

**Concrete Analytical Results  
East Solvent Area  
UMore Park  
Rosemount, Minnesota**

Compound/Parameter	Sample Identifier														Residential Soil Reference Value (SRV)	Industrial Soil Reference Value (SRV)	Tier I Soil Leaching Value (SLV)	
	CS-27-202C 9/14/2006	CS-28-202C 9/14/2006	CS-29-1-208C 9/14/2006	CS-29-2-208C 9/14/2006	CS-30-208C 9/14/2006	CS-31-206B 9/14/2006	CS-32-263A 9/14/2006	CS-33-226A 9/14/2006	CS-34-226A 9/14/2006	CS-35-207B 9/14/2006	CS-36-1-233A 9/14/2006	CS-36-2-233A 9/14/2006	CS-37-1-209A 9/15/2006	CS-37-2-209A 9/15/2006				CS-38-209A 9/15/2006
<b>Volatile Organic Compounds (VOCs) reported in mg/kg</b>																		
All Reported VOCs	ND	NA	ND	NA	ND	ND	NA	NA	ND	ND	NA	NA	NA	NA	ND	NE	NE	NE
<b>Volatile Organic Compounds (VOCs) - Alcohols reported in mg/kg</b>																		
Ethanol	< 100	NA	< 100	NA	< 100	< 100	NA	NA	NA	< 100	NA	NA	NA	NA	NA	NE	NE	NE
Isopropyl Alcohol	200	NA	100	NA	100	200	NA	NA	NA	100	NA	NA	NA	NA	NA	NE	NE	NE
Methanol	600	NA	< 100	NA	200	200	NA	NA	NA	100	NA	NA	NA	NA	NA	9,100	43,500	NE
All Other Reported VOCs - Alcohols	ND	NA	ND	NA	ND	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA	NE	NE	NE
<b>Base-Neutral Extractables (BNEs) reported in mg/kg</b>																		
2,4-Dinitrotoluene	NA	< 0.09	< 0.09	NA	0.248	< 0.09	< 0.09	< 0.09	NA	NA	NA	< 0.09	NA	NA	< 0.09	50	355	0.001
Benzyl Butyl Phthalate	NA	< 0.07	0.141	NA	0.362	< 0.07	0.249	< 0.07	NA	NA	NA	< 0.07	NA	NA	0.161	580	3,700	28
Bis(2-ethylhexyl)phthalate	NA	0.192	0.507	NA	1.138	< 0.18	< 0.18	< 0.18	NA	NA	NA	< 0.18	NA	NA	< 0.18	570	2,100	40
Di-n-butyl phthalate	NA	< 0.16	0.544	NA	< 0.16	1.248	< 0.16	< 0.16	NA	NA	NA	0.161	NA	NA	< 0.16	2,440	16,300	23
All Other Reported BNE's	NA	ND	ND	NA	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	NE	NE	NE
<b>Polychlorinated Biphenyls (PCBs) reported in mg/kg</b>																		
PCB-1260	NA	< 0.020	NA	NA	NA	NA	NA	< 0.020	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE
Total PCBs	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	1.2	8	2.1
<b>Explosives reported in mg/kg</b>																		
All Reported Explosive Compounds	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA	NA	ND	NA	NA	ND	NE	NE	NE
<b>Diphenylamine (DPA) and Aniline reported in mg/kg</b>																		
Aniline	< 1.6	< 1.6	< 1.6	NA	< 1.6	< 1.6	< 1.6	< 1.6	NA	NA	NA	< 1.6	NA	NA	< 1.6	NE	NE	NE
Diphenylamine	< 0.108	< 0.108	< 0.108	NA	< 0.108	0.152	< 0.108	< 0.108	NA	NA	NA	< 0.108	NA	NA	< 0.108	NE	NE	1.6
<b>Metals reported in mg/kg</b>																		
Arsenic	NA	1.991	2.353	NA	1.1	2.413	2.67	NA	1.583	1.786	NA	2.709	NA	NA	2.239	5	20	15.1
Barium	NA	45.73	33.39	NA	25.53	36.89	36.48	NA	58.7	37.19	NA	69.06	NA	NA	46.16	1,200	18,000	842
Cadmium	NA	0.08	0.093	NA	0.066	0.059	0.149	NA	0.062	0.065	NA	0.455	NA	NA	0.055	25	200	4.4
Chromium	NA	17.1	9.49	NA	8.57	12.1	19.8	NA	16	18.8	NA	14.5	NA	NA	13.6	44,000 <sup>a</sup>	100,000 <sup>a</sup>	1,000,000 <sup>a</sup>
Lead	NA	< 1.48	< 1.41	NA	2.2	1.4	3.28	NA	4.44	11.6	NA	30.8	NA	NA	< 1.45	300	700	525
Mercury	NA	< 0.02	< 0.02	NA	< 0.02	< 0.02	< 0.02	NA	< 0.02	< 0.02	NA	< 0.02	NA	NA	< 0.02	0.5	1.5	1.6
Selenium	NA	< 0.247	< 0.235	NA	< 0.24	< 0.234	< 0.245	NA	< 0.247	< 0.249	NA	< 0.238	NA	NA	< 0.241	160	1,300	1.5
Silver	NA	0.139	0.251	NA	0.103	0.205	0.184	NA	0.198	0.177	NA	0.147	NA	NA	0.147	160	1,300	3.9
<b>Asbestos reported in percent</b>																		
Asbestos	NA	ND	ND	40	ND	ND	ND	NA	ND	ND	15	ND	5	ND	ND	NE	NE	NE

