







Table 1. Summary of July 2011 Groundwater Analytical Results, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Location ID: Date Collected:	CAS #	EPA RSL TAP WATER	MDEQ_GW	UNITS	MW-02 07/27/11	MW-03 07/27/11	MW-04 07/27/11	MW-05 07/28/11	MW-06 07/28/11	MW-07 07/28/11	MW-08 07/26/11	MW-09 07/28/11	MW-10 07/27/11	MW-11 07/27/11	MW-12 07/27/11	MW-13 07/26/11	MW-14 07/28/11
Pentachlorobenzene	608-93-5	2.90E+01	2.92E+01	µg/L	<9.9	NA	<10	NA	NA	NA	<1,000 [ <b>&lt;510</b> ]	NA	NA	NA	<12	<49	NA
Pentachloronitrobenzene	82-68-8	2.60E-01	2.58E-01	µg/L	<9.9	NA	<10	NA	NA	NA	<1,000 [ <b>&lt;510</b> ]	NA	NA	NA	<12	<49	NA
Pentachlorophenol	87-86-5	1.70E-01	1.00E+00	µg/L	<49	NA	<52	NA	NA	NA	<5,200 [ <b>&lt;2,500</b> ]	NA	NA	NA	<62	<250	NA
Phenacetin	62-44-2	3.10E+01	--	µg/L	<9.9	NA	<10	NA	NA	NA	<1,000 [ <b>&lt;510</b> ]	NA	NA	NA	<12	<49	NA
Phenanthrene	85-01-8	--	1.10E+03	µg/L	<9.9	NA	<10	NA	NA	NA	<1,000 [ <b>&lt;510</b> ]	NA	NA	NA	<12	<49	NA
Phenol	108-95-2	1.10E+04	2.19E+04	µg/L	<9.9	NA	<10	NA	NA	NA	<1,000 [ <b>&lt;510</b> ]	NA	NA	NA	<12	<49	NA
Phorate	298-02-2	7.30E+00	--	µg/L	<9.9	NA	<10	NA	NA	NA	<1,000 [ <b>&lt;510</b> ]	NA	NA	NA	<12	<49	NA
Pronamide	23950-58-5	2.70E+03	--	µg/L	<9.9	NA	<10	NA	NA	NA	<1,000 [ <b>&lt;510</b> ]	NA	NA	NA	<12	<49	NA
Pyrene	129-00-0	1.10E+03	1.83E+02	µg/L	<9.9	NA	<10	NA	NA	NA	<1,000 [ <b>&lt;510</b> ]	NA	NA	NA	<12	<49	NA
Pyridine	110-86-1	3.70E+01	3.65E+01	µg/L	<49	NA	<52	NA	NA	NA	<5,200 [ <b>&lt;2,500</b> ]	NA	NA	NA	<62	<250	NA
Safrole	94-59-7	9.80E-02	--	µg/L	<9.9	NA	<10	NA	NA	NA	<1,000 [ <b>&lt;510</b> ]	NA	NA	NA	<12	<49	NA
Sulfotep	3689-24-5	1.80E+01	--	µg/L	<9.9	NA	<10	NA	NA	NA	<1,000 [ <b>&lt;510</b> ]	NA	NA	NA	<12	<49	NA
Thionazin	297-97-2	--	--	µg/L	<9.9	NA	<10	NA	NA	NA	<1,000 [ <b>&lt;510</b> ]	NA	NA	NA	<12	<49	NA
<b>Dioxins-EPA 8290</b>																	
2,3,7,8-TCDD	1746-01-6	5.20E-01	3.00E+01	pg/L	<10	NA	<10	NA	NA	NA	<11 [ <b>&lt;10</b> ]	NA	NA	NA	<9.8	<10	NA
Total TEQ	--	--	--	pg/L	0.00	NA	0.00	NA	NA	NA	0.00	NA	NA	NA	0.00	0.00	NA
<b>Inorganics-EPA 6020</b>																	
Antimony	7440-36-0	1.50E+01	6.00E+00	µg/L	<5	NA	<5	NA	NA	NA	<5 [ <b>&lt;5</b> ]	NA	NA	NA	<5	<5	NA
Arsenic	7440-38-2	4.50E-02	5.00E+01	µg/L	<b>2.9</b>	NA	<2.5	NA	NA	NA	<b>42 [44]</b>	NA	NA	NA	<2.5	<b>5.7</b>	NA
Barium	7440-39-3	7.30E+03	2.00E+03	µg/L	76	NA	110	NA	NA	NA	260 [260]	NA	NA	NA	120	49	NA
Beryllium	7440-41-7	7.30E+01	4.00E+00	µg/L	<0.5	NA	<0.5	NA	NA	NA	<0.5 [ <b>&lt;0.5</b> ]	NA	NA	NA	<0.5	<0.5	NA
Cadmium	7440-43-9	--	5.00E+00	µg/L	<0.5	NA	<0.5	NA	NA	NA	<0.5 [ <b>&lt;0.5</b> ]	NA	NA	NA	<0.5	<0.5	NA
Chromium	7440-47-3	--	--	µg/L	<5	NA	<5	NA	NA	NA	<5 [ <b>&lt;5</b> ]	NA	NA	NA	<5	<5	NA
Cobalt	7440-48-4	1.10E+01	2.19E+03	µg/L	4.2	NA	<0.5	NA	NA	NA	<0.5 [ <b>&lt;0.5</b> ]	NA	NA	NA	3.4	1.5	NA
Copper	7440-50-8	1.50E+03	1.30E+03	µg/L	<5	NA	<5	NA	NA	NA	<5 [ <b>&lt;5</b> ]	NA	NA	NA	<5	<5	NA
Lead	7439-92-1	--	1.50E+01	µg/L	<1.5	NA	<1.5	NA	NA	NA	<1.5 [ <b>&lt;1.5</b> ]	NA	NA	NA	<1.5	<1.5	NA
Nickel	7440-02-0	7.30E+02	7.30E+02	µg/L	<5	NA	<5	NA	NA	NA	<5 [ <b>&lt;5</b> ]	NA	NA	NA	9.7	<5	NA
Selenium	7782-49-2	1.80E+02	5.00E+01	µg/L	<2.5	NA	<2.5	NA	NA	NA	<2.5 [ <b>&lt;2.5</b> ]	NA	NA	NA	<2.5	<2.5	NA
Silver	7440-22-4	1.80E+02	1.83E+02	µg/L	<1	NA	<1	NA	NA	NA	<1 [ <b>&lt;1</b> ]	NA	NA	NA	<1	<1	NA
Thallium	7440-28-0	3.70E-01	2.00E+00	µg/L	<1	NA	<1	NA	NA	NA	<1 [ <b>&lt;1</b> ]	NA	NA	NA	<1	<1	NA
Tin	7440-31-5	2.20E+04	2.19E+04	µg/L	<5	NA	<5	NA	NA	NA	<5 [ <b>&lt;5</b> ]	NA	NA	NA	<5	<5	NA
Vanadium	7440-62-2	--	2.56E+02	µg/L	<10	NA	<10	NA	NA	NA	<10 [ <b>&lt;10</b> ]	NA	NA	NA	<10	<10	NA
Zinc	7440-66-6	1.10E+04	1.10E+04	µg/L	<20	NA	<20	NA	NA	NA	<20 [ <b>&lt;20</b> ]	NA	NA	NA	34	41	NA
<b>Inorganics-EPA 7470A</b>																	
Mercury	7439-97-6	6.30E-01	2.00E+00	µg/L	<0.2	NA	<0.2	NA	NA	NA	<0.2 [ <b>&lt;0.2</b> ]	NA	NA	NA	<0.2	<0.2	NA
<b>Miscellaneous-9034</b>																	
Sulfide	18496-25-8	--	--	mg/L	<1	NA	1.1	NA	NA	NA	5 [17]	NA	NA	NA	<1	<1	NA
<b>Miscellaneous9012A</b>																	
Cyanide	57-12-5	7.30E-01	2.00E-01	mg/L	<0.01	NA	<0.01	NA	NA	NA	<0.01 [ <b>&lt;0.01</b> ]	NA	NA	NA	<0.01	<0.01	NA

Notes:  
**Boldface type** Compound detected.  
 \* Laboratory duplicate analysis was outside control limits.  
 < Less than.  
 -- Standard not promulgated.  
 Shaded cells indicate that the reported result exceeds the EPA RSL or MDEQ\_GW.  
 EPA U.S. Environmental Protection Agency.  
 MDEQ Mississippi Department of Environmental Quality.  
 MDEQ\_GW MDEQ Tier 1 Target Remediation Goal.  
 mg/L Milligrams per liter.  
 µg/L Micrograms per liter.  
 NA Not analyzed.  
 RSL Regional Screening Level.  
 TEQ Toxic equivalent.









Table 1. Summary of July 2011 Groundwater Analytical Results, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Location ID: Date Collected:	CAS #	EPA RSL TAP WATER	MDEQ_GW	UNITS	MW-15 07/28/11	MW-16 07/28/11	MW-17 07/26/11	MW-18 07/27/11	MW-19 07/26/11	MW-20 07/27/11	MW-21 07/26/11	MW-22 07/27/11	MW-23 07/26/11	MW-24 07/27/11
Pentachlorobenzene	608-93-5	2.90E+01	2.92E+01	µg/L	NA	NA	<1,000	NA	<99	NA	NA	NA	<97	NA
Pentachloronitrobenzene	82-68-8	2.60E-01	2.58E-01	µg/L	NA	NA	<1,000	NA	<99	NA	NA	NA	<97	NA
Pentachlorophenol	87-86-5	1.70E-01	1.00E+00	µg/L	NA	NA	<5,000	NA	<500	NA	NA	NA	<480	NA
Phenacetin	62-44-2	3.10E+01	--	µg/L	NA	NA	<1,000	NA	<99	NA	NA	NA	<97	NA
Phenanthrene	85-01-8	--	1.10E+03	µg/L	NA	NA	<1,000	NA	<99	NA	NA	NA	<97	NA
Phenol	108-95-2	1.10E+04	2.19E+04	µg/L	NA	NA	<1,000	NA	<99	NA	NA	NA	140	NA
Phorate	298-02-2	7.30E+00	--	µg/L	NA	NA	<1,000	NA	<99	NA	NA	NA	<97	NA
Pronamide	23950-58-5	2.70E+03	--	µg/L	NA	NA	<1,000	NA	<99	NA	NA	NA	<97	NA
Pyrene	129-00-0	1.10E+03	1.83E+02	µg/L	NA	NA	<1,000	NA	<99	NA	NA	NA	<97	NA
Pyridine	110-86-1	3.70E+01	3.65E+01	µg/L	NA	NA	<5,000	NA	<500	NA	NA	NA	<480	NA
Safrole	94-59-7	9.80E-02	--	µg/L	NA	NA	<1,000	NA	<99	NA	NA	NA	<97	NA
Sulfotep	3689-24-5	1.80E+01	--	µg/L	NA	NA	<1,000	NA	<99	NA	NA	NA	<97	NA
Thionazin	297-97-2	--	--	µg/L	NA	NA	<1,000	NA	<99	NA	NA	NA	<97	NA
<b>Dioxins-EPA 8290</b>														
2,3,7,8-TCDD	1746-01-6	5.20E-01	3.00E+01	pg/L	NA	NA	<10	NA	<10	NA	NA	NA	<10	NA
Total TEQ	--	--	--	pg/L	NA	NA	0.00	NA	0.00	NA	NA	NA	0.00	NA
<b>Inorganics-EPA 6020</b>														
Antimony	7440-36-0	1.50E+01	6.00E+00	µg/L	NA	NA	<5	NA	<5	NA	NA	NA	<5	NA
Arsenic	7440-38-2	4.50E-02	5.00E+01	µg/L	NA	NA	<b>28</b>	NA	<b>14</b>	NA	NA	NA	<b>19</b>	NA
Barium	7440-39-3	7.30E+03	2.00E+03	µg/L	NA	NA	120	NA	51	NA	NA	NA	240	NA
Beryllium	7440-41-7	7.30E+01	4.00E+00	µg/L	NA	NA	<0.5	NA	<0.5	NA	NA	NA	3.3	NA
Cadmium	7440-43-9	--	5.00E+00	µg/L	NA	NA	<0.5	NA	<0.5	NA	NA	NA	<0.5	NA
Chromium	7440-47-3	--	--	µg/L	NA	NA	<5	NA	<5	NA	NA	NA	5	NA
Cobalt	7440-48-4	1.10E+01	2.19E+03	µg/L	NA	NA	0.69	NA	<0.5	NA	NA	NA	0.71	NA
Copper	7440-50-8	1.50E+03	1.30E+03	µg/L	NA	NA	<5	NA	<5	NA	NA	NA	<5	NA
Lead	7439-92-1	--	1.50E+01	µg/L	NA	NA	<1.5	NA	<1.5	NA	NA	NA	<1.5	NA
Nickel	7440-02-0	7.30E+02	7.30E+02	µg/L	NA	NA	<5	NA	<5	NA	NA	NA	<5	NA
Selenium	7782-49-2	1.80E+02	5.00E+01	µg/L	NA	NA	<2.5	NA	<2.5	NA	NA	NA	<2.5	NA
Silver	7440-22-4	1.80E+02	1.83E+02	µg/L	NA	NA	<1	NA	<1	NA	NA	NA	<1	NA
Thallium	7440-28-0	3.70E-01	2.00E+00	µg/L	NA	NA	<1	NA	<1	NA	NA	NA	<1	NA
Tin	7440-31-5	2.20E+04	2.19E+04	µg/L	NA	NA	<5	NA	<5	NA	NA	NA	<5	NA
Vanadium	7440-62-2	--	2.56E+02	µg/L	NA	NA	<10	NA	<10	NA	NA	NA	16	NA
Zinc	7440-66-6	1.10E+04	1.10E+04	µg/L	NA	NA	<20	NA	57	NA	NA	NA	<20	NA
<b>Inorganics-EPA 7470A</b>														
Mercury	7439-97-6	6.30E-01	2.00E+00	µg/L	NA	NA	<0.2	NA	<0.2	NA	NA	NA	<0.2	NA
<b>Miscellaneous-9034</b>														
Sulfide	18496-25-8	--	--	mg/L	NA	NA	4.2	NA	<1	NA	NA	NA	7.9	NA
<b>Miscellaneous9012A</b>														
Cyanide	57-12-5	7.30E-01	2.00E-01	mg/L	NA	NA	<0.01	NA	<0.01	NA	NA	NA	<0.01	NA

