

TABLE 6  
SUMMARY OF SURFACE WATER ANALYTICAL DATA  
PRISTINE, INC.

Inorganics (ug/l)	SF0401	SF0501	SF0601	SF0701	SF07DP	SF078K	SFDT01
1. Aluminum	238	1600	968	184000	191000	--	14400
2. Antimony	--	--	--	149	214	--	--
3. Arsenic	5.2(XR)	--	--	418	447	--	--
4. Barium	33(X)	38(X)	51(X)	--	--	--	2(X)
5. Beryllium	--	--	--	24	25	--	25100
6. Cadmium (IC)	--	4.8(X)	--	136	136	--	7.7
7. Calcium	573000	412000	219000	478000	513000	--	251000
8. Chromium	--	124	73	6140	6480	--	42
9. Cobalt	--	12(X)	4.6(X)	286	288	--	22(X)
10. Copper	16(X)	41	29	2460	2560	--	95
11. Iron	362	8830	6620	567000	599000	--	268000
12. Lead (IC)	--	65	132	371	383	6.1	71
13. Magnesium	152000	472000	217000	966000	952000	--	74300
14. Manganese	2260	6520	2570	19800	19600	--	2420
15. Mercury	0.12(X)	0.16	1.1	0.19(X)	0.72	--	0.52
16. Nickel	12(X)	40(X)	12(X)	680	684	--	59

Table 6  
 Summary of Surface Water Analytical Data  
 Pristine, Inc.  
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17. Potassium	12600	2300	13900	18000	13900	--	17600
18. Selenium	--	--	--	--	--	--	--
19. Silver	--	3.300	6.300	55	60	--	4.6(X)
20. Sodium	242000	760000	505000	37100	38400	3700(X)	193000
21. Thallium	--	--	--	--	--	--	--
22. Tin	--	--	--	--	--	--	--
23. Vanadium	4(X)	8.4(X)	7.5(X)	4430	4640	--	25(X)
24. Zinc	8.8(X)	99	182	16100	16000	2(X)	251
25. Cyanide	--	--	11	12	--	--	43
26. Fluoride (IC)	3400	1500	2400	--	--	--	1800

-- = Compound Analyzed For, But Not Detected Within Detection Limits  
 (X) Concentration Less Than The Required Detection Limits  
 (R) = Spike Samples Recovery Not Within Control Limits  
 (IC) = Indicator Compound

TABLE 6  
SUMMARY OF SURFACE WATER ANALYTICAL DATA  
PRISTINE, INC.

Volatiles (ug/l)	SF0401	SF0501	SF0601	SF0701	SF07DP	SF07BK	SFDT01
1. Chloroethane	---	---	---	---	---	---	---
2. Bromoethane	---	---	---	---	---	---	---
3. Vinyl chloride	---	---	---	---	---	---	---
4. Chloroethane	---	---	---	---	---	---	---
5. Methylene Chloride	15.3 B,J	9.2 B,J	18 B,J	5.6 B,J	12.1 B,J	34.2 B,J	16000B
6. Acetone	---	2.6 B,J	---	60 B	46.1 B,J	---	9.1 B
7. Carbon Disulfide	85.8 J	28.8 J	11.2 J	---	---	13.9	---
8. 1,1-Dichloroethene	---	9	---	---	---	---	3.1 J
9. 1,1-Dichloroethane	---	50.2	---	---	---	---	13
10. trans-1,2-Dichloroethene	---	87.6 J	---	5.8	9.5 J	---	110
11. Chloroform	---	---	---	---	---	---	100
12. 1,2-Dichloroethane	---	6200	149 J	---	---	---	220
13. 2-Butanone	---	---	---	---	---	---	---
14. 1,1,1-Trichloroethane	---	49.5 J	---	7.2	---	---	685 J
15. Carbon Tetrachloride	---	---	---	---	---	---	---
16. Vinyl Acetate	---	---	---	---	---	---	87
17. Bromodichloroethane	---	---	---	---	---	---	---
18. 1,1,2,2-Tetrachloroethane	---	---	---	---	---	---	9
19. 1,2-Dichloropropane	---	92.3	---	---	---	---	---
20. trans-1,3-Dichloropropene	---	---	---	---	---	---	---
21. Trichloroethene	---	10.8	---	1.2 J	---	---	10
22. Dibromochloroethane	---	---	---	---	---	---	---
23. 1,1,2-Trichloroethane	---	---	---	---	---	---	12
24. Benzene	---	9.3	---	---	---	---	2 J
25. cis-1,3-Dichloropropene	---	---	---	---	---	---	---
26. 2-Chloroethyl Vinyl Ether	---	---	---	---	---	---	---
27. Bromoform	---	---	---	---	---	---	---
28. 2-Hexanone	---	---	---	---	---	---	---
29. 4-Methyl-2-pentanone	---	---	---	---	---	---	---
30. Tetrachloroethene	1.9 J	---	---	---	---	---	250
31. Toluene	1.3 J	6	---	---	3.3 J	---	3.8 J
32. Chlorobenzene	---	---	---	---	---	---	---
33. Ethyl Benzene	---	---	---	---	---	---	---
34. Styrene	3.9 BJ	1.5 BJ	---	---	---	---	---
35. Total Iylenes	---	2.2	---	2.1 J	---	---	14

--- = COMPOUND ANALYZED FOR, BUT NOT DETECTED WITHIN DETECTION LIMITS  
 B = ANALYTE WAS FOUND IN THE BLANK AS WELL AS THE SAMPLE  
 J = INDICATES AN ESTIMATED VALUE

TABLE 6  
SUMMARY OF SURFACE WATER ANALYTICAL DATA  
PRISTINE, INC.