**Notes:**

mg/kg = Milligrams per kilogram.

NA = Not analyzed for this parameter.

ND = Not detected.

NE = Not established.

< 0.025 = Compound not detected at or above the listed value.

<sup>a</sup> = No SRV or SLV is established for "total chromium"; the SRV/SLV listed is for chromium III and has been used because analysis of representative samples did not detect chromium VI (hexavalent chromium).

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East Solvent Area  
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Compound/Parameter	Sample Identifier																		Residential Soil Reference Value (SRV)	Industrial Soil Reference Value (SRV)	Tier I Soil Leaching Value (SLV)	
	CS-39-251B 9/15/2006	CS-40-251B 9/15/2006	CS-41-234H 9/15/2006	CS-42-234H 9/15/2006	CS-43-1-234H 9/15/2006	CS-43-2-234H 9/15/2006	CS-44-207AC 9/15/2006	CS-45-205A 9/15/2006	CS-46-205A 9/15/2006	CS-47-214C-13 9/15/2006	CS-48-1-214C-13 9/15/2006	CS-48-2-214C-13 9/15/2006	CS-48-3-214C-13 9/15/2006	CS-63-269B 9/18/2006	CS-64-269B 9/18/2006	CS-65-269B 9/18/2006	CS-66-269B 9/18/2006	SS-205A 9/15/2006				
<b>Volatile Organic Compounds (VOCs) reported in mg/kg</b>																						
All Reported VOCs	ND	ND	NA	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	ND	NA	NE	NE	NE	
<b>Volatile Organic Compounds (VOCs) - Alcohols reported in mg/kg</b>																						
Ethanol	NA	< 100	NA	< 100	< 100	NA	NA	NA	NA	< 100	< 100	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE	
Isopropyl Alcohol	NA	< 100	NA	< 100	<b>300</b>	NA	NA	NA	NA	<b>400</b>	< 100	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE	
Methanol	NA	< 100	NA	<b>200</b>	< 100	NA	NA	NA	NA	< 100	<b>300</b>	NA	NA	NA	NA	NA	NA	NA	9,100	43,500	NE	
All Other Reported VOCs - Alcohols	NA	ND	NA	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NE	NE	NE	
<b>Base-Neutral Extractables (BNEs) reported in mg/kg</b>																						
2,4-Dinitrotoluene	NA	< 0.09	NA	NA	< 0.09	NA	< 0.09	< 0.09	< 0.09	< 0.09	NA	NA	NA	<b>0.113</b>	NA	NA	NA	NA	50	355	0.001	
Benzyl Butyl Phthalate	NA	<b>0.087</b>	NA	NA	<b>0.357</b>	NA	< 0.07	<b>0.201</b>	< 0.07	< 0.07	NA	NA	NA	< 0.07	NA	NA	NA	NA	580	3,700	28	
Bis(2-ethylhexyl)phthalate	NA	< 0.18	NA	NA	< 0.18	NA	< 0.18	<b>0.297</b>	< 0.18	< 0.18	NA	NA	NA	< 0.18	NA	NA	NA	NA	570	2,100	40	
Di-n-butyl phthalate	NA	< 0.16	NA	NA	<b>0.628</b>	NA	< 0.16	< 0.16	< 0.16	< 0.16	NA	NA	NA	< 0.16	NA	NA	NA	NA	2,440	16,300	23	
All Other Reported BNE's	NA	ND	NA	NA	ND	NA	ND	ND	ND	ND	ND	NA	NA	NA	0	NA	NA	NA	NA	NE	NE	NE
