENDIX H

E.C. WINTER PA/SI APPROXIMATE SAMPLING LOCATIONS



SAMPLE LOCATION

EXISTING SOIL VAPOR MONITOR WELL

TREES

FENCE

N

0 15 30 60 120

APPROXIMATE SCALE 1"=60'

ADEQ PA/SI APPROXIMATE SAMPLING LOCATIONS

E.C. Winter Early Response Action

FIGURE 5

URS

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Table 3[1]
Results for Metals in Soil
E.C. Winter Site, Tucson, Arizona
March 1997

Analyte (results in mg/kg)	Background		Sample Location									SRL	GPL
	WOC-01S	WOC-02S	WOC-03S	WOC-05S	WOC-06S	WOC-07S	WOC-8S(D)	WOC-09S	WOC-03D	WOC-05D	WOC-06D		
Aluminum	7,850	11,000	12,400	23,300	9,040	7,920	9,850	15,500	20,500	26,100	25,300	77,000	NE
Antimony	<0.84	<0.83	<0.84	<0.89	<0.82	<0.82	<0.84	<0.83	<0.86	<0.95	<0.99	31	35
Arsenic	4.4	6.7	5.8	7.9	5.9	6.9	9.2	5.3	8.4	9.7	**15.4**	10	290
Barium	194	121	142	218	132	278	757	156	356	210	244	5,300	12,000
Beryllium	0.34 J	0.45 J	0.45 J	1.1 J	0.45 J	0.34 J	0.45 J	0.66 J	1.0 J	**1.5**	**1.4**	1.4	23
Cadmium	0.51 J	<0.21	<0.21	<0.22	7.1	0.5 J	1.1	<0.21	<0.22	<0.24	<0.25	38	29
Calcium	27,300	44,800	23,100	33,800	20,700	14,100	17,500	28,800	16,500	17,800	31,100	NE	NE
Chromium	12.2	11.1	8.3	12.8	7.1	13.2	19.2	11.4	12.4	17.5	15.7	2,100	590
Cobalt	4.2 J	4.5 J	5.5 J	7.5 J	4.4 J	3.3 J	3.8 J	6.0 J	8.9 J	13.2	12.0 J	4,600	NE
Copper	57.2	21.1	30.6	35.2	47.1	43.0	47.6	28.4	52.2	81.3	99.2	2,800	NE
Iron	11,700	11,400	13,100	19,000	11,900	8,410	10,200	14,900	19,300	25,800	24,300	NE	NE
Lead	215 J	22.3 J	251 J	22.1 J	168 J	**1,120 J**	**1,890 J**	41.4 J	46.8 J	34.0 J	45.6 J	400	290
Magnesium	4,870	5,340	5,240	8,890	4,240	3,330	4,030	6,450	6,950	10,000	9,610	NE	NE
Manganese	322	340	458	672	321	210	316	453	419	880	833	3,200	NE
Mercury	<0.10	<0. 11	<0.11	<0. 11	<0.11	<0.10	<0.10	<0.11	<0.11	<0.12	<0.13	6.7	12
Nickel	9.2	7.4 J	7.6 J	12.6	5.9 J	9.0	6.3 J	8.4	11.3	17.0	16.6	1,500	590
Potassium	3,890 J	6,430 J	3,980 J	7,520 J	3,300 J	2,840 J	3,440 J	6,700 J	4,160 J	5,320 J	5,180	NE	NE
Selenium	<1.1	<1.0	<1.0	<1.1	1.1	<1.0	<1.1	<1.0	<1.1	<1.2	<1.2	380	290
Silver	<0.42	<0.41	<0.42	<0.45	<0.41	<0.41	<0.42	<0.42	<0.43	<0.47	<0.50	380	NE
Sodium	404 J	944 J	370 J	470 J	398 J	294 J	287 J	1370	875 J	3,820	2,390	NE	NE
Thallium	<2.1	<2.1	<2.1	<2.2	<2.1	<2.1	<2.1	<2.1	<2.2	<2.4	<2.5	NE	12
Vanadium	13.2	17.2	20.2	26.5	19.3	12.0	14.0	22.5	33.0	41.5	48.6	540	NE
Zinc	259 J	112 J	100 J	83.2 J	87.4 J	342 J	536 J	92.4 J	103 J	108 J	119 J	23,000	NE
Percent Solids	94.2%	95.0%	94.6%	89.8%	94.3%	96.3%	93.9%	93.2%	90.8%	82.8%	79.0%	---	---

mg/kg = milligrams per kilogram
(D) = Duplicate sample of WOC-06S
SRL = Arizona Residential Soil Remediation Level
GPL = Minimum Groundwater Protection Level
NE = Not established
J = The amount detected is less than the reporting limit and is only an estimated value
Bold = Result exceeds SRL and GPL limits
1 = Results obtained from ADEQ Site Inspection Report, 1998

Table 2[1]
Results for Volatile Organic Compounds in Soil
E.C. Winter Site, Tucson, Arizona
March 1997