Notes:  
**Boldface type** Compound detected.  
 \* Laboratory duplicate analysis was outside control limits.  
 < Less than.  
 -- Standard not promulgated.  
 Shaded cells indicate that the reported result exceeds the EPA U.S. Environmental Protection Agency.  
 MDEQ Mississippi Department of Environmental Quality.  
 MDEQ\_GW MDEQ Tier 1 Target Remediation Goal.  
 mg/L Milligrams per liter.  
 µg/L Micrograms per liter.  
 NA Not analyzed.  
 RSL Regional Screening Level.  
 TEQ Toxic equivalent.







Table 2. Summary of VOC Analytical Results, 2002 through 2011, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Mississippi.

Table with columns for Location, Date, and various VOC concentrations in µg/L. The table lists data for multiple monitoring wells (MDEQ GW, CM-05, MW-02, MW-03, MW-04, MW-05) across various dates from 2002 to 2011. The VOCs listed include Acetone, Benzene, Bromodichloromethane, Bromoform, Bromomethane, Carbon Tetrachloride, Chlorobenzene, Chloroethane, Chloromethane, Chloroform, cis-1,2-dichloroethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,1-Dichloroethane, Ethylbenzene, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, Styrene, Tetrachloroethene, Toluene, Trichloroethene, Vinyl Chloride, Total Xylenes, Bromobenzene, 2-Chlorotoluene, 4-Chlorotoluene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Naphthalene, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,2,4,5-Tetrachlorobenzene, p-Isopropyltoluene, Dibromochloromethane, and Isopropylbenzene. Concentration values are provided for each well and date, often showing values below detection limits (< 1.0) or specific numerical values.



Table 2. Summary of VOC Analytical Results, 2002 through 2011, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Mississippi.

Table with columns for Location, Date, and various VOC concentrations in µg/L. The table lists data for monitoring wells MDEQ GW, MW-06, MW-07, MW-08, MW-09, and MW-10 across multiple dates from 2002 to 2011. The VOCs listed include Acetone, Benzene, Bromodichloromethane, Bromoform, Bromomethane, Carbon Tetrachloride, Chlorobenzene, Chloroethane, Chloromethane, Chloroform, cis-1,2-dichloroethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,1-Dichloroethane, Ethylbenzene, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, Styrene, Tetrachloroethene, Toluene, Trichloroethene, Vinyl Chloride, Total Xylenes, Bromobenzene, 2-Chlorotoluene, 4-Chlorotoluene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Naphthalene, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,2,4,5-Tetrachlorobenzene, p-Isopropyltoluene, Dibromochloromethane, and Isopropylbenzene.

Table 2. Summary of VOC Analytical Results, 2002 through 2011, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Mississippi.

Location	Date	Concentrations in µg/L																																								
		Acetone	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloromethane	Chloroform	cis-1,2-dichloroethane	1,2-Dichloroethane	1,2-Dichloropropane	1,1-Dichloroethane	Ethylbenzene	methylene chloride	methyl ethyl ketone	methyl isobutyl ketone	Styrene	Tetrachloroethene	Toluene	Trichloroethene	Vinyl Chloride	Total Xylenes	Bromobenzene	2-Chlorotoluene	4-Chlorotoluene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Naphthalene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,2,4,5-Tetramethylbenzene	1,3,5-Tetramethylbenzene	p-Isopropyltoluene	Dibromochloromethane	Isopropylbenzene			
MDEQ GW		6.08E+02	5.00E+00	1.68E-01	8.48E+00	8.52E+00	5.00E+00	1.00E+02	3.64E+00	1.43E+00	1.55E-01	7.00E+01	5.00E+00	5.00E+00	7.00E+02	5.00E+00	1.91E+03	1.39E+02	1.00E+02	5.00E+00	1.00E+02	5.00E+00	2.00E+00	1.00E+04	-	-	-	6.00E+02	5.48E+00	7.50E+01	6.20E+00	-	7.00E+00	1.23E+01	1.23E+01	-	-	1.26E-01	6.79E+02			
MDEQ GW	608	5	0.168	8.48	8.52	5	100	3.64	1.43	0.155	70	5	5	7	700	5	1910	139	100	5	100	5	2	10000	-	-	-	600	5.48	75	6.2	-	7	12.3	12.3	-	-	0.13	679			
	Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 10.0	< 10.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 10.0	< 10.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-11	Dec-02	ND	114	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Feb-03	NA	J 6.39	< 10.0	< 10.0	< 10.0	< 10.0	< 12.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 13.0	NA	NA	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 15.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	B 42.6	B 53.40	B 13.55	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	





Table 2. Summary of VOC Analytical Results, 2002 through 2011, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Mississippi.

Location	Date	Concentrations in µg/L																																						
		Acetone	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloromethane	Chloroform	cis-1,2-dichloroethene	1,2-Dichloroethane	1,2-Dichloropropane	1,1-Dichloroethene	Ethylbenzene	methylene chloride	methyl ethyl ketone	methyl isobutyl ketone	Styrene	Tetrachloroethene	Toluene	Trichloroethene	Vinyl Chloride	Total Xylenes	Bromobenzene	2-Chlorotoluene	4-Chlorotoluene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Naphthalene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,2,4,5-Tetramethylbenzene	1,3,5-Tetramethylbenzene	p-Isopropyltoluene	Dibromochloromethane	Isopropylbenzene	
MDEQ GW		6.08E+02	5.00E+00	1.68E-01	8.48E+00	8.52E+00	5.00E+00	1.00E+02	3.64E+00	1.43E+00	1.55E-01	7.00E+01	5.00E+00	5.00E+00	7.00E+00	7.00E+02	5.00E+00	1.91E+03	1.39E+02	1.00E+02	5.00E+00	1.00E+02	5.00E+00	2.00E+00	1.00E+04	--	--	--	6.00E+02	5.48E+00	7.50E+01	6.20E+00	--	7.00E+00	1.23E+01	1.23E+01	--	1.26E-01	6.79E+02	
MDEQ GW		608	5	0.168	8.48	8.52	5	100	3.64	1.43	0.155	70	5	5	7	700	5	1910	139	100	5	100	5	2	10000	--	--	--	600	5.48	75	6.2	--	7	12.3	12.3	--	0.13	679	
	May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 10.0	< 10.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 10.0	< 10.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-11	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 10.0	< 10.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:  
**Boldface type Compound detected.**  
 Shaded cells indicate that the reported result exceeds the EPA RSL or MDEQ\_GW.  
 Some Appendix IX parameters not shown due to no detections for that parameter  
 -- Standard not promulgated.  
 < Less than.  
 B Compound detected in the associated method blank.  
 J Estimated value.  
 MDEQ Mississippi Department of Environmental Quality.  
 MDEQ\_GW MDEQ Tier 1 Target Remediation Goal.  
 µg/L Micrograms per liter.  
 NA Not analyzed.