Semi-Volatiles (ug/l)	SF0401	SF0501	SF0601	SF0701	SF070P	SF078X	SFDT01
36. N-Nitrosodiaethylamine	---	---	---	---	---	---	---
37. Phenol	---	---	---	7.6 J	8.0 J	---	230
38. Aniline	---	---	---	4 J	5.8 J	---	---
39. bis(2-Chloroethyl) ether	---	---	---	---	---	---	---
40. 2-Chlorophenol	---	---	---	---	---	---	---
41. 1,3-Dichlorobenzene	---	---	---	---	---	---	---
42. 1,4-Dichlorobenzene	---	---	---	---	---	---	---
43. Benzyl Alcohol	---	---	---	---	---	---	---
44. 1,2-Dichlorobenzene	---	---	---	---	---	---	14
45. 2-Methylphenol	---	---	---	17 J	---	---	19
46. bis(2-Chloroisopropyl) ether	---	---	---	---	---	---	---
47. 4-Methylphenol	---	---	---	---	13.2	---	15
48. n-Nitroso-Dipropylamine	---	---	---	---	---	---	---
49. Hexachloroethane	---	---	---	---	---	---	---
50. Nitrobenzene	---	---	---	---	---	---	---
51. Isophorone	---	---	---	---	---	---	---
52. 2-Nitrophenol	---	---	---	---	---	---	9 J
53. 2,4-Diethylphenol	---	---	---	---	---	---	---
54. Benzoic Acid	11 J	---	---	21.6 J	34 J	---	---
55. bis(2-Chloroethoxy) methane	---	---	---	---	---	---	---
56. 2,4-Dichlorophenol	---	---	---	---	---	---	---
57. 1,2,4-Trichlorobenzene	---	---	---	---	---	---	---
58. Naphthalene	---	---	---	---	---	---	---
59. 4-Chloroaniline	---	---	---	---	---	---	---
60. Hexachlorobutadiene	---	---	---	---	---	---	---
61. 4-Chloro-3-methylphenol (para-chloro-meta-cresol)	---	---	---	---	---	---	13
62. 2-Methylnaphthalene	---	---	---	---	---	---	---
63. Hexachlorocyclopentadiene	---	---	---	---	---	---	---
64. 2,4,6-Trichlorophenol	---	---	---	---	---	---	---
65. 2,4,5-Trichlorophenol	---	---	---	---	---	---	---
66. 2-Chloronaphthalene	---	---	---	---	---	---	---
67. 2-Nitroaniline	---	---	---	---	---	---	---
68. Diethyl Phthalate	---	---	---	---	---	---	---
69. Acenaphthylene	---	---	---	---	---	---	---
70. 3-Nitroaniline	---	---	---	---	---	---	---

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J = INDICATES AN ESTIMATED VALUE

TABLE 6  
SUMMARY OF SURFACE WATER ANALYTICAL DATA  
PRISTINE, INC.

Semi-Volatiles (ug/l)	SF0401	SF0501	SF0601	SF0701	SF07DP	SF07BK	SFDT01
71. Acenaphthene	---	---	---	---	---	---	---
72. 2,4-Dinitrophenol	---	---	---	---	---	---	---
73. 4-Nitrophenol	---	---	---	---	---	---	---
74. Dibenzofuran	---	---	---	---	---	---	---
75. 2,4-Dinitrotoluene	---	---	---	---	---	---	---
76. 2,6-Dinitrotoluene	---	---	---	---	---	---	---
77. Diethylphthalate	---	---	---	---	---	---	---
78. 4-Chlorophenyl Phenyl ether	---	---	---	---	---	---	---
79. Fluorene	---	---	---	---	---	---	---
80. 4-Nitroaniline	---	---	---	---	---	---	---
81. 4,6-Dinitro-2-methylphenol	---	---	---	---	---	---	---
82. N-nitrosodiphenylamine	---	---	---	---	---	---	---
83. 4-Broaophenyl Phenyl ether	---	---	---	---	---	---	---
84. Hexachlorobenzene	---	---	---	---	13.2 J	---	---
85. Pentachlorophenol	---	---	---	---	---	---	---
86. Phenanthrene	---	---	---	---	---	---	---
87. Anthracene	---	---	---	---	2.2 J	---	---
88. Di-n-butylphthalate	---	---	---	---	---	---	---
89. Fluoranthene	---	---	---	---	---	---	---
90. Benzidine	---	---	---	---	---	---	---
91. Pyrene	---	---	---	---	---	---	---
92. Butyl Benzyl Phthalate	---	5 J	---	3 J	3.4 J	6.2 B,J	---
93. 3,3'-Dichlorobenzidine	---	---	---	---	---	---	---
94. Benzo(a)anthracene	---	---	---	---	---	---	---
95. bis(2-ethylhexyl)phthalate	11.2 J	27.4 J	104 J	23.4 J	10.6 J	990 B	12
96. Chrysene	---	---	---	---	---	---	---
97. Di-n-octyl Phthalate	---	---	---	---	---	---	---
98. Benzo(b)fluoranthene	---	---	---	---	---	---	---
99. Benzo(k)fluoranthene	---	---	---	---	---	---	---
100. Benzo(a)pyrene	---	---	---	---	---	---	---
101. Ideno(1,2,3-cd)pyrene	---	---	---	---	---	---	---
102. Dibenz(a,h)anthracene	---	---	---	---	---	---	---
103. Benzo(g,h,i)perylene	---	---	---	---	---	---	---

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PRISTINE, INC.