Analyte (results in mg/kg)	Background		Sample Location										SRL	GPL
	WOC-01S	WOC-01D	WOC-03S	WOC-03D	WOC-05S	WOC-05D	WOC-06S	WOC-06D*	WOC-06XD*	WOC-07S	WOC-08S(D)*	WOC-09S*		
Benzene	<0.002	<0.002	0.0007 J	0.017	<0.002	<0.002	0.0005 J	0.001 J	<0.002	<0.002	<0.005	<0.002	0.62	0.71
1,1-Dichloroethane	<0.002	<0.002	<0.002	0.14	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	<0.002	500	NE
1,1-Dichloroethene	<0.002	<0.002	<0.002	0.013	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	<0.002	0.36	0.81
Trichloroethene	<0.002	<0.002	<0.002	0.28	0.0011 J	<0.002	0.0009 J	0.160 E	<0.002	<0.002	<0.005	<0.002	27	0.61
Tetrachloroethene	<0.002	<0.002	0.21	0.66	<0.002	<0.002	0.02	0.0094	<0.002	<0.002	0.026	<0.002	53	1
1,1,1-Trichloroethane	<0.002	<0.002	<0.002	0.45	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	<0.002	1,200	1
Toluene	<0.002	<0.002	0.0069	0.18	<0.002	0.0006 J	0.0028	0.012	<0.002	<0.002	0.013	<0.002	790	400
Chlorobenzene	<0.002	<0.002	<0.002	0.15	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	<0.002	65	NE
Ethylbenzene	<0.002	<0.002	0.0015 J	0.1	<0.002	<0.002	<0.002	0.013	<0.002	<0.002	0.0038 J	<0.002	1,500	120
p&m-Xylene	<0.002	<0.002	0.0061	0.4	<0.002	0.0006 J	0.0022	0.061	<0.002	<0.002	0.015	<0.002	2,800	2,200
o-Xylene	<0.002	<0.002	0.0021	0.3	<0.002	<0.002	0.0009 J	0.041	<0.002	<0.002	0.0054 J	<0.002	2,800	2,200
1,2-Dichlorobenzene	<0.002	<0.002	<0.002	<0.05	<0.002	<0.002	<0.002	0.0016 J	<0.002	<0.002	<0.005	<0.002	1,100	72
1,4-Dichlorobenzene	<0.002	<0.002	<0.002	<0.05	<0.002	<0.002	<0.002	0.0015 J	<0.002	<0.002	<0.005	<0.002	190	9

mg/kg = milligram per kilogram
* = Analyzed outside of holding time
(D) = Duplicate sample of WOC-06S
SRL = Arizona Residential Soil Remediation Level
GPL = Minimum Groundwater Protection Level
NE = Not established
J = The amount detected is less than the reporting limit and is only an estimated value
1 = Results obtained from ADEQ Site Inspection Report, 1998

Table 7[1]
March 1997 Volatile Organic Analytical Results for soil vapor at the Winters Oil Site

Analyte (results in µg/L)	Background	Equip. Blank	Ambient	Equip. Blank	Sample Location				
	WOC-01V	WOC-10V	WOC-12V	WOC-11V	WOC-03V	WOC-05V	WOC-06V	WOC-07V	WOC-08V (D)
Acetone	8.3 B	9.1 B E	5.2 B	<2	<2	8.3 B	<2	6.6 B	<2
2-butone	<2	1.1 J B	<2	<2	<2	1.9 J B	<2	<2	<2
Benzene	<2	<2	<2	<2	0.7 J	0.7 J	<2	<2	<2
1,1-Dichloroethane	<2	<2	<2	<2	21	<2	<2	<2	0.5 J
1,1-Dichloroethene	<2	<2	<2	<2	1.1 J	<2	<2	<2	<2
2-Hexanone	<2	<2	<2	<2	<2	<2	<2	<2	<2
Methylene Chloride	0.7 J	0.6 J	<2	<2	<2	0.6 J	<2	<2	<2
Trichloroethene	<2	2.1	<2	<2	14	4.0	50 D	3.7	81 D
Tetrachloroethene	<2	<2	<2	<2	13	<2	1.1 J	<2	2.9
1,1,1-Trichloroethane	<2	<2	<2	<2	35 D	<2	<2	<2	<2
4-Methyl-2-pentanone	<2	<2	<2	<2	<2	1.4 J	<2	<2	<2
Toluene	<2	<2	<2	<2	4.6	<2	2.3	<2	4.8
Chlorobenzene	<2	<2	<2	<2	<2	<2	<2	<2	<2
Ethylbenzene	<2	<2	<2	<2	1 J	1.6 J	1.6 J	<2	4.0
p&m-Xylene	<2	<2	<2	<2	2.8	<2	4.4	<2	11
o-Xylene	<2	<2	<2	<2	1.3	<2	2.6	<2	6.2
1,2-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,4-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<2	<2	<2

[1]Results obtained from ADEQ Site Inspection Report, 1998

B = Compound in Method Blank
D = Concentration reported is from diluted analyses
(D) = Duplicate of WOC-06V
E = Concentration outside calibration range
J = Concentration is above detection limit but below reporting limit