Table 3. Combined Groundwater Screening Evaluation, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Constituent [a]	2011 Data				Historic Data				Combined				MDEQ TRG [b]	Does max detect exceed MDEQ TRG?	Does max DL exceed MDEQ TRG?	Does min DL exceed MDEQ?	USEPA RSL [c]	Surrogate Value	Does max detect exceed RSL?	Does max DL exceed RSL?	Does min DL exceed RSL?
	Max Detect	Location of Maximum Detection	Detection Limit		Max Detect	Location of Maximum Detection	Detection Limit		Max Detect	Location of Maximum Detection	Detection Limit										
			Max	Min			Max	Min			Max	Min									
<b>Pesticides/PCBs (µg/L)</b>																					
4,4'-DDD	--	--	0.99	0.10	NA	--	NA	NA	--	--	0.99	0.10	0.28	ND	YES	No	0.28	ND	YES	No	
4,4'-DDE	--	--	0.99	0.10	NA	--	NA	NA	--	--	0.99	0.10	0.20	ND	YES	No	0.20	ND	YES	No	
4,4'-DDT	--	--	0.99	0.10	NA	--	NA	NA	--	--	0.99	0.10	0.20	ND	YES	No	0.20	ND	YES	No	
4-Chlorobenzilate	--	--	4.9	0.49	NA	--	NA	NA	--	--	4.9	0.49	0.25	ND	YES	YES	0.61	ND	YES	No	
Aldrin	--	--	0.49	0.05	NA	--	NA	NA	--	--	0.49	0.05	0.004	ND	YES	YES	0.004	ND	YES	YES	
Alpha-BHC	1.5	MW-17(7/26/2011)	0.05	0.05	NA	--	NA	NA	1.5	MW-17(7/26/2011)	0.05	0.05	0.01	YES	YES	YES	0.01	YES	YES	YES	
Aroclor 1016	--	--	9.9	0.99	NA	--	NA	NA	--	--	9.9	0.99	0.96	ND	YES	YES	0.96	ND	YES	YES	
Aroclor 1221	--	--	20	2.0	NA	--	NA	NA	--	--	20	2.0	0.03	ND	YES	YES	0.01	ND	YES	YES	
Aroclor 1232	--	--	9.9	0.99	NA	--	NA	NA	--	--	9.9	0.99	0.03	ND	YES	YES	0.01	ND	YES	YES	
Aroclor 1242	--	--	9.9	0.99	NA	--	NA	NA	--	--	9.9	0.99	0.03	ND	YES	YES	0.03	ND	YES	YES	
Aroclor 1248	--	--	9.9	0.99	NA	--	NA	NA	--	--	9.9	0.99	0.03	ND	YES	YES	0.03	ND	YES	YES	
Aroclor 1254	--	--	9.9	0.99	NA	--	NA	NA	--	--	9.9	0.99	0.03	ND	YES	YES	0.03	ND	YES	YES	
Aroclor 1260	--	--	9.9	0.99	NA	--	NA	NA	--	--	9.9	0.99	0.03	ND	YES	YES	0.03	ND	YES	YES	
Beta-BHC	--	--	0.49	0.05	NA	--	NA	NA	--	--	0.49	0.05	0.04	ND	YES	YES	0.04	ND	YES	YES	
Delta-BHC	[d]	--	0.49	0.05	NA	--	NA	NA	--	--	0.49	0.05	0.04	ND	YES	YES	0.04	[d]	ND	YES	YES
Dieldrin	--	--	0.99	0.10	NA	--	NA	NA	--	--	0.99	0.10	0.004	ND	YES	YES	0.00	ND	YES	YES	
Endosulfan I	[e]	--	0.49	0.05	NA	--	NA	NA	--	--	0.49	0.05	219	ND	No	No	220	ND	No	No	
Endosulfan II	[e]	--	0.99	0.10	NA	--	NA	NA	--	--	0.99	0.10	219	ND	No	No	220	ND	No	No	
Endosulfan Sulfate	[e]	--	0.99	0.10	NA	--	NA	NA	--	--	0.99	0.10	219	ND	No	No	220	ND	No	No	
Endrin	--	--	0.99	0.10	NA	--	NA	NA	--	--	0.99	0.10	2.0	ND	No	No	11	ND	No	No	
Endrin Aldehyde	[f]	--	0.99	0.10	NA	--	NA	NA	--	--	0.99	0.10	2.0	ND	No	No	11	ND	No	No	
Endrin Ketone	[f]	--	0.99	0.10	NA	--	NA	NA	--	--	0.99	0.10	2.0	ND	No	No	11	ND	No	No	
Gamma-BHC (Lindane)	0.3	MW-08(7/26/2011)	0.49	0.05	NA	--	NA	NA	0.3	MW-08(7/26/2011)	0.49	0.05	0.20	YES	YES	No	0.06	YES	YES	No	
Heptachlor	--	--	0.49	0.05	NA	--	NA	NA	--	--	0.49	0.05	0.40	ND	YES	No	0.02	ND	YES	YES	
Heptachlor Epoxide	--	--	0.49	0.05	NA	--	NA	NA	--	--	0.49	0.05	0.20	ND	YES	No	0.01	ND	YES	YES	
Isodrin	[g]	--	0.49	0.05	NA	--	NA	NA	--	--	0.49	0.05	0.004	ND	YES	YES	0.004	[g]	ND	YES	YES
Kepone	--	--	9.9	0.99	NA	--	NA	NA	--	--	9.9	0.99	NA	ND	NA	NA	0.007	ND	YES	YES	
Methoxychlor	--	--	0.99	0.10	NA	--	NA	NA	--	--	0.99	0.10	40	ND	No	No	180	ND	No	No	
Technical Chlordane	--	--	4.9	0.49	NA	--	NA	NA	--	--	4.9	0.49	2.0	ND	YES	No	0.19	ND	YES	YES	
Toxaphene	--	--	49	4.9	NA	--	NA	NA	--	--	49	4.9	3.0	ND	YES	YES	0.06	ND	YES	YES	
<b>Herbicides (µg/L)</b>																					
2,4,5-T	--	--	0.51	0.5	NA	--	NA	NA	--	--	0.51	0.50	365	ND	No	No	370	ND	No	No	
2,4,5-TP	--	--	0.51	0.5	NA	--	NA	NA	--	--	0.51	0.50	50	ND	No	No	290	ND	No	No	
2,4-D	10	MW-23(7/26/2011)	0.51	0.5	NA	--	NA	NA	10	MW-23(7/26/2011)	0.51	0.50	70	No	No	No	370	No	No	No	
<b>Volatile Organic Compounds (µg/L)</b>																					
1,1,1,2-Tetrachloroethane	--	--	200	1.0	NA	--	NA	NA	--	--	200	1.0	0.41	ND	YES	YES	0.52	ND	YES	YES	
1,1,1-Trichloroethane	--	--	200	1.0	NA	--	NA	NA	--	--	200	1.0	200	ND	No	No	9,100	ND	No	No	
1,1,2,2-Tetrachloroethane	--	--	200	1.0	NA	--	NA	NA	--	--	200	1.0	0.05	ND	YES	YES	0.07	ND	YES	YES	
1,1,2-Trichloroethane	--	--	200	1.0	NA	--	NA	NA	--	--	200	1.0	5.0	ND	YES	No	0.24	ND	YES	YES	
1,1-Dichloroethane	--	--	200	1.0	NA	--	NA	NA	--	--	200	1.0	798	ND	No	No	2.4	ND	YES	No	
1,1-Dichloroethene	--	--	200	1.0	17	MW-08(12/1/2002)	500	1	17	MW-08(12/1/2002)	500	1.0	7.0	YES	YES	No	340	No	YES	No	
1,2,3-Trichloropropane	--	--	200	1.0	NA	--	NA	NA	--	--	200	1.0	0.01	ND	YES	YES	0.0007	ND	YES	YES	
1,2-Dibromo-3-chloropropane	--	--	200	1.0	NA	--	NA	NA	--	--	200	1.0	0.20	ND	YES	YES	0.0003	ND	YES	YES	
1,2-Dibromoethane	--	--	200	1.0	NA	--	NA	NA	--	--	200	1.0	0.05	ND	YES	YES	0.01	ND	YES	YES	
1,2-Dichloroethane	--	--	200	1.0	500	MW-08(8/1/2005)	500	1	500	MW-08(8/1/2005)	500	1.0	5.0	YES	YES	No	0.15	YES	YES	YES	
1,2-Dichloropropane	--	--	200	1.0	20	MW-18(8/6/2006)	500	1	20	MW-18(8/6/2006)	500	1.0	5.0	YES	YES	No	0.39	YES	YES	YES	
2-Butanone	--	--	2,000	10	NA	--	NA	NA	--	--	2,000	10	1,906	ND	YES	No	7,100	ND	No	No	
2-Chloro-1,3-butadiene	--	--	200	1.0	NA	--	NA	NA	--	--	200	1.0	14	ND	YES	No	0.02	ND	YES	YES	
2-Hexanone	--	--	2,000	10	NA	--	NA	NA	--	--	2,000	10	1,460	ND	YES	No	47	ND	YES	No	
3-Chloropropene	--	--	200	1.0	NA	--	NA	NA	--	--	200	1.0	NA	ND	NA	NA	0.65	ND	YES	YES	
4-Methyl-2-pentanone	1,100	MW-23(7/26/2011)	2,000	10	NA	--	NA	NA	1,100	MW-23(7/26/2011)	2,000	10	139	YES	YES	No	2,000	No	No	No	
Acetone	--	--	5,000	25	2300	MW-15(11/18/2008)	13,000	25	2,300	MW-15(11/18/2008)	13,000	25	608	YES	YES	No	22,000	No	No	No	
Acetonitrile	--	--	8,000	40	NA	--	NA	NA	--	--	8,000	40	125	ND	YES	No	130	ND	YES	No	
Acrolein	--	--	4,000	20	NA	--	NA	NA	--	--	4,000	20	0.04	ND	YES	YES	0.04	ND	YES	YES	
Acrylonitrile	--	--	4,000	20	NA	--	NA	NA	--	--	4,000	20	0.04	ND	YES	YES	0.05	ND	YES	YES	
Benzene	8,800	MW-23(7/26/2011)	1.0	1.0	18000	MW-08(8/1/2005)	1000	1	18,000	MW-08(8/1/2005)	1,000	1.0	5.0	YES	YES	No	0.41	YES	YES	YES	
Bromodichloromethane	--	--	200	1.0	6.84	MW-08(12/1/2002)	500	1	6.8	MW-08(12/1/2002)	500	1.0	0.17	YES	YES	YES	0.12	YES	YES	YES	
Bromoform	--	--	200	1.0	1.55	MW-10(8/1/2003)	500	1	1.6	MW-10(8/1/2003)	500	1.0	8.5	No	YES	No	8.5	No	YES	No	







Table 3. Combined Groundwater Screening Evaluation, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Constituent [a]	2011 Data				Historic Data				Combined				MDEQ TRG [b]	Does max detect exceed MDEQ TRG?	Does max DL exceed MDEQ TRG?	Does min DL exceed MDEQ?	USEPA RSL [c]	Surrogate Value	Does max detect exceed RSL?	Does max DL exceed RSL?	Does min DL exceed RSL?
	Max Detect	Location of Maximum Detection	Detection Limit		Max Detect	Location of Maximum Detection	Detection Limit		Max Detect	Location of Maximum Detection	Detection Limit										
			Max	Min			Max	Min			Max	Min									
2-Methylphenol	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	1,825	ND	No	No	1,800	ND	No	No	
2-Naphthylamine	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	0.04	ND	YES	YES	
2-Nitroaniline	--	--	5,200	49	NA	--	NA	NA	--	--	5,200	49	0.42	ND	YES	YES	370	ND	YES	No	
2-Nitrophenol	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	0.42	ND	YES	YES	1,800	ND	No	No	
2-Picoline	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	NA	ND	NA	NA	
3 & 4 Methylphenol	660	MW-23(7/26/2011)	1,000	9.9	NA	--	NA	NA	660	MW-23(7/26/2011)	1,000	9.9	NA	NA	NA	NA	NA	NA	NA	NA	
3,3'-Dichlorobenzidine	--	--	6,200	59	NA	--	NA	NA	--	--	6,200	59	0.15	ND	YES	YES	0.15	ND	YES	YES	
3,3'-Dimethylbenzidine	--	--	2,100	20	NA	--	NA	NA	--	--	2,100	20	0.01	ND	YES	YES	0.01	ND	YES	YES	
3-Methylcholanthrene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	0.003	ND	YES	YES	
3-Nitroaniline	--	--	5,200	49	NA	--	NA	NA	--	--	5,200	49	NA	ND	NA	NA	3.4	ND	YES	YES	
4,6-Dinitro-2-methylphenol	--	--	5,200	49	NA	--	NA	NA	--	--	5,200	49	3.7	ND	YES	YES	2.90	ND	YES	YES	
4-Aminobiphenyl	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	0.003	ND	YES	YES	
4-Bromophenyl-phenylether	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	3.7	ND	YES	YES	
4-Chloro-3-Methylphenol	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	73,000	ND	No	No	3,700	ND	No	No	
4-Chloroaniline	--	--	2,100	20	NA	--	NA	NA	--	--	2,100	20	146	ND	YES	No	0.34	ND	YES	YES	
4-Chlorophenyl-phenylether	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	3.7	ND	YES	YES	
4-Nitroaniline	--	--	5,200	49	NA	--	NA	NA	--	--	5,200	49	NA	ND	NA	NA	3.4	ND	YES	YES	
4-Nitrophenol	--	--	5,200	49	NA	--	NA	NA	--	--	5,200	49	292	ND	YES	No	180	ND	YES	No	
4-Nitroquinoline-1-oxide	--	--	2,100	20	NA	--	NA	NA	--	--	2,100	20	NA	ND	NA	NA	NA	ND	NA	NA	
4-Phenylenediamine	--	--	210,000	2,000	NA	--	NA	NA	--	--	210,000	2,000	6,935	ND	YES	No	6,900	ND	YES	No	
5-Nitro-o-toluidine	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	2.0	ND	YES	YES	7.5	ND	YES	YES	
7,12-Dimethylbenz(a)anthracene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	0.0003	ND	YES	YES	
a,a'-Dimethylphenethylamine	--	--	210,000	2,000	NA	--	NA	NA	--	--	210,000	2,000	NA	ND	NA	NA	NA	ND	NA	NA	
Acenaphthene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	365	ND	YES	No	2,200	ND	No	No	
Acenaphthylene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	2,190	ND	No	No	2,200	ND	No	No	
Acetophenone	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	0.04	ND	YES	YES	3,700	ND	No	No	
Aniline	--	--	2,100	20	NA	--	NA	NA	--	--	2,100	20	12	ND	YES	YES	12	ND	YES	YES	
Anthracene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	43	ND	YES	No	11,000	ND	No	No	
Aramite	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	2.7	ND	YES	YES	
Benzo(a)anthracene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	0.09	ND	YES	YES	0.03	ND	YES	YES	
Benzo(a)pyrene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	0.20	ND	YES	YES	0.003	ND	YES	YES	
Benzo(b)fluoranthene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	0.09	ND	YES	YES	0.03	ND	YES	YES	
Benzo(g,h,i)perylene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	1,095	ND	No	No	1,100	ND	No	No	
Benzo(k)fluoranthene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	0.92	ND	YES	YES	0.29	ND	YES	YES	
Benzyl Alcohol	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	10,950	ND	No	No	3,700	ND	No	No	
bis(2-Chloroethoxy)methane	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	110	ND	YES	No	
bis(2-Chloroethyl)ether	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	0.01	ND	YES	YES	0.01	ND	YES	YES	
bis(2-Ethylhexyl)phthalate	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	6.0	ND	YES	YES	4.8	ND	YES	YES	
Butylbenzylphthalate	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	2,690	ND	No	No	35	ND	YES	No	
Chrysene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	9.2	ND	YES	YES	2.9	ND	YES	YES	
Diallate	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	1.1	ND	YES	YES	
Dibenzo(a,h)anthracene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	0.01	ND	YES	YES	0.0029	ND	YES	YES	
Dibenzofuran	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	24	ND	YES	No	37	ND	YES	No	
Diethylphthalate	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	29,200	ND	No	No	29,000	ND	No	No	
Dimethoate	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	7.3	ND	YES	YES	
Dimethylphthalate	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	365,000	ND	No	No	29,000	ND	No	No	
Di-n-Butylphthalate	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	3,650	ND	No	No	3,700	ND	No	No	
Di-n-Octylphthalate	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	20	ND	YES	No	3,700	ND	No	No	
Dinoseb	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	7.0	ND	YES	YES	37	ND	YES	No	
Disulfoton	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	1.5	ND	YES	YES	1.5	ND	YES	YES	
Ethyl Methanesulfonate	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	NA	ND	NA	NA	
Ethyl Parathion	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	219	ND	YES	No	220	ND	YES	No	
Famphur	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	NA	ND	NA	NA	
Fluoranthene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	1,460	ND	No	No	1,500	ND	No	No	
Fluorene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	243	ND	YES	No	1,500	ND	No	No	
Hexachlorobenzene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	1.00	ND	YES	YES	0.04	ND	YES	YES	
Hexachlorobutadiene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	0.86	ND	YES	YES	0.86	ND	YES	YES	
Hexachlorocyclopentadiene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	50	ND	YES	No	220	ND	YES	No	
Hexachloroethane	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	4.8	ND	YES	YES	4.8	ND	YES	YES	