Pesticides (ug/l)	SF0401	SF0501	SF0601	SF0701	SF07DP	SF07BK	SF0T01
104. Alpha-BHC	0.19	---	---	---	---	---	---
105. beta BHC	---	---	---	---	---	---	---
106. delta-BHC	---	---	---	---	---	---	---
107. gamma-BHC (Lindane)	---	---	---	---	---	---	---
108. Heptachlor	---	---	---	---	---	---	---
109. Aldrin	---	---	---	---	---	---	---
110. Heptachlor Epoxide	---	---	---	---	---	---	---
111. Endosulfan I	---	---	---	---	---	---	---
112. Dieldrin	---	---	---	---	---	---	---
113. 4,4'-DDE	---	---	0.86	0.127	0.07 J	---	---
114. Endrin	---	---	---	---	---	---	---
115. Endosulfan II	---	---	---	---	---	---	---
116. 4,4'-DDD	0.07 J	0.1	0.78	0.15	0.09 J	---	---
117. Endrin Aldehyde	---	---	---	---	---	---	---
118. Endosulfan Sulfate	---	---	---	---	---	---	---
119. 4,4'-DDT	1.82	---	---	0.47	---	---	---
120. Endrin Ketone	---	---	---	---	---	---	---
121. Methoxychlor	---	---	---	---	---	---	---
122. Chlordane	---	---	---	---	---	---	---
123. Toxaphene	---	---	---	---	---	---	---
124. AROCLOR-1016	---	---	---	---	---	---	---
125. AROCLOR-1221	---	---	---	---	---	---	---
126. AROCLOR-1232	---	---	---	---	---	---	---
127. AROCLOR-1242	---	---	---	---	---	---	---
128. AROCLOR-1248	---	---	---	---	---	---	---
129. AROCLOR-1254	---	---	---	---	---	---	---
130. AROCLOR-1260	---	---	---	---	---	---	---

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TABLE 7

SUMMARY OF SEDIMENT ANALYTICAL DATA  
PRISTINE, INC.

Inorganics (eg/kg)	SD0801	SD0901	SD1001	SD1101	SD11DP	SD1201	SD1301	SD1401	SD14MS
1. Aluminum	5100	7550	12400	10500	10000	7470	4710	1690	2210
2. Antimony	19(X)	59	--	--	22(X)	--	--	--	--
3. Arsenic	25	52	59	40	38	32	13	6.6	8.3
4. Barium	222	284	786	101(X)	105(X)	103(X)	60(X)	127	204
5. Beryllium	0.52(X)	0.69(X)	0.9(X)	0.8(X)	0.8(X)	0.58(X)	0.35(X)	--	0.52(X)
6. Cadmium (IC)	5.9(R)	5.9(R)	11(R)	45(R)	2.8(X,R)	4.8(R)	(R)	6.1(R)	7.4(R)
7. Calcium	64400*	31900*	14200*	7580*	7580(X)	2370(*X)	105000*	107000*	65500*
8. Chromium	343(R)	602*	1520(R)	82(R)	55(R)	136(R)	27(R)	92(R)	117(R)
9. Cobalt	9.2(X)	15(X)	33(X)	17(X)	19(X)	6.9(X)	8.2(X)	7.7(X)	10(X)
10. Copper	76	1020	302	46	46	57	34	74	101
11. Iron	30400	36500	38800	37600	38900	20600	18600	33600	32700
12. Lead (IC)	851(*R)	1040(*R)	2410(*R)	107(*R)	74(*R)	234(R)	90(*R)	466(R)	642(*R)
13. Magnesium	10900	8670	5900(X)	4360	4010	1850(X)	46600	24800	13200
14. Manganese	387*	464*	285*	765*	744*	138*	527*	460*	407I
15. Mercury	2.2(R)	4(R)	15(R)	5.7(R)	8.6(R)	4.5(R)	0.43(R)	2.4(R)	3.4(R)
16. Nickel	20(X)	135	60	34	37	21(X)	26	29	26

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 Summary of Sediment Analytical Data  
 Pristine, Inc.  
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17. Potassium	138(X)	1100(X)	1510(X)	1400(X)	1240(X)	710(X)	1290(X)	--	529(X)
18. Selenium	--	(R)	(R)	(R)	(R)	(R)	(R)	(R)	(R)
19. Silver	7.2*	27*	97*	5(*,X)	4.6(*,X)	9.6(*,X)	2(*,X)	4.9(X)	13*
20. Sodium	1370(X)	2040(X)	4000(X)	963(X)	1130(X)	--	2530(X)	1840(X)	1910(X)
21. Thallium	--	--	--	--	--	--	--	--	--
22. Tin	16(X)	47	92	--	--	--	--	20	30
23. Vanadium	73	38(X)	75	32	32	30(X)	19(X)	12(X)	14(X)
24. Zinc	429	806	1570	152	321	252	102	252	336
25. Cyanide	5.2	4.2	2.8	4.8	4.7	4.2	--	0.73	0.95

-- = Compound Analyzed For, But Not Detected Within Detection Limits  
 (X) Concentration Less Than The Required Detection Limits  
 (R) = Spike Samples Recovery Not Within Control Limits  
 (\*) = Duplicate Analysis Not Within Control Limits

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PRISTINE, INC.