<b>Polychlorinated Biphenyls (PCBs) reported in mg/kg</b>																						
PCB-1260	NA	NA	< 0.020	NA	< 0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.020	NA	<b>0.0307</b>	NE	NE	NE	
Total PCBs	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	<b>0.0307</b>	1.2	8	2.1	
<b>Explosives reported in mg/kg</b>																						
All Reported Explosive Compounds	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	NA	NA	NA	NE	NE	NE	
<b>Diphenylamine (DPA) and Aniline reported in mg/kg</b>																						
Aniline	NA	< 1.6	NA	NA	< 1.6	NA	< 1.6	< 1.6	< 1.6	< 1.6	NA	NA	NA	< 1.6	NA	NA	NA	NA	NE	NE	NE	
Diphenylamine	NA	< 0.108	NA	NA	< 0.108	NA	< 0.108	< 0.108	< 0.108	< 0.108	NA	NA	NA	< 0.108	NA	NA	NA	NA	NE	NE	1.6	
<b>Metals reported in mg/kg</b>																						
Arsenic	<b>0.892</b>	NA	NA	NA	<b>3.497</b>	NA	<b>3.653</b>	<b>2.326</b>	<b>2.011</b>	<b>1.866</b>	NA	NA	NA	<b>2.276</b>	<b>3.61</b>	NA	NA	NA	5	20	15.1	
Barium	<b>24.74</b>	NA	NA	NA	<b>54.03</b>	NA	<b>36.98</b>	<b>65.7</b>	<b>71.11</b>	<b>37.18</b>	NA	NA	NA	<b>59.5</b>	<b>68.56</b>	NA	NA	NA	1,200	18,000	842	
Cadmium	< 0.049	NA	NA	NA	<b>0.158</b>	NA	<b>0.056</b>	<b>0.182</b>	<b>0.072</b>	<b>0.056</b>	NA	NA	NA	<b>0.066</b>	<b>0.082</b>	NA	NA	NA	25	200	4.4	
Chromium	<b>8.2</b>	NA	NA	NA	<b>13.5</b>	NA	<b>9.59</b>	<b>16</b>	<b>16.1</b>	<b>15.2</b>	NA	NA	NA	<b>17.4</b>	<b>20.1</b>	NA	NA	NA	44,000 <sup>a</sup>	100,000 <sup>a</sup>	1,000,000 <sup>a</sup>	
Lead	<b>1.82</b>	NA	NA	NA	<b>8.21</b>	NA	< 1.49	<b>2.4</b>	<b>2.87</b>	<b>1.73</b>	NA	NA	NA	< 1.48	<b>1.93</b>	NA	NA	NA	300	700	525	
Mercury	< 0.02	NA	NA	NA	< 0.02	NA	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	NA	< 0.02	< 0.02	NA	NA	NA	0.5	1.5	1.6	
Selenium	< 0.245	NA	NA	NA	<b>0.324</b>	NA	< 0.248	< 0.245	< 0.243	< 0.247	NA	NA	NA	< 0.247	< 0.248	NA	NA	NA	160	1,300	1.5	
Silver	<b>0.072</b>	NA	NA	NA	<b>0.16</b>	NA	<b>0.116</b>	<b>0.421</b>	<b>0.122</b>	<b>0.117</b>	NA	NA	NA	<b>0.289</b>	<b>0.31</b>	NA	NA	NA	160	1,300	3.9	
<b>Asbestos reported in percent</b>																						
Asbestos	ND	ND	NA	NA	ND	~1	ND	ND	ND	ND	NA	~1	<b>40</b>	ND	ND	NA	NA	NA	NE	NE	NE	

**Notes:**  
mg/kg = Milligrams per kilogram.  
NA = Not analyzed for this parameter.  
ND = Not detected.  
NE = Not established.  
< 0.025 = Compound not detected at or above the listed value.  
<sup>a</sup> = No SRV or SLV is established for "total chromium"; the SRV/SLV listed is for chromium III and has been used because analysis of representative samples did not detect chromium VI (hexavalent chromium).  
~ = Approximately.