Table 3. Combined Groundwater Screening Evaluation, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Constituent [a]	2011 Data				Historic Data				Combined				Does max detect exceed			USEPA RSL [c]	Surrogate Value	Does max detect exceed			
	Max Detect	Location of Maximum Detection	Detection Limit		Max Detect	Location of Maximum Detection	Detection Limit		Max Detect	Location of Maximum Detection	Detection Limit		MDEQ TRG [b]	MDEQ TRG?	MDEQ TRG?			MDEQ TRG?	RSL?	RSL?	RSL?
			Max	Min			Max	Min			Max	Min									
Hexachlorophene	--	--	520,000	4,900	NA	--	NA	NA	--	--	520,000	4,900	10.95	ND	YES	YES	11	ND	YES	YES	
Hexachloropropene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	NA	ND	NA	NA	
Indeno(1,2,3-cd)pyrene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	0.09	ND	YES	YES	0.03	ND	YES	YES	
Isophorone	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	70	ND	YES	No	71	ND	YES	No	
Isosafrole	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	NA	ND	NA	NA	
Methapyrilene	--	--	210,000	2,000	NA	--	NA	NA	--	--	210,000	2,000	NA	ND	NA	NA	NA	ND	NA	NA	
Methyl Methanesulfonate	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	0.68	ND	YES	YES	
Methyl Parathion	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	9.1	ND	YES	YES	9.1	ND	YES	YES	
Naphthalene	--	--	1,000	9.9	42.6	MW-11(2/1/2003)	5	5	43	MW-11(2/1/2003)	1,000	9.9	6.2	YES	YES	YES	0.14	YES	YES	YES	
Nitrobenzene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	3.5	ND	YES	YES	0.12	ND	YES	YES	
N-Nitrosodiethylamine	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	0.0004	ND	YES	YES	0.0001	ND	YES	YES	
N-Nitrosodimethylamine	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	0.001	ND	YES	YES	0.0004	ND	YES	YES	
N-Nitroso-di-n-butylamine	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	0.002	ND	YES	YES	0.002	ND	YES	YES	
N-Nitroso-di-n-propylamine	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	0.010	ND	YES	YES	0.01	ND	YES	YES	
N-Nitrosodiphenylamine	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	13.7	ND	YES	No	14	ND	YES	No	
N-Nitrosomethylethylamine	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	0.003	ND	YES	YES	0.003	ND	YES	YES	
N-Nitrosomorpholine	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	0.01	ND	YES	YES	
N-Nitrosopiperidine	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	0.007	ND	YES	YES	
N-Nitrosopyrrolidine	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	0.03	ND	YES	YES	0.03	ND	YES	YES	
o,o,o-Triethylphosphorothioate	12,000	MW-17(7/26/2011)	99	9.9	NA	--	NA	NA	12,000	MW-17(7/26/2011)	99	9.9	NA	NA	NA	NA	NA	NA	NA	NA	
o-Toluidine	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	0.28	ND	YES	YES	NA	NA	NA	NA	
p-Dimethylaminoazobenzene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	0.02	ND	YES	YES	
Pentachlorobenzene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	29	ND	YES	No	29	ND	YES	No	
Pentachloronitrobenzene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	0.26	ND	YES	YES	0.26	ND	YES	YES	
Pentachlorophenol	--	--	5,200	49	NA	--	NA	NA	--	--	5,200	49	1.0	ND	YES	YES	0.17	ND	YES	YES	
Phenacetin	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	31	ND	YES	No	
Phenanthrene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	1,095	ND	No	No	11,000	ND	No	No	
Phenol	140	MW-23(7/26/2011)	1,000	9.9	NA	--	NA	NA	140	MW-23(7/26/2011)	1,000	9.9	21,900	No	No	No	11,000	No	No	No	
Phorate	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	7.3	ND	YES	YES	
Pronamide	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	2,700	ND	No	No	
Pyrene	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	183	ND	YES	No	1,100	ND	No	No	
Pyridine	--	--	5,200	49	NA	--	NA	NA	--	--	5,200	49	37	ND	YES	YES	37	ND	YES	YES	
Safrole	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	0.31	ND	YES	YES	
Sulfotep	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	18	ND	YES	No	
Thionazin	--	--	1,000	9.9	NA	--	NA	NA	--	--	1,000	9.9	NA	ND	NA	NA	NA	ND	NA	NA	
<b>Dioxins (pg/L)</b>																					
2,3,7,8-TCDD	--	--	11	9.8	NA	--	NA	NA	--	--	11	9.8	4.5	ND	YES	YES	0.52	ND	YES	YES	
Total TEQ	--	--	0.00	0.00	NA	--	NA	NA	--	--	0.00	0.00	4.5	ND	No	No	0.52	ND	No	No	
<b>Inorganics (ug/L)</b>																					
Antimony	--	--	5.0	5.0	NA	--	NA	NA	--	--	5.0	5.0	6.0	ND	No	No	15	ND	No	No	
Arsenic	42	MW-08(7/26/2011)	2.5	2.5	NA	--	NA	NA	42	MW-08(7/26/2011)	2.5	2.5	50	No	No	No	0.05	YES	YES	YES	
Barium	260	MW-08(7/26/2011)	--	--	NA	--	NA	NA	260	MW-08(7/26/2011)	--	--	2,000	No	ND	ND	7,300	No	ND	ND	
Beryllium	3.3	MW-23(7/26/2011)	0.5	0.5	NA	--	NA	NA	3.3	MW-23(7/26/2011)	0.50	0.50	4.0	No	No	No	73	No	No	No	
Cadmium	--	--	0.5	0.5	NA	--	NA	NA	--	--	0.50	0.50	5.0	ND	No	No	18	ND	No	No	
Chromium	[[]]	5.0 MW-23(7/26/2011)	5.0	5.0	NA	--	NA	NA	5.0	MW-23(7/26/2011)	5.0	5.0	100	No	No	No	0.04	[[]]	YES	YES	
Cobalt	4.2	MW-02(7/27/2011)	0.5	0.5	NA	--	NA	NA	4.2	MW-02(7/27/2011)	0.50	0.50	2,190	No	No	No	11	No	No	No	
Copper	--	--	5.0	5.0	NA	--	NA	NA	--	--	5.0	5.0	1,300	ND	No	No	1,500	ND	No	No	
Lead	--	--	1.5	1.5	NA	--	NA	NA	--	--	1.5	1.5	15	ND	No	No	0.24	ND	YES	YES	
Nickel	9.7	MW-12(7/27/2011)	5.0	5.0	NA	--	NA	NA	9.7	MW-12(7/27/2011)	5.0	5.0	730	No	No	No	730	No	No	No	
Selenium	--	--	2.5	2.5	NA	--	NA	NA	--	--	2.5	2.5	50	ND	No	No	180	ND	No	No	
Silver	--	--	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	183	ND	No	No	180	ND	No	No	
Thallium	--	--	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	2.0	ND	No	No	0.37	ND	YES	YES	
Tin	--	--	5.0	5.0	NA	--	NA	NA	--	--	5.0	5.0	21,900	ND	No	No	22,000	ND	No	No	
Vanadium	16	MW-23(7/26/2011)	10	10	NA	--	NA	NA	16	MW-23(7/26/2011)	10	10	256	No	No	No	NA	NA	NA	NA	
Zinc	57	MW-19(7/26/2011)	20	20	NA	--	NA	NA	57	MW-19(7/26/2011)	20	20	10,950	No	No	No	11,000	No	No	No	
<b>Inorganics (ug/L)</b>																					
Mercury	--	--	0.2	0.2	NA	--	NA	NA	--	--	0.2	0.2	2.0	ND	No	No	0.63	ND	No	No	
<b>Miscellaneous (mg/L)</b>																					
Sulfide	7.9	MW-23(7/26/2011)	1.0	1.0	NA	--	NA	NA	7.9	MW-23(7/26/2011)	1.0	1.0	NA	NA	NA	NA	NA	NA	NA	NA	



Table 3. Combined Groundwater Screening Evaluation, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Constituent [a]	2011 Data				Historic Data				Combined				MDEQ TRG [b]	Does max detect exceed MDEQ TRG?	Does max DL exceed MDEQ TRG?	Does min DL exceed MDEQ?	USEPA RSL [c]	Surrogate Value	Does max detect exceed RSL?	Does max DL exceed RSL?	Does min DL exceed RSL?
	Max Detect	Location of Maximum Detection	Detection Limit		Max Detect	Location of Maximum Detection	Detection Limit		Max Detect	Location of Maximum Detection	Detection Limit										
			Max	Min			Max	Min			Max	Min									
<b>Miscellaneous (mg/L)</b>																					
Cyanide	--	--	0.01	0.01	NA	--	NA	NA	--	--	0.01	0.01	0.20	ND	No	No	0.73		ND	No	No

-- Not detected/ not analyzed/ not applicable.  
 µg/L Micrograms per Liter.  
 ND Non-detects.  
 NA Not analyzed/not applicable.  
 MDEQ Mississippi Department of Environmental Quality.  
 TRG Target Remediation Goal.  
 USEPA U.S. Environmental Protection Agency.  
 RSL Regional Screening Levels.  
 DL Detection limit.  
 TEQ Toxic equivalent.

[a] Only constituents detected at least once are presented.  
 For duplicate samples, the highest detected value or the lowest detection limit were used.  
 [b] TRG groundwater values source: *Subpart II, Mississippi Department of Environmental Quality Risk Evaluation Procedures for Voluntary Cleanup and Redevelopment of Brownfield Sites*, Appendix A Tier 1 Target Remediation Goals (February, 2002).  
 [c] USEPA RSLs (June, 2011).  
 [d] Technical BHC used as a surrogate.  
 [e] Endosufan used as a surrogate.  
 [f] Endrin used as a surrogate.  
 [g] Aldrin used as a surrogate.  
 [h] 1,3-Dichloropropene used as a surrogate.  
 [i] Bromomethane is used as a surrogate.  
 [j] 1,4-Dichloro-2-butene used as a surrogate.  
 [k] 2,4-Dinitrophenol used as a surrogate.  
 [l] RSL for chromium (VI) used as a surrogate for total chromium.