Volatiles (ug/kg)	SD0801	SD0901	SD1001	SD1101	SD110P	SD1201	SD1301	SD1401	SD14MS
1. Chloroethane	---	---	---	---	---	---	---	---	---
2. Bromoethane	---	---	---	---	---	---	---	---	---
3. Vinyl chloride	---	---	---	---	---	---	---	---	---
4. Chloroethane	---	---	---	---	---	---	---	---	---
5. Methylene Chloride	415.44B	346.30B	258.54B	233.54B	152.42B	59.66 B	29.90 B	149.95B	179.75B
6. Acetone	13.2B	---	---	---	---	---	---	---	---
7. Carbon Disulfide	---	---	---	---	---	---	---	---	---
8. 1,1-Dichloroethene	---	---	---	---	---	---	---	---	---
9. 1,1-Dichloroethane	---	85.47	---	---	---	---	---	---	---
10. trans-1,2-Dichloroethene	---	87.68 J	---	---	---	---	---	---	---
11. Chloroform	---	---	---	---	---	---	---	---	---
12. 1,2-Dichloroethane.	---	2423.4 J	1148	---	---	---	---	---	---
13. 2-Butanone	---	---	---	---	---	---	---	---	---
14. 1,1,1-Trichloroethane	---	146.56 J	---	---	19.70	11.86	---	---	---
15. Carbon Tetrachloride	---	---	---	---	---	---	---	---	---
16. Vinyl Acetate	---	---	---	---	---	---	---	---	---
17. Bromodichloroethane	---	---	---	---	---	---	---	---	---
18. 1,1,2,2-Tetrachloroethane	---	---	---	---	---	---	---	---	---
19. 1,2-Dichloropropane	---	102.46	82.28	---	---	---	---	---	---
20. trans-1,3-Dichloropropene	---	---	---	---	---	---	---	---	---
21. Trichloroethene	50.8	173.8	89.76	---	7.68	---	---	---	---
22. Dibromochloroethane	---	---	---	---	---	---	---	---	---
23. 1,1,2-Trichloroethane	---	---	---	---	---	---	---	---	---
24. Benzene	---	11.67	---	---	---	---	---	---	---
25. cis-1,3-Dichloropropene	---	---	---	---	---	---	---	---	---
26. 2-Chloroethyl Vinyl Ether	---	---	---	---	---	---	---	---	---
27. Bromoform	---	---	---	---	---	---	---	---	---
28. 2-Hexanone	---	718.55J	---	---	---	---	---	---	---
29. 4-Methyl-2-pentanone	---	629.65	---	---	---	---	---	---	---
30. Tetrachloroethene	331.44	153.05	504.07	---	125.15	57.99	3.45 J	3.45 J	---
31. Toluene	51.42	10517	---	76.89	---	---	---	7.65	11.05
32. Chlorobenzene	---	---	---	---	---	---	---	---	---
33. Ethyl Benzene	---	600.52	196.99	---	---	---	---	---	---
34. Styrene	---	---	---	---	---	---	---	---	---
35. Total Xylenes	---	3359.3	447.15	---	---	---	---	---	---

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 J = INDICATES AN ESTIMATED VALUE  
 R = RESTRICTED DATA-ESTIMATED, REVIEWER COMMENT

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PRISTINE, INC.

Semi-Volatiles (ug/kg)	SD0801	SD0901	SD1001	SD1101	SD11DP	SD1201	SD1301	SD1401	SD14MS
36. N-Nitrosodiaethylamine	---	---	---	---	---	---	---	---	---
37. Phenol	987.51R	---	---	---	---	---	---	---	---
38. Aniline	---	---	---	---	---	---	---	837.64R	2376R
39. bis(2-Chloroethyl) ether	---	---	---	---	---	---	---	---	---
40. 2-Chlorophenol	---	---	---	---	---	---	---	---	---
41. 1,3-Dichlorobenzene	---	---	---	---	---	---	---	---	---
42. 1,4-Dichlorobenzene	---	---	---	---	---	---	---	---	---
43. Benzyl Alcohol	---	---	---	---	---	---	---	---	---
44. 1,2-Dichlorobenzene	---	---	---	---	---	---	---	---	---
45. 2-Methylphenol	---	---	---	---	---	---	---	---	---
46. bis(2-Chloroisopropyl) ether	---	---	---	---	---	---	---	---	---
47. 4-Methylphenol	---	---	---	---	---	---	---	---	---
48. n-Nitroso-Dipropylamine	---	---	---	---	---	---	---	---	---
49. Hexachloroethane	---	---	---	---	---	---	---	---	---
50. Nitrobenzene	---	---	---	---	---	---	---	---	---
51. Isophorone	---	---	---	---	---	---	---	---	---
52. 2-Nitrophenol	---	---	---	---	---	---	---	---	---
53. 2,4-Dimethylphenol	---	---	---	---	---	---	---	---	---
54. Benzoic Acid	---	---	---	---	---	---	---	---	---
55. bis(2-Chloroethoxy) methane	---	---	---	---	---	---	---	---	---
56. 2,4-Dichlorophenol	---	---	---	---	---	---	---	---	---
57. 1,2,4-Trichlorobenzene	---	---	---	---	---	---	---	---	---
58. Naphthalene	---	---	---	---	---	---	---	---	---
59. 4-Chloroaniline	---	---	---	---	---	---	---	---	---
60. Hexachlorobutadiene	---	---	---	---	---	---	---	---	---
61. 4-Chloro-3-methylphenol (para-chloro-meta-cresol)	---	---	---	---	---	---	---	---	---
62. 2-Methylnaphthalene	---	---	---	---	---	---	---	---	---
63. Hexachlorocyclopentadiene	---	---	---	---	---	---	---	---	---
64. 2,4,6-Trichlorophenol	---	---	---	---	---	---	---	---	---
65. 2,4,5-Trichlorophenol	---	---	---	---	---	---	---	---	---
66. 2-Chloronaphthalene	---	---	---	---	---	---	---	---	---
67. 2-Nitroaniline	---	---	---	---	---	---	---	---	---
68. Diaethyl Phthalate	---	---	---	---	---	---	---	---	---
69. Acenaphthylene	---	---	---	---	---	---	---	---	---
70. 3-Nitroaniline	---	---	---	---	---	---	---	---	---