**Soil Analytical Results  
East Solvent Area  
UMore Park  
Rosemount, Minnesota**

Compound/Parameter	Sample Identifier										Residential Soil Reference Value (SRV)	Industrial Soil Reference Value (SRV)	Tier I Soil Leaching Value (SLV)	
	TT-36(4')-209A	TT-37(4')-233A	TT-38(0-6")-205A (NORTH)	TT-38(6"-12")-205A (EAST)	TT-40(0-1')-214C13	TT-40(1')-214C13	TT-41(6")-269B	TT-41(0-1')-269B	TT-42(2.5')-269B	TT-46(0-1')-207AC				TT-47(0-1')-207AC
	9/7/2006	9/7/2006	9/8/2006	9/8/2006	9/8/2006	9/8/2006	9/8/2006	9/8/2006	9/8/2006	9/8/2006	9/8/2006			
<b>Volatile Organic Compounds (VOCs) reported in mg/kg</b>														
Acetone	NA	NA	NA	NA	0.9434	NA	NA	<0.80	NA	NA	NA	340	1,000	0.7
All Other Reported VOCs	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NE	NE	NE
<b>Volatile Organic Compounds (VOCs) - Alcohols reported in mg/kg</b>														
Methanol	NA	NA	NA	NA	<100	NA	NA	<100	NA	NA	NA	9,100	43,500	NE
All Other Reported VOCs - Alcohols	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NE	NE	NE
<b>Base-Neutral Extractables (BNEs) reported in mg/kg</b>														
2,4-Dinitrotoluene	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045	NA	NA	< 0.045	< 0.045	NA	NA	50	355	0.001
2,6-Dinitrotoluene	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	NA	NA	< 0.05	< 0.05	NA	NA	25	175	0.001
2-Methylnaphthalene	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	NA	NA	< 0.04	< 0.04	NA	NA	100	369	NE
Acenaphthene	< 0.036	< 0.036	< 0.036	< 0.036	< 0.036	NA	NA	< 0.036	< 0.036	NA	NA	1,200	5,260	50
Anthracene	0.362	< 0.032	< 0.032	< 0.032	< 0.032	NA	NA	< 0.032	0.056	NA	NA	7,880	45,400	942
Benzo(a)anthracene	0.799	< 0.031	< 0.031	< 0.031	< 0.031	NA	NA	< 0.031	1.346	NA	NA	a	a	a
Benzo(a)pyrene	0.324	< 0.038	< 0.038	< 0.038	< 0.038	NA	NA	< 0.038	1.114	NA	NA	a	a	a
Benzo(b)fluoranthene	0.482	< 0.035	< 0.035	< 0.035	< 0.035	NA	NA	< 0.035	1.556	NA	NA	a	a	a
Benzo(g,h,i)perylene	0.13	< 0.09	< 0.09	< 0.09	< 0.09	NA	NA	< 0.09	0.443	NA	NA	NE	NE	NE
Benzo(k)fluoranthene	0.193	< 0.031	< 0.031	< 0.031	< 0.031	NA	NA	< 0.031	0.683	NA	NA	a	a	a
Benzyl Butyl Phthalate	< 0.035	< 0.035	< 0.035	< 0.035	< 0.035	NA	NA	< 0.035	< 0.035	NA	NA	580	3,700	28
Bis(2-ethylhexyl)phthalate	< 0.09	< 0.09	0.337	0.187	0.4	NA	NA	0.462	0.384	NA	NA	570	2,100	40
Chrysene	0.623	< 0.034	< 0.034	< 0.034	< 0.034	NA	NA	< 0.034	1.341	NA	NA	a	a	a
Dibenzo(a,h)anthracene	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	NA	NA	< 0.09	0.276	NA	NA	a	a	a
Dibenzofuran	< 0.035	< 0.035	< 0.035	< 0.035	< 0.035	NA	NA	< 0.035	< 0.035	NA	NA	104	810	NE
Di-n-butyl phthalate	0.254	< 0.08	< 0.08	< 0.08	< 0.08	NA	NA	0.569	0.1	NA	NA	2,440	16,300	23
Fluoranthene	3.203	< 0.04	< 0.04	< 0.04	< 0.04	NA	NA	< 0.04	1.161	NA	NA	1,080	6,800	295