Table 4. Combined Surface Water Screening Evaluation, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Constituent [a]	2011 Data				Historic Data				Combined				MDEQ TRG [b]	Does max detect exceed MDEQ TRG?	Does max DL exceed MDEQ TRG?	Does min DL exceed MDEQ TRG?	USEPA RSL [c]	Does max detect exceed RSL?	Does max DL exceed RSL?	Does min DL exceed RSL?	
	New Units	Max Detect	Location of Maximum Detection	Detection Limit	Max Detect	Location of Maximum Detection	Detection Limit	Max Detect	Location of Maximum Detection	Detection Limit											
			Max	Min		Max	Min		Max	Min											
<b>Volatile Organic Compounds (µg/L)</b>																					
1,1,1,2-Tetrachloroethane	µg/L	–	–	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	0.41	ND	YES	YES	0.52	ND	YES	YES
1,1,1-Trichloroethane	µg/L	–	–	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	200	ND	No	No	9,100	ND	No	No
1,1,2,2-Tetrachloroethane	µg/L	–	–	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	0.05	ND	YES	YES	0.067	ND	YES	YES
1,1,2-Trichloroethane	µg/L	–	–	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	5.0	ND	No	No	0.24	ND	YES	YES
1,1-Dichloroethane	µg/L	–	–	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	798	ND	No	No	2.4	ND	No	No
1,1-Dichloroethene	µg/L	–	–	1.0	1.0	5.0	CM-00(9/1/2003)	10	1.0	5.0	CM-00(9/1/2003)	10	1.0	7.0	No	YES	No	340	No	No	No
1,2,3-Trichlorobenzene	µg/L	NA	--	NA	NA	32	CM-01(2/1/2003)	5.0	5.0	32	CM-01(2/1/2003)	5.0	5.0	70	No	No	No	29	YES	No	No
1,2,4-Trichlorobenzene	µg/L	NA	--	NA	NA	3.4	CM-01(2/1/2003)	10	5.0	3.4	CM-01(2/1/2003)	10	5.0	70	No	No	No	2.3	YES	YES	YES
1,2,4-Trimethylbenzene	µg/L	NA	--	NA	NA	1.3	CM-01(9/1/2003)	10	1.0	1.3	CM-01(9/1/2003)	10	1.0	12	No	No	No	15	No	No	No
1,3,5-Trimethylbenzene	µg/L	NA	--	NA	NA	1.6	CM-01(9/1/2003)	10	10	1.6	CM-01(9/1/2003)	10	10	12	No	No	No	370	No	No	No
1,2,3-Trichloropropane	µg/L	–	–	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	0.006	ND	YES	YES	0.0007	ND	YES	YES
1,2-Dibromo-3-Chloropropane	µg/L	–	–	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	0.20	ND	YES	YES	0.0003	ND	YES	YES
1,2-Dichlorobenzene	µg/L	NA	--	NA	NA	3.8	CM-01(9/1/2003)	10	10	3.8	CM-01(9/1/2003)	10	10	600	No	No	No	370	No	No	No
1,3-Dichlorobenzene	µg/L	NA	--	NA	NA	3.7	CM-00(9/1/2003)	10	10	3.7	CM-00(9/1/2003)	10	10	5.5	No	YES	YES	370	No	No	No
1,4-Dichlorobenzene	µg/L	NA	--	NA	NA	7.5	CM-00(9/1/2003)	10	10	7.5	CM-00(9/1/2003)	10	10	75	No	No	No	0.43	YES	YES	YES
1,2-Dichloroethane	µg/L	–	–	1.0	1.0	1.7	CM-01(9/1/2003)	10	1.0	1.7	CM-01(9/1/2003)	10	1.0	5.0	No	YES	No	0.15	YES	YES	YES
1,2-Dichloropropane	µg/L	–	–	1.0	1.0	–	–	10	1.0	–	–	10	1.0	5.0	ND	YES	No	0.39	ND	YES	YES
2-Butanone (MEK)	µg/L	–	–	10	10	NA	--	NA	NA	--	--	10	10	1,906	ND	No	No	7,100	ND	No	No
2-Chloro-1,3-butadiene	µg/L	–	–	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	14	ND	No	No	0.02	ND	YES	YES
2-Chlorotoluene	µg/L	NA	--	NA	NA	3.4	CM-00(9/1/2003)	10	10	3.4	CM-00(9/1/2003)	10	10	122	No	No	No	730	No	No	No
4-Chlorotoluene	µg/L	NA	--	NA	NA	4.6	CM-00(9/1/2003)	10	10	4.6	CM-00(9/1/2003)	10	10	122	No	No	No	730	No	No	No
2-Hexanone	µg/L	–	–	10	10	NA	--	NA	NA	--	--	10	10	1,460	ND	No	No	47	ND	No	No
3-Chloro-1-propene	µg/L	–	–	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	NA	ND	NA	NA	0.65	ND	YES	YES
4-Methyl-2-pentanone (MIBK)	µg/L	–	–	10	10	NA	--	NA	NA	--	--	10	10	139	ND	No	No	2,000	ND	No	No
Acetone	µg/L	–	–	25	25	160	CM-04(2/7/2007)	25	25	160	CM-04(2/7/2007)	25	25	608	No	No	No	22,000	No	No	No
Acetonitrile	µg/L	–	–	40	40	NA	--	NA	NA	--	--	40	40	125	ND	No	No	130	ND	No	No
Acrolein	µg/L	–	–	20	20	NA	--	NA	NA	--	--	20	20	0.04	ND	YES	YES	0.04	ND	YES	YES
Acrylonitrile	µg/L	–	–	20	20	NA	--	NA	NA	--	--	20	20	0.04	ND	YES	YES	0.05	ND	YES	YES
Benzene	µg/L	–	–	1.0	1.0	8.4	CM-01(11/6/2006)	1.0	1.0	8.4	CM-01(11/6/2006)	1.0	1.0	5.0	YES	No	No	0.41	YES	YES	YES
Bromoform	µg/L	–	–	1.0	1.0	–	–	10	1.0	–	–	10	1.0	8.5	ND	YES	No	8.5	ND	YES	No
Bromobenzene	µg/L	NA	--	NA	NA	13	CM-01(9/1/2003)	10	10	13	CM-01(9/1/2003)	10	10	100	No	No	No	88	No	No	No
Bromodichloromethane	µg/L	NA	--	NA	NA	–	–	10	1.0	–	–	10	1.0	0.17	ND	YES	YES	0.12	ND	YES	YES
Bromomethane	µg/L	–	–	1.0	1.0	–	–	10	1.0	–	–	10	1.0	8.5	ND	YES	No	8.7	ND	YES	No
Carbon disulfide	µg/L	–	–	2.0	2.0	NA	--	NA	NA	--	--	2.0	2.0	1,043	ND	No	No	1,000	ND	No	No
Carbon tetrachloride	µg/L	–	–	1.0	1.0	3.0	CM-01(2/1/2003)	10	1.0	3.0	CM-01(2/1/2003)	10	1.0	5.0	No	YES	No	0.44	YES	YES	YES
Chlorobenzene	µg/L	–	–	1.0	1.0	24	CM-01(11/6/2006)	10	1.0	24	CM-01(11/6/2006)	10	1.0	100	No	No	No	91	No	No	No
Chlorodibromomethane	µg/L	–	–	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	0.13	ND	YES	YES	0.15	ND	YES	YES
Chloroethane	µg/L	–	–	1.0	1.0	21	CM-01(2/1/2003)	12	1.0	21	CM-01(2/1/2003)	12	1.0	3.6	YES	YES	No	21,000	No	No	No
Chloroform	µg/L	–	–	1.0	1.0	2.3	CM-01(2/1/2003)	10	1.0	2.3	CM-01(2/1/2003)	10	1.0	0.15	YES	YES	YES	0.19	YES	YES	YES
Chloromethane	µg/L	–	–	1.0	1.0	–	–	10	1.0	–	–	10	1.0	1.4	ND	YES	No	190	ND	No	No
cis-1,2-Dichloroethene	µg/L	7.6	CM-04(7/29/2011)	1.0	1.0	17	CM-04(11/6/2006)	10	1.0	17	CM-04(11/6/2006)	10	1.0	70	No	No	No	73	No	No	No
cis-1,3-Dichloropropene	µg/L	–	–	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	0.08	ND	YES	YES	0.43	ND	YES	YES
Dibromochloromethane	µg/L	NA	--	NA	NA	–	–	10	1.0	–	–	10	1.0	0.13	ND	YES	YES	0.15	ND	YES	YES
Dibromomethane	µg/L	–	–	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	61	ND	No	No	8	ND	No	No
Dichlorobromomethane	µg/L	–	–	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	0.17	ND	YES	YES	0.12	ND	YES	YES
Dichlorodifluoromethane	µg/L	–	–	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	348	ND	No	No	200	ND	No	No
Ethyl methacrylate	µg/L	–	–	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	548	ND	No	No	530	ND	No	No
Ethylbenzene	µg/L	–	–	1.0	1.0	57	CM-01(11/6/2006)	10	1.0	57	CM-01(11/6/2006)	10	1.0	700	No	No	No	1.5	YES	YES	No
Ethylene Dibromide	µg/L	–	–	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	0.05	ND	YES	YES	0.007	ND	YES	YES
Iodomethane	µg/L	–	–	5.0	5.0	NA	--	NA	NA	--	--	5.0	5.0	8.5	ND	No	No	8.7	ND	No	No
Isobutyl alcohol	µg/L	–	–	40	40	NA	--	NA	NA	--	--	40	40	1,825	ND	No	No	11,000	ND	No	No
Isopropylbenzene	µg/L	NA	--	NA	NA	–	–	10	1.0	–	–	10	1.0	679	ND	No	No	680	ND	No	No



Table 4. Combined Surface Water Screening Evaluation, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Constituent [a]	2011 Data					Historic Data				Combined				MDEQ TRG [b]	Does max detect exceed MDEQ TRG?	Does max DL exceed MDEQ TRG?	Does min DL exceed MDEQ TRG?	USEPA RSL [c]	Does max detect exceed RSL?	Does max DL exceed RSL?	Does min DL exceed RSL?
	New Units	Max Detect	Location of Maximum Detection	Detection Limit		Max Detect	Location of Maximum Detection	Detection Limit		Max Detect	Location of Maximum Detection	Detection Limit									
				Max	Min			Max	Min			Max	Min								
p-Isopropyltoluene	µg/L	NA	--	NA	NA	--	--	10	1.0	--	--	10	1.0	NA	ND	NA	NA	680	ND	No	No
Methacrylonitrile	µg/L	--	--	20	20	NA	--	NA	NA	--	--	20	20	1.0	ND	YES	YES	1.0	ND	YES	YES
Methyl ethyl ketone	µg/L	NA	--	NA	NA	160	CM-04(11/6/2006)	10	10	160	CM-04(11/6/2006)	10	10	1,906	No	No	No	7,100	No	No	No
Methyl isobutyl ketone	µg/L	NA	--	NA	NA	--	--	10	10	--	--	10	10	139	ND	No	No	2,000	ND	No	No
Methyl methacrylate	µg/L	--	--	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	1,419	ND	No	No	1,400	ND	No	No
Methylene Chloride	µg/L	--	--	5.0	5.0	--	--	13	5.0	--	--	13	5.0	5.0	ND	YES	No	4.8	ND	YES	YES
Naphthalene	µg/L	NA	--	NA	NA	--	--	--	--	--	--	--	--	6.2	ND	ND	ND	0.14	ND	ND	ND
Pentachloroethane	µg/L	--	--	5.0	5.0	NA	--	NA	NA	--	--	5.0	5.0	NA	ND	NA	NA	0.75	ND	YES	YES
Propionitrile	µg/L	--	--	20	20	NA	--	NA	NA	--	--	20	20	NA	ND	NA	NA	NA	ND	NA	NA
Styrene	µg/L	--	--	1.0	1.0	3.2	CM-00(9/1/2003)	10	1.0	3.2	CM-00(9/1/2003)	10	1.0	100	No	No	No	1,600	No	No	No
Tetrachloroethene	µg/L	--	--	1.0	1.0	90	CM-04(11/6/2006)	10	1.0	90	CM-04(11/6/2006)	10	1.0	5.0	YES	YES	No	0.11	YES	YES	YES
Toluene	µg/L	--	--	1.0	1.0	21	CM-02(11/6/2006)	10	1.0	21	CM-02(11/6/2006)	10	1.0	1,000	No	No	No	2,300	No	No	No
trans-1,2-Dichloroethene	µg/L	--	--	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	100	ND	No	No	110	ND	No	No
trans-1,3-Dichloropropene	µg/L	[g]	--	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	0.08	ND	YES	YES	0.43	ND	YES	YES
trans-1,4-Dichloro-2-butene	µg/L	[i]	--	2.0	2.0	NA	--	NA	NA	--	--	2.0	2.0	0.004	ND	YES	YES	0.001	ND	YES	YES
Trichloroethene	µg/L	--	--	1.0	1.0	26	CM-04(11/6/2006)	10	1.0	26	CM-04(11/6/2006)	10	1.0	5.0	YES	YES	No	2.0	YES	YES	No
Trichlorofluoromethane	µg/L	--	--	1.0	1.0	NA	--	NA	NA	--	--	1.0	1.0	1,288	ND	No	No	1,300	ND	No	No
Vinyl acetate	µg/L	--	--	2.0	2.0	NA	--	NA	NA	--	--	2.0	2.0	412	ND	No	No	410	ND	No	No
Vinyl chloride	µg/L	3.2	CM-04(7/29/2011)	1.0	1.0	2.6	CM-04(11/6/2006)	10	1.0	3.2	CM-04(7/29/2011)	10	1.0	2.0	YES	YES	No	0.02	YES	YES	YES
Xylenes, Total	µg/L	--	--	2.0	2.0	NA	--	NA	NA	--	--	2.0	2.0	10,000	ND	No	No	200	ND	No	No

-- Not detected/ not analyzed/ not applicable.  
 µg/L Micrograms per Liter.  
 ND Non-detects.  
 NA Not analyzed/not applicable.  
 MDEQ Mississippi Department of Environmental Quality.  
 TRG Target Remediation Goal.  
 USEPA U.S. Environmental Protection Agency.  
 RSL Regional Screening Levels.  
 DL Detection limit.