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TABLE 7  
SUMMARY OF SEDIMENT ANALYTICAL DATA  
PRISTINE, INC.

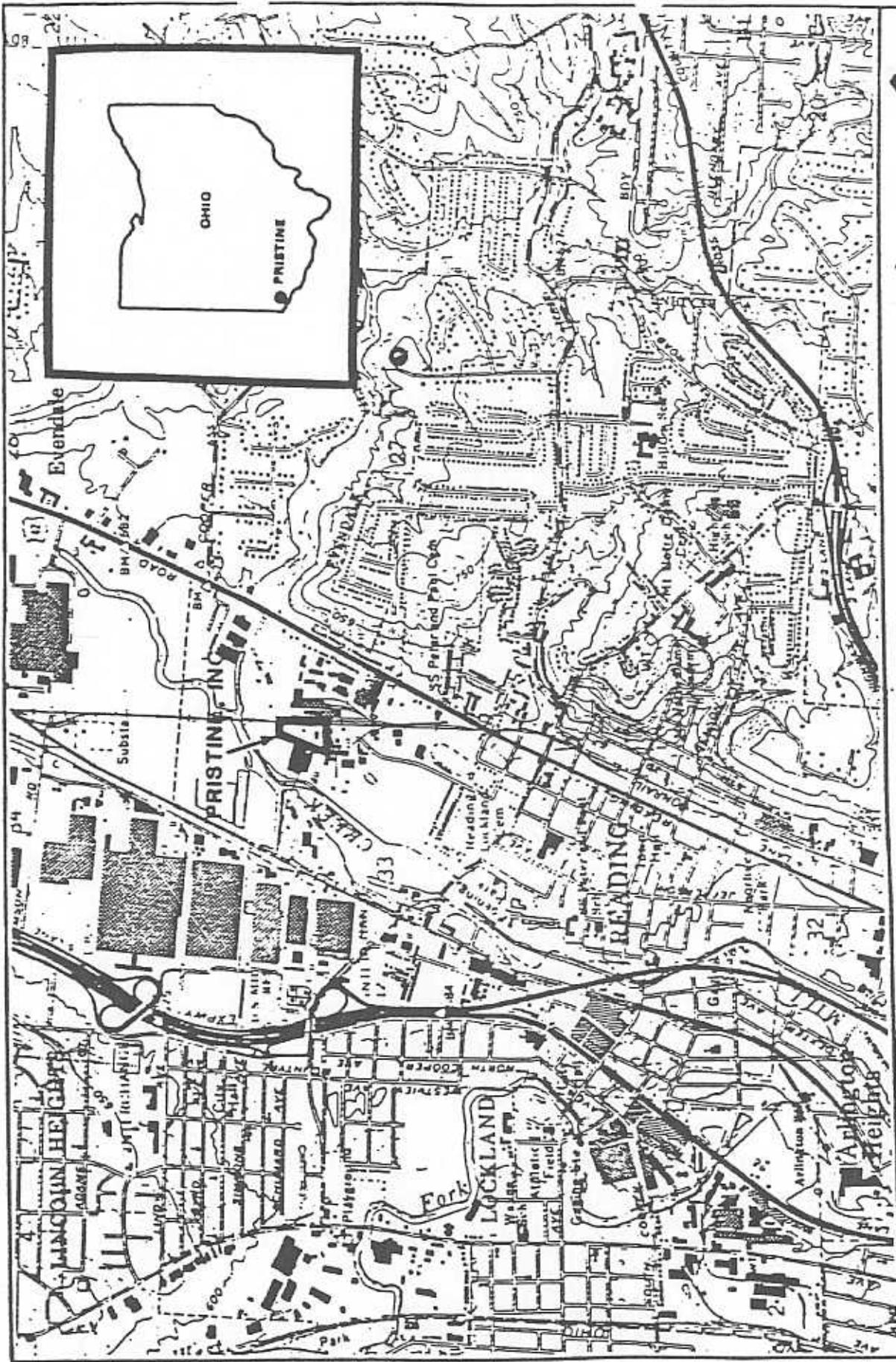
Semi-Volatiles (ug/kg)	SD0801	SD0901	SD1001	SD1101	SD110P	SD1201	SD1301	SD1401	SD14MS
71. Acenaphthene	---	---	---	---	---	---	---	---	---
72. 2,4-Dinitrophenol	---	---	---	---	---	---	---	---	---
73. 4-Nitrophenol	---	---	---	---	---	---	---	---	---
74. Dibenzofuran	---	---	---	---	---	---	---	---	---
75. 2,4-Dinitrotoluene	---	---	---	---	---	---	---	---	---
76. 2,6-Dinitrotoluene	---	---	---	---	---	---	---	---	---
77. Diethylphthalate	---	---	---	---	---	---	---	---	---
78. 4-Chlorophenyl Phenyl ether	---	---	---	---	---	---	---	---	---
79. Fluorene	---	---	---	---	---	---	---	---	---
80. 4-Nitroaniline	---	---	---	---	---	---	---	---	---
81. 4,6-Dinitro-2-methylphenol	---	---	---	---	---	---	---	---	---
82. N-nitrosodiphenylamine	227.01 J	---	---	---	---	---	---	---	---
83. 4-Broaophenyl Phenyl ether	---	---	---	---	---	---	---	---	---
84. Hexachlorobenzene	---	---	---	---	---	---	---	---	---
85. Pentachlorophenol	---	---	---	---	---	---	---	486.04 J	268.60 J
86. Phenanthrene	590.24R	---	---	---	---	---	---	---	---
87. Anthracene	---	---	---	---	---	---	---	---	---
88. Di-n-butylphthalate	1929.8R	---	---	---	---	---	1218.2J	1344.4J	805.79J
89. Fluoranthene	1021.6R	---	---	---	---	---	---	1241R	991.74R
90. Benzidine	---	---	---	---	---	---	---	---	---
91. Pyrene	998.86R	---	---	---	---	---	---	620.48 J	547.52 J
92. Butyl Benzyl Phthalate	4653.88	6300B,J	---	---	---	---	155.04BJ	1964.88J	1343B,JB
93. 3,3'-Dichlorobenzidine	---	---	---	---	---	---	---	---	---
94. Benzo(a)anthracene	306.47J	---	---	---	---	---	---	413.65J	309.92J
95. bis(2-ethylhexyl)phthalate	21566B	63600B,J	143000BJ	---	8000B,J	12000BJ	841.64BJ	12410 JB	17562B
96. Chrysene	374.57R	---	---	---	---	---	---	610.13 J	420 J
97. Di-n-octyl Phthalate	---	---	---	---	---	---	---	---	---
98. Benzo(b)fluoranthene	---	---	---	---	---	---	---	---	---
99. Benzo(k)fluoranthene	522.13J	---	---	---	---	---	---	---	---
100. Benzo(a)pyrene	---	---	---	---	---	---	---	---	---
101. Ideno(1,2,3-cd)pyrene	---	---	---	---	---	---	---	---	---
102. Dibenz(a,h)anthracene	---	---	---	---	---	---	---	---	---
103. Benzo(g,h,i)perylene	---	---	---	---	---	---	---	---	---