Fluorene	< 0.036	< 0.036	< 0.036	< 0.036	< 0.036	NA	NA	< 0.036	< 0.036	NA	NA	850	4,120	47
Indeno(1,2,3-cd)pyrene	0.157	< 0.08	< 0.08	< 0.08	< 0.08	NA	NA	< 0.08	0.523	NA	NA	a	a	a
Naphthalene	< 0.033	< 0.033	< 0.033	< 0.033	< 0.033	NA	NA	< 0.033	< 0.033	NA	NA	10	28	7.5
Phenanthrene	0.861	< 0.035	< 0.035	< 0.035	< 0.035	NA	NA	< 0.035	0.08	NA	NA	NE	NE	NE
Pyrene	2.914	< 0.03	< 0.03	< 0.03	< 0.03	NA	NA	< 0.03	1.458	NA	NA	890	5,800	272
Benzo(a)pyrene Equivalent <sup>a</sup>	0.493	ND	0	0	0	NA	NA	0	1.693	NA	NA	2	3	10.2
<b>Polychlorinated Biphenyls (PCBs) reported in mg/kg</b>														
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2	8	2.1
<b>Explosives reported in mg/kg</b>														
2,4-Dinitrotoluene	ND (0.25)	ND (0.18)	NA	ND (0.90)	ND (1.0)	NA	NA	ND (0.86)	NA	NA	NA	50	355	0.001
All Other Reported Explosive Compounds	ND	ND	ND	ND	ND	NA	NA	ND	NA	NA	NA	NE	NE	NE
<b>Diphenylamine (DPA) and Aniline reported in mg/kg</b>														
Aniline	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	NA	NA	< 0.8	< 0.8	NA	NA	NE	NE	NE
Diphenylamine	0.576	< 0.054	< 0.054	< 0.054	< 0.054	NA	NA	< 0.054	< 0.054	NA	NA	NE	NE	1.6
<b>Metals reported in mg/kg</b>														
Arsenic	NA	2.439	1.066	0.969	1.302	NA	NA	1.629	1.937	3.734	3.644	5	20	15.1
Barium	NA	42.32	14.38	16.33	24.08	NA	NA	15.21	25.12	97.12	117.1	1,200	18,000	842
Cadmium	NA	0.036	0.075	0.036	0.114	NA	NA	0.041	0.217	0.083	0.111	25	200	4.4
Chromium	NA	11.2	6.78	5.68	8.53	NA	NA	6.66	10.3	13.7	13	44,000 <sup>b</sup>	100,000 <sup>b</sup>	1,000,000 <sup>b</sup>
Lead	NA	4.04	9.03	2.46	5.44	NA	NA	4.83	30.8	7.92	14.6	300	700	525
Mercury	NA	< 0.02	< 0.02	< 0.02	< 0.02	NA	NA	< 0.02	< 0.02	< 0.02	0.02	0.5	1.5	1.6
Selenium	NA	< 0.122	< 0.122	< 0.121	< 0.123	NA	NA	< 0.12	< 0.121	< 0.123	0.18	160	1,300	1.5
Silver	NA	0.05	0.031	0.013	0.039	NA	NA	0.033	0.045	0.046	0.051	160	1,300	3.9
<b>Asbestos reported in percent</b>														
Asbestos	ND	ND	ND	NA	45	ND	35	ND	NA	ND	ND	NE	NE	NE

**Notes:**

mg/kg = Milligrams per Kilogram

NA = Not analyzed for this parameter.

ND = Not detected (at or below concentration in parentheses where applicable).

NE = Not Established.

< 0.025 = compound not detected at or above the listed value.

[N6628] = MVTL Sample Number.

a = Benzo(a)pyrene (BaP) equivalent is a calculated value based on the weighted concentration and toxicity of the following compounds:

benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene.

<sup>b</sup> = No SRV or SLV is established for "total chromium"; the SRV/SLV listed is for chromium III and has been used because analysis of representative samples did not detect chromium VI (hexavalent chromium).