[a] Only constituents detected at least once are presented.  
 For duplicate samples, the highest detected value or the lowest detection limit were used.  
 [b] TRG groundwater values source: *Subpart II, Mississippi Department of Environmental Quality Risk Evaluation Procedures for Voluntary Cleanup and Redevelopment of Brownfield Sites*, Appendix A Tier 1 Target Remediation Goals (February, 2002).  
 [c] USEPA RSLs (June, 2011).  
 [d] TRG for 1,2,4-trichlorobenzene used as a surrogate.  
 [e] 2-Chlorotoluene used as a surrogate.  
 [f] TRG for chlorobenzene used as a surrogate.  
 [g] 1,3-Dichloropropene used as a surrogate.  
 [h] Bromomethane is used as a surrogate.  
 [i] 1,4-Dichloro-2-butene used as a surrogate.



Table 5. Wells Listed in EDR Database Within Half-Mile of the Site, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg Facility, Hattiesburg, Forrest County, Mississippi.

SITE ID	STATE	LOCATION	MAP ID	WELL DEPTH	TYPE	DIAMETER	SCREEN LENGTH	AQUIFER	DATE CONSTRUCTED
USGS2404627	NA	On-Site	160	654	NA	NA	NA	Catahoula Formation, Middle	32939
MSC100000048799	MS	On-Site	161	668	IN	16	NA	Catahoula Aquifer	35236
USGS2404617	NA	On-Site	161	668	NA	NA	NA	Catahoula Aquifer	35236
MSC100000048752	MS	Half-Mile	164	650	IN	8	30	Middle Catahoula	NA
USGS2404604	NA	On-Site	164	641	NA	NA	NA	Catahoula Formation, Middle	32157
MSP300000000964	MS	On-Site	166	640	IN	NA	NA	Miocene Aquifer System	NA
MSC100000048730	MS	On-Site	166	640	IN	16	NA	Miocene Aquifer System	35256
MSC100000048729	MS	On-Site	166	671	AB	18	NA	Miocene Aquifer System	24532
MSP300000000963	MS	On-Site	166	671	AB	NA	NA	Miocene Aquifer System	NA
MSC100000048700	MS	On-Site	168	466	IN	18	NA	Miocene Aquifer System	29343
MSP300000000962	MS	On-Site	168	466	IN	NA	NA	Miocene Aquifer System	NA
MSP300000000957	MS	On-Site	184	687	IN	NA	NA	Miocene Aquifer System	NA
MSC100000048469	MS	On-Site	184	687	Not Renewed	10	NA	Miocene Aquifer System	23986
MSPR30000014908	MS	Half-Mile	136	94	NA	NA	NA	NA	NA
USGS2404573		Half-Mile	136	94	NA	NA	NA	Hattiesburg Formation	1971
MSC100000049200	MS	Half-Mile	136	94	Domestic	2	NA	Hattiesburg Formation	1971
MSP300000000987	MS	Half-Mile	139	NA	IN	NA	NA	NA	NA
MSC100000049139	MS	Half-Mile	142	91	IN	4	NA	Hattiesburg Formation	38670
MSC100000049137	MS	Half-Mile	142	91	IN	4	20	Hattiesburg Formation	38670
MSC100000049138	MS	Half-Mile	142	92	IN	4	20	NA	38668
USGS2404666		Half-Mile	153	422	NA	NA	NA	Catahoula Formation, Upper	NA
MSP300000000970	MS	Half-Mile	153	422	IN	NA	NA	Miocene Aquifer System	NA
MSC100000049015	MS	Half-Mile	153	422	NA	6	NA	Miocene Aquifer System	25030
MSC100000049003	MS	Half-Mile	155	265	IN	4	NA	Hattiesburg Formation	34073
USGS2404656	NA	Half-Mile	155	265	NA	NA	NA	NA	34073
MSC100000048829	MS	Half-Mile	158	138	Domestic	2	NA	Hattiesburg Formation	20821
USGS2404628	NA	Half-Mile	158	138	NA	NA	NA	Hattiesburg Formation	20821
MSPR30000014728	MS	Half-Mile	158	138	NA	NA	NA	122HBRG	NA



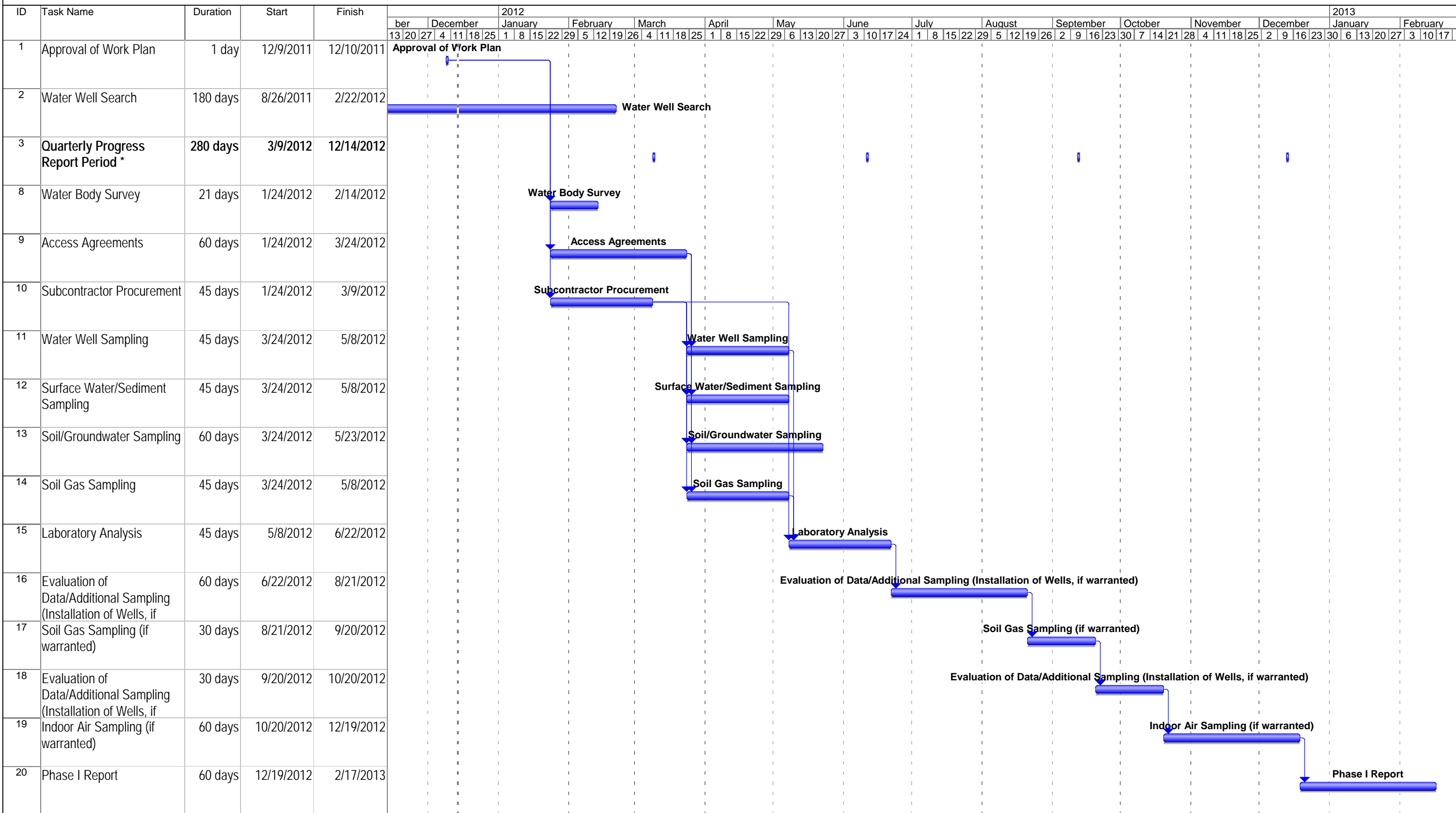
Table 5. Wells Listed in EDR Database Within Half-Mile of the Site, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg Facility, Hattiesburg, Forrest County, Mississippi.

SITE ID	STATE	LOCATION	MAP ID	WELL DEPTH	TYPE	DIAMETER	SCREEN LENGTH	AQUIFER	DATE CONSTRUCTED
MSC100000048830	MS	Half-Mile	159	105	IN	4	NA	Alluvial Deposits	24473
USGS2404626	NA	Half-Mile	159	105	NA	NA	NA	Alluvial Deposits	24473
USGS2404625	NA	Half-Mile	159	671	NA	NA	NA	Catahoula Formation, Middle	24473
MSP300000000961	MS	Half-Mile	169	650	IN	NA	NA	Miocene Aquifer System	NA
MSC100000048682	MS	Half-Mile	169	654	IN	20	NA	Middle Catahoula	33402
MSC100000048621	MS	Half-Mile	174	350	Domestic	2	20	NA	29018
MSC100000048622	MS	Half-Mile	175	325	Unused	8	NA	Upper Catahoula	17168
USGS2404579	NA	Half-Mile	175	325	NA	NA	NA	Catahoula Formation, Upper	17168
MSP300000000960	MS	Half-Mile	178	353	AB	NA	NA	Miocene Aquifer System	NA
MSC100000048596	MS	Half-Mile	178	353	AB	8	NA	Miocene Aquifer System	23833
MSC100000048483	MS	Half-Mile	181	501	Unused	8	NA	Upper Catahoula	15707
USGS2404744	NA	Half-Mile	181	501	NA	NA	NA	Catahoula Formation, Upper	15707
USGS2404743	NA	Half-Mile	183	687	NA	NA	NA	Catahoula Formation, Middle	23743
MSC100000048345	MS	Half-Mile	207	576	Domestic	5	NA	Middle Catahoula	19725
MSPR30000014563	MS	Half-Mile	207	576	NA	NA	NA	122CTHLM	NA
USGS2404688	NA	Half-Mile	207	576	NA	NA	NA	Catahoula Formation, Middle	19725

Note: This table was created by compiling data provided in the June 2, 2011, EDR DataMap™ Well Search Report (Inquiry No. 3078218.1w).

- AB Abandoned.
- IN Industrial.
- MS Mississippi.
- NA Data not available in public database.

Table 6. Preliminary Project Schedule, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg Facility, Hattiesburg, Forrest County, Mississippi.



\* Monthly reports will be submitted during periods of increased activity.  
Date: 12/13/11

Task Progress Summary External Tasks Deadline Split Milestone Project Summary External Milestone





Table 7. Proposed Surface Water and Sediment Sample Location Rationale, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Sample Location	Area	Relationship of Flow Direction to Hercules	Rationale
AO-SW-01	Drainage A	Upgradient	Water flowing onto Hercules from Greens Creek.
AO-SD-01			
AO-SW-02	Drainage A	Upgradient	Water flowing onto Hercules from Greens Creek.
AO-SD-02			
AO-SW-03	Drainage A	Upgradient	Water flowing onto Hercules from Greens Creek.
AO-SD-03			
AO-SW-04	Drainage A	Upgradient	Water flowing onto Hercules from Greens Creek.
AO-SD-04			
AO-SW-05	Drainage A	Upgradient	Water flowing onto Hercules from Greens Creek.
AO-SD-05			
AO-SW-06	Drainage A	Downgradient	Greens Creek water flowing to Bouie River from Hercules.
AO-SD-06			
AO-SW-07	Drainage A	Downgradient	Greens Creek water flowing to Bouie River from Hercules.
AO-SD-07			
AO-SW-08	Drainage A	Downgradient	Greens Creek water flowing to Bouie River from Hercules.
AO-SD-08			
AO-SW-09	Drainage A	Downgradient	Greens Creek water flowing to Bouie River from Hercules.
AO-SD-09			



Table 7. Proposed Surface Water and Sediment Sample Location Rationale, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Sample Location	Area	Relationship of Flow Direction to Hercules	Rationale
AO-SW-10	Drainage A	Downgradient	Greens Creek water flowing to Bouie River from Hercules.
AO-SD-10			
AO-SW-11	Drainage B	Downgradient	Water flowing offsite from Hercules toward Bouie River.
AO-SD-11			
AO-SW-12	Drainage B	Downgradient	Water flowing offsite from Hercules toward Bouie River.
AO-SD-12			
AO-SW-13	Drainage B	Downgradient	Water flowing offsite from Hercules toward Bouie River.
AO-SD-13			
AO-SW-14	Drainage B	Downgradient	Water flowing offsite from Hercules toward Bouie River.
AO-SD-14			
AO-SW-15	Drainage C	Downgradient	Water flowing from Drainage C to Bouie River.
AO-SD-15			
AO-SW-16	Drainage C	Downgradient	Water flowing from Drainage C to Bouie River.
AO-SD-16			
AO-SS-01	Drainage C	Downgradient	Surface soil sample over culverted storm water drain.
AO-SS-02	Drainage C	Downgradient	Surface soil sample over culverted storm water drain.
AO-SS-03	Drainage C	Downgradient	Surface soil sample over culverted storm water drain.
AO-SS-04	Drainage C	Downgradient	Surface soil sample over culverted storm water drain.