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PRISTINE, INC.

Pesticides (ug/kg)	SD0801	SD0901	SD1001	SD1101	SD110P	SD1201	SD1301	SD1401	SD14MS
104. Alpha-BHC	---	---	---	---	---	---	---	---	---
105. beta BHC	---	---	---	---	---	---	---	---	---
106. delta-BHC	---	---	---	---	---	---	---	---	---
107. gamma-BHC (Lindane)	148 J	---	---	---	---	---	---	---	---
108. Heptachlor	---	---	---	---	---	---	---	---	---
109. Aldrin	160 J	---	---	---	251	38 J	---	---	38.1
110. Heptachlor Epoxide	---	---	---	---	---	---	---	---	---
111. Endosulfan I	---	---	---	---	---	---	---	---	---
112. Dieldrin	---	---	---	---	75 J	45 J	4.8 J	46	35
113. 4,4'-DDE	1106	1098	2847	355	1800	791	---	245	179
114. Endrin	---	---	---	---	---	---	---	---	---
115. Endosulfan II	---	---	---	---	---	---	---	---	---
116. 4,4'-DDD	1745	1040	1731	185 J	980	381	3.3 J	69	55
117. Endrin Aldehyde	---	---	---	---	---	---	---	---	---
118. Endosulfan Sulfate	---	---	---	---	---	---	---	---	---
119. 4,4'-DDT	20734	---	---	712	4006	2438	16	444	347
120. Endrin Ketone	---	---	---	---	---	---	---	---	---
121. Methoxychlor	---	---	---	---	---	---	---	---	---
122. Chlordane	---	---	---	---	---	---	---	---	---
123. Toxaphene	---	---	---	---	---	---	---	---	---
124. AROCLOR-1016	---	---	---	---	---	---	---	---	---
125. AROCLOR-1221	---	---	---	---	---	---	---	---	---
126. AROCLOR-1232	---	---	---	---	---	---	---	---	---
127. AROCLOR-1242	---	---	---	---	---	---	---	---	---
128. AROCLOR-1248	---	---	---	---	---	---	---	---	---
129. AROCLOR-1254	---	---	---	---	---	---	---	---	---
130. AROCLOR-1260	---	---	---	---	---	---	---	---	---