Table 7. Proposed Surface Water and Sediment Sample Location Rationale, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

<b>Sample Location</b>	<b>Area</b>	<b>Relationship of Flow Direction to Hercules</b>	<b>Rationale</b>
AO-SS-05	Drainage C	Downgradient	Surface soil sample over culverted storm water drain.
AO-SS-06	Drainage C	Downgradient	Surface soil sample over culverted storm water drain.
AO-SS-07	Drainage C	Downgradient	Surface soil sample over culverted storm water drain.
AO-SS-08	Drainage C	Downgradient	Surface soil sample over culverted storm water drain.



Table 8. Proposed Groundwater and Soil Sample Location Rationale, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Sample Location	Area	Rationale
AO-GP-01	Northwestern Property Boundary near the Sludge Pits	Establish conditions near the property boundary adjacent to off-site residences.
AO-GP-03	Southwestern Property Boundary near Zeon Chemicals and the Cemetery.	Establish conditions near the property boundary adjacent to Zeon Chemicals.
AO-GP-04	Southwestern Property Boundary near Zeon Chemicals and the Cemetery.	Establish conditions near the property boundary adjacent to cemetery.
AO-GP-19	Southeast Corner of Hercules near Providence Street and 9th Street.	Establish conditions near Providence Street property boundary in an area downgradient of groundwater flow.
AO-GP-20	Southern Property Boundary near 7th Street.	Establish conditions near 7th Street property boundary in an area downgradient of groundwater flow.
AO-GP-21	Southeast Corner of Hercules near Providence Street.	Establish conditions south of 7th Street property boundary in an area downgradient of groundwater flow.
AO-GP-22	Southeast Corner of Hercules near Providence Street.	Establish conditions near 7th Street property boundary in an area downgradient of groundwater flow.
AO-GP-23	Southeast Corner of Hercules near Providence Street and 7th Street.	Establish conditions near 7th Street property boundary in an area downgradient of groundwater flow.
AO-GP-24	Southeast Corner of Hercules near Providence Street and 7th Street.	Establish conditions near the corner of 7th Street and Providence Street property boundaries in an area downgradient of groundwater flow.
AO-GP-25	Southeast Corner of Hercules near Providence Street and 7th Street.	Establish conditions near Providence Street property boundary in an area downgradient of groundwater flow.
AO-GP-26	Southeast Corner of Hercules near Providence Street and 7th Street.	Establish conditions near Providence Street property boundary in an area downgradient of groundwater flow.
AO-GP-27	Western Property Boundary near Greens Creek Entrance onto Hercules.	Establish conditions near western property boundary.
AO-GP-28	Offsite near Southeastern Property Boundary near Providence Street.	Establish off-site conditions near Providence Street property boundary in an area downgradient of groundwater flow.



Table 8. Proposed Groundwater and Soil Sample Location Rationale, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

<b>Sample Location</b>	<b>Area</b>	<b>Rationale</b>
AO-GP-29	Offsite near Southeastern Property Boundary near Providence Street.	Establish off-site conditions near Providence Street property boundary in an area downgradient of groundwater flow.
AO-GP-30	Southeast Corner of Hercules near Providence Street	Establish conditions near Providence Street property boundary in an area downgradient of groundwater flow.
AO-GP-31	Northeast Corner of Hercules near Providence Street	Establish conditions near Providence Street property boundary in an area downgradient of groundwater flow.
AO-GP-32	Northern Property Boundary near North Main Street	Establish conditions near North Main Street property boundary near Greens Creek.
AO-GP-33	Northern Property Boundary near North Main Street	Establish conditions near North Main Street property boundary in an area upgradient of groundwater flow.



Table 9. Calculation of Groundwater to Indoor Air Screening Levels, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Constituent	Parameter	Indoor Air Concentration <sup>(a)</sup>	Conversion Factor	Henry's Law Constant	Attenuation Factor	Groundwater to Indoor Air Screening Level	Maximum Contaminant Level
	Symbol Units Source	(Cia) µg/m <sup>3</sup> USEPA RSL table	(CF) m <sup>3</sup> /L By definition	(HLC) unitless USEPA RSL table	(AF) unitless Default value (USEPA 2002)	-- µg/L Calculation	(MCL) µg/L USEPA RSL table
Benzene		0.31	0.001	0.23	0.001	1.37	5
Chloroform		0.11	0.001	0.15	0.001	0.73	80
Carbon Tetrachloride		0.41	0.001	1.13	0.001	0.36	5
Chlorobenzene		52	0.001	0.13	0.001	409	100
1,2-DCA		0.094	0.001	0.05	0.001	1.9	5
Toluene		5,200	0.001	0.27	0.001	19,155	1,000
Acetone		32,000	0.001	0.0014	0.001	22,857,143	NA
1,1-Dichloroethene		210	0.001	0.23	0.001	913	NA
Ethylbenzene		0.97	0.001	0.32	0.001	3.0	700
Xylenes		100	0.001	0.21	0.001	476	10,000
Methylene Chloride		5.2	0.001	0.13	0.001	40	5
Methyl Isobutyl Ketone		3,100	0.001	0.0056	0.001	553,571	NA

Notes:

(a) Residential indoor air Regional Screening Level at 1 x 10<sup>-6</sup> risk or noncancer hazard = 1.0.

Groundwater screening levels protective of indoor air.

Groundwater to Indoor Air Screening Level = Cia x CF x 1/HLC \* 1/AF.

RSL Regional Screening Level.

USEPA U.S. Environmental Protection Agency

m<sup>3</sup>/L Cubic meters per liter.

µg/L Micrograms per liter.

µg/m<sup>3</sup> Micrograms per cubic meter.



Table 10. Results of Initial Groundwater Screening, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Location Date DTW Nov 2010	Groundwater to Indoor Air Screening Level <sup>(a)</sup>	MW-02 May-09	MW-02 Dec-09	MW-02 May-10	MW-02 Nov-10	MW-03 May-09	MW-03 Dec-09	MW-03 May-10	MW-03 Nov-10	MW-04 May-09	MW-04 Dec-09
Acetone	22,857,143	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
Benzene	1.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	409	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.36	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	0.73	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	1.9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	913	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	3.0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	19,155	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Xylenes	476	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Methylene Chloride	40	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Methyl Isobutyl Ketone	553,571	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Notes:

(a) Groundwater (GW) to Indoor air (IA) Screening Levels (C<sub>gw</sub>) = Residential RSL x CF x 1/HLC x 1/AF.

RSL = Regional Screening Level (residential indoor air at 1 x 10<sup>-6</sup> risk or noncancer hazard = 1.0).

CF = conversion factor (0.001 m<sup>3</sup>/L).

HLC = Henry's Law Constant (unitless and constituent-specific).

AF = attenuation factor (0.001).

DTW = Depth to groundwater.

ug/L = micrograms per liter.

m<sup>3</sup>/L = cubic meters per liter.

µg/m<sup>3</sup> = micrograms per cubic meter

< indicates that the concentration of the analyte is less than the value shown.

Shaded cells exceed the screening value for the 1x10<sup>-6</sup> risk level or hazard of 1.



Table 10. Results of Initial Groundwater Screening, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Location Date DTW Nov 2010	Groundwater to Indoor Air Screening Level <sup>(a)</sup>	MW-04	MW-04	MW-05	MW-05	MW-05	MW-05	MW-06	MW-06	MW-06	MW-06
		May-10	Dec-10	May-09	Dec-09	May-10	Dec-10	May-09	Dec-09	May-10	Dec-10
Acetone	22,857,143	<25	<25	<25	<25	<25	27	<25	<25	<25	<25
Benzene	1.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	409	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.36	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	0.73	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	1.9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	913	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	3.0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	19,155	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Xylenes	476	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Methylene Chloride	40	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Methyl Isobutyl Ketone	553,571	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Notes:

(a) Groundwater (GW) to Indoor air (IA) Screening Levels (C<sub>gw</sub>) = Residential RSL x CF x 1/HLC x 1/AF.

RSL = Regional Screening Level (residential indoor air at 1 x 10<sup>-6</sup> risk or noncancer hazard = 1.0).

CF = conversion factor (0.001 m<sup>3</sup>/L).

HLC = Henry's Law Constant (unitless and constituent-specific).

AF = attenuation factor (0.001).

DTW = Depth to groundwater.

ug/L = micrograms per liter.

m<sup>3</sup>/L = cubic meters per liter.

µg/m<sup>3</sup> = micrograms per cubic meter

< indicates that the concentration of the analyte is less than the value shown.

Shaded cells exceed the screening value for the 1x10<sup>-6</sup> risk level or hazard of 1.





Table 10. Results of Initial Groundwater Screening, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Location Date DTW Nov 2010	Groundwater to Indoor Air Screening Level <sup>(a)</sup>	MW-07	MW-07	MW-07	MW-07	MW-08	MW-08	MW-08	MW-08	MW-09	MW-09
		May-09	Dec-09	May-10	Dec-10	May-09	Dec-09	May-10	Dec-10	May-09	Dec-09
Acetone	22,857,143	<25	<25	<25	<25	<620	<620	<250	<1,200	<25	210
Benzene	1.4	<1	<1	<1	<1	540	<1000	2,900	6,000	1.1	1.6
Chlorobenzene	409	<1	<1	<1	<1	110	180	180	150	<1	<1
Carbon Tetrachloride	0.36	<1	<1	<1	<1	2,300	2,700	8,000	1,000	<1	<1
Chloroform	0.73	<1	<1	<1	<1	1,300	610	1,400	300	<1	<1
1,2-Dichloroethane	1.9	<1	<1	<1	<1	<25	<25	63	<50	<1	<1
1,1-Dichloroethene	913	<1	<1	<1	<1	<25	<25	<10	<50	<1	<1
Ethylbenzene	3.0	<1	<1	<1	<1	<25	68	22	74	<1	<1
Toluene	19,155	<1	<1	<1	<1	<25	43	10	<50	<1	<1
Total Xylenes	476	<2	<2	<2	<2	<25	95	<20	<100	<2	<2
Methylene Chloride	40	<5	<5	<5	<5	<125	380	230	560	<5	<5
Methyl Isobutyl Ketone	553,571	<10	<10	<10	<10	<250	<250	<100	<500	<10	<10

Notes:

(a) Groundwater (GW) to Indoor air (IA) Screening Levels (C<sub>gw</sub>) = Residential RSL x CF x 1/HLC x 1/AF.

RSL = Regional Screening Level (residential indoor air at 1 x 10<sup>-6</sup> risk or noncancer hazard = 1.0).

CF = conversion factor (0.001 m<sup>3</sup>/L).

HLC = Henry's Law Constant (unitless and constituent-specific).

AF = attenuation factor (0.001).

DTW = Depth to groundwater.

ug/L = micrograms per liter.

m<sup>3</sup>/L = cubic meters per liter.

µg/m<sup>3</sup> = micrograms per cubic meter

< indicates that the concentration of the analyte is less than the value shown.

Shaded cells exceed the screening value for the 1x10<sup>-6</sup> risk level or hazard of 1.



Table 10. Results of Initial Groundwater Screening, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Location Date DTW Nov 2010	Groundwater to Indoor Air Screening Level <sup>(a)</sup>	MW-09	MW-09	MW-10	MW-10	MW-10	MW-10	MW-11	MW-11	MW-11	MW-11
		May-10	Dec-10	May-09	Dec-09	May-10	Dec-10	May-09	Dec-09	May-10	Dec-10
Acetone	22,857,143	<25	<25	<25	<25	<25	<25	42	<25	<25	<25
Benzene	1.4	<1	3	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	409	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.36	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	0.73	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	1.9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	913	<1	1.3	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	3.0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	19,155	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Xylenes	476	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Methylene Chloride	40	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Methyl Isobutyl Ketone	553,571	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Notes:

(a) Groundwater (GW) to Indoor air (IA) Screening Levels (C<sub>gw</sub>) = Residential RSL x CF x 1/HLC x 1/AF.

RSL = Regional Screening Level (residential indoor air at 1 x 10<sup>-6</sup> risk or noncancer hazard = 1.0).

CF = conversion factor (0.001 m<sup>3</sup>/L).

HLC = Henry's Law Constant (unitless and constituent-specific).

AF = attenuation factor (0.001).

DTW = Depth to groundwater.

ug/L = micrograms per liter.

m<sup>3</sup>/L = cubic meters per liter.

µg/m<sup>3</sup> = micrograms per cubic meter

< indicates that the concentration of the analyte is less than the value shown.

Shaded cells exceed the screening value for the 1x10<sup>-6</sup> risk level or hazard of 1.