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from: U.S.G.S. Topographic Map, 7 1/2 Minute Series, Cincinnati-East Quadrangle

FIGURE

## PRELIMINARY ASSESSMENT NARRATIVE

Ridgewood Arsenal  
Seymour Avenue  
Cincinnati, Ohio 45232  
\*\* Discovery Site \*\*

The Ridgewood Arsenal site (RA) is approximately a 40 acre parcel of land. The site is bordered by the Este Avenue Dump (EAD) (OHD980509988) to the southwest, the Mill Creek on the east, and Seymour Avenue to the north. RA is located in a mixed industrial, commercial, and residential area. RA was formerly used for the manufacture of munitions by the US government. Some of the buildings on the east side of the property have been demolished.

The city of Cincinnati now owns this site and plans to develop the site for industrial use. The Cincinnati Department of Public Works also owns EAD and is overseeing work on both sites. The work includes environmental remediation, construction of access roads, installation of a water pre-treatment facility, and planing of future development. Although manufacturing has ceased, RA is still accepting composting materials.

The city has contracted with Westinghouse Environmental and Geotechnical Services, Inc. (formerly S&ME) to conduct site investigations and remediation for both sites. Most of the environmental investigation have been aimed at EAD. Westinghouse believes that leachate from the dump has migrated toward RA. A "drainage swale" has been installed between the two sites. During the excavation of the drainage swale, leachate was observed along the slopes of the swale on both the EAD and RA sides.

There have been two soil borings done at RA. A sandy layer was encountered in borings 1 and 2 at 3.5 and 5.5 feet below the ground surface, respectively. A sample of this sandy layer from each boring was then sent to a laboratory for chemical analysis. Elevated concentrations of Arsenic (15 mg/kg), Di-n-butyl phthalate (3.8 mg/kg), and Cyanide (0.68 mg/kg) were found. Di-n-butyl phthalate is typically used in plasticizing vinyl acetate emulsion systems as well as cellulose esters. It is also used as an insect repellent. Sodium and potassium cyanides are primarily used in the extraction of ores, electroplating, metal treatment, and various manufacturing processes. The cyanide detected may be associated with past manufacturing activities at the former arsenal.

The city of Wyoming obtains drinking water from wells located 2.5 to 3 miles northeast of the site and serves about 9,700 people. Shallow groundwater at the site is believed to flow southeast. The Mill Creek bounds the eastern side of RA, flowing from northeast to

Preliminary Assessment Narrative  
Ridgewood Arsenal  
Page 2 of 2

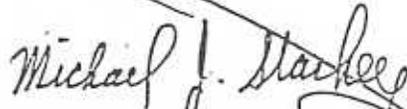
southwest. Because of relatively low levels of contamination, lack of nearby drinking water supplies, and current remedial work at these sites, a low priority for the Division of Emergency and Remedial Response is recommended.

Prepared by:



Rick J. Riess  
College Co-Op, DERR, SWDO  
Date: 6/13/91

Reviewed by:



Michael Starkey  
Group Leader, DERR, SWDO  
Date: \_\_\_\_\_

Preliminary Assessment Narrative

DRAFT

Date: 7/19/84

Company: Saint Bernard Dump

I.D.#: OHD980510465

The City of St. Bernard disposal facility was comprised of a landfill about 8 acres in size and an incinerator with a capacity to burn 40 tons of waste per day.

The landfill was used to dispose of domestic waste, commercial waste, industrial waste and demolition waste. In 1975, records show a violation occurred with the disposal of liquids into the landfill. The Ohio EPA quickly advised the City of St. Bernard of the violation. Soon afterwards, the City of St. Bernard responded to alleviate the violations.

The incinerator was used to burn household, commercial and industrial waste. The incinerator was closed because of violations of air emission standards. The non-compliance status was due to inadequacies in the equipment not inefficient operations. After incineration, the residue was spread over the surface of the landfill. The incinerator was not licensed beyond 1976 and was finally closed in 1977. Soon after the landfill was closed all the waste for the City of St. Bernard was routed to Environmental Land Development Associates, (ELDA), a privately owned sanitary landfill. However, the incinerator was not at the same location as the landfill.

The geology of the principle aquifer surrounding the landfill is coarse sand and gravel which overlap bedrock. The direction of groundwater movement is southwest across the landfill.

Possible surface water contamination from site runoff was mentioned in a letter from OEPA to the site operations. Standing water was contaminated with a black-colored industrial liquid of unknown origin. There is an industrial water user in the area. U.S. Playing Card Co. has a water well within two miles of St. Bernard Dump. The City of Norwood has 7 municipal wells within 2 miles of the site. However, these wells are no longer used to supply water to the City of Norwood. Moreover, the wells are upgradient of the landfill. In addition to the wells location, Mr. Burns, Community Development Director for St. Bernard, assures me that no hazardous waste was disposed of in the landfill. Although, Ohio EPA files indicate numerous industrial facilities had used the landfill, information about the nature of the material disposed of is unavailable. Contamination does not have to come from hazardous waste.

The landfill site has been converted in a soccer field referred to as the Ludlow Grove Park. According to Mr. Burns, City of St. Bernard, demolition debris is the major waste disposed of at the site. No F.I.T. or State activity is necessary at this time.