Table 10. Results of Initial Groundwater Screening, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Location Date DTW Nov 2010	Groundwater to Indoor Air Screening Level <sup>(a)</sup>	MW-12	MW-12	MW-12	MW-12	MW-13	MW-13	MW-13	MW-13	MW-14	MW-14
		May-09	Dec-09	May-10	Dec-10	May-09	Dec-09	May-10	Dec-10	May-09	Dec-09
Acetone	22,857,143	28	<25	<25	<25	<620	<620	<500	<250	260	<25
Benzene	1.4	<1	<1	<1	<1	1,200	790	2,600	530	<2	<1
Chlorobenzene	409	<1	<1	<1	<1	<25	29	110	25	<2	<1
Carbon Tetrachloride	0.36	<1	<1	<1	<1	3,500	2,000	4,000	970	<2	<1
Chloroform	0.73	<1	<1	<1	<1	340	310	1,900	230	<2	<1
1,2-Dichloroethane	1.9	<1	<1	<1	<1	<25	<25	<20	<10	<2	<1
1,1-Dichloroethene	913	<1	<1	<1	<1	<25	<25	<20	<10	<2	<1
Ethylbenzene	3.0	<1	<1	<1	<1	<25	<25	<20	<10	<2	<1
Toluene	19,155	<1	<1	<1	<1	<25	<25	<20	<10	<2	<1
Total Xylenes	476	<2	<2	<2	<2	<25	<50	<40	<20	<4	<2
Methylene Chloride	40	<5	<5	<5	<5	<125	<120	<100	<50	<10	<5
Methyl Isobutyl Ketone	553,571	<10	<10	<10	<10	<250	<250	<200	<100	<20	<10

Notes:

(a) Groundwater (GW) to Indoor air (IA) Screening Levels (C<sub>gw</sub>) = Residential RSL x CF x 1/HLC x 1/AF.

RSL = Regional Screening Level (residential indoor air at 1 x 10<sup>-6</sup> risk or noncancer hazard = 1.0).

CF = conversion factor (0.001 m<sup>3</sup>/L).

HLC = Henry's Law Constant (unitless and constituent-specific).

AF = attenuation factor (0.001).

DTW = Depth to groundwater.

ug/L = micrograms per liter.

m<sup>3</sup>/L = cubic meters per liter.

µg/m<sup>3</sup> = micrograms per cubic meter

< indicates that the concentration of the analyte is less than the value shown.

Shaded cells exceed the screening value for the 1x10<sup>-6</sup> risk level or hazard of 1.



Table 10. Results of Initial Groundwater Screening, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Location Date DTW Nov 2010	Groundwater to Indoor Air Screening Level <sup>(a)</sup>	MW-14	MW-14	MW-15	MW-15	MW-15	MW-15	MW-16	MW-16	MW-16	MW-16
		May-10	Dec-10	May-09	Dec-09	May-10	Dec-10	May-09	Dec-09	May-10	Dec-10
Acetone	22,857,143	<25	<25	1,300	<25	<25	<25	<25	<25	<25	<25
Benzene	1.4	<1	<1	<5	<1	<1	<1	<1	<1	1.1	<1
Chlorobenzene	409	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
Carbon Tetrachloride	0.36	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
Chloroform	0.73	<1	<1	<5	<1	<1	<1	<1	<1	1.3	<1
1,2-Dichloroethane	1.9	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	913	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	3.0	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
Toluene	19,155	<1	<1	<5	<1	<1	<1	<1	<1	3.5	<1
Total Xylenes	476	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2
Methylene Chloride	40	<5	<5	<25	<5	<5	<5	<5	<5	<5	<5
Methyl Isobutyl Ketone	553,571	<10	<10	<50	<10	<10	<10	<10	<10	<10	<10

Notes:

(a) Groundwater (GW) to Indoor air (IA) Screening Levels (C<sub>gw</sub>) = Residential RSL x CF x 1/HLC x 1/AF.

RSL = Regional Screening Level (residential indoor air at 1 x 10<sup>-6</sup> risk or noncancer hazard = 1.0).

CF = conversion factor (0.001 m<sup>3</sup>/L).

HLC = Henry's Law Constant (unitless and constituent-specific).

AF = attenuation factor (0.001).

DTW = Depth to groundwater.

ug/L = micrograms per liter.

m<sup>3</sup>/L = cubic meters per liter.

µg/m<sup>3</sup> = micrograms per cubic meter

< indicates that the concentration of the analyte is less than the value shown.

Shaded cells exceed the screening value for the 1x10<sup>-6</sup> risk level or hazard of 1.



Table 10. Results of Initial Groundwater Screening, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Location Date DTW Nov 2010	Groundwater to Indoor Air Screening Level <sup>(a)</sup>	MW-17	MW-17	MW-17	MW-17	MW-18	MW-18	MW-18	MW-18	MW-19	MW-19
		May-09	Dec-09	May-10	Dec-10	May-09	Dec-09	May-10	Dec-10	May-09	Dec-09
Acetone	22,857,143	<5,000	<12,000	<2,500	<12,000	<25	<25	<25	<25	<25	<25
Benzene	1.4	<b>8,100</b>	<b>4,500</b>	<b>7,500</b>	<500	<1	<1	1.1	<1	65	64
Chlorobenzene	409	<b>640</b>	<b>1,200</b>	<b>740</b>	<b>760</b>	24	21	20	18	14	12
Carbon Tetrachloride	0.36	<b>39,000</b>	<b>54,000</b>	<b>40,000</b>	<b>32,000</b>	<1	<1	<1	<1	11	4.5
Chloroform	0.73	<b>2,900</b>	<b>7,100</b>	<b>8,400</b>	<b>5,900</b>	<1	<1	<1	<1	4.7	2.9
1,2-Dichloroethane	1.9	<200	<500	<100	<500	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	913	<200	<500	<100	<500	<1	<1	1	<1	1.3	<1
Ethylbenzene	3.0	<200	<500	230	<500	<1	<1	<1	<1	2	2.4
Toluene	19,155	<200	<500	520	<500	<1	<1	<1	<1	2.7	2.4
Total Xylenes	476	<400	<1,000	<b>830</b>	<1,000	<2	<2	<2	<2	<2	2.2
Methylene Chloride	40	<1,000	<2,500	660	<2,500	<5	<5	<5	<5	<5	<5
Methyl Isobutyl Ketone	553,571	<2,000	<5,000	<1,000	<5,000	<10	<10	<10	<10	<10	<10

Notes:

(a) Groundwater (GW) to Indoor air (IA) Screening Levels (C<sub>gw</sub>) = Residential RSL x CF x 1/HLC x 1/AF.

RSL = Regional Screening Level (residential indoor air at 1 x 10<sup>-6</sup> risk or noncancer hazard = 1.0).

CF = conversion factor (0.001 m<sup>3</sup>/L).

HLC = Henry's Law Constant (unitless and constituent-specific).

AF = attenuation factor (0.001).

DTW = Depth to groundwater.

ug/L = micrograms per liter.

m<sup>3</sup>/L = cubic meters per liter.

µg/m<sup>3</sup> = micrograms per cubic meter

< indicates that the concentration of the analyte is less than the value shown.


 Shaded cells exceed the screening value for the 1x10<sup>-6</sup> risk level or hazard of 1.



Table 10. Results of Initial Groundwater Screening, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Location Date DTW Nov 2010	Groundwater to Indoor Air Screening Level <sup>(a)</sup>	MW-19	MW-19	MW-20	MW-20	MW-20	MW-21	MW-21	MW-21	MW-22	MW-22
		May-10	Dec-10	Sep-09	May-10	Dec-10	Sep-09	May-10	Dec-10	Sep-09	May-10
Acetone	22,857,143	<25	<25	<25	<25	<25	<1,200	<1,200	<1,200	86	<25
Benzene	1.4	52	61	<1	<1	<1	4,400	3,500	4,400	9.8	6.6
Chlorobenzene	409	10	9.1	<1	<1	<1	170	150	180	7.7	4.9
Carbon Tetrachloride	0.36	3.2	<1	<1	<1	<1	<50	280	<50	<1	<1
Chloroform	0.73	3.6	2.7	<1	<1	<1	6,800	7,800	7,300	<1	<1
1,2-Dichloroethane	1.9	<1	<1	<1	<1	<1	<50	<50	84	<1	<1
1,1-Dichloroethene	913	1.4	<1	<1	<1	<1	<50	<50	<50	<1	<1
Ethylbenzene	3.0	1.9	2.2	<1	<1	<1	<50	<50	<50	<1	<1
Toluene	19,155	3	2.5	<1	<1	<1	4,800	4,500	4,500	<1	<1
Total Xylenes	476	<2	<2	<2	<2	<2	<100	<100	<100	<2	<2
Methylene Chloride	40	<5	<5	<5	<5	<5	<250	<250	<250	<5	<5
Methyl Isobutyl Ketone	553,571	<10	<10	<10	<10	<10	640	<500	510	<10	<10

Notes:

(a) Groundwater (GW) to Indoor air (IA) Screening Levels (C<sub>gw</sub>) = Residential RSL x CF x 1/HLC x 1/AF.

RSL = Regional Screening Level (residential indoor air at 1 x 10<sup>-6</sup> risk or noncancer hazard = 1.0).

CF = conversion factor (0.001 m<sup>3</sup>/L).

HLC = Henry's Law Constant (unitless and constituent-specific).

AF = attenuation factor (0.001).

DTW = Depth to groundwater.

ug/L = micrograms per liter.

m<sup>3</sup>/L = cubic meters per liter.

µg/m<sup>3</sup> = micrograms per cubic meter

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Shaded cells exceed the screening value for the 1x10<sup>-6</sup> risk level or hazard of 1.



Table 10. Results of Initial Groundwater Screening, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

Location Date DTW Nov 2010	Groundwater to Indoor Air Screening Level <sup>(a)</sup>	MW-22	MW-23	MW-23	MW-23	MW-24	MW-24	MW-24
		Dec-10	Sep-09	May-10	Dec-10	Sep-09	May-10	Dec-10
Acetone	22,857,143	<25	1,600	<2,500	<2,500	<25	<25	<25
Benzene	1.4	6.3	9,200	10,000	7,600	<1	<1	<1
Chlorobenzene	409	2.3	190	180	<100	<1	<1	<1
Carbon Tetrachloride	0.36	<1	<50	<100	<100	<1	<1	<1
Chloroform	0.73	<1	1,400	2,000	2,900	<1	<1	<1
1,2-Dichloroethane	1.9	<1	<50	<100	<100	<1	<1	<1
1,1-Dichloroethene	913	<1	<50	<100	<100	<1	<1	<1
Ethylbenzene	3.0	<1	<50	<100	<100	<1	<1	<1
Toluene	19,155	<1	3,300	3,300	1,400	<1	<1	<1
Total Xylenes	476	<2	<100	<200	<200	<2	<2	<2
Methylene Chloride	40	<5	290	<500	<500	<5	<5	<5
Methyl Isobutyl Ketone	553,571	<10	1,300	1,000	<1,000	<10	<10	<10

Notes:

(a) Groundwater (GW) to Indoor air (IA) Screening Levels (Cgw) = Residential RSL x CF x 1/HLC x 1/AF.

RSL = Regional Screening Level (residential indoor air at 1 x 10<sup>-6</sup> risk or noncancer hazard = 1.0).

CF = conversion factor (0.001 m<sup>3</sup>/L).

HLC = Henry's Law Constant (unitless and constituent-specific).

AF = attenuation factor (0.001).

DTW = Depth to groundwater.

ug/L = micrograms per liter.

m<sup>3</sup>/L = cubic meters per liter.

ug/m<sup>3</sup> = micrograms per cubic meter

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Table 11. Proposed Soil Gas Sample Location Rationale, Revised Phase I Sampling and Analysis Work Plan, Hercules Incorporated, Hattiesburg, Forrest County, Mississippi.

<b>Sample Location</b>	<b>Area</b>	<b>Rationale</b>
AO-SG-01	Southeast Corner of Hercules near Providence Street.	Establish offsite soil gas conditions near eastern boundary of Hercules property near Providence Street.
AO-SG-02	Southeast Corner of Hercules near Providence Street.	Establish offsite soil gas conditions near eastern boundary of Hercules property near Providence Street.
AO-SG-03	Southeast Corner of Hercules near Providence Street.	Establish soil gas conditions near eastern boundary of Hercules property near Providence Street.
AO-SG-04	Southeast Corner of Hercules near Providence Street.	Establish soil gas conditions near eastern boundary of Hercules property near Providence Street.
AO-SG-05	Southeast Corner of Hercules near Providence Street.	Establish soil gas conditions near eastern boundary of Hercules property near Providence Street.