PRELIMINARY ASSESSMENT NARRATIVE

Sherwin Williams Company  
501 Murray Road  
Cincinnati, Ohio 45217

OHD004261301

Sherwin-Williams Chemicals, a division of the Sherwin-Williams Company, owned and operated a chemical manufacturing facility at 501 Murray Road in Cincinnati, Ohio from 1966 to 1985 at which time, ownership was transferred to PMC Specialties Group, a division of PMC, Inc. The site was formerly occupied by the American Agricultural Chemical Company and production at the facility is documented to have occurred since the late 1800's. The site occupies approximately 33 acres in a mixed industrial and residential area within the Saint Bernard city limits, due west of I-75 and the Norwood Lateral Interchange. Currently, PMC Specialties Group handles the following materials, all of which are regulated by RCRA as hazardous wastes: dimethyl sulfate (U103), methyl alcohol (U154), toluene diamine (U221), phthalic anhydride (U190), dimethylamine (U092), methyl isobutyl ketone (U161), methylene chloride (U080), n-butyl alcohol (U031), chlorobenzene (U037), formaldehyde (U122), xylene (U239), toluene (220), saccharin and salts (U202) and 1,2-benzenedicarboxylic acid (U028). These materials are used in the manufacture of saccharin products, organic intermediates and triazole corrosion inhibitors, the same products formerly manufactured by Sherwin-Williams Chemicals.

Currently, hazardous wastes generated by the manufacturing process are stored in eight drums on-site which are disposed of quarterly in an approved hazardous waste facility. Sherwin-Williams has a record of violations regarding the on-site accumulation of hazardous wastes. A previous on-site inspection by Ohio EPA (3/30/84) revealed leaking pumps and tanks from which hazardous materials orthonitroaniline and orthotoluenediamene were exuding, resulting in several hundred square feet of soil contamination. The facility is situated over the Mill Creek buried valley aquifer in the upper northwestern reaches of the Norwood Trough, a sand and gravel unit with estimated yields of several hundred gallons per minute. Migration of contaminants could result in deterioration of groundwater quality in the underlying aquifer. Although surrounding communities within a 3-mile radius obtain municipal water from Cincinnati sources, the City of Norwood, located southeast of the facility does have one well which draws groundwater from the underlying sand and gravel aquifer. This well is available for use by that portion of the public sector which prefers to utilize non-municipal water sources for daily drinking water purposes.

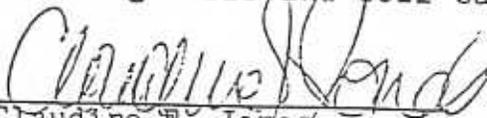
In addition, dead earthworms and dead vegetation were observed near some chunks of triazole, loosely discarded on the ground surface, along several low-lying areas within the bounds of the facility. Ross Run, a small intermittent tributary to Mill Creek, formerly passed through the low-lying areas at the southern bounds of the facility property. Heavy rains could expedite the dissolution and migration of surface contaminants located along this old watercourse through the subsurface to the water table. Soil borings taken during three preliminary subsurface investigations in 1974 and 1975 as well as during two geotechnical investigations in 1980 for on-site construction proposal purposes, revealed the presence of buried chemical wastes at depths ranging from 2.5 to 14.0 feet. Surface drainage at the facility was noted to be very poor, with water ponding at several locations on-site.

Between 1966 and 1974, an on-site settling tank was utilized in an industrial wastewater treatment system which generated approximately 200,000 gallons of a wastewater treatment sludge within the tank. Analysis of the sludge in 1981 revealed the presence of dichlorobenzene, tetrachlorobenzene and pentachlorobenzene at unknown concentrations as well as the presence of arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver, although concentrations did not exceed EP Toxicity levels. This sludge remained in the tank between 1974 and 1980, during which time, industrial wastewater was pumped into the tank to balance pH swings before being discharged to the Metropolitan Sewer District (MSD). On March 7, 1980, a faulty pump switch on a storage tank resulted in the overflow of 1,017 gallons of trichlorobenzene (TCB) to the process sewer which drains to the MSD.

An on-site chemical spill of dimethyl sulfate was reported on 10/3/84, however, the spill was contained within the plant building with no reports of population injury or release into the environment. In June of 1978, six employees were exposed during processing of a chemical mixture of chlorothioxanthones in powder form. All six employees experienced a burning sensation on their faces after exposure to sunlight. Although redness was noted to last about 2 hours, there were no observable, apparent long-term effects to anyone. On March 30, 1984, OEPA personnel conducted a PCB inspection to determine compliance with the PCB disposal and marketing regulations as stated in the 40 CFR Part 761. During the inspection, samples were taken from various locations on-site. Soil debris collected from around a surge tank near facility building #40 showed levels of PCB at 21 ppm. Materials scooped up from the floor near an old Therminol boiler in facility building #38 contained 20,000 ppm of PCB.

Currently, PMC Specialties Group is regulated under RCRA as a generator of hazardous waste. Based on information regarding location of the facility over potentially valuable groundwater resources as well as previous problems regarding leaking pumps, tanks and discarded hazardous materials on-site, a high priority for FIT and a medium priority for State activity is recommended. FIT activity should include the installation and sampling of groundwater monitoring wells and soil sampling.

Prepared by:

  
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November 27, 1987

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Solid and Hazardous Waste Management Unit

lmr